

**WHITE LAKE TOWNSHIP
INTER-OFFICE MEMORANDUM
COMMUNITY DEVELOPMENT DEPARTMENT**

DATE: September 6, 2024

TO: Rik Kowall, Supervisor
Township Board of Trustees

FROM: Sean O'Neil, AICP
Community Development Director

**SUBJECT: Lasting Impressions Landscaping
Preliminary site plan approval**
Property described as parcel number 12-01-127-002, located on the north side of White Lake Road, west of Old White Lake Road, consisting of approximately 2 acres.
Request: Preliminary site plan and special land use approvals
Applicant: Kieft Engineering

The above request is now ready for Township Board Consideration. The matter was considered by the Planning Commission at their regular meeting on September 5, 2024, at which time the **Planning Commission recommended approval** of the preliminary site plan. The request is now ready to be considered by the Township Board.

Please find enclosed the following related documents:

- Draft minutes from the Planning Commission meeting held on September 5, 2024.
- Review letter prepared by Michael Leuffgen, Township Engineer, dated July 8, 2024.
- Review letter prepared by Matteo Passalacqua, Planning Consultant, dated July 9, 2024.
- Review letter prepared by Jason Hanifen, Fire Marshal, dated July 2, 2024.
- Preliminary site plan and elevations.

Please place this matter on the next available Township Board agenda. Do not hesitate to contact me should you require additional information.

**WHITE LAKE TOWNSHIP
PLANNING COMMISSION
SEPTEMBER 5, 2024**

CALL TO ORDER

Chairperson Seward called the meeting to order at 6:30 P.M. He then led the Pledge of Allegiance.

ROLL CALL

Present:

T. Joseph Seward, Chairperson
Debby Dehart
Scott Ruggles, Township Board Liaison
Merrie Carlock, Vice Chairperson
Mona Sevic
Robert Seeley (late arrival)
Pete Meagher (late arrival)
Matt Slicker (late arrival)
Steve Anderson

Others:

Sean O'Neil, Community Development Director
Andrew Littman, Staff Planner
Matteo Passalacqua, Carlisle Wortman Associates, Inc
Kyle Gall, DLZ
Hannah Kennedy-Galley, Recording Secretary

APPROVAL OF AGENDA

MOTION by Commissioner Anderson, seconded by Commissioner Carlock to approve the agenda as presented. The motion carried with a voice vote: (6 yes votes).

APPROVAL OF MINUTES

A. August 15, 2024

MOTION by Commission Anderson, seconded by Commissioner Sevic to approve the minutes of August 15, 2024, as presented. The motion carried with a voice vote: (6 yes votes).

CALL TO THE PUBLIC (FOR ITEMS NOT ON THE AGENDA)

Mike Powell, 4700 Cornerstone, personally thanked the Planning Commission for all their work.

PUBLIC HEARING

A. **Lasting Impressions Landscape**
Property described as parcel number 12-01-127-002, located on the north side of White Lake Road, west of Old White Lake Road, consisting of approximately 2 acres.
Request: **Preliminary site plan and special land use approvals**
Applicant: Kieft Engineering

Mr. Passalacqua gave a summary of his planning review for the project.

Commissioner Dehart had concerns about salt storage and the potential of the salt leeching into groundwater.

Mr. Gall gave a summary of the engineering review.

Commissioner Carlock asked for clarification on the location of the hoop house. The hoop house would be on concrete, behind the main building.

Casey Leach, Kieft Engineering, was present to speak on behalf of the applicant. The applicant wants to occupy half of the building and offer the other half for lease. There would be storage of outdoor materials and adequate screening. The special land use is for the storage of outdoor materials and fleet vehicles. The use is consistent with other Light Manufacturing uses in the Township. The hoop house will have a concrete foundation and the hoop will be metal framed with a roof. There is room on the site to expand the basin if needed.

Commissioner Ruggles said the use is appropriate for the area and similar to the surrounding properties.

Commissioner Sevic asked Mr. Leach what vehicles would be parked on the gravel. Mr. Leach said the equipment will be an excavator, tri-axel dump, skid steers, and flatbed trailers.

Commissioner Slicker said the basins would be a maintenance issue. Mr. Leach said he met with the DLZ engineers and discussed using 3' sumps in the basins and installing an ADS environmental hood to float debris.

Commissioner Anderson asked for clarification on what would be stored where. Mr. Leach said passenger vehicles will not be stored in the gravel area. The work trucks will be stored on the asphalt south of the gravel area.

Commissioner Carlock asked Mr. Leach for clarification on the landscape buffer. Mr. Leach said the applicant will use the landscape berm as an advertisement for his company, by sprucing up the area with nice plantings.

Commissioner Sevic asked Mr. Leach if additional parking was provided for the future tenant. Mr. Leach confirmed. 15 parking spaces are required; the plan offers 22.

Chairperson Seward opened the public hearing at 6:58 P.M.

Keith Capella, owner of the property north of the subject site, said he had no objections to the project.

Chairperson Seward closed the public hearing at 6:59 P.M.

MOTION by Commissioner Meagher, seconded by Commissioner Ruggles, to recommend the Township approve the preliminary site plan for Lasting Impressions Landscape, identified as parcel number 12-01-127-002, subject to all staff and consultants review comments being addressed. The motion carried with a voice vote: (9 yes votes).

MOTION by Commissioner Anderson, seconded by Commissioner Seeley, to approve the special land use for Lasting Impressions Landscape, identified as parcel 12-01-127-002, subject to the applicant obtaining final site plan approval. The motion carried with a voice vote: (9 yes votes).

B. 2025-2030 Capital Improvement Plan (CIP)

Staff Planner Littman reviewed the 2025-2023 Capital Improvement Plan updates.

Chairperson Seward opened the public hearing at 7:19 P.M. Seeing none, he closed the public hearing at 7:19 P.M.

MOTION by Commissioner Carlock, seconded by Commissioner Sevic, to adopt the 2025-2030 Capital Improvement Plan. The motion carried with a roll call vote: (9 yes votes).

Meagher/yes, Seeley/yes, Dehart/yes, Carlock/yes, Seward/yes, Anderson/yes, Slicker/yes, Sevic/yes, Ruggles/yes).

CONTINUING BUSINESS

None.

NEW BUSINESS

A. Gateway Crossing

Property described as parcel numbers 12-20-426-003 (6350 Highland Road) and 12-20402-003 (6340 Highland Road), located at the southwest corner of Bogie Lake Road and Highland Road, consisting of approximately 5.36 acres.

Request: **Final site plan approval**

Applicant: Najor Companies

Mr. Passalacqua reviewed his letter. He discussed the landscape waivers and sidewalk installation in place of the originally proposed boardwalk.

Commissioner Sevic asked if the pathway connection on the south end of the property remained. Director O'Neil said it will need to cross-connect by code.

Mr. Gall reviewed the engineering letter. He added final site plan is recommended.

Scott Tousignant, Boss Engineering, was present. He said the boardwalk was replaced with a sidewalk due to the site's challenges. The continuation of the sidewalk to the south of the property will also be easier to install over a boardwalk. The configuration of the parking on the northeast corner is modified. The EGLE permit for the sidewalk has been issued. The retaining wall requires geotechnical work. The materials for the retaining wall will be discussed with a geotechnical engineer.

Commissioner Carlock asked Mr. Tousignant about the need for the retaining wall. Mr. Tousignant said the wall is installed for when a future user wants to develop at the site. The previous drive-thru user for that side of the property is no longer interested.

MOTION by Commissioner Meagher, seconded by Commissioner Seeley, to approve the final site plan for Gateway Crossing, identified as parcel numbers 12-20-426-003 (6350 Highland Road) and 12-20402-003 (6340 Highland Road), subject to all staff and consultant comments being addressed, and to include the granting of the requested waivers. The motion carried with a voice vote: (9 yes votes).

LIAISON'S REPORT

Commissioner Ruggles said the Township Board adopted the Haley Road rezoning request. The rezoning for 9101 Highland was moved to the second reading. The landscaping bid for the Civic Center buildings was approved. Wage increases for the non-union and elected officials were approved. The Township Board will meet on September 10, 2024, to review the Civic Center building construction bids.

Commissioner Carlock said the Fisk Farm festival was this weekend. Trunk or Treat is scheduled for October 19, 2024, 6:00 P.M. to 8:00 P.M.

PLANNING CONSULTANT'S REPORT

None.

DIRECTOR'S REPORT

The special Township Board meeting on September 10, 2024, to review the bids for the Civic Center buildings. The bid award will be at the September 17 regular Township Board meeting. There are issues with the Stanley Park contractor, the next lowest bidder may have to be contacted. The base course is installed at Elizabeth Lake Road. The final lift will be installed within the next 30 days. The Corridor Improvement met earlier today; \$2,900.00 has been collected in revenue to date.

OTHER BUSINESS

- A. Wheels Restaurant - conceptual presentation

Director O'Neil said the applicant is proposing a joint car dealership and restaurant.

Bobb Cobb, applicant, was present. He shared his history and credentials with the Planning Commission. The concept of a car dealership/restaurant interests him. The restaurant would have doors on the ends to move the cars for sale when they were on display. He is interested in a liquor license. He wanted to be able to sell vehicles while the restaurant was under construction. He wants to construct an all-metal building. There will be easements between the property and Genisys Credit Union. No additional storage facilities for the cars will be provided. He wants to sell an assortment of classic cars to new driver vehicles.

Commissioners Dehart and Seeley expressed the need for more restaurants in the Township. Commissioner Meagher could not wrap his head around an all-metal building. Commissioner Seward said he is not sold on the idea.

COMMUNICATIONS

The meeting scheduled for September 19, 2024 will be canceled.

NEXT MEETING DATE: October 3, 2024

ADJOURNMENT

MOTION by Commissioner Seeley, seconded by Commissioner Meagher, to adjourn at 8:28 P.M. The motion carried with a voice vote: (9 yes votes).



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

July 8, 2024

Sean O' Neil, Director
Community Development Department
Charter Township of White Lake
7525 Highland Road
White Lake, Michigan 48383

RE: Lasting Impressions Outdoor Services - Preliminary Site Plan Review- 2nd Review

DLZ # 2445-7696-05

Dear Mr. O' Neil,

Our office has reviewed the above-mentioned revised plans prepared by Kieft Engineering, Inc. and dated June 21, 2024. These plans were reviewed for general engineering feasibility and conformance with the Township Engineering Design Standards. We offer the following comments for your consideration:

Site Improvement Information-

- A single story building for office and warehouse. Gross building area is specified as 6000 SF.
- Associated parking, including (1) one ADA space, and open area for landscaping equipment and landscape materials storage. Parking is proposed as asphalt surfacing and open area as gravel surfacing.
- One shared entrance off White Lake Road.
- One open detention basin with outlet.
- Site to be serviced by well for water and septic for sanitary.

We note that comments from our previous review dated May 9, 2024 are in *italics*. Responses to those comments are in **bold**. New comments are in standard font.

Preliminary Site Plan Comments-

General

1. *There is a Master Deed as part of the Prospectors Square overall plan. The requirements of this deed will need to be met. Our office will further review compliance with Master Deed requirements at the time of Final Site Plan/Final Engineering Plan submittal.* **Comment remains.**

2. *Provide verification that the Old White Lake Road easement that previously ran through this property has been abandoned.* **Comment addressed. Design engineer has noted that upon Oakland County records search and also property title work search that there was no indication of this easement as still existing.**
3. *Sheet V1.01- List additional benchmark (BM 2) on this sheet. Please reference Sheet C1.01.* **Comment addressed. BM2 has now been shown on this sheet.**
4. *Sheet C0.01- Utilities notes- Item 1- Revise minimum cover to the following: a) Water- 6.0' except at GV's which are 5.5'; b) Sanitary Sewers- 4.0'; All Others (Storm Sewer)- 3.5'-5.0' measured from rim to top of pipe.* **Comment addressed. Minimum cover depths have been updated.**
5. *Sheet C.0.01- Utilities notes- Item 6- Provide sheet reference number if underdrain is proposed and provide a detail.* **Comment remains. Design engineer states that sheet reference will be filled in on the final engineering plan set.**
6. *Please indicate what the existing monitoring well at the rear of the site (near proposed detention basin) is for.* **Comment addressed. Engineer notes that likely this was a 201 environmental contamination site. Thus a monitoring well would have been needed; there is no indication that the well(s) have been monitored for several years now.**
7. *The plan proposes two (2) 500 gallon fuel storage tanks in the gravel area toward the rear of the site. We note that while this development is within White Lake Township, the site is within the Waterford Township 10 year wellhead protection area. As a courtesy, notification and plans shall be provided to Waterford Township DPW Engineer of the intent to provide the two fuel tanks. Waterford Township may require specific containment (other than those noted on plan) items be provided including the use of triple wall containment that will need to be incorporated into the plans. We also note that other Federal (EPA), State, and Local regulations may apply, and that the applicant or applicant's engineer will have to assure those requirements are met.* **Comment remains. Design engineer states that plans have been sent to the Waterford Township DPW Engineer. In addition, the fuel storage tanks provide triple wall containment and appear to meet the State of Michigan Bureau of Fire Services requirements and standards. We defer to the Township Fire Department regarding acceptability of tank types and locations shown. We also recommend that correspondence be secured from Waterford Township that what is proposed would be acceptable to that Township.**

We note that Article IX, Item k. of the Master Deed for Prospector's Square notes that compliance requirements of Michigan Water Resources Commission, for the storage of gasoline and diesel fuel on site, will be required to be met. We defer the portion of this comment that relates to Michigan Water Resources Commission to the Township, as to the defined business use as the State requirements are for industrial users. **Comment remains.**

Grading/Paving

1. *We note that this plan is dependent on the adjacent Oakland Harvesters construction going forward as the Oakland Harvesters plan shows full construction of the shared access drive which is the only point of access for Lasting Impressions. **Comment remains.***
 2. *The plan proposes gravel as the surface material for the landscape materials and landscape equipment storage areas in lieu of pavement material such as concrete or asphalt. Per White Lake Township Zoning Ordinance 5.11 Q. xi., all parking areas are required to be paved unless a variance is obtained. Should a variance not be approved, and the applicant required to pave the areas in question, would result in an increased area and volume required for the detention basin. **Comment remains.***
 3. *Sheet V1.01- It is not clear what the intent was for the existing grading easement on this property- whether it was intended as an area for grading relative to a potential future shared ingress/egress drive. If the easement is not needed, will it be vacated? **Comment remains. It is our understanding that the grading easement was for construction of the shared drive. Per the design engineer, the existing easement will be vacated, and a new easement and agreement will be executed that reflects the actual post-development location of the drive for the two projects. The easement agreement is to be provided at the time of FSP/FEP submittal.***
 4. *Sheet V1.01- The existing recorded Mutual Ingress & Egress Easement Over Units 1 & 2 (which extends the full depth of both Units 1 & 2 of Prospector's Square) may need to be amended to not include the portion of the easement outside of the planned shared access driveway. The current plan proposes landscaping and parking to the north of the proposed shared driveway and within the existing access easement and may present an issue regarding shared maintenance responsibilities of anything within the existing easement. We defer to the Township Attorney regarding this item. **Comment remains. Per the design engineer, the existing easement will be shortened, and a new easement will be executed that reflects the actual post-development location of the drive for the two projects. The revised easement is to be provided at the time of FSP/FEP submittal.***
 5. *Provide general proposed grading to demonstrate general drainage patterns for this level of review. **Comment addressed. A preliminary grading plan has now been provided.***
 6. *Sheet C1.01- Per Township Zoning Ordinance 5.11.O.iii., at least one ADA parking space shall be van accessible with an 8' wide adjacent loading space. Currently a 5' wide loading space is shown adjacent to the ADA van accessible space. **Comment addressed. The ADA loading space is now shown as 8' wide.***
 7. *Sheet C1.01- Provide dimensions for the four (4) parking spaces adjacent to the truck and enclosed trailer parking. **Comment addressed. Dimensions have been provided.***
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8. *Sheet C1.01- Label the surfacing material for the northern storage area and excavator/ skid steer parking area as gravel on this plan sheet. **Comment addressed. Surfacing material has now been specified.***
9. *Sheet C1.01- Is curbing intended for the area to the west of the proposed loading space? Plan is not clear as to whether curbing is shown here. Curbing shall be required for this area. **Comment addressed. A call-out has been added to this sheet indicating curbing in the above referenced area.***

Sanitary Sewer

1. *Oakland County Health Department will need to approve and permit septic field for this property. We defer to the Health department regarding the requirement for an oil and grease separator upstream of the septic tank for building floor drains due to the nature of the proposed use. **Comment addressed and remains. An oil/water separator upstream of the septic tank has now been shown on the plan. We recommend placement of the oil/water separator outside of the parking area/vehicle traffic circulation aisle and closer to the building. Oil/water separator size (see required size per WLT Engineering Design Standards) and additional details shall be required at the time of FSP/FEP submittal.***

Watermain

1. *We defer to the Township Fire Department with regard to fire suppression and access requirements. **Comment remains.***
2. *A well is proposed as the source of water for this site. Per our files, there exists a Water Supply Agreement that states that wells are to be abandoned if water main becomes available for use. We defer to the Township as to whether this agreement was ever signed. Please note that our files indicate that this agreement was received by the Township on December 18, 2000. **Comment remains.***

Stormwater Management

1. *The detention basin discharges to the existing wetlands at the rear of the site. A delineation and determination shall be required. In addition, a permit from EGLE shall be required as per WLT Municipal Code Section 14-133. The submittal to EGLE shall also note the proximity of the proposed fuel tanks to the proposed detention basin and wetlands. **Comment addressed. The outlet for the detention basin has been moved further upland away from the edge of the water/pond such that***
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- basin will not discharge directly to the open water. Per a May 15, 2024 in person meeting at our office with the design engineer, the wetland delineation and permit would not be required.
2. *We note that the Final Engineering Plan shall show the Oakland Harvesters (Unit 1) detention basin outlet swale grading on this lot (Unit 2-within the existing 20' wide drainage easement at rear of Unit 2) as it is shown on the Oakland Harvesters final engineering plan. **Comment addressed. Swale grading per approved Oakland Harvesters Final Engineering Plan has now been shown at the rear of the Landscape Impressions property.***
 3. *Proposed detention basin slopes calculate to 1:3; the basin will be required to be fenced in along with an 8' wide access gate. **Comment addressed. Basin slopes are 1:6.***
 4. *Provide preliminary basin sizing calculations based on Oakland County Stormwater Engineering Design Standards. **Comment addressed. Basin sizing calculations have been provided.***
 5. *Specify how the two proposed catch basins in the proposed gravel area are to be maintained and kept free of filling of the catch basins with gravel as well as landscaping materials from the storage bays proposed in this area. The deposition of such materials will likely occur due to movement of equipment and materials in this area. In addition, these activities will likely impact the proposed stormwater pretreatment unit proposed in the catch basin adjacent to the heavy equipment parking, and thus result in the unit not functioning optimally. **Comment addressed and remains. These two catch basins shall have 3' sumps with ADS Envirohoods. A separate water quality structure (Contech CS-6) outside of gravel area shall also be provided. Language regarding Envirohoods and sump/CB cleanouts shall be included as part of the Stormwater Maintenance Agreement.***
 6. *Should the gravel surface at the rear of the property be approved by the ZBA, detention basin shall provide a sedimentation forebay (reference Oakland Harvesters plan) in order to provide pretreatment for runoff from this semi impervious area. **Comment addressed. A pretreatment structure (Contech CS-6) has been proposed prior to discharge of stormwater runoff to the detention basin. Our office finds this an acceptable means of pretreatment and water quality protection.***

Recommendation

The majority of our comments have been addressed and we are now recommending approval of the Preliminary Site Plan subject to required variances being approved and Township concurrence on the fuel storage and containment devices proposed. Comments marked as remaining can be addressed at the time of Final Site Plan/Final Engineering submittal.



INNOVATIVE IDEAS
EXCEPTIONAL DESIGN
UNMATCHED CLIENT SERVICE

Please contact our office should you have any questions.

Sincerely,

DLZ Michigan

Michael Leuffgen, P.E.
Department Manager

Victoria Loemker, P.E.
Senior Engineer

Cc: Nick Spencer, Building Department, *via email*
Andrew Littman, Community Development, *via email*
Hannah Kennedy- Galley, Community Development, *via email*
Aaron Potter, DPS Director, White Lake Township, *via email*
Jason Hanifen, Fire Marshall, White Lake Township, *via email*

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Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

TO: Sean O’Neil, Community Development Director
FROM: Matteo Passalacqua, Associate Planner
DATE: July 8, 2024
RE: Lasting Impressions PSP / SLU Review

Mr. O’ Neil,

We have conducted a review of the memo titled “KE Response to PSP Review 20240621” as it relates to the Lasting Impressions revised development site plan dated June 21st,2024. Below are our comments pertaining to the most recent items requiring attention from the Applicant. Also included is our review of the application as it relates to Special Land Use standards set forth in Sections 4.37, 4.39 and 6.10 of the zoning ordinance.

REVIEW COMMENTS

Review comments are listed below.

1. Application and Agent

Edits have been made to the application materials regarding ownership entities as well as a resolution of the Board of Directors providing specific decision-making authority. Township legal should confirm the conformance of these documents meeting Township requirements.

2. Access

Parking and landscaping are proposed to be located in the existing reciprocal access easement. The easement agreement should be reviewed by the Township Attorney to determine if the aforementioned items are permissible in the easement. The Applicant has stated a new easement agreement will be put in place that better reflects the actual post development use of the sites. This easement will be provided for review during the FSP and FEP phase of the project.

3. Building Architecture and Design

Planning Commission will need to determine at preliminary site plan review whether color renderings are exclusively accepted in lieu of material boards.

We note the proposed concrete block storage area in the rear yard identifies a hoop roof over the area. No architectural or structural information regarding the structure is provided. To ensure compliance with accessory structure requirements as well as dimensional standards, elevations and structural specifications should be provided for the concrete block hoop roof structure.

4. Landscaping and Screening

An extensive landform buffer (six-foot berm landscaped in accordance with the ordinance) is required adjacent to the road right-of-way, but not proposed. The Applicant has requested a waiver in-lieu of a proposed berm style buffer. Per the Ordinance language stated in 5.19D.iii & v, the preliminary ROW buffering proposed, and the fact that surrounding zoning and uses are industrial in nature, the Applicant's waiver request is feasible. We do note that the proposed buffer does not run the length of the ROW and stops approx. 40 feet before the access drive. This appears to be for the purpose of allowing for monument signage. We would encourage the Applicant to propose a buffer that runs closer to the access drive to fulfill the intent of the buffer requirements.

We note only one area on Sheet C1.01 indicates "lot landscape" and no square footage for the area is provided. A note under the "REQUIRED PARKING LOT LANDSCAPING PER ZO SECTION 5.19G" states 363 square feet of parking lot landscaping is provided. The title for the area on the Sheet should be retitled "Parking Lot Landscape" to correlate between the map title and corresponding notes.

5. Snow Storage

Snow storage information has been added to Sheet C1.01. The front lot will store snow in the west side yard. Rear and side lot snow will be stored in the rear yard. It should be considered that storage of snow in the side yard has the potential to spill into neighboring properties either during freeze or thaw conditions. We propose consideration of retaining all snow storage to the rear yard location.

6. Parking

Gravel surfacing is proposed at the rear of the site. A variance is required from the Zoning Board of Appeals to allow for this surfacing. The Applicant has acknowledged the need to request this variance.

SPECIAL LAND USE

Section 6.10 provides for general standards applicable to all special land uses. The site is proposing to store trade materials, products and fleet vehicles/equipment. Fleet vehicles are proposed to be placed along an eight (8) foot privacy fence along the east property line, in the rear yard. Materials are proposed to be placed in the concrete block hoop roof structure along the western portion of the rear yard.

This requires the review of separate sets of standards under Section 4.37 and 4.39. Each special land use's specific requirements, as well as the general requirements for all special land uses, are reviewed below.

4.37 Outdoor Storage of Fleet Vehicles

- A. An outdoor lighting plan shall specify the type of fixtures to be used, light intensity, and method of shielding the fixtures so that light does not project onto adjoining properties or on any public or private street or right-of-way. Dropped fixtures shall not be allowed. The site plan shall include a photometric plan and catalog details for all proposed fixtures. Outdoor lights must meet the performance standards of Section 5.18.

CWA Comment: Lighting plans are not required until final site plan review. However, for consideration, the Applicant should provide the required information from Section 5.18 as a part of preliminary review in order for the Planning Commission to consider the special land use request.

- B. No vehicles shall be displayed within any required setback.

CWA Comment: We note that the proposed location of vehicle and equipment storage encroaches upon the twenty (20) foot setback for the Prospectors Square development. While the eight (8) foot privacy fence will shield a portion of the area from view, the size of the equipment listed may be visible from close proximity. We also note the proposed location encroaches a twenty-five (25) foot ingress/egress easement for the development. We recommend the location of the equipment/vehicles be moved east to remove the proposed placement from encroaching the side setback of twenty (20) feet.

- C. On all sides adjacent to a residential district, there shall be provided a screen wall of face brick or an obscuring fence, as approved by the Planning Commission.

CWA Comment: Not applicable

- D. Storage of semi-trucks and trailers are only permissible in the LM District.

CWA Comment: The site is zoned LM.

- E. All stored vehicles must be properly, registered, licensed, and operable.

CWA Comment: Proof of this requirement can be included in a conditional approval.

4.39 Outside storage of pallets, containers, materials, or products incidental to the principal permitted use.

- A. Open storage shall be screened by a screen wall not less than six feet (6') or more than eight feet (8') high. The required height of the wall shall be determined by the Planning Commission so as to properly screen all materials. The Planning Commission may require an extensive landform buffer to be installed in place of the wall if it is deemed necessary to properly screen all materials.

CWA Comment: Height dimensions for the concrete block hoop roof structure proposed to enclose operational materials have not been provided.

- B. Materials over eight feet (8') high must be properly screened but need not be completely screened above eight feet.

CWA Comment: Once dimensions of the concrete block hoop roof structure are provided, this criterion can be assessed.

- C. Materials must be completely screened if they are stored within twenty (20) feet of the screen wall or fence.

CWA Comment: Screen walls are not required between sites zoned LM. Once dimensions of the concrete block hoop roof structure are provided, the effectiveness of material screening can be assessed.

- D. All wastes must be completely obscured from view.

CWA Comment: We note the site plan contains a dumpster enclosure in the rear yard where waste shall be disposed of. For items that are to be discarded but cannot be accommodated by standard dumpster services, we note the Applicant will need to adhere to this requirement by keeping said items completely obscured from view.

- E. Open storage may not be permitted within a required from yard in any zoning district.

CWA Comment: We note the ordinance spelling error. "from" is intended to be "front". The site plan indicates no storage is proposed in the front yard of the development.

6.10 General standards for all special land uses

Items related to the general standards for all special land uses needing clarification are outlined below.

Additional Information Required

Part iii: Given the intended use for the site is that of landscaping operations and services, we note additional information should be provided as to the hours when loading and unloading of materials will be taking place and whether fertilizer materials will be stored onsite to assess potential noise and fume concerns.

Part iv: Once concrete block hoop roof structure dimensions are provided, this criterion can be assessed.

Part vii & x: Per the items relating to underground fuel storage, as well as any other concerns, we defer to Township Public Safety and Engineering to determine if proposed designs and service capacity support the proposed special land use.

ITEMS TO BE ADDRESSED

Based on the most current site plan revision dated June 21st, 2024, the additional information and/or modifications are required for Planning Commission preliminary site plan and special land use review.

1. The Applicant provide the required lighting information from Section 5.18 as a part of preliminary review in order for the Planning Commission to consider the special land use request.
2. The location of the equipment/vehicles be moved east to remove the proposed placement from encroaching the side setback of twenty (20) feet.
3. Elevations with dimensions and structural specifications should be provided for the concrete block hoop roof structure located in the rear yard.
4. Information should be provided as to the hours when loading and unloading of materials will be taking place and whether fertilizer materials will be stored onsite to assess potential noise or fume nuisances.
5. Any concerns noted by Public Safety are adequately addressed.
6. Any concerns noted by Engineering are adequately addressed.

RECOMMENDATION

Based on the revised application materials and site plan revision dated June 21st, 2024, we recommend the application be updated to include information addressing the items listed and resubmitted for staff review prior to being placed on a Planning Commission agenda.

Respectfully,



CARLISLE/WORTMAN ASSOC., INC.
Matteo Passalacqua
Community Planner



Fire Department
Charter Township of White Lake

7420 Highland Road
White Lake, MI 48383
Office (248) 698-3993
www.whitelaketwp.com/fire

Site / Construction Plan Review

To: Sean O'Neil, Planning Department Director

Date: 07/02/2024

Project: Lasting Impressions

Job #: 2023.104

Date on Plans: 06/21/2024

The Fire Department has the following comments with regards to the 2nd review of preliminary site plans for the project known as Lasting Impressions

- 1. The Fire Department has no further comments at this time.**

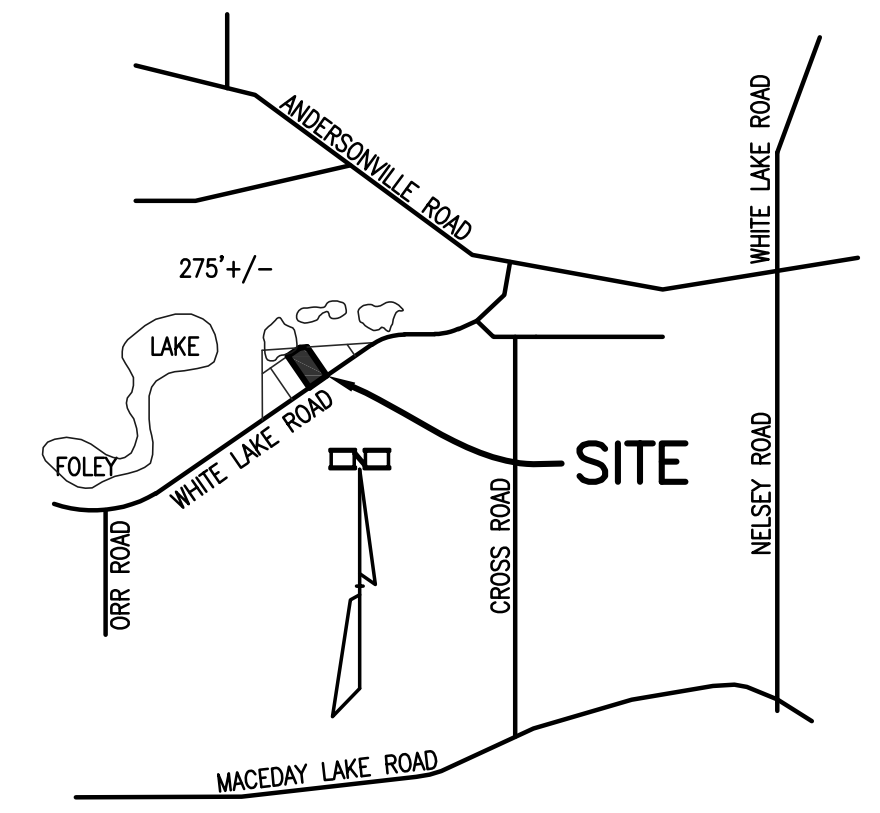
Jason Hanifen
Fire Marshal
Charter Township of White Lake
(248)698-3993
jhanifen@whitelaketwp.com

Plans are reviewed using the International Fire Code (IFC), 2015 Edition and Referenced NFPA Standards.

PRELIMINARY SITE PLAN

LASTING IMPRESSIONS

PART OF SECTION 1, T3N, R8E,
WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN



LOCATION MAP
SCALE: 1" = 2000'



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A3.0	NEW ELEVATIONS
A3.1	NEW ELEVATIONS
A4.0	WALL SECTION

WHITE LAKE TOWNSHIP STANDARD SITE CONSTRUCTION NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF WHITE LAKE CHARTER TOWNSHIP.
- THE DEVELOPER SHALL CONTACT THE TOWNSHIP PLANNING DEPARTMENT, AT (248) 698-3300, TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE DEVELOPER'S PRIME SITE CONTRACTOR SHALL ATTEND. A COPY OF ALL PERMITS MUST BE SUBMITTED TO THE PLANNING DEPARTMENT PRIOR TO SCHEDULING THE MEETING.
- THE CONTRACTOR SHALL CONTACT THE TOWNSHIP ENGINEER, AT (248) 681-7800, 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL KEEP THE INSPECTOR APPRAISED OF THE NEED FOR INSPECTION ON A DAY BY DAY BASIS. LACKING SPECIFIC SCHEDULING WITH THE INSPECTOR, THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE TOWNSHIP ENGINEER PRIOR TO RE-COMMENCING WORK REQUIRING INSPECTION. FAILURE TO INFORM THE INSPECTOR OR THE TOWNSHIP ENGINEER OF A WORK CANCELLATION MAY RESULT IN A ONE HALF DAY INSPECTION CHARGE TO THE DEVELOPER. THE CONTRACTOR SHALL CALL (248) 844-5400 TO SCHEDULE SANITARY SEWER MAIN LINE INSPECTION.
- ALL WATER MAIN OR SANITARY SEWER WORK WILL REQUIRE FULL TIME INSPECTION. FULL TIME INSPECTION WILL GENERALLY BE REQUIRED FOR UNDERGROUND STORM SEWER CONSTRUCTION, CONCRETE CURBING, AND PAVING OPERATIONS. SITE GRADING AND DETENTION BASIN CONSTRUCTION WILL GENERALLY BE INSPECTED ON AN INTERMITTENT BASIS.
- THE CONTRACTOR SHALL CONTACT MISS DIG, AT (800) 482-7171, 72 HOURS IN ADVANCE OF CONSTRUCTION TO HAVE EXISTING UNDERGROUND FACILITIES LOCATED. CONTRACTOR SHALL CONTACT THE WHITE LAKE TOWNSHIP WATER DEPARTMENT, AT (248) 698-3300 EXT 165, SEPARATELY 72 HOURS IN ADVANCE OF CONSTRUCTION TO HAVE WATER UTILITIES LOCATED.
- ALL OFF-SITE IMPROVEMENTS WILL BECOME PUBLIC PROPERTY.

APPROVALS

AGENCY	DESCRIPTION	PERMIT NO.	DATE	EXPIRATION DATE
WHITE LAKE TOWNSHIP - PLANNING & ENGINEERING	PRE-APPLICATION MEETING	REVIEW ONLY	11/29/2023	
WHITE LAKE TOWNSHIP - PLANNING COMMISSION	PRELIMINARY SITE PLAN APPROVAL & SPECIAL LAND USE			
WHITE LAKE TOWNSHIP - TOWNSHIP BOARD	PRELIMINARY SITE PLAN APPROVAL			
WHITE LAKE TOWNSHIP - ZONING BOARD OF APPEALS	VARIANCE REQUESTS			
WHITE LAKE TOWNSHIP - PLANNING COMMISSION	FINAL SITE PLAN APPROVAL			
WHITE LAKE TOWNSHIP - DLZ	ENGINEERING APPROVAL			
WHITE LAKE TOWNSHIP - BUILDING DEPARTMENT	FENCE PERMIT			
WHITE LAKE TOWNSHIP - COMMUNITY DEVELOPMENT DIRECTOR	SIGN PERMIT			
OAKLAND COUNTY - WATER RESOURCE COMMISSIONER	PART 91 SESC PERMIT			
OAKLAND COUNTY - HEALTH DIVISION	ONSITE SEWAGE DISPOSAL SYSTEM (SEPTIC) PERMIT			
OAKLAND COUNTY - HEALTH DIVISION	TYPE III DRINKING WATER WELL PERMIT			
STATE OF MICHIGAN - EGLE	N.P.D.E.S. NOTICE TO COVER			
		NOT REQUIRED FOR DISTURBANCE < 5 ACRES		

PROPRIETOR

HOPSON HOLDINGS, LLC
2255 PORTER ROAD
WHITE LAKE, MI 48386
PH: (248) 830-2828
CONTACT: NICHOLAS HOPSON
EMAIL: LASTINGIMPRESSIONSLANDSCAPE@YAHOO.COM

ARCHITECT

J&A ARCHITECTURAL ENGINEERING
3250 W. BIG BEAVER RD., STE. 510
TROY, MI 48084
PH: (248) 282-6475
CONTACT: JAY NOONAN, R.A.
EMAIL: JNOONAN@JAARCHENG.COM

ENGINEER & SURVEYOR

KIEFT ENGINEERING, INC.
5852 S. MAIN ST., STE. 1
CLARKSTON, MI 48346
PH:(248) 884-8224
CONTACT: CASEY LEACH, P.E.
EMAIL: CLEACH@KIEFTENG.COM



NOT FOR CONSTRUCTION

REVISION INDEX

REV.	DESCRIPTION	DATE	SHEET NUMBERS											
			G0.01	V1.01	C0.01	C1.01	C1.02	C1.21	C1.31	C5.01	C1.02			
0	SURVEY ISSUED	07/19/2023	X											
1	OWNER REVIEW	10/03/2023			X									
2	PRE-APP MEETING	11/13/2023			X									
3	FIRE SAFETY	11/29/2023			X									
4	PRELIMINARY SITE PLAN	04/19/2024	X	X	X	X	X	X	X	X	X	X	X	X
5	PSP REV. 1	06/21/2024	X	X	X	X	X	X	X	X	X	X	X	X

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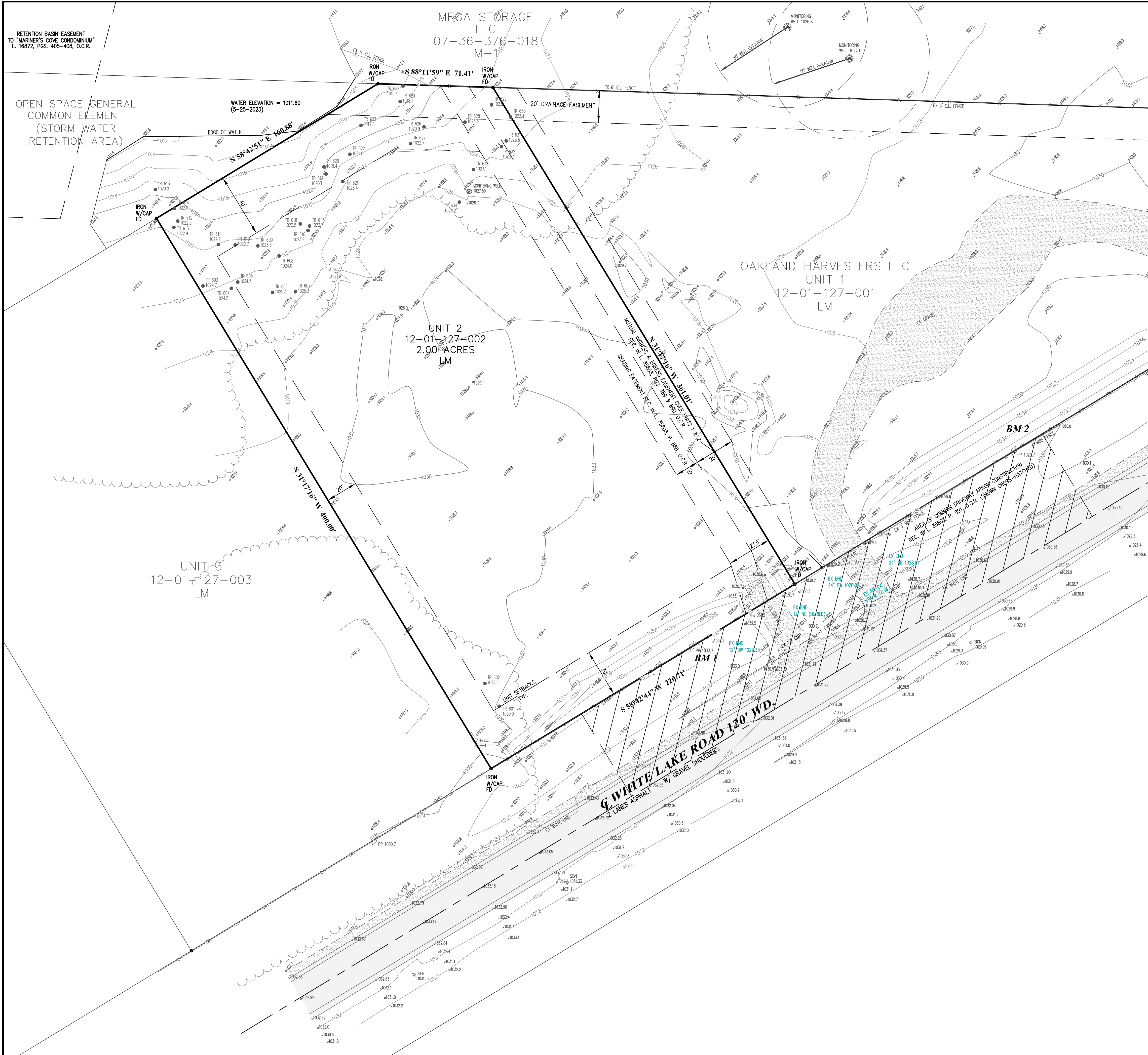
DATE: 04/01/24	CKD. BY: CL	DATE: 04/01/24
DRAWN: CL	CL	
DESIGN: CL		
SECTION: 1	T- 3 -N- R- 8 -E-	



COVER SHEET
LASTING IMPRESSIONS
PART OF THE NORTH 1/2 OF SECTION 1, T3N, R8E,
WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

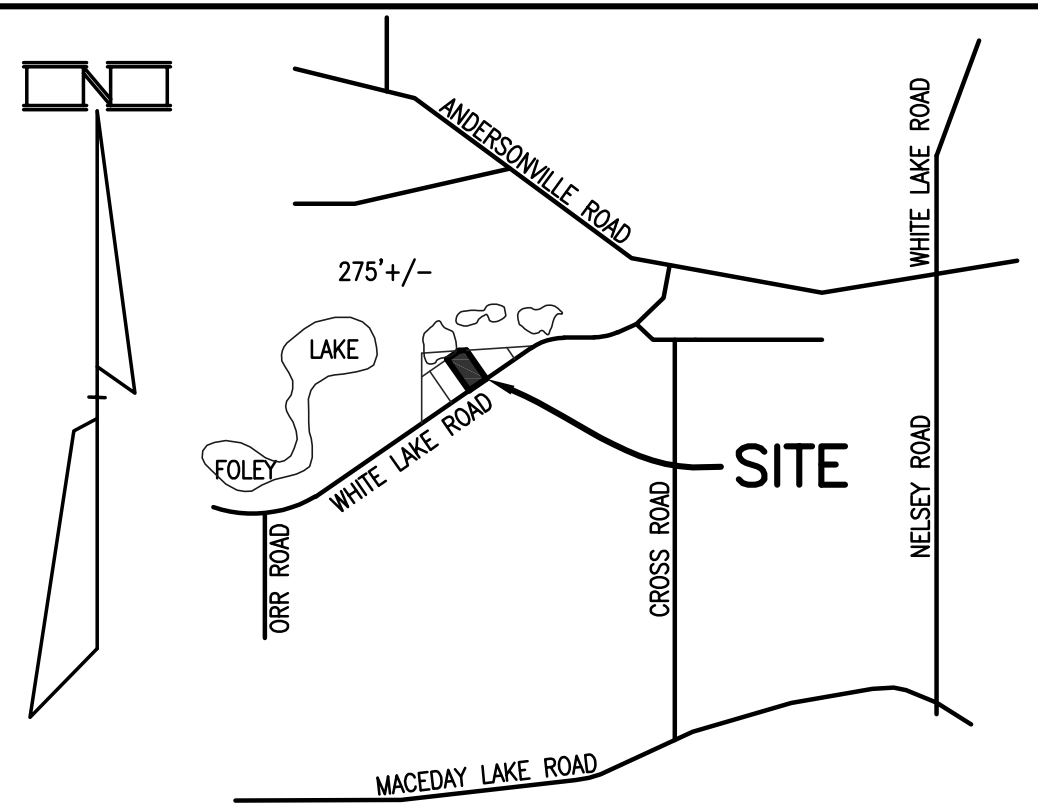
SCALE: AS SHOWN
SHEET NO: G0.01
KE 2023.104

LASTING IMPRESSIONS



LEGEND

EXISTING	STORM SEWER
GAS	GAS MAIN
ELEC. TELE. CABLE	OVERHEAD WIRES
STORM MANHOLE	CATCH BASIN
INLET	REARYARD CATCH BASIN
END SECTION	CONTOURS
GRADE	



TREE LIST:

601	20	"	Elm
602	Tw 18	"	Poplar
603	26	"	Poplar
604	Tw 6	"	Box Elder
605	6	"	Box Elder
606	7	"	Box Elder
607	8	"	Box Elder
608	6	"	Box Elder
609	8	"	Tree of Heaven
610	26	"	Poplar
611	6	"	Tree of Heaven
612	22	"	Poplar
613	30	"	Poplar
614	Tw 30	"	Poplar
615	36	"	Tree of Heaven
616	36	"	Poplar
617	36	"	Poplar
618	Quad 14-30	"	Poplar
619	36	"	Poplar
620	12	"	Poplar
621	Tw 20	"	Box Elder
622	36	"	Poplar
623	12	"	Box Elder
624	12	"	Box Elder
625	36	"	Willow
626	30	"	Poplar
627	12	"	Tree of Heaven
628	24	"	Poplar
629	Tw 8-12	"	Box Elder
630	8	"	Tree of Heaven
631	10	"	Locust
632	10	"	Locust
633	Tw 8	"	Tree of Heaven
634	7	"	Box Elder

SITE INFORMATION:
LOT GROSS AREA: 2.00 ACRES

ZONING INFORMATION:
ZONING DISTRICT: LM LIGHT MANUFACTURING
MINIMUM LOT SIZE: 43,560 SF (1.00 AC), CONFORMS
MINIMUM LOT WIDTH: 175 FT, CONFORMS
MAXIMUM BUILDING HEIGHT: 2 STORIES OR 40 FT

SETBACKS: PER "PROSPECTORS SQUARE" O.C.C.P. NO. 1315

FRONT	REAR	SIDES	PARKING
30 FT	40 FT	20 FT LEAST, 40 FT TOTAL	10 FT

MAXIMUM LOT COVERAGE: 30%

BENCHMARKS:
BM 1: MAG NAIL IN EAST FACE OF POWER POLE
EL. = 1034.67 NAVD 88

BM 2: BOLT SPIKE ON NORTH FACE PF POWER POLE
EL. = 1030.06 NAVD 88

GENERAL NOTES:

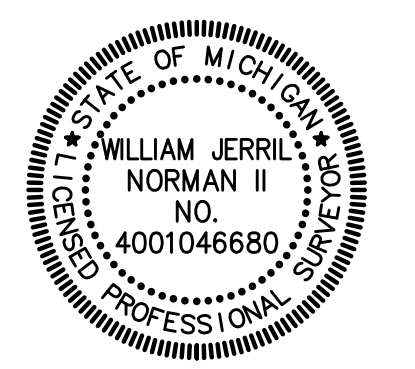
- EXISTING UTILITIES SHOWN HAVE BEEN TAKEN FROM VISUAL OBSERVATION & RECORD MAPPING. WHERE AVAILABLE, NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY & COMPLETENESS OF OVERHEAD & UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
- BUILDER/DEVELOPER IS RESPONSIBLE FOR CONFIRMING BUILDING SETBACKS.

WETLAND NOTE:
PART 303 WETLANDS, AS IDENTIFIED ON NW1 & MRS MAPS AS SHOWN ON THE EGLE WETLANDS MAP VIEWER APPEAR NEAR THE NORTH PROPERTY LINE OF THE PARCEL. THE EDGE OF WATER WAS FIELD LOCATED. A WETLAND DETERMINATION & DELINEATION HAS NOT BEEN PERFORMED.

FLOOD HAZARD NOTE:
THE PROPERTY DESCRIBED ON THIS PLAN DOES NOT APPEAR TO LIE WITHIN A SPECIAL FLOOD HAZARD AREA AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) BASED ON FLOOD INSURANCE RATE MAP (FIRM) NO. 26125C0329P BARING AN EFFECTIVE DATE OF 9/28/2006.

THIS IS TO CERTIFY THAT I, William J. Norman II, A PROFESSIONAL LAND SURVEYOR, HAVE THIS DATE MADE A SURVEY OF A PARCEL OF LAND DESCRIBED AS FOLLOWS:

LEGAL DESCRIPTION:
UNIT 2, "PROSPECTORS SQUARE" O.C.C.P. NO. 1315, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN.
PARCEL#: 12-01-127-002
ADDRESS: NOT ASSIGNED



DATE	ISSUE
07/19/23	SURVEY ISSUED
06/21/24	PSP REV. 1

PROPRIETOR:
HOPSON HOLDINGS, LLC
2255 PORTER ROAD
WHITE LAKE, MICHIGAN 48383
(248) 830-2828

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PHONE (248) 625-5251 www.kiefteng.com FAX (248) 625-7110

DATE: 06/30/23	CKD. BY: WJN	DATE: 06/30/23
DRAWN: GF	DESIGN: CL	SECTION: 1
T-3-N-R-8-E		



BOUNDARY & TOPOGRAPHIC SURVEY
LASTING IMPRESSIONS
PART OF THE NORTH 1/2 OF SECTION 1, T3N, R8E,
WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE: 1" = 30'
SHEET NO: V1.01
KE 2023.104

LASTING IMPRESSIONS

CIVIL GENERAL NOTES

- 1. PRIOR TO SUBMITTING PROPOSAL, VERIFY ALL CONDITIONS GOVERNING OR AFFECTING THE CIVIL WORK; OBTAIN & VERIFY ALL DIMENSIONS TO ENSURE THE PROPER FIT & LOCATION OF THE CIVIL WORK, TAKE ADDITIONAL DIMENSIONS AS REQUIRED; REPORT TO THE ENGINEER ANY & ALL CONDITIONS WHICH MAY INTERFERE WITH OR OTHERWISE AFFECT OR PREVENT THE PROPER EXECUTION & COMPLETION OF THE WORK; FAMILIARIZE YOURSELF WITH THE ACTUAL CONDITIONS OF THE CIVIL WORK, ACCESS TO THE SITE, AVAILABLE STORAGE SPACE, FACILITIES & OBSTRUCTIONS THAT MAY BE ENCOUNTERED DURING THE PROGRESS OF WORK.
2. CONTRACTOR TO FURNISH ALL NECESSARY LABOR, MATERIAL, EQUIPMENT & FACILITIES TO FURNISH, FABRICATE & PERFORM THE REQUIRED CIVIL WORK.
3. ANY EXISTING CONSTRUCTION TO BE MODIFIED AS A PART OF THIS CONTRACT SHALL BE REBUILT AS REQUIRED TO THE SATISFACTION OF THE OWNER/ENGINEER.
4. EXISTING CONSTRUCTION NOT UNDERGOING ALTERATION IS TO REMAIN UNDISTURBED. WHERE SUCH CONSTRUCTION IS DISTURBED AS A RESULT OF THE OPERATIONS OF THIS CONTRACT, THE EXISTING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AS REQUIRED & TO THE SATISFACTION OF THE OWNER/ENGINEER.
5. ALL WORK SHOWN ON THESE DRAWINGS MAY BE CHECKED BY AN INDEPENDENT TESTING AGENCY RETAINED BY OWNER TO ENSURE COMPLIANCE WITH THE REQUIREMENTS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ACCESS AS REQUIRED FOR TESTING PURPOSES.
6. CONTRACTOR SHALL MAKE ALL NECESSARY FIELD VISITS FOR INSPECTION, MEASUREMENTS & VERIFICATION OF EXISTING CONDITIONS.
7. THE GENERAL CIVIL NOTES ARE INTENDED TO AUGMENT THE DRAWINGS & SPECIFICATIONS. SHOULD CONFLICTS EXIST BETWEEN THE DRAWINGS, SPECIFICATION, &/OR THE GENERAL CIVIL NOTES, THE STRICTEST PROVISION AS DETERMINED BY THE ENGINEER SHALL GOVERN.
8. WORK THE CIVIL DRAWINGS IN CONJUNCTION WITH ANY ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, LANDSCAPING, & ELECTRICAL DRAWINGS.
9. ALL WORK SHALL CONFORM TO APPLICABLE STATE & LOCAL CODES.
11. THE CONTRACTOR SHALL COMPLY WITH THE CONSTRUCTION SAFETY STANDARDS & THE OCCUPATIONAL SAFETY STANDARDS (OSHA) AS ISSUED BY THE U.S. DEPARTMENT OF LABOR & THE MICHIGAN DEPARTMENT OF LABOR (MIOSHA).
12. MATERIALS & WORKMANSHIP SHALL COMPLY WITH APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS, & UTILITY COMPANY REGULATIONS.
13. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL THE EXISTING CONDITIONS AT THE SITE INCLUDING UTILITIES, SERVICES, ETC. & SHALL BE FULLY RESPONSIBLE FOR ANY DAMAGES THEY CAUSE TO BOTH EXISTING, NEW CONSTRUCTION, PROPERTY & ANY UNAUTHORIZED DISRUPTION TO ADJACENT OWNERS NORMAL USE OF UTILITIES, SERVICES, & THE SURROUNDING FACILITIES.
14. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION PRIOR TO MAKING CHANGES TO, OR INTERRUPTIONS OF UTILITIES & SHALL COMPLY WITH SPECIAL INSTRUCTIONS FROM THE OWNER TO MINIMIZE THE EFFECT ON THEIR OPERATIONS. PRIOR TO ANY EXCAVATION, EARTH MOVING WORK OR REMOVAL OF ANY PIPE FROM SERVICE, THE CONTRACTOR SHALL REVIEW WITH THE OWNER'S REPRESENTATIVE THE LOCATION OF THE UNDERGROUND UTILITIES, SERVICE & STRUCTURES IN THE AREA WHERE THE WORK IS BEING PERFORMED. PROVIDE FULL TIME SUPERVISION DURING ALL EXCAVATION & EARTH MOVING OPERATIONS & TAKE ALL RESPONSIBLE PRECAUTIONS TO PROTECT EXISTING UTILITIES, SERVICES & OPERATIONS FROM DAMAGE OR DISRUPTION.
15. PROVIDE BARRIER PROTECTION FOR VEHICULAR & PEDESTRIAN TRAFFIC AT EXCAVATIONS. TEMPORARY FENCING, BARRICADING & PEDESTRIAN ROUTING SHALL BE COORDINATED WITH & APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
16. FOR PROTECTION OF UNDERGROUND UTILITIES THE CONTRACTOR SHALL CALL "MISS DIG" AT 800-482-7171 OR 811, A MINIMUM OF THREE DAYS PRIOR TO EXCAVATION ON THE SITE. ALL "MISS DIG" PARTICIPATING MEMBERS WILL THIS ROUTINELY BE NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF NOTIFYING UTILITY OWNER'S WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.
17. DISPOSE OF ALL EXCAVATED SOILS & WASTE MATERIALS (NEW & EXISTING) OFF SITE IN A LEGAL MANNER.
18. PERFORM FINAL CLEANUP OF WORK AREAS TO THE SATISFACTION OF THE OWNER.

CONTROL

- 1. TOPOGRAPHIC INFORMATION: EXISTING INFORMATION IS BASED ON A TOPOGRAPHIC SURVEY BY KIEFT ENGINEERING, INC. DATED JULY 19, 2023, SUPPLEMENTED BY RECORD DRAWINGS & FIELD OBSERVATIONS.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD 88 DATUM. THE BENCH MARKS USED ARE SHOWN ON THE TOPOGRAPHIC SURVEY.
3. LAYOUT: LOCATE NEW CONSTRUCTION BY MEASUREMENTS FROM CONNECTING AREAS OF EXISTING BUILDINGS, & ENGAGE THE SERVICES OF A PROFESSIONAL SURVEYOR TO ASSIST IN LAYOUT, & CONSTRUCTION STAKING. CONFIRM HORIZONTAL & VERTICAL CONTROL POINTS PRIOR TO CONSTRUCTION.

CLEARING, GRUBBING & EARTHWORK

- 1. AT THE START OF EARTHWORK OPERATIONS, ALL SURFACE VEGETATION SHALL BE CLEARED & THE EXISTING TOPSOIL & ANY OTHER ORGANIC SOILS SHALL BE REMOVED IN THEIR ENTIRETY FROM BELOW THE PROPOSED BUILDING & PAVEMENT AREAS. EXISTING RANDOM CONCRETE & OTHER DEBRIS SHALL BE REMOVED FROM WITHIN THE BUILDING AREA. REMOVE STUMPS TO 12 INCHES BELOW FINAL GRADE IN FUTURE LAWN AREAS, & REMOVE STUMPS ENTIRELY FROM FUTURE PAVED & BUILDING AREAS. DISPOSE OF VEGETATIVE MATTER & DEBRIS OFFSITE.
2. ALL COMPACTED SUBGRADE SHALL BE THOROUGHLY PROOF-ROLLED WITH A HEAVY RUBBER-TIRED VEHICLE SUCH AS A LOADED SCRAPER OR LOADED DUMP TRUCK. ANY AREAS THAT EXHIBIT EXCESSIVE PUMPING & YIELDING DURING PROOF-ROLLING SHALL BE STABILIZED BY AERATION, DRIVING & COMPACTION IF WEATHER CONDITIONS ARE FAVORABLE, OR REMOVAL & REPLACEMENT WITH ENGINEERED FILL. ALL COMPACTED SUBGRADE SHALL BE COMPACTED TO 95% OF ITS MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR METHODS (ASTM D-1557).
3. ALL EXCAVATIONS ARE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE WHO SHALL BE CONSULTED WHEN POOR SOIL, WATER, OBSTRUCTIONS, PIPING, EXISTING FOOTINGS, EXCAVATIONS, ETC., ARE ENCOUNTERED.
4. CONTRACTOR SHALL FURNISH ALL REQUIRED DEWATERING EQUIPMENT TO MAINTAIN A DRY EXCAVATION UNTIL BACKFILL IS COMPLETE.
5. MATERIAL FOR BACKFILL OR ENGINEERED FILL REQUIRED TO ACHIEVE DESIGN GRADES SHOULD CONSIST OF NON-ORGANIC SOILS. THE ON-SITE SOILS THAT ARE FREE OF ORGANIC MATTER & DEBRIS MAY BE USED FOR ENGINEERED FILL WITH ENGINEER'S APPROVAL.
6. BACKFILL MATERIAL SHALL BE COMPACTED TO 95% OF ITS MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557, IN LIFTS NOT EXCEEDING 8-INCHES IN LOOSE THICKNESS.
7. FROZEN MATERIAL SHALL NOT BE USED AS FILL, NOR SHALL FILL BE PLACED ON FROZEN SUB-GRADE.

CLEARING, GRUBBING & EARTHWORK CONT.

- 8. DO NOT PLACE BACKFILL AGAINST FOUNDATION WALLS UNTIL FIRST FLOOR LEVEL SLABS ARE IN PLACE & HAVE REACHED 75% OF THEIR SPECIFIED DESIGN STRENGTH. SHORE & BRACE WALLS AS REQUIRED IF BACKFILLING OPERATIONS ARE TO BE CARRIED OUT PRIOR TO PLACEMENT OF FLOOR SLABS.
9. PLACE BACKFILL AGAINST BOTH SIDES OF GRADE BEAMS & FOUNDATIONS AT EQUAL ELEVATIONS OF FILL, EXCEPT AS SHOWN ON THE DRAWINGS.
10. CONSTRUCTION DRAINAGE: STORM WATER ACCUMULATED IN THE PROJECT SITE EXCAVATIONS IS TO DRAIN BY NATURAL PERCOLATION. PROVIDE PUMPING ONLY AS NECESSARY.
11. SLOPE SMOOTHLY BETWEEN INDICATED ELEVATIONS TO ACHIEVE POSITIVE DRAINAGE. SLOPE ALL EARTH BANKS 4:1 OR FLATTER.
12. NEW GRADES SHOWN ARE FINISHED GRADES & INCLUDES TOP OF TOPSOIL OR SURFACES SUCH AS PAVEMENTS & WALKS.
13. PROVIDE 6 INCHES OF TOPSOIL, SEED, & MULCH AT DISTURBED LAWN AREAS, EXCEPT AS NOTED OTHERWISE.
14. TREES: TREES NOT INDICATED TO BE REMOVED OR TRANSPLANTED SHALL BE FENCED OFF WITH 4' HIGH ORANGE CONSTRUCTION FENCE 10' FROM THE DRIP LINE OF THE TREE.
15. GREAT CARE SHALL BE TAKEN BY CONTRACTORS TO AVOID DAMAGE TO VEGETATION OUTSIDE THE LIMITS OF CONSTRUCTION & TO KEEP THE CONSTRUCTION AREAS TO A MINIMUM. DRIVING SHALL NOT BE PERMITTED OUTSIDE THE LIMITS OF CONSTRUCTION.
16. 17. TOPSOIL (REUSE EXISTING), SEED, FERTILIZE & MULCH LAWN AREAS DISTURBED BY NEW CONSTRUCTION. SEE LANDSCAPING PLANS FOR NEW LAWN SPECIES.

UTILITIES

1. MINIMUM COVER OF UNDERGROUND UTILITIES:

Table with 2 columns: Utility Type, Minimum Cover (FT). Includes Water (6.0 FT), Natural Gas (2.5 FT), Sanitary Sewers (4.0 FT), Storm Sewer (3.5 FT).

- PRESSURE UTILITIES MAY BE LAID APPROXIMATELY PARALLEL TO FINISH GRADE WITH NO HIGH POINTS, EXCEPT AS INDICATED, WITH LOCAL DEEPENING TO AVOID OTHER UTILITIES OR OBSTRUCTIONS. MAINTAIN COVER BELOW DITCHES & SURFACE DEPRESSIONS. PROVIDE TEMPORARY PROTECTION AS REQUIRED UNTIL COVER IS COMPLETED. INFORM OWNER'S REPRESENTATIVE IF AVAILABLE COVER, AT INDICATED ELEVATIONS, IS LESS THAN MINIMUM. VERTICAL CLEARANCE FOR ALL PIPES SHALL BE 18" MINIMUM FROM THE OUTSIDE OF PIPE.
2. EXISTING UTILITIES: INFORMATION HAS BEEN OBTAINED FROM EXISTING AVAILABLE DRAWINGS & SURFACE FEATURES SHOWN ON THE TOPOGRAPHIC SURVEY. VERIFY THE INFORMATION BEFORE CONSTRUCTION. NOTIFY THE OWNER'S REPRESENTATIVE OF DISCREPANCIES OR INTERFERENCES.
3. EXISTING UNDERGROUND ELECTRICAL LINES: THE CONTRACTOR SHALL BE RESPONSIBLE TO TRACE, FLAG, & MARK ALL UNDERGROUND ELECTRICAL LINES IN THE VICINITY OF THE AREA OF WORK PRIOR TO BEGINNING ANY DEMOLITION, EARTH MOVING, OR EXCAVATION. ALL BUILDING & UNDERGROUND STRUCTURES, ELECTRICAL MANHOLES, HAND HOLES, LIGHTS, PARKING METERS, GATES, SIGNS, MONUMENTS, & ALL OTHER SITE ITEMS THAT CAN REASONABLY BE OBSERVED FROM THE SURFACE SHALL BE INVESTIGATED TO DETERMINE THE PRESENCE OF ELECTRICAL LINES. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ANY ELECTRICAL LINES DAMAGED DUE TO CONTRACT OPERATIONS TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
4. THE LOCATIONS & ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS & ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.
5. PRIOR TO CONSTRUCTION, EXISTING UTILITIES AT PROPOSED CONNECTIONS & CROSSINGS SHALL BE FIELD EXCAVATED TO VERIFY LOCATIONS, ELEVATION & SIZE. THE OWNER'S REPRESENTATIVE MAY CONFIRM, ADJUST OR REVERSE DESIGN ELEVATIONS OF THE PROPOSED UTILITIES.
6. UNDERDRAIN: PROVIDE TYPICAL UNDERDRAIN UNDER PAVEMENT AT NEW CATCH BASINS, INLETS & OUTLET CONTROL STRUCTURES RECEIVING SURFACE DRAINAGE. UNDERDRAIN SHALL HAVE A MINIMUM OF 2'-6" COVER & A MINIMUM SLOPE OF 0.5%. SEE DETAIL ON (____).

GENERAL PAVING & CURBING NOTES

- 1. ALL HOT MIX ASPHALT & CONCRETE PAVEMENT SHALL CONFORM TO THE 2020 MDOT SPECIFICATIONS FOR CONSTRUCTION.
2. SURFACE RESTORATION: RESTORE PAVEMENT & OTHER SURFACES DISTURBED BY CONTRACT OPERATIONS TO THEIR ORIGINAL CONDITION OR BETTER.
3. PAVEMENT STRIPING: PROVIDE 4 INCH WIDE WHITE PAINT STRIPING STANDARD PARKING STRIPING,, & 4 INCH WIDE HANDICAP BLUE FOR ALL ACCESSIBLE PARKING STRIPING. ALL PARKING SPACE STRIPING SHALL BE DOUBLE STRIPED, MEETING THE ZONING ORDINANCE OF WHITE LAKE TOWNSHIP. ALL PAVEMENT LANE MARKINGS SHALL MEET THE REQUIREMENTS. ALL PAINT SHALL BE APPLIED PER MANUFACTURERS RECOMMENDATIONS.
4. PROVIDE TEMPORARY INTERMITTENT MARKING FOR NEW PARKING AREA WHILE PAVEMENT CURES & SEALING COATING IS APPLIED.
5. EXISTING PAVEMENT TO BE REMOVED SHALL BE SAW CUT, FULL DEPTH, & RECTANGULAR.
6. WHEN PLACING NEW PAVEMENTS, MAINTAIN SLOPE OF EXISTING SURROUNDING SURFACES.
7. ALL NEW CURB SHALL BE PLACED ON 4" MIN. THICK BASE OF 21AA LIMESTONE COMPACTED TO 95% MAX. DENSITY PER ASTM D1557. BASE SHALL EXTEND 12" BEYOND BACK OF CURB. SUBGRADE SHALL BE PROOF-ROLLED/COMPACTED TO 95% MAX. DENSITY PER ASTM D-1557.

ASPHALT

- 1. AFTER FINAL ROLLING, PROTECT PAVEMENT FROM VEHICULAR TRAFFIC UNTIL THE SURFACE HAS COOLED SUFFICIENTLY TO ELIMINATE SURFACE ABRASION.
2. PAVEMENT SEALER - PROVIDE FOR ALL NEW ASPHALT PAVEMENT
A. PAVEMENT SEALER SHALL BE TARCONITE BY NEYRA INDUSTRIES, INC., OR APPROVED SUBSTITUTE. SEALER SHALL MEET FS R-P-355e PITCH, COAL TAR EMULSION (COATING FOR BITUMINOUS PAVEMENTS).

ALTERNATE NO. 1: PAVEMENT SEALER SHALL BE JENNITE BY NEYRA INDUSTRIES INC. OR APPROVED SUBSTITUTE SEALER SHALL BE MIXED WITH 6 POUNDS OF SAND PER GALLON OF SEALER. SURFACE CLEANING, PRIMING & NUMBER OF APPLICATIONS SHALL BE AS SPECIFIED FOR BASE BID. SEALER SHALL EXCEED FS R-P-355e.

ASPHALT CONT.

- A. PRIMER SHALL BE POLYPRIME PENETRATING PRIMER BY NEYRA INDUSTRIES, INC. OR APPROVED SUBSTITUTE.
B. CLEAN EXISTING SURFACES FREE FROM ALL LOOSE OR FOREIGN MATTER. COAT OIL SPOTS WITH ACRYLIC OIL SPOT PRIMER.
C. APPLY PRIMER AT MINIMUM RATE OF .015 GAL. OF CONCENTRATED POLYPRIMER PER SQUARE YARD. ALLOW PRIMER TO CURE FOR A MINIMUM OF ONE HOUR PRIOR TO APPLICATION OF TARCONITE.
D. SEALER SHALL BE FIELD MIXED WITH 5 POUNDS OF SAND PER 1 GALLON OF TARCONITE TO FORM HOMOGENEOUS SLURRY. SAND SHALL BE WASHED DRY SILICA SAND.
E. APPLICATION SYSTEM FOR MODERATE TRAFFIC: ONE COAT OF POLYPRIME PENETRATING PRIMER & TWO SAND-SLURRY COATS OF TARCONITE. APPLICATION SPECIFICATION JV-S2.
F. NEW PAVEMENTS SHALL BE ALLOWED TO CURE AT LEAST 30 DAYS PRIOR TO APPLICATION.
G. APPLICATION OF PAVEMENT SEALER SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
H. BARRICADE COATED AREAS UNTIL COATING IS DRIED SUFFICIENTLY FOR TRAFFIC.

CAST-IN-PLACE CONCRETE & CONCRETE PAVING

- 1. ALL CAST IN PLACE CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301-LATEST REVISION, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING", EXCEPT AS NOTED ON THE DRAWINGS.
2. ALL CONCRETE PAVEMENT WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 330- LATEST REVISION, "GUIDE FOR THE DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS", EXCEPT AS NOTED ON THE DRAWINGS.
3. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 psi.
4. ALL EXTERIOR CONCRETE INCLUDING WALLS SHALL BE AIR ENTRAINED 5% +/- 1%.
5. ALL EXTERIOR CONCRETE EXPOSED TO WEATHER SHALL HAVE A MAXIMUM WATER TO CEMENTITIOUS RATIO OF 0.45.
6. UNLESS NOTED OTHERWISE, MINIMUM CONCRETE COVER SHALL BE: CONCRETE CAST AGAINST EARTH 3 IN, CONCRETE EXPOSED TO EARTH OR WEATHER 2 IN, CONCRETE NOT EXPOSED TO EARTH OR WEATHER (SLABS, JOISTS, WALLS) 3/4 IN, CONCRETE NOT EXPOSED TO EARTH OR WEATHER (BEAMS, COLUMNS, PEDESTALS) 1 1/2 IN
7. THE CONTRACTOR SHALL FOLLOW THE JOINTING LAYOUT ON THE DRAWINGS, AND SHALL CONFORM TO ACI 330 GUIDE FOR DESIGN & CONSTRUCTION OF CONCRETE PARKING LOTS, LATEST EDITION AS WELL AS WHITE LAKE TOWNSHIP STANDARDS. ALL JOINTS SHALL BE SEALED W/ NON-SAG SILICONE JOINT SEALANT. SEE PAVING DETAILS FOR JOINT AND SEALANT DETAILS.
8. THE CONTRACTOR SHALL SUBMIT THE CONCRETE MIX DESIGN(S) TO THE ENGINEER FOR REVIEW. PROPORTION MIX DESIGNS AS DEFINED IN ACI 301 SECTION 4. THE SUBMITTAL SHALL INCLUDE AS A MINIMUM CEMENT TYPE & SOURCE, CEMENT CUBE STRENGTH, AGGREGATE GRADATIONS, WATER TESTS, AD-MIXTURE CATALOG INFORMATION & CYLINDER STRENGTH TEST RESULTS FOR THE CONCRETE.
9. ALL REINFORCEMENT TO BE DETAILED, FABRICATED & ERECTED ACCORDING TO THE ACI STANDARDS: "DETAILS & DETAILING OF CONCRETE REINFORCEMENT", ACI 315 - LATEST REVISION & "MANUAL OF ENGINEERING & PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES", ACI 315R - LATEST REVISION.
10. LAPS, ANCHORAGES & SPLICES SHALL COMPLY WITH THE REQUIREMENTS OF ACI 318-LATEST REVISION, SECTIONS 12.2 & 12.15. LOCATIONS & SPLICES SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION JOINT LOCATIONS, DETAILS & AS SHOWN ON THE REINFORCING STEEL SHOP DRAWINGS.
11. ALL CONSTRUCTION JOINTS SHALL BE FURNISHED WITH KEYWAY CENTERED ON MEMBERS. WHERE THE SIZE OF KEY IS NOT SHOWN ON THE DRAWINGS, THE KEY DEPTH SHALL BE 10% OF THE CROSS SECTION DIMENSION OF THE MEMBER - MINIMUM 3/4".
12. PROVIDE 3/4" CHAMFER STRIP AT ALL EXPOSED CORNERS OF CONCRETE WALLS, INCLUDING EXPOSED CORNERS OF CONCRETE PIERS.
13. LOCATE ALL SLEEVES, OPENINGS, EMBEDDED ITEMS, ETC., AS INDICATED ON THE DRAWINGS. THE CONCRETE CONTRACTOR SHALL CHECK WITH ALL OTHER TRADES TO MAKE SURE THE SLEEVES, OPENINGS & EMBEDDED ITEMS THAT ARE TO BE PROVIDED & SET BY THEM ARE IN PLACE PRIOR TO PLACING OF CONCRETE IN THE AREA INVOLVED.
14. ALL INTERIOR SLABS ON GRADE SHALL BE PLACED ON A VAPOR BARRIER WITH A MINIMUM OF 4-INCHES MDOT CLASS II GRANULAR MATERIAL (SAND). MINIMUM REINFORCEMENT SHALL BE IN ACCORDANCE WITH CRSI ENGINEERING DATA REPORT NUMBER 37, OR AS DETAILED. ALL EXTERIOR SLABS ON GRADE SHALL BE PLACED ON A MINIMUM OF 4-INCHES CLEAN SAND. MINIMUM REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI 318 SECTION 7.12 - SHRINKAGE & TEMPERATURE REINFORCEMENT, OR AS DETAILED.
15. CONTRACTORS SHALL OBTAIN APPROVAL FROM THE ENGINEER, PRIOR TO PLACING OPENINGS OR SLEEVES, NOT SHOWN ON THE DRAWINGS, THROUGH ANY STRUCTURAL MEMBERS, ROOF, WALLS OR FOUNDATIONS. REVIEW ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS FOR BASES, OPENINGS, SLEEVES, ANCHORS, INSERTS, CONDUITS, RECESSES & OTHER DEVICES IN CONCRETE WORK BEFORE CASTING CONCRETE.
16. PROVIDE POCKETS OR RECESSES IN CONCRETE WORK FOR STEEL COLUMNS & BEAMS AS REQUIRED &/OR AS CALLED FOR IN THE SPECIFICATIONS EVEN IF NOT SHOWN ON THE DRAWINGS. PROVIDE CONCRETE FILL AFTER STEEL ERECTION TO SEAL OPENINGS.
17. REFER TO ARCHITECTURAL DRAWINGS FOR SLAB RECESSES &/OR FLOOR FINISH MATERIALS.
18. WELDING OF REINFORCING STEEL IS PROHIBITED UNLESS SPECIFICALLY DETAILED. WELDING SHALL CONFORM TO AWS D1.4 SPECIFICATION.
19. CONCRETE SHALL BE THOROUGHLY COMPACTED BY VIBRATION SUPPLEMENTED BY SPADING, PUDDLING OR AGITATION, TO PREVENT HONEYCOMBING & TO INSURE THE ELIMINATION OF VOIDS. VIBRATION MUST BE DIRECT ACTION IN THE CONCRETE & NOT AGAINST FORMS OR REINFORCEMENT. HONEYCOMBING, VOIDS & LARGE AIR POCKETS WILL NOT BE ACCEPTABLE.

SOIL EROSION & SEDIMENTATION CONTROL

- 1. COMPLY WITH THE REQUIREMENTS OF THE OAKLAND COUNTY WATER RESOURCE COMMISSIONER EROSION & SEDIMENTATION CONTROL PERMIT ALONG WITH ALL APPLICABLE FEDERAL, STATE, COUNTY, & CITY LAWS, CODES, & REGULATIONS PERTAINING TO THE IMPLEMENTATION, MAINTENANCE, & DOCUMENTATION OF SEDIMENTATION & EROSION CONTROL PRACTICES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, & DOCUMENTATION OF SEDIMENTATION & EROSION CONTROL & STORM WATER QUALITY ISSUES RELATED TO THE PROJECT, AS REQUIRED & AS NECESSARY TO COMPLY WITH APPLICABLE LAWS, CODES, & REGULATIONS.
3. INSPECTIONS SHALL BE MADE WEEKLY & AFTER RAIN EVENTS TO DETERMINE THE EFFECTIVENESS OF EROSION & SEDIMENT CONTROL MEASURES. ANY NECESSARY IMPROVEMENTS OR REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
4. SEDIMENT & EROSION FROM ALL WORK AREAS SHALL BE CONTAINED ON THE SITE, AWAY FROM WETLANDS, OUTFALLS, WATERWAYS, & ENVIRONMENTALLY SENSITIVE AREAS. WATERWAYS INCLUDE BOTH NATURAL & MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, & PONDS.
5. MAINTAIN EROSION CONTROL MEASURES UNTIL CONSTRUCTION IS COMPLETE & LAWN AREAS ARE FULLY DEVELOPED.
6. PROVIDE JUTE MATTING OR NETTED MULCH ON TEMPORARY SLOPES 2:1 OR STEEPER. SEED & MULCH OTHER SLOPES TO REMAIN UNFINISHED FOR MORE THAN 14 DAYS.
7. REMOVE SEDIMENTATION & EROSION CONTROL MEASURES UPON COMPLETION OF PROJECT.
SEQUENCE OF EROSION & SEDIMENTATION CONTROL OPERATIONS:
1. A PERIMETER DEFENSE WILL BE INSTALLED PRIOR TO CONSTRUCTION TO CONTAIN RUNOFF FROM ALL PROPOSED DISTURBED AREAS. SEDIMENT CONTROL WILL BE INITIATED WHICH WILL CONSIST OF MAINTAINING ALL EXISTING VEGETATION & DIRECTING ALL RUNOFF ON SITE.
2. DURING CONSTRUCTION THE ENDS OF ALL OPEN PIPES WILL BE PROTECTED BY FILTER FABRIC, STONE FILTERS OR OTHER APPROVED MEANS.
3. ANY REMAINING DENUDE AREA SHALL BE SEEDED & MULCHED DAILY, UPON COMPLETION OF FINAL GRADING.
4. AT THE COMPLETION OF THE CONSTRUCTION, TEMPORARY CONTROL MEASURES WILL BE REMOVED & CONVERTED TO PERMANENT CONTROLS. FINAL GRADING WILL BE COMPLETED & THE GROUND WILL BE PERMANENTLY STABILIZED. FILTER FABRIC FENCES SHALL BE REMOVED & ANY BARE SPOTS WILL BE SEEDED. CATCH BASINS & DRAIN INLETS WILL BE CAREFULLY UNCOVERED & ANY SEDIMENT OR DEBRIS WILL BE REMOVED.
5. CONTRACTOR IS TO SEED CRITICAL AREAS IDENTIFIED BY OWNER OR OWNER'S REPRESENTATIVE DAILY, WHEN THOSE AREAS ARE SUBJECT TO EARTH CHANGES. CONTRACTOR IS ALSO RESPONSIBLE FOR REGULAR MAINTENANCE OF PLANT COVER IN THESE AREAS. COVER SHALL BE MAINTAINED SO AS TO CONTROL SOIL EROSION.
6. AT THE CONCLUSION OF CONSTRUCTION, THE OWNER WILL ASSUME THE RESPONSIBILITY FOR PERMANENT MAINTENANCE OF THE EROSION & SEDIMENTATION CONTROL MEASURES.
7. PROVIDE DUST CONTROL WITH AN ON-SITE WATER WAGON. WATER SHALL BE IMPLEMENTED AS NEEDED & AT THE DIRECTION OF THE CITY AGENT.

LEGEND OF ABBREVIATIONS

Legend of Abbreviations table with 3 columns: Symbol, Abbreviation, Meaning. Includes symbols for AT, ASPHALT, BACK TO BACK, etc., and meanings like MAXIMUM, MANHOLE, MINIMUM, etc.

PIPE SIZE DESIGNATION

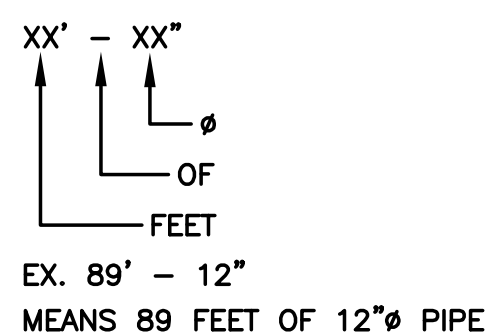


Table with 2 columns: DATE, ISSUE. Includes dates 04/19/24 and 06/27/24, and issue PRELIMINARY SITE PLAN, P&S REV. 1.

PROPRIETOR: HOPSON HOLDINGS, LLC. 2255 PORTER ROAD WHITE LAKE, MICHIGAN 48348 (248) 830-2828

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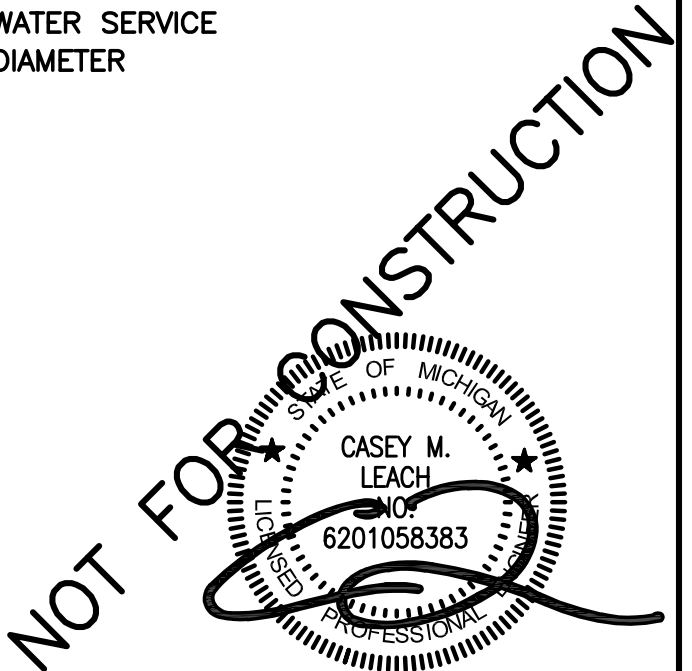
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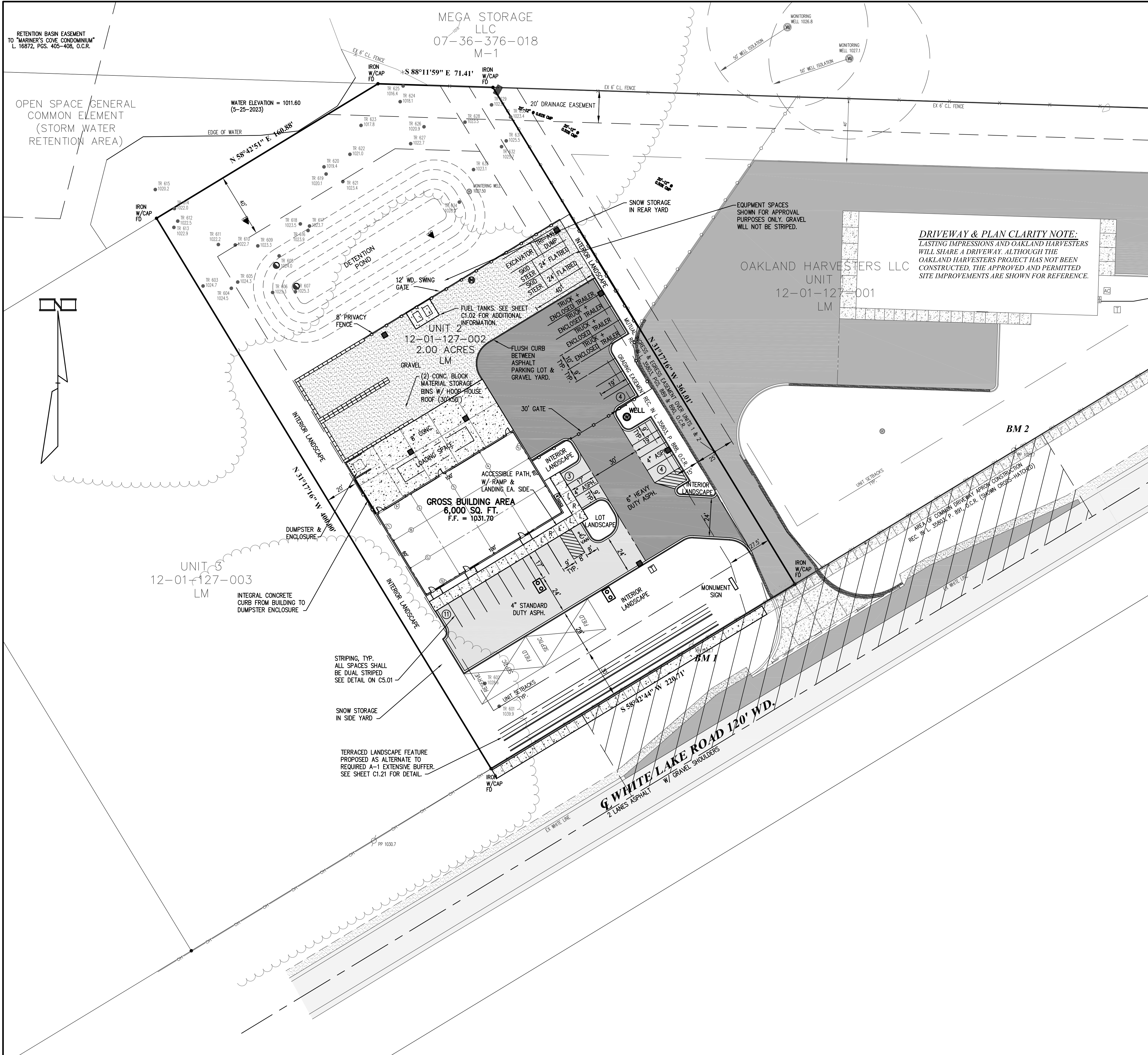
72 HOURS (3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL FREE) GENERAL NOTES & LEGENDS LASTING IMPRESSIONS PART OF THE NORTH 1/2 OF SECTION 1, T3N, R8E, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

Table with 2 columns: SCALE, SHEET NO. Includes values NONE and C0.01.

KE 2023.104



LASTING IMPRESSIONS



SITE INFORMATION:
 LOT GROSS AREA: 2.00 ACRES

BUILDING INFORMATION:
 BUILDING SHALL BE PRE-ENGINEERED METAL BUILDING
 GROSS AREA = 6,000 SF
 BUILDING HEIGHT < 40 FT

ZONING INFORMATION:
 ZONING DISTRICT: LM LIGHT MANUFACTURING
 MINIMUM LOT SIZE: 43,560 SF (1.00 AC), CONFORMS
 MINIMUM LOT WIDTH: 175 FT, CONFORMS
 MAXIMUM BUILDING HEIGHT: 2 STORIES OR 40 FT, CONFORMS

SETBACKS: PER "PROSPECTORS SQUARE" O.C.C.P. NO. 1315

FRONT	REAR	SIDES	PARKING
30 FT	40 FT	20 FT LEAST, 40 FT TOTAL	10 FT

 MAXIMUM LOT COVERAGE: 30%

PARKING SPACE SIZE: 90° 9 FT X 18 FT W/ 24 FT LANE
 0° 20 FT X 8 FT W/ 12 FT LANE

REQUIRED PARKING SPACES: 1 SPACE/800 SF USABLE FLOOR AREA + 1 SPACE/2EMPLOYEES

USABLE FLOOR AREA = 6,000 SF (80%) = 4,800 SF
 EMPLOYEES SHOWING UP TO THE SITE DAILY = 18 EMPLOYEES
 4,800 SF / (SPACE/800 SF) + 18 EMPLOYEES / (1 SPACE/2EMPLOYEES) = 15 SPACES REQUIRED
 22 TOTAL PARKING SPACES PROVIDED
 PER DOJ, 1-24 SPACES REQUIRES 1 ACCESSIBLE SPACE
 1 VAN ACCESSIBLE SPACE PROVIDED

REQUIRED LOADING ZONE: 1 SPACE REQUIRED FOR 2,000 - 20,000 SF OF GROSS FLOOR AREA
 5,000 SF REQUIRES (1) 10 FT X 30 FT LOADING SPACE, 1 SPACE PROVIDED AT CONCRETE APRON AT REAR OF BUILDING.

SPECIAL LAND USE REQUESTED FOR ZONING ORDINANCE SECTION 4.37 OUTDOOR STORAGE OF FLEET VEHICLES & SECTION 4.39 OUTDOOR STORAGE OF PALLETS, CONTAINERS, MATERIALS OF PRODUCTS INCIDENTAL TO THE PRINCIPAL PERMITTED USE.

VARIANCE REQUESTED FOR GRAVEL SURFACING AT MATERIAL & EQUIPMENT STORAGE AREA.

REQUIRED MINIMUM SCREENING PER ZO SECTION 5.19D:
 A-1 EXTENSIVE LANDFORM BUFFER REQUIRED BETWEEN LM & ROAD ROW
 PURSUANT TO ZO SECTION 5.19D.iii & v, SITE PLAN REQUESTS THE PLANNING COMMISSION TO PERMIT AN ALTERNATE SCREENING METHOD THAT WILL CONSIST OF TERRACED LANDSCAPE WALLS WITH PLANTINGS. THIS ALTERNATIVE LANDSCAPING WILL BE 6 FEET HIGH, AND INCLUDE THE REQUIRED MINIMUM NUMBER OF PLANTINGS.

REQUIRED INTERIOR LANDSCAPING PER ZO SECTION 5.19E:
 REQUIREMENT: 13% OF TOTAL LOT AREA SHALL BE INTERNALLY LANDSCAPED, & 1 TREE + 5 SHRUBS SHALL BE PROVIDED FOR EVERY 300 SF OF REQUIRED INTERIOR LANDSCAPING.
 (2.00 ACRES) / (43,560 SF/ACRE) (13%) = 13,068 SF INTERIOR LANDSCAPING REQUIRED
 43.56 TREES & 217.8 SHRUBS REQUIRED
 LANDSCAPING ALONG BUILDING & W SIDE OF GATE = 810 SF
 LANDSCAPING AT E SIDE OF GATE & BETWEEN SHARED DRIVE & PARKING = 2,092 SF
 LANDSCAPING ALONG WEST PROPERTY LINE & BETWEEN BASIN AND GRAVEL LOT = 10,196 SF
 LANDSCAPING BETWEEN ROW BUFFER AND FRONT PARKING LOT = 4,360 SF
 810 SF + 2,092 SF + 10,196 SF + 4,360 SF = 17,458 SF (20%) PROVIDED > 13,068 SF (15%) REQUIRED

REQUIRED PARKING LOT LANDSCAPING PER ZO SECTION 5.19G:
 REQUIREMENT: INDUSTRIAL 10 SF/ PARKING SPACE
 REQUIREMENT: 1 TREE & 3 SHRUBS PER 100 SF OF REQUIRED PARKING LOT LANDSCAPING
 (22 SPACES) / (10 SF/SPACE) = 220 SF PARKING LOT LANDSCAPING REQUIRED
 2.2 TREES & 6.6 SHRUBS REQUIRED
 363 SF PROVIDED AT SIDEWALK CORNER ISLAND (BETWEEN SPACES)

LANDSCAPING TOTALS

	REQUIRED	PROVIDED
INTERIOR	13,068 SF	17,458 SF
PARKING LOT	220 SF	363 SF
TOTAL	13,288 SF	17,821 SF (34% MORE THAN REQUIRED, NOT COUNTING NORTH WOODY AREA)

IRRIGATION NOTES:
 1. PROVIDE AUTOMATIC IRRIGATION TO ALL LAWN AND LANDSCAPED AREAS.
 1.1. ALL IRRIGATION COMPONENTS SHALL BE LOCATED COMPLETELY WITHIN THE PROPERTY BOUNDARY.
 1.2. IRRIGATION COVERAGE SHALL EXTEND TO COVER LAWN WITHIN THE RIGHT-OF WAY.
 2. IRRIGATION SYSTEM SHALL INCLUDE A RAIN SENSOR OR SIMILAR MEASURE TO ENSURE THAT IRRIGATION DOES NOT OCCUR DURING OR SHORTLY AFTER PRECIPITATION EVENTS.

FENCING NOTES:
 1. REAR AND SIDE FENCING SHALL BE 8' TALL, DOG-EAR, PRIVACY FENCE PER DETAIL ON SHEET C5.02.
 2. FRONT FENCING AND GATE ACROSS DRIVEWAY SHALL BE 8 FT TALL, VINYL (COLOR TBD), PRIVACY FENCE PER DETAIL ON SHEET C5.02.

BENCHMARKS:
 BM 1: MAG NAIL IN EAST FACE OF POWER POLE
 EL. = 1034.67 NAVD 88
 BM 2: BOLT SPIKE ON NORTH FACE PF POWER POLE
 EL. = 1030.06 NAVD 88

GENERAL NOTES:
 1. EXISTING UTILITIES SHOWN HAVE BEEN TAKEN FROM VISUAL OBSERVATION & RECORD MAPPING, WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY & COMPLETENESS OF OVERHEAD & UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
 2. SEE SHEET C0.01 FOR GENERAL NOTES & LEGENDS.

SIGN NOTE:
 A FREESTANDING MONUMENT SIGN IS PROPOSED. SIGN WILL BE LIMESTONE BLOCK W/ METAL CUTOUT LOGO/LETTERING, AND BACKLIT. SIGN SHALL CONFORM TO THE ZONING ORDINANCE OF WHITE LAKE TOWNSHIP, AND SHALL BE PERMITTED THROUGH THE COMMUNITY DEVELOPMENT DEPARTMENT. SIGN DETAILS WILL BE PROVIDED AT A LATER TIME.

SITE LIGHTING NOTE:
 SITE LIGHTING SHALL MEET THE ZONING CODE OF WHITE LAKE TOWNSHIP.

DATE	OWNER REVIEW	ISSUE
10/04/23	OWNER REVIEW	
11/13/23	PRE-APPLICATION MEETING	
11/29/23	FIRE SAFETY CONCEPTUAL REVIEW	
04/19/24	PRELIMINARY SITE PLAN	
06/21/24	PSP REV. 1	

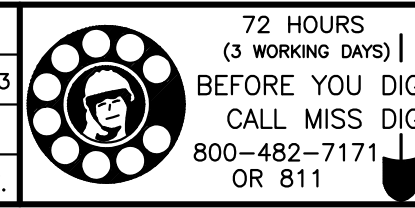
PROPRIETOR:
 HOPSON HOLDINGS, LLC
 2255 PORTER ROAD
 WHITE LAKE, MICHIGAN 48383
 (248) 830-2828

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DATE:	10/04/23	CKD. BY:	DATE:
DRAWN:	CL	CL	10/02/23
DESIGN:	CL		
SECTION:	1	T-3-N-R-8-E	



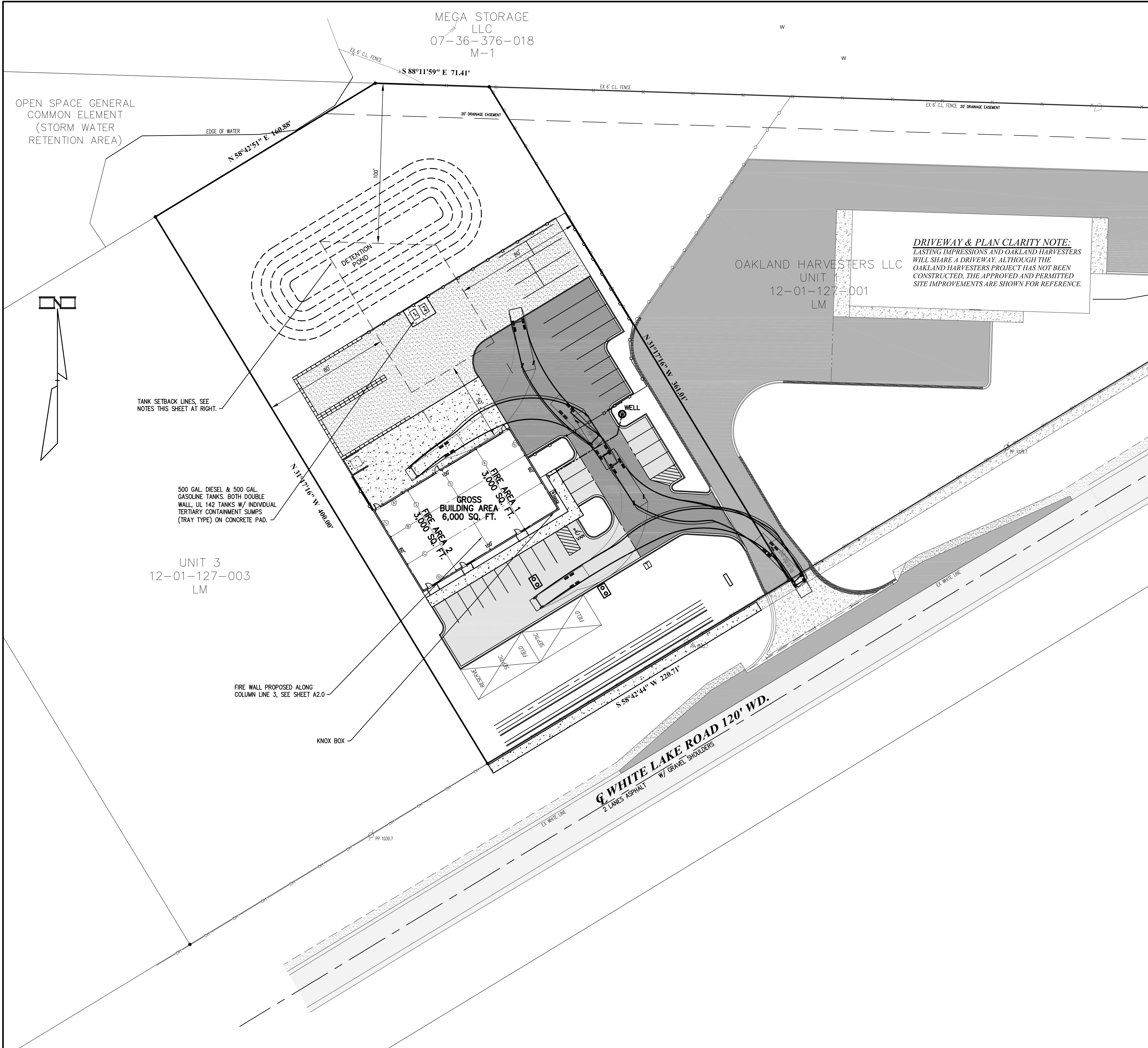
72 HOURS (3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG 800-482-7171 OR 811

PRELIMINARY SITE PLAN
LASTING IMPRESSIONS
 PART OF THE NORTH 1/2 OF SECTION 1, T3N, R8E, WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE: 1" = 30'
SHEET NO: C1.01
KE 2023.104

NOT FOR CONSTRUCTION

LASTING IMPRESSIONS



DRIVEWAY & PLAN CLARITY NOTE:
 LASTING IMPRESSIONS AND OAKLAND HARVESTERS WILL SHARE A DRIVEWAY. ALTHOUGH THE OAKLAND HARVESTERS PROJECT HAS NOT BEEN CONSTRUCTED, THE APPROVED AND PERMITTED SITE IMPROVEMENTS ARE SHOWN FOR REFERENCE.

TANK SETBACK LINES, SEE NOTES THIS SHEET AT RIGHT.

500 GAL. DIESEL & 500 GAL. GASOLINE TANKS, BOTH DOUBLE WALL, UL 142 TANKS W/ INDIVIDUAL TERTIARY CONTAINMENT SUMPS (TRAY TYPE) ON CONCRETE PAD.

UNIT 3
 12-01-127-003
 LM

FIRE WALL PROPOSED ALONG COLUMN LINE 3, SEE SHEET A2.0

KNOX BOX

SITE INFORMATION:

LOT GROSS AREA: 2.00 ACRES

BUILDING INFORMATION:

BUILDING SHALL BE PRE-ENGINEERED METAL BUILDING, NON-SPRINKLED
 GROSS AREA = 6,000 SF
 A FIRE WALL WILL BE CONSTRUCTED ALONG COLUMN LINE 3 SEPARATING THE GROSS AREA IN HALF
 LARGEST FIRE AREA = 3,000 SF
 BUILDING HEIGHT = 40 FT

FUEL TANK NOTES:

FUEL TANK 1 - GASOLINE - 500 GALLON HORIZONTAL, UL-142
 FUEL TANK 2 - DIESEL - 500 GALLON HORIZONTAL, UL-142

ISOLATION DISTANCES FOR UL-142 FUEL TANKS PER NFPA 30 & 30A:

STRUCTURE/BUILDING: 50 FT
 PROPERTY LINE THAT CAN BE BUILT UPON: 100 FT
 NOTE: PROPERTY LINE SETBACK SHOWN AS 80 FT DUE TO 20 FT SETBACK ON ADJACENT PARCEL.

UL-142 TANKS ARE DUAL WALL PROVIDING SECONDARY CONTAINMENT. ADDITIONAL SUMPS ARE PROPOSED THAT WILL PROVIDE TERTIARY CONTAINMENT.

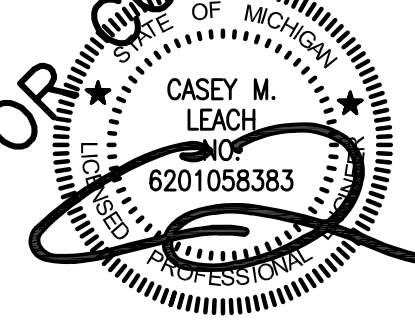
FIRE SAFETY NOTES:

- FIRE TRUCK TURNING BASED ON AASHTO SU-40 SINGLE UNIT TRUCK.
- A KNOX BOX SHALL BE PLACED ON THE FRONT OF THE BUILDING. FINAL LOCATION TO BE DETERMINED AND APPROVED BY FIRE INSPECTOR AT A LATER TIME.

REAR GATE ACCESS NOTES:

- ACCESS FOR EMPLOYEES SHALL BE REMOTE (E.G. GARAGE DOOR CLICKER) OR PHONE APP WHICH SHALL NOT REQUIRE THE USE OF THE KEYPAD OR KEY FOB STATION.
- ACCESS SHALL BE PROVIDED TO THE FIRE DEPARTMENT VIA ALL OF THE FOLLOWING.
 - KEYPAD USING UNIVERSAL FIRE DEPARTMENT CODE.
 - KEY FIB (SAME AS BUILDING FIB) LOCATED IN KNOX BOX AT FRONT DOOR.
 - SOS (SIREN) SENSOR.
- IN THE CASE OF A POWER OUTAGE THE GATE CAN BE OPENED IN THE FOLLOWING WAYS:
 - BATTERY BACKUP OPERATION ALLOWS 20 CYCLES AND HAS A STANDBY TIME OF 105 DAYS
 - THE LOCKABLE GATE OPERATOR SHALL HAVE A KEY LOCATED IN THE KNOX BOX. A LEVER DISCONNECT CAN BE PULLED TO DISENGAGE THE DRIVE.

NOT FOR CONSTRUCTION



DATE	ISSUE
04/19/24	PRELIMINARY SITE PLAN
06/21/24	PSP REV. 1

PROPRIETOR:
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 WHITE LAKE, MICHIGAN 48383
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DATE: 04/01/24	CKD. BY: CL	DATE: 04/19/24
DRAWN: CL	CL	
DESIGN: CL		
SECTION: 1	T- 3 -N, R- 8 -E	

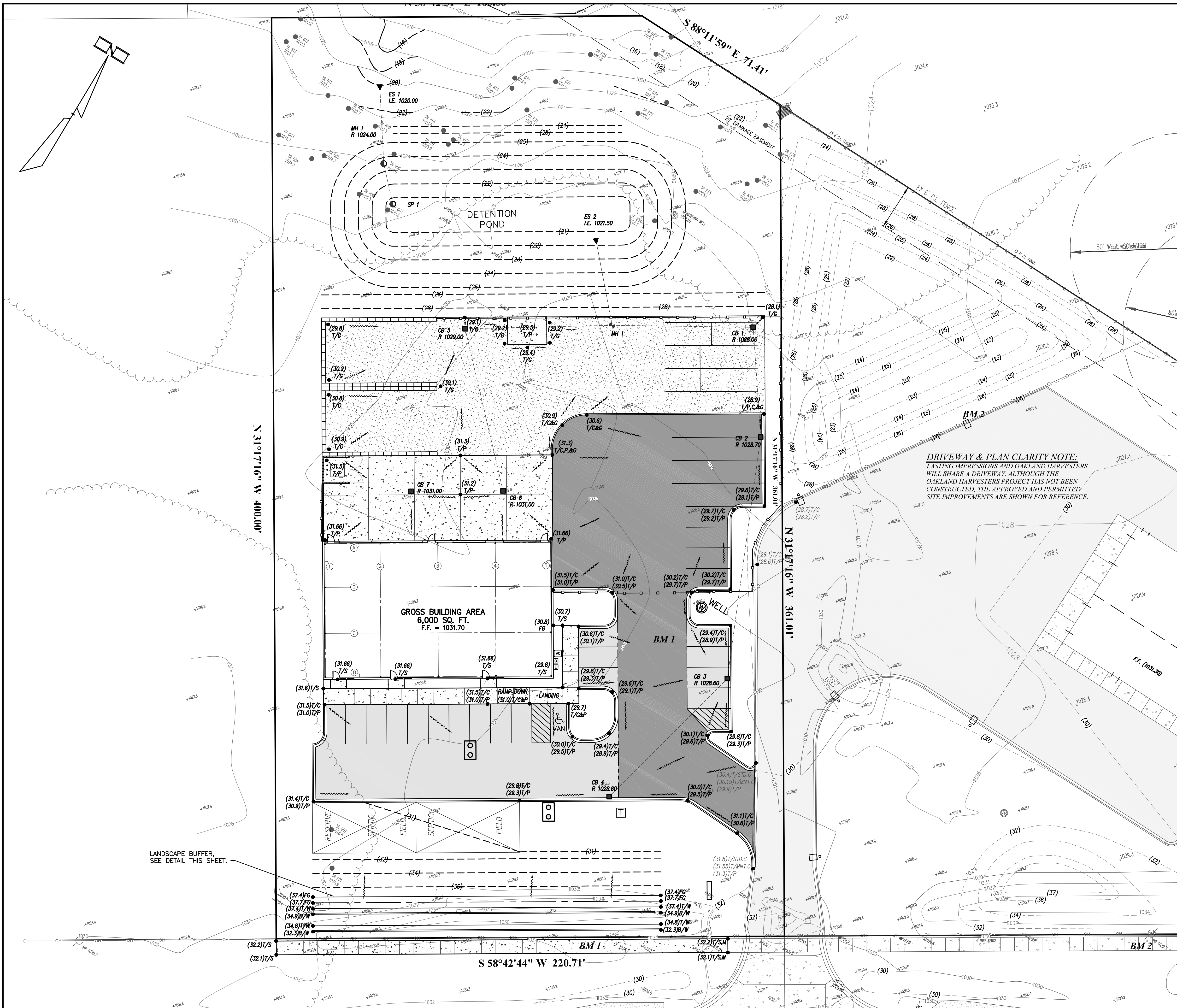


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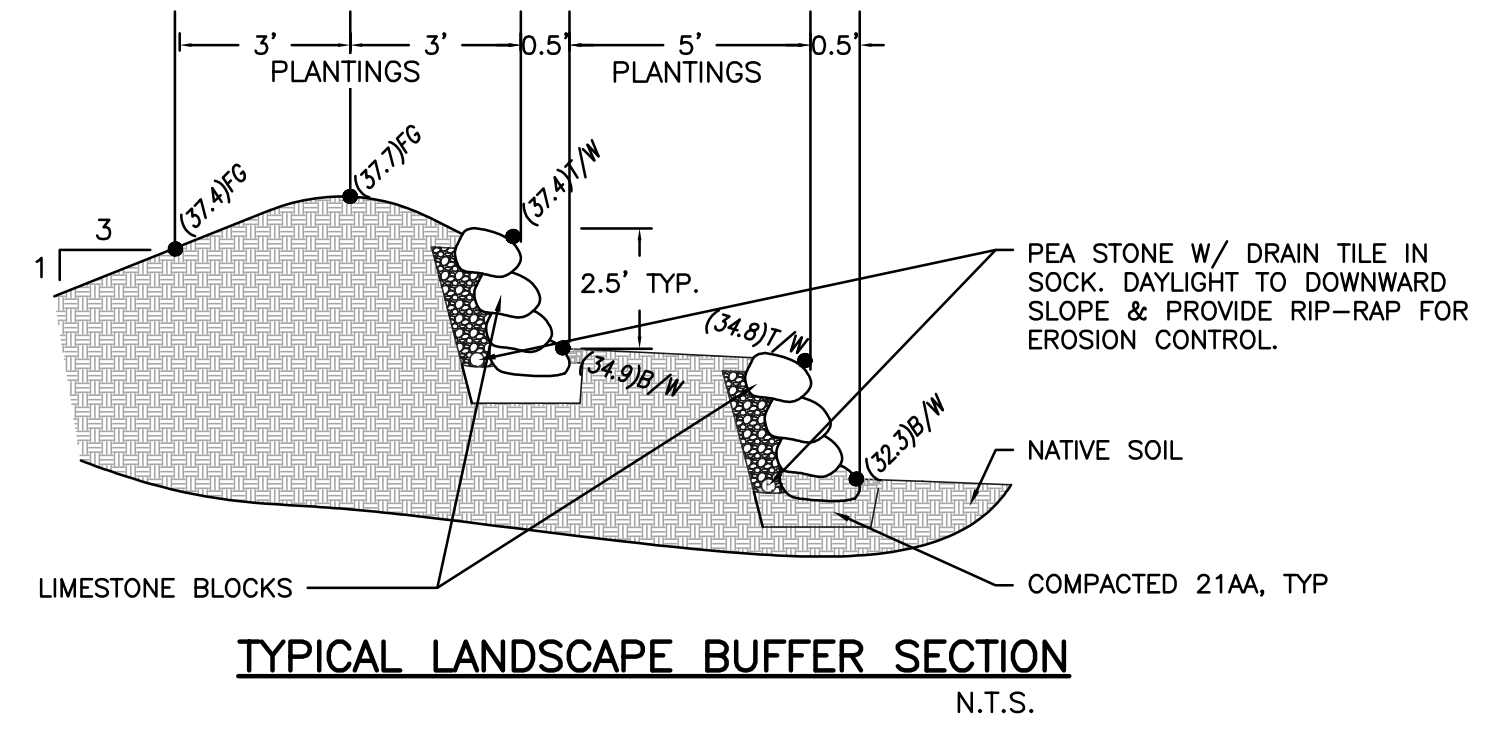
FIRE SAFETY SITE PLAN
LASTING IMPRESSIONS
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SCALE: 1" = 30'
SHEET NO: C1.02
KE 2023.104

LASTING IMPRESSIONS



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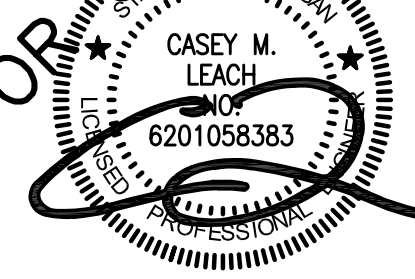


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 BM 1: MAG NAIL IN EAST FACE OF POWER POLE
 EL. = 1034.67 NAVD 88

BM 2: BOLT SPIKE ON NORTH FACE PF POWER POLE
 EL. = 1030.06 NAVD 88

GENERAL NOTES:
 1. EXISTING UTILITIES SHOWN HAVE BEEN TAKEN FROM VISUAL OBSERVATION & RECORD MAPPING, WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL VERIFY THE ACCURACY & COMPLETENESS OF OVERHEAD & UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES.
 2. SEE SHEET C0.01 FOR GENERAL NOTES & LEGENDS.

NOT FOR CONSTRUCTION



DATE	ISSUE
06/21/24	PSP REV. 1

PROPRIETOR:
 HOPSON HOLDINGS, LLC
 2255 PORTER ROAD
 WHITE LAKE, MICHIGAN 48383
 (248) 830-2828

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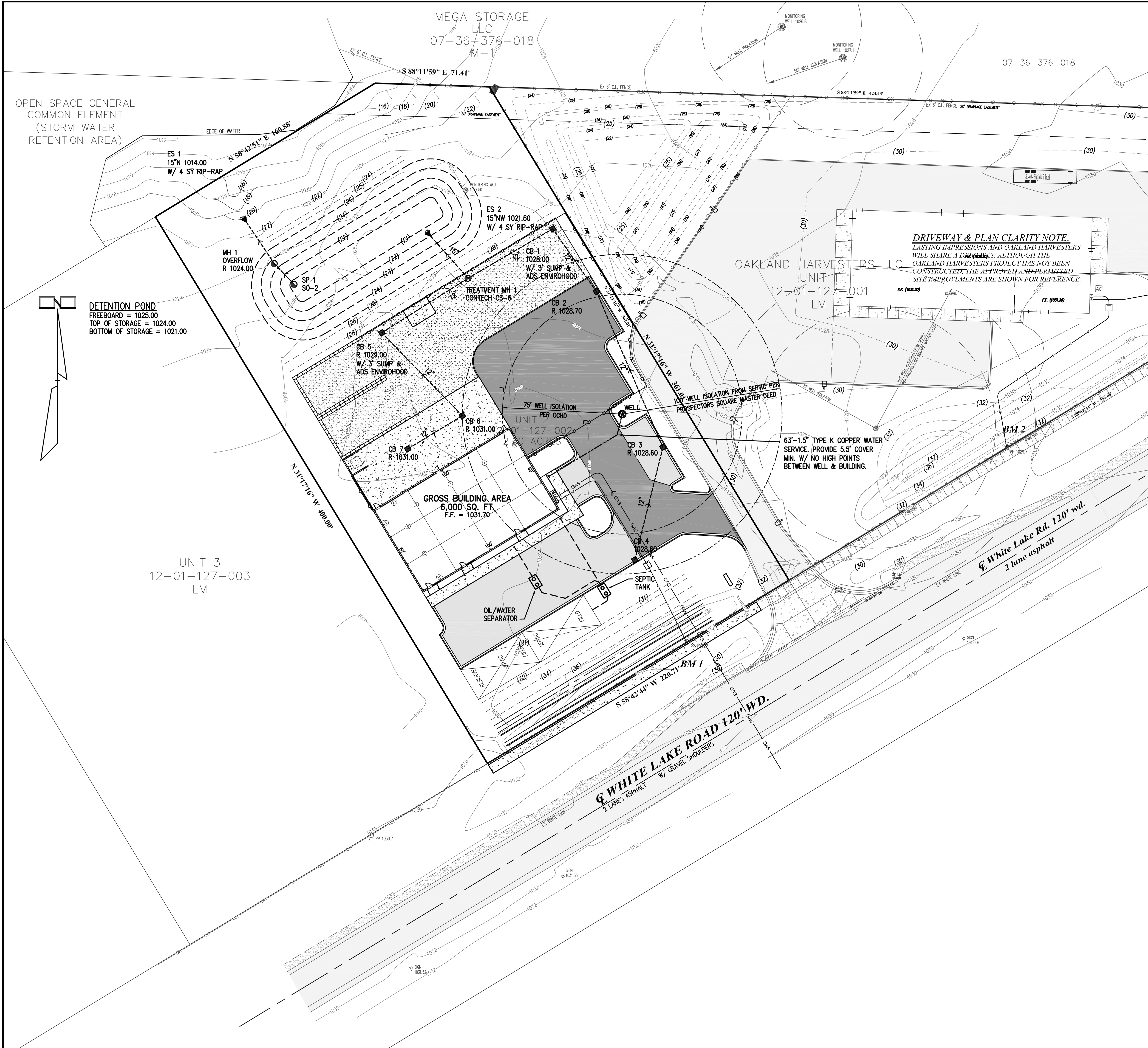
DATE	CKD. BY	DATE
06/19/24	CL	06/20/24
DESIGN: CL		
SECTION: 1	T-3-N-R-8-E	

72 HOURS (3 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG 800-482-7171 OR 811

PRELIMINARY GRADING PLAN
LASTING IMPRESSIONS
 PART OF THE NORTH 1/2 OF SECTION 1, T3N, R8E,
 WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE: 1" = 20'
 SHEET NO: C1.21
KE 2023.104

LASTING IMPRESSIONS



100 YEAR DETENTION BASIN CALCULATION (I.E. WITH OUTLET)

ONSITE CONTRIBUTING AREA	=	2.00
OFFSITE CONTRIBUTING AREA	=	0.00
TOTAL CONTRIBUTING AREA	A	= 2.00

RUNOFF AREAS		
PAVEMENT @	0.95	19,995 SF = 0.46 AC
BUILDING @	0.95	6,000 SF = 0.14 AC
GRAVEL @	0.6	9,317 SF = 0.21 AC
LAWN @	0.25	44,217 SF = 1.02 AC
POND @	1.0	7,591 SF = 0.17 AC
TOTAL		87,120 SF = 2.00 AC

WEIGHTED C	=	0.50
T _c	=	15 MINUTES

MECHANICAL SEPARATOR		
I _s	=	97 = 2.16 IN/HR
(T _c + 30)		
Q _{WO} = C _i A	=	2.14 CFS USE CONTECH CASCADE CS-6
Q _A = 0.20 CFS/ACRE	*	2.00 ACRES = 0.40 CFS
Q _O = Q _A	=	0.40 = 0.40 CFS
	=	2.00 * 0.50 = ACRE IMPERVIOUSNESS

100-YEAR DETENTION BASIN		
T ₁₀₀ = -25 + √10,312.5	=	135.16 MINUTES
Q _O		
V _{S100} = 16,500 T	-	40 Q _O T = 11751 CF
		ACRE
V _{T100} REQ'D = V _S CA	=	11,692 CF REQ'D

EL (FT)	AREA (SF)	VOLUME (CF)	ΣVOLUME (CF)
1024	6,845	5,826	12,081
1023	4,864	3,954	6,255
1022	3,109	2,301	2,301
1021.0	1,579		

TOTAL VOLUME PROVIDED = 12,081 CF OK

SITE INFORMATION:
 LOT GROSS AREA: 2.00 ACRES

WATER SUPPLY:
 TYPE III WELL PROPOSED MEETING 201 SPECIFICATION DUE TO 201 SITE TO NORTH & ISOLATION DISTANCES FROM STORM SEWER. WELL SHALL INCLUDE STEEL CASING, NEAT CEMENT FILL, & TYPE K COPPER SERVICE.

ONSITE WASTEWATER TREATMENT SYSTEM (SEPTIC):
 PER OCHD SANITARY CODE, ARTICLE III - STANDARD SYSTEM (NOT ENGINEERED). BED APPLICATION RATE FOR (ASSUMED) LOAM, SANDY CLAY LOAM: 0.3 GAL/SF/D

DEMAND FOR USE BASED ON 2018 UNIT FACTORS

OFFICE, ASSUME 30%:
 (6,000 SF)(30%)(0.4 REU/1,000 SF)(270 GPD/REU) = 194.4 GPD FOR OFFICE

WAREHOUSE, ASSUME 70%:
 (6,000)(70%)(0.1 REU/1,000 SF)(270 GPD/REU)(110%) = 124.7 GPD
 NOTE: WAREHOUSE AREA WAS INCREASED 10% OVER THE 2017 VALUE DUE TO THE NEW UNIT FACTOR CHART HAS WAREHOUSE ON A FIXTURE UNIT BASIS, WHICH DOES NOT LEND ITSELF TO SEPTIC DESIGN.

194.4 + 124.7 = 319.1 GPD REQUIRED

APPLICATION BED SIZE: 319.1 GPD/0.3G/SF/D = 1,063.7 SF BED REQUIRED
 45 FT X 24 FT = 1,080 SF BED PROPOSED

TANK SIZE: 1,500 GALLON DUAL COMPARTMENT

ISOLATION DISTANCES PER SANITARY CODE ARTICLE III:
 WELL: 75 FT PROPERTY LINE: 10 FT
 WATER LINE: 10 FT OPEN WATER: 50 FT (100 FT PER TWP. 20)
 BUILDING: 10 FT DETENTION POND: 50 FT
 STORM SEWER: 50 FT

BENCHMARKS:
 BM 1: MAG NAIL IN EAST FACE OF POWER POLE
 EL. = 1034.67 NAVD 88

BM 2: BOLT SPIKE ON NORTH FACE PF POWER POLE
 EL. = 1030.06 NAVD 88

GENERAL NOTES:
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 2. SEE SHEET C0-01 FOR GENERAL NOTES & LEGENDS.

DATE	ISSUE
04/19/24	PRELIMINARY SITE PLAN

PROPRIETOR:
 HOPSON HOLDINGS, LLC
 2255 PORTER ROAD
 WHITE LAKE, MICHIGAN 48383
 (248) 830-2828

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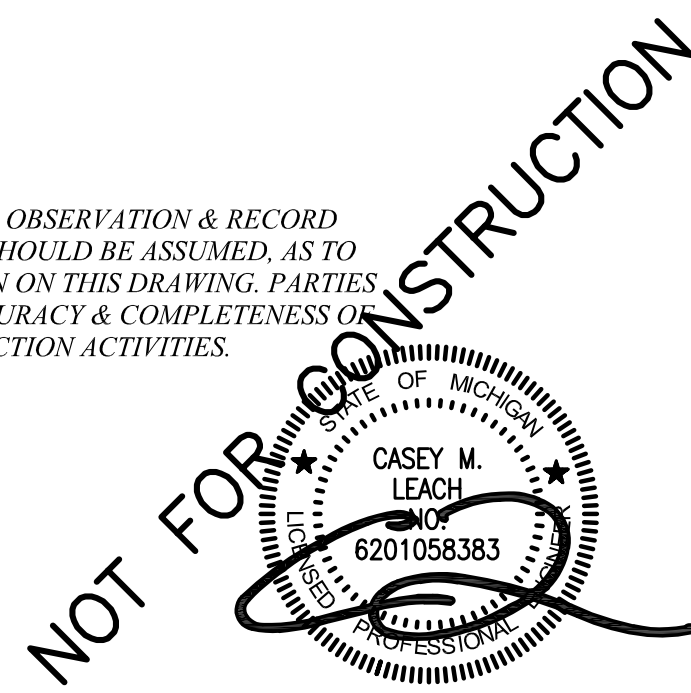
KIEFT ENGINEERING, INC.
 PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS
 5852 SOUTH MAIN STREET, SUITE 1, CLARKSTON, MICHIGAN 48346
 PHONE (248) 625-5251 www.kiefteng.com FAX (248) 625-7110

DATE: 04/01/24	CKD. BY:	DATE:
DRAWN: CL	CL	04/19/24
DESIGN: CL		
SECTION: 1	T-3-N-R-8-E	



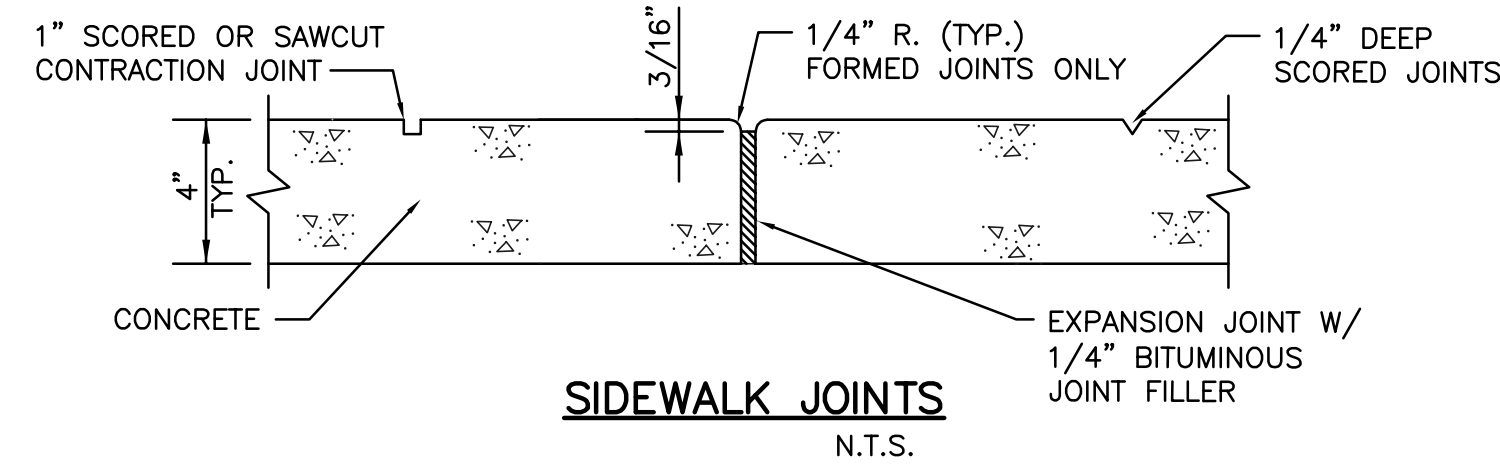
PRELIMINARY UTILITY PLAN
LASTING IMPRESSIONS
 PART OF THE NORTH 1/2 OF SECTION 1, T3N, R8E,
 WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE: 1" = 30'
SHEET NO: C1.31
KE 2023.104

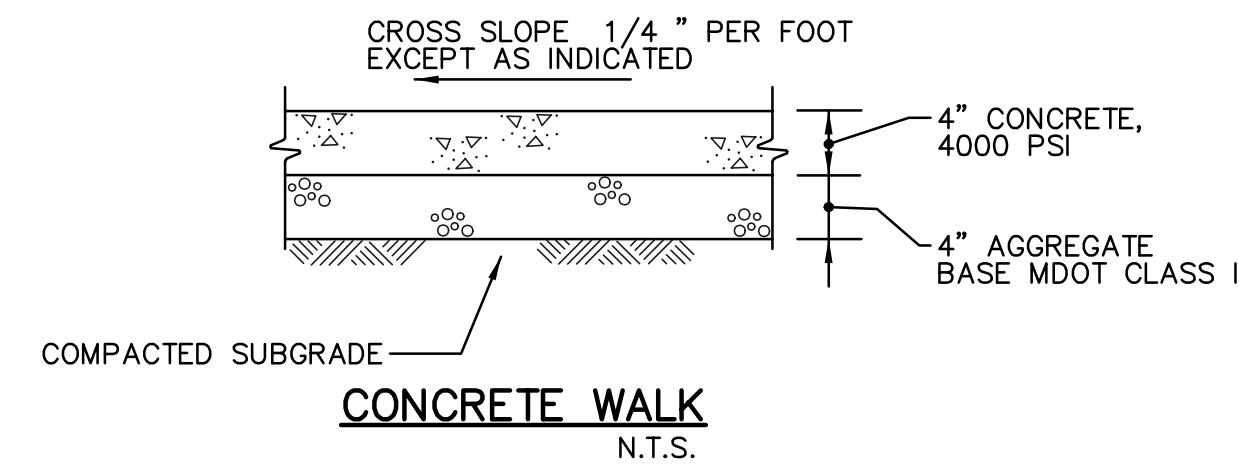


LASTING IMPRESSIONS

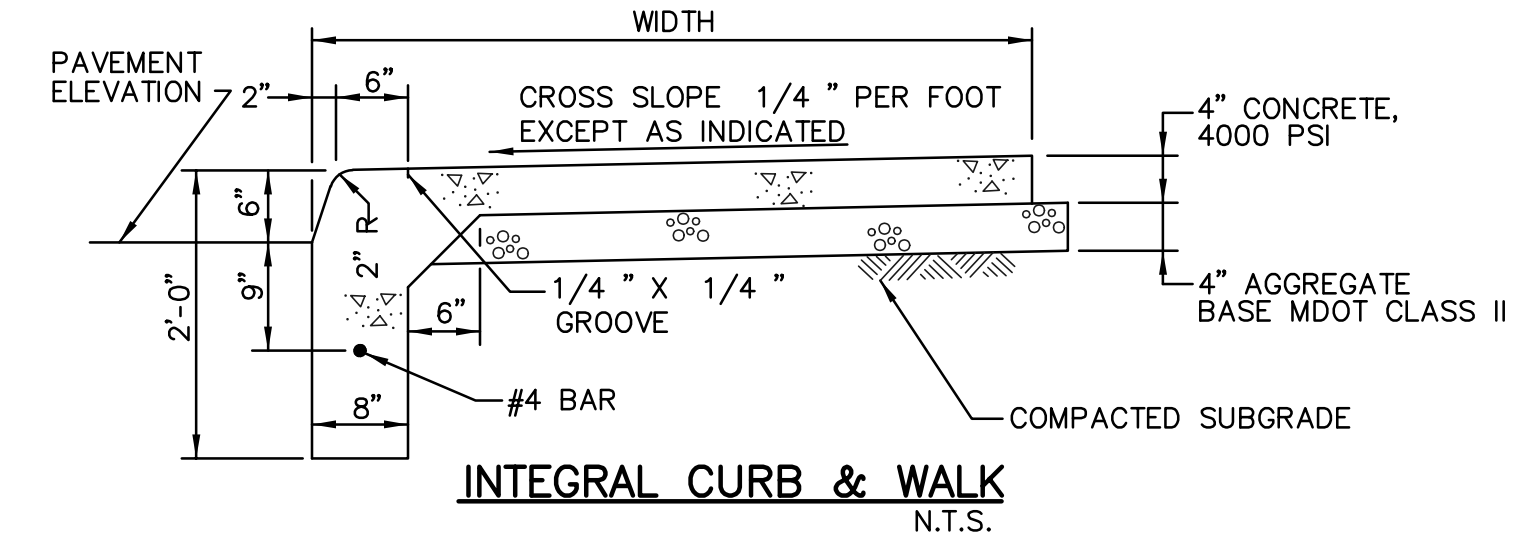
- NOTES:**
- EXPANSION JOINTS SHALL BE LOCATED WHERE SIDEWALK ABUTS CONCRETE DRIVEWAYS, CURB, OR OTHER ADJACENT STRUCTURES.
 - 1/2" BITUMINOUS JOINT FILLER SHALL BE INSTALLED AT EXPANSION JOINT LOCATIONS & SHALL EXTEND THE FULL DEPTH OF THE CONCRETE.
 - 1" DEEP CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF APPROXIMATELY 15', OR AT A SPACING THAT MATCHES THE ADJACENT CURB.
 - FORMED CONTRACTION JOINTS SHALL BE FINISHED WITH A TOOL HAVING A 1/4" RADIUS.
 - SCORED JOINTS SHALL BE 1/4" DEEP & PLACED AT THE SPACING INDICATED FOR THE WIDTH OF SIDEWALK, OR MATCH SCORED JOINTS OF ADJACENT CURB.
 - CONCRETE SHALL BE FINISHED BY MEANS OF A FLOAT, STEEL TROWELLED AND BROOMED WITH A FINE BRUSH IN THE TRANSVERSE DIRECTION.
 - 1/4" DEEP SCORED JOINTS SHALL BE SPACED AT 6', EQUAL TO SIDEWALK WIDTH, OR PER PLAN.



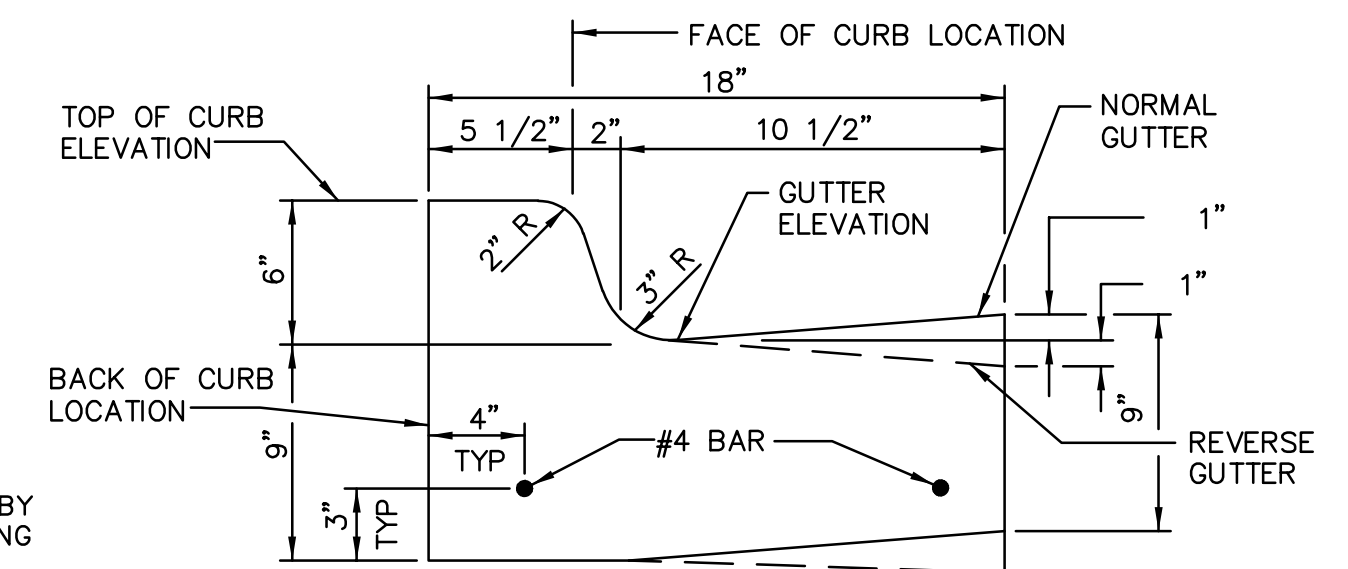
- NOTES:**
- EXPANSION JOINTS: 1/2" WIDE BITUMINOUS JOINT FILLER, FULL DEPTH:
 - AT 50 FOOT INTERVALS TRANSVERSELY.
 - AROUND EMBEDDED ITEMS SUCH AS LIGHT BASES.
 - AT ABUTTING STRUCTURES SUCH AS BUILDINGS OR CURBS.
 - CONTRACTION JOINTS: FORMED 1/4" WIDE, 1" DEEP GROOVE W/ TOOL. ARRANGE TO FORM SQUARE PANELS, 6' MAXIMUM IN ANY DIRECTION. PLACE 1" DEEP JOINTS AT 15' INTERVALS OR AT SPACING THAT MATCHES CURB.
 - TACTILE WARNING TEXTURE: PROVIDE ON RAMPS AND NEAR TOP OF STAIRS.
 - FINISH CONCRETE BY MEANS OF A FLOAT, STEEL TROWEL, & BROOM FINISH W/ FINE BRUSH IN A TRANSVERSE DIRECTION.



- NOTES:**
- EXPANSION JOINTS: 1/2" WIDE BITUMINOUS JOINT FILLER, FULL DEPTH:
 - AT 50 FOOT INTERVALS TRANSVERSELY.
 - AROUND EMBEDDED ITEMS SUCH AS LIGHT BASES.
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 - FINISH CONCRETE BY MEANS OF A FLOAT, STEEL TROWEL, & BROOM FINISH W/ FINE BRUSH IN A TRANSVERSE DIRECTION.

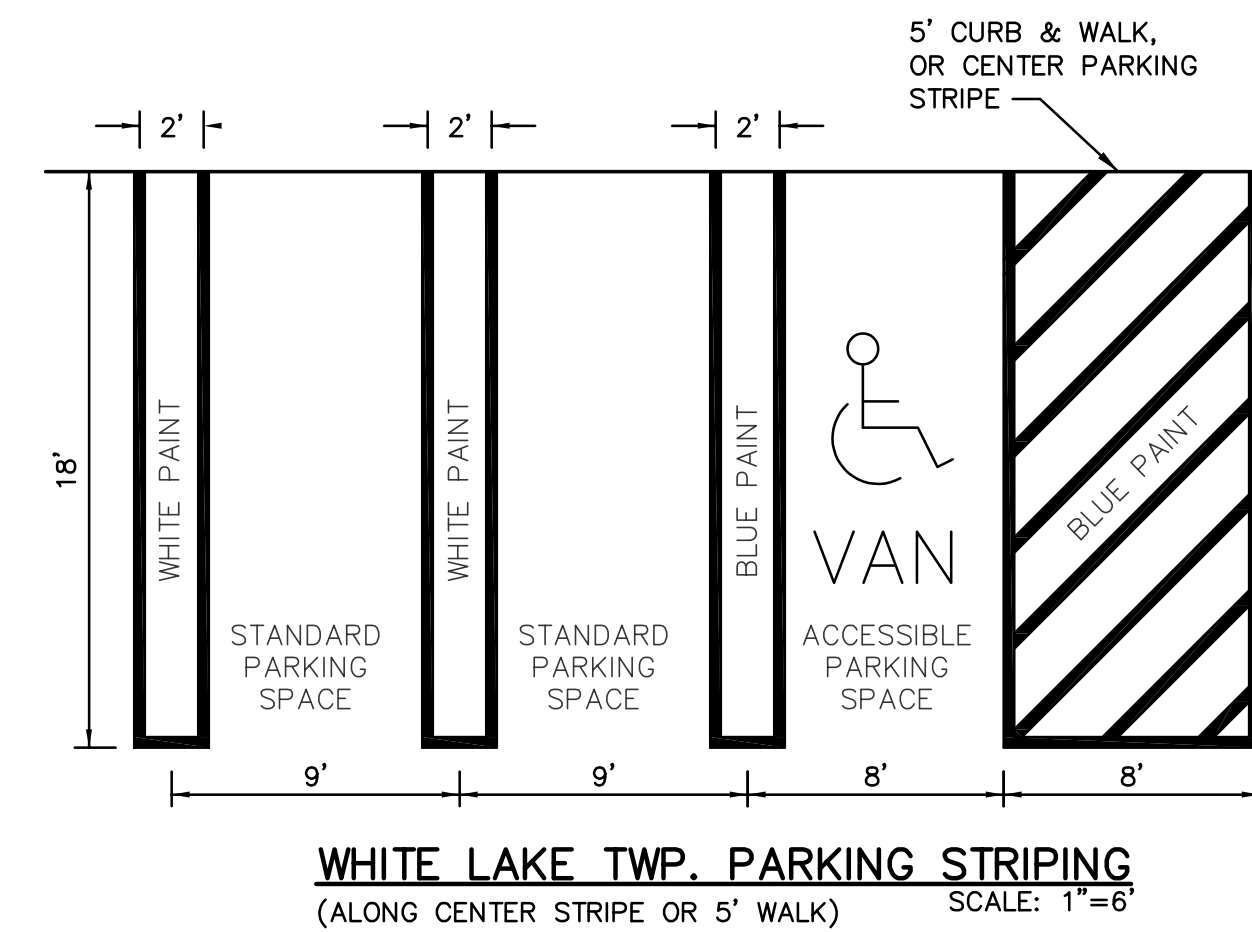


- NOTES:**
- USE NORMAL OR REVERSE GUTTER TO EXTEND THE SLOPE OF THE ADJACENT PAVEMENT EXCEPT AS INDICATED.
 - CONCRETE: 4000 PSI
 - PROVIDE CONTROL JOINTS IN CURB AT 10' O.C. & AT ALL RADIUS RETURNS.
 - PROVIDE EXPANSIVE JOINTS EVERY 30'.

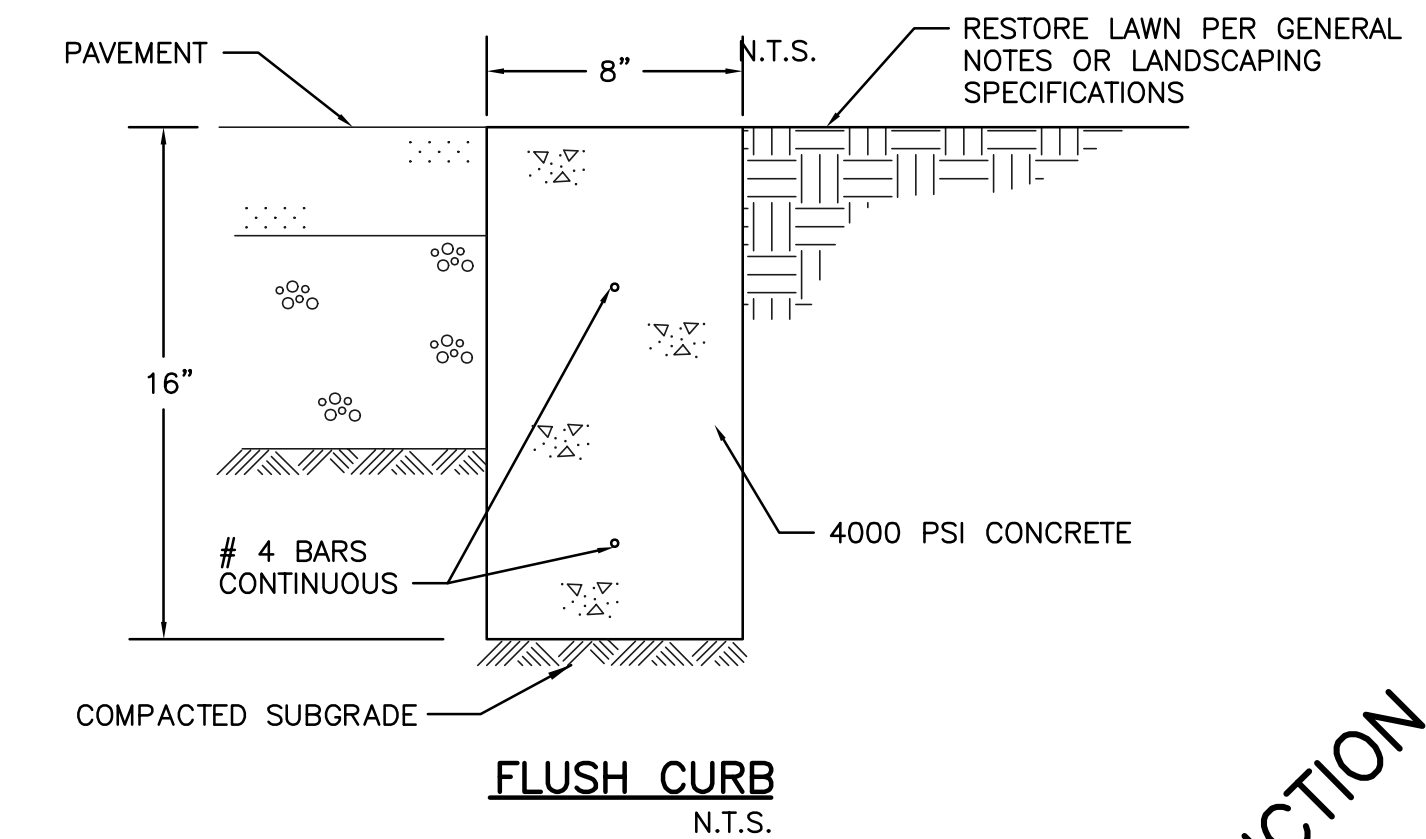


18"X6" STANDARD DUTY CURB & GUTTER
N.T.S.

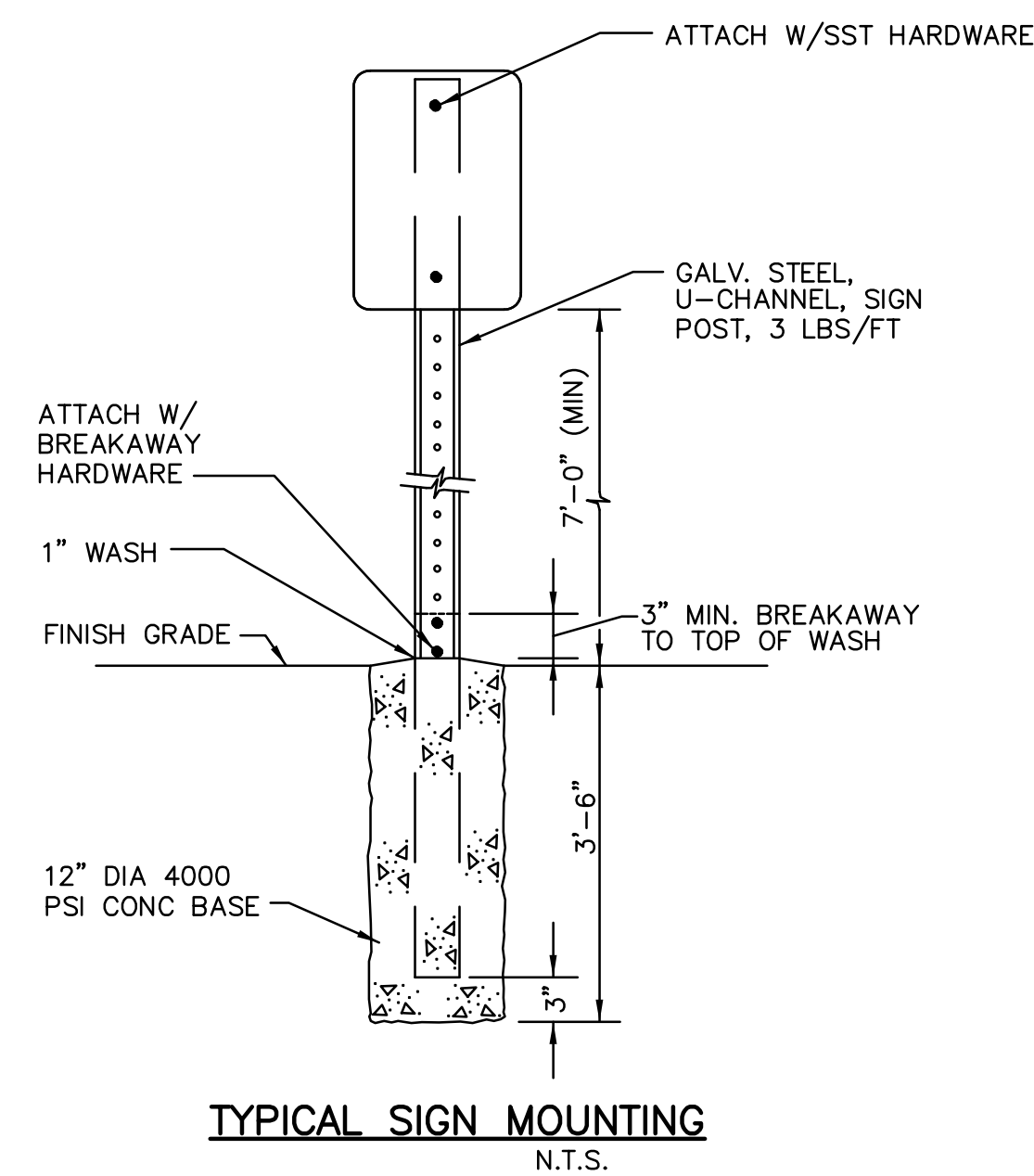
- NOTES:**
- PARKING STRIPING FOR STANDARD PARKING SPACES SHALL BE DELINEATED BY FOUR INCH WIDE DUAL STRIPES, TWO FEET APART, CENTERED ON THE DIVIDING LINES, & PAINTED WHITE.
 - ACCESSIBLE SPACES SHALL BE DELINEATED WITH FOUR INCH WIDE LINES, PAINTED HANDICAP BLUE.



WHITE LAKE TWP. PARKING STRIPING
(ALONG CENTER STRIPE OR 5' WALK) SCALE: 1"=6'

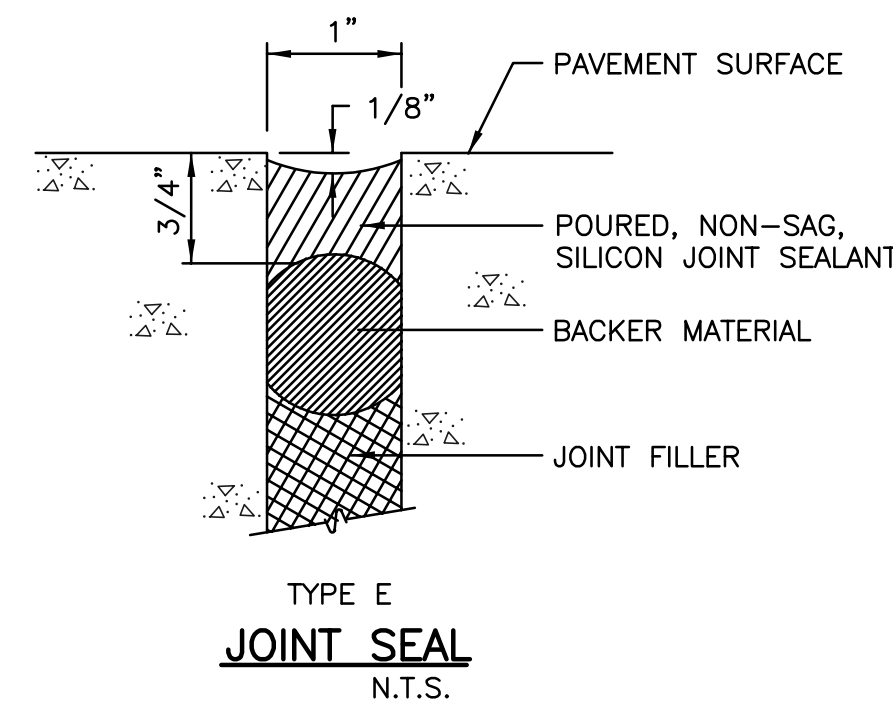


FLUSH CURB
N.T.S.

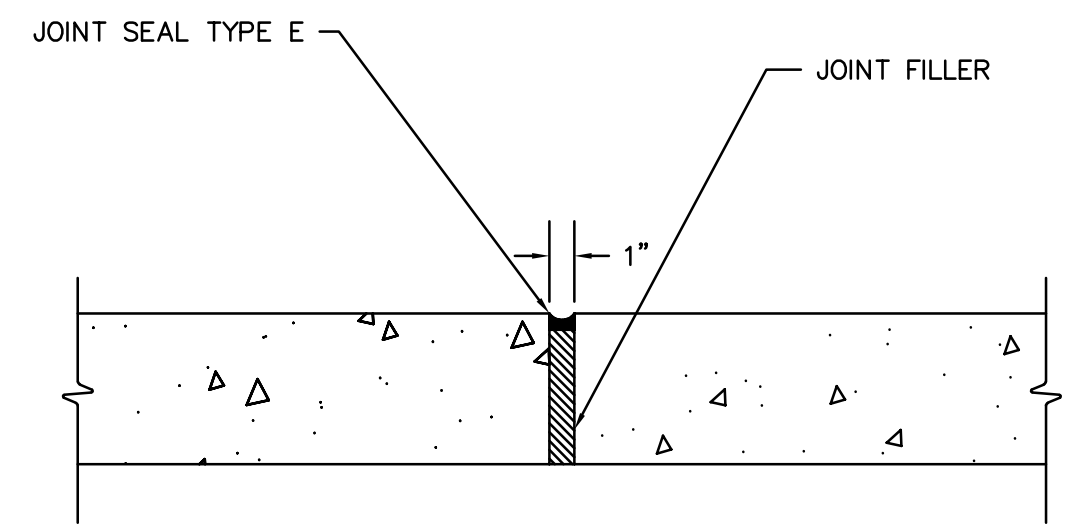


TYPICAL SIGN MOUNTING
N.T.S.

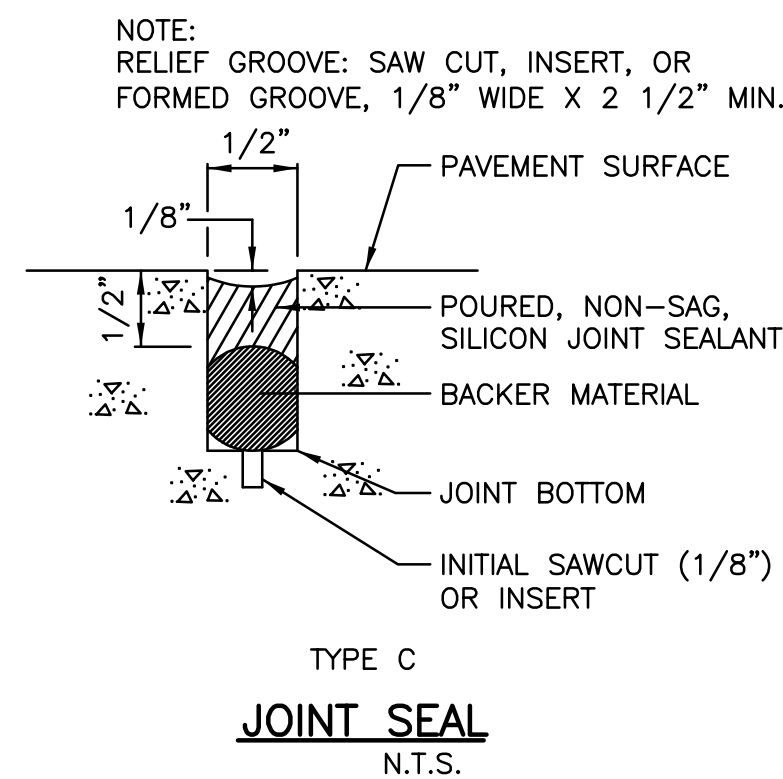
- NOTE:**
RELIEF GROOVE: SAW CUT, INSERT, OR FORMED GROOVE, 1/8" MAX X 2 1/2" MIN. SAW CUT 1/2" MIN INTO JOINT FILLER.



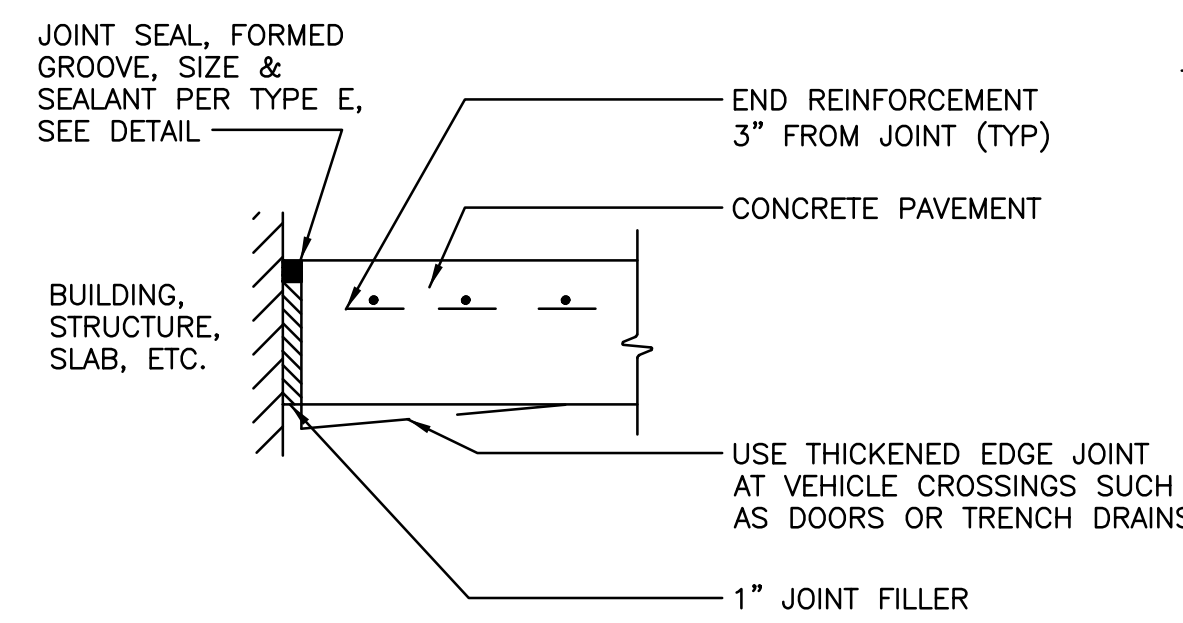
TYPE E JOINT SEAL
N.T.S.



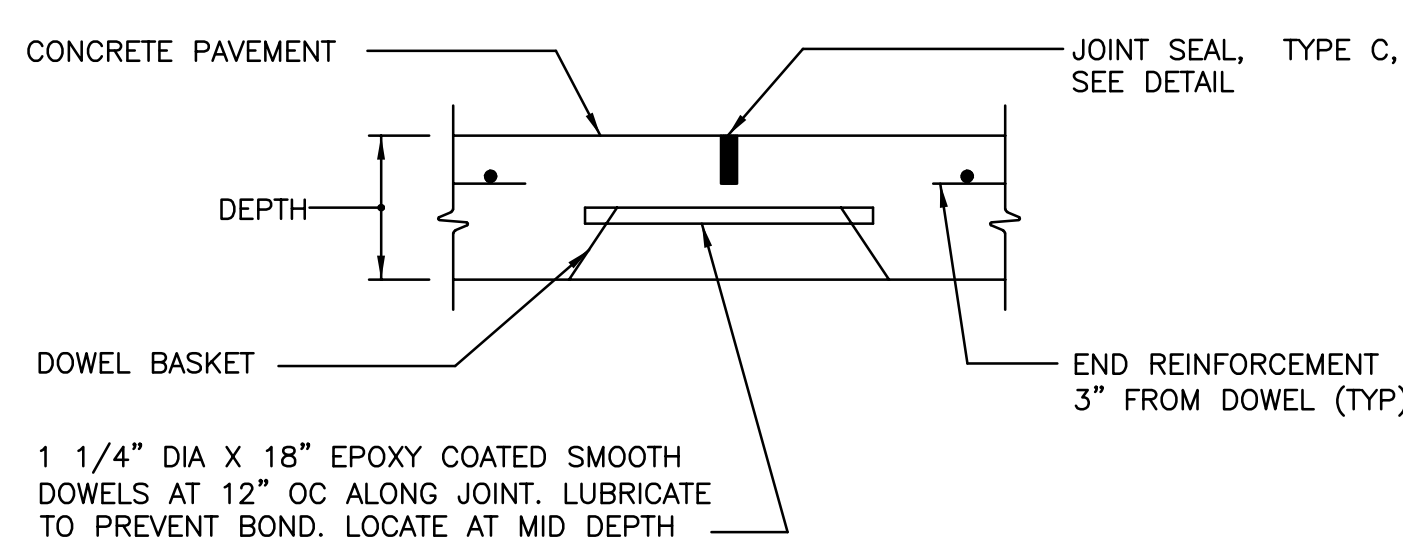
ISOLATION JOINT
N.T.S.



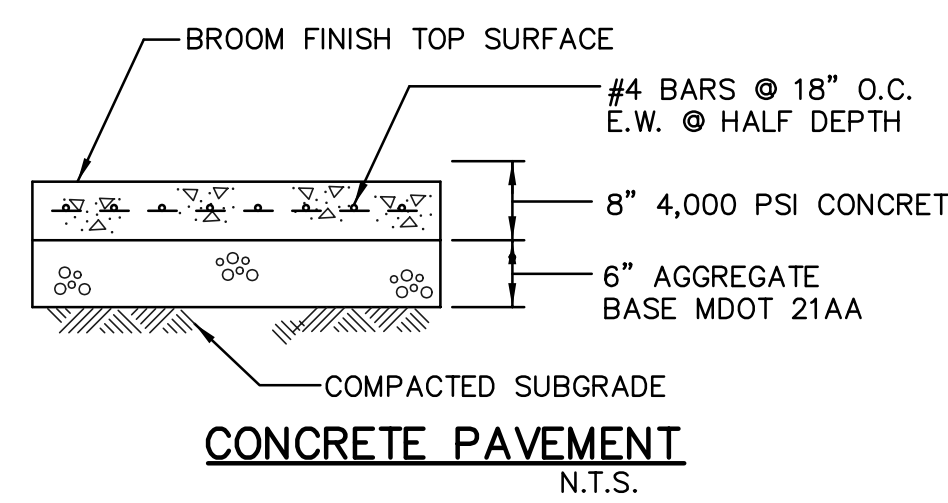
TYPE C JOINT SEAL
N.T.S.



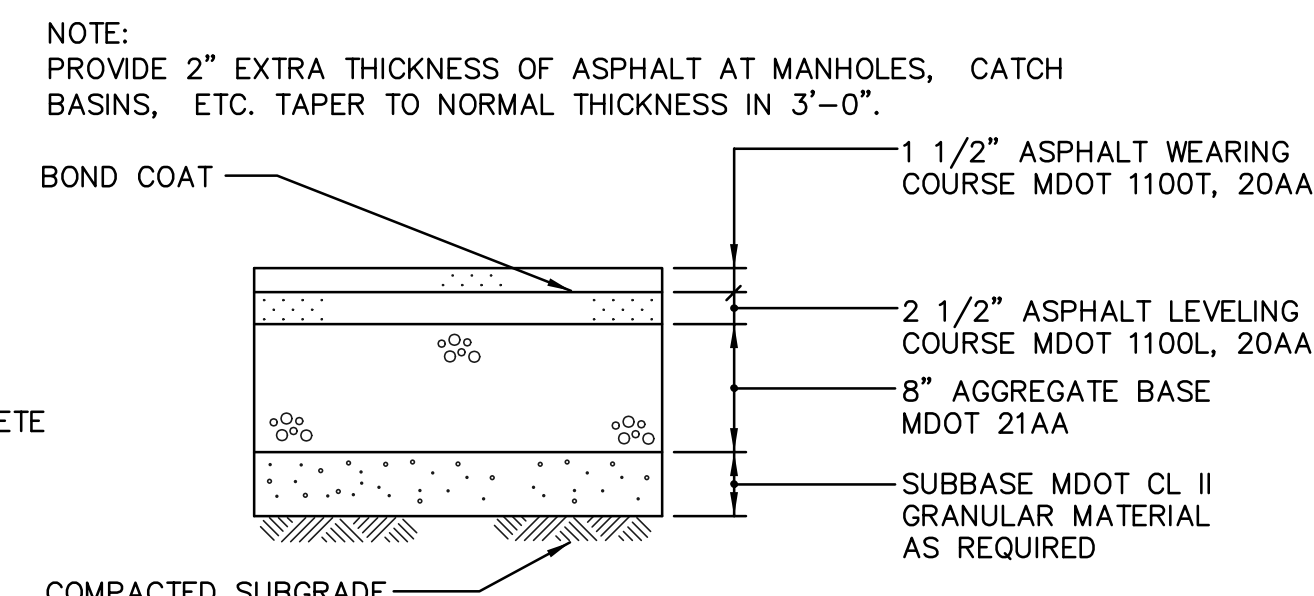
EDGE EXPANSION JOINT
N.T.S.



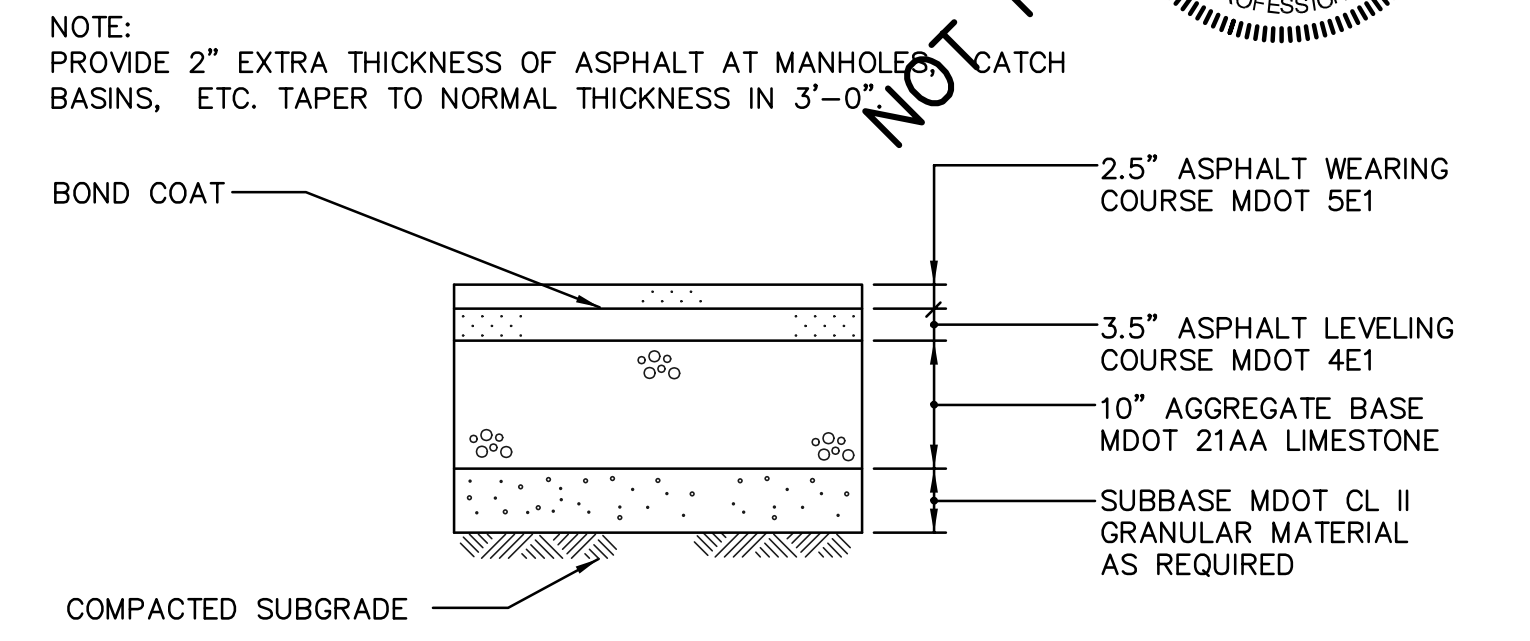
CONTRACTION JOINT
N.T.S.



CONCRETE PAVEMENT
N.T.S.

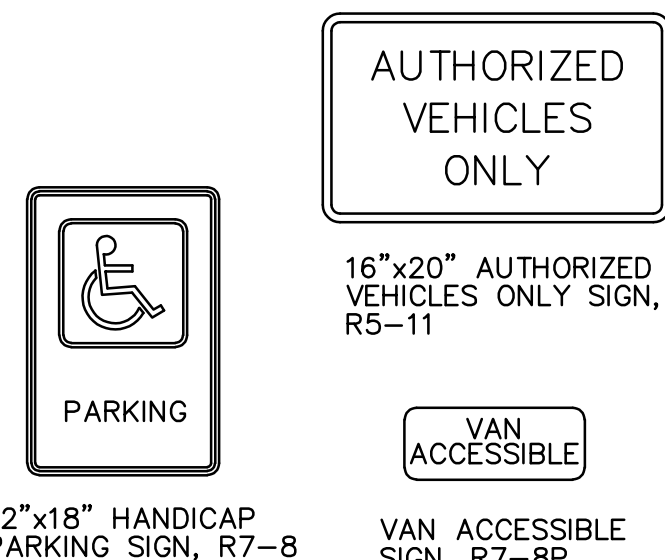


STANDARD DUTY ASPHALT PAVEMENT
N.T.S.



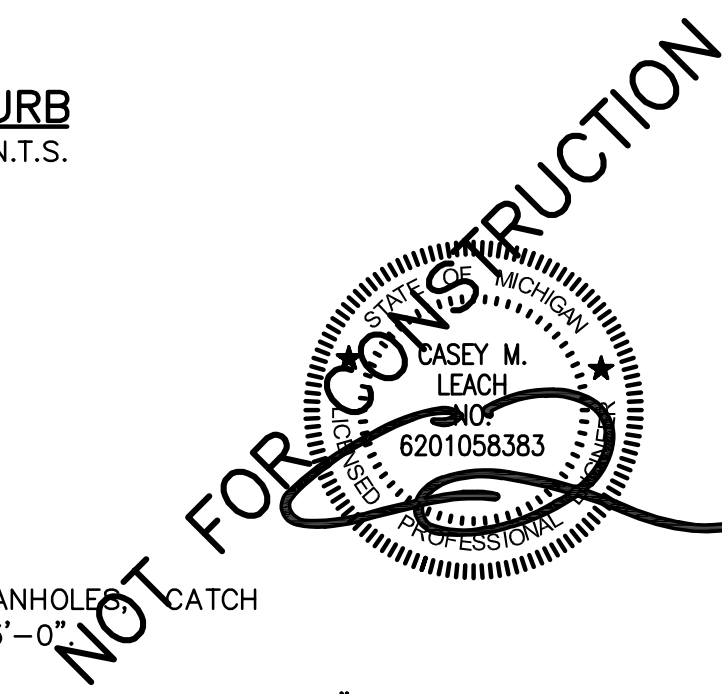
HEAVY DUTY ASPHALT PAVEMENT
N.T.S.

- SIGNAGE NOTES:**
- ALL SIGNS SHALL CONFORM TO THE CURRENT EDITION OF THE MUTCD.
 - MOUNT SIGNS TO BUILDING USING STAINLESS STEEL HARDWARE OR PER SIGN MOUNTING DETAIL THIS SHEET. MIN. HGT. 72" ABOVE FINISHED GRADE.



SIGNS
N.T.S.

- NOTE:**
PROVIDE 2" EXTRA THICKNESS OF ASPHALT AT MANHOLES, CATCH BASINS, ETC. TAPER TO NORMAL THICKNESS IN 3'-0".



DETAILS - PAVING, SIGNS, & WALK
LASTING IMPRESSIONS
PART OF THE NORTH 1/2 OF SECTION 1, T3N, R8E,
WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE: AS SHOWN
SHEET NO: C5.01
KE 2023.104

DATE: 04/19/24
ISSUE: PRELIMINARY SITE PLAN

PROPRIETOR:
LASTING IMPRESSIONS
2255 PORTER ROAD
WHITE LAKE, MICHIGAN 48348
(248) 830-2828

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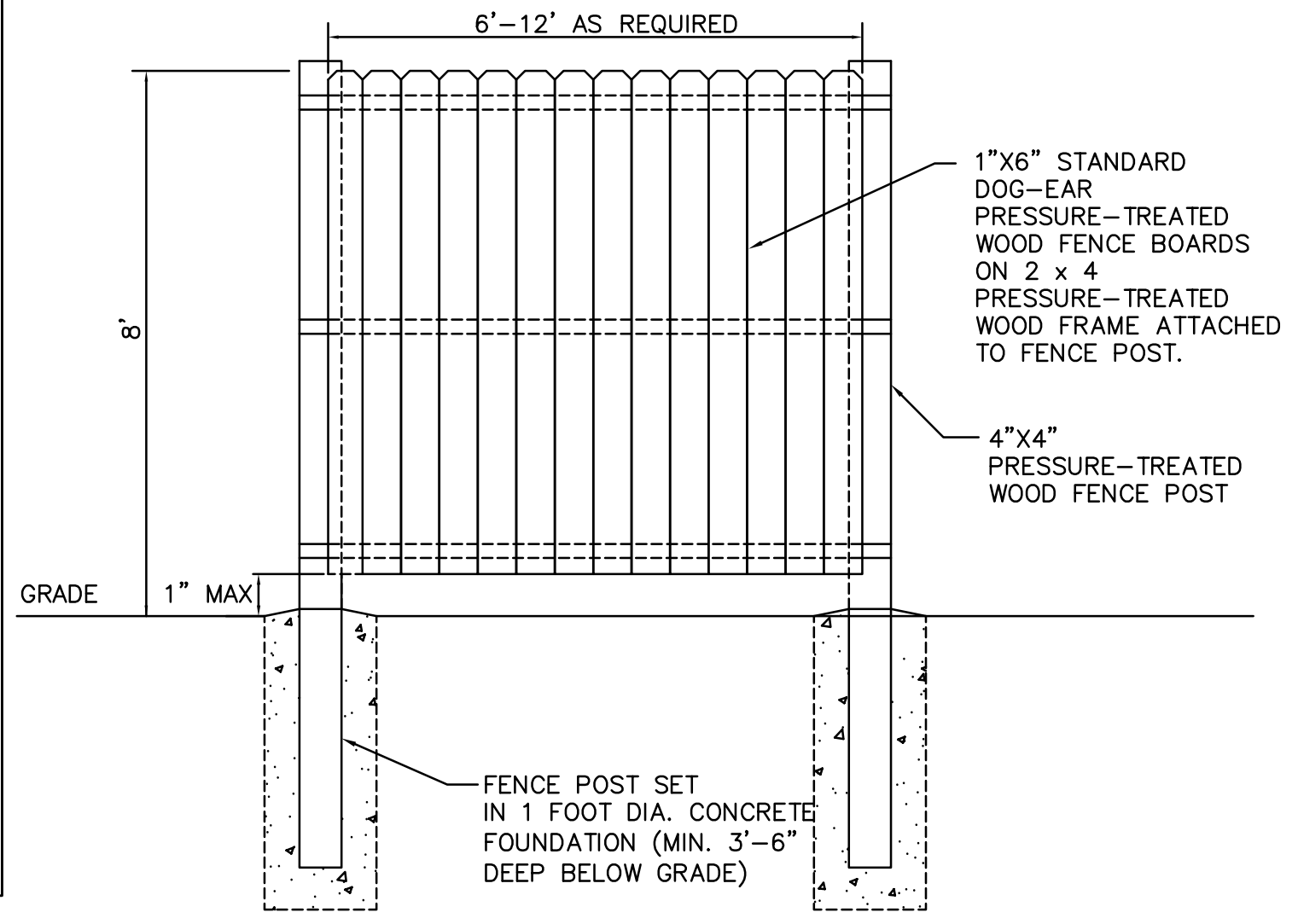
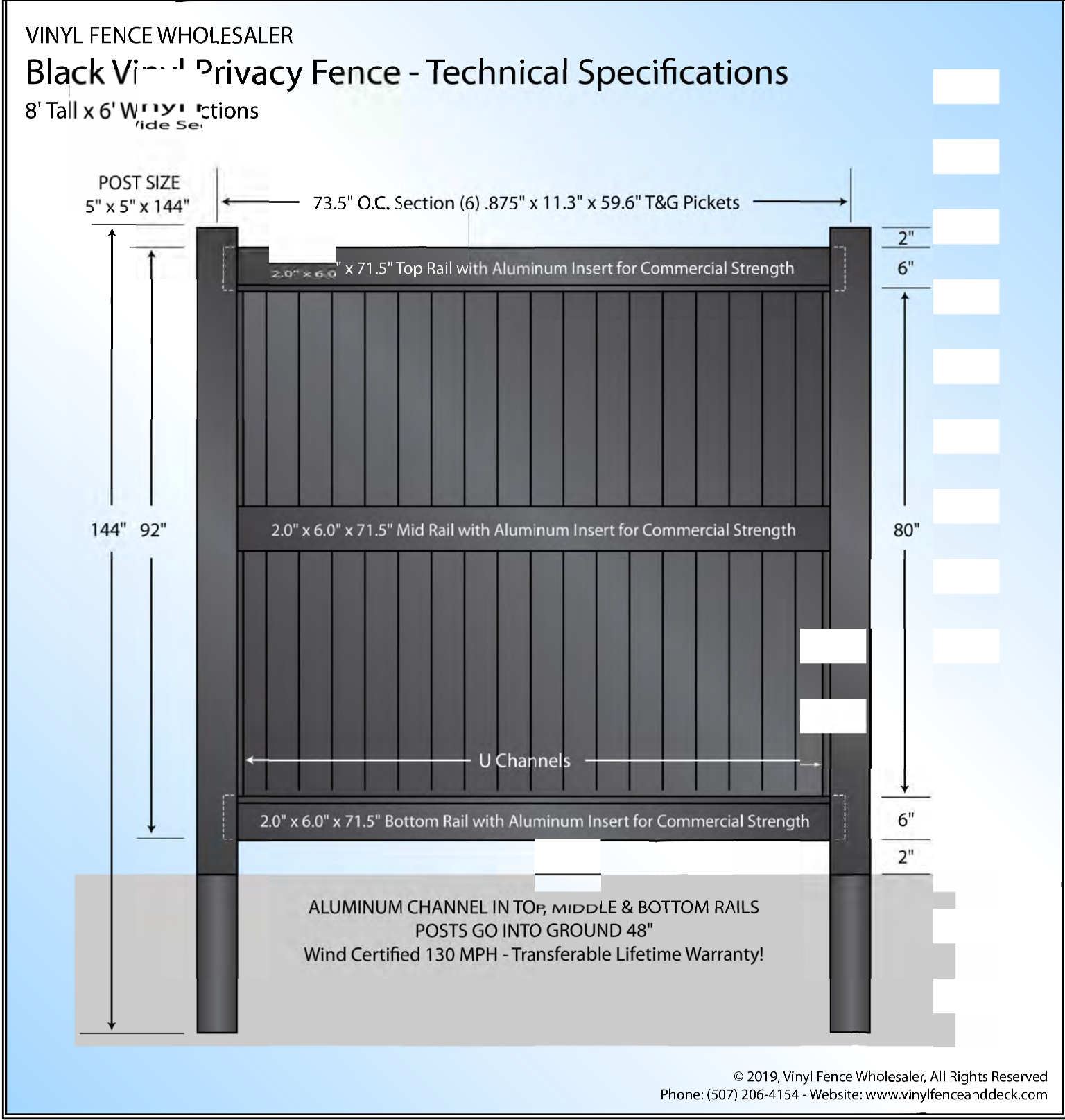
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PHONE (248) 625-5251 www.kiefteng.com FAX (248) 625-7110

DATE: 04/18/24
CKD. BY: CL
DATE: 04/19/24
DESIGN: CL
SECTION: 1 T-3-N-R-8-E



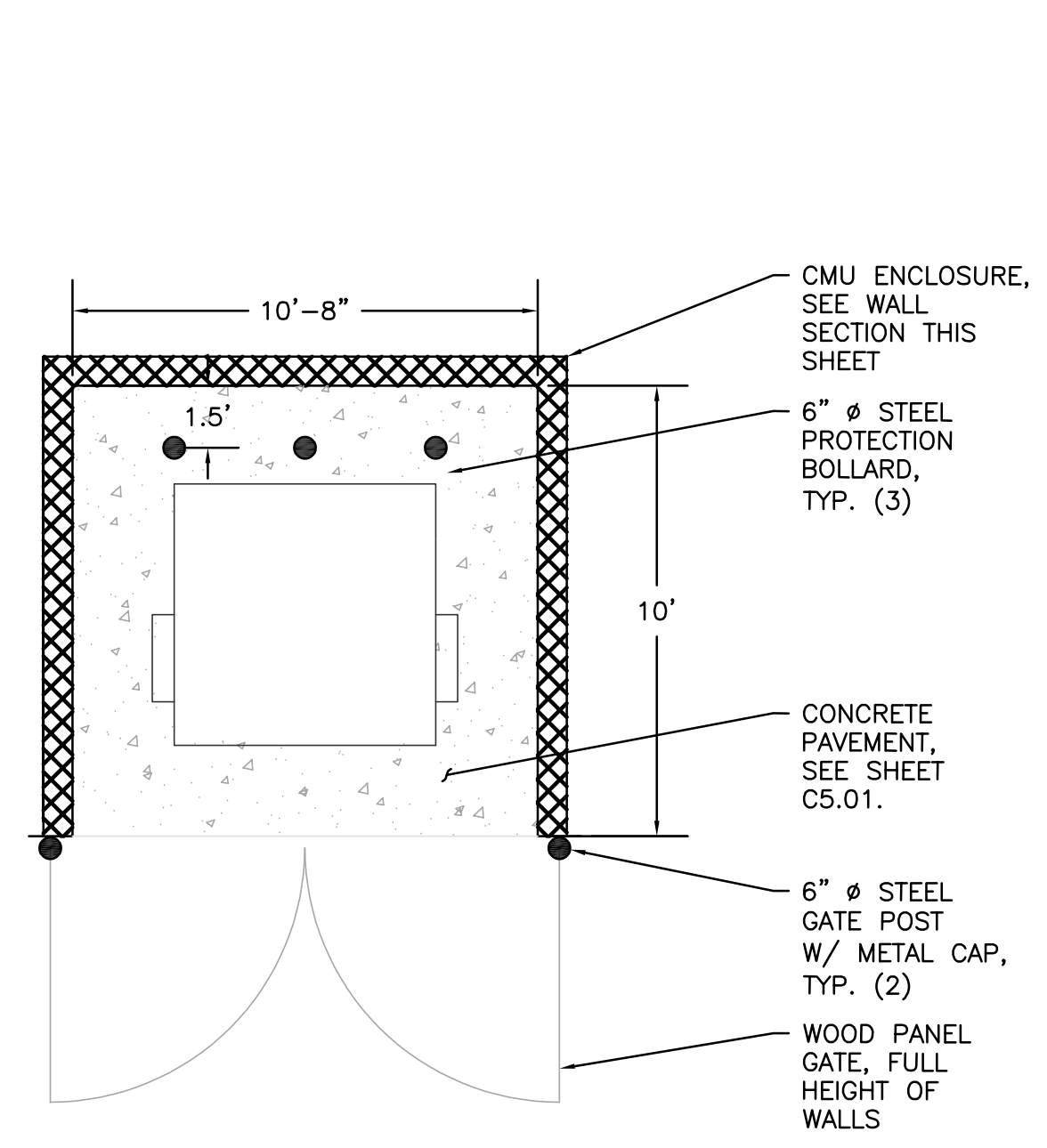
72 HOURS (43 WORKING DAYS) BEFORE YOU DIG CALL MISS DIG 800-482-7171 OR 811

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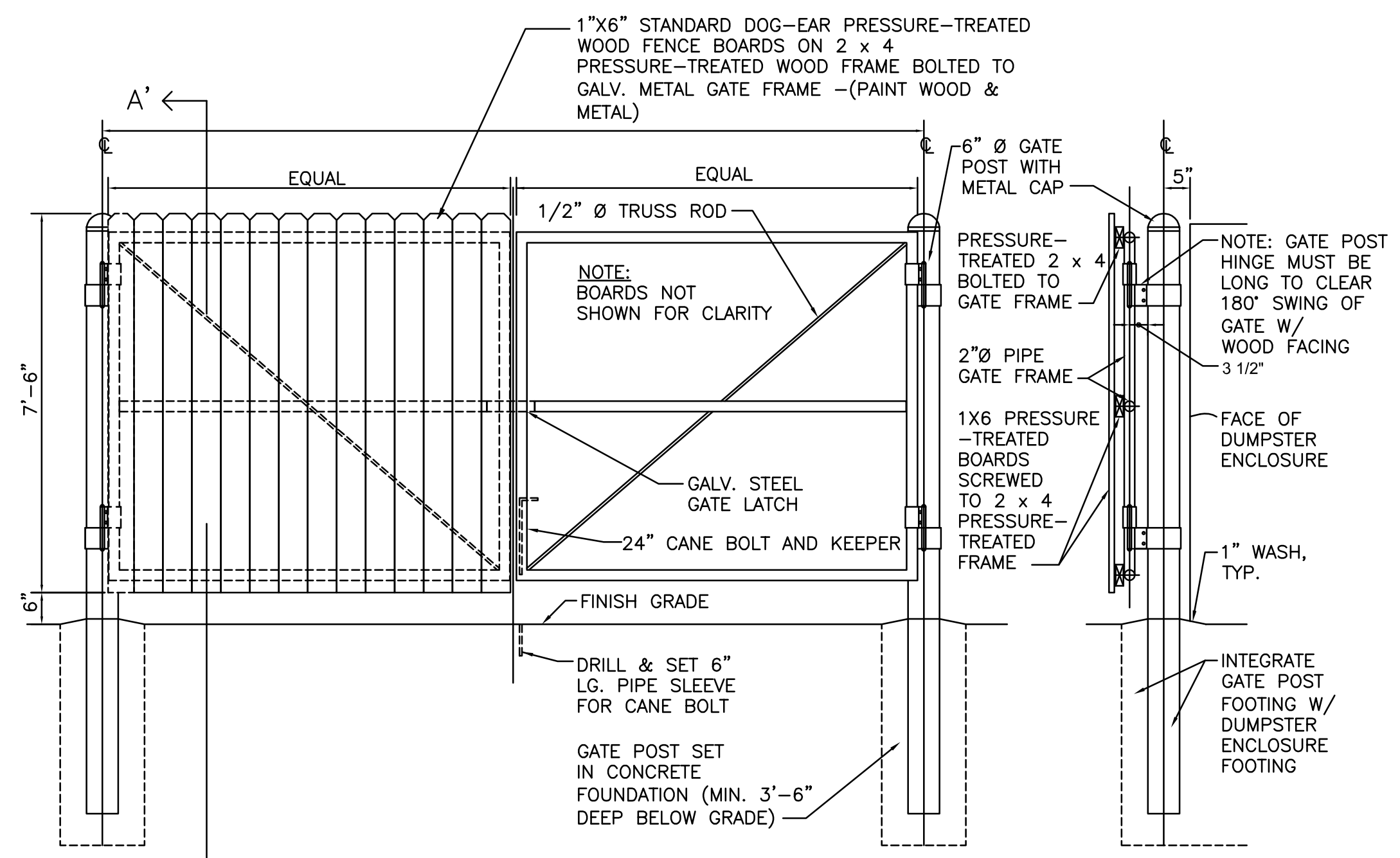


VINYL FENCE
N.T.S.

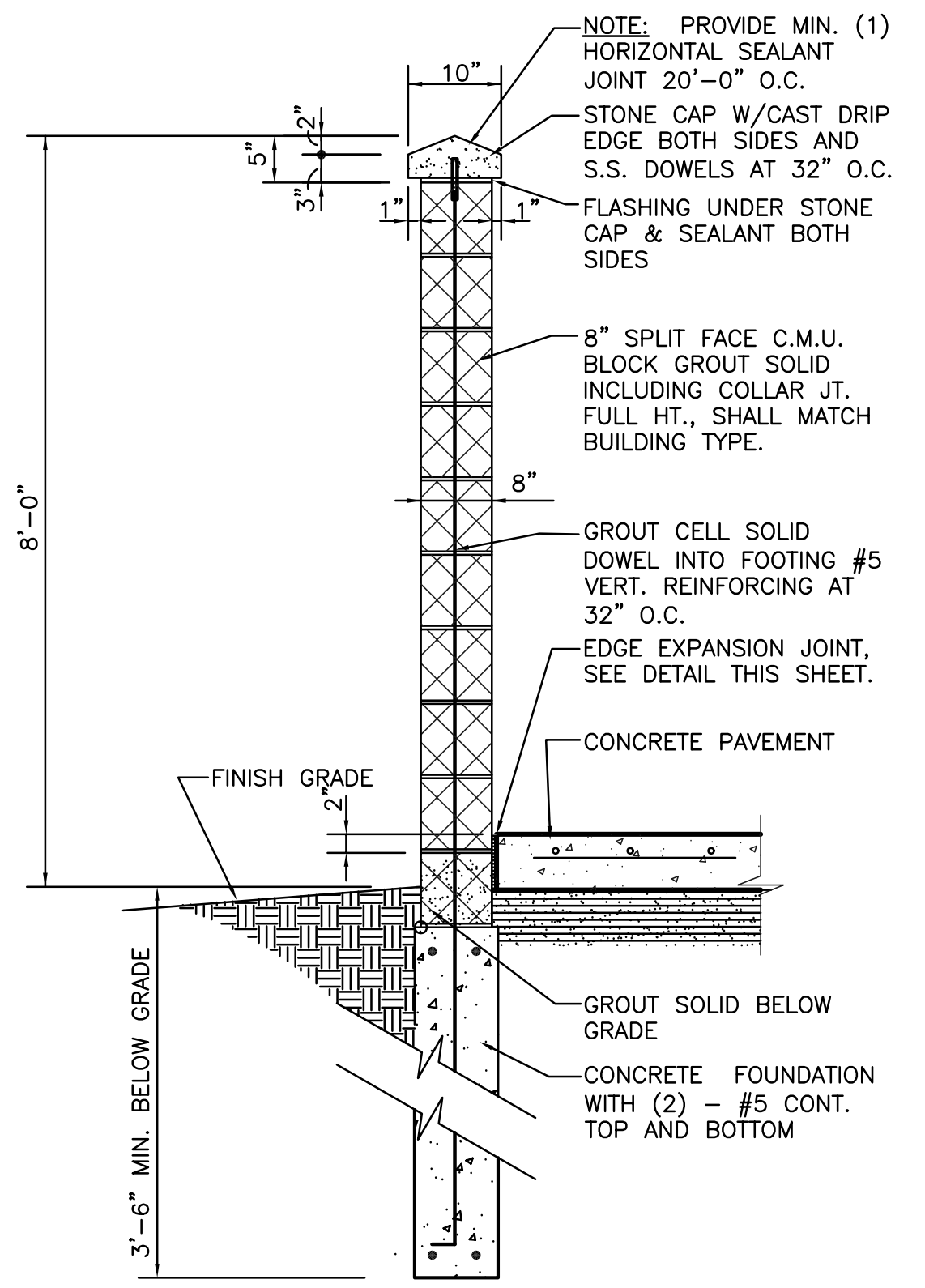
DOG-EAR FENCE
N.T.S.



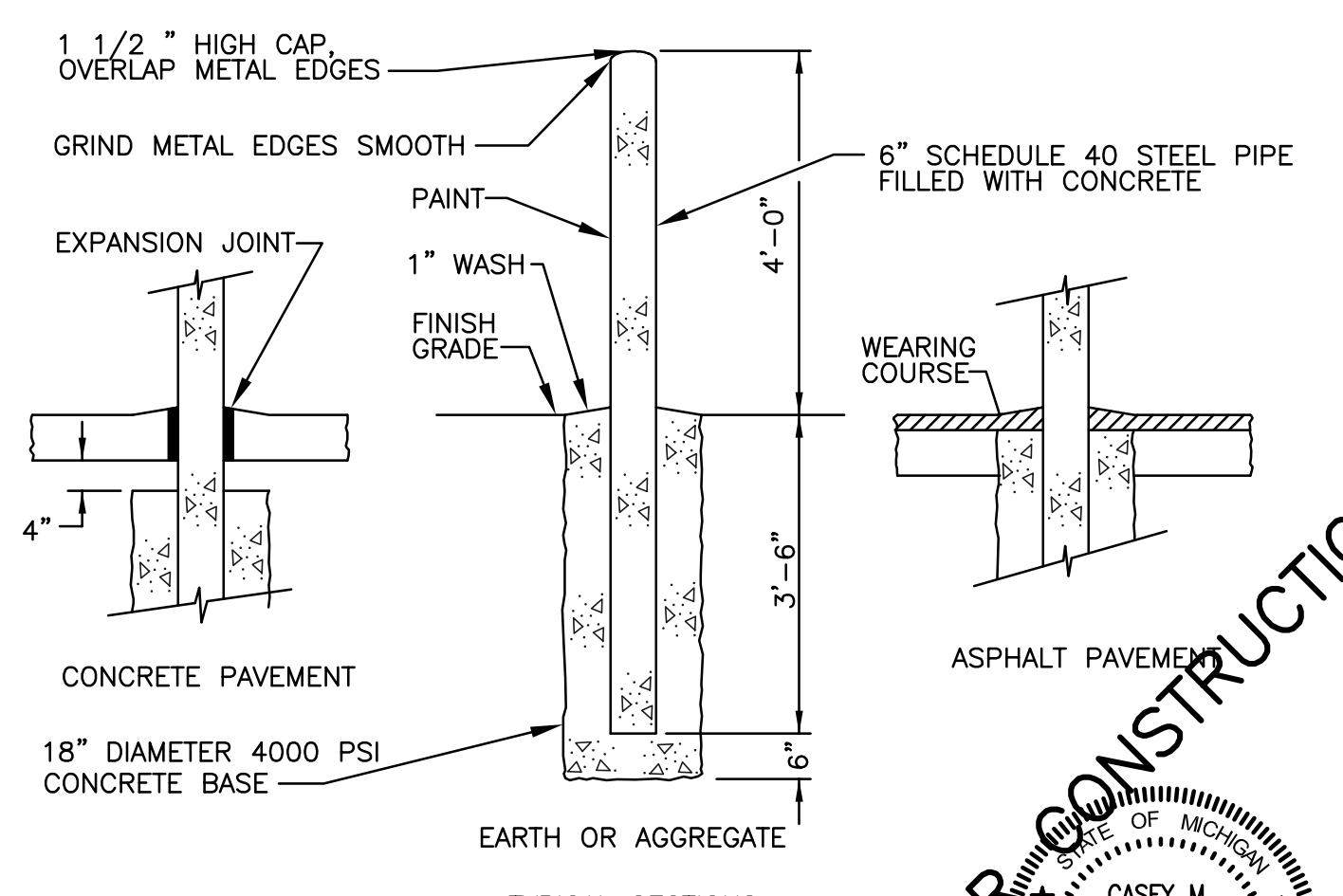
DUMPSTER ENCLOSURE PLAN
N.T.S.



ELEVATION AT DUMPSTER ENCLOSURE GATES
N.T.S.



DUMPSTER ENCLOSURE WALL SECTION
N.T.S.



PROTECTION BOLLARD
N.T.S.

DATE	ISSUE
04/19/24	PRELIMINARY SITE PLAN

PROPRIETOR:
LASTING IMPRESSIONS
2255 PORTER ROAD
WHITE LAKE, MICHIGAN 48383
(248) 830-2828

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DATE	CKD. BY	DATE
04/18/24	CL	04/19/24
DESIGN: CL		
SECTION: 1	T- 3 -N- R- 8 -E-	



DETAILS - DUMPSTER ENCLOSURE & FENCING
LASTING IMPRESSIONS
PART OF THE NORTH 1/2 OF SECTION 1, T3N, R8E,
WHITE LAKE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

SCALE: AS SHOWN
SHEET NO: C5.02
KE 2023.104

NOT FOR CONSTRUCTION

LASTING IMPRESSIONS

NOTES:
1.

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DESIGN PROFESSIONAL IN CHARGE:



SHEET NAME:
ELEVATIONS

DATE :	04-19-2024
DRAWN BY :	JN_LZ
CHECKED BY :	JN
JOB NO. :	23-207

SHEET:

A3.1

SCALE: 1/4" = 1'-0"

KEYNOTES:

EX-1	PRE-FINISHED CORRUGATED METAL ROOF
EX-2	PRE-ENGINEERED METAL FASCIA
EX-3	PRE-ENGINEERED METAL WALL PANEL
EX-4	ALUMINUM INSULATED SLIDING WINDOWS
EX-5	GROUND FACE SINGLE SCORE 8" C.M.U.
EX-6	SPLIT FACE 8" C.M.U.
EX-7	14 FEET X 16 FEET OVERHEAD DOOR
EX-8	6" ALUM. DOWNSPOUTS TO DISCHARGE ON CONC. SPLASH BLOCKS ABOVE GRADE
EX-9	ALUM. FRAME ENTRY DOOR
EX-10	REMOTE EMERGENCY EXIT LIGHT
EX-11	12" ROUND CONCRETE BOLLARD FILLED W/ CONC. 48" ABOVE GRADE & 42" BELOW GRADE
EX-12	RIGID STEEL FRAME
EX-13	INSULATED STEEL MAN DOOR
EX-14	STEEL AWNING OVER ALUM. FRAME
EX-15	6" COMMERCIAL ALUM. GUTTER
EX-16	6" TALL ADDRESS NUMBERS VISIBLE FROM THE STREET SHALL E RECD ADDRESS LOCATION IS SUBJECT TO FIRE MARSHAL APPROVAL
EX-17	TRANSOM WINDOWS
EX-18	SMOOTH FACE C.M.U.

