

June 13, 2024

Mr. Sean Homyen
Planning Department
City of the Village of Douglas
86 W Center Street/PO Box 757
Douglas, MI 49406

RE: 319 Ferry Street – Site Plan Application Resubmittal

Allegan County, Michigan

Dear Mr. Homyen:

Enclosed, please find the following items being submitted for site plan review and approval at the July 11, 2024, Planning Commission meeting. Note that the previous submittal included proof of ownership, geotechnical report, reservation of easements agreement, exhibit B to the Master Deed, and the Stipulated Settlement Agreement. We understand that you do not need additional copies of those with this submittal. Enclosed is:

- Narrative
- Application
- Environmental Site Assessment (short report)
- Architectural Elevation
- Photometric Plan
- Wetland Map
- Illustrative Rendering

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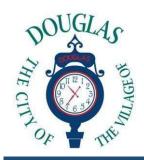
Site Plan Set

If you have any questions or require additional information, please feel free to call me at (616) 575-5190 or via email at choyt@nederveld.com.

Sincerely,

Charles Hoyt

Project Manager



## Site Plan Review Application Application Fee \$300

Additional Fees May Apply

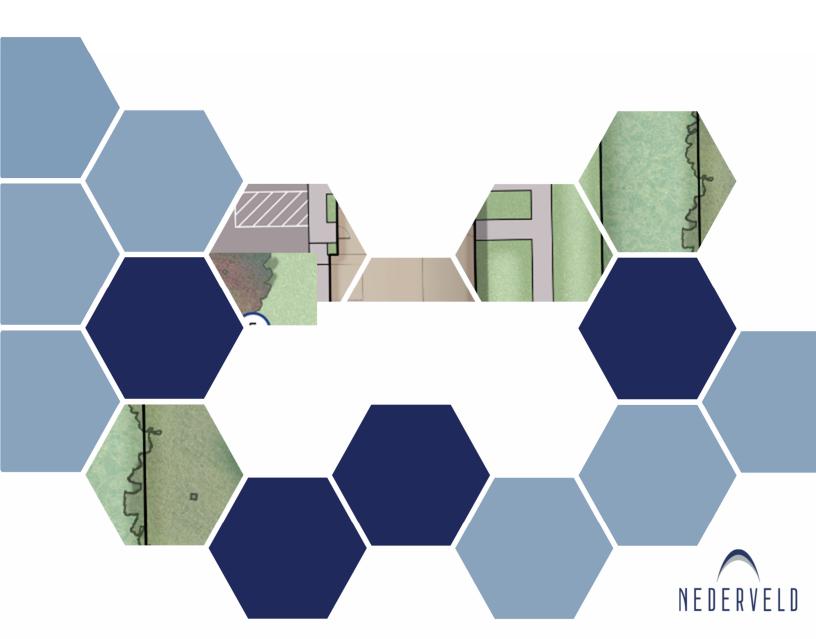
#### The Village of Friendliness – Since 1870

Property Information:	
Address or Location: 319 Ferry Street	
Parcel Number:03-59-017-089-90	Property Size: 0.83 Acres (excluding ROW)
Zoning District – Current: R5	Proposed Zoning District (if applicable):n/a
Existing Use of Building/Property: Parking/vacant	Special Use (if applicable):n/a
Type of Project (Residential or Commercial):Residential	al
Describe Proposed Project:Multi-family Residential Deve	elopment - see attached narrative
Estimated Project Cost:	
Site Plan Review Application Requirements	
Yes, I have read the City of Douglas Zoning Ordinance	Article 24 Site Plan Review
Y N N/A	
<ul><li>✓ □ □ Completed Site Plan Review application</li><li>✓ □ □ Plot Plan</li></ul>	
■ □ □ Legal Description	
□ □ Narrative Description	
Jack Brown hereby state that	all the above statements and all the accompanying information
are true and correct.	
	2/26/2024
Signature of Owner/General Contractor	Date
Email Address: jack@amkproperties.com	
Phone:734-323-3883	

#### **FOR INTERNAL USE ONLY**

# 319 Ferry St

CITY OF THE VILLAGE OF DOUGLAS



## **PROJECT NARRATIVE**

#### **UPDATE 6.12.24**

This revised submittal represents site plan changes pursuant to discussions with the City of the Village of Douglas Planning Commission as well as Planning staff. The project is still significantly the same, in that it remains a multi-family residential development, but changes to the layout including a revision from 6 to 4 units are shown within the included plan set. The following is a discussion of several details of the site plan resubmittal.

#### Site Layout

The site layout has been revised to orient the building from north-south to east west as well as reduction from 6 units to 4 units. The building facade will now face along the private entrance drive which connects to Blue Star Highway with the traditional front door elevation and front porches facing the entrance drive. Note that the sidewalk, which ultimately connects to the Blue Star Highway bike path, is also present at this front elevation. This condition further defines this building as a walkable and sensibly scaled building in relation to public spaces.

The rear of the units will now face toward a newly constructed parking lot with 17 parking spaces. Note that the previously included garages within the units have been eliminated and therefore all parking will be accommodated by these 17 spaces. It should be noted, however, that 6 of the spaces shown within this newly constructed parking area will be encumbered by an easement, granting the rights of parking and ingress/egress to said parking spaces, to Halas, LLC, the "Isabella's" owner. This is depicted on sheet 902 which also includes a description of the purpose of this easement. Upon site plan approval of this site, an easement will be executed between the applicant and Halas, LLC and will be recorded with the County. There are therefore 11 remaining parking spaces which will be assigned to the proposed 4 unit building. A breakdown of the parking requirements is provided on sheet C-205.

An additional easement will be exectued memorializing the existing parking spaces as for the use of Halas, LLC exclusively. A depiction of the area of this easement is provided on sheet 902 as well. This easement will also include the existing dumpster which will continue to be for the exclusive use of Isabellas.

As a result of the site plan revisions, there is no longer the condition of a dead-end apparatus access which was present with the last site plan design. With the previous design, a hammerhead style turnaround or an access road out to Ferry St. would have been required in order to be within compliance of Sec 503.2.5 of the IFC code. The revised plan has eliminated this condition and this has been reviewed and initial response by the Fire Inspector indicates that the site plan is in compliance with IFC code.

The site plan revisions also now include a dumpster for the use of the 4 residences. Landscaping revisions have also been included within this revised plan, with the required amenities including landscaped courtyards, public benches, and access to public pathways.

#### Architecture

The architecture for the building has been revised to create a more interesting design. Responding to the Planning Commission's comments from the preliminary meeting, the building now displays a more inviting residential façade which looks less like commercial use indicated during the meeting. This architectural revision also reduced the overall length of the building down to 90', which is less than the maximum length noted in Sec 803. A (2) of the Zoning Ordinance, which states that no multiple family building shall exceed 120 feet in length. As noted above, the garages have been removed from the footprint of the structure, which allows for more usable square footage within each unit.

**Environmental & Wetland** 

Several questions during the preapplication meeting were centered around the presence of contamination at neighboring sites to this property. It was also noted within the engineer's review letter from Prein & Newhof dated March 11, 2024 that "documentation to show due care compliance as required under part 201 of PA 451 must be provided as this site is in close proximity to site that shows Baseline Environmenal Assessments and storage tanks on the EGLE environmental mapper." In response, the applicant has engaged with Fishbeck Environmental Consultants to conduct a Phase I Environmental Site Assessment. This report was completed on April 26, 2024 and an abbreviated version of which is included within this submittal. As noted on the report, it was abbreviated from the original 1,500 pages, but includes the executive summary and the entire report can be made available upon request. As noted within the executive summary, the assessment "revealed no evidence of Recognized Environmental Conditions (RECs) in connection with this property." When no RECs are discovered on a site, there is no call to proceed to a Phase II Environmental Site Assessment, then subsequently a Baesline Environmental Assessment, then finally a Due Care Plan, as noted within part 201 of PA 451. Fishbeck's report makes the statement that "no further assessment of the Subject Property is warranted at this time" and the applicant chooses to follow the recommendation of the environmental consultant.

With regard to any existing wetlands on the site, which was another topic of discussion of the Planning Commission, the applicant has engaged a wetland expert from Peterson & Vandenberg Environmental, LLC. The consultant, Zach Vandenberg, conducted a wetland delineation on April 19, 2024 and delineated on 0.0017ac wetland. This was identified as an emergent wetland and is associated with a stormwater inlet on the east side of the property adjacent to Ferry St. A copy of the wetland map is provided within this submittal. For EGLE to have regulatory authority over a wetland, the wetland must be contiguous (within 1000 feet) to a Great Lake, (within 500 feet) to a lake, pond (greater than one acre in size), and/or stream and/or the wetland complex must be greater than 5 acres in size. The wetland delineated on this site does not appear to be regulated by EGLE because it is less than 5 acres in size and does not appear to be contiguous to any lake, pond, or stream. The applicant has therefore submitted a Wetland Identification Program (WIP) review request to EGLE, which will verify the delineated boundaries on this site and any of EGLE's jurisdiction thereof. This WIP review should take place prior to the Planning Commission meeting and the applicant requests to provide results of which at that time.

#### Site Engineering

The basic site engineering of the site remains largely the same as the previous submittal, with municipal water and sewer being provided to the building, with a single water meter proposed. The only engineering change of significance is the relocation of the proposed stormwater detention basin which is now located at the northern end of the site. Further survey work to investigate the stormwater piping network discovered that the flow of stormwater does, in fact, flow to the east and south ultimately connecting with the Tannery Creek watershed. It should also be noted that the existing fire hydrant along the entrance drive will need to be relocated to the east. Revised grading and utility plans are included within this submittal.

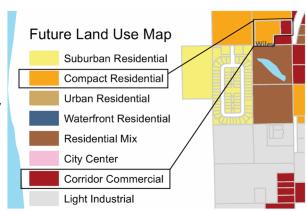
#### Summary

The applicant has listened to the feedback provided by City of the Village of Douglas Planning Staff, reviewing agencies, and Planning Commission and has responded with efforts to create an improved project. The enclosed submittal is reflective of the applicant's commitment to be responsive to the concerns and wishes of the community. We ask that this site plan submittal be approved without condition.

Note: below is the original narrative from the initial submittal. As it contains background information, it is included in this submittal. However, note that some of the details have changed, which was described above.

#### PROJECT DESCRIPTION

The following narrative is pursuant to Article 24 SITE PLAN REVIEW of the City of The Village of Douglas Zoning Ordinance, adopted in 2009, as well as the Site Plan Review Application. The proposed project is located at 319 Ferry St in Douglas on an existing vacant site. The applicant, AMK Properties, is a Michigan-based real estate developer and property manager with decades of experience in the real estate industry. AMK's mission is to be a driving force for real estate growth in local communities through a variety of real estate investments. Quality of construction and attentive property management is the hallmark of AMK developments and they



are excited to include 319 Ferry St into their Tri-Communities portfolio. Further information on AMK is provided.

Located at the corner of Ferry St and Blue Star Highway, near 130th Avenue, the project is adjacent to the existing Northern Lights Condominiums and Isabel's Market. The current zoning of the property is R-5 Multiple Family District. As defined within Article 8 of the Zoning Ordinance, the R-5 Multiple Family District is to "provide for residential development densities within the City with mostly multi-family dwellings as presented in the Tri-Community Comprehensive Plan. It is the intent of this District to protect and encourage the multiple family residential character of the property". The proposed development not only fulfills these requirements, but it also meets all dimensional standards for lot area, frontage, setbacks, floor area, and height for the R-5 zone district. Further details of the building are provided below.

The proposed project is a single 5,500 sf building containing 6 townhome units. The building will be oriented north-south, with the garages facing to the west and porches to the east facing Ferry St. Vehicular access will

Legend
Rural Low Density Single Family Residential/Agricultural
Medium to High Density Single and Multi-Family Residential
Mixed Use Residential/Commercial
Waterfront Mixed Use

be via the existing parking lot, but note that an easement is in place allowing for the Northern Lights residents to maintain access to their parking area. The garages will accommodate one vehicle each, but each residence will also retain two parking spaces within the parking lot, bringing the total amount of parking to 18 spaces. As noted within sheet C-205 of the site plan submittal, the number of parking spaces required for this site as calcu-

lated in the Multiple Dwellings category of Section 19.03 of the Zoning Ordinance is 14.

The following breakdown provides unit details for the building:

2 Units: 3 bedroom, 2.5 bath, 1,625 sf (not including garage) garage 318 sf

4 Units: 2 bedroom, 2.5 bath, 1,276 sf (not including garage) garage 296 sf

The building height of the proposed structure is 28' to the highest point of the roof and 24'-3'' to the midpoint of the highest roof. As noted on sheet C-205 this is in compliance with the R-5 standards. Regarding the length of the building, the design approach was to breakdown the scale of the front and rear face/façade to provide a residential scale to the project. The building footprint and elevations align with the Douglas Multi-family Design Guide. With six (6) residential units, faces of the building were created which provide depth, identify each residence, and locate primary entrances to each unit. No one face of the building exceeds 30' while walkways and material changes identify units and primary entrances

The location of the proposed project is less than 1 mile from the Village Commercial District, as defined in The City of the Village of Douglas Zoning Map. With the existing bike path along Blue Star Highway, a safe and interesting walk or bike ride to the Business District and beyond can be enjoyed by all residents of the proposed project. This bike path provides for not only a functional access to amenities, but an opportunity for recreation for the residents of the proposed project. As noted in the Tri-Community Master Plan, recreation opportunities are essential to the quality of life within Douglas. This bike path, which was placed as the "highest priority" amenity within the Master Plan, is easily accessible from the townhomes at 319 Ferry and provides the best opportunity for direct recreation or access to public recreation areas. As there are only 4 townhome units on the proposed site, and the site itself is quite small, the reasoning for and opportunity of on-site recreation is not proposed.

#### **MASTER PLAN**

The Tri-Community Master Plan defines the goals and general directions for land use decisions for the City and Township of Saugatuck as well as the City of the Village of Douglas. While the proposed project is a by-right plan, not seeking a re-zone or Special Land Use, it is required within the Site Plan Review requirements that a project note its compliance with the recommendations of the Tri-Community Master Plan.

As noted above, the proposed project is currently located within the R-5 Multiple Family Zone District. Within The City of The Village of Douglas Master Plan, however, the Future Land Use Map notes the property as Corridor Commercial. The Corridor Commercial future land use is described as accommodating large-scale retail, eating and drinking establishments, medical facilities, and other similar uses. Those uses are typically suited to be placed directly along Blue Star Highway, however the current project is located further away from Blue Star, its frontage on Ferry. Any use described above would not be visible from Blue Star and the business would suffer as a result. As this property has much more of a relationship to the existing Northern Lights Condominium project, whose Future Land Use within The Village of Douglas Master Plan is Compact Residential, the proposed multifamily use is more appropriate than a commercial use. It should be noted that all other uses with frontage on Ferry St have a Future Land Use designation of Compact Residential or Residential Mix. Furthermore, the Tri-Community Master Plan notes this property as Mixed Use Residential/Commercial, which seems to be a more appropriate designations for this site.

The proposed project is consistent with the Growth Management subsection, and the policies defined within, of the Tri-Community Master Plan. Specifically, this project is proposed in a manner which is orderly and consistent with adjacent developments. It further is serviced within the capacity of existing public services and facilities. The proposed project also fulfills the policy goal of encouraging new developments to be in compact increments adjacent to new development. Finally, the project is planned in accordance with several of the Ten Tenets of Smart Growth, as defined in the Tri Community Master Plan. Specifically, the tenets within the Master Plan of (1) Create a range of housing opportunities and choices, (2) Create Walkable Neighborhoods, and (10) Take advantage of compact development design, are fulfilled and supported by this proposed development.

To summarize, this project, while not necessarily located within a Future Land Use area consistent with the proposed use, is consistent with the spirit and goals of the Tri Community Master Plan. This project will provide residential dwelling options which are desired within the Master Plan and will fulfill the general design goals and policies within the Master Plan as well.

#### IMPACT ON EXISTING INFRASTRUCTURE

The proposed project is anticipated to have minimal impact on the existing infrastructure and the natural environment. As the proposed development contains only 4 dwelling units, the proposed trip generation on the existing roads is expected to have minimal impact. It is furthermore expected that this project would not have any significant impact on area schools as this housing type is less likely to have school-aged children residing there and with only 4 units there would not be an impactful number anyway.

The subject site is provided with sanitary sewer and water service. It is the intent of this project to utilize both of these utilities and initial review indicates that both of these services are adequate to supply the site. The 8" sanitary sewer is located at the northern end of the site and connects to a 12" sanitary pipe within the Ferry St Right of Way. The 6" watermain is located within an easement at the southern end of the site, which the building will access, with a fire hydrant located approximately 40' from the proposed building. Franchise utilities, including gas, electric, cable, and phone are all available to this site and all provide adequate supply of services for the proposed use.

The proposed use of this property is not anticipated to have an environmental impact on the existing site or on any of the neighboring sites. The building will utilize the existing parking lot, therefore minimizing the environmental impact of construction. With the exception of the construction of a stormwater detention basin, the natural environment will remain largely intact, with the buffer of existing trees and plant life adjacent to Ferry St to remain in place. Neighboring properties will enjoy the same quiet, peaceful, and clean environment that they have benefited from in the past. As this site has not been used previously, there is no reason to suspect any contamination or other sub-surface impurities on this site.

The stormwater detention basin, as shown on the included site plan set, has been designed to LGROW standards and is designed to accommodate all of the impervious surfaces for the proposed project. The stormwater management design will be engineered so as not to negatively impact any neighboring property. Once fully designed, the stormwater design will be provided to the Allegan County Drain Commissioner for review and approval.

## STATEMENT FROM THE APPLICANT IDENTIFYING ALLL OTHER FEDERAL, STATE, AND LOCAL PERMITS, IF REQUIRED

The project located at 319 Ferry St will not be required to obtain any Federal or State permits for the development or construction of the project. Local permitting will include City of The Village of Douglas engineering permit, Allegan County Drain Commissioner Permit for stormwater management, and Soil Erosion and Sedimentation Control permit through the Allegan County Road Commission. Copies of all permits, when acquired, can be provided to City of The Village of Douglas representatives upon request.

#### **CONCLUSION**

The project located at 319 Ferry street has been designed to be compliant with the applicable sections of the Zoning Ordinance and consistent with the pertinent sections of the Tri-Community Comprehensive Plan. This project will preserve and enhance the existing community character of this area of the City and is compatible with all neighboring uses. This project promotes smart and efficient design to cause the minimal amount of impact on the environment and City infrastructure.

Finally, a review of the standards as required within the Ordinance. The following Site Plan Approval Standards are outlined within Section 24.03 of the Zoning Ordinance:

1) Drainage: Site plans shall fully conform with the surface water drainage standards of the County Drain Commission and/or the US Corp of Engineers if applicable.

The site plans will fully conform with the standards of the Allegan County Drain Commissioner. Plans will be submitted for Commissioner approval and documentation of such can be provided to the City.



Phase I Environmental Site Assessment 319 South Ferry Street City of the Village of Douglas, Michigan

**Prepared For:**AMK Holdings, LLC
Saline, Michigan

Project No. 240673 April 26, 2024

\*City of the Village of Douglas Site Plan Submittal Note:

This report in its entirety is approximately 1,500 pages. For the sake of submittal brevity, only the Executive Summary is provided herein. A copy of the full Environmental Site Assessment can be produced upon request.





#### **Phase I Environmental Site Assessment**

319 South Ferry Street
City of the Village of Douglas
Allegan County, Michigan 49406

Parcel Number: 59-017-089-90

Prepared For: AMK Holdings, LLC Saline, MI

April 26, 2024 Project No. 240673 April 26, 2024 Fishbeck | Page 1

#### 1.0 Executive Summary

Fishbeck has performed a Phase I Environmental Site Assessment (ESA) of the residential property located at 319 South Ferry Street, City of the Village of Douglas, Allegan County, Michigan (Subject Property). The Phase I ESA has been performed in accordance with the ASTM Standard Practice for Phase I ESAs (Standard E1527-21) and in conformance with the federal rule for All Appropriate Inquiry. For reference, Appendix 1 contains the ASTM Standard Practice E1527-21 Definitions. A Location Map and a Site Map for the Subject Property are included in Appendix 2.

Non-CERCLA issues that are not typically part of the ASTM standard scope of investigation (i.e., asbestos, lead paint, radon, mold, vapor intrusion, wetlands, emerging contaminants, and universal wastes) were not addressed as part of this Phase I ESA. The Phase I ESA was conducted for the redevelopment planning of the property. This report was prepared for the exclusive use of AMK Holdings, LLC (the User), which may rely on the report contents.

The Subject Property consists of one legal parcel occupying approximately 1.02 acres currently developed with an asphalt-covered parking lot and an asphalt-covered access road with no structures present. Development has consisted of agricultural fields prior to 1938 until the mid-1970's when vacant land was present. By the mid-1990's, the current access road located along the southern boundary is present and by the early 2000's the parking lot currently present along the western portion is present. Development since that time has remained as the southern access road and the western parking lot with the remaining portion being grass-covered land.

The Former Haworth Property located at 200 Blue Star Highway is identified as the Village of Douglas Contamination site that is a known source of petroleum and solvent-based VOC impacts to soil and groundwater. Data from groundwater sampling completed between 2003 and 2013 show a plume of VOC impacts migrating to the northwest with impacts to groundwater identified in multiple areas up to 0.6-mile northwest of the property. Hydrogeological studies completed for the 200 Blue Star Highway in connection with the identified groundwater contamination originating from the property calculated the groundwater flow in the area to be to the northwest, placing the Subject Property down-gradient from the 200 Blue Star Highway property.

No significant data gaps were encountered for the Phase I ESA.

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-21 of the Subject Property. Any exceptions to, or deletions from, this practice are described in the Limitations and Exceptions section of this report. This assessment has revealed no evidence of Recognized Environmental Conditions (RECs) in connection with the property.

No documentation regarding the specific nature of demolition activities associated with the Subject Property has been identified. As such, Fishbeck recommends that any historical utility features/structures potentially encountered in the future be properly abandoned.

No further assessment of the Subject Property is warranted at this time.

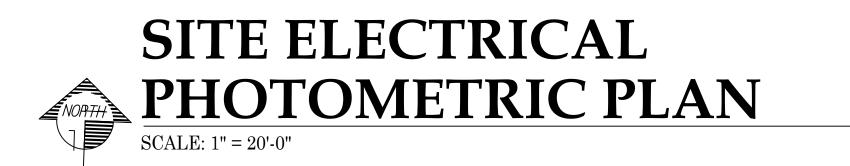
This Phase I ESA report will remain viable, if it was completed no more than 180 days prior to the date of acquisition or occupancy. The viability date is based on the earliest of the dates of the following five components:

- 1. Date of site reconnaissance: April 9, 2024 and April 16, 2024
- 2. Date of interviews: April 16, 2024 (User); April 11, 2024 (Owner)
- 3. Date of search for recorded environmental liens: April 8, 2024
- 4. Date of review of federal, state, and local government records: April 8, 2024
- 5. Date of Environmental Professional Declaration: April 26, 2024

Report 180-day viability date: October 5, 2024







LUMIN	AIRE S	CHEE	DULE						
Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
$\otimes$	SA	12	WF6 LED 40K	6" MATTE WHITE LED ULTRA-THIN WAFER DOWNLIGHT, 4000K CCT, LEXTAR 2835 LED	LED	WF6 LED 40K.ies	Absolute	0.81	13.5
	SB	4	WPX3 LED 40K Mvolt	WPX3 LED wallpack 9000lm 4000K color temperature 120-277V MT. 18" AFG	LED	WPX3 LED 40K Mvolt.ies	Absolute	0.81	72.33

STATISTICS					
Description	Symbol	Avg	Max	Min	Avg/Min
FRONT SIDEWALK	+	3.3 fc	7.2 fc	0.4 fc	8.3:1
PARKING	+	3.0 fc	12.2 fc	0.1 fc	30.0:1
PARPERTY LINE	+	0.0 fc	0.1 fc	0.0 fc	N / A

## NOTE:

LIGHTING IS FULL CUTOFF TYPE SO THAT LIGHT EMITTED FROM FIXTURES ARE BELOW THE HORIZONTAL PLANE. THIS IS TO MEET CITY EXTERIOR LIGHTING REQUIREMENTS.

David "Pron

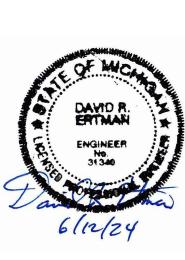


MI 49406

SITE PHOTOMETRIC

PLAN

SE-1.0





#### **FEATURES & SPECIFICATIONS**

light output and efficiency while eliminating the housing for competitive affordability. This innovative wafer-slim Type IC design allows easy installation for new construction or remodel from below the ceiling without the requirement of a pot light housing. The LED module maintains at least 70% light output for 36,000 hours. These LED Wafer downlights are intended for closets, attics, hallways, bathrooms, kitchens, basements, soffits, entry ways, porches, garages, stairwells, corridors, nursing/retirement homes, condos, elevators, apartments, and any other small areas.

**CONSTRUCTION** — Ideal for shallow ceiling plenum since a pot light housing is NOT required. IC rated driver and fixture - approved for direct contact with insulation. Aluminum die cast outer frame. Durable, powder coat paint to prevent rust. Round fixture with integral edge-lit LED's. Steel spring clip for easy installation. Plenum rated cable connector to connect from module to remote driver box. Isolated driver integrated inside steel remote box with four 7/8" knockouts with slots for pryout. Suitable for pulling wires with the 12 cubic-inch wiring compartment to accommodate up to (6) 14 gauge insulated conductor, or (4) 12 gauge insulated conductors; making the Wafer LED Downlights much easier to wire in 2in/2out (plus ground) daisy-chain applications and contractor friendly.

#### PATENT PENDING.

INSTALLATION — Ideal for shallow ceiling plenum; no housing required. Steel spring clip for easy installation. 6" cut out template is provided to ensure a correct sized hole is cut into ceiling for proper installation of the trim. Size of hole should not exceed 6 1/4 inches for this product. Suitable for installation in t-grid and drop ceiling applications with the WF8643 Pan. 2" plenum space required for installation of the remote driver box.

**OPTICS** — Polycarbonate lens provides even illumination throughout the space.

**ELECTRICAL** — Connect directly to 120V power supply via provided UL recognized driver. High efficient  $driver with power factor > 0.9. Ambient operating temperature: -40^{\circ}F (-40^{\circ}C) \ to \ +104^{\circ}F (+40^{\circ}C). Dimming$ down to 10% (See page 2 for recommended dimmers). Replaces 75W incandescent for 865 lumens and 100W incandescent for 1020 lumens.

LISTINGS — CSA certified to US and Canadian safety standards. ENERGY STAR® certified product. Wet location. Air Tight certified in accordance with ASTM E283-2004. NOM Certified.

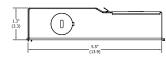
WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:

www.acuitybrands.com/support/warranty/terms-and-conditions

**Note:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

**Specifications** Aperture: 4.9 (12.4) Ceiling opening: 6 (15.2) Overlap trim: 6.7 (17) Height: 1.1 (2.8)





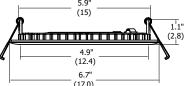
Catalog

Number

Notes

Type





All dimensions are inches (centimeters) unless otherwise indicated

INTENDED USE — The 6"Wafer-Thin LED recessed downlight with remote driver box combines high quality and the same of t

6" LED Module

New Construction/Remodel

**Wafer LED Recessed Downlight** 









#### ORDERING INFORMATION

WF6				
Series	Lamp	CCT/CRI/W/Lumens <sup>1</sup>	Finish	
WF6 6" wafer-thin LED downlight	<b>LED</b> LED	<b>30K</b> 3000K/80CRI/13W/1020L	MW Matte white	

#### Notes

1 Total system delivered lumens

**Example: WF6 LED 30K MW** 

#### Accessories: Order as separate catalog number.

WF8643 PAN R6 Universal new construction pan, retail pack of 6 WF8643 PAN U Universal new construction pan, unit pack WF6 PAN R12 6" new construction pan, retail pack of 12 WFJB U Remodel Joist Bar

WFEXC6 U 6' 2 pin FT4 cable WFEXC10 U 10' 2 pin FT4 cable WFEXC20 U 20' 2 pin FT4 cable

WF6GR MW JZ 6" round oversized trim ring









**Remodel Joist Bar** 

**Extension Cable** 

WF6 **DOWNLIGHTING** 

#### **PHOTOMETRICS**

Distribution Curve Distribution Data		Output Data Coefficient of Utilization		Illuminance Data at 30" Above Floor for a Single Luminaire								
<b>F6 LED 30K</b> , 3000 K LEDs, inp	out watts: 13, delivered	lumens: 1020, LM/W=78.5	, test n	o. ISF 30024								
			pf		20%							
			pc	80%	70%	50%						
	Ave Lumens	Zone Lumens % Lamp	pw	50% 30% 10%	50% 30% 10%	50% 30% 10%			E00/ I		400/ 1	
80		0° - 30° 294.0 28.5	0	119 119 119	116 116 116	111 111 111			50% be		10% be	
	5 380 36	0° - 40° 477.1 46.2	1	104 100 96	102 98 94	98 94 91		Inital FC	63.3		108.	.0-
$HY//V \rightarrow$	15 367 103	0° - 60° 823.9 79.8	2	91 84 78	89 83 78	85 80 76		Inital FC				
1////	25 336 155	0° - 90° 1031.8 100.0	3	80 72 65	78 71 65	75 69 64			D:	FC	D:	
1       ×   ×   60		90° - 180° 0.0 0.0	4	71 62 56	70 61 55	67 60 54	Height 8.0	Beam 12.6	Diameter 6.8	6.3	Diameter 15.1	1.3
	45 240 185	0° - 180° 1031.8 *100.0	5	63 55 48	62 54 48	60 53 47	10.0	6.8	9.2	3.4	20.6	0.7
	55 181 162	*Efficiency	6	57 48 42	56 48 42	54 47 41	12.0	4.2	9.2 11.7	2.1	26.1	0.7
1	65 121 120		7	52 43 37	51 43 37	50 42 37	14.0	2.9	14.2	1.4	31.6	0.2
$1 \setminus X \setminus I$	75 64 68		8	47 39 33	47 39 33	45 38 33	16.0	2.9	16.6	1.0	37.1	0.3
	85 17 20		9	44 35 30	43 35 30	42 35 30	10.0	2.1	10.0	1.0	37.1	0.2
40	。 90 2		10	40 32 27	40 32 27	39 32 27						

#### **ENERGY DATA & DIMMING CAPABILITY**

6" LOW LUMEN ENERGY DATA						
Color Temperature	3000K					
Lumens	800					
CRI	80					
Lumens/Watt	63.5					
Min. starting temperature	-40°C (-40°F)					
EMI/RFI	FCC Title 47 CFR, Part 15, Class B					
Sound rating	Class A Standards					
Input voltage	120V					
Min. power factor	0.99					
Input frequency	50/60 Hz					
Rated wattage	12.6W					
Input power	12.6W					
Input current	0.11A					

COMPATIBLE DIMMERS								
Leviton	Lutron	Sensorswitch	Synergy/Leviton					
6633-PA	Maestro MACL-153M (TX)	Diva/Skylark DVRP-253PCTRP-253P	Panel Module HW/LP-RPM-4A-120	nSP5 PCD 2W	ISD 600 I 120/IPI06			
IPL06-LED/INC mode	Maestro Wireless MRF2-6ELV	Skylark CTCL-150	Panel Module HW/LP-RPM-4U-120	nSP5 PCD ELV 120	ISD 400 ELV 120/IPE04			
6615-P	Gen 3.0 DVCL-153P (T9)	Caseta Wireless PD-5NE	Grafik QS/Wallbox LQRJ-WPM-6P					
	Maestro MSCL-0P153M	Maestro MACL-LFQ	Grafik Eye 3000 Family HWI-WPM-6D-120					
	Caseta Wireless PD-6WCL	RadioRA2 RRD-6NA	HomeWorksQS / my Room LQSE-4A1-D/ MQSE-4A1-D/MQSE-3A1/MQSE-2A1-D,120V					
	Grafik T GT-5NEM / GTJ-5NEM	HomeWorks HQRD-6NA	Homeworks QS LQSE-4A-120-D					

 $<sup>\</sup>hbox{**Requires Lutron Smart Bridge L-BDG2-WH (sold separately)}$ 







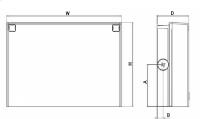








#### **Specifications**



#### Front View

Side View

Luminaira	Height (H)	Width (W)	Donth (D)	Side Condu	it Location	Weight
Lummaire	neight (n)	wiath (w)	Depth (D)	Α	В	weight
WPX1	8.1" (20.6 cm)	11.1" (28.3 cm)	3.2" (8.1 cm)	4.0" (10.3 cm)	0.6" (1.6 cm)	6.1 lbs (2.8kg)
WPX2	9.1" (23.1 cm)	12.3" (31.1 cm)	4.1" (10.5 cm)	4.5" (11.5 cm)	0.7" (1.7 cm)	8.2 lbs (3.7kg)
WPX3	9.5" (24.1 cm)	13.0" (33.0 cm)	5.5" (13.7 cm)	4.7" (12.0 cm)	0.7" (1.7 cm)	11.0 lbs (5.0kg)

# Catalog Number Notes Type

#### Hit the Tab key or mouse over the page to see all interactive elemen

#### Introduction

The WPX LED wall packs are energy-efficient, cost-effective, and aesthetically appealing solutions for both HID wall pack replacement and new construction opportunities. Available in three sizes, the WPX family delivers 1,550 to 9,200 lumens with a wide, uniform distribution.

The WPX full cut-off solutions fully cover the footprint of the HID glass wall packs that they replace, providing a neat installation and an upgraded appearance. Reliable IP66 construction and excellent LED lumen maintenance ensure a long service life. Photocell and emergency egress battery options make WPX ideal for every wall mounted lighting application.

#### **Ordering Information**

#### **EXAMPLE: WPX2 LED 40K MVOLT DDBXD**

Series		Color Temperature	Voltage	Options	Finish
WPX1 LED P1 WPX1 LED P2 WPX2 LED WPX3 LED	1,550 Lumens, 11W <sup>1</sup> 2,900 Lumens, 24W 6,000 Lumens, 47W 9,200 Lumens, 69W	30K 3000K 40K 4000K 50K 5000K	MVOLT 120V - 277V 347 347V <sup>3</sup>	(blank) None  E4WH Emergency battery backup, CEC compliant (4W, 0°C min)²  E14WC Emergency battery backup, CEC compliant (14W, -20°C min)²  PE Photocell³	DDBXD Dark bronze DWHXD White DBLXD Black Note: For other options, consult factory.

Note: The lumen output and input power shown in the ordering tree are average representations of all configuration options. Specific values are available on request.

#### NOTES

- All WPX wall packs come with 6kV surge protection standard, except WPX1 LED P1 package which comes with 2.5kV surge protection standard. Add SPD6KV option to get WPX1 LED P1 with 6kV surge protection. Sample nomenclature: WPX1 LED P1 40K MVOLT SPD6KV DDBXD
- 2. Battery pack options only available on WPX1 and WPX2.
- Battery pack options only available on Wi XI and Wi XZ.
   Battery pack options not available with 347V or PE options.

#### **FEATURES & SPECIFICATIONS**

#### INTENDED USE

The WPX LED wall packs are designed to provide a cost-effective, energy-efficient solution for the one-for-one replacement of existing HID wall packs. The WPX1, WPX2 and WPX3 are ideal for replacing up to 150W, 250W, and 400W HID luminaires respectively. WPX luminaires deliver a uniform, wide distribution. WPX is rated for ~40°C to 40°C.

#### CONSTRUCTION

WPX feature a die-cast aluminum main body with optimal thermal management that both enhances LED efficacy and extends component life. The luminaires are IP66 rated, and sealed against moisture or environmental contaminants.

#### ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs and LED lumen maintenance of L90/100,000 hours. Color temperature (CCT) options of 3000K, 4000K and 5000K with minimum CRI of 70. Electronic drivers ensure system power factor >90% and THD <20%. All luminaires have 6kV surge protection (Note: WPX1 LED P1 package comes with a standard surge protection rating of 2.5kV. It can be ordered with an optional 6kV surge protection). All photocell (PE) operate on MVOLT (120V - 277V) input.

Note: The standard WPX LED wall pack luminaires come with field-adjustable drive current feature. This feature allows tuning the output current of the LED drivers to adjust the lumen output (to dim the luminaire).

#### INSTALLATION

WPX can be mounted directly over a standard electrical junction box. Three 1/2 inch conduit ports on three sides allow for surface conduit wiring. A port on the back surface allows poke-through conduit wiring on surfaces that don't have an electrical junction box. Wiring can be made in the integral wiring compartment in all cases. WPX is only recommended for installations with LEDs facing downwards.

#### LISTINGS

CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. IP66 Rated. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at <a href="www.designlights.org/QPL">www.designlights.org/QPL</a> to confirm which versions are qualified. International Dark Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

#### WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:

 $\underline{www.acuitybrands.com/CustomerResources/Terms\_and\_conditions.aspx}.$ 

**Note:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.



#### **Performance Data**

#### **Electrical Load**

Luminaire	Input Power (W)	120V	208V	240V	277V	347V
WPX1 LED P1	11W	0.09	0.05	0.05	0.04	0.03
WPX1 LED P2	24W	0.20	0.12	0.10	0.09	0.07
WPX2	47W	0.39	0.23	0.20	0.17	0.14
WPX3	69W	0.58	0.33	0.29	0.25	0.20

#### **Projected LED Lumen Maintenance**

Data references the extrapolated performance projections in a  $25^{\circ}$ C ambient, based on 6,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.94	>0.92	>0.90

#### **HID Replacement Guide**

Luminaire	Equivalent HID Lamp	WPX Input Power
WPX1 LED P1	100W	11W
WPX1 LED P2	150W	24W
WPX2	250W	47W
WPX3	400W	69W

#### **Lumen Output**

Luminaire	Color Temperature	Lumen Output
	3000K	1,537
WPX1 LED P1	4000K	1,568
	5000K	1,602
	3000K	2,748
WPX1 LED P2	4000K	2,912
	5000K	2,954
WPX2	3000K	5,719
	4000K	5,896
	5000K	6,201
	3000K	8,984
WPX3	4000K	9,269
	5000K	9,393

## Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

Ambient	Ambient	Lumen Multiplier
0°C	32°F	1.05
5°C	41°F	1.04
10°C	50°F	1.03
15℃	59°F	1.02
20°C	68°F	1.01
25℃	77°F	1.00
30°C	86°F	0.99
35℃	95°F	0.98
40°C	104°F	0.97

#### **Emergency Egress Battery Packs**

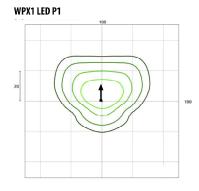
The emergency battery backup is integral to the luminaire — no external housing or back box is required. The emergency battery will power the luminaire for a minimum duration of 90 minutes and deliver minimum initial output of 550 lumens. Both battery pack options are CEC compliant.

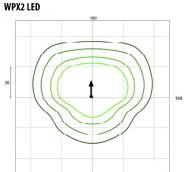
Battery Type	Minimum Temperature Rating	Power (Watts)	Controls Option	Ordering Example
Standard	0℃	4W	E4WH	WPX2 LED 40K MVOLT <b>E4WH</b> DDBXD
Cold Weather	-20°C	14W	E14WC	WPX2 LED 40K MVOLT <b>E14WC</b> DDBXD

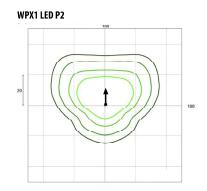
#### **Photometric Diagrams**

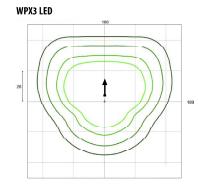
To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WPX LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards











Mounting Height = 12 Feet.





## **LEGEND**

- 1 PROPERTY BOUNDARY
- 2 EXISTING RIGHT OF WAY
- 3 PROPOSED MULTI-FAMILY DWELLING
- 4 EXISTING TREES TO STAY
- 5 PROPOSED LANDSCAPING
- 6 PROPOSED STORM BASIN
- 7 PROPOSED TRASH & RECYCLING

## **NOTES**

Site Location:

Site Location:

319 Ferry Street Douglas, MI 49406

Site Area (Excluding ROW)

Lot Coverage = 8.0%

Area of Proposed Building = 2,905 sq.ft.

Total Proposed Dwelling Units = 4 units

Setbacks:

Front = 25 ft.
Side = 20 ft.
Rear = 35 ft.



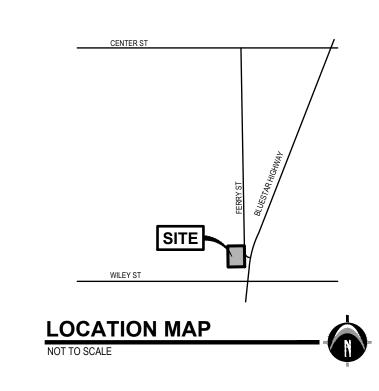




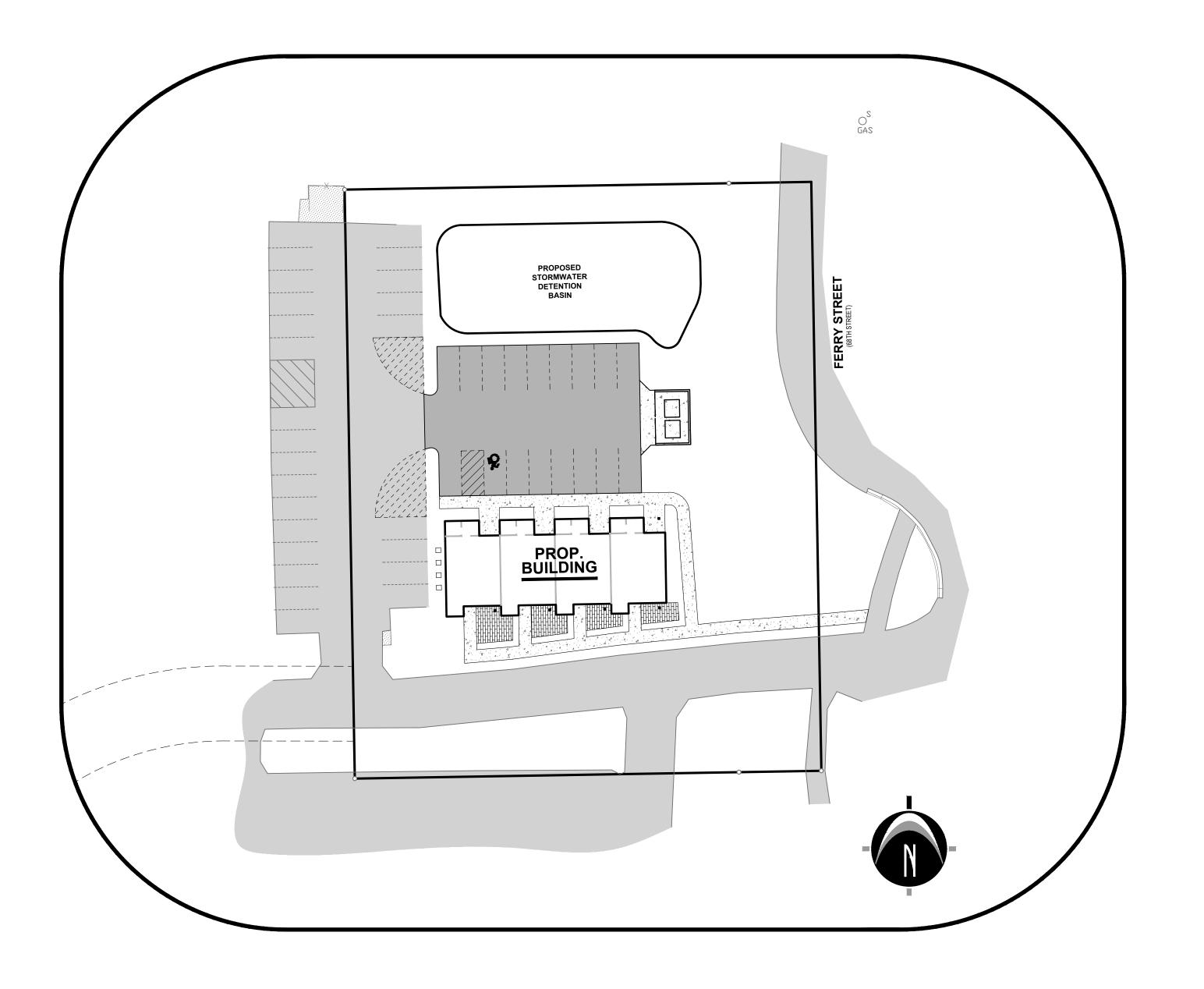


# 319 FERRY STREET

CITY OF DOUGLAS, ALLEGAN COUNTY, MICHIGAN



# SITE PLAN



## **SHEET INDEX**

SHEET INDEX		
Cover Sheet	C-100	Page 1
Topographic Survey	C-201	Page 2
Demolition Plan	C-203	Page 3
Aerial Vicinity Map	C-204	Page 4
Site Layout Plan	C-205	Page 5
S.E.S.C. & Grading Plan	C-300	Page 6
Utility Plan	C-400	Page 7
Details and Specifications	C-500	Page 8
Easement Plan	C-901	Page 9
Easement Plan	C-902	Page 10
Landscape Plan	L-100	Page 1

## TITLE INFORMATION

The Title Description and Schedule B items hereon are from Premier Lakeshore Title Agency, LLC (underwritten by First American Title Insurance Company), Commitment No. 4012-306561, dated March 7, 2023.

## TITLE DESCRIPTION

The land referred to in this Commitment, situated in the County of Allegan, City of Douglas, State of Michigan, is

Part of the Southeast 1/4 of Section 17, Town 3 North, Range 16 West, City of Douglas, Allegan County, Michigan, being described as: Commencing at the Southeast corner of said Section; thence North 00°59'13" West 164.00 feet along the East line of said Section to the point of beginning of the parcel of land herein described; thence South 89°02'37" West 187.00 feet parallel with the South line of said Section; thence North 00°59'13" West 236.00 feet; thence North 89°02'37" East 187.00 feet; thence South 00°59'13" East 236.00 feet along the East line of said Section to the point of beginning.



PREPARED FOR:

Lakewood Construction Inc.

800.222.1868

GRAND RAPIDS
217 Grandville Ave., Suite 302
Grand Rapids, MI 49503
Phone: 616.575.5190

ANN ARBOR

CHICAGO COLUMBUS

HOLLAND

INDIANAPOLIS

11253 James Street Holland, MI 49424 Phone: 616.392.6923

### **REVISIONS:**

Drawn: GAN Checked: JC Date: 2024.02.14

Title: Site Plan Submittal
Drawn: JM/MH Checked: JC Date: 2024.03.28

Title: Site Plan Submittal
Drawn: MV/MH Checked: CH Date: 2024.06.12

ry Street

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Cover 319 Ferry Street,

STAMP:

OF MICHICAL

JOHN

WILLIAM

CASSERLY

License No.
6201063767

COFESSION

CONTRACTOR

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CONTRACTOR

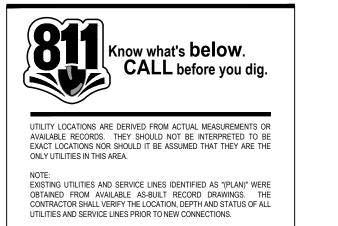
CASSERLY

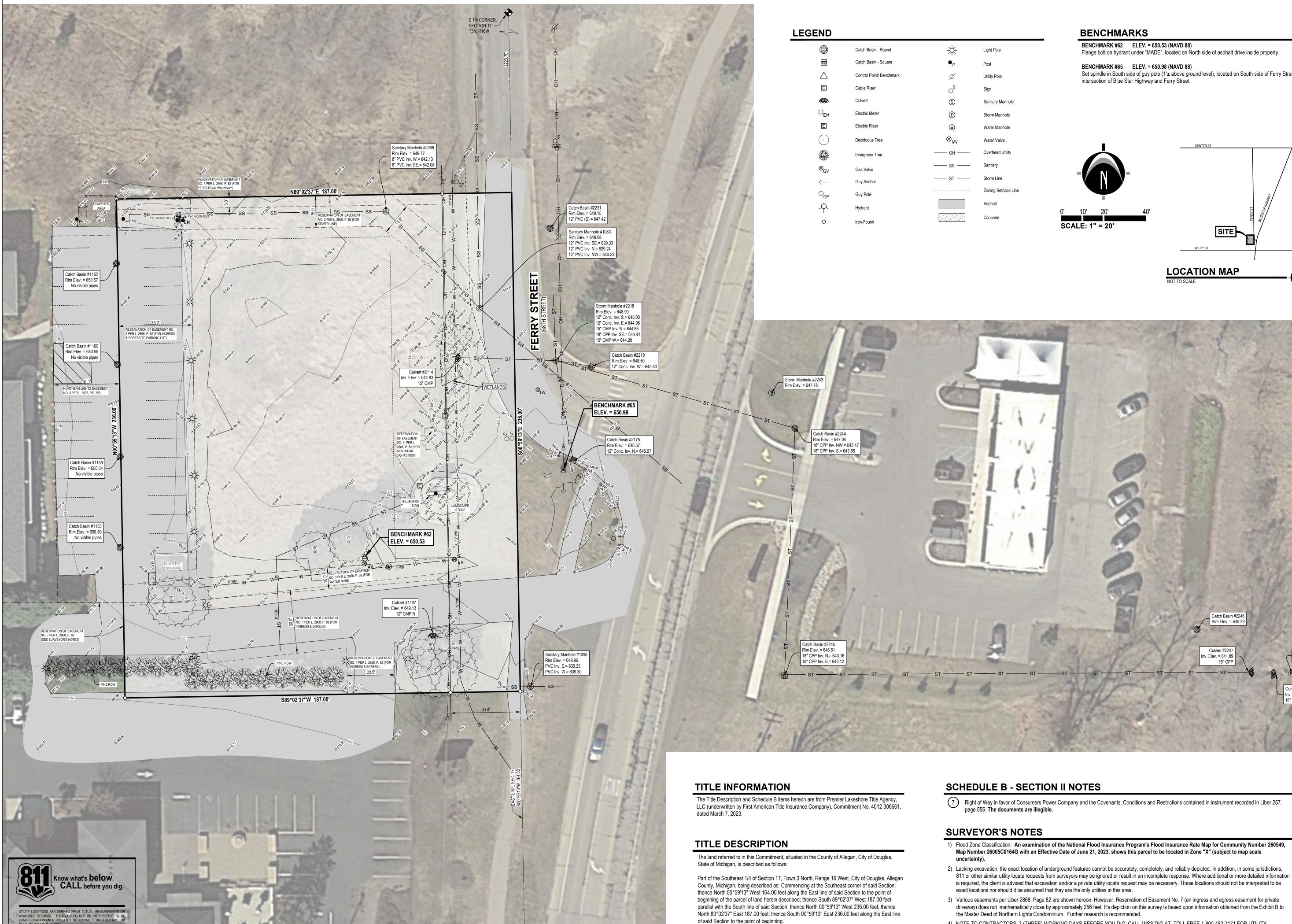
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PROJECT NO: 23201630

SHEET NO:

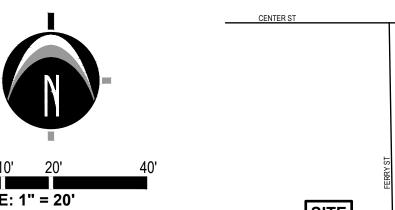




—Land Planning — Landscape Architecture — Civil Engineering — Land Surveying — High Definition Scanning — Forensic Engineering — Fire Investigation 📙

Flange bolt on hydrant under "MADE", located on North side of asphalt drive inside property.

Set spindle in South side of guy pole (1'± above ground level), located on South side of Ferry Street at



4) NOTE TO CONTRACTORS: 3 (THREE) WORKING DAYS BEFORE YOU DIG, CALL MISS DIG AT TOLL FREE 1-800-482-7171 FOR UTILITY

5) Care has been taken to meet proper setback requirements. However, municipal approval of the proposed location should be obtained prior to

LOCATIONS ON THE GROUND.

commencement of construction.

COLUMBUS HOLLAND INDIANAPOLIS

## PREPARED FOR:

Lakewood Construction Inc. Max Nykerk

www.nederveld.com

800.222.1868

**GRAND RAPIDS** 

217 Grandville Ave., Suite 302 Grand Rapids, MI 49503 Phone: 616.575.5190 **ANN ARBOR** 

CHICAGO

11253 James Street Holland, MI 49424 Phone: 616.392.6923

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Title: Site Plan Submittal Drawn: MV/MH Checked: CH Date: 2024.06.12

Survey, MI 49406

opographic

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Manhole #2250

Culvert #2248 Inv. Elev. = 640.90

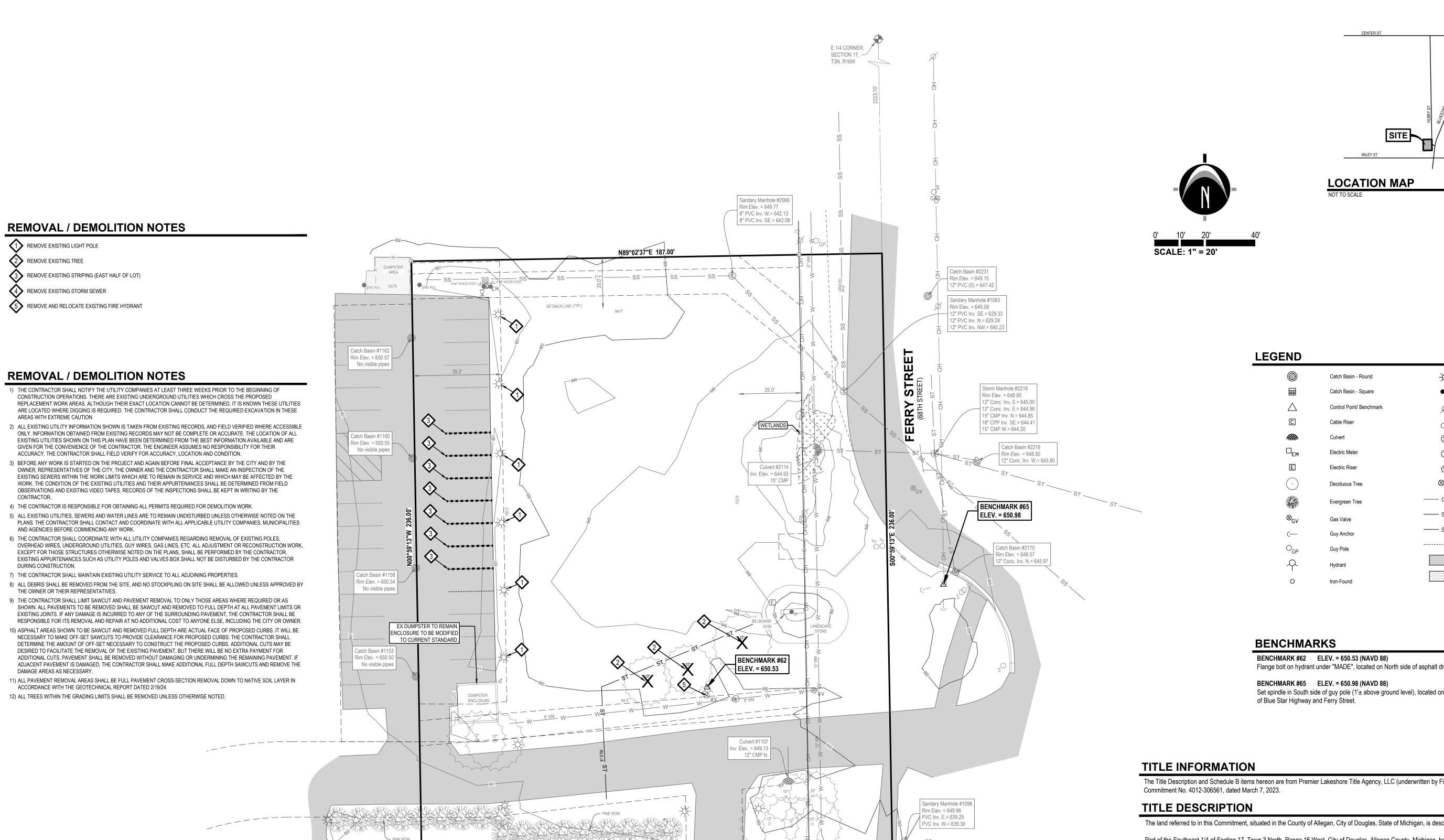
18" CPP

Rim Elev. = 644.95

WILLIAM CASSERLY License No. 6201063767

PROJECT NO: 23201630

SHEET NO:



S89°02'37"W 187.00'



	Catch Basin - Round	*	Light Pole
	Catch Basin - Square	$ullet_{P}$	Post
$\triangle$	Control Point/ Benchmark	Ø	Utility Pole
C	Cable Riser	OS	Sign
<b>488</b>	Culvert	<b>③</b>	Sanitary Manhole
$\square_{EM}$	Electric Meter	<b>(</b>	Storm Manhole
E	Electric Riser	W	Water Manhole
$\odot$	Deciduous Tree	$\otimes_{\sf wv}$	Water Valve
	Evergreen Tree	—— ОН ——	Overhead Utility
⊗ <sub>GV</sub>	Gas Valve	—— ss ——	Sanitary
(—	Guy Anchor	—— ST ——	Storm Line
$O_GP$	Guy Pole		Zoning Setback Line
Ą	Hydrant		Asphalt
0	Iron-Found		Concrete

Flange bolt on hydrant under "MADE", located on North side of asphalt drive inside property.

Set spindle in South side of guy pole (1'± above ground level), located on South side of Ferry Street at intersection

The Title Description and Schedule B items hereon are from Premier Lakeshore Title Agency, LLC (underwritten by First American Title Insurance Company),

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## **SCHEDULE B - SECTION II NOTES**

(7) Right of Way in favor of Consumers Power Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 257, page 555. The documents are illegible.

## **SURVEYOR'S NOTES**

- 1) Flood Zone Classification: An examination of the National Flood Insurance Program's Flood Insurance Rate Map for Community Number 260549, Map Number 26005C0164G with an Effective Date of June 21, 2023, shows this parcel to be located in Zone "X" (subject to map scale
- 2) Lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary. These locations should not be interpreted to be exact locations nor should it be assumed that they are the only utilities in this area.
- 3) Various easements per Liber 2868, Page 82 are shown hereon. However, Reservation of Easement No. 7 (an ingress and egress easement for private driveway) does not mathematically close by approximately 256 feet. It's depiction on this survey is based upon information obtained from the Exhibit B to the Master Deed of Northern Lights Condominium. Further research is recommended.
- 4) NOTE TO CONTRACTORS: 3 (THREE) WORKING DAYS BEFORE YOU DIG, CALL MISS DIG AT TOLL FREE 1-800-482-7171 FOR UTILITY LOCATIONS ON THE GROUND.
- 5) Care has been taken to meet proper setback requirements. However, municipal approval of the proposed location should be obtained prior to commencement of construction.

www.nederveld.com 800.222.1868

GRAND RAPIDS 217 Grandville Ave., Suite 302 Grand Rapids, MI 49503 Phone: 616.575.5190

**ANN ARBOR** CHICAGO **COLUMBUS** HOLLAND INDIANAPOLIS

## PREPARED FOR:

Lakewood Construction Inc. Max Nykerk

> 11253 James Street Holland, MI 49424 Phone: 616.392.6923

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tre

0

**Demolition** 

WILLIAM CASSERLY License No. 6201063767

PROJECT NO: 23201630

SHEET NO:

Know what's **below**.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR

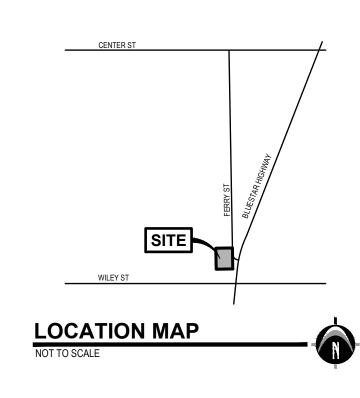
EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "(PLAN)" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. TH CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

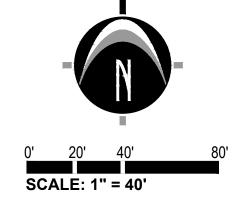
AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE

ONLY UTILITIES IN THIS AREA.

CALL before you dig.







www.nederveld.com 800.222.1868

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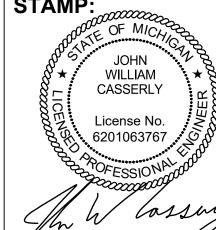
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PROJECT NO:

23201630

SHEET NO:

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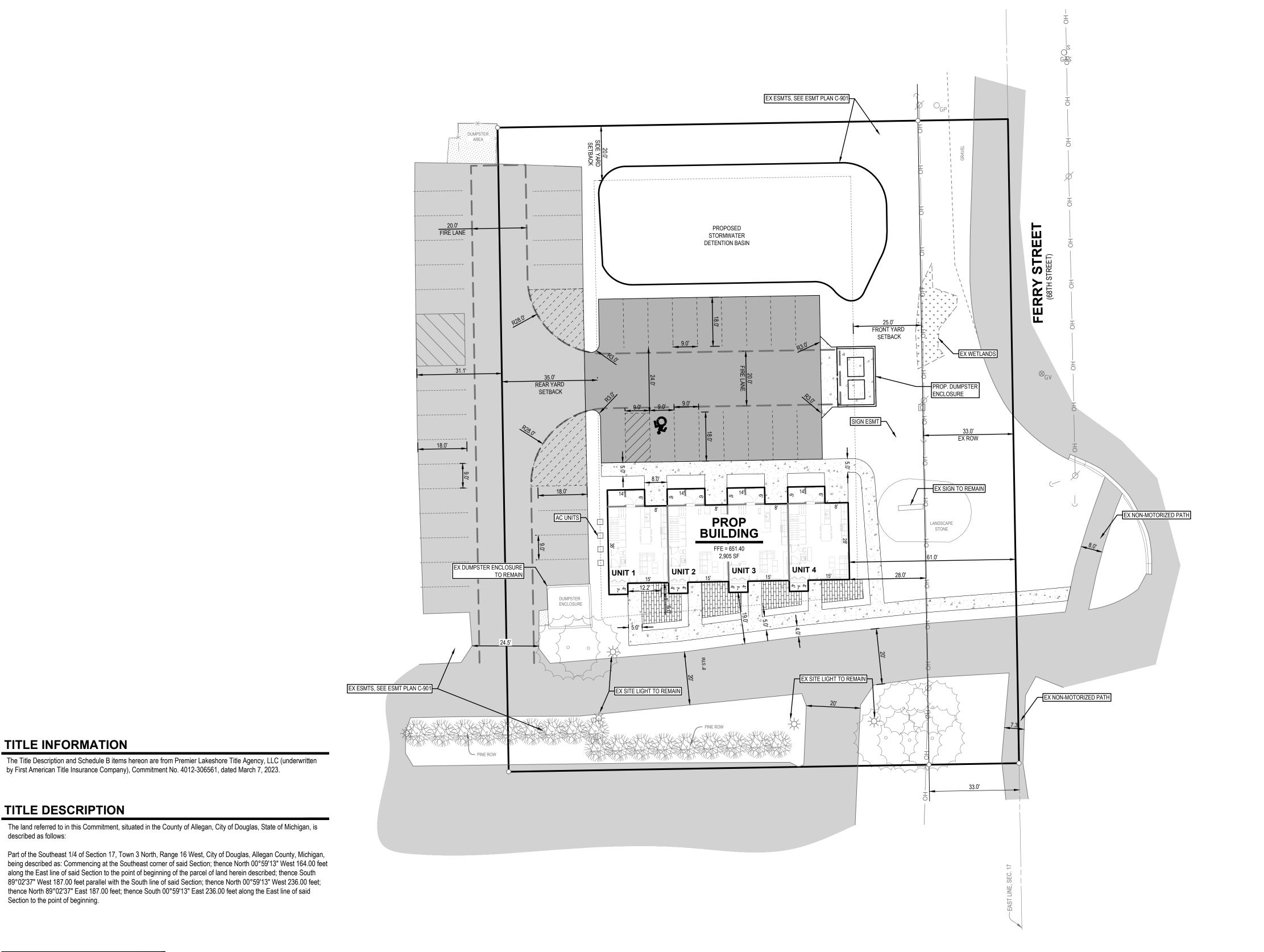
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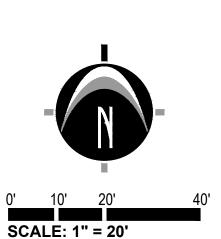
Know what's **below**. **CALL** before you dig.

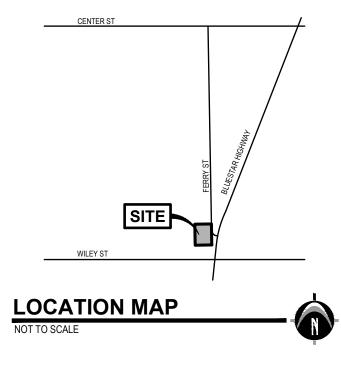
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

NOTE:

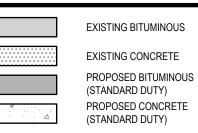
EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "(PLAN)" WERE
OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE
CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL
UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.







**LEGEND** 



## **GENERAL NOTES**

- 1) ZONING OF PROPERTY: R-5 MULTIPLE FAMILY DISTRICT R-5 ZONING REQUIREMENTS
- A) MINIMUM LOT AREA = 20,000 SQ.FT.
- B) MINIMUM LOT WIDTH = 100 FT.
- C) MAXIMUM BUILDING HEIGHT = 28 FT OR 2 1/2 STORIES D) MAXIMUM LOT COVERAGE = 35%
- A) FRONT YARD = 25 FT.
- B) SIDE YARD = 20 FT. C) REAR YARD = 35 FT.
- 2) SUMMARY OF LAND USE:
- A) TOTAL ACREAGE = 0.83 ACRES (36,344 SQ.FT.) (EXCLUDING R.O.W.) B) AREA OF PROPOSED BUILDING = 2,905 SQ.FT.
- C) BUILDING HEIGHT = APPROX. 28 FT.
- D) LOT COVERAGE = 8% E) GROSS PAVEMENT AREA = APPROX. 5,163 SQ.FT.
- F) GROSS CONCRETE AREA = APPROX. 2,375 SQ.FT. G) ZONING OF PARCELS TO NORTH AND WEST = R-5
- ZONING OF PARCELS TO SOUTH AND EAST = C-1
- 3) PARKING REQUIREMENTS:
- A) MINIMUM REQUIRED SPACE PER TOWNSHIP = 9'x18' (24' AISLE) B) TYPICAL PARKING SPACE PROVIDED = 9'x18' (24' AISLE)
- C) TYPICAL VAN ACCESSIBLE PARKING SPACE = 11'x18' WITH 5' AISLE D) TYPICAL CAR ACCESSIBLE PARKING SPACE = 8'x18' WITH 5' AISLE
- E) NUMBER OF SPACES REQUIRED (BASED ON CITY REQUIREMENTS) TWO (2) SPACES PER DWELLING UNIT = 8 SPACES
- ONE (1) SPACE PER EACH THREE (3) DWELLING UNITS = 1 SPACE TOTAL REQUIRED PARKING SPACES = 9 SPACES
- F) NUMBER OF SPACES PROVIDED = 12 SPACES TOTAL SPACES CONSTRUCTED = 18 SPACES
- SPACES GRANTED VIA EASEMENT TO ISABEL'S = 6 SPACES
- 4) THIS PROJECT IS NOT LOCATED IN THE 100 YEAR FLOOD PLAIN, BASED ON THE NATIONAL FLOOD INSURANCE PROGRAM
- 5) BEST MANAGEMENT PRACTICES WILL BE UTILIZED DURING AND AFTER CONSTRUCTION OF THE PROJECT. MEASURES WILL INCLUDE THE USE OF SEEDING AND MULCHING, SEDIMENT INLET FILTERS, COMPACTION AND PAVING. THE OWNER OF THE SUBJECT PARCEL SHALL HAVE THE RESPONSIBILITY TO MAINTAIN THE PERMANENT SOIL EROSION PROTECTION MEASURES.
- 6) UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES
- 7) CONTRACTOR TO FIELD VERIFY ALL INVERTS.
- 8) ALL LIGHTING SHALL BE SHIELDED FROM ALL ADJACENT PROPERTIES. PROPOSED LIGHTING SHALL CONSIST OF WALL-MOUNTED LIGHTS AND LIGHT POLES, BOTH FITTED WITH DOWN CAST TYPE FIXTURES TO BE SPECIFIED BY LIGHTING
- 9) THE PERMANENT PARCEL NUMBER FOR THE SITE IS 03-59-017-089-90. THE ADDRESS OF THE PROPERTY IS 319 FERRY STREET.
- 10) NO FENCES OR WALLS OTHER THAN WHAT IS SHOWN ON THE SITE PLAN ARE PROPOSED AT THIS TIME.

## **SUMMARY OF LAND USE TABLE**

Standard	Required	Provided	Notes
Minimum Lot Area	20,000 sq ft	36,344 sq ft	standard met
Minimum Lot Width	100 ft	236 ft	standard met
Maximum Building Height	28 ft or 2 1/2 stories	28 ft	standard met
Maximum Lot Coverage	35%	8%	standard met
Front Yard	25 ft	25 ft	standard met
Side Yard	20 ft	20 ft	standard met
Rear Yard	35 ft	35 ft	standard met
Parking	9	12	standard met
Units Per Acre	12 units / acre	4 / 0.83 ac = 4.8	standard met

## PERMIT & REVIEW AGENCIES

<u>Permit</u>	Reviewing Agency
Engineering Permit	The City of the Village of Douglas Review Engineer
Soil Erosion and Sedimentation Control (SESC)	Allegan County Road Commission
Stormwater Design	Allegan County Drain Commissioner

www.nederveld.com 800.222.1868 **GRAND RAPIDS** 217 Grandville Ave., Suite 302 Grand Rapids, MI 49503 Phone: 616.575.5190

**ANN ARBOR** CHICAGO COLUMBUS HOLLAND INDIANAPOLIS

PREPARED FOR:

Lakewood Construction Inc. Max Nykerk

> 11253 James Street Holland, MI 49424 Phone: 616.392.6923

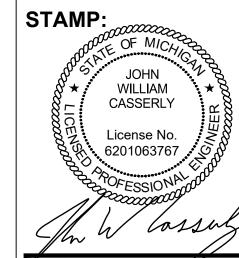
**REVISIONS:** 

Fitle: Draft Update					
Orawn: GAN	Checked: JC	Date: 2024.02.14			
Fitle: Site Plan Submittal					
Orawn: JM/MH	Checked: JC	Date: 2024.03.28			
Fitle: Site Plan Submittal					
Orawn: MV/MH	Checked: CH	Date: 2024.06.12			

Plan

Layout

0



PROJECT NO: 23201630

SHEET NO:

TITLE INFORMATION

TITLE DESCRIPTION

described as follows:

Section to the point of beginning.

ONLY UTILITIES IN THIS AREA.

Know what's **below**.

CALL before you dig.

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR

AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE

NOTE:

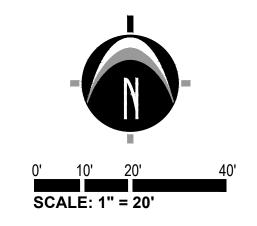
EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "(PLAN)" WERE

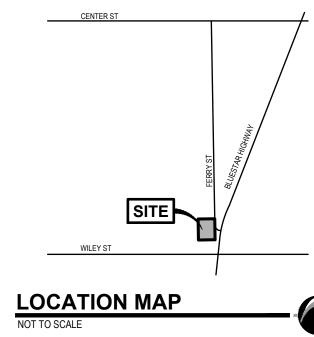
OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE

CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL

UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

by First American Title Insurance Company), Commitment No. 4012-306561, dated March 7, 2023.





**LEGEND** 

EX. GRADE CONTOUR PROP. GRADE CONTOUR PROP. GRADE ELEV. PROP. GRADE ELEV. PROP. GRADE ELEV. (CONCRETE) PROP. GRADE ELEV. PROP. GRADE ELEV. (EDGE OF METAL) PROP. GRADE ELEV. (HIGH POINT) EX. BITUMINOUS EX. CONCRETE PROPOSED BITUMINOUS (STANDARD DUTY) PROPOSED BITUMINOUS (HEAVY DUTY) PROPOSED CONCRETE (STANDARD DUTY) PROPOSED CONCRETE PROP. STORM SEWER

PROP. SANITARY SEWER

PROP. WATERMAIN SPILL CURB FLOW DIRECTION EMERGENCY OVERFLOW

STORMWATER FLOW ROUTE

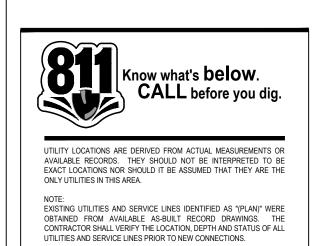
TITLE INFORMATION

The Title Description and Schedule B items hereon are from Premier Lakeshore Title Agency, LLC (underwritten by First American Title Insurance Company), Commitment No. 4012-306561, dated March 7, 2023.

## TITLE DESCRIPTION

The land referred to in this Commitment, situated in the County of Allegan, City of Douglas, State of Michigan, is described as follows:

Part of the Southeast 1/4 of Section 17, Town 3 North, Range 16 West, City of Douglas, Allegan County, Michigan, being described as: Commencing at the Southeast corner of said Section; thence North 00°59'13" West 164.00 feet along the East line of said Section to the point of beginning of the parcel of land herein described; thence South 89°02'37" West 187.00 feet parallel with the South line of said Section; thence North 00°59'13" West 236.00 feet; thence North 89°02'37" East 187.00 feet; thence South 00°59'13" East 236.00 feet along the East line of said Section to the point of beginning.



SOIL EROSION CONTROL SCHEDULE

SITE RESTORATION/CLEAN UP

F.E.S. #100 PLACE: 1-12" CONC.

LARED END SECTION (C-76-III)

3 C.Y. COBBLES, 8"-12" DIA.

24" MIN. DEPTH OVER NON-WOVEN FILTER FABRIC

\_\_\_\_\_\_649\_\_\_\_

BUILDING FFE = 651.40

PLACE SILT FENCE STRIP & STOCKPILE TOPSOIL CONSTRUCT CONNECTION TO STORM SEWER ROUGH GRADE SITE CONSTRUCT BUILDING FOUNDATION AND BUILDING CONSTRUCT IMPROVEMENTS AROUND BUILDING CONSTRUCT UTILITY LINES TO BUILDING FINISH GRADE SITE PAVE SITE RESPREAD TOPSOIL/COMPACTION SEED DISTURBED AREAS

2025

PLACE: 1-12" CONC.

INV =646 09

FLARED END SECTION (C-76-III)

PLACE: 1-12" CONC.

INV.=645.90

FLARED END SECTION (C-76-III)

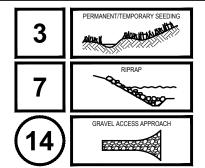
3 C.Y. COBBLES, 8"-12" DIA.

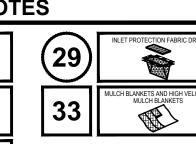
24" MIN. DEPTH OVER NON-WOVEN FILTER FABRIC

3 C.Y. COBBLES, 8"-12" DIA. 24" MIN. DEPTH OVER NON-WOVEN FILTER FABRIC

## SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- 1) CONTRACTOR SHALL POSSESS THE SOIL EROSION AND SEDIMENTATION CONTROL PERMIT PRIOR TO START OF ANY EARTH WORK.
- 2) CONTRACTOR SHALL MODIFY THIS SOIL EROSION AND SEDIMENTATION CONTROL PLAN TO SHOW THE ADDITIONAL CONTROL MEASURES INTENDED TO BE USED DURING CONSTRUCTION. SUBMIT MODIFICATIONS TO THE CONTROLLING AGENCY, THE OWNER, AND THE ENGINEER.
- 3) EROSION PROTECTION SHALL BE PROVIDED AT ALL STORM SEWER INLETS AND OUTLETS. ALL BARE EARTH SHALL BE STABILIZED WITH SEEDING. 4) REFER TO THE M.D.O.T. "SOIL EROSION AND SEDIMENTATION CONTROL
- MANUAL" (MARCH 2021) FOR ADDITIONAL INFORMATION 5) THE ENTIRE STORM SEWER SYSTEM SHALL BE CLEANED AND FLUSHED FOLLOWING CONSTRUCTION AND PAID RECEIPT THEREOF PROVIDED TO THE ENGINEER AND COUNTY SESC AGENT PRIOR TO FINAL PAYMENT TO THE CONTRACTOR OR FINAL ACCEPTANCE OF THE CONSTRUCTION BY THE
- 6) THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT, TAKE CORRECTIVE ACTION AND MAINTAIN ALL TEMPORARY SESC MEASURES DAILY AND AFTER EACH RAIN EVENT UNIT FINAL COMPLETION AND ACCEPTANCE OF THE





= TEMPORARY MEASURE = PERMANENT MEASURE REFER TO MDOT STANDARD PLAN R-96-D

PROJECT NO: 23201630

SHEET NO:

WILLIAM

CASSERLY

License No.

. 6201063767

www.nederveld.com 800.222.1868 **GRAND RAPIDS** 217 Grandville Ave., Suite 302 Grand Rapids, MI 49503 Phone: 616.575.5190 **ANN ARBOR** 

CHICAGO

COLUMBUS

HOLLAND

INDIANAPOLIS

Lakewood Construction Inc. Max Nykerk

11253 James Street

Holland, MI 49424 Phone: 616.392.6923

Drawn: GAN Checked: JC Date: 2024.02.14

Drawn: JM/MH Checked: JC Date: 2024.03.28

Drawn: MV/MH Checked: CH Date: 2024.06.12

Grading

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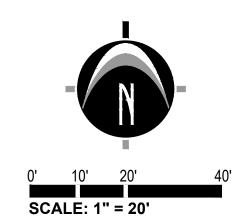
PREPARED FOR:

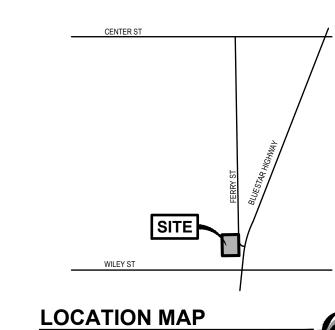
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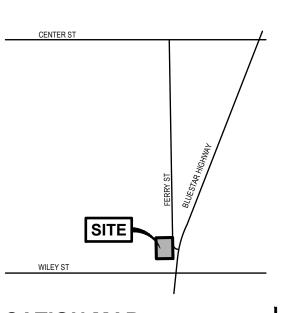
Title: Draft Update

Title: Site Plan Submittal

Title: Site Plan Submittal







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## PREPARED FOR:

Lakewood Construction Inc. Max Nykerk

> 11253 James Street Holland, MI 49424 Phone: 616.392.6923

## **REVISIONS:**

Title: Draft Update Drawn: GAN Checked: JC Date: 2024.02.14 Title: Site Plan Submittal

Drawn: JM/MH Checked: JC Date: 2024.03.28 Title: Site Plan Submittal Drawn: MV/MH Checked: CH Date: 2024.06.12

PROPOSED CONCRETE PROP. STORM SEWER PROP. SANITARY SEWER

PROP. WATERMAIN

**LEGEND** 

543 EX. GRADE CONTOUR

PROP. GRADE CONTOUR

PROP. GRADE ELEV.

(HIGH POINT)

EX. BITUMINOUS

EX. CONCRETE

(HEAVY DUTY)

PROPOSED BITUMINOUS

PROPOSED CONCRETE

(STANDARD DUTY)

(STANDARD DUTY) PROPOSED BITUMINOUS

(CONCRETE)

(GUTTER)

Catch Basin #2246 Rim Elev. = 645.29

Inv. Elev. = 641.89

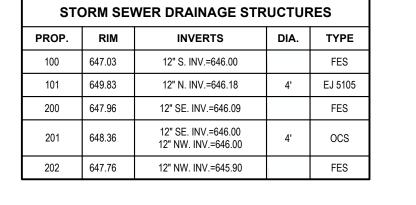
18" CPP

0

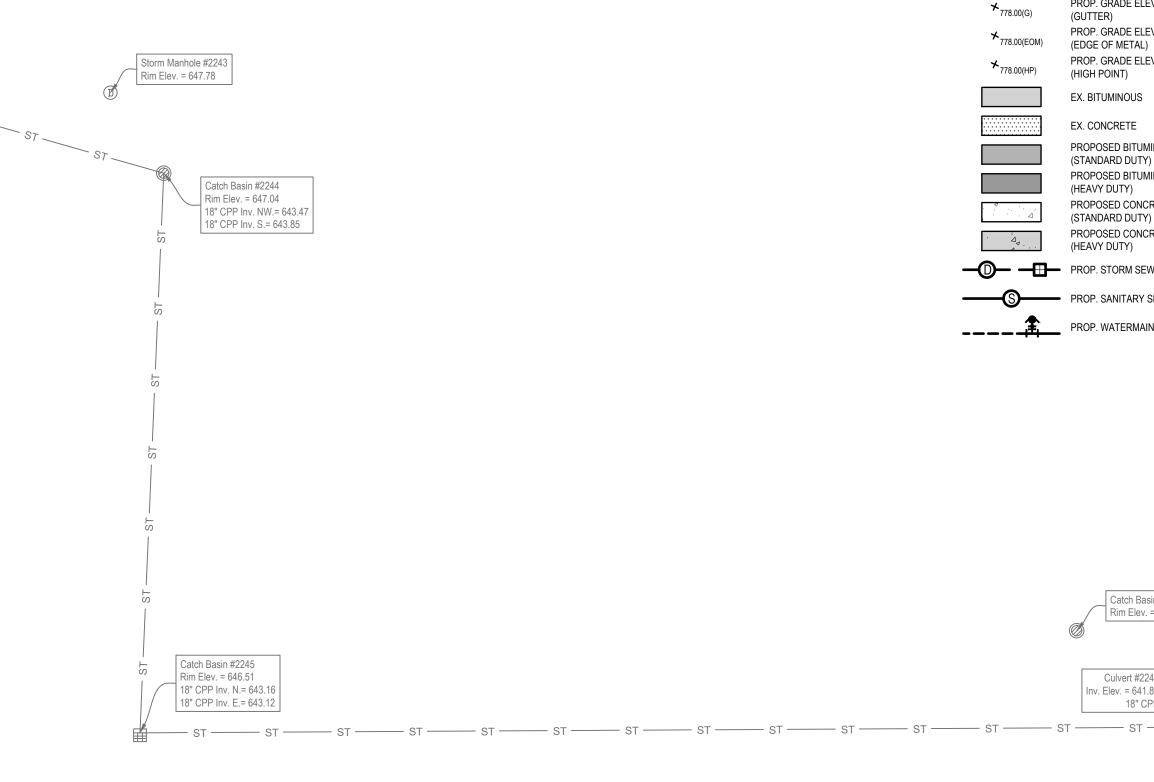
WILLIAM 6201063767

PROJECT NO: 23201630

SHEET NO:



STORM SEWER DRAINAGE PIPES					
#	LENGTH	DIA.	SLOPE	MATERIAL	
A1	54'	12"	0.34%	SLCPP	
B1	23'	12"	0.40%	SLCPP	
B2	27'	12"	0.39%	SLCPP	



## TITLE INFORMATION

The Title Description and Schedule B items hereon are from Premier Lakeshore Title Agency, LLC (underwritten by First American Title Insurance Company), Commitment No. 4012-306561, dated March 7, 2023.

F.E.S. #100 PLACE: 1-12" CONC.

INV.=646.00

**PROPOSED** 

STORMWATER

DETENTION

BASIN

BUILDING

FFE = 651.40

EXISTING HYDRANT TO BE REMOVED AND RELOCATED

2,905 SF

Sanitary Manhole #2066

Rim Elev. = 649.77

8" PVC Inv. W.= 642.13

8" PVC Inv. SE.= 642.08

RIM:648.36

APPROXIMATE WATER

METER LOCATION

Culvert #1107

ıv. Elev. = 649.13 12" CMP N.

UNIT 4

EX WETLANDS

2" CORP & STOP BO

PLACE: 1-12" CONC.

INV.=646.09

FLARED END SECTION (C-76-III)

3 C.Y. COBBLES, 8"-12" DIA. 24" MIN. DEPTH OVER

NON-WOVEN FILTER FABRIC

Catch Basin #2231

Rim Elev. = 649.15

12" PVC (S) = 647.42

Rim Elev. = 649.08 12" PVC Inv. SE.= 629.33 12" PVC Inv. N.= 629.24

Sanitary Manhole #1083

12" PVC Inv. NW.= 640.23

PLACE: 1-12" CONC.

INV.=645.90

Storm Manhole #2218 Rim Elev. = 648.90 12" Conc. Inv. S.= 645.00

12" Conc. Inv. E.= 644.98

15" CMP Inv. N.= 644.85 18" CPP Inv. SE.= 644.41 15" CMP W.= 644.20

Catch Basin #2219

Rim Elev. = 648.50

Catch Basin #2175

Rim Elev. = 648.57

Sanitary Manhole #1098

Rim Elev. = 649.96

PVC Inv. E.= 639.25 PVC Inv. W.= 639.30 12" Conc. Inv. N.= 645.97

12" Conc. Inv. W.= 645.80

FLARED END SECTION (C-76-III)

3 C.Y. COBBLES, 8"-12" DIA.

NON-WOVEN FILTER FABRIC

24" MIN. DEPTH OVER

FLARED END SECTION (C-76-III)

3 C.Y. COBBLES, 8"-12" DIA.

NON-WOVEN FILTER FABRIC

CONTRACTOR TO VERIFY LOCATION AND INVERT

PROP. 6" SANITARY LATERAL @ 2% MIN.

707

\_ \_ \_ \_ \_ \_ -

Catch Basin #1162 Rim Elev. = 650.57

No visible pipes

Catch Basin #1160

Rim Elev. = 650.55

No visible pipes

Catch Basin #1158

Catch Basin #1153

Rim Elev. = 650.50 No visible pipes

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

Rim Elev. = 650.54 No visible pipes

24" MIN. DEPTH OVER



UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR

AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE

NOTE:
EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "(PLAN)" WERE
OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE
CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL
UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

ONLY UTILITIES IN THIS AREA.

## TITLE DESCRIPTION

The land referred to in this Commitment, situated in the County of Allegan, City of Douglas, State of Michigan, is described as follows:

Part of the Southeast 1/4 of Section 17, Town 3 North, Range 16 West, City of Douglas, Allegan County, Michigan, being described as: Commencing at the Southeast corner of said Section; thence North 00°59'13" West 164.00 feet along the East line of said Section to the point of beginning of the parcel of land herein described; thence South 89°02'37" West 187.00 feet parallel with the South line of said Section; thence North 00°59'13" West 236.00 feet; thence North 89°02'37" East 187.00 feet; thence South 00°59'13" East 236.00 feet along the East line of said Section to the point of beginning.



UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

EXISTING LITH ITIES AND SERVICE LINES IDENTIFIED AS "(PLAN)" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

# www.nederveld.com

800.222.1868 **GRAND RAPIDS** 217 Grandville Ave., Suite 302 Grand Rapids, MI 49503

Phone: 616.575.5190

ANN ARBOR CHICAGO COLUMBUS HOLLAND **INDIANAPOLIS** 

## PREPARED FOR:

Lakewood Construction Inc Max Nykerk

> 11253 James Street Holland, MI 49424 Phone: 616.392.6923

## REVISIONS.

IXEVIC	ioito.	
Title: Draft Upo	late	
Drawn: GAN	Checked: JC	Date: 2024.02.14
Title: Site Plan	Submittal	
Drawn: JM/MH	Checked: JC	Date: 2024.03.28
Title: Cite Dies	Cubmittal	

Title: Site Plan Submittal Drawn: MV/MH Checked: CH Date: 2024.06.12

cation

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-GRADE OVER WATERMAIN

MDOT CLASS II SAND BED & BACKFILL

MIN. = PIPE O.D. PLUS 12" MAX. = PIPE O.D. PLUS 24" 1. TRENCH TO BE BEDDED AND BACKFILLED WITH SAND AS NOTED ON DETAIL UNDER ALL

## **WATER MAIN TRENCH** AND BACKFILL DETAIL

SEE PAVEMENT -

**SPECIFICATIONS** 

13. ALL WORK CONTEMPLATED SHALL AT ALL TIMES BE SUBJECT TO THE DIRECT INSPECTION OF THE CITY, OWNER AND THEIR REPRESENTATIVES. THE CITY AND OWNER RESERVES THE RIGHT TO HALT ALL CONSTRUCTION ACTIVITY FOR NONCONFORMANCE OF PLANS, SPECIFICATIONS AND OTHER APPLICABLE STANDARDS OR REGULATIONS. 4. PRICES BID PER FOOT FOR ALL PIPES IS COMPACTED IN PLACE REGARDLESS OF SOIL OR ROCK CONDITIONS

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 POLICE

INDICATING LIMITS OF WORK/DISTURBANCE SHALL BE INSTALLED INDICATING NO TREE REMOVAL OR DISTURBANCES OUTSIDE LIMITS, THE CITY AND OWNER SHALL BE CONTACTED UPON DETERMINATION OF LIMITS

7. ALL ROAD SURFACES, EASEMENTS OR RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION OF ANY PART OF THIS

19. ALL DISTURBED SIGNS, GUARDRAILS, MAIL BOXES, AND DRIVEWAYS SHALL BE REPAIRED OR REPLACED AS

ROADWAYS BEING USED FOR ACCESS TO THE CONSTRUCTION SITE AND SHALL ADHERE TO ALL ORDINANCES OF THE CITY. COUNTY. MDEQ OR ANY OTHER GOVERNING AUTHORITY. ALL SEWERS. MANHOLES. JUNCTION CHAMBERS AND INLET BASINS MUST BE CLEANED BEFORE ACCEPTANCE BY THE CITY AND OWNER. IF MUD, SOIL OR OTHER DEBRIS IS DEPOSITED ON ADJACENT STREETS, ROADS OR OTHER PROPERTY, THE

CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SUCH AT THE END OF EACH WORK DAY OR AS

REQUIRED DURING THE WORK DAY ANY EXISTING CONCRETE BLOCKOUT PAVEMENT. DAMAGED PAVEMENT DOWELS OR OTHER SUCH LOAD

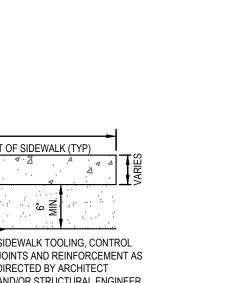
ADJUST TO GRADE OR RECONSTRUCT TO GRADE WORK SHALL INCLUDE THE REMOVAL AND REPLACEMENT OF

. COMPACTED PREMIUM BACKFILL (MDOT CLASS II SAND) WILL BE REQUIRED AT ALL FILL AREAS OR ANY STREETS CONSTRUCTION UNDER ANY DRIVEWAY OR PAVEMENT INCLUDING THE 45 DEGREE ANGLE OF INFLUENCE FROM THE OUTSIDE EDGE OF PAVEMENT OR TOP OF CURB. COMPACTION TESTS SHALL BE REQUIRED EVERY 50 FEET UNDER PAVEMENT. PAVEMENT INCLUDES, BUT NOT LIMITED TO, ROADWAY SURFACES, SIDEWALKS, BIKE WAYS,

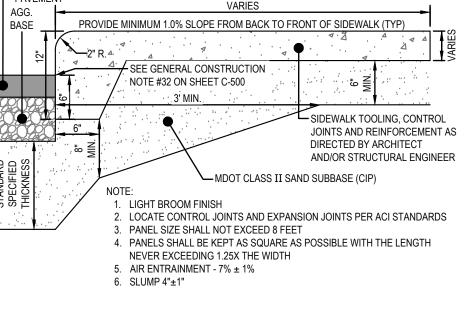
MUNICIPAL CODE REQUIREMENTS. CONTRACTOR TO FIELD VERIFY AND SCOPE EXISTING SANITARY SEWER LATERAL TO CONFIRM ELEVATION,

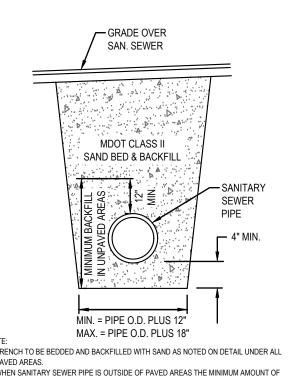
SLOPE, CONDITION AND PHYSICAL CONNECTION TO PUBLIC SANITARY SEWER MAIN PRIOR TO CONNECTION OF AFTER PAVING WITH A SUITABLE RUBBERIZED ASPHALT SEALANT PER MDOT STANDARD CONSTRUCTION

ALL SITE WORK INCLUDING BUILDING PAD AND SITE PREPARATION, FOUNDATIONS, FLOORS, RETAINING WALLS EXCAVATIONS, FILL PLACEMENT, UNSUITABLE SOIL EXCAVATION AND BACKFILL, GROUNDWATER MANAGEMENT



## INTEGRAL CURB AND WALK DETAIL





1. TRENCH TO BE BEDDED AND BACKFILLED WITH SAND AS NOTED ON DETAIL UNDER ALL 2. WHEN SANITARY SEWER PIPE IS OUTSIDE OF PAVED AREAS THE MINIMUM AMOUNT OF SAND BACKFILL SHALL BE, AS NOTED, FROM THE BOTTOM OF TRENCH TO 12" ABOVE CROWN OF STORM PIPE AND THE REMAINDER OF TRENCH BACKFILL WITH EXCAVATED

SANITARY SEWER TRENCH AND BACKFILL DETAIL

# 1. TRENCH TO BE BEDDED AND BACKFILLED WITH SAND AS NOTED ON DETAIL UNDER ALL

SEE PAVEMENT -

**SPECIFICATIONS** 

# SAND BACKFILL SHALL BE, AS NOTED, FROM THE BOTTOM OF TRENCH TO 12" ABOVE

# CROWN OF STORM PIPE AND THE REMAINDER OF TRENCH BACKFILL WITH EXCAVATED

## STORM SEWER TRENCH AND BACKFILL DETAIL

MIN. = PIPE O.D. PLUS 12"

MAX. = PIPE O.D. PLUS 30"

MDOT CLASS II

SAND BED & BACKFILL

- GRADE OVER

STORM SEWER

#### 2. WHEN STORM SEWER PIPE IS OUTSIDE OF PAVED AREAS THE MINIMUM AMOUNT OF 2. WHEN WATER MAIN PIPE IS OUTSIDE OF PAVED AREAS THE MINIMUM AMOUNT OF SAND BACKFILL SHALL BE, AS NOTED, FROM THE BOTTOM OF TRENCH TO 12" ABOVE CROWN OF WATERMAIN PIPE AND THE REMAINDER OF TRENCH BACKFILL WITH EXCAVATED

UNDERCUT

## **CONSTRUCTION NOTES**

STORM SEWER ALL CATCH BASINS SHOULD BE PROVIDED WITH A MINIMUM 2' SUMP 2. ALL STORM SEWER SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE (SLCPP), WITH WATERTIGHT JOINTS MEETING THE REQUIREMENTS OF THE MICHIGAN PLUMBING CODE, AASHTO M-252 AND M-294, ASTM F-2306, F-2648, D-3212, F-477, F-2487, D-3350 AND F-1417, INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND ASTM D-2321 OR CONCRETE PIPE MEETING THE REQUIREMENTS OF

ASTM C-76-III UNLESS OTHERWISE NOTED 3. 6" UNDERDRAIN SHALL BE PERFORATED PIPE WITH SOCK, MEETING THE REQUIREMENTS OF AASHTO M-252 AND THE GEOTEXTILE SHALL MEET AASHTO M-288 REQUIREMENTS 4. ALL FLARED END SECTIONS SHALL BE CONCRETE.

5. ALL CATCH BASINS AND MANHOLES SHALL BE CONCRETE. CONFORMING TO ASTM C-478 WITH BUTYL RUBBER GASKETED JOINTS WITH BOOT TYPE PIPE CONNECTIONS CONFORMING TO ASTM C-923 FOR ALL PIPE CONNECTIONS 24" DIAMETER AND SMALLER. 6. ALL CATCH BASINS ARE DRAWN AND WILL BE STAKED AT CENTER OF CASTING.

WATERMAIN AND SANITARY SEWER 1. ALL WATERMAIN AND SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE CITY STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING POST CONSTRUCTION VIDEO INSPECTION OF THE SANITARY

#### 1. ALL CONSTRUCTION AND MATERIAL SPECIFICATIONS INCLUDED FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE MDOT CONSTRUCTION AND MATERIALS SPECIFICATIONS (LATEST EDITION) AND THE ORDINANCES OF THE CITY. WHERE CONFLICTS OCCUR IN THE ABOVE, THE CITY SHALL BE THE GOVERNING AUTHORITY. 2. SOIL BORINGS HAVE BEEN PERFORMED BY THE OWNER AND SHALL BE PROVIDED TO THE CONTRACTOR.

VARIATION IN EXISTING SOIL CONDITIONS MAY IMPACT THE EARTHWORK QUANTITIES IF UNUSABLE SOILS ARE ENCOUNTERED DURING CONSTRUCTION. 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO THE EXISTING WATER AND SEWAGE SYSTEM RESULTING FROM NON-CONFORMANCE WITH THE APPLICABLE STANDARDS OR THROUGH GENERAL

4. ALL WORK, INCLUDING INSPECTIONS AND TESTING COST REQUIRED FOR REMOVAL, RELOCATION OR NEW CONSTRUCTION FOR PRIVATE OR PUBLIC UTILITIES, WILL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR AND INCLUDED IN THE BID PRICE FOR THE VARIOUS WORK ITEMS UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS FROM THE CITY AND COUNTY AND ANY OTHER AGENCY FOR ALL WORK DONE BY THE CONTRACTOR.

5. ANY DEFECTS IN THE CONSTRUCTION, INCLUDING MATERIALS OR WORKMANSHIP, SHALL BE REPLACED OR CORRECTED BY REMOVAL AND REPLACEMENT OR OTHER APPROVED METHODS PRIOR TO ACCEPTANCE BY THE CITY OR OWNER WITHOUT ANY ADDITIONAL COST TO THE CITY OR OWNER. 6. ALL LAWN AREAS REMOVED OR DISTURBED SHALL BE REPLACED WITH TOPSOIL AND SOD WHERE NEEDED AND SHALL BE RESEEDED AND MULCHED IF SATISFACTORY RE-ESTABLISHMENT OF LAWN DOES NOT OCCUR.

7. ALL PUNCH LIST AND DEFICIENCY WORK SHALL BE COMPLETED WITHIN 1 MONTH OF THE END OF 8. THE CONTRACTOR SHALL OBTAIN A STREET OPENING PERMIT FROM THE CITY BEFORE BEGINNING WORK

WITHIN ANY PUBLIC STREET RIGHT-OF-WAY. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES 10. THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD 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 . 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 REQUIRED WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE SUCH ADDITIONAL TRAFFIC CONTROL DEVICES LOCATED OUTSIDE THE LIMITS OF CONSTRUCTION AS ARE REQUIRED ON THOSE STREETS WHICH ARE USED AS DETOURS, INCLUDING "ROAD CLOSED" SIGNS AND BARRICADES AT THE POINT WHERE THE ROAD IS CLOSED TO THROUGH TRAFFIC.

12. THE CONTRACTOR SHALL PROTECT LOCATION OF ALL PROPERTY PINS AND BENCHMARKS.

16. PRIOR TO ANY CONSTRUCTION OR GRADING, A PROTECTIVE BARRIER, FENCE, POST AND/OR SIGNS CLEARLY

IMPROVEMENT ARE TO BE RESTORED COMPLETELY TO THE SATISFACTION OF THE CITY AND THE OWNER. 18. NO PARKING OF CONTRACTOR OR CONTRACTOR EMPLOYEE'S VEHICLES ON ANY PUBLIC STREETS SHALL BE

DIRECTED BY THE CITY AND THE OWNER. 20. DUST CONTROL: THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY SUCH AS CALCIUM CHLORIDE, WATER OR A MOTORIZED DUST-FREE STREET SWEEPING DEVICE TO MAINTAIN ALL

RANSFERS DEVICES SHALL BE REPLACED AS DIRECTED BY THE COUNTY AND THE ENGINEER. ALL EXISTING CASTINGS FOR STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED TO GRADE SHALL BE FIELD CHECKED AT THE TIME OF CONSTRUCTION AND MARKED SUITABLE FOR SALVAGE AND REUSE OR REPLACED.

WHERE REMOVAL AND REPLACEMENT OF PAVEMENT IS REQUIRED AND FOR ALL UNDERGROUND DRIVEWAYS, SHOULDERS, BUILDINGS, ETC.

NO BUILDING MATERIAL, EQUIPMENT, VEHICLES OR CHEMICALS SHALL BE STORED OR PLACED OUTSIDE LIMITS OF WORK/DISTURBANCE. STORMWATER POLLUTION PREVENTION ITEMS SHALL BE IN PLACE PRIOR TO COMMENCING CLEARING OPERATIONS, EARTHWORK GRADING, OR ANY OTHER TYPE OF CONSTRUCTION ACTIVITY.

28. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE

29. CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM DURING NIGHTTIME HOURS AND MUST COMPLY WITH ). ALL TREES WITHIN THE GRADING LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.

NEW LATERAL SERVICE. 32. ALL CONCRETE PAVEMENT OR CURB EDGES AT HOT MIX ASPHALT JOINTS SHALL BE IMMEDIATELY SEALED

SPECIFICATIONS SECTION 502 ASPHALT PAVEMENT, CONCRETE PAVEMENT AND QUALITY CONTROL TESTING SHALL COMPLY WITH THE REPORT OF GEOTECHNICAL INVESTIGATION FOR PROJECT NAME PREPARED BY COMPANY NAME DATED

# WILLIAM **CASSERLY** License No. 6201063767

**PROJECT NO:** 

**SHEET NO:** 

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—Land Planning—Landscape Architecture—Civil Engineering—Land Surveying—High Definition Scanning—Forensic Engineering—Fire Investigation—

PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" MIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER

COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SID AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.

4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 4"-6" OVERLAP DEPENDING ON BLANKET TYPE. TO

ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED FUN OVER FUN (SHINGLE STYLE) WITH AN APPROXIMATE 3"OVERLAP, STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12"APART ACROSS ENTIRE BLANKET WIDTH.
PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE 8. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION

## **EROSION CONTROL BLANKET DETAIL**

PREMODELED EXPANSION/ISOLATION — STRIP WITH REMOVABLE TOP CAR -4" CONCRETE PAVEMENT (STANDARD DUTY, 4,000 psi) " CONCRETE PAVEMENT (HEAVY CONTROL JOINT DUTY, 4,000 psi)

1. LIGHT BROOM FINISH

2. LOCATE CONTROL JOINTS AND EXPANSION JOINTS PER ACI STANDARDS 3. PANEL SIZE SHALL NOT EXCEED 8 FEET 4. PANELS SHALL BE KEPT AS SQUARE AS POSSIBLE WITH THE LENGTH NEVER EXCEEDING 1.25X THE WIDTH

## **CONCRETE PAVEMENT DETAIL**

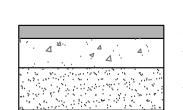
5. AIR ENTRAINMENT - 7% ± 1%

SLUMP 4"±1"

8" MDOT BIT. PAVING (TWO COURSES) 8" MDOT CLASS 21AA GRAVEL BASE 12" MDOT CLASS II SAND SUBBASE

1. REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT DESIGN SPECIFICATION 2. HMA MIXTURE TO BE TIER I OR TIER II

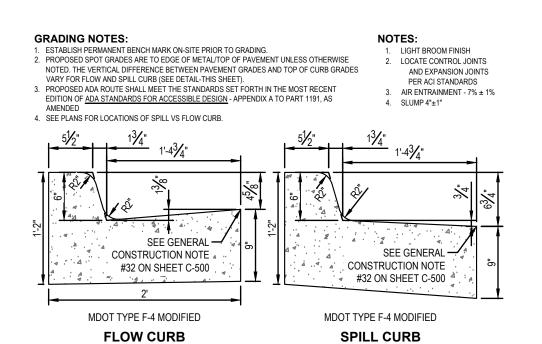
#### 3. BINDER GRADE TO BE A MINIMUM OF PG 58-28 STANDARD DUTY BITUMINOUS **PAVEMENT CROSS SECTION DETAIL**



5" MDOT BIT. PAVING (TWO COURSES) 10" MDOT CLASS 21AA GRAVEL BASE 12" MDOT CLASS II SAND SUBBASE

1. REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT DESIGN SPECIFICATION 2. HMA MIXTURE TO BE TIER I OR TIER II

#### 3. BINDER GRADE TO BE A MINIMUM OF PG 58-28 **HEAVY DUTY BITUMINOUS PAVEMENT CROSS SECTION DETAIL**



## 24" CONCRETE CURB AND GUTTER DETAIL

# PARKING SPACE MARKING DETAILS

1/2 " GALV. STEEL BARS

FULLY WELD ALL JOINTS

BOLT TO CONCRETE AT 4

CORNERS W/ STAINLESS

NON-WOVEN GEOTEXTILE

FABRIC W/EDGES & ENDS

SUBGRADE

32 / 42

MIN. 8" CRUSHED AGGREGATE

— 2"x2" NO. 2

HARDWOOD STAKE

-HEAVY DUTY STAPLES

MIN. 5 PER LATH

UNDISTURBED AREA

UNDISTURBED AREA 2"x2" HARDWOOD STAKES

DRIVEN 12" INTO GROUND

FABRIC ANCHORED BY WOOD

LATH STAPLED TO STAKES

INSTALLATION INSTRUCTIONS:

Remove grate from the drainage

3. Drop the FLEXSTORM inlet filter

drainage structure

WOVEN GEOTEXTILE FILTER

BAG: 200 GPM/SQFT FLOW

RATE 82% FILTRATION

2. Clean stone and dirt from ledge (lip) of

through the clear opening such that the

hangers rest firmly on the lip of the

4. Replace the grate and confirm it is not

elevated more than 1/8", the thickness

**OVER GEOTEXTILE FABRIC** 

**TEMPORARY CRUSHED** 

30" WOOD LATH, -

FILTER FABRIC ANCHORED -

**SECTION VIEW** 

BETWEEN LATH AND STAKE

ANCHOR TRENCH

SHEET FLOW

EXTRA STRENGTH -

**PLAN VIEW** 

SILT FENCE DETAIL

12 GAUGE -

MEETS ASTM D8057 STANDARDS

Does not interfere or elevate grate by more than 1/8"

-Bypass flow exceeds design flow of drainage location

-Sized to meet treatment flow rate.

Rigid frame and removable geosynthetic bag EFFICIENCY PER ASTM D 7351

FLEXSTORM INLET FILTER LITE DETAIL

Bag maintains shape to be extracted when completely filled with sediement

Rigid frame capable of supporting full load of sediment without deforming.

-Filter bag achieves +80% gross removal efficiency per ASTM D7351.

CORROSION

STEEL FRAME

RESISTANT RIGID

SYNTHETIC FILTER

¾" THICK

**ROCK TRACKING PAD** 

STEEL BOLTS

CONCRETE -

. DEBRIS CAGES SHALL BE

INCLUDED ON ALL INLET

THAT ARE 24" DIAMETER

OUTLET PIPES AND PIPES

REQUIRE DEBRIS CAGES. . RIP RAP TO BE 8"-12"

DIAMETER AND 24" MIN

DEPTH OVER NON WOVEN

**CONCRETE F.E.S. RIP RAP APRON** 

< 48": 1:12 MAX. FLARED SIDES

≥ 48": 1:10 MAX. FLARED SIDES

**DUB-DOWN OR FLARED SIDE OPTION** 

1:12 SLOPE MAX.

**SECTION A-A** 

4" WIDE STRIPE - TYF

PER SITE LAYOUT PLAN

**TYPICAL 90° INTERNAL** 

**PARKING SPACE** 

CURB & GUTTER

STRIPE TO STRIPE

OR STRIPE TO

FACE OF CURB

(WHITE)

4" WIDE STRIPE - TYP.

PER SITE LAYOUT PLAN TO

F/WALK OR FACE OF CURB

**TYPICAL 90°** 

**PARKING SPACE** 

SIDEWALK CURB RAMP DETAIL

4" WIDE STRIPE - TYP.

(BLUE)

18' MIN, OR PER SITE LAYOUT PLAN

**TYPICAL 8'-0" WIDE** 

**ADA VAN PARKING SPACE** 

APPLY TWO COATS OF VOC COMPLIANT, M.D.O.T. APPROVED,

UNDILUTED SOLVENT BASED, OR LATEX TRAFFIC PAINT TO ALL

PAVEMENT MARKINGS. USE MANUFACTURERS RECOMMENDED

MAXIMUM OF 100 SFT PER GALLON, OR MINIMUM 15 MILS WET FILM

THICKNESS, AND 7.5 MILS DRY FILM THICKNESS PER COAT, WITH

MINIMUM 30 DAYS BETWEEN APPLICATIONS. SECOND COAT MUST

NOT BE APPLIED EARLIER THAN 7 DAYS BEFORE OCCUPANCY.

APPLICATION RATE, WITHOUT ADDITION OF THINNER, WITH A

AND DEBRIS CAGE DETAIL

AND GREATER.

FILTER FABRIC

UNPAVED OR -

LANDSCAPED ARE

SMALLER THAN 24"

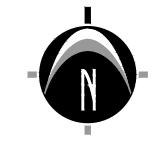
DIAMETER DO NOT

F.E.S. (C-76-III)

6" MAX . BAR

SPACING

**LOCATION MAP** 



SCALE: 1" = 20'

## TITLE INFORMATION

The Title Description and Schedule B items hereon are from Premier Lakeshore Title Agency, LLC (underwritten by First American Title Insurance Company),

## TITLE DESCRIPTION

The land referred to in this Commitment, situated in the County of Allegan, City of Douglas, State of Michigan, is described as follows:

Part of the Southeast 1/4 of Section 17, Town 3 North, Range 16 West, City of Douglas, Allegan County, Michigan, being described as: Commencing at the Southeast corner of said Section; thence North 00°59'13" West 164.00 feet along the East line of said Section to the point of beginning of the parcel of land herein described; thence South 89°02'37" West 187.00 feet parallel with the South line of said Section; thence North 00°59'13" West 236.00 feet; thence North 89°02'37" East 187.00 feet; thence South 00°59'13" East 236.00 feet along the East line of said Section to the point of beginning.

## **SCHEDULE B - SECTION II NOTES**

(7) Right of Way in favor of Consumers Power Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 257, page 555. The documents are illegible.

## **SURVEYOR'S NOTES**

- 1) Flood Zone Classification: An examination of the National Flood Insurance Program's Flood Insurance Rate Map for Community Number 260549, Map Number 26005C0164G with an Effective Date of June 21, 2023, shows this parcel to be located in Zone "X" (subject to map scale
- 2) Lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary. These locations should not be interpreted to be exact locations nor should it be assumed that they are the only utilities in this area.
- 3) Various easements per Liber 2868, Page 82 are shown hereon. However, Reservation of Easement No. 7 (an ingress and egress easement for private driveway) does not mathematically close by approximately 256 feet. It's depiction on this survey is based upon information obtained from the Exhibit B to the Master Deed of Northern Lights Condominium. Further research is recommended.
- 4) NOTE TO CONTRACTORS: 3 (THREE) WORKING DAYS BEFORE YOU DIG, CALL MISS DIG AT TOLL FREE 1-800-482-7171 FOR UTILITY LOCATIONS ON THE GROUND.
- 5) Care has been taken to meet proper setback requirements. However, municipal approval of the proposed location should be obtained prior to commencement of construction.

800.222.1868 **GRAND RAPIDS** 217 Grandville Ave., Suite 302 Grand Rapids, MI 49503

> **ANN ARBOR** CHICAGO HOLLAND **INDIANAPOLIS**

Phone: 616.575.5190

## PREPARED FOR:

Lakewood Construction Inc Max Nykerk

> 11253 James Street Holland, MI 49424 Phone: 616.392.6923

## **REVISIONS:**

Title: Draft Update Drawn: GAN Checked: JC Date: 2024.02.14 Title: Site Plan Submittal Drawn: JM/MH Checked: JC Date: 2024.03.28 Title: Site Plan Submittal Drawn: MV/MH Checked: CH Date: 2024.06.12

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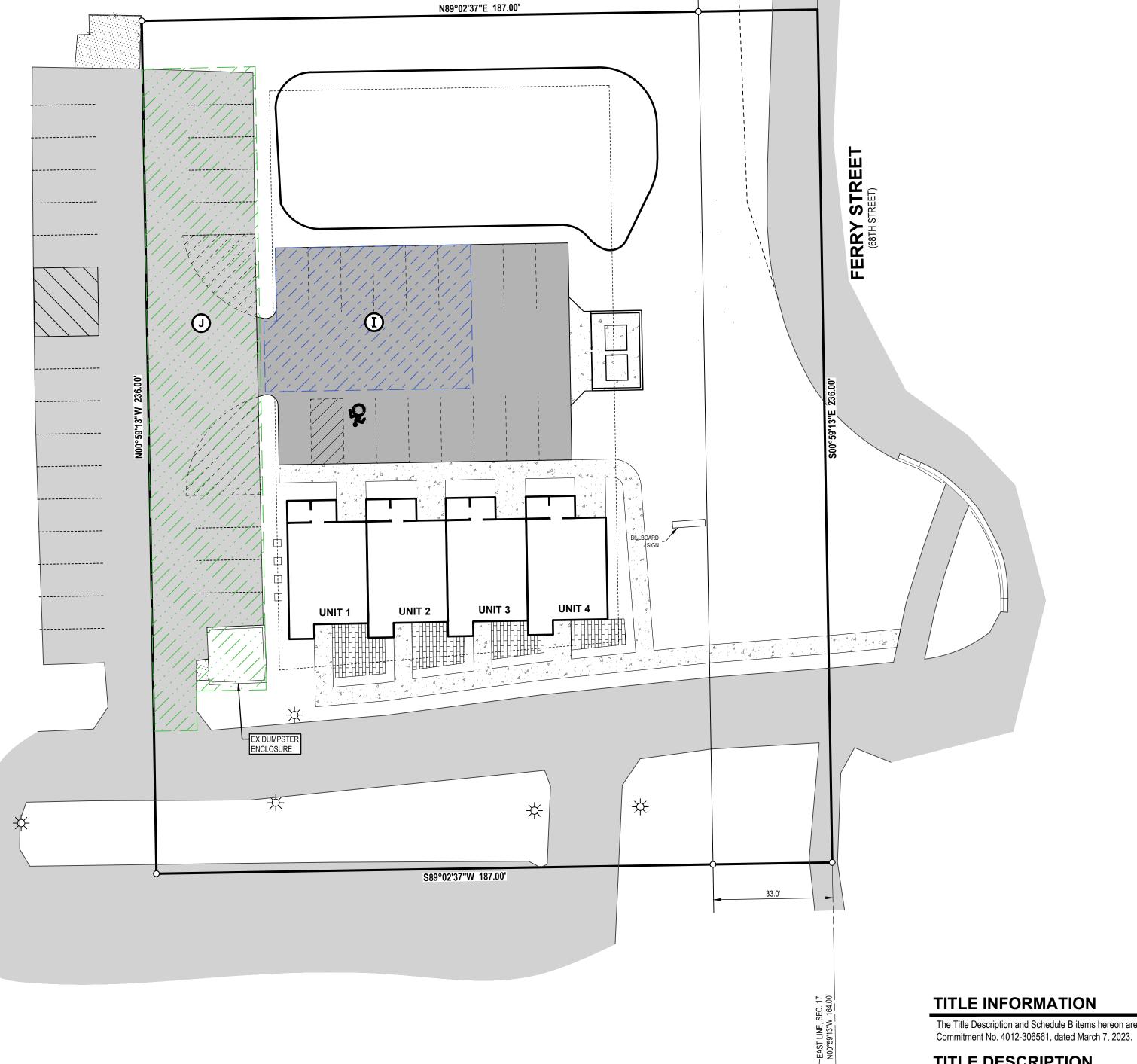
WILLIAM CASSERLY License No. 6201063767

PROJECT NO: 23201630

SHEET NO:

## **EASEMENT DETAIL NOTES**

Easement Reference	<u>Reference</u>	<u>Legal Description</u>	<u>Detail</u>
I	Proposed new parking easement to be recorded.	Legal description to be created.	Easement of ingress and egress and 6 parking spaces within the new parking area to be granted to Halas Holdings, LLC (Isabel's) to accommodate for parking lost due to site revisions.
J	Proposed new parking easement to be recorded.	Legal description to be created.	Easement over West Parking Lot for the exclusive rights of Halas Holdings, LLC to use the parking spots in this area, as well as use of the dumpster. Anticipated 9 parking spaces in this area.



LOCATION MAP

NOT TO SCALE



SCALE: 1" = 20'

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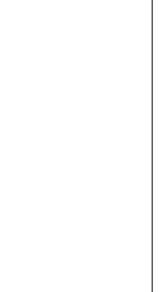
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## **SURVEYOR'S NOTES**

SE CORNER, -

SECTION 17, T3N, R16W

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COLUMBUS HOLLAND INDIANAPOLIS

## PREPARED FOR:

Lakewood Construction Inc. Max Nykerk

www.nederveld.com

800.222.1868

**GRAND RAPIDS** 217 Grandville Ave., Suite 302 Grand Rapids, MI 49503 Phone: 616.575.5190 **ANN ARBOR** 

CHICAGO

11253 James Street Holland, MI 49424 Phone: 616.392.6923

## **REVISIONS:**

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WILLIAM CASSERLY License No. 6201063767

PROJECT NO: 23201630

SHEET NO:

Know what's **below**. UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

NOTE:

EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "(PLAN)" WERE

OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE

CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL

UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.

**WILEY ROAD** 

SOUTH LINE, SEC. 17

—Land Planning — Landscape Architecture — Civil Engineering — Land Surveying — High Definition Scanning — Forensic Engineering — Fire Investigation —

#### 2 STRAND TWISTED 12 GAUGE GALVANIZED WIRE ENCASED IN 1" DIA. RUBBER HOSE (RUBBER HOSE AT BARK - TYP.) WIRE SHALL FOR MULTI-STEMMED TREE HAVE SOME SLACK IN IT TO ALLOW THE PLANTING, TIE ALL MAJOR TRUNK TO SWAY SLIGHTLY, WHILE KEEPING STEMS/BRANCHES TOGETHER THE ROOT SYSTEM STABILIZED. WHITE — WITH WIRE (USE RUBBER FLAG EACH GUY WIRE TO INCREASE HOSE TO PROTECT EACH VISIBILITY. STEM/BRANCH FROM THE (3) 2 INCH X 2 INCH HARDWOOD STAKES — DRIVEN (MIN. 18") FIRMLY INTO SUBGRADE — KEEP MUI CH AWAY PRIOR TO BACKFILLING FROM ROOT COLLAR NECESSARY, STAKE ABOVE FIRST BRANCHES FOR FIRM SUPPORT — 3" SHREDDED HARDWOOD MULCH FORM SAUCER OUT OF PREPARED SOIL -(6 INCH MIN.)- TAMPED GOOD NATIVE SOIL OR TOPSOIL; (FREE FROM ROPES AT TOP OF BALL SHALL BE CLODS, ROCKS, STICKS, ETC.) PLACE SOIL IN 6 INCH LIFTS; LIGHTLY TAMP AND WATER — CUT. REMOVE TOP 1/3 OF BURLAP; AFTER EACH LIFT TO REMOVE AIR POCKETS CONTAINERS AND NON-BIODEGRADABLE MATERIAL SHALL BE TOTALLY REMOVED PLACE ROOTBALL ON UNDISTURBED · PEDESTAL TO PREVENT SETTLING. PLANT SO THAT TOP OF ROOT BALL TREE PITS SHALL BE A MINIMUM OF 2 TIMES THE IS EVEN WITH THE FINISHED GRADE DIAMETER OF THE TREE BALL/CONTAINER, WITH RECOMMENDED.

## TYPICAL TREE PLANTING DETAIL

FORM 2" SAUCER (CONTINUOUS)

TOPSOIL OR GOOD NATIVE SOIL THAT HAS BEEN AMENDED FOR PLANTING (FREE FROM CLODS, ROCKS, STICKS, ETC.). PLACE SOIL IN 6 INCH LIFTS; LIGHTLY TAMP AND WATER AFTER EACH LIFT TO REMOVE AIR POCKETS.

## TYPICAL SHRUB / PERENNIAL / ORNAMENTAL GRASS PLANTING DETAIL

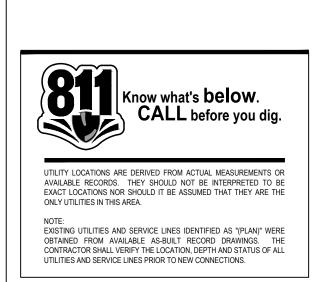
## TITLE INFORMATION

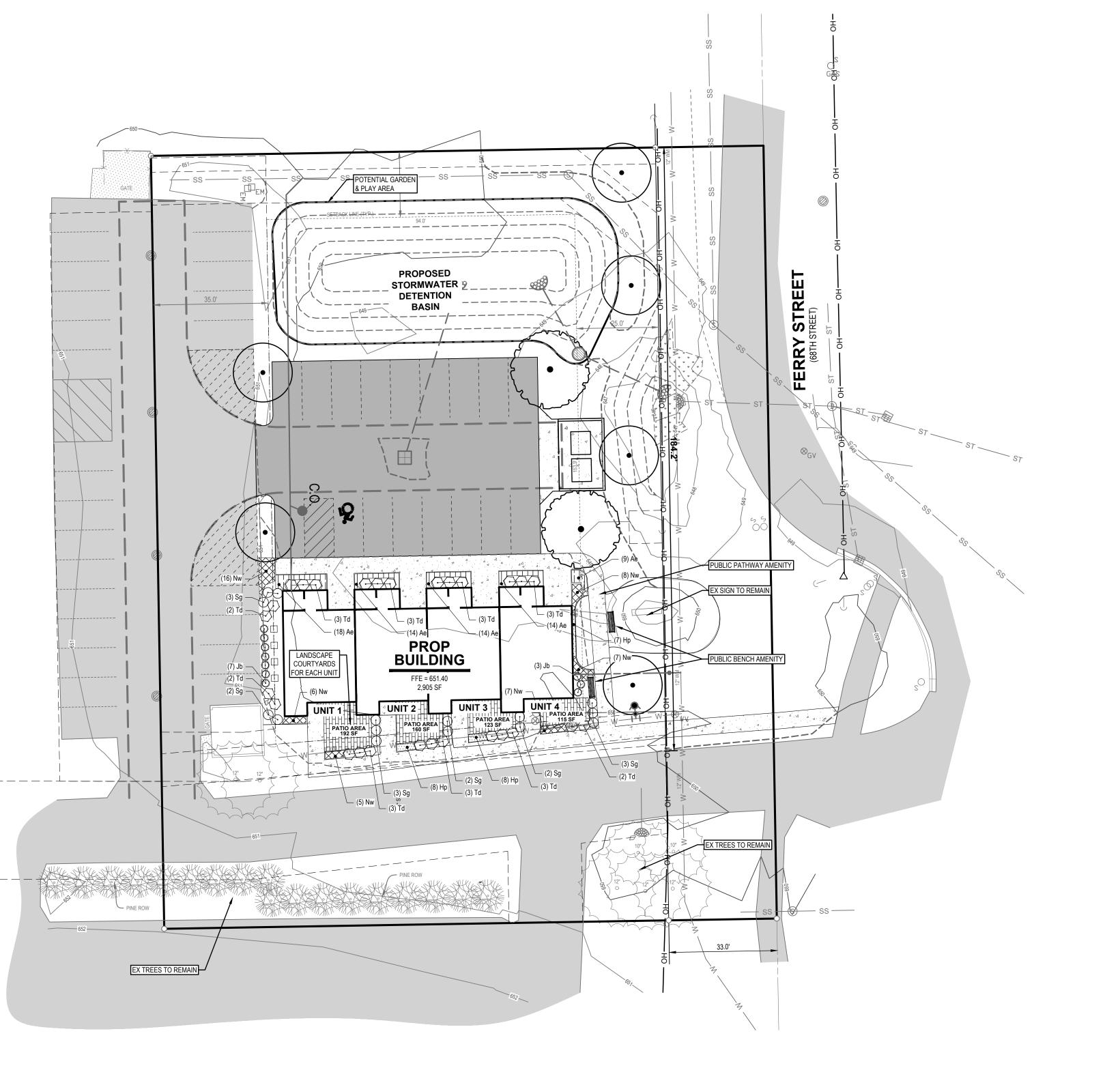
The Title Description and Schedule B items hereon are from Premier Lakeshore Title Agency, LLC (underwritten by First American Title Insurance Company), Commitment No. 4012-306561, dated March 7, 2023.

## TITLE DESCRIPTION

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#### LANDSCAPE NOTES

## PLANTING NOTES:

- 1) ALL PLANT MATERIAL SHALL BE LOCALLY NURSERY GROWN NO.1 GRADE AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES. ALL PLANT MATERIALS SHALL MEET CURRENT AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. DO NOT PLANT MATERIALS UNTIL DIRECTED BY OWNER, LANDSCAPE ARCHITECT, AND/OR CONSTRUCTION MANAGER. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL, FOR ANY REASON BEFORE OR AFTER IT IS INSTALLED.
- 2) SIZES SPECIFIED ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE INSTALLED.3) ANY PLANT SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
- 4) MAINTENANCE OF LANDSCAPING ITEMS, TREES, AND PLANTS SHALL BE PERFORMED BY THE PROPERTY OWNER OR A QUALIFIED PROFESSIONAL. ALL LANDSCAPING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE MUNICIPAL STANDARDS AND IN ACCORDANCE WITH CURRENT INDUSTRY STANDARDS IN A NEAT, HEALTHY AND WEED FREE CONDITION. ANY DEAD, DISEASED OR DAMAGED PLANT MATERIALS ARE TO BE REPLACED IMMEDIATELY AFTER NOTIFIED TO DO SO.
- 5) PLANT TREES AND SHRUBS IN ACCORDANCE WITH PLANTING DETAILS. DIG TREE PITS PER DETAILS. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE GROWN AT THE NURSERY. IF HEAVY CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER, APRROX. 1/4 OF THE ROOT BALL ABOVE GRADE, AND BACKFILL TO TOP OF ROOT BALL.
- 6) REMOVE ALL TWINE, WIRE, NURSERY TREE GUARDS, TAGS AND INORGANIC MATERIAL FROM ROOT BALLS. REMOVE THE TOP
  1/3 OF BURLAP FROM EARTH BALLS AND REMOVE BURLAP FROM AROUND TRUNK.
   7) FINELY SHREDDED HARDWOOD BARK MULCH, NATURAL COLOR (NON-COLORED), IS REQUIRED FOR ALL PLANTINGS AND
- PLANTING BEDS. MULCH PER PLANTING DETAILS. MULCH IN PLANT BEDS SHALL BE 3" THICK AT TIME OF INSPECTION AND AFTER COMPACTED BY RAIN OR IRRIGATION. ALL PLANTING BEDS SHALL BE EDGED WITH 6" X 12 GAUGE STEEL LANDSCAPE EDGING.
- 8) LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES. IF A CONFLICT WITH UTILITIES EXIST, NOTIFY OWNER/CONSTRUCTION MANAGER PRIOR TO PLANTING.

## 9) PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER PLANTING AND ACCEPTANCE. TOPSOIL AND TURF NOTES:

- WHEREVER GROUND IN ITS NATURAL STATE HAS BEEN DISTURBED, APPROVED LANDSCAPING OR GRASS SHALL BE FULLY INSTALLED, AND ESTABLISHED WITHIN A REASONABLE PERIOD OF TIME, BUT NO LONGER THAN ONE GROWING SEASON (UNLESS OTHERWISE NOTED AND APPROVED).
- 2) DURING EXCAVATION, GRADING, AND INSTALLATION OF REQUIRED LANDSCAPING, ALL SOIL EROSION AND SEDIMENTATION CONTROL REGULATIONS SHALL BE STRICTLY FOLLOWED AND COMPLIED WITH.
- 3) ALL LAWN AREAS SHALL RECEIVE SOD OR HYDROSEED. TURF SHALL BE INSTALLED ON TOPSOIL UNLESS APPROVED OTHERWISE. DO NOT PLANT UNTIL ACCEPTANCE OF FINISH GRADE.
- 4) SOD SHALL BE GROWN ON TOPSOIL UNLESS APPROVED OTHERWISE. SOD SHALL BE 2 YEARS OLD AND STRONGLY ROOTED. PLACE SOD TIGHTLY WITH NO GAPS AND WITH GRAIN IN SAME DIRECTION. SEAMS OF SOD SHALL BE STAGGERED IN A RUNNING BOND PATTERN. SOD SHALL BE WATERED IMMEDIATELY TO AVOID DRYING OUT. DO NOT INSTALL SOD UNTIL ACCEPTANCE OF FINISH GRADE AND IRRIGATION SYSTEM IS OPERATING PROPERLY UNLESS DIRECTED IN WRITING TO DO OTHERWISE. FINISH ROLL SOD WITH A WATER FILLED LAWN ROLLER, ROLL PERPENDICULAR TO LENGTH OF SOD.
- 5) TURF SHALL BE INSTALLED ON A MIN. OF 3"-4" OF LIGHTLY COMPACTED APPROVED TOPSOIL. TOPSOIL SHALL BE FERTILE, SCREENED, FRIABLE TOPSOIL FREE OF STONES 1/2" IN DIA. AND LARGER, ROOTS, STICKS, OR OTHER EXTRANEOUS MATERIAL INCLUDING NOXIOUS PLANTS. PH BETWEEN 6.0 AND 6.5, SALTS 500 PARTS PPM, ORGANIC CONTENT 3% MIN. DO NOT INSTALL TOPSOIL UNTIL APPROVED BY OWNER/C.M.. TOPSOIL SHALL BE FINE GRADED TO A SMOOTH FINISH, FREE OF LUMPS AND DEPRESSIONS.
- 6) ALL LANDSCAPE ISLANDS WITHIN PARKING LOTS SHALL BE BACK FILLED WITH TOPSOIL TO A DEPTH OF 18" MIN.

#### **IRRIGATION NOTES:**

1) AN IN-GROUND IRRIGATION SYSTEM IS NOT REQUIRED PER LOCAL ZONING ORDINANCES. HOWEVER, IT IS RECOMMENDED THAT ALL PLANTING AREAS, LAWN AREAS AND LANDSCAPE ISLANDS SHOWN SHALL BE PROVIDED REGULAR WATERING UNTIL ESTABLISHED AND AS NEEDED FOR PROPER MAINTENANCE OR SHALL BE PROVIDED A COMPLETE IRRIGATION SYSTEM. THE G.C. SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY WATERING METHODS OR RETAINING A QUALIFIED FIRM FOR THE DESIGN OF THE IRRIGATION SYSTEM. THE DESIGN MUST SHOW HOW THE SYSTEM TIES INTO THE BUILDING AND MUST SHOW ALL OF THE NECESSARY EQUIPMENT FOR A COMPLETE SYSTEM. THE G.C. SHALL SUBMIT THE IRRIGATION SYSTEM DESIGN TO THE ARCHITECT/OWNER FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.

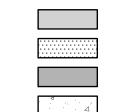
#### LANDSCAPE CALCULATIONS

• 1 TREE PER 30 LF RIGHT-OF-WAY FRONTAGE	
FERRY ST FRONTAGE: 184 LF	
REQUIRED: 6 TREES	PROPOSED: 6 TREES
PARKING LOT LANDSCAPE: SEC. 21.04	
• 1 CANOPY TREE & 50 SQ.FT. LANDSCAPE PER 8 SPACES.	

## LANDSCAPE SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE		QTY
TREES	Aa	Acer rubrum 'Armstrong'	Armstrong Red Maple	3" cal. min.		6
$\bigcirc$	Тс	Tilia cordata	Littleleaf Linden	3" cal. min.		2
SHRUBS						
3	Jb	Juniperus scopulorum 'Blue Arrow'	Blue Arrow Juniper	4` hgt. min.		10
$\overline{(\cdot)}$	Sg	Spiraea japonica 'Goldflame'	Goldflame Japanese Spirea	24" min.		15
$\langle \cdot \rangle$	Td	Taxus x media 'Densiformis'	Dense Anglo-Japanese Yew	24" min.		27
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME		SPACING	QTY
PERENNIALS						
	Ae	Astilbe x arendsii 'Ice Cream'	Ice Cream Astilbe		18" o.c.	69
	Нр	Hemerocallis x 'Pardon Me'	Pardon Me Daylily		16" o.c.	23
	Nw	Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint		20" o.c.	49

## LEGEND

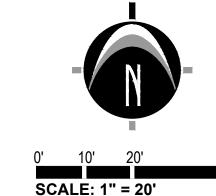


EXISTING BITUMINOUS

EXISTING CONCRETE

PROPOSED BITUMINOUS
(STANDARD DUTY)

PROPOSED CONCRETE
(STANDARD DUTY)



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#### **REVISIONS:**

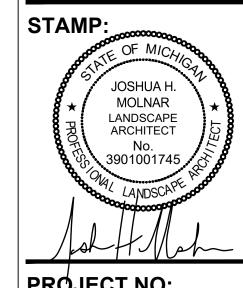
Title: Draft Update
Drawn: GAN Checked: JC Date: 2024.02.14

Title: Site Plan Submittal
Drawn: JM/MH Checked: JC Date: 2024.03.28

Title: Site Plan Submittal
Drawn: MV/MH Checked: CH Date: 2024.06.12

andscape Plan
319 Ferry Street, Douglas, MI 49406
SOUTHEAST 1/4 OF SECTION 17, T3N, R16W

DE WICHIGARD



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PROJECT NO: 23201630

SHEET NO:

