



## NOVI PROFESSIONAL VILLAGE BUILDINGS D & E JSP20-17

### NOVI PROFESSIONAL VILLAGE BUILDINGS D & E JSP20-17

Public Hearing at the request of Novi Medical Building, LLC for approval of the Preliminary Site Plan, Woodland Use Permit, and Stormwater Management Plan. The subject property contains 5.02 acres and is located in Section 27, on the west side of Novi Road, south of Ten Mile Road. The applicant is proposing to construct two 6,175 square feet professional office buildings, directly behind the three existing buildings on the property that were constructed in the 1991.

### Required Action

Approve/Deny the Preliminary Site Plan, Woodland Use Permit, Stormwater Management Plan, and any applicable Landscape Waivers.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	3-29-21	<ul style="list-style-type: none"> <li>• <b>Parking setback waiver of 7 feet along the north property line and a parking setback waiver of 4.14 feet along the south property line is required (<i>It is supported by staff as the proposed parking layout is consistent with the existing parking layout</i>)</b></li> <li>• Items to be addressed on the Final Site Plan submittal</li> </ul>
Engineering	Approval recommended	10-9-20	<ul style="list-style-type: none"> <li>• Items to be addressed on the Final Site Plan submittal</li> </ul>
Landscaping	Approval recommended	3-3-21	<ul style="list-style-type: none"> <li>• <b>Landscape waiver is required for the deficiency of a screening berm along the west property line (<i>It is supported by staff due to the large distance and dense woodland vegetation that currently provides significant visual and audible buffering to the site</i>)</b></li> <li>• <b>Landscape waiver is required for a deficiency of five perimeter canopy trees in the parking lot perimeter landscaping (<i>It is supported by staff as the proposed parking layout is consistent with the existing parking layout</i>)</b></li> <li>• Items to be addressed on the Final Site Plan Submittal</li> </ul>
Woodland	Approval recommended	3-23-21	<ul style="list-style-type: none"> <li>• Items to be addressed on the Final Site Plan Submittal</li> </ul>
Wetland	Approval recommended	10-12-20	<ul style="list-style-type: none"> <li>• Items to be addressed on the Final Site Plan Submittal</li> </ul>
Traffic	Approval recommended	10-8-20	<ul style="list-style-type: none"> <li>• Items to be addressed on the Final Site Plan Submittal</li> </ul>
Fire	Approval recommended	9-28-20	<ul style="list-style-type: none"> <li>• Items to be addressed on the Final Site Plan Submittal</li> </ul>

**MOTION SHEET**

**Approval – Preliminary Site Plan**

In the matter of Novi Professional Village Buildings D & E, JSP20-17, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. Parking setback waiver of 7 feet along the north property line (10 feet required, 3 feet provided) *because the applicant has demonstrated in the response letter, per Section 3.6.2.Q of the Zoning Ordinance, that modification of the parking area setback requirements does not reduce the total area of setback on the overall site below the minimum setback area requirements, and that such modification will result in improved use of the site because the proposed parking layout is consistent with the existing parking layout on-site, which is hereby granted;*
- b. Parking setback waiver of 4.14 feet along the south property line (10 feet required, 5.86 feet proposed) *because the applicant has demonstrated in the response letter, per Section 3.6.2.Q of the Zoning Ordinance, that modification of the parking area setback requirements does not reduce the total area of setback on the overall site below the minimum setback area requirements, and that such modification will result in improved use of the site because the proposed parking layout is consistent with the existing parking layout on-site, which is hereby granted;*
- c. Landscape Waiver for the deficiency of a screening berm along the west property line *because of the large distance and dense woodland vegetation that provides the site with significant audible and visual buffering, which is hereby granted;*
- d. Landscape Waiver for a deficiency of five perimeter canopy trees in the parking lot perimeter landscaping *because the proposed parking layout is consistent with the existing parking layout on-site, which is hereby granted;*
- e. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and the items listed in those being addressed on the Final Site Plan; and
- f. *(additional conditions here if any)*

*(This motion is made because the plan is otherwise in compliance with Article 3, Article 4, and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

**- AND -**

**Approval – Woodland Use Permit**

In the matter of Novi Professional Village Buildings D & E, JSP20-17, motion to **approve** the Woodland Use Permit subject to:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

*(This motion is made because the plan is otherwise in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

- AND -

**Approval – Stormwater Management Plan**

In the matter of Novi Professional Village Buildings D & E, JSP20-17, motion to **approve** the **approve** the Stormwater Management Plan subject to:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and the items listed in those being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

*(This motion is made because the plan is otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

- OR -

**Denial – Preliminary Site Plan**

In the matter of Novi Professional Village Buildings D & E, JSP20-17, motion to **deny** the Preliminary Site Plan ... *(because the plan is not in compliance with Article 3, Article 4, and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

-AND-

**Denial – Woodland Use Permit**

In the matter of Novi Professional Village Buildings D & E, JSP20-17, motion to **deny** the Woodland Use Permit ... *(because the plan is not in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

- AND -

**Denial – Stormwater Management Plan**

In the matter of Novi Professional Village Buildings D & E, JSP20-17, motion to **deny** the Stormwater Management Plan ... *(because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

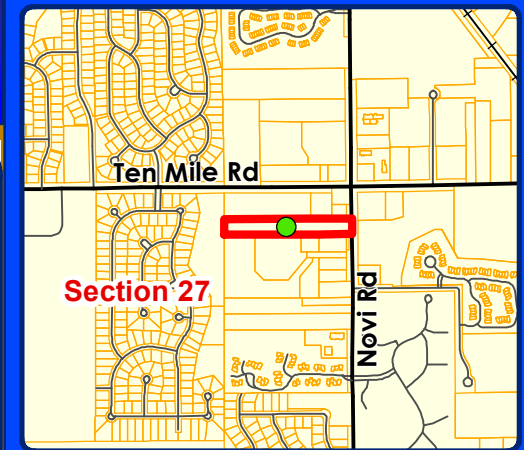
MAPS  
Location  
Zoning  
Future Land Use  
Natural Features

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# JSP20-17 NOVI PROFESSIONAL VILLAGE BUILDINGS D & E

## LOCATION



**LEGEND**


 Subject Property



**City of Novi**  
Dept. of Community Development  
City Hall / Civic Center  
45175 W Ten Mile Rd  
Novi, MI 48375  
[cityofnovi.org](http://cityofnovi.org)

Map Author: Christian Carroll  
Date: 5/5/21  
Project: NOVI PROFESSIONAL VILLAGE BUILDINGS D & E  
Version #: 1

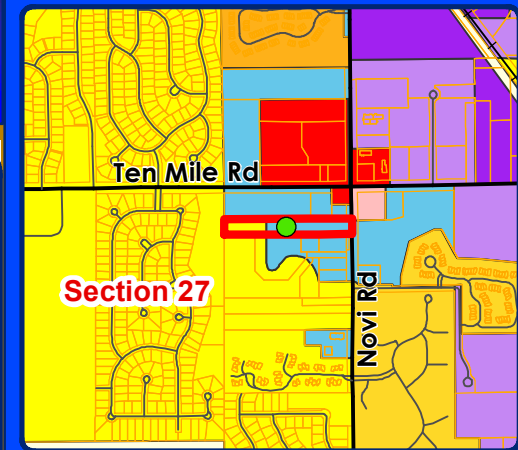
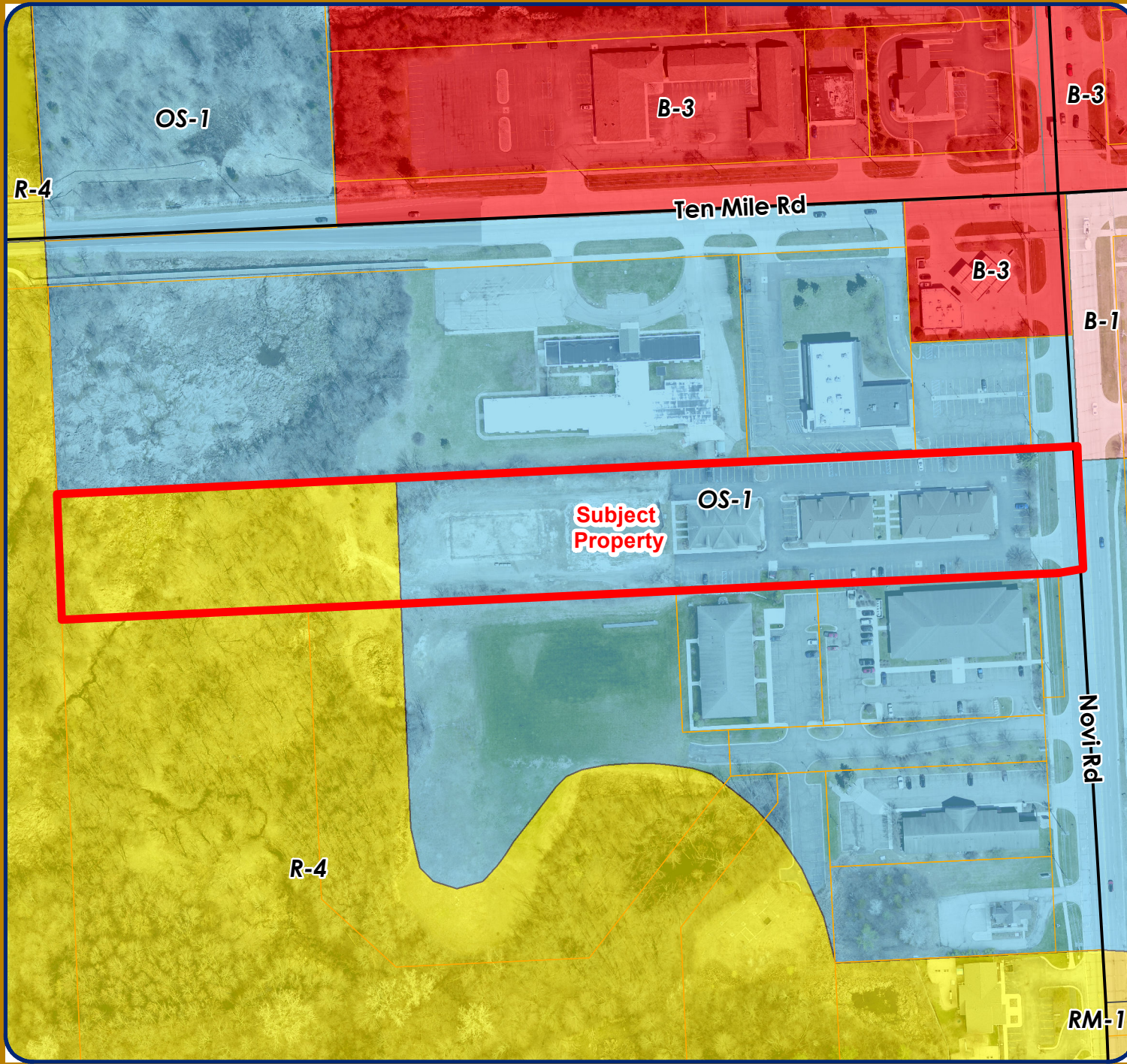
0 40 80 160 240 Feet  
1 inch = 188 feet



**MAP INTERPRETATION NOTICE**  
Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.



# JSP20-17 NOVI PROFESSIONAL VILLAGE BUILDINGS D & E ZONING



**LEGEND**

- R-4: One-Family Residential District
- RM-1: Low-Density Multiple Family
- RM-2: High-Density Multiple Family
- B-1: Local Business District
- B-3: General Business District
- I-1: Light Industrial District
- I-2: General Industrial District
- OS-1: Office Service District
- Subject Property

**City of Novi**  
 Dept. of Community Development  
 City Hall / Civic Center  
 45175 W Ten Mile Rd  
 Novi, MI 48375  
[cityofnovi.org](http://cityofnovi.org)

Map Author: Christian Carroll  
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Feet  
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1 inch = 188 feet

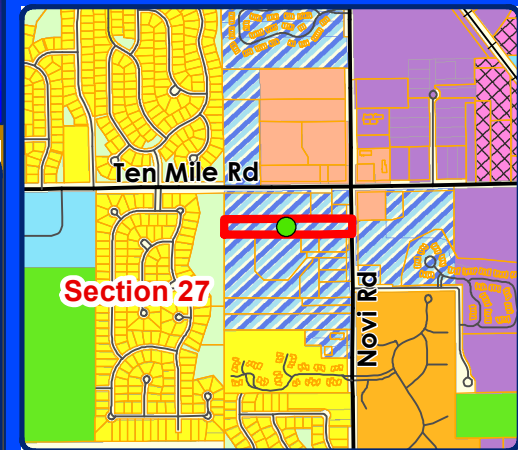
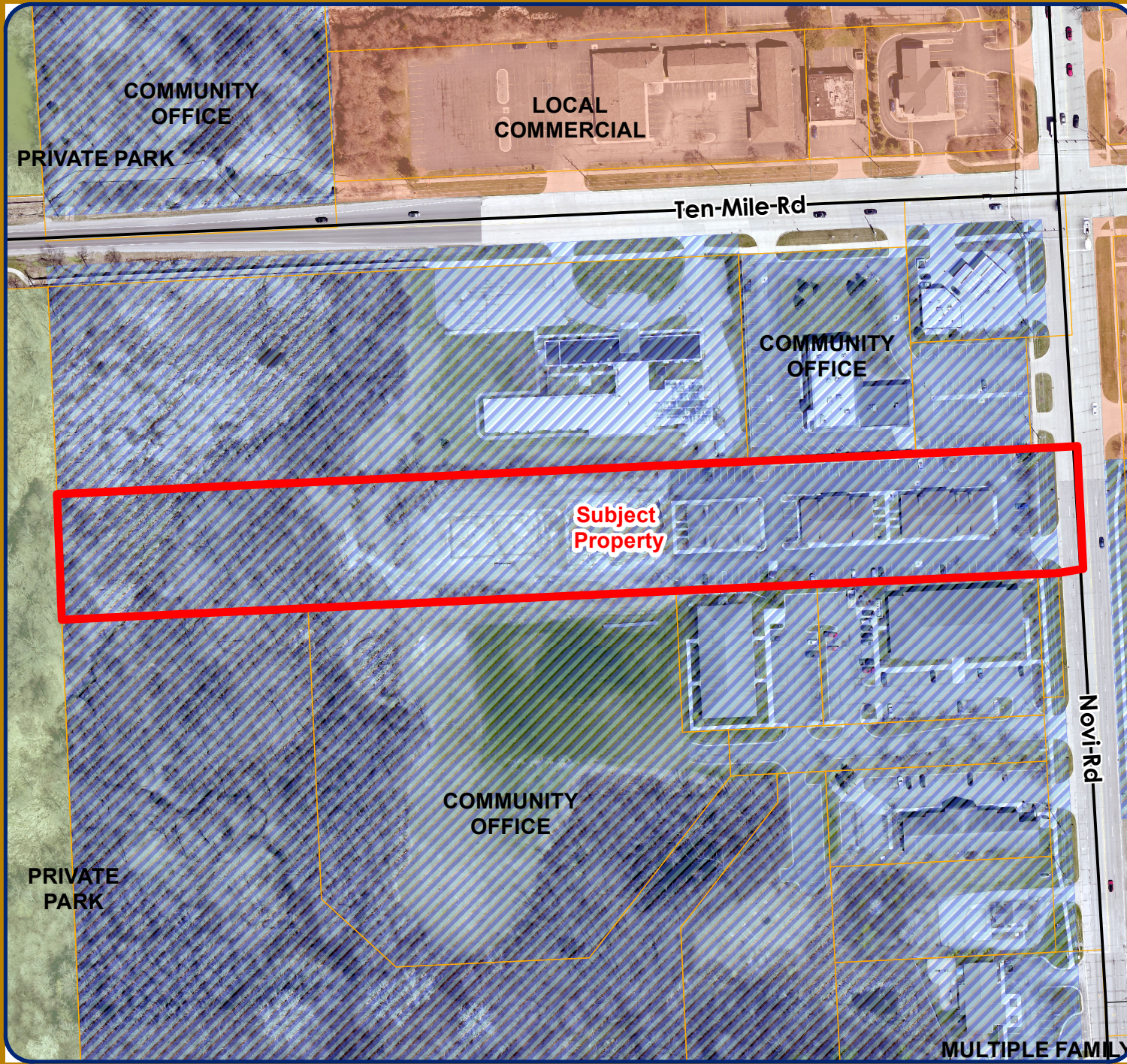
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# JSP20-17 NOVI PROFESSIONAL VILLAGE BUILDINGS D & E

## FUTURE LAND USE



**LEGEND**

- Single Family
- Multiple Family
- Community Office
- Industrial Research Development Technology
- Heavy Industrial
- Local Commercial
- Public
- Public Park
- Private Park
- Subject Property

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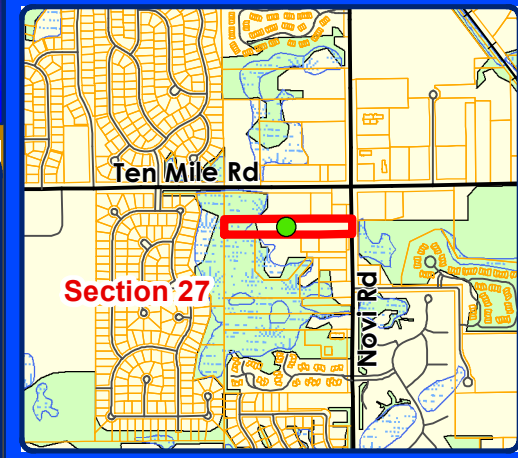
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# JSP20-17 NOVI PROFESSIONAL VILLAGE BUILDINGS D & E

## NATURAL FEATURES



**LEGEND**


- WETLANDS
- WOODLANDS
- Subject Property



**City of Novi**  
Dept. of Community Development  
City Hall / Civic Center  
45175 W Ten Mile Rd  
Novi, MI 48375  
cityofnovi.org

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**SITE PLAN**

(Full plan set available for viewing at the Community Development Department.)

PRELIMINARY SITE PLAN

# NOVI PROFESSIONAL VILLAGE

BUILDINGS 'D' AND 'E'

CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

**DEVELOPER/APPLICANT**  
 NOV PROFESSIONAL BUILDING, LLC.  
 P.O. BOX 252523  
 WEST BLOOMFIELD, MI 48325  
 CONTACT: ANDREW MAROUGHY  
 PHONE: (248) 670-6290

**ARCHITECT**  
 GARC ARCHITECTURAL DESIGN GROUP  
 880 LONG LAKE ROAD, SUITE 375  
 BLOOMFIELD HILLS, MI 48302  
 CONTACT: COREY CAMPBELL  
 PHONE: (248) 971-0734

**ENGINEER**  
 ATWELL, LLC  
 311 NORTH MAIN STREET  
 ANN ARBOR, MICHIGAN 48104  
 CONTACT: MATT BUSH, PE  
 PHONE: (734) 994-4000

**SITE DATA**

PARCEL SUMMARY	
GROSS AREA:	5.03 AC
NET AREA:	4.91 AC
EXISTING ZONING:	OS-1
BUILDING DATA	
	REQUIRED      PROPOSED
REAR SETBACK:	20'      509'
FRONT SETBACK:	20'      119'
SIDE SETBACK:	15'      55' (MINIMUM)
BUILDING HEIGHT:	30' (MAXIMUM)      23'
EXISTING BUILDING AREAS:	15,685 SF (TOTAL)
BUILDING A = 6,125 SF	
BUILDING B = 4,750 SF	
BUILDING C = 4,810 SF	
PROPOSED BUILDING AREAS:	12,350 SF (TOTAL)
BUILDING D = 6,175 SF	
BUILDING E = 6,175 SF	
	MAXIMUM      PROPOSED
LOT COVERAGE:	4.0 AC (81%)      0.64 AC (13%)

**PARKING DATA**

	MINIMUM	PROPOSED
FRONT SETBACK:	20'	71'
SIDE SETBACK:	10'	3'
REAR SETBACK:	10'	440'
NOVI PARKING (>5000 SF: BUILDING SF/175, <5000 SF: BUILDING SF/167)		
REQUIRED:	SPACES	FORMULA
EXISTING BUILDINGS		
BUILDING A:	35	(6,125 SF/175)
BUILDING B:	29	(4,750 SF/167)
BUILDING C:	29	(4,810 SF/167)
PROPOSED BUILDINGS		
BUILDING D:	35	(6,175 SF/175)
BUILDING E:	35	(6,175 SF/175)
TOTAL REQUIRED:	163	
PROVIDED:		
EXISTING:	101	
PROPOSED:	63 (4 ACCESSIBLE W/ 2 VAN)	
TOTAL PROVIDED:	164	

**SURVEYOR**  
 MICHAEL L. PRIEST & ASSOCIATES  
 4655 KOPFERNICK ROAD  
 CANTON, MICHIGAN 48187  
 CONTACT: MICHAEL L. PRIEST  
 PHONE: (734) 458-8580

**LANDSCAPE ARCHITECT**  
 ATWELL, LLC  
 311 NORTH MAIN STREET  
 ANN ARBOR, MICHIGAN 48104  
 CONTACT: CAMERON HORVATH  
 PHONE: (734) 994-4000



**SITE MAP**  
 SCALE: 1" = 100'

**LEGAL DESCRIPTION**

PARCEL IDENTIFICATION NUMBER: 50-22-27-200-006  
 PART OF THE NORTHEAST 1/4 OF SECTION 27, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS:  
 COMMENCING AT THE NORTHEAST CORNER OF SECTION 27 THENCE ALONG THE EAST LINE OF SECTION 27 AND THE CENTERLINE OF NOVI ROAD S02°47'45"E, 329.37 FEET TO THE POINT OF BEGINNING; THENCE ALONG SAID LINE S02°47'45"E, 164.63 FEET; THENCE S87°10'0"W, 1332.84 FEET; THENCE N02°47'45"W, 164.71 FEET; THENCE N87°10'0"W, 1332.84 FEET TO THE POINT OF BEGINNING, SUBJECT TO THE RIGHTS OF THE PUBLIC OVER THE EASTERLY 33 FEET AS OCCUPIED BY NOVI ROAD, CONTAINING 0.0385 ACRES TOTAL, 0.1247 ACRES ROAD AND 4.9138 ACRES NET WORK OR LESS.

**GENERAL NOTES**

- ALL WORK SHALL CONFORM TO THE CITY OF NOVI'S CURRENT STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE CITY OF NOVI FOR ANY WORK WITHIN THE RIGHT-OF-WAY OF 9 MILE ROAD AND A PERMIT FROM THE ROAD COMMISSION FOR OAKLAND COUNTY AND THE CITY OF NOVI FOR THE SANITARY SEWER CONNECTION IN THE NOVI ROAD RIGHT OF WAY.
- ALL PAVEMENT MARKINGS, TRAFFIC CONTROL SIGNS, AND PARKING SIGNS SHALL COMPLY WITH THE DESIGN AND PLACEMENT REQUIREMENTS OF THE 2011 MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

**FIRE DEPARTMENT NOTES**

- ALL FIRE HYDRANTS MUST BE INSTALLED AND OPERATIONAL PRIOR TO ANY COMBUSTIBLE MATERIAL IS BROUGHT ON SITE. (FC 2015 302.1)
- ALL ROADS SHALL BE PAVED AND CAPABLE OF SUPPORTING 35 TONS PRIOR TO CONSTRUCTION ABOVE FOUNDATION.
- BUILDING ADDRESSES SHALL BE POSTED FACING THE STREET DURING ALL PHASES OF CONSTRUCTION. ADDRESSES SHALL BE A MINIMUM OF THREE INCHES IN HEIGHT ON A CONTRASTING BACKGROUND.
- PROVIDE 4"-6" DIAMETER OF CONCRETE FILLED STEEL POST 48" ABOVE FINISH GRADE AT EACH HYDRANT AS REQUIRED.
- FIRE LANES SHALL BE POSTED WITH "FIRE LANE - NO PARKING" SIGNS IN ACCORDANCE WITH ORDINANCE #85.99.02.

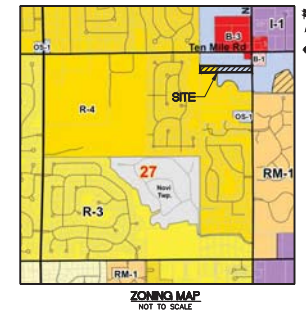
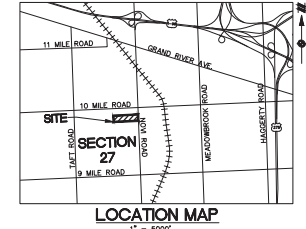
**PROJECT NARRATIVE**

PARCEL IDENTIFICATION NUMBER: 50-22-27-200-006  
 THE PROPOSED PROJECT IS PART OF THE NORTHEAST 1/4 OF SECTION 27, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN. THE PROPERTY IS ZONED OS-1 AND IS MASTER PLANNED AS COMMUNITY OFFICE. THE CURRENT SITE CONTAINS THREE (3) EXISTING BUILDINGS ALL CONTAINING OFFICE USES WHICH IS CONSISTENT WITH THE ALLOWABLE LAND USE.

THE PROPOSED PROJECT ENCOMPASSES BUILDING THE FINAL TWO (2) BUILDINGS OF THE DEVELOPMENT, EXTENDING THE AVAILABLE UTILITIES, AND EXTENDING THE ACCESS DRIVES. THE BUILDING FOUNDATIONS FOR THE TWO BUILDINGS ARE EXISTING AND MAY NEED SOME RE-WORK BUT, THE INTENT OF THE PROJECT IS TO CONFORM WITH THE EXISTING SITE/LAYOUT AND UPDATED ORDINANCES AS BEST AS POSSIBLE (THE KNOWN NON-CONFORMITIES ARE LISTED ON THE COVER SHEET UNDER "NON-CONFORMING DEVIATIONS"). PARKING FOR THE PROJECT WAS LOOKED AT FROM A SITE PERSPECTIVE AND NOT BASED UPON THE TWO (2) PROPOSED BUILDINGS. THIS RESULTS IN MEETING THE REQUIRED SPACES FOR THE ENTIRE SITE WITH SOME TO SPARE. STORM WATER AND UTILITIES SERVING THE SITE WERE ALSO ANALYZED ACROSS THE SITE AND UPDATED ACCORDINGLY TO ACCOMMODATE NEWER LOCAL AND COUNTY STANDARDS. LANDSCAPING HOWEVER, WAS ANALYZED FOR THE TWO (2) PROPOSED BUILDINGS AND IT IS ASSUMED THE REST OF THE SITE IS IN CONFORMANCE WITH ALL APPLICABLE LANDSCAPING STANDARDS.


**NON-CONFORMING DEVIATIONS**

- THE REQUIRED SIDE YARD PARKING SETBACK IS 10 FEET. A PARKING SETBACK OF 3 FEET IS PROPOSED, AS THIS IS CONSISTENT WITH THE REST OF THE EXISTING SITE AND THE ADJACENT PROPERTIES ARE OF SIMILAR ZONING AND USE.
- THE ITEMS LISTED UNDER SECTION 3.6.2.D PERTAIN TO THE FRONTAGE OF THE SITE AND WERE DEVELOPED UNDER A PREVIOUS PHASE. THESE AREAS ARE ALREADY DEVELOPED AND THEREFORE WERE NOT REVISED.
- TEMPORARY DISTURBANCE OF THE REQUIRED 25' WETLAND BUFFER TO PROVIDE FOR REQUIRED FLOODPLAIN MITIGATION. THE WETLAND BUFFER WILL BE RESTORED.
- A LANDSCAPED BERM BETWEEN THE DEVELOPMENT AND THE RESIDENTIAL PROPERTY TO THE WEST IS NOT BEING PROVIDED TO ALLOW FOR THE REQUIRED DETENTION AND DUE TO THE FOLLOWING JUSTIFICATIONS: (1) THERE IS OVER 500' FEET OF SEPARATION BETWEEN THE PROPOSED BUILDING AND THE WESTERN PROPERTY LINE AND 900' FROM THE NEAREST RESIDENTIAL UNIT; (2) THERE IS A LARGE EXISTING BERM JUST WEST OF THE PROPOSED DETENTION BASIN LOCATED BETWEEN THE DEVELOPMENT AND THE PROPERTY LINE TO THE WEST; (3) THERE ARE LARGE NATURAL WOODS, WETLANDS AND FLOODPLAIN AREAS (ESSENTIALLY UNDEVELOPABLE AREAS) BETWEEN THE PROPOSED DEVELOPMENT AND THE PROPERTY LINE TO THE WEST THAT PROVIDE FOR NATURAL SCREENING. A CROSS-SECTION OF THE WESTERN AREA HAS BEEN PROVIDED ON SHEET 08.



**SHEET INDEX**


- 01 COVER SHEET
- 02 EXISTING CONDITIONS
- 03 LAYOUT PLAN
- 04 UTILITIES PLAN
- 05 GRADING AND SESC PLAN
- 06 STORMWATER MANAGEMENT PLAN
- 07 LANDSCAPE PLAN
- 08 DETAIL SHEET
- 1 OF 2 NOW PAVING DETAILS
- 2 OF 2 NOW PAVING DETAILS
- 1 OF 1 SESC DETAILS
- A-1 ARCHITECTURAL FLOOR PLANS
- A-3 ARCHITECTURAL ELEVATIONS
- 1 OF 1 PHOTOMETRIC SITE PLAN



Know what's below.  
 Call before you dig.  
THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS ONLY AS SHOWN ON THIS PLAN AND WHILE NOT BEING NECESSARILY REPRESENTED BY THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MUST BE REPAIRED BY THE CONTRACTOR. PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION OF THIS PROJECT IS THE SOLE RESPONSIBILITY OF THE CLIENT. THE ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE PROJECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CONSTRUCTION OF THIS PROJECT IS THE SOLE RESPONSIBILITY OF THE CLIENT. THE ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE PROJECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



ATWELL  
 311 NORTH MAIN STREET  
 ANN ARBOR, MICHIGAN 48104

SECTION 27  
 TOWN 01 NORTH, RANGE 08 EAST  
 CITY OF NOVI  
 OAKLAND COUNTY, MICHIGAN

NOVI PROFESSIONAL BUILDING, LLC.  
 NOV PROFESSIONAL VILLAGE  
 PRELIMINARY SITE PLAN  
 COVER SHEET

DATE: MARCH 3, 2020

BY/DATE: PPE/SUBMITAL  
 2/27/20 PER CITY

REVISIONS:

SCALE: 0 50 100  
 1" = 100 FEET

DR. BR. | CH. SS.  
 P.M. M. BUSH

JOB: 18002753  
 SHEET NO. 01

NOT FOR CONSTRUCTION



Know what's below.  
Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MUST BE REPAIRED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL REPAIRS AND ALL NECESSARY UTILITIES.

NOTICE: CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF NOVI AND THE STATE OF MICHIGAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK OF RECORD ENCLOSED IN THE BOOK OF ANY NECESSARY STRUCTURES OR UTILITIES.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK OF RECORD ENCLOSED IN THE BOOK OF ANY NECESSARY STRUCTURES OR UTILITIES.



SECTION 27  
TOWN 01 NORTH, RANGE 08 EAST  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

NOVI PROFESSIONAL BUILDING, LLC  
NOVI PROFESSIONAL VILLAGE  
PRELIMINARY SITE PLAN  
EXISTING CONDITIONS

DATE: MARCH 3, 2020

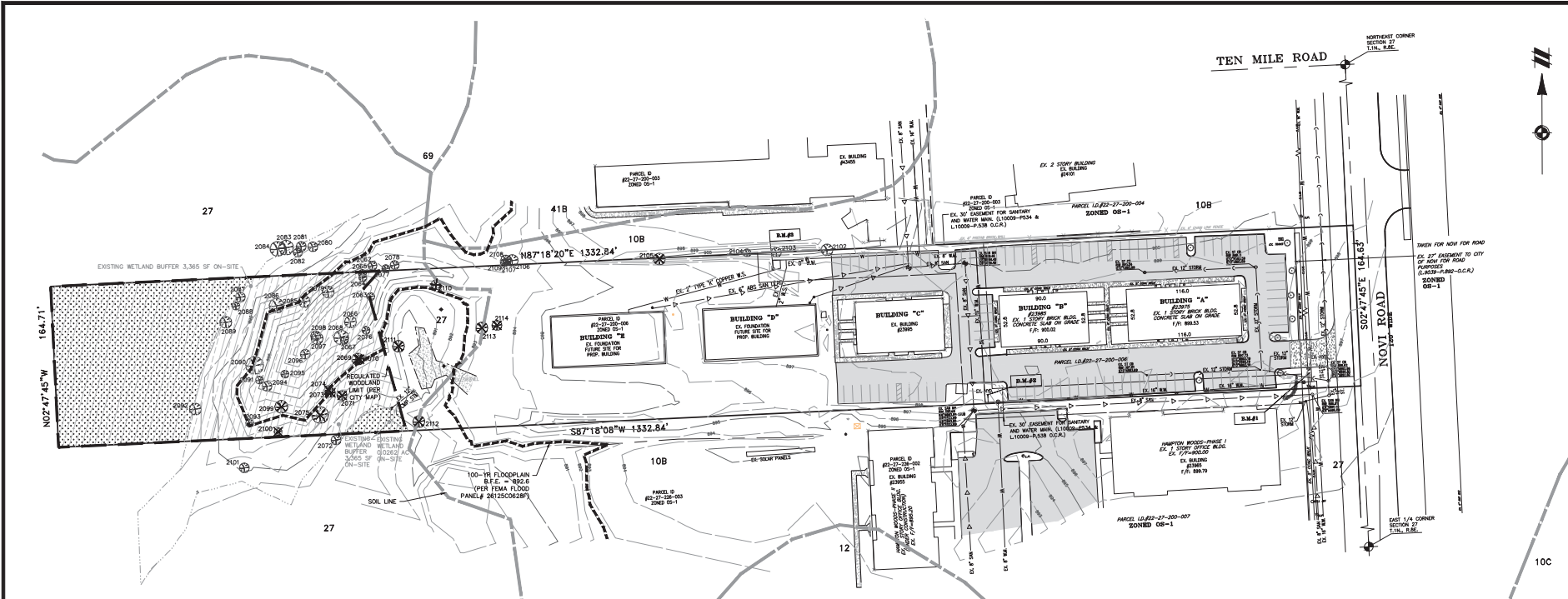
8/2/20 P.P. SUBMITTA  
2/21/21 PER CITY

REVISIONS

NO.	DATE	DESCRIPTION
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SCALE 0 25 50  
1" = 50 FEET

JOB 18002753  
SHEET NO. 02



Total Trees 37 Trees  
Less:  
Dead Trees 5 Trees  
Non - Regulated Trees 8 Trees  
Net Regulated Trees 24 Trees  
Regulated Trees Removed 6 Trees

Replacement Required  
Trees 8" - 11" 3 trees x 1=  
Trees 11" - 20" 3 trees x 2=  
Trees 20" - 30" 0 trees x 3=  
Trees 30"+ 0 trees x 4=  
Replacement Required 9 Trees

TREE LIST

Tag No.	DBH (inches)	Species	Condition	Regulated	To be	Replacement	Notes
					Removed	Ratio	Regulated Trees Credit
2052		BLACK WALNUT	YES				
2053		BLACK WALNUT	YES				
2054		BENJAMIN	UNAD	YES			
2055		BENJAMIN	YES				
2056		LILAC	YES				
2057		CHERRY	YES				
2058		LECHERRY	YES				
2059		BELM	YES	YES	0		
2060		DOGWOOD	UNAD	YES	YES	0	
2061		BELM	YES	YES	0		
2062		BLACK WALNUT	YES	YES	0		
2063		CHERRY	UNAD	YES	YES	0	
2064		BENJAMIN	YES	YES	0		
2065		BELM	NO				
2066		CHERRY	NO				
2067		DOGWOOD	UNAD	NO			
2068		DOGWOOD	UNAD	NO			
2069		BELM	NO				
2070		DOGWOOD	UNAD	NO			
2071		DOGWOOD	UNAD	NO			
2072		DOGWOOD	UNAD	NO			
2073		DOGWOOD	UNAD	NO			
2074		DOGWOOD	UNAD	NO			
2075		DOGWOOD	UNAD	NO			
2076		DOGWOOD	UNAD	NO			
2077		DOGWOOD	UNAD	NO			
2078		DOGWOOD	UNAD	NO			
2079		DOGWOOD	UNAD	NO			
2080		DOGWOOD	UNAD	NO			
2081		DOGWOOD	UNAD	NO			
2082		DOGWOOD	UNAD	NO			
2083		DOGWOOD	UNAD	NO			
2084		DOGWOOD	UNAD	NO			
2085		DOGWOOD	UNAD	NO			
2086		DOGWOOD	UNAD	NO			
2087		DOGWOOD	UNAD	NO			
2088		DOGWOOD	UNAD	NO			
2089		DOGWOOD	UNAD	NO			
2090		DOGWOOD	UNAD	NO			
2091		DOGWOOD	UNAD	NO			
2092		DOGWOOD	UNAD	NO			
2093		DOGWOOD	UNAD	NO			
2094		DOGWOOD	UNAD	NO			
2095		DOGWOOD	UNAD	NO			
2096		DOGWOOD	UNAD	NO			
2097		DOGWOOD	UNAD	NO			
2098		DOGWOOD	UNAD	NO			
2099		DOGWOOD	UNAD	NO			
2100		DOGWOOD	UNAD	NO			
2101		DOGWOOD	UNAD	NO			
2102		DOGWOOD	UNAD	NO			
2103		DOGWOOD	UNAD	NO			
2104		DOGWOOD	UNAD	NO			
2105		DOGWOOD	UNAD	NO			
2106		DOGWOOD	UNAD	NO			
2107		DOGWOOD	UNAD	NO			
2108		DOGWOOD	UNAD	NO			
2109		DOGWOOD	UNAD	NO			
2110		DOGWOOD	UNAD	NO			
2111		DOGWOOD	UNAD	NO			
2112		DOGWOOD	UNAD	NO			
2113		DOGWOOD	UNAD	NO			
2114		DOGWOOD	UNAD	NO			

TREE REPLACEMENT CALCS  
29 REPLACEMENT TREES REQUIRED  
23 TREE CREDIT FROM SAVED PRESERVED  
6 REPLACEMENT TREES REQUIRED

BENCHMARKS

B.M. #1  
ARROW ON HYDRANT LOCATED AT THE SE CORNER OF PROPERTY ON NOVI ROAD.  
DATING: NAVERS  
ELEV: 899.60

B.M. #2  
ARROW ON HYDRANT LOCATED BETWEEN BUILDINGS B & C, 9 FT NORTH OF SOUTH PROPERTY LINE.  
DATING: NAVERS  
ELEV: 900.19

B.M. #3  
ARROW ON HYDRANT LOCATED 38 FT NORTH OF BUILDING D.  
DATING: NAVERS  
ELEV: 899.82

SOILS LEGEND

Map Unit Symbol	Map Unit Name	
10B	Marlette sandy loam	1 to 6 percent slopes
10C	Marlette sandy loam	6 to 12 percent slopes
12	Brookston and Colwood loams	
27	Houghton and Adrian mucks	
41B	Aquents, sandy, loamy, undulating	
69	Thomas muck	

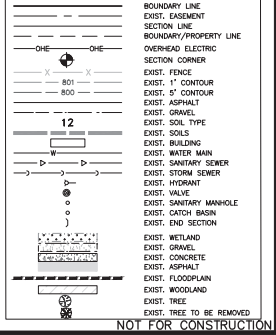
NOTES

1. SURVEY INFORMATION PROVIDED BY MICHAEL L. PRIEST & ASSOCIATES, DATED 02-04-2020.
2. SOILS INFORMATION REFERENCED FROM USDA NRCS WEB SOILS SURVEY, ACCESSED SEPTEMBER 18, 2018.
3. FEMA PANEL #26125C0628, DATED 09-29-2006
4. ASTI METLAND REPORT COMPLETED 04-22-2019 & 07-31-2019

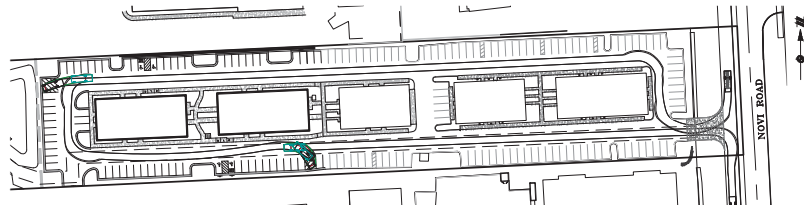
SITE INFORMATION

SITE LOCATION: NORTHEAST 1/4 OF SECTION 27, CITY OF NOVI, MICHIGAN.  
ULTIMATE RECEIVING WATER: ROUGE RIVER  
SITE SOILS INFORMATION: PER THE NRCS WEB SURVEY FOR OAKLAND COUNTY:  
APPROXIMATE AREA OF DISTURBANCE: 1.8± ACRES

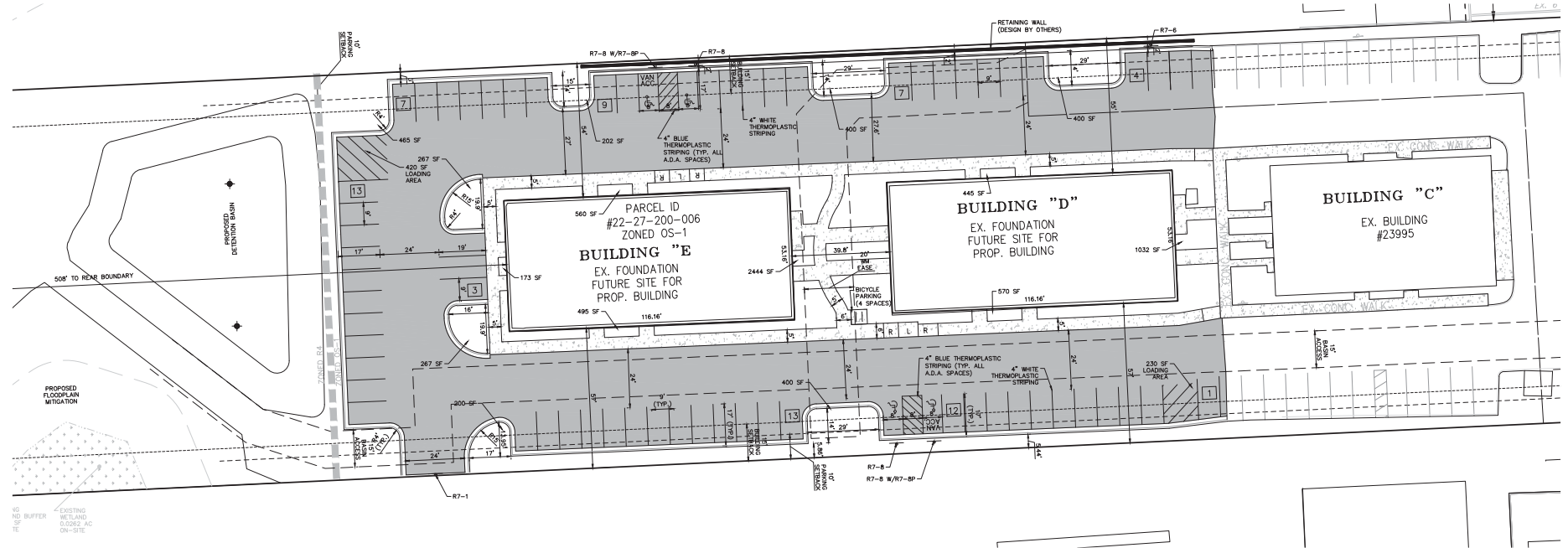
LEGEND



NOT FOR CONSTRUCTION



**TRUCK ACCESS DETAIL**  
 SCALE: 1"=70'  
 TRUCK LENGTH: 26.70'  
 TRUCK WIDTH: 8.37'  
 TRUCK W/W RAD: 30.83'



- SIGNAGE NOTES**
1. ALL ON-SITE SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE MUTUO.
  2. ALL ROADSIDE SIGNS SHOULD BE INSTALLED TWO FEET FROM THE FACE OF THE CURB TO THE NEAR EDGE OF THE SIGN.
  3. ALL SIGNS SHALL BE A HEIGHT OF 7 FEET FROM FINAL GRADE TO THE BOTTOM OF THE SIGN.
  4. TRAFFIC CONTROL SIGNS SHALL USE THE FHWA STANDARD ALPHABET SERIES.
  5. TRAFFIC CONTROL SIGNS SHALL HAVE HIGH INTENSITY PRISMATIC (HIP) SHEETING TO MEET FHWA RETROREFLECTIVITY REQUIREMENTS.
  6. STREET NAME SIGNS SHALL BE DESIGNED PER THE CITY OF NOVI TRAFFIC CONTROL SIGN STANDARDS.
  - 6.1. STREET NAME SIGNS ARE REQUIRED TO HAVE A GREEN FIELD, WHITE LETTERS, AND A WHITE BORDER. TEXT SHALL CONSIST OF A CAPITALIZED FIRST LETTER WITH THE REMAINING LETTERS IN LOWERCASE FONT.
  - 6.2. STREET NAME SIGNS SHALL HAVE A MINIMUM HEIGHT OF 12 INCHES AND MINIMUM LETTERING HEIGHT OF EIGHT INCHES FOR THE CAPITAL LETTERS AND SIX INCHES FOR THE LOWERCASE LETTERS. IF LOCATED ADJACENT TO A ROAD WITH A SPEED LIMIT OF 30 MPH OR GREATER, OR HAVE A MINIMUM HEIGHT OF EIGHT INCHES AND MINIMUM LETTERING HEIGHT OF SIX INCHES IF LOCATED AT RESIDENTIAL STREET INTERSECTIONS.
  - 6.3. STREET NAME SIGNS SHALL HAVE A LETTERING HEIGHT OF THREE INCHES FOR SUPPLEMENTARY LETTERING TO INDICATE THE STREET TYPE (E.G. DRIVE, AVENUE, ETC).
  - 6.4. ALL STREET NAME SIGNS WITHIN THE CITY'S RIGHT OF WAY OR LOCATED ON PUBLIC STREETS AT THE INTERSECTION OF A PUBLIC STREET AND A PRIVATE STREET SHALL BE MOUNTED ON A 3 LB. OR GREATER U-CHEMICAL POST AS DICTATED BY THE WEIGHT OF THE PROPOSED SIGNS. STREET NAME SIGNS WITH A NOMINAL HEIGHT OF 12 INCHES SHALL BE SINGLE SIDED AND SANDBLASTED ON A 1 1/2" X 1 1/2" U-CHEMICAL PERFORATED GALVANIZED STEEL INSERT WITH THE ENDS OF THE SIGNS BOLTED TOGETHER. THE STEEL INSERT SHALL HAVE A MINIMUM LENGTH OF 36 INCHES AND MUST EXCEED A MINIMUM OF 12 INCHES INTO THE 3 LB. OR GREATER U-CHEMICAL POSTS. IN PREVIOUS EXPERIENCES, THE CITY HAS DISCOVERED THAT THE CONNECTION OFTEN MUST BE REPLACED WHEN WHITE ARE USED TO JOIN THE ENDS OF THE SIGNS. THE BOLTS TO JOIN THE SIGNS ARE NOT REQUIRED ON STREET SIGNS PLACED ON PRIVATE ROADS/SINCE PRIVATE ROADWAY SIGNS ARE NOT MAINTAINED BY THE CITY.
  7. SINGLE SIGNS WITH NOMINAL DIMENSIONS OF 12" X 18" OR SMALLER IN SIZE SHALL BE MOUNTED ON A GALVANIZED 2 LB. U-CHEMICAL POST. MULTIPLE SIGNS AND/OR SIGNS WITH NOMINAL DIMENSION GREATER THAN 12" X 18" SHALL BE MOUNTED ON A GALVANIZED 3 LB. OR GREATER U-CHEMICAL POST AS DICTATED BY THE HEIGHT OF THE PROPOSED SIGNS.
  8. UNLESS OTHERWISE SPECIFIED, ON-SITE PAVEMENT MARKINGS SHALL BE 4" WIDE AND WHITE.

Figure 3B-19. International Symbol of Accessibility Parking Space Marking with Blue Background and White Border Options



**SIGN LEGEND**



**SIGN LEGEND**

ON-SITE SIGNS	QUANTITY
R7-8 HANDICAPPED PARKING SIGN (12"x18")	4
R7-BP "VAN ACCESSIBLE" SIGN (12"x18")	2
R7-1 "NO PARKING ANY TIME" SIGN (12"x18")	3
R7-6 "NO PARKING LOADING ZONE" SIGN (12"x18")	3

**LAYOUT NOTES**

1. LANDSCAPE BUFFERS WILL BE PROVIDED ON THE SIDES OF THE DEVELOPMENT AS SHOWN BUFFERING THE PROPERTY FROM THE ADJACENT USES.
2. ALL SIDEWALKS AND SIDEWALK RAMP SHALL BE ADA COMPLIANT.

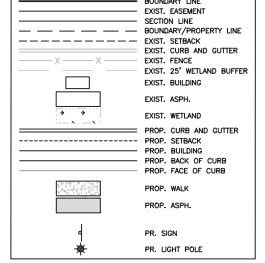
**OS-1 REQUIRED CONDITIONS NOTES**

1. NO INTERIOR DISPLAY SHALL BE VISIBLE FROM THE EXTERIOR OF THE BUILDING.
2. THE OUTDOOR STORAGE OF GOODS OR MATERIALS SHALL BE PROHIBITED.
3. WAREHOUSING OR INDOOR STORAGE OF GOODS OR MATERIAL BEYOND THAT NORMALLY INCIDENT TO THE PERMITTED USES, SHALL BE PROHIBITED.

**LOADING AREA CALCULATION**

REQUIRED: FIVE (5) SQUARE FEET PER FRONT FOOT OF BUILDING UP TO A TOTAL AREA OF THREE-HUNDRED SIXTY (360) SQUARE FEET PER BUILDING.  
 53.2' x 5.50FT = 292.50FT<sup>2</sup> (PER BUILDING) = 532.50FT<sup>2</sup> (TOTAL)  
 PROPOSED: 650 SQFT

**LEGEND**



**811**  
 Know what's below.  
 Call before you dig.  
 THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED BY THE CONTRACTOR OR ANY OTHER PARTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL NECESSARY PERMITS AND ALL NECESSARY UTILITIES.

**ATWELL**  
 440-440-0000  
 311 NORTH MAIN STREET  
 ANN ARBOR, MICHIGAN 48106

SECTION 27  
 TOWN 01 NORTH, RANGE 08 EAST  
 CITY OF NOVI  
 OAKLAND COUNTY, MICHIGAN

NOVI PROFESSIONAL BUILDING, LLC  
 NOVI PROFESSIONAL VILLAGE  
 PRELIMINARY SITE PLAN  
 LAYOUT PLAN

DATE: MARCH 3, 2020  
 8/2/20 PPE SUBMITTAL  
 2/2/21 PER CITY

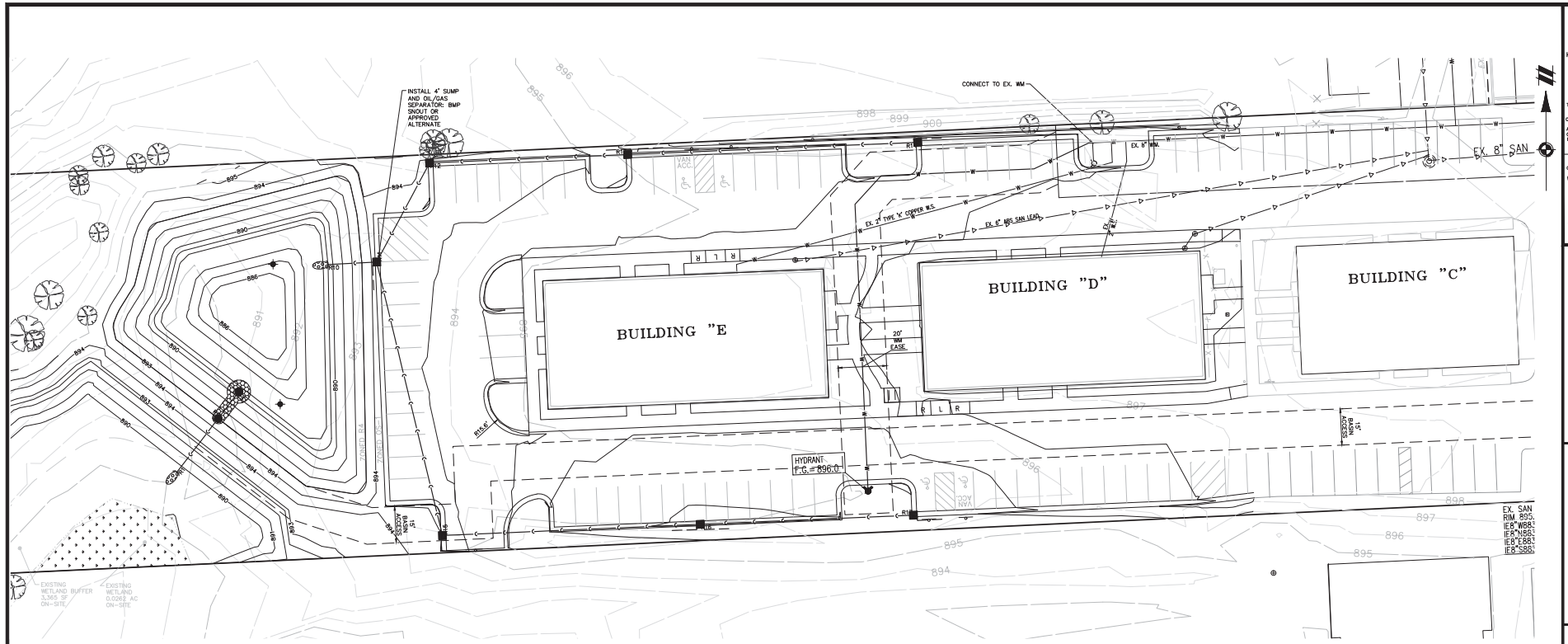
REVISIONS

SCALE 0" = 10' 20'  
 1" = 20 FEET  
 DR. BR | CH. SS  
 P.M. M. BUSH

JOB 18002753  
 SHEET NO. 08

NOT FOR CONSTRUCTION





**UTILITY NOTES**

1. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.
2. ALL PROPOSED WATERMAIN SHALL BE 8" D.I.P. CL54, UNLESS OTHERWISE NOTED.
3. MOOT CLASS II COMPACTED SAND BACKFILL SHALL BE PROVIDED FOR ALL UTILITIES WITHIN A 1'1" INFLUENCE OF PAVED AREAS.
4. IF DEWATERING IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION A DEWATERING PLAN MUST BE SUBMITTED TO THE ENGINEERING DEPARTMENT FOR REVIEW.
5. MAXIMUM LIGHT POLE FOUNDATION DEPTH SHALL BE 48" DEEP IN ORDER TO AVOID UNDER GROUND UTILITY CONFLICTS.
6. ALL HYDRANTS ARE AT LEAST 3' FROM THE EDGE OF SIDEWALK AS SHOWN.

**LEGEND**

---	EXIST. EASEMENT	---	PROP. BUILDING
---	SECTION LINE	---	PROP. BACK OF CURB
---	BOUNDARY/PROPERTY LINE	---	PROP. R.O.M.
---	EXIST. SETBACK	---	PROP. EASEMENT
---	EXIST. 1" CONTOUR	---	PROP. DETENTION BASIN
---	EXIST. 5" CONTOUR	---	PROP. SIDEWALK
---	EXIST. BACK OF CURB	---	PROP. WATERMAN
---	EXIST. SIDEWALK	---	PROP. STORM SEWER
---	EXIST. WATER MAIN	---	PROP. LOT LINE
---	EXIST. SANITARY SEWER	---	PROP. WATER VALVE
---	EXIST. WATER VALVE	---	PROP. FIRE HYDRANT
---	EXIST. STORM SEWER	---	PROP. END SECTION
---	EXIST. FIRE HYDRANT	---	PROP. CATCH BASIN/VALET
---	EXIST. WATER VALVE	---	PROP. MANHOLE
---	EXIST. WATERMAIN STRUCTURE	---	
---	PROP. SETBACK	---	
---	PROP. CURB AND GUTTER	---	

**811**  
Know what's below.  
Call before you dig.  
THE LOCATION OF EXISTING UTILITIES IS SHOWN BY SYMBOLS. THESE SYMBOLS MAY ONLY BE USED TO IDENTIFY EXISTING UTILITIES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES BY CONDUCTING SURVEY AND TESTING AND ALL DAMAGES MUST BE REPAIRED BY THE CONTRACTOR AT HIS OWN RISK AND ALL UNDERGROUND UTILITIES ARE PRESUMED TO BE AS SHOWN UNLESS OTHERWISE NOTED.

**ATWELL**  
444-444-4444  
311 NORTH MAIN STREET  
ANN ARBOR, MICHIGAN 48106-4000

SECTION 27  
TOWN 01 NORTH, RANGE 08 EAST  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

CLIENT: NOVI PROFESSIONAL BUILDING, LLC  
NOVI PROFESSIONAL VILLAGE  
PRELIMINARY SITE PLAN  
UTILITIES PLAN

DATE: MARCH 3, 2020  
8/2/20 P.E. SUBMITTAL  
2/7/21 PER CITY

REVISIONS

SCALE 0 10 20  
1" = 20 FEET  
DR. BR | CH. SS  
P.M. M. BUSH

JOB 18002753  
SHEET NO. 04

NOT FOR CONSTRUCTION

THE LOCATION OF EXISTING UTILITIES IS SHOWN AS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY FIELD SURVEY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND ALL DAMAGES MUST BE REPAIRED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES AND ALL NECESSARY AND ALL NECESSARY CHARGES.

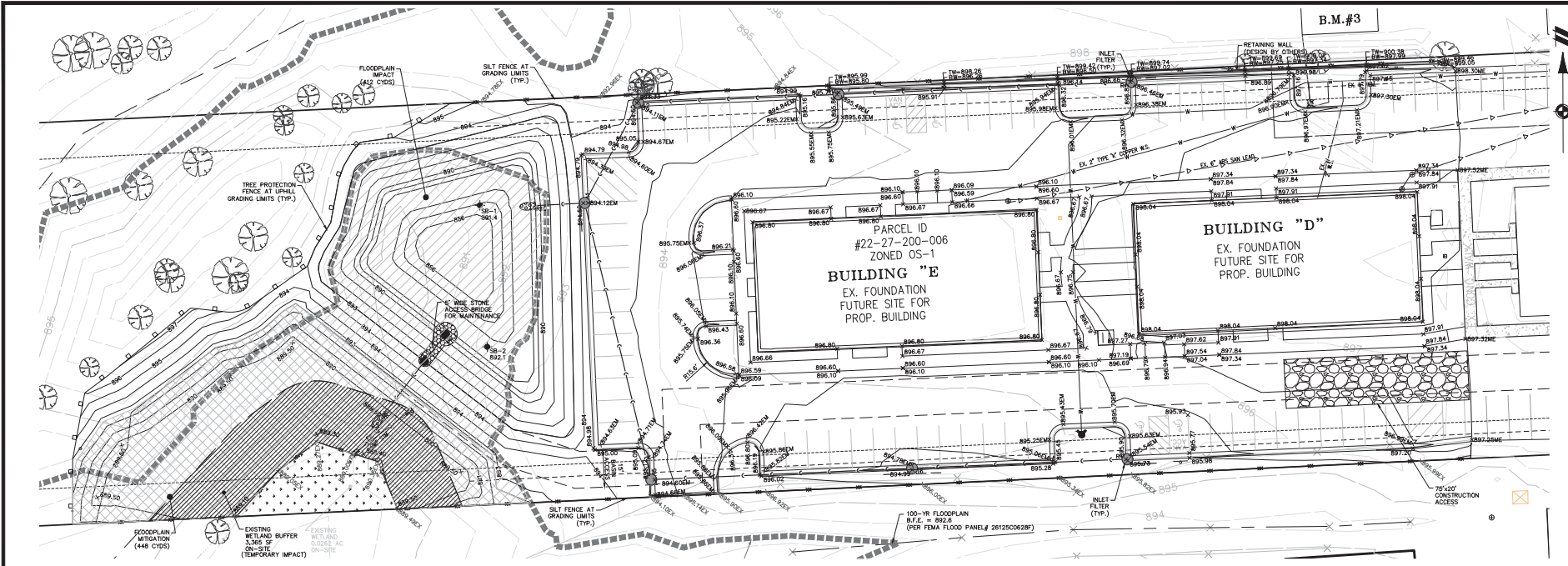
NOTICE: CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF NOVI DEVELOPMENT DEPARTMENT'S STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF PUBLIC UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF NOVI DEVELOPMENT DEPARTMENT.

PARCEL ID #22-27-200-006  
ZONED OS-1



SECTION 27  
TOWN 01 NORTH, RANGE 08 EAST  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN  
NOV PROFESSIONAL BUILDING, LLC  
NOV PROFESSIONAL VILLAGE  
PRELIMINARY SITE PLAN  
GRADING AND SECC PLAN

DATE: MARCH 3, 2020  
8/2/20 PER SUBMITAL  
2/21/20 PER CITY  
REVISIONS  
SCALE 0" = 10' 20'  
1" = 20 FEET  
DR. BR | CH. SS  
P.L.M. M. BUSH  
JOB 18002753  
SHEET NO.



**SOIL EROSION AND SEDIMENTATION CONTROL NOTES:**

- THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT.
- IF DOWNGRADE IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION A DOWNGRADE PLAN MUST BE SUBMITTED TO THE ENGINEERING DIVISION FOR REVIEW.
- IT IS THE DEVELOPER'S RESPONSIBILITY TO GRADE AND STABILIZE DISTURBANCES DUE TO THE INSTALLATION OF PUBLIC UTILITIES.
- THE STORM WATER BASIN WILL BE STABILIZED PRIOR TO DIRECTING FLOW TO THE BASIN.
- PRETREATMENT STRUCTURES ARE TO BE INSPECTED WEEKLY FOR SEDIMENT ACCUMULATION UNTIL SITE IS STABILIZED, AND WILL CLEAN AS REQUIRED.
- SLOPES STEEPER THAN 1V:6H (43%) SHALL BE STABILIZED WITH EROSION CONTROL BLANKET.
- THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS TO DETERMINE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
- EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
- EROSION AND ANY SEDIMENTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.
- PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL. A WATER TRUCK SHALL BE AVAILABLE TO WATER DOWN THE SITE AS NEEDED FOR DUST CONTROL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STREET SHEEPING. ALL MUD/DIRT TRACKED ONTO EXISTING CITY/COUNTY ROADS FROM THIS SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR/OWNER AS DIRECTED BY THE TOWNSHIP. MUD DAILY MAINTENANCE WILL INCLUDE THE ADDITION OF EXTRA LAYERS OF SOIL AS NECESSARY.
- DURING CONSTRUCTION OF THE STORM SEWER SYSTEM, STRAW BALES, STONE FILTERS OR OTHER APPROVED MEANS, WILL PROTECT THE ENDS OF ALL OPEN PIPES.
- PROMPTLY UNDO THE BACKFILLING OF STORM STRUCTURES, INLET FILTERS WILL BE PLACED AROUND THE STRUCTURE PER DETAILS.
- WITHIN FIVE (5) DAYS AFTER COMPLETION OF PAVING, A 16-FOOT STRIP AROUND PAVED AREAS SHALL BE PROTECTED FROM SOIL EROSION BY AN APPROVED METHOD CONSISTENT WITH THE GROWING SEASON.
- THE PERMANENT FINAL VEGETATION AND STRUCTURES SHALL BE INSTALLED AS SOON AS PRACTICAL IN DEVELOPMENT.
- THE DEVELOPMENT PLAN SHOULD BE FITTED TO THE TOPOGRAPHY AND SOIL SO AS TO CREATE THE LEAST SOIL EROSION POTENTIAL.
- ANY REMAINING DENuded AREA SHALL BE SEEDING AND MULCHED WITHIN 5 DAYS AFTER COMPLETION OF FINAL GRADING. SEED MIX AND APPLICATION RATES SHALL BE PER MOST CLASS A SEED.
- ALL DRAINAGE DITCHES SHALL BE STABILIZED WITH EROSION CONTROL BLANKET AND SHALL UTILIZE CHECK DAMS AS NECESSARY. DRAINAGE DITCHES STEEPER THAN 3% SHALL BE SODDED.
- ALL CULVERT END STRUCTURES MUST CONTAIN GROUDED RPP-RAP IN ACCORDANCE WITH ORDINANCE SPECIFICATIONS.
- CONTRACTOR TO PROVIDE FILTERS ON STANDPIPE OUTLET STRUCTURE UNTIL SITE IS STABILIZED, THEN REMOVE.
- ALL DRAINAGE DITCHES SHALL BE STABILIZED WITH EROSION CONTROL BLANKET AND SHALL UTILIZE CHECK DAMS AS NECESSARY. DRAINAGE DITCHES STEEPER THAN 3% SHALL BE SODDED.

**SEQUENCE OF CONSTRUCTION FOR SOIL EROSION CONTROL:**

- ATTEND AN ENVIRONMENTAL PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE CITY OF NOVI STAFF AND ITS AGENTS. INSTALLATION OF SILT FENCING OR TREE PROTECTION FENCING SHALL NOT OCCUR PRIOR TO THE METAL CITY PRE-CONSTRUCTION MEETING. WHEN NATURAL FEATURES EXIST ON THE SITE, INSPECTION OF STAKING MAY BE REQUIRED PRIOR TO INSTALLATION OF THE FENCING.
- INSTALL ALL SOIL EROSION AND TREE PROTECTION FENCING AS PER APPROVED PLANS. CLEAR ONLY WHAT IS NECESSARY TO INSTALL FENCING.
- INSTALL TRACKING MAT
- INSTALL TEMPORARY SECS MEASURES
- CONTACT THE CITY OF NOVI OR ITS AGENT TO HAVE THE ITEMS LISTED IN "F" INSPECTED FOR APPROVAL. UPON APPROVAL OF AFOREMENTIONED ITEMS, THE DEVELOPER MUST SCHEDULE A FULL PRE-CONSTRUCTION MEETING WITH THE CITY OF NOVI. CLEARING AND GRUBBING MAY TAKE PLACE AT THIS TIME, BUT NO GRADING/ASS GRADING UNITS. SEPARATE APPROVAL IS GRANTED.
- STRIP AND STOOPPILE TOPSOIL IN A LOCATION APPROVED BY THE OWNER/ENGINEER. PLACEMENT OF ADDITIONAL CONTROL MEASURE MUST BE INSTALLED ON AND AROUND THE STOOPPILE.
- INSTALL STORMWATER BASINS AND INSTALL TREATMENT STRUCTURES, IF APPLICABLE.
- INSTALL UTILITIES (WATER MAIN, STORM SEWER, SANITARY SEWER).
- INSTALL CATCH BASIN INLET FILTERS IMMEDIATELY UPON STORM STRUCTURE INSTALLATION. INSPECT AND MAINTAIN FILTERS AS DIRECTED TO PREVENT CLOGGING AND UNNECESSARY FLOODING.
- GRADE ROADWAY LIMITS AND INSTALL PAVEMENT.
- INSTALL ALL PUBLIC UTILITIES (GAS, ELECTRIC, TELEPHONE, CABLE).
- VEGETATION SHALL BE ESTABLISHED WITHIN 5 DAYS OF FINAL GRADE, OR WHENEVER DISTURBED AREAS WILL REMAIN UNCHANGED FOR 30 DAYS OR GREATER. 3-4" OF TOPSOIL WILL BE USED WHERE VEGETATION IS REQUIRED.
- INSPECT AND MAINTAIN ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION OF THE PROJECT. REMOVAL OF CONTROL MEASURES MAY ONLY TAKE PLACE ONCE THE ENTIRE SITE IS FULLY STABILIZED.

**MAINTENANCE SCHEDULE**

- THE PROPERTY OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE DETENTION BASIN. MAINTENANCE SHOULD BE PERFORMED FOLLOWING ANY STORM AND SHOULD INCLUDE:
- CHECKING THE DEPTH OF SEDIMENT DEPOSIT TO ENSURE THE CAPACITY OF THE BASIN IS ADEQUATE FOR STORM WATER AND SEDIMENT DEPOSITION, AND FOR THE REMOVING OF SEDIMENT.
  - CHECKING THE BASIN FOR PIPING, SEEPAGE OR OTHER MECHANICAL DAMAGE.
  - CHECKING FOR THE PRESENCE OF ANY SOIL CAKING, WHICH WOULD PREVENT PROPER DRAINAGE FROM THE BASIN.
  - CHECKING THE OUTFALL TO ENSURE DRAINAGE IS NOT CAUSING ANY CORROSIVE VELOCITIES AND TO ENSURE THE OUTFALL IS NOT CLOGGED.
  - ANY PROBLEM DISCOVERED DURING THE MAINTENANCE CHECKS SHOULD BE ADDRESSED IMMEDIATELY.
  - SEDIMENT REMOVED DURING CLEANING SHOULD BE PLACED AT AN UPLAND AREA AND STABILIZED SO THAT IT DOES NOT RE-ENTER THE DRAINAGE COURSE.

**MAINTENANCE TASKS AND SCHEDULE**

**DURING CONSTRUCTION MAINTENANCE**  
TO BE PERFORMED BY CONTRACTOR

TASKS	COMPONENTS	SCHEDULE
INSPECT FOR SEDIMENT ACCUMULATION	PERMANENT VEGETATION	WEEKLY
REMOVAL OF SEDIMENT ACCUMULATION	PERMANENT VEGETATION	AS NEEDED* AND PRIOR TO TURNOVER
INSPECT FOR FLOABLES AND DEBRIS	PERMANENT VEGETATION	QUARTERLY
CLEANING FOR FLOABLES AND DEBRIS	PERMANENT VEGETATION	QUARTERLY AND AT TURNOVER
INSPECTION FOR EROSION	PERMANENT VEGETATION	WEEKLY
REINSTALL PERMANENT VEGETATION ON ERODED SLOPES	PERMANENT VEGETATION	AS NEEDED* AND PRIOR TO TURNOVER
CLEAN DRIVEWAYS AND PARKING LOTS	PERMANENT VEGETATION	WEEKLY OR AS DETERMINED BY FORMING AGENCY
WATER DISTURBED AREAS TO PROVIDE DUST CONTROL	PERMANENT VEGETATION	AS NEEDED
INSPECT STRUCTURAL ELEMENTS DURING WET WEATHER AND COMPARE TO AS-BUILT PLANS BY A PROFESSIONAL ENGINEER REPORTING TO THE OWNER	PERMANENT VEGETATION	ANNUALLY AND AT TURNOVER
MAKE ADJUSTMENTS OR REPAIRS AS DETERMINED	PERMANENT VEGETATION	AS NEEDED

**STREET CLEANING SCHEDULE**

SCENIC STREETS	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
SCENIC STREETS	X	X	X	X	X	X	X
OTHER STREETS							

**PERMANENT MAINTENANCE**  
TO BE PERFORMED BY THE ASSOCIATION

TASKS	COMPONENTS	SCHEDULE	COST
INSPECT FOR SEDIMENT ACCUMULATION	PERMANENT VEGETATION	SEM-ANNUALLY AS NEEDED*	\$100
REMOVAL OF SEDIMENT ACCUMULATION	PERMANENT VEGETATION	1-2 TO 4 YEARS AS NEEDED*	\$200
INSPECT FOR FLOABLES AND DEBRIS	PERMANENT VEGETATION	ANNUALLY	\$100
CLEANING FOR FLOABLES AND DEBRIS	PERMANENT VEGETATION	ANNUALLY	\$150
INSPECTION FOR EROSION	PERMANENT VEGETATION	SEM-ANNUALLY	\$100
REINSTALL PERMANENT VEGETATION ON ERODED SLOPES	PERMANENT VEGETATION	AS NEEDED	\$500
WORKING	PERMANENT VEGETATION	AS NEEDED	\$400
INSPECT STRUCTURAL ELEMENTS DURING WET WEATHER AND COMPARE TO AS-BUILT PLANS BY A PROFESSIONAL ENGINEER REPORTING TO THE ASSOCIATION	PERMANENT VEGETATION	ANNUALLY	\$150
MAKE ADJUSTMENTS OR REPAIRS AS DETERMINED	PERMANENT VEGETATION	AS NEEDED	\$400
KEEP RECORDS OF ALL COSTS FOR INSPECTIONS, MAINTENANCE AND REPAIRS REPORT TO THE ASSOCIATION	PERMANENT VEGETATION	ANNUALLY	\$100
THE ASSOCIATION REVIEW COST EFFECTIVENESS OF THE PRESENTING MAINTENANCE PROGRAM AND MAKE NECESSARY ADJUSTMENTS	PERMANENT VEGETATION	ANNUALLY	\$100
THE ASSOCIATION IS TO HIRE A PROFESSIONAL ENGINEER CARRY OUT EMERGENCY INSPECTIONS UPON IDENTIFICATION OF SEVERE PROBLEMS	PERMANENT VEGETATION	ANNUALLY	\$200
ESTIMATED ANNUAL COST			\$2650

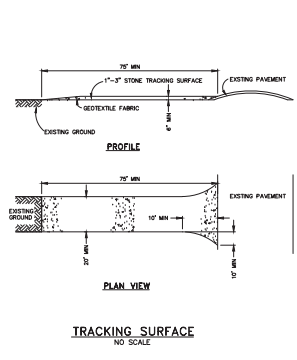
\* REMOVE ALL THE TEMPORARY CONTROLS AFTER GETTING APPROVAL BY THE SOIL EROSION INSPECTOR.

**SITE INFORMATION**

- SITE LOCATION: NORTHEAST 1/4 OF SECTION 27, CITY OF NOVI, MICHIGAN.
- ULTIMATE RECEIVING WATER: UNNAMED TRIBUTARY TO CHAPMAN CREEK
- SITE SOILS INFORMATION: PER THE NRCS WEB SOILS SURVEY FOR OAKLAND COUNTY, 10N AND 27E. REFER TO SHEET 02 FOR GENERAL SOIL TYPE LOCATIONS.
- APPROXIMATE AREA OF DISTURBANCE: 2.58 ACRES
- THE PROPOSED PROJECT IS WITHIN 500 FEET OF A WATERBODY OR WATERCOURSE. A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT WILL BE REQUIRED.
- CONTRACTOR TO TAKE SPECIAL CARE TO PREVENT IMPACT OR EROSION INTO WATERCOURSES. WAIVER GRADING ACTIVITIES PROPOSED NEAR THE WATERCOURSE.

**GRADING NOTES**

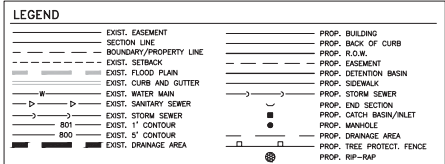
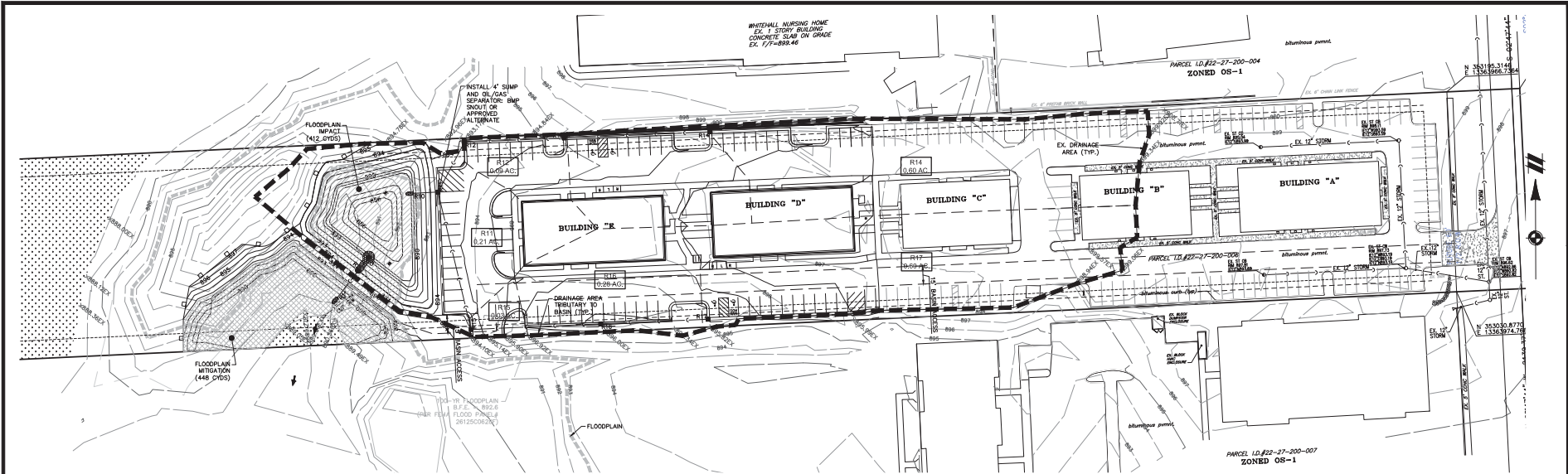
- PERIMETER CURB IN FRONT OF PARKING SPACES TO BE PER DETAIL 7D FROM THE NOV PAVING DETAIL SHEET 2 OF 2. CURB TO BE 24" WIDE AND 4" BACK HEIGHT.
- CURB NOT LOCATED IN FRONT OF PARKING SPACES SHALL BE PER DETAIL 7D FROM THE NOV PAVING DETAIL SHEET 2 OF 2. CURB TO BE 24" WIDE AND 4" BACK HEIGHT.
- EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL SLOPES STEEPER THAN 1:6.
- STOOPILING OF SOIL ON-SITE IS NOT ANTICIPATED.
- ON-SITE PARKING LOT CROSS-SECTION TO PER DETAIL 7C FROM THE NOV PAVING DETAIL SHEET 2 OF 2. PAVEMENT TO BE 1.5 INCHES OF MOIST SET ON 2.5 INCHES OF WOOD 3/4 ON 8 INCHES OF 21A LIMESTONE ONLY IF WITHIN 100 FEET OF A WATERCOURSE) AGGREGATE BASE.



**LEGEND**

(Symbol)	BOUNDARY LINE
(Symbol)	EXIST. EASEMENT
(Symbol)	SECTION LINE
(Symbol)	BOUNDARY/PROPERTY LINE
(Symbol)	EXIST. TREE LINE
(Symbol)	EXIST. FENCE
(Symbol)	EXIST. FLOOD PLAN
(Symbol)	EXIST. SOIL TYPE
(Symbol)	EXIST. WETLAND
(Symbol)	EXIST. 1' CONTOUR
(Symbol)	EXIST. 5' CONTOUR
(Symbol)	PROP. CURB AND GUTTER
(Symbol)	PROP. 1' CONTOUR
(Symbol)	PROP. 5' CONTOUR
(Symbol)	PROP. ASPHALT
(Symbol)	PROP. BUILDING
(Symbol)	PROP. HYDRANT
(Symbol)	EXIST. HYDRANT
(Symbol)	EXIST. VALVE
(Symbol)	EXIST. SANITARY SEWER
(Symbol)	PROP. SANITARY STRUCTURE
(Symbol)	PROP. STORM SEWER
(Symbol)	PROP. STORM STRUCTURE
(Symbol)	PROP. WATER MAIN
(Symbol)	PROP. HYDRANT
(Symbol)	PROP. VALVE
(Symbol)	PROP. SANITARY SEWER
(Symbol)	PROP. SANITARY STRUCTURE
(Symbol)	PROP. SILT FENCE
(Symbol)	PROP. TREE PROTECTION FENCE

NOT FOR CONSTRUCTION



**PRE/POST ANALYSIS**

**PRE-DEVELOPMENT**  
 10-Minute Dry-Weather Flow, Peak, Area, and Curve Number  
 Total Contributing Drainage Area = 2.48 Acres  
 Time of Concentration = 2.23 hrs

Event Type	Soil Type	Area (ft <sup>2</sup> )	Area (Ac)	Curve Number	(CN) (mm)
Paving and Roofs	C	31,950	0.73	98	1,040,933
Roof	C	40,800	0.93	98	8,675,760
Open Areas	C	34,800	0.80	74	2,375,760
Open Water	C	0	0.00	100	0
<b>Total</b>					<b>12,092,453</b>

**POST DEVELOPMENT**  
 10-Minute Dry-Weather Flow, Peak, Area, and Curve Number  
 Total Contributing Drainage Area = 2.48 Acres  
 Time of Concentration = 2.23 hrs

Event Type	Soil Type	Area (ft <sup>2</sup> )	Area (Ac)	Curve Number	(CN) (mm)
Paving and Roofs	C	55,000	1.26	98	5,940,900
Open Areas (Imperv)	C	47,170	1.08	74	3,491,211
Open Areas	C	4,630	0.11	70	585,900
<b>Total</b>					<b>9,918,011</b>

**STORMWATER CALCULATIONS**

**C Factor Calculation**  
 Proposed: 0.0000 | 0.35 | 0.2500  
 Previous: 4.872 | 0.35 | 1.0000  
 Total CFA: 74100  
 Change C: 0.00

**Stormwater Storage Volume Requirements**  
 Area Contributing Runoff, A = 7.48 acres  
 Designated Runoff Coefficient, C = 0.88  
 Maximum Allowable Discharge, Q<sub>a</sub> = 0.37 cfs  
 Max. surface per acre impervious, Q<sub>i</sub> = 0.22 cfs/acre imperv.  
 Max. Storage Time, T = 190.51 minutes  
 Total Storage Required, V = 22,890 e.t.  
 First Flush Volume (FF) = 1815kAc  
 Bankfull Volume (BF) = 5180kAc  
 Detention Area (DA) = 22,890 e.t.

Flow Rate	Area	Detention Basin	Vol. V	Q <sub>out</sub> V
100	1.00	1.00	1.00	1.00
200	2.00	2.00	2.00	2.00
300	3.00	3.00	3.00	3.00
400	4.00	4.00	4.00	4.00
500	5.00	5.00	5.00	5.00
600	6.00	6.00	6.00	6.00
700	7.00	7.00	7.00	7.00
800	8.00	8.00	8.00	8.00
900	9.00	9.00	9.00	9.00
1000	10.00	10.00	10.00	10.00

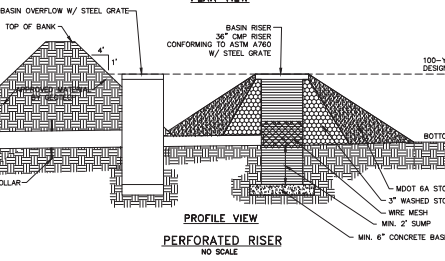
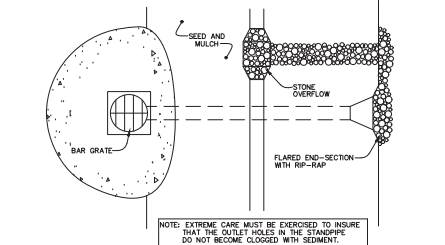
**OUTLET CONTROL STRUCTURE SIZING**

**1. Standpipe outlet holes sizing - "first flush" runoff**  
 First Flush discharge should be released from in 24 hours  
 Q<sub>in</sub> = 0.24 hrs / 3600 sec = 0.000067 cfs  
 n(Flow) = 0.24 x (0.000067) = 0.000016 cfs  
 Affected = Q<sub>in</sub> / 0.02 x sqft(32.27) = 0.0111 ft<sup>2</sup>  
 Selected Orifice Diameter = 1.1 in  
 Area of each orifice = 0.0052 ft<sup>2</sup>  
 Number of orifice holes required = 2 holes at elev. 898.50

**2. Standpipe outlet holes sizing - "Bankfull flood" discharge**  
 Bankfull should discharge within 36 to 48 hours  
 Check release from first flush holes only  
 n(Flow) = 0.24 x (0.000067) = 0.000016 cfs  
 Q<sub>in</sub> = A x 0.02 x sqft(32.27) = 0.0044 cfs  
 T<sub>in</sub> = V<sub>in</sub> / (Q<sub>in</sub> x 3600) = 24.3 hrs  
 Check Bankfull flood discharge release time  
 Affected = 0.005 ft<sup>2</sup>  
 Q<sub>in</sub> = A x 0.02 x sqft(32.27) = 0.0044 cfs  
 T<sub>in</sub> = V<sub>in</sub> / (Q<sub>in</sub> x 3600) = 24.3 hrs  
 O.K.

**3. Standpipe outlet holes sizing - "100-yr flood" discharge**  
 Q<sub>100</sub> = Q<sub>a</sub> = 0.359 cfs  
 Release from storm holes  
 n<sub>100</sub> = 100 / 3600 = 0.0278 cfs  
 n<sub>100</sub> = 100 / 3600 = 0.0278 cfs  
 Q<sub>a</sub> = A x 0.02 x sqft(64.47) + A x 0.02 x sqft(64.47) = 0.141 cfs  
 Remaining flow = 0.0278 cfs  
 A = (100 / 0.02) x sqft(32.27) = 0.0044 ft<sup>2</sup>  
 Selected Orifice Diameter = 1.1 in  
 Area of each orifice = 0.0052 ft<sup>2</sup>  
 Number of orifice holes required = 6 holes at elev. 891.05

**Check that the actual flow rate does not exceed the allowable flow rate**  
 Q<sub>in</sub> = 0.24 hrs / 3600 sec = 0.000067 cfs  
 Q<sub>a</sub> = 0.359 cfs  
 Q<sub>in</sub> < Q<sub>a</sub> = 0.000067 cfs < 0.359 cfs  
 O.K.



**PRE-POST ANALYSIS SUMMARY TABLE**

Parameter	Existing Runoff	Proposed Runoff
Detention Area (DA)	22,890 e.t.	22,890 e.t.
First Flush Volume (FF)	1815 kAc	1815 kAc
Bankfull Volume (BF)	5180 kAc	5180 kAc
Number of Orifice Holes	2	6

**ATWELL**  
 311 NORTH MAIN STREET  
 ANTONIO, TEXAS 78204  
 512.444.4000  
 www.atwell.com

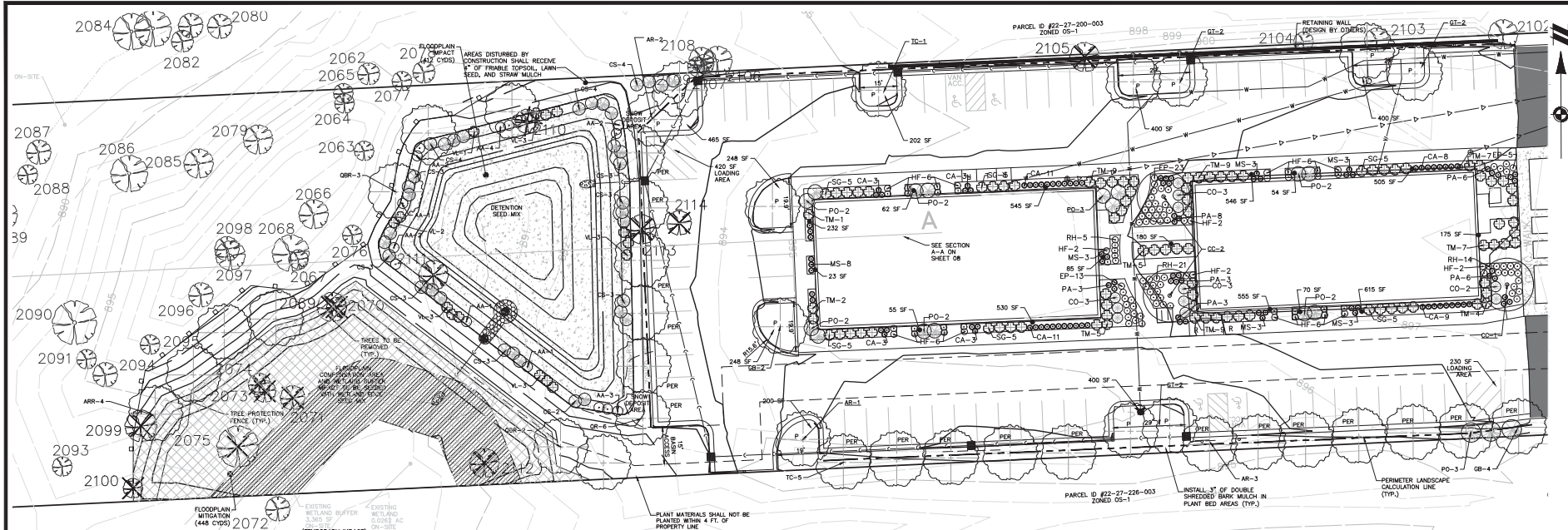
SECTION 27  
 TOWN 01 NORTH, RANGE 08 EAST  
 CITY OF NOVI  
 OAKLAND COUNTY, MICHIGAN  
 NOV PROFESSIONAL BUILDING, LLC  
 NOV PROFESSIONAL VILLAGE  
 PRELIMINARY SITE PLAN  
 STORMWATER MANAGEMENT PLAN

DATE: MARCH 3, 2020  
 87/26 PER SUBMITTA  
 27/26 PER CITY

REVISIONS  
 SCALE: 0 20 40  
 1" = 40 FEET  
 CH. BR | CH. SS  
 P.M. M. BUSH  
 JOB 18002753  
 SHEET NO. 06

NOT FOR CONSTRUCTION





**811**  
 Know what's below.  
 Call before you dig.  
 THE LOCATION OF EXISTING UNDERGROUND UTILITIES MAY NOT BE ACCURATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES BY EXCAVATION AT THE WORK LOCATIONS PRIOR TO ANY EXCAVATION. ALL DAMAGES MUST BE REPAIRED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND ALL NEIGHBORING PROPERTIES.

**NOTICE:**  
 OVERLAP OF EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND ALL NEIGHBORING PROPERTIES.

**CONTRACTOR'S OBLIGATION:**  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES AND ALL NEIGHBORING PROPERTIES.



SECTION 27  
 TOWN 01 NORTH, RANGE 08 EAST  
 CITY OF NOVI  
 OAKLAND COUNTY, MICHIGAN

NOV PROFESSIONAL BUILDING, LLC  
 NOV PROFESSIONAL VILLAGE  
 PRELIMINARY SITE PLAN  
 LANDSCAPE PLAN

DATE: MARCH 3, 2020

8/2/20 P.P. SUBMIT  
 2/21/20 PER CITY

REVISIONS  
 SCALE 0' = 10'  
 1" = 20 FEET  
 DR BR LH SS  
 P.M. W. BUSH

JOB 18007253  
 SHEET NO. 07  
 NOT FOR CONSTRUCTION

**LANDSCAPE REQUIREMENTS**

SECTION 5.5(X)(A) RESIDENTIAL ADJACENT TO NON-RESIDENTIAL BUILDING  
 -THIS PROJECT IS SURROUNDED BY THE SAME ZONING AS THE SUBJECT PARCEL (OS-1) THEREFORE, NO LANDSCAPE BUFFERING IS PROPOSED AND THIS SECTION IS NOT APPLICABLE TO THIS PROJECT.

SECTION 5.5(X)(B) LANDSCAPING ADJACENT TO PUBLIC RIGHTS OF WAY  
 -THE PORTION OF THE SITE ADJACENT TO THE PUBLIC ROW OF NOVI ROAD HAS ALREADY BEEN PREVIOUSLY SUBMITTED, APPROVED, AND INSTALLED

SECTION 5.5(X)(C) PARKING AREA LANDSCAPE (CATEGORY 1)  
 A - TOTAL SQUARE FOOTAGE OF VARIETY PLANTING SHALL BE 50,000 SF NOT INCLUDING ACCESS AREAS  
 EQUALS:  
 31,109 SF x .075 = 2,290 SF

B - SQUARE FOOTAGE OF ALL ADDITIONAL PAVED VEHICULAR USE AREAS (NOT INCLUDING A) EQUALS:  
 NOT APPLICABLE

C - TOTAL SQUARE FOOTAGE OF LANDSCAPED ISLAND REQUIRED EQUALS:  
 REQUIRED TOTAL (A) + (B) = 2,333 SF  
 PROVIDED: 2,363 SF

D - TOTAL NUMBER OF INTERIOR DECIDUOUS CANOPY TREE REQUIRED EQUALS:  
 REQUIRED TOTAL ((A)+(B))/200 = 12  
 PROVIDED: 12

E - PERIMETER DECIDUOUS CANOPY TREES REQUIRED EQUALS:  
 PERIMETER (L) / 30 = 779 LF / 30 = 22 TREES  
 PROVIDED: 18 TREES

SECTION 5.5 (D) (1) BUILDING FOUNDATION LANDSCAPE REQUIREMENTS  
 -THERE SHALL BE, AS A MINIMUM, INTERIOR SITE LANDSCAPING SQUARE FOOTAGE EQUAL TO THE QUANTITY CALCULATED BY MULTIPLYING THE ENTIRE PERIMETER OF THE BUILDING BY EIGHT (8) FEET. LANDSCAPED PLANTING BEDS SHALL BE PLACED IMMEDIATELY ADJACENT TO THE BUILDING ON ALL FOUR SIDES AND HAVE A MINIMUM WIDTH OF FOUR (4) FEET. EXISTING PLANTING SHALL BE MAINTAINED AS NECESSARY FOR A PERIOD OF TWO YEARS.  
 REQUIRED: 674 (COMBINED PERIMETER OF PROPOSED BUILDINGS) X 8 = 5,392 SF

PROVIDED: 5,700 SF (MINIMUM WIDTH DIMENSION IS 4 FEET)

DETECTION PLANTING  
 REQUIRED AND PROVIDED: 75% OF BASIN RIM PLANTED W/ NATIVE SHRUBS

REPLACEMENT TREES  
 9 TREES REQUIRED AND PROVIDED. SEE SHEET 02 FOR TREE LIST AND CALCULATION.

**CITY OF NOVI LANDSCAPE NOTES**

- ALL TREES ARE TO BE PLANTED AT LEAST 10' FROM ALL HYDRANTS AND UTILITY STRUCTURES AS WELL AS A MINIMUM OF 5' FROM UNDERGROUND UTILITY LINES WHENEVER POSSIBLE.
- ANY AREAS THAT ARE DISTURBED AND NOT INSTALLED TO BE PLANTED WITH LANDSCAPE MATERIAL SHALL RECEIVE A FRESH LAYER OF TOPSOIL AND SEEDED OR SOED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PLANT MATERIAL UPON INSTALLATION FOR A PERIOD OF TWO YEARS.
- NO TREES, SHRUBS OR PLANTINGS TALLER THAN 35" WITHIN THE 35' CORNER CLEARANCE ZONES.
- PLANT MATERIAL SHALL BE GUARANTEED FOR 2 YEARS BY LANDSCAPE CONTRACTOR AND SHALL INCLUDE ONE CULTIVATION EACH IN JUNE, JULY AND AUGUST FOR THE 2-YEAR WARRANTY PERIOD.
- PLANT SOURCE SHALL BE UPPER MICHIGAN/GREAT LAKES GROWN.
- ALL PLANT MATERIALS SHALL BE NORTHERN NURSERY GROWN, NO. 1 GRADE.
- IRRIGATION WILL BE PROVIDED AT THE ENTRANCE WITHIN THE CENTRAL OPEN SPACE AND AT THE INDIVIDUAL PLANTS. OTHER PLANT MATERIAL MUST BE WATERED AS NECESSARY BY THE LANDSCAPE CONTRACTOR UNTIL ESTABLISHMENT WITH A TEMPORARY SYSTEM, HOSE OR PORTABLE WATER TANKS. IRRIGATION PLANTING MUST BE WATERED AS NECESSARY BY OTHERS.
- CITY MUST APPROVE ANY SUBSTITUTIONS IN WRITING PRIOR TO INSTALLATION.
- REFER TO SEED MIX ESTABLISHMENT GUIDES FOR ANY SPECIFIED SEED MIX AVAILABLE FROM CITY OF NOVI LANDSCAPE ARCHITECT.
- PROPOSED TREES SHALL BE PLANTED WHERE EXISTING HABITAT WILL BE DISTURBED NEAR PRESERVED WOODLAND.
- OVERHEAD UTILITY LINES AND 15 FT. SETBACK FROM EDGE OF UTILITY OR 20 FT. SETBACK FROM CLOSEST POLE.

**SEED MIXES**

Quantity Rate Mix	Weighted Avg. Mix
8.5 POUNDS OF SEED REQUIRED SEED PROVIDED BY NATURESCAPE, 517-456-8696 SEE SHEET 8 FOR INSTALLATION	7.8 POUNDS OF SEED REQUIRED

**SOIL SERIES DESCRIPTION**  
 10-BL-1 MABLETIE SANDY LOAM 1L TO 8 PERCENT SANDS  
 THIS NEARLY LEVEL AND UNDULATING MODERATELY WELL DRAINED SOIL IS ON LOW HILLS AND RIDGES. MOST AREAS ARE DISSECTED BY A LOW DRAINAGE SWALE. SLOPES ARE SMOOTH AND CONVEX AND ARE GENERALLY LESS THAN 100 FEET LONG. AREAS ARE IRREGULAR IN SHAPE AND ARE 2 TO 200 ACRES IN SIZE.  
 TYPICALLY, THE SURFACE LAYER IS DARK GRAYISH BROWN SANDY LOAM ABOUT 8 INCHES THICK. THE SUBSOIL IS FIRM AND IS ABOUT 23 INCHES THICK. IN THE UPPER PART IT IS DARK YELLOWISH BROWN CLAY LOAM. THE SUBSTRUM TO A DEPTH OF ABOUT 60 INCHES IS YELLOWISH BROWN AND PALE BROWN, MOTTLED, CALCAREOUS LOAM.

**REQUIRED WAIVERS:**  
 SECTION 5.5(X)(D) PERIMETER PARKING LOT TREES  
 A WAIVER OF 4 TREES IS REQUESTED. PERIMETER TREES CANNOT BE PLANTED ALONG THE NORTH PROPERTY LINE DUE TO THE WALL AND LIMITED PLANTING AREA.  
 SECTION 5.5.3.0 BUILDING FOUNDATION LANDSCAPING  
 A WAIVER OF 44 SF IS REQUESTED. THE PLAN PROVIDES 98% OF THE REQUIRED PLANT BED AREA. THIS CANNOT BE MET DUE TO THE EXISTING BUILDING FOUNDATIONS AND THE SITE LAYOUT THAT IS DICTATED FROM THE PREVIOUS DEVELOPMENT.  
 SECTION 5.5.3.4 BROWN REQUIREMENTS  
 A BROWN IS REQUESTED TO SCREEN THE EXISTING HOMES TO THE WEST. THE RESIDENCES ARE OVER 800' FROM THE PARKING LOT AND APPROXIMATELY 600' OF THIS AREA IS REGULATED WETLAND AND WOODLAND TO REMAIN.

**LANDSCAPE ARCHITECT**

ATWELL, LLC  
 311 NORTH MAIN STREET  
 ANN ARBOR, MICHIGAN 48104  
 PHONE: (734) 994-4000

**SITE ADDRESS**

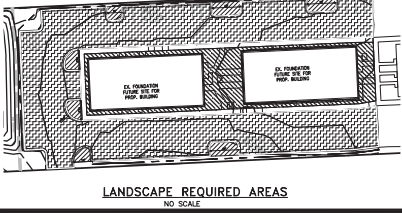
23975 NOVI ROAD, NOVI, MI 48375  
 CATEGORY 1 A  
 311 NORTH MAIN STREET  
 ANN ARBOR, MICHIGAN 48104  
 PHONE: (734) 994-4000

**LANDSCAPE PLANT LIST**

Plant Name	Quantity	Notes
...	...	...

**LANDSCAPE REQUIREMENTS NOTES**

- THE LANDSCAPE PLAN ATTEMPTS TO SUBSTANTIALLY COMPLY WITH THE CITY OF NOVI'S LANDSCAPE REQUIREMENTS OUTLINED IN THE ZONING ORDINANCE AND LANDSCAPE DESIGN MANUAL, ALTHOUGH DUE TO EXISTING SITE CONDITIONS, PREVIOUSLY INSTALLED BUILDING FOUNDATIONS, AND PREVIOUS SITE APPROVALS CERTAIN REQUIREMENTS FALL SHORT OF MEETING CURRENT REQUIREMENTS.
- ANY DEAD, MISSING OR WEAK PLANTINGS ON SITE THAT WERE PART OF THE ORIGINAL SITE PLAN MUST BE REPLACED. THIS INCLUDES MISSING FOUNDATION LANDSCAPING, LANDSCAPING BETWEEN BUILDINGS, PARKING LOT LANDSCAPING AND GREENBELT PLANTINGS.
- GROUND COVER TO BE 50% UNDOED NOTES.
- NO OVERHEAD POWER LINES EXIST.
- TRANSFORMER SOWERING WILL BE SHOWN WHEN LOCATIONS ARE KNOWN.
- CONTRACTOR SHALL SEND A PHOTO OF THE SEED BAG INDICATING SEED MIX PRIOR TO PLANTING.
- PHRAGMITES EXISTS BUT WILL BE REMOVED AS PART OF THE DETENTION BASIN CONSTRUCTION.

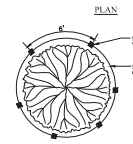


**LANDSCAPE NOTES**

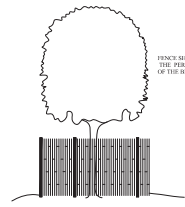
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES.
- LANDSCAPING OPERATIONS INCLUDING PLANTING TREES AND SHRUBS, SHALL NOT DAMAGE ANY UTILITY OR INTERFERE WITH ANY UTILITY SERVICE, AND SHALL NOT DAMAGE OR CREATE A NUISANCE AFFECTING ADJACENT PROPERTY, PUBLIC STREETS, OR SIDEWALKS.
- PLANT AND GRASS MATERIALS SHALL BE INSTALLED ACCORDING TO THE CITY OF NOVI AND CURRENT AMERICAN ASSOCIATION OF NURSEMAN'S STANDARDS.
- ALL BOLLIVARDS, OPEN OR OTHERWISE DISTURBED AREAS THAT ARE NOT SPECIFIED WITH OTHER PLANTING, PAVING OR SEED MIXTURES SHALL BE PLANTED WITH A STANDARD PERMANENT GRASS SEED MIXTURE TO INDUSTRY STANDARDS.
- LANDSCAPING MATERIALS THAT ARE INSTANTLY DEAD, DYING, OR THAT BECOME UNHEALTHY BECAUSE OF DAMAGE, NEGLECT, DRAINAGE PROBLEMS, DISEASE, INSECT INFESTATION, OR OTHER CAUSES SHALL BE REPLACED WITHIN THREE MONTHS, OR THE NEXT PLANTING PERIOD, WHICHEVER OCCURS FIRST. REPLACEMENT MATERIALS SHALL MEET ALL STANDARDS OF THE ORIGINAL INSTALLATION.
- ALL LANDSCAPED AREAS SHALL BE PROVIDED WITH AN ADEQUATE WATER SUPPLY. THE PROPERTY OWNER (OR ANY APPLICABLE OWNER'S ASSOCIATION) SHALL BE RESPONSIBLE TO ENSURE THE PROPER CARE AND MAINTENANCE OF LANDSCAPE AREAS, INCLUDING KEEPING ALL LANDSCAPE MATERIALS IN A HEALTHY AND GROWING STATE. ALL LANDSCAPE ELEMENTS SUCH AS, BUT NOT LIMITED TO, FENCES, SORBERS, WALLS, OR LIGHTING SHALL BE KEPT IN GOOD REPAIR.
- TOPSOIL REMOVED DURING CONSTRUCTION SHALL BE STOCKPILED IN AN APPROPRIATE MANNER TO PREVENT EROSION, AND SHALL BE REDISTRIBUTED ON RE-GRADED SURFACES TO BE LANDSCAPED TO PROVIDE A MINIMUM OF FOUR INCHES OF EVEN COVER. THE TOPSOIL SHALL BE PERMANENTLY STABILIZED BY GRASS, GROUND COVER, OR OTHER PLANTINGS.
- NO PLANT MATERIAL SHALL BE PLANTED CLOSER THAN 4 FEET FROM ANY PROPERTY LINE.
- REMOVE ALL TWINE, WIRE, NURSERY GUARDS, TAGS AND NURSERY MATERIAL FROM ROOF BALL. PEEEL BACK THE BURLAP FROM EARTH BALLS AND REMOVE ANY BURLAP, TWINE OR WIRE AROUND THE TRUNK FLARE AND ABOVE.
- ALL PLANTING AREAS ARE TO BE EXCAVATED OF ALL BUILDING / CONSTRUCTION AND FILL MATERIALS AND BACKFILLED WITH GOOD MEDIUM TEXTURED PLANTING SOIL. SEEDING AREAS ARE TO BE TREATED WITH 4" OF NEW TOPSOIL AND ROTOTILLED OR OTHERWISE SCARIFIED TO BREAK UP COMPACTATION AT LEAST 6" BELOW THE TOPSOIL.
- TOPSOIL SHALL BE SCREENED AND SUITABLE FOR GROWING VEGETATION AND MEET AT A MINIMUM CITY OF NOVI OR ASTM D-5268 AND MOOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- RECOMMENDED PLANTING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.
- WHILE NO ADDITIONAL TREES ARE NEEDED FOR THIS SITE, ANY WEAK / DEAD TREES MISSING FROM ORIGINAL PROJECT PLANS MUST BE REPLACED AS PART OF THIS PROJECT.
- REPLACE ANY MISSING LANDSCAPE FROM OTHER BUILDINGS ARE PART OF THIS PROJECT.
- CITY MUST APPROVE ANY SUBSTITUTIONS IN WRITING PRIOR TO INSTALLATION.
- PRIOR TO THE BEGINNING OF CONSTRUCTION ON ANY WORK, CONTRACTORS SHALL VERIFY LOCATIONS OF ALL SITE UTILITIES, GAS, ELECTRIC, TELEPHONE, CABLE TO BE LOCATED BY CONTACTING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- PROVIDE 500 FOR ALL NEW AND DISTURBED LAWN AREAS UNLESS OTHERWISE NOTED.
- TREE PLACEMENT SHALL HAVE A 15' SETBACK FROM EDGE OF UTILITY LINES OR 20' SETBACK FROM CLOSEST UTILITY POLE.
- REMOVE ANY ONE-SIDE PLANTINGS OF PHRAGMITES AUSTRALIS.
- MISS DIG - CALL 811. "KNOW WHAT'S BELOW, CALL BEFORE YOU DIG". THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE EXACTLY THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

**LEGEND**

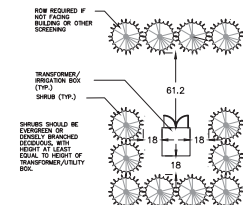
BOUNDARY LINE	-----	PROP. SETBACK	-----
BOUNDARY/PROPERTY LINE	-----	PROP. BUILDING	-----
EXIST. CONTOUR	-----	PROP. WALL	-----
EXIST. CURB AND GUTTER	-----	PROP. PARKING STRIPE	-----
EXIST. FENCE	-----	PROP. BACK OF CURB	-----
EXIST. GRAVEL	-----	PROP. CONTOUR	-----
EXIST. WETLAND	-----	EXIST. TREE LINE	-----
EXIST. WETLAND BUFFER	-----	PROP. WATER MAIN	-----
EXIST. STORM	-----	PROP. STORM SEWER	-----
EXIST. WATER MAIN	-----	PROP. CATCH BASIN/INLET	-----
EXIST. SANITARY	-----	PROP. SANITARY	-----
EXIST. CULVERT	-----	PROP. WATER MAIN	-----
EXIST. CATCH BASIN/INLET	-----	PROP. FIRE HYDRANT	-----
EXIST. SANITARY	-----	PROP. MANHOLE	-----
EXIST. VALVE	-----	PROP. LIGHT POLE	-----
EXIST. SANITARY SEWER	-----	INTERIOR TREES (LABEL)	-----
EXIST. TREE	-----	PERIMETER TREES (LABEL)	-----
PROP. TREE TO BE REMOVED	-----	REPLACEMENT TREE (LABEL)	-----



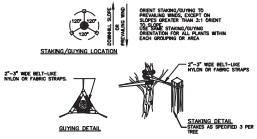
- TREE PROTECTION FENCE NOTES**
1. ALL TREES TO BE REMOVED WILL BE IDENTIFIED BY THE CONTRACTOR.
  2. THE PROTECTIVE FENCE SHALL BE IDENTIFIED BY THE CONTRACTOR AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
  3. ALL BRANCHES OF THE TREE TO BE PROTECTED SHALL BE IDENTIFIED BY THE CONTRACTOR AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
  4. ALL BRANCHES OF THE TREE TO BE PROTECTED SHALL BE IDENTIFIED BY THE CONTRACTOR AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.



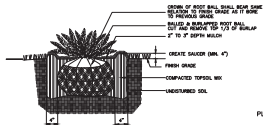
**TREE PROTECTION FENCE DETAIL**  
NO SCALE



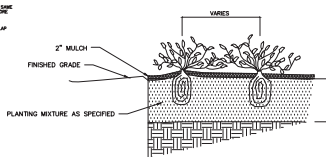
**TRANSFORMER SCREENING DETAIL**  
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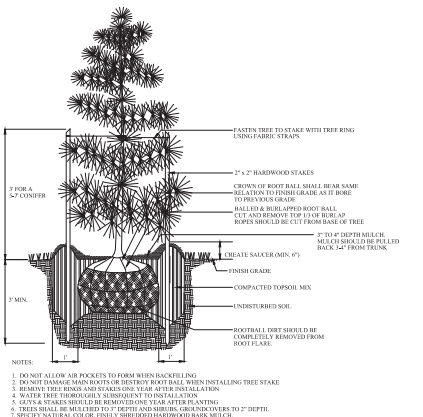
**TREE STAKING DETAIL**  
NO SCALE



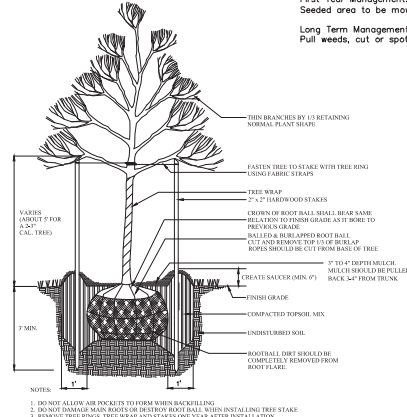
**SHRUB PLANTING DETAIL**  
NO SCALE



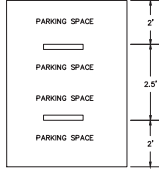
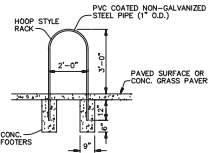
**PERENNIAL PLANTING DETAIL**  
NO SCALE



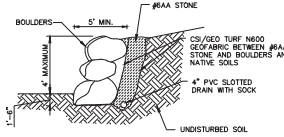
**CONIFEROUS TREE PLANTING DETAIL**  
NO SCALE



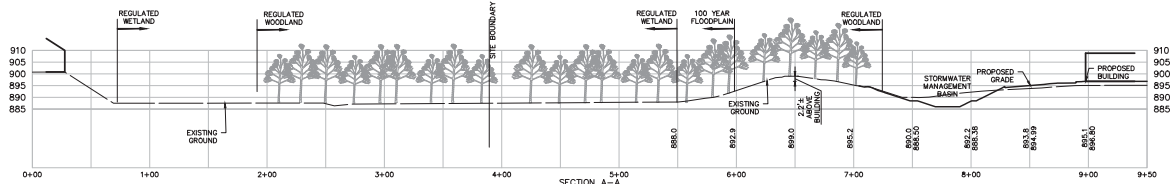
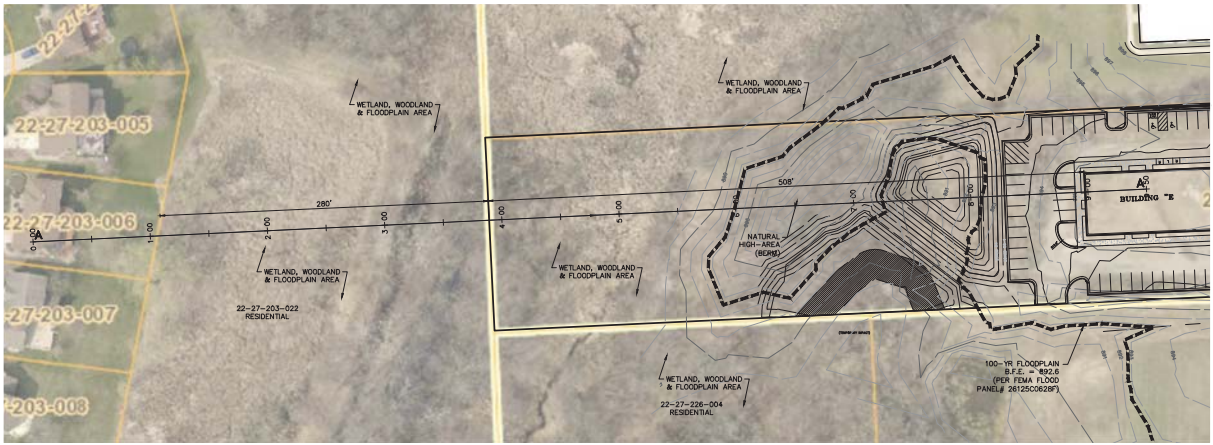
**DECIDUOUS TREE PLANTING DETAIL**  
NO SCALE



**BIKE RACK DETAIL**  
NO SCALE



**TYPICAL RETAINING WALL DETAIL**  
NO SCALE



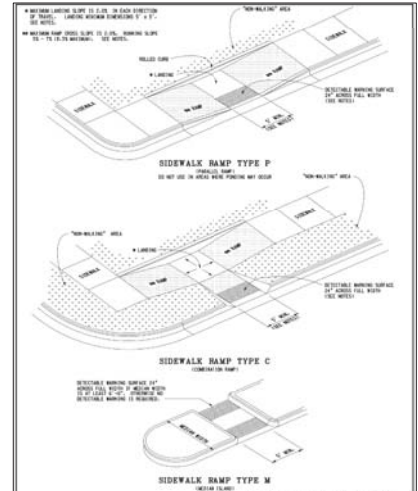
**EXISTING RESIDENTIAL PROPERTY BUFFER**

**SEED INSTALLATION:**

1. Eliminate quack grass, lawn sod, persistent perennial weeds, etc. prior to seeding with organic or herbicide methods. Make sure the herbicide does not include materials that will be persistent in the soil.
2. Prepare seedbed by raking or thatching so roughly 50% of the soil surface is showing. Dead vegetation may remain. Scarily soil surface with rake, thatcher or tiller to a depth of 1 inch or less. Do not till greater than 1" as this will bring existing seeds to the surface.
3. Sow the seed with a hand-cranked seeder. Divide the seed in half for the first sowing then sow the 2nd half perpendicular to the first. Criss-cross the seed bed to ensure good coverage.
4. Incorporate seeds by raking or lightly going over the area with a thatcher. Tamp seeded area to ensure good soil contact. Areas prone to erosion should be covered with seed free straw.
5. Watering is not necessary but will speed germination and establishment. Once watering is begun, soil must be kept moist continuously until the seedlings are well established.

**First Year Management:**  
Seeded area to be mowed for at least one year after planting. Cut the planting to 4"-6" when the growth reaches 10"-12".

**Long Term Management:**  
Pull weeds, cut or spot spray with herbicide. The planted area can be mowed in the late fall or early spring.



**SIDEWALK RAMP AND DETECTABLE WARNING DETAILS**

**811**  
Know what's below.  
Call before you dig.

**ATWELL**  
Professional Building, LLC  
111 North Main Street  
Ann Arbor, Michigan 48106

SECTION 27  
TOWN 01 NORTH, RANGE 08 EAST  
CITY OF NOVI  
OAKLAND COUNTY, MICHIGAN

CLIENT: NOV PROFESSIONAL BUILDING, LLC  
NOV PROFESSIONAL VILLAGE  
PRELIMINARY SITE PLAN  
DETAIL SHEET

DATE: MARCH 3, 2020  
SCALE: 0 25 50  
1" = 50 FEET

REVISIONS:  
DATE: 3/2/20  
BY: BR  
CHK: SS  
P.L.M. M. BUSH

JOB: 18002753  
SHEET NO. 08

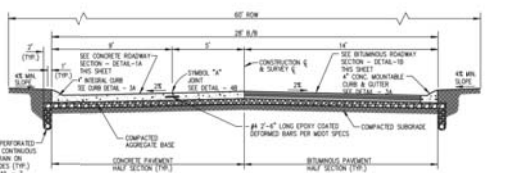
NOT FOR CONSTRUCTION



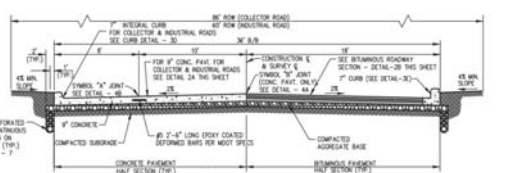


CITY OF NOVI  
 COUNTY: CLAY COUNTY  
 DATE: 05/11/2011  
 PROJECT: 110702-NOV-2011  
 SHEET: 1 OF 2

CITY OF NOVI  
 PAVING  
 STANDARD DETAILS  
 SHEET  
 1  
 OF 2



TYPICAL CROSS SECTION DETAIL - 1  
 RESIDENTIAL ROAD PAVEMENT (28' B/B)



TYPICAL CROSS SECTION DETAIL - 2  
 COLLECTOR AND INDUSTRIAL ROAD PAVEMENT (36' B/B)

GENERAL NOTES

- EXISTING TOPSOIL, VEGETATION AND OBSCURE MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIAL. TREE ROOTS SHALL BE COMPLETELY REMOVED TO A MINIMUM OF 12" TO 18" INCHES DEPTH FROM THE PAVEMENT SURFACE.
- EXCAVATE TO THE DEPTH OF THE FINAL SUBGRADE ELEVATION TO ALLOW FOR GRADE CORRECTION AND THE PLACEMENT OF THE RECOMMENDED PAVEMENT SYSTEM.
- THE PAVEMENT SURFACE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DRY-DENSITY INDICATED IN PROPOSED PAVEMENT TO BE PLACED OR PROPOSED PAVEMENT. THE FINAL SURFACE SHALL BE MECHANICALLY FINISHED TO THE PROPER GRADE. A GEOTECHNICAL/PAVEMENT ENGINEER TO DETERMINE STABILITY LOSS OF YIELDING AREAS WHICH MAY OCCUR DURING CONSTRUCTION AND BE REPAIRED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. ALL FILL MATERIALS AND BASE MATERIALS SHALL BE TESTED AND ITS COMPACTION AND SATURATED UNIFORMITY ACCEPTANCE OF THE BASE MATERIALS AND PAVEMENT SHALL BE VERIFIED BY SQA TESTING FIRM. THE OWNER SHALL SUPPLY THREE COPIES OF GEOTECHNICAL AND TECHNICAL REPORTS TO THE CITY CONSULTANT.
- IF IN THE OPINION OF THE INSPECTOR/ENGINEER, FIELD CONDITIONS WARRANT ADDITIONAL TESTING, THE DEVELOPER SHALL ARRANGE FOR AND PAY FOR ALL REQUIRED ADDITIONAL TESTING.
- 3/4" DIA. AGGREGATE BASE SHALL BE COMPACTED TO ACHIEVE A 98% COMPACTION LEVEL. UNDESIRABLE PROCTOR - 98% TO 100% (98%); THE BASE SHALL EXCEED A MINIMUM OF 2 FEET BEYOND THE BACK OF CURB OR THE PAVED EDGE.
- CONCRETE PAVEMENT TESTING SHALL BE REQUIRED FOR ALL PROJECTS.
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF NOVI, ROAD AND MOOT.
- FOR ANY WORK WHERE THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND LICENSES ARRANGE FOR ALL PROTECTION.
- 1.0 INCH AND 2.0 INCH EXPANSION JOINTS SHALL BE INSTALLED PER CITY STANDARDS FOR THIS SHEET.
- FILL AREAS SHALL BE MACHINE COMPACTED TO A DENSITY OF 98% OF THE MAXIMUM DRY DENSITY (UNDESIRABLE PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.
- 11' UNDER DRAIN SHALL BE INSTALLED ON BOTH SIDES OF ALL ROADWAYS IN SEVERELY WASHED TRUCK ALSO PLACE UNDER DRAIN AT ALL DRAINAGE STRUCTURES WITHIN PARKING AREAS. (SEE DETAILS 8 AND 9)
- PROTECT TO BRUSHWOOD STREET ACCEPTANCE. THE FULL CROSS SECTION MUST BE INCLUDED FOR THE APPROVED PLAN AND ANY AND ALL REPAIRS TO THE PAVEMENT AND CURB MUST BE COMPLETED AT THE DISCRETION OF THE CITY ENGINEER.
- 12a. AT THE END OF EACH CONSTRUCTION, THE FULL CROSS SECTION MUST BE INSTALLED TO MINIMIZE THE AMOUNT OF PAVEMENT AND CURB REPAIRS. PRIOR TO STREET ACCEPTANCE THE CITY ENGINEER WILL INSPECT THE DRAINAGE CURB AND WILL VERIFY ANY AREAS TO BE REPAIRED.
- 12b. ALTERNATIVELY, THE TOP COURSE MAY BE LIMITED ONLY TO THE MAJORITY OF THE CONSTRUCTION ACTIVITIES THAT HAVE BEEN COMPLETED PRIOR TO STREET ACCEPTANCE. THE CITY ENGINEER WILL INSPECT THE DRAINAGE CURB AND WILL VERIFY ANY AREAS TO BE REPAIRED PRIOR TO THE INSTALLATION OF THE TOP COURSE.
- PROVIDE MINIMUM 20' DISTANCE TO TRANSITION FROM DETAIL 3c TO DETAIL 3a CURBS.

CONCRETE PAVEMENT

- CONCRETE SHALL BE PLACED ON A MINIMUM OF 4" OF COMPACTED SUBGRADE OR 4" OF COMPACTED SUBGRADE WITH A MINIMUM OF 12" OF 1/2" DIA. AGGREGATE OVER A SLUMP OF 12" TO 18" INCHES DEPTH SHALL CONFORM TO WASTI. GRADE PL.
- ALL CONCRETE PAVEMENT, DRIVEWAYS, CURBS & UTILITY, SHALL BE SPRAY CURED WITH WHITE RHEINLAND CEMENT GROUT IMMEDIATELY FOLLOWING FINISHING OPERATION.
- THE CONCRETE BATH PAVING SHALL BE M.D.T. CERTIFIED WITH LOCATION APPROVED BY THE CITY.
- NO CONCRETE PAVEMENT SHALL BE ALLOWED FROM MAY 15th ON AFTER NOVEMBER 1st (UNLESS APPROVED BY THE CITY).
- DO NOT PLACE CONCRETE WHEN PRECIPITATION IS IMMINENT OR WHEN MOISTURE ON THE EXISTING SURFACE WILL PRESENT SATISFACTORY CURING. UNLESS OTHERWISE APPROVED BY THE ENGINEER IN WRITING, TEMPERATURE AND SEASONAL REQUIREMENTS FOR PLACING CONCRETE SHALL BE ACCORDING TO THE CURRENT MOIST TEMPERATURE. FOR MOISTURE TESTS, THE TEST SHALL BE PERFORMED IN THE MIDDLE OF THE SURFACE. FOR MOISTURE TESTS, THE TEST SHALL BE PERFORMED IN THE MIDDLE OF THE SURFACE.

BITUMINOUS PAVEMENT

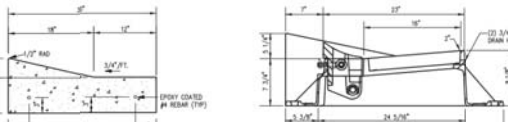
- BITUMINOUS MIXTURE SHALL CONSIST OF: LEVELING COURSE - 1" (1.5" MAX) BITUMINOUS MIXTURE AND 3/4" LEADING COURSE - 1" (1.5" MAX) BITUMINOUS MIXTURE AND 3/4" LEADING COURSE MUST BE BY 90% NO. 101 ASPHALT CONCRETE PENETRATION GRADE 80-100 (PC 84-10) RECLAIMED ASPHALT PAVEMENT (RAP) SHALL BE REQUIRED FOR APPROVAL BY THE CITY ROAD.
- ALL BITUMINOUS MATERIAL SHALL BE COMPACTED TO A DENSITY OF 98% OF THE FIELD CONTROL DENSITY AS DETERMINED BY THE THEORETICAL MAXIMUM DENSITY.
- A 3/4" COAT OF 10-14 EMULSION IS REQUIRED BETWEEN ALL COURSES OF ASPHALT. EMULSION SHALL BE PLACED ON EACH COURSE OF PAVEMENT. THE 3/4" COAT SHALL BE APPLIED IN A UNIFORM MANNER OVER THE SURFACE AT A RATE OF 0.50 GAL/SY. BETWEEN LEADING COURSES A 5/8" GAL/SY/2" BETWEEN LEADING COURSE AND LEADING COURSE.
- DO NOT APPLY 3/4" COAT OF EMULSION WHEN PRECIPITATION IS IMMINENT OR WHEN MOISTURE ON THE EXISTING SURFACE WILL PRESENT SATISFACTORY CURING. UNLESS OTHERWISE APPROVED BY THE ENGINEER IN WRITING, TEMPERATURE AND SEASONAL REQUIREMENTS FOR PLACING RAP SHALL BE ACCORDING TO THE CURRENT MOIST TEMPERATURE. FOR MOISTURE TESTS, THE TEST SHALL BE PERFORMED IN THE MIDDLE OF THE SURFACE. FOR MOISTURE TESTS, THE TEST SHALL BE PERFORMED IN THE MIDDLE OF THE SURFACE.



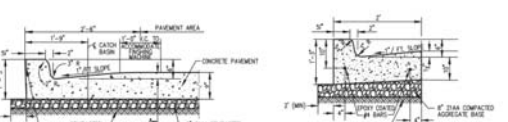
TYPICAL CONCRETE ROADWAY SECTION FOR RESIDENTIAL ROAD DETAIL - 1a



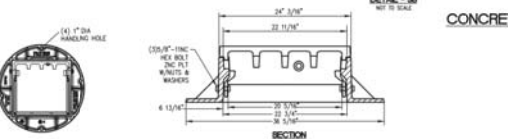
TYPICAL CONCRETE ROADWAY SECTION FOR COLLECTOR & INDUSTRIAL ROADS DETAIL - 2a



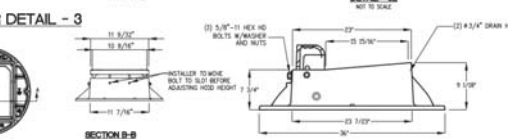
4' INTEGRAL & MOUNTABLE CURB & GUTTER WITH EJ 7065 OR EQUIVALENT CONCRETE & BITUMINOUS ROADS DETAIL - 3a



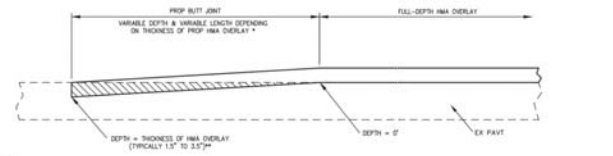
6' INTEGRAL CURB & GUTTER M.D.T. TYPE '30' DETAIL - 3b



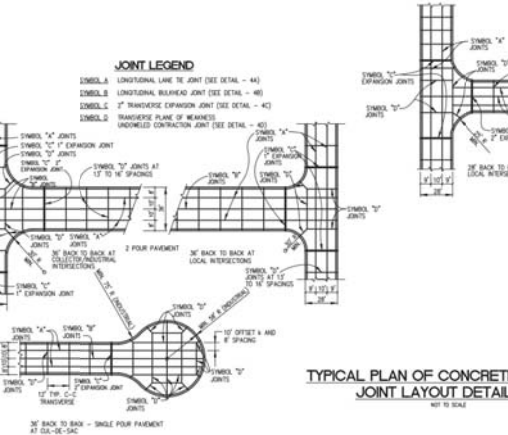
EJ 7065 FRAME SECTION OR EQUIVALENT DETAIL - 3c



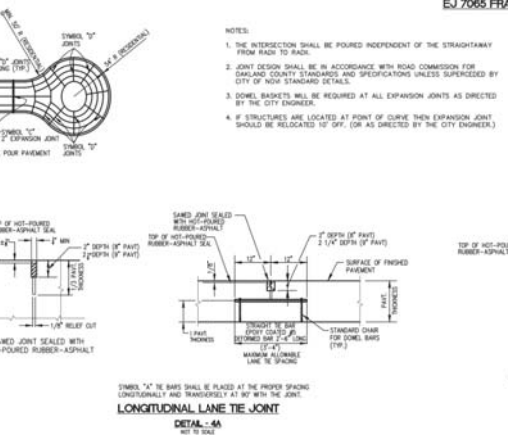
EJ 7045 FRAME SECTION OR EQUIVALENT DETAIL - 3e



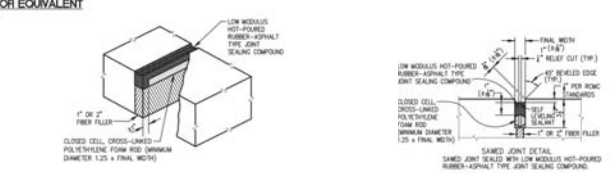
TERMINAL BUTT JOINT DETAIL - 5



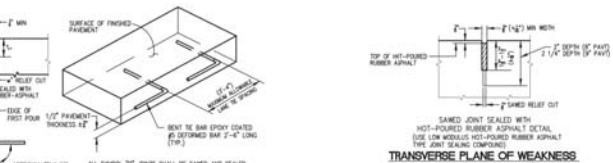
TYPICAL PLAN OF CONCRETE PAVEMENT JOINT LAYOUT DETAILS - 4



LONGITUDINAL LINE TIE JOINT DETAIL - 4a



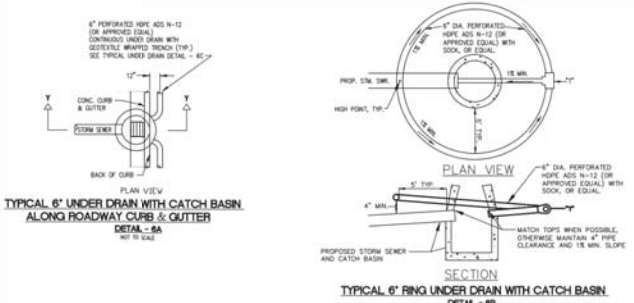
EJ 7065 FRAME SECTION OR EQUIVALENT DETAIL - 3c



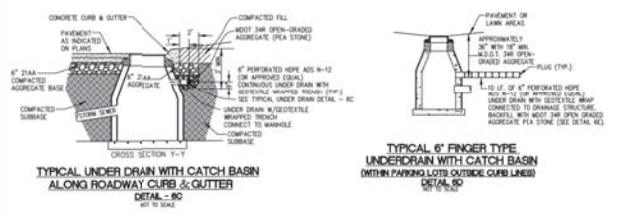
TRANSVERSE EXPANSION JOINT DETAIL - 3c



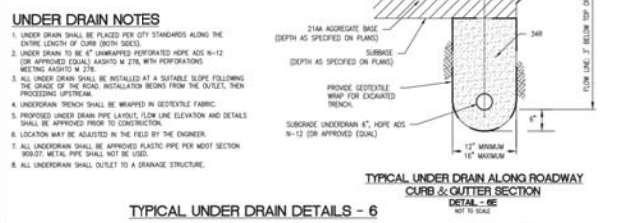
TRANSVERSE PLANE OF WEAKNESS UNDESIGNED CONTRACTION JOINT DETAIL - 4d



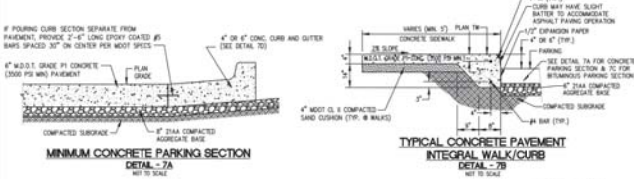
**TYPICAL 6\"/>**



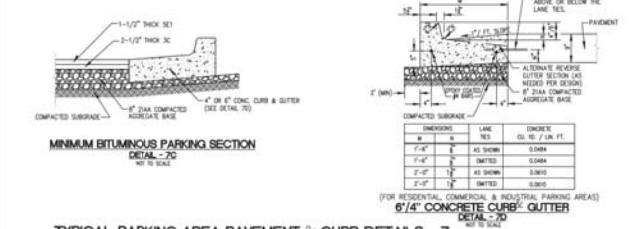
**TYPICAL UNDER DRAIN WITH CATCH BASIN ALONG ROADWAY CURB & GUTTER DETAIL - 6A**  
NOT TO SCALE



**TYPICAL UNDER DRAIN WITH CATCH BASIN ALONG ROADWAY CURB & GUTTER DETAIL - 6B**  
NOT TO SCALE



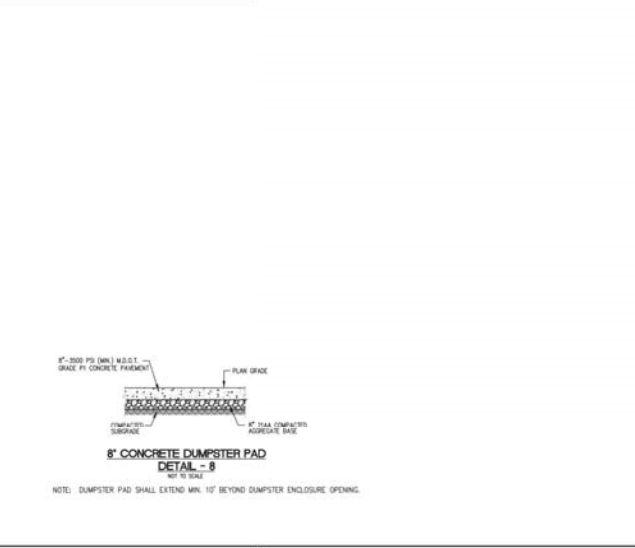
**TYPICAL UNDER DRAIN WITH CATCH BASIN ALONG ROADWAY CURB & GUTTER DETAIL - 6C**  
NOT TO SCALE



**TYPICAL UNDER DRAIN WITH CATCH BASIN (WITHIN PARKING LOTS, OUTSIDE CURB LINES) DETAIL - 6D**  
NOT TO SCALE

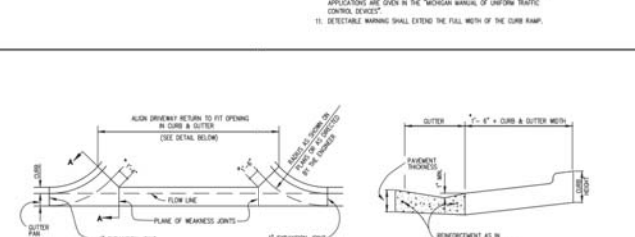


**TYPICAL UNDER DRAIN ALONG ROADWAY CURB & GUTTER SECTION DETAIL - 6E**  
NOT TO SCALE



**UNDER DRAIN NOTES**

1. UNDER DRAIN SHALL BE PLACED PER CITY STANDARDS ALONG THE ENTIRE LENGTH OF CURB (BOTH SIDES).
2. UNDER DRAIN TO BE 4\"/>



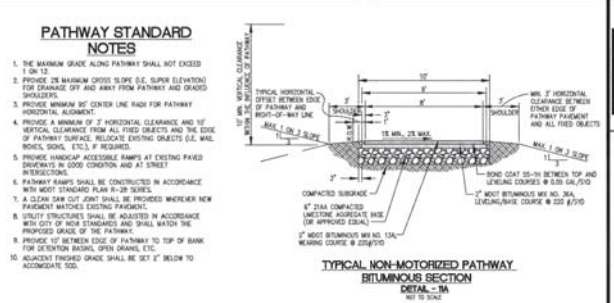
**TYPICAL UNDER DRAIN DETAILS - 6**



**TYPICAL UNDER DRAIN DETAILS - 6**



**TYPICAL UNDER DRAIN DETAILS - 6**

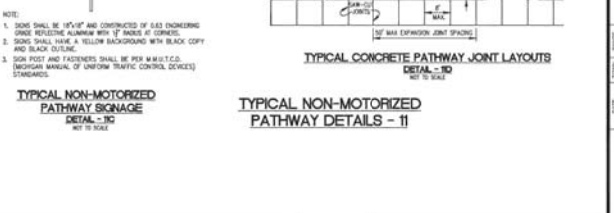


**UNDER DRAIN NOTES**

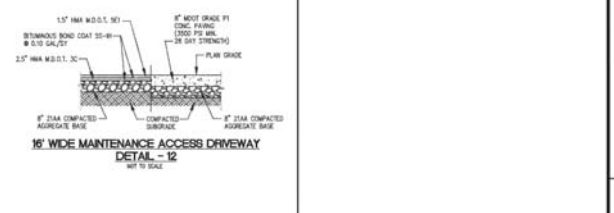
1. UNDER DRAIN SHALL BE PLACED PER CITY STANDARDS ALONG THE ENTIRE LENGTH OF CURB (BOTH SIDES).
2. UNDER DRAIN TO BE 4\"/>



**TYPICAL UNDER DRAIN DETAILS - 6**



**TYPICAL UNDER DRAIN DETAILS - 6**



**TYPICAL UNDER DRAIN DETAILS - 6**



**TYPICAL UNDER DRAIN DETAILS - 6**

DATE	BY	CHECKED	DESIGNED	SCALE	PROJECT
DATE	BY	CHECKED	DESIGNED	SCALE	PROJECT

**CITY OF NOVI**

PAVING

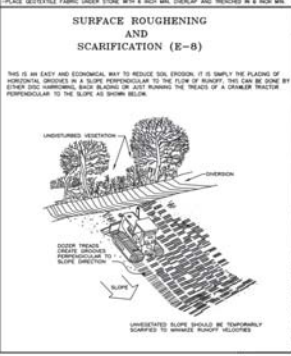
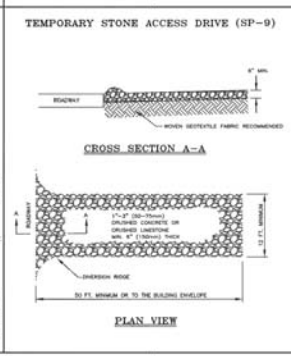
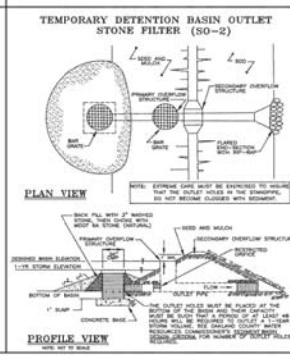
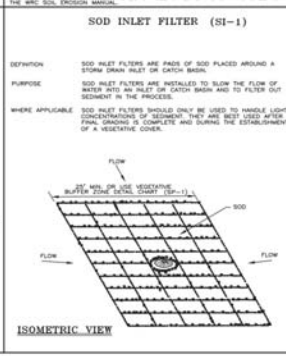
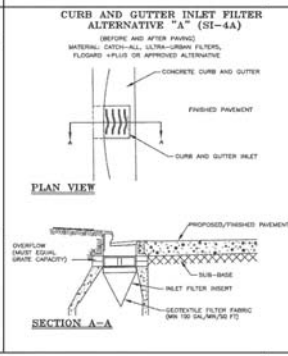
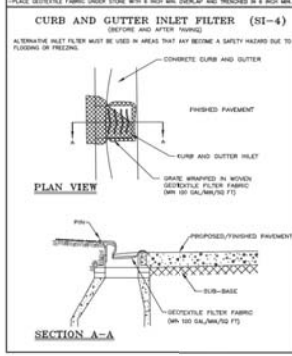
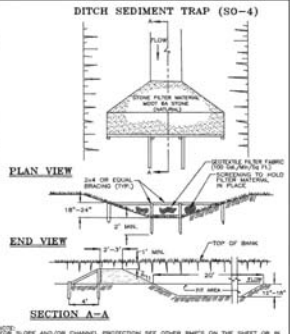
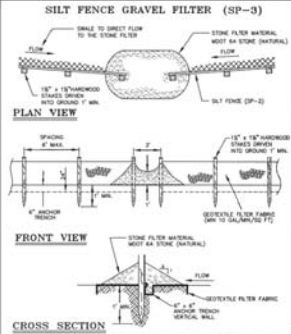
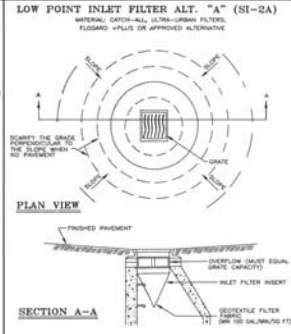
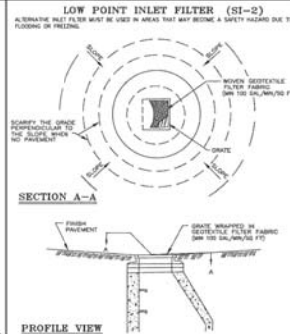
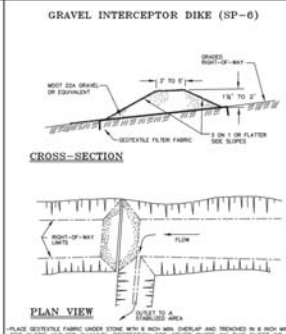
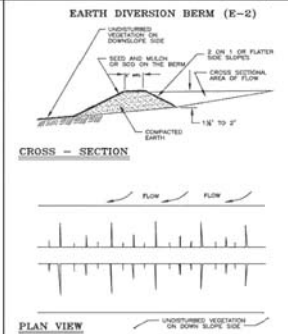
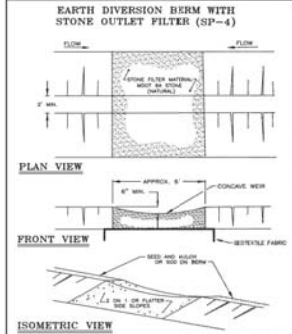
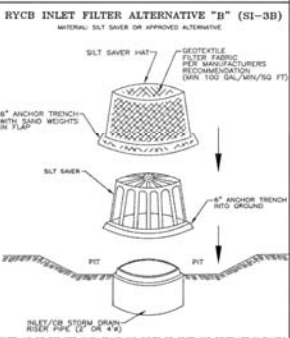
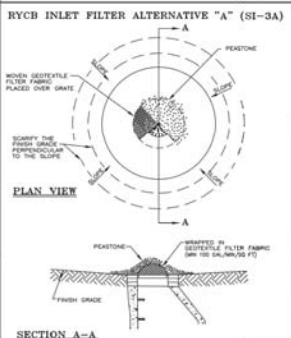
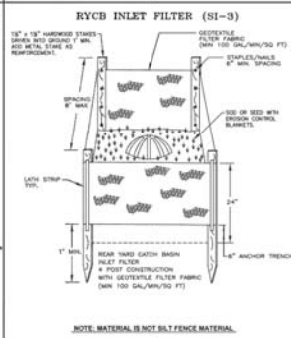
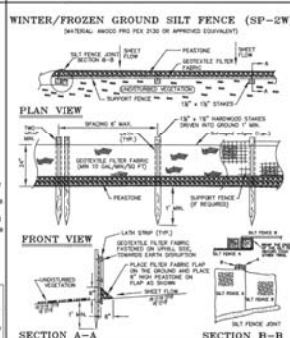
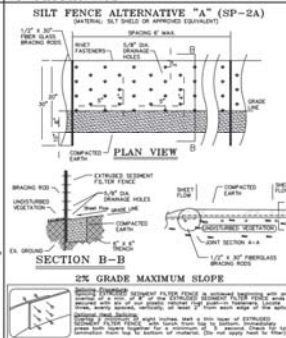
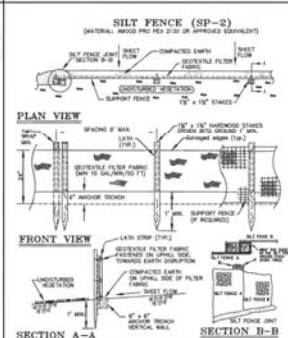
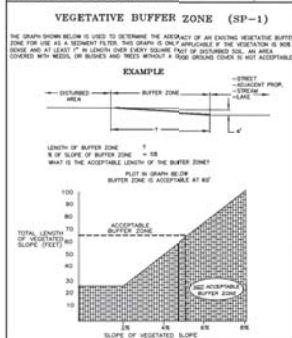
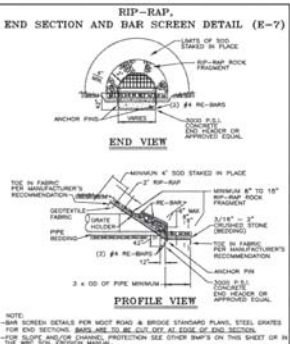
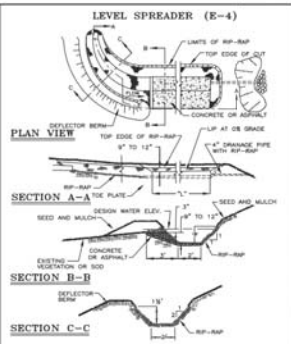
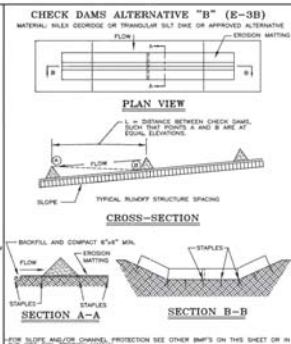
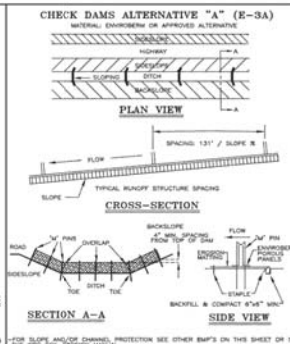
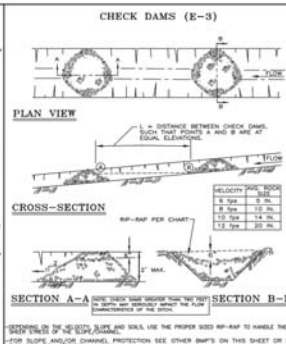
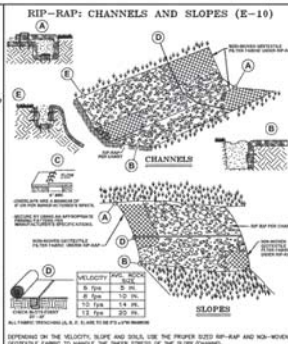
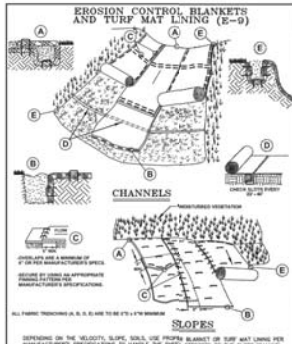
STANDARD DETAILS

SHEET

**2**

OF 2





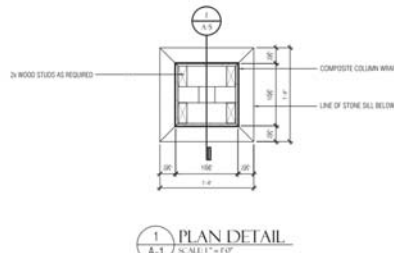
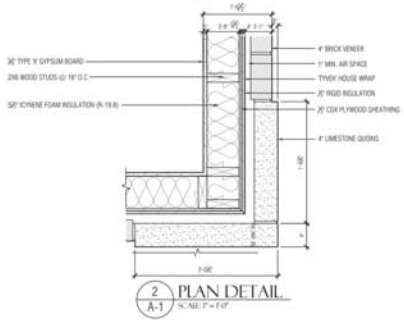
**NOTE:**

WHILE PERFORMING WORK INVOLVING GROUNDS MAINTENANCE AND/OR THE CONSTRUCTION/MAINTENANCE OF ANY INFRASTRUCTURE, INCLUDING ROADS, WATER MAINS, SANITARY SEWERS, STORM DRAINS AND STORM WATER BEST MANAGEMENT PRACTICES (BMPs), CONTRACTORS SHALL MINIMIZE POLLUTION FROM STORM WATER RUNOFF THAT CAN AFFECT WATER QUALITY RELATED TO WORK ACTIVITIES. POLLUTANTS THAT COULD IMPAIR WATER QUALITY MAY INCLUDE FUEL, GREASE AND OIL, NUTRIENTS, BACTERIA AND PATHOGENS, LITTER AND DEBRIS, AND SOIL EROSION AND SEDIMENTATION. APPLICABLE BMPs SHALL BE IMPLEMENTED BY THE CONTRACTOR TO THE MAXIMUM EXTENT PRACTICABLE TO PROTECT WATER QUALITY AND WILDLIFE HABITAT.

### SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

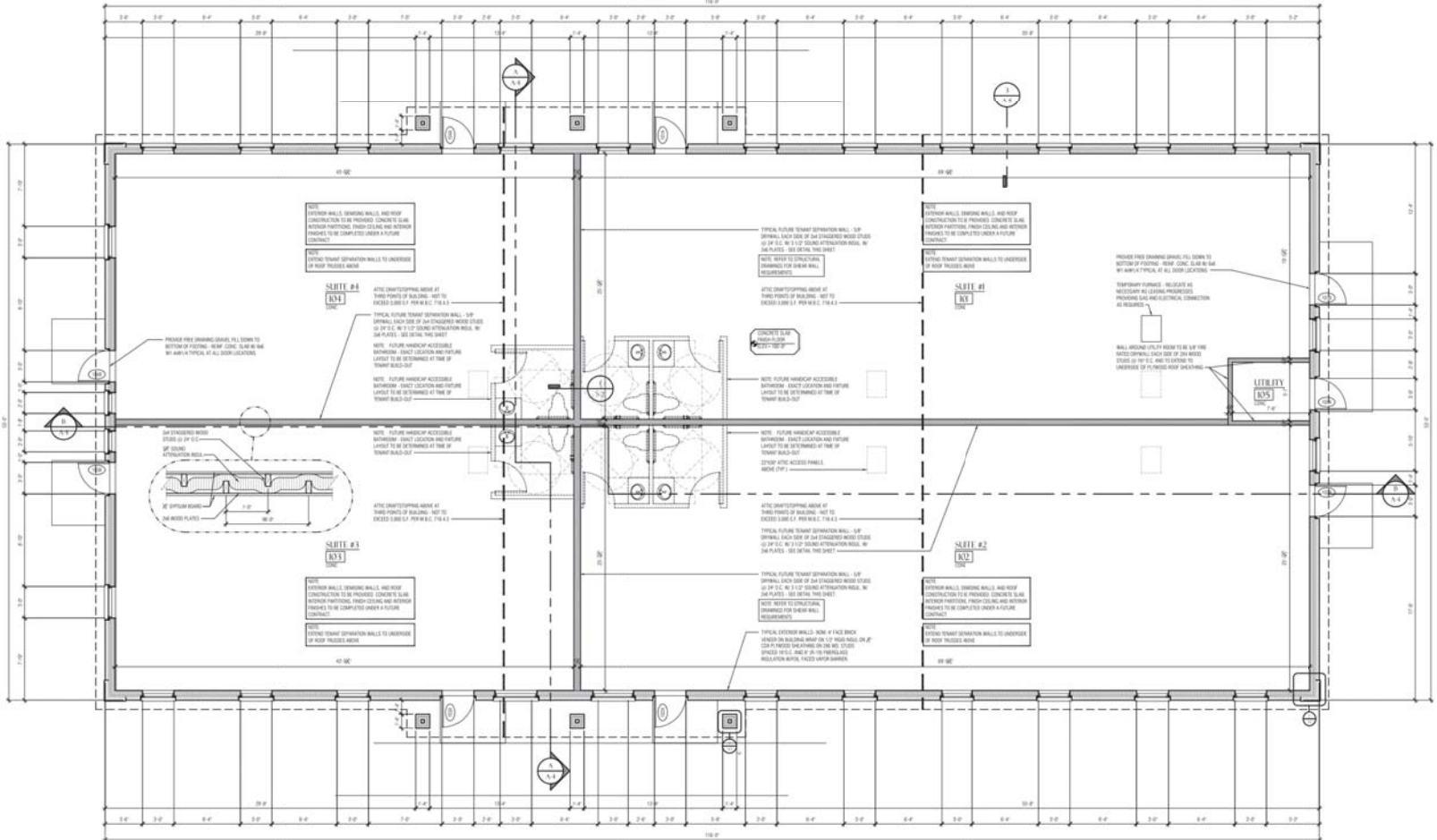
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 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 DESIGNED BY: [Name]  
 SCALE: [Scale]  
 SHEET NO. 1 of 1





**FLOOR PLAN REFERENCE NOTES**

- 1 CONTRACTOR SHALL VERIFY ALL MATERIALS, FINISHES, FIXTURES, LIGHTS, VENTILATION, AND OTHER ITEMS. SEE BIDDING AND SPECIFICATIONS. CONFORMING CODES SHALL INCLUDE 2020 MICHIGAN BUILDING CODE, 2020 MICHIGAN PLUMBING CODE, 2020 MICHIGAN MECHANICAL CODE, 2020 MICHIGAN ELECTRICAL CODE, 2020 MICHIGAN FIRE CODE, 2020 MICHIGAN ENERGY CODE, MICHIGAN ENERGY CODE, AND 2020 MICHIGAN FIRE CODE, 2020 MICHIGAN ELECTRICAL CODE, MICHIGAN ENERGY CODE, AND 2020 MICHIGAN FIRE CODE. ALL MATERIALS AND FINISHES SHALL BE IN ACCORDANCE WITH THE CITY OF ANN ARBOR. ALL MATERIALS AND FINISHES SHALL BE IN ACCORDANCE WITH THE CITY OF ANN ARBOR.
- 2 CONTRACTOR SHALL VERIFY THE JOB TO BE INSTALLED THROUGHLY WITH ALL LOCAL CODES TO VERIFY ALL DRAINING, VENTILATION, AND TO VERIFY ALL PERMITS AND INSURANCE REQUIREMENTS.
- 3 IF REQUIRED, CONTRACTOR SHALL PROVIDE CERTIFICATE OF LIABILITY BEFORE STARTING WORK. VERIFY TYPES AND AMOUNTS OF COVERING WITH OWNER.
- 4 MATERIALS USED IN CONSTRUCTION SHALL BE NEW AND OF FREE-CAST QUALITY.
- 5 MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO THE REVIEW OF THE ARCHITECT AFTER DATE OF COMPLETION.
- 6 SPOFFORD SHALL BE INSTALLED WITH A COMBUSTIBLE, FUEL-ACTIVATED, AND NON-CORROSIVE FIRE-RESISTANT COATING. SPOFFORD SHALL BE THICK AND SCHEDULED. VERIFY WITH OWNER WITH CITY AND ALL OTHER LOCAL CODES TO VERIFY ALL PERMITS AND INSURANCE REQUIREMENTS.
- 7 CARPENTRY CONTRACTOR SHALL PREPARE ALL CONCRETE WALL SPACES.
- 8 ALL DOORS AND DOOR THRESHOLS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. VERIFY LOCAL PERMITS AND CODES AND ALL OTHER LOCAL CODES. PROVIDE MINIMUM 2x4x8 POLYETHYLENE WATER BARRIER AND MINIMUM 2x4x8 COMBUSTIBLE. PROVIDE CONCRETE BLOCK AND BRICKS. VERIFY WITH OWNER WITH CITY AND ALL OTHER LOCAL CODES TO VERIFY ALL PERMITS AND INSURANCE REQUIREMENTS.
- 9 ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 2800 PSI AT 28 DAYS.
- 10 MEASURING, MIXING, AND PLACING OF CONCRETE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES.
- 11 PROTECTION AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES.
- 12 ALL FINISHING WORK SHALL BE COMPLETED BY THE END OF THE PROJECT.
- 13 ALL FINISHING WORK SHALL BE COMPLETED BY THE END OF THE PROJECT.
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CORRY CAMPBELL  
**C-ARC**  
 ARCHITECTURAL  
 DESIGN GROUP  
 1435 LONG LAKE AVENUE SUITE 1775  
 ANN ARBOR, MI 48106  
 TEL: 248.979.0734  
 WWW.C-CARC.COM  
 ARCHITECTURE, PLANNING, INTERIORS  
 P. L.L.C. REGISTERED PROFESSIONAL ENGINEER

**NOVI**  
**PROFESSIONAL**  
 23945 NOVI RD  
 NOVI, MICHIGAN 48375

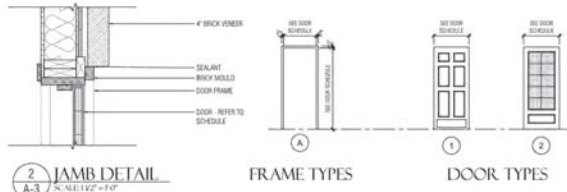
**MAIN LEVEL FLOOR PLAN**

**SQUARE FOOTAGE**

GOLF #1	1,580 SF
GOLF #2	1,580 SF
GOLF #3	1,580 SF
GOLF #4	1,580 SF
WALLS, RISERS, FINISHES	0.48 SF

**NOTES:**

1. STAFFED GLASS REQUIRED
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**DOOR SCHEDULE**

DOOR	DOOR SIZE	TYPE	MAT.	FRAM.	GLAZ.	FINISH	SW.	HW.	HLR.	LRHT.	REMARKS
101A	7'0" x 2'6" (6)	2	ALUM	WOOD	A	ALUM	FRAM	2X4	2X4	02	WOOD, 13A.6A
101B	7'0" x 2'6" (6)	1	CEL	FRAM	A	WOOD	FRAM	2X4	2X4	02	WOOD, 13A.6A
101C	7'0" x 2'6" (6)	2	ALUM	FRAM	A	ALUM	FRAM	2X4	2X4	02	WOOD, 13A.6A
101D	7'0" x 2'6" (6)	1	CEL	FRAM	A	WOOD	FRAM	2X4	2X4	02	WOOD, 13A.6A
101E	7'0" x 2'6" (6)	2	ALUM	FRAM	A	ALUM	FRAM	2X4	2X4	02	WOOD, 13A.6A
101F	7'0" x 2'6" (6)	1	CEL	FRAM	A	WOOD	FRAM	2X4	2X4	02	WOOD, 13A.6A
101G	7'0" x 2'6" (6)	2	ALUM	FRAM	A	ALUM	FRAM	2X4	2X4	02	WOOD, 13A.6A
101H	7'0" x 2'6" (6)	1	CEL	FRAM	A	WOOD	FRAM	2X4	2X4	02	WOOD, 13A.6A
101I	7'0" x 2'6" (6)	2	ALUM	FRAM	A	ALUM	FRAM	2X4	2X4	02	WOOD, 13A.6A
101J	7'0" x 2'6" (6)	1	CEL	FRAM	A	WOOD	FRAM	2X4	2X4	02	WOOD, 13A.6A
101K	7'0" x 2'6" (6)	2	ALUM	FRAM	A	ALUM	FRAM	2X4	2X4	02	WOOD, 13A.6A

**DOOR HARDWARE**

- For use only for the framing and finish of a door with the manufacturer's standard hardware. Door is shown using heavy bronze weather stripping.
- CONTINUOUS HINGE: BRISTOL
  - LOCK: EMERY LOCK
  - CYLINDER: KNOX-HANCOCK
  - WALL STOP: KNOX-HANCOCK
  - DOOR STOP: KNOX-HANCOCK
  - GLAZING: LIX
  - ROOFING: KNOX-HANCOCK
  - ROOF PLATE: KNOX-HANCOCK
  - ROOFING SYSTEM: KNOX-HANCOCK
  - LIGHT SOLID: KNOX-HANCOCK
  - SHRIMP: KNOX-HANCOCK
- DOOR TYPE:  
 101A CONTINUOUS HINGE 2X4 SW  
 101B EMERY LOCK (NO SW) 1X4 SW  
 101C KNOX-HANCOCK 2X4 SW  
 101D EMERY LOCK (NO SW) 1X4 SW  
 101E KNOX-HANCOCK 2X4 SW  
 101F KNOX-HANCOCK 2X4 SW  
 101G KNOX-HANCOCK 2X4 SW  
 101H EMERY LOCK (NO SW) 1X4 SW  
 101I KNOX-HANCOCK 2X4 SW  
 101J EMERY LOCK (NO SW) 1X4 SW  
 101K KNOX-HANCOCK 2X4 SW  
 101L EMERY LOCK (NO SW) 1X4 SW

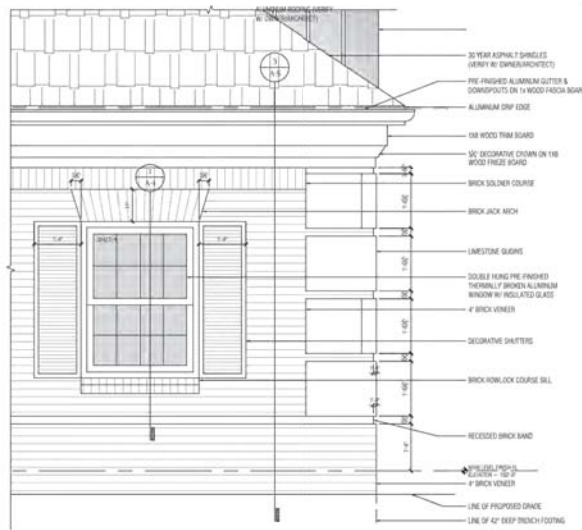
**DOOR GENERAL NOTES**

- REFER TO GLAZING SCHEDULE FOR GLAZING TYPE.

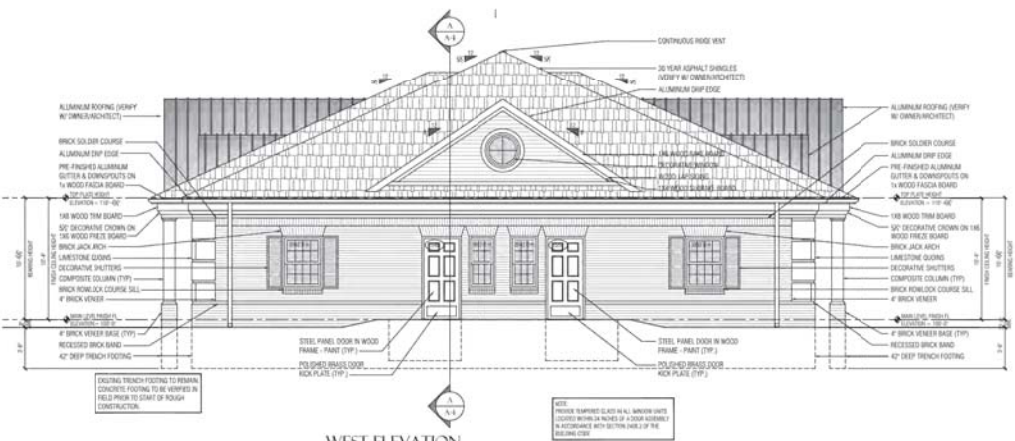
**DOOR SCHEDULE REMARKS**

- DOOR SHALL BE IN CASE INSULATED PER MANUFACTURER'S RECOMMENDATION.
- DOOR SHALL BE ALUMINUM OR ALUMINUM CLAD UNLESS OTHERWISE SPECIFIED IN THIS SCHEDULE.
- FRAMES MUST BE BRUSHED ALUMINUM UNLESS OTHERWISE SPECIFIED IN THIS SCHEDULE.
- RECESSED BRICK BAND SHALL BE RECESSED TO MATCH THE BRICK VENEER.
- FRAMES SHALL BE 1/2" MINIMUM CLEARANCE FROM WALL UNLESS OTHERWISE SPECIFIED.
- FRAMES SHALL BE 1/2" MINIMUM CLEARANCE FROM FLOOR UNLESS OTHERWISE SPECIFIED.

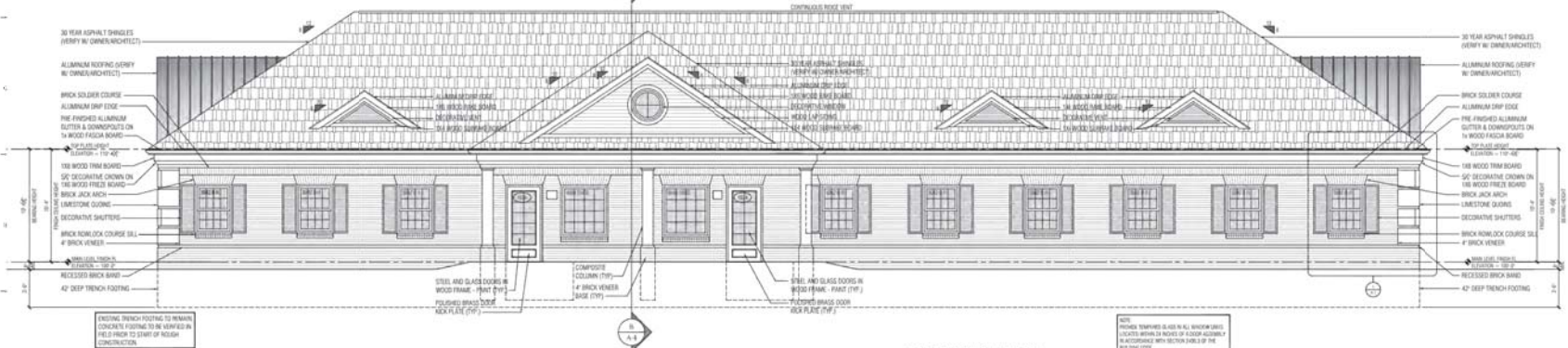
COREY CAMPBELL  
**C-ARC**  
 ARCHITECTURAL  
 DESIGN GROUP  
 445 LONG LAKE AVENUE SUITE 175  
 BENTONVILLE, AR 72715  
 TEL: 248.970.0734  
 www.carc.com  
 ARCHITECTURAL PLANNING - INTERIORS  
 © 2001 COREY CAMPBELL ARCHITECTURAL DESIGN GROUP



**1 ENLARGED ELEVATION**  
 SCALE: 3/4" = 1'-0"



**WEST ELEVATION**  
 (EAST ELEVATION SIMILAR)  
 SCALE: 3/4" = 1'-0"



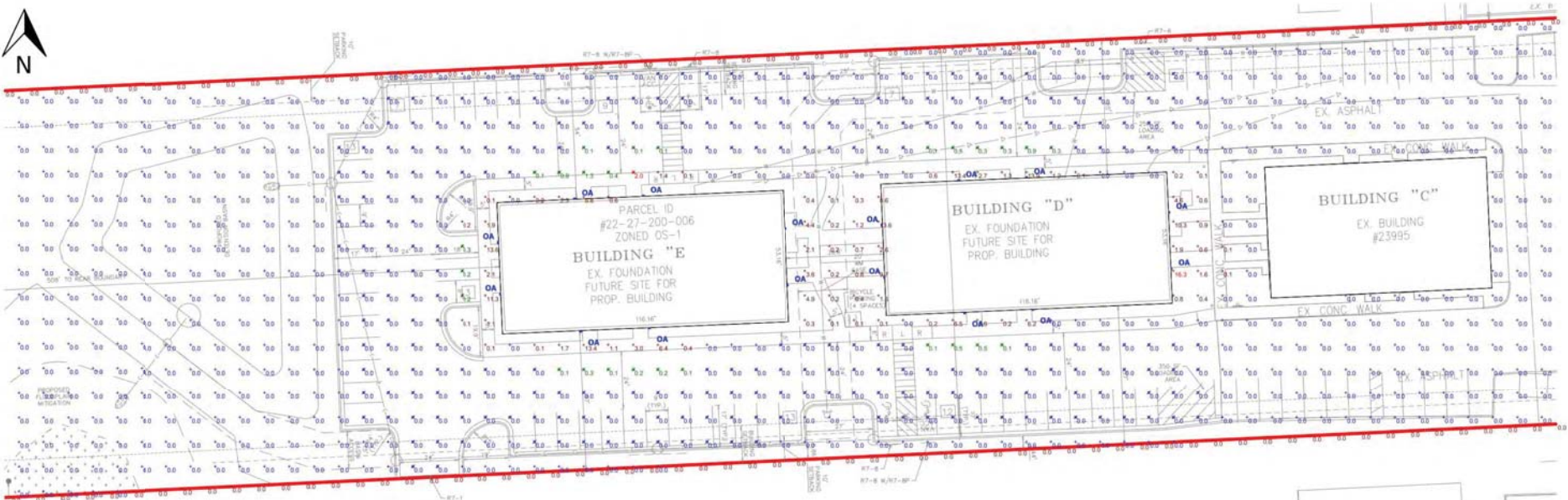
**SOUTH ELEVATION**  
 (NORTH ELEVATION)  
 SCALE: 3/4" = 1'-0"

NOVI  
 PROFESSIONAL  
 23945 NOVI RD.  
 NOVI, MICHIGAN 48275

**ELEVATIONS**

- NOTE:** ALL DIMENSIONS AND FINISHES SHOWN TO FINISHED SURFACE UNLESS NOTED OTHERWISE.
- NOTE:** FINISHES, MATERIALS AND COLORS FOR IRC 2015 SHALL BE FINISHES SHOWN ON THE FINISH SCHEDULE UNLESS OTHERWISE NOTED.
- NOTE:** STRUCTURAL STEEL SHIPS ORANGES TO BE PROVIDED BY STRUCTURAL ENGINEER AND APPROVED BY OWNER.
- NOTE:** ALL FINISHES SHALL BE CALCULATED FROM FINISH TO FINISH UNLESS OTHERWISE NOTED. FINISHES SHALL BE CALCULATED FROM FINISH TO FINISH UNLESS OTHERWISE NOTED.
- NOTE:** ELEVATION TARGET HEIGHTS ARE CALCULATED FROM FINISH TO FINISH UNLESS OTHERWISE NOTED. FINISHES SHALL BE CALCULATED FROM FINISH TO FINISH UNLESS OTHERWISE NOTED.
- NOTE:** FINISHES TO BE USED SHALL BE APPROVED BY ARCHITECT AND FINISHES SHALL BE APPROVED BY ARCHITECT AND FINISHES SHALL BE APPROVED BY ARCHITECT.
- DO NOT SCALE DRAWINGS**
- CODE:**  
 ALL CONSTRUCTION DETAILS AND FINISHES SHALL COMPLY WITH THE CURRENT 2015 MICHIGAN BUILDING CODE, PERMITS AND REQUIREMENTS AS ADOPTED BY THE LOCAL GOVERNING BODY IN CASE OF CONFLICT, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
- DATE:**  
 10/27/2001 Thom Campbell Revise





EXISTING TLAND 3262 AC

**Plan View**  
Scale - 1" = 20ft

**WEDGE LED**  
Architectural Wall Sconce

**Specifications:**  
Depth: 5.0"  
Height: 8.0"  
Width: 4.0"  
Weight: 1.5 lb

**Introduction:**  
The WEDGE LED Family is designed to meet specific needs with recessed lighting needs in a widely searched space that blends with any architecture. The cone includes design freedom in four sizes with lumens output ranging from 1,200 to 3,000 lumens providing a true versatile solution.

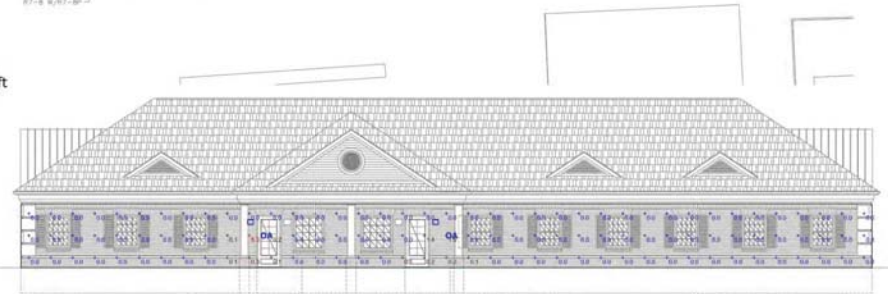
**WEDGE1 delivers up to 2,000 lumens with a soft, non-glared light source, creating a visually comfortable environment. The compact size of WEDGE1, with its integrated emergency battery backup system, makes it the ideal low-profile wall-mounted lighting solution.**

WEDGE LED Family Dimensions	WEDGE LED Family Performance
WEDGE1 (4.0" x 5.0" x 8.0")	1,200 lumens, 100W, 100lm/W, 100lm/W, 100lm/W, 100lm/W
WEDGE2 (4.0" x 5.0" x 8.0")	1,800 lumens, 150W, 120lm/W, 120lm/W, 120lm/W, 120lm/W
WEDGE3 (4.0" x 5.0" x 8.0")	2,400 lumens, 200W, 120lm/W, 120lm/W, 120lm/W, 120lm/W
WEDGE4 (4.0" x 5.0" x 8.0")	3,000 lumens, 250W, 120lm/W, 120lm/W, 120lm/W, 120lm/W

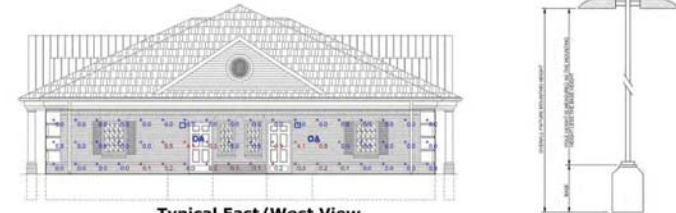
**Ordering Information:** EXAMPLE: WEDGE1 LED P2 40K RICKS VP 40VOLT PE 02000

WEDGE1	WEDGE2	WEDGE3	WEDGE4
WEDGE1 LED P2 40K RICKS VP 40VOLT PE 02000	WEDGE2 LED P2 40K RICKS VP 40VOLT PE 02000	WEDGE3 LED P2 40K RICKS VP 40VOLT PE 02000	WEDGE4 LED P2 40K RICKS VP 40VOLT PE 02000

**Accessories:**  
WEDGE1 LED P2 40K RICKS VP 40VOLT PE 02000  
WEDGE2 LED P2 40K RICKS VP 40VOLT PE 02000  
WEDGE3 LED P2 40K RICKS VP 40VOLT PE 02000  
WEDGE4 LED P2 40K RICKS VP 40VOLT PE 02000



**Typical North/South View**  
Scale - 1" = 8ft



**Typical East/West View**  
Scale - 1" = 8ft

- General Note**
1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
  2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
  3. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT 0' - 0".
  4. HOURS OF OPERATION: 24 HOURS PER DAY & 7 DAYS A WEEK.
  5. ELECTRICAL SERVICE TO LIGHT FIXTURES SHALL BE PLACED UNDERGROUND.
  6. FLASHING LIGHT SHALL NOT BE PERMITTED.
  7. ONLY NECESSARY LIGHTING FOR SECURITY PURPOSES & LIMITED OPERATIONS SHALL BE PERMITTED AFTER A SITE'S HOURS OF OPERATION.

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASB@GASSERBUSH.COM OR 734-266-6705.

**Mounting Height Note**  
MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

**Ordering Note**  
FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

**Drawing Note**  
THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
NORTH PROPERTY LINE	+	0.0 fc	0.0 fc	0.0 fc	N/A	N/A
PROPOSED PARKING LOT	⊗	0.0 fc	2.0 fc	0.0 fc	N/A	0.0:1
SOUTH PROPERTY LINE	+	0.0 fc	0.0 fc	0.0 fc	N/A	N/A
TYPICAL EAST/WEST ELEVATION	+	0.2 fc	4.1 fc	0.0 fc	N/A	0.0:1
TYPICAL NORTH/SOUTH ELEVATION	+	0.1 fc	5.3 fc	0.0 fc	N/A	0.0:1

Schedule						
Symbol	Label	QTY	Catalog Number	Description	Lens	Mounting Height
OA	WEDGE LED P2 40K RICKS VP	54	WEDGE LED P2 40K RICKS VP	WEDGE1 LED WITH P2 PERFORMANCE	LED	8'-0"

## FACADE MATERIALS AND ELEVATIONS

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## PLANNING REVIEW

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**PLAN REVIEW CENTER REPORT**  
**Planning Review**  
**NOVI PROFESSIONAL VILLAGE BUILDINGS D & E**  
 JSP 20-17  
 March 29, 2021

**PETITIONER**

Novi Medical Building LLC

**REVIEW TYPE**

Revised Preliminary Site Plan

**PROPERTY CHARACTERISTICS**

Section	27	
Site Location	West of Novi Road, South of Ten Mile; 22-27-200-006	
Site School	Novi Community School District	
Site Zoning	OS-1 Office Service District; R-4 Single-Family Residential	
Adjoining Zoning	North	OS-1 Office Service District
	East	OS-1 Office Service District; B-1 Local Business
	West	R-4 Single-Family Residential
	South	OS-1 Office Service District
Current Site Use	Three office buildings (Building A – 6,125 sf, Building B – 4,750 sf, Building C, 4,810 sf)	
Adjoining Uses	North	Religious/Office
	East	Pharmacy/Vacant
	West	Vacant
	South	Office
Site Size	5.02 acres	
Plan Date	March 3, 2021	

**PROJECT SUMMARY**

The applicant is proposing to construct two 6,175 square feet professional office buildings, directly behind the three existing buildings on the property that were constructed in the 1991. The initial approval of the site plan showed a total of five buildings, and the foundations of the two buildings that are now proposed had previously been constructed and remain visible on site. The proposed buildings, known as Buildings D & E of the Novi Professional Village, are one story in height, and are of a similar design as the front three buildings that are existing. The foundations of the buildings are existing on-site. The parcel is south of Ten Mile Road and west of Novi Road. The site is zoned OS-1: Office Service District and R-4: Single-Family Residential (western portion of the site, no buildings proposed on this portion of the site). The Future Land Use map indicates Community Office for the entirety of the property.

## RECOMMENDATION

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**Approval of the Preliminary Site Plan is recommended by staff.** The plan mostly conforms to the requirements of the Zoning Ordinance, with any deviations noted below. All reviewers now recommend approval of the Preliminary Site Plan. **Planning Commission approval of the Preliminary Site Plan, Stormwater Management Plan, and Woodland Use Permit will be required.**

## ORDINANCE REQUIREMENTS

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This project was reviewed for compliance with the Zoning Ordinance, with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), and any other areas of the ordinance, as noted. The plans show general compliance with ordinance requirements. Please address all items in **bold** with the next submittal.

1. Parking Setback (Section 3.1.21.D): Currently, the proposed parking along the north and south property lines does not comply with the required parking setback of 10 feet. Given that the site was previously approved and is rather narrow, staff would support a waiver request for the north and south parking setbacks. **A parking setback waiver of 7 feet along the north property line and a parking setback waiver of 4.14 feet along the south property line would be required. If the required parking setback dimensions cannot be met, please request a parking setback waiver and provide a calculation showing that the reduction in parking setbacks will not reduce the area of total setback on the site below minimum setback requirements.**
2. Parking Space Dimensions & Maneuvering Lanes (Section 5.3.2): 9' x 17' parking spaces with 4" curb and 9' x 19' spaces indicated. **Please indicate that a 6" curb will be provided next to the 9' x 19' parking spaces.**
3. End Islands (Section 5.3.12): 20 contiguous parking spaces are proposed in one of the southern parking bays. The Zoning Ordinance only allows for 15 contiguous spaces without a landscaped end island. **Please revise the southern parking bay to include an additional landscaped end island. Refer to the Landscape Review for additional comments.**
4. Lighting Plan (Section 5.7): Per the applicant's response letter dated 2/5/21, the photometric plan for the entire site was previously approved. **However, current photometric plan standards should still be met. Please address the following:**
  - a. **All existing lighting information on the property and neighboring properties (spillover information) should be provided to verify compliance.**
  - b. **Please revise the Photometric Plan to meet current minimum illumination standards for any proposed parking areas, loading areas, and walkways.**
5. Site Addressing: The applicant should contact the Building Division for an address prior to applying for a building permit to request addresses for new buildings and/or tenant spaces.
6. Floodplain & Stormwater: Please refer to the Engineering & Wetland Review letters for Floodplain & Stormwater comments.
7. ROW Dedication: The plans indicate that the property line extends to the center of Novi Road. Dedication of the full 60' Right-Of-Way is requested as listed in the Engineering Review.
8. Existing Fencing & Generator: The submitted site survey shows an existing generator and fencing on the north side of the site, near the proposed development area. **Please indicate if the current fencing will be removed and if the existing generator will remain.**



9. Emergency/Secondary Access: Please consider relocating the secondary access to the site as the current proposed location appears to abut a conservation easement on the property to the south. Per the applicant's response letter dated 2/5/21, the applicant is verifying the location of the conservation easement to the south.
10. Planning Chart: Please refer to the attached Planning Chart for additional comments to address in the Revised Preliminary and/or Final Site Plan submittal.

## **OTHER REVIEWS**

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- a. Engineering Review: Engineering is recommending approval of the Preliminary Site Plan with comments to be addressed in a Final Site Plan submittal.
- b. Landscape Review: Landscape is recommending approval of the Revised Preliminary Site Plan with comments to be addressed in a Final Site Plan submittal.
- c. Traffic Review: Traffic is recommending approval of the Preliminary Site Plan with comments to be addressed in a Final Site Plan submittal.
- d. Façade Review: Façade is recommending approval with a sample board of materials or indication of colors that will generally match those of the existing buildings be provided.
- e. Wetland Review: Wetland is recommending approval of the Preliminary Site Plan with comments to be addressed in a Final Site Plan submittal.
- f. Woodland Review: Woodland is recommending approval of the Revised Preliminary Site Plan with comments to be addressed in a Final Site Plan submittal.
- g. Fire Review: Fire is recommending approval of the Preliminary Site Plan with comments to be addressed in a Final Site Plan submittal.

## **NEXT STEP: PLANNING COMMISSION MEETING**

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This Site Plan will be tentatively scheduled to go before the **Planning Commission on May 12, 2021** as a Public Hearing. Please indicate by **April 27, 2021** if you would like to proceed with the Public Hearing. Please provide the following via email by **May 5, 2021**:

1. Site Plan submittal in PDF format (maximum of 10MB). **NO CHANGES MADE.**
2. A response letter addressing ALL the comments from ALL the review letters and a request for waivers/variances as you see fit.
3. A color rendering of the Site Plan (optional, to be used for Planning Commission presentation).
4. A sample board of building materials as required by our Façade Consultant.

## **FINAL SITE PLAN SUBMITTAL**

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After receiving Planning Commission's approval of the Preliminary Site Plan, please follow the [Final Site Plan Checklist](#) and submit for approval:

1. **Seven** copies of Final Site Plan sets (24" x 36", folded) addressing ALL comments from Preliminary Site Plan Review.
2. Response letter addressing ALL comments from ALL review letters and **refer to sheet numbers where the change is reflected.**
3. [Final Site Plan Application](#)
4. [No Revision Façade Affidavit](#) (if no façade changes have been made)
5. An itemized engineering cost estimate including sanitary sewer, watermain, storm sewer, paving and grading costs, size 8.5" x 11" (The cost estimate should not include soil erosion or demolition costs.)
6. An itemized landscaping cost estimate including greenbelt and greenbelt ornamental trees, perennials, pond plantings, shrubs, edging, mulch, seed mix and seeded lawn, size 8.5" x 11" (The cost estimate should not include woodland trees, replacement trees or mitigation.)
7. An [Other Agencies Checklist](#)
8. Recommended, but not required: A [Soil Erosion Permit Application](#)

### **ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER**

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After receiving Final Site Plan approval, plans addressing the comments in all the staff and consultant review letters should be submitted electronically for informal review and approval prior to printing Stamping Sets. A letter from either the applicant or the applicant's representative addressing comments in this and other review letters and associated charts is to be submitted with the electronic stamping set. This letter should address all comments in ALL letters and ALL charts and **refer to sheet numbers where the change is reflected.**

*If required, drafts for all legal documents with a legal transmittal are to be submitted along with electronic stamping sets.*

### **STAMPING SET APPROVAL**

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Stamping sets will be required for this project. After having received all the review letters from City staff the applicant should make the appropriate changes on the plans and submit **12 size 24" x 36" copies with original signature and original seals on the cover sheet (subsequent pages may use electronic seal with signature)**, to the Community Development Department for final Stamping Set approval.

### **PRE-CONSTRUCTION MEETING**

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**A Pre-Construction meeting is required for this project.** Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. Pre-Con meetings are generally held after Stamping Sets have been issued and prior to the start of any work on the site. There are a variety of requirements, fees and permits that must be issued before a Pre-Con can be scheduled, so it is suggested you contact Sarah Marchioni [248.347.0430 or [smarchioni@cityofnovi.org](mailto:smarchioni@cityofnovi.org)] once the Final Site Plan has been approved to begin the Pre-Con checklist. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah.

### **CHAPTER 26.5**

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Chapter 26.5 of the City of Novi Code of Ordinances generally requires all projects be completed within two years of the issuance of any starting permit. Please contact Sarah Marchioni at 248-347-0430 for additional information on starting permits. The applicant should review and be aware of the requirements of Chapter 26.5 before starting construction.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5607 or [ccarroll@cityofnovi.org](mailto:ccarroll@cityofnovi.org).



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Christian Carroll, Planner



## PLANNING REVIEW CHART

**Review Date:** March 29, 2021  
**Review Type:** Preliminary Site Plan  
**Project Name:** Novi Professional Village Buildings D & E, JSP20-17  
**Location:** South of Ten Mile Rd, West of Novi Road (22-27-200-006)  
**Plan Date:** March 3, 2021  
**Prepared by:** Christian Carroll, Planner  
**E-mail:** [ccarroll@cityofnovi.org](mailto:ccarroll@cityofnovi.org) **Phone:** 248.735.5607

**Bold** To be addressed with the next submittal  
**Bold and Underline** Requires Planning Commission and/or Zoning Board of Appeals Approval  
*Italics* To be noted

Item	Required Code	Proposed	Meets Code	Comments
<b>Zoning and Use Requirements</b>				
<b>Master Plan</b> <i>(adopted July 26, 2017)</i>	Community Office	Office	Yes	12,350 sf proposed: Two 6,175 sf 1-story office buildings
<b>Area Study</b>	N/A	N/A	N/A	N/A
<b>Zoning</b> <i>(Effective January 8, 2015)</i>	OS-1: Office Service District R-4: Single-Family Residential	No Change	Yes	
<b>Uses Permitted</b> (Sec 3.1.21.B & C)	Sec. 3.1.21.B. - Principal Uses Permitted. Sec. 3.1.21.C. - Special Land Uses Permitted.	Professional Office Buildings – Principal Permitted Use	Yes	
<b>Height, bulk, density, and area limitations (Sec 3.1.21.D)</b>				
<b>Frontage on a Public Street</b> <i>(Sec. 5.12)</i>	Frontage on a Public Street is required	The site has frontage and access to Novi Road	Yes	
<b>Access to a Major Throughfare</b> <i>(Sec. 5.13)</i>	Vehicular access shall be provided only to an existing or planned major thoroughfare or freeway service drive OR access driveway on other street type is not across street from existing or planned single-family uses	Driveway onto Novi Road – Arterial/Major Throughfare	Yes	
<b>Minimum Zoning Lot Size</b> For each Unit: in Acres <i>(Sec. 3.6.2.D)</i>	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of	5.03 acres gross, 4.91 acres net	Yes	
<b>Minimum Zoning Lot Size</b> for each Unit: Width in	off-street parking, loading, greenbelt screening, yard setback or usable open	N/A	N/A	

Item	Required Code	Proposed	Meets Code	Comments
Feet (Sec. 3.6.2.D)	space			
<b>Open Space Area</b>	---	---	---	---
<b>Maximum % of Lot Area Covered</b> (By All Buildings)	(Sec 3.6.2.D)	13%	Yes	
<b>Building Height</b> (Sec. 3.1.21.D)	30 ft.	23 ft.	Yes	
<b>Building Setbacks</b> (Sec 3.1.21.D) OS-1 District				
Front (east)	20 ft.	119 ft.	Yes	
Rear (west)	20 ft.	509 ft.	Yes	
Interior Side (north)	15 ft.	54 ft.	Yes	
Interior Side (south)	15 ft.	57 ft.	Yes	
<b>Parking Setback</b> (Sec 3.1.21.D) Refer to applicable notes in Sec 3.6.2				
Front (east)	20 ft.	71 ft.	Yes	<b><u>The Planning Commission has the authority to provide a parking setback waiver, if requested. Please also provide a calculation showing that the reduction in parking setbacks will not reduce the area of total setback on the site below minimum setback requirements.</u></b>
Rear (west)	10 ft.	440 ft.	Yes	
Interior Side (north)	10 ft.	3 ft.	No	
Interior Side (south)	10 ft.	5.86 ft.	No	
<b>Note to District Standards</b> (Sec 3.6.2)				
<b>Exterior Side Yard Abutting a Street</b> (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	N/A	N/A	
<b>Lot Coverage</b> (Sec. 3.6.2.D)	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of off-street parking, loading, greenbelt screening, yard setback or usable open space requirements as set forth in this Ordinance.		N/A	
<b>Off-Street Parking in Front Yard</b> (Sec 3.6.2.E)	Off-street parking is allowed in front yard if: - the site is a minimum 2-acre site, - does not extend into the minimum required front yard	Front yard parking existing	Yes	<i>If new parking proposed in front yard, a berm or wall would be required</i>

Item	Required Code	Proposed	Meets Code	Comments
	setback of the district, - cannot occupy more than 50% of the area between min. front yard setback & bldg. setback, - must be screened by brick wall or landscaped berm 2.5 ft tall - lighting compatible with surrounding neighborhood			
<b>Setbacks from Residential District - Building</b> (Sec 3.6.2.L)	All properties abutting residential districts shall have a minimum 20 ft parking setback	Abuts residential district/residential district on site	Yes	
<b>Wetland/Watercourse Setback</b> (Sec 3.6.2.M)	A setback of 25 ft. from wetlands and from high watermark course shall be maintained	Wetland on-site, on-site detention basin proposed	Yes	
<b>Parking setback screening</b> (Sec 3.6.2.P)	Required parking setback area shall be landscaped per Sec 5.5.3.	Provided	No	See Landscape Review
<b>Modification of parking setback requirements</b> (Sec 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on its determination according to Sec 3.6.2.Q.	Shall meet requirements of Sec. 3.6.2.Q	Yes	<b><u>The Planning Commission has the authority to provide a parking setback waiver, if requested. Please also provide a calculation showing that the reduction in parking setbacks will not reduce the area of total setback on the site below minimum setback requirements.</u></b>
<b>OS-1 District Required Conditions (Sec 3.17)</b>				
<b>Interior Display</b> (Sec. 3.17.1)	No interior display shall be visible from the exterior of the building.	Note provided on Sheet 3	Yes	
<b>Outdoor Storage</b> (Sec. 3.17.2)	The outdoor storage of goods or materials shall be prohibited.	Note provided on Sheet 3	Yes	
<b>Warehousing or indoor storage</b> (Sec. 3.17.3)	Warehousing or indoor storage of goods or material, beyond that normally incident to the permitted uses, shall be prohibited.	Note provided on Sheet 3	Yes	
<b>Parking, Loading, Dumpster, and Other Equipment Requirements</b>				

Item	Required Code	Proposed	Meets Code	Comments
<b>Number of Parking Spaces</b>  Professional Office (Sec.5.2.12.D)	Professional Office: For buildings greater than 5,000 sf, 1 space per 175 sf GLA; for buildings less than 5,000 sf, 1 space per 167 sf GLA.  15,685 sf GLA existing = 93 4750 sf/167 = 29 4810 sf/167 = 29 6125 sf/175 = 35 12,350 sf GLA proposed = 71 6,175 sf/175 = 35.5 6,175 sf/175 = 35.5 93 + 71 = 164 spaces required	Total Parking Proposed = 69 spaces proposed (101 existing) = 170 total spaces	Yes	<b>69 parking spaces are shown on the plan, but 63 spaces are shown in the calculation. Please revise to reflect an accurate count.</b>
<b>Parking Space Dimensions and Maneuvering Lanes</b> (Sec. 5.3.2)	<ul style="list-style-type: none"> <li>- 90° Parking: 9 ft. x 19 ft.</li> <li>- 24 ft. two-way drives</li> <li>- 9 ft. x 17 ft. parking spaces allowed along 7 ft. wide interior sidewalks as long as detail indicates a 4" curb at these locations and along landscaping</li> </ul>	24 ft. drives min proposed  9 ft. x 17 ft. spaces proposed with 4" curb, 9 ft. x 19 ft. spaces west of Bldg. "E"	Yes	<b>Indicate 6" curb next to 9 ft. x 19 ft. spaces.</b>
<b>Parking stall located adjacent to a parking lot entrance</b> (public or private) (Sec. 5.3.13)	Shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer	Existing	N/A	N/A
<b>End Islands</b> (Sec. 5.3.12)	<ul style="list-style-type: none"> <li>- End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles.</li> <li>- The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance</li> </ul>	End islands are proposed. 20 contiguous spaces in southern parking bay are proposed, which is not permitted.	No	<b>Revise southern parking bay to include additional end island. See Landscape Review for additional details.</b>
<b>Barrier Free Spaces</b> <i>Barrier Free Code</i>	For total of 151 to 200 spaces, 6 barrier free parking spaces (including 1 van barrier free space)	4 barrier free parking spaces proposed (8 existing) = 12	Yes	
<b>Barrier Free Space Dimensions</b> <i>Barrier Free Code</i>	<ul style="list-style-type: none"> <li>- 8' wide with an 8' wide access aisle for van accessible spaces</li> <li>- 8' wide with a 5' wide access aisle for regular accessible spaces</li> </ul>	2 van accessible spaces shown 2 standard spaces shown	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Barrier Free Signs</b> <i>Barrier Free Code</i>	One sign for each accessible parking space.	Shown	Yes	
<b>Minimum number of Bicycle Parking</b> <i>(Sec. 5.16.1)</i>	5% of required auto spaces, minimum 2 spaces  70 required auto = 4 spaces	4 proposed	Yes	
<b>Bicycle Parking General requirements</b> <i>(Sec. 5.16)</i>	<ul style="list-style-type: none"> <li>- Located along principal building entrance approach, clearly visible</li> <li>- No farther than 120 ft. from the entrance being served</li> <li>- When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations</li> <li>- Spaces to be paved and the bike rack shall be inverted "U" design min. of 36" tall</li> <li>- Shall be accessible via 6 ft. paved access from street</li> </ul>	One location near building entrance  Provided  N/A  Provided  6 feet	Yes  Yes  Yes  Yes  Yes	
<b>Bicycle Parking Lot layout</b> <i>(Sec 5.16.5.A)</i>	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft. Parking space depth: 2 ft. single, 2 ½ ft. double	Layout shown	Yes	
<b>Loading Spaces</b> <i>(Sec. 5.4.1)</i>	Within the OS Districts, loading space shall be provided in the rear yard or in case of a double frontage lot, in the interior side yard, in the ratio of five (5) square feet per front foot of building up to a total area of three-hundred sixty (360) square feet per building.	265 sf required per building = 530 sf required.  650 sf proposed.	Yes	
<b>Dumpster</b> <i>(Sec 4.19.2.F)</i>	<ul style="list-style-type: none"> <li>- Located in rear yard</li> <li>- Attached to the building or no closer than 10 ft. from building if not attached</li> <li>- Not located in parking setback</li> <li>- If no setback, then it cannot be any closer than 10 ft, from property line.</li> <li>- Away from Barrier free Spaces</li> </ul>	No dumpster proposed	N/A	N/A

Item	Required Code	Proposed	Meets Code	Comments
<b>Dumpster Enclosure</b> (Sec. 21-145. (c) Chapter 21 City Code of Ordinances)	<ul style="list-style-type: none"> <li>- Screened from public view</li> <li>- A wall or fence 1 ft. higher than height of refuse bin</li> <li>- And no less than 5 ft. on three sides</li> <li>- Posts or bumpers to protect the screening</li> <li>- Hard surface pad</li> <li>- Screening Materials: Masonry, wood or evergreen shrubbery</li> </ul>	No dumpster proposed	N/A	
<b>Roof top equipment and wall mounted utility equipment</b> (Sec. 4.19.2.E.ii)	All roof top equipment must be screened, and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	No roof equipment proposed	N/A	<i>Indicate location of utility equipment will be located on site. Applicant noted that it will be provided on the Final Site Plan.</i>
<b>Roof top appurtenances screening</b>	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road or adjacent property.	No roof equipment proposed	N/A	
<b>Transformer/ Generator</b>	Provide location of any proposed transformers/ generators etc.	N/A	N/A	
<b>Non-Motorized Facilities</b>				
<b>ARTICLE XI. OFF-ROAD NON-MOTORIZED FACILITIES</b> Sec. 11-256. Requirement. (c) & Sub. Ord. Sec. 4.05,	<ul style="list-style-type: none"> <li>- In the case of new streets and roadways to be constructed as part of the project, a sidewalk shall be provided on both sides of the proposed street or roadway.</li> <li>- Sidewalks along arterials and collectors shall be 6 feet or 8 feet wide as designated by the "Bicycle and Pedestrian Plan," but not along industrial service streets per Subdivision Ordinance.</li> <li>- Whereas sidewalks along local streets and private roadways shall be five (5) feet wide.</li> </ul>	<p>N/A</p> <p>Existing 6' Sidewalk shown along Novi Road</p> <p>N/A</p>	Yes	
<b>Pedestrian Connectivity</b>	- Whether the traffic circulation features within the site and parking areas are designed to assure	Sidewalks are existing/proposed throughout the site	Yes	



Item	Required Code	Proposed	Meets Code	Comments
	safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets - Building exits must be connected to sidewalk system or parking lot.			
<b>Lighting and Photometric Plan (Sec. 5.7)</b>				
<b>Intent (Sec. 5.7.1)</b>	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties & reduce unnecessary transmission of light into the night sky	Provided	Yes	
<b>Lighting Plan (Sec. 5.7.A.i)</b>	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Provided	Yes	
<b>Building Lighting (Sec. 5.7.2.A.iii)</b>	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.	Provided	Yes	
<b>Lighting Plan (Sec. 5.7.2.A.ii)</b>	Specifications for all proposed & existing lighting fixtures	Provided	Yes	Indicate all existing lighting on property and neighboring properties.
	Photometric data	Provided	Yes	
	Fixture height	20-25 ft	Yes	
	Mounting & design	Provided	Yes	
	Glare control devices (Also see Sec. 5.7.3.D)	Provided	Yes	
	Type & color rendition of lamps	Provided	Yes	
	Hours of operation	Provided, 24 hours.	Yes	
	Photometric plan illustrating all light sources that impact the subject site, including spill-over information from neighboring properties	Not all light sources indicated	<b>No</b>	
<b>Maximum Height (Sec. 5.7.3.A)</b>	Height not to exceed maximum height of zoning district (40 ft.) (or 25 ft. where adjacent to residential districts or uses)	Provided	Yes	
<b>Standard Notes (Sec. 5.7.3.B)</b>	- Electrical service to light fixtures shall be placed underground - Flashing light shall not be	Provided	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	permitted - Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation			
<b>Security Lighting</b> (Sec. 5.7.3.H)  Lighting for security purposes shall be directed only onto the area to be secured.	- All fixtures shall be located, shielded, and aimed at the areas to be secured. - Fixtures mounted on the building and designed to illuminate the facade are preferred.	None shown.	N/A	N/A
<b>Average Light Levels</b> (Sec.5.7.3.E)	Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1	0.0:1 shown	Yes	
<b>Type of Lamps</b> (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low-pressure sodium lamps	LED	Yes	
<b>Min. Illumination</b> (Sec. 5.7.3.k)	Parking areas: 0.2 min	0.0 fc	<b>No</b>	<b>Please revise the Photometric Plan to meet current minimum illumination standards for the proposed area of development.</b>
	Loading/unloading areas: 0.4 min	0.0 fc	<b>No</b>	
	Walkways: 0.2 min	0.0 fc	<b>No</b>	
	Building entrances, frequent use: 1.0 min	2.0 fc	Yes	
	Building entrances, infrequent use: 0.2 min	2.0 fc	Yes	
<b>Max. Illumination adjacent to Non-Residential</b> (Sec. 5.7.3.K)	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle	0.0 fc	Yes	
<b>Cut off Angles</b> (Sec. 5.7.3.L)	When adjacent to residential districts - All cut off angles of fixtures must be 90° - maximum illumination at the property line shall not exceed 0.5 foot candle	N/A	N/A	N/A
<b>Building Code and Other Requirements</b>				
<b>Building Code</b>	Building exits must be connected to sidewalk system or parking lot.	Exits shown – appear to be connected to sidewalk	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Design and Construction Standards Manual</b>	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Provided	Yes	
<b>General layout and dimension of proposed physical improvements</b>	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Provided	Yes	
<b>Economic Impact Information</b>	- Total cost of the proposed building & site improvements - Number of anticipated jobs created (during construction & after building is occupied, if known).	Total cost and job creation provided as requested by the Planning Commission	Yes	<i>Total estimated cost of construction and site improvements: \$600,000                      Jobs created: 32 permanent, 80 temporary (construction)</i>
<b>Phasing</b>	- All projects must be completed within two years of the issuance of any starting permit or phasing plan should be provided	One Phase	Yes	
<b>Development/Business Sign &amp; Street Addressing</b>	- Signage if proposed requires a permit. - The applicant should contact the Building Division for an address prior to applying for a building permit.			<i>For further information contact Maureen Underhill at 248-735-5602.</i>
<b>Project &amp; Street Naming</b>	Some projects may need approval from the Street & Project Naming Committee	This project has already received approval.	Yes	
<b>Parcel Split or Combination or Condominium Approval</b>	Any parcel splits or combinations or condominium approvals must be completed before Stamping Set approval.	N/A	N/A	N/A

**NOTES:**

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. Please refer to those sections in Article 3, 4, and 5 of the zoning ordinance for further details.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

## ENGINEERING REVIEW

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# PLAN REVIEW CENTER REPORT

October 9, 2020

## Engineering Review

Novi Professional Village Buildings D & E  
JSP20-0017

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### Applicant

Novi Medical Bldg. LLC

### Review Type

Preliminary Site Plan

### Property Characteristics

- Site Location: 23975 Novi Road - west side of Novi Road, between Nine Mile and Ten Mile Roads
- Site Size: 5.03 acres
- Plan Date: 09/07/2020
- Design Engineer: Atwell, LLC

### Project Summary

- Construction of two additional buildings upon existing building pads, each building being approximately 6,175 square feet, and associated parking. These buildings would be the final two phases of the five-phase development. Site access would continue to be provided by a single entrance on Novi Road.
- Water service would be provided by an existing 2-inch domestic service to each building, both served by an existing on-site 8-inch water main. An 8-inch water main extension would be provided on-site to serve a proposed additional hydrant.
- Sanitary sewer service would be provided by an existing 6-inch lead to each building, both served by an existing on-site 8-inch sanitary sewer.
- Storm water would be collected by a single storm sewer collection system separate from the existing one serving the existing three phases/buildings. The proposed system would discharge to a proposed on-site detention basin.

### Recommendation

**Approval of the Preliminary Site Plan is recommended, with items to be addressed at Final Site Plan submittal.**

### Comments:

The Preliminary Site Plan meets the general requirements of Chapter 11 of the Code of Ordinances, the Storm Water Management Ordinance and the Engineering Design

Manual with the following exceptions, which can be addressed at Final Site Plan submittal:

### General

1. Provide at least two reference benchmarks at intervals no greater than 1,200 feet. At least one referenced benchmark must be a City-established benchmark, which can be found on the City's website at this location: <https://novi.maps.arcgis.com/apps/webappviewer/index.html?id=5ce841f86197461c9f146e1330330bcf>
2. **Only at the time of the printed Stamping Set submittal**, provide the City's standard detail sheets for water main (5 sheets-rev. 02/16/2018), storm sewer (2 sheets- rev. 02/16/2018), and paving (2 sheets-rev. 03/05/2018). These details can be found on the City's website at this location: <http://cityofnovi.org/Government/City-Services/Public-Services/Engineering-Division/Engineering-Standards-and-Construction-Details.aspx>
3. Items 3 and 6 on the Non-Domestic User Survey Form must be completed. For items that are not applicable, type "N/A". Please revise and resubmit this form.
4. **Again, be aware the City of Novi Building Department may require written documentation of the examinations of the existing building pads.**
5. Noted that a 27-foot wide highway easement exists along Novi Road, along with an assumed 33-foot wide right-of-way. However, the dedication of the full master-planned 60-foot right of way is requested for the project. (Note that the existing highway easement may require abandonment.)
6. Specify MDOT Class II sand for the compacted sand backfill in Utility Note #3 on sheet 4, and illustrate and label on any utility profiles added to the plans.
7. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
8. Provide a utility crossing table indicating that at least 18-inch vertical clearance will be provided, or that additional bedding measures will be utilized at points of conflict where adequate clearance cannot be maintained. Where the minimum 18-inch clearance at utility crossings cannot be achieved, provide a prominent note stating the substandard clearance and that proper bedding/encasement will be determined by the inspecting engineer.
9. Generally, all proposed trees shall remain outside utility easements. Where proposed trees are required within a utility easement, the trees shall maintain a minimum 5-foot horizontal separation distance from any existing or proposed utility. Consider planting the two linden trees ("TC") proposed in the island with the existing hydrant elsewhere, if possible.
10. If any light poles are proposed, show their locations on the utility plan and photometric plan, and indicate the typical foundation depth for the pole to verify that no conflicts with utilities will occur. Light poles in a utility easement will require a License Agreement.

### Water Main

11. Address how to isolate the on-site water main for the proposed water main extension. Per City records, there appears to be a valve located on the existing 8-inch hydrant lead but is not shown on the plans.
12. Provide a profile for all proposed water main 8-inch and larger.
13. Label the pipe material, size, and length in the plan view, as well (noted in the Utility Notes on sheet 4).
14. **Again, be aware the City of Novi Building Department may require verification that the existing water leads to serve the proposed buildings are viable. This may include exposing leads in-field, bacteriological testing, etc.**
15. Identify locations of existing shutoff valves for the existing water leads.
16. Three (3) sealed sets of revised utility plans along with the Michigan Department of Environment, Great Lakes & Energy (EGLE) permit application for water main construction and the Streamlined Water Main Permit Checklist should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the standard detail sheets.

### Sanitary Sewer

17. Provide a sanitary sewer basis of design for the two proposed buildings on the utility plan sheet.
18. **Again, be aware the City of Novi Building Department may require verification that the existing sanitary leads to serve the proposed buildings are viable. This may include televising leads, exposing leads in-field, etc.**
19. Provide inverts and rim elevation for the existing leads and the manhole intaking the leads. Also, expand the viewport on sheet 4 to show the manhole.

### Storm Sewer

20. Provide conveyance (pipe) calculations.
  - a. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer. Grades shall be elevated, and minimum pipe slopes shall be used to maximize the cover depth. In situations where the minimum cover cannot be achieved, Class V pipe must be used with an absolute minimum cover depth of 2 feet. An explanation shall be provided where the cover depth cannot be provided.
  - b. Provide a 0.1-foot drop in the downstream invert of all storm structures where a change in direction of 30 degrees or greater occurs.
  - c. Match the 0.80 diameter depth above invert for pipe size increases.
  - d. Provide a four-foot deep sump and an oil/gas separator in the last storm structure prior to discharge to the storm water basin.
21. Provide profiles for all storm sewer 12-inch and larger.
22. Label all inlet storm structures on the profiles. Inlets are only permitted in paved areas and when followed by a catch basin within 50 feet.

23. Label the 10-year HGL on the storm sewer profiles, and ensure the HGL remains at least 1-foot below the rim of each structure.
24. Illustrate all pipes intersecting storm structures on the storm profiles.
25. Provide a schedule listing the casting type, rim elevation, diameter, and invert sizes/elevations for each proposed, adjusted, or modified storm structure on the utility plan. Round castings shall be provided on all catch basins except curb inlet structures.
26. Show and label all roof conductors, and show where they tie into the storm sewer.

### **Storm Water Management Plan**

27. The Storm Water Management Plan for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the Engineering Design Manual.
28. Access easement for storm water maintenance noted on plans; however, this easement must extend to the Novi Road right-of-way.
29. Provide a 5-foot wide stone bridge/access route allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high water elevation). Provide a detail and/or note, as necessary.
30. Due to maintenance concerns, each restricting orifice in the control structure shall be a minimum of **1 square-inch in size**, even though this may result in a flow rate above that calculated. The First Flush orifice diameter is only  $\frac{3}{4}$  inch.
31. As required, the flow restriction appears to be accomplished by the perforated standpipe. However, unless there is a reason, remove the PVC end cap with drilled hole orifice from the standpipe's outlet pipe (due to the potential for clogging).
32. Provide supporting calculations for the Rational Method runoff coefficient determination. A runoff coefficient of 0.35 shall be used for all turf grass lawns (mowed lawns).

### **Paving & Grading**

33. The 18-foot stalls adjacent to Building E's sidewalk shall be increased to 19 feet due to the 5-foot wide sidewalk. Otherwise, the sidewalk could be increased to 7 feet wide and the stalls *reduced* to 17 feet.
34. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
35. Label the detectable warning surface for the ramp locations on the north side of Building E and the south side of Building D.
36. Consider less pitch between the ramps on the south side of Building D and the barrier-free spaces proposed in the south curb.
37. Show proposed grades for any possible adjusted sanitary, water, and storm structures, including the existing hydrant and sanitary cleanouts.



38. Clearly call out the on-site parking lot cross-section of 1.5 inches of MDOT 5E1 on 2.5 inches of MDOT 3C on 8 inches of 21AA [limestone only if within 100 feet of a watercourse] aggregate base.
39. Curb details are noted in the Grading Notes on sheet 5, but specify whether 18" or 24" wide curb proposed (appears to be 24").

#### **Flood Plain**

40. The proposed floodplain limits, impact, and mitigation are noted on the plans. Noted the Joint Permit Application (JPA) will be submitted to EGLE and will be provided to the City once obtained. **Please note, however, that a City of Novi floodplain use permit will be required as well. Contact the Building Department for submittal information.**

#### **Soil Erosion and Sediment Control**

41. A SESC permit is required. A full review has not been completed at this time. The review checklist detailing all SESC requirements is attached to this letter. Please address the comments below and submit a SESC permit application under separate cover. The application can be found on the City's website at <http://cityofnovi.org/Reference/Forms-and-Permits.aspx>.

#### **The following must be submitted at the time of Final Site Plan submittal:**

42. An itemized construction cost estimate must be submitted to the Community Development Department at the time of Final Site Plan submittal for the determination of plan review and construction inspection fees. This estimate should only include the civil site work and shall not include any costs associated with construction of the building or any demolition work. **The cost estimate must be itemized** for each utility (water, storm sewer), on-site paving, grading, and the storm water basin (basin construction, control structure, pretreatment structure and restoration).
43. Draft copies of any off-site utility easements, a recent title search, and legal escrow funds must be submitted to the Community Development Department for review and approved by the Engineering Division and the City Attorney prior to getting executed.

#### **The following must be submitted with the Stamping Set:**

*(Please note that all documents must be submitted together as a package with the Stamping Set submittal with a legal review transmittal form that can be found on the City's website. Partial submittals will not be accepted.)*

44. A draft copy of the Storm Drainage Facility Maintenance Easement Agreement (SDFMEA), as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department. Once the agreement is approved by the City's Legal Counsel, this agreement will then be sent to City Council for approval/acceptance. The SDFMEA will then be recorded at the office of the Oakland County Register of Deeds. This document is available on our website.

45. A draft copy of the 20-foot wide easement for the water main to be constructed onsite must be submitted to the Community Development Department. This document is available on our website.
46. A draft copy of the warranty deed for the additional proposed 60-foot wide right-of-way along Novi Road must be submitted for review and acceptance by the City.

**The following must be addressed prior to construction:**

47. A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430).
48. A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting (no application required). No fee is required for this permit.
49. Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any onsite utilities. Contact Ted Meadows at 248-844-5400 for more information.
50. Construction inspection fees in an amount to be determined must be paid to the Community Development Department.
51. Legal escrow fees in an amount to be determined must be deposited with the Community Development Department. **All unused escrow will be returned to the payee at the end of the project.** This amount includes engineering legal fees only. There may be additional legal fees for planning legal documents.
52. A storm water performance guarantee in an amount to be determined (equal to 120% of the cost required to complete the storm water management facilities) as specified in the Storm Water Management Ordinance must be posted at the Community Development Department.
53. **Water and Sanitary Sewer Fees must be paid prior to the pre-construction meeting. Contact the Water & Sewer Division at 248-347-0498 to determine the amount of these fees.**
  - a. **Although the water and sewer leads are existing for these last two buildings of the development, the fees originally paid for them were refunded and must be repaid.**
54. A street sign financial guarantee in an amount to be determined (\$400 per traffic control sign proposed) must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.
55. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department, Building

Division (248-347-0430) for forms and information. The financial guarantee and inspection fees will be determined during the SESC review.

56. A permit for water main construction must be obtained from EGLE. This permit application must be submitted through the Engineering Division after the water main plans have been approved. Please submit the cover sheet, overall utility sheet, standard details and plan/profile sheets applicable to the permit.
57. Permits for the construction of each retaining wall exceeding 48 inches in height (measured from bottom of the footing to top of the wall) must be obtained from the Community Development Department (248-347-0415).

**The following must be addressed prior to issuance of a Temporary Certificate of Occupancy (TCO) approval for the development:**

58. The amount of the incomplete site work performance guarantee for any outstanding site improvement items (limited to top course of pavement and other minor items), is calculated at 1.2 times the amount required to complete the site improvements (as specified in the Performance Guarantee Ordinance).
59. All easements and agreements referenced above must be executed, notarized and approved by the City Attorney and Engineering Division.
60. A Bill of Sale for the utilities conveying the improvements to the City of Novi must be submitted to the Community Development Department. This document is available on our website.
61. The City's consultant Engineer Spalding DeDecker will prepare the record drawings for this development. The record drawings will be prepared in accordance with Article XII, Design and Construction Standards, Chapter 11 of the Novi Code of Ordinances.
62. Submit to the Community Development Department, Waivers of Lien from any parties involved with the installation of each utility as well as a Sworn Statement listing those parties and stating that all labor and material expenses incurred in connection with the subject construction improvements have been paid.
63. Submit a Maintenance Bond to the Community Development Department in an amount to be determined (equal to 25 percent of the cost of the construction of the utilities to be accepted). This bond must be for a period of two years from the date that the Utility Acceptance Permit is issued by the City of Novi Engineering Division. This document is available on our website.
64. Submit an up-to-date Title Policy (dated within 90 days of City Council consideration of acceptance) for the purpose of verifying that the parties signing the Easement and Bill of Sale documents have the legal authority to do so. Please be sure that all parties of interest shown on the title policy

(including mortgage holders) either sign the easement documents themselves or provide a Subordination Agreement. Please be aware that the title policy may indicate that additional documentation is necessary to complete the acceptance process.

65. Provide a warranty deed for the additional proposed road right-of-way along Novi Road for acceptance by the City.

**Prior to preparing stamping sets**, the Applicant is advised to provide any revised sheets directly to the Engineering Division for an informal review and approval.

To the extent this review letter addresses items and requirements that require the approval of or a permit from an agency or entity other than the City, this review shall not be considered an indication or statement that such approvals or permits will be issued.

Please contact Victor Boron at (248) 735-5695 with any questions.



Victor Boron  
Project Engineer

cc: Christian Carroll, Community Development  
Ben Croy, P.E., Engineering  
Kate Richardson, Engineering

## LANDSCAPE REVIEW

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# PLAN REVIEW CENTER REPORT

March 3, 2021

## Revised Preliminary Site Plan - Landscaping

Novi Professional Building IV & V

### Review Type

Revised Preliminary Landscape Review

### Job #

JSP20-0017

### Property Characteristics

- Site Location: 23975 Novi Road
- Site Acreage: 5.02 ac.
- Site Zoning: R-A
- Adjacent Zoning: North, East, South, West: R-A
- Plan Date: 2/1/2021

### Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed and incorporated as part of the Final Site Plan submittal. Please follow guidelines of the Zoning Ordinance and Landscape Design Manual. This review and the accompanying Landscape Chart are summaries and are not intended to substitute for any Ordinance.

### Recommendation

This project is **recommended for approval for Preliminary Site Plan if the need for the single unsupported landscape waiver is removed.** There are some landscape deviations supported by staff. The remaining changes can be made on Final Site Plans.

### LANDSCAPE WAIVERS REQUIRED FOR PROPOSED PLAN:

- Lack of berm to screen project from residential to west – *supported by staff*
- Deficiency in parking lot perimeter landscaping – *supported by staff.*
- Parking bay is greater than 15 spaces without a landscaped island – *not supported by staff.*

**General note:** Any dead, missing or weak plantings on the site that are part of the original site plan must be replaced at this time. This includes any missing foundation landscaping, landscaping between existing buildings, parking lot landscaping and greenbelt plantings that were on the approved plans.

### Ordinance Considerations

Existing and proposed overhead and underground utilities, including hydrants. (LDM 2.e.(4))  
Provided

Existing Trees (Sec 37 Woodland Protection, Preliminary Site Plan checklist #17 and LDM 2.3 (2))

1. Provided.
2. **Please correct the tree survey, charts and calculations to correctly show the trees being removed and the woodland replacement credits required.**

Adjacent to Residential - Buffer (Zoning Sec. 5.5.3.B.ii and iii)

1. The project is adjacent to residentially-zoned property to the west and the required screening berm is not proposed.

2. **This requires a landscape waiver.** *Due to the large distance between the residential properties, as well as dense vegetation to remove, and the desire to preserve woodlands and wetlands that would be damaged by construction of the required berm. Also, the section drawing provided indicates the existing wetland and existing vegetation to remain will provide significant visual and audible buffering. For these reasons,, the waiver request is supported by staff.*

Adjacent to Public Rights-of-Way – Berm/Wall, Buffer and Street Trees (Zoning Sec. 5.5.3.B.ii, iii)

The project does not require any additional right-of-way berms or landscaping as the proposed buildings do not front on the Novi Road right-of-way.

Parking Lot Landscaping (Zoning Sec. 5.5.3.C.)

1. Based on the proposed paved area, 12 interior canopy trees are required and are proposed.
2. Based on the parking lot perimeter, 22 perimeter canopy trees are required, but only 17 qualifying trees are provided.
3. **The deficiency requires a landscape waiver.** *As the tight layout was approved long ago, the waiver for the trees required along the north side of the north parking lot would be supported by staff.*
4. **The southern parking bay, together with the extension of that bay to the east, is twenty spaces.** The limit is 15 spaces without a landscaped island. **A landscape waiver that would not be supported by staff would be required for the proposed layout. Please convert a space in that bay to a landscaped island so there are no more than 15 consecutive spaces.**

Building foundation Landscaping (Zoning Sec 5.5.3.D)

Based on the building perimeter, less the widths of the pedestrian access points, 4464 SF of landscape area is required and 4464 SF is provided.

Plant List (LDM 4)

1. Provided
2. 11 of 19 species used (58%) are native to Michigan.
3. **Please add an additional tree species to the site to get closer to the tree diversity requirement.**

Planting Notations and Details (LDM)

1. Provided
2. **Please revise the notes per the instructions on the Landscape Chart.**

Storm Basin Landscape (Zoning Sec 5.5.3.E.iv and LDM 3)

1. Provided
2. A new requirement is for deciduous canopy trees to be planted along the west, south and east sides of the basin at a rate of 1 tree per 35 lf, planted at 10lf from the permanent water level. The parking lot perimeter trees and oaks already proposed are sufficient for those areas of the pond. **Please move three of the woodland replacement red maples to the south side of the pond west of the pond maintenance access drive.**

Irrigation (LDM 1.a.(1)(e) and 2.s)

1. **The proposed landscaping must be provided with sufficient water to become established and survive over the long term.**
2. **Please provide an irrigation plan or note how this will be accomplished if an irrigation plan is not provided with the Final Site Plans.**

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5621 or mreader [mreader@cityofnovi.org](mailto:mreader@cityofnovi.org).



A handwritten signature in black ink, appearing to read "Rick Meader". The signature is written in a cursive, flowing style.

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Rick Meader – Landscape Architect

## LANDSCAPE REVIEW SUMMARY CHART – REVISED PRELIMINARY SITE PLAN

**Review Date:** March 3, 2021  
**Project Name:** JSP20 – 0017: NOVI PROFESSIONAL VILLAGE IV & V  
**Plan Date:** February 1, 2021  
**Prepared by:** Rick Meader, Landscape Architect E-mail: [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org);  
 Phone: (248) 735-5621

Items in **Bold** need to be addressed by the applicant on the Final Site Plans.

### LANDSCAPE WAIVERS REQUIRED FOR PROPOSED PLAN:

- Lack of berm to screen project from residential to west – *supported by staff*
- Deficiency in parking lot perimeter landscaping – *supported by staff.*
- Parking bay along south side of site is greater than 15 spaces – *not supported by staff.*

Item	Required	Proposed	Meets Code	Comments
<b>Landscape Plan Requirements (LDM (2))</b>				
<b>Landscape Plan</b> (Zoning Sec 5.5.2, LDM 2.e.)	<ul style="list-style-type: none"> <li>▪ New commercial or residential developments</li> <li>▪ Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less.</li> <li>▪ 1"=20' minimum with proper North. Variations from this scale can be approved by LA</li> <li>▪ Consistent with plans throughout set</li> </ul>	Scale: 1" = 20'	Yes	
<b>Project Information</b> (LDM 2.d.)	Name and Address	Yes	Yes	
<b>Owner/Developer Contact Information</b> (LDM 2.a.)	Name, address and telephone number of the owner and developer or association	Yes	Yes	
<b>Landscape Architect contact information</b> (LDM 2.b.)	Name, Address and telephone number of RLA/PLA/LLA who created the plan	Yes	Yes	
<b>Sealed by LA.</b> (LDM 2.g.)	Requires original signature on stamping sets	No		<u>Original signature by the designer must be on printed stamping sets.</u>
<b>Miss Dig Note</b> (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes	
<b>Zoning</b> (LDM 2.f.)	Include all adjacent zoning	<u>Shown on Cover Sheet</u> Parcel: OS-1	Yes	

Item	Required	Proposed	Meets Code	Comments
		North South, East: OS-1, West: R-4		
<b>Survey information</b> <i>(LDM 2.c.)</i>	<ul style="list-style-type: none"> <li>▪ Legal description or boundary line survey</li> <li>▪ Existing topography</li> </ul>	<ul style="list-style-type: none"> <li>▪ Description on cover sheet</li> <li>▪ Topo on Sheet 2</li> </ul>	Yes	
<b>Existing plant material</b> <b>Existing woodlands or wetlands</b> <i>(LDM 2.e.(2))</i>	<ul style="list-style-type: none"> <li>▪ Show location type and size. Label to be saved or removed.</li> <li>▪ Plan shall state if none exists.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Existing trees shown on Topographic Survey (Sheet 2)</li> <li>▪ Tree chart on Sheet 2</li> <li>▪ A number of trees along the north property line are still shown as being saved for credit.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Yes</li> <li>▪ Yes</li> <li>▪ No</li> </ul>	<ol style="list-style-type: none"> <li>1. Construction of the retaining wall will either require the removal of trees near it, or damage them such that they can't be counted as saved. Please show all trees to be impacted by the wall as being removed and correct the replacement credit counts on the Tree chart. Trees 2103, 2104 and 2105 are not shown as being removed on the plan view or chart.</li> <li>2. Please indicate on the plan view as well as the chart which trees are being removed on the tree survey and Demolition Plan when one is provided.</li> <li>3. Please remove the tree replacement calculations to the right of the chart, and correct the tree chart to reflect actual removals, credits required and credits taken that match the calculations to the left of the chart.</li> <li>4. Please add more woodland replacement trees on the site to compensate for the credits that can't be taken for the saved</li> </ol>

Item	Required	Proposed	Meets Code	Comments
				trees discussed above. 5. Please remove the existing trees to be removed from the landscape plan. 6. See the DRG letter for a complete discussion of the wetlands and woodlands.
<b>Soil types (LDM.2.r.)</b>	<ul style="list-style-type: none"> <li>▪ As determined by Soils survey of Oakland county</li> <li>▪ Show types, boundaries</li> </ul>	Yes – on Landscape Plan (Sheet 7)	Yes	
<b>Existing and proposed improvements (LDM 2.e.(4))</b>	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes	
<b>Existing and proposed utilities (LDM 2.e.(4))</b>	Overhead and underground utilities, including hydrants	Sanitary, water and storm shown.	Yes	
<b>Proposed grading. 2' contour minimum (LDM 2.e.(1))</b>	Provide proposed contours at 2' interval	Sheet 6	Yes	
<b>Snow deposit (LDM.2.q.)</b>	Show snow deposit areas on plan	Yes	Yes	
<b>LANDSCAPING REQUIREMENTS</b>				
<b>Parking Area Landscape Requirements LDM 1.c. &amp; Calculations (LDM 2.o.)</b>				
<b>General requirements (LDM 1.c)</b>	<ul style="list-style-type: none"> <li>▪ Clear sight distance within parking islands</li> <li>▪ No evergreen trees</li> </ul>	NA		
<b>Name, type and number of ground cover (LDM 1.c.(5))</b>	As proposed on planting islands	Sod is indicated under the Landscape Requirement Notes (#3)	Yes	
<b>General (Zoning Sec 5.5.3.C.ii)</b>				
<b>Parking lot Islands (a, b. i)</b>	<ul style="list-style-type: none"> <li>▪ A minimum of 200 SF to qualify</li> <li>▪ A minimum of 200sf unpaved area per tree planted in an island</li> <li>▪ 6" curbs</li> <li>▪ Islands minimum width 10' BOC to BOC</li> </ul>	Provided islands appear to be correct size	Yes	

Item	Required	Proposed	Meets Code	Comments
<b>Curbs and Parking stall reduction (c)</b>	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	Spaces are 17' long	Yes	
<b>Contiguous space limit (i)</b>	Maximum of 15 contiguous spaces	<ul style="list-style-type: none"> <li>▪ Southern bay is 20 spaces without a landscape island (including the existing building's southern bay and loading area)</li> <li>▪ Other bays have maximum length of 12 spaces</li> </ul>	<ul style="list-style-type: none"> <li>▪ No</li> <li>▪ Yes</li> </ul>	<ol style="list-style-type: none"> <li>1. Please convert one space along the south bay southeast corner to be a landscape island at least 200sf and plant a canopy tree in it to break up the 20 bay stretch of spaces without an island.</li> <li>2. A landscape waiver would be required for the 20 spaces. <i>It would not be supported by staff.</i></li> <li>3. One of the perimeter trees can be placed in that island so no additional trees are required.</li> </ol>
<b>Plantings around Fire Hydrant (d)</b>	No plantings with matured height greater than 12' within 10 ft. of fire hydrants, catch basins or manholes, and not within 5 feet of underground utility lines.	There are no Fire Department Connections (FDC) shown on the landscape plan.	<ul style="list-style-type: none"> <li>▪ Yes</li> <li>▪ No</li> </ul>	<ol style="list-style-type: none"> <li>1. Show all FDCs on the landscape plan and use plants below them and to either side of them (within 2 feet) with a mature height of no more than 12".</li> <li>2. Please add a separate note stating the spacing requirements that is easily found by the contractor.</li> </ol>
<b>Landscaped area (g)</b>	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	Yes	
<b>Clear Zones (LDM 2.3.(5))</b>	25 ft corner clearance required. Refer to Zoning Section 5.5.9	NA		
<b>Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)</b>				
A = Total square footage of vehicular use areas up to	<ul style="list-style-type: none"> <li>• <math>A = x \text{ sf} * 7.5 \% = A \text{ sf}</math></li> <li>• <math>31,109 * 7.5\% = 2333 \text{ sf}</math></li> </ul>	2563 sf	Yes	

Item	Required	Proposed	Meets Code	Comments
50,000sf x 7.5%				
B = Total square footage of additional paved vehicular use areas (not including A or B) over 50,000 SF) x 1 %	<ul style="list-style-type: none"> <li>• <math>B = x \text{ sf} * 1\% = B \text{ sf}</math></li> <li>• <math>(xxx - 50000) * 1\% = xxx \text{ sf}</math></li> </ul>	NA	NA	
<b>Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)</b>				
A. = Total square footage of vehicular use area up to 50,000 sf x 5%	$A = x \text{ sf} * 5\% = A \text{ sf}$	NA		
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 0.5%	$B = 0.5\% \times 0 \text{ sf} = B \text{ SF}$	NA		
<b>All Categories</b>				
C = A+B Total square footage of landscaped islands	$C = 2333 + 0 = 2333 \text{ SF}$	2563 sf	Yes	
D = C/200 Number of canopy trees required	$D = C/200 = x \text{ Trees}$ $D = 2333/200 = 12 \text{ trees}$	12 trees	Yes	
<b>Parking Lot Perimeter Trees</b>	<ul style="list-style-type: none"> <li>▪ 1 Canopy tree per 35 lf</li> <li>▪ <math>779/35 = 22 \text{ trees}</math></li> </ul>	18 trees provided	No	<ol style="list-style-type: none"> <li>1. A landscape waiver is required for any deficiency in the trees provided.</li> <li>2. It would be supported for the northern 335 lf (10 trees) due to the prior layout of the site.</li> <li>3. Please add a note stating that parking lot perimeter trees must be planted 4 feet behind the curb.</li> </ol>
<b>Access way perimeter</b>	1 canopy tree per 35 lf on each side of road, less widths of access drives.	NA		
<b>Parking land banked</b>	NA	No		
<b>Berms, Walls and ROW Planting Requirements</b>				
<b>Berms</b>				
<ul style="list-style-type: none"> <li>▪ All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours</li> <li>▪ Berm should be located on lot line except in conflict with utilities.</li> </ul>				

Item	Required	Proposed	Meets Code	Comments
<ul style="list-style-type: none"> <li>Berms should be constructed with 6" of top soil.</li> </ul>				
<b>Residential Adjacent to Non-residential (Sec 5.5.3.A) &amp; (LDM 1.a)</b>				
<b>Berm requirements</b> (Zoning Sec 5.5.A)	Landscaped berm 4.5-6 feet high required along east end of project	<ul style="list-style-type: none"> <li>None</li> <li>A cross section is provided showing that the closest residences are over 800 feet away from the parking lot, and approximately 600 lf of regulated woodland and wetland will remain between the site and the residences.</li> </ul>	No	<ol style="list-style-type: none"> <li>A landscape waiver is required to not provide the required berm.</li> <li>A site visit indicated that the vegetation to remain between the two uses is very thick. <i>As creating a berm would require the destruction of more of the wetland and the existing vegetation to remain provides a significant buffer, the waiver request would be supported by staff.</i></li> </ol>
<b>Planting requirements</b> (LDM 1.a.)	LDM Novi Street Tree List	NA		
<b>Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)</b>				
<b>Berm requirements</b> (Zoning Sec 5.5.3.A.(5))	As the project does not abut the Novi Road ROW, no additional berm is required.	No additional berm is provided.	Yes	
<b>Cross-Section of Berms (LDM 2.j)</b>				
Slope, height and width	<ul style="list-style-type: none"> <li>Label contour lines</li> <li>Maximum 33%</li> <li>Min. 3 feet flat horizontal area</li> <li>Minimum 3 feet high</li> <li>Constructed of loam with 6' top layer of topsoil.</li> </ul>	None		As no berms are proposed, no berm detail is required.
Type of Ground Cover		None shown		
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	No overhead utilities exist in project area		
<b>Walls (LDM 2.k &amp; Zoning Sec 5.5.3.vi)</b>				
<b>Material, height and type of construction footing</b>	Freestanding walls should have brick or stone exterior with masonry or concrete interior	<ul style="list-style-type: none"> <li>A retaining wall is proposed along the north edge of the site for the parking lot.</li> </ul>		



Item	Required	Proposed	Meets Code	Comments
		<ul style="list-style-type: none"> <li>A standard boulder wall detail is provided.</li> </ul>		
<b>Walls greater than 3 ½ ft. should be designed and sealed by an Engineer</b>		NA		
<b>ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)</b>				
<b>Greenbelt width (2)(3) (5)</b>	NA – project area is not adjacent to greenbelt	NA	Yes	
Min. berm crest width	NA – project area is not adjacent to greenbelt	NA	Yes	
Minimum berm height (9)	NA – project area is not adjacent to greenbelt	NA	Yes	
3' wall	(4)(7)	NA	Yes	
<b>Canopy deciduous or large evergreen trees</b> Notes (1) (10)	None – project is away from right-of-way	NA	Yes	<ol style="list-style-type: none"> <li>While no new greenbelt trees are required for this project, any weak, dead or missing trees from the original project plans in the greenbelt must be replaced as part of this project.</li> <li>A note to this effect has been added.</li> </ol>
<b>Sub-canopy deciduous trees</b> Notes (2)(10)	None – project is away from right-of-way	NA	Yes	See above
<b>Canopy deciduous trees in area between sidewalk and curb</b> (Novi Street Tree List)	None – project is away from right-of-way	NA	Yes	See above
<b>Non-Residential Zoning Sec 5.5.3.E.iii &amp; LDM 1.d (2)</b>				
Refer to Planting in ROW, building foundation landscape, parking lot landscaping and LDM				
<b>Screening of outdoor storage, loading area</b> (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)		<ul style="list-style-type: none"> <li>Loading zones are proposed at the northwest and southeast corners of the site.</li> <li>Screening shrubs are proposed</li> </ul>	Yes	
<b>Transformers/Utility boxes</b> (LDM 1.e from 1 through 5)	<ul style="list-style-type: none"> <li>A minimum of 2ft. separation between box and the plants</li> <li>Ground cover below 4" is allowed up to pad.</li> <li>No plant materials</li> </ul>	The standard city utility screening detail is provided.	Yes	

Item	Required	Proposed	Meets Code	Comments
	within 8 ft. from the doors			
<b>Building Foundation Landscape Requirements (Sec 5.5.3.D)</b>				
<b>Interior site landscaping SF</b>	<ul style="list-style-type: none"> <li>▪ Equals to entire perimeter of the building x 8 with a minimum width of 4 ft.</li> <li>▪ A: (674-116) lf x 8ft = 4464 SF</li> </ul>	4464 sf	Yes	Missing foundation plantings from other areas of the site must be replaced as part of this project.
<i>Zoning Sec 5.5.3.D.ii. All items from (b) to (e)</i>	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	NA - None of the buildings will face Novi Road	Yes	
<b>Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)</b>				
<b>Planting requirements (Sec. 5.5.3.E.iv)</b>	<ul style="list-style-type: none"> <li>▪ Clusters of large native shrubs shall cover 70-75% of the basin rim area 10 feet from permanent water level</li> <li>▪ 10" to 14" tall grass along sides of basin</li> <li>▪ Refer to wetland for basin mix</li> <li>▪ At least 3 species must be used.</li> <li>▪ Plant deciduous canopy trees around west, south and east sides of basin at rate of 1/35 lf 10 lf away from permanent water level</li> </ul>	<ul style="list-style-type: none"> <li>▪ The required shrub coverage is provided.</li> <li>▪ 3 species are used.</li> <li>▪ Parking lot perimeter trees meet requirements for that side of the pond.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Yes</li> <li>▪ Yes</li> <li>▪ No</li> </ul>	<ol style="list-style-type: none"> <li>1. Please highlight the permanent water level line on the landscape plan.</li> <li>2. Please move shrubs to 10 feet from that line.</li> <li>3. Please move 3 of the red maple replacement trees to the south side of the detention pond</li> <li>4. Please make the seed mixes more legible.</li> </ol>
<b>Phragmites Control (Sec 5.5.6.C)</b>	<ul style="list-style-type: none"> <li>▪ Any and all populations of <i>Phragmites australis</i> on site shall be included on tree survey.</li> <li>▪ Treat populations per MDEQ guidelines and requirements to eradicate the weed from the site.</li> </ul>	A note indicates that Phragmites will be removed with construction of the pond.		<ol style="list-style-type: none"> <li>1. While it is possible that the construction may completely remove the Phragmites, it is also possible that root fragments or seed may remain to restart the population.</li> <li>2. Please add specific plans per MDEGLE specifications for its complete removal, including timing and expected duration of treatments (at least 2 years will be</li> </ol>

Item	Required	Proposed	Meets Code	Comments
				required) in case the Phragmites rebounds.
<b>LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS</b>				
<b>Landscape Notes – Utilize City of Novi Standard Notes</b>				
<b>Installation date</b> (LDM 2.i. & Zoning Sec 5.5.5.B)	Provide intended date	Mar 15 to June 15 and Sep 15 to Nov 15	Yes	
<b>Maintenance &amp; Statement of intent</b> (LDM 2.m & Zoning Sec 5.5.6)	<ul style="list-style-type: none"> <li>▪ Include statement of intent to install and guarantee all materials for 2 years.</li> <li>▪ Include a minimum one cultivation in June, July and August for the 2-year warranty period.</li> </ul>	Yes	Yes	
<b>Plant source</b> (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	Yes	Yes	
<b>Irrigation plan</b> (LDM 2.s.)	A fully automatic irrigation system or a method of providing sufficient water for plant establishment and survival is required on Final Site Plans.	No plan is provided, but a note indicating one may be provided is.	TBD	<ol style="list-style-type: none"> <li>1. Please add an irrigation plan or information as to how plants will be watered sufficiently for establishment and long- term survival.</li> <li>2. Notes as to what should be on the plan are listed below.</li> <li>3. If xeriscaping is used, please provide information about plantings included.</li> </ol>
<b>Other information</b> (LDM 2.u)	Required by Planning Commission	NA		<ol style="list-style-type: none"> <li>1. Please revise Landscape Note #13 to read "Any weak, dead or missing plantings from the original site plans must be replaced as part of this project."</li> <li>2. Note #14 can then be removed.</li> </ol>
<b>Establishment period</b> (Zoning Sec 5.5.6.B)	<b>2 yr. Guarantee</b>	Yes	Yes	
<b>Approval of substitutions.</b> (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
<b>Plant List (LDM 2.h.) – Include all cost estimates</b>				

Item	Required	Proposed	Meets Code	Comments
Quantities and sizes	Refer to LDM suggested plant list	<ul style="list-style-type: none"> <li>▪ 2.5" cal for trees</li> <li>▪ Mixed sizes for shrubs</li> </ul>	Yes	
Root type		Yes	Yes	
Botanical and common names		<ul style="list-style-type: none"> <li>▪ The tree diversity does not meet the requirements of Landscape Design Manual Section 4.</li> <li>▪ 11 of 19 species used (58%) are native to Michigan.</li> </ul>	<ul style="list-style-type: none"> <li>▪ No</li> <li>▪ Yes</li> </ul>	Please add one more tree species so there are 5 of each species to get closer to the species requirement.
Type and amount of lawn		Sod is indicated	Yes	
Cost estimate (LDM 2.t)		For all new plantings, mulch and sod as listed on the plan	Yes	Yes
<b>Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details</b>				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen Tree		Yes	Yes	
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	Yes	Yes	
<b>Other Plant Material Requirements (LDM 3)</b>				
<b>General Conditions (LDM 3.a)</b>	Plant materials shall not be planted within 4 ft. of property line	Yes	Yes	
<b>Plant Materials &amp; Existing Plant Material (LDM 3.b)</b>	Clearly show trees to be removed and trees to be saved.	No	No	
<b>Landscape tree credit (LDM3.b.(d))</b>	Substitutions to landscape standards for preserved canopy trees outside woodlands/ wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM	Credits were taken for trees along the north edge of the site, and off of the site.	No	Please correct the tree chart and calculations so they are consistent.
<b>Plant Sizes for ROW, Woodland</b>	<ul style="list-style-type: none"> <li>▪ 3" cal. canopy trees in parking</li> </ul>	On plant list	Yes	You may reduce the size of the Francee

Item	Required	Proposed	Meets Code	Comments
<b>replacement and others</b> (LDM 3.c)	<ul style="list-style-type: none"> <li>2.5" cal. Woodland replacement trees</li> </ul>			hosta to less than 5 gal, but this is not required.
<b>Plant size credit</b> (LDM3.c.(2))	NA	No		
<b>Prohibited Plants</b> (LDM 3.d)	No plants on City Invasive Species List	No invasive species are proposed	Yes	
<b>Recommended trees for planting under overhead utilities</b> (LDM 3.e)	Label the distance from the overhead utilities	No overhead lines exist in the project area.		
<b>Collected or Transplanted trees</b> (LDM 3.f)		None		
<b>Nonliving Durable Material: Mulch</b> (LDM 4)	<ul style="list-style-type: none"> <li>Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth</li> <li>Specify natural color, finely shredded hardwood bark mulch. Include in cost estimate.</li> </ul>	Yes		

**NOTES:**

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. For the landscape requirements, please see the Zoning Ordinance landscape section 5.5 and the Landscape Design Manual for the appropriate items under the applicable zoning classification.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

Irrigation Plan Requirements:

- Any booster pump installed to connect the project's irrigation system to an existing irrigation system must be downstream of the RPZ.
- The RPZ must be installed in accordance with the 2015 Michigan Plumbing Code.
- The RPZ must be installed in accordance with the manufacture installation instructions for winterization that includes drain ports and blowout ports.
- The RPZ must be installed a minimum of 12-inches above FINISHED grade.
- Attached is a handout that addresses winterization installation requirements to assist with this.
- A plumbing permit is required.
- The assembly must be tested after installation with results recorded on the City of Novi test report form.

WOODLAND REVIEW

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Corporate Headquarters  
295 South Water Street, Suite 300  
Kent, OH 44240  
800-828-8312

Local Office  
3381 Lapeer Rd. West  
Auburn Hills, MI 48326

**To:** Barbara McBeth, City Planner  
Community Development Department, City of Novi

**From:** Kerry Gray, Principal Consultant  
Davey Resource Group

**CC:** Christian Carroll, City of Novi Planner  
Lindsay Bell, City of Novi Senior Planner  
Rick Meader, City of Novi Landscape Architect  
Madeleine Daniels, City of Novi Planning Assistant  
Craig Willey, Mannik and Smith Group

**Date:** March 23, 2021

**RE:** Novi Professional Village Bldg. D & E  
Woodland Review #1 – JSP 20-0017

Davey Resource Group, Inc. (“DRG”) has conducted a review of the revised Preliminary Site Plan for the Novi Professional Village Buildings D & E prepared by Atwell (dated: 02/21/2021). DRG reviewed the plan for conformance with the City of Novi’s Woodland Protection Ordinance, Chapter 37.

The applicant is proposing the construction of the final two (2) buildings, “D” & “E” and a stormwater detention basin at the Novi Professional Village development at 23975 Novi Road (Parcel ID: 50-22-27-200-006). The project site contains City-regulated woodlands (Figure 1).

Recommendation:

DRG **recommends approval** of the Novi Professional Village Building D & E Preliminary Site Plan—**contingent upon the applicant addressing all of the items in the *Woodland Comments*** section of this memo.

The following Woodland Regulations apply to this site:

Woodland Regulation	Required
Woodland Permit (Chapter 37, Section 37-26)	YES
Tree Replacement (Chapter 37, Section 37-8)	YES
Tree Protection (Fence) (Chapter 37, Section 37-9)	YES
Woodland Conservation Easement (Chapter 37-30 (e))	YES

**Woodland Impact Review & Required Replacements**

The plan proposes the disturbance and removal of trees in the City of Novi Regulated Woodland for the construction of the stormwater detention basin and floodplain mitigation on the west and south sides of the property.

The woodlands on-site are considered low-quality with a mix of bottomland and upland tree species including, elm, ash, black cherry, cottonwood, red maple, and bitternut hickory. Most trees are 4-12” in diameter with several large (>18” diameter) bitternut hickory. The woodland is surrounded by wetland/low lying areas and there are many downed, windthrown trees in the upland area (see site photos).

The plan proposes the removal of the following trees:

Regulated Woodland Tree Removals (Healthy)	6
Regulated Woodland Tree Removals (Dead)	2
Non-Regulated Tree Removals	5
<b>Total Tree Removals</b>	<b>13</b>

The following woodland tree replacements are required:

Tree Size (DBH)	Number of Trees	Ratio Replacement/Removed Tree	Total Replacements Required	Credits
8-11”	3	1	3	-
12-20”	3	2	6	-
21-29”	-	3	-	-
30+”	-	4	-	-
Multi-Stem	-	Add Stems/8	-	-
Transplanted non- Regulated Trees (Preserved)	-	-	-	-
<b>Total</b>			<b>9</b>	<b>-</b>
<b>Total Replacements (Required Replacements less Credits)</b>			<b>9 Trees</b>	

There are 9 total replacement trees proposed to meet the woodland replacement requirements:

- 4 Red Maple (*Acer rubrum* ‘October Glory’) – 2.5” caliper B&B
- 5 Swamp White Oak (*Quercus bicolor*) -2.5” caliper B&B

**Woodland Review Comments:**

Please address the following comments:

1. **A Woodland Use Permit is required** to perform construction on any site containing regulated woodlands. A **Financial Guarantee of \$3,600** (9 tree replacements x \$400) will be required as part of the Woodland Use Permit fees.



2. **Site. Tree Tags.** During the site visit it was noted that most of the woodland trees on site are no longer tagged; the pink flagging tape that was originally used to tag the trees has fallen off or been removed. Chapter 37 requires both the tagging of woodland trees and the clear markings to identify preserved/retained trees on the site. The development proposes both the removal and preservation of woodland trees on site – all woodland trees must be tagged and marked as required in the sections of Chapter 37 outlined below.

Chapter 37, 37-28(4)(c) – *“All such trees shall be identified in the field by the painting of the identifying numbers in nontoxic paint of a white, yellow or orange color, or by a tree identification tag affixed loosely with a single nail.”*

Chapter 37, 37-28(4)(g) – *“Information as to how all trees to be retained shall be identified at the site, whether by painting with water base paint, flagging, etc. prior to field inspection;*

If trees are not properly tagged on site and tree removals of preserved trees occur as a result – penalties will be assessed per section 37-5.

3. **Site. Tree Species.** Several bitternut hickory (*Carya cordiformis*) trees were misidentified as black walnut (*Juglans nigra*). Please revise tree list.

4. **Sheet 02. Existing Conditions.** The Tree List and Tree Replacement calculations are incorrect.

- a. The calculations to the left of the chart indicate there are a 37 total trees, however the tree List provides information on 53 trees – correct the calculations. The “Replacement Required” calculations are correct.
- b. The replacement calculations to the right of the chart are incorrect and should be deleted from the sheet.
- c. The Tree List has several errors.

- i. The replacement ratios are incorrect. The following are the correct replacement ratios.

Removed Tree DBH (Inches)	Number of replacements required per removed tree
8 < 11	1
> 11 < 20	2
> 20 < 29	3
> 30	4

- ii. The City of Novi Landscape Design Manual allows non-regulated trees that will be preserved to be used to fulfill woodland replacement credits if they are on the site and not prohibited and/or invasive species. The tree list on the Woodland Plan includes replacement credits for preserved trees that are off-site or on the property boundary where ownership is difficult to determine. Revise the tree list to delete these credits. It should be noted that these credits do not appear in the “Replacement Required” calculations (which are correct) to the left of the table or on the Landscape Plan – Sheet-07.

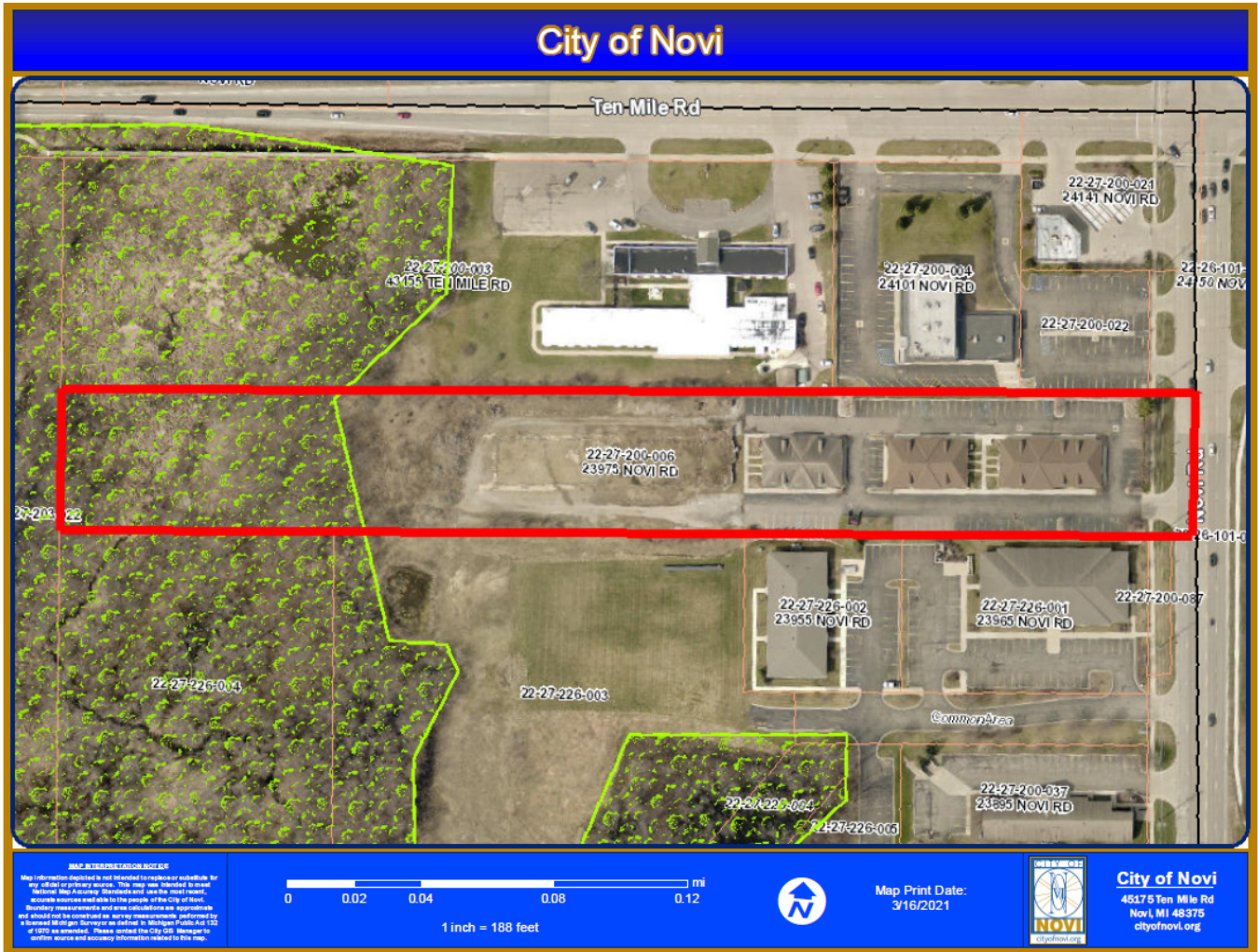


Figure 1. Novi Professional Village Site  
City of Novi Regulated Woodland Map



Site Photos



*a. Looking west regulated woodlands in background; footprint of buildings D & E in foreground*



*b. Looking west regulated woodland*



*c. Composition of regulated woodlands & lack of tree tags (above);  
downed/windthrown trees (right)*



WETLAND REVIEW

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October 12, 2020

Ms. Barbara McBeth, AICP  
 City Planner  
 Community Development Department  
 City of Novi  
 45175 W. Ten Mile Road  
 Novi, Michigan 48375

Re: Novi Professional Village Buildings D & E (JSP20-17)  
 Wetland Review of the Preliminary Site Plan (PSP20-0063)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Preliminary Site Plan (PSP20-0063) for the proposed Novi Professional Village Buildings D & E project prepared by Atwell dated September 7, 2020 (Plan). The Plan was reviewed for conformance with the City of Novi Wetland and Watercourse Protection Ordinance and the natural features setback provisions in the Zoning Ordinance.

**ECT currently recommends approval of the Preliminary Site Plan (PSP20-0063) for Wetlands, however, we recommend that the applicant address the items noted in the *Wetland Comments* Section of this letter prior to approval of the Final Site Plan.**

Item	Required/Not Required/Not Applicable
Wetland Permit (specify Non-Minor or Minor)	Not Required
Wetland Mitigation	Not Required
Wetland Buffer Authorization	Required
EGLE Permit	Not Likely (To Be Determined)
Wetland Conservation Easement	Not Required

The proposed project is located south of Ten Mile Road and west of Novi Road in Section 27. The project includes the development of two (2) proposed office buildings (Building D and Building E) on existing foundations. Included in the project are the proposed buildings, sidewalks, associated parking and utilities. Stormwater would be directed to a proposed detention basin to be constructed west of Building E.

**Wetland Evaluation**

ECT's in-office review of available materials included the City of Novi Regulated Wetland/Watercourse and Regulated Woodlands maps, USGS topographic quadrangle map, NRCS soils map, USFWS National Wetland Inventory map, and historical aerial photographs. It appears as if areas noted as City-Regulated Wetland as well as City-Regulated Woodland are located within the overall project property (see Figure 1). Based on a review of this information, review of the Plan, and our previous review of the earlier phases of this development, it does not appear that the Plan proposes to directly impact the on-site wetland areas. The Plan does propose to impact an area of 25-foot wetland setback for the purpose of grading to provide compensatory floodplain cut as well as for the proposed stormwater outfall pipe. Specifically, the Plan

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currently includes 448 cubic yards of compensatory floodplain mitigation (cut), some of which is proposed within area that is 25-foot wetland setback.

It can be noted that the Plan also includes impacts to trees which are located within areas designated as City of Novi Regulated Woodlands.

ECT will complete a wetland boundary verification prior to the next plan submittal in order to verify on-site wetland boundaries. The wetland boundaries currently indicated on the Plan appear to be accurate based on a review of existing/available data as well as previous site reviews for the construction of Buildings A, B, and C. The wetland information on the current Plan can be used for preliminary planning purposes. A wetland boundary determination report shall be provided by the applicant to the City.

Two (2) areas of wetland are indicated on the Plan (Sheet 02, Existing Conditions Plan). One (1) area is located southwest of the proposed stormwater detention basin, along the southern property boundary (0.026-acre of on-site wetland). The other wetland area is a larger area (0.604-acre of on-site wetland) located in the western section of the property. This larger area of wetland extends off-site to the north, west, and south. Both of these wetland areas are part of the same larger wetland complex that, as noted above, extends offsite to the north, west, and south.

The proposed grading/construction limits indicated on the Plan remain outside of these wetland areas but encroach in the 25-foot setback of the wetland.

#### **Proposed Wetland Impacts**

The project's limits of disturbance appear to remain outside of the existing on-site wetlands however the Plan proposes impacts to the 25-foot wetland setback of the on-site wetland. These impacts to the wetland buffer are for the construction of the stormwater outfall as well as for the floodplain mitigation cut/excavation as well.

#### **Regulatory Status - EGLE**

The Michigan Department of Environment, Great Lakes and Energy (EGLE) generally regulates wetlands that are within 500 feet of an inland lake, pond, or stream, or within 1,000 feet of a Great Lake, Lake St. Clair, the St. Clair River, or the Detroit River. Isolated wetlands five (5) acres in size or greater are also regulated. EGLE may also exert regulatory control over isolated wetlands less than five acres in size "...if the department determines that protection of the area is essential to the preservation of the natural resources of the state from pollution, impairment, or destruction and the department has notified the owner". It is the applicant's responsibility to contact EGLE in order to confirm the regulatory authority with respect to any on-site wetland areas should impacts be proposed. In some cases EGLE requires a permit for direct discharge of stormwater (pre-treated) to a wetland that is under the its jurisdiction.

It appears as if the wetland areas indicated on the Plan are regulated by EGLE as they are within 500-feet of what appears to be a regulated watercourse (i.e., tributary to the Walled Lake Branch of the Middle Rouge River). It is the applicant's responsibility to contact EGLE in order to confirm the regulatory authority and need for an EGLE Permit with respect to any proposed impacts to the on-site wetlands as well as for stormwater discharges to wetland. The Applicant should provide a copy of the EGLE Wetland Use Permit



application to the City (and our office) for review and a copy of the approved permit upon issuance, if applicable. A City of Novi Wetland Permit cannot be issued prior to receiving this information. Alternatively, the applicant should provide any correspondence from EGLE stating that the wetland areas are not within the jurisdiction of the agency, or that no permit will be required.

**Regulatory Status – City of Novi**

The City of Novi Wetland and Watercourse Protection Ordinance (City of Novi Code of Ordinances, Part II, Chapter 12, Article V.; Division 2.) describes the regulatory criteria for wetlands and review standards for wetland permit applications. The City of Novi regulates wetlands that are: (1) contiguous to a lake, pond, river or stream, as defined in Administrative Rule 281.921; (2) two (2) acres in size or greater; or (3) less than two (2) acres in size but deemed essential to the preservation of the natural resources of the city under the criteria set forth in subsection 12-174(b). Wetlands deemed regulated by the City of Novi require the approval of a use permit for any proposed impacts to the wetland.

The wetland areas indicated on the Plan are considered regulated by the City due to the overall size of the wetland area (i.e., greater than 2-acres in size). These natural features appear to meet the essentiality criteria listed in the Wetland Ordinance as well (i.e., wildlife habitat and stormwater storage). The wetland area on the west portion of the subject property is indicated as regulated wetland on the City's Regulated Wetlands map.

Subsequent Plan submittals shall clearly indicate the area (square feet or acres) of all proposed wetland buffer impacts (both permanent and temporary, if applicable). The applicant shall also provide a copy of any wetland boundary determination reports that may have been previously conducted on the property.

It should be noted that in those cases where an activity results in the impact to wetland areas of 0.25-acre or greater that are deemed essential under City of Novi Ordinance subsection 12-174(b) mitigation shall be required. The applicant shall submit a mitigation plan which provides for the establishment of replacement wetlands at a ratio of 1:1 through 2:1 times the area of the natural wetland impaired or destroyed, if impacts meet or exceed the 0.25-acre threshold. In general, EGLE's threshold for the requirement of wetland mitigation is 0.3-acre of wetland impacts. Mitigation does not appear to be required as the Plan does not appear to propose any direct impacts to wetlands.

As noted above, any proposed use of the wetlands will require a City of Novi *Wetland Use Permit* as well as an *Authorization to Encroach the 25-Foot Natural Features Setback* for any proposed impacts to the 25-foot wetland buffers. The applicant is urged to minimize impacts to on-site wetlands and wetland setbacks to the greatest extent practicable. The City regulates wetland buffers/setbacks. Article 24, Schedule of Regulations, of the Zoning Ordinance states that:

*“There shall be maintained in all districts a wetland and watercourse setback, as provided herein, unless and to the extent, it is determined to be in the public interest not to maintain such a setback. The intent of this provision is to require a minimum setback from wetlands and watercourses”.*

**Wetland Review Comments**

ECT recommends that the Applicant address the items noted below in subsequent site plan submittals:

1. A wetland boundary determination report shall be provided to the City when available.
2. The Plan shall clearly indicate the area (square feet or acres) of all wetland buffer impacts (both permanent and temporary, if applicable). Specifically, the following information shall be indicated on subsequent site plans:
  - a. Area (square feet or acres) of all existing, on-site 25-foot wetland buffer areas;
  - b. Area (square feet or acres) of all wetland buffer impacts (both permanent and temporary, if applicable).
4. As noted above, it is the applicant's responsibility to contact EGLE in order to confirm the regulatory authority and need for an EGLE Permit with respect to any proposed impacts to the on-site wetlands, including for the direct stormwater outfall to wetland. The Applicant should provide a copy of the EGLE Wetland Use Permit application to the City (and our office) for review and a copy of the approved permit upon issuance, if applicable. Alternatively, the applicant should provide any correspondence from EGLE stating that the wetland areas are not within the jurisdiction of the agency, or that no permit will be required.
5. The Plan should address how any temporary impacts to wetland buffers shall be restored, if applicable. Specifically, the Plan should indicate what seed mix will be used to restore the areas of temporary wetland buffer impact. A native wetland or wetland buffer seed mix shall be used to restore any areas of temporary impact. Sod or common grass seed shall not be approved in areas indicated as temporary impact. In addition, the Plan should indicate how the area of proposed floodplain mitigation will be seeded/stabilized.

**Wetland Conclusion**

The project site appears to contain wetlands that are regulated by the City of Novi, and potentially by EGLE. Any proposed impacts to on-site wetlands will require a City of Novi *Wetland and Watercourse Use Permit*, and an *Authorization to Encroach the 25-Foot Natural Features Setback* for any proposed impacts to the 25-foot wetland buffers. The project may require a Wetland Use Permit from EGLE, including for direct stormwater discharge to wetlands. Subsequent site plan submittals shall clearly indicate and quantify all proposed impacts (permanent or temporary) to the existing 25-foot wetland setbacks. A wetland boundary determination report shall be provided to the City when available.

**Recommendation**

**ECT currently recommends approval of the Preliminary Site Plan (PSP20-0063) for Wetlands, however, we recommend that the applicant address the items noted in the *Wetland Comments* Section of this letter prior to approval of the Final Site Plan.**

If you have any questions regarding the contents of this letter, please contact us.

Novi Professional Village Building D & E (JSP20-17)  
Wetland Review of the Preliminary Site Plan (PSP20-0063)  
October 12, 2020  
Page 5 of 6

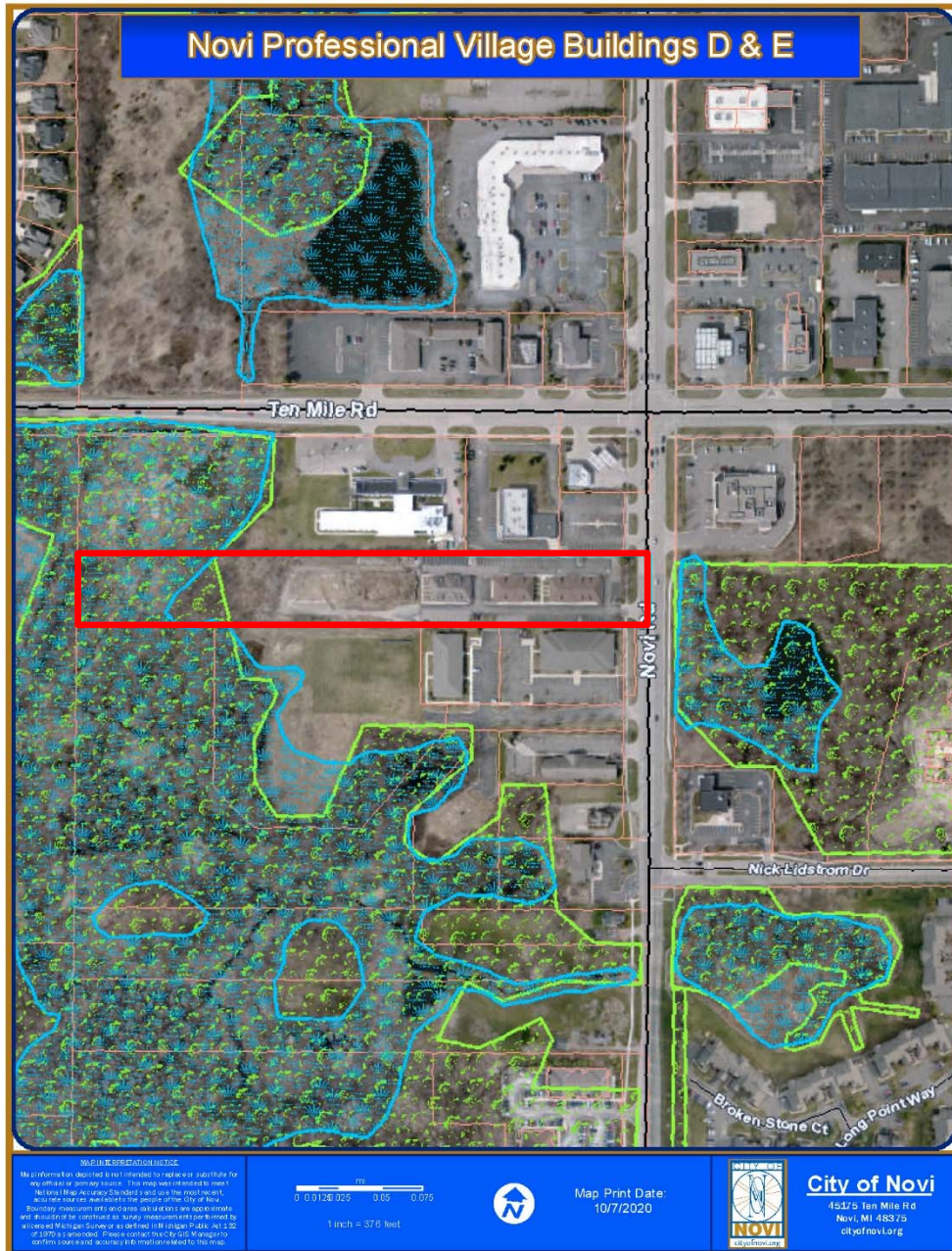
Respectfully submitted,  
**ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.**



Pete Hill, P.E.  
Senior Associate Engineer

cc: Lindsay Bell, City of Novi Planner ([lbell@cityofnovi.org](mailto:lbell@cityofnovi.org))  
Christian Carroll, City of Novi Planner ([ccarroll@cityofnovi.org](mailto:ccarroll@cityofnovi.org))  
Madeleine Kopko, City of Novi Planning Assistant ([mkopko@cityofnovi.org](mailto:mkopko@cityofnovi.org))  
Rick Meader, City of Novi Landscape Architect ([rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org))

Attachments: Figure 1 – City of Novi Regulated Wetland and Woodland Map



**Figure 1.** City of Novi Regulated Wetland & Woodland Map (approximate project property is shown in red). Regulated Woodland areas are shown in green and Regulated Wetland areas are shown in blue.

TRAFFIC REVIEW

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AECOM  
 27777 Franklin Road  
 Southfield  
 MI, 48034  
 USA  
 aecom.com

**Project name:**  
 JSP20-17 – Novi Professional Village IV and V  
 Preliminary Site Plan Traffic Review

**To:**  
 Barbara McBeth, AICP  
 City of Novi  
 45175 10 Mile Road  
 Novi, Michigan 48375

**From:**  
 AECOM

**Date:**  
 October 8, 2020

**CC:**  
 Lindsay Bell, Madeleine Kopko, Kate Richardson,  
 Victor Boron, Christian Carroll

# Memo

**Subject:** JSP20-17 – Novi Professional Village IV and V Preliminary Site Plan Traffic Review

The preliminary site plan was reviewed to the level of detail provided and AECOM recommends **approval** for the applicant to move forward with the condition that the comments provided below are adequately addressed to the satisfaction of the City.

## GENERAL COMMENTS

1. The applicant is proposing a two-building expansion, totaling 12,350 SF of their existing development.
2. The development is located on the west side of Novi Road, south of Ten Mile Road. Novi Mile Road is under the jurisdiction of Oakland County.
3. The site is currently zone OS-1 (Office Service) and no zoning changes are proposed.
4. The following traffic-related waivers/variances will be required if changes are not made:
  - a. **The applicant is requesting a variance for a lack of 10’ parking setbacks. A variance would allow new parking spaces to match the existing lot.**
  - b. **A variance may be required for more than 15 parking spaces without a landscape island if modifications are not made.**

## TRAFFIC IMPACTS

1. AECOM performed an initial trip generation based on the ITE Trip Generation Manual, 10<sup>th</sup> Edition, as follows.

ITE Code: 710 - Office  
 Development-specific Quantity: 12,350 SF  
 Zoning Change: N/A

Trip Generation Summary				
	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
<b>AM Peak-Hour Trips</b>	14	12	100	No



<b>PM Peak-Hour Trips</b>	14	12	100	No
<b>Daily (One-Directional) Trips</b>	120	N/A	750	No

- The City of Novi generally requires a traffic impact study/statement if the number of trips generated by the proposed development exceeds the City’s threshold of more than 750 trips per day or 100 trips per either the AM or PM peak hour, or if the project meets other specified criteria.

Trip Impact Study Recommendation	
Type of Study:	Justification
-	None

## TRAFFIC REVIEW

The following table identifies the aspects of the plan that were reviewed. Items marked O are listed in the City’s Code of Ordinances. Items marked with ZO are listed in the City’s Zoning Ordinance. Items marked with ADA are listed in the Americans with Disabilities Act. Items marked with MMUTCD are listed in the Michigan Manual on Uniform Traffic Control Devices.

The values in the ‘Compliance’ column read as ‘met’ for plan provision meeting the standard it refers to, ‘not met’ stands for provision not meeting the standard and ‘inconclusive’ indicates applicant to provide data or information for review and ‘NA’ stands for not applicable for subject Project. The ‘remarks’ column covers any comments reviewer has and/or ‘requested/required variance’ and ‘potential variance’. A potential variance indicates a variance that will be required if modifications are not made or further information provided to show compliance with the standards and ordinances. The applicant should put effort into complying with the standards; the variances should be the last resort after all avenues for complying have been exhausted. Indication of a potential variance does not imply support unless explicitly stated.

EXTERNAL SITE ACCESS AND OPERATIONS				
No.	Standards	Proposed	Compliance	Remarks
1	Driveway Radii   O <a href="#">Figure IX.1</a>	N/A		
2	Driveway Width   O <a href="#">Figure IX.1</a>	N/A		
3	Driveway Taper   O <a href="#">Figure IX.11</a>	N/A		
3a	Taper length	N/A		
3b	Tangent	N/A		
4	Emergency Access   O <a href="#">11-194.a.19</a>	N/A		
5	Driveway sight distance   O <a href="#">Figure VIII-E</a>	N/A		
6	Driveway spacing	N/A		
6a	Same-side   O <a href="#">11.216.d.1.d</a>	N/A		
6b	Opposite side   O <a href="#">11.216.d.1.e</a>	N/A		
7	External coordination (Road agency)	N/A		
8	External Sidewalk   <a href="#">Master Plan &amp; EDM</a>	N/A		
9	Sidewalk Ramps   <a href="#">EDM 7.4 &amp; R-28-J</a>	N/A		
10	Any Other Comments:	N/A		No change to external access.

INTERNAL SITE OPERATIONS				
No.	Standards	Proposed	Compliance	Remarks
11	Loading zone   <a href="#">ZO 5.4</a>	420 SF and 230 SF	Met	532 SF are required, 650 provided. Truck turning movements were provided.
12	Trash receptacle   <a href="#">ZO 5.4.4</a>	N/A		Assumed to utilize existing.
13	Emergency Vehicle Access	<i>No turning movements provided</i>	<i>Inconclusive</i>	<i>The applicant could provide turning movements to ensure access.</i>
14	Maneuvering Lane   <a href="#">ZO 5.3.2</a>	24'	Met	-
15	End islands   <a href="#">ZO 5.3.12</a>			
15a	Adjacent to a travel way	<b>Length not indicated</b>	<i>Inconclusive</i>	<b>Islands adjacent to travel way should be marked 3' shorter than the parking space.</b>
15b	Internal to parking bays	Length consistent with spaces	Met	-
16	Parking spaces   <a href="#">ZO 5.2.12</a>	<b>5.44' setback</b>	<b>Not met</b>	<b>The applicant is <u>requesting a variance</u> to match the existing spaces setback.</b>
17	Adjacent parking spaces   <a href="#">ZO 5.5.3.C.ii.i</a>	<b>&gt;15 spaces adjacent without an island with the internal loading zone</b>	<b>Not met</b>	<b>A <u>potential variance</u> if not modified OR modification may impact the number of parking spaces or loading area.</b>
18	Parking space length   <a href="#">ZO 5.3.2</a>	<b>17' typical, some 18'</b>	<b>Not met</b>	<b>18' spaces should be increased to 19', as the sidewalk is 5' with a 6" curb. 17' spaces should have a 2' clear overhang indicated.</b>
19	Parking space Width   <a href="#">ZO 5.3.2</a>	9' typical	Met	-
20	Parking space front curb height   <a href="#">ZO 5.3.2</a>	<i>Conflicting information in the plan.</i>	<i>Inconclusive</i>	<i>The note on the plan indicates 4" curb to be present. Grading detail shows 0.5' grade difference at 18' parking spaces.</i>
20a	Standard parking space			
20b	Accessible parking space			
21	Accessible parking – number   <a href="#">ADA</a>	4 spaces	Met	Exceeds requirement.
22	Accessible parking – size   <a href="#">ADA</a>	8' spaces with 8' aisle	Met	-

INTERNAL SITE OPERATIONS				
No.	Standards	Proposed	Compliance	Remarks
23	Number of Van-accessible space   <a href="#">ADA</a>	2 van accessible spaces	Met	Exceeds requirement.
24	Bicycle parking		Met	
24a	Requirement   <a href="#">ZO 5.16.1</a>	4 spaces	Met	-
24b	Location   <a href="#">ZO 5.16.1</a>	<100 ft from entrance	Met	
24c	Clear path from Street   <a href="#">ZO 5.16.1</a>	6' path provided	Met	
24d	Height of rack   <a href="#">ZO 5.16.5.B</a>	3'	Met	
24e	Other (Covered / Layout)   <a href="#">ZO 5.16.1</a>	Meets standard	Met	
25	Sidewalk – min 5' wide   <a href="#">Master Plan</a>	5'	Met	
26	Sidewalk ramps   <a href="#">EDM 7.4</a> & <a href="#">R-28-J</a>	Present near ADA spaces	Met	
27	Sidewalk – distance back of curb   <a href="#">EDM 7.4</a>	Abutting curb	Met	Allowed on commercial property.
28	Cul-De-Sac   O <a href="#">Figure VIII-F</a>	N/A		
29	EyeBrow   O <a href="#">Figure VIII-G</a>	N/A		
30	'T' Turnaround   O <a href="#">Figure VIII-I</a>	N/A		
31	Any Other Comments:	The applicant indicated crosswalks were provided to ramps from ADA spaces. These are not on the plans.		

SIGNING AND STRIPING				
No.	Standards	Proposed	Compliance	Remarks
32	Signing: Sizes   <a href="#">MMUTCD</a>	Included	Met	
33	Signing table: quantities and sizes	Included	Met	
34	Signs 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post   <a href="#">MMUTCD</a>	Included	Met	
35	Signs greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post   <a href="#">MMUTCD</a>	Included	Met	
36	Sign bottom height of 7' from final grade   <a href="#">MMUTCD</a>	Included	Met	
37	Signing shall be placed 2' from the face of the curb or edge of the nearest sidewalk to the near edge of the sign   <a href="#">MMUTCD</a>	Included	Met	
38	FHWA Standard Alphabet series used for all sign language   <a href="#">MMUTCD</a>	Included	Met	
39	High-Intensity Prismatic (HIP) sheeting to meet FHWA retro-reflectivity   <a href="#">MMUTCD</a>	Included	Met	
40	Parking space striping notes	<b>Included for standard parking spaces</b>	<b>Not met</b>	<b>Need to include striping notes for the accessible spaces.</b>
41	The international symbol for accessibility pavement markings   ADA	Included	Met	
42	Crosswalk pavement marking detail	<b>Not included</b>	<b>Not met</b>	

SIGNING AND STRIPING				
No.	Standards	Proposed	Compliance	Remarks
43	Maintenance of Traffic Plans	N/A	-	-
44	Any Other Comments:			

Note: Hyperlinks to the standards and Ordinances are for reference purposes only, the applicant and City of Novi to ensure referring to the latest standards and Ordinances in its entirety.

Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

**AECOM**



Patricia Thompson, EIT  
Traffic Engineer



Paula K. Johnson, PE  
Senior Transportation Engineer



Saumil Shah, PMP  
Project Manager



## FAÇADE REVIEW

---



October 8, 2020

City of Novi Planning Department  
 45175 W. 10 Mile Rd.  
 Novi, MI 48375-3024

**Review Status Summary:** Full Compliance, Section 9 Waiver Not Required. Clarify that color matches existing buildings.

Re: **FACADE ORDINANCE - Preliminary Site Plan**  
**Novi Professional Village Buildings D & E, JSP20-17**  
 Façade Region: 2 (>500' from Novi Rd), Zoning District: OS-1

Dear Ms. McBeth;

The following is the Façade Review is based on the drawings prepared by C-Arc Design Group, dated 1/31/20. The percentages of materials proposed for each façade are as shown below. Materials that are in violation of the Ordinance, if any, are shown on bold. A sample bards as required by Section 5.15.4.D of the Ordinance was not provided at the time of this review.

	South (Front)	North	East	West	Ordinance Maximum (Minimum)
Brick	39%	39%	39%	39%	100%
Wood Lap Siding	3%	3%	3%	3%	25%
Trim (cornice, columns, shutters & fascia)	10%	10%	10%	10%	15%
Asphalt Shingles	48%	48%	48%	48%	50% (Note 14)

As shown above the proposed façade materials are in full compliance with the Façade Ordinance. The proposed buildings are greater than 500' from a major thoroughfare and are therefore in Façade Region 2. However, Section 5.15.13 of the Ordinance requires buildings to be in context with nearby buildings. In this case the proposed architecture will generally match the existing building on the same site. Lacking a façade sample board indicating colors, the applicant should clarify that the colors of all façade materials will generally match the existing.

Note 14 of the Façade Chart states that the allowable percentage of Asphalt Shingles is raised from 25% to 50% when used on a building with residential style architecture. In this case the building's overall design is consistent with Note 14. The visual effect of the expanse of Asphalt Shingles is augmented by gable and louver features.

It is noted that no roof appurtenance or screening are indicated on the drawings. Section 5.15.3 of the Ordinance requires all roof appurtenances to be screened from view from all vantage points both on and off-site. In this case roof equipment and/or screening would be considered inconstant with the buildings overall design.

**Recommendation** – The proposed design and materials are in full compliance with the Façade Ordinance. A Section 9 Waiver is not required. The applicant should provide physical samples of materials or otherwise indicate that colors will generally match those of the existing buildings.

**Notes to the Applicant:**

1. Inspections – The Façade Ordinance requires inspection(s) for all projects. It is the applicant’s responsibility to request the inspection of each façade material at the appropriate time (before installation). In this case the materials should match the adjacent existing materials with respect to color and texture. Inspections may be requested using the Novi Building Department’s Online Inspection Portal with the following link. Please click on “Click here to Request an Inspection” under “Contractors”, then click “Façade”.

<http://www.cityofnovi.org/Services/CommDev/OnlineInspectionPortal.asp>.

If you have any questions regarding this project please do not hesitate to call.

Sincerely,  
DRN & Associates, Architects PC



Douglas R. Necci, AIA

## FIRE REVIEW

---





September 28, 2020

TO: Barbara McBeth- City Planner  
Lindsay Bell-Plan Review Center  
Christian Carroll-Plan Review Center  
Madeleine Kopko-Planning Assistant

RE: Novi Professional Village Buildings D & E.

**CITY COUNCIL**

**Mayor**  
Bob Gatt

**Mayor Pro Tem**  
Dave Staudt

Andrew Mutch

Laura Marie Casey

Kelly Breen

Hugh Crawford

Justin Fischer

**City Manager**  
Peter E. Auger

**Director of Public Safety**  
**Chief of Police**  
David E. Molloy

**Fire Chief**  
Jeffery R. Johnson

**Assistant Chief of Police**  
Erick W. Zinser

**Assistant Chief of Police**  
Scott R. Baetens

**Assistant Fire Chief**  
John B. Martin

**PSP# 20-0063**

PSP# 20-0042

**Project Description:**

Build 2 new buildings on existing site

Building D - 6,125 sq. / ft.

Building E - 6,210 sq. / ft.

**Comments:**

- **All** fire hydrants **MUST** be installed and operational prior to any combustible material is brought on site. **IFC 2015 3312.1**
- All Fire Dept. requirements on sheet #01 must be followed as noted.
- No landscaping must block any fire hydrants or fire protection features of building.
- Fire apparatus access drives to and from buildings through parking lots shall have a minimum fifty (50) feet outside and thirty (30) feet inside turning radius and designed to support a minimum of thirty-five (35) tons. **(D.C.S. Sec 11-239(b)(5))**
- The ability to serve at least two thousand (2,000) gallons per minute in single-family detached residential; three thousand (3,000) gallons per school areas; and at least four thousand (4,000) gallons per minute in office, industrial and shopping centers is essential. **(D.C.S. Sec.11-68(a))**
- A hazardous chemical survey is required to be submitted to the Planning & Community Development Department for distribution to the Fire Department at the time any Preliminary Site Plan is submitted for review and approval. Definitions of chemical types can be obtained from the Fire Department at (248) 735-5674.
- Site plan shall provide more than one point of external access to the site. A boulevard entranceway shall not be considered as providing multiple points of access. Multiple access points shall be as remote from one another as is feasible. The requirement for secondary access may be satisfied by access through adjacent property where an easement for such access is provided. Secondary access shall not be required under the following circumstances:

**Novi Public Safety Administration**  
45125 Ten Mile Road  
Novi, Michigan 48375  
248.348.7100  
248.347.0590 fax

cityofnovi.org

- When the property has limited frontage along external arterials, or topographic conditions on the external arterials reduce sight line distances so that a secondary access point cannot be established which will provide safe ingress and egress, the City shall require access roads for emergency vehicles, where feasible. A secondary access driveway shall be a minimum of twenty (20) feet in width and paved to provide all-weather access and shall be designed to support a vehicle of thirty-five (35) tons. Minimum easement width for secondary access driveways shall be twenty-five (25) feet. A permanent "break-away" gate shall be provided at the secondary access driveway's intersection with the public roadway in accordance with Figure VIII-K of the Design and Construction Standards. To discourage non-emergency vehicles, emergency access roads shall be designated by signage as for emergency access only, shall be separated from the other roadways by mountable curbs, and shall utilize entrance radii designed to permit emergency vehicles while discouraging non-emergency traffic. **(D.C.S. Sec 11-194 (a)(19))**
- The minimum width of a posted fire lane is 20 feet.  
The minimum height of a posted fire lane is 14 feet.  
**(D.C.S. Sec. 19-99(a))**

**Recommendation:**

**APPROVED WITH CONDITIONS**

Sincerely,

A handwritten signature in black ink, appearing to read 'KSP', with a long horizontal flourish extending to the right.

Kevin S. Pierce-Fire Marshal  
City of Novi – Fire Dept.

cc: file

APPLICANT RESPONSE LETTER

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April 20, 2021

Ms. Christian Carroll  
Planner  
City of Novi  
45175 Ten Mile Road  
Novi, MI 48375

RE: JSP20-17 Novi Professional Village Buildings D & E

Thank you for providing your review and feedback for the above referenced project. We have revised the plans in accordance with your review letter dated March 29, 2020. For your use, below are our responses on how we have addressed or plan to address each of the comments in your letter.

**Planning – Christian Carroll (Planning Review Chart)**

---

- 1. **Parking Setback:** The Planning Commission has the authority to provide a parking setback waiver, if requested. Please also provide a calculation showing that the reduction in parking setbacks will not reduce the area of total setback on the site below minimum setback requirements.

**Response:** *As previously noted, we are respectfully requesting a variance for the reduced parking setback due to pre-existing conditions of the existing buildings and the similar adjacent uses. The total parking setback area provided on all sides will not be below the minimum required setback areas, demonstrated as follows:*

	BOUNDARY DIST (FT)	REQUIRED		PROVIDED	
		SETBACK (ft)	AREA (SF)	SETBACK (ft)	AREA (SF)
Front (East)	165	20	3,300	71	11,715
Rear (West)	165	10	1,650	440	72,600
Interior (North)	1,333	10	13,330	3	3,999
Interior (South)	1,333	10	<u>13,330</u>	5.86	7,811
			<b>31,610</b>		<b>96,125</b>

- 2. **Parking setback screening:** See Landscape Review.  
**Response:** *Noted. See responses to landscape review below.*
- 3. **Number of Parking Spaces:** 69 parking spaces are shown on the plan, but 63 spaces are shown in the calculation. Please revise to reflect an accurate count.  
**Response:** *The number of parking spaces in the site data table on the cover sheet and parking count numbers will be coordinated with the final plan. The required parking is being met either way.*
- 4. Indicate 6" curb next to 9 ft. x 19 ft. spaces.  
**Response:** *6" curb will be called out next to the standard size parking spaces on the final plan.*



5. Revise southern parking bay to include additional end island. See Landscape Review for additional details.  
**Response:** *The additional striped area is a loading area. This loading area will be removed and an additional planed island added to the final plan, as requested.*
6. Indicate all existing lighting on property and neighboring properties.  
**Response:** *We will have to survey existing lighting and this will be shown on the final plan, as requested. It initially does not appear to be any within the influence of the development area, similar to buildings A, B and C.*
7. Please revise the Photometric Plan to meet current minimum illumination standards for the proposed area of development.  
**Response:** *A revised Photometric Plan will be provided with the final plan, demonstrating minimum illumination standard for the proposed development area, as requested.*

### **Landscaping – Rick Meader**

---

1. Please correct the tree survey, charts and calculations to correctly show the trees being removed and the woodland replacement credits required.  
**Response:** *The charts and calculations will be coordinated on the final plan, as requested.*
2. This requires a landscape waiver. Due to the large distance between the residential properties, as well as dense vegetation to remove, and the desire to preserve woodlands and wetlands that would be damaged by construction of the required berm. Also, the section drawing provided indicates the existing wetland and existing vegetation to remain will provide significant visual and audible buffering. For these reasons, the waiver request is supported by staff.  
**Response:** *Noted. We are respectfully requesting a staff supported landscape waiver for lack of berm to screen project from the west.*
3. The deficiency requires a landscape waiver. As the tight layout was approved long ago, the waiver for the trees required along the north side of the north parking lot would be supported by staff.  
**Response:** *Noted. We are respectfully requesting a staff supported landscape waiver for a deficiency in parking lot perimeter landscaping.*
4. The southern parking bay, together with the extension of that bay to the east, is twenty spaces. The limit is 15 spaces without a landscaped island. A landscape waiver that would not be supported by staff would be required for the proposed layout. Please convert a space in that bay to a landscaped island so there are no more than 15 consecutive spaces.  
**Response:** *The loading area will be removed and an additional landscape island will be provided in its place on the final plan, as requested. We will no longer be requesting this landscape waiver as a result.*
5. Please add an additional tree species to the site to get closer to the tree diversity requirement.  
**Response:** *The additional tree species will be added to the final plan, as requested.*
6. Please revise the notes per the instructions on the Landscape Chart.  
**Response:** *The notes will be revised on the final plan, as requested.*

7. The proposed landscaping must be provided with sufficient water to become established and survive over the long term.

**Response:** *Noted. A note with this requirement will be added to the final plan.*

8. Please provide an irrigation plan or note how this will be accomplished if an irrigation plan is not provided with the Final Site Plans.

**Response:** *An irrigation plan will be provided at final stamping sets.*

### **Landscaping Continued – Rick Meader**

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1. Construction of the retaining wall will either require the removal of trees near it, or damage them such that they can't be counted as saved. Please show all trees to be impacted by the wall as being removed and correct the replacement credit counts on the Tree chart. Trees 2103, 2104 and 2105 are not shown as being removed on the plan view or chart.

**Response:** *Trees 2103, 2104 and 2105 will be shown as removed in the tree chart on the final plan and 2105 will be shown as to be removed, as requested. Note that trees 2103 and 2104 are offsite and therefore we do not have right to remove.*

2. Please indicate on the plan view as well as the chart which trees are being removed on the tree survey and Demolition Plan when one is provided.

**Response:** *This will be shown on the final plan, as requested.*

3. Please remove the tree replacement calculations to the right of the chart, and correct the tree chart to reflect actual removals, credits required and credits taken that match the calculations to the left of the chart.

**Response:** *Calculations will be updated on the final plan, as requested.*

4. Please add more woodland replacement trees on the site to compensate for the credits that can't be taken for the saved trees discussed above.

**Response:** *Additional trees will be added to the final plan, as requested.*

5. Please remove the existing trees to be removed from the landscape plan.

**Response:** *The trees to be removed will be removed from the landscape plan on the final plan.*

6. See the DRG letter for a complete discussion of the wetlands and woodlands.

**Response:** *Noted. See responses below.*

7. Please convert one space along the south bay southeast corner to be a landscape island at least 200sf and plant a canopy tree in it to break up the 20 bay stretch of spaces without an island.

**Response:** *An additional landscape island will be provided on the final plan, as requested and stated above.*

8. A landscape waiver would be required for the 20 spaces. It would not be supported by staff.

**Response:** *A landscape island will be provided on the final plan and this waiver will no longer be requested, as noted above.*

9. One of the perimeter trees can be placed in that island so no additional trees are required.  
**Response:** *Noted. This additional tree will be added to the final plan.*
10. Show all FDCs on the landscape plan and use plants below them and to either side of them (within 2 feet) with a mature height of no more than 12".  
**Response:** *There are no planned FDCs on the buildings.*
11. Please add a separate note stating the spacing requirements that is easily found by the contractor.  
**Response:** *This note will be added to the final plan, as requested.*
12. A landscape waiver is required for any deficiency in the trees provided.  
**Response:** *Noted. This waiver is being requested, as noted above.*
13. Please add a note stating that parking lot perimeter trees must be planted 4 feet behind the curb.  
**Response:** *This note will be added to the final plan, as requested*
14. A landscape waiver is required to not provide the required berm.  
**Response:** *Noted. This waiver is being requested, as noted above.*
15. While no new greenbelt trees are required for this project, any weak, dead or missing trees from the original project plans in the greenbelt must be replaced as part of this project.  
**Response:** *Noted. A note with this requirement will be added to the final plan.*
16. Missing foundation plantings from other areas of the site must be replaced as part of this project.  
**Response:** *Noted. A note with this requirement will be added to the final plan.*
17. Please highlight the permanent water level line on the landscape plan.  
**Response:** *The permanent water level will be indicated on the landscape plan for the final plan.*
18. Please move shrubs to 10 feet from that line.  
**Response:** *The planting locations will be adjusted on the final plan, as requested.*
19. Please move 3 of the red maple replacement trees to the south side of the detention pond.  
**Response:** *The planting locations will be adjusted on the final plan, as requested.*
20. Please make the seed mixes more legible.  
**Response:** *The seed mixes will be made more legible on the final plan.*
21. While it is possible that the construction may completely remove the Phragmites, it is also possible that root fragments or seed may remain to restart the population.  
**Response:** *Noted.*
22. Please add specific plans per EGLE specifications for its complete removal, including timing and expected duration of treatments (at least 2 years will be required) in case the Phragmites rebounds.  
**Response:** *Additional Phragmites removal specifications will be included on the final plan.*

23. Please add an irrigation plan or information as to how plants will be watered sufficiently for establishment and long- term survival.  
**Response:** *An irrigation plan will be provided at stamping sets.*
24. If xeriscaping is used, please provide information about plantings included.  
**Response:** *This information will be confirmed and added to the final plan.*
25. Please revise Landscape Note #13 to read “Any weak, dead or missing plantings from the original site plans must be replaced as part of this project.”  
**Response:** *This note will be revised on the final plan.*
26. Note #14 can then be removed.  
**Response:** *The note #14 will be removed on the final plan.*
27. Please add one more tree species so there are 5 of each species to get closer to the species requirement.  
**Response:** *An additional tree species will be added to the final plan, as requested.*
28. Please correct the tree chart and calculations so they are consistent.  
**Response:** *The charts and calculations will be coordinated on the final plan, as requested.*

#### **Woodland – Kerry Gray**

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1. A Woodland Use Permit is required to perform construction on any site containing regulated woodlands. A Financial Guarantee of \$3,600 (9 tree replacements x \$400) will be required as part of the Woodland Use Permit fees.  
**Response:** *Noted. This will be provided prior to construction.*
2. Site. Tree Tags. During the site visit it was noted that most of the woodland trees on site are no longer tagged; the pink flagging tape that was originally used to tag the trees has fallen off or been removed. Chapter 37 requires both the tagging of woodland trees and the clear markings to identify preserved/retained trees on the site. The development proposes both the removal and preservation of woodland trees on site – all woodland trees must be tagged and marked as required in the sections of Chapter 37 outlined below. If trees are not properly tagged on site and tree removals of preserved trees occur as a result – penalties will be assessed per section 37-5.  
**Response:** *Noted.*
3. Site. Tree Species. Several bitternut hickory (*Carya cordiformis*) trees were misidentified as black walnut (*Juglans nigra*). Please revise tree list.  
**Response:** *Tree list will be updated on the final plan, as requested.*
4. Sheet 02. Existing Conditions. The Tree List and Tree Replacement calculations are incorrect.
  - a. The calculations to the left of the chart indicate there are a 37 total trees, however the tree List provides information on 53 trees – correct the calculations. The “Replacement Required” calculations are correct.  
**Response:** *Calculations will be coordinated on the final plan.*

- b. The replacement calculations to the right of the chart are incorrect and should be deleted from the sheet.

**Response:** *Calculations will be removed on the final plan.*

- c. The Tree List has several errors.

- i. The replacement ratios are incorrect.

**Response:** *Calculations will be corrected on the final plan.*

- ii. The City of Novi Landscape Design Manual allows non-regulated trees that will be preserved to be used to fulfill woodland replacement credits if they are on the site and not prohibited and/or invasive species. The tree list on the Woodland Plan includes replacement credits for preserved trees that are off-site or on the property boundary where ownership is difficult to determine. Revise the tree list to delete these credits. It should be noted that these credits do not appear in the “Replacement Required” calculations (which are correct) to the left of the table or on the Landscape Plan – Sheet- 07.

**Response:** *Tree list will be updated on the final plan.*

Project summary of waivers that will be requested on the final plan, as noted above, are as follows:

1. Parking Setback: Reduction in the interior parking setbacks – Supported by staff.
2. Landscaping: Lack of berm to screen project from west – Supported by staff
3. Landscaping: Deficiency in parking lot perimeter landscaping – Supported by staff.

We look forward to discussing this project before the Planning Commission on May 12. Should you have any remaining questions with regard to the above or need anything else from us to help facilitate your review and approvals, please do not hesitate to contact me direct at (810) 923-6878.

Sincerely,

**ATWELL, LLC**



Matthew W. Bush, P.E.

Team Leader – Land Development



February 5, 2021



Ms. Christian Carrol  
Planner  
City of Novi  
45175 Ten Mile Road  
Novi, MI 48375

RE: JSP20-17 Novi Professional Village Buildings D & E

Thank you for providing your review and feedback for the above referenced project. We have revised the plans in accordance with your review letter dated October 10, 2020. For your use, below are our responses on how we have addressed or plan to address each of the comments in your letter.

**Planning:**

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1. Please indicate the Zoning District boundaries on the property (R-4 & OS-1).  
**Response:** *The approximate zoning district boundary has been added to the layout as represented on the City zoning maps.*
2. The applicant has requested a variance for the side yard parking setback requirements. The current proposal does not meet the parking setback requirements for either interior side (north & south), nor does it appear to meet the rear parking setback requirement (see chart for more details). The proposed parking area will align with the current parking on-site as approved and constructed with the previous site plan submittal. Please provide the location of the Zoning Districts on the property so that the rear parking setback may be determined.  
**Response:** *Noted. The approximate zoning district boundary has been added to the layout as represented on the City zoning maps.*
3. Parking setback from R4 zoning – please revise to meet the Zoning Ordinance or request a variance. Therefore, if the 100' parking setback from the R-4 Zoning District cannot be met, a variance should be requested.  
**Response:** *Per follow up email from the City on 10/22/20, this comment has been rescinded.*
4. The proposed retaining wall along a portion of the north property line may encroach into the required 2 feet of clearance for the proposed 9' x 17' parking spaces. Please revise, as necessary. The 3 9' x 18' proposed parking spaces adjacent to Building 'E' should either be lengthened to 9' x 19' to meet the ordinance standard, or the applicant may provide a 7 foot sidewalk to allow for 2 feet of overhang (5' sidewalk is existing).  
**Response:** *The spaced adjacent to the retaining wall have been shortened to 17' and the small retaining wall has been placed 2' from the parking spaces. A 2' dimension has been added. The spaces have been lengthened to 19' adjacent to the walk west of Building E.*
5. See Landscape Review for Parking Setback Screening comments.  
**Response:** *Noted.*

6. Show dimensions of proposed end islands and shorten the end islands by 3 feet to meet ordinance requirements. See Traffic Review for additional details.  
**Response:** Dimensions are now shown on all islands.
7. Widen sidewalk to 6 feet where applicable (west of proposed bicycle parking)  
**Response:** The walk beside the bike parking has been widened to 6’.
8. Provide screening of Loading Spaces as indicated in Landscape Review.  
**Response:** Shrubs have been added to the northwest loading zone to screen this area to the north.
9. Applicant is asked to clarify where any utility equipment will be located on site.  
**Response:** Utility equipment such as air conditioning units and transformers, if applicable, will be shown on the Final Site Plan.
10. Indicate all existing lighting on the property and neighboring properties (spillover information). Also, lighting does not meet minimum illumination standards in the parking areas, loading/unloading areas, and walkways. Please review the details provided in the Planning Review Chart and revise the photometric plan, as necessary  
**Response:** For the new proposed buildings, we are currently following lighting design as set by the previous approved plans and the existing buildings to the south. Due to the current layout and parking setbacks from the property line, there is limited space to do pole lighting along the perimeter.
11. Please consider relocating the secondary access to the site as the current proposed location appears to abut a conservation easement on the property to the south.  
**Response:** The secondary access stub appears to be located 80’ south of the woodlands and wetland area as flagged on our property and as they show up on the City maps. We are currently pulling a title commitment on the property to the south to confirm that the future secondary access does not align with a conservation easement.

#### **Engineering:**

**Note:** As stated in the latest review letter, engineering noted that the “Preliminary Site Plan meets the general requirements of Chapter 11 of the Code of Ordinances, the Storm Water Management Ordinance and the Engineering Design Manual with the following exceptions, which can be addressed at Final Site Plan submittal”. Any comment responses provided below have been addressed with this resubmittal. Any comment responses not listed below will be addressed and responded to during Final Site Plan submittals:

14. Again, be aware the City of Novi Building Department may require verification that the existing water leads to serve the proposed buildings are viable. This may include exposing leads in-field, bacteriological testing, etc.  
**Response:** Noted. The builder has been notified of this potential.

18. Again, be aware the City of Novi Building Department may require verification that the existing sanitary leads to serve the proposed buildings are viable. This may include televising leads, exposing leads in-field, etc.

**Response:** *Noted. The builder has been notified of this potential.*

19. Provide inverts and rim elevation for the existing leads and the manhole intaking the leads. Also, expand the viewport on sheet 4 to show the manhole.

**Response:** *The viewport on sheet 4 has been modified as requested. Existing lead inverts will be shown on the final site plan.*

28. Access easement for storm water maintenance noted on plans; however, this easement must extend to the Novi Road right-of-way.

**Response:** *The easement has been extended to the Novi Road ROW. Refer to sheet 03 and 06.*

29. Provide a 5-foot wide stone bridge/access route allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high-water elevation). Provide a detail and/or note, as necessary.

**Response:** *The stone bridge has now been shown and labeled in plan view on sheet 5. The details and notes will be provided at final site plan.*

30. Due to maintenance concerns, each restricting orifice in the control structure shall be a minimum of 1 square-inch in size, even though this may result in a flow rate above that calculated. The First Flush orifice diameter is only  $\frac{3}{4}$  inch.

**Response:** *The calculations have been revised to use 1" orifice holes for the forebay riser structure.*

31. As required, the flow restriction appears to be accomplished by the perforated standpipe. However, unless there is a reason, remove the PVC end cap with drilled hole orifice from the standpipe's outlet pipe (due to the potential for clogging).

**Response:** *The PVC and end cap have been removed from the perforated riser detail.*

32. Provide supporting calculations for the Rational Method runoff coefficient determination. A runoff coefficient of 0.35 shall be used for all turf grass lawns (mowed lawns).

**Response:** *The C-factor calculation is now shown on sheet 6.*

33. The 18-foot stalls adjacent to Building E's sidewalk shall be increased to 19 feet due to the 5-foot wide sidewalk. Otherwise, the sidewalk could be increased to 7 feet wide and the stalls reduced to 17 feet.

**Response:** *The spaces have been lengthened to 19' as requested.*

38. Clearly call out the on-site parking lot cross-section of 1.5 inches of MDOT 5E1 on 2.5 inches of MDOT 3C on 8 inches of 21AA [limestone only if within 100 feet of a watercourse] aggregate base.

**Response:** *The on-site parking pavement section has been noted on grading sheet as note #5 and will need to be constructed in accordance with City details shown in the plans.*

39. Curb details are noted in the Grading Notes on sheet 5 but specify whether 18" or 24" wide curb proposed (appears to be 24").

**Response:** *The curb is currently proposed at 24". This has been added to the notes on sheet 5.*

## Landscape:

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1. Please show the impacted trees as being removed and revise the credit calculations.  
**Response:** *Trees to be removed are shown on the landscape plan. The tree replacement calculation has been revised.*
2. No screening berm from properties to the west. This requires a landscape waiver.  
**Response:** *A berm is required to screen the existing homes to the west. The residences are over 800' from the parking lot and approximately 600' of this area are regulated wetlands and woodlands to remain. A schematic property buffer section has been provided on sheet 08 for reference. As such, we respectfully request a waiver.*
3. Additional canopy trees required. This deficiency requires a landscape waiver, please add the additional tree so a waiver is not necessary.  
**Response:** *The required interior landscape trees are provided. As discussed, a waiver is requested for the perimeter trees since the limited planting area and wall to the north prohibits planting. 22 perimeter trees are required and 18 trees are being provided.*
4. Please see other detailed notes regarding parking lot landscaping on the landscape chart.  
**Response:** *Noted.*
5. Building Foundation Landscape - The deficiency requires a landscape waiver.  
**Response:** *A waiver is requested for the building foundation landscaping. The requirement cannot be met due to the existing building foundations and previous development precedent.*
6. Please revise the planting mix to meet the requirements of the Landscape Design Manual for tree diversity.  
**Response:** *Plant diversity has been added to the plant list and now meets the diversity requirement.*
7. Please add the site address to the landscape plans.  
**Response:** *The site address has been added to sheet 7. The owners name and address are now shown on sheet 7.*
8. Construction of the retaining wall will either require the removal of trees near it, or damage them such that they can't be counted as saved. Please show all trees to be impacted by the wall as being removed and correct the replacement credit count.  
**Response:** *The onsite tree being impacted by the wall (#2105) is shown as being removed.*
9. Please remove the credits taken for all trees off-site that will remain.  
**Response:** *The woodland replacement calculation has been revised and the off-site trees are not shown as credits.*
10. Please add more woodland replacement trees on the site to compensate for the credits that can't be taken for the saved trees discussed above.  
**Response:** *Based on the revised woodland calculations, 5 trees are required, and 5 trees are provided.*

11. See the ECT letter for a complete discussion of the wetlands and woodlands.  
**Response:** *Noted.*
12. Please label or otherwise clearly indicate what areas should be sodded and what should be seeded.  
**Response:** *A ground cover note has been added to sheet 7. All areas are to be sod unless noted.*
13. Please change the striped island at the southeast corner to be a landscape island at least 200sf and plant a canopy tree in it to help meet interior parking lot tree requirement.  
**Response:** *The island cannot be shown as an island since it is a loading zone.*
14. Please show northwest corner of lot as providing 300sf of area.  
**Response:** *The area has been labeled.*
15. Please label the northwest corner as having 300sf.  
**Response:** *The area has been labeled.*
16. Please label parking lot interior trees as such.  
**Response:** *Interior parking lot trees are denoted with a "P". Perimeter trees are shown with a "PER" label.*
17. The redbuds can't count as interior canopy trees due to their mature size (less than 30 ft) and their position (outside of the parking lot interior).  
**Response:** *The redbuds are not included as interior trees.*
18. The red maple at the northwest corner of the lot is more than 15 feet away from the edge of the parking lot. Please move it to within 15' of the parking lot edge.  
**Response:** *The maple has been moved to within 15' of the pavement.*
19. It appears that due to the position of the hydrant in the northeast corner of the site that only one tree can fit in that island.  
**Response:** *The trees have been relocated to be within 15' of the pavement and more than 10' from the hydrant.*
20. Please add islands or find other locations for interior trees within the outer edges of the parking lots. Each tree in an island must have 200sf of greenspace.  
**Response:** *The interior islands have been modified to accommodate the required interior trees.*
21. A landscape waiver would be required for any deficiencies in interior parking lot trees.  
**Response:** *The requirement is met, and a waiver is not needed.*
22. The perimeter should include the lengths of the interior islands and corners and the north side of the north lot.  
**Response:** *The perimeter lengths have been revised.*
23. Please provide all required parking lot perimeter trees.



**Response:** *A waiver is required for the perimeter trees since the limited planting area and wall to the north prohibits planting. 22 perimeter trees are required, and 18 trees are provided.*

24. If a larger species than redbud was provided between the buildings and they were moved to within 15 feet of the parking lot, they could be counted as perimeter trees.

**Response:** *The redbuds are no longer counted as parking lot trees.*

25. Please label parking lot perimeter trees uniquely as such trees.

**Response:** *Interior parking lot trees are denoted with a "P". Perimeter trees are shown with a "PER" label.*

26. Please space the perimeter trees out as much as possible along the southern edge of the site.

**Response:** *In an attempt to meet the requirement, an additional 2 trees have been added to the south edge of the site. The trees have been evenly spaced.*

27. A landscape waiver is required for any deficiency in the trees provided.

**Response:** *Noted. Discussed above.*

28. A landscape waiver is required to not provide the required berm.

**Response:** *Noted. Discussed above.*

29. Please add a note regarding setback from utilities on the landscape plans.

**Response:** *A note stating no power lines exist is shown on sheet 7 under "Landscape Requirement Notes".*

30. While no trees are required for this project, any weak/dead or missing trees from the original project plans in the greenbelt must be replaced as part of this project.

**Response:** *Noted.*

31. Please add more screening on the north side of the loading zone to screen it from the property to the north.

**Response:** *Shrubs have been added to the northwest loading zone to screen this area to the north.*

32. When transformer locations are finalized, screening shrubs per standard detail are required.

**Response:** *A note stating transformers will be screened when locations are known is shown on sheet 7 under "Landscape Requirement Notes".*

33. Please replace any missing landscaping from the other buildings as part of this project.

**Response:** *Noted.*

34. A landscape waiver is required for the shortage in interior site landscaping area provided.

**Response:** *This waiver is no longer required.*

35. Please add landscaping other than lawn in the gap east of Building V.

**Response:** *Shrubs have been added to the V.*

36. Please add irrigation plan or information as to how plants will be watered sufficiently for establishment and long-term survival.

**Response:** *An irrigation plan will be provided for electronic stamping sets.*

37. Parking lot trees should be 3" cal.

**Response:** *Trees have been revised to 3.0"*

38. Please double- check your plant counts versus the plant list.

**Response:** *Plant counts have been verified and revised accordingly.*

39. Woodland replacement trees should not be included in the diversity or native species counts.

**Response:** *Woodland replacement trees are not included in the diversity counts.*

40. Please adhere to the 15% limit on a tree species and 20% on a tree genus.

**Response:** *With the small number of trees required, meeting the 15% species is difficult without a scattered looking plan. No plant exceeds 20% genus.*

41. Please remove all credits taken for trees that are off-site or will be impacted by the wall construction.

**Response:** *Noted. Discussed above.*

42. Parking lot canopy trees should be 3" cal.

**Response:** *Noted. Discussed above.*

#### **Fire:**

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1. All fire hydrants MUST be installed and operational prior to any combustible material is brought on site. IFC 2015 3312.1

**Response:** *Noted.*

2. All Fire Dept. requirements on sheet #01 must be followed as noted.

**Response:** *Noted.*

3. No landscaping must block any fire hydrants or fire protection features of building.

**Response:** *Noted.*

4. Fire apparatus access drives to and from buildings through parking lots shall have a minimum fifty (50) feet outside and thirty (30) feet inside turning radius and designed to support a minimum of thirty-five (35) tons. (D.C.S. Sec 11-239(b)(5))

**Response:** *Noted.*

5. The ability to serve at least two thousand (2,000) gallons per minute in single-family detached residential; three thousand (3,000) gallons per school areas; and at least four thousand (4,000) gallons per minute in office, industrial and shopping centers is essential. (D.C.S. Sec.11-68(a))

**Response:** *Noted.*

6. A hazardous chemical survey is required to be submitted to the Planning & Community Development Department for distribution to the Fire Department at the time any Preliminary Site

Plan is submitted for review and approval. Definitions of chemical types can be obtained from the Fire Department at (248) 735-5674.

**Response:** *The survey form was previously submitted. Another copy is enclosed in this package.*

7. Site plan shall provide more than one point of external access to the site. A boulevard entranceway shall not be considered as providing multiple points of access. Multiple access points shall be as remote from one another as is feasible. The requirement for secondary access may be satisfied by access through adjacent property where an easement for such access is provided. Secondary access shall not be required under the following circumstances:

- When the property has limited frontage along external arterials, or topographic conditions on the external arterials reduce sight line distances so that a secondary access point cannot be established which will provide safe ingress and egress, the City shall require access roads for emergency vehicles, where feasible. A secondary access driveway shall be a minimum of twenty (20 feet in width and paved to provide all- weather access and shall be designed to support a vehicle of thirty-five (35) tons. Minimum easement width for secondary access driveways shall be twenty-five (25) feet. A permanent "break-away" gate shall be provided at the secondary access driveway's intersection with the public roadway in accordance with Figure VIII-K of the Design and Construction Standards. To discourage non-emergency vehicles, emergency access roads shall be designated by signage as for emergency access only, shall be separated from the other roadways by mountable curbs, and shall utilize entrance radii designed to permit emergency vehicles while discouraging non-emergency traffic. (D.C.S. Sec 11-194 (a)(19))

**Response:** *Noted.*

8. The minimum width of a posted fire lane is 20 feet. The minimum height of a posted fire lane is 14 feet. (D.C.S. Sec. 19-99(a))

**Response:** *Noted.*

**Façade:**

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1. The proposed design and materials are in full compliance with the Façade Ordinance. A Section 9 Waiver is not required. The applicant should provide physical samples of materials or otherwise indicate that colors will generally match those of the existing buildings.

**Response:** *The physical materials and colors will generally match those of the existing buildings.*

**Traffic:**

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1. The following traffic-related waivers/variances will be required if changes are not made:
- a. The applicant is requesting a variance for a lack of 10' parking setbacks. A variance would allow new parking spaces to match the existing lot.  
**Response:** *Noted.*
  - b. A variance may be required for more than 15 parking spaces without a landscape island if modifications are not made.  
**Response:** *Noted.*
2. Islands adjacent to travel way should be marked 3' shorter than the parking space.

**Response:** *Islands have been dimensioned to demonstrate compliance.*

3. The applicant is requesting a variance to match the existing spaces setback.

**Response:** *Noted.*

4. A potential variance if not modified OR modification may impact the number of parking spaces or loading area.

**Response:** *Noted.*

5. 18' spaces should be increased to 19', as the sidewalk is 5' with a 6" curb. 17' spaces should have a 2' clear overhang indicated.

**Response:** *The spaces along the west side of Building E have been lengthened.*

6. The note on the plan indicates 4" curb to be present. Grading detail shows 0.5' grade difference at 18' parking spaces.

**Response:** *The grading has been modified to reflect the 4" tall curb along the perimeter, as called out in the note #1 on the grading plan.*

7. Need to include striping notes for the accessible spaces.

**Response:** *Stripe colors and widths are now called out in the plan view on sheet 3.*

#### **Wetland:**

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1. A wetland boundary determination report shall be provided to the City when available.

**Response:** *A copy of the wetland delineation report is included with the submittal.*

2. The Plan shall clearly indicate the area (square feet or acres) of all wetland buffer impacts (both permanent and temporary, if applicable). Specifically, the following information shall be indicated on subsequent site plans:

- a. Area (square feet or acres) of all existing, on-site 25-foot wetland buffer areas;
- b. Area (square feet or acres) of all wetland buffer impacts (both permanent and temporary, if applicable).

**Response:** *The areas of on-site wetland buffers have been labeled on sheet 2 and impacts shown on sheet 5.*

3. As noted above, it is the applicant's responsibility to contact EGLE in order to confirm the regulatory authority and need for an EGLE Permit with respect to any proposed impacts to the on-site wetlands, including for the direct stormwater outfall to wetland. The Applicant should provide a copy of the EGLE Wetland Use Permit application to the City (and our office) for review and a copy of the approved permit upon issuance, if applicable. Alternatively, the applicant should provide any correspondence from EGLE stating that the wetland areas are not within the jurisdiction of the agency, or that no permit will be required.

**Response:** *Noted.*

4. The Plan should address how any temporary impacts to wetland buffers shall be restored, if applicable. Specifically, the Plan should indicate what seed mix will be used to restore the areas of temporary wetland buffer impact. A native wetland or wetland buffer seed mix shall be used

to restore any areas of temporary impact. Sod or common grass seed shall not be approved in areas indicated as temporary impact. In addition, the Plan should indicate how the area of proposed floodplain mitigation will be seeded/stabilized.

**Response:** *The temporary impacts are for the creation of the floodplain mitigation area which is noted to be seeded lawn on sheet 7.*

#### Woodland:

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1. ECT encourages the Applicant to minimize impacts to on-site woodlands to the greatest extent practicable and attempt to incorporate natural features into the site plan.

**Response:** *The proposed site plan impacts the least amount of regulated trees as possible.*

2. The Existing Conditions plan indicates that ten (10) non-regulated trees (i.e., trees outside of the area designated as City Regulated Woodland) are to be preserved. The applicant has noted that these 10 preserved trees amount to twenty-three (23) Credits per Table 7.b.(1)(f): Landscape Tree Credit Chart. Based on a review of the Plan, seven (7) of the ten (10) trees proposed for preservation for credit are located off of the subject property and the other three (3) trees proposed for preservation appear to be located within the limits of disturbance of the retaining wall to be constructed along the northern property boundary. As such, these ten (10) non-Regulated trees should not count for preservation credit. This shall be corrected on the Plan.

**Response:** *The woodland chart has been revised showing a total of 9 replacement trees.*

3. A Woodland Permit from the City of Novi would be required for proposed impacts to any trees 8-inch diameter-at-breast-height (DBH) or greater and located within an area designated as City Regulated Woodland, or any tree 36-inches DBH regardless of location on the site. Such trees shall be relocated or replaced by the permit grantee. All deciduous replacement trees shall be two and one-half (2 ½) inches caliper or greater and count at a 1 tree-to-1 Woodland Replacement credit ratio and all coniferous replacement trees shall be six (6) feet in height (minimum) and count at a 1.5 tree- to-1 Woodland Replacement credit ratio. All Woodland Replacement trees shall be species that are listed on the City's Woodland Tree Replacement Chart (attached). Please review the species proposed as Woodland Replacement trees on the Landscape Details Plan.

**Response:** *9 replacement trees and 9 trees are provided. The tree species are listed in the City's Woodland Tree Replacement Chart.*

4. A Woodland Replacement Performance financial guarantee for the planting of on-site replacement trees will be required. This financial guarantee will be based on the number of on-site woodland replacement trees (credits) being provided at a per tree value of \$400. If the applicant were proposing to provide the 29 required Woodland Replacement Credits on site, this Woodland Replacement Performance Guarantee would be \$11,600.00 (29 On-site Woodland Replacement Credits provided x \$400/Credit).

**Response:** *Noted.*

5. Based on a successful inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement financial guarantee will be returned to the Applicant. A Woodland Maintenance financial guarantee in the amount of twenty-five percent (25%) of the original Woodland Replacement financial guarantee will then be provided by the applicant. This Woodland Maintenance financial guarantee will be kept for a period of 2-years after the



successful inspection of the on-site woodland replacement tree installation. If the applicant proposed to plant all 29 Woodland Replacement Credits on-site, this Woodland Maintenance Financial Guarantee would be \$2,900.00 (29 On-site Woodland Replacement Credits provided x \$400/Credit x 0.25).

**Response: *Noted.***

6. The Applicant will be required to pay the City of Novi Tree Fund at a value of \$400/credit for any Woodland Replacement Tree Credits that cannot be placed on-site.

**Response: *All replacement trees are provided on-site.***

7. The Applicant shall provide preservation/conservation easements as directed by the City of Novi Community Development Department for any areas of woodland replacement trees to be installed in a currently non-regulated woodland area. The applicant shall demonstrate that the all proposed woodland replacement trees will be guaranteed to be preserved as planted with a conservation easement or landscape easement to be granted to the City. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Woodland permit. These easement areas shall be indicated on the Plan.

**Response: *Noted.***

Should you have any remaining questions or need anything else from us to help facilitate your review and approvals, please do not hesitate to contact me direct at (810) 923-6878.

Sincerely,

**ATWELL, LLC**



Matthew W. Bush, P.E.

Team Leader – Land Development