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TOWN OF DELAFIELD PLAN COMMISSION MEETING
Tuesday, January 16, 6:30 p.m.
Town of Delafield Town Hall W302 N1254 Maple Avenue, Delafield, WI 53018

AGENDA

1. Call to Order and Pledge of Allegiance
2. Approval of the minutes of December 5, 2023.
3. Communications (for discussion and possible action): None
4. Unfinished Business: None
5. New Business:
    A. Kenneth and Hildegard Becker, W298 N408 Kings Way, Re: Consideration and possible action on a request to approve a Certified Survey Map to combine two adjacent parcels into one parcel location at W298 N408 Kings Way. Tax Key Nos. DELT 823-013 and DELT 0823-998-009.
    B. Amy Thomas, et al, Re: Consideration and possible action on a zoning amendment from A-1 Agricultural District to PDD No. 1 - Planned Development District No. 1 on the Thomas family properties located north of Golf Road, west of Elmhurst Road, south of the Lake Country Bicycle and Pedestrian Trail and the High Ridge East Addition No. 1 subdivision and east of Glen Cove Road that are in the Town of Delafield's zoning jurisdiction.
    C. Recommendation to Waukesha County on the request for rezoning lands from A-1 to R-3 Residential and a Planned Unit Development Conditional Use Permit for lands that are under Waukesha County zoning jurisdiction. Tax Key Nos. DELT0809-995; DELT0809-996 and DELT0811-999.
6. Discussion: None
7. Announcements and Planning Items: Next meeting: March 5, 2024.
8. Adjournment

PLEASE NOTE:

- ✓ It is possible that action will be taken on any of the items on the agenda and that the agenda may be discussed in any order. It is also possible that members of and possible a quorum of other governmental bodies of the municipality may be in attendance at the above-stated meeting to gather information; no action will be taken by any governmental body at the above-stated meeting other than the governmental body specifically referred to above in this notice.
- ✓ Also, upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, contact Town Clerk Dan Green (262) 646-2398.

TOWN OF DELAFIELD
PLAN COMMISSION MEETING
TUESDAY, DECEMBER 5, 2023, 6:30 P.M.

Video Link: https://www.youtube.com/watch?v=qlB9jSDsqKU&t=59s

Prior to the start of the scheduled Plan Commission meeting, there will be a joint public hearing in front of the Town Board, Plan Commission and a representative of the Waukesha County Department of Parks and Land Use, Planning Division staff. The hearing is at the request of Amy Thomas on behalf of owners, Kellen H. Wesson and Amy E. Thomas, et al, and The Robert G. and Ann B. Thomas Revocable Trust and Amy E. Thomas, et al, to rezone three parcels of land (151.05 acres) located north of Golf Road, west of Elmhurst Road, south of the Lake Country Bicycle and Pedestrian Trail and the High Ridge East Addition No. 1 subdivision and east of Glen Cove Road from A-1 Agricultural District to PDD Planned Development District in Town of Delafield's jurisdiction; and A-1 to R-3 Residential in Waukesha County's jurisdiction and a Residential Planned Unit Development Conditional Use in Waukesha County's jurisdiction. Tax Key Nos. DELT0809-995; DELT0809-996 and DELT0811-999. The regularly scheduled Plan Commission meeting will begin immediately following the conclusion of the public hearing.

Engineer Barbeau explained the land is currently zoned A-1 and wetland floodplain. There will be no changes to the WF-1 area. The area is defined as a wetland delineation. The current land use is mixed use, and low density residential. Engineer Barbeau defined mixed use land use. The low-density residential designation is for residential only. The applicant has requested a rezone to Planned Development District #1 for residential and open space uses. A General Development Plan must be reviewed, approved, conditionally approved, or denied. There are 9 elements required for submission and review. The application is considered complete. Waukesha County shares jurisdiction on the property. The applicant has requested a County zoning change from A-1 to R-3, with a Residential Planned Unit Development Conditional Use. The County is looking for a recommendation from the Town for the rezone and conditional use. The submission meets the land use on all three parcels.

Planning and Zoning Manger from Waukesha County, Jason Fruth, explained the County jurisdiction on the map. The request would take the current A-1 zoning to R-3, or about 14,000 acre lots. There is also a planned unit development request which is a conservation design. This requires 40% open space. This application is well above that. The general idea is to create an interesting environment, but allows for flexing of lot size. The developer is seeking flexibility which is allowed in the Town's Planned Development District. The Town and County Land Use Plan is identical. The commercial land use was changed by the Town and County to a mixed-use land use. What was submitted is solely residential. The low-density County designation is 20,000 square feet density. The Town's Planned Development District allows 230 units. The proposal tonight is for 212 units. There were conditions affixed, including no industrial uses. Future development provides for a recreational path system to connect to the Lake Country trail. The workgroup that worked on this project thought that was important. If solely for residential use, the density range shall meet the low-density residential category. The County required that no residential project go over low density residential. The upland environmental corridor is about 30 acres, and the developable site is about 111 acres. Statutory proceedings of a conditional use permit say that any actions have to be based upon substantial evidence. If there is a concern about something, it has to be based on factual evidence. To recap, the area on the north side of the site is where County jurisdiction is limited for this development. The staff are happy to answer any questions.

Chairman Fitzgerald stated the Town received 7 emails which have been shared with the Town Board and Plan Commission.

Public Comments:

Peter Ogden, W290N2171 Happy Hollow Road, explained he lives adjacent to this property. He lives in the watershed of Pewaukee Lake and rely on this area to recharge the lake. He asked the Commission to pay attention to the hurdles of this development, including maintenance, and lift station upgrades. The total fees collected from this development would be $1,001,060. If LPSD has to pay $4.6 million for total upgrades, there is a substantial difference. There are 184 wells with a moderate depth. If a developer were to drill a community well, a deeper well would have very little impact to Pewaukee Lake. Attention should be given to existing springs. These can be disturbed by blasting, digging, and can affect basements. More information is needed, to be studied. At the end of the day, Pewaukee Lake is owned by the public. This development is next to a big asset of the Town.

Joe Schmidt, N18W29085 Golf Ridge South, stated he lives adjacent to the Thomas Farm. He had reviewed the studies prepared by the developer. His comments were on water and stormwater. The GZA is based on historic water supply. The Collier report questions the aquafer in which the GZA is based. It was recommended to have a community water supply. This was dismissed by staff and Waukesha County. The HOA manages the stormwater basins. He questioned why an HOA could manage stormwater ponds, but not a community well. Trio is relying on soil borings from 2007. He stated that no new soil borings have been provided. The Collier study does not evaluate a 212-unit design. Ground water studies cannot be defined without new borings, and no test wells have been drilled on the site.

Gary Wegner, N20W29504 E. Glen Cove Road, stated he is interested in the stormwater management plan. At the top center, they have added a retention pond as an extension to the Crooked Creek area. On the left side of that pond the plan says “discharge point”. Where is that discharge going? Behind this is a recreation path with no ditch. If they are going to have a spillway, which they indicate by the notes, it is going to go downhill. Where is this water going? It is not explained at all. The current Crooked Creek subdivision has a retention pond near Glen Cove that has a spill way that goes into an existing stream that goes under the bike path, and runs down to the lake. They list the pond height and spillway height, but there is a 3.5 feet difference. They did not look at other ponds or discharge points. Mr. Wegner lives south of this discharge point and believes they have to look further into this plan.

Bill McNamara, W291N2212 Elmhurst Drive, stated he has lived at this location for 38 years. His main concern is the consideration of allowing blasting. He lives east of Thomas development. There were issues with cracked foundations due to blasting. He questioned if that has been given adequate consideration. He also remarked that he does not think the traffic study is adequate. Two weeks ago, traffic was backed up. He asked the commission to consider these issues.

Denise Reese, N18W29054 Golf Road S., had concerns with the traffic report. Oakton is shown as going through to East Glen Cove, and it does not. Was this assumed that it can be used as a relief? Thomas Road was not counted as an access point to Elmhurst and Golf Road. Why are we building a whole new access when there is an existing one? She also questioned the traffic study totals. Traffic on I-94 ends up on Golf Road, where they have had 15-to-30-minute delays. She stated roundabouts will be expected to be put in after the first two years. A lot of accidents are occurring at Elmhurst and Golf. She questioned if 4,000+ cars going down Golf Road are before or after Orthopedic Associates. She also used Orthopedic Associates as a good example of water being over utilized.

Lauren Melius, N18W29926 Crooked Creek Road, stated she has a minor concern. The 8 units that come out on one road, Crooked Creek. She did not understand why there was no other way, than to extend the road. Construction traffic will tear up the road. She questioned how the homes will be differentiated from the ones in the subdivision currently.

Kathy Gutenkunst, N20W29668 East Glen Cove, stated she hasn’t missed a meeting in 5 years. The group of people tonight are your residents. When we all leave, the property is the legacy the board leaves behind. It will be the most densely populated track of land from Waukesha County along I-94. The ordinance requires traffic analysis. The traffic analysis assumes that Glen Cove and Oakton are connected. If there is a problem on the frontage road, she can’t get out and an ambulance can’t get in. Why wasn’t the study done in the summer, instead of February. She stated the stormwater appeared to be coming out in her yard. The water study needs to be reviewed. She stated she was at a loss why there is not a single soil boring contained in any report. The water study from Collier says more work needs to be done. That is not in the County or Town’s staff report. The procedure in your ordinance has to work with or consult LPSD. She asked the Commission to table the rezone and get current information.

Paula Horning, N22W29130 Elmhurst Drive, expressed concern for the lack of information provided regarding the sewer upgrades. When Orthopedic Associates went in, the impact to the sewer was 5 times what they estimated. She asked that they be conservative in their estimates.

Patty Beres, W306N2446 Golf Hills Drive, stated she is not an expert on this, and just recently learned about this development. When there is a project with a big impact, there is some kind of posting that goes up. She expressed the same concerns that many of the people who have spoken. She is worried about traffic, sewer, stormwater, and the environmental impact. Wetlands are a filtration system for the lake. With new homes, she wants to know if studies have been done regarding the impact of the wetlands. She questioned the traffic study, and whether there are plans to widen the road. She explained her and her husband were victims of a sewer backup due to neglect of pipes that were not inspected by the Town. They had a lawsuit and won. She expressed concern with how the sewer system is currently managed. Lastly, she expressed concerns for the general lake health and the effects of blasting.

Jim Kunz, W295W1738 Prairie Wood Ct. expressed concerns about stormwater. He observed that swales in wooded areas are deteriorated with erosion. For years they have been eroded and sediment has been going into Pewaukee Lake. It is important the Town engineer inspects that area and it be rehabbed as part of the stormwater plan. Until this issue is resolved, it is imperative to delay changing zoning.

George Erwin, 2600 Mayfair Road, the attorney for Thomas Family, explained three elections and a chairman ago, he appeared here to try and move forward some type of development scheme, with proximity to I-94. They have tried to be accommodative throughout that process. The result was no commercial, industrial, business park, senior housing, and industrial uses. Mulit-family use was allowed, and then disallowed. He stated they tried to do everything, and with barriers to development, tried to answer these questions. Hundreds of thousands of dollars are being spent, but are continually being told we have to study some more. Prior to this, the property had commercial land use, requiring 80% open space, in which no one was interested. He questioned at what point will they ever be able to develop their property. Every barrier put in place; they have tried to accommodate. The last was that the lots were too small. If you extended those lot lines, they would be half acre lots. With this development, they will have a master association. All of the requirements that were built into the Planned Development District, were barriers. No developer would, and I'm glad Neumann came forward. When they spent tens of thousands of dollars, we are now told they are useless. He stated he appreciates what the Commission has done so far.

Eric Stowers, N18W30050 Crooked Creek Road, stated he moved here 5 years ago. He explained the first day they moved into the house, 15 minutes later, the sprinkler stopped. The well is 260 feet deep. He acknowledged support for questioning the development. The development is very close to where he lives. There are notable concerns about whether the site is developable, which it could be. We have gone from light industrial and mixed use, to where we are right now. The creed of Delafield is recreational, residential, and relaxation... this is far from residential. He expressed the most concern was the depletion of ground. He summarized from the County's letter that, assuming the entire Thomas Farm has a 5-inch ground water recharge rate, that is 63 feet per year of recharge. To keep that, they have to double it, from 5 inches per year to 9.3 inches per year. He stated he doesn't know how that is going to happen, but appreciates the discussion.

The public hearing was closed 7:20 PM

First order of business: Call to Order and Pledge of Allegiance

Chairperson Fitzgerald called the meeting to order at 7:20 p.m. and led all in the Pledge of Allegiance.

Members present: Chairperson Kranick, Supervisor Michels, Commissioner Dickenson, Commissioner Mihalovich, Commissioner Cummings, Commissioner Janusiak, and Plan Commission Chairperson Fitzgerald.

Also present: Supervisor Mahoney-Ogden, Supervisor Miller, Supervisor Woelfle, Engineer Tim Barbeau and Administrator Dan Green.

Second order of business: Approval of the minutes of November 7, 2023.

Motion by Chairman Kranick to approve the minutes from November 7, 2023, with corrections*. Seconded by Commissioner Cummings. Motion passed 7-0.*

Third order of business: Communications (for discussion and possible action): NONE

Fourth order of business: Unfinished Business: NONE

Fifth order of business: New Business:

A. Amy Thomas, et al, Re: Consideration and possible action on a zoning amendment from A-1 Agricultural District to PDD No. 1 - Planned Development District No. 1 on the Thomas family properties (151.05 acres) located north of Golf Road, west of Elmhurst Road, south of the Lake Country Bicycle and Pedestrian Trail and the High Ridge East Addition No. 1 subdivision and east of Glen Cove Road in the Town of Delafield's jurisdiction. Also, recommendation to Town Board and Waukesha County on the request for rezoning lands from A-1 to R-3 Residential and a Planned Unit Development Conditional Use Permit for lands that are under Waukesha County zoning jurisdiction. Tax Key Nos. DELT0809-995; DELT0809-996 and DELT0811-999.

   Engineer Barbeau explained the current zoning is A-1 and WF-1. The applicant is looking to rezone to the Planned Development District #1. The requested zoning amendment is in conformance with the land use plan. The ordinance states the GDP should be approved, conditionally approved, or denied. There are some other specific regulations within that ordinance, including use regulations, density, building locations, area regulations and open space. The plan meets that code. Other issues such as height of buildings, building footprints, etc. would be reviewed when a permit is obtained. The County is seeking a recommendation on their rezone. The engineer's recommendation is to be approved, as the request is in compliance with the Town's land use plan. Each element in the plan has been adequately addressed. Any approval should be subject to a detailed review of the specific development plan. The stormwater management plan would be done as part of the SDP process. Development of the subject property should be in conformance with the general development plan. The maps as part of the GDP would be part of the approval, and would have to be developed in substantial conformance of the submitted plans.

   Bryan Lindgren, Neumann Developments, stated they are very excited to bring the plan forward. He explained that housing is what is needed and there is a fundamental shortage. The way to solve that is not a one size fits all approach, but with a thoughtful planning process. It is a process that has been gone through at length, and generating a zoning code that took many things into consideration. The dynamics of the code are unprecedented. Looking at the area as it relates to the code, they agreed there needs to be a variety of housing to meet a wide range of ages and price points. This variety includes condo style, and single-family homes with small to large lot sizes. They have looked at this for well over a year, engaging in several studies. The studies that have been included in the packet (500+ pages) have been thoroughly vetted, from groundwater to traffic. These studies were originally submitted in April. These have been refined and questions asked by the County, Town, SEWRPC, and LPSD. With that said, he stated all the experts were there to answer any questions the commission might have. He stated the plan put forward, is good for the area, and responsible, preserving as much open space as possible. He encouraged the commission to review, and recommend the rezone presented.

Chairman Kranick stated there have been concerns regarding the traffic study. He asked if there should be any concern about the accuracy of the study with Elmhurst bridge being closed last year. John Bieberitz, engineer from Traffic Analysis & Design, stated they took traffic counts from 2018. They did intersection turning limit counts on Elmhurst, Golf, and Oakton. Those were taken in February while school was in session. Traffic count data is used from the highest hours of the day, in the morning and afternoon. That data provides a baseline which is then compared to DOT traffic volumes. Level of service ratings are measured from A-F. Waukesha County takes "D" as acceptable during peak hours. The data showed levels were A and B. Supervisor Michels questioned what the methodology was for that scale. Mr. Bieberitz explained they are national standards. Studies have been done around the country to measure trips per day based on driveway counts, duplexes, single-family homes, etc. The anticipated trips generated are based on 212 combined units, with the assumption that there will be 10 trips per unit, per day. Supervisor Michels asked why the study is recommending lanes be added to Golf Road, and how they came to that conclusion. Mr. Bieberitz explained that if you have more than 2,500 cars per day, you need bypass lanes. Supervisor Michels asked if they considered roundabouts at those locations. Mr. Bieberitz explained that if the service level came back with a "D" or "F", it would require a roundabout, but not at an "A" or "B". Commissioner Mihalovich asked if they considered future traffic generation, when determining the rating. Mr. Bieberitz explained that the traffic study is based on the full buildout of the development. Commissioner Cummings asked if there was any evidence that traffic would be different in the summer. Mr. Bieberitz stated the best time to do traffic studies is during school, when school is in session.

Chairman Kranick asked if the counts show the accurate number of Fed Ex, garbage, UPS, and other delivery trucks? The engineer explained that even with more people working from home, 10 trips per day did not change. Supervisor Michels asked if they expanded the study to Maple Avenue or other roads in the area. Mr. Bieberitz explained that because they are accessing Golf Road, the County dictates what areas to study, and they did not go beyond the area of the development.

Commissioner Janusiak asked the engineer to address the comments about Oakton and Glen Cove being connected on the map. She asked if there was an impact due to that fact. Mr. Bieberitz stated he knew that the roads did not connect. He referenced Exhibit 4-5, that shows all the traffic coming to the development. No traffic was assigned through that roadway. All the traffic using Oakton Road, would turn left onto Elmhurst. An arrow is shown on the left of Oakton, but with no traffic assigned.

Supervisor Michels asked if Thomas Road will still exist with this development. The engineer stated Thomas Road will be abandoned and used as a driveway off Elmhurst Road. Chairman Fitzgerald reiterated that at full build, the ratings will still be at "A" or "B". The two new intersections will be at a level "B", with no changes to the existing intersections. Chairman Kranick questioned if the new bypass lanes were vetted by the new Waukesha County Public Works division. Jason Fruth stated the traffic study has been vetted by the County, and fully reviewed by the Department of Public Works. Commissioner Janusiak asked, with respect to levels "A" and "B", if those are acceptable. Engineer Barbeau explained that in the traffic world, levels of service are designated by letters, A being the best, B being the second best, and etc. There is not a concern until you get to the D and F ratings. Sometimes adding stop signs and other traffic controls can make delays worse. Levels C or D are typically delay levels at those intersections. The big delays would be standstill traffic for long periods of time (i.e. Chicago). A or B are minimal delays in seconds as opposed to minutes. Chairman Kranick stated the traffic counts from the DOT are from 2018. He asked when those counts are updated. Mr. Bieberitz stated these counts are updated between 3 to five years.

Water

Kevin Hedinger, Senior Hydrogeologist for GZA, stated he was there to answer questions about the work done. Supervisor Michels asked that he give an overview on the water study process. Mr. Hedinger explained when they do these studies, they look at the information that is existing. They reviewed 300 well logs that were available. They had no wells on the Thomas Farm site. They looked at the bedrock. They were looking for the drawdown, which are derived from mathematical equations. To come up with the pumping rate, they divided the subdivision and grouped to one well. They assigned a unit to each of the users. Water use is 77 gallons per day. Then they looked at how many people generally live in a home. The average is 2.8 to 2.9. They used 3 people per house. They ran that amount into their equation. He explained that when you pump a well, it draws water down. They reviewed wells around the site, at 11 points, took the distance from each well, added them up, and came up with a drawdown at the property line. Originally, when the study was done, they did not assume any infiltration, giving a worst-case scenario. This assumption is not real life, so they did a second equation that assumes some infiltration. The memo from Waukesha County mentions a 5-inch recharge rate. SEWRPC comes up with 5 to 7 inches of recharge. At that point, there is two more inches of water. No subdivision, they are aware, has a net zero water infiltration. There is no amount of water pumped that cannot be returned to ground water. They came up with a new model based on a discussion with SEWRPC. They asked them to consider some points and look at infiltration and drawdown levels. When the surrounding subdivision was built, groundwater was not determined. This site will have a similar drawdown to other subdivisions in the area. He referenced the Colier study which stated there will be very little impact to Pewaukee Lake, which should be protected. He stated the methodology used is the same as many groundwater studies done all around Wisconsin.

Commissioner Dickenson asked if there was a reason why they used one theoretical formulation. Mr. Hedinger stated that is a common formula, used on all the water studies he has done. Commissioner Dickenson asked if they considered using another formula to determine if there is a happy balance. Mr. Hedinger explained a lot of other theoretical formulas require more information than what was available. The Theis Solution uses data that they were able to get, opposed to coming up with estimates. Commissioner Dickenson asked if they assumed that the aquafer was infinite in extent. Mr. Hedinger said yes, and the aquafer is assumed to be homogenous. She questioned if there was any consideration given these variables, that they would have looked at another equation. Mr. Hedinger said no because he didn't think they would come to a different solution, due to not having the information available. They would have to make assumptions about other variables. Supervisor Dickenson asked what the radius of influence was. Did it only look at the development, or also the surrounding neighborhood. He explained they looked at the drawdown at the property line, and used those distances in their calculations. They also looked at the effect of the golf course, which was nominal. In this area wells are drilled at 200+ feet, and they are all bedrock wells. They drill a hole and set a pipe, by code to 60 feet. They drill down and reach the Maquoketa Shale, which has layers of shale and limestone. The upper part of the Maquoketa Shale is much more fractured. You have different dynamics going on there, that allows for water recharge. When determining drawdown, they looked at key points where they needed it. They also looked at ponds at the golf course based on SEWRPC's comments.

Commissioner Dickenson asked about the wells surrounding the development. 80 wells were part of the equation. She stated the study used 3 to 6 people per unit, depending on the single family or duplex. It was indicated by SEWRPC that they should use 7 people per acre. She asked why there are two different numbers. Mr. Hedinger explained that they used their totals based on the average number of people living in a home in Waukesha County. Chairman Fitzgerald explained that these are different metrics being used, where SEWRPC uses 7 people per acre, on 110 acres, as opposed to the number of people per household. Mr. Lindgren cleared up the miscalculation on the narrative document, which used 151 acres of developable land, which should be 110 acres.

Commissioner Dickenson questioned the 29 wells that were excluded from the numerical data. Mr. Hedinger explained when they went through the well logs, they looked for wells that were representative across the entire area. They used wells for construction and to determine hydro conductivity. They can estimate the transmissivity of the aquafer by specific testing. They can back out transmissivity data through well drawdown rates. They tried to use wells that were put in since the 1990s to 2023. They wanted to use enough wells for good average results. Commissioner Dickenson asked how many wells fell into the third category where the depth of the underlying sandstone might not be economical for the subdivision. Mr. Hedinger stated there were a couple of wells, a few in the Crooked Creed subdivision. He stated he was looking to see if there was enough water there, without going dry. Commissioner Dickenson asked how many of those 29 wells not used, fell into this category. Mr. Hedinger stated he did not know, but could get that data for her. Commissioner Dickenson also questioned the two well closures, and if there was any information as to why they were sealed. Mr. Hedinger stated when a well is sealed, there is only a one-page form submitted without a narrative.

Commissioner Dickenson stated there is a staff comment on a drawdown of 6 feet. In the study it talks about 10 inches of drawdown. She asked the engineer to explain what these different points of drawdowns are pertaining to. Mr. Hedinger explained that these drawdowns were based on the last table that was submitted which shows the drawdown levels from each point around the property line. The drawdown at the property line, he stated, was 10 feet. Commissioner Dickenson stated that the Plan Commission did not receive the Collier report in their materials. Engineer Barbeau stated they can make that report available to the Commission. The study was done by LPSD, not at the request of the Town or the developer. He explained that the Collier report says that additional studies need to be done, which is what the GZA study accomplishes. He explained the Collier study was done to determine the effects of Pewaukee Lake, not on the water table. Commissioner Dickenson stated it would be helpful when looking at the water as well. She asked that GZA consolidate the letters and reports, so it is more comprehensive.

Supervisor Michels asked why private wells were decided instead of another water source. Jason Fruth stated that municipal water was investigated by the developer and Town staff from both Delafield and Pewaukee. The costs were in the millions of dollars, and given the density of the development, the costs were not absorbable. The Pewaukee extension requires a loop, which added more costs. The community water supply notion was talked about collectively. It was mentioned during the public comment section that there was an example of a community water supply. The concerns were, in part, about the administration of a water supply by a local water supply committee. They have seen HOAs struggle with some of the responsibilities with that. Stormwater is not an easy task, and HOAs have to take those on. There was a concern about a community water supply regarding water testing, and potentially bringing up more chemicals and radium concerns, the deeper the well goes. The discussion came back to private wells. The developer and Town and County staff looked at whether the individual wells could be drilled deeper. Drilling 350 feet down bears a significant cost. Shared wells also were evaluated, but ran into issues of who maintains them. A municipal water supply could not be handled by staff, with the amount of manpower, vehicles, and equipment.

Commissioner Janusiak asked why the water study was reviewed within the borders of the development, besides the golf course. Mr. Hedinger stated that the golf course concerns came from SEWRPC. They were worried about drying the ponds and natural springs, that fed to the golf course, and ultimately to Pewaukee Lake. Supervisor Janusiak asked what happens if there is an impact that is unknown or unexpected. He stated that is why the studies are done, to determine what might be the impact. He stated the drawdowns are not below typical wells that are out there. If there is a very old well, 30 feet deep, that might be affected. That shallow well may be affected by other homes that are existing. He explained that natural ground water fluctuates with the season. Dry years, the water levels will go down, and wet years, there may be too much where the water seeps.

Chairman Kranick asked to clarify that DNR logs were used for the existing wells, and no test wells were drilled on the site. Engineer Barbeau explained they looked at wells to the west and east. They can make a good assumption that generally speaking, there is going to be the same water fluctuations in between them, unless there is solid bedrock, if it is fractured rock.

Stormwater

Josh Pudelko from Trio Engineering, stated this stormwater plan has a lot of information incorporated and is not their first shot at it. The goal is to enhance the enjoyment of the area. They looked to maintain some of the vegetation around the perimeter, and retain internal tree lines with varied size open space, and wooded walking trails. They took into consideration the topography and how the site drains. The site plan is done hand in hand with the stormwater plan. He explained they have had back and forth advancements with stormwater. From the west side, there is a central stormwater area which is generally a lower area. They tried to promote infiltration more than what it is currently doing. In the course of doing this, they did a thorough geotechnical analysis. They have a clear understanding of what the soils are. It is not fully sand, but everything can infiltrate and push beyond what the County minimum infiltration is. There are four main discharge points for water, northwest, to Glen Cove, near Crooked Creek. There is a bike trail to the northwest, and a swale that drains into a channel that goes due west. They are anticipating improving some of the flows where the channel carries the water north. He explained that the rate of water coming off the site, will be less than the current rate.

Chairman Fitzgerald stated there was a question about how the water gets across the bike path. Mr. Pudelko stated there is a swale at the top of the steep slope, but is not designed to go across the bike path. This drains due west from the swale. There will be a robust maintenance agreement implemented, with the County permits requiring inspection of the ponds, the pond outlets, etc. The goal for stormwater on the site is to match and improve the current drainage conditions. Chairman Fitzgerald reiterated that these are preliminary plans, and finals would be done through Waukesha County. He asked if there was a push to repair current problems, would that be a County process. Mr. Fruth said yes, if there is a small conveyance, they can take it back to the developer's engineers. Supervisor Michels stated, to Chairman Fitzgerald's point, they are not approving the final stormwater plans tonight.

Mr. Pudelko identified discharge rates to the east. He explained there was some ponding near Elmhurst ditch in the area, where it is shallow and flat. The discharge rates assume there are areas where not a lot of water leaves the site. It puts the onus on them, as the designer, to raise the bar higher. The peak rates are better in the proposed plan. Chairman Fitzgerald asked whether these would be wet ponds year-round. The engineer didn't remember which were wet and dry. There will be seven wet ponds and seven with mixed elevation with a mix of rain gardens, biofilters, and infiltration basins. Engineer Barbeau pointed out that the County's standard for infiltration has to meet 90% of the predevelopment flow. This plan provides 94.5% infiltration. They have talked with the County to make this number even higher. The Town wants infiltration of rainwater to help with ground water recharge. This particular site has a high level of infiltration. This plan takes full advantage of maximizing infiltration as much as possible. This includes dry ponds, wet ponds, and manmade infiltration basins. They look like little basins with sand in them, similar to what is in front of the Town Hall. In heavy storms, the water levels will rise, and eventually, over time, dissipates in the outlet or infiltration into the ground. Mr. Pudelko gave clarification on the outlet pipe to the infiltration basins on the west side of the development.

Chairman Kranick asked if soil borings were recently taken. Mr. Pudelko stated there were 39 soil tests taken on the site this year. That gave an indication of structural characteristics. Neumann did rock probes at every home pad. They have a very clear profile of the rock and groundwater on the property. This helps give an indication of where the homes can be set above the bedrock and groundwater. This information was sent to Waukesha County on June 23rd. Engineer Barbeau asked if they could address the issue of blasting. Mr. Pudelko stated their initial look showed the rock through the area is not uniform, meaning its not all the same elevation down. There are ledges in the bedrock, with the most dramatic one being near lots 73 to 76. It is about 4.5 feet deep. Everywhere else is generally 8 to 9 feet down, and any blasting in those areas would be very minor. He stated there would be some blasting that may be required for sewer. He stated that even in the areas where the bedrock is higher, they may be able to get creative on where they set the homes.

Bryan Lindgren stated that blasting is common in Waukesha County. Sussex and Lannon are sitting on bedrock all over the place. It is one of the most highly regulated people that will come on site, for good reason. They are dealing with explosives. There were comments on impacts to surrounding areas. They provide extensive notifications. If you are within a radius of affected areas, they will knock on residents' doors and inspect basements. This is to ensure that any claims that arise from blasting, they are on the hook for. He stated he is very confident in the contractors doing the work. He explained that their goal is to do all the blasting they can, before anyone moves in. For this site it is primarily for sewer laterals. There is potential for some basements that may require blasting. Commissioner Cummings asked how long blasting would take. Mr. Lindgren stated that it depends on how much blasting is required. If they have to blast several thousand feet of sewer, it could take a few weeks. If it is a small area, it could take a few days.

He stated they were encouraged on what they found in the soil analysis, and would try to use existing topography to preserve it. They provide robust landscape berms surrounding this property. They were intentional in their entry points and focal points. They took one of the lots away and replaced it with a pocket park. They wanted to keep the old farmhouse intact.

Chairman Kranick asked if there was any information provided by LPSD. Mr. Lindgren stated the Collier report was regarding the impact of the lake, not the sewer. They feel confident water has been addressed in regard to the sewer area. LPSD has acknowledged the density and SEWRPC area. The improvements needed are not solely because of this development. They have had Ruekert & Mielke do a study of the sewer system based on two potential developments, including the Thomas Farm. The preliminary report indicated deferred maintenance, which is typical of sewer districts. This development would pay its proportional share, and the fees would go beyond that to pay for the district issues with sewer.

Commissioner Janusiak stated there was a question regarding Crooked Creek Road. Engineer Barbeau stated that Crooked Creek is not in good shape. The thought was to do a pulverize and repave of that road, after construction was completed at the end of the road. The Town would not want to redo the road, to have it damaged by construction. The Town would hold off depending on the time of the development.
He explained that the area off of Crooked Creek is not geographically accessible from any other site. A road could be put through the environmental corridor and wetland areas, but would require permits from the DNR and Waukesha County. The DNR would say that the extension off Crooked Creek is a viable option. He also explained that the environmental corridor and wetlands are an ideal location for water infiltration.

Commissioner Cummings asked if the Town could control heavy trucks driving on Elmhurst. Engineer Barbeau stated they would want all access coming off Golf Road directly to the subdivision. Mr. Lindgren stated that heavy equipment vehicles will come off Golf Road. Commissioner Janusiak asked how often the debris is cleaned off the roadways. Mr. Lindgren stated there are approved erosion control plans, and one is mud on the site, which needs to be driven off on a track pad.

Supervisor Kranick stated there has been a lot of information presented this evening. It was informative to have all the experts in the room. He stated he would like to table this item until the next meeting. Commissioner Dickenson asked that the full set of documents be provided at the next meeting. The soil borings from Trio Engineering, as well as response letters from GZA regarding SEWRPC's comments were requested. She asked that something more streamlined be submitted outlining the conclusion that was made. She also stated she would like to see the Collier study. There were also questions about the traffic study scaling and the connection from Glen Cove to Oakton Road that should be corrected. Chairman Kranick suggested an executive summary for the GZA study, would be helpful to find how they drew their conclusion. Mr. Lindgren clarified the ask from the Plan Commission so he could provide the necessary documents for the next meeting.

Motion by Supervisor Michels to table, "Amy Thomas, et al, Re: Consideration and possible action on a zoning amendment from A-1 Agricultural District to PDD No. 1 - Planned Development District No. 1 on the Thomas family properties (151.05 acres) located north of Golf Road, west of Elmhurst Road, south of the Lake Country Bicycle and Pedestrian Trail and the High Ridge East Addition No. 1 subdivision and east of Glen Cove Road in the Town of Delafield's jurisdiction. Also, recommendation to Town Board and Waukesha County on the request for rezoning lands from A-1 to R-3 Residential and a Planned Unit Development Conditional Use Permit for lands that are under Waukesha County zoning jurisdiction. Tax Key Nos. DELT0809-995; DELT0809-996 and DELT0811-999." To the next meeting. Seconded by Commissioner Cummings. Motion passed 7-0.

Sixth Order of Business Discussion: None

Seventh Order of Business: Announcements and Planning Items: Next meeting: January 16, 2024.

Eighth Order of Business: Adjournment

Motion by Chairman Kranick to adjourn the December 5, 2023, Plan Commission meeting at 9:03 p.m. Seconded by Commissioner Dickenson. Motion passed 7-0.

Respectfully submitted,

Dan Green, CMC, WCMC
Administrator-Clerk/Treasurer

Plan Commission Report for January 16, 2024

Becker Certified Survey Map
Agenda Item No. 5. A.

Applicant:	Ken and Hilde Becker
Project:	Land Combination
Requested Action:	Approval of Certified Survey Map
Zoning:	A-2 and A-3
Location:	W298 N408 Kings Way

Report

The property owners are requesting approval of a Certified Survey Map (CSM) to combine Lot 5 of Stonehenge subdivision and Outlot 1 of CSM No. 9582. Both lots are owned by the Becker's. The common lot line between existing lots extends through an in-ground pool. The owner's intent is to combine the lots to come into conformance with the code as it relates to the pool offsets and have the potential for an accessory building into the future. The house on the property conforms to existing code requirements.

I have reviewed the CSM and noted several minor technical items that require correction. The land is not in the Waukesha County Shoreland Zoning district. No road dedication is required.

Staff Recommendation:

Comments have been passed to the surveyor for incorporation onto the proposed CSM. I recommend approval of the CSM dated November 23, 2023, subject to satisfaction of all outstanding review comments from the Town prior to the Town executing the document.

Tim Barbeau, Town Engineer
January 8, 2024

PAID

TOWN OF DELAFIELD

APPLICATION FOR PLAN COMMISSION AGENDA

Plan Commission meetings are typically held the first Tuesday of every month. All applications must be submitted at least 3 weeks before a Plan Commission meeting to make the agenda. Any late submittals will be considered at the following meeting.

(PLEASE PRINT)

Owner Information	**Applicant**
Name: Kenneth & Hildegard Becker	Name: Hildegard Becker
Address W298N521 Kings Way	Address W298N521 Kings Way
City: Waukesha State: WI Zip: 53188	City: Waukesha State: WI Zip: 53188
Telephone Number [redacted]	Telephone Number [redacted]
Email: [redacted]	Email: [redacted]

APPLICATION TYPE AND FEE (CHECK ALL THAT APPLY)

*Application fees are non-refundable. Fees cover costs associated with public notification, postage, copies, and document recording, however, applicants agree to pay all additional expenses that the Town may incur by virtue of contracted plan review services including but not limited to: legal, surveying and engineering costs.

☐ Site Plan..........$150.00
☐ Site Grading Plan..........$50.00
☐ Lighting Plan..........$50.00
☐ Signage Plan..........$75.00
☐ Preliminary Plat..........$300.00
☐ Final Plat..........$150.00
☑ Certified Survey Map..........$250.00
☐ Developer's Agreement..........$100.00
☐ Home Occupation..........$50.00
☐ Zoning Amendment..........$300.00
☐ Land Use Amendment..........$300.00
☐ Conditional Use..........$225.00
☐ Plan of Operation..........$150.00
☐ Planned unit Development..........$225.00
☐ Conceptual Plan Review..........$50.00
☐ Other..........$50.00 minimum

PROJECT NAME: Merging an outlot to main lot(house)
Property Address: W298N521 Kings Way Waukesha WI 53188
Tax ID/Parcel ID: DELT 0823 013 & DELT 0823 998 009 Lot Size: Main House is 1.998 and Outlot is 1.5283
Current Zoning: Residental Proposed Zoning (if applicable)
Present Use: Residental Intended Use (if applicable): Residental

A complete application along with the appropriate fees shall be submitted by the deadline outlined at the top of the application. In order for an application to be considered complete, the application shall include the required number of site plans/maps, and all of the necessary supporting information as indicated on the project review checklist. If applying for a conditional use or development agreement, a document showing vested interest in the property is required. The Town of Delafield reserves the right not to accept an application that is deemed incomplete.

TOWN OF DELAFIELD PLAN COMMISSION APPLICATION

Project Description

Please answer the questions below that pertain to your request. If necessary, please attach a separate sheet.

PETITION FOR REZONING

In the space below, please describe the purpose of the rezoning.

PETITION FOR LAND USE AMEND

In the space below, please describe the purpose of the Land Use Amendment.

PETITION FOR CONDITIONAL USE

In the space below, please describe the purpose of the Conditional Use.

PETITION FOR CERTIFIED SURVEY MAP / PRELIMINARY PLAT / FINAL PL

In the space below, please describe the intention of the land division.

We are wanting to combine our outlot with our main residence. We will continue to use the land as we have for the last 23 year - our back yard. We are requesting to have these lots combined as we would like to down the road build a pool cabana.

PETITION FOR SITE PLAN / PLAN OF OPERATION / OTHER APPLICATION

In the space below, please describe the intention for the site plan, plan of operation, or other application.

Required Forms for Submittal

Required Forms Checklist:

☑ Legal Description (all applications)
☑ Professional Staff/Fees Chargeback Acknowledgement (all applications)
☑ Certification for Division of Land (Certified Survey Map land splits)

Submittal Information:

☑ One (1) copy of this application (signed & dated)
☐ One (1) electronic copy of all supporting materials, i.e., drawings, plans and written documentation (via email to dgreen@townofdelafield.org).
☐ Two (2) full size hard copies of all supporting materials, i.e., drawings, plans and written documentation of plans 11"x17" and smaller.
☐ Seven (7) copies of supporting materials larger than 11"x17".

I understand that this form shall be on file in the office of the Town Admnistrator by 4:00 p.m. on the 21st day before the meeting on which I desire to be heard or as required in the Land Division or Zoning Ordinance, whicever is longer. Plan Commission meetings are held the first Tuesday of each month. Furthermore, I understand that any engineering or legal review fees associated with this project may be charged to me.

FAILURE TO PROVIDE ALL REQUIRED MATERIALS AND INFORMATION CAN RESULT IN THIS APPLICATION BEING WITHDRAWN FOR CONSIDERATION BY THE PLAN COMMISSION.

Hildegard E Becker
Signature of Owner

01/09/2024
Date

Hildegard E Becker
Print Name

For Office Use Only

Application Received ____________
Date Received ____________
PC Meeting Date ____________
Public Hearing Date ____________
Amount Received ____________
Received by ____________
Board Meeting Date ____________

Publication Date (if required) ____________

TOWN OF DELAFIELD

PROFESSIONAL STAFF FEES CHARGEBACK ACKNOWLEDGEMENT

PLEASE BE ADVISED

That pursuant to the Town of Delafield Code of Ordinances, the Town of Delafield Town Board has determined that whenever the services of the Town Attorney, Town Engineer or any of the other Town's professional staff results in a charge to the Town for that professional's time and services, and such service is not a service supplied to the Town as a whole, the Town Clerk shall charge that service and the fees incurred by the Town to the owner of the property. Also be advised that pursuant to the Town of Delafield Code of Ordinances certain other fees, costs and charges are the responsibility of the property owner.

****

I, the undersigned, have been advised that, pursuant to the Town of Delafield Code of Ordinances, if the Town Attorney, Town Engineer or any other Town professional provides services to the Town as a result of my activities, whether at my request or at the request of the Town, I shall be responsible for the fees incurred by the Town. Also, I have been advised that pursuant to the Town of Delafield Code of Ordinances, certain other fees, costs and charges are my responsibility.

Hildegard E. Becker
Signature of Owner

01/09/2024
Date

Hildegard E Becker
Owner's name (please print)

Form received by: ______________________

Date: ______________________

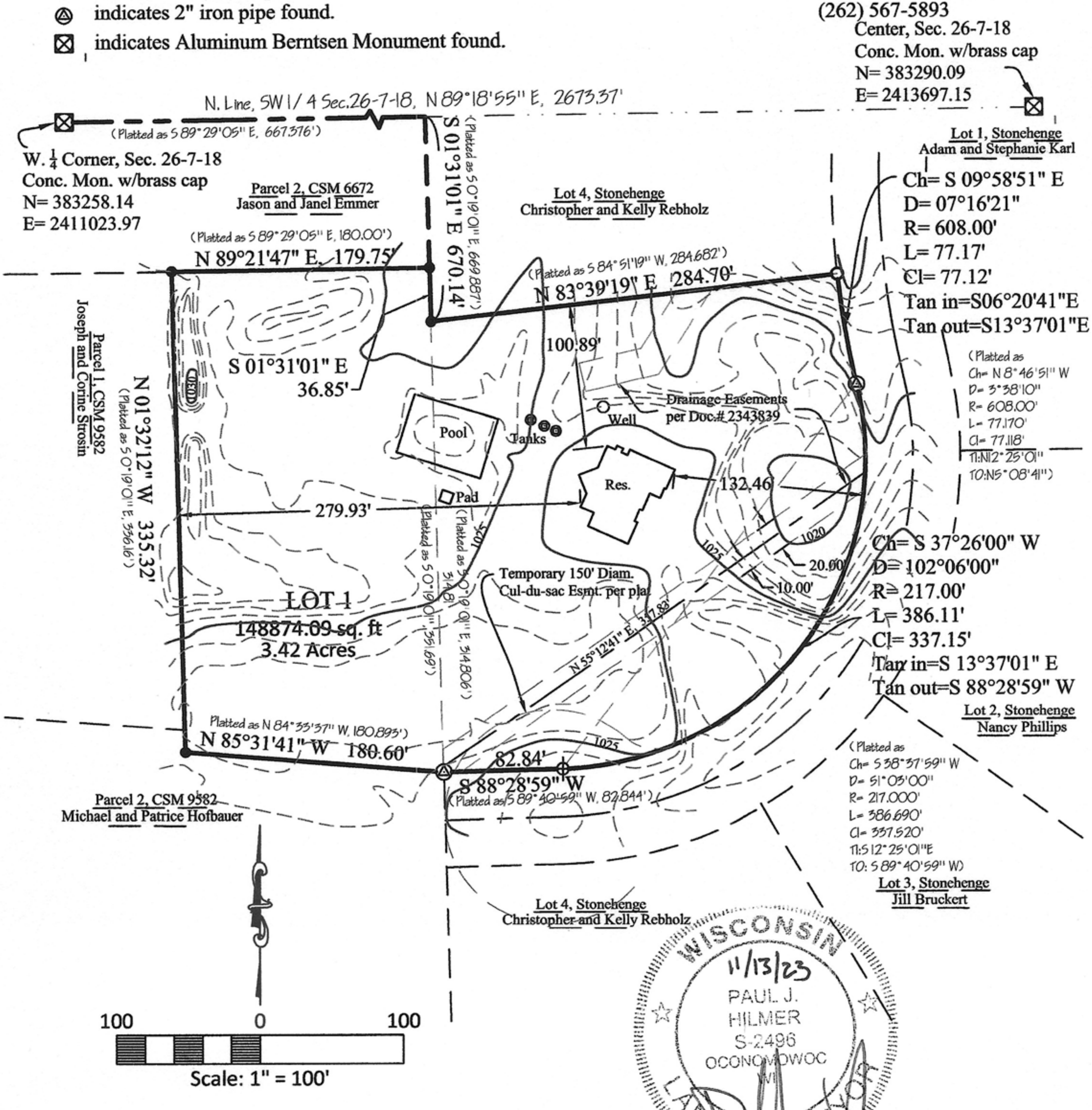
Certified Survey Map ___________

Being a combination of Outlot 1, Certified Survey Map No. 9582 and Lot 5, Stonehenge, a subdivision being a part of the Northwest ¼ of the Southwest ¼ of Section 26, Town 7 North, Range 18 East, Town of Delafield, Waukesha County, Wisconsin.

Legend:
- ○ indicates 1.315" O.D. x 18" iron pipe set weighing 1.13 lbs./ft. min.
- ● indicates 1" iron pipe found.
- ⊕ indicates Railroad Spike set.
- ◬ indicates 2" iron pipe found.
- ☒ indicates Aluminum Berntsen Monument found.

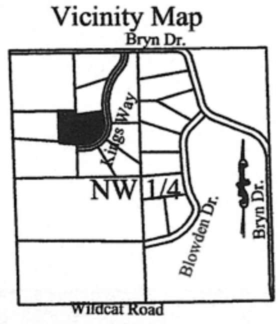
Prepared for:
Kenneth and Hildegard Becker
W298N408 Kings Way
Waukesha, WI. 53188

Prepared by:
Hilmer & Associates, LLC
Paul J. Hilmer, PLS
W217 Vista Dr.
Oconomowoc, WI. 53066
(262) 567-5893



11/13/23
PAUL J.
HILMER
S-2496
OCONOMOWOC
WI

Vicinity Map



NW Qtr. Sec. 26-7-18
Scale:1"= 2000'

NOTES:
- bearings are referred to the North line of the Southwest Quarter of Section 26, Town 7 North, Range 18 East as N 89°18'55" E, Wisconsin State Plane Coordinate System, South Zone, NAD83.

This instrument drafted by Paul J. Hilmer

Sheet 1 of 4 sheets.

Certified Survey Map ____________

Being a combination of Outlot 1, Certified Survey Map No. 9582 and Lot 5, Stonehenge, a subdivision being a part of the Northwest ¼ of the Southwest ¼ of Section 26, Town 7 North, Range 18 East, Town of Delafield, Waukesha County, Wisconsin.

SURVEYORS CERTIFICATE

State of Wisconsin)
County of Jefferson) SS

I, Paul J. Hilmer, surveyor, do hereby certify: That I have surveyed, divided and mapped a combination of Outlot 1, Certified Survey Map No. 9582 and Lot 5, Stonehenge, a subdivision being a part of the Northwest ¼ of the Southwest ¼ of Section 26, Town 7 North, Range 18 East, Town of Delafield, Waukesha County, Wisconsin.

Said lands containing 149038 sq.ft. or 3.42 Acres of land.

That I have made such survey and map by the direction of Kenneth and Hildegard Becker, owners of said land.

That such map is a true and correct representation of all exterior boundaries of the land surveyed.

That I have fully complied with the provisions of Chapter 236.34 of the Wisconsin Statutes and the subdivision regulations of the Town of Delafield and the Subdivision Control Ordinanc of Waukesha Counnty in surveying, dividing and mapping the same.

Dated this 13th day of NOVEMBER, 2023.

____
Paul J. Hilmer
Professional Land Surveyor # 2496
Hilmer & Associates, LLC

PAUL J. HILMER
S-2496

This instrument drafted by Paul J. Hilmer

Sheet 2 of 4 sheets.

Certified Survey Map __________

Being a combination of Outlot 1, Certified Survey Map No. 9582 and Lot 5, Stonehenge, a subdivision being a part of the Northwest ¼ of the Southwest ¼ of Section 26, Town 7 North, Range 18 East, Town of Delafield, Waukesha County, Wisconsin.

OWNER'S CERTIFICATE

As owners, We, Kenneth and Hildegard Becker do hereby certify that we have caused the land described on this map to be surveyed, divided and mapped as represented on the map. We also certify that this map is required by s.236.10 or s.236.12 to be submitted to the following for approval or objection:

1.) Town of Delafield
2.) Waukesha County
3.) City of Delafield

WITNESS the hand and seal of said owner(s) this_________ day of ____________________, 2023.

______________________________ ______________________________

Kenneth Becker_______ Hildegard Becker

State of Wisconsin)
Waukesha County)

Personally came before me this_________ day of _____________, 2023, and the above named Kenneth and Hildegard Becker, to me known to be the same persons whom executed the foregoing instrument and acknowledged the same.

(Notary Seal)
Notary Public, ____________ , Wisconsin.

My commission expires,

11/13/23
PAUL J.
HILMER
S-2496

Certified Survey Map __________

Being a combination of Outlot 1, Certified Survey Map No. 9582 and Lot 5, Stonehenge, a subdivision being a part of the Northwest ¼ of the Southwest ¼ of Section 26, Town 7 North, Range 18 East, Town of Delafield, Waukesha County, Wisconsin.

PLANNING COMMISSION APPROVAL

Approved by the Planning Commission of the Town of Delafield on this _______ day of __________________, 2023 .

Kevin Fitzgeraldt- Chairperson

Daniel Green- Clerk/ Treasurer

TOWN BOARD APPROVAL

Approved by the Board of the Town of Delafield on this _______ day of ___________________, 2023 .

Edward T. Kranick- Chairperson

Daniel Green- Clerk/ Treasurer

EXTRA-TERRITORIAL CITY OF DELAFIELD PLAN COMMISSION APPROVAL

Approved by the Plan Commission of the City of Delafield on this _______ day of ____________, 20___ .

Kent Attwell, Mayor

Molly Schneider, Clerk

EXTRA- TERRITORIAL COMMON COUNCIL APROVAL

Approved by the City of Delafield Common Council on this _______ day of ____________, 20___ .

Kent Attwell- Mayor

Diane Coenen- Clerk

WAUKESHA COUNTY DEPARTMENT OF PARKS AND LAND USE

The above, which has been filed for approval as required by chapter 236 of the Wisconsin State Statutes, is hereby approved this______________ day of ____________________, 2023.

Dale R. Shaver, Director

WISCONSIN
11/13/23
PAUL J.
HILMER
S-2496
OCONOMOWOC
WI
LAND SURVEYOR

This instrument drafted by Paul J. Hilmer

Sheet 4 of 4 sheets.

Plan Commission Report for January 16, 2024

Thomas Family Properties Zoning Amendment

Agenda Item No. 5. B.

Applicant:	Neumann Development, Inc. by Bryan Lindgren
Owner:	Amy Thomas, et.al.
Project:	Welshire Farm subdivision
Requested Action:	Recommendation to Town Board on an amendment to rezone the Thomas Family properties from A-1 Agricultural to PDD No.1 - Planned Development District No. 1 within areas of Town zoning jurisdiction.
Zoning:	A-1 Agricultural (Town)
Location:	North of Golf Road, west of Elmhurst Road, south of Lake Country Bike Trail and High Ridge East Add'n No. 1 subdivision and east of Glen Cove Road

Report

List of clarifications on documents since the December 5, 2023 meeting

- Map 1: Total No. of units updated to show 212 units, which includes the existing house/property currently on Thomas Lane to remain.
- Map 1C: Modified biofiltration to basins.
- Map 2: Identifies and labels Outlots; updated open space chart.
- Map 5: Adjusted pond/basin elevations; clearly identified stormwater discharge points.
- TIA: Revised Exhibit 1-3 (and similar figures) to show that Oakton Road and Glen Cove Road do not connect; added language about Oakton Road on page 6.
- Water Study: GZA (consultant to Neumann Developments) provided summary letter.
- Bedrock Boring Plan Sheet provided.
- Test Hole Spreadsheet provided.

Background (from previous report)

On December 3, 2019, the Plan Commission unanimously recommended approval of a Land Use Plan amendment on the Thomas family properties as follows (no change to Primary Environmental Corridor designation):

DELT 0811-999: Commercial and/or Office Park to Mixed Use
DELT 0809-966: Suburban Density I Residential to Low Density Residential
DELT 0809-995: Suburban Density I Residential to Low Density Residential (north of a line between the southeast corner of tax parcel DELT 0809-966 and the centerline of Elmhurst Road directly west of Lot 9 Golf Ridge subdivision)
DELT 0809-995: Commercial and/or Office Park to Mixed Use (south of line described above)

On December 10, 2019, the Town Board approved the Land Use Plan amendment on a 4:1 vote. Waukesha County Board approved the Land Use Plan Amendment on May 23, 2023.

Uses allowed in the mixed-use land use category include "development that may contain residential and could contain a combination of public, institutional, office, retail, service, light industrial, research and development, and/or other commercial uses, including off street parking and may take the form of a business park." The low-density residential use allows residential development at a density of 20,000 square feet to 1.4 acres of area per dwelling unit.

Between the time that the Land Use Plan Amendment was approved by the Town Board (December 10, 2019) and October of 2022, the Town Plan Commission developed a zoning district for mixed uses. The ordinance set forth the regulations by which a development can take place on the specific Thomas Family properties. On October 4, 2022, the Plan Commission recommended approval of an ordinance that created a Planned Development District that would meet the mixed-use land use intent, on a 5:0 vote. On October 11, 2022, the Town Board approved the recommended ordinance on a 4:1 vote, with a change in the number of residential units on the specific property to be a maximum of 230 units. Waukesha County Board approved the creation of the Planned Development District No. 1 ordinance on May 23, 2023.

Considerations

The request before the Plan Commission is to amend the Town's zoning map for the Thomas Family properties from A-1 Agricultural District to Planned Development District No. 1 (PDD No. 1).

The ordinance includes the following Statement of Intent:

- Provide for mixed residential use in an attractive, integrated environment which is complimentary to the surroundings.
- Preserve the natural environment by conserving environmental corridor areas, wetlands and tree lines designated for preservation to the extent practicable.
- Provide for landscape buffer along Glen Cove Road, Elmhurst Road and Golf Road to ensure harmony with surrounding neighborhoods.
- Provide a trail network that links existing neighborhoods, individual development sites and the Lake Country Trail.
- Mitigate traffic impacts by splitting access between both local roads and the county trunk highway system.
- Provide a heightened level of site design and connectivity between development sites.
- Provide a broad range of potential living unit options that will accommodate residents of varying ages.

The specific regulations contained in the PDD No. 1 zoning district implement the intent of the ordinance. The ordinance requires that General Development Plan (GDP) materials be included with an application to rezone to the PDD No. 1 district. The table below provides the findings of the submittal:

Item	Submitted?	Findings	Requirement Met?
General Development Plan Drawing	Yes	Proposal is for 212 new units; one existing unit is to remain on the Thomas property (existing historic house on Thomas Lane). Code allowance in the PDD district is a maximum of 230 units.	
Open Space and Natural Protection Plan	Yes	No wetlands or environmental corridor will be disturbed, except for bike and pedestrian path construction. Partial tree line in zone 3 to be preserved and enhanced with additional tree line replacement; tree line in zone 4 will be preserved except for road right-of-way areas; Various stands of trees in Outlot 6 will be preserved; landscaped berm buffers will be constructed along the east side of Glen Cove Road, north side of Golf Road and west side of Elmhurst Road. The projected open space for the development will be 49% outside of the individual home lots and condominium structures. The minimum required common open space is 38.8% based on the uses in each zone.	
Traffic Impact Analysis (TIA)	Yes	The PDD code required that a TIA be prepared to determine improvement recommendations for the development. The following intersections were considered in the study and are shown with the existing and proposed level of service (LOS) (Scale A-F): Glen Cove at Brookstone Circle North (A/A) Glen Cove at Brookfield Circle South (A/A) Glen Cove at Golf Road (B/B) Golf Road at new intersections (2) (-/B) Golf Road at Elmhurst Road (A/A) Elmhurst Road at Golf Ridge South (A/A) Elmhurst at Golf Ridge North (A/A) Elmhurst at Oakton Road (A/A) LOS is a quantitative measure that refers to the overall quality of traffic flow at an intersection, ranging from very good (LOS A) to very poor (LOS F). WisDOT and Waukesha County consider LOS D or better to define acceptable peak hour operating conditions. The TIA recommends that turn and bypass lanes are required on Golf Road at the new intersections into the development. This recommendation is based on a Waukesha County code requirement for turn and bypass lanes for all T intersections on roads that have volumes greater	

		than 2,500 vehicles per day. The 2018 volumes on Golf Road were 4,400 vehicles per day. The TIA was reviewed by Waukesha County Dept. of Public Works staff and the Town Engineer.	
Road Access Plan	Yes	Map 1 shows two access points from the development onto Golf Road; one access point from the development onto Glen Cove Road across from Brookstone Circle North in the same geometric configuration as Brookstone Circle North; and one access point from the development onto Elmhurst Road across from Golf Ridge South in the same configuration as Golf Ridge South. Traffic impacts are mitigated by having four access points, two of them being on Golf Road (CTH DR).	
Sanitary Sewer Plan	Yes	In a letter received May 22, 2023, from LPSD, they confirmed that the formula to be used for the design capacity is 7 persons per developable acre. That results in the allowance of 770 persons on 110 developable acres. The projected number of persons for the development is 583. There is sufficient hydraulic capacity in the existing gravity pipe system. According to LPSD, there is adequate capacity at the Fox River Pollution Control Center in Brookfield for the flow.	
Water Study	Yes	The PDD code requires that the applicant demonstrate that SEWRPC, WDNR, and LPSD have been consulted with regards to anticipated water table impacts of any planned private water supply. A detailed water study was submitted by the developer's environmental consulting engineer. The study was reviewed by the Town, County, and SEWRPC. The study must, to the satisfaction of the Town Plan Commission and Town Engineer, demonstrate that a private water supply will adequately serve the project and not adversely impact private wells or other natural resources. Several iterations of the water system analysis were performed based on comments from Town, County and SEWRPC. Findings from the study are as follows: 1. The methodology used to calculate drawdown (Theis solution for Non-Leaky Confines Aquifers) is the most widely used and accepted solution for calculating drawdown. 2. Average drawdown in the proposed development, assuming infiltration and groundwater recharge, is estimated to be approximately 4 to 5 feet at and decreasing from the property line. 3. The cumulative drawdown at the property boundary for the developments to the east and	

		west of the proposed development is estimated to be approximately 7 to 14 feet. 4. The maximum drawdown is less than the natural groundwater fluctuation of 6 feet as observed at USGS monitoring wells in the neighborhood. 5. Flows of groundwater to Pewaukee Lake will be maintained.	
Preliminary Stormwater Plan	Yes	Preliminary review by Waukesha County concluded that the development will likely be able to meet their ordinance requirements. The stormwater management plan includes opportunities to infiltrate the water into the ground. Calculations indicate that the development will be able to infiltrate 94% of the pre-development flow. The required infiltration percentage is 90% per County and WDNR requirements. There are several design and modeling details that require attention which will take place during detailed construction plan review.	
Bike and Pedestrian Plan	Yes	The developer has incorporated approximately 10,200 linear feet (1.9 miles) of trails/paths within the subdivision. Map 1 provides an overview of the locations of said facilities. A paved path extends from Glen Cove Road to the Lake Country Trail. Natural walking paths extend from open space in the subdivision to and through the environmental corridor.	
Active Recreation Plan	Yes	A one-acre public pocket park is included in the development plans and will be located to the west of the westerly entrance to the subdivision off Golf Road. Amenities include a pickleball court, garden and picnic areas and benches. The plans also show a clubhouse, pool, and playground for subdivision residents.	

I have reviewed the development layout to determine if the GDP plans meet or will meet specific code regulations. Conclusions are as follows:

Subsection Heading	Code Met?	Notes
5. Use Regulations	Yes	Proposed uses on GDP meet designated uses for each zone.
6. Density	Yes	230 units allowed; 212 proposed; lots meet minimum lot sizes for each zone.
7. Building Location	Yes	Meets road setbacks for Golf, Glen Cove and Elmhurst; all internal lots meet setbacks and offsets for each specific use type

8. Height//Bulk Regulations	Yes	To be determined at time a building permit is submitted for each house.
9. Area Regulations	Yes	To be determined at time a building permit is submitted for each house; Minimum average lot width is met for all proposed lots.
10. Open Space for Development Site	Yes	Open space for each development zone is met; wetlands and environmental corridor are preserved; tree lines removed will be re-vegetated; landscape buffers are provided on Glen Cove Road, Golf Road and Elmhurst Road.
11. Signage Regulations	-	To be determined when signs are submitted for approval
12. Parking Regulations	-	Parking provided for clubhouse; landscape screening required on sides; detailed plan to be reviewed at time specific development plan is submitted.
13. Open Space for Each Lot	Yes	Designated on the GDP; actual open space to be determined at time a building permit is submitted for each house.
14. Dumpster Enclosures	-	No dumpsters proposed for the site.
15. Road Layout	Yes	The road layout winds through the development. Glen Cove Road to Elmhurst Road requires 4 stops or corner turns, which will discourage people cutting through the development.
16. Cul-de-Sac Length	Yes	Crooked Creek cul-de-sac extends into the Welshire development; No other cul-de-sacs extend beyond 400 feet.
17. Developer's Agreement	-	To be reviewed and approved at time the preliminary plat is submitted

Staff Recommendation:

Based on the findings described above for all of the required submittal materials, and consideration that the proposed development meets the PDD district Statement of Intent, I recommend that the petition for zoning amendment and the General Development Plan be forwarded to the Town Board with a recommendation to approve based on the following:

- The request is in compliance with the Town Land Use Plan.
- The application is complete and all information required by Section 17.04 (5)(R)4. b. has been submitted for review.
- Findings indicate that each of the GDP required submittal; materials identified in the PDD ordinance has been adequately addressed.
- The proposed development meets the PDD Statement of Intent.
- The General Development Plan (GDP) layout has been reviewed in light of the regulations within each subsection of Section 17.04 (5)(R) and have been found in compliance with the ordinance, subject to a detailed review when subdivision plats and construction plans are submitted for review and approval in accordance with normal Town review processes. Development of the subject property shall be in substantial conformance with the maps and studies identified in the GDP as follows:

Map No.	Date	Title
1,1A,1B,1C	12/22/2023	General Development Plan Drawing
2, 2A,2B	12/22/2023	Open Space and Natural Resource Protection Plan
3	12/22/2023	Road Access Plan
4	12/22/2023	Sanitary Sewer Plan
5	12/22/2023	Preliminary Stormwater Plan
6	12/22/2023	Bike and Pedestrian Plan
7	12/22/2023	Active Recreation Plan
L1 – L7	3/27/2023	Landscape Plan
	12/16/2023	Traffic Impact Analysis
	3/24/2023	Hydrogeologic Assessment Report
	7/14/2023	Response to SEWRPC Comments
	9/29/2023	Response to SEWRPC Comments
	12/21/2023	Groundwater Evaluation Summary

Tim Barbeau, Town Engineer
January 8, 2024

TOWN OF DELAFIELD

APPLICATION FOR PLAN COMMISSION AGENDA

Plan Commission meetings are typically held the first Tuesday of every month. All applications must be submitted at least 3 weeks before a Plan Commission meeting to make the agenda. Any late submittals will be considered at the following meeting.

(PLEASE PRINT)

Owner Information	Applicant
Name: Thomas Family - multiple owners	Name: Neumann Developments Inc. - Bryan Lindgren
Address N14W29542 Golf Rd	Address N27W24025 Paul Ct., Suite 100
City Pewaukee State WI Zip 53072	City Pewaukee State WI Zip 53072
Telephone Number	Telephone Number 262-542-9200
Email:	Email: blindgren@neumanncompanies.com

APPLICATION TYPE AND FEE (CHECK ALL THAT APPLY)

*Application fees are non-refundable. Fees cover costs associated with public notification, postage, copies, and document recording, however, applicants agree to pay all additional expenses that the Town may incur by virtue of contracted plan review services including but not limited to: legal, surveying and engineering costs.

☐ Site Plan...$150.00
☐ Site Grading Plan..................................$50.00
☐ Lighting Plan...$50.00
☐ Signage Plan...$75.00
☐ Preliminary Plat...................................$300.00
☐ Final Plat...$150.00
☐ Certified Survey Map............................$250.00
☐ Developer's Agreement.........................$100.00
☐ Home Occupation.....................................$50.00
☒ Zoning Amendment.................................$300.00
☐ Land Use Amendment.............................$300.00
☐ Conditional Use......................................$225.00
☐ Plan of Operation...................................$150.00
☐ Planned unit Development.......................$225.00
☐ Conceptual Plan Review...........................$50.00
☐ Other...$50.00 minimum

PROJECT NAME: Welshire Farm
Property Address: N14 W29542 Golf Rd.
Tax ID/Parcel ID: DELT0811999-DELT0809995-DELT0809996 Lot Size: approx. 152 acres
Current Zoning: A-1 /C-1 /Shoreland Proposed Zoning (if applicable) PDD-1
Present Use: Agricultural Intended Use (if applicable): Residential

A complete application along with the appropriate fees shall be submitted by the deadline outlined at the top of the application. In order for an application to be considered complete, the application shall include the required number of site plans/maps, and all of the necessary supporting information as indicated on the project review checklist. If applying for a conditional use or development agreement, a document showing vested interest in the property is required. The Town of Delafield reserves the right not to accept an application that is deemed incomplete.

TOWN OF DELAFIELD PLAN COMMISSION APPLICATION

Project Description

Please answer the questions below that pertain to your request. If necessary, please attach a separate sheet.

PETITION FOR REZONING

In the space below, please describe the purpose of the rezoning.

Please see attachments

PETITION FOR LAND USE AMEND

In the space below, please describe the purpose of the Land Use Amendment.

PETITION FOR CONDITIONAL USE

In the space below, please describe the purpose of the Conditional Use.

PETITION FOR CERTIFIED SURVEY MAP / PRELIMINARY PLAT / FINAL PL

In the space below, please describe the intention of the land division.

PETITION FOR SITE PLAN / PLAN OF OPERATION / OTHER APPLICATION

In the space below, please describe the intention for the site plan, plan of operation, or other application.

1843 TOWN OF DELAFIELD

Required Forms for Submittal

Required Forms Checklist:

☑ Legal Description (all applications)
☑ Professional Staff/Fees Chargeback Acknowledgement (all applications)
☐ Certification for Division of Land (Certified Survey Map land splits)

Submittal Information:

☑ One (1) copy of this application (signed & dated)
☑ One (1) electronic copy of all supporting materials, i.e., drawings, plans and written documentation (via email to dgreen@townofdelafield.org).
☑ Two (2) full size hard copies of all supporting materials, i.e., drawings, plans and written documentation of plans 11"x17" and smaller.
☑ Seven (7) copies of supporting materials larger than 11"x17".

I understand that this form shall be on file in the office of the Town Admnistrator by 4:00 p.m. on the 21st day before the meeting on which I desire to be heard or as required in the Land Division or Zoning Ordinance, whicever is longer. Plan Commission meetings are held the first Tuesday of each month. Furthermore, I understand that any engineering or legal review fees associated with this project may be charged to me.

FAILURE TO PROVIDE ALL REQUIRED MATERIALS AND INFORMATION CAN RESULT IN THIS APPLICATION BEING WITHDRAWN FOR CONSIDERATION BY THE PLAN COMMISSION.

Signature of Owner: Amy E. Thomas
Date: 3-23-2023

Print Name: Amy E. Thomas

For Office Use Only

Application Received: ____
Amount Received: ____
Date Received: ____
Received by: ____
PC Meeting Date: ____
Board Meeting Date: ____
Public Hearing Date: ____

Publication Date (if required): ____

TOWN OF DELAFIELD

PROFESSIONAL STAFF FEES CHARGEBACK ACKNOWLEDGEMENT

PLEASE BE ADVISED

That pursuant to the Town of Delafield Code of Ordinances, the Town of Delafield Town Board has determined that whenever the services of the Town Attorney, Town Engineer or any of the other Town's professional staff results in a charge to the Town for that professional's time and services, and such service is not a service supplied to the Town as a whole, the Town Clerk shall charge that service and the fees incurred by the Town to the owner of the property. Also be advised that pursuant to the Town of Delafield Code of Ordinances certain other fees, costs and charges are the responsibility of the property owner.

****

I, the undersigned, have been advised that, pursuant to the Town of Delafield Code of Ordinances, if the Town Attorney, Town Engineer or any other Town professional provides services to the Town as a result of my activities, whether at my request or at the request of the Town, I shall be responsible for the fees incurred by the Town. Also, I have been advised that pursuant to the Town of Delafield Code of Ordinances, certain other fees, costs and charges are my responsibility.

E. Thomas — 3-23-2023

Signature of Owner — Date

Amy E. Thomas

Owner's name (please print)

Form received by: ______________________

Date: ______________________

kat: H:\Delafield-T\Forms\Professional Fees Chargeback.docx

NEUMANN
DEVELOPMENTS, INC.

Welshire Farm PDD-1 Zoning Request

Town of Delafield
W302N1254 Maple Avenue
Delafield, WI 53018

Dear Town Board and Plan Commission,

We are excited to be submitting for consideration our request to re-zone and amend the comprehensive plan for the lands known as the Thomas farm located in the Town of Delafield:

- Subject property:
  - Address: N14W29542 Golf Road

  - Tax Keys: DELT0811999, DELT0809995, DELT0808996
  - Legal Description: All that part of the Northeast 1/4 of the Southwest 1/4, and the Northwest 1/4, Northeast 1/4 of the Southeast 1/4, and the Southwest 1/4, Southeast 1/4 of the Northeast 1/4 all in Section 23, Township 7 North, Range 18 East, in the Town of

Delafield, Waukesha County, Wisconsin, now being more particularly bounded and described as follows:

Commencing at the Northwest corner of said Southwest 1/4 Section, Thence North 88°51’15” East along the North line of Said Southwest 1/4, 1345.64 feet to a point on the East Right-of-Way of “Glen Cove Road” and the place of beginning of the lands hereinafter described.

Thence continuing North 88°51’15” East along said North line, 1335.76 feet to the Northeast corner of Said Southwest 1/4 Section; Thence North 00°19’12” East along the West line of Said Northeast 1/4 Section, 1208.72 feet to a point on the South line of a 75’ wide “W.E.P.C.O.” Right-of-Way; Thence North 88°50’36” East along said South line, 2005.82 feet to a point on the West Right-of-Way line of “Elmhurst Road”; Thence South 00°34’32” West along said West line, 1226.97 feet to a point; Thence South 89°21’41” West along said West line, 25.26 feet to a point; Thence South 00°33’48” West along said West line, 116.67 feet to a point; Thence Southerly 446.63 feet along the arc of a curve whose center lies to the East, whose radius is 1196.28 feet, whose central angle is 21°23’29” and whose chord bears South 10°07’56” East 444.04 feet to a point; Thence South 13°45’04” East along said West line, 451.55 feet to a point on the Northerly Right-of-Way line of “Interstate “94”; Thence South 73°59’23” West along said Northerly line, 846.37 feet to a point; Thence South 87°20’08” West along said Northerly line, 889.36 feet to a point; Thence Westerly 168.94 feet along the arc of a curve whose center lies to the North, whose, radius is 23,123.33 feet, whose central angle is 00°25’07” and whose chord bears South 87°07’34” West 168.94 feet to a point; Thence North 87°44’18” West along said Northerly line, 253.63 feet to a point; Thence Southwesterly 1214.05 feet along the arc of a curve whose center lies to the South, whose radius is 23,148.33 feet, whose central angle is 03°00’18” and whose chord bears South 84°47’22” West 1213.91 feet to a point; Thence North 48°47’43” West along said Northerly line, 166.11 feet to a point on the East Right-of-Way of “Glen Cove Road”; Thence North 00°03’57” West along said East line, 60.72 feet to a point; Thence South 89°56’03” West along said East line, 35.00 feet to a point; Thence North 00°03’57” West along said East line, 1157.05 feet to the point of beginning.

Said Lands contains 6,598,997 Square Feet (or 151.4921 Acres) of land, more or less.

Size: approximately 151.05 acres

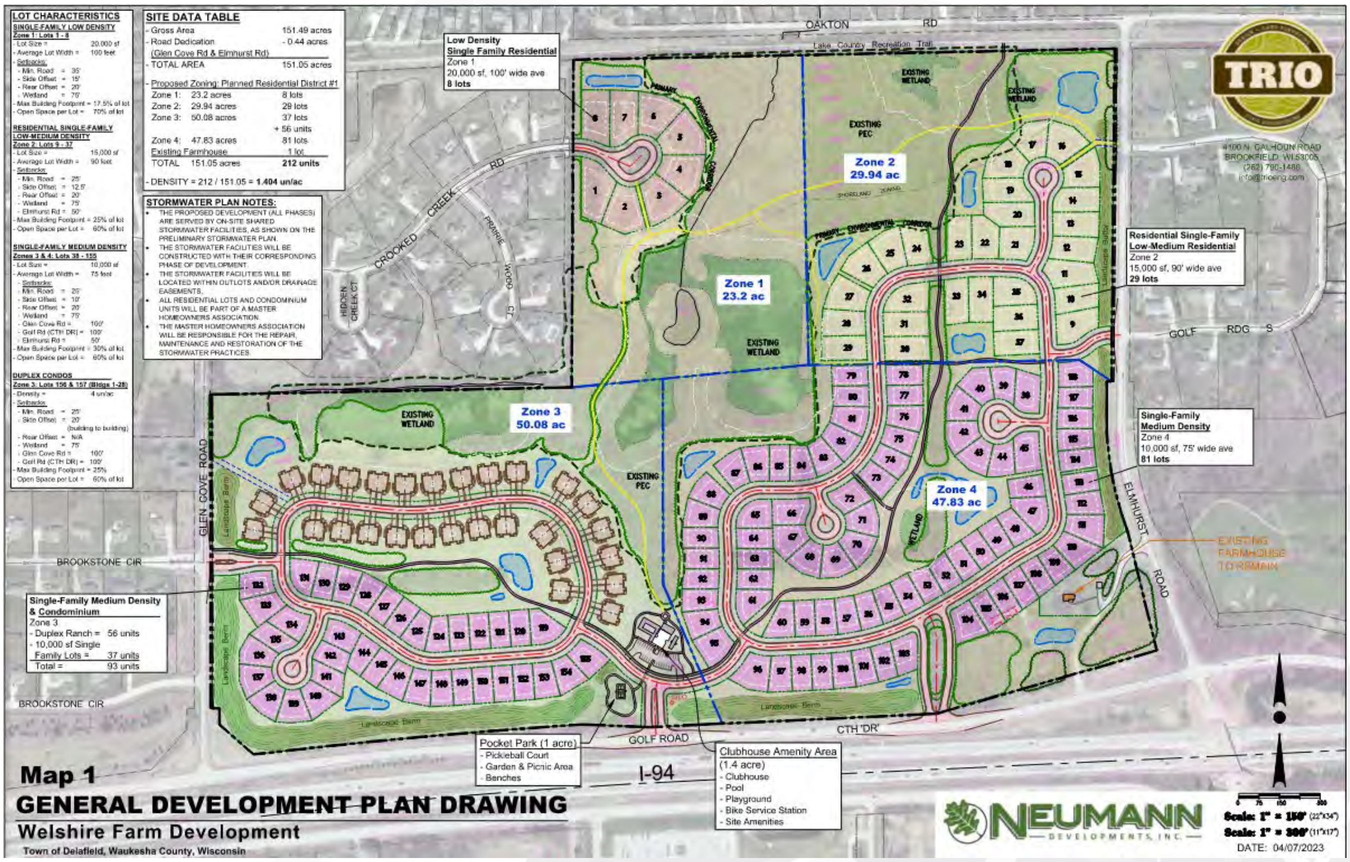
Current Owner: Amy Thomas, Kellen Wesson, the Robert G and Ann B Thomas Revocable Trust, Charlotte Thomas, and Jennifer Holquist

Project Vision

The proposed Welshire Farm Development on the Thomas property represents an exciting clustered conservation development that converts farmland into a much needed and desirable neighborhood all while preserving a significant amount of green space and natural resource features. The variety of for-sale residential housing appeals to homeowners across a wide range of price points and housing types.

This amenity rich development includes a central private clubhouse and recreational center while also offering walking and biking trails to the residents and general public.

This site is uniquely positioned among existing single-family homes, a golf course, quality natural resource areas, and heavily traveled commuter routes, representing an ideal location for a complementary mix of uses. The site planning thoughtfully responds to the context in several ways. Firstly, all existing single-family uses surrounding the site will be adjacent to wide landscape buffers or existing natural areas. Smaller lots and attached homes are clustered to the south half of the property where density adjacent to county and state highways should be encouraged. Transitioning north on the site, larger lots and greater amounts of permanently preserved open space will blend seamlessly into the surrounding area.



The overall master site design (EXHIBIT A) responds to the ecological features found on site. Instead of imposing our development onto the site we methodically preserved the environmental corridors and respected boundaries for the wetlands. All wetlands and environmental corridors have been delineated and incorporated as natural features to the site planning. Publicly accessible walking trails will surround the natural features, inviting the community to explore and wander the natural setting.

The included maps and reports are intended to fulfill the requirements and support this request to rezone the Thomas farm to the PDD-1 zoning district as described in town ordinance.

About Neumann Developments Inc.

Neumann Developments Inc. has been developing land in South-Eastern and South-Central Wisconsin since the year 2000. Since the year 2000, Neumann Developments has developed over 5000 home sites, built over 55 miles of roads, and preserved over 2700 acres of land. As a proud member of the Metropolitan Builders Association and a licensed Real Estate Brokerage Company in the State of Wisconsin we have the experience to design, develop, and deliver on high quality master planned developments like the one envisioned for the Thomas property! In just the past five years, Neumann Developments has completed developments in more than a dozen municipalities in southeast Wisconsin including the Town of Delafield. Neumann Developments Inc. had the vision, knowledge, and financial ability to complete these projects to the full satisfaction of the municipalities as well as the end users.

Neumann Companies Inc., which owns Neumann Developments Inc., also is an ownership partner in Harbor Homes, Tim O'Brien Homes, and Halen Homes. These partner builders have been three of the top four builders in terms of building permits for new residential development in Southeast Wisconsin in the last five years. Our partnership with these builders allows us to develop a site and immediately have our builder partners move in and begin construction and sales of the new homes and condominiums. Our combination of knowledge, experience, and builder partnerships are what makes Neumann Developments the right partner for this complicated site.

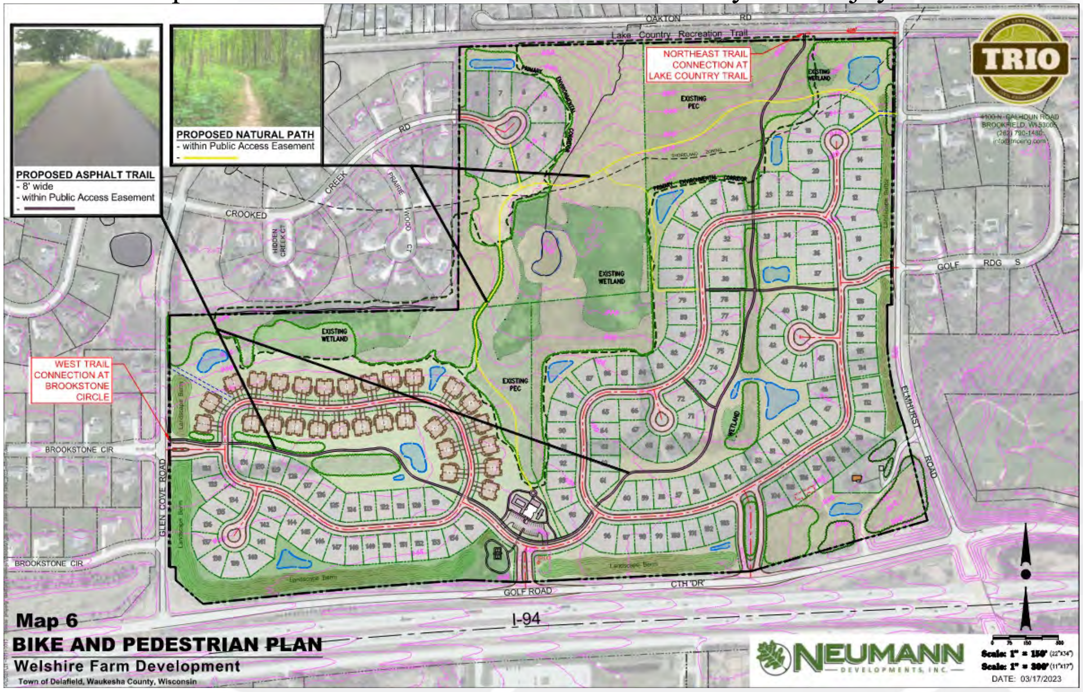
Through strategic partnerships with some of the area's largest builders and contractors we are able to create high quality developments that bring lasting value to communities. We look forward to the opportunity to bring a great development to the Town of Delafield.

Public Benefits

The benefits of developing the Thomas farm area as a Planned Development are numerous. Those benefits are as follows:

- **Attainable and Diverse Housing** – The goal of the development is to offer housing options for residents of all lifestyles and desired price points. The variety of proposed for-sale housing offers housing designed for everyone from first time home buyers to empty nesters looking to downsize all within the desired price points identified in the County and regional housing studies. By offering a range of housing options, we can attract new families and young professionals to our town, which will help to create a more vibrant and diverse community. This diversity will bring new ideas, perspectives, and energy to our town, helping to enrich our community. In many ways a variety of housing types and price points is good for new residents and existing residents.
- **Environmental Protection** – The development will preserve 74.07 Acres or 49% of the total area as open space. This vast amount of open space includes wetlands, but primarily preserves uplands and environmental corridors in the form of neighborhood common space. All delineated environmental corridors are being preserved in their entirety. Where open space tree lines are identified in the ordinance, tree inventories have been completed and specimen species are being preserved everywhere possible. Where tree lines are being broken for road connectivity, native plantings will be planted to recreate these buffers and tree lines.

- **Trails and Paths** – The bike and pedestrian plan (EXHIBIT H) shows miles of paved trails and paths that wrap around and through the development linking residents to the Lake Country Bike Trail to the North and neighborhoods to the north, east, and west. These trails will be made available for public use and serve to invite the community in to enjoy the natural areas.



- **Tax Increment** – Development of this area over the next decade will create approximately $130,000,000 worth of new tax base upon completion: significantly above the current assessed value. New homes provide economic growth to our town. They create job opportunities for construction workers, contractors, and other local businesses, which boosts our local economy. This, in turn, increases property values and provides additional tax revenue for the town, which can be used to fund public services such as schools, roads, and emergency services.

Development Overview

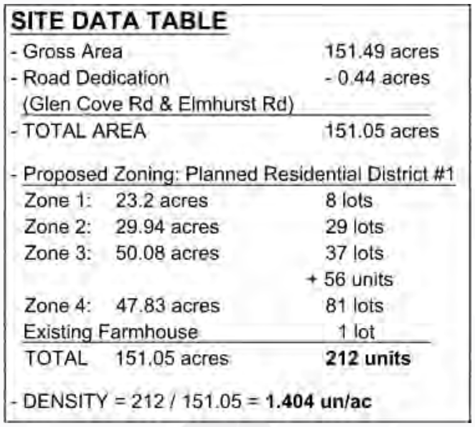
The attached Welshire Farm Site Plan (EXHIBIT A) identifies various areas of the development for further discussion.

Projected Construction 2024-2030/31

Proposed Residential Unit Count: **212**
    Single Family Residential 156
    Duplex Ranch Condominium 56

Density = 1.397 un/ac

Net Open Space Provided = 74.07 Acres
49.0% of Site

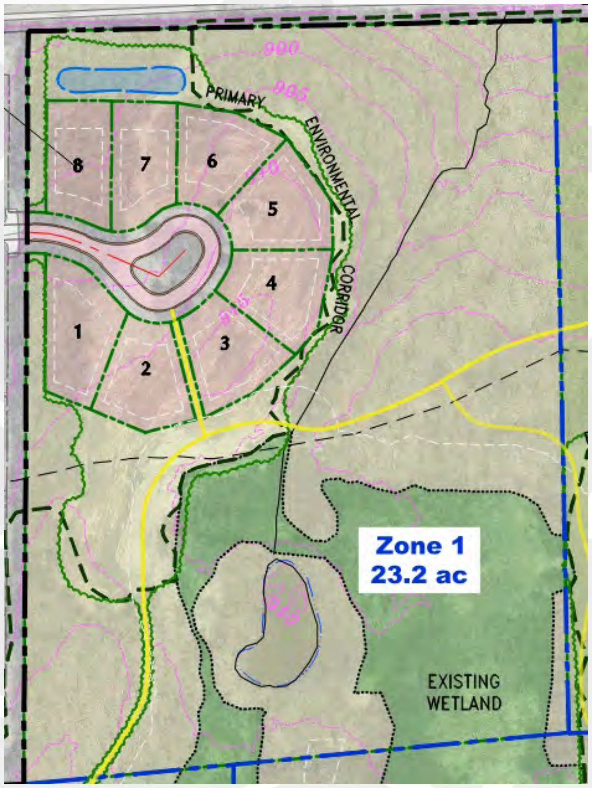


SITE DATA TABLE

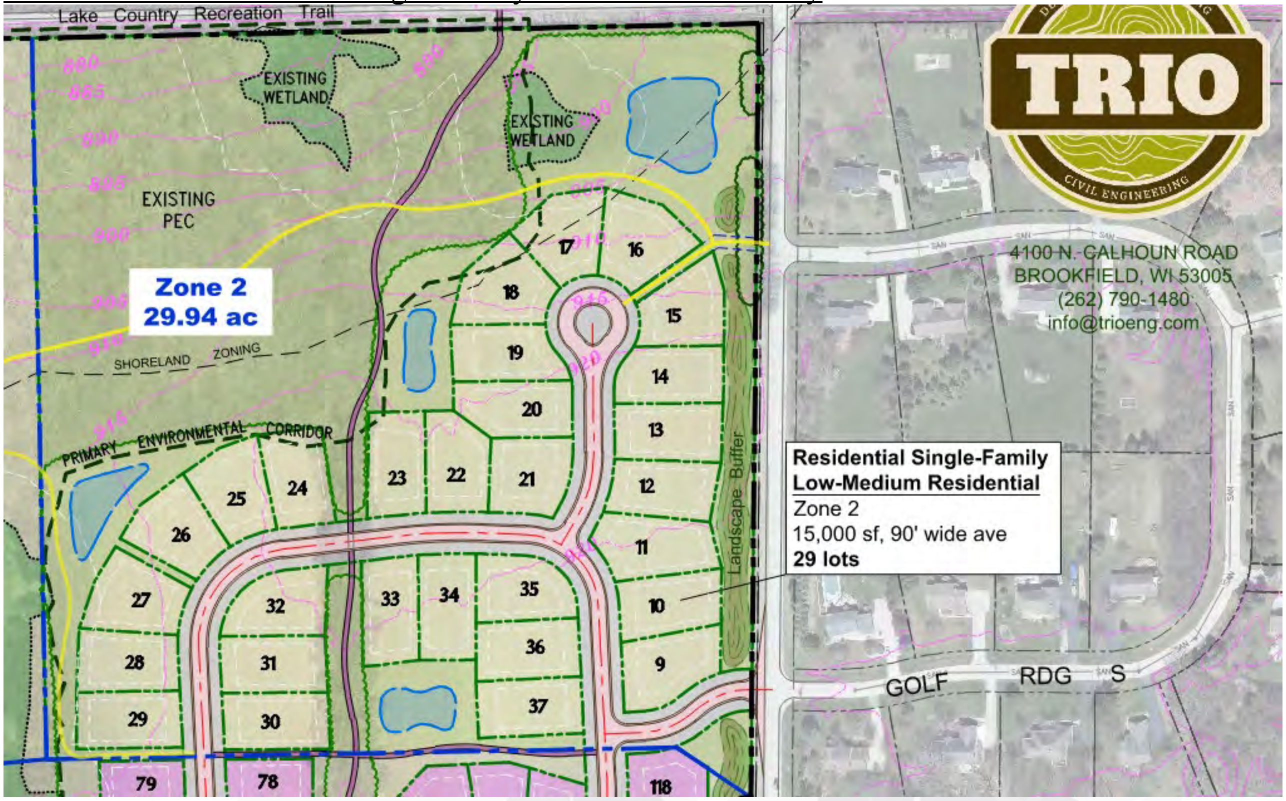
- Gross Area		151.49 acres
- Road Dedication (Glen Cove Rd & Elmhurst Rd)		- 0.44 acres
- TOTAL AREA		151.05 acres
- Proposed Zoning: Planned Residential District #1		
Zone 1:	23.2 acres	8 lots
Zone 2:	29.94 acres	29 lots
Zone 3:	50.08 acres	37 lots + 56 units
Zone 4:	47.83 acres	81 lots
Existing Farmhouse		1 lot
TOTAL	151.05 acres	**212 units**

- DENSITY = 212 / 151.05 = **1.404 un/ac**

- Zone 1: "The Estates" Estate Single Family Low Density
  - Total Acres = 23.2 Acres
  - Proposed Zoning = PDD-1
  - Total Lots = 8
  - Open Space Zone= 66%
  - Lot Size = 20,000 SF minimum
  - Avg Lot Width = 100'
  - Setbacks
    - Min. Road = 35'
    - Side offset = 15'
    - Rear offset = 20'
    - Wetland = 75'
  - Max Building Footprint = 17.5% of lot
  - Open Space per Lot = 70% of lot
  - Home and Lot Estimate = $750K+

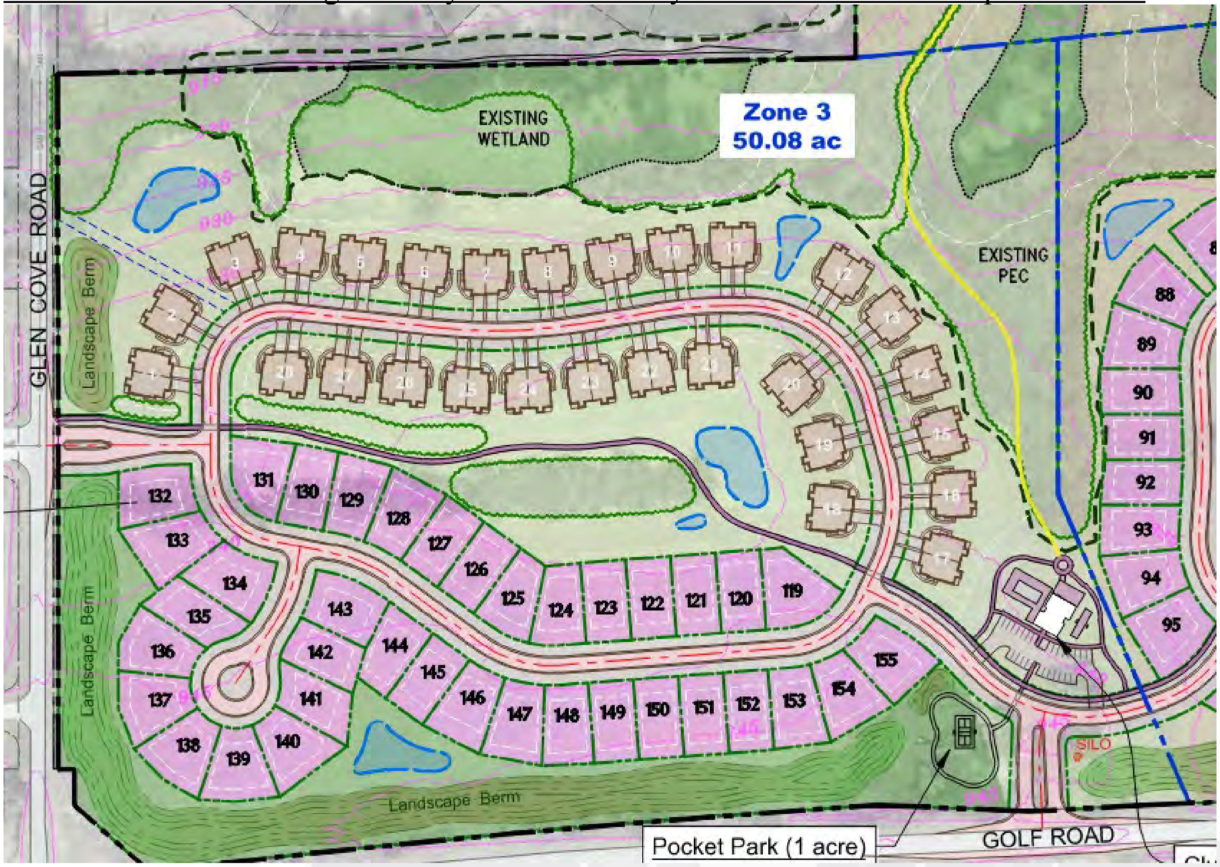


- Zone 2: "The Residences" Single Family Low-Medium Density



Total Area = 29.94 Ac
  - Proposed Zoning = PDD-1
  - Total Lots = 29
  - Open Space Zone = 53.6%
  - Lot Size = 15,000 SF Minimum
  - Avg Lot Width = 90'
  - Setbacks:
    - Min. Road = 25'
    - Side Offset = 12.5'
    - Rear Offset = 20'
    - Wetland = 75'
    - Elmhurst Rd = 50'
  - Max Building Footprint = 25% of lot
  - Open Space per Lot = 60% of lot
  - Home and Lot Estimate = $600-650K

- Zone 3: “The Villas” Single Family Medium Density and “The Reserve” Duplex Condos



Total Area = 50.08 Acres

- Proposed Zoning = PDD-1
- Total Single Family Lots = 37
- Total Duplex Units = 56
- Open Space Zone
  - Duplex Condos = 60%
  - Single Family = 35.2%
- Single Family
  - Lot Size = 10,000 SF Minimum
  - Avg Lot Width = 75’
  - Setbacks:
    - Min. Road = 25’
    - Side Offset = 10’
    - Rear Offset = 20’
    - Wetland = 75’
    - Glen Cove Rd = 100’
    - Golf Road = 100’
  - Max Building Footprint = 30% of lot
  - Open Space per Lot = 60% of lot
  - Home and Lot Estimate = $500-550K

- Duplex Condos
    - Density = 4 un/acre max
    - Density proposed = 56 units/22.97ac = 2.48 un/acre
    - Setbacks:
        - Min. Road = 25’
        - Side Offset = 20’ building to building
        - Rear Offset = N/A
        - Wetland = 75’
        - Glen Cove Rd = 100’
        - Golf Road = 100’
    - Max Building Footprint = 25%
    - Open Space per Lot = 60%
    - The intent of the duplex condominium component of this area is to offer a single story ranch style duplex home in a condominium style for those seeking ease of maintenance and lifestyle. “The Reserve”, will offer two bedrooms and two baths single story homes with two car attached garages.

    - The Reserve duplex condos are anticipated in the upper $400’s

- Zone 4: “The Villas” Single Family Medium Density

  - Total Area = 47.83 Acres
  - Proposed Zoning = PDD-1
  - Total Lots = 81
  - Open Space Zone = 35.6%
  - Lot Size = 10,000 SF Minimum
  - Avg Lot Width = 75’
  - Setbacks:
    - Min. Road = 25’
    - Side Offset = 10’
    - Rear Offset = 20’
    - Wetland = 75’
    - Elmhurst Rd = 50’
    - Golf Road = 100’
  - Max Building Footprint = 30% of lot
  - Open Space per Lot = 60% of lot
  - Home and Lot Estimate = $500-550K

Homeowner's Association and Architectural Control

The entire residential portion of the development will be controlled by a master HOA and architectural controls will be in place to create an aesthetically pleasing neighborhood as well as to manage common amenities and green spaces. The Architectural Review Committee and the Neighborhood Covenants and Restrictions Code will be set up to ensure the continued development of high-quality design, architecture and site execution is carried throughout the neighborhood. Review and approval of building plans by the Architectural Control Committee of the Homeowner's Association will be required prior to submitting for a building permit to the Town of Delafield. Maintenance responsibilities and architectural requirements will be further detailed in the covenants and restrictions recorded against each property.

Sanitary Sewer System

At the time of submittal of an application to rezone the property to the PDD-1 district, the General Development Plan requires that adequate sewer capacity must be demonstrated. It has been determined that the Lake Pewaukee Sanitary District (LPSD) has designed and reserved capacity downstream for land within the LPSD sewer service area at a designed density of 7 people per acre per LPSD ordinances #101 and #102 as amended. It was further defined by an amendment to LPSD Ordinance #102 dated February 20, 2007 that a Residential User Equivalent (RUE) or "living unit" shall "be conclusively presumed to include 3 persons". The designed capacity allowed for the Thomas Property can then be computed as follows:

Total Acreage = 151.05 Acres
Net Acreage (buildable area removing wetlands and EC) = 110.359 Acres
Design Density = 7 people per acre
Thomas Land Design Population Density = 773 people

Thomas Land designed RUE's at 3 people per RUE = 257 Residential User Equivalent Units
Welshire Farm Residential Units = 211 RUE's

As you can see, the proposed total units in Welshire Farm is well below the LPSD designed capacity allocated for the property and does not necessitate density offsets as would be required in a higher density development per LPSD ordinance. A letter from LPSD from April 22, 2023 is included in this submittal clarifying that the number of units proposed is within the design capacity of the LPSD sewer district. Notwithstanding this information, a sewer system study has still been contracted to assess any improvements to existing infrastructure that LPSD may need to include in their long term planning projects. The results of this study will be available after flow data has been collected in the Spring of 2023 and will be used to further design the sanitary system prior to specific development plans and permitting. A Preliminary Sanitary Sewer Plan has been included with this submittal.

Summary

The proposed zoning districts are consistent with the Comprehensive Master Plan and furthers the desire by the developer and the Town to create housing options that will be an asset to the community for many years to come. The use of a planned development district on this property provides for uses compatible with planning and surrounding areas that results in the provision of a safe and efficient system for pedestrian and vehicular traffic, attractive recreation and landscaped open spaces, economic design and location of public and private utilities and community facilities; and ensures adequate standards of construction and planning. We believe this neighborhood would be a great addition to Delafield and the new residents will love the proximity to easy commuter routes, blend of urban and rural environment, ample green space, easy access to commercial conveniences, and quick access to downtown areas.

If approved, we would seek to start development work in the spring of 2024. This project would be developed in phases over the next 5-6 years. These phases would begin where utilities are available. All improvements associated with the phase being developed will be installed and completed at the time of phase construction. This project would be owned and developed by a Neumann Developments Inc. related entity. The Reserve and Villas would be sold as home and lot packages through affiliated builder Harbor Homes, and The Residences and Estates lots would be available through affiliated builder Tim O’Brien Homes as well as made available directly to individuals and other builders.

This petition is being made after careful consideration regarding the market supply and demand of different residential product types in the Delafield area and we feel it provides options that will benefit the Town for many years to come.

Thank you for your consideration of this proposed project.

Sincerely,

Bryan Lindgren
Neumann Developments Inc.

EXHIBITS

Legal Description

Exhibit A: Welshire Farm General Development Site Plan
Exhibit B: Open Space and Natural Resource Protection Plan
Exhibit C: Traffic Impact Analysis
Exhibit D: Road Access Plan
Exhibit E: Sanitary Sewer Plan
Exhibit F: Water Study Report
Exhibit G: Preliminary Storm Water Map and Report
Exhibit H: Bike and Pedestrian Plan
Exhibit I: Active Recreation Plan
Exhibit J: Landscape Plan

Exhibit A

LOT CHARACTERISTICS

SINGLE-FAMILY LOW DENSITY
Zone 1: Lots 1 - 8
- Lot Size = 20,000 sf
- Average Lot Width = 100 feet
- Setbacks:
  - Min. Road = 35'
  - Side Offset = 15'
  - Rear Offset = 20'
  - Wetland = 75'
- Max Building Footprint = 17.5% of lot
- Open Space per Lot = 70% of lot

RESIDENTIAL SINGLE-FAMILY LOW-MEDIUM DENSITY
Zone 2: Lots 9 - 37
- Lot Size = 15,000 sf
- Average Lot Width = 90 feet
- Setbacks:
  - Min. Road = 25'
  - Side Offset = 12.5'
  - Rear Offset = 20'
  - Wetland = 75'
  - Elmhurst Rd = 50'
- Max Building Footprint = 25% of lot
- Open Space per Lot = 60% of lot

SINGLE-FAMILY MEDIUM DENSITY
Zones 3 & 4: Lots 38 - 155
- Lot Size = 10,000 sf
- Average Lot Width = 75 feet
  - Setbacks:
  - Min. Road = 25'
  - Side Offset = 10'
  - Rear Offset = 20'
  - Wetland = 75'
  - Glen Cove Rd = 100'
  - Golf Rd (CTH DR) = 100'
  - Elmhurst Rd = 50'
- Max Building Footprint = 30% of lot
- Open Space per Lot = 60% of lot

DUPLEX CONDOS
Zone 3: Lots 156 & 157 (Bldgs 1-28)
- Density = 4 un/ac
- Setbacks:
  - Min. Road = 25'
  - Side Offset = 20' (building to building)
  - Rear Offset = N/A
  - Wetland = 75'
  - Glen Cove Rd = 100'
  - Golf Rd (CTH DR) = 100'
- Max Building Footprint = 25%
- Open Space per Lot = 60% of lot

SITE DATA TABLE

- Gross Area 151.49 acres
- Road Dedication - 0.44 acres
  (Glen Cove Rd & Elmhurst Rd)
- TOTAL AREA 151.05 acres

- Proposed Zoning: Planned Residential District #1

Zone 1:	23.2 acres	8 lots
Zone 2:	29.94 acres	29 lots
Zone 3:	50.08 acres	37 lots + 56 units
Zone 4:	47.83 acres	81 lots
Existing Farmhouse		1 lot
TOTAL	151.05 acres	**212 units**

- DENSITY = 212 / 151.05 = **1.404 un/ac**

STORMWATER PLAN NOTES:

- THE PROPOSED DEVELOPMENT (ALL PHASES) ARE SERVED BY ON-SITE SHARED STORMWATER FACILITIES, AS SHOWN ON THE PRELIMINARY STORMWATER PLAN.
- THE STORMWATER FACILITIES WILL BE CONSTRUCTED WITH THEIR CORRESPONDING PHASE OF DEVELOPMENT.
- THE STORMWATER FACILITIES WILL BE LOCATED WITHIN OUTLOTS AND/OR DRAINAGE EASEMENTS.
- ALL RESIDENTIAL LOTS AND CONDOMINIUM UNITS WILL BE PART OF A MASTER HOMEOWNERS ASSOCIATION.
- THE MASTER HOMEOWNERS ASSOCIATION WILL BE RESPONSIBLE FOR THE REPAIR, MAINTENANCE AND RESTORATION OF THE STORMWATER PRACTICES.

Low Density
Single Family Residential
Zone 1
20,000 sf, 100' wide ave
8 lots

Residential Single-Family
Low-Medium Residential
Zone 2
15,000 sf, 90' wide ave
29 lots

Single-Family
Medium Density
Zone 4
10,000 sf, 75' wide ave
81 lots

Single-Family Medium Density & Condominium
Zone 3
- Duplex Ranch = 56 units
- 10,000 sf Single Family Lots = 37 units
Total = 93 units

Pocket Park (1 acre)
- Pickleball Court
- Garden & Picnic Area
- Benches

Clubhouse Amenity Area (1.4 acre)
- Clubhouse
- Pool
- Playground
- Bike Service Station
- Site Amenities

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Map 1
GENERAL DEVELOPMENT PLAN DRAWING
Welshire Farm Development
Town of Delafield, Waukesha County, Wisconsin

NEUMANN
DEVELOPMENTS, INC.

0 75 150 300
Scale: 1" = 150' (22"X34")
Scale: 1" = 300' (11"X17")
DATE: 12/22/2023

ZONE 3

Exhibit A

LOT CHARACTERISTICS

SINGLE-FAMILY MEDIUM DENSITY

Zone 3: Lots 119 - 155

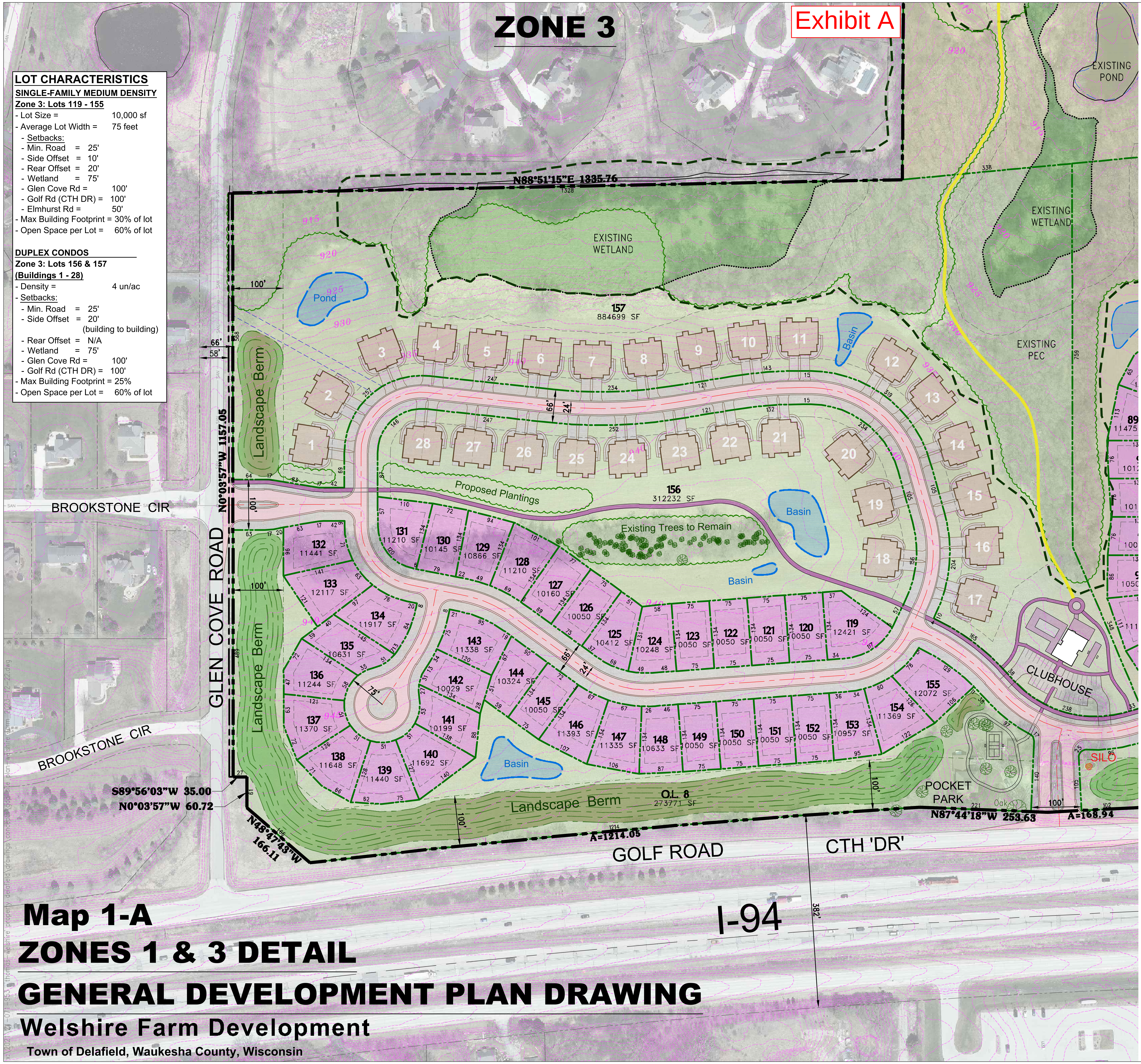
- Lot Size = 10,000 sf
- Average Lot Width = 75 feet
  - Setbacks:
  - Min. Road = 25'
  - Side Offset = 10'
  - Rear Offset = 20'
  - Wetland = 75'
  - Glen Cove Rd = 100'
  - Golf Rd (CTH DR) = 100'
  - Elmhurst Rd = 50'
- Max Building Footprint = 30% of lot
- Open Space per Lot = 60% of lot

DUPLEX CONDOS

Zone 3: Lots 156 & 157

(Buildings 1 - 28)

- Density = 4 un/ac
- Setbacks:
  - Min. Road = 25'
  - Side Offset = 20' (building to building)
  - Rear Offset = N/A
  - Wetland = 75'
  - Glen Cove Rd = 100'
  - Golf Rd (CTH DR) = 100'
- Max Building Footprint = 25%
- Open Space per Lot = 60% of lot



Map 1-A

ZONES 1 & 3 DETAIL

GENERAL DEVELOPMENT PLAN DRAWING

Welshire Farm Development

Town of Delafield, Waukesha County, Wisconsin

ZONE 1

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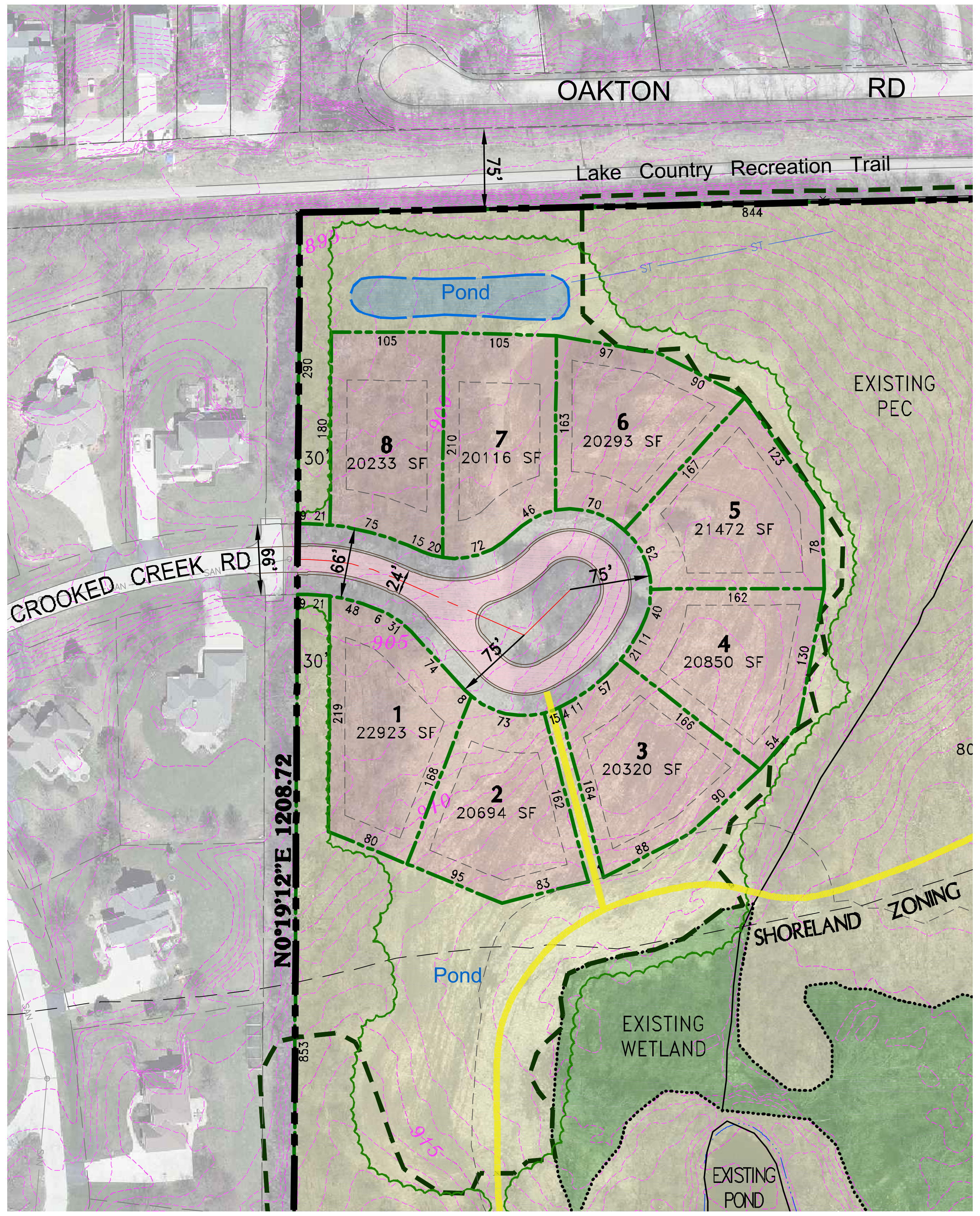
LOT CHARACTERISTICS

SINGLE-FAMILY LOW DENSITY

Zone 1: Lots 1 - 8

- Lot Size = 20,000 sf
- Average Lot Width = 100 feet
- Setbacks:
  - Min. Road = 35'
  - Side Offset = 15'
  - Rear Offset = 20'
  - Wetland = 75'
- Max Building Footprint = 17.5% of lot
- Open Space per Lot = 70% of lot



STORMWATER PLAN NOTES:

- THE PROPOSED DEVELOPMENT (ALL PHASES) ARE SERVED BY ON-SITE SHARED STORMWATER FACILITIES, AS SHOWN ON THE PRELIMINARY STORMWATER PLAN.
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- ALL RESIDENTIAL LOTS AND CONDOMINIUM UNITS WILL BE PART OF A MASTER HOMEOWNERS ASSOCIATION.
- THE MASTER HOMEOWNERS ASSOCIATION WILL BE RESPONSIBLE FOR THE REPAIR, MAINTENANCE AND RESTORATION OF THE STORMWATER PRACTICES.

NEUMANN
DEVELOPMENTS, INC.

0 50 100 200

Scale: 1" = 100' (22"X34")

Scale: 1" = 200' (11"X17")

DATE: 12/22/2023

Exhibit A

ZONES 2 & 4

LOT CHARACTERISTICS

RESIDENTIAL SINGLE-FAMILY
LOW-MEDIUM DENSITY
Zone 2: Lots 9 - 37

- Lot Size = 15,000 sf
- Average Lot Width = 90 feet
- Setbacks:
  - Min. Road = 25'
  - Side Offset = 12.5'
  - Rear Offset = 20'
  - Wetland = 75'
  - Elmhurst Rd = 50'
- Max Building Footprint = 25% of lot
- Open Space per Lot = 60% of lot

SINGLE-FAMILY MEDIUM DENSITY
Zones 4: Lots 38 - 118

- Lot Size = 10,000 sf
- Average Lot Width = 75 feet
  - Setbacks:
  - Min. Road = 25'
  - Side Offset = 10'
  - Rear Offset = 20'
  - Wetland = 75'
  - Glen Cove Rd = 100'
  - Golf Rd (CTH DR) = 100'
  - Elmhurst Rd = 50'
- Max Building Footprint = 30% of lot
- Open Space per Lot = 60% of lot

STORMWATER PLAN NOTES:

- THE PROPOSED DEVELOPMENT (ALL PHASES) ARE SERVED BY ON-SITE SHARED STORMWATER FACILITIES, AS SHOWN ON THE PRELIMINARY STORMWATER PLAN.
- THE STORMWATER FACILITIES WILL BE CONSTRUCTED WITH THEIR CORRESPONDING PHASE OF DEVELOPMENT.
- THE STORMWATER FACILITIES WILL BE LOCATED WITHIN OUTLOTS AND/OR DRAINAGE EASEMENTS.
- ALL RESIDENTIAL LOTS AND CONDOMINIUM UNITS WILL BE PART OF A MASTER HOMEOWNERS ASSOCIATION.
- THE MASTER HOMEOWNERS ASSOCIATION WILL BE RESPONSIBLE FOR THE REPAIR, MAINTENANCE AND RESTORATION OF THE STORMWATER PRACTICES.

Map 1-B
ZONES 2 & 4 DETAIL
GENERAL DEVELOPMENT PLAN DRAWING
Welshire Farm Development
Town of Delafield, Waukesha County, Wisconsin

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Scale: 1" = 100' (22"X34")
Scale: 1" = 200' (11"X17")
DATE: 12/22/2023

Exhibit A

PHASING NOTES

LANDSCAPE BERMS:
INSTALL WITH EACH CORRESPONDING PHASE OF CONSTRUCTION.

STORM WATER PONDS AND BASINS:
INSTALL WITH EACH CORRESPONDING PHASE OF CONSTRUCTION AND/OR ASSOCIATED TRIBUTARY AREA.

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Map 1-C

OVERALL PHASING PLAN

Welshire Farm Development

Town of Delafield, Waukesha County, Wisconsin

NEUMANN DEVELOPMENTS, INC.

0 75 150 300

Scale: 1" = 150' (22"X34")

Scale: 1" = 300' (11"X17")

DATE: 12/22/2023

Exhibit B

Map 2
OPEN SPACE AND NATURAL RESOURCE PROTECTION PLAN
Welshire Farm Development
Town of Delafield, Waukesha County, Wisconsin

OPEN SPACE DATA TABLE - Welshire Farm Date: 4/21/2023

Proposed Zoning = PLANNED DEVELOPMENT DISTRICT #1

ZONE	PROPOSED USE	Total Area	*Incremental Total Area*	Total Area of Lots, Right-of-Way or Condominium Hard Surfaces within Zone	Total Outlot / Open Space (Gross)	Lowland in Outlot / Open Space	Upland in Outlot / Open Space	Net Lowland (0.2 of total Lowland)	Outlot / Open Space (Net)		Required Open Space (Net) *	
		(acres)	*(acres)*	- (acres)	= (acres)	- (acres)	= (acres)	+ (acres)	= (acres)	(%)	(acres)	(%)
1	Single-Family Low Density	23.20		4.71	**18.49**	3.98	**14.51**	0.80	**15.31**	66.0%	6.96	30.0%
2	Residential Single-Family Low-Medium Density (15,000)	29.94		13.18	**16.76**	0.90	**15.86**	0.18	**16.04**	53.6%	8.98	30.0%
3	Condominimum (4 un/ac) ***	50.08	*32.59*	10.02	**22.57**	3.77	**18.81**	0.75	**19.56**	60.0%	19.56	60.0%
	Single-Family Medium Density (10,000)		*17.49*	11.33	**6.16**		**6.16**		**6.16**	35.2%	6.12	35.0%
4	Single-Family Medium Density (10,000)	47.83		29.67	**18.16**	1.45	**16.72**	0.29	**17.00**	35.6%	16.74	35.0%
SUBTOTAL		151.05		68.91	82.14	10.09			**74.07**	**49.0%**	58.36	38.6%

* Required Net Open Space applies to whole development site (Total Area) for each Zone or Use.

** Net Open Space Provided is per Sec. 17.04(5)(R)10.a.
Accounts for Lowland Area multiplied by 0.2. Single family open space is located in Outlots. Condo open space is common area.

*** Condo Net Open Space includes: Upland Common Areas + 0.2 of Lowland Common Area in Condominium and Clubhouse area, and portions of OL 4 & OL 8 within Zone 3.

Open Space Plan Legend

🟦	**Wetlands** (Heartland Ecological Group Inc, July 2022)
▨	**Primary Environmental Corridor (PEC)** (Heartland Ecological Group Inc, July 2022)
🟩	Treelines & Other wooded areas to be preserved (OS)
🟧	**Landscape Buffer (LB)**
🟩	Open Space Areas for Development Site Calculations - Single family in Outlot - Condo is common area

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Scale: 1" = 300' (11"X17")
DATE: 12/22/2023

Exhibit B

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(262) 790-1480
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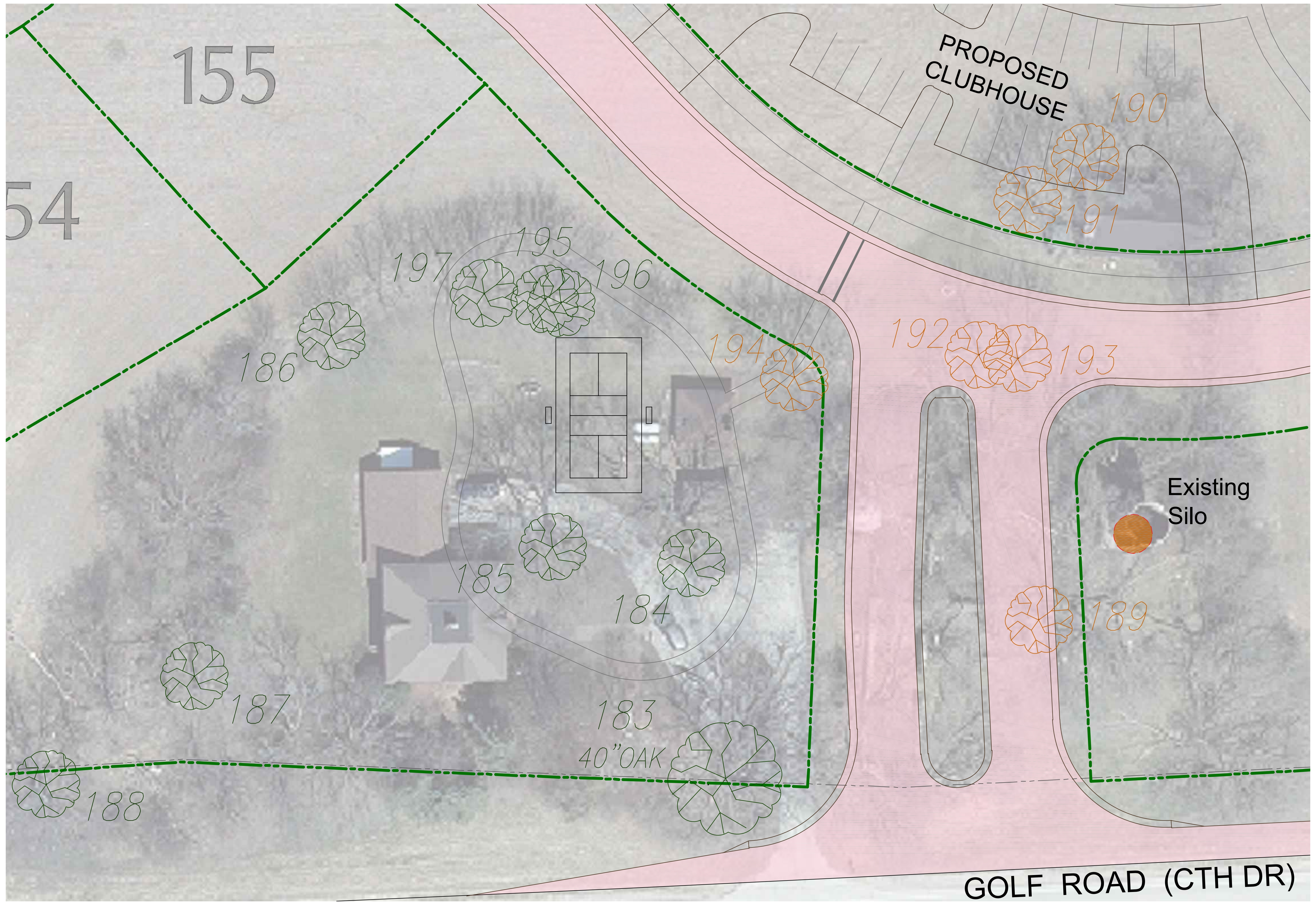
Tree Identification Legend

- 78 **Existing Tree to Remain** (Field surveyed by Heartland Ecological Group Inc, Feb 2023)
- 77 **Existing Tree to be Removed** (Field surveyed by Heartland Ecological Group Inc, Feb 2023)
- 🟩 Treelines & Other wooded areas to be preserved (OS)



Map 2-A
ZONE 3
EXISTING TREE PLAN
Welshire Farm Development
Town of Delafield, Waukesha County, Wisconsin

NEUMANN
DEVELOPMENTS, INC.

0 15 30 60

Scale: 1" = 30' (22"X34")
Scale: 1" = 60' (11"X17")
DATE: 12/22/2023

x:\2021\21-071-953 thomas-welshire property delafield\drawings\concepts\gdp site plan-welshire farm_2023-12-22.dwg

Exhibit B

ALL ZONES

FIELD LOCATED TREES TO BE REMOVED

ID	Common Name	Species	DBH	To be Removed
1	Siberian Elm	Ulmus pumila	30	Remove
2	Boxelder	Acer negundo	10	Remove
3	Boxelder	Acer negundo	13	Remove
4	Black Cherry	Prunus serotina	24	Remove
5	Black Cherry	Prunus serotina	24	Remove
6	Boxelder	Acer negundo	10	Remove
7	Boxelder	Acer negundo	30	Remove
8	Black Cherry	Prunus serotina	14	Remove
9	Black Cherry	Prunus serotina	9	Remove
10	Boxelder	Acer negundo	25	Remove
11	Boxelder	Acer negundo	12	Remove
12	Black Cherry	Prunus serotina	8	Remove
13	Black Cherry	Prunus serotina	13	Remove
14	Boxelder	Acer negundo	9	Remove
15	Boxelder	Acer negundo	7	Remove
16	Boxelder	Acer negundo	12	Remove
17	Boxelder	Acer negundo	8	Remove
18	Boxelder	Acer negundo	6	Remove
19	Black Cherry	Prunus serotina	9	Remove
20	Black Cherry	Prunus serotina	9	Remove
21	Black Cherry	Prunus serotina	11	Remove
22	Black Cherry	Prunus serotina	6	Remove
23	Silver Maple	Acer saccharinum	7	Remove
24	Black Cherry	Prunus serotina	13	Remove
25	Black Cherry	Prunus serotina	12	Remove
26	Black Cherry	Prunus serotina	14	Remove
27	Boxelder	Acer negundo	5	Remove
28	Boxelder	Acer negundo	14	Remove
29	Boxelder	Acer negundo	12	Remove
30	Black Cherry	Prunus serotina	26	Remove
31	Black Cherry	Prunus serotina	28	Remove
32	Boxelder	Acer negundo	9	Remove
33	Boxelder	Acer negundo	22	Remove
34	Boxelder	Acer negundo	14	Remove
35	Boxelder	Acer negundo	5	Remove
36	Boxelder	Acer negundo	9	Remove
37	Boxelder	Acer negundo	8	Remove
38	Boxelder	Acer negundo	9	Remove
39	Boxelder	Acer negundo	11	Remove
40	Boxelder	Acer negundo	26	Remove
41	Black Cherry	Prunus serotina	14	Remove
42	Black Cherry	Prunus serotina	12	Remove
43	Black Cherry	Prunus serotina	13	Remove
44	Black Cherry	Prunus serotina	9	Remove
45	Black Cherry	Prunus serotina	7	Remove
46	Black Cherry	Prunus serotina	12	Remove
47	Black Cherry	Prunus serotina	15	Remove
48	Black Cherry	Prunus serotina	13	Remove
49	Black Cherry	Prunus serotina	10	Remove
50	Silver Maple	Acer saccharinum	9	Remove
51	Silver Maple	Acer saccharinum	5	Remove
52	Silver Maple	Acer saccharinum	5	Remove
53	Boxelder	Acer negundo	10	Remove
54	Boxelder	Acer negundo	13	Remove
55	Boxelder	Acer negundo	8	Remove
56	Boxelder	Acer negundo	14	Remove
57	Boxelder	Acer negundo	14	Remove
58	Boxelder	Acer negundo	14	Remove
59	Boxelder	Acer negundo	14	Remove
60	Boxelder	Acer negundo	6	Remove
61	Boxelder	Acer negundo	18	Remove
62	Black Cherry	Prunus serotina	20	Remove
63	Black Cherry	Prunus serotina	24	Remove
64	Black Cherry	Prunus serotina	9	Remove
65	Boxelder	Acer negundo	8	Remove
66	Boxelder	Acer negundo	14	Remove
67	Boxelder	Acer negundo	12	Remove
68	Northern Hackberry	Celtis occidentalis	11	Remove
69	Boxelder	Acer negundo	10	Remove
70	Boxelder	Acer negundo	10	Remove
71	Boxelder	Acer negundo	24	Remove
72	Black Cherry	Prunus serotina	5	Remove
73	Boxelder	Acer negundo	26	Remove
74	Black Cherry	Prunus serotina	14	Remove
75	Black Cherry	Prunus serotina	21	Remove
76	Black Cherry	Prunus serotina	14	Remove
77	Black Cherry	Prunus serotina	19	Remove
80	Boxelder	Acer negundo	5	Remove
177	Boxelder	Acer negundo	11	Remove
178	Boxelder	Acer negundo	12	Remove
179	Boxelder	Acer negundo	4	Remove
180	Boxelder	Acer negundo	6	Remove
181	Boxelder	Acer negundo	15	Remove
182	Boxelder	Acer negundo	8	Remove
189	Misc			Remove
190	Misc			Remove
191	Misc			Remove
192	Misc			Remove
193	Misc			Remove
194	Misc			Remove
EAST 1	Twin Cherry		27	Remove
EAST 2	Oak		30	Remove
EAST 3	Cherry		18	Remove
EAST 4	Cherry		15	Remove

ALL ZONES

FIELD LOCATED TREES TO REMAIN

ID	Common Name	Species	DBH	To be Removed
78	Boxelder	Acer negundo	6	
79	Boxelder	Acer negundo	6	
81	Boxelder	Acer negundo	6	
82	Boxelder	Acer negundo	7	
83	Boxelder	Acer negundo	4	
84	Boxelder	Acer negundo	8	
85	Boxelder	Acer negundo	12	
86	Boxelder	Acer negundo	8	
87	Boxelder	Acer negundo	10	
88	Boxelder	Acer negundo	9	
89	Boxelder	Acer negundo	12	
90	Boxelder	Acer negundo	14	
91	Boxelder	Acer negundo	16	
92	Boxelder	Acer negundo	16	
93	Boxelder	Acer negundo	9	
94	Boxelder	Acer negundo	9	
95	Boxelder	Acer negundo	7	
96	Boxelder	Acer negundo	10	
97	Boxelder	Acer negundo	6	
98	Boxelder	Acer negundo	12	
99	Boxelder	Acer negundo	14	
100	Boxelder	Acer negundo	5	
101	Boxelder	Acer negundo	6	
102	Boxelder	Acer negundo	11	
103	Boxelder	Acer negundo	5	
104	Boxelder	Acer negundo	4	
105	Boxelder	Acer negundo	10	
106	Boxelder	Acer negundo	9	
107	Boxelder	Acer negundo	11	
108	Boxelder	Acer negundo	5	
109	Boxelder	Acer negundo	12	
110	Boxelder	Acer negundo	5	
111	Boxelder	Acer negundo	8	
112	Boxelder	Acer negundo	5	
113	Boxelder	Acer negundo	10	
114	Boxelder	Acer negundo	10	
115	Boxelder	Acer negundo	13	
116	Black Cherry	Prunus serotina	11	
117	Boxelder	Acer negundo	8	
118	Bur Oak	Quercus macrocarp	43	
119	Boxelder	Acer negundo	5	
120	Black Cherry	Prunus serotina	6	
121	Boxelder	Acer negundo	4	
122	Boxelder	Acer negundo	9	
123	Boxelder	Acer negundo	12	
124	Boxelder	Acer negundo	10	
125	Boxelder	Acer negundo	12	
126	Boxelder	Acer negundo	4	
127	Boxelder	Acer negundo	15	
128	Boxelder	Acer negundo	6	
129	Boxelder	Acer negundo	4	
130	Boxelder	Acer negundo	10	
131	Boxelder	Acer negundo	9	
132	Boxelder	Acer negundo	13	
133	Boxelder	Acer negundo	9	
134	Boxelder	Acer negundo	14	
135	Boxelder	Acer negundo	8	
136	Boxelder	Acer negundo	11	
137	Boxelder	Acer negundo	11	
138	Boxelder	Acer negundo	6	
139	Boxelder	Acer negundo	14	
140	Boxelder	Acer negundo	7	
141	Boxelder	Acer negundo	17	
142	Boxelder	Acer negundo	16	
143	Boxelder	Acer negundo	20	
144	Boxelder	Acer negundo	10	
145	Boxelder	Acer negundo	15	
146	Boxelder	Acer negundo	17	
147	Boxelder	Acer negundo	15	
148	Boxelder	Acer negundo	10	
149	Boxelder	Acer negundo	16	
150	Boxelder	Acer negundo	23	
151	Boxelder	Acer negundo	17	
152	Boxelder	Acer negundo	24	
153	Boxelder	Acer negundo	13	
154	Boxelder	Acer negundo	16	
155	Boxelder	Acer negundo	15	
156	Boxelder	Acer negundo	14	
157	Boxelder	Acer negundo	12	
158	Boxelder	Acer negundo	11	
159	Boxelder	Acer negundo	6	
160	Boxelder	Acer negundo	18	
161	Boxelder	Acer negundo	11	
162	Boxelder	Acer negundo	12	
163	Boxelder	Acer negundo	13	
164	Boxelder	Acer negundo	14	
165	Boxelder	Acer negundo	13	
166	Boxelder	Acer negundo	15	
167	Boxelder	Acer negundo	11	
168	Boxelder	Acer negundo	13	
169	Boxelder	Acer negundo	12	
170	Boxelder	Acer negundo	13	
171	Black Cherry	Prunus serotina	16	
172	Black Cherry	Prunus serotina	17	
173	Boxelder	Acer negundo	4	
174	Boxelder	Acer negundo	13	
175	Boxelder	Acer negundo	14	
176	Boxelder	Acer negundo	17	
183	Burr Oak		40	
184	Misc			
185	Misc			
186	Misc			
187	Misc			
188	Misc			
195	Misc			
196	Misc			
197	Misc			

Tree Identification Legend

78 **Existing Tree to Remain**
(Field surveyed by Heartland Ecological Group Inc, Feb 2023)

77 **Existing Tree to be Removed**
(Field surveyed by Heartland Ecological Group Inc, Feb 2023)

🟩 Treelines & Other wooded areas to be preserved (OS)

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0 25 50 100

Scale: 1" = 50' (22"X34")
Scale: 1" = 100' (11"X17")
DATE: 12/22/2023

Map 2-B
ZONE 4
EXISTING TREE PLAN
Welshire Farm Development
Town of Delafield, Waukesha County, Wisconsin

x:\2021\21-071-953 thomas-welshire property delafield\drawings\concepts\gdp site plan-welshire farm_2023-12-22.dwg

Exhibit D

PROPOSED PUBLIC ROAD CROSS SECTION

NOT TO SCALE

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Map 3

ROAD ACCESS PLAN

Welshire Farm Development

Town of Delafield, Waukesha County, Wisconsin

NEUMANN
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Scale: 1" = 150' (22"X34")
Scale: 1" = 300' (11"X17")
DATE: 12/22/2023

Exhibit E

PROPOSED 8" SANITARY SEWER

to Crooked Creek Rd sewer:
- 8 Single Family Lots

PROPOSED 8" SANITARY SEWER

to Glen Cove Rd sewer:
- 37 Single Family Lots
- 56 Condo units
= 93 units

PROPOSED SANITARY SEWER CONNECTION

PROPOSED SANITARY SEWER CONNECTION

PROPOSED 8" SANITARY SEWER

to Golf Ridge N sewer:
- 110 Single Family Lots

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Map 4
SANITARY SEWER PLAN
Welshire Farm Development
Town of Delafield, Waukesha County, Wisconsin

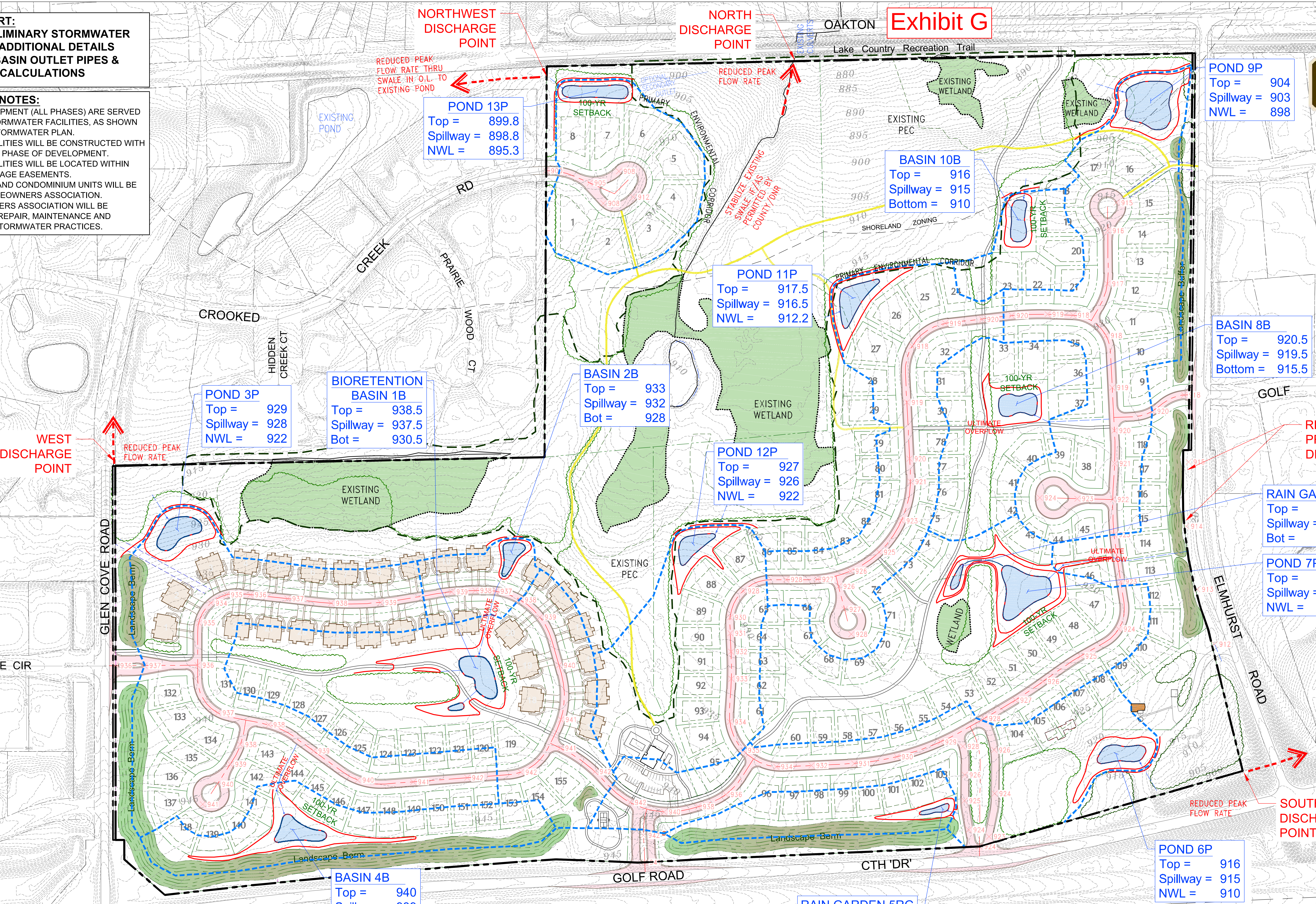
NEUMANN DEVELOPMENTS, INC.

0 75 150 300
Scale: 1" = 150' (22"X34")
Scale: 1" = 300' (11"X17")
DATE: 12/22/2023

Exhibit G

STORMWATER REPORT:
- REFER TO THE PRELIMINARY STORMWATER PLAN REPORT FOR ADDITIONAL DETAILS (INCLUDING POND/BASIN OUTLET PIPES & STRUCTURES) AND CALCULATIONS

STORMWATER PLAN NOTES:
- THE PROPOSED DEVELOPMENT (ALL PHASES) ARE SERVED BY ON-SITE SHARED STORMWATER FACILITIES, AS SHOWN ON THE PRELIMINARY STORMWATER PLAN.
- THE STORMWATER FACILITIES WILL BE CONSTRUCTED WITH THEIR CORRESPONDING PHASE OF DEVELOPMENT.
- THE STORMWATER FACILITIES WILL BE LOCATED WITHIN OUTLOTS AND/OR DRAINAGE EASEMENTS.
- ALL RESIDENTIAL LOTS AND CONDOMINIUM UNITS WILL BE PART OF A MASTER HOMEOWNERS ASSOCIATION.
- THE MASTER HOMEOWNERS ASSOCIATION WILL BE RESPONSIBLE FOR THE REPAIR, MAINTENANCE AND RESTORATION OF THE STORMWATER PRACTICES.



4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
(262) 790-1480
info@trioeng.com

Map 5

PRELIMINARY STORMWATER PLAN

Welshire Farm Development

Town of Delafield, Waukesha County, Wisconsin

Scale: 1" = 150' (22"X34")
Scale: 1" = 300' (11"X17")
DATE: 12/22/2023

Exhibit H

TRIO
DESIGN · LAND SURVEYING · CIVIL ENGINEERING

4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
(262) 790-1480
info@trioeng.com

Map 6

BIKE AND PEDESTRIAN PLAN

Welshire Farm Development

Town of Delafield, Waukesha County, Wisconsin

NEUMANN
DEVELOPMENTS, INC.

0 75 150 300

Scale: 1" = 150' (22"X34")

Scale: 1" = 300' (11"X17")

DATE: 12/22/2023

Exhibit I

CLUBHOUSE AMENITY AREA
- 1.4 Acre
- Clubhouse
- Pool & Patio
- Playground
- Bike Service Station
- Site Amenities
  (fire pit, benches, etc.)

POCKET PARK
- 1 Acre
- Pickleball Court
- Garden & Picnic Area
- Benches
- Quality existing trees
  to remain

4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
(262) 790-1480
info@trioeng.com

Map 7
ACTIVE RECREATION PLAN
Welshire Farm Development
Town of Delafield, Waukesha County, Wisconsin

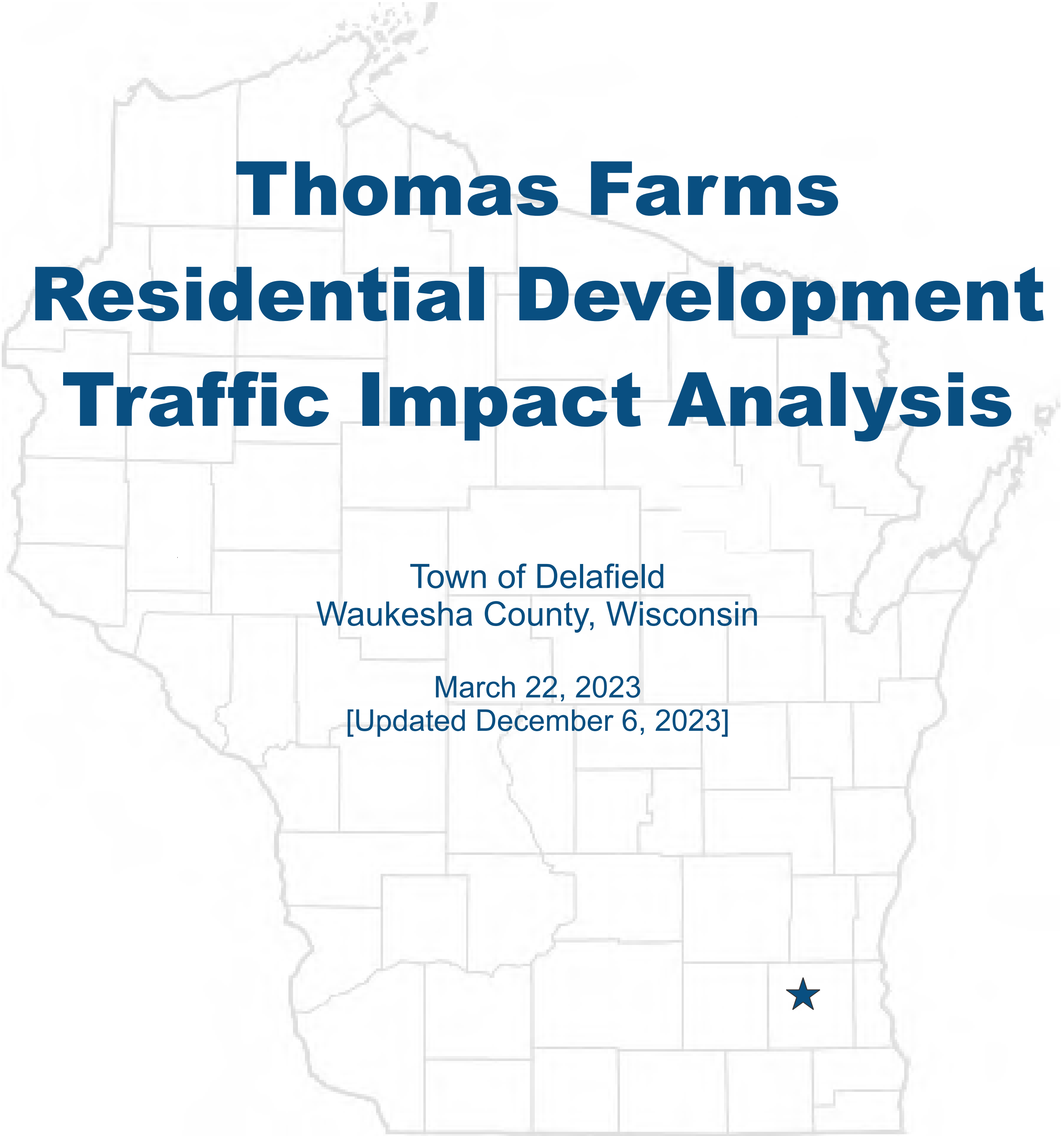
NEUMANN
DEVELOPMENTS, INC.

Scale: 1" = 40' (22"X34")
Scale: 1" = 80' (11"X17")
DATE: 12/22/2023

TADI
TRAFFIC ANALYSIS & DESIGN, INC.

P.O. Box 128
Cedarburg, WI 53012
800.605.3091
www.tadi-us.com

Thomas Farms Residential Development Traffic Impact Analysis



Town of Delafield
Waukesha County, Wisconsin

March 22, 2023
[Updated December 6, 2023]

TRAFFIC IMPACT ANALYSIS
FOR:

THOMAS FARMS RESIDENTIAL DEVELOPMENT

TOWN OF DELAFIELD, WAUKESHA COUNTY, WISCONSIN

DATE SUBMITTED: March 22, 2023
DATE UPDATED: December 6, 2023

PREPARED FOR:
Neumann Developments, Inc.
N27 W24025 Paul Court, Suite 100
Pewaukee, WI 53072
Phone: (262) 542-9200
Contact Persons: Bryan Lindgren

PREPARED BY:
Traffic Analysis & Design, Inc.
P.O. Box 128
Cedarburg, WI 53012
Phone: (800) 605-3091
Contact Persons: Don Lee, P.E. (WisDOT TIA Certification # SE05-804-046)
John Bieberitz, P.E., PTOE (WisDOT TIA Certification # SE05-804-044)

"I certify that this Traffic Impact Analysis has been prepared by me or under my immediate supervision and that I have experience and training in the field of traffic and transportation engineering."

____
Donald J. Lee, P.E.
Wisconsin Registration #35214-006
Traffic Analysis & Design, Inc.

Thomas Farms Residential Development
Traffic Impact Analysis
Table of Contents

LIST OF EXHIBITS

LIST OF APPENDICES

CHAPTER I – INTRODUCTION & EXECUTIVE SUMMARY

PART A – PURPOSE OF REPORT AND STUDY OBJECTIVES

The Thomas Farms residential development is being proposed to be located along the north side of Golf Road (CTH DR) immediately west of Elmhurst Road and east of Glen Cove Road in the Town of Delafield, Waukesha County, Wisconsin. Traffic Analysis & Design, Inc. has been retained to determine the additional traffic expected to be generated by the development and to identify roadway modifications, if any, attributed to the new development for the opening year (2023) traffic scenario.

This report documents the procedures, findings, and conclusions of the traffic impact analysis. The analysis identifies recommended modifications based on existing intersection geometrics, background traffic volumes and additional traffic expected to be generated by the proposed development within the limits of the study area.

PART B – EXECUTIVE SUMMARY

The executive summary includes a description of the study area, description of the proposed development areas and conclusions based on the findings of the TIA.

B1. Location of Study Site with Respect to Area Roadway Network

Based on discussions with Waukesha County and as shown in Exhibit 1-1, the study area for the proposed development includes the following intersections:

- Golf Road (CTH DR) with Glen Cove Road
- Golf Road (CTH DR) with the western development access road
- Golf Road (CTH DR) with eastern development access road
- Golf Road (CTH DR) with Elmhurst Road
- Glen Cove Road with Brookstone Circle North/development access road
- Glen Cove Road with Brookstone Circle South
- Elmhurst Road with Golf Ridge North
- Elmhurst Road with Golf Ridge South/ development access road
- Elmhurst Road with Oakton Road

B2. On-Site Development Description and Timings

The Thomas Farms Residential development site is proposed to include the following land uses for the development site:

- Single Family Detached Housing (LU210) – 157 units
- Single Family Attached Housing/Townhouses (LU215) – 56 units

Build out of the site is expected to begin in the year 2023 with full build out over the next few years. However, for traffic study purposes, full build is assumed in the opening year Full Build traffic scenario. The site plan for the proposed Thomas Farms residential development is shown in Exhibit 1-2.

B3. Off-Site Development Description and Timings

No off-site development has been identified in the study area.

B4. Generated Traffic

Upon full build, the on-site residential development is expected to generate 145 new trips (40 in/105 out) during a typical weekday morning peak hour. During the typical weekday evening peak hour, the development site is expected to generate 190 new trips (115 in/75 out). On a typical weekday, the proposed development is expected to generate 2,050 new trips (1,025 in/1,025 out) under full build conditions.

B5. Site Access

Access to the site is proposed via two new three-legged "Tee" roadway connections onto Golf Road and two additional access roadways, one onto Glen Cove Road and one onto Elmhurst Road. The new access roadway onto Glen Cove Road is proposed opposite the Brookstone Circle North access and the new access roadway onto Elmhurst Road is proposed opposite the Golf Ridge South access roadway. All access roadways are proposed as full access intersections with stop control on the new approaches. The extension of Crooked Creek Road to provide access to eight additional single-family parcels is also proposed as part of the development.

B6. Recommended Modifications

The study area intersections were analyzed based on the procedures set forth in the *Highway Capacity Manual* (HCM) *6th Edition*. Intersection operation is defined by "level of service". Level of Service (LOS) is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, represented by LOS 'A', to very poor, represented by LOS 'F'. In accordance with WisDOT and Waukesha County accepted traffic engineering standards, LOS D or better was used to define acceptable peak hour operating conditions.

Modifications to address traffic impacts are shown in Exhibit 1-3 for the Year 2023 traffic conditions and have been shown for the following two scenarios:

- "Existing Traffic" – These modifications are expected to be necessary to accommodate existing traffic volumes without the proposed residential development.
- "Build Traffic" – These modifications are expected to be necessary to accommodate the full build traffic volumes, which includes full build out of the proposed residential development.

The analysis was conducted using existing intersection geometrics and traffic control. The following modifications, as shown in Exhibit 1-3, are recommended to accommodate the existing and full build traffic volumes, respectively.

Golf Road (CTH DR) with Glen Cove Road

- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

Golf Road (CTH DR) with Western Development Access Road

- *Existing Traffic:* No modifications.
- *Build Traffic:*
    - Construct a new roadway connection to Golf Road with a single shared left-turn/right-turn exit lane on the north approach as shown on the site plan.
    - Construct an eastbound by-pass lane along the south side of Golf Road at the new roadway connection.

    - Provide stop sign control on the north approach of the new roadway connection.

Golf Road (CTH DR) with Eastern Development Access Road

- *Existing Traffic:* No modifications.
- *Build Traffic:*
    - Construct a new roadway connection to Golf Road with a single shared left-turn/right-turn exit lane on the north approach as shown on the site plan.
    - Construct an eastbound by-pass lane along the south side of Golf Road at the new roadway connection.
    - Provide stop sign control on the north approach of the new roadway connection.

Golf Road (CTH DR) with Elmhurst Road

- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

Glen Cove Road with Brookstone Circle North/ Development Access Road

- *Existing Traffic:* No modifications.
- *Build Traffic:*
    - Construct a new roadway connection to Glen Cove Road across from Brookstone Circle North with a single shared exit lane on the east approach as shown on the site plan.
    - Provide stop sign control on the east approach of the new roadway connection.

Glen Cove Road with Brookstone Circle South

- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

Elmhurst Road with Golf Ridge North

- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

Elmhurst Road with Golf Ridge South/ Development Access Road

- *Existing Traffic:* No modifications.
- *Build Traffic:*
    - Construct a new roadway connection to Elmhurst Road across from Golf Ridge South with a single shared exit lane on the west approach as shown on the site plan.
    - Provide stop sign control on the west approach of the new roadway connection.

Elmhurst Road with Oakton Road

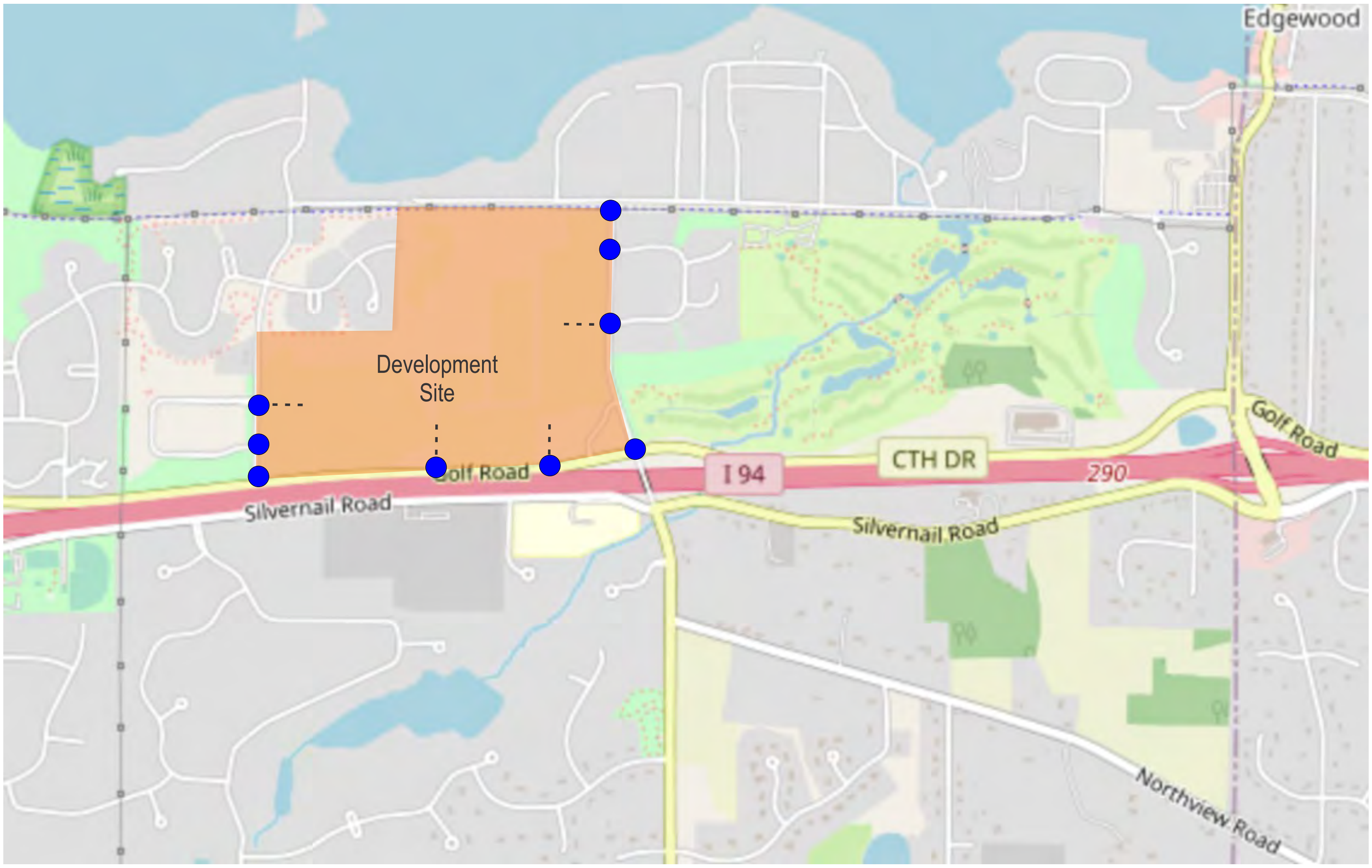
- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

The recommendation for a by-pass lane at the new intersections along Golf Road are based on the Waukesha County Code of Ordinances (*Section 15-54; Access Point Design Criteria*) that requires a by-pass lane at any new "T" type intersection when the mainline AADT volumes are greater than 2,500 vehicles per day (vpd). Based on historic WisDOT AADT count information, the Golf Road (CTH DR) AADT within the limits of the new roadway connection under the existing (no development) conditions was approximately 4,400-vpd (2018 count). Therefore, a by-pass lane is required at the new roadway connections per the Waukesha County code.

All movements at the study area intersections are expected to continue to operate at acceptable levels at LOS B or better under the Full Build (with proposed development) traffic conditions with the recommended modifications implemented.

B7. Conclusion

All movements at the study area intersections are expected to operate safely and efficiently through the opening year with the modifications identified in this TIA.



LEGEND

● Study Area Intersection

🟧 Proposed Development Site

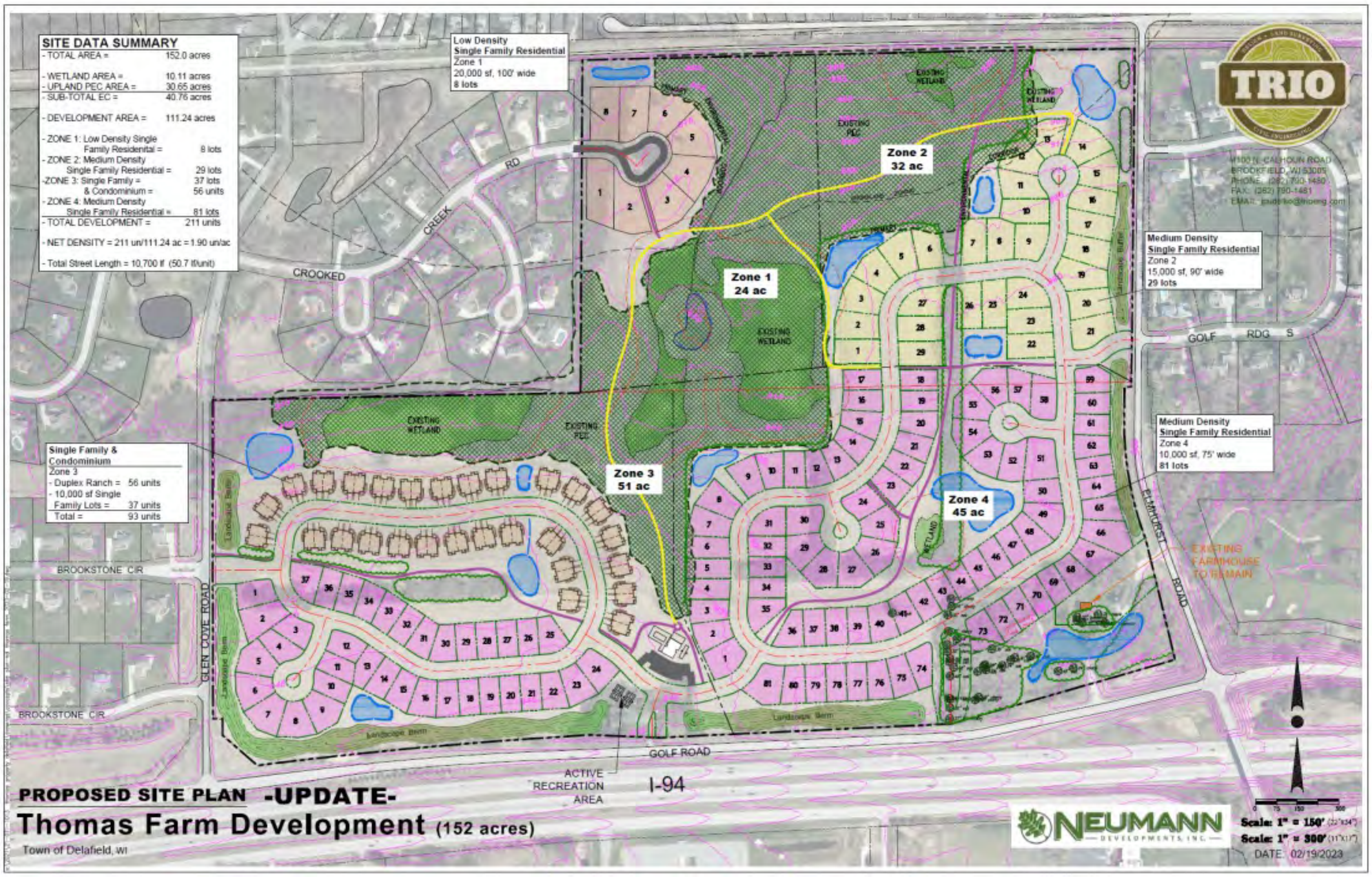
TRAFFIC ANALYSIS & DESIGN, INC.

3031 ~ 12-06-23

N

EXHIBIT 1-1
PROJECT LOCATION MAP

DELAFIELD, WISCONSIN

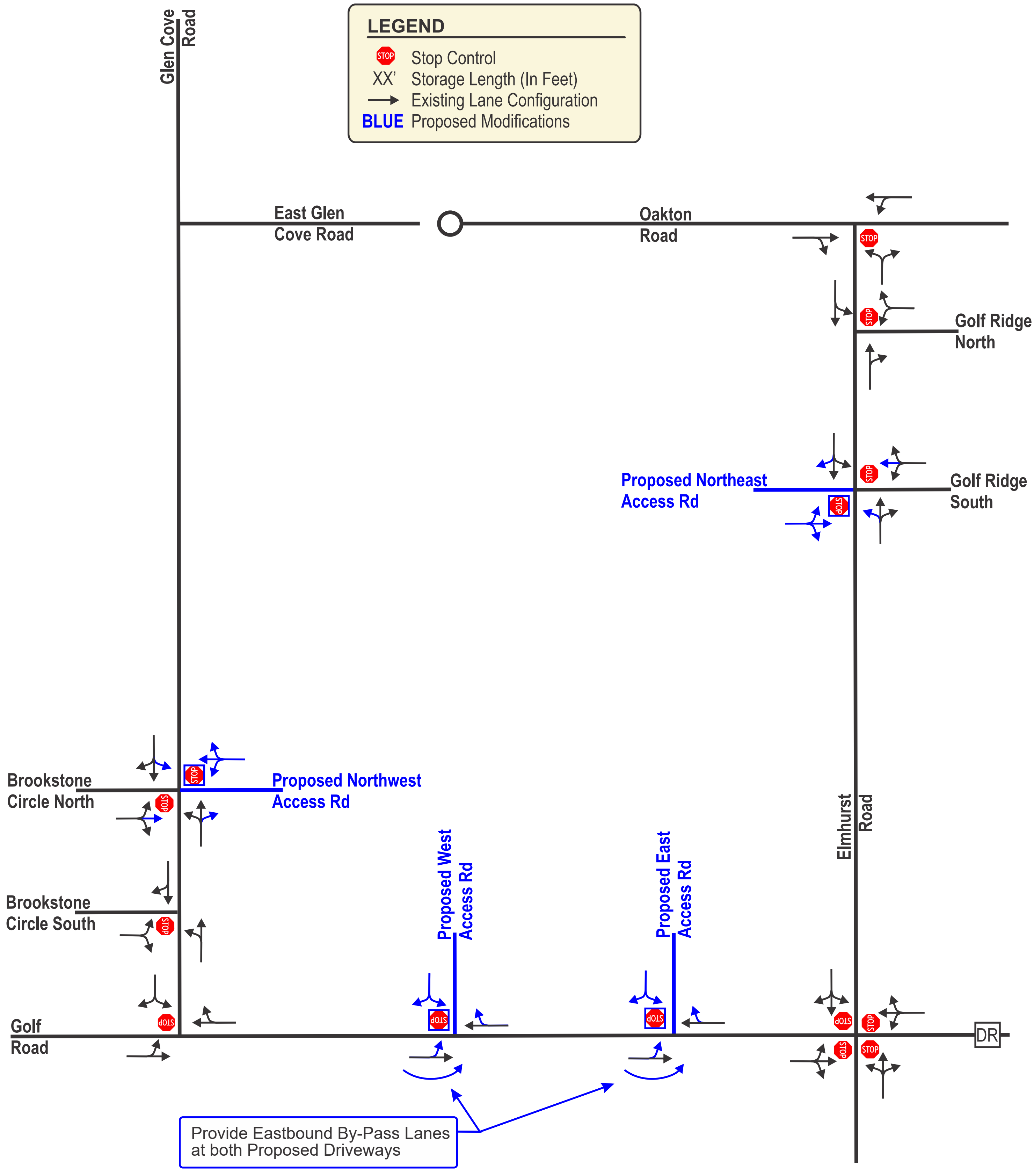


TADI
TRAFFIC ANALYSIS & DESIGN, INC.
3031 ~ 12-06-23

N

EXHIBIT 1-2
CONCEPTUAL SITE PLAN

DELAFIELD, WISCONSIN



Provide Eastbound By-Pass Lanes at both Proposed Driveways

TRAFFIC ANALYSIS & DESIGN, INC.
3031 ~ 12-06-23

N
NOT TO SCALE

EXHIBIT 1-3
RECOMMENDED MODIFICATIONS

DELAFIELD, WISCONSIN

CHAPTER II – PROPOSED DEVELOPMENT

PART A – PROPOSED DEVELOPMENT

A1. Development Description and Site Location

The Thomas Farms residential development is being proposed to be located along the north side of Golf Road immediately west of Elmhurst Road and east of Glen Cove Road in the Town of Delafield, Waukesha County, Wisconsin. Access to the site is proposed via two new three-legged "Tee" roadway connections onto Golf Road and two additional access roadways, one onto Glen Cove Road and one onto Elmhurst Road. The new access roadway onto Glen Cove Road is proposed opposite the Brookstone Circle North access and the new access roadway onto Elmhurst Road is proposed opposite the Golf Ridge South access roadway. All access roadways are proposed as full access intersections with stop control on the new approaches. The extension of Crooked Creek Road to provide access to eight additional single-family parcels is also proposed as part of the development. A street map illustrating the location of the proposed development is shown in Exhibit 2-1.

A2. Land Use and Development Timing

The site is currently utilized for agricultural uses with wooded areas located throughout the site. Residential uses exist adjacent to the site in the northwest quadrant of the site. Additional residential uses exist further to the north, east and west on the opposite sides of the adjacent roadways.

The Thomas Farms Residential development site is proposed to include the following land uses for the development site:

- Single Family Detached Housing (LU210) – 157 units
- Single Family Attached Housing/Townhouses (LU215) – 56 units

Build out of the site is expected to begin in the year 2023 with full build out over the next few years. However, for traffic study purposes, full build is assumed in the opening year Full Build traffic scenario. The site plan for the proposed Thomas Farms residential development is shown in Exhibit 2-2.

PART B – STUDY AREA

B1. Influence Area

The proposed development is expected to draw trips both locally and within a larger regional area. The areas of significant influence include the City of Pewaukee, City of Delafield, Town of Delafield and the other surrounding communities in southeast Wisconsin.

B2. Area of Significant Traffic Impact

Based on discussions with Waukesha County and as shown in Exhibit 2-1, the study area for the proposed development includes the following intersections:

- Golf Road (CTH DR) with Glen Cove Road
- Golf Road (CTH DR) with the western development access road
- Golf Road (CTH DR) with the eastern development access road
- Golf Road (CTH DR) with Elmhurst Road
- Glen Cove Road with Brookstone Circle North/development access road

- Glen Cove Road with Brookstone Circle South
- Elmhurst Road with Golf Ridge North
- Elmhurst Road with Golf Ridge South/ development access road
- Elmhurst Road with Oakton Road

PART C – SITE ACCESSIBILITY

C1. Study Area Roadways

The study area roadways are discussed below:

Golf Road (CTH DR) is a two-lane undivided east/west minor arterial highway with a posted speed limit of 50 miles per hour (mph) within the limits of the proposed site. According to WisDOT, the Year 2018 annual average daily traffic (AADT) volumes on Golf Road were approximately 4,400 vehicles per day (vpd) east of Elmhurst Road. Neither sidewalks nor bicycle lanes are currently provided along either side of Golf Road through the project limits.

Elmhurst Road is a two-lane undivided north/south major collector roadway with a posted speed limit of 35-mph within the limits of the study area. There is no WisDOT AADT volume available on Elmhurst Road within the limits of the proposed site. Neither sidewalks nor bicycle lanes are currently provided along either side of Elmhurst Road through the project limits.

Glen Cove Road is a two-lane undivided north/south minor collector roadway with a posted speed limit of 35-mph within the limits of the study area. There is no WisDOT AADT volume available on Glen Cove Road within the limits of the proposed site. Neither sidewalks nor bicycle lanes are currently provided along either side of Glen Cove Road through the project limits.

Oakton Road is a two-lane undivided east/west major collector roadway to the east of Elmhurst Road and a minor collector to the west. The posted speed limit on Oakton Road is 35-mph to the east of Elmhurst Road and 25-mph to the west. The road dead ends about 1,950-feet west of Elmhurst Road. There is no WisDOT AADT volume available on Oakton Road within the limits of the proposed site. Neither sidewalks nor bicycle lanes are currently provided along either side of Oakton Road through the project limits; however, the Lake Country Recreational Trail is located about 70-feet south of Oakton Road and runs parallel to the roadway within the limits of the study area.

Brookstone Circle is a two-lane undivided east/west local residential road with a posted speed limit of 25-mph that intersects Glen Cove Road at two locations from the west at two conventional one-way stop sign controlled “T” intersection. There is no WisDOT AADT volume available on Brookstone Circle. Neither sidewalks nor bicycle lanes are currently provided along either side of Brookstone Circle.

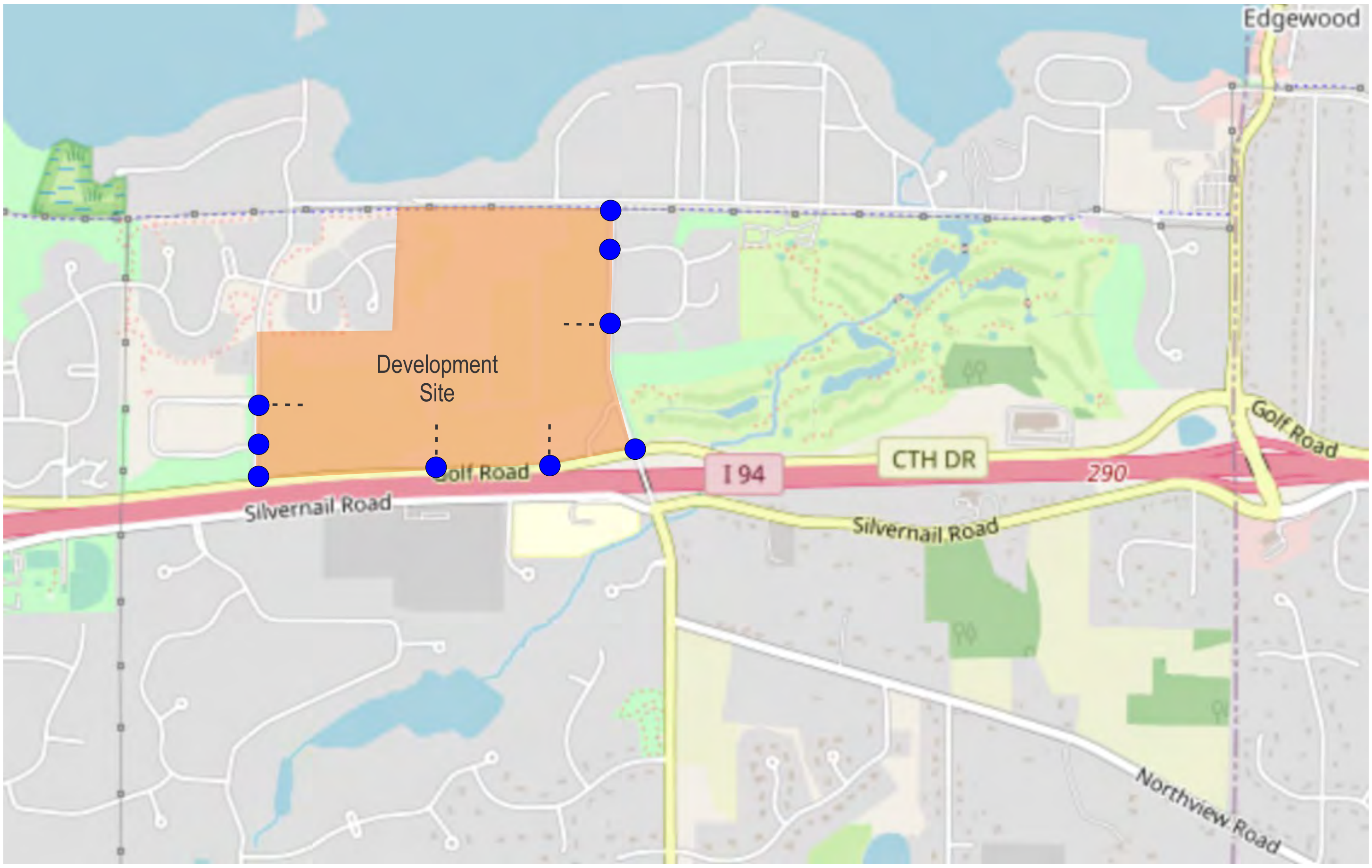
Golf Ridge is a two-lane undivided east/west local residential road with a posted speed limit of 25-mph that intersects Elmhurst Road at two locations from the east at two conventional one-way stop sign controlled “T” intersection. There is no WisDOT AADT volume available on Golf Ridge. Neither sidewalks nor bicycle lanes are currently provided along either side of Golf Ridge.

It is noted that the WisDOT annual average daily traffic (AADT) volume on Golf Road is utilized as a reference point. The weekday highest hours of traffic volumes (the weekday AM and PM peak hours) are used for the traffic analysis as they represent the worst case or highest traffic volume hours of the day. Therefore, detailed traffic turning movement counts were taken at each study area intersection on a typical weekday from 6:45 to 9:00 am and 3:00 to 6:00 pm.

C2. Alternative Modes of Transportation

Pedestrians and bicyclists may use their respective modes to access the area, though these alternate modes are expected to make up a very small portion of the overall trips to/from the study area. Therefore, for the purpose of this analysis, all traffic to and from the proposed residential development area was assumed to be by motor vehicle.

Transit is not present within the community.



LEGEND

● Study Area Intersection

🟧 Proposed Development Site

TRAFFIC ANALYSIS & DESIGN, INC.
3031 ~ 12-06-23

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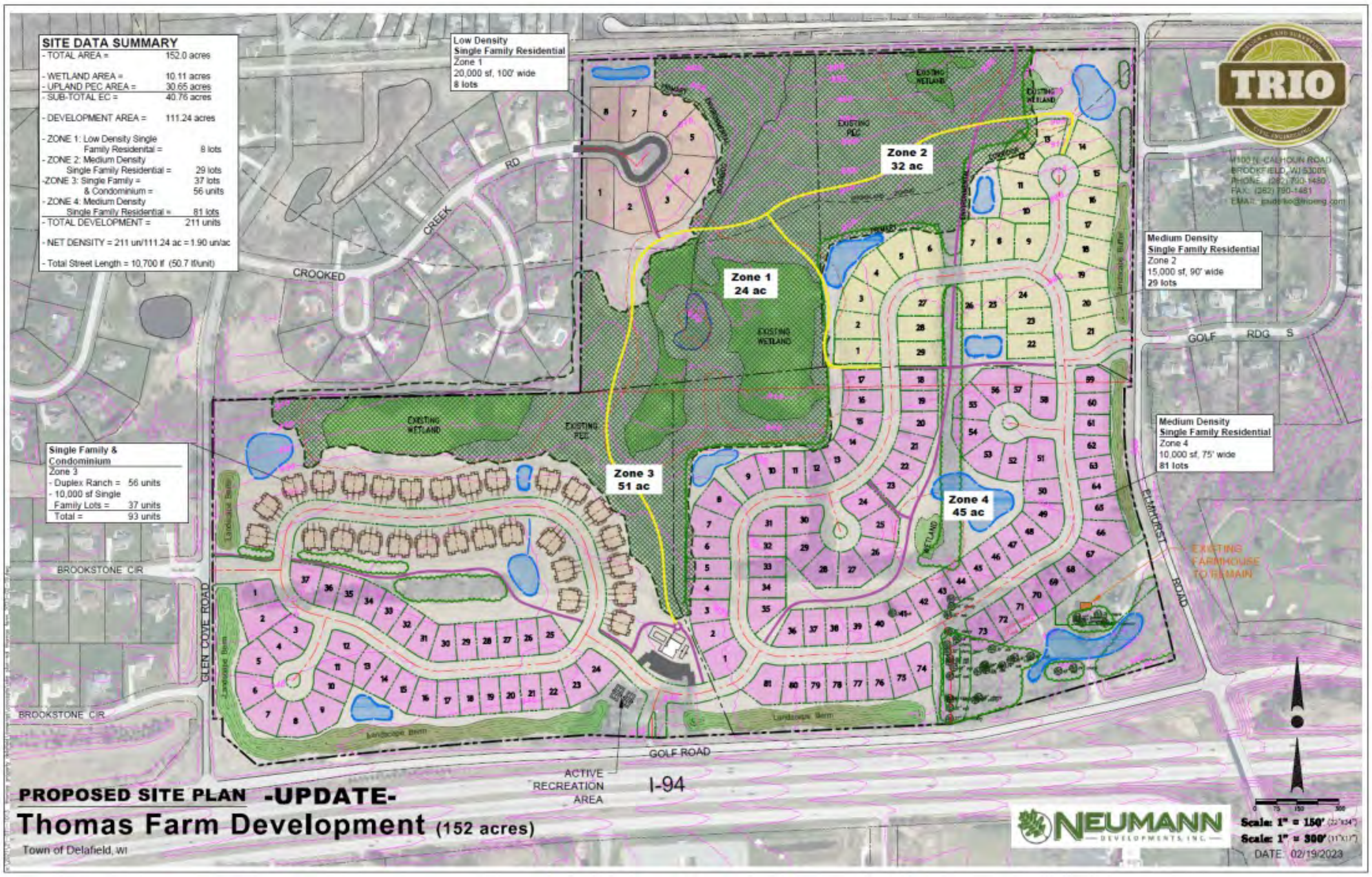
EXHIBIT 2-1
PROJECT LOCATION MAP

DELAFIELD, WISCONSIN



SITE DATA SUMMARY

- TOTAL AREA =	152.0 acres
- WETLAND AREA =	10.11 acres
- UPLAND PEC AREA =	30.65 acres
- SUB-TOTAL EC =	40.76 acres
- DEVELOPMENT AREA =	111.24 acres
- ZONE 1: Low Density Single Family Residenital =	8 lots
- ZONE 2: Medium Density Single Family Residential =	29 lots
-ZONE 3: Single Family =	37 lots
& Condominium =	56 units
- ZONE 4: Medium Density Single Family Residential =	81 lots
- TOTAL DEVELOPMENT =	211 units

- NET DENSITY = 211 un/111.24 ac = 1.90 un/ac

- Total Street Length = 10,700 lf (50.7 lf/unit)

Low Density
Single Family Residential
Zone 1
20,000 sf, 100' wide
8 lots

Medium Density
Single Family Residential
Zone 2
15,000 sf, 90' wide
29 lots

Single Family & Condominium
Zone 3
- Duplex Ranch = 56 units
- 10,000 sf Single Family Lots = 37 units
Total = 93 units

Medium Density
Single Family Residential
Zone 4
10,000 sf, 75' wide
81 lots

PROPOSED SITE PLAN -UPDATE-
Thomas Farm Development (152 acres)
Town of Delafield, WI

EXHIBIT 2-2
CONCEPTUAL SITE PLAN

DELAFIELD, WISCONSIN

TRAFFIC ANALYSIS & DESIGN, INC.
3031 ~ 12-06-23

N

CHAPTER III – ANALYSIS OF EXISTING CONDITIONS

PART A – PHYSICAL CHARACTERISTICS

Exhibit 3-1 shows the existing transportation detail for the study area intersections. More specifically, the exhibit illustrates intersection lane configurations, intersection traffic controls, posted speed limits and approximate intersection spacing.

PART B – TRAFFIC VOLUMES

The weekday morning and weekday evening peak hours are expected to drive the improvements needed to adequately accommodate the proposed development, as they represent the highest trip generation for the site. Therefore, typical weekday morning (6:45 to 9:00 am) and weekday evening (3:00 to 6:00 pm) turning movement counts were conducted at the study area intersections in early February of 2023.

Based on these counts; the weekday morning and weekday evening peak hours were identified as being 7:45 to 8:45 am and 4:30 to 5:30 pm; respectively. The existing traffic volumes, balanced along the study area corridors, are shown in Exhibit 3-2. The traffic count used to determine peak hour factors and truck percentages has been included in the appendix of this study.

PART C – CAPACITY LEVEL OF SERVICE

C1. Level of Service Definitions

The study area intersections were analyzed based on the procedures set forth in the *Highway Capacity Manual* (HCM), 6th *Edition*. Intersection operation is defined by “level of service.” Level of Service (LOS) is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, represented by LOS ‘A’, to very poor, represented by LOS ‘F’. In accordance with WisDOT and Waukesha County accepted traffic engineering standards, LOS D or better was used to define desirable peak hour operating conditions. Descriptions of the various levels of service are as follows:

> *LOS A* is the highest level of service that can be achieved. Under this condition, intersection approaches appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation. At unsignalized intersections, average delays are less than 10 seconds.
>
> *LOS B* represents stable operation. At unsignalized intersections, average delays are 10 to 15 seconds.
>
> *LOS C* still represents stable operation, but periodic backups of a few vehicles may develop behind turning vehicles. Most drivers begin to feel restricted, but not objectionably so. At unsignalized intersections, average delays are 15 to 25 seconds.
>
> *LOS D* represents increasing traffic restrictions as the intersection approaches instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but periodic clearance of long lines occurs, thus preventing excessive backups. At unsignalized intersections, average delays are 25 to 35 seconds.
>
> *LOS E* represents the capacity of the intersection. At unsignalized intersections, average delays are 35 to 50 seconds.
>
> *LOS F* represents jammed conditions where the intersection is over capacity and acceptable gaps for unsignalized intersections in the mainline traffic flow are minimal. At unsignalized intersections, average delays exceed 50 seconds.

C2. Existing Traffic Operations – No Modifications

Table 1 shows the existing traffic peak hour operating conditions at the study area intersections. The existing traffic analysis was conducted using the existing lane configurations shown in Exhibit 3-1 and the existing traffic volumes shown in Exhibit 3-2.

Table 1
Existing Traffic Peak Hour Operating Conditions
With Existing Geometrics and Traffic Control

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												I/S LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙	
Node 100: Golf Road & Glen Cove Road *One-Way Stop Control*		*Lanes->*	*1*	-		-	*1*		-			*1*			
	AM	LOS	A	-		-	*		-			B			A
		Delay	8	-		-	*		-			11			2
		Queue	25'	-		-	*		-			25'			
	PM	LOS	A	-		-	*		-			B			A
		Delay	8	-		-	*		-			11			1
		Queue	25'	-		-	*		-			25'			
Node 400: Golf Road & Elmhurst Road *All-Way Stop Control*		*Lanes->*	*1*			*1*			*1*			*1*			
	AM	LOS	A			A			A			A			A
		Delay	9			9			9			8			9
		Queue	30'			25'			25'			25'			
	PM	LOS	A			A			A			A			A
		Delay	9			9			9			8			9
		Queue	30'			30'			25'			25'			
Node 500: Brookstone Circle North & Glen Cove Road & Proposed Northwest Access Road *One-Way Stop Control*		*Lanes->*	*1*			-			*1*		-	-	*1*		
	AM	LOS	A			-			A		-	-	*		A
		Delay	9			-			7		-	-	*		1
		Queue	25'			-			25'		-	-	*		
	PM	LOS	A			-			A		-	-	*		A
		Delay	9			-			7		-	-	*		1
		Queue	25'			-			25'		-	-	*		
Node 600: Brookstone Circle South & Glen Cove Road *One-Way Stop Control*		*Lanes->*	*1*			-			*1*		-	-	*1*		
	AM	LOS	A			-			A		-	-	*		A
		Delay	9			-			7		-	-	*		1
		Queue	25'			-			25'		-	-	*		
	PM	LOS	A			-			A		-	-	*		A
		Delay	9			-			7		-	-	*		1
		Queue	25'			-			25'		-	-	*		
Node 700: Elmhurst Road & Oakton Road *One-Way Stop Control*		*Lanes->*	-	*1*		*1*		-	*1*			-			
	AM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	9			-			7
		Queue	-	*		25'		-	25'			-			
	PM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	9			-			7
		Queue	-	*		25'		-	25'			-			
Node 800: Elmhurst Road & Golf Ridge North *One-Way Stop Control*		*Lanes->*	-			*1*			-	*1*		*1*		-	
	AM	LOS	-			A			-	*		A		-	A
		Delay	-			9			-	*		7		-	1
		Queue	-			25'			-	*		25'		-	
	PM	LOS	-			A			-	*		A		-	A
		Delay	-			9			-	*		7		-	1
		Queue	-			25'			-	*		25'		-	
Node 900: Elmhurst Road & Golf Ridge South & Proposed Northeast Access Road *One-Way Stop Control*		*Lanes->*	-			*1*			-	*1*		*1*		-	
	AM	LOS	-			A			-	*		A		-	A
		Delay	-			9			-	*		7		-	1
		Queue	-			25'			-	*		25'		-	
	PM	LOS	-			A			-	*		A		-	A
		Delay	-			9			-	*		7		-	1
		Queue	-			25'			-	*		25'		-	

(-) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
Delay is reported in seconds. Queue is the maximum of the 50th & 95th percentile queue, measured in feet.

As shown in Table 1, all study area intersections are currently operating acceptably at LOS B or better operations under the existing traffic volumes and current geometric conditions during the typical weekday morning and weekday evening peak periods.

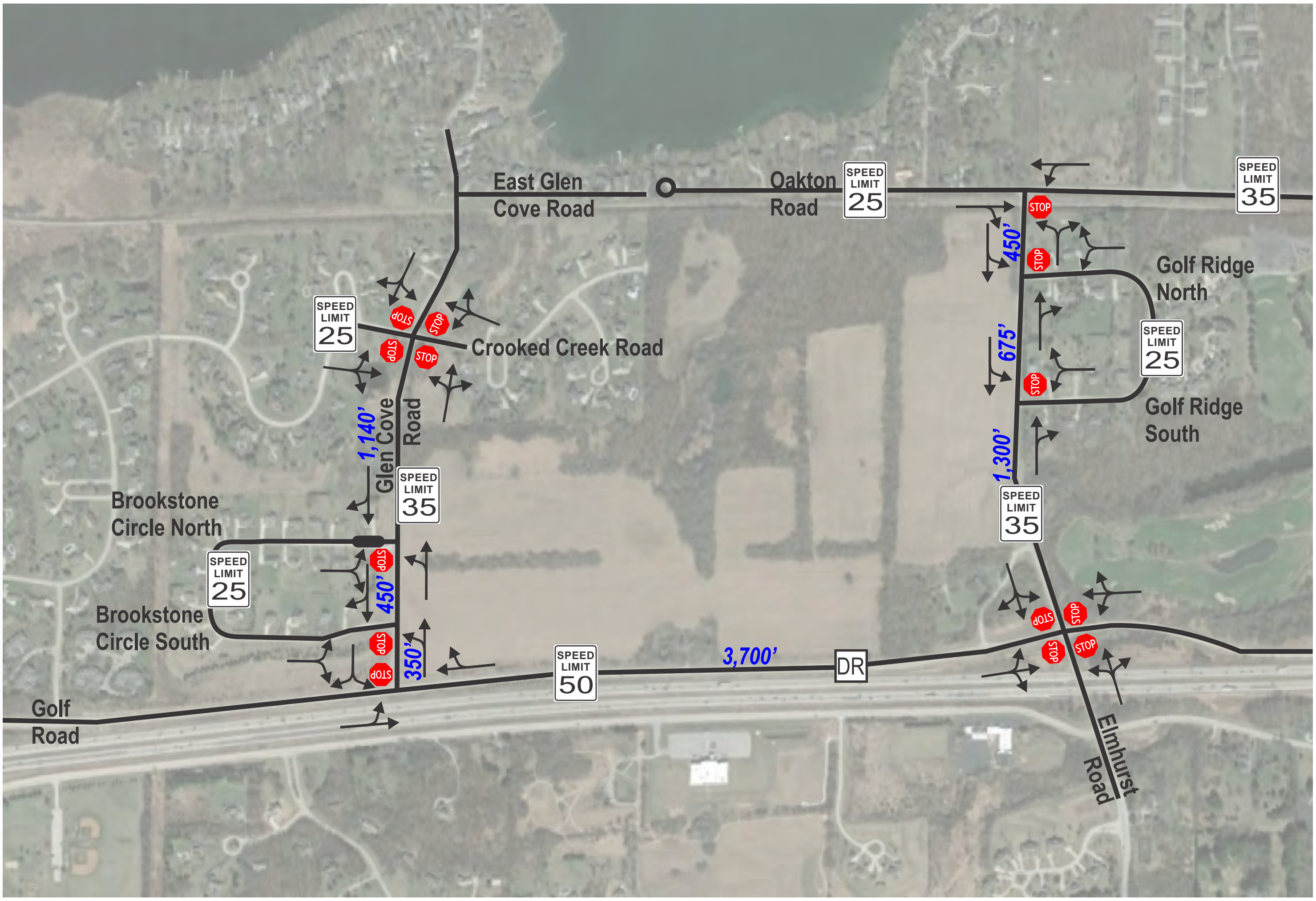
PART D – SOURCES OF DATA

The following sources of data were obtained for use in conducting this traffic study:

- Turning movement traffic counts – Traffic Analysis & Design, Inc.
- Existing transportation detail – Traffic Analysis & Design, Inc., and Google™ Earth
- On-site development information – Neumann Companies, Inc.

LEGEND

🛑	Stop Sign
→	Existing Lane Configuration
XX’	Existing Storage Length (in Feet)
XX’	Distance Between Roadways (in Feet)
━●━	Divided Roadway Median



TRAFFIC ANALYSIS & DESIGN, INC.
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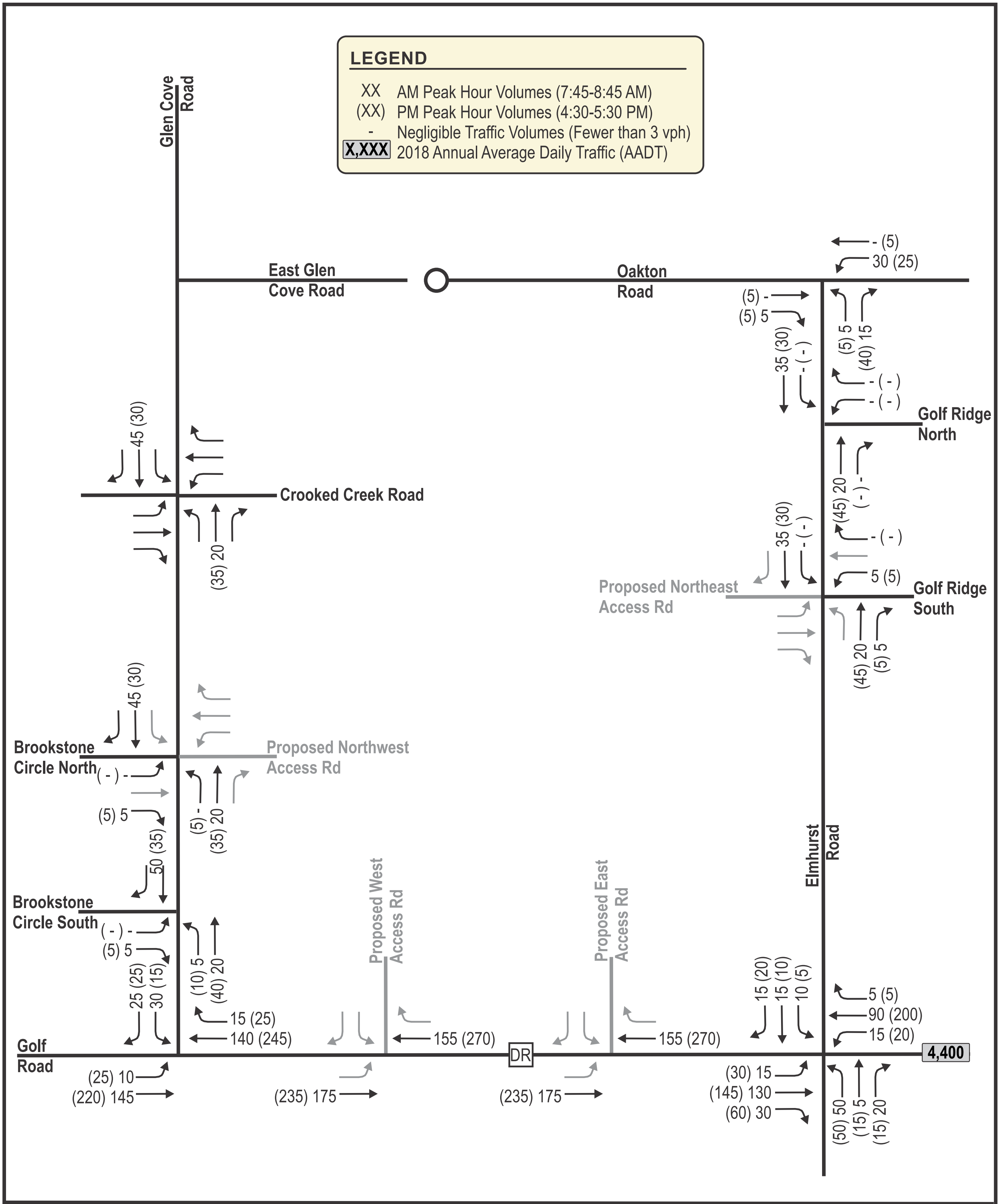
N

NOT TO SCALE

EXHIBIT 3-1
EXISTING TRANSPORTATION DETAIL

DELAFIELD, WISCONSIN



LEGEND

XX	AM Peak Hour Volumes (7:45-8:45 AM)
(XX)	PM Peak Hour Volumes (4:30-5:30 PM)
-	Negligible Traffic Volumes (Fewer than 3 vph)
X,XXX	2018 Annual Average Daily Traffic (AADT)

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EXHIBIT 3-2
EXISTING TRAFFIC VOLUMES

DELAFIELD, WISCONSIN

CHAPTER IV – DEVELOPMENT TRAFFIC

PART A – TRAFFIC FORECASTING

Future year forecasts were not developed for this project.

A1. On-Site Trip Generation

The expected trip generation for the on-site Thomas Farms residential development is shown in Exhibit 4-3. As shown, the on-site residential development is expected to generate 145 new trips (40 in/105 out) during a typical weekday morning peak hour. During the typical weekday evening peak hour, the development site is expected to generate 190 new trips (115 in/75 out). On a typical weekday, the proposed development is expected to generate 2,050 new trips (1,025 in/1,025 out) under full build conditions.

A2. Trip Distribution

The trip distribution for the proposed on-site development, listed below and shown in table format in Exhibit 4-3 was determined based on the existing traffic patterns, the type of proposed land uses (residential) and the location of existing populations and main arterials within the immediate study area. It is noted that the existing traffic patterns at the study area intersections reflect the traffic patterns of the existing surrounding residential development. Since the proposed development is also expected to be residential, it is anticipated that the traffic distribution of the new residential development would mirror the traffic patterns of the existing surrounding residential development as follows:

- 30-percent to/from the east on Golf Road
- 35-percent to/from the west on Golf Road
- 15-percent to/from the east on Oakton Road
- 20-percent to/from the south on Elmhurst Road

A3. Trip Assignment

The peak hour new trips expected to be generated by the full build-out of the proposed residential development were assigned to the study area roadways based on the above trip distribution and are shown on Exhibit 4-5.

PART B –BUILD TRAFFIC

The existing traffic volumes, Exhibit 3-2, were added to the on-site new trips, illustrated in Exhibit 4-5, to determine the Full Build traffic volumes (Exhibit 4-11).

Trip Generation Table[1]

Land Use	ITE Code	Proposed Size	Weekday Daily	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
Single-Family Detached Housing (A)	210	8 Units	100 FCE	0 (26%)	5 (74%)	5 FCE	5 (63%)	5 (37%)	10 FCE
Single-Family Attached Housing (B)	215	56 Units	380 FCE	10 (31%)	15 (69%)	25 FCE	15 (57%)	15 (43%)	30 FCE
Single-Family Detached Housing (C)	210	39 Units	420 FCE	10 (26%)	20 (74%)	30 FCE	25 (63%)	15 (37%)	40 FCE
Single-Family Detached Housing (D)	210	81 Units	830 FCE	15 (26%)	45 (74%)	60 FCE	50 (63%)	30 (37%)	80 FCE
Single-Family Detached Housing (E)	210	29 Units	320 FCE	5 (26%)	20 (74%)	25 FCE	20 (63%)	10 (37%)	30 FCE
Total New Trips			**2,050**	**40**	**105**	**145**	**115**	**75**	**190**

[1] *ITE Trip Rates (X.XX) and/or Fitted Curve Equations (FCE) are from the ITE Trip Generation Manual, 11th Edition.*

TRIP DISTRIBUTION (New Trips - All)

Golf Road East	30%	615	10	30	35	25
Golf Road West	35%	715	15	40	40	25
Oakton Road East	15%	310	5	15	15	10
Elmurst Road South	20%	410	10	20	25	15
	100%	***2050***	***40***	***105***	***115***	***75***

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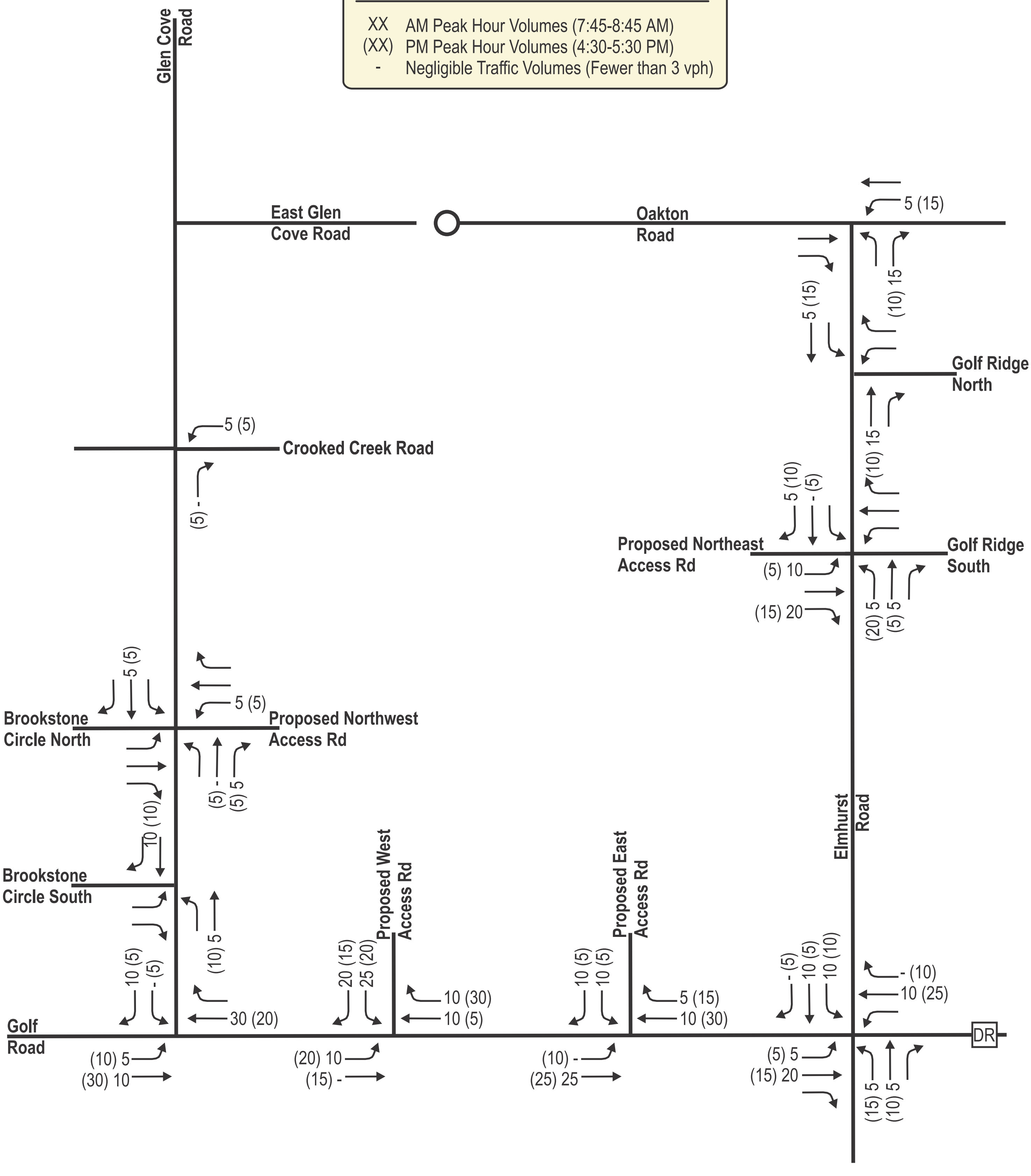
EXHIBIT 4-3
TRIP GENERATION AND DISTRIBUTION TABLES

DELAFIELD, WISCONSIN

LEGEND

XX AM Peak Hour Volumes (7:45-8:45 AM)
(XX) PM Peak Hour Volumes (4:30-5:30 PM)
\- Negligible Traffic Volumes (Fewer than 3 vph)



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3031 ~ 12-06-23

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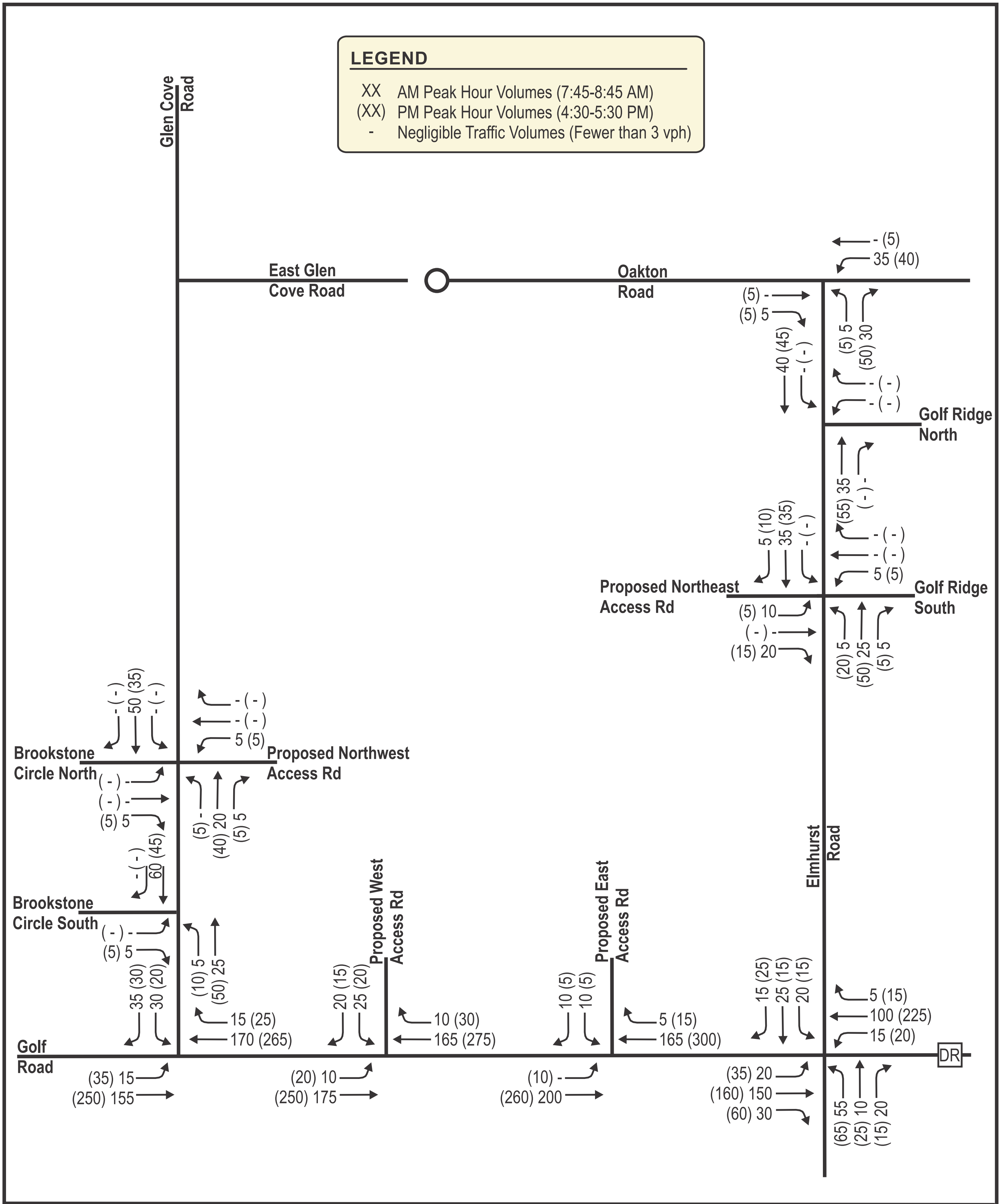
NOT TO SCALE

EXHIBIT 4-5
ON-SITE DEVELOPMEMT NEW TRIPS

DELAFIELD, WISCONSIN



TRAFFIC ANALYSIS & DESIGN, INC.

3031 ~ 12-06-23

N

NOT TO SCALE

EXHIBIT 4-11
FULL BUILD TRAFFIC VOLUMES

DELAFIELD, WISCONSIN

CHAPTER V – TRAFFIC AND IMPROVEMENT ANALYSIS

PART A – SITE ACCESS

Access to the site is proposed via two new three-legged “Tee” roadway connections onto Golf Road and two additional access roadways, one onto Glen Cove Road and one onto Elmhurst Road. The new access roadway onto Glen Cove Road is proposed opposite the Brookstone Circle North access and the new access roadway onto Elmhurst Road is proposed opposite the Golf Ridge South access roadway. All access roadways are proposed as full access intersections with stop control on the new approaches. The extension of Crooked Creek Road to provide access to eight additional single-family parcels is also proposed as part of the development.

PART B – CAPACITY LEVEL OF SERVICE ANALYSIS

B1. Full Build Traffic Operating Conditions – No Modifications

Table 2 shows the Full Build traffic peak hour operating conditions at the study area intersections. The Full Build traffic analysis was conducted using existing intersection configurations and traffic control.

Table 2
Full Build Traffic Peak Hour Operating Conditions
With Existing Geometrics and Traffic Control

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												I/S LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙	
Node 100: Golf Road & Glen Cove Road *One-Way Stop Control*		*Lanes->*	*1*		-	-	*1*		-			*1*			
	AM	LOS	A		-	-	*		-			B			A
		Delay	8		-	-	*		-			11			2
		Queue	25'		-	-	*		-			25'			
	PM	LOS	A		-	-	*		-			B			A
		Delay	8		-	-	*		-			12			1
		Queue	25'		-	-	*		-			25'			
Node 200: Golf Road & Proposed West Access Road *One-Way Stop Control*		*Lanes->*	*1*		-	-	*1*		-			*1*			
	AM	LOS	A		-	-	*		-			B			A
		Delay	8		-	-	*		-			11			1
		Queue	25'		-	-	*		-			25'			
	PM	LOS	A		-	-	*		-			B			A
		Delay	8		-	-	*		-			12			1
		Queue	25'		-	-	*		-			25'			
Node 300: Golf Road & Proposed East Access Road *One-Way Stop Control*		*Lanes->*	*1*		-	-	*1*		-			*1*			
	AM	LOS	A		-	-	*		-			B			A
		Delay	8		-	-	*		-			11			1
		Queue	25'		-	-	*		-			25'			
	PM	LOS	A		-	-	*		-			B			A
		Delay	8		-	-	*		-			12			1
		Queue	25'		-	-	*		-			25'			
Node 400: Golf Road & Elmhurst Road *All-Way Stop Control*		*Lanes->*	*1*			*1*			*1*			*1*			
	AM	LOS	A			A			A			A			A
		Delay	9			9			9			9			9
		Queue	35'			25'			25'			25'			
	PM	LOS	A			B			A			A			A
		Delay	9			10			9			9			9
		Queue	40'			40'			25'			25'			
Node 500: Brookstone Circle North & Glen Cove Road & Proposed Northwest Access Road *Two-Way Stop Control*		*Lanes->*	*1*			*1*			*1*			*1*			
	AM	LOS	A			A			A			A			A
		Delay	9			9			7			7			2
		Queue	25'			25'			25'			25'			
	PM	LOS	A			A			A			A			A
		Delay	9			9			7			7			2
		Queue	25'			25'			25'			25'			
Node 600: Brookstone Circle South & Glen Cove Road *One-Way Stop Control*		*Lanes->*	*1*			-			*1*		-	-	*1*		
	AM	LOS	A			-			A		-	-	*		A
		Delay	9			-			7		-	-	*		1
		Queue	25'			-			25'		-	-	*		
	PM	LOS	A			-			A		-	-	*		A
		Delay	9			-			7		-	-	*		1
		Queue	25'			-			25'		-	-	*		
Node 700: Elmhurst Road & Oakton Road *One-Way Stop Control*		*Lanes->*	-	*1*		*1*		-	*1*			-			
	AM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	9			-			7
		Queue	-	*		25'		-	25'			-			
	PM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	9			-			7
		Queue	-	*		25'		-	25'			-			
Node 800: Elmhurst Road & Golf Ridge North *One-Way Stop Control*		*Lanes->*	-			*1*			-	*1*		*1*		-	
	AM	LOS	-			A			-	*		A		-	A
		Delay	-			9			-	*		7		-	1
		Queue	-			25'			-	*		25'		-	
	PM	LOS	-			A			-	*		A		-	A
		Delay	-			9			-	*		7		-	1
		Queue	-			25'			-	*		25'		-	
Node 900: Elmhurst Road & Golf Ridge South & Proposed Northeast Access Road *Two-Way Stop Control*		*Lanes->*	*1*			*1*			*1*			*1*			
	AM	LOS	A			A			A			A			A
		Delay	9			9			7			7			3
		Queue	25'			25'			25'			25'			
	PM	LOS	A			B			A			A			A
		Delay	9			10			7			7			3
		Queue	25'			25'			25'			25'			

(-) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
Delay is reported in seconds. Queue is the maximum of the 50th & 95th percentile queue, measured in feet.

As shown in Table 2, all movements are expected to continue to operate acceptably at LOS B or better operations under the Full Build traffic volumes and current geometric conditions during the typical weekday morning and weekday evening peak periods.

B2. Full Build Traffic Operating Conditions – *With Modifications*

Modifications to accommodate the Full Build traffic volumes (with development) are summarized in *Chapter VI – Recommendations and Conclusion*. As stated, other than by-pass lanes along Golf Road and stop signs on the new approaches of the proposed driveways, no modifications are recommended to the existing geometry or traffic control at the study area intersections. Therefore, all movements are expected to continue to operate acceptably at LOS B or better operations under the Full Build traffic volumes during the typical weekday morning and weekday evening peak periods.

PART C – QUEUEING ANALYSIS

To estimate storage length requirements for turn bays at the study area intersections with modifications, a queuing analysis has been conducted. Note that the 95th percentile probable queue lengths were used for the design of turn bay storage at stop sign controlled intersections. The following is a list of where the results of the queuing analysis can be found.

- Background Traffic Expected Maximum Queues – Table 1
- Full Build Traffic Expected Maximum Queues – Table 2

PART D – PEDESTRIAN, BICYCLE AND TRANSIT CONSIDERATIONS

The Lake Country Recreational Trail is located adjacent to and immediately north of the development site, about 70-feet south of Oakton Road and runs parallel to Oakton Road within the limits of the study area. There are currently no residential sidewalks within the limits of the study area as previously described in this report. Pedestrians and bicyclists may use their respective modes to access the area, though these alternate modes are expected to make up a very small portion of the overall trips to/from the study area. Therefore, for the purpose of this analysis, all traffic to and from the proposed residential development area was assumed to be by motor vehicle.

Transit is not present within the community.

CHAPTER VI – RECOMMENDATIONS AND CONCLUSION

PART A – RECOMMENDATIONS

A1. Recommended Modifications

The study area intersections were analyzed based on the procedures set forth in the *Highway Capacity Manual* (HCM) 6^{th} *Edition*. Intersection operation is defined by "level of service". Level of Service (LOS) is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, represented by LOS 'A', to very poor, represented by LOS 'F'. In accordance with WisDOT and Waukesha County accepted traffic engineering standards, LOS D or better was used to define acceptable peak hour operating conditions.

Modifications to address traffic impacts are shown in Exhibit 1-3 for the Year 2023 traffic conditions and have been shown for the following two scenarios:

- "Existing Traffic" – These modifications are expected to be necessary to accommodate existing traffic volumes without the proposed residential development.
- "Build Traffic" – These modifications are expected to be necessary to accommodate the full build traffic volumes, which includes full build out of the proposed residential development.

The analysis was conducted using existing intersection geometrics and traffic control. The following modifications, as shown in Exhibit 1-3, are recommended to accommodate the existing and full build traffic volumes, respectively.

Golf Road (CTH DR) with Glen Cove Road

- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

Golf Road (CTH DR) with Western Development Access Road

- *Existing Traffic:* No modifications.
- *Build Traffic:*
    - Construct a new roadway connection to Golf Road with a single shared left-turn/right-turn exit lane on the north approach as shown on the site plan.
    - Construct an eastbound by-pass lane along the south side of Golf Road at the new roadway connection.
    - Provide stop sign control on the north approach of the new roadway connection.

Golf Road (CTH DR) with Eastern Development Access Road

- *Existing Traffic:* No modifications.
- *Build Traffic:*
    - Construct a new roadway connection to Golf Road with a single shared left-turn/right-turn exit lane on the north approach as shown on the site plan.

    - Construct an eastbound by-pass lane along the south side of Golf Road at the new roadway connection.
    - Provide stop sign control on the north approach of the new roadway connection.

Golf Road (CTH DR) with Elmhurst Road

- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

Glen Cove Road with Brookstone Circle North/ Development Access Road

- *Existing Traffic:* No modifications.
- *Build Traffic:*
    - Construct a new roadway connection to Glen Cove Road across from Brookstone Circle North with a single shared exit lane on the east approach as shown on the site plan.
    - Provide stop sign control on the east approach of the new roadway connection.

Glen Cove Road with Brookstone Circle South

- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

Elmhurst Road with Golf Ridge North

- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

Elmhurst Road with Golf Ridge South/ Development Access Road

- *Existing Traffic:* No modifications.
- *Build Traffic:*
    - Construct a new roadway connection to Elmhurst Road across from Golf Ridge South with a single shared exit lane on the west approach as shown on the site plan.
    - Provide stop sign control on the west approach of the new roadway connection.

Elmhurst Road with Oakton Road

- *Existing Traffic:* No modifications.
- *Build Traffic:* No modifications.

The recommendation for a by-pass lane at the new intersections along Golf Road are based on the Waukesha County Code of Ordinances (*Section 15-54; Access Point Design Criteria*) that requires a by-pass lane at any new "T" type intersection when the mainline AADT volumes are greater than 2,500 vehicles per day (vpd). Based on historic WisDOT AADT count information, the Golf Road (CTH DR) AADT within the limits of the new roadway connection under the existing (no development) conditions was approximately 4,400-vpd (2018 count). Therefore, a by-pass lane is required at the new roadway connections per the Waukesha County code.

All movements at the study area intersections are expected to continue to operate at acceptable levels at LOS B or better under the Full Build (with proposed development) traffic conditions with the recommended modifications implemented.

PART B – CONCLUSION

All movements at the study area intersections are expected to operate safely and efficiently through the opening year with the modifications identified in this TIA.

Appendix A
Traffic

Existing Turning Movement Counts

Intersection Traffic Volume Report

Count Basics		*Version 2022.11.2*	*Page 1 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: **Glen Cove Road**
Minor St: **CTH DR - Golf Road**
Intersection of: ***Glen Cove Road & CTH DR - Golf Road***

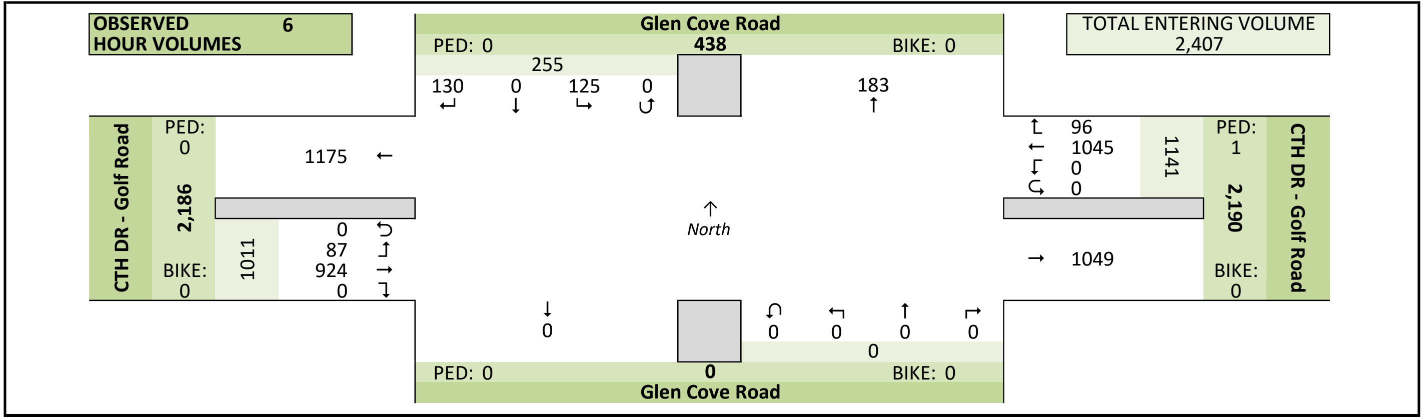
Site Information

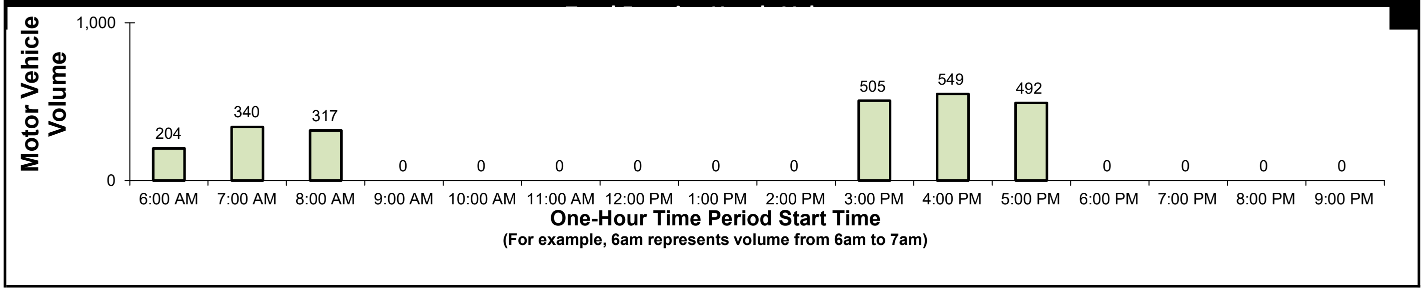
Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Partial Stop Control		
Roadway Names		North Direction	↑
North Leg	Glen Cove Road		
East Leg	CTH DR - Golf Road		
South Leg	Glen Cove Road		
West Leg	CTH DR - Golf Road		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

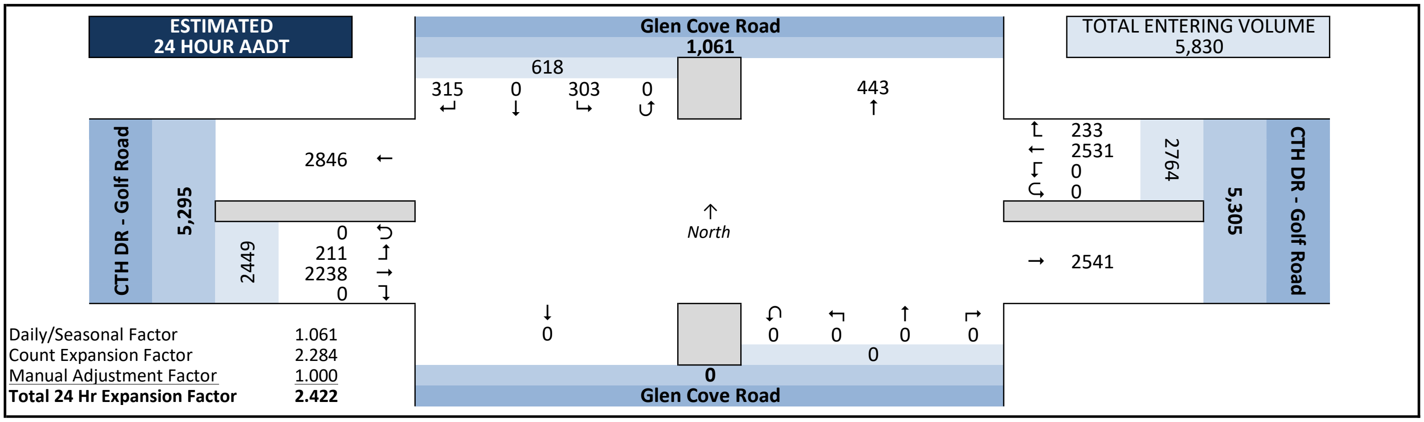
Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM		
1st Day of Count	Wednesday, February 8, 2023	Weather	
AM Peak Period	Wednesday, February 8, 2023	Clear & Dry	
Midday Peak Period	Wednesday, February 8, 2023	Clear & Dry	
PM Peak Period	Wednesday, February 8, 2023	Clear & Dry	
Calculated Peak Hours			
AM	7:45-8:45am	MD	PM 4:30-5:30pm
Peak Hours Selected for Analysis			
AM	7:45-8:45am	MD	PM 4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	1.061	Count Expansion Factor	2.284
Company Name	TADI, Inc.	Manual Adj.	1.000
Observers: AM Peak Period	LuAnn Gaertner		
Observers: Midday Peak Period	None		
Observers: PM Peak Period	Dani Ruffalo		
Comments	2021 DOT Daily & Seasonal Factors		

Observed 6 Hour Volume Summary





Estimated 24 Hour AADT



Daily/Seasonal Factor	1.061
Count Expansion Factor	2.284
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**2.422**

Intersection Traffic Volume Report

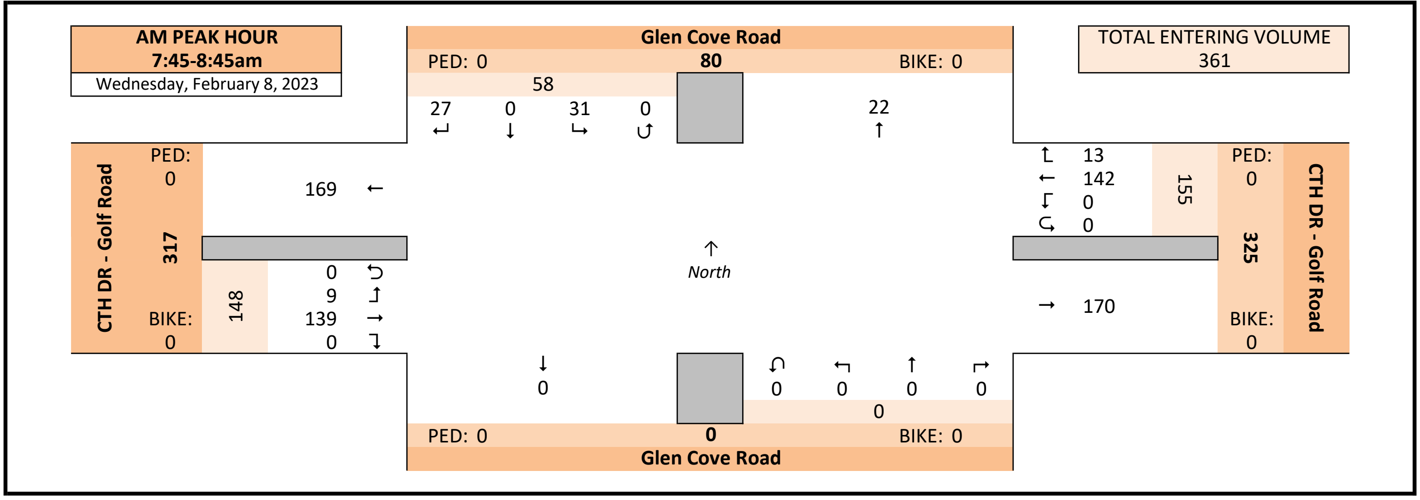
Count Basics			
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

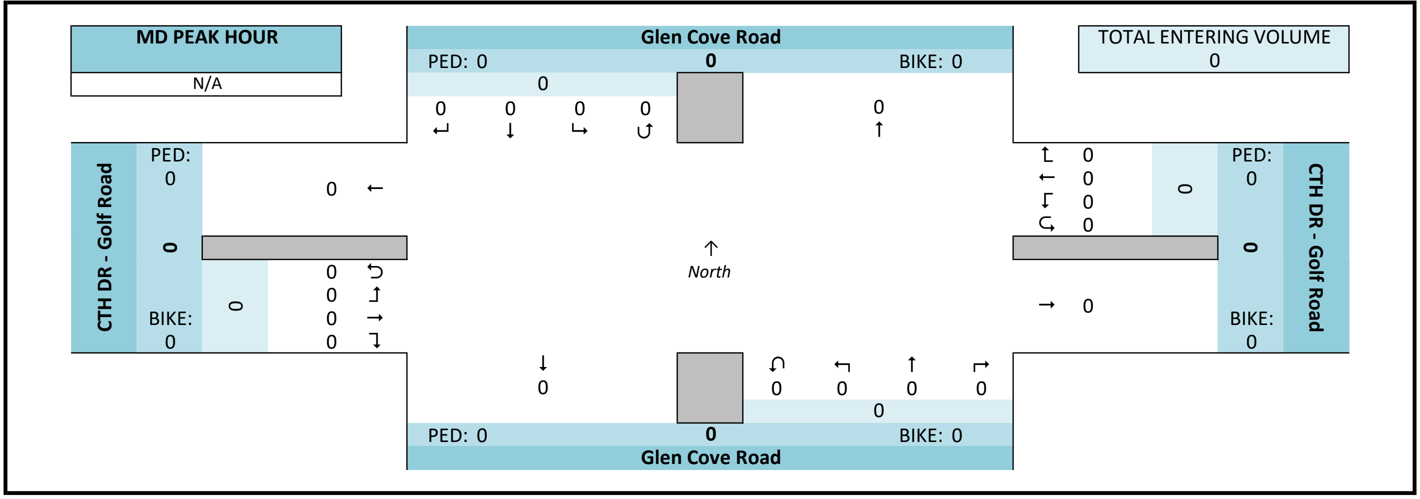
All Motor Vehicles

Glen Cove Road & CTH DR - Golf Road

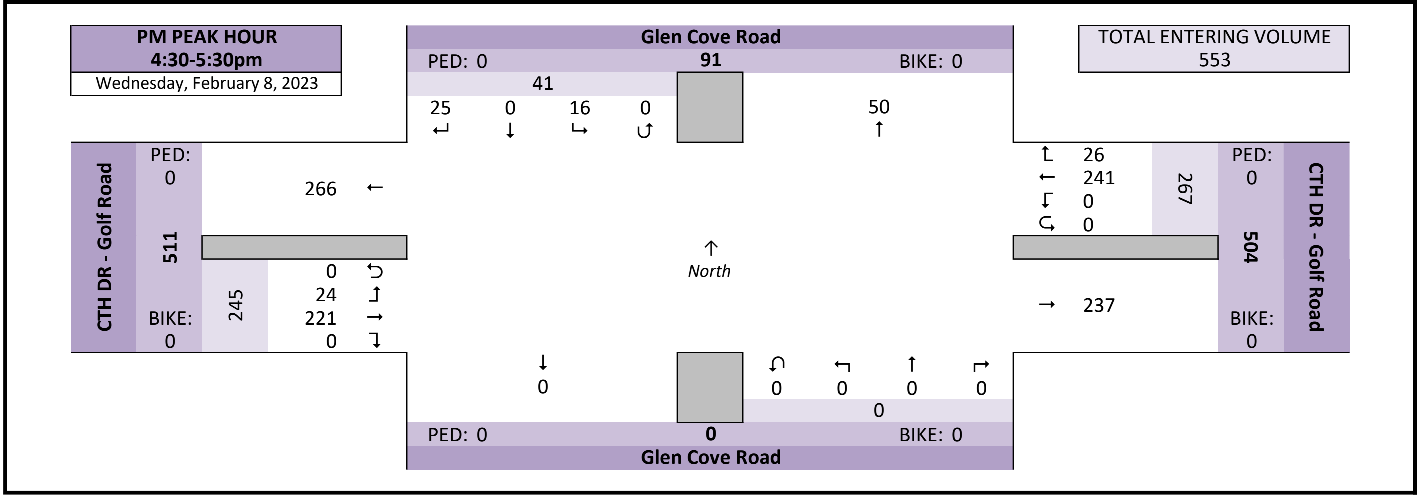
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			*Page 3 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Summary

Glen Cove Road & CTH DR - Golf Road

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

	Wednesday, February 8, 2023	↓ From North					← From East					↑ From South					→ From West					
	AM Peak Hour	Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:45 AM	10	0	15	0	25	2	47	0	0	49	0	0	0	0	0	0	40	3	0	43	117
	8:00 AM	5	0	2	0	7	2	34	0	0	36	0	0	0	0	0	0	32	1	0	33	76
	8:15 AM	6	0	8	0	14	3	28	0	0	31	0	0	0	0	0	0	33	3	0	36	81
	8:30 AM	6	0	6	0	12	6	33	0	0	39	0	0	0	0	0	0	34	2	0	36	87
	Peak Hour Volume	27	0	31	0	58	13	142	0	0	155	0	0	0	0	0	0	139	9	0	148	361
	Rounded Hourly Volume	25	0	30	0	55	15	140	0	0	155	0	0	0	0	0	0	140	10	0	150	360
	% Single Unit Trucks	7.4	0.0	3.2	0.0	5.2	23.1	4.2	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	2.2	11.1	0.0	2.7	4.4
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	7.4	0.0	3.2	0.0	5.2	23.1	4.2	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	2.2	11.1	0.0	2.7	4.4
	Peak Hour Factor (PHF)	0.67	0.00	0.52	0.00	0.58	0.54	0.76	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.75	0.00	0.86	0.77

	N/A	↓ From North					← From East					↑ From South					→ From West					
	MD Peak Hour	Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Wednesday, February 8, 2023	↓ From North					← From East					↑ From South					→ From West					
	PM Peak Hour	Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	5	0	5	0	10	7	61	0	0	68	0	0	0	0	0	0	41	9	0	50	128
	4:45 PM	5	0	4	0	9	5	65	0	0	70	0	0	0	0	0	0	66	4	0	70	149
	5:00 PM	9	0	2	0	11	4	56	0	0	60	0	0	0	0	0	0	54	5	0	59	130
	5:15 PM	6	0	5	0	11	10	59	0	0	69	0	0	0	0	0	0	60	6	0	66	146
	Peak Hour Volume	25	0	16	0	41	26	241	0	0	267	0	0	0	0	0	0	221	24	0	245	553
	Rounded Hourly Volume	25	0	15	0	40	25	240	0	0	265	0	0	0	0	0	0	220	25	0	245	550
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	Peak Hour Factor (PHF)	0.69	0.00	0.80	0.00	0.93	0.65	0.93	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.67	0.00	0.87	0.93

Peak Hour Pedestrian and Bicyclist Volumes

	Pedestrians and Bicyclists	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Glen Cove Road			CTH DR - Golf Road			Glen Cove Road			CTH DR - Golf Road			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

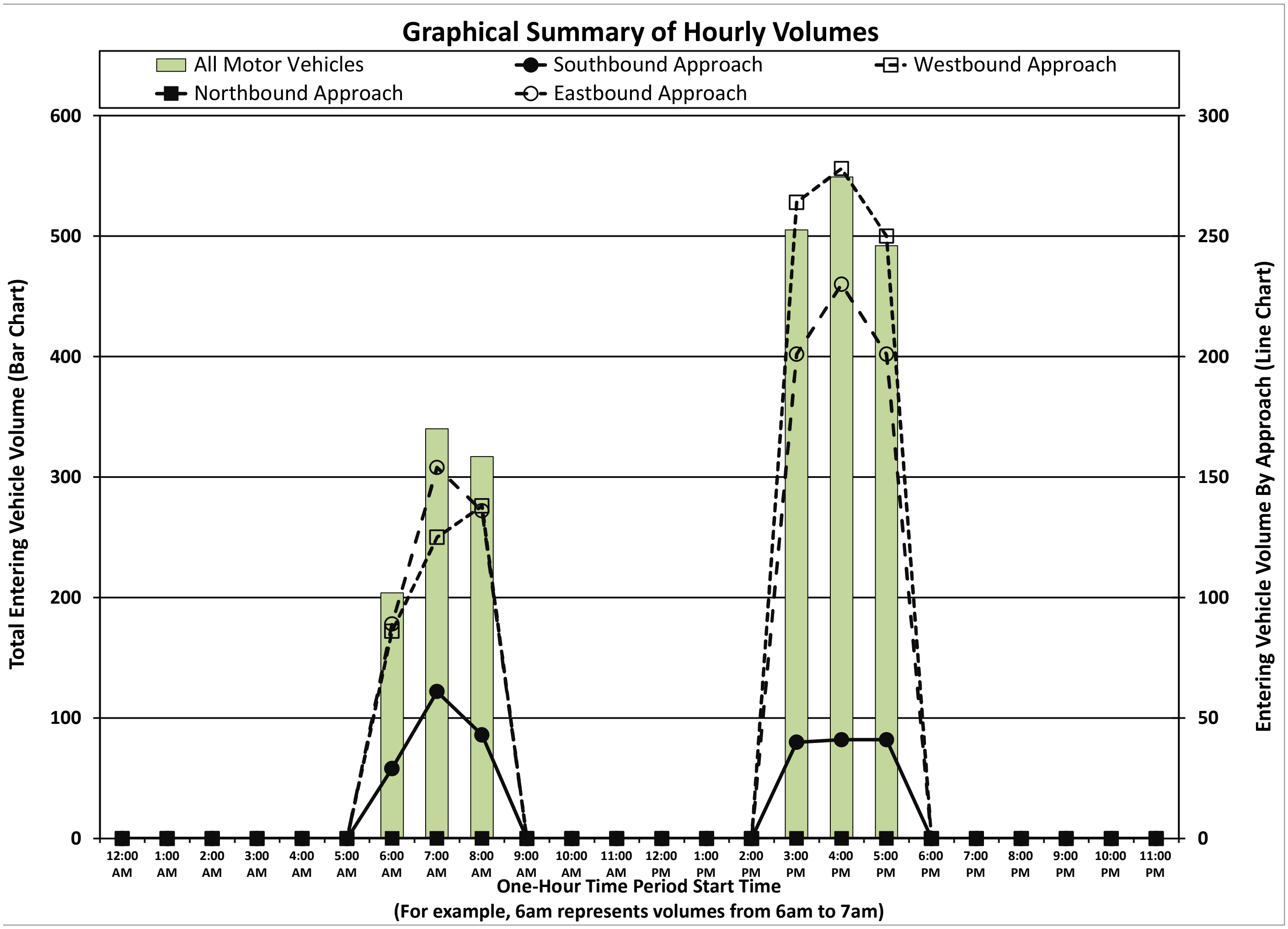
Hourly Volume Summary - Motor Vehicle Data

All Motor Vehicles

Glen Cove Road & CTH DR - Golf Road

One-Hour Motor Vehicle Data

One-Hour Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Vehicle Volume	Directional Volume Totals	
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road							
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		E/W	N/S
Pre-AM	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	6:00 AM	8	0	21	0	29	2	84	0	0	86	0	0	0	0	0	0	84	5	0	89	204	175	29
	7:00 AM	26	0	35	0	61	6	119	0	0	125	0	0	0	0	0	0	146	8	0	154	340	279	61
	8:00 AM	22	0	21	0	43	12	126	0	0	138	0	0	0	0	0	0	129	7	0	136	317	274	43
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 PM	25	0	15	0	40	20	244	0	0	264	0	0	0	0	0	0	177	24	0	201	505	465	40
	4:00 PM	23	0	18	0	41	23	255	0	0	278	0	0	0	0	0	0	209	21	0	230	549	508	41
	5:00 PM	26	0	15	0	41	33	217	0	0	250	0	0	0	0	0	0	179	22	0	201	492	451	41
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals		130	0	125	0	255	96	1045	0	0	1141	0	0	0	0	0	0	924	87	0	1011	2407	2152	255



Intersection Traffic Volume Report

Count Basics		Page 5 of 13
Start Date: Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

Glen Cove Road & CTH DR - Golf Road

All Motor Vehicles

15-Minute Motor Vehicle Data

15-Minute		↓ From North					← From East					↑ From South					→ From West							
Time Period		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					15-Min	Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum	PHF
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AM Peak Period	6:00 AM	0	0	1	0	1	0	16	0	0	16	0	0	0	0	0	0	19	1	0	20	37	204	0.72
	6:15 AM	0	0	2	0	2	1	18	0	0	19	0	0	0	0	0	0	16	1	0	17	38	237	0.83
	6:30 AM	2	0	11	0	13	1	19	0	0	20	0	0	0	0	0	0	24	1	0	25	58	275	0.90
	6:45 AM	6	0	7	0	13	0	31	0	0	31	0	0	0	0	0	0	25	2	0	27	71	294	0.95
	7:00 AM	8	0	8	0	16	2	15	0	0	17	0	0	0	0	0	0	36	1	0	37	70	340	0.73
	7:15 AM	5	0	5	0	10	1	24	0	0	25	0	0	0	0	0	0	38	3	0	41	76	346	0.74
	7:30 AM	3	0	7	0	10	1	33	0	0	34	0	0	0	0	0	0	32	1	0	33	77	351	0.75
	7:45 AM	10	0	15	0	25	2	47	0	0	49	0	0	0	0	0	0	40	3	0	43	117	361	0.77
	8:00 AM	5	0	2	0	7	2	34	0	0	36	0	0	0	0	0	0	32	1	0	33	76	317	0.91
	8:15 AM	6	0	8	0	14	3	28	0	0	31	0	0	0	0	0	0	33	3	0	36	81		
	8:30 AM	6	0	6	0	12	6	33	0	0	39	0	0	0	0	0	0	34	2	0	36	87		
	8:45 AM	5	0	5	0	10	1	31	0	0	32	0	0	0	0	0	0	30	1	0	31	73		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	9	0	6	0	15	7	61	0	0	68	0	0	0	0	0	0	32	7	0	39	122	505	0.92
	3:15 PM	5	0	3	0	8	5	54	0	0	59	0	0	0	0	0	0	50	4	0	54	121	530	0.90
	3:30 PM	4	0	1	0	5	4	59	0	0	63	0	0	0	0	0	0	52	5	0	57	125	534	0.91
	3:45 PM	7	0	5	0	12	4	70	0	0	74	0	0	0	0	0	0	43	8	0	51	137	537	0.91
	4:00 PM	3	0	7	0	10	6	73	0	0	79	0	0	0	0	0	0	53	5	0	58	147	549	0.92
	4:15 PM	10	0	2	0	12	5	56	0	0	61	0	0	0	0	0	0	49	3	0	52	125	532	0.89
	4:30 PM	5	0	5	0	10	7	61	0	0	68	0	0	0	0	0	0	41	9	0	50	128	553	0.93
	4:45 PM	5	0	4	0	9	5	65	0	0	70	0	0	0	0	0	0	66	4	0	70	149	532	0.89
	5:00 PM	9	0	2	0	11	4	56	0	0	60	0	0	0	0	0	0	54	5	0	59	130	492	0.84
	5:15 PM	6	0	5	0	11	10	59	0	0	69	0	0	0	0	0	0	60	6	0	66	146		
	5:30 PM	4	0	0	0	4	10	52	0	0	62	0	0	0	0	0	0	33	8	0	41	107		
	5:45 PM	7	0	8	0	15	9	50	0	0	59	0	0	0	0	0	0	32	3	0	35	109		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		130	0	125	0	255	96	1045	0	0	1141	0	0	0	0	0	0	924	87	0	1011	2407		

Peak Hour All Vehicle Volume Summary

Hourly		↓ From North					← From East					↑ From South					→ From West					Total	
Time Period		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM	7:45 AM	27	0	31	0	58	13	142	0	0	155	0	0	0	0	0	0	139	9	0	148	361	0.77
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	25	0	16	0	41	26	241	0	0	267	0	0	0	0	0	0	221	24	0	245	553	0.93

Intersection Traffic Volume Report

Count Basics			Page 6 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Automobile Data

Automobiles (Cars, Light Trucks, & Motorcycles)

Glen Cove Road & CTH DR - Golf Road

15-Minute Automobile Data

	15-Minute Time Period Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	1	0	1	0	16	0	0	16	0	0	0	0	0	0	19	1	0	20	37	198
	6:15 AM	0	0	2	0	2	1	18	0	0	19	0	0	0	0	0	0	16	1	0	17	38	228
	6:30 AM	1	0	11	0	12	0	18	0	0	18	0	0	0	0	0	0	23	0	0	23	53	265
	6:45 AM	5	0	7	0	12	0	31	0	0	31	0	0	0	0	0	0	25	2	0	27	70	286
	7:00 AM	8	0	7	0	15	1	15	0	0	16	0	0	0	0	0	0	35	1	0	36	67	329
	7:15 AM	5	0	5	0	10	1	24	0	0	25	0	0	0	0	0	0	38	2	0	40	75	334
	7:30 AM	3	0	6	0	9	1	33	0	0	34	0	0	0	0	0	0	31	0	0	31	74	338
	7:45 AM	10	0	14	0	24	1	46	0	0	47	0	0	0	0	0	0	40	2	0	42	113	345
	8:00 AM	5	0	2	0	7	2	30	0	0	32	0	0	0	0	0	0	32	1	0	33	72	301
	8:15 AM	6	0	8	0	14	2	27	0	0	29	0	0	0	0	0	0	33	3	0	36	79	
	8:30 AM	4	0	6	0	10	5	33	0	0	38	0	0	0	0	0	0	31	2	0	33	81	
	8:45 AM	4	0	5	0	9	0	29	0	0	29	0	0	0	0	0	0	30	1	0	31	69	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	8	0	6	0	14	6	61	0	0	67	0	0	0	0	0	0	31	6	0	37	118	492
	3:15 PM	4	0	3	0	7	5	54	0	0	59	0	0	0	0	0	0	50	3	0	53	119	518
	3:30 PM	4	0	0	0	4	4	58	0	0	62	0	0	0	0	0	0	51	5	0	56	122	523
	3:45 PM	7	0	4	0	11	4	69	0	0	73	0	0	0	0	0	0	43	6	0	49	133	528
	4:00 PM	1	0	7	0	8	6	72	0	0	78	0	0	0	0	0	0	53	5	0	58	144	544
	4:15 PM	10	0	2	0	12	5	55	0	0	60	0	0	0	0	0	0	49	3	0	52	124	530
	4:30 PM	5	0	5	0	10	7	60	0	0	67	0	0	0	0	0	0	41	9	0	50	127	552
	4:45 PM	5	0	4	0	9	5	65	0	0	70	0	0	0	0	0	0	66	4	0	70	149	532
	5:00 PM	9	0	2	0	11	4	56	0	0	60	0	0	0	0	0	0	54	5	0	59	130	492
	5:15 PM	6	0	5	0	11	10	59	0	0	69	0	0	0	0	0	0	60	6	0	66	146	
	5:30 PM	4	0	0	0	4	10	52	0	0	62	0	0	0	0	0	0	33	8	0	41	107	
	5:45 PM	7	0	8	0	15	9	50	0	0	59	0	0	0	0	0	0	32	3	0	35	109	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		121	0	120	0	241	89	1031	0	0	1120	0	0	0	0	0	0	916	79	0	995	2356	

Peak Hour Automobile Volume Summary

Hourly Time Period Start Time		From North					From East					From South					From West					Total Hourly Volume
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	25	0	30	0	55	10	136	0	0	146	0	0	0	0	0	0	136	8	0	144	345
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	25	0	16	0	41	26	240	0	0	266	0	0	0	0	0	0	221	24	0	245	552

Intersection Traffic Volume Report

Count Basics			*Page 7 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

Glen Cove Road & CTH DR - Golf Road

Single Unit (SU) Trucks & Buses

15-Minute Single Unit (SU) Truck & Bus Data

	15-Minute Time Period	↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road						
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	6:30 AM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	0	1	1	0	2	5	10
	6:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8
	7:00 AM	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	3	11
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	12
	7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3	13
	7:45 AM	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	0	0	1	0	1	4	16
	8:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4	16
	8:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
	8:30 AM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	6	
	8:45 AM	1	0	0	0	1	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	4	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	2	4	13
	3:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	12
	3:30 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3	11
	3:45 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	4	9
	4:00 PM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3	5
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		9	0	5	0	14	7	14	0	0	21	0	0	0	0	0	0	8	8	0	16	51	

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

	Hourly Time Period	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	2	0	1	0	3	3	6	0	0	9	0	0	0	0	0	0	3	1	0	4	16
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1

Intersection Traffic Volume Report

Count Basics			Page 8 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Semi-Truck Data

Glen Cove Road & CTH DR - Golf Road

Semi-Trucks

15-Minute Semi-Truck Data

	15-Minute Time Period	From North ↓					From East ←					From South ↑					From West →					15-Min	Hourly
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road						
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Semi-Truck Volume Summary

	Hourly Time Period	From North ↓					From East ←					From South ↑					From West →					Total Hourly
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			*Page 9 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Glen Cove Road & CTH DR - Golf Road

15-Minute Heavy Vehicle Data

	15-Minute Time Period Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	6:30 AM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	0	1	1	0	2	5	10
	6:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8
	7:00 AM	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	3	11
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	12
	7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3	13
	7:45 AM	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	0	0	1	0	1	4	16
	8:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4	16
	8:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
	8:30 AM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	6	
	8:45 AM	1	0	0	0	1	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	4	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	2	4	13
	3:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	12
	3:30 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3	11
	3:45 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	4	9
	4:00 PM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3	5
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		9	0	5	0	14	7	14	0	0	21	0	0	0	0	0	0	8	8	0	16	51	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time		From North					From East					From South					From West					Total Hourly Volume
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	2	0	1	0	3	3	6	0	0	9	0	0	0	0	0	0	3	1	0	4	16
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1

Intersection Traffic Volume Report

Count Basics			Page 10 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Percentages

% **Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)**

Glen Cove Road & CTH DR - Golf Road

15-Minute Heavy Vehicle Percentages

		↓ From North					← From East					↑ From South					→ From West					Total Heavy Vehicle Percent	Hourly Heavy Vehicle Percent
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road						
	15-Minute Time Period Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AM Peak Period	6:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
	6:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
	6:30 AM	50.0	0.0	0.0	0.0	7.7	100.0	5.3	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	100.0	0.0	8.0	8.6	3.6
	6:45 AM	16.7	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.7
	7:00 AM	0.0	0.0	12.5	0.0	6.3	50.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	2.7	4.3	3.2
	7:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	2.4	1.3	3.5
	7:30 AM	0.0	0.0	14.3	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	100.0	0.0	6.1	3.9	3.7
	7:45 AM	0.0	0.0	6.7	0.0	4.0	50.0	2.1	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	2.3	3.4	4.4
	8:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	11.8	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.0
	8:15 AM	0.0	0.0	0.0	0.0	0.0	33.3	3.6	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	
	8:30 AM	33.3	0.0	0.0	0.0	16.7	16.7	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	0.0	8.3	6.9	
	8:45 AM	20.0	0.0	0.0	0.0	10.0	100.0	6.5	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	
	9:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Midday Peak Period	10:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PM Peak Period	2:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 PM	11.1	0.0	0.0	0.0	6.7	14.3	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	3.1	14.3	0.0	5.1	3.3	2.6
	3:15 PM	20.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	1.9	1.7	2.3
	3:30 PM	0.0	0.0	100.0	0.0	20.0	0.0	1.7	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	1.8	2.4	2.1
	3:45 PM	0.0	0.0	20.0	0.0	8.3	0.0	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	3.9	2.9	1.7
	4:00 PM	66.7	0.0	0.0	0.0	20.0	0.0	1.4	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.9
	4:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4
	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.2
	4:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Post PM Peak Perio	10:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Totals		6.9	0.0	4.0	0.0	5.5	7.3	1.3	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.9	9.2	0.0	1.6	2.1	

Peak Hour Heavy Vehicle Percentages Summary

		↓ From North					← From East					↑ From South					→ From West					Hourly Heavy Vehicle Percent
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					
	Hourly Time Period Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	7.4	0.0	3.2	0.0	5.2	23.1	4.2	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	2.2	11.1	0.0	2.7	4.4
MD	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2

Intersection Traffic Volume Report

Count Basics			*Page 11 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Pedestrians and Bicyclists

Glen Cove Road & CTH DR - Golf Road

15-Minute Pedestrian and Bicyclist Data

	15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		Glen Cove Road			CTH DR - Golf Road			Glen Cove Road			CTH DR - Golf Road				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	1	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

Special Pedestrians

Pedestrian Type	**None**	**1 or 2**	**A Few**	**Several**	**Many**	**Unknown**
Pre-school Children	x					
Elementry School Age Children	x					
Visually Impaired (white cane/help	x					
Elderly/Disabled (except wheelcha	x					
Wheelchairs/Electric Scooters	x					
Other (None	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

Adults & Children

Glen Cove Road & CTH DR - Golf Road

15-Minute Adult & Children Pedestrian Data

		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach				
15-Minute Time Period Start Time		Glen Cove Road			CTH DR - Golf Road			Glen Cove Road			CTH DR - Golf Road			15-Min Totals	Hourly Sum
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
Pre-AM Peak Period	12:00 AM	0		0	0		0	0		0	0		0	0	0
	12:15 AM	0		0	0		0	0		0	0		0	0	0
	12:30 AM	0		0	0		0	0		0	0		0	0	0
	12:45 AM	0		0	0		0	0		0	0		0	0	0
	1:00 AM	0		0	0		0	0		0	0		0	0	0
	1:15 AM	0		0	0		0	0		0	0		0	0	0
	1:30 AM	0		0	0		0	0		0	0		0	0	0
	1:45 AM	0		0	0		0	0		0	0		0	0	0
	2:00 AM	0		0	0		0	0		0	0		0	0	0
	2:15 AM	0		0	0		0	0		0	0		0	0	0
	2:30 AM	0		0	0		0	0		0	0		0	0	0
	2:45 AM	0		0	0		0	0		0	0		0	0	0
	3:00 AM	0		0	0		0	0		0	0		0	0	0
	3:15 AM	0		0	0		0	0		0	0		0	0	0
	3:30 AM	0		0	0		0	0		0	0		0	0	0
	3:45 AM	0		0	0		0	0		0	0		0	0	0
	4:00 AM	0		0	0		0	0		0	0		0	0	0
	4:15 AM	0		0	0		0	0		0	0		0	0	0
	4:30 AM	0		0	0		0	0		0	0		0	0	0
	4:45 AM	0		0	0		0	0		0	0		0	0	0
	5:00 AM	0		0	0		0	0		0	0		0	0	0
	5:15 AM	0		0	0		0	0		0	0		0	0	0
	5:30 AM	0		0	0		0	0		0	0		0	0	0
	5:45 AM	0		0	0		0	0		0	0		0	0	0
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	0
	6:15 AM	0		0	0		0	0		0	0		0	0	1
	6:30 AM	0		0	0		0	0		0	0		0	0	1
	6:45 AM	0		0	0		0	0		0	0		0	0	1
	7:00 AM	0		0	1		1	0		0	0		0	1	1
	7:15 AM	0		0	0		0	0		0	0		0	0	0
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	0
	2:15 PM	0		0	0		0	0		0	0		0	0	0
	2:30 PM	0		0	0		0	0		0	0		0	0	0
	2:45 PM	0		0	0		0	0		0	0		0	0	0
	3:00 PM	0		0	0		0	0		0	0		0	0	0
	3:15 PM	0		0	0		0	0		0	0		0	0	0
	3:30 PM	0		0	0		0	0		0	0		0	0	0
	3:45 PM	0		0	0		0	0		0	0		0	0	0
	4:00 PM	0		0	0		0	0		0	0		0	0	0
	4:15 PM	0		0	0		0	0		0	0		0	0	0
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Post PM Peak Period	10:00 PM	0		0	0		0	0		0	0		0	0	0
	10:15 PM	0		0	0		0	0		0	0		0	0	0
	10:30 PM	0		0	0		0	0		0	0		0	0	0
	10:45 PM	0		0	0		0	0		0	0		0	0	0
	11:00 PM	0		0	0		0	0		0	0		0	0	0
	11:15 PM	0		0	0		0	0		0	0		0	0	
	11:30 PM	0		0	0		0	0		0	0		0	0	
	11:45 PM	0		0	0		0	0		0	0		0	0	
Totals		0	0	0	1	0	1	0	0	0	0	0	0	1	

Intersection Traffic Volume Report

Count Basics			*Page 13 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Bicycle Turning Movement Count (Manual Entry)

Glen Cove Road & CTH DR - Golf Road

Bicyclists

15-Minute Bicycle Data

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM					0					0					0					0	0	0
	12:15 AM					0					0					0					0	0	0
	12:30 AM					0					0					0					0	0	0
	12:45 AM					0					0					0					0	0	0
	1:00 AM					0					0					0					0	0	0
	1:15 AM					0					0					0					0	0	0
	1:30 AM					0					0					0					0	0	0
	1:45 AM					0					0					0					0	0	0
	2:00 AM					0					0					0					0	0	0
	2:15 AM					0					0					0					0	0	0
	2:30 AM					0					0					0					0	0	0
	2:45 AM					0					0					0					0	0	0
	3:00 AM					0					0					0					0	0	0
	3:15 AM					0					0					0					0	0	0
	3:30 AM					0					0					0					0	0	0
	3:45 AM					0					0					0					0	0	0
	4:00 AM					0					0					0					0	0	0
	4:15 AM					0					0					0					0	0	0
	4:30 AM					0					0					0					0	0	0
	4:45 AM					0					0					0					0	0	0
	5:00 AM					0					0					0					0	0	0
	5:15 AM					0					0					0					0	0	0
	5:30 AM					0					0					0					0	0	0
	5:45 AM					0					0					0					0	0	0
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
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	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
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	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
	9:45 AM					0					0					0					0	0	0
Midday Peak Period	10:00 AM					0					0					0					0	0	0
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	10:45 AM					0					0					0					0	0	0
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PM Peak Period	2:00 PM					0					0					0					0	0	0
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	8:30 PM					0					0					0					0	0	0
	8:45 PM					0					0					0					0	0	0
	9:00 PM					0					0					0					0	0	0
	9:15 PM					0					0					0					0	0	0
	9:30 PM					0					0					0					0	0	0
	9:45 PM					0					0					0					0	0	0
Post PM Peak Perio	10:00 PM					0					0					0					0	0	0
	10:15 PM					0					0					0					0	0	0
	10:30 PM					0					0					0					0	0	0
	10:45 PM					0					0					0					0	0	0
	11:00 PM					0					0					0					0	0	
	11:15 PM					0					0					0					0	0	
	11:30 PM					0					0					0					0	0	
	11:45 PM					0					0					0					0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

	Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Glen Cove Road					CTH DR - Golf Road					Glen Cove Road					CTH DR - Golf Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics	*Version 2022.11.2*		*Page 1 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Base Information, Observed (5.5) Hour and Estimated (24) Hour Volume Summaries

Major St: **Glen Cove Road**
Minor St: **Brookstone Circle North**
Intersection of: ***Glen Cove Road & Brookstone Circle North***

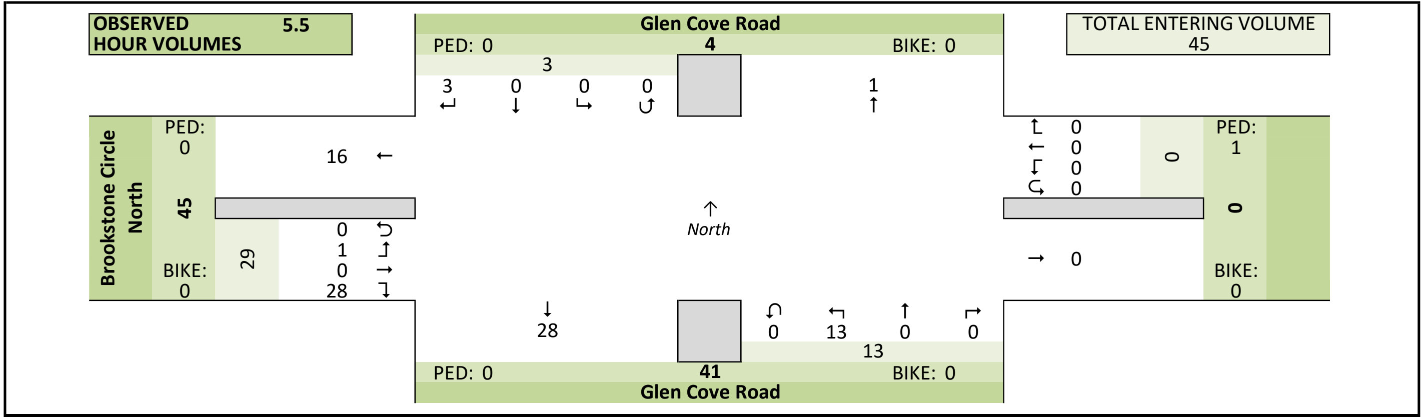
Site Information

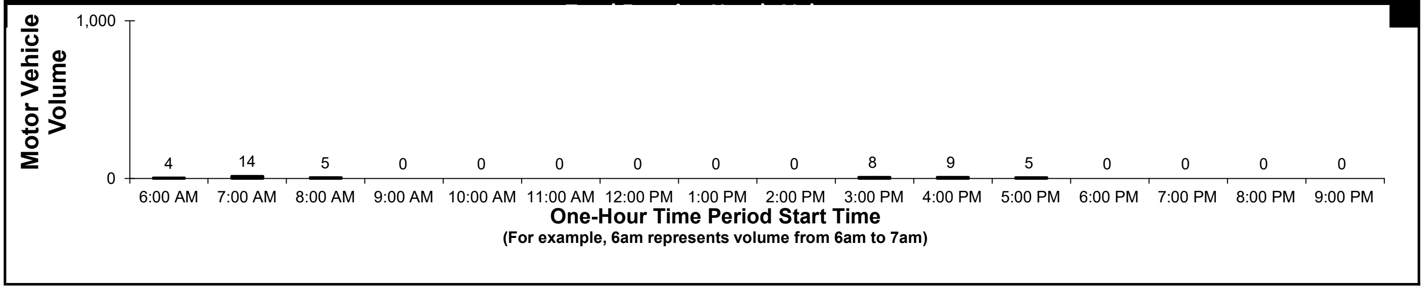
Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Partial Stop Control		
Roadway Names		North Direction	↑
North Leg	Glen Cove Road		
East Leg			
South Leg	Glen Cove Road		
West Leg	Brookstone Circle North		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

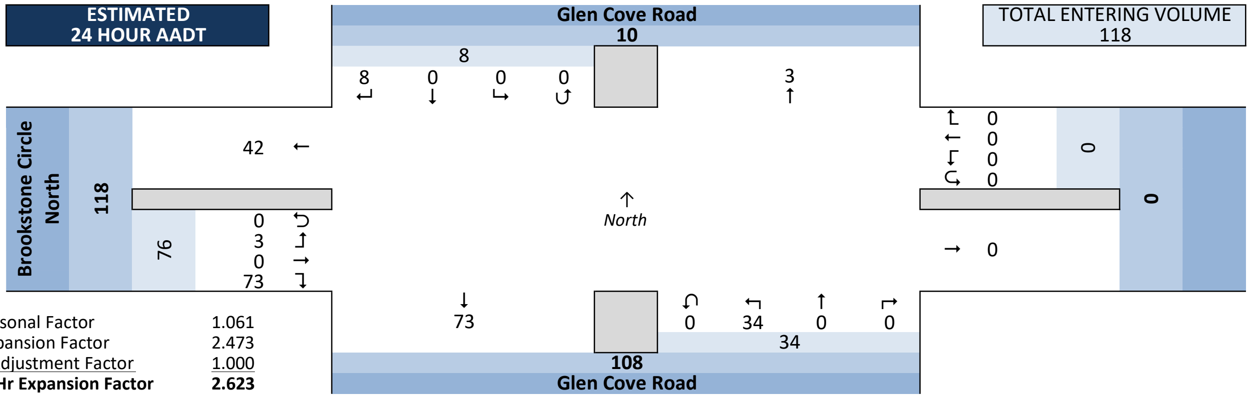
Hrs Counted:	06:00 AM-06:15 AM, 06:30 AM-09:00 AM, and 03:00 PM-05:45 PM				
1st Day of Count	Wednesday, February 8, 2023			Weather	
AM Peak Period	Wednesday, February 8, 2023			Clear & Dry	
Midday Peak Period	Wednesday, February 8, 2023			Clear & Dry	
PM Peak Period	Wednesday, February 8, 2023			Clear & Dry	
Calculated Peak Hours					
AM	7:00-8:00am	MD		PM	4:15-5:15pm
Peak Hours Selected for Analysis					
AM	7:45-8:45am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors				
Count Expansion Group	(2) Urban Arterials & Collectors				
Daily/Seasonal Adjustment Factor	1.061	Count Expansion Factor	2.473		
Company Name	TADI, Inc.	Manual Adj.	1.000		
Observers	AM Peak Period	Jane Fait			
	Midday Peak Period	None			
	PM Peak Period	Jane Fait			
Comments	2021 DOT Daily & Seasonal Factors				

Observed 5.5 Hour Volume Summary





Estimated 24 Hour AADT



Daily/Seasonal Factor	1.061
Count Expansion Factor	2.473
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**2.623**

Intersection Traffic Volume Report

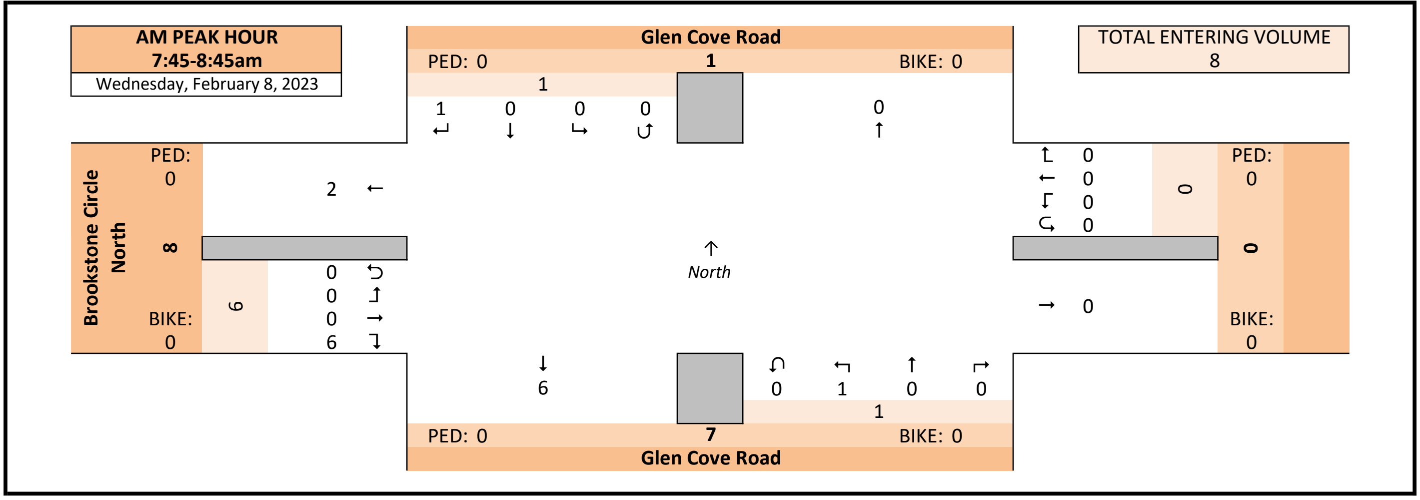
Count Basics			*Page 2 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

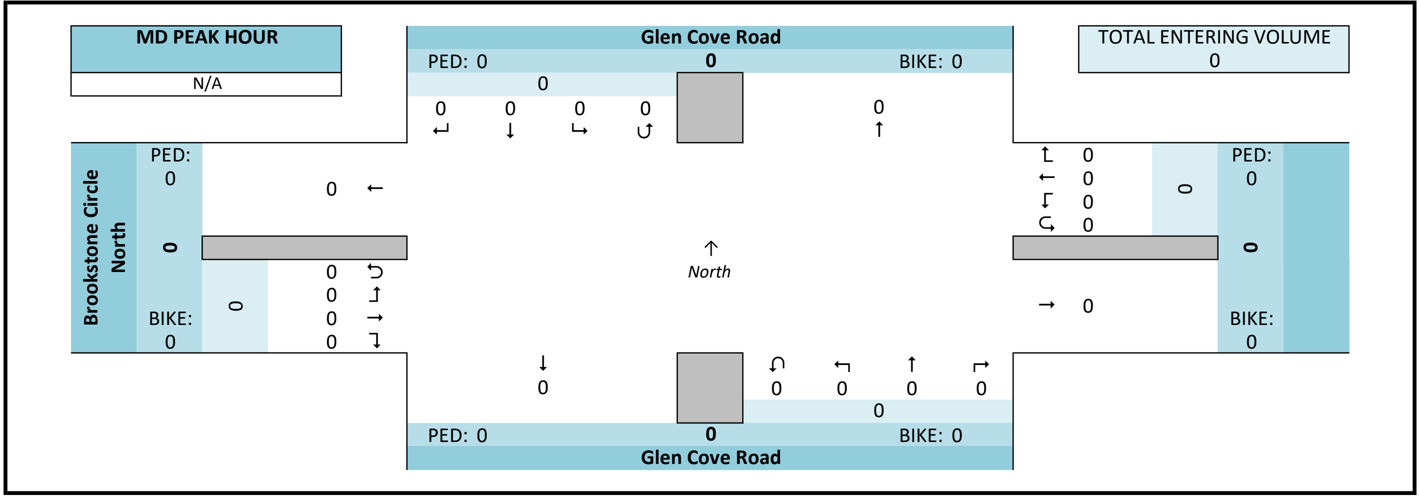
All Motor Vehicles

Glen Cove Road & Brookstone Circle North

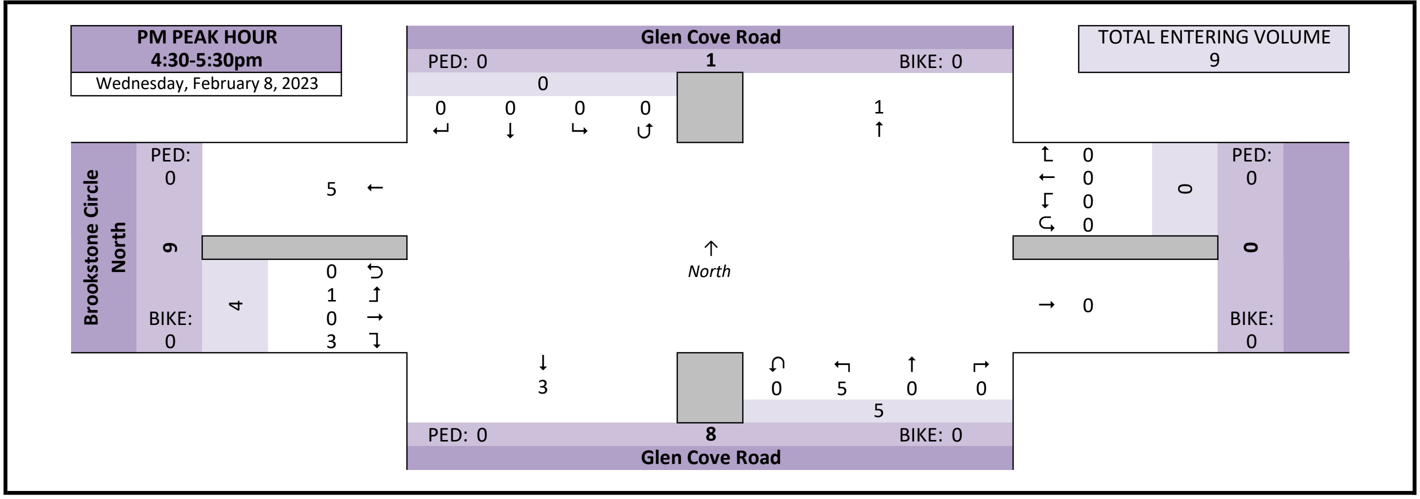
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			*Page 3 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Peak Hour Volume Summary

Glen Cove Road & Brookstone Circle North

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Wednesday, February 8, 2023		↓ From North					← From East					↑ From South					→ From West					
	AM Peak Hour	Glen Cove Road										Glen Cove Road					Brookstone Circle North					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	4
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
	8:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
	Peak Hour Volume	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	6	0	0	0	6	8
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.25	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.50	0.00	0.00	0.00	0.50	0.50

N/A		↓ From North					← From East					↑ From South					→ From West					
	MD Peak Hour	Glen Cove Road										Glen Cove Road					Brookstone Circle North					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Wednesday, February 8, 2023		↓ From North					← From East					↑ From South					→ From West					
	PM Peak Hour	Glen Cove Road										Glen Cove Road					Brookstone Circle North					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2	3
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	3	0	1	0	4	9
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5	0	0	0	5	10
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.62	0.75	0.00	0.25	0.00	0.50	0.75

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Glen Cove Road						Glen Cove Road			Brookstone Circle North			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

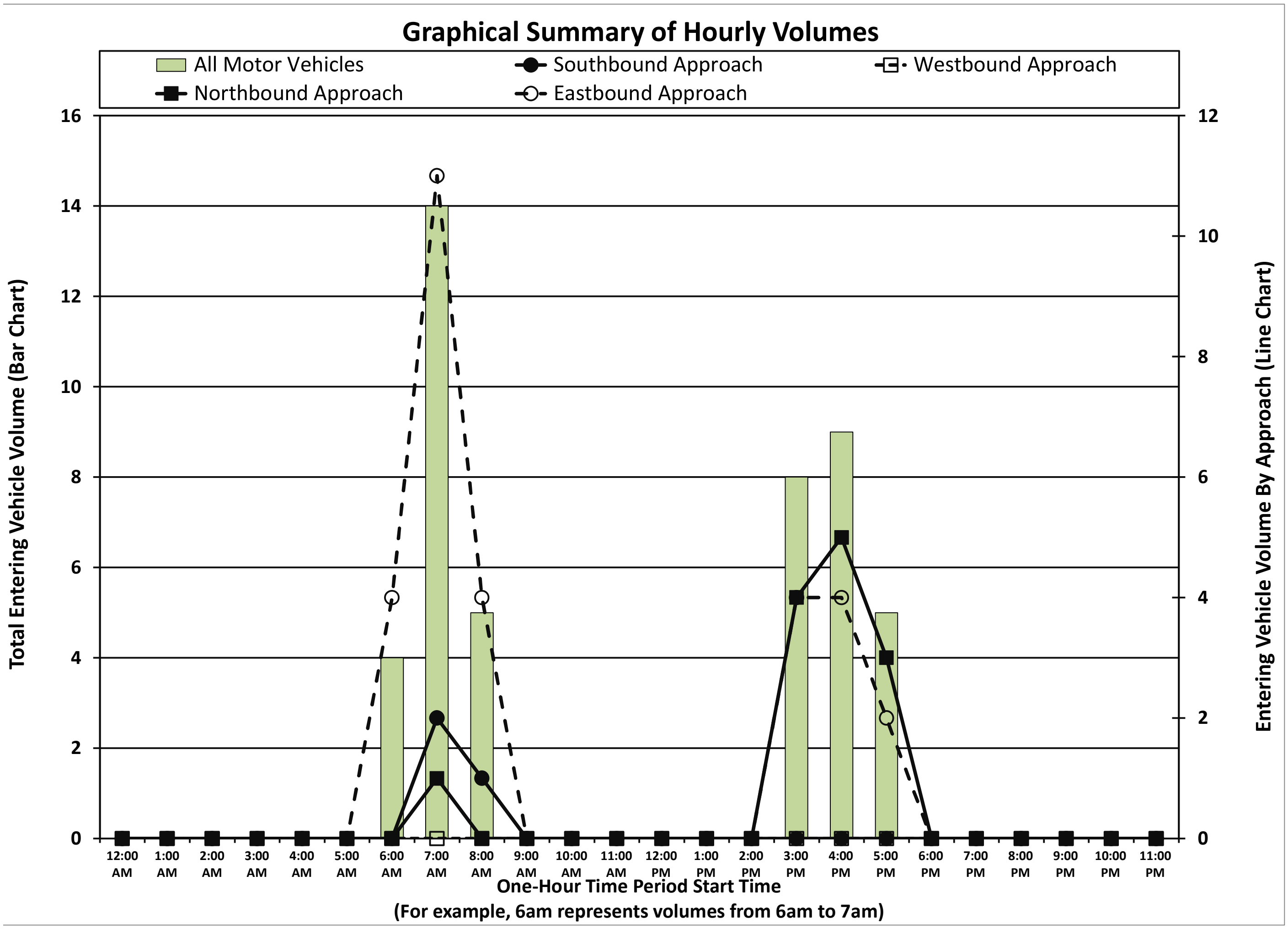
Hourly Volume Summary - Motor Vehicle Data

All Motor Vehicles

Glen Cove Road & Brookstone Circle North

One-Hour Motor Vehicle Data

	One-Hour Time Period	↓ From North					← From East					↑ From South					→ From West					Total Vehicle	Directional Volume Totals	
		Glen Cove Road										Glen Cove Road					Brookstone Circle North							
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	E/W	N/S
Pre-AM	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4	4	0
	7:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	11	0	0	0	11	14	11	3
	8:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	5	4	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4	0	0	0	4	8	4	4
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	3	0	1	0	4	9	4	5
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	2	0	0	0	2	5	2	3
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals		3	0	0	0	3	0	0	0	0	0	0	0	13	0	13	28	0	1	0	29	45	29	16



Intersection Traffic Volume Report

Count Basics			Page 5 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

Glen Cove Road & Brookstone Circle North

All Motor Vehicles

15-Minute Motor Vehicle Data

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum	PHF
		Glen Cove Road										Glen Cove Road					Brookstone Circle North							
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	9	0.75
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	11	0.69
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	14	0.88
	7:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3	12	0.75
	7:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	4	11	0.69
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	4	8	0.50
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	5	0.63
	8:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2		
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1		
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	8	0.67
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	7	0.58
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2	9	0.75
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3	9	0.75
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	9	0.75
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3	10	0.83
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	9	0.75
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2	3	8	0.67
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2		
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2		
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1		
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		3	0	0	0	3	0	0	0	0	0	0	0	13	0	13	28	0	1	0	29	45		

Peak Hour All Vehicle Volume Summary

	Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume	PHF
		Glen Cove Road										Glen Cove Road					Brookstone Circle North						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	7:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	6	0	0	0	6	8	0.50
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	3	0	1	0	4	9	0.75

Intersection Traffic Volume Report

Count Basics			Page 6 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Automobile Data

Automobiles (Cars, Light Trucks, & Motorcycles)

Glen Cove Road & Brookstone Circle North

15-Minute Automobile Data

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Glen Cove Road										Glen Cove Road					Brookstone Circle North						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	8
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	9
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	12
	7:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3	11
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	10
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	4	8
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	5
	8:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	8
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	7
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2	9
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3	9
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	9
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3	10
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	9
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2	3	8
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		2	0	0	0	2	0	0	0	0	0	0	0	13	0	13	27	0	1	0	28	43	

Peak Hour Automobile Volume Summary

	Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Glen Cove Road										Glen Cove Road					Brookstone Circle North					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	6	0	0	0	6	8
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	3	0	1	0	4	9

Intersection Traffic Volume Report

Count Basics			*Page 7 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

Single Unit (SU) Trucks & Buses

Glen Cove Road & Brookstone Circle North

15-Minute Single Unit (SU) Truck & Bus Data

	15-Minute Time Period Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
		Glen Cove Road										Glen Cove Road					Brookstone Circle North						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly Time Period Start Time		From North					From East					From South					From West					Total Hourly Volume
		Glen Cove Road										Glen Cove Road					Brookstone Circle North					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 8 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Semi-Truck Data

Glen Cove Road & Brookstone Circle North

Semi-Trucks

15-Minute Semi-Truck Data

	15-Minute Time Period Start Time	↓ From North Glen Cove Road					← From East					↑ From South Glen Cove Road					→ From West Brookstone Circle North					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Semi-Truck Volume Summary

	Hourly Time Period Start Time	↓ From North Glen Cove Road					← From East					↑ From South Glen Cove Road					→ From West Brookstone Circle North					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			*Page 9 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Glen Cove Road & Brookstone Circle North

15-Minute Heavy Vehicle Data

	15-Minute Time Period Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
		Glen Cove Road										Glen Cove Road					Brookstone Circle North						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time		From North					From East					From South					From West					Total Hourly Volume
		Glen Cove Road										Glen Cove Road					Brookstone Circle North					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			**Page 10 of 13**
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Percentages

% **Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)**

Glen Cove Road & Brookstone Circle North

15-Minute Heavy Vehicle Percentages

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Heavy Vehicle Percent	Hourly Heavy Vehicle Percent
		Glen Cove Road										Glen Cove Road					Brookstone Circle North						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AM Peak Period	6:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
	6:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2
	7:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	33.3	14.3
	7:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
	7:30 AM	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	9.1
	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Midday Peak Period	10:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PM Peak Period	2:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Post PM Peak Perio	10:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Totals		33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	3.4	4.4	

Peak Hour Heavy Vehicle Percentages Summary

	Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Hourly Heavy Vehicle Percent
		Glen Cove Road										Glen Cove Road					Brookstone Circle North					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MD	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Pedestrians and Bicyclists

Glen Cove Road & Brookstone Circle North

15-Minute Pedestrian and Bicyclist Data

	15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		Glen Cove Road						Glen Cove Road			Brookstone Circle North				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	1	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	1	0	1	0	0	0	0	0	0	1	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementry School Age Children	x					
Visually Impaired (white cane/help	x					
Elderly/Disabled (except wheelcha	x					
Wheelchairs/Electric Scooters	x					
Other (None	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

Adults & Children
🚶 🚶

Glen Cove Road & Brookstone Circle North

15-Minute Adult & Children Pedestrian Data

15-Minute Time Period Start Time		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		Glen Cove Road						Glen Cove Road			Brookstone Circle North				
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
Pre-AM Peak Period	12:00 AM	0		0	0		0	0		0	0		0	0	0
	12:15 AM	0		0	0		0	0		0	0		0	0	0
	12:30 AM	0		0	0		0	0		0	0		0	0	0
	12:45 AM	0		0	0		0	0		0	0		0	0	0
	1:00 AM	0		0	0		0	0		0	0		0	0	0
	1:15 AM	0		0	0		0	0		0	0		0	0	0
	1:30 AM	0		0	0		0	0		0	0		0	0	0
	1:45 AM	0		0	0		0	0		0	0		0	0	0
	2:00 AM	0		0	0		0	0		0	0		0	0	0
	2:15 AM	0		0	0		0	0		0	0		0	0	0
	2:30 AM	0		0	0		0	0		0	0		0	0	0
	2:45 AM	0		0	0		0	0		0	0		0	0	0
	3:00 AM	0		0	0		0	0		0	0		0	0	0
	3:15 AM	0		0	0		0	0		0	0		0	0	0
	3:30 AM	0		0	0		0	0		0	0		0	0	0
	3:45 AM	0		0	0		0	0		0	0		0	0	0
	4:00 AM	0		0	0		0	0		0	0		0	0	0
	4:15 AM	0		0	0		0	0		0	0		0	0	0
	4:30 AM	0		0	0		0	0		0	0		0	0	0
	4:45 AM	0		0	0		0	0		0	0		0	0	0
	5:00 AM	0		0	0		0	0		0	0		0	0	0
	5:15 AM	0		0	0		0	0		0	0		0	0	0
	5:30 AM	0		0	0		0	0		0	0		0	0	0
	5:45 AM	0		0	0		0	0		0	0		0	0	0
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	0
	6:15 AM	0		0	0		0	0		0	0		0	0	1
	6:30 AM	0		0	0		0	0		0	0		0	0	1
	6:45 AM	0		0	0		0	0		0	0		0	0	1
	7:00 AM	0		0	1		1	0		0	0		0	1	1
	7:15 AM	0		0	0		0	0		0	0		0	0	0
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	0
	2:15 PM	0		0	0		0	0		0	0		0	0	0
	2:30 PM	0		0	0		0	0		0	0		0	0	0
	2:45 PM	0		0	0		0	0		0	0		0	0	0
	3:00 PM	0		0	0		0	0		0	0		0	0	0
	3:15 PM	0		0	0		0	0		0	0		0	0	0
	3:30 PM	0		0	0		0	0		0	0		0	0	0
	3:45 PM	0		0	0		0	0		0	0		0	0	0
	4:00 PM	0		0	0		0	0		0	0		0	0	0
	4:15 PM	0		0	0		0	0		0	0		0	0	0
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Post PM Peak Period	10:00 PM	0		0	0		0	0		0	0		0	0	0
	10:15 PM	0		0	0		0	0		0	0		0	0	0
	10:30 PM	0		0	0		0	0		0	0		0	0	0
	10:45 PM	0		0	0		0	0		0	0		0	0	0
	11:00 PM	0		0	0		0	0		0	0		0	0	0
	11:15 PM	0		0	0		0	0		0	0		0	0	
	11:30 PM	0		0	0		0	0		0	0		0	0	
	11:45 PM	0		0	0		0	0		0	0		0	0	
Totals		0	0	0	1	0	1	0	0	0	0	0	0	1	

Intersection Traffic Volume Report

Count Basics			
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Bicycle Turning Movement Count (Manual Entry)

Bicyclists

Glen Cove Road & Brookstone Circle North

15-Minute Bicycle Data

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Glen Cove Road										Glen Cove Road					Brookstone Circle North						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM					0					0					0					0	0	0
	12:15 AM					0					0					0					0	0	0
	12:30 AM					0					0					0					0	0	0
	12:45 AM					0					0					0					0	0	0
	1:00 AM					0					0					0					0	0	0
	1:15 AM					0					0					0					0	0	0
	1:30 AM					0					0					0					0	0	0
	1:45 AM					0					0					0					0	0	0
	2:00 AM					0					0					0					0	0	0
	2:15 AM					0					0					0					0	0	0
	2:30 AM					0					0					0					0	0	0
	2:45 AM					0					0					0					0	0	0
	3:00 AM					0					0					0					0	0	0
	3:15 AM					0					0					0					0	0	0
	3:30 AM					0					0					0					0	0	0
	3:45 AM					0					0					0					0	0	0
	4:00 AM					0					0					0					0	0	0
	4:15 AM					0					0					0					0	0	0
	4:30 AM					0					0					0					0	0	0
	4:45 AM					0					0					0					0	0	0
	5:00 AM					0					0					0					0	0	0
	5:15 AM					0					0					0					0	0	0
	5:30 AM					0					0					0					0	0	0
	5:45 AM					0					0					0					0	0	0
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
	9:45 AM					0					0					0					0	0	0
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
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	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
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PM Peak Period	2:00 PM					0					0					0					0	0	0
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	2:30 PM					0					0					0					0	0	0
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	6:30 PM					0					0					0					0	0	0
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	7:15 PM					0					0					0					0	0	0
	7:30 PM					0					0					0					0	0	0
	7:45 PM					0					0					0					0	0	0
	8:00 PM					0					0					0					0	0	0
	8:15 PM					0					0					0					0	0	0
	8:30 PM					0					0					0					0	0	0
	8:45 PM					0					0					0					0	0	0
	9:00 PM					0					0					0					0	0	0
	9:15 PM					0					0					0					0	0	0
	9:30 PM					0					0					0					0	0	0
	9:45 PM					0					0					0					0	0	0
Post PM Peak Perio	10:00 PM					0					0					0					0	0	0
	10:15 PM					0					0					0					0	0	0
	10:30 PM					0					0					0					0	0	0
	10:45 PM					0					0					0					0	0	0
	11:00 PM					0					0					0					0	0	
	11:15 PM					0					0					0					0	0	
	11:30 PM					0					0					0					0	0	
	11:45 PM					0					0					0					0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Glen Cove Road										Glen Cove Road					Brookstone Circle North					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		Version 2022.11.2	Page 1 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

Base Information, Observed (4.5) Hour and Estimated (24) Hour Volume Summaries

Major St: **Glen Cove Road**

Minor St: **Brookstone Circle South**

Intersection of: ***Glen Cove Road & Brookstone Circle South***

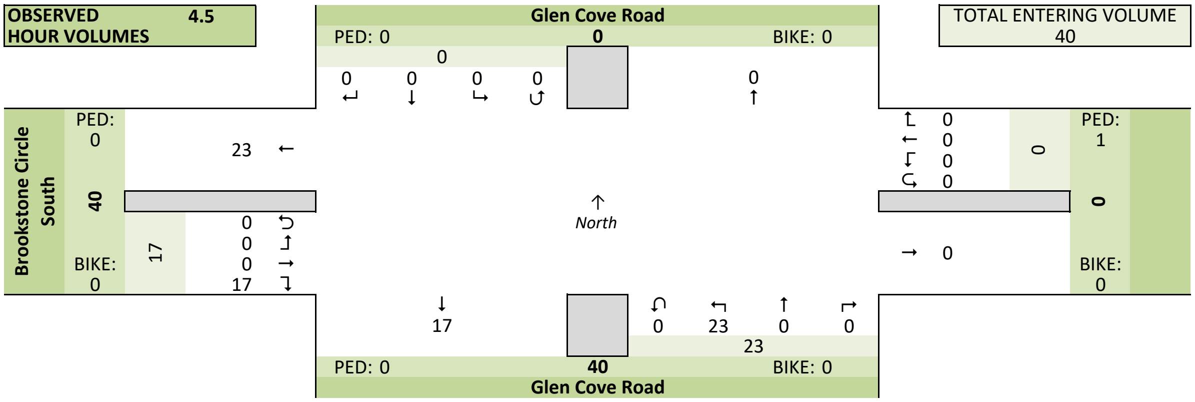
Site Information

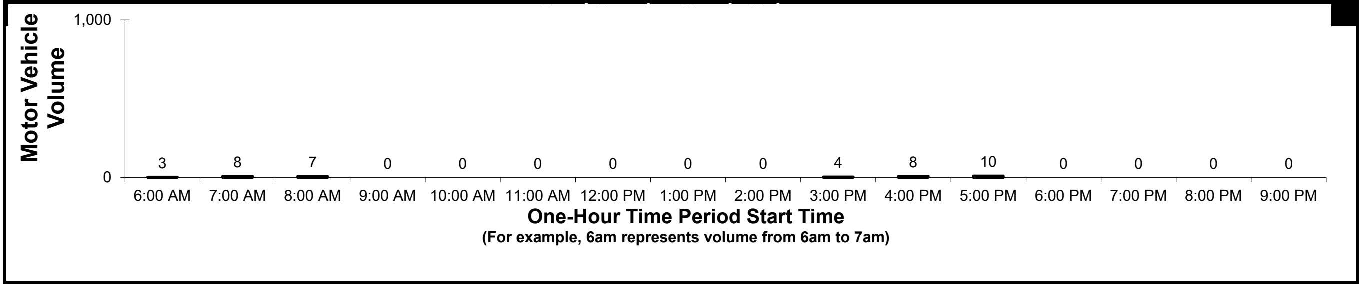
Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Partial Stop Control		
Roadway Names		North Direction	↑
North Leg	Glen Cove Road		
East Leg			
South Leg	Glen Cove Road		
West Leg	Brookstone Circle South		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
		Pre-school children	None
		Elementry school age children	None
		Visually impaired (white cane/helper dog)	None
		Elderly/disabled (except wheelchairs)	None
		Wheelchairs/electric scooters	None
Other (describe)		None	None

Count Information

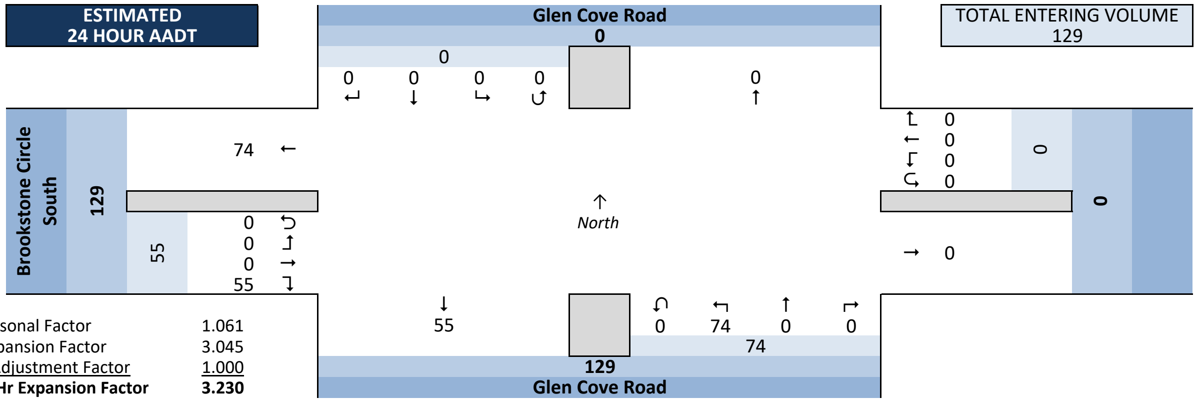
Hrs Counted:	06:00 AM-06:15 AM, 06:30 AM-07:15 AM, and 07:30 AM-08:45 AM			
1st Day of Count	Wednesday, February 8, 2023		Weather	
AM Peak Period	Wednesday, February 8, 2023		Clear & Dry	
Midday Peak Period	Wednesday, February 8, 2023		Clear & Dry	
PM Peak Period	Wednesday, February 8, 2023		Clear & Dry	
Calculated Peak Hours				
AM	7:30-8:30am	MD	PM	4:30-5:30pm
Peak Hours Selected for Analysis				
AM	7:45-8:45am	MD	PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors			
Count Expansion Group	(2) Urban Arterials & Collectors			
Daily/Seasonal Adjustment Factor	1.061		Count Expansion Factor	3.045
Company Name	TADI, Inc.		Manual Adj.	1.000
Observers	AM Peak Period	Jane Fait		
	Midday Peak Period	None		
	PM Peak Period	Jane Fait		
Comments	2021 DOT Daily & Seasonal Factors			

Observed 4.5 Hour Volume Summary





Estimated 24 Hour AADT



Daily/Seasonal Factor	1.061
Count Expansion Factor	3.045
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**3.230**

Intersection Traffic Volume Report

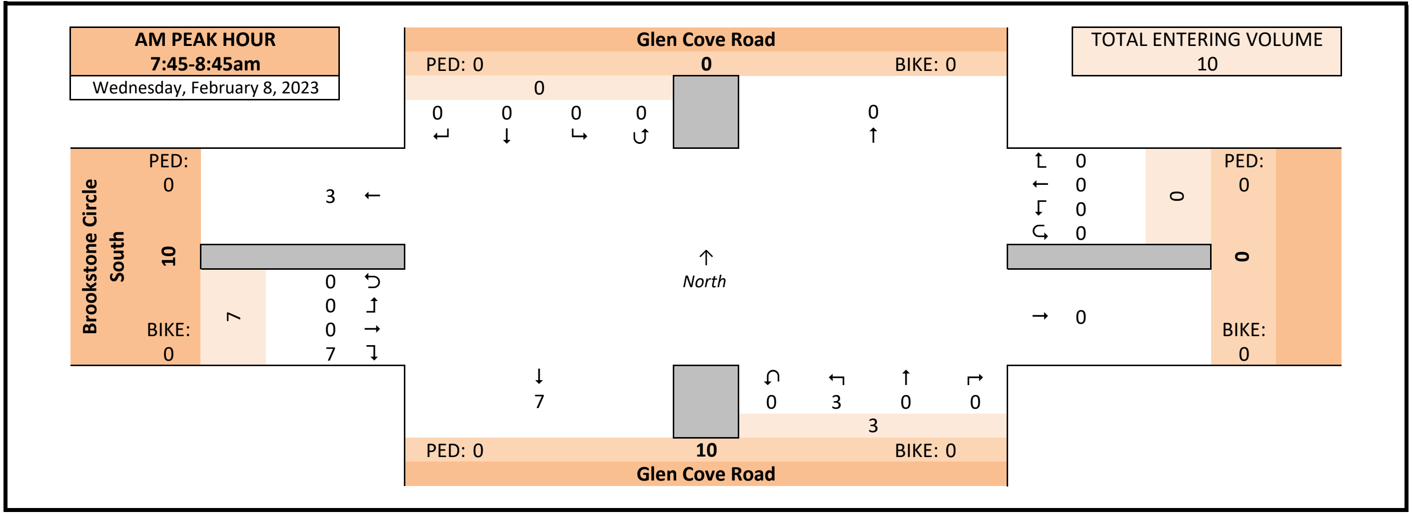
Count Basics			*Page 2 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

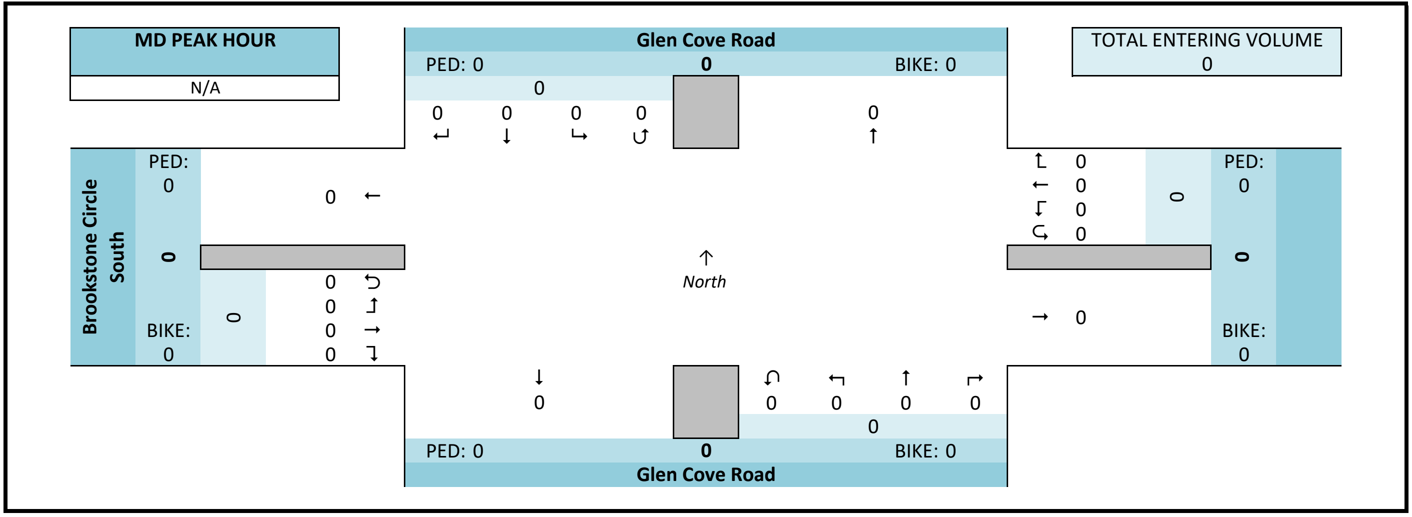
Glen Cove Road & Brookstone Circle South

All Motor Vehicles

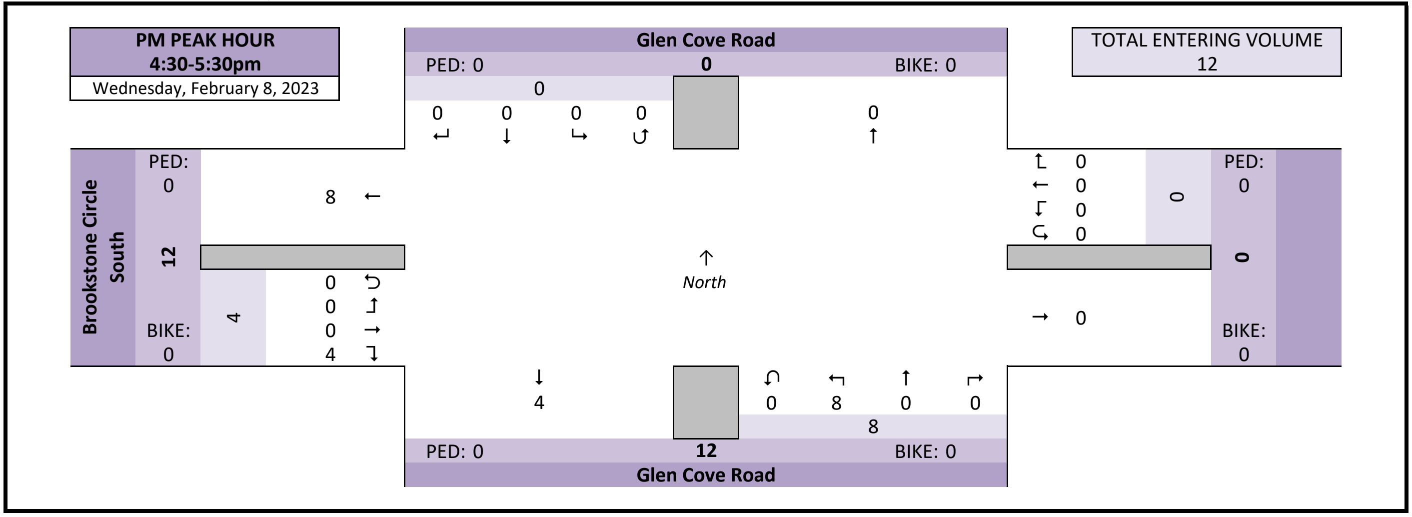
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			*Page 3 of 13*
Start Date: Wednesday, February 8, 2023		Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

Peak Hour Volume Summary

Glen Cove Road & Brookstone Circle South

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

	Wednesday, February 8, 2023	**↓ From North**					**← From East**					**↑ From South**					**→ From West**					
	AM Peak Hour	**Glen Cove Road**										**Glen Cove Road**					**Brookstone Circle South**					
	Start Time	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Totals**
AM Peak Hour	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	7	0	0	0	7	10
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5	0	0	0	5	10
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	14.3	10.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	14.3	10.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.75	0.58	0.00	0.00	0.00	0.58	0.83

	N/A	**↓ From North**					**← From East**					**↑ From South**					**→ From West**					
	MD Peak Hour	**Glen Cove Road**										**Glen Cove Road**					**Brookstone Circle South**					
	Start Time	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Totals**
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Wednesday, February 8, 2023	**↓ From North**					**← From East**					**↑ From South**					**→ From West**					
	PM Peak Hour	**Glen Cove Road**										**Glen Cove Road**					**Brookstone Circle South**					
	Start Time	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Right**	**Thru**	**Left**	**U-Tn**	**Total**	**Totals**
PM Peak Hour	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	3
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	4	0	0	0	4	12
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	10	0	10	5	0	0	0	5	15
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.67	0.50	0.00	0.00	0.00	0.50	1.00

Peak Hour Pedestrian and Bicyclist Volumes

	Pedestrians and Bicyclists	**Crossing North Approach**			**Crossing East Approach**			**Crossing South Approach**			**Crossing West Approach**			**Total Ped & Bike Volume**
		Glen Cove Road						**Glen Cove Road**			**Brookstone Circle South**			
	15-Minute Start Time	**Pedestrian**	**Bicyclist**	**Total**	**Pedestrian**	**Bicyclist**	**Total**	**Pedestrian**	**Bicyclist**	**Total**	**Pedestrian**	**Bicyclist**	**Total**	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			**Page 4 of 13**
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

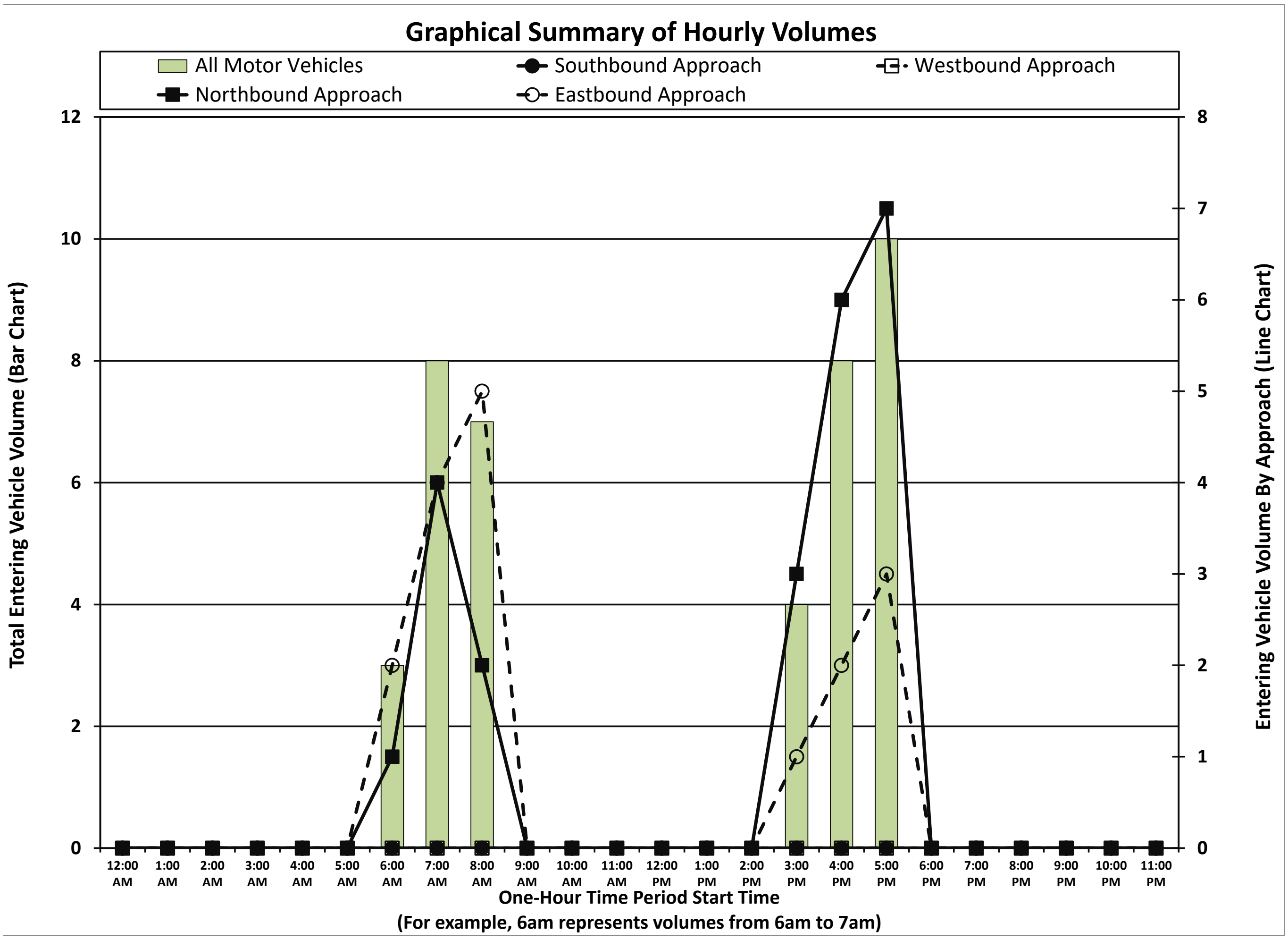
Hourly Volume Summary - Motor Vehicle Data

All Motor Vehicles

Glen Cove Road & Brookstone Circle South

One-Hour Motor Vehicle Data

One-Hour Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Vehicle Volume		Directional Volume Totals	
		Glen Cove Road										Glen Cove Road					Brookstone Circle South								
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			E/W	N/S
Pre-AM	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
AM	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3		2	1
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4	0	0	0	4	8		4	4
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5	0	0	0	5	7		5	2
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
PM	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	4		1	3
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	2	0	0	0	2	8		2	6
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7	3	0	0	0	3	10		3	7
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
Totals		0	0	0	0	0	0	0	0	0	0	0	0	23	0	23	17	0	0	0	17	40		17	23



Intersection Traffic Volume Report

Count Basics		*Page 5 of 13*
Start Date: Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

Glen Cove Road & Brookstone Circle South

All Motor Vehicles

15-Minute Motor Vehicle Data

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum	PHF
		Glen Cove Road										Glen Cove Road					Brookstone Circle South							
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1		
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2		
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3	11	0.92
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3	10	0.83
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3		
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2		
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2		
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	11	0.92
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3	12	1.00
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3		
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3		
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	3		
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	4		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		0	0	0	0	0	0	0	0	0	0	0	0	23	0	23	17	0	0	0	17	40		

Peak Hour All Vehicle Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume	PHF
		Glen Cove Road										Glen Cove Road					Brookstone Circle South						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	7	0	0	0	7	10	0.83
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	4	0	0	0	4	12	1.00

Intersection Traffic Volume Report

Count Basics			Page 6 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

15-Minute Automobile Data

Automobiles (Cars, Light Trucks, & Motorcycles)

Glen Cove Road & Brookstone Circle South

15-Minute Automobile Data

	15-Minute Time Period Start Time	↓ From North Glen Cove Road					← From East					↑ From South Glen Cove Road					→ From West Brookstone Circle South					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3	10
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2	9
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	11
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3	12
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	3	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	4	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	22	0	22	16	0	0	0	16	38	

Peak Hour Automobile Volume Summary

	Hourly Time Period Start Time	↓ From North Glen Cove Road					← From East					↑ From South Glen Cove Road					→ From West Brookstone Circle South					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	6	0	0	0	6	9
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	4	0	0	0	4	12

Intersection Traffic Volume Report

Count Basics			Page 7 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

Single Unit (SU) Trucks & Buses

Glen Cove Road & Brookstone Circle South

15-Minute Single Unit (SU) Truck & Bus Data

15-Minute		↓ From North					← From East					↑ From South					→ From West						
Time Period		Glen Cove Road										Glen Cove Road					Brookstone Circle South					15-Min	Hourly
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2	

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly		↓ From North					← From East					↑ From South					→ From West					Total
Time Period		Glen Cove Road										Glen Cove Road					Brookstone Circle South					Hourly
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 8 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

15-Minute Semi-Truck Data

Glen Cove Road & Brookstone Circle South

Semi-Trucks

15-Minute Semi-Truck Data

	15-Minute	↓ From North					← From East					↑ From South					→ From West						
	Time Period	Glen Cove Road										Glen Cove Road					Brookstone Circle South					15-Min	Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Semi-Truck Volume Summary

Hourly		↓ From North					← From East					↑ From South					→ From West					Total
Time Period		Glen Cove Road										Glen Cove Road					Brookstone Circle South					Hourly
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Glen Cove Road & Brookstone Circle South

15-Minute Heavy Vehicle Data

	15-Minute Time Period Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
		Glen Cove Road										Glen Cove Road					Brookstone Circle South						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2	

Peak Hour Heavy Vehicle Volume Summary

	Hourly Time Period Start Time	From North					From East					From South					From West					Total Hourly Volume
		Glen Cove Road										Glen Cove Road					Brookstone Circle South					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 10 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Percentages

% Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Glen Cove Road & Brookstone Circle South

15-Minute Heavy Vehicle Percentages

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Heavy Vehicle Percent	Hourly Heavy Vehicle Percent
		Glen Cove Road										Glen Cove Road					Brookstone Circle South						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AM Peak Period	6:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	50.0	
	7:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	33.3	10.0
	8:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Midday Peak Period	10:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PM Peak Period	2:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Post PM Peak Period	10:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Totals		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	4.3	5.9	0.0	0.0	0.0	5.9	5.0	

Peak Hour Heavy Vehicle Percentages Summary

	Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Hourly Heavy Vehicle Percent
		Glen Cove Road										Glen Cove Road					Brookstone Circle South					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	14.3	10.0
MD	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Pedestrians and Bicyclists
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Glen Cove Road & Brookstone Circle South

15-Minute Pedestrian and Bicyclist Data

	15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		Glen Cove Road						Glen Cove Road			Brookstone Circle South				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	1	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementry School Age Children	x					
Visually Impaired (white cane/hel	x					
Elderly/Disabled (except wheelcha	x					
Wheelchairs/Electric Scooters	x					
Other (None	x					

Intersection Traffic Volume Report

Count Basics			*Page 12 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

Adults & Children

Glen Cove Road & Brookstone Circle South

15-Minute Adult & Children Pedestrian Data

	15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		Glen Cove Road						Glen Cove Road			Brookstone Circle South				
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
Pre-AM Peak Period	12:00 AM	0		0	0		0	0		0	0		0	0	0
	12:15 AM	0		0	0		0	0		0	0		0	0	0
	12:30 AM	0		0	0		0	0		0	0		0	0	0
	12:45 AM	0		0	0		0	0		0	0		0	0	0
	1:00 AM	0		0	0		0	0		0	0		0	0	0
	1:15 AM	0		0	0		0	0		0	0		0	0	0
	1:30 AM	0		0	0		0	0		0	0		0	0	0
	1:45 AM	0		0	0		0	0		0	0		0	0	0
	2:00 AM	0		0	0		0	0		0	0		0	0	0
	2:15 AM	0		0	0		0	0		0	0		0	0	0
	2:30 AM	0		0	0		0	0		0	0		0	0	0
	2:45 AM	0		0	0		0	0		0	0		0	0	0
	3:00 AM	0		0	0		0	0		0	0		0	0	0
	3:15 AM	0		0	0		0	0		0	0		0	0	0
	3:30 AM	0		0	0		0	0		0	0		0	0	0
	3:45 AM	0		0	0		0	0		0	0		0	0	0
	4:00 AM	0		0	0		0	0		0	0		0	0	0
	4:15 AM	0		0	0		0	0		0	0		0	0	0
	4:30 AM	0		0	0		0	0		0	0		0	0	0
	4:45 AM	0		0	0		0	0		0	0		0	0	0
	5:00 AM	0		0	0		0	0		0	0		0	0	0
	5:15 AM	0		0	0		0	0		0	0		0	0	0
	5:30 AM	0		0	0		0	0		0	0		0	0	0
	5:45 AM	0		0	0		0	0		0	0		0	0	0
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	0
	6:15 AM	0		0	0		0	0		0	0		0	0	1
	6:30 AM	0		0	0		0	0		0	0		0	0	1
	6:45 AM	0		0	0		0	0		0	0		0	0	1
	7:00 AM	0		0	1		1	0		0	0		0	1	1
	7:15 AM	0		0	0		0	0		0	0		0	0	0
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	0
	2:15 PM	0		0	0		0	0		0	0		0	0	0
	2:30 PM	0		0	0		0	0		0	0		0	0	0
	2:45 PM	0		0	0		0	0		0	0		0	0	0
	3:00 PM	0		0	0		0	0		0	0		0	0	0
	3:15 PM	0		0	0		0	0		0	0		0	0	0
	3:30 PM	0		0	0		0	0		0	0		0	0	0
	3:45 PM	0		0	0		0	0		0	0		0	0	0
	4:00 PM	0		0	0		0	0		0	0		0	0	0
	4:15 PM	0		0	0		0	0		0	0		0	0	0
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Post PM Peak Period	10:00 PM	0		0	0		0	0		0	0		0	0	0
	10:15 PM	0		0	0		0	0		0	0		0	0	0
	10:30 PM	0		0	0		0	0		0	0		0	0	0
	10:45 PM	0		0	0		0	0		0	0		0	0	0
	11:00 PM	0		0	0		0	0		0	0		0	0	0
	11:15 PM	0		0	0		0	0		0	0		0	0	
	11:30 PM	0		0	0		0	0		0	0		0	0	
	11:45 PM	0		0	0		0	0		0	0		0	0	
Totals		**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

Intersection Traffic Volume Report

Count Basics			*Page 13 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 4.5		Non-Holiday	No Special Events

15-Minute Bicycle Turning Movement Count (Manual Entry)

Bicyclists

Glen Cove Road & Brookstone Circle South

15-Minute Bicycle Data

15-Minute		↓ From North					← From East					↑ From South					→ From West						
Time Period		Glen Cove Road										Glen Cove Road					Brookstone Circle South					15-Min	Hourly
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
Pre-AM Peak Period	12:00 AM					0					0					0					0	0	0
	12:15 AM					0					0					0					0	0	0
	12:30 AM					0					0					0					0	0	0
	12:45 AM					0					0					0					0	0	0
	1:00 AM					0					0					0					0	0	0
	1:15 AM					0					0					0					0	0	0
	1:30 AM					0					0					0					0	0	0
	1:45 AM					0					0					0					0	0	0
	2:00 AM					0					0					0					0	0	0
	2:15 AM					0					0					0					0	0	0
	2:30 AM					0					0					0					0	0	0
	2:45 AM					0					0					0					0	0	0
	3:00 AM					0					0					0					0	0	0
	3:15 AM					0					0					0					0	0	0
	3:30 AM					0					0					0					0	0	0
	3:45 AM					0					0					0					0	0	0
	4:00 AM					0					0					0					0	0	0
	4:15 AM					0					0					0					0	0	0
	4:30 AM					0					0					0					0	0	0
	4:45 AM					0					0					0					0	0	0
	5:00 AM					0					0					0					0	0	0
	5:15 AM					0					0					0					0	0	0
	5:30 AM					0					0					0					0	0	0
	5:45 AM					0					0					0					0	0	0
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
	9:45 AM					0					0					0					0	0	0
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
	11:00 AM					0					0					0					0	0	0
	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
	11:45 AM					0					0					0					0	0	0
	12:00 PM					0					0					0					0	0	0
	12:15 PM					0					0					0					0	0	0
	12:30 PM					0					0					0					0	0	0
	12:45 PM					0					0					0					0	0	0
	1:00 PM					0					0					0					0	0	0
	1:15 PM					0					0					0					0	0	0
	1:30 PM					0					0					0					0	0	0
	1:45 PM					0					0					0					0	0	0
PM Peak Period	2:00 PM					0					0					0					0	0	0
	2:15 PM					0					0					0					0	0	0
	2:30 PM					0					0					0					0	0	0
	2:45 PM					0					0					0					0	0	0
	3:00 PM					0					0					0					0	0	0
	3:15 PM					0					0					0					0	0	0
	3:30 PM					0					0					0					0	0	0
	3:45 PM					0					0					0					0	0	0
	4:00 PM					0					0					0					0	0	0
	4:15 PM					0					0					0					0	0	0
	4:30 PM					0					0					0					0	0	0
	4:45 PM					0					0					0					0	0	0
	5:00 PM					0					0					0					0	0	0
	5:15 PM					0					0					0					0	0	0
	5:30 PM					0					0					0					0	0	0
	5:45 PM					0					0					0					0	0	0
	6:00 PM					0					0					0					0	0	0
	6:15 PM					0					0					0					0	0	0
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	6:45 PM					0					0					0					0	0	0
	7:00 PM					0					0					0					0	0	0
	7:15 PM					0					0					0					0	0	0
	7:30 PM					0					0					0					0	0	0
	7:45 PM					0					0					0					0	0	0
	8:00 PM					0					0					0					0	0	0
	8:15 PM					0					0					0					0	0	0
	8:30 PM					0					0					0					0	0	0
	8:45 PM					0					0					0					0	0	0
	9:00 PM					0					0					0					0	0	0
	9:15 PM					0					0					0					0	0	0
	9:30 PM					0					0					0					0	0	0
	9:45 PM					0					0					0					0	0	0
Post PM Peak Period	10:00 PM					0					0					0					0	0	0
	10:15 PM					0					0					0					0	0	0
	10:30 PM					0					0					0					0	0	0
	10:45 PM					0					0					0					0	0	0
	11:00 PM					0					0					0					0	0	0
	11:15 PM					0					0					0					0	0	
	11:30 PM					0					0					0					0	0	
	11:45 PM					0					0					0					0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

Hourly		↓ From North					← From East					↑ From South					→ From West					Total
Time Period		Glen Cove Road										Glen Cove Road					Brookstone Circle South					Hourly
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		*Version 2022.11.2*	*Page 1 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: **Elmhurst Road**
Minor St: **CTH DR - Golf Road**
Intersection of: ***Elmhurst Road & CTH DR - Golf Road***

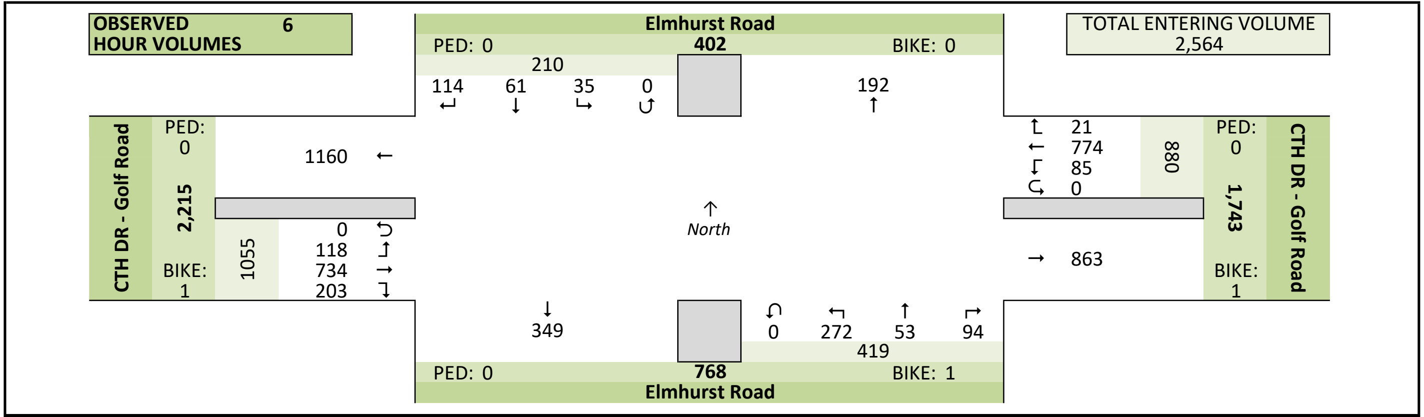
Site Information

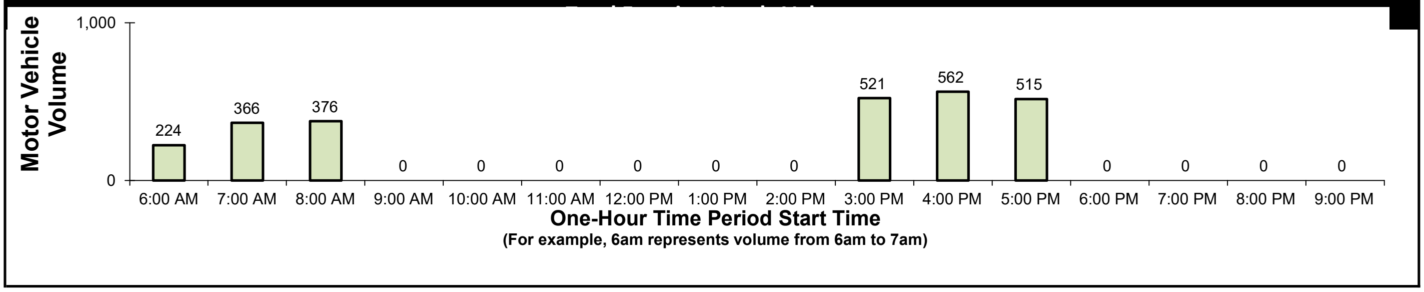
Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	All-Way Stop		
Roadway Names		North Direction	↑
North Leg	Elmhurst Road		
East Leg	CTH DR - Golf Road		
South Leg	Elmhurst Road		
West Leg	CTH DR - Golf Road		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

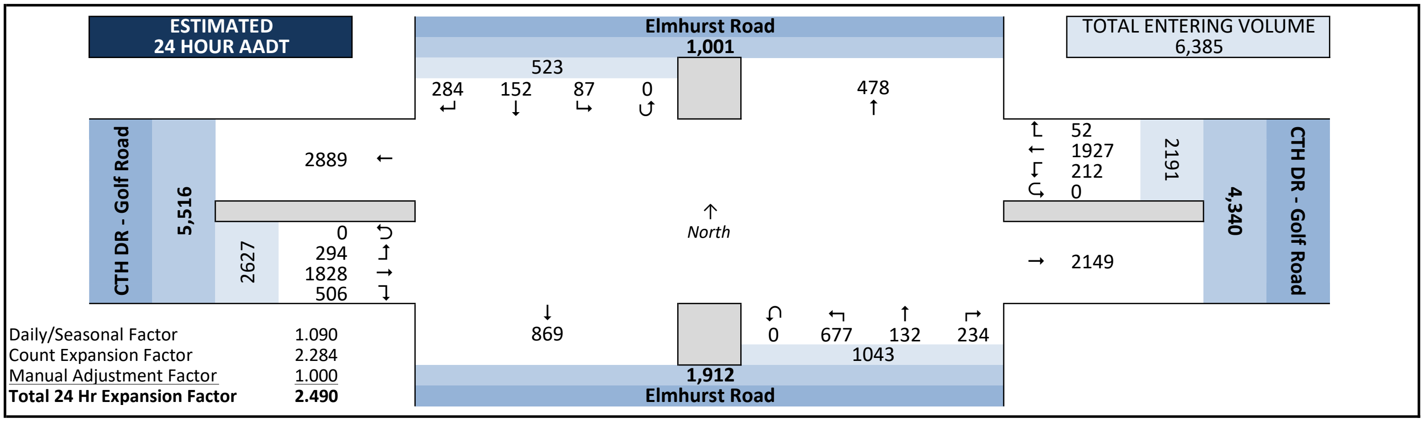
Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM				
1st Day of Count	Wednesday, February 8, 2023			Weather	
AM Peak Period	Wednesday, February 8, 2023			Clear & Dry	
Midday Peak Period	Thursday, February 9, 2023			Clear & Dry	
PM Peak Period	Thursday, February 9, 2023			Clear & Dry	
Calculated Peak Hours					
AM	7:45-8:45am	MD		PM	4:30-5:30pm
Peak Hours Selected for Analysis					
AM	7:45-8:45am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors				
Count Expansion Group	(2) Urban Arterials & Collectors				
Daily/Seasonal Adjustment Factor	1.090			Count Expansion Factor	2.284
Company Name	TADI, Inc.			Manual Adj.	1.000
Observers	AM Peak Period	Amy Scheuerlein			
	Midday Peak Period	None			
	PM Peak Period	Amy Scheuerlein			
Comments	2021 DOT Daily & Seasonal Factors				

Observed 6 Hour Volume Summary





Estimated 24 Hour AADT



Daily/Seasonal Factor	1.090
Count Expansion Factor	2.284
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**2.490**

Intersection Traffic Volume Report

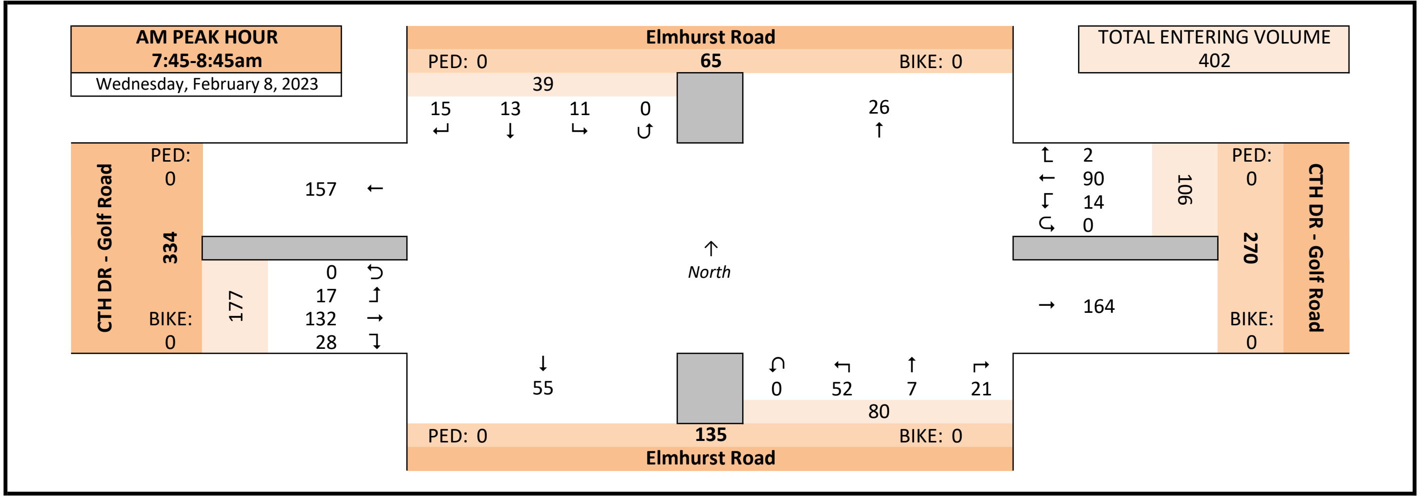
Count Basics			Page 2 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

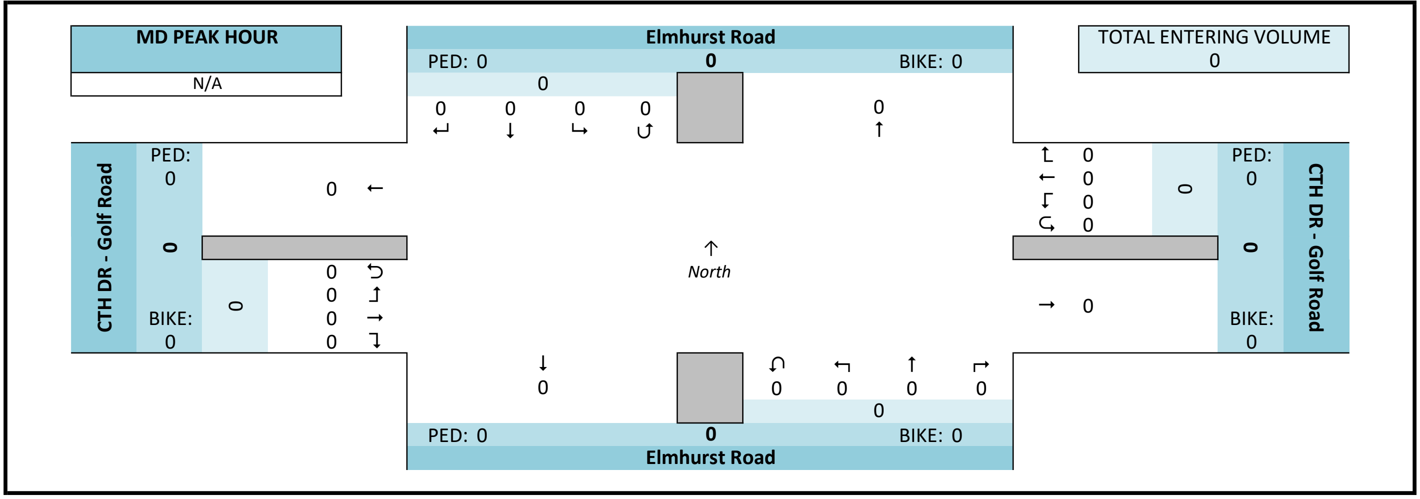
All Motor Vehicles

Elmhurst Road & CTH DR - Golf Road

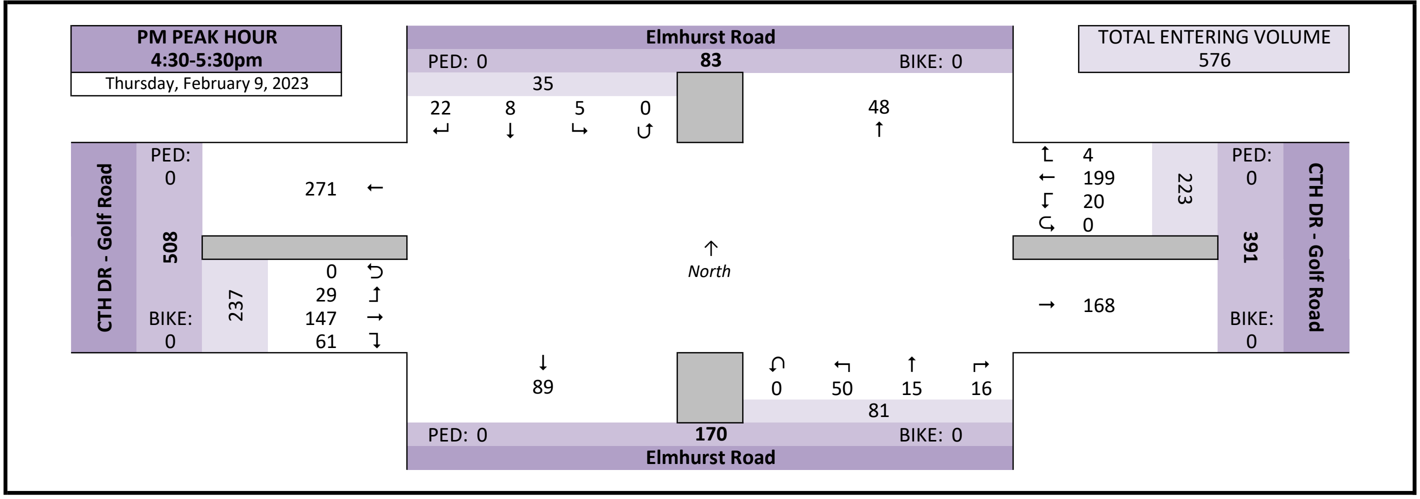
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Summary

All Motor Vehicles

Elmhurst Road & CTH DR - Golf Road

Peak Hour Volumes, Truck Percentages, and PHFs

Wednesday, February 8, 2023		From North					From East					From South					From West					
	AM Peak Hour	Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:45 AM	1	4	2	0	7	1	25	5	0	31	8	2	23	0	33	6	45	3	0	54	125
	8:00 AM	5	1	3	0	9	0	22	7	0	29	8	1	10	0	19	6	27	5	0	38	95
	8:15 AM	4	2	3	0	9	1	19	1	0	21	5	1	11	0	17	10	28	4	0	42	89
	8:30 AM	5	6	3	0	14	0	24	1	0	25	0	3	8	0	11	6	32	5	0	43	93
	Peak Hour Volume	15	13	11	0	39	2	90	14	0	106	21	7	52	0	80	28	132	17	0	177	402
	Rounded Hourly Volume	15	15	10	0	40	0	90	15	0	105	20	5	50	0	75	30	130	15	0	175	395
	% Single Unit Trucks	6.7	0.0	0.0	0.0	2.6	50.0	7.8	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	3.6	0.0	29.4	0.0	3.4	3.7
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	6.7	0.0	0.0	0.0	2.6	50.0	7.8	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	3.6	0.0	29.4	0.0	3.4	3.7
	Peak Hour Factor (PHF)	0.75	0.54	0.92	0.00	0.70	0.50	0.90	0.50	0.00	0.85	0.66	0.58	0.57	0.00	0.61	0.70	0.73	0.85	0.00	0.82	0.80

N/A		From North					From East					From South					From West					
	MD Peak Hour	Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Thursday, February 9, 2023		From North					From East					From South					From West					
	PM Peak Hour	Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	5	2	1	0	8	1	57	2	0	60	5	3	12	0	20	12	27	5	0	44	132
	4:45 PM	9	2	0	0	11	0	42	7	0	49	3	4	13	0	20	16	44	10	0	70	150
	5:00 PM	6	2	1	0	9	3	52	6	0	61	8	3	8	0	19	17	34	6	0	57	146
	5:15 PM	2	2	3	0	7	0	48	5	0	53	0	5	17	0	22	16	42	8	0	66	148
	Peak Hour Volume	22	8	5	0	35	4	199	20	0	223	16	15	50	0	81	61	147	29	0	237	576
	Rounded Hourly Volume	20	10	5	0	35	5	200	20	0	225	15	15	50	0	80	60	145	30	0	235	575
	% Single Unit Trucks	4.5	12.5	20.0	0.0	8.6	0.0	0.0	5.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	4.5	12.5	20.0	0.0	8.6	0.0	0.0	5.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
	Peak Hour Factor (PHF)	0.61	1.00	0.42	0.00	0.80	0.33	0.87	0.71	0.00	0.91	0.50	0.75	0.74	0.00	0.92	0.90	0.84	0.72	0.00	0.85	0.96

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Elmhurst Road			CTH DR - Golf Road			Elmhurst Road			CTH DR - Golf Road			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			*Page 4 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

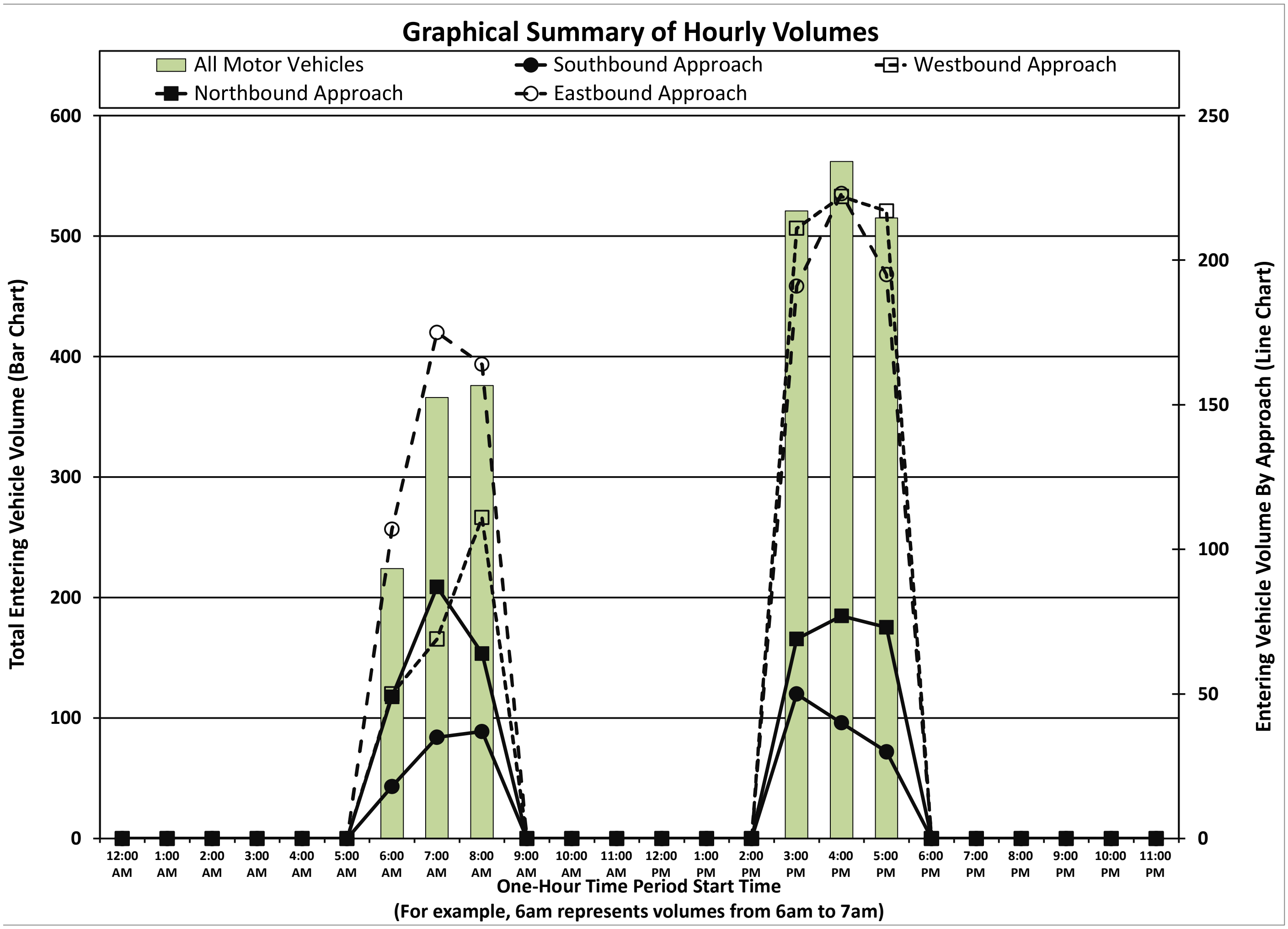
Hourly Volume Summary - Motor Vehicle Data

All Motor Vehicles

Elmhurst Road & CTH DR - Golf Road

One-Hour Motor Vehicle Data

One-Hour Time Period Start Time		From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals	
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road							
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		E/W	N/S
Pre-AM	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	6:00 AM	7	7	4	0	18	0	47	3	0	50	11	6	32	0	49	24	79	4	0	107	224	157	67
	7:00 AM	18	12	5	0	35	2	54	13	0	69	25	8	54	0	87	22	141	12	0	175	366	244	122
	8:00 AM	18	9	10	0	37	2	97	12	0	111	17	7	40	0	64	26	120	18	0	164	376	275	101
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 PM	33	11	6	0	50	5	188	18	0	211	15	10	44	0	69	31	134	26	0	191	521	402	119
	4:00 PM	25	12	3	0	40	7	195	20	0	222	11	12	54	0	77	47	137	39	0	223	562	445	117
	5:00 PM	13	10	7	0	30	5	193	19	0	217	15	10	48	0	73	53	123	19	0	195	515	412	103
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals		114	61	35	0	210	21	774	85	0	880	94	53	272	0	419	203	734	118	0	1055	2564	1935	629



Intersection Traffic Volume Report

Count Basics			Page 5 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

Elmhurst Road & CTH DR - Golf Road

15-Minute Motor Vehicle Data

15-Minute Time Period		↓ From North					← From East					↑ From South					→ From West					15-Min	Hourly	
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					Totals	Sum	PHF
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AM Peak Period	6:00 AM	1	1	0	0	2	0	8	0	0	8	2	0	5	0	7	6	13	1	0	20	37	224	0.74
	6:15 AM	2	2	0	0	4	0	14	0	0	14	3	2	5	0	10	4	14	0	0	18	46	263	0.87
	6:30 AM	3	2	3	0	8	0	14	1	0	15	1	0	5	0	6	5	30	1	0	36	65	301	0.90
	6:45 AM	1	2	1	0	4	0	11	2	0	13	5	4	17	0	26	9	22	2	0	33	76	317	0.94
	7:00 AM	5	4	0	0	9	0	4	2	0	6	9	2	7	0	18	5	34	4	0	43	76	366	0.73
	7:15 AM	7	2	0	0	9	1	11	6	0	18	5	2	9	0	16	3	37	1	0	41	84	385	0.77
	7:30 AM	5	2	3	0	10	0	14	0	0	14	3	2	15	0	20	8	25	4	0	37	81	390	0.78
	7:45 AM	1	4	2	0	7	1	25	5	0	31	8	2	23	0	33	6	45	3	0	54	125	402	0.80
	8:00 AM	5	1	3	0	9	0	22	7	0	29	8	1	10	0	19	6	27	5	0	38	95	376	0.95
	8:15 AM	4	2	3	0	9	1	19	1	0	21	5	1	11	0	17	10	28	4	0	42	89		
	8:30 AM	5	6	3	0	14	0	24	1	0	25	0	3	8	0	11	6	32	5	0	43	93		
	8:45 AM	4	0	1	0	5	1	32	3	0	36	4	2	11	0	17	4	33	4	0	41	99		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	11	5	4	0	20	0	47	6	0	53	5	3	11	0	19	9	25	6	0	40	132	521	0.96
	3:15 PM	6	2	0	0	8	3	39	5	0	47	3	2	10	0	15	8	38	6	0	52	122	537	0.91
	3:30 PM	6	3	0	0	9	0	53	5	0	58	3	1	6	0	10	3	41	10	0	54	131	547	0.92
	3:45 PM	10	1	2	0	13	2	49	2	0	53	4	4	17	0	25	11	30	4	0	45	136	548	0.93
	4:00 PM	7	3	1	0	11	3	55	8	0	66	2	3	12	0	17	14	30	10	0	54	148	562	0.94
	4:15 PM	4	5	1	0	10	3	41	3	0	47	1	2	17	0	20	5	36	14	0	55	132	560	0.93
	4:30 PM	5	2	1	0	8	1	57	2	0	60	5	3	12	0	20	12	27	5	0	44	132	576	0.96
	4:45 PM	9	2	0	0	11	0	42	7	0	49	3	4	13	0	20	16	44	10	0	70	150	558	0.93
	5:00 PM	6	2	1	0	9	3	52	6	0	61	8	3	8	0	19	17	34	6	0	57	146	515	0.87
	5:15 PM	2	2	3	0	7	0	48	5	0	53	0	5	17	0	22	16	42	8	0	66	148		
	5:30 PM	2	4	3	0	9	2	45	5	0	52	5	1	13	0	19	13	19	2	0	34	114		
	5:45 PM	3	2	0	0	5	0	48	3	0	51	2	1	10	0	13	7	28	3	0	38	107		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		114	61	35	0	210	21	774	85	0	880	94	53	272	0	419	203	734	118	0	1055	2564		

Peak Hour All Vehicle Volume Summary

Hourly Time Period		↓ From North					← From East					↑ From South					→ From West					Total	
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM	7:45 AM	15	13	11	0	39	2	90	14	0	106	21	7	52	0	80	28	132	17	0	177	402	0.80
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	22	8	5	0	35	4	199	20	0	223	16	15	50	0	81	61	147	29	0	237	576	0.96

Intersection Traffic Volume Report

Count Basics			Page 6 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Automobile Data

Automobiles (Cars, Light Trucks, & Motorcycles)

Elmhurst Road & CTH DR - Golf Road

15-Minute Automobile Data

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	1	1	0	0	2	0	8	0	0	8	2	0	5	0	7	6	12	1	0	19	36	217
	6:15 AM	2	2	0	0	4	0	14	0	0	14	3	2	5	0	10	4	14	0	0	18	46	254
	6:30 AM	2	0	3	0	5	0	13	1	0	14	1	0	5	0	6	5	29	1	0	35	60	292
	6:45 AM	1	2	1	0	4	0	11	2	0	13	4	4	17	0	25	9	22	2	0	33	75	311
	7:00 AM	5	4	0	0	9	0	4	2	0	6	9	2	6	0	17	4	33	4	0	41	73	357
	7:15 AM	7	2	0	0	9	1	11	6	0	18	5	2	9	0	16	3	37	1	0	41	84	374
	7:30 AM	5	2	3	0	10	0	14	0	0	14	3	1	15	0	19	8	25	3	0	36	79	377
	7:45 AM	1	4	2	0	7	1	23	5	0	29	8	2	23	0	33	6	45	1	0	52	121	387
	8:00 AM	4	1	3	0	8	0	19	7	0	26	8	1	10	0	19	6	27	4	0	37	90	360
	8:15 AM	4	2	3	0	9	0	18	1	0	19	5	1	11	0	17	10	28	4	0	42	87	
	8:30 AM	5	6	3	0	14	0	23	1	0	24	0	3	8	0	11	5	32	3	0	40	89	
	8:45 AM	3	0	1	0	4	0	30	3	0	33	4	2	10	0	16	4	33	4	0	41	94	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	10	4	4	0	18	0	47	6	0	53	5	3	11	0	19	9	25	5	0	39	129	511
	3:15 PM	6	2	0	0	8	3	39	5	0	47	3	2	10	0	15	8	38	6	0	52	122	529
	3:30 PM	6	3	0	0	9	0	52	4	0	56	2	1	6	0	9	3	40	10	0	53	127	538
	3:45 PM	9	1	1	0	11	2	49	2	0	53	4	4	17	0	25	11	30	3	0	44	133	542
	4:00 PM	7	3	1	0	11	3	54	8	0	65	2	3	12	0	17	14	30	10	0	54	147	558
	4:15 PM	4	5	1	0	10	3	40	3	0	46	1	2	17	0	20	5	36	14	0	55	131	555
	4:30 PM	4	2	1	0	7	1	57	2	0	60	5	3	12	0	20	12	27	5	0	44	131	572
	4:45 PM	9	2	0	0	11	0	42	6	0	48	3	4	13	0	20	16	44	10	0	70	149	555
	5:00 PM	6	1	0	0	7	3	52	6	0	61	8	3	8	0	19	17	34	6	0	57	144	513
	5:15 PM	2	2	3	0	7	0	48	5	0	53	0	5	17	0	22	16	42	8	0	66	148	
	5:30 PM	2	4	3	0	9	2	45	5	0	52	5	1	13	0	19	13	19	2	0	34	114	
	5:45 PM	3	2	0	0	5	0	48	3	0	51	2	1	10	0	13	7	28	3	0	38	107	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		108	57	33	0	198	19	761	83	0	863	92	52	270	0	414	201	730	110	0	1041	2516	

Peak Hour Automobile Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	14	13	11	0	38	1	83	14	0	98	21	7	52	0	80	27	132	12	0	171	387
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	21	7	4	0	32	4	199	19	0	222	16	15	50	0	81	61	147	29	0	237	572

Intersection Traffic Volume Report

Count Basics			Page 7 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

Elmhurst Road & CTH DR - Golf Road

Single Unit (SU) Trucks & Buses

15-Minute Single Unit (SU) Truck & Bus Data

	15-Minute	↓ From North					← From East					↑ From South					→ From West						
	Time Period	Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					15-Min	Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	7
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	6:30 AM	1	2	0	0	3	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	5	9
	6:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	6
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2	3	9
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2	13
	7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	2	0	2	4	15
	8:00 AM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	1	0	1	5	16
	8:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
	8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	2	0	3	4	
	8:45 AM	1	0	0	0	1	1	2	0	0	3	0	0	1	0	1	0	0	0	0	0	5	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	10
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	3:30 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	1	0	0	1	4	9
	3:45 PM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	6
	4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	4
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	5
	4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
	4:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	3
	5:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		6	4	2	0	12	2	13	2	0	17	2	1	2	0	5	2	4	8	0	14	48	

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly		↓ From North					← From East					↑ From South					→ From West					Total
Time Period		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					Hourly
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:45 AM	1	0	0	0	1	1	7	0	0	8	0	0	0	0	0	1	0	5	0	6	15
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	1	1	1	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4

Intersection Traffic Volume Report

Count Basics			*Page 8 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Semi-Truck Data

Elmhurst Road & CTH DR - Golf Road

Semi-Trucks

15-Minute Semi-Truck Data

	15-Minute Time Period	↓ From North					← From East					↑ From South					→ From West					15-Min	Hourly
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road						
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Semi-Truck Volume Summary

Hourly Time Period		↓ From North					← From East					↑ From South					→ From West					Total Hourly
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Elmhurst Road & CTH DR - Golf Road

15-Minute Heavy Vehicle Data

	15-Minute Time Period Start Time	From North ↓					From East ←					From South ↑					From West →					15-Min Totals	Hourly Sum
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	7
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	6:30 AM	1	2	0	0	3	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	5	9
	6:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	6
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2	3	9
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2	13
	7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	2	0	2	4	15
	8:00 AM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	1	0	1	5	16
	8:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
	8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	2	0	3	4	
	8:45 AM	1	0	0	0	1	1	2	0	0	3	0	0	1	0	1	0	0	0	0	0	5	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	10
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	3:30 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	1	0	0	1	4	9
	3:45 PM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	6
	4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	4
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	5
	4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
	4:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	3
	5:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		6	4	2	0	12	2	13	2	0	17	2	1	2	0	5	2	4	8	0	14	48	

Peak Hour Heavy Vehicle Volume Summary

	Hourly Time Period Start Time	From North ↓					From East ←					From South ↑					From West →					Total Hourly Volume
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	1	0	0	0	1	1	7	0	0	8	0	0	0	0	0	1	0	5	0	6	15
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	1	1	1	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4

Intersection Traffic Volume Report

Count Basics			Page 10 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Percentages

% Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Elmhurst Road & CTH DR - Golf Road

15-Minute Heavy Vehicle Percentages

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Heavy Vehicle Percent	Hourly Heavy Vehicle Percent
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AM Peak Period	6:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	5.0	2.7	3.1
	6:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
	6:30 AM	33.3	100.0	0.0	0.0	37.5	0.0	7.1	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	2.8	7.7	3.0
	6:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	1.3	1.9
	7:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	5.6	20.0	2.9	0.0	0.0	4.7	3.9	2.5
	7:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
	7:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	5.0	0.0	0.0	25.0	0.0	2.7	2.5	3.3
	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	3.7	3.2	3.7
	8:00 AM	20.0	0.0	0.0	0.0	11.1	0.0	13.6	0.0	0.0	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	2.6	5.3	4.3
	8:15 AM	0.0	0.0	0.0	0.0	0.0	100.0	5.3	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	
	8:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	40.0	0.0	7.0	4.3	
	8:45 AM	25.0	0.0	0.0	0.0	20.0	100.0	6.3	0.0	0.0	8.3	0.0	0.0	9.1	0.0	5.9	0.0	0.0	0.0	0.0	0.0	5.1	
	9:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Midday Peak Period	10:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PM Peak Period	2:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 PM	9.1	20.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	2.5	2.3	1.9
	3:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
	3:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.9	20.0	0.0	3.4	33.3	0.0	0.0	0.0	10.0	0.0	2.4	0.0	0.0	1.9	3.1	1.6
	3:45 PM	10.0	0.0	50.0	0.0	15.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	2.2	2.2	1.1
	4:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7
	4:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9
	4:30 PM	20.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.7
	4:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.5
	5:00 PM	0.0	50.0	100.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.4
	5:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Post PM Peak Perio	10:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Totals		5.3	6.6	5.7	0.0	5.7	9.5	1.7	2.4	0.0	1.9	2.1	1.9	0.7	0.0	1.2	1.0	0.5	6.8	0.0	1.3	1.9	

Peak Hour Heavy Vehicle Percentages Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Hourly Heavy Vehicle Percent
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	6.7	0.0	0.0	0.0	2.6	50.0	7.8	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	3.6	0.0	29.4	0.0	3.4	3.7
MD	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM	4:30 PM	4.5	12.5	20.0	0.0	8.6	0.0	0.0	5.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7

Intersection Traffic Volume Report

Count Basics			*Page 11 of 13*
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Elmhurst Road & CTH DR - Golf Road

Pedestrians and Bicyclists

15-Minute Pedestrian and Bicyclist Data

	15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		Elmhurst Road			CTH DR - Golf Road			Elmhurst Road			CTH DR - Golf Road				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	1	3
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	3:30 PM	0	0	0	0	1	1	0	0	0	0	1	1	2	2
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		**0**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**1**	**0**	**1**	**1**	**3**	

Special Pedestrians

Pedestrian Type	**None**	**1 or 2**	**A Few**	**Several**	**Many**	**Unknown**
Pre-school Children	x					
Elementry School Age Children	x					
Visually Impaired (white cane/help	x					
Elderly/Disabled (except wheelcha	x					
Wheelchairs/Electric Scooters	x					
Other (None	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

Adults & Children

Elmhurst Road & CTH DR - Golf Road

15-Minute Adult & Children Pedestrian Data

15-Minute Time Period Start Time		Crossing North Approach Elmhurst Road			Crossing East Approach CTH DR - Golf Road			Crossing South Approach Elmhurst Road			Crossing West Approach CTH DR - Golf Road			15-Min Totals	Hourly Sum
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
Pre-AM Peak Period	12:00 AM	0		0	0		0	0		0	0		0	0	0
	12:15 AM	0		0	0		0	0		0	0		0	0	0
	12:30 AM	0		0	0		0	0		0	0		0	0	0
	12:45 AM	0		0	0		0	0		0	0		0	0	0
	1:00 AM	0		0	0		0	0		0	0		0	0	0
	1:15 AM	0		0	0		0	0		0	0		0	0	0
	1:30 AM	0		0	0		0	0		0	0		0	0	0
	1:45 AM	0		0	0		0	0		0	0		0	0	0
	2:00 AM	0		0	0		0	0		0	0		0	0	0
	2:15 AM	0		0	0		0	0		0	0		0	0	0
	2:30 AM	0		0	0		0	0		0	0		0	0	0
	2:45 AM	0		0	0		0	0		0	0		0	0	0
	3:00 AM	0		0	0		0	0		0	0		0	0	0
	3:15 AM	0		0	0		0	0		0	0		0	0	0
	3:30 AM	0		0	0		0	0		0	0		0	0	0
	3:45 AM	0		0	0		0	0		0	0		0	0	0
	4:00 AM	0		0	0		0	0		0	0		0	0	0
	4:15 AM	0		0	0		0	0		0	0		0	0	0
	4:30 AM	0		0	0		0	0		0	0		0	0	0
	4:45 AM	0		0	0		0	0		0	0		0	0	0
	5:00 AM	0		0	0		0	0		0	0		0	0	0
	5:15 AM	0		0	0		0	0		0	0		0	0	0
	5:30 AM	0		0	0		0	0		0	0		0	0	0
	5:45 AM	0		0	0		0	0		0	0		0	0	0
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	0
	6:15 AM	0		0	0		0	0		0	0		0	0	0
	6:30 AM	0		0	0		0	0		0	0		0	0	0
	6:45 AM	0		0	0		0	0		0	0		0	0	0
	7:00 AM	0		0	0		0	0		0	0		0	0	0
	7:15 AM	0		0	0		0	0		0	0		0	0	0
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	0
	2:15 PM	0		0	0		0	0		0	0		0	0	0
	2:30 PM	0		0	0		0	0		0	0		0	0	0
	2:45 PM	0		0	0		0	0		0	0		0	0	0
	3:00 PM	0		0	0		0	0		0	0		0	0	0
	3:15 PM	0		0	0		0	0		0	0		0	0	0
	3:30 PM	0		0	0		0	0		0	0		0	0	0
	3:45 PM	0		0	0		0	0		0	0		0	0	0
	4:00 PM	0		0	0		0	0		0	0		0	0	0
	4:15 PM	0		0	0		0	0		0	0		0	0	0
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Post PM Peak Period	10:00 PM	0		0	0		0	0		0	0		0	0	0
	10:15 PM	0		0	0		0	0		0	0		0	0	0
	10:30 PM	0		0	0		0	0		0	0		0	0	0
	10:45 PM	0		0	0		0	0		0	0		0	0	0
	11:00 PM	0		0	0		0	0		0	0		0	0	0
	11:15 PM	0		0	0		0	0		0	0		0	0	
	11:30 PM	0		0	0		0	0		0	0		0	0	
	11:45 PM	0		0	0		0	0		0	0		0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	

Intersection Traffic Volume Report

Count Basics			Page 13 of 13
Start Date:	Wednesday, February 8, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Bicycle Turning Movement Count (Manual Entry)

Bicyclists

Elmhurst Road & CTH DR - Golf Road

15-Minute Bicycle Data

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM					0					0					0					0	0	0
	12:15 AM					0					0					0					0	0	0
	12:30 AM					0					0					0					0	0	0
	12:45 AM					0					0					0					0	0	0
	1:00 AM					0					0					0					0	0	0
	1:15 AM					0					0					0					0	0	0
	1:30 AM					0					0					0					0	0	0
	1:45 AM					0					0					0					0	0	0
	2:00 AM					0					0					0					0	0	0
	2:15 AM					0					0					0					0	0	0
	2:30 AM					0					0					0					0	0	0
	2:45 AM					0					0					0					0	0	0
	3:00 AM					0					0					0					0	0	0
	3:15 AM					0					0					0					0	0	0
	3:30 AM					0					0					0					0	0	0
	3:45 AM					0					0					0					0	0	0
	4:00 AM					0					0					0					0	0	0
	4:15 AM					0					0					0					0	0	0
	4:30 AM					0					0					0					0	0	0
	4:45 AM					0					0					0					0	0	0
	5:00 AM					0					0					0					0	0	0
	5:15 AM					0					0					0					0	0	0
	5:30 AM					0					0					0					0	0	0
	5:45 AM					0					0					0					0	0	0
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
	9:45 AM					0					0					0					0	0	0
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
	11:00 AM					0					0					0					0	0	0
	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
	11:45 AM					0					0					0					0	0	0
	12:00 PM					0					0					0					0	0	0
	12:15 PM					0					0					0					0	0	0
	12:30 PM					0					0					0					0	0	0
	12:45 PM					0					0					0					0	0	0
	1:00 PM					0					0					0					0	0	0
	1:15 PM					0					0					0					0	0	0
	1:30 PM					0					0					0					0	0	0
	1:45 PM					0					0					0					0	0	0
PM Peak Period	2:00 PM					0					0					0					0	0	0
	2:15 PM					0					0					0					0	0	0
	2:30 PM					0					0					0					0	0	0
	2:45 PM					0					0					0					0	0	0
	3:00 PM					0					0					0					0	0	0
	3:15 PM					0					0					0					0	0	0
	3:30 PM					0					0					0					0	0	0
	3:45 PM					0					0					0					0	0	0
	4:00 PM					0					0					0					0	0	0
	4:15 PM					0					0					0					0	0	0
	4:30 PM					0					0					0					0	0	0
	4:45 PM					0					0					0					0	0	0
	5:00 PM					0					0					0					0	0	0
	5:15 PM					0					0					0					0	0	0
	5:30 PM					0					0					0					0	0	0
	5:45 PM					0					0					0					0	0	0
	6:00 PM					0					0					0					0	0	0
	6:15 PM					0					0					0					0	0	0
	6:30 PM					0					0					0					0	0	0
	6:45 PM					0					0					0					0	0	0
	7:00 PM					0					0					0					0	0	0
	7:15 PM					0					0					0					0	0	0
	7:30 PM					0					0					0					0	0	0
	7:45 PM					0					0					0					0	0	0
	8:00 PM					0					0					0					0	0	0
	8:15 PM					0					0					0					0	0	0
	8:30 PM					0					0					0					0	0	0
	8:45 PM					0					0					0					0	0	0
	9:00 PM					0					0					0					0	0	0
	9:15 PM					0					0					0					0	0	0
	9:30 PM					0					0					0					0	0	0
	9:45 PM					0					0					0					0	0	0
Post PM Peak Perio	10:00 PM					0					0					0					0	0	0
	10:15 PM					0					0					0					0	0	0
	10:30 PM					0					0					0					0	0	0
	10:45 PM					0					0					0					0	0	0
	11:00 PM					0					0					0					0	0	
	11:15 PM					0					0					0					0	0	
	11:30 PM					0					0					0					0	0	
	11:45 PM					0					0					0					0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

	Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Elmhurst Road					CTH DR - Golf Road					Elmhurst Road					CTH DR - Golf Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		*Version 2022.11.2*	*Page 1 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: **Elmhurst Road**
Minor St: **Golf Ridge North Road**
Intersection of: ***Elmhurst Road & Golf Ridge North Road***

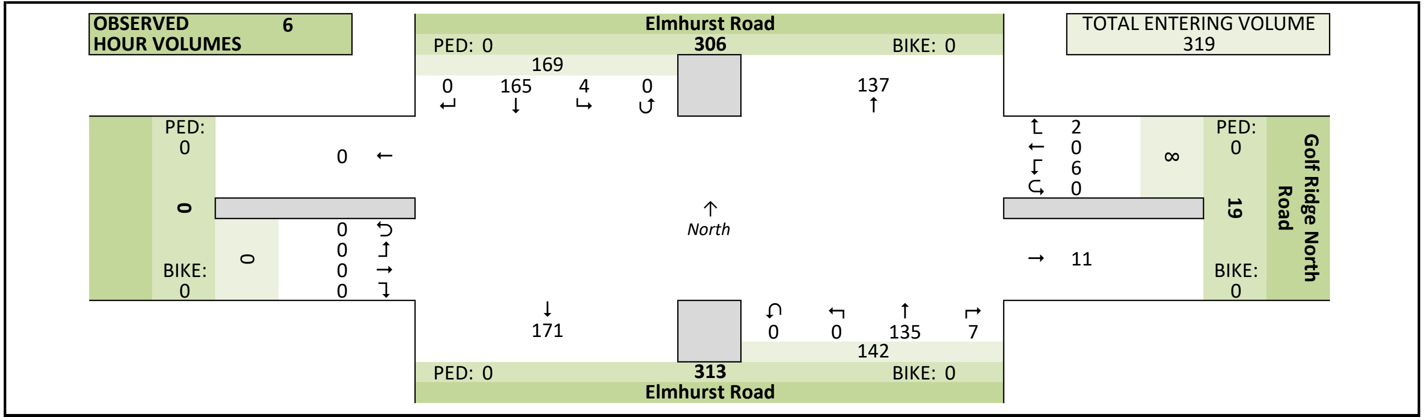
Site Information

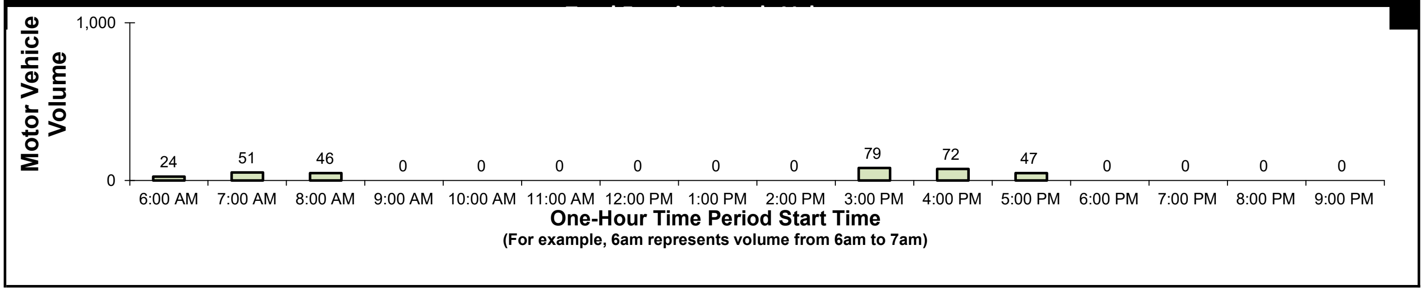
Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Partial Stop Control		
Roadway Names		North Direction	↑
North Leg	Elmhurst Road		
East Leg	Golf Ridge North Road		
South Leg	Elmhurst Road		
West Leg			
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

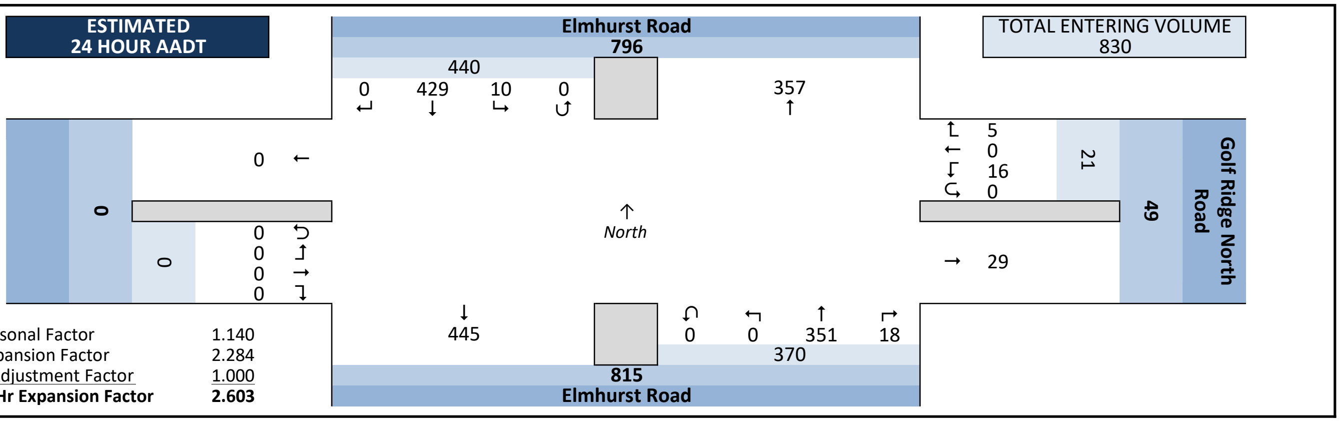
Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM		
1st Day of Count	Thursday, February 9, 2023	Weather	
AM Peak Period	Thursday, February 9, 2023	Clear & Dry	
Midday Peak Period	Thursday, February 9, 2023	Clear & Dry	
PM Peak Period	Monday, February 13, 2023	Clear & Dry	
Calculated Peak Hours			
AM	7:00-8:00am	MD	PM 3:00-4:00pm
Peak Hours Selected for Analysis			
AM	7:45-8:45am	MD	PM 4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	1.140	Count Expansion Factor	2.284
Company Name	TADI, Inc.	Manual Adj.	1.000
Observers: AM Peak Period	Jane Fait		
Observers: Midday Peak Period	None		
Observers: PM Peak Period	Jane Fait		
Comments	2021 DOT Daily & Seasonal Factors		

Observed 6 Hour Volume Summary





Estimated 24 Hour AADT



Daily/Seasonal Factor	1.140
Count Expansion Factor	2.284
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**2.603**

Intersection Traffic Volume Report

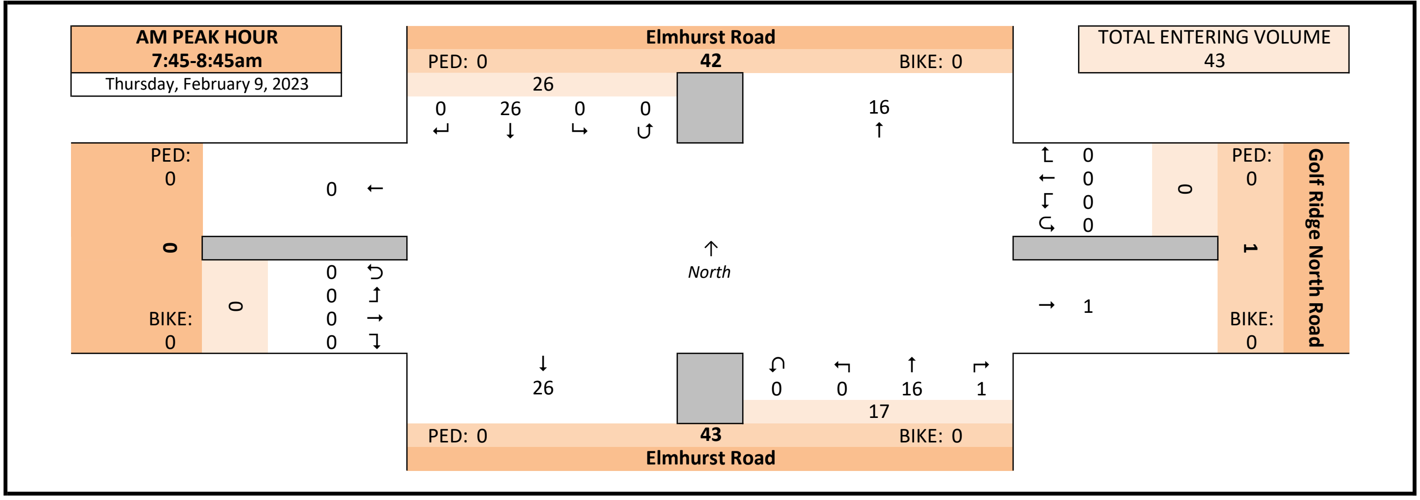
Count Basics			*Page 2 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

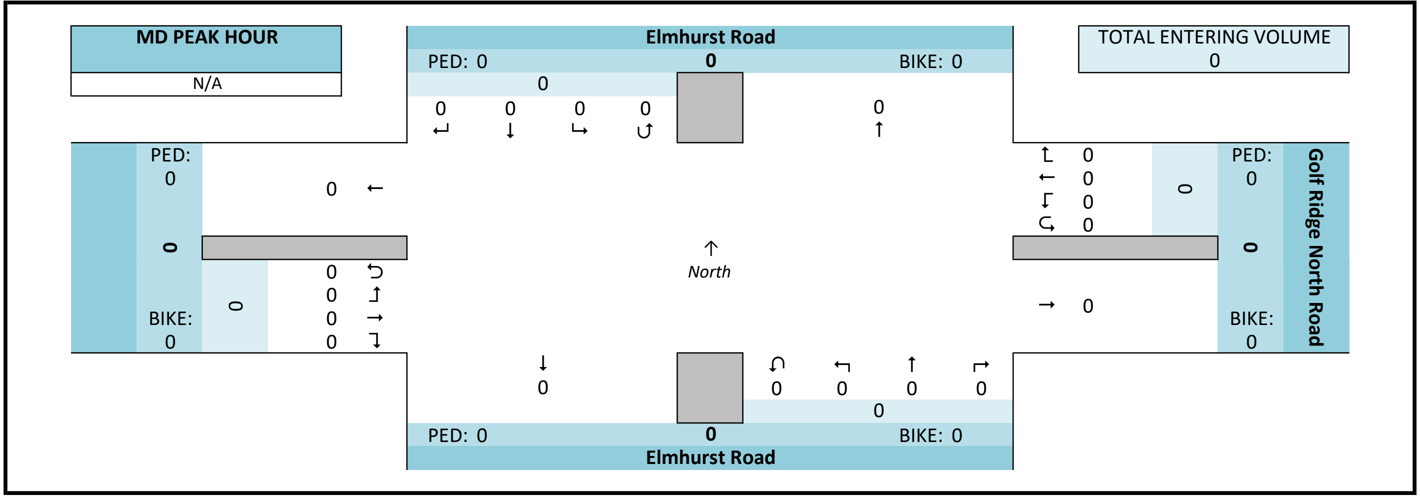
All Motor Vehicles

Elmhurst Road & Golf Ridge North Road

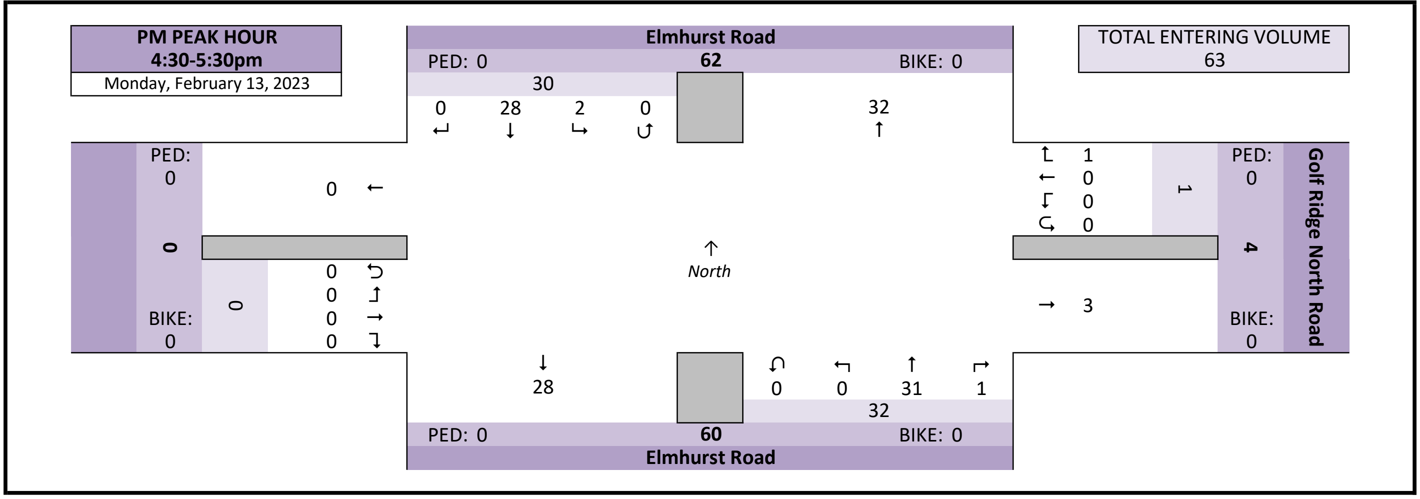
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Summary

Elmhurst Road & Golf Ridge North Road

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, February 9, 2023		↓ From North					← From East					↑ From South					→ From West					
	AM Peak Hour	Elmhurst Road					Golf Ridge North Road					Elmhurst Road										
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:45 AM	0	4	0	0	4	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	11
	8:00 AM	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10
	8:15 AM	0	8	0	0	8	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	10
	8:30 AM	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	12
	Peak Hour Volume	0	26	0	0	26	0	0	0	0	0	1	16	0	0	17	0	0	0	0	0	43
	Rounded Hourly Volume	0	25	0	0	25	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	40
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	2.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	2.3
	Peak Hour Factor (PHF)	0.00	0.81	0.00	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.25	0.67	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.90

N/A		↓ From North					← From East					↑ From South					→ From West					
	MD Peak Hour	Elmhurst Road					Golf Ridge North Road					Elmhurst Road										
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Monday, February 13, 2023		↓ From North					← From East					↑ From South					→ From West					
	PM Peak Hour	Elmhurst Road					Golf Ridge North Road					Elmhurst Road										
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	0	12	0	0	12	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	28
	4:45 PM	0	7	0	0	7	1	0	0	0	1	1	5	0	0	6	0	0	0	0	0	14
	5:00 PM	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10
	5:15 PM	0	2	2	0	4	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	11
	Peak Hour Volume	0	28	2	0	30	1	0	0	0	1	1	31	0	0	32	0	0	0	0	0	63
	Rounded Hourly Volume	0	30	0	0	30	0	0	0	0	0	0	30	0	0	30	0	0	0	0	0	60
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	1.6
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	1.6
	Peak Hour Factor (PHF)	0.00	0.58	0.25	0.00	0.62	0.25	0.00	0.00	0.00	0.25	0.25	0.48	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.56

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Elmhurst Road			Golf Ridge North Road			Elmhurst Road						
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

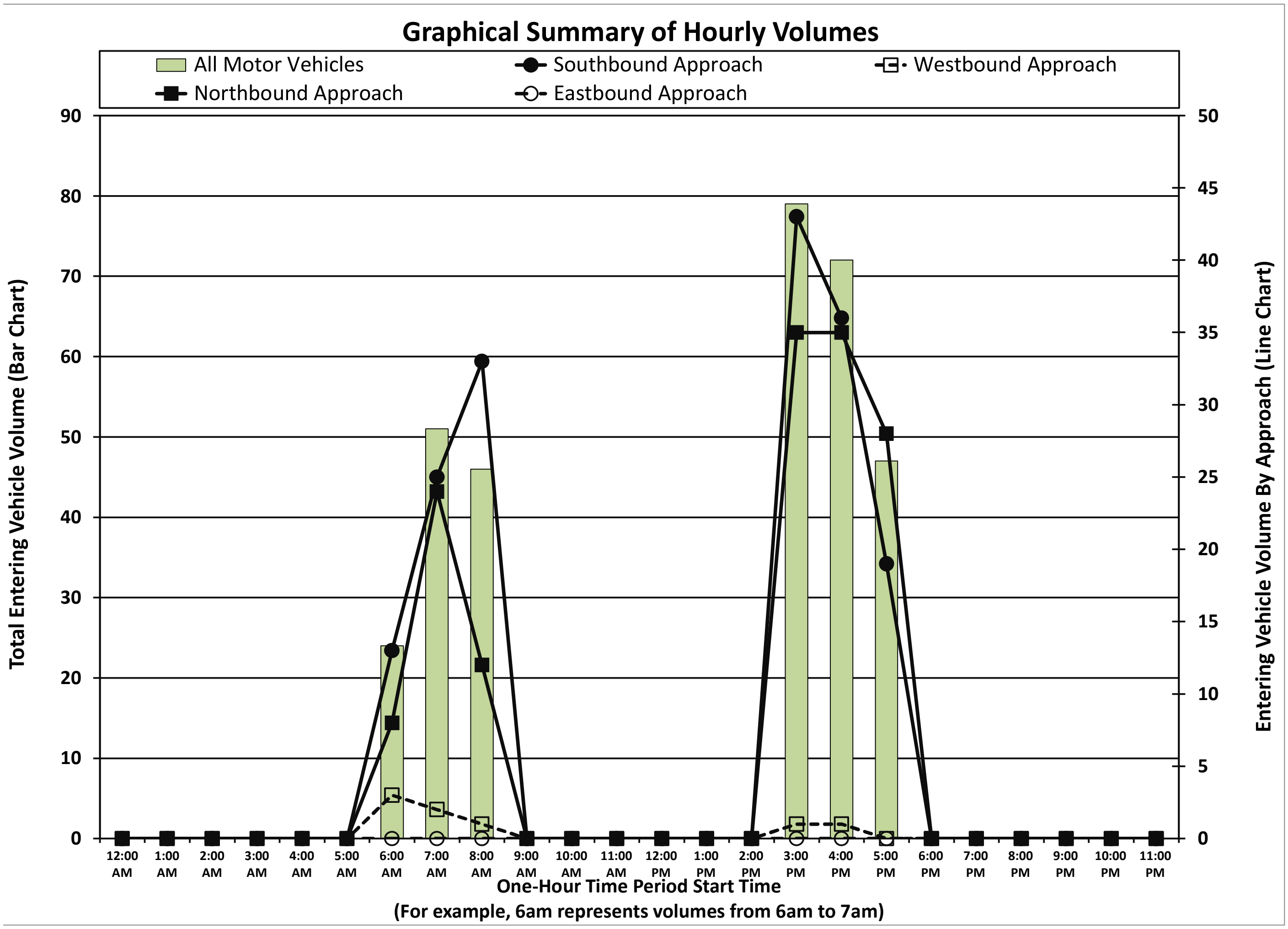
Hourly Volume Summary - Motor Vehicle Data

All Motor Vehicles

Elmhurst Road & Golf Ridge North Road

One-Hour Motor Vehicle Data

One-Hour Time Period		From North ↓					From East ←					From South ↑					From West →					Total Vehicle Volume	Directional Volume Totals	
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road												
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		E/W	N/S
Pre-AM	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	6:00 AM	0	13	0	0	13	0	0	3	0	3	0	8	0	0	8	0	0	0	0	0	24	3	21
	7:00 AM	0	25	0	0	25	0	0	2	0	2	1	23	0	0	24	0	0	0	0	0	51	2	49
	8:00 AM	0	33	0	0	33	1	0	0	0	1	0	12	0	0	12	0	0	0	0	0	46	1	45
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 PM	0	42	1	0	43	0	0	1	0	1	1	34	0	0	35	0	0	0	0	0	79	1	78
	4:00 PM	0	35	1	0	36	1	0	0	0	1	2	33	0	0	35	0	0	0	0	0	72	1	71
	5:00 PM	0	17	2	0	19	0	0	0	0	0	3	25	0	0	28	0	0	0	0	0	47	0	47
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals		0	165	4	0	169	2	0	6	0	8	7	135	0	0	142	0	0	0	0	0	319	8	311



Intersection Traffic Volume Report

Count Basics		*Page 5 of 13*
Start Date: Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

Elmhurst Road & Golf Ridge North Road

15-Minute Motor Vehicle Data

15-Minute Time Period Start Time		From North					From East					From South					From West					15-Min Totals	Hourly Sum	PHF
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road												
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AM Peak Period	6:00 AM	0	3	0	0	3	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	6	24	0.60
	6:15 AM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4	36	0.50
	6:30 AM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4	44	0.61
	6:45 AM	0	5	0	0	5	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	10	50	0.69
	7:00 AM	0	10	0	0	10	0	0	1	0	1	0	7	0	0	7	0	0	0	0	0	18	51	0.71
	7:15 AM	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	12	43	0.90
	7:30 AM	0	4	0	0	4	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	10	41	0.93
	7:45 AM	0	4	0	0	4	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	11	43	0.90
	8:00 AM	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10	46	0.82
	8:15 AM	0	8	0	0	8	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	10		
	8:30 AM	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	12		
	8:45 AM	0	11	0	0	11	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	14		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	13	1	0	14	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	25	79	0.79
	3:15 PM	0	9	0	0	9	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	16	70	0.88
	3:30 PM	0	8	0	0	8	0	0	1	0	1	0	9	0	0	9	0	0	0	0	0	18	68	0.85
	3:45 PM	0	12	0	0	12	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	20	78	0.70
	4:00 PM	0	9	1	0	10	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	16	72	0.64
	4:15 PM	0	7	0	0	7	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	14	66	0.59
	4:30 PM	0	12	0	0	12	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	28	63	0.56
	4:45 PM	0	7	0	0	7	1	0	0	0	1	1	5	0	0	6	0	0	0	0	0	14	46	0.82
	5:00 PM	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10	47	0.78
	5:15 PM	0	2	2	0	4	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	11		
	5:30 PM	0	5	0	0	5	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	11		
	5:45 PM	0	3	0	0	3	0	0	0	0	0	2	10	0	0	12	0	0	0	0	0	15		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		0	165	4	0	169	2	0	6	0	8	7	135	0	0	142	0	0	0	0	0	319		

Peak Hour All Vehicle Volume Summary

Hourly Time Period Start Time		From North					From East					From South					From West					Total Hourly Volume	PHF
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road											
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	7:45 AM	0	26	0	0	26	0	0	0	0	0	1	16	0	0	17	0	0	0	0	0	43	0.90
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	0	28	2	0	30	1	0	0	0	1	1	31	0	0	32	0	0	0	0	0	63	0.56

Intersection Traffic Volume Report

Count Basics			Page 6 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Automobile Data

Automobiles (Cars, Light Trucks, & Motorcycles)

Elmhurst Road & Golf Ridge North Road

15-Minute Automobile Data

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road											
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	3	0	0	3	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	6	22
	6:15 AM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4	34
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	42
	6:45 AM	0	5	0	0	5	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	10	50
	7:00 AM	0	10	0	0	10	0	0	1	0	1	0	7	0	0	7	0	0	0	0	0	18	50
	7:15 AM	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	12	42
	7:30 AM	0	4	0	0	4	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	10	40
	7:45 AM	0	4	0	0	4	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	10	42
	8:00 AM	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10	46
	8:15 AM	0	8	0	0	8	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	10	
	8:30 AM	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	12	
	8:45 AM	0	11	0	0	11	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	14	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	8	1	0	9	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	20	70
	3:15 PM	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	15	66
	3:30 PM	0	8	0	0	8	0	0	1	0	1	0	8	0	0	8	0	0	0	0	0	17	65
	3:45 PM	0	12	0	0	12	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	18	75
	4:00 PM	0	9	1	0	10	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	16	71
	4:15 PM	0	7	0	0	7	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	14	65
	4:30 PM	0	12	0	0	12	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	27	62
	4:45 PM	0	7	0	0	7	1	0	0	0	1	1	5	0	0	6	0	0	0	0	0	14	46
	5:00 PM	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10	47
	5:15 PM	0	2	2	0	4	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	11	
	5:30 PM	0	5	0	0	5	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	11	
	5:45 PM	0	3	0	0	3	0	0	0	0	0	2	10	0	0	12	0	0	0	0	0	15	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	157	4	0	161	2	0	6	0	8	7	130	0	0	137	0	0	0	0	0	306	

Peak Hour Automobile Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road										
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	26	0	0	26	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	42
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	28	2	0	30	1	0	0	0	1	1	30	0	0	31	0	0	0	0	0	62

Intersection Traffic Volume Report

Count Basics			*Page 7 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

Single Unit (SU) Trucks & Buses

Elmhurst Road & Golf Ridge North Road

15-Minute Single Unit (SU) Truck & Bus Data

	15-Minute	↓ From North					← From East					↑ From South					→ From West						
	Time Period	Elmhurst Road					Golf Ridge North Road					Elmhurst Road										15-Min	Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	9
	3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	3
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	3
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	13	

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

	Hourly	↓ From North					← From East					↑ From South					→ From West					Total
	Time Period	Elmhurst Road					Golf Ridge North Road					Elmhurst Road										Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1

Intersection Traffic Volume Report

Count Basics			Page 8 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Semi-Truck Data

Elmhurst Road & Golf Ridge North Road

Semi-Trucks

15-Minute Semi-Truck Data

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road											
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Semi-Truck Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road										
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Elmhurst Road & Golf Ridge North Road

15-Minute Heavy Vehicle Data

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road											
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	9
	3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	3
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	3
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	13	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road										
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1

Intersection Traffic Volume Report

Count Basics			Page 10 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Percentages

Elmhurst Road & Golf Ridge North Road

%

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

15-Minute Heavy Vehicle Percentages

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Heavy Vehicle Percent	Hourly Heavy Vehicle Percent
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road											
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AM Peak Period	6:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
	6:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
	6:30 AM	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	4.5
	6:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
	7:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
	7:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	9.1	2.3
	8:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Midday Peak Period	10:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PM Peak Period	2:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 PM	0.0	38.5	0.0	0.0	35.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	11.4
	3:15 PM	0.0	11.1	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	5.7
	3:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	5.6	4.4
	3:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.6	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	10.0	3.8
	4:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
	4:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	3.6	1.6
	4:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Post PM Peak Perio	10:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Totals		0.0	4.8	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	4.1	

Peak Hour Heavy Vehicle Percentages Summary

	Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Hourly Heavy Vehicle Percent
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road										
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	2.3
MD	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	1.6

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Pedestrians and Bicyclists

Elmhurst Road & Golf Ridge North Road

15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		Elmhurst Road			Golf Ridge North Road			Elmhurst Road							
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementry School Age Children	x					
Visually Impaired (white cane/help	x					
Elderly/Disabled (except wheelcha	x					
Wheelchairs/Electric Scooters	x					
Other (None	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

Adults & Children

Elmhurst Road & Golf Ridge North Road

15-Minute Adult & Children Pedestrian Data

	15-Minute Time Period Start Time	Crossing North Approach Elmhurst Road			Crossing East Approach Golf Ridge North Road			Crossing South Approach Elmhurst Road			Crossing West Approach			15-Min Totals	Hourly Sum
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
Pre-AM Peak Period	12:00 AM	0		0	0		0	0		0	0		0	0	0
	12:15 AM	0		0	0		0	0		0	0		0	0	0
	12:30 AM	0		0	0		0	0		0	0		0	0	0
	12:45 AM	0		0	0		0	0		0	0		0	0	0
	1:00 AM	0		0	0		0	0		0	0		0	0	0
	1:15 AM	0		0	0		0	0		0	0		0	0	0
	1:30 AM	0		0	0		0	0		0	0		0	0	0
	1:45 AM	0		0	0		0	0		0	0		0	0	0
	2:00 AM	0		0	0		0	0		0	0		0	0	0
	2:15 AM	0		0	0		0	0		0	0		0	0	0
	2:30 AM	0		0	0		0	0		0	0		0	0	0
	2:45 AM	0		0	0		0	0		0	0		0	0	0
	3:00 AM	0		0	0		0	0		0	0		0	0	0
	3:15 AM	0		0	0		0	0		0	0		0	0	0
	3:30 AM	0		0	0		0	0		0	0		0	0	0
	3:45 AM	0		0	0		0	0		0	0		0	0	0
	4:00 AM	0		0	0		0	0		0	0		0	0	0
	4:15 AM	0		0	0		0	0		0	0		0	0	0
	4:30 AM	0		0	0		0	0		0	0		0	0	0
	4:45 AM	0		0	0		0	0		0	0		0	0	0
	5:00 AM	0		0	0		0	0		0	0		0	0	0
	5:15 AM	0		0	0		0	0		0	0		0	0	0
	5:30 AM	0		0	0		0	0		0	0		0	0	0
	5:45 AM	0		0	0		0	0		0	0		0	0	0
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	0
	6:15 AM	0		0	0		0	0		0	0		0	0	0
	6:30 AM	0		0	0		0	0		0	0		0	0	0
	6:45 AM	0		0	0		0	0		0	0		0	0	0
	7:00 AM	0		0	0		0	0		0	0		0	0	0
	7:15 AM	0		0	0		0	0		0	0		0	0	0
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	0
	2:15 PM	0		0	0		0	0		0	0		0	0	0
	2:30 PM	0		0	0		0	0		0	0		0	0	0
	2:45 PM	0		0	0		0	0		0	0		0	0	0
	3:00 PM	0		0	0		0	0		0	0		0	0	0
	3:15 PM	0		0	0		0	0		0	0		0	0	0
	3:30 PM	0		0	0		0	0		0	0		0	0	0
	3:45 PM	0		0	0		0	0		0	0		0	0	0
	4:00 PM	0		0	0		0	0		0	0		0	0	0
	4:15 PM	0		0	0		0	0		0	0		0	0	0
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Post PM Peak Period	10:00 PM	0		0	0		0	0		0	0		0	0	0
	10:15 PM	0		0	0		0	0		0	0		0	0	0
	10:30 PM	0		0	0		0	0		0	0		0	0	0
	10:45 PM	0		0	0		0	0		0	0		0	0	0
	11:00 PM	0		0	0		0	0		0	0		0	0	0
	11:15 PM	0		0	0		0	0		0	0		0	0	
	11:30 PM	0		0	0		0	0		0	0		0	0	
	11:45 PM	0		0	0		0	0		0	0		0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	

Intersection Traffic Volume Report

Count Basics			*Page 13 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Bicycle Turning Movement Count (Manual Entry)

Bicyclists
🚲

Elmhurst Road & Golf Ridge North Road

15-Minute Bicycle Data

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road											
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM					0					0					0					0	0	0
	12:15 AM					0					0					0					0	0	0
	12:30 AM					0					0					0					0	0	0
	12:45 AM					0					0					0					0	0	0
	1:00 AM					0					0					0					0	0	0
	1:15 AM					0					0					0					0	0	0
	1:30 AM					0					0					0					0	0	0
	1:45 AM					0					0					0					0	0	0
	2:00 AM					0					0					0					0	0	0
	2:15 AM					0					0					0					0	0	0
	2:30 AM					0					0					0					0	0	0
	2:45 AM					0					0					0					0	0	0
	3:00 AM					0					0					0					0	0	0
	3:15 AM					0					0					0					0	0	0
	3:30 AM					0					0					0					0	0	0
	3:45 AM					0					0					0					0	0	0
	4:00 AM					0					0					0					0	0	0
	4:15 AM					0					0					0					0	0	0
	4:30 AM					0					0					0					0	0	0
	4:45 AM					0					0					0					0	0	0
	5:00 AM					0					0					0					0	0	0
	5:15 AM					0					0					0					0	0	0
	5:30 AM					0					0					0					0	0	0
	5:45 AM					0					0					0					0	0	0
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
	9:45 AM					0					0					0					0	0	0
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
	11:00 AM					0					0					0					0	0	0
	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
	11:45 AM					0					0					0					0	0	0
	12:00 PM					0					0					0					0	0	0
	12:15 PM					0					0					0					0	0	0
	12:30 PM					0					0					0					0	0	0
	12:45 PM					0					0					0					0	0	0
	1:00 PM					0					0					0					0	0	0
	1:15 PM					0					0					0					0	0	0
	1:30 PM					0					0					0					0	0	0
	1:45 PM					0					0					0					0	0	0
PM Peak Period	2:00 PM					0					0					0					0	0	0
	2:15 PM					0					0					0					0	0	0
	2:30 PM					0					0					0					0	0	0
	2:45 PM					0					0					0					0	0	0
	3:00 PM					0					0					0					0	0	0
	3:15 PM					0					0					0					0	0	0
	3:30 PM					0					0					0					0	0	0
	3:45 PM					0					0					0					0	0	0
	4:00 PM					0					0					0					0	0	0
	4:15 PM					0					0					0					0	0	0
	4:30 PM					0					0					0					0	0	0
	4:45 PM					0					0					0					0	0	0
	5:00 PM					0					0					0					0	0	0
	5:15 PM					0					0					0					0	0	0
	5:30 PM					0					0					0					0	0	0
	5:45 PM					0					0					0					0	0	0
	6:00 PM					0					0					0					0	0	0
	6:15 PM					0					0					0					0	0	0
	6:30 PM					0					0					0					0	0	0
	6:45 PM					0					0					0					0	0	0
	7:00 PM					0					0					0					0	0	0
	7:15 PM					0					0					0					0	0	0
	7:30 PM					0					0					0					0	0	0
	7:45 PM					0					0					0					0	0	0
	8:00 PM					0					0					0					0	0	0
	8:15 PM					0					0					0					0	0	0
	8:30 PM					0					0					0					0	0	0
	8:45 PM					0					0					0					0	0	0
	9:00 PM					0					0					0					0	0	0
	9:15 PM					0					0					0					0	0	0
	9:30 PM					0					0					0					0	0	0
	9:45 PM					0					0					0					0	0	0
Post PM Peak Perio	10:00 PM					0					0					0					0	0	0
	10:15 PM					0					0					0					0	0	0
	10:30 PM					0					0					0					0	0	0
	10:45 PM					0					0					0					0	0	0
	11:00 PM					0					0					0					0	0	
	11:15 PM					0					0					0					0	0	
	11:30 PM					0					0					0					0	0	
	11:45 PM					0					0					0					0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Elmhurst Road					Golf Ridge North Road					Elmhurst Road										
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		*Version 2022.11.2*	*Page 1 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: **Elmhurst Road**
Minor St: **Golf Ridge South Road**
Intersection of: ***Elmhurst Road & Golf Ridge South Road***

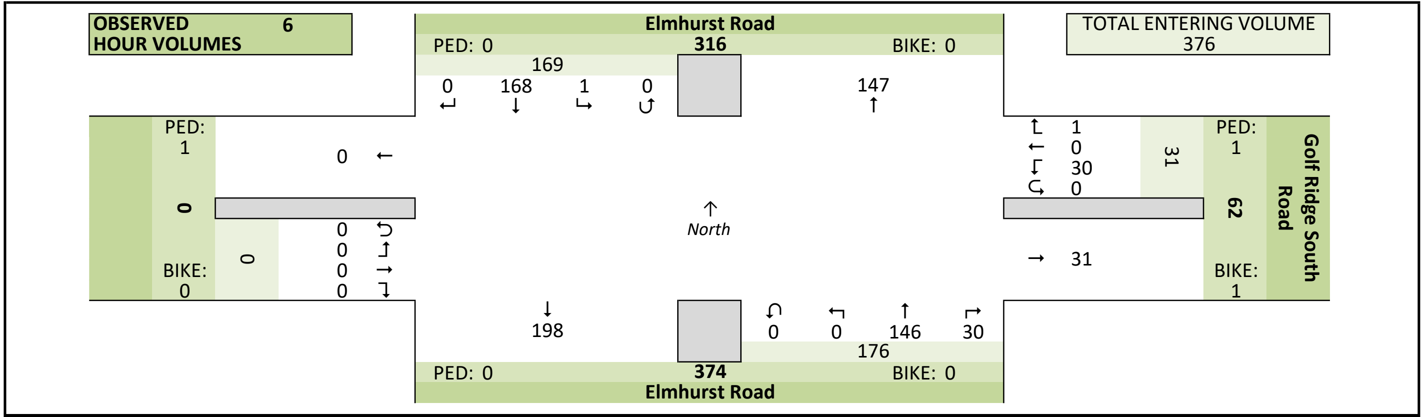
Site Information

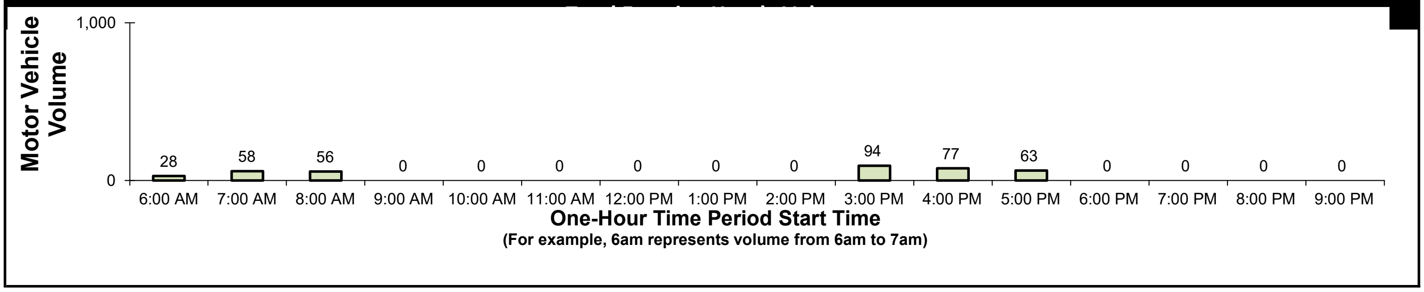
Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Partial Stop Control		
Roadway Names		North Direction	↑
North Leg	Elmhurst Road		
East Leg	Golf Ridge South Road		
South Leg	Elmhurst Road		
West Leg			
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe) None	None		

Count Information

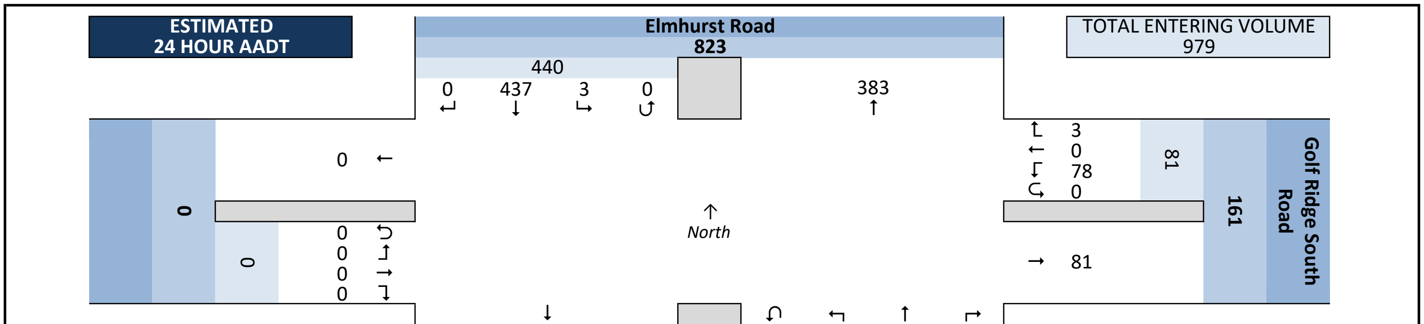
Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM				
1st Day of Count	Thursday, February 9, 2023			Weather	
AM Peak Period	Thursday, February 9, 2023			Clear & Dry	
Midday Peak Period	Thursday, February 9, 2023			Clear & Dry	
PM Peak Period	Monday, February 13, 2023			Clear & Dry	
Calculated Peak Hours					
AM	6:45-7:45am	MD		PM	3:00-4:00pm
Peak Hours Selected for Analysis					
AM	7:45-8:45am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors				
Count Expansion Group	(2) Urban Arterials & Collectors				
Daily/Seasonal Adjustment Factor	1.140			Count Expansion Factor	2.284
Company Name	TADI, Inc.			Manual Adj.	1.000
Observers	AM Peak Period	Wendy Picard			
	Midday Peak Period	None			
	PM Peak Period	Wendy Picard			
Comments	2021 DOT Daily & Seasonal Factors				

Observed 6 Hour Volume Summary





Estimated 24 Hour AADT



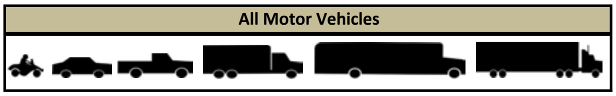
Daily/Seasonal Factor	1.140
Count Expansion Factor	2.284
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**2.603**

Intersection Traffic Volume Report

Count Basics			*Page 2 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

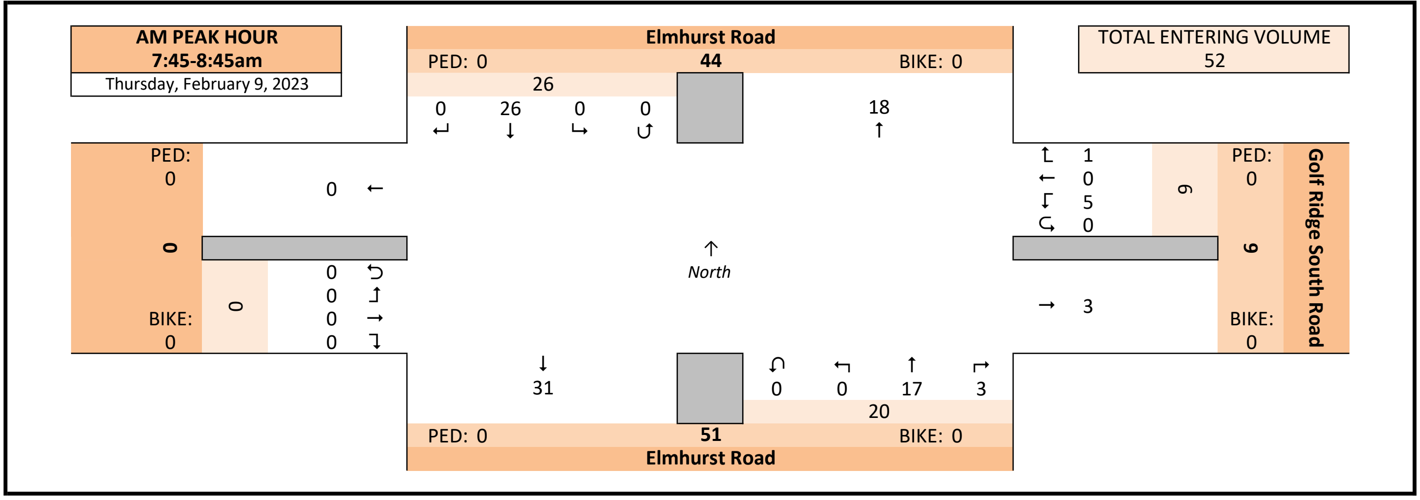
Peak Hour Volume Graphical Summary

All Motor Vehicles

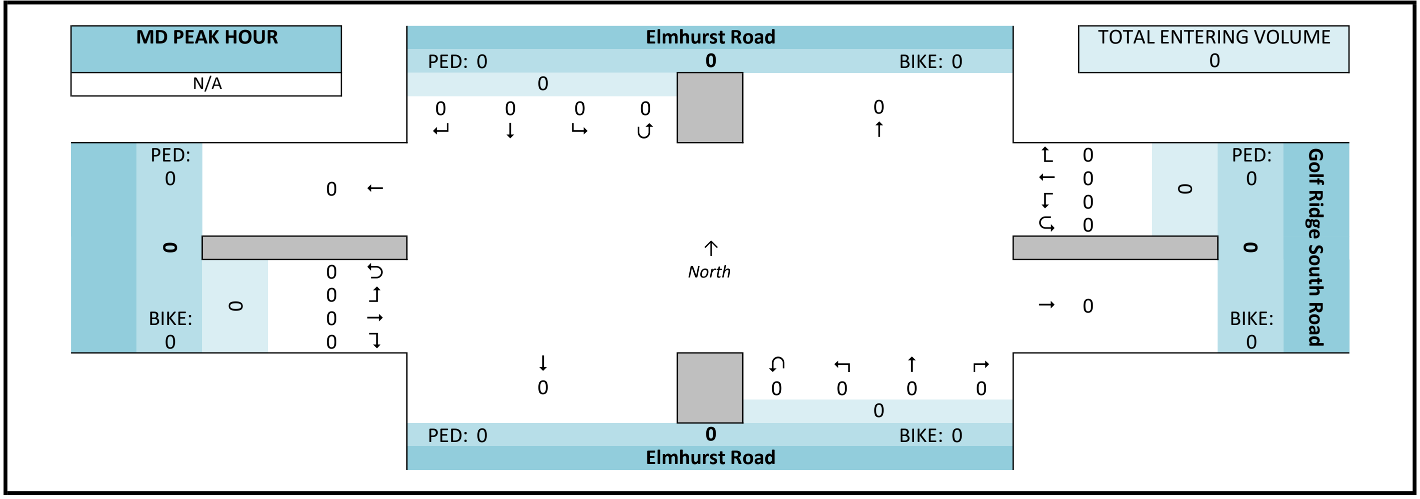


Elmhurst Road & Golf Ridge South Road

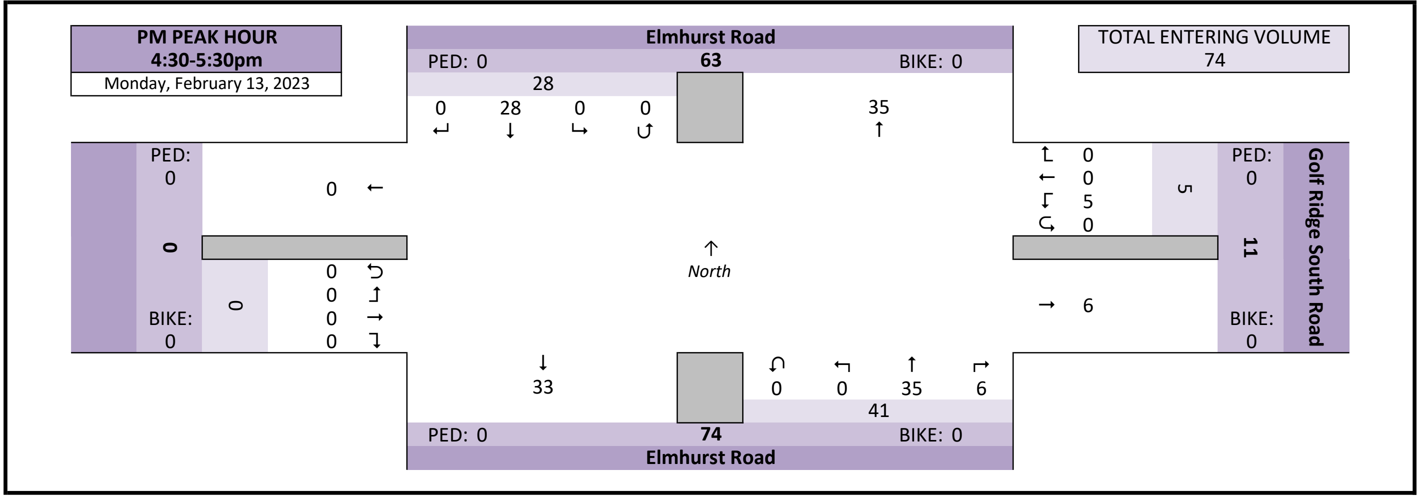
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			*Page 3 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Summary

All Motor Vehicles

Elmhurst Road & Golf Ridge South Road

Peak Hour Volumes, Truck Percentages, and PHFs

Thursday, February 9, 2023		From North					From East					From South					From West					
	AM Peak Hour	Elmhurst Road					Golf Ridge South Road					Elmhurst Road										
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:45 AM	0	4	0	0	4	1	0	1	0	2	0	6	0	0	6	0	0	0	0	0	12
	8:00 AM	0	7	0	0	7	0	0	3	0	3	2	3	0	0	5	0	0	0	0	0	15
	8:15 AM	0	8	0	0	8	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	11
	8:30 AM	0	7	0	0	7	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	14
	Peak Hour Volume	0	26	0	0	26	1	0	5	0	6	3	17	0	0	20	0	0	0	0	0	52
	Rounded Hourly Volume	0	25	0	0	25	0	0	5	0	5	5	15	0	0	20	0	0	0	0	0	50
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	5.9	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	3.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	5.9	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	3.8
	Peak Hour Factor (PHF)	0.00	0.81	0.00	0.00	0.81	0.25	0.00	0.42	0.00	0.50	0.37	0.71	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.87

N/A		From North					From East					From South					From West					
	MD Peak Hour	Elmhurst Road					Golf Ridge South Road					Elmhurst Road										
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Monday, February 13, 2023		From North					From East					From South					From West					
	PM Peak Hour	Elmhurst Road					Golf Ridge South Road					Elmhurst Road										
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	0	11	0	0	11	0	0	1	0	1	2	16	0	0	18	0	0	0	0	0	30
	4:45 PM	0	8	0	0	8	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	15
	5:00 PM	0	7	0	0	7	0	0	1	0	1	2	5	0	0	7	0	0	0	0	0	15
	5:15 PM	0	2	0	0	2	0	0	3	0	3	1	8	0	0	9	0	0	0	0	0	14
	Peak Hour Volume	0	28	0	0	28	0	0	5	0	5	6	35	0	0	41	0	0	0	0	0	74
	Rounded Hourly Volume	0	30	0	0	30	0	0	5	0	5	5	35	0	0	40	0	0	0	0	0	75
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	1.4
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	1.4
	Peak Hour Factor (PHF)	0.00	0.64	0.00	0.00	0.64	0.00	0.00	0.42	0.00	0.42	0.75	0.55	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.62

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Elmhurst Road			Golf Ridge South Road			Elmhurst Road						
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			*Page 4 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

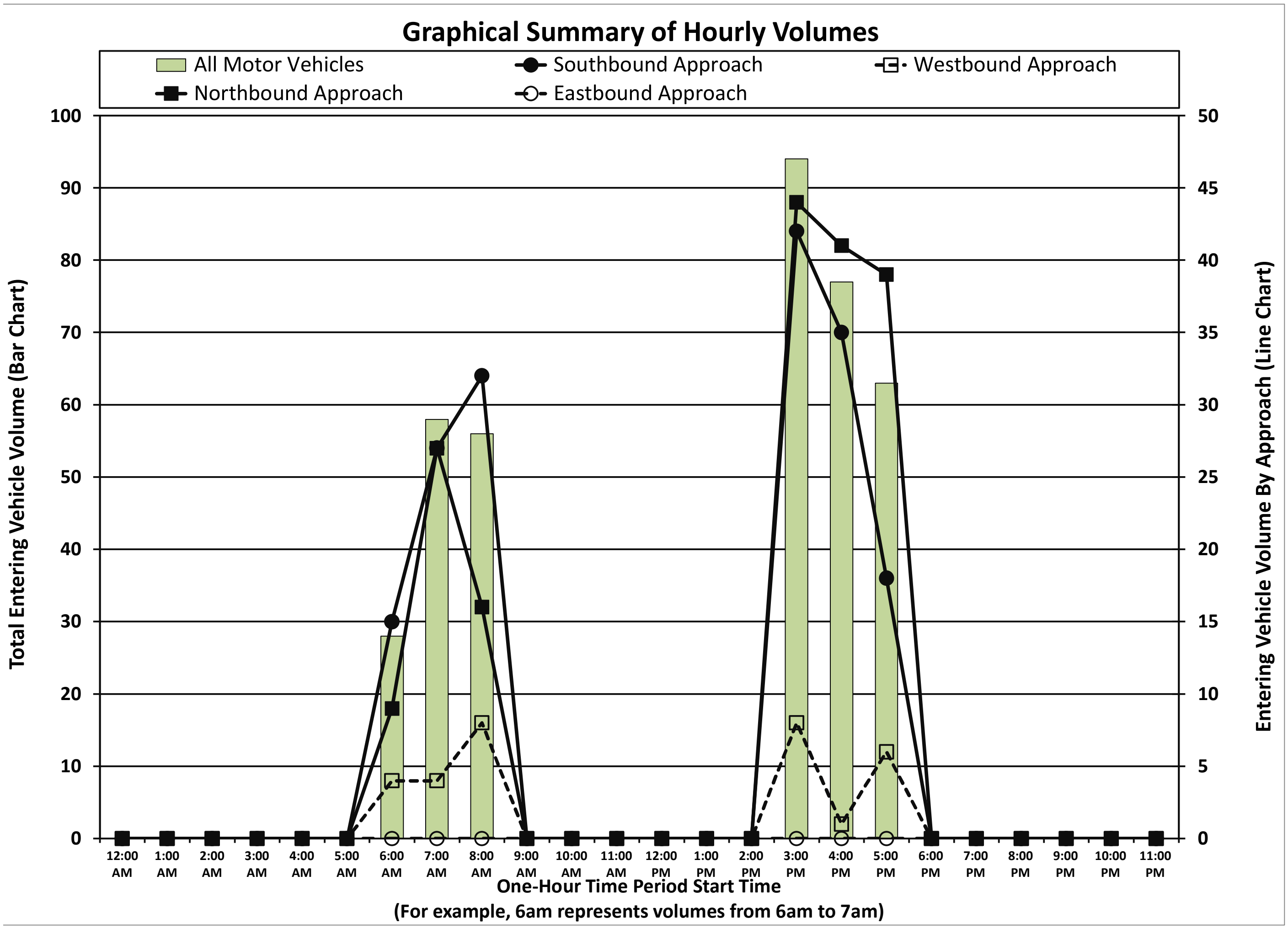
Hourly Volume Summary - Motor Vehicle Data

Elmhurst Road & Golf Ridge South Road

All Motor Vehicles

One-Hour Motor Vehicle Data

	One-Hour Time Period	↓ From North					← From East					↑ From South					→ From West					Total Vehicle Volume	Directional Volume Totals	
		Elmhurst Road					Golf Ridge South Road					Elmhurst Road												
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		E/W	N/S
Pre-AM	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	6:00 AM	0	15	0	0	15	0	0	4	0	4	1	8	0	0	9	0	0	0	0	0	28	4	24
	7:00 AM	0	27	0	0	27	1	0	3	0	4	3	24	0	0	27	0	0	0	0	0	58	4	54
	8:00 AM	0	32	0	0	32	0	0	8	0	8	3	13	0	0	16	0	0	0	0	0	56	8	48
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 PM	0	41	1	0	42	0	0	8	0	8	9	35	0	0	44	0	0	0	0	0	94	8	86
	4:00 PM	0	35	0	0	35	0	0	1	0	1	6	35	0	0	41	0	0	0	0	0	77	1	76
	5:00 PM	0	18	0	0	18	0	0	6	0	6	8	31	0	0	39	0	0	0	0	0	63	6	57
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals		0	168	1	0	169	1	0	30	0	31	30	146	0	0	176	0	0	0	0	0	376	31	345



Intersection Traffic Volume Report

Count Basics			*Page 5 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

Elmhurst Road & Golf Ridge South Road

15-Minute Motor Vehicle Data

	15-Minute	↓ From North					← From East					↑ From South					→ From West							
	Time Period	Elmhurst Road					Golf Ridge South Road					Elmhurst Road										15-Min	Hourly	
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum	PHF
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AM Peak Period	6:00 AM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5	28	0.50
	6:15 AM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4	42	0.55
	6:30 AM	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	5	52	0.68
	6:45 AM	0	6	0	0	6	0	0	3	0	3	1	4	0	0	5	0	0	0	0	0	14	60	0.79
	7:00 AM	0	11	0	0	11	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	19	58	0.76
	7:15 AM	0	7	0	0	7	0	0	1	0	1	0	6	0	0	6	0	0	0	0	0	14	54	0.90
	7:30 AM	0	5	0	0	5	0	0	1	0	1	2	5	0	0	7	0	0	0	0	0	13	51	0.85
	7:45 AM	0	4	0	0	4	1	0	1	0	2	0	6	0	0	6	0	0	0	0	0	12	52	0.87
	8:00 AM	0	7	0	0	7	0	0	3	0	3	2	3	0	0	5	0	0	0	0	0	15	56	0.88
	8:15 AM	0	8	0	0	8	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	11		
	8:30 AM	0	7	0	0	7	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	14		
	8:45 AM	0	10	0	0	10	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	16		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	13	0	0	13	0	0	3	0	3	0	11	0	0	11	0	0	0	0	0	27	94	0.87
	3:15 PM	0	9	0	0	9	0	0	1	0	1	4	7	0	0	11	0	0	0	0	0	21	85	0.82
	3:30 PM	0	8	1	0	9	0	0	1	0	1	1	9	0	0	10	0	0	0	0	0	20	78	0.75
	3:45 PM	0	11	0	0	11	0	0	3	0	3	4	8	0	0	12	0	0	0	0	0	26	88	0.73
	4:00 PM	0	9	0	0	9	0	0	0	0	0	2	7	0	0	9	0	0	0	0	0	18	77	0.64
	4:15 PM	0	7	0	0	7	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	14	74	0.62
	4:30 PM	0	11	0	0	11	0	0	1	0	1	2	16	0	0	18	0	0	0	0	0	30	74	0.62
	4:45 PM	0	8	0	0	8	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	15	59	0.98
	5:00 PM	0	7	0	0	7	0	0	1	0	1	2	5	0	0	7	0	0	0	0	0	15	63	0.83
	5:15 PM	0	2	0	0	2	0	0	3	0	3	1	8	0	0	9	0	0	0	0	0	14		
	5:30 PM	0	6	0	0	6	0	0	0	0	0	3	6	0	0	9	0	0	0	0	0	15		
	5:45 PM	0	3	0	0	3	0	0	2	0	2	2	12	0	0	14	0	0	0	0	0	19		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		0	168	1	0	169	1	0	30	0	31	30	146	0	0	176	0	0	0	0	0	376		

Peak Hour All Vehicle Volume Summary

Hourly		↓ From North					← From East					↑ From South					→ From West					Total	
Time Period		Elmhurst Road					Golf Ridge South Road					Elmhurst Road										Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM	7:45 AM	0	26	0	0	26	1	0	5	0	6	3	17	0	0	20	0	0	0	0	0	52	0.87
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	0	28	0	0	28	0	0	5	0	5	6	35	0	0	41	0	0	0	0	0	74	0.62

Intersection Traffic Volume Report

Count Basics			*Page 6 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Automobile Data

Elmhurst Road & Golf Ridge South Road

Automobiles (Cars, Light Trucks, & Motorcycles)

15-Minute Automobile Data

	15-Minute Time Period Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
		Elmhurst Road					Golf Ridge South Road					Elmhurst Road											
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5	26
	6:15 AM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4	40
	6:30 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	3	50
	6:45 AM	0	6	0	0	6	0	0	3	0	3	1	4	0	0	5	0	0	0	0	0	14	60
	7:00 AM	0	11	0	0	11	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	19	57
	7:15 AM	0	7	0	0	7	0	0	1	0	1	0	6	0	0	6	0	0	0	0	0	14	52
	7:30 AM	0	5	0	0	5	0	0	1	0	1	2	5	0	0	7	0	0	0	0	0	13	49
	7:45 AM	0	4	0	0	4	1	0	1	0	2	0	5	0	0	5	0	0	0	0	0	11	50
	8:00 AM	0	7	0	0	7	0	0	3	0	3	1	3	0	0	4	0	0	0	0	0	14	55
	8:15 AM	0	8	0	0	8	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	11	
	8:30 AM	0	7	0	0	7	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	14	
	8:45 AM	0	10	0	0	10	0	0	4	0	4	0	2	0	0	2	0	0	0	0	0	16	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	8	0	0	8	0	0	3	0	3	0	11	0	0	11	0	0	0	0	0	22	83
	3:15 PM	0	8	0	0	8	0	0	1	0	1	4	7	0	0	11	0	0	0	0	0	20	79
	3:30 PM	0	8	1	0	9	0	0	1	0	1	1	8	0	0	9	0	0	0	0	0	19	73
	3:45 PM	0	11	0	0	11	0	0	1	0	1	4	6	0	0	10	0	0	0	0	0	22	83
	4:00 PM	0	9	0	0	9	0	0	0	0	0	2	7	0	0	9	0	0	0	0	0	18	76
	4:15 PM	0	7	0	0	7	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	14	73
	4:30 PM	0	11	0	0	11	0	0	1	0	1	2	15	0	0	17	0	0	0	0	0	29	73
	4:45 PM	0	8	0	0	8	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	15	59
	5:00 PM	0	7	0	0	7	0	0	1	0	1	2	5	0	0	7	0	0	0	0	0	15	63
	5:15 PM	0	2	0	0	2	0	0	3	0	3	1	8	0	0	9	0	0	0	0	0	14	
	5:30 PM	0	6	0	0	6	0	0	0	0	0	3	6	0	0	9	0	0	0	0	0	15	
	5:45 PM	0	3	0	0	3	0	0	2	0	2	2	12	0	0	14	0	0	0	0	0	19	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	160	1	0	161	1	0	28	0	29	29	141	0	0	170	0	0	0	0	0	360	

Peak Hour Automobile Volume Summary

Hourly Time Period Start Time		From North					From East					From South					From West					Total Hourly Volume
		Elmhurst Road					Golf Ridge South Road					Elmhurst Road										
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	26	0	0	26	1	0	5	0	6	2	16	0	0	18	0	0	0	0	0	50
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	28	0	0	28	0	0	5	0	5	6	34	0	0	40	0	0	0	0	0	73

Intersection Traffic Volume Report

Count Basics			*Page 7 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

Elmhurst Road & Golf Ridge South Road

Single Unit (SU) Trucks & Buses

15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
		Elmhurst Road					Golf Ridge South Road					Elmhurst Road											
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	2
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	11
	3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	5
	3:45 PM	0	0	0	0	0	0	0	2	0	2	0	2	0	0	2	0	0	0	0	0	4	5
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	8	0	0	8	0	0	2	0	2	1	5	0	0	6	0	0	0	0	0	16	

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
		Elmhurst Road					Golf Ridge South Road					Elmhurst Road										
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1

Intersection Traffic Volume Report

Count Basics			*Page 8 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Semi-Truck Data

Elmhurst Road & Golf Ridge South Road

Semi-Trucks

15-Minute Semi-Truck Data

	15-Minute Time Period Start Time	↓ From North Elmhurst Road					← From East Golf Ridge South Road					↑ From South Elmhurst Road					→ From West					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Semi-Truck Volume Summary

	Hourly Time Period Start Time	↓ From North Elmhurst Road					← From East Golf Ridge South Road					↑ From South Elmhurst Road					→ From West					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			*Page 9 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Elmhurst Road & Golf Ridge South Road

15-Minute Heavy Vehicle Data

	15-Minute Time Period	↓ From North					← From East					↑ From South					→ From West						
		Elmhurst Road					Golf Ridge South Road					Elmhurst Road										15-Min	Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	2
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	11
	3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	5
	3:45 PM	0	0	0	0	0	0	0	2	0	2	0	2	0	0	2	0	0	0	0	0	4	5
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	8	0	0	8	0	0	2	0	2	1	5	0	0	6	0	0	0	0	0	16	

Peak Hour Heavy Vehicle Volume Summary

	Hourly Time Period	↓ From North					← From East					↑ From South					→ From West					Total
		Elmhurst Road					Golf Ridge South Road					Elmhurst Road										Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1

Intersection Traffic Volume Report

Count Basics			Page 10 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Percentages

Elmhurst Road & Golf Ridge South Road

%

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

15-Minute Heavy Vehicle Percentages

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Heavy Vehicle Percent	Hourly Heavy Vehicle Percent
		Elmhurst Road					Golf Ridge South Road					Elmhurst Road											
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AM Peak Period	6:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
	6:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
	6:30 AM	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	3.8
	6:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
	7:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
	7:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	8.3	3.8
	8:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	6.7	1.8
	8:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Midday Peak Period	10:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PM Peak Period	2:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 PM	0.0	38.5	0.0	0.0	38.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	11.7
	3:15 PM	0.0	11.1	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	7.1
	3:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	5.0	6.4
	3:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	66.7	0.0	25.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	15.4	5.7
	4:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
	4:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	3.3	1.4
	4:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Post PM Peak Perio	10:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Totals		0.0	4.8	0.0	0.0	4.7	0.0	0.0	6.7	0.0	6.5	3.3	3.4	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	4.3	

Peak Hour Heavy Vehicle Percentages Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Hourly Heavy Vehicle Percent
		Elmhurst Road					Golf Ridge South Road					Elmhurst Road										
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	5.9	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	3.8
MD	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	1.4

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Pedestrians and Bicyclists

Elmhurst Road & Golf Ridge South Road

15-Minute Pedestrian and Bicyclist Data

	15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		Elmhurst Road			Golf Ridge South Road			Elmhurst Road							
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	3:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	3
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	3:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	1	2
	4:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	1	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	1	1	2	0	0	0	1	0	1	3	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementry School Age Children	x					
Visually Impaired (white cane/help	x					
Elderly/Disabled (except wheelcha	x					
Wheelchairs/Electric Scooters	x					
Other (None	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

Adults & Children

Elmhurst Road & Golf Ridge South Road

15-Minute Adult & Children Pedestrian Data

	15-Minute Time Period Start Time	Crossing North Approach Elmhurst Road			Crossing East Approach Golf Ridge South Road			Crossing South Approach Elmhurst Road			Crossing West Approach			15-Min Totals	Hourly Sum
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
Pre-AM Peak Period	12:00 AM	0		0	0		0	0		0	0		0	0	0
	12:15 AM	0		0	0		0	0		0	0		0	0	0
	12:30 AM	0		0	0		0	0		0	0		0	0	0
	12:45 AM	0		0	0		0	0		0	0		0	0	0
	1:00 AM	0		0	0		0	0		0	0		0	0	0
	1:15 AM	0		0	0		0	0		0	0		0	0	0
	1:30 AM	0		0	0		0	0		0	0		0	0	0
	1:45 AM	0		0	0		0	0		0	0		0	0	0
	2:00 AM	0		0	0		0	0		0	0		0	0	0
	2:15 AM	0		0	0		0	0		0	0		0	0	0
	2:30 AM	0		0	0		0	0		0	0		0	0	0
	2:45 AM	0		0	0		0	0		0	0		0	0	0
	3:00 AM	0		0	0		0	0		0	0		0	0	0
	3:15 AM	0		0	0		0	0		0	0		0	0	0
	3:30 AM	0		0	0		0	0		0	0		0	0	0
	3:45 AM	0		0	0		0	0		0	0		0	0	0
	4:00 AM	0		0	0		0	0		0	0		0	0	0
	4:15 AM	0		0	0		0	0		0	0		0	0	0
	4:30 AM	0		0	0		0	0		0	0		0	0	0
	4:45 AM	0		0	0		0	0		0	0		0	0	0
	5:00 AM	0		0	0		0	0		0	0		0	0	0
	5:15 AM	0		0	0		0	0		0	0		0	0	0
	5:30 AM	0		0	0		0	0		0	0		0	0	0
	5:45 AM	0		0	0		0	0		0	0		0	0	0
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	0
	6:15 AM	0		0	0		0	0		0	0		0	0	0
	6:30 AM	0		0	0		0	0		0	0		0	0	0
	6:45 AM	0		0	0		0	0		0	0		0	0	0
	7:00 AM	0		0	0		0	0		0	0		0	0	0
	7:15 AM	0		0	0		0	0		0	0		0	0	0
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	0
	2:15 PM	0		0	0		0	0		0	0		0	0	0
	2:30 PM	0		0	0		0	0		0	0		0	0	1
	2:45 PM	0		0	0		0	0		0	0		0	0	1
	3:00 PM	0		0	0		0	0		0	0		0	0	2
	3:15 PM	0		0	0		0	0		0	1		1	1	2
	3:30 PM	0		0	0		0	0		0	0		0	0	1
	3:45 PM	0		0	1		1	0		0	0		0	1	1
	4:00 PM	0		0	0		0	0		0	0		0	0	0
	4:15 PM	0		0	0		0	0		0	0		0	0	0
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Post PM Peak Period	10:00 PM	0		0	0		0	0		0	0		0	0	0
	10:15 PM	0		0	0		0	0		0	0		0	0	0
	10:30 PM	0		0	0		0	0		0	0		0	0	0
	10:45 PM	0		0	0		0	0		0	0		0	0	0
	11:00 PM	0		0	0		0	0		0	0		0	0	0
	11:15 PM	0		0	0		0	0		0	0		0	0	
	11:30 PM	0		0	0		0	0		0	0		0	0	
	11:45 PM	0		0	0		0	0		0	0		0	0	
Totals		0	0	0	1	0	1	0	0	0	1	0	1	2	

Intersection Traffic Volume Report

Count Basics			Page 13 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Bicycle Turning Movement Count (Manual Entry)

Elmhurst Road & Golf Ridge South Road

Bicyclists

15-Minute Bicycle Data

	15-Minute Time Period Start Time	↓ From North Elmhurst Road					← From East Golf Ridge South Road					↑ From South Elmhurst Road					→ From West					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM					0					0					0					0	0	0
	12:15 AM					0					0					0					0	0	0
	12:30 AM					0					0					0					0	0	0
	12:45 AM					0					0					0					0	0	0
	1:00 AM					0					0					0					0	0	0
	1:15 AM					0					0					0					0	0	0
	1:30 AM					0					0					0					0	0	0
	1:45 AM					0					0					0					0	0	0
	2:00 AM					0					0					0					0	0	0
	2:15 AM					0					0					0					0	0	0
	2:30 AM					0					0					0					0	0	0
	2:45 AM					0					0					0					0	0	0
	3:00 AM					0					0					0					0	0	0
	3:15 AM					0					0					0					0	0	0
	3:30 AM					0					0					0					0	0	0
	3:45 AM					0					0					0					0	0	0
	4:00 AM					0					0					0					0	0	0
	4:15 AM					0					0					0					0	0	0
	4:30 AM					0					0					0					0	0	0
	4:45 AM					0					0					0					0	0	0
	5:00 AM					0					0					0					0	0	0
	5:15 AM					0					0					0					0	0	0
	5:30 AM					0					0					0					0	0	0
	5:45 AM					0					0					0					0	0	0
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
	9:45 AM					0					0					0					0	0	0
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
	11:00 AM					0					0					0					0	0	0
	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
	11:45 AM					0					0					0					0	0	0
	12:00 PM					0					0					0					0	0	0
	12:15 PM					0					0					0					0	0	0
	12:30 PM					0					0					0					0	0	0
	12:45 PM					0					0					0					0	0	0
	1:00 PM					0					0					0					0	0	0
	1:15 PM					0					0					0					0	0	0
	1:30 PM					0					0					0					0	0	0
	1:45 PM					0					0					0					0	0	0
PM Peak Period	2:00 PM					0					0					0					0	0	0
	2:15 PM					0					0					0					0	0	0
	2:30 PM					0					0					0					0	0	0
	2:45 PM					0					0					0					0	0	0
	3:00 PM					0					0					0					0	0	0
	3:15 PM					0					0					0					0	0	0
	3:30 PM					0					0					0					0	0	0
	3:45 PM					0					0					0					0	0	0
	4:00 PM					0					0					0					0	0	0
	4:15 PM					0					0					0					0	0	0
	4:30 PM					0					0					0					0	0	0
	4:45 PM					0					0					0					0	0	0
	5:00 PM					0					0					0					0	0	0
	5:15 PM					0					0					0					0	0	0
	5:30 PM					0					0					0					0	0	0
	5:45 PM					0					0					0					0	0	0
	6:00 PM					0					0					0					0	0	0
	6:15 PM					0					0					0					0	0	0
	6:30 PM					0					0					0					0	0	0
	6:45 PM					0					0					0					0	0	0
	7:00 PM					0					0					0					0	0	0
	7:15 PM					0					0					0					0	0	0
	7:30 PM					0					0					0					0	0	0
	7:45 PM					0					0					0					0	0	0
	8:00 PM					0					0					0					0	0	0
	8:15 PM					0					0					0					0	0	0
	8:30 PM					0					0					0					0	0	0
	8:45 PM					0					0					0					0	0	0
	9:00 PM					0					0					0					0	0	0
	9:15 PM					0					0					0					0	0	0
	9:30 PM					0					0					0					0	0	0
	9:45 PM					0					0					0					0	0	0
Post PM Peak Perio	10:00 PM					0					0					0					0	0	0
	10:15 PM					0					0					0					0	0	0
	10:30 PM					0					0					0					0	0	0
	10:45 PM					0					0					0					0	0	0
	11:00 PM					0					0					0					0	0	
	11:15 PM					0					0					0					0	0	
	11:30 PM					0					0					0					0	0	
	11:45 PM					0					0					0					0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

Hourly Time Period Start Time		↓ From North Elmhurst Road					← From East Golf Ridge South Road					↑ From South Elmhurst Road					→ From West					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics	*Version 2022.11.2*		*Page 1 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Major St: **Elmhurst Road**
Minor St: **Oakton Road**
Intersection of: ***Elmhurst Road & Oakton Road***

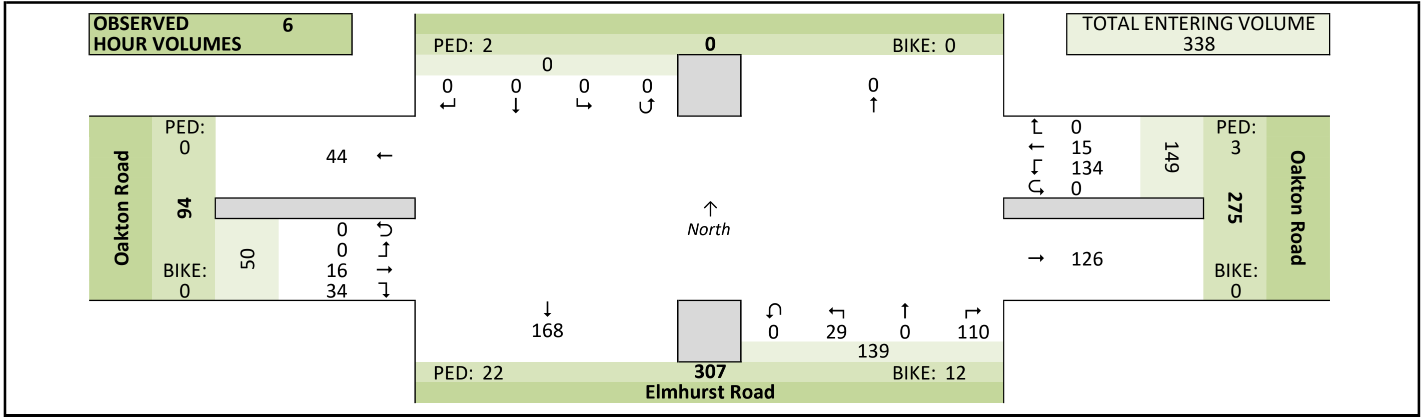
Site Information

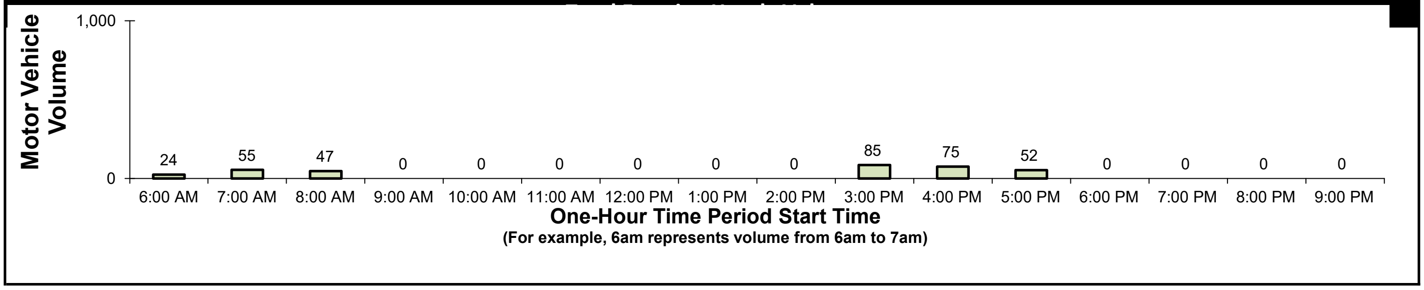
Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Partial Stop Control		
Roadway Names		North Direction	↑
North Leg			
East Leg	Oakton Road		
South Leg	Elmhurst Road		
West Leg	Oakton Road		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

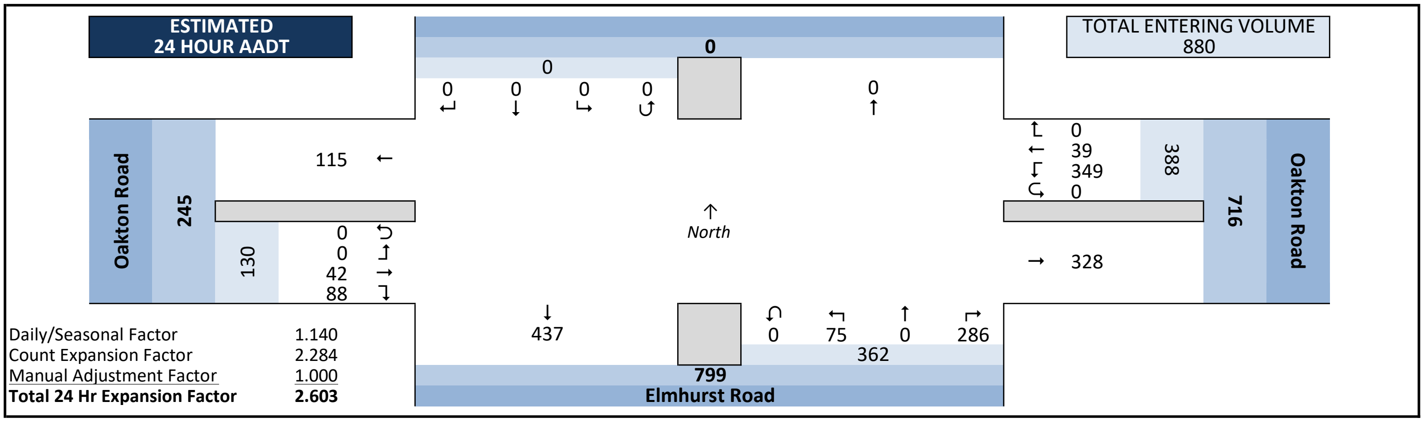
Hrs Counted:	06:00 AM-09:00 AM and 03:00 PM-06:00 PM		
1st Day of Count	Thursday, February 9, 2023	Weather	
AM Peak Period	Thursday, February 9, 2023	Clear & Dry	
Midday Peak Period	Thursday, February 9, 2023	Clear & Dry	
PM Peak Period	Monday, February 13, 2023	Clear & Dry	
Calculated Peak Hours			
AM	6:45-7:45am	MD	PM 3:00-4:00pm
Peak Hours Selected for Analysis			
AM	7:45-8:45am	MD	PM 4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	1.140	Count Expansion Factor	2.284
Company Name	TADI, Inc.	Manual Adj.	1.000
Observers: AM Peak Period	Amy Scheuerlein		
Observers: Midday Peak Period	None		
Observers: PM Peak Period	Amy Scheuerlein		
Comments	2021 DOT Daily & Seasonal Factors		

Observed 6 Hour Volume Summary





Estimated 24 Hour AADT



Daily/Seasonal Factor	1.140
Count Expansion Factor	2.284
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**2.603**

Intersection Traffic Volume Report

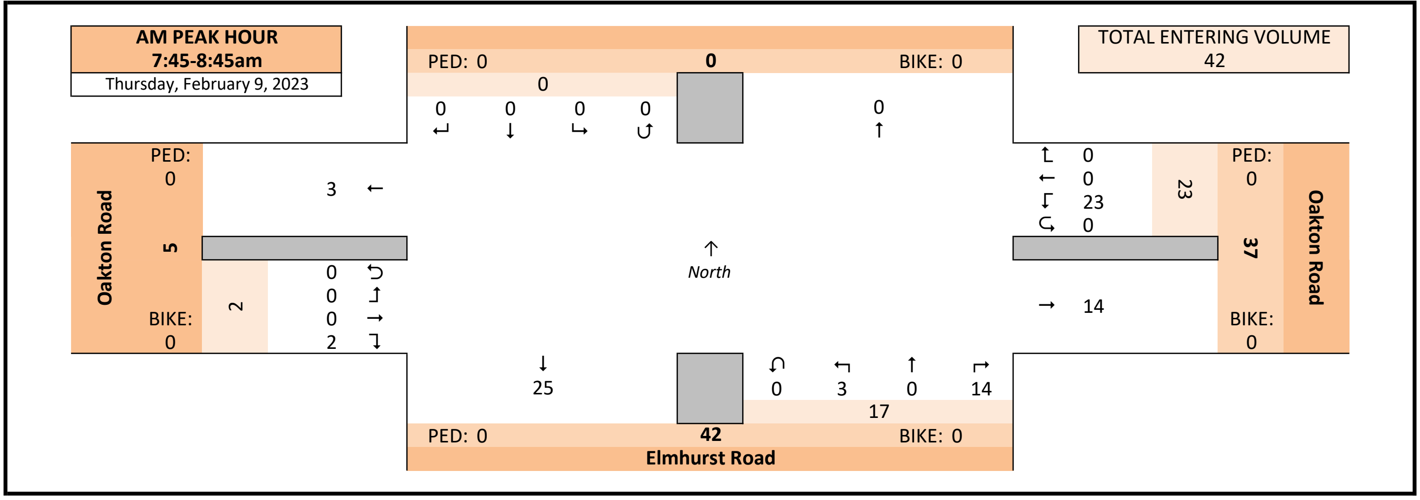
Count Basics			*Page 2 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

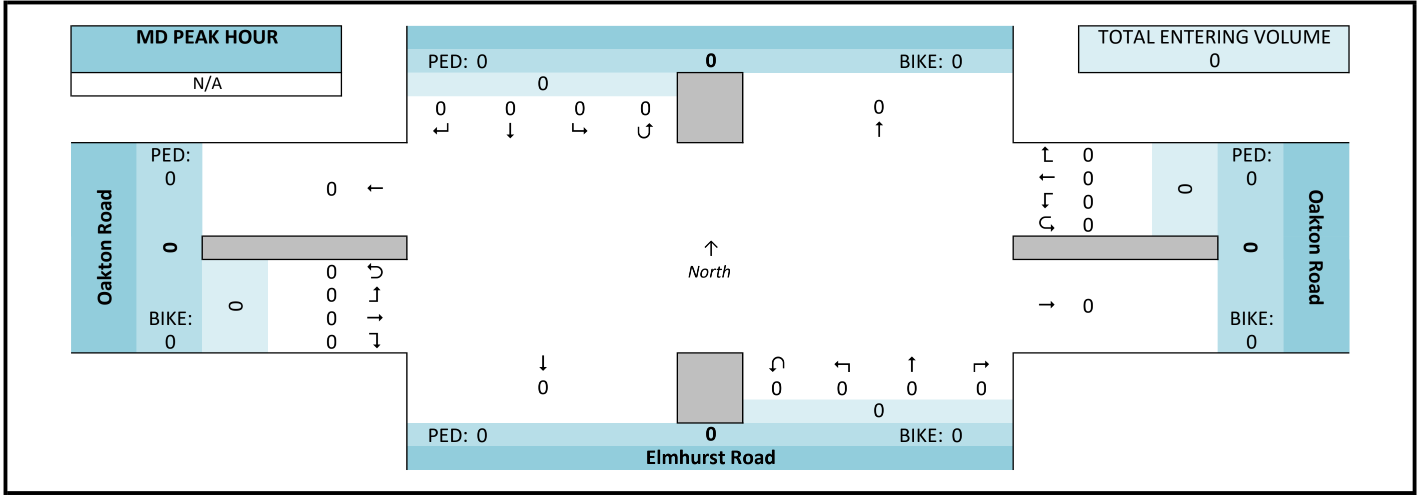
All Motor Vehicles

Elmhurst Road & Oakton Road

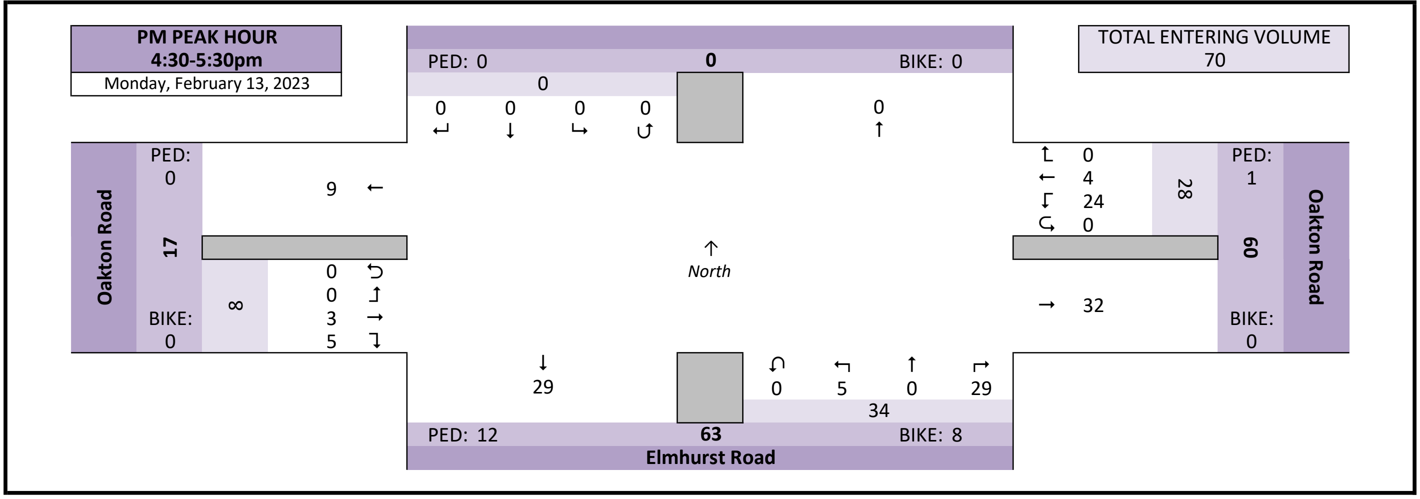
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			*Page 3 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Peak Hour Volume Summary

Elmhurst Road & Oakton Road

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

	Thursday, February 9, 2023	↓ From North					← From East					↑ From South					→ From West					
	AM Peak Hour						Oakton Road					Elmhurst Road					Oakton Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:45 AM	0	0	0	0	0	0	0	3	0	3	5	0	1	0	6	0	0	0	0	0	9
	8:00 AM	0	0	0	0	0	0	0	7	0	7	2	0	1	0	3	0	0	0	0	0	10
	8:15 AM	0	0	0	0	0	0	0	8	0	8	1	0	1	0	2	1	0	0	0	1	11
	8:30 AM	0	0	0	0	0	0	0	5	0	5	6	0	0	0	6	1	0	0	0	1	12
	Peak Hour Volume	0	0	0	0	0	0	0	23	0	23	14	0	3	0	17	2	0	0	0	2	42
	Rounded Hourly Volume	0	0	0	0	0	0	0	25	0	25	15	0	5	0	20	0	0	0	0	0	45
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	2.4
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	2.4
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.72	0.58	0.00	0.75	0.00	0.71	0.50	0.00	0.00	0.00	0.50	0.87

	N/A	↓ From North					← From East					↑ From South					→ From West					
	MD Peak Hour						Oakton Road					Elmhurst Road					Oakton Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Monday, February 13, 2023	↓ From North					← From East					↑ From South					→ From West					
	PM Peak Hour						Oakton Road					Elmhurst Road					Oakton Road					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	0	0	0	0	0	0	1	9	0	10	12	0	3	0	15	2	1	0	0	3	28
	4:45 PM	0	0	0	0	0	0	1	5	0	6	5	0	0	0	5	2	2	0	0	4	15
	5:00 PM	0	0	0	0	0	0	0	6	0	6	4	0	2	0	6	1	0	0	0	1	13
	5:15 PM	0	0	0	0	0	0	2	4	0	6	8	0	0	0	8	0	0	0	0	0	14
	Peak Hour Volume	0	0	0	0	0	0	4	24	0	28	29	0	5	0	34	5	3	0	0	8	70
	Rounded Hourly Volume	0	0	0	0	0	0	5	25	0	30	30	0	5	0	35	5	5	0	0	10	75
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	1.4
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	1.4
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.67	0.00	0.70	0.60	0.00	0.42	0.00	0.57	0.62	0.37	0.00	0.00	0.50	0.62

Peak Hour Pedestrian and Bicyclist Volumes

	Pedestrians and Bicyclists	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
					Oakton Road			Elmhurst Road			Oakton Road			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	3	0	3	0	0	0	3
	4:45 PM	0	0	0	0	0	0	5	0	5	0	0	0	5
	5:00 PM	0	0	0	1	0	1	2	8	10	0	0	0	11
	5:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	2
	Total	0	0	0	1	0	1	12	8	20	0	0	0	21

Intersection Traffic Volume Report

Count Basics			*Page 4 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

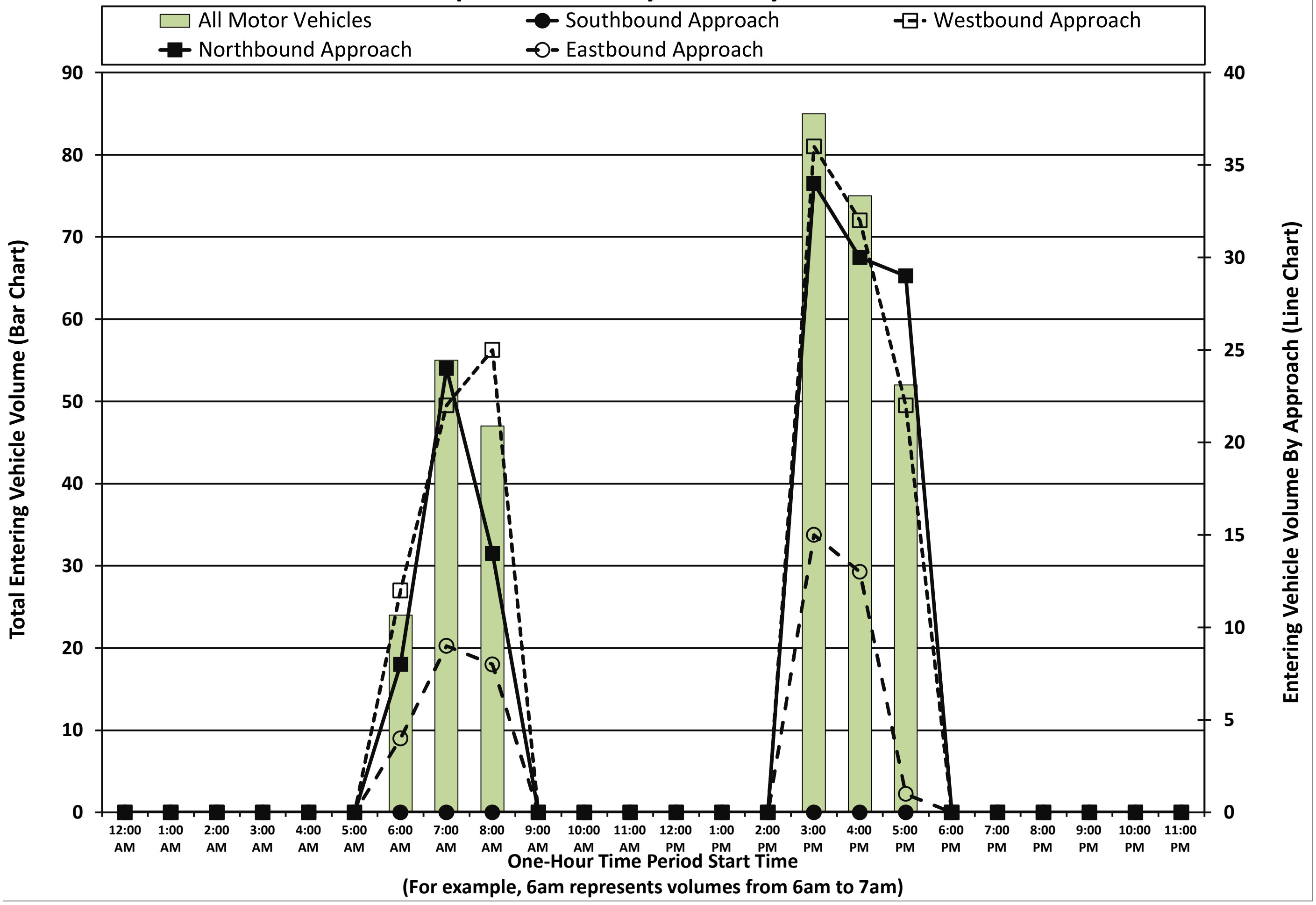
All Motor Vehicles

Elmhurst Road & Oakton Road

One-Hour Motor Vehicle Data

One-Hour Time Period Start Time		From North ↓					From East ←					From South ↑					From West →					Total Vehicle Volume	Directional Volume Totals	
							Oakton Road					Elmhurst Road					Oakton Road							
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		E/W	N/S
Pre-AM	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	6:00 AM	0	0	0	0	0	0	1	11	0	12	5	0	3	0	8	1	3	0	0	4	24	16	8
	7:00 AM	0	0	0	0	0	0	3	19	0	22	13	0	11	0	24	6	3	0	0	9	55	31	24
	8:00 AM	0	0	0	0	0	0	0	25	0	25	12	0	2	0	14	8	0	0	0	8	47	33	14
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 PM	0	0	0	0	0	0	3	33	0	36	28	0	6	0	34	9	6	0	0	15	85	51	34
	4:00 PM	0	0	0	0	0	0	5	27	0	32	27	0	3	0	30	9	4	0	0	13	75	45	30
	5:00 PM	0	0	0	0	0	0	3	19	0	22	25	0	4	0	29	1	0	0	0	1	52	23	29
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals		0	0	0	0	0	0	15	134	0	149	110	0	29	0	139	34	16	0	0	50	338	199	139

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

Count Basics		*Page 5 of 13*
Start Date: Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

Elmhurst Road & Oakton Road

15-Minute Motor Vehicle Data

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum	PHF
							Oakton Road					Elmhurst Road					Oakton Road							
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	0	0	0	0	0	4	24	0.50
	6:15 AM	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	0	0	0	0	0	3	37	0.54
	6:30 AM	0	0	0	0	0	0	0	2	0	2	1	0	1	0	2	0	1	0	0	1	5	52	0.72
	6:45 AM	0	0	0	0	0	0	1	4	0	5	2	0	2	0	4	1	2	0	0	3	12	58	0.81
	7:00 AM	0	0	0	0	0	0	0	7	0	7	5	0	2	0	7	3	0	0	0	3	17	55	0.76
	7:15 AM	0	0	0	0	0	0	3	6	0	9	2	0	4	0	6	1	2	0	0	3	18	48	0.67
	7:30 AM	0	0	0	0	0	0	0	3	0	3	1	0	4	0	5	2	1	0	0	3	11	41	0.93
	7:45 AM	0	0	0	0	0	0	0	3	0	3	5	0	1	0	6	0	0	0	0	0	9	42	0.88
	8:00 AM	0	0	0	0	0	0	0	7	0	7	2	0	1	0	3	0	0	0	0	0	10	47	0.84
	8:15 AM	0	0	0	0	0	0	0	8	0	8	1	0	1	0	2	1	0	0	0	1	11		
	8:30 AM	0	0	0	0	0	0	0	5	0	5	6	0	0	0	6	1	0	0	0	1	12		
	8:45 AM	0	0	0	0	0	0	0	5	0	5	3	0	0	0	3	6	0	0	0	6	14		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	1	10	0	11	8	0	3	0	11	3	2	0	0	5	27	85	0.79
	3:15 PM	0	0	0	0	0	0	2	5	0	7	6	0	1	0	7	4	1	0	0	5	19	73	0.91
	3:30 PM	0	0	0	0	0	0	0	6	0	6	8	0	1	0	9	2	2	0	0	4	19	71	0.89
	3:45 PM	0	0	0	0	0	0	0	12	0	12	6	0	1	0	7	0	1	0	0	1	20	80	0.71
	4:00 PM	0	0	0	0	0	0	0	8	0	8	5	0	0	0	5	2	0	0	0	2	15	75	0.67
	4:15 PM	0	0	0	0	0	0	3	5	0	8	5	0	0	0	5	3	1	0	0	4	17	73	0.65
	4:30 PM	0	0	0	0	0	0	1	9	0	10	12	0	3	0	15	2	1	0	0	3	28	70	0.63
	4:45 PM	0	0	0	0	0	0	1	5	0	6	5	0	0	0	5	2	2	0	0	4	15	54	0.90
	5:00 PM	0	0	0	0	0	0	0	6	0	6	4	0	2	0	6	1	0	0	0	1	13	52	0.93
	5:15 PM	0	0	0	0	0	0	2	4	0	6	8	0	0	0	8	0	0	0	0	0	14		
	5:30 PM	0	0	0	0	0	0	1	6	0	7	5	0	0	0	5	0	0	0	0	0	12		
	5:45 PM	0	0	0	0	0	0	0	3	0	3	8	0	2	0	10	0	0	0	0	0	13		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Post PM Peak Period	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		0	0	0	0	0	0	15	134	0	149	110	0	29	0	139	34	16	0	0	50	338		

Peak Hour All Vehicle Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume		PHF
							Oakton Road					Elmhurst Road					Oakton Road							
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM	7:45 AM	0	0	0	0	0	0	0	23	0	23	14	0	3	0	17	2	0	0	0	2	42		0.88
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM	4:30 PM	0	0	0	0	0	0	4	24	0	28	29	0	5	0	34	5	3	0	0	8	70		0.63

Intersection Traffic Volume Report

Count Basics		Page 6 of 13
Start Date: Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6	Non-Holiday	No Special Events

15-Minute Automobile Data

Elmhurst Road & Oakton Road

Automobiles (Cars, Light Trucks, & Motorcycles)

15-Minute Automobile Data

	15-Minute	↓ From North					← From East					↑ From South					→ From West						
	Time Period						Oakton Road					Elmhurst Road					Oakton Road					15-Min	Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	0	0	0	0	0	4	22
	6:15 AM	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	0	0	0	0	0	3	35
	6:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	1	0	0	1	3	50
	6:45 AM	0	0	0	0	0	0	1	4	0	5	2	0	2	0	4	1	2	0	0	3	12	58
	7:00 AM	0	0	0	0	0	0	0	7	0	7	5	0	2	0	7	3	0	0	0	3	17	54
	7:15 AM	0	0	0	0	0	0	3	6	0	9	2	0	4	0	6	1	2	0	0	3	18	47
	7:30 AM	0	0	0	0	0	0	0	3	0	3	1	0	4	0	5	2	1	0	0	3	11	40
	7:45 AM	0	0	0	0	0	0	0	3	0	3	4	0	1	0	5	0	0	0	0	0	8	41
	8:00 AM	0	0	0	0	0	0	0	7	0	7	2	0	1	0	3	0	0	0	0	0	10	47
	8:15 AM	0	0	0	0	0	0	0	8	0	8	1	0	1	0	2	1	0	0	0	1	11	
	8:30 AM	0	0	0	0	0	0	0	5	0	5	6	0	0	0	6	1	0	0	0	1	12	
	8:45 AM	0	0	0	0	0	0	0	5	0	5	3	0	0	0	3	6	0	0	0	6	14	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	7	0	7	8	0	3	0	11	1	1	0	0	2	20	74
	3:15 PM	0	0	0	0	0	0	2	5	0	7	6	0	1	0	7	3	1	0	0	4	18	69
	3:30 PM	0	0	0	0	0	0	0	6	0	6	7	0	1	0	8	2	2	0	0	4	18	68
	3:45 PM	0	0	0	0	0	0	0	12	0	12	4	0	1	0	5	0	1	0	0	1	18	77
	4:00 PM	0	0	0	0	0	0	0	8	0	8	5	0	0	0	5	2	0	0	0	2	15	74
	4:15 PM	0	0	0	0	0	0	3	5	0	8	5	0	0	0	5	3	1	0	0	4	17	72
	4:30 PM	0	0	0	0	0	0	1	9	0	10	11	0	3	0	14	2	1	0	0	3	27	69
	4:45 PM	0	0	0	0	0	0	1	5	0	6	5	0	0	0	5	2	2	0	0	4	15	54
	5:00 PM	0	0	0	0	0	0	0	6	0	6	4	0	2	0	6	1	0	0	0	1	13	52
	5:15 PM	0	0	0	0	0	0	2	4	0	6	8	0	0	0	8	0	0	0	0	0	14	
	5:30 PM	0	0	0	0	0	0	1	6	0	7	5	0	0	0	5	0	0	0	0	0	12	
	5:45 PM	0	0	0	0	0	0	0	3	0	3	8	0	2	0	10	0	0	0	0	0	13	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	14	129	0	143	105	0	29	0	134	31	15	0	0	46	323	

Peak Hour Automobile Volume Summary

	Hourly	↓ From North					← From East					↑ From South					→ From West					Total
	Time Period						Oakton Road					Elmhurst Road					Oakton Road					Hourly
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume
AM	7:45 AM	0	0	0	0	0	0	0	23	0	23	13	0	3	0	16	2	0	0	0	2	41
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	4	24	0	28	28	0	5	0	33	5	3	0	0	8	69

Intersection Traffic Volume Report

Count Basics			*Page 7 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

Single Unit (SU) Trucks & Buses

Elmhurst Road & Oakton Road

15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
							Oakton Road					Elmhurst Road					Oakton Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:30 AM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2	2
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	2	1	0	0	3	7	11
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	4
	3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	3
	3:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2	3
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	1	5	0	6	5	0	0	0	5	3	1	0	0	4	15	

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
							Oakton Road					Elmhurst Road					Oakton Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1

Intersection Traffic Volume Report

Count Basics			Page 8 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Semi-Truck Data

Semi-Trucks

Elmhurst Road & Oakton Road

15-Minute Semi-Truck Data

	15-Minute Time Period Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
							Oakton Road					Elmhurst Road					Oakton Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Semi-Truck Volume Summary

	Hourly Time Period Start Time	From North					From East					From South					From West					Total Hourly Volume
							Oakton Road					Elmhurst Road					Oakton Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Elmhurst Road & Oakton Road

15-Minute Heavy Vehicle Data

15-Minute Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
							Oakton Road					Elmhurst Road					Oakton Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:30 AM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2	2
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	2	1	0	0	3	7	11
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	4
	3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	3
	3:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2	3
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		0	0	0	0	0	0	1	5	0	6	5	0	0	0	5	3	1	0	0	4	15	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
							Oakton Road					Elmhurst Road					Oakton Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1

Intersection Traffic Volume Report

Count Basics			Page 10 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Percentages

Elmhurst Road & Oakton Road

% Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

15-Minute Heavy Vehicle Percentages

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Heavy Vehicle Percent	Hourly Heavy Vehicle Percent
							Oakton Road					Elmhurst Road					Oakton Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	4:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AM Peak Period	6:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
	6:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
	6:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	3.8
	6:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
	7:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
	7:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	11.1	2.4
	8:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Midday Peak Period	10:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	12:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PM Peak Period	2:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	100.0	30.0	0.0	36.4	0.0	0.0	0.0	0.0	0.0	66.7	50.0	0.0	0.0	60.0	25.9	12.9
	3:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	20.0	5.3	5.5
	3:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	5.3	4.2
	3:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	28.6	0.0	0.0	0.0	0.0	0.0	10.0	3.8
	4:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
	4:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	3.6	1.4
	4:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	8:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Post PM Peak Perio	10:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Totals		0.0	0.0	0.0	0.0	0.0	0.0	6.7	3.7	0.0	4.0	4.5	0.0	0.0	0.0	3.6	8.8	6.3	0.0	0.0	8.0	4.4	

Peak Hour Heavy Vehicle Percentages Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Hourly Heavy Vehicle Percent
							Oakton Road					Elmhurst Road					Oakton Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	2.4
MD	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	1.4

Intersection Traffic Volume Report

Count Basics			*Page 11 of 13*
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Pedestrians and Bicyclists

Elmhurst Road & Oakton Road

15-Minute Pedestrian and Bicyclist Data

	15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
					Oakton Road			Elmhurst Road			Oakton Road				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
Pre-AM Peak Period	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	7:00 AM	0	0	0	0	0	0	2	0	2	0	0	0	2	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	2	0	2	1	0	1	4	1	5	0	0	0	8	13
	3:15 PM	0	0	0	0	0	0	2	2	4	0	0	0	4	6
	3:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	4
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	11
	4:15 PM	0	0	0	1	0	1	0	1	1	0	0	0	2	21
	4:30 PM	0	0	0	0	0	0	3	0	3	0	0	0	3	21
	4:45 PM	0	0	0	0	0	0	5	0	5	0	0	0	5	18
	5:00 PM	0	0	0	1	0	1	2	8	10	0	0	0	11	13
	5:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	2	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Post PM Peak Perio	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		2	0	2	3	0	3	22	12	34	0	0	0	39	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementry School Age Children	x					
Visually Impaired (white cane/help	x					
Elderly/Disabled (except wheelcha	x					
Wheelchairs/Electric Scooters	x					
Other (None	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

Adults & Children

Elmhurst Road & Oakton Road

15-Minute Adult & Children Pedestrian Data

	15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
					Oakton Road			Elmhurst Road			Oakton Road				
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
Pre-AM Peak Period	12:00 AM	0		0	0		0	0		0	0		0	0	0
	12:15 AM	0		0	0		0	0		0	0		0	0	0
	12:30 AM	0		0	0		0	0		0	0		0	0	0
	12:45 AM	0		0	0		0	0		0	0		0	0	0
	1:00 AM	0		0	0		0	0		0	0		0	0	0
	1:15 AM	0		0	0		0	0		0	0		0	0	0
	1:30 AM	0		0	0		0	0		0	0		0	0	0
	1:45 AM	0		0	0		0	0		0	0		0	0	0
	2:00 AM	0		0	0		0	0		0	0		0	0	0
	2:15 AM	0		0	0		0	0		0	0		0	0	0
	2:30 AM	0		0	0		0	0		0	0		0	0	0
	2:45 AM	0		0	0		0	0		0	0		0	0	0
	3:00 AM	0		0	0		0	0		0	0		0	0	0
	3:15 AM	0		0	0		0	0		0	0		0	0	0
	3:30 AM	0		0	0		0	0		0	0		0	0	0
	3:45 AM	0		0	0		0	0		0	0		0	0	0
	4:00 AM	0		0	0		0	0		0	0		0	0	0
	4:15 AM	0		0	0		0	0		0	0		0	0	0
	4:30 AM	0		0	0		0	0		0	0		0	0	0
	4:45 AM	0		0	0		0	0		0	0		0	0	0
	5:00 AM	0		0	0		0	0		0	0		0	0	0
	5:15 AM	0		0	0		0	0		0	0		0	0	0
	5:30 AM	0		0	0		0	0		0	0		0	0	0
	5:45 AM	0		0	0		0	0		0	0		0	0	0
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	0
	6:15 AM	0		0	0		0	0		0	0		0	0	2
	6:30 AM	0		0	0		0	0		0	0		0	0	2
	6:45 AM	0		0	0		0	0		0	0		0	0	2
	7:00 AM	0		0	0		0	2		2	0		0	2	2
	7:15 AM	0		0	0		0	0		0	0		0	0	0
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	0
	2:15 PM	0		0	0		0	0		0	0		0	0	7
	2:30 PM	0		0	0		0	0		0	0		0	0	9
	2:45 PM	0		0	0		0	0		0	0		0	0	10
	3:00 PM	2		2	1		1	4		4	0		0	7	10
	3:15 PM	0		0	0		0	2		2	0		0	2	4
	3:30 PM	0		0	0		0	1		1	0		0	1	3
	3:45 PM	0		0	0		0	0		0	0		0	0	5
	4:00 PM	0		0	0		0	1		1	0		0	1	10
	4:15 PM	0		0	1		1	0		0	0		0	1	12
	4:30 PM	0		0	0		0	3		3	0		0	3	13
	4:45 PM	0		0	0		0	5		5	0		0	5	10
	5:00 PM	0		0	1		1	2		2	0		0	3	5
	5:15 PM	0		0	0		0	2		2	0		0	2	2
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Post PM Peak Period	10:00 PM	0		0	0		0	0		0	0		0	0	0
	10:15 PM	0		0	0		0	0		0	0		0	0	0
	10:30 PM	0		0	0		0	0		0	0		0	0	0
	10:45 PM	0		0	0		0	0		0	0		0	0	0
	11:00 PM	0		0	0		0	0		0	0		0	0	0
	11:15 PM	0		0	0		0	0		0	0		0	0	
	11:30 PM	0		0	0		0	0		0	0		0	0	
	11:45 PM	0		0	0		0	0		0	0		0	0	
Totals		2	0	2	3	0	3	22	0	22	0	0	0	27	

Intersection Traffic Volume Report

Count Basics			Page 13 of 13
Start Date:	Thursday, February 9, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 6		Non-Holiday	No Special Events

15-Minute Bicycle Turning Movement Count (Manual Entry)

Bicyclists

Elmhurst Road & Oakton Road

15-Minute Bicycle Data

	15-Minute Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					15-Min Totals	Hourly Sum
							Oakton Road					Elmhurst Road					Oakton Road						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Pre-AM Peak Period	12:00 AM					0					0					0					0	0	0
	12:15 AM					0					0					0					0	0	0
	12:30 AM					0					0					0					0	0	0
	12:45 AM					0					0					0					0	0	0
	1:00 AM					0					0					0					0	0	0
	1:15 AM					0					0					0					0	0	0
	1:30 AM					0					0					0					0	0	0
	1:45 AM					0					0					0					0	0	0
	2:00 AM					0					0					0					0	0	0
	2:15 AM					0					0					0					0	0	0
	2:30 AM					0					0					0					0	0	0
	2:45 AM					0					0					0					0	0	0
	3:00 AM					0					0					0					0	0	0
	3:15 AM					0					0					0					0	0	0
	3:30 AM					0					0					0					0	0	0
	3:45 AM					0					0					0					0	0	0
	4:00 AM					0					0					0					0	0	0
	4:15 AM					0					0					0					0	0	0
	4:30 AM					0					0					0					0	0	0
	4:45 AM					0					0					0					0	0	0
	5:00 AM					0					0					0					0	0	0
	5:15 AM					0					0					0					0	0	0
	5:30 AM					0					0					0					0	0	0
	5:45 AM					0					0					0					0	0	0
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
	9:45 AM					0					0					0					0	0	0
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
	11:00 AM					0					0					0					0	0	0
	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
	11:45 AM					0					0					0					0	0	0
	12:00 PM					0					0					0					0	0	0
	12:15 PM					0					0					0					0	0	0
	12:30 PM					0					0					0					0	0	0
	12:45 PM					0					0					0					0	0	0
	1:00 PM					0					0					0					0	0	0
	1:15 PM					0					0					0					0	0	0
	1:30 PM					0					0					0					0	0	0
	1:45 PM					0					0					0					0	0	0
PM Peak Period	2:00 PM					0					0					0					0	0	0
	2:15 PM					0					0					0					0	0	0
	2:30 PM					0					0					0					0	0	0
	2:45 PM					0					0					0					0	0	0
	3:00 PM					0					0					0					0	0	0
	3:15 PM					0					0					0					0	0	0
	3:30 PM					0					0					0					0	0	0
	3:45 PM					0					0					0					0	0	0
	4:00 PM					0					0					0					0	0	0
	4:15 PM					0					0					0					0	0	0
	4:30 PM					0					0					0					0	0	0
	4:45 PM					0					0					0					0	0	0
	5:00 PM					0					0					0					0	0	0
	5:15 PM					0					0					0					0	0	0
	5:30 PM					0					0					0					0	0	0
	5:45 PM					0					0					0					0	0	0
	6:00 PM					0					0					0					0	0	0
	6:15 PM					0					0					0					0	0	0
	6:30 PM					0					0					0					0	0	0
	6:45 PM					0					0					0					0	0	0
	7:00 PM					0					0					0					0	0	0
	7:15 PM					0					0					0					0	0	0
	7:30 PM					0					0					0					0	0	0
	7:45 PM					0					0					0					0	0	0
	8:00 PM					0					0					0					0	0	0
	8:15 PM					0					0					0					0	0	0
	8:30 PM					0					0					0					0	0	0
	8:45 PM					0					0					0					0	0	0
	9:00 PM					0					0					0					0	0	0
	9:15 PM					0					0					0					0	0	0
	9:30 PM					0					0					0					0	0	0
	9:45 PM					0					0					0					0	0	0
Post PM Peak Perio	10:00 PM					0					0					0					0	0	0
	10:15 PM					0					0					0					0	0	0
	10:30 PM					0					0					0					0	0	0
	10:45 PM					0					0					0					0	0	0
	11:00 PM					0					0					0					0	0	
	11:15 PM					0					0					0					0	0	
	11:30 PM					0					0					0					0	0	
	11:45 PM					0					0					0					0	0	
Totals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Bicycle Turning Movement Volume Summary

Hourly Time Period Start Time		↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
							Oakton Road					Elmhurst Road					Oakton Road					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix B
Peak Hour Analysis Outputs

Existing Traffic
Full Build Traffic
Full Build Traffic – with modifications (Not Applicable)

	↗	→	←	↖	↘	↙
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↲↳	
Traffic Volume (vph)	10	145	140	15	30	25
Future Volume (vph)	10	145	140	15	30	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.987		0.939	
Flt Protected		0.997			0.973	
Satd. Flow (prot)	0	1839	1769	0	1653	0
Flt Permitted		0.997			0.973	
Satd. Flow (perm)	0	1839	1769	0	1653	0
Link Speed (mph)		50	50		35	
Link Distance (ft)		518	1379		355	
Travel Time (s)		7.1	18.8		6.9	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	3%	3%	6%	6%	5%	5%
Adj. Flow (vph)	13	188	182	19	39	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	201	201	0	71	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 26.2% ICU Level of Service A
Analysis Period (min) 15

HCM 6th TWSC AM Peak
100: Golf Road & Glen Cove Rd 02/24/2023

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↰↱	
Traffic Vol, veh/h	10	145	140	15	30	25
Future Vol, veh/h	10	145	140	15	30	25
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	3	3	6	6	5	5
Mvmt Flow	13	188	182	19	39	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	202	0	-	0	408	194
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	215	-
Critical Hdwy	4.13	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.227	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1364	-	-	-	594	840
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	814	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1363	-	-	-	586	838
Mov Cap-2 Maneuver	-	-	-	-	586	-
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	813	-

Approach	EB		WB		SB	
HCM Control Delay, s	0.5		0		10.9	
HCM LOS					B	

Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1363	-	-	-	679
HCM Lane V/C Ratio		0.01	-	-	-	0.105
HCM Control Delay (s)		7.7	0	-	-	10.9
HCM Lane LOS		A	A	-	-	B
HCM 95th %tile Q(veh)		0	-	-	-	0.4

	↗	→	←	↖	↘	↙
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↰↱	
Traffic Volume (vph)	0	175	155	0	0	0
Future Volume (vph)	0	175	155	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1845	1792	0	1881	0
Flt Permitted						
Satd. Flow (perm)	0	1845	1792	0	1881	0
Link Speed (mph)		50	50		25	
Link Distance (ft)		1379	1075		611	
Travel Time (s)		18.8	14.7		16.7	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	3%	3%	6%	6%	1%	1%
Adj. Flow (vph)	0	227	201	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	227	201	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.5% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	0	175	155	0	0	0
Future Vol, veh/h	0	175	155	0	0	0
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	3	3	6	6	1	1
Mvmt Flow	0	227	201	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	202	0	-	0	430	203
Stage 1	-	-	-	-	202	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	4.13	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.227	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1364	-	-	-	584	840
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1363	-	-	-	583	838
Mov Cap-2 Maneuver	-	-	-	-	583	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	811	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1363	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

300: Golf Road & Prop East D/W

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↰↱	
Traffic Volume (vph)	0	175	155	0	0	0
Future Volume (vph)	0	175	155	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1845	1792	0	1881	0
Flt Permitted						
Satd. Flow (perm)	0	1845	1792	0	1881	0
Link Speed (mph)		50	50		25	
Link Distance (ft)		1075	1238		587	
Travel Time (s)		14.7	16.9		16.0	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	3%	3%	6%	6%	1%	1%
Adj. Flow (vph)	0	227	201	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	227	201	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 19.5% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	0	175	155	0	0	0
Future Vol, veh/h	0	175	155	0	0	0
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	3	3	6	6	1	1
Mvmt Flow	0	227	201	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	202	0	-	0	430	203
Stage 1	-	-	-	-	202	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	4.13	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.227	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1364	-	-	-	584	840
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1363	-	-	-	583	838
Mov Cap-2 Maneuver	-	-	-	-	583	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	811	-

Approach	EB		WB		SB	
HCM Control Delay, s	0		0		0	
HCM LOS					A	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1363	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lanes, Volumes, Timings
400: Elmhurst Road & Golf Road

AM Peak
02/24/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	15	130	30	15	90	5	50	5	20	10	15	15
Future Volume (vph)	15	130	30	15	90	5	50	5	20	10	15	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.977			0.994			0.964			0.950	
Flt Protected		0.996			0.993			0.968			0.987	
Satd. Flow (prot)	0	1795	0	0	1736	0	0	1755	0	0	1730	0
Flt Permitted		0.996			0.993			0.968			0.987	
Satd. Flow (perm)	0	1795	0	0	1736	0	0	1755	0	0	1730	0
Link Speed (mph)		50			50			35			35	
Link Distance (ft)		1238			631			570			807	
Travel Time (s)		16.9			8.6			11.1			15.7	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	3%	3%	3%	8%	8%	8%	1%	1%	1%	3%	3%	3%
Adj. Flow (vph)	19	163	38	19	113	6	63	6	25	13	19	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	220	0	0	138	0	0	94	0	0	51	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 28.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th AWSC
400: Elmhurst Road & Golf Road

AM Peak
02/24/2023

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	15	130	30	15	90	5	50	5	20	10	15	15
Future Vol, veh/h	15	130	30	15	90	5	50	5	20	10	15	15
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	3	3	3	8	8	8	1	1	1	3	3	3
Mvmt Flow	19	163	38	19	113	6	63	6	25	13	19	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	8.6	8.5	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	67%	9%	14%	25%
Vol Thru, %	7%	74%	82%	38%
Vol Right, %	27%	17%	5%	38%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	175	110	40
LT Vol	50	15	15	10
Through Vol	5	130	90	15
RT Vol	20	30	5	15
Lane Flow Rate	94	219	138	50
Geometry Grp	1	1	1	1
Degree of Util (X)	0.124	0.265	0.176	0.065
Departure Headway (Hd)	4.761	4.369	4.62	4.705
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	753	823	777	760
Service Time	2.792	2.392	2.646	2.74
HCM Lane V/C Ratio	0.125	0.266	0.178	0.066
HCM Control Delay	8.5	9	8.6	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	1.1	0.6	0.2

500: Glen Cove Rd & Brookstone Cir N/Prop Northwest D/W

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Volume (vph)	1	0	5	0	0	0	1	20	0	0	45	1
Future Volume (vph)	1	0	5	0	0	0	1	20	0	0	45	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.884									0.998	
Flt Protected		0.993						0.998				
Satd. Flow (prot)	0	1651	0	0	1881	0	0	1806	0	0	1806	0
Flt Permitted		0.993						0.998				
Satd. Flow (perm)	0	1651	0	0	1881	0	0	1806	0	0	1806	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		690			726			450			582	
Travel Time (s)		18.8			19.8			8.8			11.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	1	0	6	0	0	0	1	26	0	0	58	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	0	0	0	27	0	0	59	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC

500: Glen Cove Rd & Brookstone Cir N/Prop Northwest D/W

AM Peak
02/24/2023

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	1	0	5	0	0	0	1	20	0	0	45	1
Future Vol, veh/h	1	0	5	0	0	0	1	20	0	0	45	1
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	1	1	1	1	1	1	5	5	5	5	5	5
Mvmt Flow	1	0	6	0	0	0	1	26	0	0	58	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	89	89	61	92	89	28	60	0	0	27	0	0
Stage 1	60	60	-	29	29	-	-	-	-	-	-	-
Stage 2	29	29	-	63	60	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	898	803	1007	894	803	1050	1525	-	-	1568	-	-
Stage 1	954	847	-	991	873	-	-	-	-	-	-	-
Stage 2	991	873	-	950	847	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	895	801	1005	886	801	1048	1524	-	-	1567	-	-
Mov Cap-2 Maneuver	895	801	-	886	801	-	-	-	-	-	-	-
Stage 1	952	846	-	989	871	-	-	-	-	-	-	-
Stage 2	989	871	-	943	846	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.7	0	0.4	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1524	-	-	985	-	1567	-	-
HCM Lane V/C Ratio	0.001	-	-	0.008	-	-	-	-
HCM Control Delay (s)	7.4	0	-	8.7	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↰	↱	
Traffic Volume (vph)	1	5	5	20	50	1
Future Volume (vph)	1	5	5	20	50	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.884				0.998	
Flt Protected	0.993			0.991		
Satd. Flow (prot)	1463	0	0	1793	1806	0
Flt Permitted	0.993			0.991		
Satd. Flow (perm)	1463	0	0	1793	1806	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	709			355	450	
Travel Time (s)	19.3			6.9	8.8	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	14%	14%	5%	5%	5%	5%
Adj. Flow (vph)	1	6	6	26	65	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	32	66	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 15.7% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱			↰↑	↑↱	
Traffic Vol, veh/h	1	5	5	20	50	1
Future Vol, veh/h	1	5	5	20	50	1
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	14	14	5	5	5	5
Mvmt Flow	1	6	6	26	65	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	106	68	67	0	-	0
Stage 1	67	-	-	-	-	-
Stage 2	39	-	-	-	-	-
Critical Hdwy	6.54	6.34	4.15	-	-	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.426	2.245	-	-	-
Pot Cap-1 Maneuver	863	963	1516	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	953	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	858	961	1515	-	-	-
Mov Cap-2 Maneuver	858	-	-	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	952	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1515	-	942	-	-
HCM Lane V/C Ratio	0.004	-	0.008	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Volume (vph)	1	5	30	1	5	15
Future Volume (vph)	1	5	30	1	5	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.884				0.900	
Flt Protected				0.954	0.987	
Satd. Flow (prot)	1663	0	0	1795	1592	0
Flt Permitted				0.954	0.987	
Satd. Flow (perm)	1663	0	0	1795	1592	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	540			604	478	
Travel Time (s)	14.7			11.8	9.3	
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	1%	1%	1%	1%	6%	6%
Adj. Flow (vph)	1	6	34	1	6	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	35	23	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.7% ICU Level of Service A

Analysis Period (min) 15

700: Elmhurst Road & Oakton Road

Intersection	
Int Delay, s/veh	6.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	1	5	30	1	5	15
Future Vol, veh/h	1	5	30	1	5	15
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	6	6
Mvmt Flow	1	6	34	1	6	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	75	6
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	70	-
Critical Hdwy	-	-	4.11	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.209	-	3.554	3.354
Pot Cap-1 Maneuver	-	-	1619	-	919	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	943	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1617	-	898	1063
Mov Cap-2 Maneuver	-	-	-	-	898	-
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	922	-

Approach	EB		WB		NB	
HCM Control Delay, s	0		7		8.6	
HCM LOS					A	

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1016	-	-	1617	-
HCM Lane V/C Ratio	0.023	-	-	0.021	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	⋎		↱			↰
Traffic Volume (vph)	1	1	20	1	1	35
Future Volume (vph)	1	1	20	1	1	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932		0.994			
Flt Protected	0.976					0.999
Satd. Flow (prot)	1711	0	1782	0	0	1879
Flt Permitted	0.976					0.999
Satd. Flow (perm)	1711	0	1782	0	0	1879
Link Speed (mph)	25		35			35
Link Distance (ft)	484		690			478
Travel Time (s)	13.2		13.4			9.3
Confl. Peds. (#/hr)	1	1		1	1	
Confl. Bikes (#/hr)		1		1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	6%	6%	1%	1%
Adj. Flow (vph)	1	1	22	1	1	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	23	0	0	40
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↱			↰
Traffic Vol, veh/h	1	1	20	1	1	35
Future Vol, veh/h	1	1	20	1	1	35
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	1	6	6	1	1
Mvmt Flow	1	1	22	1	1	39

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	66	25	0	0	24	0
Stage 1	24	-	-	-	-	-
Stage 2	42	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	942	1054	-	-	1597	-
Stage 1	1001	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	939	1052	-	-	1595	-
Mov Cap-2 Maneuver	939	-	-	-	-	-
Stage 1	1000	-	-	-	-	-
Stage 2	981	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	992	1595	-
HCM Lane V/C Ratio	-	-	0.002	0.001	-
HCM Control Delay (s)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

900: Elmhurst Road & Prop Northeast D/W/Golf Ridge S

02/24/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	0	0	0	5	0	1	0	20	5	1	35	0
Future Volume (vph)	0	0	0	5	0	1	0	20	5	1	35	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.981			0.972				
Flt Protected					0.959						0.999	
Satd. Flow (prot)	0	1881	0	0	1770	0	0	1679	0	0	1879	0
Flt Permitted					0.959						0.999	
Satd. Flow (perm)	0	1881	0	0	1770	0	0	1679	0	0	1879	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		685			577			464			690	
Travel Time (s)		18.7			15.7			9.0			13.4	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	10%	10%	10%	1%	1%	1%
Adj. Flow (vph)	0	0	0	6	0	1	0	23	6	1	40	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	7	0	0	29	0	0	41	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.0% ICU Level of Service A

Analysis Period (min) 15

900: Elmhurst Road & Prop Northeast D/W/Golf Ridge S

02/24/2023

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	0	0	0	5	0	1	0	20	5	1	35	0
Future Vol, veh/h	0	0	0	5	0	1	0	20	5	1	35	0
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	10	10	10	1	1	1
Mvmt Flow	0	0	0	6	0	1	0	23	6	1	40	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	71	73	42	70	70	28	41	0	0	30	0	0
Stage 1	43	43	-	27	27	-	-	-	-	-	-	-
Stage 2	28	30	-	43	43	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.2	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.29	-	-	2.209	-	-
Pot Cap-1 Maneuver	923	819	1032	924	822	1050	1518	-	-	1589	-	-
Stage 1	974	861	-	993	875	-	-	-	-	-	-	-
Stage 2	992	872	-	974	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	919	817	1030	921	820	1048	1517	-	-	1587	-	-
Mov Cap-2 Maneuver	919	817	-	921	820	-	-	-	-	-	-	-
Stage 1	973	859	-	992	874	-	-	-	-	-	-	-
Stage 2	990	871	-	972	859	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	8.9	0	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1517	-	-	-	940	1587	-	-
HCM Lane V/C Ratio	-	-	-	-	0.007	0.001	-	-
HCM Control Delay (s)	0	-	-	0	8.9	7.3	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

	↗	→	←	↖	↘	↙
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		↰↱	
Traffic Volume (vph)	25	220	245	25	15	25
Future Volume (vph)	25	220	245	25	15	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.987		0.915	
Flt Protected		0.995			0.982	
Satd. Flow (prot)	0	1872	1857	0	1690	0
Flt Permitted		0.995			0.982	
Satd. Flow (perm)	0	1872	1857	0	1690	0
Link Speed (mph)		50	50		35	
Link Distance (ft)		518	1379		355	
Travel Time (s)		7.1	18.8		6.9	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	27	237	263	27	16	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	264	290	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 41.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	25	220	245	25	15	25
Future Vol, veh/h	25	220	245	25	15	25
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	27	237	263	27	16	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	291	0	-	0	570	279
Stage 1	-	-	-	-	278	-
Stage 2	-	-	-	-	292	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1276	-	-	-	485	762
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	760	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1275	-	-	-	472	761
Mov Cap-2 Maneuver	-	-	-	-	472	-
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	759	-

Approach	EB		WB		SB
HCM Control Delay, s	0.8		0		11.3
HCM LOS					B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1275	-	-	-	619
HCM Lane V/C Ratio	0.021	-	-	-	0.069
HCM Control Delay (s)	7.9	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⋎	
Traffic Volume (vph)	0	235	270	0	0	0
Future Volume (vph)	0	235	270	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1881	1881	0	1881	0
Flt Permitted						
Satd. Flow (perm)	0	1881	1881	0	1881	0
Link Speed (mph)		50	50		25	
Link Distance (ft)		1379	1075		611	
Travel Time (s)		18.8	14.7		16.7	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	0	253	290	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	253	290	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 24.5% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	0	235	270	0	0	0
Future Vol, veh/h	0	235	270	0	0	0
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	0	253	290	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	291	0	-	0	545	292
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	254	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1276	-	-	-	501	750
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	791	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1275	-	-	-	500	749
Mov Cap-2 Maneuver	-	-	-	-	500	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	790	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1275	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

	↗	→	←	↖	↘	↙
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⋎	
Traffic Volume (vph)	0	235	270	0	0	0
Future Volume (vph)	0	235	270	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1881	1881	0	1881	0
Flt Permitted						
Satd. Flow (perm)	0	1881	1881	0	1881	0
Link Speed (mph)		50	50		25	
Link Distance (ft)		1075	1238		587	
Travel Time (s)		14.7	16.9		16.0	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	0	253	290	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	253	290	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 24.5% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	0	235	270	0	0	0
Future Vol, veh/h	0	235	270	0	0	0
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	0	253	290	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	291	0	-	0	545	292
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	254	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1276	-	-	-	501	750
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	791	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1275	-	-	-	500	749
Mov Cap-2 Maneuver	-	-	-	-	500	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	790	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1275	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

400: Elmhurst Road & Golf Road

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Volume (vph)	30	145	60	20	200	5	50	15	15	5	10	20
Future Volume (vph)	30	145	60	20	200	5	50	15	15	5	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.965			0.997			0.974			0.921	
Flt Protected		0.994			0.996			0.970			0.993	
Satd. Flow (prot)	0	1804	0	0	1868	0	0	1777	0	0	1594	0
Flt Permitted		0.994			0.996			0.970			0.993	
Satd. Flow (perm)	0	1804	0	0	1868	0	0	1777	0	0	1594	0
Link Speed (mph)		50			50			35			35	
Link Distance (ft)		1238			631			570			807	
Travel Time (s)		16.9			8.6			11.1			15.7	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	9%	9%	9%
Adj. Flow (vph)	31	151	63	21	208	5	52	16	16	5	10	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	245	0	0	234	0	0	84	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 37.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	30	145	60	20	200	5	50	15	15	5	10	20
Future Vol, veh/h	30	145	60	20	200	5	50	15	15	5	10	20
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	9	9	9
Mvmt Flow	31	151	63	21	208	5	52	16	16	5	10	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	9.4	8.8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	62%	13%	9%	14%
Vol Thru, %	19%	62%	89%	29%
Vol Right, %	19%	26%	2%	57%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	235	225	35
LT Vol	50	30	20	5
Through Vol	15	145	200	10
RT Vol	15	60	5	20
Lane Flow Rate	83	245	234	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.117	0.296	0.292	0.05
Departure Headway (Hd)	5.036	4.347	4.483	4.916
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	710	825	802	725
Service Time	3.081	2.378	2.514	2.967
HCM Lane V/C Ratio	0.117	0.297	0.292	0.05
HCM Control Delay	8.8	9.2	9.4	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	1.2	1.2	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	1	0	5	0	0	0	5	35	0	0	30	1
Future Volume (vph)	1	0	5	0	0	0	5	35	0	0	30	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.887									0.996	
Flt Protected		0.992						0.994				
Satd. Flow (prot)	0	1655	0	0	1881	0	0	1870	0	0	1874	0
Flt Permitted		0.992						0.994				
Satd. Flow (perm)	0	1655	0	0	1881	0	0	1870	0	0	1874	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		690			726			450			582	
Travel Time (s)		18.8			19.8			8.8			11.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	1	0	5	0	0	0	5	38	0	0	32	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	0	0	0	0	43	0	0	33	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 16.6% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	1	0	5	0	0	0	5	35	0	0	30	1
Future Vol, veh/h	1	0	5	0	0	0	5	35	0	0	30	1
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	1	0	5	0	0	0	5	38	0	0	32	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	83	83	35	85	83	40	34	0	0	39	0	0
Stage 1	34	34	-	49	49	-	-	-	-	-	-	-
Stage 2	49	49	-	36	34	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	907	809	1041	904	809	1034	1584	-	-	1577	-	-
Stage 1	985	869	-	967	856	-	-	-	-	-	-	-
Stage 2	967	856	-	982	869	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	903	805	1039	896	805	1032	1582	-	-	1575	-	-
Mov Cap-2 Maneuver	903	805	-	896	805	-	-	-	-	-	-	-
Stage 1	981	868	-	963	853	-	-	-	-	-	-	-
Stage 2	963	853	-	976	868	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	0	0.9	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1582	-	-	1014	-	1575	-	-
HCM Lane V/C Ratio	0.003	-	-	0.006	-	-	-	-
HCM Control Delay (s)	7.3	0	-	8.6	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	5	10	40	35	1
Future Volume (vph)	1	5	10	40	35	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.887				0.997	
Flt Protected	0.992			0.990		
Satd. Flow (prot)	1467	0	0	1862	1876	0
Flt Permitted	0.992			0.990		
Satd. Flow (perm)	1467	0	0	1862	1876	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	709			355	450	
Travel Time (s)	19.3			6.9	8.8	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	14%	14%	1%	1%	1%	1%
Adj. Flow (vph)	1	5	11	43	38	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	54	39	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.7% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↰	↱	
Traffic Vol, veh/h	1	5	10	40	35	1
Future Vol, veh/h	1	5	10	40	35	1
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	14	14	1	1	1	1
Mvmt Flow	1	5	11	43	38	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	106	41	40	0	-	0
Stage 1	40	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.54	6.34	4.11	-	-	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.426	2.209	-	-	-
Pot Cap-1 Maneuver	863	997	1576	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	927	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	855	995	1574	-	-	-
Mov Cap-2 Maneuver	855	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	926	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1574	-	969	-	-
HCM Lane V/C Ratio	0.007	-	0.007	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↴			↰	⋎	
Traffic Volume (vph)	5	5	25	5	5	40
Future Volume (vph)	5	5	25	5	5	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932				0.880	
Flt Protected				0.960	0.995	
Satd. Flow (prot)	1753	0	0	1806	1615	0
Flt Permitted				0.960	0.995	
Satd. Flow (perm)	1753	0	0	1806	1615	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	540			604	478	
Travel Time (s)	14.7			11.8	9.3	
Confl. Peds. (#/hr)		12	12		1	1
Confl. Bikes (#/hr)		8				1
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62
Heavy Vehicles (%)	1%	1%	1%	1%	3%	3%
Adj. Flow (vph)	8	8	40	8	8	65
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	48	73	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 18.6% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	6.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	Y	
Traffic Vol, veh/h	5	5	25	5	5	40
Future Vol, veh/h	5	5	25	5	5	40
Conflicting Peds, #/hr	0	12	12	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	62	62	62	62
Heavy Vehicles, %	1	1	1	1	3	3
Mvmt Flow	8	8	40	8	8	65

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	28	0	113	25
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	89	-
Critical Hdwy	-	-	4.11	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.209	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1592	-	881	1048
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	932	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1574	-	848	1035
Mov Cap-2 Maneuver	-	-	-	-	848	-
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	907	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.1	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1010	-	-	1574	-
HCM Lane V/C Ratio	0.072	-	-	0.026	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↱			↰
Traffic Volume (vph)	1	1	45	1	1	30
Future Volume (vph)	1	1	45	1	1	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932		0.997			
Flt Protected	0.976					0.998
Satd. Flow (prot)	1711	0	1839	0	0	1877
Flt Permitted	0.976					0.998
Satd. Flow (perm)	1711	0	1839	0	0	1877
Link Speed (mph)	25		35			35
Link Distance (ft)	484		690			478
Travel Time (s)	13.2		13.4			9.3
Confl. Peds. (#/hr)	1	1		1	1	
Confl. Bikes (#/hr)		1		1		
Peak Hour Factor	0.56	0.56	0.56	0.56	0.56	0.56
Heavy Vehicles (%)	1%	1%	3%	3%	1%	1%
Adj. Flow (vph)	2	2	80	2	2	54
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	82	0	0	56
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Vol, veh/h	1	1	45	1	1	30
Future Vol, veh/h	1	1	45	1	1	30
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	1	1	3	3	1	1
Mvmt Flow	2	2	80	2	2	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	141	83	0	0	83	0
Stage 1	82	-	-	-	-	-
Stage 2	59	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	854	979	-	-	1520	-
Stage 1	944	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	851	977	-	-	1519	-
Mov Cap-2 Maneuver	851	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	910	1519	-
HCM Lane V/C Ratio	-	-	0.004	0.001	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	0	0	0	5	0	1	0	45	5	1	30	0
Future Volume (vph)	0	0	0	5	0	1	0	45	5	1	30	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.973			0.987				
Flt Protected					0.962						0.998	
Satd. Flow (prot)	0	1881	0	0	1761	0	0	1839	0	0	1877	0
Flt Permitted					0.962						0.998	
Satd. Flow (perm)	0	1881	0	0	1761	0	0	1839	0	0	1877	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		685			577			464			690	
Travel Time (s)		18.7			15.7			9.0			13.4	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	8	0	2	0	73	8	2	48	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	10	0	0	81	0	0	50	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	0	0	0	5	0	1	0	45	5	1	30	0
Future Vol, veh/h	0	0	0	5	0	1	0	45	5	1	30	0
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	62	62	62	62	62	62	62	62	62	62	62
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	1	1	1
Mvmt Flow	0	0	0	8	0	2	0	73	8	2	48	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	132	135	50	131	131	79	49	0	0	82	0	0
Stage 1	53	53	-	78	78	-	-	-	-	-	-	-
Stage 2	79	82	-	53	53	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	842	758	1021	844	762	984	1558	-	-	1522	-	-
Stage 1	962	853	-	933	832	-	-	-	-	-	-	-
Stage 2	932	829	-	962	853	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	839	756	1019	841	760	982	1557	-	-	1521	-	-
Mov Cap-2 Maneuver	839	756	-	841	760	-	-	-	-	-	-	-
Stage 1	961	851	-	932	831	-	-	-	-	-	-	-
Stage 2	930	828	-	960	851	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9.2	0	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1557	-	-	-	862	1521	-	-
HCM Lane V/C Ratio	-	-	-	-	0.011	0.001	-	-
HCM Control Delay (s)	0	-	-	0	9.2	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

	↗	→	←	↖	↘	↙
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Volume (vph)	15	155	170	15	30	35
Future Volume (vph)	15	155	170	15	30	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.989		0.928	
Flt Protected		0.996			0.977	
Satd. Flow (prot)	0	1837	1773	0	1641	0
Flt Permitted		0.996			0.977	
Satd. Flow (perm)	0	1837	1773	0	1641	0
Link Speed (mph)		50	50		35	
Link Distance (ft)		518	1379		355	
Travel Time (s)		7.1	18.8		6.9	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	3%	3%	6%	6%	5%	5%
Adj. Flow (vph)	19	201	221	19	39	45
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	220	240	0	84	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 31.5% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	15	155	170	15	30	35
Future Vol, veh/h	15	155	170	15	30	35
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	3	3	6	6	5	5
Mvmt Flow	19	201	221	19	39	45

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	241	0	-	0	472	233
Stage 1	-	-	-	-	232	-
Stage 2	-	-	-	-	240	-
Critical Hdwy	4.13	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.227	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1320	-	-	-	545	799
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	793	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1319	-	-	-	535	797
Mov Cap-2 Maneuver	-	-	-	-	535	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1319	-	-	-	650
HCM Lane V/C Ratio	0.015	-	-	-	0.13
HCM Control Delay (s)	7.8	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

	↗	→	←	↖	↘	↙
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Volume (vph)	10	175	165	10	25	20
Future Volume (vph)	10	175	165	10	25	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.992		0.939	
Flt Protected		0.997			0.973	
Satd. Flow (prot)	0	1839	1778	0	1719	0
Flt Permitted		0.997			0.973	
Satd. Flow (perm)	0	1839	1778	0	1719	0
Link Speed (mph)		50	50		25	
Link Distance (ft)		1379	1075		611	
Travel Time (s)		18.8	14.7		16.7	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	3%	3%	6%	6%	1%	1%
Adj. Flow (vph)	13	227	214	13	32	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	240	227	0	58	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 27.7% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↲↳	
Traffic Vol, veh/h	10	175	165	10	25	20
Future Vol, veh/h	10	175	165	10	25	20
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	3	3	6	6	1	1
Mvmt Flow	13	227	214	13	32	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	228	0	-	0	476	223
Stage 1	-	-	-	-	222	-
Stage 2	-	-	-	-	254	-
Critical Hdwy	4.13	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.227	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1334	-	-	-	549	819
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	791	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1333	-	-	-	542	817
Mov Cap-2 Maneuver	-	-	-	-	542	-
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	790	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1333	-	-	-	637
HCM Lane V/C Ratio	0.01	-	-	-	0.092
HCM Control Delay (s)	7.7	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↰↱	
Traffic Volume (vph)	1	200	165	5	10	10
Future Volume (vph)	1	200	165	5	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.996		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1845	1785	0	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1845	1785	0	1711	0
Link Speed (mph)		50	50		25	
Link Distance (ft)		1075	1238		587	
Travel Time (s)		14.7	16.9		16.0	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	3%	3%	6%	6%	1%	1%
Adj. Flow (vph)	1	260	214	6	13	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	261	220	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 21.6% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↲↳	
Traffic Vol, veh/h	1	200	165	5	10	10
Future Vol, veh/h	1	200	165	5	10	10
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	3	3	6	6	1	1
Mvmt Flow	1	260	214	6	13	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	221	0	-	0	481	219
Stage 1	-	-	-	-	218	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	4.13	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.227	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1342	-	-	-	546	823
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	783	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1341	-	-	-	544	821
Mov Cap-2 Maneuver	-	-	-	-	544	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	782	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1341	-	-	-	654
HCM Lane V/C Ratio	0.001	-	-	-	0.04
HCM Control Delay (s)	7.7	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	20	150	30	15	100	5	55	10	20	20	25	15
Future Volume (vph)	20	150	30	15	100	5	55	10	20	20	25	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.995			0.968			0.966	
Flt Protected		0.995			0.994			0.969			0.984	
Satd. Flow (prot)	0	1799	0	0	1740	0	0	1765	0	0	1753	0
Flt Permitted		0.995			0.994			0.969			0.984	
Satd. Flow (perm)	0	1799	0	0	1740	0	0	1765	0	0	1753	0
Link Speed (mph)		50			50			35			35	
Link Distance (ft)		1238			631			570			807	
Travel Time (s)		16.9			8.6			11.1			15.7	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	3%	3%	3%	8%	8%	8%	1%	1%	1%	3%	3%	3%
Adj. Flow (vph)	25	188	38	19	125	6	69	13	25	25	31	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	251	0	0	150	0	0	107	0	0	75	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 29.3% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	20	150	30	15	100	5	55	10	20	20	25	15
Future Vol, veh/h	20	150	30	15	100	5	55	10	20	20	25	15
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	3	3	3	8	8	8	1	1	1	3	3	3
Mvmt Flow	25	188	38	19	125	6	69	13	25	25	31	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.6	9	8.8	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	65%	10%	12%	33%
Vol Thru, %	12%	75%	83%	42%
Vol Right, %	24%	15%	4%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	85	200	120	60
LT Vol	55	20	15	20
Through Vol	10	150	100	25
RT Vol	20	30	5	15
Lane Flow Rate	106	250	150	75
Geometry Grp	1	1	1	1
Degree of Util (X)	0.146	0.313	0.199	0.103
Departure Headway (Hd)	4.933	4.51	4.771	4.939
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	725	795	750	722
Service Time	2.981	2.549	2.814	2.991
HCM Lane V/C Ratio	0.146	0.314	0.2	0.104
HCM Control Delay	8.8	9.6	9	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	1.3	0.7	0.3

500: Glen Cove Rd & Brookstone Cir N/Prop Northwest D/W

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	1	1	5	5	1	1	1	20	5	1	50	1
Future Volume (vph)	1	1	5	5	1	1	1	20	5	1	50	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.899			0.983			0.975			0.998	
Flt Protected		0.994			0.964			0.998			0.999	
Satd. Flow (prot)	0	1681	0	0	1783	0	0	1761	0	0	1804	0
Flt Permitted		0.994			0.964			0.998			0.999	
Satd. Flow (perm)	0	1681	0	0	1783	0	0	1761	0	0	1804	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		690			726			450			582	
Travel Time (s)		18.8			19.8			8.8			11.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	1	1	6	6	1	1	1	26	6	1	65	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	0	0	8	0	0	33	0	0	67	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.0% ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC
500: Glen Cove Rd & Brookstone Cir N/Prop Northwest D/W

AM Peak
02/24/2023

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	1	1	5	5	1	1	1	20	5	1	50	1
Future Vol, veh/h	1	1	5	5	1	1	1	20	5	1	50	1
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	1	1	1	1	1	1	5	5	5	5	5	5
Mvmt Flow	1	1	6	6	1	1	1	26	6	1	65	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	102	104	68	104	101	31	67	0	0	33	0	0
Stage 1	69	69	-	32	32	-	-	-	-	-	-	-
Stage 2	33	35	-	72	69	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	881	788	998	878	791	1046	1516	-	-	1560	-	-
Stage 1	944	839	-	987	870	-	-	-	-	-	-	-
Stage 2	986	868	-	940	839	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	876	785	996	868	788	1044	1515	-	-	1559	-	-
Mov Cap-2 Maneuver	876	785	-	868	788	-	-	-	-	-	-	-
Stage 1	942	837	-	985	868	-	-	-	-	-	-	-
Stage 2	981	866	-	931	837	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	9.2	0.3	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1515	-	-	941	876	1559	-	-
HCM Lane V/C Ratio	0.001	-	-	0.01	0.01	0.001	-	-
HCM Control Delay (s)	7.4	0	-	8.9	9.2	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

	↗	↘	↖	↑	↓	↙
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↰	↱	
Traffic Volume (vph)	1	5	5	25	60	1
Future Volume (vph)	1	5	5	25	60	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.884				0.998	
Flt Protected	0.993			0.992		
Satd. Flow (prot)	1463	0	0	1795	1806	0
Flt Permitted	0.993			0.992		
Satd. Flow (perm)	1463	0	0	1795	1806	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	709			355	450	
Travel Time (s)	19.3			6.9	8.8	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	14%	14%	5%	5%	5%	5%
Adj. Flow (vph)	1	6	6	32	78	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	38	79	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 15.9% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰↱			↰	↱	
Traffic Vol, veh/h	1	5	5	25	60	1
Future Vol, veh/h	1	5	5	25	60	1
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	14	14	5	5	5	5
Mvmt Flow	1	6	6	32	78	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	125	81	80	0	-	0
Stage 1	80	-	-	-	-	-
Stage 2	45	-	-	-	-	-
Critical Hdwy	6.54	6.34	4.15	-	-	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.426	2.245	-	-	-
Pot Cap-1 Maneuver	842	947	1499	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	837	945	1498	-	-	-
Mov Cap-2 Maneuver	837	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1498	-	925	-	-
HCM Lane V/C Ratio	0.004	-	0.008	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↳			↰	Y	
Traffic Volume (vph)	1	5	35	1	5	30
Future Volume (vph)	1	5	35	1	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.884				0.885	
Flt Protected				0.953	0.993	
Satd. Flow (prot)	1663	0	0	1793	1575	0
Flt Permitted				0.953	0.993	
Satd. Flow (perm)	1663	0	0	1793	1575	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	540			604	478	
Travel Time (s)	14.7			11.8	9.3	
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	1%	1%	1%	1%	6%	6%
Adj. Flow (vph)	1	6	40	1	6	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	0	41	40	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	7.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↰↱	
Traffic Vol, veh/h	1	5	35	1	5	30
Future Vol, veh/h	1	5	35	1	5	30
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	6	6
Mvmt Flow	1	6	40	1	6	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	87	6
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	82	-
Critical Hdwy	-	-	4.11	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.209	-	3.554	3.354
Pot Cap-1 Maneuver	-	-	1619	-	904	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	931	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1617	-	880	1063
Mov Cap-2 Maneuver	-	-	-	-	880	-
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	907	-

Approach	EB		WB		NB
HCM Control Delay, s	0		7.1		8.6
HCM LOS					A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1032	-	-	1617	-
HCM Lane V/C Ratio	0.039	-	-	0.025	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Volume (vph)	1	1	35	1	1	40
Future Volume (vph)	1	1	35	1	1	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932		0.997			
Flt Protected	0.976					0.999
Satd. Flow (prot)	1711	0	1787	0	0	1879
Flt Permitted	0.976					0.999
Satd. Flow (perm)	1711	0	1787	0	0	1879
Link Speed (mph)	25		35			35
Link Distance (ft)	484		690			478
Travel Time (s)	13.2		13.4			9.3
Confl. Peds. (#/hr)	1	1		1	1	
Confl. Bikes (#/hr)		1		1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	6%	6%	1%	1%
Adj. Flow (vph)	1	1	39	1	1	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	40	0	0	45
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Vol, veh/h	1	1	35	1	1	40
Future Vol, veh/h	1	1	35	1	1	40
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	1	6	6	1	1
Mvmt Flow	1	1	39	1	1	44

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	88	42	0	0	41	0
Stage 1	41	-	-	-	-	-
Stage 2	47	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	915	1032	-	-	1575	-
Stage 1	984	-	-	-	-	-
Stage 2	978	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	912	1030	-	-	1574	-
Mov Cap-2 Maneuver	912	-	-	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	976	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	967	1574	-
HCM Lane V/C Ratio	-	-	0.002	0.001	-
HCM Control Delay (s)	-	-	8.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

900: Elmhurst Road & Prop Northeast D/W/Golf Ridge S

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	10	1	20	5	1	1	5	25	5	1	35	5
Future Volume (vph)	10	1	20	5	1	1	5	25	5	1	35	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.911			0.983			0.980			0.983	
Flt Protected		0.985			0.964			0.993			0.999	
Satd. Flow (prot)	0	1688	0	0	1783	0	0	1681	0	0	1847	0
Flt Permitted		0.985			0.964			0.993			0.999	
Satd. Flow (perm)	0	1688	0	0	1783	0	0	1681	0	0	1847	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		685			577			464			690	
Travel Time (s)		18.7			15.7			9.0			13.4	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	10%	10%	10%	1%	1%	1%
Adj. Flow (vph)	11	1	23	6	1	1	6	29	6	1	40	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	35	0	0	8	0	0	41	0	0	47	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.9% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	10	1	20	5	1	1	5	25	5	1	35	5
Future Vol, veh/h	10	1	20	5	1	1	5	25	5	1	35	5
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	10	10	10	1	1	1
Mvmt Flow	11	1	23	6	1	1	6	29	6	1	40	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	92	94	45	103	94	34	47	0	0	36	0	0
Stage 1	46	46	-	45	45	-	-	-	-	-	-	-
Stage 2	46	48	-	58	49	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.2	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.29	-	-	2.209	-	-
Pot Cap-1 Maneuver	894	798	1028	880	798	1042	1511	-	-	1581	-	-
Stage 1	970	859	-	971	859	-	-	-	-	-	-	-
Stage 2	970	857	-	956	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	887	792	1026	854	792	1040	1510	-	-	1579	-	-
Mov Cap-2 Maneuver	887	792	-	854	792	-	-	-	-	-	-	-
Stage 1	965	857	-	966	855	-	-	-	-	-	-	-
Stage 2	963	853	-	932	854	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	9.2	1.1	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1510	-	-	968	866	1579	-	-
HCM Lane V/C Ratio	0.004	-	-	0.037	0.009	0.001	-	-
HCM Control Delay (s)	7.4	0	-	8.9	9.2	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

100: Golf Road & Glen Cove Rd

02/24/2023

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		↲↳	
Traffic Volume (vph)	35	250	265	25	20	30
Future Volume (vph)	35	250	265	25	20	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.988		0.920	
Flt Protected		0.994			0.980	
Satd. Flow (prot)	0	1870	1859	0	1696	0
Flt Permitted		0.994			0.980	
Satd. Flow (perm)	0	1870	1859	0	1696	0
Link Speed (mph)		50	50		35	
Link Distance (ft)		518	1379		355	
Travel Time (s)		7.1	18.8		6.9	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	38	269	285	27	22	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	307	312	0	54	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 44.2% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Vol, veh/h	35	250	265	25	20	30
Future Vol, veh/h	35	250	265	25	20	30
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	38	269	285	27	22	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	313	0	-	0	646	301
Stage 1	-	-	-	-	300	-
Stage 2	-	-	-	-	346	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1253	-	-	-	438	741
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1252	-	-	-	421	740
Mov Cap-2 Maneuver	-	-	-	-	421	-
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1252	-	-	-	568
HCM Lane V/C Ratio	0.03	-	-	-	0.095
HCM Control Delay (s)	8	0	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	20	250	275	30	20	15
Future Volume (vph)	20	250	275	30	20	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.987		0.943	
Flt Protected		0.996			0.972	
Satd. Flow (prot)	0	1874	1857	0	1724	0
Flt Permitted		0.996			0.972	
Satd. Flow (perm)	0	1874	1857	0	1724	0
Link Speed (mph)		50	50		25	
Link Distance (ft)		1379	1075		611	
Travel Time (s)		18.8	14.7		16.7	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	22	269	296	32	22	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	291	328	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 40.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⇆	
Traffic Vol, veh/h	20	250	275	30	20	15
Future Vol, veh/h	20	250	275	30	20	15
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	22	269	296	32	22	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	329	0	-	0	627	314
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	314	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1236	-	-	-	449	729
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	743	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1235	-	-	-	439	728
Mov Cap-2 Maneuver	-	-	-	-	439	-
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	742	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1235	-	-	-	529
HCM Lane V/C Ratio	0.017	-	-	-	0.071
HCM Control Delay (s)	8	0	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		Y	
Traffic Volume (vph)	10	260	300	15	5	5
Future Volume (vph)	10	260	300	15	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.994		0.932	
Flt Protected		0.998			0.976	
Satd. Flow (prot)	0	1877	1870	0	1711	0
Flt Permitted		0.998			0.976	
Satd. Flow (perm)	0	1877	1870	0	1711	0
Link Speed (mph)		50	50		25	
Link Distance (ft)		1075	1238		587	
Travel Time (s)		14.7	16.9		16.0	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	11	280	323	16	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	291	339	0	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 32.1% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⑂	
Traffic Vol, veh/h	10	260	300	15	5	5
Future Vol, veh/h	10	260	300	15	5	5
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	11	280	323	16	5	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	340	0	-	0	635	333
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	303	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1225	-	-	-	444	711
Stage 1	-	-	-	-	729	-
Stage 2	-	-	-	-	751	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1224	-	-	-	438	710
Mov Cap-2 Maneuver	-	-	-	-	438	-
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	750	-

Approach	EB		WB		SB
HCM Control Delay, s	0.3		0		11.8
HCM LOS					B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1224	-	-	-	542
HCM Lane V/C Ratio	0.009	-	-	-	0.02
HCM Control Delay (s)	8	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Volume (vph)	35	160	60	20	225	15	65	25	15	15	15	25
Future Volume (vph)	35	160	60	20	225	15	65	25	15	15	15	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.968			0.992			0.980			0.939	
Flt Protected		0.993			0.996			0.970			0.986	
Satd. Flow (prot)	0	1808	0	0	1859	0	0	1788	0	0	1614	0
Flt Permitted		0.993			0.996			0.970			0.986	
Satd. Flow (perm)	0	1808	0	0	1859	0	0	1788	0	0	1614	0
Link Speed (mph)		50			50			35			35	
Link Distance (ft)		1238			631			570			807	
Travel Time (s)		16.9			8.6			11.1			15.7	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	9%	9%	9%
Adj. Flow (vph)	36	167	63	21	234	16	68	26	16	16	16	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	0	271	0	0	110	0	0	58	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 40.9% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	35	160	60	20	225	15	65	25	15	15	15	25
Future Vol, veh/h	35	160	60	20	225	15	65	25	15	15	15	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	9	9	9
Mvmt Flow	36	167	63	21	234	16	68	26	16	16	16	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	10.2	9.3	8.8
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	62%	14%	8%	27%
Vol Thru, %	24%	63%	87%	27%
Vol Right, %	14%	24%	6%	45%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	255	260	55
LT Vol	65	35	20	15
Through Vol	25	160	225	15
RT Vol	15	60	15	25
Lane Flow Rate	109	266	271	57
Geometry Grp	1	1	1	1
Degree of Util (X)	0.159	0.336	0.348	0.083
Departure Headway (Hd)	5.249	4.549	4.632	5.215
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	678	786	772	681
Service Time	3.319	2.599	2.682	3.292
HCM Lane V/C Ratio	0.161	0.338	0.351	0.084
HCM Control Delay	9.3	9.9	10.2	8.8
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.6	1.5	1.6	0.3

500: Glen Cove Rd & Brookstone Cir N/Prop Northwest D/W

02/24/2023

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	1	1	5	5	1	1	5	40	5	1	35	1
Future Volume (vph)	1	1	5	5	1	1	5	40	5	1	35	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.904			0.981			0.987			0.997	
Flt Protected		0.993			0.966			0.995			0.999	
Satd. Flow (prot)	0	1689	0	0	1783	0	0	1847	0	0	1874	0
Flt Permitted		0.993			0.966			0.995			0.999	
Satd. Flow (perm)	0	1689	0	0	1783	0	0	1847	0	0	1874	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		690			726			450			582	
Travel Time (s)		18.8			19.8			8.8			11.3	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	1	1	5	5	1	1	5	43	5	1	38	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	7	0	0	53	0	0	40	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 15.5% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	1	1	5	5	1	1	5	40	5	1	35	1
Future Vol, veh/h	1	1	5	5	1	1	5	40	5	1	35	1
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	1	1	5	5	1	1	5	43	5	1	38	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	100	101	41	102	99	48	40	0	0	49	0	0
Stage 1	42	42	-	57	57	-	-	-	-	-	-	-
Stage 2	58	59	-	45	42	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	884	791	1033	881	793	1024	1576	-	-	1564	-	-
Stage 1	975	862	-	957	849	-	-	-	-	-	-	-
Stage 2	956	848	-	971	862	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	878	786	1031	871	788	1022	1574	-	-	1563	-	-
Mov Cap-2 Maneuver	878	786	-	871	788	-	-	-	-	-	-	-
Stage 1	971	860	-	953	846	-	-	-	-	-	-	-
Stage 2	950	845	-	963	860	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB
HCM Control Delay, s	8.8			9.1			0.7			0.2
HCM LOS	A			A						

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1574	-	-	964	876	1563	-	-
HCM Lane V/C Ratio	0.003	-	-	0.008	0.009	0.001	-	-
HCM Control Delay (s)	7.3	0	-	8.8	9.1	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↰	↱	
Traffic Volume (vph)	1	5	10	50	45	1
Future Volume (vph)	1	5	10	50	45	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.887				0.997	
Flt Protected	0.992			0.992		
Satd. Flow (prot)	1467	0	0	1866	1876	0
Flt Permitted	0.992			0.992		
Satd. Flow (perm)	1467	0	0	1866	1876	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	709			355	450	
Travel Time (s)	19.3			6.9	8.8	
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)		1				1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	14%	14%	1%	1%	1%	1%
Adj. Flow (vph)	1	5	11	54	48	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	65	49	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 20.2% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↰	↱	
Traffic Vol, veh/h	1	5	10	50	45	1
Future Vol, veh/h	1	5	10	50	45	1
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	14	14	1	1	1	1
Mvmt Flow	1	5	11	54	48	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	127	51	50	0	-	0
Stage 1	50	-	-	-	-	-
Stage 2	77	-	-	-	-	-
Critical Hdwy	6.54	6.34	4.11	-	-	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.426	2.209	-	-	-
Pot Cap-1 Maneuver	840	984	1563	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	832	982	1562	-	-	-
Mov Cap-2 Maneuver	832	-	-	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	916	-	-	-	-	-

Approach	EB		NB		SB	
HCM Control Delay, s	8.8		1.2		0	
HCM LOS	A					

Minor Lane/Major Mvmt		NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		1562	-	953	-	-
HCM Lane V/C Ratio		0.007	-	0.007	-	-
HCM Control Delay (s)		7.3	0	8.8	-	-
HCM Lane LOS		A	A	A	-	-
HCM 95th %tile Q(veh)		0	-	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
	→	↘	↙	←	↖	↗
Lane Configurations	↱			↰	⅄	
Traffic Volume (vph)	5	5	40	5	5	50
Future Volume (vph)	5	5	40	5	5	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932				0.877	
Flt Protected				0.957	0.996	
Satd. Flow (prot)	1753	0	0	1800	1611	0
Flt Permitted				0.957	0.996	
Satd. Flow (perm)	1753	0	0	1800	1611	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	540			604	478	
Travel Time (s)	14.7			11.8	9.3	
Confl. Peds. (#/hr)		12	12		1	1
Confl. Bikes (#/hr)		8				1
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62
Heavy Vehicles (%)	1%	1%	1%	1%	3%	3%
Adj. Flow (vph)	8	8	65	8	8	81
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	73	89	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 19.6% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	7.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	⇅	
Traffic Vol, veh/h	5	5	40	5	5	50
Future Vol, veh/h	5	5	40	5	5	50
Conflicting Peds, #/hr	0	12	12	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	62	62	62	62
Heavy Vehicles, %	1	1	1	1	3	3
Mvmt Flow	8	8	65	8	8	81

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	28	0	163	25
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	139	-
Critical Hdwy	-	-	4.11	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.209	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1592	-	825	1048
Stage 1	-	-	-	-	996	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1574	-	782	1035
Mov Cap-2 Maneuver	-	-	-	-	782	-
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	848	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.6	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1005	-	-	1574	-
HCM Lane V/C Ratio	0.088	-	-	0.041	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Lanes, Volumes, Timings
800: Elmhurst Road & Golf Ridge N

PM Peak
02/24/2023

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↱			↰
Traffic Volume (vph)	1	1	55	1	1	45
Future Volume (vph)	1	1	55	1	1	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932		0.997			
Flt Protected	0.976					0.999
Satd. Flow (prot)	1711	0	1839	0	0	1879
Flt Permitted	0.976					0.999
Satd. Flow (perm)	1711	0	1839	0	0	1879
Link Speed (mph)	25		35			35
Link Distance (ft)	484		690			478
Travel Time (s)	13.2		13.4			9.3
Confl. Peds. (#/hr)	1	1		1	1	
Confl. Bikes (#/hr)		1		1		
Peak Hour Factor	0.56	0.56	0.56	0.56	0.56	0.56
Heavy Vehicles (%)	1%	1%	3%	3%	1%	1%
Adj. Flow (vph)	2	2	98	2	2	80
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	100	0	0	82
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.0% ICU Level of Service A

Analysis Period (min) 15

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰↱		↱			↰
Traffic Vol, veh/h	1	1	55	1	1	45
Future Vol, veh/h	1	1	55	1	1	45
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	1	1	3	3	1	1
Mvmt Flow	2	2	98	2	2	80

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	185	101	0	0	101	0
Stage 1	100	-	-	-	-	-
Stage 2	85	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	807	957	-	-	1498	-
Stage 1	927	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	805	955	-	-	1497	-
Mov Cap-2 Maneuver	805	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	874	1497	-
HCM Lane V/C Ratio	-	-	0.004	0.001	-
HCM Control Delay (s)	-	-	9.1	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

900: Elmhurst Road & Prop Northeast D/W/Golf Ridge S

02/24/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	5	1	15	5	1	1	20	50	5	1	35	10
Future Volume (vph)	5	1	15	5	1	1	20	50	5	1	35	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.905			0.977			0.991			0.971	
Flt Protected		0.988			0.968			0.987			0.999	
Satd. Flow (prot)	0	1682	0	0	1779	0	0	1822	0	0	1825	0
Flt Permitted		0.988			0.968			0.987			0.999	
Satd. Flow (perm)	0	1682	0	0	1779	0	0	1822	0	0	1825	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		685			577			464			690	
Travel Time (s)		18.7			15.7			9.0			13.4	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)			1			1			1			1
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	8	2	24	8	2	2	32	81	8	2	56	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	0	0	12	0	0	121	0	0	74	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 21.1% ICU Level of Service A
Analysis Period (min) 15

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	5	1	15	5	1	1	20	50	5	1	35	10
Future Vol, veh/h	5	1	15	5	1	1	20	50	5	1	35	10
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	62	62	62	62	62	62	62	62	62	62	62
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	1	1	1
Mvmt Flow	8	2	24	8	2	2	32	81	8	2	56	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	221	223	66	232	227	87	73	0	0	90	0	0
Stage 1	69	69	-	150	150	-	-	-	-	-	-	-
Stage 2	152	154	-	82	77	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	737	678	1001	725	674	974	1527	-	-	1512	-	-
Stage 1	944	839	-	855	775	-	-	-	-	-	-	-
Stage 2	853	772	-	929	833	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	720	661	999	692	657	972	1526	-	-	1511	-	-
Mov Cap-2 Maneuver	720	661	-	692	657	-	-	-	-	-	-	-
Stage 1	922	837	-	835	757	-	-	-	-	-	-	-
Stage 2	830	754	-	903	831	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	10.1	2	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1526	-	-	895	716	1511	-	-
HCM Lane V/C Ratio	0.021	-	-	0.038	0.016	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.2	10.1	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-

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December 21, 2023
File No. 20.0158210.00

Mr. Bryan Lindgren, Project Manager
Neumann Developments, Inc.
N27 W24025 Paul Court, Suite 100
Pewaukee, Wisconsin 53072-6239

Re: Groundwater Evaluation Summary
Proposed Thomas Farm Subdivision Development
Town of Delafield, Wisconsin

Dear Mr. Lindgren:

GZA GeoEnvironmental, Inc. (GZA), on behalf of Neumann Developments, Inc. (Neumann/"Client"), completed a groundwater evaluation for the Thomas Farm property in accordance with the Town of Delafield Ordinance. The purpose of GZA's services was to evaluate the potential for the proposed 183 domestic supply wells in the proposed development on the cumulative drawdown of groundwater. This document summarizes GZA's initial *Hydrogeologic Assessment Report*, dated March 24, 2023, and subsequent GZA correspondence with the Southeast Regional Planning Commission (SEWRPC), which are provided as **Attachments 1 through 4**, presenting the findings and conclusion of the evaluation. Detailed information about the evaluation completed by GZA can be referenced in the attached letters submitted to the Town of Delafield as part of the application process.

For the groundwater evaluation, GZA used an analytical solution to estimate the cumulative drawdown from groundwater pumping within the proposed development. For this evaluation, hydraulic properties of the aquifer were estimated using actual data from water wells in the area surrounding the Thomas Farm property, the number of people per household for Waukesha County as estimated from available demographic information, and water usage per capita as estimated based on the published range of per capita usage data. In addition, infiltration was estimated based on the actual stormwater modeling activities for the site, as confirmed by Waukesha County as part of the proposed development application review.

The cumulative drawdown of the wells was calculated using the Theis solution for Non-Leaky Confined Aquifers. The Theis solution is the most widely used and accepted solution for calculating drawdown. This analytical/mathematical solution was developed by Charles Theis in 1935, and is based on a set of generally accepted assumptions. While all of the assumptions in the equation may not be applicable to the aquifer in this area, GZA believes that the Theis solution is the most accurate option given both available and discoverable data, and should be used to evaluate the proposed development for the Thomas Farm property and to provide an estimate of the cumulative drawdown from pumping.

To estimate the groundwater drawdown from pumping at each well, GZA used available demographic information for the area and estimated the hydraulic aquifer properties from available well pumping data. The input parameters shown below were used in the Theis solution to calculate the drawdown from pumping wells:

- Number of People/Home = 3 people or 633 people in proposed development;
- Water Usage per Capita = 77 gallons/day or 231 gallons/home/day;

- Aquifer Transmissivity = 2,500 gallons per day per foot; and
- Duration = 50 years.

For the initial estimation of drawdown, GZA assumed there was a water well for each parcel in the proposed development and that there was no groundwater recharge. The well was assumed to be in a setback from roads and property lines and the estimated drawdown was calculated at the property line of each parcel. Based on these calculations, GZA concluded that an individual well serving the parcel would have an estimated drawdown at the property boundary of each parcel of approximately 0.25 to 0.8 feet. GZA concluded that this level of drawdown did not represent a significant drawdown that would affect the groundwater system.

Upon SEWRPC's review and recommendation, GZA completed further evaluation of the proposed development by calculating the cumulative impact to groundwater from water usage from the proposed development. The cumulative drawdown was evaluated using two scenarios: 1) no groundwater recharge; and 2) groundwater recharged based on infiltration estimates for the proposed development.

For the no groundwater recharge scenario of the cumulative drawdown evaluation, GZA grouped the individual parcels in the development into seven groupings based on their location. A well was assumed to be centrally located within each grouping and the amount of groundwater pumping at that hypothetical central well was based on the number of assumed people within that grouping. To evaluate the cumulative drawdown from the seven groupings at the boundary of the Thomas Farm property, 11 points were identified around the perimeter of the property. The drawdown from each well was calculated at each of the 11 points. The cumulative drawdown was calculated by summing the drawdowns at each point. Based on this method of calculating cumulative drawdown, the average drawdown was estimated to be approximately 17.80 feet at and decreasing from the property boundary. GZA and SEWRPC consider this drawdown to be a conservatively high estimate and should not be used for the proposed development because groundwater recharge in this scenario was assumed to be zero and it is agreed that there will be groundwater recharge in this area that limits the amount of drawdown.

GZA further evaluated cumulative drawdown assuming groundwater recharge. The recharge was estimated based on the amount of infiltration derived from stormwater modeling for the proposed development. The infiltration and stormwater modeling was completed by Trio Engineering and utilized actual soil boring data and included the preliminary recommendations made by the Senior Engineer for the Waukesha County Department of Parks and Land Use. The evaluation of cumulative drawdown when including groundwater recharge was performed using the same method described above. The estimated groundwater pumping was calculated for each well based on the number of people within the grouping and offset by the groundwater recharge of the area. The same 11 points around the boundary of the Thomas Farm property used above were then used to calculate cumulative drawdown. Based on this calculation, the average drawdown assuming infiltration and groundwater recharge was estimated to be approximately 4 to 5 feet at and decreasing from the property boundary.

To understand how the cumulative drawdown of the proposed development compared to the other existing developments around the Thomas Farm property, GZA evaluated the existing developments to the east and west and estimated the cumulative drawdown at the property boundary of those developments using the same methods. The hydraulic properties and a centrally located well for groundwater pumping were used along with information obtained from the WDNR Water Well Database and the demographic information. Based on this evaluation, the cumulative drawdown at the property boundary for the developments to the east and west is estimated to be approximately 7 to 14 feet. By comparison, the estimated cumulative drawdowns for the proposed Thomas Farm property, as presented above, are similar to or less than the adjacent developments.

Based on this groundwater evaluation, GZA concludes that the estimated cumulative drawdown at the property boundary of the Thomas Farm property is similar to the estimated cumulative drawdown for the existing surrounding developments. As such, the proposed development will have no further adverse impacts to the groundwater system than existing developments.

GZA appreciates the opportunity to provide this summary to Neumann. If you have questions or require additional information, please feel free to contact Kevin Hedinger at (262) 754-2578 or kevin.hedinger@gza.com.

Sincerely,

GZA GeoEnvironmental, Inc.

James Drought

Kevin M. Hedinger
Senior Hydrogeologist

James F. Drought, P.H.
Principal Hydrogeologist

J:\158200to158299\158210 Town of Delafield\Report\GW Evaluation Summary\FINAL 20.0158210.00 GW Eval Summary_Town of Delafield WI 12-21-23.docx

Attached: *Hydrogeologic Assessment Report*, dated March 24, 2023
Response to SEWRPC Comments to GZA's Hydrogeologic Assessment Report, dated July 14, 2023
Response to SEWRPC Considerations, dated October 16, 2023
Email Response to SEWRPC Comments, dated November 28, 2023

ATTACHMENT 1

Hydrogeologic Assessment Report, dated March 24, 2023

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March 24, 2023
File No. 20.0158210.00

Mr. Bryan Lindgren, Project Manager
Neumann Developments, Inc.
N27 W24025 Paul Court, Suite 100
Pewaukee, Wisconsin 53072-6239

Re: Hydrogeologic Assessment Report
Proposed Thomas Farm Subdivision Development
Town of Delafield, Wisconsin

Dear Mr. Lindgren:

In accordance with your request and authorization on February 27, 2023, GZA GeoEnvironmental, Inc. (GZA) is pleased to submit this Hydrogeologic Assessment Report to Neumann Developments, Inc. (Neumann/"Client") for the proposed Thomas Farm Subdivision Development ("Development") in the Town of Delafield, Waukesha County, Wisconsin. The proposed Development is located in the NE, SE, and SW ¼ of The United States Public Land Survey Section Number 23, Township 7 North, Range 18 East, Waukesha County, Wisconsin ("Site").

Neumann provided GZA with a proposed Development plan showing the layout and features of the Development, and the Town of Delafield Ordinance, Section 17.04 5. R., entitled "Planned Development District No. 1" ("Ordinance"), that is solely applicable to the Site and includes a requirement for a water study. It is understood that the Site covers an area of approximately 152 acres, which include 30.65 acres identified as a Primary Environmental Corridor (PEC) by the Southeastern Wisconsin Regional Planning Commission (SEWRPC), 10.11 acres identified as wetlands, and 111.24 acres available for development. The proposed Development plan includes 160 single-family, residential units and 28 condominium buildings with 56 individual units.

The objective of the water study identified in the Ordinance is to demonstrate that a private water supply will adequately serve the project and not adversely impact existing private wells in the area or other natural resources. The applicant also needs to demonstrate that the SEWRPC, Wisconsin Department of Natural Resources (WDNR), and the Lake Pewaukee Sanitary District were consulted on the anticipated water table impacts of the planned private water use. The Ordinance does not, however, provide means or methods for performing the water study or a specific minimum or maximum criteria for evaluating the impact to the water table.

The following sections of this report present information pertaining to the proposed subdivision, the geologic and hydrogeologic conditions of the Site, and an assessment of the impact to groundwater from the proposed subdivision. Note that Limitations to our evaluation are provided in **Attachment 1**.

BACKGROUND

As described above, the proposed Development is located in the NE, SE, and SW ¼ of The United States Public Land Survey Section Number 23, Township 7 North, Range 18 East, in the Town of Delafield, Waukesha County, Wisconsin. The Site covers approximately 152 acres on the northwest intersection of Golf Road and Elmhurst Road, which includes 30.65 acres identified as a PEC, 10.11 acres identified as wetlands, and 111.24 acres available for development. The proposed Development plan includes 160 lots for single-family, residential units and 28 buildings with 56 duplex condominium units. The conceptual Development plan is provided as **Figure 1**.

The Site is located in a rural area with primarily single-family, residential properties immediately adjacent to the Site, a mixture of agricultural and limited commercial development south of the Site, and Pewaukee Lake to the north. Located north of the Site is East Glen Cove Road, beyond which are residential properties and Pewaukee Lake; located west of the Site are residential properties and Glen Cove Road, beyond which are additional residential properties; located south of the Site is Golf Road, beyond which is Wisconsin Veterans Memorial Highway (Interstate 94 [I-94]); and located east of the Site is Elmhurst Road, beyond which is Western Lakes Golf Course and residential properties.

TOPOGRAPHY AND HYDROLOGY

The Site is located in the center of Waukesha County within the southwestern extent of the Lake Michigan glacial lobe of the Laurentide Ice Sheet. Due to the glacial history, the region is characterized by various types of glacial deposits, including moraines, drumlins, kames, outwash plains, and lake basin deposits. Although there are small, internally-drained basins as a result of the kettles and pitted outwash across the undulating plain, the surface generally slopes eastward toward Lake Michigan.

Based on a review of the Hartland, Wisconsin Quadrangle of the United States Geological Survey (USGS) Topographic Map (1959), the elevation of the Site ranges from 880 feet above mean sea level (msl) along the north perimeter of the Site to 950 feet above msl on the southwest perimeter of the Site. The surface slope of the property is to the east and north. An unnamed, 0.5-acre pond is located on the center of the north Site boundary. Pewaukee Lake is located approximately 600 feet to the north side of East Glen Cove Road, Salow Lake is located approximately 0.4-mile south of the Site, Etter Lake is located approximately 1 mile southeast of the Site, Aubrey Creek is located approximately 0.5-mile west of the Site, and Zion Creek is located approximately 0.15-mile south of the Site. An unnamed pond exists approximately 230 feet northwest of the Site. Numerous unnamed ponds are located on the Western Lakes Golf Course property approximately 500 feet east of the Site, which are connected to Zion Creek. **Figure 2** is a map showing the topography of the Site and the surrounding area.

The Site is located within the 151 square-mile, Upper Fox River – Illinois watershed. Surface run-off and shallow percolating groundwater are expected to drain north toward and recharge Pewaukee Lake.

According to the Fish and Wildlife National Wetlands Inventory, Freshwater Forested/Shrub Wetlands are located on the Site, covering an area of approximately 18.54 acres. 11.05 acres of wetland, located in the center of the Site, are considered to be semi-permanently flooded, whereas 6.34 acres of wetlands along the northwest perimeter, and 1.15 acres oriented north-south along the northern area of the Site, are considered to be seasonally flooded.

Soil at the Site, as described by the Natural Resources Conservation Service (NRCS) on the Web Soil Survey website, consists of loam and silt loam from 0% to 30% slope. The specific soil classification units include the following:

Mapped Wetland on the Northeast Corner of the Site
(Fish and Wildlife NationalWetlands Invetory Mapper)

- BsA - Brookstone Silt Loam, 0% to 2% slopes, poorly-drained;
- HmB - Hochheim Loam, 2% to 6% slopes, well-drained;
- HmC2 - Hochheim Loam, 6% to 12% slopes, well-drained;
- KIA - Kendall Silt Loam, 1% to 3% slopes, somewhat poorly-drained;
- KwA - Knowles Silt Loam, 0% to 2% slopes, well-drained;
- KwB - Knowles Silt Loam, 2% to 6% slopes, well-drained;
- LmB - Lamartine Silt Loam, 0% to 3% slopes, somewhat poorly-drained;
- Lu - Loamy Land, moderately well-drained;
- MoB - Mayville Silt Loam, 2% to 6% slopes, moderately well-drained;
- RkB - Ritchey Silt Loam, 1% to 6% slopes, well-drained;
- RkE - Ritchey Silt Loam, 12% to 30% slopes, well-drained;
- ThA - Theresa Silt Loam, 0% to 2% slopes, well-drained;
- ThB - Theresa Silt Loam, 2% to 6% slopes, well-drained; and
- ThB2 - Theresa Silt Loam, 2% to 6% slopes, erode, well-drained.

Distribution of Soil Types Across the Site
(Well-drained Soils Shown in Yellow, Poorly-drained Soils Shown in Blue)
(NRCS Web Soil Survey).

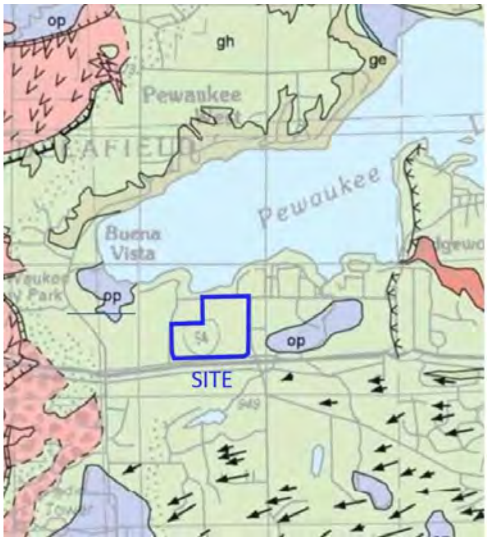
The majority of the soils are considered to be well-drained, indicating that water drains through the soils readily and free water is deep to very deep in the soil column. The soils on the central portion of the Site are considered poorly drained, indicating that the soils may exhibit frequent flooding or ponding.

REGIONAL GEOLOGIC AND HYDROGEOLOGIC CONDITIONS

Waukesha County is underlain by Precambrian-age crystalline rocks, Cambrian-age sandstone; Ordovician-age dolomite, sandstone, and shale; and Silurian-age dolomite. These consolidated deposits are overlain by quaternary-age glacial deposits deposited by the Green Bay and Lake Michigan glacial lobes during the last glacial period. Three principal aquifers are located in Waukesha County: 1) a shallow and locally discontinuous sand and gravel aquifer comprised of glacial deposits of Quaternary-age; 2) the Niagara Dolomite aquifer of Silurian-age; and 3) the Sandstone aquifer of Ordovician-Cambrian age. The Sandstone aquifer is hydrologically separated from the Niagara aquifer by the low-permeability Maquoketa Shale formation. The Sandstone aquifer is the primary water supply for municipal and industrial use and, to a lesser extent, residential use. The Sandstone aquifer incorporates the formations above the Pre-Cambrian crystalline rocks and below the Maquoketa Shale, which includes the Galena-Platteville unit, the St. Peter Sandstone, the Trempealeau Formation, and the Franconia, Galesville, Eau Claire, and Mount Simon Sandstones. The Sandstone aquifer coverage is continuous across the state; however, due to glacial erosion, the sand and gravel and Niagara aquifers do not exist in the central and southwestern portions of the County and the uppermost bedrock unit is the Maquoketa shale.

LOCAL GEOLOGIC AND HYDROGEOLOGIC CONDITIONS

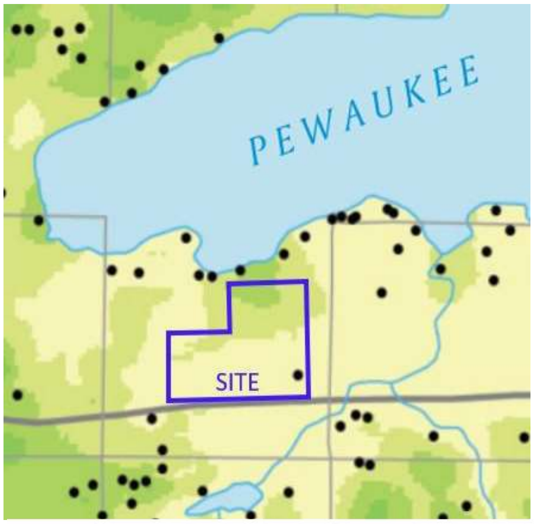
The USGS publication, Ground-Water Resources of Waukesha County (J. B. Gunther, 1975), identifies the glacial deposits in the vicinity of the Site as ground moraine. Ground moraine deposits predominantly consist of unsorted glacial till ranging in size from clay to boulders, but may contain lenses of stratified sand and gravel. Ground moraine deposits are characterized by gently undulating topography of low relief, with alternating small till mounds and depressions. Lee Clayton (2001) mapped the quaternary-age glacial deposits as sandy till of the Holy Hill Formation. The unconsolidated deposits at the Site are underlain by Ordovician-age Maquoketa Shale to the north and the Silurian-age Kankakee Dolomite to the south, as identified by K.M Massie-Ferch (2004). Massie-Ferch and R. M. Peters (2004) estimate the depth to bedrock in the proposed Development to be less than 50 feet below ground surface (bgs) on the south half of the Site and between 50 and 150 feet bgs on the north half of the Site.



Surface Geology Consisting of Sandy Till
of the Holy Hill Formation (green)
(L. Clayton, 2001)

Based on a review of area well construction records, GZA prepared generalized geologic cross-section A-A' and B-B' oriented north-south and east-west, respectively. The approximate locations of the cross-sections are shown on Figure 3 and the geologic cross-sections are presented on Figures 4A and 4B. The well construction records used to prepare the cross-sections were obtained from the WDNR Water Well Database and are provided in **Attachment 2**. The Site is underlain by glacial till and isolated deposits of sand and gravel. Depth to bedrock is less than 10 feet on the northeastern and southeastern portions of the Site and more than 80 feet on the northwestern portion of the Site. According to the SEWRPC publication, A Lake Management Plan for Pewaukee Lake, Waukesha County, Wisconsin (2020), bedrock is exposed in an area east of Elmhurst Road, which borders the eastern perimeter of the proposed subdivision.

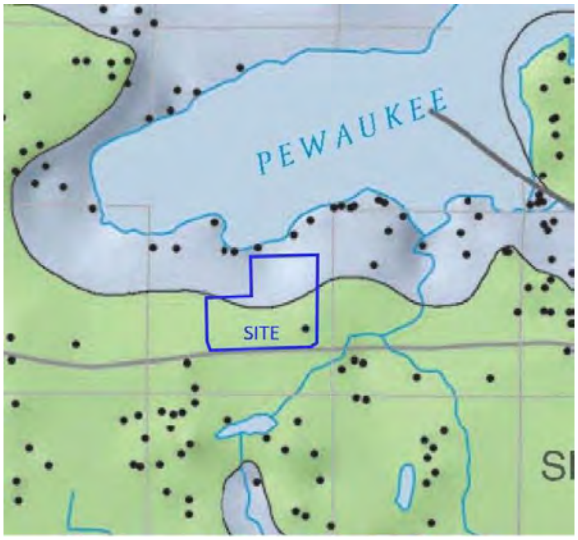
Due to the erosion of the Niagara Dolomite, the Maquoketa shale is the uppermost bedrock unit and is consistently encountered at depths between 3 and 81 feet bgs, which correspond to elevations between 939 and 791 feet above msl. The Maquoketa Shale is a low permeability shale formation that is fractured in the upper 100 feet and has interbedded limestone layers of the Fort Atkinson member up to 40 feet thick (Eaton et al., 2000; Gunther, 1975). Limestone is encountered on top of the Maquoketa Shale in wells located near the south end of the Site, consistent with Massie-Ferch (2004); however, GZA considers this overlying limestone to be part of the Maquoketa Shale due to the limestone's limited thickness, the absence of wells completed in the limestone, and the inability to distinguish the overlying limestone from interbedded limestone within the Maquoketa Shale. The Maquoketa Shale is not considered an aquifer in literature publications due to its low permeability, but is used for potable water supply in wells near the proposed development.



Depth to Bedrock Map of the Site Showing Increase
From <50 ft (yellow) to 50-100 ft (light green)
to 100-150 ft (dark green)
(Massie-Ferch and Peters, 2004).

The Galena-Platteville unit is the upper formation in the Sandstone aquifer and is encountered at depths between 145 and 269 feet bgs, which correspond to elevations between 750 and 629 feet above msl. The underlying St. Peter's sandstone is encountered at depths between 402 and 485 feet bgs, which correspond to elevations between 496 and 429 feet above msl. The geologic conditions and depth to bedrock obtained by GZA from available well logs are consistent with the published maps and descriptions noted above.

The depth to groundwater was recorded on the well logs within the Maquoketa Shale at depths between 5 and 125 feet bgs, corresponding to groundwater elevations between 922 and 791 feet above msl. Most private domestic wells in the area are completed within the Maquoketa Shale dolomite layers or in the deeper Sandstone aquifer.



Bedrock Map of the Site Showing Silurian-age Kankakee Dolomite (green) and Ordovician-age Maquoketa Shale (blue) *(K.M. Massie-Ferch, 2004)*

WATER REQUIREMENTS OF THE SUBDIVISION

As shown on **Figure 1**, the proposed subdivision will consist of 28 condominium buildings and 155 single-family homes. For this assessment, GZA assumes that each single-family home will be serviced by a private water supply well; each home will be serviced by municipal sanitary sewer, not private septic systems; and there are limited stormwater controls within the proposed subdivision that could promote infiltration and recharge to the groundwater system. For the condominiums, the assumptions are the same as the single-family properties and that each building (two units) will be serviced by a single well. Based on the Development plan, it is assumed that there will be a total of 183 privately owned water supply wells.

Based on a review of the US Census' five-year estimate (2017-2021) demographics for the Town of Delafield, each home has an average of 2.75 individuals, which translates into a total population for the subdivision of approximately 580 individuals. The USGS estimated that in 2015, the water usage per capita for self-supplied domestic sources was 77 gallons per capita per day (gpcd). Using a water use of 77 gpcd, the average total daily groundwater withdrawal for the subdivision is estimated to be 44,660 gallons per day (gpd) or about 31 gallons per minute (gpm).

For this evaluation, GZA used a conservative value of three individuals per single-family home and condominium unit, or a total population of 633 individuals, and water usage per capita of 125 gpcd. Using these assumptions, the total water usage of each single-family home well is 375 gpd or 0.26 gpm, and for each condominium building, 750 gpd or 0.52 gpm. In addition, this evaluation will assume that there is no infiltration or recharge to the bedrock aquifer system due to the low permeability (hydraulic conductivity) of the Maquoketa Shale. These assumptions will provide a conservatively high estimation of the influence from the groundwater pumping in the proposed subdivision on the groundwater system, which will reduce underestimating the calculated drawdown and will account for potential variation in the total population exceeding the average household size.

ESTIMATE OF POTENTIAL OF PUMPING IMPACT

It is GZA's understanding that there are no existing municipal codes relating to groundwater drawdown that are required to be met for this evaluation. To evaluate the potential hydrogeologic impact of the proposed residential subdivision on the local groundwater resources, GZA calculated the drawdown at the property boundary for the single-family and multi-family properties based on a continuous pumping scenario for each well over a 50-year period. The drawdown was calculated without considering the return of water to the groundwater system through stormwater retention or recharge.

For the single- and multi-family scenarios, the well locations were assumed based on typical setbacks from roads and the location of the buildings on the property. The wells were placed in locations to minimize the distance from the property boundary and maximize the calculated drawdown. For the single-family properties, the wells were assumed to be 30 feet from the property boundary, adjacent to the road in the center of the property boundary. For the condominiums, the wells were assumed to be between the buildings near the center of the building because the piping would need to service both units. In addition to calculating the drawdown at the setback distances above, the drawdown was also calculated at the midpoint between neighboring wells to determine the cumulative drawdown effect at the intersection of each well's cone of depression.

For the single-family homes, the lot sizes range from 0.22- to 0.38-acre and are generally rectangular in shape. The low-density lots in Zone 1 range from 0.47- to 0.54-acre. The actual location and size of the homes on each lot are unknown, therefore, a conservative well location close to the property boundary was assumed to be a location 30 feet from the road in the center of the property boundary adjacent to the road. By assuming the well at this location, the well will be at the minimum setback distance from the road; however, it is possible that the well could be placed at a distance greater than 30 feet from the closest property boundary based on the lot sizes and the side and rear setbacks. As shown on **Figure 5**, the distance from the well and the intersection of the neighboring property boundary is estimated to be approximately 40 feet. These same dimensions were applied to the larger lots in Zone 1, even though a greater distance could be assumed.

For the condominiums, the Site on the Development plan is not divided into individual parcels for each building, but rather, the condominiums are located within a single parcel. The well location was assumed to be between each building and the distance between the well location and the closest property boundary was assumed to be approximately 60 feet to the north or south. As shown on **Figure 5**, the distance from the well and the intersection of the neighboring property well is estimated to be approximately 50 feet, as they are approximately 100 to 110 feet apart. At the intersection of two neighboring wells, the drawdown is assumed to be cumulative.

The drawdown at the critical distance radius to the property line for each location was calculated using the Theis non-equilibrium well equation:

$$s = \frac{114.6 * Q}{T} * W(u) \qquad (1)$$

Where:

s = drawdown
Q = discharge, gpm
T = transmissivity, gallons per day per foot (gpd/ft)
W(u) = well function

The well function, W(u), is approximated by the following equations:

$$W(u) = -0.577216 \mp \ln u - \frac{u}{2 * 2!} + \frac{u}{3 * 3!} - \frac{u}{4 * 4!} \qquad (2)$$

and:

$$u = \frac{1.87 * r^2 * S}{T * t} \qquad (3)$$

Where:

r = distance from the discharging well, ft
t = length of pumping time, days
S = storage coefficient, unitless

The aquifer is assumed to be confined and, as such, the storage coefficient was determined based on the following equations:

$$S = b * Ss \qquad (4)$$

Where:

b = aquifer thickness, ft
Ss = specific storage, ft^{-1}

Specific storage values for the Maquoketa Shale range between 3.7 x 10^{-9} ft^{-1} and 8.5 x 10^{-7} ft^{-1} based on laboratory pulse-decay testing of unfractured rock core (Eaton et al., 2000). GZA calculated the average storage coefficient to be 7.13 x 10^{-5} ft^{-1}. This does not consider the likelihood of fractures within the upper 100 feet of the Maquoketa Shale; therefore, this is a conservatively low estimate of effective porosity to ensure the calculated drawdown is not underestimated. Based on WDNR well logs, the aquifer thickness is likely 167 feet, which aligns with literature values for average thickness of 160 to 215 feet (Foley et al., 1953).

Based on the Theis equation, the only variable that cannot be estimated from the literature review or development plan is transmissivity. GZA utilized the method described in the paper by Bradbury and Rothschild (1985) to estimate transmissivity from specific capacity data using an iterative spreadsheet method. The equation to calculate the transmissivity considering partial penetration and well loss is shown in equation 6 below.

$$T = \frac{Q}{4 * \pi * (s - s_w)} * \left[ln\left(\frac{2.25 * T * t}{{r_w}^2 * S}\right) + 2 * s_p \right] \qquad (6)$$

Where:

s_p = partial penetration factor
s_w = well loss

The equation for calculating the partial penetration factor is as follows:

$$s_p = \frac{1 - \frac{L}{b}}{\frac{L}{b}} * \left(ln\frac{b}{r_w} - G * \left\{\frac{L}{b}\right\} \right) \qquad (7)$$

Where:

L = length of open interval
b = aquifer thickness
G = a function of L/b defined by $G\left\{\frac{L}{b}\right\} = 2.948 - \left(7.363 * \frac{L}{b}\right) + \left(11.447 * \left\{\frac{L}{b}\right\}^2\right) - \left(4.675 * \left\{\frac{L}{b}\right\}^3\right)$

In equation 6, transmissivity is on both sides of the equation, so the transmissivity cannot be calculated directly. The value for transmissivity was estimated iteratively until the difference in calculated consecutive transmissivity values was less than 0.0001 or until a maximum of 1,000 iterative calculations were completed. The difference of 0.0001 was reached prior to 1,000 iterations for each well.

A total of 148 well construction logs were retrieved from the WDNR Well Driller Viewer for Section number 23, Township 7 North, Range 18 East of The United States Public Land Survey. Of the 148 well logs, 39 were disregarded due to lack of drawdown information noted on the pumping test section of the well construction record. Of the 109 remaining records, seven wells (6.5%) were completed in surficial, isolated sand and gravel deposits, 80 wells (73%) were completed in the underlying Maquoketa Shale formation, 15 wells (14%) were completed in the underlying Galena-Platteville unit of the Sandstone aquifer, and seven (6.5%) wells were completed in the St. Peters sandstone unit of the Sandstone aquifer. For this evaluation, GZA assumed that the proposed subdivision wells will be completed within the Maquoketa Shale because: 1) the sand and gravel deposits are considered too sparse and isolated to support the water supply of the proposed subdivision; 2) 80 out of 109 wells in the vicinity of the Site are completed in the Maquoketa Shale; and 3) the depth of the underlying Sandstone aquifer may not be economical for the subdivision. The Maquoketa Shale is not considered an aquifer, however, can transmit considerable amounts of water from overlying formations where fractures and dolomite interbeds are present.

Of the remaining 109 well records, 80 wells were deemed representative for this analysis of hydraulic properties, which included wells within the immediate vicinity and those completed within the Maquoketa Shale. The specific capacity data from a total of 80 well construction records were reviewed, and the transmissivity was estimated. **Table 1** presents the well data reviewed and the estimated transmissivity calculated for each well.

The geometric mean of the estimated transmissivity values for the 80 wells was calculated to be approximately 7,920 gpd/ft. Over 50% of the transmissivity values are 7,500 gpd/ft or less and over 25% are 2,500 gpd/ft or less. For this evaluation, GZA used the lower transmissivity value of 2,500 gpd/ft as a conservative value. Using this value, the hydraulic conductivity can be calculated by dividing the transmissivity by the aquifer thickness. Based on the WDNR well logs, the average thickness of the Maquoketa Shale is approximately 167 feet. Dividing the transmissivity by 167 feet results in an estimated hydraulic conductivity of 1.39 x 10^{-3} feet per minute (ft/min) or 2.32 x 10^{-5} feet per second (ft/sec). This hydraulic conductivity value is consistent with and in the range for literature values for Maquoketa Shale (Eaton and Bradbury, 1998).

Using the values estimated in the discussion above, drawdown was calculated using the Theis equation presented in equations 1, 2, and 3 for the appropriate critical distances estimated for the single-family homes and condominiums. Below is a summary of the values used for each of the different drawdown scenarios.

Variable	**Single-Family**		**Multi-Family Condominium Buildings**	
	Drawdown at Nearest Property Boundary	**Drawdown With Neighboring Property Well Considering Cumulative Drawdown From Intersecting Cones of Depression**	**Drawdown at Nearest Property Boundary**	**Drawdown With Neighboring Property Well Considering Cumulative Drawdown From Intersecting Cones of Depression**
Per Capita Home	3	3	6	6
Daily Water Use, gpd	125	125	125	125
Well Discharge	375 gpd / 0.26 gpm	375 gpd / 0.26 gpm	750 gpd / 0.52 gpm	750 gpd / 0.52 gpm
Critical Distance, ft	**30**	**40**	**60**	**50**
Storage, unitless	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity, gpd/ft	2,500	2,500	2,500	2,500
50-Year Pumping Period, days	18,250	18,250	18,250	18,250
Aquifer Thickness, ft	167	167	167	167
Saturated Screen Length, ft	3	3	3	3
Well Radius, ft	0.25	0.25	0.25	0.25
Drawdown at Critical Distance	**0.23 feet** **2.75 inches**	**0.44 feet** **5.0 inches**	**0.42 feet** **5.10 inches**	**0.87 feet** **9.60 inches**

Based on GZA's review of the available information in the Ordinance that requires this groundwater study, it does not state an acceptable standard by which to evaluate the effect of the proposed development on the groundwater due to pumping. In GZA's experience, the Village of Richfield in Washington County has a Groundwater Protection Ordinance that specifically states that "…drawdown at the property boundary shall not exceed one foot…" and that "…the drawdown at any perennial stream, wetland or lake shall not exceed 1/2 foot." These criteria seem reasonable for evaluating the effect on groundwater and represented the criteria used to evaluate the effect of the proposed development on the groundwater and surface water due to pumping.

The calculated drawdown for the different types of proposed buildings indicates that the impact to the groundwater system by the proposed development at the property boundary of each lot is less than 1 foot and at the intersection of the cones of depression between adjacent wells where drawdown is cumulative. The calculated drawdown is considered a conservatively high value based on the assumptions presented above, including an increase in the per capita capacity of the household and the increase in the water usage per building per capita. In addition, the calculated drawdown assumed no groundwater recharge from surface water infiltration from stormwater features that would have the effect of minimizing the drawdown.

An evaluation of the surface water or natural resources indicates that these features are protected from the groundwater withdrawal. A review of the water well logs indicates that the water wells in this area are predominantly withdrawing water from the underlying bedrock, not the shallow glacial deposits. The shallow glacial deposits are classified as well-drained soils, indicating that the soils in this area have a moderate to high recharge potential. Although the shallow glacial deposits have a recharge potential, the underlying Maquoketa Shale act as an aquitard and the change in permeability between the overlying glacial deposits and the Maquoketa Shale limits the vertical hydraulic communication between perched water, such as wetland and ponds and the underlying aquifers. Therefore, the pumping in the Maquoketa Shale will not cause the water level in the surface water features to be affected. The surface water features are not in direct communication with the groundwater pumping, therefore, the proposed development will not impact the surface water features such as wetlands, ponds, and streams, and drawdown at these features due to groundwater pumping is considered to be negligible to non-existent.

CONCLUSIONS

Based on a review of the proposed subdivision, available published literature, and well construction records from the WDNR, GZA was able to gain an understanding of the water requirements and underlying aquifer conditions that form the basis of this evaluation. GZA used the Theis non-equilibrium well equation to determine drawdown at the nearest property boundary, as well as the cumulative drawdown at the intersection of each well's cone of depression for both the single-family and multi-family living scenarios. Based on calculations of drawdown over a 50-year pumping period, assuming no recharge to the groundwater system and using very conservative assumptions for water use, the maximum drawdown calculated at the closest property boundary is less than 3 inches and the cumulative drawdown at the intersection of each well's cone of depression is less than 10 inches. Based on GZA's interpretation of the calculated drawdown, it does not represent a significant drawdown that will affect the groundwater system. The proposed subdivision will not affect the local groundwater resources or recharge to Pewaukee Lake because the shallow groundwater in the glacial deposits has very limited hydraulic communication to the underlying bedrock aquifer due to the presence of Maquoketa Shale. The private well systems for this subdivision should be capable of supporting the subdivision without environmental impairment to groundwater or surface water features.

REFERENCES

Below is a list of publications and documents that GZA relied on for the development of this hydrogeologic assessment of the Development.

Bradbury K.R., and E. R. Rothschild, 1985, A Computerized Technique for Estimating the Hydraulic Conductivity of Aquifers from Specific Capacity Data, National Groundwater Association, Groundwater, Volume 23, No. 2, p. 240-246.

Dieter, C.A., Maupun, M.A., 2017, Public Supply and Domestic Water Use in the United States, 2015, Open-File Report 2017-1131, United States Geological Survey, 16 pgs.

Clayton, L., 2001, Pleistocene Geology of Waukesha County, Wisconsin. Bulletin 99, Plate 1. Map. 1:100,000. United States Geological Survey and Wisconsin Geological and Natural History Survey.

Eaton T.T. and K.R. Bradbury, 1998, Evaluation of the confining properties of the Maquoketa Formation in the SEWRPC Region of Southeastern Wisconsin, Final report prepared for the Wisconsin Department of Natural Resources, Wisconsin Geological and Natural History Survey Open-File Report 98-11, 32 pgs.

Eaton, T.T., Hart, D.J., Bradbury, K.R., Wang, H.F., 2000, Appendix B: Hydraulic Conductivity and Specific Storage of the Maquoketa Shale, WGNHS Open-File Report 2000-01, University of Wisconsin-Water Resources Institute, 31 pgs.

Foley, F.C., Walton, W.C., and Drescher, W.J., 1953, Ground-Water Conditions in the Milwaukee-Waukesha Area, Wisconsin, Geological Survey Water-Supply paper 1229, United States Geological Survey, 109 pgs.

Gunther, J.B., 1975, Ground-Water Resources of Waukesha County, Wisconsin, Information Circular No. 29, United States Geological Survey and Wisconsin Geological and Natural History Survey, 55 pgs.

Massie-Ferch, K.M, 2004, Preliminary Bedrock Geologic Map of Waukesha County Wisconsin. Wisconsin Open-File Report 2004-15A. Map. 1:100,000. Wisconsin Geological and Natural History Survey.

Massie-Ferch, K.M and Peters, R.M., 2004, Preliminary Depth to Bedrock Map of Waukesha County, Wisconsin. Wisconsin Geological and Natural History Survey Open-File Report 2004-15C. Map. 1:100,000. Wisconsin Geological and Natural History Survey.

National Wetland Inventory, U.S. Fish and Wildlife Service. National Wetlands Mapper. Available online: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed March 2023.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online: http://websoilsurvey.sc.egov.usda.gov/. Accessed March 2023.

Southeastern Wisconsin Regional Planning Commission, 2020, A Lake Management Plan for Pewaukee Lake, Waukesha County, Wisconsin. Community Assistance Planning Report No. 58, 3rd Edition.

Town of Delafield Ordinance, Section 17.04 5. R., entitled "Planned Development District No. 1." https://www.townofdelafield.org/sites/g/files/vyhlif5546/f/uploads/1704_rev_2019.pdf. Accessed March 2023.

United States Census Bureau. Quick Facts: Delafield Town, Waukesha County, Wisconsin. Available online: U.S. Census Bureau QuickFacts: United States Accessed March 2023.

Village of Richfield, Washington County, Wisconsin. Groundwater Protection Ordinance. https://ecode360.com/16178324. Accessed March 2023.

Wisconsin Department of Natural Resources, Surface Water Data Viewer. Available online: https://dnrmaps.wi.gov/H5/?Viewer=SWDV. Accessed March 2023.

CLOSING

GZA appreciates the opportunity to provide this professional evaluation to Neumann. If you have questions or require additional information, please feel free to contact Ms. Sheryl Stephenson at (262) 202-1716 or Mr. Kevin Hedinger at (262) 424-1761.

Sincerely,

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Attachments:
- Table 1
- Figures 1 through 5
- Limitations
- Well Construction Records

TABLES

TABLE 1
WELL DATA
Town of Delafield, Wisconsin

Address	Install Date	Unique ID	Well Diameter (inches)	Well Depth (ft bgs)	Well Screen (Top) (ft bgs)	Well Screen (Bottom) (ft bgs)	Initial Water Level (ft bgs)	Pumping Water Level (ft bgs)	Pumping Rate (gpm)	Duration (hours)	Storage Coefficient (S)	Well Loss Coefficient (C)	Aquifer Thickness	Measured drawdown (ft)	Saturated Screen Length (ft)	Well Loss (Sw) (ft)	Partial Penetration Parameter (sp)	Specific Capacity (gpm/ft)	T0	Transmissivity (ft2/min)	1st term	2nd term	K (ft/sec)
MAQUOKETA																							
W296 N1926 GLEN COVE ROAD	5/22/1976	8KN577	6	143			43	48	10	3	7.1284E-05	4.38E-09	167	5	3	2.81783E-05	201.44	2	9.00840	9.00840	2.13E-02	423.40	0.000899042
N20W29612 GLEN COVE RD	1/30/1970	8NM374	6	80			21	26	10	9	7.1284E-05	4.38E-09	167	5	3	2.81783E-05	201.44	2	9.03183	9.03183	2.13E-02	424.51	0.00090138
N20W29536 GLEN COVE ROAD	10/12/1968	8NM376	6	265			5	100	8	8	7.1284E-05	4.38E-09	167	95	3	1.80341E-05	201.44	0.084211	0.37734	0.37734	8.96E-04	421.21	3.76582E-05
W92N2015 ELMHURST DRIVE	7/8/2021	AAK300	6	142			38	100	10	1	7.1284E-05	4.38E-09	167	62	3	2.81783E-05	201.44	0.16129	0.72026	0.72026	1.72E-03	419.78	7.18823E-05
N20 W29352 OAKTON RD	10/19/1993	GF227	6	68			11	18	20	18	7.1284E-05	4.38E-09	167	7	3	0.000112713	201.44	2.857143	12.93474	12.93474	3.04E-02	425.56	0.001290892
N18 W29022 GOLF RDG S	4/9/1993	GF527	6	245			90	200	10	4	7.1284E-05	4.38E-09	167	110	3	2.81783E-05	201.44	0.090909	0.40675	0.40675	9.67E-04	420.59	4.05941E-05
N18W28987 GOLF RIDGE SOURT	7/16/1993	GI594	6	221			40	160	7	1	7.1284E-05	4.38E-09	167	120	3	1.38074E-05	201.44	0.058333	0.25986	0.25986	6.21E-04	418.76	2.59343E-05
W299 N1848 WIND RIDGE CT	3/19/1994	GM165	6	191			65	78	11	1.3	7.1284E-05	4.38E-09	167	13	3	3.40958E-05	201.44	0.846154	3.79593	3.79593	9.00E-03	421.70	0.000378835
N18 W29926 CROOKED CREEK RD	12/17/1993	GM196	6	199			40	160	2	1.25	7.1284E-05	4.38E-09	167	120	3	1.12713E-06	201.44	0.016667	0.07406	0.07406	1.77E-04	417.73	7.39153E-06
N18 W29838 CROOKED CREEK RD	11/16/1993	GM199	6	192			33	160	3.5	1	7.1284E-05	4.38E-09	167	127	3	3.45185E-06	201.44	0.027559	0.12255	0.12255	2.93E-04	418.01	1.22304E-05
N18 W29845 CROOKED CREEK RD	8/14/1995	HD929	6	210			35	120	7	4	7.1284E-05	4.38E-09	167	85	3	1.38074E-05	201.44	0.082353	0.36838	0.36838	8.76E-04	420.50	3.67648E-05
N18 W29085 GOLF RIDGE S	12/10/1993	HM183	6	285			70	240	6	4	7.1284E-05	4.38E-09	167	170	3	1.01442E-05	201.44	0.035294	0.15756	0.15756	3.75E-04	419.65	1.57245E-05
N18 W29019 GOLF RIDGE S	12/7/1993	HM722	6	165			46	80	15	5	7.1284E-05	4.38E-09	167	34	3	6.34013E-05	201.44	0.441176	1.98243	1.98243	4.69E-03	422.40	0.000197848
N19 W28998 GOLF RIDGE N	12/9/1993	HM728	6	245			66	140	9	5	7.1284E-05	4.38E-09	167	74	3	2.28245E-05	201.44	0.121622	0.54484	0.54484	1.29E-03	421.11	5.43749E-05
N18 W29059 GOLF RDG S	5/2/1994	HR773	6	245			24	165	5	5	7.1284E-05	4.38E-09	167	141	3	7.04458E-06	201.44	0.035461	0.15839	0.15839	3.77E-04	419.87	1.58075E-05
W299 N1853 WINDRIDGE CT	5/27/1994	HR800	6	205			64	145	8	5	7.1284E-05	4.38E-09	167	81	3	1.80341E-05	201.44	0.098765	0.44223	0.44223	1.05E-03	420.90	4.41344E-05
W298 N1864 LOST TREE CT	7/27/1994	HT523	6	195			45	168	4.5	1.5	7.1284E-05	4.38E-09	167	123	3	5.70611E-06	201.44	0.036585	0.16296	0.16296	3.89E-04	418.70	1.6263E-05
N18 W29856 CROOKED CREEK RD	7/19/1994	HT524	6	196			33	55	12	1	7.1284E-05	4.38E-09	167	22	3	4.05768E-05	201.44	0.545455	2.44288	2.44288	5.80E-03	421.00	0.0002438
W299 N1828 WINDRIDGE CT	10/4/1994	HT561	6	190			55	90	10	1	7.1284E-05	4.38E-09	167	35	3	2.81783E-05	201.44	0.285714	1.27763	1.27763	3.04E-03	420.35	0.000127508
N18 W29925 CROOKED CREEK RD	8/29/1994	HT566	6	193			44	160	3	1.5	7.1284E-05	4.38E-09	167	116	3	2.53605E-06	201.44	0.025862	0.11510	0.11510	2.75E-04	418.35	1.14867E-05
W299 N1877 WINDRIDGE CT	10/3/1994	HT585	6	186			52	67	10	1	7.1284E-05	4.38E-09	167	15	3	2.81783E-05	201.44	0.666667	2.98717	2.98717	7.09E-03	421.20	0.000298121
N19 W29056 GOLF RDG N	6/6/1994	HT864	6	205			58	125	15	5	7.1284E-05	4.38E-09	167	67	3	6.34013E-05	201.44	0.223881	1.00439	1.00439	2.38E-03	421.72	0.000100239
N18W29054 GOLF RIDGE SOUTH	11/6/1995	HU441	6	192			58	120	15	72	7.1284E-05	4.38E-09	167	62	3	6.34013E-05	201.44	0.241935	1.09247	1.09247	2.57E-03	424.47	0.000109029
N20W29316 OAKTON RD	3/7/1995	HU445	6	85			18	40	20	30	7.1284E-05	4.38E-09	167	22	3	0.000112713	201.44	0.909091	4.10940	4.10940	9.67E-03	424.92	0.00041012
N18 W29822 CROOKED CREEK RD	7/18/1994	HW624	6	205			56	145	10	5	7.1284E-05	4.38E-09	167	89	3	2.81783E-05	201.44	0.11236	0.50325	0.50325	1.20E-03	421.03	5.02245E-05
W299 N1866 WINDRIDGE CT	4/11/1995	IE527	6	188			50	83	11	1	7.1284E-05	4.38E-09	167	33	3	3.40958E-05	201.44	0.333333	1.49112	1.49112	3.55E-03	420.51	0.000148814
N18 W29887 CROOKED CREEK RD	2/20/1995	IF101	6	345			108	280	10	4	7.1284E-05	4.38E-09	167	172	3	2.81783E-05	201.44	0.05814	0.25986	0.25986	6.18E-04	420.15	2.59337E-05
N19 W29015 GOLF RIDGE N	4/28/1995	II160	6	225			73	125	20	3	7.1284E-05	4.38E-09	167	52	3	0.000112713	201.44	0.384615	1.72562	1.72562	4.09E-03	421.75	0.000172217
N18 W 29582 CROOKED CREEK	12/6/1996	KB124	6	210			8	80	8	2	7.1284E-05	4.38E-09	167	72	3	1.80341E-05	201.44	0.111111	0.49656	0.49656	1.18E-03	420.10	4.95568E-05
N18 W29543 CROOKEN CREEK RD	10/29/1997	KB792	6	210			17	80	8	1.5	7.1284E-05	4.38E-09	167	63	3	1.80341E-05	201.44	0.126984	0.56729	0.56729	1.35E-03	419.95	5.66155E-05
N18 W29521 CROOKED CREEK RD	5/13/1996	KM561	6	188			21	91	10	1	7.1284E-05	4.38E-09	167	70	3	2.81783E-05	201.44	0.142857	0.63776	0.63776	1.52E-03	419.66	6.36487E-05
W298 N1857 LOST TREE CT	8/29/1996	KM594	6	191			45	82	10	1.5	7.1284E-05	4.38E-09	167	37	3	2.81783E-05	201.44	0.27027	1.20958	1.20958	2.88E-03	420.70	0.000120717
N18 W29082 S GOLF RIDGE	1/26/1996	KO745	6	145			57	80	20	4	7.1284E-05	4.38E-09	167	23	3	0.000112713	201.44	0.869565	3.91164	3.91164	9.25E-03	422.86	0.000390383
N19 W29079 GOLF RIDGE N	12/5/1995	KQ085	6	245			115	200	3.5	3	7.1284E-05	4.38E-09	167	85	3	3.45185E-06	201.44	0.041176	0.18376	0.18376	4.38E-04	419.51	1.83394E-05
N18 W29612 CROOKED CREEK RD	8/22/1996	KZ997	6	185			37	80	20	3	7.1284E-05	4.38E-09	167	43	3	0.000112713	201.44	0.465116	2.08774	2.08774	4.95E-03	421.94	0.000208357
W298 N1889 LOST TREE CT	11/4/1996	LJ614	6	190			54	148	9	2	7.1284E-05	4.38E-09	167	94	3	2.28245E-05	201.44	0.095745	0.42773	0.42773	1.02E-03	419.95	4.2688E-05
W296 N1734 HIDDEN CREEK CT	12/24/1997	LT222	6	203			20	105	12	2	7.1284E-05	4.38E-09	167	85	3	4.05768E-05	201.44	0.141176	0.63128	0.63128	1.50E-03	420.34	6.30023E-05
W299 N1884 WINDRIDGE CT	5/7/1997	LU761	6	185			51	80	30	3	7.1284E-05	4.38E-09	167	29	3	0.000253605	201.44	1.034483	4.65226	4.65226	1.10E-02	422.74	0.000464298
N19 W29028 GOLF RIDGE NORTH	6/11/1997	LV116	6	247			66	247	2	2.5	7.1284E-05	4.38E-09	167	181	3	1.12713E-06	201.44	0.01105	0.04914	0.04914	1.18E-04	418.01	4.90378E-06
N18 W29873 CROOKED CREEK RD	8/25/1997	LV163	6	207			33	145	5	1.5	7.1284E-05	4.38E-09	167	112	3	7.04458E-06	201.44	0.044643	0.19894	0.19894	4.75E-04	418.90	1.98542E-05
N20 W29624 E GLEN COVE RD	10/28/1997	LV188	6	183			23	125	6	2	7.1284E-05	4.38E-09	167	102	3	1.01442E-05	201.44	0.058824	0.26249	0.26249	6.26E-04	419.46	2.61961E-05
W295 N1738 PRAIRIE WOODS	7/18/1997	LW273	6	105			11	40	20	4	7.1284E-05	4.38E-09	167	29	3	0.000112713	201.44	0.689655	3.10063	3.10063	7.34E-03	422.63	0.000309444
W296 N1763 HIDDEN CREEK CT	7/11/1997	LW665	6	185			35	105	15	2	7.1284E-05	4.38E-09	167	70	3	6.34013E-05	201.44	0.214286	0.95915	0.95915	2.28E-03	420.76	9.57237E-05
W295 N1777 PRAIRIE WOOD CT	10/31/1997	MC482	6	125			33	60	15	4	7.1284E-05	4.38E-09	167	27	3	6.34013E-05	201.44	0.555556	2.49644	2.49644	5.91E-03	422.41	0.000249146
W295 N1806 PRAIRIE WOOD CT	6/30/1998	MK142	6	220			23	150	4.5	1	7.1284E-05	4.38E-09	167	127	3	5.70611E-06	201.44	0.035433	0.15766	0.15766	3.77E-04	418.26	1.57343E-05
N16 W29838 BROOKSTONE CIR	9/4/1998	MQ079	6	225			58	185	2	3	7.1284E-05	4.38E-09	167	127	3	1.12713E-06	201.44	0.015748	0.07012	0.07012	1.68E-04	418.55	6.99785E-06
N16 W29867 BROOKSTONE CIR	5/19/1999	MW364	6	219			42	131	10	2	7.1284E-05	4.38E-09	167	89	3	2.81783E-05	201.44	0.11236	0.50215	0.50215	1.20E-03	420.11	5.0115E-05
N16 W29926 BROOKSTONE DR	6/3/1999	MW380	6	221			52	70	15	2	7.1284E-05	4.38E-09	167	18	3	6.34013E-05	201.44	0.833333	3.74211	3.74211	8.87E-03	422.12	0.000373464
N16 W29816 BROOKSTONE CIR	8/12/1999	MW410	6	212			33	63	14	1	7.1284E-05	4.38E-09	167	30	3	5.52295E-05	201.44	0.466667	2.08924	2.08924	4.96E-03	420.84	0.000208507
W296 N1779 HIDDEN CREEK CT	2/4/1999	NC801	6	205			36	160	6	3	7.1284E-05	4.38E-09	167	124	3	1.01442E-05	201.44	0.048387	0.21602	0.21602	5.15E-04	419.67	2.15593E-05
N18 W29604 CROOKED CRK	2/26/1999	ND269	6	260			11	210	5	1	7.1284E-05	4.38E-09	167	199	3	7.04458E-06	201.44	0.025126	0.11170	0.11170	2.67E-04	417.92	1.1148E-05
W299 N1831 WINDRIDGE CT	6/11/1999	NI344	6	225			65	200	3.5	2	7.1284E-05	4.38E-09	167	135	3	3.45185E-06	201.44	0.025926	0.11546	0.11546	2.76E-04	418.64	1.15231E-05
N16 W29819 BROOKSTONE CIR	6/8/2004	NS844	6	205			96	165	10	4	7.1284E-05	4.38E-09	167	69	3	2.81783E-05	201.44	0.144928	0.64917	0.64917	1.54E-03	421.06	6.47872E-05
N18 W29609 CROOKED CRK	4/27/2000	NU070	6	100			26	58	40	12	7.1284E-05	4.38E-09	167	32	3	0.000450853	201.44	1.25	5.64251	5.64251	1.33E-02	424.32	0.000563125
N16 W29914 BROOKSTONE CIR	2/24/2000	NV795	6	225			50	165	4	2	7.1284E-05	4.38E-09	167	115	3	4.50853E-06	201.44	0.034783	0.15501	0.15501	3.70E-04	418.94	1.54704E-05
N16 W29883 BROOKSTONE CIR	3/28/2000	NW115	6	210			57	80	10	1	7.1284E-05	4.38E-09	167	23	3	2.81783E-05	201.44	0.434783	1.94617	1.94617	4.63E-03	420.77	0.000194229
N18 W29629 CROOKED CREEK RD	5/11/2000	NW137	6	190			14	190	7	1.5	7.1284E-05	4.38E-09	167	176	3	1.38074E-05	201.44	0.039773	0.17719	0.17719	4.23E-04	418.78	1.76834E-05

TABLE 1
WELL DATA
Town of Delafield, Wisconsin

Address	Install Date	Unique ID	Well Diameter (inches)	Well Depth (ft bgs)	Well Screen (Top) (ft bgs)	Well Screen (Bottom) (ft bgs)	Initial Water Level (ft bgs)	Pumping Water Level (ft bgs)	Pumping Rate (gpm)	Duration (hours)	Storage Coefficient (S)	Well Loss Coefficient (C)	Aquifer Thickness	Measured drawdown (ft)	Saturated Screen Length (ft)	Well Loss (Sw) (ft)	Partial Penetration Parameter (sp)	Specific Capacity (gpm/ft)	T0	Transmissivity (ft2/min)	1st term	2nd term	K (ft/sec)
N16 W29959 BROOKSTONE CIR	3/29/2000	NZ343	6	165			75	125	15	2	7.1284E-05	4.38E-09	167	50	3	6.34013E-05	201.44	0.3	1.34389	1.34389	3.19E-03	421.10	0.000134121
N15 W29981 BROOKSTONE CIR	3/28/2000	NZ349	6	145			40	65	15	2	7.1284E-05	4.38E-09	167	25	3	6.34013E-05	201.44	0.6	2.69222	2.69222	6.38E-03	421.79	0.000268684
N16 W29973 BROOKSTONE CIR	6/27/2000	OG103	6	207			31	56	12	2.5	7.1284E-05	4.38E-09	167	25	3	4.05768E-05	201.44	0.48	2.15377	2.15377	5.11E-03	421.79	0.000214947
N15 W29874 BROOKSTONE CIR	3/7/2001	OG175	6	205			42	60	15	1.5	7.1284E-05	4.38E-09	167	18	3	6.34013E-05	201.44	0.833333	3.73955	3.73955	8.87E-03	421.83	0.000373209
N16 W29966 BROOKSTONE CIR	8/24/2000	OG933	6	245			79	180	7.5	2	7.1284E-05	4.38E-09	167	101	3	1.58503E-05	201.44	0.074257	0.33154	0.33154	7.90E-04	419.70	3.30878E-05
N15 W29992 BROOKSTONE CT	11/14/2000	OH372	6	165			55	80	40	4	7.1284E-05	4.38E-09	167	25	3	0.000450853	201.44	1.6	7.20791	7.20791	1.70E-02	423.47	0.000719353
N16 W29835 BROOKSTONE CIR	1/11/2001	ON816	6	205			65	120	18	4	7.1284E-05	4.38E-09	167	55	3	9.12978E-05	201.44	0.327273	1.46878	1.46878	3.48E-03	421.88	0.000146585
N15 W29814 BROOKSTONE CIR	7/3/2001	OT151	6	225			125	185	5	3	7.1284E-05	4.38E-09	167	60	3	7.04458E-06	201.44	0.083333	0.37252	0.37252	8.86E-04	420.22	3.7178E-05
N16 W29886 BROOKSTONE CIR	4/25/2001	OV202	6	208			47	188	5	3	7.1284E-05	4.38E-09	167	141	3	7.04458E-06	201.44	0.035461	0.15820	0.15820	3.77E-04	419.36	1.57882E-05
N16 W29864 BROOKSTONE CIR	4/30/2001	OV203	6	215			39	97	11	2	7.1284E-05	4.38E-09	167	58	3	3.40958E-05	201.44	0.189655	0.84866	0.84866	2.02E-03	420.64	8.46963E-05
N16 W29942 BROOKSTONE CIR	2/27/2003	RK737	6	225			100	185	4	4	7.1284E-05	4.38E-09	167	85	3	4.50853E-06	201.44	0.047059	0.21022	0.21022	5.01E-04	419.93	2.09804E-05
N15 W29852 BROOKSTONE CIR.	11/23/2001	RW617	6	172			48	90	14	2	7.1284E-05	4.38E-09	167	42	3	5.52295E-05	201.44	0.333333	1.49358	1.49358	3.55E-03	421.20	0.00014906
N16 W29803 BROOKSTONE CIR	2/18/2002	RX509	6	210			43	60	14	2.5	7.1284E-05	4.38E-09	167	17	3	5.52295E-05	201.44	0.823529	3.69994	3.69994	8.76E-03	422.33	0.000369256
W292 N2010 ELMHURST RD	12/1/2003	SB120	6	223			44	100	15	5.5	7.1284E-05	4.38E-09	167	56	3	6.34013E-05	201.44	0.267857	1.20247	1.20247	2.85E-03	422.00	0.000120007
N20 W29538 E GLEN COVE RD	9/27/2005	TE643	6	385			80	345	1.5	5	7.1284E-05	4.38E-09	167	265	3	6.34013E-07	201.44	0.00566	0.02517	0.02517	6.02E-05	418.04	2.51218E-06
W297 N1915 GLEN COVE RD	5/31/2006	TI985	6	145			41	80	30	4	7.1284E-05	4.38E-09	167	39	3	0.000253605	201.44	0.769231	3.45930	3.45930	8.18E-03	422.74	0.000345239
N20 W29636 E GLEN COVE RD	7/25/2006	TW102	6	182			25	120	10	3	7.1284E-05	4.38E-09	167	95	3	2.81783E-05	201.44	0.105263	0.47082	0.47082	1.12E-03	420.45	4.69879E-05
W297 N2007 GLEN COVE RD	3/14/2012	WW715	6	146			32	105	8	1	7.1284E-05	4.38E-09	167	73	3	1.80341E-05	201.44	0.109589	0.48893	0.48893	1.17E-03	419.39	4.87955E-05
W299 N1831 WINDRIDGE CT	9/11/2012	WZ922	6	245			65	200	3.5	4	7.1284E-05	4.38E-09	167	135	3	3.45185E-06	201.44	0.025926	0.11565	0.11565	2.76E-04	419.34	1.15422E-05
N16 W2 BROOKSTONE CIRCLE	12/5/2012	YI525	6	262			70	230	5	1	7.1284E-05	4.38E-09	167	160	3	7.04458E-06	201.44	0.03125	0.13900	0.13900	3.32E-04	418.13	1.38726E-05
N12 W295888 S HAMPTON DR	11/1/2004	SN045	6	200			65	80	20	2	7.1284E-05	4.38E-09	167	15	3	0.000112713	201.44	1.333333	5.99408	5.99408	1.42E-02	422.59	0.000598212
SOUTHHAMPTON DR	8/14/2019	ZW994	6	165			65	105	20	3	7.1284E-05	4.38E-09	167	40	3	0.000112713	201.44	0.5	2.24470	2.24470	5.32E-03	422.02	0.000224022
N20 W29254 ELMHURST DRIVE	10/29/1986	8KO526	6	202			13	35	15	3	7.1284E-05	4.38E-09	167	22	3	6.34013E-05	201.44	0.681818	3.06321	3.06321	7.25E-03	422.33	0.00030571

Notes:

1. ft bgs = feet below ground surface.
2. gpm = gallons per minute.
3. gpm/ft = gallons per minute per foot.
4. gpd/ft = gallons per day per foot.

FIGURES

SITE DATA SUMMARY

- TOTAL AREA =	152.0 acres
- WETLAND AREA =	10.11 acres
- UPLAND PEC AREA =	30.65 acres
- SUB-TOTAL EC =	40.76 acres
- DEVELOPMENT AREA =	111.24 acres
- ZONE 1: Low Density Single Family Residenital =	8 lots
- ZONE 2: Medium Density Single Family Residential =	29 lots
-ZONE 3: Single Family =	37 lots
& Condominium =	56 units
- ZONE 4: Medium Density Single Family Residential =	81 lots
- TOTAL DEVELOPMENT =	211 units

- NET DENSITY = 211 un/111.24 ac = 1.90 un/ac

- Total Street Length = 10,700 lf (50.7 lf/unit)

Low Density
Single Family Residential
Zone 1
20,000 sf, 100' wide
8 lots

Medium Density
Single Family Residential
Zone 2
15,000 sf, 90' wide
29 lots

Medium Density
Single Family Residential
Zone 4
10,000 sf, 75' wide
81 lots

Single Family &
Condominium
Zone 3
- Duplex Ranch = 56 units
- 10,000 sf Single Family Lots = 37 units
Total = 93 units

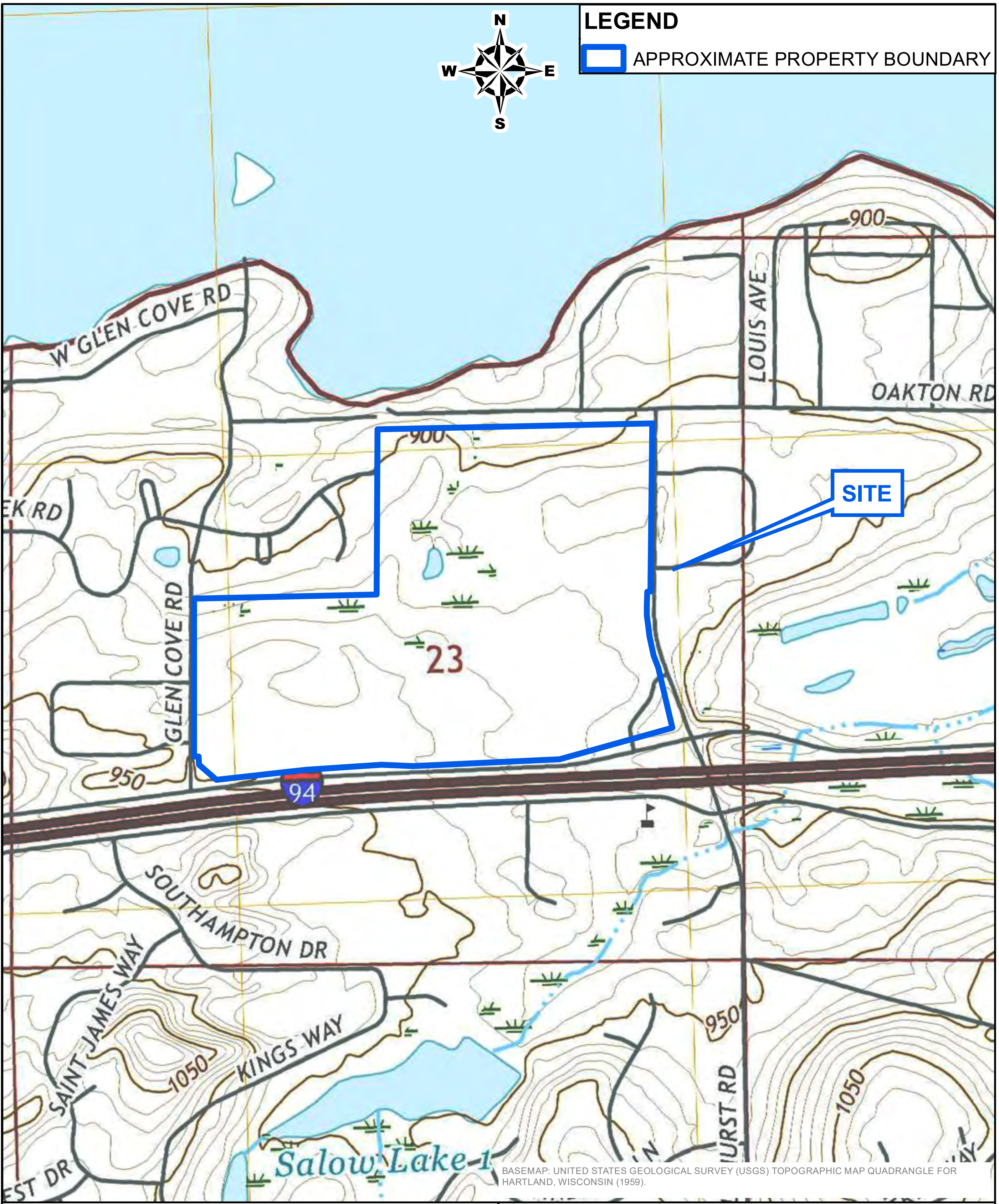
4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: jpudelko@trioeng.com

PROPOSED SITE PLAN -UPDATE-

Thomas Farm Development (152 acres)

Town of Delafield, WI

Scale: 1" = 150' (22"X34")
Scale: 1" = 300' (11"X17")
DATE: 02/19/2023



0 500 1,000 2,000

SCALE IN FEET

PROPOSED THOMAS FARM
SUBDIVISION DEVELOPMENT
TOWN OF DELAFIELD
WISCONSIN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

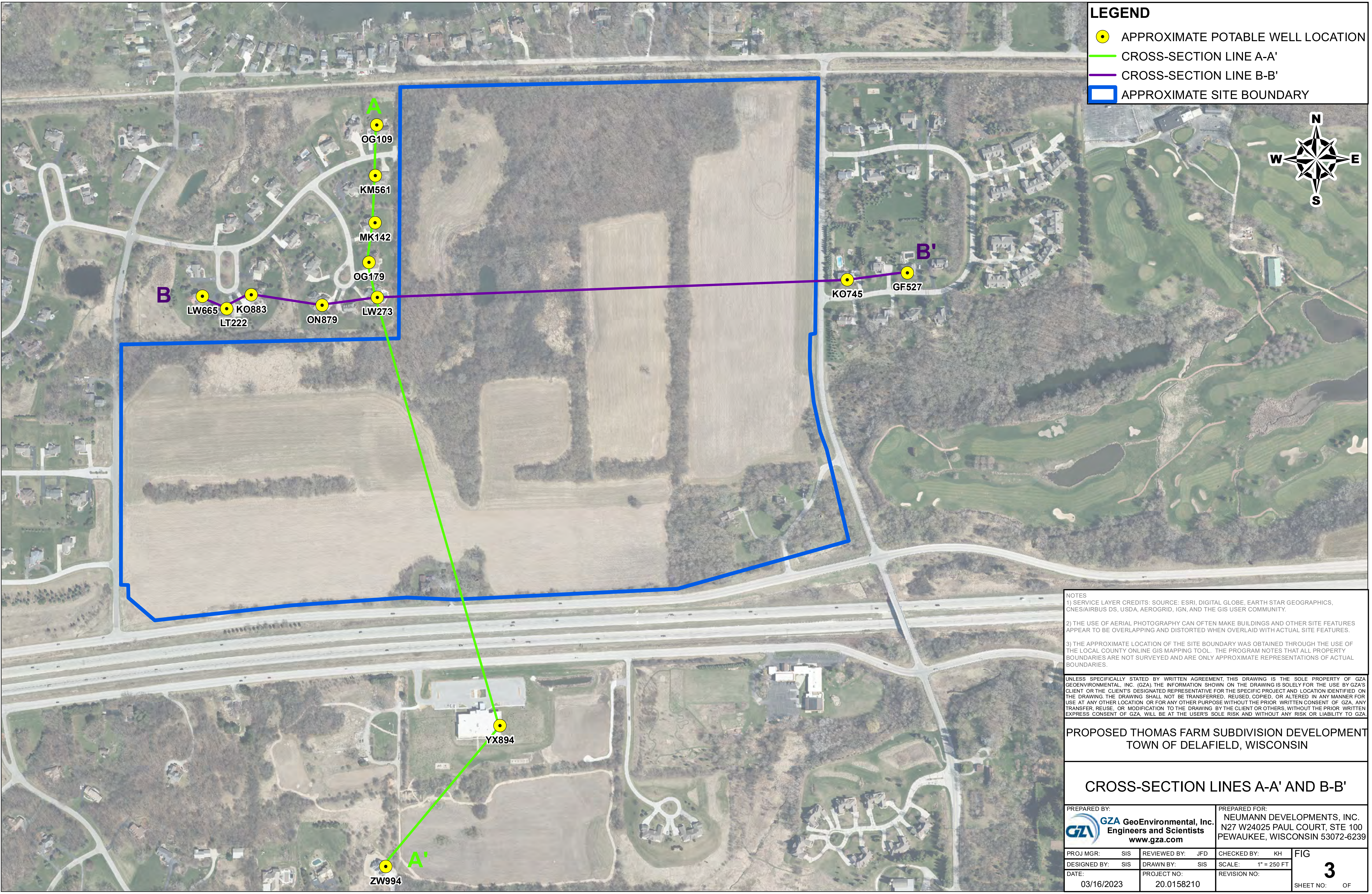
PREPARED FOR:
NEUMANN DEVELOPMENTS, INC.
N27 W24025 PAUL COURT, STE 100
PEWAUKEE, WISCONSIN, 53072-6239

SITE LOCATION MAP

PROJ MGR: SIS
REVIEWED BY: KMH
CHECKED BY: JFD
DESIGNED BY: SIS
DRAWN BY: SIS
SCALE: SEE ABOVE
DATE: 03/15/2023
PROJECT NO: 20.0158210.00
REVISION NO:

FIG
2
SHEET NO: OF

J:\158200to158299\158210\Figures\FIGURE 2 - SITE LOCATION MAP.mxd, March 15, 2023 - 12:40:12 AM, sheryl.stephenson



NOTES
1) SERVICE LAYER CREDITS: SOURCE: ESRI, DIGITAL GLOBE, EARTH STAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, AEROGRID, IGN, AND THE GIS USER COMMUNITY.

2) THE USE OF AERIAL PHOTOGRAPHY CAN OFTEN MAKE BUILDINGS AND OTHER SITE FEATURES APPEAR TO BE OVERLAPPING AND DISTORTED WHEN OVERLAID WITH ACTUAL SITE FEATURES.

3) THE APPROXIMATE LOCATION OF THE SITE BOUNDARY WAS OBTAINED THROUGH THE USE OF THE LOCAL COUNTY ONLINE GIS MAPPING TOOL. THE PROGRAM NOTES THAT ALL PROPERTY BOUNDARIES ARE NOT SURVEYED AND ARE ONLY APPROXIMATE REPRESENTATIONS OF ACTUAL BOUNDARIES.

PROPOSED THOMAS FARM SUBDIVISION DEVELOPMENT
TOWN OF DELAFIELD, WISCONSIN

CROSS-SECTION LINES A-A' AND B-B'

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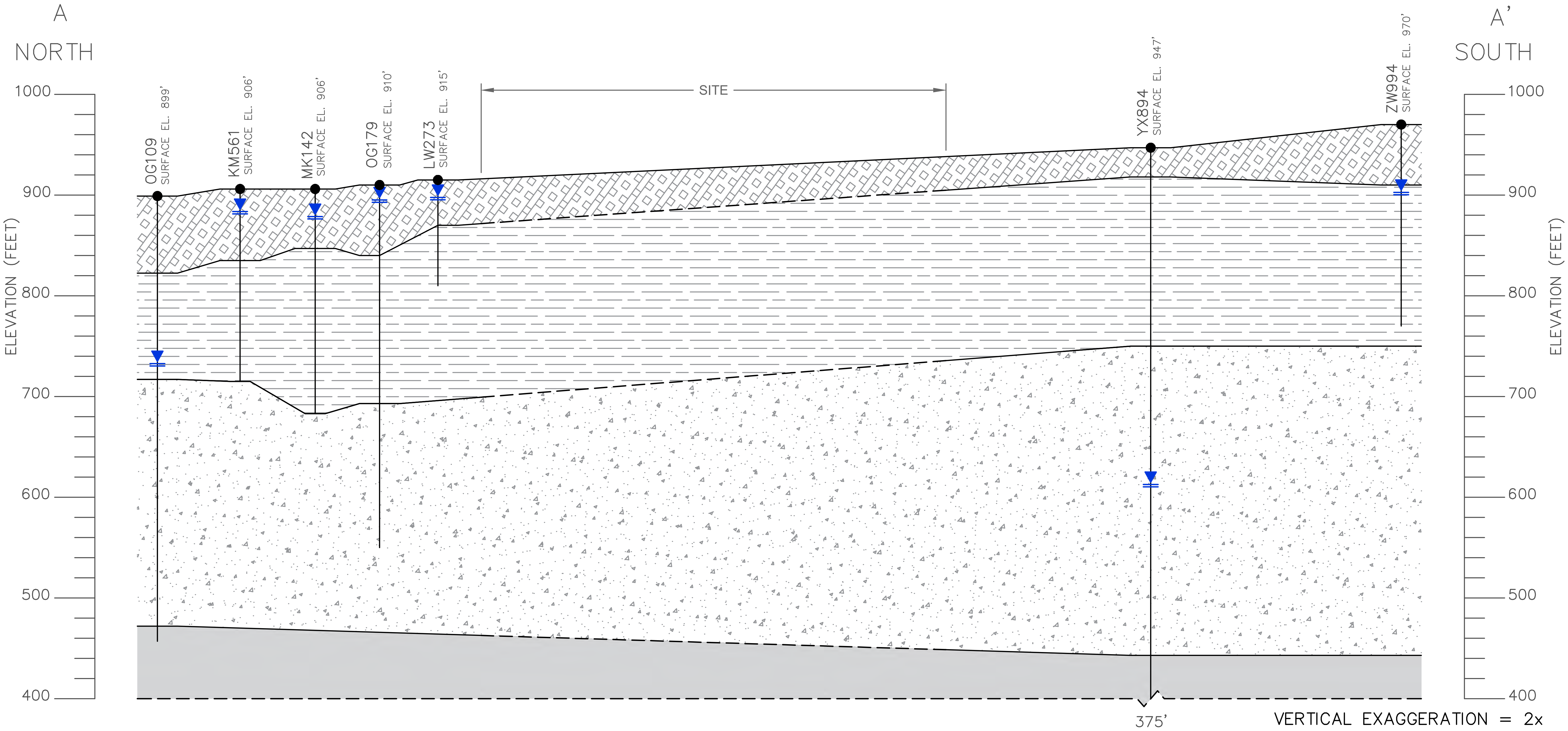
Engineers and Scientists
www.gza.com

PREPARED FOR:
NEUMANN DEVELOPMENTS, INC.
N27 W24025 PAUL COURT, STE 100
PEWAUKEE, WISCONSIN 53072-6239

PROJ MGR: SIS	REVIEWED BY: JFD	CHECKED BY: KH	FIG
DESIGNED BY: SIS	DRAWN BY: SIS	SCALE: 1" = 250 FT	3
DATE: 03/16/2023	PROJECT NO: 20.0158210	REVISION NO:	SHEET NO: OF



VERTICAL EXAGGERATION = 2x

LEGEND

▨	GLACIAL DEPOSITS	●	DOMESTIC WATER WELL
☰	MAQUOKETA SHALE		
⁘	GALENA–PLATEVILLE UNIT	▼	APPROXIMATE WATER TABLE
▒	ST. PETERS SANDSTONE UNIT	OG109	WDNR WELL ID

NOTES

1. ELEVATIONS SHOWN ARE ESTIMATED FROM WAUKESHA COUNTY TOPOGRAPHY (1 FT. INTERVALS).
2. THE STRATIFICATION LINES ARE BASED ON INTERPOLATIONS BETWEEN WIDELY SPACED BORING LOCATIONS AND THUS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN DEPOSIT TYPES. ACTUAL TRANSITIONS MAY VARY FROM THOSE SHOWN.
3. MAGNIFICATION OF VERTICAL SCALE FOR PURPOSES OF PRESENTATION CAUSES TRENDS IN SOIL STRATA TO APPEAR MORE PRONOUNCED THAN THAT WHICH ACTUALLY EXISTS.
4. WELL YX894 EXTENDS TO 202' ABOVE MSL BUT IS NOT SHOWN ON CROSS SECTION.
5. GEOLOGICAL AND WATER LEVEL DATA ARE OBTAINED FROM WDNR WELL CONSTRUCTION RECORDS.
6. WELL LOCATIONS WERE OBTAINED FROM ADDRESSES PROVIDED ON THE WDNR WELL CONSTRUCTION RECORDS, HOWEVER, EXACT WELL LOCATIONS ARE ESTIMATED.

NO.	ISSUE/DESCRIPTION	BY	DATE

PROPOSED THOMAS FARM SUBDIVISION DEVELOPMENT
TOWN OF DELAFIELD, WISCONSIN

GEOLOGIC CROSS SECTION (A-A')

PREPARED BY:
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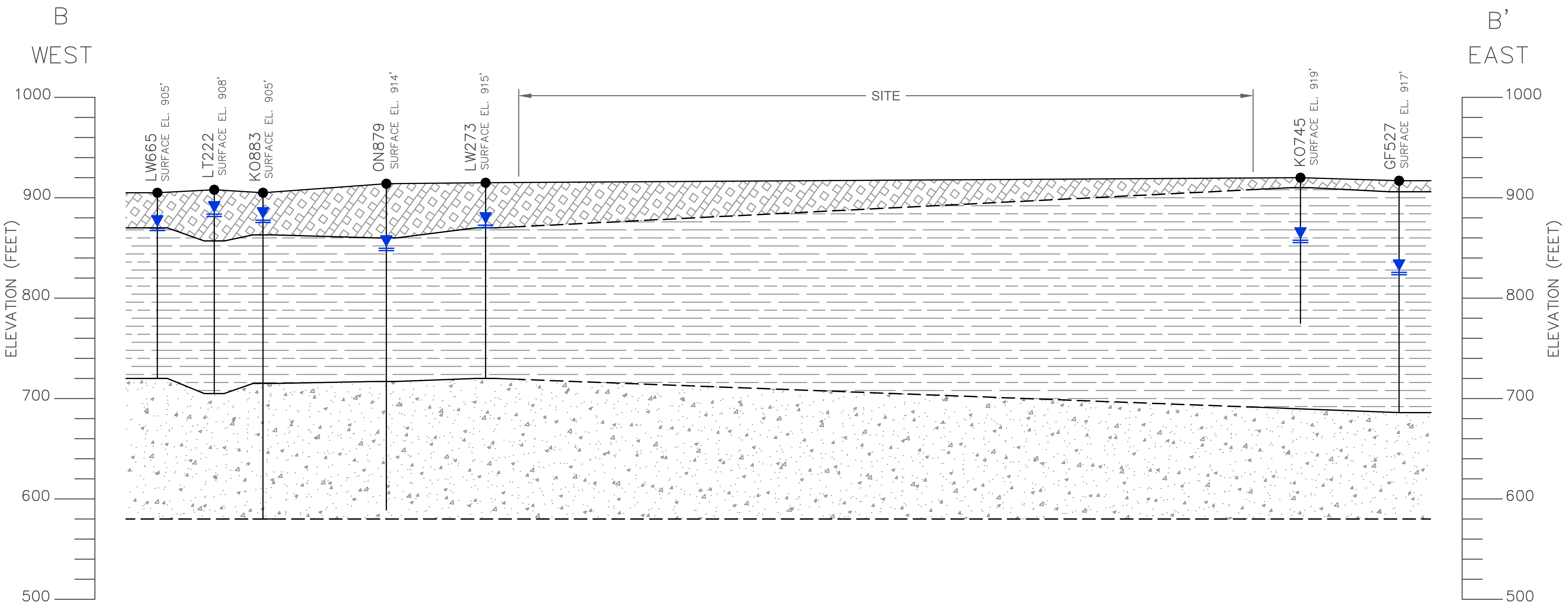
Engineers and Scientists
www.gza.com

PREPARED FOR:
NEUMANN DEVELOPMENTS, INC.
N27 W24025 PAUL COURT, STE 100
PEWAUKEE, WISCONSIN 53072-6239

PROJ MGR: KMH	REVIEWED BY: KMH	CHECKED BY: SIS	FIG 4A SHEET NO. OF
DESIGNED BY: SIS	DRAWN BY: HKP	SCALE: 1" = 50'	
DATE: 03/16/2023	PROJECT NO. 20.0158210.00	REVISION NO.	



VERTICAL EXAGGERATION = 2x

LEGEND

- ▨ GLACIAL DEPOSITS
- ▤ MAQUOKETA SHALE
- ░ GALENA–PLATEVILLE UNIT
- **LW665** WDNR WELL ID
- ● DOMESTIC WATER WELL
- ▼ APPROXIMATE WATER TABLE

NOTES

1. ELEVATIONS SHOWN ARE ESTIMATED FROM WAUKESHA COUNTY TOPOGRAPHY (1 FT. INTERVALS).
2. THE STRATIFICATION LINES ARE BASED ON INTERPOLATIONS BETWEEN WIDELY SPACED BORING LOCATIONS AND THUS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN DEPOSIT TYPES. ACTUAL TRANSITIONS MAY VARY FROM THOSE SHOWN.
3. MAGNIFICATION OF VERTICAL SCALE FOR PURPOSES OF PRESENTATION CAUSES TRENDS IN SOIL STRATA TO APPEAR MORE PRONOUNCED THAN THAT WHICH ACTUALLY EXISTS.
4. WELL YX894 EXTENDS TO 202' ABOVE MSL BUT IS NOT SHOWN ON CROSS SECTION.
5. GEOLOGICAL AND WATER LEVEL DATA ARE OBTAINED FROM WDNR WELL CONSTRUCTION RECORDS.
6. WELL LOCATIONS WERE OBTAINED FROM ADDRESSES PROVIDED ON THE WDNR WELL CONSTRUCTION RECORDS, HOWEVER, EXACT WELL LOCATIONS ARE ESTIMATED.

NO.	ISSUE/DESCRIPTION	BY	DATE

PROPOSED THOMAS FARM SUBDIVISION DEVELOPMENT
TOWN OF DELAFIELD, WISCONSIN

GEOLOGIC CROSS SECTION (B-B')

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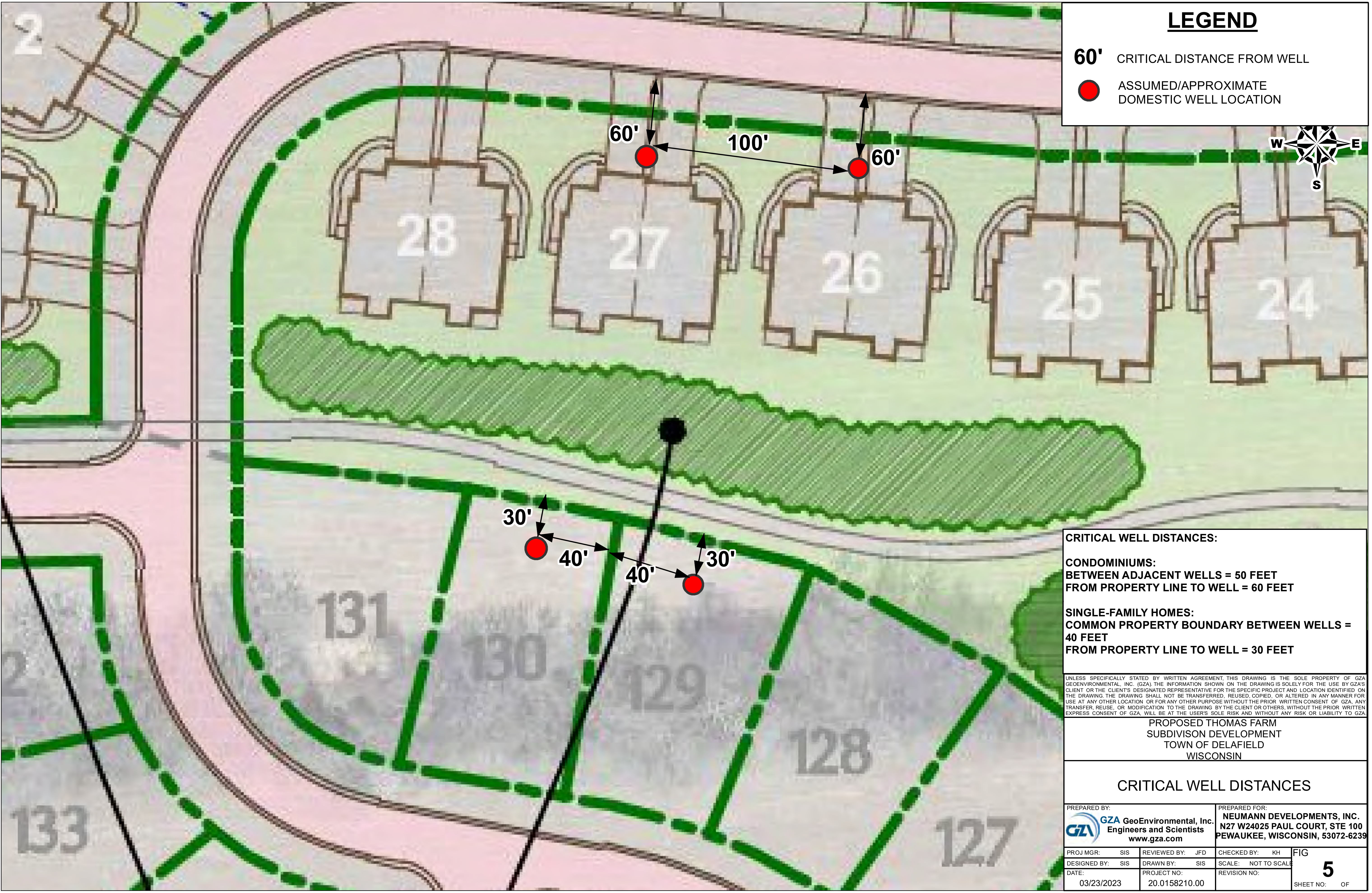
Engineers and Scientists
www.gza.com

PREPARED FOR:
NEUMANN DEVELOPMENTS, INC.
N27 W24025 PAUL COURT, STE 100
PEWAUKEE, WISCONSIN 53072-6239

PROJ MGR: KMH
REVIEWED BY: KMH
CHECKED BY: SIS
DESIGNED BY: SIS
DRAWN BY: HKP
SCALE: 1" = 50'
DATE: 03/16/2023
PROJECT NO. 20.0158210.00
REVISION NO.
FIG 4B
SHEET NO. OF



LEGEND

60' CRITICAL DISTANCE FROM WELL

● ASSUMED/APPROXIMATE DOMESTIC WELL LOCATION

CRITICAL WELL DISTANCES:

CONDOMINIUMS:
BETWEEN ADJACENT WELLS = 50 FEET
FROM PROPERTY LINE TO WELL = 60 FEET

SINGLE-FAMILY HOMES:
COMMON PROPERTY BOUNDARY BETWEEN WELLS = 40 FEET
FROM PROPERTY LINE TO WELL = 30 FEET

PROPOSED THOMAS FARM
SUBDIVISON DEVELOPMENT
TOWN OF DELAFIELD
WISCONSIN

CRITICAL WELL DISTANCES

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NEUMANN DEVELOPMENTS, INC.
N27 W24025 PAUL COURT, STE 100
PEWAUKEE, WISCONSIN, 53072-6239

PROJ MGR: SIS	REVIEWED BY: JFD	CHECKED BY: KH	FIG 5
DESIGNED BY: SIS	DRAWN BY: SIS	SCALE: NOT TO SCALE	
DATE: 03/23/2023	PROJECT NO: 20.0158210.00	REVISION NO:	SHEET NO: OF

ATTACHMENT 1

Limitations

LIMITATIONS

1. In performing this assessment, GZA has relied on certain information provided by other parties referenced herein. GZA completed the evaluation in accordance with generally accepted practices of other consultants undertaking similar studies at the same time, in the same geographical areas. GZA observed the degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the data available at the time of the evaluation. No warranty, expressed or implied, is made.

2. The conclusions submitted in this report are based in part on data obtained from a limited number of well logs from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further investigation. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the recommendations of this report.

3. The generalized geologic profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the boring logs.

4. Water level elevations have been derived from well construction reports made in the test pits, borings and/or wells at times and under conditions encountered at the time of installation. It must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

5. In preparing this report, GZA has relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to GZA at the time of the site assessment. Although there may have been some degree of overlap in the information provided by these various sources, GZA did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment.

ATTACHMENT 2

Well Construction Records

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER GF527

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner SIGNATURE BUILDERS

Phone #

Mailing Address N18 W29022 GLF RDG S

City PEWAUKEE State WI Zip Code 53072

County	Co. Permit #	Notification #	Completed
Waukesha			04-09-1993

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
MICHAEL HARTMAN	436	

Well Plan Approval #

Address W82 N28280 MARSHALL
HARTLAND WI 53029

Approval Date (mm-dd-yyyy)

Hicap Permanent Well #	Common Well #	Specific Capacity
		0.1

3. Well serves 1 # of

Private,potable

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ?

1. Well Location

Town of DELAFIELD

Fire # (if avail.)

Street Address or Road Name and Number

N18 W29022 GOLF RDG S

Subdivision Name	Lot #	Block #
GOLF RIDGE	12	

Latitude / Longitude in Decimal Degree (DD)				Method Code
43.0551	°N	-88.3252	°W	GCD013

SE	NE	Section	Township	Range
or Govt Lot #		23	7 N	18 E

2. Well Type New Well

of previous unique well # constructed in

Reason for replaced or reconstructed well ?

HOME

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
10	Surface	42
6	42	245

Upper Enlarged Drillhole — Lower Open Bedrock

Rotary - Mud Circulation ....

Yes Rotary - Air ....

Rotary - Air & Foam ....

Drill-Through Casing Hammer

Reverse Rotary

Cable-tool Bit ____in. dia...

Dual Rotary ....

Temp. Outer Casing ____in. dia

Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		P		HARDPAN	Surface	10
		L		LIMESTONE	10	25
		H		SHALE	25	35
		L		LIMESTONE	35	46
		H		SHALE	46	245

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	0.280 A-53 GR.B SAWHILL STEEL WELDED	Surface	41
Dia. (in.)	**Screen type, material & slot size**	**From (ft.)**	**To (ft.)**

7. Grout or Other Sealing Material

Method PUMP

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
PORTLAND	Surface	41.15	

9. Static Water Level

90 ft. below ground surface

10. Pump Test

Pumping level 200 ft. below surface

Pumping at 10 GP M for 4 Hrs.

Pumping Method ?

11. Well Is

12 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed? No

NO WELLS

13. Constructor / Supervisory Driller	Lic #	Date Signed
MH		04-21-1993
Drill Rig Operator	Lic or Reg #	Date Signed

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		10	Collector Sewer - San or Storm		90
Clearwater Sump		15	Foundation Drain to Clearwater		11
			Sewer - Building Sanitary		40

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 08-06-1993 Created by: HFRC LOAD Updated On: 07-09-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER **KM561**

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner ROGERS, LEONARD

Phone # (414)242-5316

Mailing Address 11649 N ANNETTE 45 W

City MEQUON State WI Zip Code 53092

County	Co. Permit #	Notification #	Completed
Waukesha			05-13-1996

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
ROSCHI BROS WELL DRLG @ PUMP INC	435	

Well Plan Approval #

Address N10W28210 NORTHVIEW
WAUKESHA WI 53188-9401

Approval Date (mm-dd-yyyy)

Hicap Permanent Well #	Common Well #	Specific Capacity
		0.1

3. Well serves 1 # of

Private,potable

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ?

1. Well Location

Town of DELAFIELD

Fire # (if avail.)

Street Address or Road Name and Number

N18 W29521 CROOKED CREEK RD

Subdivision Name	Lot #	Block #
HIGH RIDGE EAST 1	40	

Latitude / Longitude in Decimal Degree (DD)				Method Code
43.0561	°N	-88.3347	°W	GCD013

SE	NW	Section	Township	Range
or Govt Lot #		23	7 N	18 E

2. Well Type New Well

of previous unique well # constructed in

Reason for replaced or reconstructed well ?

NEW CONSTRUCTION

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
8.75	Surface	69
6	69	188

Upper Enlarged Drillhole

Lower Open Bedrock

Yes Rotary - Mud Circulation ....

Rotary - Air ....

Rotary - Air & Foam ....

Drill-Through Casing Hammer

Reverse Rotary

Cable-tool Bit ____in. dia...

Dual Rotary ....

Temp. Outer Casing ____in. dia

Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		C	G	STONEY CLAY	Surface	15
		P		HARDPAN	15	69
		H	L	SHALE W STREAKS OF LIMESTONE	69	188

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	BLACK STEEL PIPE WELDED JOINTS 1897 LB ASTM B531780 PSI IPSCO	Surface	69

Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material

Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
BENTONITE DRILLING FLUID	Surface	69	

9. Static Water Level

21 ft. below ground surface

10. Pump Test

Pumping level 91 ft. below surface

Pumping at 10 GP M for 1 Hrs.

Pumping Method ?

11. Well Is

12 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed?

13. Constructor / Supervisory Driller	Lic #	Date Signed
RR		05-13-1996
Drill Rig Operator	Lic or Reg #	Date Signed
TDK		05-13-1996

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		10	Collector Sewer - San or Storm	>	50
			Foundation Drain to Clearwater		11

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 07-02-1996 Created by: HFRC LOAD Updated On: 07-12-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER KO745

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner COVENTRY HOMES
Phone #
Mailing Address 16735 W GREENFIELD
City NEW BERLIN State WI Zip Code 53151

County	Co. Permit #	Notification #	Completed
Waukesha			01-26-1996

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
MICHAEL HARTMAN	436	

Well Plan Approval #
Address W82 N28280 MARSHALL
HARTLAND WI 53029
Approval Date (mm-dd-yyyy)

Hicap Permanent Well #	Common Well #	Specific Capacity
		0.9

1. Well Location Fire # (if avail.)
Town of DELAFIELD
Street Address or Road Name and Number
N18 W29082 S GOLF RIDGE

Subdivision Name	Lot #	Block #
GOLF RIDGE	10	

Latitude / Longitude in Decimal Degree (DD)		Method Code
43.055 °N	-88.3264 °W	GCD013

SW	NW	Section	Township	Range
or Govt Lot #		23	7 N	18 E

2. Well Type New Well
of previous unique well # constructed in
Reason for replaced or reconstructed well ?
NEW HOME

3. Well serves 1 # of
Private,potable
Heat Exchange____# of drillholes

Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
10	Surface	8
8.75	8	61
6	61	145

Upper Enlarged Drillhole — Lower Open Bedrock
Rotary - Mud Circulation ....
Yes Rotary - Air ....
Rotary - Air & Foam ....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary ....
Temp. Outer Casing ____in. dia
Yes Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		X		CLAY SAND	Surface	8
		L	H	LIMESTONE SHALE	8	70
		H		SHALE	70	145

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	0 280 A 53 GRB SAWHILL STEEL WELDED	Surface	63
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material
Method PUMPED TREMIE

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
PORTLAND CEMENT GROUT C 150	Surface	61	18 S

9. Static Water Level
57 ft. below ground surface

10. Pump Test
Pumping level 80 ft. below surface
Pumping at 20 GP M for 4 Hrs.
Pumping Method ?

11. Well Is
18 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed? No
NO WELL

13. Constructor / Supervisory Driller	Lic #	Date Signed
MH		01-29-1996
Drill Rig Operator	Lic or Reg #	Date Signed
TW		04-24-1996

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		12	Collector Sewer - San or Storm		75
Clearwater Sump		35	Foundation Drain to Clearwater		13
			Sewer - Building Sanitary		40

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 06-04-1996 Created by: HFRC LOAD Updated On: 07-12-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER **KO883**

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner MURPHY, DAN
Phone #
Mailing Address W296 N1742 HIDDEN CR
City PEWAUKEE State WI Zip Code 53072

County	Co. Permit #	Notification #	Completed
Waukesha			08-13-1996

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
RICHARD L DANECKI	124	

Well Plan Approval #
Address PO BOX 94
NORTH PRAIRIE WI 53153-0094
Approval Date (mm-dd-yyyy)

Hicap Permanent Well #	Common Well #	Specific Capacity

3. Well serves 1 # of
Private,potable
Heat Exchange____# of drillholes

Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

1. Well Location Fire # (if avail.)
Town of DELAFIELD
Street Address or Road Name and Number
W296 N1742 HIDDEN CREEK CT

Subdivision Name	Lot #	Block #
HIGH RIDGE		

Latitude / Longitude in Decimal Degree (DD)		Method Code
43.0546 °N	-88.3369 °W	GCD013

SE NW or Govt Lot #	Section	Township	Range
	23	7 N	18 E

2. Well Type New Well
of previous unique well # constructed in
Reason for replaced or reconstructed well ?
NEW HOME

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
6	Surface	325

Upper Enlarged Drillhole Lower Open Bedrock
Rotary - Mud Circulation ....
Rotary - Air ....
Rotary - Air & Foam ....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary ....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		C		CLAY	Surface	41
	H	H		HARD SHALE	41	190
		L		LIMESTONE	190	325

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	SAW HILL USA STD ERW A53 90 GR BBLACK PLAIN END6 625 OD X 280 WALL	Surface	41

Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
8 MESH BENTONITE	Surface	41	

9. Static Water Level
10 ft. below ground surface

10. Pump Test
Pumping level 280 ft. below surface
Pumping at 6 GP M for 4 Hrs.
Pumping Method ?

11. Well Is
14 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed? No
NONE

13. Constructor / Supervisory Driller	Lic #	Date Signed
RLD		08-15-1996
Drill Rig Operator	Lic or Reg #	Date Signed
SH		08-15-1996

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		23	Downspout/Yard Hydrant		24
Clearwater Sump		32	Foundation Drain to Clearwater		30
Collector Sewer - San or Storm		150	Sewer - Building Sanitary		60

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 01-28-1997 Created by: HFRC LOAD Updated On: 07-12-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER LT222

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner LIEN, JEFFREY
Phone #
Mailing Address W296 N1734 HIDDEN CR
City PEWAUKEE State WI Zip Code 53072

County	Co. Permit #	Notification #	Completed
Waukesha			12-24-1997

1. Well Location Town of DELEFIELD
Fire # (if avail.)
Street Address or Road Name and Number W296 N1734 HIDDEN CREEK CT

Subdivision Name	Lot #	Block #
HIGH RDG E	28	

Well Constructor (Business Name) GROTH WATER WELLS INC
Lic. # 639
Facility ID # (Public Wells)
Well Plan Approval #
Address W69 N949 WASHINGTON
CEDARBURG WI 53012
Approval Date (mm-dd-yyyy)

Latitude / Longitude in Decimal Degree (DD) °N °W
Method Code GPS008

SE NW or Govt Lot #	Section	Township	Range
	23	7 N	18 E

2. Well Type New Well
of previous unique well # constructed in
Reason for replaced or reconstructed well ?
Construction Type Drilled

Hicap Permanent Well #
Common Well #
Specific Capacity 0.1

3. Well serves 1 # of
Private,potable
Heat Exchange____# of drillholes
Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
8	Surface	52
6	52	203

Upper Enlarged Drillhole — Lower Open Bedrock
Yes Rotary - Mud Circulation ....
Rotary - Air ....
Rotary - Air & Foam ....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary ....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		Z	S	SANDY CLAY @ GRAVEL	Surface	16
		C	S	SANDY CLAY	16	43
		Z	S	SANDY CLAY W STONES	43	50
		H		SHALE	50	203

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	18 97# ASTM A53 PE SAWHILL	Surface	52
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
DRILLING MUD	Surface	52	

9. Static Water Level
20 ft. below ground surface

10. Pump Test
Pumping level 105 ft. below surface
Pumping at 12 GP M for 2 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed?

13. Constructor / Supervisory Driller	Lic #	Date Signed
HG		12-27-1997
Drill Rig Operator	Lic or Reg #	Date Signed

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Drain - Sanitary		29	Collector Sewer - San or Storm		150
Building Overhang		12	Foundation Drain to Clearwater		13
Clearwater Sump		15	Sewer - Building Sanitary		85

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 03-04-1998 Created by: HFRC LOAD Updated On: 03-04-1998 Updated by: MIGRATION

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER **LW273**

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner KUZMINSKI MARK
Phone # (414)695-8454

Mailing Address W295 N1738 PRAIRIE W

City PEWAUKEE State WI Zip Code 53072

County	Co. Permit #	Notification #	Completed
Waukesha			07-18-1997

1. Well Location
Fire # (if avail.)

Town of DELAFIELD

Street Address or Road Name and Number
W295 N1738 PRAIRIE WOODS

Subdivision Name	Lot #	Block #
HIGH RIDGE	36	

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
MICHAEL HARTMAN	436	

Well Plan Approval #

Address PO BOX 218
NORTH LAKE WI 53064-0218

Approval Date (mm-dd-yyyy)

Latitude / Longitude in Decimal Degree (DD) 43.0546 °N -88.3348 °W
Method Code GCD013

SE NW or Govt Lot #	Section	Township	Range
	23	7 N	18 E

2. Well Type New Well
of previous unique well # constructed in

Reason for replaced or reconstructed well ?
NEW HOME

Hicap Permanent Well #	Common Well #	Specific Capacity
		0.7

3. Well serves 1 # of
Private,potable
Heat Exchange____# of drillholes

Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
6	Surface	105

Upper Enlarged Drillhole
Lower Open Bedrock

Rotary - Mud Circulation ....
Rotary - Air ....
Rotary - Air & Foam ....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary ....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		C		CLAY	Surface	8
		P		HARDPAN	8	44
		H		SHALE	44	92
		L		LIMESTONE	92	100
		H		SHALE	100	105

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	280 A53 GRB SAWHILL STEEL WELDED	Surface	72

Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material
Method MOUNDED

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
CRUMBLES	Surface	0	

9. Static Water Level
11 ft. below ground surface

10. Pump Test
Pumping level 40 ft. below surface
Pumping at 20 GP M for 4 Hrs.
Pumping Method ?

11. Well Is
18 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed? No
NO WELL

13. Constructor / Supervisory Driller	Lic #	Date Signed
MH		07-21-1997

Drill Rig Operator	Lic or Reg #	Date Signed
TA		

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		13	Collector Sewer - San or Storm		85
Clearwater Sump		40	Foundation Drain to Clearwater		15
			Sewer - Building Sanitary		35

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 10-10-1997 Created by: HFRC LOAD Updated On: 07-12-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER LW665

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner FAIRWAY HOMES INC AMIDEI

Phone # (414)965-2020

Mailing Address 575 DOUSMAN RD

City OCONOMOWOC State WI Zip Code 53066

County	Co. Permit #	Notification #	Completed
Waukesha			07-11-1997

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
HERR WELL DRILLING INC	672	

Well Plan Approval #

Address W295 HERR RD
DOUSMAN WI 53118-9407

Approval Date (mm-dd-yyyy)

Hicap Permanent Well #	Common Well #	Specific Capacity
		0.2

3. Well serves 1 # of
Private,potable

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ?

1. Well Location

Town of DELAFIELD

Fire # (if avail.)

Street Address or Road Name and Number
W296 N1763 HIDDEN CREEK CT

Subdivision Name	Lot #	Block #
HIGH RIDGE E	27	

Latitude / Longitude in Decimal Degree (DD)		Method Code
43.0546 °N	-88.3381 °W	GCD013

		Section	Township	Range
SE	NW			
or Govt Lot #		23	7 N	18 E

2. Well Type New Well

of previous unique well # constructed in

Reason for replaced or reconstructed well ?
WATER SUPPLY FOR A NEW HO

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
10	Surface	49
6	49	185

Upper Enlarged Drillhole — Lower Open Bedrock

Yes Rotary - Mud Circulation ....

Rotary - Air ....

Rotary - Air & Foam ....

Drill-Through Casing Hammer

Reverse Rotary

Cable-tool Bit ____in. dia...

Dual Rotary ....

Temp. Outer Casing ____in. dia

Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		Z		GRAVEL @ CLAY	Surface	19
		Y		SAND @ GRAVEL	19	26
		C		CLAY	26	33
		H		SHALE	33	185

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	B SAWHILL TUBULAR 2660 LBS PSI	49	49
6	1897 LBS PER FOOT NEW STEEL PLAIN END ASTM A53 GR	Surface	49

Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material

Method BRADEN HEAD

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
NEAT CEMENT GROUT	Surface	49	16 S

9. Static Water Level
35 ft. below ground surface

10. Pump Test

Pumping level 105 ft. below surface

Pumping at 15 GP M for 2 Hrs.

Pumping Method ?

11. Well Is
12 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed?

13. Constructor / Supervisory Driller	Lic #	Date Signed
JH		07-25-1997
Drill Rig Operator	Lic or Reg #	Date Signed
DK		07-27-1997

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		13	Other Contamination Sources		119

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 09-09-1997 Created by: HFRC LOAD Updated On: 07-12-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER **MK142**

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner BELLA BUILDING CO
Phone # (414)305-2350
Mailing Address W231 N7047 HOMESTEAD
City SUSSEX State WI Zip Code 53089
County Waukesha
Co. Permit #
Notification #
Completed 06-30-1998

1. Well Location
Town of DELAFIELD
Fire # (if avail.)
Street Address or Road Name and Number
W295 N1806 PRAIRIE WOOD CT
Subdivision Name HIGH RIDGE E
Lot #
Block #

Well Constructor (Business Name) ROSCHI BROS WELL DRLG @ PUMP INC
Lic. # 435
Facility ID # (Public Wells)
Well Plan Approval #
Address N10W28210 NORTHVIEW
WAUKESHA WI 53188-9401
Approval Date (mm-dd-yyyy)

Latitude / Longitude in Decimal Degree (DD) 43.0556 °N -88.3348 °W
Method Code GCD013
SE NW or Govt Lot #
Section 23
Township 7 N
Range 18 E

2. Well Type New Well
of previous unique well # constructed in
Reason for replaced or reconstructed well ?
NEW CONSTRUCTION

Hicap Permanent Well #
Common Well #
Specific Capacity

3. Well serves 1 # of
Private,potable
Heat Exchange____# of drillholes
Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
6	Surface	220

Upper Enlarged Drillhole
Lower Open Bedrock
Rotary - Mud Circulation ....
Yes Rotary - Air ....
Rotary - Air & Foam ....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary ....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		I		TOPSOIL	Surface	3
		C	G	STONEY CLAY	3	16
		P		HARDPAN	16	54
		H		SHALE	54	189
		H	L	SHALE W STREAKS LIMESTONE	189	220

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	BLACK STEEL PIPE WELDED JOINTS 18 97# ASTM A531780 PSI SAWHILL TUBULAR	Surface	58

Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level
23 ft. below ground surface

10. Pump Test
Pumping level 150 ft. below surface
Pumping at 4.5 GP M for 1 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
BENTONITE CRUMBLES	Surface	25	

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed?

13. Constructor / Supervisory Driller	Lic #	Date Signed
RR		06-30-1998
Drill Rig Operator	Lic or Reg #	Date Signed
KL		06-30-1998

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		12	Foundation Drain to Clearwater		12

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 09-21-1998 Created by: HFRC LOAD Updated On: 07-12-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER **OG109**

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner BARENZ BUILDERS
Phone # (262)253-2282
Mailing Address N112 W16700 MEQUON R
City GERMANTOWN
State WI
Zip Code 53022
County Waukesha
Co. Permit #
Notification #
Completed 07-14-2000

Well Constructor (Business Name) ROSCHI BROS WELL DRLG & PUMP INC
Lic. # 435
Facility ID # (Public Wells)
Well Plan Approval #
Address N10W28210 NORTHVIEW RD
WAUKESHA WI 53188-9401
Approval Date (mm-dd-yyyy)
Hicap Permanent Well #
Common Well #
Specific Capacity 0.1

1. Well Location
Town of DELAFIELD
Fire # (if avail.)
Street Address or Road Name and Number
N18 W29534 CROOKED CREEK RD
Subdivision Name HIGH RIDGE E
Lot # 41
Block #
Latitude / Longitude in Decimal Degree (DD) 43.0569 °N -88.3347 °W
Method Code GCD013
SE NW or Govt Lot #
Section 23
Township 7 N
Range 18 E

2. Well Type New Well
of previous unique well # constructed in
Reason for replaced or reconstructed well ?
NEW CONSTRUCTION
Construction Type Drilled

3. Well serves 1 # of
Private,potable
Heat Exchange____# of drillholes
Hicap Well ? No
Hicap Property ? No
Hicap Potable ?

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
6	Surface	441

Upper Enlarged Drillhole
Lower Open Bedrock
Rotary - Mud Circulation ....
Yes Rotary - Air ....
Rotary - Air & Foam ....
Drill-Through Casing Hammer
Reverse Rotary
Cable-tool Bit ____in. dia...
Dual Rotary ....
Temp. Outer Casing ____in. dia
Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		C	G	STONEY CLAY	Surface	57
		C	S	SANDY CLAY	57	77
		H		SHALE	77	183
		L		LIMESTONE	183	428
		N		SANDSTONE	428	441

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	BLACK STEEL PIPE, WELDED JOINTS, 18.97 LB. ASTM A53 1780 PSI SAWHILL	Surface	77

Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material
Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
BENTONITE CRUMBLES	Surface	77	

9. Static Water Level
165 ft. below ground surface

10. Pump Test
Pumping level 335 ft. below surface
Pumping at 11 GP M for 5 Hrs.
Pumping Method ?

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed?

13. Constructor / Supervisory Driller	Lic #	Date Signed
RR		07-14-2000
Drill Rig Operator	Lic or Reg #	Date Signed
TDK		07-14-2000

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		16	Collector Sewer - San or Storm	>	50
			Foundation Drain to Clearwater		17

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 09-11-2000 Created by: WELL CONST LOAD Updated On: 07-11-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER OG179

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner PIEKARSKI, JAMES

Phone # 8960140

Mailing Address 2538 PEBBLE VALLE RD

City WAUKESHA

State WI

Zip Code 53188

County	Co. Permit #	Notification #	Completed
Waukesha			04-09-2001

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
ROSCHI BROS WELL DRLG & PUMP INC	435	

Well Plan Approval #

Address N10W28210 NORTHVIEW RD
WAUKESHA WI 53188-9401

Approval Date (mm-dd-yyyy)

Hicap Permanent Well #	Common Well #	Specific Capacity

3. Well serves 1 # of

Private,potable

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ?

1. Well Location

Town of DELAFIELD

Fire # (if avail.)

Street Address or Road Name and Number

W295 N1774 PRAIRIE WOOD CT

Subdivision Name	Lot #	Block #
HIGH RIDGE E		

Latitude / Longitude in Decimal Degree (DD)				Method Code
43.0551	°N	-88.3348	°W	GCD013

NE	NE	Section	Township	Range
or Govt Lot #		23	7 N	18 E

2. Well Type New Well

of previous unique well # constructed in

Reason for replaced or reconstructed well ?

NEW CONSTRUCTION

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
6	Surface	360

Upper Enlarged Drillhole		Lower Open Bedrock
	Rotary - Mud Circulation	
Yes	Rotary - Air	No
	Rotary - Air & Foam	
	Drill-Through Casing Hammer	
	Reverse Rotary	
	Cable-tool Bit ____in. dia...	
	Dual Rotary	
	Temp. Outer Casing ____in. dia	
	Removed? ____depth ft. (If NO explain on back side)	

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
-	-	C	G	STONEY CLAY	Surface	69
-	-	H	-	SHALE	69	217
-	-	C	G	STONEY CLAY	217	360

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	BLACK STEEL PIPE, WELDED JOINTS, 18.97 LB. ASTM A53 1780 PSI SAWHILL	Surface	69

Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material

Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
BENTONITE CRUMBLES	Surface	24	

9. Static Water Level

12 ft. below ground surface

10. Pump Test

Pumping level 300 ft. below surface

Pumping at 6 GP M for 2.5 Hrs.

Pumping Method ?

11. Well Is

12 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed?

13. Constructor / Supervisory Driller	Lic #	Date Signed
RR		04-09-2001
Drill Rig Operator	Lic or Reg #	Date Signed
KL		04-09-2001

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		14	Foundation Drain to Clearwater		18

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 10-02-2001 Created by: WELL CONST LOAD Updated On: 07-11-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER ON879

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner SIGNATURE BUILDERS

Phone # (262)691-4440

Mailing Address N18 W29022 GOLF RIDG

City PEWAUKEE State WI Zip Code 53072

County	Co. Permit #	Notification #	Completed
Waukesha			03-12-2001

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
MICHAEL HARTMAN	436	

Well Plan Approval #

Address PO BOX 218
NORTH LAKE WI 53064-0218

Approval Date (mm-dd-yyyy)

Hicap Permanent Well #	Common Well #	Specific Capacity
		0.1

3. Well serves 1 # of HOME

Private,potable

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ?

1. Well Location

Town of DELAFIELD

Fire # (if avail.)

Street Address or Road Name and Number

W295 N1765 PRAIRIE WOOD CT

Subdivision Name	Lot #	Block #
HIGH RIDGE E	34	

Latitude / Longitude in Decimal Degree (DD) 43.0546 °N -88.3359 °W

Method Code GCD013

SE	NW	Section	Township	Range
or Govt Lot #		23	7 N	18 E

2. Well Type New Well

of previous unique well # constructed in

Reason for replaced or reconstructed well ?

NEW HOME

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
6	Surface	325

Upper Enlarged Drillhole

Lower Open Bedrock

Rotary - Mud Circulation ....

Rotary - Air ....

Rotary - Air & Foam ....

Drill-Through Casing Hammer

Reverse Rotary

Cable-tool Bit ____in. dia...

Dual Rotary ....

Temp. Outer Casing ____in. dia

Removed? ____depth ft. (If NO explain on back side)

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
-	-	C	-	SURFACE CLAY	Surface	7
-	-	Y	-	SAND, GRAVEL	7	15
-	-	P	-	HARDPAN	15	53
-	-	H	-	SHALE	53	195
-	-	L	-	LIMESTONE	195	325

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	0.280 A 53 GRB SAWHILL STEEL WELDED	Surface	60

Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material

Method MOUNDED

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
CRUMBLES	Surface		

9. Static Water Level

60 ft. below ground surface

10. Pump Test

Pumping level 180 ft. below surface

Pumping at 11 GP M for 4 Hrs.

Pumping Method ?

11. Well Is

18 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

12. Notified Owner of need to fill & seal ?

Filled & Sealed Well(s) as needed? No

NO WELL

13. Constructor / Supervisory Driller	Lic #	Date Signed
MH		03-13-2001
Drill Rig Operator	Lic or Reg #	Date Signed
JB		07-10-2001

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Building Overhang		8	Collector Sewer - San or Storm		148
Clearwater Sump		25	Foundation Drain to Clearwater		10
			Sewer - Building Sanitary		22

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 08-23-2001 Created by: WELL CONST LOAD Updated On: 07-12-2019 Updated by: PARCEL_MATCH

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER **YX894**

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner DAYSPRING BAPTIST CHURCH

Phone #

Mailing Address N14 W79503 SILVERNAIL RD

City DELAFIELD State WI Zip Code 53018

County	Co. Permit #	Notification #	Completed
Waukesha			05-18-2018

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
D & D WELL & PUMPS LLC	7181	268680280

Well Plan Approval # 685014362

Address N6331 COUNTY F
OCONOMOWOC WI 53118

Approval Date (mm-dd-yyyy) 04-03-2018

Hicap Permanent Well #	Common Well #	Specific Capacity
92243		0.4

3. Well serves 1 # of CHURCH SCHOOL
Non-community School
Heat Exchange____# of drillholes

Hicap Well ? Yes
Hicap Property ? Yes
Hicap Potable ? No

1. Well Location

Town of DELAFIELD

Fire # (if avail.) N14 W29503

Street Address or Road Name and Number
SILVERNAIL RD

Subdivision Name	Lot #	Block #

Latitude / Longitude in Decimal Degree (DD)		Method Code
43.0491 °N	-88.3334 °W	GPS008

SW	SE	Section	Township	Range
or Govt Lot #		23	7 N	18 E

2. Well Type New Well
of previous unique well # constructed in

Reason for replaced or reconstructed well ?

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
12.25	Surface	26
12	26	241
8	241	745

Upper Enlarged Drillhole		Lower Open Bedrock
Yes	Rotary - Mud Circulation	No
No	Rotary - Air	Yes
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
No	Dual Rotary	No
Yes	Temp. Outer Casing 12in. dia	
No	Removed? 26depth ft. (If NO explain on back side)	

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		Y	G	Y-SAND & GRAVEL G-W/GRAVEL/COBBLES/BOULDERS/STONES	Surface	26
		L		L-LIMESTONE/DOLOMITE	26	60
		H	L	H-SHALE L-LIMEY OR DOLOMITIC	60	195
		L		L-LIMESTONE/DOLOMITE	195	505
		N		N-SANDSTONE	505	745

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
8	STEEL 28.55 # A53-B IPSCO WELDED	Surface	241
Dia. (in.)	**Screen type, material & slot size**	**From (ft.)**	**To (ft.)**

7. Grout or Other Sealing Material

Method

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
PORTLAND CEMENT	Surface	241	200 S

9. Static Water Level
318 ft. below ground surface

10. Pump Test
Pumping level 505 ft. below surface
Pumping at 75 GP M for 2 Hrs.
Pumping Method ? Airlift

11. Well Is
18 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ? No
NO WELL

Filled & Sealed Well(s) as needed? No
NO WELL

13. Constructor / Supervisory Driller	Lic #	Date Signed
DJ	5694	05-18-2018
Drill Rig Operator	**Lic or Reg #**	**Date Signed**

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
Grease Trap		72	Sewer - Building Sanitary		40
POWTS dispersal component (soil absorption unit or mound)	>	600	Septic or Holding, or POWTS Tank	>	600

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On:	07-13-2018	Created by:	CHARMCAFEE	Updated On:	07-12-2019	Updated by:	PARCEL_MATCH_LL_OK

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER ZW994

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707

Form 3300-077A

Property Owner	KINGS WAY HOMES / CRAMER, GARTH & KIM
Phone #	(414)303-8638
Mailing Address	700 PILGRIM PARKWAY
City	ELM GROVE
State	WI
Zip Code	53122
County	Waukesha
Co. Permit #	
Notification #	7719574802
Completed	08-14-2019

1. Well Location

Town of DELAFIELD	
Fire # (if avail.)	N12 W29556
Street Address or Road Name and Number	SOUTHAMPTON DRIVE
Subdivision Name	
Lot #	
Block #	

Well Constructor (Business Name)	Lic. #	Facility ID # (Public Wells)
HERR WELL DRILLING INC	672	

Well Plan Approval #

Address W295 HERR RD
DOUSMAN WI 53118-9407

Approval Date (mm-dd-yyyy)

Latitude / Longitude in Decimal Degree (DD)		Method Code
43.0471 °N	-88.3348 °W	GPS008

SE	SW	Section	Township	Range
or Govt Lot #		23	7 N	18 E

Hicap Permanent Well #	Common Well #	Specific Capacity
		0

2. Well Type New Well

of previous unique well # constructed in

Reason for replaced or reconstructed well ?

3. Well serves 1 # of HOME

Private,potable

Heat Exchange____# of drillholes

Hicap Well ? No

Hicap Property ? No

Hicap Potable ? No

Construction Type Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
8.75	Surface	62
6	62	165

Upper Enlarged Drillhole		Lower Open Bedrock
Yes	Rotary - Mud Circulation	Yes
No	Rotary - Air	No
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
No	Dual Rotary	No
No	Temp. Outer Casing ____in. dia	
No	Removed? ____depth ft. (If NO explain on back side)	

8. Geology

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		C		C-CLAY	Surface	15
		X	G	X-SAND & CLAY G-W/GRAVEL/STONES	15	45
		L		L-LIMESTONE/DOLOMITE	45	50
		H		H-SHALE	50	60
		L	H	L-LIMESTONE/DOLOMITE H-SHALEY	60	140
	B	L		B-BROKEN L-LIMESTONE/DOLOMITE	140	153
		H		H-SHALE	153	165

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	18.97 LBS PER FT, NEW STEEL PLAIN END, ASTM A53 GRADE B, IPSCO TUBULAR, 2660 PSI	Surface	62

Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material

Method BRADENHEAD

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
NEAT CEMENT GROUT	Surface	62	20 S

9. Static Water Level

65 ft. below ground surface

10. Pump Test

Pumping level 105 ft. below surface

Pumping at 20 GP M for 3 Hrs.

Pumping Method ? Airlift

11. Well Is

16 in. above grade

Developed ? Yes

Disinfected ? Yes

Capped ? Yes

12. Notified Owner of need to fill & seal ? No

NONE

Filled & Sealed Well(s) as needed? No

NONE

13. Constructor / Supervisory Driller	Lic #	Date Signed
GSD	6676	08-15-2019
Drill Rig Operator	Lic or Reg #	Date Signed
DJD	8131	08-15-2019

4a. Potential Contamination Sources Is the well located in floodplain ? No

Type	Qualifier	Distance	Type	Qualifier	Distance
POWTS dispersal component (soil absorption unit or mound)		135	Septic or Holding, or POWTS Tank		120

Comment:

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Created On: 08-15-2019 Created by: JohnCHerr Updated On: 08-21-2019 Updated by: WELL PROCESS

ATTACHMENT 2

Response to Southeastern Wisconsin Regional Planning Commission Comments to GZA's Hydrogeologic Assessment Report, dated July 14, 2023

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F: 262.923.7758
www.gza.com

July 14, 2023
File No. 20.0158210.00

Mr. Bryan Lindgren
Neumann Developments, Inc.
N27W24025 Paul Court, Suite 100
Pewaukee, Wisconsin 53072-6329

Re: Response to Southeastern Wisconsin Regional Planning Commission Comments
to GZA's Hydrogeologic Assessment Report
Proposed Thomas Farms Subdivision Development
Town of Delafield, Wisconsin

Dear Mr. Lindgren:

GZA GeoEnvironmental, Inc. (GZA), at the request of Neumann Developments, Inc. (Neumann Developments), prepared a Hydrogeologic Assessment Report, dated March 24, 2023,[1] for the Proposed Thomas Farms Subdivision Development ("Development") in the Town of Delafield, Wisconsin. The purpose of the hydrogeologic assessment was to evaluate the effects of the proposed Development on the groundwater levels due to pumping. This assessment included a review of the geologic and hydrogeologic information available for this area, and the details about the proposed Development, including the number and locations of the new dwellings. As part of this assessment, GZA estimated the drawdown of each well at the individual property boundaries using a Theis analytic solution for pumping wells.

In an electronic mail message, dated April 25, 2023, Ms. Laura K. Herrick, Chief Environmental Engineer at the Southeastern Wisconsin Regional Planning Commission (SEWRPC), provided comments regarding GZA's Hydrogeologic Assessment Report to both Waukesha County and Neumann Developments. GZA reviewed these comments and is providing further clarification to and evaluation of the comments. SEWRPC's comments included general statements regarding the assumptions used in the Hydrogeologic Assessment Report and specific comments for further evaluation. The specific SEWRPC comments to GZA's Hydrogeologic Assessment Report for further evaluation are summarized below.

1. The report alternately identifies the Maquoketa Shale as permeable for well purposes, but impermeable for influence on near surface aquifers - it cannot be both. Typically, the Maquoketa Shale is not considered an aquifer in our Region. If it is permeable via fracturing and an acceptable residential water supply, then it can pull water from the overlying glacial deposits, is likely easily contaminated, and has significant potential impact to surface water resources. If it is impermeable, then it would not be a reliable water supply to the new homes.
2. The GZA report does not evaluate the cumulative impact of all 183 wells at the proposed Development parcel boundaries as is done in Richfield; it is not possible to determine or comment on the overall potential for pumping impact of this proposed Development on neighboring parcels.

---

[1] *Hydrogeologic Assessment Report, Proposed Thomas Farm Subdivision Development, Town of Delafield, Wisconsin*, dated March 24, 2023, GZA File No. 20.0158210.00.

The following sections of this letter are intended to provide GZA's response to SEWRPC's comments and provide clarification of the information in GZA's Hydrogeologic Assessment Report.

BEDROCK GEOLOGY AND HYDRAULIC PROPERTIES

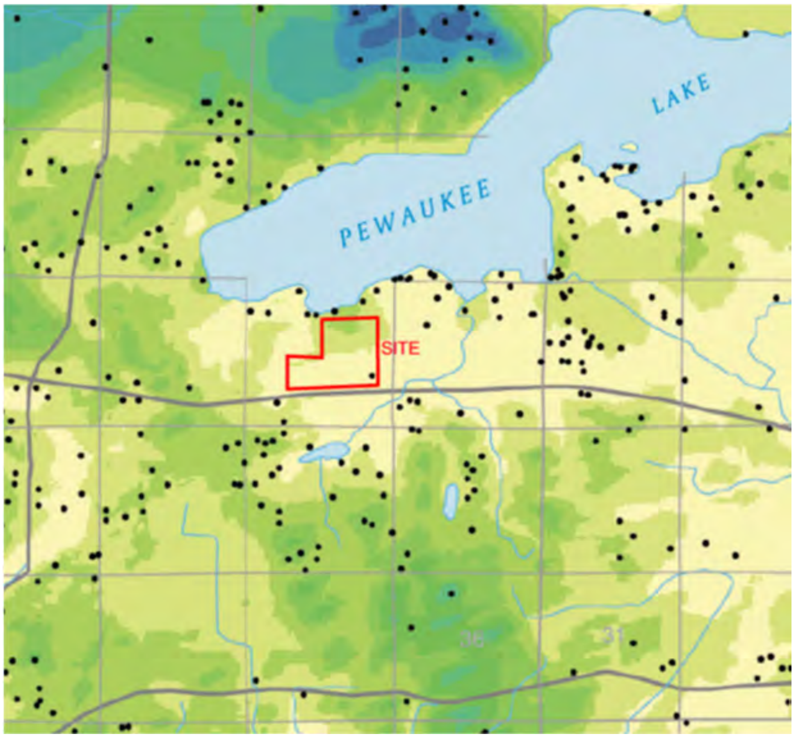
Bedrock formations in southeastern Wisconsin dip to the east at approximately 45 feet per mile. The bedrock has been eroded by the glacial and fluvial processes. As shown on the Preliminary Bedrock Geologic Map of Waukesha County, Wisconsin[2] below, in the site area, the youngest bedrock units encountered consist of Silurian-age dolomite (light green color) underlain by the Ordovician-age Maquoketa Shale (gray color). The Silurian-age dolomite has been eroded in the portion of Waukesha County in the vicinity of the Proposed Thomas Farms Subdivision Development and consists of a thin layer over the Maquoketa Shale or is completely eroded. As shown on the map below, the Silurian dolomite is completely eroded beneath Pewaukee Lake to the north and, therefore, the Maquoketa shale is the first bedrock unit encountered.

In the area of Thomas Farms, surficial deposits overlay the bedrock. A review of the depth to bedrock map for this area, as provided below, indicates the thickness of the unconsolidated deposits is less than 50 feet (yellow color) with increasing thickness to the south (green colors) across the highway up to 50 to 150 feet in thickness.[3] Due to the limited saturated thickness in the area of the Thomas Farms property, the unconsolidated deposits are not considered to be used for drinking water purposes.

---

[2] Massie-Ferch, K.M. and Peters, R.M., *Preliminary Bedrock Geologic Map of Waukesha County, Wisconsin*, Wisconsin Geological and Natural History Survey, Open-File Report-2004-15A, 2004.

[3] Ibid.



GZA reviewed water well drilling logs for 20 potable drinking water wells in the area of the proposed Development that extend through the Maquoketa Shale to evaluate the thickness of the Maquoketa Shale and the underlying bedrock. The well logs obtained and reviewed by GZA were immediately adjacent to the site to the east, north, west, and south. Based on a review of the drilling logs, the lithology consists of:

- Varying thicknesses of unconsolidated deposits were encountered over the bedrock. The thickness of these deposits varied with location. To the south of the site, the elevation increases due to a thickening of the unconsolidated deposits. The thickness of the unconsolidated deposits northeast of the site is less than 15 feet and generally between 3 and 8 feet thick. The thicknesses of the unconsolidated deposits northwest and southwest of the site generally range from 20 to 50 feet.
- A thin layer of Silurian dolomite appears to be present in wells east of the site at a thickness of 10 to 30 feet, but is not present in wells west of the site. As confirmed on the bedrock map above, it appears that the site overlies the transition area in which the Silurian dolomite is completely eroded and the Maquoketa Shale is the first bedrock encountered.
- The drilling logs reviewed indicate that the transition from Silurian dolomite to Maquoketa Shale is represented as an alternating and interbedded sequence of shale and dolomite. The thickness of the Maquoketa Shale was evaluated in drilling logs that indicated the presence of the overlying Silurian dolomite and the underlying Ordovician dolomite so that the entire Maquoketa Shale sequence was reasonably present in the drilling logs. These criteria were present in eight of 20 drilling logs and the Maquoketa Shale ranged in thickness from 160 to 220 feet.
- The Ordovician-age Sinnipee Group dolomite was present in 12 of 20 drilling logs and the thicknesses ranged from 195 to 310 feet. However, the thickness in most wells where the Sinnipee Group dolomite was encountered ranged between 203 and 249 feet.

A review of the drilling logs for 40 potable drinking water wells in the immediate area surrounding the site indicates that these wells are generally constructed to depths of approximately 200 to 250 feet below ground surface (bgs). The wells are cased with steel pipe from ground surface into the bedrock at which depth the wells are completed as open boreholes. Most of the wells are cased to a depth at which the bedrock is described as shale and limestone or shale. For the purposes of this study, these units were interpreted as the Maquoketa Shale.

In a report prepared for the University of Wisconsin Water Institute, Eaton et al. (2000)[4] evaluated the hydraulic conductivity and specific storage of the Maquoketa Shale in Waukesha County. The conclusion of this study identified that the upper 100 feet of the Maquoketa Shale is a dolomitic shale with significant bedding plane fractures and vertical fractures that are well connected to the Silurian dolomite. These fractures increase the transmissivity of the bedrock. This study also concluded that the lower portion of the Maquoketa Shale contains more shale and does act as a confining unit over the low hydraulic conductivity Ordovician dolomite and the underlying sandstone, which is a major aquifer. The upper portion is not considered an aquifer for municipal water supplies, but is sufficient to support individual households, as evidenced by the depth of the existing potable wells in the area. Residential developments are located to the east, west, and north with wells completed in the Maquoketa Shale.

UNCONSOLIDATED DEPOSITS

GZA reviewed well drillers' logs to evaluate the static water levels, as recorded by the driller, to determine if the surface water on the property is in contact with the regional aquifer or aquifer within the upper portion of the Maquoketa Shale. Based on the static water levels recorded by the well drillers, the depth to groundwater appears to be within the Maquoketa Shale to the north, west, and east of the Thomas Farms property. The groundwater in the potable wells is generally reported to be at a depth of 20 to 30 feet bgs, or deeper, which confirms separation between surface water and the upper Maquoketa Shale aquifer.

Surface water in this area is recharged from overland flow of stormwater runoff and is generally not recharged from groundwater unless there are stratified unconsolidated deposits that cause infiltrating water to be perched and discharged to surface water. As previously noted, the perched groundwater in the unconsolidated deposits is not used for potable drinking water purposes in this area. Groundwater in this area will also be recharged through infiltration and the underlying bedrock aquifer will be recharged, to some degree, through the vertical fractures. In addition, Pewaukee Lake is a constant head boundary that recharges the bedrock upper Maquoketa Shale through bedding plane fractures and unconsolidated deposits in the area.

POTABLE WELL CONSTRUCTION

A review of the well drillers' logs indicates that the potable drinking water wells are generally completed in the Maquoketa Shale for the subdivisions that are adjacent to the Thomas Farms property. These wells have steel casing that extends from the surface into the bedrock which eliminates direct communication of the wells with the surface water. As indicated above, the static water levels reported are generally within the bedrock indicating that there is not groundwater perched on the bedrock. The wells are completed as open borehole completions allowing water from the entire thickness of bedrock to flow into the well.

There is residential development to the east, west, and north of the proposed Development. Potable water for each of the residential properties is supplied by a potable drinking water well. There is a higher density of development north of the Thomas Farms property along Pewaukee Lake, with lower density residential development to the east and west. The properties to the north, along Pewaukee Lake, have been developed for more than 50 years, while the developments to

---

[4] Eaton, Timothy, Hart, D., Bradbury, Ken, and Wang, Herbert, 2000, *Hydraulic conductivity and specific storage of the Maquoketa shale*.

the east and west have been developed within the last 20 years. The long-term use of groundwater on the properties has not had a detrimental effect on the groundwater levels in this area.

Based on review of the available information, and as presented herein, GZA believes:

- The Maquoketa Shale is used as a drinking water source in this area;
- Pumping from the Maquoketa Shale will not adversely affect the surface water in this area; and
- Construction of wells that have casing into bedrock allows for protection of shallow perched groundwater.

Therefore, this Development will not adversely affect the groundwater in this area.

CUMULATIVE DRAWDOWN EVALUATION

SEWRPC's comments included that the cumulative impacts of the pumping for this subdivision be evaluated to understand the drawdown at the subdivision boundaries. GZA completed this evaluation, as described in this section.

For this evaluation, GZA divided the subdivision into 11 separate areas, designated as Areas A through K, each with a central well. The water usage for each lot within the respective area was assigned to the central well. To evaluate the cumulative drawdown for the proposed development, GZA also established 11 points, designated as 1 through 11, around the perimeter. The attached **Figure 1** shows the areas and the point around the perimeter. The details of each well are summarized in the table below.

Group	No. of Single-Family Homes Per Group	No. of Condominium Buildings Per Group	No. of People Per Group	Well Discharge (gpm) Per Group (assuming 77 gpcd)	Well Discharge (gpm) Per Group (assuming 125 gpcd)
A	0	9	54	2.89	4.69
B	0	11	66	3.53	5.73
C	5	8	63	3.37	5.47
D	10	0	30	1.60	2.60
E	11	0	33	1.76	2.86
F	11	0	33	1.76	2.86
G	40	0	120	6.42	10.42
H	30	0	90	4.81	7.81
I	32	0	96	5.13	8.33
J	8	0	24	1.28	2.08
K	8	0	24	1.28	2.08

The aquifer properties used for this evaluation were the same as the properties used in the Hydrogeologic Assessment Report. Each well was assumed to pump at a constant rate based on the number of people and the average water usage per capita per day and the pumping scenario was assumed to be over a 50-year period.

As discussed in our Hydrogeologic Assessment Report, GZA calculated a transmissivity value of 2,500 gallons per day per foot (gpd/ft), used an aquifer thickness value of 167 feet, and used a storage coefficient value of 7.13×10^{-5} ft^{-1}. Based on a review of the US Census' five-year estimate (2017-2021) demographics for the Town of Delafield, each home has an average of 2.75 individuals; however, for this evaluation, GZA used a conservative value of three individuals per single-family home and condominium unit or six individuals per condominium building. To calculate the drawdown, GZA assessed cumulative drawdown at the property boundary using a water usage per capita of 77 gpd/person.

The drawdown was conservatively calculated without considering the return of water to the groundwater system through stormwater retention or recharge.

The drawdown was calculated at each of the 11 perimeter points for each well. The cumulative drawdown was calculated at each point by summing the drawdowns for each well. The cumulative drawdown calculated at each point is summarized in the table below.

Point	Cumulative Drawdown (assuming 77 gpd/Capita [feet])
1	18.06
2	17.81
3	17.65
4	17.77
5	18.48
6	18.38
7	17.71
8	17.89
9	17.51
10	16.95
11	17.53
Average	**17.80**

GZA believes this a conservatively high estimate for cumulative drawdown because of the assumptions used in this evaluation for per capita water usage and no groundwater recharge. In the proposed Development plan, there are approximately 74 acres of open space that will not be developed, which will promote groundwater recharge. Any recharge from infiltration will result in a lower cumulative drawdown.

Based on the conservative cumulative drawdown over a 50-year period, the proposed Development will not adversely affect either the groundwater or surface waters in the area of the proposed Development.

We trust this supplemental information will meet your needs. Should you, however, have any further questions regarding this information, please feel free to contact the undersigned below.

Sincerely,

GZA GeoEnvironmental, Inc.

Kevin M. Hedinger
Senior Hydrogeologist
Kevin.hedinger@gza.com

S Stephenson
Sheryl I. Stephenson, P.G.
Project Hydrogeologist
Sheryl.stephenson@gza.com

James Drought
James F. Drought, P.H.
Principal Hydrogeologist
James.drought@gza.com

J:\158200to158299\158210\Report\Response Letter\FINAL 20.0158210.00 Response to SEWRPC Comments_Town of Delafield WI 7-14-23.docx

Attachment: Figure 1

OPEN SPACE DATA TABLE - Welshire Farm Date: 3/17/2023

Proposed Zoning = PLANNED DEVELOPMENT DISTRICT #1

ZONE	Total Area	Lowland Area	Upland PEC	SUB-TOTAL Development Area (non-EC)	*Incremental Development Area (non-EC)*	PROPOSED USE	Required Open Space	REQUIRED NET OPEN SPACE*	NET OPEN SPACE PROVIDED *	
	(acres)	(acres)	(acres)	(acres)	*(acres)*		(% of site*)	(acres)	(acres)	(%)
1	23.20	3.96	11.72	7.50		Single-Family Low Density	30.0%	6.96	15.31	66.0%
2	29.94	0.90	9.94	19.10		Residential Single-Family Low-Medium Density (15,000)	30.0%	8.98	16.04	53.6%
3	50.08	3.77	5.85	40.46	*22.97*	Condominimum (4 un/ac) **	60.0%	19.56	19.56	60.0%
					17.49	Single-Family Medium Density (10,000)	35.0%	6.12	6.16	35.2%
4	47.83	1.45	3.09	43.30		Single-Family Medium Density (10,000)	35.0%	16.74	17.00	35.6%
SUBTOTAL	151.05	10.09	30.60	110.36			38.6%	58.36	74.07	49.0%

* Net Open Space for whole development site. Accounts for Lowland Area multiplied by 0.2. Single family open space is in Outlots. Condo open space is common area.

** Condo Net Open Space based on: Gross Area = 50.08 ac - 17.49 ac = 32.59 ac. Open Space includes (3.77 ac lowland x 0.2) + 18.19 ac of common area + a portion of OL 4 (0.5 ac) + a portion of OL 8 (0.12 ac) within Zone 3 - said OL areas flanking entry area at Clubhouse and provided for common use, to satisfy Net Open Space requirements.

Open Space Plan Legend

🟦	**Wetlands** (Heartland Ecological Group Inc, July 2022)
▨	**Primary Environmental Corridor (PEC)** (Heartland Ecological Group Inc, July 2022)
🟩	Treelines & Other wooded areas to be preserved (OS)
🟧	**Landscape Buffer (LB)**
🟩	Open Space Areas for Development Site Calculations - Single family in Outlot - Condo is common area

TRIO
DESIGN · LAND SURVEYING · CIVIL ENGINEERING

4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
(262) 790-1480
info@trioeng.com

Map 2

OPEN SPACE AND NATURAL RESOURCE PROTECTION PLAN

Welshire Farm Development

Town of Delafield, Waukesha County, Wisconsin

NEUMANN DEVELOPMENTS, INC.

Scale: 1" = 150' (22"X34")
Scale: 1" = 300' (11"X17")
DATE: 03/17/2023

ATTACHMENT 3

Response to Southeastern Wisconsin Regional Planning Commission Considerations, dated October 16, 2023

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www.gza.com

October 16, 2023
File No. 20.0158210.00

Mr. Bryan Lindgren
Neumann Developments, Inc.
N27W24025 Paul Court, Suite 100
Pewaukee, Wisconsin 53072-6329

Re: Response to Southeastern Wisconsin Regional Planning Commission Considerations
Proposed Thomas Farm Subdivision Development
Town of Delafield, Wisconsin

Dear Mr. Lindgren:

GZA GeoEnvironmental, Inc. (GZA) is submitting this letter as clarification to considerations provided by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) regarding the groundwater evaluation for the proposed Thomas Farm property in the Town of Delafield, Wisconsin. The SEWRPC considerations were in response to GZA's letter dated July 14, 2023 ("July 2023 Letter"), which presented the results of a cumulative impacts evaluation and the estimated drawdown calculated at points along the development boundary.

The SEWRPC considerations provided concurrence on certain conclusions in GZA's July 2023 Letter, and identified areas of suggested further evaluation that could be considered. SEWRPC's comments were prepared and transmitted in an August 3, 2023 email from Mr. Dale Buser of SEWRPC to Mr. Jason Fruth of Waukesha County. The email contained 11 considerations. These considerations were discussed in a meeting on September 7, 2023 with Waukesha County, Neumann Development, Inc., GZA, Town of Delafield, representatives of the property owner, and SEWRPC. This letter provides clarification and addresses the considerations identified in the email.

The considerations can be categorized into three broad areas, including the cumulative drawdown at the property boundary and its influence on regional groundwater elevations, well construction and groundwater volume, stormwater planning and influence of groundwater on the shallow surface water features on and around the Thomas Farm property.

CUMULATIVE IMPACT OF GROUNDWATER PUMPING WITH INFILTRATION

GZA evaluated the cumulative drawdown from 11 pumping wells on the Thomas Farm property at 11 points around the perimeter of the property. In the original evaluation, GZA assumed no groundwater recharge across the proposed development, which resulted in a conservatively high estimate for drawdown. Based on a review of the proposed development and site surface water features, there is likely significant groundwater recharge across the site due to the presence of stormwater features and natural surface water retention features such as wetlands.

Based on stormwater calculations developed as part of the development plan, the total post-development infiltration volume is estimated to be 13,398,000 cubic feet annually. This volume is approximately 90% of the pre-development infiltration volume. The post-development infiltration volume was used to re-evaluate the drawdown at the perimeter of the proposed development.

The same methodology used in previous calculations of drawdown was used in this evaluation. Hydrogeologic parameters were estimated from available information or publicly available sources and were used as variables in the Theis analytical solution. The Theis analytical solution provides an estimate of the drawdown at a given point at a distance from the pumping well for a given pumping rate over a specified time. The cumulative drawdown at the proposed development property boundary was estimated at 11 points by adding the drawdown calculated for each well at that point. **Figure 1** shows the proposed development, cumulative impact well locations, and property boundary drawdown measurement points.

To apply the infiltration volume to the Theis solution, the volume was divided among the 11 pumping wells and applied to each pumping well. Applying the appropriate volume of water to each well, in gallons per minute, resulted in a reduction in the pumping rate in each well.

The calculated drawdown, if considering infiltration, indicates that the drawdown at the property boundary would be approximately 4 to 5 feet. As previously stated, this drawdown is in comparison to 17 to 18 feet of drawdown when groundwater recharge is not considered. This evaluation including infiltration is considered to be an estimate of the conditions based on the hydrologic conditions at the Thomas Farm property. A summary table of the calculated drawdown at each point around the perimeter of the property is included in **Attachment 1**.

This evaluation confirms that groundwater recharge at the property reduces the potential for drawdown in the aquifer. The drawdown calculated from this evaluation indicates that the development will not adversely affect the groundwater elevations and resources in the area. The water supply for the proposed development can be from individual wells completed in the Maquoketa Shale and does not require a community well completed in the deeper sandstone. The proposed development is similar to other developments that were previously constructed in the area and that have not had a detrimental impact on the groundwater elevation or groundwater quality.

The groundwater elevation on the Thomas Farm property is estimated to be at approximately 860 feet above mean sea level (amsl) on the northern portion of the property and an elevation of 852.5 feet amsl for Pewaukee Lake. Since groundwater flow is toward Pewaukee Lake to the north, the groundwater elevation on the southern portion of the property is likely higher than the northern portion. An evaluation of the drawdown at the property boundary indicates that even with a drawdown of 4 to 5 feet, the groundwater elevation is approximately 855 feet amsl. This elevation maintains groundwater flow to the north toward Pewaukee Lake, therefore, it is unlikely that water will flow out of Pewaukee Lake to the proposed development. A review of United States Geological Survey (USGS) monitoring well 425535088131701 in the Silurian-Devonian aquifer indicates the monitoring well has natural groundwater fluctuations up to 10 feet and USGS monitoring wells 430416088144301 and 430416088144301 in the sand and gravel aquifer have natural groundwater fluctuations up to 6 feet. These wells are located east and south of the proposed Thomas Farm development in the Waukesha area. The estimated cumulative drawdown is within this same range of natural groundwater fluctuations measured at the existing wells.

The calculated drawdown for the development including infiltration is limited and the groundwater in bedrock is not in communication with the shallow groundwater. As such, the pumping is not anticipated to affect surface water features such as wetlands, seeps, and springs. In its considerations, SEWRPC identified features on the Pewaukee Golf Club property that could be in communication with groundwater based on an evaluation of the topographic and groundwater elevations. The closest of these features is located approximately 1,600 feet east of wells H, I, and J in GZA's cumulative impact evaluation. Assuming the pumping rate for these wells for the proposed development, GZA calculated the drawdown from these wells at a distance of 1,600 feet. The cumulative drawdown is less than 1 foot at the closest surface water feature on the Pewaukee Golf Club property. Based on this evaluation, when infiltration is included in the cumulative impact evaluation, the impact to surface water features on the Pewaukee Golf Club property is minimal. This evaluation assumes that the groundwater pumping in the proposed wells is in communication with and affects groundwater on the Pewaukee Golf Club property.

COMPARATIVE ANALYSIS OF CUMULATIVE DRAWDOWN FOR EXISTING SUBDIVISION

To evaluate the influence of the proposed Thomas Farm development on the groundwater, an estimate of the cumulative drawdown was calculated for the existing developments east and west of the Thomas Farm property. This cumulative drawdown estimate was calculated using the same methodology that was used for the Thomas Farm site. An estimate of infiltration was not included because it was not available. The calculated cumulative drawdown for these developments is comparable to the cumulative drawdown calculated for the proposed Thomas Farm development without infiltration. For each of these developments, the hydraulic conductivity or transmissivity was estimated from specific capacity tests from an existing well in the development. These estimated values were applied to the respective developments.

For the development to the east, the development was divided into two separate areas and a well was assumed at the center of the area. The water use for the homes in each area were applied to the well and the drawdown was calculated. For the development to the west, the development was divided into four separate areas and a well was assumed at the center of each area. The water use for the homes in each area were applied to the well and the drawdown was calculated. Water use was calculated based on three persons per home at a daily water use of 75 gallons and 125 gallons. This provides a range of water use to estimate drawdown.

For each, development points were identified along the perimeter of the development and the drawdown for each well at the points was calculated. To calculate the cumulative drawdown, the drawdown for each well at the point was summed together.

Based on the estimated aquifer properties and the methodology, the calculated cumulative drawdown for the developments to the east and west were as follows:

Development	Cumulative Drawdown
East	14 to 24 feet
West	7 to 12 feet

As with the calculated cumulative drawdown for the proposed Thomas Farm development, it is assumed that when a similar level of infiltration is used in the calculation, the drawdown will be limited to 4 to 5 feet. However, due to the age of the adjacent developments and changes in stormwater management regulations, it should be assumed that infiltration in the proposed development will be higher than adjacent developments where infiltration practices were not applied. A comparison of the calculated cumulative drawdown for these developments to the proposed Thomas Farm development indicates that, as anticipated, the proposed Thomas Farm development will have a similar influence on the groundwater as the existing developments.

PROPOSED WELL CONSTRUCTION AND WATER SUPPLY

The water supply wells proposed for the proposed development would be completed in accordance with the Wis. Adm. Code NR 812 for the construction of the wells. A review of the potable wells in the area surrounding the Thomas Farm property indicates that most of the wells are completed with 60 feet of well casing. NR 812.14 requires 60 feet of well casing if limestone or dolomite bedrock is encountered at a depth less than 20 feet from the ground surface. It is anticipated and assumed that the wells constructed for the proposed development would be constructed in the same manner. The construction of the wells will be performed by a licensed well driller who will be responsible for conformance to the applicable regulations.

A review of the surrounding wells indicates that these wells are capable of producing an adequate volume of water to support the residential properties. There are residential properties north, west, and east of the Thomas Farm properties that have wells that are constructed similar to the wells proposed for the development. The wells to the north, along Pewaukee Lake, are more closely spaced than the wells for the proposed development.

STORMWATER PLANNING AND GROUNDWATER INFLUENCE

Neumann Developments, Inc. developed a stormwater plan to control and direct stormwater flow with the property. This stormwater plan promotes controlled movement of surface water, reduction in suspended sediment load, promote infiltration, and maintain protective areas. This plan is being prepared in coordination with Waukesha County to meet the requirement of stormwater management for the proposed development. The implementation of this plan will provide protection of groundwater from contaminants.

CONCLUSIONS

Overall, the groundwater evaluation completed for the Thomas Farm property in this letter indicates that the proposed development will have a similar impact on the groundwater elevation as other developments in the area. The drawdown calculated will maintain groundwater flow toward Pewaukee Lake and will not influence surface water on the Thomas Farm property and this evaluation indicates that the proposed development will not affect the surface water on the Pewaukee Golf Club property. The drawdown calculated when including infiltration does not require a community water supply well completed in the deeper sandstone aquifer. The stormwater planning proposed for the property will promote removal of sediment load from stormwater and will promote infiltration of stormwater.

This supplemental information is intended to provide clarification and reevaluation of the considerations presented by SEWRPC. Please review this information and contact Kevin Hedinger at (262) 754-2578 or via email at kevin.hedinger@gza.com with questions.

Sincerely,

GZA GeoEnvironmental, Inc.

James Drought

Kevin M. Hedinger
Senior Hydrogeologist

James F. Drought, P.H.
Principal Hydrogeologist

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Attachment: Figure 1
Calculated Drawdown Summary Table

FIGURES

Figure 1

OPEN SPACE DATA TABLE - Welshire Farm

Date: 3/17/2023

Proposed Zoning = PLANNED DEVELOPMENT DISTRICT #1

ZONE	Total Area	Lowland Area	Upland PEC	SUB-TOTAL Development Area (non-EC)	*Incremental Development Area (non-EC)*	PROPOSED USE	Required Open Space	REQUIRED NET OPEN SPACE*	NET OPEN SPACE PROVIDED *	
	(acres)	(acres)	(acres)	(acres)	*(acres)*		(% of site*)	(acres)	(acres)	(%)
1	23.20	3.98	11.72	7.50		Single-Family Low Density	30.0%	6.96	15.31	66.0%
2	29.94	0.90	9.94	19.10		Residential Single-Family Low-Medium Density (15,000)	30.0%	8.98	16.04	53.6%
3	50.08	3.77	5.85	40.46	*22.97*	Condominimum (4 un/ac) **	60.0%	19.56	19.56	60.0%
					17.49	Single-Family Medium Density (10,000)	35.0%	6.12	6.16	35.2%
4	47.83	1.45	3.09	43.30		Single-Family Medium Density (10,000)	35.0%	16.74	17.00	35.6%
SUBTOTAL	151.05	10.09	30.60	110.36			38.6%	58.36	74.07	49.0%

* Net Open Space for whole development site. Accounts for Lowland Area multiplied by 0.2 Single family open space is in Outlots. Condo open space is common area.

** Condo Net Open Space based on: Gross Area = 50.08 ac - 17.49 ac = 32.59 ac. Open Space includes (3.77 ac lowland x 0.2) + 18.19 ac of common area + a portion of OL 4 (0.5 ac) + a portion of OL 8 (0.12 ac) within Zone 3 - said OL areas flanking entry area at Clubhouse and provided for common use, to satisfy Net Open Space requirements.

Open Space Plan Legend

🟦	**Wetlands** (Heartland Ecological Group Inc, July 2022)
▨	**Primary Environmental Corridor (PEC)** (Heartland Ecological Group Inc, July 2022)
🟩	Treelines & Other wooded areas to be preserved (OS)
🟧	**Landscape Buffer (LB)**
🟩	Open Space Areas for Development Site Calculations - Single family in Outlot - Condo is common area

Map 2
OPEN SPACE AND NATURAL RESOURCE PROTECTION PLAN
Welshire Farm Development
Town of Delafield, Waukesha County, Wisconsin

ATTACHMENT 1

Calculated Drawdown Summary

CALCULATIONS OF DRAWDOWN AT POINT 1											
	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 1	625	515	985	1335	1075	1040	2775	1635	1585	1995	900
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 1 (feet)	0.43	0.54	0.47	0.21	0.24	0.24	0.74	0.61	0.65	0.16	0.18
Cumulative drawdown at point 1 (feet):											**4.46**

CALCULATIONS OF DRAWDOWN AT POINT 2											
	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 2	1175	635	515	1005	1010	1295	1890	2420	2385	2765	1430
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 2 (feet)	0.39	0.52	0.51	0.22	0.24	0.23	0.79	0.57	0.61	0.15	0.17
Cumulative drawdown at point 2 (feet):											**4.40**

CALCULATIONS OF DRAWDOWN AT POINT 3											
	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 3	1395	885	345	490	775	1230	2145	2755	2865	3320	2110
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 3 (feet)	0.38	0.50	0.55	0.25	0.25	0.23	0.77	0.55	0.58	0.14	0.16
Cumulative drawdown at point 3 (feet):											**4.36**

CALCULATIONS OF DRAWDOWN AT POINT 4											
	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 4	1215	995	775	295	440	790	1850	2495	2770	3315	2400
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 4 (feet)	0.38	0.49	0.48	0.27	0.28	0.25	0.79	0.56	0.59	0.14	0.15
Cumulative drawdown at point 4 (feet):											**4.39**

CALCULATIONS OF DRAWDOWN AT POINT 5											
	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 5	700	865	1055	850	510	195	1165	1815	2165	2740	2105
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 5 (feet)	0.42	0.50	0.46	0.23	0.27	0.31	0.86	0.60	0.62	0.15	0.16
Cumulative drawdown at point 5 (feet):											**4.56**

CALCULATIONS OF DRAWDOWN AT POINT 6											
	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 6	925	1515	1935	1850	1470	1005	550	985	1535	2145	2120
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 6 (feet)	0.40	0.45	0.41	0.20	0.23	0.24	0.97	0.66	0.66	0.15	0.15
Cumulative drawdown at point 6 (feet):											**4.54**

CALCULATIONS OF DRAWDOWN AT POINT 7											
	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 7	1635	2285	2675	2650	2260	1795	915	695	1320	1840	2390
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 7 (feet)	0.37	0.42	0.39	0.19	0.21	0.22	0.90	0.70	0.67	0.16	0.15
Cumulative drawdown at point 7 (feet):											**4.37**

CALCULATIONS OF DRAWDOWN AT POINT 8											
	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 8	1905	2415	2940	3065	2670	2260	1195	545	680	1000	2020
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 8 (feet)	0.36	0.42	0.38	0.18	0.20	0.21	0.86	0.73	0.75	0.18	0.16
Cumulative drawdown at point 8 (feet):											**4.42**

CALCULATIONS OF DRAWDOWN AT POINT 9

	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 9	2155	2575	3110	3225	2950	2610	1595	1035	600	375	1760
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 9 (feet)	0.35	0.41	0.38	0.18	0.20	0.20	0.82	0.66	0.77	0.21	0.16
										Cumulative drawdown at point 9 (feet):	**4.32**

CALCULATIONS OF DRAWDOWN AT POINT 10

	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 10	2220	2450	2935	3265	2955	2730	1965	1645	1010	580	1215
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 10 (feet)	0.35	0.41	0.38	0.18	0.20	0.20	0.79	0.61	0.71	0.19	0.17
										Cumulative drawdown at point 10 (feet):	**4.19**

CALCULATIONS OF DRAWDOWN AT POINT 11

	Well Group										
Variables	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
Well Discharge (gpm)	0.71	0.87	0.83	0.40	0.44	0.44	1.58	1.19	1.27	0.32	0.32
Distance to Point 11	1425	1315	1675	2096	1985	1860	1695	1905	1545	1710	215
Storage	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713	0.0000713
Transmissivity (gpd/ft)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
50 year pumping period (days)	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250	18250
Drawdown at Point 11 (feet)	0.37	0.46	0.42	0.19	0.22	0.22	0.81	0.59	0.66	0.16	0.22
										Cumulative drawdown at point 11 (feet):	**4.33**

ATTACHMENT 4

Email Response to SEWRPC Comments, dated November 28, 2023

From: Kevin Hedinger
Sent: Tuesday, November 28, 2023 2:45 PM
To: Bryan Lindgren <blindgren@neumanncompanies.com>
Subject: RE: Thomas Property Development, Town of Delafield

Bryan:

I reviewed the information and have a few comments about the information contained in the Waukesha County Memo dated November 20, 2023.

In the memo, SEWRPC indicates that to maintain pre-development groundwater elevations and flow paths that groundwater recharge should strive to increase from 63.3 acre-feet to 117.8 acre-feet. This is a 46% increase in groundwater recharge.

It is not a reasonable standard for the development that it should have no impact on the groundwater elevations. Groundwater will be used in the development that cannot be returned to groundwater because it is consumed by residents. A more reasonable approach for this evaluation is to minimize the impact to groundwater elevations by maximizing infiltration which also increases the potential for groundwater recharge.

I confirmed the calculations for groundwater recharge and well pumping in the SEWERPC portion of the memo. The groundwater recharge number assumed by SEWRPC is from a modeling document that was performed and compared several methods of estimating groundwater recharge. The estimated groundwater recharge used by SEWERPC is 5 inches/year which seems on the low end for this area given that there are wetland and vegetated area in and around the Thomas Farms site. In the SEWERPC document referenced for groundwater recharge, it appears that there is a range of 5 to 7 inches/year of recharge in this area. The groundwater recharge, using 5 inches/year for the Thomas Farms site is 63.3 acre-feet. The pumping results in a withdrawal of 54.5 acre-feet. There is a net recharge of about 8 acre-feet to the groundwater.

If the recharge is increased to the upper limit of the estimated recharge, 7 inches/year, there is 88.6 acre-feet of groundwater recharge and still 54.5 acre-feet of groundwater pumping. This results in a net groundwater recharge of 34 acre-feet.

The infiltration, as estimated for the post-development, is approximately 94% of the pre-development infiltration.

Based on this review, it appears that the development is designed to minimize the impact to the groundwater elevations by maximizing the infiltration, and thus the potential for groundwater recharge. The previous evaluation by GZA calculated the drawdown to be 4 to 5 feet at the property boundary when considering infiltration. Groundwater will be consumed by the residents of the development and will not be returned to the groundwater therefore, the groundwater elevations cannot be maintained at pre-development elevations.

Let me know if you have any questions.

Thanks!

Kevin M. Hedinger
Senior Project Manager/ Hydrogeologist
Direct: 262-754-2578
Cell: 262-424-1761

From: Bryan Lindgren
To: Dan Green
Cc: Barbeau, Tim
Subject: FW: Question from Commissioner Dickenson
Date: Thursday, January 11, 2024 12:37:08 PM

Hi Dan and Tim,

See below. It sounds like there is some confusion by the plan commissioners about how many wells were evaluated and used or not used in the reports. If the question is simply how many people went into the deep sandstone with their well, it sounds like the answer is 7 out of 148 wells. These 7 wells were excluded because the questions from SEWRPC and others were to prove that the shallower wells had sufficient water supply.

Hope this info helps answer Nicole's question.

Bryan Lindgren
President
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From: Kevin Hedinger <Kevin.Hedinger@gza.com>
Sent: Thursday, January 11, 2024 9:27 AM
To: Bryan Lindgren <blindgren@neumanncompanies.com>
Subject: RE: Question from Commissioner Dickenson

Bryan:

I think this questions came out of the original letter at the bottom of Page7 and top of Page 8. In these paragraphs there is an itemization of the wells that were reviewed and a brief narrative of the disposition of the wells with regard to the evaluation. After reviewing this letter again, I am not sure where the 29 wells that was referenced at the meeting came from because I don't see that number of wells referenced in our documentation but below is a further explanation of the wells used in the evaluation and the rationale for not using certain wells.

A total of 148 individual well records were retrieved and reviewed from the WDNR Well Driller Viewer for the area around the Thomas Farms property. The well records provide hydraulic information that can be used to estimate the transmissivity which is used to calculate drawdown and also to understand the soil or bedrock units that are present at each location.

A review of the individual well records in the area surrounding Thomas Farms indicated that most wells for the existing residential properties were completed in the Maquoketa Shale at a depth of approximately 200 feet bgs therefore, this was assumed to be the same for the Thomas Farms proposed development and hydraulic information was gathered from wells at this depth..

Below is the breakdown provided in the letter and additional information about the well records referenced.

- Of the 148 records, 39 individual well records were excluded from this evaluation "due to lack of drawdown information" and were not useful to estimating transmissivity of the aquifer. The drawdown information referenced is recorded by the well driller at the time of installation when they perform a specific capacity pumping test and record the static water level, rate and duration of pumping, and drawdown in the well during pumping. This information provides an indication about the rate at which groundwater can flow through the bedrock and supply the well. This is used to determine the transmissivity of the bedrock which is used in the drawdown calculations.
- After excluding the 39 individual records there were 109 individual records remaining.
- Of the 109 individual records, 7 individual records were determined to have wells completed in the surficial sand and gravel deposits. Based on the construction depth of these wells, drawdown information from these wells is not useful for determining the transmissivity of the bedrock therefore, they were excluded from consideration in this evaluation.
- Of the 109 individual records, 80 were determined to be completed in the Maquoketa Shale which is the target bedrock interval for the proposed development. These records contained drawdown information provided by the well driller.
- Of the 109 individual records, 15 individual records (14%) were completed in the underlying Galena-Platteville which is a limestone/ dolomite unit. This was not the typical depth of the existing wells in the area and an evaluation of the drawdown information from these well would not provide useful information about the Maquoketa Shale unit therefore, these wells were excluded from this evaluation.
- Of the 109 individual records, 7 individual records (6.5%) were completed in the St. Peters sandstone. The drawdown information for the St. Peters sandstone would not provide useful information about the transmissivity of the Maquoketa Shale therefore, it was excluded from this evaluation.

To understand the installation date of the wells used in this evaluation, below is also a breakdown of the number of wells used this evaluation for each decade from 1960 through present. In order to be used in the evaluation the well records needed to be completed in the Maquoketa Shale and have specific capacity pumping information provided.

1/1/1960 – 12/31/1969 – 1 well
1/1/1970 – 12/31/1979 – 2 wells
1/1/1980 – 12/31/1989 – 1 well
1/1/1990 – 12/31/1999 – 48 wells
1/1/2000 – 12/31/2009 – 23 wells
1/1/2010 – 12/31/2019 – 4 wells
1/1/2020 – 3/1/2023 – 1 well

The earlies well recorded included in this evaluation is from a well installed on October 12, 1968 and the most recent it from a well installed July 8, 2021. Of the 80 wells in this evaluation, 76 of the wells (95%) were installed from 1990 until 2021. This breakdown coincides with the development in this area; a brief narrative is provided below.

In the area surrounding Thomas Farms the residential development from 1963 until approximately 1990 was primarily to the north along Pewaukee Lake. From 1990 until approximately 2000 the subdivision to the west-northwest of the Thomas Farms property appears to be under construction. In the mid-1990s, the subdivision to the east northeast of the Thomas Farms property appears under construction. From approximately 2000 until 2005, the subdivision to the west-southwest of the Thomas Farms property appears to be under construction. These are the larger areas in which development occurred and where multiple wells were installed. It appears that most of the wells were installed for new construction but, there could be wells installed that were replacement for existing wells or individual construction outside of the subdivisions.

Pumping data collected from a wells, regardless of date, is valid data that can be useful in estimating the transmissivity. Since these are bedrock wells installed over a 20 to 30 year period, a significant change in the hydraulic properties would not be expected since this is a residential area. The specific capacity pumping information has been records on individual water well logs by water well drillers since at least the mid-1900s. From my experience this information is more regularly provided on the more recent logs but if the information is provided it can be useful.

For this evaluation, GZA used the available information that also happens to coincides with the residential development in the area from 1990 through present. The more recent information used in the evaluation provided more up to date information about depth to groundwater while also providing pumping and drawdown information.

Please review and let me know if you have any questions.

Thanks!

Kevin M. Hedinger
Senior Project Manager/ Hydrogeologist
Direct: 262-754-2578
Cell: 262-424-1761

From: Bryan Lindgren <blindgren@neumanncompanies.com>
Sent: Wednesday, January 10, 2024 3:22 PM
To: Kevin Hedinger <Kevin.Hedinger@gza.com>
Subject: [EXTERNAL] FW: Question from Commissioner Dickenson

Kevin,

See below for a well question in Delafield. I think the information they want is on a couple of things.

First, how many wells total are in the surrounding area we started with, then how many did we put in the sample set? What was the criteria for excluding the ones that didn't make the sample set (if I remember correctly it was based on age of the well)? Then, of the sample set, how many wells went into the deep sandstone layer?

Thanks,

Bryan Lindgren
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From: Dan Green <dgreen@townofdelafield.org>
Sent: Wednesday, January 10, 2024 3:01 PM
To: Bryan Lindgren <blindgren@neumanncompanies.com>
Cc: Tim Barbeau <Tim.Barbeau@rasmith.com>
Subject: Question from Commissioner Dickenson

Hi Bryan, Nicole from the PC had a question for Mr. Hedinger from GZA, that he mentioned he could get the information later. The question was concerning the 29 wells that were excluded from the numerical data. She asked how many of the 29 wells that were excluded fell under the third category where the depth of the underlying sandstone might not be economical for the subdivision. Is that question something you might have GZA get an answer to you and Tim before Tuesday? Let me know if you have any questions.

Thanks,

Dan Green, CMC/WCMC
Administrator - Clerk/Treasurer
Town of Delafield
W302N1254 Maple Avenue
Delafield, WI 53018
PH: (262) 646-2398
Email: dgreen@townofdelafield.org

Paul Farrow
County Executive

Dale R. Shaver
Director

Waukesha County

Department of Parks and Land Use

MEMORANDUM

TO: Town of Delafield Plan Commission
Town of Delafield Board
Waukesha County Park & Planning Commission

FROM: Jason Fruth, Planning & Zoning Manager

DATE: November 20, 2023

SUBJECT: Thomas Farms water analysis
DELT 0809.995, DELT 0809.996 and DELT 0811.999

Planned Development District No. 1

The Town of Delafield adopted an ordinance amendment in 2022 that created Section 17.04 5. R. “Planned Development District No. 1 (PDD No. 1).” The town has a pending rezoning request to amend the zoning of the Thomas Farm to PDD No. 1 and a public hearing has been scheduled for December 5, 2023. PDD No. 1 contains a number of unique requirements that must be considered by the Town Plan Commission and Board as part of the review of the required General Development Plan component of the rezoning consideration process. Requirement 4.b.6. of PDD No. 1 stipulates a water study to assess water table considerations relative to private water supplies and natural resources.

Water Supply Alternatives

The prospective developer has explored different options for water supply to the Thomas Farm site and discussed options with town and county staff.

- Municipal water. In considering the density allowances of PDD No. 1, the parties have determined that extension of municipal water to the site from the City of Pewaukee or City of Delafield is not feasible at the present time.
- Community water supply. Town staff does not believe that an alternative private community water supply system is viable because of the challenges of long term oversight and administration of a community water utility by a homeowners association.
- Private wells. Because of the described impediments to municipal water extension or a community water supply, the developer is proposing private wells for single family homes and private wells shared by side by side condominium units. The surrounding subdivisions and neighborhoods similarly rely upon private wells and municipal sewer.

Consultant's Analysis

The developer retained a consultant, GZA Environmental, Inc. to assess water supply considerations relating to the use of private wells to serve the development site. GZA evaluated the cumulative drawdown of 11 hypothetical pumping wells around the perimeter of the Thomas Farms property. The GZA modeling considers per capita water use and the projected number of dwelling units. GZA's findings conclude the following:

- The preliminary stormwater management plan for the development would provide post-development infiltration volume of 13,398,000 cubic feet of water annually, which is 94.2% of pre-development infiltration volume. The Waukesha County Stormwater Management & Erosion Control Ordinance requires a 90% infiltration standard.
- When considering anticipated well pumping and water consumption and the projected 94.2% infiltration rate, GZA estimated the water table drawdown at the property boundary to be approximately four to five feet.
- The maximum anticipated water table drawdown is less than the natural groundwater fluctuation of six feet that is observed in USGS monitoring wells in the area.
- Existing nearby subdivisions were studied using the same modeling methodology; neighboring developments likely have a similar water table drawdown if inputting today's enhanced stormwater management infiltration requirements.
- Flows of groundwater towards Pewaukee Lake will be maintained.

Southeastern Wisconsin Regional Planning Commission (SEWRPC)

Waukesha County requested the technical assistance of the Southeastern Wisconsin Regional Planning Commission (SEWRPC) relative to groundwater supply considerations. SEWRPC offered the following assessment relative to balancing pre-development infiltration and post-development infiltration:

- When any form of land development occurs and hard surfaces are created, groundwater re-charge is likely to be affected unless measures are taken to infiltrate stormwater.
- Net water loss can occur when private well water is pumped and discharged to an off-site downstream wastewater treatment facility or pumped and lost to evaporation in the form of lawn sprinkling unless measures are taken to offset the loss.
- Enhanced stormwater infiltration can be considered to offset water use and to maintain pre-development infiltration rates.
- SEWRPC Technical Report #47 shows the majority of the Thomas Farm site is mapped as having high or moderate groundwater recharge potential.
- *In general, based upon models used in Commission Technical Report No. 47, groundwater recharge in the general area of the proposed Thomas Farms development likely range from 3 to 7 inches per year,* ***averaging 5 inches per year****.*
- *Assuming the entire Thomas Farms 151.9-acre site has a uniform 5-inch groundwater recharge rate, this equals roughly 63.3 acre-feet per year of groundwater recharge. At the estimated 77 gallons per capita per day water demand proposed for the development, the total volume of water drawn from wells in the proposed development is projected to be 33.8 gallons per minute (54.5 acre-feet per year).*
- *To sustain predevelopment local groundwater elevations and flow paths, stormwater management must infiltrate predevelopment groundwater recharge volumes* ***plus*** *that lost to residential water pumping. Therefore, to sustain predevelopment groundwater conditions, groundwater recharge on a site scale must strive to increase from 63.3 acre-feet per year to 117.8 acre-feet per year. With this example, average groundwater recharge infiltration across the entire site would need to increase from 5 inches per year to 9.3 inches per year.*

Collier Consulting Analysis

The Lake Pewaukee Sanitary District retained a consultant, Collier Consulting to assess groundwater considerations related to the proposed development. The Collier report notes, Any *actions that increase infiltration at the Development can be expected to increase recharge to the shallow ground water system and will help to compensate for any net loss form the shallow aquifer due to pumping from the residential wells.*

Summary

While GZA, Collier and SEWRPC have all examined the water supply issue in a unique manner and each entity offers its own perspective, the three entities have all identified stormwater infiltration as being a potential option for ensuring that shallow groundwater levels are not negatively impacted by development. All three entities conclude that Pewaukee Lake levels are unlikely to be affected by the use of private wells, particularly if stormwater infiltration is used to offset water withdrawal.

The developer has submitted preliminary stormwater management plan materials to the Waukesha County Department of Parks & Land Use, Land Resources Division (LRD). LRD has advised that there appears to be sufficient space on site to meet the county's standard stormwater management requirements. LRD has further advised that a variety of infiltration practices can be explored to enhance infiltration rates to offset water consumption. Projections suggest that existing groundwater supply can be sustained and balanced when considering post-development groundwater recharge compared to pre-development conditions. Given the site conditions which naturally have high and moderate infiltration rates, use of enhanced infiltration techniques can increase the average groundwater infiltration across the site.

GEOTECHNICAL ENGINEERING REPORT

Thomas Farm Development
NWC Golf Road and Elmhurst Road
Town of Delafield, Wisconsin

GESTRA Project No.: 23083-10
May 15, 2023

Prepared For:
Neumann Developments, Inc.
N27W24025 Paul Court, Suite 100
Pewaukee, WI 53072

GESTRA

Geotechnical Engineering Report

Thomas Farm Development
NWC Golf Road and Elmhurst Road
Town of Delafield, Wisconsin

GESTRA Project No. 23083-10
May 15, 2023

Prepared For:

Neumann Developments, Inc.
N27W24025 Paul Court, Suite 100
Pewaukee, WI 53072

Prepared By:

GESTRA Engineering, Inc.
191 W. Edgerton Avenue
Milwaukee, WI 53207
(414) 933-7444

Table of Contents

Geotechnical Engineering Report

Thomas Farm Development
NWC Golf Road and Elmhurst Road
Town of Delafield, Wisconsin

1.0 INTRODUCTION

GESTRA Engineering, Inc. (GESTRA) was authorized by Neuman Developments, Inc. (Neumann) to complete a subsurface exploration and geotechnical engineering report for the Thomas Farms Development project located at the northwest corner of Golf Road and Elmhurst Road in the Town of Delafield, Wisconsin. This report presents the results from the subsurface soil exploration and describes the field exploration, laboratory test results, and provides recommendations pertaining to the design and construction of the proposed buildings, roads and stormwater basins.

The engineering recommendations and analysis contained within this report are based on the following project information which is a projection of GESTRA's understanding of the project. If for any reason the actual project information differs from what is reported below, GESTRA should be contacted so that we can review our recommendations in light of any new information.

1.1 PROJECT INFORMATION

The site is bounded by the Lake County Recreation Trail on the north, Elmhurst Road on the east, an existing subdivision in the northwest, Glen Cove Road on the west and Golf Road on the south. The site plan is divided into 4 zones, described as follows and shown on the Borehole Location Plan in the Appendix. At this time, preliminary stormwater elevations are available, but detailed grading plans have not been completed.

Zone 1 – northwest quadrant. This section will include an eastern cul-de-sac extension of Crooked Creek Road and 8 single-family house lots around the cul-de-sac. A detention pond is planned on the north side.

Zone 2 – northeast quadrant. This zone includes 29 single-family house lots, a portion of the east loop road and a cul-de-sac. Detention ponds are planned on the north and west sides, a biofiltration basin near the center and dry pond basin in the southern part.

Zone 3 – southwest quadrant. This zone includes 37 single-family house lots, 28 duplex condos, west loop road with cul-de-sac and connection to the east loop road, and clubhouse amenities building. Three detention ponds are planned in the northern part and a biofiltration basin on the south side.

Zone 4 – southeast quadrant. This zone includes 81 single-family house lots, part of the east loop road with two cul-de-sacs and connection to the west loop road. Three detention ponds are planned in the west, center and southeast portions and rain garden on the south side.

2.0 SCOPE OF SERVICES

GESTRA has performed the following services for the project:

- Contacted Diggers Hotline to locate the public utilities at the site.
- Completed thirty-nine (39) standard penetration test (SPT) soil borings to depths between 4 ½ feet and 19 feet below existing grades. All borings encountered split spoon and/or auger refusal at termination. At the completion of drilling, boreholes were abandoned per WDNR requirements.
- Performed laboratory soil testing to assign classification and engineering properties to the soils encountered. The laboratory testing included hand penetrometer, moisture content, mechanical analysis, hydrometers, and Atterberg limits.
- Prepared this geotechnical engineering report presenting the results of the field exploration, laboratory testing, and providing a discussion of the subsurface conditions and the following recommendations:
  a. Buildings: general recommendations for allowable soil bearing capacity for spread foundations, estimates of settlement, anticipation and management of groundwater, subgrade modulus for design of slab on grade, lateral earth pressures, seismic site classification, and site preparation/ soil correction.
  b. Pavement: soil parameters for the pavement design consisting of estimated CBR values, and asphalt, concrete and base course thickness for the proposed roadways based on anticipated traffic volumes.
  c. Stormwater: The soil from the borings were classified per the USCS system and the Field Book for Describing and Sampling Soils, USDA, NRCS, 2012. Provided DSPS Soil and Site Evaluation – Storm forms and a discussion of soils conditions and recommendations related to infiltration and detention basin design.

3.0 EXPLORATION RESULTS

3.1 SITE CONDITIONS

The development is planned within the undeveloped parcels bounded by Golf Road to the south, Elmhurst Road to the east, Glen Cove Road to the west and the Lake County Recreation Trail/Oakton Road to the north. The majority of the development is in the southern and eastern portion which is currently farm field with several tree lines. The development in the northwest portion is located in an area that is a combination of open field and woods. Two existing residential buildings are located in the southeast part of the development and are accessible from Thomas Road which connects Golf Road and Elmhurst Road. A third residential building is located on the south side of the property near the approximate mid-point of the development. Based on historical aerial photographs available on the Waukesha County GIS website, the site has remained unchanged since the 1960's.

The topography varies significantly across the development area. The northwest portion ranges from approximately 895 feet to 915 feet, generally sloping upward from the north to the south. The highest elevation portion of the development is in the southwest part around 945 feet. From this location it slopes downward to the north to around 915 feet and slopes downward toward the east with elevations ranging from 910 or 915 feet in the southeast portion and 900 feet in the northeast portion. Ground surface elevations at our boring locations range from 946.1 feet at B-29 in the southwest, 916.3 feet at B-22 in the southeast, 899.7 feet at B-1 in the northeast, and 899.3 feet at B-37 in the northwest.

3.2 SUBSURFACE SOIL PROFILE

The general soil profile consisted of topsoil underlain by lean clay or silty clay over granular soil with various amounts of fines (silt and clay soil). At multiple boring location auger refusal was encountered and can be an indication of possible bedrock. Table 3-1 provides the depth and elevation of auger refusal at the boring locations. The topsoil thickness was typically less than 1 foot at each boring location with the exception of B-30 where approximately 2-feet of topsoil was observed.

The native lean clay was typically encountered with a medium stiff to very stiff consistency and extended to approximate depths of 2 feet to 11 ½ feet. In some shallower borings the clay extended to auger refusal. The native clay had varying amounts of sand and moisture contents of samples tested ranged from 8.3% to 30.3% with the majority of the samples tested having moisture contents greater than 20%.

Clayey sand was observed in approximately half the borings and was typically below the upper lean clay or silty clay. Based on SPT N-values, the clayey sand ranged from very loose to medium dense. Varying amounts of gravel were noted in the material.

The majority of the borings included a granular layer (sand or gravel) with varying amounts of silt above auger refusal. Based on SPT N-values, the granular material typically ranged from medium dense to very dense. Some locations of very dense soil encountered may be considered weathered bedrock. An exception to this was boring B-33 where a blueish gray medium dense to very dense silt was encountered between the upper clayey sand and auger refusal.

Table 3-1: Auger Refusal Depths (feet)

Ground Surface Elevation	Boring	Refusal Depth	Refusal Elevation
899.7	B-1	12.5	887.2
906.9	B-2	8.5	898.4
915.6	B-3	10	905.6
919.8	B-4	9.5	910.3
917.7	B-5	6.5	911.2
912.4	B-6	13.5	898.9
916.3	B-7	9.5	906.8
918.7	B-8	6.5	912.2
919.2	B-9	9	910.2
920.8	B-10	12	908.8
917.8	B-11	5.5	912.3
917.4	B-12	5	912.4
921.7	B-13	4.5	917.2
925.2	B-14	7.5	917.7
926.8	B-15	9.5	917.3
930.5	B-16	8.5	922.0
917.7	B-21	4.5	913.2
916.3	B-22	8	908.3
940.4	B-23	10.5	929.9
940.7	B-24	10.5	930.2
932.6	B-25	12	920.6
938.3	B-26	16	922.3
939.0	B-27	15	924.0
943.4	B-28	16	927.4
946.1	B-29	20	926.1
948.5	B-30	13	935.5
939.7	B-31	15	924.7
939.7	B-32	16	923.7
924.1	B-33	17	907.1
929.6	B-34	11	918.6
937.8	B-35	13	924.8
900.7	B-36	15.5	885.2

Ground Surface Elevation	Boring	Refusal Depth	Refusal Elevation
925.0	B-17	8.5	916.5
931.2	B-18	6.5	924.7
934.9	B-19	9.5	925.4
925.6	B-20	6.5	919.1

Ground Surface Elevation	Boring	Refusal Depth	Refusal Elevation
899.3	B-37	17.5	881.8
910.0	B-38	19	891.0
911.7	B-39	17.5	894.2

Notes: Ground surface elevation at B-36 obtained by GESTRA, all other ground surface elevations provided by Trio.

GESTRA reviewed the "Preliminary depth to bedrock map of Waukesha County, Wisconsin" available from the Wisconsin Geological and Natural History Survey. The map indicates that depth to bedrock in the project area is typically less than 50 feet in the project area.

Results of the field and laboratory tests and observations are depicted on the individual boring logs included in Appendix I of this report. Soils were grouped together based on similar observed properties. The stratification lines were estimated by the reviewing engineer based on available data and experience. The actual in-situ changes between layers may differ slightly and may be more gradual than depicted on the boring logs. Subsurface and groundwater conditions can vary between borehole locations and in areas not explored.

It is important to note that the soil observations, fill depths, and topsoil thickness estimates were made in small diameter boreholes. Therefore, it should be understood that thicker or thinner deposits of the individual strata are likely to be encountered within other portions of the project. Furthermore, the estimation of strata thickness at a particular location can differ from person to person due to a sometimes indistinct transition between the soils encountered. Additionally, it must be recognized that in the absence of foreign substances and/or debris within the soil samples obtained, it is sometimes difficult to distinguish between natural soils and clean soil fill.

3.3 GROUNDWATER OBSERVATIONS

Groundwater observations were typically completed during and at the completion of drilling operations. Select borings were left open for extended water level readings. The shallower groundwater appeared to be more common in the western portion of the project site. Table 3-2 provides a summary of the highest water level measured at each boring. If the extended water level readings varied by more than 1 foot from the during or after drilling water levels, both values are listed. Refer to the individual boring logs for specific information.

Table 3-2: Groundwater Measurements (feet)

Ground Surface Elevation	Boring	Groundwater	
		Depth	Elevation
899.7	B-1	4	895.7
906.9	B-2	5	901.9
915.6	B-3	NE	-
919.8	B-4	NE	-
917.7	B-5	NE	-
912.4	B-6	NE	-

Ground Surface Elevation	Boring	Groundwater	
		Depth	Elevation
917.7	B-21	NE	-
916.3	B-22	NE	-
940.4	B-23	NE	-
940.7	B-24	NE	-
932.6	B-25	7	925.6
938.3	B-26	11 [a] 5 [b]	927.3 [a] 933.3 [b]

Ground Surface Elevation	Boring	Groundwater	
		Depth	Elevation
916.3	B-7	3[a] 0.4[b]	913.3[a] 915.9[b]
918.7	B-8	NMR	NMR
919.2	B-9	NMR	NMR
920.8	B-10	NE	-
917.8	B-11	NE	-
917.4	B-12	NE	-
921.7	B-13	NE	-
925.2	B-14	NE	-
926.8	B-15	NE	-
930.5	B-16	7.5	923.0
925.0	B-17	8	917.0
931.2	B-18	NE	-
934.9	B-19	NE	-
925.6	B-20	NE	-
939.0	B-27	10	928.96
943.4	B-28	14[a] 12[b]	929.4[a] 931.4[b]
946.1	B-29	13	933.1
948.5	B-30	NE	-
939.7	B-31	8	931.7
939.7	B-32	8	931.7
924.1	B-33	3.5[a] 2[b]	920.6[a] 922.1[b]
929.6	B-34	8[a] 3[b]	921.6[a] 926.6[b]
937.8	B-35	9	928.8
900.7	B-36	4	896.7
899.3	B-37	7[a] 5.5[b]	892.3[a] 893.8[b]
910.0	B-38	NE	-
911.7	B-39	13[a] 2[b]	898.7[a] 909.7[b]

Notes: *Ground surface elevation at B-36 obtained by GESTRA, all other ground surface elevations provided by Trio.*

B-8, B-9: Clayey soils to depth of boring.

a – At completion of drilling water level reading.

b- Extended water level reading.

Groundwater level fluctuations may occur with time and seasonal changes due to variations in precipitation, evaporation, surface water runoff and local dewatering. Perched water pockets and a higher water table may also be encountered during wet weather periods, particularly in more permeable silt and sand seams or granular fill material overlying less permeable clays. Installation and monitoring of an observation well would be required to assess true groundwater elevation.

4.0 ANALYSIS AND RECOMMENDATIONS

4.1 GEOTECHNICAL CONSIDERATIONS

Based on the conditions encountered at site, we have identified potential subsurface conditions that may impact future building and site development in the following paragraphs.

Difficult Excavation: One of the primary concerns is the presence of very dense (SPT N>50) materials and possible bedrock at shallower depths. Based on preliminary plan elevation, some locations of stormwater features are designed at a lower elevation than the possible bedrock encountered. The remaining site grades have not been established, but other portions of this project may require excavation through dense to very dense ground conditions or bedrock which can result in increased excavation costs. Additional exploration with test pits can provide a better indication of the anticipated difficulty in excavation of the material when additional project design elevations are available. Depending on the depth of excavation, the project may want to evaluate blasting.

High Moisture Content Clay Soils: Another geotechnical concern identified is the presence of higher moisture content lean clay generally located immediately below the topsoil. These soils are often unstable during earthwork, prone to disturbance by construction traffic and can lose strength over time when subjected to freeze thaw cycles, moisture entering through cracks in pavement, and repetitive traffic loading. Consolidation of this soft soil layer will occur if any new loads either from new fill and/or new structure are applied on this deposit which may lead to excessive settlement for future site construction or buildings.

Potential for Large Fill Placement: Significant cut and fill may be required during grading operations. Large and deeper fills over lower strength material may result in consolidation of the material and excessive settlement due to the weight of the new fill. Further evaluation may be required when design elevations are available.

Groundwater: Based on preliminary plan elevation, some locations of stormwater features are designed at a lower elevation than the water noted in our borings. The water may also be a concern for below grade levels for new buildings and in some excavation areas localized water should be expected. Groundwater was observed higher after completion or in next day water level readings at some locations. Further evaluation may be required when design elevations are available.

Variable Depths to Bearing Material: The estimated depth to recommended bearing material presented in this report is variable across the site. When design elevations and building loads are available, the foundations recommendations should be reviewed as significant cuts or fill may affect the foundation recommendations. Areas with lower strength soil near the surface may require a lower design bearing pressure or soil improvement if significant fills are planned.

The recommendations presented in this report include assumptions related to the project design because detailed design information has not been developed. When additional design information is known, the recommendations presented in this report should be reviewed as information such as structural loads and changes in design elevations could impact the recommendations in this report.

4.2 SITE PREPARATION

Site preparation should start with removal of any trees/bushes and vegetation, as well as surficial debris or other deleterious material (if present), organic soils and topsoil. Any additional unsuitable soil/materials exposed such as buried topsoil (if encountered), excessive vegetation roots, deleterious material, soil that contains significant amounts of organics, or other unsuitable material should be removed in their entirety from the footprint of future building and pavement areas. Existing buildings and structures should be razed and completely removed to expose suitable native material. In addition, all unused utilities (if present) should be properly removed or abandoned. Field drain tile (if present) should be properly removed or abandoned or redesigned/reconnected. Material removed from the project site should be disposed in accordance with all applicable federal, state, and local regulations. Soil should not be stockpiled near or adjacent to the excavations.

In building slab on grade area and pavement areas, after the initial site preparation described above, we recommend recompacting the exposed material. Any areas of significant deflection during re-compaction may be disked, dried, and re-compacted if weather permits, or removed and replaced with engineered fill. After re-compaction, before any initial fill lifts are placed, and before base material is placed, a proof roll is recommended with a minimum 20-ton tri-axle dump truck, or like machinery imparting similar static loading on the soil and moving at no more than walking speed. A geotechnical engineer or their designated representative should be present during the proof roll in order to identify soft or unstable areas, if any, and subsequently recommend remediation procedures. Where soil correction is needed, the options for improvement include the methods described in the following paragraphs.

Recondition the subgrade through moisture/density control:

If this option is chosen, the upper 12-inches of subgrade should be aerated through disking and dried to within two (2) percent of its optimum moisture content. After which, the dried soils can be re-compacted in place to at least 95% of the maximum modified Proctor dry density (ASTM D1557). However, this method may not be effective if lower strength soils extend to depths greater than 1 foot below grade.

Removal and replacement:

The soft or unstable subgrade soils should be removed and the excavated subgrade material replaced with suitable engineered fill or well graded granular fill. The new fill should be compacted to at least 95% of the maximum dry density as obtained by the maximum modified Proctor dry density (ASTM D1557). To potentially reduce the amount of subgrade excavation, geogrid with appropriate granular fill may be used in the excavation correction.

Chemical Stabilization

The soft or unstable clayey (lean clay or clayey sand) or silty soil can also be stabilized with cement or fly ash. Lime stabilization may be considered for clay soil. Chemical stabilization is typically more cost effective if performed over large areas in a single mobilization. In the case of soil stabilization, a proper mix design should be performed prior to the performance of any soil modification as the variability of the soil may limit the effectiveness of soil modification. GESTRA did not perform a mix design as it was not part of our scope of services.

The type of improvement and the depth of correction needed should be determined at the time of construction based on drainage, weather, and soil conditions. If the project construction schedule does not allow for adequate time to rework site subgrade soils, excavation and replacement will likely be required or alternate site preparations could be considered such as chemical stabilization or utilizing geotextile fabric or geogrid and granular fill to provide a stable pavement subgrade. The native clay soils encountered below the topsoil in the majority of the borings were observed with high moisture content (20% or more) which is an indication of potentially unstable subgrade conditions.

As a general rule for new fill placement, the lift thickness should not exceed 12 inches for granular soils and 9 inches for cohesive soil and the maximum particle size should be limited to 25% of the lift thickness. For typical earthwork, new engineered fill placed within the building pad or in the pavement subgrade/base course should be compacted to a minimum of 95% of the modified Proctor maximum dry density value. Alternate compaction may be required where new fill is around 10 feet (or greater) as clayey fill have a greater potential to consolidate post compaction. Structural soil fill should be placed a minimum of five feet beyond the edges of the new building and pavement areas, and an additional foot horizontally for each vertical foot of new fill to be placed to provide adequate lateral confinement. The inorganic site soils free of any deleterious material and debris that would be removed from excavations could be reused as structural fill; however, moisture conditioning of the material may be necessary and sorting of unsuitable soils from existing material may be required before it is placed as engineered fill.

Site grading should direct runoff away from planned pavement areas and should be maintained throughout construction so that the potential for the softening of the subgrade soils is reduced. Equipment and working traffic should also be kept to a minimum on subgrade surfaces, especially during times of precipitation or following spring thaw. The contractor is responsible for maintaining completed earthwork areas. Consideration should be given to installing construction roads to reduce disturbance to the subgrade soils.

The information presented in this report may be used to evaluate the site conditions for construction, but the contractor is responsible for determining site preparation means and methods required to complete the project. An aggressive construction schedule or construction during seasons with limited drying time may not allow for reconditioning of the subgrade and soil correction may require removal and replacement with imported granular fill or use of chemical stabilization.

This geotechnical report identifies or recommends material that may be used as engineered fill, but the contractor is responsible for utilizing materials that meet the project requirements and determining means and methods required for placement and compaction. Typically, clay soils are easier to dry or rework when placed over large open areas during favorable weather conditions. Clay soils can be difficult to compact or moisture condition in trench backfill situations and may increase potential for consolidation and settlement of the backfill if it is not placed or compacted properly. Granular soils may be easier to place and compact in trench backfill situations but may increase construction costs if the material has to be imported.

4.3 FOUNDATION RECOMMENDATIONS

Due to variable existing terrain, the foundations will be dependent on the final grading plan and earthwork performed during the mass grading work. The following section is provided as a general discussion for building foundation design for preliminary design purposes. The most economical foundation should consider the actual structural loads, design elevations, and building design requirements. Modifications may be required for individual buildings depending on actual design information, including building location, grades and structural loads. Soil borings were not performed at each planned building location and future building owners may want to consider performing a geotechnical exploration specific to an individual building.

Based on the conditions encountered, a typical shallow spread/strip footing system designed for an allowable bearing capacity of 1,500 psf to 2,000 psf can be considered for the proposed buildings. Spread foundations designed for a maximum net allowable soil bearing capacity of up to 2,000 psf should be supported by the medium dense native granular soil, native clay soil with a minimum unconfined compressive strength (Qp) of 1 tsf or new engineered fill placed over suitable native soil.

Layers of lower strength soil were noted that may require correction at some boring locations such as B-1, B-5, B-7, B-11, B-13, B-16, B-20, B-24, B-26, B-32, B-33, and B-38. However, the impact of these layers on future construction will in part depend on future design elevations.

Bedrock depth was variable across the project site. If bedrock is present at or near a building foundation bearing elevation, the building should be designed such that the foundations bear entirely on bedrock or suitable soil/engineered fill to avoid potential for differential settlement.

Where unsuitable soils are encountered at the foundation elevation, soil correction should consist of additional excavation to remove the unsuitable soils. If the over-excavation is being filled with engineered fill, we recommend the over-excavation be widened at a minimum 1H:1V ratio from the edge of the foundation. The over-excavation can then be filled to grade with suitable engineered fill placed in lifts not exceeding 12 inches and compacted to at least 95% of maximum dry density as determined by the modified Proctor (ASTM D1557). Alternatively, lean concrete with a minimum compressive strength of 500 psi could be used to fill the over-excavation to grade and lateral over-excavation will not be required.

The depth of excavation required to expose suitable bearing material may vary in areas not explored by GESTRA; therefore, we recommend the foundation excavations be reviewed by a geotechnical engineer or their designated representative to determine when soils suitable to support the recommended bearing capacity are observed.

The shallow foundation design should incorporate a minimum strip footing width of 18 inches and column pad width of 24 inches, even if the allowable bearing capacity has not been fully utilized. All perimeter foundations should meet code depth requirements and are recommended to bear a minimum of 48 inches below grade for heated structures and 60 inches for unheated structures in order to protect the structure from frost heave. Interior foundations in heated buildings may bear at a shallower depth provided the bearing soils will not freeze. If the structure includes load bearing thickened slabs, subgrade preparation under the thickened slabs should follow the recommendations in this report for foundations. We recommend that foundations also be suitably reinforced in order to compensate for the effects of minor differential movements due to subsurface soil variations.

4.4 FLOOR SLAB RECOMMENDATIONS

The subgrade material evaluated and prepared according to the recommendations in this report should be suitable to support slab on grade concrete. We recommend that a subgrade reaction modulus of 125 pounds per square inch per inch of deflection (pci) be used in the design of the floor slab at grade. The modulus value was assumed based on clay and/ or sand soil as the subgrade soil, assumes a 1-foot plate is used to determine the modulus and should be adjusted for the size of the foundation and confinement effect. We recommend that the floor slabs be suitably reinforced and designed to be separate from the foundation system in order to allow for separate movements. It is recommended the structural engineer specify the floor slab thickness, reinforcing, joint details and other parameters. At a minimum, the floor slabs are recommended to be reinforced or the concrete contain an appropriate fiber mesh additive to help control shrinkage cracking.

We recommend the installation of a capillary moisture break directly below the slab. A typical capillary moisture break may consist of at least 6 inches of sand or gravel with a maximum particle size of 1-1/2 inches, containing 15-55% passing the number 4 sieve and no more than 12% passing the number 200 sieve (fines) and should follow the recommendations of ACI 302.1R-15, Chapter 6. The structural engineer, architect, or manufacturer of a floor covering should determine the need of a vapor retarder, specify the vapor retarder location, and consider the concrete curing and the effects of moisture on future flooring materials or building end use. The vapor retarder should include proper sealing at penetrations, overlap at joints, and sealing at the interface of the wall and slab and may require an adequate cushion material to prevent damage.

Given the presence of groundwater encountered in our exploration, it may be necessary to address groundwater issues in the design of a below grade slab for some structures. In these cases, a groundwater management system is recommended to maintain water level below the slab system for the serviceability of the proposed structure. This may be accomplished by installing an underslab drainage system incorporated with the recommendations for below grade wall drainage presented in this report. We recommend including cleanouts for the system in the event the subsurface drainage system becomes blocked or fails and is unable to remove the water from under the slab. A mechanical engineer should design the pumping and disposal of the water from the underslab drain and the perimeter drain system and the spacing of the cleanouts should be determined in conjunction with the structural engineer. We recommend including a redundant sump and pump system in the event larger groundwater events occur and evaluate if the system should include a backup power system. Further details for underslab drainage design will depend on the individual structure and subsurface conditions.

4.5 LATERAL EARTH PRESSURES

It is our understanding that some buildings will be designed with a below grade. Below grade walls will need to be designed to resist lateral earth pressures. The values presented in Table 4-1 assume that the walls are vertical; that a clean, free-draining granular fill is used as backfill within 2 feet behind the wall; the backfill condition at the ground surface is level; and that adequate drainage is provided to prevent the buildup of any hydrostatic pressure. In addition, the below grade walls will also be required to resist the surcharge of traffic that may occur during or after construction.

Table 4-1: Below-Grade Wall Design Parameters

Below-Grade Wall Design Parameters [a]	
Total Unit Weight of Backfill (γ)	125 pcf
Angle of Internal Friction (Φ)	26°
At-Rest Earth Pressure Coefficient, (K_o)	0.56
Active Earth Pressure Coefficient, (K_a)	0.39
Passive Earth Pressure Coefficient, (K_p)	2.56

a - Based on lean clay soil encountered

For walls that are free to rotate at least 0.001 times the height of the wall, such as a temporary earth retention system and retaining walls, then an active earth pressure condition will develop. Equivalent fluid densities can be calculated by multiplying unit weight by the listed pressure coefficients at different conditions. For passive resistance, we recommend using a minimum factor of safety of 2.0 in passive earth pressure calculations because of the large strains required to mobilize the full passive resistance, ignoring the upper 1 foot of soil in frost protected areas and ignoring the soil within the frost depth for other areas.

Drainage should be provided behind below-grade and retaining walls to prevent the buildup of hydrostatic pressures. We recommend that free-draining granular drainage aggregate be placed within 2 feet behind the back face of the walls. Drainage pipes are recommended to be installed behind the walls and be drained by gravity or a sump pit and pump system. The drainage pipes should be surrounded by a minimum of 6 inches of drainage aggregate. Due to the native soils containing a significant percentage of fine material, the drainage aggregate should be completely wrapped in a non-woven, high survivability, geotextile fabric with an apparent opening size (AOS) in the range of 70 to 100. The geotextile fabric should prevent migration of any adjacent soil into the drainage aggregate. We do not recommend using a drainage pipe that includes a geotextile sleeve in immediate contact with the pipe.

We recommend a relatively impermeable barrier that may consist of a minimum 2 foot thick clay cap or Bituminous or Portland cement concrete (i.e. walkways and drives) be placed around each of the below-grade structures to minimize surface water infiltration into the backfill against the walls. The clay material, if used, should be placed and compacted as recommended in this report and should extend from final grade to a depth of at least 2 feet. The clay cap or impermeable barrier should slope away from the structure at a minimum 2 percent grade. Surcharge loads, including those from adjacent (present and future) structures, as well as temporary construction equipment, within a zone defined by a plane extending at a 45 degree angle above the base of the wall should also be included in the design. The size of the compactor used behind the wall and requirements before backfilling should be confirmed by the structural engineer.

Given the presence of groundwater encountered in our exploration, it may be necessary to address groundwater issues in the below grade wall drainage system for some structures. In these cases, a groundwater management system and water proofing are recommended and may require incorporation of an underslab drainage system. We recommend including cleanouts for any drainage system in the event the subsurface drainage system becomes blocked or fails and is unable to remove the water from under the slab. A mechanical engineer should design the pumping and disposal of the water from the drainage system. We recommend including a redundant sump and pump system in the event larger groundwater events occur and evaluate if the system should include a backup power system. Further details for drainage design will depend on the individual structure and subsurface conditions.

4.6 SEISMIC SITE CLASSIFICATION

Section 1613 of the International Building Code 2015 (IBC) was used to assign a soil site classification. Based on the native soil conditions observed and assuming these are consistent or better to a depth of 100 feet, the soil site classification **D** (stiff soil) may be used in the structural design of the proposed buildings. Based on site class D, and mapped spectral response acceleration S_s and S_1 for Delafield, Wisconsin, the site coefficient F_a and F_v are 1.6 and 2.4, respectively. Portions of the site may be eligible for a soil site classification C (very dense soil and soft rock), but individual structures should be evaluated on a project by project basis.

4.7 PAVEMENT RECOMMENDATIONS

The pavement subgrade soil should be prepared and proof rolled following the recommendations in this report. Our recommendations below assume the subgrade conditions are consistent with the results of our subsurface testing evaluation and that the subgrade is thoroughly prepared for construction based on the recommendations developed in this report and pass a thorough proof roll prior to base material placement. As previously noted, the native clay soils encountered below the topsoil in the majority of the borings were observed with high moisture content (20% or more) which is an indication of potentially unstable subgrade conditions. Additional corrective action should be determined at the time of construction for areas where it is necessary to provide a more consistent subgrade. Alternatively the project could consider a subgrade stabilization or a geogrid and granular stabilization layer as part of the design.

The Wisconsin Asphalt Pavement Association (WAPA) Asphalt Pavement Design Guide, AASHTO 2021, and the results of the geotechnical evaluation were used to provide the recommendations for the new asphalt pavement. Based on clayey soils or clayey sand as the subgrade soil, GESTRA recommends that “poor soils” (estimated CBR value between 2 and 5, SSV = 2.5) conditions should be assumed as the subgrade soils. Table 4-2 below presents the recommended hot mix asphalt and base course thicknesses for planned roadways. Pavement sections may be modified if the traffic volumes are different than presented below and should be confirmed with the requirements of the local municipality.

Base course material should be placed at moisture content within 2% of optimum and compacted to a minimum of 95% of maximum dry density as determined by the modified Proctor. Hot Mix Asphalt (HMA) should be placed and compacted following the guidelines of WisDOT Standard Specifications for Highway and Structure Construction, section 460.3.

Table 4-2: Pavement Design Recommendations

Traffic Class	Pavement Layer Type	Thickness (inches)	Material Type	WisDOT Specifications
Traffic Class II, (subdivision streets, 20-year ESALs < 1 million) [a]	Hot Mix Asphalt	4.5	LT	Section 460
	Base Course (Dense Graded)	12.0	1-1/4 inch Crushed Stone	Section 305

a- Based on Table 7.2 of WAPA Asphalt Pavement Design Guide.

One of the important considerations in designing a high quality and durable pavement is providing adequate drainage. Drainage design for the proposed pavement section is out of GESTRA’s scope for this project. It is important that bird baths (leeching basins) and surface waves are not created during construction of the HMA layer. A proper slope should be allowed and drainage should be provided along the edges of pavements and catch basins to prevent the accumulation of free water within the base course, which otherwise may result in subgrade softening or swelling, and pavement deterioration under exposure and repeated traffic conditions.

Pavement sections presented in the above table should not be used for areas which experience repeated truck traffic, equipment or truck parking areas, entrances and exit aprons, or contain trash dumpster loading zones. In the areas listed above, a Portland Cement Concrete (PCC) pavement should be used. The PCC layer thickness is recommended to be 6.0 inches, with a minimum of 6.0 inch-thick crushed stone base course, but may be modified depending on the final design. The reinforcement details for PCC layers should be designed by the project design engineer as the project conditions dictate.

All pavements require regular maintenance and repair in order to maintain the serviceability of the pavement. These repairs and maintenance are due to normal wear and tear of the pavement surface and are required in order to extend the serviceability life of the pavement. However, after 20 years of service, a normal pavement structure is likely to deteriorate to a point where pavement rehabilitation may be required to maintain the serviceability.

4.8 STORMWATER FEATURES

Multiple stormwater features are planned for the project which include detention ponds and bioinfiltration basins. Trio provided a summary of the preliminary stormwater plan which generally included normal water elevation for detention ponds and bottom of basin elevations for bioinfiltration basins. For the purpose of our analyses, we assumed the bottom of wet retention stormwater ponds at 5 feet below normal water level as provided by Trio. Within this report, the bottom of basin elevation identified is termed the native soil interface. At this time, design details are not finalized, so we have provided a summary of the elevations, conditions and comments related to infiltration and retention at each boring location and separated the summary by the different zones of the development.

The samples collected from the borings were evaluated for the stormwater features, and the WDNR Soil and Site Evaluation-Storm forms are included in Appendix I. The texture of the samples collected was identified visually. The stratification lines between the soil types were identified based on the available data. The actual in-situ changes between layers may differ slightly and may be more gradual than depicted on the evaluation form. Subsurface and groundwater conditions can vary in areas not explored by GESTRA. Infiltration rates for the observed soil textures were estimated based on the information provided in WDNR Technical Standard 1002, Table 2 (dated December 2022), and are presented in the Soil and Site Evaluation-Storm forms attached in Appendix I (separated by existing parcels).

In the following tables we have provided details for the individual stormwater features planned and evaluated each for wet retention and infiltration regardless of the current plan. Within each table we have provided comments related to a wet retention pond liner and infiltration. The information presented in this report should be reviewed in conjunction with the attached boring logs and Soil Evaluation-Storm forms. Typically, the comments will fall under the following conditions.

- Liner required:

GESTRA evaluated the native soil conditions following the general guidelines of the WDNR Conservation Practice Standard 1001 for the design of Wet Detention Ponds. The existing native soil conditions were compared to Appendix D (Liner Flow Chart for Wet Detention Ponds) to determine if a liner is required. At locations where *sandy clay, silty clay or clay* were not present to at least 3 feet below the native soil interface or if bedrock (possible bedrock/auger refusal) was within 2 feet or above the native soil interface, the location is recommended for a constructed liner.

- Not suitable for infiltration:

GESTRA evaluated the native soil conditions following the general guidelines of NR 151.124(4)(c) and Wisconsin Department of Natural Resources (WDNR) Conservation Standard Practice 1002. Locations were noted as eligible for exemption from infiltration where *sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay* was present at the native soil interface. Locations where bedrock (possible bedrock/auger refusal) or groundwater was less than 3 feet from native soil interface were also noted as not suitable for infiltration as adequate separation and filtering layer would not be present.

Additional exploration through test pits and further laboratory testing is required if a basin will be designed for infiltration per WDNR Conservation Standard Practice 1002. When final design elevations are determined, additional evaluation of infiltration device is also recommended to establish if the soil meets the filtering layer requirements if the bottom of the pond will be within 3 feet of the bedrock or groundwater levels encountered. NR 151 requires the soil between the bottom of the infiltration system and seasonal high groundwater have at least a 3-foot layer of soil with 20% fines or greater or a 5-foot soil layer with 10% fines or greater. Per WDNR CPS 1002, *sandy loams, loams, silt loams, silts and all clay textural classifications* are assumed to meet the percent fines limitations of a filtering layer.

Zone 1 – northwest quadrant

Pond 13P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-36 [a]	900.7	890.3	885.2	896.7	Liner required. Silt loam at native soil interface. Not suitable for infiltration. Groundwater above native soil interface.
B-37	899.3		881.8	893.8	Liner required. Sandy clay loam at native soil interface. Not suitable for infiltration. Groundwater above native soil interface and soil eligible for infiltration exemption.

Notes: a – B-36 offset as directed by Trio. Staked location in wooded area and not accessible.

Zone 2 – northeast quadrant

Pond 9P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-1	899.7	893	887.2	895.7	Liner required. Sandy clay loam at native soil interface. Not suitable for infiltration. Groundwater above native soil interface and soil eligible for infiltration exemption.
B-2	906.9		898.4	901.9	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Groundwater and possible bedrock above native soil interface.

Basin 10B – Bioinfiltration

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-3	915.6	912	905.6	Not encountered	Liner required. Sand at native soil interface. Suitable for infiltration. Possible additional evaluation of filtering layer, sand at native soil interface.
B-4	919.8		910.3	Not encountered	Liner required. Silt loam at native soil interface. Not suitable for infiltration. Possible bedrock within 2 feet of native soil interface.

Pond 11P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-5	917.7	907.2	911.2	Not encountered	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock higher than native soil interface.
B-6	912.4		898.9	Not encountered	Liner potentially required. Sandy clay loam at native soil interface. At native soil interface, soil eligible for infiltration exemption.

Basin 8B – Dry Pond

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-8	918.7	916.5	912.2	NMR	Liner potentially required. Sand clay loam at native soil interface. At native soil interface, soil eligible for infiltration exemption.
B-9	919.2		910.2	NMR	Liner potentially required. Clay at native soil interface but does not extend 3 feet. At native soil interface, soil eligible for infiltration exemption.

Notes: NMR = no measurement recorded. B-8, B-9, predominately clayey soils to depth of boring.

Zone 3 – southwest quadrant

Pond 3P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-33	924.1	917	907.1	922.1	Liner required. Sandy loam at native soil interface. Not suitable for infiltration. Groundwater above native soil interface.
B-34	929.6		918.6	926.6	Liner required. Groundwater and possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock above native soil interface.

Notes: Groundwater elevation is extended reading. At completion of drilling groundwater at 920.6 feet in B-33 and 921.6 feet in B-34 which are also higher than plan native soil interface.

Pond 1B – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-26	938.3	933.5	922.3	933.3	Liner potentially required. Silty clay loam at native soil interface. Not suitable for infiltration. Groundwater within 1-foot of native soil interface. Eligible for infiltration exemption.
B-27	939		924.0	929	Liner potentially required. Silty clay loam at native soil interface. Eligible for infiltration exemption.

Notes: Groundwater elevation is extended reading, At completion of drilling groundwater at 927.3 feet in B-26. Extended water level reading used in our evaluation.

Pond 2B – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-25	932.6	931	920.6	925.6	Liner potentially required. Clay loam at native soil interface. Eligible for infiltration exemption. Additional excavation required to expose non-exempt material.

Basin 4B – Bioinfiltration

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-29	946.1	936	926.1	933.1	Liner required. Sand at native soil interface. Suitable for infiltration. May require filtering layer.
B-30	948.5		935.5	Not encountered	Liner required. Sand at native soil interface. Possible bedrock within 1 foot of native soil interface. Not suitable for infiltration. Possible bedrock within 1 foot of native soil interface.

Zone 4 – southeast quadrant

Pond 12P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-17	925.0	917	916.5	917.0	Liner required. Loamy sand at native soil interface. Possible bedrock within 1 foot of native soil interface. Not suitable for infiltration. Possible bedrock within 1 foot of native soil interface.
B-18	931.2		924.7	Not encountered	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock above native soil interface.

Pond 7P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-13	921.7	919.3	917.2	Not encountered	Liner required. Sandy clay loam at native soil interface. Possible bedrock within 3 feet of native soil interface. Not suitable for infiltration. Possible bedrock within 3 feet of native soil interface.
B-14	925.2		917.7	Not encountered	Liner required. Loamy sand and sandy clay loam at native soil interface. Possible bedrock within 2 feet of native soil interface. Not suitable for infiltration. Possible bedrock within 2 feet of native soil interface.

Pond 6P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-21	917.7	905	913.2	Not encountered	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock above native soil interface.
B-22	916.3		908.3	Not encountered	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock above native soil interface.

Rain Garden 5B

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-20	925.6	922	919.1	Not encountered	Liner may not be required. Silty clay at native soil interface, but possible bedrock within 3 feet of native soil interface. At native soil interface, soil eligible for infiltration exemption. Not suitable for infiltration. Possible bedrock within 3 feet of native soil interface.

The following recommendations are for the construction of a storm water basin as a wet detention pond and are in part developed based on the information available in the Wisconsin Department of Safety and Professional Services Chapter SPS 382.365 and 360.30 and Appendix D of Technical Standard 1001. At this time the design requirements are not known and our recommendations are based on an assumed Type A liner.

For an assumed Type A liner, as a minimum the base, sides and berms at elevations below the design high-water level should be constructed out of clay soils with the following properties:

- an average plasticity index (PI) of 12 or more with none less than 10,
- an average liquid limit (LL) of 25 or greater with none less than 20,
- a minimum of 50% of the soil by weight finer than the #200 sieve,
- a minimum of 90% of the soil by weight finer than the #4 sieve, and
- in-place hydraulic conductivity of the compacted soils should be 1x10-7 cm/sec or less.

The fine-grained cohesive soils encountered in the borings that meet the above requirements will require sifting and sorting of the soil to remove large gravel, cobbles and boulders before placing it as liner material. Otherwise, the project should consider importing suitable clayey soil for the liner construction. A complete testing program of the proposed liner material should be performed to confirm it meets the project requirements before and after placement. The native soil encountered near the pond bottom elevation typically included gravel, cobbles and boulders.

Alternatively, a high density polyethylene (HDPE) or geosynthetic clay liner (GCL) could be considered in lieu of the installation of a clay liner. Another option would be constructing the liner using a soil-bentonite clay mix, but this system typically requires design and construction by a specialty contractor. Refer to Appendix D of Technical Standard 1001 for additional information related to the clay liner and these alternative liners.

The clay liner soils should be compacted using a sheepsfoot (or similar type) compactor to a minimum of 90% of the modified Proctor dry density value and at a moisture content at least 2% wet of optimum as determined by ASTM D1557. This material should be compacted in maximum 6-inch loose lifts and the compacted clay should be free of organics, cobbles, boulders, debris and any other unsuitable soils. The clay shall be disked or otherwise mechanically processed before compaction to break up clods so that the maximum clod size is 4 inches. The resulting clay liner should have a minimum thickness of 2 feet. Refer to NRCS Wisconsin Construction Specification 300 – Clay Liners for additional information pertaining to the placement and compaction of clay liner material.

Additional quality assurance testing is recommended during construction to confirm the material being placed meets the project requirements, including testing the clay liner materials for hydraulic conductivity and material properties. Regardless of the liner system selected, we recommend it be installed by a company with demonstrated prior experience with the product.

4.9 CONSTRUCTION CONSIDERATIONS

The detailed means and method of excavation and construction should be decided by the contractor and approved by the project design team. Based on the specific site information, geotechnical exploration results and requirements for the proposed structure, the following issues should be taken into consideration during construction.

Dewatering

For shallow excavations, substantial water is not anticipated to be encountered during excavation. If water is encountered during shallow excavations, we anticipate the appropriate number of temporary sump pits and pumps should be sufficient to remove anticipated volume of water in the excavation. The contractor should be prepared to control groundwater and surface water and prevent it from accumulating in excavations or otherwise affecting construction.

Multiple borings encountered water at depths of 10 feet or less. Therefore, water should be anticipated during excavation in these areas and may be present in other areas not explored. Perched or trapped water may also be encountered. Where excavations below water are anticipated, the contractor should be prepared to install a construction dewatering system and we recommend the water level during construction should be kept a minimum of 2 feet below the deepest excavation during construction and until the final structure below grade drainage system is operating. A specialty dewatering contractor should be consulted for appropriate dewatering methods during construction as well as to evaluate potential impact on the proposed construction and surrounding structures. If the dewatering system is not properly designed, a boiling and/or heaving subgrade could occur possibly resulting in loss of ground support and detrimental effect to the nearby existing structures. Further exploration and evaluation of the groundwater is recommended when final design elevations are established.

Excavation Stability

Caving is a common issue for excavation side walls during construction, especially if fill material, granular soils, and/or water seepage are observed. An excavation plan should be developed and the length of excavation left open should be limited to prevent caving soil from covering the suitable bearing soils.

A temporary soil retention system may also be necessary in order to prevent caving or provide support of surrounding structures or utilities during construction. Providing recommendations or designing the retention system is out of the scope of services for GESTRA. The contractor must comply with the federal, state, local and updated OSHA regulations during excavation and in retention system design to ensure excavation safety.

Occupational Safety and Health Act (OSHA) has instituted strict standards for temporary construction excavations. These standards are outlined in 29 CFR Part 1926 Subpart P. Excavations within unstable soil conditions or extending five feet or more in depth should be adequately sloped or braced according to these standards. Excavation safety is the responsibility of the contractor. Material stockpiles or heavy equipment should not be placed near the edge of the excavation slopes. The actual stable slope angle should be determined during construction and will depend upon the loading, soil, and groundwater conditions encountered.

Weather Implications

The subgrade soil or the soil at foundation level might become unstable with exposure to adverse weather such as rain, snow and freezing temperatures. The unstable areas due to weather exposure may require an additional undercut or stabilization and the representative geotechnical engineer should assist with the determination of the depth of additional undercut or stabilization procedure based on observation of the field condition.

Soil Sensitivity

Soil at the construction site will be exposed to moisture and disturbance from construction traffic, construction equipment and human factors. Due to the disturbance, soil may become sensitive with contact of water. Contractor should try to lessen the exposure the soil at the construction site may encounter to moisture and disturbances. Therefore, the foundations, floor slabs and pavements should be constructed immediately after the review of the representative geotechnical engineer.

5.0 EXPLORATION AND TESTING PROCEDURES

5.1 LAYOUT AND ELEVATION PROCEDURES

A total of thirty-nine (39) soil borings were completed at the approximate locations shown on the attached Borehole Location Map in Appendix I. The location of the borings were selected, located in the field, and ground surface elevation provided by Trio (project civil engineer). One boring location B-36 was in a wooded area and inaccessible. GESTRA adjusted the location per the direction of Trio and noted the offset location and ground elevation.

5.2 FIELD TESTING PROCEDURES

The boreholes were drilled using a track mounted drill rig. The boreholes were initiated and advanced by using hollow stem augers. 24-inch split spoon samples were collected continuously to the depth of the boring. Borings were planned to be drilled to a maximum depth of 20 feet, but were terminated at auger refusal shallower than planned depth.

All representative soil samples were taken in general accordance with the "Standard Method for Penetration Test and Split-Barrel Sampling of Soils" (ASTM D1586). After each sampling, a soil sample was retained and placed in a jar and recorded for type, color, consistency, and moisture, sealed and then transported to the laboratory for further review and testing, if required. The specific drilling method used including the depths, rig type, crew chief, are included on each of the individual boring logs as it may change for each borehole.

5.3 LABORATORY TESTING PROCEDURES

After completion of drilling operations, all of the retained soil samples were transported to GESTRA's laboratory and classified by a geotechnical engineer using the Unified Soil Classification System (USCS) and the Field Book for Describing and Sampling Soils, USDA, NRCS, 2012. Charts describing the classification systems used are included in Appendix I of this report. The engineer assigned laboratory testing suited to extract important index properties of the soil layers. These tests included hand penetrometer, moisture content, mechanical analysis, hydrometers, and Atterberg limits.

STANDARD OF CARE

Our exploration was limited to evaluating subsurface soil and groundwater conditions pertaining to the proposed project. GESTRA did not perform any environmental, chemical, or hydrogeologic testing as these were not part of our work scope.

This report should be made available in its entirety to bidding contractors for information purposes. The soil boring logs and borehole location map should not be detached from this report. Our report is not valid if used for purposes other than what is described in the report.

All OSHA regulations such as those regarding proper sloping and temporary shoring of excavations should be followed during the entire construction process.

GESTRA has presented our professional opinions in this report in the form of recommendations. Our opinions are based on our understanding of current project information and related accepted engineering practices at the time of this report. Other than this, no warranty is implied or intended.

Sincerely,

GESTRA Engineering, Inc.

Report Prepared By:

WISCONSIN
DOUGLAS S.
DETTMERS
E-35060
MILWAUKEE
WI
PROFESSIONAL ENGINEER

Douglas Dettmers

Douglas Dettmers
Digitally signed by Douglas Dettmers
Date: 2023.05.16 11:06:29 -05'00'

Douglas Dettmers, P.E.
Senior Engineer

Report Reviewed By:

WISCONSIN
ERIC S.
JESKE
E-44009
MILWAUKEE
WI
PROFESSIONAL ENGINEER

Eric Jeske
Digitally signed by Eric Jeske
Date: 2023.05.16 11:06:58 -05'00'

Eric Jeske, P.E.
Senior Engineer

APPENDIX I

SITE LOCATION MAP, BOREHOLE LOCATION MAP, TEST BORING LOGS, SOIL EVALUATION-STORM FORMS, GENERAL NOTES AND SOILS CLASSIFICATION

▭ = Project Area

Base map obtained from Waukesha County GIS website

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Project Name & Location:
Thomas Farm Development
NWC Golf Road and Elmhurst Road
Town of Delafield, Wisconsin

Drawing Title:
Site Location Map

Project No.: 23083-10

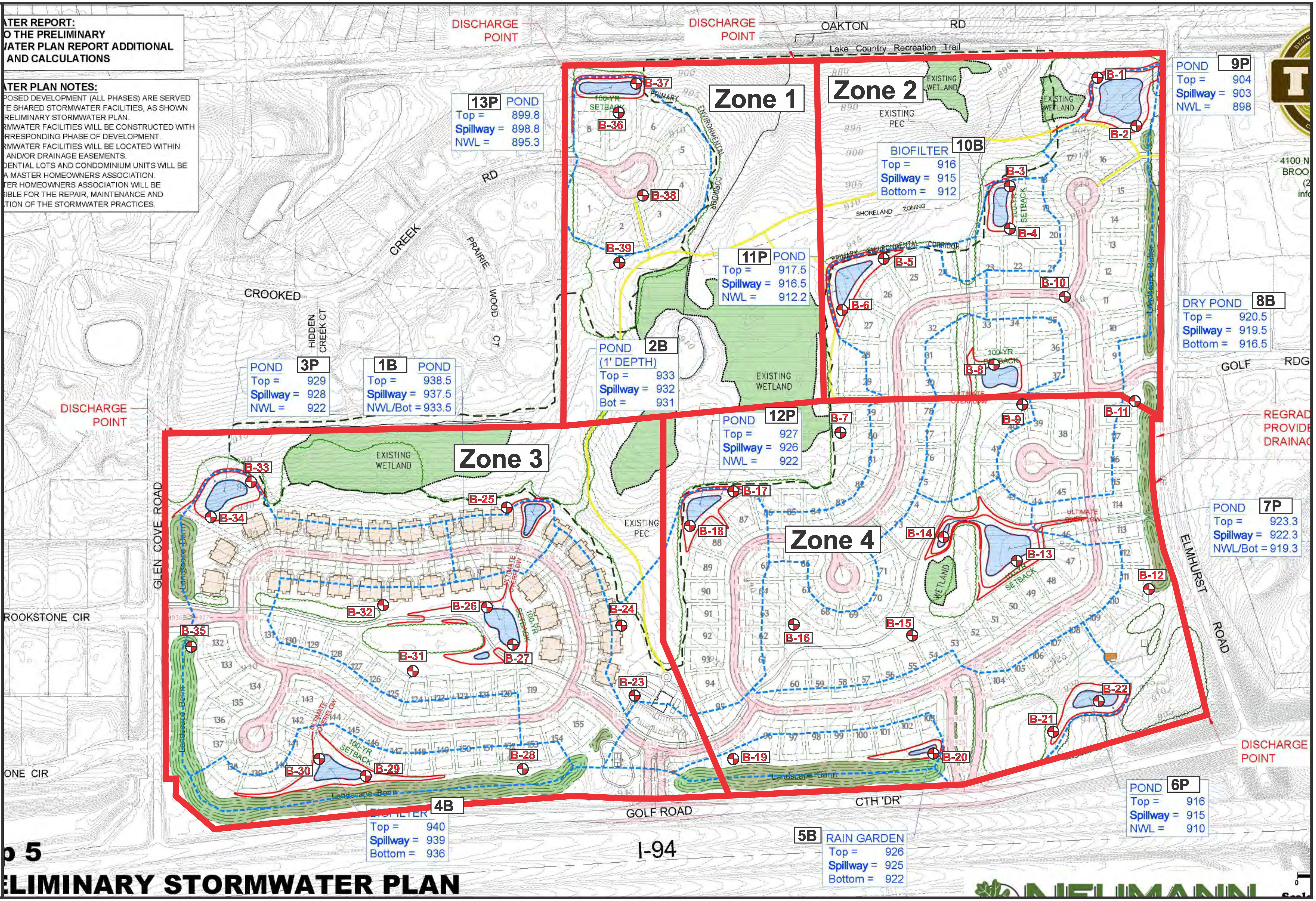
Scale: Not to Scale

Drawing No.: 1 of 2

Prepared by: JM

Checked by: DD

Date: May 6th, 2023



= Borehole Location

= Zone Boundary

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Base Map obtained from "Map 5 - Preliminary Stormwater Plan" dated 04/07/2023 provided to GESTRA
Document Size = 11"x17"

Project Name & Location:
Thomas Farms Development
NWC Golf Road and Elmhurst Road
Town of Delafield, Wisconsin

Drawing Title:
Borehole Location Map

Project No.: 23083-10

Scale: 1 inch = 300 feet

Drawing No.: 2 of 2

Prepared by: JM

Checked by: DD

Date: May 6th, 2023

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SOIL BORING LOG

PAGE NUMBER: 1 of 1

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/10/2023	BORING NUMBER **B-1**	
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/10/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin LAB LOG / QC D. Dettmers	NORTHING 389790 EASTING 2415434	DRILLING METHOD 2¼" HSA SURFACE ELEVATION 899.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	17	0 1 1 2	2			TOPSOIL (10-inches) 0.8 (898.9) LEAN CLAY WITH SAND, brown, moist, medium stiff 2 (897.7)	CL			.50			21.9	Driller noted standing water around boring.
SS - 2	18	2 2 4 4	6	▼		CLAYEY SAND WITH GRAVEL, light brown at 3', trace gray mottling, moist, loose 3.8 (895.9)	SC			.50				Gravel = 21.3% Sand = 29.4% P200 =49.2%
SS - 3	12	4 6 4 4	10	5 ▽	895.0	CLAYEY SAND, light brown, wet, medium dense, trace gravel	SC							
SS - 4	14	5 5 9 6	14			8 (891.7)								
SS - 5	12	5 9 14 17	23	10	890.0	SILTY SAND WITH GRAVEL, light brown, moist to wet, medium dense	SM							
SS - 6	18	3 4 17 16	21			12.2 (887.5)								
SS - 7	2	50/2"	R			End of Boring at 12.2 ft.								Auger Refusal at 12.5'. Possible bedrock.
				15	885.0									
				20	880.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 6 ft.	☒	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 4 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 2 HOURS: 4 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-2
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 389629	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415563	SURFACE ELEVATION 906.9 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (7-inches) 0.6 (906.3)								
SS - 1	15	5 6 6 6	12		905.0	LEAN CLAY, brown, moist, stiff, trace sand and gravel 2 (904.9)	CL			1.5	43	26	22.6	
SS - 2	12	3 7 8 5	15			CLAYEY SAND WITH GRAVEL, light brown, very moist, medium dense 4 (902.9)	SC							
SS - 3	14	8 20 27 16	47	5 ▼ ▽		SILTY CLAYEY SAND, light brown, moist to wet, medium dense to dense, gray gravel with sand layer around 5'	SC-SM							
SS - 4	12	3 8 7 38	15		900.0									
SS - 5	6	12 50/5"	R			8.9 (898)								
						End of Boring at 8.9 ft.								Driller noted auger refusal at 8.5'. Possible bedrock.
				10										
					895.0									
				15										
					890.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 6 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 6 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 3 HOURS: 5 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER 1 of 1
PROJECT NAME Thomas Farms Development
DATE DRILLING STARTED 4/7/2023
BORING NUMBER **B-3**
PROJECT LOCATION Delafield, Wisconsin
DATE DRILLING ENDED 4/7/2023
PROJECT NUMBER 23083-10
DRILLING RIG Geoprobe
BORING DRILLED BY
FIRM: GESTRA
CREW CHIEF: D. Harvey
FIELD LOG C. Dietz
LAB LOG / QC D. Dettmers
NORTHING 389426
EASTING 2415140
DRILLING METHOD 2¼" HSA
SURFACE ELEVATION 915.6 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q_u}$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	14	2 3 4 6	7		915.0	TOPSOIL (6-inches) 0.5 (915.1) LEAN CLAY, brown, moist, stiff, trace sand, gravelly (1'-2') 2 (913.6)	CL			1.50			26.2	
SS - 2	12	3 23 42 29	55			GRAVEL WITH SAND, light brown, moist, medium dense to very dense, sand with gravel layers, (Possible Weathered Bedrock)								
SS - 3	10	21 14 12 14	26	5	910.0									
SS - 4	14	7 15 48 18	63				GP							
SS - 5	14	18 50/3" 15 14	65/3			SS-5: with silt 10 (905.6)								
SS - 6	0	50/1"	R	10	905.0	End of Boring at 10.0 ft.								Driller noted auger refusal at 10'. Possible bedrock.
				15	900.0									
				20	895.0									

WATER & CAVE-IN OBSERVATION DATA

∇ WATER ENCOUNTERED DURING DRILLING: NE ft.
▼ WATER LEVEL AT COMPLETION: NE
▼ WATER LEVEL AFTER NE HOURS: NMR
CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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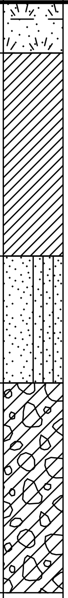
SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/7/2023
BORING NUMBER	B-4
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/7/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey
FIELD LOG	C. Dietz
LAB LOG / QC	D. Dettmers
NORTHING	389283
EASTING	2415140
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	919.8 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10-inches) 0.8 (919)								
SS - 1	20	2 1 2 2	3			LEAN CLAY, brown, moist, stiff, trace sand, with gravel at 3'	CL			1.75			22.1	
SS - 2	10	1 4 6 10	10			4 (915.8)				1.00			23.1	
SS - 3	10	25 31 28 15	59	5	915.0	SAND WITH SILT AND GRAVEL, light brown, moist, very dense, possible cobbles 6 (913.8)	SP-SM							
SS - 4	11	10 10 8 14	18			CLAYEY GRAVEL WITH SAND, light brown, moist, medium dense to very dense, sand with silt layers	GC							P200 = 32.5%
SS - 5	10	28 38 50/3	R			9.3 (910.5)								
				10	910.0	End of Boring at 9.3 ft.								Auger Refusal at 9.5'. Possible bedrock
				15	905.0									
				20	900.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER NE HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER 1 of 1

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	BORING NUMBER **B-5**	
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 389182	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2414717	SURFACE ELEVATION 917.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	9	2 2 3 3	5			TOPSOIL (10-inches) 0.8 (916.9) CLAYEY SAND, light brown, moist, very loose to dense								
SS - 2	15	3 3 3 4	6		915.0		SC							
SS - 3	15	2 16 22 31	38	5		5 (912.7) GRAVEL WITH SAND AND SILT, brown and gray, moist, dense to very dense	GP-GM							
SS - 4	3	4 50/5"	R			6.9 (910.8)								
						End of Boring at 6.9 ft.								Driller noted auger refusal at 6.5. Possible bedrock.
					910.0									
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	⊠	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NE			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER: 1 of 1
PROJECT NAME: Thomas Farms Development
DATE DRILLING STARTED: 4/11/2023
BORING NUMBER: B-6
PROJECT LOCATION: Delafield, Wisconsin
DATE DRILLING ENDED: 4/11/2023
PROJECT NUMBER: 23083-10
DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA
CREW CHIEF: D. Harvey
FIELD LOG: C. Dietz
LAB LOG / QC: D. Dettmers
NORTHING: 389011
EASTING: 2414577
DRILLING METHOD: 2¼" HSA
SURFACE ELEVATION: 912.4 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	14	1 2 1 2	3			TOPSOIL (11-inches) 0.9 (911.5) LEAN CLAY, brown, moist, stiff	CL			1.0			20.1	
SS - 2	14	2 6 7 6	13		910.0	3 (909.4) CLAYEY SAND WITH GRAVEL, light brown, moist, medium dense to very dense, brown sand layer at 6'								Gravel = 25.0% Sand = 33.2% P200 =41.8%
SS - 3	16	4 16 9 4	25	5										
SS - 4	12	13 9 10 43	19		905.0									
SS - 5	13	16 15 14 12	29	10			SC-SM							
SS - 6	14	24 32 32 25	64											
SS - 7	18	64 55 60/2"	R		900.0	13.5 (898.9) End of Boring at 13.2 ft.								Driller noted auger refusal at 13.5'. Possible bedrock.
				15										
					895.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

WATER ENCOUNTERED DURING DRILLING: NE ft.
CAVE DEPTH AT COMPLETION: NMR — WET ☐ DRY ☐
WATER LEVEL AT COMPLETION: NE
CAVE DEPTH AFTER 0 HOURS: NMR — WET ☐ DRY ☐
WATER LEVEL AFTER 0 HOURS: NMR

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PROJECT NAME: Thomas Farms Development	DATE DRILLING STARTED: 4/11/2023	PAGE NUMBER: 1 of 1	BORING NUMBER: B-7
PROJECT LOCATION: Delafield, Wisconsin	DATE DRILLING ENDED: 4/11/2023	PROJECT NUMBER: 23083-10	DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG: B. Griffin LAB LOG / QC: D. Dettmers	NORTHING: 388598 EASTING: 2414571	DRILLING METHOD: 2¼" HSA SURFACE ELEVATION: 916.3 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
					▼	TOPSOIL (10-inches) 0.8 (915.5)								
SS - 1	18	0 1 2 4	3		915.0	LEAN CLAY, brown, moist, stiff, trace sand 2 (914.3)	CL	▨		1.00			22.7	
SS - 2	14	0 2 3 2	5		▼	LEAN CLAY WITH SAND, light brown, moist to very moist, medium stiff, trace gravel		▨		0.50			12.3	
SS - 3	12	2 5 6 8	11	5			CL	▨		0-0.25			9.2	
SS - 4	9	3 5 4 3	9		910.0 ▽	8 (908.3)		▨		0-0.25			9	
SS - 5	14	8 30 50/3"	R			GRAVEL WITH SAND, brown and gray, wet, very dense 9.3 (907)	GP							
				10	905.0	End of Boring at 9.3 ft.								Driller noted auger refusal at 9.5'. Possible bedrock.
				15	900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 7.5 ft.		CAVE DEPTH AT COMPLETION: NMR — WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 3 ft.		CAVE DEPTH AFTER 0 HOURS: NMR — WET ☐ DRY ☐
▼	WATER LEVEL AFTER 3 HOURS: 0.4 ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/10/2023	PAGE NUMBER 1 of 1	BORING NUMBER **B-8**
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/10/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 388826	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415086	SURFACE ELEVATION 918.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10-inches) 0.8 (917.9)								
SS - 1	16	2 2 2 2	4			SANDY LEAN CLAY, brown, moist, stiff	CL	▨		1.00	48	27	21.7	
SS - 2	13	2 2 3 2	5		915.0					1.00			27.6	P200 = 52.8%
SS - 3	12	1 1 2 50/5"	3	5		Gravelly at 5.5' 5.9 (912.8)							9.2	
						End of Boring at 5.9 ft.								Auger Refusal at 6.5'. Possible bedrock.
					910.0									
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER 1 of 1

PROJECT NAME	Thomas Farms Development	DATE DRILLING STARTED	4/10/2023
BORING NUMBER	B-9	PROJECT NUMBER	23083-10
PROJECT LOCATION	Delafield, Wisconsin	DATE DRILLING ENDED	4/10/2023
DRILLING RIG	Geoprobe	DRILLING METHOD	2¼" HSA
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG	B. Griffin
LAB LOG / QC	D. Dettmers	NORTHING	388693
EASTING	2415182	SURFACE ELEVATION	919.2 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	15	2 2 3 3	5			TOPSOIL (thickness not recorded) LEAN CLAY, brown, moist, stiff, trace to with sand	CL			1.00			23.8	
SS - 2	17	2 4 3 3	7			4 (915.2)				1.00			26	
SS - 3	13	2 6 3 3	9	5	915.0	CLAYEY SAND WITH GRAVEL, brown, moist to wet, loose 6 (913.2)	SC-SM							Gravel = 17.1% Sand = 36.5% P200 =46.4%
SS - 4	17	1 2 3 5	5			LEAN CLAY, brown, moist, stiff, with gravel and sand at 8.5'	CL			1.50			20	
SS - 5	4	11 50/3"	R			8.8 (910.4)				0.50			20.1	
					910.0	End of Boring at 8.8 ft.								Driller noted auger refusal at 9'. Possible bedrock.
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

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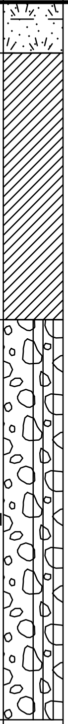
SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/7/2023
BORING NUMBER	**B-10**
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/7/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey
FIELD LOG	C. Dietz
LAB LOG / QC	D. Dettmers
NORTHING	389054
EASTING	2415325
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	920.8 ft



Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (9-inches) 0.8 (920)								
SS - 1	18	2 1 2 3	3		920.0	LEAN CLAY, brown, moist, stiff to very stiff, trace sand, with gravel at 3'				1.25-2.00			21.1	
SS - 2	9	2 3 3 4	6				CL			1.25			18.7	
SS - 3	15	2 4 16 19	20	5	915.0	5 (915.8) GRAVEL WITH SILT AND SAND, light brown, moist, medium dense to dense								
SS - 4	19	16 20 25 22	45											
SS - 5	14	18 26 26 24	52	10			GP-GM							
SS - 6	14	9 34 50/4"	R		910.0	SS-6: Silty Sand with gravel layer 11.3 (909.5)								
						End of Boring at 11.3 ft.								Auger Refusal at 12'. Possible bedrock.
				15	905.0									
				20	900.0									

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: NE ft.	⊠	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER NE HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/7/2023	PAGE NUMBER 1 of 1	BORING NUMBER **B-11**
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/7/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 388704	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415559	SURFACE ELEVATION 917.8 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (9-inches) 0.8 (917)		⁘						
SS - 1	24	2 2 3 3	5			LEAN CLAY, brown, moist, stiff to very stiff, trace sand 2 (915.8)	CL	▨		1.25-2.00			25	
SS - 2	18	2 1 1 2	2		915.0	CLAYEY SAND WITH GRAVEL, light brown, very moist, very loose 4 (913.8)	SC	▨						
SS - 3	9	4 50/3"	R	5		LEAN CLAY, light brown, moist, very stiff, trace sand 4.8 (913)	CL	▨		2.5			14.4	
						End of Boring at 4.8 ft.								Driller noted auger refusal at 5.5'. Possible bedrock.
					910.0									
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽ WATER ENCOUNTERED DURING DRILLING: NE ft.

▼ WATER LEVEL AT COMPLETION: NE

▼ WATER LEVEL AFTER NE HOURS: NMR

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐

CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/7/2023	PAGE NUMBER 1 of 1	BORING NUMBER **B-12**
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/7/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 388072	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415606	SURFACE ELEVATION 917.4 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10.5-inches) 0.9 (916.5)								
SS - 1	21	2 2 2 3	4			LEAN CLAY, brown, moist, stiff, trace sand	CL	▨		1.25			18.3	
					915.0	3 (914.4)								
SS - 2	14	2 39 50/2	R			GRAVEL WITH SAND, light brown, moist, very dense, trace to with silt, (Possible Weathered Bedrock)	GP							
SS - 3	4	13 15 50/0"	R	5		5 (912.4)								Driller noted auger refusal at 5'. Possible bedrock.
						End of Boring at 5.0 ft.								
					910.0									
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: NE ft.	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER NE HOURS: NMR		

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/10/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-13
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/10/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 388168	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415163	SURFACE ELEVATION 921.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q_u}$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10-inches) 0.8 (920.9)								
SS - 1	14	2 2 4 3	6		920.0	LEAN CLAY, brown, moist, very stiff 2 (919.7)	CL			2.50			25.1	
SS - 2	15	2 2 2 1	4			CLAYEY SAND, light brown, moist to wet, very loose 4.2 (917.5)	SC							
SS - 3	~~1~~	~~50/2"~~	~~R~~			End of Boring at 4.2 ft.								Driller noted auger refusal at 4.5'. Possible bedrock.
				5										
					915.0									
				10										
					910.0									
				15										
					905.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER NE HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1	
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	BORING NUMBER **B-14**	PROJECT NUMBER 23083-10
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 388248	DRILLING RIG Geoprobe
	LAB LOG / QC D. Dettmers	EASTING 2414917	DRILLING METHOD 2¼" HSA
			SURFACE ELEVATION 925.2 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	15	2 1 2 6	3			TOPSOIL (10-inches) 0.8 (924.4) LEAN CLAY, brown, moist, very stiff, trace sand 2 (923.2)	CL			2.5			25.4	
SS - 2	18	6 10 15 14	25			SILTY SAND WITH CLAY AND GRAVEL, reddish brown, moist, medium dense								
SS - 3	12	13 21 15 14	36	5	920.0		SP-SM							P200 = 22.5%
SS - 4	15	7 9 16 23	25			7.6 (917.6)								
SS - 5		50/1"	R			End of Boring at 7.6 ft.								Driller noted no recovery for SS-5. Auger refusal at 7.5'. Possible bedrock.
				10	915.0									
				15	910.0									
				20	905.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

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SOIL BORING LOG

PAGE NUMBER 1 of 1
PROJECT NAME Thomas Farms Development
DATE DRILLING STARTED 4/11/2023
BORING NUMBER **B-15**
PROJECT NUMBER 23083-10
PROJECT LOCATION Delafield, Wisconsin
DATE DRILLING ENDED 4/11/2023
DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA
CREW CHIEF: D. Harvey
FIELD LOG B. Griffin
NORTHING 387917
DRILLING METHOD 2¼" HSA
LAB LOG / QC D. Dettmers
EASTING 2414812
SURFACE ELEVATION 926.8 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	15	2 2 2 2	4		**925.0**	TOPSOIL (10-inches) 0.8 (926) LEAN CLAY, brown, moist, stiff				1.0			21.8	
SS - 2	8	1 4 5 5	9			4 (922.8)	CL			1.5			27.3	
SS - 3	17	4 4 9 5	13	**5**		CLAYEY SAND, light brown, moist to very moist, loose to very dense, trace to with gravel								
SS - 4	12	4 5 5 6	10		**920.0**	SS-4: black sand layer	SC							
SS - 5	0	5 50/5"	R			8.9 (917.9)								
				10		End of Boring at 8.9 ft.								Driller noted auger refusal at 9.5'. Possible bedrock.
					915.0									
				15										
					910.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

∇ WATER ENCOUNTERED DURING DRILLING: NE ft.
▼ WATER LEVEL AT COMPLETION: NE
▼ WATER LEVEL AFTER 0 HOURS: NMR

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER: 1 of 1

PROJECT NAME: Thomas Farms Development

DATE DRILLING STARTED: 4/11/2023

BORING NUMBER: **B-16**

PROJECT LOCATION: Delafield, Wisconsin

DATE DRILLING ENDED: 4/11/2023

PROJECT NUMBER: 23083-10

DRILLING RIG: Geoprobe

BORING DRILLED BY: FIRM: GESTRA
CREW CHIEF: D. Harvey

FIELD LOG: C. Dietz

LAB LOG / QC: D. Dettmers

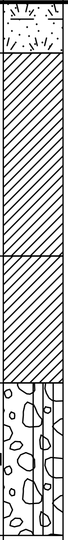
NORTHING: 387955

EASTING: 2414415

DRILLING METHOD: 2¼" HSA

SURFACE ELEVATION: 930.5 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
					930.0	TOPSOIL (9-inches) 0.8 (929.7)								
SS - 1	18	1 1 2 2	3			LEAN CLAY, brown, moist, stiff, trace sand	CL			1.0			21.2	
SS - 2	9	2 17 5 5	22			4 (926.5)				1.5			22.8	
SS - 3	9	2 3 4 3	7	5	925.0	LEAN CLAY WITH SAND, light brown to brown, moist, medium stiff, trace to with gravel 6 (924.5)	CL			0.5			12.3	
SS - 4	6	2 5 6 9	11	▼ ▼		GRAVEL WITH SAND AND SILT, light brown, moist to wet, medium dense to very dense	GP-GM							
SS - 5	4	50/5"	R			8.4 (922.1)								
						End of Boring at 8.4 ft.								Driller noted auger refusal at 8.5'. Possible bedrock.
				10	920.0									
				15	915.0									
				20	910.0									



WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: 8 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 8 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 1.5 HOURS: 7.5 ft.			

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SOIL BORING LOG

PAGE NUMBER	1 of 1		
PROJECT NAME	Thomas Farms Development	DATE DRILLING STARTED	4/11/2023
BORING NUMBER	B-17	PROJECT NUMBER	23083-10
PROJECT LOCATION	Delafield, Wisconsin	DATE DRILLING ENDED	4/11/2023
DRILLING RIG	Geoprobe		
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey		
FIELD LOG	C. Dietz	NORTHING	388402
LAB LOG / QC	D. Dettmers	EASTING	2414212
DRILLING METHOD	2¼" HSA	SURFACE ELEVATION	925 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (6.5-inches) 0.5 (924.5)								
SS - 1	15	1 1 2 3	3			LEAN CLAY, brown, moist, stiff, trace sand	CL	▨		1.5			26	
SS - 2	11	1 3 4 12	7			3.5 (921.5)		▨					13.2	
SS - 3	15	4 17 14 9	31	5	920.0	SAND WITH SILT AND GRAVEL, brown, moist to wet, medium dense to very dense SS-3: sandy lean clay layer	SP-SM	⁚						
SS - 4	15	14 17 12 9	29	▼				⁚						
SS - 5	2	50/5"	R			8.4 (916.6) End of Boring at 8.4 ft.								Driller noted auger refusal at 8.5'. Possible bedrock.
				10	915.0									
				15	910.0									
				20	905.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 8 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 8 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 2 HOURS: 8 ft.			

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SOIL BORING LOG

PROJECT NAME: Thomas Farms Development	DATE DRILLING STARTED: 4/11/2023	PAGE NUMBER: 1 of 1	BORING NUMBER: B-18
PROJECT LOCATION: Delafield, Wisconsin	DATE DRILLING ENDED: 4/11/2023	PROJECT NUMBER: 23083-10	DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG: B. Griffin	NORTHING: 388286	DRILLING METHOD: 2¼" HSA
	LAB LOG / QC: D. Dettmers	EASTING: 2414066	SURFACE ELEVATION: 931.2 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (6-inches) 0.5 (930.7)								
SS - 1	12	2 2 3 3	5		930.0	LEAN CLAY, brown, moist, stiff, trace sand and gravel 3 (928.2)	CL	▨		1.0			26.5	
SS - 2	11	2 4 16 20	20			GRAVEL WITH SILT AND SAND, light brown, moist, medium dense to dense								
SS - 3	13	16 15 17 18	32	5			GP-GM							P200 = 17.9%
SS - 4	1	50/3"	R		925.0	6.3 (924.9) End of Boring at 6.3 ft.								Driller noted auger refusal at 6.5'. Possible bedrock.
				10	920.0									
				15	915.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: NE ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1	BORING NUMBER **B-19**
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 387504	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2414212	SURFACE ELEVATION 934.9 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10") 0.8 (934.1)								
SS - 1	18	4 5 4 5	9			CLAYEY SAND, brown, moist, loose to medium dense	SC							P200 = 44.5%
SS - 2	18	4 5 13 12	18			3 (931.9) SAND, brown, moist, medium dense 4.7 (930.2)	SP							
SS - 3	18	15 18 22 22	40	5	930.0	CLAYEY SAND, red brown, dry to moist, dense to very dense, trace gravel	SC							P200 = 42.9%
SS - 4	18	9 20 24 22	44											
SS - 5		16 22 50/1"	R			9.1 (925.8)								Driller did not record recovery on field log.
				10	925.0	End of Boring at 9.1 ft.								Driller noted auger refusal at 9.5'. Possible bedrock.
				15	920.0									
				20	915.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME: Thomas Farms Development	DATE DRILLING STARTED: 4/11/2023	PAGE NUMBER: 1 of 1	BORING NUMBER: B-20
PROJECT LOCATION: Delafield, Wisconsin	DATE DRILLING ENDED: 4/11/2023	PROJECT NUMBER: 23083-10	DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG: B. Griffin	NORTHING: 387522	DRILLING METHOD: 2¼" HSA
	LAB LOG / QC: D. Dettmers	EASTING: 2414883	SURFACE ELEVATION: 925.6 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
					925.0	TOPSOIL (9-inches) 0.8 (924.8)		⁘						
SS - 1	10	2 3 3 4	6			LEAN CLAY, brown with gray and black mottling, moist, very soft to very stiff, trace sand		▨		1.0			24.7	
SS - 2	14	2 4 3 4	7				CL	▨		2.0	35	20	22.1	
SS - 3	10	1 0 1 1	1	5	920.0	SS-3: with silt		▨		0-0.25			20.6	
SS - 4	0	0 50/1"	R			SS-4: with silt 6.6 (919)		▨		0.5-1.5			18.6	Driller noted auger refusal at 6.5'. Possible bedrock.
						End of Boring at 6.6 ft.								
				10	915.0									
				15	910.0									
				20	905.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	☒	CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER: 1 of 1

PROJECT NAME: Thomas Farms Development

DATE DRILLING STARTED: 4/12/2023

BORING NUMBER: **B-21**

PROJECT LOCATION: Delafield, Wisconsin

DATE DRILLING ENDED: 4/12/2023

PROJECT NUMBER: 23083-10

DRILLING RIG: Geoprobe

BORING DRILLED BY: FIRM: GESTRA
CREW CHIEF: D. Harvey

FIELD LOG: C. Dietz

LAB LOG / QC: D. Dettmers

NORTHING: 387595

EASTING: 2415285

DRILLING METHOD: 2¼" HSA

SURFACE ELEVATION: 917.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	9	3 50/3"				TOPSOIL (8-inches) 0.7 (917)								
						GRAVEL WITH SAND, brown and light brown, moist, dense to very dense, possible cobbles or boulders at 1'								
					915.0		GP							
SS - 2	3	10 18 26 35	44											
						4.6 (913.1)								
SS - 3	1	50/1"	R	5		End of Boring at 4.6 ft.								Driller noted auger refusal at 4.5'. Possible bedrock.
					910.0									
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER 1 of 1			
PROJECT NAME Thomas Farms Development		DATE DRILLING STARTED 4/12/2023	BORING NUMBER **B-22**
			PROJECT NUMBER 23083-10
PROJECT LOCATION Delafield, Wisconsin		DATE DRILLING ENDED 4/12/2023	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 387698	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415438	SURFACE ELEVATION 916.3 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (9-inches) 0.8 (915.5)								
SS - 1	20	0 0 1 2	1		915.0	LEAN CLAY WITH SAND, brown, moist, stiff, trace gravel, layer of brown/gray silty clay at 5'				1			22.8	
SS - 2	19	0 3 3 3	6				CL			2.25			23.5	
				5		5 (911.3)								
SS - 3	10	2 1 2 5	3			CLAYEY SAND WITH GRAVEL, brown, moist, medium dense				1.5				Gravel = 21.1% Sand = 33.6% P200 =45.4%
SS - 4	23	6 8 12 29	20		910.0		SC-SM							
						7.5 (908.8)								
SS - 5	1	50/1"	R			GRAVEL, light brown, moist, medium dense, with sand 8.1 (908.2)	GP							
						End of Boring at 8.1 ft.								Driller noted auger refusal at 8.1'. Possible bedrock.
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: NE ft.		CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME: Thomas Farms Development	DATE DRILLING STARTED: 4/11/2023	PAGE NUMBER: 1 of 1	BORING NUMBER: B-23
PROJECT LOCATION: Delafield, Wisconsin	DATE DRILLING ENDED: 4/11/2023	PROJECT NUMBER: 23083-10	DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG: C. Dietz	NORTHING: 387716	DRILLING METHOD: 2¼" HSA
	LAB LOG / QC: D. Dettmers	EASTING: 2413881	SURFACE ELEVATION: 940.4 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
					940.0	TOPSOIL (10-inches) 0.8 (939.6)								
SS - 1	20	2 4 12 9	16			CLAYEY SAND WITH GRAVEL, brown, moist, medium dense	SC							
SS - 2	9	9 9 9 7	18											
SS - 3	9	3 9 12 10	21	5	935.0	6 (934.4)								
SS - 4	12	7 10 10 7	20			SAND WITH SILT AND GRAVEL, light brown, moist, medium dense 8 (932.4)	SP-SM							
SS - 5	16	19 24 33 29	57			SILTY SAND WITH GRAVEL, light brown to brown, moist, very dense, trace clay	SM							
SS - 6	5	21 50/2"	R	10	930.0	10.7 (929.7)								Driller noted auger refusal at 10.5'. Possible bedrock.
						End of Boring at 10.7 ft.								
				15	925.0									
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR		

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SOIL BORING LOG

PAGE NUMBER 1 of 1
PROJECT NAME: Thomas Farms Development
DATE DRILLING STARTED: 4/11/2023
BORING NUMBER: **B-24**
PROJECT LOCATION: Delafield, Wisconsin
DATE DRILLING ENDED: 4/11/2023
PROJECT NUMBER: 23083-10
DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA
CREW CHIEF: D. Harvey
FIELD LOG: C. Dietz
LAB LOG / QC: D. Dettmers
NORTHING: 387950
EASTING: 2413836
DRILLING METHOD: 2¼" HSA
SURFACE ELEVATION: 940.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	14	2 6 12 12	18		940.0	TOPSOIL (8-inches) 0.7 (940) SAND WITH GRAVEL, light brown, moist, medium dense 2 (938.7)	SP							
SS - 2	17	3 3 3 3	6			CLAYEY SAND, light brown, moist, trace to with gravel	SC							
SS - 3	24	1 4 6 7	10	5	935.0									
SS - 4	21	3 14 16 18	30			7 (933.7) SILTY/CLAYEY SAND WITH GRAVEL, light brown, moist, dense SS-4: 10" clay layer	SC-SM							
SS - 5	21	5 14 22 50/3"	36			9.8 (930.9)								
				10	930.0	End of Boring at 9.8 ft.								Driller noted auger refusal at 10.5'. Possible bedrock.
				15	925.0									
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME: Thomas Farms Development	DATE DRILLING STARTED: 4/12/2023	PAGE NUMBER: 1 of 1	BORING NUMBER: B-25
PROJECT LOCATION: Delafield, Wisconsin	DATE DRILLING ENDED: 4/12/2023	PROJECT NUMBER: 23083-10	DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG: C. Dietz	NORTHING: 388347	DRILLING METHOD: 2¼" HSA
	LAB LOG / QC: D. Dettmers	EASTING: 2413452	SURFACE ELEVATION: 932.6 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (7.5-inches) 0.6 (932)								
SS - 1	18	2 1 2 2	3			LEAN CLAY WITH SAND, brown, moist, stiff, possible cobble or boulder at 2.5'				1.5			21.5	
SS - 2	6	1 50/2"	R		930.0		CL			1.0			25	
						4 (928.6)								
SS - 3	9	6 6 6 5	12	5		SILTY SAND WITH GRAVEL, moist, medium dense	SM							P200 = 19.5%
SS - 4	12	3 7 5 5	12	▼ ▽	925.0	8 (924.6)								
SS - 5	6	15 30 18 14	48	10		GRAVEL WITH SAND, brown, very dense, trace silt	GP							
SS - 6	12	18 41 24	65			12.1 (920.5)								
SS - 7	1	50/1"	R		920.0	End of Boring at 12.1 ft.								Driller noted auger refusal at 12'. Possible bedrock
				15	915.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 8 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 7 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 3 HOURS: 7 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-26
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: S. Gonyer	FIELD LOG C. Ray	NORTHING 388013	DRILLING METHOD 3¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2413386	SURFACE ELEVATION 938.3 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	13	1 1 2 2	3			TOPSOIL (8-inches) 0.7 (937.6) LEAN CLAY, brown, moist, very stiff, trace sand				2.5			21.4	
SS - 2	14	1 3 3 3	6		935.0	4 (934.3)	CL			2.0			26.9	
SS - 3	14	1 2 3 4	5	5 ▼		SILTY CLAY, light brown, moist, medium stiff to stiff	CL-ML			0.5-1.0			19.3	P200 = 97.2%
SS - 4	15	1 3 14 5	17			7 (931.3) SANDY LEAN CLAY WITH GRAVEL, brown, moist to wet, stiff				1.0			20.2	
SS - 5	15	4 15 17 19	32	10	930.0					1.5			9.3	
SS - 6	14	5 14 19 21	33	▼		SS-6: rock pieces	CL			1.5			8.3	
SS - 7	19	9 45 19 16	64	▽	925.0	13 (925.3) GRAVEL WITH SILT AND SAND, light brown, wet, very dense, rock pieces (possible weathered bedrock)								
SS - 8	12	6 24 50/3"	R	15		15.3 (923) End of Boring at 15.3 ft.	GP-GM							
				20	920.0									Driller noted auger refusal at 16'. Possible bedrock.

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 14 ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 11 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 48 HOURS: 5 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-27
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	PROJECT NUMBER 23083-10	DRILLING RIG Diedrich D50 ATV
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: A. Woerpel	FIELD LOG B. Griffin	NORTHING 387887	DRILLING METHOD 3¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2413473	SURFACE ELEVATION 939 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	4	2 2 3 4	5			TOPSOIL (4-inches) 0.3 (938.7) LEAN CLAY, dark brown, moist, medium stiff 1.1 (937.9) LEAN CLAY, brown, moist, medium stiff, trace sand 1.6 (937.4)	CL CL	▨		0.5			25	
SS - 2	15	2 3 4 5	7		935.0	LEAN CLAY, light brown with gray mottling, moist, medium stiff to stiff	CL	▨		1.0	25	10	18.9	
SS - 3	16	2 2 2 4	4	5		6.5 (932.5)		▨		1.0			18	
SS - 4	11	1 3 4 8	7			SANDY LEAN CLAY WITH GRAVEL, light brown, moist, stiff		▨		1.5			10.1	
SS - 5	10	5 28 30 16	58	10 ▼	930.0	SS-5: rock pieces	CL	▨					8.8	
SS - 6	13	19 12 17 34	29	▽		11.5 (927.5) GRAVEL, brown, wet, medium dense to very dense		▨						
SS - 7	10	9 5 23 23	28		925.0		GP	○						
SS - 8	12	4 7 50/2"	R	15 ▼		clayey gravel at 14' 15.2 (923.8) End of Boring at 15.2 ft.		○						Driller noted auger refusal at 15'. Possible bedrock.
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 11.5 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 15 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 24 HOURS: 10 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-28
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10	DRILLING RIG LC 55
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: S. Gonyer	FIELD LOG C. Ray	NORTHING 387470	DRILLING METHOD 3¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2413507	SURFACE ELEVATION 943.4 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	17	1 1 2 3	3			TOPSOIL (10-inches) 0.8 (942.6) LEAN CLAY, brown, moist, stiff				1.5			19.8	
SS - 2	16	2 3 4 5	7		940.0	with gravel at 2-4' 4 (939.4)	CL			1.5			15.8	
SS - 3	16	2 4 5 7	9	5		CLAYEY GRAVEL WITH SAND, light brown, moist, loose 5.5 (937.9)	GC							Gravel = 45.8% Sand = 25.7% P200 =28.5%
SS - 4	19	5 12 17 16	29			SAND WITH GRAVEL, brown, moist, medium dense 8 (935.4)	SP							
SS - 5	20	7 17 27 14	44		935.0	SAND WITH SILT AND GRAVEL, light brown, moist, medium dense to dense								
SS - 6	18	4 12 14 18	26	10 ▼		12 (931.4)	SP-SM							
SS - 7	17	12 24 30 54	54		930.0	GRAVEL WITH CLAY AND SAND, brown, moist to wet, very dense								
SS - 8	5	7 50/3"	R	▽ 15		clayey sand layer at 14' SS-8: rock pieces	GP-GC							
SS - 9	0	50/1"		▼		16.1 (927.3) End of Boring at 16.1 ft.								Driller noted no recovery. Auger refusal at 16'. Possible bedrock.
					925.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 14 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 16 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 48 HOURS: 12 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-29
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10	DRILLING RIG LC 55
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: S. Gonyer	FIELD LOG C. Ray	NORTHING 387445	DRILLING METHOD 3¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2412979	SURFACE ELEVATION 946.1 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	13	2 2 3 5	5		945.0	TOPSOIL (9-inches) 0.8 (945.3) LEAN CLAY, brown, moist, stiff to very stiff 2 (944.1)	CL			1.0-2.0			21.7	
SS - 2	18	2 3 3 4	6			SANDY LEAN CLAY, brown to light brown, moist, stiff, trace gravel	CL			1.0			7.6	
SS - 3	16	3 4 5 5	9	5						1.0			8.5	
SS - 4	19	5 11 16 20	27		940.0	7 (939.1) SILTY SAND WITH GRAVEL, light brown, moist, medium dense	SM			0.5				
SS - 5	16	5 14 18 18	32	10		9 (937.1) SILTY SAND, light brown, moist, medium dense to dense	SM							P200 = 23.6%
SS - 6	18	5 12 17 20	29		935.0	12 (934.1)								
SS - 7	20	12 35 24 42	59	▽		SILTY SAND WITH GRAVEL, light brown, moist to wet, dense to very dense	SM							
SS - 8	0	12 20 13 16	33	15	930.0									
SS - 9	7	22 50/5"				17 (929.1) GRAVEL WITH SAND, light brown, wet, very dense, rock pieces (possible weathered bedrock) 18.1 (928)	GP							
SS - 10	1	50/1"	R			End of Boring at 18.1 ft.								Driller noted auger refusal at 20'. Possible bedrock.
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 13 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER 1 of 1
PROJECT NAME: Thomas Farms Development
DATE DRILLING STARTED: 4/11/2023
BORING NUMBER: **B-30**
PROJECT LOCATION: Delafield, Wisconsin
DATE DRILLING ENDED: 4/11/2023
PROJECT NUMBER: 23083-10
DRILLING RIG: LC 55
BORING DRILLED BY: FIRM: GESTRA, CREW CHIEF: S. Gonyer
FIELD LOG: C. Ray
LAB LOG / QC: D. Dettmers
NORTHING: 387504
EASTING: 2412823
DRILLING METHOD: 3¼" HSA
SURFACE ELEVATION: 948.5 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	8	2 2 2 4	4			TOPSOIL (24-inches), LEAN CLAY, dark brown, moist 2 (946.5)							21	
SS - 2	13	2 3 4 7	7		945.0	SANDY LEAN CLAY, light brown, moist, stiff, trace gravel 4 (944.5)	CL			1.0			9.1	
SS - 3	12	5 6 7 8	13	5		SILTY CLAY WITH GRAVEL, light brown, moist, stiff	CL-ML			1.0			10.7	
SS - 4	15	9 10 10 13	20			7 (941.5) GRAVEL WITH SAND, light brown, moist, medium dense	GP							
SS - 5	5	16 25 50/5"	R		940.0	9 (939.5) GRAVEL WITH SAND, gray and light brown, moist, very dense, rock pieces (possible weathered bedrock)								
SS - 6	4	35 50/3"	R	10			GP							
SS - 7	4	20 50/1"	R			12.7 (935.8)								
					935.0	End of Boring at 12.7 ft.								Driller noted auger refusal at 13'. Possible bedrock.
				15										
					930.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽ WATER ENCOUNTERED DURING DRILLING: NE ft.
▼ WATER LEVEL AT COMPLETION: NE
▼ WATER LEVEL AFTER 0 HOURS: NE
CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-31
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: A. Woerpel	FIELD LOG B. Griffin LAB LOG / QC D. Dettmers	NORTHING 387799 EASTING 2413138	DRILLING METHOD 2¼" HSA SURFACE ELEVATION 939.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	16	3 3 3 6	6			TOPSOIL (10-inches) 0.8 (938.9) LEAN CLAY, brown, moist, stiff to very stiff	CL			2.5			22.3	
SS - 2	10	3 4 4 5	8			trace of black lean clay at 2-4' 4.3 (935.4)				1.5-2.0			26.1	
SS - 3	12	2 2 4 8	6	5	935.0	CLAYEY SAND WITH GRAVEL, brown to light brown, moist to wet, loose to medium dense	SC							
SS - 4	12	3 7 10 22	17		∇									
SS - 5	13	7 6 8 8	14	10	930.0									
SS - 6	17	11 15 50/5"	R			11 (928.7) SILTY SAND, light brown, wet, very dense, possible weathered bedrock	SM							
SS - 7	8	50/5"	R		▼									
SS - 8	5	50/5"	R			14.5 (925.2)								
				15	925.0	End of Boring at 14.5 ft.								Drilller noted auger refusal at 15'. Possible bedrock.
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: 8 ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 12 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/11/2023
BORING NUMBER	B-32
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/11/2023
PROJECT NUMBER	23083-10
DRILLING RIG	LC 55
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: S. Gonyer
FIELD LOG	C. Ray
LAB LOG / QC	D. Dettmers
NORTHING	388020
EASTING	2413038
DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	939.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	15	1 2 3 3	5			TOPSOIL (8-inches) 0.7 (939) LEAN CLAY, brown, moist, stiff to very stiff	CL			1.5-2.5			21.1	
SS - 2	14	1 2 3 2	5			3 (936.7) CLAYEY SAND, light brown, moist, loose, trace gravel				1.5			20.3	
SS - 3	17	1 1 4 5	5	5	935.0		SC							
SS - 4	12	16 40 18 12	58			7 (932.7) SAND WITH SILT AND GRAVEL, light brown, moist, very dense	SP-SM							
SS - 5	17	12 16 20 21	36	10	∇ ▼ 930.0	8 (931.7) GRAVEL WITH SAND, light brown, wet, dense	GP							
SS - 6	15	13 25 19 18	44			10 (929.7) SILTY SAND WITH GRAVEL, light brown, wet, dense to very dense, trace clay								
SS - 7	0	50/1"	R			possible weathered bedrock 12' to EOB	SM							Driller noted no reovery.
SS - 8	5	9 50/3"	R	15	925.0	14.8 (924.9) End of Boring at 14.8 ft.								
														Driller noted auger refusal at 16'. Possible bedrock.
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: 8 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 9 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 48 HOURS: 9 ft.			

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development		DATE DRILLING STARTED 4/12/2023	PAGE NUMBER 1 of 1
			BORING NUMBER B-33
PROJECT LOCATION Delafield, Wisconsin		DATE DRILLING ENDED 4/12/2023	PROJECT NUMBER 23083-10
			DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: A. Woerpel	FIELD LOG B. Griffin	NORTHING 388433	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2412595	SURFACE ELEVATION 924.1 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	10	4 4 5 6	9	▼		TOPSOIL (6-inches) 0.5 (923.6) LEAN CLAY WITH GRAVEL, brown, moist, very stiff, organics (possible fill)	CL			2.0			21.8	
SS - 2	13	3 5 3 2	8	▼	920.0	2.2 (921.9) CLAYEY SAND, light brown, loose to medium dense, trace gravel	SC							
SS - 3	13	2 3 4 6	7	5										
SS - 4	8	3 4 12 9	16											Gravel = 14.9% Sand = 42.9% P200 =42.2%
SS - 5	13	4 11 11 11	22	10	915.0	10.4 (913.7)								
SS - 6	19	5 14 14 21	28			SILT, blueish gray with brown mottling, dry to moist, medium dense to very dense	ML						7.8	
SS - 7	16	6 11 12	23		910.0								9.8	
SS - 8	17	9 19 31 27	50	15		16 (908.1)								
SS - 9	6	50/0"	R			End of Boring at 16.0 ft.								Driller noted auger refusal at 17'. Possible bedrock.
				20	905.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 3.5 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 24 HOURS: 2 ft.			

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SOIL BORING LOG

PAGE NUMBER 1 of 1

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	BORING NUMBER **B-34**	PROJECT NUMBER 23083-10
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	DRILLING RIG Geoprobe	
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: A. Woerpel	FIELD LOG B. Griffin	NORTHING 388315	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2412460	SURFACE ELEVATION 929.6 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (5-inches) 0.4 (929.2)								
SS - 1	11	3 3 4 6	7			LEAN CLAY, brown, moist, very stiff 2.5 (927.1)	CL	▨		3.0			21.7	
SS - 2	12	3 4 6 5	10	▼		CLAYEY SAND, light brown, moist to wet, medium dense, trace to with gravel		▨						P200 = 21.0%
SS - 3	0	5 7 10 7	17	5	925.0			▨						Driller noted no recovery.
SS - 4	0	4 5 6 8	11	▼			SC	▨						Driller noted no recovery. Flight auger sample.
SS - 5	15	6 11 16 38	27	▽ 10	920.0	10.5 (919.1)		▨						
SS - 6	10	27 50/4"	R			GRAVEL WITH SAND, dark brown, wet, very dense 10.8 (918.8) End of Boring at 10.8 ft.	GP							Driller noted auger refusal at 11'. Possible bedrock.
				15	915.0									
				20	910.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 9 ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 8 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 24 HOURS: 3 ft.			

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SOIL BORING LOG

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PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-35
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10	DRILLING RIG LC 55
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: S. Gonyer	FIELD LOG C. Ray LAB LOG / QC D. Dettmers	NORTHING 387880 EASTING 2412395	DRILLING METHOD 3¼" HSA SURFACE ELEVATION 937.8 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	15	1 2 2 2	4			TOPSOIL (9-inches) 0.8 (937) LEAN CLAY, brown, moist, stiff to very stiff				2.0			21.2	
SS - 2	12	1 2 3 4	5		935.0	sandy lean clay 2-4' 4 (933.8)	CL			1.0				
SS - 3	19	2 3 3 5	6	5		CLAYEY SAND WITH GRAVEL, light brown, moist, loose	SC							
SS - 4	16	7 18 18 16	36		930.0	7 (930.8) SAND WITH SILT AND GRAVEL, light brown, moist, dense to very dense	SP-SM							
SS - 5	4	26 50/6"	R	▼		8.5 (929.3) GRAVEL WITH SAND, light brown, moist to wet, very dense, possible weathered bedrock								
SS - 6	3	50/5"	R	10 ▼			GP							
SS - 7	6	7 50/5"	R		925.0	SS-7: trace to with clay 12.9 (924.9)								
						End of Boring at 12.9 ft.								Driller noted auger refusal at 13'. Possible bedrock.
				15										
					920.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 10 ft.	⊠	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 10 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 48 HOURS: 9 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER	1 of 1		
PROJECT NAME	Thomas Farms Development	DATE DRILLING STARTED	4/12/2023
BORING NUMBER	B-36	PROJECT NUMBER	23083-10
PROJECT LOCATION	Delafield, Wisconsin	DATE DRILLING ENDED	4/12/2023
DRILLING RIG	Geoprobe	DRILLING METHOD	2¼" HSA
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG	C. Dietz
LAB LOG / QC	D. Dettmers	NORTHING	389672
EASTING	2413827	SURFACE ELEVATION	900.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q_u}$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	24	0 1 3 3	4		900.0	TOPSOIL (9-inches) 0.8 (899.9) LEAN CLAY, brown, moist, stiff to very stiff, trace sand				1.5			25.9	Staked location not accessible. B-36 offset 100' S and 135' E. GESTRA obtained coordinates and elevations.
SS - 2	11	0 2 1 1	3	▼		4 (896.7)	CL			1.5-2.5			26.1	
SS - 3	11	4 6 5 4	11	5	895.0	CLAYEY SILTY SAND, light brown, very moist to wet, loose to dense								
SS - 4	20	3 4 5 4	9				SC-SM							
SS - 5	7	11 12 22 13	34	10		10 (890.7)								
SS - 6	14	16 50 50/4"	R		890.0	SILTY SAND, light brown, moist, very dense								Driller noted possible cobbles or boulders at 11'.
SS - 7	17	20 32 50/5"	R				SM							
SS - 8	16	36 56 50/4"	R	15		15.4 (885.3)								
					885.0	End of Boring at 15.4 ft.								Driller noted auger refusal at 15.5'. Possible bedrock.
				20	880.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 4 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 4 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0.5 HOURS: 4 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	PAGE NUMBER 1 of 1	BORING NUMBER **B-37**
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz LAB LOG / QC D. Dettmers	NORTHING 389770 EASTING 2413886	DRILLING METHOD 2¼" HSA SURFACE ELEVATION 899.3 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	19	2 2 3 3	5			TOPSOIL (7.5-inches) 0.6 (898.7) LEAN CLAY WITH SAND, brown, moist, stiff	CL			1.25			17.3	
SS - 2	17	2 3 5 9	8			3 (896.3) CLAYEY SAND, light brown, very moist, loose to medium dense, trace gravel							11	Gravel = 14.7% Sand = 40.8% P200 =44.5%
SS - 3	1	5 7 7 6	14	5 ▼	895.0	6 (893.3)	SC							Driller noted rock in SS-3. Possible cobble and/or boulder.
SS - 4	20	4 8 9 10	17	▼		SILTY CLAYEY SAND, light brown, moist, medium dense to very dense, trace gravel								
SS - 5	23	10 18 17 23	35	10	890.0									
SS - 6	24	13 21 23 23	44				SC-SM							
SS - 7	24	28 36 34 33	70	▽	885.0									
SS - 8	19	19 32 42 39	74	15		wet at 14' moist at 15'								
SS - 9	14	31 41 50/2"	R			wet at 16' 17.2 (882.1) End of Boring at 17.2 ft.								
				20	880.0									Driller noted auger refusal at 17.5'. Possible bedrock.

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 14 ft.	☒	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 7 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 1 HOURS: 5.5 ft.			

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SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/12/2023
BORING NUMBER	B-38
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/12/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Diedrich D50 ATV
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: A. Woerpel
FIELD LOG	B. Griffin
LAB LOG / QC	D. Dettmers
NORTHING	389394
EASTING	2413909
DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	910 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	8	2 3 4 35	7			TOPSOIL (measurement not recorded) 0.5 (909.5) LEAN CLAY, red and brown with black mottling, moist, stiff 2 (908)	CL			1.0			24.3	Driller noted possible boulder.
SS - 2	12	3 3 4 6	7			CLAYEY SAND, light brown, moist to very moist, loose to medium dense								
SS - 3	13	3 5 11 8	16	5	905.0	sandy gravel layer at 4.5'	SC							
SS - 4	14	3 4 10 8	14			8 (902)								
SS - 5	10	4 31 15 11	46	10	900.0	SANDY LEAN CLAY, light brown, moist, very stiff gravel layer at 9'	CL			2.5			7.4	
SS - 6	16	6 9 13	22			12 (898)				2.0			5.7	
SS - 7	15	3 3 5	8			SANDY LEAN CLAY, gray, moist, stiff 14 (896)	CL			1.0			10.1	
SS - 8	12	4 8 7	15	15	895.0	CLAYEY/SILTY SAND, gray, very moist to moist, medium dense to very dense, trace to with gravel	SC-SM							
SS - 9	10	15 30 50/2"	R			17.2 (892.8) End of Boring at 17.2 ft.								
				20	890.0									Driller noted auger refusal at 19'. Possible bedrock.

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

GESTRA

GESTRA Engineering Inc.
191 W Edgerton Avenue
Milwaukee, WI 53207
Phone: 414-933-7444, Fax: 414-933-7844

SOIL BORING LOG

PAGE NUMBER	1 of 1		
PROJECT NAME	Thomas Farms Development	DATE DRILLING STARTED	4/12/2023
BORING NUMBER	B-39	PROJECT NUMBER	23083-10
PROJECT LOCATION	Delafield, Wisconsin	DATE DRILLING ENDED	4/12/2023
DRILLING RIG	Geoprobe		
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: A. Woerpel	FIELD LOG	B. Griffin
NORTHING	389169	DRILLING METHOD	2¼" HSA
LAB LOG / QC	D. Dettmers	EASTING	2413830
SURFACE ELEVATION	911.7 ft		

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	12	2 3 4 4	7		910.0 ▼	TOPSOIL (5-inches) 0.4 (911.3) LEAN CLAY, brown, moist, very stiff, trace sand 2 (909.7)	CL	▨		2.0			30.3	
SS - 2	12	2 6 7 6	13			LEAN CLAY WITH SAND, light brown with gray mottling, moist, stiff, trace gravel 4.8 (906.9)	CL	▨		1.5			16.5	
SS - 3	18	3 9 8 16	17	5		CLAYEY SAND, light brown, moist, medium dense, trace gravel gravelly at 5'		▨						
SS - 4	24	2 3 3 5	6		905.0	8 (903.7)	SC	▨						
SS - 5	18	3 4 6 8	10	10		SANDY LEAN CLAY, light brown, moist to very moist, stiff	CL	▨		1.0			9.9	
SS - 6	24	7 8 12 11	20		900.0	12 (899.7)		▨		1.0			9	
SS - 7	22	2 3 6 13	9		▽ ▼	CLAYEY SAND, gray, moist, loose to medium dense, trace gravel Wet black sand at 14' 15 (896.7)	SC	▨						
SS - 8	14	3 11 11 25	22	15		SANDY SILT, gray, moist, very dense, trace gravel	ML	▥					9.5	
SS - 9	13	21 47 50/1"	R		895.0	17.1 (894.6)		▥					7	
				20		End of Boring at 17.1 ft.								Driller noted auger refusal at 17.5'. Possible bedrock.

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 13 ft.	☒	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 14 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 24 HOURS: 2 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

Wis. Dept. of Safety and Professional Services
Division of Industry Services

SOIL EVALUATION - STORM

in accordance with SPS 382.365 and 385, Wis. Adm. Code

Page 1 of 5

Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and BM referenced to nearest road.

Please print all information.

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

County: Waukesha

Parcel I.D.: DELT0809995

Reviewed by: J. Metzinger, E.I.T

Date: 04/24/2023

Property Owner: THE ROBERT G AND ANN B THOMAS REVOCABLE TRUST

Property Location: Govt. Lot SE 1/4 NE 1/4 S 23 T 7 N R 18 ☑ E (or) ☐ W

Property Owner's Mailing Address: N20W29352 OAKTON RD

Lot #:

Block #:

Subd. Name or CSM#:

City: PEWAUKEE

State: WI

Zip Code: 53072

Phone Number: ( )

☐ City ☐ Village ☒ Town: DELAFIELD

Nearest Road: THOMAS ROAD

Drainage area ______ ☐ sq. ft. ☐ acres

Optional:
Test Site Suitable for (check all that apply)

☐ Irrigation ☐ Bioretention trench ☐ Trench(es)

☐ Rain garden ☐ Grassed swale ☐ Reuse

☐ Infiltration trench ☐ SDS (> 15' wide) ☐ Other ________

Hydraulic Application Test Method:

☒ Morphological Evaluation

☐ Double-Ring Infiltrometer

☐ Other (specify) ____________

B-1 Obs. # ☒ Boring ☐ Pit

Ground surface elev. 899.7 ft.

Depth to limiting factor -48 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	36	10YR 3/4	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	45	10YR 6/4	c, 2, D, 10YR 7/1	GRSL	0, M	MFR	-	26.9	0.50
C	96	10YR 6/6	-	GRSCL	0, SG	MVFR	-	15 - 30	0.11
C	150	10YR 6/4	-	XGRLS	0, M	MFR	-	50 - 65	1.63

B-2 Obs. # ☒ Boring ☐ Pit

Ground surface elev. 906.9 ft.

Depth to limiting factor -60 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	7	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
BC	24	10YR 3/4	-	C	2, VF, SBK	MVFI	-	<10	0.07
C	48	10YR 6/6	-	GRSL	0, M	MFR	-	15 - 20	0.50
C	60	10YR 6/4	-	GRSIL	0, M	MFR	-	15 - 30	0.13
C	66	10YR 8/1	-	VGRS	0, SG	MLO	-	35 - 55	3.60
C	102	10YR 6/4	-	GRSIL	0, M	MFR	-	15 - 30	0.13

CST/PSS Name (Please Print): Douglas Dettmers, PE

Signature: Douglas Dettmers

CST/PSS Number: 35060-6

Address: GESTRA Engineering, Inc. - 191 W. Edgerton Avenue, Milwaukee, WI 53207

Date Evaluation Conducted: 04/24/2023

Telephone Number: 414-933-7444

Property Owner THE ROBERT G AND ANN B THOMAS REVOCABLE TRU

Parcel ID # DELT0809995

Page 2 of 5

B-3 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 915.6 ft.

Depth to limiting factor -120 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/6	-	SC	2, VF, SBK	MFI	-	5 - 14	0.04
Cr	120	10YR 8/2	-	XGRS	0, SG	MLO	-	60 - 80	3.60

B-4 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 919.8 ft.

Depth to limiting factor -114 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	36	10YR 3/4	-	C	2, VF, SBK	MFI	-	< 10	0.07
C	48	10YR 3/4	-	VGRC	0, M	MFI	-	35 - 45	0.07
C	72	10YR 7/2	-	XGRSL	0, SG	0, SG	-	70 - 80	0.50
C	114	10YR 6/4	-	VGRSIL	0, M	MFR	-	50 - 59	0.13

B-8 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 918.7 ft.

Depth to limiting factor -78 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/1	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	66	10YR 3/6	-	SCL	2, VF, SBK	MFI	-	< 5	0.11
C	78	10YR 5/4	-	GRSICL	0, M	MFI	-	20 - 30	0.04

Property Owner THE ROBERT G AND ANN B THOMAS REVOCABLE TRU   Parcel ID # DELT0809995   Page 3 of 5

B-13 Obs. # ☒ Boring ☐ Pit Ground surface elev. 921.7 ft. Depth to limiting factor -54 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR		< 5	0.13
B	24	10YR 3/6	-	C	2, VF, SBK	MVFI		< 10	0.07
C	54	10YR 5/8	-	SCL	0, M	MVFR		5 - 14	0.11

B-14 Obs. # ☒ Boring ☐ Pit Ground surface elev. 925.2 ft. Depth to limiting factor -90 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/6	-	C	2, VF, SBK	MVFI	-	< 10	0.07
C	72	10YR 5/4	-	VGRLS	0, SG	MLO	-	35 - 45	1.63
C	90	7.5YR 4/3	-	VGRSCL	0, M	MVFI	-	40 - 50	0.11

B-21 Obs. # ☒ Boring ☐ Pit Ground surface elev. 917.7 ft. Depth to limiting factor -54 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	8	10YR 2/1	-	L	2, VF, SBK	MFR	-	< 5	0.24
C	54	10YR 7/2 and 10YR 4/1	-	GR/CB	0, SG	MLO	-	> 90	3.60

Property Owner THE ROBERT G AND ANN B THOMAS REVOCABLE TRU Parcel ID # DELT0809995 Page 4 of 5

B-22 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 916.3 ft. Depth to limiting factor -96 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 2/2	-	L	2, VF, SBK	MFR	-	< 5	0.24
B	60	10YR 3/6	-	CL	2, VF, SBK	MFI	-	< 5	0.03
C	90	10YR 4/6	-	GRSL	0, M	MFI	-	32.9	0.50
C	97	10YR 6/6	-	XGRS	0, SG	MLO	-	70 - 85	3.60

B-9 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 919.2 ft. Depth to limiting factor -108 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	12	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/4	-	C	2, VF, SBK	MFI	-	< 10	0.03
C	72	10YR 5/6	-	GRSL	0, M	MVFR	-	23.7	0.50
C	102	10YR 5/6	-	SICL	0, M	MFI	-	< 10	0.04
C	108	10YR 5/6	-	GRSICL	0, M	MFI	-	15 - 20	0.04

B-10 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 920.8 ft. Depth to limiting factor -144 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SICL	2, VF, SBK	MFI	-	< 5	0.04
B	36	10YR 3/4	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	60	10YR 5/6	-	GRSL	0, M	MFR	-	15 - 20	0.50
C	72	10YR 6/6	-	XGRLS	0, SG	MLO	-	70 - 80	1.63
C	96	10YR 5/8	-	VGRLS	0, SG	MLO	-	35 - 50	1.63
C	144	10YR 6/6	-	XGRLS	0, SG	MLO	-	60 - 80	1.63

Property Owner THE ROBERT G AND ANN B THOMAS REVOCABLE ⊞ Parcel ID # DELT0809995 Page 5 of 5

B-11 Obs. # ☒ Boring ☐ Pit Ground surface elev. 917.8 ft. Depth to limiting factor -66 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/4	-	C	2, VF, SBK	MFI	-	< 10	0.07
C	48	10YR 5/6	-	SCL	0, M	MVFR	-	10 - 14	0.11
C	66	10YR 5/8	-	SICL	0, M	MFI	-	< 10	0.04

B-12 Obs. # ☒ Boring ☐ Pit Ground surface elev. 917.4 ft. Depth to limiting factor -60 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10.5	10YR 2/1	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	36	10YR 3.5/6	-	CL	2, VF, SBK	MFI	-	< 10	0.03
Cr	48	10YR 7/6	-	XGRLS	0, SG	MLO	-	60 - 80	1.63
Cr	60	10YR 5/8	-	XGRS	0, SG	MLO	-	60 - 80	3.60

Test Results and/or Summary Comments

*All borings terminated on possible bedrock refusal.

**Depth to limiting layer determined based on shallowest groundwater level observed during/after drilling, or depth to top of bedrock refusal.

B-9: Topsoil thickness assumed (not measured)

Wis. Dept. of Safety and Professional Services
Division of Industry Services

SOIL EVALUATION - STORM

in accordance with SPS 382.365 and 385, Wis. Adm. Code

Page 1 of 3

County: Waukesha

Parcel I.D.: DELT0809996

Reviewed by: J. Metzinger, E.I.T.

Date: 04/24/2023

Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and BM referenced to nearest road.

Please print all information.

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

Property Owner: KELLEN H WESSON

Property Owner's Mailing Address: 11663 N BOBOLINK LN

City: MEQUON State: WI Zip Code: 53092 Phone Number: ( )

Property Location

Govt. Lot SW 1/4 NE 1/4 S 23 T 7 N R 18 ☑ E (or) ☐ W

Lot # Block # Subd. Name or CSM#

☐ City ☒ Village ☐ Town

DELAFIELD

Nearest Road: CROOKED CREEK ROAD

Drainage area ______________ ☐ sq. ft. ☐ acres

Optional:

Test Site Suitable for (check all that apply)

☐ Irrigation ☐ Bioretention trench ☐ Trench(es)

☐ Rain garden ☐ Grassed swale ☐ Reuse

☐ Infiltration trench ☐ SDS (> 15' wide) ☐ Other _________

Hydraulic Application Test Method:

☒ Morphological Evaluation

☐ Double-Ring Infiltrometer

☐ Other (specify) _______________

B-5 Obs. # ☒ Boring ☐ Pit Ground surface elev. 917.7 ft. Depth to limiting factor -78 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
C	60	10YR 6/6	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	83	10YR 6/6	-	XGRLS	0, SG	MLO	-	60 - 75	1.63

B-6 Obs. # ☒ Boring ☐ Pit Ground surface elev. 912.4 ft. Depth to limiting factor -162 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	11	10YR 3/2	-	SIL	2, VF, SBK	MFI	-	< 5	0.13
B	36	10YR 4/6	-	GRSL	0, M	MFR	-	30.6	0.50
C	108*	10YR 6/6	c, 1, P, 10YR 6/1	VGRSCL	0, M	MFI	-	35 - 45	0.11
C	162	10YR 5/8	-	XGRSCL	0, M	MVFI	-	60 - 75	0.11
	*With 10YR 3/4 sand layer at 72 inches								

CST/PSS Name (Please Print): Douglas Dettmers, PE

Signature: Douglas Dettmers

CST/PSS Number: 35060-6

Address: GESTRA Engineering, Inc. - 191 W. Edgerton Avenue, Milwaukee, WI 53207

Date Evaluation Conducted: 04/24/2023

Telephone Number: 414-933-7444

Property Owner KELLEN H WESSON
Parcel ID # DELT0809996
Page 2 of 3

B-36 Obs. #
☒ Boring
☐ Pit
Ground surface elev. 900.7 ft.
Depth to limiting factor -48 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 2/1	-	SICL	2, VF. SBK	MFR	-	< 5	0.04
B	48	10YR 3/4	-	C	2, VF. SBK	MVFI	-	< 10	0.07
C	72	10YR 5/8	-	GRSL	0, M	MVFR	-	15 - 25	0.50
C	120	10YR 5/8	-	GRSCL	0, M	MFI	-	15 - 25	0.11
C	144	10YR 6/4	-	GRSIL	0, M	MFR	-	15 - 20	0.13
C	186	10YR 5/6	-	VGRSIL	0, M	MVFI	-	35 - 45	0.13

B-37 Obs. #
☒ Boring
☐ Pit
Ground surface elev. 899.3 ft.
Depth to limiting factor -66 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	7.5	10YR 2/2	-	SIL	2, VF, SBK	MFR		< 5	0.13
B	36	10YR 3/4	-	C	2, VF, SBK	MVFI		< 10	0.07
C	72	10YR 5/8	-	GRSL	0, M	MVFR		22.3	0.50
C	144	10YR 5/8	-	GRSCL	0, M	MFI - MVFI		15 - 25	0.11
C	168	10YR 6/6	-	VGRSIL	0, M	MVFI		35 - 45	0.13
C	210	10YR 5/8	-	VGRLS	0, SG	MLO		40 - 50	1.63

B-38 Obs. #
☒ Boring
☐ Pit
Ground surface elev. 910.0 ft.
Depth to limiting factor -228 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 2/2	-	L	2, VF, SBK	MFR	-	< 5	0.24
B	24	10YR 3/4	-	C	2, VF, SBK	MVFI	-	< 10	0.07
C	54	10YR 5/8	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	96	10YR 5/8	-	GRSICL	0, M	MFI	-	15 - 25	0.04
C	144	10YR 5/6 to 10YR 6/4	-	GRSCL	0, M	MFI - MVFI	-	15 - 30	0.11
C	168	10YR 5/1	-	GRSC	0, M	MVFI	-	15 - 20	0.04
C	228	10YR 6/1	-	GRSIL	0, M	MFR - MVFI	-	20 - 34	0.13

Property Owner KELLEN H WESSON
Parcel ID # DELT0809996
Page 3 of 3

B-39 Obs. # ☒ Boring ☐ Pit Ground surface elev. 911.7 ft. Depth to limiting factor -24 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	5	10YR 2/2	-	SICL	2, VF, SBK	MFR	-	< 5	0.04
B	24	10YR 3/4	-	C	2, VF, SBK	MFI	-	< 10	0.07
C	57	10YR 6/4	m, 1, D, 10YR 6/1	SICL	0, M	MFI	-	5 - 14	0.04
C	96	10YR 5/8	-	GRSCL	0, M	MFI	-	15 - 25	0.11
C	144	10YR 6/4	-	GRSICL	0, M	MFI	-	15 - 25	0.04
C	168	10YR 5/1	-	SIC	0, M	MFI	-	10 -14	0.07
C	180	N 1/	-	S	0, SG	MLO	-	< 5	3.60
C	210	10YR 6/1	-	VGRSIL	0, M	MFR	-	35 - 45	0.13

Obs. # ☐ Boring ☐ Pit Ground surface elev. __________ ft. Depth to limiting factor __________ in.

Horizon	Depth ft.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr

Test Results and/or Summary Comments

*All borings terminated on possible bedrock refusal.

**Depth to limiting layer determined based on shallowest groundwater level observed during/after drilling, or depth to top of bedrock refusal.

B-38: Topsoil thickness assumed (not measured).

Wis. Dept. of Safety and Professional Services
Division of Industry Services

SOIL EVALUATION - STORM

in accordance with SPS 382.365 and 385, Wis. Adm. Code

Page 1 of 8

County
Waukesha

Parcel I.D.
DELT0811999

Reviewed by J. Metzinger, E.I.T
Date 04/24/2023

Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and BM referenced to nearest road.

Please print all information.

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

Property Owner
KELLEN H WESSON

Property Location
Govt. Lot NE 1/4 SE 1/4 S 23 T 7 N R 18 ☑ E (or) ☐ W

Property Owner's Mailing Address
11663 N BOBOLINK LN

Lot # Block # Subd. Name or CSM#

City MEQUON
State WI
Zip Code 53092
Phone Number ( )

☐ City ☐ Village ☒ Town
DELAFIELD
Nearest Road
GOLF ROAD

Drainage area ________ ☐ sq. ft. ☐ acres
Optional:
Test Site Suitable for (check all that apply)
☐ Irrigation ☐ Bioretention trench ☐ Trench(es)
☐ Rain garden ☐ Grassed swale ☐ Reuse
☐ Infiltration trench ☐ SDS (> 15' wide) ☐ Other _________

Hydraulic Application Test Method:
☒ Morphological Evaluation
☐ Double-Ring Infiltrometer
☐ Other (specify) _______________

B-17 Obs. # ☒ Boring ☐ Pit Ground surface elev. 925.0 ft. Depth to limiting factor -96 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	42	10YR 3/6	-	C	2, VF, SBK	MVFI	-	< 5	0.07
C	102	10YR 7/6	-	XGRLS	0, SG	MLO	-	70 - 85	1.63

B-18 Obs. # ☒ Boring ☐ Pit Ground surface elev. 931.2 ft. Depth to limiting factor -78 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 3/3	-	SIL	2, VF, SBK	MFR		< 5	0.13
B	36	10YR 3/6	-	C	2, VF, SBK	MFI		< 10	0.07
C	48	10YR 8/2	-	XGRS	0, SG	MLO		80 - 89	3.60
Cr	78	10YR 7/6	-	XGRLS	0, SG	MLO		70 - 85	1.63

CST/PSS Name (Please Print)
Douglas Dettmers, PE

Signature Douglas Dettmers

CST/PSS Number
35060-6

Address
GESTRA Engineering, Inc. - 191 W. Edgerton Avenue, Milwaukee, WI 53207

Date Evaluation Conducted
04/24/2023

Telephone Number
414-933-7444

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B-25 Obs. #
☒ Boring
☐ Pit
Ground surface elev. 932.6 ft. Depth to limiting factor -84 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	7.5	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/6	-	CL	2, VF, SBK	MFI	-	< 5	0.03
C	96	10YR 4/4	-	VGRLS	0, SG	MLO	-	35 - 45	1.63
C	144	10YR 5/8	-	XGRS	0, SG	MLO	-	80 - 89	3.60

B-26 Obs. #
☒ Boring
☐ Pit
Ground surface elev. 938.3 ft. Depth to limiting factor -60 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	8	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 4/6	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	84	10YR 5/6	-	SICL	0, M	MFI	-	< 5	0.04
C	120	10YR 5/6	-	GRSCL	0, M	MFR - MFI	-	15 - 25	0.11
C	156	10YR 5/8	-	GRSCL	0, M	MVFI	-	20 - 34	0.11
Cr	180	10YR 5/6	-	XGRS	0, SG	MLO	-	60 - 70	3.60
Cr	192	10YR 6/6	-	XGRLS	0, SG	MLO	-	65 - 85	1.63

B-27 Obs. #
☒ Boring
☐ Pit
Ground surface elev. 939.0 ft. Depth to limiting factor -120 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	13	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	19	10YR 4/6	-	SC	2, VF, SBK	MFI	-	< 10	0.04
C	78	10YR 5/6	f, 1, P, 10YR 6/1	SICL	0, M	MFI	-	< 5	0.04
C	138	10YR 5/6	-	GRSCL	0, M	MFI	-	15 - 25	0.11
C	168	10YR 5/8	-	GR	0, SG	MLO	-	> 90	3.60
C	180	10YR 5/4	-	XGRCL	0, SG	MLO	-	70 - 85	0.03

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B-29 Obs. #
☒ Boring
☐ Pit
Ground surface elev. 946.1 ft. Depth to limiting factor -156 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/6	-	CL	2, VF, SBK	MFI	-	< 5	0.03
C	48	10YR 4/6	-	GRSCL	0, M	MFI	-	15 - 20	0.11
C	84	10YR 6/4	-	GRSL	0, M	MFR	-	15 - 20	0.50
C	108	10YR 5/6	-	VGRLS	0, SG	MLO	-	35 - 45	1.63
C	144	10YR 5/8	-	S	0, SG	MLO	-	< 5	3.60
C	204	10YR 5/8	-	L	0, M	MFR	-	< 10	0.24
Cr	240	10YR 7/4	-	GR	0, SG	MLO	-	< 90	3.60

B-30 Obs. #
☒ Boring
☐ Pit
Ground surface elev. 948.5 ft. Depth to limiting factor -156 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	24	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/6	c, 1, P, 10YR 3/3	C	2, VF, SBK	MFI	-	< 10	0.07
C	84	10YR 5/8	-	GRSCL	0, M	MFI	-	15 - 34	0.11
C	108	10YR 5/8	-	VGRS	0, SG	MLO	-	35 - 45	3.60
Cr	156	10YR 7/2	-	XGRS	0, SG	MLO	-	75 - 89	3.60

B-33 Obs. #
☒ Boring
☐ Pit
Ground surface elev. 924.1 ft. Depth to limiting factor -24 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 2/2	-	L	2, VF, SBK	MFR	-	< 5	0.24
B/FILL	24	10YR 3/4	-	C	2, VF, PL	MFI	-	< 10	0.07
B/FILL	29	10YR 3/3	-	GRSC	2, VF, SBK	MFI	-	14 - 20	0.04
C	125	10YR 5/6	-	GRSL	0, M	MFR	-	23.8	0.50
Cg	204	5G 5/1	c, 2, D, 2.5Y 4/2	SICL	0, M	DEH	-	5 - 10	0.04

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B-34 Obs. # ☒ Boring ☐ Pit Ground surface elev. 929.6 ft. Depth to limiting factor -36 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	5	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	30	10YR 3/4	-	C	2, VF, SBK	MVFI	-	< 10	0.07
C	132*	10YR 5/6	-	VGRSL	0, M	MFR	-	35 - 55	0.50
	*With 10YR 2/1 gravel layer at 126 inches								

B-7 Obs. # ☒ Boring ☐ Pit Ground surface elev. 916.2 ft. Depth to limiting factor -4.8 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 2/1	-	SICL	2, VF, SBK	MFR	-	< 5	0.04
B	24	10YR 5/3	f, 1, D, 10YR 4/6	SICL	2, VF, SBK	MFR	-	< 10	0.04
C	48	10YR 6/6	-	GRSCL	0, M	MFR	-	15 - 30	0.11
C	96	10YR 6/4	c, 1, D, 10YR 6/1	VGRSCL	0, M	MFR	-	35 - 45	0.11
C	114	10YR 6/2	-	XGRLS	0, SG	MLO	-	75 - 84	1.63

B-15 Obs. # ☒ Boring ☐ Pit Ground surface elev. 926.8 ft. Depth to limiting factor -114 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/4	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	72	10YR 5/8	-	GRSCL	0, M	MFR	-	20 - 30	0.11
C	78	10YR 2/2	-	VGRS	0, SG	MLO	-	35 - 40	3.60
C	114	10YR 5/6	-	GRSIL	0, SG	MLO	-	15 - 25	0.13

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B-16 Obs. # ☒ Boring ☐ Pit Ground surface elev. 930.5 ft. Depth to limiting factor -90 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/4	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	72	10YR 5/8	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	102	10YR 5/8	-	VGRLS	0, SG	MLO	-	40 - 55	1.63

B-19 Obs. # ☒ Boring ☐ Pit Ground surface elev. 934.9 ft. Depth to limiting factor -114 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SICL	2, VF, SBK	MFI	-	< 5	0.04
B	36	10YR 5/4	-	SC	2, VF, SBK	MVFI	-	< 5	0.04
C	56	10YR 5/6	-	S	0, SG	MLO	-	< 5	3.60
C	114	10YR 5/6	-	GRSCL	0, M	MEF	-	15 - 25	0.11

B-20 Obs. # ☒ Boring ☐ Pit Ground surface elev. 925.6 ft. Depth to limiting factor -78 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 2/1	-	SIL	2, VF, SBK	MFR	-	< 10	0.13
B	24	10YR 3/4	f, 1, D, 10YR 2/1	C	2, VF, SBK	MVFI	-	< 10	0.07
B	48	10YR 4/3	c, 1, D, 10YR 7/1	SIC	2, VF, SBK	MFR	-	5 - 14	0.07
C	78	10YR 5/8	c, 1, P, 10YR 6/2	SIC	0, M	MFR	-	< 10	0.07

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B-23 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 940.9 ft. Depth to limiting factor -126 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/6	-	GRL	2, VF, SBK	MFI	-	15 - 30	0.24
C	72	10YR 5/8	-	VGRLS	0, SG	MVFR	-	35 -45	1.63
C	96	10YR 5/6	-	VGRS	0, SG	MLO	-	35 - 45	3.60
C	126	10YR 5/6	-	VGRLS	0, SG	MVFR	-	40 - 50	1.63

B-24 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 940.7 ft. Depth to limiting factor -10.5 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	8	10YR 3/3	-	L	2, VF, SBK	MFR	-	< 5	0.24
C	24	10YR 7/4	-	XGRS	0, SG	MLO	-	70 - 85	3.60
C	84	10YR 5/6	-	GRSCL	0, M	MFI	-	15 - 30	0.11
C	126	10YR 5/8	-	VGRSICL	0, M	MVFI	-	35 - 45	0.04

B-28 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 943.4 ft. Depth to limiting factor -144 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/4	-	C	2, VF, SBK	MFI	-	5 - 14	0.07
C	66	10YR 5/8	-	VGRSL	0, M	MFR	-	51.9	0.50
C	96	10YR 5/8	-	XGRS	0, SG	MLO	-	70 - 80	3.60
C	144	10YR 5/8	-	VGRS	0, SG	MLO	-	40 - 59	3.60
C	168	10YR 5/4	-	XGRLS	0, SG	MLO	-	80 - 89	1.63
C	193	10YR 4/4	-	VGRSCL	0, M	MVFI	-	45 - 55	0.11

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B-31 Obs. # ☒ Boring ☐ Pit Ground surface elev. 939.7 ft. Depth to limiting factor -96 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	52	10YR 3/6	-	SICL	2, VF, SBK	MFI	-	< 5	0.04
C	132	10YR 5/8	-	GRSIL	0, M	MFR - MFI	-	15 - 25	0.13
Cr	180	10YR 7/4	-	XGRSL	0, SG	MLO	-	75 - 85	0.50

B-32 Obs. # ☒ Boring ☐ Pit Ground surface elev. 939.7 ft. Depth to limiting factor -96 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	8	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	36	10YR 3/6	-	SICL	2, VF, SBK	MFI	-	< 10	0.04
C	84	10YR 6/4	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	96	10YR 8/2	-	XGRS	0, SG	MLO	-	60 - 75	3.60
C	120	10YR 6/6	-	XGRLS	0, SG	MLO	-	60 - 75	1.63
C	144	10YR 6/6	-	XGRSICL	0, M	MFR	-	60 - 75	0.04
Cr	192	10YR 6/6	-	XGRLS	0, SG	MLO	-	70 - 85	1.63

B-35 Obs. # ☒ Boring ☐ Pit Ground surface elev. 937.8 ft. Depth to limiting factor -108 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/6	-	SIC	2, VF, SBK	MFI	-	< 10	0.07
C	48	10YR 3/4	-	SC	0, M	MFR	-	10 - 14	0.04
C	84	10YR 5/8	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	102	10YR 6/6	-	VGRS	0, SG	MLO	-	40 - 55	3.60
C	144	10YR 7/6	-	XGRS	0, SG	MLO	-	70 - 80	3.60
C	156	10YR 4/6	-	VGRSCL	0, M	MLO	-	70 - 80	0.11

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☐ Obs. # ☐ Boring ☐ Pit Ground surface elev. __________ ft. Depth to limiting factor __________ in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr

☐ Obs. # ☐ Boring ☐ Pit Ground surface elev. __________ ft. Depth to limiting factor __________ in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr

Test Results and/or Summary Comments

*All borings terminated on possible bedrock refusal.

**Depth to limiting layer determined based on shallowest groundwater level observed during/after drilling, or depth to top of bedrock refusal.

GENERAL NOTES

DRILLING AND SAMPLING SYMBOLS

SYMBOL	DEFINITION
HSA	Hollow Stem Auger
HSA w/ RW	Hollow Stem Auger converted to Rotary Wash Boring (initiated with Mudding Fluid)
SS	2” O.D. Split Spoon Sample – (ASTM D 1586)
SH	3” Thin-Walled Tube Sample (Shelby Tube) – (ASTM D 1587)
AU	Solid Stem Auger Sample
CA	Modified California Sample – (ASTM D 3550)
RC	Rock Core Sample – (ASTM D 2113)
HA	Hand Auger Sample
GB	Grab Bag Sample
R	SPT Refusal (N-value of 50 blows for less than 6 inches of penetration)
NMR	No Measurement Recorded
NE	Not Encountered

TEST SYMBOLS

SYMBOL	DEFINITION
MC	Moisture Content (%) – (ASTM D 2216)
LOI	Organic Content (Loss on Ignition) (%) – (ASTM D 2974)
Qp	Hand Penetrometer Reading (tsf)
Qu	Unconfined Comp. Strength (tsf) – (ASTM D 2166)
γ_d	Dry Density (pcf) – (ASTM D 7263)
γ_T	Total (Moist) Density (pcf)
LL, PL	Liquid and Plastic Limit (%) – (ASTM D 4318)
PI	Plasticity Index (%)
P200	Percent passing the #200 Sieve – (ASTM D 1140)
Ts	Hand Torvane Reading (tsf)
SG	Specific Gravity – (ASTM D854)
pH	Hydrogen Ion Content – (ASTM D4972)
RQD	Rock Quality Designation (%) – (ASTM D6032)

WATER LEVEL

Water levels shown on the boring logs are the levels measured in the borings at the time and under the conditions indicated. In some soils, it may not be possible to determine the groundwater level within the normal time required for test borings and an extended period of time may be necessary to reach equilibrium. Therefore, the position of the water level symbol may not indicate the true level of the groundwater table. Perched water refers to water above an impervious layer, thus impeded in reaching the water table. The available water level information is given at the bottom of the respective boring log sheet.

DESCRIPTIVE TERMINOLOGY

DENSITY TERM	SPT N-VALUE
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Over 50

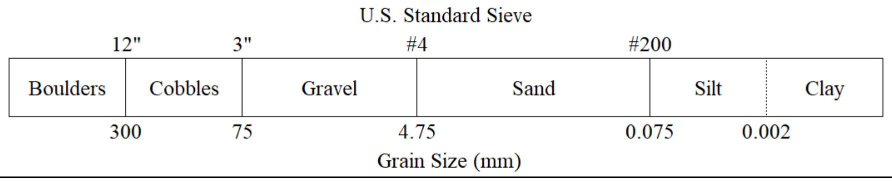
CONSISTENCY TERM	Unconfined Compressive Strength, (tsf)	SPT N-VALUE
Very Soft	<0.25	0 - 2
Soft	0.25 - 0.49	2 - 4
Medium Stiff	0.50 - 0.99	4 - 8
Stiff	1.00 - 1.99	8 - 16
Very Stiff	2.00 - 3.99	16 - 30
Hard	4.0+	Over 30

Standard Penetration Test N-Value: Blows per Foot of a 140 Pound Hammer Falling 30 inches on a 2-inch OD Split Barrel Sampler

Note: If unconfined compressive strength data is not available, then N-value should be used to describe consistency term

Lamination	Up to 1/2” thick horizontal stratum
Layer	1/2” thick or greater horizontal stratum
Lens	1/2” to 6” discontinuous horizontal stratum
Varved	Alternating laminations
Dry	Powdery, dusty
Moist	Damp, below saturation
Wet	Saturated, above liquid limit

RELATIVE SIZES



SOILS CLASSIFICATION FOR ENGINEERING PURPOSES

ASTM Designation: D 2487 - 83

(Based on Unified Soil Classification System)

SOIL ENGINEERING

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]					Soil Classification[B]	
					Group Symbol	Group Name
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines[C]	Cu ≥ 4 and 1≤ Cc ≤ 3[E]		GW	Well-graded gravel[F]
			Cu < 4 and/or 1 > Cc > 3[E]		GP	Poorly-graded gravel[F]
		Gravels with Fines more than 12% fines[C]	Fines Classify as ML or MH		GM	Silty gravel[F.G.]
			Fines classify as CL or CH		GC	Clayey gravel[F.G.]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean sands Less than 5% fines[D]	Cu ≥ 6 and 1 ≤ Cc ≤ 3[E]		SW	Well-graded sand[H]
			Cu < 6 and/or 1 > Cc > 3[E]		SP	Poorly-graded sand[H]
		Sands with Fines more than 12% fines[D]	Fines Classify as ML or MH		SM	Silty sand[G.H]
			Fines classify as CL or CH		SC	Clayey sand[G.H]
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid Limit less than 50	Inorganic	PI > 7 and plots on or above " A" line[I]		CL	Lean clay[J.K.L]
			PI < 4 or plots below " A " line[I]		ML	Silt[J.K.L]
		Organic	$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}}$	< 0.75	OL	Organic clay[J.K.L.M] Organic Silt[J.K.L.N]
	Silts and Clays Liquid Limit 50 or more	Inorganic	PI plots on or above " A " line		CH	Fat clay[J.K.L]
			PI plots below " A " line		MH	Elastic silt[J.K.L]
		Organic	$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}}$	< 0.75	OH	Organic clay[J.K.L.O] Organic Silt[J.K.L.P]
Highly organic soils		Primarily organic matter, dark in color, and organic odor			PT	Peat

---

[A] Based on the material passing the 3-in (75- mm) sieve

[B] If field sample contained cobbles or boulders, or both, add with cobbles and/or boulders after group name

[C] Gravels with 5 to 12 % fines require dual symbols:
GW - GM (well-graded gravel with silt)
GW - GC (well-graded gravel with clay)
GP - GM (poorly-graded gravel with silt)
GP - GC (poorly-graded gravel with clay)

[D] Sands with 5 to 12 % fines require dual symbols:
SW -SM (well-graded sand with silt)
SW - SC (well-graded sand with clay)
SP - SM (poorly-graded sand with silt)
SP - SC (poorly-graded sand with clay)

[E] $Cu = \frac{D_{60}}{D_{10}}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" after group name

[G] If fines classify as CL-ML, use dual symbol GC-GM. or SC-SM

[H] If soil contains ≥ 15% gravel, add "with gravel" after group name.

[I] If Atterberg limits plot in hatched area, soil is a CL-ML (silty clay)

[J] If soil contains 15 to 29% plus No. 200, add, "with sand" or " with gravel", whichever is predominant

[K] If soil contains ≥ 30% plus No.200, and predominantly sand, add "sandy" before the group name

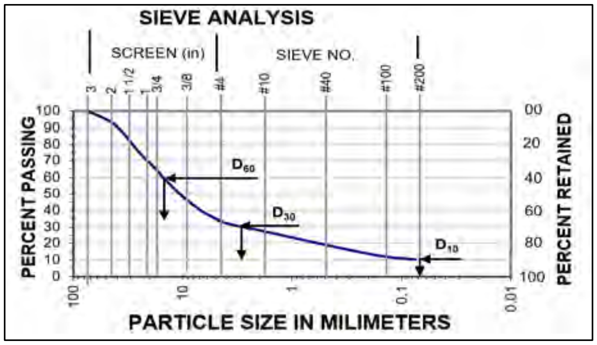
[L] If soil contains ≥ 30% plus No.200, and predominantly gravel, add "gravelly" before the group name

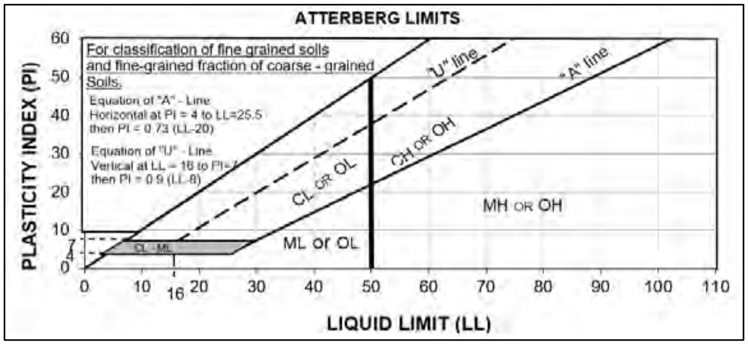
[M] PI ≥ 4 and plots on or above "A" Line

[N] PI < 4 or plots below "A" Line

[O] PI plots on or above "A" Line

[P] PI plots below "A" Line





SOILS CLASSIFICATION FOR ENGINEERING PURPOSES

(Based on United States Department of Agriculture - Natural Resources Conservations Service)

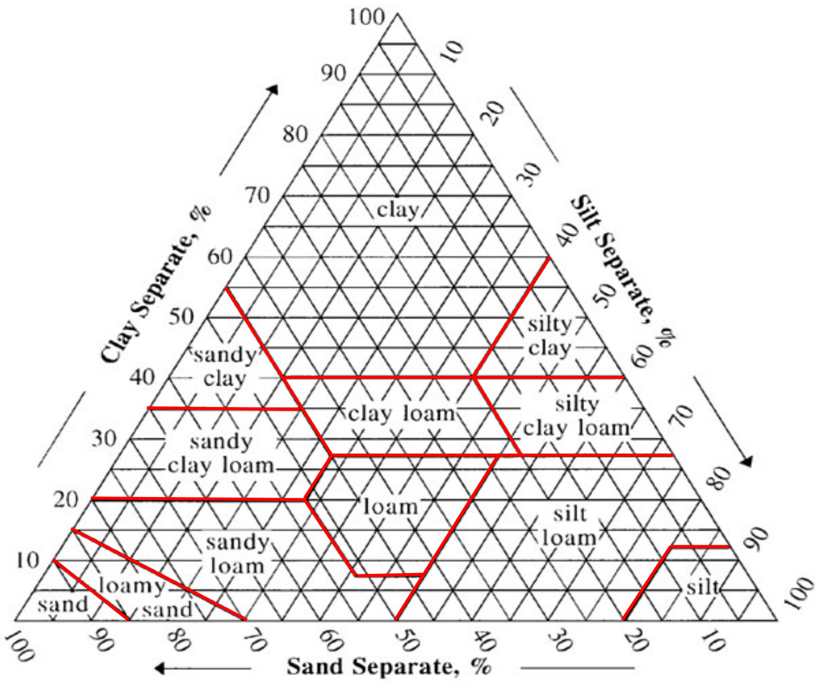
SOIL ENGINEERING

Criteria for Soil Classification Based on Particle Size Distribution [A]

		U.S. Standard Sieve No.	USDA Soil Name Classification
ROCK FRAGMENTS		> 25"	Boulders
		10" < 25"	Stones
		3" < 10"	Cobbles
		3/4" < 3"	Coarse Gravel
		#4 < 3/4"	Medium Gravel
		#10 < #4	Fine Gravel
FINE EARTH	Sand	#18 < #10	Very Coarse Sand
		#35 < #18	Coarse Sand
		#60 < #35	Medium Sand
		#140 < #60	Fine Sand
		#300 < #140	Very Fine Sand
	Silt	0.02 mm < 0.05 mm	Coarse Silt
		0.002 mm < 0.02 mm	Fine Silt
	Clay	0.0002 mm < 0.002 mm	Coarse Clay
		< 0.0002 mm	Fine Clay

(Soil) Textural Triangle: [B]

Fine Earth Texture Classes (—)



Texture Classes [C]	Code
Coarse Sand	COS
Sand	S
Fine Sand	FS
Very Fine Sand	VFS
Loamy Coarse Sand	LCOS
Loamy Sand	LS
Loamy Fine Sand	LFS
Loamy Very Fine Sand	LVFS
Coarse Sandy Loam	COSL
Sandy Loam	SL
Fine Sandy Loam	FSL
Very Fine Sandy Loam	VFSL
Loam	L
Silt Loam	SIL
Silt	SI
Sandy Clay Loam	SCL
Clay Loam	CL
Silty Clay Loam	SICL
Sandy Clay	SC
Silty Clay	SIC
Clay	C

Rock Fragment Texture Modifiers [B]	Vol. %
None	< 15
Size Adjective (i.e. Gravelly)	15 to < 35
Very (Size Adjective)	35 to < 60
Extremely (Size Adjective)	60 to < 90
Fragment Size Class Name	$\geq$ 90

[A] Based on page 2-45 of Field Book for Describing and Sampling Soils V3.0

[B] Based on page 2-38 of Field Book for Describing and Sampling Soils V3.0

[C] Based on page 2-37 of Field Book for Describing and Sampling Soils V3.0

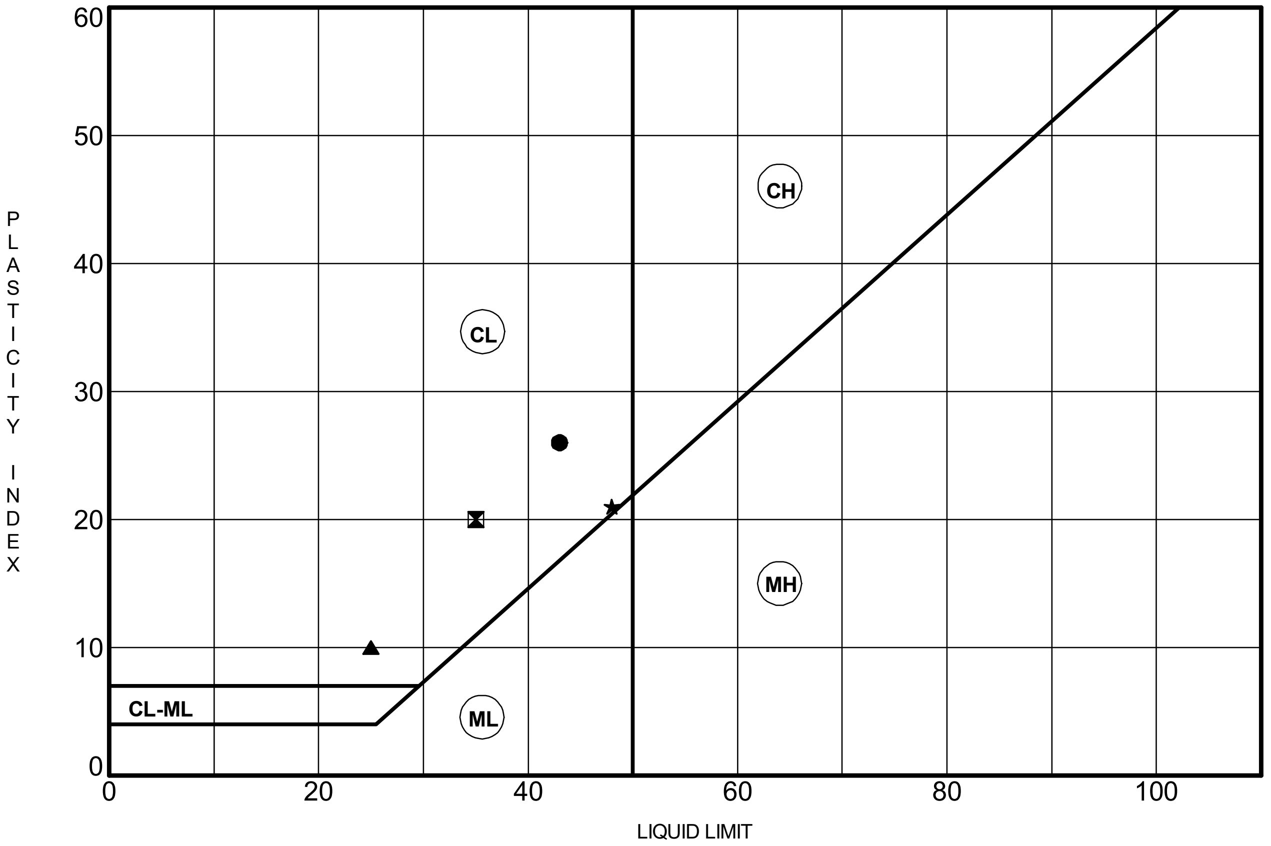
APPENDIX II

LABORATORY TEST RESULTS

GESTRA Engineering, Inc
191 W. Edgerton Avenue
Milwaukee, WI 53207
Phone: (414) 933-7444, Fax: (414) 933-7844

LABORATORY TEST RESULTS
ATTERBERG LIMITS RESULTS (ASTM D4318)

Project Name: Thomas Farms Development
Project Number: 23083-10
Project Location: Delafield, Wisconsin



Unless otherwise noted, Atterberg limit sample was air-dried, Liquid limit was performed using mutiple points, and plastic limit test was hand rolled.

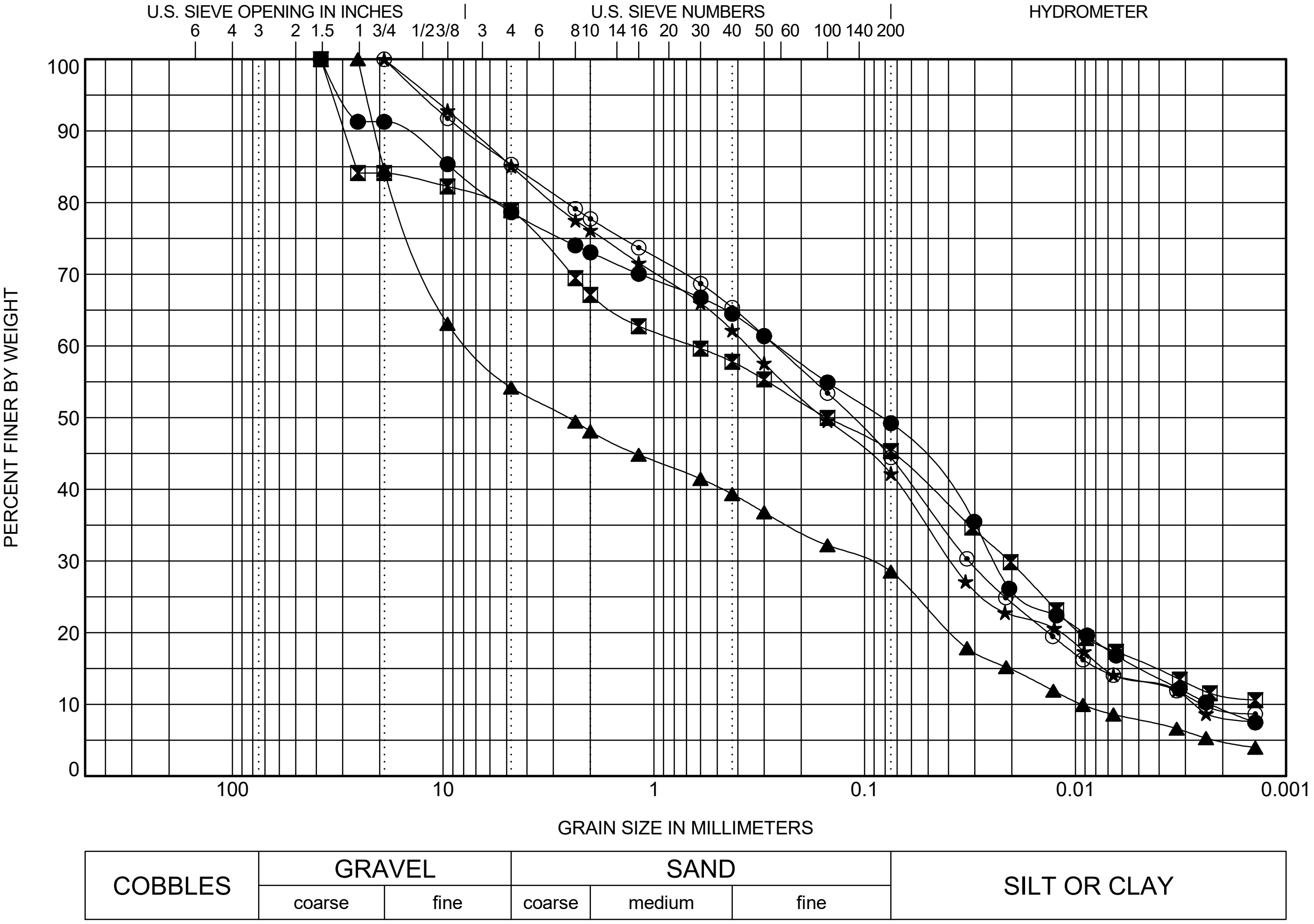
	Specimen Identification		LL	PL	PI	Fines	MC	Notes
●	**B-2, SS-1**	**0'-2'**	**43**	**17**	**26**		**22.6**	
☒	**B-20, SS-2**	**2'-4'**	**35**	**15**	**20**		**22.1**	
▲	**B-27, SS-2**	**2'-4'**	**25**	**15**	**10**		**18.9**	
★	**B-8, SS-1**	**0'-2'**	**48**	**27**	**21**		**21.7**	

ATTERBERG LIMITS - GINT STD US LAB.GDT - 5/5/23 16:40 - T:\PROJECTS\2023\MILWAUKEE - 10 (GEOTECH)\23083-10 DD (THOMAS FARM DEVELOPMENT)\LOGS\THOMAS FARMS DEVELOPMENT _2023-04-11.GPJ

GESTRA Engineering, Inc
191 W. Edgerton Avenue
Milwaukee, WI 53207
Phone: (414) 933-7444, Fax: (414) 933-7844

LABORATORY TEST RESULTS
GRAIN SIZE DISTRIBUTION (ASTM D6913 and D7928)

Project Name: Thomas Farms Development
Project Number: 23083-10
Project Location: Delafield, Wisconsin



	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	**B-1, SS-2**	**2'-4'**					**0.99**	**113.66**
☒	**B-22, SS-3**	**4'-6'**						
▲	**B-28, SS-3**	**4'-6'**					**0.14**	**802.28**
★	**B-33, SS-4**	**6'-8'**					**1.53**	**131.83**
⊙	**B-37, SS-2**	**2'-4'**					**1.54**	**106.25**

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**B-1, SS-2**	**2'-4'**	**38.1**	**0.259**	**0.024**	**0.002**	**21.3**	**29.4**	**34.1**	**15.1**
☒	**B-22, SS-3**	**4'-6'**	**38.1**	**0.65**	**0.021**		**21.1**	**33.6**	**29.4**	**16.0**
▲	**B-28, SS-3**	**4'-6'**	**25.4**	**7.489**	**0.099**	**0.009**	**45.8**	**25.7**	**20.7**	**7.8**
★	**B-33, SS-4**	**6'-8'**	**19.05**	**0.36**	**0.039**	**0.003**	**14.9**	**42.9**	**29.0**	**13.2**
⊙	**B-37, SS-2**	**2'-4'**	**19.05**	**0.265**	**0.032**	**0.002**	**14.7**	**40.8**	**31.3**	**13.2**

GRAIN SIZE - GINT STD US LAB.GDT - 5/5/23 12:56 - T:\PROJECTS\2023\MILWAUKEE - 10 (GEOTECH)\23083-10 DD (THOMAS FARM DEVELOPMENT)\LOGS\THOMAS FARMS DEVELOPMENT_2023-04-11.GPJ

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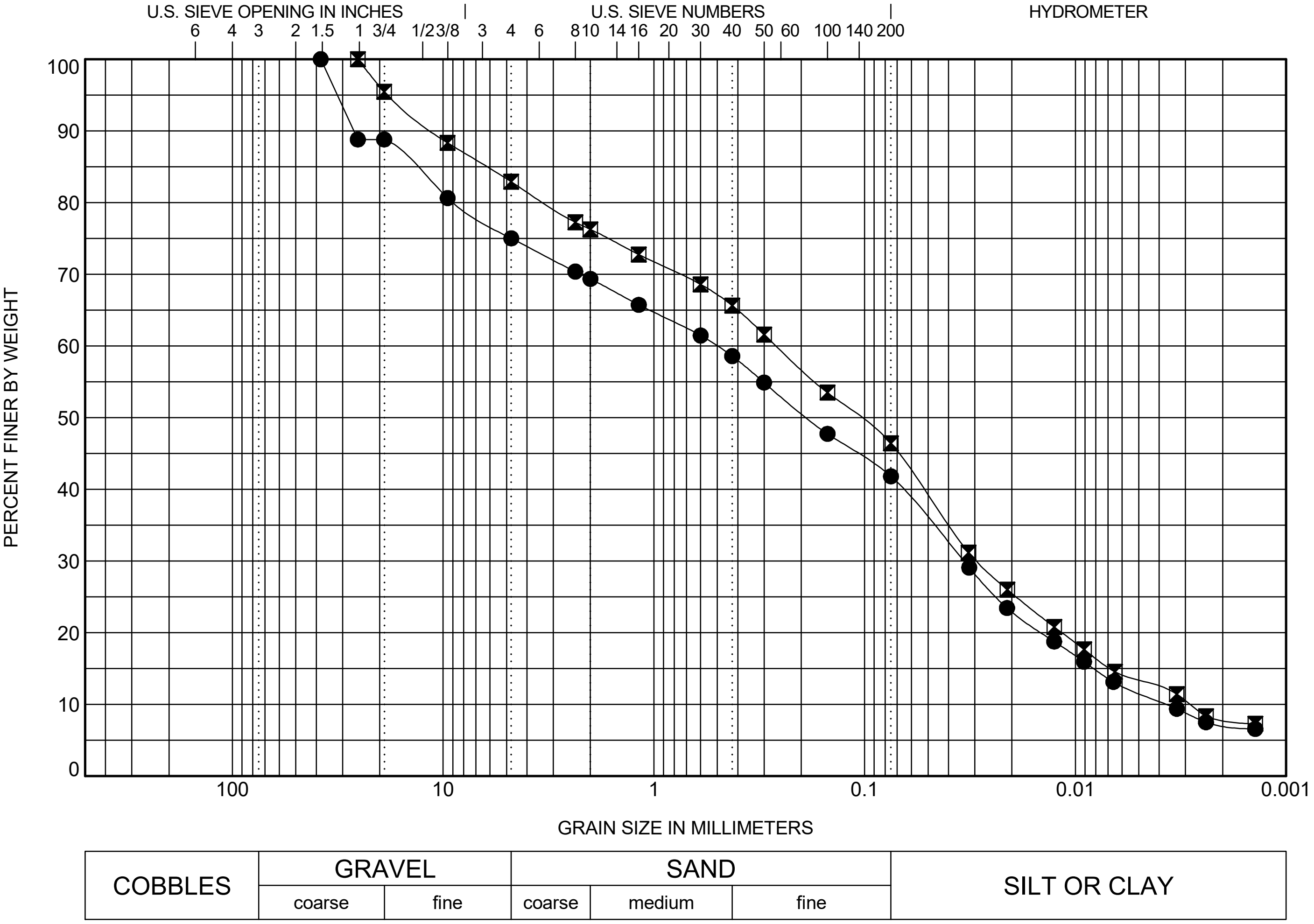
LABORATORY TEST RESULTS
GRAIN SIZE DISTRIBUTION (ASTM D6913 and D7928)

Project Name: Thomas Farms Development
Project Number: 23083-10
Project Location: Delafield, Wisconsin



	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	**B-6, SS-2**	**2'-4'**					**0.62**	**136.10**
☒	**B-9, SS-3**	**4'-6'**					**1.14**	**91.81**

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**B-6, SS-2**	**2'-4'**	**38.1**	**0.504**	**0.034**	**0.004**	**25.0**	**33.2**	**30.2**	**11.6**
☒	**B-9, SS-3**	**4'-6'**	**25.4**	**0.262**	**0.029**	**0.003**	**17.1**	**36.5**	**33.1**	**13.3**

LEGEND:

12 - PROPOSED BEDROCK PROBE LOCATION

B–7 - EXISTING SOIL BORING LOCATION CONDUCTED ON 8/8/2007 BY PSI INC.

SOILS LEGEND:

Soil Description	Series	Hydrologic Soil Group	Potential Depth to Water	Potential Depth to Bedrock
HmB	Hochheim loam	D	>60"	>60"
HmC2	Hochheim loam	D	>60"	>60"
KwA	Knowles silt loam	C	>60"	20"-40"
KwB	Knowles silt loam	C	>60"	20"-40"
LmB	Lamartine silt loam	B/D	12"-24"	>60"
RkB	Ritchey silt loam	D	>60"	10"-20"
ThA	Theresa silt loam	C	>60"	>60"
ThB	Theresa silt loam	C	>60"	>60"
ThB2	Theresa silt loam	C	>60"	>60"
KlA	Kendall silt loam	C	12"-36"	>60"
BsA	Brookston silt loam	C/D	0"-20"	>60"

TRIO
DESIGN • LAND SURVEYING
CIVIL ENGINEERING

4100 N. CALHOUN ROAD
BROOKFIELD, WI 53005
PHONE: (262) 790-1480
FAX: (262) 790-1481
EMAIL: jpudelko@trioeng.com

BEDROCK BORING PLAN

Thomas Farm Development (152 acres)

Town of Delafield, WI

NEUMANN
DEVELOPMENTS, INC.

0 75 150 300

Scale: 1" = 150' (22"X34")
Scale: 1" = 300' (11"X17")
DATE: 03/06/2023

x:\2021\21-071-1013 thomas property delafield\drawings\exhibits\soil boring exhibit-ndi thomas farm.dwg

Thomas Farm Development Town of Delafield, Wi
Neumann Development 03-20-2023 thru 03-22-2023

	Ground Elev.	Rock/Overburden
Zone 1		Lots Drilled to 15', Roadway Drilled to 20'
1	906.53	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
2	910.39	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
3	916.25	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
3	914.75	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
5	911.82	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
6	905.51	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
7	901.36	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
8	899.11	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
Zone 2		
9	917.58	Rock @ 10' Damp & Sandy Gravel Water comes in after drilling
10	918.76	Rock @ 14' Damp & Sandy Gravel Water comes in after drilling
11	920.25	Rock @ 10' Damp & Sandy Gravel Water comes in after drilling
12	921.63	Rock @ 9.5' Damp & Sandy Gravel Water comes in after drilling
13	921.82	Rock @ 11' Damp & Sandy Gravel Water comes in after drilling
14	921.61	No Rock @ 15'
15	916.54	Soft Rock @ 11' Clay & Sandy Damp Gravel, Holes get wet Immediately
16	910.9	Rock @ 10' Augered Through to 15'
17	909.1	Soft Rock @ 11' Clay & Sandy Damp Gravel, Holes get wet Immediately
18	913.57	Rock @ 15' Sandy Wet Clay & Gravel
19	917.65	No Rock @ 15' Wet Clay & Gravel
20	920.52	Soft Rock @ 12' Augered Through, Wet Clay & Gravel
21	921.3	Soft Rock @ 12' Augered Through, Wet Clay & Gravel
22	920.59	Soft Rock @ 11' Augered Through, Wet Clay & Gravel
23	920.77	Soft Rock @ 12' Augered Through
24	920.78	R @ 7.5' Top Clay, Damp Sandy Gravel, Drill Dry then water comes in
25	919.35	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
26	916.4	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
27	914.43	R @ 15' Wet Sandy Gravel, Very Wet
28	914.08	No Rock @ 15' Very Wet Sand & Gravel
29	914.33	No Rock @ 15' Very Wet Sand & Gravel
30	917.33	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
31	918.95	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
32	919.66	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
33	920.4	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
34	919.99	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
35	920.02	R @ 12' Wet, Top Clay & Sandy Gravel
36	918.74	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
37	918.36	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
Zone 4		
38	919.44	R @ 4.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
39	919.85	R @ 5'
40	919.85	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
41	920.82	R @ 3.5'

42	921.89	R @ 4'
43	922.2	R @ 4.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
44	920.91	R @ 5'
45	919.52	R @ 4'
46	919.46	R @ 3'
47	920.79	R @ 3'
48	921.57	R @ 4'
49	921.81	R @ 4.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
50	922.86	R @ 5'
51	924.55	R @ 5'
52	925.12	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
53	927.6	R @ 4'
54	927.86	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
55	928.43	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
56	929.52	R @ 9.5' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
57	929.64	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
58	930.64	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
59	931.03	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
60	931.7	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
61	932.99	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
62	932.71	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
63	931.3	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
64	929.28	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
65	928.25	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
66	926.32	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
67	927.73	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
68	927.4	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
69	927.34	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
70	925.51	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
71	925.29	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
72	925.64	R @ 3.5' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
73	925.47	R @ 5.5' Top Clay, Damp Sandy Gravel, Water comes in
74	924.52	R @ 4' Top Clay, Damp Sandy Gravel Drilled Dry
75	923.1	R @ 2' Top Clay, Damp Sandy Gravel, Drilled Dry
76	921.82	R @ 3" Top Clay, Damp Sandy Gravel, Drilled Dry
77	919.63	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry
78	919.11	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry
79	915.7	R @ 5' Top Clay,Wet Sandy Gravel
80	917.26	R @ 5' Top Clay,Wet Sandy Gravel
81	919.45	R @ 7' Top Clay, Wet Sandy Gravel
82	920.89	R @ 7' Top Clay, Wet Sandy Gravel
83	921.74	R @ 7' Top Clay, Wet Sandy Gravel
84	923.62	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
85	924.22	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
86	925.24	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
87	927.2	R @ 5' Top Clay,Damp Sandy Gravel
88	930.89	R @ 8' Top Clay, Damp Sandy Gravel, Drills dry then water comes in

89	931.93	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
90	931.81	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
91	933	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
92	934.4	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
93	935.25	R @ 8' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
94	935.49	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
95	934.84	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
96	932.16	R @ 7' Topsoil & Clay on top, Damp Sandy Soil/Wet
97	930.06	R @ 6' Topsoil & Clay on top, Damp/Wet soil
98	929.82	R @ 7' Topsoil & Clay on top, Damp Sandy Soil/Wet
99	928.99	R @ 7' Topsoil & Clay, Wet
100	927.35	R @ 6' Top Clay, Sandy Wet Gravel
101	926.68	R @ 6' Top Clay, Sandy Wet Gravel
102	925.84	R @ 5.5' Top Clay, Sandy Wet Gravel
103	925.15	R @ 5' Top Clay, Sandy Wet Gravel
104	925.74	Unable to Test Hole, Woods and Backyard
105	926.36	Unable to Test Hole, Woods and Backyard
106	925.81	R @ 9', Hole Drilled 60' S of Stake, Top Clay & Wet Gravel
107	926.06	R @ 8', Hole Drilled 30' S of Stake, Top Clay & Wet Gravel
108	924.71	R @ 8', Hole Drilled 30' S of Stake, Top Clay & Wet Gravel
109	922.34	R @ 7', Hole Drilled 30' S of Stake, Top Clay & Wet Gravel
110	919.85	R @ 7' Top Clay, Drills Dry then water comes in
111	918.35	R @ 4' Top Clay, Drills Dry then water comes in
112	918.31	R @ 2' Top Clay, Damp Sandy Gravel, Drilled Dry then water comes in
113	918.18	R @ 1.5' Top Clay, Damp Sandy Gravel, Drilled Dry then water comes in
114	917.9	R @ 2' Top Clay, Damp Sandy Gravel, Drilled Dry then water comes in
115	917.94	R @ 3' Top Clay, Damp Sandy Gravel, Drilled Dry then water comes in
116	918.75	R @ 5' Top Clay, Sandy Gravel, Drilled Dry then water comes in
117	918.51	R @ 5' Top Clay, Sandy Gravel, Drilled Dry then water comes in
118	918.25	R @ 5' Top Clay, Sandy Gravel, Drilled Dry then water comes in
Zone 3		Holes 119-155 Top clay with damp sandy gravel
119	943.48	R @ 14'
120	942.88	R @ 14'
121	941.52	R @ 15'
122	941.72	R @ 15'
123	942.01	No Rock
124	942.48	No Rock
125	942.8	No Rock
126	941.44	No Rock
127	940.74	R @ 14'
128	940.36	R @ 10.5'
129	941.27	R @ 11.5'
130	940.75	R @ 12'
131	939.93	R @ 10'
132	938.8	R @ 10'
133	939.53	R @ 8'
134	941.57	R @ 8'

135	942.38	R @ 9'
136	943.2	R @ 10.5'
137	945.3	R @ 11.5'
138	948.09	No Rock @ 15'
139	948.43	No Rock @ 15'
140	948.82	No Rock @ 15'
141	947.95	No Rock @ 15'
142	946.08	R @ 14.5'
143	944.06	R @ 14'
144	945.52	No Rock @ 15'
145	946.82	No Rock @ 15'
146	946.48	No Rock @ 15'
147	946.4	No Rock @ 15'
148	946.47	No Rock @ 15'
149	946.34	No Rock @ 15'
150	946.64	No Rock @ 15'
151	946.92	No Rock @ 15'
152	947.04	No Rock @ 15'
153	945.83	No Rock @ 15'
154	944.95	R @ 15'
155	944.31	R @ 15'
Zone 3	Northern Half Duplex's Top Clay w/ Sandy Dry Gravel Holes 1-19	
1	936.94	R @ 15'
2	937.08	No Rock @ 15'
3	933.92	No Rock @ 15'
4	934.52	No Rock @ 15'
5	937.07	No Rock @ 15'
6	938.89	No Rock @ 15'
7	939.94	R @ 14'
8	938.5	R @ 13'
9	936.64	R @ 12'
10	935.49	No Rock @ 15'
11	935.65	No Rock @ 15'
12	936.76	No Rock @ 15'
13	936.54	No Rock @ 15'
14	938.43	No Rock @ 15'
15	940.36	R @ 14'
16	940.5	R @ 11'
17	940.89	R @ 11'
18	942.78	R @ 15'
19	942.09	No Rock @ 15'
20	941.44	No Rock @ 15', Holes 20-28 Clay on Top W/ Damp Sandy Gravel
21	939.53	No Rock @ 15'
22	939.21	R @ 14'
23	939.52	R @ 13'
24	940.23	R @ 12'
25	941.28	R @ 11'

26	941.82	R @ 11'
27	942.25	R @ 11'
28	942.26	R @ 14'
Roadway		
A	916.86	R @ 11' Clay on Top w/ Damp Sandy Gravel, Wet after drilling
B	916.78	Hard Pan 15'-20', Wet
C	919.06	R @ 4.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
D	919.81	R @ 2.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
E	924.83	R @ 5.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
F	928.53	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
G	923.08	R @ 6' Top Clay, Sandy Wet Gravel
H	925.6	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
I	930.82	R @ 8''-20' Top Clay, Sandy Damp Gravel, Drilled Dry
J	933.12	R @ 8'-20' Top Clay, Sandy Damp Gravel, Drills dry then water comes in
K	943.14	R @ 14'-20' Top Clay, Sandy Damp Gravel, Drills dry then water comes in
L	940.75	R @ 19' Top Clay, Sandy Wet Gravel
M	942.76	R @ 14'-20' Top Clay, Sandy Damp Gravel, Drills dry then water comes in

Thomas Farm Development Town of Delafield, Wi

Neumann Development 03-20-2023 thru 03-22-2023

	Ground Elev.	Rock/Overburden
Zone 1		Lots Drilled to 15', Roadway Drilled to 20'
1	906.53	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
2	910.39	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
3	916.25	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
3	914.75	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
5	911.82	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
6	905.51	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
7	901.36	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
8	899.11	Damp & Wet NR@15' Sandy Gravel with Traces of Sand
Zone 2		
9	917.58	Rock @ 10' Damp & Sandy Gravel Water comes in after drilling
10	918.76	Rock @ 14' Damp & Sandy Gravel Water comes in after drilling
11	920.25	Rock @ 10' Damp & Sandy Gravel Water comes in after drilling
12	921.63	Rock @ 9.5' Damp & Sandy Gravel Water comes in after drilling
13	921.82	Rock @ 11' Damp & Sandy Gravel Water comes in after drilling
14	921.61	No Rock @ 15'
15	916.54	Soft Rock @ 11' Clay & Sandy Damp Gravel, Holes get wet Immediately
16	910.9	Rock @ 10' Augered Through to 15'
17	909.1	Soft Rock @ 11' Clay & Sandy Damp Gravel, Holes get wet Immediately
18	913.57	Rock @ 15' Sandy Wet Clay & Gravel
19	917.65	No Rock @ 15' Wet Clay & Gravel
20	920.52	Soft Rock @ 12' Augered Through, Wet Clay & Gravel
21	921.3	Soft Rock @ 12' Augered Through, Wet Clay & Gravel
22	920.59	Soft Rock @ 11' Augered Through, Wet Clay & Gravel
23	920.77	Soft Rock @ 12' Augered Through
24	920.78	R @ 7.5' Top Clay, Damp Sandy Gravel, Drill Dry then water comes in
25	919.35	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
26	916.4	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
27	914.43	R @ 15' Wet Sandy Gravel, Very Wet
28	914.08	No Rock @ 15' Very Wet Sand & Gravel
29	914.33	No Rock @ 15' Very Wet Sand & Gravel
30	917.33	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
31	918.95	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
32	919.66	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
33	920.4	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
34	919.99	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
35	920.02	R @ 12' Wet, Top Clay & Sandy Gravel
36	918.74	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
37	918.36	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
Zone 4		
38	919.44	R @ 4.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
39	919.85	R @ 5'
40	919.85	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
41	920.82	R @ 3.5'

42	921.89	R @ 4'
43	922.2	R @ 4.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
44	920.91	R @ 5'
45	919.52	R @ 4'
46	919.46	R @ 3'
47	920.79	R @ 3'
48	921.57	R @ 4'
49	921.81	R @ 4.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
50	922.86	R @ 5'
51	924.55	R @ 5'
52	925.12	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
53	927.6	R @ 4'
54	927.86	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
55	928.43	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
56	929.52	R @ 9.5' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
57	929.64	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
58	930.64	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
59	931.03	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
60	931.7	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
61	932.99	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
62	932.71	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
63	931.3	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
64	929.28	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
65	928.25	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
66	926.32	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
67	927.73	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
68	927.4	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
69	927.34	R @ 11' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
70	925.51	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
71	925.29	R @ 6' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
72	925.64	R @ 3.5' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
73	925.47	R @ 5.5' Top Clay, Damp Sandy Gravel, Water comes in
74	924.52	R @ 4' Top Clay, Damp Sandy Gravel Drilled Dry
75	923.1	R @ 2' Top Clay, Damp Sandy Gravel, Drilled Dry
76	921.82	R @ 3" Top Clay, Damp Sandy Gravel, Drilled Dry
77	919.63	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry
78	919.11	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry
79	915.7	R @ 5' Top Clay,Wet Sandy Gravel
80	917.26	R @ 5' Top Clay,Wet Sandy Gravel
81	919.45	R @ 7' Top Clay, Wet Sandy Gravel
82	920.89	R @ 7' Top Clay, Wet Sandy Gravel
83	921.74	R @ 7' Top Clay, Wet Sandy Gravel
84	923.62	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
85	924.22	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
86	925.24	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
87	927.2	R @ 5' Top Clay,Damp Sandy Gravel
88	930.89	R @ 8' Top Clay, Damp Sandy Gravel, Drills dry then water comes in

89	931.93	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
90	931.81	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
91	933	R @ 8' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
92	934.4	R @ 7' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
93	935.25	R @ 8' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
94	935.49	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
95	934.84	R @ 9' Top Clay, Damp Sandy Gravel, Drills dry then water comes in
96	932.16	R @ 7' Topsoil & Clay on top, Damp Sandy Soil/Wet
97	930.06	R @ 6' Topsoil & Clay on top, Damp/Wet soil
98	929.82	R @ 7' Topsoil & Clay on top, Damp Sandy Soil/Wet
99	928.99	R @ 7' Topsoil & Clay, Wet
100	927.35	R @ 6' Top Clay, Sandy Wet Gravel
101	926.68	R @ 6' Top Clay, Sandy Wet Gravel
102	925.84	R @ 5.5' Top Clay, Sandy Wet Gravel
103	925.15	R @ 5' Top Clay, Sandy Wet Gravel
104	925.74	Unable to Test Hole, Woods and Backyard
105	926.36	Unable to Test Hole, Woods and Backyard
106	925.81	R @ 9', Hole Drilled 60' S of Stake, Top Clay & Wet Gravel
107	926.06	R @ 8', Hole Drilled 30' S of Stake, Top Clay & Wet Gravel
108	924.71	R @ 8', Hole Drilled 30' S of Stake, Top Clay & Wet Gravel
109	922.34	R @ 7', Hole Drilled 30' S of Stake, Top Clay & Wet Gravel
110	919.85	R @ 7' Top Clay, Drills Dry then water comes in
111	918.35	R @ 4' Top Clay, Drills Dry then water comes in
112	918.31	R @ 2' Top Clay, Damp Sandy Gravel, Drilled Dry then water comes in
113	918.18	R @ 1.5' Top Clay, Damp Sandy Gravel, Drilled Dry then water comes in
114	917.9	R @ 2' Top Clay, Damp Sandy Gravel, Drilled Dry then water comes in
115	917.94	R @ 3' Top Clay, Damp Sandy Gravel, Drilled Dry then water comes in
116	918.75	R @ 5' Top Clay, Sandy Gravel, Drilled Dry then water comes in
117	918.51	R @ 5' Top Clay, Sandy Gravel, Drilled Dry then water comes in
118	918.25	R @ 5' Top Clay, Sandy Gravel, Drilled Dry then water comes in
Zone 3		Holes 119-155 Top clay with damp sandy gravel
119	943.48	R @ 14'
120	942.88	R @ 14'
121	941.52	R @ 15'
122	941.72	R @ 15'
123	942.01	No Rock
124	942.48	No Rock
125	942.8	No Rock
126	941.44	No Rock
127	940.74	R @ 14'
128	940.36	R @ 10.5'
129	941.27	R @ 11.5'
130	940.75	R @ 12'
131	939.93	R @ 10'
132	938.8	R @ 10'
133	939.53	R @ 8'
134	941.57	R @ 8'

135	942.38	R @ 9'
136	943.2	R @ 10.5'
137	945.3	R @ 11.5'
138	948.09	No Rock @ 15'
139	948.43	No Rock @ 15'
140	948.82	No Rock @ 15'
141	947.95	No Rock @ 15'
142	946.08	R @ 14.5'
143	944.06	R @ 14'
144	945.52	No Rock @ 15'
145	946.82	No Rock @ 15'
146	946.48	No Rock @ 15'
147	946.4	No Rock @ 15'
148	946.47	No Rock @ 15'
149	946.34	No Rock @ 15'
150	946.64	No Rock @ 15'
151	946.92	No Rock @ 15'
152	947.04	No Rock @ 15'
153	945.83	No Rock @ 15'
154	944.95	R @ 15'
155	944.31	R @ 15'
Zone 3	Northern Half Duplex's Top Clay w/ Sandy Dry Gravel Holes 1-19	
1	936.94	R @ 15'
2	937.08	No Rock @ 15'
3	933.92	No Rock @ 15'
4	934.52	No Rock @ 15'
5	937.07	No Rock @ 15'
6	938.89	No Rock @ 15'
7	939.94	R @ 14'
8	938.5	R @ 13'
9	936.64	R @ 12'
10	935.49	No Rock @ 15'
11	935.65	No Rock @ 15'
12	936.76	No Rock @ 15'
13	936.54	No Rock @ 15'
14	938.43	No Rock @ 15'
15	940.36	R @ 14'
16	940.5	R @ 11'
17	940.89	R @ 11'
18	942.78	R @ 15'
19	942.09	No Rock @ 15'
20	941.44	No Rock @ 15', Holes 20-28 Clay on Top W/ Damp Sandy Gravel
21	939.53	No Rock @ 15'
22	939.21	R @ 14'
23	939.52	R @ 13'
24	940.23	R @ 12'
25	941.28	R @ 11'

26	941.82	R @ 11'
27	942.25	R @ 11'
28	942.26	R @ 14'
Roadway		
A	916.86	R @ 11' Clay on Top w/ Damp Sandy Gravel, Wet after drilling
B	916.78	Hard Pan 15'-20', Wet
C	919.06	R @ 4.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
D	919.81	R @ 2.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
E	924.83	R @ 5.5' Top Clay, Sandy Gravel, Drills Dry then water comes in
F	928.53	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
G	923.08	R @ 6' Top Clay, Sandy Wet Gravel
H	925.6	R @ 10' Top Clay, Damp Sandy Gravel, Drills Dry then water comes in
I	930.82	R @ 8''-20' Top Clay, Sandy Damp Gravel, Drilled Dry
J	933.12	R @ 8'-20' Top Clay, Sandy Damp Gravel, Drills dry then water comes in
K	943.14	R @ 14'-20' Top Clay, Sandy Damp Gravel, Drills dry then water comes in
L	940.75	R @ 19' Top Clay, Sandy Wet Gravel
M	942.76	R @ 14'-20' Top Clay, Sandy Damp Gravel, Drills dry then water comes in

Welshire Farm

Town of Delafield, Wisconsin

Preliminary

Stormwater Management Plan

Prepared by:

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March 20, 2023
Revised June 22, 2023
Revised December 22, 2023

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TABLE OF CONTENTS

APPENDICES

Introduction

"Welshire Farm" is a proposed multi-family and single-family residential development on a 151.05-acre parcel located northwest of the intersection of Golf Road and Elmhurst Road in the Town of Delafield, Waukesha County, Wisconsin. Refer to Figure 1 for a general location of the project site.

The proposed subdivision design integrates with the existing topography, preserving trees and wetlands to the maximum extent practicable, and situates ponds and basins where runoff naturally flows, but with controlled outlets that reduce runoff rates and redirect runoff to adequate discharge points. This design approach minimizes site grading and maximizes the existing trees and wetlands that can be retained on the site.

This report documents the design computations for pre-development and post-development conditions and presents a plan for stormwater management that meets the requirements of the Town of Delafield, Waukesha County, and the Wisconsin Department of Natural Resources (WDNR).

Owner/ Developer

The owner, developer, and responsible entity for installation and maintenance of the stormwater management practices is:

Neumann Developments, Inc
N27 W24025 Paul Ct, Suite 100
Pewaukee, Wisconsin 53072
Contact: Bryan Lindgren
Phone: (262) 542-9200

Design Requirements

The following design standards have been used to develop the stormwater management plan for the "Welshire Farm" project:

- <u>Waukesha County</u> Chapter 14, Article VIII, Stormwater Management & Erosion Control Ordinance
- <u>Wisconsin Department of Natural Resources (WDNR)</u> Technical Standards, NR151, and NR216
- Summary of design requirements:
  - <u>Peak Discharge</u>:
    - Waukesha County: The peak flow discharge rates of stormwater runoff from the site under the post-development site conditions shall not exceed the rates under the pre-development conditions for the 1, 2, 10, and 100-year, 24-hour design storm events.

- Water Quality (Total Suspended Solids): Reduce to the maximum extent practicable the total suspended solids load by 80%, based on an average annual rainfall, as compared to no runoff management controls.
- Infiltration: For low impervious developments:
  - Infiltrate sufficient runoff volume so that the post-development infiltration volume is at least 90 percent of pre-development infiltration volume, based on an average annual rainfall.
  - No more than 1 percent of the post-construction site is required as an effective infiltration area.

Analysis Overview

The Stormwater Management Plan for the "Welshire Farm" subdivision has been designed in accordance with the Town of Delafield, Waukesha County, and all applicable state requirements. Pre-development and post-development stormwater runoff conditions for the site were analyzed for**:** runoff volume, peak volume, discharge, detention basin storage capacity required, outlet structure and storm sewer system requirements. The software package used for modeling and analysis was HydroCAD Version 10.10 software by HydroCAD Software Solutions. HydroCAD uses NRCS methods to generate runoff and pond routing hydrographs. The model's capabilities include modeling simple drainage basins, combining hydrographs to determine runoff and storage requirements, and detention basin and outlet structure sizing.

MSE3 rainfall distributions were used for modeling the 1, 2, 10 and 100-year, 24-hour storm events. The corresponding rainfall data used for the modeling was taken from Table 3 of Chapter 14 of the County's Ordinance and is shown in the following table.

TABLE 1
Design Rainfall Values

Storm Recurrence Interval	24-hour Rainfall Depths
1-year	2.4 inches
2-year	2.7 inches
10-year	3.81 inches
100-year	6.18 inches

Soil types for the site were determined from NRCS Soil Survey for Waukesha County and from soil boring logs prepared by Professional Service Industries (PSI). The Soil Survey identifies the soils at the site as mostly Theresa silt loam and Knowles silt loam with some limited areas of Hochheim loam and Ritchey silt loam soils. The soil boring logs indicated the soils encountered as generally 1 to 4 feet of dark brown clay to silty clay with organics underlain by clayey sand and sand with gravel extending to the termination of the borings. Groundwater was encountered with boring B-2, which was completed within the wetland area, at a depth of about 4 feet below existing grade. Groundwater was not observed during or at completion of drilling within the remaining boring locations. Based on this, a hydrologic soil group C was used to determine runoff curve numbers for the site. Refer to Appendix E for details.

Pre-Development Watershed Description

The project site is approximately 151.05-acres in size and is occupied by agricultural fields, woodlands, wetlands, residential homes, and a former farmstead with outbuildings. Surface drainage for the majority of the site is generally towards an on-site wetland that flows south to north and eventually drains to a culvert at Oakton Road that discharges to Pewaukee Lake. The remainder of the site slopes towards roadside ditches at Glen Cove Road, Elmhurst Road, and Gold Road.

Land cover types, drainage boundaries and flow paths are shown on Figure 2, Pre-Development Conditions Plan. The following table summarizes the results of the stormwater model for pre-development conditions. A schematic plan of the hydrological analysis and detailed hydrological computations for pre-development conditions are included in Appendix A.

TABLE 2
Pre-Development Conditions

Subarea, or Junction	Description	Area (acres)	Imp. Area (acres)	Time of Conc. (minutes)	Peak Flow Rate (cfs)			
					1-year	2-year	10-year	100-year
1	Subarea	11.87	0.00	12	10.95	14.33	28.30	61.73
1D	Depression	-	-	-	0.00	0.00	0.00	0.65
2	Subarea	14.48	0.00	13	13.44	17.42	34.00	73.06
3	Subarea	4.56	0.00	10	3.51	4.76	10.07	23.21
4	Subarea	1.10	0.00	9	1.24	1.61	3.10	6.62
5	Subarea	28.78	0.00	14	24.09	31.58	62.53	136.90
6	Subarea	11.23	0.21	22	8.19	10.65	20.84	45.09
6D	Depression	-	-	-	2.16	3.09	7.15	16.64
7	Subarea	12.83	0.03	29	7.24	9.53	19.06	42.19
7D	Depression	-	-	-	5.13	7.49	17.31	39.43
8	Subarea	26.11	0.72	28	13.97	18.61	38.15	85.99
1L	**West Subwatershed**	**26.35**	**0.00**	**-**	**13.44**	**17.42**	**34.00**	**73.06**
2L	**Northwest Subwatershed**	**4.56**	**0.00**	**-**	**3.51**	**4.76**	**10.07**	**23.21**
3L	**North Subwatershed**	**29.88**	**0.00**	**-**	**24.99**	**32.75**	**64.83**	**142.66**
4L	**Southeast Subwatershed**	**50.17**	**0.96**	**-**	**17.42**	**23.83**	**51.96**	**119.33**

Post-Development Site Drainage Description

The proposed development includes the construction of twenty-eight (28) 2-family condominium units and one hundred fifty-five (155) single-family lots. The proposed plan will disturb approximately 100-acres and will result in a net increase in impervious area of approximately 28.42 acres. Figure 3, Post-Development Conditions Plan, shows the proposed land cover, grading, drainage boundaries, flow paths, and proposed site and stormwater management improvements. The following table summarizes the results of the stormwater model for post-development conditions. A schematic plan of the hydrological analysis and detailed hydrological computations for post-development conditions are included in Appendix B.

TABLE 3
Post-Development Conditions

Subarea, or Junction	Description	Area (acres)	Imp. Area (acres)	Time of Conc. (minutes)	Peak Flow Rate (cfs)			
					1-year	2-year	10-year	100-year
1	Subarea	11.05	3.17	10	14.43	18.14	32.93	66.94
1B	Bioretention Basin	-	-	-	0.87	1.16	1.84	5.42
2	Subarea	1.62	0.69	6	3.38	4.08	6.77	12.61
2B	Infiltration Basin	-	-	-	0.59	0.97	2.09	10.14
3	Subarea	13.36	5.72	15	18.90	23.09	39.32	75.17
3P	Pond	-	-	-	0.43	2.33	19.78	36.55
4	Subarea	4.39	0.58	10	4.65	6.01	11.57	24.71
4B	Infiltration Basin	-	-	-	0.00	0.00	0.00	0.39
5	Subarea	2.59	0.29	10	2.54	3.32	6.54	14.21
5RG	Rain Garden	-	-	-	0.19	0.23	2.53	13.05
6	Subarea	8.80	2.99	10	12.26	15.29	27.25	54.50
6P	Pond	-	-	-	0.37	1.44	13.29	25.56
7a	Subarea	6.38	1.00	10	6.76	8.74	16.82	35.91
7RG	Rain Garden	-	-	-	3.77	6.19	15.43	34.12
7b	Subarea	5.22	1.67	10	7.74	9.57	16.77	33.02
7P	Pond	-	-	-	1.16	1.56	4.08	12.97
8	Subarea	4.61	0.72	10	4.88	6.31	12.15	25.95
8B	Infiltration Basin	-	-	-	0.15	0.20	0.32	9.74
9	Subarea	10.82	3.51	6	19.06	23.51	40.89	79.67
9P	Pond	-	-	-	0.29	0.35	2.16	8.76
10	Subarea	2.04	0.25	10	2.16	2.79	5.38	11.48
10B	Infiltration Basin	-	-	-	0.00	0.00	0.00	0.17
11	Subarea	7.98	2.96	6	14.06	17.34	30.16	58.76
11P	Pond	-	-	-	0.39	0.85	3.31	15.76
12	Subarea	7.03	1.88	10	8.59	10.89	20.14	41.52
12P	Pond	-	-	-	0.31	0.60	8.01	14.97
13	Subarea	5.25	1.11	10	6.41	8.13	15.04	31.01
13P	Pond	-	-	-	0.40	0.46	1.11	9.41
14	Subarea	0.41	0.03	10	0.34	0.46	0.94	2.13
15	Subarea	4.28	0.73	10	4.53	5.86	11.28	24.09
16	Subarea	11.57	1.42	10	10.50	13.88	27.91	61.86
17	Subarea	3.56	0.66	10	3.77	4.88	9.38	20.04
1L	**West Subwatershed**	**21.31**	**6.96**	**-**	**4.01**	**5.15**	**22.80**	**52.33**
2L	**Northwest Subwatershed**	**5.66**	**1.14**	**-**	**0.58**	**0.75**	**1.38**	**10.36**
3L	**North Subwatershed**	**49.43**	**13.91**	**-**	**5.14**	**6.56**	**18.21**	**67.12**
4L	**Southeast Subwatershed**	**34.56**	**7.37**	**-**	**10.98**	**14.56**	**30.27**	**89.93**

Stormwater Detention Basin Design & Summary

The stormwater management plan proposes one (1) bioretention basin, two (2) rain gardens, and four (4) infiltration basins as the primary means of stormwater management for the site. In conformance with the County and WDNR requirements, the ponds and basins have been designed with 4:1 side slopes on the berms, 10-foot top of berm widths, and 10-foot wide safety shelfs below the normal water level within the ponds. Additionally, all outfall structures discharge to energy dissipating level spreaders prior to discharging into the adjacent wetlands.

Understanding the sensitivity of the site, additional measures were taken to maximize infiltration opportunities. This included over-excavating the infiltration basins and enhancing them with engineered soil in order to expose existing granular subsoils that are more suitable for infiltration. In addition, rain gardens were placed in select open space areas where water can have the opportunity to pond (maximum depth 9-inch) and infiltrate slowly into the subsurface at a lesser rate (0.07 to 0.11 in/hr) without negatively impacting the development. These measures were done to significantly reduce peak discharge rates and volumes at all four discharge points for the 1, 2, 10, and 100-yr, 24-hour storms. The only exception where there was a slight increase in runoff volume was for the Northwest Subwatershed which discharges to a larger wetland/stormwater complex to the west.

Peak Discharge Summaries

Waukesha County requires post-development peak discharge rates to be no greater than pre-development discharge rates for the 1, 2, 10, and 100-yr, 24-hr design storms. The following table compares the results of the analysis from a peak discharge standpoint.

TABLE 4
Comparison of Peak Discharge

West Subwatershed (Link 1L)			
	Pre-Development		Post-Development
1-year	13.44 cfs	>	4.01 cfs
2-year	17.42 cfs	>	5.15 cfs
10-year	34.00 cfs	>	22.80 cfs
100-year	73.06 cfs	>	52.33 cfs
Northwest Subwatershed (Link 2L)			
	Pre-Development		Post-Development
1-year	3.51 cfs	>	0.58 cfs
2-year	4.76 cfs	>	0.75 cfs
10-year	10.07 cfs	>	1.38 cfs
100-year	23.21 cfs	>	10.36 cfs

TABLE 4
Comparison of Peak Discharge

North Subwatershed (Link 3L)

	Pre-Development		Post-Development
1-year	24.99 cfs	>	5.14 cfs
2-year	32.75 cfs	>	6.56 cfs
10-year	64.83 cfs	>	18.21 cfs
100-year	142.66 cfs	>	67.12 cfs

Southeast Subwatershed (Link 4L)

	Pre-Development		Post-Development
1-year	17.42 cfs	>	10.98 cfs
2-year	23.83 cfs	>	14.56 cfs
10-year	51.96 cfs	>	30.27 cfs
100-year	119.33 cfs	>	89.93 cfs

Water Quality

The Waukesha County requires new development sites to be designed to remove 80 percent of TSS, based on an average annual rainfall as compared to no runoff management controls. Stormwater quality was analyzed using SLAMM Version 10.5.0 software, developed by Robert Pitt and John Voorhees. The results of the SLAMM analysis indicate that approximately 81.8 percent of TSS will be removed from stormwater as a result of the proposed wet detention ponds, rain gardens, bioretention basin, infiltration basins and the disconnected nature of select roof and patio areas in conformance with WDNR's connected impervious guidance outlined in Document 3800-2020-1.

Based on conversations with the WDNR, to realize the treatment credit for disconnected surfaces two models are created. The first model is run with all surfaces modeled as connected to determine the total TSS loading produced prior to any treatment practices. The second model is run with select surfaces disconnected (such as backyard roof and patio areas) to determine the total TSS loading released after treatment practices. The particulate solids reduction percentage is calculated by dividing the total TSS removed by the total TSS loading produced (prior to any BMPs). Detailed computations are included in Appendix C.

Infiltration

Waukesha County's Chapter 14 requires low imperviousness developments to infiltrate sufficient runoff volume so that the post-development infiltration volume is at least 90% of the pre-development infiltration volume, based on an average annual rainfall. However, no more than 1% of the project site is required as an effective infiltration area.

One (1) bioretention basin, two (2) rain gardens, and four (4) infiltration basins were incorporated into the development plan to meet infiltration performance standards for the proposed subdivision. Design infiltration rates for the site were taken from Table 2 of WDNR Technical Standard 1002, Site Evaluation for Stormwater Infiltration. Static infiltrations rates for the in-situ soils at each basin were based on the least permeable soil horizon within 5 feet below the native soil interface. Infiltration calculations were based on the entire 151.05-acre site and were analyzed using winSLAMM to determine runoff volumes for both pre-development and post-development conditions. The results of the winSLAMM analysis indicate that the site will infiltrate approximately 94.1 percent of the pre-development infiltration volume. Detailed computations are included in Appendix D.

Conclusion

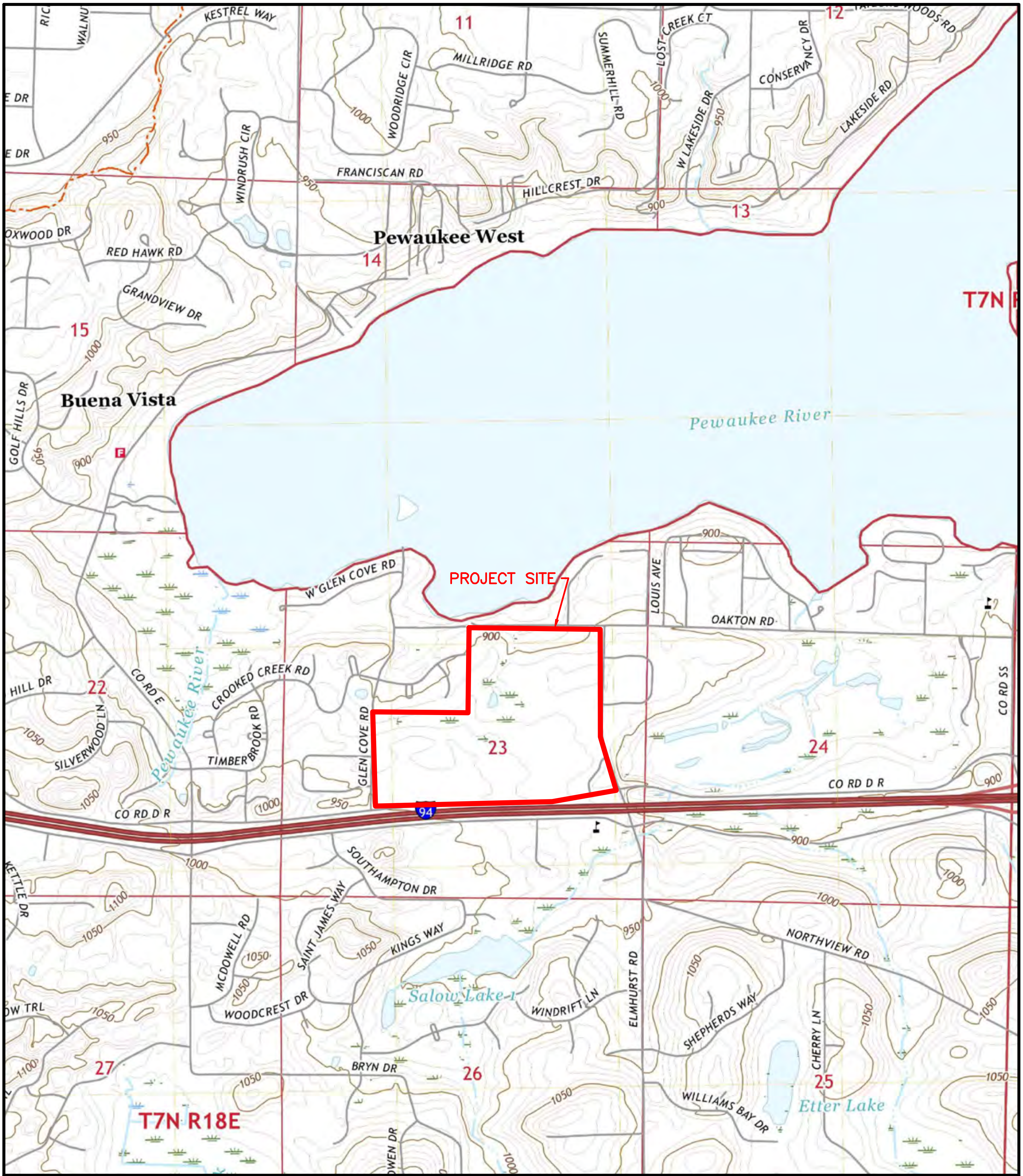
The proposed development will maintain compliance with the Town of Delafield, Waukesha County, and the WDNR's requirements for control of stormwater quantity, quality, and infiltration.

Prepared by:

SOUND STORMWATER DESIGN LLC

Jayme Sisel, P.E.

FIGURES



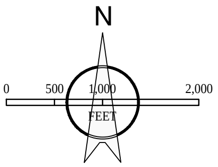


FIGURE 1

SITE LOCATION MAP

WELSHIRE FARM
TOWN OF DELAFIELD,
WISCONSIN

SOUND STORMWATER
DESIGN

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6/21/2023 10:14 PM

SOUND STORMWATER
DESIGN

Copper Oaks Ct.
Muskego, WI 53150
414.286.4739
jayme.sisel@soundstormwater.com

CLIENT:
NEUMANN DEVELOPMENT, INC.

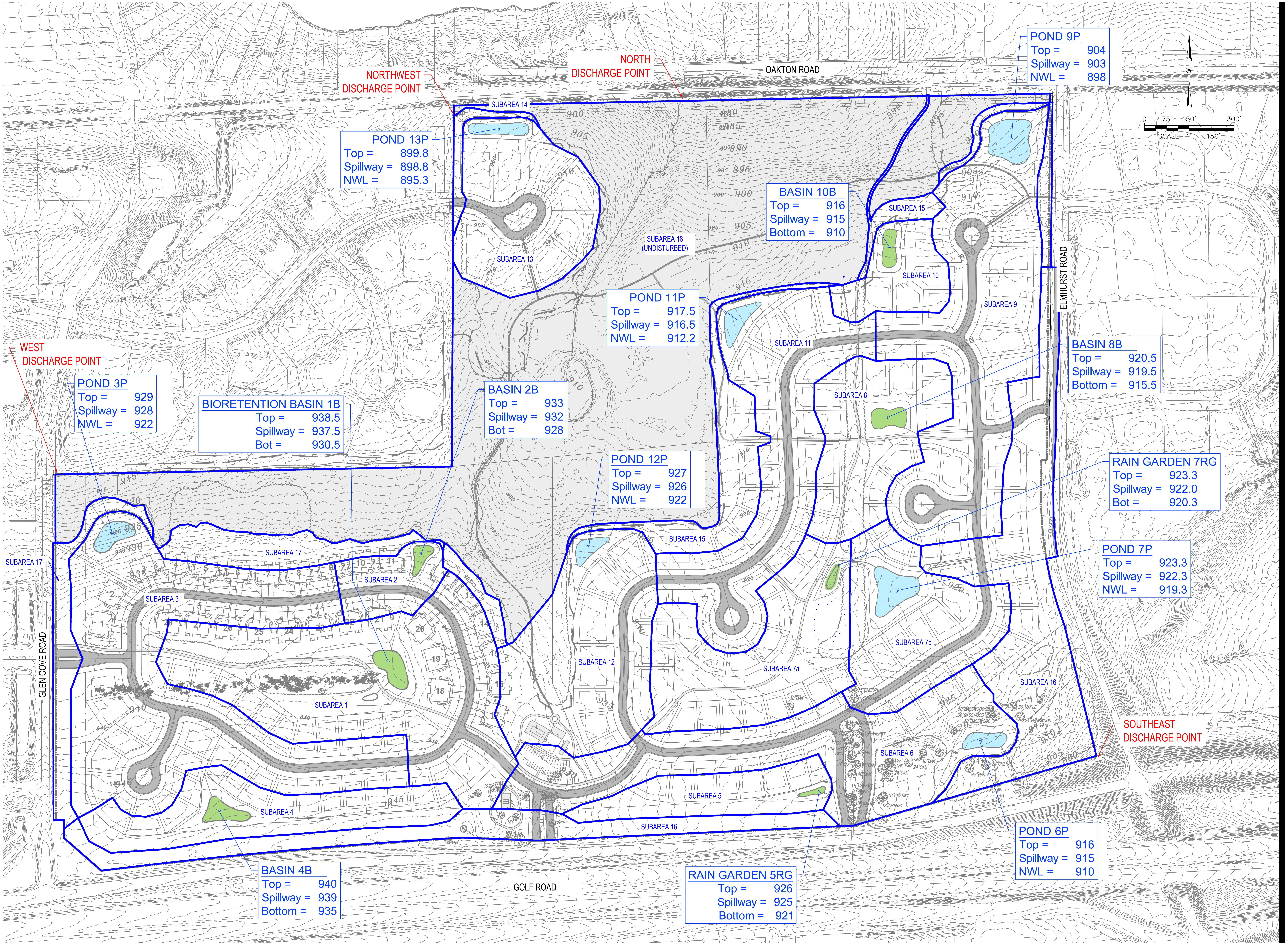
PROJECT TITLE:
WELSHIRE FARM
DEVELOPMENT
GOLF ROAD
TOWN OF DELAFIELD, WISCONSIN

DATE: 02-03-23

JOB NO: 2023-003

SHEET TITLE:
PRE-
DEVELOPMENT
CONDITIONS PLAN

FIGURE:
2



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GOLF ROAD
TOWN OF DELAFIELD, WISCONSIN

DATE: 02-03-23

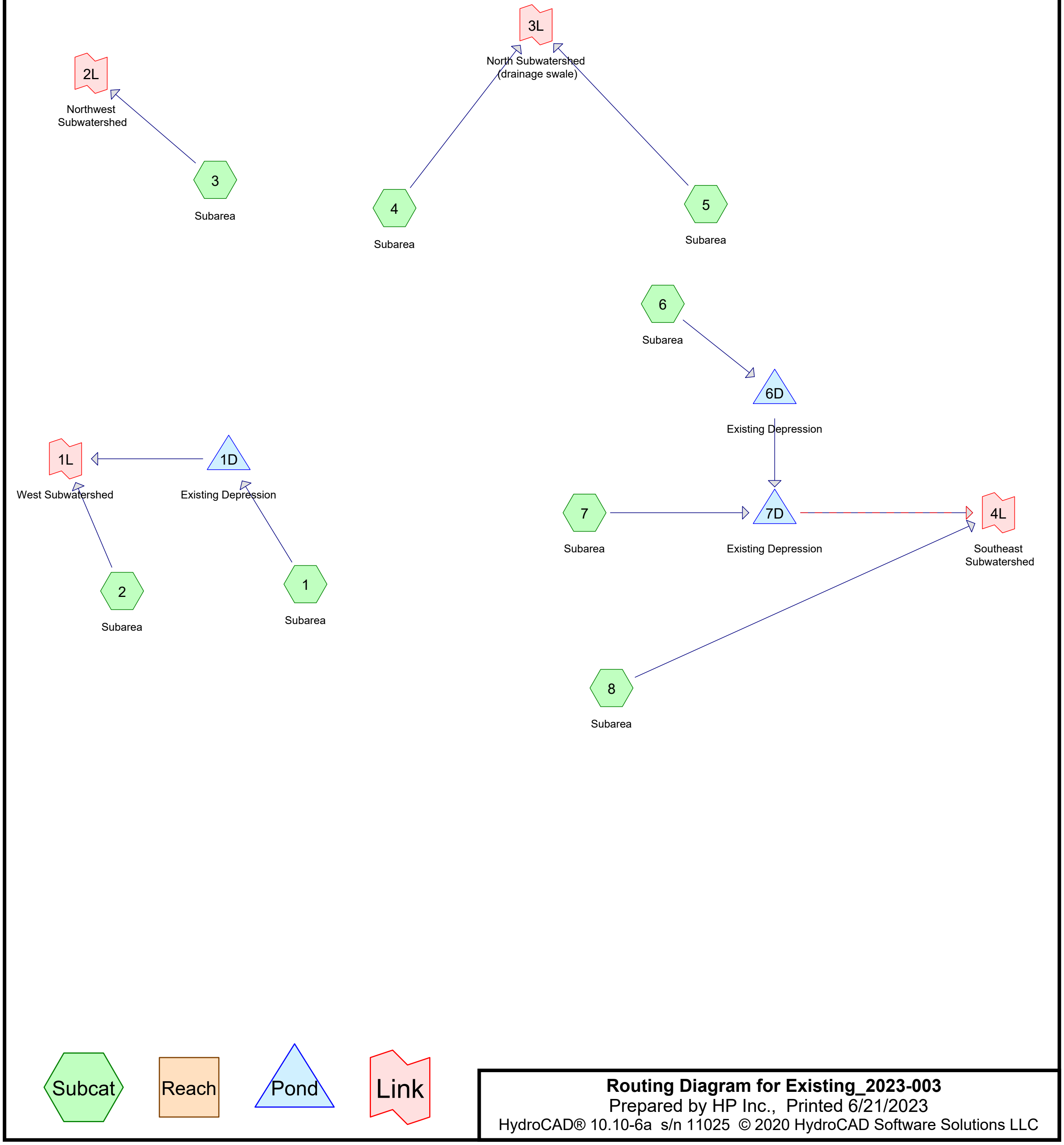
JOB NO: 2023-003

SHEET TITLE:
POST-DEVELOPMENT CONDITIONS PLAN

FIGURE:
3

APPENDIX A

Pre-Development Hydrologic Analysis



Routing Diagram for Existing_2023-003
Prepared by HP Inc., Printed 6/21/2023
HydroCAD® 10.10-6a s/n 11025 © 2020 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1 yr	MSE 24-hr	3	Default	24.00	1	2.40	2
2	2 yr	MSE 24-hr	3	Default	24.00	1	2.70	2
3	10 yr	MSE 24-hr	3	Default	24.00	1	3.81	2
4	100 yr	MSE 24-hr	3	Default	24.00	1	6.18	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
92.150	78	cropland - C soils (1, 2, 3, 4, 5, 6, 7, 8)
0.720	98	impervious (8)
4.130	74	maintained lawn - C soils (7, 8)
0.440	74	offsite lawn (ROW) - C soils (6, 7)
0.240	98	offsite road (6, 7)
13.280	70	woodland - C soils (1, 2, 3, 5, 6, 7, 8)
110.960	**77**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Subarea Runoff Area=11.870 ac 0.00% Impervious Runoff Depth>0.68"
Flow Length=400' Slope=0.0200 '/' Tc=11.7 min CN=77 Runoff=10.95 cfs 0.670 af

Subcatchment 2: Subarea Runoff Area=14.480 ac 0.00% Impervious Runoff Depth>0.72"
Flow Length=630' Slope=0.0200 '/' Tc=13.4 min CN=78 Runoff=13.44 cfs 0.872 af

Subcatchment 3: Subarea Runoff Area=4.560 ac 0.00% Impervious Runoff Depth>0.55"
Flow Length=630' Slope=0.0400 '/' Tc=9.9 min CN=74 Runoff=3.51 cfs 0.210 af

Subcatchment 4: Subarea Runoff Area=1.100 ac 0.00% Impervious Runoff Depth>0.72"
Flow Length=190' Slope=0.0300 '/' Tc=8.6 min CN=78 Runoff=1.24 cfs 0.066 af

Subcatchment 5: Subarea Runoff Area=28.780 ac 0.00% Impervious Runoff Depth>0.68"
Flow Length=740' Slope=0.0200 '/' Tc=14.2 min CN=77 Runoff=24.09 cfs 1.625 af

Subcatchment 6: Subarea Runoff Area=11.230 ac 1.87% Impervious Runoff Depth>0.72"
Flow Length=760' Tc=21.5 min CN=78 Runoff=8.19 cfs 0.676 af

Subcatchment 7: Subarea Runoff Area=12.830 ac 0.23% Impervious Runoff Depth>0.68"
Flow Length=1,725' Slope=0.0100 '/' Tc=29.4 min CN=77 Runoff=7.24 cfs 0.723 af

Subcatchment 8: Subarea Runoff Area=26.110 ac 2.76% Impervious Runoff Depth>0.63"
Flow Length=1,580' Slope=0.0100 '/' Tc=27.9 min CN=76 Runoff=13.97 cfs 1.377 af

Pond 1D: Existing Depression Peak Elev=938.58' Storage=0.510 af Inflow=10.95 cfs 0.670 af
Discarded=0.19 cfs 0.184 af Primary=0.00 cfs 0.000 af Outflow=0.19 cfs 0.184 af

Pond 6D: Existing Depression Peak Elev=917.77' Storage=0.339 af Inflow=8.19 cfs 0.676 af
Discarded=0.07 cfs 0.042 af Primary=2.16 cfs 0.512 af Outflow=2.22 cfs 0.554 af

Pond 7D: Existing Depression Peak Elev=917.76' Storage=0.158 af Inflow=7.24 cfs 1.235 af
Discarded=0.03 cfs 0.020 af Primary=5.13 cfs 1.161 af Outflow=5.17 cfs 1.182 af

Link 1L: West Subwatershed Inflow=13.44 cfs 0.872 af
Primary=13.44 cfs 0.872 af

Link 2L: Northwest Subwatershed Inflow=3.51 cfs 0.210 af
Primary=3.51 cfs 0.210 af

Link 3L: North Subwatershed (drainage swale) Inflow=24.99 cfs 1.691 af
Primary=24.99 cfs 1.691 af

Link 4L: Southeast Subwatershed Inflow=17.42 cfs 2.539 af
Primary=17.42 cfs 2.539 af

Total Runoff Area = 110.960 ac Runoff Volume = 6.221 af Average Runoff Depth = 0.67"
99.13% Pervious = 110.000 ac 0.87% Impervious = 0.960 ac

```
                     Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
                    Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
         Reach routing by Dyn-Stor-Ind method  -  Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Subarea               Runoff Area=11.870 ac   0.00% Impervious   Runoff Depth>0.87"
                       Flow Length=400'   Slope=0.0200 '/'   Tc=11.7 min   CN=77   Runoff=14.33 cfs  0.858 af

Subcatchment 2: Subarea               Runoff Area=14.480 ac   0.00% Impervious   Runoff Depth>0.92"
                       Flow Length=630'   Slope=0.0200 '/'   Tc=13.4 min   CN=78   Runoff=17.42 cfs  1.110 af

Subcatchment 3: Subarea                Runoff Area=4.560 ac   0.00% Impervious   Runoff Depth>0.72"
                         Flow Length=630'   Slope=0.0400 '/'   Tc=9.9 min   CN=74   Runoff=4.76 cfs  0.275 af

Subcatchment 4: Subarea                Runoff Area=1.100 ac   0.00% Impervious   Runoff Depth>0.92"
                         Flow Length=190'   Slope=0.0300 '/'   Tc=8.6 min   CN=78   Runoff=1.61 cfs  0.084 af

Subcatchment 5: Subarea               Runoff Area=28.780 ac   0.00% Impervious   Runoff Depth>0.87"
                       Flow Length=740'   Slope=0.0200 '/'   Tc=14.2 min   CN=77   Runoff=31.58 cfs  2.081 af

Subcatchment 6: Subarea               Runoff Area=11.230 ac   1.87% Impervious   Runoff Depth>0.92"
                                          Flow Length=760'   Tc=21.5 min   CN=78   Runoff=10.65 cfs  0.860 af

Subcatchment 7: Subarea               Runoff Area=12.830 ac   0.23% Impervious   Runoff Depth>0.87"
                      Flow Length=1,725'   Slope=0.0100 '/'   Tc=29.4 min   CN=77   Runoff=9.53 cfs  0.926 af

Subcatchment 8: Subarea               Runoff Area=26.110 ac   2.76% Impervious   Runoff Depth>0.82"
                     Flow Length=1,580'   Slope=0.0100 '/'   Tc=27.9 min   CN=76   Runoff=18.61 cfs  1.777 af

Pond 1D: Existing Depression          Peak Elev=938.68'  Storage=0.669 af   Inflow=14.33 cfs  0.858 af
                        Discarded=0.23 cfs  0.216 af   Primary=0.00 cfs  0.000 af   Outflow=0.23 cfs  0.216 af

Pond 6D: Existing Depression          Peak Elev=917.86'  Storage=0.423 af   Inflow=10.65 cfs  0.860 af
                        Discarded=0.08 cfs  0.045 af   Primary=3.09 cfs  0.690 af   Outflow=3.17 cfs  0.735 af

Pond 7D: Existing Depression           Peak Elev=917.84'  Storage=0.200 af   Inflow=9.53 cfs  1.616 af
                        Discarded=0.04 cfs  0.022 af   Primary=7.49 cfs  1.540 af   Outflow=7.53 cfs  1.561 af

Link 1L: West Subwatershed                                                       Inflow=17.42 cfs  1.110 af
                                                                                Primary=17.42 cfs  1.110 af

Link 2L: Northwest Subwatershed                                                   Inflow=4.76 cfs  0.275 af
                                                                                 Primary=4.76 cfs  0.275 af

Link 3L: North Subwatershed (drainage swale)                                     Inflow=32.75 cfs  2.165 af
                                                                                Primary=32.75 cfs  2.165 af

Link 4L: Southeast Subwatershed                                                  Inflow=23.83 cfs  3.316 af
                                                                                Primary=23.83 cfs  3.316 af

        Total Runoff Area = 110.960 ac   Runoff Volume = 7.971 af   Average Runoff Depth = 0.86"
                                     99.13% Pervious = 110.000 ac     0.87% Impervious = 0.960 ac
```

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Subarea Runoff Area=11.870 ac 0.00% Impervious Runoff Depth>1.66"
Flow Length=400' Slope=0.0200 '/' Tc=11.7 min CN=77 Runoff=28.30 cfs 1.645 af

Subcatchment 2: Subarea Runoff Area=14.480 ac 0.00% Impervious Runoff Depth>1.74"
Flow Length=630' Slope=0.0200 '/' Tc=13.4 min CN=78 Runoff=34.00 cfs 2.094 af

Subcatchment 3: Subarea Runoff Area=4.560 ac 0.00% Impervious Runoff Depth>1.46"
Flow Length=630' Slope=0.0400 '/' Tc=9.9 min CN=74 Runoff=10.07 cfs 0.554 af

Subcatchment 4: Subarea Runoff Area=1.100 ac 0.00% Impervious Runoff Depth>1.74"
Flow Length=190' Slope=0.0300 '/' Tc=8.6 min CN=78 Runoff=3.10 cfs 0.159 af

Subcatchment 5: Subarea Runoff Area=28.780 ac 0.00% Impervious Runoff Depth>1.66"
Flow Length=740' Slope=0.0200 '/' Tc=14.2 min CN=77 Runoff=62.53 cfs 3.989 af

Subcatchment 6: Subarea Runoff Area=11.230 ac 1.87% Impervious Runoff Depth>1.73"
Flow Length=760' Tc=21.5 min CN=78 Runoff=20.84 cfs 1.623 af

Subcatchment 7: Subarea Runoff Area=12.830 ac 0.23% Impervious Runoff Depth>1.66"
Flow Length=1,725' Slope=0.0100 '/' Tc=29.4 min CN=77 Runoff=19.06 cfs 1.776 af

Subcatchment 8: Subarea Runoff Area=26.110 ac 2.76% Impervious Runoff Depth>1.59"
Flow Length=1,580' Slope=0.0100 '/' Tc=27.9 min CN=76 Runoff=38.15 cfs 3.461 af

Pond 1D: Existing Depression Peak Elev=939.00' Storage=1.346 af Inflow=28.30 cfs 1.645 af
Discarded=0.35 cfs 0.335 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.335 af

Pond 6D: Existing Depression Peak Elev=918.13' Storage=0.766 af Inflow=20.84 cfs 1.623 af
Discarded=0.12 cfs 0.055 af Primary=7.15 cfs 1.433 af Outflow=7.27 cfs 1.488 af

Pond 7D: Existing Depression Peak Elev=918.11' Storage=0.368 af Inflow=21.36 cfs 3.209 af
Discarded=0.06 cfs 0.026 af Primary=17.31 cfs 3.123 af Outflow=17.37 cfs 3.149 af

Link 1L: West Subwatershed Inflow=34.00 cfs 2.094 af
Primary=34.00 cfs 2.094 af

Link 2L: Northwest Subwatershed Inflow=10.07 cfs 0.554 af
Primary=10.07 cfs 0.554 af

Link 3L: North Subwatershed (drainage swale) Inflow=64.83 cfs 4.148 af
Primary=64.83 cfs 4.148 af

Link 4L: Southeast Subwatershed Inflow=51.96 cfs 6.584 af
Primary=51.96 cfs 6.584 af

Total Runoff Area = 110.960 ac Runoff Volume = 15.301 af Average Runoff Depth = 1.65"
99.13% Pervious = 110.000 ac 0.87% Impervious = 0.960 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Subarea Runoff Area=11.870 ac 0.00% Impervious Runoff Depth>3.63"
Flow Length=400' Slope=0.0200 '/' Tc=11.7 min CN=77 Runoff=61.73 cfs 3.595 af

Subcatchment 2: Subarea Runoff Area=14.480 ac 0.00% Impervious Runoff Depth>3.74"
Flow Length=630' Slope=0.0200 '/' Tc=13.4 min CN=78 Runoff=73.06 cfs 4.508 af

Subcatchment 3: Subarea Runoff Area=4.560 ac 0.00% Impervious Runoff Depth>3.33"
Flow Length=630' Slope=0.0400 '/' Tc=9.9 min CN=74 Runoff=23.21 cfs 1.267 af

Subcatchment 4: Subarea Runoff Area=1.100 ac 0.00% Impervious Runoff Depth>3.74"
Flow Length=190' Slope=0.0300 '/' Tc=8.6 min CN=78 Runoff=6.62 cfs 0.343 af

Subcatchment 5: Subarea Runoff Area=28.780 ac 0.00% Impervious Runoff Depth>3.63"
Flow Length=740' Slope=0.0200 '/' Tc=14.2 min CN=77 Runoff=136.90 cfs 8.715 af

Subcatchment 6: Subarea Runoff Area=11.230 ac 1.87% Impervious Runoff Depth>3.73"
Flow Length=760' Tc=21.5 min CN=78 Runoff=45.09 cfs 3.494 af

Subcatchment 7: Subarea Runoff Area=12.830 ac 0.23% Impervious Runoff Depth>3.63"
Flow Length=1,725' Slope=0.0100 '/' Tc=29.4 min CN=77 Runoff=42.19 cfs 3.881 af

Subcatchment 8: Subarea Runoff Area=26.110 ac 2.76% Impervious Runoff Depth>3.53"
Flow Length=1,580' Slope=0.0100 '/' Tc=27.9 min CN=76 Runoff=85.99 cfs 7.679 af

Pond 1D: Existing Depression Peak Elev=939.53' Storage=2.911 af Inflow=61.73 cfs 3.595 af
Discarded=0.49 cfs 0.489 af Primary=0.65 cfs 0.296 af Outflow=1.14 cfs 0.785 af

Pond 6D: Existing Depression Peak Elev=918.54' Storage=1.692 af Inflow=45.09 cfs 3.494 af
Discarded=0.23 cfs 0.080 af Primary=16.64 cfs 3.261 af Outflow=16.85 cfs 3.340 af

Pond 7D: Existing Depression Peak Elev=918.52' Storage=0.742 af Inflow=48.15 cfs 7.141 af
Discarded=0.08 cfs 0.036 af Primary=39.43 cfs 7.038 af Outflow=39.52 cfs 7.074 af

Link 1L: West Subwatershed Inflow=73.06 cfs 4.803 af
Primary=73.06 cfs 4.803 af

Link 2L: Northwest Subwatershed Inflow=23.21 cfs 1.267 af
Primary=23.21 cfs 1.267 af

Link 3L: North Subwatershed (drainage swale) Inflow=142.66 cfs 9.057 af
Primary=142.66 cfs 9.057 af

Link 4L: Southeast Subwatershed Inflow=119.33 cfs 14.717 af
Primary=119.33 cfs 14.717 af

Total Runoff Area = 110.960 ac Runoff Volume = 33.481 af Average Runoff Depth = 3.62"
99.13% Pervious = 110.000 ac 0.87% Impervious = 0.960 ac

Summary for Subcatchment 1: Subarea

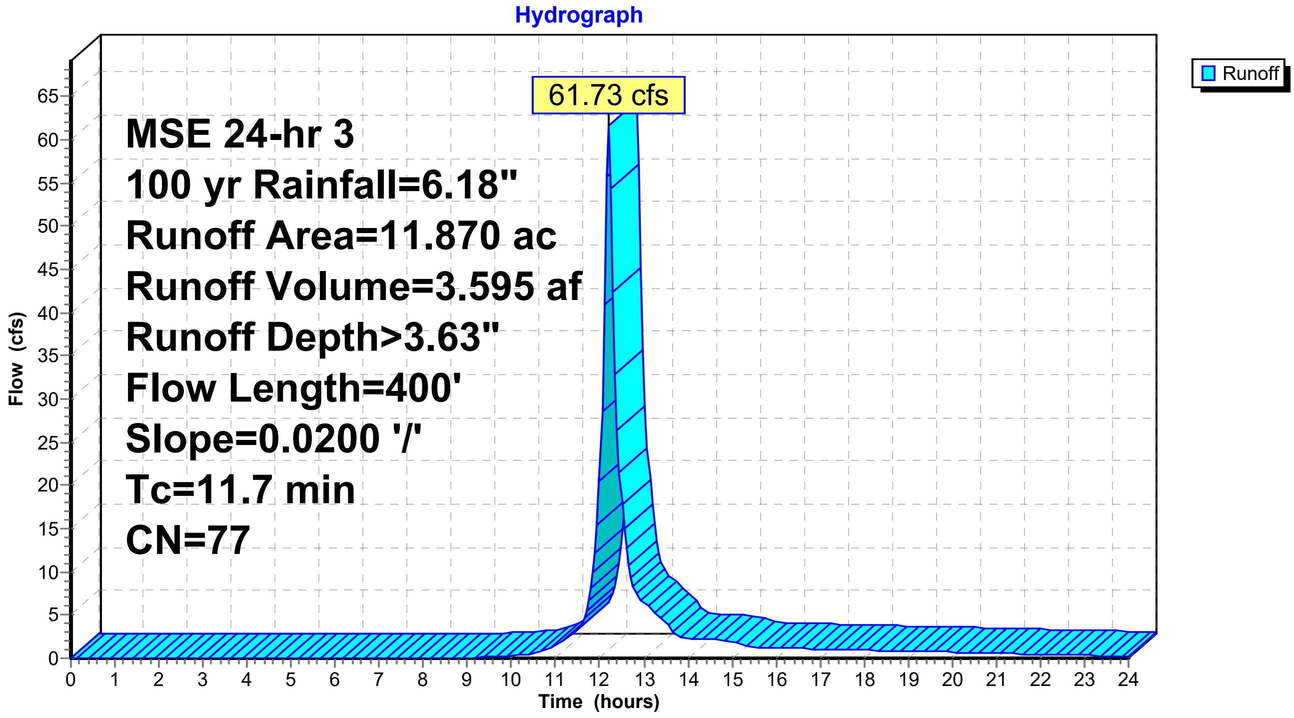
Runoff = 61.73 cfs @ 12.20 hrs, Volume= 3.595 af, Depth> 3.63"
Routed to Pond 1D : Existing Depression

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	10.990	78	cropland - C soils
*	0.880	70	woodland - C soils
	11.870	77	Weighted Average
	11.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0200	0.18		**Sheet Flow,** Range n= 0.130 P2= 2.70"
2.2	300	0.0200	2.28		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
11.7	400	Total			

Subcatchment 1: Subarea



Summary for Subcatchment 2: Subarea

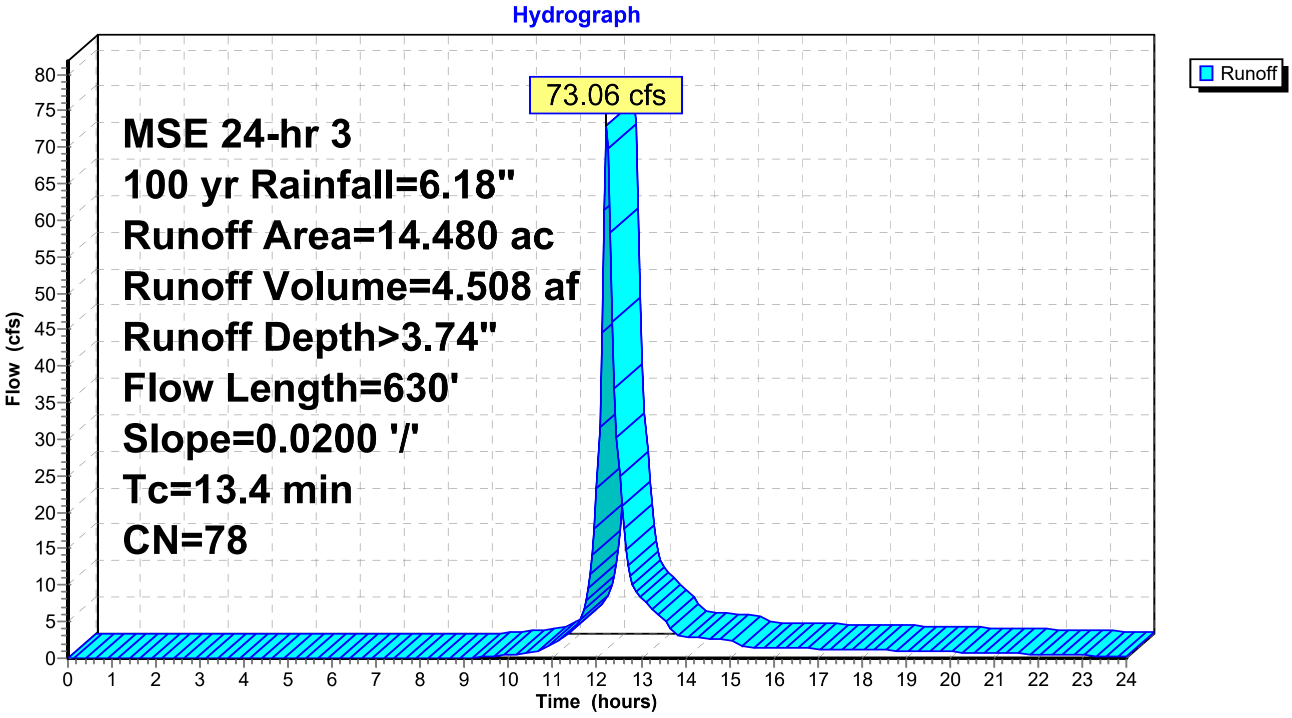
Runoff = 73.06 cfs @ 12.22 hrs, Volume= 4.508 af, Depth> 3.74"
Routed to Link 1L : West Subwatershed

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	13.900	78	cropland - C soils
*	0.580	70	woodland - C soils
	14.480	78	Weighted Average
	14.480		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0200	0.18		**Sheet Flow,** Range n= 0.130 P2= 2.70"
3.9	530	0.0200	2.28		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
13.4	630	Total			

Subcatchment 2: Subarea



Summary for Subcatchment 3: Subarea

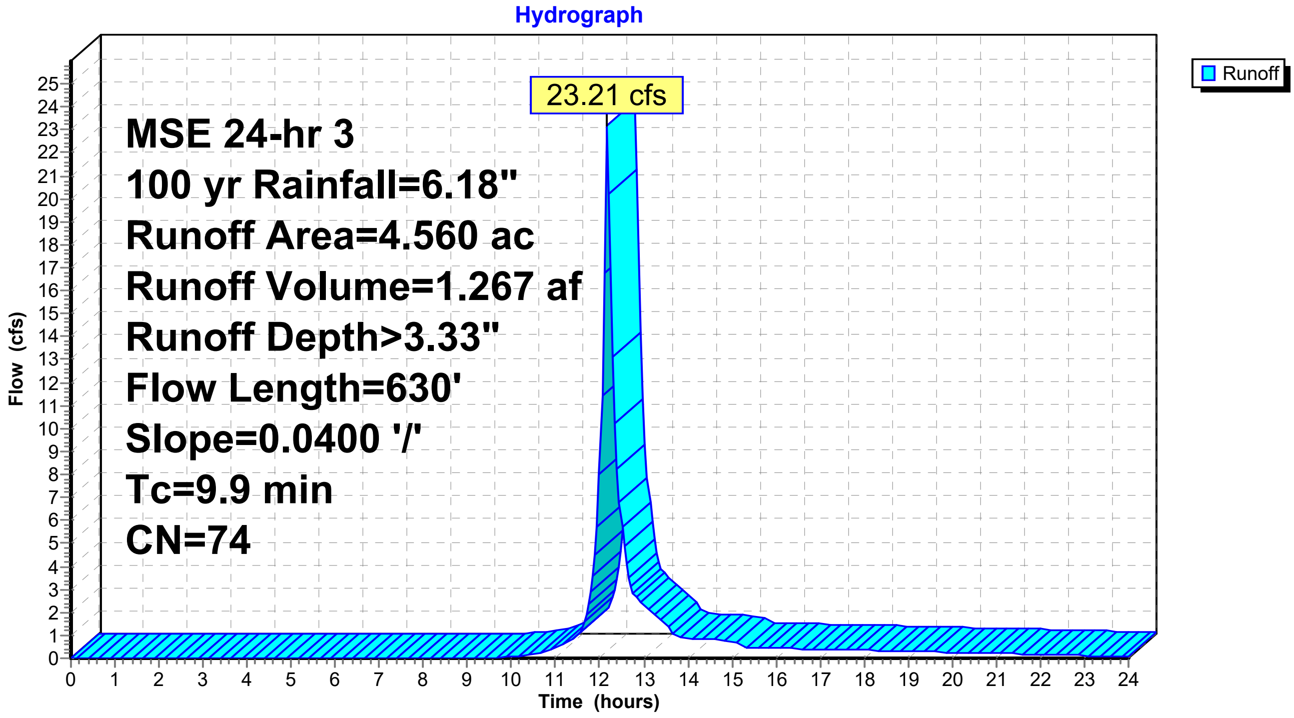
Runoff = 23.21 cfs @ 12.18 hrs, Volume= 1.267 af, Depth> 3.33"
Routed to Link 2L : Northwest Subwatershed

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	2.460	78	cropland - C soils
*	2.100	70	woodland - C soils
	4.560	74	Weighted Average
	4.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	100	0.0400	0.23		**Sheet Flow,** Range n= 0.130 P2= 2.70"
2.7	530	0.0400	3.22		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
9.9	630	Total			

Subcatchment 3: Subarea



Summary for Subcatchment 4: Subarea

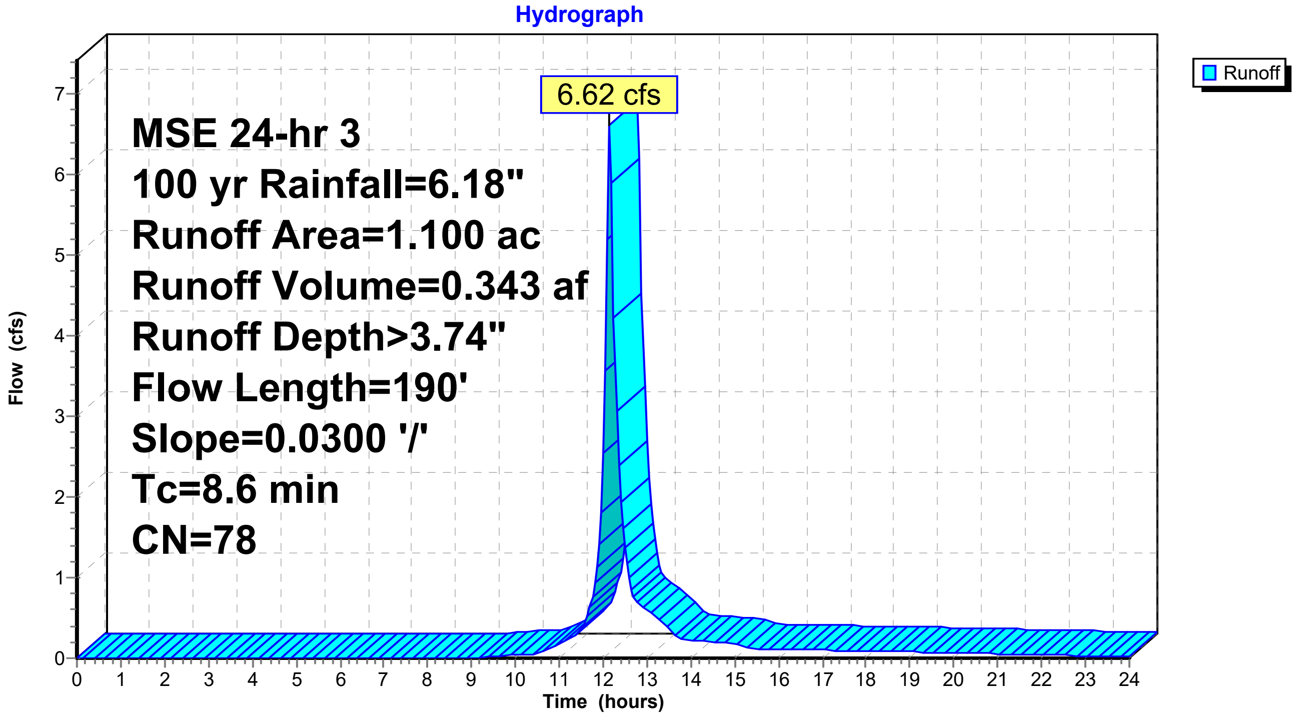
Runoff = 6.62 cfs @ 12.16 hrs, Volume= 0.343 af, Depth> 3.74"
Routed to Link 3L : North Subwatershed (drainage swale)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	1.100	78	cropland - C soils
	1.100		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.0300	0.21		**Sheet Flow,** Range n= 0.130 P2= 2.70"
0.5	90	0.0300	2.79		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
8.6	190	Total			

Subcatchment 4: Subarea



Summary for Subcatchment 5: Subarea

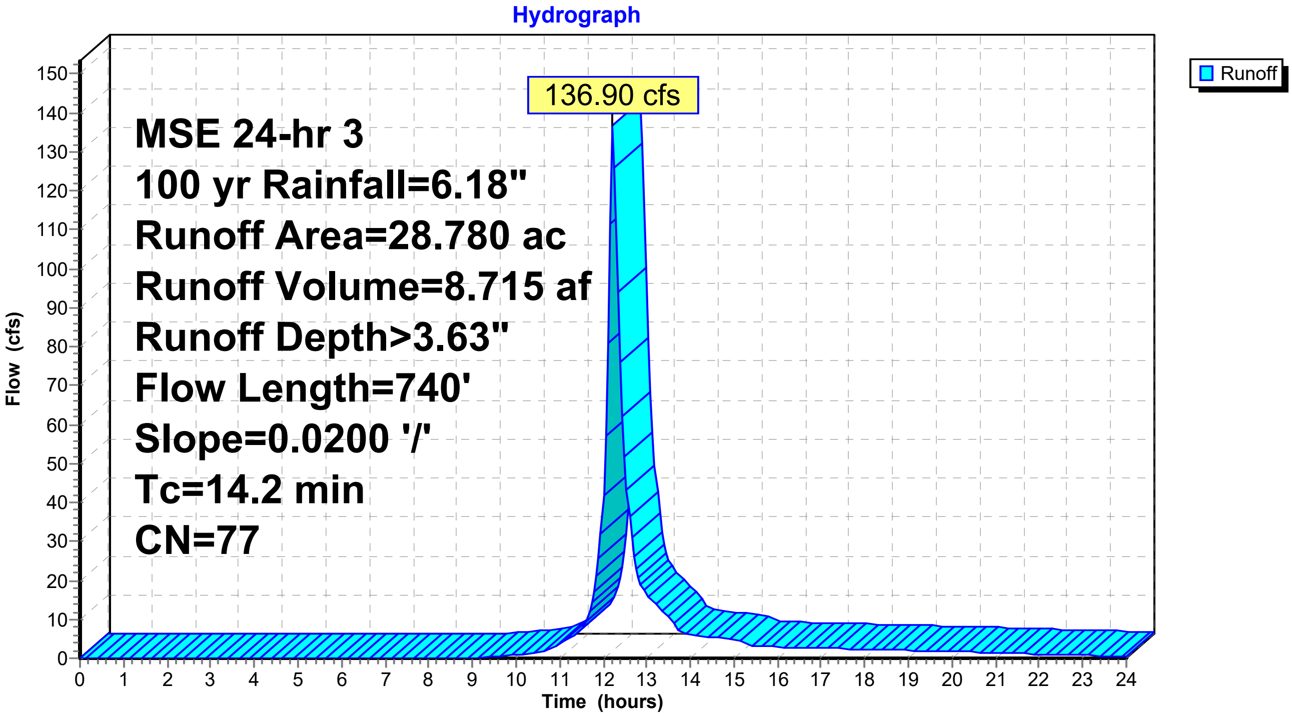
Runoff = 136.90 cfs @ 12.23 hrs, Volume= 8.715 af, Depth> 3.63"
Routed to Link 3L : North Subwatershed (drainage swale)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	25.850	78	cropland - C soils
*	2.930	70	woodland - C soils
	28.780	77	Weighted Average
	28.780		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0200	0.18		**Sheet Flow,** Range n= 0.130 P2= 2.70"
4.7	640	0.0200	2.28		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
14.2	740	Total			

Subcatchment 5: Subarea



Summary for Subcatchment 6: Subarea

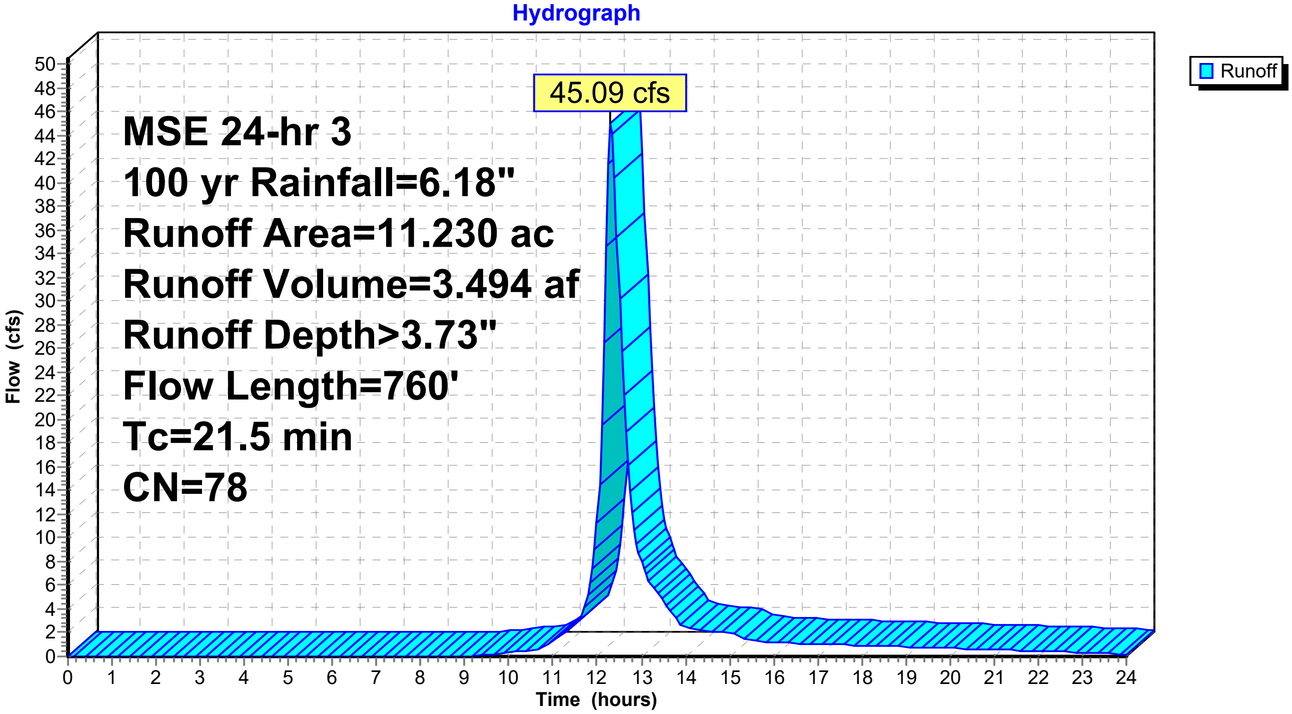
Runoff = 45.09 cfs @ 12.32 hrs, Volume= 3.494 af, Depth> 3.73"
Routed to Pond 6D : Existing Depression

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	10.200	78	cropland - C soils
*	0.550	70	woodland - C soils
*	0.210	98	offsite road
*	0.270	74	offsite lawn (ROW) - C soils
	11.230	78	Weighted Average
	11.020		98.13% Pervious Area
	0.210		1.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Range n= 0.130 P2= 2.70"
2.0	190	0.0100	1.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
6.9	470	0.0050	1.14		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
21.5	760	Total			

Subcatchment 6: Subarea



Summary for Subcatchment 7: Subarea

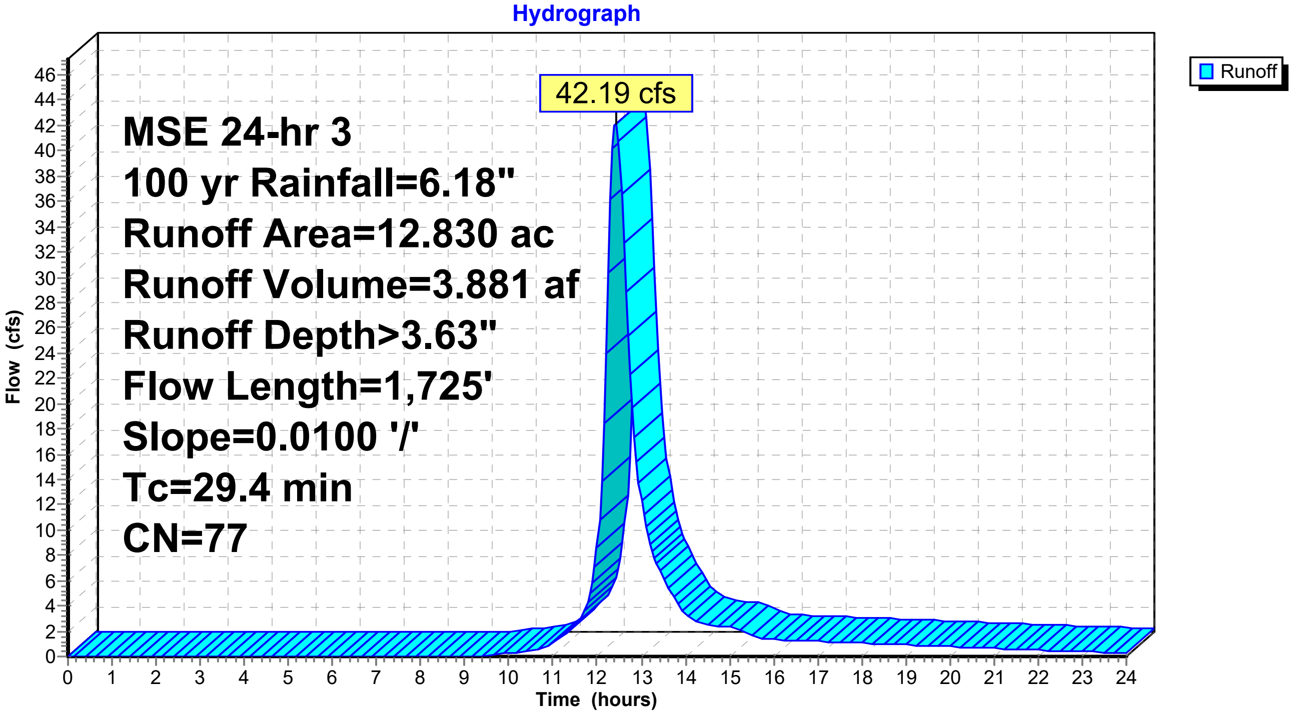
Runoff = 42.19 cfs @ 12.42 hrs, Volume= 3.881 af, Depth> 3.63"
Routed to Pond 7D : Existing Depression

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	11.180	78	cropland - C soils
*	1.440	70	woodland - C soils
*	0.010	74	maintained lawn - C soils
*	0.030	98	offsite road
*	0.170	74	offsite lawn (ROW) - C soils
	12.830	77	Weighted Average
	12.800		99.77% Pervious Area
	0.030		0.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Range n= 0.130 P2= 2.70"
16.8	1,625	0.0100	1.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
29.4	1,725	Total			

Subcatchment 7: Subarea



Summary for Subcatchment 8: Subarea

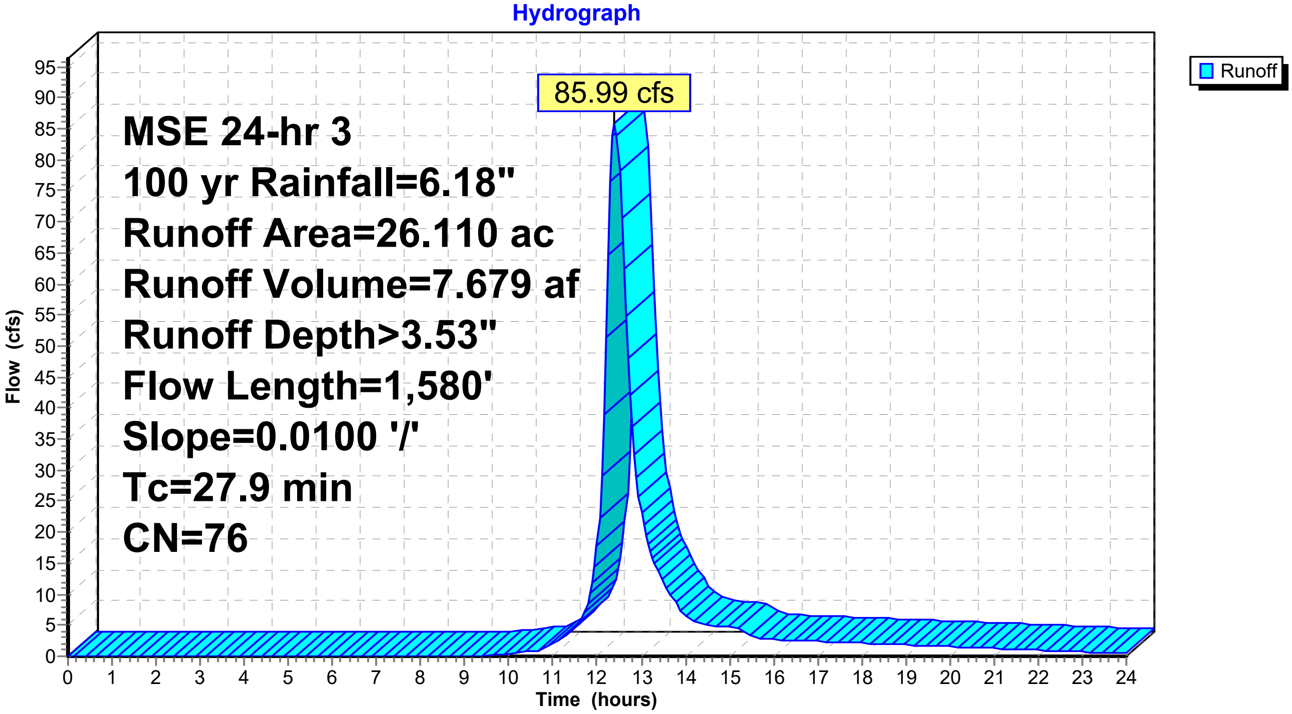
Runoff = 85.99 cfs @ 12.40 hrs, Volume= 7.679 af, Depth> 3.53"
Routed to Link 4L : Southeast Subwatershed

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	16.470	78	cropland - C soils
*	4.800	70	woodland - C soils
*	4.120	74	maintained lawn - C soils
*	0.720	98	impervious
	26.110	76	Weighted Average
	25.390		97.24% Pervious Area
	0.720		2.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0100	0.13		**Sheet Flow,** Range n= 0.130 P2= 2.70"
15.3	1,480	0.0100	1.61		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
27.9	1,580	Total			

Subcatchment 8: Subarea



Summary for Pond 1D: Existing Depression

Inflow Area = 11.870 ac, 0.00% Impervious, Inflow Depth > 3.63" for 100 yr event
Inflow = 61.73 cfs @ 12.20 hrs, Volume= 3.595 af
Outflow = 1.14 cfs @ 16.45 hrs, Volume= 0.785 af, Atten= 98%, Lag= 255.3 min
Discarded = 0.49 cfs @ 16.45 hrs, Volume= 0.489 af
Primary = 0.65 cfs @ 16.45 hrs, Volume= 0.296 af
Routed to Link 1L : West Subwatershed

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 939.53' @ 16.45 hrs Surf.Area= 3.442 ac Storage= 2.911 af

Plug-Flow detention time= 372.3 min calculated for 0.785 af (22% of inflow)
Center-of-Mass det. time= 272.0 min (1,075.4 - 803.4)

Volume	Invert	Avail.Storage	Storage Description
#1	938.00'	4.745 af	**Custom Stage Data (Conic)**Listed below (Recalc)

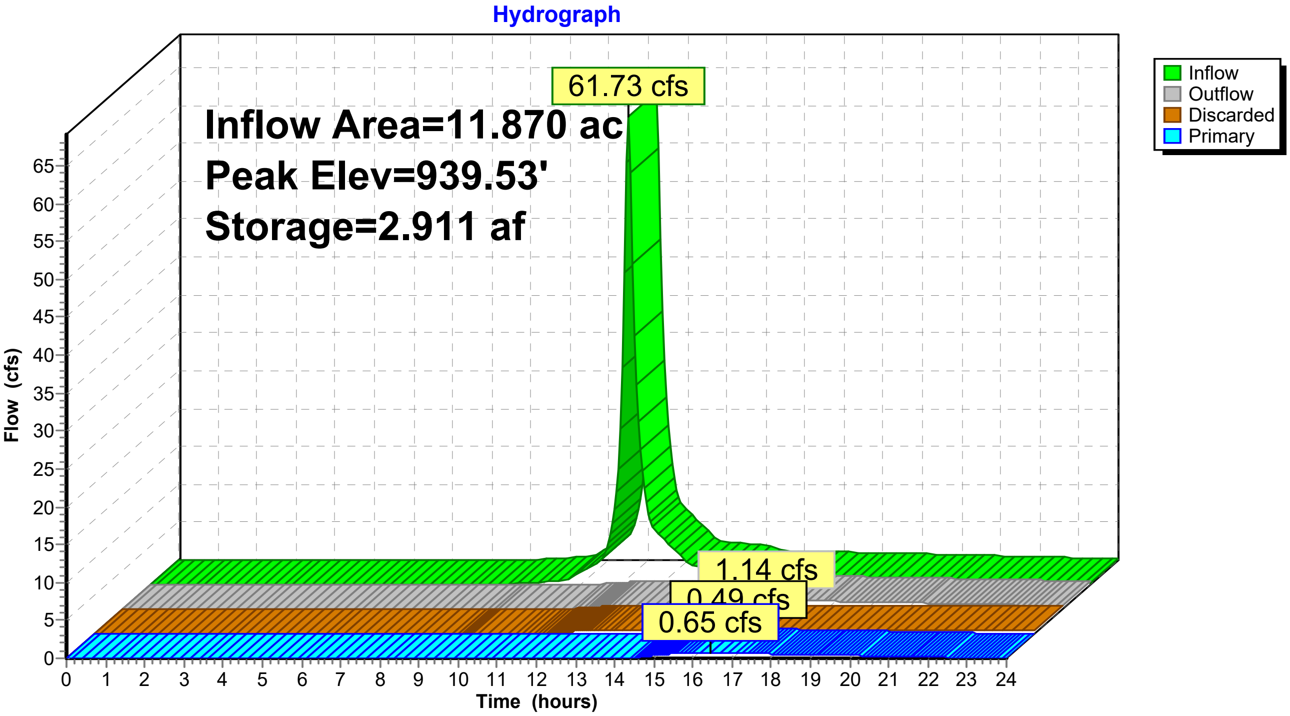
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
938.00	0.440	0.000	0.000	0.440
939.00	2.520	1.338	1.338	2.520
940.00	4.380	3.407	4.745	4.380

Device	Routing	Invert	Outlet Devices
#1	Discarded	938.00'	**0.130 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 928.00' Phase-In= 0.01'
#2	Primary	939.50'	**50.0' long + 10.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.49 cfs @ 16.45 hrs HW=939.53' (Free Discharge)
└─**1=Exfiltration** (Controls 0.49 cfs)

Primary OutFlow Max=0.65 cfs @ 16.45 hrs HW=939.53' TW=0.00' (Dynamic Tailwater)
└─**2=Broad-Crested Rectangular Weir** (Weir Controls 0.65 cfs @ 0.43 fps)

Pond 1D: Existing Depression



Summary for Pond 6D: Existing Depression

Inflow Area = 11.230 ac, 1.87% Impervious, Inflow Depth > 3.73" for 100 yr event
Inflow = 45.09 cfs @ 12.32 hrs, Volume= 3.494 af
Outflow = 16.85 cfs @ 13.07 hrs, Volume= 3.340 af, Atten= 63%, Lag= 45.0 min
Discarded = 0.23 cfs @ 12.76 hrs, Volume= 0.080 af
Primary = 16.64 cfs @ 13.07 hrs, Volume= 3.261 af
Routed to Pond 7D : Existing Depression

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 918.54' @ 12.76 hrs Surf.Area= 2.945 ac Storage= 1.692 af

Plug-Flow detention time= 87.8 min calculated for 3.340 af (96% of inflow)
Center-of-Mass det. time= 65.6 min (875.9 - 810.3)

Volume	Invert	Avail.Storage	Storage Description
#1	916.90'	3.474 af	**Custom Stage Data (Conic)**Listed below (Recalc)

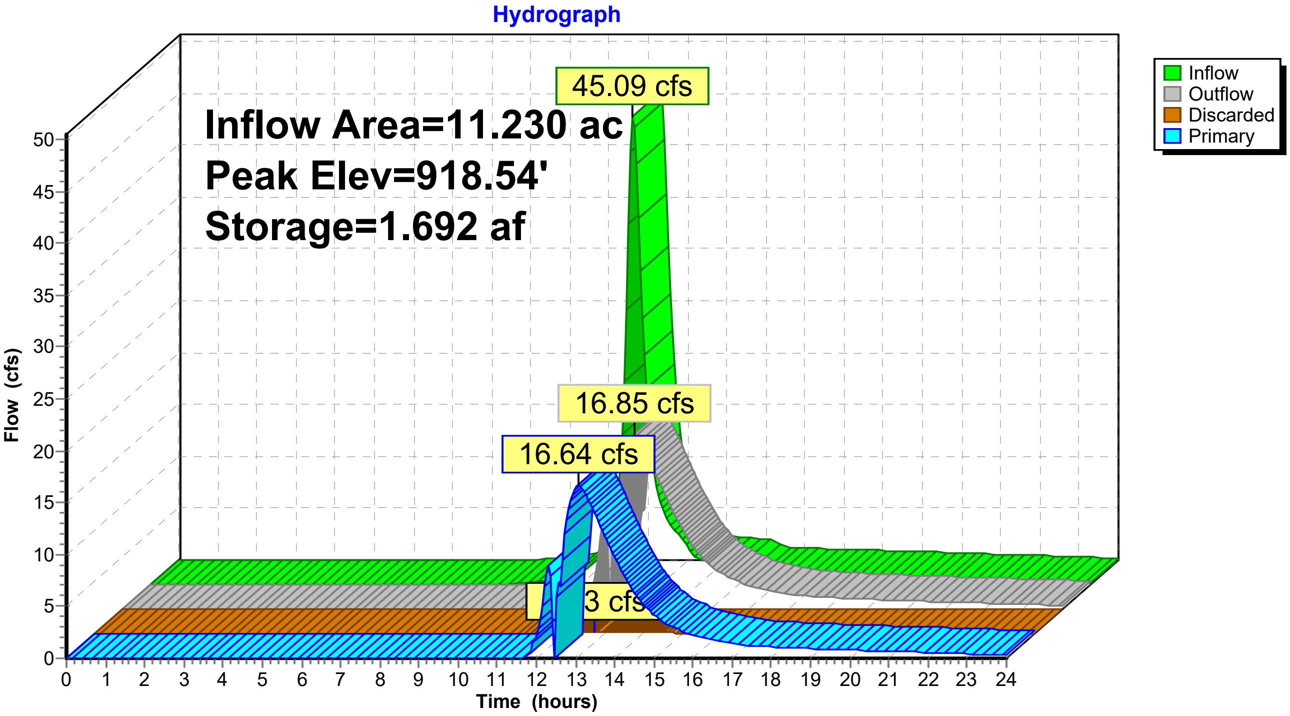
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
916.90	0.000	0.000	0.000	0.000
917.00	0.110	0.004	0.004	0.110
918.00	1.260	0.581	0.584	1.260
919.00	4.920	2.890	3.474	4.920

Device	Routing	Invert	Outlet Devices
#1	Discarded	916.90'	**0.070 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 911.00' Phase-In= 0.01'
#2	Primary	917.40'	**8.0' long + 5.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.23 cfs @ 12.76 hrs HW=918.54' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.23 cfs)

Primary OutFlow Max=18.05 cfs @ 13.07 hrs HW=918.49' TW=918.39' (Dynamic Tailwater)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 18.05 cfs @ 1.24 fps)

Pond 6D: Existing Depression



Summary for Pond 7D: Existing Depression

Inflow Area = 24.060 ac, 1.00% Impervious, Inflow Depth > 3.56" for 100 yr event
Inflow = 48.15 cfs @ 12.35 hrs, Volume= 7.141 af
Outflow = 39.52 cfs @ 12.62 hrs, Volume= 7.074 af, Atten= 18%, Lag= 15.9 min
Discarded = 0.08 cfs @ 12.62 hrs, Volume= 0.036 af
Primary = 39.43 cfs @ 12.62 hrs, Volume= 7.038 af
Routed to Link 4L : Southeast Subwatershed

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 918.52' @ 12.62 hrs Surf.Area= 1.091 ac Storage= 0.742 af

Plug-Flow detention time= 19.2 min calculated for 7.060 af (99% of inflow)
Center-of-Mass det. time= 14.1 min (858.1 - 844.1)

Volume	Invert	Avail.Storage	Storage Description
#1	916.90'	1.386 af	**Custom Stage Data (Conic)**Listed below (Recalc)

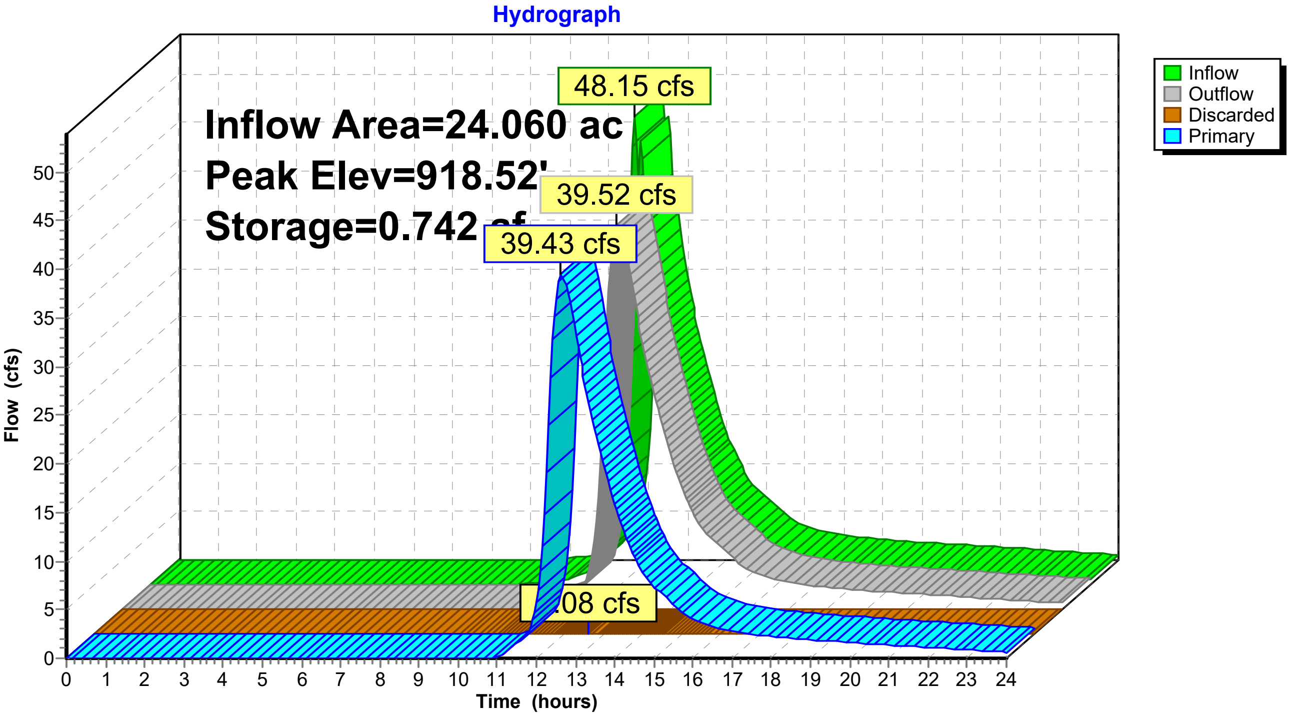
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
916.90	0.000	0.000	0.000	0.000
917.00	0.040	0.001	0.001	0.040
918.00	0.670	0.291	0.293	0.670
919.00	1.580	1.093	1.386	1.580

Device	Routing	Invert	Outlet Devices
#1	Discarded	916.90'	**0.070 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 911.00' Phase-In= 0.01'
#2	Primary	917.40'	**8.0' long + 5.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.08 cfs @ 12.62 hrs HW=918.51' (Free Discharge)
└─**1=Exfiltration** (Controls 0.08 cfs)

Primary OutFlow Max=39.35 cfs @ 12.62 hrs HW=918.51' TW=0.00' (Dynamic Tailwater)
└─**2=Broad-Crested Rectangular Weir** (Weir Controls 39.35 cfs @ 2.60 fps)

Pond 7D: Existing Depression

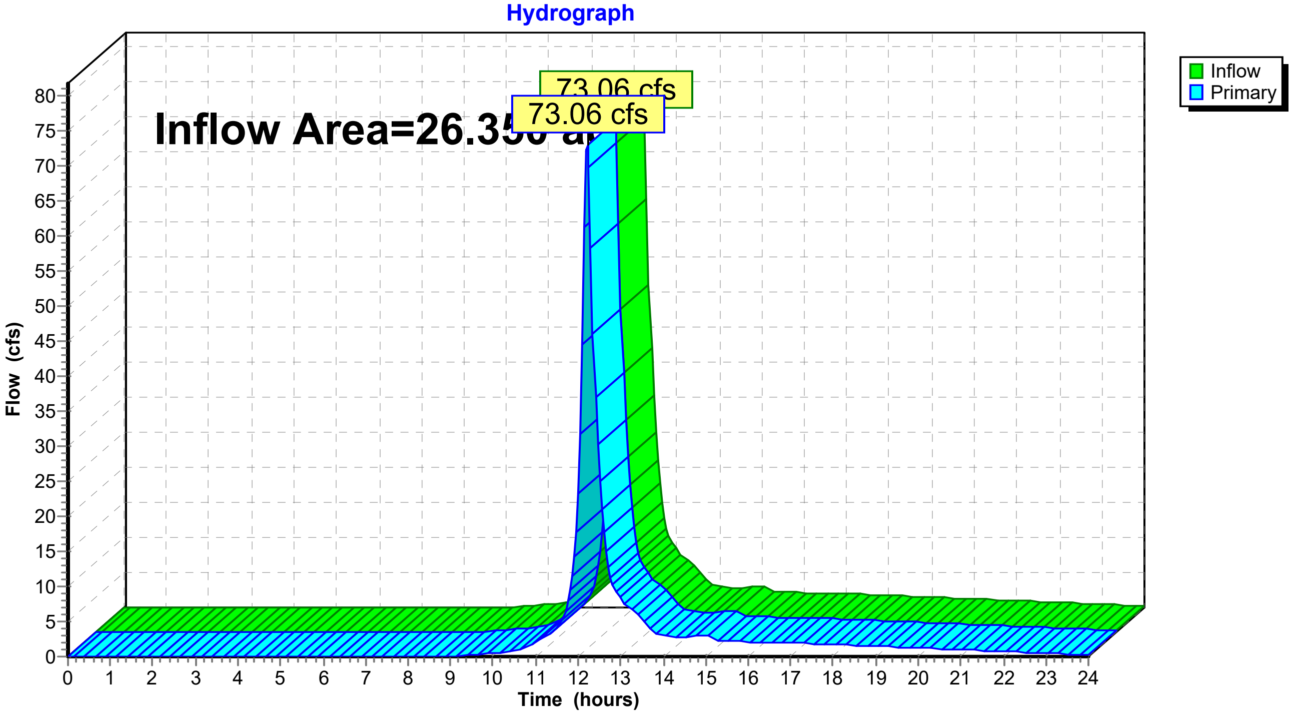


Summary for Link 1L: West Subwatershed

Inflow Area = 26.350 ac, 0.00% Impervious, Inflow Depth > 2.19" for 100 yr event
Inflow = 73.06 cfs @ 12.22 hrs, Volume= 4.803 af
Primary = 73.06 cfs @ 12.22 hrs, Volume= 4.803 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 99L

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 1L: West Subwatershed

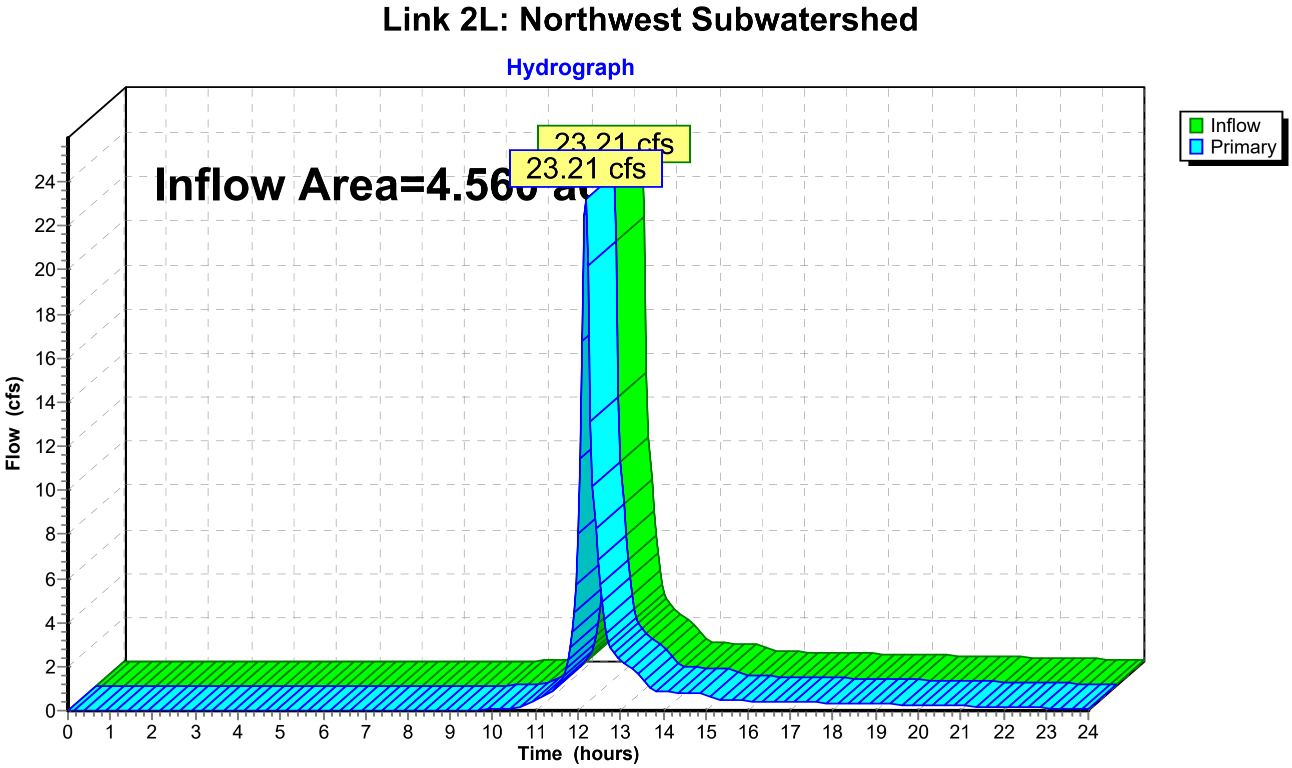


Summary for Link 2L: Northwest Subwatershed

Inflow Area =	4.560 ac,	0.00% Impervious,	Inflow Depth > 3.33"	for 100 yr event
Inflow =	23.21 cfs @	12.18 hrs,	Volume=	1.267 af
Primary =	23.21 cfs @	12.18 hrs,	Volume=	1.267 af, Atten= 0%, Lag= 0.0 min

Routed to nonexistent node 99L

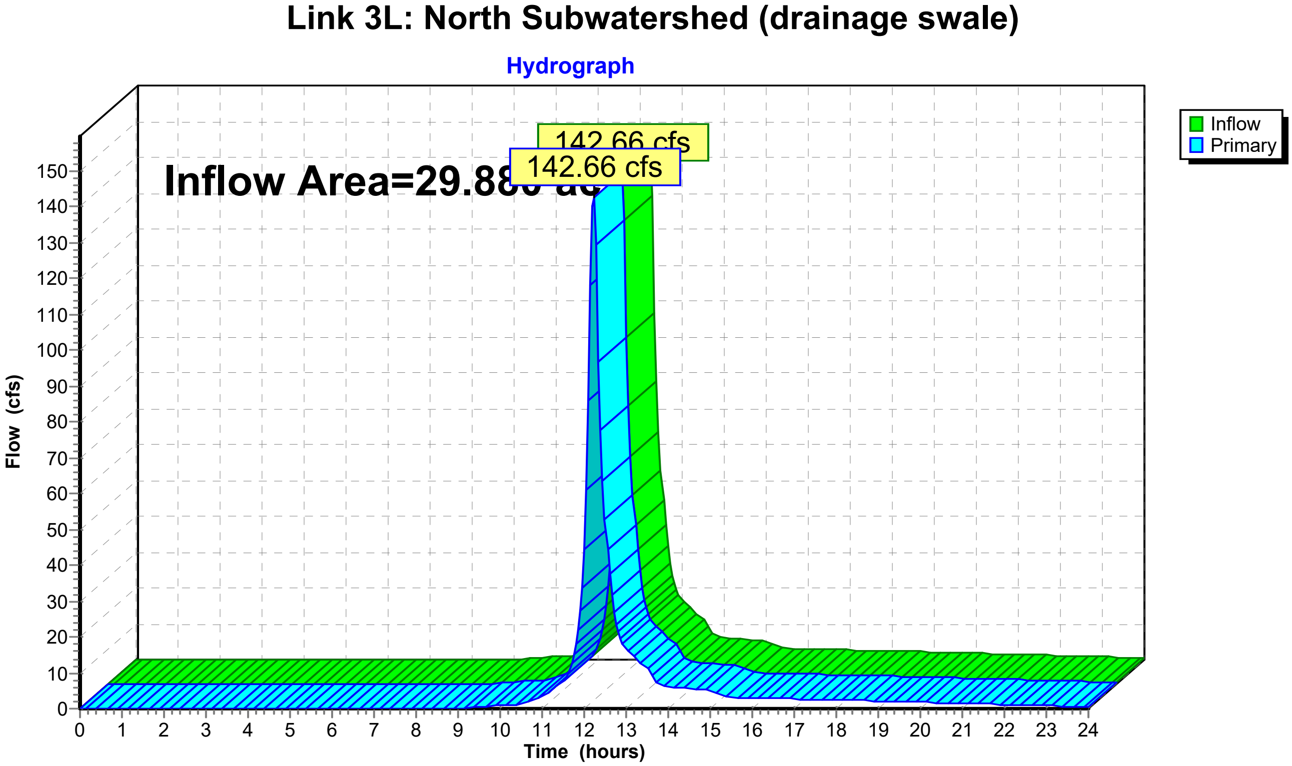
Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs



Summary for Link 3L: North Subwatershed (drainage swale)

```
Inflow Area =       29.880 ac,    0.00% Impervious,  Inflow Depth >   3.64"    for  100 yr event
Inflow       =      142.66 cfs @   12.22 hrs,  Volume=           9.057 af
Primary      =      142.66 cfs @   12.22 hrs,  Volume=           9.057 af,  Atten= 0%,  Lag= 0.0 min
    Routed to nonexistent node 99L
```

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

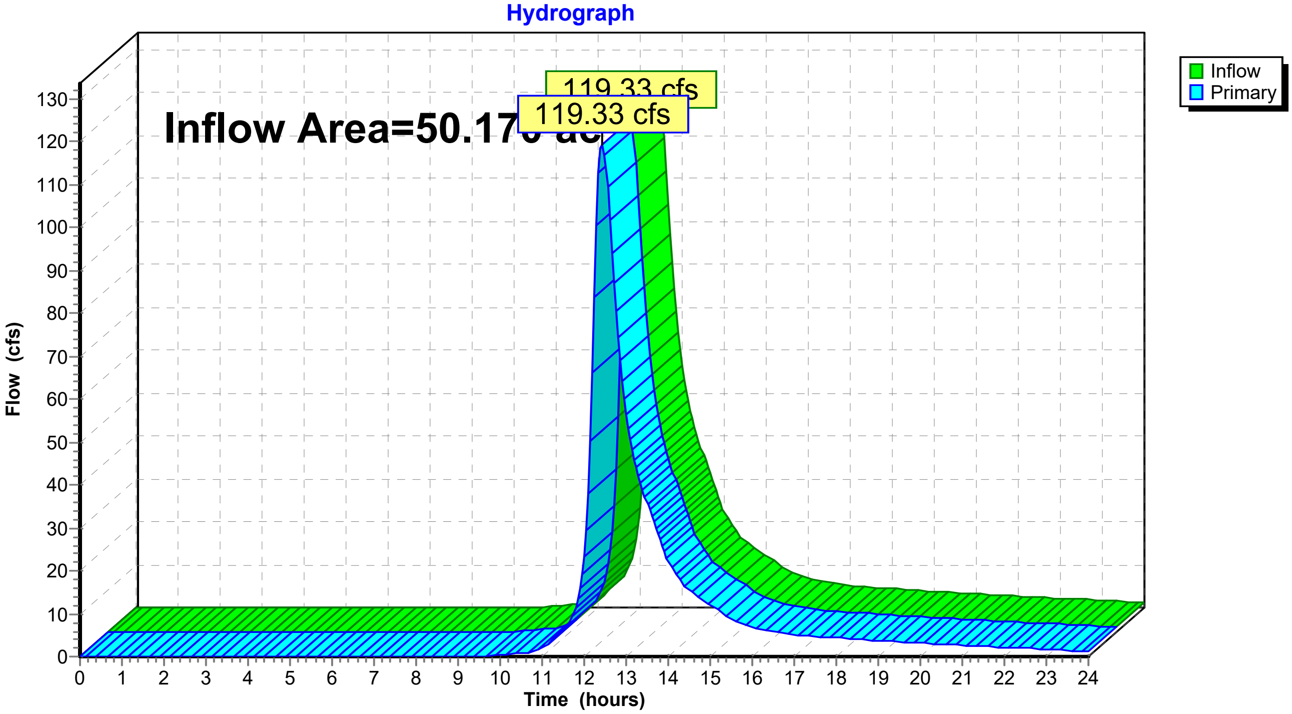


Summary for Link 4L: Southeast Subwatershed

Inflow Area = 50.170 ac, 1.91% Impervious, Inflow Depth > 3.52" for 100 yr event
Inflow = 119.33 cfs @ 12.43 hrs, Volume= 14.717 af
Primary = 119.33 cfs @ 12.43 hrs, Volume= 14.717 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 99L

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 4L: Southeast Subwatershed



Events for Subcatchment 1: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	10.95	0.670	0.68
2 yr	2.70	14.33	0.858	0.87
10 yr	3.81	28.30	1.645	1.66
100 yr	**6.18**	**61.73**	**3.595**	**3.63**

Events for Subcatchment 2: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	13.44	0.872	0.72
2 yr	2.70	17.42	1.110	0.92
10 yr	3.81	34.00	2.094	1.74
100 yr	**6.18**	**73.06**	**4.508**	**3.74**

Events for Subcatchment 3: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	3.51	0.210	0.55
2 yr	2.70	4.76	0.275	0.72
10 yr	3.81	10.07	0.554	1.46
100 yr	**6.18**	**23.21**	**1.267**	**3.33**

Events for Subcatchment 4: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	1.24	0.066	0.72
2 yr	2.70	1.61	0.084	0.92
10 yr	3.81	3.10	0.159	1.74
100 yr	**6.18**	**6.62**	**0.343**	**3.74**

Events for Subcatchment 5: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	24.09	1.625	0.68
2 yr	2.70	31.58	2.081	0.87
10 yr	3.81	62.53	3.989	1.66
100 yr	**6.18**	**136.90**	**8.715**	**3.63**

Events for Subcatchment 6: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	8.19	0.676	0.72
2 yr	2.70	10.65	0.860	0.92
10 yr	3.81	20.84	1.623	1.73
100 yr	**6.18**	**45.09**	**3.494**	**3.73**

Events for Subcatchment 7: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	7.24	0.723	0.68
2 yr	2.70	9.53	0.926	0.87
10 yr	3.81	19.06	1.776	1.66
100 yr	**6.18**	**42.19**	**3.881**	**3.63**

Events for Subcatchment 8: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	13.97	1.377	0.63
2 yr	2.70	18.61	1.777	0.82
10 yr	3.81	38.15	3.461	1.59
100 yr	**6.18**	**85.99**	**7.679**	**3.53**

Events for Pond 1D: Existing Depression

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	10.95	0.19	0.19	0.00	0.000	938.58	0.510
2 yr	14.33	0.23	0.23	0.00	0.000	938.68	0.669
10 yr	28.30	0.35	0.35	0.00	0.000	939.00	1.346
100 yr	**61.73**	**1.14**	**0.49**	**0.65**	**0.296**	**939.53**	**2.911**

Events for Pond 6D: Existing Depression

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	8.19	2.22	0.07	2.16	0.512	917.77	0.339
2 yr	10.65	3.17	0.08	3.09	0.690	917.86	0.423
10 yr	20.84	7.27	0.12	7.15	1.433	918.13	0.766
100 yr	**45.09**	**16.85**	**0.23**	**16.64**	**3.261**	**918.54**	**1.692**

Events for Pond 7D: Existing Depression

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	7.24	5.17	0.03	5.13	1.161	917.76	0.158
2 yr	9.53	7.53	0.04	7.49	1.540	917.84	0.200
10 yr	21.36	17.37	0.06	17.31	3.123	918.11	0.368
100 yr	**48.15**	**39.52**	**0.08**	**39.43**	**7.038**	**918.52**	**0.742**

Events for Link 1L: West Subwatershed

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)
1 yr	13.44	13.44	0.872
2 yr	17.42	17.42	1.110
10 yr	34.00	34.00	2.094
100 yr	**73.06**	**73.06**	**4.803**

Events for Link 2L: Northwest Subwatershed

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)
1 yr	3.51	3.51	0.210
2 yr	4.76	4.76	0.275
10 yr	10.07	10.07	0.554
100 yr	**23.21**	**23.21**	**1.267**

Events for Link 3L: North Subwatershed (drainage swale)

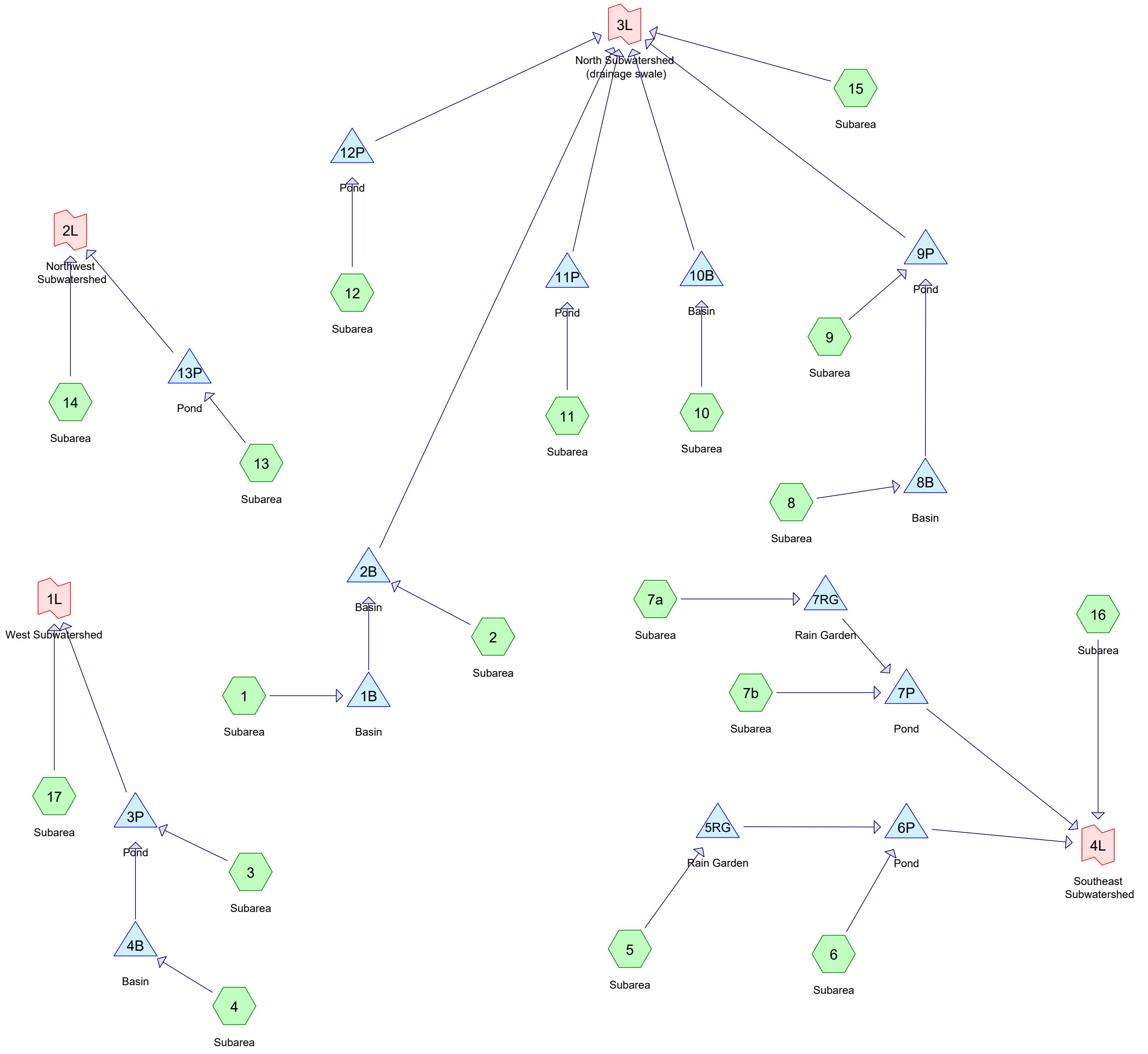
Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)
1 yr	24.99	24.99	1.691
2 yr	32.75	32.75	2.165
10 yr	64.83	64.83	4.148
100 yr	**142.66**	**142.66**	**9.057**

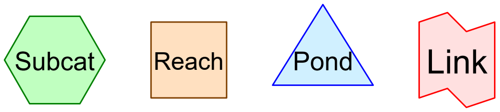
Events for Link 4L: Southeast Subwatershed

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)
1 yr	17.42	17.42	2.539
2 yr	23.83	23.83	3.316
10 yr	51.96	51.96	6.584
100 yr	**119.33**	**119.33**	**14.717**

APPENDIX B

Pre-Development Hydrologic Analysis





Routing Diagram for Proposed_2023-003
Prepared by HP Inc., Printed 6/21/2023
HydroCAD® 10.10-6a s/n 11025 © 2020 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1 yr	MSE 24-hr	3	Default	24.00	1	2.40	2
2	2 yr	MSE 24-hr	3	Default	24.00	1	2.70	2
3	10 yr	MSE 24-hr	3	Default	24.00	1	3.81	2
4	100 yr	MSE 24-hr	3	Default	24.00	1	6.18	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
29.140	98	impervious (1, 2, 3, 4, 5, 6, 7a, 7b, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17)
71.590	74	lawn - C (1, 2, 3, 4, 5, 6, 7a, 7b, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17)
0.440	74	offsite lawn (ROW) - C (16)
0.240	98	offsite road (16)
2.500	98	water or effective infiltration area (1, 2, 3, 4, 5, 6, 7a, 7b, 8, 9, 10, 11, 12, 13)
7.050	70	woods - C (1, 3, 6, 7a, 7b, 8, 10, 12, 14, 16)
110.960	**81**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Subarea Runoff Area=11.050 ac 30.86% Impervious Runoff Depth>0.87"
Tc=10.0 min CN=81 Runoff=14.43 cfs 0.802 af

Subcatchment 2: Subarea Runoff Area=1.620 ac 48.15% Impervious Runoff Depth>1.16"
Tc=6.0 min CN=86 Runoff=3.38 cfs 0.157 af

Subcatchment 3: Subarea Runoff Area=13.360 ac 44.31% Impervious Runoff Depth>1.10"
Tc=15.0 min CN=85 Runoff=18.90 cfs 1.223 af

Subcatchment 4: Subarea Runoff Area=4.390 ac 17.31% Impervious Runoff Depth>0.72"
Tc=10.0 min CN=78 Runoff=4.65 cfs 0.265 af

Subcatchment 5: Subarea Runoff Area=2.590 ac 12.36% Impervious Runoff Depth>0.68"
Tc=10.0 min CN=77 Runoff=2.54 cfs 0.146 af

Subcatchment 6: Subarea Runoff Area=8.800 ac 35.68% Impervious Runoff Depth>0.92"
Tc=10.0 min CN=82 Runoff=12.26 cfs 0.678 af

Subcatchment 7a: Subarea Runoff Area=6.380 ac 16.61% Impervious Runoff Depth>0.72"
Tc=10.0 min CN=78 Runoff=6.76 cfs 0.385 af

Subcatchment 7b: Subarea Runoff Area=5.220 ac 38.89% Impervious Runoff Depth>0.98"
Tc=10.0 min CN=83 Runoff=7.74 cfs 0.426 af

Subcatchment 8: Subarea Runoff Area=4.610 ac 19.09% Impervious Runoff Depth>0.72"
Tc=10.0 min CN=78 Runoff=4.88 cfs 0.278 af

Subcatchment 9: Subarea Runoff Area=10.820 ac 36.23% Impervious Runoff Depth>0.98"
Tc=6.0 min CN=83 Runoff=19.06 cfs 0.884 af

Subcatchment 10: Subarea Runoff Area=2.040 ac 18.63% Impervious Runoff Depth>0.72"
Tc=10.0 min CN=78 Runoff=2.16 cfs 0.123 af

Subcatchment 11: Subarea Runoff Area=7.980 ac 39.47% Impervious Runoff Depth>0.98"
Tc=6.0 min CN=83 Runoff=14.06 cfs 0.652 af

Subcatchment 12: Subarea Runoff Area=7.030 ac 28.59% Impervious Runoff Depth>0.82"
Tc=10.0 min CN=80 Runoff=8.59 cfs 0.480 af

Subcatchment 13: Subarea Runoff Area=5.250 ac 24.38% Impervious Runoff Depth>0.82"
Tc=10.0 min CN=80 Runoff=6.41 cfs 0.359 af

Subcatchment 14: Subarea Runoff Area=0.410 ac 7.32% Impervious Runoff Depth>0.59"
Tc=10.0 min CN=75 Runoff=0.34 cfs 0.020 af

Subcatchment 15: Subarea Runoff Area=4.280 ac 17.06% Impervious Runoff Depth>0.72"
Tc=10.0 min CN=78 Runoff=4.53 cfs 0.258 af

Subcatchment 16: Subarea Runoff Area=11.570 ac 12.27% Impervious Runoff Depth>0.63"
Tc=10.0 min CN=76 Runoff=10.50 cfs 0.612 af

Subcatchment 17: Subarea Runoff Area=3.560 ac 18.54% Impervious Runoff Depth>0.72"
Tc=10.0 min CN=78 Runoff=3.77 cfs 0.215 af

Pond 1B: Basin Peak Elev=934.48' Storage=0.474 af Inflow=14.43 cfs 0.802 af
Discarded=0.11 cfs 0.093 af Primary=0.87 cfs 0.452 af Outflow=0.98 cfs 0.545 af

Pond 2B: Basin Peak Elev=931.39' Storage=0.119 af Inflow=3.38 cfs 0.609 af
Discarded=0.37 cfs 0.348 af Primary=0.59 cfs 0.187 af Outflow=0.96 cfs 0.536 af

Pond 3P: Pond Peak Elev=925.48' Storage=0.908 af Inflow=18.90 cfs 1.223 af
Outflow=0.43 cfs 0.418 af

Pond 4B: Basin Peak Elev=936.14' Storage=0.080 af Inflow=4.65 cfs 0.265 af
Discarded=1.05 cfs 0.265 af Primary=0.00 cfs 0.000 af Outflow=1.05 cfs 0.265 af

Pond 5RG: Rain Garden Peak Elev=923.51' Storage=0.080 af Inflow=2.54 cfs 0.146 af
Discarded=0.01 cfs 0.005 af Primary=0.19 cfs 0.099 af Outflow=0.19 cfs 0.105 af

Pond 6P: Pond Peak Elev=912.56' Storage=0.513 af Inflow=12.26 cfs 0.777 af
Outflow=0.37 cfs 0.352 af

Pond 7P: Pond Peak Elev=920.11' Storage=0.361 af Inflow=8.67 cfs 0.717 af
Outflow=1.16 cfs 0.620 af

Pond 7RG: Rain Garden Peak Elev=922.35' Storage=0.112 af Inflow=6.76 cfs 0.385 af
Discarded=0.02 cfs 0.014 af Primary=3.77 cfs 0.291 af Outflow=3.79 cfs 0.305 af

Pond 8B: Basin Peak Elev=917.29' Storage=0.187 af Inflow=4.88 cfs 0.278 af
Discarded=0.01 cfs 0.009 af Primary=0.15 cfs 0.127 af Outflow=0.16 cfs 0.136 af

Pond 9P: Pond Peak Elev=899.66' Storage=0.750 af Inflow=19.06 cfs 1.012 af
Outflow=0.29 cfs 0.279 af

Pond 10B: Basin Peak Elev=911.88' Storage=0.073 af Inflow=2.16 cfs 0.123 af
Discarded=0.09 cfs 0.086 af Primary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.086 af

Pond 11P: Pond Peak Elev=914.08' Storage=0.450 af Inflow=14.06 cfs 0.652 af
Outflow=0.39 cfs 0.310 af

Pond 12P: Pond Peak Elev=923.89' Storage=0.309 af Inflow=8.59 cfs 0.480 af
Outflow=0.31 cfs 0.289 af

Pond 13P: Pond Peak Elev=896.37' Storage=0.206 af Inflow=6.41 cfs 0.359 af
Outflow=0.40 cfs 0.303 af

Link 1L: West Subwatershed Inflow=4.01 cfs 0.632 af
Primary=4.01 cfs 0.632 af

Link 2L: Northwest Subwatershed Inflow=0.58 cfs 0.323 af
Primary=0.58 cfs 0.323 af

Link 3L: North Subwatershed (drainage swale)	Inflow=5.14 cfs 1.324 af
	Primary=5.14 cfs 1.324 af
Link 4L: Southeast Subwatershed	Inflow=10.98 cfs 1.584 af
	Primary=10.98 cfs 1.584 af

Total Runoff Area = 110.960 ac Runoff Volume = 7.962 af Average Runoff Depth = 0.86"
71.27% Pervious = 79.080 ac 28.73% Impervious = 31.880 ac

```
                     Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
                     Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
            Reach routing by Dyn-Stor-Ind method  -  Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Subarea          Runoff Area=11.050 ac  30.86% Impervious  Runoff Depth>1.09"
                                               Tc=10.0 min  CN=81  Runoff=18.14 cfs  1.001 af

Subcatchment 2: Subarea           Runoff Area=1.620 ac  48.15% Impervious  Runoff Depth>1.41"
                                                 Tc=6.0 min  CN=86  Runoff=4.08 cfs  0.190 af

Subcatchment 3: Subarea          Runoff Area=13.360 ac  44.31% Impervious  Runoff Depth>1.34"
                                               Tc=15.0 min  CN=85  Runoff=23.09 cfs  1.490 af

Subcatchment 4: Subarea           Runoff Area=4.390 ac  17.31% Impervious  Runoff Depth>0.92"
                                                Tc=10.0 min  CN=78  Runoff=6.01 cfs  0.336 af

Subcatchment 5: Subarea           Runoff Area=2.590 ac  12.36% Impervious  Runoff Depth>0.87"
                                                Tc=10.0 min  CN=77  Runoff=3.32 cfs  0.187 af

Subcatchment 6: Subarea           Runoff Area=8.800 ac  35.68% Impervious  Runoff Depth>1.15"
                                               Tc=10.0 min  CN=82  Runoff=15.29 cfs  0.841 af

Subcatchment 7a: Subarea          Runoff Area=6.380 ac  16.61% Impervious  Runoff Depth>0.92"
                                                Tc=10.0 min  CN=78  Runoff=8.74 cfs  0.489 af

Subcatchment 7b: Subarea          Runoff Area=5.220 ac  38.89% Impervious  Runoff Depth>1.21"
                                                Tc=10.0 min  CN=83  Runoff=9.57 cfs  0.526 af

Subcatchment 8: Subarea           Runoff Area=4.610 ac  19.09% Impervious  Runoff Depth>0.92"
                                                Tc=10.0 min  CN=78  Runoff=6.31 cfs  0.353 af

Subcatchment 9: Subarea          Runoff Area=10.820 ac  36.23% Impervious  Runoff Depth>1.21"
                                                Tc=6.0 min  CN=83  Runoff=23.51 cfs  1.090 af

Subcatchment 10: Subarea          Runoff Area=2.040 ac  18.63% Impervious  Runoff Depth>0.92"
                                                Tc=10.0 min  CN=78  Runoff=2.79 cfs  0.156 af

Subcatchment 11: Subarea          Runoff Area=7.980 ac  39.47% Impervious  Runoff Depth>1.21"
                                                Tc=6.0 min  CN=83  Runoff=17.34 cfs  0.804 af

Subcatchment 12: Subarea          Runoff Area=7.030 ac  28.59% Impervious  Runoff Depth>1.03"
                                               Tc=10.0 min  CN=80  Runoff=10.89 cfs  0.603 af

Subcatchment 13: Subarea          Runoff Area=5.250 ac  24.38% Impervious  Runoff Depth>1.03"
                                                Tc=10.0 min  CN=80  Runoff=8.13 cfs  0.450 af

Subcatchment 14: Subarea           Runoff Area=0.410 ac  7.32% Impervious  Runoff Depth>0.77"
                                                Tc=10.0 min  CN=75  Runoff=0.46 cfs  0.026 af

Subcatchment 15: Subarea          Runoff Area=4.280 ac  17.06% Impervious  Runoff Depth>0.92"
                                                Tc=10.0 min  CN=78  Runoff=5.86 cfs  0.328 af
```

Subcatchment 16: Subarea Runoff Area=11.570 ac 12.27% Impervious Runoff Depth>0.82"
Tc=10.0 min CN=76 Runoff=13.88 cfs 0.789 af

Subcatchment 17: Subarea Runoff Area=3.560 ac 18.54% Impervious Runoff Depth>0.92"
Tc=10.0 min CN=78 Runoff=4.88 cfs 0.273 af

Pond 1B: Basin Peak Elev=934.78' Storage=0.586 af Inflow=18.14 cfs 1.001 af
Discarded=0.12 cfs 0.100 af Primary=1.16 cfs 0.621 af Outflow=1.28 cfs 0.721 af

Pond 2B: Basin Peak Elev=931.52' Storage=0.132 af Inflow=4.06 cfs 0.811 af
Discarded=0.38 cfs 0.363 af Primary=0.97 cfs 0.368 af Outflow=1.35 cfs 0.731 af

Pond 3P: Pond Peak Elev=925.63' Storage=0.959 af Inflow=23.09 cfs 1.490 af
Outflow=2.33 cfs 0.656 af

Pond 4B: Basin Peak Elev=936.32' Storage=0.115 af Inflow=6.01 cfs 0.336 af
Discarded=1.13 cfs 0.336 af Primary=0.00 cfs 0.000 af Outflow=1.13 cfs 0.336 af

Pond 5RG: Rain Garden Peak Elev=923.86' Storage=0.104 af Inflow=3.32 cfs 0.187 af
Discarded=0.01 cfs 0.006 af Primary=0.23 cfs 0.139 af Outflow=0.24 cfs 0.145 af

Pond 6P: Pond Peak Elev=912.69' Storage=0.547 af Inflow=15.30 cfs 0.980 af
Outflow=1.44 cfs 0.518 af

Pond 7P: Pond Peak Elev=920.33' Storage=0.475 af Inflow=13.64 cfs 0.920 af
Outflow=1.56 cfs 0.812 af

Pond 7RG: Rain Garden Peak Elev=922.45' Storage=0.125 af Inflow=8.74 cfs 0.489 af
Discarded=0.02 cfs 0.015 af Primary=6.19 cfs 0.395 af Outflow=6.20 cfs 0.409 af

Pond 8B: Basin Peak Elev=917.56' Storage=0.238 af Inflow=6.31 cfs 0.353 af
Discarded=0.01 cfs 0.009 af Primary=0.20 cfs 0.170 af Outflow=0.20 cfs 0.179 af

Pond 9P: Pond Peak Elev=900.07' Storage=0.953 af Inflow=23.51 cfs 1.260 af
Outflow=0.35 cfs 0.321 af

Pond 10B: Basin Peak Elev=912.16' Storage=0.099 af Inflow=2.79 cfs 0.156 af
Discarded=0.10 cfs 0.095 af Primary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.095 af

Pond 11P: Pond Peak Elev=914.31' Storage=0.517 af Inflow=17.34 cfs 0.804 af
Outflow=0.85 cfs 0.439 af

Pond 12P: Pond Peak Elev=924.24' Storage=0.385 af Inflow=10.89 cfs 0.603 af
Outflow=0.60 cfs 0.346 af

Pond 13P: Pond Peak Elev=896.65' Storage=0.268 af Inflow=8.13 cfs 0.450 af
Outflow=0.46 cfs 0.367 af

Link 1L: West Subwatershed Inflow=5.15 cfs 0.929 af
Primary=5.15 cfs 0.929 af

Link 2L: Northwest Subwatershed Inflow=0.75 cfs 0.393 af
Primary=0.75 cfs 0.393 af

Link 3L: North Subwatershed (drainage swale)	Inflow=6.56 cfs 1.802 af
	Primary=6.56 cfs 1.802 af
Link 4L: Southeast Subwatershed	Inflow=14.56 cfs 2.119 af
	Primary=14.56 cfs 2.119 af

Total Runoff Area = 110.960 ac Runoff Volume = 9.933 af Average Runoff Depth = 1.07"
71.27% Pervious = 79.080 ac 28.73% Impervious = 31.880 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Subarea Runoff Area=11.050 ac 30.86% Impervious Runoff Depth>1.96"
Tc=10.0 min CN=81 Runoff=32.93 cfs 1.806 af

Subcatchment 2: Subarea Runoff Area=1.620 ac 48.15% Impervious Runoff Depth>2.37"
Tc=6.0 min CN=86 Runoff=6.77 cfs 0.321 af

Subcatchment 3: Subarea Runoff Area=13.360 ac 44.31% Impervious Runoff Depth>2.29"
Tc=15.0 min CN=85 Runoff=39.32 cfs 2.546 af

Subcatchment 4: Subarea Runoff Area=4.390 ac 17.31% Impervious Runoff Depth>1.74"
Tc=10.0 min CN=78 Runoff=11.57 cfs 0.635 af

Subcatchment 5: Subarea Runoff Area=2.590 ac 12.36% Impervious Runoff Depth>1.66"
Tc=10.0 min CN=77 Runoff=6.54 cfs 0.359 af

Subcatchment 6: Subarea Runoff Area=8.800 ac 35.68% Impervious Runoff Depth>2.04"
Tc=10.0 min CN=82 Runoff=27.25 cfs 1.496 af

Subcatchment 7a: Subarea Runoff Area=6.380 ac 16.61% Impervious Runoff Depth>1.74"
Tc=10.0 min CN=78 Runoff=16.82 cfs 0.923 af

Subcatchment 7b: Subarea Runoff Area=5.220 ac 38.89% Impervious Runoff Depth>2.12"
Tc=10.0 min CN=83 Runoff=16.77 cfs 0.923 af

Subcatchment 8: Subarea Runoff Area=4.610 ac 19.09% Impervious Runoff Depth>1.74"
Tc=10.0 min CN=78 Runoff=12.15 cfs 0.667 af

Subcatchment 9: Subarea Runoff Area=10.820 ac 36.23% Impervious Runoff Depth>2.12"
Tc=6.0 min CN=83 Runoff=40.89 cfs 1.913 af

Subcatchment 10: Subarea Runoff Area=2.040 ac 18.63% Impervious Runoff Depth>1.74"
Tc=10.0 min CN=78 Runoff=5.38 cfs 0.295 af

Subcatchment 11: Subarea Runoff Area=7.980 ac 39.47% Impervious Runoff Depth>2.12"
Tc=6.0 min CN=83 Runoff=30.16 cfs 1.411 af

Subcatchment 12: Subarea Runoff Area=7.030 ac 28.59% Impervious Runoff Depth>1.88"
Tc=10.0 min CN=80 Runoff=20.14 cfs 1.104 af

Subcatchment 13: Subarea Runoff Area=5.250 ac 24.38% Impervious Runoff Depth>1.88"
Tc=10.0 min CN=80 Runoff=15.04 cfs 0.825 af

Subcatchment 14: Subarea Runoff Area=0.410 ac 7.32% Impervious Runoff Depth>1.52"
Tc=10.0 min CN=75 Runoff=0.94 cfs 0.052 af

Subcatchment 15: Subarea Runoff Area=4.280 ac 17.06% Impervious Runoff Depth>1.74"
Tc=10.0 min CN=78 Runoff=11.28 cfs 0.619 af

Subcatchment 16: Subarea Runoff Area=11.570 ac 12.27% Impervious Runoff Depth>1.59"
Tc=10.0 min CN=76 Runoff=27.91 cfs 1.536 af

Subcatchment 17: Subarea Runoff Area=3.560 ac 18.54% Impervious Runoff Depth>1.74"
Tc=10.0 min CN=78 Runoff=9.38 cfs 0.515 af

Pond 1B: Basin Peak Elev=935.84' Storage=1.119 af Inflow=32.93 cfs 1.806 af
Discarded=0.16 cfs 0.134 af Primary=1.84 cfs 1.301 af Outflow=2.00 cfs 1.436 af

Pond 2B: Basin Peak Elev=931.84' Storage=0.167 af Inflow=7.47 cfs 1.622 af
Discarded=0.42 cfs 0.406 af Primary=2.09 cfs 1.115 af Outflow=2.51 cfs 1.521 af

Pond 3P: Pond Peak Elev=926.10' Storage=1.127 af Inflow=39.32 cfs 2.546 af
Outflow=19.78 cfs 1.669 af

Pond 4B: Basin Peak Elev=937.08' Storage=0.271 af Inflow=11.57 cfs 0.635 af
Discarded=1.51 cfs 0.635 af Primary=0.00 cfs 0.000 af Outflow=1.51 cfs 0.635 af

Pond 5RG: Rain Garden Peak Elev=924.42' Storage=0.153 af Inflow=6.54 cfs 0.359 af
Discarded=0.01 cfs 0.007 af Primary=2.53 cfs 0.302 af Outflow=2.54 cfs 0.310 af

Pond 6P: Pond Peak Elev=913.06' Storage=0.650 af Inflow=27.46 cfs 1.798 af
Outflow=13.29 cfs 1.293 af

Pond 7P: Pond Peak Elev=921.04' Storage=0.890 af Inflow=31.46 cfs 1.750 af
Outflow=4.08 cfs 1.604 af

Pond 7RG: Rain Garden Peak Elev=922.71' Storage=0.160 af Inflow=16.82 cfs 0.923 af
Discarded=0.02 cfs 0.016 af Primary=15.43 cfs 0.827 af Outflow=15.45 cfs 0.842 af

Pond 8B: Basin Peak Elev=918.66' Storage=0.474 af Inflow=12.15 cfs 0.667 af
Discarded=0.01 cfs 0.012 af Primary=0.32 cfs 0.292 af Outflow=0.33 cfs 0.304 af

Pond 9P: Pond Peak Elev=900.73' Storage=1.303 af Inflow=40.99 cfs 2.205 af
Outflow=2.16 cfs 1.164 af

Pond 10B: Basin Peak Elev=912.89' Storage=0.208 af Inflow=5.38 cfs 0.295 af
Discarded=0.12 cfs 0.123 af Primary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.123 af

Pond 11P: Pond Peak Elev=915.09' Storage=0.778 af Inflow=30.16 cfs 1.411 af
Outflow=3.31 cfs 1.008 af

Pond 12P: Pond Peak Elev=924.59' Storage=0.470 af Inflow=20.14 cfs 1.104 af
Outflow=8.01 cfs 0.797 af

Pond 13P: Pond Peak Elev=897.60' Storage=0.501 af Inflow=15.04 cfs 0.825 af
Outflow=1.11 cfs 0.609 af

Link 1L: West Subwatershed Inflow=22.80 cfs 2.184 af
Primary=22.80 cfs 2.184 af

Link 2L: Northwest Subwatershed Inflow=1.38 cfs 0.661 af
Primary=1.38 cfs 0.661 af

Link 3L: North Subwatershed (drainage swale)
Inflow=18.21 cfs 4.703 af
Primary=18.21 cfs 4.703 af

Link 4L: Southeast Subwatershed
Inflow=30.27 cfs 4.432 af
Primary=30.27 cfs 4.432 af

Total Runoff Area = 110.960 ac Runoff Volume = 17.945 af Average Runoff Depth = 1.94"
71.27% Pervious = 79.080 ac 28.73% Impervious = 31.880 ac

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

```
Subcatchment 1: Subarea              Runoff Area=11.050 ac   30.86% Impervious   Runoff Depth>4.05"
                                                Tc=10.0 min   CN=81   Runoff=66.94 cfs  3.726 af

Subcatchment 2: Subarea               Runoff Area=1.620 ac   48.15% Impervious   Runoff Depth>4.58"
                                                 Tc=6.0 min   CN=86   Runoff=12.61 cfs  0.618 af

Subcatchment 3: Subarea              Runoff Area=13.360 ac   44.31% Impervious   Runoff Depth>4.47"
                                                Tc=15.0 min   CN=85   Runoff=75.17 cfs  4.976 af

Subcatchment 4: Subarea               Runoff Area=4.390 ac   17.31% Impervious   Runoff Depth>3.74"
                                                Tc=10.0 min   CN=78   Runoff=24.71 cfs  1.367 af

Subcatchment 5: Subarea               Runoff Area=2.590 ac   12.36% Impervious   Runoff Depth>3.63"
                                                Tc=10.0 min   CN=77   Runoff=14.21 cfs  0.785 af

Subcatchment 6: Subarea               Runoff Area=8.800 ac   35.68% Impervious   Runoff Depth>4.15"
                                                Tc=10.0 min   CN=82   Runoff=54.50 cfs  3.044 af

Subcatchment 7a: Subarea              Runoff Area=6.380 ac   16.61% Impervious   Runoff Depth>3.74"
                                                Tc=10.0 min   CN=78   Runoff=35.91 cfs  1.987 af

Subcatchment 7b: Subarea              Runoff Area=5.220 ac   38.89% Impervious   Runoff Depth>4.26"
                                                Tc=10.0 min   CN=83   Runoff=33.02 cfs  1.852 af

Subcatchment 8: Subarea               Runoff Area=4.610 ac   19.09% Impervious   Runoff Depth>3.74"
                                                Tc=10.0 min   CN=78   Runoff=25.95 cfs  1.435 af

Subcatchment 9: Subarea              Runoff Area=10.820 ac   36.23% Impervious   Runoff Depth>4.26"
                                                 Tc=6.0 min   CN=83   Runoff=79.67 cfs  3.839 af

Subcatchment 10: Subarea              Runoff Area=2.040 ac   18.63% Impervious   Runoff Depth>3.74"
                                                Tc=10.0 min   CN=78   Runoff=11.48 cfs  0.635 af

Subcatchment 11: Subarea              Runoff Area=7.980 ac   39.47% Impervious   Runoff Depth>4.26"
                                                 Tc=6.0 min   CN=83   Runoff=58.76 cfs  2.831 af

Subcatchment 12: Subarea              Runoff Area=7.030 ac   28.59% Impervious   Runoff Depth>3.94"
                                                Tc=10.0 min   CN=80   Runoff=41.52 cfs  2.309 af

Subcatchment 13: Subarea              Runoff Area=5.250 ac   24.38% Impervious   Runoff Depth>3.94"
                                                Tc=10.0 min   CN=80   Runoff=31.01 cfs  1.725 af

Subcatchment 14: Subarea               Runoff Area=0.410 ac   7.32% Impervious   Runoff Depth>3.43"
                                                 Tc=10.0 min   CN=75   Runoff=2.13 cfs  0.117 af

Subcatchment 15: Subarea              Runoff Area=4.280 ac   17.06% Impervious   Runoff Depth>3.74"
                                                Tc=10.0 min   CN=78   Runoff=24.09 cfs  1.333 af
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Subcatchment 16: Subarea Runoff Area=11.570 ac 12.27% Impervious Runoff Depth>3.53"
Tc=10.0 min CN=76 Runoff=61.86 cfs 3.407 af

Subcatchment 17: Subarea Runoff Area=3.560 ac 18.54% Impervious Runoff Depth>3.74"
Tc=10.0 min CN=78 Runoff=20.04 cfs 1.108 af

Pond 1B: Basin Peak Elev=937.46' Storage=2.350 af Inflow=66.94 cfs 3.726 af
Discarded=0.24 cfs 0.216 af Primary=5.42 cfs 2.524 af Outflow=5.66 cfs 2.740 af

Pond 2B: Basin Peak Elev=932.38' Storage=0.234 af Inflow=14.38 cfs 3.142 af
Discarded=0.49 cfs 0.468 af Primary=10.14 cfs 2.529 af Outflow=10.63 cfs 2.997 af

Pond 3P: Pond Peak Elev=927.84' Storage=1.822 af Inflow=75.32 cfs 5.050 af
Outflow=36.55 cfs 4.142 af

Pond 4B: Basin Peak Elev=938.54' Storage=0.661 af Inflow=24.71 cfs 1.367 af
Discarded=2.60 cfs 1.293 af Primary=0.39 cfs 0.074 af Outflow=2.99 cfs 1.367 af

Pond 5RG: Rain Garden Peak Elev=924.80' Storage=0.194 af Inflow=14.21 cfs 0.785 af
Discarded=0.01 cfs 0.009 af Primary=13.05 cfs 0.704 af Outflow=13.06 cfs 0.713 af

Pond 6P: Pond Peak Elev=914.99' Storage=1.310 af Inflow=66.31 cfs 3.748 af
Outflow=25.56 cfs 3.223 af

Pond 7P: Pond Peak Elev=922.28' Storage=1.829 af Inflow=66.09 cfs 3.739 af
Outflow=12.97 cfs 3.520 af

Pond 7RG: Rain Garden Peak Elev=923.08' Storage=0.218 af Inflow=35.91 cfs 1.987 af
Discarded=0.02 cfs 0.018 af Primary=34.12 cfs 1.887 af Outflow=34.14 cfs 1.905 af

Pond 8B: Basin Peak Elev=919.45' Storage=0.683 af Inflow=25.95 cfs 1.435 af
Discarded=0.02 cfs 0.015 af Primary=9.74 cfs 0.926 af Outflow=9.76 cfs 0.940 af

Pond 9P: Pond Peak Elev=902.93' Storage=2.697 af Inflow=79.95 cfs 4.765 af
Outflow=8.76 cfs 3.663 af

Pond 10B: Basin Peak Elev=914.16' Storage=0.449 af Inflow=11.48 cfs 0.635 af
Discarded=0.17 cfs 0.173 af Primary=0.17 cfs 0.123 af Outflow=0.34 cfs 0.296 af

Pond 11P: Pond Peak Elev=916.48' Storage=1.332 af Inflow=58.76 cfs 2.831 af
Outflow=15.76 cfs 2.395 af

Pond 12P: Pond Peak Elev=926.00' Storage=0.892 af Inflow=41.52 cfs 2.309 af
Outflow=14.97 cfs 1.959 af

Pond 13P: Pond Peak Elev=898.69' Storage=0.824 af Inflow=31.01 cfs 1.725 af
Outflow=9.41 cfs 1.425 af

Link 1L: West Subwatershed Inflow=52.33 cfs 5.250 af
Primary=52.33 cfs 5.250 af

Link 2L: Northwest Subwatershed Inflow=10.36 cfs 1.543 af
Primary=10.36 cfs 1.543 af

Link 3L: North Subwatershed (drainage swale) Inflow=67.12 cfs 12.002 af
Primary=67.12 cfs 12.002 af

Link 4L: Southeast Subwatershed Inflow=89.93 cfs 10.150 af
Primary=89.93 cfs 10.150 af

Total Runoff Area = 110.960 ac Runoff Volume = 37.094 af Average Runoff Depth = 4.01"
71.27% Pervious = 79.080 ac 28.73% Impervious = 31.880 ac

Summary for Subcatchment 1: Subarea

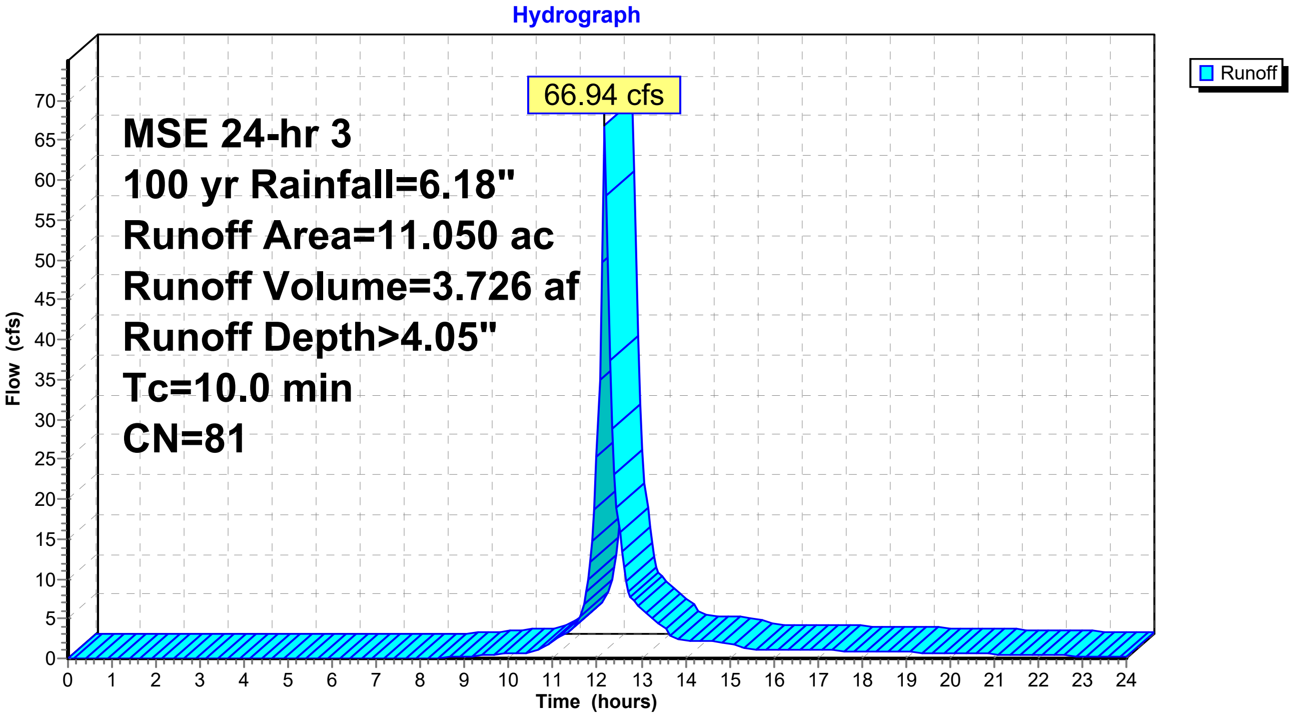
Runoff = 66.94 cfs @ 12.17 hrs, Volume= 3.726 af, Depth> 4.05"
Routed to Pond 1B : Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	3.170	98	impervious
*	6.510	74	lawn - C
*	0.240	98	water or effective infiltration area
*	1.130	70	woods - C
	11.050	81	Weighted Average
	7.640		69.14% Pervious Area
	3.410		30.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 1: Subarea



Summary for Subcatchment 2: Subarea

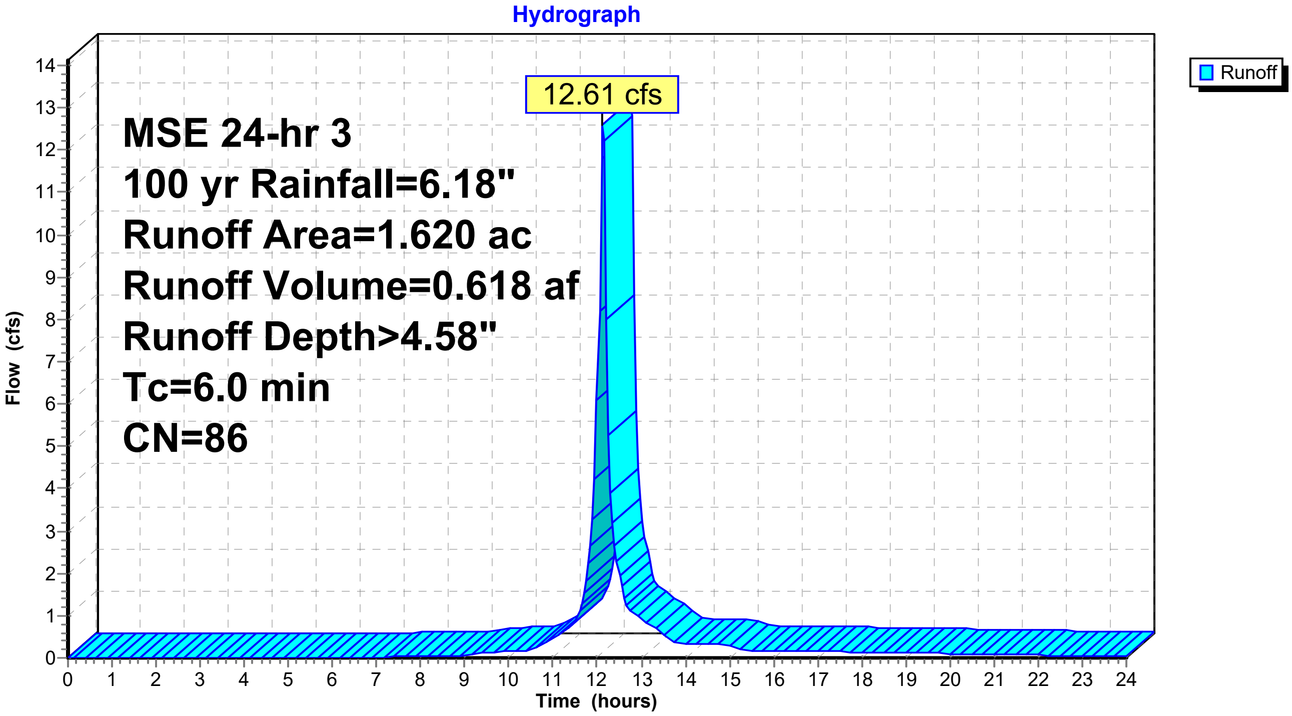
Runoff = 12.61 cfs @ 12.13 hrs, Volume= 0.618 af, Depth> 4.58"
Routed to Pond 2B : Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	0.690	98	impervious
*	0.840	74	lawn - C
*	0.090	98	water or effective infiltration area
	1.620	86	Weighted Average
	0.840		51.85% Pervious Area
	0.780		48.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2: Subarea



Summary for Subcatchment 3: Subarea

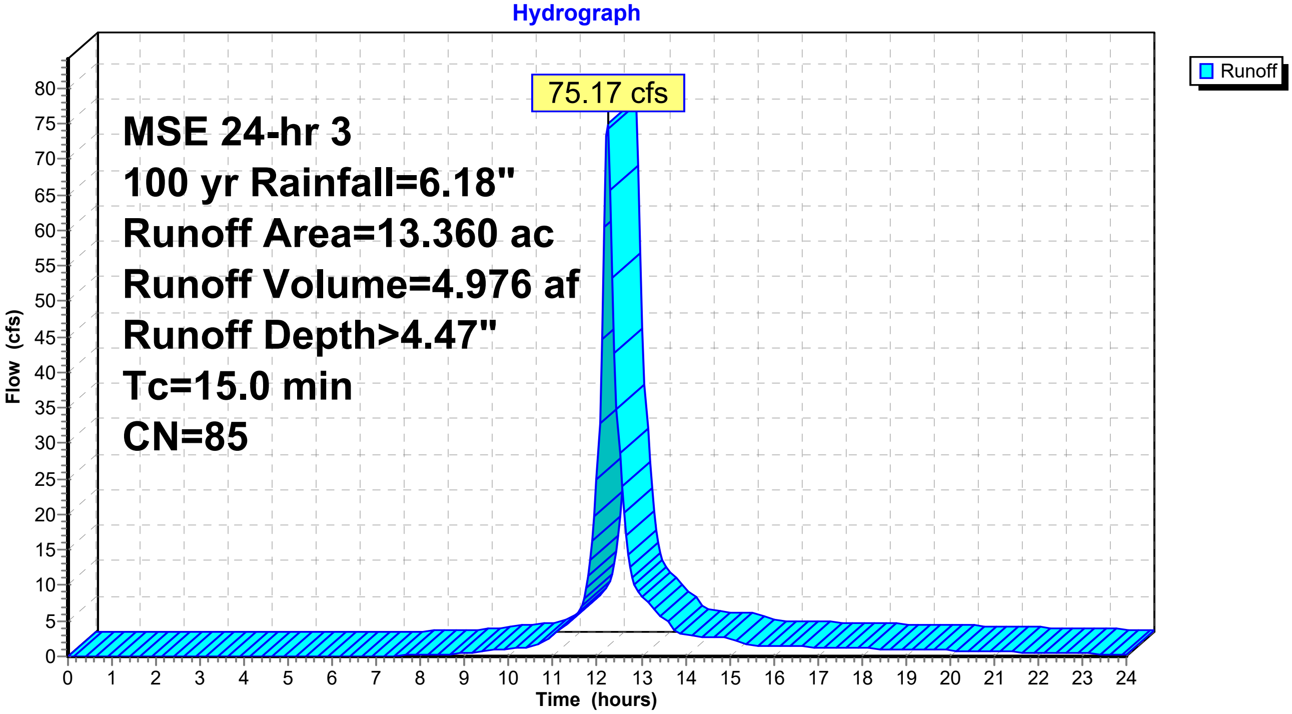
Runoff = 75.17 cfs @ 12.23 hrs, Volume= 4.976 af, Depth> 4.47"
Routed to Pond 3P : Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	5.720	98	impervious
*	7.390	74	lawn - C
*	0.200	98	water or effective infiltration area
*	0.050	70	woods - C
	13.360	85	Weighted Average
	7.440		55.69% Pervious Area
	5.920		44.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry,**

Subcatchment 3: Subarea



Summary for Subcatchment 4: Subarea

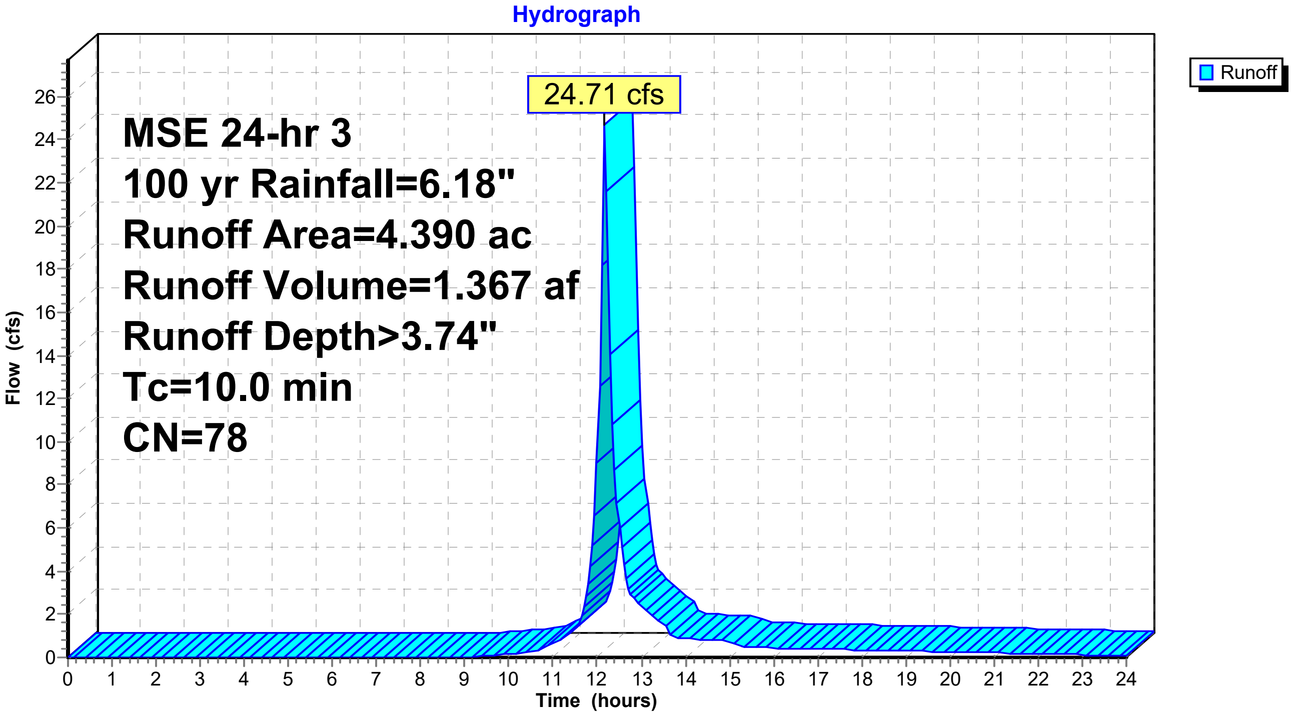
Runoff = 24.71 cfs @ 12.18 hrs, Volume= 1.367 af, Depth> 3.74"
Routed to Pond 4B : Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	0.580	98	impervious
*	3.630	74	lawn - C
*	0.180	98	water or effective infiltration area
	4.390	78	Weighted Average
	3.630		82.69% Pervious Area
	0.760		17.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 4: Subarea



Summary for Subcatchment 5: Subarea

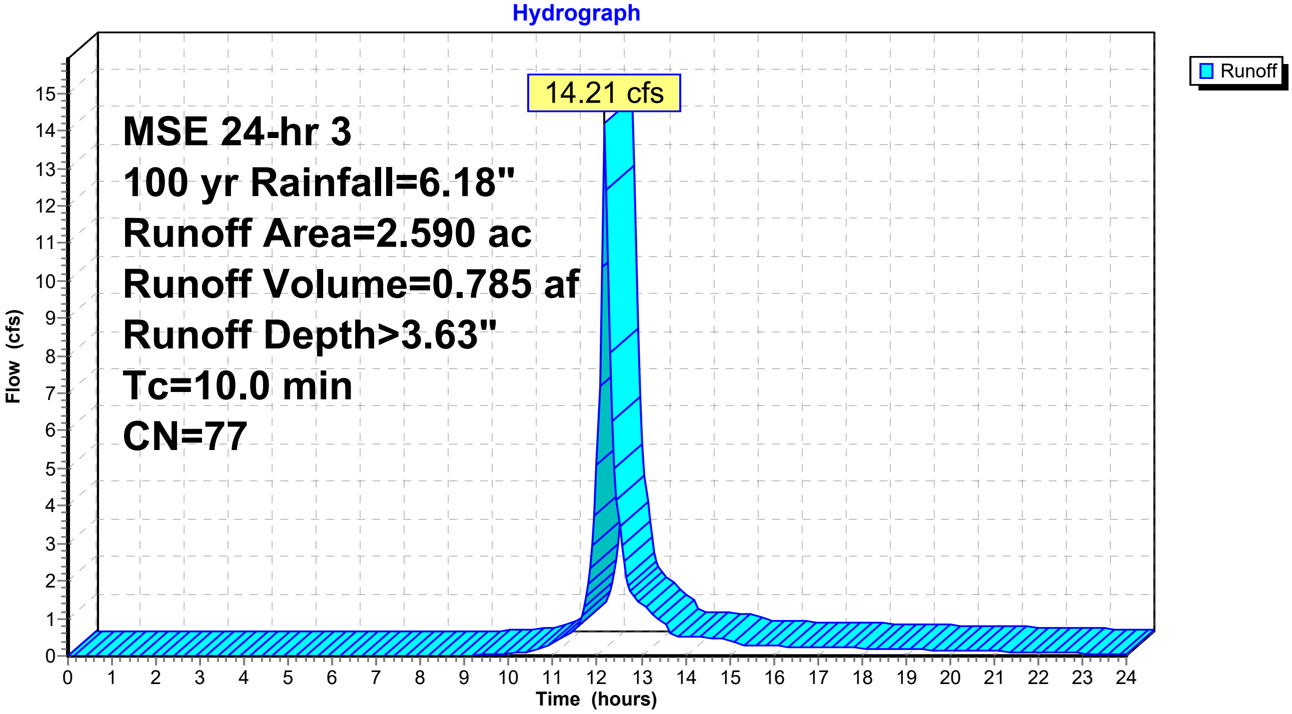
Runoff = 14.21 cfs @ 12.18 hrs, Volume= 0.785 af, Depth> 3.63"
Routed to Pond 5RG : Rain Garden

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	0.290	98	impervious
*	2.270	74	lawn - C
*	0.030	98	water or effective infiltration area
	2.590	77	Weighted Average
	2.270		87.64% Pervious Area
	0.320		12.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 5: Subarea



Summary for Subcatchment 6: Subarea

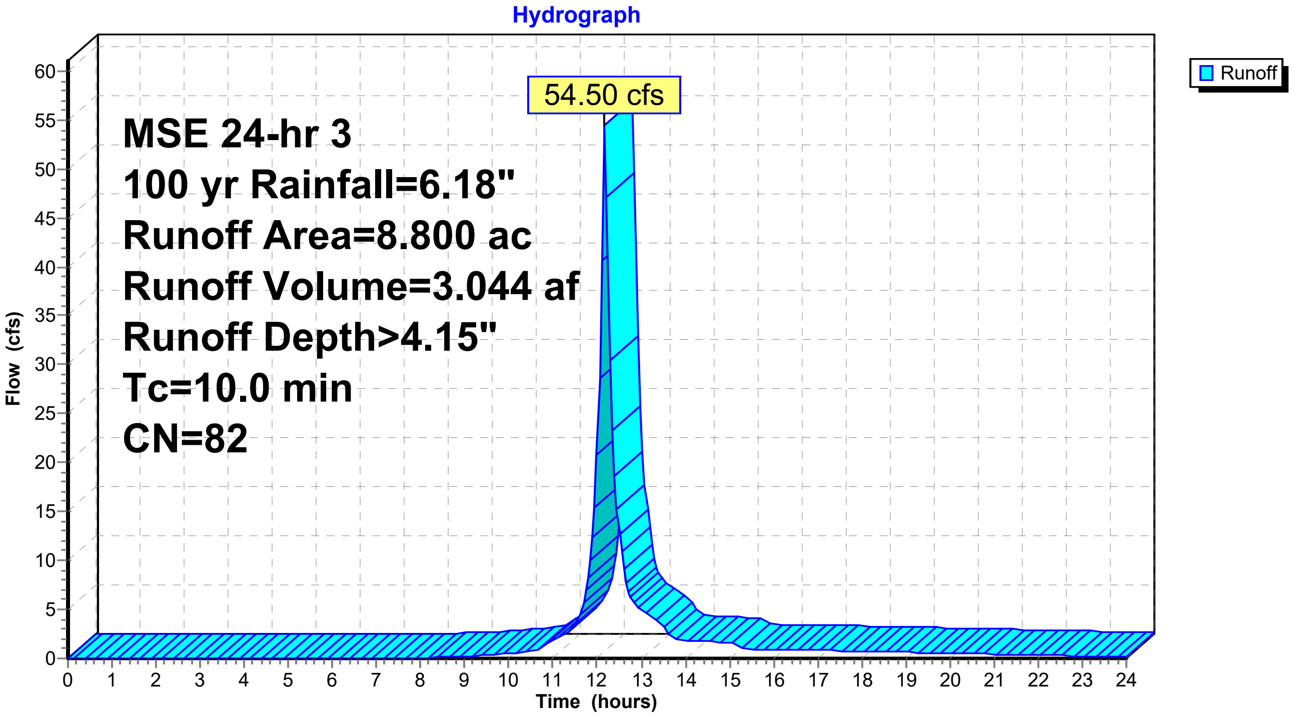
Runoff = 54.50 cfs @ 12.17 hrs, Volume= 3.044 af, Depth> 4.15"
Routed to Pond 6P : Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	2.990	98	impervious
*	4.250	74	lawn - C
*	0.150	98	water or effective infiltration area
*	1.410	70	woods - C
	8.800	82	Weighted Average
	5.660		64.32% Pervious Area
	3.140		35.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 6: Subarea



Summary for Subcatchment 7a: Subarea

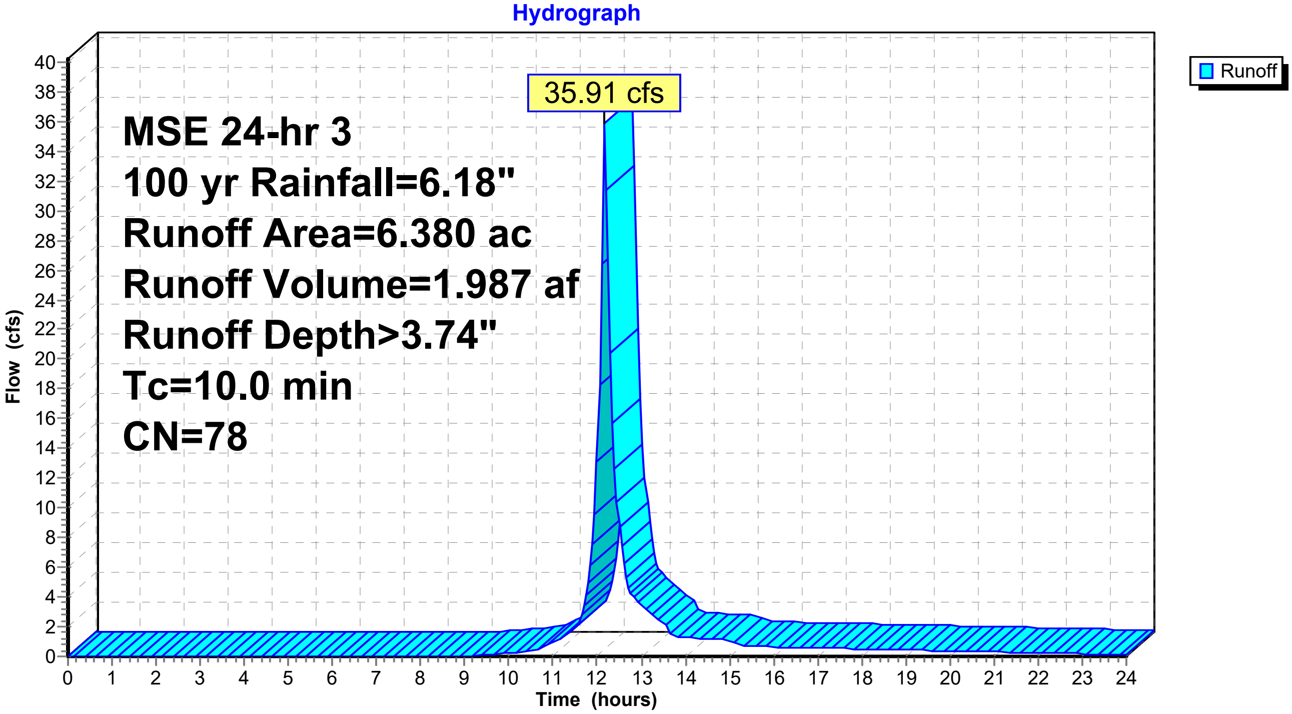
Runoff = 35.91 cfs @ 12.18 hrs, Volume= 1.987 af, Depth> 3.74"
Routed to Pond 7RG : Rain Garden

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	1.000	98	impervious
*	4.990	74	lawn - C
*	0.330	70	woods - C
*	0.060	98	water or effective infiltration area
	6.380	78	Weighted Average
	5.320		83.39% Pervious Area
	1.060		16.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 7a: Subarea



Summary for Subcatchment 7b: Subarea

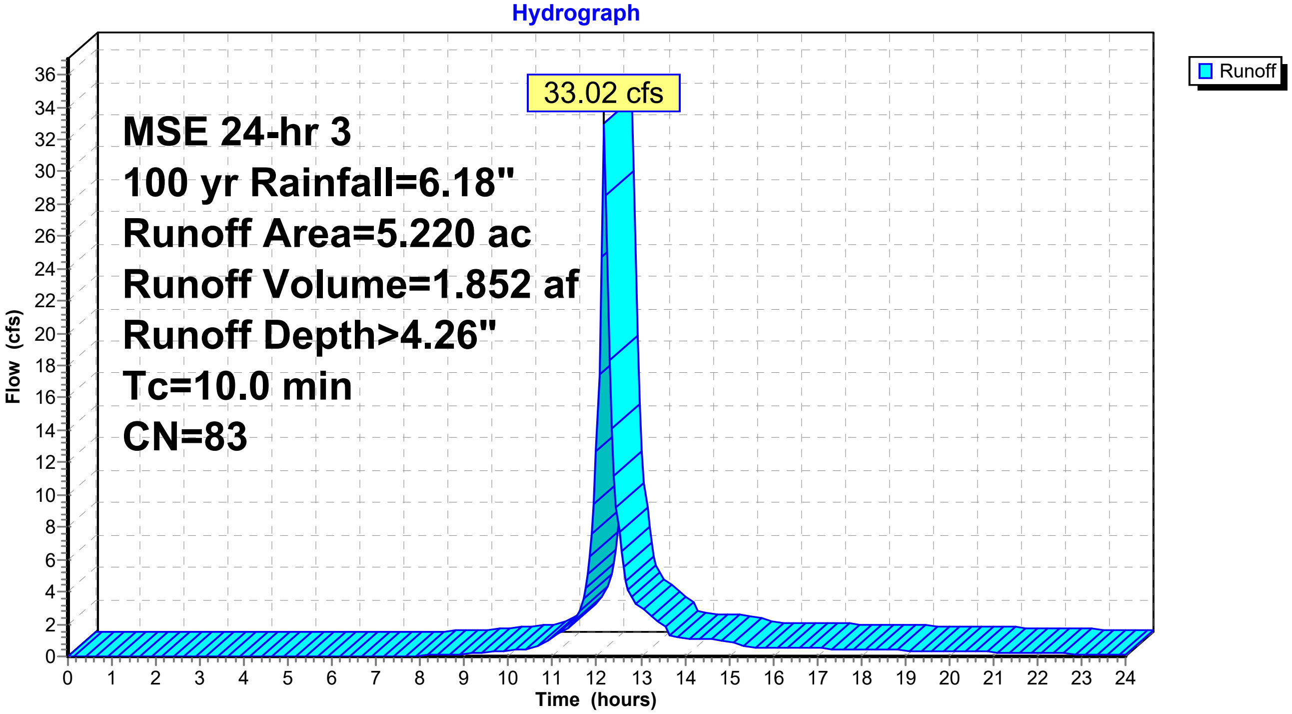
Runoff = 33.02 cfs @ 12.17 hrs, Volume= 1.852 af, Depth> 4.26"
Routed to Pond 7P : Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	1.670	98	impervious
*	2.800	74	lawn - C
*	0.360	98	water or effective infiltration area
*	0.390	70	woods - C
	5.220	83	Weighted Average
	3.190		61.11% Pervious Area
	2.030		38.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 7b: Subarea



Summary for Subcatchment 8: Subarea

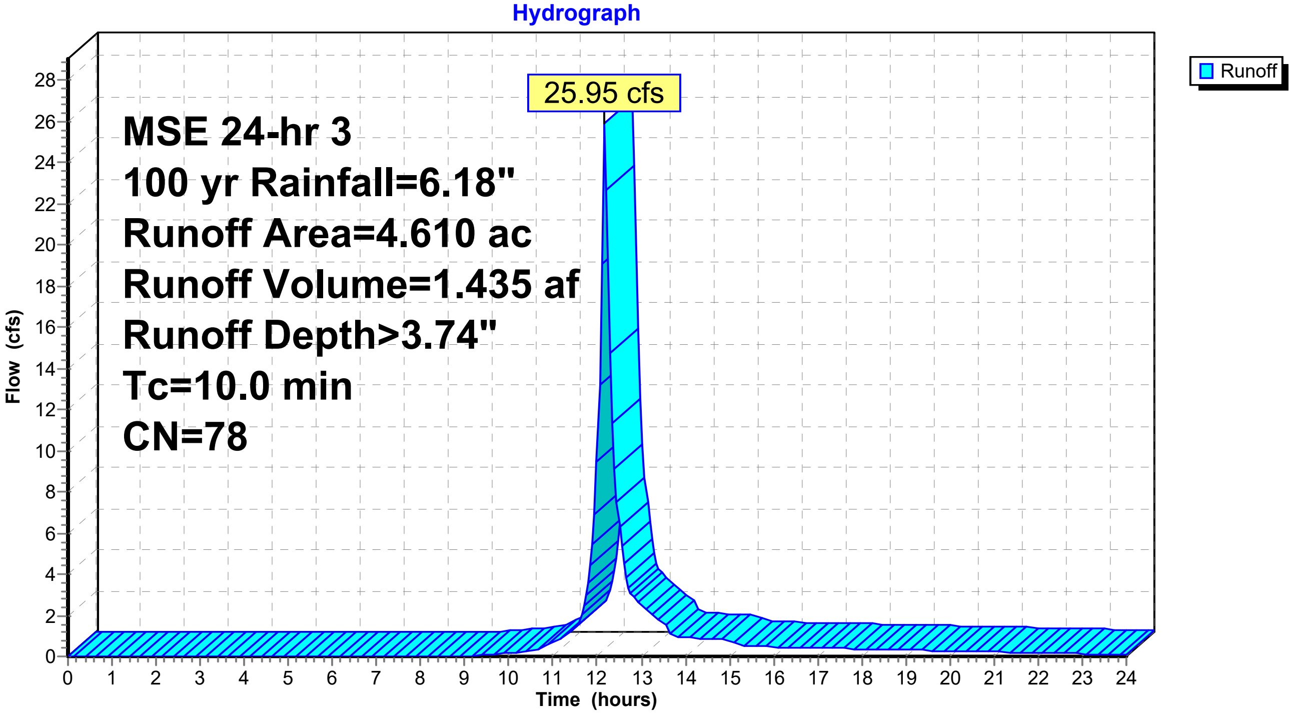
Runoff = 25.95 cfs @ 12.18 hrs, Volume= 1.435 af, Depth> 3.74"
Routed to Pond 8B : Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	0.720	98	impervious
*	2.940	74	lawn - C
*	0.160	98	water or effective infiltration area
*	0.790	70	woods - C
	4.610	78	Weighted Average
	3.730		80.91% Pervious Area
	0.880		19.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 8: Subarea



Summary for Subcatchment 9: Subarea

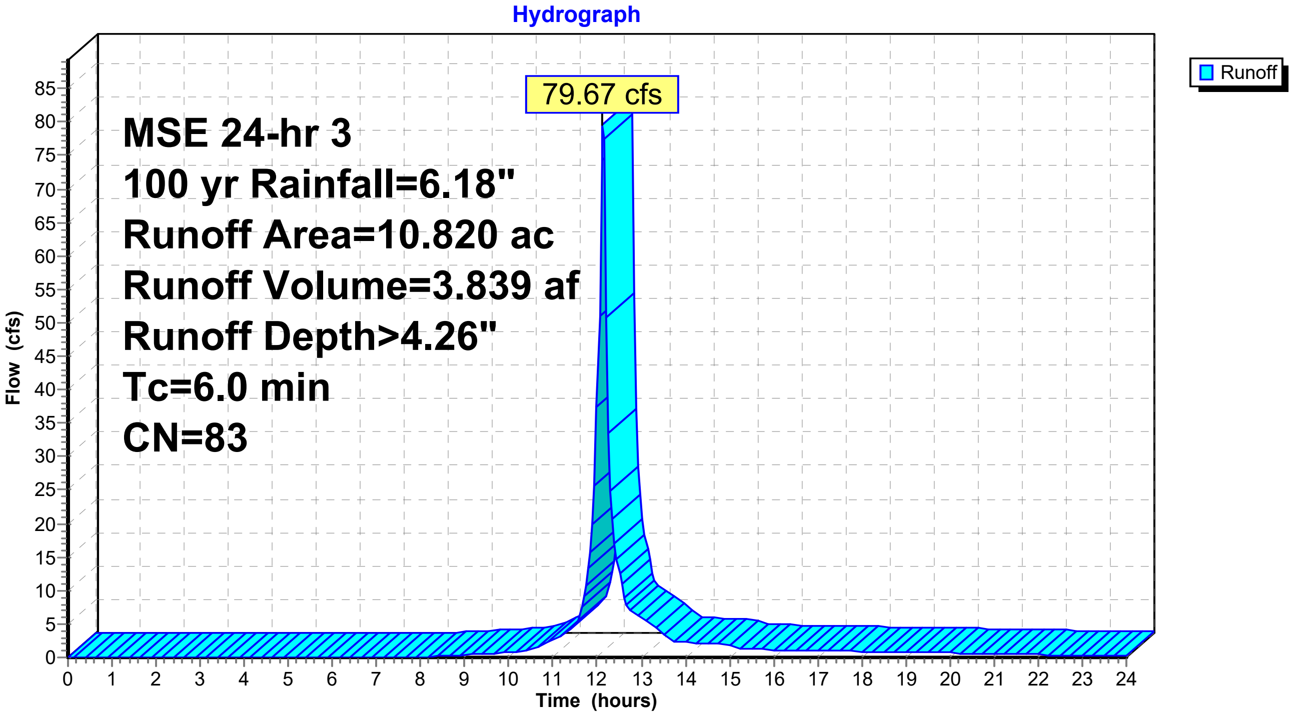
Runoff = 79.67 cfs @ 12.13 hrs, Volume= 3.839 af, Depth> 4.26"
Routed to Pond 9P : Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	3.510	98	impervious
*	6.900	74	lawn - C
*	0.410	98	water or effective infiltration area
	10.820	83	Weighted Average
	6.900		63.77% Pervious Area
	3.920		36.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 9: Subarea



Summary for Subcatchment 10: Subarea

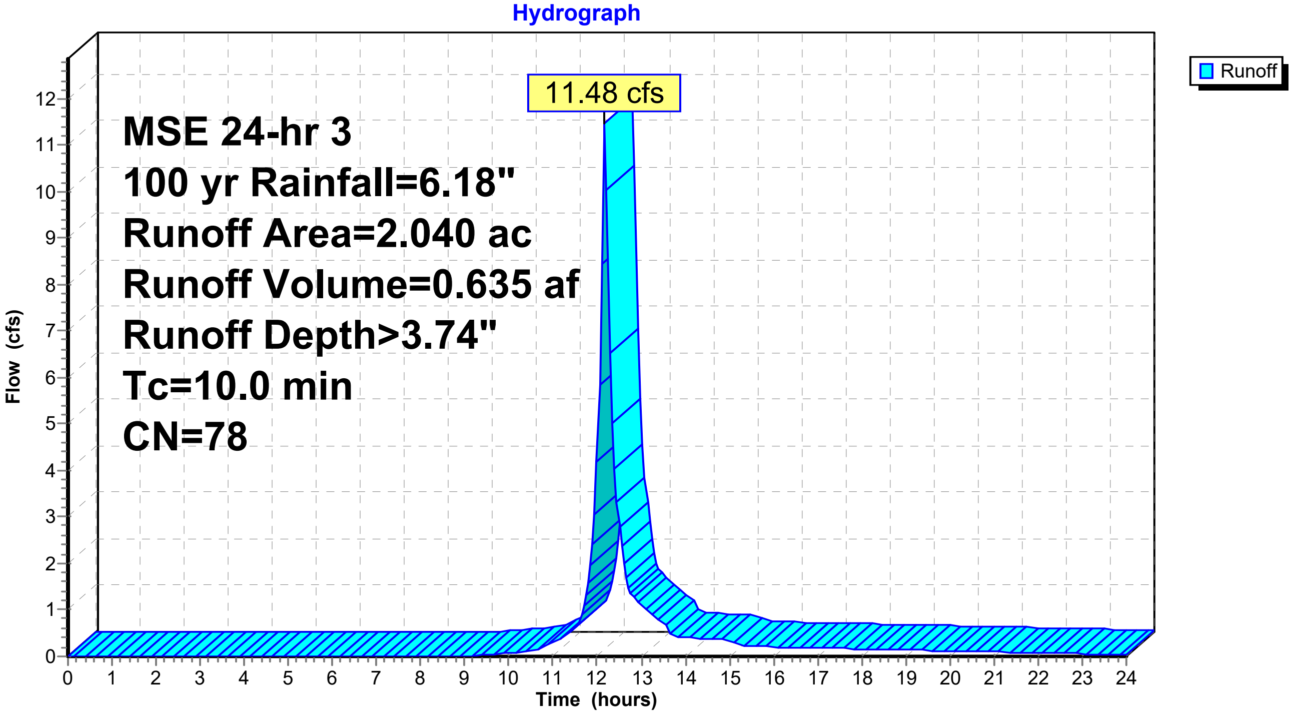
Runoff = 11.48 cfs @ 12.18 hrs, Volume= 0.635 af, Depth> 3.74"
Routed to Pond 10B : Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	0.250	98	impervious
*	1.500	74	lawn - C
*	0.130	98	water or effective infiltration area
*	0.160	70	woods - C
	2.040	78	Weighted Average
	1.660		81.37% Pervious Area
	0.380		18.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 10: Subarea



Summary for Subcatchment 11: Subarea

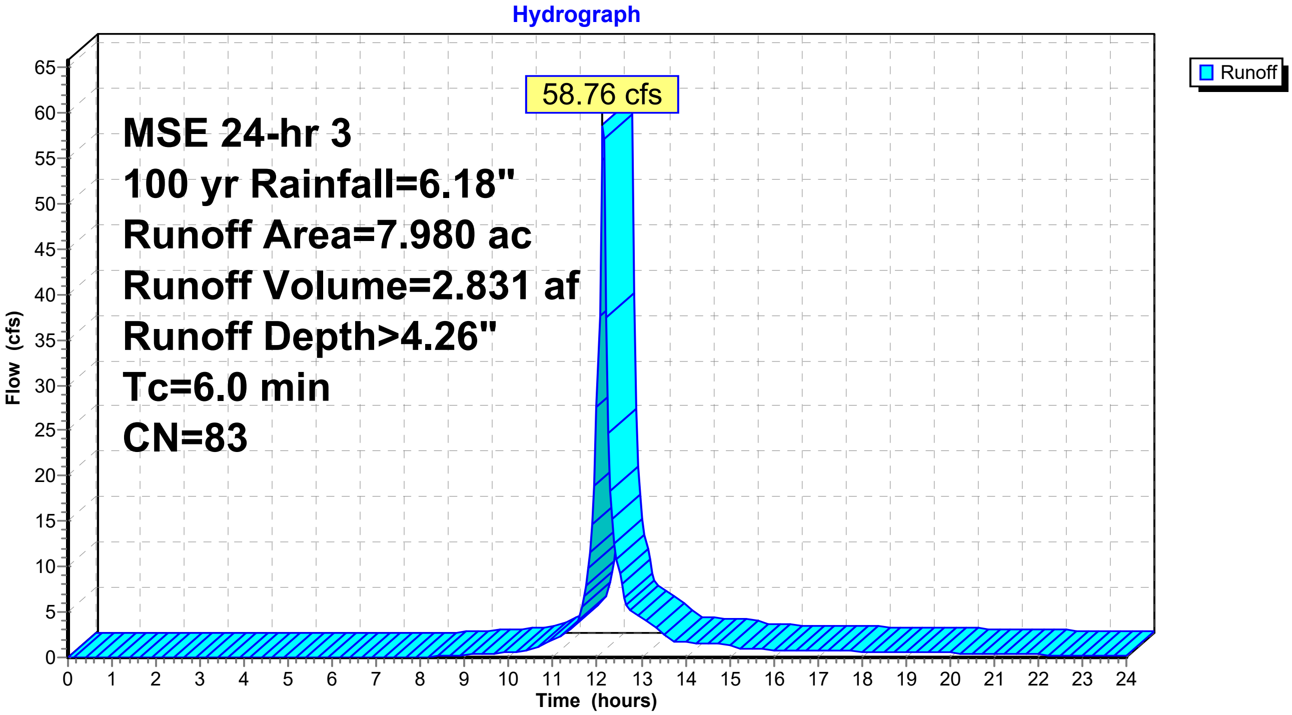
Runoff = 58.76 cfs @ 12.13 hrs, Volume= 2.831 af, Depth> 4.26"
Routed to Pond 11P : Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	2.960	98	impervious
*	4.830	74	lawn - C
*	0.190	98	water or effective infiltration area
	7.980	83	Weighted Average
	4.830		60.53% Pervious Area
	3.150		39.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 11: Subarea



Summary for Subcatchment 12: Subarea

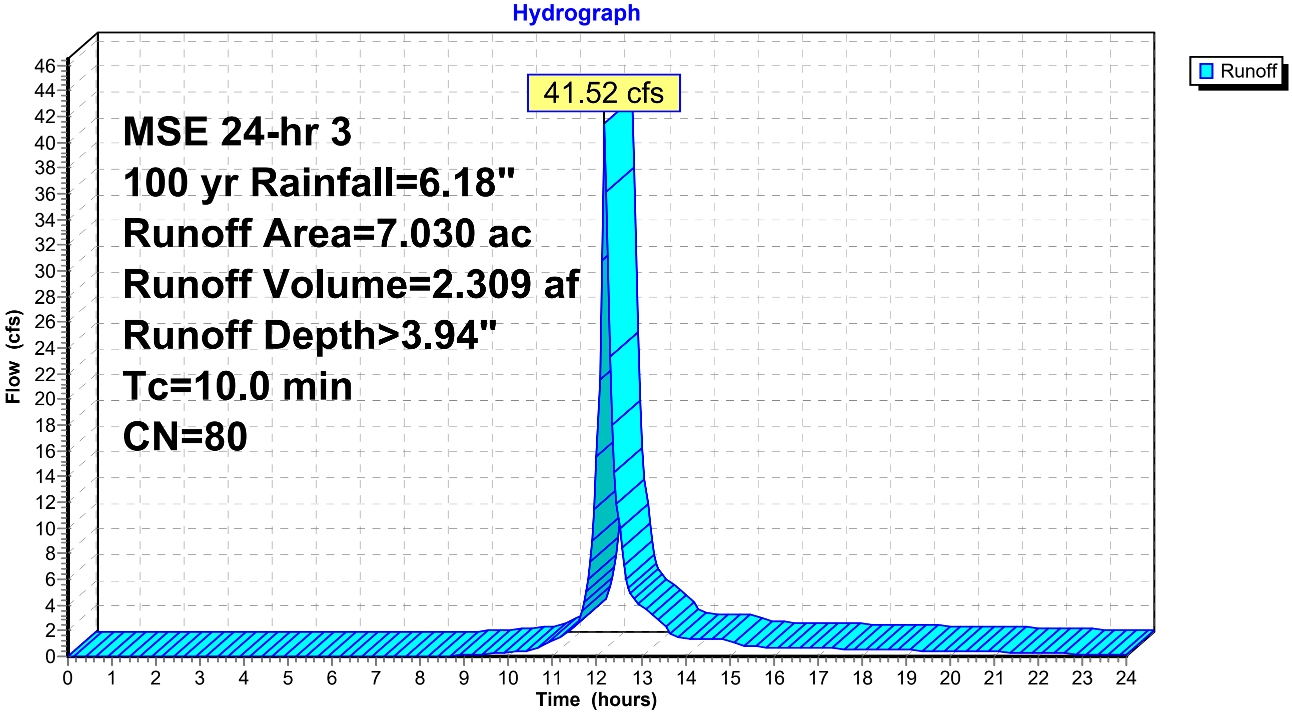
Runoff = 41.52 cfs @ 12.18 hrs, Volume= 2.309 af, Depth> 3.94"
Routed to Pond 12P : Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	1.880	98	impervious
*	3.960	74	lawn - C
*	0.130	98	water or effective infiltration area
*	1.060	70	woods - C
	7.030	80	Weighted Average
	5.020		71.41% Pervious Area
	2.010		28.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 12: Subarea



Summary for Subcatchment 13: Subarea

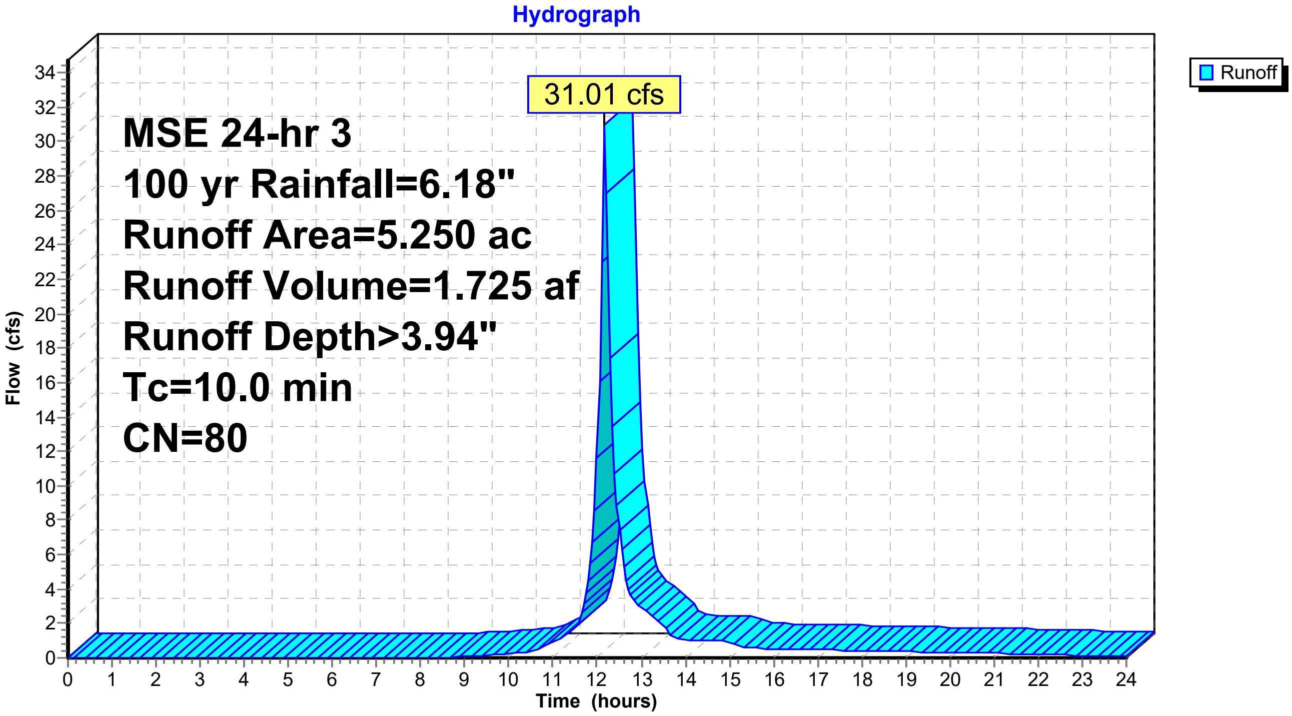
Runoff = 31.01 cfs @ 12.18 hrs, Volume= 1.725 af, Depth> 3.94"
Routed to Pond 13P : Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	1.110	98	impervious
*	3.970	74	lawn - C
*	0.170	98	water or effective infiltration area
	5.250	80	Weighted Average
	3.970		75.62% Pervious Area
	1.280		24.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 13: Subarea



Summary for Subcatchment 14: Subarea

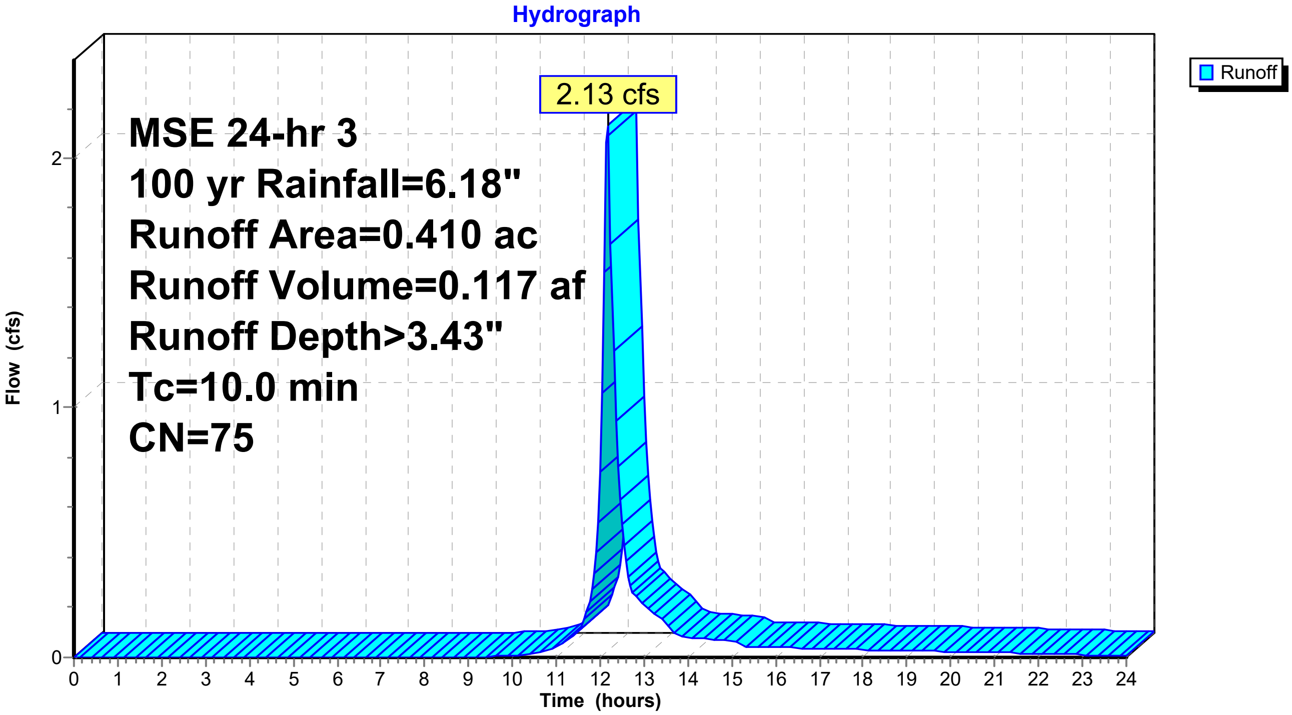
Runoff = 2.13 cfs @ 12.18 hrs, Volume= 0.117 af, Depth> 3.43"
Routed to Link 2L : Northwest Subwatershed

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	0.030	98	impervious
*	0.300	74	lawn - C
*	0.080	70	woods - C
	0.410	75	Weighted Average
	0.380		92.68% Pervious Area
	0.030		7.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 14: Subarea



Summary for Subcatchment 15: Subarea

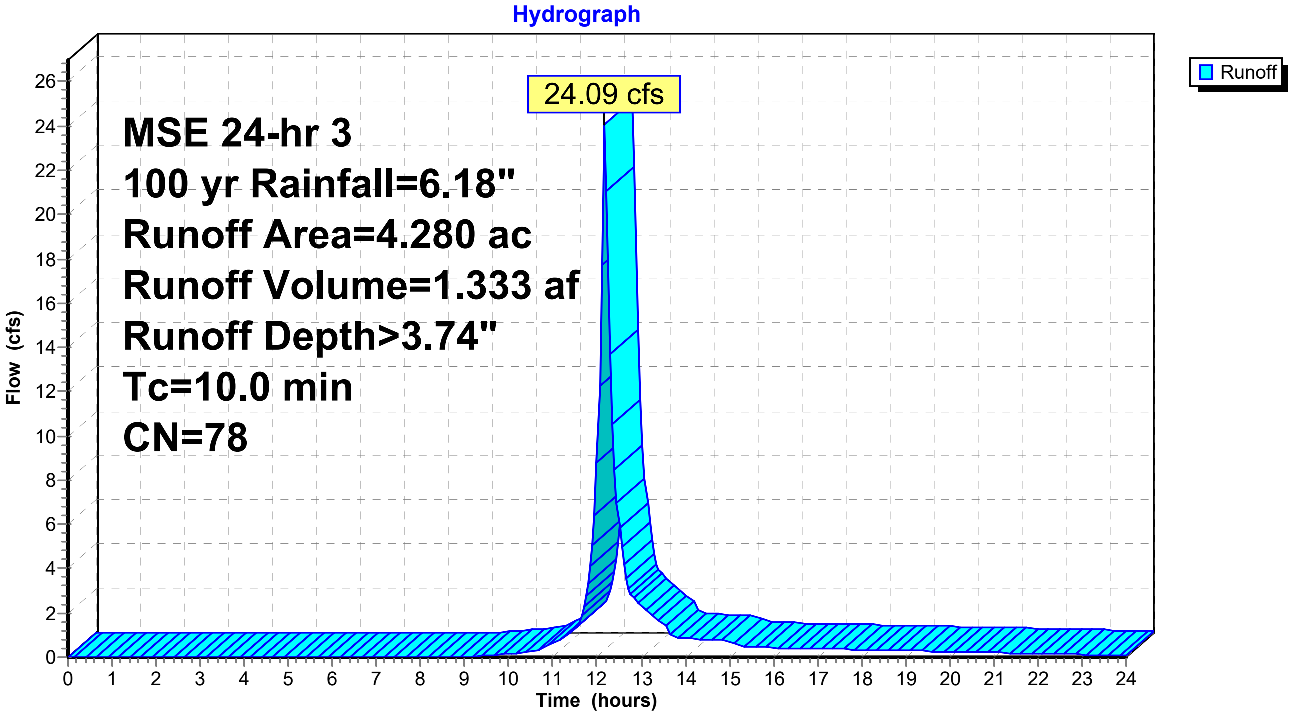
Runoff = 24.09 cfs @ 12.18 hrs, Volume= 1.333 af, Depth> 3.74"
Routed to Link 3L : North Subwatershed (drainage swale)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	0.730	98	impervious
*	3.550	74	lawn - C
*	0.000	98	water or effective infiltration area
	4.280	78	Weighted Average
	3.550		82.94% Pervious Area
	0.730		17.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 15: Subarea



Summary for Subcatchment 16: Subarea

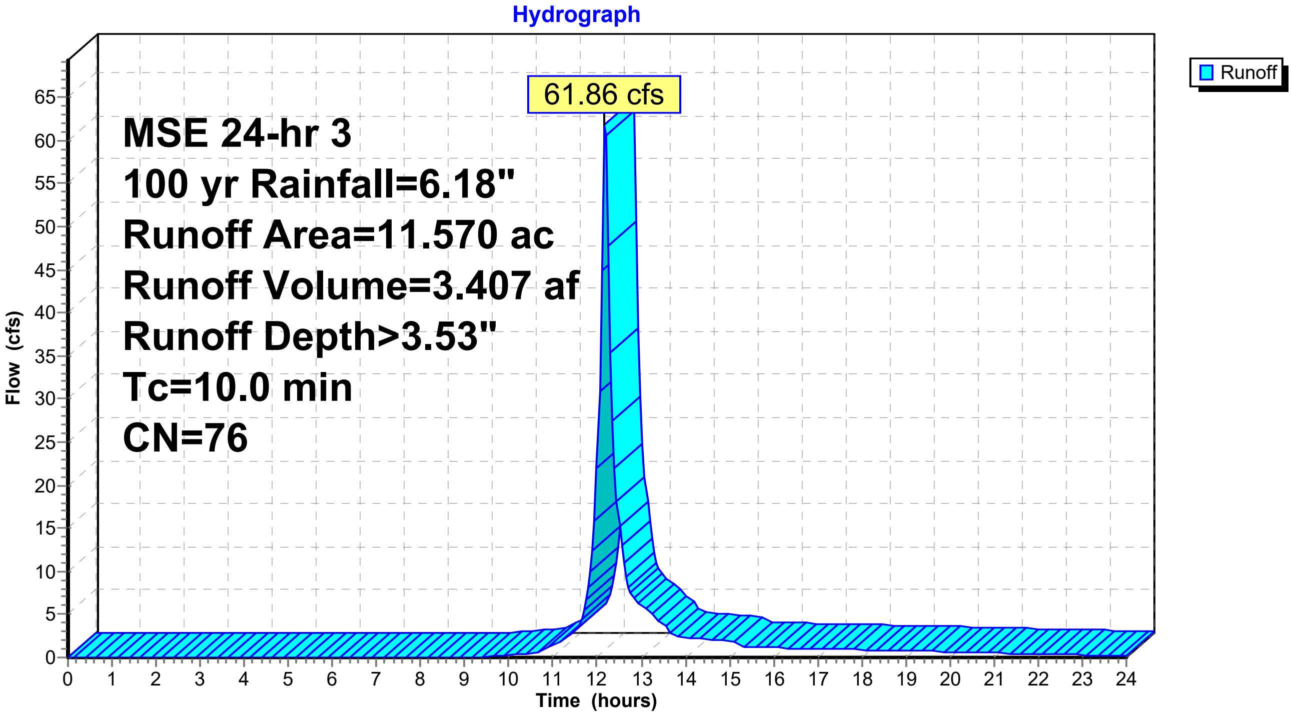
Runoff = 61.86 cfs @ 12.18 hrs, Volume= 3.407 af, Depth> 3.53"
Routed to Link 4L : Southeast Subwatershed

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	1.180	98	impervious
*	0.240	98	offsite road
*	8.060	74	lawn - C
*	0.440	74	offsite lawn (ROW) - C
*	1.650	70	woods - C
	11.570	76	Weighted Average
	10.150		87.73% Pervious Area
	1.420		12.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 16: Subarea



Summary for Subcatchment 17: Subarea

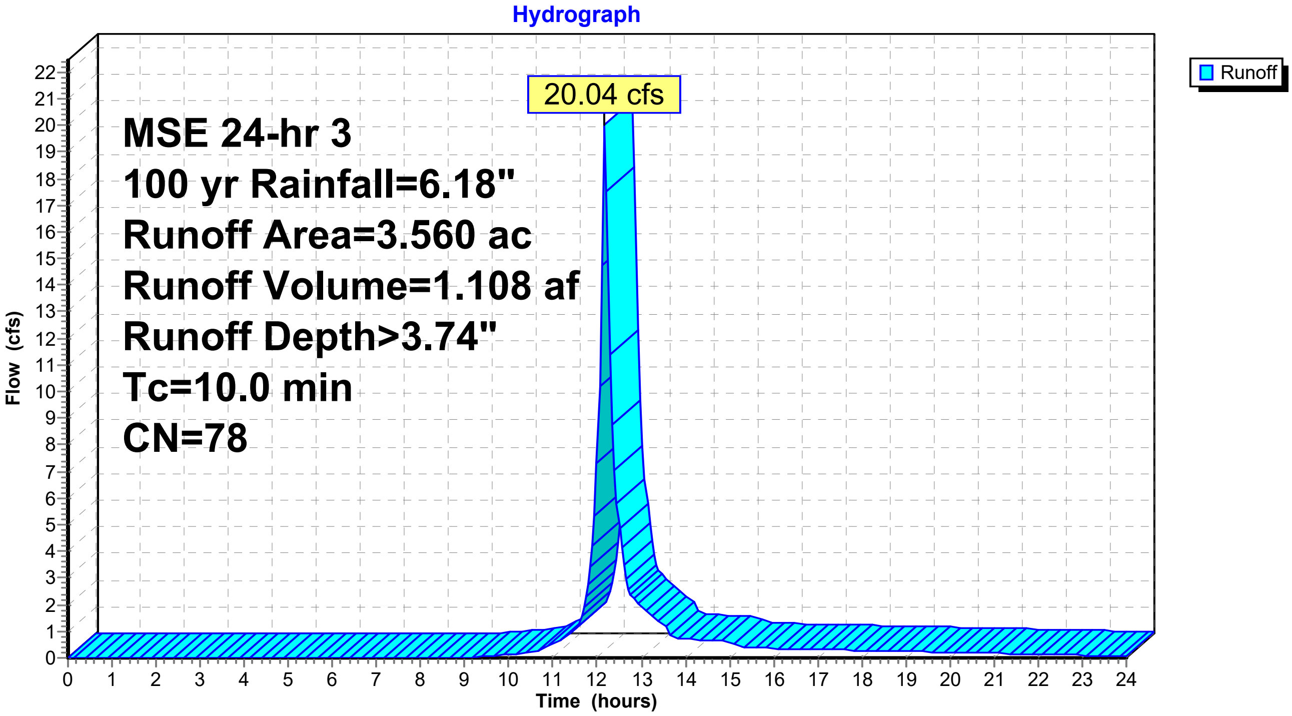
Runoff = 20.04 cfs @ 12.18 hrs, Volume= 1.108 af, Depth> 3.74"
Routed to Link 1L : West Subwatershed

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100 yr Rainfall=6.18"

	Area (ac)	CN	Description
*	0.660	98	impervious
*	2.900	74	lawn - C
*	0.000	98	water or effective infiltration area
	3.560	78	Weighted Average
	2.900		81.46% Pervious Area
	0.660		18.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment 17: Subarea



Summary for Pond 1B: Basin

Inflow Area = 11.050 ac, 30.86% Impervious, Inflow Depth > 4.05" for 100 yr event
Inflow = 66.94 cfs @ 12.17 hrs, Volume= 3.726 af
Outflow = 5.66 cfs @ 13.13 hrs, Volume= 2.740 af, Atten= 92%, Lag= 57.6 min
Discarded = 0.24 cfs @ 13.13 hrs, Volume= 0.216 af
Primary = 5.42 cfs @ 13.13 hrs, Volume= 2.524 af
Routed to Pond 2B : Basin

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 937.46' @ 13.13 hrs Surf.Area= 0.922 ac Storage= 2.350 af

Plug-Flow detention time= 300.8 min calculated for 2.734 af (73% of inflow)
Center-of-Mass det. time= 233.4 min (1,028.3 - 794.9)

Volume	Invert	Avail.Storage	Storage Description
#1	930.50'	3.476 af	**Custom Stage Data (Conic)**Listed below (Recalc)

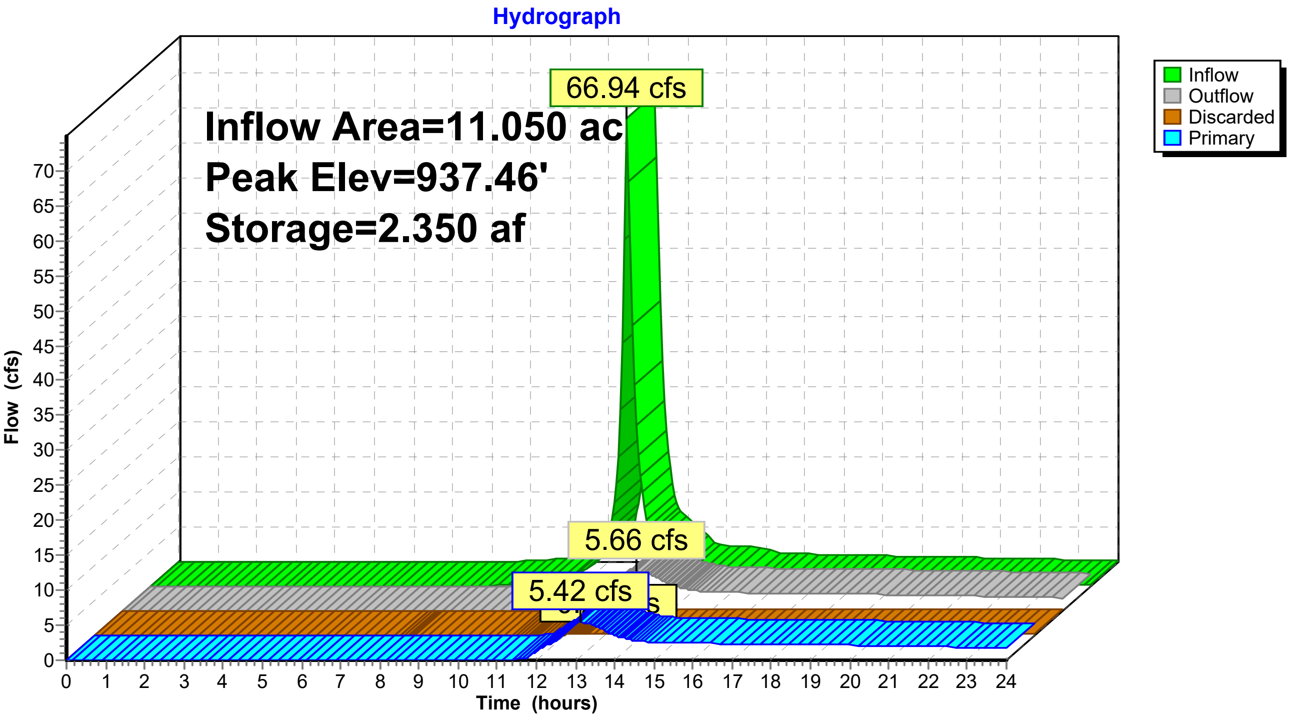
Elevation (feet)	Surf.Area (acres)	Voids (%)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
930.50	0.220	0.0	0.000	0.000	0.220
931.00	0.220	30.0	0.033	0.033	0.224
932.00	0.220	30.0	0.066	0.099	0.232
933.00	0.220	30.0	0.066	0.165	0.240
933.50	0.220	30.0	0.033	0.198	0.244
934.00	0.280	100.0	0.125	0.323	0.304
936.00	0.640	100.0	0.896	1.218	0.665
938.00	1.040	100.0	1.664	2.882	1.066
938.50	1.340	100.0	0.593	3.476	1.366

Device	Routing	Invert	Outlet Devices
#1	Discarded	930.50'	**0.110 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 929.00' Phase-In= 0.01'
#2	Primary	933.50'	**12.0" Round Culvert** L= 100.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 933.50' / 933.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#3	Device 2	931.25'	**4.0" Vert. Underdrain** C= 0.600 Limited to weir flow at low heads
#4	Device 2	934.00'	**6.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#5	Device 2	937.25'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#6	Primary	937.50'	**10.0' long + 5.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.24 cfs @ 13.13 hrs HW=937.46' (Free Discharge)
└**1=Exfiltration** (Controls 0.24 cfs)

Primary OutFlow Max=5.42 cfs @ 13.13 hrs HW=937.46' TW=932.21' (Dynamic Tailwater)
└**2=Culvert** (Passes 5.42 cfs of 5.44 cfs potential flow)
  └**3=Underdrain** (Orifice Controls 0.84 cfs @ 9.58 fps)
  └**4=Orifice** (Orifice Controls 1.69 cfs @ 8.62 fps)
  └**5=Grate** (Weir Controls 2.89 cfs @ 1.49 fps)
└**6=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1B: Basin



Summary for Pond 2B: Basin

```
Inflow Area =       12.670 ac,  33.07% Impervious,  Inflow Depth >   2.98"    for  100 yr event
Inflow      =       14.38 cfs @   12.13 hrs,  Volume=          3.142 af
Outflow     =       10.63 cfs @   12.21 hrs,  Volume=          2.997 af,  Atten= 26%,  Lag= 4.5 min
Discarded   =        0.49 cfs @   12.21 hrs,  Volume=          0.468 af
Primary     =       10.14 cfs @   12.21 hrs,  Volume=          2.529 af
    Routed to Link 3L : North Subwatershed (drainage swale)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 932.38' @ 12.21 hrs   Surf.Area= 0.138 ac   Storage= 0.234 af

Plug-Flow detention time= 40.5 min calculated for 2.991 af (95% of inflow)
Center-of-Mass det. time= 19.6 min ( 999.2 - 979.7 )

Volume        Invert    Avail.Storage   Storage Description
   #1         928.00'         0.330 af  Custom Stage Data (Conic)Listed below (Recalc)

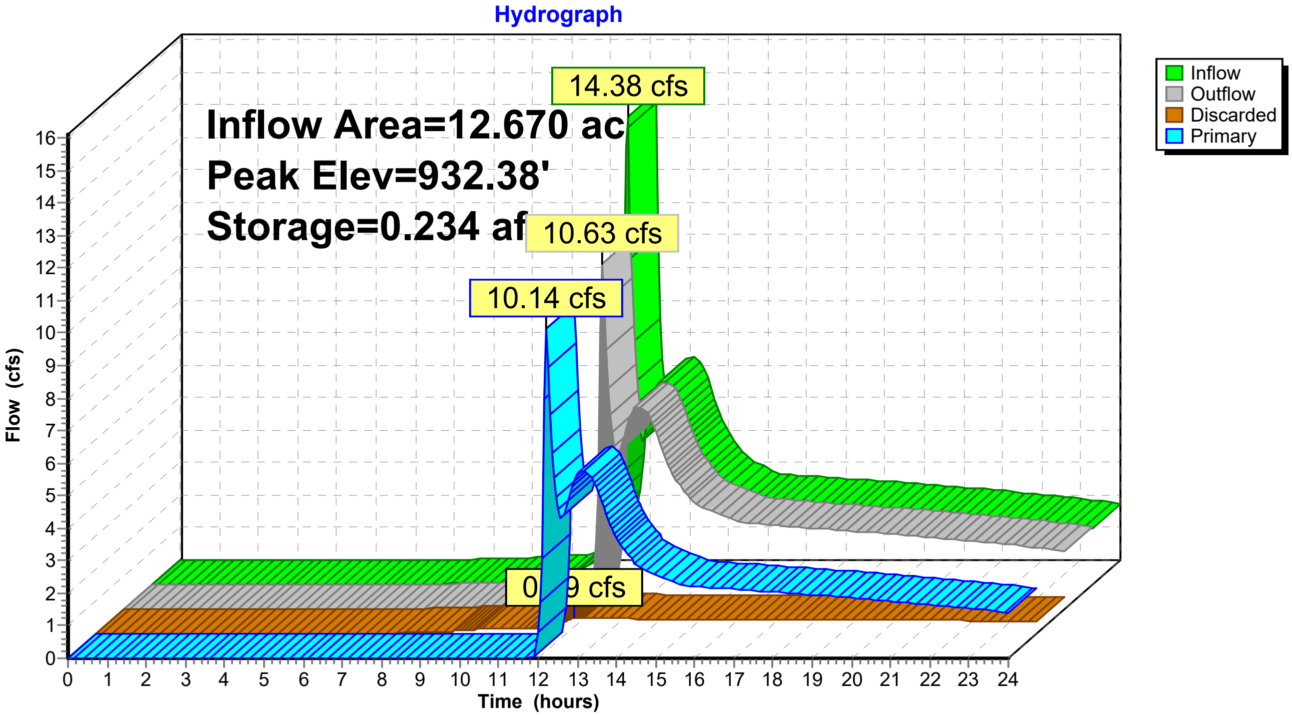
 Elevation      Surf.Area   Voids         Inc.Store       Cum.Store        Wet.Area
    (feet)        (acres)     (%)       (acre-feet)     (acre-feet)         (acres)
    928.00          0.090     0.0             0.000           0.000           0.090
    929.00          0.090    30.0             0.027           0.027           0.095
    930.00          0.090    30.0             0.027           0.054           0.100
    931.00          0.090    30.0             0.027           0.081           0.105
    932.00          0.120   100.0             0.105           0.186           0.136
    933.00          0.170   100.0             0.144           0.330           0.186

Device   Routing          Invert   Outlet Devices
   #1    Discarded       928.00'   1.630 in/hr Exfiltration over Surface area
                                   Conductivity to Groundwater Elevation = 925.50'    Phase-In= 0.01'
   #2    Primary         931.00'   12.0"  Round Culvert
                                   L= 50.0'   RCP, end-section conforming to fill,  Ke= 0.500
                                   Inlet / Outlet Invert= 931.00' / 930.50'   S= 0.0100 '/'   Cc= 0.900
                                   n= 0.013,  Flow Area= 0.79 sf
   #3    Primary         932.00'   10.0' long  + 5.0 '/' SideZ  x 10.0' breadth Broad-Crested Rectangular Weir
                                   Head (feet)  0.20  0.40  0.60  0.80  1.00  1.20  1.40  1.60
                                   Coef. (English)  2.49  2.56  2.70  2.69  2.68  2.69  2.67  2.64

Discarded OutFlow  Max=0.49 cfs @ 12.21 hrs  HW=932.37'   (Free Discharge)
↑
└─1=Exfiltration  ( Controls 0.49 cfs)

Primary OutFlow  Max=9.93 cfs @ 12.21 hrs  HW=932.37'  TW=0.00'   (Dynamic Tailwater)
↑
├─2=Culvert  (Barrel Controls 3.35 cfs @ 4.27 fps)
└─3=Broad-Crested Rectangular Weir (Weir Controls 6.57 cfs @ 1.50 fps)
```

Pond 2B: Basin



Summary for Pond 3P: Pond

Inflow Area = 17.750 ac, 37.63% Impervious, Inflow Depth > 3.41" for 100 yr event
Inflow = 75.32 cfs @ 12.23 hrs, Volume= 5.050 af
Outflow = 36.55 cfs @ 12.44 hrs, Volume= 4.142 af, Atten= 51%, Lag= 12.7 min
Primary = 36.55 cfs @ 12.44 hrs, Volume= 4.142 af
Routed to Link 1L : West Subwatershed

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 927.84' @ 12.44 hrs Surf.Area= 0.442 ac Storage= 1.822 af

Plug-Flow detention time= 94.4 min calculated for 4.133 af (82% of inflow)
Center-of-Mass det. time= 38.8 min (830.7 - 792.0)

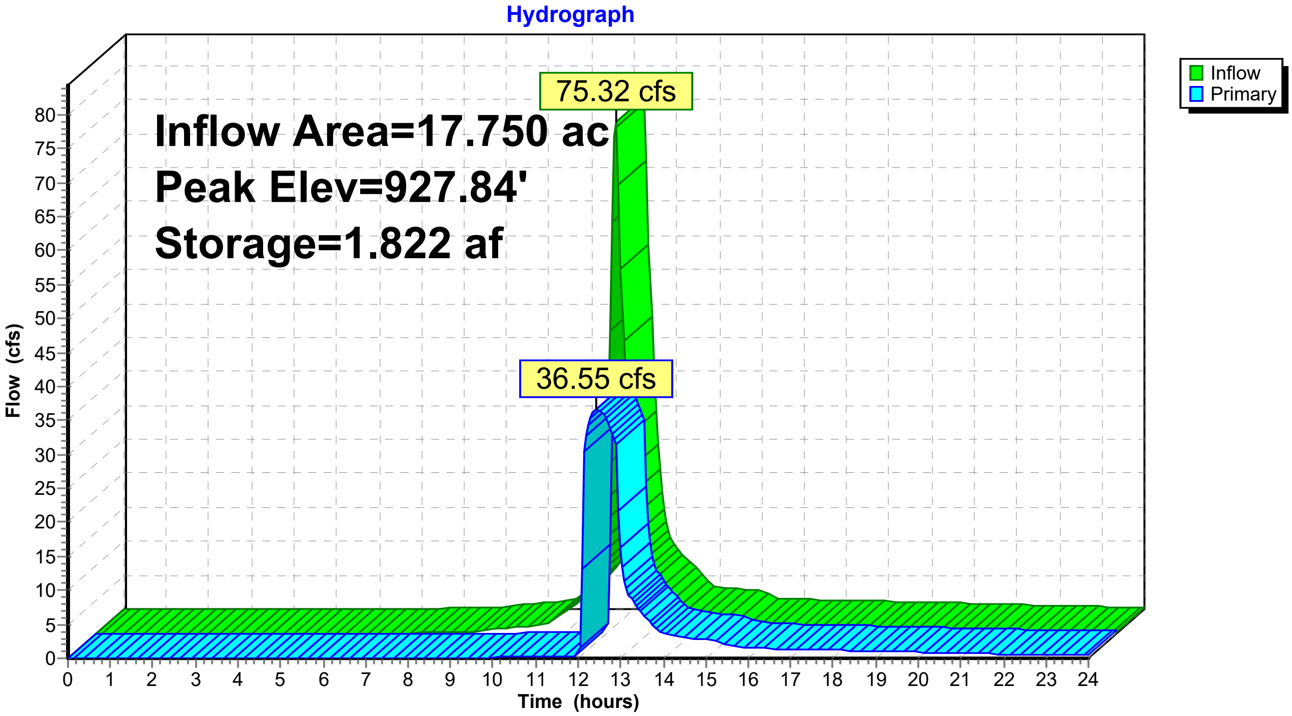
Volume	Invert	Avail.Storage	Storage Description
#1	922.00'	2.383 af	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
922.00	0.200	0.000	0.000	0.200
923.00	0.230	0.215	0.215	0.231
924.00	0.270	0.250	0.465	0.272
925.00	0.310	0.290	0.754	0.313
926.00	0.360	0.335	1.089	0.364
927.00	0.400	0.380	1.469	0.405
928.00	0.450	0.425	1.894	0.456
929.00	0.530	0.489	2.383	0.537

Device	Routing	Invert	Outlet Devices
#1	Primary	921.00'	**24.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 921.00' / 920.00' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	922.00'	**3.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	925.50'	**48.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	928.00'	**10.0' long + 5.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=36.54 cfs @ 12.44 hrs HW=927.84' TW=0.00' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 36.54 cfs @ 11.63 fps)
  ↑—**2=Orifice** (Passes < 0.56 cfs potential flow)
  └—**3=Grate** (Passes < 92.49 cfs potential flow)
└—**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 3P: Pond


Hydrograph
Inflow Area=17.750 ac
Peak Elev=927.84'
Storage=1.822 af
75.32 cfs
36.55 cfs
🟩 Inflow
🟦 Primary
Flow (cfs)
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
Time (hours)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
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23
24

Summary for Pond 4B: Basin

```
Inflow Area =        4.390 ac,  17.31% Impervious,  Inflow Depth >   3.74"    for  100 yr event
Inflow      =       24.71 cfs @   12.18 hrs,  Volume=            1.367 af
Outflow     =        2.99 cfs @   12.75 hrs,  Volume=            1.367 af,  Atten= 88%,  Lag= 34.2 min
Discarded   =        2.60 cfs @   12.75 hrs,  Volume=            1.293 af
Primary     =        0.39 cfs @   12.75 hrs,  Volume=            0.074 af
   Routed to Pond 3P : Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 938.54' @ 12.75 hrs   Surf.Area= 0.360 ac   Storage= 0.661 af

Plug-Flow detention time= 119.3 min calculated for 1.364 af (100% of inflow)
Center-of-Mass det. time= 119.0 min ( 919.1 - 800.2 )

Volume        Invert    Avail.Storage   Storage Description
   #1        935.00'        1.426 af    Custom Stage Data (Conic)Listed below (Recalc)

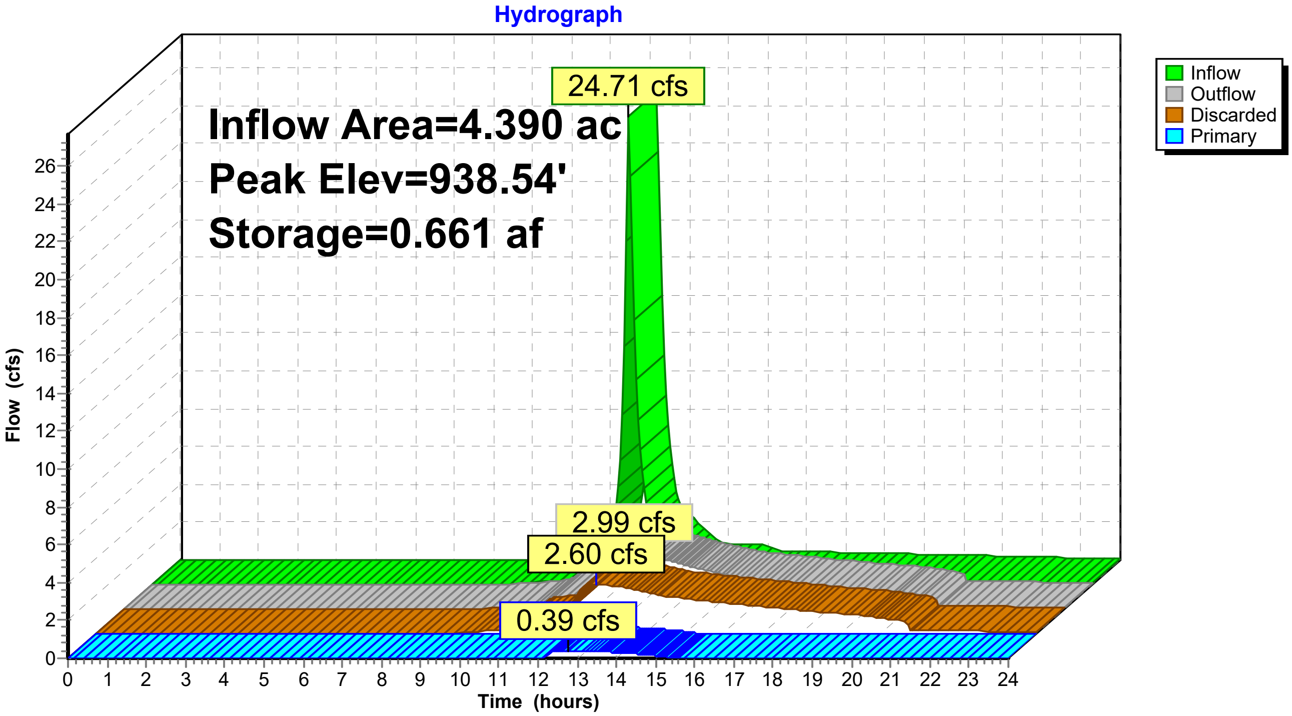
 Elevation      Surf.Area    Voids          Inc.Store        Cum.Store        Wet.Area
    (feet)        (acres)      (%)        (acre-feet)      (acre-feet)         (acres)
    935.00          0.180      0.0              0.000            0.000           0.180
    936.00          0.180     30.0              0.054            0.054           0.187
    937.00          0.220    100.0              0.200            0.254           0.228
    938.00          0.260    100.0              0.240            0.493           0.269
    940.00          0.710    100.0              0.933            1.426           0.719

Device   Routing            Invert   Outlet Devices
   #1    Discarded         935.00'   3.600 in/hr Exfiltration over Surface area
                                     Conductivity to Groundwater Elevation = 933.00'     Phase-In= 0.02'
   #2    Primary           937.50'   4.0" Vert. Orifice    C= 0.600   Limited to weir flow at low heads
   #3    Primary           938.75'   36.0" Horiz. Grate    C= 0.600   Limited to weir flow at low heads
   #4    Primary           939.00'   10.0' long  + 5.0 '/' SideZ  x 10.0' breadth Broad-Crested Rectangular Weir
                                     Head (feet)  0.20  0.40  0.60  0.80  1.00  1.20  1.40  1.60
                                     Coef. (English)  2.49  2.56  2.70  2.69  2.68  2.69  2.67  2.64

Discarded OutFlow  Max=2.60 cfs @ 12.75 hrs  HW=938.54'   (Free Discharge)
└─1=Exfiltration  ( Controls 2.60 cfs)

Primary OutFlow  Max=0.39 cfs @ 12.75 hrs  HW=938.54'  TW=927.04'   (Dynamic Tailwater)
├─2=Orifice  (Orifice Controls 0.39 cfs @ 4.51 fps)
├─3=Grate  ( Controls 0.00 cfs)
└─4=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)
```

Pond 4B: Basin



Summary for Pond 5RG: Rain Garden

Inflow Area = 2.590 ac, 12.36% Impervious, Inflow Depth > 3.63" for 100 yr event
Inflow = 14.21 cfs @ 12.18 hrs, Volume= 0.785 af
Outflow = 13.06 cfs @ 12.22 hrs, Volume= 0.713 af, Atten= 8%, Lag= 2.6 min
Discarded = 0.01 cfs @ 12.22 hrs, Volume= 0.009 af
Primary = 13.05 cfs @ 12.22 hrs, Volume= 0.704 af
Routed to Pond 6P : Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 924.80' @ 12.22 hrs Surf.Area= 0.119 ac Storage= 0.194 af

Plug-Flow detention time= 103.2 min calculated for 0.713 af (91% of inflow)
Center-of-Mass det. time= 63.5 min (865.3 - 801.9)

Volume	Invert	Avail.Storage	Storage Description
#1	921.00'	0.377 af	**Custom Stage Data (Conic)**Listed below (Recalc)

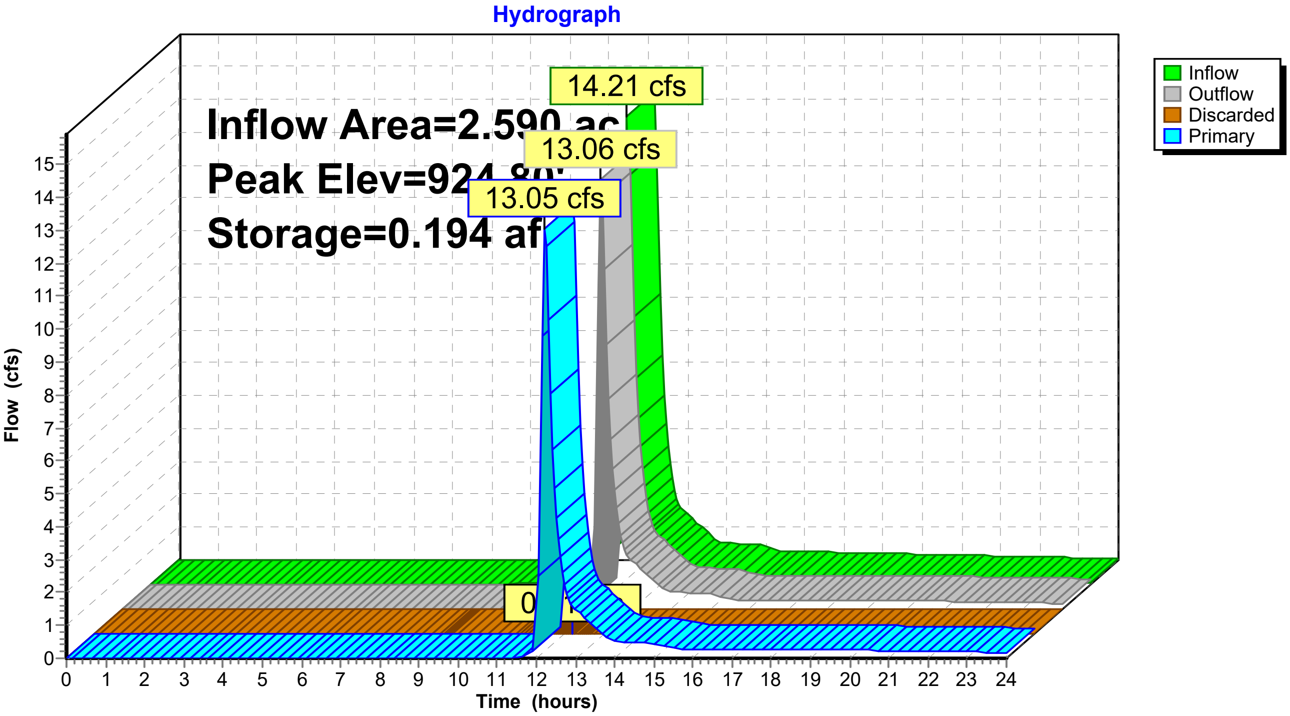
Elevation (feet)	Surf.Area (acres)	Voids (%)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
921.00	0.030	0.0	0.000	0.000	0.030
922.00	0.030	30.0	0.009	0.009	0.033
924.00	0.080	100.0	0.106	0.115	0.084
926.00	0.190	100.0	0.262	0.377	0.194

Device	Routing	Invert	Outlet Devices
#1	Discarded	921.00'	**0.070 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 917.00' Phase-In= 0.01'
#2	Primary	922.75'	**3.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	924.25'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	925.00'	**10.0' long + 5.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.01 cfs @ 12.22 hrs HW=924.79' (Free Discharge)
└─**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=12.66 cfs @ 12.22 hrs HW=924.79' TW=914.38' (Dynamic Tailwater)
├─**2=Orifice** (Orifice Controls 0.33 cfs @ 6.67 fps)
├─**3=Grate** (Weir Controls 12.33 cfs @ 2.41 fps)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 5RG: Rain Garden



Summary for Pond 6P: Pond

```
Inflow Area =       11.390 ac, 30.38% Impervious, Inflow Depth >  3.95"   for  100 yr event
Inflow      =      66.31 cfs @  12.18 hrs, Volume=          3.748 af
Outflow     =      25.56 cfs @  12.40 hrs, Volume=          3.223 af, Atten= 61%, Lag= 12.9 min
Primary     =      25.56 cfs @  12.40 hrs, Volume=          3.223 af
   Routed to Link 4L : Southeast Subwatershed

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 914.99' @ 12.40 hrs   Surf.Area= 0.402 ac   Storage= 1.310 af

Plug-Flow detention time= 88.7 min calculated for 3.216 af (86% of inflow)
Center-of-Mass det. time= 33.2 min ( 839.5 - 806.3 )

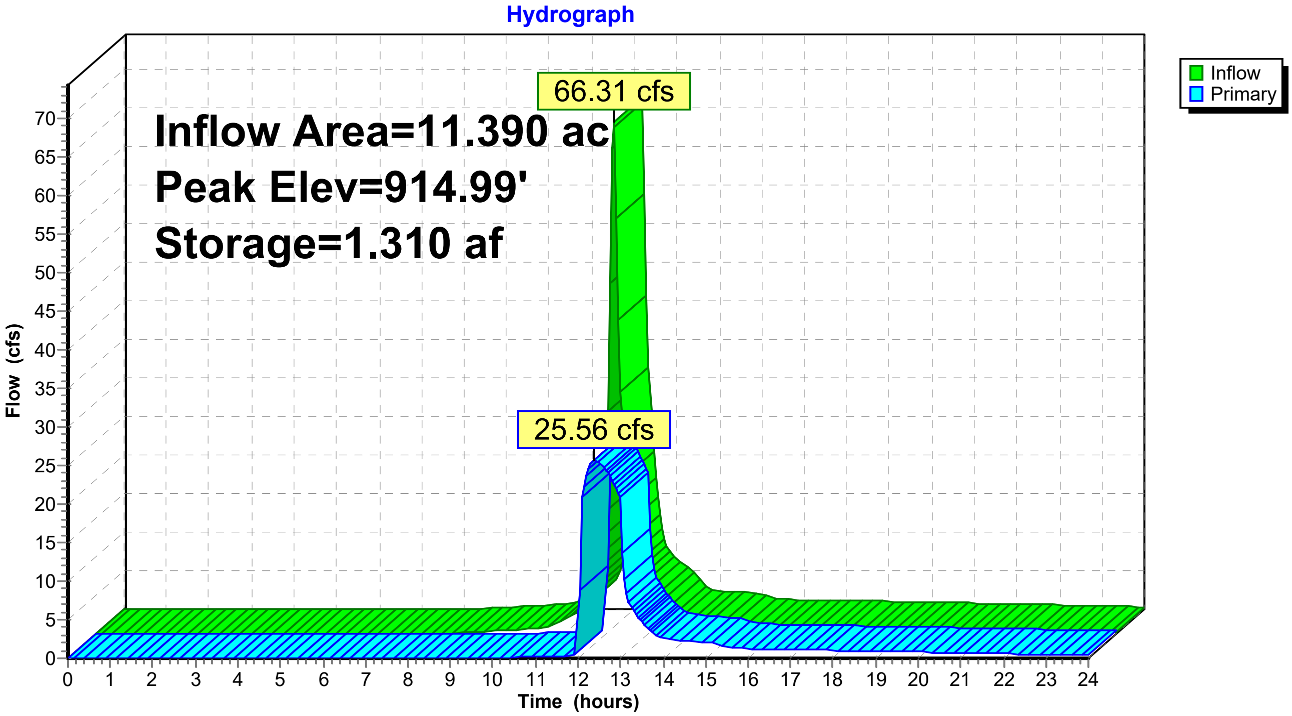
Volume       Invert    Avail.Storage   Storage Description
   #1       910.00'         1.750 af   Custom Stage Data (Conic)Listed below (Recalc)

 Elevation     Surf.Area       Inc.Store       Cum.Store     Wet.Area
    (feet)       (acres)     (acre-feet)     (acre-feet)      (acres)
    910.00         0.150           0.000           0.000        0.150
    912.00         0.230           0.377           0.377        0.231
    914.00         0.340           0.566           0.944        0.343
    916.00         0.470           0.806           1.750        0.475

Device  Routing          Invert   Outlet Devices
   #1   Primary         909.00'   21.0" Round Culvert
                                  L= 100.0'  RCP, square edge headwall,  Ke= 0.500
                                  Inlet / Outlet Invert= 909.00' / 908.00'  S= 0.0100 '/'  Cc= 0.900
                                  n= 0.013,  Flow Area= 2.41 sf
   #2   Device 1        910.00'   3.0" Vert. Orifice   C= 0.600  Limited to weir flow at low heads
   #3   Device 1        912.60'   48.0" Horiz. Grate   C= 0.600  Limited to weir flow at low heads
   #4   Primary         915.00'   10.0' long  + 5.0 '/' SideZ  x 10.0' breadth Broad-Crested Rectangular Weir
                                  Head (feet)  0.20  0.40  0.60  0.80  1.00  1.20  1.40  1.60
                                  Coef. (English)  2.49  2.56  2.70  2.69  2.68  2.69  2.67  2.64

Primary OutFlow  Max=25.56 cfs @ 12.40 hrs  HW=914.99'  TW=0.00'   (Dynamic Tailwater)
 ├─1=Culvert  (Barrel Controls 25.56 cfs @ 10.63 fps)
 │  ├─2=Orifice  (Passes < 0.52 cfs potential flow)
 │  └─3=Grate  (Passes < 93.54 cfs potential flow)
 └─4=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)
```

Pond 6P: Pond


Hydrograph
Inflow
Primary
66.31 cfs
25.56 cfs
Inflow Area=11.390 ac
Peak Elev=914.99'
Storage=1.310 af
Flow (cfs)
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
Time (hours)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
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Summary for Pond 7P: Pond

Inflow Area = 11.600 ac, 26.64% Impervious, Inflow Depth > 3.87" for 100 yr event
Inflow = 66.09 cfs @ 12.19 hrs, Volume= 3.739 af
Outflow = 12.97 cfs @ 12.60 hrs, Volume= 3.520 af, Atten= 80%, Lag= 24.3 min
Primary = 12.97 cfs @ 12.60 hrs, Volume= 3.520 af
Routed to Link 4L : Southeast Subwatershed

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 922.28' @ 12.60 hrs Surf.Area= 0.867 ac Storage= 1.829 af

Plug-Flow detention time= 134.8 min calculated for 3.512 af (94% of inflow)
Center-of-Mass det. time= 107.1 min (907.8 - 800.8)

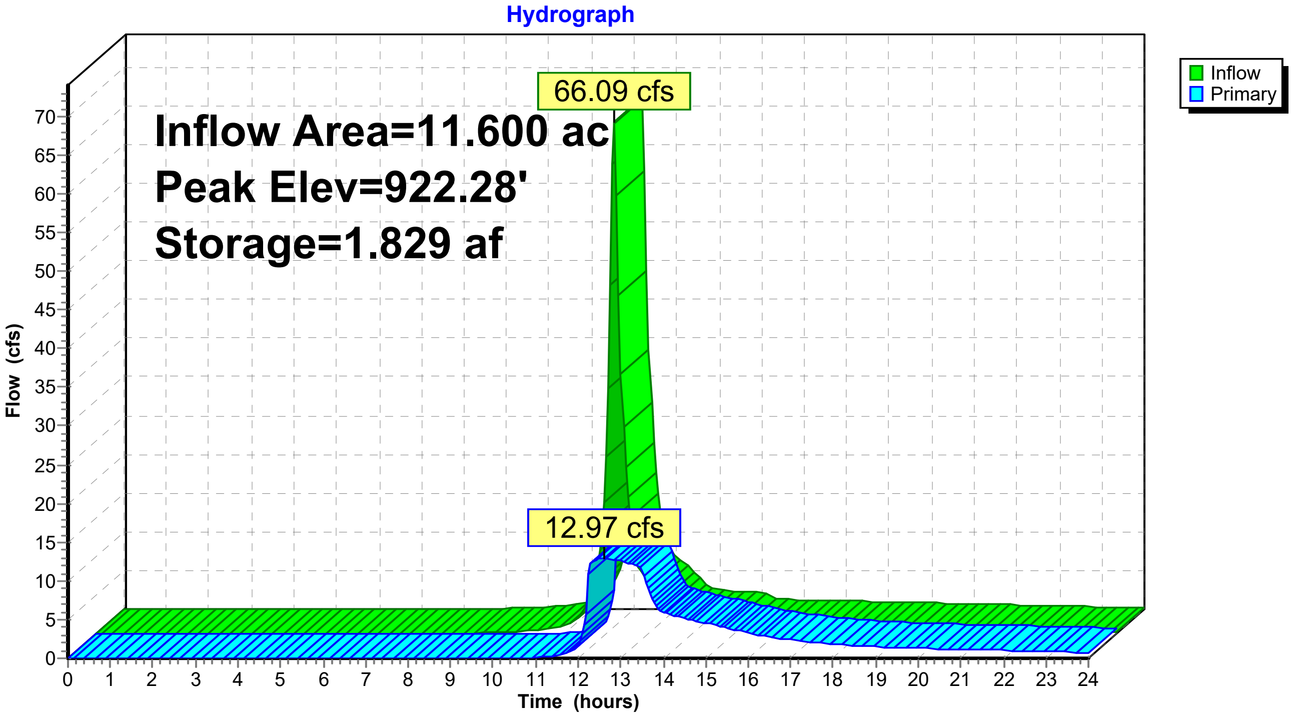
Volume	Invert	Avail.Storage	Storage Description
#1	919.30'	2.859 af	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
919.30	0.390	0.000	0.000	0.390
922.30	0.870	1.842	1.842	0.872
923.30	1.170	1.016	2.859	1.172

Device	Routing	Invert	Outlet Devices
#1	Primary	918.30'	**18.0" Round Culvert** L= 100.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 918.30' / 918.00' S= 0.0030 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	919.30'	**8.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	920.20'	**1.0' long x 1.30' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	921.50'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#5	Primary	922.30'	**10.0' long + 5.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=12.97 cfs @ 12.60 hrs HW=922.28' TW=0.00' (Dynamic Tailwater)
1=Culvert (Barrel Controls 12.97 cfs @ 7.34 fps)
2=Orifice (Passes < 2.74 cfs potential flow)
3=Sharp-Crested Rectangular Weir (Passes < 5.60 cfs potential flow)
4=Grate (Passes < 21.41 cfs potential flow)
5=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 7P: Pond


Hydrograph
Inflow
Primary
66.09 cfs
12.97 cfs
Inflow Area=11.600 ac
Peak Elev=922.28'
Storage=1.829 af
Flow (cfs)
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
Time (hours)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
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19
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24

Summary for Pond 7RG: Rain Garden

```
Inflow Area =       6.380 ac, 16.61% Impervious, Inflow Depth >  3.74"   for 100 yr event
Inflow      =      35.91 cfs @  12.18 hrs, Volume=          1.987 af
Outflow     =      34.14 cfs @  12.21 hrs, Volume=          1.905 af, Atten= 5%, Lag= 2.0 min
Discarded   =       0.02 cfs @  12.21 hrs, Volume=          0.018 af
Primary     =      34.12 cfs @  12.21 hrs, Volume=          1.887 af
    Routed to Pond 7P : Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 923.08' @ 12.21 hrs   Surf.Area= 0.166 ac   Storage= 0.218 af

Plug-Flow detention time= 32.4 min calculated for 1.901 af (96% of inflow)
Center-of-Mass det. time= 11.8 min ( 811.9 - 800.2 )

Volume      Invert    Avail.Storage   Storage Description
   #1       920.30'        0.255 af   Custom Stage Data (Conic)Listed below (Recalc)

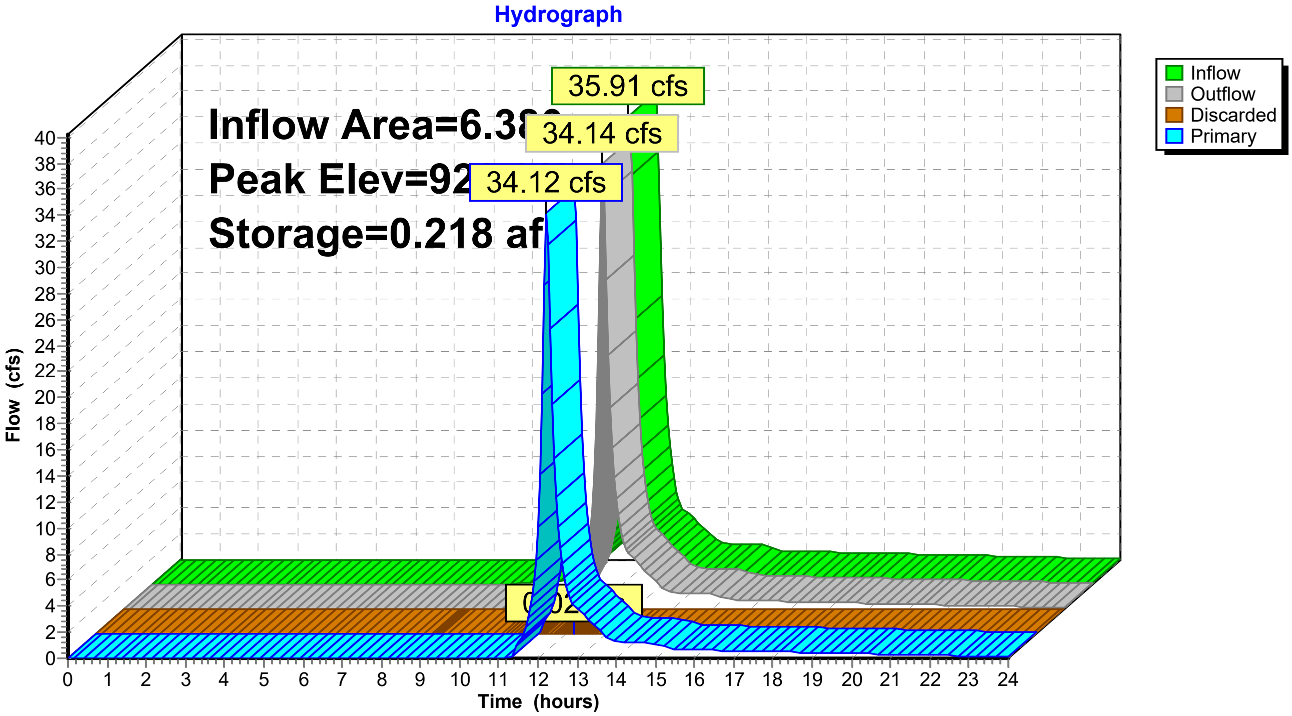
 Elevation    Surf.Area   Voids       Inc.Store     Cum.Store     Wet.Area
    (feet)      (acres)     (%)     (acre-feet)   (acre-feet)      (acres)
    920.30        0.060     0.0          0.000         0.000         0.060
    921.30        0.060    30.0          0.018         0.018         0.064
    922.30        0.120   100.0          0.088         0.106         0.124
    923.30        0.180   100.0          0.149         0.255         0.185

Device   Routing        Invert   Outlet Devices
   #1    Discarded      920.30'  0.110 in/hr Exfiltration over Surface area
                                 Conductivity to Groundwater Elevation = 915.00'   Phase-In= 0.01'
   #2    Primary        922.05'  8.0' long  + 5.0 '/' SideZ  x 10.0' breadth Broad-Crested Rectangular Weir
                                 Head (feet)  0.20  0.40  0.60  0.80  1.00  1.20  1.40  1.60
                                 Coef. (English)  2.49  2.56  2.70  2.69  2.68  2.69  2.67  2.64

Discarded OutFlow  Max=0.02 cfs @ 12.21 hrs  HW=923.07'   (Free Discharge)
└─1=Exfiltration  ( Controls 0.02 cfs)

Primary OutFlow  Max=33.49 cfs @ 12.21 hrs  HW=923.07'  TW=921.52'   (Dynamic Tailwater)
└─2=Broad-Crested Rectangular Weir (Weir Controls 33.49 cfs @ 2.50 fps)
```

Pond 7RG: Rain Garden



Summary for Pond 8B: Basin

```
Inflow Area =         4.610 ac, 19.09% Impervious, Inflow Depth >  3.74"   for 100 yr event
Inflow      =       25.95 cfs @  12.18 hrs, Volume=          1.435 af
Outflow     =        9.76 cfs @  12.39 hrs, Volume=          0.940 af, Atten= 62%, Lag= 12.9 min
Discarded   =        0.02 cfs @  12.39 hrs, Volume=          0.015 af
Primary     =        9.74 cfs @  12.39 hrs, Volume=          0.926 af
    Routed to Pond 9P : Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 919.45' @ 12.39 hrs   Surf.Area= 0.307 ac   Storage= 0.683 af

Plug-Flow detention time= 171.4 min calculated for 0.940 af (66% of inflow)
Center-of-Mass det. time= 96.0 min ( 896.2 - 800.2 )

Volume        Invert    Avail.Storage   Storage Description
   #1        915.50'         1.082 af   Custom Stage Data (Conic)Listed below (Recalc)

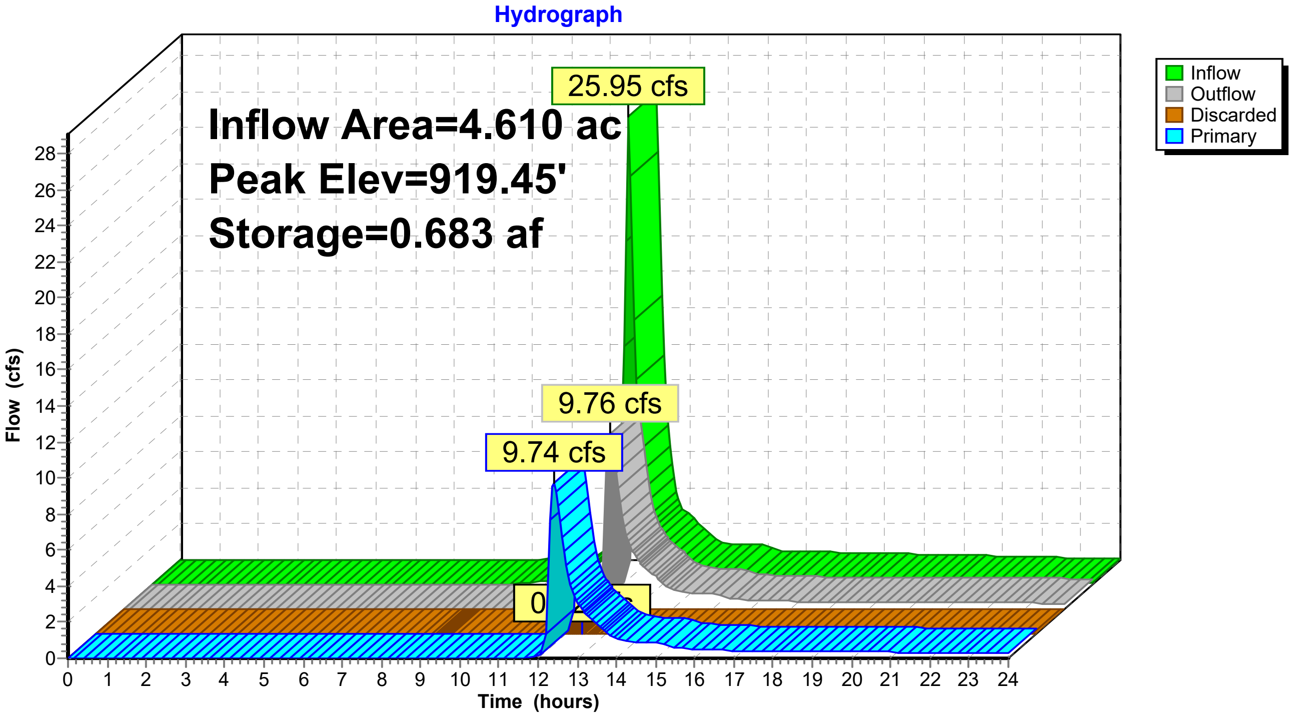
 Elevation     Surf.Area    Voids       Inc.Store       Cum.Store       Wet.Area
    (feet)       (acres)      (%)     (acre-feet)     (acre-feet)        (acres)
    915.50         0.160      0.0           0.000           0.000          0.160
    916.50         0.160     30.0           0.048           0.048          0.167
    917.00         0.180    100.0           0.085           0.133          0.187
    918.00         0.210    100.0           0.195           0.328          0.218
    919.00         0.250    100.0           0.230           0.557          0.259
    920.50         0.460    100.0           0.525           1.082          0.469

Device   Routing          Invert   Outlet Devices
   #1    Discarded       915.50'   0.040 in/hr Exfiltration over Surface area
                                   Conductivity to Groundwater Elevation = 906.50'    Phase-In= 0.01'
   #2    Primary         916.50'   18.0" Round Culvert
                                   L= 100.0'   RCP, square edge headwall, Ke= 0.500
                                   Inlet / Outlet Invert= 916.50' / 916.00'   S= 0.0050 '/'   Cc= 0.900
                                   n= 0.013, Flow Area= 1.77 sf
   #3    Device 2        916.75'   3.0" Vert. Orifice   C= 0.600   Limited to weir flow at low heads
   #4    Device 2        919.00'   36.0" Horiz. Grate   C= 0.600   Limited to weir flow at low heads
   #5    Primary         919.50'   10.0' long  + 5.0 '/' SideZ  x 10.0' breadth Broad-Crested Rectangular Weir
                                   Head (feet)  0.20  0.40  0.60  0.80  1.00  1.20  1.40  1.60
                                   Coef. (English)  2.49  2.56  2.70  2.69  2.68  2.69  2.67  2.64

Discarded OutFlow  Max=0.02 cfs @ 12.39 hrs  HW=919.45'   (Free Discharge)
└─1=Exfiltration  ( Controls 0.02 cfs)

Primary OutFlow  Max=9.69 cfs @ 12.39 hrs  HW=919.45'  TW=902.39'   (Dynamic Tailwater)
├─2=Culvert  (Passes 9.69 cfs of 10.85 cfs potential flow)
│  ├─3=Orifice  (Orifice Controls 0.38 cfs @ 7.73 fps)
│  └─4=Grate  (Weir Controls 9.31 cfs @ 2.19 fps)
└─5=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)
```

Pond 8B: Basin



Summary for Pond 9P: Pond

Inflow Area = 15.430 ac, 31.11% Impervious, Inflow Depth > 3.71" for 100 yr event
Inflow = 79.95 cfs @ 12.13 hrs, Volume= 4.765 af
Outflow = 8.76 cfs @ 13.04 hrs, Volume= 3.663 af, Atten= 89%, Lag= 54.5 min
Primary = 8.76 cfs @ 13.04 hrs, Volume= 3.663 af
Routed to Link 3L : North Subwatershed (drainage swale)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 902.93' @ 13.04 hrs Surf.Area= 0.733 ac Storage= 2.697 af

Plug-Flow detention time= 228.5 min calculated for 3.655 af (77% of inflow)
Center-of-Mass det. time= 155.1 min (963.4 - 808.3)

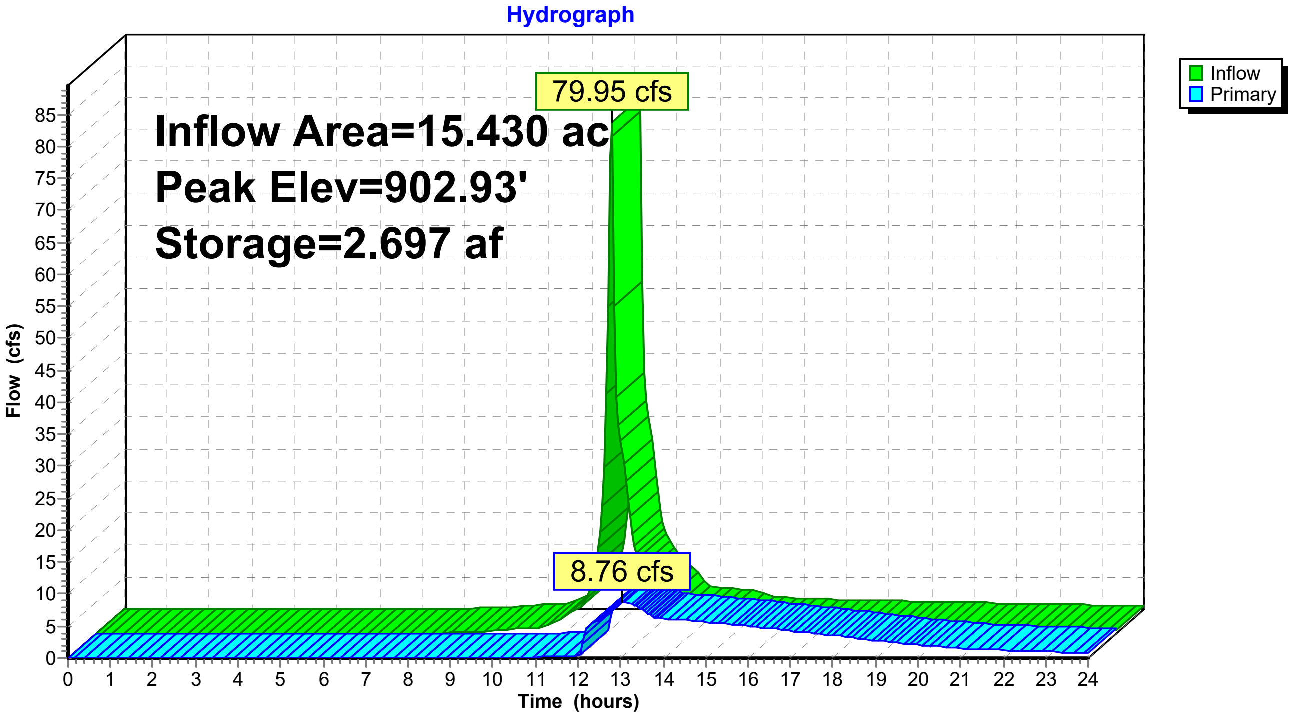
Volume	Invert	Avail.Storage	Storage Description
#1	898.00'	3.524 af	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
898.00	0.410	0.000	0.000	0.410
899.00	0.460	0.435	0.435	0.461
901.00	0.560	1.018	1.453	0.564
903.00	0.740	1.296	2.749	0.746
904.00	0.810	0.775	3.524	0.818

Device	Routing	Invert	Outlet Devices
#1	Primary	898.00'	**3.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#2	Primary	900.00'	**12.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	902.75'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	903.00'	**10.0' long + 5.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=8.76 cfs @ 13.04 hrs HW=902.93' TW=0.00' (Dynamic Tailwater)
├─**1=Orifice** (Orifice Controls 0.52 cfs @ 10.55 fps)
├─**2=Orifice** (Orifice Controls 5.89 cfs @ 7.51 fps)
├─**3=Grate** (Weir Controls 2.35 cfs @ 1.39 fps)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: Pond


Hydrograph
79.95 cfs
8.76 cfs
Inflow Area=15.430 ac
Peak Elev=902.93'
Storage=2.697 af
Inflow
Primary
Flow (cfs)
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
Time (hours)

Summary for Pond 10B: Basin

```
Inflow Area =          2.040 ac,  18.63% Impervious,  Inflow Depth >   3.74"    for  100 yr event
Inflow       =       11.48 cfs @   12.18 hrs,  Volume=            0.635 af
Outflow     =         0.34 cfs @   15.07 hrs,  Volume=            0.296 af,  Atten= 97%,  Lag= 173.9 min
Discarded  =         0.17 cfs @   15.07 hrs,  Volume=            0.173 af
Primary     =         0.17 cfs @   15.07 hrs,  Volume=            0.123 af
    Routed to Link 3L : North Subwatershed (drainage swale)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 914.16' @ 15.07 hrs   Surf.Area= 0.216 ac   Storage= 0.449 af

Plug-Flow detention time= 324.6 min calculated for 0.296 af (47% of inflow)
Center-of-Mass det. time= 240.6 min ( 1,040.7 - 800.2 )
```

Volume	Invert	Avail.Storage	Storage Description
#1	910.00'	0.913 af	**Custom Stage Data (Conic)**Listed below (Recalc)

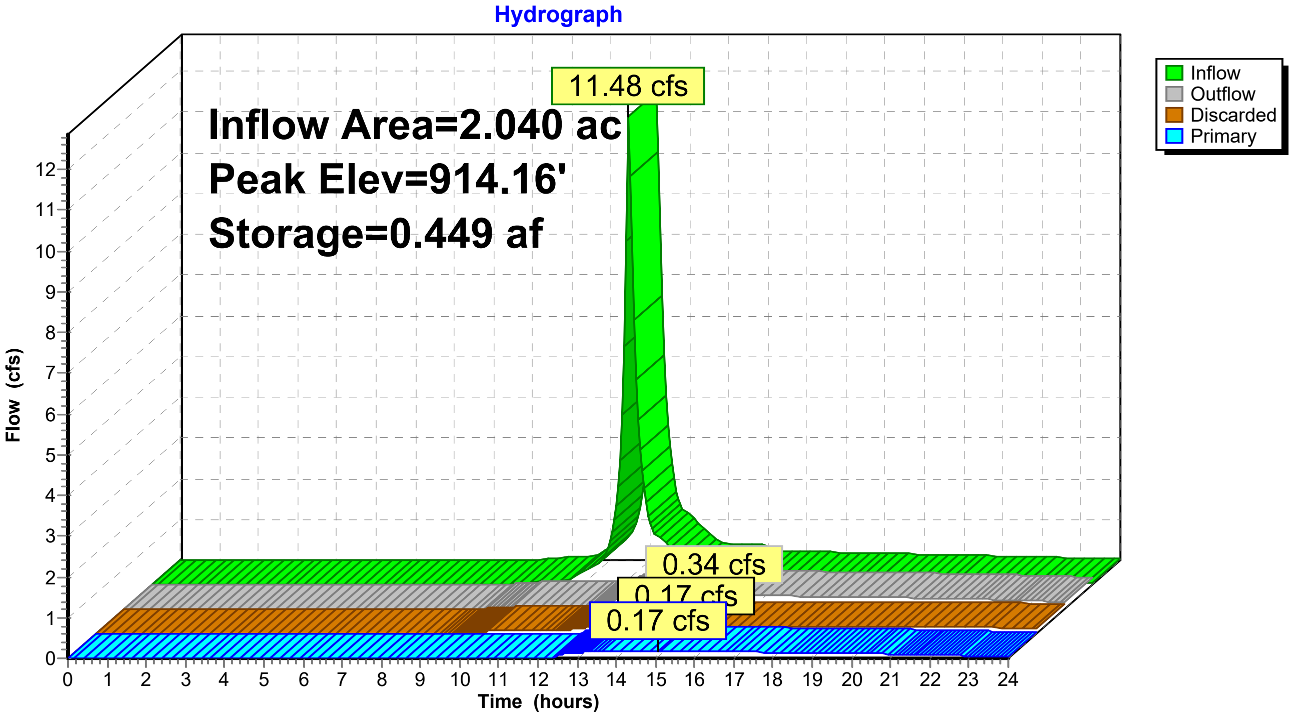
Elevation (feet)	Surf.Area (acres)	Voids (%)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
910.00	0.130	0.0	0.000	0.000	0.130
912.00	0.130	30.0	0.078	0.078	0.142
914.00	0.210	100.0	0.337	0.415	0.223
916.00	0.290	100.0	0.498	0.913	0.305

Device	Routing	Invert	Outlet Devices
#1	Discarded	910.00'	**0.500 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 905.00' Phase-In= 0.01'
#2	Primary	913.50'	**3.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	914.50'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	915.00'	**10.0' long + 5.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

```
Discarded OutFlow  Max=0.17 cfs @ 15.07 hrs  HW=914.16'   (Free Discharge)
└─1=Exfiltration  ( Controls 0.17 cfs)

Primary OutFlow  Max=0.17 cfs @ 15.07 hrs  HW=914.16'  TW=0.00'   (Dynamic Tailwater)
├─2=Orifice  (Orifice Controls 0.17 cfs @ 3.52 fps)
├─3=Grate  ( Controls 0.00 cfs)
└─4=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)
```

Pond 10B: Basin



Summary for Pond 11P: Pond

Inflow Area = 7.980 ac, 39.47% Impervious, Inflow Depth > 4.26" for 100 yr event
Inflow = 58.76 cfs @ 12.13 hrs, Volume= 2.831 af
Outflow = 15.76 cfs @ 12.34 hrs, Volume= 2.395 af, Atten= 73%, Lag= 12.8 min
Primary = 15.76 cfs @ 12.34 hrs, Volume= 2.395 af
Routed to Link 3L : North Subwatershed (drainage swale)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 916.48' @ 12.34 hrs Surf.Area= 0.444 ac Storage= 1.332 af

Plug-Flow detention time= 130.0 min calculated for 2.390 af (84% of inflow)
Center-of-Mass det. time= 77.1 min (864.7 - 787.6)

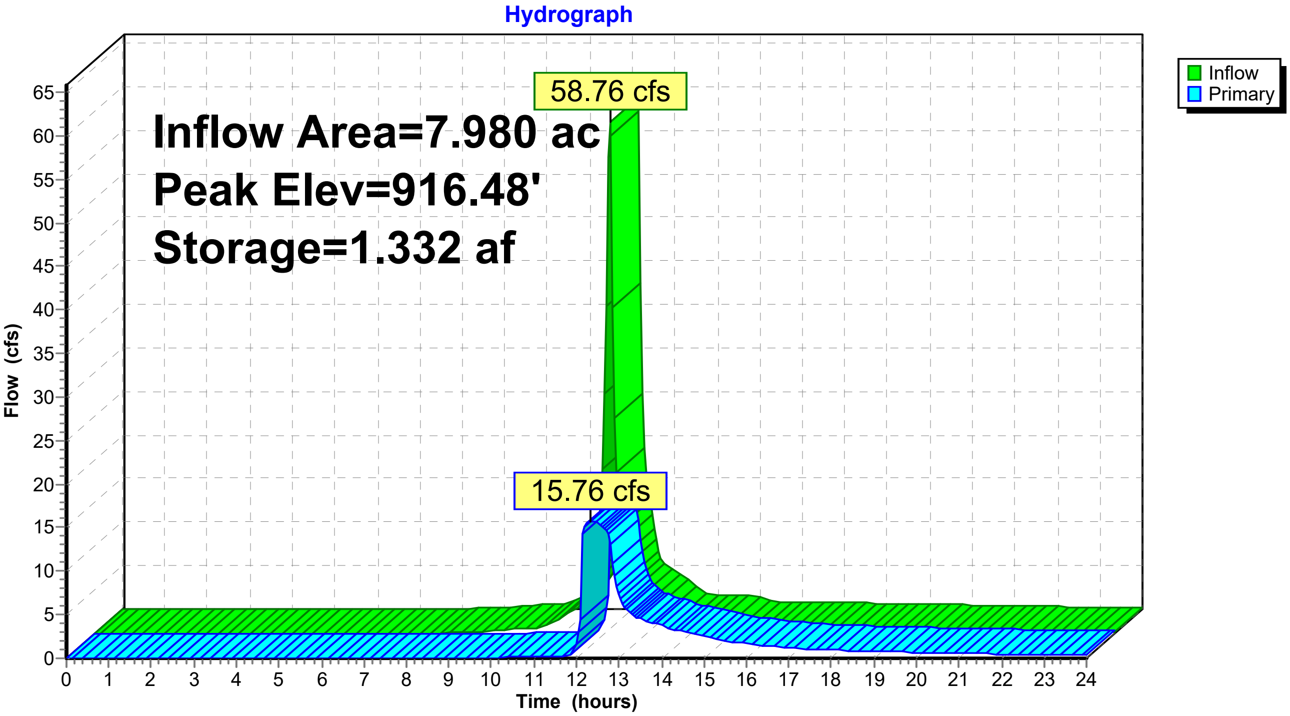
Volume	Invert	Avail.Storage	Storage Description
#1	912.20'	1.821 af	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
912.20	0.190	0.000	0.000	0.190
915.00	0.350	0.745	0.745	0.352
917.00	0.480	0.827	1.571	0.484
917.50	0.520	0.250	1.821	0.524

Device	Routing	Invert	Outlet Devices
#1	Primary	912.20'	**18.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 912.20' / 912.00' S= 0.0040 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	912.20'	**3.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	914.00'	**1.0' long x 1.50' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	915.50'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#5	Primary	916.50'	**10.0' long + 5.0 '/' SideZ x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=15.76 cfs @ 12.34 hrs HW=916.48' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Barrel Controls 15.76 cfs @ 8.92 fps)
  - **2=Orifice** (Passes < 0.48 cfs potential flow)
  - **3=Sharp-Crested Rectangular Weir** (Passes < 6.72 cfs potential flow)
  - **4=Grate** (Passes < 29.92 cfs potential flow)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 11P: Pond



Summary for Pond 12P: Pond

```
Inflow Area =        7.030 ac,  28.59% Impervious,  Inflow Depth >   3.94"    for  100 yr event
Inflow      =       41.52 cfs @   12.18 hrs,  Volume=            2.309 af
Outflow     =       14.97 cfs @   12.40 hrs,  Volume=            1.959 af,  Atten= 64%,  Lag= 13.2 min
Primary     =       14.97 cfs @   12.40 hrs,  Volume=            1.959 af
    Routed to Link 3L : North Subwatershed (drainage swale)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 926.00' @ 12.40 hrs   Surf.Area= 0.350 ac   Storage= 0.892 af

Plug-Flow detention time= 96.3 min calculated for 1.955 af (85% of inflow)
Center-of-Mass det. time= 43.1 min ( 839.8 - 796.7 )

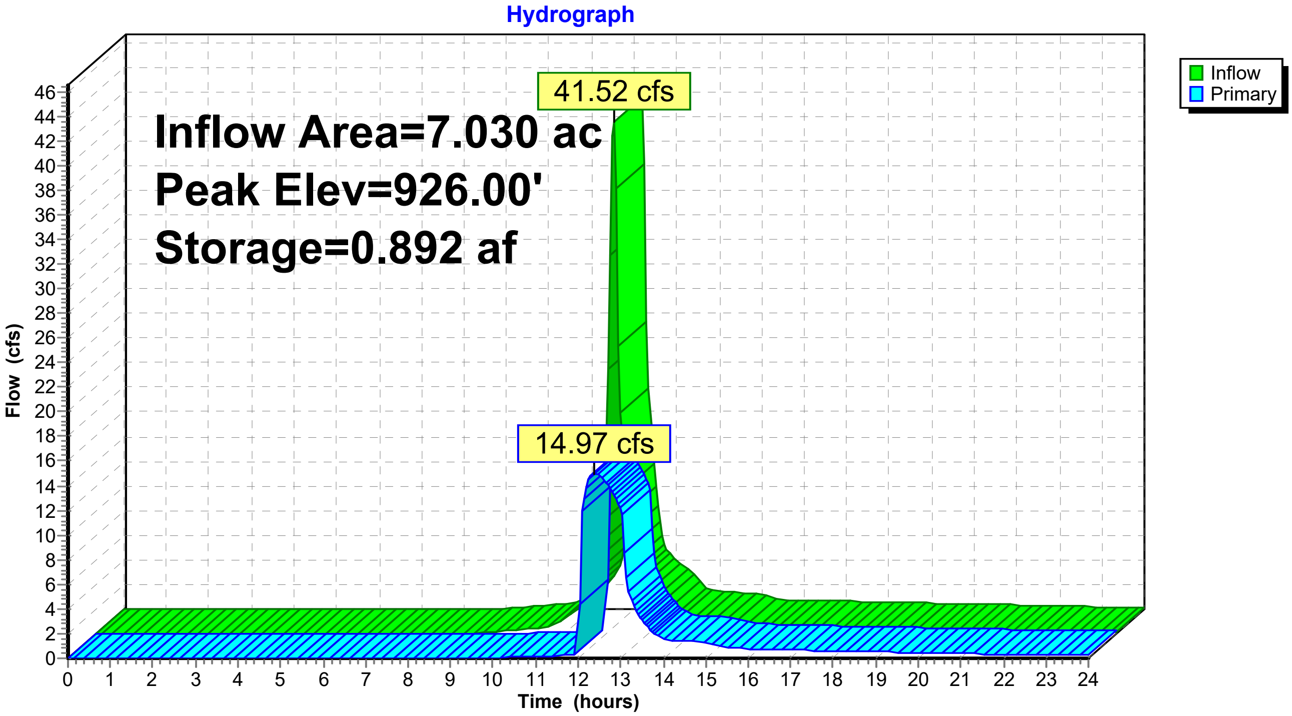
Volume        Invert    Avail.Storage   Storage Description
   #1        922.00'         1.276 af   Custom Stage Data (Conic)Listed below (Recalc)

 Elevation      Surf.Area       Inc.Store       Cum.Store      Wet.Area
    (feet)        (acres)     (acre-feet)     (acre-feet)       (acres)
    922.00          0.130           0.000           0.000         0.130
    923.00          0.160           0.145           0.145         0.161
    926.00          0.350           0.747           0.891         0.352
    927.00          0.420           0.384           1.276         0.423

Device   Routing        Invert   Outlet Devices
   #1    Primary       922.00'   18.0"  Round Culvert
                                 L= 90.0'   RCP, square edge headwall,  Ke= 0.500
                                 Inlet / Outlet Invert= 922.00' / 921.00'   S= 0.0111 '/'   Cc= 0.900
                                 n= 0.013,  Flow Area= 1.77 sf
   #2    Device 1      922.00'   3.0" Vert. Orifice    C= 0.600   Limited to weir flow at low heads
   #3    Device 1      924.20'   36.0" Horiz. Grate    C= 0.600   Limited to weir flow at low heads
   #4    Primary       926.00'   10.0' long  + 5.0 '/' SideZ  x 10.0' breadth Broad-Crested Rectangular Weir
                                 Head (feet)  0.20  0.40  0.60  0.80  1.00  1.20  1.40  1.60
                                 Coef. (English)  2.49  2.56  2.70  2.69  2.68  2.69  2.67  2.64

Primary OutFlow  Max=14.96 cfs @ 12.40 hrs  HW=926.00'  TW=0.00'   (Dynamic Tailwater)
 ├─1=Culvert  (Barrel Controls 14.96 cfs @ 8.47 fps)
 │   ├─2=Orifice  (Passes < 0.47 cfs potential flow)
 │   └─3=Grate  (Passes < 45.67 cfs potential flow)
 └─4=Broad-Crested Rectangular Weir (Weir Controls 0.00 cfs @ 0.07 fps)
```

Pond 12P: Pond



Summary for Pond 13P: Pond

```
Inflow Area =        5.250 ac, 24.38% Impervious, Inflow Depth >  3.94"   for 100 yr event
Inflow      =      31.01 cfs @  12.18 hrs, Volume=          1.725 af
Outflow     =       9.41 cfs @  12.44 hrs, Volume=          1.425 af, Atten= 70%, Lag= 15.7 min
Primary     =       9.41 cfs @  12.44 hrs, Volume=          1.425 af
   Routed to Link 2L : Northwest Subwatershed

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 898.69' @ 12.44 hrs   Surf.Area= 0.324 ac   Storage= 0.824 af

Plug-Flow detention time= 167.3 min calculated for 1.422 af (82% of inflow)
Center-of-Mass det. time= 110.3 min ( 907.0 - 796.7 )

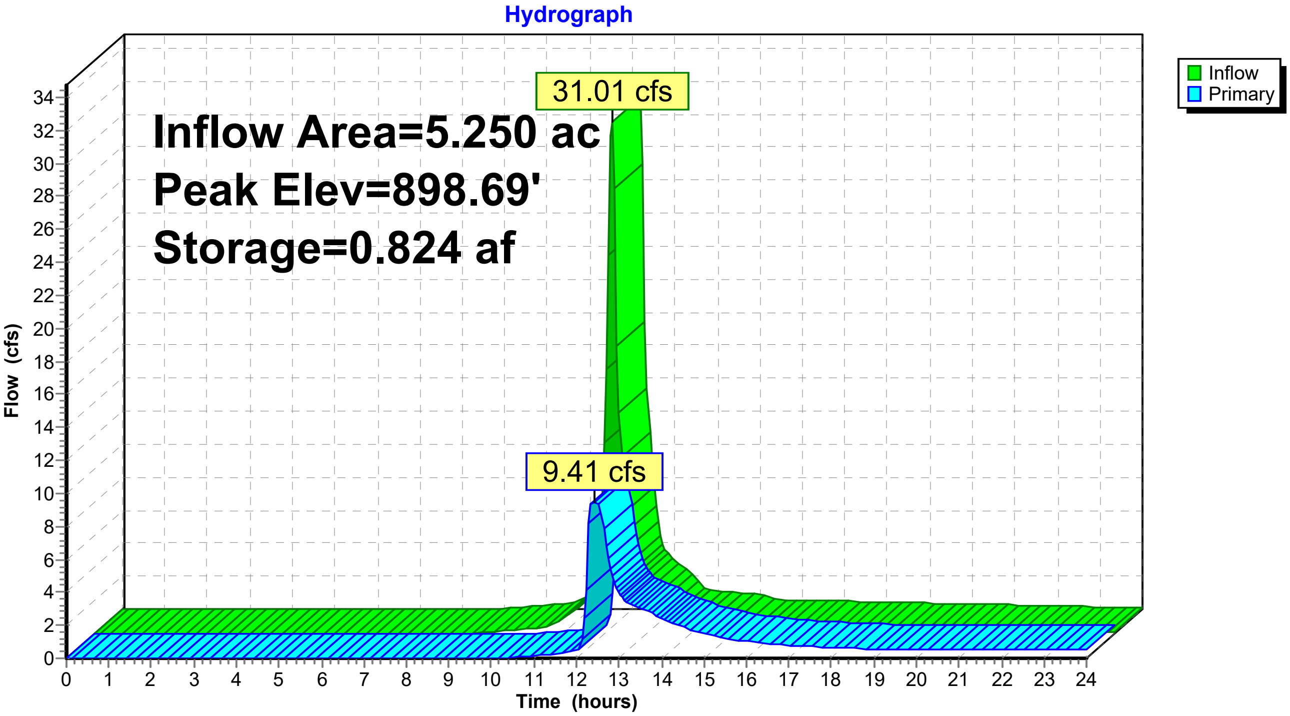
Volume     Invert   Avail.Storage   Storage Description
  #1      895.30'        1.216 af   Custom Stage Data (Conic)Listed below (Recalc)

 Elevation     Surf.Area      Inc.Store       Cum.Store      Wet.Area
    (feet)       (acres)    (acre-feet)     (acre-feet)       (acres)
    895.30         0.170          0.000           0.000         0.170
    896.00         0.200          0.129           0.129         0.200
    897.00         0.240          0.220           0.349         0.241
    898.00         0.290          0.265           0.614         0.292
    898.80         0.330          0.248           0.861         0.333
    899.80         0.380          0.355           1.216         0.384

Device   Routing         Invert   Outlet Devices
  #1     Primary        895.30'   15.0"  Round Culvert
                                  L= 50.0'   RCP, square edge headwall,  Ke= 0.500
                                  Inlet / Outlet Invert= 895.30' / 895.00'   S= 0.0060 '/'   Cc= 0.900
                                  n= 0.013,  Flow Area= 1.23 sf
  #2     Device 1       895.30'   4.0" Vert. Orifice   C= 0.600   Limited to weir flow at low heads
  #3     Device 1       897.30'   1.0' long x 1.00' rise Sharp-Crested Rectangular Weir
                                  2 End Contraction(s)
  #4     Device 1       898.30'   36.0" Horiz. Grate   C= 0.600   Limited to weir flow at low heads
  #5     Primary        898.80'   10.0' long  + 5.0 '/' SideZ  x 10.0' breadth Broad-Crested Rectangular Weir
                                  Head (feet)  0.20  0.40  0.60  0.80  1.00  1.20  1.40  1.60
                                  Coef. (English)  2.49  2.56  2.70  2.69  2.68  2.69  2.67  2.64

Primary OutFlow  Max=9.41 cfs @ 12.44 hrs  HW=898.68'  TW=0.00'   (Dynamic Tailwater)
↑—1=Culvert  (Barrel Controls 9.41 cfs @ 7.67 fps)
│  ↑—2=Orifice  (Passes < 0.75 cfs potential flow)
│  ├—3=Sharp-Crested Rectangular Weir (Passes < 3.64 cfs potential flow)
│  └—4=Grate  (Passes < 7.34 cfs potential flow)
└—5=Broad-Crested Rectangular Weir ( Controls 0.00 cfs)
```

Pond 13P: Pond

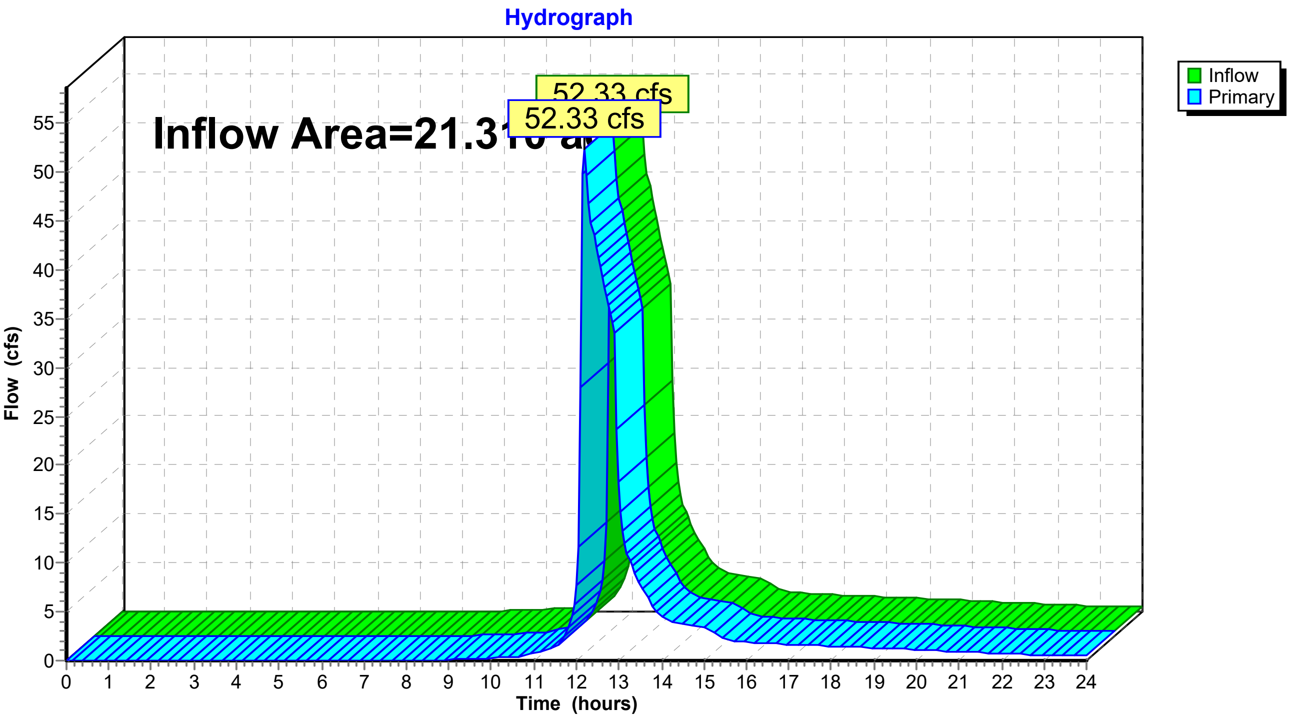


Summary for Link 1L: West Subwatershed

Inflow Area = 21.310 ac, 34.44% Impervious, Inflow Depth > 2.96" for 100 yr event
Inflow = 52.33 cfs @ 12.20 hrs, Volume= 5.250 af
Primary = 52.33 cfs @ 12.20 hrs, Volume= 5.250 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 99L

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 1L: West Subwatershed

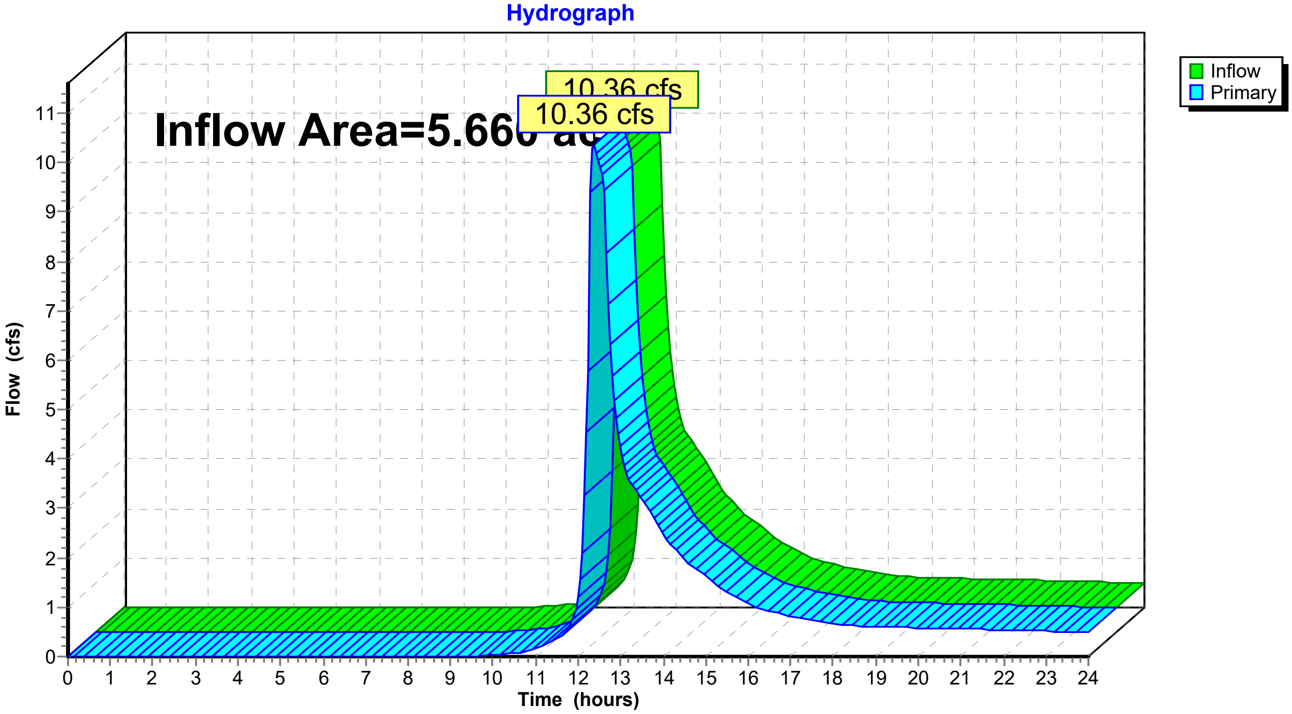


Summary for Link 2L: Northwest Subwatershed

```
Inflow Area =         5.660 ac,  23.14% Impervious,  Inflow Depth >   3.27"    for  100 yr event
Inflow      =       10.36 cfs @   12.37 hrs,  Volume=            1.543 af
Primary     =       10.36 cfs @   12.37 hrs,  Volume=            1.543 af,  Atten= 0%,  Lag= 0.0 min
     Routed to nonexistent node 99L
```

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 2L: Northwest Subwatershed

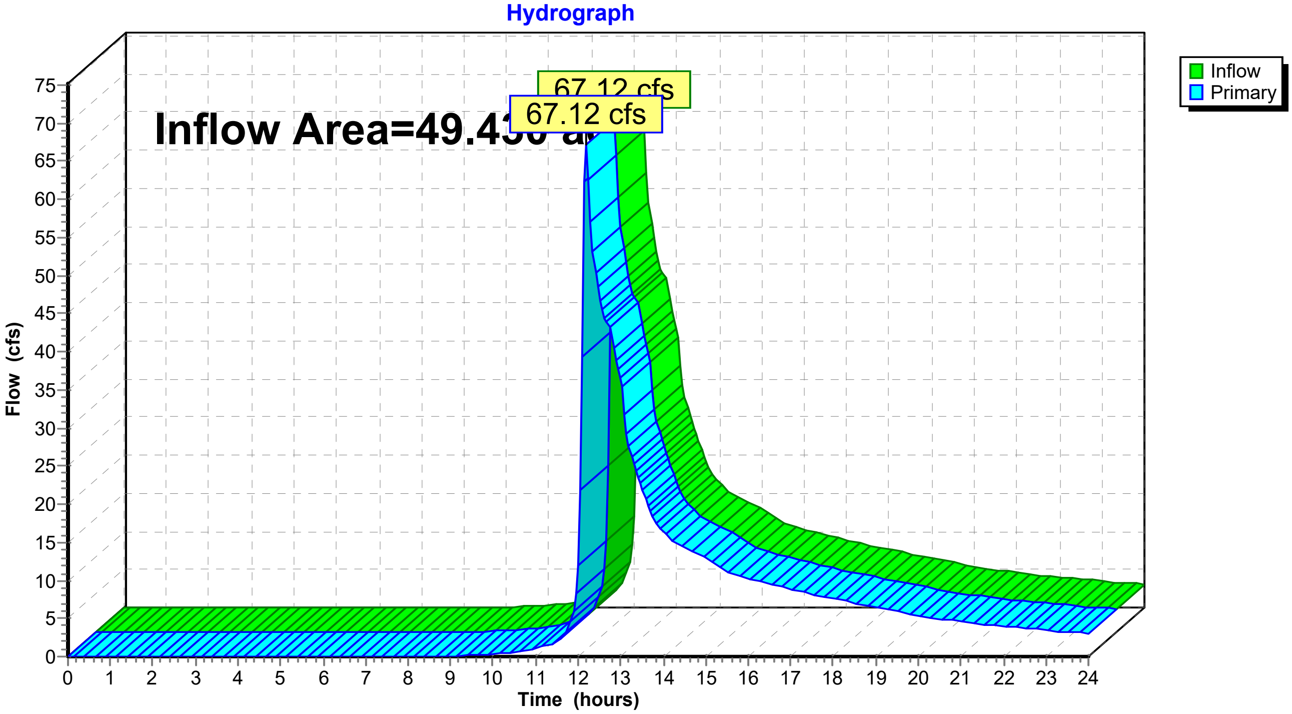


Summary for Link 3L: North Subwatershed (drainage swale)

```
Inflow Area =        49.430 ac,  30.87% Impervious,  Inflow Depth >   2.91"    for  100 yr event
Inflow       =        67.12 cfs @   12.20 hrs,  Volume=          12.002 af
Primary      =        67.12 cfs @   12.20 hrs,  Volume=          12.002 af,  Atten= 0%,  Lag= 0.0 min
    Routed to nonexistent node 99L
```

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 3L: North Subwatershed (drainage swale)

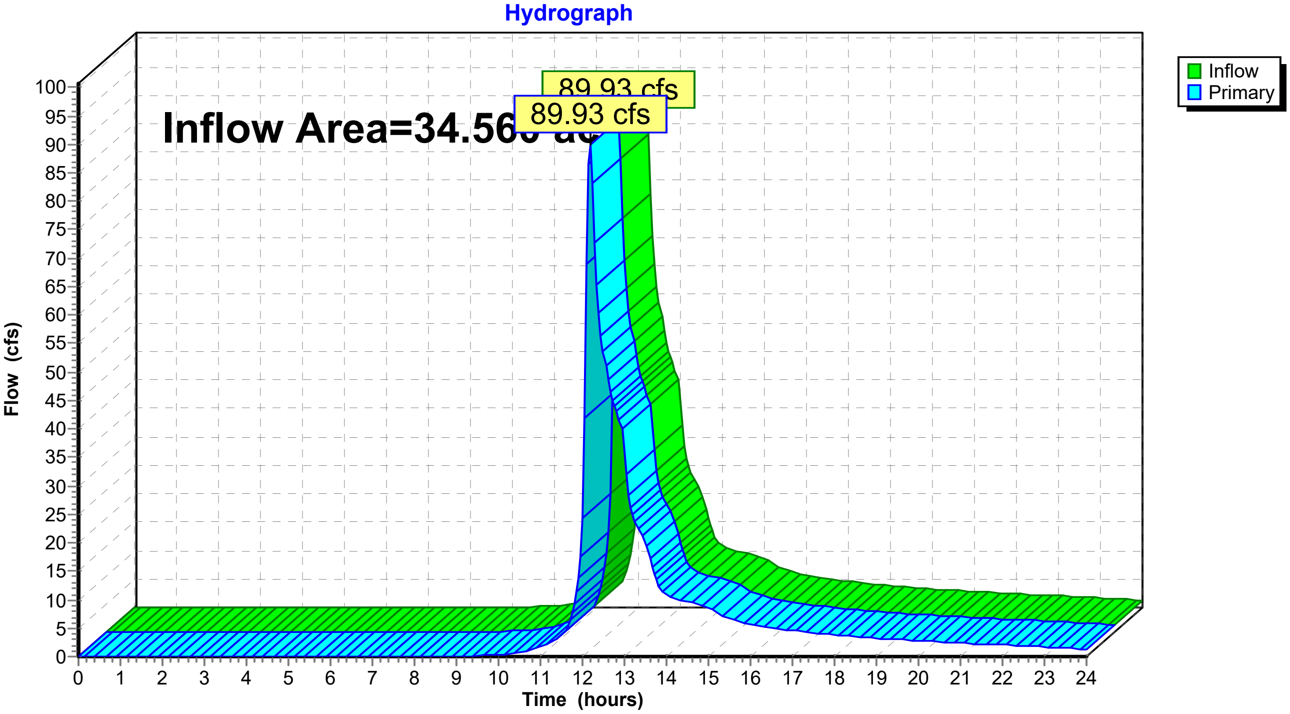


Summary for Link 4L: Southeast Subwatershed

Inflow Area = 34.560 ac, 23.06% Impervious, Inflow Depth > 3.52" for 100 yr event
Inflow = 89.93 cfs @ 12.19 hrs, Volume= 10.150 af
Primary = 89.93 cfs @ 12.19 hrs, Volume= 10.150 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 99L

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 4L: Southeast Subwatershed



Events for Subcatchment 1: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	14.43	0.802	0.87
2 yr	2.70	18.14	1.001	1.09
10 yr	3.81	32.93	1.806	1.96
100 yr	**6.18**	**66.94**	**3.726**	**4.05**

Events for Subcatchment 2: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	3.38	0.157	1.16
2 yr	2.70	4.08	0.190	1.41
10 yr	3.81	6.77	0.321	2.37
100 yr	**6.18**	**12.61**	**0.618**	**4.58**

Events for Subcatchment 3: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	18.90	1.223	1.10
2 yr	2.70	23.09	1.490	1.34
10 yr	3.81	39.32	2.546	2.29
100 yr	**6.18**	**75.17**	**4.976**	**4.47**

Events for Subcatchment 4: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	4.65	0.265	0.72
2 yr	2.70	6.01	0.336	0.92
10 yr	3.81	11.57	0.635	1.74
100 yr	**6.18**	**24.71**	**1.367**	**3.74**

Events for Subcatchment 5: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	2.54	0.146	0.68
2 yr	2.70	3.32	0.187	0.87
10 yr	3.81	6.54	0.359	1.66
100 yr	**6.18**	**14.21**	**0.785**	**3.63**

Events for Subcatchment 6: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	12.26	0.678	0.92
2 yr	2.70	15.29	0.841	1.15
10 yr	3.81	27.25	1.496	2.04
100 yr	**6.18**	**54.50**	**3.044**	**4.15**

Events for Subcatchment 7a: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	6.76	0.385	0.72
2 yr	2.70	8.74	0.489	0.92
10 yr	3.81	16.82	0.923	1.74
100 yr	**6.18**	**35.91**	**1.987**	**3.74**

Events for Subcatchment 7b: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	7.74	0.426	0.98
2 yr	2.70	9.57	0.526	1.21
10 yr	3.81	16.77	0.923	2.12
100 yr	**6.18**	**33.02**	**1.852**	**4.26**

Events for Subcatchment 8: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	4.88	0.278	0.72
2 yr	2.70	6.31	0.353	0.92
10 yr	3.81	12.15	0.667	1.74
100 yr	**6.18**	**25.95**	**1.435**	**3.74**

Events for Subcatchment 9: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	19.06	0.884	0.98
2 yr	2.70	23.51	1.090	1.21
10 yr	3.81	40.89	1.913	2.12
100 yr	**6.18**	**79.67**	**3.839**	**4.26**

Events for Subcatchment 10: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	2.16	0.123	0.72
2 yr	2.70	2.79	0.156	0.92
10 yr	3.81	5.38	0.295	1.74
100 yr	**6.18**	**11.48**	**0.635**	**3.74**

Events for Subcatchment 11: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	14.06	0.652	0.98
2 yr	2.70	17.34	0.804	1.21
10 yr	3.81	30.16	1.411	2.12
100 yr	**6.18**	**58.76**	**2.831**	**4.26**

Events for Subcatchment 12: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	8.59	0.480	0.82
2 yr	2.70	10.89	0.603	1.03
10 yr	3.81	20.14	1.104	1.88
100 yr	**6.18**	**41.52**	**2.309**	**3.94**

Events for Subcatchment 13: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	6.41	0.359	0.82
2 yr	2.70	8.13	0.450	1.03
10 yr	3.81	15.04	0.825	1.88
100 yr	**6.18**	**31.01**	**1.725**	**3.94**

Events for Subcatchment 14: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	0.34	0.020	0.59
2 yr	2.70	0.46	0.026	0.77
10 yr	3.81	0.94	0.052	1.52
100 yr	**6.18**	**2.13**	**0.117**	**3.43**

Events for Subcatchment 15: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	4.53	0.258	0.72
2 yr	2.70	5.86	0.328	0.92
10 yr	3.81	11.28	0.619	1.74
100 yr	**6.18**	**24.09**	**1.333**	**3.74**

Events for Subcatchment 16: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	10.50	0.612	0.63
2 yr	2.70	13.88	0.789	0.82
10 yr	3.81	27.91	1.536	1.59
100 yr	**6.18**	**61.86**	**3.407**	**3.53**

Events for Subcatchment 17: Subarea

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 yr	2.40	3.77	0.215	0.72
2 yr	2.70	4.88	0.273	0.92
10 yr	3.81	9.38	0.515	1.74
100 yr	**6.18**	**20.04**	**1.108**	**3.74**

Events for Pond 1B: Basin

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	14.43	0.98	0.11	0.87	0.452	934.48	0.474
2 yr	18.14	1.28	0.12	1.16	0.621	934.78	0.586
10 yr	32.93	2.00	0.16	1.84	1.301	935.84	1.119
100 yr	**66.94**	**5.66**	**0.24**	**5.42**	**2.524**	**937.46**	**2.350**

Events for Pond 2B: Basin

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	3.38	0.96	0.37	0.59	0.187	931.39	0.119
2 yr	4.06	1.35	0.38	0.97	0.368	931.52	0.132
10 yr	7.47	2.51	0.42	2.09	1.115	931.84	0.167
100 yr	**14.38**	**10.63**	**0.49**	**10.14**	**2.529**	**932.38**	**0.234**

Events for Pond 3P: Pond

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	18.90	0.43	0.418	925.48	0.908
2 yr	23.09	2.33	0.656	925.63	0.959
10 yr	39.32	19.78	1.669	926.10	1.127
100 yr	**75.32**	**36.55**	**4.142**	**927.84**	**1.822**

Events for Pond 4B: Basin

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	4.65	1.05	1.05	0.00	0.000	936.14	0.080
2 yr	6.01	1.13	1.13	0.00	0.000	936.32	0.115
10 yr	11.57	1.51	1.51	0.00	0.000	937.08	0.271
100 yr	**24.71**	**2.99**	**2.60**	**0.39**	**0.074**	**938.54**	**0.661**

Events for Pond 5RG: Rain Garden

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	2.54	0.19	0.01	0.19	0.099	923.51	0.080
2 yr	3.32	0.24	0.01	0.23	0.139	923.86	0.104
10 yr	6.54	2.54	0.01	2.53	0.302	924.42	0.153
100 yr	**14.21**	**13.06**	**0.01**	**13.05**	**0.704**	**924.80**	**0.194**

Events for Pond 6P: Pond

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	12.26	0.37	0.352	912.56	0.513
2 yr	15.30	1.44	0.518	912.69	0.547
10 yr	27.46	13.29	1.293	913.06	0.650
100 yr	**66.31**	**25.56**	**3.223**	**914.99**	**1.310**

Events for Pond 7P: Pond

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	8.67	1.16	0.620	920.11	0.361
2 yr	13.64	1.56	0.812	920.33	0.475
10 yr	31.46	4.08	1.604	921.04	0.890
100 yr	**66.09**	**12.97**	**3.520**	**922.28**	**1.829**

Events for Pond 7RG: Rain Garden

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	6.76	3.79	0.02	3.77	0.291	922.35	0.112
2 yr	8.74	6.20	0.02	6.19	0.395	922.45	0.125
10 yr	16.82	15.45	0.02	15.43	0.827	922.71	0.160
100 yr	**35.91**	**34.14**	**0.02**	**34.12**	**1.887**	**923.08**	**0.218**

Events for Pond 8B: Basin

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	4.88	0.16	0.01	0.15	0.127	917.29	0.187
2 yr	6.31	0.20	0.01	0.20	0.170	917.56	0.238
10 yr	12.15	0.33	0.01	0.32	0.292	918.66	0.474
100 yr	**25.95**	**9.76**	**0.02**	**9.74**	**0.926**	**919.45**	**0.683**

Events for Pond 9P: Pond

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	19.06	0.29	0.279	899.66	0.750
2 yr	23.51	0.35	0.321	900.07	0.953
10 yr	40.99	2.16	1.164	900.73	1.303
100 yr	**79.95**	**8.76**	**3.663**	**902.93**	**2.697**

Events for Pond 10B: Basin

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	2.16	0.09	0.09	0.00	0.000	911.88	0.073
2 yr	2.79	0.10	0.10	0.00	0.000	912.16	0.099
10 yr	5.38	0.12	0.12	0.00	0.000	912.89	0.208
100 yr	**11.48**	**0.34**	**0.17**	**0.17**	**0.123**	**914.16**	**0.449**

Events for Pond 11P: Pond

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	14.06	0.39	0.310	914.08	0.450
2 yr	17.34	0.85	0.439	914.31	0.517
10 yr	30.16	3.31	1.008	915.09	0.778
100 yr	**58.76**	**15.76**	**2.395**	**916.48**	**1.332**

Events for Pond 12P: Pond

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	8.59	0.31	0.289	923.89	0.309
2 yr	10.89	0.60	0.346	924.24	0.385
10 yr	20.14	8.01	0.797	924.59	0.470
100 yr	**41.52**	**14.97**	**1.959**	**926.00**	**0.892**

Events for Pond 13P: Pond

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)	Elevation (feet)	Storage (acre-feet)
1 yr	6.41	0.40	0.303	896.37	0.206
2 yr	8.13	0.46	0.367	896.65	0.268
10 yr	15.04	1.11	0.609	897.60	0.501
100 yr	**31.01**	**9.41**	**1.425**	**898.69**	**0.824**

Events for Link 1L: West Subwatershed

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)
1 yr	4.01	4.01	0.632
2 yr	5.15	5.15	0.929
10 yr	22.80	22.80	2.184
100 yr	**52.33**	**52.33**	**5.250**

Events for Link 2L: Northwest Subwatershed

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)
1 yr	0.58	0.58	0.323
2 yr	0.75	0.75	0.393
10 yr	1.38	1.38	0.661
100 yr	**10.36**	**10.36**	**1.543**

Events for Link 3L: North Subwatershed (drainage swale)

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)
1 yr	5.14	5.14	1.324
2 yr	6.56	6.56	1.802
10 yr	18.21	18.21	4.703
100 yr	**67.12**	**67.12**	**12.002**

Events for Link 4L: Southeast Subwatershed

Event	Inflow (cfs)	Primary (cfs)	Volume (acre-feet)
1 yr	10.98	10.98	1.584
2 yr	14.56	14.56	2.119
10 yr	30.27	30.27	4.432
100 yr	**89.93**	**89.93**	**10.150**

APPENDIX C

Treatment Analysis

Treatment Analysis Results

FOR: Welshire Farm

LOCATION: Town of Delafield, Wisconsin

Land Use	**Total Loading (lbs)**	**BMP Type**	**BMP**		**Total Solids Yield (lbs)**	**% TSS Removed**
			lbs IN	**lbs OUT**		
Subarea 1	2243	Bioretention Basin 1B and Disconnected roof/patios	2243	239	drains to 2B	89.3%
Subarea 2	506	Infiltration Basin 2B Disconnected roof/patios	746	484	484	35.1%
Subarea 3	4323	Pond 3P	4323	747	747	82.7%
Subarea 4	528	Infiltration Basin 4B and Disconnected roof/patios	528	0	0	100.0%
Subarea 5	312	Rain Garden 5B and Disconnected roof/patios	312	91	drains to 6P	70.8%
Subarea 6	2658	Pond 6P and Disconnected roof/patios	2750	501	501	81.8%
Subarea 7a	808	Rain Garden 7B and Disconnected roof/patios	808	186	drains to 7P	77.1%
Subarea 7b	1238	Pond 7P and Disconnected roof/patios	1423	212	212	85.1%
Subarea 8	515	Infiltration Basin 8B and Disconnected roof/patios	515	128	drains to 9P	75.1%
Subarea 9	3094	Pond 9P and Disconnected roof/patios	3222	259	259	92.0%
Subarea 10	225	Infiltration Basin 10B and Disconnected roof/patios	225	0	0	100.0%
Subarea 11	2530	Pond 11P	2530	414	414	83.6%
Subarea 12	1393	Infiltration Basin 12B and Disconnected roof/patios	1393	220	220	84.2%
Subarea 13	1084	Infiltration Basin 13B and Disconnected roof/patios	1084	164	164	84.9%
Subarea 14	51	--	51	51	51	0.0%
Subarea 15	341	Disconnection of roof/patios	341	165	165	51.5%
Subarea 16	1087	Disconnection of roof/patios	1087	838	838	22.9%
Subarea 17	288	Disconnection of roof/patios	288	164	164	43.0%
Total	***23225***	**--**	**--**	**--**	***4219***	***81.8%***

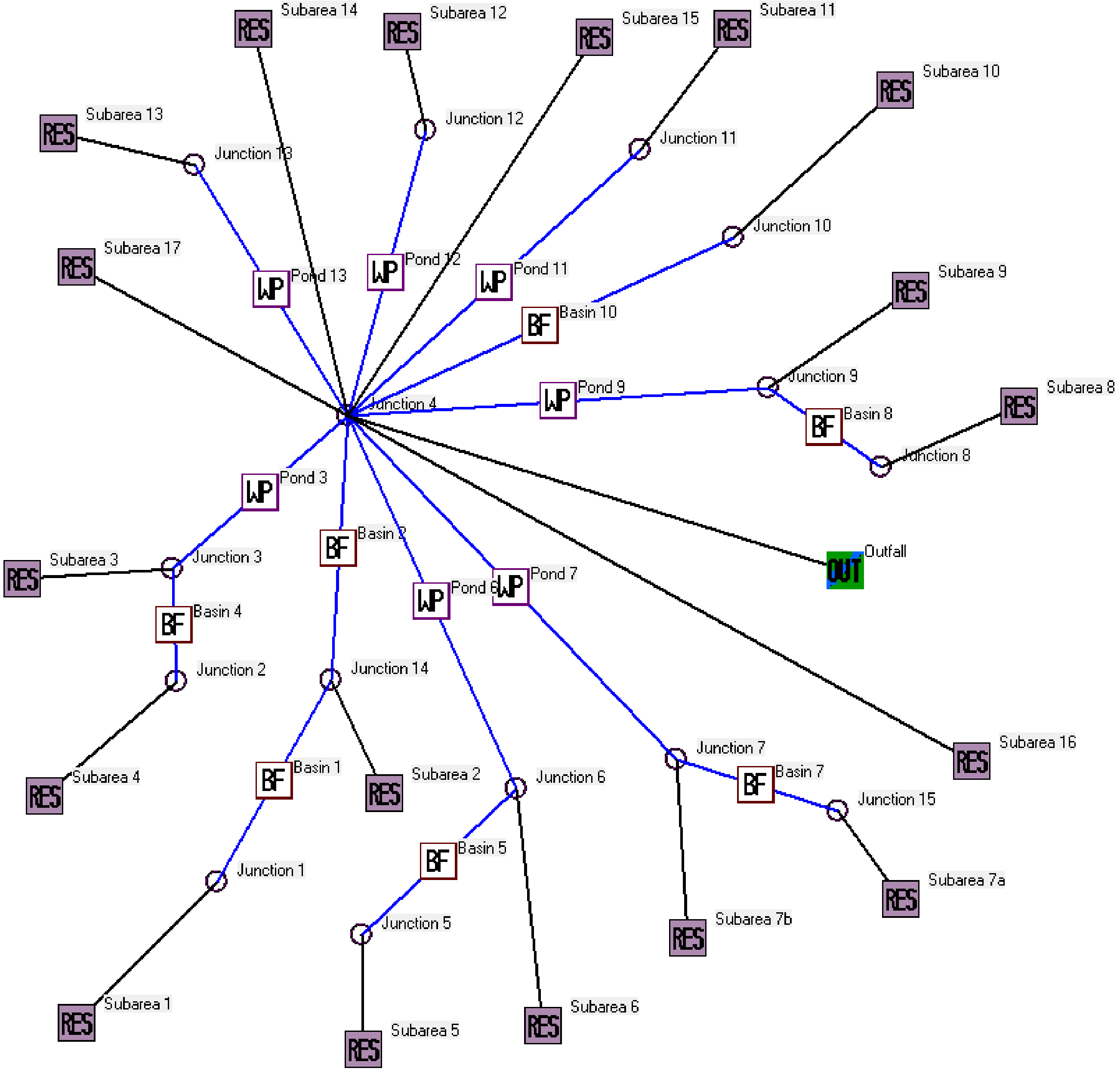
Connected Model Total lbs without Controls = 23225 lbs (from WinSLAMM output)

Disconnected Model Total lbs with Controls = 4219 lbs (from WinSLAMM output)

Total lbs Removed = 23225 - 4219 = 19006 lbs

% TSS Removed = 100 x (19006 / 23225) = 81.8 %

Treatment Analysis - Connected Model



```
SLAMM for Windows Version 10.4.1
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Data file name:  D:\Jobs\2023\2023-003 - Thomas Farm - Welshire Farm -
TRIO\Project_Information\Calcs\SLAMM\Treatment_Connected.mdb
Data file description:
Rain file name:  C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name:  C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name:  C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name:  C:\WinSLAMM Files\WI_GEO03.ppdx
Residential Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name:  C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance:  False
Source Area PSD and Peak to Average Flow Ratio File:  C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load
% Reduction calculations
Seed for random number generator:  -42
Start of Winter Season:  12/06              End of Winter Season:  03/28
Model Run Start Date:  01/05/69    Model Run End Date:  12/31/69
Date of run:  06-21-2023    Time of run:  14:07:31
Total Area Modeled (acres):  110.280
Years in Model Run:  0.99

                                                      Runoff     Percent Particulate Particulate     Percent
                                                      Volume      Runoff      Solids      Solids Particulate
                                                     (cu ft)      Volume       Conc.       Yield      Solids
                                                               Reduction      (mg/L)       (lbs)   Reduction

Total of all Land Uses without Controls:           3.435E+06           -       108.3       23225          -
Outfall Total with Controls:                       2.834E+06      17.50%       30.07        5321      77.09%
Annualized Total After Outfall Controls:           2.874E+06                                5395
```

```
Data file name:  D:\Jobs\2023\2023-003 - Thomas Farm - Welshire Farm -
TRIO\Project_Information\Calcs\SLAMM\Treatment_Connected.mdb
WinSLAMM Version 10.4.1
Rain file name:  C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name:  C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name:  C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name:  C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance:  False
Pollutant Relative Concentration file name:  C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File:  C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load
% Reduction calculations
Seed for random number generator:  -42
Study period starting date:  01/05/69       Study period ending date:  12/31/69
Start of Winter Season:  12/06              End of Winter Season:  03/28
Date:  06-21-2023                           Time:  14:07:49
Site information:

LU# 1 - Residential:  Subarea 1     Total area (ac):  11.050
     1 - Roofs 1:  0.820 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.810 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     13 - Paved Parking 1:  0.010 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.080 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     26 - Driveways 2:  0.350 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.130 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.120 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.230 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.620 ac.    Smooth    Street Length = 0.353 curb-mi    Street Width (assuming two curb-
mi per street mile) = 28.98017 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

```
     51 - Small Landscaped Areas 1:  6.510 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  1.130 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     70 - Water Body Areas:  0.240 ac.    Source Area PSD File: 
LU# 2 - Residential:  Subarea 2     Total area (ac):  1.620
     1 - Roofs 1:  0.150 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.140 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.160 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.020 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.020 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.200 ac.    Smooth    Street Length = 0.114 curb-mi    Street Width (assuming two curb-
mi per street mile) = 28.94737 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.840 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.090 ac.    Source Area PSD File: 
LU# 3 - Residential:  Subarea 3     Total area (ac):  13.360
     1 - Roofs 1:  1.120 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  1.120 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.680 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     26 - Driveways 2:  0.610 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.190 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.190 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.050 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.760 ac.    Smooth    Street Length = 1.001 curb-mi    Street Width (assuming two curb-
mi per street mile) = 29.01099 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  7.390 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.050 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     70 - Water Body Areas:  0.200 ac.    Source Area PSD File: 
LU# 4 - Residential:  Subarea 4     Total area (ac):  4.390
     1 - Roofs 1:  0.500 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.080 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.630 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

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     70 - Water Body Areas:  0.180 ac.    Source Area PSD File:
LU# 5 - Residential:  Subarea 5     Total area (ac):  2.590
     1 - Roofs 1:  0.250 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.040 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  2.270 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.030 ac.    Source Area PSD File:
LU# 6 - Residential:  Subarea 6     Total area (ac):  8.800
     1 - Roofs 1:  0.360 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.350 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     13 - Paved Parking 1:  0.260 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.310 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.050 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.200 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.400 ac.    Smooth    Street Length = 0.797 curb-mi    Street Width (assuming two curb-
mi per street mile) = 28.98369 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  4.250 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  1.410 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     70 - Water Body Areas:  0.150 ac.    Source Area PSD File:
LU# 7 - Residential:  Subarea 7b     Total area (ac):  5.220
     1 - Roofs 1:  0.390 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.390 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.330 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.070 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.430 ac.    Smooth    Street Length = 0.245 curb-mi    Street Width (assuming two curb-
mi per street mile) = 28.95918 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  2.800 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.390 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     70 - Water Body Areas:  0.360 ac.    Source Area PSD File:
LU# 8 - Residential:  Subarea 8     Total area (ac):  4.610
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```
     1 - Roofs 1:  0.470 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.080 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.170 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  2.940 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.790 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     70 - Water Body Areas:  0.160 ac.    Source Area PSD File: 
LU# 9 - Residential:  Subarea 9     Total area (ac):  10.820
     1 - Roofs 1:  0.620 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.620 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.640 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.110 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.100 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.030 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.390 ac.    Smooth    Street Length = 0.791 curb-mi    Street Width (assuming two curb-
mi per street mile) = 28.99494 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  6.900 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.410 ac.    Source Area PSD File: 
LU# 10 - Residential:  Subarea 10     Total area (ac):  2.040
     1 - Roofs 1:  0.190 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.030 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.030 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  1.500 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.160 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     70 - Water Body Areas:  0.130 ac.    Source Area PSD File: 
LU# 11 - Residential:  Subarea 11     Total area (ac):  7.980
     1 - Roofs 1:  0.960 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.640 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.170 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.050 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.140 ac.    Smooth    Street Length = 0.649 curb-mi    Street Width (assuming two curb-
mi per street mile) = 28.98305 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

```
     51 - Small Landscaped Areas 1:  4.830 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.190 ac.    Source Area PSD File:
LU# 12 - Residential:  Subarea 12     Total area (ac):  7.030
     1 - Roofs 1:  0.440 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.430 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.290 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.070 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.190 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.400 ac.    Smooth    Street Length = 0.228 curb-mi    Street Width (assuming two curb-
mi per street mile) = 28.94737 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.960 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  1.060 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     70 - Water Body Areas:  0.130 ac.    Source Area PSD File:
LU# 13 - Residential:  Subarea 13     Total area (ac):  5.250
     1 - Roofs 1:  0.250 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.250 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.170 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.040 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.040 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.360 ac.    Smooth    Street Length = 0.205 curb-mi    Street Width (assuming two curb-
mi per street mile) = 28.97561 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.970 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.170 ac.    Source Area PSD File:
LU# 14 - Residential:  Subarea 14     Total area (ac):  0.410
     37 - Streets 1:  0.030 ac.    Smooth    Street Length = 0.017 curb-mi    Street Width (assuming two curb-
mi per street mile) = 29.11765 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.160 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

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     57 - Undeveloped Areas 1:  0.220 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
LU# 15 - Residential:  Subarea 15     Total area (ac):  4.280
     1 - Roofs 1:  0.340 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.180 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.130 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.020 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  1.230 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  2.320 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
LU# 16 - Residential:  Subarea 16     Total area (ac):  10.890
     1 - Roofs 1:  0.500 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.020 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     26 - Driveways 2:  0.160 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.080 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.030 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.330 ac.    Smooth    Street Length = 0.188 curb-mi    Street Width (assuming two curb-
mi per street mile) = 28.96277 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.370 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  6.340 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
LU# 17 - Residential:  Subarea 17     Total area (ac):  3.560
     1 - Roofs 1:  0.490 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.010 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.100 ac.    Smooth    Street Length = 5.689655E-02 curb-mi    Street Width (assuming
two curb-mi per street mile) = 29 ft
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.220 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  2.680 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
LU# 18 - Residential:  Subarea 7a     Total area (ac):  6.380
     1 - Roofs 1:  0.680 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.110 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
```

```
     32 - Sidewalks 2:  0.210 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  5.050 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.330 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

      Control Practice 1:  Wet Detention Pond CP# 1 (DS) - Pond 3
         Particle Size Distribution file name:  Not needed - calculated by program
         Initial stage elevation (ft):   5
         Peak to Average Flow Ratio:   3.8
         Maximum flow allowed into pond (cfs):  No maximum value entered
         Outlet Characteristics:
              Outlet type:  Orifice 1
                     1.  Orifice diameter (ft):   0.25
                     2.  Number of orifices:   1
                     3.  Invert elevation above datum (ft):   5
              Outlet type:  Broad Crested Weir
                     1.  Weir crest length (ft):   10
                     2.  Weir crest width (ft):   10
                     3.  Height from datum to bottom of weir opening:   11
              Outlet type:  Vertical Stand Pipe
                     1.  Stand pipe diameter (ft):   4
                     2.  Stand pipe height above datum (ft):   8.5
         Pond stage and surface area
                   Entry       Stage     Pond Area   Natural Seepage   Other Outflow
                   Number      (ft)      (acres)              (in/hr)                  (cfs)
                      0           0.00        0.0000            0.00                     0.00
                      1           0.01        0.0500            0.00                     0.00
                      2           4.00        0.1500            0.00                     0.00
                      3           5.00        0.2000            0.00                     0.00
                      4           6.00        0.2300            0.00                     0.00
                      5           7.00        0.2700            0.00                     0.00
                      6           8.00        0.3100            0.00                     0.00
                      7           9.00        0.3600            0.00                     0.00
                      8           10.00        0.4000            0.00                     0.00
                      9           11.00        0.4500            0.00                     0.00
                      10           12.00        0.5300            0.00                     0.00

      Control Practice 2:  Biofilter CP# 1 (DS) - Basin 4
```

```
   1.  Top area (square feet) =  31089
   2.  Bottom aea (square feet) =  7746
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  3.6
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   3.6
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  0
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
   Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Soil Type         1.000
        Saturation water content percent (Porosity) =   0
        Field capacity (%) =   0
        Permanent Wilting Point (%) =   0
        Infiltration rate (in/hr) =   3.6
   Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   3.75
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.33
               2.  Pipe invert elevation above datum (ft):   2.5
               3.  Number of surface pipe outlets:   1

Control Practice 3:  Biofilter CP# 2 (DS) - Basin 5
```

```
   1.  Top area (square feet) =  8150
   2.  Bottom aea (square feet) =  1446
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.07
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.07
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
   Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Soil Type         1.000
        Saturation water content percent (Porosity) =   0
        Field capacity (%) =   0
        Permanent Wilting Point (%) =   0
        Infiltration rate (in/hr) =   0.07
   Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   3.25
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.25
               2.  Pipe invert elevation above datum (ft):   1.75
               3.  Number of surface pipe outlets:   1

Control Practice 4:  Wet Detention Pond CP# 2 (DS) - Pond 6
```

```
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   10
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   4
               2.  Stand pipe height above datum (ft):   7.6
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0100            0.00                     0.00
                2           4.00        0.1000            0.00                     0.00
                3           5.00        0.1500            0.00                     0.00
                4           7.00        0.2300            0.00                     0.00
                5           9.00        0.3400            0.00                     0.00
                6           11.00        0.4700            0.00                     0.00

Control Practice 5:  Wet Detention Pond CP# 3 (DS) - Pond 7
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Sharp Crested Weir
               1.  Sharp crested weir length (ft):   1
               2.  Sharp crested weir height from invert:   3.1
               3.  Sharp crested weir invert elevation above datum (ft):   5.9
        Outlet type:  Orifice 1
```

```
               1.  Orifice diameter (ft):   0.67
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   8
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   7.2
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00       0.0000           0.00                     0.00
                1           0.01       0.1500           0.00                     0.00
                2           4.00       0.3000           0.00                     0.00
                3           5.00       0.3900           0.00                     0.00
                4           8.00       0.8700           0.00                     0.00
                5           9.00       1.1700           0.00                     0.00

Control Practice 6:  Biofilter CP# 3 (DS) - Basin 8
   1.  Top area (square feet) =  20057
   2.  Bottom aea (square feet) =  7055
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.04
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.04
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
```

```
   18. Initial water surface elevation (ft):   0
   Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Soil Type         1.000
        Saturation water content percent (Porosity) =   0
        Field capacity (%) =   0
        Permanent Wilting Point (%) =   0
        Infiltration rate (in/hr) =   0.04
   Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   3.5
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.25
               2.  Pipe invert elevation above datum (ft):   1.25
               3.  Number of surface pipe outlets:   1

Control Practice 7:  Wet Detention Pond CP# 4 (DS) - Pond 9
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Orifice 2
               1.  Orifice diameter (ft):   1
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   7
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   10
```

```
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   9.75
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00       0.0000             0.00                     0.00
                1           0.01       0.1500             0.00                     0.00
                2           4.00       0.3500             0.00                     0.00
                3           5.00       0.4100             0.00                     0.00
                4           6.00       0.4600             0.00                     0.00
                5           8.00       0.5600             0.00                     0.00
                6           10.00       0.7400             0.00                     0.00
                7           11.00       0.8100             0.00                     0.00

Control Practice 8:  Biofilter CP# 4 (DS) - Basin 10
   1.  Top area (square feet) =  12432
   2.  Bottom aea (square feet) =  5480
   3.  Depth (ft):   6
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.5
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.5
   12.  Engineered soil depth (ft) =  2
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
   Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Soil Type         1.000
        Saturation water content percent (Porosity) =   0
        Field capacity (%) =   0
```

```
        Permanent Wilting Point (%) =   0
        Infiltration rate (in/hr) =   0.5
   Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   5
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   4.5
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.25
               2.  Pipe invert elevation above datum (ft):   3.5
               3.  Number of surface pipe outlets:   1

Control Practice 9:  Wet Detention Pond CP# 5 (DS) - Pond 11
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Sharp Crested Weir
               1.  Sharp crested weir length (ft):   1
               2.  Sharp crested weir height from invert:   3.5
               3.  Sharp crested weir invert elevation above datum (ft):   6.8
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   9.3
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   8.3
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
```

```
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0500            0.00                     0.00
                2           4.00        0.1200            0.00                     0.00
                3           5.00        0.1900            0.00                     0.00
                4           7.80        0.3500            0.00                     0.00
                5           9.80        0.4800            0.00                     0.00
                6           10.30        0.5200            0.00                     0.00

Control Practice 10:  Wet Detention Pond CP# 6 (DS) - Pond 12
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   9
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   7.2
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.10        0.0100            0.00                     0.00
                2           4.00        0.1000            0.00                     0.00
                3           5.00        0.1300            0.00                     0.00
                4           6.00        0.1600            0.00                     0.00
                5           9.00        0.3500            0.00                     0.00
                6           10.00        0.4200            0.00                     0.00

Control Practice 11:  Wet Detention Pond CP# 7 (DS) - Pond 13
```

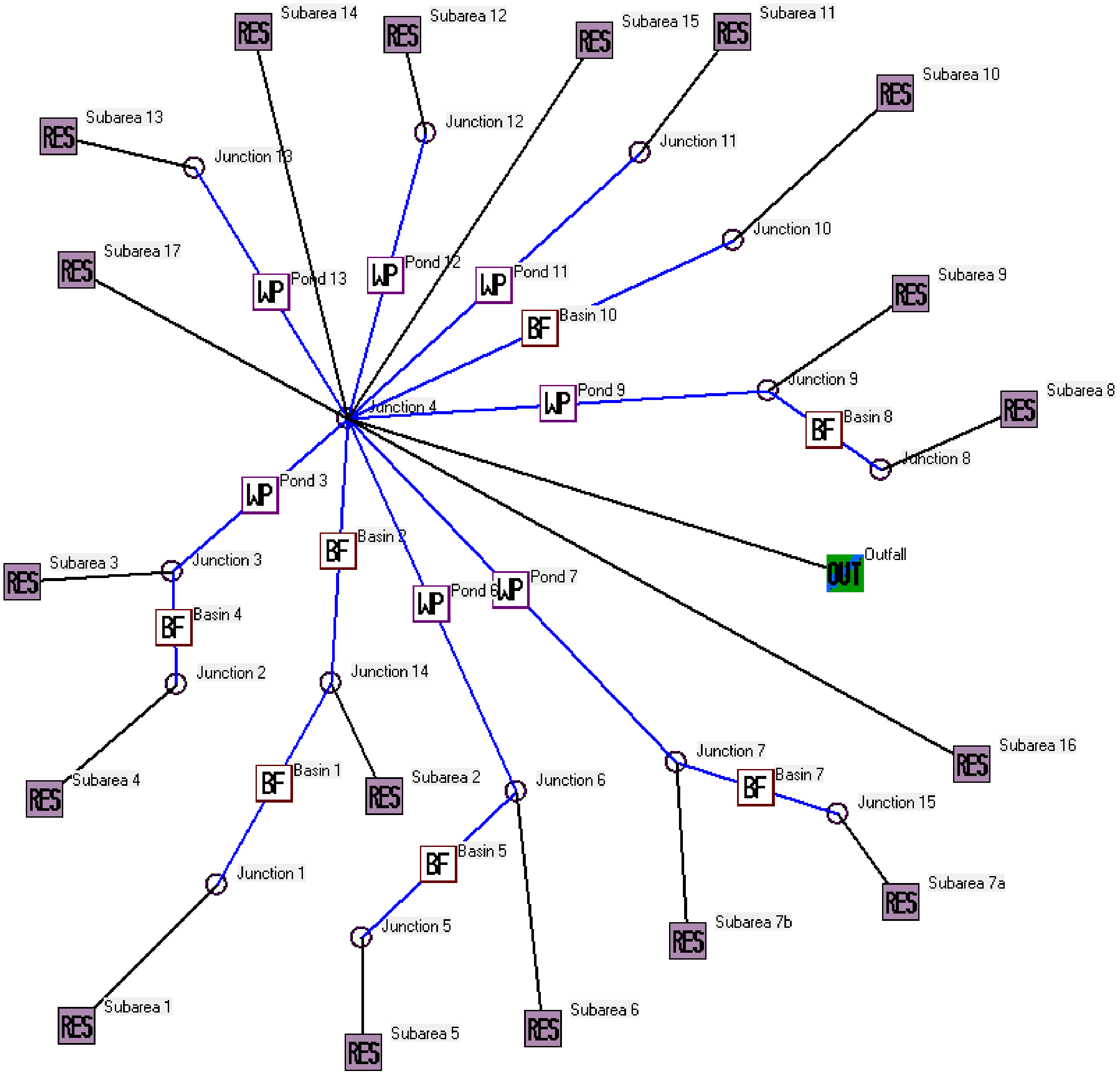
```
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Sharp Crested Weir
               1.  Sharp crested weir length (ft):   1
               2.  Sharp crested weir height from invert:   2.5
               3.  Sharp crested weir invert elevation above datum (ft):   7
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.33
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   8.5
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   8
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0300            0.00                     0.00
                2           4.00        0.1000            0.00                     0.00
                3           5.00        0.1700            0.00                     0.00
                4           5.70        0.2000            0.00                     0.00
                5           6.70        0.2400            0.00                     0.00
                6           7.70        0.2900            0.00                     0.00
                7           8.50        0.3300            0.00                     0.00
                8           9.50        0.3800            0.00                     0.00

Control Practice 12:  Biofilter CP# 5 (DS) - Basin 1
   1.  Top area (square feet) =  58153
   2.  Bottom aea (square feet) =  9693
   3.  Depth (ft):   8
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
```

```
   5.  Infiltration rate (in/hr) =  0.11
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 1
   10.  Porosity of rock filled volume =  0.33
   11.  Engineered soil infiltration rate:   3.6
   12.  Engineered soil depth (ft) =  2
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
   Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Soil Type         1.000
        Saturation water content percent (Porosity) =   0
        Field capacity (%) =   0
        Permanent Wilting Point (%) =   0
        Infiltration rate (in/hr) =   3.6
   Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   7
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   6.75
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.5
               2.  Pipe invert elevation above datum (ft):   3.5
               3.  Number of surface pipe outlets:   1
       Outlet type:  Drain Tile/Underdrain
               1.  Underdrain outlet diameter (ft):   0.33
               2.  Invert elevation above datum (ft):   0.75
               3.  Number of underdrain outlets:   1

Control Practice 13:  Biofilter CP# 6 (DS) - Basin 2
```

```
   1.  Top area (square feet) =  7377
   2.  Bottom aea (square feet) =  4102
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  1.63
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   1.63
   12.  Engineered soil depth (ft) =  3
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  0
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
   Soil Data                        Soil Type Fraction in Eng. Soil
       Sands                          0.750
       Compost as Amendment           0.250
   Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   1
               2.  Pipe invert elevation above datum (ft):   3
               3.  Number of surface pipe outlets:   1

Control Practice 14:  Biofilter CP# 7 (DS) - Basin 7
   1.  Top area (square feet) =  7720
   2.  Bottom aea (square feet) =  2687
   3.  Depth (ft):   3
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.11
   6.  Random infiltration rate generation?  No
```

```
7.  Infiltration rate fraction (side):   1
8.  Infiltration rate fraction (bottom):   1
9.  Depth of biofilter that is rock filled (ft) 0
10.  Porosity of rock filled volume =  0
11.  Engineered soil infiltration rate:   0.11
12.  Engineered soil depth (ft) =  1
13.  Engineered soil porosity =  0.27
14. Percent solids reduction due to flow through engineered soil =  80
15. Biofilter peak to average flow ratio =  3.8
16. Number of biofiltration control devices =  1
17. Particle size distribution file:  Not needed - calculated by program
18. Initial water surface elevation (ft):   0
Soil Data                        Soil Type Fraction in Eng. Soil
    User-Defined Soil Type         1.000
     Saturation water content percent (Porosity) =   0
     Field capacity (%) =   0
     Permanent Wilting Point (%) =   0
     Infiltration rate (in/hr) =   0.11
Biofilter Outlet/Discharge Characteristics:
    Outlet type:  Broad Crested Weir
            1.  Weir crest length (ft):   8
            2.  Weir crest width (ft):   10
            3.  Height of datum to bottom of weir opening:   1.75
```

Treatment Analysis - Disconnected Model



```
SLAMM for Windows Version 10.5.0
(c) Copyright Robert Pitt and John Voorhees 2019, All Rights Reserved

Data file name:  C:\Data\Jobs\2023\2023-003 - Thomas Farm - Welshire Farm -
TRIO\Project_Information\Calcs\SLAMM\Treatment_Disconnected.mdb
Data file description:
Rain file name:  C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name:  C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name:  C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name:  C:\WinSLAMM Files\WI_GEO03.ppdx
Residential Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name:  C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance:  False
Source Area PSD and Peak to Average Flow Ratio File:  C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load
% Reduction calculations
Seed for random number generator:  -42
Start of Winter Season:  12/06              End of Winter Season:  03/28
Model Run Start Date:  01/05/69    Model Run End Date:  12/31/69
Date of run:  12-21-2023    Time of run:  16:28:45
Total Area Modeled (acres):  110.280
Years in Model Run:  0.99

                                                      Runoff     Percent Particulate Particulate     Percent
                                                      Volume      Runoff      Solids      Solids Particulate
                                                     (cu ft)      Volume       Conc.       Yield      Solids
                                                               Reduction      (mg/L)       (lbs)   Reduction

Total of all Land Uses without Controls:           2.576E+06           -       129.3       20784           -
Outfall Total with Controls:                       2.232E+06      13.35%       30.28        4219      79.70%
Annualized Total After Outfall Controls:           2.263E+06                                4278
```

```
Data file name:  C:\Data\Jobs\2023\2023-003 - Thomas Farm - Welshire Farm -
TRIO\Project_Information\Calcs\SLAMM\Treatment_Disconnected.mdb
WinSLAMM Version 10.5.0
Rain file name:  C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name:  C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name:  C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name:  C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance:  False
Pollutant Relative Concentration file name:  C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File:  C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load
% Reduction calculations
Seed for random number generator:  -42
Study period starting date:  01/05/69       Study period ending date:  12/31/69
Start of Winter Season:  12/06              End of Winter Season:  03/28
Date:  12-21-2023                           Time:  16:28:54
Site information:

LU# 1 - Residential:  Subarea 1     Total area (ac):  11.050
     1 - Roofs 1:  0.820 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.810 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     13 - Paved Parking 1:  0.010 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.080 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     26 - Driveways 2:  0.350 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.130 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.120 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.230 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.620 ac.    Smooth    Street Length = 0.1765 mi    Street Width = 28.98017 ft
Street Edges = 2
```

```
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  6.510 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  1.130 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.240 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 2 - Residential:  Subarea 2     Total area (ac):  1.620
     1 - Roofs 1:  0.150 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.140 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.160 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.020 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.020 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.200 ac.    Smooth    Street Length = 0.057 mi    Street Width = 28.94737 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.840 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.090 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 3 - Residential:  Subarea 3     Total area (ac):  13.360
     1 - Roofs 1:  1.120 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  1.120 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.680 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     26 - Driveways 2:  0.610 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.190 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.190 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.050 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.760 ac.    Smooth    Street Length = 0.5005 mi    Street Width = 29.01099 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

```
     51 - Small Landscaped Areas 1:  7.390 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.050 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.200 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 4 - Residential:  Subarea 4     Total area (ac):  4.390
     1 - Roofs 1:  0.500 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.080 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.630 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.180 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 5 - Residential:  Subarea 5     Total area (ac):  2.590
     1 - Roofs 1:  0.250 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.040 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  2.270 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.030 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 6 - Residential:  Subarea 6     Total area (ac):  8.800
     1 - Roofs 1:  0.360 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.350 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     13 - Paved Parking 1:  0.260 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.310 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.050 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.200 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.400 ac.    Smooth    Street Length = 0.3985 mi    Street Width = 28.98369 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  4.250 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
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     57 - Undeveloped Areas 1:  1.410 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.150 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 7 - Residential:  Subarea 7b     Total area (ac):  5.220
     1 - Roofs 1:  0.390 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.390 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.330 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.070 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.060 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.430 ac.    Smooth    Street Length = 0.1225 mi    Street Width = 28.95918 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  2.800 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.390 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.360 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 8 - Residential:  Subarea 8     Total area (ac):  4.610
     1 - Roofs 1:  0.470 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.080 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.170 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  2.940 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.790 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.160 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 9 - Residential:  Subarea 9     Total area (ac):  10.820
     1 - Roofs 1:  0.620 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.620 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.640 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.110 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
```

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     32 - Sidewalks 2:  0.100 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.030 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.390 ac.    Smooth    Street Length = 0.3955 mi    Street Width = 28.99494 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  6.900 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.410 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 10 - Residential:  Subarea 10     Total area (ac):  2.040
     1 - Roofs 1:  0.190 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.030 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.030 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  1.500 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.160 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.130 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 11 - Residential:  Subarea 11     Total area (ac):  7.980
     1 - Roofs 1:  0.960 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.640 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.170 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.050 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.140 ac.    Smooth    Street Length = 0.3245 mi    Street Width = 28.98305 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  4.830 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.190 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 12 - Residential:  Subarea 12     Total area (ac):  7.030
     1 - Roofs 1:  0.440 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
```

```
     2 - Roofs 2:  0.430 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.290 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.070 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.060 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.190 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.400 ac.    Smooth    Street Length = 0.114 mi    Street Width = 28.94737 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.960 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  1.060 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.130 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 13 - Residential:  Subarea 13     Total area (ac):  5.250
     1 - Roofs 1:  0.250 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.250 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.170 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.040 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.040 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.360 ac.    Smooth    Street Length = 0.1025 mi    Street Width = 28.97561 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.970 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.170 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 14 - Residential:  Subarea 14     Total area (ac):  0.410
     37 - Streets 1:  0.030 ac.    Smooth    Street Length = 0.0085 mi    Street Width = 29.11765 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

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     51 - Small Landscaped Areas 1:  0.160 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.220 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 15 - Residential:  Subarea 15     Total area (ac):  4.280
     1 - Roofs 1:  0.340 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.180 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.060 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.130 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.020 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  1.230 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  2.320 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 16 - Residential:  Subarea 16     Total area (ac):  10.890
     1 - Roofs 1:  0.500 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.020 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     26 - Driveways 2:  0.160 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.080 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.030 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.330 ac.    Smooth    Street Length = 0.094 mi    Street Width = 28.96277 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.370 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

```
     57 - Undeveloped Areas 1:  6.340 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 17 - Residential:  Subarea 17     Total area (ac):  3.560
     1 - Roofs 1:  0.490 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.010 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.060 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.100 ac.    Smooth    Street Length = 2.844828E-02 mi    Street Width = 29 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.220 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  2.680 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 18 - Residential:  Subarea 7a     Total area (ac):  6.380
     1 - Roofs 1:  0.680 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.110 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.210 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  5.050 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.330 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz

      Control Practice 1:  Wet Detention Pond CP# 1 (DS) - Pond 3
         Particle Size Distribution file name:  Not needed - calculated by program
         Initial stage elevation (ft):   5
         Peak to Average Flow Ratio:   3.8
         Maximum flow allowed into pond (cfs):  No maximum value entered
         Outlet Characteristics:
              Outlet type:  Orifice 1
                     1.  Orifice diameter (ft):   0.25
                     2.  Number of orifices:   1
```

```
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   11
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   4
               2.  Stand pipe height above datum (ft):   8.5
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0500            0.00                     0.00
                2           4.00        0.1500            0.00                     0.00
                3           5.00        0.2000            0.00                     0.00
                4           6.00        0.2300            0.00                     0.00
                5           7.00        0.2700            0.00                     0.00
                6           8.00        0.3100            0.00                     0.00
                7           9.00        0.3600            0.00                     0.00
                8           10.00        0.4000            0.00                     0.00
                9           11.00        0.4500            0.00                     0.00
                10           12.00        0.5300            0.00                     0.00

Control Practice 2:  Biofilter CP# 1 (DS) - Basin 4
   1.  Top area (square feet) =  31089
   2.  Bottom aea (square feet) =  7746
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  3.6
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   3.6
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  0
```

```
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   3.6
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   3.75
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.33
               2.  Pipe invert elevation above datum (ft):   2.5
               3.  Number of surface pipe outlets:   1

Control Practice 3:  Biofilter CP# 2 (DS) - Basin 5
   1.  Top area (square feet) =  8150
   2.  Bottom aea (square feet) =  1446
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.07
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.07
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
```

```
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                       Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   0.07
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   3.25
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.25
               2.  Pipe invert elevation above datum (ft):   1.75
               3.  Number of surface pipe outlets:   1

Control Practice 4:  Wet Detention Pond CP# 2 (DS) - Pond 6
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   10
        Outlet type:  Vertical Stand Pipe
```

```
               1.  Stand pipe diameter (ft):   4
               2.  Stand pipe height above datum (ft):   7.6
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0100            0.00                     0.00
                2           4.00        0.1000            0.00                     0.00
                3           5.00        0.1500            0.00                     0.00
                4           7.00        0.2300            0.00                     0.00
                5           9.00        0.3400            0.00                     0.00
                6           11.00        0.4700            0.00                     0.00

Control Practice 5:  Wet Detention Pond CP# 3 (DS) - Pond 7
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Sharp Crested Weir
               1.  Sharp crested weir length (ft):   1
               2.  Sharp crested weir height from invert:   3.1
               3.  Sharp crested weir invert elevation above datum (ft):   5.9
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.67
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   8
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   7.2
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
```

```
                1           0.01        0.1500            0.00                     0.00
                2           4.00        0.3000            0.00                     0.00
                3           5.00        0.3900            0.00                     0.00
                4           8.00        0.8700            0.00                     0.00
                5           9.00        1.1700            0.00                     0.00

Control Practice 6:  Biofilter CP# 3 (DS) - Basin 8
   1.  Top area (square feet) =  20057
   2.  Bottom aea (square feet) =  7055
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.04
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.04
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   0.04
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
```

```
               2.  Stand pipe height above datum (ft):   3.5
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.25
               2.  Pipe invert elevation above datum (ft):   1.25
               3.  Number of surface pipe outlets:   1

Control Practice 7:  Wet Detention Pond CP# 4 (DS) - Pond 9
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Orifice 2
               1.  Orifice diameter (ft):   1
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   7
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   10
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   9.75
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.1500            0.00                     0.00
                2           4.00        0.3500            0.00                     0.00
                3           5.00        0.4100            0.00                     0.00
                4           6.00        0.4600            0.00                     0.00
                5           8.00        0.5600            0.00                     0.00
                6           10.00        0.7400            0.00                     0.00
                7           11.00        0.8100            0.00                     0.00
```

```
Control Practice 8:  Biofilter CP# 4 (DS) - Basin 10
   1.  Top area (square feet) =  12432
   2.  Bottom aea (square feet) =  5480
   3.  Depth (ft):   6
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.5
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.5
   12.  Engineered soil depth (ft) =  2
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   0.5
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   5
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   4.5
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.25
               2.  Pipe invert elevation above datum (ft):   3.5
               3.  Number of surface pipe outlets:   1
```

```
Control Practice 9:  Wet Detention Pond CP# 5 (DS) - Pond 11
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Sharp Crested Weir
               1.  Sharp crested weir length (ft):   1
               2.  Sharp crested weir height from invert:   3.5
               3.  Sharp crested weir invert elevation above datum (ft):   6.8
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   9.3
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   8.3
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0500            0.00                     0.00
                2           4.00        0.1200            0.00                     0.00
                3           5.00        0.1900            0.00                     0.00
                4           7.80        0.3500            0.00                     0.00
                5           9.80        0.4800            0.00                     0.00
                6           10.30        0.5200            0.00                     0.00

Control Practice 10:  Wet Detention Pond CP# 6 (DS) - Pond 12
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
```

```
   Outlet Characteristics:
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   9
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   7.2
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.10        0.0100            0.00                     0.00
                2           4.00        0.1000            0.00                     0.00
                3           5.00        0.1300            0.00                     0.00
                4           6.00        0.1600            0.00                     0.00
                5           9.00        0.3500            0.00                     0.00
                6           10.00        0.4200            0.00                     0.00

Control Practice 11:  Wet Detention Pond CP# 7 (DS) - Pond 13
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Sharp Crested Weir
               1.  Sharp crested weir length (ft):   1
               2.  Sharp crested weir height from invert:   2.5
               3.  Sharp crested weir invert elevation above datum (ft):   7
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.33
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
```

```
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   8.5
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   8
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00       0.0000            0.00                     0.00
                1           0.01       0.0300            0.00                     0.00
                2           4.00       0.1000            0.00                     0.00
                3           5.00       0.1700            0.00                     0.00
                4           5.70       0.2000            0.00                     0.00
                5           6.70       0.2400            0.00                     0.00
                6           7.70       0.2900            0.00                     0.00
                7           8.50       0.3300            0.00                     0.00
                8           9.50       0.3800            0.00                     0.00

Control Practice 12:  Biofilter CP# 5 (DS) - Basin 1
   1.  Top area (square feet) =  58153
   2.  Bottom aea (square feet) =  9693
   3.  Depth (ft):   8
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.11
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 1
   10.  Porosity of rock filled volume =  0.33
   11.  Engineered soil infiltration rate:   3.6
   12.  Engineered soil depth (ft) =  2
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
```

```
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   3.6
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   7
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   6.75
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.5
               2.  Pipe invert elevation above datum (ft):   3.5
               3.  Number of surface pipe outlets:   1
       Outlet type:  Drain Tile/Underdrain
               1.  Underdrain outlet diameter (ft):   0.33
               2.  Invert elevation above datum (ft):   0.75
               3.  Number of underdrain outlets:   1

Control Practice 13:  Biofilter CP# 6 (DS) - Basin 2
   1.  Top area (square feet) =  7377
   2.  Bottom aea (square feet) =  4102
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  1.63
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   1.63
   12.  Engineered soil depth (ft) =  3
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  0
```

```
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       Sand                                    0.750
       Compost                                 0.250
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   1
               2.  Pipe invert elevation above datum (ft):   3
               3.  Number of surface pipe outlets:   1

Control Practice 14:  Biofilter CP# 7 (DS) - Basin 7
   1.  Top area (square feet) =  7720
   2.  Bottom aea (square feet) =  2687
   3.  Depth (ft):   3
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.11
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   1
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.11
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
```

```
 Saturation water content (Porosity) =   0
 Field capacity (fraction) =   0
 Permanent Wilting Point (fraction) =   0
 Infiltration rate (in/hr) =   0.11
 Biofilter Outlet/Discharge Characteristics:
Outlet type:  Broad Crested Weir
        1.  Weir crest length (ft):   8
        2.  Weir crest width (ft):   10
        3.  Height of datum to bottom of weir opening:   1.75
```

APPENDIX D

Infiltration Analysis

Infiltration Analysis Results

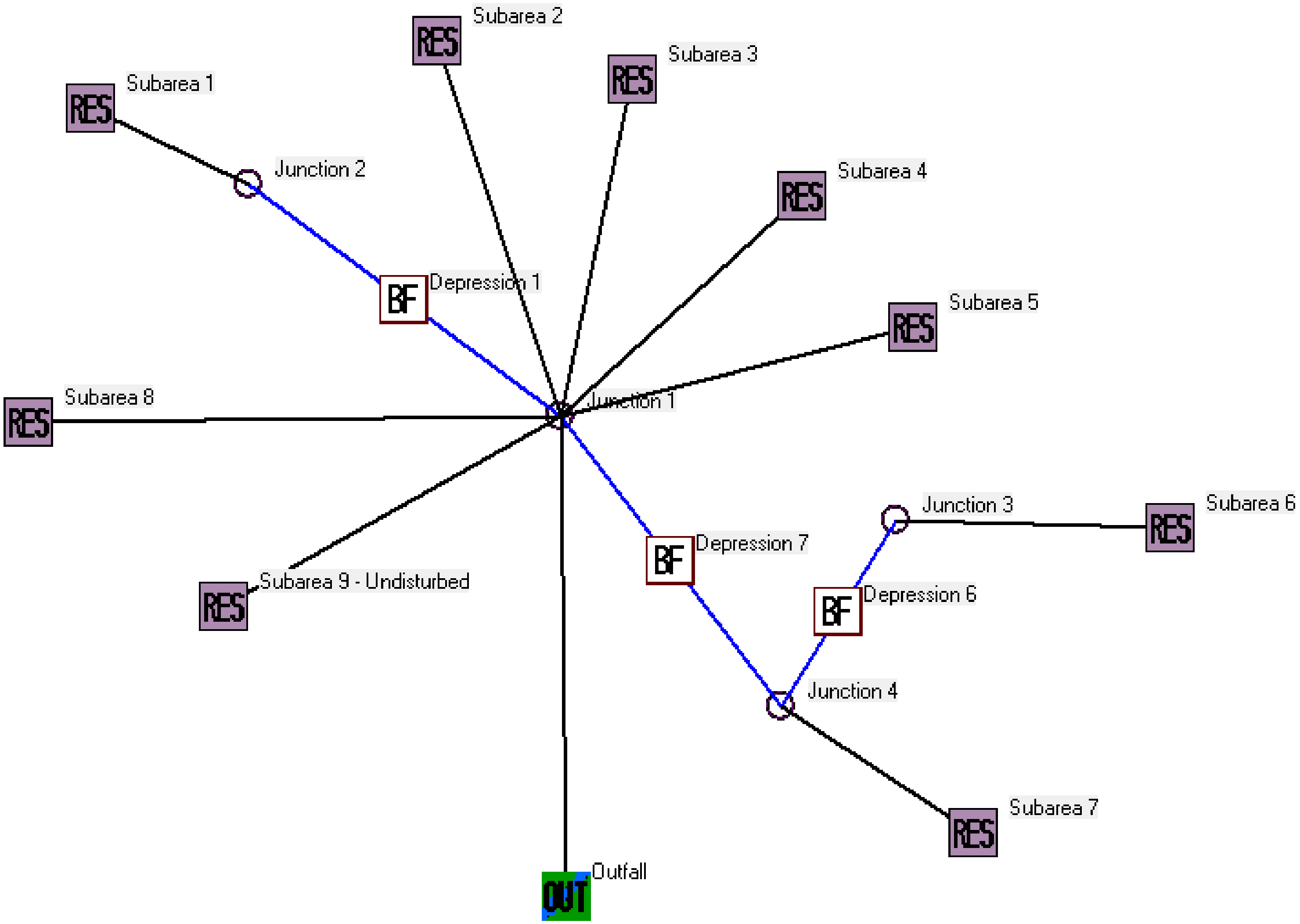
FOR: Welshire Farm
LOCATION: Town of Delafield, Wisconsin

Pre-Development					
Project Site	151.05	acres	=	6,579,738	sq-ft
Average Annual Rainfall	29.02	inches	=	2.42	feet
Total Rainfall Volume	15,912,000	cu-ft			
Total Runoff (from SLAMM Output)	1,694,305	cu-ft			
Total Pre-Development Infiltration Volume	14,217,695	cu-ft			

Post-Development		
Total Runoff (from SLAMM Output)	2,539,000	cu-ft
Total Post-Development Infiltration Volume	13,373,000	cu-ft

Percent Infiltrated	
Post Infiltration Vol / Pre Infiltration Vol	94.1%

Infiltration Analysis - Pre-Development



Data File: C:\Data\Jobs\2023\2023-003 - Thomas Farm - Welshire Farm - TRIO\Project_Information\Calcs\SLAMM\Pre-Development.mdb
Rain File: WisReg - Milwaukee WI 1969.RAN
Date: 12-21-23 Time: 4:29:49 PM
Site Description:

Runoff Volume Total (cf) at the Outfall

Rain Number	Rain Total (in)	Outfall Total (cf)	Total Losses (in.)	Calculated CN*	Event Peak Flow (cfs)	Pre-Dev Runoff Vol. (cf)
Minimum:	0	0	0.01	74.1	0	0
Maximum:	1.96	196287	1.6	99.6	27.422	317661
Average:	0.25	8915	0.23	76.5	10.811	47064
Total:	29.02	1.03E+06	27.12			1694305

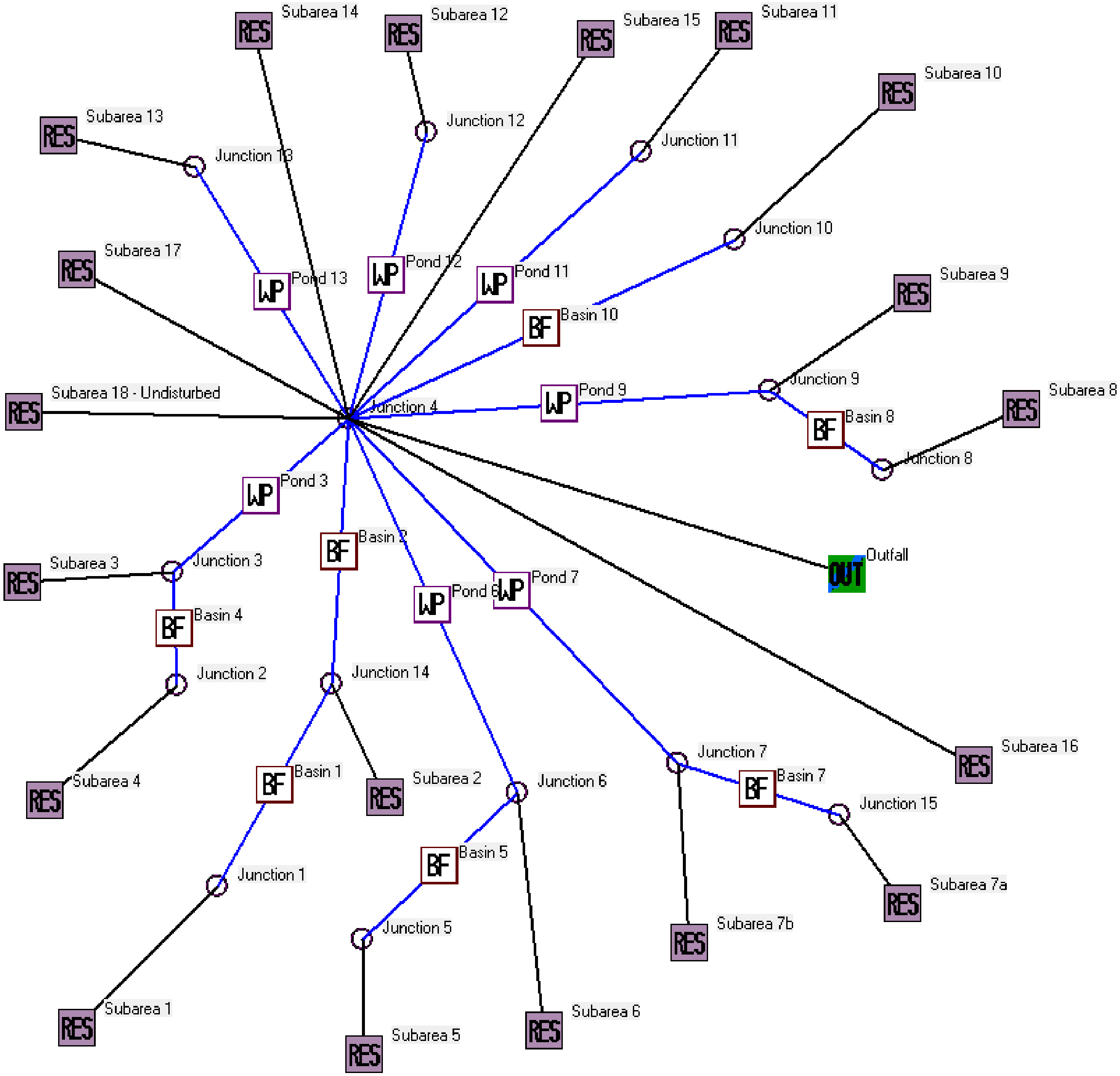
```
Data file name:  C:\Data\Jobs\2023\2023-003 - Thomas Farm - Welshire Farm -
TRIO\Project_Information\Calcs\SLAMM\Pre-Development.mdb
WinSLAMM Version 10.5.0
Rain file name:  C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name:  C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name:  C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name:  C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance:  False
Pollutant Relative Concentration file name:  C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File:  C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load
% Reduction calculations
Seed for random number generator:  -42
Study period starting date:  01/05/69       Study period ending date:  12/31/69
Start of Winter Season:  12/06             End of Winter Season:  03/28
Date:  12-21-2023                           Time:  16:11:41
Site information:

Pre-Development Area Description  Pre-Development Area (ac)     Pre-Development CN
cropland                                    92.150                      83
impervious                                  .720                        98
lawn                                        4.130                       80
woods                                       54.050                      77
   Total Area (ac)/Composite CN             151.050                     81

LU# 1 - Residential:  Subarea 1     Total area (ac):  11.870
     45 - Large Landscaped Areas 1:  11.870 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 2 - Residential:  Subarea 2     Total area (ac):  14.480
     45 - Large Landscaped Areas 1:  14.480 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 3 - Residential:  Subarea 3     Total area (ac):  4.560
```

```
     45 - Large Landscaped Areas 1:  4.560 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 4 - Residential:  Subarea 4     Total area (ac):  1.100
     45 - Large Landscaped Areas 1:  1.100 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 5 - Residential:  Subarea 5     Total area (ac):  28.780
     45 - Large Landscaped Areas 1:  28.780 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 6 - Residential:  Subarea 6     Total area (ac):  10.750
     45 - Large Landscaped Areas 1:  10.750 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 7 - Residential:  Subarea 7     Total area (ac):  12.630
     45 - Large Landscaped Areas 1:  12.630 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 8 - Residential:  Subarea 8     Total area (ac):  26.110
     1 - Roofs 1:  0.200 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.520 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     45 - Large Landscaped Areas 1:  25.390 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 9 - Residential:  Subarea 9 - Undisturbed     Total area (ac):  40.770
     57 - Undeveloped Areas 1:  40.770 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz

      Control Practice 1:  Biofilter CP# 1 (DS) - Depression 1
         1.  Top area (square feet) =  190628
         2.  Bottom aea (square feet) =  19166
         3.  Depth (ft):   2
         4.  Biofilter width (ft) - for Cost Purposes Only:   10
         5.  Infiltration rate (in/hr) =  0.04
         6.  Random infiltration rate generation?  No
         7.  Infiltration rate fraction (side):   0.001
         8.  Infiltration rate fraction (bottom):   1
         9.  Depth of biofilter that is rock filled (ft) 0
         10.  Porosity of rock filled volume =  0
         11.  Engineered soil infiltration rate:   0.04
         12.  Engineered soil depth (ft) =  0
```

```
   13.  Engineered soil porosity =  0
   14. Percent solids reduction due to flow through engineered soil =  0
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   50
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   1.5

Control Practice 2:  Biofilter CP# 2 (DS) - Depression 6
   1.  Top area (square feet) =  55025
   2.  Bottom aea (square feet) =  200
   3.  Depth (ft):   1.1
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.07
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.07
   12.  Engineered soil depth (ft) =  0
   13.  Engineered soil porosity =  0
   14. Percent solids reduction due to flow through engineered soil =  0
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   8
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   0.5
```

```
Control Practice 3:  Biofilter CP# 3 (DS) - Depression 7
   1.  Top area (square feet) =  29349
   2.  Bottom aea (square feet) =  100
   3.  Depth (ft):   1.1
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.07
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.07
   12.  Engineered soil depth (ft) =  0
   13.  Engineered soil porosity =  0
   14. Percent solids reduction due to flow through engineered soil =  0
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   8
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   0.5
```

Infiltration Analysis - Post-Development



```
SLAMM for Windows Version 10.5.0
(c) Copyright Robert Pitt and John Voorhees 2019, All Rights Reserved

Data file name:  C:\Data\Jobs\2023\2023-003 - Thomas Farm - Welshire Farm -
TRIO\Project_Information\Calcs\SLAMM\Proposed_Disconnected.mdb
Data file description:
Rain file name:  C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name:  C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name:  C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name:  C:\WinSLAMM Files\WI_GEO03.ppdx
Residential Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name:  C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance:  False
Source Area PSD and Peak to Average Flow Ratio File:  C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load
% Reduction calculations
Seed for random number generator:  -42
Start of Winter Season:  12/06              End of Winter Season:  03/28
Model Run Start Date:  01/05/69    Model Run End Date:  12/31/69
Date of run:  12-21-2023    Time of run:  16:18:00
Total Area Modeled (acres):  151.050
Years in Model Run:  0.99

                                                      Runoff     Percent Particulate Particulate     Percent
                                                      Volume      Runoff      Solids      Solids Particulate
                                                     (cu ft)      Volume       Conc.       Yield      Solids
                                                               Reduction      (mg/L)       (lbs)   Reduction

Total of all Land Uses without Controls:           2.882E+06          -        117.2       21090          - 
Outfall Total with Controls:                       2.539E+06      11.90%       28.55        4525      78.54%
Annualized Total After Outfall Controls:           2.574E+06                                4588
```

```
Data file name:  C:\Data\Jobs\2023\2023-003 - Thomas Farm - Welshire Farm -
TRIO\Project_Information\Calcs\SLAMM\Proposed_Disconnected.mdb
WinSLAMM Version 10.5.0
Rain file name:  C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name:  C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name:  C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name:  C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name:  C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name:  C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance:  False
Pollutant Relative Concentration file name:  C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File:  C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
If Other Device Pollutant Load Reduction Values = 1, Off-site Pollutant Loads are Removed from Pollutant Load
% Reduction calculations
Seed for random number generator:  -42
Study period starting date:  01/05/69       Study period ending date:  12/31/69
Start of Winter Season:  12/06              End of Winter Season:  03/28
Date:  12-21-2023                           Time:  16:18:09
Site information:

LU# 1 - Residential:  Subarea 1     Total area (ac):  11.050
     1 - Roofs 1:  0.820 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.810 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     13 - Paved Parking 1:  0.010 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.080 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     26 - Driveways 2:  0.350 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.130 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.120 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.230 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.620 ac.    Smooth    Street Length = 0.1765 mi    Street Width = 28.98017 ft
Street Edges = 2
```

```
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  6.510 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  1.130 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.240 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 2 - Residential:  Subarea 2     Total area (ac):  1.620
     1 - Roofs 1:  0.150 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.140 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.160 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.020 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.020 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.200 ac.    Smooth    Street Length = 0.057 mi    Street Width = 28.94737 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.840 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.090 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 3 - Residential:  Subarea 3     Total area (ac):  13.360
     1 - Roofs 1:  1.120 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  1.120 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.680 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     26 - Driveways 2:  0.610 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.190 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.190 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.050 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.760 ac.    Smooth    Street Length = 0.5005 mi    Street Width = 29.01099 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

```
     51 - Small Landscaped Areas 1:  7.390 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.050 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.200 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 4 - Residential:  Subarea 4     Total area (ac):  4.390
     1 - Roofs 1:  0.500 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.080 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.630 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.180 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 5 - Residential:  Subarea 5     Total area (ac):  2.590
     1 - Roofs 1:  0.250 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.040 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  2.270 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.030 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 6 - Residential:  Subarea 6     Total area (ac):  8.800
     1 - Roofs 1:  0.360 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.350 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     13 - Paved Parking 1:  0.260 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.310 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.050 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.200 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.400 ac.    Smooth    Street Length = 0.3985 mi    Street Width = 28.98369 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  4.250 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

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     57 - Undeveloped Areas 1:  1.410 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.150 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 7 - Residential:  Subarea 7b     Total area (ac):  5.220
     1 - Roofs 1:  0.390 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.390 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.330 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.070 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.060 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.430 ac.    Smooth    Street Length = 0.1225 mi    Street Width = 28.95918 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  2.800 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.390 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.360 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 8 - Residential:  Subarea 8     Total area (ac):  4.610
     1 - Roofs 1:  0.470 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.080 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.170 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  2.940 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.790 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.160 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 9 - Residential:  Subarea 9     Total area (ac):  10.820
     1 - Roofs 1:  0.620 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.620 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.640 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.110 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
```

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     32 - Sidewalks 2:  0.100 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File: 
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.030 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File: 
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.390 ac.    Smooth    Street Length = 0.3955 mi    Street Width = 28.99494 ft    
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM 
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  6.900 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM 
Files\NURP.cpz
     70 - Water Body Areas:  0.410 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 10 - Residential:  Subarea 10     Total area (ac):  2.040
     1 - Roofs 1:  0.190 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD 
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.030 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File: 
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.030 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File: 
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  1.500 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM 
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.160 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM 
Files\NURP.cpz
     70 - Water Body Areas:  0.130 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 11 - Residential:  Subarea 11     Total area (ac):  7.980
     1 - Roofs 1:  0.960 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.640 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.170 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.050 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  1.140 ac.    Smooth    Street Length = 0.3245 mi    Street Width = 28.98305 ft    
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM 
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  4.830 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM 
Files\NURP.cpz
     70 - Water Body Areas:  0.190 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 12 - Residential:  Subarea 12     Total area (ac):  7.030
     1 - Roofs 1:  0.440 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
```

```
     2 - Roofs 2:  0.430 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.290 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.070 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.060 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.190 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.400 ac.    Smooth    Street Length = 0.114 mi    Street Width = 28.94737 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.960 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  1.060 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.130 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 13 - Residential:  Subarea 13     Total area (ac):  5.250
     1 - Roofs 1:  0.250 ac.    Pitched    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.250 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.170 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.040 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.040 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.360 ac.    Smooth    Street Length = 0.1025 mi    Street Width = 28.97561 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.970 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     70 - Water Body Areas:  0.170 ac.    Source Area PSD File: C:\WinSLAMM Files\\Residential Land Use
LU# 14 - Residential:  Subarea 14     Total area (ac):  0.410
     37 - Streets 1:  0.030 ac.    Smooth    Street Length = 0.0085 mi    Street Width = 29.11765 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

```
     51 - Small Landscaped Areas 1:  0.160 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.220 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 15 - Residential:  Subarea 15     Total area (ac):  4.280
     1 - Roofs 1:  0.340 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.180 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.060 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.130 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     33 - Sidewalks 3:  0.020 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  1.230 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  2.320 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 16 - Residential:  Subarea 16     Total area (ac):  10.890
     1 - Roofs 1:  0.500 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     2 - Roofs 2:  0.020 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     25 - Driveways 1:  0.060 ac.    Connected    Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
     26 - Driveways 2:  0.160 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.080 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.030 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.330 ac.    Smooth    Street Length = 0.094 mi    Street Width = 28.96277 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  3.370 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
```

```
     57 - Undeveloped Areas 1:  6.340 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 17 - Residential:  Subarea 17     Total area (ac):  3.560
     1 - Roofs 1:  0.490 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.010 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.060 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     37 - Streets 1:  0.100 ac.    Smooth    Street Length = 2.844828E-02 mi    Street Width = 29 ft
Street Edges = 2
            Default St. Dirt Accum.    Annual Winter Load = 2500 lbs    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     51 - Small Landscaped Areas 1:  0.220 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  2.680 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 18 - Residential:  Subarea 18 - Undisturbed     Total area (ac):  40.770
     57 - Undeveloped Areas 1:  40.770 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
LU# 19 - Residential:  Subarea 7a     Total area (ac):  6.380
     1 - Roofs 1:  0.680 ac.    Pitched    Disconnected    Normal Clayey    Low Density    Source Area PSD
File: C:\WinSLAMM Files\NURP.cpz
     31 - Sidewalks 1:  0.110 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     32 - Sidewalks 2:  0.210 ac.    Disconnected    Normal Clayey    Low Density    Source Area PSD File:
C:\WinSLAMM Files\NURP.cpz
     51 - Small Landscaped Areas 1:  5.050 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz
     57 - Undeveloped Areas 1:  0.330 ac.    Normal Clayey    Source Area PSD File: C:\WinSLAMM
Files\NURP.cpz

      Control Practice 1:  Wet Detention Pond CP# 1 (DS) - Pond 3
         Particle Size Distribution file name:  Not needed - calculated by program
         Initial stage elevation (ft):   5
         Peak to Average Flow Ratio:   3.8
         Maximum flow allowed into pond (cfs):  No maximum value entered
         Outlet Characteristics:
```

```
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   11
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   4
               2.  Stand pipe height above datum (ft):   8.5
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0500            0.00                     0.00
                2           4.00        0.1500            0.00                     0.00
                3           5.00        0.2000            0.00                     0.00
                4           6.00        0.2300            0.00                     0.00
                5           7.00        0.2700            0.00                     0.00
                6           8.00        0.3100            0.00                     0.00
                7           9.00        0.3600            0.00                     0.00
                8           10.00        0.4000            0.00                     0.00
                9           11.00        0.4500            0.00                     0.00
                10           12.00        0.5300            0.00                     0.00

Control Practice 2:  Biofilter CP# 1 (DS) - Basin 4
   1.  Top area (square feet) =  31089
   2.  Bottom aea (square feet) =  7746
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  3.6
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   3.6
```

```
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  0
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   3.6
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   3.75
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.33
               2.  Pipe invert elevation above datum (ft):   2.5
               3.  Number of surface pipe outlets:   1

Control Practice 3:  Biofilter CP# 2 (DS) - Basin 5
   1.  Top area (square feet) =  8150
   2.  Bottom aea (square feet) =  1446
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.07
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.07
```

```
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   0.07
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   3.25
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.25
               2.  Pipe invert elevation above datum (ft):   1.75
               3.  Number of surface pipe outlets:   1

Control Practice 4:  Wet Detention Pond CP# 2 (DS) - Pond 6
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
```

```
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   10
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   4
               2.  Stand pipe height above datum (ft):   7.6
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0100            0.00                     0.00
                2           4.00        0.1000            0.00                     0.00
                3           5.00        0.1500            0.00                     0.00
                4           7.00        0.2300            0.00                     0.00
                5           9.00        0.3400            0.00                     0.00
                6           11.00        0.4700            0.00                     0.00

Control Practice 5:  Wet Detention Pond CP# 3 (DS) - Pond 7
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Sharp Crested Weir
               1.  Sharp crested weir length (ft):   1
               2.  Sharp crested weir height from invert:   3.1
               3.  Sharp crested weir invert elevation above datum (ft):   5.9
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.67
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   8
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   7.2
   Pond stage and surface area
```

```
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.1500            0.00                     0.00
                2           4.00        0.3000            0.00                     0.00
                3           5.00        0.3900            0.00                     0.00
                4           8.00        0.8700            0.00                     0.00
                5           9.00        1.1700            0.00                     0.00

Control Practice 6:  Biofilter CP# 3 (DS) - Basin 8
   1.  Top area (square feet) =  20057
   2.  Bottom aea (square feet) =  7055
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.04
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.04
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   0.04
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
```

```
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   3.5
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.25
               2.  Pipe invert elevation above datum (ft):   1.25
               3.  Number of surface pipe outlets:   1

Control Practice 7:  Wet Detention Pond CP# 4 (DS) - Pond 9
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Orifice 2
               1.  Orifice diameter (ft):   1
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   7
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   10
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   9.75
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.1500            0.00                     0.00
                2           4.00        0.3500            0.00                     0.00
                3           5.00        0.4100            0.00                     0.00
                4           6.00        0.4600            0.00                     0.00
```

```
                5           8.00        0.5600           0.00                     0.00
                6           10.00        0.7400           0.00                     0.00
                7           11.00        0.8100           0.00                     0.00

Control Practice 8:  Biofilter CP# 4 (DS) - Basin 10
   1.  Top area (square feet) =  12432
   2.  Bottom aea (square feet) =  5480
   3.  Depth (ft):   6
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.5
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.5
   12.  Engineered soil depth (ft) =  2
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   0.5
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   5
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   4.5
       Outlet type:  Surface Discharge Pipe
```

```
               1.  Surface discharge pipe outlet diameter (ft):   0.25
               2.  Pipe invert elevation above datum (ft):   3.5
               3.  Number of surface pipe outlets:   1

Control Practice 9:  Wet Detention Pond CP# 5 (DS) - Pond 11
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Sharp Crested Weir
               1.  Sharp crested weir length (ft):   1
               2.  Sharp crested weir height from invert:   3.5
               3.  Sharp crested weir invert elevation above datum (ft):   6.8
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   9.3
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   8.3
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0500            0.00                     0.00
                2           4.00        0.1200            0.00                     0.00
                3           5.00        0.1900            0.00                     0.00
                4           7.80        0.3500            0.00                     0.00
                5           9.80        0.4800            0.00                     0.00
                6           10.30        0.5200            0.00                     0.00

Control Practice 10:  Wet Detention Pond CP# 6 (DS) - Pond 12
   Particle Size Distribution file name:  Not needed - calculated by program
```

```
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.25
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   9
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   7.2
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)             (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.10        0.0100            0.00                     0.00
                2           4.00        0.1000            0.00                     0.00
                3           5.00        0.1300            0.00                     0.00
                4           6.00        0.1600            0.00                     0.00
                5           9.00        0.3500            0.00                     0.00
                6           10.00        0.4200            0.00                     0.00

Control Practice 11:  Wet Detention Pond CP# 7 (DS) - Pond 13
   Particle Size Distribution file name:  Not needed - calculated by program
   Initial stage elevation (ft):   5
   Peak to Average Flow Ratio:   3.8
   Maximum flow allowed into pond (cfs):  No maximum value entered
   Outlet Characteristics:
        Outlet type:  Sharp Crested Weir
               1.  Sharp crested weir length (ft):   1
               2.  Sharp crested weir height from invert:   2.5
               3.  Sharp crested weir invert elevation above datum (ft):   7
        Outlet type:  Orifice 1
               1.  Orifice diameter (ft):   0.33
```

```
               2.  Number of orifices:   1
               3.  Invert elevation above datum (ft):   5
        Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height from datum to bottom of weir opening:   8.5
        Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   8
   Pond stage and surface area
             Entry       Stage     Pond Area   Natural Seepage   Other Outflow
             Number      (ft)      (acres)              (in/hr)                  (cfs)
                0           0.00        0.0000            0.00                     0.00
                1           0.01        0.0300            0.00                     0.00
                2           4.00        0.1000            0.00                     0.00
                3           5.00        0.1700            0.00                     0.00
                4           5.70        0.2000            0.00                     0.00
                5           6.70        0.2400            0.00                     0.00
                6           7.70        0.2900            0.00                     0.00
                7           8.50        0.3300            0.00                     0.00
                8           9.50        0.3800            0.00                     0.00

Control Practice 12:  Biofilter CP# 5 (DS) - Basin 1
   1.  Top area (square feet) =  58153
   2.  Bottom aea (square feet) =  9693
   3.  Depth (ft):   8
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.11
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 1
   10.  Porosity of rock filled volume =  0.33
   11.  Engineered soil infiltration rate:   3.6
   12.  Engineered soil depth (ft) =  2
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
```

```
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       User-Defined Media Type                  1.000
        Saturation water content (Porosity) =   0
        Field capacity (fraction) =   0
        Permanent Wilting Point (fraction) =   0
        Infiltration rate (in/hr) =   3.6
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   7
       Outlet type:  Vertical Stand Pipe
               1.  Stand pipe diameter (ft):   3
               2.  Stand pipe height above datum (ft):   6.75
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   0.5
               2.  Pipe invert elevation above datum (ft):   3.5
               3.  Number of surface pipe outlets:   1
       Outlet type:  Drain Tile/Underdrain
               1.  Underdrain outlet diameter (ft):   0.33
               2.  Invert elevation above datum (ft):   0.75
               3.  Number of underdrain outlets:   1

Control Practice 13:  Biofilter CP# 6 (DS) - Basin 2
   1.  Top area (square feet) =  7377
   2.  Bottom aea (square feet) =  4102
   3.  Depth (ft):   5
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  1.63
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   0.001
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   1.63
```

```
   12.  Engineered soil depth (ft) =  3
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  0
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
   18. Initial water surface elevation (ft):   0
        Soil Data                        Soil Type Fraction in Eng. Soil
       Sand                                    0.750
       Compost                                 0.250
        Biofilter Outlet/Discharge Characteristics:
       Outlet type:  Broad Crested Weir
               1.  Weir crest length (ft):   10
               2.  Weir crest width (ft):   10
               3.  Height of datum to bottom of weir opening:   4
       Outlet type:  Surface Discharge Pipe
               1.  Surface discharge pipe outlet diameter (ft):   1
               2.  Pipe invert elevation above datum (ft):   3
               3.  Number of surface pipe outlets:   1

Control Practice 14:  Biofilter CP# 7 (DS) - Basin 7
   1.  Top area (square feet) =  7720
   2.  Bottom aea (square feet) =  2687
   3.  Depth (ft):   3
   4.  Biofilter width (ft) - for Cost Purposes Only:   10
   5.  Infiltration rate (in/hr) =  0.11
   6.  Random infiltration rate generation?  No
   7.  Infiltration rate fraction (side):   1
   8.  Infiltration rate fraction (bottom):   1
   9.  Depth of biofilter that is rock filled (ft) 0
   10.  Porosity of rock filled volume =  0
   11.  Engineered soil infiltration rate:   0.11
   12.  Engineered soil depth (ft) =  1
   13.  Engineered soil porosity =  0.27
   14. Percent solids reduction due to flow through engineered soil =  80
   15. Biofilter peak to average flow ratio =  3.8
   16. Number of biofiltration control devices =  1
   17. Particle size distribution file:  Not needed - calculated by program
```

```
18. Initial water surface elevation (ft):   0
     Soil Data                        Soil Type Fraction in Eng. Soil
    User-Defined Media Type                  1.000
     Saturation water content (Porosity) =   0
     Field capacity (fraction) =   0
     Permanent Wilting Point (fraction) =   0
     Infiltration rate (in/hr) =   0.11
     Biofilter Outlet/Discharge Characteristics:
    Outlet type:  Broad Crested Weir
            1.  Weir crest length (ft):   8
            2.  Weir crest width (ft):   10
            3.  Height of datum to bottom of weir opening:   1.75
```

APPENDIX E

Soil Survey and Soil Boring Logs

Hydrologic Soil Group—Milwaukee and Waukesha Counties, Wisconsin

Map Scale: 1:6,700 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

- ▭ Area of Interest (AOI)

Soils

Soil Rating Polygons

- 🟪 A
- 🟩 A/D
- 🟦 B
- 🟫 B/D
- 🟦 C
- 🟨 C/D
- 🟥 D
- ⬜ Not rated or not available

Soil Rating Lines

- 〰 A
- 〰 A/D
- 〰 B
- 〰 B/D
- 〰 C
- 〰 C/D
- 〰 D
- 〰 Not rated or not available

Soil Rating Points

- ■ A
- ■ A/D
- ■ B
- ■ B/D
- ■ C
- ■ C/D
- ■ D
- □ Not rated or not available

Water Features

- 〰 Streams and Canals

Transportation

- ┼┼┼ Rails
- 〰 Interstate Highways
- 〰 US Routes
- 〰 Major Roads
- 〰 Local Roads

Background

- ▩ Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Milwaukee and Waukesha Counties, Wisconsin
Survey Area Data: Version 18, Sep 7, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 6, 2020—Jun 28, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BsA	Brookston silt loam, 0 to 2 percent slopes	C/D	9.4	6.0%
HmB	Hochheim loam, 2 to 6 percent slopes	D	18.7	12.1%
HmC2	Hochheim loam, 6 to 12 percent slopes, eroded	D	16.9	10.9%
KlA	Kendall silt loam, 1 to 3 percent slopes	C	1.4	0.9%
KwA	Knowles silt loam, 0 to 2 percent slopes	C	8.6	5.6%
KwB	Knowles silt loam, 2 to 6 percent slopes	C	17.0	11.0%
LmB	Lamartine silt loam, 0 to 3 percent slopes	B/D	5.2	3.3%
Lu	Loamy land	D	1.9	1.2%
MoB	Mayville silt loam, 2 to 6 percent slopes	C	0.9	0.6%
RkB	Ritchey silt loam, 1 to 6 percent slopes	D	11.2	7.2%
RkE	Ritchey silt loam, 12 to 30 percent slopes	D	1.5	1.0%
ThA	Theresa silt loam, 0 to 2 percent slopes	C	20.6	13.2%
ThB	Theresa silt loam, 2 to 6 percent slopes	C	26.1	16.8%
ThB2	Theresa silt loam, 2 to 6 percent slopes, eroded	C	15.7	10.1%
Totals for Area of Interest			**155.2**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

GEOTECHNICAL ENGINEERING REPORT

Thomas Farm Development
NWC Golf Road and Elmhurst Road
Town of Delafield, Wisconsin

GESTRA Project No.: 23083-10
May 15, 2023

Prepared For:
Neumann Developments, Inc.
N27W24025 Paul Court, Suite 100
Pewaukee, WI 53072

GESTRA

Geotechnical Engineering Report

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NWC Golf Road and Elmhurst Road
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Geotechnical Engineering Report

Thomas Farm Development
NWC Golf Road and Elmhurst Road
Town of Delafield, Wisconsin

1.0 INTRODUCTION

GESTRA Engineering, Inc. (GESTRA) was authorized by Neuman Developments, Inc. (Neumann) to complete a subsurface exploration and geotechnical engineering report for the Thomas Farms Development project located at the northwest corner of Golf Road and Elmhurst Road in the Town of Delafield, Wisconsin. This report presents the results from the subsurface soil exploration and describes the field exploration, laboratory test results, and provides recommendations pertaining to the design and construction of the proposed buildings, roads and stormwater basins.

The engineering recommendations and analysis contained within this report are based on the following project information which is a projection of GESTRA's understanding of the project. If for any reason the actual project information differs from what is reported below, GESTRA should be contacted so that we can review our recommendations in light of any new information.

1.1 PROJECT INFORMATION

The site is bounded by the Lake County Recreation Trail on the north, Elmhurst Road on the east, an existing subdivision in the northwest, Glen Cove Road on the west and Golf Road on the south. The site plan is divided into 4 zones, described as follows and shown on the Borehole Location Plan in the Appendix. At this time, preliminary stormwater elevations are available, but detailed grading plans have not been completed.

Zone 1 – northwest quadrant. This section will include an eastern cul-de-sac extension of Crooked Creek Road and 8 single-family house lots around the cul-de-sac. A detention pond is planned on the north side.

Zone 2 – northeast quadrant. This zone includes 29 single-family house lots, a portion of the east loop road and a cul-de-sac. Detention ponds are planned on the north and west sides, a biofiltration basin near the center and dry pond basin in the southern part.

Zone 3 – southwest quadrant. This zone includes 37 single-family house lots, 28 duplex condos, west loop road with cul-de-sac and connection to the east loop road, and clubhouse amenities building. Three detention ponds are planned in the northern part and a biofiltration basin on the south side.

Zone 4 – southeast quadrant. This zone includes 81 single-family house lots, part of the east loop road with two cul-de-sacs and connection to the west loop road. Three detention ponds are planned in the west, center and southeast portions and rain garden on the south side.

2.0 SCOPE OF SERVICES

GESTRA has performed the following services for the project:

- Contacted Diggers Hotline to locate the public utilities at the site.
- Completed thirty-nine (39) standard penetration test (SPT) soil borings to depths between 4 ½ feet and 19 feet below existing grades. All borings encountered split spoon and/or auger refusal at termination. At the completion of drilling, boreholes were abandoned per WDNR requirements.
- Performed laboratory soil testing to assign classification and engineering properties to the soils encountered. The laboratory testing included hand penetrometer, moisture content, mechanical analysis, hydrometers, and Atterberg limits.
- Prepared this geotechnical engineering report presenting the results of the field exploration, laboratory testing, and providing a discussion of the subsurface conditions and the following recommendations:
    a. Buildings: general recommendations for allowable soil bearing capacity for spread foundations, estimates of settlement, anticipation and management of groundwater, subgrade modulus for design of slab on grade, lateral earth pressures, seismic site classification, and site preparation/ soil correction.
    b. Pavement: soil parameters for the pavement design consisting of estimated CBR values, and asphalt, concrete and base course thickness for the proposed roadways based on anticipated traffic volumes.
    c. Stormwater: The soil from the borings were classified per the USCS system and the Field Book for Describing and Sampling Soils, USDA, NRCS, 2012. Provided DSPS Soil and Site Evaluation – Storm forms and a discussion of soils conditions and recommendations related to infiltration and detention basin design.

3.0 EXPLORATION RESULTS

3.1 SITE CONDITIONS

The development is planned within the undeveloped parcels bounded by Golf Road to the south, Elmhurst Road to the east, Glen Cove Road to the west and the Lake County Recreation Trail/Oakton Road to the north. The majority of the development is in the southern and eastern portion which is currently farm field with several tree lines. The development in the northwest portion is located in an area that is a combination of open field and woods. Two existing residential buildings are located in the southeast part of the development and are accessible from Thomas Road which connects Golf Road and Elmhurst Road. A third residential building is located on the south side of the property near the approximate mid-point of the development. Based on historical aerial photographs available on the Waukesha County GIS website, the site has remained unchanged since the 1960's.

The topography varies significantly across the development area. The northwest portion ranges from approximately 895 feet to 915 feet, generally sloping upward from the north to the south. The highest elevation portion of the development is in the southwest part around 945 feet. From this location it slopes downward to the north to around 915 feet and slopes downward toward the east with elevations ranging from 910 or 915 feet in the southeast portion and 900 feet in the northeast portion. Ground surface elevations at our boring locations range from 946.1 feet at B-29 in the southwest, 916.3 feet at B-22 in the southeast, 899.7 feet at B-1 in the northeast, and 899.3 feet at B-37 in the northwest.

3.2 SUBSURFACE SOIL PROFILE

The general soil profile consisted of topsoil underlain by lean clay or silty clay over granular soil with various amounts of fines (silt and clay soil). At multiple boring location auger refusal was encountered and can be an indication of possible bedrock. Table 3-1 provides the depth and elevation of auger refusal at the boring locations. The topsoil thickness was typically less than 1 foot at each boring location with the exception of B-30 where approximately 2-feet of topsoil was observed.

The native lean clay was typically encountered with a medium stiff to very stiff consistency and extended to approximate depths of 2 feet to 11 ½ feet. In some shallower borings the clay extended to auger refusal. The native clay had varying amounts of sand and moisture contents of samples tested ranged from 8.3% to 30.3% with the majority of the samples tested having moisture contents greater than 20%.

Clayey sand was observed in approximately half the borings and was typically below the upper lean clay or silty clay. Based on SPT N-values, the clayey sand ranged from very loose to medium dense. Varying amounts of gravel were noted in the material.

The majority of the borings included a granular layer (sand or gravel) with varying amounts of silt above auger refusal. Based on SPT N-values, the granular material typically ranged from medium dense to very dense. Some locations of very dense soil encountered may be considered weathered bedrock. An exception to this was boring B-33 where a blueish gray medium dense to very dense silt was encountered between the upper clayey sand and auger refusal.

Table 3-1: Auger Refusal Depths (feet)

Ground Surface Elevation	Boring	Refusal Depth	Refusal Elevation	Ground Surface Elevation	Boring	Refusal Depth	Refusal Elevation
899.7	B-1	12.5	887.2	917.7	B-21	4.5	913.2
906.9	B-2	8.5	898.4	916.3	B-22	8	908.3
915.6	B-3	10	905.6	940.4	B-23	10.5	929.9
919.8	B-4	9.5	910.3	940.7	B-24	10.5	930.2
917.7	B-5	6.5	911.2	932.6	B-25	12	920.6
912.4	B-6	13.5	898.9	938.3	B-26	16	922.3
916.3	B-7	9.5	906.8	939.0	B-27	15	924.0
918.7	B-8	6.5	912.2	943.4	B-28	16	927.4
919.2	B-9	9	910.2	946.1	B-29	20	926.1
920.8	B-10	12	908.8	948.5	B-30	13	935.5
917.8	B-11	5.5	912.3	939.7	B-31	15	924.7
917.4	B-12	5	912.4	939.7	B-32	16	923.7
921.7	B-13	4.5	917.2	924.1	B-33	17	907.1
925.2	B-14	7.5	917.7	929.6	B-34	11	918.6
926.8	B-15	9.5	917.3	937.8	B-35	13	924.8
930.5	B-16	8.5	922.0	900.7	B-36	15.5	885.2

Ground Surface Elevation	Boring	Refusal Depth	Refusal Elevation
925.0	B-17	8.5	916.5
931.2	B-18	6.5	924.7
934.9	B-19	9.5	925.4
925.6	B-20	6.5	919.1

Ground Surface Elevation	Boring	Refusal Depth	Refusal Elevation
899.3	B-37	17.5	881.8
910.0	B-38	19	891.0
911.7	B-39	17.5	894.2

Notes: Ground surface elevation at B-36 obtained by GESTRA, all other ground surface elevations provided by Trio.

GESTRA reviewed the "Preliminary depth to bedrock map of Waukesha County, Wisconsin" available from the Wisconsin Geological and Natural History Survey. The map indicates that depth to bedrock in the project area is typically less than 50 feet in the project area.

Results of the field and laboratory tests and observations are depicted on the individual boring logs included in Appendix I of this report. Soils were grouped together based on similar observed properties. The stratification lines were estimated by the reviewing engineer based on available data and experience. The actual in-situ changes between layers may differ slightly and may be more gradual than depicted on the boring logs. Subsurface and groundwater conditions can vary between borehole locations and in areas not explored.

It is important to note that the soil observations, fill depths, and topsoil thickness estimates were made in small diameter boreholes. Therefore, it should be understood that thicker or thinner deposits of the individual strata are likely to be encountered within other portions of the project. Furthermore, the estimation of strata thickness at a particular location can differ from person to person due to a sometimes indistinct transition between the soils encountered. Additionally, it must be recognized that in the absence of foreign substances and/or debris within the soil samples obtained, it is sometimes difficult to distinguish between natural soils and clean soil fill.

3.3 GROUNDWATER OBSERVATIONS

Groundwater observations were typically completed during and at the completion of drilling operations. Select borings were left open for extended water level readings. The shallower groundwater appeared to be more common in the western portion of the project site. Table 3-2 provides a summary of the highest water level measured at each boring. If the extended water level readings varied by more than 1 foot from the during or after drilling water levels, both values are listed. Refer to the individual boring logs for specific information.

Table 3-2: Groundwater Measurements (feet)

Ground Surface Elevation	Boring	Groundwater	
		Depth	Elevation
899.7	B-1	4	895.7
906.9	B-2	5	901.9
915.6	B-3	NE	-
919.8	B-4	NE	-
917.7	B-5	NE	-
912.4	B-6	NE	-

Ground Surface Elevation	Boring	Groundwater	
		Depth	Elevation
917.7	B-21	NE	-
916.3	B-22	NE	-
940.4	B-23	NE	-
940.7	B-24	NE	-
932.6	B-25	7	925.6
938.3	B-26	11 [a] 5 [b]	927.3 [a] 933.3 [b]

Ground Surface Elevation	Boring	Groundwater	
		Depth	Elevation
916.3	B-7	3[a] 0.4[b]	913.3[a] 915.9[b]
918.7	B-8	NMR	NMR
919.2	B-9	NMR	NMR
920.8	B-10	NE	-
917.8	B-11	NE	-
917.4	B-12	NE	-
921.7	B-13	NE	-
925.2	B-14	NE	-
926.8	B-15	NE	-
930.5	B-16	7.5	923.0
925.0	B-17	8	917.0
931.2	B-18	NE	-
934.9	B-19	NE	-
925.6	B-20	NE	-

Ground Surface Elevation	Boring	Groundwater	
		Depth	Elevation
939.0	B-27	10	928.96
943.4	B-28	14[a] 12[b]	929.4[a] 931.4[b]
946.1	B-29	13	933.1
948.5	B-30	NE	-
939.7	B-31	8	931.7
939.7	B-32	8	931.7
924.1	B-33	3.5[a] 2[b]	920.6[a] 922.1[b]
929.6	B-34	8[a] 3[b]	921.6[a] 926.6[b]
937.8	B-35	9	928.8
900.7	B-36	4	896.7
899.3	B-37	7[a] 5.5[b]	892.3[a] 893.8[b]
910.0	B-38	NE	-
911.7	B-39	13[a] 2[b]	898.7[a] 909.7[b]

Notes: *Ground surface elevation at B-36 obtained by GESTRA, all other ground surface elevations provided by Trio.*

B-8, B-9: Clayey soils to depth of boring.

a – At completion of drilling water level reading.

b- Extended water level reading.

Groundwater level fluctuations may occur with time and seasonal changes due to variations in precipitation, evaporation, surface water runoff and local dewatering. Perched water pockets and a higher water table may also be encountered during wet weather periods, particularly in more permeable silt and sand seams or granular fill material overlying less permeable clays. Installation and monitoring of an observation well would be required to assess true groundwater elevation.

4.0 ANALYSIS AND RECOMMENDATIONS

4.1 GEOTECHNICAL CONSIDERATIONS

Based on the conditions encountered at site, we have identified potential subsurface conditions that may impact future building and site development in the following paragraphs.

Difficult Excavation: One of the primary concerns is the presence of very dense (SPT N>50) materials and possible bedrock at shallower depths. Based on preliminary plan elevation, some locations of stormwater features are designed at a lower elevation than the possible bedrock encountered. The remaining site grades have not been established, but other portions of this project may require excavation through dense to very dense ground conditions or bedrock which can result in increased excavation costs. Additional exploration with test pits can provide a better indication of the anticipated difficulty in excavation of the material when additional project design elevations are available. Depending on the depth of excavation, the project may want to evaluate blasting.

High Moisture Content Clay Soils: Another geotechnical concern identified is the presence of higher moisture content lean clay generally located immediately below the topsoil. These soils are often unstable during earthwork, prone to disturbance by construction traffic and can lose strength over time when subjected to freeze thaw cycles, moisture entering through cracks in pavement, and repetitive traffic loading. Consolidation of this soft soil layer will occur if any new loads either from new fill and/or new structure are applied on this deposit which may lead to excessive settlement for future site construction or buildings.

Potential for Large Fill Placement: Significant cut and fill may be required during grading operations. Large and deeper fills over lower strength material may result in consolidation of the material and excessive settlement due to the weight of the new fill. Further evaluation may be required when design elevations are available.

Groundwater: Based on preliminary plan elevation, some locations of stormwater features are designed at a lower elevation than the water noted in our borings. The water may also be a concern for below grade levels for new buildings and in some excavation areas localized water should be expected. Groundwater was observed higher after completion or in next day water level readings at some locations. Further evaluation may be required when design elevations are available.

Variable Depths to Bearing Material: The estimated depth to recommended bearing material presented in this report is variable across the site. When design elevations and building loads are available, the foundations recommendations should be reviewed as significant cuts or fill may affect the foundation recommendations. Areas with lower strength soil near the surface may require a lower design bearing pressure or soil improvement if significant fills are planned.

The recommendations presented in this report include assumptions related to the project design because detailed design information has not been developed. When additional design information is known, the recommendations presented in this report should be reviewed as information such as structural loads and changes in design elevations could impact the recommendations in this report.

4.2 SITE PREPARATION

Site preparation should start with removal of any trees/bushes and vegetation, as well as surficial debris or other deleterious material (if present), organic soils and topsoil. Any additional unsuitable soil/materials exposed such as buried topsoil (if encountered), excessive vegetation roots, deleterious material, soil that contains significant amounts of organics, or other unsuitable material should be removed in their entirety from the footprint of future building and pavement areas. Existing buildings and structures should be razed and completely removed to expose suitable native material. In addition, all unused utilities (if present) should be properly removed or abandoned. Field drain tile (if present) should be properly removed or abandoned or redesigned/reconnected. Material removed from the project site should be disposed in accordance with all applicable federal, state, and local regulations. Soil should not be stockpiled near or adjacent to the excavations.

In building slab on grade area and pavement areas, after the initial site preparation described above, we recommend recompacting the exposed material. Any areas of significant deflection during re-compaction may be disked, dried, and re-compacted if weather permits, or removed and replaced with engineered fill. After re-compaction, before any initial fill lifts are placed, and before base material is placed, a proof roll is recommended with a minimum 20-ton tri-axle dump truck, or like machinery imparting similar static loading on the soil and moving at no more than walking speed. A geotechnical engineer or their designated representative should be present during the proof roll in order to identify soft or unstable areas, if any, and subsequently recommend remediation procedures. Where soil correction is needed, the options for improvement include the methods described in the following paragraphs.

Recondition the subgrade through moisture/density control:

If this option is chosen, the upper 12-inches of subgrade should be aerated through disking and dried to within two (2) percent of its optimum moisture content. After which, the dried soils can be re-compacted in place to at least 95% of the maximum modified Proctor dry density (ASTM D1557). However, this method may not be effective if lower strength soils extend to depths greater than 1 foot below grade.

Removal and replacement:

The soft or unstable subgrade soils should be removed and the excavated subgrade material replaced with suitable engineered fill or well graded granular fill. The new fill should be compacted to at least 95% of the maximum dry density as obtained by the maximum modified Proctor dry density (ASTM D1557). To potentially reduce the amount of subgrade excavation, geogrid with appropriate granular fill may be used in the excavation correction.

Chemical Stabilization

The soft or unstable clayey (lean clay or clayey sand) or silty soil can also be stabilized with cement or fly ash. Lime stabilization may be considered for clay soil. Chemical stabilization is typically more cost effective if performed over large areas in a single mobilization. In the case of soil stabilization, a proper mix design should be performed prior to the performance of any soil modification as the variability of the soil may limit the effectiveness of soil modification. GESTRA did not perform a mix design as it was not part of our scope of services.

The type of improvement and the depth of correction needed should be determined at the time of construction based on drainage, weather, and soil conditions. If the project construction schedule does not allow for adequate time to rework site subgrade soils, excavation and replacement will likely be required or alternate site preparations could be considered such as chemical stabilization or utilizing geotextile fabric or geogrid and granular fill to provide a stable pavement subgrade. The native clay soils encountered below the topsoil in the majority of the borings were observed with high moisture content (20% or more) which is an indication of potentially unstable subgrade conditions.

As a general rule for new fill placement, the lift thickness should not exceed 12 inches for granular soils and 9 inches for cohesive soil and the maximum particle size should be limited to 25% of the lift thickness. For typical earthwork, new engineered fill placed within the building pad or in the pavement subgrade/base course should be compacted to a minimum of 95% of the modified Proctor maximum dry density value. Alternate compaction may be required where new fill is around 10 feet (or greater) as clayey fill have a greater potential to consolidate post compaction. Structural soil fill should be placed a minimum of five feet beyond the edges of the new building and pavement areas, and an additional foot horizontally for each vertical foot of new fill to be placed to provide adequate lateral confinement. The inorganic site soils free of any deleterious material and debris that would be removed from excavations could be reused as structural fill; however, moisture conditioning of the material may be necessary and sorting of unsuitable soils from existing material may be required before it is placed as engineered fill.

Site grading should direct runoff away from planned pavement areas and should be maintained throughout construction so that the potential for the softening of the subgrade soils is reduced. Equipment and working traffic should also be kept to a minimum on subgrade surfaces, especially during times of precipitation or following spring thaw. The contractor is responsible for maintaining completed earthwork areas. Consideration should be given to installing construction roads to reduce disturbance to the subgrade soils.

The information presented in this report may be used to evaluate the site conditions for construction, but the contractor is responsible for determining site preparation means and methods required to complete the project. An aggressive construction schedule or construction during seasons with limited drying time may not allow for reconditioning of the subgrade and soil correction may require removal and replacement with imported granular fill or use of chemical stabilization.

This geotechnical report identifies or recommends material that may be used as engineered fill, but the contractor is responsible for utilizing materials that meet the project requirements and determining means and methods required for placement and compaction. Typically, clay soils are easier to dry or rework when placed over large open areas during favorable weather conditions. Clay soils can be difficult to compact or moisture condition in trench backfill situations and may increase potential for consolidation and settlement of the backfill if it is not placed or compacted properly. Granular soils may be easier to place and compact in trench backfill situations but may increase construction costs if the material has to be imported.

4.3 FOUNDATION RECOMMENDATIONS

Due to variable existing terrain, the foundations will be dependent on the final grading plan and earthwork performed during the mass grading work. The following section is provided as a general discussion for building foundation design for preliminary design purposes. The most economical foundation should consider the actual structural loads, design elevations, and building design requirements. Modifications may be required for individual buildings depending on actual design information, including building location, grades and structural loads. Soil borings were not performed at each planned building location and future building owners may want to consider performing a geotechnical exploration specific to an individual building.

Based on the conditions encountered, a typical shallow spread/strip footing system designed for an allowable bearing capacity of 1,500 psf to 2,000 psf can be considered for the proposed buildings. Spread foundations designed for a maximum net allowable soil bearing capacity of up to 2,000 psf should be supported by the medium dense native granular soil, native clay soil with a minimum unconfined compressive strength (Qp) of 1 tsf or new engineered fill placed over suitable native soil.

Layers of lower strength soil were noted that may require correction at some boring locations such as B-1, B-5, B-7, B-11, B-13, B-16, B-20, B-24, B-26, B-32, B-33, and B-38. However, the impact of these layers on future construction will in part depend on future design elevations.

Bedrock depth was variable across the project site. If bedrock is present at or near a building foundation bearing elevation, the building should be designed such that the foundations bear entirely on bedrock or suitable soil/engineered fill to avoid potential for differential settlement.

Where unsuitable soils are encountered at the foundation elevation, soil correction should consist of additional excavation to remove the unsuitable soils. If the over-excavation is being filled with engineered fill, we recommend the over-excavation be widened at a minimum 1H:1V ratio from the edge of the foundation. The over-excavation can then be filled to grade with suitable engineered fill placed in lifts not exceeding 12 inches and compacted to at least 95% of maximum dry density as determined by the modified Proctor (ASTM D1557). Alternatively, lean concrete with a minimum compressive strength of 500 psi could be used to fill the over-excavation to grade and lateral over-excavation will not be required.

The depth of excavation required to expose suitable bearing material may vary in areas not explored by GESTRA; therefore, we recommend the foundation excavations be reviewed by a geotechnical engineer or their designated representative to determine when soils suitable to support the recommended bearing capacity are observed.

The shallow foundation design should incorporate a minimum strip footing width of 18 inches and column pad width of 24 inches, even if the allowable bearing capacity has not been fully utilized. All perimeter foundations should meet code depth requirements and are recommended to bear a minimum of 48 inches below grade for heated structures and 60 inches for unheated structures in order to protect the structure from frost heave. Interior foundations in heated buildings may bear at a shallower depth provided the bearing soils will not freeze. If the structure includes load bearing thickened slabs, subgrade preparation under the thickened slabs should follow the recommendations in this report for foundations. We recommend that foundations also be suitably reinforced in order to compensate for the effects of minor differential movements due to subsurface soil variations.

4.4 FLOOR SLAB RECOMMENDATIONS

The subgrade material evaluated and prepared according to the recommendations in this report should be suitable to support slab on grade concrete. We recommend that a subgrade reaction modulus of 125 pounds per square inch per inch of deflection (pci) be used in the design of the floor slab at grade. The modulus value was assumed based on clay and/ or sand soil as the subgrade soil, assumes a 1-foot plate is used to determine the modulus and should be adjusted for the size of the foundation and confinement effect. We recommend that the floor slabs be suitably reinforced and designed to be separate from the foundation system in order to allow for separate movements. It is recommended the structural engineer specify the floor slab thickness, reinforcing, joint details and other parameters. At a minimum, the floor slabs are recommended to be reinforced or the concrete contain an appropriate fiber mesh additive to help control shrinkage cracking.

We recommend the installation of a capillary moisture break directly below the slab. A typical capillary moisture break may consist of at least 6 inches of sand or gravel with a maximum particle size of 1-1/2 inches, containing 15-55% passing the number 4 sieve and no more than 12% passing the number 200 sieve (fines) and should follow the recommendations of ACI 302.1R-15, Chapter 6. The structural engineer, architect, or manufacturer of a floor covering should determine the need of a vapor retarder, specify the vapor retarder location, and consider the concrete curing and the effects of moisture on future flooring materials or building end use. The vapor retarder should include proper sealing at penetrations, overlap at joints, and sealing at the interface of the wall and slab and may require an adequate cushion material to prevent damage.

Given the presence of groundwater encountered in our exploration, it may be necessary to address groundwater issues in the design of a below grade slab for some structures. In these cases, a groundwater management system is recommended to maintain water level below the slab system for the serviceability of the proposed structure. This may be accomplished by installing an underslab drainage system incorporated with the recommendations for below grade wall drainage presented in this report. We recommend including cleanouts for the system in the event the subsurface drainage system becomes blocked or fails and is unable to remove the water from under the slab. A mechanical engineer should design the pumping and disposal of the water from the underslab drain and the perimeter drain system and the spacing of the cleanouts should be determined in conjunction with the structural engineer. We recommend including a redundant sump and pump system in the event larger groundwater events occur and evaluate if the system should include a backup power system. Further details for underslab drainage design will depend on the individual structure and subsurface conditions.

4.5 LATERAL EARTH PRESSURES

It is our understanding that some buildings will be designed with a below grade. Below grade walls will need to be designed to resist lateral earth pressures. The values presented in Table 4-1 assume that the walls are vertical; that a clean, free-draining granular fill is used as backfill within 2 feet behind the wall; the backfill condition at the ground surface is level; and that adequate drainage is provided to prevent the buildup of any hydrostatic pressure. In addition, the below grade walls will also be required to resist the surcharge of traffic that may occur during or after construction.

Table 4-1: Below-Grade Wall Design Parameters

Below-Grade Wall Design Parameters [a]	
Total Unit Weight of Backfill (γ)	125 pcf
Angle of Internal Friction (Φ)	26°
At-Rest Earth Pressure Coefficient, (K_o)	0.56
Active Earth Pressure Coefficient, (K_a)	0.39
Passive Earth Pressure Coefficient, (K_p)	2.56

a - Based on lean clay soil encountered

For walls that are free to rotate at least 0.001 times the height of the wall, such as a temporary earth retention system and retaining walls, then an active earth pressure condition will develop. Equivalent fluid densities can be calculated by multiplying unit weight by the listed pressure coefficients at different conditions. For passive resistance, we recommend using a minimum factor of safety of 2.0 in passive earth pressure calculations because of the large strains required to mobilize the full passive resistance, ignoring the upper 1 foot of soil in frost protected areas and ignoring the soil within the frost depth for other areas.

Drainage should be provided behind below-grade and retaining walls to prevent the buildup of hydrostatic pressures. We recommend that free-draining granular drainage aggregate be placed within 2 feet behind the back face of the walls. Drainage pipes are recommended to be installed behind the walls and be drained by gravity or a sump pit and pump system. The drainage pipes should be surrounded by a minimum of 6 inches of drainage aggregate. Due to the native soils containing a significant percentage of fine material, the drainage aggregate should be completely wrapped in a non-woven, high survivability, geotextile fabric with an apparent opening size (AOS) in the range of 70 to 100. The geotextile fabric should prevent migration of any adjacent soil into the drainage aggregate. We do not recommend using a drainage pipe that includes a geotextile sleeve in immediate contact with the pipe.

We recommend a relatively impermeable barrier that may consist of a minimum 2 foot thick clay cap or Bituminous or Portland cement concrete (i.e. walkways and drives) be placed around each of the below-grade structures to minimize surface water infiltration into the backfill against the walls. The clay material, if used, should be placed and compacted as recommended in this report and should extend from final grade to a depth of at least 2 feet. The clay cap or impermeable barrier should slope away from the structure at a minimum 2 percent grade. Surcharge loads, including those from adjacent (present and future) structures, as well as temporary construction equipment, within a zone defined by a plane extending at a 45 degree angle above the base of the wall should also be included in the design. The size of the compactor used behind the wall and requirements before backfilling should be confirmed by the structural engineer.

Given the presence of groundwater encountered in our exploration, it may be necessary to address groundwater issues in the below grade wall drainage system for some structures. In these cases, a groundwater management system and water proofing are recommended and may require incorporation of an underslab drainage system. We recommend including cleanouts for any drainage system in the event the subsurface drainage system becomes blocked or fails and is unable to remove the water from under the slab. A mechanical engineer should design the pumping and disposal of the water from the drainage system. We recommend including a redundant sump and pump system in the event larger groundwater events occur and evaluate if the system should include a backup power system. Further details for drainage design will depend on the individual structure and subsurface conditions.

4.6 SEISMIC SITE CLASSIFICATION

Section 1613 of the International Building Code 2015 (IBC) was used to assign a soil site classification. Based on the native soil conditions observed and assuming these are consistent or better to a depth of 100 feet, the soil site classification **D** (stiff soil) may be used in the structural design of the proposed buildings. Based on site class D, and mapped spectral response acceleration S_s and S_1 for Delafield, Wisconsin, the site coefficient F_a and F_v are 1.6 and 2.4, respectively. Portions of the site may be eligible for a soil site classification C (very dense soil and soft rock), but individual structures should be evaluated on a project by project basis.

4.7 PAVEMENT RECOMMENDATIONS

The pavement subgrade soil should be prepared and proof rolled following the recommendations in this report. Our recommendations below assume the subgrade conditions are consistent with the results of our subsurface testing evaluation and that the subgrade is thoroughly prepared for construction based on the recommendations developed in this report and pass a thorough proof roll prior to base material placement. As previously noted, the native clay soils encountered below the topsoil in the majority of the borings were observed with high moisture content (20% or more) which is an indication of potentially unstable subgrade conditions. Additional corrective action should be determined at the time of construction for areas where it is necessary to provide a more consistent subgrade. Alternatively the project could consider a subgrade stabilization or a geogrid and granular stabilization layer as part of the design.

The Wisconsin Asphalt Pavement Association (WAPA) Asphalt Pavement Design Guide, AASHTO 2021, and the results of the geotechnical evaluation were used to provide the recommendations for the new asphalt pavement. Based on clayey soils or clayey sand as the subgrade soil, GESTRA recommends that "poor soils" (estimated CBR value between 2 and 5, SSV = 2.5) conditions should be assumed as the subgrade soils. Table 4-2 below presents the recommended hot mix asphalt and base course thicknesses for planned roadways. Pavement sections may be modified if the traffic volumes are different than presented below and should be confirmed with the requirements of the local municipality.

Base course material should be placed at moisture content within 2% of optimum and compacted to a minimum of 95% of maximum dry density as determined by the modified Proctor. Hot Mix Asphalt (HMA) should be placed and compacted following the guidelines of WisDOT Standard Specifications for Highway and Structure Construction, section 460.3.

Table 4-2: Pavement Design Recommendations

Traffic Class	Pavement Layer Type	Thickness (inches)	Material Type	WisDOT Specifications
Traffic Class II, (subdivision streets, 20-year ESALs < 1 million) [a]	Hot Mix Asphalt	4.5	LT	Section 460
	Base Course (Dense Graded)	12.0	1-1/4 inch Crushed Stone	Section 305

a- Based on Table 7.2 of WAPA Asphalt Pavement Design Guide.

One of the important considerations in designing a high quality and durable pavement is providing adequate drainage. Drainage design for the proposed pavement section is out of GESTRA's scope for this project. It is important that bird baths (leeching basins) and surface waves are not created during construction of the HMA layer. A proper slope should be allowed and drainage should be provided along the edges of pavements and catch basins to prevent the accumulation of free water within the base course, which otherwise may result in subgrade softening or swelling, and pavement deterioration under exposure and repeated traffic conditions.

Pavement sections presented in the above table should not be used for areas which experience repeated truck traffic, equipment or truck parking areas, entrances and exit aprons, or contain trash dumpster loading zones. In the areas listed above, a Portland Cement Concrete (PCC) pavement should be used. The PCC layer thickness is recommended to be 6.0 inches, with a minimum of 6.0 inch-thick crushed stone base course, but may be modified depending on the final design. The reinforcement details for PCC layers should be designed by the project design engineer as the project conditions dictate.

All pavements require regular maintenance and repair in order to maintain the serviceability of the pavement. These repairs and maintenance are due to normal wear and tear of the pavement surface and are required in order to extend the serviceability life of the pavement. However, after 20 years of service, a normal pavement structure is likely to deteriorate to a point where pavement rehabilitation may be required to maintain the serviceability.

4.8 STORMWATER FEATURES

Multiple stormwater features are planned for the project which include detention ponds and bioinfiltration basins. Trio provided a summary of the preliminary stormwater plan which generally included normal water elevation for detention ponds and bottom of basin elevations for bioinfiltration basins. For the purpose of our analyses, we assumed the bottom of wet retention stormwater ponds at 5 feet below normal water level as provided by Trio. Within this report, the bottom of basin elevation identified is termed the native soil interface. At this time, design details are not finalized, so we have provided a summary of the elevations, conditions and comments related to infiltration and retention at each boring location and separated the summary by the different zones of the development.

The samples collected from the borings were evaluated for the stormwater features, and the WDNR Soil and Site Evaluation-Storm forms are included in Appendix I. The texture of the samples collected was identified visually. The stratification lines between the soil types were identified based on the available data. The actual in-situ changes between layers may differ slightly and may be more gradual than depicted on the evaluation form. Subsurface and groundwater conditions can vary in areas not explored by GESTRA. Infiltration rates for the observed soil textures were estimated based on the information provided in WDNR Technical Standard 1002, Table 2 (dated December 2022), and are presented in the Soil and Site Evaluation-Storm forms attached in Appendix I (separated by existing parcels).

In the following tables we have provided details for the individual stormwater features planned and evaluated each for wet retention and infiltration regardless of the current plan. Within each table we have provided comments related to a wet retention pond liner and infiltration. The information presented in this report should be reviewed in conjunction with the attached boring logs and Soil Evaluation-Storm forms. Typically, the comments will fall under the following conditions.

- Liner required:

GESTRA evaluated the native soil conditions following the general guidelines of the WDNR Conservation Practice Standard 1001 for the design of Wet Detention Ponds. The existing native soil conditions were compared to Appendix D (Liner Flow Chart for Wet Detention Ponds) to determine if a liner is required. At locations where *sandy clay, silty clay or clay* were not present to at least 3 feet below the native soil interface or if bedrock (possible bedrock/auger refusal) was within 2 feet or above the native soil interface, the location is recommended for a constructed liner.

- Not suitable for infiltration:

GESTRA evaluated the native soil conditions following the general guidelines of NR 151.124(4)(c) and Wisconsin Department of Natural Resources (WDNR) Conservation Standard Practice 1002. Locations were noted as eligible for exemption from infiltration where *sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, or clay* was present at the native soil interface. Locations where bedrock (possible bedrock/auger refusal) or groundwater was less than 3 feet from native soil interface were also noted as not suitable for infiltration as adequate separation and filtering layer would not be present.

Additional exploration through test pits and further laboratory testing is required if a basin will be designed for infiltration per WDNR Conservation Standard Practice 1002. When final design elevations are determined, additional evaluation of infiltration device is also recommended to establish if the soil meets the filtering layer requirements if the bottom of the pond will be within 3 feet of the bedrock or groundwater levels encountered. NR 151 requires the soil between the bottom of the infiltration system and seasonal high groundwater have at least a 3-foot layer of soil with 20% fines or greater or a 5-foot soil layer with 10% fines or greater. Per WDNR CPS 1002, *sandy loams, loams, silt loams, silts and all clay textural classifications* are assumed to meet the percent fines limitations of a filtering layer.

Zone 1 – northwest quadrant

Pond 13P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-36 [a]	900.7	890.3	885.2	896.7	Liner required. Silt loam at native soil interface. Not suitable for infiltration. Groundwater above native soil interface.
B-37	899.3		881.8	893.8	Liner required. Sandy clay loam at native soil interface. Not suitable for infiltration. Groundwater above native soil interface and soil eligible for infiltration exemption.

Notes: a – B-36 offset as directed by Trio. Staked location in wooded area and not accessible.

Zone 2 – northeast quadrant

Pond 9P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-1	899.7	893	887.2	895.7	Liner required. Sandy clay loam at native soil interface. Not suitable for infiltration. Groundwater above native soil interface and soil eligible for infiltration exemption.
B-2	906.9		898.4	901.9	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Groundwater and possible bedrock above native soil interface.

Basin 10B – Bioinfiltration

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-3	915.6	912	905.6	Not encountered	Liner required. Sand at native soil interface. Suitable for infiltration. Possible additional evaluation of filtering layer, sand at native soil interface.
B-4	919.8		910.3	Not encountered	Liner required. Silt loam at native soil interface. Not suitable for infiltration. Possible bedrock within 2 feet of native soil interface.

Pond 11P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-5	917.7	907.2	911.2	Not encountered	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock higher than native soil interface.
B-6	912.4		898.9	Not encountered	Liner potentially required. Sandy clay loam at native soil interface. At native soil interface, soil eligible for infiltration exemption.

Basin 8B – Dry Pond

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-8	918.7	916.5	912.2	NMR	Liner potentially required. Sand clay loam at native soil interface. At native soil interface, soil eligible for infiltration exemption.
B-9	919.2		910.2	NMR	Liner potentially required. Clay at native soil interface but does not extend 3 feet. At native soil interface, soil eligible for infiltration exemption.

Notes: NMR = no measurement recorded. B-8, B-9, predominately clayey soils to depth of boring.

Zone 3 – southwest quadrant

Pond 3P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-33	924.1	917	907.1	922.1	Liner required. Sandy loam at native soil interface. Not suitable for infiltration. Groundwater above native soil interface.
B-34	929.6		918.6	926.6	Liner required. Groundwater and possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock above native soil interface.

Notes: Groundwater elevation is extended reading. At completion of drilling groundwater at 920.6 feet in B-33 and 921.6 feet in B-34 which are also higher than plan native soil interface.

Pond 1B – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-26	938.3	933.5	922.3	933.3	Liner potentially required. Silty clay loam at native soil interface. Not suitable for infiltration. Groundwater within 1-foot of native soil interface. Eligible for infiltration exemption.
B-27	939		924.0	929	Liner potentially required. Silty clay loam at native soil interface. Eligible for infiltration exemption.

Notes: Groundwater elevation is extended reading, At completion of drilling groundwater at 927.3 feet in B-26. Extended water level reading used in our evaluation.

Pond 2B – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-25	932.6	931	920.6	925.6	Liner potentially required. Clay loam at native soil interface. Eligible for infiltration exemption. Additional excavation required to expose non-exempt material.

Basin 4B – Bioinfiltration

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-29	946.1	936	926.1	933.1	Liner required. Sand at native soil interface. Suitable for infiltration. May require filtering layer.
B-30	948.5		935.5	Not encountered	Liner required. Sand at native soil interface. Possible bedrock within 1 foot of native soil interface. Not suitable for infiltration. Possible bedrock within 1 foot of native soil interface.

Zone 4 – southeast quadrant

Pond 12P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-17	925.0	917	916.5	917.0	Liner required. Loamy sand at native soil interface. Possible bedrock within 1 foot of native soil interface. Not suitable for infiltration. Possible bedrock within 1 foot of native soil interface.
B-18	931.2		924.7	Not encountered	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock above native soil interface.

Pond 7P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-13	921.7	919.3	917.2	Not encountered	Liner required. Sandy clay loam at native soil interface. Possible bedrock within 3 feet of native soil interface. Not suitable for infiltration. Possible bedrock within 3 feet of native soil interface.
B-14	925.2		917.7	Not encountered	Liner required. Loamy sand and sandy clay loam at native soil interface. Possible bedrock within 2 feet of native soil interface. Not suitable for infiltration. Possible bedrock within 2 feet of native soil interface.

Pond 6P – Wet Retention

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-21	917.7	905	913.2	Not encountered	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock above native soil interface.
B-22	916.3		908.3	Not encountered	Liner required. Possible bedrock above native soil interface. Not suitable for infiltration. Possible bedrock above native soil interface.

Rain Garden 5B

Boring Location	Existing Ground Elevation	Plan Native Soil Interface Elevation	Bedrock Elev. (feet)	Groundwater Elev. (feet)	Comments
B-20	925.6	922	919.1	Not encountered	Liner may not be required. Silty clay at native soil interface, but possible bedrock within 3 feet of native soil interface. At native soil interface, soil eligible for infiltration exemption. Not suitable for infiltration. Possible bedrock within 3 feet of native soil interface.

The following recommendations are for the construction of a storm water basin as a wet detention pond and are in part developed based on the information available in the Wisconsin Department of Safety and Professional Services Chapter SPS 382.365 and 360.30 and Appendix D of Technical Standard 1001. At this time the design requirements are not known and our recommendations are based on an assumed Type A liner.

For an assumed Type A liner, as a minimum the base, sides and berms at elevations below the design high-water level should be constructed out of clay soils with the following properties:

- an average plasticity index (PI) of 12 or more with none less than 10,
- an average liquid limit (LL) of 25 or greater with none less than 20,
- a minimum of 50% of the soil by weight finer than the #200 sieve,
- a minimum of 90% of the soil by weight finer than the #4 sieve, and
- in-place hydraulic conductivity of the compacted soils should be 1x10-7 cm/sec or less.

The fine-grained cohesive soils encountered in the borings that meet the above requirements will require sifting and sorting of the soil to remove large gravel, cobbles and boulders before placing it as liner material. Otherwise, the project should consider importing suitable clayey soil for the liner construction. A complete testing program of the proposed liner material should be performed to confirm it meets the project requirements before and after placement. The native soil encountered near the pond bottom elevation typically included gravel, cobbles and boulders.

Alternatively, a high density polyethylene (HDPE) or geosynthetic clay liner (GCL) could be considered in lieu of the installation of a clay liner. Another option would be constructing the liner using a soil-bentonite clay mix, but this system typically requires design and construction by a specialty contractor. Refer to Appendix D of Technical Standard 1001 for additional information related to the clay liner and these alternative liners.

The clay liner soils should be compacted using a sheepsfoot (or similar type) compactor to a minimum of 90% of the modified Proctor dry density value and at a moisture content at least 2% wet of optimum as determined by ASTM D1557. This material should be compacted in maximum 6-inch loose lifts and the compacted clay should be free of organics, cobbles, boulders, debris and any other unsuitable soils. The clay shall be disked or otherwise mechanically processed before compaction to break up clods so that the maximum clod size is 4 inches. The resulting clay liner should have a minimum thickness of 2 feet. Refer to NRCS Wisconsin Construction Specification 300 – Clay Liners for additional information pertaining to the placement and compaction of clay liner material.

Additional quality assurance testing is recommended during construction to confirm the material being placed meets the project requirements, including testing the clay liner materials for hydraulic conductivity and material properties. Regardless of the liner system selected, we recommend it be installed by a company with demonstrated prior experience with the product.

4.9 CONSTRUCTION CONSIDERATIONS

The detailed means and method of excavation and construction should be decided by the contractor and approved by the project design team. Based on the specific site information, geotechnical exploration results and requirements for the proposed structure, the following issues should be taken into consideration during construction.

Dewatering

For shallow excavations, substantial water is not anticipated to be encountered during excavation. If water is encountered during shallow excavations, we anticipate the appropriate number of temporary sump pits and pumps should be sufficient to remove anticipated volume of water in the excavation. The contractor should be prepared to control groundwater and surface water and prevent it from accumulating in excavations or otherwise affecting construction.

Multiple borings encountered water at depths of 10 feet or less. Therefore, water should be anticipated during excavation in these areas and may be present in other areas not explored. Perched or trapped water may also be encountered. Where excavations below water are anticipated, the contractor should be prepared to install a construction dewatering system and we recommend the water level during construction should be kept a minimum of 2 feet below the deepest excavation during construction and until the final structure below grade drainage system is operating. A specialty dewatering contractor should be consulted for appropriate dewatering methods during construction as well as to evaluate potential impact on the proposed construction and surrounding structures. If the dewatering system is not properly designed, a boiling and/or heaving subgrade could occur possibly resulting in loss of ground support and detrimental effect to the nearby existing structures. Further exploration and evaluation of the groundwater is recommended when final design elevations are established.

Excavation Stability

Caving is a common issue for excavation side walls during construction, especially if fill material, granular soils, and/or water seepage are observed. An excavation plan should be developed and the length of excavation left open should be limited to prevent caving soil from covering the suitable bearing soils.

A temporary soil retention system may also be necessary in order to prevent caving or provide support of surrounding structures or utilities during construction. Providing recommendations or designing the retention system is out of the scope of services for GESTRA. The contractor must comply with the federal, state, local and updated OSHA regulations during excavation and in retention system design to ensure excavation safety.

Occupational Safety and Health Act (OSHA) has instituted strict standards for temporary construction excavations. These standards are outlined in 29 CFR Part 1926 Subpart P. Excavations within unstable soil conditions or extending five feet or more in depth should be adequately sloped or braced according to these standards. Excavation safety is the responsibility of the contractor. Material stockpiles or heavy equipment should not be placed near the edge of the excavation slopes. The actual stable slope angle should be determined during construction and will depend upon the loading, soil, and groundwater conditions encountered.

Weather Implications

The subgrade soil or the soil at foundation level might become unstable with exposure to adverse weather such as rain, snow and freezing temperatures. The unstable areas due to weather exposure may require an additional undercut or stabilization and the representative geotechnical engineer should assist with the determination of the depth of additional undercut or stabilization procedure based on observation of the field condition.

Soil Sensitivity

Soil at the construction site will be exposed to moisture and disturbance from construction traffic, construction equipment and human factors. Due to the disturbance, soil may become sensitive with contact of water. Contractor should try to lessen the exposure the soil at the construction site may encounter to moisture and disturbances. Therefore, the foundations, floor slabs and pavements should be constructed immediately after the review of the representative geotechnical engineer.

5.0 EXPLORATION AND TESTING PROCEDURES

5.1 LAYOUT AND ELEVATION PROCEDURES

A total of thirty-nine (39) soil borings were completed at the approximate locations shown on the attached Borehole Location Map in Appendix I. The location of the borings were selected, located in the field, and ground surface elevation provided by Trio (project civil engineer). One boring location B-36 was in a wooded area and inaccessible. GESTRA adjusted the location per the direction of Trio and noted the offset location and ground elevation.

5.2 FIELD TESTING PROCEDURES

The boreholes were drilled using a track mounted drill rig. The boreholes were initiated and advanced by using hollow stem augers. 24-inch split spoon samples were collected continuously to the depth of the boring. Borings were planned to be drilled to a maximum depth of 20 feet, but were terminated at auger refusal shallower than planned depth.

All representative soil samples were taken in general accordance with the "Standard Method for Penetration Test and Split-Barrel Sampling of Soils" (ASTM D1586). After each sampling, a soil sample was retained and placed in a jar and recorded for type, color, consistency, and moisture, sealed and then transported to the laboratory for further review and testing, if required. The specific drilling method used including the depths, rig type, crew chief, are included on each of the individual boring logs as it may change for each borehole.

5.3 LABORATORY TESTING PROCEDURES

After completion of drilling operations, all of the retained soil samples were transported to GESTRA's laboratory and classified by a geotechnical engineer using the Unified Soil Classification System (USCS) and the Field Book for Describing and Sampling Soils, USDA, NRCS, 2012. Charts describing the classification systems used are included in Appendix I of this report. The engineer assigned laboratory testing suited to extract important index properties of the soil layers. These tests included hand penetrometer, moisture content, mechanical analysis, hydrometers, and Atterberg limits.

STANDARD OF CARE

Our exploration was limited to evaluating subsurface soil and groundwater conditions pertaining to the proposed project. GESTRA did not perform any environmental, chemical, or hydrogeologic testing as these were not part of our work scope.

This report should be made available in its entirety to bidding contractors for information purposes. The soil boring logs and borehole location map should not be detached from this report. Our report is not valid if used for purposes other than what is described in the report.

All OSHA regulations such as those regarding proper sloping and temporary shoring of excavations should be followed during the entire construction process.

GESTRA has presented our professional opinions in this report in the form of recommendations. Our opinions are based on our understanding of current project information and related accepted engineering practices at the time of this report. Other than this, no warranty is implied or intended.

Sincerely,

GESTRA Engineering, Inc.

Report Prepared By:

DOUGLAS S. DETTMERS
E-35060

Douglas Dettmers

Douglas
Dettmers
Digitally signed by Douglas Dettmers
Date: 2023.05.16 11:06:29 -05'00'

Douglas Dettmers, P.E.
Senior Engineer

Report Reviewed By:

ERIC S. JESKE
E-44009

Eric Jeske
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Date: 2023.05.16 11:06:58 -05'00'

Eric Jeske, P.E.
Senior Engineer

APPENDIX I

SITE LOCATION MAP, BOREHOLE LOCATION MAP, TEST BORING LOGS, SOIL EVALUATION-STORM FORMS, GENERAL NOTES AND SOILS CLASSIFICATION

Base map obtained from Waukesha County GIS website

N

⬚ = Project Area

GESTRA Engineering, Inc.
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Milwaukee, WI 53207
Phone: (414) 933-7444
Fax: (414) 933-7844

Project Name & Location:
Thomas Farm Development
NWC Golf Road and Elmhurst Road
Town of Delafield, Wisconsin

Drawing Title:
Site Location Map

Project No.: 23083-10

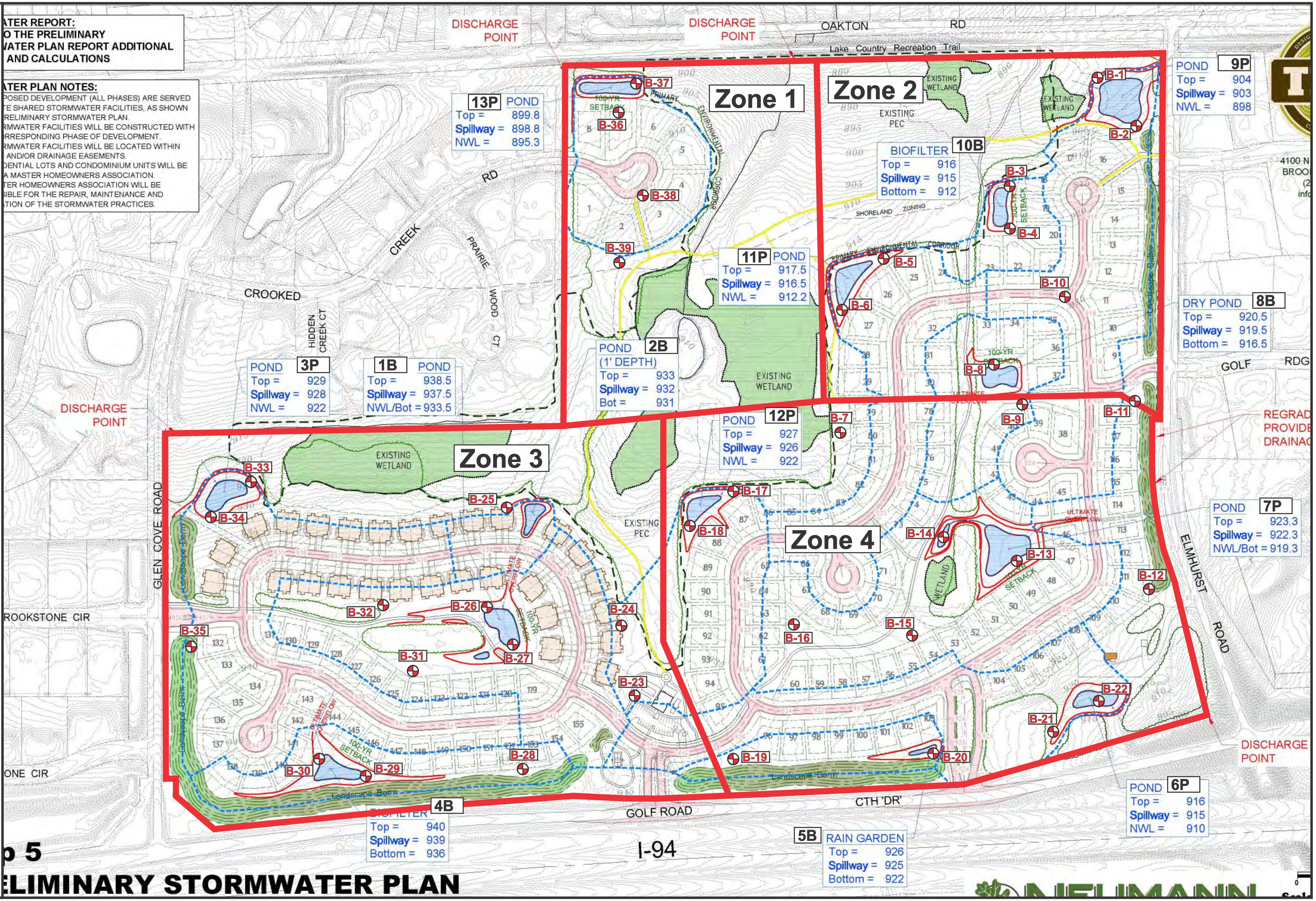
Scale: Not to Scale

Drawing No.: 1 of 2

Prepared by: JM

Checked by: DD

Date: May 6th, 2023



N

⊕ = Borehole Location

▭ = Zone Boundary

GESTRA

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Base Map obtained from "Map 5 - Preliminary Stormwater Plan" dated 04/07/2023 provided to GESTRA
Document Size = 11"x17"

Project Name & Location:
Thomas Farms Development
NWC Golf Road and Elmhurst Road
Town of Delafield, Wisconsin

Drawing Title:
Borehole Location Map

Project No.: 23083-10

Scale: 1 inch = 300 feet

Drawing No.: 2 of 2

Prepared by: JM

Checked by: DD

Date: May 6th, 2023

SOIL BORING LOG

GESTRA Engineering Inc.
191 W Edgerton Avenue
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Phone: 414-933-7444, Fax: 414-933-7844

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/10/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-1
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/10/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 389790	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415434	SURFACE ELEVATION 899.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	17	0 1 1 2	2			TOPSOIL (10-inches) 0.8 (898.9) LEAN CLAY WITH SAND, brown, moist, medium stiff 2 (897.7)	CL			.50			21.9	Driller noted standing water around boring.
SS - 2	18	2 2 4 4	6	▼		CLAYEY SAND WITH GRAVEL, light brown at 3', trace gray mottling, moist, loose 3.8 (895.9)	SC			.50				Gravel = 21.3% Sand = 29.4% P200 =49.2%
SS - 3	12	4 6 4 4	10	5 ▽	895.0	CLAYEY SAND, light brown, wet, medium dense, trace gravel	SC							
SS - 4	14	5 5 9 6	14			8 (891.7)								
SS - 5	12	5 9 14 17	23	10	890.0	SILTY SAND WITH GRAVEL, light brown, moist to wet, medium dense	SM							
SS - 6	18	3 4 17 16	21			12.2 (887.5)								
SS - 7	2	50/2"	R			End of Boring at 12.2 ft.								Auger Refusal at 12.5'. Possible bedrock.
				15	885.0									
				20	880.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 6 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 4 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 2 HOURS: 4 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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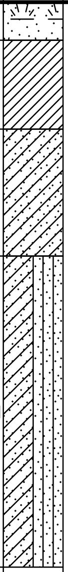
SOIL BORING LOG

PAGE NUMBER 1 of 1

PROJECT NAME: Thomas Farms Development
DATE DRILLING STARTED: 4/12/2023
BORING NUMBER: B-2
PROJECT NUMBER: 23083-10
PROJECT LOCATION: Delafield, Wisconsin
DATE DRILLING ENDED: 4/12/2023
DRILLING RIG: Geoprobe

BORING DRILLED BY
FIRM: GESTRA
CREW CHIEF: D. Harvey

FIELD LOG: C. Dietz
LAB LOG / QC: D. Dettmers
NORTHING: 389629
EASTING: 2415563
DRILLING METHOD: 2¼" HSA
SURFACE ELEVATION: 906.9 ft



Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	15	5 6 6 6	12		905.0	TOPSOIL (7-inches) 0.6 (906.3) LEAN CLAY, brown, moist, stiff, trace sand and gravel 2 (904.9)	CL			1.5	43	26	22.6	
SS - 2	12	3 7 8 5	15			CLAYEY SAND WITH GRAVEL, light brown, very moist, medium dense 4 (902.9)	SC							
SS - 3	14	8 20 27 16	47	5 ▼ ▽		SILTY CLAYEY SAND, light brown, moist to wet, medium dense to dense, gray gravel with sand layer around 5'	SC-SM							
SS - 4	12	3 8 7 38	15		900.0									
SS - 5	6	12 50/5"	R			8.9 (898)								
						End of Boring at 8.9 ft.								Driller noted auger refusal at 8.5'. Possible bedrock.
				10										
					895.0									
				15										
					890.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽ WATER ENCOUNTERED DURING DRILLING: 6 ft.
▼ WATER LEVEL AT COMPLETION: 6 ft.
▼ WATER LEVEL AFTER 3 HOURS: 5 ft.

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/7/2023
BORING NUMBER	**B-3**
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/7/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey
FIELD LOG	C. Dietz
LAB LOG / QC	D. Dettmers
NORTHING	389426
EASTING	2415140
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	915.6 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	14	2 3 4 6	7		915.0	TOPSOIL (6-inches) 0.5 (915.1) LEAN CLAY, brown, moist, stiff, trace sand, gravelly (1'-2') 2 (913.6)	CL			1.50			26.2	
SS - 2	12	3 23 42 29	55			GRAVEL WITH SAND, light brown, moist, medium dense to very dense, sand with gravel layers, (Possible Weathered Bedrock) 3.6 in/hr but adjusted to 0.50 in/hr due to very dense characteristics								
SS - 3	10	21 14 12 14	26	5	910.0	top of engineered soil at basin 10 (elev 912.0)								
SS - 4	14	7 15 48 18	63			bottom of basin 10 (elev 910.0)	GP							
SS - 5	14	18 50/3" 15 14	65/3			SS-5: with silt 10 (905.6)								
SS - 6	0	50/1"	R	10	905.0	End of Boring at 10.0 ft.								Driller noted auger refusal at 10'. Possible bedrock.
				15	900.0									
				20	895.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER NE HOURS: NMR			

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/7/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-4
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/7/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 389283	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415140	SURFACE ELEVATION 919.8 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q_u}$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10-inches) 0.8 (919)								
SS - 1	20	2 1 2 2	3			LEAN CLAY, brown, moist, stiff, trace sand, with gravel at 3'	CL	▨		1.75			22.1	
SS - 2	10	1 4 6 10	10			4 (915.8)				1.00			23.1	
SS - 3	10	25 31 28 15	59	5	915.0	SAND WITH SILT AND GRAVEL, light brown, moist, very dense, possible cobbles 6 (913.8)	SP-SM							
SS - 4	11	10 10 8 14	18			CLAYEY GRAVEL WITH SAND, light brown, moist, medium dense to very dense, sand with silt layers	GC							P200 = 32.5%
SS - 5	10	28 38 50/3	R			9.3 (910.5)								
				10	910.0	End of Boring at 9.3 ft.								Auger Refusal at 9.5'. Possible bedrock
				15	905.0									
				20	900.0									

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: NE ft.	⊠	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER NE HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/11/2023
BORING NUMBER	**B-5**
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/11/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey
FIELD LOG	B. Griffin
LAB LOG / QC	D. Dettmers
NORTHING	389182
EASTING	2414717
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	917.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	9	2 2 3 3	5			TOPSOIL (10-inches) 0.8 (916.9) CLAYEY SAND, light brown, moist, very loose to dense								
SS - 2	15	3 3 3 4	6		915.0		SC							
SS - 3	15	2 16 22 31	38	5		5 (912.7) GRAVEL WITH SAND AND SILT, brown and gray, moist, dense to very dense								
SS - 4	3	4 50/5"	R			6.9 (910.8)	GP-GM							
					910.0	End of Boring at 6.9 ft.								Driller noted auger refusal at 6.5. Possible bedrock.
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	☒	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NE			

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SOIL BORING LOG

PAGE NUMBER 1 of 1

PROJECT NAME: Thomas Farms Development
DATE DRILLING STARTED: 4/11/2023
BORING NUMBER: B-6
PROJECT NUMBER: 23083-10
PROJECT LOCATION: Delafield, Wisconsin
DATE DRILLING ENDED: 4/11/2023
DRILLING RIG: Geoprobe
BORING DRILLED BY
FIRM: GESTRA
CREW CHIEF: D. Harvey
FIELD LOG: C. Dietz
LAB LOG / QC: D. Dettmers
NORTHING: 389011
EASTING: 2414577
DRILLING METHOD: 2¼" HSA
SURFACE ELEVATION: 912.4 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	14	1 2 1 2	3			TOPSOIL (11-inches) 0.9 (911.5) LEAN CLAY, brown, moist, stiff	CL			1.0			20.1	
SS - 2	14	2 6 7 6	13		910.0	3 (909.4) CLAYEY SAND WITH GRAVEL, light brown, moist, medium dense to very dense, brown sand layer at 6'								Gravel = 25.0% Sand = 33.2% P200 =41.8%
SS - 3	16	4 16 9 4	25	5										
SS - 4	12	13 9 10 43	19		905.0									
SS - 5	13	16 15 14 12	29	10			SC-SM							
SS - 6	14	24 32 32 25	64											
SS - 7	18	64 55 60/2"	R		900.0	13.5 (898.9) End of Boring at 13.2 ft.								Driller noted auger refusal at 13.5'. Possible bedrock.
				15										
					895.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽ WATER ENCOUNTERED DURING DRILLING: NE ft.
▼ WATER LEVEL AT COMPLETION: NE
▼ WATER LEVEL AFTER 0 HOURS: NMR
CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1	BORING NUMBER **B-7**
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 388598	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2414571	SURFACE ELEVATION 916.3 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	18	0 1 2 4	3	▼	915.0	TOPSOIL (10-inches) 0.8 (915.5) LEAN CLAY, brown, moist, stiff, trace sand 2 (914.3)	CL	░ ▨		1.00			22.7	
SS - 2	14	0 2 3 2	5	▼		LEAN CLAY WITH SAND, light brown, moist to very moist, medium stiff, trace gravel		▨		0.50			12.3	
SS - 3	12	2 5 6 8	11	5			CL	▨		0-0.25			9.2	
SS - 4	9	3 5 4 3	9	▽	910.0	8 (908.3)		▨		0-0.25			9	
SS - 5	14	8 30 50/3"	R			GRAVEL WITH SAND, brown and gray, wet, very dense 9.3 (907)	GP	◌						
				10		End of Boring at 9.3 ft.								Driller noted auger refusal at 9.5'. Possible bedrock.
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 7.5 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 3 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 3 HOURS: 0.4 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/10/2023
BORING NUMBER	**B-8**
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/10/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey
FIELD LOG	B. Griffin
LAB LOG / QC	D. Dettmers
NORTHING	388826
EASTING	2415086
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	918.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10-inches) 0.8 (917.9)		░						
SS - 1	16	2 2 2 2	4			SANDY LEAN CLAY, brown, moist, stiff top of engineered soil at basin 8 (elev 916.5)		▨		1.00	48	27	21.7	
SS - 2	13	2 2 3 2	5		915.0	0.04 in/hr bottom of basin 8 (elev 915.5)	CL	▨		1.00			27.6	P200 = 52.8%
SS - 3	12	1 1 2 50/5"	3	5		5.9 (912.8) Gravelly at 5.5'		▨					9.2	
						End of Boring at 5.9 ft.								Auger Refusal at 6.5'. Possible bedrock.
					910.0									
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽ WATER ENCOUNTERED DURING DRILLING: NMR ft.

▼ WATER LEVEL AT COMPLETION: NMR

▼ WATER LEVEL AFTER 0 HOURS: NMR

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐

CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/10/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-9
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/10/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 388693	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415182	SURFACE ELEVATION 919.2 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (thickness not recorded)								
SS - 1	15	2 2 3 3	5			LEAN CLAY, brown, moist, stiff, trace to with sand	CL	▨		1.00			23.8	
SS - 2	17	2 4 3 3	7			4 (915.2)		▨		1.00			26	
SS - 3	13	2 6 3 3	9	5	915.0	CLAYEY SAND WITH GRAVEL, brown, moist to wet, loose 6 (913.2)	SC-SM	▨						Gravel = 17.1% Sand = 36.5% P200 =46.4%
SS - 4	17	1 2 3 5	5			LEAN CLAY, brown, moist, stiff, with gravel and sand at 8.5'	CL	▨		1.50			20	
SS - 5	4	11 50/3"	R			8.8 (910.4)		▨		0.50			20.1	
				10	910.0	End of Boring at 8.8 ft.								Driller noted auger refusal at 9'. Possible bedrock.
				15	905.0									
				20	900.0									

WATER & CAVE-IN OBSERVATION DATA

∇ WATER ENCOUNTERED DURING DRILLING: NMR ft.
▼ WATER LEVEL AT COMPLETION: NMR
▼ WATER LEVEL AFTER 0 HOURS: NMR

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/7/2023	PAGE NUMBER 1 of 1	BORING NUMBER **B-10**
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/7/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 389054	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415325	SURFACE ELEVATION 920.8 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (9-inches) 0.8 (920)		░						
SS - 1	18	2 1 2 3	3		920.0	LEAN CLAY, brown, moist, stiff to very stiff, trace sand, with gravel at 3'		▨		1.25-2.00			21.1	
SS - 2	9	2 3 3 4	6				CL	▨		1.25			18.7	
SS - 3	15	2 4 16 19	20	5	915.0	5 (915.8) GRAVEL WITH SILT AND SAND, light brown, moist, medium dense to dense		○						
SS - 4	19	16 20 25 22	45					○						
SS - 5	14	18 26 26 24	52	10			GP-GM	○						
SS - 6	14	9 34 50/4"	R		910.0	SS-6: Silty Sand with gravel layer 11.3 (909.5)		○						
						End of Boring at 11.3 ft.								Auger Refusal at 12'. Possible bedrock.
				15	905.0									
				20	900.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER NE HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/7/2023
BORING NUMBER	B-11
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/7/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey
FIELD LOG	C. Dietz
LAB LOG / QC	D. Dettmers
NORTHING	388704
EASTING	2415559
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	917.8 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (9-inches) 0.8 (917)								
SS - 1	24	2 2 3 3	5			LEAN CLAY, brown, moist, stiff to very stiff, trace sand 2 (915.8)	CL			1.25-2.00			25	
SS - 2	18	2 1 1 2	2		915.0	CLAYEY SAND WITH GRAVEL, light brown, very moist, very loose 4 (913.8)	SC							
SS - 3	9	4 50/3"	R	5		LEAN CLAY, light brown, moist, very stiff, trace sand 4.8 (913)	CL			2.5			14.4	
						End of Boring at 4.8 ft.								Driller noted auger refusal at 5.5'. Possible bedrock.
					910.0									
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽ WATER ENCOUNTERED DURING DRILLING: NE ft.

▼ WATER LEVEL AT COMPLETION: NE

▼ WATER LEVEL AFTER NE HOURS: NMR

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐

CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/7/2023
BORING NUMBER	**B-12**
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/7/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey
FIELD LOG	C. Dietz
LAB LOG / QC	D. Dettmers
NORTHING	388072
EASTING	2415606
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	917.4 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10.5-inches) 0.9 (916.5)								
SS - 1	21	2 2 2 3	4			LEAN CLAY, brown, moist, stiff, trace sand	CL			1.25			18.3	
SS - 2	14	2 39 50/2	R		915.0	3 (914.4)								
						GRAVEL WITH SAND, light brown, moist, very dense, trace to with silt, (Possible Weathered Bedrock)	GP							
SS - 3	4	13 15 50/0"	R	5		5 (912.4)								Driller noted auger refusal at 5'. Possible bedrock.
						End of Boring at 5.0 ft.								
					910.0									
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER NE HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER: 1 of 1

PROJECT NAME: Thomas Farms Development

DATE DRILLING STARTED: 4/10/2023

BORING NUMBER: **B-13**

PROJECT LOCATION: Delafield, Wisconsin

DATE DRILLING ENDED: 4/10/2023

PROJECT NUMBER: 23083-10

DRILLING RIG: Geoprobe

BORING DRILLED BY:
FIRM: GESTRA
CREW CHIEF: D. Harvey

FIELD LOG: B. Griffin

LAB LOG / QC: D. Dettmers

NORTHING: 388168

EASTING: 2415163

DRILLING METHOD: 2¼" HSA

SURFACE ELEVATION: 921.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10-inches) 0.8 (920.9)		░						
SS - 1	14	2 2 4 3	6		920.0	LEAN CLAY, brown, moist, very stiff 2 (919.7)	CL	▨		2.50			25.1	
SS - 2	15	2 2 2 1	4			CLAYEY SAND, light brown, moist to wet, very loose 4.2 (917.5)	SC	▨						
SS - 3	1	50/2"	R			End of Boring at 4.2 ft.								Driller noted auger refusal at 4.5'. Possible bedrock.
				5										
					915.0									
				10										
					910.0									
				15										
					905.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	⊠	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER NE HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/11/2023
BORING NUMBER	**B-14**
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/11/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey
FIELD LOG	B. Griffin
LAB LOG / QC	D. Dettmers
NORTHING	388248
EASTING	2414917
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	925.2 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	15	2 1 2 6	3			TOPSOIL (10-inches) 0.8 (924.4) LEAN CLAY, brown, moist, very stiff, trace sand 2 (923.2)	CL			2.5			25.4	
SS - 2	18	6 10 15 14	25			SILTY SAND WITH CLAY AND GRAVEL, reddish brown, moist, medium dense								
SS - 3	12	13 21 15 14	36	5	920.0		SP-SM							P200 = 22.5%
SS - 4	15	7 9 16 23	25			7.6 (917.6)								
SS - 5		50/1"	R			End of Boring at 7.6 ft.								Driller noted no recovery for SS-5. Auger refusal at 7.5'. Possible bedrock.
				10	915.0									
				15	910.0									
				20	905.0									

top of engineered soil at rain garden 7 (elev 921.3)

0.11 in/hr

bottom of rain garden 7 (elev 920.3)

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PAGE NUMBER	1 of 1		
PROJECT NAME	Thomas Farms Development	DATE DRILLING STARTED	4/11/2023
PROJECT LOCATION	Delafield, Wisconsin	DATE DRILLING ENDED	4/11/2023
BORING NUMBER	**B-15**	PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe	DRILLING METHOD	2¼" HSA
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey	SURFACE ELEVATION	926.8 ft
FIELD LOG	B. Griffin	NORTHING	387917
LAB LOG / QC	D. Dettmers	EASTING	2414812

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q_u}$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10-inches) 0.8 (926)		░						
SS - 1	15	2 2 2 2	4		925.0	LEAN CLAY, brown, moist, stiff		▨		1.0			21.8	
SS - 2	8	1 4 5 5	9			4 (922.8)	CL	▨		1.5			27.3	
SS - 3	17	4 4 9 5	13	5		CLAYEY SAND, light brown, moist to very moist, loose to very dense, trace to with gravel		▨						
SS - 4	12	4 5 5 6	10		920.0	SS-4: black sand layer	SC	▨						
SS - 5	0	5 50/5"	R			8.9 (917.9)		▨						
				10		End of Boring at 8.9 ft.								Driller noted auger refusal at 9.5'. Possible bedrock.
					915.0									
				15										
					910.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽ WATER ENCOUNTERED DURING DRILLING: NE ft.

▼ WATER LEVEL AT COMPLETION: NE

▼ WATER LEVEL AFTER 0 HOURS: NMR

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐

CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME: Thomas Farms Development		DATE DRILLING STARTED: 4/11/2023	PAGE NUMBER: 1 of 1
PROJECT LOCATION: Delafield, Wisconsin		DATE DRILLING ENDED: 4/11/2023	BORING NUMBER: **B-16**
			PROJECT NUMBER: 23083-10
			DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG: C. Dietz	NORTHING: 387955	DRILLING METHOD: 2¼" HSA
	LAB LOG / QC: D. Dettmers	EASTING: 2414415	SURFACE ELEVATION: 930.5 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
					930.0	TOPSOIL (9-inches) 0.8 (929.7)								
SS - 1	18	1 1 2 2	3			LEAN CLAY, brown, moist, stiff, trace sand	CL			1.0			21.2	
SS - 2	9	2 17 5 5	22			4 (926.5)				1.5			22.8	
SS - 3	9	2 3 4 3	7	5	925.0	LEAN CLAY WITH SAND, light brown to brown, moist, medium stiff, trace to with gravel 6 (924.5)	CL			0.5			12.3	
SS - 4	6	2 5 6 9	11			GRAVEL WITH SAND AND SILT, light brown, moist to wet, medium dense to very dense	GP-GM							
SS - 5	4	50/5"	R			8.4 (922.1)								
						End of Boring at 8.4 ft.								Driller noted auger refusal at 8.5'. Possible bedrock.
				10	920.0									
				15	915.0									
				20	910.0									

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: 8 ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 8 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 1.5 HOURS: 7.5 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PAGE NUMBER: 1 of 1

PROJECT NAME: Thomas Farms Development

DATE DRILLING STARTED: 4/11/2023

BORING NUMBER: **B-17**

PROJECT LOCATION: Delafield, Wisconsin

DATE DRILLING ENDED: 4/11/2023

PROJECT NUMBER: 23083-10

DRILLING RIG: Geoprobe

BORING DRILLED BY:
FIRM: GESTRA
CREW CHIEF: D. Harvey

FIELD LOG: C. Dietz

LAB LOG / QC: D. Dettmers

NORTHING: 388402

EASTING: 2414212

DRILLING METHOD: 2¼" HSA

SURFACE ELEVATION: 925 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	15	1 1 2 3	3			TOPSOIL (6.5-inches) 0.5 (924.5) LEAN CLAY, brown, moist, stiff, trace sand	CL	▨		1.5			26	
SS - 2	11	1 3 4 12	7			3.5 (921.5) SAND WITH SILT AND GRAVEL, brown, moist to wet, medium dense to very dense SS-3: sandy lean clay layer							13.2	
SS - 3	15	4 17 14 9	31	5	920.0		SP-SM	░						
SS - 4	15	14 17 12 9	29	▼										
SS - 5	2	50/5"	R			8.4 (916.6) End of Boring at 8.4 ft.								Driller noted auger refusal at 8.5'. Possible bedrock.
				10	915.0									
				15	910.0									
				20	905.0									

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: 8 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 8 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 2 HOURS: 8 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-18
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 388286	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2414066	SURFACE ELEVATION 931.2 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (6-inches) 0.5 (930.7)								
SS - 1	12	2 2 3 3	5		930.0	LEAN CLAY, brown, moist, stiff, trace sand and gravel	CL			1.0			26.5	
SS - 2	11	2 4 16 20	20			3 (928.2) GRAVEL WITH SILT AND SAND, light brown, moist, medium dense to dense								
SS - 3	13	16 15 17 18	32	5			GP-GM							P200 = 17.9%
SS - 4	1	50/3"	R		925.0	6.3 (924.9) End of Boring at 6.3 ft.								Driller noted auger refusal at 6.5'. Possible bedrock.
				10										
					920.0									
				15										
					915.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

∇ WATER ENCOUNTERED DURING DRILLING: NE ft.
▼ WATER LEVEL AT COMPLETION: NE
▼ WATER LEVEL AFTER 0 HOURS: NMR

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	BORING NUMBER **B-19**
		PROJECT NUMBER 23083-10
		DRILLING RIG Geoprobe

BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG B. Griffin	NORTHING 387504	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2414212	SURFACE ELEVATION 934.9 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (10") 0.8 (934.1)								
SS - 1	18	4 5 4 5	9			CLAYEY SAND, brown, moist, loose to medium dense	SC							P200 = 44.5%
SS - 2	18	4 5 13 12	18			3 (931.9) SAND, brown, moist, medium dense	SP							
SS - 3	18	15 18 22 22	40	5	930.0	4.7 (930.2) CLAYEY SAND, red brown, dry to moist, dense to very dense, trace gravel								P200 = 42.9%
SS - 4	18	9 20 24 22	44				SC							
SS - 5		16 22 50/1"	R			9.1 (925.8)								Driller did not record recovery on field log.
						End of Boring at 9.1 ft.								Driller noted auger refusal at 9.5'. Possible bedrock.
				10	925.0									
				15	920.0									
				20	915.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/11/2023
BORING NUMBER	B-20
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/11/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey
FIELD LOG	B. Griffin
LAB LOG / QC	D. Dettmers
NORTHING	387522
EASTING	2414883
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	925.6 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	10	2 3 3 4	6		925.0	TOPSOIL (9-inches) 0.8 (924.8) LEAN CLAY, brown with gray and black mottling, moist, very soft to very stiff, trace sand				1.0			24.7	
SS - 2	14	2 4 3 4	7				CL			2.0	35	20	22.1	
SS - 3	10	1 0 1 1	1	5	920.0	SS-3: with silt				0-0.25			20.6	
SS - 4	0	0 50/1"	R			SS-4: with silt 6.6 (919) End of Boring at 6.6 ft.				0.5-1.5			18.6	Driller noted auger refusal at 6.5'. Possible bedrock.
				10	915.0									
				15	910.0									
				20	905.0									

07 in/hr

top of engineered soil at rain garden 5 (elev 922.0)

bottom of rain garden 5 (elev 921.0)

WATER & CAVE-IN OBSERVATION DATA

▽ WATER ENCOUNTERED DURING DRILLING: NE ft.

▼ WATER LEVEL AT COMPLETION: NE

▼ WATER LEVEL AFTER 0 HOURS: NMR

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐

CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-21
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 387595	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415285	SURFACE ELEVATION 917.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	9	3 50/3"				TOPSOIL (8-inches) 0.7 (917)								
						GRAVEL WITH SAND, brown and light brown, moist, dense to very dense, possible cobbles or boulders at 1'	GP							
SS - 2	3	10 18 26 35	44		915.0	4.6 (913.1)								
SS - 3	1	50/1"	R	5		End of Boring at 4.6 ft.								Driller noted auger refusal at 4.5'. Possible bedrock.
					910.0									
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-22
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 387698	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2415438	SURFACE ELEVATION 916.3 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	20	0 0 1 2	1		915.0	TOPSOIL (9-inches) 0.8 (915.5) LEAN CLAY WITH SAND, brown, moist, stiff, trace gravel, layer of brown/gray silty clay at 5'				1			22.8	
SS - 2	19	0 3 3 3	6				CL			2.25			23.5	
SS - 3	10	2 1 2 5	3	5		5 (911.3) CLAYEY SAND WITH GRAVEL, brown, moist, medium dense				1.5				Gravel = 21.1% Sand = 33.6% P200 =45.4%
SS - 4	23	6 8 12 29	20		910.0		SC-SM							
						7.5 (908.8) GRAVEL, light brown, moist, medium dense, with sand	GP							
SS - 5	1	50/1"	R			8.1 (908.2) End of Boring at 8.1 ft.								Driller noted auger refusal at 8.1'. Possible bedrock.
				10										
					905.0									
				15										
					900.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: NE ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development		DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1
			BORING NUMBER **B-23**
PROJECT LOCATION Delafield, Wisconsin		DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10
			DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 387716	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2413881	SURFACE ELEVATION 940.4 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
					940.0	TOPSOIL (10-inches) 0.8 (939.6)								
SS - 1	20	2 4 12 9	16			CLAYEY SAND WITH GRAVEL, brown, moist, medium dense								
SS - 2	9	9 9 9 7	18				SC							
SS - 3	9	3 9 12 10	21	5	935.0	6 (934.4)								
SS - 4	12	7 10 10 7	20			SAND WITH SILT AND GRAVEL, light brown, moist, medium dense 8 (932.4)	SP-SM							
SS - 5	16	19 24 33 29	57	10		SILTY SAND WITH GRAVEL, light brown to brown, moist, very dense, trace clay	SM							
SS - 6	5	21 50/2"	R		930.0	10.7 (929.7)								
						End of Boring at 10.7 ft.								Driller noted auger refusal at 10.5'. Possible bedrock.
				15	925.0									
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

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PAGE NUMBER	1 of 1		
PROJECT NAME	Thomas Farms Development	DATE DRILLING STARTED	4/11/2023
BORING NUMBER	**B-24**	PROJECT NUMBER	23083-10
PROJECT LOCATION	Delafield, Wisconsin	DATE DRILLING ENDED	4/11/2023
DRILLING RIG	Geoprobe		
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG	C. Dietz
NORTHING	387950	DRILLING METHOD	2¼" HSA
LAB LOG / QC	D. Dettmers	EASTING	2413836
SURFACE ELEVATION	940.7 ft		

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	14	2 6 12 12	18		940.0	TOPSOIL (8-inches) 0.7 (940) SAND WITH GRAVEL, light brown, moist, medium dense 2 (938.7)	SP							
SS - 2	17	3 3 3 3	6			CLAYEY SAND, light brown, moist, trace to with gravel								
SS - 3	24	1 4 6 7	10	5	935.0		SC							
SS - 4	21	3 14 16 18	30			7 (933.7) SILTY/CLAYEY SAND WITH GRAVEL, light brown, moist, dense SS-4: 10" clay layer								
SS - 5	21	5 14 22 50/3"	36			9.8 (930.9)	SC-SM							
				10	930.0	End of Boring at 9.8 ft.								Driller noted auger refusal at 10.5'. Possible bedrock.
				15	925.0									
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER 1 of 1

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	BORING NUMBER B-25	
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 388347	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2413452	SURFACE ELEVATION 932.6 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	18	2 1 2 2	3			TOPSOIL (7.5-inches) 0.6 (932) LEAN CLAY WITH SAND, brown, moist, stiff, possible cobble or boulder at 2.5'				1.5			21.5	
SS - 2	6	1 50/2"	R		930.0	top of engineered soil at basin 2 (elev 931.0)	CL			1.0			25	
SS - 3	9	6 6 6 5	12	5		4 (928.6) SILTY SAND WITH GRAVEL, moist, medium dense 1.63 in/hr bottom of basin 2 (elev 928.0)	SM							P200 = 19.5%
SS - 4	12	3 7 5 5	12		▼ 925.0 ▽	8 (924.6) GRAVEL WITH SAND, brown, very dense, trace silt								
SS - 5	6	15 30 18 14	48	10			GP							
SS - 6	12	18 41 24	65			12.1 (920.5)								
SS - 7	1	50/1"	R		920.0	End of Boring at 12.1 ft.								Driller noted auger refusal at 12'. Possible bedrock
				15	915.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 8 ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 7 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 3 HOURS: 7 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER: 1 of 1

PROJECT NAME: Thomas Farms Development	DATE DRILLING STARTED: 4/11/2023	BORING NUMBER: **B-26**	
PROJECT LOCATION: Delafield, Wisconsin	DATE DRILLING ENDED: 4/11/2023	PROJECT NUMBER: 23083-10	DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA CREW CHIEF: S. Gonyer	FIELD LOG: C. Ray LAB LOG / QC: D. Dettmers	NORTHING: 388013 EASTING: 2413386	DRILLING METHOD: 3¼" HSA SURFACE ELEVATION: 938.3 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	13	1 1 2 2	3			TOPSOIL (8-inches) 0.7 (937.6) LEAN CLAY, brown, moist, very stiff, trace sand	CL			2.5			21.4	
SS - 2	14	1 3 3 3	6		935.0	4 (934.3)				2.0			26.9	
SS - 3	14	1 2 3 4	5	5 ▼		SILTY CLAY, light brown, moist, medium stiff to stiff 0.11 in/hr top of engineered soil at basin 1 (elev 933.5) 7 (931.3)	CL-ML			0.5-1.0			19.3	P200 = 97.2%
SS - 4	15	1 3 14 5	17			SANDY LEAN CLAY WITH GRAVEL, brown, moist to wet, stiff 0.11 in/hr bottom of basin 1 (elev 930.5)				1.0			20.2	
SS - 5	15	4 15 17 19	32		930.0		CL			1.5			9.3	
SS - 6	14	5 14 19 21	33	10 ▼		SS-6: rock pieces				1.5			8.3	
SS - 7	19	9 45 19 16	64	▽	925.0	13 (925.3) GRAVEL WITH SILT AND SAND, light brown, wet, very dense, rock pieces (possible weathered bedrock)	GP-GM							
SS - 8	12	6 24 50/3"	R	15		15.3 (923) End of Boring at 15.3 ft.								Driller noted auger refusal at 16'. Possible bedrock.
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 14 ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 11 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 48 HOURS: 5 ft.			

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SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/12/2023
BORING NUMBER	**B-27**
PROJECT NUMBER	23083-10
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/12/2023
DRILLING RIG	Diedrich D50 ATV
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: A. Woerpel
FIELD LOG	B. Griffin
LAB LOG / QC	D. Dettmers
NORTHING	387887
EASTING	2413473
DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	939 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	4	2 2 3 4	5			TOPSOIL (4-inches) 0.3 (938.7) LEAN CLAY, dark brown, moist, medium stiff 1.1 (937.9) LEAN CLAY, brown, moist, medium stiff, trace sand 1.6 (937.4) LEAN CLAY, light brown with gray mottling, moist, medium stiff to stiff	CL CL	▨		0.5			25	
SS - 2	15	2 3 4 5	7		935.0		CL	▨		1.0	25	10	18.9	
SS - 3	16	2 2 2 4	4	5		top of engineered soil at basin 1 (elev 933.5)		▨		1.0			18	
SS - 4	11	1 3 4 8	7			6.5 (932.5) SANDY LEAN CLAY WITH GRAVEL, light brown, moist, stiff 0.11 in/hr		▨		1.5			10.1	
SS - 5	10	5 28 30 16	58	10 ▼	930.0	SS-5: rock pieces bottom of basin 1 (elev 930.5)	CL	▨					8.8	
SS - 6	13	19 12 17 34	29	▽		11.5 (927.5) GRAVEL, brown, wet, medium dense to very dense 3.6 in/hr		▨						
SS - 7	10	9 5 23 23	28		925.0	clayey gravel at 14'	GP	▨						
SS - 8	12	4 7 50/2"	R	15 ▼		15.2 (923.8) End of Boring at 15.2 ft.		▨						Driller noted auger refusal at 15'. Possible bedrock.
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 11.5 ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 15 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 24 HOURS: 10 ft.			

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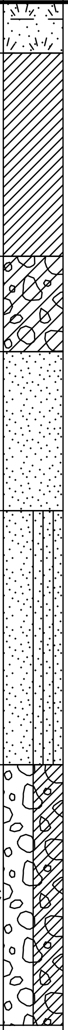
SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/11/2023
BORING NUMBER	**B-28**
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/11/2023
PROJECT NUMBER	23083-10
DRILLING RIG	LC 55
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: S. Gonyer
FIELD LOG	C. Ray
LAB LOG / QC	D. Dettmers
NORTHING	387470
EASTING	2413507
DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	943.4 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	17	1 1 2 3	3			TOPSOIL (10-inches) 0.8 (942.6) LEAN CLAY, brown, moist, stiff				1.5			19.8	
SS - 2	16	2 3 4 5	7		940.0	with gravel at 2-4' 4 (939.4)	CL			1.5			15.8	
SS - 3	16	2 4 5 7	9	5		CLAYEY GRAVEL WITH SAND, light brown, moist, loose 5.5 (937.9)	GC							Gravel = 45.8% Sand = 25.7% P200 =28.5%
SS - 4	19	5 12 17 16	29			SAND WITH GRAVEL, brown, moist, medium dense 8 (935.4)	SP							
SS - 5	20	7 17 27 14	44	10	935.0	SAND WITH SILT AND GRAVEL, light brown, moist, medium dense to dense	SP-SM							
SS - 6	18	4 12 14 18	26	▼		12 (931.4)								
SS - 7	17	12 24 30 54	54	▽	930.0	GRAVEL WITH CLAY AND SAND, brown, moist to wet, very dense								
SS - 8	5	7 50/3"	R	15		clayey sand layer at 14' SS-8: rock pieces	GP-GC							
SS - 9	0	50/1"		▼		16.1 (927.3) End of Boring at 16.1 ft.								Driller noted no recovery. Auger refusal at 16'. Possible bedrock.
				20	925.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 14 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 16 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 48 HOURS: 12 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER: 1 of 1
PROJECT NAME: Thomas Farms Development
DATE DRILLING STARTED: 4/11/2023
BORING NUMBER: **B-29**
PROJECT LOCATION: Delafield, Wisconsin
DATE DRILLING ENDED: 4/11/2023
PROJECT NUMBER: 23083-10
DRILLING RIG: LC 55
BORING DRILLED BY: FIRM: GESTRA
CREW CHIEF: S. Gonyer
FIELD LOG: C. Ray
LAB LOG / QC: D. Dettmers
NORTHING: 387445
EASTING: 2412979
DRILLING METHOD: 3¼" HSA
SURFACE ELEVATION: 946.1 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	13	2 2 3 5	5		**945.0**	TOPSOIL (9-inches) 0.8 (945.3) LEAN CLAY, brown, moist, stiff to very stiff 2 (944.1)	CL			1.0-2.0			21.7	
SS - 2	18	2 3 3 4	6			SANDY LEAN CLAY, brown to light brown, moist, stiff, trace gravel				1.0			7.6	
SS - 3	16	3 4 5 5	9	**5**	**940.0**		CL			1.0			8.5	
SS - 4	19	5 11 16 20	27			7 (939.1) SILTY SAND WITH GRAVEL, light brown, moist, medium dense				0.5				
SS - 5	16	5 14 18 18	32	**10**		9 (937.1) SILTY SAND, light brown, moist, medium dense to dense	SM							P200 = 23.6%
SS - 6	18	5 12 17 20	29		**935.0**		SM							
SS - 7	20	12 35 24 42	59		∇	12 (934.1) SILTY SAND WITH GRAVEL, light brown, moist to wet, dense to very dense								
SS - 8	0	12 20 13 16	33	**15**	**930.0**		SM							
SS - 9	7	22 50/5"				17 (929.1) GRAVEL WITH SAND, light brown, wet, very dense, rock pieces (possible weathered bedrock) 18.1 (928)	GP							
SS - 10	1	50/1"	R	**20**		End of Boring at 18.1 ft.								Driller noted auger refusal at 20'. Possible bedrock.

top of engineered soil at basin 4 (elev 936.0)

3.6 in/hr

bottom of basin 4 (elev 935.0)

3.6 in/hr

WATER & CAVE-IN OBSERVATION DATA

∇ WATER ENCOUNTERED DURING DRILLING: 13 ft.
▼ WATER LEVEL AT COMPLETION: NE
▼ WATER LEVEL AFTER 0 HOURS: NMR
CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME	Thomas Farms Development	DATE DRILLING STARTED	4/11/2023
PROJECT LOCATION	Delafield, Wisconsin	DATE DRILLING ENDED	4/11/2023
PAGE NUMBER	1 of 1	BORING NUMBER	B-30
PROJECT NUMBER	23083-10	DRILLING RIG	LC 55
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: S. Gonyer	FIELD LOG	C. Ray
LAB LOG / QC	D. Dettmers	NORTHING	387504
EASTING	2412823	DRILLING METHOD	3¼" HSA
SURFACE ELEVATION	948.5 ft		

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q_u}$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	8	2 2 2 4	4			TOPSOIL (24-inches), LEAN CLAY, dark brown, moist 2 (946.5)							21	
SS - 2	13	2 3 4 7	7		945.0	SANDY LEAN CLAY, light brown, moist, stiff, trace gravel 4 (944.5)	CL			1.0			9.1	
SS - 3	12	5 6 7 8	13	5		SILTY CLAY WITH GRAVEL, light brown, moist, stiff	CL-ML			1.0			10.7	
SS - 4	15	9 10 10 13	20			7 (941.5) GRAVEL WITH SAND, light brown, moist, medium dense								
SS - 5	5	16 25 50/5"	R		940.0	9 (939.5)	GP							
SS - 6	4	35 50/3"	R	10		GRAVEL WITH SAND, gray and light brown, moist, very dense, rock pieces (possible weathered bedrock)	GP							
SS - 7	4	20 50/1"	R			12.7 (935.8)								
					935.0	End of Boring at 12.7 ft.								Driller noted auger refusal at 13'. Possible bedrock.
				15										
					930.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽ WATER ENCOUNTERED DURING DRILLING: NE ft.

▼ WATER LEVEL AT COMPLETION: NE

▼ WATER LEVEL AFTER 0 HOURS: NE

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐

CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER 1 of 1

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	BORING NUMBER **B-31**	PROJECT NUMBER 23083-10
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	DRILLING RIG Geoprobe	
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: A. Woerpel	FIELD LOG B. Griffin	NORTHING 387799	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2413138	SURFACE ELEVATION 939.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	16	3 3 3 6	6			TOPSOIL (10-inches) 0.8 (938.9) LEAN CLAY, brown, moist, stiff to very stiff		▨		2.5			22.3	
SS - 2	10	3 4 4 5	8			trace of black lean clay at 2-4' 4.3 (935.4)	CL	▨		1.5-2.0			26.1	
SS - 3	12	2 2 4 8	6	5	935.0	CLAYEY SAND WITH GRAVEL, brown to light brown, moist to wet, loose to medium dense		▨						
SS - 4	12	3 7 10 22	17	▽			SC	▨						
SS - 5	13	7 6 8 8	14	10	930.0			▨						
SS - 6	17	11 15 50/5"	R	▼		11 (928.7) SILTY SAND, light brown, wet, very dense, possible weathered bedrock		▨						
SS - 7	8	50/5"	R				SM	▨						
SS - 8	5	50/5"	R			14.5 (925.2)		▨						
				15	925.0	End of Boring at 14.5 ft.								Drilller noted auger refusal at 15'. Possible bedrock.
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 8 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 12 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER: 1 of 1

PROJECT NAME: Thomas Farms Development

DATE DRILLING STARTED: 4/11/2023

BORING NUMBER: **B-32**

PROJECT NUMBER: 23083-10

PROJECT LOCATION: Delafield, Wisconsin

DATE DRILLING ENDED: 4/11/2023

DRILLING RIG: LC 55

BORING DRILLED BY: FIRM: GESTRA, CREW CHIEF: S. Gonyer

FIELD LOG: C. Ray

LAB LOG / QC: D. Dettmers

NORTHING: 388020

EASTING: 2413038

DRILLING METHOD: 3¼" HSA

SURFACE ELEVATION: 939.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (8-inches) 0.7 (939)								
SS - 1	15	1 2 3 3	5			LEAN CLAY, brown, moist, stiff to very stiff	CL			1.5-2.5			21.1	
SS - 2	14	1 2 3 2	5			3 (936.7) CLAYEY SAND, light brown, moist, loose, trace gravel	SC			1.5			20.3	
SS - 3	17	1 1 4 5	5	5	935.0									
SS - 4	12	16 40 18 12	58			7 (932.7) SAND WITH SILT AND GRAVEL, light brown, moist, very dense	SP-SM							
				∇		8 (931.7) GRAVEL WITH SAND, light brown, wet, dense	GP							
SS - 5	17	12 16 20 21	36	▼ 10	930.0	10 (929.7)								
SS - 6	15	13 25 19 18	44			SILTY SAND WITH GRAVEL, light brown, wet, dense to very dense, trace clay	SM							
SS - 7	0	50/1"	R			possible weathered bedrock 12' to EOB								Driller noted no reovery.
SS - 8	5	9 50/3"	R	15	925.0	14.8 (924.9)								
						End of Boring at 14.8 ft.								Driller noted auger refusal at 16'. Possible bedrock.
				20	920.0									

WATER & CAVE-IN OBSERVATION DATA

∇ WATER ENCOUNTERED DURING DRILLING: 8 ft.

▼ WATER LEVEL AT COMPLETION: 9 ft.

▼ WATER LEVEL AFTER 48 HOURS: 9 ft.

CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐

CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

GESTRA Engineering Inc.
191 W Edgerton Avenue
Milwaukee, WI 53207
Phone: 414-933-7444, Fax: 414-933-7844

SOIL BORING LOG

PROJECT NAME: Thomas Farms Development	DATE DRILLING STARTED: 4/12/2023	PAGE NUMBER: 1 of 1	BORING NUMBER: B-33
PROJECT LOCATION: Delafield, Wisconsin	DATE DRILLING ENDED: 4/12/2023	PROJECT NUMBER: 23083-10	DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA CREW CHIEF: A. Woerpel	FIELD LOG: B. Griffin	NORTHING: 388433	DRILLING METHOD: 2¼" HSA
	LAB LOG / QC: D. Dettmers	EASTING: 2412595	SURFACE ELEVATION: 924.1 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength ($\mathbf{Q}_u$ or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (6-inches) 0.5 (923.6)								
SS - 1	10	4 4 5 6	9	▼		LEAN CLAY WITH GRAVEL, brown, moist, very stiff, organics (possible fill) 2.2 (921.9)	CL			2.0			21.8	
SS - 2	13	3 5 3 2	8	▼	920.0	CLAYEY SAND, light brown, loose to medium dense, trace gravel	SC							
SS - 3	13	2 3 4 6	7	5										
SS - 4	8	3 4 12 9	16											Gravel = 14.9% Sand = 42.9% P200 =42.2%
SS - 5	13	4 11 11 11	22	10	915.0	10.4 (913.7)								
SS - 6	19	5 14 14 21	28			SILT, blueish gray with brown mottling, dry to moist, medium dense to very dense	ML						7.8	
SS - 7	16	6 11 12	23		910.0								9.8	
SS - 8	17	9 19 31 27	50	15		16 (908.1)								
SS - 9	6	50/0"	R			End of Boring at 16.0 ft.								Driller noted auger refusal at 17'. Possible bedrock.
				20	905.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE ft.	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 3.5 ft.	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 24 HOURS: 2 ft.		

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/12/2023
BORING NUMBER	**B-34**
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/12/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: A. Woerpel
FIELD LOG	B. Griffin
LAB LOG / QC	D. Dettmers
NORTHING	388315
EASTING	2412460
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	929.6 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
						TOPSOIL (5-inches) 0.4 (929.2)								
SS - 1	11	3 3 4 6	7			LEAN CLAY, brown, moist, very stiff 2.5 (927.1)	CL			3.0			21.7	
SS - 2	12	3 4 6 5	10	▼		CLAYEY SAND, light brown, moist to wet, medium dense, trace to with gravel								P200 = 21.0%
SS - 3	0	5 7 10 7	17	5	925.0									Driller noted no recovery.
SS - 4	0	4 5 6 8	11	▼			SC							Driller noted no recovery. Flight auger sample.
SS - 5	15	6 11 16 38	27	▽ 10	920.0	10.5 (919.1)								
SS - 6	10	27 50/4"	R			GRAVEL WITH SAND, dark brown, wet, very dense 10.8 (918.8) End of Boring at 10.8 ft.	GP							Driller noted auger refusal at 11'. Possible bedrock.
				15	915.0									
				20	910.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 9 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 8 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 24 HOURS: 3 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

GESTRA Engineering Inc.
191 W Edgerton Avenue
Milwaukee, WI 53207
Phone: 414-933-7444, Fax: 414-933-7844

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/11/2023	PAGE NUMBER 1 of 1	BORING NUMBER B-35
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/11/2023	PROJECT NUMBER 23083-10	DRILLING RIG LC 55
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: S. Gonyer	FIELD LOG C. Ray	NORTHING 387880	DRILLING METHOD 3¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2412395	SURFACE ELEVATION 937.8 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	15	1 2 2 2	4			TOPSOIL (9-inches) 0.8 (937) LEAN CLAY, brown, moist, stiff to very stiff				2.0			21.2	
SS - 2	12	1 2 3 4	5		935.0	sandy lean clay 2-4' 4 (933.8)	CL			1.0				
SS - 3	19	2 3 3 5	6	5		CLAYEY SAND WITH GRAVEL, light brown, moist, loose	SC							
SS - 4	16	7 18 18 16	36		930.0	7 (930.8) SAND WITH SILT AND GRAVEL, light brown, moist, dense to very dense	SP-SM							
SS - 5	4	26 50/6"	R		▼	8.5 (929.3) GRAVEL WITH SAND, light brown, moist to wet, very dense, possible weathered bedrock								
SS - 6	3	50/5"	R	10	▽		GP							
SS - 7	6	7 50/5"	R		925.0	SS-7: trace to with clay 12.9 (924.9)								
						End of Boring at 12.9 ft.								Driller noted auger refusal at 13'. Possible bedrock.
				15										
					920.0									
				20										

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 10 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▽	WATER LEVEL AT COMPLETION: 10 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 48 HOURS: 9 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

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SOIL BORING LOG

PROJECT NAME Thomas Farms Development	DATE DRILLING STARTED 4/12/2023	PAGE NUMBER 1 of 1	BORING NUMBER **B-36**
PROJECT LOCATION Delafield, Wisconsin	DATE DRILLING ENDED 4/12/2023	PROJECT NUMBER 23083-10	DRILLING RIG Geoprobe
BORING DRILLED BY FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG C. Dietz	NORTHING 389672	DRILLING METHOD 2¼" HSA
	LAB LOG / QC D. Dettmers	EASTING 2413827	SURFACE ELEVATION 900.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
					900.0	TOPSOIL (9-inches) 0.8 (899.9)								
SS - 1	24	0 1 3 3	4			LEAN CLAY, brown, moist, stiff to very stiff, trace sand	CL			1.5			25.9	Staked location not accessible. B-36 offset 100' S and 135' E. GESTRA obtained coordinates and elevations.
SS - 2	11	0 2 1 1	3			4 (896.7) ▼				1.5-2.5			26.1	
SS - 3	11	4 6 5 4	11	5	895.0	CLAYEY SILTY SAND, light brown, very moist to wet, loose to dense	SC-SM							
SS - 4	20	3 4 5 4	9											
SS - 5	7	11 12 22 13	34	10		10 (890.7)								
SS - 6	14	16 50 50/4"	R		890.0	SILTY SAND, light brown, moist, very dense	SM							Driller noted possible cobbles or boulders at 11'.
SS - 7	17	20 32 50/5"	R											
SS - 8	16	36 56 50/4"	R	15		15.4 (885.3)								
					885.0	End of Boring at 15.4 ft.								Driller noted auger refusal at 15.5'. Possible bedrock.
				20	880.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 4 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 4 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0.5 HOURS: 4 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

SOIL BORING LOG

GESTRA Engineering Inc.
191 W Edgerton Avenue
Milwaukee, WI 53207
Phone: 414-933-7444, Fax: 414-933-7844

PROJECT NAME: Thomas Farms Development	DATE DRILLING STARTED: 4/12/2023	PAGE NUMBER: 1 of 1	BORING NUMBER: B-37
PROJECT LOCATION: Delafield, Wisconsin	DATE DRILLING ENDED: 4/12/2023	PROJECT NUMBER: 23083-10	DRILLING RIG: Geoprobe
BORING DRILLED BY: FIRM: GESTRA CREW CHIEF: D. Harvey	FIELD LOG: C. Dietz LAB LOG / QC: D. Dettmers	NORTHING: 389770 EASTING: 2413886	DRILLING METHOD: 2¼" HSA SURFACE ELEVATION: 899.3 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	19	2 2 3 3	5			TOPSOIL (7.5-inches) 0.6 (898.7) LEAN CLAY WITH SAND, brown, moist, stiff	CL			1.25			17.3	
SS - 2	17	2 3 5 9	8			3 (896.3) CLAYEY SAND, light brown, very moist, loose to medium dense, trace gravel	SC						11	Gravel = 14.7% Sand = 40.8% P200 =44.5%
SS - 3	1	5 7 7 6	14	5	895.0	6 (893.3)								Driller noted rock in SS-3. Possible cobble and/or boulder.
SS - 4	20	4 8 9 10	17			SILTY CLAYEY SAND, light brown, moist, medium dense to very dense, trace gravel	SC-SM							
SS - 5	23	10 18 17 23	35	10	890.0									
SS - 6	24	13 21 23 23	44											
SS - 7	24	28 36 34 33	70		885.0	wet at 14'								
SS - 8	19	19 32 42 39	74	15		moist at 15'								
SS - 9	14	31 41 50/2"	R			wet at 16' 17.2 (882.1) End of Boring at 17.2 ft.								Driller noted auger refusal at 17.5'. Possible bedrock.
				20	880.0									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 14 ft.	▨	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 7 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 1 HOURS: 5.5 ft.			

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SOIL BORING LOG

PAGE NUMBER 1 of 1

PROJECT NAME: Thomas Farms Development
DATE DRILLING STARTED: 4/12/2023
BORING NUMBER: **B-38**
PROJECT LOCATION: Delafield, Wisconsin
DATE DRILLING ENDED: 4/12/2023
PROJECT NUMBER: 23083-10
DRILLING RIG: Diedrich D50 ATV
BORING DRILLED BY: FIRM: GESTRA
CREW CHIEF: A. Woerpel
FIELD LOG: B. Griffin
LAB LOG / QC: D. Dettmers
NORTHING: 389394
EASTING: 2413909
DRILLING METHOD: 3¼" HSA
SURFACE ELEVATION: 910 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	8	2 3 4 35	7			TOPSOIL (measurement not recorded) 0.5 (909.5) LEAN CLAY, red and brown with black mottling, moist, stiff 2 (908)	CL	▨		1.0			24.3	Driller noted possible boulder.
SS - 2	12	3 3 4 6	7			CLAYEY SAND, light brown, moist to very moist, loose to medium dense		▨						
SS - 3	13	3 5 11 8	16	5	905.0	sandy gravel layer at 4.5'	SC	▨						
SS - 4	14	3 4 10 8	14			8 (902)		▨						
SS - 5	10	4 31 15 11	46	10	900.0	SANDY LEAN CLAY, light brown, moist, very stiff gravel layer at 9'	CL	▨		2.5			7.4	
SS - 6	16	6 9 13	22			12 (898)		▨		2.0			5.7	
SS - 7	15	3 3 5	8			SANDY LEAN CLAY, gray, moist, stiff 14 (896)	CL	▨		1.0			10.1	
SS - 8	12	4 8 7	15	15	895.0	CLAYEY/SILTY SAND, gray, very moist to moist, medium dense to very dense, trace to with gravel	SC-SM	▨						
SS - 9	10	15 30 50/2"	R			17.2 (892.8)		▨						
				20	890.0	End of Boring at 17.2 ft.								Driller noted auger refusal at 19'. Possible bedrock.

WATER & CAVE-IN OBSERVATION DATA

∇ WATER ENCOUNTERED DURING DRILLING: NE ft.
▼ WATER LEVEL AT COMPLETION: NE
▼ WATER LEVEL AFTER 0 HOURS: NMR
CAVE DEPTH AT COMPLETION: NMR WET ☐ DRY ☐
CAVE DEPTH AFTER 0 HOURS: NMR WET ☐ DRY ☐

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

GESTRA

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SOIL BORING LOG

PAGE NUMBER	1 of 1
PROJECT NAME	Thomas Farms Development
DATE DRILLING STARTED	4/12/2023
BORING NUMBER	B-39
PROJECT LOCATION	Delafield, Wisconsin
DATE DRILLING ENDED	4/12/2023
PROJECT NUMBER	23083-10
DRILLING RIG	Geoprobe
BORING DRILLED BY	FIRM: GESTRA CREW CHIEF: A. Woerpel
FIELD LOG	B. Griffin
LAB LOG / QC	D. Dettmers
NORTHING	389169
EASTING	2413830
DRILLING METHOD	2¼" HSA
SURFACE ELEVATION	911.7 ft

Number and Type	Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation	Soil Description and Geological Origin for Each Major Unit	USCS Classification	Graphic	Well Diagram	Unconfined Comp. Strength (Q_u or Q_p) (tsf)	Liquid Limit	Plasticity Index	Moisture Content (%)	Comments
SS - 1	12	2 3 4 4	7		910.0	TOPSOIL (5-inches) 0.4 (911.3) LEAN CLAY, brown, moist, very stiff, trace sand 2 (909.7)	CL			2.0			30.3	
SS - 2	12	2 6 7 6	13			LEAN CLAY WITH SAND, light brown with gray mottling, moist, stiff, trace gravel	CL			1.5			16.5	
SS - 3	18	3 9 8 16	17	5		4.8 (906.9) CLAYEY SAND, light brown, moist, medium dense, trace gravel gravelly at 5'	SC							
SS - 4	24	2 3 3 5	6		905.0	8 (903.7)								
SS - 5	18	3 4 6 8	10	10		SANDY LEAN CLAY, light brown, moist to very moist, stiff	CL			1.0			9.9	
SS - 6	24	7 8 12 11	20		900.0	12 (899.7)				1.0			9	
SS - 7	22	2 3 6 13	9			CLAYEY SAND, gray, moist, loose to medium dense, trace gravel Wet black sand at 14'	SC							
SS - 8	14	3 11 11 25	22	15		15 (896.7) SANDY SILT, gray, moist, very dense, trace gravel	ML						9.5	
SS - 9	13	21 47 50/1"	R		895.0	17.1 (894.6) End of Boring at 17.1 ft.							7	Driller noted auger refusal at 17.5'. Possible bedrock.
				20										

WATER & CAVE-IN OBSERVATION DATA

∇	WATER ENCOUNTERED DURING DRILLING: 13 ft.		CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: 14 ft.		CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 24 HOURS: 2 ft.			

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

Wis. Dept. of Safety and Professional Services
Division of Industry Services

SOIL EVALUATION - STORM

in accordance with SPS 382.365 and 385, Wis. Adm. Code

Page 1 of 5

County
Waukesha

Parcel I.D.
DELT0809995

Reviewed by: J. Metzinger, E.I.T
Date: 04/24/2023

Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and BM referenced to nearest road.

Please print all information.

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

Property Owner: THE ROBERT G AND ANN B THOMAS REVOCABLE TRUST

Property Location: Govt. Lot SE 1/4 NE 1/4 S 23 T 7 N R 18 ☑ E (or) ☐ W

Property Owner's Mailing Address: N20W29352 OAKTON RD

Lot #
Block #
Subd. Name or CSM#

City: PEWAUKEE
State: WI
Zip Code: 53072
Phone Number: ( )

☐ City ☐ Village ☒ Town: DELAFIELD
Nearest Road: THOMAS ROAD

Drainage area ________ ☐ sq. ft. ☐ acres

Optional:
Test Site Suitable for (check all that apply)

☐ Irrigation ☐ Bioretention trench ☐ Trench(es)
☐ Rain garden ☐ Grassed swale ☐ Reuse
☐ Infiltration trench ☐ SDS (> 15' wide) ☐ Other ________

Hydraulic Application Test Method:

☒ Morphological Evaluation
☐ Double-Ring Infiltrometer
☐ Other (specify) ________

B-1 Obs. # ☒ Boring ☐ Pit
Ground surface elev. 899.7 ft.
Depth to limiting factor -48 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	36	10YR 3/4	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	45	10YR 6/4	c, 2, D, 10YR 7/1	GRSL	0, M	MFR	-	26.9	0.50
C	96	10YR 6/6	-	GRSCL	0, SG	MVFR	-	15 - 30	0.11
C	150	10YR 6/4	-	XGRLS	0, M	MFR	-	50 - 65	1.63

B-2 Obs. # ☒ Boring ☐ Pit
Ground surface elev. 906.9 ft.
Depth to limiting factor -60 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	7	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
BC	24	10YR 3/4	-	C	2, VF, SBK	MVFI	-	<10	0.07
C	48	10YR 6/6	-	GRSL	0, M	MFR	-	15 - 20	0.50
C	60	10YR 6/4	-	GRSIL	0, M	MFR	-	15 - 30	0.13
C	66	10YR 8/1	-	VGRS	0, SG	MLO	-	35 - 55	3.60
C	102	10YR 6/4	-	GRSIL	0, M	MFR	-	15 - 30	0.13

CST/PSS Name (Please Print): Douglas Dettmers, PE
Signature: Douglas Dettmers
CST/PSS Number: 35060-6

Address: GESTRA Engineering, Inc. - 191 W. Edgerton Avenue, Milwaukee, WI 53207
Date Evaluation Conducted: 04/24/2023
Telephone Number: 414-933-7444

Property Owner THE ROBERT G AND ANN B THOMAS REVOCABLE TRU   Parcel ID # DELT0809995   Page 2 of 5

B-3 Obs. #   ☒ Boring ☐ Pit   Ground surface elev. 915.6 ft.   Depth to limiting factor -120 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/6	-	SC	2, VF, SBK	MFI	-	5 - 14	0.04
Cr	120	10YR 8/2	-	XGRS	0, SG	MLO	-	60 - 80	3.60

B-4 Obs. #   ☒ Boring ☐ Pit   Ground surface elev. 919.8 ft.   Depth to limiting factor -114 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	36	10YR 3/4	-	C	2, VF, SBK	MFI	-	< 10	0.07
C	48	10YR 3/4	-	VGRC	0, M	MFI	-	35 - 45	0.07
C	72	10YR 7/2	-	XGRSL	0, SG	0, SG	-	70 - 80	0.50
C	114	10YR 6/4	-	VGRSIL	0, M	MFR	-	50 - 59	0.13

B-8 Obs. #   ☒ Boring ☐ Pit   Ground surface elev. 918.7 ft.   Depth to limiting factor -78 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/1	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	66	10YR 3/6	-	SCL	2, VF, SBK	MFI	-	< 5	0.11
C	78	10YR 5/4	-	GRSICL	0, M	MFI	-	20 - 30	0.04

Property Owner THE ROBERT G AND ANN B THOMAS REVOCABLE TRU Parcel ID # DELT0809995 Page 3 of 5

B-13 Obs. # ☒ Boring ☐ Pit Ground surface elev. 921.7 ft. Depth to limiting factor -54 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR		< 5	0.13
B	24	10YR 3/6	-	C	2, VF, SBK	MVFI		< 10	0.07
C	54	10YR 5/8	-	SCL	0, M	MVFR		5 - 14	0.11

B-14 Obs. # ☒ Boring ☐ Pit Ground surface elev. 925.2 ft. Depth to limiting factor -90 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/6	-	C	2, VF, SBK	MVFI	-	< 10	0.07
C	72	10YR 5/4	-	VGRLS	0, SG	MLO	-	35 - 45	1.63
C	90	7.5YR 4/3	-	VGRSCL	0, M	MVFI	-	40 - 50	0.11

B-21 Obs. # ☒ Boring ☐ Pit Ground surface elev. 917.7 ft. Depth to limiting factor -54 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	8	10YR 2/1	-	L	2, VF, SBK	MFR	-	< 5	0.24
C	54	10YR 7/2 and 10YR 4/1	-	GR/CB	0, SG	MLO	-	> 90	3.60

Property Owner THE ROBERT G AND ANN B THOMAS REVOCABLE TRU Parcel ID # DELT0809995 Page 4 of 5

B-22 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 916.3 ft. Depth to limiting factor -96 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 2/2	-	L	2, VF, SBK	MFR	-	< 5	0.24
B	60	10YR 3/6	-	CL	2, VF, SBK	MFI	-	< 5	0.03
C	90	10YR 4/6	-	GRSL	0, M	MFI	-	32.9	0.50
C	97	10YR 6/6	-	XGRS	0, SG	MLO	-	70 - 85	3.60

B-9 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 919.2 ft. Depth to limiting factor -108 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	12	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/4	-	C	2, VF, SBK	MFI	-	< 10	0.03
C	72	10YR 5/6	-	GRSL	0, M	MVFR	-	23.7	0.50
C	102	10YR 5/6	-	SICL	0, M	MFI	-	< 10	0.04
C	108	10YR 5/6	-	GRSICL	0, M	MFI	-	15 - 20	0.04

B-10 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 920.8 ft. Depth to limiting factor -144 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SICL	2, VF, SBK	MFI	-	< 5	0.04
B	36	10YR 3/4	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	60	10YR 5/6	-	GRSL	0, M	MFR	-	15 - 20	0.50
C	72	10YR 6/6	-	XGRLS	0, SG	MLO	-	70 - 80	1.63
C	96	10YR 5/8	-	VGRLS	0, SG	MLO	-	35 - 50	1.63
C	144	10YR 6/6	-	XGRLS	0, SG	MLO	-	60 - 80	1.63

Property Owner THE ROBERT G AND ANN B THOMAS REVOCABLE ⊞ Parcel ID # DELT0809995 Page 5 of 5

B-11 Obs. # ☒ Boring ☐ Pit Ground surface elev. 917.8 ft. Depth to limiting factor -66 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/4	-	C	2, VF, SBK	MFI	-	< 10	0.07
C	48	10YR 5/6	-	SCL	0, M	MVFR	-	10 - 14	0.11
C	66	10YR 5/8	-	SICL	0, M	MFI	-	< 10	0.04

B-12 Obs. # ☒ Boring ☐ Pit Ground surface elev. 917.4 ft. Depth to limiting factor -60 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10.5	10YR 2/1	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	36	10YR 3.5/6	-	CL	2, VF, SBK	MFI	-	< 10	0.03
Cr	48	10YR 7/6	-	XGRLS	0, SG	MLO	-	60 - 80	1.63
Cr	60	10YR 5/8	-	XGRS	0, SG	MLO	-	60 - 80	3.60

Test Results and/or Summary Comments

*All borings terminated on possible bedrock refusal.

**Depth to limiting layer determined based on shallowest groundwater level observed during/after drilling, or depth to top of bedrock refusal.

B-9: Topsoil thickness assumed (not measured)

Wis. Dept. of Safety and Professional Services
Division of Industry Services

SOIL EVALUATION - STORM

in accordance with SPS 382.365 and 385, Wis. Adm. Code

Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and BM referenced to nearest road.

Please print all information.

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

County: Waukesha

Parcel I.D.: DELT0809996

Reviewed by: J. Metzinger, E.I.T.
Date: 04/24/2023

Property Owner: KELLEN H WESSON

Property Location
Govt. Lot SW 1/4 NE 1/4 S 23 T 7 N R 18 ☑ E (or) ☐ W

Property Owner's Mailing Address: 11663 N BOBOLINK LN

Lot #
Block #
Subd. Name or CSM#

City: MEQUON
State: WI
Zip Code: 53092
Phone Number: ( )

☐ City ☒ Village ☐ Town: DELAFIELD
Nearest Road: CROOKED CREEK ROAD

Drainage area ______ ☐ sq. ft. ☐ acres
Optional:
Test Site Suitable for (check all that apply)
☐ Irrigation ☐ Bioretention trench ☐ Trench(es)
☐ Rain garden ☐ Grassed swale ☐ Reuse
☐ Infiltration trench ☐ SDS (> 15' wide) ☐ Other _________

Hydraulic Application Test Method:
☒ Morphological Evaluation
☐ Double-Ring Infiltrometer
☐ Other (specify) _______________

B-5 Obs. # ☒ Boring ☐ Pit
Ground surface elev. 917.7 ft.
Depth to limiting factor -78 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
C	60	10YR 6/6	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	83	10YR 6/6	-	XGRLS	0, SG	MLO	-	60 - 75	1.63

B-6 Obs. # ☒ Boring ☐ Pit
Ground surface elev. 912.4 ft.
Depth to limiting factor -162 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	11	10YR 3/2	-	SIL	2, VF, SBK	MFI	-	< 5	0.13
B	36	10YR 4/6	-	GRSL	0, M	MFR	-	30.6	0.50
C	108*	10YR 6/6	c, 1, P, 10YR 6/1	VGRSCL	0, M	MFI	-	35 - 45	0.11
C	162	10YR 5/8	-	XGRSCL	0, M	MVFI	-	60 - 75	0.11
	*With 10YR 3/4 sand layer at 72 inches								

CST/PSS Name (Please Print): Douglas Dettmers, PE
Signature: Douglas Dettmers
CST/PSS Number: 35060-6

Address: GESTRA Engineering, Inc. - 191 W. Edgerton Avenue, Milwaukee, WI 53207
Date Evaluation Conducted: 04/24/2023
Telephone Number: 414-933-7444

Property Owner KELLEN H WESSON　Parcel ID # DELT0809996　Page 2 of 3

B-36 Obs. # ☒ Boring ☐ Pit　Ground surface elev. 900.7 ft.　Depth to limiting factor -48 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 2/1	-	SICL	2, VF. SBK	MFR	-	< 5	0.04
B	48	10YR 3/4	-	C	2, VF. SBK	MVFI	-	< 10	0.07
C	72	10YR 5/8	-	GRSL	0, M	MVFR	-	15 - 25	0.50
C	120	10YR 5/8	-	GRSCL	0, M	MFI	-	15 - 25	0.11
C	144	10YR 6/4	-	GRSIL	0, M	MFR	-	15 - 20	0.13
C	186	10YR 5/6	-	VGRSIL	0, M	MVFI	-	35 - 45	0.13

B-37 Obs. # ☒ Boring ☐ Pit　Ground surface elev. 899.3 ft.　Depth to limiting factor -66 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	7.5	10YR 2/2	-	SIL	2, VF, SBK	MFR		< 5	0.13
B	36	10YR 3/4	-	C	2, VF, SBK	MVFI		< 10	0.07
C	72	10YR 5/8	-	GRSL	0, M	MVFR		22.3	0.50
C	144	10YR 5/8	-	GRSCL	0, M	MFI - MVFI		15 - 25	0.11
C	168	10YR 6/6	-	VGRSIL	0, M	MVFI		35 - 45	0.13
C	210	10YR 5/8	-	VGRLS	0, SG	MLO		40 - 50	1.63

B-38 Obs. # ☒ Boring ☐ Pit　Ground surface elev. 910.0 ft.　Depth to limiting factor -228 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 2/2	-	L	2, VF, SBK	MFR	-	< 5	0.24
B	24	10YR 3/4	-	C	2, VF, SBK	MVFI	-	< 10	0.07
C	54	10YR 5/8	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	96	10YR 5/8	-	GRSICL	0, M	MFI	-	15 - 25	0.04
C	144	10YR 5/6 to 10YR 6/4	-	GRSCL	0, M	MFI - MVFI	-	15 - 30	0.11
C	168	10YR 5/1	-	GRSC	0, M	MVFI	-	15 - 20	0.04
C	228	10YR 6/1	-	GRSIL	0, M	MFR - MVFI	-	20 - 34	0.13

Property Owner KELLEN H WESSON Parcel ID # DELT0809996 Page 3 of 3

B-39 Obs. # ☒ Boring ☐ Pit Ground surface elev. 911.7 ft. Depth to limiting factor -24 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	5	10YR 2/2	-	SICL	2, VF, SBK	MFR	-	< 5	0.04
B	24	10YR 3/4	-	C	2, VF, SBK	MFI	-	< 10	0.07
C	57	10YR 6/4	m, 1, D, 10YR 6/1	SICL	0, M	MFI	-	5 - 14	0.04
C	96	10YR 5/8	-	GRSCL	0, M	MFI	-	15 - 25	0.11
C	144	10YR 6/4	-	GRSICL	0, M	MFI	-	15 - 25	0.04
C	168	10YR 5/1	-	SIC	0, M	MFI	-	10 -14	0.07
C	180	N 1/	-	S	0, SG	MLO	-	< 5	3.60
C	210	10YR 6/1	-	VGRSIL	0, M	MFR	-	35 - 45	0.13

☐ Obs. # ☐ Boring ☐ Pit Ground surface elev. __________ ft. Depth to limiting factor __________ in.

Horizon	Depth ft.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr

Test Results and/or Summary Comments

*All borings terminated on possible bedrock refusal.

**Depth to limiting layer determined based on shallowest groundwater level observed during/after drilling, or depth to top of bedrock refusal.

B-38: Topsoil thickness assumed (not measured).

Wis. Dept. of Safety and Professional Services
Division of Industry Services

SOIL EVALUATION - STORM

in accordance with SPS 382.365 and 385, Wis. Adm. Code

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County
Waukesha

Parcel I.D.
DELT0811999

Reviewed by: J. Metzinger, E.I.T
Date: 04/24/2023

Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and BM referenced to nearest road.

Please print all information.

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

Property Owner
KELLEN H WESSON

Property Location
Govt. Lot NE 1/4 SE 1/4 S 23 T 7 N R 18 ☑ E (or) ☐ W

Property Owner's Mailing Address
11663 N BOBOLINK LN

Lot # Block # Subd. Name or CSM#

City: MEQUON
State: WI
Zip Code: 53092
Phone Number: ( )

☐ City ☐ Village ☒ Town
DELAFIELD
Nearest Road
GOLF ROAD

Drainage area ______ ☐ sq. ft. ☐ acres
Optional:
Test Site Suitable for (check all that apply)
☐ Irrigation ☐ Bioretention trench ☐ Trench(es)
☐ Rain garden ☐ Grassed swale ☐ Reuse
☐ Infiltration trench ☐ SDS (> 15' wide) ☐ Other _________

Hydraulic Application Test Method:
☒ Morphological Evaluation
☐ Double-Ring Infiltrometer
☐ Other (specify) _______________

B-17 Obs. # ☒ Boring ☐ Pit
Ground surface elev. 925.0 ft.
Depth to limiting factor -96 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	42	10YR 3/6	-	C	2, VF, SBK	MVFI	-	< 5	0.07
C	102	10YR 7/6	-	XGRLS	0, SG	MLO	-	70 - 85	1.63

B-18 Obs. # ☒ Boring ☐ Pit
Ground surface elev. 931.2 ft.
Depth to limiting factor -78 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 3/3	-	SIL	2, VF, SBK	MFR		< 5	0.13
B	36	10YR 3/6	-	C	2, VF, SBK	MFI		< 10	0.07
C	48	10YR 8/2	-	XGRS	0, SG	MLO		80 - 89	3.60
Cr	78	10YR 7/6	-	XGRLS	0, SG	MLO		70 - 85	1.63

CST/PSS Name (Please Print): Douglas Dettmers, PE
Signature: Douglas Dettmers
CST/PSS Number: 35060-6

Address: GESTRA Engineering, Inc. - 191 W. Edgerton Avenue, Milwaukee, WI 53207
Date Evaluation Conducted: 04/24/2023
Telephone Number: 414-933-7444

Property Owner KELLEN H WESSON Parcel ID # DELT0811999 Page 2 of 8

B-25 Obs. # ☒ Boring ☐ Pit Ground surface elev. 932.6 ft. Depth to limiting factor -84 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	7.5	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/6	-	CL	2, VF, SBK	MFI	-	< 5	0.03
C	96	10YR 4/4	-	VGRLS	0, SG	MLO	-	35 - 45	1.63
C	144	10YR 5/8	-	XGRS	0, SG	MLO	-	80 - 89	3.60

B-26 Obs. # ☒ Boring ☐ Pit Ground surface elev. 938.3 ft. Depth to limiting factor -60 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	8	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 4/6	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	84	10YR 5/6	-	SICL	0, M	MFI	-	< 5	0.04
C	120	10YR 5/6	-	GRSCL	0, M	MFR - MFI	-	15 - 25	0.11
C	156	10YR 5/8	-	GRSCL	0, M	MVFI	-	20 - 34	0.11
Cr	180	10YR 5/6	-	XGRS	0, SG	MLO	-	60 - 70	3.60
Cr	192	10YR 6/6	-	XGRLS	0, SG	MLO	-	65 - 85	1.63

B-27 Obs. # ☒ Boring ☐ Pit Ground surface elev. 939.0 ft. Depth to limiting factor -120 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	13	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	19	10YR 4/6	-	SC	2, VF, SBK	MFI	-	< 10	0.04
C	78	10YR 5/6	f, 1, P, 10YR 6/1	SICL	0, M	MFI	-	< 5	0.04
C	138	10YR 5/6	-	GRSCL	0, M	MFI	-	15 - 25	0.11
C	168	10YR 5/8	-	GR	0, SG	MLO	-	> 90	3.60
C	180	10YR 5/4	-	XGRCL	0, SG	MLO	-	70 - 85	0.03

Property Owner KELLEN H WESSON

Parcel ID # DELT0811999

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B-29 Obs. # ☒ Boring ☐ Pit

Ground surface elev. 946.1 ft.

Depth to limiting factor -156 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/6	-	CL	2, VF, SBK	MFI	-	< 5	0.03
C	48	10YR 4/6	-	GRSCL	0, M	MFI	-	15 - 20	0.11
C	84	10YR 6/4	-	GRSL	0, M	MFR	-	15 - 20	0.50
C	108	10YR 5/6	-	VGRLS	0, SG	MLO	-	35 - 45	1.63
C	144	10YR 5/8	-	S	0, SG	MLO	-	< 5	3.60
C	204	10YR 5/8	-	L	0, M	MFR	-	< 10	0.24
Cr	240	10YR 7/4	-	GR	0, SG	MLO	-	< 90	3.60

B-30 Obs. # ☒ Boring ☐ Pit

Ground surface elev. 948.5 ft.

Depth to limiting factor -156 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	24	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/6	c, 1, P, 10YR 3/3	C	2, VF, SBK	MFI	-	< 10	0.07
C	84	10YR 5/8	-	GRSCL	0, M	MFI	-	15 - 34	0.11
C	108	10YR 5/8	-	VGRS	0, SG	MLO	-	35 - 45	3.60
Cr	156	10YR 7/2	-	XGRS	0, SG	MLO	-	75 - 89	3.60

B-33 Obs. # ☒ Boring ☐ Pit

Ground surface elev. 924.1 ft.

Depth to limiting factor -24 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	6	10YR 2/2	-	L	2, VF, SBK	MFR	-	< 5	0.24
B/FILL	24	10YR 3/4	-	C	2, VF, PL	MFI	-	< 10	0.07
B/FILL	29	10YR 3/3	-	GRSC	2, VF, SBK	MFI	-	14 - 20	0.04
C	125	10YR 5/6	-	GRSL	0, M	MFR	-	23.8	0.50
Cg	204	5G 5/1	c, 2, D, 2.5Y 4/2	SICL	0, M	DEH	-	5 - 10	0.04

Property Owner KELLEN H WESSON Parcel ID # DELT0811999 Page 4 of 8

B-34 Obs. # ☒ Boring ☐ Pit Ground surface elev. 929.6 ft. Depth to limiting factor -36 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	5	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	30	10YR 3/4	-	C	2, VF, SBK	MVFI	-	< 10	0.07
C	132*	10YR 5/6	-	VGRSL	0, M	MFR	-	35 - 55	0.50
	*With 10YR 2/1 gravel layer at 126 inches								

B-7 Obs. # ☒ Boring ☐ Pit Ground surface elev. 916.2 ft. Depth to limiting factor -4.8 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 2/1	-	SICL	2, VF, SBK	MFR	-	< 5	0.04
B	24	10YR 5/3	f, 1, D, 10YR 4/6	SICL	2, VF, SBK	MFR	-	< 10	0.04
C	48	10YR 6/6	-	GRSCL	0, M	MFR	-	15 - 30	0.11
C	96	10YR 6/4	c, 1, D, 10YR 6/1	VGRSCL	0, M	MFR	-	35 - 45	0.11
C	114	10YR 6/2	-	XGRLS	0, SG	MLO	-	75 - 84	1.63

B-15 Obs. # ☒ Boring ☐ Pit Ground surface elev. 926.8 ft. Depth to limiting factor -114 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/4	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	72	10YR 5/8	-	GRSCL	0, M	MFR	-	20 - 30	0.11
C	78	10YR 2/2	-	VGRS	0, SG	MLO	-	35 - 40	3.60
C	114	10YR 5/6	-	GRSIL	0, SG	MLO	-	15 - 25	0.13

Property Owner KELLEN H WESSON Parcel ID # DELT0811999 Page 5 of 8

B-16 Obs. # ☒ Boring ☐ Pit Ground surface elev. 930.5 ft. Depth to limiting factor -90 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/4	-	CL	2, VF, SBK	MFI	-	< 10	0.03
C	72	10YR 5/8	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	102	10YR 5/8	-	VGRLS	0, SG	MLO	-	40 - 55	1.63

B-19 Obs. # ☒ Boring ☐ Pit Ground surface elev. 934.9 ft. Depth to limiting factor -114 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SICL	2, VF, SBK	MFI	-	< 5	0.04
B	36	10YR 5/4	-	SC	2, VF, SBK	MVFI	-	< 5	0.04
C	56	10YR 5/6	-	S	0, SG	MLO	-	< 5	3.60
C	114	10YR 5/6	-	GRSCL	0, M	MEF	-	15 - 25	0.11

B-20 Obs. # ☒ Boring ☐ Pit Ground surface elev. 925.6 ft. Depth to limiting factor -78 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 2/1	-	SIL	2, VF, SBK	MFR	-	< 10	0.13
B	24	10YR 3/4	f, 1, D, 10YR 2/1	C	2, VF, SBK	MVFI	-	< 10	0.07
B	48	10YR 4/3	c, 1, D, 10YR 7/1	SIC	2, VF, SBK	MFR	-	5 - 14	0.07
C	78	10YR 5/8	c, 1, P, 10YR 6/2	SIC	0, M	MFR	-	< 10	0.07

Property Owner KELLEN H WESSON

Parcel ID # DELT0811999

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B-23 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 940.9 ft.

Depth to limiting factor -126 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/6	-	GRL	2, VF, SBK	MFI	-	15 - 30	0.24
C	72	10YR 5/8	-	VGRLS	0, SG	MVFR	-	35 -45	1.63
C	96	10YR 5/6	-	VGRS	0, SG	MLO	-	35 - 45	3.60
C	126	10YR 5/6	-	VGRLS	0, SG	MVFR	-	40 - 50	1.63

B-24 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 940.7 ft.

Depth to limiting factor -10.5 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	8	10YR 3/3	-	L	2, VF, SBK	MFR	-	< 5	0.24
C	24	10YR 7/4	-	XGRS	0, SG	MLO	-	70 - 85	3.60
C	84	10YR 5/6	-	GRSCL	0, M	MFI	-	15 - 30	0.11
C	126	10YR 5/8	-	VGRSICL	0, M	MVFI	-	35 - 45	0.04

B-28 Obs. #

☒ Boring
☐ Pit

Ground surface elev. 943.4 ft.

Depth to limiting factor -144 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	48	10YR 3/4	-	C	2, VF, SBK	MFI	-	5 - 14	0.07
C	66	10YR 5/8	-	VGRSL	0, M	MFR	-	51.9	0.50
C	96	10YR 5/8	-	XGRS	0, SG	MLO	-	70 - 80	3.60
C	144	10YR 5/8	-	VGRS	0, SG	MLO	-	40 - 59	3.60
C	168	10YR 5/4	-	XGRLS	0, SG	MLO	-	80 - 89	1.63
C	193	10YR 4/4	-	VGRSCL	0, M	MVFI	-	45 - 55	0.11

Property Owner KELLEN H WESSON

Parcel ID # DELT0811999

B-31 Obs. # ☒ Boring ☐ Pit Ground surface elev. 939.7 ft. Depth to limiting factor -96 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	10	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	52	10YR 3/6	-	SICL	2, VF, SBK	MFI	-	< 5	0.04
C	132	10YR 5/8	-	GRSIL	0, M	MFR - MFI	-	15 - 25	0.13
Cr	180	10YR 7/4	-	XGRSL	0, SG	MLO	-	75 - 85	0.50

B-32 Obs. # ☒ Boring ☐ Pit Ground surface elev. 939.7 ft. Depth to limiting factor -96 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	8	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	36	10YR 3/6	-	SICL	2, VF, SBK	MFI	-	< 10	0.04
C	84	10YR 6/4	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	96	10YR 8/2	-	XGRS	0, SG	MLO	-	60 - 75	3.60
C	120	10YR 6/6	-	XGRLS	0, SG	MLO	-	60 - 75	1.63
C	144	10YR 6/6	-	XGRSICL	0, M	MFR	-	60 - 75	0.04
Cr	192	10YR 6/6	-	XGRLS	0, SG	MLO	-	70 - 85	1.63

B-35 Obs. # ☒ Boring ☐ Pit Ground surface elev. 937.8 ft. Depth to limiting factor -108 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr
A	9	10YR 3/3	-	SIL	2, VF, SBK	MFR	-	< 5	0.13
B	24	10YR 3/6	-	SIC	2, VF, SBK	MFI	-	< 10	0.07
C	48	10YR 3/4	-	SC	0, M	MFR	-	10 - 14	0.04
C	84	10YR 5/8	-	GRSCL	0, M	MFR	-	15 - 25	0.11
C	102	10YR 6/6	-	VGRS	0, SG	MLO	-	40 - 55	3.60
C	144	10YR 7/6	-	XGRS	0, SG	MLO	-	70 - 80	3.60
C	156	10YR 4/6	-	VGRSCL	0, M	MLO	-	70 - 80	0.11

Property Owner KELLEN H WESSON Parcel ID # DELT0811999 Page 8 of 8

Obs. #
☐ Boring
☐ Pit Ground surface elev. __________ ft. Depth to limiting factor __________ in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr

Obs. #
☐ Boring
☐ Pit Ground surface elev. __________ ft. Depth to limiting factor __________ in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frag.	Hydraulic App. Rate Inches/Hr

Test Results and/or Summary Comments

*All borings terminated on possible bedrock refusal.

**Depth to limiting layer determined based on shallowest groundwater level observed during/after drilling, or depth to top of bedrock refusal.

GENERAL NOTES

DRILLING AND SAMPLING SYMBOLS

SYMBOL	DEFINITION
HSA	Hollow Stem Auger
HSA w/ RW	Hollow Stem Auger converted to Rotary Wash Boring (initiated with Mudding Fluid)
SS	2" O.D. Split Spoon Sample – (ASTM D 1586)
SH	3" Thin-Walled Tube Sample (Shelby Tube) – (ASTM D 1587)
AU	Solid Stem Auger Sample
CA	Modified California Sample – (ASTM D 3550)
RC	Rock Core Sample – (ASTM D 2113)
HA	Hand Auger Sample
GB	Grab Bag Sample
R	SPT Refusal (N-value of 50 blows for less than 6 inches of penetration)
NMR	No Measurement Recorded
NE	Not Encountered

TEST SYMBOLS

SYMBOL	DEFINITION
MC	Moisture Content (%) – (ASTM D 2216)
LOI	Organic Content (Loss on Ignition) (%) – (ASTM D 2974)
Qp	Hand Penetrometer Reading (tsf)
Qu	Unconfined Comp. Strength (tsf) – (ASTM D 2166)
γ_d	Dry Density (pcf) – (ASTM D 7263)
γ_T	Total (Moist) Density (pcf)
LL, PL	Liquid and Plastic Limit (%) – (ASTM D 4318)
PI	Plasticity Index (%)
P200	Percent passing the #200 Sieve – (ASTM D 1140)
Ts	Hand Torvane Reading (tsf)
SG	Specific Gravity – (ASTM D854)
pH	Hydrogen Ion Content – (ASTM D4972)
RQD	Rock Quality Designation (%) – (ASTM D6032)

WATER LEVEL

Water levels shown on the boring logs are the levels measured in the borings at the time and under the conditions indicated. In some soils, it may not be possible to determine the groundwater level within the normal time required for test borings and an extended period of time may be necessary to reach equilibrium. Therefore, the position of the water level symbol may not indicate the true level of the groundwater table. Perched water refers to water above an impervious layer, thus impeded in reaching the water table. The available water level information is given at the bottom of the respective boring log sheet.

DESCRIPTIVE TERMINOLOGY

DENSITY TERM	SPT N-VALUE
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Over 50

CONSISTENCY TERM	Unconfined Compressive Strength, (tsf)	SPT N-VALUE
Very Soft	<0.25	0 - 2
Soft	0.25 - 0.49	2 - 4
Medium Stiff	0.50 - 0.99	4 - 8
Stiff	1.00 - 1.99	8 - 16
Very Stiff	2.00 - 3.99	16 - 30
Hard	4.0+	Over 30

Standard Penetration Test N-Value: Blows per Foot of a 140 Pound Hammer Falling 30 inches on a 2-inch OD Split Barrel Sampler

Note: If unconfined compressive strength data is not available, then N-value should be used to describe consistency term

Lamination	Up to 1/2" thick horizontal stratum
Layer	1/2" thick or greater horizontal stratum
Lens	1/2" to 6" discontinuous horizontal stratum
Varved	Alternating laminations
Dry	Powdery, dusty
Moist	Damp, below saturation
Wet	Saturated, above liquid limit

RELATIVE SIZES

Boulders	Cobbles	Gravel	Sand	Silt	Clay

U.S. Standard Sieve	12"	3"	#4	#200	
Grain Size (mm)	300	75	4.75	0.075	0.002

SOILS CLASSIFICATION FOR ENGINEERING PURPOSES

ASTM Designation: D 2487 - 83

(Based on Unified Soil Classification System)

SOIL ENGINEERING

					Soil Classification[B]	
Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]					Group Symbol	Group Name
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines[C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$[E]		GW	Well-graded gravel[F]
			$Cu < 4$ and/or $1 > Cc > 3$[E]		GP	Poorly-graded gravel[F]
		Gravels with Fines more than 12% fines[C]	Fines Classify as ML or MH		GM	Silty gravel[F.G.]
			Fines classify as CL or CH		GC	Clayey gravel[F.G.]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean sands Less than 5% fines[D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$[E]		SW	Well-graded sand[H]
			$Cu < 6$ and/or $1 > Cc > 3$[E]		SP	Poorly-graded sand[H]
		Sands with Fines more than 12% fines[D]	Fines Classify as ML or MH		SM	Silty sand[G.H]
			Fines classify as CL or CH		SC	Clayey sand[G.H]
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid Limit less than 50	Inorganic	PI > 7 and plots on or above " A" line[I]		CL	Lean clay[J.K.L]
			PI < 4 or plots below " A " line[I]		ML	Silt[J.K.L]
		Organic	$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}}$	< 0.75	OL	Organic clay[J.K.L.M] Organic Silt[J.K.L.N]
	Silts and Clays Liquid Limit 50 or more	Inorganic	PI plots on or above " A " line		CH	Fat clay[J.K.L]
			PI plots below " A " line		MH	Elastic silt[J.K.L]
		Organic	$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}}$	< 0.75	OH	Organic clay[J.K.L.O] Organic Silt[J.K.L.P]
Highly organic soils		Primarily organic matter, dark in color, and organic odor			PT	Peat

---

[A] Based on the material passing the 3-in (75- mm) sieve

[B] If field sample contained cobbles or boulders, or both, add with cobbles and/or boulders after group name

[C] Gravels with 5 to 12 % fines require dual symbols:
GW - GM (well-graded gravel with silt)
GW - GC (well-graded gravel with clay)
GP - GM (poorly-graded gravel with silt)
GP - GC (poorly-graded gravel with clay)

[D] Sands with 5 to 12 % fines require dual symbols:
SW -SM (well-graded sand with silt)
SW - SC (well-graded sand with clay)
SP - SM (poorly-graded sand with silt)
SP - SC (poorly-graded sand with clay)

[E]
$$Cu = \frac{D_{60}}{D_{10}} \qquad C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

[F] If soil contains ≥ 15% sand, add "with sand" after group name

[G] If fines classify as CL-ML, use dual symbol GC-GM. or SC-SM

[H] If soil contains ≥ 15% gravel, add "with gravel" after group name.

[I] If Atterberg limits plot in hatched area, soil is a CL-ML (silty clay)

[J] If soil contains 15 to 29% plus No. 200, add, "with sand" or " with gravel", whichever is predominant

[K] If soil contains ≥ 30% plus No.200, and predominantly sand, add "sandy" before the group name

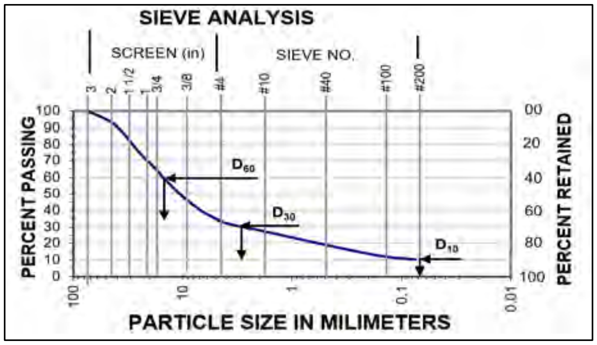
[L] If soil contains ≥ 30% plus No.200, and predominantly gravel, add "gravelly" before the group name

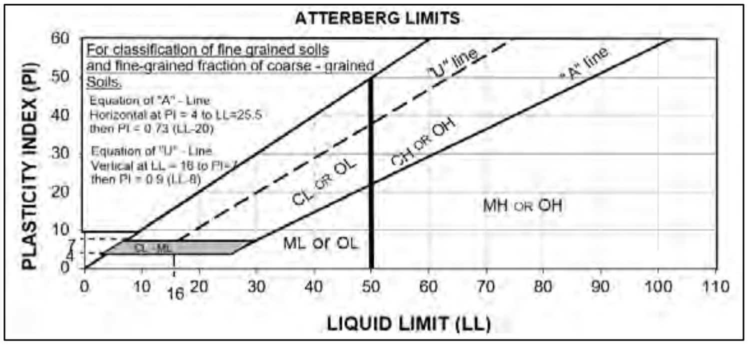
[M] PI ≥ 4 and plots on or above "A" Line

[N] PI < 4 or plots below "A" Line

[O] PI plots on or above "A" Line

[P] PI plots below "A" Line





SOILS CLASSIFICATION FOR ENGINEERING PURPOSES

(Based on United States Department of Agriculture - Natural Resources Conservations Service)

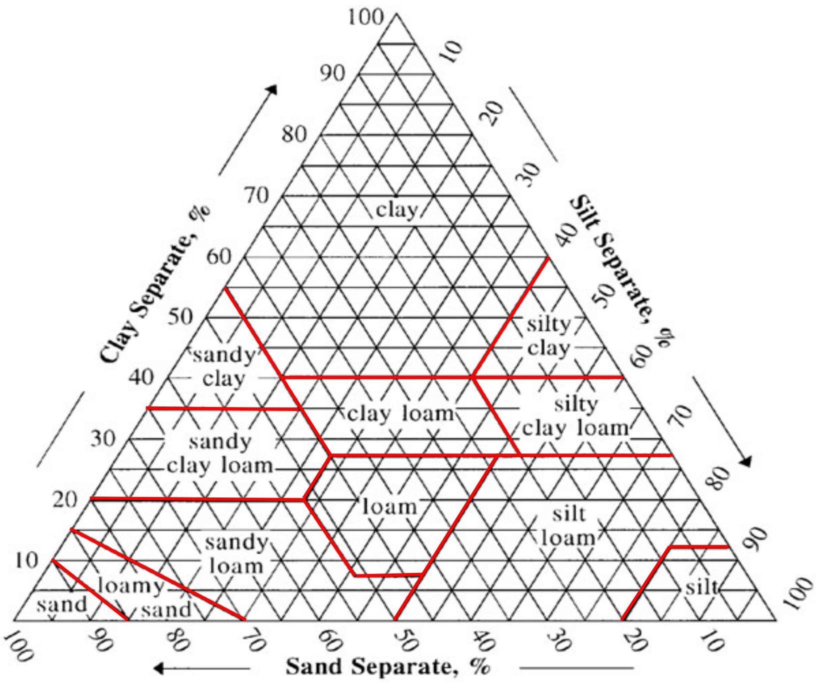
SOIL ENGINEERING

Criteria for Soil Classification Based on Particle Size Distribution[A]

		U.S. Standard Sieve No.	USDA Soil Name Classification
ROCK FRAGMENTS		> 25"	Boulders
		10" < 25"	Stones
		3" < 10"	Cobbles
		3/4" < 3"	Coarse Gravel
		#4 < 3/4"	Medium Gravel
		#10 < #4	Fine Gravel
FINE EARTH	Sand	#18 < #10	Very Coarse Sand
		#35 < #18	Coarse Sand
		#60 < #35	Medium Sand
		#140 < #60	Fine Sand
		#300 < #140	Very Fine Sand
	Silt	0.02 mm < 0.05 mm	Coarse Silt
		0.002 mm < 0.02 mm	Fine Silt
	Clay	0.0002 mm < 0.002 mm	Coarse Clay
		< 0.0002 mm	Fine Clay

(Soil) Textural Triangle: [B]

Fine Earth Texture Classes (—)



Texture Classes [C]	Code
Coarse Sand	COS
Sand	S
Fine Sand	FS
Very Fine Sand	VFS
Loamy Coarse Sand	LCOS
Loamy Sand	LS
Loamy Fine Sand	LFS
Loamy Very Fine Sand	LVFS
Coarse Sandy Loam	COSL
Sandy Loam	SL
Fine Sandy Loam	FSL
Very Fine Sandy Loam	VFSL
Loam	L
Silt Loam	SIL
Silt	SI
Sandy Clay Loam	SCL
Clay Loam	CL
Silty Clay Loam	SICL
Sandy Clay	SC
Silty Clay	SIC
Clay	C

Rock Fragment Texture Modifiers [B]	Vol. %
None	< 15
Size Adjective (i.e. Gravelly)	15 to < 35
Very (Size Adjective)	35 to < 60
Extremely (Size Adjective)	60 to < 90
Fragment Size Class Name	≥ 90

[A] Based on page 2-45 of Field Book for Describing and Sampling Soils V3.0

[B] Based on page 2-38 of Field Book for Describing and Sampling Soils V3.0

[C] Based on page 2-37 of Field Book for Describing and Sampling Soils V3.0

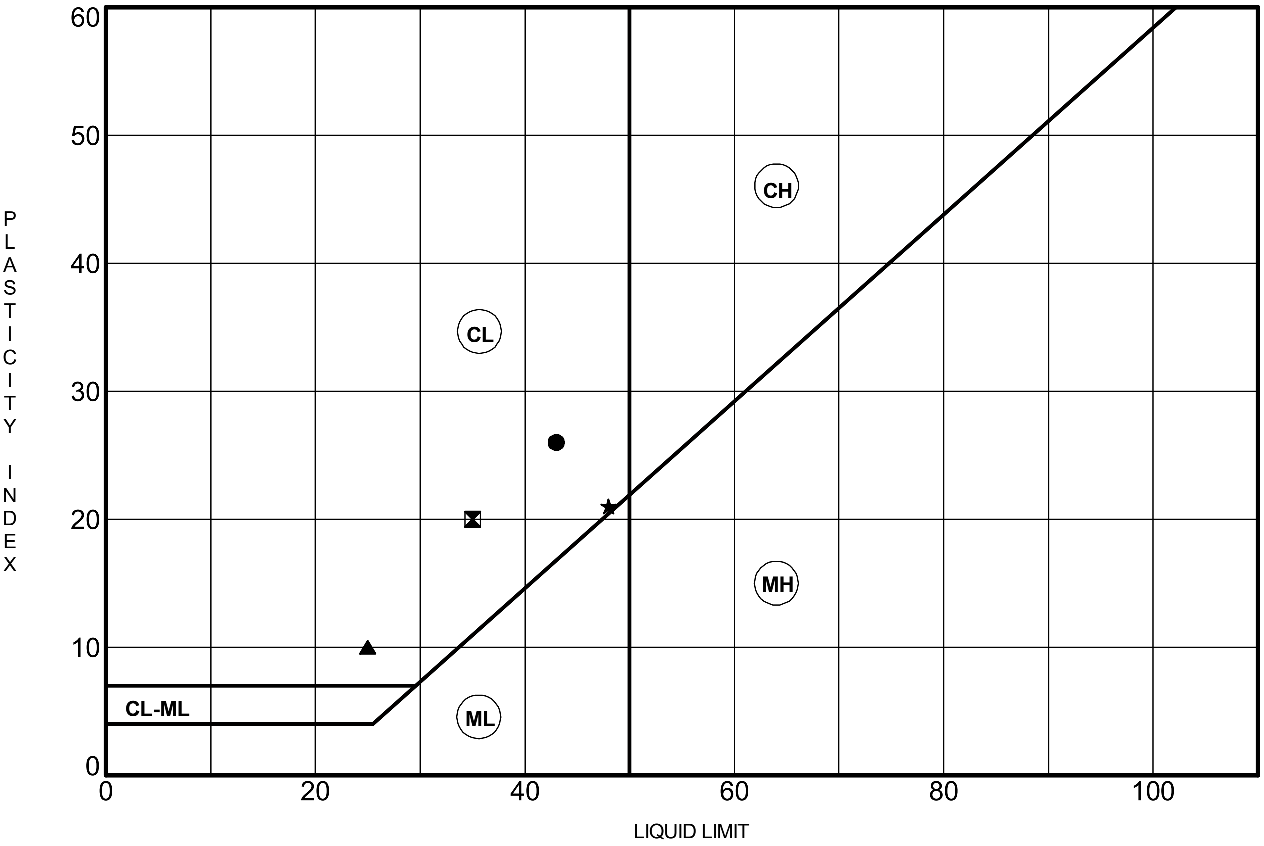
APPENDIX II

LABORATORY TEST RESULTS

GESTRA Engineering, Inc
191 W. Edgerton Avenue
Milwaukee, WI 53207
Phone: (414) 933-7444, Fax: (414) 933-7844

LABORATORY TEST RESULTS
ATTERBERG LIMITS RESULTS (ASTM D4318)

Project Name: Thomas Farms Development
Project Number: 23083-10
Project Location: Delafield, Wisconsin



Unless otherwise noted, Atterberg limit sample was air-dried, Liquid limit was performed using mutiple points, and plastic limit test was hand rolled.

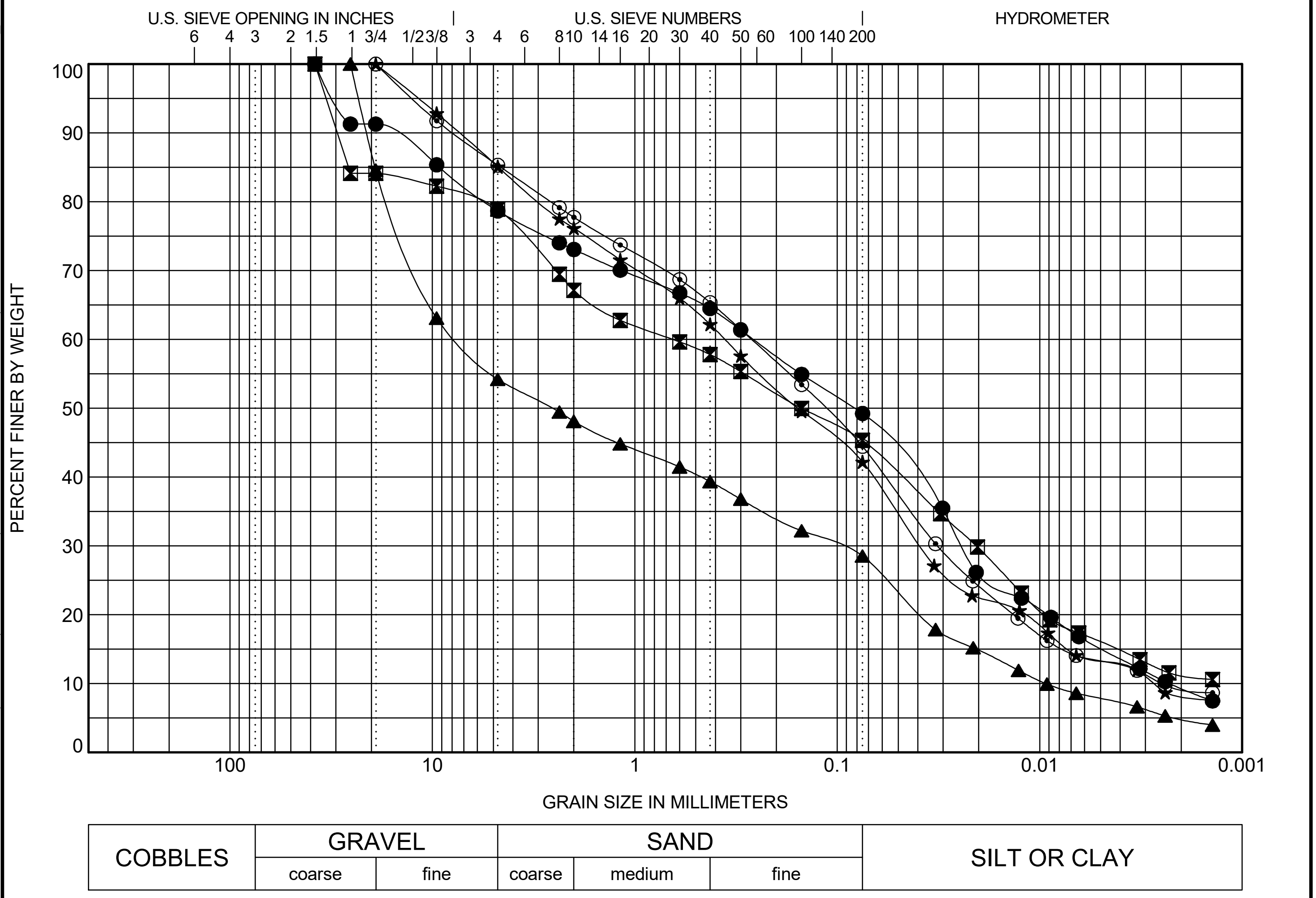
	Specimen Identification		LL	PL	PI	Fines	MC	Notes
●	**B-2, SS-1**	**0'-2'**	**43**	**17**	**26**		**22.6**	
☒	**B-20, SS-2**	**2'-4'**	**35**	**15**	**20**		**22.1**	
▲	**B-27, SS-2**	**2'-4'**	**25**	**15**	**10**		**18.9**	
★	**B-8, SS-1**	**0'-2'**	**48**	**27**	**21**		**21.7**	

ATTERBERG LIMITS - GINT STD US LAB.GDT - 5/5/23 16:40 - T:\PROJECTS\2023\MILWAUKEE - 10 (GEOTECH)\23083-10 DD (THOMAS FARM DEVELOPMENT)\LOGS\THOMAS FARMS DEVELOPMENT _2023-04-11.GPJ

GESTRA Engineering, Inc
191 W. Edgerton Avenue
Milwaukee, WI 53207
Phone: (414) 933-7444, Fax: (414) 933-7844

LABORATORY TEST RESULTS
GRAIN SIZE DISTRIBUTION (ASTM D6913 and D7928)

Project Name: Thomas Farms Development
Project Number: 23083-10
Project Location: Delafield, Wisconsin



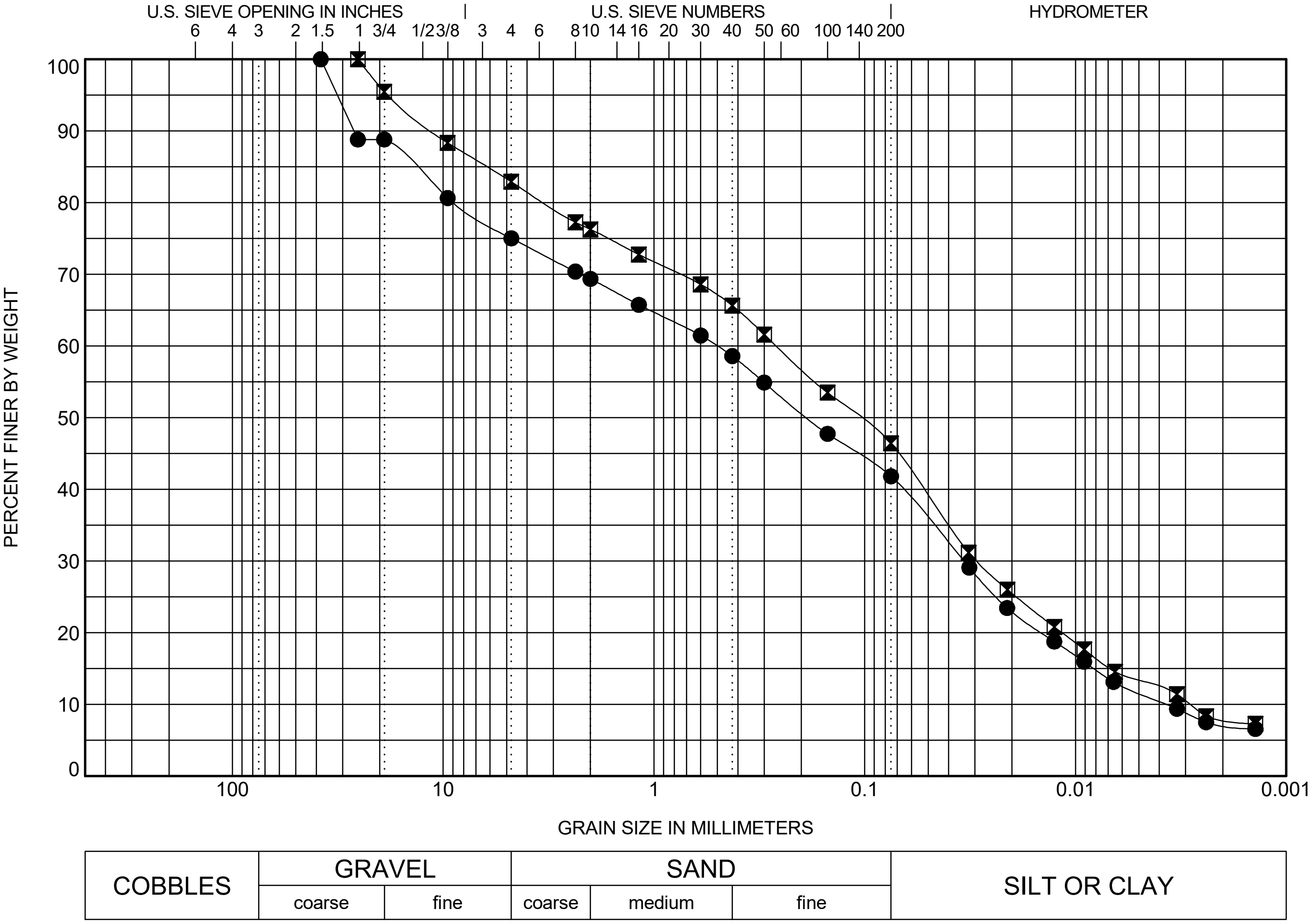
	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	**B-1, SS-2**	**2'-4'**					**0.99**	**113.66**
⧗	**B-22, SS-3**	**4'-6'**						
▲	**B-28, SS-3**	**4'-6'**					**0.14**	**802.28**
★	**B-33, SS-4**	**6'-8'**					**1.53**	**131.83**
⊙	**B-37, SS-2**	**2'-4'**					**1.54**	**106.25**

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**B-1, SS-2**	**2'-4'**	**38.1**	**0.259**	**0.024**	**0.002**	**21.3**	**29.4**	**34.1**	**15.1**
⧗	**B-22, SS-3**	**4'-6'**	**38.1**	**0.65**	**0.021**		**21.1**	**33.6**	**29.4**	**16.0**
▲	**B-28, SS-3**	**4'-6'**	**25.4**	**7.489**	**0.099**	**0.009**	**45.8**	**25.7**	**20.7**	**7.8**
★	**B-33, SS-4**	**6'-8'**	**19.05**	**0.36**	**0.039**	**0.003**	**14.9**	**42.9**	**29.0**	**13.2**
⊙	**B-37, SS-2**	**2'-4'**	**19.05**	**0.265**	**0.032**	**0.002**	**14.7**	**40.8**	**31.3**	**13.2**

GESTRA Engineering, Inc
191 W. Edgerton Avenue
Milwaukee, WI 53207
Phone: (414) 933-7444, Fax: (414) 933-7844

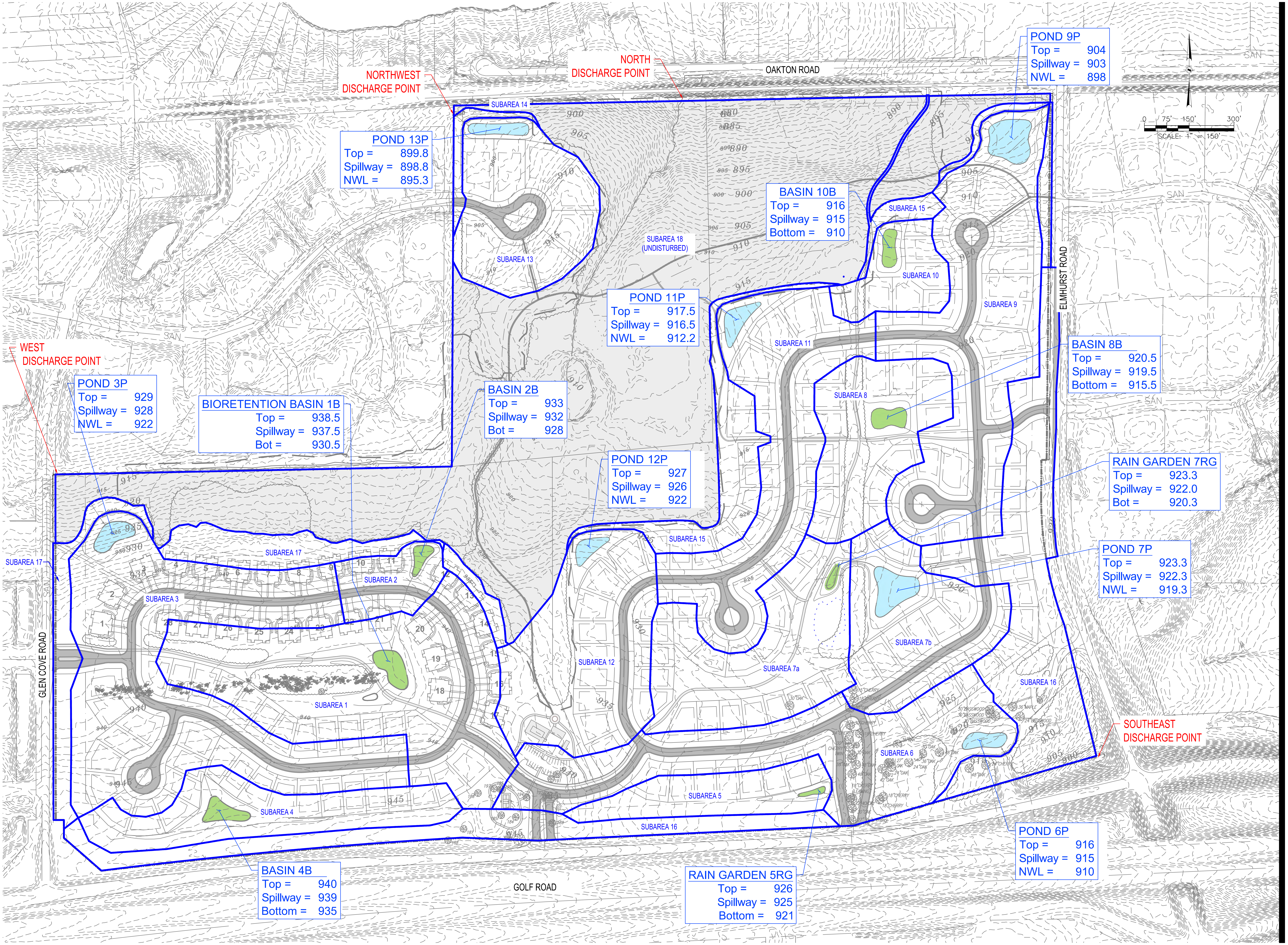
LABORATORY TEST RESULTS
GRAIN SIZE DISTRIBUTION (ASTM D6913 and D7928)

Project Name: Thomas Farms Development
Project Number: 23083-10
Project Location: Delafield, Wisconsin



	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	**B-6, SS-2**	**2'-4'**					**0.62**	**136.10**
☒	**B-9, SS-3**	**4'-6'**					**1.14**	**91.81**

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**B-6, SS-2**	**2'-4'**	**38.1**	**0.504**	**0.034**	**0.004**	**25.0**	**33.2**	**30.2**	**11.6**
☒	**B-9, SS-3**	**4'-6'**	**25.4**	**0.262**	**0.029**	**0.003**	**17.1**	**36.5**	**33.1**	**13.3**



D:\Jobs\2023\2023-003 - Thomas Farm - Welshire Farm - TRIO\CAD\Site\dwg\00\Proposed-2023-003
6/21/2023 10:13 PM

SOUND STORMWATER DESIGN

Copper Oaks Ct.
Muskego, WI 53150
414.286.4739
jayme.sisel@soundstormwater.com

CLIENT:
NEUMANN DEVELOPMENT, INC.

PROJECT TITLE:
WELSHIRE FARM DEVELOPMENT
GOLF ROAD
TOWN OF DELAFIELD, WISCONSIN

DATE: 02-03-23

JOB NO: 2023-003

SHEET TITLE:
POST-DEVELOPMENT CONDITIONS PLAN

FIGURE:
3

LAKE PEWAUKEE SANITARY DISTRICT
N25 W27534 Oak Street • P. O. Box 111 • Pewaukee, WI 53072
(262) 691-4485 • Fax (262) 691-8096 **www.lakepewaukeesd.org**

Mr. Dan Green
Town of Delafield Administrator
W302 N1254 Maple Avenue
Delafield, WI 53018-2117

April 22nd, 2023

Re: Thomas Farm – Sewer Service through Lake Pewaukee Sanitary District ("LPSD")

Dear Dan,

This letter clarifies my letter to you dated April 26, 2023. The correct formula to use pursuant to LPSD Ordinance 102 Article 2 Section 1 is Total People = 7 persons per Buildable Acre.

Representatives of Neumann Companies advised there is 110 buildable acres on the Thomas Farm site and that Neumann Companies is proposing to build 212 units. The proposed number of units on the Thomas Farm site is within the allowable figure set forth in LPSD Ordinance 102.

Sincerely,

Thomas H. Koepp

Thomas H. Koepp, P.E. LEED AP
Manager
Lake Pewaukee Sanitary District

Cc: Tim Barbeau – Town of Delafield Engineer
John Ruf – LPSD President
Joby Boland – LPSD Secretary
Jenifer Barker – LPSD Treasurer
Erick Fabyan – LPSD Attorney
Steve DeCleene – Neumann Companies
Bryan Lingren – Neumann Companies
Rob Thomas – Thomas Farms
Amy Thomas – Thomas Farms

COLLIER
CONSULTING

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Stephenville, TX 76401
Office: (254) 968-8721
Fax: (254) 968-8725
www.collierconsulting.com

February 21, 2023

To: Thomas Koepp, P.E., LEED AP

VIA Email: tkoepp@lakepewaukee.org

Re: Groundwater Evaluation Report
Thomas Farms Development
Lake Pewaukee Sanitary District
Pewaukee, WI

Dear Tom:

Collier Consulting, Inc. (Collier) is pleased to provide the Lake Pewaukee Sanitary District (LPSD) with this letter report summarizing the results of the groundwater evaluation activities at the proposed Thomas Farms Development (the Development), which is located between Oakton Road to the north, Golf Road to the south, Glen Cove Road to the west and Elmhurst Road to the east, in the Town of Delafield, WI. This report was completed pursuant to the Groundwater Evaluation Project Cost Estimate prepared by Collier and dated June 8, 2022. The evaluation was based on a review of select lake level and flow data provided to Collier by LPSD, precipitation data obtained from the NOAA website, well logs, various maps and reports. The location of the proposed Thomas Farms Development is shown in **Figure 1**.

LPSD has expressed concerns about the potential for any impacts to the local shallow groundwater flow system, which supplies water to Lake Pewaukee, or the potential for any impacts to the existing spring(s) and wetlands and lake water quality. Our evaluation consisted of a review the documentation provided to Collier by LPSD and included an assessment of the estimated groundwater withdraw from the water supply wells which will be constructed in the proposed Development, and if the wells will have a negative impact on local groundwater and Lake levels.

Background

Lake Pewaukee was created in 1938 by construction of a dam on the Pewaukee River to provide power to a mill. It is classified as a throughflow lake, with a defined inflow to the west and outflow to the east. The lake is fed by surface-water runoff draining from a 24.8 square mile watershed. Four named tributaries (Audley, Coco, Meadowbrook, and Zion Creeks) and two unnamed tributaries contribute water to the Lake. Groundwater is also a significant source of water to the Lake, with springs being particularly common in the northwestern portion of the Lake and in Coco Creek.

Geologic Setting

The surface topography in the vicinity of the Development is gently to moderately rolling. The elevation of the ground surface on the Development rages from 955 feet above mean sea level (ft msl) in the southwest corner of the property to 899 ft msl in the northwest corner of the property. Based on a review of the well logs in the area the depth to bedrock varies from less than 10 feet in the eastern portion of the Development to greater than 75 feet to the northwest. The upper unconsolidated material consists predominantly of clay, silty and sandy clay, and some sand and gravel. Few, if any, of the existing residential wells in the area are completed in the unconsolidated zone. The bedrock in the vicinity of the Development consists of either Silurian-age Dolomite or Ordovician-age Maquoketa shale. The uppermost bedrock in the northwest portion of the site consists of shale, while dolomite is the uppermost bedrock in the northern and eastern portions of the Development. It is reported that bedrock is exposed on the western end of the lake.

Based on the well log for Dayspring Baptist Church, which is located north of I-94, unconsolidated sand and gravel was encountered from surface to 26 ft bg; limestone/dolomite to 60 feet; shale/dolomitic shale (Maquoketa Formation) to 195 feet: limestone/dolomite to 505 feet; and sandstone to 745 ft bg. This well is completed in the sandstone aquifer between the depths of 505 to 745 feet.

This Dayspring Baptist Church well provides an example of the typical geologic section in the Development and in the Lake Pewaukee watershed. The upper unconfined aquifer is present in the unconsolidated material and/or the upper Silurian dolomite. At the base of the Silurian dolomite aquifer lies the Ordovician-Maquoketa shale, which overlies the sandstone aquifer and is present over the entire Lake Pewaukee watershed. The shale forms a regional confining unit that hydraulically isolates the units above the shale from the underlying units. This means that wells that are completed beneath the shale will not affect the shallow unconsolidated aquifer and will not affect the water that is entering the Lake as inflow.

Beneath the Maquoketa shale lies a series of Ordovician and Cambrian units that consist of sandstone, dolomite, and shale. These units are collectively known as the deep sandstone aquifer. Beneath the sandstone aquifer lies the Precambrian basement rock. The Precambrian basement rock consists of granite, quartzite, or metamorphic rock. The Precambrian basement is generally impermeable and represents the bottom of the aquifer system of eastern Wisconsin.

Shallow Groundwater

Lake Pewaukee resides in a basin formed by the retreating glaciers in the last ice age. The terrain is significantly higher to the north, south and west. Shallow groundwater flows from areas of higher elevation where recharge occurs, to areas of lower elevation where discharge occurs. Lake Pewaukee lies in an area where significant discharge occurs, both from springs and seeps in the lower elevation terrain and through the lake bottom. The shallow groundwater flow contours within the Lake Pewaukee watershed and groundwater shed are presented in **Figure 2**. Note how the water table contours converge on the Lake from the higher elevations in the north, south and west. This figure also presents the recharge potential of the unconsolidated materials within the watersheds. The majority of the soils in the watersheds exhibit moderate to very high recharge potential. The Development resides in an area classified with high to very high recharge potential. Covering recharge areas with buildings or pavement, or diverting storm water flow around the Development, will reduce the naturally occurring recharge rates.

Proposed Development

The Development will be located on three parcels with a total acreage of approximately 152 acres. The parcels are currently zoned either agricultural, undeveloped or agricultural forest. A substantial area located predominantly in the north central portion of the Development consists of wetlands, of which the source of the water is from a spring in the largest pond in the wetland area and likely from small springs/ground seeps in the other saturated areas in the vicinity of the main pond. The acreage which is not forest or wetland is currently cultivated cropland.

The anticipated developer of the site is Neumann Developments, Inc., which has proposed three conceptual plans for the Development: Conceptual Land Plan A (Plan A), Conceptual Land Plan B (Plan B) and Conceptual Land Plan C (Plan C). The conceptual plans are included in **Attachment A**. All three Plans are slated to consist of 8 “Low Density” single family residential units situated on approximately 100 feet wide X 175 feet deep lots, and 35 “Residence’s’ Homes situated on 90 feet wide X 167 feet deep lots. Plan A, B and C will have 85, 84 and 96, respectively, “Villa” Homes situated on 75 feet wide X 135 feet deep lots. Plan A will have a total of 132 condominiums (56 duplex ranch units and 76 duplex townhome units). Plan B will have 152 townhome apartment units. Plan C will have 96 “Villa” Homes. The residential development area is located on approximately 114 acres of the proposed Development.

All three Plans will maintain the “Existing Wetland” area, which is comprised of a spring and /or a series of springs or ground seepage features with fairly thick woodlands surrounding the pond areas and will be retained predominantly “as is.” Mulch trails for residents to walk through the wetland/woodland area are proposed in each Plan. A Primary Environmental Corridor will be implemented along the spring/pond/seepage area and discharge creek, which ultimately empties into Lake Pewaukee.

It is assumed that the current plans will supply each proposed single-family residence and duplex in the Development with a private well for potable water needs. It is also assumed that each duplex ranch and townhome unit and each townhome apartment unit will have one shared well per unit. The wastewater from each residence will be handled by the existing LPSD sewer system. LPSD has expressed concern about the proposed dense capacity design of the Development and the potential that the Development may tax the original design capacity of the piping system. Currently, all wastewater discharged to LSPD sewers is pumped to the Fox River Water Pollution Control Center (FRWPCC), which is operated by the City of Brookfield. Effluent from the plant discharges to the Fox River (Illinois Fox basin) which empties into the Mississippi River and finally in the Gulf of

Mexico. Exporting the wastewater out of the Lake Pewaukee watershed decreases the potential volume of groundwater that otherwise may have been discharged to Lake Pewaukee. Construction of the Development as planned with individual shallow wells will add to the loss of recharge to the lake. If the wells are completed in the deep aquifer below the Maquoketa shale no loss of recharge to the Lake will occur.

Previous Studies

Two water budgets have previously been completed/compiled by the United States Geological Survey (USGS) and Southeastern Wisconsin Regional Planning Commission (SEWRPC). The initial study covered the period from May 1976 to April 1977 and a long-term water budget covered the period from 1963 to 2001. Additionally, *A Lake Management Plan for Pewaukee Lake,* Community Assistance Planning Report No. 58 (SEWRPC, 2020) provided hydrogeologic information and water budget data estimates. Review of these documents indicate the following average values for water entering the lake (inflow) are estimated at:

- Surface water runoff: 4.28 cubic feet per second (cfs) (26% of the inflow)
- Precipitation directly to the lake surface: 9.33 cfs (58% of the inflow)
- Groundwater: 2.53 cfs (16% of the inflow)
- Total inflow: 16.14 cfs (7,244 gpm)

The outflow from Pewaukee Lake is estimated at:

- Evaporation: 8.45 cfs (52% of the outflow)
- Outflow to Pewaukee River: 7.52 cfs (47% of the outflow)
- Groundwater: 0.16 cfs (1% of the outflow)
- Total outflow: 16.13 cfs (7,240 gpm)
- Approximately 600 acre-feet of water infiltrate into the Lake Bottom (is lost) near the Lake's outlet each year

Note: 1 acre-foot = 325,851 gallons and 1 cfs = 1.983 acre-feet per day = 646,320 gallons of water. 1 cfs is equivalent to 448.8 gallons of water flowing per minute. 1 cfs will produce 724 acre-feet of water per year.

The average residence time for a particle of water is about 1.8 years (from entering the lake to leaving the lake).

SEWRPC Community Assistance Planning Report No. 58 (3rd Edition) addressed groundwater flow into the Lake. High points of the report are as follow:

- Lake Pewaukee is a significant groundwater discharge area
- Monitoring wells installed as part of an earlier study confirmed that groundwater is discharged to all areas of the Lake except near the eastern end of the Lake

- Tributary streams feeding the Lake contribute approximately 6,000 acre-feet per year and roughly half of that (3,000 acre-feet) is likely from groundwater discharge to the tributary streams.
- On an overall basis, groundwater provides approximately 5,000 acre-feet of water to the Lake per year

Based on the updated water balance and the analysis of hydrographs and flow data from a nearby USGS stream gauge on the Bark River as presented in Planning Report No. 58, it is now estimated that approximately 3,000 acre-feet per year of groundwater entering the Lake via tributary streams is likely groundwater. Based on this analysis, groundwater likely provides approximately 5,000 acre-feet (the original 2,000 acre-feet plus 3,000 acre-feet) of water to the Lake in a typical year. This additional groundwater inflow is approximately 4.15 cfs (1,863 gpm), which when combined with the initial 2.53 cfs (1,135 gpm), equals 6.68 cfs (2,998 gpm) of total groundwater inflow to the Lake.

Discussion of Concerns

The primary concern regarding construction of the Development is if pumping groundwater from the residential wells at the development will lower groundwater levels in the area and potentially reduce the amount of groundwater recharge to Lake Pewaukee and diminish or stop the discharge of water at the existing spring and/or groundwater seepage features.

Based on average conditions, which in Wisconsin includes an average household of 3 people (2.97 per www.statista.com/statistics) with an average water consumption rate of 330 gallons per day (gpd), which is approximately the average rate between 365 gpd (USGS) and 300 gpd (EPA), which equals an average pumping rate of 0.23 gallons per minute (gpm) from each proposed residential well. In reference to the three proposed Development conceptual models (Concept A with 260 units, Concept B with 279 units and Concept C with 139 units), each with one family and one private well, will pump an estimated total groundwater volume of 85,800 gpd (60 gpm average), 92,070 gpd (64 gpm average) and 48,870 gpd (32 gpm), respectively.

To compare the volume of pumped groundwater to the volume of wastewater that will be pumped out of the Lake basin under each scenario, we have implemented a conversion based on 1 Resident User Equivalent (RUE) of 210 gallons per day as provided to us by LPSD. Based on a RUE of 210 gpd and an average pumping volume of 330 gpd per family, approximately 64 percent of the water pumped will be lost to wastewater that will be piped out of the basin. Of the remaining 110 gpd difference, most of this water would likely be used for outdoor uses such as watering lawns and plants. Some of this water would be lost to evaporation or runoff, and some may recharge the shallow aquifer. The estimated volume of wastewater lost each day under concepts A, B and C is 54,600 gpd, 58,590 gpd and 31,100 gpd, respectively. Some portion of this water will come at the expense of the shallow groundwater that is recharging the lake. In a worst-case scenario all of the wells would be pumping from the shallow aquifer, and all the wastewater would come at the expense of lake recharge. We believe that this is unlikely as many of the wells are likely to be completed in the deeper aquifer which is not connected to the shallow aquifer and does not contribute to lake recharge. If half the wells were completed in the deep aquifer (beneath the shale) the volume of wastewater pumped out of the watershed would be cut in half.

The water budget completed by USGS indicated that the total recharge to Lake Pewaukee is 16.14 cfs (7,244 gpm, or 10,431,360 gpd) under the more conservative initial water budgets. The estimated highest groundwater withdrawn from the residential wells is under Concept B and is estimated at 92,070 gpd, or 33,605,550 gallons per year, which is approximately 0.005 percent of the total inflow. The lowest groundwater withdraw from the residential wells is under Concept C and is estimated at 48,870 gpd, or 17,837,550 gallons per year, which is approximately 0.0026 percent of the total inflow. Under the above scenarios, Concept C is shown to pump almost one half of the volume of water as Concept B. This means that the water use for the proposed development represents a small fraction of 1% of the inflows to the lake.

To help assess the potential of the lake levels being reduced due to lowered groundwater levels from pumping the residential wells in the Development, an evaluation of the relationship between lake level elevation, precipitation and sluice gate openings was performed. Based on the data obtained from LSPD, the following years were reviewed: 2019, 2020 and 2021. Review of the precipitation data indicates that generally the baseline lake elevation for the winter months (November to March) fluctuates in the vicinity of 852.2 feet above mean sea level (ft msl). In the late spring, winter and early fall period, the lake level rises about 0.5 to 0.9 ft msl. Based on the precipitation data collected by LSPD, the driest to wettest years were 2021 (24.47 in.); 2020 (28.33 in.) and 2019 (37.08 in.). In each of these years it is evident that the sluice gate controls the water level of the lake, even in dry years. The data is shown graphically in **Figures 3** through **5**. This demonstrates that recharge to the Lake via precipitation, runoff and groundwater inflow is prolific enough to supply the Lake with an excess of fresh water even in the driest year. A slight diminishment in groundwater discharge to the lake would result in a decrease in flow over the outlet structure that is too small to measure and would not cause a meaningful change in lake level.

Based on the review of available well logs in close proximity to the Development most all the wells are completed in the bedrock which consists of limestone and dolomite, and shale. The uppermost bedrock unit at the site can be either dolomite or shale. The Development is close to the western edge of the Maquoketa shale and the thickness and depth of the shale are variable. Based on the well logs reviewed as part of this evaluation, the depth to the bedrock across the site ranges from approximately 7 ft bg to the east, 29 ft bg to the north, 33 to 77 feet to the northwest, 19 to 37 ft bg to the southwest and approximately 40 feet in the central portion of the site. This indicates that most all the wells will likely be completed in the bedrock.

Per Wisconsin Administrative Code (WAC) NR811.13(2), the minimum well casing pipe depth for all drilled wells in unconsolidated formations, not including any screen, is 25 feet or 10 feet below the static water level when the static water level is greater than 15 feet below ground surface. Given that the unconsolidated units are thin in much of this site, few wells are likely to be constructed in this unit. Some wells may be completed in the upper dolomite or shale units, but this thickness of the upper dolomite is limited in much of the area and the yield for both the upper dolomite and shale units is uncertain and may not be sufficient to support a residential well. As a result, some of the wells in the Development may need to be completed in the sandstone aquifer below the shale unit. Wells open to, or below the shale units are less likely to pull in shallow groundwater as the shale acts as a low permeability barrier to flow between the shallow and deeper aquifers.

Drilling deeper wells will result in significantly higher costs for the wells and could produce water with elevated levels of radium. While there is no regulatory standard for radium in private water supply wells, radium is a known carcinogen and there are significant health risks associated with drinking water with elevated radium levels. This may cause many residents to add treatment systems to their drinking water taps. Given the increased cost of drilling wells into the deeper units beneath the shale, and the potential concerns of elevated radium levels, it may be more economic and protective of public health to develop a community water system for this development. If the well, or wells (DNR may require a backup well) for the system were drilled into the sandstone aquifer, there would be no impact to the lake or to the local shallow water table due to pumping from the deep aquifer.

The SEWRPC lake management plan (SEWRPC, 2020) recommends enhanced recharge methods to offset impacts to the groundwater system supporting the lake. Any actions that increase infiltration at the Development can be expected to increase recharge to the shallow ground water system and will help to compensate for any net loss from the shallow aquifer due to pumping from the residential wells. Development Concepts A, B and C each have nine storm water basins to collect excess runoff. It is not clear if any of these basins will have permeable bottoms to allow the collected water to infiltrate to the shallow water table. Routing stormwater to an infiltration basin will induce recharge which will result in an increase in groundwater recharge on the site. Any actions that increase infiltration, such as infiltration basins can help to offset any loss of inflow to the lake due to pumpage from the residential wells at the Development. It is important that the application of road salt to local streets, highways, parking areas and sidewalks should be minimized as much as possible to lower the risk of road salt contamination to the shallow aquifer and Lake Pewaukee.

The construction activities for the development could pose a risk to the springs on the site. Foundations or excavations into the hillside above the springs could disrupt the flow paths or divert water from the springs. This could disrupt the wetlands or cause undesirable surface flooding in other areas, or in basements of the new homes. For these reasons, the developer should conduct a study of the springs and the flow system supporting them, to evaluate construction methods to mitigate potential impacts to the springs. The location of the springs with respect to the proposed residential units in Concepts A, B and C is shown in **Attachment A**.

While this study has identified the potential pathways for the development to adversely impact the lake or the springs, the magnitude of the potential impacts due to pumping from the Development residential wells cannot be quantified within the scope of our review or without additional site data. To determine the extent of the potential impact to the shallow groundwater flow system at the Development, a comprehensive groundwater and surface water model such as MODFLOW, or similar methods, will need to be constructed and run with numerous scenarios of various input parameters for factors such as precipitation, hydraulic conductivity, runoff, infiltration, soil/sediment and rock conductivity, green areas and impermeable areas, etc. This method is the only way to reliably achieve an estimate of the projected impact to the local groundwater flow system in the vicinity of the Development and Lake Pewaukee. The means to acquire the necessary data would come through the installation of numerous soil borings and the construction of pairs of nested monitoring wells, groundwater pumping tests and measuring infiltration rates. Without completing a detailed assessment via completion of test borings and monitoring well nests, the hydrogeological flow regime in the vicinity of the Development cannot be reliably quantified.

Summary and Recommendations

Based on our review of the provided reference materials related to the proposed Development, it appears that the water level in Lake Pewaukee is controlled by the sluice gate, even in abnormally dry years. The potential impact of the development on lake levels is small to the point of being unmeasurable, especially if most of the Development wells are drilled into the deeper aquifer or if a community water system is developed in the sandstone aquifer. There are economic and public health concerns that may make developing individual private wells in the deeper aquifer undesirable for this development. Based on the average water use values for an average family, Concept A and B would pump almost double the amount of groundwater as Concept C. Additionally, Concept C will provide much more greenspace, which will promote more infiltration to the shallow groundwater aquifer. Based on the analysis presented above, Collier believes that Concept C will be the best solution for construction of a new development while providing higher infiltration rates than Concept A or B and withdrawing approximately 50 percent less than Concept B.

The excavation and construction activities in the development could impact the springs on site that support the wetlands. Construction activities above the elevation of the springs could reduce spring flow, divert flow to areas that are currently dry, or cause water problems in basements. For these reasons the Town of Delafield, Waukesha County, and LSPD should mandate that a hydrogeologic analysis of the springs and the flow system that supports them, should be completed prior to finalizing the Development plans. The analysis should include the installation of a monitoring well network sufficient to assess the shallow aquifer flow regime to ensure that construction activities will not impact the springs. The Town of Delafield, Waukesha County, and LSPD should also mandate that all wells constructed as part of the Development are to be completed below the Maquoketa shale, so that no loss of recharge to the Lake will occur.

In addition, to reduce the amount of road salt that will be applied to the paved areas of the Development, the Town of Delafield should apply a 50/50 salt and sand mixture to the roads and parking areas of the Development during winter instead of 100 percent salt as is the current practice. As an additional bonus to the salt reduction, the sand doesn't help to melt the snow or ice but increases traction, thereby reducing the amount of road salt required.

It is also noted that Collier assumed the information provided by LPSD was complete and correct, and that no substantive information that would change our analysis was omitted.

Our analysis indicates that additional site information is required to obtain quantitative predictions of future water levels which was beyond the scope of this report.

We trust that this information meets your needs. Please do not hesitate to call if you have any questions or would like to discuss our findings further.

Sincerely,
Collier Consulting, Inc.

Ted Powell

Ted L. Powell, P.G.
Senior Hydrogeologist
ted@collierconsulting.com

John Jansen

John Jansen, P.G.
Senior Hydrogeologist
john@collierconsulting.com

Attachments

FIGURES

Figure 1. Thomas Farms Proposed Development Site

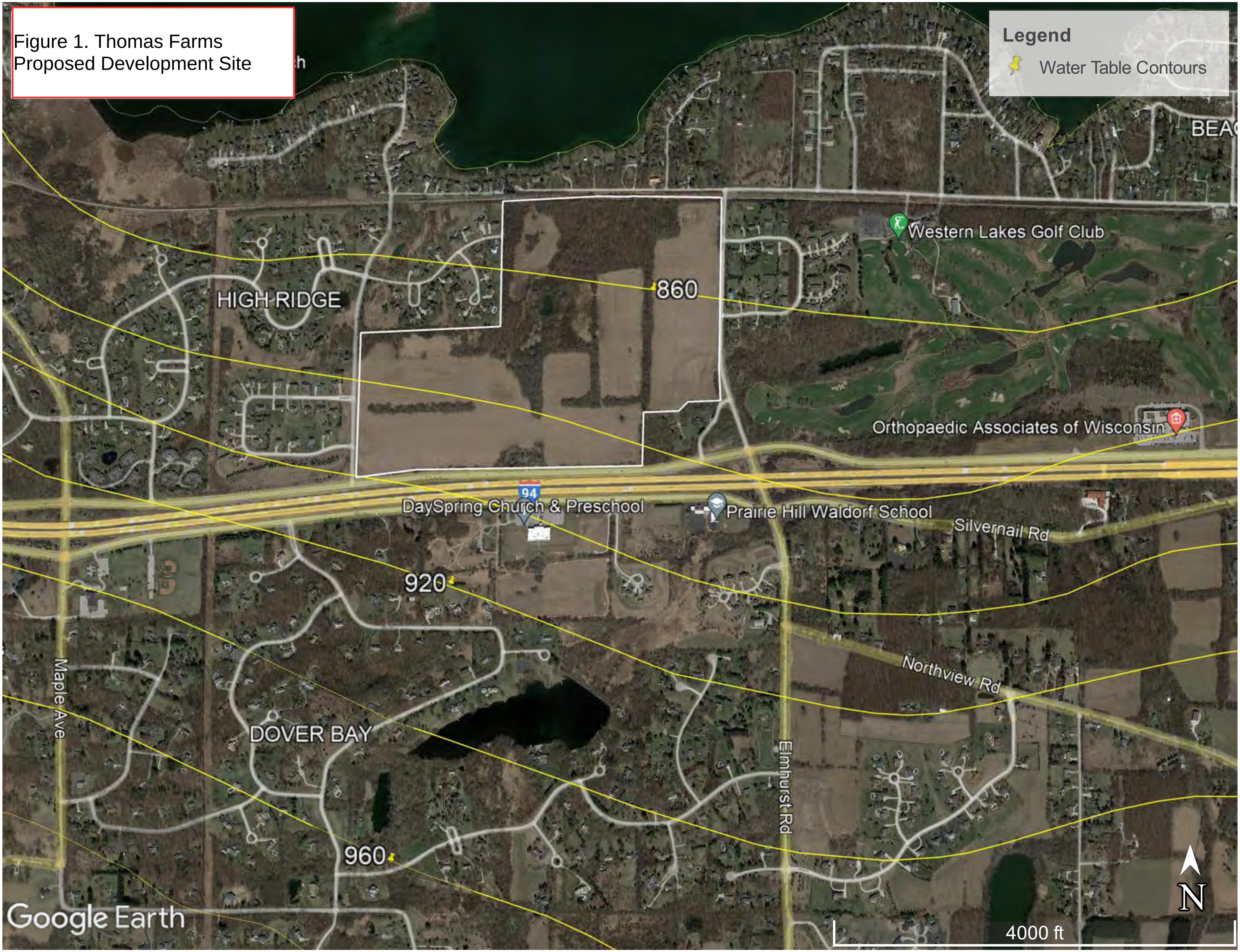
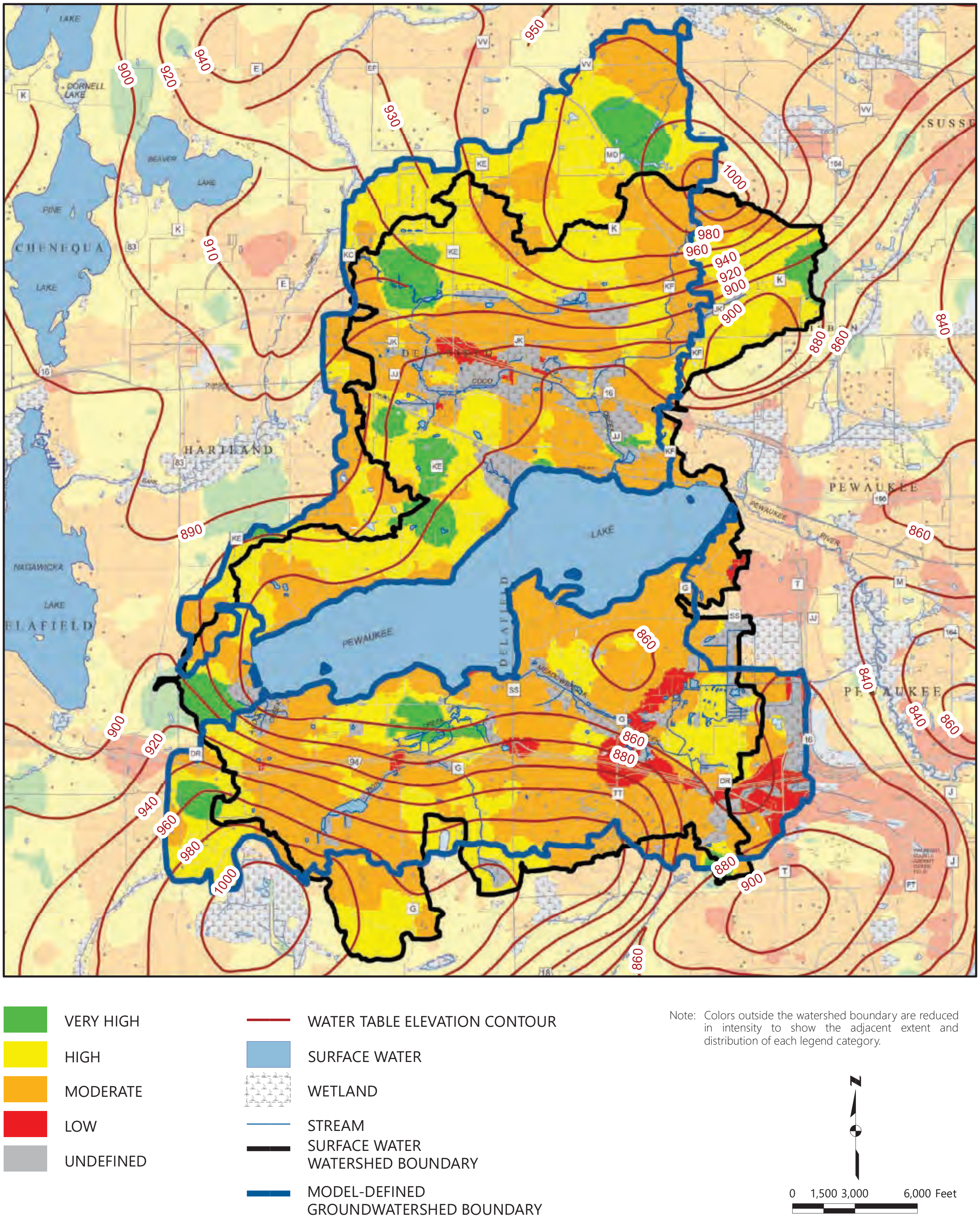


Figure 2
Groundwater Elevation Contours and Recharge Potential Within the Pewaukee Lake Groundwatershed



Note: Colors outside the watershed boundary are reduced in intensity to show the adjacent extent and distribution of each legend category.

Source: Wisconsin Geological and Natural History Survey and SEWRPC

Figure 3
2019
Lake Pewaukee
Elevation, Precipitation and Sluice Gate Opening

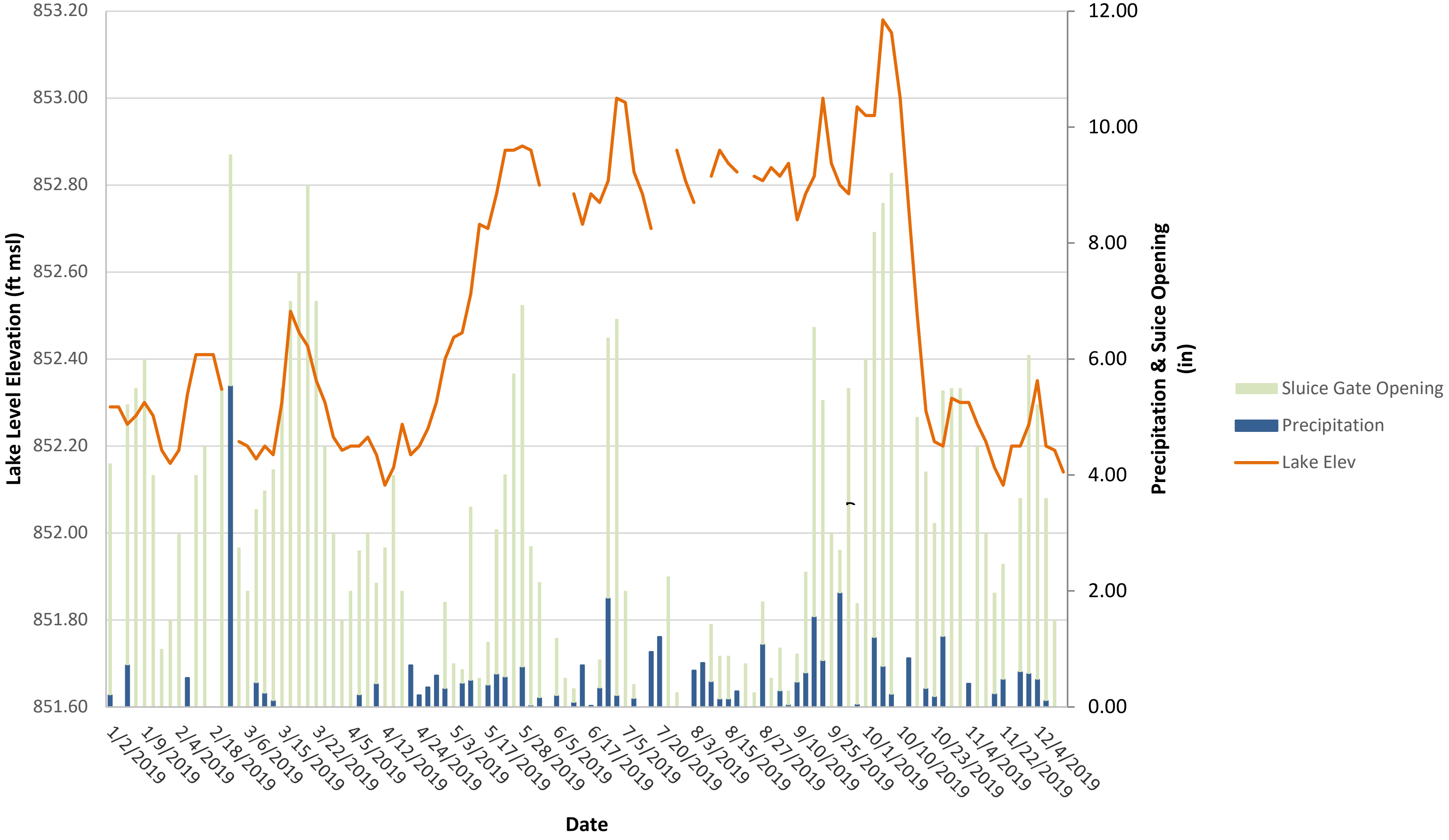


Figure 4
2020
Lake Pewaukee
Elevation, Precipitation and Sluice Gate Opening

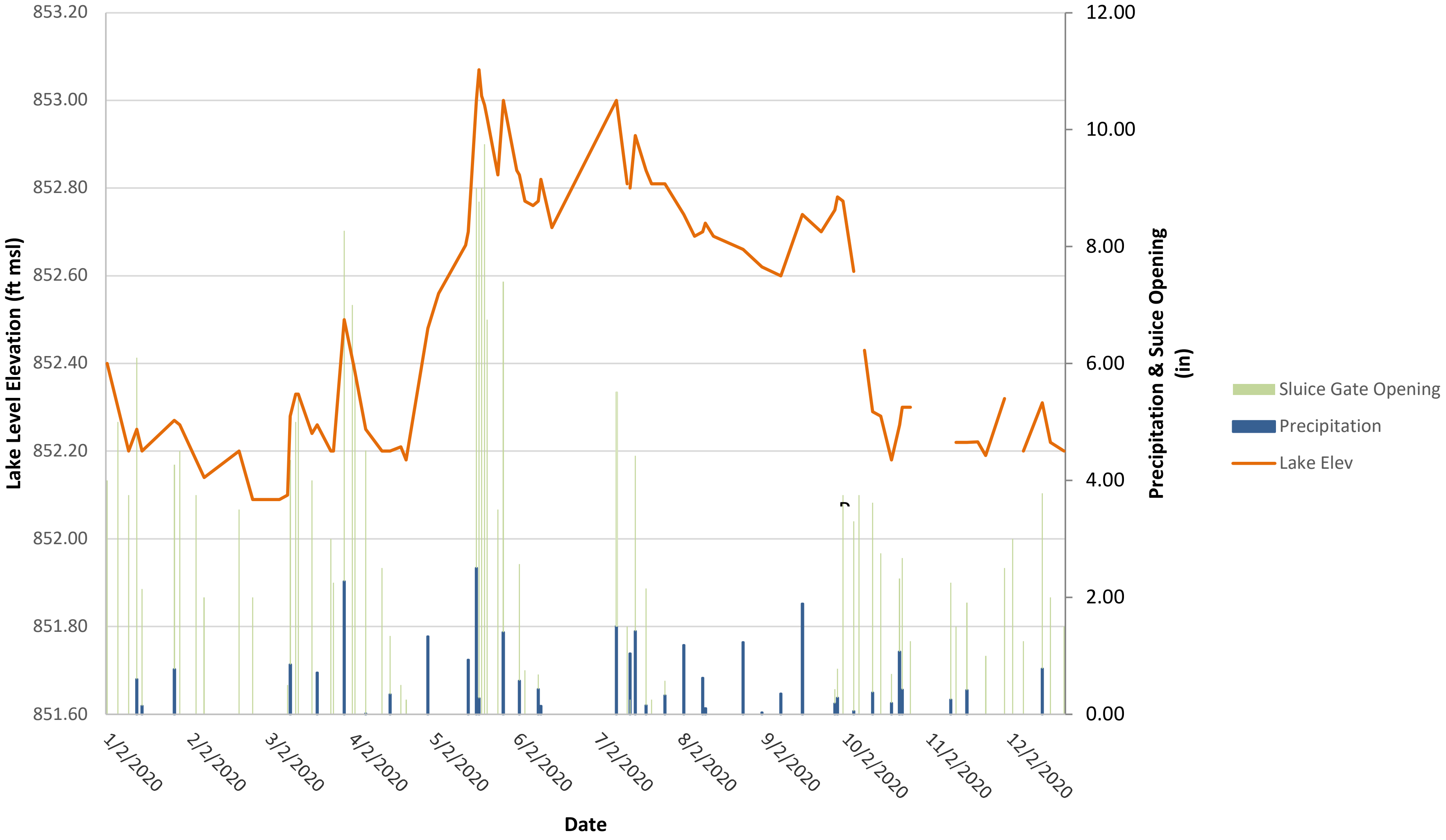
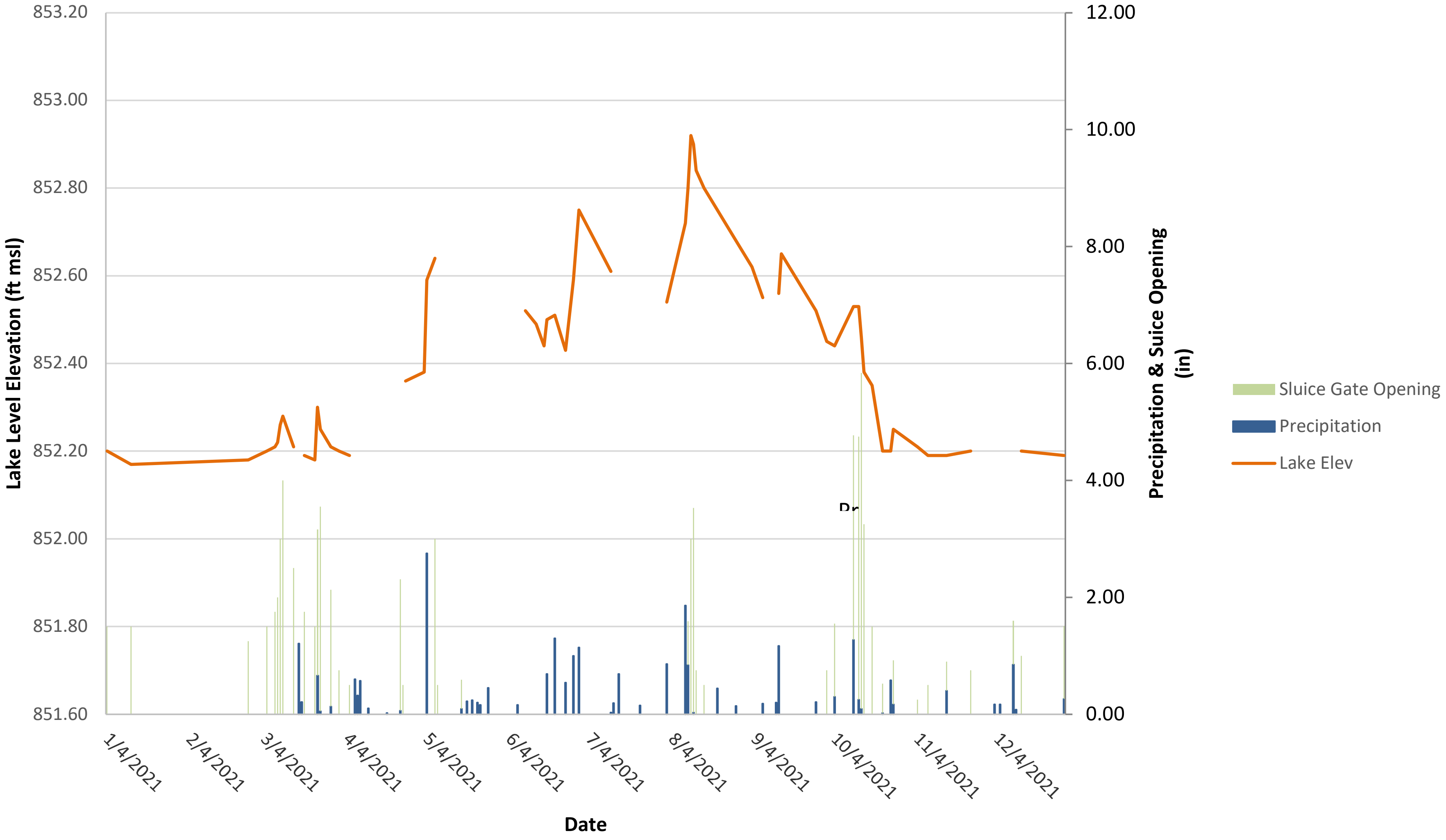


Figure 5
2021
Lake Pewaukee
Elevation, Precipitation and Sluice Gate Opening

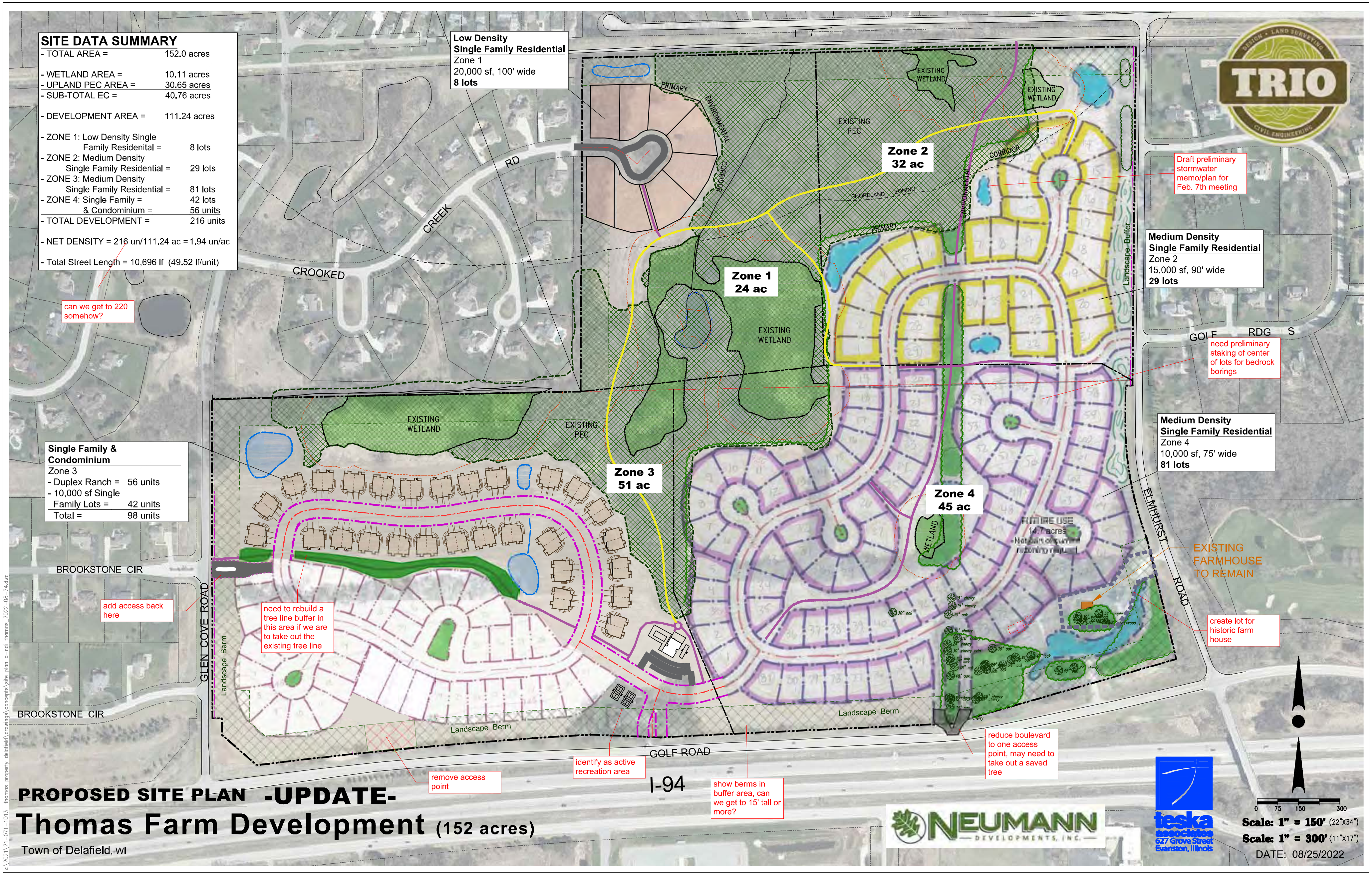


ATTACHMENTS

PROPOSED SITE PLAN -UPDATE-

Thomas Farm Development (152 acres)

Town of Delafield, WI



SITE DATA SUMMARY

- TOTAL AREA =	152.0 acres
- WETLAND AREA =	10.11 acres
- UPLAND PEC AREA =	30.65 acres
- SUB-TOTAL EC =	40.76 acres
- DEVELOPMENT AREA =	111.24 acres
- ZONE 1: Low Density Single Family Residenital =	8 lots
- ZONE 2: Medium Density Single Family Residential =	29 lots
- ZONE 3: Medium Density Single Family Residential =	81 lots
- ZONE 4: Single Family =	42 lots
& Condominium =	56 units
- TOTAL DEVELOPMENT =	216 units

- NET DENSITY = 216 un/111.24 ac = 1.94 un/ac

- Total Street Length = 10,696 lf (49.52 lf/unit)

can we get to 220 somehow?

Low Density Single Family Residential
Zone 1
20,000 sf, 100' wide
8 lots

Medium Density Single Family Residential
Zone 2
15,000 sf, 90' wide
29 lots

Medium Density Single Family Residential
Zone 4
10,000 sf, 75' wide
81 lots

Single Family & Condominium
Zone 3

- Duplex Ranch =	56 units
- 10,000 sf Single Family Lots =	42 units
Total =	98 units

Zone 1
24 ac

Zone 2
32 ac

Zone 3
51 ac

Zone 4
45 ac

Draft preliminary stormwater memo/plan for Feb. 7th meeting

need preliminary staking of center of lots for bedrock borings

EXISTING FARMHOUSE TO REMAIN

create lot for historic farm house

add access back here

need to rebuild a tree line buffer in this area if we are to take out the existing tree line

remove access point

identify as active recreation area

show berms in buffer area, can we get to 15' tall or more?

reduce boulevard to one access point, may need to take out a saved tree

NEUMANN DEVELOPMENTS, INC.

teska associates
627 Grove Street
Evanston, Illinois

Scale: 1" = 150' (22"X34")
Scale: 1" = 300' (11"X17")

DATE: 08/25/2022

Plan Commission Report for January 16, 2024

Thomas Family Properties Zoning Amendment (County) and Residential Planned Unit Development Conditional Use

Agenda Item No. 5. C.

Applicant:	Neumann Development, Inc. by Bryan Lindgren
Owner:	Amy Thomas, et.al.
Project:	Welshire Farm subdivision
Requested Action:	Recommendation to Town Board and Waukesha County on zoning amendment from A-1 to R-3 Residential and Residential Planned Unit Development Conditional Use in areas of Waukesha County zoning jurisdiction.
Zoning:	A-1 Agricultural (County Shoreland Area) C-1 Conservancy EC Environmental Corridor DSO Delafield Shoreland Overlay
Location:	North of Golf Road, west of Elmhurst Road, south of Lake Country Bike Trail and High Ridge East Add'n No. 1 subdivision and east of Glen Cove Road

Report

Background

The current land use designation on the Thomas family properties within Waukesha County shoreland jurisdiction is Low Density Residential and Primary Environmental Corridor. The zoning on the property is A-1 Agricultural, C-1 Conservancy, EC Environmental Corridor and DSO, Delafield Shoreland Overlay District. The applicant has requested the land within the County's shoreland jurisdiction that is currently designated A-1 be rezoned to R-3 Residential. The C-1, EC, and DSO zoning would remain unchanged. The request is also to approve a Residential Planned Unit Development Conditional Use. The purpose of the rezoning and conditional use is to allow for a conservation design residential subdivision.

Consideration

The R-3 Zoning district allows for lots with a minimum lot size of 20,000 square feet. A Residential Planned Unit Development in the R-3 zoning district allows a density of 15,000 square feet per unit. The lot layout for the proposed Welshire farm development within the County's jurisdiction meets the criteria in the ordinance.

The County Shoreland ordinance requires consideration by the Town Plan Commission and the County can incorporate any conditions requested by said Plan Commission into their Conditional Use Grant.

Substantial conditions and requirements were documented in the Town's PDD ordinance. The intent was to have consistent conditions and requirements throughout all of the development – both in Town and County jurisdictions.

Staff Recommendation:

I recommend that the Plan Commission provide a positive recommendation to the County to rezone lands from A-1 to R-3 and that the Residential Planned Unit Development be approved subject to the entire development following the conditions and requirements of the Town's PDD ordinance. My recommendation is based on the following:

- The request is in compliance with the County Land Use Plan.
- The General Development Plan layout has been reviewed in light of the regulations within each subsection of Section 17.04 (5)(R) Planned Development District and has been found in compliance with the ordinance.
- Development of the subject property will be in substantial conformance with the maps and studies identified in the General Development Plan as follows:

Map No.	Date (latest revision)	Title
1,1A,1B,1C	12/22/2023	General Development Plan Drawing
2, 2A,2B	12/22/2023	Open Space and Natural Resource Protection Plan
3	12/22/2023	Road Access Plan
4	12/22/2023	Sanitary Sewer Plan
5	12/22/2023	Preliminary Stormwater Plan
6	12/22/2023	Bike and Pedestrian Plan
7	12/22/2023	Active Recreation Plan
L1 – L7	3/27/2023	Landscape Plan
	12/6/2023	Traffic Impact Analysis
	3/24/2023 7/14/2023 9/29/2023 12/21/2023	Hydrogeologic Assessment Report Response to SEWRPC Comments Response to SEWRPC Comments Groundwater Evaluation Summary

Tim Barbeau, Town Engineer
January 8, 2024

WAUKESHA COUNTY DEPARTMENT OF PARKS AND LAND USE
PLANNING AND ZONING DIVISION
515 W. Moreland Blvd. Room AC230
WAUKESHA, WI 53188
(262) 548-7790
Email pod@waukeshacounty.gov Website www.waukeshacounty.gov/planningandzoning

PETITION FOR CONDITIONAL USE

Office Use Only:

Fee Pd. $ ________ Receipt No. ________ ATF Y/N: ____ Appl. recd. by: ________

Petition No. ________

Owner Amy E. Thomas

Applicant Neumann Developments Inc.

Address [redacted]

Address N27W24025 Paul Ct, Suite 100
Pewaukee, WI 53072

Daytime Phone No. [redacted]

Daytime Phone No.(262) 542-9200

Email address and/or fax number if you would like a copy of the staff report forwarded to you prior to the Co. Park and Planning Commission meeting: blindgren@neumanncompanies.com

Petition is hereby made on this **date,** 3-22-23, for a CONDITIONAL USE PERMIT on property located in the **Town of** Delafield, **Section** 23,

Tax Key No(s). DELT0811999 - DELT0809995 & DELT0809996, and which has the following **Legal Description**:

See attached

Address of subject premises: N14 W29542 Golf Rd, Pewaukee, WI 53072

Specific type of CU requested, Section Residential PUD - Delafield PDD-1 **in ZC/SFPO.**

Said CONDITIONAL USE PERMIT to provide for the **use of the property and/or buildings** in the following described manner (Give a **detailed** description of the **use(s)** requested. Attach additional pages, if necessary.):

See attached

Property is presently **zoned** as pending R-3 rezone request

Property is presently **used** as agricultural

The following information <u>**must be**</u> submitted with this application:

1. **One electronic copy** of a detailed and accurate site plan/map or plat of survey (preferred) drawn **<u>TO SCALE</u>**, showing the **subject property**, its location, length, and direction of each boundary thereof, **the location <u>and</u> existing use(s) of <u>all</u> buildings and structures thereon, and the principal use of the property**.

2. Any **supplemental information** deemed necessary for a reasonable understanding of the proposed conditional use depending on the type of conditional use requested, e.g., <u>detailed</u> description of the use or operation, topographical information, cross sections, elevations, etc.

3. A **filing fee** payable to the Waukesha County Department of Parks and Land Use (inquire as to the current fee amount).

The undersigned owner hereby certifies that <u>all</u> of the above statements, information and attachments contained herein (site plan/survey, plans, exhibits, etc.) are true and accurate to the best of his or her knowledge and belief. By signing this form, the owner or his/her authorized agent is giving their consent for the Dept. of Parks and Land Use to inspect the site as necessary and related to this application even if the property has been posted against trespassing pursuant to Wis. Stat.; and serves as your acceptance of the wetland statement included on your Property Owner letter issued with your zoning permit, as applicable.

Signature of Owner Ay E. Thomas Date of Filing 3 · 23 · 2023

Signature of Applicant Date of Filing 3 - 22-23

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PETITION TO AMEND THE MAP OF THE COUNTY ZONING CODE and/or THE COUNTY SHORELAND AND FLOODLAND PROTECTION ORDINANCE

Fee Pd. $ ______ Receipt No. ______ Appl received by ______ Petition No. ______

Town Zoning ______ County Zoning ______ Shoreland Zoning Only ______

Shoreland and Town Zoning ______ Shoreland and County Zoning X

City/Village and/or Shoreland Annexed Area ______

HONORABLE BOARD OF SUPERVISORS/COMMON COUNCIL/BOARD OF TRUSTEES IN THE TOWN/~~CITY/VILLAGE~~ OF Delafield WAUKESHA COUNTY, WISCONSIN:

I/We, the undersigned, owner(s) of the property described below, located in the Town/~~City/Village~~ of Delafield do hereby petition to amend the MAP of the County Zoning Code and/or the County Shoreland and Floodland Protection Ordinance on this date, 3-22-23, in the following manner:

Existing Zoning Classification(s): A-1

Proposed Zoning Classification(s): R-3 Residential

Existing Use(s) of the subject property: Agricultural

Proposed Use(s) of the subject property: Residential Development

Tax Key No(s). DELT0811999 - DELT0809995 - DELT0809996

Address of subject premises: N14W29542 Golf Rd. Pewaukee WI 53072

Legal Description of the subject property:

see attached

Reasons/Conditions, which justify a change in the zoning (attach additional pages, if necessary):

See attached

Owner: [redacted]
[redacted]

Daytime Phone No. [redacted]

Applicant: Neumann Developments Inc.
N27W24025 Paul Ct, Suite 100
Pewaukee, WI 53072

Daytime Phone No. (262) 542-9200

Email address and/or fax number if you would like a copy of the staff report forwarded to you prior to the

(Waukesha Co. Park and Planning Commission) meeting: blindgren@neumanncompanies.com

The following information **must be** submitted with this application:

1. One electronic copy of a detailed and accurate site plan/map or plat of survey (preferred) drawn **TO SCALE**, showing the location of the proposed zoning district boundaries, the location and use of the buildings on the subject property, and the use of **all** properties within 300 feet of the subject property.

2. A filing fee payable to the Waukesha County Department of Parks and Land Use (inquire as to the current fee amount).

Note: Review of this application may include a site inspection.

The undersigned owner hereby certifies that **all** of the above statements, information and attachments contained herein are true and accurate to the best of his or her knowledge and belief. By signing this form, the owner or his/her authorized agent is giving their consent for the Dept. of Parks and Land Use to inspect the site as necessary and related to this application even if the property has been posted against trespassing pursuant to Wis. Stat.; and serves as your acceptance of the wetland statement included on your Property Owner letter issued with your permit, as applicable.

Signature of Owner Amy E. Thomann Date of Filing 3·23·23

Signature of Applicant Date of Filing 3-22-23