



7275 W. MAIN STREET, KALAMAZOO, MI 49009-9334  
269-216-5220 Fax 375-7180  
www.oshtemo.org

**NOTICE  
OSHTEMO CHARTER TOWNSHIP  
PLANNING COMMISSION - REGULAR MEETING**

**MEETING WILL BE HELD IN PERSON  
AT OSHTEMO TOWNSHIP HALL  
7275 W MAIN STREET**  
Masks Are Optional in Oshtemo Township Buildings

*(Meeting will be available for viewing through <https://www.publicmedianet.org/qavel-to-qavel/oshtemo-township>)*

**THURSDAY, MARCH 28, 2024  
6:00 P.M.**

**AGENDA**

1. Welcome and Call to Order
2. Pledge of Allegiance
3. Approval of Agenda
4. Public Comment on Non-Agenda Items
5. Approval of Minutes: February 22, 2024
6. **Public Hearing: Special Use and Site Plan – Maple Hill Auto Group**  
Maple Hill Auto Group is requesting site plan and special exception use approval to redevelop 6565 W Main Street to serve as a Subaru automotive dealership.
7. **Public Hearing: Tentative Preliminary Plan – Westridge Site Condominium**  
Green Development Ventures, LLC is requesting step one tentative preliminary plan approval for a 41-unit site condominium project located at 7110 W Main Street.
8. **Public Hearing: Ordinance Amendment – Signs and Billboards**  
Consideration to adopt amendments to Section 55 - Signs and Billboards for recommendation to the Township Board.
9. **Public Hearing: Ordinance Amendment – Setback Provisions**  
Consideration to adopt amendments to Section 50.60.C – Setback Provisions for Business and Industrial Districts for recommendation to the Township Board.
10. Other Updates and Business
11. Adjournment

**Policy for Public Comment  
Township Board Regular Meetings, Planning Commission & ZBA Meetings**

All public comment shall be received during one of the following portions of the Agenda of an open meeting:

- a. Citizen Comment on Non-Agenda Items or Public Comment – while this is not intended to be a forum for dialogue and/or debate, if a citizen inquiry can be answered succinctly and briefly, it will be addressed or it may be delegated to the appropriate Township Official or staff member to respond at a later date. More complicated questions can be answered during Township business hours through web contact, phone calls, email ([oshtemo@oshtemo.org](mailto:oshtemo@oshtemo.org)), walk-in visits, or by appointment.
- b. After an agenda item is presented by staff and/or an applicant, public comment will be invited. At the close of public comment there will be Board discussion prior to call for a motion. While comments that include questions are important, depending on the nature of the question, whether it can be answered without further research, and the relevance to the agenda item at hand, the questions may not be discussed during the Board deliberation which follows.

Anyone wishing to make a comment will be asked to come to the podium to facilitate the audio/visual capabilities of the meeting room. Speakers will be invited to provide their name, but it is not required.

All public comment offered during public hearings shall be directed, and relevant, to the item of business on which the public hearing is being conducted. Comment during the Public Comment Non-Agenda Items may be directed to any issue.

All public comment shall be limited to four (4) minutes in duration unless special permission has been granted in advance by the Supervisor or Chairperson of the meeting.

Public comment shall not be repetitive, slanderous, abusive, threatening, boisterous, or contrary to the orderly conduct of business. The Supervisor or Chairperson of the meeting shall terminate any public comment which does not follow these guidelines.

(adopted 5/9/2000)  
(revised 5/14/2013)  
(revised 1/8/2018)

Questions and concerns are welcome outside of public meetings during Township Office hours through phone calls, stopping in at the front desk, by email, and by appointment. The customer service counter is open from Monday-Thursday, 8 a.m.-1 p.m. and 2-5 p.m., and on Friday, 8 a.m.–1 p.m. Additionally, questions and concerns are accepted at all hours through the website contact form found at [www.oshtemo.org](http://www.oshtemo.org), email, postal service, and voicemail. Staff and elected official contact information is provided below. If you do not have a specific person to contact, please direct your inquiry to [oshtemo@oshtemo.org](mailto:oshtemo@oshtemo.org) and it will be directed to the appropriate person.

<b>Oshtemo Township Board of Trustees</b>		
<b><u>Supervisor</u></b>		
Cheri Bell	216-5220	<a href="mailto:cbell@oshtemo.org">cbell@oshtemo.org</a>
<b><u>Clerk</u></b>		
Dusty Farmer	216-5224	<a href="mailto:dfarmer@oshtemo.org">dfarmer@oshtemo.org</a>
<b><u>Treasurer</u></b>		
Clare Buszka	216-5260	<a href="mailto:cbuszka@oshtemo.org">cbuszka@oshtemo.org</a>
<b><u>Trustees</u></b>		
Neil Sikora	760-6769	<a href="mailto:nsikora@oshtemo.org">nsikora@oshtemo.org</a>
Kristin Cole	375-4260	<a href="mailto:kcole@oshtemo.org">kcole@oshtemo.org</a>
Zak Ford	271-5513	<a href="mailto:zford@oshtemo.org">zford@oshtemo.org</a>
Michael Chapman	375-4260	<a href="mailto:mchapman@oshtemo.org">mchapman@oshtemo.org</a>

<b>Township Department Information</b>			
<b><u>Assessor:</u></b>			
Kristine Biddle	216-5225	<a href="mailto:assessor@oshtemo.org">assessor@oshtemo.org</a>	
<b><u>Fire Chief:</u></b>			
Greg McComb	375-0487	<a href="mailto:gmccomb@oshtemo.org">gmccomb@oshtemo.org</a>	
<b><u>Ordinance Enforcement:</u></b>			
Rick Suwarsky	216-5227	<a href="mailto:rsuwarsky@oshtemo.org">rsuwarsky@oshtemo.org</a>	
<b><u>Parks Director:</u></b>			
Vanessa Street	216-5233	<a href="mailto:vstreet@oshtemo.org">vstreet@oshtemo.org</a>	
Rental Info	216-5224	<a href="mailto:oshtemo@oshtemo.org">oshtemo@oshtemo.org</a>	
<b><u>Planning Director:</u></b>			
Vacant	375-4260	<a href="mailto:planning@oshtemo.org">planning@oshtemo.org</a>	
<b><u>Public Works Director:</u></b>			
Anna Horner	216-5228	<a href="mailto:ahorner@oshtemo.org">ahorner@oshtemo.org</a>	

**OSHTEMO CHARTER TOWNSHIP  
PLANNING COMMISSION  
DRAFT MINUTES OF A MEETING HELD FEBRUARY 22, 2024**

---

**Agenda**

**6139 & 6169 W Main Street – Conceptual Site Plan and Dimensional Deviation Request**

**Conceptual plan approval and dimensional deviation request pursuant to Section 35.60 of the Zoning Ordinance to allow for one 50,560 SF single story building on-site whereas a maximum of 25,000 SF is allowed per single story building by Ordinance.**

**WORK SESSION:**

- a. Introduction: Section 55: Signs and Billboards**
  - b. Introduction: Section 50.60: Setback Provisions**
- 

A meeting of the Oshtemo Charter Township Planning Commission was held Thursday, February 22, 2024, commencing at approximately 6:02 p.m. at the Oshtemo Township Hall, 7275 West Main Street.

**MEMBERS PRESENT:** Philip Doorlag, Chair  
Deb Everett, Vice Chair  
Zak Ford, Township Board Liaison  
Scot Jefferies  
Scott Makohn

**MEMBERS ABSENT:** Alistair Smith

Also present were Leeanna Harris, Zoning Administrator and Temporary Recording Secretary, Colten Hutson, Zoning Administrator, James Porter, Township Attorney, and nine other interested persons.

**Call to Order and Pledge of Allegiance**

Chairperson Doorlag called the meeting to order at approximately 6:02 p.m. Those in attendance joined in reciting the Pledge of Allegiance.

**Approval of Agenda**

The Chair asked if there were any changes to the agenda. Hearing none, he let the agenda stand as published.

**PUBLIC COMMENT ON NON-AGENDA ITEMS**

The Chair asked if anyone present wished to speak on non-agenda items. As no one responded, he moved to the next agenda item.

### **Approval of the Minutes of the Meeting of February 8, 2024**

Chairperson Doorlag asked for additions, deletions, or corrections to the Minutes of the Meeting of February 8, 2024.

Mr. Jefferies noted a correction in the “other updates and business” section that his neighborhood was not receiving a new speed limit, but rather the Kalamazoo County Road Commission had recognized the speeding issue and that the 25 MPH speed limit needed to be recognized and enforced.

Chair Doorlag confirmed that the Road Commission recognized that there was a speeding issue in the area and their solution was to provide education materials, including signage, and that those would be distributed in the area.

Ms. Harris confirmed that she would correct the minutes to state such.

Hearing no other additions, deletions, or corrections, Chairperson Doorlag asked for a motion.

Mr. Ford **made a motion** to approve the Minutes of the Meeting of February 8, 2024, as amended. Mr. Jefferies **seconded the motion**. The **motion was approved unanimously**.

Chairperson Doorlag moved to the next agenda item and asked Mr. Hutson for his presentation.

### **6139 & 6169 W Main Street – Conceptual Site Plan and Dimensional Deviation Request**

Mr. Hutson thanked the Chair and explained that the applicant, Tim Talsma, is requesting conceptual plan approval and a dimensional deviation request to redevelop 6139 and 6169 West Main Street in order to construct one 50,560 SF furniture store single story building where only one 25,000 SF single story building is permitted by Ordinance.

Mr. Hutson noted that the 9<sup>th</sup> Street and West Main Overlay Zone is optional, meaning that property owners have the option to either continue to use the property in the manner in which is permitted in the underlying zoning district, or otherwise adhere to the standards outlined in the overlay district in order to take advantage of the opportunities allowed by the overlay.

Mr. Hutson explained that the applicants are choosing to utilize the 9<sup>th</sup> Street and

West Main Overlay Zone in order to propose this Commercial development since any business primarily for retail sales are considered a permitted use by right within the West Main Commercial Sub-District within the Overlay.

Mr. Hutson noted that the 4-acre is located on two parcels on the south side of West Main Street between 9<sup>th</sup> and 10<sup>th</sup> Street. When reviewing the request, it was noted that there are three sets of criteria that need to be considered which include Section 64, Section 65.30, and Section 35 of the Zoning Ordinance. Mr. Hutson noted that a breakdown of the evaluation based on these criteria was included in the staff report to the Planning Commission.

Mr. Hutson began by noting Section 64: Site Plan Review. He noted that, as previously mentioned, the subject site is zoned R-2: Residence District and 9<sup>th</sup> Street and West Main Overlay Zone. He explained that the property abuts a car dealership to the west, a brewery to the east, vacant land to the south, and financial institutions to the north. Each parcel surrounding the property under consideration is also located within the overlay zone.

Mr. Hutson noted that all setbacks, frontage, and area requirements were met. As far as access and circulation, the proposed conceptual plan is proposing to install one standard commercial driveway at the center of the property's frontage. He explained that this stretch of West Main falls between MDOT's jurisdiction and the driveway will be required to go through MDOT's permitting process. He continues by saying that the applicant is proposing a frontage road between the proposed building location and West Main Street in efforts to promote connectivity amongst adjacent parcels. He notes that an interior drive aisle is also proposed to wrap around the building, all circulation aisle widths are proposed are satisfactory, and that a loading and unloading zone for shipments is proposed in the far rear of the site, limiting the view from motorists on West Main Street.

Mr. Hutson walked through parking requirements, explaining that a total of 120 parking spaces are required by Ordinance for a furniture store use with a net floor area of 44,500 square feet and that 120 parking spaces have been provided. He says that all spaces are proposed to be 10 feet wide by 20 feet deep, which satisfies code requirements. He noted that the applicant is requesting a parking deferment of 50 parking spaces and that they had provided rationale as to why the subject deferment should be granted.

Mr. Hutson notes that, although the Ordinance is requiring that there be a minimum of 120 parking spaces on-site, staff is in the opinion that a total of 120 parking spaces is excessive for a use of this nature. The intensity level of a commercial use such as a furniture store is rather low and that staff recommends that the Planning Commission grant the request to allow for the deferment of 50 parking spaces for the subject furniture store use.

Mr. Hutson continues on to non-motorized facilities, explaining that the

Township's Non-motorized Plan does identify a 10-foot-wide path adjacent to the subject site on the south side of West Main Street and that, if the concept plan is approved, a sidewalk connecting the non-motorized facility to the principal building will be required to be shown on the site plan that is submitted for formal review and approval.

With respects to building design, Mr. Hutson noted, the proposed 50,560 square foot, one-story building will be located in the center of the property and would be approximately 30 feet in height. He says that the exterior of the building is proposed to have an appearance of a multi-tenant style building. The exterior materials are proposed to include brick masonry and wood fascia.

Mr. Hutson noted that landscaping and lighting plans satisfying Zoning Ordinance requirements will be required to be provided at time of formal site plan submission and that the Oshtemo Fire Department has reviewed the proposed plan and is happy with the design of the site.

Mr. Hutson explained that Prein & Newhof and the Oshtemo Public Works Department had reviewed the proposal and have noted that there are some engineering concerns that have not yet been addressed; however, that they felt that as long as they will be met during the formal site plan approval process, the applicant could move forward with the dimensional deviation and concept plan request.

Moving forward, Mr. Hutson noted that Article 65.30 outlines the general Special Use review criteria of the Zoning Ordinance and that the proposed use, a business specializing in retail sales, is a permitted use by right within the Overlay and that from a zoning perspective, the proposed use would be consistent with the surrounding commercial activity at nearby sites and is in accordance with the Township's Zoning Ordinance.

Mr. Hutson continues by explaining that the property in question falls within the West Main Commercial designation. The Master Plan notes uses in this designation may consist of office buildings and low intensity commercial and that the proposed site plan meets the minimum setback and parking requirements. He says that landscaping and open space requirements will be required to be met at time of formal site plan submission and that the proposed use is an allowable use within the zoning district it is planned for. He continues by saying that, with many low intensity commercial uses already established within this corridor and with the use being consistent with the Ordinance, staff does not foresee that the retail sales use will negatively affect neighboring properties or uses as it is harmonious and appropriate with existing uses and planned character of adjacent properties.

Mr. Hutson then begins explaining that the last criterion for Specific Use Requirements is not applicable as the Ordinance does not outline additional requirements for this use.

Mr. Hutson explains that Article 35 of the Zoning Ordinance outlines the specific development requirements within the 9<sup>th</sup> Street and West Main Overlay, including the size of buildings and that the applicant is proposing to construct one 50,560 square foot single story building on the subject property to serve as a furniture and home goods store for Talsma Furniture and that the square footage of the proposed building exceeds the allowable square footage for a single story building by Ordinance when developing under the Overlay. While the 9<sup>th</sup> Street and West Main Overlay Zone currently caps a single story building at 25,000 square feet in size, the applicant is seeking a dimensional deviation pursuant to Section 35.60 of the Zoning Ordinance. Any dimensional deviation shall be approved through a finding by the Planning Commission that the deviation meets the purpose of the West Main Street Sub-Area Plan and the 9<sup>th</sup> Street and West Main Overlay Zone.

Mr. Hutson points out that the Sub Area Plan for the frontage of this stretch of West Main Street envisions commercial and non-residential vision in which would complement the rural nature of the Township as a whole and that uses in the West Main Commercial designation should consist of office buildings and low intensity commercial development, similar to what has already developed along the West Main Street frontage between 9<sup>th</sup> and 10<sup>th</sup> Streets. Ultimately, Mr. Hutson points out that the Sub Area Plan specifies that big box type retail is not envisioned in this land use designation; however summarizes that the surrounding area has a number of commercial uses such as Ethan Allen, Latitude 42, Hampton's Plaza, Chemical Bank, Lake Michigan Credit Union, Advia Credit Union, and Sharp & Associates Law Firm.

Mr. Hutson explains that, it is not uncommon for a business owner to have the desire of wanting all merchandise and business operations to take place in a centralized location all in one building, but that it could be argued that the applicant could meet the desired 50,000 square foot mark without having to request a dimensional deviation as the Overlay does allow for more than one building on the property and that he applicant could construct two separate 25,000 square foot single story buildings on-site as reasonable use of the property would be maintained if the dimensional deviation is denied. Mr. Hutson points out that architectural features of the building are aesthetically pleasing and does give a sense of rural character, but that as the parcels are currently configured, the applicant could develop each separate parcel with an individual 25,000 square foot building on each of them, side by side to each other.

Mr. Hutson says it is important to note that going forward the developer will need to adhere to the strict design criteria outlined in Article 35 of the Zoning Ordinance in order to receive formal site plan approval by the Planning Commission and that the developer and his engineer will be required to demonstrate how the specific development requirements of the Overlay will be integrated into the overall design of the site at time of submitting for formal site plan approval, including perpetual open space, extensive landscaping, preservation of existing natural features, and an acceptable stormwater management design.

Mr. Hutson notes that, if the dimensional deviation is approved, staff recommends that a condition of conceptual plan approval be that if the developer is not able to design the site in a way that explicitly satisfies the design elements of Article 35 or other applicable sections of the Township's Ordinance with the proposed building size of 50,560 square feet, the size of the building will need to be reduced in order to accommodate all site elements required by Ordinance.

Mr. Hutson moves to the recommendation portion of the presentation and says that the Planning Commission will need to grant or deny the applicant's dimensional deviation request from Section 35.60 of the Zoning Ordinance to allow for one 50,560 square foot single story building on-site whereas a maximum of 25,000 square feet is allowed per single story building by Ordinance and, if approved, one single story building up to 50,560 square feet in size will be allowed on the subject property. However, he noted, if said deviation is denied by the Planning Commission, the site plan will need to be amended and resubmitted for review and approval as it will drastically impact the site layout. If the above deviation is approved by the Planning Commission, Planning Department staff recommend that the Planning Commission approve the proposed conceptual plan for a furniture store for Talsma Furniture with the conditions provided in the staff report.

Mr. Hutson then thanked the Commission and said he would be happy to answer any questions and noted that the applicant was in attendance as well.

Chair Doorlag thanked Mr. Hutson and asked if there were any questions for Mr. Hutson from the Commission.

Mr. Jefferies asked if the Public Works Department has weighed in on the connection between Seeco Drive and Lodge Lane and how it could potentially impact the south side of the property.

Mr. Hutson explained that the former Public Works Department worked hard, while Latitude 42 was constructed, to get access off of Lodge Lane to provide a connection point to the properties to the west. He explained that, now with a potential connection to Seeco Drive eastward, that during the formal site plan approval process for this site that Staff would expect a connection to Seeco Drive in the future to be planned.

Mr. Jefferies noted that he did not know how the connection would affect the property, but that it would most likely involve Public Works.

Mr. Hutson displayed a slide that contained the 9<sup>th</sup> Street and West Main Overlay Zone.

Mr. Jefferies asked if the main connection through to Lodge Lane from Seeco Drive would be through parking lots.



Mr. Ford says that the back of the parking lot, for example, through Latitude 42 would connect to Lodge Lane.

Ms. Everett noted that it would be similar to that in front of Burger King on West Main Street.

Mr. Jefferies asked if there was a frontage road planned between the proposed building and West Main Street.

Mr. Hutson noted that the adjacent car sales lot would most likely not develop or redevelop any time soon; however, it could potentially connect to Latitude 42 as is, potentially eliminating parking spaces in Latitude 42, connecting to Ethan Allen out to Lodge Lane.

Mr. Jefferies asked how many connections from Lodge Lane to the service drive would occur over time.

Mr. Hutson explained that, in speaking with the Public Works Director, that the proposed curb cut could be temporary until the frontage road develops in an attempt to reduce congestion and ensure motorists are completing safe turns at signalized intersections.

Mr. Ford asked if the sub-area plan reflected not allowing “big-box stores” and how the Planning Commission could factor this into their decision.

Attorney Porter explained that big box stores are large stores, such as Menards, and that perhaps asking the applicant for clarification could assist in their decision and that they will have to consider the shape and design of the store, how the traffic impact will be, etc. and consider that in their decision.

Mr. Ford continued by asking if there was an emphasis on parking in the rear in this overlay zone or if this is a different overlay zone.

Mr. Hutson says that this may be a different overlay zone, and that other developments within this overlay zone have had parking in the front, side, and rear, but that it is allowed in the front.

Attorney Porter said that there is a strong emphasis on unifying elements, screening, setbacks, etc. but nothing on parking in the front.

Mr. Ford asked for clarification on whether the proposed frontage road would be more like circulation through a parking lot, rather than an actual road.

Mr. Hutson confirmed this is the case, that it would not be an actual road.

Chair Doorlag confirmed that this would be similar to the circulation for the Long John Silvers and Burger King on West Main Street, and that parking was on both sides of the aisle.

Attorney Porter provided some background that the Township had asked those companies not to park on the north side because it was creating a hazard.

Mr. Hutson provided some clarification that, at this time, this proposal is just a concept plan, and that could potentially be a condition added by the Commission at the time of site plan approval to not allow parking on the north side of the property.

Mr. Jefferies noted that this is a good time to discuss the concept, especially with the extension of Seeco Drive and how it will affect the design in the area.

Mr. Ford asked about the unaddressed engineering concerns with the proposed site plan.

Mr. Hutson explained that stormwater management was one aspect, as staff did not know whether the stormwater would be managed in a pond or in underground storage, as well as the final design connecting to Seeco Drive would come to fruition as the neighboring properties redevelop.

Chair Doorlag asked Attorney Porter what the reasoning for the 25,000 SF building size limit was implemented for, and if it related to parking, intensity, etc., especially given the size of the Advia building across the street.

Attorney Porter explained that he could not recall why the building size limit was implemented, but for Advia, the Planning Commission at the time felt the size was appropriate given the employees would be coming to the building during the day and going home in the evening.

Mr. Jefferies said that he had considered that, but that Advia was dramatically set back from the road, as opposed to this concept plan.

Chair Doorlag asked if there were any more comments or questions for Mr. Hutson or for the applicant.

Mr. Jefferies asked if this would be a site where perhaps it may be appropriate to consider permeable pavement.

Mr. Hutson said that he thought this would be a good idea; however, the Ordinance does not currently require it and it would ultimately be up to the applicant to propose such.

At this point, Mr. Hutson thanked the Commission and Chair Doorlag asked if the applicant had any comments to make.

Mr. Tim Talsma, the applicant, introduced himself as the third generation owner of Talsa Furniture. He explained that he had brought family, managers of their stores, etc. to show that they are local and are a family operation. He explained that his grandfather had started the operation 76 years ago and provided additional background about their company. He then thanked the Commission.

Chair Doorlag asked if multi-floor uses are a feasible option for this business and whether it's been looked at.

Mr. Talsma said that they had looked at property in Kalamazoo years ago, but that the requirements of having to be multi-level was part of the reason they decided not to move forward with the project since, for their customers, they prefer a one-level layout.

Chair Doorlag then asked if the appearance of their other establishments were similar to the one proposed.

Mr. Talsma explained that this one was unique and that it was based on the preferred development from this overlay zone and presented a non-linear style that would allow it to not appear as a "big box store."

Mr. Ford asked if this development would be used primarily as a showroom or as a warehouse use.

Mr. Talsma confirmed that their Hudsonville location would be the main warehouse, so truck traffic would be minimal and confirmed that there would not be semi-truck traffic circulating the site.

Mr. Jefferies noted that there were three bays shown on the concept plan in the rear and asked what they would be for.

Mr. Talsma said that they would be for delivery, customer pickup, etc.

Mr. Ford asked if losing direct access to West Main Street would be detrimental to this conceptual plan.

Mr. Talsma explained that one of their locations in Holland has indirect access and that access does not make it impossible for customers to locate their building.

Chair Doorlag asked if there were any more questions for the applicant. Hearing none, he thanked the applicant and moved to Planning Commission discussion.

Chair Doorlag noted that the deviation request was the first on the table.

Mr. Ford asked the feasibility of sewer being extended to this site and that this should be kept in mind for the site plan when it is submitted.

Mr. Talsma said that he had a lengthy discussion about the extension of sewer from the Hampton's Plaza and that they were prepared to connect to the sewer.

Mr. Ford says that he is supportive of the conceptual plan before the Commission, especially given the dimensions presented, but once he understood that one 25,000 SF building would be allowed on each parcel, it was less concerning. His bigger concerns were stormwater management, public utilities, and access and circulation.

Attorney Porter explains that those issues can be addressed during site plan review and that the Township engineer is aware of the issues that occur with the present access and circulation in front of the Burger King and Long John Silver's on West Main.

Chair Doorlag explained that the Streets and Mobility Ordinance will address frontage roads and access roads and the Township engineer and Public Works Director will be reviewing these and providing recommendations on those aspects of the plan.

Attorney Porter confirmed that with the adoption of the Streets and Mobility Ordinance will help guide the site plan for developers and help incorporate those aspects into their site plan.

Mr. Ford asked about deferring the parking required in the overlay zone, and whether it would set a precedent.

Mr. Jefferies said that it, in concept, the parking spaces are shown to be ready to use but not actually paved, which he preferred as a way to ensure that it is going in the right direction.

Attorney Porter said that the deferred parking is looked at on a case-by-case basis based on the industry and that it would most likely not be setting a precedence.

Chair Doorlag noted that the applicant had provided data on the deferred parking.

Ms. Everett asked if 50 spaces was the minimum number of spaces that could be deferred.

Mr. Hutson noted that there is no maximum or minimum for deferment, but 50 deferred spaces was the number the applicant proposed.

Mr. Ford noted that deferring 50 spaces brought the proposed spaces down to 70 spaces, where the applicant noted that they've only ever needed 68 spaces for their other operations.

Ms. Everett agreed that any paving that isn't necessary shouldn't be paved and had wondered if the deferred spaces had a minimum or maximum, if the applicant would have asked for more to be deferred. She also noted that she liked the look of the building and how it does not look like a "big box store" and that it provided an opportunity for a more natural look.

Chair Doorlag asked Mr. Makohn if he had any comments. Mr. Makohn noted that he liked the proposal.

Mr. Jefferies noted that he doesn't have any issues, especially if the dimensions are kept at 200' in the front since it affects the look and feel of the neighborhood.

Chair Doorlag did note that he misspoke, and that there was a dimensional deviation, parking deferment, and asked Attorney Porter if the Commission should move to conceptual plan approval.

Attorney Porter said that he would suggest putting a motion on the table for the dimensional deviation first, and then move down to the conceptual plan, which would cover the parking deferment and the other conditions suggested by the Planning Department.

With that being said, Chair Doorlag asked for a motion to approve a dimensional deviation to allow a single-story building of 50,560 square feet, above the 25,000 square feet allowed by Ordinance. Mr. Jefferies **made a motion**. Mr. Ford **seconded the motion**. The **motion was approved unanimously**.

Chair Doorlag moved to the conceptual plan approval. Mr. Ford **made a motion** to approve the conceptual plan with the conditions presented. Ms. Everett **seconded the motion**. The **motion was approved unanimously**.

#### WORK SESSION:

- a. Introduction: Section 55: Signs and Billboards

Chair Doorlag continued to the work session for Section 55: Signs and Billboards.

Attorney Porter explained that he would be guiding the Commission through the new sign Ordinance. He explained that he had been working on an update since December 2016. The reason for this update was due to a case that reached the United States Supreme Court, and the case focused on off-site signs. Attorney Porter noted that these are the most difficult for a community to regulate.

Attorney Porter continued by saying that the Town of Gilbert in Arizona had a regulation for off-site signs that had to do with political signs, directional signs,

community signs, etc. and that every sign had a different size requirement, how long it could be up, how it went, and where it went. He continued by saying the SCOTUS ruled that regulating what was put on signage, then it would be violating the first amendment, thus requiring proving a compelling governmental interest to regulate these items differently. There was another case, *City of Austin, Texas v. Reagan National Advertising of Texas*, that covered a similar ruling. In any case, Attorney Porter explained that this Ordinance needed to be changed, and that he would guide the Commission through the Ordinance so that it was brought into compliance with the SCOTUS ruling.

Attorney Porter specifically brought the attention of the Commission to the non-commercial signage, including, but not limited to, political signs, government signs, residential development signs, directional signs, subdivision identification signs, and building identification signs.

Attorney Porter then moved on to the definition of political signs, which he notes are the most significantly protected speech.

Attorney Porter then moved on to the definition of temporary signs, temporary on-premises sign, and temporary off-premises signs.

Attorney Porter then moved on to the signage that are not permitted, such as abandoned signs, animated signs, balloon signs, banner signs, etc.

He then moved on to the Required Sign Setbacks for All Zoning Districts, clarifying that no sign shall be placed in the public right-of-way, or placed in a location where the sign causes a hazard to vehicular or pedestrian traffic by depriving the driver or pedestrian of a clear and unobstructed view of approaching intersections and other traffic.

He noted that he worked with the former Planning Director to clarify the overall language requirements, including areas where the Ordinance was unclear, where there weren't capital letters, where there were formatting issues, etc.

He then moved onto the temporary signs, including temporary on- and off-premises signs explaining their requirements, including that they have to be out of the road right-of-way. Ms. Everett and Mr. Ford asked clarifying questions about this section, to which Attorney Porter clarified.

Chair Doorlag asked if the new ordinance would address signs that companies erect on a resident's property while completing work for them, like tree trimming or roof replacement.

Attorney Porter noted that if the sign is a temporary sign, and is not an off-premises directional sign, then it is probably not permitted.

Mr. Jefferies asked about a section of the Zoning Enabling Act and a section that refers to morals, asking if the SCOTUS struck that portion of the enabling act down.

Attorney Porter said the motion did not specifically target that section, but noted that there had been cases where a sign was offensive to a community.

Mr. Jefferies asked if this would be a good time to add a provision in the Ordinance to give Ordinance Enforcement Officers the ability to enforce or fine if there is a continuous abuse of the Ordinance.

Attorney Porter explained that there already is a section of the Ordinance that says if any portion of the Ordinance is violated, then you can be subject to civil infractions, penalties, fines, or even possible court action or an injunction.

Mr. Jefferies asked if this would be a time to consider the size of signs, as with new technology such as Google Maps, such large signs are not necessary.

Attorney Porter says that this is something the Planning Commission could dive into deeper in the future and that this is the third rewrite of this Ordinance section.

b. Introduction: Section 50.60: Setback Provisions

Attorney Porter continued on to discuss Section 50.60: Setback Provisions. Mr. Hutson pulled up an example graphic of a property in between two roads, and that given the setback provisions in the Ordinance, that it could be potentially confiscatory.

Attorney Porter continues on by noting that the Ordinance change reflects that if a property is located between two roads parallel to each other, with one road being an arterial, and one being a collector, then the minimum setback from the secondary road and the landscaping requirements, shall be reduced by 50%.

Mr. Ford asked about how this will affect the public right-of-way and the ability to connect public utilities.

Attorney Porter explains that it will not be affected.

Mr. Jefferies says that commercial establishments may be at an advantage having two roads to their property, and that it may not be unwise to expect some landscaping on the secondary.

Attorney Porter and Chair Doorlag note that the landscaping requirements are not completely removed, but instead reduced by 50%.

Mr. Ford asked how this Ordinance change came to fruition.

Attorney Porter noted that it came to fruition during the discussion of the Seeco Drive extension, and that there are existing properties who would be affected by this in the future.

Ms. Everett asked if it would be likely that a property is between two primary roads, because that is not addressed.

Attorney Porter said that he consulted the Public Works Director and that the odds are very low that a property is in between two primary roads.

Chair Doorlag asked for clarification on distance between two roads, that would be considered arterial and collector/minor, and would like to operate two buildings on the same parcel, then the requirements would be severely reduced for the property operating on the lesser road and would still have to implement the full requirements for the property on the primary road.

Attorney Porter noted that he discussed this with the Public Works Director and said that, if this were to happen, the owners would likely split the property and once they split the property, they must meet the full setbacks in both directions.

Mr. Ford asked for clarification on the text, when the text says “arterial” and “collector,” whether the text would need to point to the definition of arterial and collector.

Attorney Porter noted that the Ordinance would be read in conjunction with other sections, and would clarify the definition in other sections.

Ms. Everett suggested a text change, before “arterial” it should state “an” instead of “a.”

Mr. Jefferies thanked Attorney Porter for correcting small Ordinance changes that need to be corrected.

Attorney Porter explains that, sometimes, it is easier for his department to take the small Ordinance changes and present them to the Planning Commission.

Chair Doorlag notes that the reduced landscaping requirements are presented as being reduced for the entire property, but that it should just be reduced for the secondary road. Attorney Porter took note of these changes.

Attorney Porter recommends that the Commission set the Signs and Billboards Ordinance as presented and the Setback Provisions as amended for Public Hearing in March.

Ms. Everett **made a motion** to set Public Hearing for the Signs and Billboards Ordinance as presented and the Setback Provisions as amended for March 14<sup>th</sup>. Mr. Ford **seconded the motion**. The **motion was approved** unanimously.

## **OTHER UPDATES AND BUSINESS**

Ms. Everett noted that the parking ordinance, including the calculations for what is required, needs to be amended.



Attorney Porter agreed and said that when the new Planning Director came on board that it would be a good opportunity.

Mr. Ford noted that the Township Board should also take a look at the number of items that they had requested from the Planning Commission, one being the Marihuana Ordinance.

Chair Doorlag asked if the Marihuana Ordinance was going to be addressed during the Master Plan work.

Mr. Ford noted that it was an item that the Township Board had sent a list of items to the Planning Commission, including the Marihuana Ordinance and the Mixed-Use Ordinance.

Attorney Porter noted that those issues will be up for discussion among this Commission once they are discussed in the Master Planning efforts.

Ms. Everett noted that there is a joint boards meeting on March 16<sup>th</sup> and perhaps that could be discussed at that time.

Mr. Ford noted that the Township Board chose to amend the density and acreage requirements for the Mixed-Use Ordinance, was passed unanimously, and will be up for second reading at the March 12<sup>th</sup> Township Board meeting.

Chair Doorlag asked Mr. Ford for clarification on the process of the Ordinance before the Planning Commission, was successful, went to the Township Board, and how the deliberation and discussion went before the Township Board.

Mr. Ford explained that Attorney Porter had provided a memo to the Township Board that said that the Township Board did not need to send the Ordinance back to the Planning Commission.

Attorney Porter explained that the law had changed when the new uniform Zoning Ordinance for cities, villages, and Townships, the requirement to be sent back to the Planning Commission was no longer required. A citizen or property owner could ask for more information, the Ordinance could be sent back the Planning Commission with a request for further information, or move the Ordinance forward with or without amendments.

Mr. Ford explained that Attorney Porter had explained our conversation that the Commission had and the Board deliberated, a motion was made, and it was passed unanimously.

Mr. Jefferies noted that this change did affect the way that he would have voted, had he known about the law change.

## **ADJOURNMENT**

With no further business to consider, Chairperson Doorlag adjourned the meeting at approximately 7:50 p.m.

Minutes prepared:  
March 22, 2024

Minutes approved:

DRAFT



# MCKENNA

March 22, 2024

Charter Township of Oshtemo  
7275 West Main Street  
Kalamazoo, MI 49009

**Subject:** Maple Hill Auto Group – Project Application Review #2  
**Location:** 6565 West Main Street – Parcel #05-14-330-020  
**Zoning:** C, Local Business  
**Applicant(s):** Jim Vandenberg  
**Owner(s):** Westcare Associates, LLC, 6565 W Main Street, Kalamazoo MI 49009

McKenna has been tasked with reviewing a site plan submission for the establishment of an automotive dealership, Maple Hill Auto Group, at 6565 West Main Street, parcel #05-14-330-020.

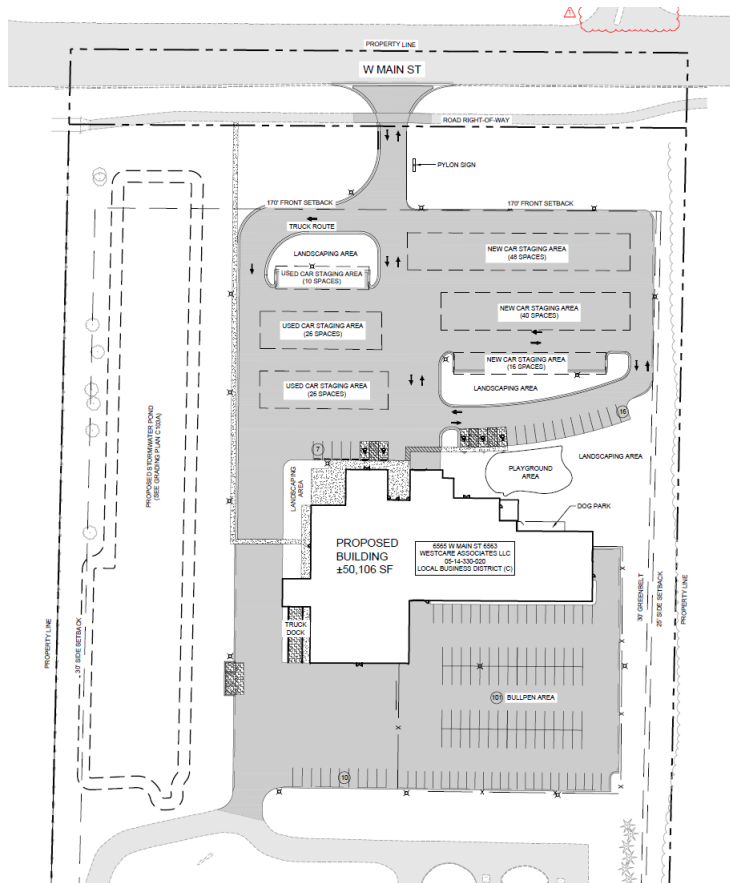
The proposal includes the construction of a 50,106 square-foot building which will encompass a showroom, service repair facility, warehouse and other associated improvements. Further, the applicant proposes to conduct site enhancements for vehicle sale displays and an area for storage of vehicles undergoing repair.

A vehicle sales lot within the C, Local Business District is classified as a Special Land Use. The special land use review criteria is listed within this review memorandum following the site plan analysis.

## SITE DESCRIPTION

The subject site is approximately 18.9 acres in size and is located within the C, Local Business District. The Township proposes to expand Seeco Drive, located to the west of the subject parcel, eastwards, thus reducing the subject parcel in question down to approximately 10 acres in size.

The subject parcel has frontage along West Main Street and is located east of 9th Street. The site is bordered by C, Local Business zoned properties to the west and north and R-2, Residential property to the east and south.



**HEADQUARTERS**  
235 East Main Street  
Suite 105  
Northville, Michigan 48167

**T 248.596.0920**  
**F 248.596.0930**  
**MCKA.COM**

Communities for real life.



## **SITE PLAN REVIEW COMMENTS**

The proposed construction of the automotive dealership, service center and associated site improvements is subject to the regulations of the C, Local Business District, Special Use and Site Plan Review of the Charter Township of Oshtemo's Zoning Ordinance.

The applicant seeks approval to operate an automobile service station/repair facility, sales showroom, parts retail and associated warehousing facility at 6565 West Main Street. As previously referenced, the proposed use is considered a Special Land Use by the Township's Zoning Ordinance. In addition, based on information provided by the applicant to Township staff, the warehouse component of the improvement plan supports the automotive retail operations. Therefore, the warehouse portion of the site is considered to be accessory to the retail operations.

### **1. Site Access & Circulation (§64.60.C.2)**

The subject site will have primary access along West Main Street (northern property area), with future public roadway connections from Seeco Drive, once roadway expansion is complete. Until such a time as the road expansion project is completed, the principal access to the site will be classified along West Main Street. A driveway permit from MDOT is required with a supporting a traffic impact study. In preliminary review by MDOT, they recommend a Traffic Impact Analysis based on Trip Generation and Geometric Design Guidance. Additionally, the driveway may have to be configured for Taper and Right Turn/Left In with a Right out only.

The revised site plan, dated March 14, 2024, proposes main driveway access widths of 30 feet, leading from West Main Street to the principal structure. The applicant also proposes to establish the vehicle sales lot along the northern portion of the site, with the minimum 24-foot maneuvering lanes being maintained around all of the proposed sales display areas.

The site plan also notes an existing 10-foot-wide asphalt pedestrian pathway along West Main Street. This pedestrian pathway is shown to be adjacent to the northern property boundary, located within the public right-of-way. The site plan does show that a portion of the pathway "dips" into the property at the northwest corner. The applicant will need to verify that the pathway is fully located within the public right-of-way. If not fully located within the public right of way, an easement agreement with the Township is requested for the portion that lies within the property.

Secondary access to the subject parcel is proposed along the southwestern portion of the site. The plans note that the site enhancements will tie to the existing driveway, which connects to Seeco Drive. As previously referenced, it is McKenna's understanding that Seeco Drive is proposed to be extended eastwards, thus dividing the subject development area of 10 acres from the southern portion which is approximately 8 acres.

### **2. Parking (§52.100)**

The Oshtemo Township Zoning Ordinance has established parking requirements, dependent on the proposed use. The following analysis table outlines the required parking for the uses that are proposed within the application.



Per the Zoning Ordinance definition section, Net Floor Area excludes elevator shafts, stairwells, hallways, utilities, mezzanines, attics, porches, patios, carports, decks, etc.

	Required	Proposed
<i>Repair Bays</i> (3 spaces per 1 bay)	28 bays @ 3 spaces per bay: 84 parking spaces	84 spaces
<i>Automotive Repair Shops &amp; Service Stations</i> (1 space per 300 sq. ft. of net floor area)	*17,263 square feet *6,806 square feet of service area / 300 = 23 spaces	23 spaces
<i>Showrooms for Motor Vehicles</i> (1 space per 400 sq. ft. of net floor area)	*4,556 square feet 4,556 / 400 = 12 spaces	12 spaces
<i>Warehouse</i> (1 space per 1,500 sq. ft. of net floor area)	*14,354 square feet 14,354 / 1,500 = 10 spaces	10 spaces
<i>Shared Access Reduction</i>	10% parking space reduction permitted – if shown on site plan	None
<b>Total</b>	<b>129</b>	134 spaces (additional 5)

\*Net floor area provided by applicant.

Per the resubmitted site plan, the project is required to have 129 spaces on site; the applicant proposes 134 spaces, which satisfies the parking requirements.

Per Section 52.50 of the Zoning Ordinance, parking lots with over 100 spaces, minor adjustments of the dimensions may be authorized by the reviewing body (Planning Commission) for up to 25 percent of the required spaces, provided the design remains consistent with generally recognized design standards for off-street parking facilities. The applicant seeks to reduce 25 percent of these spaces to a 9-foot width as compared to the minimum of 10 feet. The applicant is also proposing to reduce the depth of some of the spaces from 20 feet to 18 feet in far SE corner of bull pen.

Based on Section 52.50, 32 parking spaces may be dimensionally reduced, subject to approval by the Planning Commission. We find that reducing 32 spaces from a standard width of 10 feet to 9 feet and a depth of 20 feet to 18 feet will still meet the intent of the ordinance as it relates to off-street parking; spaces with alternate dimensions must be labelled on the final site plan.



**3. Buildings and Structures (§64.60.C.3)**

The applicant has provided dimensions for the proposed auto dealer as follows:

<b>Setback Requirements</b>	<b>Required</b>	<b>Proposed</b>
<i>Front</i>	170'	170
<i>Side</i>	*20'	*
<i>Rear</i>	*20'	*

*\*The minimum setback distance between any building and any rear or interior side property line shall be 20 feet or the height of the abutting side of the building at its highest point as measured from the grade of the property line, whichever is greater.*

A response memo from Mitten State Engineering indicates that the building height has been provided on the architectural drawings. The plan sets that were submitted do not show building height. However, the site plan notes that a 30-foot greenbelt is proposed along the eastern property boundary, with the building facility being set further west away from this greenbelt. While it appears that the setbacks may be met, per our previous review comments, building height measurements are requested to confirm compliance with this provision.

**4. Utilities, Soil Erosion, Sedimentation Control, Drainage (§64.60.C.4)**

The site plan notes a large stormwater pond to be constructed along the western portion of the development site. Further review of the stormwater pond, utilities and soil erosion will be conducted by the Township Engineer. Additional consideration should be given to the stormwater design/constructed in lieu of the future extension of Seeco Drive.

Any public water main related work must also be reviewed and receive approval from the City of Kalamazoo Department of Public Services – please coordinate with Anna Crandall, P.E. (269) 337-8055. Once approved by the City please send the Township plans and a copy of the completed permit, if any, for final approval prior to issuance of a building permit.

**5. Landscaping Plan (§64.60.C.5)**

The landscaping plan was reviewed by Wightman and the following comments were provided in a memo to the Township dated March 13, 2024.

1. The submittal was reviewed for conformance with Article 53 – Landscaping. The following items were noted.
  - a. 53.40 Screening Between Land Uses
  - b. The east landscape buffer shows 33 new evergreen tree and the notes indicate there are 32 evergreen trees. Please verify which is correct.
  - c. Please update the Tree Preservation Credit quantity column. The total credits appear to be correct, but the quantity column does not match the number of trees shown in the plan.



- d. Please update the Plant list quantity. It appears the number of PG evergreen trees should be 15.
2. 53.50 Parking Lot Landscaping
  - a. Remove the parking spaces shown in the area south of the building on the landscaping plan as the proposed site plan shows these spaces have been removed.
  - b. Verify the number of canopy trees in the notes. It appears there are 18 shown on the landscape plan.
3. 53.90 Screening of Trash and Recycling Containers.
  - a. Sheet C102B calls out the Refuse Enclosure and states to see architectural plans, which are not attached. Please provide details meeting this section.

## **6. Lighting Plan (\$64.60.C.6)**

The applicant has submitted a photometric plan for on-site lighting, which will utilize wall packs and pole fixtures. In review of the lighting standards outlined in Article 54, the following comments are provided:

- A. Pedestrian walkways and doorways:
  1. *Mounted height shall not exceed 14 feet.* Per the plan notes, the mounted height of the wall lighting is set to be at 12 feet, which complies with the Township Zoning Ordinance.
  2. *Each luminaire shall not exceed 8,000 lumens and shall be spaced so the lighting for pedestrian walkways does not exceed 2.0 foot candles and entryways do not exceed 6.0 foot candles.* The lighting details notes wall lighting to have an output less than 8,000 lumens.
- B. Pole-Mounted Lighting
  1. *Luminaire height greater than 15 feet and not exceeding 25 feet shall not exceed 20,000 lumens per luminaire and shall be spaced a minimum of 40 feet apart.* The photometric plan notes pole lighting height of 22 feet. The proposed lumens for the pole lighting is shown to be less than 20,000. This provision has been satisfied.
- C. Luminaires used for the sole purpose of illuminating a building façade:
  1. *May be up to 1.5 foot-candles averaged over the building façade.* The building has wall packs over entry/exit ways and for exterior illumination of parking/facility areas. The lighting plan does not appear to show that the building façade will be illuminated beyond the walkways and access sites. The applicant is advised that the building façade may be illuminated up to an average of 1.5 foot-candles.

In review of the lighting plan, we find that the applicant meets the intent of the ordinance requirements.

## **ADDITIONAL REVIEW COMMENTS**

Additional review comments & requirements have been provided below.

### **Comments from Township Engineer**

Below are comments related to Engineering items for the plans dated March 5, 2024 (submitted March 14, 2024) for the above referenced project by Mitten State Engineering.



These comments incorporate outstanding comments from Wightman & Associates dated February 14, 2024, associated responses provided on the applicant's behalf dated March 5, 2024 and an additional review by Wightman & Associates completed on March 13, 2024.

### **Stormwater and Drainage**

A condition of approval shall be that continued design work is completed on the stormwater management system to satisfy requirements in Township Ordinances and best practices. In general staff is confident that from the information provided, there is enough area and depth to provide adequate storm water management for the site improvements on future northern parcel of 6565 W Main Street and potential for shared overflow downstream. However, there are opportunities to optimize the design to better treat runoff and retain run off on site while achieving the other aspects of the site plan review. In coordination with the Planning review, it appears opportunities to increased compliance with the Ordinances related to circulation and access aisles which also would have a positive impact on reducing excessive hard surfaces areas. Subsequently, this would also give more area for stormwater management and the items listed below.

- Provide soil boring logs on plans
- Response letter states that a wetland specialist was consulted, and no State regulated wetlands are present. This does not mean that wetlands are not present and do not need to be protected or mitigated if disturbed. Please provide evaluation and delineation from Wetlands Specialist to ensure natural function and quality of wetlands are protected (Sec 56.20.A.7).
- Stormwater System: If the two ponds are going to continue as one system after parcel split, off-site/common storm water management systems are allowed per Sec 56.20.F. Please refer to the requirements in this section of the ordinance for agreements for such situations. Existing agreements shall be revised or updated accordingly.
  - Staff has previously mentioned that the culvert under the existing driveway, which essentially will become Seeco Dr, may not be permissible or conform to RCKC design guidelines. Applicant shall be aware that design modifications to the ponds and storm system, may need to be modified to obtain the road approval.
  - Outlet: Response letter states "The existing restriction on the South pond is the existing outlet control structure in the southwest corner of the pond. Said structure is a leaching basin with two unrestricted 8" PVC outlet pipes." This is not the design intent of the outlet referenced. One of the two pipes contains a valve that must be manually operated to manage differing weather conditions and restrict rate of discharge downstream. Provided historical documents: Misc Cor 007-05-24 R&D and PIn 2006-07 Storm Outlet to Sky kind Meadow – PS.pdf.
- Storage Calculations: The HydroCAD report is a very detailed and complete analysis, however for reviewing purposes, this is not efficient or easy to navigate. Report outputs like "warnings" and "hints" do not state if they are addressed or reasonable assumptions that can be accepted. The engineer shall summarize relative criteria for review and approval purposes and clearly outline pertinent calculations and outputs to determine required and proposed storage.
- Treatment: Best management practices from both Township Ordinances and Kalamazoo County Drain Commission Office should be incorporated for pretreatment of the runoff from this site.
- Pond Characteristics: Response letter states that these ponds are intended to be wet ponds.
  - a. Please provide the normal water elevation.
  - b. It is recommended the permanent pool have a minimum depth of 3 feet across the deepest part of the pond to discourage aquatic plant infill and provide open water. Based on the soil information in the response letter, this can be achieved. If there is justification as to unfeasibility, a





maintenance plan must be provided to address the above-mentioned concern that will affect function.

- c. A wet pond should have warning signs posted which prohibit swimming and skating.

**Permits**

A condition of approval shall be that all necessary permits are obtained from other agencies including but not limits to: City of Kalamazoo Public Services (water permit), Department of Environment Great Lakes and Energy/EGLE, Michigan Department of Transportation/MDOT (driveway permit), Road Commission of Kalamazoo County/RCKC (driveway permit), KCDC (Soil Erosion and Sedimentation Control/SESC), etc.

One response provided on behalf of the applicant indicated “Traffic Impact analysis will be performed by MDOT prior to granting of permit.” To clarify, MDOT will not perform this work and the developer is responsible for providing this by credentialed and experienced consultant.

**Oshtemo Township Fire Department**

The Oshtemo Township Fire Department has provided the following comments:

- 1. The location of a fire department connection and location of the fire hydrants needed to be adjusted.
- 2. Currently the plans are showing the FDC connection on the building. This connection shall be remote from the building. This could be relocated directly west of the current proposed building location, to just off the roadway.
- 3. The closest accessible fire hydrant is located over the 400-foot requirement. Therefore, they will either need to add an additional fire hydrant or relocate the closest fire hydrant to near the FDC connection.

**SPECIAL LAND USE REVIEW COMMENTS**

The proposed construction of the automotive sales lot and service station is subject to the regulations within the C, Local Business District, Special Uses and Site Plan Review of the Zoning Ordinance.

**Special Uses (§65.30)**

Special Uses are further subject to the regulations of Section 65 of the Zoning Ordinance.

- a. *The proposed use will be consistent with the purpose and intent of the Master Plan and Zoning Ordinance, including the District in which the use is located.*

The Oshtemo Township 2017 Master Plan showcases this region of the Township as *General Commercial* which is described as the following:

*Development Intensity: High*

*The intent of the General Commercial areas is to serve both the residents of the community as well as the regional market and transient customers. Uses like big box retail, shopping centers, and auto-oriented uses would be permitted in this district.*



*Despite the very high intensity of existing uses present throughout this designation, the sites have been well managed and maintained to minimize the impacts of that intensity. Maintenance of these sites is paramount. Maintaining and improving on existing access management issues are also a primary concern due to the high traffic volumes and turning conflicts created by the multiple driveways onto the abutting roads. As sites develop and redevelop, opportunities to improve access situations and address other site issues of concern must be considered.*

*General Commercial Desired Future Development Pattern*

- *Commercial uses serving local and regional markets*
- *Use of the Planned Unit Development (PUD) technique to ensure consistent, cohesive development*
- *Implementation of the Access Management Plan as sites are developed and redeveloped*
- *Sidewalks, pathways, and other considerations for pedestrians internal to sites*
- *Use of creative/innovative stormwater management techniques and practices*

Based on the referenced text above, the proposed use of the subject site for an automotive dealer and service station is complimentary to a commercial use that serves residents of the community and the regional market and is further supported by the “auto-oriented use” description at the end of the first paragraph. Further, it is our understanding that Seeco Drive is proposed to be expanded to the east, thus increasing access management for the subject parcel. Therefore, we find that the proposed use of an automotive dealer and service station generally aligns with the 2017 Master Plan.

We note that Fig 7 of Access Management Plan shows planned frontage road/service drive through this property to the west thus this should be anticipated in the future and accommodated in the site plan. Furthermore, the overlay to the east also emphasized the need for limiting new driveways on W Main by ensuring interconnected sites as a main goal and should also be anticipated in the future and accommodated in the site plan. To be consistent with the recommendations of the Access Management Plan, we recommend the applicant resize the stormwater basin to maintain 150-feet of area at the front of the site to provide future cross access to adjoining properties. Comments from the Township Engineering staff support this recommendation.

- Site Plan Review Criteria.* The Township Zoning Ordinance requires site plan review with special land uses. Site plan review analyzes: site access & circulation; parking; building & structures; utilities; soil erosion; landscaping; and lighting. The site plan requirements have been reviewed in the previous analysis section of this report, with additional review agency comments noted where applicable.
- The proposed use would be compatible, harmonious and appropriate with the existing or planned character and uses of adjacent properties; meaning the proposed use can coexist with neighboring uses in a stable fashion over time such that no neighboring use is unduly negatively impacted.* The proposed use of an automotive dealership (sales), service/repair station is identified in the Township’s Master Plan Future Land Use as general commercial, with specific reference to auto-oriented businesses. The proposed use of a vehicle service station is auto-oriented. In addition, the current Zoning Map notes the subject site to be commercial, which would permit this type of use, subject to all applicable regulations.



To the east is undeveloped property that is currently dense vegetation and natural growth. The current use of the subject site is commercial/service-oriented in nature and the applicant proposes to construct a commercial use at this site. Meeting the applicable landscape buffer requirements outlined within the Zoning Ordinance, this provision could be satisfied due to the current adjacent property having no development and is naturalized.

- d. *Potentially adverse effects arising from the proposed use on adjacent properties would be minimized through the provision of adequate parking, the placement of buildings, structures and entrances, as well as the location of screening, fencing, landscaping, buffers or setbacks.*

The proposed use is not anticipated to have adverse effects on adjacent properties. The adjacent property to the east is currently undeveloped. Subject to the applicant meeting the landscape buffer requirements, any potential adverse impacts can be mitigated by the establishment of natural feature enhancements on the subject property. Such landscape enhancements will provide an additional visual buffer between the proposed use and the eastern property. Property to the north, south and west are currently developed with commercial and service-oriented uses. It is not anticipated that the development of this site will have adverse effects on these properties.

- e. *The proposed use would not be detrimental, hazardous, or disturbing to existing or future adjacent uses or to the public welfare by reason of excessive traffic, noise, smoke, odors, glare, or visual clutter.*

The proposed use is not anticipated to be detrimental, hazardous or disturbing to existing or future adjacent uses. The property to the east is currently vacant/undeveloped with dense vegetation. To the south and west are property uses of commercial/service-oriented establishments. The service portion of the proposed use is projected to be located on the eastern portion of the site, away from the established uses to the west, thus reducing potential noise from the auto repair work. Further, the auto repair facility is proposed to be entirely within the new facility, with landscape buffering located to the east. The site is proposed to have landscaping enhancements that will provide visual barriers to the service portion of the site. This provision can be satisfied fully once all landscaping and other site enhancements have been completed.

- f. *Environment. The natural features of the subject property shall only be cleared or altered to the extent necessary to accommodate site design elements, particularly where the natural features assist in preserving the general character of the area.*

The subject site is currently improved with parking lots, office buildings and other site enhancements. The applicant does not indicate that any natural features are to be removed. The applicant proposes to install natural feature elements per the landscaping requirements. The proposed improvements do not appear to be detrimental to the natural features on site.

- g. *Public facilities. Adequate public and/or private infrastructure and services already exist or would be provided, and will safeguard the health, safety, and general welfare of the public.* The subject site currently has access to public water and sewer. It is anticipated that these services will safeguard the health, safety and general welfare of the public. Further review of the public facilities will be conducted during the site plan analysis.



### **Requirements for Special Uses (§49.170)**

The following requirements are specific to new and/or used car sales lots:

- a. *No such outdoor sales or activities in connection therewith shall be conducted upon premises which do not contain a sales office in a building.*

The submitted site plan indicates the establishment of a sales office. This provision has been satisfied.

- b. *Adequate security outdoor lighting shall be provided upon the premises to illuminate any outdoor goods, merchandise or activities located thereon.*

The site plan includes a photometric plan, which indicates security outdoor lighting. The lighting details are reviewed in further detail within the site plan analysis.

- c. *An area shall be provided for customer parking for not less than four vehicles and for such additional vehicles as may be determined to be reasonable and necessary to accommodate the particular business activity which parking spaces shall be constructed of asphalt or other hard-surface, dust-free material.*

The submission materials notes client parking to be located within the front (north) portion of the building, with additional parking in the southern portion of the site. Subject to meeting site circulation standards as outlined within the site plan review analysis, this provision has been satisfied.

- d. *All operations and business activities, including the parking or display of sales items and equipment and outdoor sales and display area enclosures, shall comply with the setback requirements for buildings and structures contained in the Ordinance.*

The site development appears to meet the applicable setback provisions; however, confirmation will need to be provided as it relates to the building height to ensure the side yard (east property boundary) setback is met. This provision can be satisfied upon confirmation of the building height.

- e. *Outdoor display or parking of sales items and equipment shall be maintained on a dust free surface.*

The site plan notes the use of standard-duty pavement, with a 1.5-inch top coat of hot mix asphalt (HMA). This provision is satisfied.

- f. *A defined access to the off-street parking areas shall be provided not exceeding 30 feet in width. Such access drive shall be constructed similarly to the parking areas and similarly maintained.*

The entire site is proposed to be constructed with hot-mix asphalt, which satisfies the second requirement of this provision. The site plan notes directional arrows to be painted on the asphalt, and maneuvering lanes are generally noted at 24-feet or at 30 feet. There are several areas that exceed 30-feet. Within the new and used car staging areas that are dimensions at unprogrammed asphalt area that exceed the maximum width requirement, dimensioned at 63 feet, 55 feet, and 35 feet.



These areas must be formalized with a landscape island and a clearly defined access lane not exceeding 30-feet. Additionally, the access lane on the west side of the building is dimensioned at 50-feet. This vehicle lane must be reduced to 30-feet. Moving the curb 20-feet to the east will also reduce impervious surface.

- g. *The size and location of such outdoor sales businesses shall not be such as to unreasonably interrupt or impede pedestrian or vehicular travel by customers or patrons of adjoining commercial businesses.*

Dedicated pedestrian access is proposed along the western portion of the subject site. An existing pedestrian pathway traverses east-west along the northern portion of the subject site. The outdoor sales area is designed in such a manner to as not impede vehicular traffic from adjoining commercial businesses due to the limited cross-access that is in existence currently. The outdoor sales area is proposed along the northern portion of the site, towards West Main Street. We find that this provision can be satisfied upon approval of the site plan.

As mentioned above, the Township Access Management plan includes a recommendation for a frontage road or service drive along West Main Street. Resizing the stormwater basin could create an opportunity for future cross access, consistent with the Access Management Plan.

- h. *Sales and display areas for garden centers must be developed to provide a decorative enclosure such as wrought iron fence and columns or an obscuring wall. Wall materials shall be consistent with the primary building material(s).*

This provision is not applicable; the proposed use is not a garden center.

- i. *Display of products in an enclosed outdoor sales and display area may not exceed a height of ten feet unless screened from view from outside the area, subject to Planning Commission review and approval.*

The applicant does not indicate that the outdoor sales area will be enclosed. Therefore, this provision is not applicable.

## RECOMMENDATION

McKenna finds that the submitted site plan application for the development of automotive dealership, service center and associated parts retail/warehousing meets the Township Zoning Ordinance. To reiterate, we find that the warehousing component of this site is accessory to the retail component proposed. Subject to meeting any requirements as outlined by the Township Engineer and Township Fire Authority, the associated site plan and special land use application can be **recommended for approval with the following conditions:**

1. The pedestrian pathway is confirmed to be located fully within the public right-of-way along the northern portion of the subject property. If not fully located within the right-of-way, an easement agreement is executed with the Township for access.
2. Building height is listed on the plan and conforms with the side setbacks illustrated on the site plan.
3. The applicant received a permit from MDOT, provides a Traffic Impact Analysis, and the final plan set is consistent with the plan approved by Oshtemo Township.



4. Finalization of design for on-site stormwater management systems, maintenance agreements for stormwater management systems, and any other engineering details shall be subject to the administrative review and approval of the Township Engineer prior to building permit issuance. This condition includes limiting parking access drives to 30-feet and providing space for a service drive on the north side of the site.
5. The Township approves the proposal for reduced parking space dimensions for up to 25% of required spaces, as illustrated on the site plan.
6. Comments from Fire Department are addressed.
7. All nonmotorized facilities shown on the approved site plan shall be installed prior to the issuance of a certificate of occupancy.
8. Other comments/requirements as stipulated by the Township or reviewing agencies, if any.

Respectfully submitted,

**McKENNA**

Paul Lippens, AICP, NCI  
Vice President

Kyle Mucha, AICP  
Senior Planner



7275 W. Main Street, Kalamazoo, Michigan 49009-9334  
Phone: 269-375-4260 Fax: 269-375-7180

**PLEASE PRINT**

**PROJECT NAME & ADDRESS**

W Main Subaru - 6565 W Main St

**PLANNING & ZONING APPLICATION**

Applicant Name: Jim Vandenberg

Company: Maple Hill Auto Group

Address: 5622 W Main St, Kalamazoo, MI 49009

E-mail: jvandenberg@maplehillauto.com

Telephone: 269-342-6600 Fax: \_\_\_\_\_

Interest in Property: Developer

**OWNER\*:**

Name: Westcare Associates, L.L.C.

Address: 6565 W Main St, Kalamazoo, MI 49009

E-mail: HodgesM@westsidemedicalcenter.com

Phone & Fax: 269-365-6249

Fee Amount \_\_\_\_\_

Escrow Amount \_\_\_\_\_

**NATURE OF THE REQUEST: (Please check the appropriate item(s))**

- |  |   |
|--|---|
| <input type="checkbox"/> Pre-Application Review                  | <input type="checkbox"/> Accessory Building Review – I083 |
| <input checked="" type="checkbox"/> Site Plan Review – I088      | <input type="checkbox"/> Rezoning – I091                  |
| <input type="checkbox"/> Administrative Site Plan Review – I086  | <input type="checkbox"/> Subdivision Plat Review – I089   |
| <input checked="" type="checkbox"/> Special Exception Use – I085 | <input type="checkbox"/> Interpretation – I082            |
| <input type="checkbox"/> Zoning Variance – I092                  | <input type="checkbox"/> Other: _____                     |
| <input type="checkbox"/> Site Condominium – I084                 |   |

**BRIEFLY DESCRIBE YOUR REQUEST (Use Attachments if Necessary):** Requesting Site Plan Review for a proposed Subaru auto dealership at 6565 W Main St with corresponding parking, utilities, and stormwater management.

**LEGAL DESCRIPTION OF PROPERTY (Use Attachments if Necessary):**

**SEC 14-2-12 E1/2 NE1/4 SW1/4 EXC SO MUCH OF ABV DESC DEED TO MICH STATE HWY BY DEED \***

**PARCEL NUMBER:** 3905- 05-14-330-020

**ADDRESS OF PROPERTY:** 6565 W Main St, Kalamazoo, MI 49009

**PRESENT USE OF THE PROPERTY:** Medical Facility

**PRESENT ZONING:** C - Local Business District **SIZE OF PROPERTY:** 18.9 Acres

**NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS HAVING A LEGAL OR EQUITABLE INTEREST IN THE PROPERTY:**

**Name(s)**

**Address(es)**

MAPLE HILL LEASEHOLDS LLC

5622 W MAIN ST KALAMAZOO MI 49009

**SIGNATURES**

*I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) acknowledge that we have received the Township's Disclaimer Regarding Sewer and Water Infrastructure. By submitting this Planning & Zoning Application, I (we) grant permission for Oshtemo Township officials and agents to enter the subject property of the application as part of completing the reviews necessary to process the application.*

DocuSigned by:  
  
2E2169E32DDC461...

02/01/2024

**Owner's Signature (\*If different from Applicant)**

**Date**



02/01/2024

**Applicant's Signature**

**Date**

- Copies to:
- Planning - 1
- Applicant - 1
- Clerk - 1
- Deputy Clerk - 1
- Attorney - 1
- Assessor - 1
- Planning Secretary - Original

\*\*\*\*

**PLEASE ATTACH ALL REQUIRED DOCUMENTS**



# PRELIMINARY ENGINEERING PLANS W MAIN ST SUBARU 6565 W MAIN ST KALAMAZOO, MI 49009

## PROJECT TEAM

**OWNER:** MAPLE HILL AUTO GROUP  
5622 W MAIN ST  
KALAMAZOO, MI 49009  
(269) 342-6600  
JIM VANDENBERG

**LANDSCAPE ARCHITECT:** OCBA  
141 E MICHIGAN AVE  
KALAMAZOO, MI 49007  
(269) 381-3357  
KATIE CHASE

**CIVIL ENGINEER:** MITTEN STATE ENGINEERING  
10123 S M-43, SUITE E  
DELTON, MI 49046  
(269) 364 5626  
TYLER CRAVENS

**SURVEYOR:** 42 NORTH SURVEYING  
4601 134TH AVE STE H  
HAMILTON, MI 49419  
(269) 836-4029  
JOE MEHRTENS

**GEOTECHNICAL ENGINEER:** DRIESENGA  
12330 JAMES ST, SUITE H80  
HOLLAND, MI 49424  
(616) 396-0255  
RANDY PAIL

## UTILITY AND AGENCY CONTACTS

**ELECTRIC:** CONSUMERS ENERGY ELECTRIC  
JESSE BURNS  
(269) 491-7042  
JBURNS@CMSENERGY.COM

**GAS:** CONSUMERS ENERGY GAS  
(800) 778-9140

**WATER / SEWER:** OSHEMIO CHARTER TOWNSHIP  
7275 WEST MAIN STREET  
KALAMAZOO, MI 49009  
ANNA HORNER  
(269) 216-5228  
AHORNER@OSHEMIO.ORG

CITY OF KALAMAZOO  
415 E STOCKBRIDGE AVE  
KALAMAZOO, MI 49001  
WILL EICHELBERGER  
(269) 337-8727  
EICHELBERGERW@KALAMAZOOCITY.ORG

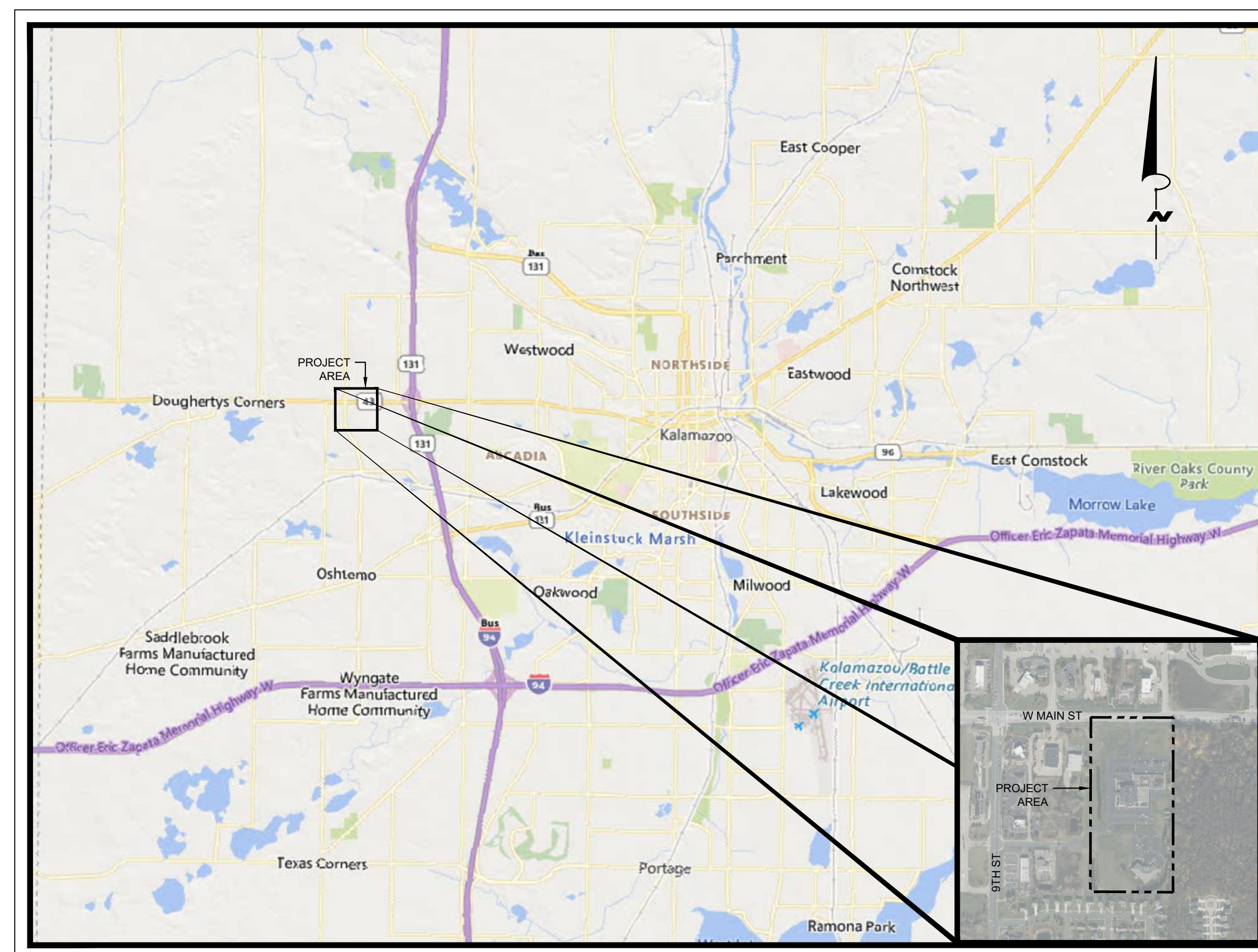
**COMMUNICATIONS:** AT&T  
54 N MILLS ST  
PONTIAC, MI 48342  
MONICA SHADOWENS  
(248) 454-2955  
MD1471@ATT.COM

CHARTER COMMUNICATIONS  
LAURA M. HEISER  
LAURA.HIESER@CCISYSTEMS.COM

MIDWEST COMMUNICATION SERVICES, INC.  
JOHN MEAD  
(269) 963-7173  
MIDWEST72952GMAIL.COM

CENTURYLINK  
CL\_IRTH\_COMM@IRTH.COM

"MISS DIG" 811



LOCATION MAP  
N.T.S.

## PROJECT NOTES

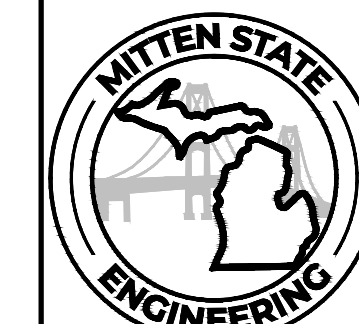
- THE "2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND "STANDARD PLANS" BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) ARE HEREBY INCORPORATED INTO THESE CONTRACT DOCUMENTS.
- THE PLACING OF TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE DONE IN ACCORDANCE WITH THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD), AS AMENDED.
- ALL WORK SHALL CONFORM TO ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS IN FORCE AT THE TIME OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND/OR PLANS PREPARED BY OTHERS. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS BECOME APPARENT, THESE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR POSTING ALL BONDS AND INSURANCE CERTIFICATES AND SUBMITTING TRAFFIC CONTROL PLANS FOR REVIEW AND APPROVAL WHICH MAY BE REQUIRED BY THE TOWNSHIP AND/OR MDOT FOR THE CONSTRUCTION OF THIS PROJECT WITHIN THE ROAD RIGHT-OF-WAY. THE CONTRACTOR SHALL APPLY FOR THESE PERMITS UNLESS OTHERWISE NOTED.
- IN ACCORDANCE WITH PUBLIC ACT 174 OF 2013, ALL CONTRACTORS SHALL CALL MISS DIG @ 811 OR 800-428-7171 FOR PROTECTION OF UNDERGROUND UTILITIES A MINIMUM OF THREE FULL WORKING DAYS (EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS) PRIOR TO BEGINNING EACH EXCAVATION IN ANY AREA. MEMBERS WILL BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

## LEGAL DESCRIPTION OF PROPERTY

SEC 14-2-12 E1/2 NE1/4 SW1/4 EXC SO MUCH OF ABV DESC DEED TO MICH STATE HWY BY DEED

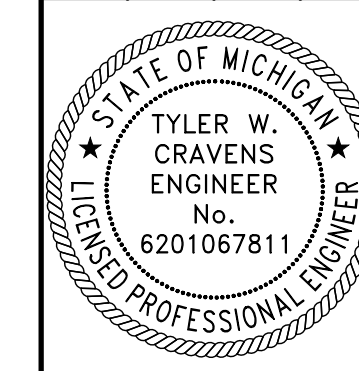
SHEET NUMBER	SHEET TITLE
C001	COVER SHEET
C100	EXISTING CONDITIONS AND DEMOLITION PLAN
C101	OVERALL SITE PLAN
C102A	NORTH SITE PLAN
C102B	SOUTH SITE PLAN
C103A	GRADING PLAN
C103B	DRIVEWAY GRADING PLAN
C104	UTILITY PLAN
C105	EROSION CONTROL PLAN
C106	EROSION CONTROL DETAILS
C107	CONSTRUCTION DETAILS
L101	LANDSCAPE PLAN
L102	LANDSCAPE DETAILS

No.	REVISIONS	DATE	BY	02/06/2024	OSW
				PER OSHEMIO CHARTER TOWNSHIP COMMENTS	



ADDRESS:  
10123 S M43, SUITE E  
DELTON, MI 49046  
PHONE:  
(269) 364-5626

SCALE: AS NOTED  
DESIGNED BY: DMP  
DRAWN BY: OSW  
CHECKED BY: TWC



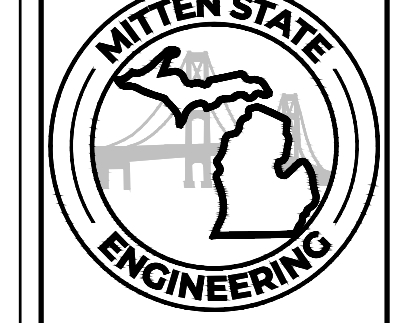
PRELIMINARY  
NOT FOR CONSTRUCTION

COVER SHEET

W MAIN ST SUBARU  
KALAMAZOO, MI

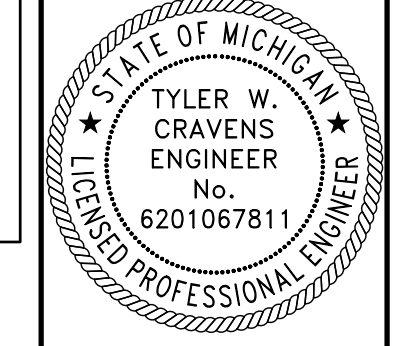
ORIGINAL ISSUE:  
02/06/2024  
PROJECT NO.  
24001  
SHEET NUMBER  
C001

NO.	DATE	REVISIONS



ADDRESS:  
10123 S M43, SUITE E  
DELTON, MI 49046  
PHONE:  
(269) 364-5626

SCALE: AS NOTED  
DESIGNED BY: DMP  
DRAWN BY: OSW  
CHECKED BY: TWC

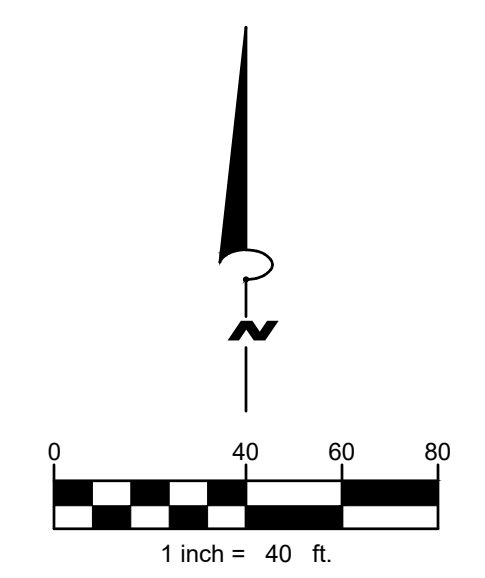
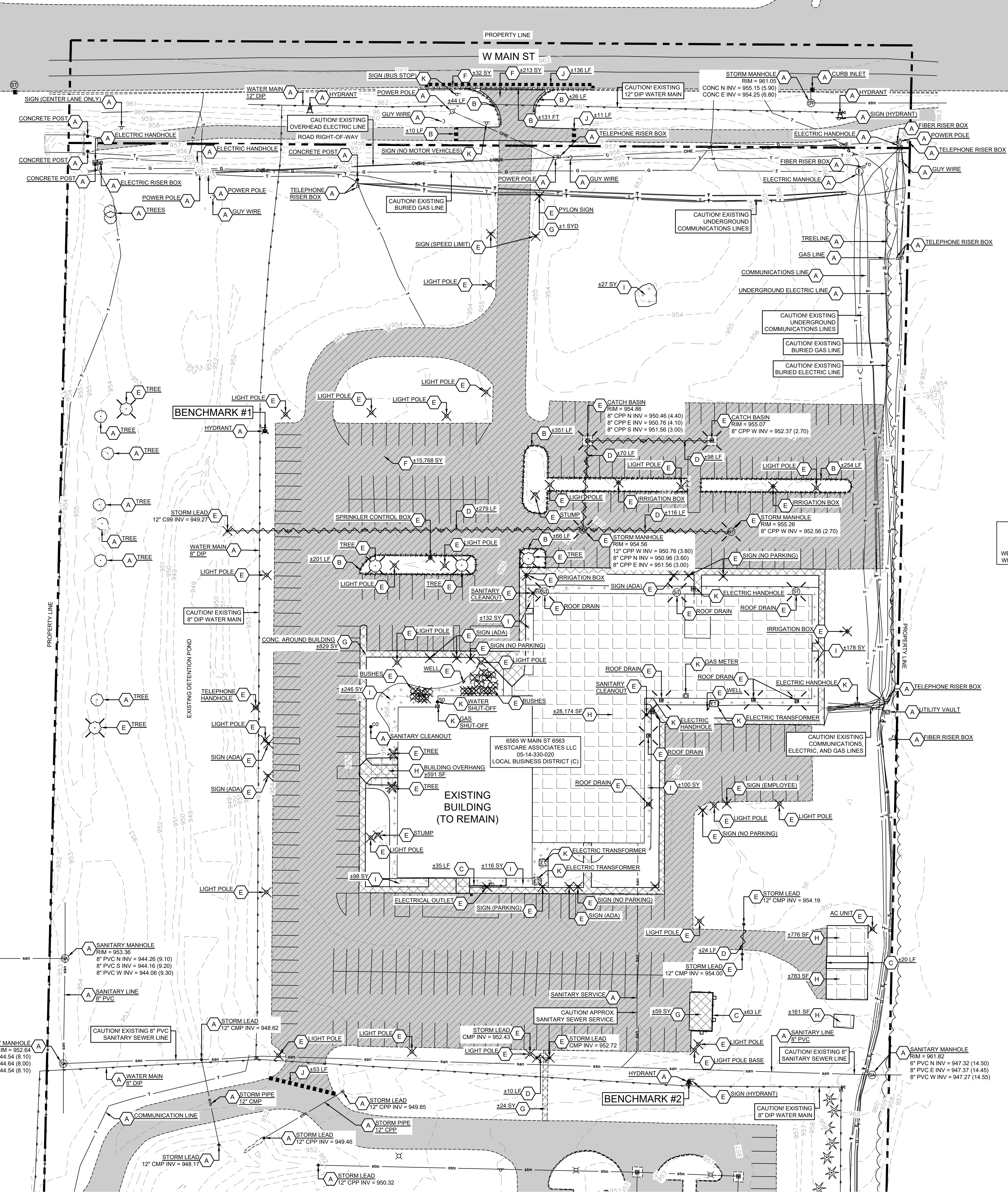


**PRELIMINARY**  
NOT FOR CONSTRUCTION

**EXISTING CONDITIONS AND DEMOLITION PLAN**

W MAIN ST SUBARU  
KALAMAZOO, MI

ORIGINAL ISSUE:  
02/06/2024  
PROJECT NO.  
24001  
SHEET NUMBER  
**C100**



### DEMOLITION NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXISTING UTILITIES, PAVING, STRUCTURES, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED ON THE PLANS
- THE CONTRACTOR SHALL DISPOSE OF ALL DEBRIS, TRASH, AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS. DISPOSAL OF SUCH ITEMS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS
- ANY DAMAGE TO ADJACENT PROPERTIES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE CONTRACTOR SHALL RECEIVE WRITTEN PERMISSION PRIOR TO ANY OFFSITE DISTURBANCE, UNLESS SPECIFICALLY MENTIONED ON THIS SHEET
- THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN. UTILITY LOCATIONS SHOWN ARE BASED OFF PREVIOUS RECORD DRAWINGS AND FIELD MEASUREMENTS WHERE APPLICABLE. THE INFORMATION IS NOT TO BE RELIED UPON AND MUST BE CONFIRMED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY AT LEAST 72 HOURS PRIOR TO THE EXCAVATION TO REQUEST FIELD LOCATING.
- ANY DEMOLITION WITHIN THE RIGHT-OF-WAY MUST BE COORDINATED WITH THE LOCAL JURISDICTION. FURTHERMORE, THE CONTRACTOR SHALL ENSURE THAT ALL REQUIRED TRAFFIC CONTROL IS IN PLACE PRIOR TO WORK WITHIN THE RIGHT-OF-WAY.
- EROSION CONTROL BMP'S SHALL BE IN PLACE PRIOR TO ANY DEMOLITION WORK
- THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR ALL SUBSURFACE INFORMATION
- ALL UTILITIES SHOWN THAT ARE NOT TO BE REMOVED DURING DEMOLITION SHALL BE PROTECTED. ANY DAMAGE TO SUCH UTILITIES OR STRUCTURES, SHALL BE REPAIRED OR REPLACED AT THE GENERAL CONTRACTORS EXPENSE.
- THE CONTRACTOR SHALL USE WATER SPRINKLING, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO LIMIT DUST. SEE EROSION CONTROL SHEET FOR FURTHER EROSION CONTROL REQUIREMENTS.
- THE CONTRACTOR SHALL COMPLETELY FILL ALL VOIDS RESULTING FROM DEMOLITION ACTIVITIES. MATERIAL SHALL BE IN ACCORDANCE WITH MDOT SPECIFICATIONS FOR BACKFILL. FILL MATERIALS SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12 INCHES IN LOOSE DEPTH AND COMPACTED TO 96% OF MODIFIED PROCTOR DENSITY.
- THE CONTRACTOR SHALL NOTIFY MISS DIG (800-482-7171) TO COORDINATE FIELD LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

### DEMOLITION LEGEND

- (A) ITEM TO REMAIN, PROTECT DURING CONSTRUCTION
- (B) CURB AND GUTTER REMOVAL
- (C) FENCE REMOVAL
- (D) UTILITY REMOVAL
- (E) ITEM TO BE REMOVED
- (F) FULL-DEPTH ASPHALT REMOVAL
- (G) CONCRETE REMOVAL
- (H) BUILDING REMOVAL
- (I) LANDSCAPE REMOVAL
- (J) SAWCUT LINE
- (K) ITEM TO BE REMOVED AND REPLACED / RELOCATED

### EXISTING UTILITY LEGEND

- G NATURAL GAS LINE
- T COMMUNICATIONS LINE
- E UNDERGROUND ELECTRIC LINE
- W WATER LINE
- san SANITARY SEWER LINE
- sm STORM SEWER LINE

### BENCHMARKS

BENCHMARK #	DESCRIPTION	ELEVATION
#1	BOLT IN SW SIDE OF FIRE HYDRANT (WITH TAG)	953.94
#2	BOLT IN NW SIDE OF FIRE HYDRANT (WITH TAG)	958.48

6619 W MAIN ST  
VANDENBERG PROPERTIES LLC  
05-14-332-004  
LOCAL BUSINESS DISTRICT (C)

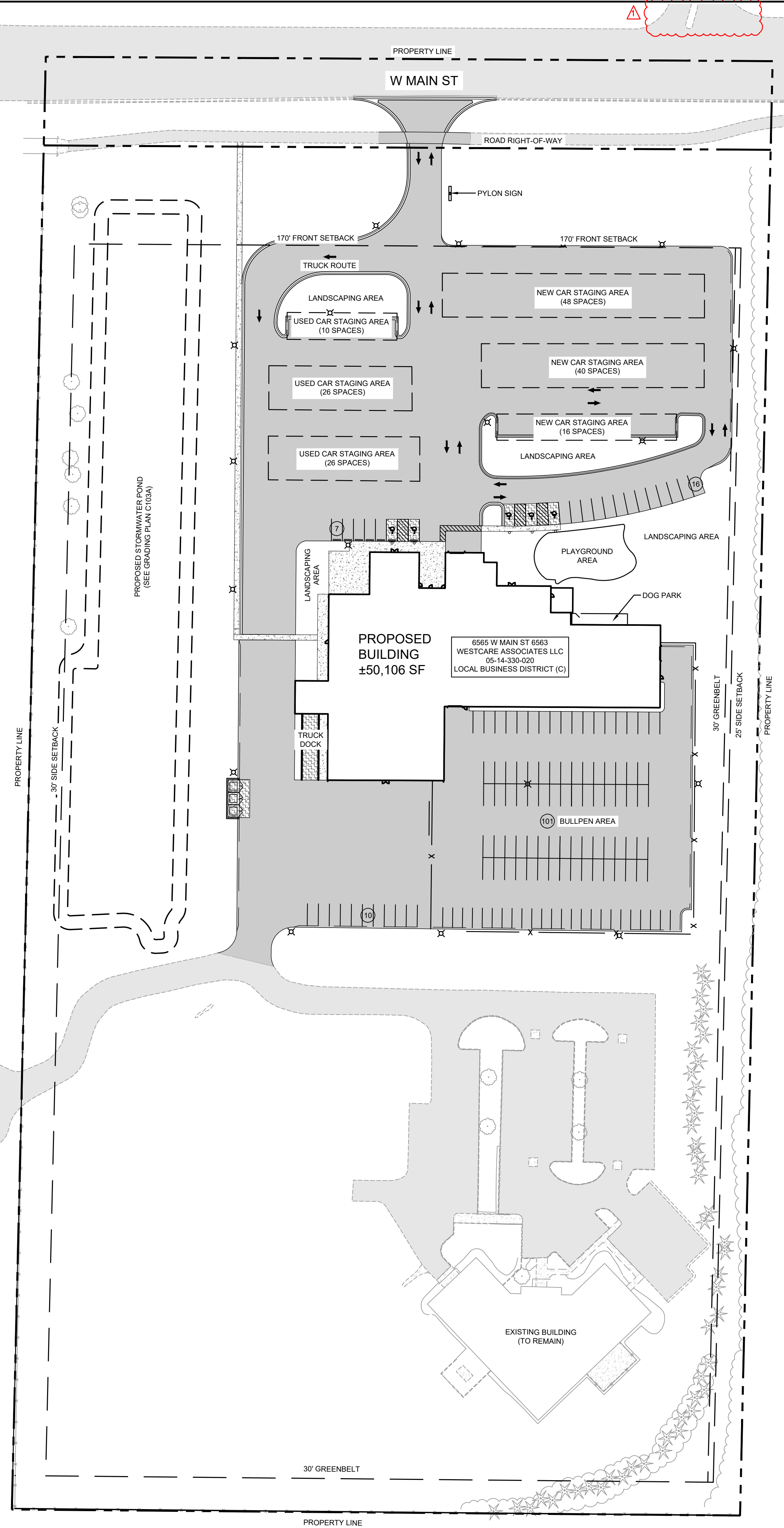
6479 W MAIN ST  
BENITEAU RESIDENTIAL LLC  
05-14-405-010  
RESIDENCE DISTRICT (R2)  
WEST MAIN COMMERCIAL OVERLAY  
WEST MAIN RESIDENTIAL OVERLAY

6565 W MAIN ST 6563  
WESTCARE ASSOCIATES LLC  
05-14-339-020  
LOCAL BUSINESS DISTRICT (C)

SEECO DR  
SEECO INVESTMENTS  
05-14-332-901  
LOCAL BUSINESS DISTRICT (C)

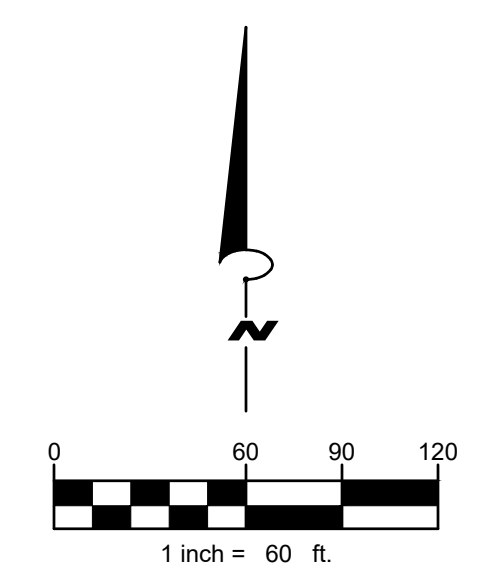
6619 W MAIN ST  
VANDENBERG PROPERTIES LLC  
05-14-332-004  
LOCAL BUSINESS DISTRICT (C)

SEECO DR  
SEECO INVESTMENTS  
05-14-332-901  
LOCAL BUSINESS DISTRICT (C)



6479 W MAIN ST  
BENITEAU RESIDENTIAL LLC  
05-14-405-010  
RESIDENCE DISTRICT (R2)  
WEST MAIN COMMERCIAL OVERLAY  
WEST MAIN RESIDENTIAL OVERLAY

6565 W MAIN ST 6563  
WESTCARE ASSOCIATES LLC  
05-14-330-020  
LOCAL BUSINESS DISTRICT (C)



### SITE INFORMATION

ZONING:	C - LOCAL BUSINESS
SITE AREA:	18.9 ACRES (821,271 SF)
BUILDING AREA:	50,106 SF (6.1%)
NUMBER OF STORIES:	2
IMPERVIOUS COVERAGE:	470,442 SF (57.3%)
PROPOSED GREEN SPACE:	350,829 SF (42.7%)
<b>BUILDING SETBACKS:</b>	
FRONT:	170 FT (FROM CENTER OF ROAD ROW)
WEST SIDE:	ELV. WEST PROP. LINE: 952.0 FT ELV. TOP OF BLDG.: 981.5 FT
EAST SIDE:	WEST STBK. = 981.5 FT - 952.0 FT = 30.0 FT ELV. EAST PROP. LINE: 957.0 FT ELV. TOP OF BLDG.: 981.5 FT
REAR:	EAST STBK. = 981.5 FT - 957.0 FT = 25 FT 25 FT
<b>OFF-STREET PARKING REQUIREMENTS:</b>	
STANDARD PARKING SPACE:	10 FT X 20 FT
3 PARKING SPACES PER 1 SERVICE BAY:	28 SERVICE BAYS X 3 PARKING SPACES = 84 SPACES
1 PARKING SPACE PER 300 SF OF NFA:	6,806 SF / 300 SF = 23 SPACES
1 PARKING SPACE PER 400 SF OF NFA DEVOTED TO SALES AND/OR DISPLAY:	4,556 SF / 400 SF = 12 SPACES
1 PARKING SPACE PER 1,500 SF OF NFA DEVOTED TO WAREHOUSE:	14,354 SF / 1,500 SF = 10 SPACES
TOTAL SPACES REQUIRED (MIN):	129 SPACES
TOTAL SPACES REQUIRED (MAX):	142 SPACES
TOTAL SPACES PROVIDED:	134 SPACES
ADA PARKING SPACES REQUIRED:	5 SPACES
ADA PARKING SPACES PROVIDED:	5 SPACES

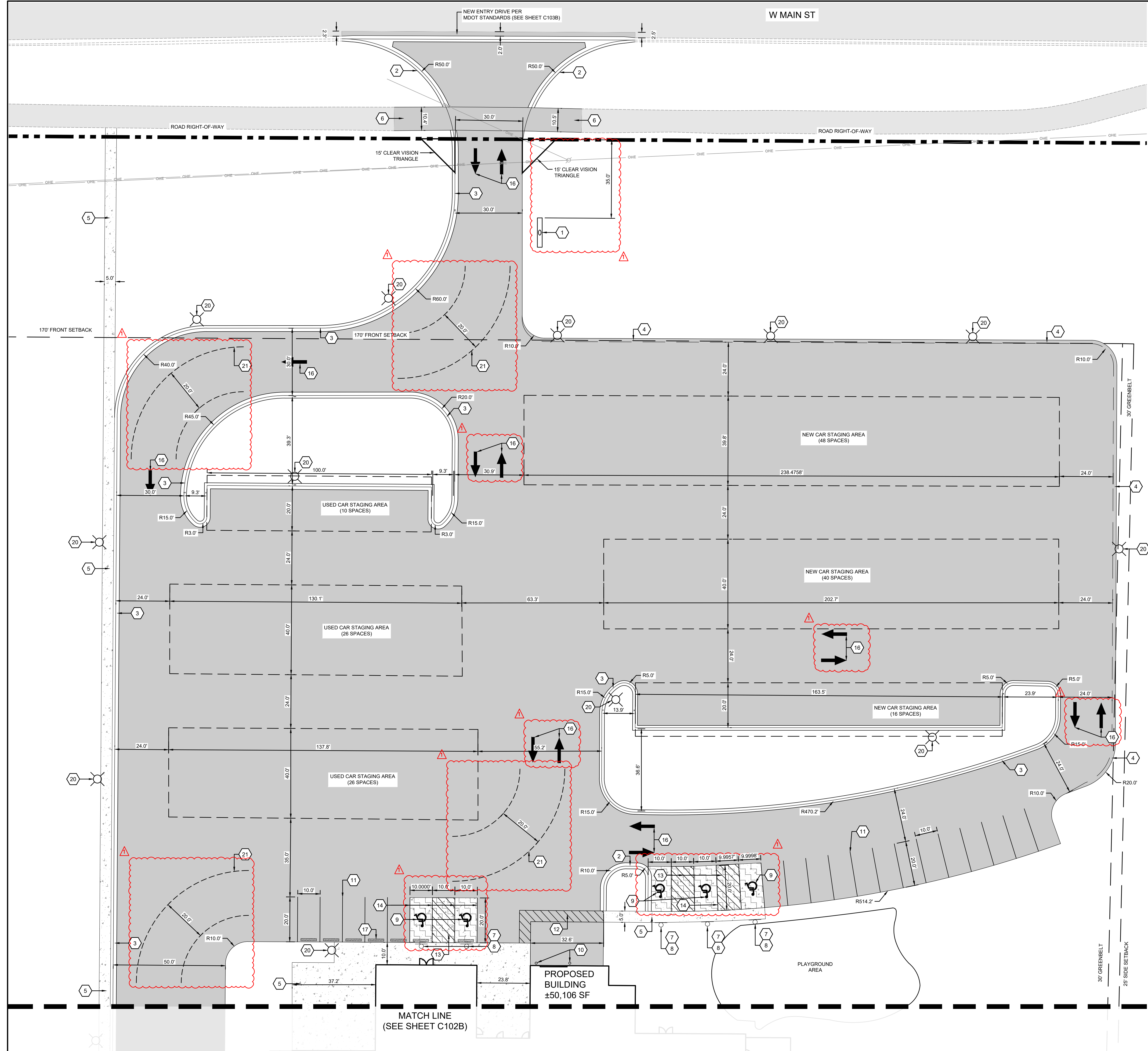
### SITE GENERAL NOTES

- DIMENSIONS REFER TO THE FACE OF CURB UNLESS OTHERWISE NOTED
- CONTRACTOR TO FIELD VERIFY ALL EXISTING TOPOGRAPHY AND STRUCTURES ON SITE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING, UNLESS NOTED OTHERWISE.
- REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.

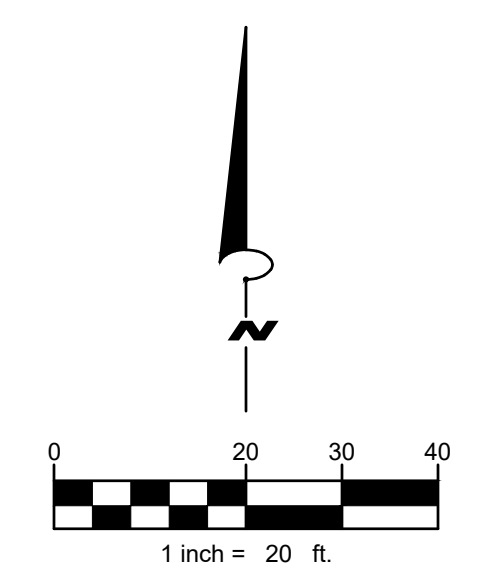
### PAVEMENT LEGEND

	STANDARD DUTY CONCRETE PAVEMENT: SEE DETAILS
	HEAVY DUTY CONCRETE PAVEMENT: SEE DETAILS
	STANDARD DUTY PAVEMENT: 1.5" HMA (165#/SYD) SE1 TOP COURSE 1.5" HMA (165#/SYD) 4E1 LEVELING COURSE 6" AGGREGATE BASE, 22A 12" SUBBASE, C1P

DATE	BY	REVISIONS	No.	COMMENTS	TOWNSHIP	OSW	02/06/2024	OSW
								
ADDRESS: 10123 S M43, SUITE E DELTON, MI 49046 PHONE: (269) 364-5626								
SCALE:	AS NOTED	DESIGNED BY:	DMP	DRAWN BY:	OSW	CHECKED BY:	TWC	
								
<b>PRELIMINARY</b> NOT FOR CONSTRUCTION								
OVERALL SITE PLAN								
W MAIN ST SUBARU KALAMAZOO, MI								
ORIGINAL ISSUE: 02/06/2024 PROJECT NO. 24001 SHEET NUMBER C101								






W MAIN ST



**SITE GENERAL NOTES**


1. DIMENSIONS REFER TO THE FACE OF CURB UNLESS OTHERWISE NOTED
2. CONTRACTOR TO FIELD VERIFY ALL EXISTING TOPOGRAPHY AND STRUCTURES ON SITE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
3. BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING, UNLESS NOTED OTHERWISE.
4. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.

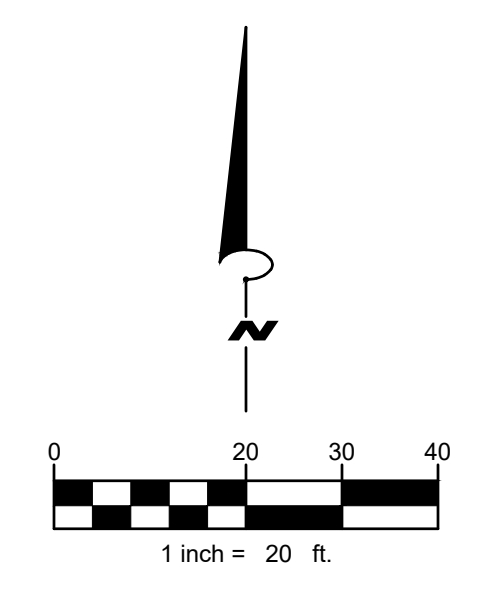
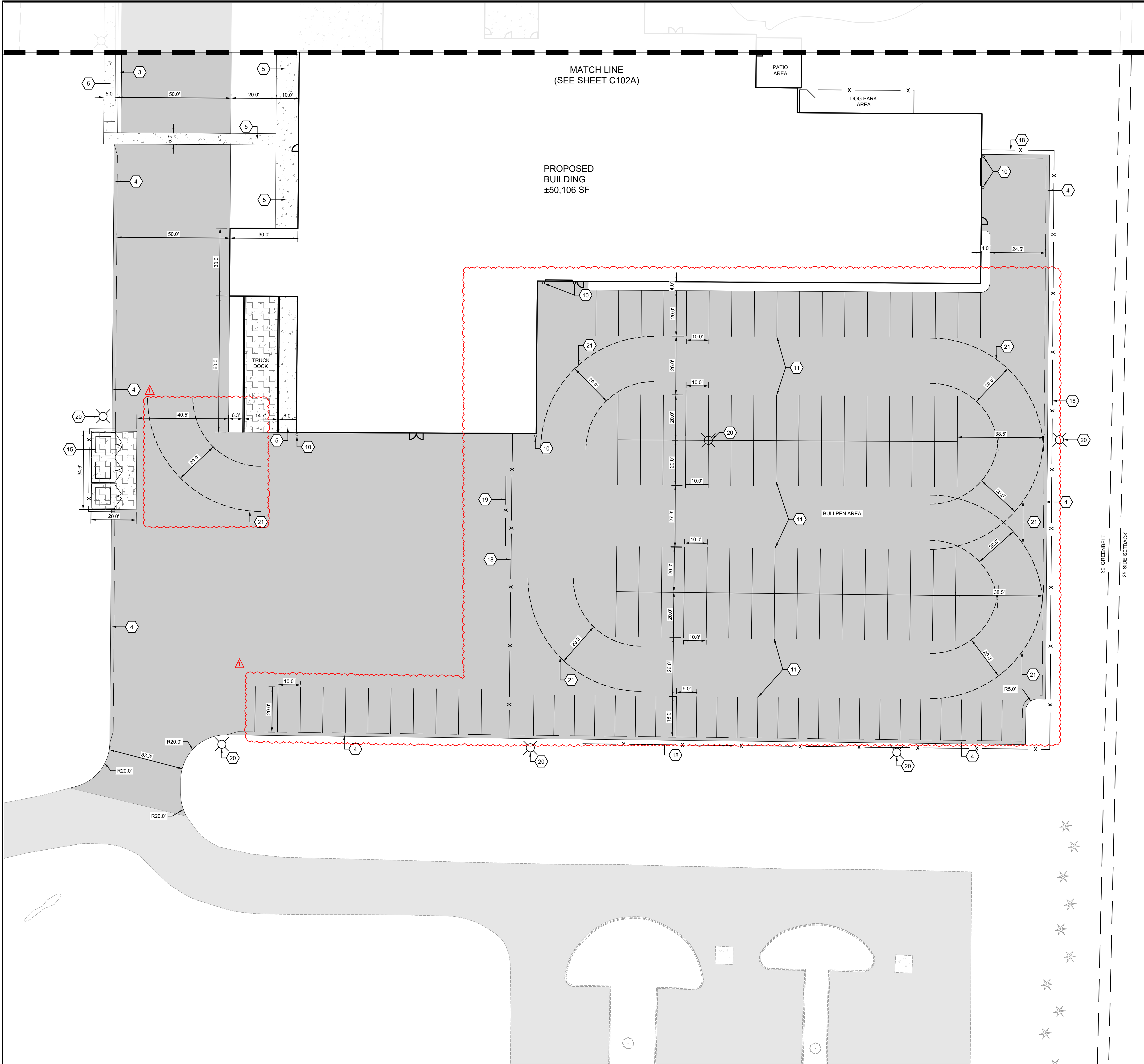
**PAVEMENT LEGEND**

-  STANDARD DUTY CONCRETE PAVEMENT:  
SEE DETAILS
-  HEAVY DUTY CONCRETE PAVEMENT:  
SEE DETAILS
-  STANDARD DUTY PAVEMENT:  
1.5" HMA (165#/SYD) SE1 TOP COURSE  
1.5" HMA (165#/SYD) 4E1 LEVELING COURSE  
6" AGGREGATE BASE, 22A  
12" SUBBASE, CIP

**KEY NOTES**

- 1 PYLON SIGN
- 2 TYPE B2 CURB AND GUTTER (SEE DETAILS)
- 3 TYPE D2 CURB AND GUTTER (SEE DETAILS)
- 4 ASPHALT CURB (SEE DETAILS)
- 5 CONCRETE SIDEWALK, TYP. (SEE DETAILS)
- 6 ASPHALT SIDEWALK, TYP.
- 7 ACCESSIBLE PARKING SIGN, TYP. (MUTCD D9-6) (MICHIGAN ACT 182 AND 183)
- 8 ACCESSIBLE PARKING SIGN, TYP. (MUTCD R7-8P) (MICHIGAN ACT 182 AND 183)
- 9 ACCESSIBLE PAVEMENT MARKINGS, TYP. (SEE DETAILS)
- 10 CONCRETE BOLLARD (SEE DETAILS)
- 11 4" WIDE PAINTED SOLID WHITE LINE, TYP.
- 12 4" WIDE PAINTED SOLID WHITE LINE AT 45 DEGREES, TYP.
- 13 4" WIDE PAINTED SOLID BLUE LINE AT 45 DEGREES, TYP.
- 14 4" WIDE PAINTED SOLID BLUE LINE, TYP.
- 15 REFUSE ENCLOSURE (SEE ARCHITECTURAL PLANS)
- 16 DIRECTIONAL PAVEMENT MARKING
- 17 CONCRETE WHEEL STOP (SEE DETAIL)
- 18 6' CHAIN-LINK FENCE
- 19 6' CHAIN-LINK FENCE GATE
- 20 LIGHT POLE
- 21 30-50 FT TURNING RADIUS ZONE




DATE		BY		REVISIONS	
02/06/2024					
					
ADDRESS: 10123 S M43, SUITE E DELTON, MI 49046 PHONE: (269) 364-5626					
SCALE: AS NOTED	DESIGNED BY: DMP	DRAWN BY: OSW	CHECKED BY: TWC		
					
<p style="font-size: 2em; font-weight: bold; transform: rotate(-45deg);">PRELIMINARY</p> <p style="font-size: 0.8em; transform: rotate(-45deg);">NOT FOR CONSTRUCTION</p>					
NORTH SITE PLAN					
W MAIN ST SUBARU KALAMAZOO, MI					
ORIGINAL ISSUE: 02/06/2024 PROJECT NO. 24001 SHEET NUMBER <span style="font-size: 1.5em; font-weight: bold;">C102A</span>					





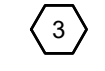


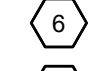

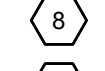
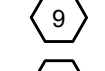
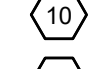


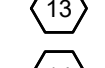


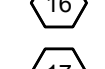



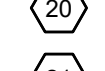
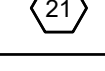
**SITE GENERAL NOTES**

1. DIMENSIONS REFER TO THE FACE OF CURB UNLESS OTHERWISE NOTED
2. CONTRACTOR TO FIELD VERIFY ALL EXISTING TOPOGRAPHY AND STRUCTURES ON SITE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
3. BUILDING DIMENSIONS ARE TO THE OUTSIDE FACE OF BUILDING, UNLESS NOTED OTHERWISE.
4. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.

**PAVEMENT LEGEND**

-  STANDARD DUTY CONCRETE PAVEMENT:  
SEE DETAILS
-  HEAVY DUTY CONCRETE PAVEMENT:  
SEE DETAILS
-  STANDARD DUTY PAVEMENT:  
1.5" HMA (165#/SYD) SE1 TOP COURSE  
1.5" HMA (165#/SYD) 4E1 LEVELING COURSE  
6" AGGREGATE BASE, Z2A  
12" SUBBASE, C1P

**KEY NOTES**

-  1 PYLON SIGN
-  2 TYPE B2 CURB AND GUTTER (SEE DETAILS)
-  3 TYPE D2 CURB AND GUTTER (SEE DETAILS)
-  4 ASPHALT CURB (SEE DETAILS)
-  5 CONCRETE SIDEWALK, TYP. (SEE DETAILS)
-  6 ASPHALT SIDEWALK, TYP.
-  7 ACCESSIBLE PARKING SIGN, TYP. (MUTCD D9-6) (MICHIGAN ACT 182 AND 183)
-  8 ACCESSIBLE PARKING SIGN, TYP. (MUTCD R7-8P) (MICHIGAN ACT 182 AND 183)
-  9 ACCESSIBLE PAVEMENT MARKINGS, TYP. (SEE DETAILS)
-  10 CONCRETE BOLLARD (SEE DETAILS)
-  11 4" WIDE PAINTED SOLID WHITE LINE, TYP.
-  12 4" WIDE PAINTED SOLID WHITE LINE AT 45 DEGREES, TYP.
-  13 4" WIDE PAINTED SOLID BLUE LINE AT 45 DEGREES, TYP.
-  14 4" WIDE PAINTED SOLID BLUE LINE, TYP.
-  15 REFUSE ENCLOSURE (SEE ARCHITECTURAL PLANS)
-  16 DIRECTIONAL PAVEMENT MARKING
-  17 CONCRETE WHEEL STOP (SEE DETAIL)
-  18 6' CHAIN-LINK FENCE
-  19 6' CHAIN-LINK FENCE GATE
-  20 LIGHT POLE
-  21 30-50 FT TURNING RADIUS ZONE

OSW	02/06/2024	PER OSHTAMO CHARTER TOWNSHIP COMMENTS	DATE	BY
No.	No.	REVISIONS	DATE	BY



ADDRESS:  
10123 S M43, SUITE E  
DELTON, MI 49046  
PHONE:  
(269) 364-5626

SCALE: AS NOTED	DESIGNED BY: DWP	DRAWN BY: OSW	CHECKED BY: TWC
-----------------	------------------	---------------	-----------------

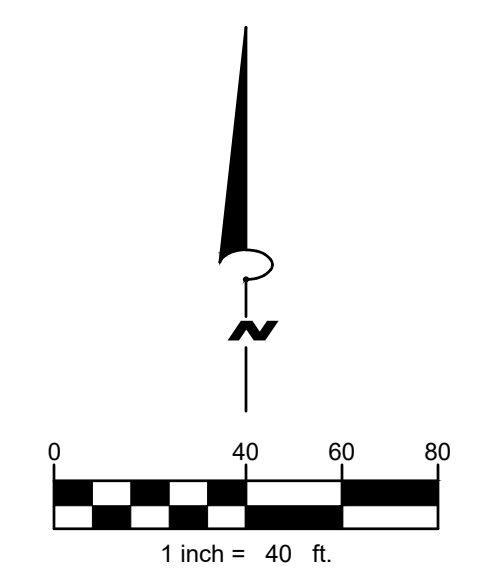
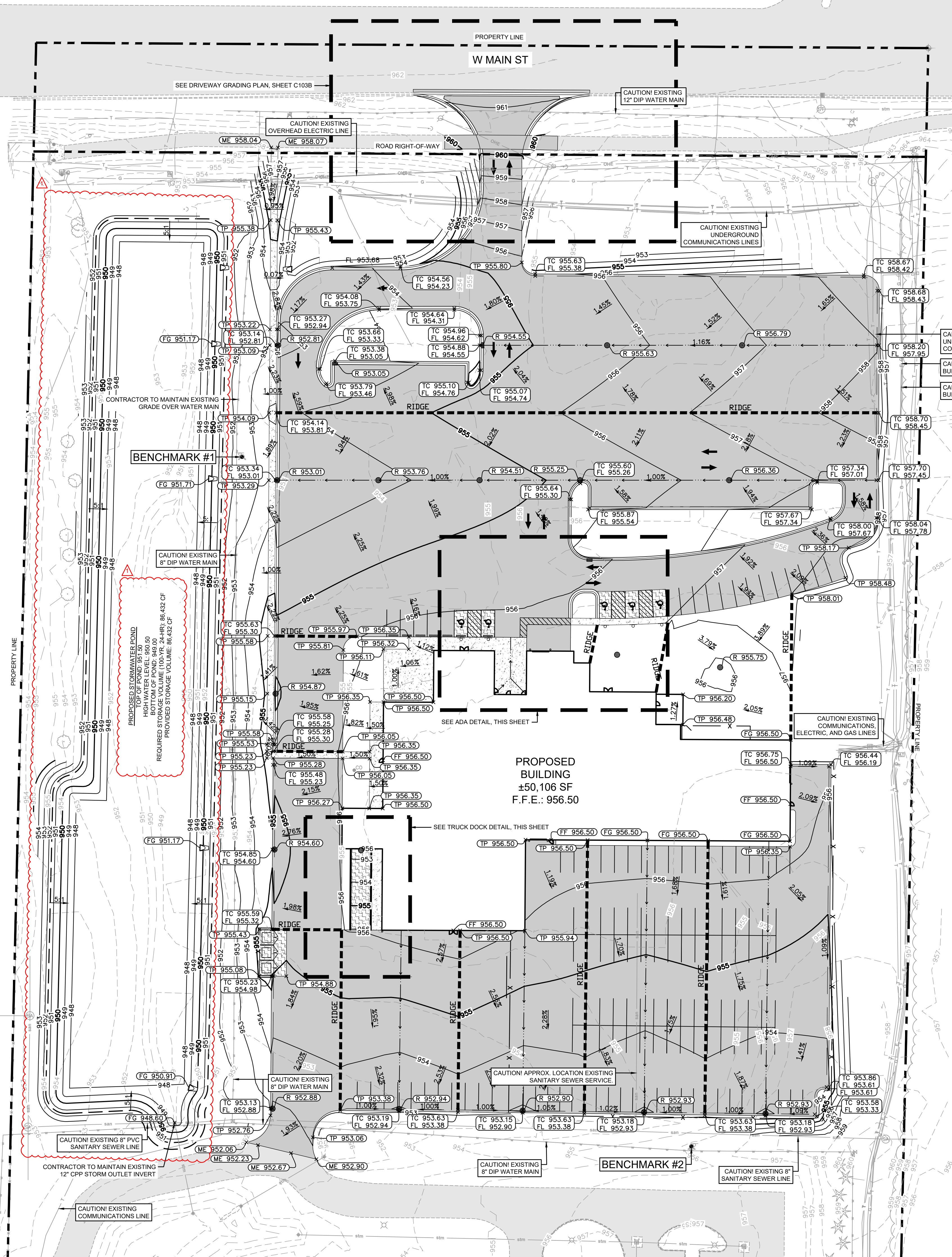


**PRELIMINARY**  
NOT FOR CONSTRUCTION

**SOUTH SITE PLAN**

W MAIN ST SUBARU  
KALAMAZOO, MI

ORIGINAL ISSUE: 02/06/2024	
PROJECT NO. 24001	
SHEET NUMBER <b>C102B</b>	



- ### GRADING NOTES
- CONTRACTOR SHALL COORDINATE WITH EXCAVATOR, LANDSCAPE, AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE ELEVATIONS.
  - ALL EARTHEN SLOPES SHALL BE LESS THAN 4:1 UNLESS OTHERWISE NOTED.
  - THE MAXIMUM RUNNING SLOPE FOR ALL SIDEWALK SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2%.
  - MAXIMUM SLOPE IN ACCESSIBLE PARKING SPACES AND LOADING ZONES SHALL NOT EXCEED 2.0% IN ANY DIRECTION.
  - THE CONTRACTOR SHALL MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS UNLESS OTHERWISE NOTED.
  - TOP OF ASPHALT CURB SHALL BE 0.25' HIGHER THAN FLOWLINE ELEVATIONS UNLESS OTHERWISE NOTED. TOP OF CONCRETE CURB SHALL BE 0.5' HIGHER THAN FLOWLINE ELEVATIONS UNLESS OTHERWISE NOTED.
  - WHEN NATURAL FLOW OF DRAINAGE IS AWAY FROM THE CURB, THE CONTRACTOR SHALL INSTALL REVERSE GUTTER PITCH.
  - CONTRACTOR SHALL REMOVE AND STOCKPILE TOPSOIL FROM ALL DISTURBED AREAS DURING CONSTRUCTION. TOPSOIL SHALL NOT BE USED AS FILL FOR ANY PAVEMENT, SIDEWALK, BUILDING, STORMWATER MANAGEMENT SYSTEM, OR SANITARY SEWER SYSTEM.
  - CONTRACTOR SHALL EXCAVATE UNSUITABLE MATERIALS IN THE STORMWATER MANAGEMENT POND FOOTPRINT AND REPLACE WITH CLASS II SAND TO GRADE.
  - THE CONTRACTOR SHALL NOTIFY MISS DIG (800-482-7171) TO COORDINATE FIELD LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

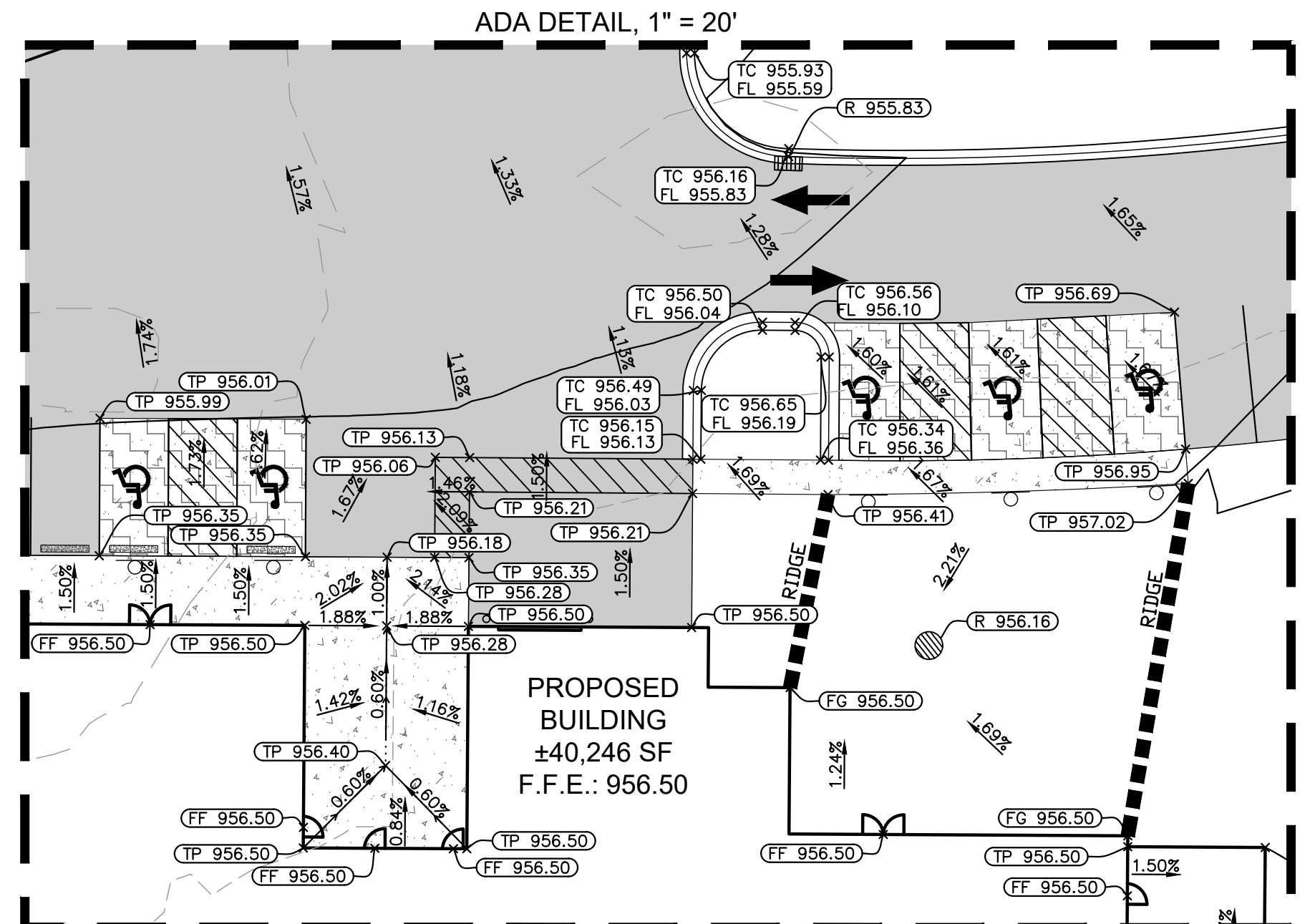
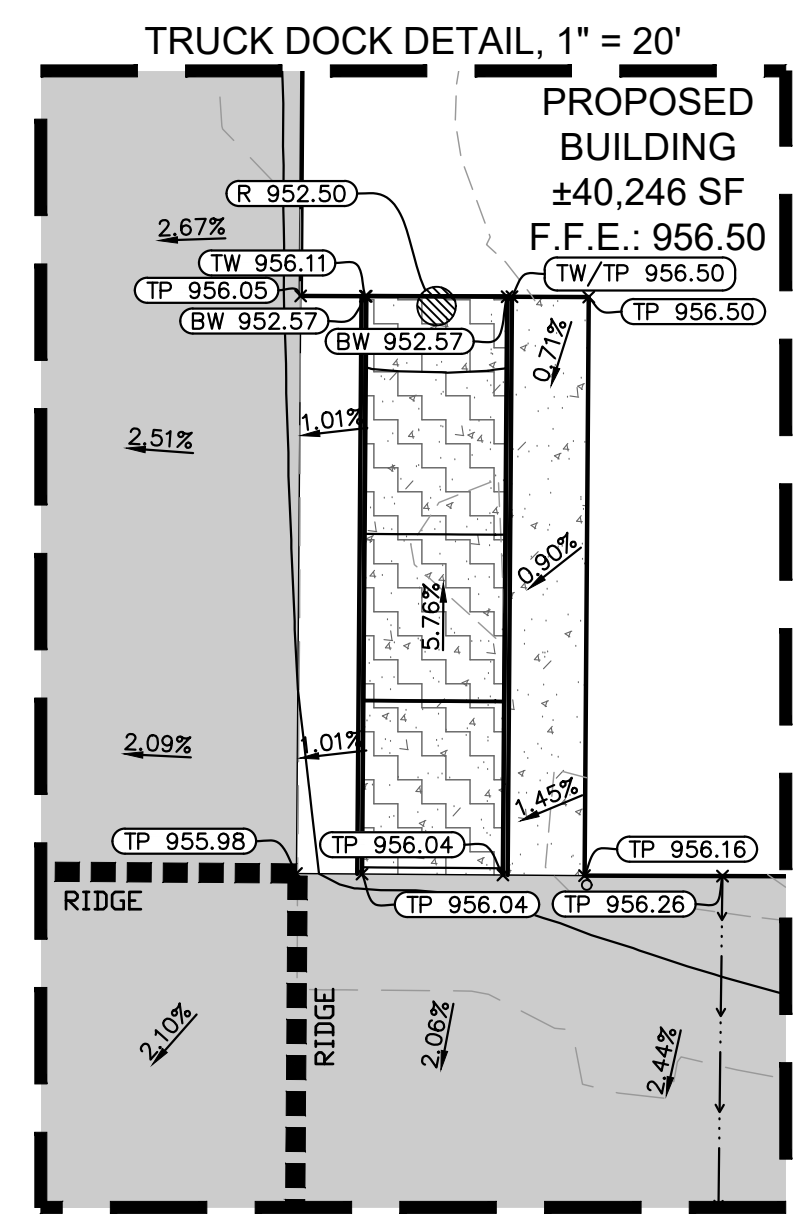
### GRADING LEGEND

TC = TOP OF CURB  
 ME = MATCH ELEVATION  
 R = RIM ELEVATION  
 FG = FINISH GRADE  
 FL = FLOW LINE  
 TP = TOP OF PAVEMENT  
 TW = TOP OF WALL  
 BW = BOTTOM OF WALL

---XXX--- EXISTING CONTOUR  
 - - - - - PROPOSED CONTOUR  
 - - - - - RIDGE RIDGE LINE  
 - - - - - PROPOSED SWALE

### BENCHMARKS

BENCHMARK #	DESCRIPTION	ELEVATION
#1	BOLT IN SW SIDE OF FIRE HYDRANT (WITH TAG)	953.94
#2	BOLT IN NW SIDE OF FIRE HYDRANT (WITH TAG)	958.48



DATE		BY		REVISIONS		COMMENTS		OSW	
NO.		DATE		NO.		DATE		DATE	

**MITTEN STATE ENGINEERING**

ADDRESS: 10123 S M43, SUITE E DELTON, MI 49046  
 PHONE: (269) 364-5626

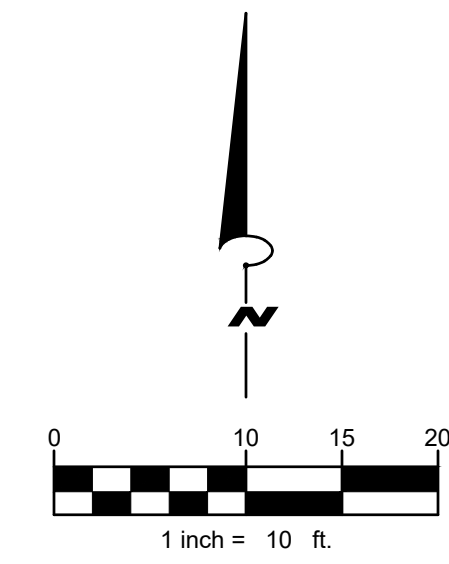
TYLER W. CRAVENS  
 ENGINEER  
 No. 6201067811  
 LICENSED PROFESSIONAL ENGINEER

**PRELIMINARY**  
 NOT FOR CONSTRUCTION

## GRADING PLAN

W MAIN ST SUBARU  
 KALAMAZOO, MI

ORIGINAL ISSUE: 02/06/2024  
 PROJECT NO. 24001  
 SHEET NUMBER C103A

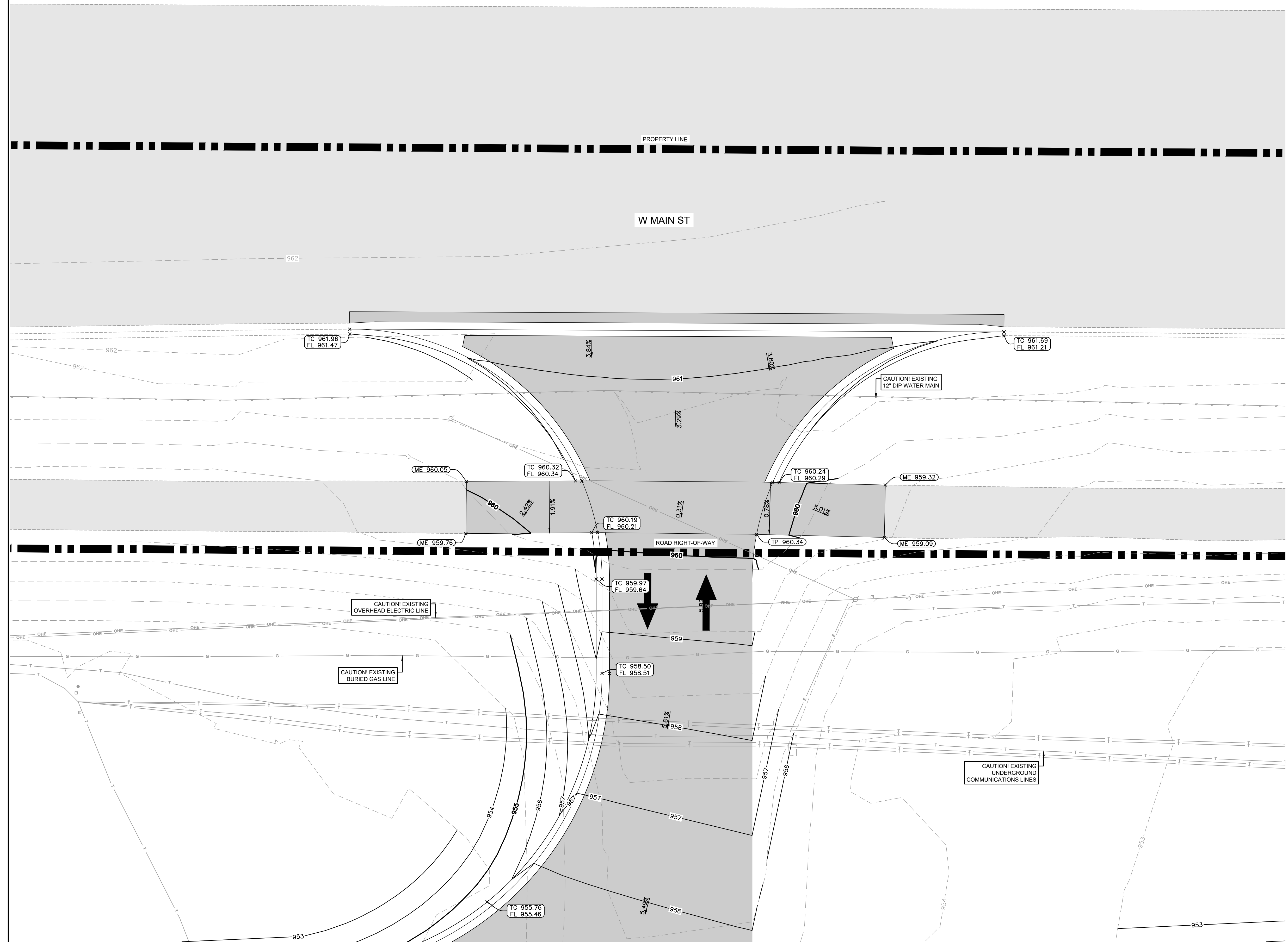


### GRADING NOTES

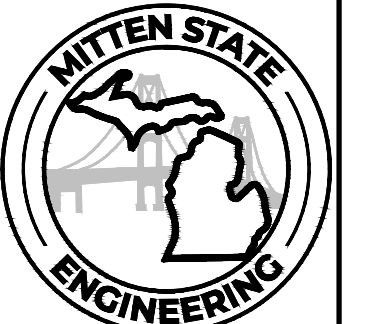
1. CONTRACTOR SHALL COORDINATE WITH EXCAVATOR, LANDSCAPE, AND PAVING SUBCONTRACTORS REGARDING TOPSOIL THICKNESS FOR LANDSCAPE AREAS AND PAVEMENT SECTION THICKNESS FOR PAVED AREAS TO PROPERLY ENSURE ADEQUATE CUT TO ESTABLISH SUBGRADE ELEVATIONS.
2. ALL EARTHEN SLOPES SHALL BE LESS THAN 4:1 UNLESS OTHERWISE NOTED.
3. THE MAXIMUM RUNNING SLOPE FOR ALL SIDEWALK SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2%.
4. THE CONTRACTOR SHALL MATCH EXISTING ELEVATIONS AT THE PROPERTY LIMITS UNLESS OTHERWISE NOTED.
5. TOP OF CONCRETE CURB SHALL BE 0.5' HIGHER THAN FLOWLINE ELEVATIONS UNLESS OTHERWISE NOTED.
6. WHEN NATURAL FLOW OF DRAINAGE IS AWAY FROM THE CURB, THE CONTRACTOR SHALL INSTALL REVERSE GUTTER PITCH.
7. CONTRACTOR SHALL REMOVE AND STOCKPILE TOPSOIL FROM ALL DISTURBED AREAS DURING CONSTRUCTION. TOPSOIL SHALL NOT BE USED AS FILL FOR ANY PAVEMENT, SIDEWALK, BUILDING, STORMWATER MANAGEMENT SYSTEM, OR SANITARY SEWER SYSTEM.
8. CONTRACTOR SHALL EXCAVATE UNSUITABLE MATERIALS IN THE STORMWATER MANAGEMENT POND FOOTPRINT AND REPLACE WITH CLASS II SAND TO GRADE.
9. THE CONTRACTOR SHALL NOTIFY MISS DIG (800-482-7171) TO COORDINATE FIELD LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

### GRADING LEGEND

- TC = TOP OF CURB
- ME = MATCH ELEVATION
- FL = FLOW LINE
- TP = TOP OF PAVEMENT
- XXX--- EXISTING CONTOUR
- XXX— PROPOSED CONTOUR

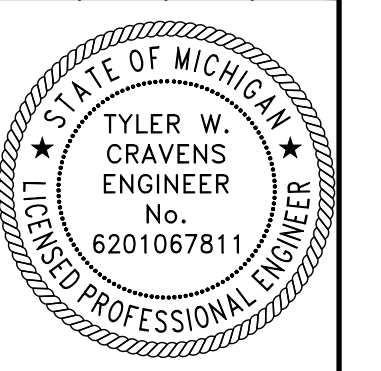


DATE	BY	REVISIONS
02/06/2024	OSW	



ADDRESS:  
10123 S M43, SUITE E  
DELTON, MI 49046  
PHONE:  
(269) 364-5626

SCALE: AS NOTED  
DESIGNED BY: DMP  
DRAWN BY: OSW  
CHECKED BY: TWC

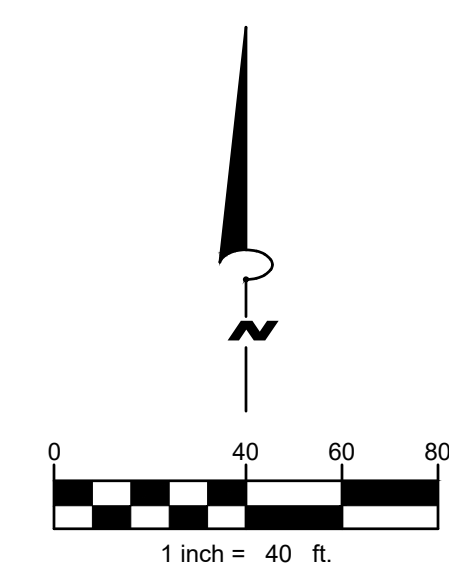
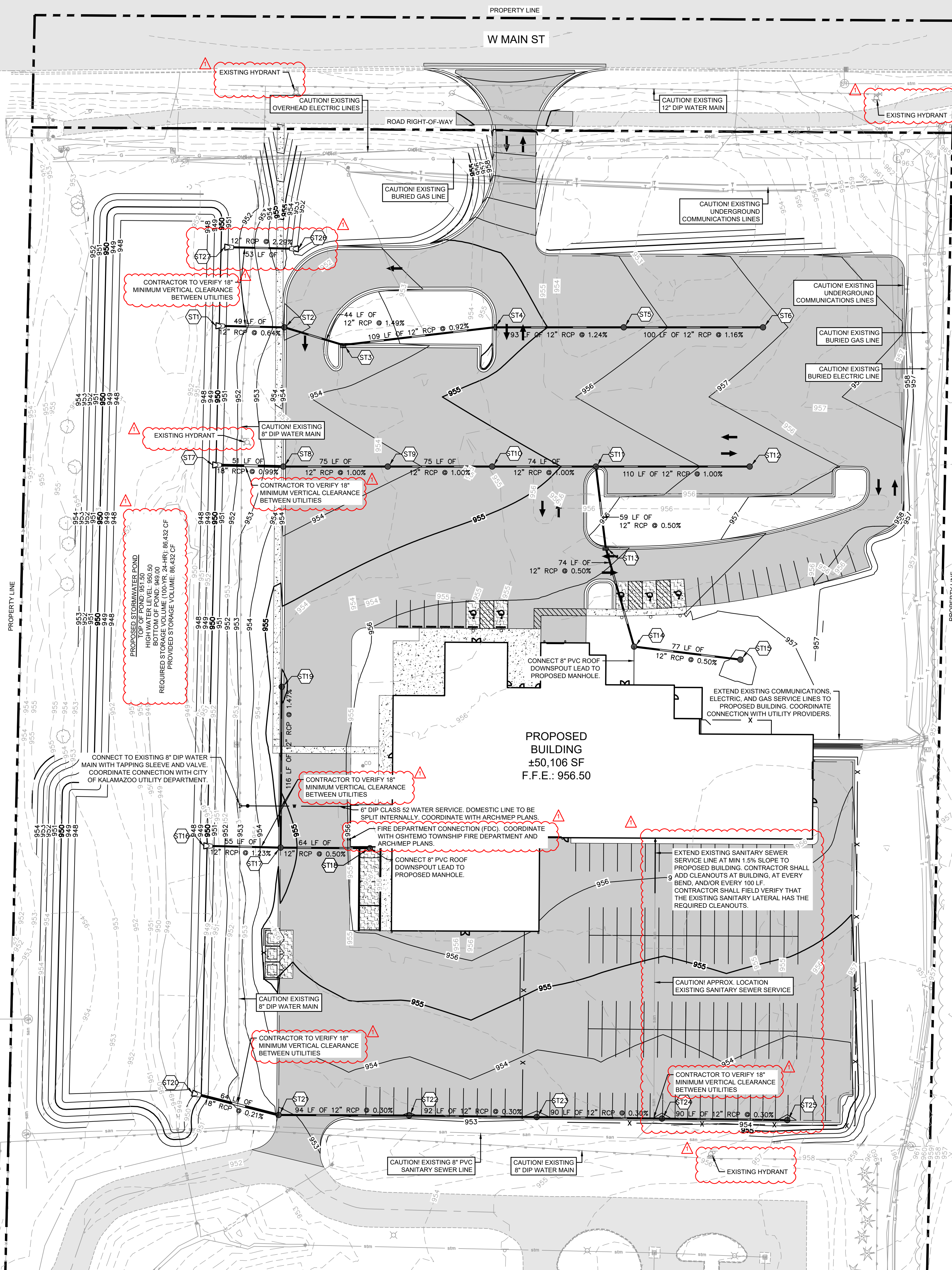


**PRELIMINARY**  
NOT FOR CONSTRUCTION

## DRIVEWAY GRADING PLAN

W MAIN ST SUBARU  
KALAMAZOO, MI

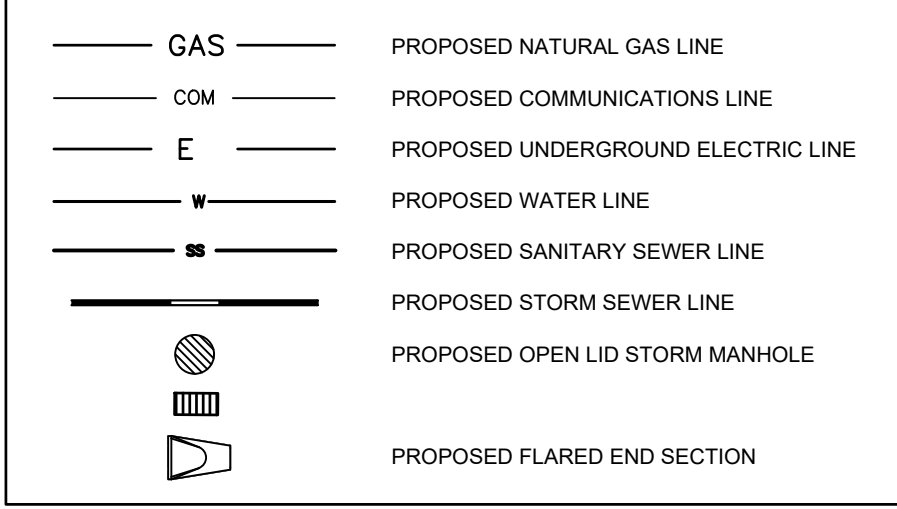
ORIGINAL ISSUE:  
02/06/2024  
PROJECT NO.  
24001  
SHEET NUMBER  
C103B



**UTILITY NOTES**

1. ALL REINFORCED CONCRETE PIPE SHALL BE CLASS IV CLASS S2
2. ALL WATER LINES GREATER THAN 3 INCHES IN DIAMETER SHALL BE DUCTILE IRON PIPE.
3. SANITARY SEWER LINES SHALL BE PVC MEETING ASTM D-3034 SDR 26 EXCEPT FOR SANITARY SEWER THAT CROSSES ABOVE WATER MAIN. THIS PIPE SHALL BE AWWA C900 (UNLESS CASING IS UTILIZED). PROVIDE 42" MINIMUM COVER, MINIMUM 18" VERTICAL SEPARATION, AND 10' HORIZONTAL SEPARATION BETWEEN PIPES.
4. ANY DISRUPTIONS TO EXISTING SERVICE LINES FOR ADJACENT PROPERTIES SHALL BE COORDINATED WITH AFFECTED PROPERTY OWNERS
5. THE CONTRACTOR SHALL NOTIFY MISS DIG (800-482-7171) TO COORDINATE FIELD LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
6. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR EXACT UTILITY CONNECTION LOCATIONS AT BUILDING.

**UTILITY LEGEND**



**STRUCTURE TABLE**

ST1 12" FLARED END SECTION INV. 949.50 - 12" E	ST14 4" DIA MH EJ 6417 DITCH GRATE 2.0 FT SUMP RIM 956.16 INV. 952.91 - 12" E INV. 952.91 - 12" N
ST2 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 952.81 INV. 949.82 - 12" E INV. 949.82 - 12" W	ST15 2" DIA MH EJ 6417 DITCH GRATE 2.0 FT SUMP RIM 955.75 INV. 953.30 - 12" W
ST3 4" DIA MH EJ 7030Z1, TYPE M2 2.0 FT SUMP RIM 953.05 INV. 950.47 - 12" E INV. 950.47 - 12" W	ST16 12" FLARED END SECTION INV. 949.50 - 12" E
ST4 4" DIA MH EJ 7030Z1, TYPE M2 2.0 FT SUMP RIM 954.55 INV. 951.48 - 12" E INV. 951.48 - 12" W	ST17 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 954.60 INV. 950.18 - 12" E INV. 950.18 - 12" W
ST5 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 955.63 INV. 952.64 - 12" E INV. 952.64 - 12" W	ST18 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 952.50 INV. 950.50 - 12" W
ST6 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 956.79 INV. 953.79 - 12" W	ST19 2" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 954.87 INV. 951.87 - 12" S
ST7 18" FLARED END SECTION INV. 949.50 - 18" E	ST20 18" FLARED END SECTION INV. 948.70 - 18" E
ST8 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 953.01 INV. 950.01 - 12" E INV. 950.01 - 18" W	ST21 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 952.88 INV. 948.83 - 12" E INV. 948.83 - 18" W
ST9 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 953.76 INV. 950.76 - 12" E INV. 950.76 - 12" W	ST22 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 952.94 INV. 949.12 - 12" E INV. 949.12 - 12" W
ST10 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 954.51 INV. 951.51 - 12" E INV. 951.51 - 12" W	ST23 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 952.90 INV. 949.39 - 12" E INV. 949.39 - 12" W
ST11 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 955.25 INV. 952.25 - 12" E INV. 952.25 - 12" S INV. 952.25 - 12" W	ST24 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 952.93 INV. 949.66 - 12" E INV. 949.66 - 12" W
ST12 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 956.36 INV. 953.36 - 12" W	ST25 4" DIA MH EJ 1020, TYPE M1 2.0 FT SUMP RIM 952.93 INV. 949.93 - 12" W
ST13 4" DIA MH EJ 7030Z1, TYPE M2 2.0 FT SUMP RIM 955.83 INV. 952.54 - 12" S INV. 952.54 - 12" N	ST26 12" FLARED END SECTION INV. 951.72 - 12" W
	ST27 12" FLARED END SECTION INV. 950.50 - 12" E

OSW

PER OSHTIMO CHARTER TOWNSHIP COMMENTS

02/06/2024

DATE

REVISIONS

BY

NO.

SCALE: AS NOTED

DESIGNED BY: DWP

DRAWN BY: OSW

CHECKED BY: TWC

**MITTEN STATE ENGINEERING**

ADDRESS:  
10123 S M43, SUITE E  
DELTON, MI 49046

PHONE:  
(269) 364-5626

STATE OF MICHIGAN  
TYLER W. CRAVENS  
ENGINEER  
No. 6201067811  
LICENSED PROFESSIONAL ENGINEER

**PRELIMINARY**  
NOT FOR CONSTRUCTION

**UTILITY PLAN**

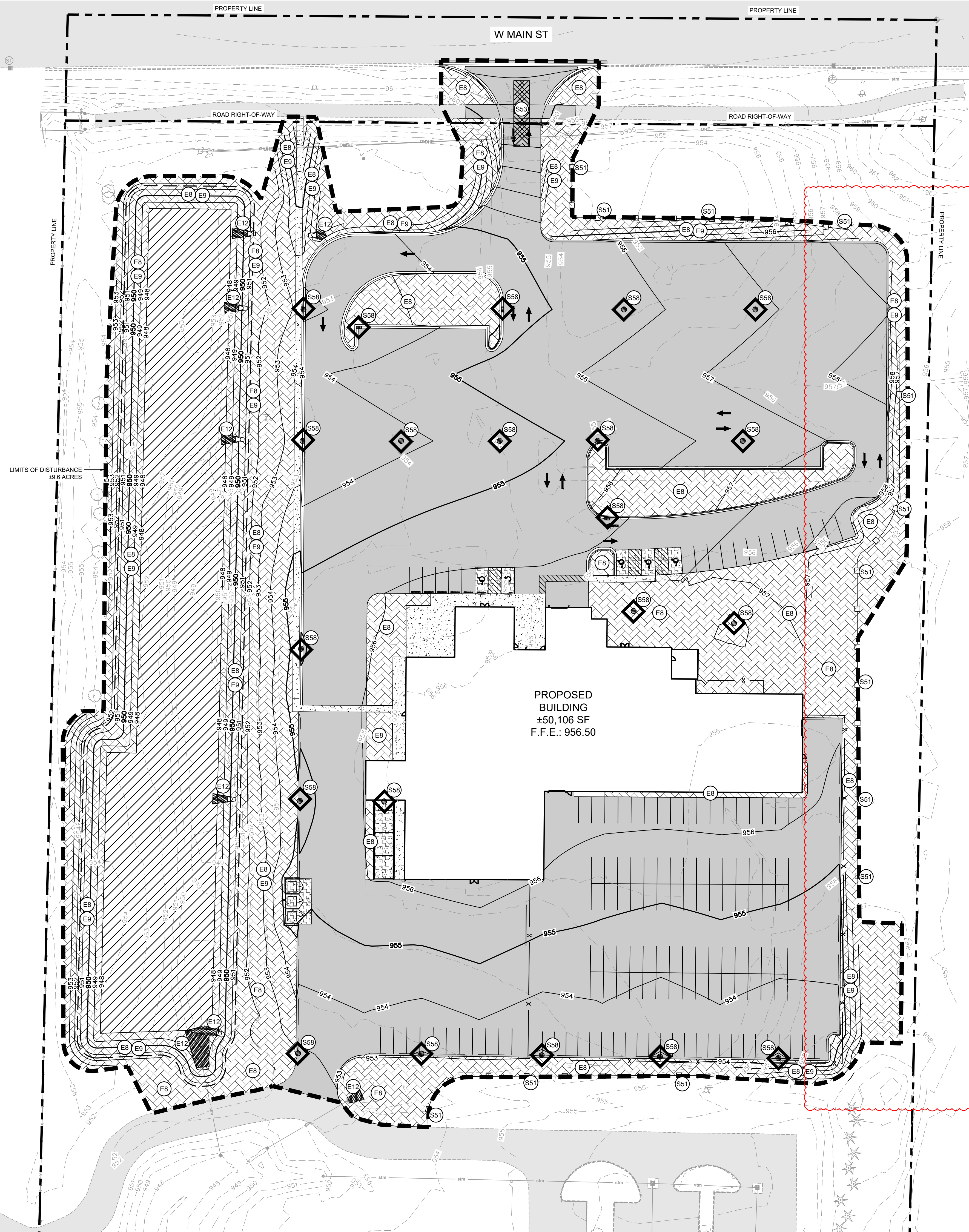
W MAIN ST SUBARU  
KALAMAZOO, MI

ORIGINAL ISSUE:  
02/06/2024

PROJECT NO.  
24001

SHEET NUMBER  
C104





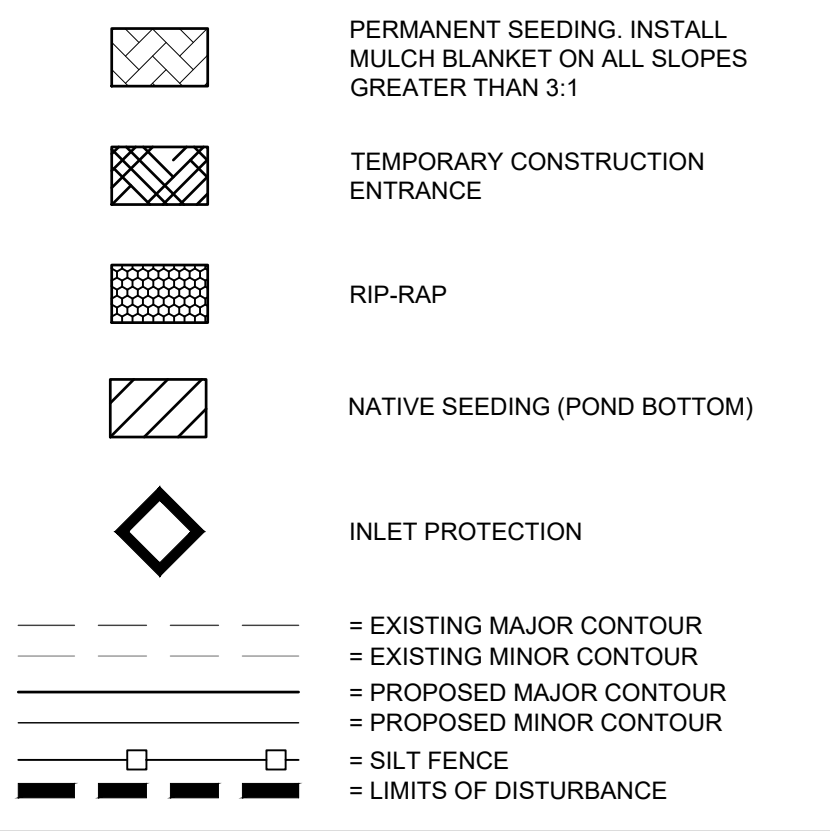
**SOIL EROSION & SEDIMENTATION CONTROL NOTES**

- ALL CONSTRUCTION METHODS SHALL BE DONE IN COMPLIANCE WITH THE MICHIGAN SOIL EROSION AND SEDIMENTATION CONTROL ACT. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING A "SOIL EROSION PERMIT" FROM THE COUNTY AND A "PERMIT BY RULE/NOTICE OF COVERAGE" FROM THE MDEQ PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF THE COUNTY "SOIL EROSION PERMIT" AND FOR ALL CERTIFIED STORM WATER INSPECTION SERVICE REQUIRED BY THE "PERMIT BY RULE." EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS AND SHALL NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR PROVIDING ALL REQUIRED EROSION CONTROL MEASURES.
- AVOID UNNECESSARY DISTURBING OR REMOVING OF EXISTING VEGETATED TOPSOIL OR EARTH COVER, THESE COVER AREAS ACT AS SEDIMENT FILTERS.
- ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEAN UP AND APPROVAL.
- GEOTEXTILE SILT FENCE SHALL BE INSTALLED AS REQUIRED WHEN CROSSING CREEKS OR WHEN ADJACENT TO WETLANDS OR SURFACE WATER BODIES TO PREVENT SILTATION AND ELSEWHERE AS DIRECTED BY THE ENGINEER. SEEDING AND/OR SODDING SHALL BE INSTALLED ON CREEK BANKS IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.
- MAINTENANCE, CLEANING, AND REMOVAL OF THE VARIOUS SEDIMENT CONTROL MEASURES SHALL BE INCLUDED IN THE VARIOUS EROSION CONTROL ITEMS.

NUMBER IN CIRCLE REFERS TO NUMBERED DETAILS IN STATE OF MICHIGAN SOIL EROSION AND SEDIMENTATION CONTROL GUIDEBOOK. SOIL EROSION CONTROL PLANS DENOTE MINIMUM EROSION MEASURES REQUIRED AS DESCRIBED BELOW.

- (E8) DENOTES PERMANENT SEEDING. ALL DISTURBED AREAS NOT PAVED OR GRAVELED SHALL BE RESTORED. SEE DETAIL SHEET.
- (E9) DENOTES MULCH BLANKETS. MULCH BLANKET SHALL BE PROVIDED AT LOCATIONS SHOWN ON THE PLANS, AT SLOPES GREATER THAN 1:3, AREAS WITH CONCENTRATED FLOWS, AND AS DIRECTED BY THE ENGINEER IN THE FIELD, TO PREVENT RUNOFF AND EROSION.
- (E12) DENOTES RIPRAP. SEE DETAIL SHEET. (PERMANENT EROSION CONTROL MEASURE)
- (S55) DENOTES GRAVEL ACCESS APPROACH. APPROACH SHALL BE INSTALLED TO PROVIDE STABLE ACCESS TO ROADWAYS AND MINIMIZE DUST AND TRACKING OF MATERIALS ONTO PUBLIC STREETS AND HIGHWAYS. SEE DETAIL SHEET.
- (S51) DENOTES TEMPORARY SILT FENCE. SILT FENCE SHALL BE INSTALLED AT CREEK CROSSINGS, ADJACENT TO ALL WETLANDS AND SURFACE WATERS, AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. EACH SILT FENCE SHALL BE INSTALLED GENERALLY ALONG THE SAME CONTOUR ELEVATION. SEE DETAIL SHEET.
- (S58) DENOTES INLET PROTECTION FABRIC DROP. SHALL BE INSTALLED AT EXISTING AND PROPOSED STORM SEWER INLETS TO PROVIDE SETTLING AND FILTERING OF SILT LADEN WATER PRIOR TO ENTRY INTO THE DRAINAGE SYSTEM. SEE DETAIL SHEET.

**EROSION CONTROL LEGEND**



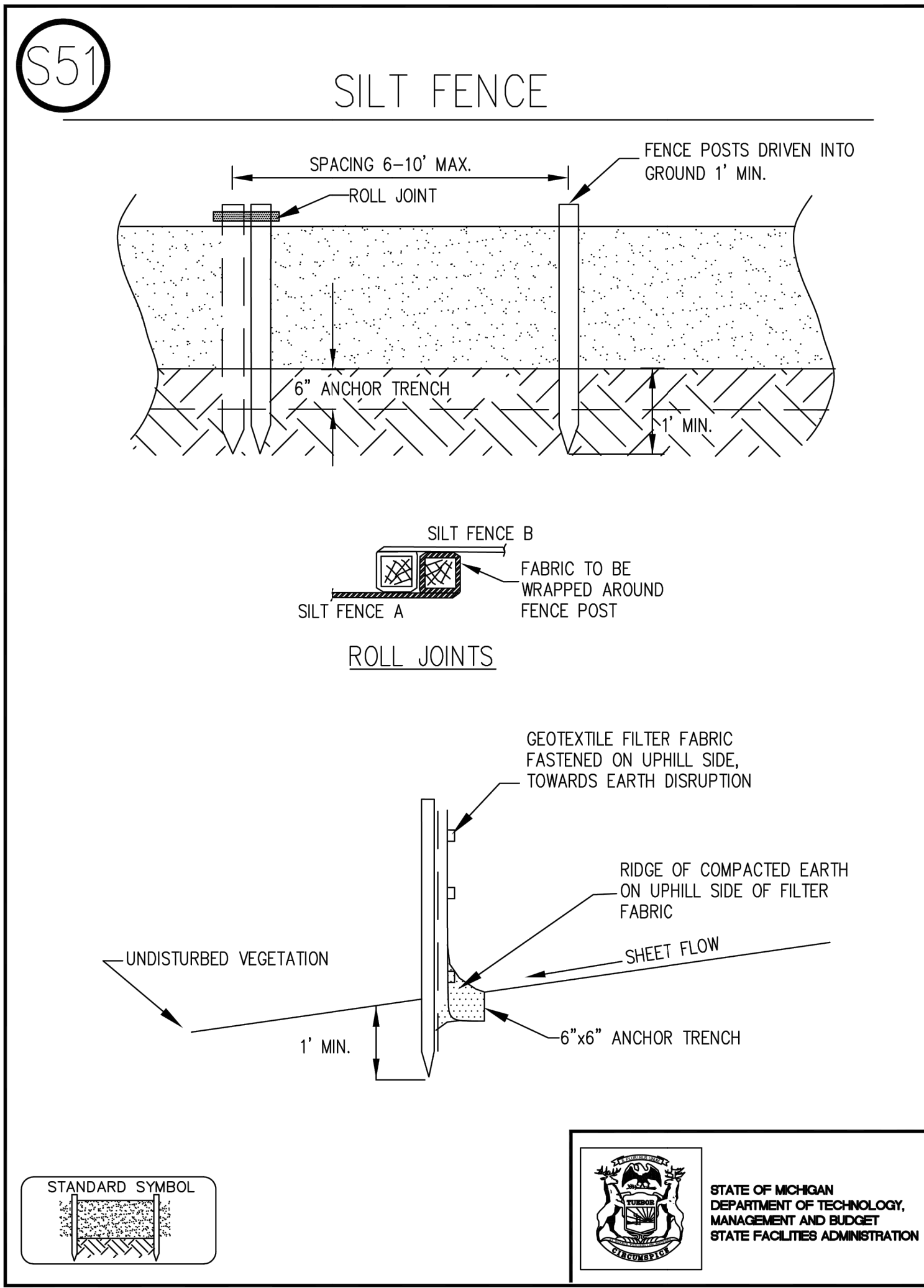
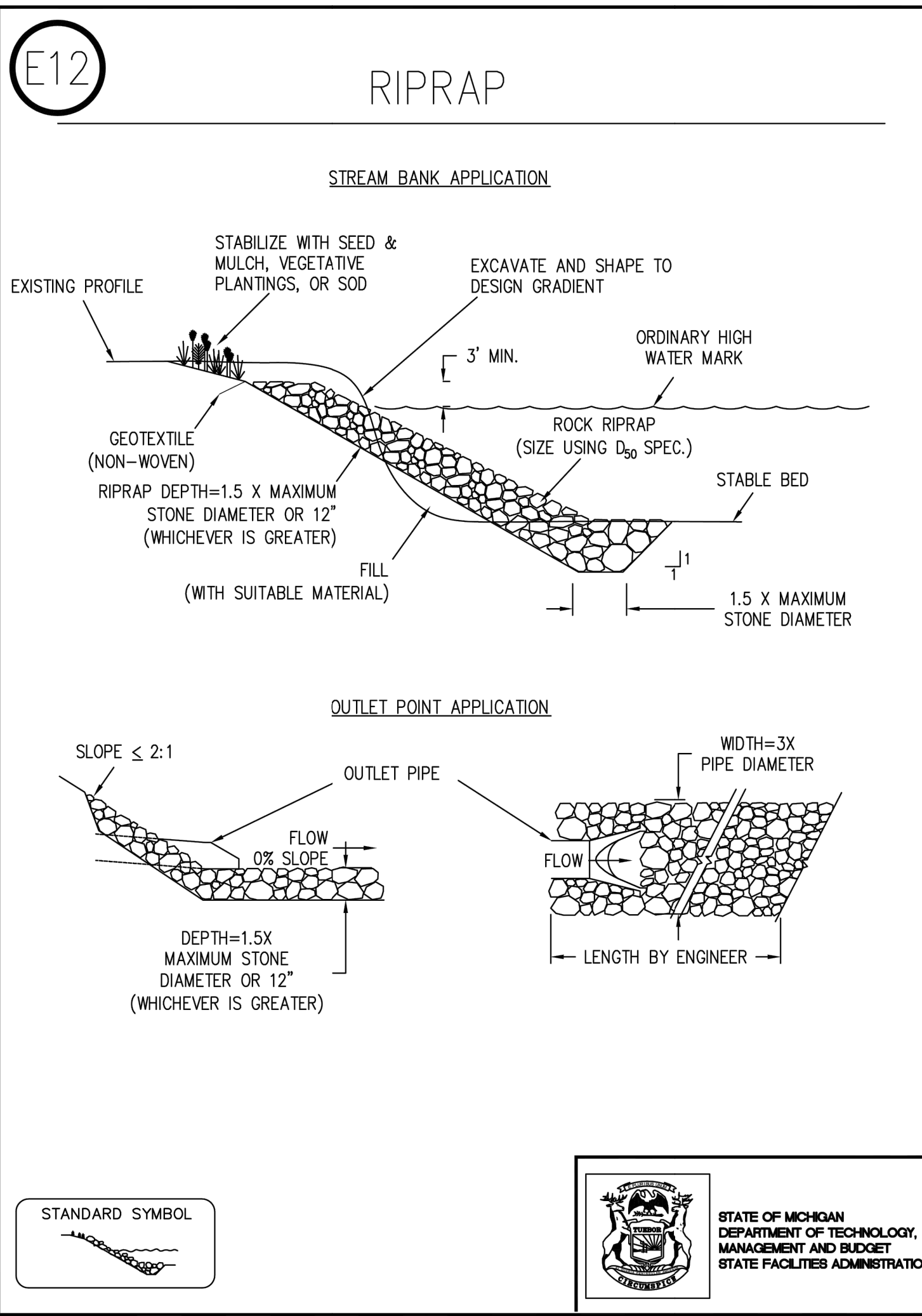
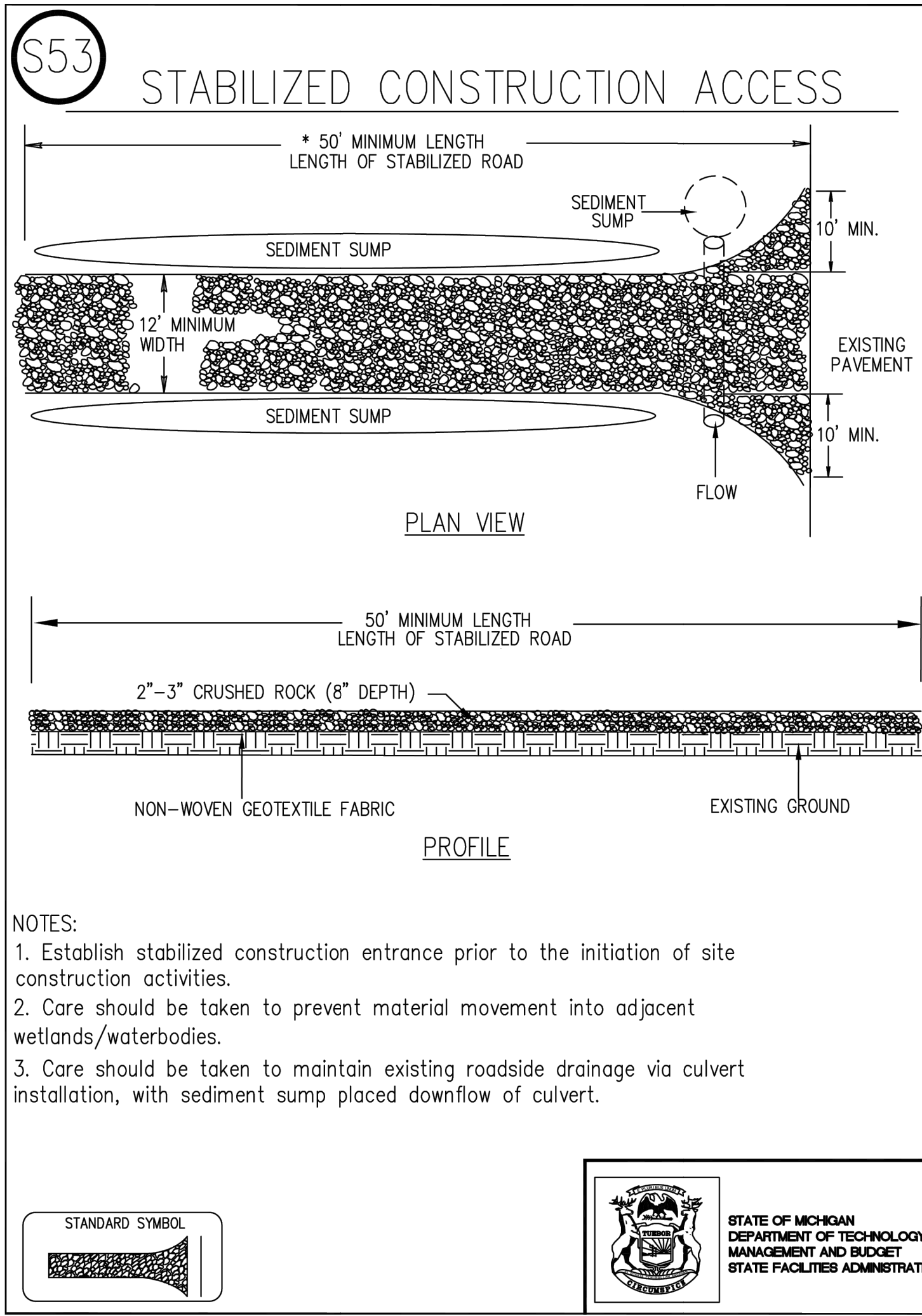
**CONSTRUCTION SEQUENCING**

- INSTALL SOIL EROSION MEASURES.
- ESTABLISH STORM WATER MANAGEMENT BASIN.
- ROUGH GRADING OF THE SITE.
- BEGIN BUILDING CONSTRUCTION.
- UTILITY CONNECTIONS AND SERVICES TO BUILDING.
- FINAL GRADING OF THE SITE.
- POUR CONCRETE SIDEWALK, HEAVY DUTY CONCRETE, AND CURB AND GUTTER.
- PAVE SITE.
- REMOVE TEMPORARY SOIL EROSION MEASURES AFTER VEGETATION HAS BEEN ESTABLISHED.

**NEARBY WATER**  
NEAREST COUNTY DRAIN / RIVER / STREAM / LAKE IS BONNIE CASTLE LAKE. (±7,550 FEET TO THE WEST)

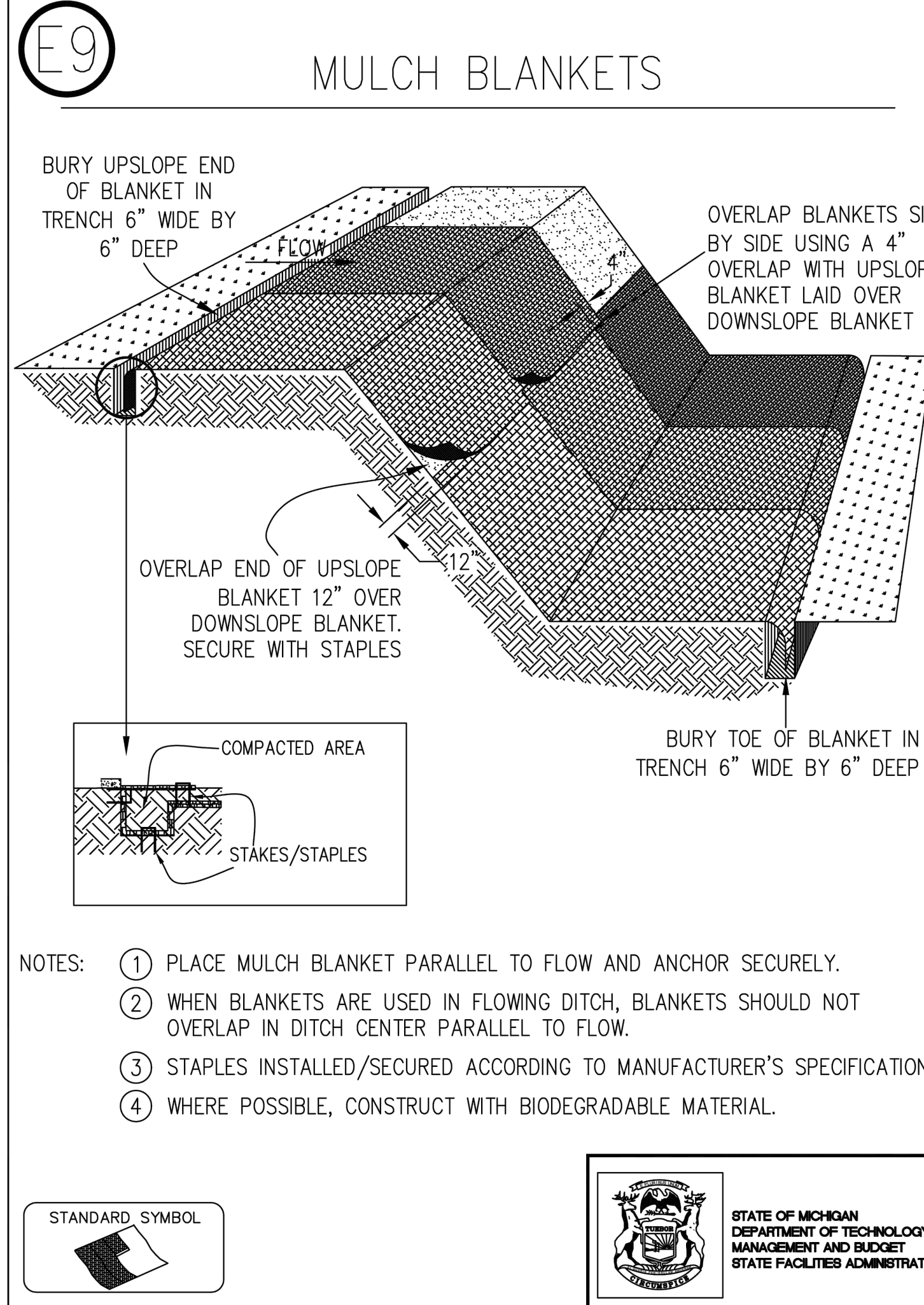
**SOILS INFORMATION**  
BASED ON USDA INFORMATION, THE SITE CONSISTS OF KALAMAZOO LOAM. SOIL HYDRAULIC GROUP B.

DATE	02/06/2024
BY	OSW
REVISIONS	
No.	
COMMENTS	PER OSHTAMO CHARTER TOWNSHIP
ADDRESS: 10123 S M43, SUITE E DELTON, MI 49046 PHONE: (269) 364-5626	
SCALE: AS NOTED	DESIGNED BY: DWP
	DRAWN BY: OSW
	CHECKED BY: TWC
<b>PRELIMINARY</b> NOT FOR CONSTRUCTION	
<b>EROSION CONTROL PLAN</b>	
<b>W MAIN ST SUBARU</b> KALAMAZOO, MI	
<b>ORIGINAL ISSUE:</b> 02/06/2024	
<b>PROJECT NO.</b> 24001	
<b>SHEET NUMBER</b> C105	



STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A			*	*					
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C				D					
SODDING			E									
MULCHING	F		**									

- A KENTUCKY BLUEGRASS 90 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE
- B KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 45 LBS/ACRE + 2 TONS STRAW MULCH/ACRE
- C SPRING OATS 100 LBS/ACRE
- D WHEAT OR CEREAL RYE 150 LBS/ACRE
- E SOD
- F STRAW MULCH 2 TONS/ACRE
- \* WATERING NEEDED DURING JUNE AND JULY
- \*\* WATERING NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD



### E8 PERMANENT SEEDING

Planting Zones:	Lower Peninsula (South of T20N) Zone 1	Lower Peninsula (North of T20N) Zone 2	Upper Peninsula Zone 3
Seeding Window Permanent Seeding	4/15 - 10/10	5/1 - 10/1	5/1 - 9/20
Seeding Window Dormant Seeding*	11/15 - Freeze	11/01 - Freeze	11/01 - Freeze

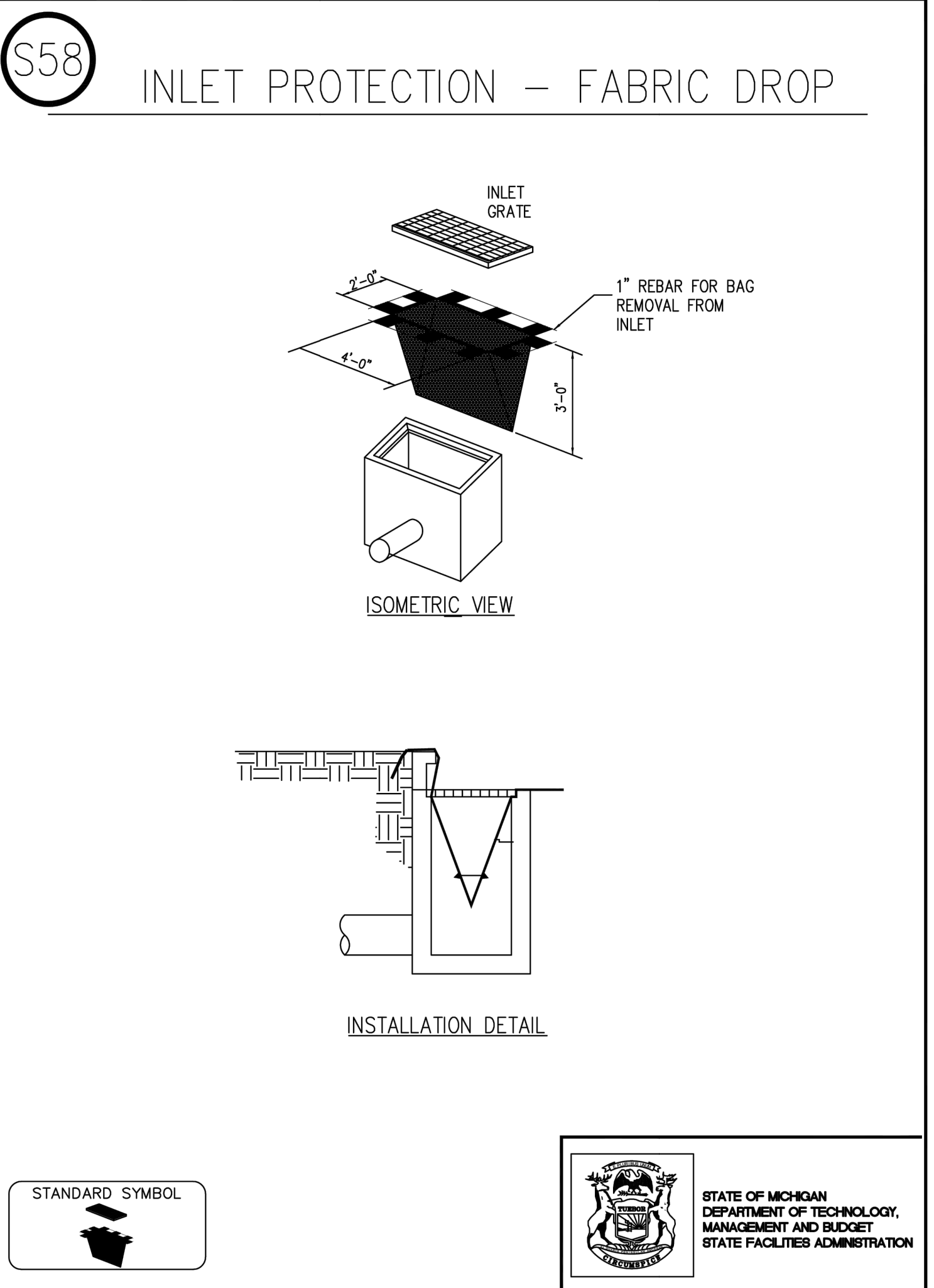
Source: Adapted from MDOT Interim 2003 Standard Specifications for Construction

	Zone 1 Lower Peninsula (South of U.S. 10)	Zone 2 Lower Peninsula (North of U.S. 10)	Zone 3 Upper Peninsula
Seeding Dates (with Irrigation or Mulch)	4/1 - 8/1	5/1 - 9/20	5/1 - 9/10
Seeding Dates (w/o Irrigation or Mulch)	4/1 - 5/20 or 8/10 - 10/1	5/1 - 6/10 or 8/1 - 9/20	5/1 - 6/15 or 8/1 - 9/20
Dormant Seeding Dates*	11/1 - Freeze	10/25 - Freeze	10/25 - Freeze

Source: Adapted from USDA NRCS Technical Guide #342 (1999)

\* Dormant seeding is for use in the late fall after the soil temperature remains consistently below 50°F, prior to the ground freezing. This practice is appropriate if construction on a site is completed in the fall but the seed was not planted prior to recommended seeding dates. No seed germination will take place until spring. A cool season annual grass may be added in an attempt to have some fall growth.

- Mulch must be used with dormant seed.
- Do not seed when the ground is frozen or snow covered.
- Do not use a dormant seed mix on grassed waterways.



OSW

02/06/2024

PER OSHTAMO CHARTER TOWNSHIP COMMENTS

NO.

REVISIONS

DATE

BY

ADDRESS:  
10123 S M43, SUITE E  
DELTON, MI 49046

PHONE:  
(269) 364-5626

SCALE: AS NOTED

DESIGNED BY: DMP

DRAWN BY: OSW

CHECKED BY: TWC

**PRELIMINARY - NOT FOR CONSTRUCTION**

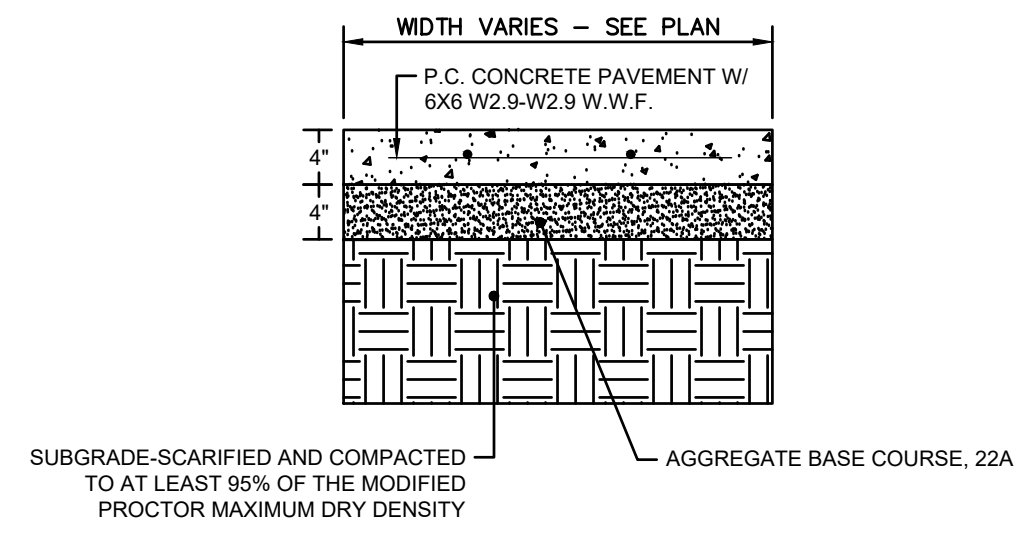
**EROSION CONTROL DETAILS**

W MAIN ST SUBARU  
KALAMAZOO, MI

ORIGINAL ISSUE:  
02/06/2024

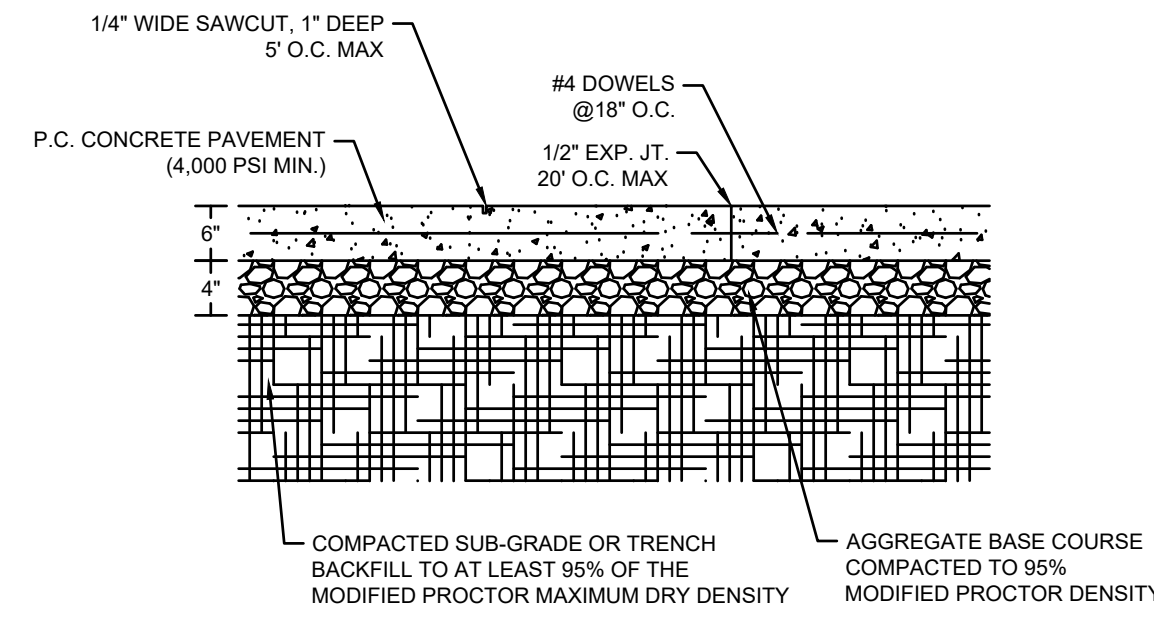
PROJECT NO.  
24001

SHEET NUMBER  
C106

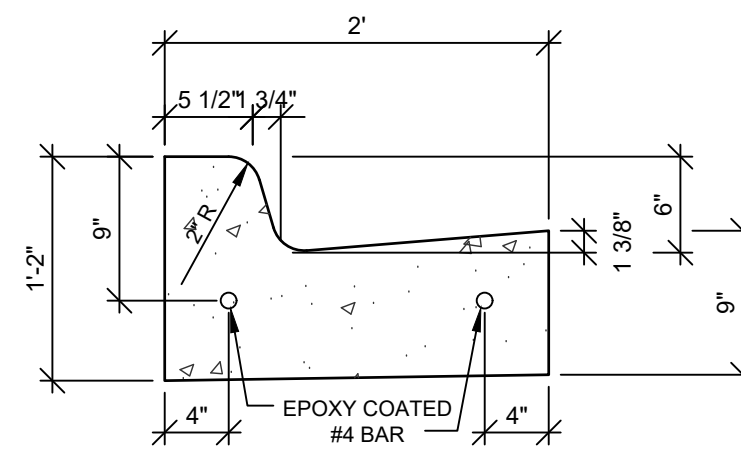


- NOTES:**
- ALL SIDEWALK SHALL BE CONSTRUCTED WITH CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 14 DAYS.
  - PROVIDE 12" EXPANSION JOINTS AT 20' MAXIMUM SPACING AND FILLED WITH PREMOULDED BITUMINOUS EXPANSION JOINT FILLER MATERIAL OR REDWOOD. EXPANSION JOINTS SHALL HAVE #4 DOWELS, LUBRICATED, 18" LONG, AT 12" CENTERS, 6" FROM EDGE.
  - PROVIDE 3/8" GROOVED CONTROL JOINTS AT 5' CENTERS.
  - WELDED WIRE FABRIC (6X6-6X6) SHALL BE INSTALLED THROUGH DRIVEWAYS AT 2" ABOVE SLAB BOTTOM.
  - PROVIDE 12" BITUMINOUS EXPANSION JOINT FILLER MATERIAL WHERE WALK ABUTS EXISTING IMPROVEMENTS AND AT ALL CHANGES IN GRADE.
  - USE 2-#4 REINFORCING BARS, 10' LONG OVER ALL UTILITY TRENCHES FOR NEW SIDEWALK AND CONNECTIONS TO EXISTING SIDEWALK.
  - AT DRIVE APPROACHES, SIDEWALK P.C.C. AND BASE THICKNESS SHALL MATCH THAT OF THE DRIVE.

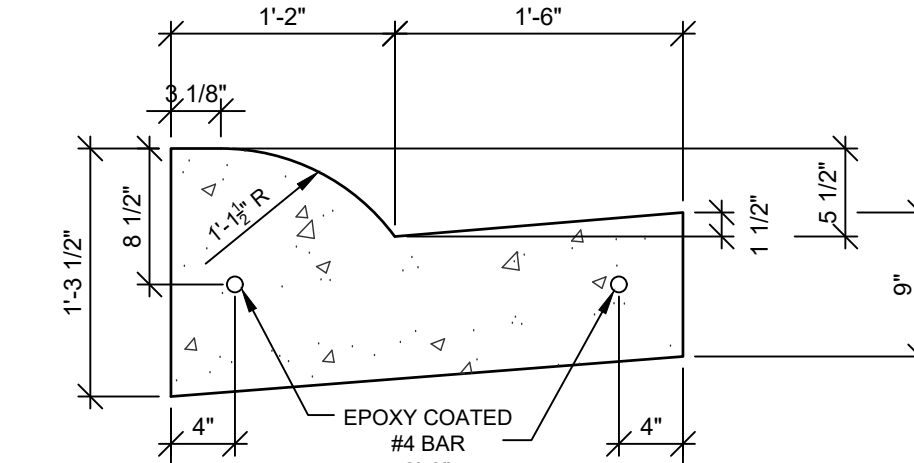
**CONCRETE SIDEWALK**  
SCALE: NONE



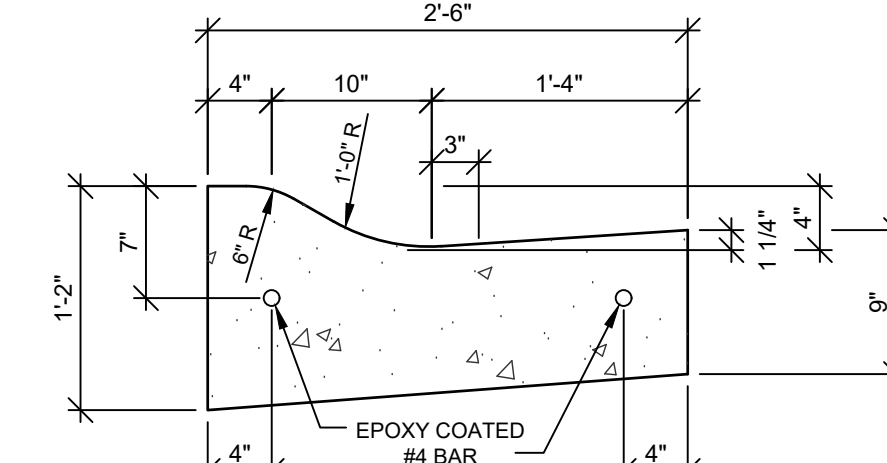
**HEAVY DUTY CONCRETE PAVEMENT SECTION**  
SCALE: NONE



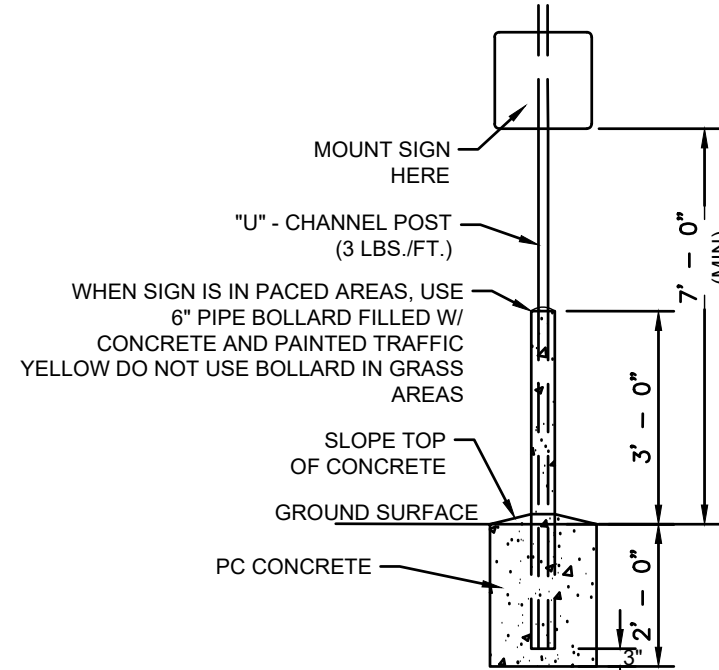
**CURB & GUTTER - DETAIL F4**



**CURB & GUTTER - DETAIL B2**

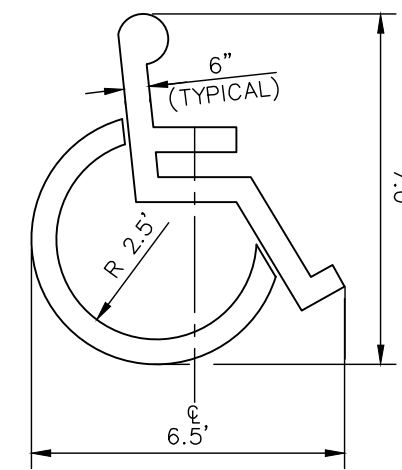


**CURB & GUTTER - DETAIL D2**

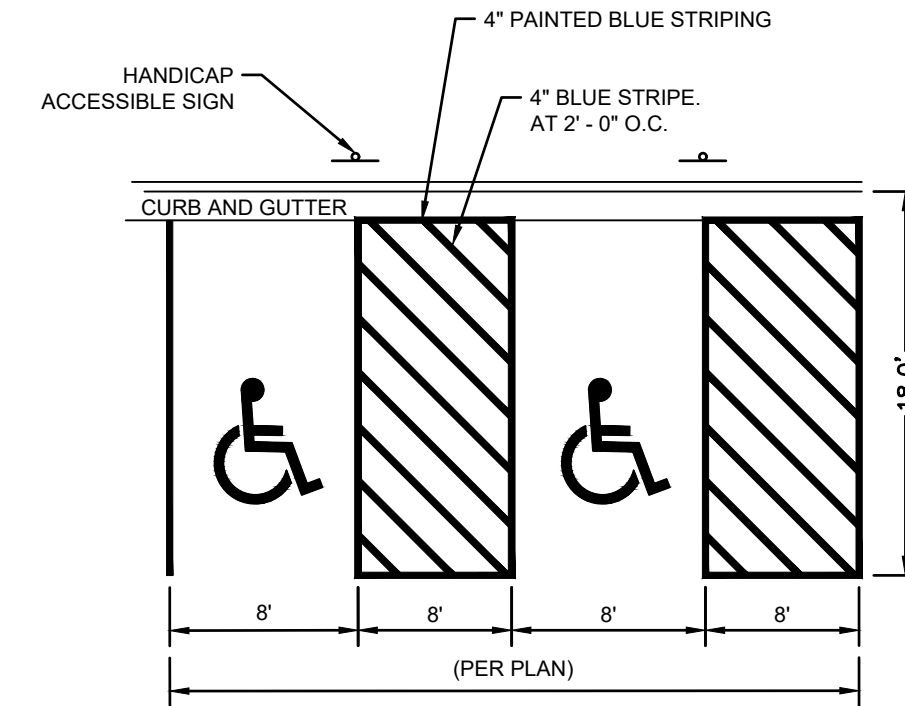


- NOTES:**
- POLE AND SIGN TO BE PROVIDED AND INSTALLED BY GENERAL CONTRACTOR.
- ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

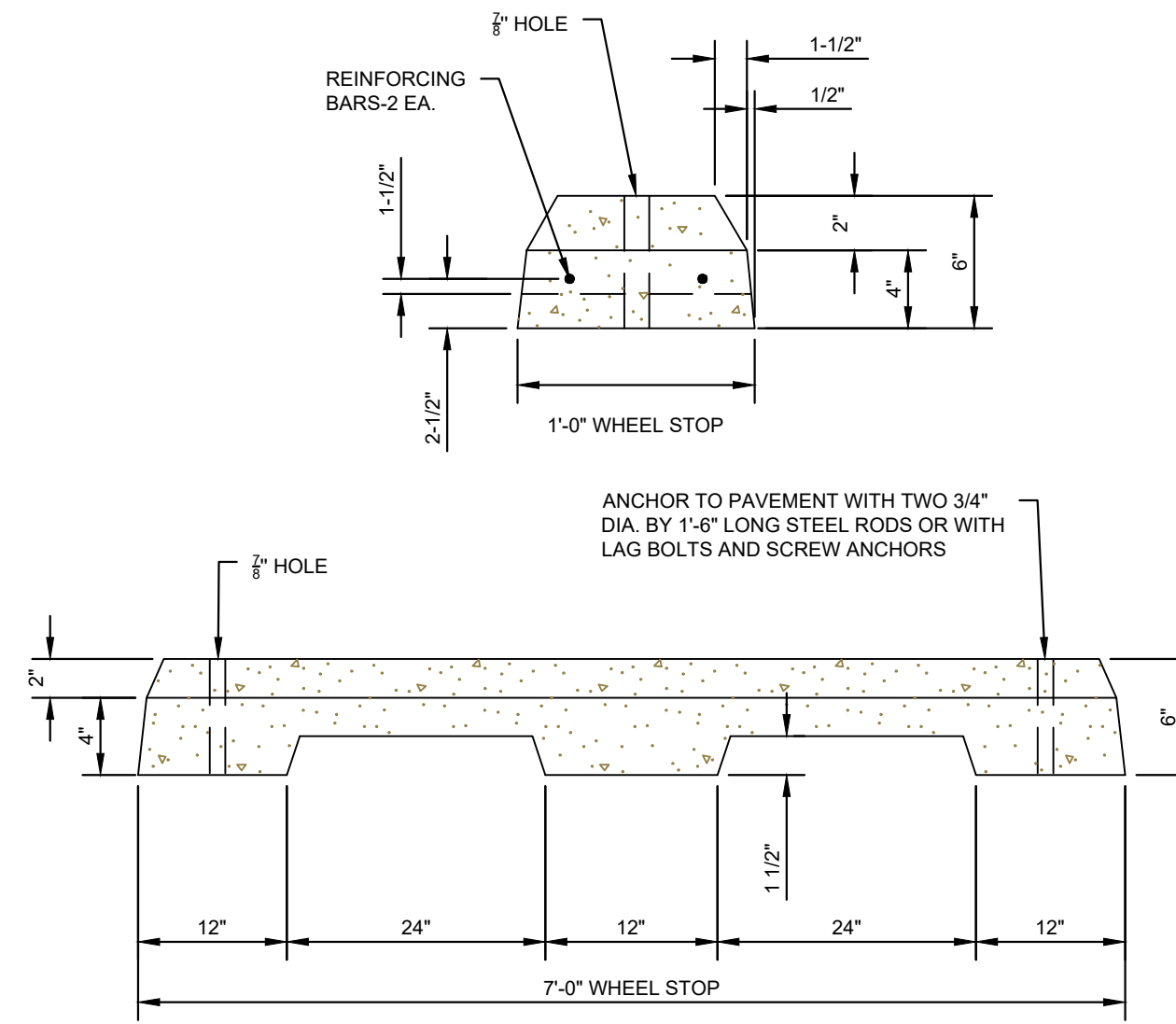
**STANDARD SIGN BASE**  
SCALE: NONE



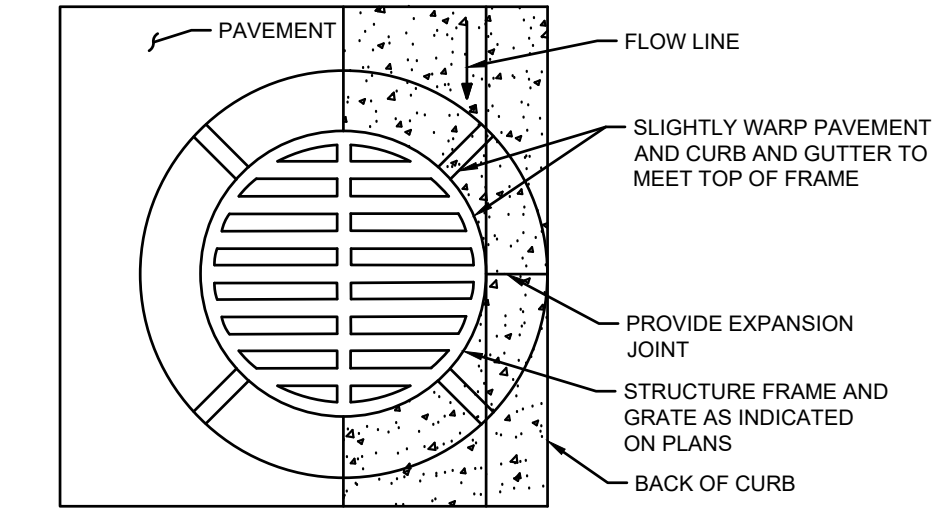
**ACCESSIBLE PARKING SYMBOL**  
N.T.S.



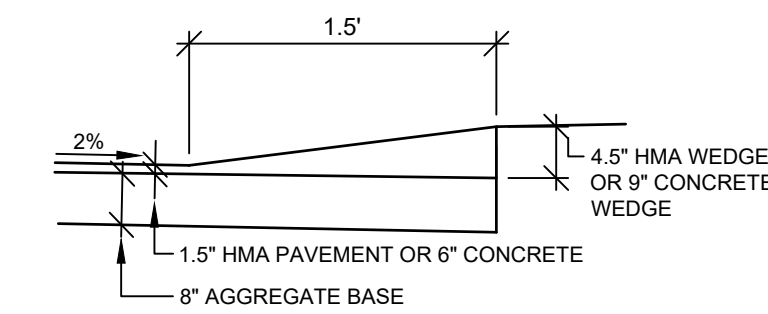
**TYPICAL HANDICAP STRIPING**  
SCALE: NONE



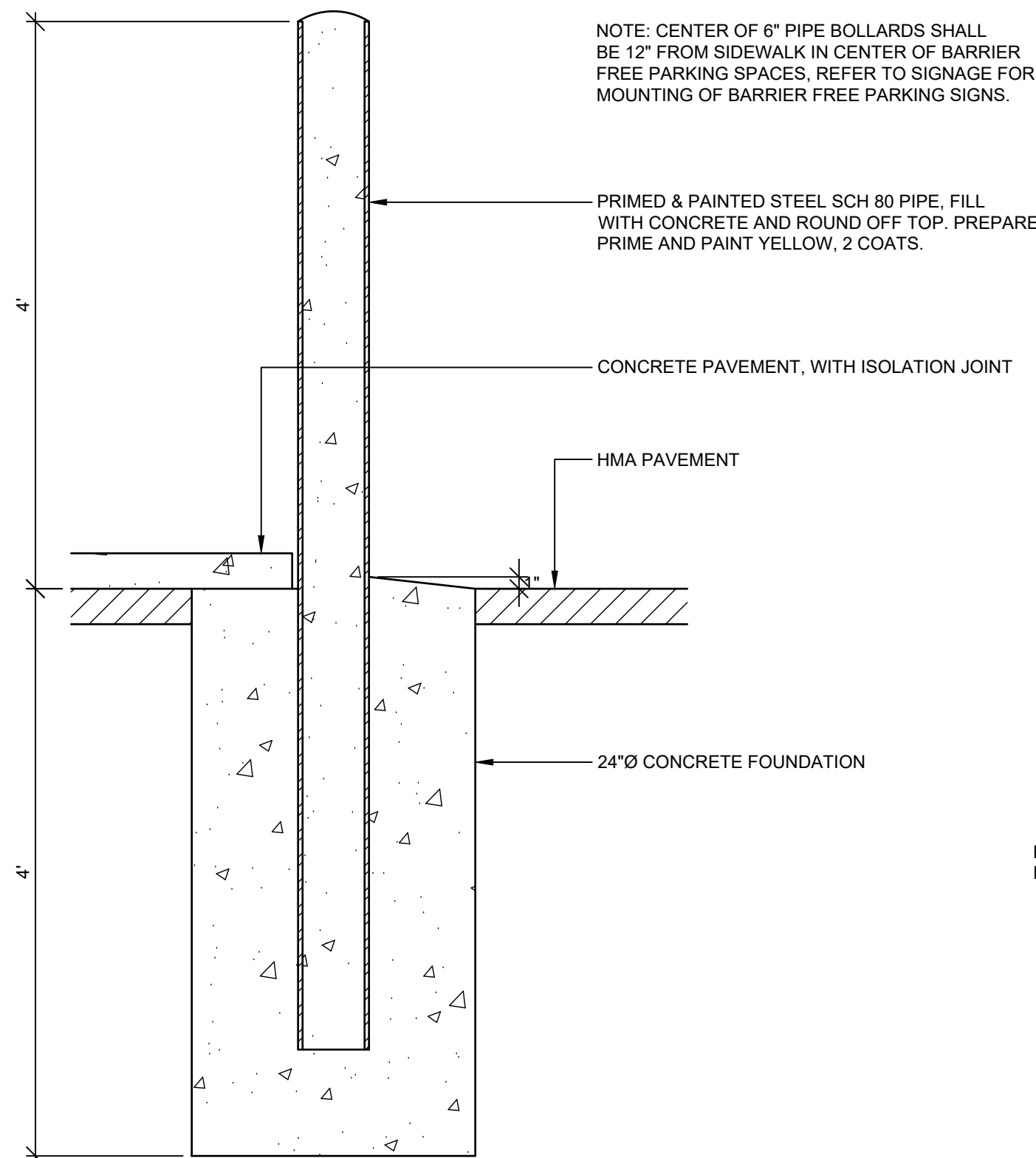
**TYPICAL WHEEL STOP**  
SCALE: NONE



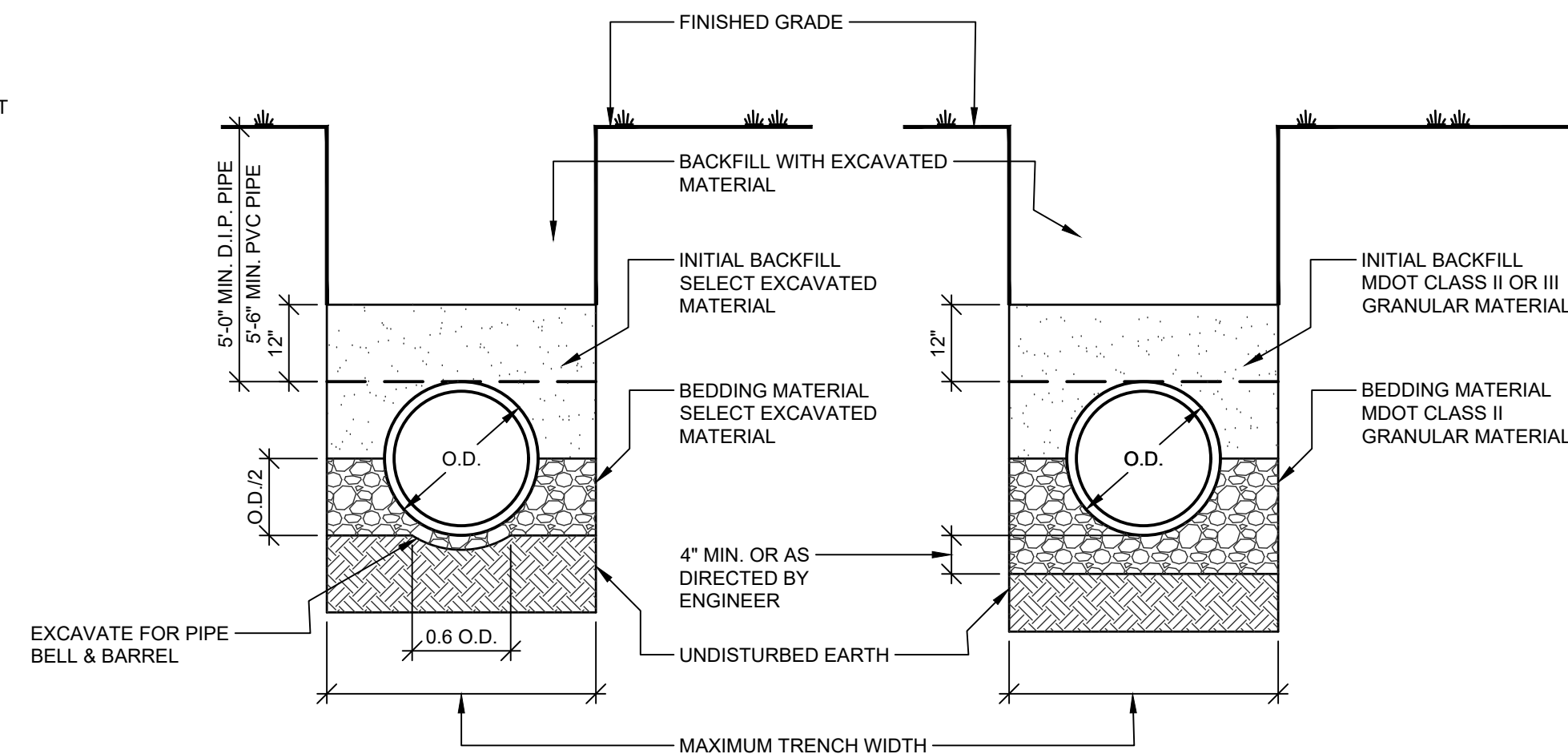
**MANHOLE LID PLACEMENT IN ASPHALT WING CURB**  
SCALE: NONE



**ASPHALT CURB**  
SCALE: NONE

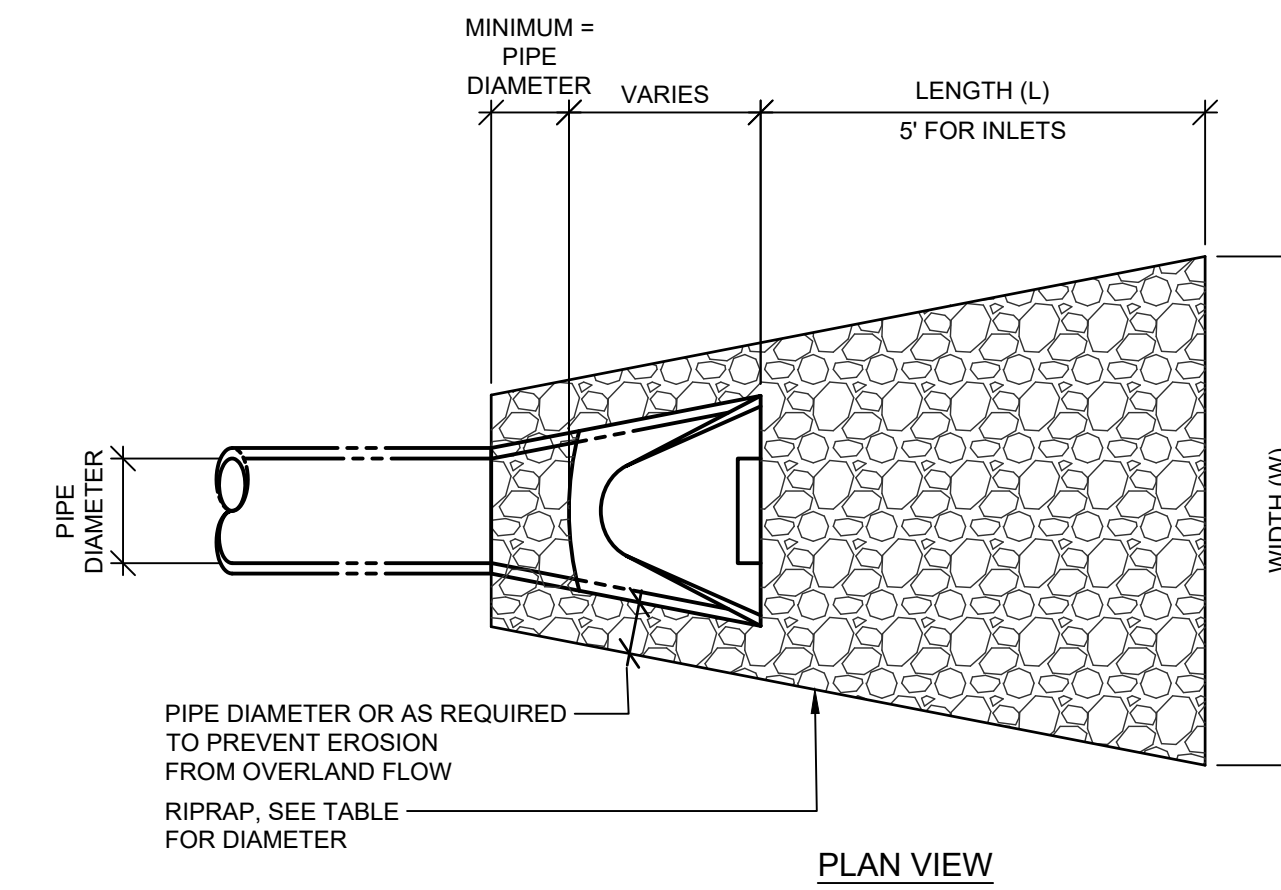


**PIPE BOLLARD DETAIL**  
NO SCALE

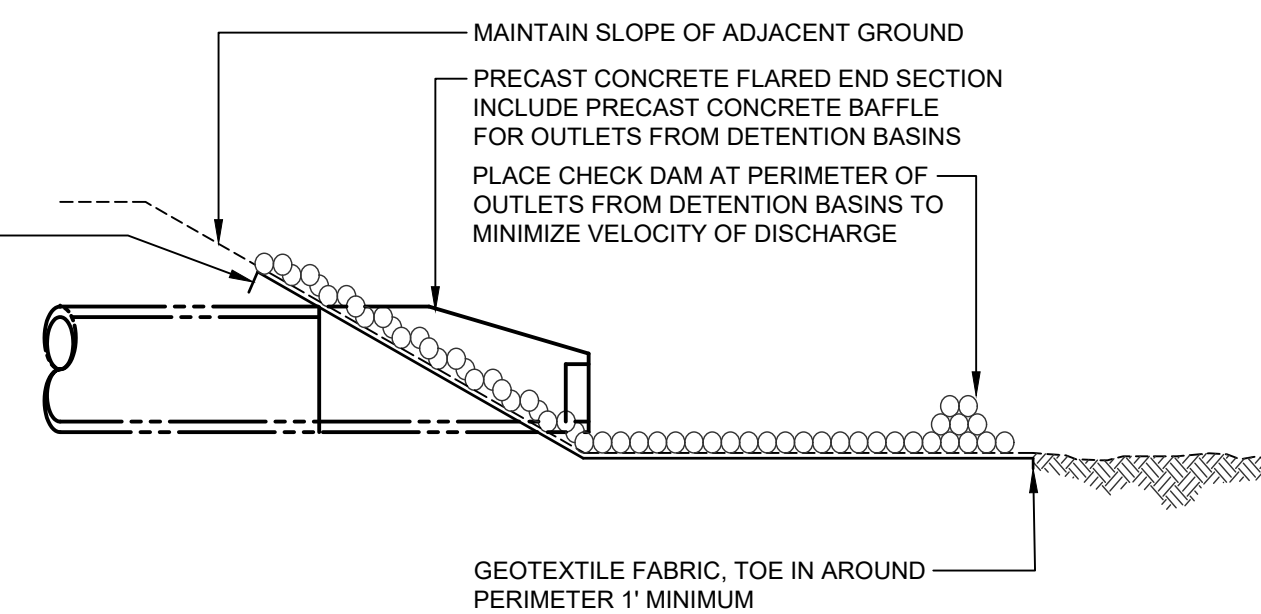


**TRENCH DETAIL IN SUITABLE SOIL**

**TRENCH DETAIL IN UNSUITABLE SOIL**



RIPRAP TABLE			
PIPE DIA	LENGTH (FT)	WIDTH (FT)	RIPRAP Ø (IN)
12"			8" - 16" (PLAIN)
15"	5'	8'	8" - 16" (PLAIN)
18"			8" - 16" (PLAIN)
24"	10'	14'	8" - 16" (PLAIN)
30"			8" - 16" (PLAIN)
36"			8" - 16" (PLAIN)
42"	15'	20'	GREATER THAN 16" (HEAVY)
48"			GREATER THAN 16" (HEAVY)
54"			GREATER THAN 16" (HEAVY)
60"			GREATER THAN 16" (HEAVY)



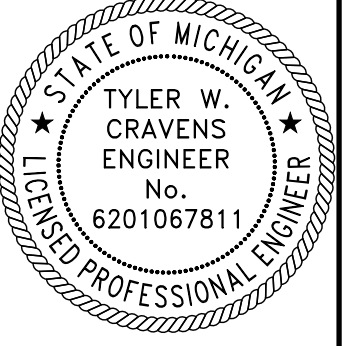
**TYPICAL END SECTION DETAIL**  
SCALE: NONE

NO.	REVISIONS	DATE	BY



ADDRESS:  
10123 S M43, SUITE E  
DELTON, MI 49046  
PHONE:  
(269) 364-5626

SCALE: AS NOTED  
DESIGNED BY: DMP  
DRAWN BY: OSW  
CHECKED BY: TWC



**PRELIMINARY**  
NOT FOR CONSTRUCTION

**CONSTRUCTION DETAILS**

W MAIN ST SUBARU  
KALAMAZOO, MI

ORIGINAL ISSUE:  
02/06/2024  
PROJECT NO.  
24001  
SHEET NUMBER  
C107



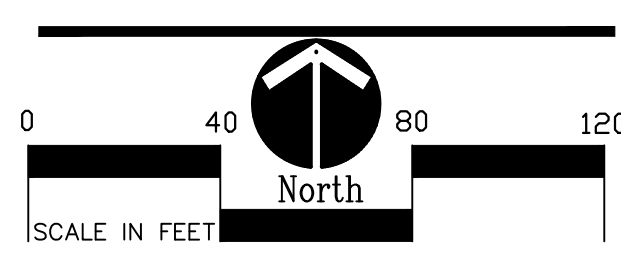
For Review Only -  
Not For Construction

HARD COPY IS INTENDED TO BE 24"X36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES.

Issued For: \_\_\_\_\_ Date \_\_\_\_\_  
SITE PLAN REVIEW 3-5-24

Project: **W. Main Subaru**

**Oshemo Twp., MI**  
Sheet Title  
**Landscape Plan**



**LANDSCAPE NOTES:**

- SURVEY OF EXISTING CONDITIONS PROVIDED BY MITTEN STATE ENGINEERING, 10123 S M43, SUITE E, DELTON, MICHIGAN 49046, (269) 364-5626.
- CALL "MISS DIG" AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK. 72 HOURS BEFORE YOU DIG CALL "MISS DIG" AT 1-800-482-7171. ANY UTILITIES DISTURBED BY CONSTRUCTION SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
- ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHOULD BE REPORTED TO THE CONSTRUCTION MANAGER IMMEDIATELY FOR RESOLUTION.
- IN AREAS OF NEW TURF PLACE 4" MINIMUM TOPSOIL, FINE GRADE & ESTABLISH TURF WITHIN SEED LIMIT LINES.
- PLACE SHREDDED HARDWOOD MULCH TO A 3" DEPTH IN ALL TREE & SHRUB BEDS & TO A 2" DEPTH IN ALL GROUND COVER BEDS.
- UNLESS OTHERWISE NOTED, TOPSOIL, FINE GRADE AND SEED ALL DISTURBED AREAS WITHIN THE SEEDING LIMIT SHOWN AND AREAS DISTURBED BY CONSTRUCTION.
- REPAIR AND RESTORE ANY DAMAGE OUTSIDE OF LIMIT OF WORK LINE TO ORIGINAL CONDITION.
- PROTECT ALL TREES AND EXISTING FEATURES TO REMAIN AS SPECIFIED.
- ALL TOPSOIL AND EXCESS FILL MATERIAL SHALL BE STOCKPILED ON SITE SEPARATELY FOR LATER RE-USE. LOCATE STOCKPILES IN AREAS AS DIRECTED BY CONSTRUCTION MANAGER AND PROTECT FROM EFFECTS OF EROSION.
- ALL NURSERY STOCK SHALL BE TRUE TO TYPE AND NAME. ALL STOCK SHALL BE FIRST CLASS QUALITY WITH WELL DEVELOPED BRANCH SYSTEMS AND VIGOROUS HEALTHY ROOT SYSTEMS. ALL STOCK SHALL BE WELL FORMED AND THE TRUNKS OF TREES SHALL BE UNIFORM AND STRAIGHT.
- CONTRACTOR RESPONSIBLE TO LOCATE SITE LIGHTING SERVICES. CONTRACTOR RESPONSIBLE TO NOTIFY CONSTRUCTION MANAGER IF DAMAGE TO LIGHTING ELECTRICAL DISTRIBUTION OCCURS.
- ALL AREAS OF TREE CLEARING SHALL BE STAKED FOR ARCHITECTS APPROVAL PRIOR TO CLEARING.
- UNLESS OTHERWISE SPECIFIED, ALL PERENNIALS, GRASSES AND GROUNDCOVERS SHALL BE GROWN IN THEIR CONTAINER FOR ONE YEAR PRIOR TO INSTALLATION.

**PROPOSED FEATURES LEGEND:**

SYMBOL	DESCRIPTION	DETAIL
+	PROPOSED DECIDUOUS TREE	1 / L102
⊗	PROPOSED EVERGREEN TREE	3 / L102
⊙	PROPOSED SHRUB	2 / L102
▨	PROPOSED GROUNDCOVER AND/OR PERENNIALS	4 / L102
---	METAL EDGING	5 / L102
6 Bn	PLANT TAG- REFERS TO TYPE AND NUMBER OF PLANTINGS TO BE PROVIDED AND MAINTAINED BY CONTRACTOR.	

**ZONING REQUIREMENTS**

ZONING DISTRICT: C - LOCAL BUSINESS DISTRICT

ADJACENT PROPERTIES:  
WEST: C - LOCAL BUSINESS DISTRICT  
EAST: R2 - RESIDENTIAL  
SOUTH: R2 - RESIDENTIAL

EAST LANDSCAPE BUFFER

- 30 FT. WIDE LANDSCAPE BUFFER ADJACENT TO RESIDENTIAL PROPERTY WITH 2 CANOPY TREES + 2 EVERGREEN TREES + 2 UNDERSTORY TREES FOR EVERY 100 LINEAR FT. + SCREENING UP TO 6' HT.
- EVERGREENS MAY BE SUBSTITUTED FOR CANOPY OR UNDERSTORY TREES
- 711 LINEAR FT. BOUNDARY = 14 CANOPY TREES + 14 EVERGREEN TREES + 14 UNDERSTORY TREES + SHRUB SCREENING OR 42 EVERGREENS + SHRUB SCREENING REQUIRED
- 32 NEW EVERGREEN TREES PROPOSED WITH REMAINDER OF REQUIREMENTS MET WITH EXISTING TREE CREDITS (-10) AS SHOWN ON PLANS. SHRUBS PROVIDED AS NEEDED TO MEET 6' HT. OPAQUE SCREENING REQUIREMENTS

SOUTH LANDSCAPE BUFFER

- NO LANDSCAPE BUFFER SHOWN DUE TO PROXIMITY OF NEW PROPERTY LINE

PARKING LOT LANDSCAPING

- LOTS WITH 11 OR MORE SPACES REQUIRE 25 SF PER SPACE OF ISLANDS/PENINSULAS
- 1 CANOPY TREE AND 2 SHRUBS FOR EVERY 200 SF OF REQ'D LANDSCAPING
- 107 SPACES X 25 SF OF ISLANDS/PENINSULAS WITH 1 CANOPY TREES AND 2 SHRUBS
- 2,675 SF ISLANDS REQUIRED; 6,250 SF OF ISLANDS PROVIDED
- 2,675/200=14 CANOPY TREES + 28 LOW GROWING SHRUBS REQUIRED; PROVIDED IN PARKING LOT ISLANDS

BULL PEN PARKING LOT LANDSCAPING

- LOTS WITH 11 OR MORE SPACES REQUIRE 25 SF PER SPACE OF ISLANDS/PENINSULAS
- 1 CANOPY TREE AND 2 SHRUBS FOR EVERY 200 SF OF REQ'D LANDSCAPING
- 92 SPACES X 25 SF OF ISLANDS/PENINSULAS WITH 1 CANOPY TREES AND 2 SHRUBS
- 2,300 SF ISLANDS REQUIRED
- 2,300/200=12 CANOPY TREES + 24 LOW GROWING SHRUBS REQUIRED & PROVIDED
- 24 SHRUBS PROVIDED ALONG EAST EDGE OF BULLPEN AREA AND (-12) TREE CREDITS USED TOWARD TREE REQUIREMENT

GREENBELTS

- 20 FT. WIDE ALONG PUBLIC ROW (NORTH ALONG W. MAIN AVE)
- MIN. OF 1 CANOPY TREE + 2 UNDERSTORY TREES FOR EVERY 100 LF
- 661 LFT = 7 CANOPY TREES + 13 UNDERSTORY TREES
- 1.5 SHRUBS FOR EVERY 1 PARKING SPACE
- 24 PARKING SPACES ABUTTING W. MAIN R.O.W. \* 1.5 = 36 SHRUBS REQUIRED AND PROVIDED
- REMAINDER LANDSCAPED WITH GRASS, GROUND COVER, SHRUBS, ETC.

INTERIOR LANDSCAPING

- 10% OF THE DEVELOPED AREA OF THE PARCEL LANDSCAPED
- 1 CANOPY TREE FOR EVERY 1,500 SF + 1 UNDERSTORY TREE FOR EVERY 2,500 SF
- 469,394 SF OF DEVELOPED AREA
- 10% = 46,939 SF 31 CANOPY TREES + 19 UNDERSTORY TREES REQUIRED
- REQUIREMENT MET WITH (-50) TREE CREDITS

NATIVE SPECIES

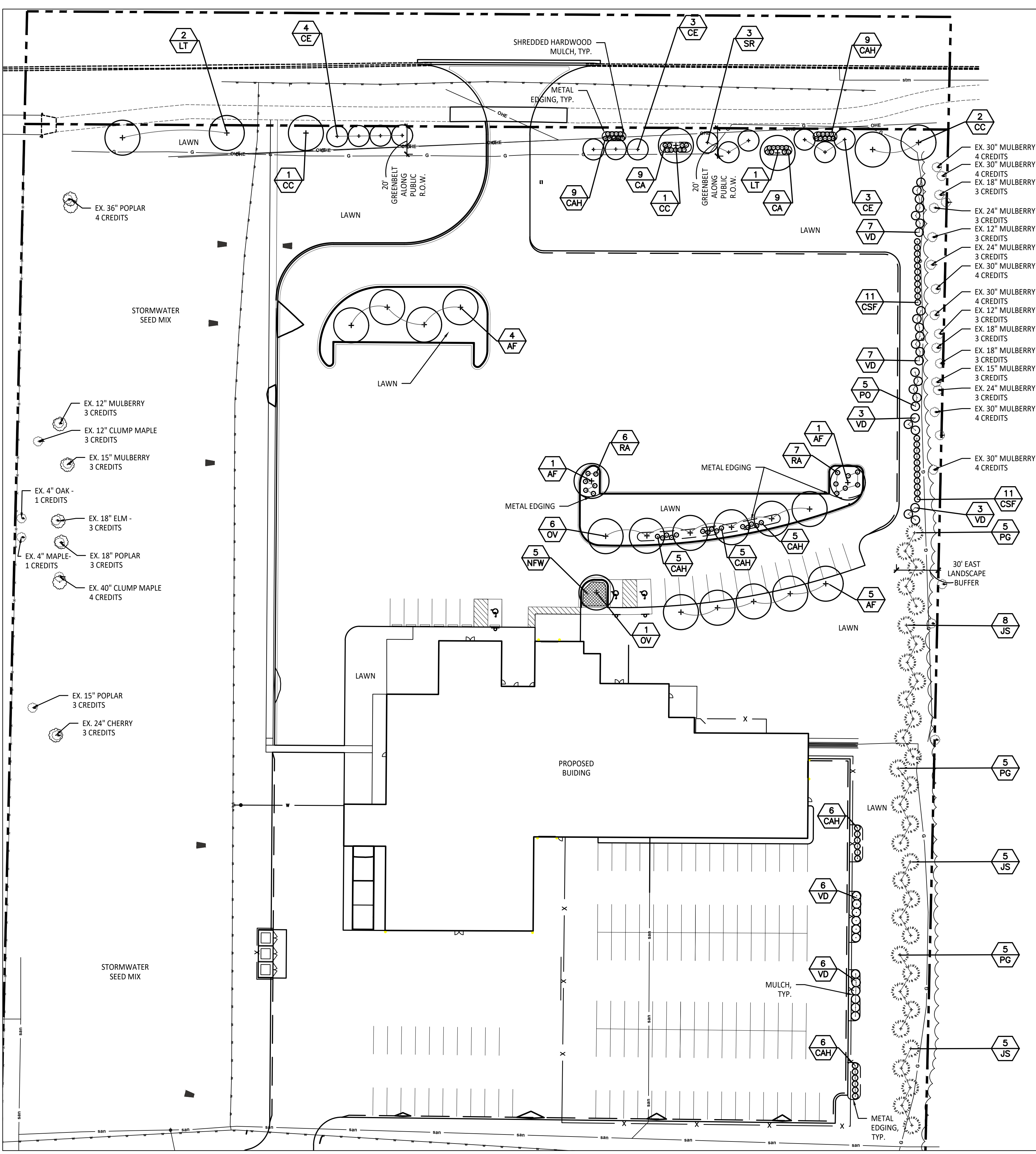
- 75% OF ALL TREES NATIVE
- 50% OF ALL LANDSCAPE MATERIAL

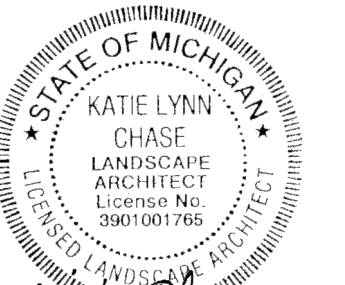
TREE PRESERVATION CREDITS

QTY.	SIZE	CREDITS	TOTAL
7	OVER 24 INCHES	4 EA.	8 TREES/32 CREDITS
16	12" TO 24"	3 EA.	16 TREES/48 CREDITS
0	8" TO 11.9"		0
0	2" TO 7.9"	1 EA.	2 TREES/2 CREDITS
TOTAL			26 TREES/82 CREDITS

**PLANT LIST:**

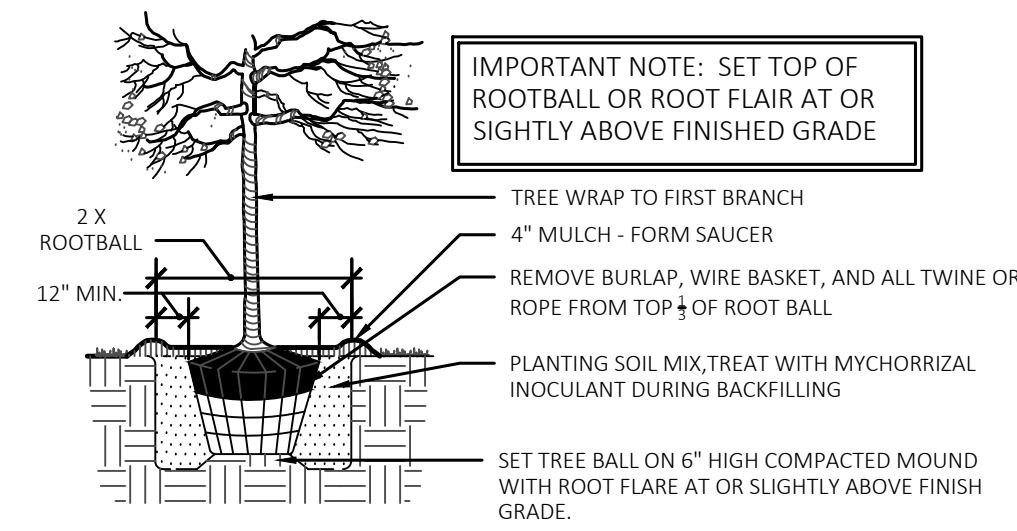
	SYM.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	STATUS	QUANTITY
TREES	AF	Acer x freemanii 'Marmo'	Marmo Freeman Maple	8'-10' Ht.	B&B	PER PLANS	NATIVAR	11
	CC	Carpinus caroliniana	Hornbeam	2" CAL	B&B	PER PLANS	NATIVE	4
	CE	Cercis canadensis	Redbud	2" CAL	B&B	PER PLANS	NATIVE	10
	LT	Liriodendron Tulipifera	Tulip Poplar	2" CAL	B&B	PER PLANS	NATIVE	3
	OV	Ostrya virginiana	Eastern Hophornbeam	2" CAL	B&B	PER PLANS	NATIVE	7
EVERGREENS	SR	Syringa reticulata	Japanese Tree Lilac	8'-10' Ht.	B&B	PER PLANS	NON-NATIVE	3
	JS	Juniperus scopulorum 'Wichita'	Wichita Blue Juniper	6' Ht.	B&B	PER PLANS	NATIVAR	18
	PG	Picea glauca 'Densata'	Black Hills Spruce	6' Ht.	B&B	PER PLANS	NATIVAR	10
SHRUBS	CA	Ceanothus americanus	New Jersey Tea	24" Ht.	CONT.	3' O.C.	NATIVE	18
	CAH	Clethra alnifolia 'Hummingbird'	Sweet Pepperbush	24" Ht.	CONT.	3' O.C.	NON-NATIVE	45
	CSF	Cornus sericea 'Arctic Fire'	Red Twig Dogwood	24" Ht.	CONT.	5' O.C.	NATIVAR	22
	PO	Physocarpus opulifolius 'Summerwine'	Summerwine Ninebark	24" Ht.	CONT.	PER PLANS	NATIVAR	5
	RA	Rhus aromatica 'Gro Low'	'Gro Low' Sumac	2 GAL.	CONT.	5' O.C.	NATIVAR	13
	VD	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum	24" Ht.	CONT.	PER PLANS	NATIVAR	32
PERENNIALS	NFW	Nepeta x faassenii 'Blue Wonder'	Blue Wonder Nepeta	#1	CONT.	36" O.C.	NON-NATIVE	5



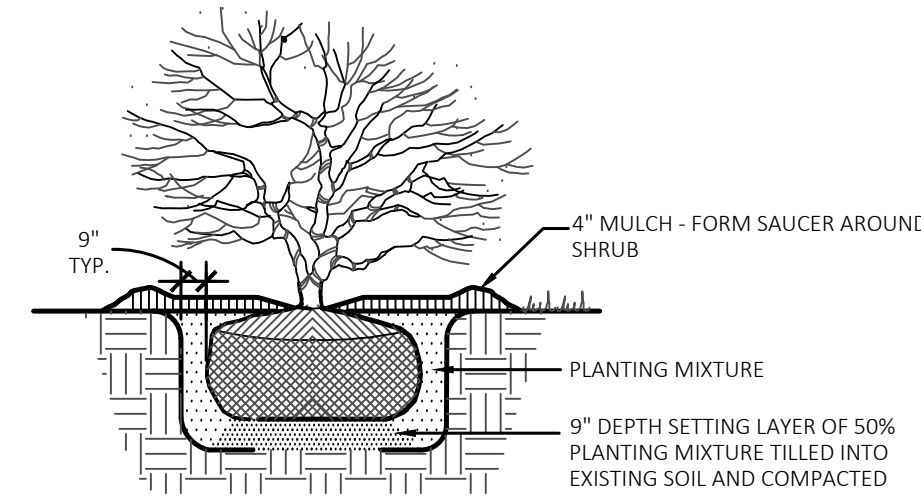


*Katie Lynn Chase*

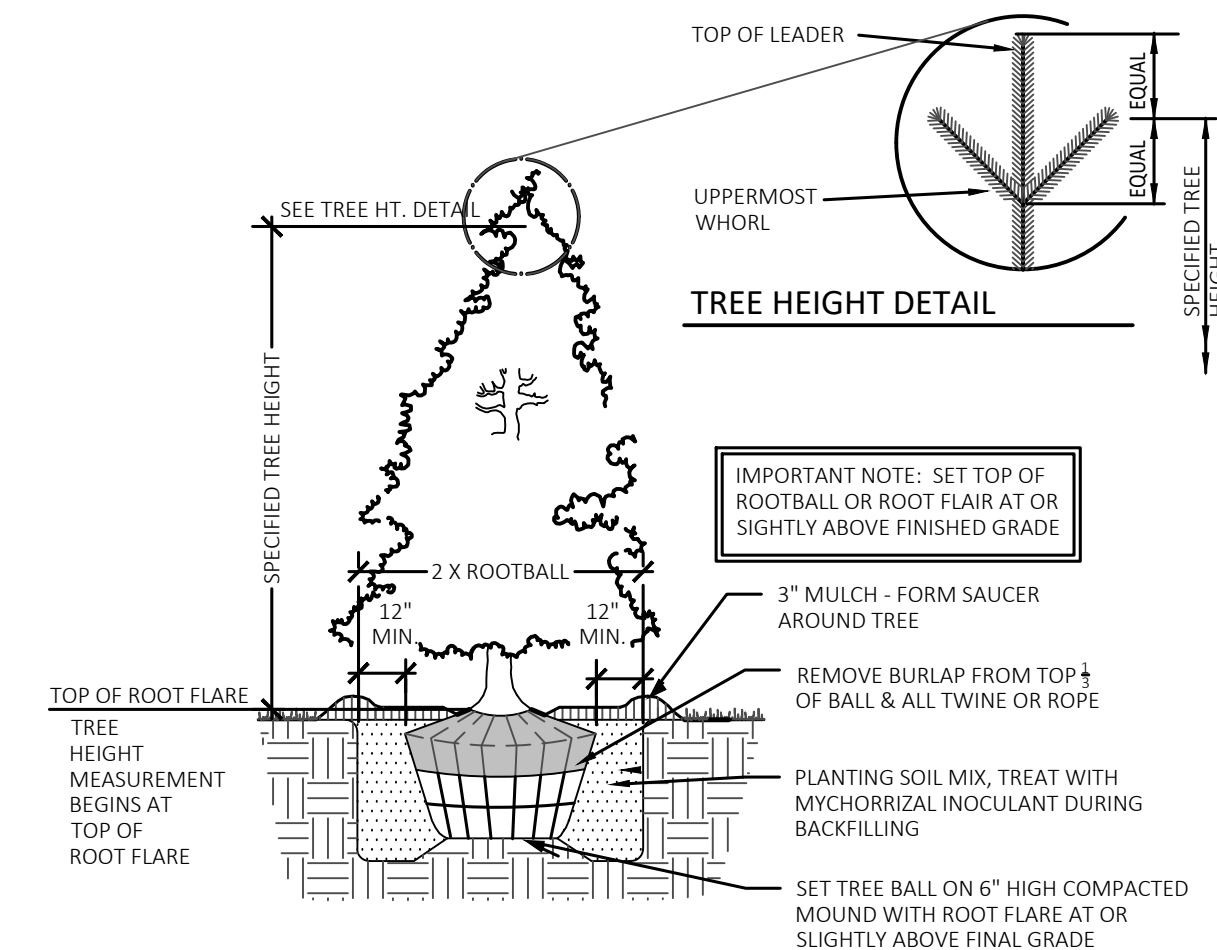
For Review Only -  
Not For Construction



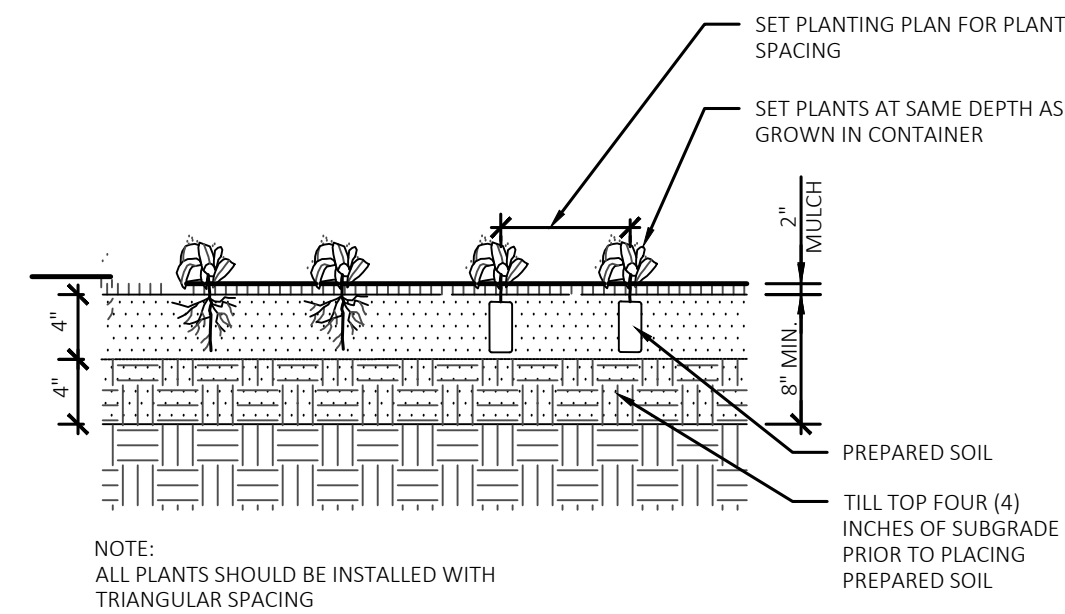
**1 Deciduous Tree Planting Detail**  
Not To Scale



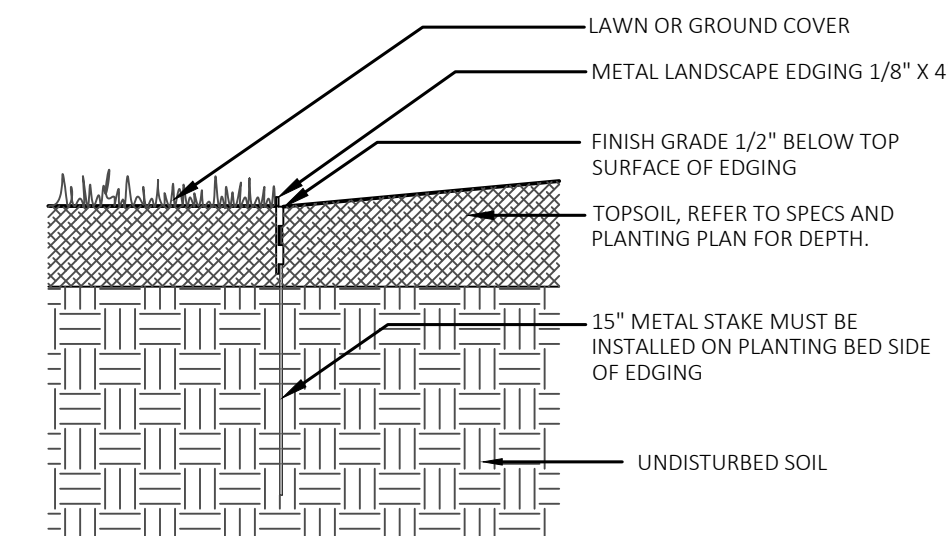
**2 Shrub Planting Detail**  
Not To Scale



**3 Conifer Planting Detail**  
Not To Scale



**4 Perennial Planting Detail**  
Not To Scale



**5 Metal Edging Detail**  
Not To Scale

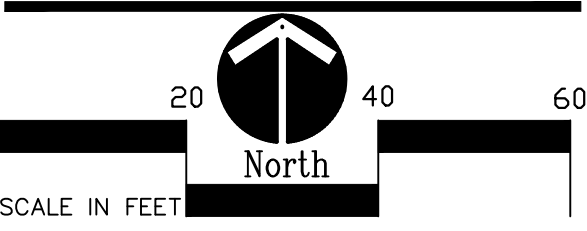
HARD COPY IS INTENDED TO BE 24" X 36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES.

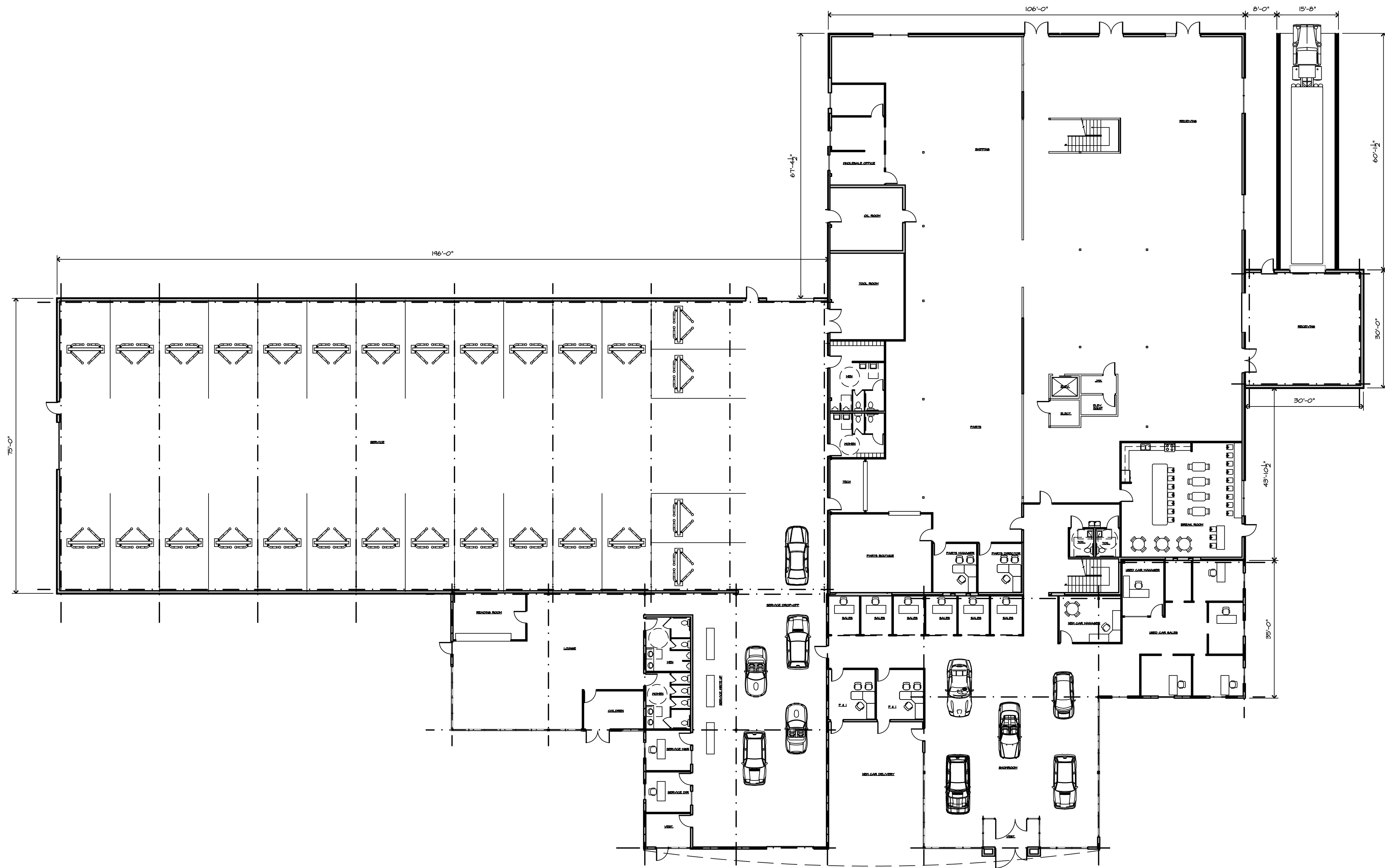
Issued For:	Date
SITE PLAN REVIEW	3-5-24

Project:  
**W. Main Subaru**

**Oshtemo Twp., MI**  
Sheet Title

**Landscape Details**





FLOOR PLAN  
 SCALE: 1/8" = 1'-0"  
 N

NEW FACILITY FOR:  
**MAPLE HILL SUBARU**  
 6645 WEST MAIN STREET  
 OSHTEMO TOWNSHIP, MICHIGAN

FLOOR PLAN

HOWARD L. OVERBEEK  
 ARCHITECT, P.C.

25377 ISLAND VIEW LANE  
 STURGIS, MICHIGAN

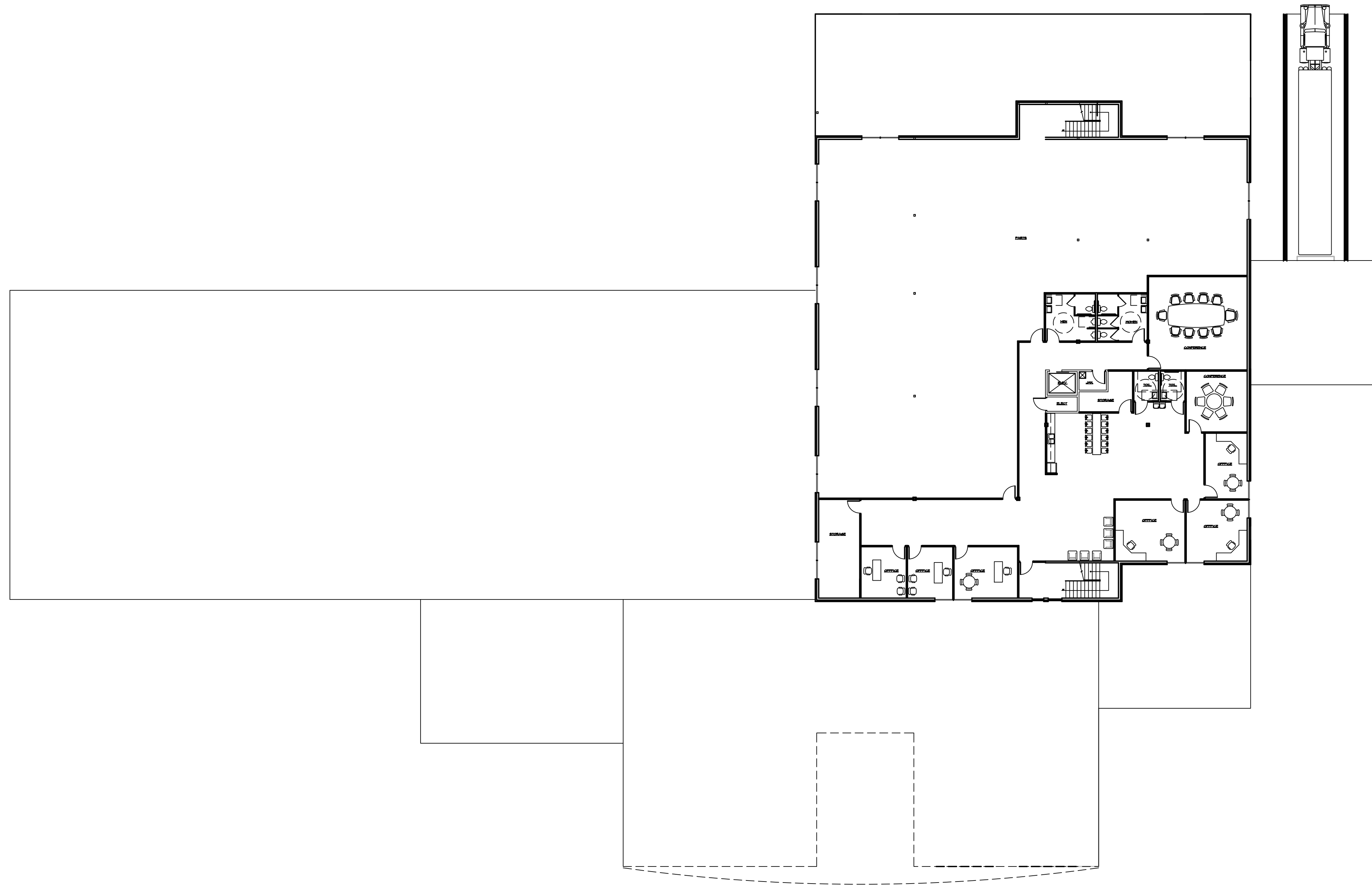
PHONE (269) 377-3561

PROJECT NO.  
 2336

DATE  
 2/5/24

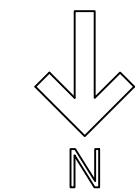
REVISION

SHEET  
**1**  
 46



UPPER LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"



NEW FACILITY FOR:  
**MAPLE HILL SUBARU**  
 6645 WEST MAIN STREET  
 OSHTEMO TOWNSHIP, MICHIGAN

UPPER LEVEL  
 FLOOR PLAN

HOWARD L. OVERBEEK  
 ARCHITECT, P.C.

25377 ISLAND VIEW LANE  
 STURGIS, MICHIGAN

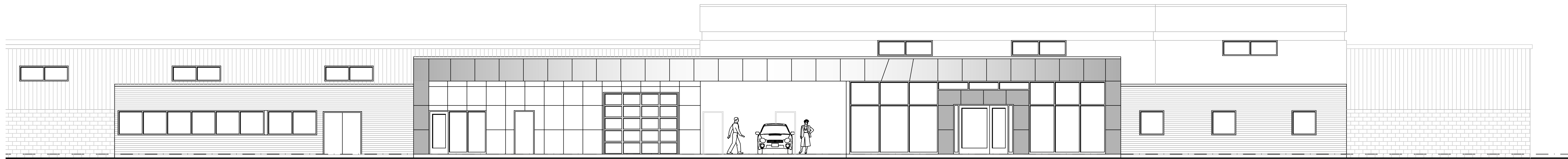
PHONE (269) 377-3561

PROJECT NO.  
 2336

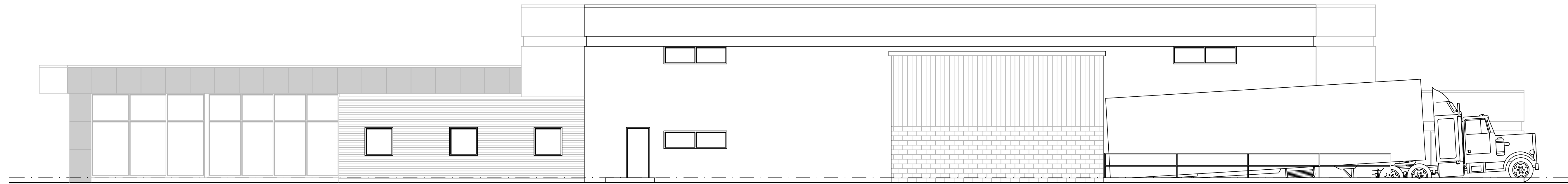
DATE  
 2/5/24

REVISION

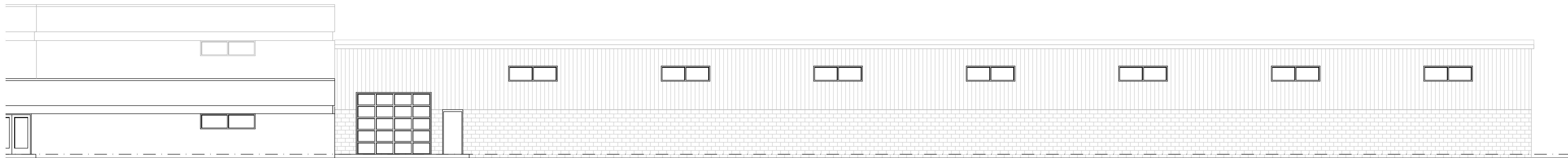
SHEET  
 2



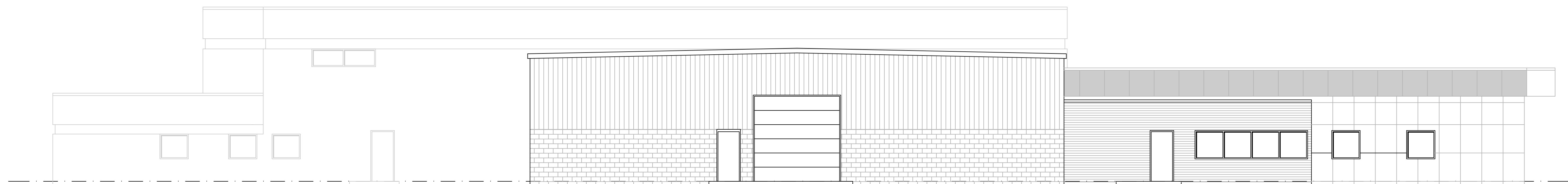
**NORTH ELEVATION**  
SCALE: 1/8" = 1'-0"



**WEST ELEVATION**  
SCALE: 1/8" = 1'-0"



**SOUTH ELEVATION**  
SCALE: 1/8" = 1'-0"



**EAST ELEVATION**  
SCALE: 1/8" = 1'-0"

NEW FACILITY FOR:  
**MAPLE HILL SUBARU**  
6645 WEST MAIN STREET  
OSHTEMO TOWNSHIP, MICHIGAN

EXTERIOR  
ELEVATIONS

HOWARD L. OVERBEEK  
ARCHITECT, P.C.

25377 ISLAND VIEW LANE  
STURGIS, MICHIGAN

PHONE (269) 377-3561

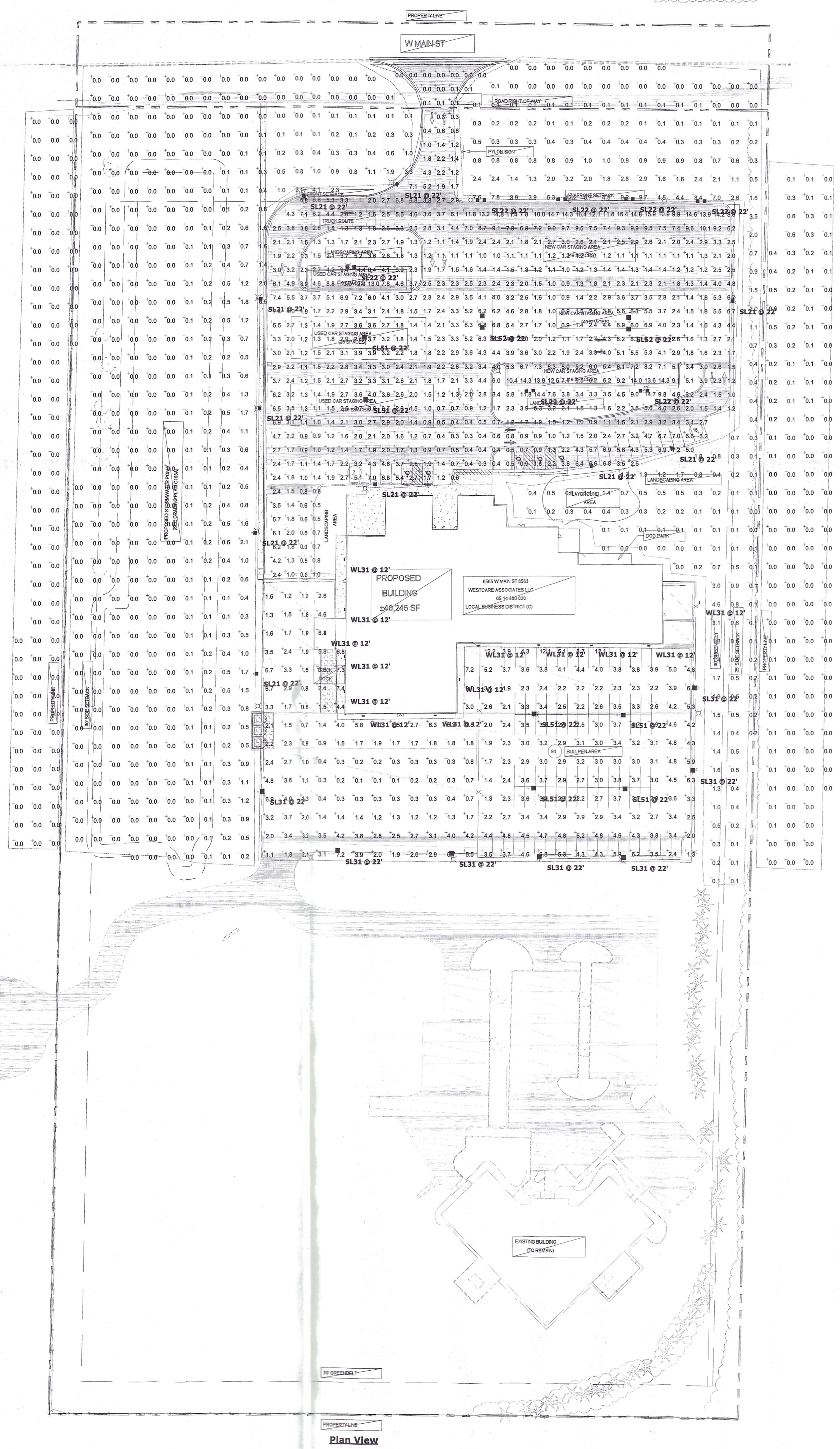
PROJECT NO.  
2336

DATE  
2/5/24

REVISION

SHEET  
**3**  
48





Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
[Symbol]	SL22	7	Cree Lighting	(Dual) OSQL-B-22L-50K9-2M-UL-NM-xx-xx-	OSQL-C Luminaire, 5000K, 90 CRI, Type II Mid	2	19800	1	262
[Symbol]	SL21	10	Cree Lighting	OSQL-B-22L-50K9-2M-UL-NM-xx-xx-	OSQL-C Luminaire, 5000K, 90 CRI, Type II Mid	1	19800	1	131
[Symbol]	SL51	6	Cree Lighting	OSQL-B-22L-50K9-5M-UL-NM-xx-xx-	OSQL-C Luminaire, 5000K, 90 CRI, Type V Mid	1	19200	1	131
[Symbol]	SL52	2	Cree Lighting	OSQL-B-22L-50K9-5M-UL-NM-xx-xx-	OSQL-C Luminaire, 5000K, 90 CRI, Type V Mid	2	19200	1	262
[Symbol]	SL31	7	Cree Lighting	OSQL-B-22L-50K9-3M-UL-NM-xx-xx-	OSQL-C Luminaire, 5000K, 90 CRI, Type III Mid	1	19410	1	131
[Symbol]	WL31	13	Cree Inc	XSPW-B-xx-3ME-8L-50K-UL	XSPW Wall Mount, Type III Medium Distribution, 8L, 5000K CCT	1	7346	1	76.75

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Backlot Parking	+	3.1 fc	12.2 fc	0.1 fc	122.0:1	31.0:1
East Greenbelt	+	1.0 fc	12.2 fc	0.0 fc	N/A	N/A
East Perimeter	+	0.1 fc	0.6 fc	0.0 fc	N/A	N/A
General Parking	+	3.4 fc	16.4 fc	0.0 fc	N/A	N/A
West Greenbelt	+	0.2 fc	6.5 fc	0.0 fc	N/A	N/A
West Perimeter	+	0.0 fc	0.0 fc	0.0 fc	N/A	N/A

Maple Hill Automotive  
Subaru Site Lighting  
Kalamazoo, MI

This page left intentionally blank.



March 5<sup>TH</sup>, 2024

Stormwater Management Report

**RE: STORMWATER MANAGEMENT PLAN FOR WEST MAIN STREET SUBARU, KALAMAZOO, MI**

## PROJECT DESCRIPTION

### **Introduction**

Located at 6565 W Main St in Oshtemo Township, Kalamazoo, MI, in a local business zone, this project entails the transformation of an existing medical facility to accommodate a proposed Subaru dealership spanning approximately 40,246 square feet. It involves partial demolition of the current structure and construction of new additions. The redevelopment initiative encompasses several aspects, beginning with the removal of the existing parking structure and stormwater network, followed by the creation of a new parking lot and substantial enhancements to the stormwater management system on-site. Additionally, improvements to the north drive connecting to W Main St, including widening it to 30-feet, are planned, alongside upgrades to the south drive, coordinated with the Seeco Drive expansion project, and the splitting of the property into two separate parcels.

### **Existing Conditions**

Currently, the total contributing area of the site is 18.9-acres, which is a combination of 12.6-acres of green space coverage and 6.3-acres of impervious coverage. Existing stormwater runoff of the site is managed by a series of basins traversing along the western property boundary that are referred to as north pond and south pond. These basins are connected by a 12-inch corrugated metal culvert that runs perpendicular underneath the existing drive servicing the southern half of the property. The outflow of the system at the south edge of the south pond and is restricted by an outlet control structure that consists of two 8-inch PVC outlet pipes that are separated by roughly 2-feet of vertical clearance. These outlet pipes divert stormwater to the southwest corner of the site, which consists of a wooded area and residential area. We understand from this point stormwater runoff enters a larger system that is part of the housing development to the south.

The existing north pond is significantly undersized when analyzing just the north property and it is presumed that the south pond has historically addressed a significant amount of runoff from the northern property. Based on geotechnical reports, the existing soils within the site consist of primarily loose to medium dense, silty/clayey sand to depths of roughly 6 to 12-feet below grade, and stiff clayey silt that extends to depths of roughly 30-feet.

### **Proposed Conditions**

Because the project results in splitting the entire property into two separate parcels and there are no revisions to the south parcel or pond as part of this project, modifications to only the north pond were considered. We expanding the north pond as required. Refer to the hydroCAD report for site contributing areas, runoff curve number, and storage volumes. The detention pond was considered a wet detention pond and any volume below the ordinary water line surveyed in the field was not included as additional storage.

The required storage volume was calculated for a 100-year storm event (6.11 inches Type II distribution) by ensuring that 1-foot of freeboard is remaining. We have been in communication with the township and understand that Seeco Drive will be extended near our property that will require further coordination. We are assuming that the existing 12-inch culvert between stormwater ponds will be maintained or replaced to ensure proper release from the site and to keep historical patterns. Also, due to poorly draining soils, eliminating the outlet could cause severe flooding. Again, this will all need to be coordinated in the future with the planned road extension project.

### **Summary**

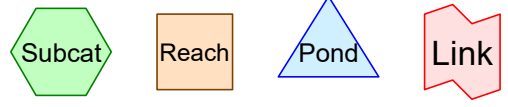
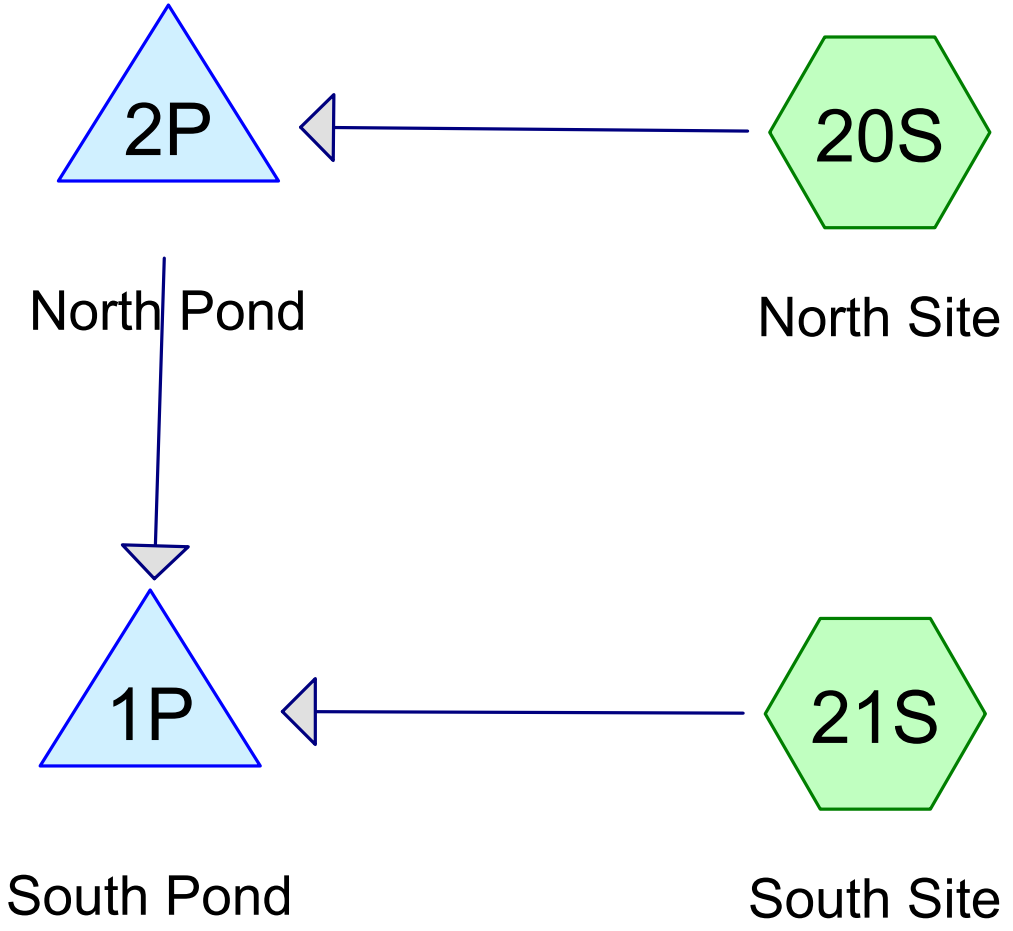
We propose to expand the northern pond to properly contain flood control volumes, while keeping the remainder of the historical stormwater runoff patterns active and unchanged. We have consulted a wetland specialist and understand that these existing wet detention ponds are likely unregulated wetlands at this point and would not require an EGLE permit to extend as we are proposing. It will be imperative to continue to coordinate this project along with the extension of Seeco Drive and the redevelopment of the southern parcel and make any adjustments necessary to provide an effective and practical overall stormwater system.

Sincerely,

**Mitten State Engineering, PLLC**



Tyler Bourdo, P.E.  
10123 S M43, Suite E  
Delton, MI 49046  
(269) 716-0175



**Routing Diagram for HydroCAD Proposed**  
 Prepared by Tyler Bourdo, Printed 3/5/2024  
 HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

# HydroCAD Proposed

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Printed 3/5/2024

Page 2

## Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	100-Year	Type II 24-hr		Default	24.00	1	6.11	2

## HydroCAD Proposed

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Printed 3/5/2024

Page 3

### Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
470,400	65	>75% Grass cover, Good, HSG A (20S, 21S)
350,644	98	Impervious (20S, 21S)
<b>821,044</b>	<b>79</b>	<b>TOTAL AREA</b>

# HydroCAD Proposed

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Printed 3/5/2024

Page 4

## Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
470,400	HSG A	20S, 21S
0	HSG B	
0	HSG C	
0	HSG D	
350,644	Other	20S, 21S
<b>821,044</b>		<b>TOTAL AREA</b>



# HydroCAD Proposed

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Printed 3/5/2024

Page 5

## Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
470,400	0	0	0	0	470,400	>75% Grass cover, Good
0	0	0	0	350,644	350,644	Impervious
<b>470,400</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>350,644</b>	<b>821,044</b>	<b>TOTAL AREA</b>

**HydroCAD Proposed**

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=6.11"

Printed 3/5/2024

Page 6

Time span=0.00-72.00 hrs, dt=0.10 hrs, 721 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment20S: North Site** Runoff Area=11.000 ac 53.64% Impervious Runoff Depth=4.19"  
Flow Length=140' Slope=0.0125 '/' Tc=15.0 min CN=83 Runoff=56.85 cfs 167,449 cf

**Subcatchment21S: South Site** Runoff Area=341,884 sf 27.39% Impervious Runoff Depth=3.28"  
Tc=0.0 min CN=74 Runoff=42.98 cfs 93,380 cf

**Pond 1P: South Pond** Peak Elev=950.19' Storage=98,239 cf Inflow=44.83 cfs 260,733 cf  
Discarded=0.01 cfs 385 cf Primary=3.38 cfs 260,348 cf Outflow=3.38 cfs 260,733 cf

**Pond 2P: North Pond** Peak Elev=950.51' Storage=86,432 cf Inflow=56.85 cfs 167,449 cf  
Discarded=0.00 cfs 96 cf Primary=4.46 cfs 167,353 cf Outflow=4.46 cfs 167,449 cf

**Total Runoff Area = 821,044 sf Runoff Volume = 260,829 cf Average Runoff Depth = 3.81"**  
**57.29% Pervious = 470,400 sf 42.71% Impervious = 350,644 sf**

# HydroCAD Proposed

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=6.11"

Printed 3/5/2024

Page 7

## Summary for Subcatchment 20S: North Site

Runoff = 56.85 cfs @ 12.01 hrs, Volume= 167,449 cf, Depth= 4.19"

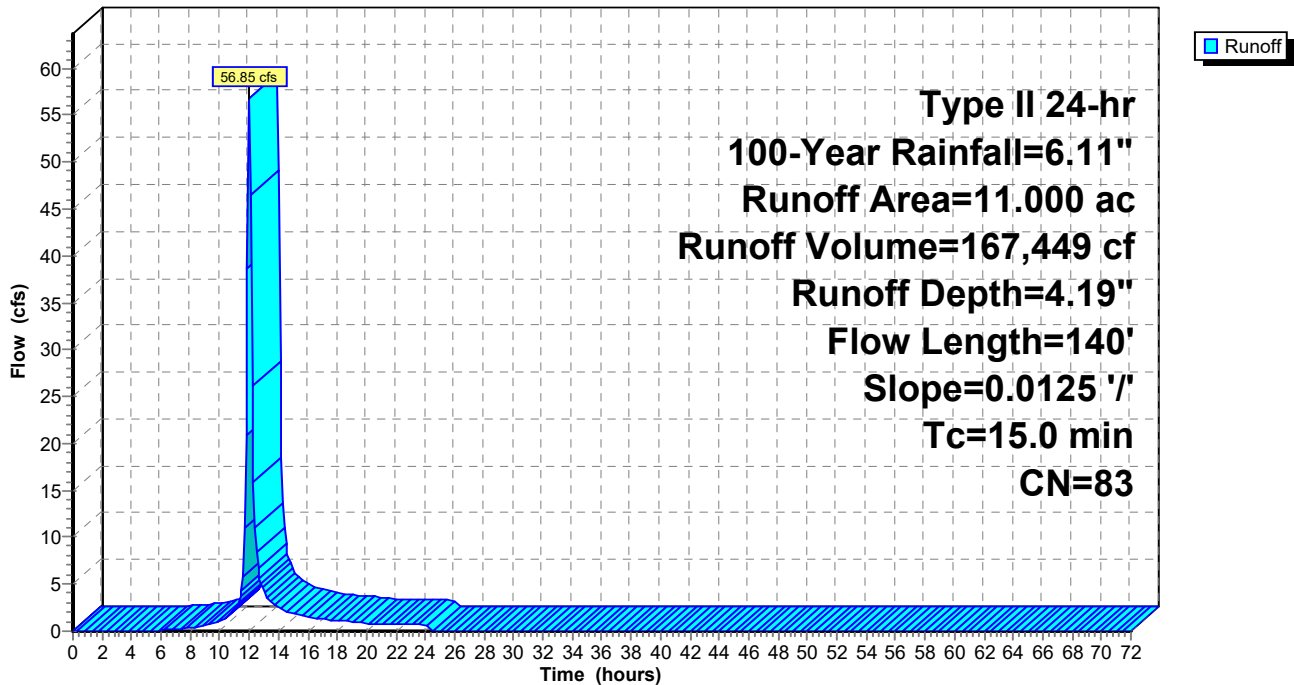
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs  
Type II 24-hr 100-Year Rainfall=6.11"

Area (ac)	CN	Description
* 5.100	65	>75% Grass cover, Good, HSG A
* 5.900	98	Impervious
11.000	83	Weighted Average
5.100		46.36% Pervious Area
5.900		53.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	140	0.0125	0.16		<b>Sheet Flow, TC</b> Grass: Short n= 0.150 P2= 3.40"

## Subcatchment 20S: North Site

Hydrograph



# HydroCAD Proposed

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=6.11"

Printed 3/5/2024

Page 8

## Hydrograph for Subcatchment 20S: North Site

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	6.11	4.19	0.00
1.00	0.06	0.00	0.00	53.00	6.11	4.19	0.00
2.00	0.13	0.00	0.00	54.00	6.11	4.19	0.00
3.00	0.21	0.00	0.00	55.00	6.11	4.19	0.00
4.00	0.29	0.00	0.00	56.00	6.11	4.19	0.00
5.00	0.38	0.00	0.00	57.00	6.11	4.19	0.00
6.00	0.49	0.00	0.07	58.00	6.11	4.19	0.00
7.00	0.60	0.02	0.20	59.00	6.11	4.19	0.00
8.00	0.73	0.04	0.35	60.00	6.11	4.19	0.00
9.00	0.90	0.09	0.68	61.00	6.11	4.19	0.00
10.00	1.11	0.18	1.07	62.00	6.11	4.19	0.00
11.00	1.44	0.34	2.35	63.00	6.11	4.19	0.00
12.00	4.05	2.33	<b>56.58</b>	64.00	6.11	4.19	0.00
13.00	4.72	2.92	4.28	65.00	6.11	4.19	0.00
14.00	5.01	3.18	2.49	66.00	6.11	4.19	0.00
15.00	5.21	3.37	1.93	67.00	6.11	4.19	0.00
16.00	5.38	3.52	1.50	68.00	6.11	4.19	0.00
17.00	5.51	3.64	1.30	69.00	6.11	4.19	0.00
18.00	5.63	3.75	1.15	70.00	6.11	4.19	0.00
19.00	5.73	3.84	1.00	71.00	6.11	4.19	0.00
20.00	5.82	3.92	0.84	72.00	6.11	4.19	0.00
21.00	5.89	3.99	0.79				
22.00	5.97	4.06	0.76				
23.00	6.04	4.13	0.73				
24.00	<b>6.11</b>	<b>4.19</b>	0.69				
25.00	6.11	4.19	0.00				
26.00	6.11	4.19	0.00				
27.00	6.11	4.19	0.00				
28.00	6.11	4.19	0.00				
29.00	6.11	4.19	0.00				
30.00	6.11	4.19	0.00				
31.00	6.11	4.19	0.00				
32.00	6.11	4.19	0.00				
33.00	6.11	4.19	0.00				
34.00	6.11	4.19	0.00				
35.00	6.11	4.19	0.00				
36.00	6.11	4.19	0.00				
37.00	6.11	4.19	0.00				
38.00	6.11	4.19	0.00				
39.00	6.11	4.19	0.00				
40.00	6.11	4.19	0.00				
41.00	6.11	4.19	0.00				
42.00	6.11	4.19	0.00				
43.00	6.11	4.19	0.00				
44.00	6.11	4.19	0.00				
45.00	6.11	4.19	0.00				
46.00	6.11	4.19	0.00				
47.00	6.11	4.19	0.00				
48.00	6.11	4.19	0.00				
49.00	6.11	4.19	0.00				
50.00	6.11	4.19	0.00				
51.00	6.11	4.19	0.00				

# HydroCAD Proposed

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=6.11"

Printed 3/5/2024

Page 9

## Summary for Subcatchment 21S: South Site

[46] Hint:  $T_c=0$  (Instant runoff peak depends on  $dt$ )

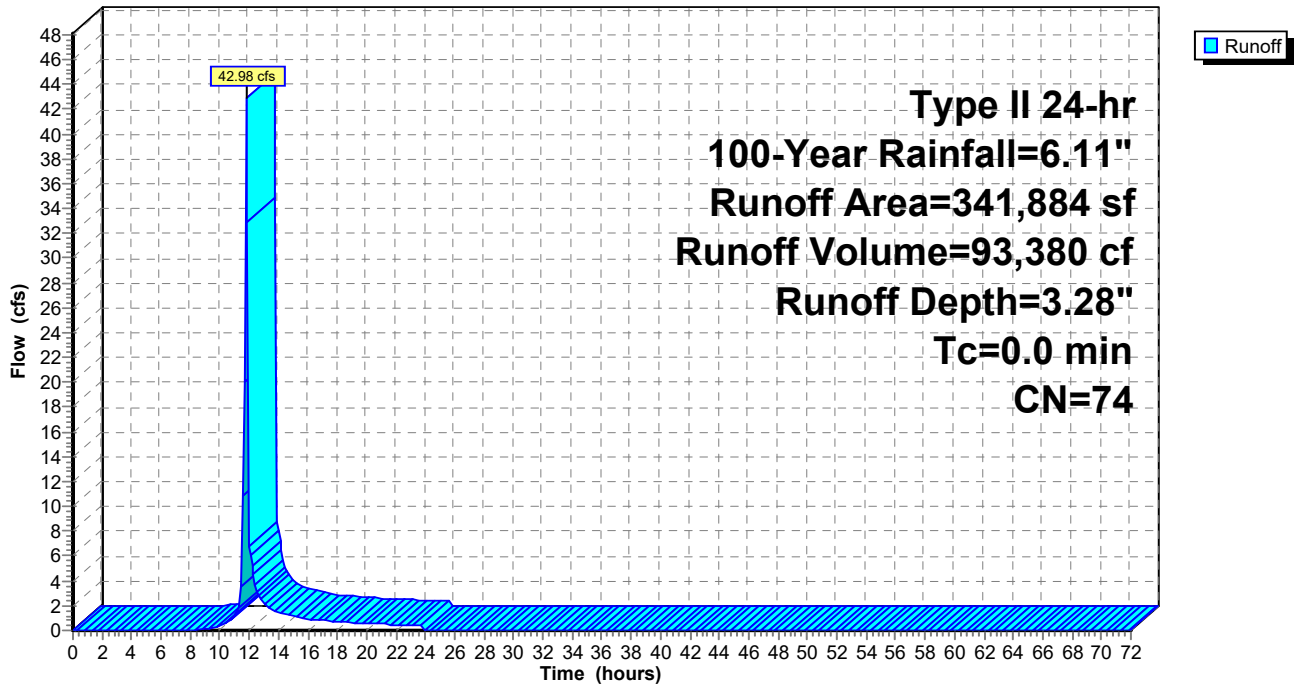
Runoff = 42.98 cfs @ 11.82 hrs, Volume= 93,380 cf, Depth= 3.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs,  $dt=0.10$  hrs  
Type II 24-hr 100-Year Rainfall=6.11"

	Area (sf)	CN	Description
*	248,244	65	>75% Grass cover, Good, HSG A
*	93,640	98	Impervious
	341,884	74	Weighted Average
	248,244		72.61% Pervious Area
	93,640		27.39% Impervious Area

## Subcatchment 21S: South Site

Hydrograph



**HydroCAD Proposed**

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=6.11"

Printed 3/5/2024

Page 10

**Hydrograph for Subcatchment 21S: South Site**

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	52.00	6.11	3.28	0.00
1.00	0.06	0.00	0.00	53.00	6.11	3.28	0.00
2.00	0.13	0.00	0.00	54.00	6.11	3.28	0.00
3.00	0.21	0.00	0.00	55.00	6.11	3.28	0.00
4.00	0.29	0.00	0.00	56.00	6.11	3.28	0.00
5.00	0.38	0.00	0.00	57.00	6.11	3.28	0.00
6.00	0.49	0.00	0.00	58.00	6.11	3.28	0.00
7.00	0.60	0.00	0.00	59.00	6.11	3.28	0.00
8.00	0.73	0.00	0.02	60.00	6.11	3.28	0.00
9.00	0.90	0.01	0.17	61.00	6.11	3.28	0.00
10.00	1.11	0.04	0.40	62.00	6.11	3.28	0.00
11.00	1.44	0.13	<b>1.20</b>	63.00	6.11	3.28	0.00
12.00	4.05	1.63	<b>6.80</b>	64.00	6.11	3.28	0.00
13.00	4.72	2.14	2.26	65.00	6.11	3.28	0.00
14.00	5.01	2.37	1.42	66.00	6.11	3.28	0.00
15.00	5.21	2.54	1.16	67.00	6.11	3.28	0.00
16.00	5.38	2.67	0.90	68.00	6.11	3.28	0.00
17.00	5.51	2.78	0.81	69.00	6.11	3.28	0.00
18.00	5.63	2.87	0.71	70.00	6.11	3.28	0.00
19.00	5.73	2.96	0.62	71.00	6.11	3.28	0.00
20.00	5.82	3.03	0.52	72.00	6.11	3.28	0.00
21.00	5.89	3.10	0.51				
22.00	5.97	3.16	0.49				
23.00	6.04	3.22	0.47				
24.00	<b>6.11</b>	<b>3.28</b>	0.00				
25.00	6.11	3.28	0.00				
26.00	6.11	3.28	0.00				
27.00	6.11	3.28	0.00				
28.00	6.11	3.28	0.00				
29.00	6.11	3.28	0.00				
30.00	6.11	3.28	0.00				
31.00	6.11	3.28	0.00				
32.00	6.11	3.28	0.00				
33.00	6.11	3.28	0.00				
34.00	6.11	3.28	0.00				
35.00	6.11	3.28	0.00				
36.00	6.11	3.28	0.00				
37.00	6.11	3.28	0.00				
38.00	6.11	3.28	0.00				
39.00	6.11	3.28	0.00				
40.00	6.11	3.28	0.00				
41.00	6.11	3.28	0.00				
42.00	6.11	3.28	0.00				
43.00	6.11	3.28	0.00				
44.00	6.11	3.28	0.00				
45.00	6.11	3.28	0.00				
46.00	6.11	3.28	0.00				
47.00	6.11	3.28	0.00				
48.00	6.11	3.28	0.00				
49.00	6.11	3.28	0.00				
50.00	6.11	3.28	0.00				
51.00	6.11	3.28	0.00				

# HydroCAD Proposed

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=6.11"

Printed 3/5/2024

Page 11

## Summary for Pond 1P: South Pond

[44] Hint: Outlet device #2 is below defined storage

[58] Hint: Peaked 270.19' above defined flood level

[81] Warning: Exceeded Pond 2P by 0.69' @ 22.50 hrs

Inflow Area = 821,044 sf, 42.71% Impervious, Inflow Depth = 3.81" for 100-Year event  
 Inflow = 44.83 cfs @ 11.82 hrs, Volume= 260,733 cf  
 Outflow = 3.38 cfs @ 19.70 hrs, Volume= 260,733 cf, Atten= 92%, Lag= 472.6 min  
 Discarded = 0.01 cfs @ 19.70 hrs, Volume= 385 cf  
 Primary = 3.38 cfs @ 19.70 hrs, Volume= 260,348 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs  
 Peak Elev= 950.19' @ 19.70 hrs Surf.Area= 43,875 sf Storage= 98,239 cf  
 Flood Elev= 680.00' Storage= 0 cf

Plug-Flow detention time= 352.2 min calculated for 260,372 cf (100% of inflow)  
 Center-of-Mass det. time= 352.3 min ( 1,313.7 - 961.4 )

Volume	Invert	Avail.Storage	Storage Description
#1	947.00'	158,626 cf	<b>Retention/Detention Basin (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
947.00	19,221	0	0
948.00	26,509	22,865	22,865
949.00	32,802	29,656	52,521
950.00	41,945	37,374	89,894
951.00	51,869	46,907	136,801
951.40	57,257	21,825	158,626

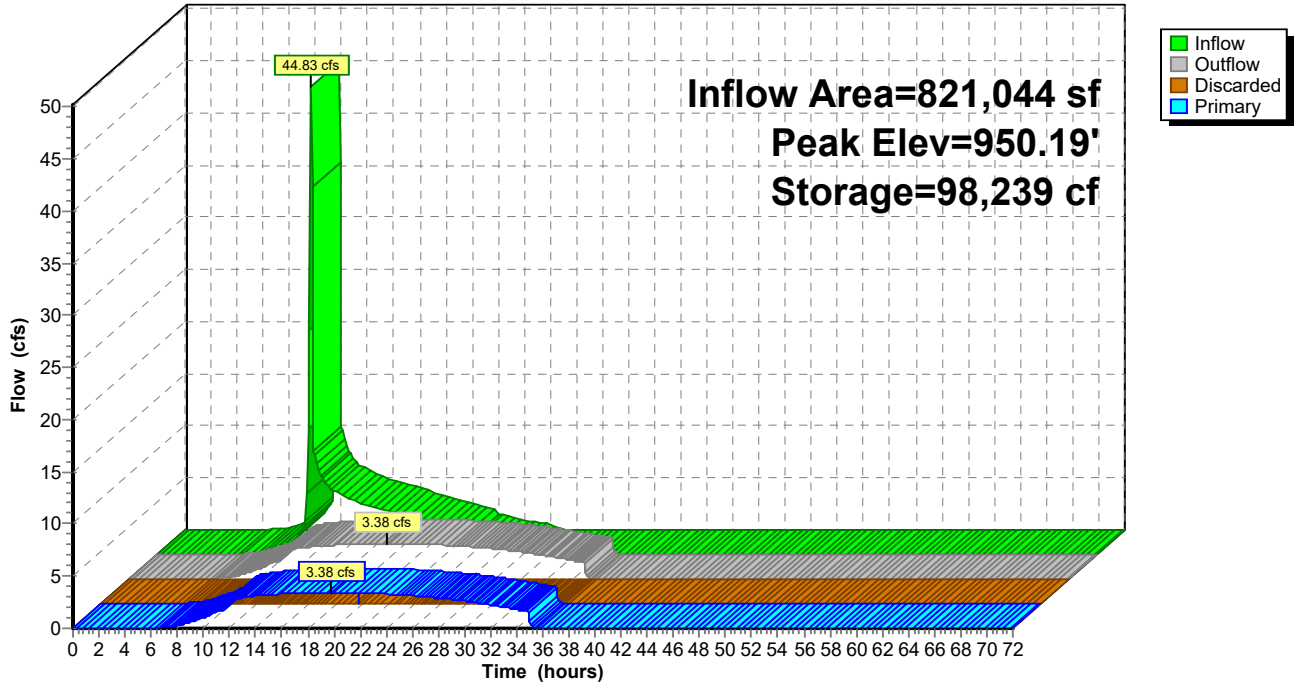
Device	Routing	Invert	Outlet Devices
#1	Discarded	947.00'	<b>0.005 in/hr Exfiltration over Horizontal area above 700.00'</b> Conductivity to Groundwater Elevation = 900.00' Excluded Horizontal area = 0 sf
#2	Primary	945.82'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Discarded OutFlow** Max=0.01 cfs @ 19.70 hrs HW=950.19' (Free Discharge)  
 ↑1=Exfiltration ( Controls 0.01 cfs)

**Primary OutFlow** Max=3.38 cfs @ 19.70 hrs HW=950.19' (Free Discharge)  
 ↑2=Orifice/Grate (Orifice Controls 3.38 cfs @ 9.68 fps)

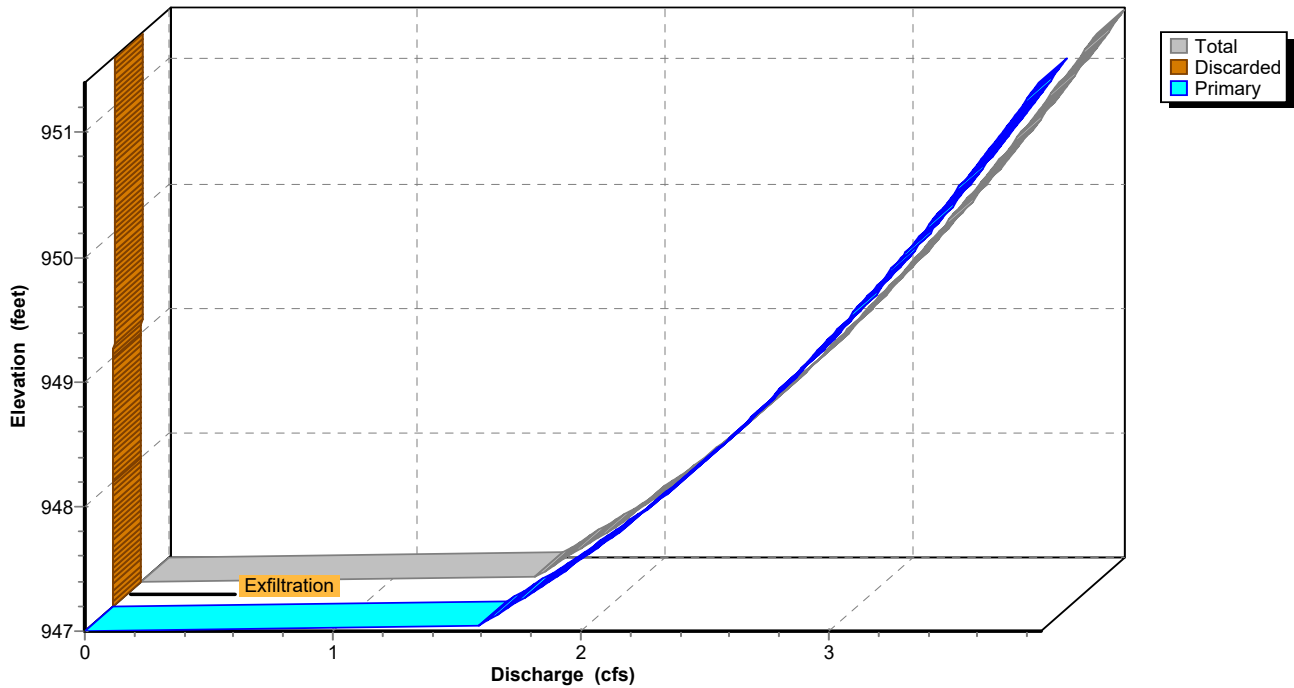
### Pond 1P: South Pond

Hydrograph



### Pond 1P: South Pond

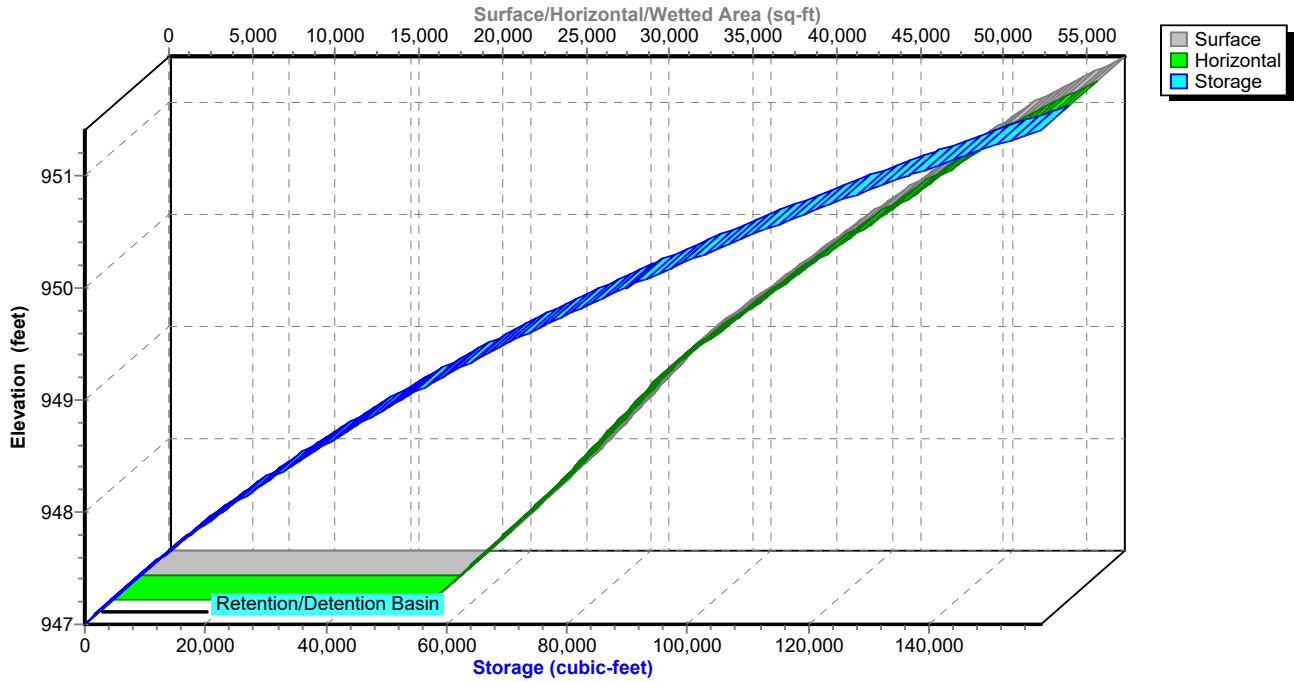
Stage-Discharge





### Pond 1P: South Pond

Stage-Area-Storage



**HydroCAD Proposed**

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

*Type II 24-hr 100-Year Rainfall=6.11"*

Printed 3/5/2024

Page 14

**Hydrograph for Pond 1P: South Pond**

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	947.00	0.00	0.00	0.00
2.00	0.00	0	947.00	0.00	0.00	0.00
4.00	0.00	0	947.00	0.00	0.00	0.00
6.00	0.03	9	947.00	0.02	0.00	0.02
8.00	0.29	139	947.01	0.26	0.00	0.26
10.00	<b>1.07</b>	543	947.03	1.01	0.00	1.01
12.00	<b>9.94</b>	43,098	948.70	2.69	0.00	2.68
14.00	5.76	73,105	949.58	3.12	0.00	3.11
16.00	4.80	88,131	949.96	3.28	0.01	3.28
18.00	4.06	<b>96,110</b>	<b>950.15</b>	<b>3.36</b>	<b>0.01</b>	<b>3.36</b>
20.00	3.26	<b>98,175</b>	<b>950.19</b>	<b>3.38</b>	<b>0.01</b>	<b>3.38</b>
22.00	2.58	95,028	950.12	3.35	0.01	3.35
24.00	1.56	87,445	949.94	3.28	0.01	3.27
26.00	0.97	73,383	949.59	3.12	0.00	3.11
28.00	0.52	57,274	949.14	2.91	0.00	2.91
30.00	0.01	38,373	948.55	2.61	0.00	2.60
32.00	0.00	20,923	947.93	2.24	0.00	2.24
34.00	0.00	6,293	947.31	1.81	0.00	1.81
36.00	0.00	0	947.00	0.00	0.00	0.00
38.00	0.00	0	947.00	0.00	0.00	0.00
40.00	0.00	0	947.00	0.00	0.00	0.00
42.00	0.00	0	947.00	0.00	0.00	0.00
44.00	0.00	0	947.00	0.00	0.00	0.00
46.00	0.00	0	947.00	0.00	0.00	0.00
48.00	0.00	0	947.00	0.00	0.00	0.00
50.00	0.00	0	947.00	0.00	0.00	0.00
52.00	0.00	0	947.00	0.00	0.00	0.00
54.00	0.00	0	947.00	0.00	0.00	0.00
56.00	0.00	0	947.00	0.00	0.00	0.00
58.00	0.00	0	947.00	0.00	0.00	0.00
60.00	0.00	0	947.00	0.00	0.00	0.00
62.00	0.00	0	947.00	0.00	0.00	0.00
64.00	0.00	0	947.00	0.00	0.00	0.00
66.00	0.00	0	947.00	0.00	0.00	0.00
68.00	0.00	0	947.00	0.00	0.00	0.00
70.00	0.00	0	947.00	0.00	0.00	0.00
72.00	0.00	0	947.00	0.00	0.00	0.00

**Stage-Discharge for Pond 1P: South Pond**

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
947.00	0.00	0.00	0.00	949.60	3.12	0.00	3.12
947.05	1.59	0.00	1.59	949.65	3.15	0.00	3.14
947.10	1.64	0.00	1.64	949.70	3.17	0.00	3.17
947.15	1.68	0.00	1.68	949.75	3.19	0.00	3.19
947.20	1.72	0.00	1.72	949.80	3.21	0.00	3.21
947.25	1.76	0.00	1.76	949.85	3.24	0.00	3.23
947.30	1.80	0.00	1.80	949.90	3.26	0.00	3.25
947.35	1.84	0.00	1.84	949.95	3.28	0.01	3.27
947.40	1.88	0.00	1.88	950.00	3.30	0.01	3.30
947.45	1.92	0.00	1.91	950.05	3.32	0.01	3.32
947.50	1.95	0.00	1.95	950.10	3.34	0.01	3.34
947.55	1.99	0.00	1.99	950.15	3.37	0.01	3.36
947.60	2.02	0.00	2.02	950.20	3.39	0.01	3.38
947.65	2.06	0.00	2.06	950.25	3.41	0.01	3.40
947.70	2.09	0.00	2.09	950.30	3.43	0.01	3.42
947.75	2.13	0.00	2.12	950.35	3.45	0.01	3.44
947.80	2.16	0.00	2.16	950.40	3.47	0.01	3.46
947.85	2.19	0.00	2.19	950.45	3.49	0.01	3.48
947.90	2.22	0.00	2.22	950.50	3.51	0.01	3.50
947.95	2.26	0.00	2.25	950.55	3.53	0.01	3.52
948.00	2.29	0.00	2.28	950.60	3.55	0.01	3.54
948.05	2.32	0.00	2.31	950.65	3.57	0.01	3.56
948.10	2.35	0.00	2.35	950.70	3.59	0.01	3.58
948.15	2.38	0.00	2.37	950.75	3.61	0.01	3.60
948.20	2.41	0.00	2.40	950.80	3.63	0.01	3.62
948.25	2.44	0.00	2.43	950.85	3.65	0.01	3.64
948.30	2.47	0.00	2.46	950.90	3.67	0.01	3.66
948.35	2.49	0.00	2.49	950.95	3.69	0.01	3.68
948.40	2.52	0.00	2.52	951.00	3.71	0.01	3.70
948.45	2.55	0.00	2.55	951.05	3.73	0.01	3.72
948.50	2.58	0.00	2.57	951.10	3.74	0.01	3.74
948.55	2.61	0.00	2.60	951.15	3.76	0.01	3.76
948.60	2.63	0.00	2.63	951.20	3.78	0.01	3.78
948.65	2.66	0.00	2.66	951.25	3.80	0.01	3.79
948.70	2.69	0.00	2.68	951.30	3.82	0.01	3.81
948.75	2.71	0.00	2.71	951.35	3.84	0.01	3.83
948.80	2.74	0.00	2.73	951.40	<b>3.86</b>	<b>0.01</b>	<b>3.85</b>
948.85	2.76	0.00	2.76				
948.90	2.79	0.00	2.79				
948.95	2.81	0.00	2.81				
949.00	2.84	0.00	2.84				
949.05	2.86	0.00	2.86				
949.10	2.89	0.00	2.89				
949.15	2.91	0.00	2.91				
949.20	2.94	0.00	2.93				
949.25	2.96	0.00	2.96				
949.30	2.99	0.00	2.98				
949.35	3.01	0.00	3.01				
949.40	3.03	0.00	3.03				
949.45	3.06	0.00	3.05				
949.50	3.08	0.00	3.07				
949.55	3.10	0.00	3.10				

**Stage-Area-Storage for Pond 1P: South Pond**

Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
947.00	19,221	19,221	0
947.10	19,950	19,950	1,959
947.20	20,679	20,679	3,990
947.30	21,407	21,407	6,094
947.40	22,136	22,136	8,271
947.50	22,865	22,865	10,522
947.60	23,594	23,594	12,844
947.70	24,323	24,323	15,240
947.80	25,051	25,051	17,709
947.90	25,780	25,780	20,251
948.00	26,509	26,509	22,865
948.10	27,138	27,138	25,547
948.20	27,768	27,768	28,293
948.30	28,397	28,397	31,101
948.40	29,026	29,026	33,972
948.50	29,656	29,656	36,906
948.60	30,285	30,285	39,903
948.70	30,914	30,914	42,963
948.80	31,543	31,543	46,086
948.90	32,173	32,173	49,272
949.00	32,802	32,802	52,521
949.10	33,716	33,716	55,846
949.20	34,631	34,631	59,264
949.30	35,545	35,545	62,773
949.40	36,459	36,459	66,373
949.50	37,374	37,374	70,064
949.60	38,288	38,288	73,847
949.70	39,202	39,202	77,722
949.80	40,116	40,116	81,688
949.90	41,031	41,031	85,745
950.00	41,945	41,945	89,894
950.10	42,937	42,937	94,138
950.20	43,930	43,930	98,481
950.30	44,922	44,922	102,924
950.40	45,915	45,915	107,466
950.50	46,907	46,907	112,107
950.60	47,899	47,899	116,847
950.70	48,892	48,892	121,687
950.80	49,884	49,884	126,626
950.90	50,877	50,877	131,664
951.00	51,869	51,869	136,801
951.10	53,216	53,216	142,055
951.20	54,563	54,563	147,444
951.30	55,910	55,910	152,968
951.40	<b>57,257</b>	<b>57,257</b>	<b>158,626</b>

**HydroCAD Proposed**

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=6.11"

Printed 3/5/2024

Page 17

**Summary for Pond 2P: North Pond**

[44] Hint: Outlet device #2 is below defined storage

Inflow Area = 479,160 sf, 53.64% Impervious, Inflow Depth = 4.19" for 100-Year event  
 Inflow = 56.85 cfs @ 12.01 hrs, Volume= 167,449 cf  
 Outflow = 4.46 cfs @ 12.95 hrs, Volume= 167,449 cf, Atten= 92%, Lag= 56.0 min  
 Discarded = 0.00 cfs @ 12.95 hrs, Volume= 96 cf  
 Primary = 4.46 cfs @ 12.95 hrs, Volume= 167,353 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.10 hrs  
 Peak Elev= 950.51' @ 12.95 hrs Surf.Area= 62,955 sf Storage= 86,432 cf

Plug-Flow detention time= 234.5 min calculated for 167,217 cf (100% of inflow)  
 Center-of-Mass det. time= 234.6 min ( 1,042.4 - 807.8 )

Volume	Invert	Avail.Storage	Storage Description
#1	949.00'	152,514 cf	<b>North Pond (Prismatic)</b> Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
949.00	51,517	0	0
950.00	59,049	55,283	55,283
950.50	62,873	30,481	85,764
951.00	66,739	32,403	118,167
951.50	70,652	34,348	152,514

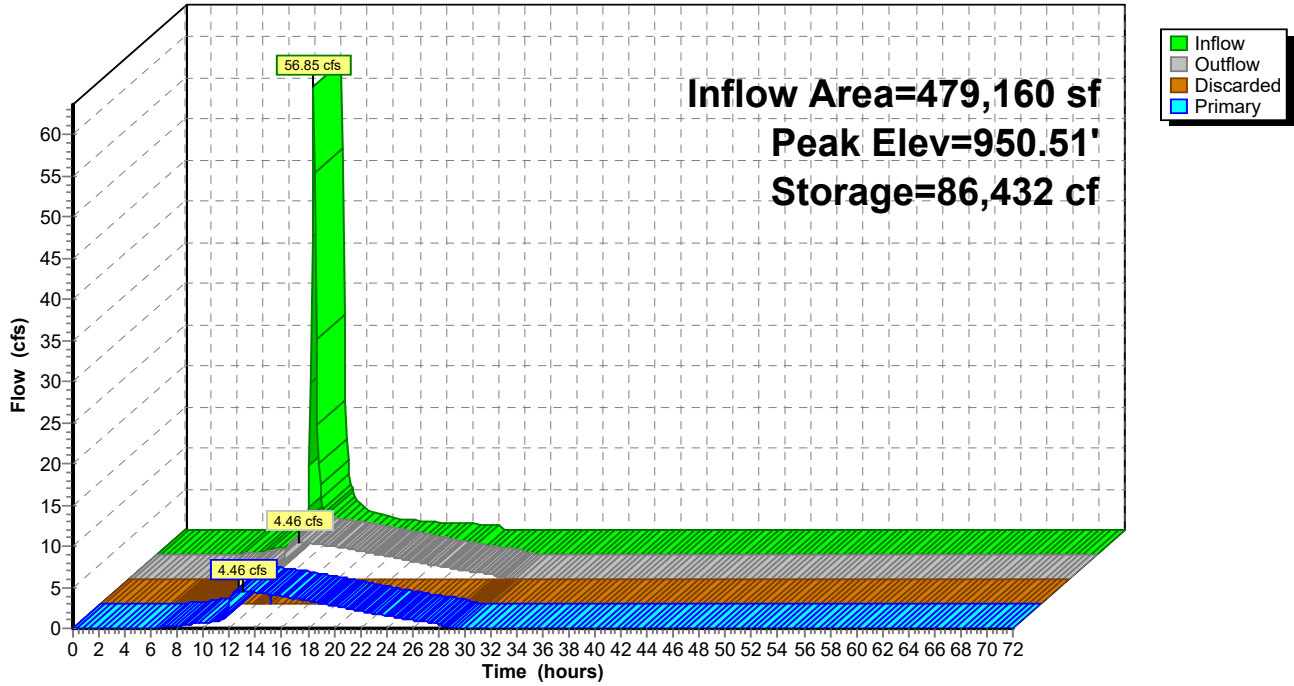
Device	Routing	Invert	Outlet Devices
#1	Discarded	949.00'	<b>0.001 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 900.00'
#2	Primary	948.62'	<b>12.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads

**Discarded OutFlow** Max=0.00 cfs @ 12.95 hrs HW=950.51' (Free Discharge)  
 ↑1=Exfiltration ( Controls 0.00 cfs)

**Primary OutFlow** Max=4.46 cfs @ 12.95 hrs HW=950.51' (Free Discharge)  
 ↑2=Orifice/Grate (Orifice Controls 4.46 cfs @ 5.68 fps)

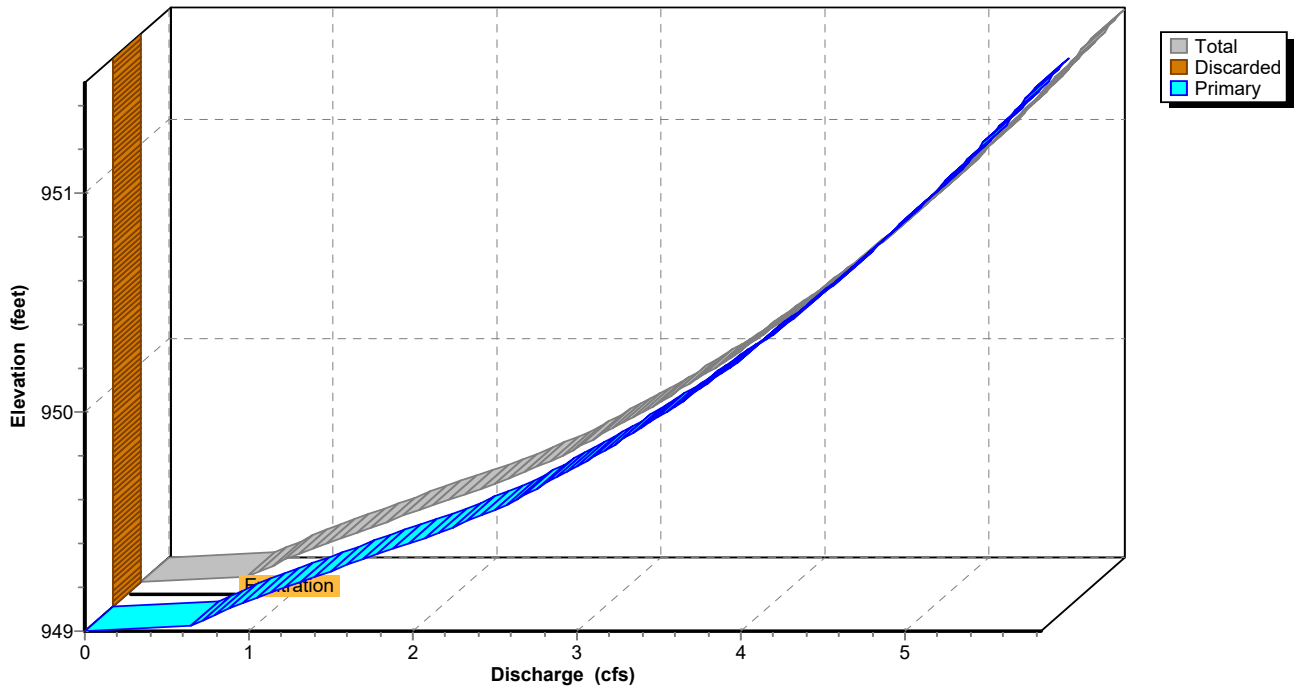
### Pond 2P: North Pond

Hydrograph

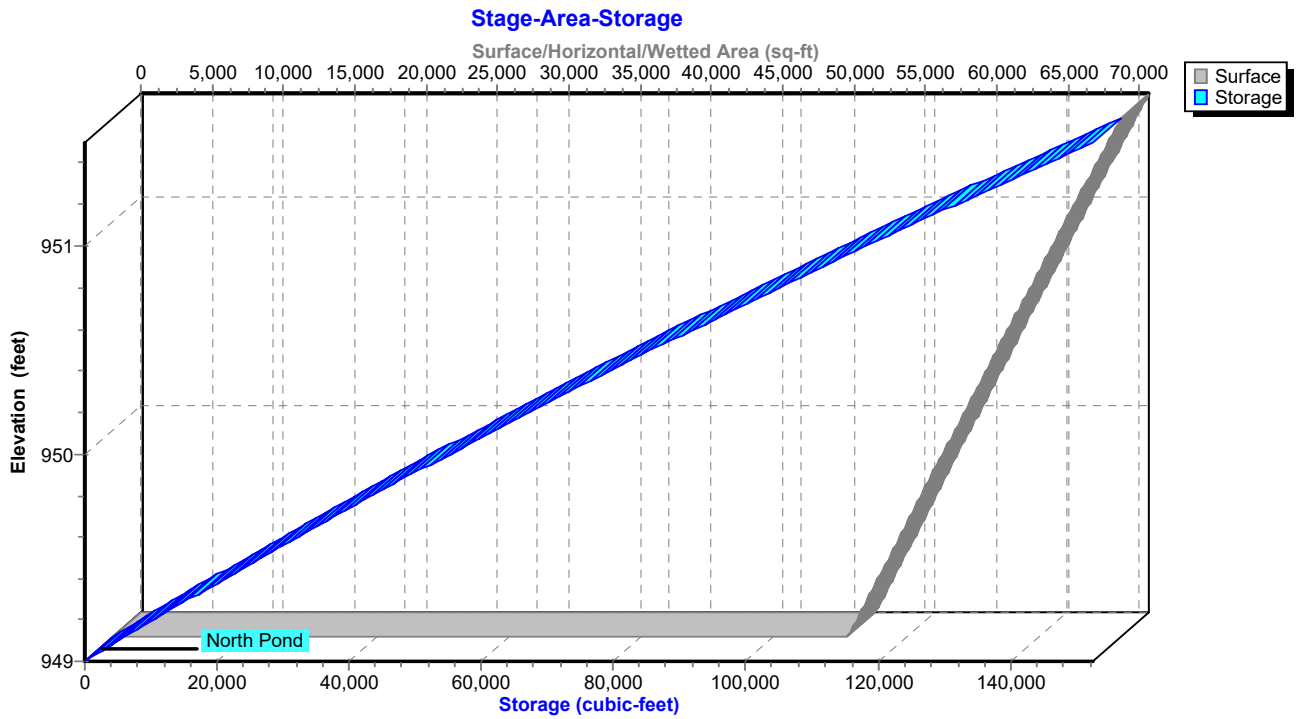


### Pond 2P: North Pond

Stage-Discharge



### Pond 2P: North Pond



# HydroCAD Proposed

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=6.11"

Printed 3/5/2024

Page 20

## Hydrograph for Pond 2P: North Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	949.00	0.00	0.00	0.00
2.00	0.00	0	949.00	0.00	0.00	0.00
4.00	0.00	0	949.00	0.00	0.00	0.00
6.00	0.07	50	949.00	0.03	0.00	0.03
8.00	0.35	534	949.01	0.27	0.00	0.27
10.00	1.07	1,788	949.03	0.68	0.00	0.68
12.00	<b>56.58</b>	<b>43,971</b>	<b>949.81</b>	<b>3.13</b>	<b>0.00</b>	<b>3.13</b>
14.00	2.49	<b>82,164</b>	<b>950.44</b>	<b>4.35</b>	<b>0.00</b>	<b>4.35</b>
16.00	1.50	66,302	950.18	3.90	0.00	3.90
18.00	1.15	49,574	949.90	3.35	0.00	3.35
20.00	0.84	34,803	949.65	2.74	0.00	2.74
22.00	0.76	22,996	949.43	2.10	0.00	2.10
24.00	0.69	15,213	949.29	1.56	0.00	1.56
26.00	0.00	6,667	949.13	0.97	0.00	0.97
28.00	0.00	1,032	949.02	0.52	0.00	0.52
30.00	0.00	28	949.00	0.01	0.00	0.01
32.00	0.00	1	949.00	0.00	0.00	0.00
34.00	0.00	0	949.00	0.00	0.00	0.00
36.00	0.00	0	949.00	0.00	0.00	0.00
38.00	0.00	0	949.00	0.00	0.00	0.00
40.00	0.00	0	949.00	0.00	0.00	0.00
42.00	0.00	0	949.00	0.00	0.00	0.00
44.00	0.00	0	949.00	0.00	0.00	0.00
46.00	0.00	0	949.00	0.00	0.00	0.00
48.00	0.00	0	949.00	0.00	0.00	0.00
50.00	0.00	0	949.00	0.00	0.00	0.00
52.00	0.00	0	949.00	0.00	0.00	0.00
54.00	0.00	0	949.00	0.00	0.00	0.00
56.00	0.00	0	949.00	0.00	0.00	0.00
58.00	0.00	0	949.00	0.00	0.00	0.00
60.00	0.00	0	949.00	0.00	0.00	0.00
62.00	0.00	0	949.00	0.00	0.00	0.00
64.00	0.00	0	949.00	0.00	0.00	0.00
66.00	0.00	0	949.00	0.00	0.00	0.00
68.00	0.00	0	949.00	0.00	0.00	0.00
70.00	0.00	0	949.00	0.00	0.00	0.00
72.00	0.00	0	949.00	0.00	0.00	0.00



**HydroCAD Proposed**

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

*Type II 24-hr 100-Year Rainfall=6.11"*

Printed 3/5/2024

Page 21

**Stage-Discharge for Pond 2P: North Pond**

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
949.00	0.00	0.00	0.00
949.05	0.72	0.00	0.72
949.10	0.88	0.00	0.88
949.15	1.05	0.00	1.05
949.20	1.23	0.00	1.22
949.25	1.41	0.00	1.41
949.30	1.60	0.00	1.60
949.35	1.79	0.00	1.79
949.40	1.98	0.00	1.98
949.45	2.16	0.00	2.16
949.50	2.34	0.00	2.34
949.55	2.50	0.00	2.50
949.60	2.64	0.00	2.63
949.65	2.75	0.00	2.75
949.70	2.88	0.00	2.88
949.75	3.00	0.00	3.00
949.80	3.12	0.00	3.12
949.85	3.23	0.00	3.23
949.90	3.34	0.00	3.34
949.95	3.45	0.00	3.45
950.00	3.55	0.00	3.55
950.05	3.65	0.00	3.65
950.10	3.75	0.00	3.74
950.15	3.84	0.00	3.84
950.20	3.93	0.00	3.93
950.25	4.02	0.00	4.02
950.30	4.11	0.00	4.11
950.35	4.20	0.00	4.19
950.40	4.28	0.00	4.28
950.45	4.36	0.00	4.36
950.50	4.44	0.00	4.44
950.55	4.52	0.00	4.52
950.60	4.60	0.00	4.60
950.65	4.68	0.00	4.68
950.70	4.76	0.00	4.75
950.75	4.83	0.00	4.83
950.80	4.90	0.00	4.90
950.85	4.98	0.00	4.97
950.90	5.05	0.00	5.05
950.95	5.12	0.00	5.12
951.00	5.19	0.00	5.19
951.05	5.26	0.00	5.25
951.10	5.32	0.00	5.32
951.15	5.39	0.00	5.39
951.20	5.46	0.00	5.45
951.25	5.52	0.00	5.52
951.30	5.59	0.00	5.58
951.35	5.65	0.00	5.65
951.40	5.71	0.00	5.71
951.45	5.77	0.00	5.77
951.50	<b>5.84</b>	<b>0.00</b>	<b>5.83</b>

**HydroCAD Proposed**

Prepared by Tyler Bourdo

HydroCAD® 10.10-5a s/n 11669 © 2020 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=6.11"

Printed 3/5/2024

Page 22

**Stage-Area-Storage for Pond 2P: North Pond**

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
949.00	51,517	0
949.05	51,894	2,585
949.10	52,270	5,189
949.15	52,647	7,812
949.20	53,023	10,454
949.25	53,400	13,115
949.30	53,777	15,794
949.35	54,153	18,492
949.40	54,530	21,209
949.45	54,906	23,945
949.50	55,283	26,700
949.55	55,660	29,474
949.60	56,036	32,266
949.65	56,413	35,077
949.70	56,789	37,907
949.75	57,166	40,756
949.80	57,543	43,624
949.85	57,919	46,510
949.90	58,296	49,416
949.95	58,672	52,340
950.00	59,049	55,283
950.05	59,431	58,245
950.10	59,814	61,226
950.15	60,196	64,226
950.20	60,579	67,246
950.25	60,961	70,284
950.30	61,343	73,342
950.35	61,726	76,419
950.40	62,108	79,514
950.45	62,491	82,629
950.50	62,873	85,764
950.55	63,260	88,917
950.60	63,646	92,089
950.65	64,033	95,281
950.70	64,419	98,493
950.75	64,806	101,723
950.80	65,193	104,973
950.85	65,579	108,243
950.90	65,966	111,531
950.95	66,352	114,839
951.00	66,739	118,167
951.05	67,130	121,513
951.10	67,522	124,880
951.15	67,913	128,265
951.20	68,304	131,671
951.25	68,696	135,096
951.30	69,087	138,540
951.35	69,478	142,004
951.40	69,869	145,488
951.45	70,261	148,991
951.50	<b>70,652</b>	<b>152,514</b>



March 14<sup>th</sup>, 2024

Osthemo Township  
 7275 West Main Street  
 Kalamazoo, MI 49009

**6565 West Main Street - Written Narrative and Calculations for Required Parking Spaces**

Please see the written narratives below according to the required items from Osthemo Township zoning ordinance.

**I. Multiple Uses**

In the case of the West Main Street Subaru project, Osthemo Township has agreed to consider multiple uses of a single building within the property, as clarified in section 52.70 of the zoning ordinance. The proposed two-story building, which is 50,106 square feet in size, has the following business/commercial uses:

1. Automotive Repair Shops & Service Stations
2. Showrooms for Motor Vehicle Sales

The proposed building also includes the following industrial uses:

1. Warehouse and Distribution Facilities

**II. Minimum Required Parking Spaces**

Based on the above stated uses, Osthemo Township has defined a minimum number of spaces specific to such uses as shown in section 52.100 of the zoning ordinance.

Land Use	Minimum Number of Spaces Per Unit of Measure
Automotive Repair Shops & Service Stations	3 spaces per bay
Automotive Repair Shops & Service Stations	1 space per each 300 s.f of net floor area
Showrooms for Motor Vehicle Sales	1 space per each 400 s.f. of net floor area used for sales and/or display
Warehouse and Distribution Facilities	1 per each 1,500 s.f. of net floor area plus the required parking devoted to other uses OR one per employee whichever is greater

### III. Required Parking Spaces Calculations

Within the proposed building, 28 vehicle services bays are included. To further obtain the required number of parking spaces, the corresponding net floor areas of the proposed building for each use will also need to be determined. Proposed building areas were determined utilizing the floor plan as provided by the architect. For the use of automotive repair shops and service stations, the net floor area of the proposed building is applied. The net floor area of the building is classified as areas that are not accounted for by other uses (such as warehouse and showroom), and do not include areas such as hallways, bathrooms, and utility rooms. For the uses of showrooms for motor vehicles and warehouse and distribution facilities, calculations are based on the floor area designated to such uses. Parking space requirements per use are added together to achieve the total number of required parking.

Determined floor areas and net floor area, as well as calculations for the minimum required parking spaces are shown as follows:

Total Building: 50,106 sf

Hallways, bathrooms, and utilities on both floors: 7,127 sf

Service Area, write-up and bays: 17,263 sf

Showroom and display: 4,556 sf

Warehouse on both floors: 14,354 sf

Net floor area =  $50,106 - 7,127 - 17,263 - 4,556 - 14,354 = 6,806$  sf

28 bays x 3 spaces per bay = **84 Spaces**

6,806 sf (net floor area) x 1 space per 300 sf = **23 spaces**

4,556 sf (showroom and sales) x 1 space per 400 sf = **12 spaces**

14,354 (warehouse) x 1 space per 1,500 sf = **10 spaces**

**Total spaces = 129 Spaces**

### IV. Summary

Based on the information above, the site located at 6565 West Main Street will require a minimum of 129 parking spaces. Oshtemo township does allow a 10 percent parking space reduction if the area is considered for shared access according to section 52.80 of the zoning ordinance, requiring a minimum of 116 spaces. However, this site plan does not include the requirements for shared access reduction. Oshtemo Township allows a maximum number of parking spaces equal to 110 percent of the minimum required parking spaces, according to section 52.50, providing a maximum number of parking spaces equal to 142 spaces. **Overall, the proposed number of parking spaces for this site is 134 spaces, which meets the requirements of Oshtemo Township. This total includes 101 spaces within the area**

designated as the 'bullpen', 10 spaces along the southern edge of the parking area just outside of the bullpen area, and 23 spaces on the north side of the proposed building for customers.

**Mitten State Engineering, PLLC**

A handwritten signature in black ink, appearing to read "Tyler Cravens", enclosed within a large, horizontal oval stroke.

Tyler Cravens, P.E.  
10123 S M43  
Delton, MI 49046  
(269) 364-5626

A handwritten signature in blue ink, appearing to read "Tyler Bourdo", written in a cursive style.

Tyler Bourdo, P.E.  
(269) 716-0175

[This page left intentionally blank]

March 20, 2024



**Mtg Date:** March 28, 2024

**To:** Oshtemo Township Planning Commission

**From:** Colten Hutson, Zoning Administrator

**Applicant:** Green Development Ventures, LLC

**Owner:** Simon & Janelle Ashbrook and Mark & Ranita Ashbrook

**Property:** 7110 W Main Street, Parcel Number 05-15-285-010

**Zoning:** R-2: Residence District

**Request:** Step One Tentative Preliminary Plan Approval for a 41-Unit Site Condominium Project

**Section(s):** Section 290: Subdivision, Site Condominium, and Land Division Ordinance

**PROJECT SUMMARY:**

Green Development Ventures, LLC, on behalf of the property owner, is requesting step one tentative preliminary plan approval for a 41-unit site condominium project located at 7110 W Main Street. Currently serving as a residential use, the applicant is seeking to demolish the existing structures on-site in order to develop 41 new single-family homes. The subject project site falls within the R-2: Residence District zoning designation. Single-family site condominium developments are considered an allowable use within the R-2: Residence District. The approximate 20-acre site is located on the north side of W Main Street between N 7<sup>th</sup> Street and N 8<sup>th</sup> Street. The site under consideration is outlined in light blue on the map to the right.



**ANALYSIS:**

When reviewing an application for a site condominium development request, there is one set of criteria that needs to be considered: the Subdivision, Site Condominium, and Land Division Ordinance of Article 290. Article 290 includes requirements on arrangement, size, and shapes of building sites, design of streets and pedestrian pathways, provisions related to natural features, external factors such as non-motorized and road connections, along with other general project elements.

Site condominium projects developing under Article 290 require review and approval by the Planning Commission and the Township Board. The Planning Commission, in this instance, is the recommending body who will need to determine whether to forward a recommendation of approval or denial to the Township Board for their review of this request. An analysis of the proposed site condominium project against Article 290 of the Ordinance has been provided below.

**ARTICLE 290: SUBDIVISION, SITE CONDOMINIUM, AND LAND DIVISION ORDINANCE:**

**General Zoning:**

The subject property is zoned R-2: Residence District. The subject site is adjacent to a residential plat to the west, unplatted single-family home sites to the north and south, and hockey and golf service stores to the east. Zoning wise, R-2: Residence District is adjacent to the north, south, and west. C: Local Business District abuts the subject property to the immediate east. Within the R-2: Residence District, single-family residential developments are categorized as permissible uses. All general zoning requirements have been met. A snapshot showing the surrounding zoning is provided to the right.



**Parent Parcel Configuration:**

The overall project site is about 20 acres in size and has approximately 720’ of frontage abutting the W Main Street public right-of-way. The depth of the parent parcel is about 1,250’. The property is located on the north side of the road, around 400’ east of the intersection of N 7<sup>th</sup> Street and W Main Street and is directly adjacent within the N 8<sup>th</sup> Street and W Main Street intersection. Although the parcel in question lacks water features or wetlands, the property encompasses mildly rolling terrain and significant woodland. The parent parcel’s current configuration exceeds the minimum property area (50,000 square feet min.) and minimum frontage requirements (200’ min.) outlined in the Ordinance for unplatted parcels located within the R-2: Residence District.

**Lots and Building Sites:**

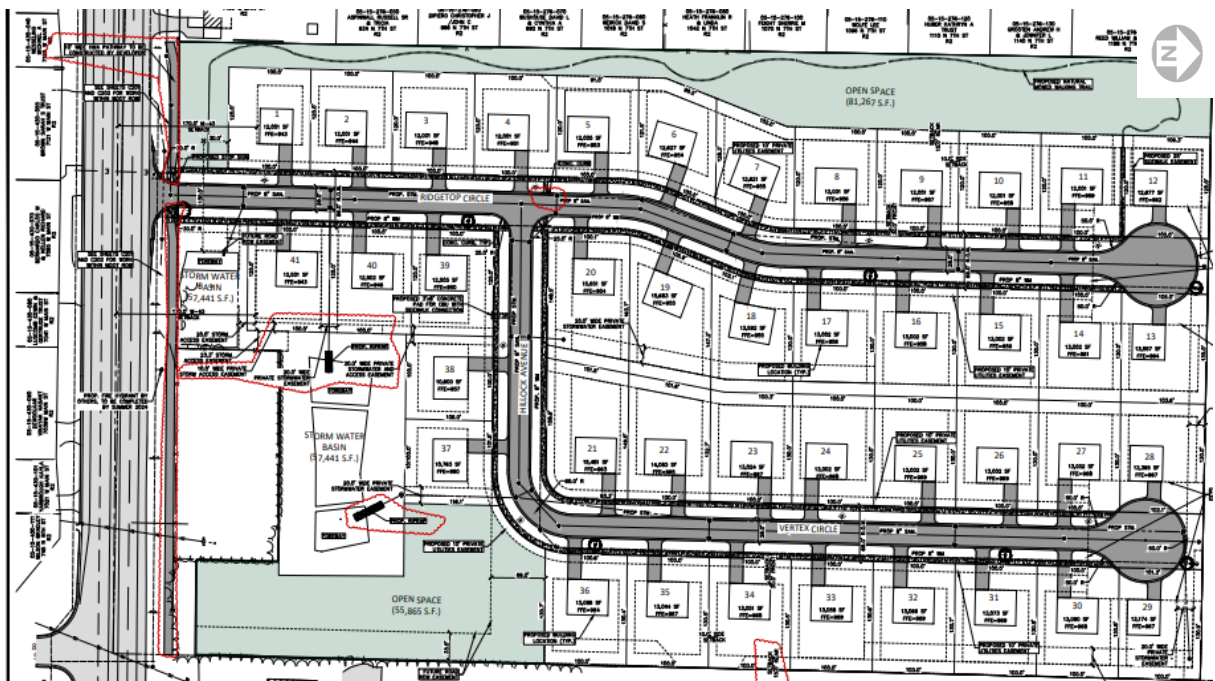
Section 290.008 of the Subdivision, Site Condominium, and Land Division Ordinance dictates that any single-family building site located within a site condominium project in the R-2: Residence District zoning classification and served by public water and sewer must be a minimum of 10,560 square feet in size. The presented plan meets this requirement, with the smallest building site



being 10,600 square feet in area and the largest at 15,683 square feet. The average site size within the proposed 41-unit site condominium development is 13,193 square feet.

Any single-family building site located within a site condominium project in the R-2: Residence District zoning classification and served by water and sewer shall have a minimum frontage width of 100' as measured at the front building setback. The site plan in question identifies such and shows that all building sites are at least 100' wide at the front building setback line.

The setbacks within the development itself are presented as 30' for the front, 10' for the sides, and 15' for the rear. The minimum setback requirements for the front yard, side yards, and rear yard have all been satisfied for each individual building site. Additionally, since W Main Street is categorized as a designated highway by the Township's Ordinance, no building shall be placed closer than 170' from the center of the right-of-way on W Main Street. The applicant shows that all dwelling units will be setback 170' or more from the center of the W Main Street right-of-way. All minimum setback requirements have been met. A snapshot of the site plan illustrating property dimensions, setbacks, and other general site plan elements can be found below.



**Street Rights-of-Way:**

The subject site condominium development is proposing a street network that is planned to be private. The transportation network will consist of three streets: Ridgetop Circle, Vertex Circle, and Hillock Avenue. The private streets are proposed to be 28' wide curb to curb on a 66' wide private right-of-way. All curbing at intersections and entrances are proposed to be concrete while the remaining curbing throughout the development is proposed to be bituminous. Block lengths shown on the site plan are acceptable and satisfy code requirements. Ridgetop Circle and Vertex Circle are proposed to terminate at the development's north end in cul-de-sacs. Per the Township's site condominium design requirements, the cul-de-sacs on Ridgetop Circle and Vertex Circle are proposed to be temporary turnarounds. These two proposed cul-de-sacs are temporary

in nature as they are meant to facilitate future interconnection, should the 10-acre residential property adjacent to the north ever be subdivided or condominiumized. No building site within the development will have exclusive access to W Main Street.

Additionally, the applicant was required to obtain a permit for construction of their new driveway and main access point from the Michigan Department of Transportation (MDOT) as the primary road authority along this stretch of M-43. Legally, “reasonable” access is a right of a property owner and, at this time, the parcel only has such along their southern property line that fronts M-43. As a part of the permit requirements, MDOT required a Traffic Impact Analysis (TIA) to determine whether a right taper lane would be warranted and where the driveway could be located based on speeds and other adjacent driveways in proximity that may have turning conflict points.

The TIA results did conclude that the proposed location would be allowed; however, it did not meet all the separation requirements, specifically from the Oshtemo Library driveway. In the review, the consultant recommended that this was the best case because of the time when the Oshtemo Library is open (outside peak hours) and the low number of trips.

The Oshtemo Public Works Department has previously received public inquiries about the offset and conflicts from N 7<sup>th</sup> Street drivers turning left to eastbound M-43 and patrons of the Library (and Township Park users). Staff reviewed the TIA with MDOT closely and researched crash data in this segment of the corridor and noted that there were not any severe crashes or fatalities. Given this is lawfully required, and the optimal location of any for this site, the driveway in the proposed location is the best option at this time.

The Public Works Director met with the applicant to discuss the principals in Oshtemo’s Master Plan and Access Management Plan and various ways to implement around their site. Most notably, the Access Management Plan on Page 13 identifies “Closures and Consolidation of Existing Access Points” if the opportunities arise in in four areas which one is W Main Street – N 9<sup>th</sup> Street to N 7<sup>th</sup> Street. The applicant was very receptive and supportive and did consider all of staff’s recommendations and made adjustments accordingly to their layout to accommodate these efforts.

One way adjustments were made was by identifying the future right-of-way in the southeast corner of the development that could connect to an extension of N 8<sup>th</sup> Street to the north of W Main Street. This concept of N 8<sup>th</sup> Street would be half of this development’s property and half on the property to the east. The Public Works Director has also met with this property owner, and the property owner is supportive of this road connection as well (and closing their existing drive). If implemented, the proposed driveway access point in the southwest corner would then be eliminated and become a permanent hammerhead for Fire Department use. Finalization of the design for the additional access point will be a requirement as a part of the step two approval process.

**Non-Motorized Facilities:**

Per Township requirements, the developer is proposing 5’ wide sidewalks on both sides of the road. All sidewalks are proposed to be made of concrete. A 5’ wide sidewalk is also proposed between Units 11 and 12 via easement to allow for easy access to the proposed natural trail in

the designated open space areas for residents. Pedestrian crossing accommodations are also proposed throughout the development. One pedestrian crossing is proposed at the entrance into the development at the southwest corner of the site on Ridgetop Circle. A second pedestrian crossing is proposed further north on Ridgetop Circle, north of the intersection at Hillock Avenue. A third pedestrian crossing is proposed on the west end of Hillock Avenue, immediately east of the intersection at Ridgetop Circle. Locations where ramps are identified are proposed to be constructed with concrete curb and gutter.

Additionally, the Township's Non-motorized Transportation Plan does identify a HMA shared use path adjacent to the subject parcel on the north side of W Main Street. A 10' wide shared use path in said location is currently proposed on the site plan and will be required to be installed at time of development. Since this segment of W Main Street falls within MDOT's jurisdiction, said non-motorized facility will be required to go through MDOT's permitting process prior to its installation. Detailed plans for the 10' wide shared use path will be required to be submitted at time of applying for step two approval. At this time, the non-motorized facility is proposed to be located within the W Main Street public right-of-way. If the design of the non-motorized facility is modified where portions of such is located outside of the public right-of-way to avoid safety concerns or utility conflicts, an easement will be required to be recorded at the Kalamazoo County Register of Deeds Office.

**Utilities and Easements:**

Public water and sewer are both being proposed. Construction of municipal water and sewer along the north side of W Main Street between N 7<sup>th</sup> Street and N 8<sup>th</sup> Street are currently underway. The subject site condominium development possesses frontage along this stretch of W Main Street and is proposing to tie into said public infrastructure in the southwest corner of the development. Once the public utility work has been completed within the W Main Street right-of-way, the developer would then be able to extend such throughout the development where each single-family home would then be connected to and serviced by the public system.

All existing easements have been illustrated. Since the developer is proposing private streets, easements for water (20' wide) and sewer (30' wide) will be required. A 10' wide easement for private utilities such as gas, electric, and cable is proposed on both sides throughout the road network. Other easements proposed include easements for sidewalk, private stormwater and access, tree preservation, future road right-of-way, and temporary turnarounds. All easements will be finalized during the step two review process and will be required to be recorded with the Kalamazoo County Register of Deeds Office.

**Stormwater Management Systems:**

Two stormwater basins are proposed on the south end of the development. A stormwater basin owned by MDOT is also located to the immediate south of the proposed basins to accommodate stormwater runoff from W Main Street. Each basin is designed to have their emergency overflows abut the MDOT basin so concentrated flows can enter the MDOT basin in the event of a torrential rainstorm that is beyond a 100-year storm. Easements to gain access to the overall development's stormwater basins are currently proposed. Such access easements are needed for maintenance purposes in the case either basin needs repair. Maintenance agreements will also need to be provided as a part of step two approval. Yard drains to collect stormwater are also proposed in the rear yard for a number of the units in order to accommodate such stormwater needs.

**Street Lighting:**

Although such features are not required to be shown on the site plan until step two review, the applicant does intend to install street lighting throughout the proposed site condominium development. Some streetlights are currently proposed on the plan set. The finalization of lighting details and manufacturer specifications will be reviewed with a photometric plan during the step two review process.

**Natural Features and Landscaping:**

As a part of the requirements outlined in Article 290, the applicant has provided a natural features preservation sheet identifying trees that will be preserved versus trees that will be removed. A minimum of 20 percent of trees 8” or greater in diameter shall be preserved on-site. Through the tree survey, the applicant identifies that there are currently 1,635 trees that are 8” or greater in diameter on-site, 457 of which will be proposed to remain intact. This would mean that 28 percent of trees 8” or greater in diameter will be preserved, exceeding minimum code requirements. The applicant shows that the trees identified for removal are in areas where key infrastructure or improvements are planned to be implemented. Such areas include roadways, water, sewer, private utilities, driveways, placement of dwelling units, etc. Tree protection barrier fencing at 4’ in height will be installed surrounding individual trees that will be preserved.

A heat map illustrating the variations in slopes, categorizing slopes appropriate for earth change movements versus areas where such activities are prohibited, has been provided in the applicant’s submission. Up to 50 percent of slopes ranging between 12 -18 percent are allowed to be developed whereas no development can occur in areas where slopes exceed 18 percent. In reviewing the heat map provided, all requirements pertaining to slopes within Article 290 appear to be satisfied.

More than 15 percent of the project site (3.15 acres) is set aside as open space. This open space includes dense, wooded areas and steep slopes. It will be accessible to the property owners within the development via natural pedestrian trails that connect to the sidewalks located along the street rights-of-way. Tree preservation easements are also proposed throughout the site condominium development. The appropriate legal mechanisms to protect areas of permanent open space and tree preservation in perpetuity will be required during step two approval.

A landscaping plan in accordance with Article 53 of the Township’s Ordinance has been provided as a part of the applicant’s site plan submission. As a part of this development, the applicant will have to plant at least one canopy tree per 50’ of road frontage on each building site. 2” caliper sugar maple and tulip trees are proposed at least every 50’ and satisfy such requirements. All other landscaping requirements at this time have been met.

**REVIEWS BY OTHER DEPARTMENTS:**

**Engineering Department:**

Wightman & Associates and Oshtemo Public Works have reviewed the proposal and overall are pleased with the design. There are a couple of relatively minor items that will need to be modified; however, staff felt it would be more than appropriate for such to be addressed at time of submitting application for step two approval.

**Fire Department:**

The Fire Marshal has reviewed the site plan for the proposed 41-unit site condominium development and indicated that the Fire Department has no concerns.

**RECOMMENDATION:**

Planning Department staff recommend that the Planning Commission forward a recommendation of step one tentative preliminary plan approval to the Township Board for a 41-unit site condominium development located at 7110 W Main Street, Parcel Number 05-15-285-010 with the following conditions.

- 1) A driveway permit from the Michigan Department of Transportation (MDOT) authorizing the newly proposed curb cut will be required to be obtained at time of submitting formal application for step two approval.
- 2) Engineering details including, but not limited to access, stormwater management, and water main shall be addressed to the satisfaction of the Township Engineer at time of submitting formal application for step two approval.

Attachments: Application, Letter of Intent, 03-01-2024 Plan Set, Stormwater Calculations, and Traffic Impact Analysis

This page left intentionally blank.



7275 W. Main Street, Kalamazoo, Michigan 49009-9334  
 Phone: 269-375-4260 Fax: 269-375-7180

**PLEASE PRINT**

**PROJECT NAME & ADDRESS**

West Ridge (Site Condominium), 7110 West Main, Parcel ID 3905-15-285-010

**PLANNING & ZONING APPLICATION**

Applicant Name: John Lovely  
 Company: Green Development Ventures, LLC  
Allen Edwin Homes  
 Address: 2186 E Centre Ave  
Portage, MI 49002  
 E-mail: jlovely@allenedwin.com  
 Telephone: 269-391-0542 Fax: \_\_\_\_\_  
 Interest in Property: Developer

**OWNER\*: Refer to attached letter of authorization**

Name: Simon & Jenelle Ashbrook and Mark & Ranita Ashbrook  
 Address: 41297 CR 380 and 22079 41st Street, Bloomingdale, MI 49026, respectfully  
 E-mail: ashbrook.simon@gmail.com and ashbrook1@bloomingdalecom.net  
 Phone & Fax: \_\_\_\_\_

THIS  
SPACE  
FOR  
TOWNSHIP  
USE  
ONLY

Fee Amount \_\_\_\_\_

Escrow Amount \_\_\_\_\_

**NATURE OF THE REQUEST: (Please check the appropriate item(s))**

- |   |   |
|---|---|
| <input type="checkbox"/> Pre-Application Review                 | <input type="checkbox"/> Accessory Building Review – I083 |
| <input type="checkbox"/> Site Plan Review – I088                | <input type="checkbox"/> Rezoning – I091                  |
| <input type="checkbox"/> Administrative Site Plan Review – I086 | <input type="checkbox"/> Subdivision Plat Review – I089   |
| <input type="checkbox"/> Special Exception Use – I085           | <input type="checkbox"/> Interpretation – I082            |
| <input type="checkbox"/> Zoning Variance – I092                 | <input type="checkbox"/> Other: _____                     |
| <input checked="" type="checkbox"/> Site Condominium – I084     |   |

**BRIEFLY DESCRIBE YOUR REQUEST (Use Attachments if Necessary):** Step 1 Tentative Preliminary Site Condominium

Submittal for review of 41 new single family units/lots and associated infrastructure/improvements.

**LEGAL DESCRIPTION OF PROPERTY (Use Attachments if Necessary):**

Refer to attached plans.

**PARCEL NUMBER:** 3905- 15-285-010

**ADDRESS OF PROPERTY:** 7110 West Main

**PRESENT USE OF THE PROPERTY:** Single Family Home

**PRESENT ZONING:** R2 **SIZE OF PROPERTY:** 20.33

**NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS HAVING A LEGAL OR EQUITABLE INTEREST IN THE PROPERTY:**

**Name(s)**

**Address(es)**

\_\_\_\_\_  
\_\_\_\_\_

**SIGNATURES**

*I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) acknowledge that we have received the Township's Disclaimer Regarding Sewer and Water Infrastructure. By submitting this Planning & Zoning Application, I (we) grant permission for Oshtemo Township officials and agents to enter the subject property of the application as part of completing the reviews necessary to process the application.*

Refer to attached letter of authorization .

**Owner's Signature (\*If different from Applicant)**

**Date**

*John Jarely*  
\_\_\_\_\_  
**Applicant's Signature**

12/5/23  
**Date**

- Copies to:
- Planning – 1
- Applicant – 1
- Clerk – 1
- Deputy Clerk – 1
- Attorney – 1
- Assessor – 1
- Planning Secretary – Original

\*\*\*\*

**PLEASE ATTACH ALL REQUIRED DOCUMENTS**



**APPLICANTS: KEEP THIS PAGE FOR YOUR RECORDS**

OSHTEMO CHARTER TOWNSHIP

**DISCLAIMER REGARDING SEWER AND WATER INFRASTRUCTURE**

Oshtemo Charter Township makes no covenant or warranty with regard to the accuracy of any of its utility records (sewer or water) or the records of its agents or any statements or representations made by its employees or agents with regard to utility infrastructure within the Township, nor shall any reliance be placed upon the same for purposes of construction, reconstruction, connection, extension or addition to the Township's utility infrastructure.

The Township will not be responsible for any additional cost, direct or indirect, or incidental or consequential damages resulting from any inaccuracy of its records or the statements or representations of its employees or agents.

All developers and contractors, wishing to avail themselves of the public utilities within Oshtemo Charter Township, should make their own independent inspections to determine the location and suitability of all public utilities for development purposes and not rely upon any of the public records, statements or representations of the Township's employees or agents.

OSHTEMO CHARTER TOWNSHIP

This page left intentionally blank.

August 22, 2023

Iris Lubbert, Planning Director  
Community Development Department  
Charter Township of Oshtemo  
7275 West Main Street  
Kalamazoo, Michigan 49009

Re: 7110 West Main Street (Parcel #05-15-285-010, 22 Acres)

Dear Ms. Lubbert,

We own 7110 West Main Street (Parcel #05-15-285-010, 22 Acres) in the Charter Township of Oshtemo, Kalamazoo County, Michigan. We confirm that Green Development Ventures, LLC/Allen Edwin Homes has authorized consent to submit for municipal approvals and permits (rezoning, subdivision review, site plan, special use permit, utility permits, etc.) that may be required for the development of the subject parcel.

Feel free to contact us with questions or concerns.

Sincerely,

DocuSigned by:  
*Simon Ashbrook*  
3F1CC525EB12449...

DocuSigned by:  
*Jenelle Ashbrook*  
B8083F75B94D457...

Simon and Jenelle Ashbrook  
41297 CR 380  
Bloomingtondale, MI 49026  
[ashbrook.simon@gmail.com](mailto:ashbrook.simon@gmail.com)

DocuSigned by:  
*Mark Ashbrook*  
DBEDF88268BC411...

DocuSigned by:  
*Ranita Ashbrook*  
52F89655B7024DA...

Mark and Ranita Ashbrook  
22079 41<sup>st</sup> Street  
Bloomingtondale, MI 49026  
[ashbrook1@bloomingtondalecom.net](mailto:ashbrook1@bloomingtondalecom.net)

## OSHTEMO TOWNSHIP

### Site Condominium/Subdivision PRELIMINARY PLAN Review - STEP 1

Project Name: West Ridge Site Condominium Date: 12/05/23

#### Filing Requirements

- X Planning and Zoning Application.
- X Filing fee per fee schedule.
- X 7 sets of plans folded so information located in the lower right hand corner is facing up.
- X The Environmental Permits Checklist.
- X The Hazardous Substance Reporting form.

#### Plan Preparation Requirements

- X All plans are to be drawn on uniform sheets no greater than 24" X 36".
- X Name of the project, name and address of preparer, and date prepared shall be located in the lower right hand corner of the plan.
- X The site plan shall be of a scale not less than one inch (1") equals fifty feet (50') and in sufficient detail that the reviewing body can readily interpret the plan.
- X All plans are to be accurately sealed.
- X If there is more than one plan sheet, all sheets are to be stapled along the left margin.

#### Plan Requirements

- X Proposed name of the project.
- X Name and address of the preparer.
- X Date prepared (including revisions).
- X Full legal description to adequately describe common areas or building sites comprising the project.
- X Vicinity map showing the location of the site in relation to the surrounding street system and indicating adjacent parcels with their existing use.
- X Property lines of adjacent tracts of subdivided and unsubdivided land shown in relation to the tract being proposed for condominium development, including those areas across abutting roads and rights-of-way.
- NA Tentative plan showing the feasibility of the development of adjoining land if the developer owns and anticipates future development of said land.
- X Adjacent right-of-ways or easements including the location of existing drives on the frontage adjacent and opposite the site to be developed. (If corner site, both sides).

- X Location of existing sewers, water mains, drainage pipes, and other underground utilities within or adjacent to the subject site.
- X Topography, both existing and proposed, at four-foot contour intervals, and its relationship to adjoining land. (Arrows should indicate direction of drainage.)
- X Location of significant natural features, (such as woodlots, marshlands, streams, lakes, drain basins, and similar features). Indicate isolated trees (outside of a woodlot) of > 12" in diameter at a height of 4' above grade. Natural features should be preserved insofar as possible.
- X Location of any new landscaping, including along internal roadways, buffer zones, etc.
- NA General location and size of any flood plain possibly located within the area to be developed.
- X Existing man-made features and indication of future use.
- X Percentage of land reserved for open space (where applicable).
- NA Depiction of land deemed uninhabitable and undevelopable because of topographic or floodplain constraints.
- X Indicate if public sanitary sewer and/or water service is proposed.
- NA Indicate if sites will be served by individual wells and/or septic systems.
- X General location and type of storm water disposal.
- X Dwelling unit density.
- X Indicate road layout, including connections to existing streets and placement of stub streets into adjacent properties.
- X Location of non-motorized and/or pedestrian pathways, including sidewalks.
- X Indicate building site layout, showing size and shape of proposed building sites, including dimensions of building area and square footage calculations for each.

**Notes:**

**STATE / COUNTY ENVIRONMENTAL PERMITS CHECKLIST  
FOR OSHTEMO TOWNSHIP**

This checklist has been designed to assist businesses in identifying and complying with state and county environmental permits and requirements. Please note that this checklist pertains only to state and county environmental permits. Additional permits and approvals may be required from Oshtemo Township or other government agencies. **This form must be completed and returned to the Township when a site plan is submitted.**

This checklist is not a permit application form; businesses are responsible for obtaining information and permit application forms from the appropriate government offices. Compliance and proper registration with applicable state and county requirements is required for site plan approval in Oshtemo Township. The Township will forward a copy of this form to the Michigan Department of Environmental Quality Permit Coordinator.

-----  
**Name of Business:** Green Development Ventures, LLC (Developing Residential Site Condo)

**Location of Business:** 7110 W. Main Street is the development location

**Name of Business Owner:** Green Development Ventures, LLC attn John Lovely

**Mailing Address:** 2186 E. Centre Street

**City:** Portage      **State:** MI      **Zip:** 49002

**Telephone:** 269-391-0542

**Business Manager / Operator:** N/A

**Type of Business** (type of activities to be carried out at the proposed business– include all processes and operations):

Proposed 41 unit residential site condominium development

**I affirm that the information submitted in this form is accurate.**

Owner's Signature:       Date: 12/5/23

Please circle Y (yes) or N (no) for each of the questions below. If Y (yes), contact the agency listed for further information and assistance.

1. Y  N Will the proposed project discharge any type of wastewater to a storm sewer, drain, wetland, pond, lagoon, or other surface water body?  
*Contact: Michigan Department of Environmental Quality, Surface Water Quality Division, (269) 567-3500*
2. Y  N Will the proposed project discharge any liquids, sludge, wastewater and/or wastewater residuals into or onto the ground?  
*Contact: Michigan Department of Environmental Quality, Waste Management Division, (269) 567-3500*
3. Y  N Will the proposed project use or store any hazardous substances, oil or salt? Depending upon the type of substance, secondary containment and a Pollution Incident Prevention Plan (PIPP), or a material storage permit may be required.  
*Contact: Michigan Department of Environmental Quality, Waste Management Division, (269) 567-3500*
4. Y  N Will the proposed project use underground storage tanks? Existing and proposed tanks must be registered with the State of Michigan, and installed and operated in accordance with regulations of the Michigan State Police Fire Marshal Division.  
*Contact: Michigan Department of Environmental Quality, Storage Tank Division, (517) 335-2690*
5. Y  N Will the proposed project burn, landfill, transfer, or process any type of solid, non-hazardous wastes?  
*Contact: Michigan Department of Environmental Quality, Waste Management Division, (269) 567-3500*
6. Y  N Will the proposed project involve the transport, on site treatment, storage or disposal of hazardous waste generated in quantities of 1000 kilograms (250 gallons or 2200 lbs.) or more per month? If yes, one or more permits may be required.  
*Contact: Michigan Department of Environmental Quality, Waste Management Division, (269) 567-3500*
7. Y  N Will the proposed project generate between 100 kilograms/month (25 gallons or 220 lbs.) and 1,000 kilograms/month (250 gallons or 2,200 lbs.) of hazardous waste? If yes, the facility may be a small quantity generator, subject to federal and state regulations. An EPA identification number should be obtained from the Michigan Department of Environmental Quality (special forms are available) and a manifest (shipping paper) should be used to transport waste off-site.  
*Contact: Michigan Department of Environmental Quality, Waste Management Division, (269) 567-3500*
8. Y  N Will the proposed project install, construct, reconstruct, relocate, or operate any process equipment (including air pollution control equipment) which has the potential to emit air contaminants?  
*Contact: Michigan Department of Environmental Quality, Waste Management Division, (269) 567-3500*
9. Y  N Does the proposed project involve any work (dredging, filling, construction) in a river, stream, creek, ditch, wetland, or floodplain or within 500 feet of an inland lake, river, stream or ditch?  
*Contact: Michigan Department of Environmental Quality, Land and Water Management, (269) 567-3500*
10. Y  N Will the proposed project change the natural cover or topography of the land, including cut and fill activities which may contribute to soil erosion and/or sedimentation? Will the earth change disturb an area of one acre or more, or occur within 500 feet of a lake or stream? If yes, a soil erosion and sedimentation control permit may be required.  
*Contact: Kalamazoo County Drain Commission, Kalamazoo (269) 384-8117.*

11. Y  N Will an on-site wastewater treatment system or septic system be installed?  
 Will septate be stored on-site prior to off-site disposal?  
*Contact: Sanitary Sewage—Kalamazoo County Human Services Department, Environmental Health Program (269) 373-5210*  
*Contact: Industrial/Commercial Wastewater in any quantity, or for sanitary sewage more than 10,000 gallons/day— Michigan Department of Environmental Quality, Waste Management Division, (269) 567-3500*
12. Y  N If the proposed project will be connected to sanitary sewer, will any hazardous and/or industrial chemicals, wastewater or waste in any quantity be discharged to the City of Kalamazoo Wastewater Treatment Plant? If yes, pretreatment may be required.  
*Contact: City of Kalamazoo, Water Reclamation Plant (269) 337-8157.*
13. Y  N Will the proposed project construct a new water well and/or abandon an existing water well? If yes to either one, contact the appropriate agency.  
*Contact: Well Construction, Kalamazoo County Human Services Department (269) 373-5210.*  
*Contact: Well Abandonment, Kalamazoo County Human Services Department (269) 373-5210.*
14. Y  N Is this proposed project (or any other facility/property under your ownership) currently involved in any compliance discussions with the Michigan Department of Environmental Quality or the Michigan Attorney General’s Office.  
*Contact: Michigan Department of Environmental Quality, Remediation & Redevelopment, Lansing District Office (517) 373-9837*
15. Y  N Is this proposed project (or any other facility/property under your ownership) included on the MI Act 307 Priority List, “Michigan Sites of Environmental Contamination” or subject to corrective action under the Leaking Underground Storage Tank (LUST) Program?  
*Contact Michigan Department of Environmental Quality, Environmental Response Division, 269-567-3500*

\*For assistance with permits and approvals from the Michigan Dept. of Environmental Quality, including permit coordination among DEQ Division, contact the Permit Consolidation Unit, Lansing District Office (517)373-9244.

Note: This form is a checklist of permits and/or requirements which may be needed for project development. Oshtemo Township provides this to proposed developers as an informational service. Oshtemo Township is not a regulatory agency in any of these areas. Approval of the site plan by the Township does not transfer liability from the developer to the Township in any way.



OSHTEMO TOWNSHIP

HAZARDOUS SUBSTANCE REPORTING FORM

Note: This form must be completed and submitted as part of the site plan review process.

Name of Business: Green Development Ventures, LLC (Developing Residential Site Condo)

Location of Business: 7110 W. Main Street is the development location

Name of Business Owner: Green Development Ventures, LLC attn John Lovely

Mailing Address: 2186 E. Centre Street

City: Portage State: MI Zip: 49002

Telephone: 269-391-0542

I affirm that the information submitted in this form is accurate:

Owner's Signature: John Lovely Date: 12/5/23

MANAGEMENT OF HAZARDOUS SUBSTANCES

Hazardous substance (definition): Reference Sec. 11.308, Oshtemo Township Zoning Ordinance

1. Y N Will the proposed project store, use, or generate hazardous substances in quantities greater than 100 kilograms per month (about 25 gallons per month) now, or in the future? If yes, please complete the rest of this form and submit with your site plan. If no, stop here and submit with your site plan.

2. Y N Will hazardous substances be reused and / or recycled on-site?

3. Y N Will any hazardous substances be stored, used, or handled on the site? If yes, identify the location, size, and type of spill containment facilities which will be used and provide details on the site plan.

4. Y N Will hazardous waste an/or liquid industrial waste be transported off-site for treatment, disposal, and / or recycling? If yes, please list the name, address and telephone number of your licensed transporter(s).

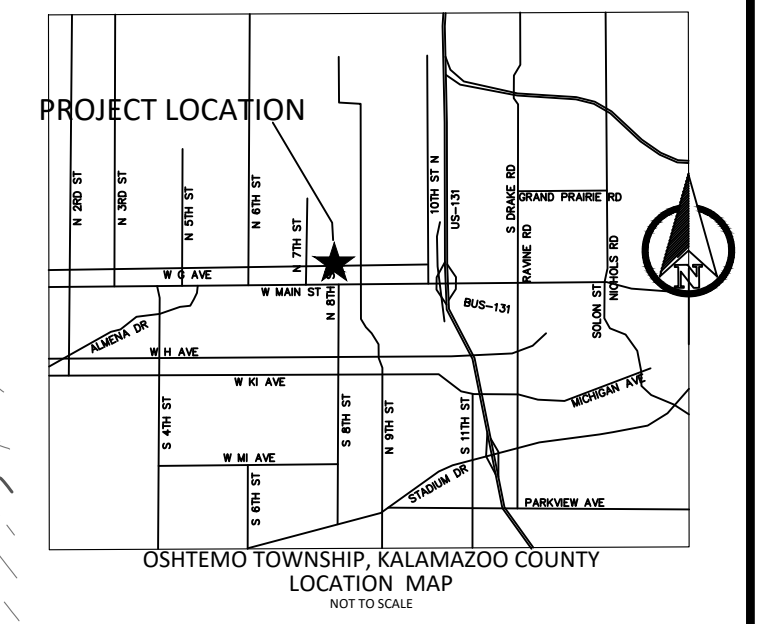
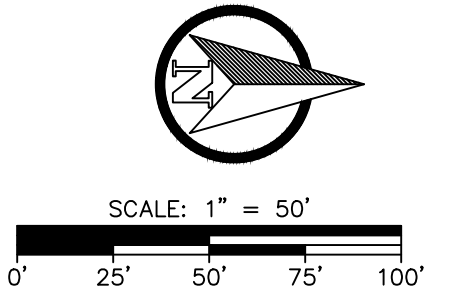
5. Y  N Will new underground storage tanks be located less than 2,000 feet from drinking water wells serving two or more establishments, or less than 300 feet from a single family drinking well? If yes, contact Michigan Department of Environmental Quality, Storage Tank Division, (517) 373-8168 for specific requirements and restrictions.
6. Y  N Will the interior of the proposed project have any general purpose floor drains? If yes, into what system will the floor drains be connected? (Provide detail on site plan)
- Sanitary sewer system
  - On-site holding tank(s)
  - A system authorized by a state approved groundwater discharge permit, with required monitoring (Contact: Michigan Department of Environmental Quality, Waste Management Division, (616) 567-3500.
- Note: General purpose floor drains shall not be connected to a storm drainage system, dry well or septic system.
7. Y  N Please list the hazardous substances which are expected to be used, stored, or generated on-site. Quantities should reflect the maximum volumes on site at any time. Attach additional pages, if necessary to list all hazardous substances.

	<u>Common/ Trade Name</u>	<u>Chemical Components</u>	<u>Form</u>	<u>Max Quantity</u>	<u>Storage</u>
A.	_____				
B.	_____				
C.	_____				
D.	_____				
E.	_____				
F.	_____				

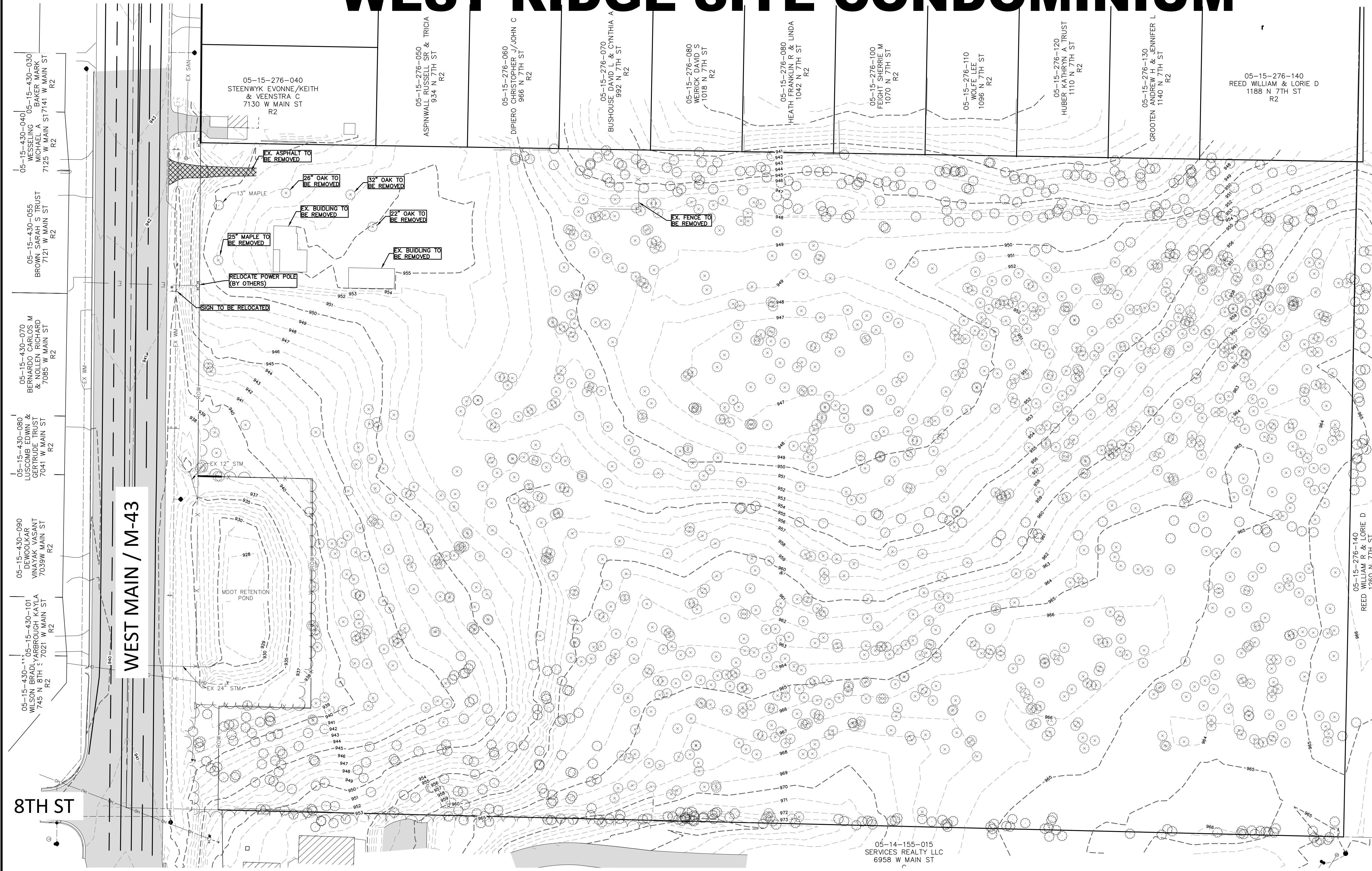
Key:

<b>FORM</b>		<b>STORAGE</b>	
<b>Liq</b>	Liquid	<b>AST</b>	Aboveground Storage Tank
<b>P. Liq</b>	Pressurized Liquid	<b>UST</b>	Underground Storage Tank
<b>S</b>	Solid	<b>D</b>	Drum
<b>G</b>	Gas	<b>CY</b>	Cylinder
<b>PG</b>	Pressurized Gas	<b>MC</b>	Metal Container
		<b>WC</b>	Wooden Container
		<b>PT</b>	Portable Tank

# WEST RIDGE SITE CONDOMINIUM



- SITE NOTES:**
1. PARCEL NUMBERS: 05-15-285-010
  2. LEGAL DESCRIPTION: SEC 15-2-12 SE1/4 NE1/4 EXC THAT PT LYING W OF CTR LI N 7TH ST ALSO EXC BEG AT PT ON E&W1/4 LI 725.37 FT W OF E1/4 POST THEREOF TH W ALG SD E&W1/4 LI 470 FT TH N ODEG13MIN E ALG CTR LI N 7TH ST 1326.81 FT TO N LI SE1/4NE1/4 TH S 89DEG41MIN E ALG SD N LI 470 FT TH S ODEG13MIN W 1326.81 FT TO BEG EXC 30 MICH OF ABOVE DESC DEED TO MICH STATE WHY DEPT BY DEED L856 ON P1454 AS RECD REG DEEDS OF KAL CO MICH
  3. SITE AREA: TOTAL = 20.33 ACRES
  4. PROPERTY ZONED: R2
  5. ROADS = PRIVATE
  6. DRAINAGE = PRIVATE
  7. SANITARY SEWER = PUBLIC
  8. WATER = PUBLIC
  9. STREET LIGHTING - SHALL MEET TOWNSHIP STANDARDS
  10. NO FLOODPLAIN EXISTS ON PROPERTY
  11. NO WETLANDS EXIST ON PROPERTY
  12. HEIGHTS OF ALL BUILDINGS TO BE LESS THAN 35'
  13. ROAD NAMES TO BE APPROVED BY KALAMAZOO COUNTY PLANNING
  14. SIDEWALKS TO BE A MINIMUM OF 5 FT IN WIDTH & ON BOTH SIDES OF ROAD
  15. PROJECT TO BE CONSTRUCTED IN ONE PHASE
  16. DENSITY CALCULATION TOTAL ACREAGE 20.33 ACRES - PROPOSED 41 LOTS (2.03/ACRE)
  17. OPEN SPACE REQUIREMENT 10% (2.03 ACRES) = PROVIDED 3.15 ACRES (15.5%)
  18. PUBLIC WATER CONNECTIONS SHALL BE COORDINATED WITH THE CITY OF KALAMAZOO
  19. DWELLING UNIT AREAS ARE TO BE A MAXIMUM OF 2100 SF EACH
  20. PERCENTAGE OF LAND TO BE COVERED BY BUILDINGS IS 9.7%.



WEST MAIN / M-43

8TH ST

**OWNER**  
 ALLEN EDWIN HOMES  
 BRIAN WOOD  
 2186 E CENTRE AVE  
 PORTAGE, MICHIGAN 49002  
 (269) 321-2610 BWOOD@ALLENEDWIN.COM

**DESIGN ENGINEER**  
 VK CIVIL  
 DAN LEWIS, P.E.  
 4664 CAMPUS DR, STE 111  
 KALAMAZOO, MICHIGAN 49008  
 (269) 697-7120 DAN@VKCIVIL.COM



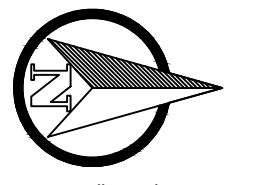
NO.	DATE	REVISION	BY
6	12/05/2023	STEP 1 SITE CONDO SUBMITTAL	GPW
7	01/26/2024	REVISED STEP 1 OWNER REVIEW	GPW
8	2/2/2024	REVISED STEP 1 OWNER REVIEW	CJW
9	2/5/2024	REVISED STEP 1 TO OSHTEMO	JTR
10	2/16/2024	THIRD MDOT PERMIT SUBMITTAL	GPW
11	2/28/2024	REVISED STEP 1 TO OSHTEMO	GPW

OSHTEMO TOWNSHIP  
 KALAMAZOO COUNTY, MI  
**WEST RIDGE SITE CONDOMINIUM**  
 EXISTING CONDITIONS & DEMO PLAN



Byron Center, MI  
 (616) 277-2185  
 Kalamazoo, MI  
 (269) 697-7120  
 www.VKcivil.com

FILE NO. 1225  
 CHECKED DGL  
 Sheet No. C100



SCALE: 1" = 50'

SYMBOL LEGEND

- LIGHT POLE
- POWER POLE
- HYDRANT LOCATIONS
- SANITARY SEWER MANHOLE
- STOP SIGN
- CATCH BASIN
- STORM SEWER MANHOLE
- YARD BASIN

LINE AND HATCH LEGEND

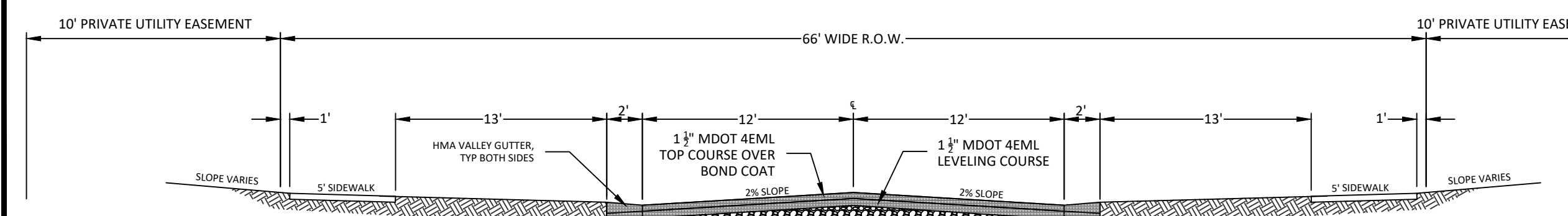
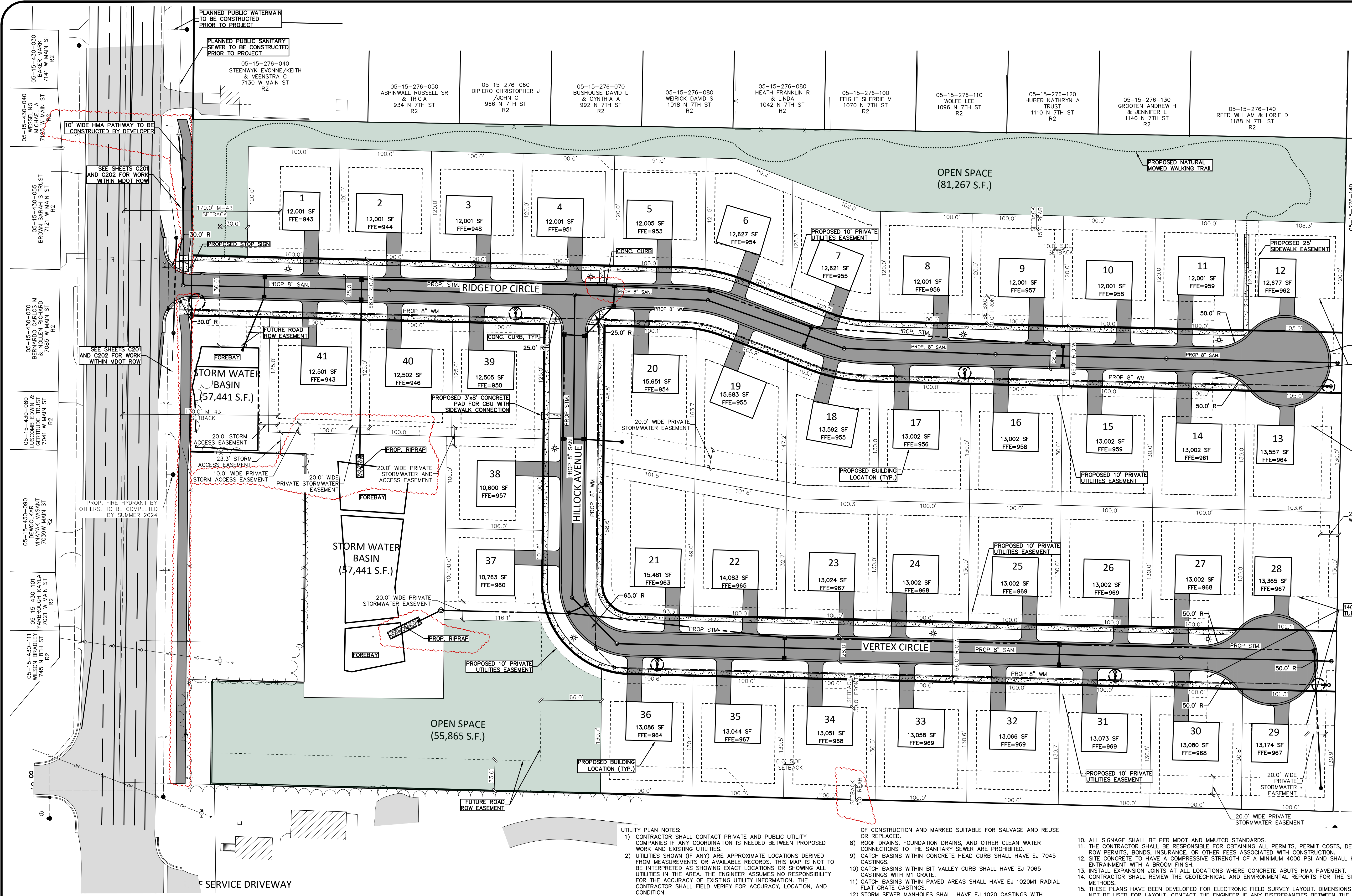
- RIGHT OF WAY
- EASEMENT
- SETBACK
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING WATERMAIN
- PROPOSED WATERMAIN
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- OPEN SPACE

OPEN SPACE = 15.5% > 10% REQUIRED  
 SITE SUMMARY  
 OPEN SPACE AREA = 3.15 ACRES  
 PERCENT OPEN SPACE = 15.5%

140'x140' TEMPORARY TURNAROUND EASEMENT

SITE LAYOUT NOTES:

- 1) ALL WORK SHALL BE DONE TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.
- 2) ALL WORK WITHIN ROW SHALL BE DONE IN ACCORDANCE WITH LOCAL ROADWAY JURISDICTION REQUIREMENTS. CONTRACTOR SHALL RESTORE ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE, AND OTHER INFRASTRUCTURE DISTURBED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES TO MATCH EXISTING CONDITIONS.
- 3) ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY OWNER.
- 4) THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST.
- 5) CONTRACTOR SHALL CONTACT MISS DIG THREE WORKING DAYS BEFORE YOU DIG. CALL MISS DIG AT 1-800-482-7171 OR 811.
- 6) ALL WORK SHALL BE DONE TO THE MICHIGAN HANDICAPPED ACCESSIBILITY CODE AND THE AMERICANS WITH DISABILITIES ACT.
- 7) ADA PARKING SPACES SHALL BE MARKED WITH APPROVED PAVEMENT SYMBOL, MARK ADA SPACES WITH 4" BLUE PAINT AND SIGNS PER MMUTCD.
- 8) CONTRACTOR SHALL ENSURE ALL ADA RAMPS AND ACCESS MEET CURRENT ADA STANDARDS. IF IT IS DISCOVERED THAT ANY ITEMS WILL NOT MEET ADA STANDARDS IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.
- 9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, DEMOLITION PERMITS, TAP FEES, ASSESSMENTS, UTILITY PERMITS, ROW PERMITS, BONDS, INSURANCE, OR OTHER FEES ASSOCIATED WITH CONSTRUCTION.
- 10) SITE CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF A MINIMUM 4000 PSI AND SHALL HAVE LIMESTONE AGGREGATE AND SHALL HAVE A 4-6% AIR ENTRAINMENT WITH A BROOM FINISH.
11. INSTALL EXPANSION JOINTS AT ALL LOCATIONS WHERE CONCRETE ABUTS HMA PAVEMENT.
12. CONTRACTOR SHALL REVIEW THE GEOTECHNICAL AND ENVIRONMENTAL REPORTS FOR THE SITE AND INCORPORATE INTO THEIR CONSTRUCTION MEANS AND METHODS.
13. THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD SURVEY LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN THE PLAN AND ELECTRONIC DATA ARE DISCOVERED.
14. THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PERFORM THE WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE LOCAL POLICE DEPARTMENT AND MUNICIPALITY.
15. PRIOR TO CONSTRUCTION OR GRADING A PROTECTIVE BARRIER, FENCE, POST, AND SIGNS CLEARLY INDICATING LIMITS OF DISTURBANCE SHALL BE INSTALLED INDICATING NO TREE REMOVAL OR DISTURBANCES OUTSIDE LIMITS.
16. NO PARKING OF CONTRACTOR OR SUBCONTRACTORS SHALL BE ALLOWED ON PUBLIC STREETS WITHOUT PRIOR APPROVAL.
17. NO BUILDING MATERIAL, EQUIPMENT, VEHICLES, OR CHEMICALS SHALL BE STORED OR PLACED OUTSIDE OF THE LIMITS OF DISTURBANCE.
18. CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM DURING NIGHTTIME HOURS AND MUST COMPLY WITH LOCAL MUNICIPAL ORDINANCES.



PRIVATE ROAD HMA PAVEMENT TYPICAL SECTION

- UTILITY PLAN NOTES:
- 1) CONTRACTOR SHALL CONTACT PRIVATE AND PUBLIC UTILITY COMPANIES IF ANY COORDINATION IS NEEDED BETWEEN PROPOSED WORK AND EXISTING UTILITIES.
  - 2) UTILITIES SHOWN (IF ANY) ARE APPROXIMATE LOCATIONS DERIVED FROM MEASUREMENTS OR AVAILABLE RECORDS. THIS MAP IS NOT TO BE INTERPRETED AS SHOWING EXACT LOCATIONS OR SHOWING ALL UTILITIES IN THE AREA. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITY INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION, AND CONDITION.
  - 3) ALL WATERMAIN TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF KALAMAZOO STANDARD SPECIFICATIONS FOR WATERMAIN AND SERVICE INSTALLATION, 2021.
  - 4) ALL SANITARY SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH LOCAL SANITARY SEWER UTILITY STANDARDS AND EPE STANDARDS.
  - 5) ALL 8\"/>

- OF CONSTRUCTION AND MARKED SUITABLE FOR SALVAGE AND REUSE OR REPLACED.
- 8) ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
  - 9) CATCH BASINS WITHIN CONCRETE HEAD CURB SHALL HAVE EJ 7045 CASTINGS.
  - 10) CATCH BASINS WITHIN BIT VALLEY CURB SHALL HAVE EJ 7065 CASTINGS WITH M1 GRATE.
  - 11) CATCH BASINS WITHIN PAVED AREAS SHALL HAVE EJ 1020M1 RADIAL FLAT GRATE CASTINGS.
  - 12) STORM SEWER MANHOLES SHALL HAVE EJ 1020 CASTINGS WITH SOLID COVERS.
  - 13) STORM SEWER YARD DRAINS SHALL HAVE EJ 6508 CASTINGS.
  - 14) ROOF DRAINS SHALL BE PVC SCH-40.
  - 15) CONTRACTOR IS TO UNCOVER AND VERIFY ALL TAP LOCATIONS AND INVERTS. LOCATION AND INVERT DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION PRIOR TO CONTINUING WORK.
  - 16) SANITARY AND STORM STRUCTURES SHALL BE PRECAST AND HAVE A MAXIMUM OF 2 ADJUSTING RINGS FOR FINISH GRADE ADJUSTMENT.
  - 17) THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.

- 18) ALL SIGNAGE SHALL BE PER MDOOT AND MMUTCD STANDARDS.
- 19) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, DEMOLITION PERMITS, TAP FEES, ASSESSMENTS, UTILITY PERMITS, ROW PERMITS, BONDS, INSURANCE, OR OTHER FEES ASSOCIATED WITH CONSTRUCTION.
- 20) SITE CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF A MINIMUM 4000 PSI AND SHALL HAVE LIMESTONE AGGREGATE AND SHALL HAVE A 4-6% AIR ENTRAINMENT WITH A BROOM FINISH.
21. INSTALL EXPANSION JOINTS AT ALL LOCATIONS WHERE CONCRETE ABUTS HMA PAVEMENT.
22. CONTRACTOR SHALL REVIEW THE GEOTECHNICAL AND ENVIRONMENTAL REPORTS FOR THE SITE AND INCORPORATE INTO THEIR CONSTRUCTION MEANS AND METHODS.
23. THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD SURVEY LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN THE PLAN AND ELECTRONIC DATA ARE DISCOVERED.
24. THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PERFORM THE WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE LOCAL POLICE DEPARTMENT AND MUNICIPALITY.
25. PRIOR TO CONSTRUCTION OR GRADING A PROTECTIVE BARRIER, FENCE, POST, AND SIGNS CLEARLY INDICATING LIMITS OF DISTURBANCE SHALL BE INSTALLED INDICATING NO TREE REMOVAL OR DISTURBANCES OUTSIDE LIMITS.
26. NO PARKING OF CONTRACTOR OR SUBCONTRACTORS SHALL BE ALLOWED ON PUBLIC STREETS WITHOUT PRIOR APPROVAL.
27. NO BUILDING MATERIAL, EQUIPMENT, VEHICLES, OR CHEMICALS SHALL BE STORED OR PLACED OUTSIDE OF THE LIMITS OF DISTURBANCE.
28. CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM DURING NIGHTTIME HOURS AND MUST COMPLY WITH LOCAL MUNICIPAL ORDINANCES.

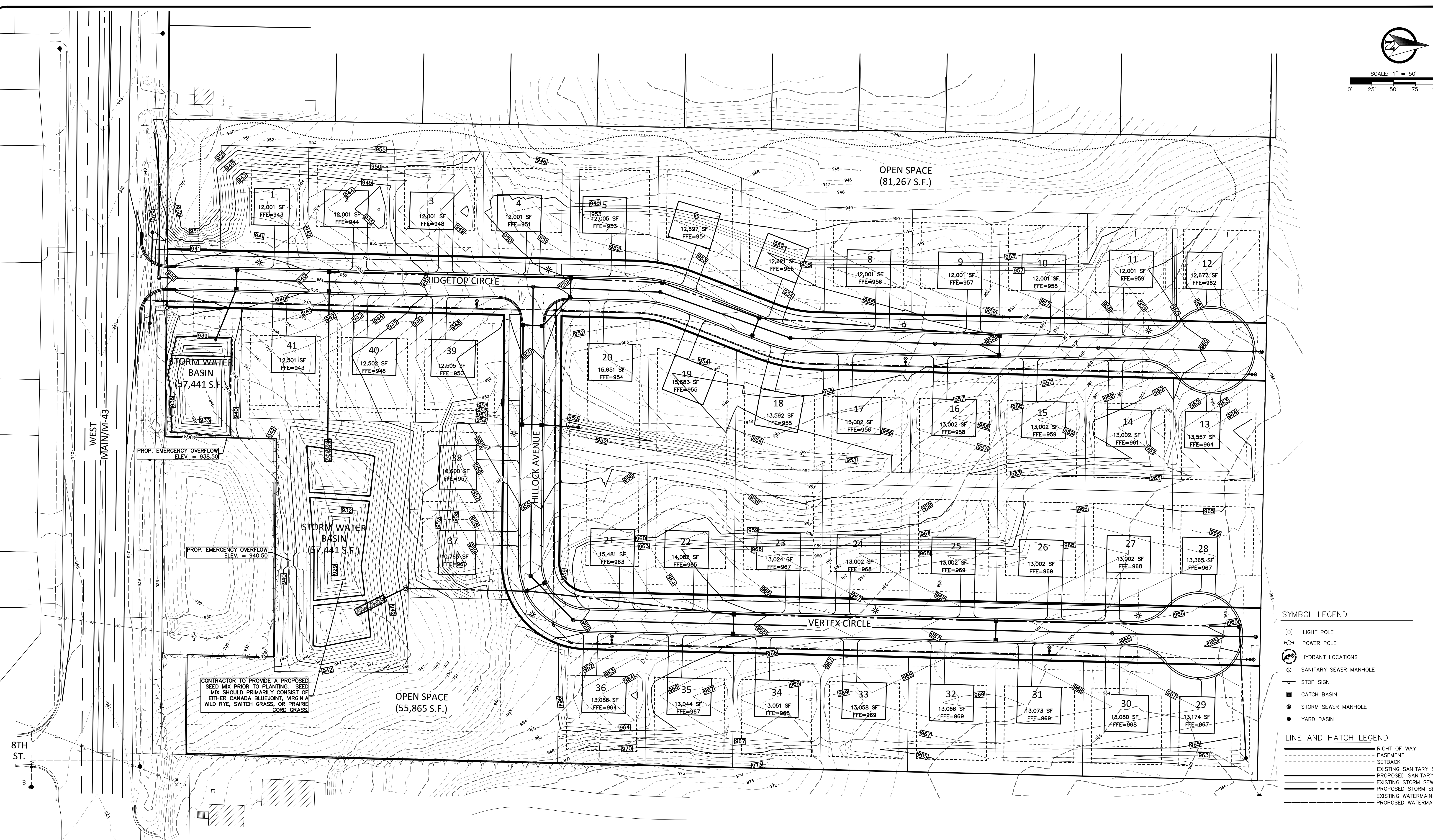
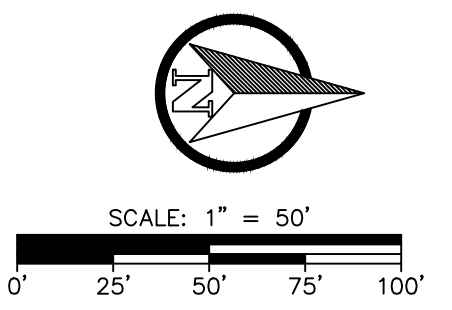
NO.	DATE	REVISION	BY
6	12/05/2023	STEP 1 SITE CONDO SUBMITTAL	GPW
7	01/26/2024	REVISED STEP 1 OWNER REVIEW	GPW
8	2/2/2024	REVISED STEP 1 OWNER REVIEW	CJW
9	2/5/2024	REVISED STEP 1 TO OSHTEMO	JTR
10	2/16/2024	THIRD MDOOT PERMIT SUBMITTAL	GPW
11	2/28/2024	REVISED STEP 1 TO OSHTEMO	GPW

OSHTEMO TOWNSHIP  
 KALAMAZOO COUNTY, MI  
**WEST RIDGE SITE CONDOMINIUM**  
 SITE PLAN



Byron Center, MI  
 (616) 277-2185  
 Kalamazoo, MI  
 (269) 697-7120  
 www.VKcivil.com

FILE NO.	1225
CHECKED	DGL
SHEET NO.	C200



CONTRACTOR TO PROVIDE A PROPOSED SEED MIX PRIOR TO PLANTING. SEED MIX SHOULD PRIMARILY CONSIST OF EITHER CANADA BLUEJOINT, VIRGINIA WILD RYE, SWITCH GRASS, OR PRAIRIE CORD GRASS.

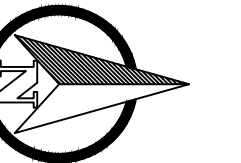
- SYMBOL LEGEND**
- ☼ LIGHT POLE
  - ⊕ POWER POLE
  - ⊙ HYDRANT LOCATIONS
  - ⊙ SANITARY SEWER MANHOLE
  - ⊙ STOP SIGN
  - CATCH BASIN
  - STORM SEWER MANHOLE
  - YARD BASIN
- LINE AND HATCH LEGEND**
- RIGHT OF WAY
  - - - EASEMENT
  - - - SETBACK
  - - - EXISTING SANITARY SEWER
  - - - PROPOSED SANITARY SEWER
  - - - EXISTING STORM SEWER
  - - - PROPOSED STORM SEWER
  - - - EXISTING WATERMAIN
  - - - PROPOSED WATERMAIN

NO.	DATE	REVISION	BY
6	12/05/2023	STEP 1 SITE CONDO SUBMITTAL	GPW
7	01/26/2024	REVISED STEP 1 OWNER REVIEW	GPW
8	2/2/2024	REVISED STEP 1 OWNER REVIEW	CJW
9	2/5/2024	REVISED STEP 1 TO OSHTEMO	JTR
10	2/16/2024	THIRD MDOT PERMIT SUBMITTAL	GPW
11	2/28/2024	REVISED STEP 1 TO OSHTEMO	GPW

OSHTEMO TOWNSHIP  
KALAMAZOO COUNTY, MI  
**WEST RIDGE SITE CONDOMINIUM**  
GRADING PLAN

Byron Center, MI  
(616) 277-2185  
Kalamazoo, MI  
(269) 697-7120  
www.VKcivil.com

FILE NO.	1225
CHECKED	DGL
Sheet No.	C300



SCALE: 1" = 50'  
 0' 25' 50' 75' 100'

- LINE AND HATCH LEGEND**
- NATURAL WALKING TRAIL
  - - - TEMPORARY TREE PROTECTION FENCE
  - ▬ PROPOSED ASPHALT
  - ▬ PROPOSED CONCRETE
  - ▬ TREE PRESERVATION

- SYMBOL LEGEND**
- BOLLARD
  - ⊙ LIGHT POLE
  - ⊙ POWER POLE
  - ⊙ STOP SIGN
  - ⊙ HYDRANT LOCATIONS

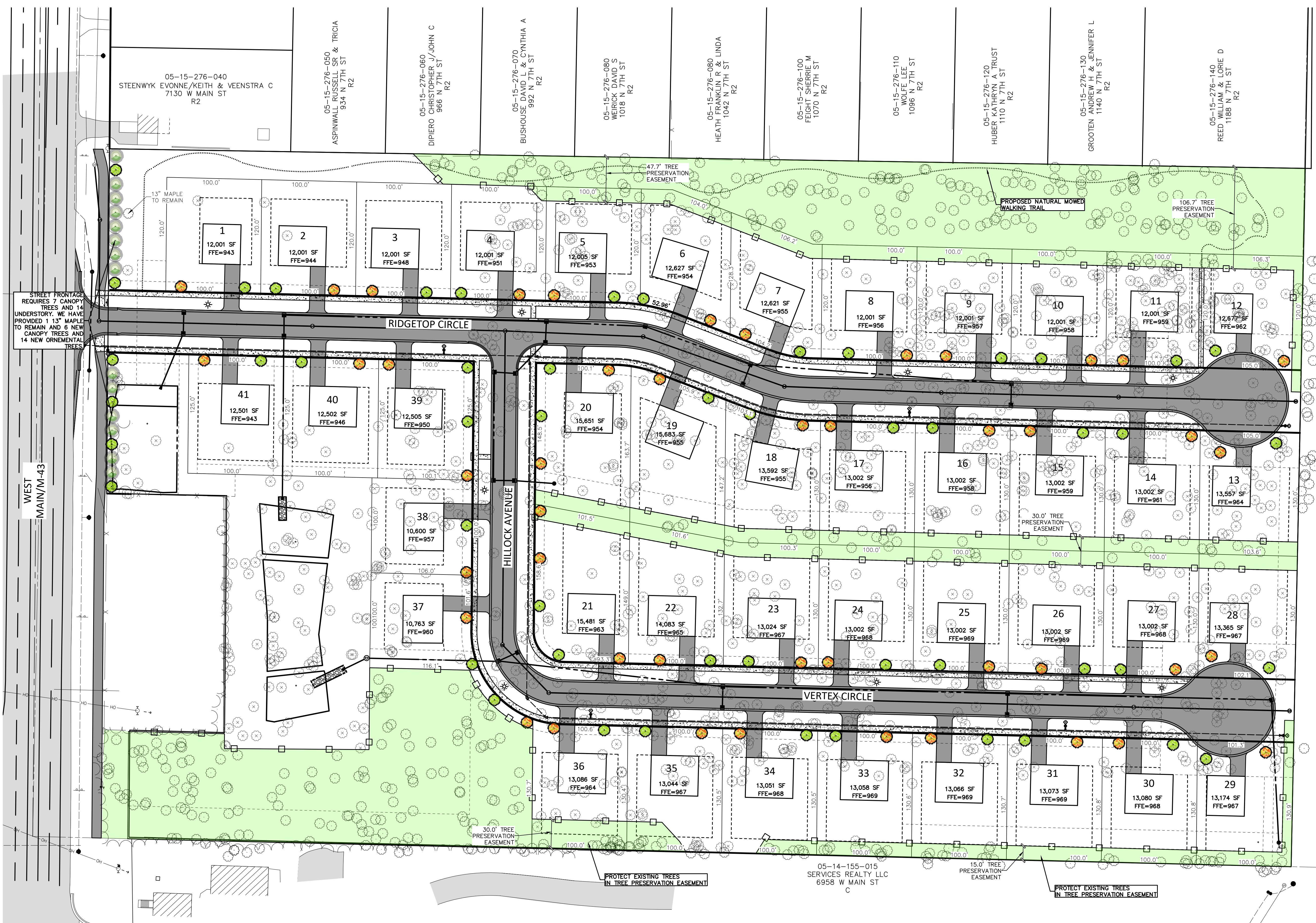
- LANDSCAPE LEGEND**
- PROP. CONIFER/EVERGREEN (5' HEIGHT)
  - PROP. SHRUB (24" HEIGHT)
  - PROP. CANOPY—SUGAR MAPLE (2" CALIPER)
  - PROP. CANOPY—TULIP TREE (2" CALIPER)
  - PROP. ORNAMENTAL (8'-10' HEIGHT)
  - EX. TREE REMAINS
  - EX. TREE REMOVED

ALL EXISTING TREES ARE NATIVE TO SOUTHWEST MICHIGAN

PROTECTIVE FENCING SHALL BE PLACED AT THE EDGE OF THE DISTURBANCE LIMITS TO PROTECT TREES PLANNED TO BE PRESERVED.

**SITE SUMMARY**  
 TOTAL AREA = 20.33 ACRES  
 EXISTING TREE COUNT (>8")=1635  
 EXISTING TREES PLANNED TO REMAIN (>8")=457  
 PERCENT OF REMAINING TREES = 28.0% > 20% REQUIRED  
 UNITS PER ACRE = 2.02 < 4 UNITS PER ACRE ALLOWED

EXISTING TREES GREATER THAN 12" OUTSIDE OF WOODS  
 THERE ARE 5 TREES OUTSIDE OF THE WOODS NEAR THE EXISTING HOUSE. ONLY 1 OF THEM WILL BE ABLE TO BE PRESERVED AND THE OTHER 4 WILL NEED TO BE REMOVED DUE TO THE GRADING CONSTRAINTS. THE REPLACEMENTS OF THESE 4 TREES SHALL BE WITH THE STREET TREES REQUIRED. THE FOUR TREES ADD UP TO 105" OF DIAMETER. THERE ARE 106 PLANNED STREET TREES AT 2" CALIPER. 212" > 105".



STREET FRONTAGE REQUIRES 7 CANOPY TREES AND 14 UNDERSTORY. WE HAVE PROVIDED 1 13" MAPLE TO REMAIN AND 6 NEW CANOPY TREES AND 14 NEW ORNAMENTAL TREES.

WEST MAIN/M-43

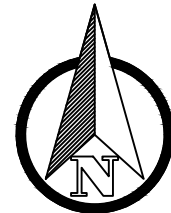
05-15-276-140  
 REED WILLIAM R & LORRIE D  
 1260 N 7TH ST  
 R2

NO.	DATE	REVISION	BY
6	12/05/2023	STEP 1 SITE CONDO SUBMITTAL	GPW
7	01/26/2024	REVISED STEP 1 OWNER REVIEW	GPW
8	2/2/2024	REVISED STEP 1 OWNER REVIEW	CJW
9	2/5/2024	REVISED STEP 1 TO OSHTEMO	JTR
10	2/16/2024	THIRD MDOT PERMIT SUBMITTAL	GPW
11	2/28/2024	REVISED STEP 1 TO OSHTEMO	GPW

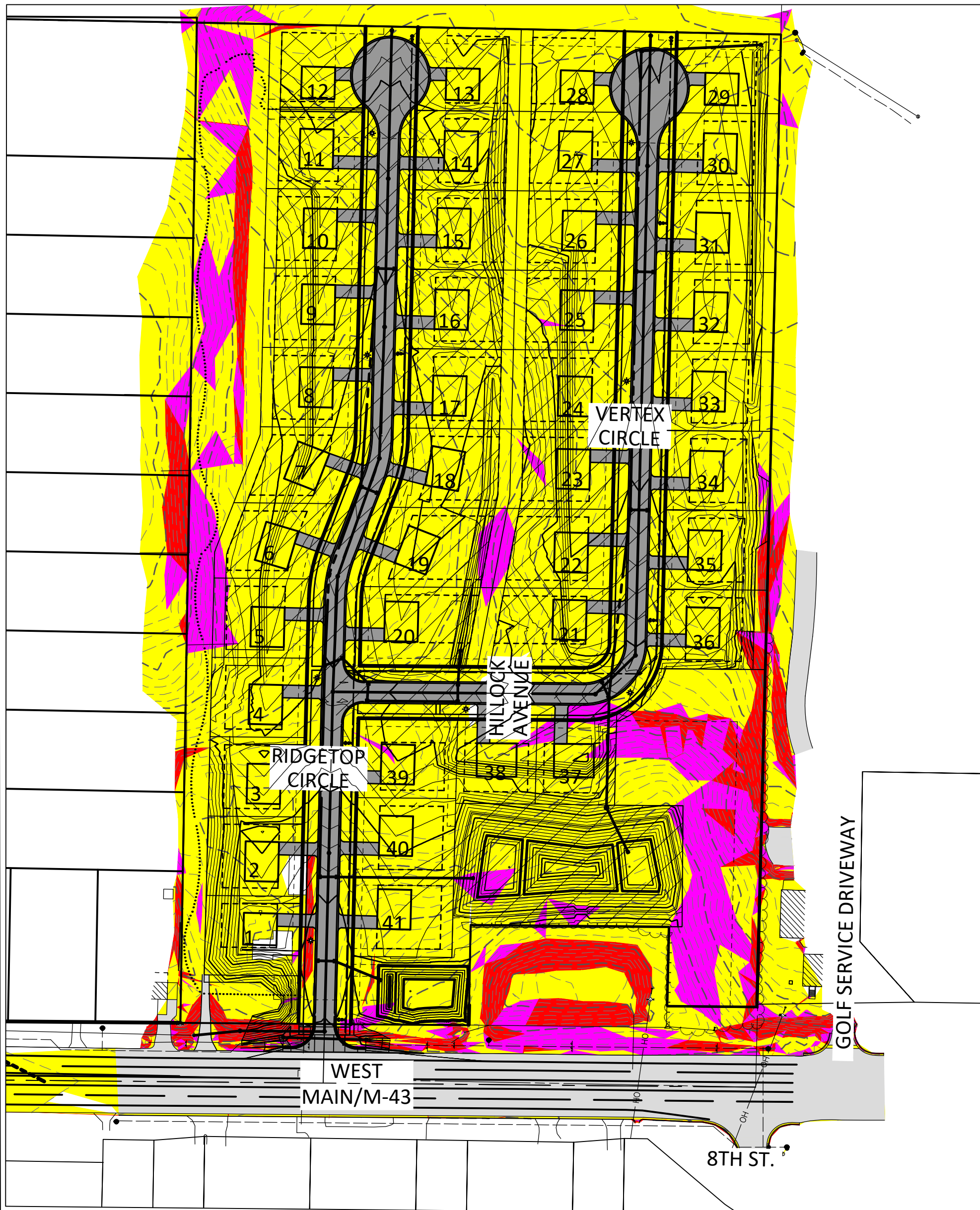
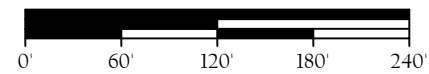
OSHTEMO TOWNSHIP  
 KALAMAZOO COUNTY, MI  
**WEST RIDGE SITE CONDOMINIUM  
 TREE SURVEY**

**VK CIVIL** Vriesman & Korhorn  
 Byron Center, MI (616) 277-2185  
 Kalamazoo, MI (269) 697-7120  
 www.VKcivil.com

FILE NO. 1225  
 CHECKED DGL  
 Sheet No. L100



SCALE: 1" = 120'



LEGEND

- 0-12% SLOPES
- 12-18% SLOPES
- 18%+ SLOPES

7110 WEST MAIN ST  
 SLOPE HEAT MAP  
 FEBRUARY 1, 2024



Vriesman  
& Korhorn

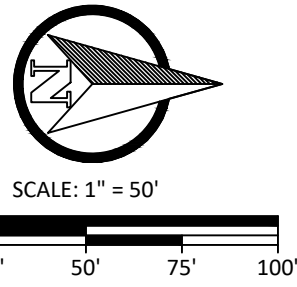
Byron Center, MI  
 (616) 277-2185  
 Kalamazoo, MI  
 (269) 697-7120

www.VKcivil.com

This page left intentionally blank.



FUTURE ROAD ROW EASEMENT EXHIBIT

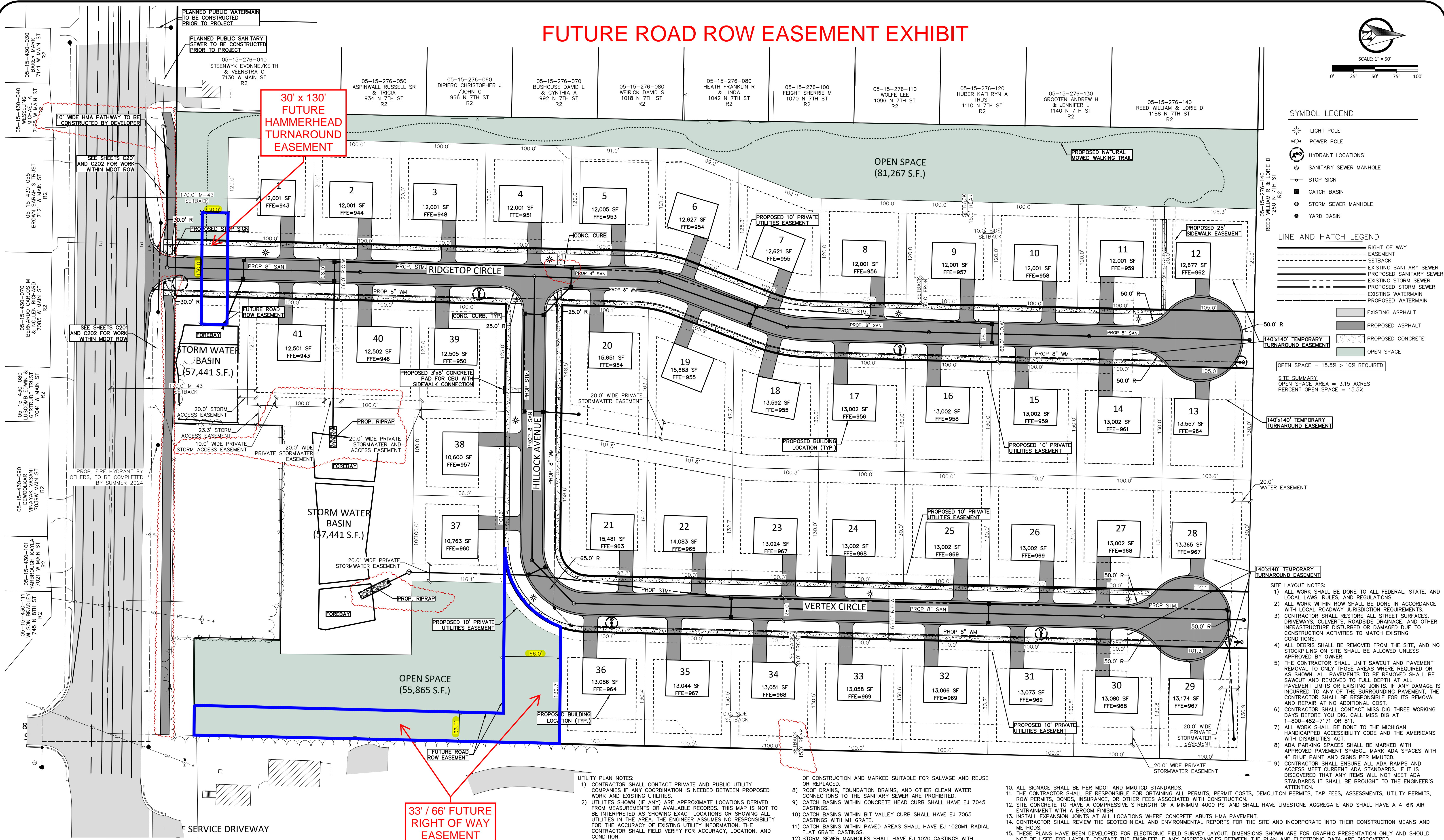


PLANNED PUBLIC WATERMAIN TO BE CONSTRUCTED PRIOR TO PROJECT

PLANNED PUBLIC SANITARY SEWER TO BE CONSTRUCTED PRIOR TO PROJECT

30' x 130' FUTURE HAMMERHEAD TURNAROUND EASEMENT

SYMBOL LEGEND and LINE AND HATCH LEGEND detailing various infrastructure symbols like light poles, power poles, hydrants, manholes, and different pavement types.

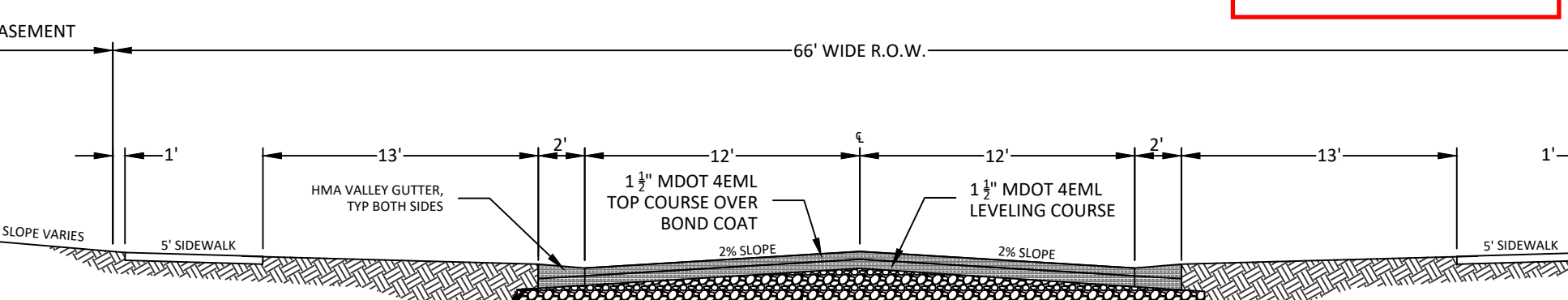


33' / 66' FUTURE RIGHT OF WAY EASEMENT

- UTILITY PLAN NOTES: 1) CONTRACTOR SHALL CONTACT PRIVATE AND PUBLIC UTILITY COMPANIES... 2) UTILITIES SHOWN (IF ANY) ARE APPROXIMATE LOCATIONS... 3) ALL WATERMAIN TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF KALAMAZOO STANDARD SPECIFICATIONS... 4) ALL SANITARY SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH LOCAL SANITARY SEWER UTILITY STANDARDS AND EPE STANDARDS... 5) ALL 8" UNDERDRAIN TO BE CORRUGATED PLASTIC PIPE WITH SOCK, ADS N-12 OR APPROVED EQUAL... 6) ALL STORM SEWER SHALL BE SMOOTH LINED CORRUGATED PLASTIC PIPE, ADS N-12 OR EQUAL, UNLESS OTHERWISE LABELED ON THE PLANS... 7) ALL EXISTING CASTINGS FOR STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED TO GRADE SHALL BE FIELD VERIFIED AT THE TIME OF CONSTRUCTION AND MARKED SUITABLE FOR SALVAGE AND REUSE OR REPLACED...

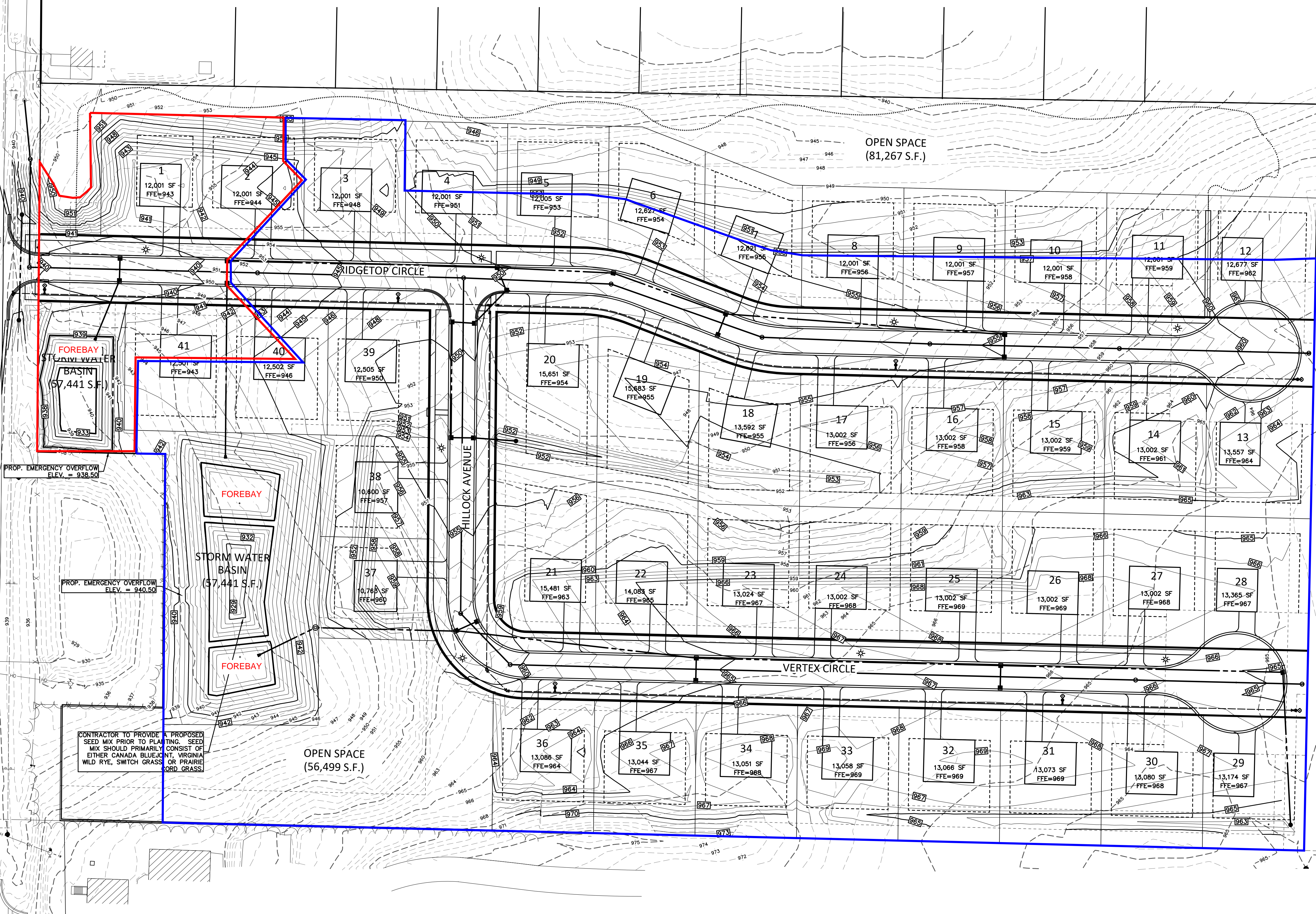
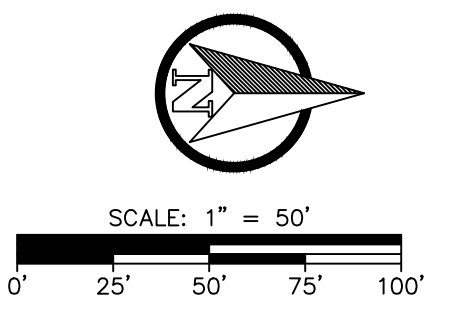
- 8) ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED. 9) CATCH BASINS WITHIN CONCRETE HEAD CURB SHALL HAVE EJ 7045 CASTINGS. 10) CATCH BASINS WITHIN BIT VALLEY CURB SHALL HAVE EJ 7065 CASTINGS WITH M1 GRATE. 11) CATCH BASINS WITHIN PAVED AREAS SHALL HAVE EJ 1020M1 RADIAL FLAT GRATE CASTINGS. 12) STORM SEWER MANHOLES SHALL HAVE EJ 1020 CASTINGS WITH SOILD COVERS. 13) STORM SEWER YARD DRAINS SHALL HAVE EJ 6508 CASTINGS. 14) ROOF DRAINS SHALL BE PVC SCH-40. 15) CONTRACTOR IS TO UNCOVER AND VERIFY ALL TAP LOCATIONS AND INVERTS. LOCATION AND INVERT DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION PRIOR TO CONTINUING WORK. 16) SANITARY AND STORM STRUCTURES SHALL BE PRECAST AND HAVE A MAXIMUM OF 2 ADJUSTING RINGS FOR FINISH GRADE ADJUSTMENT. 17) THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.

- 18. ALL SIGNAGE SHALL BE PER MDOT AND MMUTCD STANDARDS. 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, DEMOLITION PERMITS, TAP FEES, ASSESSMENTS, UTILITY PERMITS, ROW PERMITS, BONDS, INSURANCE, OR OTHER FEES ASSOCIATED WITH CONSTRUCTION. 20. SITE CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF A MINIMUM 4000 PSI AND SHALL HAVE LESTONE AGGREGATE AND SHALL HAVE A 4-6% AIR ENTRAINMENT WITH A BROOM FINISH. 21. INSTALL EXPANSION JOINTS AT ALL LOCATIONS WHERE CONCRETE ABUTS HMA PAVEMENT. 22. CONTRACTOR SHALL REVIEW THE GEOTECHNICAL AND ENVIRONMENTAL REPORTS FOR THE SITE AND INCORPORATE INTO THEIR CONSTRUCTION MEANS AND METHODS. 23. THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD SURVEY LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN THE PLAN AND ELECTRONIC DATA ARE DISCOVERED. 24. THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PERFORM THE WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS. 25. THE CONTRACTOR SHALL PROTECT LOCATION OF ALL PROPERTY MARKERS AND BENCHMARKS. 26. THE CONTRACTOR IS RESPONSIBLE FOR ALL SIGNS, BARRICADES, AND SAFETY FENCES TO DETER PEOPLE FROM ENTERING THE WORK AREA AND FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE LOCAL POLICE DEPARTMENT AND MUNICIPALITY. 27. PRIOR TO CONSTRUCTION OR GRADING A PROTECTIVE BARRIER, FENCE, POST, AND SIGNS CLEARLY INDICATING LIMITS OF DISTURBANCE SHALL BE INSTALLED INDICATING NO TREE REMOVAL OR DISTURBANCES OUTSIDE LIMITS. 28. NO PARKING OF CONTRACTOR OR SUBCONTRACTORS SHALL BE ALLOWED ON PUBLIC STREETS WITHOUT PRIOR APPROVAL. 29. NO BUILDING MATERIAL, EQUIPMENT, VEHICLES, OR CHEMICALS SHALL BE STORED OR PLACED OUTSIDE OF THE LIMITS OF DISTURBANCE. 30. CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM DURING NIGHTTIME HOURS AND MUST COMPLY WITH LOCAL MUNICIPAL ORDINANCES.



PRIVATE ROAD HMA PAVEMENT TYPICAL SECTION

OSHTEMO TOWNSHIP KALAMAZOO COUNTY, MI WEST RIDGE SITE CONDOMINIUM SITE PLAN. Includes a revision table with columns for NO., DATE, REVISION, and BY. Also includes Vriesman & Korhorn logo and contact information for Byron Center, MI.



GOLF SERVICE DRIVEWAY

**DRAINAGE AREA (MINOR POND) = 1.22 ACRES**  
**DRAINAGE AREA (MAJOR POND) = 15.57 ACRES**

- SYMBOL LEGEND**
- ☼ LIGHT POLE
  - ⊕ POWER POLE
  - ⊙ HYDRANT LOCATIONS
  - ⊙ SANITARY SEWER MANHOLE
  - ⊙ STOP SIGN
  - CATCH BASIN
  - STORM SEWER MANHOLE
  - YARD BASIN
- LINE AND HATCH LEGEND**
- RIGHT OF WAY
  - - - EASEMENT
  - - - SETBACK
  - - - EXISTING SANITARY SEWER
  - - - PROPOSED SANITARY SEWER
  - - - EXISTING STORM SEWER
  - - - PROPOSED STORM SEWER
  - - - EXISTING WATERMAIN
  - - - PROPOSED WATERMAIN

NO.	DATE	REVISION	BY
3	09/26/2023	PRELIMINARY PLAN	CJW
4	10/31/2023	MDOT PERMIT SUBMITTAL	GPW
5	11/27/2023	SECOND MDOT PERMIT SUBMITTAL	GPW
6	12/05/2023	STEP 1 SITE CONDO SUBMITTAL	GPW
7	01/26/2024	REVISED STEP 1 OWNER REVIEW	GPW
8	2/2/2024	REVISED STEP 1 OWNER REVIEW	CJW

OSHTEMO TOWNSHIP  
 KALAMAZOO COUNTY, MI  
**WEST RIDGE SITE CONDOMINIUM**  
 GRADING PLAN

**VK CIVIL** Vriesman & Korhorn  
 Byron Center, MI (616) 277-2185  
 Kalamazoo, MI (269) 697-7120  
 www.VKcivil.com

FILE NO.	1225
CHECKED	DGL
SHEET NO.	C300

## RAINFALL INTENSITIES & DEPTHS

### Oshtemo Township Data

#### Job Information

**Description:** West Ridge AEH (Minor Pond)  
**Reviewing Entity:** Oshtemo Township  
**Job #:** 1225  
**Date:** 02/02/24

Rainfall Intensity From NOAA Atlas 14 (in/hr) [https://hdsc.nws.noaa.gov/hdsc/pfds/pfds\\_map\\_co](https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_co)

Duration (min)	Duration (hr)	Frequency				
		2-Year	10-Year	25-Year	50-Year	100-Year
5	0.083	4.67	6.80	8.21	9.34	10.50
10	0.167	3.42	4.98	6.01	6.83	7.68
30	0.5	1.94	2.85	3.45	3.93	4.42
60	1	1.24	1.87	2.30	2.67	3.05
120	2	0.75	1.15	1.44	1.69	1.95
180	3	0.55	0.86	1.08	1.28	1.49
360	6	0.32	0.50	0.63	0.75	0.88
720	12	0.19	0.27	0.34	0.40	0.47
1440	24	0.11	0.15	0.19	0.22	0.25

Rainfall Depth (in)						
Duration (min)	Duration (hr)	Frequency				
		2-Year	10-Year	25-Year	50-Year	100-Year
5	0.083	0.39	0.57	0.68	0.78	0.88
10	0.167	0.57	0.83	1.00	1.14	1.28
30	0.5	0.97	1.43	1.73	1.97	2.21
60	1	1.24	1.87	2.30	2.67	3.05
120	2	1.50	2.30	2.88	3.38	3.90
180	3	1.65	2.57	3.24	3.84	4.47
360	6	1.94	2.98	3.79	4.49	5.27
720	12	2.23	3.29	4.13	4.85	5.66
1440	24	2.59	3.67	4.54	5.28	6.10

**STORM STORAGE VOLUME**  
**RATIONAL METHOD**

**Job Information**

**Description:** West Ridge AEH (Minor Pond)  
**Reviewing Entity:** Oshtemo Township  
**Job #:** 1225  
**Date:** 2/2/2024

<b>Design Parameter:</b>	<b>Retention</b>
<b>Design Storm:</b>	<b>100-yr</b>
<b>Proposed Inflow Runoff Coefficient:</b>	<b>0.46</b>
<b>Inflow Drainage Area (ac):</b>	<b>1.22</b>
<b>Allowable Release Rate (cfs):</b>	<b>0.274</b>

Infiltration	
Bottom Area	3943 sft
Infiltration Rate	3 in/hr
Release Rate	0.274 cfs

**Detention Volume Required:** 6,503 cft

Storm Duration		Intensity (in./hr)	Inflow Rate (cfs)	Outflow Rate (cfs)	Required Storage	Required Storage (cft)
(min)	(hr)				(ac-ft)	
5	0.08	10.50	5.89	0.274	0.039	1699.7
10	0.17	7.68	4.31	0.274	0.056	2441.9
15	0.25	6.87	3.85	0.274	0.075	3247.8
20	0.33	6.05	3.40	0.274	0.087	3776.9
25	0.42	5.24	2.94	0.274	0.093	4029.4
30	0.50	4.42	2.48	0.274	0.092	4005.1
35	0.58	4.19	2.35	0.274	0.101	4401.3
40	0.67	3.96	2.22	0.274	0.108	4720.0
45	0.75	3.74	2.10	0.274	0.114	4961.1
50	0.83	3.51	1.97	0.274	0.118	5124.7
55	0.92	3.28	1.84	0.274	0.120	5210.8
60	1.00	3.05	1.71	0.274	0.120	5219.4
65	1.08	2.96	1.66	0.274	0.125	5452.0
70	1.17	2.87	1.61	0.274	0.130	5653.5
75	1.25	2.78	1.56	0.274	0.134	5823.9
80	1.33	2.68	1.51	0.274	0.137	5963.2
85	1.42	2.59	1.45	0.274	0.139	6071.4
90	1.50	2.50	1.40	0.274	0.141	6148.4
95	1.58	2.41	1.35	0.274	0.142	6194.3
100	1.67	2.32	1.30	0.274	0.143	6209.1
105	1.75	2.23	1.25	0.274	0.142	6192.7
110	1.83	2.13	1.20	0.274	0.141	6145.3
115	1.92	2.04	1.15	0.274	0.139	6066.7
120	2.00	1.95	1.09	0.274	0.137	5957.0
125	2.08	1.91	1.07	0.274	0.139	6042.5
130	2.17	1.87	1.05	0.274	0.140	6115.0
135	2.25	1.84	1.03	0.274	0.142	6174.5
140	2.33	1.80	1.01	0.274	0.143	6221.0
145	2.42	1.76	0.99	0.274	0.144	6254.4
150	2.50	1.72	0.97	0.274	0.144	6274.9
155	2.58	1.68	0.94	0.274	0.144	6282.3
160	2.67	1.64	0.92	0.274	0.144	6276.7
165	2.75	1.61	0.90	0.274	0.144	6258.1
170	2.83	1.57	0.88	0.274	0.143	6226.5
175	2.92	1.53	0.86	0.274	0.142	6181.8
180	3.00	1.49	0.84	0.274	0.141	6124.2
185	3.08	1.47	0.83	0.274	0.142	6187.5
190	3.17	1.46	0.82	0.274	0.143	6245.1
195	3.25	1.44	0.81	0.274	0.145	6296.9
200	3.33	1.42	0.80	0.274	0.146	6342.9
205	3.42	1.41	0.79	0.274	0.147	6383.2
210	3.50	1.39	0.78	0.274	0.147	6417.6
215	3.58	1.37	0.77	0.274	0.148	6446.3
220	3.67	1.35	0.76	0.274	0.149	6469.3
225	3.75	1.34	0.75	0.274	0.149	6486.4

230	3.83	1.32	0.74	0.274	0.149	6497.8
235	3.92	1.30	0.73	0.274	0.149	6503.4
240	4.00	1.29	0.72	0.274	0.149	6503.3
245	4.08	1.27	0.71	0.274	0.149	6497.3
250	4.17	1.25	0.70	0.274	0.149	6485.6
255	4.25	1.24	0.69	0.274	0.148	6468.2
260	4.33	1.22	0.68	0.274	0.148	6444.9
265	4.42	1.20	0.67	0.274	0.147	6415.9
270	4.50	1.18	0.66	0.274	0.146	6381.1
275	4.58	1.17	0.65	0.274	0.146	6340.6
280	4.67	1.15	0.65	0.274	0.144	6294.2
285	4.75	1.13	0.64	0.274	0.143	6242.1
290	4.83	1.12	0.63	0.274	0.142	6184.3
295	4.92	1.10	0.62	0.274	0.141	6120.6
300	5.00	1.08	0.61	0.274	0.139	6051.2
305	5.08	1.07	0.60	0.274	0.137	5976.0
310	5.17	1.05	0.59	0.274	0.135	5895.0
315	5.25	1.03	0.58	0.274	0.133	5808.3
320	5.33	1.01	0.57	0.274	0.131	5715.8
325	5.42	1.00	0.56	0.274	0.129	5617.5
330	5.50	0.98	0.55	0.274	0.127	5513.5
335	5.58	0.96	0.54	0.274	0.124	5403.6
340	5.67	0.95	0.53	0.274	0.121	5288.0
345	5.75	0.93	0.52	0.274	0.119	5166.7
350	5.83	0.91	0.51	0.274	0.116	5039.5
355	5.92	0.90	0.50	0.274	0.113	4906.6
360	6.00	0.88	0.49	0.274	0.109	4768.0
720	12.00	0.47	0.26	0.274	-0.009	-389.1
1440	24.00	0.25	0.14	0.274	-0.263	-11436.6

**PROPOSED STORMWATER SYSTEM**  
**RETENTION POND VOLUME**

**Job Information**

**Description:** West Ridge AEH (Minor Pond)  
**Reviewing Entity:** Oshtemo Township  
**Job #:** 1225  
**Date:** 2/2/2024

Elevation (ft)	Area (sf)	Incremental Volume (cf)	Total Volume (cf)
933	2305	0.0	0.0
934	2959	2632.0	2632.0
935	3943	3451.0	6083.0
936	5095	4519.0	10602.0
937	6095	5595.0	16197.0
937.5	6579	3168.5	19365.5
938.5	7610	7094.5	26460.0

> 6,503 (cf) Required

**MINOR POND (100-YEAR STORM)**  
**TOP OF BERM = 939.5**  
**OVERFLOW ELEVATION = 938.5**  
**DESIGN ELEVATION = 937.5**

**PROPOSED STORMWATER SYSTEM**  
**FOREBAY VOLUME**

**Job Information**

**Description:** West Ridge AEH (Minor Pond)  
**Reviewing Entity:** Oshtemo Township  
**Job #:** 1225  
**Date:** 2/2/2024

Elevation (ft)	Area (sf)	Incremental Volume (cf)	Total Volume (cf)
934	51	0.0	0.0
935	327	189.0	189.0
936	698	512.5	701.5

> 664 (cf) Required

Forebay Volume (per Kalamazoo County Drain Commission requirements):

V<sub>pt</sub> = 0.15 (V<sub>wq</sub>)  
V<sub>wq</sub> = 3630 (DCIA)  
V<sub>wq</sub> = 3630 (1.22 acres)  
V<sub>wq</sub> = 4429 CF  
V<sub>pt</sub> = 0.15 (4429 CF)  
V<sub>pt</sub> = 664 CF

V<sub>pt</sub> = minimum required pretreatment volume (cubic feet)  
V<sub>wq</sub> = water quality volume (cubic feet)  
DCIA = directly connected impervious area (acres)  
3630 = product of 1.0 inch and 3630 factor to convert acre-inches to cubic feet

**STORM STORAGE VOLUME  
RATIONAL METHOD**

**Job Information**

**Description:** West Ridge AEH (Major Pond)  
**Reviewing Entity:** Oshtemo Township  
**Job #:** 1225  
**Date:** 2/2/2024

<b>Design Parameter:</b>	<b>Retention</b>
<b>Design Storm:</b>	<b>100-yr</b>
<b>Proposed Inflow Runoff Coefficient:</b>	<b>0.40</b>
<b>Inflow Drainage Area (ac):</b>	<b>15.57</b>
<b>Allowable Release Rate (cfs):</b>	<b>0.235</b> Retention

<b>Infiltration</b>	
<b>Bottom Area</b>	10135 sft
<b>Infiltration Rate</b>	1 in/hr
<b>Release Rate</b>	0.235 cfs

**Detention Volume Required:** 118,063 cft

Storm Duration		Intensity (in./hr)	Inflow Rate (cfs)	Outflow Rate (cfs)	Required Storage	Required Storage (cft)
(min)	(hr)				(ac-ft)	
5	0.08	10.50	65.39	0.235	0.452	19710.7
10	0.17	7.68	47.83	0.235	0.661	28795.8
15	0.25	6.87	42.76	0.235	0.886	38587.5
20	0.33	6.05	37.68	0.235	1.040	45308.2
25	0.42	5.24	32.60	0.235	1.124	48958.1
30	0.50	4.42	27.53	0.235	1.137	49537.1
35	0.58	4.19	26.11	0.235	1.258	54782.0
40	0.67	3.96	24.68	0.235	1.358	59166.7
45	0.75	3.74	23.26	0.235	1.439	62690.9
50	0.83	3.51	21.84	0.235	1.500	65354.9
55	0.92	3.28	20.42	0.235	1.542	67158.4
60	1.00	3.05	19.00	0.235	1.563	68101.7
65	1.08	2.96	18.42	0.235	1.642	71531.8
70	1.17	2.87	17.85	0.235	1.713	74616.4
75	1.25	2.78	17.28	0.235	1.776	77355.7
80	1.33	2.68	16.71	0.235	1.831	79749.6
85	1.42	2.59	16.14	0.235	1.878	81798.1
90	1.50	2.50	15.57	0.235	1.917	83501.2
95	1.58	2.41	15.00	0.235	1.948	84858.9
100	1.67	2.32	14.43	0.235	1.971	85871.2
105	1.75	2.23	13.86	0.235	1.987	86538.2
110	1.83	2.13	13.29	0.235	1.994	86859.7
115	1.92	2.04	12.72	0.235	1.993	86835.8
120	2.00	1.95	12.14	0.235	1.985	86466.6
125	2.08	1.91	11.91	0.235	2.026	88263.9
130	2.17	1.87	11.67	0.235	2.064	89916.7
135	2.25	1.84	11.43	0.235	2.099	91425.1
140	2.33	1.80	11.19	0.235	2.130	92789.1
145	2.42	1.76	10.95	0.235	2.158	94008.7
150	2.50	1.72	10.71	0.235	2.183	95083.8
155	2.58	1.68	10.47	0.235	2.204	96014.5
160	2.67	1.64	10.23	0.235	2.222	96800.7
165	2.75	1.61	10.00	0.235	2.237	97442.5
170	2.83	1.57	9.76	0.235	2.248	97939.9
175	2.92	1.53	9.52	0.235	2.256	98292.8
180	3.00	1.49	9.28	0.235	2.261	98501.3
185	3.08	1.47	9.17	0.235	2.297	100052.4
190	3.17	1.46	9.07	0.235	2.331	101539.5
195	3.25	1.44	8.96	0.235	2.364	102962.5
200	3.33	1.42	8.86	0.235	2.395	104321.5
205	3.42	1.41	8.75	0.235	2.425	105616.4
210	3.50	1.39	8.64	0.235	2.453	106847.2
215	3.58	1.37	8.54	0.235	2.480	108014.0
220	3.67	1.35	8.43	0.235	2.505	109116.8
225	3.75	1.34	8.33	0.235	2.529	110155.5



230	3.83	1.32	8.22	0.235	2.551	111130.1
235	3.92	1.30	8.12	0.235	2.572	112040.7
240	4.00	1.29	8.01	0.235	2.592	112887.2
245	4.08	1.27	7.90	0.235	2.609	113669.7
250	4.17	1.25	7.80	0.235	2.626	114388.1
255	4.25	1.24	7.69	0.235	2.641	115042.5
260	4.33	1.22	7.59	0.235	2.655	115632.8
265	4.42	1.20	7.48	0.235	2.667	116159.0
270	4.50	1.18	7.37	0.235	2.677	116621.2
275	4.58	1.17	7.27	0.235	2.686	117019.3
280	4.67	1.15	7.16	0.235	2.694	117353.4
285	4.75	1.13	7.06	0.235	2.700	117623.5
290	4.83	1.12	6.95	0.235	2.705	117829.4
295	4.92	1.10	6.84	0.235	2.708	117971.4
300	5.00	1.08	6.74	0.235	2.710	118049.2
305	5.08	1.07	6.63	0.235	2.710	118063.0
310	5.17	1.05	6.53	0.235	2.709	118012.8
315	5.25	1.03	6.42	0.235	2.707	117898.5
320	5.33	1.01	6.32	0.235	2.702	117720.1
325	5.42	1.00	6.21	0.235	2.697	117477.7
330	5.50	0.98	6.10	0.235	2.690	117171.3
335	5.58	0.96	6.00	0.235	2.681	116800.7
340	5.67	0.95	5.89	0.235	2.671	116366.2
345	5.75	0.93	5.79	0.235	2.660	115867.5
350	5.83	0.91	5.68	0.235	2.647	115304.9
355	5.92	0.90	5.57	0.235	2.633	114678.1
360	6.00	0.88	5.47	0.235	2.617	113987.3
720	12.00	0.47	2.94	0.235	2.705	117830.2
1440	24.00	0.25	1.58	0.235	2.695	117377.3

**PROPOSED STORMWATER SYSTEM**  
**RETENTION POND VOLUME**

**Job Information**

**Description:** West Ridge AEH (Major Pond)  
**Reviewing Entity:** Oshtemo Township  
**Job #:** 1225  
**Date:** 2/2/2024

Elevation (ft)	Area (sf)	Incremental Volume (cf)	Total Volume (cf)
929	605	0.0	0.0
930	1279	942.0	942.0
931	2087	1683.0	2625.0
932	3028	2557.5	5182.5
933	7448	5238.0	10420.5
934	10135	8791.5	19212.0
935	13201	11668.0	30880.0
936	16424	14812.5	45692.5
937	18895	17659.5	63352.0
938	21544	20219.5	83571.5
939	24318	22931.0	106502.5
939.5	25740	12514.5	119017.0
940.5	28698	27219.0	146236.0

> 118,063 (cf) Required

**MAJOR POND (100-YEAR STORM)**  
**TOP OF BERM = 941.5**  
**OVERFLOW ELEVATION = 940.5**  
**DESIGN ELEVATION = 939.5**

**PROPOSED STORMWATER SYSTEM**  
**WEST FOREBAY VOLUME**

**Job Information**

**Description:** West Ridge AEH (Major Pond)  
**Reviewing Entity:** Oshtemo Township  
**Job #:** 1225  
**Date:** 2/2/2024

Elevation (ft)	Area (sf)	Incremental Volume (cf)	Total Volume (cf)
933	1941	0.0	0.0
934	2736	2338.5	2338.5
935	3657	3196.5	5535.0

> 4,960 (cf) Required

Forebay Volume (per Kalamazoo County Drain Commission requirements):

V<sub>pt</sub> = 0.15 (V<sub>wq</sub>)  
V<sub>wq</sub> = 3630 (DCIA)  
V<sub>wq</sub> = 3630 (9.11 acres)  
V<sub>wq</sub> = 33669 CF  
V<sub>pt</sub> = 0.15 (33669 CF)  
V<sub>pt</sub> = 4960 CF

V<sub>pt</sub> = minimum required pretreatment volume (cubic feet)  
V<sub>wq</sub> = water quality volume (cubic feet)  
DCIA = directly connected impervious area (acres)  
3630 = product of 1.0 inch and 3630 factor to convert acre-inches to cubic feet

**PROPOSED STORMWATER SYSTEM**  
**EAST FOREBAY VOLUME**

**Job Information**

**Description:** West Ridge AEH (Major Pond)  
**Reviewing Entity:** Oshtemo Township  
**Job #:** 1225  
**Date:** 2/2/2024

Elevation (ft)	Area (sf)	Incremental Volume (cf)	Total Volume (cf)
933	1404	0.0	0.0
934	2086	1745.0	1745.0
935	2889	2487.5	4232.5

> 3,517 (cf) Required

Forebay Volume (per Kalamazoo County Drain Commission requirements):

V<sub>pt</sub> = 0.15 (V<sub>wq</sub>)  
V<sub>wq</sub> = 3630 (DCIA)  
V<sub>wq</sub> = 3630 (6.46 acres)  
V<sub>wq</sub> = 23450 CF  
V<sub>pt</sub> = 0.15 (23450 CF)  
V<sub>pt</sub> = 3517 CF

V<sub>pt</sub> = minimum required pretreatment volume (cubic feet)  
V<sub>wq</sub> = water quality volume (cubic feet)  
DCIA = directly connected impervious area (acres)  
3630 = product of 1.0 inch and 3630 factor to convert  
acre-inches to cubic feet



# KALAMAZOO COUNTY GOVERNMENT

In the Pursuit of Extraordinary Governance...

Jan 23rd, 2024

*Sent via email*

Nicole French  
Viesman & Korhorn  
4664 Campus Dr. Suite 111  
Kalamazoo, MI 49008  
[nicole@vkcivil.com](mailto:nicole@vkcivil.com)

This letter confirms the recommendations by the Kalamazoo County Planning Department for the following proposed street names for the West Ridge condo development in Oshtemo Township, Kalamazoo County. This Letter of Approval does not take the place of any additional procedural or policy requirements necessary by KCCDA, Kalamazoo County Planning & Development Department, or the Road Commission of Kalamazoo County.

\*\*\*\*Please let us know if the Township makes any changes in the recommended street names listed below. It is critical for public safety and infrastructure that street names are accurate in the Kalamazoo County GIS system.

**Approved Street Names:**

Richtop Circle  
Hillock Avenue  
Vertex Circle

Please be advised that the subject street names are recommended and are reserved in the Kalamazoo County Street Name Directory.

---

**PLANNING & DEVELOPMENT DEPARTMENT**  
201 West Kalamazoo Avenue | Kalamazoo, Michigan 49007  
Phone: (269) 384-8112 | [www.kalcounty.com/planning](http://www.kalcounty.com/planning)

The Planning Department's recommendation is a non-binding advisory opinion. All street name recommendations by the Planning and Development Department are subject to review by the municipality and/or the Road Commission of Kalamazoo County. Final authority of private street names is with the respective municipality. The Road Commission of Kalamazoo County has the final authority for public streets within the jurisdiction of the Road Commission.

Should you need further information or have questions regarding this matter, please feel free to contact me by email [ragrov@kalcounty.com](mailto:ragrov@kalcounty.com) at your earliest convenience.

Sincerely,

*Alexander Franchi*

Alex Franchi  
GIS Supervisor

cc: Oshtemo Twp: [lharris@oshtemo.org](mailto:lharris@oshtemo.org),  
[chutson@oshtemo.org](mailto:chutson@oshtemo.org)  
RCKC: [info@kalamazoocountyroads.com](mailto:info@kalamazoocountyroads.com)  
USPS: [Michigan2DistrictAMS@usps.gov](mailto:Michigan2DistrictAMS@usps.gov)  
Kalamazoo County GIS: [ragrov@kalcounty.com](mailto:ragrov@kalcounty.com),  
[zsvoss@kalcounty.com](mailto:zsvoss@kalcounty.com), [tjjenn@kalcounty.com](mailto:tjjenn@kalcounty.com)  
KCCDA: [mftacek@kccda911.org](mailto:mftacek@kccda911.org)



# KALAMAZOO COUNTY GOVERNMENT

In the Pursuit of Extraordinary Governance...

Feb 1st, 2024

*Sent via email*

John Lovely  
Allen Edwin Homes  
2186 E Centre St  
Portage, MI 49002  
[jlvely@allenedwin.com](mailto:jlvely@allenedwin.com)

This letter confirms the recommendations by the Kalamazoo County Planning Department for the following proposed street names for the West Ridge condo development in Oshtemo Township, Kalamazoo County. This Letter of Approval does not take the place of any additional procedural or policy requirements necessary by KCCDA, Kalamazoo County Planning & Development Department, or the Road Commission of Kalamazoo County.

\*\*\*\*Please let us know if the Township makes any changes in the recommended street names listed below. It is critical for public safety and infrastructure that street names are accurate in the Kalamazoo County GIS system.

**Approved Street Name Change:**

*[from] Richtop Circle [to] Ridgetop Circle*

Please be advised that the subject street names are recommended and are reserved in the Kalamazoo County Street Name Directory.

---

**PLANNING & DEVELOPMENT DEPARTMENT**  
201 West Kalamazoo Avenue | Kalamazoo, Michigan 49007  
Phone: (269) 384-8112 | [www.kalcounty.com/planning](http://www.kalcounty.com/planning)

The Planning Department's recommendation is a non-binding advisory opinion. All street name recommendations by the Planning and Development Department are subject to review by the municipality and/or the Road Commission of Kalamazoo County. Final authority of private street names is with the respective municipality. The Road Commission of Kalamazoo County has the final authority for public streets within the jurisdiction of the Road Commission.

Should you need further information or have questions regarding this matter, please feel free to contact me by email [ragrov@kalcounty.com](mailto:ragrov@kalcounty.com) at your earliest convenience.

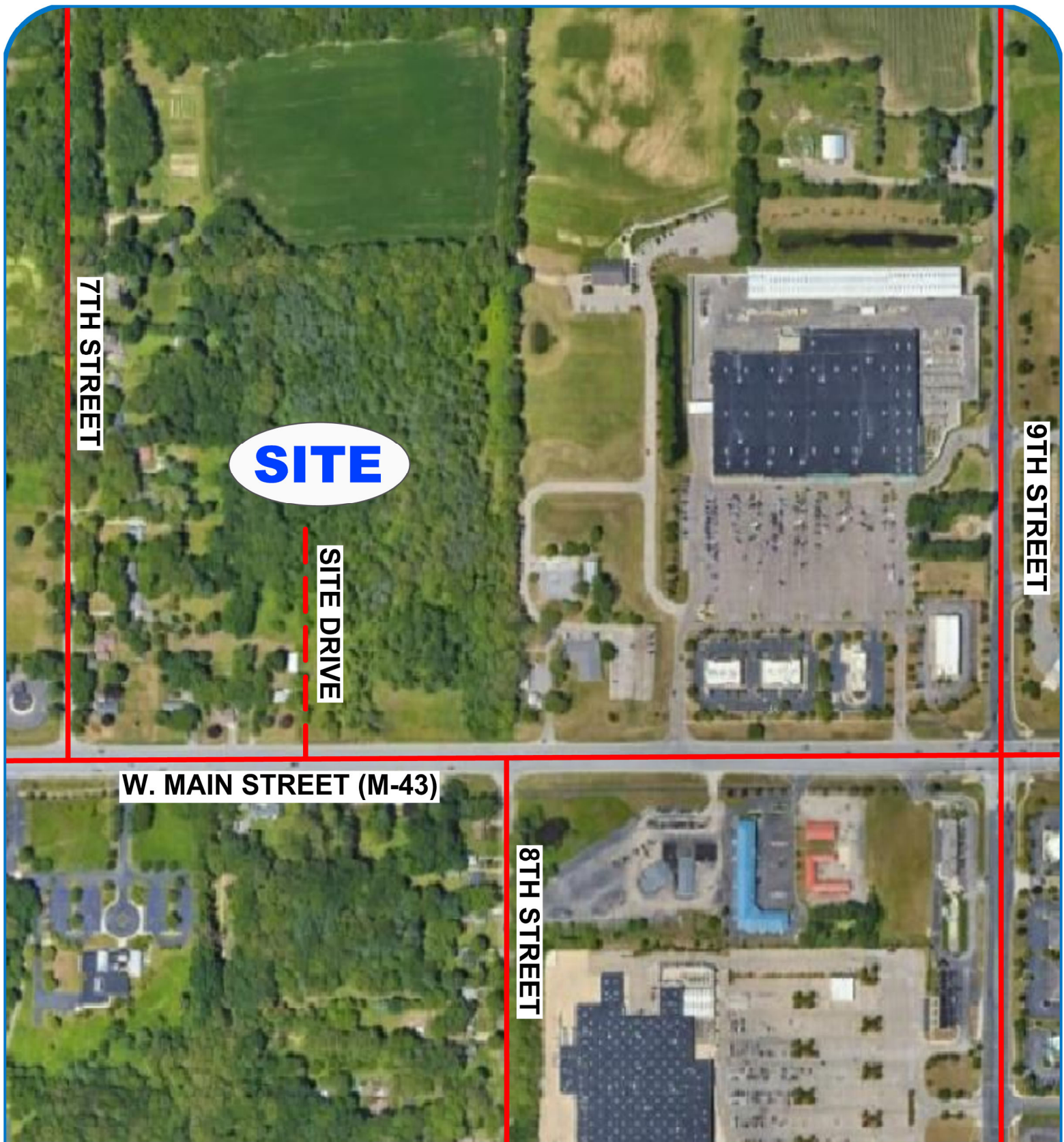
Sincerely,

*Alexander Franchi*

Alex Franchi  
GIS Supervisor

cc: Oshtemo Twp: [lharris@oshtemo.org](mailto:lharris@oshtemo.org),  
[chutson@oshtemo.org](mailto:chutson@oshtemo.org)  
RCKC: [info@kalamazoocountyroads.com](mailto:info@kalamazoocountyroads.com)  
USPS: [Michigan2DistrictAMS@usps.gov](mailto:Michigan2DistrictAMS@usps.gov)  
Kalamazoo County GIS: [ragrov@kalcounty.com](mailto:ragrov@kalcounty.com),  
[zsvoss@kalcounty.com](mailto:zsvoss@kalcounty.com), [tjjenn@kalcounty.com](mailto:tjjenn@kalcounty.com)  
KCCDA: [mftacek@kccda911.org](mailto:mftacek@kccda911.org)





7TH STREET

**SITE**

SITE DRIVE

9TH STREET

W. MAIN STREET (M-43)

8TH STREET



# FIGURE 1 SITE LOCATION MAP

WEST RIDGE CONDOS TIA - OSTHEMO TWP, MI

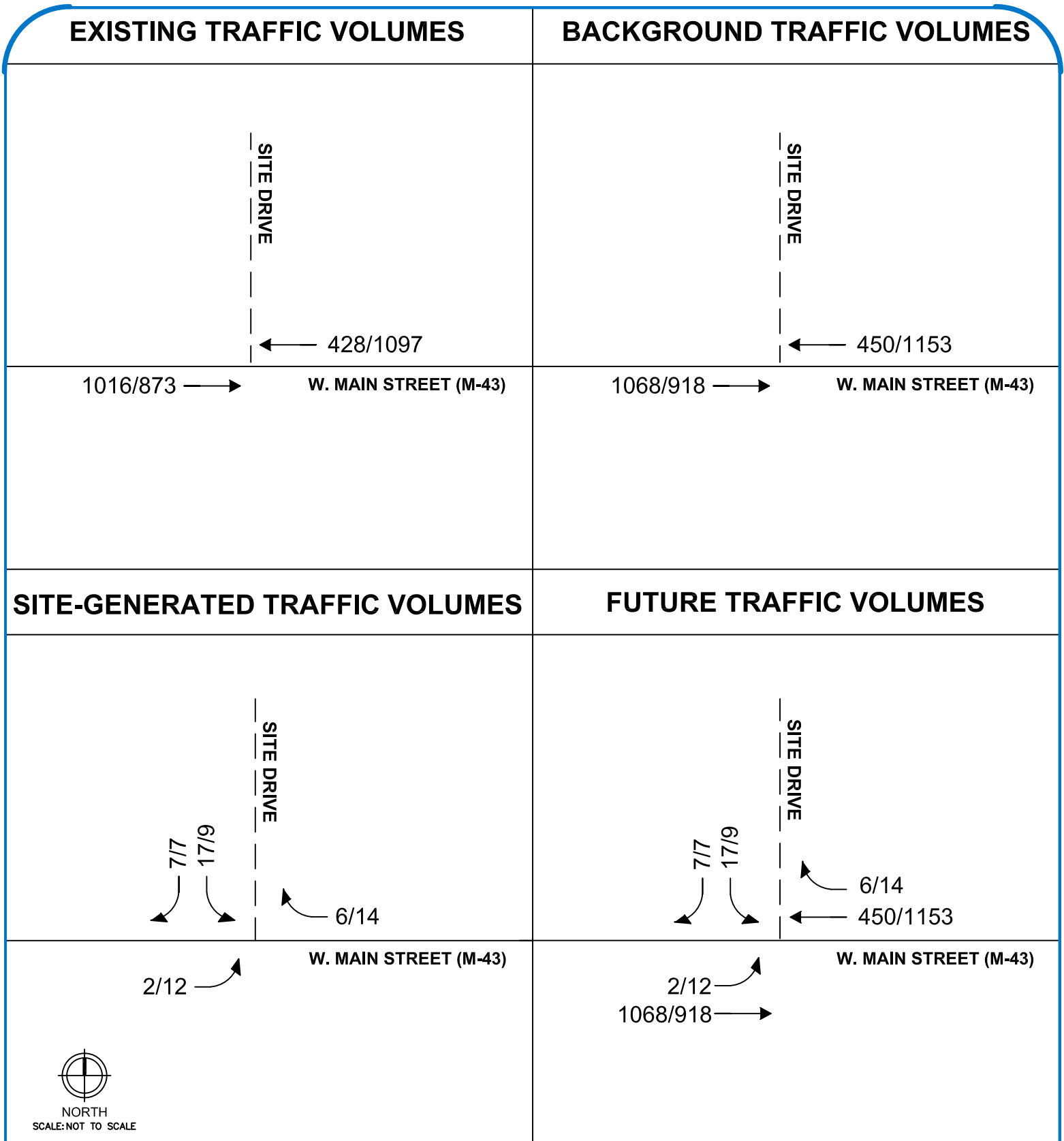
### LEGEND



SITE LOCATION



NORTH  
SCALE: NOT TO SCALE  
121



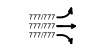


## FIGURE 2

# TRAFFIC VOLUMES

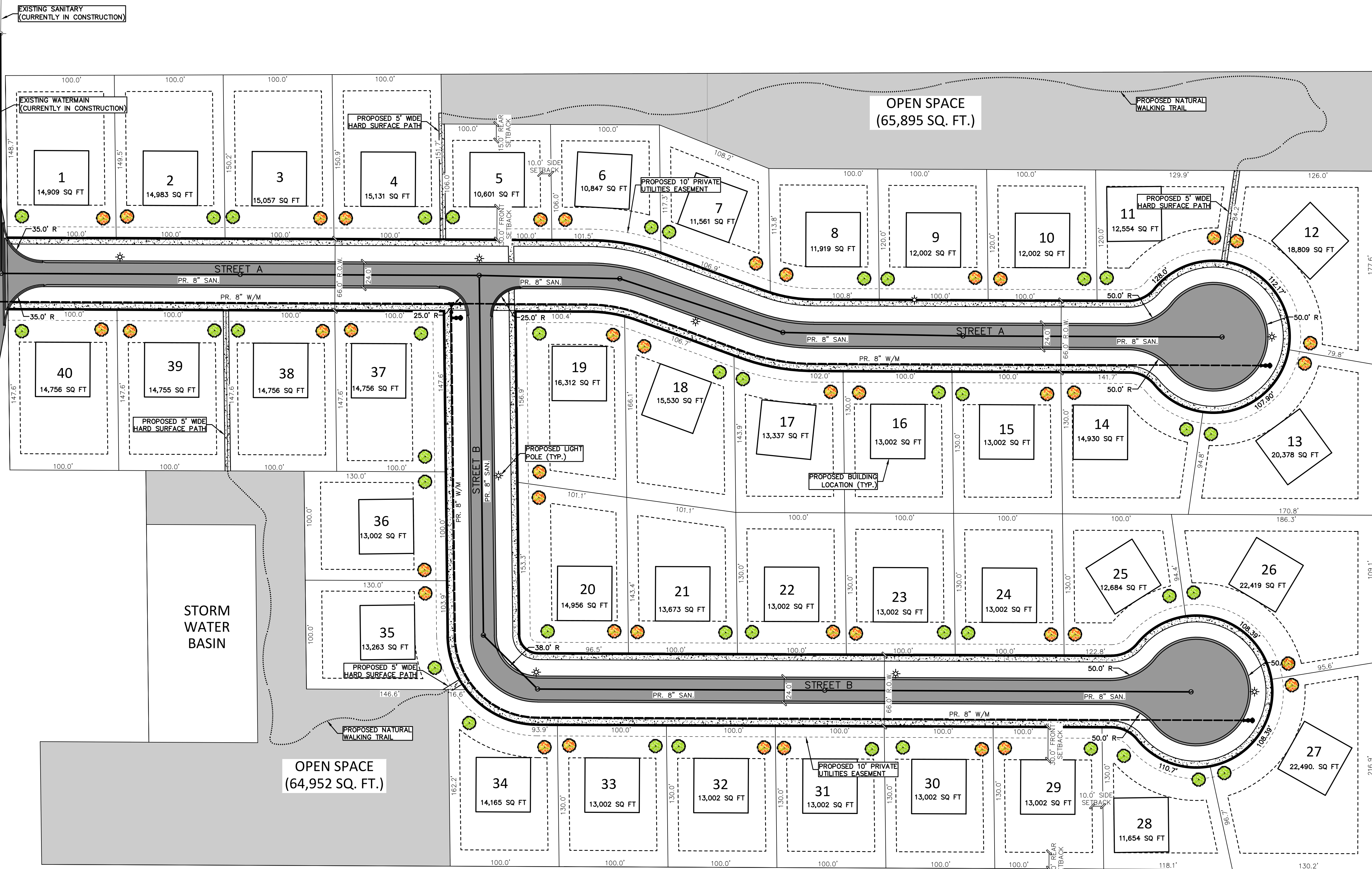
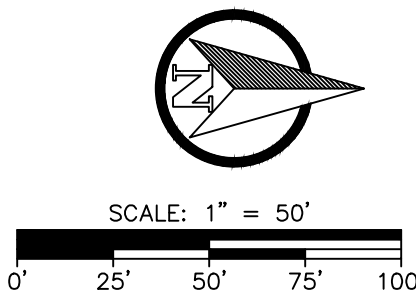
WEST RIDGE CONDOS TIA - OSHTEMO TWP, MI

### LEGEND

-  ROADS
-  PROPOSED ROADS
-  TRAFFIC VOLUMES (AM/PM)



# WEST RIDGE SITE CONDOMINIUMS



### SYMBOL LEGEND

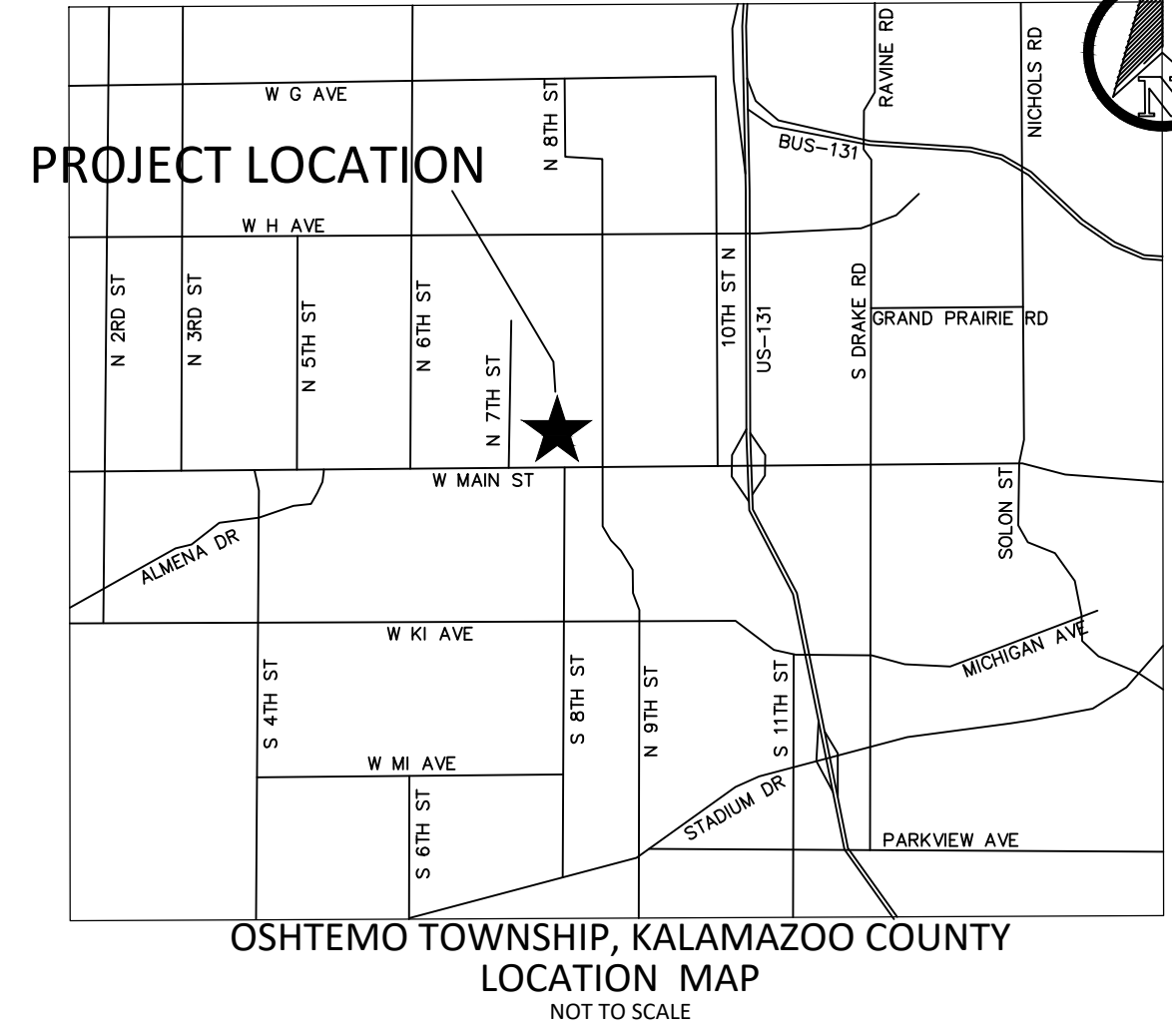
- EXISTING TREE
- LIGHT POLE
- POWER POLE
- STOP SIGN
- HYDRANT LOCATIONS

### LINE AND HATCH LEGEND

- NATURAL WALKING TRAIL
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- OPEN SPACE
- 12-18% SLOPES
- 18%+ SLOPES

### LANDSCAPE LEGEND

- CONIFER/EVERGREEN (5' HEIGHT)
- SHRUB (24" HEIGHT)
- CANOPY-SUGAR MAPLE (2" CALIPER)
- CANOPY-TULIP TREE (2" CALIPER)
- ORNAMENTAL (8'-10' HEIGHT)



### SITE LAYOUT NOTES:

- 1) ALL WORK SHALL BE DONE TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.
- 2) ALL WORK WITHIN ROW SHALL BE DONE IN ACCORDANCE WITH LOCAL ROADWAY JURISDICTION REQUIREMENTS.
- 3) CONTRACTOR SHALL RESTORE ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE, AND OTHER INFRASTRUCTURE DISTURBED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES TO MATCH EXISTING CONDITIONS.
- 4) ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY OWNER.
- 5) THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST.
- 6) CONTRACTOR SHALL CONTACT MISS DIG THREE WORKING DAYS BEFORE YOU DIG. CALL MISS DIG AT 1-800-482-7171 OR 811.
- 7) ALL WORK SHALL BE DONE TO THE MICHIGAN HANDICAPPED ACCESSIBILITY CODE AND THE AMERICANS WITH DISABILITIES ACT.
- 8) ADA PARKING SPACES SHALL BE MARKED WITH APPROVED PAVEMENT SYMBOL. MARK ADA SPACES WITH 4" BLUE PAINT AND SIGNS PER MMUTCD.
- 9) CONTRACTOR SHALL ENSURE ALL ADA RAMPS AND ACCESS MEET CURRENT ADA STANDARDS. IF IT IS DISCOVERED THAT ANY ITEMS WILL NOT MEET ADA STANDARDS IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.
- 10) ALL SIGNAGE SHALL BE PER MDOT AND MMUTCD STANDARDS.
- 11) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, DEMOLITION PERMITS, TAP FEES, ASSESSMENTS, UTILITY PERMITS, ROW PERMITS, BONDS, INSURANCE, OR OTHER FEES ASSOCIATED WITH CONSTRUCTION.
- 12) SITE CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF A MINIMUM 4000 PSI AND SHALL HAVE LIMESTONE AGGREGATE AND SHALL HAVE A 4-6% AIR ENTRAINMENT WITH A BROOM FINISH.
- 13) INSTALL EXPANSION JOINTS AT ALL LOCATIONS WHERE CONCRETE ABUTS HMA PAVEMENT.
- 14) CONTRACTOR SHALL REVIEW THE GEOTECHNICAL AND ENVIRONMENTAL REPORTS FOR THE SITE AND INCORPORATE INTO THEIR CONSTRUCTION MEANS AND METHODS.
- 15) THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD SURVEY LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN THE PLAN AND ELECTRONIC DATA ARE DISCOVERED.
- 16) THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PERFORM THE WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.
- 17) THE CONTRACTOR SHALL PROTECT LOCATION OF ALL PROPERTY MARKERS AND BENCHMARKS.
- 18) THE CONTRACTOR IS RESPONSIBLE FOR ALL SIGNS, BARRICADES, AND SAFETY FENCES TO DETER PEOPLE FROM ENTERING THE WORK AREA AND FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE LOCAL POLICE DEPARTMENT AND MUNICIPALITY.
- 19) PRIOR TO CONSTRUCTION OR GRADING A PROTECTIVE BARRIER, FENCE, POST, AND SIGNS CLEARLY INDICATING LIMITS OF DISTURBANCE SHALL BE INSTALLED INDICATING NO TREE REMOVAL OR DISTURBANCES OUTSIDE LIMITS.
- 20) NO PARKING OF CONTRACTOR OR SUBCONTRACTORS SHALL BE ALLOWED ON PUBLIC STREETS WITHOUT PRIOR APPROVAL.
- 21) NO BUILDING MATERIAL, EQUIPMENT, VEHICLES, OR CHEMICALS SHALL BE STORED OR PLACED OUTSIDE OF THE LIMITS OF DISTURBANCE.
- 22) CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM DURING NIGHTTIME HOURS AND MUST COMPLY WITH LOCAL MUNICIPAL ORDINANCES.

### SITE NOTES:

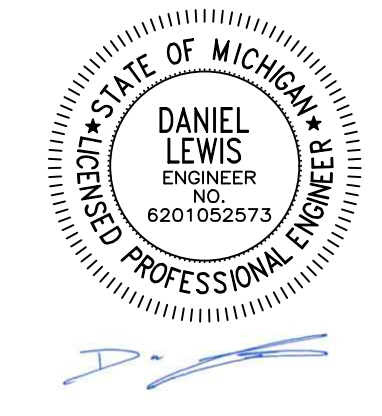
1. PARCEL NUMBERS: 05-15-285-010
2. LEGAL DESCRIPTION: SEC 15-2-12 SE1/4 NE1/4 EXC THAT PT LYING W OF CTR LI N 7TH ST ALSO EXC BEG AT PT ON E&W1/4 LI 725.37 FT W OF E1/ POST THEREOF TH W ALG SD E&W1/4 LI 470 FT TH N 090G13MIN E ALG CTR LI N 7TH ST 1326.81 FT TO N LI SE1/4NE1/4 TH S 98DEG41MIN E ALG SD N LI 470 FT TH S 00E613MIN W 1326.81 FT TO BEG EXC SQ MUCH OF ABOVE DESC DEEDED TO MICH STATE WHY DEPT BY DEED L856 ON P1454 AS REC'D REC DEEDS OF KAL CO MICH
3. SITE AREA: TOTAL = 20.33 ACRES
4. PROPERTY ZONED: R2
5. ROADS = PUBLIC
6. DRAINAGE = PRIVATE
7. SANITARY SEWER = PUBLIC
8. WATER = PUBLIC
9. STREET LIGHTING - SHALL MEET TOWNSHIP STANDARDS
10. NO FLOODPLAIN EXISTS ON PROPERTY
11. NO WETLANDS EXIST ON PROPERTY
12. HEIGHTS OF ALL BUILDINGS TO BE \_\_\_\_\_
13. ROAD NAMES TO BE APPROVED BY KALAMAZOO COUNTY PLANNING
14. SIDEWALKS TO BE A MINIMUM OF 5 FT IN WIDTH & ON BOTH SIDES OF ROAD
15. MINIMUM LOT REQUIREMENTS:
  - 15.1. MINIMUM LOT AREA: 10,560 SQ FT
  - 15.2. MINIMUM LOT FRONTAGE: 100 FT
  - 15.3. MINIMUM FRONT YARD SETBACK: 30 FT
  - 15.4. MINIMUM REAR YARD SETBACK: 15 FT
  - 15.5. MINIMUM SIDE YARD SETBACK: 10 FT
17. PROJECT TO BE CONSTRUCTED IN ONE PHASE.
18. DENSITY CALCULATION TOTAL ACREAGE 20.33 ACRES \* 1 LOT PER 10,560 SQ FT=83 LOTS > PROPOSED 40 LOTS (0.51/ACRE)
19. OPEN SPACE REQUIREMENT 10% (2.03 ACRES) < PROVIDED 3.00 ACRES (14.8%)
20. PUBLIC WATER CONNECTIONS SHALL BE COORDINATED WITH THE CITY OF KALAMAZOO

### UTILITY PLAN NOTES:

- 1) CONTRACTOR SHALL CONTACT PRIVATE AND PUBLIC UTILITY COMPANIES IF ANY COORDINATION IS NEEDED BETWEEN PROPOSED WORK AND EXISTING UTILITIES.
- 2) UTILITIES SHOWN (IF ANY) ARE APPROXIMATE LOCATIONS DERIVED FROM MEASUREMENTS OR AVAILABLE RECORDS. THIS MAP IS NOT TO BE INTERPRETED AS SHOWING EXACT LOCATIONS OR SHOWING ALL UTILITIES IN THE AREA. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITY INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION, AND CONDITION.
- 3) ALL WATERMAIN TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF KALAMAZOO STANDARD SPECIFICATIONS FOR WATERMAIN AND SERVICE INSTALLATION, 2021.
- 4) ALL SANITARY SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH LOCAL SANITARY SEWER UTILITY STANDARDS AND EGLE STANDARDS.
- 5) ALL 6" UNDERDRAIN TO BE CORRUGATED PLASTIC PIPE WITH SOCK, ADS N-12 OR APPROVED EQUAL.
- 6) ALL STORM SEWER SHALL BE SMOOTH LINED CORRUGATED PLASTIC PIPE, ADS N-12 OR EQUAL, UNLESS OTHERWISE LABELED ON THE PLANS.
- 7) ALL EXISTING CASTINGS FOR STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED TO GRADE SHALL BE FIELD VERIFIED AT THE TIME OF CONSTRUCTION AND MARKED SUITABLE FOR SALVAGE AND REUSE OR REPLACED.
- 8) ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
- 9) CATCH BASINS WITHIN CONCRETE HEAD CURB SHALL HAVE EJ 7045 CASTINGS.
- 10) CATCH BASINS WITHIN BIT VALLEY CURB SHALL HAVE EJ 7065 CASTINGS WITH M1 GRATE.
- 11) CATCH BASINS WITHIN PAVED AREAS SHALL HAVE EJ 1020M1 RADIAL FLAT GRATE CASTINGS.
- 12) STORM SEWER MANHOLES SHALL HAVE EJ 1020 CASTINGS WITH SOLID COVERS.
- 13) STORM SEWER YARD DRAINS SHALL HAVE EJ 6508 CASTINGS.
- 14) ROOF DRAINS SHALL BE PVC SCH-40.
- 15) CONTRACTOR IS TO UNCOVER AND VERIFY ALL TAP LOCATIONS AND INVERTS. LOCATION AND INVERT DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION FOR RESOLUTION PRIOR TO CONTINUING WORK.
- 16) SANITARY AND STORM STRUCTURES SHALL BE PRECAST AND HAVE A MAXIMUM OF 2 ADJUSTING RINGS FOR FINISH GRADE ADJUSTMENT.
- 17) THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.

**OWNER**  
 ALLEN EDWIN HOMES  
 BRIAN WOOD  
 616-878-1748 (435)  
 BWOOD@ALLENEDWIN.COM

**DESIGN ENGINEER**  
 VK CIVIL  
 DAN LEWIS, P.E.  
 269-697-7120  
 DAN@VKCIVIL.COM



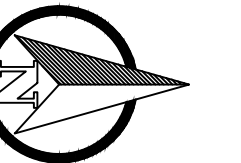
NO.	DATE	REVISION	BY
1	06/23/2023	PRELIMINARY PLAN	CJW

OSHTEMO TOWNSHIP  
 KALAMAZOO COUNTY, MI  
**WEST RIDGE SITE CONDOMINIUM**  
 SITE LAYOUT



Byron Center, MI  
 (616) 277-2185  
 Kalamazoo, MI  
 (269) 697-7120  
 www.VKcivil.com

FILE NO. 1225  
 CHECKED DGL  
 Sheet No. C200



SCALE: 1" = 50'  
0' 25' 50' 75' 100'

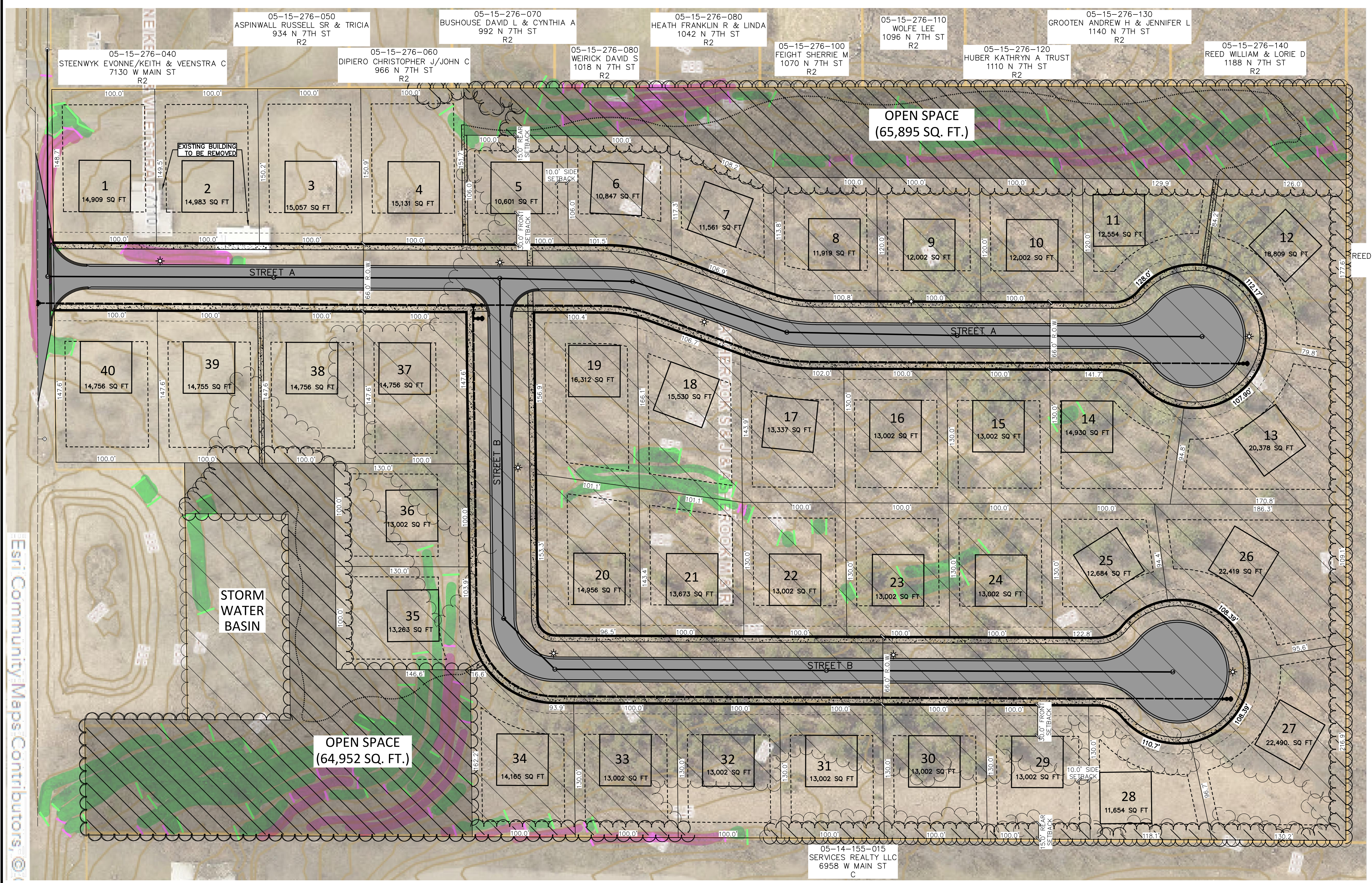
SYMBOL LEGEND

- EXISTING TREE
- BOLLARD
- ⊙ LIGHT POLE
- ⊙ POWER POLE
- ⊙ STOP SIGN
- ⊙ FIRE LANE NO PARKING SIGN
- ⊙ HYDRANT LOCATIONS

LINE AND HATCH LEGEND

- NATURAL WALKING TRAIL
- ▨ PROPOSED ASPHALT
- ▨ PROPOSED CONCRETE
- ▨ OPEN SPACE
- ▨ 12-18% SLOPES
- ▨ 18%+ SLOPES
- ▨ EXISTING TREES TO REMOVE
- ▨ EXISTING TREES TO REMAIN

**SITE SUMMARY**  
 TOTAL AREA = 20.33 ACRES  
 EXISTING TREE AREA = 16.16 ACRES  
 PERCENT OF REMAINING TREES = 21.6%  
 OPEN SPACE AREA = 3.00 ACRES  
 PERCENT OPEN SPACE = 14.8%



Esri Community Maps Contributors, ©

NO.	DATE	REVISION	BY
1	06/23/2023	PRELIMINARY PLAN	CJW

OSHTEMO TOWNSHIP  
 KALAMAZOO COUNTY, MI  
**WEST RIDGE SITE CONDOMINIUM**  
 LANDSCAPE PLAN

**VK CIVIL**  
**Vriesman & Korhorn**  
 Byron Center, MI (616) 277-2185  
 Kalamazoo, MI (269) 697-7120  
 www.VKcivil.com

FILE NO.	1225
CHECKED	DGL
Sheet No.	L100



Transportation Data Management System

# Volume Count Report

LOCATION INFO	
Location ID	39-0029
Type	SPOT
Funct'l Class	4
Located On	M-43 MAIN ST.W.
Loc On Alias	M 43
EAST OF	N 5th St
Direction	2-WAY
County	Kalamazoo
Community	Oshtemo Twp - Kalamazoo
MPO ID	
HPMS ID	21_1_77_030
Agency	MDOT

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	19	20	24	19	82
1:00-2:00	6	17	11	9	43
2:00-3:00	10	11	8	5	34
3:00-4:00	9	10	19	21	59
4:00-5:00	11	35	44	48	138
5:00-6:00	49	74	118	109	350
6:00-7:00	122	188	283	273	866
7:00-8:00	287	366	390	364	1,407
8:00-9:00	324	297	322	358	1,301
9:00-10:00	261	282	291	302	1,136
10:00-11:00	316	271	316	329	1,232
11:00-12:00	277	291	330	322	1,220
12:00-13:00	310	332	279	384	1,305
13:00-14:00	331	322	354	336	1,343
14:00-15:00	337	341	369	309	1,356
15:00-16:00	427	416	468	458	1,769
16:00-17:00	466	459	492	500	1,917
17:00-18:00	490	488	455	426	1,859
18:00-19:00	305	348	266	264	1,183
19:00-20:00	237	243	226	254	960
20:00-21:00	199	180	207	165	751
21:00-22:00	140	134	91	85	450
22:00-23:00	75	72	36	39	222
23:00-24:00	26	34	22	30	112
<b>Total</b>					21,095
<b>AADT</b>					19,164
<b>AM Peak</b>					07:15-08:15 1,444
<b>PM Peak</b>					16:30-17:30 1,970

COUNT DATA INFO	
Count Status	Accepted
Holiday	No
Start Date	Tue 4/11/2023
End Date	Wed 4/12/2023
Start Time	11:00:00 AM
End Time	11:00:00 AM
Direction	2-WAY
Notes	
Station	010117-0005257
Study	
Speed Limit	
Description	
Sensor Type	Axle/Tube
Source	CombineVolumeCountsIncremental
Latitude,Longitude	



Transportation Data Management System

# Volume Count Report

LOCATION INFO	
Location ID	39-0029_EB
Type	SPOT
Funct'l Class	4
Located On	M-43 MAIN ST.W.
Loc On Alias	M 43
EAST OF	N 5th St
Direction	EB
County	Kalamazoo
Community	Oshtemo Twp - Kalamazoo
MPO ID	
HPMS ID	21_1_77_030
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Holiday	No
Start Date	Tue 4/11/2023
End Date	Wed 4/12/2023
Start Time	11:00:00 AM
End Time	11:00:00 AM
Direction	
Notes	
Station	010117-0005169
Study	
Speed Limit	
Description	
Sensor Type	Axle/Tube
Source	
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	11	6	14	9	40
1:00-2:00	5	7	6	4	22
2:00-3:00	5	7	3	3	18
3:00-4:00	5	5	12	15	37
4:00-5:00	10	30	40	38	118
5:00-6:00	42	65	101	95	303
6:00-7:00	101	157	229	205	692
7:00-8:00	192	248	269	263	972
8:00-9:00	236	207	222	222	887
9:00-10:00	159	164	199	173	695
10:00-11:00	188	153	166	179	686
11:00-12:00	149	164	181	171	665
12:00-13:00	156	167	153	204	680
13:00-14:00	178	163	187	176	704
14:00-15:00	177	166	200	156	699
15:00-16:00	194	196	225	215	830
16:00-17:00	212	193	215	247	867
17:00-18:00	211	200	208	194	813
18:00-19:00	133	165	114	114	526
19:00-20:00	113	102	89	100	404
20:00-21:00	93	68	87	70	318
21:00-22:00	61	61	40	39	201
22:00-23:00	32	44	17	14	107
23:00-24:00	12	13	11	7	43
<b>Total</b>					11,327
<b>AM Peak</b>					07:15-08:15 1,016
<b>PM Peak</b>					16:30-17:30 873



Transportation Data Management System

# Volume Count Report

LOCATION INFO	
Location ID	39-0029_WB
Type	SPOT
Funct'l Class	4
Located On	M-43 MAIN ST.W.
Loc On Alias	M 43
EAST OF	N 5th St
Direction	WB
County	Kalamazoo
Community	Oshtemo Twp - Kalamazoo
MPO ID	
HPMS ID	21_1_77_030
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Holiday	No
Start Date	Tue 4/11/2023
End Date	Wed 4/12/2023
Start Time	11:00:00 AM
End Time	11:00:00 AM
Direction	
Notes	
Station	010117-0005257
Study	
Speed Limit	
Description	
Sensor Type	Axle/Tube
Source	
Latitude,Longitude	

INTERVAL:15-MIN					
Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	8	14	10	10	42
1:00-2:00	1	10	5	5	21
2:00-3:00	5	4	5	2	16
3:00-4:00	4	5	7	6	22
4:00-5:00	1	5	4	10	20
5:00-6:00	7	9	17	14	47
6:00-7:00	21	31	54	68	174
7:00-8:00	95	118	121	101	435
8:00-9:00	88	90	100	136	414
9:00-10:00	102	118	92	129	441
10:00-11:00	128	118	150	150	546
11:00-12:00	128	127	149	151	555
12:00-13:00	154	165	126	180	625
13:00-14:00	153	159	167	160	639
14:00-15:00	160	175	169	153	657
15:00-16:00	233	220	243	243	939
16:00-17:00	254	266	277	253	1,050
17:00-18:00	279	288	247	232	1,046
18:00-19:00	172	183	152	150	657
19:00-20:00	124	141	137	154	556
20:00-21:00	106	112	120	95	433
21:00-22:00	79	73	51	46	249
22:00-23:00	43	28	19	25	115
23:00-24:00	14	21	11	23	69
<b>Total</b>					9,768
<b>AM Peak</b>					11:30-12:30 619
<b>PM Peak</b>					16:30-17:30 1,097

AM = 428



NEXT →

Trending For You Today

- [Home](#)
- [USA](#)
- [Michigan](#)
- [Oshtemo charter township](#)



Follow

## Oshtemo charter township Michigan Population Charts

According to the most recent Oshtemo charter township Michigan [demographics](#) data available from the 2022 [Census](#) Bureau released in the American Community [Survey](#) in November of 2022, [Figure 1](#) Oshtemo charter township depicts it has a Population 2021 of 23,583 which is the third most of all other places in the greater region. The city with the highest population in the area is [Kalamazoo](#) which depicts a population of 74,020 (approximately 3.1 times bigger). [Figure 3](#) uses the Oshtemo charter township population data for a comparison of the population growth/population change estimates from the years 2010 to 2021 and [Oshtemo charter township](#) Michigan indicates an increase of 1,878 (9%).

The total Oshtemo charter township Michigan greater area population percent change for all areas for the years from 2010 to 2021 is shown in [Figure 4](#) and for [Oshtemo charter township](#) shows it has a Population Change of 8.7% which is the second most of all the places in the local area.

Looking at the Oshtemo charter township population density (measured as people per square mile) and providing comparisons to both the national and state average population density in [Figure 5](#), [Oshtemo charter township](#) Michigan depicts it has 658 people per square mile which is the second smallest as measured by population density of all the other places in the local area. The next higher in terms of population density is [Portage](#) approximately 2.3 times bigger with population density of 1,513. The city with the highest population density in the area is [Eastwood CDP](#) which shows a people per square mile of 3,359 (markedly bigger). [Figure 6](#) provides Oshtemo charter township demographics for the overall median age for all people in the region and [Oshtemo charter township](#) depicts it has a Median Age of 35.0 which is the third most median age of all other places in the greater Oshtemo charter township region. The city with the highest overall median age of all people in the area is [Mattawan](#) which shows an age of 38.6 (10.3% larger).

The next [demographic](#) analysis ([Figure 7](#)) looks at large generational Oshtemo charter township population groups (and can be useful internet research for employment related research or identifying areas with retirees). Key findings in this chart [includes](#) that [Oshtemo charter township](#) Michigan has the smallest proportion of people between 30 and 39 years old at 8.8% of the total. [Figure 9](#) shows the Oshtemo charter township Michigan Hispanic (including non Hispanic whites) population household ethnicity in the region and [Oshtemo charter township](#) depicts it has a Hispanic or Latino of 5.9% which is the second smallest when ranked by people who are Hispanic or Latino of all the other places in the local area.

## Oshtemo charter township Michigan Families and Marital Status Charts

[Figure 11](#) compares the average household size using the average number of people in a family for Oshtemo charter township households. [Oshtemo charter township](#) shows it has a Family Size of 3.1 which is the third most of all other places in the metro area. The city with the highest average family size in the area is [Kalamazoo](#) which depicts an average family size of 3.1 (only about 2.6% larger).

Looking at Oshtemo charter township households that are headed by a husband and wife as a percent of all families in [Figure 12](#), [Oshtemo charter township](#) depicts it has a Married-couple family of 67% which is in the mid range of other places in the area. The city with the highest percent of people in a husband and wife family in the area is [Portage](#) which shows a husband and wife family percent of 78% (17.0% larger).

The next section of charts provide a detailed look at mothers and baby births that occurred over the past 12 months. [Figure 13](#) shows the rate of women aged 15 to 50 years old who have given birth. [Oshtemo charter township](#) depicts it has a Birth Rate of 8.4% which is the most of all places in the greater Oshtemo charter township region. [Figure 14](#) shows the breakdown of the mother's age for all baby births that occurred in the last 12 months and has the [percentage](#) of percent of births to mothers aged 20 to 24 the second smallest when sorted by percent of births to mothers aged 15 to 19 of all the other places in the greater region at 23% of the total. Second, it has the largest proportion of percent of births to mothers aged 35 to 39 at 9% of the total and is ranked #1.

The next set of demographic data looks at the marital status for Oshtemo charter township households which is useful for internet research. [Figure 16](#) compares the total number of single people in each area. [Oshtemo charter township](#) shows it has a Total Single People of 58% which is less than most other places in the local area. The city with the highest percent of people who are single for any reason in the area is [Kalamazoo](#) which shows a percent single of 70% (20.6% larger). Comparing percent of people who are single for any reason to the [United States](#) average of 50%, Oshtemo charter township is 16.2% larger. Also, measured against the state of [Michigan](#), percent of people who are single for any reason of 51%, Oshtemo charter township is 13.9% larger.

## Oshtemo charter township Michigan Citizenship Demographics Charts



The next section of demographic information provides detailed data Oshtemo charter township residents including: [immigrants](#), citizenship, [immigration](#), [country of origin](#), non citizens and more. To start, [Figure 17](#) shows a high [level](#) view of citizenship. [Oshtemo charter township](#) Michigan has the largest proportion of citizens born In US at 4% of the total and is ranked #1. The next [diagram](#) ([Figure 18](#)) shows the year of entry that non citizens entered the United States. The year of entry can show the rate of flow at various points of time in the past for when they entered the U.S. it has one of the largest proportions of non citizens who entered the US between 2000 to 2009 at 21% of the total and is ranked #2. The only larger city being [Parchment](#) with 31%. Second, it has less than most other places in the metropolitan area as measured by non citizens who entered the US between 1990 to 1999 at 2% of the total.

## Oshtemo charter township Michigan Birthplace Demographic Charts

[Figure 19](#) looks at the detailed country of origin demographic research for foreign-born people in this place. Click column to sort.

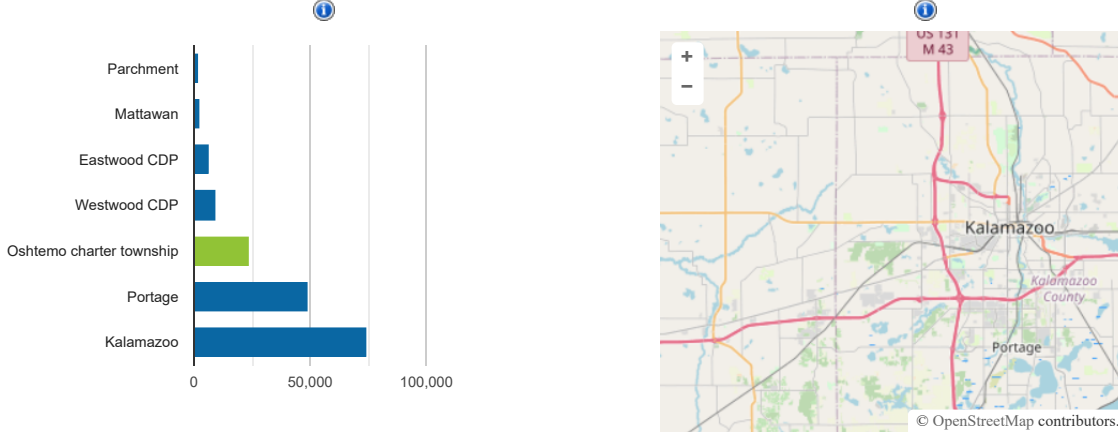
For comparison purposes, [Figure 20](#) shows detailed statistic data for the entire United States. In particular, this diagram breaks down the detailed country of origin foreign-born people in the entire U.S. in order to compare with the data provided in the prior diagram which shows only for the local area. Both this diagram and the prior diagram are sorted the same way to facilitate comparison between the two. Click column to sort.

## Oshtemo charter township, Michigan Demographics Data

- [Demographics](#)
  - [Population](#)
  - [Families and Marital Status](#)
  - [Citizenship Demographics](#)
  - [Birthplace Demographic](#)
- [Housing](#)
- [Economy](#)
- [Education](#)
- [Healthcare](#)
- -

[Employment](#)   [Costumes Couples](#)   [Diagram](#)   [Print](#)   [Couples](#)   [Levels](#)   [Demographics](#)  
[Search](#)   [Women](#)   [50 years old](#)   [Employment](#)   [Costumes Couples](#)   [Diagram](#)

[Figure 1: Oshtemo charter township, MI and Area 2021 Population Data](#) [Figure 2: Map of Oshtemo charter township, MI and Area](#)



[Figure 3: Oshtemo charter township, MI Population Change 2010 to 2021](#) [Figure 4: Oshtemo charter township, MI 2010 to 2021 Population Percent Change](#)



[Figure 5: Oshtemo charter township, MI Population Density](#) [Figure 6: Median Age in Oshtemo charter township, MI](#)

[Figure 5: Oshtemo charter township, MI Population Density](#)   [Figure 6: Median Age in Oshtemo charter township, MI](#)

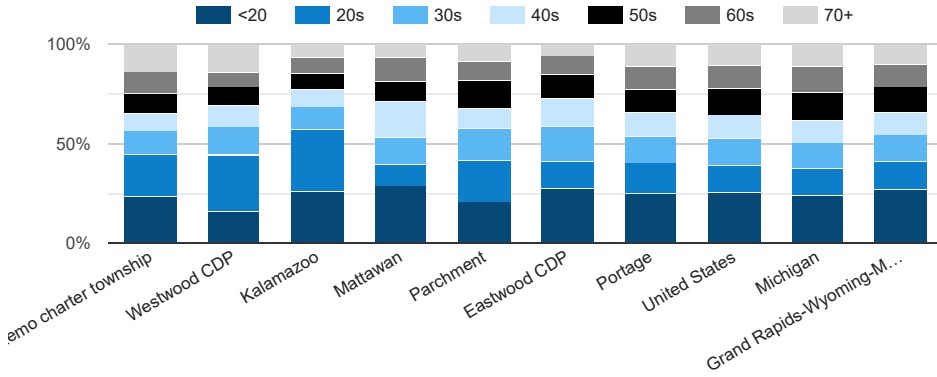
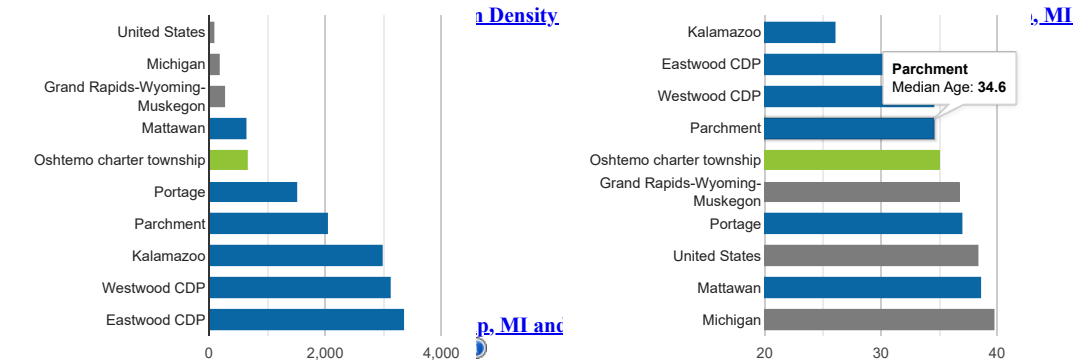
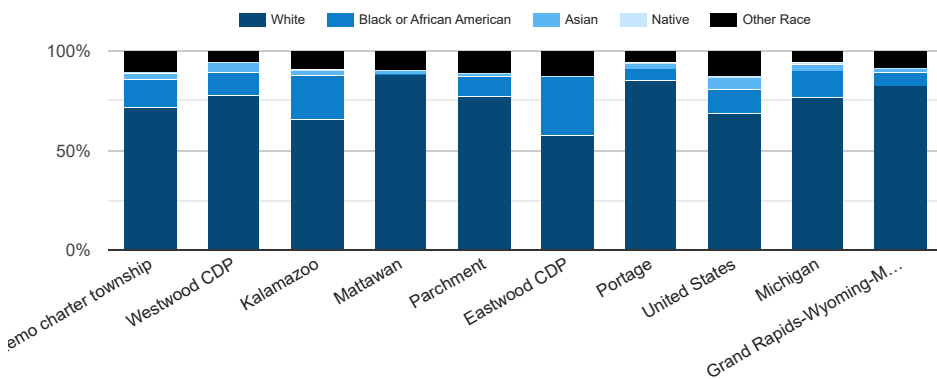


Figure 8: Oshtemo charter township, MI and Area Ethnicity Makeup

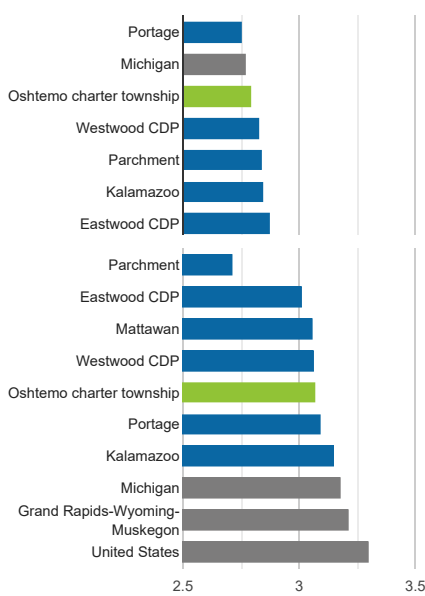


Trending For You Today

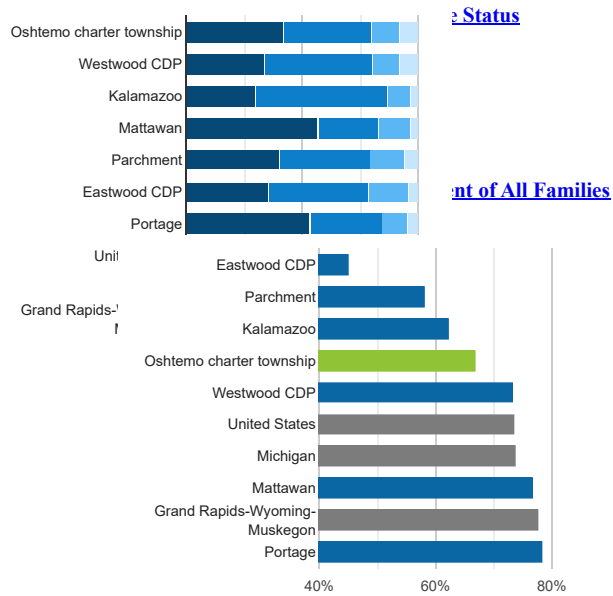
---

NextArticle

Figure 9: Oshtemo charter township, MI Hispanic Population Figure 10: Oshtemo charter township, MI Marriage Status



[Population](#)



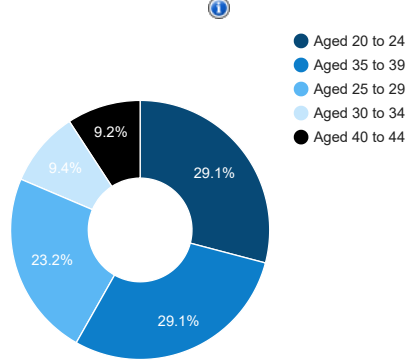
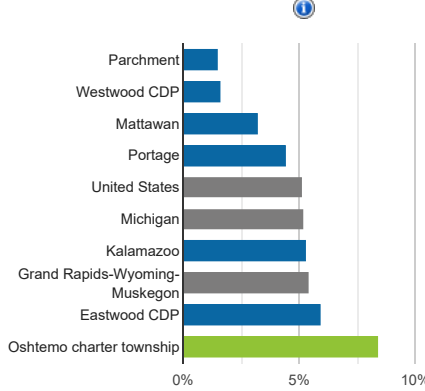
[Family Size](#)

[Family Size](#)

[Family Size](#)

**Figure 13: Oshtemo charter township, MI Birth Rate (Last 12 months)**

**Figure 14: All Births Age of Mother**



**Figure 15: Advertisement**

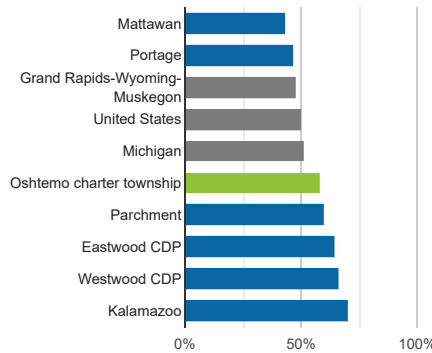
**Figure 16: Total Single People**

**Red Flag Signs of Multiple Sclerosis (MS) Many May Not Be Aware Of**

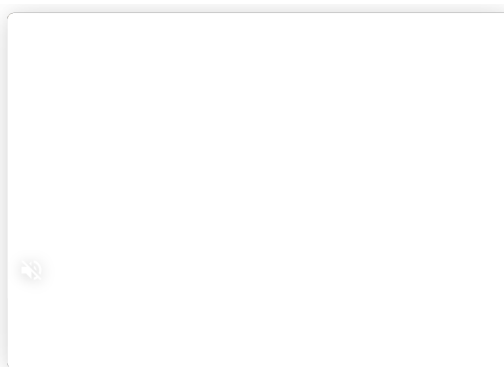
These Are The Signs And Treatment Multiple Sclerosis You May Want To Know

sponsored by: [ActiveBeat.com](#)

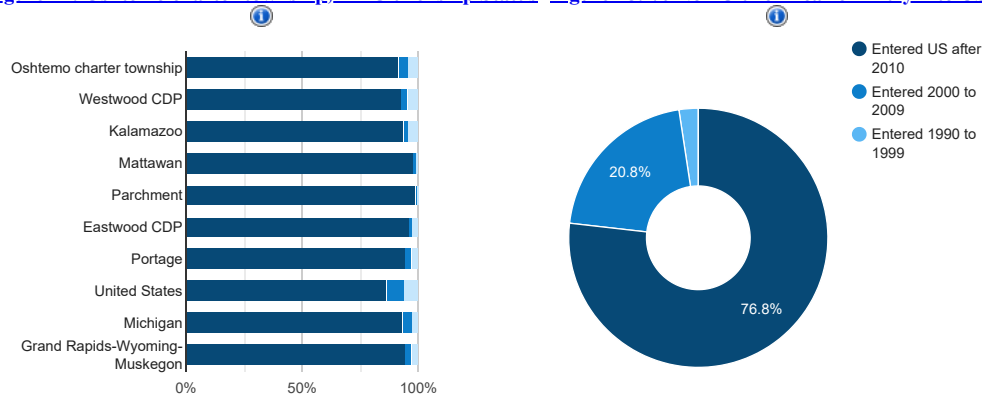
LE



AdChoices



**Figure 17: Oshtemo charter township, MI Citizenship Status** **Figure 18: % Non Citizen Year of Entry into USA**



**Figure 19: Foreign-Born Country of People Living in Oshtemo charter township, MI** **Figure 20: Foreign-Born Country for all people in the United States**

Country	Oshtemo charter township	Country	United States
Iraq	19.3%	Iraq	0.5%
Philippines	11.0%	Philippines	4.4%
Yemen	6.8%	Yemen	0.1%
Korea	4.7%	Korea	2.3%
India	4.4%	India	6.0%
Trinidad and Tobago	4.2%	Trinidad and Tobago	0.5%
Nigeria	4.1%	Nigeria	0.9%
Indonesia	3.5%	Indonesia	0.2%
Dominican Republic	2.8%	Dominican Republic	2.7%
Democratic Republic of Congo	2.8%	Democratic Republic of Congo	0.1%

Cities marked with an asterisk ("\*") should resemble a city or town but do not have their own government (i.e. Mayor, City Council, etc.) These places should be recognizable by the local community but their boundaries have no legal status. Technically these include both Census Designated Places (CDP) and Census County Divisions (CCD) which are defined by the Census Bureau along with local authorities. (For more information, see: [Census Designated Place or "CDP"](#)) and [Census County Division "CCD"](#).)

For comparison purposes, the US national average and the state average value are provided. Additionally, the "Combined Statistical Area" or CSA is shown that is closest to the city, county, or zip code shown. A CSA is a large grouping of adjacent metropolitan areas that identified by the Census Bureau based on social and economic ties. (See: [Combined Statistical Area](#))

Data sources - Mouse over icon in upper right corner of each chart for information.

**Near Oshtemo charter township, MI**

Select a City-Place

Select a Zipcode

Select a County

**See All Michigan:**

- [Michigan Cities A-Z](#)
- [Michigan Zipcodes, all](#)
- [Michigan Counties, A-Z](#)

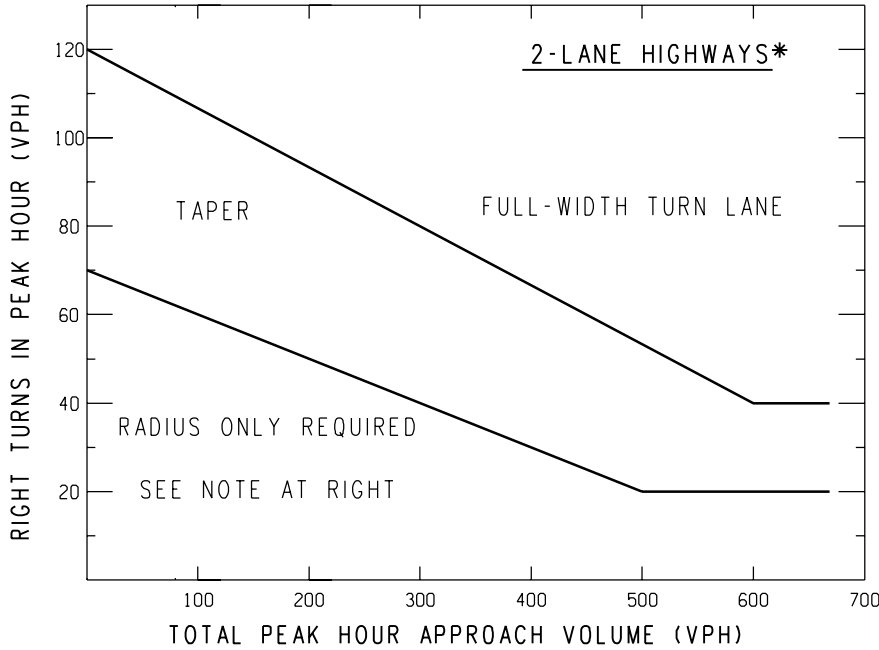
**Demographics Metrics Ranked:**

- [Michigan Rankings](#)
- [All State Rankings](#)
- [Top 100 US Cities Ranked](#)

**Search All US:**

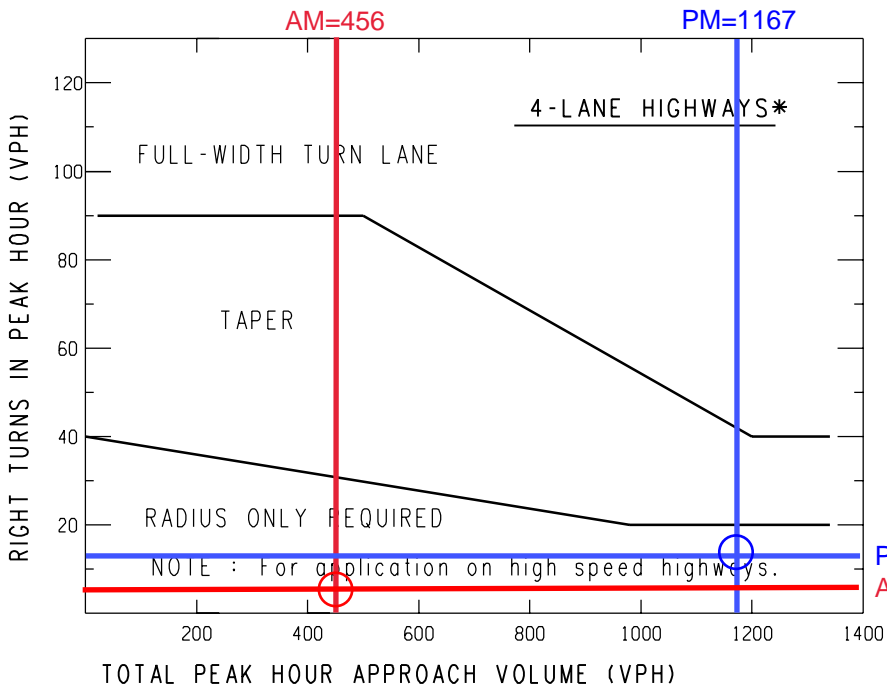
[Index of All States](#)

# W. Main Street (M-43) & Site Drive



**NOTE:**  
For posted speeds at or under 45 mph, peak hour right turns greater than 40 vph, and total peak hour approach less than 300 vph, adjust right turn volumes.

Adjust peak hour right turns = Peak hour right turns - 20



\*If a center left-turn lane exists (i.e. 3 or 5 lane highway), subtract the number of left turns in approach volume from the total approach volume to get an adjusted total approach volume.


**RT Treatment  
NOT  
Recommended**

**Sample Problem:**

The Design Speed is 55 mph. The Peak Hour Approach Volume is 300 vph. The Number of Right Turns in the Peak Hour is 100 vph. Determine if a right turn lane is recommended.

**Solution:**

Figure indicates that the intersection of 300 vph and 100 vph is located above the upper trend line; thus, a right-turn lane may be recommended.

 <b>TRAFFIC AND SAFETY NOTE</b>		<b>TRAFFIC VOLUME GUIDELINES FOR RIGHT-TURN LANES AND TAPERS</b>	
DRAWN BY: MTS	08/05/2004	604A 133	SHEET 2 OF 2
CHECKED BY: JAT	PLAN DATE:		
FILE: K:/DGN/ts notes/Note604A tsn.dgn		REV. 08/05/2004	

This page left intentionally blank.

# MEMO

VIA EMAIL [jlovely@allenedwin.com](mailto:jlovely@allenedwin.com)

**To:** John Lovely  
Allen Edwin Home Builders, LLC

---

**From:** Jacob Swanson, PE  
Mary Ollis, EIT  
Fleis & VandenBrink Engineering

---

**Date:** September 12, 2023

---

**Re:** West Ridge Condos – Residential Development  
Oshtemo Township, Michigan  
Traffic Impact Assessment

## 1 INTRODUCTION

This memorandum presents the results of the Traffic Impact Assessment (TIA) for the proposed residential development in Oshtemo Township, Michigan. The project site is located at 7110 W. Main Street (M-43), located approximately 645-feet to the east of 7th Street, as shown on the attached **Figure 1**. The proposed development includes construction of single-family detached housing on property that is currently undeveloped. Site access is proposed via one (1) driveway on W. Main Street (M-43), which is under the jurisdiction of Michigan Department of Transportation (MDOT). MDOT has required the completion of a TIA as part of the driveway permitting process.

The scope of the study was developed based on Fleis & VandenBrink's (F&V) understanding of the development program, accepted traffic engineering practice, and methodologies published by the Institute of Transportation Engineers (ITE). Additionally, MDOT provided input regarding the scope of work included herein in accordance with MDOT Geometric Design Guidelines Section 1.2.5.

## 2 BACKGROUND DATA

### 2.1 EXISTING ROADWAY NETWORK

Vehicle transportation for the study area is provided via W. Main Street (M-43). Information on the study roadway is summarized in **Table 1**.

**Table 1: Roadway Information**

Roadway Segment	W. Main Street (M-43)
Number of Lanes	5 Lanes (2 lanes each direction and TWLTL)
Functional Classification	Other Principal Arterial
Jurisdiction	MDOT
Post Speed Limit	55 mph
Traffic Volumes (AADT)	19,226 vpd (MDOT 2023)

## 2.2 EXISTING TRAFFIC VOLUMES

The existing traffic volume on W. Main Street (M-43) utilized in this study was obtained from the Michigan Department of Transportation (MDOT) Transportation Data Management System (TDMS) database. The 24-hour traffic volume data collection was performed on Tuesday, April 11<sup>th</sup>, 2023. The AM and PM peak hours for the study roadway network were observed to occur between 7:15 AM to 8:15 AM and 4:30 PM to 5:30 PM, respectively. The existing peak hour traffic volume data is shown in the attached **Figure 2**.

## 2.3 BACKGROUND GROWTH

Population growth data was obtained and reviewed for Oshtemo Township in order to calculate a background growth rate to project the existing 2023 peak hour traffic volumes to the site buildout year of 2028. Population census data for Oshtemo Township was obtained from the American Community Survey (ACS) between 2010 and 2021 and indicates an average annual growth of 0.8% per year. Therefore, a conservative annual background growth rate of 1.0% per year was applied to the existing 2023 peak hour traffic volumes in order to calculate the background (without development) peak hour traffic volumes as site buildout in 2028, as shown on the attached **Figure 2**.

In addition to the background traffic growth, it is important to account for traffic that will be generated by developments within the vicinity of the study area that are currently under construction or will be constructed prior to the site buildout year. At the time of this study, no background developments were identified by MDOT within the vicinity of the project site.

## 3 SITE TRIP GENERATION

The number of weekday peak hour (AM and PM) and daily vehicle trips that would be generated by the proposed development was forecast based on data published by ITE in the *Trip Generation Manual, 11<sup>th</sup> Edition*. The trip generation projections utilized in this analysis are summarized in **Table 2**.

**Table 2: Site Trip Generation Summary**

Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
					In	Out	Total	In	Out	Total
Single-Family Detached	210	40	DU	434	8	24	32	26	16	42

## 4 SITE TRIP DISTRIBUTION

The vehicular trips that would be generated by the proposed development were assigned to the study roadway network based on the proposed site access plan and driveway configurations, the existing peak hour traffic patterns in the adjacent roadway network, and the methodologies published by ITE. The adjacent street traffic volumes were used to develop the trip distribution. In order to determine the projected site traffic distribution, it was assumed that the existing adjacent street traffic volumes in the AM are home-to-work based trips, and in the PM are work-to-home based trips. Therefore, the trip distribution assumes trips are exiting the study network in the AM and entering the network in the PM. The ITE trip distribution methodology assumes that new trips will return to their direction of origin. The site trip distribution used in the analysis is summarized in **Table 3**.

**Table 3: Site Trip Distribution**

To/From	Via	AM	PM
East	W. Main Street (M-43)	70%	56%
West	W. Main Street (M-43)	30%	44%
<b>Total</b>		<b>100%</b>	<b>100%</b>

The vehicular traffic volumes shown in **Table 2** were distributed to the study network according to the distribution shown in **Table 3**. The site-generated trips were added to the background peak hour traffic volumes, in order to calculate the future peak hour traffic volumes, with the addition of the proposed development. All peak hour traffic volumes used in the analysis are shown on the attached **Figure 2**.



## 5 ACCESS MANAGEMENT

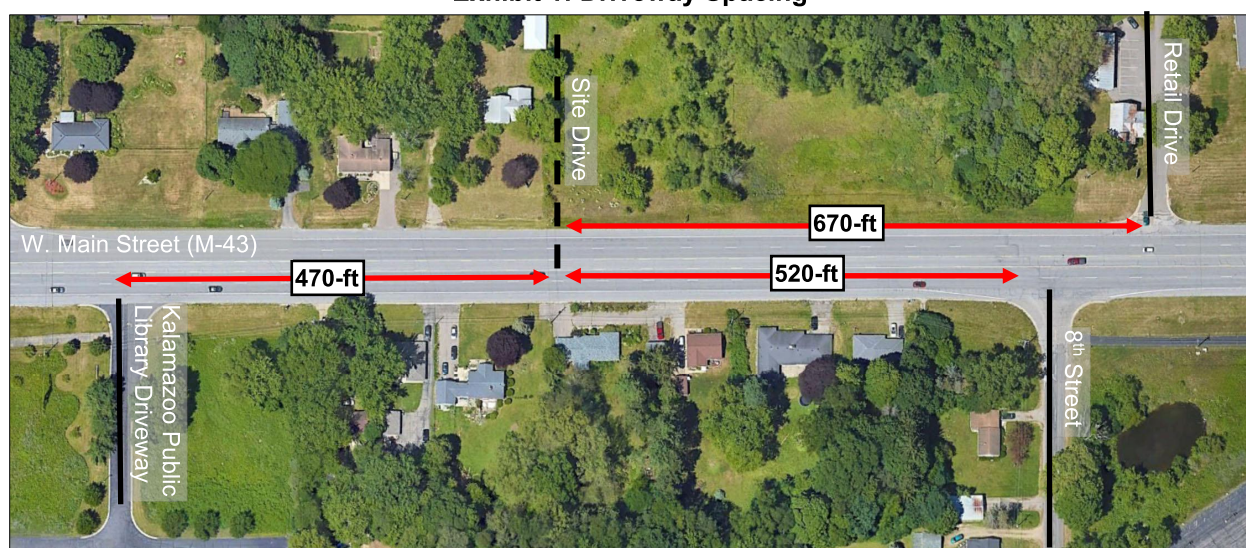
### 5.1 DRIVEWAY SPACING

The MDOT Geometric Design Guidance (Section 1.2.2) was utilized to evaluate the location of the proposed site drive, in relation to nearby intersections and driveways within close proximity to the project site. The proposed site driveway and location to nearby intersections / driveways within close proximity to the project site are summarized in **Table 4** and shown on **Exhibit 1**.

**Table 4: Driveway Spacing Summary**

Adjacent Driveways & Intersections	Distance	Criteria (55 mph)	Driveway / Intersection Criteria	Meets
Site Drive To Kalamazoo Public Library	470 feet	750 feet	Driveway	<b>NO</b>
Site Drive To 8 <sup>th</sup> Street	520 feet	230 feet	Intersection	<b>YES</b>
Site Drive To Retail Drive	670 feet	455 feet	Driveway	<b>YES</b>

**Exhibit 1: Driveway Spacing**



The results of the driveway spacing review indicates that the proposed site driveway is not expected to meet the desirable driveway spacing criteria, in relation to the nearby Kalamazoo Public Library Driveway. Further review of the proposed site access location is summarized below:

- The potential for ingress left-turn conflicts in the center lane between the Library Drive and proposed Site Drive are minimal due to the low trip generation associated with both uses.
- The proposed development does not have sufficient frontage on W. Main Street (M-43) to meet all of the desirable adjacent intersection and driveway spacing criteria. The driveway is located in a manner to limit the impacts to the adjacent roadway network and reduce the potential for conflicts.

### 5.2 AUXILIARY LANE EVALUATION

The MDOT auxiliary turn lane criteria was evaluated at the proposed site driveway with the addition of the site-generated traffic volumes. There is an existing center two-way left-turn Lane (TWLTL) on W. Main Street (M-43) adjacent to the project site; therefore, only the right-turn lane criteria was reviewed. The results of the analysis are shown on the attached MDOT warranting charts and summarized in **Table 5** below and indicates that a right-turn treatment is NOT recommended.

**Table 5: Auxiliary Turn Lane Evaluation Summary**

Intersection	Right-Turn Treatment		Recommendation
	AM Peak Hour	PM Peak Hour	
West Main Street (M-43) & Site Drive	No Treatment	No Treatment	<b>No Treatment</b>

## 6 CONCLUSIONS

The conclusions of this TIA are as follows:

1. The proposed development includes the construction of 40 single-family houses. Site access for the project site is proposed via one (1) full access driveway on W. Main Street (M-43). The trip generation associated with this development is below the MDOT thresholds for requiring further traffic studies (TIA or TIS).
2. The results of the intersection and driveway spacing review indicates that the proposed site driveway is not expected to meet the desirable driveway spacing criteria, in relation to the nearby Kalamazoo Public Library Driveway.
  - The potential for ingress left-turn conflicts in the center lane between the Library Drive and proposed Site Drive are minimal due to the low trip generation associated with both uses.
  - The proposed development does not have sufficient frontage on W. Main Street (M-43) to meet all of the desirable adjacent intersection and driveway spacing criteria. The driveway as located in a manner to limit the impacts to the adjacent roadway network and reduce the potential for conflicts.
3. The MDOT auxiliary turn lane criteria were evaluated at the proposed site driveway on W. Main Street (M-43), with the addition of the site-generated traffic volumes.
  - The results of the analysis indicate that a right-turn treatment is NOT recommended.

Any questions related to this memorandum, study, analysis, and results should be addressed to Fleis & VandenBrink.



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Michigan.

**Attached:** Figures 1-2  
Proposed Site Plan  
Traffic Volume Data  
MDOT Turn Lane Warrant

**CHARTER TOWNSHIP OF OSHTEMO ORDINANCE NO. 670**

**Adopted:** \_\_\_\_\_

**Effective:** \_\_\_\_\_

**SIGNS AND BILLBOARDS ORDINANCE**

An Ordinance to amend Article 55, Signs and Billboards, of the Oshtemo Township Zoning Ordinance.  
This Ordinance repeals all Ordinances or parts of Ordinances in conflict.

THE CHARTER TOWNSHIP OF OSHTEMO  
KALAMAZOO, COUNTY, MICHIGAN  
ORDAINS:

**55.10 STATEMENT OF PURPOSE**

---

The intent of this Article is to regulate the type, number, physical dimensions, erection, placement and Maintenance of Signs in the Township. The purpose of the limitations, regulations, and standards established herein is to:

- A. Promote the public peace, health, and safety of residents and visitors;
- B. Protect the natural beauty and distinctive character of Oshtemo Charter Township;
- C. Maintain sightlines, reduce obstructions, and eliminate distractions which are hazardous to motorists and pedestrians;
- D. Ensure the public's ability to locate public buildings, streets, roads, highways, parks, and other establishments and premises by reduce visual chaos and clutter; and
- E. Balance the individual rights of property owners to communicate their message(s) with the legitimate governmental regulatory interests of public safety, health, and welfare which necessitate the regulation of Signs within the Township.

**55.20 SCOPE**

---

Except as otherwise expressly provided herein, this Article shall not relate to building design; nor shall the Article regulate official traffic or Government Signs (see, Ordinance 566, 259.000); the content of Signs; scoreboards at athletic fields; gravestones; barber poles (under three (3) feet in height); religious symbols; commemorative plaques; Flags (see, Article 57.140); or any display structure or construction not defined herein as a Sign.

The provisions contained in Sections 55.70 through 55.100 herein shall not apply to properties located within the VC, Village Commercial District.

**55.30 GENERAL PROVISIONS**

---

It shall be unlawful for any person to erect, place, or establish a Sign in Oshtemo Charter Township except in accordance with the provisions of this Article.

**55.40 DEFINITIONS**

---

For the purpose of this Article the following words or phrases are defined as follows:

**A-Frame Sign, (or Sandwich Board Sign)** - An Incidental Sign designed to be portable and stand on its own in an "A" or tent shape that provides information at a pedestrian scale to customers as they enter or pass the entry to the business.

**Abandoned Sign** - A Sign which no longer identifies or advertises a currently operating business, lessee, service, owner, product, or activity, and/or for which no legal owner can be found (e.g., a Sign which identifies a business, service or activity which has discontinued or relocated from the location where the Sign is placed).

**Advertising Display Area** - refers to the Sign Face (containing the Copy) encompassed within any regular geometric figure which would enclose all or part of the Sign. The structural supports for a Sign (e.g., columns, pylons, or a building, or a part thereof), shall not be included in the Advertising Display Area.

**Animated Sign** - A Sign which uses movement or change of lighting to depict action or to create a special effect or scene. (Compare with "Flashing Sign").

**Awning/Canopy Sign** – A Sign with Copy flat against the surface of an awning/canopy.

**Balloon Sign** – A Temporary Sign filled with air or gas that is larger than seventeen inches (17"). Only one (1) Balloon Sign may be tied to an item with a display height not greater than five feet (5') above the pole (not include utility or light poles) or building to which it is attached.

**Banner or Banner Sign** - A Sign intended to be hung either with or without frames, possessing Copy applied to paper, plastic, or fabric of any kind.

**Bench Sign** - A Sign with Copy located on any part of the surface of a bench or seat visible from an adjacent property or right-of-way.

**Billboard** - A Off-Premises Sign which advertises an establishment, service, merchandise, use, entertainment, activity, product or message which is not conducted, sold, produced, manufactured or furnished upon the lot, building site or parcel where the Sign is located.

**Building Identification Sign** – An On-Premises Sign which identifies a building by its recognized name, not including a product or service.

**Changeable Copy Sign** - A Sign upon which a display or message can be changed by physical replacement or electronic change of the display or message. The definitions below, (a) through (d), are used in conjunction with electronically Changeable Copy Signs:

1. **Dissolve** - A mode of message transition on an electronically Changeable Copy Sign accomplished by varying the light intensity or pattern, where the first message gradually appears to dissipate and lose legibility simultaneously with the gradual appearance and legibility of the second message.
2. **Fade** - A mode of message transition on an electronically Changeable Copy Sign accomplished by varying the light intensity, where the first message gradually reduces intensity to the point of not being legible and the subsequent message gradually increases intensity to the point of legibility.
3. **Flash** - A mode of message transition on an electronically Changeable Copy Sign accomplished by varying the light intensity, where the message instantly and repeatedly reduces or increases intensity.

4. **Scroll** - A mode of message transition on an electronically Changeable Copy Sign accomplished by the movement of a message.

**Clearance (of a Sign)** - The smallest vertical distance between the Street Grade of an adjacent street or street curb and the lowest point of any Sign, including framework and embellishments, extending over that grade.

**Commercial Center Identification Sign** - A Sign identifying or recognizing a Commercial Center.

**Commercial Sign** - Any Sign Copy that, directly or indirectly, names, advertises, or calls attention to a business, establishment, product, service, or other commercial activity (including, but not limited to, the following: an Incidental Sign, Human Sign, Seasonal Agricultural Sign, Real Estate Sign, etc.).

**Construction Sign** - An On-Premises, Temporary, non-Illuminated Sign, which displays the name(s) of principal contractors, architects, and lending institutions and/or others responsible for the construction on the site where the Sign is placed. May include information similar to a Residential Development Sign.

**Copy** - The letters, numerals, characters, wording, illustrations, ornamentation, or other drawings that are painted on, printed on, or attached flat against the a Sign Face, and including both permanent or removable forms.

**Residential Development Sign** – An On-Premises, Temporary, non-Illuminated Sign advertising a subdivision, condominium, apartment development, or manufactured housing community in the process of being developed on the site where the Sign is placed; definition does not include a Subdivision Identification Sign.

**Directional Sign** – An On-Premises Sign providing on-site directions for vehicular or pedestrian circulation into, within or out of a development, which does not display Copy (other than the names of on-site establishments) and is only for purposes of indicating directions. Directional signs shall be located on the lot, building site or parcel where the sign(s) is located.

**Directory Sign** – A non-electric **On-Premises** Sign displaying the name(s), address(es), occupation(s), and/or location(s) of an occupant, a group of occupants, or the use of a building.

**Electronic Billboard** - A Billboard, or portion thereof, that can be electronically changed by remote or automatic means, or that appears to change or have movement caused by any method other than manually removing and replacing the Billboard or its components, whether the apparent movement or change is in the display, the Billboard's structure, or any other component of the Billboard. This includes any video-display, revolving, Flashing Signs, or Animated Signs, and display that incorporates rotating or swinging panels, intermittent illumination or the illusion of such illumination, light emitting diodes (LEDs) manipulated through digital input, "digital ink," or any other method or technology that allows the Billboard's Sign Face to present a series of images.

**Sign Face or Face of Sign** - The area of a Sign on which the Copy or Advertising Display Area is placed.

**Feather Flag Sign** – means a vertically oriented Banner attached to a single pole allowing the fabric to hang loose at one (1) or two (2) of the four (4) corners (also known as a Banner Flag Sign or Swooper Sign).

**Festoons** - A string of ribbons, tinsel, flags, pennants, or pinwheels.

**Flashing Sign** - A Sign which contains an intermittent or sequential flashing light source used to attract attention. This does not include Changeable Copy Signs, Animated Signs, as defined in this Article, or Signs which through reflection or other means, create an illusion of flashing of intermittent light. (Compare with "Animated Sign" and "Changeable Copy Sign").

**Freestanding Sign** - A Sign structurally separated from a building.

**Government Sign** - A public Sign erected and maintained by Oshtemo Charter Township, the county, state, or federal government for official purposes (see, Ordinance 566, 259.000).

**Ground Mounted Sign** - A Sign which extends from the ground or that has a support placing the bottom thereof less than three feet (3') from the ground. (Compare with "Pole Sign").

**Height (of a Freestanding Sign or Flag Pole)** - The vertical distance measured from the highest point of the Sign, or flag pole, including any decorative embellishments, to the Street Grade or to the Finished Grade beneath the Sign or flag pole. (Compare with "Clearance").

- A. Where the Natural Grade adjacent to a Sign support structure is lower than the Street Grade, Sign height shall be measured from the Street Grade.
- B. Where the Natural Grade adjacent to a Sign support structure is higher than the Street Grade, Sign height shall be measured from the Natural Grade adjacent to the Sign support structure. In no event shall the highest point of a Pole Sign exceed a height of twenty feet (20') above Street Grade .

**Height (of a Wall Sign)** - The vertical distance measured from the highest point of the Sign to the Finished Grade beneath the Sign.

**Human Sign** - refers to a Sign carried or displayed by a person for advertising or directional purposes, a person wearing clothing containing an advertising message, or a person wearing a costume for advertising purposes.

**Illuminated Sign** - A Sign with an artificial light source incorporated internally or externally for the purpose of illuminating the Sign.

**Incidental Sign** – An on-premises Sign, emblem, or decal providing information regarding on-premises goods, facilities, or services available at that location. Incidental Sign does not include any Sign with the primary purpose of attract new consumers to the business from offsite, nor does it include any Off-Premises Sign, or Sign which is readable from a position off the lot, building site, or parcel on which the Sign is located.

**Maintenance** - The cleaning, painting, repair, or replacement of defective parts of a Sign in a manner that does not alter the basic Copy, design, or structure of the Sign.

**Marquee Sign** - A Sign attached to or supported by a Marquee structure.

**Non-Commercial Sign** - A Sign not advertising a business, establishment, product, good, commercial activity or, service (including, but not limited to, the following: Political Sign, Government Sign, Residential Development Sign, Directional Sign, Subdivision Identification Sign, Building Identification Sign, etc.)

**Off-Premises Sign** - Another word for a Billboard.

**On-Premises Sign** - A Sign which pertains to the use of the premises on which it is located.

**Painted Wall Sign** - A Sign which is applied with paint or similar substance on the face of a wall.

**Pennant** - Any lightweight plastic, fabric, or other material (with or without Copy), suspended from a rope, wire, or string, usually in series, designed to move in the wind.

**Permanent Sign** - A Sign which is permanently affixed on or in the ground or to a building and meets the requirements of a structure under the Building Code.

**Pole Sign (or Pylon Sign)** - A Sign with all parts of the display Sign Area at a height of eight feet (8') or more, excluding the necessary supports, uprights or braces. (Compare with "Ground Mounted Sign.")

**Political Sign** - A Non-Commercial Sign relating to a candidate for public office, ballot initiative, or a position on an issue.

**Portable Sign** - A reusable and movable Sign not permanently affixed in the ground or to a structure or building (e.g., an A-Frame Sign, On-Premises Temporary Event Sign, Incidental Sign, Feather Flag Sign, Balloon Sign, Banner, etc.).

**Real Estate Sign** - An On-Premises Sign advertising the real estate upon which the Sign is located for the purpose of offering the property for sale, lease, or rent.

**Roof Sign** - A Sign attached, applied, painted, erected, or constructed wholly upon or over the roof of a building and supported on the roof structure.

**Rotating Sign** - A Sign in which the Sign itself, or any portion of the Sign, moves in a revolving or similar manner. Such motion does not refer to methods of changing Copy.

**Seasonal Agricultural Sign** - An On-Premises Temporary Sign advertising seasonal agricultural crops or other agricultural products.

**Sign** - A device, structure, painting, fixture, or placard using color, graphics, symbols, manicured landscaping, and/or written Copy designed specifically for the purpose of advertising or identifying any event, establishment, product, good, service; providing directional information; or displaying or depicting other information.

**Sign Area** - The area shall be measured by means of the smallest square, circle, rectangle, triangle or combination thereof that will encompass the extreme limits of the writing, representation, emblem, lighting or other display, together with any frame or other material or other color forming an integral part of the display or used to differentiate it from the background against which it is placed. Where a Sign consists solely of individual letters painted or mounted on a wall, any blank area which is more than ten percent (10%) of the Sign Area as otherwise computed shall be disregarded.

Where a Sign has two (2) or more faces, the area of all faces shall be included in determining the Sign Area, except that where two (2) faces are placed back-to-back and are at no point more than two (2) feet from one another, the Sign Area shall be deemed to be only the area of one (1) face, or if faces are of different sizes, the area of the larger face.

Pole covers and other embellishments shall not be included in the area of measurement if they do not bear advertising Copy or colors, patterns, logos that are a trademark, or otherwise reasonably recognizable identification for the establishment, event, and/or Sign owner subject to the above provisions.

The necessary supports or uprights on which the Sign is placed may not exceed thirty percent (30%) of the permitted square footage of the Sign, excluding those portions of the support structure below Street Grade.

**Sign Face Change** - A change of only the Sign Face contained within a permanent rigid frame where the change does not alter the existing Sign Area.

**Sign Permit**- refers to a permit issued by the Township (in compliance with Section 55.120 and 55.130 of this Article) for the installation, use, and/or Face Change of a Sign within the Township to a Sign owner in exchange for a permit fee and agreement to comply with the conditions of this Article.

**Subdivision Identification Sign** - A Permanent, On-Premises, Sign identifying an industrial, commercial, or residential development.

**Temporary Sign** - refers to a Sign which is an On-Premises or Off-Premises Sign that is not constructed or intended for long term use and is not permanently attached to a building or other structure (e.g., Political Sign, Event Signs, Seasonal Agricultural Signs, Real Estate Signs, Portable Signs, Construction Sign, Residential Development Sign, Banner Signs, Balloon Signs, Feather Flag Signs, etc.). Temporary Signs must comply with the requirements of Section 55.100 of this Article. .

**Temporary On-Premises Event Sign**- means any Sign advertising, or announcing, an event or activity that will take place at a particular time, place, and location (e.g., business opening, garage sale, party, open house, concert, etc.), which is located On-Premises of the site, parcel, or lot for which the Sign contains advertising, event, or other informational Copy. Such Signs shall comply with Section 55.100 of this Article.

**Temporary Off-Premises Directional Signs**- means an Off-Premises Sign which a Temporary Sign that is not located on the site, parcel, or lot; such Signs may only direct, or provide directions, to an event with its physical location within the Township and must comply with the requirements of Section 55.100 of this Article.

**Tenant Space Width** - The horizontal distance between the side walls of a tenant space measured parallel, and immediately adjacent, to the abutting wall upon which a Sign will be placed. For the purposes of determining permitted Sign Area for a Wall Sign, Tenant Space Width shall only include space completely enclosed within the building.

**Under-Canopy Sign** - A Sign suspended beneath a canopy, ceiling, roof, or marquee.

**Vehicle Sign** - A Sign painted on, incorporated in, or attached directly to any mode of transportation, including but not limited to automobiles, trucks, boats, busses, airplanes, and trailers.

**Wall Sign** - A Sign (including, but not limited to, painted, individual letter, and cabinet signs), which is attached parallel to the wall of a building. A Wall Sign may be affixed flat against the wall of a building, or may project therefrom, not more than fifteen inches (15'). Signs projecting over a walkway or path shall be at least eleven feet (11') above the Finished Grade. May include a Window Sign exceeding twenty-five percent (25%) of the Window Area. If a Wall Sign is attached to a building façade, the portion of the façade outside of the extreme limits of the writing, representation, emblem, lighting or other display, together with any frame or other material or



other color forming an integral part of the display shall be disregarded when calculating Sign Area provided that area of the façade is not illuminated by the Sign or other light fixtures.

**Window Area** - An individual pane of glass or a contiguous area of glass separated only by nonstructural elements of dissimilar (non-glass) material.

**Window Sign** - A Sign placed inside or upon a Window Area and facing the outside which is intended to be seen from the right-of-way or the outdoors.

### **55.50 PROHIBITED SIGNS**

---

The following types of Signs are prohibited in all zoning districts:

- A. Abandoned Signs.
- B. Animated Signs.
- C. Balloon Signs, except as expressly permitted by this Article.
- D. Banner Signs, except as expressly permitted by this Article.
- E. Bench Signs.
- F. Feather Flag Signs, except as expressly permitted by this Article.
- G. Festoons.
- H. Human Signs.
- I. Pennants.
- J. Portable Signs, except as expressly permitted by this Article.
- K. Roof Signs.
- L. Rotating Signs.
- M. Signs imitating or resembling official traffic or Government Signs or signals.
- N. Temporary On-Premises Event Sign, except as expressly permitted by this Article.
- O. Vehicle Signs not used during the normal course of business which are parked or located for the primary purpose of displaying the advertising Copy.

### **55.60 REQUIRED SIGN SETBACKS FOR ALL ZONING DISTRICTS**

---

No Sign may be located within the public right-of-way, or be placed in a location where it causes a hazard to vehicular or pedestrian traffic by depriving the driver or pedestrian of a clear and unobstructed view of approaching, intersecting, or merging traffic. A Sign shall not project into the public right-of-way of any adjacent Street. Signs projecting over public property shall be at least eleven feet (11') above the Finished Grade. Sign Setbacks (for all Signs and Structures supporting Signs) shall be as follows:

- A. Residential Development Signs, Building Identification Sign, and Subdivision Identification Sign may only be placed in boulevard median strips if approved by the Road Commission of Kalamazoo County and/or the Township as part of an approved Site Plan.
- B. Signs with a height greater than four (4) feet shall be setback a minimum of ten feet (10') from any public right-of-way line and the greater of ten feet (10'), or the height of the Sign, from all other Property Lines, except as follows:
  - 1. Temporary Off-Premises Directional Sign, Real Estate Sign and Temporary Off-Premises Event Signs may be located adjacent to a property line out of the right-of-way.

2. Subdivision Identification Signs shall be located a minimum of twenty-five feet (25') from the pavement of the adjacent roadway(s) and no closer than five feet (5') from any Lot line(s). When located in agricultural and/or residential use districts, Subdivision Identification Signs may be located at the front property line but no closer than five feet (5') to any other property line(s).
  3. Signs lawfully existing as of January 1, 2000 on Parcels, Lots or Building Sites with frontage on West Main Street between US-131 and Drake Road may remain as located.
  4. Seasonal Agricultural Signs may be located adjacent to the lot line and within the right-of-way so long as they do not interfere with the clear vision area for traffic.
- C. Properties in commercial use districts permitted to have more than one Ground Mounted Signs (pursuant to Section 55.80), must maintain a distance not less than feet one hundred and fifty (150').between such Ground Mounted Sign(s)
- D. Wall Signs shall measure their height from the first-floor elevation of the building, and may not extend beyond the windowsills of the floor above, or the top of the wall, to which it is attached. Wall Signs shall not project beyond the ends of the wall to which it is attached.

### **55.70 AGRICULTURAL AND RESIDENTIAL USE DISTRICTS**

- A. In all agricultural and residential use districts, the requirements of Schedule A shall govern the use, Sign Area, type, height, and number of Signs permitted, in addition to the requirements elsewhere in this Ordinance.

<b>SCHEDULE A - Agricultural and Residential Use Districts</b>					
<b>Use</b>	<b>Sign Type</b>	<b>Max Sign Area</b>	<b>Max sign height<sup>5</sup></b>	<b>Sign Permit Required</b>	<b>Max number of Signs</b>
education, religious, <u>Cemeteries</u> , public buildings, public parks and other nonresidential uses in an agricultural or residential district (other than <u>Offices</u> or <u>Financial Institutions</u> )	a) Ground Mounted Sign	30 sq.ft.	5 feet	Yes	1 per principal use
	<b>OR</b> Wall Sign	30 sq.ft.	20 sq.ft.		
	b) Directional Sign	2 sq.ft.	3 feet	Yes	1 per curb cut
residential developments	a) Ground Mounted Sign	30 sq.ft. <sup>1</sup>	5 feet	Yes	1 per <u>Street</u> entrance
	b) Directional Sign	2 sq.ft.	3 feet		2 per development
apartment developments	a) Ground Mounted Sign	30 sq.ft. <sub>1</sub>	5 feet	Yes	1 per Street entrance

**SCHEDULE A - Agricultural and Residential Use Districts**

and <u>Mobile Home Park</u>	b) Directional Sign	2 sq.ft.	3 feet	Yes	2 per development
<u>Home Occupations, Family Child Care Homes, and Foster Family Care Home uses in a Private Home</u>		None		Yes	None
functioning farms and Farm Markets	a) Seasonal Agricultural Sign <sup>2</sup>	6 sq.ft.	4 feet	Yes	12
	b) Ground Mounted Sign <sup>3</sup>	32 sq.ft. <sup>4</sup>	5 feet		4 <sup>4</sup>
Nonresidential uses in an agricultural or residential use district (other than the R-3, Residence District)	a) Ground Mounted Sign	30 sq.ft.	5 feet	Yes	1 per principal use
	b) Wall Sign	30 sq.ft.	20 sq.ft.		
	c) Directional Sign	2 sq.ft.	3 feet		1 per curb cut

**NOTES:**

1. Where allowed, Sign Face may be used in conjunction with a wall, Fence, or other architectural entrance feature, provided the Structure to which the Sign Face is attached does not exceed a height of six feet (6').
2. In no case shall a functioning farm or Farm Markets be permitted to have a Seasonal Agricultural Sign, in any quantity, for more than ninety (90) days per calendar year; Signs may only be erected as long as the identified commodities or products are available for purchase.
3. Applies to functioning farms and Farm Markets in an agricultural or residential district. Functioning farms and Farm Markets in commercial districts shall be allowed Signs with a maximum Sign Area and maximum height as permitted in Section 55.80, Schedule B, with the exception that they are permitted up to four (4) Signs totaling the maximum Sign Area allowed. Ground Mounted Sign for farms and Farm Markets are not required to be Permenant Signs.
4. Functioning farms and Farm Markets may install up to four (4) signs with combined Sign Areas totaling no more than the maximum Advertising Display Area allowed for a single Sign (32 sq.ft.).
5. The vertical distance of a Sign measured from the elevation of the adjacent finished grade to the highest point of the Sign.

B. All Agricultural and Residential use districts shall also be permitted Temporary Signs in accordance with the provisions of Section 55.100 of this Article.

**55.80 COMMERCIAL AND OFFICE USE DISTRICTS**

A. In all commercial and office use districts the requirements of Schedule B shall govern Sign use, Sign Area, type, height, and numbers of Signs permitted, in addition to requirements elsewhere in this Ordinance.

SCHEDULE B - Commercial Use Districts					
Use	Sign Type	Max Sign Area	Max Height <sup>5</sup>	Sign Permit Required	Max No. of Signs
individual establishments, including <u>Hotels</u> (without restaurants) not located within <u>Commercial Center</u>	a) <u>Wall Sign</u>	1 sq.ft. for each foot in length or height (whichever is greater) of the wall to which it is affixed <sup>1</sup>	30 feet	Yes	4 per <u>building</u> <sup>3</sup>
	b) Pole Sign	60 sq.ft.	20 feet	Yes	1 Pole Sign or <u>Ground Mounted Sign</u> <sup>2,4</sup>
	<b>OR</b> Ground Mounted Sign	80 sq.ft.	10 feet		
	c) Window Sign and displays	25% of <u>Window Area</u>		Yes	
Commercial Center, (including Hotels with restaurants)	b) Pole Sign	60 sq.ft. <sup>5</sup>	20 feet	Yes	1 Pole Sign or Ground Mounted Sign <sup>2,4</sup>
	<b>OR</b> Ground Mounted Sign	80 sq.ft. <sup>5</sup>	10 feet		
	b) Wall Sign	80 sq.ft.	30 feet	Yes	1 per building wall not to exceed 4 per building
	<b>OR</b> Awning/ Canopy Sign	32 sq.ft.	12 feet		
commercial tenants within a Commercial Center <sup>4,5</sup>	a) Wall Sign	1 sq.ft. per lineal foot of <u>tenant space width</u> not to	30 feet	Yes	1 per exterior wall of the tenant premises, maximum of 2

SCHEDULE B - Commercial Use Districts					
Use	Sign Type	Max Sign Area	Max Height <sup>5</sup>	Sign Permit Required	Max No. of Signs
		exceed a Sign length of more than 2/3 the subject Tenant Space Width.			(must be located upon premises of tenant)
	b) On-Premises Directory Sign	6 sq.ft.	underside of building overhang	Yes	1 per tenant
	c) Window Sign and displays	25% of total Window Area			
<b>Individual Pole Signs and Ground Mounted Signs prohibited</b>					
<u>Filling Stations</u>	a) Pole Sign	60 sq.ft.	20 feet	Yes	1 Pole Sign or <u>Ground Mounted Sign</u> <sup>2</sup>
	<b>OR</b> Ground Mounted Sign	80 sq.ft.	10 feet		
	b) Wall Sign	1 sq.ft. for each foot in length or height (whichever is greater) of the wall to which it is affixed <sup>1</sup>	25 feet	Yes	4 per building <sup>3</sup>
	c) Window Sign	25% of Window Area		Yes	
automobile sales	a) Pole Sign  <b>OR</b> Ground Mounted Sign Ground Mounted Sign	60 sq.ft.	20 feet	Yes	1 Pole Sign or Ground Mounted Sign for new car dealership, and/or 1 Pole Sign or Ground Mounted Sign for used car sales and/or 1 Pole Sign or Ground Mounted Sign for automotive service.

**SCHEDULE B - Commercial Use Districts**

Use	Sign Type	Max Sign Area	Max Height <sup>5</sup>	Sign Permit Required	Max No. of Signs
		80 sq.ft.	10 feet		Maximum of two (2) Signs.
	b) Wall Sign	1 sq.ft. for each foot in length or height (whichever is greater) of the wall to which it is affixed <sup>1</sup>	25 feet	Yes	4 per building <sup>3</sup>
	c) <u>Window Sign</u> and displays	25% of window area		Yes	
Buildings within an Office Complex	a) Wall Sign	25 sq.ft.	20 feet	Yes	1 per tenant
	<b>OR</b> Wall Sign	50 sq.ft.	20 feet		1 per building
	b) Ground Mounted Sign	40 sq.ft.	5 feet	Yes	1 per building at site of building
	<b>Pole Signs are prohibited</b>				
Buildings containing one or more Offices which are under separate business management and not located within an Office Complex	a) Wall Sign	25 sq.ft.	20 feet	Yes	1 per tenant
	<b>OR</b> Wall Sign	50 sq.ft.	20 feet		1 per building
	b) Ground Mounted Sign	60 sq.ft.	8 feet	Yes	1 per building
	<b>Pole Signs are prohibited</b>				
Office Complex	Ground Mounted Sign <b>OR</b> Permanent Sign	60 sq.ft.	8 feet	Yes	1 Sign per <u>street</u> entrance not to exceed more than one (1) per 2,600 lineal feet of continuous road

SCHEDULE B - Commercial Use Districts					
Use	Sign Type	Max Sign Area	Max Height <sup>5</sup>	Sign Permit Required	Max No. of Signs
					frontage along the same public street
Nonresidential uses in the R-3, Residence District (other than Offices or Financial Institutions)	a) Wall Sign	50 sq.ft.	20 feet	Yes	1 per wall, maximum of 2 per building
	b) Ground Mounted Sign <b>OR</b> Permanent Sign	60 sq.ft.	8 feet	Yes	1 per building
	<b>Pole Signs are prohibited</b>				
<p>NOTES:</p> <ol style="list-style-type: none"> <li>1. Wall length shall be measured in a straight line from the two farthest points on the subject side of the Building regardless of any protrusions between said points which shall not be considered a separate wall(s).</li> <li>2. <u>Lots, Parcels, and Building Sites</u> with frontage on more than one (1) Street may have one (1) Sign on each Street frontage with one (1) Sign permitted a maximum <u>Sign Area</u> of sixty square feet (60 sq.ft.) and any additional Signs limited to thirty square feet (30 sq.ft.) each.</li> <li>3. More than one (1) Wall Sign may be placed upon the same wall provided the combined square footage does not exceed the maximum Advertising Display Area permitted for that wall and/or the maximum number allowed for the Building, Lot, Parcel, or Building Site.</li> <li>4. Individual commercial establishments and Commercial Centers with four hundred feet (400') or more of frontage shall be allowed one (1) additional Sign (Ground Mounted Sign , Permanent Sign, or Pole Sign). Additional Sign(s) shall not have a Sign Area, or height, greater than what is permitted in Schedule B.</li> <li>5. The vertical distance of a Sign measured from the elevation of the adjacent Finished Grade to the highest point of the Sign.</li> <li>6. Commercial Centers shall be permitted one (1) additional eight square feet (8 sq.ft.) of Advertising Display Area for each tenant over the first two (2). Total Sign Area shall not exceed fifty percent (50%) of the permitted Sign Area.</li> </ol>					

- B. All commercial use districts shall also be permitted the following:
1. One (1) Directory Sign per building, not to exceed twenty square feet (20sq.ft.) in total Sign Area.
  2. Directional Signs up to two square feet (2 sq.ft.) in Sign Area and four feet (4') in height. Each Lot, Building Site, Parcel, Commercial Center, or development shall not have more than one (1) On-Premises Directional Sign per street entrance.
  3. Temporary Signs in accordance with the provisions of Section 55.100 of this Article.

**55.80 INDUSTRIAL LAND USE DISTRICTS**

A. In all industrial use districts the requirements of Schedule C shall govern Sign use, Sign Area, type, height, and numbers of Signs permitted, in addition to requirements elsewhere in this Ordinance.

SCHEDULE C - Industrial Use Districts					
Use	Sign Type	Max Sign Area	Max Height <sup>1</sup>	Sign Permit Required	Max No. of Signs
individual industrial <u>Buildings</u> (outside an Industrial Park or Industrial-Office Development)	a) <u>Wall Sign</u>	25 sq.ft.	40 feet	Yes	1 per tenant space
	<b>OR</b> <u>Wall Sign</u>	50 sq.ft.	40 feet		1 per building
	b) Ground Mounted Sign <b>OR</b> Permanent Sign	60 sq.ft.	8 feet		1 per building
individual Buildings within an Industrial Park or Industrial-Office Development	a) <u>Wall Sign</u>	25 sq.ft.	40 feet	Yes	1 per tenant space
	<b>OR</b> <u>Wall Sign</u>	50 sq.ft.	40 feet		1 per building
	b) Ground Mounted Sign <b>OR</b> Permanent Sign	40 sq.ft.	5 feet	Yes	1 per building <sup>2</sup>
Industrial Parks and Industrial-Office Developments	Ground Mounted Sign <b>OR</b> Permanent Sign	60 sq.ft.	8 feet	Yes	1 Sign per <u>street</u> entrance not to exceed more than one (1) per 2,600 lineal feet of continuous road frontage along the same public Street.
1. The vertical distance of a Sign measured from the elevation of the adjacent finished grade to the highest point of the Sign. 2. Sign must be located on same <u>Lot</u> , <u>Building Site</u> or <u>Parcel</u> as the Building/tenant it identifies.					

B. All industrial use districts shall also be permitted the following:

1. One (1) On-Premises Directory Sign per Building, not to exceed twenty square feet (20 sq.ft.) in total Sign Area.



2. Directional Signs up to two square feet (2 sq.ft.) in Sign Area and a height of four feet (4'). Each Lot, Building Site, Parcel, or development shall not have more than one (1) Directional Sign per Street entrance.
3. Temporary Signs in accordance with the provisions of Section 55.100 of this Article.

### **55.100 TEMPORARY SIGNS**

Throughout the Township, the requirements of Schedule D shall govern the use, Sign Area, type, height, and number of Temporary Signs, in addition to the requirements elsewhere in this Ordinance. (See Section 55.40 Definitions for descriptions of each Sign type below.)

<b>SCHEDULE D- Temporary Signs</b>		
<b>Sign Type</b>	<b>Standard</b>	<b>Requirement</b>
<b><u>Construction Sign</u></b>	Number	One (1) per <u>street</u> frontage
	Area	Maximum 32 square feet
	Height <sup>1</sup>	Maximum 5 feet
	Duration	30 days prior to beginning construction to 30 days following issuance of certificate of occupancy but not more than two (2) years from beginning of construction
	Permit	Required
<b><u>Real Estate Sign</u></b>	Number	One (1) per <u>lot, building site, or parcel</u>
	Area	Maximum 6 square feet (residential) Maximum 24 square feet (non-residential)
	Height <sup>1</sup>	Maximum 5 feet
	Other	Illuminated Signs are prohibited
	Permit	Not required
<b><u>Residential Development Sign</u></b>	Number	One (1) per subdivision, condominium, apartment, or Mobile Home Park on the site where it is being developed.
	Area	Maximum 32 square feet
	Height <sup>1</sup>	Maximum 5 feet
	Duration	Not to exceed 2 years from the date the development opens for sales or rentals
	Permit	Required
<b><u>Temporary On-Premises Event Sign</u></b>	Number	One per Lot, Building Site, Parcel, or tenant in a <u>Commercial Center</u> during each six (6) month period identified below
	Area	Maximum 32 square feet
	Height <sup>1</sup>	Maximum 5 feet for Ground Mounted Signs; maximum 20 feet for Wall Signs located on a <u>Building</u> and/or <u>Balloon Signs</u> ; maximum 12 feet for a <u>Feather Flag Sign</u>
	Duration	1 Sign for a maximum 14 days from January 1 to June 30
		1 Sign for a maximum 14 days from July 1 to December 31
	Permit	Required, unless equal to or less than 3 square feet

SCHEDULE D- Temporary Signs		
Sign Type	Standard	Requirement
<b>Temporary On-Premises <u>Event Sign</u> <u>A-frame Sign</u> or <u>Portable Sign</u></b>	Other	At a multi-tenant commercial center, only one (1) such Sign may be on display at a time
	Number	One (1) per Lot, Building Site, Parcel, or business within a multi-tenant commercial center
	Area	Maximum 6 square feet
	Height <sup>1</sup> Duration	Maximum 5 feet
		May be on display during day but must be stored indoors overnight
	Location	Must be within ten feet (10') of the entry door without disturbing pedestrian or emergency access. A minimum of five feet (5') clearance shall be provided for pedestrian passage.
	Permit	Not required
<b><u>Banner Signs</u></b>	Number	One per One (1) per Lot, Building Site, Parcel, or business within a Commercial Center
	Area	Maximum 32 square feet
	Height <sup>1</sup>	Maximum of 8 feet maximum
	Duration	Not to exceed thirty (30) days.
	Location	A maximum mounting height of twenty feet (20') if located on a Building wall; Ground Mounted outside of the right-of-way. Shall not be attached to utility or light poles, trees, bushes, or other plant materials at any time. Must be located On-Premises.
	Permit	Required
<b>Temporary Off-Premises Directional Signs</b>	Number	Four (4); not more than one (1) sign at four (4) separate intersections within the Township
	Area	Maximum 4 square feet
	Height <sup>1</sup>	Maximum 4 feet
	Duration	Not more than fourteen (14) days from the date of erection
	Location	Ground Mounted outside of the right-of-way
	Permit	Not required
Feather Flag Signs  Feather Flag Signs <b>Balloon Signs</b> (17" or smaller)	Number	Two (2) per Lot, Building Site, or Parcel
	Area	Maximum of 30 square feet
	Height <sup>1</sup>	Maximum of 12 feet
	Duration	2 Signs for a maximum 14 days from January 1 to June 30
	Location	2 Signs for a maximum 14 days from July 1 to December 31
	Location	Must be Ground Mounted outside of the right-of-way and located On-Premises
	Permit	Required
Number	One (1) per Lot, Building Site, Parcel, or business within a Commercial Center	

SCHEDULE D- Temporary Signs		
Sign Type	Standard	Requirement
	Size	Maximum of 17 inches (17")
	Height Duration	Not greater than five feet (5') above that to which the Balloon Sign is attached
		Not to exceed thirty (30) days (must remain fully inflated at all times)
	Location	Must be outside of the right-of-way and located On-Premises. Balloon signs may not be attached to utility or light poles and shall not be attached to trees, bushes, or other plant materials at any time.
Permit	Not required	
<b>Balloon Signs</b> (larger than 17")	Number	One (1) per Lot, Building Site, or Parcel
	Size	Greater than 17 inches (17")
	Height <sup>1</sup>	Maximum of 20 feet <sup>2</sup> when fully inflated
	Duration	The duration of an approved temporary outdoor event application under Section 49.260 and/or Section 48.120 (must remain fully inflated at all times)
	Location	Must be securely anchored, placed directly upon the ground Must be outside of the right-of-way and located On-Premises.
	Permit	Required (approved as part of a temporary outdoor event application under Section 49.260 and/or Section 48.120)
<p>1. The vertical distance of a Sign measured from the elevation of the adjacent Finished Grade to the highest point of the Sign.</p> <p>2. Sign must be located on the same Lot, Building Site or Parcel as the Building/tenant it identifies.</p>		

**55.110 PERMANENT OFF-PREMISES SIGNS- BILLBOARDS** Due to size and spacing requirements of this section of the Ordinance, most if not all Billboards in the Township are nonconforming, and no additional Billboards can be constructed beyond the eleven (11) currently located in the Township without additional changes to the Ordinance.

- A. Billboards may be located on a Lot, Building Site, or Parcel within an area one hundred and fifty feet (150') in width on either side of the right-of-way of U.S. Highway 131 zoned "C", Local Business District or lower. Such Billboard(s) shall meet all other the Building and Setback requirements of this Article for Signs except for, and in addition to, the following requirements:
  - 1. No more than one (1) Billboard may be located per linear mile of highway; the linear mile includes Billboards located on a different side of the subject highway, or in another jurisdiction, and shall be based only on distance from a Billboard to any other Billboard. No

Billboard shall be located within seven hundred and fifty feet (750') of a residential zone and/or an existing residence.

2. The total SignArea of any Billboard facing one direction shall not exceed three hundred square feet (300 sq.ft.) and a height of twenty feet (20').
  3. Billboards may be illuminated, however, the lighting fixtures used to illuminate a Billboard shall be mounted on the top of the Structure and directed down so that no light rays are emitted by the installed fixture at angles above the Billboard's highest horizontal plane or onto any adjacent lot, building, site, or parcel.
  4. In no event shall any Billboard have flashing or intermittent lights, nor shall the lights be permitted to rotate or oscillate.
  5. All Billboards, and all appurtenances thereto, shall be kept in good repair and in a proper state of preservation with all display surfaces neatly painted or posted at all times.
  6. All Billboards shall be oriented with the longest side parallel to the ground.
  7. Doubled-stacked Billboards are prohibited.
- B. Electronic Billboards. It is recognized that Billboards with changeable or continuous, dynamic content are more distracting and less comprehensible than static images as they require more attention for longer periods of time to comprehend the intended message. Studies show that there is a direct correlation between dynamic, electronic displays on Billboards and the distraction of drivers, which can lead to traffic accidents. Drivers can be distracted by a changing message, by waiting for the next change to occur on a Sign, and by messages that do not tell the full story in one look.

Drivers are more distracted by special effects used to change the message of a billboard, by messages on a sign that are too small to be clearly seen, or that contain more than a simple easily read message. Despite these public safety concerns, there is merit to allowing new technologies to easily update messages on Billboards. Except as prohibited by state or federal law, Billboard owners should have the opportunity to use these technologies with certain, reasonable restrictions. The restrictions are intended to minimize potential driver distraction and to minimize proliferation near residential areas where Billboards with dynamic, electronic displays can adversely impact residential character.

It is also recognized that Billboards do not need to serve the same way-finding function as do On-Premises Signs. Further, Billboards are allowed only within certain zoning districts. Billboards are in themselves distracting and their removal serves public safety. A single Electronic Billboard can serve the function otherwise performed by multiple traditional Billboards. Thus, Billboard owners ought to be encouraged to use Electronic Billboard to consolidate such activities in appropriate locations while removing traditional Billboards that currently do not conform to ordinance standards.

The standards within this section are therefore intended to provide incentives for the voluntary and uncompensated removal of Billboards in certain settings. Their removal results in an overall advancement of one or more of the goals set forth in this chapter that should more than offset any additional burden caused by the incentives. These provisions are also based on the recognition that the incentives create an opportunity to consolidate Billboards that would otherwise remain distributed throughout the Township.

Electronic displays should therefore be allowed on Billboards but with significant and reasonable controls to minimize their proliferation and potential threats to public safety.

1. Display Regulations. An Electronic Billboard shall not contain any visible moving parts, revolving parts, or mechanical movement of any description or other apparent visible movement except for electronic displays subject to the following requirements and standards:
  - a. Except as otherwise stated herein, Electronic Billboards are subject to the same requirements as traditional Billboards as provided for in Section [55.100\(A\)](#) of this Ordinance, including size, height, separation, and location restrictions.
  - b. The images and messages displayed must be static or still images. Such images and messages shall be permitted to fill the entire Sign Area. Animation, video streaming, moving images, or other pictures and graphics displayed in a progression of frames that give the illusion of motion, or moving objects, shall be prohibited. Under no circumstances shall any message or display appear to flash, undulate, pulse, move, portray flashes of light or blinking lights, or otherwise appear to move toward or away from the viewer, expand or contract, bounce, rotate, spin, twist, or make other comparable or hypnotic movements.
  - c. An Electronic Billboard may not allow the display or message to change more frequently than once every eight (8) seconds, with a transition period of one (1) second or less.
  - d. The transition from one static image or message to another on an Electronic Billboard shall be instantaneous without any delay or special effects accomplished by varying the light intensity or pattern, where the first message gradually reduces intensity or appears to dissipate and lose legibility simultaneously with the gradual increase in intensity, appearance and legibility of the second message, such as, but not limited to: flashing; blinking; spinning; revolving; shaking; zooming; fading; dissolving; scrolling; dropping; traveling; chasing; exploding; or similar effects that have the appearance of movement, animation, changing in size, or being revealed incrementally rather than all at once.
  - e. Electronic Billboards must have installed an ambient light monitor, which shall continuously monitor and automatically adjust the brightness level of the display based on ambient light conditions consistent with the terms of this Article.
  - f. Sequential messaging as part of an Electronic Billboard shall be prohibited. The images and messages displayed shall be complete in themselves without continuation in content to the next image or message or to any other Billboard.
  - g. Every line of Copy on an Electronic Billboard must be at least twelve inches (12”) in height.
  - h. Electronic Billboards shall be designed and equipped to freeze the device in one position if a malfunction occurs. The displays must also be equipped with a means to immediately discontinue the display if it malfunctions, and the Electronic Billboard owner must immediately stop the electronic display when notified by the Township that it is not complying with the standards of this Section. Prior to issuing any necessary permits (as required by Section 55.110 of this Article) for an Electronic Billboard, the applicant shall submit to the Township written verification from the manufacturer that the Electronic Billboard is so designed and equipped.
  - i. The owner of the Electronic Billboard shall coordinate with the local authorities to display, when appropriate, emergency information important to the traveling public including, but not limited to Amber Alerts or alerts concerning natural disasters, road emergencies, weather emergencies, or defense situations. Emergency

information messages shall remain in the advertising rotation according to the protocols of the agency that issues the information.

## 2. Brightness.

The maximum brightness levels for Electronic Billboards shall not exceed three tenths (0.3 ) foot-candles over ambient light levels measured within one hundred and fifty feet (150') of the source, consistent with the terms of this Section. The measurement shall be taken at ground level perpendicular to the surface of the screen. Certification must be provided to the Township demonstrating that the Sign has been preset to automatically adjust the brightness to these levels or lower. Re-inspection and recalibration may be periodically required by the Township, in its reasonable discretion, and it shall be the responsibility of the Electronic Billboard owner to ensure that the specified brightness levels are maintained at all times.

Brightness of Electronic Billboard shall be measured as follows:

1. At least thirty (30) minutes following sunset, a foot candle meter shall be used by the person doing the inspection to obtain an ambient light reading for the location while the Electronic Billboard is off or displaying a black screen/display. The reading shall be made with the meter aimed directly at the Sign Face at the pre-set location.
2. The Electronic Billboard shall then be turned on to a full white screen/display to take another reading with the meter at the same location.
3. If the difference between the readings is three tenths (0.3) foot-candles or less, the brightness is properly adjusted.

C. Incentives for Billboard Removal. Billboards do not need to serve the same wayfinding function as do On-Premises signs. Further, due to size and spacing requirements of this section of the Ordinance, most if not all Billboards in the Township are nonconforming, and no additional Billboards can be constructed beyond the eleven (11) currently located in the Township without additional changes to the Ordinance. Finally, Billboards are in themselves distracting and their removal serves public safety. The Township is extremely limited in its ability to cause the removal of these signs. This clause is intended to provide incentives for the voluntary and uncompensated removal of Billboards in certain settings. This removal results in an overall advancement of one or more goals set forth in this section, including reducing the degree of nonconformity, that should more than offset any additional burden caused by the incentives. These provisions are also based on the recognition that the incentives create an opportunity to consolidate outdoor advertising services that would otherwise remain distributed throughout the Township.

A person may obtain a Sign Permit from the Township to replace an existing nonconforming Billboard with an Electronic Billboard in the same location, at the same or reduced height and at the same or reduced Sign Area. Otherwise, such Electronic Billboards would be required to conform to all of the standards of this Section as a new Sign. Sign Permits may be issued if the requirements stated below are satisfied:

- j. The applicant shall agree in writing to permanently remove, prior to the issuance of any necessary permits for the installation of an Electronic Billboard, at least two (2) other nonconforming Billboards within the Township owned or leased by the applicant, each of which must satisfy the criteria of subparagraphs b. through d., below. (Each individual Billboard face shall be considered a separate Billboard, and the Billboard proposed to be replaced by the new Electronic Billboard face may be considered one (1) of the two (2) nonconforming Billboards to be removed.) Unless being replaced by an Electronic

Billboard unit, removal shall include the complete removal of the structure and foundation supporting each Billboard. The Zoning Administrator shall verify that the Billboards to be removed are nonconforming and that the nonconforming Billboards have been removed prior to issuing any necessary permits for an Electronic Billboard. The applicant shall also agree in writing that it is removing the nonconforming Billboards voluntarily and that it has no right to compensation for the removed Billboards under any law. When executed, the applicant shall record said agreement with the Kalamazoo County Registrar of Deeds.

- k. The Township has not previously issued a Sign Permit for an Electronic Billboard based on the removal of the particular nonconforming Billboards relied upon in this permit application.
- l. Each removed Billboard shall have a Sign Area equal to or greater than the Sign Area for which the Electronic Billboard permit is sought.
- m. If any Billboard to be removed required a State of Michigan permit, the applicant shall:
  - (i) surrender its permit to the state upon removal of the Billboard, and
  - (ii) submit proof to the Township of the state permit before any necessary Township permits for an Electronic Billboard will be issued.

#### **55.120 PERMITS REQUIRED AND CONDITIONS**

Unless otherwise provided by this Article, all Signs shall require permits and payment of permit fees (including face changes for Signs). No Sign otherwise permitted under this Article shall be installed, or utilized, until and unless a permit has been issued by the Township. No permit is required for the Maintenance of a Sign already permitted and otherwise permissible under this Article.

A permit issued pursuant to this Section becomes null and void if work is not commenced within one hundred and eighty (180) days of issuance. If work authorized by the permit is suspended or abandoned for more than one hundred and eighty (180) days, the permit must be renewed with an additional payment of one-half (1/2) of the original permitting fee (as provided by the current fee schedule adopted by resolution of the Township Board and on file at the Township Hall).

#### **55.130 SIGNS NOT REQUIRING PERMITS**

The following types of Signs are exempted from permit requirements but must be in conformance with all other requirements of this Article:

- A. Directional Signs of two square feet (2 sq.ft.) or less.
- B. Non-Commercial Signs subject only to placement restrictions; such Non-Commercial Signs shall not exceed sixteen feet (16 sq.ft.) and a maximum height of five feet (5') Natural Grade. Non-Commercial Signs shall only be placed on private property with the property owner's permission. Government Signs, notices, or any Sign relating to an emergency.
- C. Temporary Off-Premises Directional Signs.
- D. **Temporary On-Premises Signs** equal to or less than three square feet (3 sq. ft.)
- E. Incidental Signs, provided such Signs do not occupy more than six square feet (6 sq.ft.) of Sign Area.
- F. Temporary Off-Premises Signs as permitted under Section 55.100 of this Article.

Seasonal decorations are not considered Signs for the purposes of this Ordinance.

#### **55.140 MAINTENANCE**

---

All Signs shall be properly maintained. Exposed surfaces shall be clean and painted (if paint is required), and all Copy shall be legible; defective, or damaged, parts shall be replaced.

#### **55.150 LIGHTING**

---

Unless otherwise specified by this Section, all Signs may be Illuminated Signs.

- A. No Sign regulated by this Section may utilize:
  - 1. An exposed incandescent lamp<sup>1</sup> with an external reflector and without a screen or comparable diffusion device.
  - 2. Any exposed incandescent lamp<sup>1</sup> in excess of one hundred and sixty watts (160w) unless a screen or shield is installed so that no light rays are emitted by the installed fixture beyond the Advertising Display Area.
  - 3. Any revolving beacon light.
  - 4. Lights that could be confused with, or construed as, traffic control devices.
  - 5. Direct or reflected light that could create a traffic hazard to operators of motor vehicles.
- B. Metal halide lighting, fluorescent lighting and quartz lighting may be used for outdoor advertising signs but shall be installed in enclosed luminaries.
- C. Glass tubes filled with neon, argon or krypton may be used provided they do not flash intermittently or create a visual effect of movement.
- D. Lighting fixtures used to illuminate an outdoor advertising sign shall be mounted on the top of the Sign whenever practical or mounted so that no light rays are emitted by the installed fixture at angles above the Sign's highest horizontal plane or in any event beyond the Advertising Display Area.
- E. Unless the premises is open for business, lighting fixtures on, or in, Signs, (with the exception of time and temperature displays), shall not be operated (i.e., turned on) from 9 p.m. to sunrise when light from said sign can shine into any window of a residence within five hundred feet (500') or from midnight (12 a.m.) to sunrise when the Lot, Building Site, or Parcel upon which it is located abuts a residential zoning district.
- F. No Sign may be illuminated by flashing, rotating, oscillating or intermittent lighting.
- G. Electronically Changeable Copy Signs (with the exception of Electronic Billboards as provided in this Article ), may change message no more than once every six (6) seconds and shall not use transitions that Dissolve, Fade, Flash, and/or Scroll.
- H. Signs utilizing electronically Changeable Copy Signs may not be so bright as to be objectionable or inappropriate for the surroundings.
- I. Up to thirty-five percent (35%) of the permitted Sign Area of an allowable Sign may be dedicated to Changeable Copy Signs or to electronically display the current time and/or temperature. This percentage shall be increased to fifty percent (50%) for filling stations solely for the purpose of displaying fuel prices within the additional Sign Area provided. This limit shall not apply to Electronic Billboards.



J. Lighting requirements for Billboards and Electronic Billboards are addressed in Section 55.110.

1. For the purpose of this Section, quartz lamps shall not be considered an incandescent light source.

#### **55.160 LANDSCAPING**

---

The base treatment for, Permanent Signs that are freestanding shall be landscaped and maintained and may be placed in stone, masonry, treated wood bases, containers, or in the ground.

#### **55.170 EFFECTIVE DATE AND REPEAL**

---

All Ordinances or parts of Ordinances inconsistent with this Ordinance are hereby repealed. This Ordinance shall take effect upon publication after adoption in accordance with State law.

DUSTY FARMER, CLERK  
OSHTEMO CHARTER TOWNSHIP

[This page left intentionally blank]

DRAFT OSHTEMO CHARTER TOWNSHIP ORDINANCE NO. 669

Adopted: \_\_\_\_\_

Effective: \_\_\_\_\_

OSHTEMO CHARTER TOWNSHIP ORDINANCE

An Ordinance to amend the Oshtemo Charter Township Zoning Ordinance, Article 50: Schedule of Regulations, Section 50.60C: Setback Provisions: Business & Industrial Districts. This Ordinance repeals all Ordinances or parts of Ordinances in conflict.

THE CHARTER TOWNSHIP OF OSHTEMO  
KALAMAZOO COUNTY, MICHIGAN  
ORDAINS:

SECTION I. AMENDMENT OF ZONING ORDINANCE COMPILED ARTICLE 50: SCHEDULE OF REGULATIONS, SECTION 50.60: SETBACK PROVISIONS. Article 50, Section 50.60C is hereby amended to read as follows:

C. BUSINESS AND INDUSTRIAL DISTRICT

In "C" Local Business District, "BRP" Business and Research Park District, "I-R" Industrial District, Restricted, "I-1" Industrial District, Manufacturing/Serviceing, "I-2" Industrial District, Manufacturing/Serviceing, "I-3" Industrial District, Special and with respect to buildings exceeding two stories in "R-4" Residence District, the minimum setback distance for all buildings shall be 70 feet from all street right-of-way lines and outlots and/or planned future public street extensions abutting the property unless:

1. A larger setback is otherwise required in the Township Zoning Ordinance
2. The building is constructed within 300 feet of a building existing on the effective date of this Ordinance provision (December 24, 1966) which is closer than the 70-foot setback requirement, in which case such setback may be decreased accordingly to the schedule set forth in Section 50.60.A hereof. The setbacks applicable to the "C-R" Local Business District, Restricted, are set forth in Section 21.50.D.
3. The property is located between two roads running parallel to each other and one road is a arterial and the other is a collector, in which case, the minimum setback from the secondary road and the landscape requirements shall be reduced by 50%.

SECTION II. EFFECTIVE DATE AND REPEAL. All Ordinances or parts of Ordinances inconsistent with this Ordinance are hereby repealed. This Ordinance shall take effect upon publication after adoption in accordance with State law.

DUSTY FARMER, CLERK  
OSHTEMO CHARTER TOWNSHIP