



## CVS DISTRIBUTION CENTER SITE IMPROVEMENTS JSP23-45

### **CVS DISTRIBUTION CENTER SITE IMPROVEMENTS - JSP23-45**

Public Hearing at the request of the CVS Distribution Center for Preliminary Site Plan, Woodland Permit, and Stormwater Management Plan approval. The subject property is zoned I-1, Light Industrial and is located at 43600 Gen Mar, west of Novi Road, on the north side of Gen Mar. The applicant proposes to construct a 56-space employee parking lot east of the CVS Distribution property and is seeking approval to remove 7 regulated woodland trees.

#### Required Action

Approve/Deny the Preliminary Site Plan, Woodland Permit, and Stormwater Management Plan.

<b>REVIEW</b>	<b>RESULT</b>	<b>DATE</b>	<b>COMMENTS</b>
Planning	Approval recommended	7-30-2024	<ul style="list-style-type: none"> <li>Items to be addressed by the applicant prior to Final Site Plan approval</li> </ul>
Engineering	Approval Recommended	7-25-2024	<ul style="list-style-type: none"> <li>Items to be addressed by the applicant prior to Final Site Plan approval</li> </ul>
Landscape	Approval Recommended	7-22-2024	<ul style="list-style-type: none"> <li>Items to be addressed by the applicant prior to Final Site Plan approval</li> </ul>
Woodland	Approval Recommended	7-15-2024	<ul style="list-style-type: none"> <li>Woodland permit for removal of 7 regulated trees, requiring 8 replacement trees to be planted onsite.</li> </ul>
Wetland	Approval Recommended	7-15-2024	<ul style="list-style-type: none"> <li>Items to be addressed by the applicant prior to Final Site Plan approval</li> </ul>
Traffic	Approval Recommended	3-7-2024	<ul style="list-style-type: none"> <li>Items to be addressed by the applicant prior to Final Site Plan approval</li> </ul>
Fire	Approval Recommended	7-17-2024	<ul style="list-style-type: none"> <li>Approval recommended</li> </ul>

## **MOTION SHEET**

### **Approval – Preliminary Site Plan**

In the matter of CVS Distribution Center Site Improvements, JSP23-45, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and the 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 Article 3, Article 4, and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

**- AND -**

### **Approval – Woodland Permit**

In the matter of CVS Distribution Center Site Improvements, JSP23-45, motion to **approve** the Woodland Permit based on and subject to the following:

- 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 CVS Distribution Center Site Improvements, JSP23-45, motion to **approve** the Stormwater Management Plan based on and subject to the following:

- 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 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

**- OR -**

### **Denial – Preliminary Site Plan**

In the matter of CVS Distribution Center Site Improvements, JSP23-45, 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 Permit**

In the matter of CVS Distribution Center Site Improvements, JSP23-45, motion to **deny** the Woodland 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 -

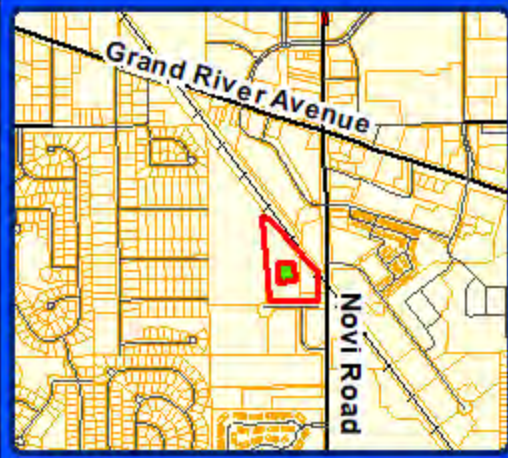
**Denial – Stormwater Management Plan**

In the matter of CVS Distribution Center Site Improvements, JSP23-45, 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  
Lot Rendering

# JSP23-45 CVS DISTRIBUTION CENTER SITE IMPROVEMENTS

## 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

Map Author: Dan Commer  
Date: 8/6/2024  
Project: JSP23-45 CVS Distribution Center Site Improvements  
Version #: 1

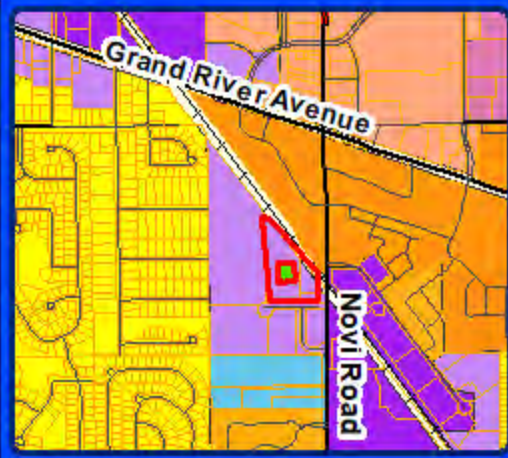
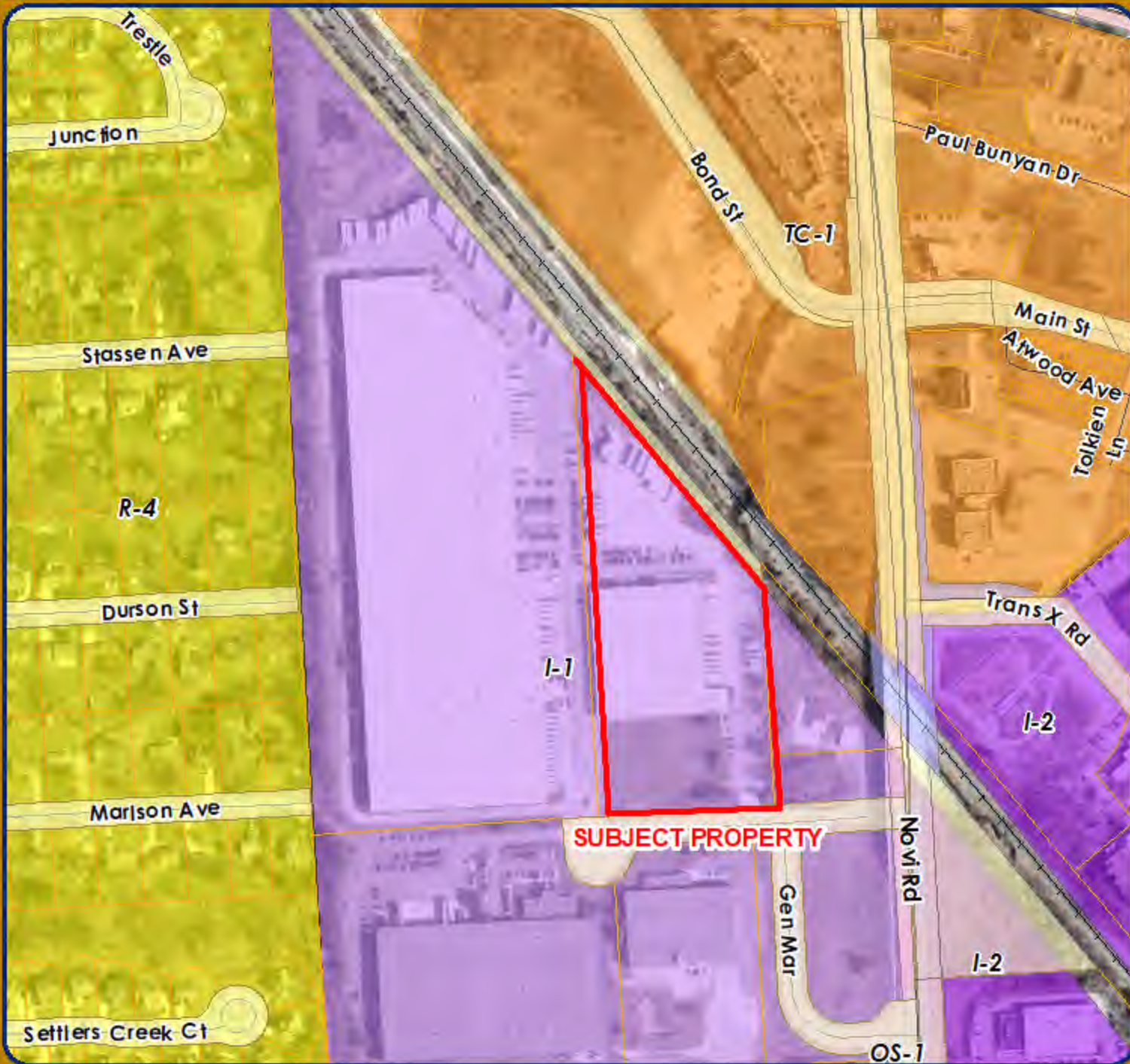


#### MAP INTERPRETATION NOTICE

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.

# JSP23-45 CVS DISTRIBUTION CENTER SITE IMPROVEMENTS

## Zoning



**LEGEND**

- R-4: One-Family Residential District
- RM-2: High-Density Multiple Family
- I-1: Light Industrial District
- I-2: General Industrial District
- OS-1: Office Service District
- OSC: Office Service Commercial
- TC: Town Center District
- TC-1: Town Center -1 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: Dan Commer  
 Date: 6/6/2024  
 Project: JSP23-45 CVS Distribution Center Site Improvements  
 Version #: 1



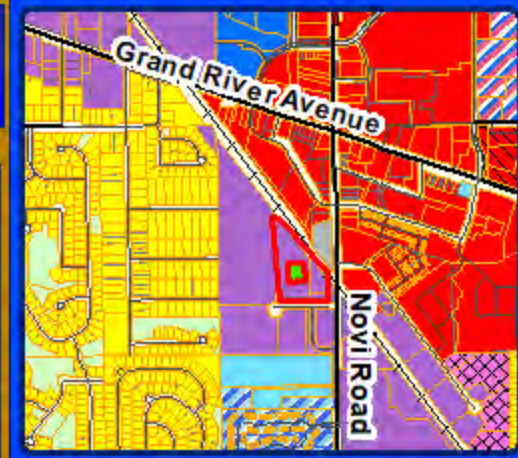
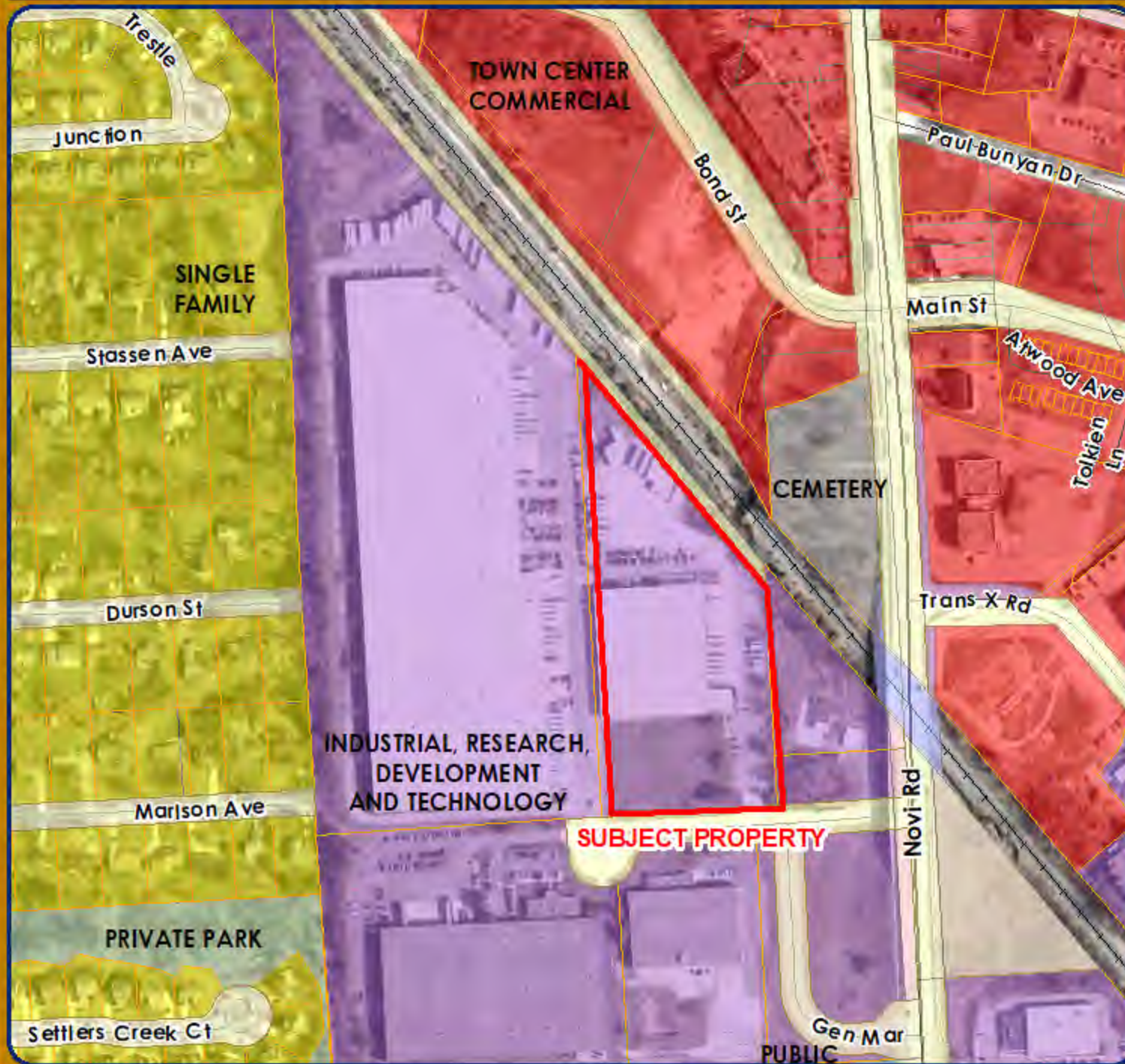
**MAP INTERPRETATION NOTICE**

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 measurement 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.

Settlers Creek Ct

# JSP23-45 CVS DISTRIBUTION CENTER SITE IMPROVEMENTS

Future Land Use



**LEGEND**

- Single Family
- Community Office
- Office, Research, Development and Technology
- Office Commercial
- Industrial, Research, Development and Technology
- Heavy Industrial
- Town Center Commercial
- Town Center Gateway
- Public
- Private Park
- Cemetery
- 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: Dan Commer  
 Date: 6/6/2024  
 Project: JSP23-45 CVS Distribution Center Site Improvements  
 Version #: 1

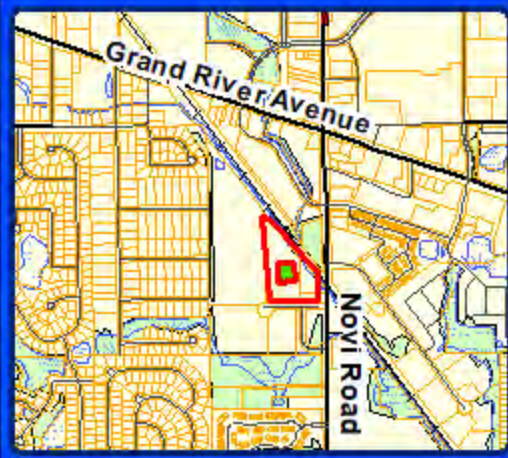


**MAP INTERPRETATION NOTICE**




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.

# JSP23-45 CVS DISTRIBUTION CENTER SITE IMPROVEMENTS

## 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](http://cityofnovi.org)

Map Author: Dan Commer  
 Date: 8/6/2024  
 Project: JSP23-45 CVS Distribution Center Site Improvements  
 Version #: 1



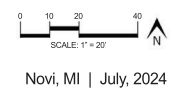
#### MAP INTERPRETATION NOTICE

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 considered 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 sources and accuracy in information related to this map.





CVS DISTRIBUTION CENTER



PEA GROUP  
7927 Norcross Hwy, Ste 115  
Brighton, MI 48116  
T: 517.546-8583  
F: 517.546-8973  
www.peagroup.com



Novi, MI | July, 2024

**SITE PLAN**

# PRELIMINARY SITE PLANS

# CVS DISTRIBUTION CENTER IMPROVEMENTS

43800 GEN MAR ROAD  
CITY OF NOVI, OAKLAND COUNTY, MI

PERMIT / APPROVAL SUMMARY		
DATE SUBMITTED	DATE APPROVED	PERMIT / APPROVAL



INDEX OF DRAWINGS	
NUMBER	TITLE
	COVER SHEET
C-1.0	TOPOGRAPHIC SURVEY
C-1.1	DETAILED TOPOGRAPHIC SURVEY
C-2.0	DEMOLITION PLAN
C-3.0	OVERALL SITE PLAN
C-3.1	PRELIMINARY SITE PLAN
C-4.0	PRELIMINARY GRADING PLAN
C-5.0	SESC PLAN
C-6.0	PRELIMINARY UTILITY PLAN
C-7.0	STORM SEWER PROFILES
C-8.0	SWMP - DETENTION SYSTEM
C-9.0	NOTES AND DETAILS
1 OF 1	OCWRC SOIL EROSION AND SEDIMENTATION CONTROL
SL-1.0	PHOTOMETRIC PLAN
SL-1.1	PHOTOMETRIC DETAILS
1 OF 2	CITY OF NOVI PAVING DETAILS
2 OF 2	CITY OF NOVI PAVING DETAILS
1 OF 2	CITY OF NOVI STORM SEWER STANDARD DETAILS
2 OF 2	CITY OF NOVI STORM SEWER STANDARD DETAILS
L-1.0	LANDSCAPE CALCULATIONS
L-1.1	PRELIMINARY LANDSCAPE PLAN
L-2.0	LANDSCAPE DETAILS
L-2.1	LANDSCAPE SPECIFICATIONS
L-2.2	LANDSCAPE SPECIFICATIONS
T-1.0	TREE PRESERVATION PLAN
T-1.1	TREE LIST

## DESIGN TEAM

OWNER/APPLICANT/DEVELOPER	CIVIL ENGINEER
CVS HEALTH 475 PARK EAST DRIVE MC6010 WOONSOCKET, RI 02895 CONTACT: BRIAN J. FRIGON PHONE: 419.314.1761 EMAIL: BRIAN.FRIGON@CVSHEALTH.COM	PEA GROUP 7927 NEMCO WAY, STE. 115 BRIGHTON, MI 48116 CONTACT: JOSEPH WYWR0T, PE PHONE: 248.952.4356 EMAIL: JWYWR0T@PEAGROUP.COM

## LANDSCAPE ARCHITECT

PEA GROUP  
7927 NEMCO WAY, STE. 115  
BRIGHTON, MI 48116  
CONTACT: LYNN WHIPPLE, PLA  
PHONE: 844.813.2949  
EMAIL: LWHIPPLE@PEAGROUP.COM

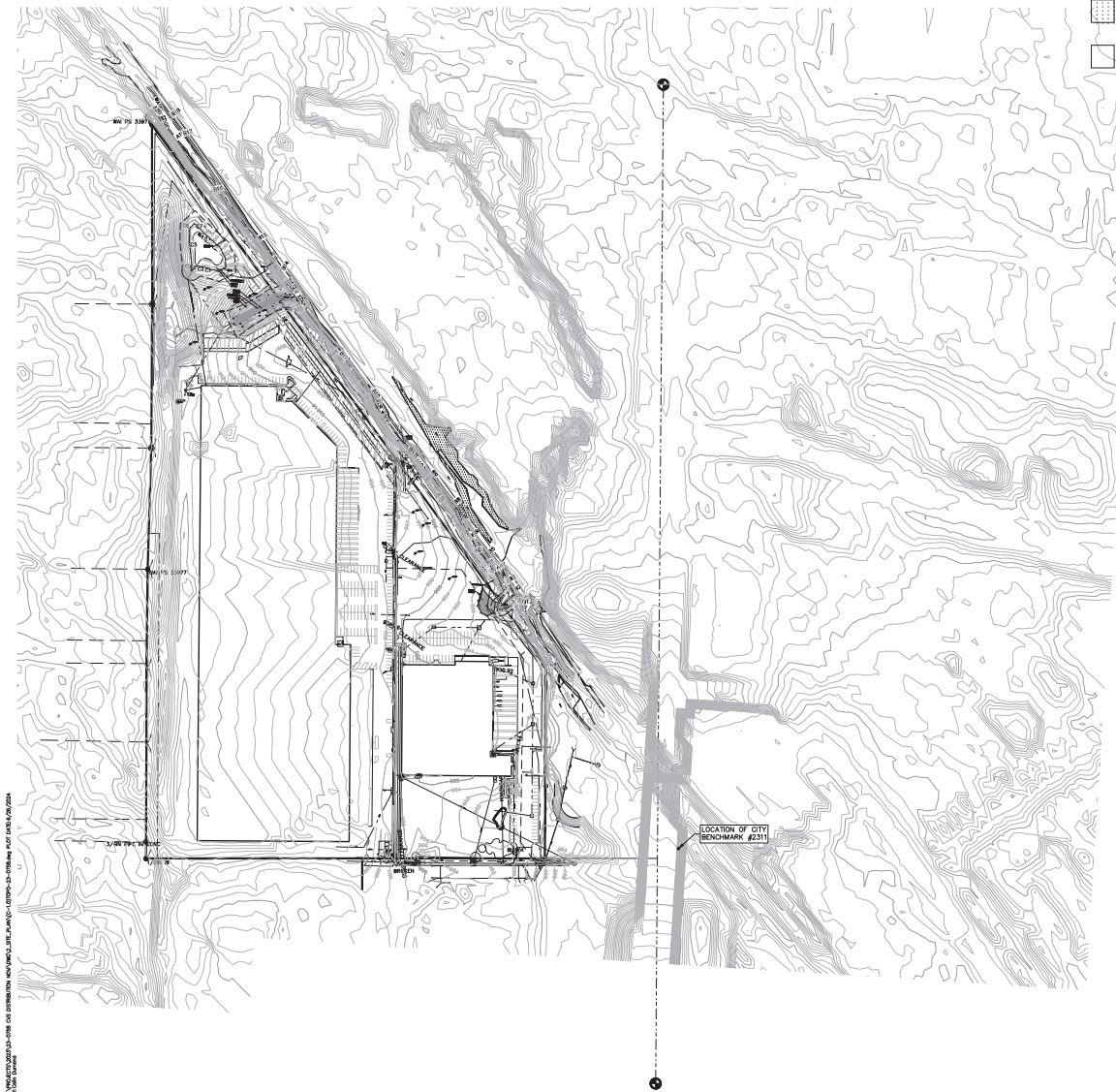


CITY PROJECT NUMBER: JSP23-45 CVS DISTRIBUTION CENTER SITE IMPROVEMENTS

REVISIONS	
DESCRIPTION	DATE
PRE-APPLICATION SUBMITTAL	10/10/2023
RFI RESPONSE TO COMMENTS	12/6/2023
PRELIMINARY SITE PLAN SUBMITTAL	1/23/2024
RESPONSE TO CITY COMMENTS	4/12/2024
AMENDED SP SUBMITTAL	6/26/2024



NOT FOR CONSTRUCTION



**FLOODPLAIN:**  
 (Per Flood Insurance Rate Map Number 26125C0626F.  
 Revised Date September 29, 2006 and LOMR-22-05-0343P, Effective Date 3/10/2023)

**SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD:**

The 1% annual chance flood (100 year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE AE** - Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**  
 The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS**  
**ZONE X** - Area of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS**  
**ZONE Y** - Area to be determined outside of the 0.2% annual chance floodplain.

- LEGEND:**
- EX. OIL, ELEC. POLE AND GUY WIRE
  - EX. U.S. CABLE TV AND FIBER OPTICAL
  - EX. U.S. COMMUNICATION LINE, PEDESTAL AND MANHOLE
  - EX. U.S. ELECTRIC MANHOLE, METER AND HANDHOLE
  - EX. GAS LINE
  - EX. GAS VALVE AND GAS LINE MEMBER
  - EX. TRANSFORMER AND REGULATION VALVE
  - EX. WATER MAIN
  - EX. IRRIG. GATE VALVE AND POST INDICATOR VALVE
  - EX. WATER VALVE BOX AND SHUTOFF
  - EX. SANITARY SEWER
  - EX. SANITARY CLEANOUT AND MANHOLE
  - EX. CORNER SEWER MANHOLE
  - EX. STORM SEWER
  - EX. CLEANOUT AND MANHOLE
  - EX. SQUARE ROUND AND REEFER CATCH BASIN
  - EX. WARD DRUM AND ROOF DRAIN
  - EX. UNIDENTIFIED STRUCTURE
  - EX. MAILBOX, SIGN AND LIGHT POLE
  - EX. FENCE
  - EX. GUARD RAIL
  - EX. DEC. TREE, CONIFEROUS TREE AND SHRUB
  - EX. TREE TAG AND TREE LINE
  - EX. SPOT ELEVATION
  - EX. CONTOUR
  - EX. WETLAND
  - IRON FOUND./SET
  - NAIL FOUND./NAIL AND CAP SET
  - BRASS FLAG SET
  - MONUMENT FOUND./SET
  - SECTION CORNER FOUND
  - RECORDED/MEASURED/CALCULATED

**REFERENCE DRAWINGS:**

- WATER MAIN CITY OF NOVI DESIGN TICKET #2023081503334
- SANITARY SEWER CITY OF NOVI DESIGN TICKET #2023081503334
- STORM SEWER CITY OF NOVI DESIGN TICKET #2023081503334
- ELECTRIC DTE MAP#2026-368, DATED 06/26/2023
- TELEPHONE ATT. MISS. DR. RECEIVED 06/26/2023
- GAS CONSUMERS ENERGY, EMAIL RECEIVED 06/16/2023
- CATV COMCAST TICKET #2023081503334
- FLOODPLAIN FEMA MAP #2023081503334, DATED 09/29/2008 AND LOMR-22-05-0343P, EFFECTIVE 03/10/2023

**LEGAL DESCRIPTION:**  
 (Per tax parcel information, Oakland County Title Commitment not provided)

Parcel ID 50-22-22-276-008  
 Land in the City of Novi, Oakland County, Michigan, described as follows:

T1N, R8E, SEC 22 PART OF NE 1/4 BEG AT PT DIST N 00-23-56 E 593.76 FT AND S 89-56-56 W 697.00 FT FROM E 1/4 COR, TH S 89-56-56 W 652.64 FT, TH N 00-12-00 E 303.65 FT, TH N 00-05-30 W 200.00 FT, TH N 00-39-00 E 260.21 FT, TH N 01-40-14 E 320.04 FT, TH N 00-18-20 E 379.99 FT, TH N 00-06-25 W 471.91 FT TO SLY R/W LINE OF CANDO RR, TH S 36-09-45 E 1094.32 FT, TH S 00-23-56 W 1051.55 FT TO BEG 22.32 A05/13/87 FR 006

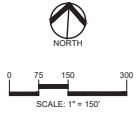
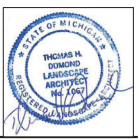
Parcel ID 50-22-22-276-009  
 Land in the City of Novi, Oakland County, Michigan, described as follows:

T1N, R8E, SEC 22 PART OF NE 1/4 BEG AT PT DIST N 00-23-56 E 593.76 FT AND S 89-56-56 W 297.00 FT FROM E 1/4 COR, TH S 89-56-56 W 400.00 FT, TH N 00-23-56 E 1051.55 FT TO SLY R/W LINE OF CANDO RR, TH S 36-09-45 E 671.48 FT, TH S 00-23-56 W 509.07 FT TO BEG 7.17 A05/13/87 FR 007

**BENCHMARKS**  
 (NAVD 88, GPS DERIVED)

- BM 300 - CHSELED 'X' ON THE NORTH SIDE OF A LIGHTPOLE BASE, LOCATED 160' EAST AND 25' SOUTH OF TRUCK DOCK#27. ELEV-911.64
- BM 301 - DIMPLE ON THE TOP RIM ON THE NORTH SIDE OF A FIRE HYDRANT, LOCATED 100' EAST OF TRUCK DOCK#26 AND 15' SOUTH OF C/L CROSS WALK. ELEV-910.77
- BM 302 - DIMPLE ON THE ARROW OF A FIRE HYDRANT, LOCATED IN BAY #46 OF THE NORTH LOT, 25' WEST FROM A SQUARE CATCH BASIN AND 24.5' SOUTH FROM A LIGHTPOLE. ELEV-908.85
- BM 303 - DIMPLE ON THE ARROW OF A FIRE HYDRANT, LOCATED 65' SOUTHWEST OF THE NORTHWEST BUILDING CORNER OF THE WESTERLY BUILDING AND 13.5' WEST OF THE CENTERLINE OF AN ASPHALT DRIVE. ELEV-917.50

NEAREST CITY BM: 2311 - X ON NORTH RIM OF SANITARY MANHOLE, LOCATED ACROSS FROM INTERSECTION OF GEN MAR AND NOVI ROAD, 45 FEET EAST OF CENTERLINE OF NOVI ROAD AND 80 FEET NORTH OF CENTERLINE OF GEN MAR. ELEV-892.089800



**CAUTION!**  
 This drawing was prepared by or for the contractor. It is not to be used for any other purpose without the written consent of the contractor. The contractor is responsible for the accuracy of the information provided to the contractor and for the accuracy of the information provided to the contractor.

CLIENT  
**CVS HEALTH**  
 475 PARK EAST DRIVE MC6010  
 MC601001 - 010000

PROJECT TITLE  
**CVS DISTRIBUTION CENTER NOVI**  
 43802 GEN MAR ROAD  
 CITY OF NOVI, MI

REVISIONS	
TIN RESPONSE	10/26/23
SPA SUBMITTAL	01/23/24
RESPONSE TO COMMENTS	04/12/24
RESPONSE TO COMMENTS	05/22/24
AMENDED SP SUBMITTAL	06/26/24

ORIGINAL ISSUE DATE:  
 OCT. 11, 2023

DRAWING TITLE  
**OVERALL TOPOGRAPHIC SURVEY**

PEA JOB NO.	2023-0758
P.M.	TD
C.N.	CD
DES.	CD

DRAWING NUMBER:

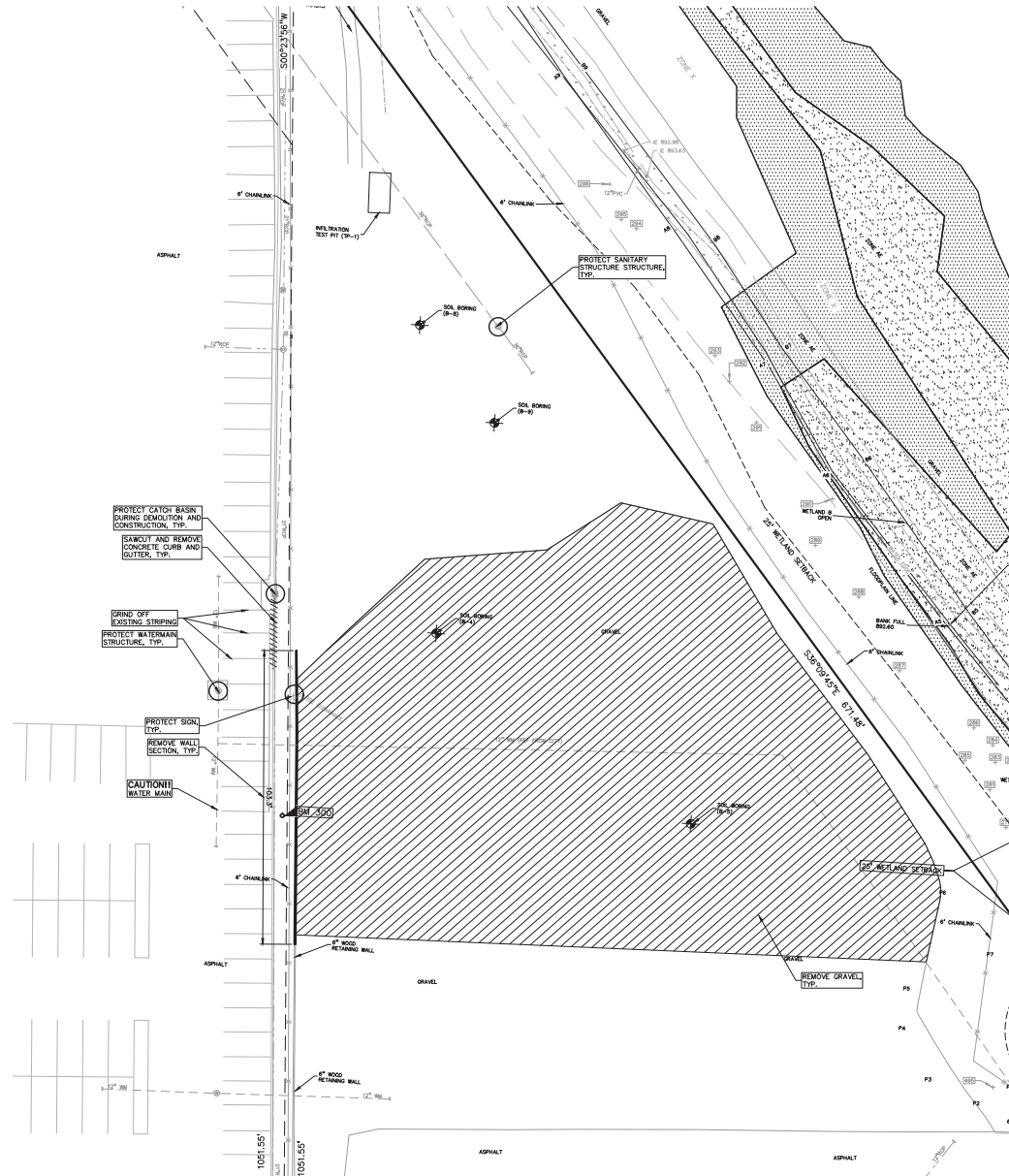
**C-1.0**

NOT FOR CONSTRUCTION

\\\V:\PROJECTS\2023\2023-0758 - CVS DISTRIBUTION CENTER NOVI\GIS\2023-0758-01-TOPO-01-01-01.dwg (10/26/23) PLOT DATE: 10/26/23  
 10/26/23 10:00 AM  
 10/26/23 10:00 AM



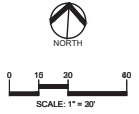
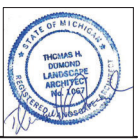
3:\PROJECTS\2023\2023-07-08 - OS DEMOLITION\WORK\DWG\01-DEMOL-DIST-DISTRIB-CV-NOVI-DWG.dwg (DATE: 08/01/2024)  
 8/16/2024 10:58:51 AM



- GENERAL DEMOLITION NOTES:**  
 THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT:
1. ALL MATERIAL TO BE REMOVED, WHETHER SPECIFICALLY NOTED IN THE PLANS OR NOT, SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. NO ON-SITE BURY OR BURN PITS SHALL BE ALLOWED.
  2. ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES.
  3. STAKING/MARKING OF DEMOLITION AND CONSTRUCTION IS TO BE COORDINATED WITH THE OWNER AND THE CONTRACTOR PRIOR TO CONSTRUCTION.
  4. SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON THE PLANS AS A GUIDE TO THE GENERAL SCOPE OF THE WORK. IF THE INTENT THAT THESE ITEMS SHALL BE COMPLETELY REMOVED BY THE CONTRACTOR ABOVE AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OTHERWISE, AND THAT DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY BE LIMITED TO THESE ITEMS, CONTRACTOR SHALL VISIT SITE TO VERIFY EXISTING CONDITIONS AND EXTENTS OF THE DEMOLITION THAT WILL BE REQUIRED PRIOR TO SUBMITTING A BID.
  5. REMOVE ALL STRUCTURES DESIGNATED FOR REMOVAL ACCORDING TO THE DEMOLITION PLAN. THIS INCLUDES FOUNDATIONS, FOOTINGS, FOUNDATION WALLS, FLOOR SLABS, UNDERGROUND UTILITIES, CONCRETE, ASPHALT, TREES, ETC.
  6. REFER TO SHEET 00-XX FOR TREE PROTECTION DETAILS.
  7. THE CONTRACTOR SHALL, AS A MINIMUM, PROVIDE TREE PROTECTION FENCING AROUND EXISTING TREES TO BE SAVED THAT ARE WITHIN 15 FEET OF CONSTRUCTION ACTIVITIES AND AS INDICATED IN THE PLANS OR PER LOCAL AGENCY REQUIREMENTS.
  8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP, NOISE, DUST CONTROL, STREET CLOSING AND HOURS OF OPERATION IN ACCORDANCE WITH THE LOCAL CODES.
  9. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNAGE, MARKINGS, LIGHTS AND OTHER TRAFFIC CONTROL DEVICES TO PROTECT THE WORK ZONE AND SAFELY MAINTAIN TRAFFIC PER AGENCY REQUIREMENTS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
  10. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES TO CONFIRM THAT UTILITY LEADS HAVE BEEN TAKEN OUT OF SERVICE PRIOR TO DEMOLITION.
  11. ALL BUILDING GAS LEADS, METERS AND ASSOCIATED EQUIPMENT SHALL BE REMOVED AS SHOWN ON THE PLANS. COORDINATE ALL ASSOCIATED WORK WITH THE APPROPRIATE UTILITY COMPANY.
  12. REMOVE ALL OVERHEAD AND UNDERGROUND ELECTRICAL LINES WITHIN THE AREA OF CONSTRUCTION AS SHOWN ON THE PLANS. COORDINATE SHUTDOWNS AND REMOVALS WITH ELECTRICAL SERVICE PROVIDER OR THE APPROPRIATE UTILITY COMPANY. (NOTE: PHONE AND CABLE TV SERVICES MAY ALSO BE LOCATED ON OVERHEAD LINES.)
  13. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF SIGNS AND SUPPORTS WITHIN THE WORK AREA AS NECESSARY TO FACILITATE CONSTRUCTION. SIGNS SHALL BE PROTECTED OR STOCKPILED FOR REUSE AS SPECIFIED IN THE PLANS OR AS REQUIRED BY THE AGENCY OF JURISDICTION. THE CONTRACTOR SHALL REPLACE ANY DAMAGED SIGNS AND SUPPORTS AT NO ADDITIONAL COST TO THE OWNER.
  14. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ONE CALL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

**DEMOLITION LEGEND:**

ITEM TO BE PROTECTED	
ITEM TO BE REMOVED	
CURB/TENGE REMOVAL	
CONCRETE PAVEMENT AND SIDEWALK REMOVAL	
AREA OR ITEMS TO BE REMOVED	
UTILITY REMOVAL	
ABANDON UTILITY	
ASPHALT REMOVAL	
TREE REMOVAL	
SAWTOOTH LINE	



**CAUTION!**  
 THIS DRAWING IS UNCONTROLLED OR OBSOLETE. CONSULT THE PROJECT MANAGER FOR THE LATEST EDITION OF THIS DRAWING.

**CLIENT**  
**CVS HEALTH**  
 475 PARK EAST DRIVE MC6810  
 MCLEANSVILLE, IN 46058

**PROJECT TITLE**  
**CVS DISTRIBUTION CENTER NOVI**  
 43802 GEN MAR ROAD  
 CITY OF NOVI, MI

**REVISIONS**

TRN RESPONSE	08/02/23
SPA SUBMITTAL	01/23/24
RESPONSE TO COMMENTS	04/12/24
RESPONSE TO COMMENTS	05/22/24
AMENDED SP SUBMITTAL	06/26/24

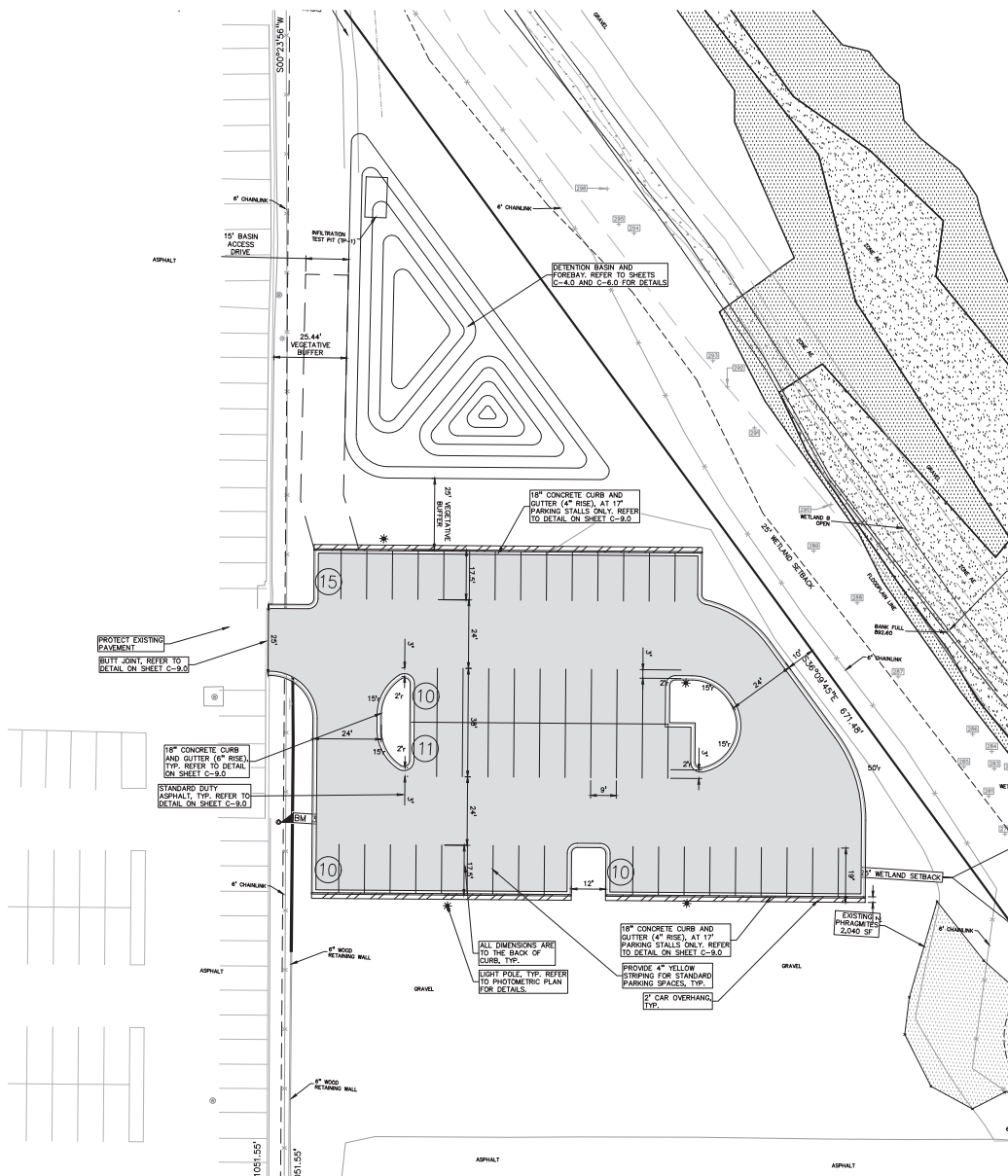
**ORIGINAL ISSUE DATE:**  
 OCT. 11, 2023  
**DRAWING TITLE**  
**DEMOLITION PLAN**

**PEA JOB NO.** 2023-0758  
**P.M.** TD  
**CN.** CD  
**DES.** CD  
**DRAWING NUMBER:**

**NOT FOR CONSTRUCTION C-2.0**



3/16/2023 10:55:33 AM - 10/05/2023 10:00:00 AM EXISTING PHOTOGRAPHIC PLAN (C-1) 1:2500 20-0788-000 10/05/2023 10:00:00 AM  
 10/05/2023 10:00:00 AM



**LEGEND:**

	CONCRETE PAVEMENT
	ASPHALT PAVEMENT
	GRAVEL
	WETLAND
	CONCRETE CURB AND GUTTER
	REVERSE GUTTER PAN
	SETBACK LINE
	SIGN LIGHTPOLE
	FENCE
	GUARD RAIL

**GENERAL NOTES:**

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.

- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE, UNLESS OTHERWISE NOTED.
- REFER TO NOTES & DETAILS SHEET FOR ON-SITE PAVING DETAILS.

**SITE DATA TABLE:**

TOTAL SITE AREA = 29.48 ACRES (BOTH PROPERTIES)

SITE AREA 23.34 ACRES (MAIN BLDG. PROPERTY + LEASABLE/PROPERTY RECONFIGURATION AREA)

ZONING: LIGHT INDUSTRIAL (L-1)

PROPOSED USE: INDUSTRIAL

EXISTING MAIN BUILDING SIZE: 441760

HOURS OF OPERATION: 5:00 AM to 11:00 PM (2 SHIFTS)

TOTAL EMPLOYEES: 248 (167 1ST SHFT & 81 2ND SHFT)

**PARKING CALCULATIONS:**

EXISTING PARKING TOTAL = 175 SPACES INC. 6 HC SPACES

REQUIRED PARKING OFFICE = 1 SPACE FOR EACH 222 SF OF GLA = 17,802 SF OF FLOOR SPACE / 59 = 301 SPACES

REQUIRED PARKING OFFICE = 1 SPACE FOR EACH 700 SF OF UFA = 272,679 SF OF FLOOR SPACE / 700 = 390 SPACES

TOTAL REQUIRED PARKING = 476 SPACES

TOTAL PROPOSED PARKING SPACES = 224 SPACES INC. 7 HC SPACES

**OFF-STREET PARKING IN SIDE AND REAR YARDS ABUTTING RESIDENTIAL DISTRICT:**

AREA OF RESIDENTIAL SIDE SETBACK AT = 3.88 AC (50% = 1.93 AC)

AREA THAT THE PARKING LOTS OCCUPIES IN THE SIDE YARD = 0 AC

PERCENTAGE OCCUPIED BY PARKING = 0%

AREA OF REAR YARD NORTH OF MAIN BUILDING THAT ABUTS RESIDENTIAL = 3.88 AC (50% = 1.93 AC)

AREA THAT THE PARKING LOT OCCUPIES IN THE REAR YARD = 0.11 AC

PERCENTAGE OCCUPIED BY PARKING = 0.03%

**TRUCK STALLS WELLS:**

EXISTING TRAILER STALLS = 51

EXISTING TRUCK WELLS = 18

PROPOSED TRAILER STALLS = 0

PROPOSED TRUCK WELLS = 0

TOTAL PROPOSED TRAILER STALLS = 51

PROPOSED TRUCK WELLS = 18

**SITE SOILS INFORMATION:**

ACCORDING TO THE USGS NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY FOR OAKLAND COUNTY, THE SITE CONSISTS OF THE FOLLOWING SOIL TYPES:

13B - CHETMO-BOYER LOAMY SANDS, 0 TO 6 PERCENT SLOPES

59 - URBAN LAND

60B - URBAN LAND/MARLETTE COMPLEX, 0 TO 6 PERCENT SLOPES

IT IS ANTICIPATED THE EMPLOYEES IN THE BLUE LINE BUILDING WILL BE RELOCATED TO THE MAIN BUILDING. NO ADDITIONAL JOBS WILL BE CREATED.

BUILDING LOT COVERAGE (EXISTING & PROPOSED): 40.0%

OPINION OF PROBABLE COST: \$2,955,000.

**SIGN LEGEND:**

BARRIER FREE PARKING SIGN	1
VAN ACCESSIBLE SIGN	2

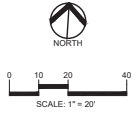
REFER TO DETAIL SHEET FOR SIGN DETAILS

**CITY OF NOVI NOTES:**

ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.

**SITE PLAN QUANTITIES (TOTAL SITE):**

STANDARD DUTY ASPHALT	2,127 SF
HEAVY DUTY ASPHALT	2,828 SF
HEAVY DUTY CONCRETE	318 SF
18" CONCRETE CURB AND GUTTER	1,723 LF
RETAINING WALL	127 LF
LIGHT POLES	8 EA
SIGNAGE	2 EA
STRIPING	1 LS



CLIENT

**CVS HEALTH**  
 415 PARK EAST DRIVE MC6010  
 MC601001 - 01/2024

PROJECT TITLE

**CVS DISTRIBUTION CENTER NOVI**  
 43802 GEN MAR ROAD  
 CITY OF NOVI, MI

**REVISIONS**

TRN RESPONSE	10/05/23
SPA SUBMITTAL	01/23/24
RESPONSE TO COMMENTS	04/12/24
RESPONSE TO COMMENTS	05/22/24
AMENDED SPA SUBMITTAL	06/25/24

ORIGINAL ISSUE DATE:  
 OCT. 11, 2023

DRAWING TITLE  
**PRELIMINARY SITE PLAN**

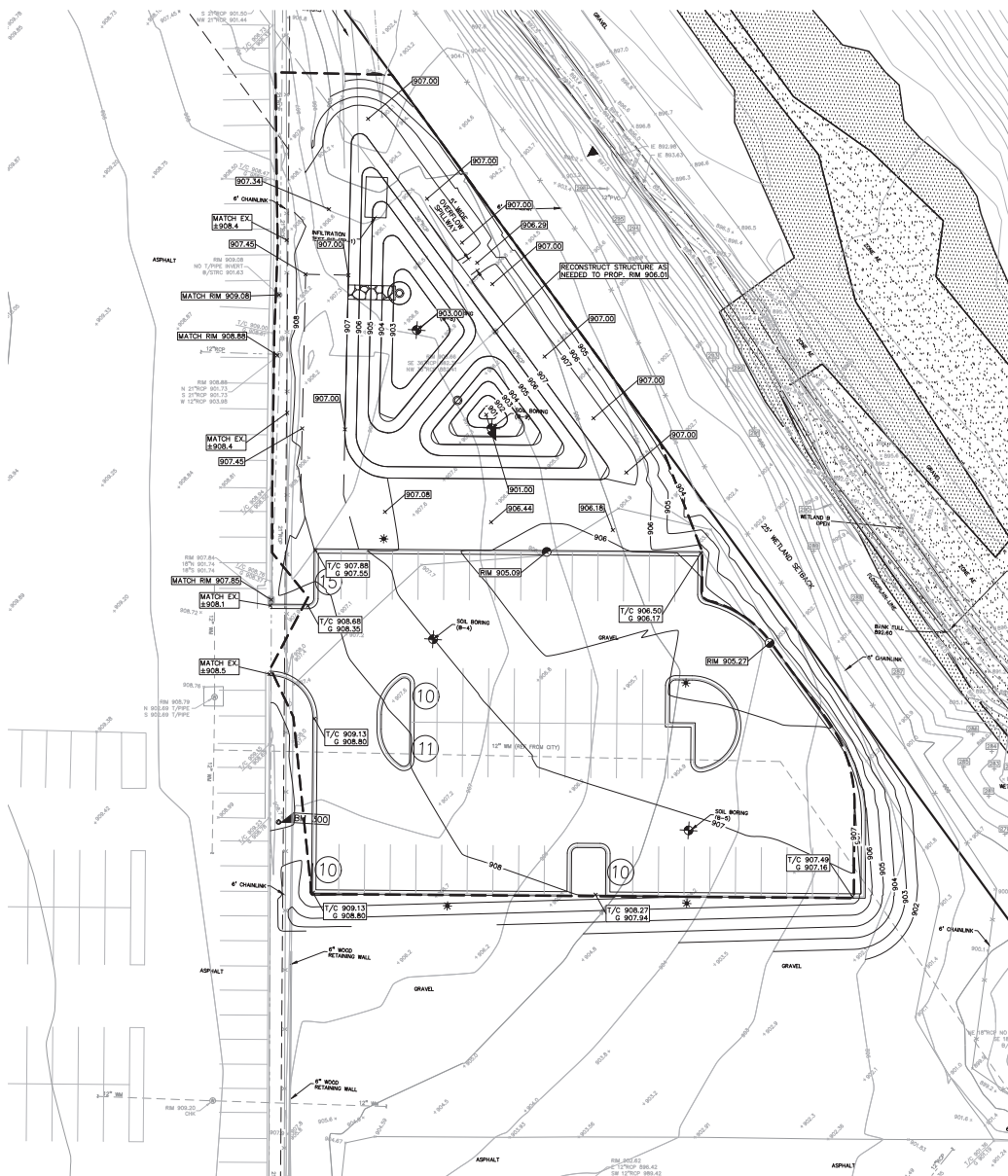
PEA JOB NO. 2023-0758

P.M.	TD
CN.	CD
DES.	CD

DRAWING NUMBER:

NOT FOR CONSTRUCTION **C-3.1**





**GRADING LEGEND:**

- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION  
TYPICALLY TOP OF PAVEMENT  
IN PAVED AREAS, GUTTER GRADE  
BY CURB LINES
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED REVERSE GUTTER PAN
- PROPOSED RIDGE LINE
- PROPOSED SWALEDITCH

**ABBREVIATIONS**

- T/C = TOP OF CURB
- T/F = TOP OF FURNISH GRADE
- T/S = TOP OF SIDEWALK
- T/W = TOP OF WALL
- G = GUTTER GRADE
- F.G. = FRESH GRADE
- RM = RIM ELEVATION
- BM = BOTTOM OF WALL

REFER TO GRADING NOTES ON SHEET

**RETAINING WALL NOTE:**  
TOP OF WALL (TW) AND BOTTOM OF WALL (BW) GRADES ARE THE FINISH GRADE AT THE TOP AND BOTTOM OF THE RETAINING WALL, NOT ACTUAL TOP AND BOTTOM OF THE WALL STRUCTURE

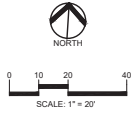
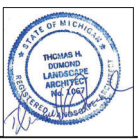
**FLOODPLAIN NOTE:**  
IT IS ANTICIPATED THE 100-YEAR FLOOD PLAN AND FLOODWAY WILL NOT BE IMPACTED BY THESE PROJECTS.

**EARTHWORK BALANCING NOTE:**  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING ALL MATERIALS AS REQUIRED TO PROPERLY GRADE THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER.

**BENCHMARKS**  
(NAVD 88, GPS DERIVED)

- BM 300 – CHISELED 'X' ON THE NORTH SIDE OF A LIGHTPOLE BASE, LOCATED 160' EAST AND 25' SOUTH OF TRUCK DOCK#27. ELEV=911.64
- BM 301 – DIMPLE ON THE TOP RIM ON THE NORTH SIDE OF A FIRE HYDRANT, LOCATED 100' EAST OF TRUCK DOCK#26 AND 15' SOUTH OF C/L CROSS WALK. ELEV=910.77
- BM 302 – DIMPLE ON THE ARROW OF A FIRE HYDRANT, LOCATED IN BAY #46 OF THE NORTH LOT, 25' WEST FROM A SQUARE CATCH BASIN AND 24' SOUTH FROM A LIGHTPOLE. ELEV=908.85
- BM 303 – DIMPLE ON THE ARROW OF A FIRE HYDRANT, LOCATED 65' SOUTHWEST OF THE WESTERLY BUILDING CORNER OF THE WESTERLY BUILDING AND 13.5' WEST OF THE CENTERLINE OF AN ASPHALT DRIVE. ELEV=917.50

**NEAREST CITY BM:** 2311 – X ON NORTH RIM OF SANITARY MANHOLE LOCATED ACROSS FROM INTERSECTION OF GEN MAR AND NOVJ ROAD, 45 FEET EAST OF CENTERLINE OF NOVJ ROAD AND 80 FEET NORTH OF CENTERLINE OF GEN MAR. ELEV=892.089600



**CAUTION!**  
UNDERGROUND UTILITIES OR OTHER OBSTRUCTIONS MAY BE PRESENT. CALL 811 TO LOCATE UTILITIES BEFORE ANY EXCAVATION OR DISTURBANCE OF THE GROUND.

**CLIENT**  
**CVS HEALTH**  
415 PARK EAST DRIVE MC6010  
MICHIGANVILLE, MI 48854

**PROJECT TITLE**  
**CVS DISTRIBUTION CENTER NOVI**  
43802 GEN MAR ROAD  
CITY OF NOVI, MI

REVISIONS	
RFI RESPONSE	10/26/23
SPA SUBMITTAL	01/23/24
RESPONSE TO COMMENTS	04/12/24
RESPONSE TO COMMENTS	05/22/24
AMENDED SPA SUBMITTAL	06/20/24

**ORIGINAL ISSUE DATE:**  
OCT. 11, 2023

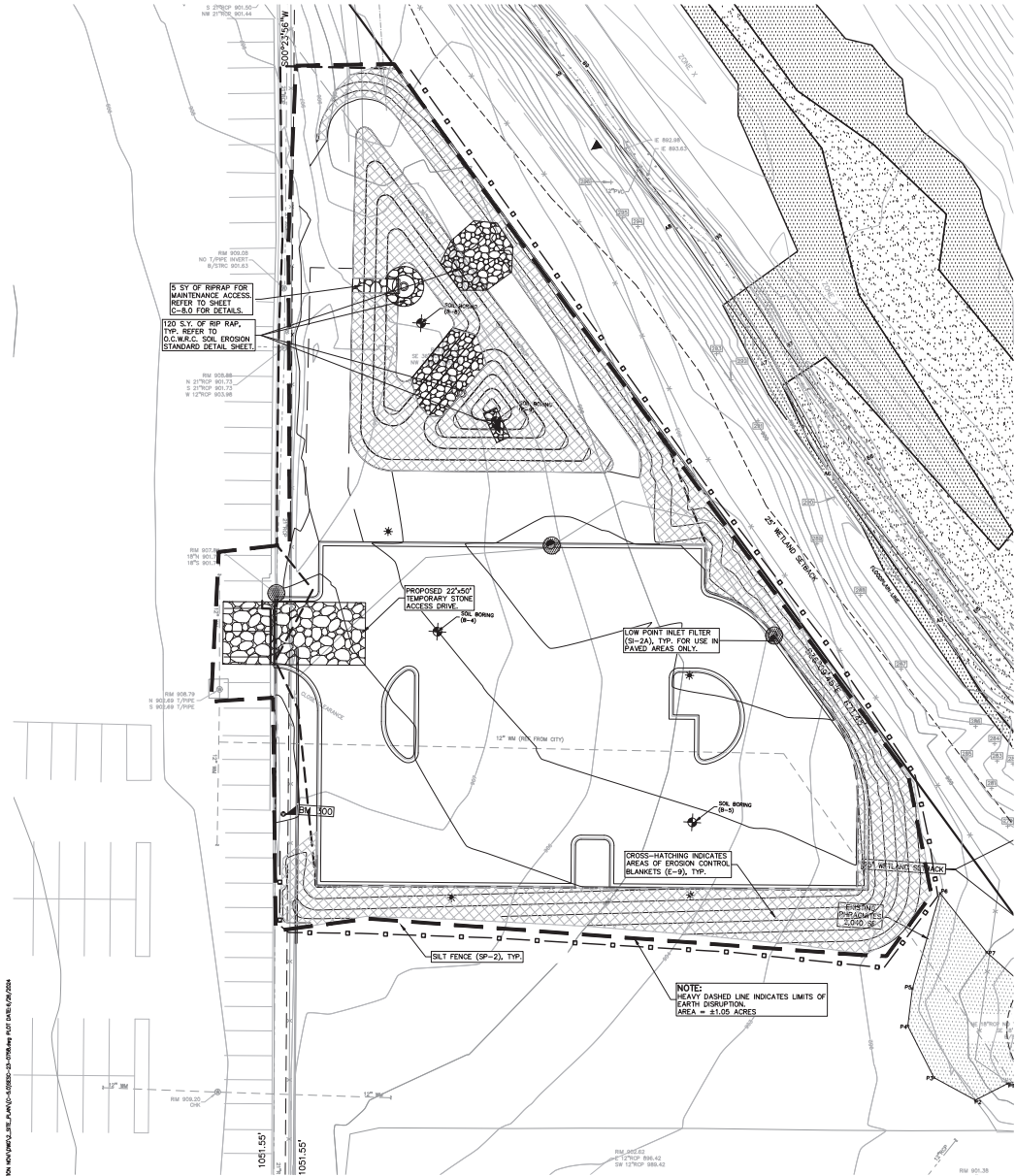
**DRAWING TITLE**  
**PRELIMINARY GRADING PLAN**

PEA JOB NO.	2023-0758
P.M.	TD
D.N.	CD
DES.	CD
DRAWING NUMBER:	

**NOT FOR CONSTRUCTION** **C-4.0**

\\\V:\PROJECTS\2023\23-0758 - CVS DISTRIBUTION CENTER\23-0758-01-CVS-DIST-CENT-NOVI\01-23-24\01-23-24.dwg (11/01/2023) 11:01 AM

\N:\PROJECTS\2023\23-008 - CVS DISTRIBUTION CENTER\23-008-00-SESSC-00-DRAWING SET\DWG\23-008-00-SESSC-00-01.DWG



**SEQUENCE OF CONSTRUCTION:**

START DAY	END DAY	DESCRIPTION
1	90	INSTALL CRUSHED CONCRETE ACCESS APPROACH AT SITE ROAD APPROACH.
1	90	INSTALL TEMPORARY SOIL EROSION CONTROL MEASURES, SILT FENCES, INLET PROTECTION, ETC. AS NECESSARY.
120		MAINTAIN A 20' BUFFER OF VEGETATION AROUND PERIMETER OF SITE WHERE POSSIBLE.
1	15	REMOVE ALL VEGETATION, TREES AND BRUSH FROM THE PROPOSED CONSTRUCTION AREA UNLESS MARKED TO REMAIN. STRIP AND STOCKPILE TOPSOIL AS REQUIRED. ALL STOCKPILES MUST BE GRADED AND SEEDED.
5	14	REMOVE ALL PAVEMENT, CURB, UTILITIES, ETC. AS REQUIRED TO INSTALL THE PROPOSED WORK AS SHOWN ON THE TOPOGRAPHIC SURVEY AND DEMOLITION PLAN.
5	14	DISPOSE OF ALL EXCESS/UNSUITABLE MATERIALS OFF SITE IN A LEGAL MANNER. NO ON-SITE BURN OR BURY PITS ALLOWED.
14	28	ROUGH GRADE SITE. SEED AND MULCH BLANKETS MUST BE INSTALLED AS SHOWN WITHIN 5 DAYS OF FINAL GRADE. REPAIR AND/OR RE-INSTALL ANY TEMPORARY SOIL EROSION CONTROL MEASURES THAT WERE DAMAGED DURING GRADING OPERATIONS.
28	60	INSTALL SITE UTILITIES (STORM SEWER, SANITARY SEWER, WATER MAIN ETC.). INSTALL INLET PROTECTION AT ALL PROPOSED CATCH BASINS.
28	90	TEMPORARY SEEDING MUST BE PROVIDED IN AREAS NOT TO BE WORKED ON FOR 15 DAYS OR LONGER.
30		BEGIN CONSTRUCTION OF BUILDING.
70		FINE GRADE SITE AND PREPARE FOR SITE PAVING OPERATIONS.
80	110	INSTALL ALL PAVEMENT, SEWALKS, CURBING AS PROPOSED. IF PERMANENT LANDSCAPING IS NOT TO BE INSTALLED SOON AFTER PAVING IS COMPLETE, ALL AREAS WITHIN 20 FEET OF BACK OF CURB MUST BE TEMPORARILY SEEDED. REPAIR INLET PROTECTION, SILT FENCE AND ANY OTHER DAMAGED SOIL EROSION CONTROL MEASURES AS NECESSARY.
90	119	FINAL GRADE, REDISTRIBUTE STOCKPILED TOPSOIL, ESTABLISH VEGETATION AND INSTALL ALL PERMANENT LANDSCAPING IN ALL DISTURBED AREAS NOT BUILT.
118	120	CLEAN PAVEMENT AND REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES. RE-ESTABLISH VEGETATION AS REQUIRED.
120	120	REMOVE SEDIMENTATION CONTROLS ONCE ENTIRE SITE HAS BEEN PERMANENTLY STABILIZED.

**SYMBOLS: EROSION CONTROL:**

- (SP-2) SILT FENCE
- (S-2A) LOW POINT INLET FILTER
- (S-3) RYOB INLET FILTER
- ▨ (SP-9) TEMPORARY STONE ACCESS DRIVE
- ▨ (E-9) EROSION CONTROL BLANKET
- ▨ (E-7) RPRAP
- ▨ TEMPORARY SEED AND MULCH

REFER TO CIVIL/MEC SOIL EROSION AND SEDIMENTATION CONTROL DETAILS SHEET FOR ALL DEVICE DETAILS.

**EROSION CONTROL QUANTITIES:**

SILT FENCE	620 LF
LOW POINT INLET FILTER	3 EA
TEMPORARY CONSTRUCTION ACCESS DRIVE	1 EA
EROSION CONTROL BLANKETS	1,625 S.Y.
RPRAP	125 SY

**SOIL EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION:**

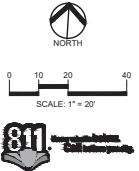
- SEE OAKLAND COUNTY W.R.C. SOIL EROSION AND SEDIMENTATION CONTROL DETAILS SHEET FOR ALL SOIL EROSION CONTROL RELATED DETAILS.
- PLACE SILT FENCE & INSTALL INLET FILTERS ON EXISTING STORM SEWER STRUCTURES, ACCORDING TO PLANS.
- INSTALL TEMPORARY CRUSHED CONCRETE ACCESS DRIVE AT ALL CONSTRUCTION ENTRANCES. (60"x24"x8" W/MINIMUM OF 1"-3" CRUSHED CONCRETE - NO FINES).
- REMOVE CURB, PAVEMENT, TREES, ETC. AS DIRECTED ON THE DEMOLITION PLAN.
- STRIP AND STOCKPILE TOPSOIL FOR RESTORATION REQUIREMENTS.
- DISPOSE OF ALL EXCESS, UNSUITABLE MATERIALS OFF SITE IN A LEGAL MANNER. NO BURN OR BURY PITS ALLOWED.
- UNSUITABLE MATERIALS CONSIST OF, BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING: CONCRETE, ASPHALT, TREES, BRUSH, STUMPS, ROOTS, OR OTHER MISCELLANEOUS DEBRIS OR TRASH.
- MASS GRADE THE SITE IN ACCORDANCE WITH THE PLANS.
- INSTALL SEED, MULCH AND EROSION CONTROL BLANKETS AS SHOWN ON THE PLAN WITHIN 5 DAYS OF COMPLETION OF MASS GRADING OR WHENEVER DISTURBED AREAS WILL REMAIN UNCHANGED FOR 30 DAYS OR GREATER. 3-4" TOPSOIL WILL BE USED WHERE VEGETATION IS REQUIRED.
- COMPLETE ROUGH GRADING OF SITE AND INSTALL UTILITIES. PLACE INLET FILTERS AT ALL INLETS AND CATCH BASINS, AS SHOWN.
- FINISH GRADE AND PAVE SITE AS PROPOSED TO DRAIN TO STORM SEWER SYSTEM. REPAIR INLET FILTERS AS REQUIRED.
- APPLY TOPSOIL, SEED AND MULCH/WOOD TO ALL DISTURBED AREAS UPON COMPLETION OF GRADING. THE CONTRACTOR SHALL STAGE CONSTRUCTION ACTIVITIES IN ORDER TO MINIMIZE THE EXPOSURE OF UNSTABILIZED AREAS.
- CLEAN PAVEMENT AND STORM SEWERS. REMOVE SILT FENCE AND INLET FILTERS ONCE VEGETATION HAS BEEN ESTABLISHED.
- CLEAN DETENTION BASIN AND OVERFLOW SPILLWAYS AND REPAIR RPRAP AS NECESSARY.
- ALL DIRT AND MUD TRACKED ONTO PUBLIC ROADS SHALL BE REMOVED DAILY.
- STREET CATCH BASINS TO BE PERIODICALLY CLEANED AND FILTER CLOTH CHANGED AND MAINTAINED.

**SOIL EROSION MAINTENANCE SCHEDULE AND NOTES:**

1. THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY:

BRIAN J. FRISON  
 CVS HEALTH  
 475 PARK EAST DRIVE, MC6010  
 WOODBRIDGE, RI 02895  
 617.539.2749

- IF ANY DAMAGE HAS OCCURRED AS A RESULT OF STORM WATER DISCHARGE FROM THE SITE, THE FOLLOWING STEPS SHALL BE IMPLEMENTED.
- ANY DEBRIS OR DIRT ON ANY PAVED AREA RESULTING FROM CONSTRUCTION TRAFFIC SHALL BE CLEANED IN A PROMPT MANNER BY THE CONTRACTOR. THE CONSTRUCTION DRIVE SHALL BE CLEANED AT THE END OF EACH DAY.
- ALL DIRT AND MUD TRACKED ONTO PAVED AREAS SHALL BE REMOVED BY THE CONTRACTOR DAILY BY SCRAPING. STREET SWEEPING IS REQUIRED WEEKLY.
- SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT UP SEDIMENT WHEN THE SEDIMENT HEIGHT ACCUMULATES TO 1/2 TO 1/3 OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETEACH OR REPAIR/SPALL THE SILTATION FENCE SHOULD IT FALL OR BE DAMAGED DURING CONSTRUCTION.
- INLET FILTER MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY ACCUMULATED SILT OR OTHER DEBRIS. THE REMOVAL OF SILT SHOULD BE WITH THE USE OF A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTERS CAN NOT BE CLEANED OR ARE DAMAGED, THEN THE FABRIC MUST BE REPLACED.
- CONTRACTOR SHALL PROVIDE WATER TRUCK TO WATER DOWN THE SITE ON A DAILY BASIS AS REQUIRED TO MAINTAIN DUST CONTROL.
- IF HIGH GROUNDWATER IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION A DEWATERING PLAN MUST BE SUBMITTED TO THE CITY ENGINEERING DIVISION FOR REVIEW.



**CAUTION!**  
 This drawing is not to be used for construction without the approval of the engineer of record. The contractor shall be responsible for obtaining all necessary permits and for complying with all applicable laws, codes, and regulations. The engineer of record shall not be held responsible for any errors or omissions in this drawing.

CLIENT  
**CVS HEALTH**  
 475 PARK EAST DRIVE MC6010  
 WOODBRIDGE, RI 02895

PROJECT TITLE  
**CVS DISTRIBUTION CENTER NOVI**  
 43802 GEN MAR ROAD  
 CITY OF NOVI, MI

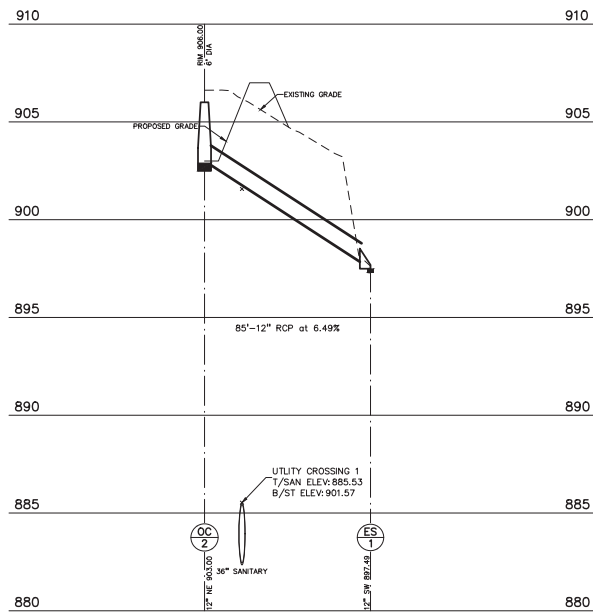
REVISIONS	DATE
TRN RESPONSE	08/23
SPA SUBMITTAL	01/23/24
RESPONSE TO COMMENTS	04/12/24
RESPONSE TO COMMENTS	05/22/24
AMENDED SP SUBMITTAL	06/26/24

ORIGINAL ISSUE DATE:  
 OCT. 11, 2023  
 DRAWING TITLE  
**SESSC PLAN**

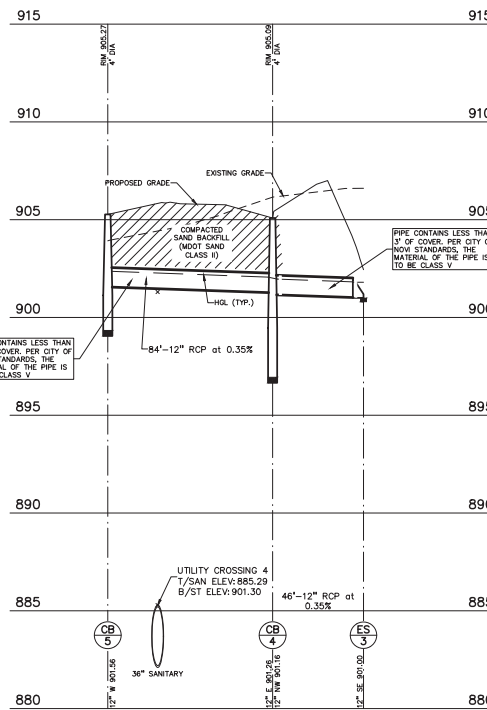
PEA JOB NO. 2023-0758  
 P.M. TD  
 C.N. CD  
 DES. CD  
 DRAWING NUMBER

NOT FOR CONSTRUCTION **C-5.0**

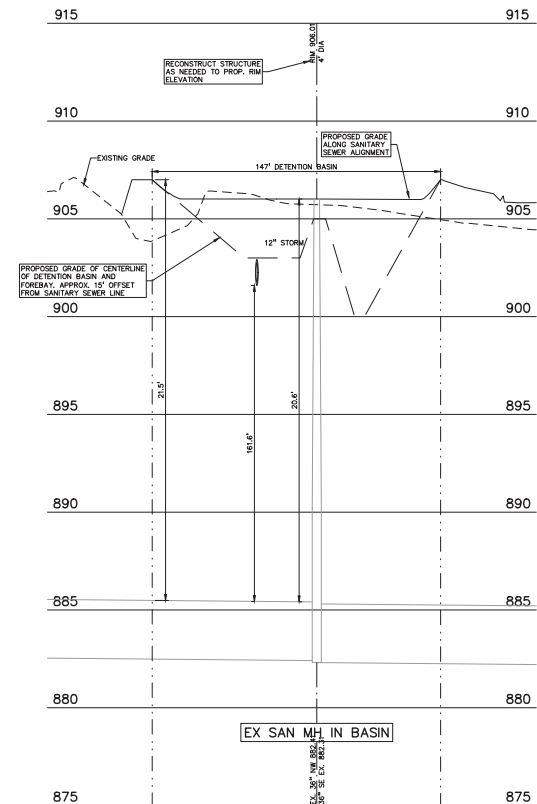




ST 2-1 PROFILE



ST 5-3 PROFILE



EXISTING SANITARY SEWER PROFILE



**CAUTION!**  
 This drawing was prepared by a registered professional engineer or architect under the supervision of a registered professional engineer or architect. It is not to be used for any other purpose without the written consent of the engineer or architect.

CLIENT  
**CVS HEALTH**  
 475 PARK EAST DRIVE MC6910  
 WOODBRIDGE, MI 48061

PROJECT TITLE  
**CVS DISTRIBUTION CENTER NOVI**  
 43802 GEN MAR ROAD  
 CITY OF NOVI, MI

REVISIONS	
TRF RESPONSE	10/6/23
SPA SUBMITTAL	01/23/24
RESPONSE TO COMMENTS	04/12/24
RESPONSE TO COMMENTS	05/22/24
AMENDED SP SUBMITTAL	06/26/24

ORIGINAL ISSUE DATE:  
 OCT. 11, 2023

DRAWING TITLE  
**STORM SEWER PROFILES**

PEA JOB NO. 2023-0758  
 P.M. TD  
 D.N. CD  
 D.E.S. CD  
 DRAWING NUMBER:

NOT FOR CONSTRUCTION **C-7.0**

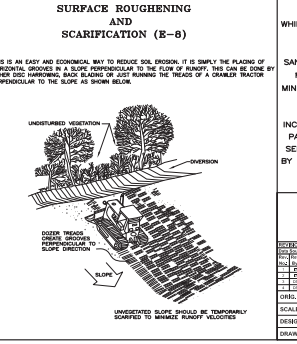
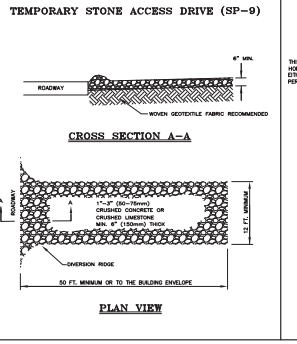
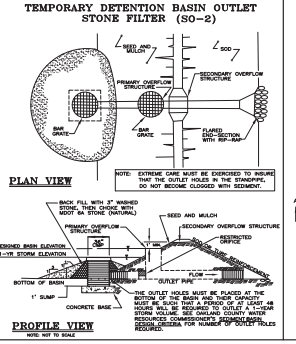
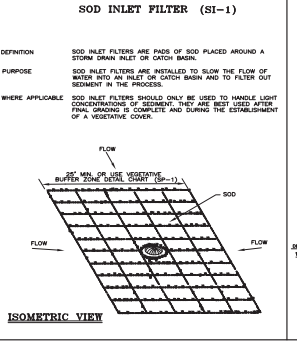
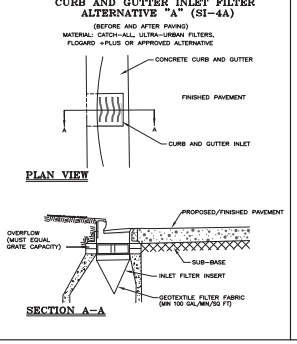
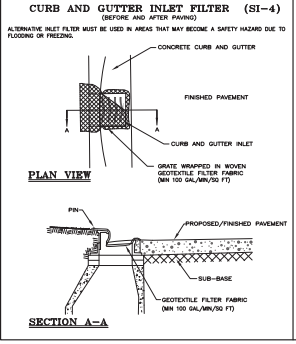
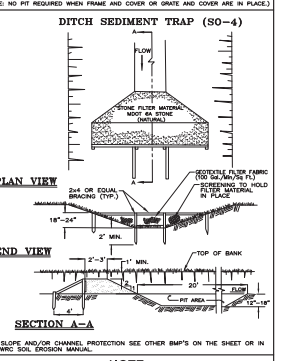
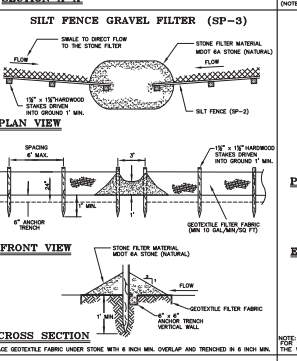
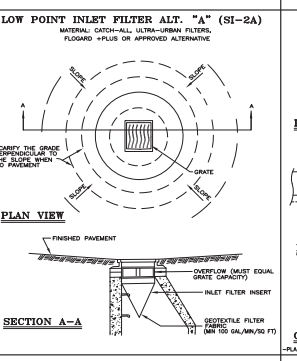
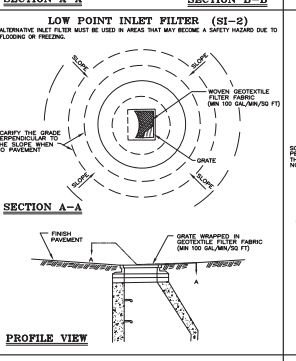
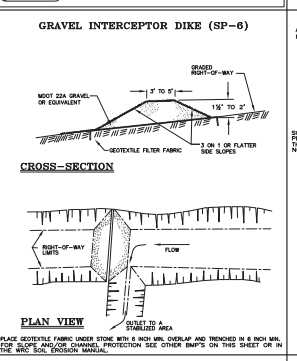
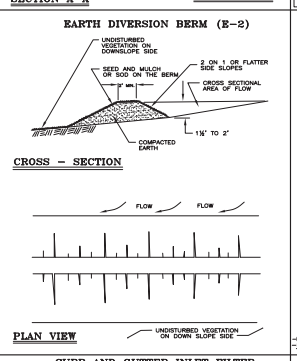
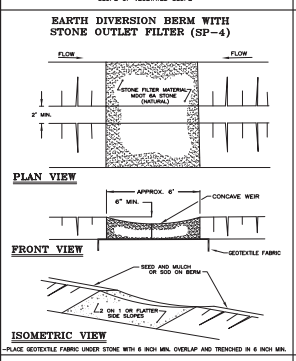
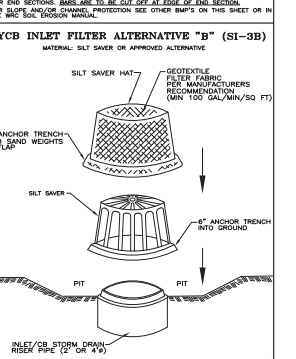
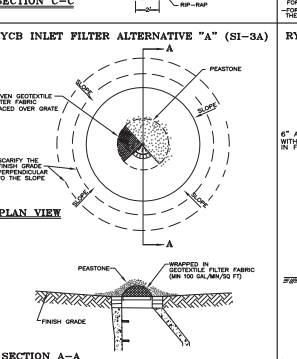
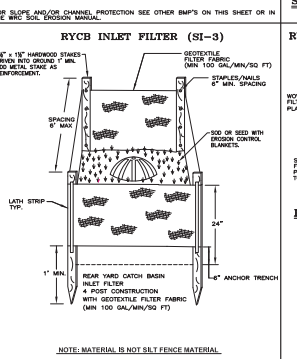
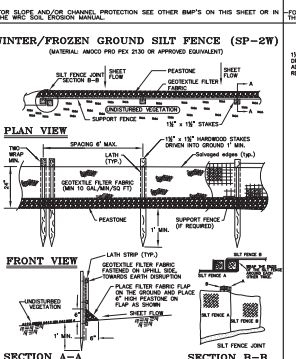
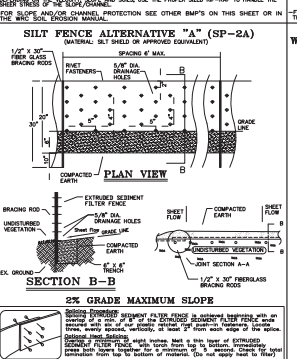
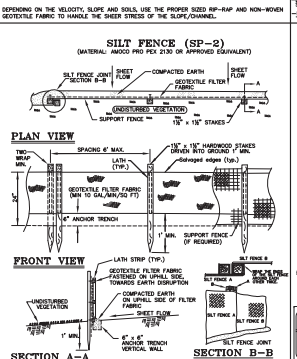
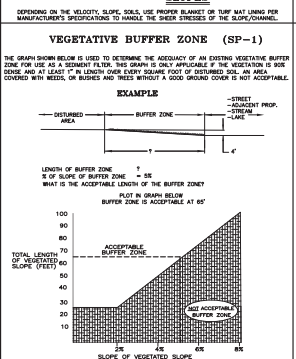
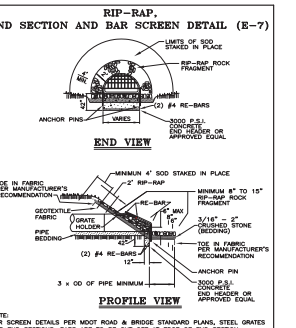
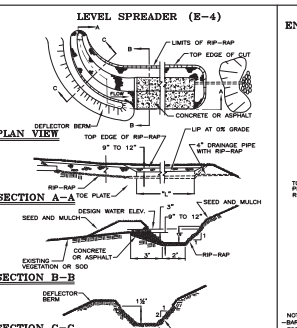
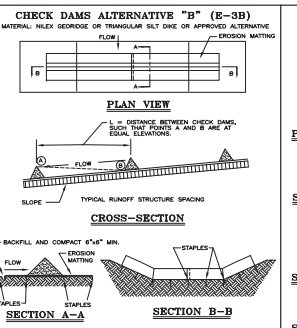
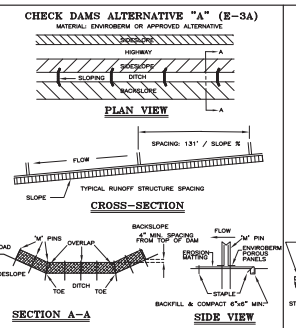
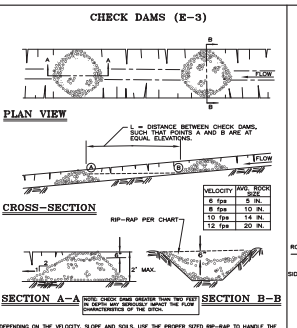
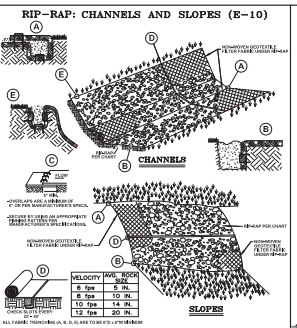
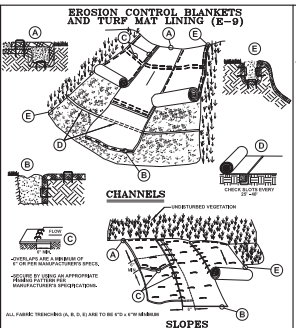


**GENERAL NOTES:**

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THE PROJECT.
- ALL CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT OSHA, MODOT AND MANORPULTY STANDARDS AND REGULATIONS.
- THE CONTRACTOR SHALL CONTACT THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER SHOULD THEY IDENTIFY ANY DESIGN ISSUES DURING CONSTRUCTION. IF THE CONTRACTOR WANTS DESIGN MODIFICATIONS WITHOUT THE WRITTEN DIRECTION OF THE DESIGN ENGINEER, THE CONTRACTOR GOES SO AT HIS OWN RISK.
- NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL CITY INSPECTION FEES.
- THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE BUREAU OFFICE LOCAL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF NO NOTIFICATION IS GIVEN AND THE CONTRACTOR HAS ANY WORKING UNDERGROUND UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXISTING UTILITIES AND ARE ENCOURAGED THAT CONTACT IN LOCATION WITH THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER SO THAT THE CONTACT MAY BE REQUIRED.
- CONTRACTOR SHALL VERIFY THAT THE PLANS AND SPECIFICATIONS ARE THE VERY LATEST PLANS AND SPECIFICATIONS AND FURTHERMORE, VERIFY THAT THESE PLANS AND SPECIFICATIONS ARE THE VERY LATEST PLANS AND SPECIFICATIONS BY THE CONTRACTOR PRIOR TO BEGINNING FINAL APPROVAL. ANY CHANGES OR REVISIONS SHALL BE AT THE CONTRACTOR'S EXPENSE. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE PLANS AND SPECIFICATIONS, THEY SHALL SEEK CLARIFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.
- ANY WORK WITHIN THE STREET OR HIGHWAY RIGHTS-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
- ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREA PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNAGE, LIGHTS AND TRAFFIC CONTROL DEVICES TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). THE DESIGN ENGINEER, OWNER, CITY, AND STATE SHALL NOT BE HELD LIABLE FOR ANY CLAIMS ARISING FROM ACCIDENTS OR DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO COMPLY WITH TRAFFIC AND PUBLIC SAFETY REGULATIONS DURING THE CONSTRUCTION PERIOD.
- THE USE OF CRACKED CONCRETE IS PROHIBITED ON THE PROJECT WITHIN 100 FEET OF ANY WATER COURSE (STREAM, RIVER, CANYON DRAIN, ETC.) AND LAKE, REGARDLESS OF THE APPLICATION OR LOCATION OF THE WATER COURSE OR LAKE RELATIVE TO THE PROJECT LIMITS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLE, CATCH BASIN, ETC.) TO BE REPLACED OR RECONSTRUCTED TO THE ORIGINAL GRADE AND TO BE PAID FOR SEPARATELY.

**PAVING NOTES:**

- IN AREAS WHERE NEW PAVEMENTS ARE BEING CONSTRUCTED, THE TOPSOIL AND SOIL CONTAINING ORGANIC MATTER SHALL BE REMOVED PRIOR TO PAVEMENT CONSTRUCTION.
- REFER TO ARCHITECTURAL PLANS FOR EXISTING OR PROPOSED SIGN AT EXTERIOR BUILDING CORNERS.
- CONSTRUCTION TRAFFIC SHOULD BE MINIMIZED ON THE NEW PAVEMENT. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, THE INITIAL LIFT THICKNESS SHOULD BE INCREASED AND PLACEMENT OF THE FINAL LIFT COULD BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION OF THE PROJECT IS COMPLETE. THE CONTRACTOR SHALL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE ROAD DAMAGE ON THE PAVEMENT SYSTEM.
- ALL EXPANSION JOINTS SHALL BE CONCRETE JOINTS UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- CONCRETE PAVEMENT JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION:
  - WHERE PROPOSED CONCRETE AFFECTS A STRUCTURE, PROVIDE A MINIMUM 1/2" EXPANSION JOINT. THE JOINT FILLER BOARD MUST BE AT LEAST THE FULL DEPTH OF THE CONCRETE AND HELD DOWN 1/2" TO ALLOW FOR SEALING.
  - WHERE PROPOSED CONCRETE AFFECTS EXISTING CONCRETE OR IN BETWEEN POLES OF PROPOSED CONCRETE (CONSTRUCTION JOINT), PROVIDE A 3/4" CONCRETE JOINT. CENTER TO CENTER SHALL BE THE THICKNESS OF THE EXISTING CONCRETE. ADVISOR: SUBMITTAL REQUIRED.
  - WHERE PROPOSED CONCRETE AFFECTS EXISTING OR PROPOSED SEWER OR CURBING, PROVIDE A MINIMUM 1/2" EXPANSION JOINT.
  - CONCRETE JOINTING, LONGITUDINAL AND TRANSVERSE JOINTS SHALL BE PLACED TO PROVIDE PANELS WITHIN THE PAVEMENT AS SQUARE AS POSSIBLE WITH THE FOLLOWING MAXIMUM SPACING PARAMETERS:
    - 5.4.1 6-8 INCH THICK CONCRETE PAVEMENT 12" X 12"
    - 5.4.2 8-10 INCH THICK CONCRETE PAVEMENT 18" X 18"
    - 5.4.3 10-12 INCH THICK CONCRETE PAVEMENT 24" X 24"
    - 5.4.4 12-14 INCH THICK CONCRETE PAVEMENT 30" X 30"
    - 5.4.5 14-18 INCH THICK CONCRETE PAVEMENT 36" X 36"
    - 5.4.6 18-24 INCH THICK CONCRETE PAVEMENT 48" X 48"
    - 5.4.7 24-30 INCH THICK CONCRETE PAVEMENT 60" X 60"
    - 5.4.8 30-36 INCH THICK CONCRETE PAVEMENT 72" X 72"
    - 5.4.9 36-48 INCH THICK CONCRETE PAVEMENT 96" X 96"
    - 5.4.10 48-60 INCH THICK CONCRETE PAVEMENT 120" X 120"
    - 5.4.11 60-72 INCH THICK CONCRETE PAVEMENT 144" X 144"
    - 5.4.12 72-96 INCH THICK CONCRETE PAVEMENT 180" X 180"
    - 5.4.13 96-120 INCH THICK CONCRETE PAVEMENT 216" X 216"
    - 5.4.14 120-144 INCH THICK CONCRETE PAVEMENT 252" X 252"
    - 5.4.15 144-180 INCH THICK CONCRETE PAVEMENT 306" X 306"
    - 5.4.16 180-240 INCH THICK CONCRETE PAVEMENT 360" X 360"
    - 5.4.17 240-300 INCH THICK CONCRETE PAVEMENT 432" X 432"
    - 5.4.18 300-360 INCH THICK CONCRETE PAVEMENT 504" X 504"
    - 5.4.19 360-480 INCH THICK CONCRETE PAVEMENT 576" X 576"
    - 5.4.20 480-600 INCH THICK CONCRETE PAVEMENT 648" X 648"
    - 5.4.21 600-720 INCH THICK CONCRETE PAVEMENT 720" X 720"
    - 5.4.22 720-900 INCH THICK CONCRETE PAVEMENT 810" X 810"
    - 5.4.23 900-1080 INCH THICK CONCRETE PAVEMENT 900" X 900"
    - 5.4.24 1080-1200 INCH THICK CONCRETE PAVEMENT 1080" X 1080"
    - 5.4.25 1200-1440 INCH THICK CONCRETE PAVEMENT 1296" X 1296"
    - 5.4.26 1440-1800 INCH THICK CONCRETE PAVEMENT 1512" X 1512"
    - 5.4.27 1800-2400 INCH THICK CONCRETE PAVEMENT 1814" X 1814"
    - 5.4.28 2400-3000 INCH THICK CONCRETE PAVEMENT 2116" X 2116"
    - 5.4.29 3000-3600 INCH THICK CONCRETE PAVEMENT 2418" X 2418"
    - 5.4.30 3600-4800 INCH THICK CONCRETE PAVEMENT 2820" X 2820"
    - 5.4.31 4800-6000 INCH THICK CONCRETE PAVEMENT 3222" X 3222"
    - 5.4.32 6000-7200 INCH THICK CONCRETE PAVEMENT 3624" X 3624"
    - 5.4.33 7200-9000 INCH THICK CONCRETE PAVEMENT 4026" X 4026"
    - 5.4.34 9000-10800 INCH THICK CONCRETE PAVEMENT 4428" X 4428"
    - 5.4.35 10800-12000 INCH THICK CONCRETE PAVEMENT 4830" X 4830"
    - 5.4.36 12000-14400 INCH THICK CONCRETE PAVEMENT 5232" X 5232"
    - 5.4.37 14400-18000 INCH THICK CONCRETE PAVEMENT 5834" X 5834"
    - 5.4.38 18000-24000 INCH THICK CONCRETE PAVEMENT 6436" X 6436"
    - 5.4.39 24000-30000 INCH THICK CONCRETE PAVEMENT 7038" X 7038"
    - 5.4.40 30000-36000 INCH THICK CONCRETE PAVEMENT 7640" X 7640"
    - 5.4.41 36000-48000 INCH THICK CONCRETE PAVEMENT 8242" X 8242"
    - 5.4.42 48000-60000 INCH THICK CONCRETE PAVEMENT 8844" X 8844"
    - 5.4.43 60000-72000 INCH THICK CONCRETE PAVEMENT 9446" X 9446"
    - 5.4.44 72000-90000 INCH THICK CONCRETE PAVEMENT 10048" X 10048"
    - 5.4.45 90000-108000 INCH THICK CONCRETE PAVEMENT 10650" X 10650"
    - 5.4.46 108000-120000 INCH THICK CONCRETE PAVEMENT 11252" X 11252"
    - 5.4.47 120000-144000 INCH THICK CONCRETE PAVEMENT 11854" X 11854"
    - 5.4.48 144000-180000 INCH THICK CONCRETE PAVEMENT 12456" X 12456"
    - 5.4.49 180000-240000 INCH THICK CONCRETE PAVEMENT 13058" X 13058"
    - 5.4.50 240000-300000 INCH THICK CONCRETE PAVEMENT 13660" X 13660"
    - 5.4.51 300000-360000 INCH THICK CONCRETE PAVEMENT 14262" X 14262"
    - 5.4.52 360000-480000 INCH THICK CONCRETE PAVEMENT 14864" X 14864"
    - 5.4.53 480000-600000 INCH THICK CONCRETE PAVEMENT 15466" X 15466"
    - 5.4.54 600000-720000 INCH THICK CONCRETE PAVEMENT 16068" X 16068"
    - 5.4.55 720000-900000 INCH THICK CONCRETE PAVEMENT 16670" X 16670"
    - 5.4.56 900000-1080000 INCH THICK CONCRETE PAVEMENT 17272" X 17272"
    - 5.4.57 1080000-1200000 INCH THICK CONCRETE PAVEMENT 17874" X 17874"
    - 5.4.58 1200000-1440000 INCH THICK CONCRETE PAVEMENT 18476" X 18476"
    - 5.4.59 1440000-1800000 INCH THICK CONCRETE PAVEMENT 19078" X 19078"
    - 5.4.60 1800000-2400000 INCH THICK CONCRETE PAVEMENT 19680" X 19680"
    - 5.4.61 2400000-3000000 INCH THICK CONCRETE PAVEMENT 20282" X 20282"
    - 5.4.62 3000000-3600000 INCH THICK CONCRETE PAVEMENT 20884" X 20884"
    - 5.4.63 3600000-4800000 INCH THICK CONCRETE PAVEMENT 21486" X 21486"
    - 5.4.64 4800000-6000000 INCH THICK CONCRETE PAVEMENT 22088" X 22088"
    - 5.4.65 6000000-7200000 INCH THICK CONCRETE PAVEMENT 22690" X 22690"
    - 5.4.66 7200000-9000000 INCH THICK CONCRETE PAVEMENT 23292" X 23292"
    - 5.4.67 9000000-10800000 INCH THICK CONCRETE PAVEMENT 23894" X 23894"
    - 5.4.68 10800000-12000000 INCH THICK CONCRETE PAVEMENT 24496" X 24496"
    - 5.4.69 12000000-14400000 INCH THICK CONCRETE PAVEMENT 25098" X 25098"
    - 5.4.70 14400000-18000000 INCH THICK CONCRETE PAVEMENT 25700" X 25700"
    - 5.4.71 18000000-24000000 INCH THICK CONCRETE PAVEMENT 26302" X 26302"
    - 5.4.72 24000000-30000000 INCH THICK CONCRETE PAVEMENT 26904" X 26904"
    - 5.4.73 30000000-36000000 INCH THICK CONCRETE PAVEMENT 27506" X 27506"
    - 5.4.74 36000000-48000000 INCH THICK CONCRETE PAVEMENT 28108" X 28108"
    - 5.4.75 48000000-60000000 INCH THICK CONCRETE PAVEMENT 28710" X 28710"
    - 5.4.76 60000000-72000000 INCH THICK CONCRETE PAVEMENT 29312" X 29312"
    - 5.4.77 72000000-90000000 INCH THICK CONCRETE PAVEMENT 29914" X 29914"
    - 5.4.78 90000000-108000000 INCH THICK CONCRETE PAVEMENT 30516" X 30516"
    - 5.4.79 108000000-120000000 INCH THICK CONCRETE PAVEMENT 31118" X 31118"
    - 5.4.80 120000000-144000000 INCH THICK CONCRETE PAVEMENT 31720" X 31720"
    - 5.4.81 144000000-180000000 INCH THICK CONCRETE PAVEMENT 32322" X 32322"
    - 5.4.82 180000000-240000000 INCH THICK CONCRETE PAVEMENT 32924" X 32924"
    - 5.4.83 240000000-300000000 INCH THICK CONCRETE PAVEMENT 33526" X 33526"
    - 5.4.84 300000000-360000000 INCH THICK CONCRETE PAVEMENT 34128" X 34128"
    - 5.4.85 360000000-480000000 INCH THICK CONCRETE PAVEMENT 34730" X 34730"
    - 5.4.86 480000000-600000000 INCH THICK CONCRETE PAVEMENT 35332" X 35332"
    - 5.4.87 600000000-720000000 INCH THICK CONCRETE PAVEMENT 35934" X 35934"
    - 5.4.88 720000000-900000000 INCH THICK CONCRETE PAVEMENT 36536" X 36536"
    - 5.4.89 900000000-1080000000 INCH THICK CONCRETE PAVEMENT 37138" X 37138"
    - 5.4.90 1080000000-1200000000 INCH THICK CONCRETE PAVEMENT 37740" X 37740"
    - 5.4.91 1200000000-1440000000 INCH THICK CONCRETE PAVEMENT 38342" X 38342"
    - 5.4.92 1440000000-1800000000 INCH THICK CONCRETE PAVEMENT 38944" X 38944"
    - 5.4.93 1800000000-2400000000 INCH THICK CONCRETE PAVEMENT 39546" X 39546"
    - 5.4.94 2400000000-3000000000 INCH THICK CONCRETE PAVEMENT 40148" X 40148"
    - 5.4.95 3000000000-3600000000 INCH THICK CONCRETE PAVEMENT 40750" X 40750"
    - 5.4.96 3600000000-4800000000 INCH THICK CONCRETE PAVEMENT 41352" X 41352"
    - 5.4.97 4800000000-6000000000 INCH THICK CONCRETE PAVEMENT 41954" X 41954"
    - 5.4.98 6000000000-7200000000 INCH THICK CONCRETE PAVEMENT 42556" X 42556"
    - 5.4.99 7200000000-9000000000 INCH THICK CONCRETE PAVEMENT 43158" X 43158"
    - 5.4.100 9000000000-10800000000 INCH THICK CONCRETE PAVEMENT 43760" X 43760"
    - 5.4.101 10800000000-12000000000 INCH THICK CONCRETE PAVEMENT 44362" X 44362"
    - 5.4.102 12000000000-14400000000 INCH THICK CONCRETE PAVEMENT 44964" X 44964"
    - 5.4.103 14400000000-18000000000 INCH THICK CONCRETE PAVEMENT 45566" X 45566"
    - 5.4.104 18000000000-24000000000 INCH THICK CONCRETE PAVEMENT 46168" X 46168"
    - 5.4.105 24000000000-30000000000 INCH THICK CONCRETE PAVEMENT 46770" X 46770"
    - 5.4.106 30000000000-36000000000 INCH THICK CONCRETE PAVEMENT 47372" X 47372"
    - 5.4.107 36000000000-48000000000 INCH THICK CONCRETE PAVEMENT 47974" X 47974"
    - 5.4.108 48000000000-60000000000 INCH THICK CONCRETE PAVEMENT 48576" X 48576"
    - 5.4.109 60000000000-72000000000 INCH THICK CONCRETE PAVEMENT 49178" X 49178"
    - 5.4.110 72000000000-90000000000 INCH THICK CONCRETE PAVEMENT 49780" X 49780"
    - 5.4.111 90000000000-108000000000 INCH THICK CONCRETE PAVEMENT 50382" X 50382"
    - 5.4.112 108000000000-120000000000 INCH THICK CONCRETE PAVEMENT 50984" X 50984"
    - 5.4.113 120000000000-144000000000 INCH THICK CONCRETE PAVEMENT 51586" X 51586"
    - 5.4.114 144000000000-180000000000 INCH THICK CONCRETE PAVEMENT 52188" X 52188"
    - 5.4.115 180000000000-240000000000 INCH THICK CONCRETE PAVEMENT 52790" X 52790"
    - 5.4.116 240000000000-300000000000 INCH THICK CONCRETE PAVEMENT 53392" X 53392"
    - 5.4.117 300000000000-360000000000 INCH THICK CONCRETE PAVEMENT 53994" X 53994"
    - 5.4.118 360000000000-480000000000 INCH THICK CONCRETE PAVEMENT 54596" X 54596"
    - 5.4.119 480000000000-600000000000 INCH THICK CONCRETE PAVEMENT 55198" X 55198"
    - 5.4.120 600000000000-720000000000 INCH THICK CONCRETE PAVEMENT 55800" X 55800"
    - 5.4.121 720000000000-900000000000 INCH THICK CONCRETE PAVEMENT 56402" X 56402"
    - 5.4.122 900000000000-1080000000000 INCH THICK CONCRETE PAVEMENT 57004" X 57004"
    - 5.4.123 1080000000000-1200000000000 INCH THICK CONCRETE PAVEMENT 57606" X 57606"
    - 5.4.124 1200000000000-1440000000000 INCH THICK CONCRETE PAVEMENT 58208" X 58208"
    - 5.4.125 1440000000000-1800000000000 INCH THICK CONCRETE PAVEMENT 58810" X 58810"
    - 5.4.126 1800000000000-2400000000000 INCH THICK CONCRETE PAVEMENT 59412" X 59412"
    - 5.4.127 2400000000000-3000000000000 INCH THICK CONCRETE PAVEMENT 60014" X 60014"
    - 5.4.128 3000000000000-3600000000000 INCH THICK CONCRETE PAVEMENT 60616" X 60616"
    - 5.4.129 3600000000000-4800000000000 INCH THICK CONCRETE PAVEMENT 61218" X 61218"
    - 5.4.130 4800000000000-6000000000000 INCH THICK CONCRETE PAVEMENT 61820" X 61820"
    - 5.4.131 6000000000000-7200000000000 INCH THICK CONCRETE PAVEMENT 62422" X 62422"
    - 5.4.132 7200000000000-9000000000000 INCH THICK CONCRETE PAVEMENT 63024" X 63024"
    - 5.4.133 9000000000000-10800000000000 INCH THICK CONCRETE PAVEMENT 63626" X 63626"
    - 5.4.134 10800000000000-12000000000000 INCH THICK CONCRETE PAVEMENT 64228" X 64228"
    - 5.4.135 12000000000000-14400000000000 INCH THICK CONCRETE PAVEMENT 64830" X 64830"
    - 5.4.136 14400000000000-18000000000000 INCH THICK CONCRETE PAVEMENT 65432" X 65432"
    - 5.4.137 18000000000000-24000000000000 INCH THICK CONCRETE PAVEMENT 66034" X 66034"
    - 5.4.138 24000000000000-30000000000000 INCH THICK CONCRETE PAVEMENT 66636" X 66636"
    - 5.4.139 30000000000000-36000000000000 INCH THICK CONCRETE PAVEMENT 67238" X 67238"
    - 5.4.140 36000000000000-48000000000000 INCH THICK CONCRETE PAVEMENT 67840" X 67840"
    - 5.4.141 48000000000000-60000000000000 INCH THICK CONCRETE PAVEMENT 68442" X 68442"
    - 5.4.142 60000000000000-72000000000000 INCH THICK CONCRETE PAVEMENT 69044" X 69044"
    - 5.4.143 72000000000000-90000000000000 INCH THICK CONCRETE PAVEMENT 69646" X 69646"
    - 5.4.144 90000000000000-108000000000000 INCH THICK CONCRETE PAVEMENT 70248" X 70248"
    - 5.4.145 108000000000000-120000000000000 INCH THICK CONCRETE PAVEMENT 70850" X 70850"
    - 5.4.146 120000000000000-144000000000000 INCH THICK CONCRETE PAVEMENT 71452" X 71452"
    - 5.4.147 144000000000000-180000000000000 INCH THICK CONCRETE PAVEMENT 72054" X 72054"
    - 5.4.148 180000000000000-240000000000000 INCH THICK CONCRETE PAVEMENT 72656" X 72656"
    - 5.4.149 240000000000000-300000000000000 INCH THICK CONCRETE PAVEMENT 73258" X 73258"
    - 5.4.150 300000000000000-360000000000000 INCH THICK CONCRETE PAVEMENT 73860" X 73860"
    - 5.4.151 360000000000000-480000000000000 INCH THICK CONCRETE PAVEMENT 74462" X 74462"
    - 5.4.152 480000000000000-600000000000000 INCH THICK CONCRETE PAVEMENT 75064" X 75064"
    - 5.4.153 600000000000000-720000000000000 INCH THICK CONCRETE PAVEMENT 75666" X 75666"
    - 5.4.154 720000000000000-900000000000000 INCH THICK CONCRETE PAVEMENT 76268" X 76268"
    - 5.4.155 900000000000000-1080000000000000 INCH THICK CONCRETE PAVEMENT 76870" X 76870"
    - 5.4.156 1080000000000000-1200000000000000 INCH THICK CONCRETE PAVEMENT 77472" X 77472"
    - 5.4.157 1200000000000000-1440000000000000 INCH THICK CONCRETE PAVEMENT 78074" X 78074"
    - 5.4.158 1440000000000000-1800000000000000 INCH THICK CONCRETE PAVEMENT 78676" X 78676"
    - 5.4.159 1800000000000000-2400000000000000 INCH THICK CONCRETE PAVEMENT 79278" X 79278"
    - 5.4.160 2400000000000000-3000000000000000 INCH THICK CONCRETE PAVEMENT 79880" X 79880"
    - 5.4.161 3000000000000000-3600000000000000 INCH THICK CONCRETE PAVEMENT 80482" X 80482"
    - 5.4.162 3600000000000000-4800000000000000 INCH THICK CONCRETE PAVEMENT 81084" X 81084"
    - 5.4.163 4800000000000000-6000000000000000 INCH THICK CONCRETE PAVEMENT 81686" X 81686"
    - 5.4.164 6000000000000000-7200000000000000 INCH THICK CONCRETE PAVEMENT 82288" X 82288"
    - 5.4.165 7200000000000000-9000000000000000 INCH THICK CONCRETE PAVEMENT 82890" X 82890"
    - 5.4.166 9000000000000000-10800000000000000 INCH THICK CONCRETE PAVEMENT 83492" X 83492"
    - 5.4.167 10800000000000000-12000000000000000 INCH THICK CONCRETE PAVEMENT 84094" X 84094"
    - 5.4.168 12000000000000000-14400000000000000 INCH THICK CONCRETE PAVEMENT 84696" X 84696"
    - 5.4.169 14400000000000000-18000000000000000 INCH THICK CONCRETE PAVEMENT 85298" X 85298"
    - 5.4.170 18000000000000000-24000000000000000 INCH THICK CONCRETE PAVEMENT 85900" X 85900"
    - 5.4.171 24000000000000000-30000000000000000 INCH THICK CONCRETE PAVEMENT 86502" X 86502"
    - 5.4.172 30000000000000000-36000000000000000 INCH THICK CONCRETE PAVEMENT 87104" X 87104"
    - 5.4.173 36000000000000000-48000000000000000 INCH THICK CONCRETE PAVEMENT 87706" X 87706"
    - 5.4.174 48000000000000000-60000000000000000 INCH THICK CONCRETE PAVEMENT 88308" X 88308"
    - 5.4.175 60000000000000000-72000000000000000 INCH THICK CONCRETE PAVEMENT 88910" X 88910"
    - 5.4.176 72000000000000000-90000000000000000 INCH THICK CONCRETE PAVEMENT 89512" X 89512"
    - 5.4.177 90000000000000000-108000000000000000 INCH THICK CONCRETE PAVEMENT 90114" X 90114"
    - 5.4.178 108000000000000000-120000000000000000 INCH THICK CONCRETE PAVEMENT 90716" X 90716"
    - 5.4.179 120000000000000000-144000000000000000 INCH THICK CONCRETE PAVEMENT 91318" X 91318"
    - 5.4.180 144000000000000000-180000000000000000 INCH THICK CONCRETE PAVEMENT 91920" X 91920"
    - 5.4.181 180000000000000000-240000000000000000 INCH THICK CONCRETE PAVEMENT 92522" X 92522"
    - 5.4.182 240000000000000000-300000000000000000 INCH THICK CONCRETE PAVEMENT 93124" X 93124"
    - 5.4.183 300000000000000000-360000000000000000 INCH THICK CONCRETE PAVEMENT 93726" X 93726"
    - 5.4.184 360000000000000000-480000000000000000 INCH THICK CONCRETE PAVEMENT 94328" X 94328"
    - 5.4.185 480000000000000000-600000000000000000 INCH THICK CONCRETE PAVEMENT 94930" X 94930"
    - 5.4.186 600000000000000000-720000000000000000 INCH THICK CONCRETE PAVEMENT 95532" X 95532"
    - 5.4.187 720000000000000000-900000000000000000 INCH THICK CONCRETE PAVEMENT 96134" X 96134"
    - 5.4.188 900000000000000000-1080000000000000000 INCH THICK CONCRETE PAVEMENT 96736" X 96736"
    - 5.4.1

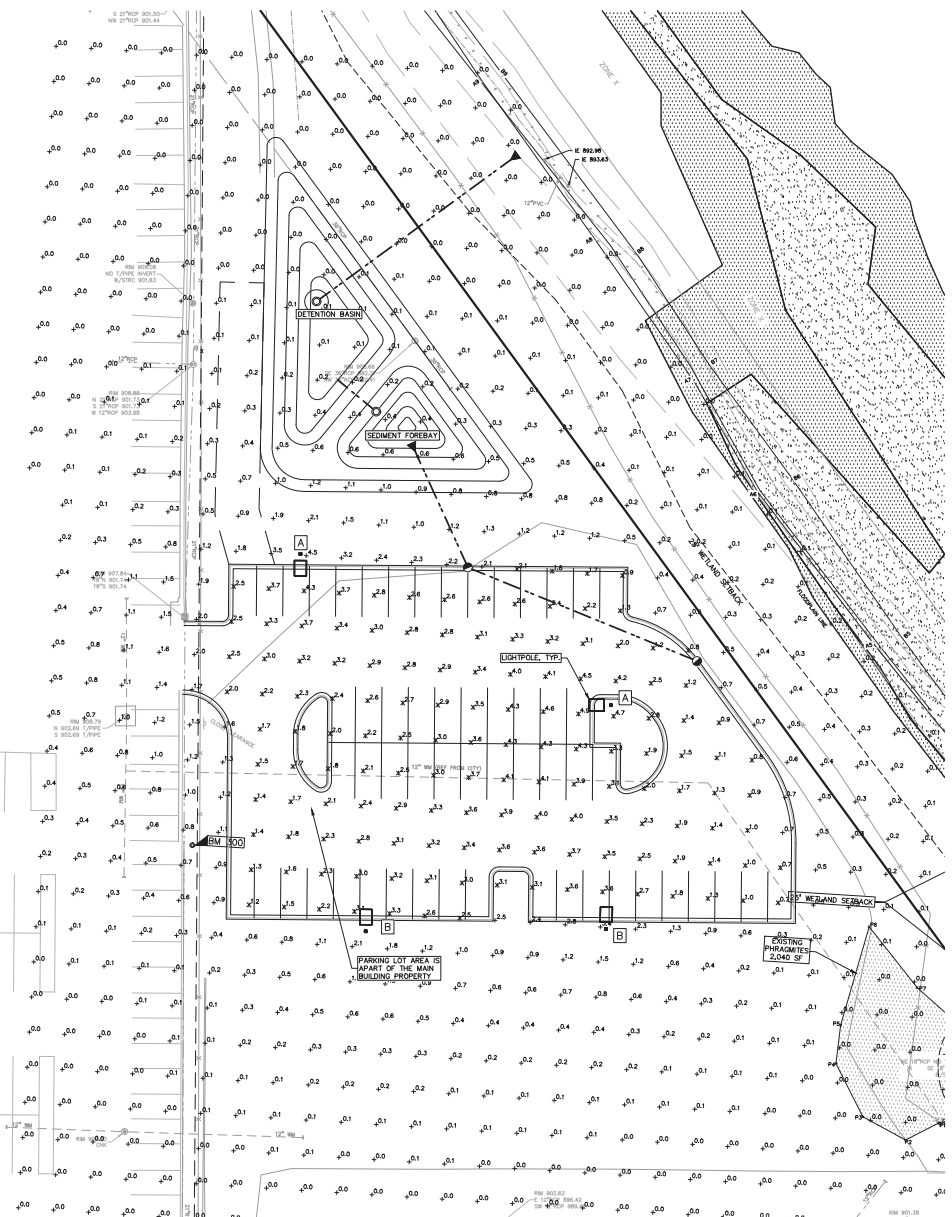


**NOTE:**

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**

DESIGNED BY: [Name]  
 CHECKED BY: [Name]  
 DATE: [Date]  
 SCALE: [Scale]  
 SHEET NO.: [Number] OF [Total]



**LEGEND:**

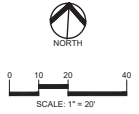
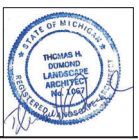
	CONCRETE PAVEMENT
	ASPHALT PAVEMENT
	GRAVEL
	WETLAND
	CONCRETE CURB AND GUTTER
	REVERSE GUTTER PAN
	SETBACK LINE
	SIGN
	LIGHTPOLE
	FENCE
	GUARD RAIL

- GENERAL SITE LIGHTING NOTES:**
1. THE LIGHTING PATTERN 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 LUMINAIRES MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.
  2. ALL POLES ARE TO BE MOUNTED ON CONCRETE PEDESTALS 2 FEET ABOVE GRADE AS SHOWN IN DETAIL.
  3. ALL POLES LOCATED OUTSIDE OF THE PARKING LOT AREA SHALL BE LOCATED 3 FEET FROM BACK OF CURB OR EDGE OF SIDEWALKS, AND 5 FEET FROM ANY UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED.
  4. SHOP DRAWINGS FOR THE ELECTRICAL WIRING OF THE FIXTURES NEED TO BE SUPPLIED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR COORDINATION OF UNDERGROUND CONDUIT AND APPROVAL OF LAYOUT.
  5. ALL AREA LIGHT FIXTURES ARE TO BE DIRECTED AWAY FROM NEIGHBORING PROPERTIES AND ROADWAYS.
  6. CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL MATERIALS AND EQUIPMENT FOR THE WORK UNLESS OTHERWISE NOTED.
  7. COORDINATE LIGHT FIXTURE PLACEMENT AND INSTALLATION WITH LANDSCAPE.
  8. ALL CONDUCTORS SHALL BE IN CONDUIT.
  9. HOURS OPERATION:

- NOVI STANDARD LIGHTING NOTES:**
1. ELECTRICAL SERVICE TO LIGHT FIXTURES SHALL BE PLACED UNDERGROUND.
  2. FLASHING LIGHTS SHALL NOT BE PERMITTED.
  3. ONLY NECESSARY LIGHTING FOR SECURITY PURPOSES AND LIMITED OPERATIONS SHALL BE PERMITTED AFTER A SITE'S HOURS OF OPERATIONS.

**SITE PHOTOMETRIC DATA:**

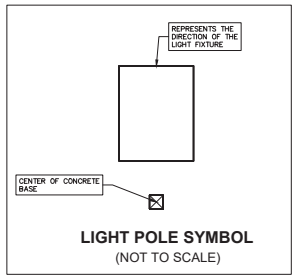
	PROPOSED	ALLOWED
1. FIXTURE HEIGHT	25 FT (MAX)	25 FT
2. AVERAGE LIGHT LEVEL RATIO	3:1	4:1
3. MINIMUM FOOT-CANDLE	0.7 Fc	0.2 Fc
4. MAX FOOT-CANDLE	0.5 Fc	1 Fc
4.1. AT NON-RESIDENTIAL PROP. LINE		



**CAUTION!**  
This drawing is not to be used for construction without the approval of the engineer of record. Any changes to this drawing must be approved by the engineer of record. This drawing is the property of PEA Group and shall not be reproduced without the written consent of PEA Group.

CLIENT  
**CVS HEALTH**  
415 PARK EAST DRIVE MCGR010  
MCGR0001 - 01/2024

PROJECT TITLE  
**CVS DISTRIBUTION CENTER NOVI**  
43802 GEN MAR ROAD  
CITY OF NOVI, MI



**REVISIONS**

NO.	DESCRIPTION	DATE
1	TRN RESPONSE	10/26/23
2	SPA SUBMITTAL	01/23/24
3	RESPONSE TO COMMENTS	04/12/24
4	RESPONSE TO COMMENTS	05/22/24
5	AMENDED SPA SUBMITTAL	06/26/24

ORIGINAL ISSUE DATE:  
OCT. 11, 2023  
DRAWING TITLE  
**PHOTOMETRIC PLAN**

PEA JOB NO. 2023-0758  
P.M. TD  
D.N. CD  
DES. CD  
DRAWING NUMBER:

NOT FOR CONSTRUCTION **SL-1.0**

3:\PROJECTS\2023\23-0758 CVS DISTRIBUTION CENTER\PLAN\SL-1.0 PHOTOMETRIC PLAN.dwg PLOT DATE: 06/26/2024  
 PLOT SCALE: 1"=20'







CITY OF NOVI  
11000 WOODLAND AVENUE  
NOVI, MI 48240-3000  
313.486.2000  
WWW.CITYOFNOVI.COM

DATE: APRIL 2019  
DRAWN BY: JACOB  
CHECKED BY: JACOB  
SCALE: AS SHOWN  
PROJECT: 2018-0011 WESTWIND AVENUE ROAD (FROM I-96) (R&P) (R&P)

COUNTY: OAKLAND COUNTY  
TOWNSHIP: WESTLAND  
SHEET: 1 OF 2

NOVI  
CITY OF NOVI  
11000 WOODLAND AVENUE  
NOVI, MI 48240-3000  
313.486.2000  
WWW.CITYOFNOVI.COM

NOVI  
CITY OF NOVI  
11000 WOODLAND AVENUE  
NOVI, MI 48240-3000  
313.486.2000  
WWW.CITYOFNOVI.COM

NOVI  
CITY OF NOVI  
11000 WOODLAND AVENUE  
NOVI, MI 48240-3000  
313.486.2000  
WWW.CITYOFNOVI.COM

NOVI  
CITY OF NOVI  
11000 WOODLAND AVENUE  
NOVI, MI 48240-3000  
313.486.2000  
WWW.CITYOFNOVI.COM

NOVI  
CITY OF NOVI  
11000 WOODLAND AVENUE  
NOVI, MI 48240-3000  
313.486.2000  
WWW.CITYOFNOVI.COM

### GENERAL NOTES

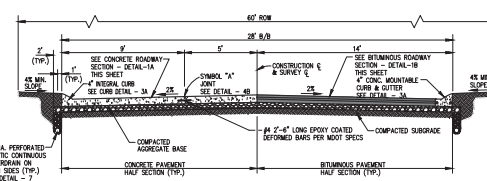
- EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS. TREE ROOTS SHALL BE COMPLETELY REMOVED.
- THE PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT SYSTEM. THE FINAL SURFACE SHALL BE THOROUGHLY PROOF-ROLLED IN THE PRESENCE OF A GEOTECHNICAL/PAVEMENT ENGINEER TO ESTABLISH STABILITY, LOSS OF VELDING HEARS WHICH MAY BE MECHANICALLY STABILIZED BASE OR VELDING HEARS AS DESCRIBED BY THE GEOTECHNICAL ENGINEER. ALL FILL MATERIAL AND BASE MATERIAL SHALL BE TESTED AND ITS COMPACTION SHALL BE CERTIFIED BY SQA TESTING FIRM. THE OWNER SHALL SUPPLY THREE COPIES OF GEOTECHNICAL AND TECHNICAL REPORTS TO THE CITY'S 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 AND TESTING SHALL BE ACCORDING TO THE CURRENT MOST SPECIFICATIONS. PAVING WILL NOT BE ALLOWED BELOW THESE MINIMUM REQUIREMENTS, NOR WHEN PROST IS ON OR IN THE GRADE OR ON THE EXISTING SURFACE.
- 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 MOBT.
- FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND LICENSES AHEAD OF ALL INSTRUCTIONS.
- FOR 1.0 INCH AND 2.0 INCH EXPANSION JOINTS SHALL BE INSTALLED PER CITY STANDARDS FOR THIS SHEET.
- ALL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.
- UNDER DRAIN SHALL BE INSTALLED ON BOTH SIDES OF ALL ROADWAYS IN GEOTECHNICAL WRAPPED TRENCH. ALSO, PLACE UNDER DRAIN AT ALL DRAINAGE STRUCTURES WITHIN PARKING AREAS (SEE DETAILS A AND B).
- FOR 2" BITUMINOUS STREET ACCEPTANCE, THE FULL CROSS SECTION MUST BE INSTALLED FOR THE PROPOSED PAVEMENT AND CURB MUST BE COMPLETED AT THE DIRECTION OF THE CITY ENGINEER.
- 10% AT THE TIME OF INITIAL ROAD CONSTRUCTION, THE FULL CROSS SECTION MUST BE INSTALLED TO MAINTAIN THE AMOUNT OF PAVEMENT AND CURB REMAINS PRIOR TO STREET ACCEPTANCE. THE CITY ENGINEER WILL INSPECT THE PAVEMENT AND CURB, AND WILL IDENTIFY ANY AREAS TO BE REPAIRED.
- 12% ALTERNATIVELY, THE TOP COURSE MAY BE OMITTED UNTIL THE MAJORITY OF THE PROPOSED ACTIVITIES HAVE BEEN COMPLETED PRIOR TO STREET ACCEPTANCE. THE CITY ENGINEER WILL INSPECT THE BASE PAVEMENT AND CURB, AND WILL IDENTIFY AREAS TO BE REPAIRED PRIOR TO THE INSTALLATION OF THE TOP COURSE.
- PROVIDE MINIMUM 2' DISTANCE TO TRANSITION FROM DETAIL 3E TO DETAIL 3A CURBS.

### CONCRETE PAVEMENT

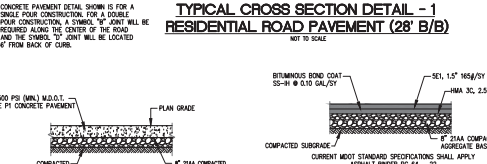
- CONCRETE SHALL CONSIST OF PORTLAND CEMENT TYPE I (OR TYPE II) WITH A MINIMUM CEMENT CONTENT OF SIX BAGS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A SLUMP OF 1" TO 3" INCHES. PAVEMENT SHALL CONFORM TO ROADWAY GRADE, P. 1.
- ALL CONCRETE PAVEMENT, DRIVEWAYS, CURBS & GUTTERS, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.
- THE CONCRETE BATCH PLANT SHALL BE M.D.G.T. CERTIFIED WITH LOCATION APPROVED BY THE CITY.
- NO CONCRETE PAVING SHALL BE ALLOWED PRIOR TO MAY 1, OR AFTER NOVEMBER 1 (UNLESS APPROVED BY THE CITY).
- DO NOT PLACE CONCRETE WHEN PRECIPITATION IS IMMINENT OR WHEN MOISTURE ON THE EXISTING SURFACE WILL PREVENT SATISFACTORY CURING. UNLESS OTHERWISE APPROVED BY THE ENGINEER IN WRITING, TEMPERATURE AND SEASONAL REQUIREMENTS FOR PLACING CONCRETE WILL BE ACCORDING TO THE CURRENT MOST SPECIFICATIONS. PAVING WILL NOT BE ALLOWED BELOW THESE MINIMUM REQUIREMENTS, NOR WHEN PROST IS ON OR IN THE GRADE OR ON THE EXISTING SURFACE.

### BITUMINOUS PAVEMENT

- BITUMINOUS MIXTURE SHALL CONSIST OF: LEVING COURSE - MOBT BITUMINOUS MIXTURE NO. 3C; LEVING COURSE - MOBT BITUMINOUS MIXTURE NO. 4C; WEARING COURSE MOBT MIX NO. 5C1; ASPHALT CEMENT FORTIFICATION GRADE 65-100 (64-22) RECLAIMED ASPHALT PAVEMENT (RAP) SHALL BE REVENDED FOR APPROVAL BY THE CITY NOVA.
- ALL BITUMINOUS MATERIAL SHALL BE COMPACTED TO A DENSITY OF 92% OF THE FIELD COMPACTION AS DETERMINED BY THE THEORETICAL MAXIMUM DENSITY. THE ROAD COAT SHALL BE APPLIED IN A UNIFORM MANNER OVER THE SURFACE AT A RATE OF 4.10 GALLONS/SY. BETWEEN LEVING COURSES & 0.55 GALLONS/SY BETWEEN WEARING COURSE AND LEVING COURSE.
- DO NOT PLACE HMA OR APPLY ROAD COAT WHEN PRECIPITATION IS IMMINENT OR WHEN MOISTURE ON THE EXISTING SURFACE WILL PREVENT SATISFACTORY CURING. UNLESS OTHERWISE APPROVED BY THE ENGINEER IN WRITING, TEMPERATURE AND SEASONAL REQUIREMENTS FOR PLACING HMA WILL BE ACCORDING TO THE CURRENT MOST SPECIFICATIONS. PAVING WILL NOT BE ALLOWED BELOW THESE MINIMUM REQUIREMENTS, NOR WHEN PROST IS ON OR IN THE GRADE OR ON THE EXISTING SURFACE.

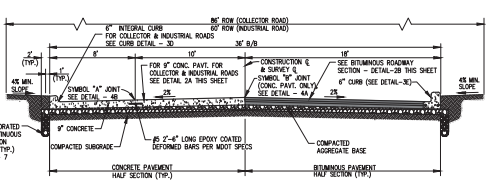


#### TYPICAL CROSS SECTION DETAIL - 1 RESIDENTIAL ROAD PAVEMENT (28' B/B)

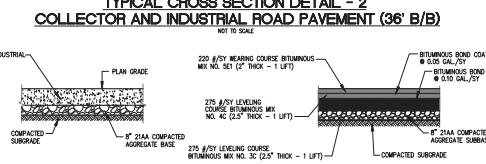


#### TYPICAL CONCRETE ROADWAY SECTION FOR RESIDENTIAL ROAD

#### TYPICAL BITUMINOUS ROADWAY SECTION FOR RESIDENTIAL ROAD

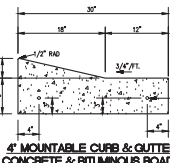


#### TYPICAL CROSS SECTION DETAIL - 2 COLLECTOR AND INDUSTRIAL ROAD PAVEMENT (36' B/B)

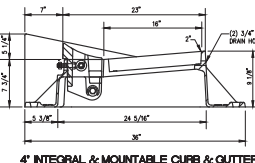


#### TYPICAL CONCRETE ROADWAY SECTION FOR COLLECTOR AND INDUSTRIAL ROADS

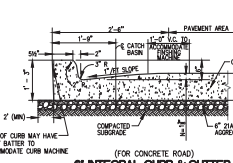
#### TYPICAL BITUMINOUS ROADWAY SECTION FOR COLLECTOR AND INDUSTRIAL ROADS



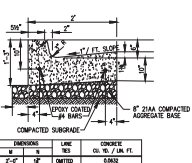
#### 4' MOUNTABLE CURB & GUTTER CONCRETE & BITUMINOUS ROADS



#### 4' INTEGRAL & MOUNTABLE CURB & GUTTER WITH EJ 7005 OR EQUIVALENT CONCRETE & BITUMINOUS ROADS

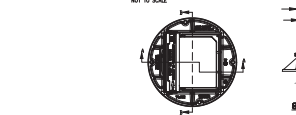


#### 6' INTEGRAL CURB & GUTTER

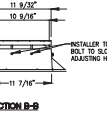


#### 6' CURB & GUTTER

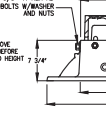
### CONCRETE CURB & GUTTER DETAIL - 3



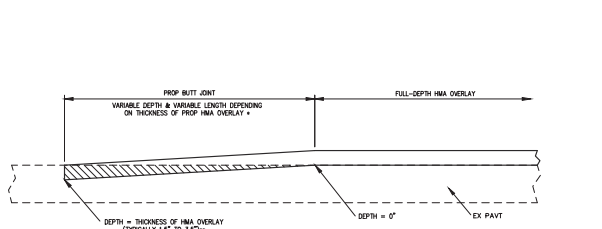
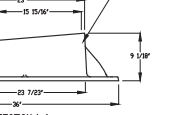
### EJ 7066 FRAME SECTION OR EQUIVALENT



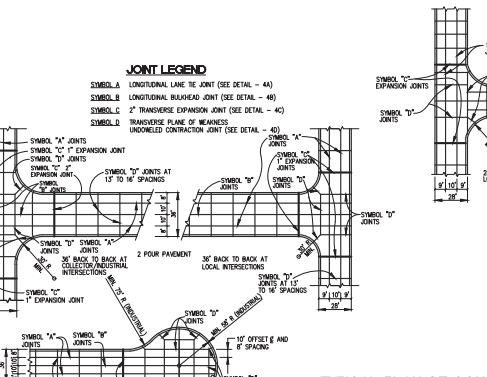
### EJ 7045 FRAME SECTION OR EQUIVALENT



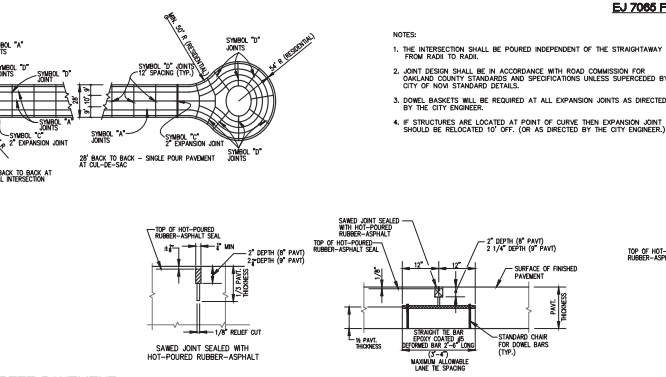
### EJ 7086 FRAME SECTION OR EQUIVALENT



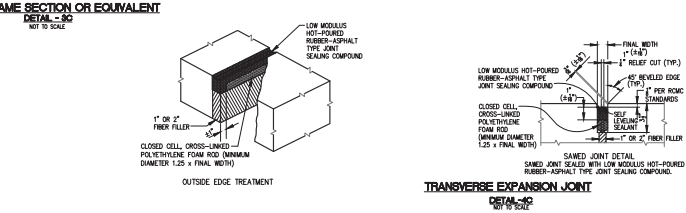
#### TERMINAL BUTT JOINT DETAIL - 5



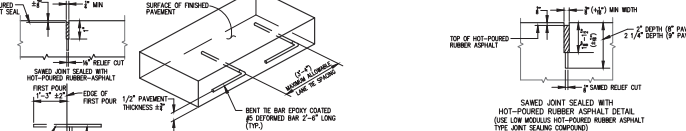
#### LONGITUDINAL LANE TIE JOINT



#### TYPICAL PLAN OF CONCRETE PAVEMENT JOINT LAYOUT DETAILS - 4



#### TRANSVERSE EXPANSION JOINT



#### LONGITUDINAL BULKHEAD JOINT

#### TRANSVERSE PLANE OF WEAKNESS UNWELDED CONTRACTION JOINT

#### TRANSVERSE PLANE OF WEAKNESS UNWELDED CONTRACTION JOINT



#### LONGITUDINAL LANE TIE JOINT



#### LONGITUDINAL LANE TIE JOINT



#### LONGITUDINAL BULKHEAD JOINT

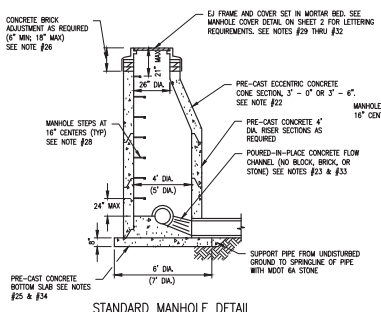


#### TRANSVERSE PLANE OF WEAKNESS UNWELDED CONTRACTION JOINT

CITY OF NOVI  
PAVING  
STANDARD DETAILS

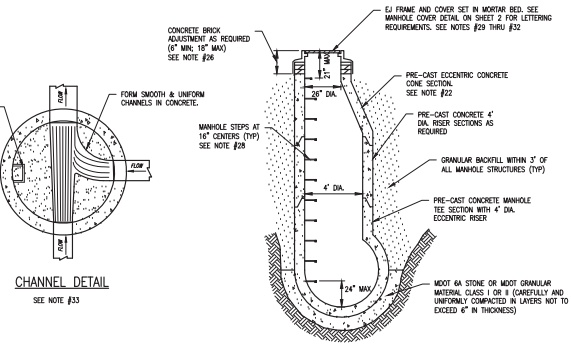
SHEET  
1  
OF 2





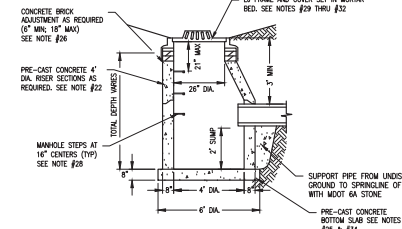
**STANDARD MANHOLE DETAIL**  
SEE NOTE #21

NOTE: STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE TOWER. SEE MANHOLE SIZING CHART ON THIS SHEET.



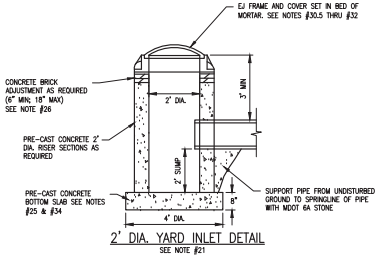
**TEE MANHOLE DETAIL**  
SEE NOTE #21

NOTE: STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE TOWER. SEE MANHOLE SIZING CHART ON THIS SHEET.



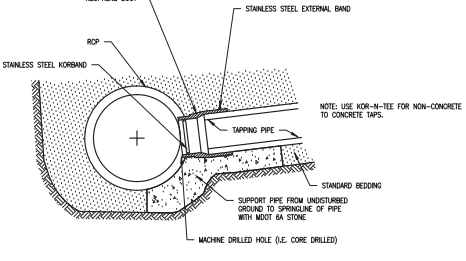
**CATCH BASIN DETAIL**  
SEE NOTE #21

NOTE: STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE TOWER. SEE MANHOLE SIZING CHART ON THIS SHEET.



**2\"/>**

NOTE: STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE TOWER. SEE MANHOLE SIZING CHART ON THIS SHEET.

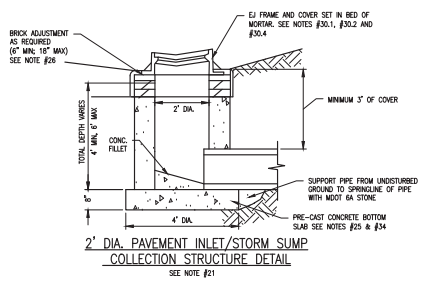


**KOR-N-TEE TAP FOR CONCRETE PIPE**

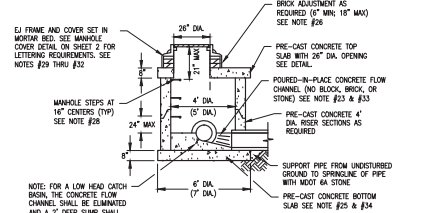
NOTE: USE KOR-N-TEE FOR NON-CONCRETE TO CONCRETE TAPS.

INSIDE DIAMETER	MAXIMUM PIPE SIZE FOR STRAIGHT THRU INSTALLATION		MAXIMUM PIPE SIZE FOR RIGHT ANGLE INSTALLATION	
	4\"/>			
4\"/>				
5\"/>				
6\"/>				
8\"/>				

**MANHOLE SIZING CHART**  
SEE NOTES #27

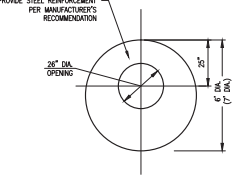


**2\"/>**

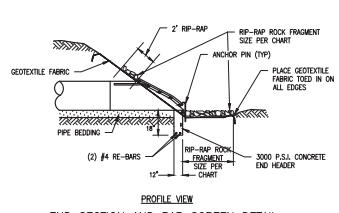


**LOW HEAD MANHOLE AND CATCH BASIN DETAIL**  
SEE NOTE #21

NOTE: FOR A LOW HEAD CATCH BASIN, THE CONCRETE FLOW CHANNEL SHALL BE ELIMINATED AND A 2\"/>

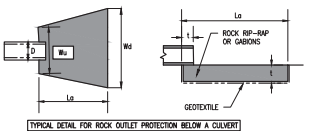


**PRECAST CONCRETE TOP SLAB DETAIL, 8\"/>**



**END SECTION AND BAR SCREEN DETAIL**

NOTES:  
A. BAR GRATE SCREEN SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IS COMPLETE.  
B. RP-RAP MAY NOT CONTAIN ANY BROKEN CONCRETE.



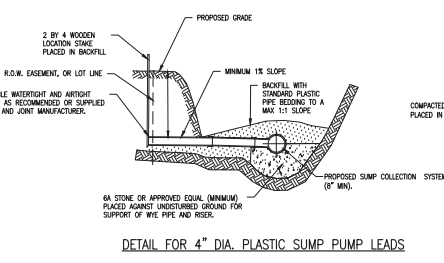
**TYPICAL DETAIL FOR ROCK OUTLET PROTECTION BELOW A CULVERT**

Culvert Size (D, Depth)	Rock Size (D, Depth)	Apron Length (L <sub>a</sub> , Feet)	Upstream Width (W <sub>u</sub> , Feet)	Downstream Width (W <sub>d</sub> , Feet)	Thickness (T, Feet)	Quantity (Yards)
12	6	12	2	12	18	15
18	9	16	4.5	16	24	20
24	9	18	5	20	24	25
24	9	20	6	22	24	40
30	9	20	10	24	24	75
36	12	24	8	27	30	100
42	18	28	10.5	30	36	160
48	18	28	12	32	36	215

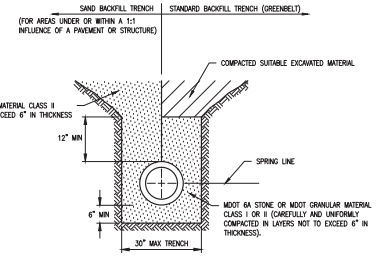
ROCK OUTLET PROTECTION APRON DIMENSIONS

**RP-RAP ROCK FRAGMENT SIZE CHART**

NOTE: RP-RAP ROCK FRAGMENT SIZE PER CHART.

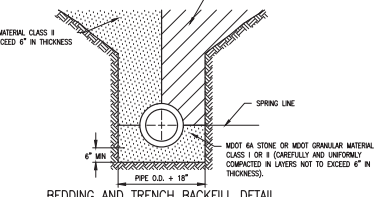


**DETAIL FOR 4\"/>**



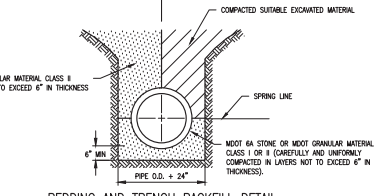
**BEDDING AND TRENCH BACKFILL DETAIL FOR 12\"/>**

NOTE: STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE TOWER. SEE MANHOLE SIZING CHART ON THIS SHEET.



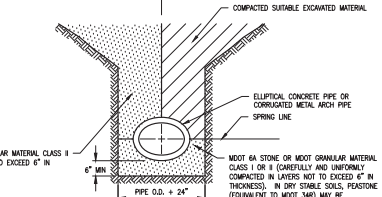
**BEDDING AND TRENCH BACKFILL DETAIL FOR 24\"/>**

NOTE: STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE TOWER. SEE MANHOLE SIZING CHART ON THIS SHEET.



**BEDDING AND TRENCH BACKFILL DETAIL FOR 27\"/>**

NOTE: STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE TOWER. SEE MANHOLE SIZING CHART ON THIS SHEET.



**BEDDING AND TRENCH BACKFILL DETAIL FOR ELLIPTICAL CONCRETE PIPE OR CORRUGATED METAL ARCH PIPE**  
SEE NOTES #17 THRU #20

NOTE: STRUCTURE DIAMETER SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL BE DETERMINED BY THE DIAMETER AND ANGLES OF THE TOWER. SEE MANHOLE SIZING CHART ON THIS SHEET.



CITY OF NOVI  
NOVI, MI 48240

DATE: 07/2018  
REVISIONS:

SCALE: V. N.T.S.  
DESIGNED BY: J. V. N.T.S.  
CHECKED BY: J. V. N.T.S.

CITY OF NOVI (425 WEST 10 MILE ROAD) (NOT IN BEST INTEREST) (P. 0448) (S. 0438) (WWW.CITYOFNOVI.ORG)

DATE: 07/2018  
REVISIONS:

SCALE: V. N.T.S.  
DESIGNED BY: J. V. N.T.S.  
CHECKED BY: J. V. N.T.S.

CITY OF NOVI (425 WEST 10 MILE ROAD) (NOT IN BEST INTEREST) (P. 0448) (S. 0438) (WWW.CITYOFNOVI.ORG)

DATE: 07/2018  
REVISIONS:

SCALE: V. N.T.S.  
DESIGNED BY: J. V. N.T.S.  
CHECKED BY: J. V. N.T.S.

CITY OF NOVI (425 WEST 10 MILE ROAD) (NOT IN BEST INTEREST) (P. 0448) (S. 0438) (WWW.CITYOFNOVI.ORG)

DATE: 07/2018  
REVISIONS:

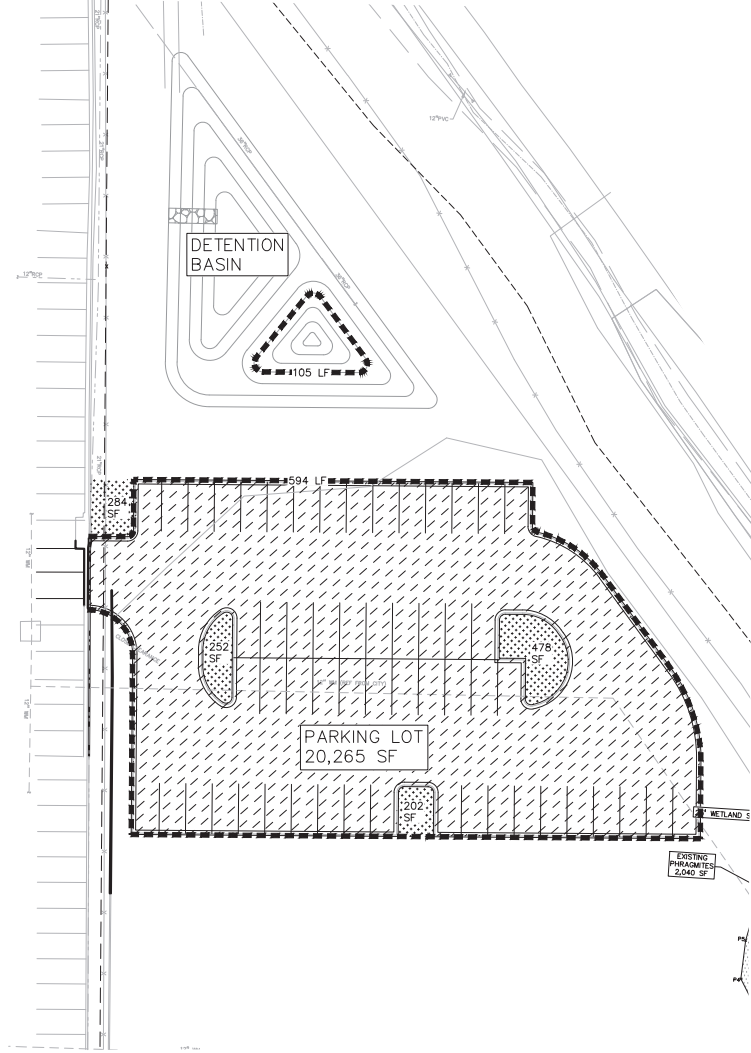
SCALE: V. N.T.S.  
DESIGNED BY: J. V. N.T.S.  
CHECKED BY: J. V. N.T.S.

CITY OF NOVI  
STORM SEWER  
STANDARD DETAILS  
SHEET 1 OF 2





**CAUTION!**  
Call before you dig. Digging can damage existing underground utilities including gas, water, sewer, electric and communication lines.



**LANDSCAPE CALCULATION:**  
PER CITY OF NOVI ZONING ORDINANCE - ZONED I-1  
AMENDED LANDSCAPE ORDINANCE EFFECTIVE 2020

**INTERIOR PARKING LOT LANDSCAPE (SEC. 5.5.3.C)**  
REQUIRED:  
A. 5% OF PAVED AREA UNDER 50,000 SF X 6%  
B. 5% OF ADDITIONAL PAVED AREA OVER 50,000 SF X 0.5%  
A+B=C SF OF ISLANDS REQUIRED  
E. C/200 CANOPY TREES REQUIRED  
PARKING LOT: 20,265 X 6% = 1,216 SF / 200 = 6 TREES

NOTE: ALL PARKING LOT LANDSCAPE ISLANDS SHALL BE A MIN. OF 200 SF, A MIN. OF 10' WIDE AND MIN. 3' BETWEEN CURB AND TREE TRUNK. LANDSCAPE ISLANDS MIN 150 SF IN AREA THAT ARE MIN 10' WIDE AND ADJON 70 SF OF GREEN SPACE CAN ALSO COUNT AS PARKING LOT ISLANDS.

PROVIDED: PARKING LOT: 1,216 SF OF INTERIOR LANDSCAPE ISLAND AREA AND 6 PROPOSED 3" DEC CANOPY TREES

**PARKING LOT PERIMETER (SEC. 5.5.3.C)**  
REQUIRED: 1 TREE PER 50 LF OF PAVED VEHICULAR PERIMETER  
PARKING LOT: 594 / 35 = 17 TREES  
PARKING LOT EXISTING TREES WITHIN 15' OF PERIMETER CAN COUNT TOWARD THE REQUIREMENT  
PROVIDED: PARKING LOT: 17 PROPOSED TREES

**RESIDENTIAL ADJACENT TO NON-RESIDENTIAL BERM REQUIREMENT (SEC. 3.14.4.F)**  
REQUIRED: 10'-15' FT. HT. BERM, 6' CREST WIDTH, BOX WINTER/BORR SUMMER OPACITY WITH PRIMARILY EVG. TREES AND SUPPLEMENTAL DEC. TREES AND DEC. AND EVG. SHRUBS  
PROVIDED: EXISTING BERM AND EXISTING AND REPLACEMENT TREES TO PROVIDE 80'-90K SCREEN BETWEEN SITE AND ADJ. RESIDENTIAL

**DETENTION BASIN LANDSCAPE**  
REQUIRED: 1 TREE PER 35 LF POND EDGE AT PERMANENT WATER LINE; 70%-75% AREA NATIVE SHRUBS PLANTED ABOVE THE HIGH WATER ELEVATION. BOTTOM OF BASIN PLANTED IN NATIVE GRASSES/ GROUNDCOVER.  
100 / 35 = 3 TREES  
PROVIDED: 3 PROPOSED TREES AND 5 ADDITIONAL PROPOSED TREES PER CITY COMMENTS.  
70%-75% AREA NATIVE SHRUBS AND NATIVE SEED MIXES

**TREE REPLACEMENT CALCULATIONS**

REQUIRED 1 REPLACEMENT: 8" < 11"	6	0 REPLACEMENT TREES REQUIRED
2 REPLACEMENT: 12" < 24"	1	2 REPLACEMENT TREES REQUIRED
3 REPLACEMENT: 24" < 24"	0	0 REPLACEMENT TREES REQUIRED
4 REPLACEMENT: > 24"	0	0 REPLACEMENT TREES REQUIRED
TOTAL REGULATED TREES REMOVED	7	
TOTAL REQUIRED REPLACEMENT TREES	6	

**COST OPINION**

PROJECT NAME: CVS DISTRIBUTION CENTER JOB NO. 23-0758

**LANDSCAPING**

PLAN QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	ITEM PRICE
1800	S.Y.	SPECIALTY SEED MIXES	\$3.00	\$5,400.00
6	EA.	DECIDUOUS REPLACEMENT TREES	\$400.00	\$3,200.00
31	EA.	GENERAL SITE DECIDUOUS TREES	\$400.00	\$12,400.00
80	EA.	SHRUBS	\$50.00	\$4,000.00
52	C.Y.	PLANT MIX FOR SHRUBS (12" DEPTH)	\$15.00	\$780.00
6	C.Y.	SHREDED HARDWOOD BARK MULCH	\$60.00	\$360.00
171	C.Y.	TOPSOIL FOR SPEC. MIX (2" DEPTH)	\$7.00	\$1,197.00
1,080	S.Y.	SEED LAWN	\$3.00	\$3,240.00
TOTAL LANDSCAPING				\$28,977.00

CLIENT  
**CVS HEALTH**  
475 PARK EAST DRIVE MC6910  
MORRISVILLE, NC

PROJECT TITLE  
**CVS DISTRIBUTION CENTER NOVI**  
43802 GEN MAR ROAD  
CIVIL AND LANDSCAPE

**REVISIONS**

TRN RESPONSE	10/6/23
SPA SUBMITTAL	01/23/24
RESPONSE TO COMMENTS	04/12/24
RESPONSE TO COMMENTS	05/22/24
AMENDED SP SUBMITTAL	06/26/24

ORIGINAL ISSUE DATE:  
OCT. 11, 2023  
DRAWING TITLE  
**LANDSCAPE CALCULATIONS**

PEA JOB NO. 2023-0758  
P.M. TD  
D.N. CAL  
DES. LAW  
DRAWING NUMBER:

NOT FOR CONSTRUCTION **L-1.0**

3/16/2023 10:52:00 AM C:\PROJECTS\2023\0758\00 EXHIBITION\NOV\NOV\LANDSCAPE\LANDSCAPE\LANDSCAPE.dwg (13) 2023-0758.dwg (13)  
 DATE: 06/26/2024 BY: [redacted]







GENERAL LANDSCAPING REQUIREMENTS

- 1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.2 PRODUCTS - Not Used
2.0 EXECUTION
3.1 PREPARATION
3.1.1 Protection
1. Spillage
A. Avoid spillage by covering and securing loads when hauling on or adjacent to public streets or highways.
B. Remove spillage and sweep, wash, or otherwise clean project, streets, and highways.
2. Erosion Control
A. Take precautions necessary to prevent erosion and transportation of soil downstream, to adjacent properties, and into or over the off-site drainage systems.
B. Develop, install, and maintain an erosion control plan if required by law.
C. Repair and correct damage caused by erosion.
3. Existing Plants And Features
A. Do not damage tops, trunks, and roots of existing trees and shrubs on site which are intended to remain.
B. Do not use heavy equipment within branch spread. Interfering branches may be removed only with permission of Landscape Architect.
C. Do not damage other plants and features which are to remain.

- 3.1.2 If specified precautions are not taken or corrections and repairs made promptly, Owner may take such steps as may be deemed necessary and do not constitute an acknowledgment of liability on Owner's part due to reliance on Contractor from responsibility for proper protection of the work.
END OF SECTION
FINISH GRADING AND TOPSOIL PLACEMENT
1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1.2 Submittals
1.2 SUBMITTALS
1.2.1 Submit based on imported topsoil and on-site stockpiled topsoil by independent testing laboratory prior to use. Imported topsoil shall meet minimum requirements and be approved by Landscape Architect prior to use.
2. Provide and pay for testing and inspection during topsoil operations. Laboratory, Inspection Agencies, and Soils Engineer shall be acceptable to the Landscape Architect.
3. Submit report stating location of source of imported topsoil and account of receipt use.
4. Test for pH factor, mechanical analysis, and percentage of organic content.
5. Submit test reports to General Contractor.
6. Sub-Contractor, or testing agency to make recommendations on type of quantity of additives required to establish satisfactory pH factor and apply of nutrients to bring nutrients to satisfactory level for planting.
1.3 QUALITY ASSURANCE
1.3.1 Participate in pre-installation meeting with Landscape Architect.
1.4 PROJECT CONDITIONS
1.4.1 Also see Landscape Preparation Section.
1.4.2 Protect existing trees, plants, lawns, and other features designated to remain as part of the landscaping area.
1.4.3 Promptly repair damage to adjacent facilities caused by topsoil operations. Cost of repair at Subcontractor's expense.
1.4.4 Promptly notify the General Contractor and Landscape Architect of unexcused subsurface conditions.
2.0 PRODUCTS
2.1 MATERIALS
2.1.1 Topsoil: supplied and stockpiled topsoil proposed for use must meet the testing criteria results specified. Topsoil must conform to adjustments and recommendations from the soil test and by the Landscape Architect.
2.1.2 Existing topsoil: existing topsoil from on-site stockpile shall be utilized. All processing, cleaning, and preparation of this stored topsoil to render it acceptable for use is the responsibility of the Subcontractor.
2.1.3 Provide additional topsoil as required to complete the job. Topsoil must meet testing criteria results specified.
2.1.4 All processing, cleaning, and preparation of this supplied topsoil to render it acceptable for use is the responsibility of the Subcontractor.
2.1.5 Supplied and stockpiled topsoil, shall be fertile, friable, dark in color and representative of local productive soil, capable of sustaining vigorous plant growth and free of clay lumps, asphalt, noxious weeds or other foreign matter such as stones of 1" in any dimension, roots, twigs, and other extraneous material: not frozen or muddy. PH of soil range between 5.0 and 7.5
2.1.6 Soil shall not contain more than 2 percent of particles measuring over 2.0 mm in largest size.
2.1.7 Prepared topsoil shall be used in planting mixtures as specified in Trees, Plants, and Ground Covers, all beds prepared as specified.
3.0 EXECUTION
3.1 EXAMINATION
3.1.1 Do not commence work of this Section until grading tolerances specified are met.
3.2 PREPARATION
3.2.1 Prior to grading dig out weeds from planting areas by their roots and remove from site. Before placing top soil in landscape areas, remove rocks larger than 1 inch in any dimension, wire, nails, metal such as building rubble, wire, cans, sticks, concrete, etc.
3.2.2 Prior to placing topsoil, remove any imported base material present in planting areas open to natural subsurface or other material acceptable to Landscape Architect.
3.3 PERFORMANCE
3.3.1 Site Tolerances
1. Total Topsoil Depth -
A. Lawn And Groundcover Planting Areas - 3 inches minimum compacted.
B. Seeded Lawn Areas - 1 1/2 inches below
C. Shrub And Ground Cover Areas - 3 inches below
2. Elevation of topsoil relative to walk or curbs -
A. Seeded Lawn Areas - 1/4 inch below
B. Seeded Lawn Areas - 1 1/2 inches below
C. Shrub And Ground Cover Areas - 3 inches below
3.3.2 Do not expose or damage existing shrub or tree roots.
3.3.3 Redistribute approved existing top soil stored on site as a result of rough grading. Remove organic material, rocks and stils greater than 1 inch in any dimension, and other objectionable materials. Provide additional approved imported topsoil required for specified topsoil depth and bring surface to specified elevation relative to walk or curb.

LANDSCAPING PREPARATION

- 1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.2 QUALITY ASSURANCE
1.2.1 Comply with all applicable local, state and federal requirements, regarding materials, methods of work, and disposal of excess waste materials.
1.2.2 Obtain and pay for all required inspections, permits, and fees.
1.2.3 Provide notices required by governmental authorities.
1.3 PROJECT CONDITIONS
1.3.1 Locate and identify existing underground and overhead services and utilities within contract limit work areas. (Call Miss Dig - 1-800-482-7171 in Michigan).
1.3.2 Provide adequate means to protect utilities and services designated to remain.
1.3.3 Repair utilities damaged during site work operations at Subcontractor's expense.
1.3.4 When uncharted or incorrectly charted underground piping or other utilities and services are encountered during site work operations, notify the applicable utility company immediately to obtain procedure directions. Cooperate with the applicable utility company in maintaining active services in operation.
1.3.5 Locate, protect, and maintain benchmarks, monuments, control points and project engineering reference points. Re-establish disturbed or destroyed items at Subcontractor's expense.
1.3.6 Perform landscape work operations and the removal of debris and materials to assure minimum interference with streets, walks, and other adjacent facilities.
1.3.7 Obtain governing authorities' written permission when required to close or obstruct streets, walks and adjacent facilities. Provide alternate routes around closed or obstructed traffic ways when required by governing authorities.
1.3.8 Protect and maintain street lights, utility poles and services, traffic signal control boxes, curb, valves, boxes and other services, except items designated for removal.
1.3.9 The General Contractor will occupy the premises and adjacent facilities during the entire period of construction. Perform landscape work operations to minimize conflicts and to facilitate General Contractor's use of the premises and conduct of his normal operations.
1.3.10 Perform landscape preparation work before commencing landscape construction.
1.3.11 Provide necessary barricades, coverings and protection to prevent damage to existing improvements indicated to remain.
1.3.12 Protect existing trees scheduled to remain against injury by damage including cutting, breaking or advancing roots, trunks or branches, smothering by stockpiled construction materials, excavated materials or vehicular traffic within branch spread.
2.0 PRODUCTS
2.1 MATERIALS/EQUIPMENT
2.1.1 As selected by the General Contractor, except as indicated.
1. Tree protection:
A. Wood fencing - Snow fencing 4' height.
B. Posts - Steel fence post.
C. Herbicide for lawn restoration - "Round-up" by Monsanto.
3.0 EXECUTION
3.1 EXISTING UTILITIES
3.1.1 Call "MISS DIG" 811 before construction begins. Information on the drawings related to existing utility lines and services is from the best sources presently available. As such, information is furnished only for information and is not guaranteed. Obtain last plots or services to determine exact locations of existing utilities.
3.2 CLEARING
3.2.1 Locate and suitably identify trees and improvements indicated to remain.
3.2.2 Fencing/hoist erosion fence to be installed.
3.2.3 Any equipment that impacts the soil in the areas of existing trees is not allowed.
3.2.4 Protect trees scheduled to remain with 4' high snow fence per plans.

- 3.2.5 No vehicular traffic is permitted beneath drip line at any time. All lawn areas are to be worked by hand.
3.2.6 Clear and grub areas within contract limits as required for site access and execution of the work.
3.2.7 Remove trees, plants, undergrowth, other vegetation and debris, except items indicated to remain.
3.2.8 Treat planting and lawn areas as required with herbicide per manufacturer recommendations to kill existing vegetation prior to planting, seeding and sodding.
3.2.9 Remove stumps and roots to a clear depth of 36" below subgrade. Remove stumps and roots to their full depth within 50' of underground structures, utility lines, footings, and paved areas.
3.3 DISPOSAL OF WASTE MATERIALS
3.3.1 Stockpile, haul from site and legally dispose of waste materials and debris. Accumulation is not permitted.
3.3.2 Maintain disposed roots, clear, clean and free of debris.
3.3.3 On-site burning of combustible cleared materials is not permitted.
3.3.4 Upon completion of landscape preparation work, clean area within contract limits, remove tops and equipment. Site to be clear, clean and free of materials and debris and suitable for site work operations.
3.3.5 Materials, items and equipment not scheduled for reinstallation or salvaged for the General Contractor are to be disposed satisfactorily off-site. Remove cleared materials from the site as the work progresses. Storage and use of Landscape Contractors salvaged items on site is not permitted.
END OF SECTION
FINISH GRADING AND TOPSOIL PLACEMENT
1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1.2 Submittals
1.2 SUBMITTALS
1.2.1 Submit based on imported topsoil and on-site stockpiled topsoil by independent testing laboratory prior to use. Imported topsoil shall meet minimum requirements and be approved by Landscape Architect prior to use.
2. Provide and pay for testing and inspection during topsoil operations. Laboratory, Inspection Agencies, and Soils Engineer shall be acceptable to the Landscape Architect.
3. Submit report stating location of source of imported topsoil and account of receipt use.
4. Test for pH factor, mechanical analysis, and percentage of organic content.
5. Submit test reports to General Contractor.
6. Sub-Contractor, or testing agency to make recommendations on type of quantity of additives required to establish satisfactory pH factor and apply of nutrients to bring nutrients to satisfactory level for planting.
1.3 QUALITY ASSURANCE
1.3.1 Participate in pre-installation meeting with Landscape Architect.
1.4 PROJECT CONDITIONS
1.4.1 Also see Landscape Preparation Section.
1.4.2 Protect existing trees, plants, lawns, and other features designated to remain as part of the landscaping area.
1.4.3 Promptly repair damage to adjacent facilities caused by topsoil operations. Cost of repair at Subcontractor's expense.
1.4.4 Promptly notify the General Contractor and Landscape Architect of unexcused subsurface conditions.
2.0 PRODUCTS
2.1 MATERIALS
2.1.1 Topsoil: supplied and stockpiled topsoil proposed for use must meet the testing criteria results specified. Topsoil must conform to adjustments and recommendations from the soil test and by the Landscape Architect.
2.1.2 Existing topsoil: existing topsoil from on-site stockpile shall be utilized. All processing, cleaning, and preparation of this stored topsoil to render it acceptable for use is the responsibility of the Subcontractor.
2.1.3 Provide additional topsoil as required to complete the job. Topsoil must meet testing criteria results specified.
2.1.4 All processing, cleaning, and preparation of this supplied topsoil to render it acceptable for use is the responsibility of the Subcontractor.
2.1.5 Supplied and stockpiled topsoil, shall be fertile, friable, dark in color and representative of local productive soil, capable of sustaining vigorous plant growth and free of clay lumps, asphalt, noxious weeds or other foreign matter such as stones of 1" in any dimension, roots, twigs, and other extraneous material: not frozen or muddy. PH of soil range between 5.0 and 7.5
2.1.6 Soil shall not contain more than 2 percent of particles measuring over 2.0 mm in largest size.
2.1.7 Prepared topsoil shall be used in planting mixtures as specified in Trees, Plants, and Ground Covers, all beds prepared as specified.
3.0 EXECUTION
3.1 EXAMINATION
3.1.1 Do not commence work of this Section until grading tolerances specified are met.
3.2 PREPARATION
3.2.1 Prior to grading dig out weeds from planting areas by their roots and remove from site. Before placing top soil in landscape areas, remove rocks larger than 1 inch in any dimension, wire, nails, metal such as building rubble, wire, cans, sticks, concrete, etc.
3.2.2 Prior to placing topsoil, remove any imported base material present in planting areas open to natural subsurface or other material acceptable to Landscape Architect.
3.3 PERFORMANCE
3.3.1 Site Tolerances
1. Total Topsoil Depth -
A. Lawn And Groundcover Planting Areas - 3 inches minimum compacted.
B. Seeded Lawn Areas - 1 1/2 inches below
C. Shrub And Ground Cover Areas - 3 inches below
2. Elevation of topsoil relative to walk or curbs -
A. Seeded Lawn Areas - 1/4 inch below
B. Seeded Lawn Areas - 1 1/2 inches below
C. Shrub And Ground Cover Areas - 3 inches below
3.3.2 Do not expose or damage existing shrub or tree roots.
3.3.3 Redistribute approved existing top soil stored on site as a result of rough grading. Remove organic material, rocks and stils greater than 1 inch in any dimension, and other objectionable materials. Provide additional approved imported topsoil required for specified topsoil depth and bring surface to specified elevation relative to walk or curb.

- 3.3.4 For trees, shrubs, ground cover beds and plant mix for beds see Exterior Plans section.
3.3.5 Provide earth berms where indicated on Plans.
3.3.6 Berms to be free flowing in shape and design, as indicated, and to blend into existing grade gradually so that the top of slope is not readily visible. Landscape Architect or General Contractor's representative to verify final contouring before planting.
3.3.7 Regardless of finish grading elevations indicated, it is intended that grading be such that proper drainage of surface water away from buildings will occur and that no low areas are created to allow ponding. Subcontractor to consult the General Contractor and Landscape Architect regarding variations in grade elevations before rough grading is completed.
3.3.8 Slope grade away from buildings for 12 feet minimum from walls of slope of 1/2 inch per ft. minimum unless otherwise noted. High point of finish grade at building foundation shall be 6 inches minimum below finish floor level. Direct surface drainage in manner indicated on Drawings by grading surface to facilitate natural run-off of water. Fill low spots and pockets with top soil and grade to drain properly.
3.3.9 Rake all topsoil to remove clods, rocks, weeds, and debris.
3.3.10 Grade and shape area to bring surface to true uniform planes free from irregularities and to provide proper drainage and slopes per plans.
3.4 CLEANING
3.4.1 Upon completion of topsoil operations clean areas within contract limits, remove tops, equipment, and haul all excess topsoil off-site. Site shall be clear, clean, free of debris, and suitable for site work operations.
END OF SECTION
LAWN SEEDING
1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1.2 Submittals
1.2 SUBMITTALS
1.2.1 Submit seed vendor's certification for required grass seed mixture, including percentage by weight, and percentage of purity, germination, and weed seed for each grass species.
1.3 DELIVERY AND STORAGE
1.3.1 Deliver seed and fertilizer materials in original unopened containers, showing weight, analysis, and name of manufacturer. Store in a manner to prevent wetting and deterioration.
1.4 PROJECT CONDITIONS
1.4.1 See Landscape preparation section.
1.4.2 Work notification: Notify Landscape Architect of General Contractor's representative at least seven (7) working days prior to start of seeding operations.
1.4.3 Protect existing utilities, paving, and other facilities from damage caused by seeding operations.
1.4.4 Perform seeding work only after planting and other work affecting ground surface has been completed.
1.4.5 Provide hose and lawn watering equipment as required.
1.4.6 The irrigation system will be installed prior to seeding. Locate, protect, and maintain the irrigation system during seeding operations. Repair irrigation system components damaged during seeding operations at the Sub-Contractor's expense.
1.5 WARRANTY
1.5.1 See Landscape Maintenance and Warranty Section
2.0 PRODUCTS
2.1 MATERIALS
2.1.1 Topsoil for Seeded Areas: See Topsoil Placement and Drawings.
2.1.2 Lawn seeded areas: Fresh, clean and new crop seed mixture. Mixed by approved methods.
2.1.3 Seed mixture composed of the following varieties, mixed to the specified proportions by weight and listed to minimum percentages of purity and germination.
Irrigated Lawn Seed Mixture proportioned by volume as indicated below:
2.1.4 SEED TYPE PROPORTION PURITY GERMINATION
Kentucky Bluegrass 20% 90% 90%
Pern. Lawn Fescue 60% 90% 80%
Annual Ryegrass 20% 90% 80%
Non-irrigated Seed Mixture proportioned by volume as indicated below:
2.1.5 SEED TYPE PROPORTION PURITY GERMINATION
Pern. Lawn Fescue 60% 90% 80%
Kentucky 288 Common Bluegrass 20% 90% 90%
Pernifera Perennial Ryegrass 20% 90% 90%
2.1.6 Fertilizer: granular, non burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer.
2.1.7 Ground Limestone: Used if required by soil test report. Containing not less than 85% of total carbonates and ground to such fineness that 50% will pass through a 100 mesh sieve and 90% will pass through a 20% mesh sieve.
2.1.8 Straw Mulch: Used in crimping process only. Clean and or wheat straw well seasoned before baling, free from mature seed-bearing status, or roots of prohibited or noxious weeds.
2.1.9 Water: Free of substance harmful to seed growth. Hoses or other methods to transport fertilizer furnished by Sub Contractor.
3.0 EXECUTION
3.1 INSPECTION
3.1.1 Landscape Architect or General Contractor's representative must approve finish surfaces, grades, topsoil quality and depth. Do not start seeding work until unsatisfactory conditions are corrected.
3.2 PREPARATION
3.2.1 SURFACE PREPARATION
1. Seven days minimum prior to seeding, -
A. Treat Low areas if required with "Round-Up" by Monsanto, per label direction to kill existing vegetation prior to seeding.
B. Loosen topsoil area to minimum depth of 4", dampen thoroughly, and cultivate to properly break up clods and lumps.
C. Rake area to remove clods, rocks, weeds, roots, debris, and stones over 1" in any dimension.
D. Grade lawn areas to smooth, free draining even surface with a loose, moderately coarse texture. Roll and rake, remove ridges, and fill depressions as required to drain.
E. Apply limestone to supplied topsoil if required by soil test report at rate determined by the soil test, to adjust pH of topsoil to not less than 6.0 no more than 6.8. Distribute evenly by machine and incorporate thoroughly into topsoil.
F. Apply fertilizers to indicated turf areas at a rate equal to 1 lb. of actual nitrogen 1,000 sq. ft. (43 lbs / acre).
G. Apply fertilizers by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment with hand tools and incorporate into soil.
2. Immediately following application of slurry mix, make separate application of seed cellulose mulch at the rate of 1,000 pounds, dry weight, per acre.
3. Apply cover so that rainfall or applied water will percolate to underlying soil.
3.3.3 MULCHING
3.3.3.1 Place straw mulch on seeded areas within 24-hours after seeding.
3.3.3.2 Place straw mulch uniformly in a continuous blanket at a rate of 2-1/2 tons per acre, or two (2) 50 lb. bales per 1,000 sq. ft. of area. A mechanical blower may be used for straw mulch application when acceptable to the Landscape Architect.
3.3.3.3 Crimp straw into soil by use of a "crimper". Two passes in opposite directions required to crimp straw into soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment will be approved by the Landscape Architect or Owner's Representative.
3.3.3.4 Establish LAWN
1. Establish dense lawn of permanent grasses, free from lumps and depressions. Any area failing to show uniform germination to be reseeded; continue until lawn established.
2. Damage to seeded area resulting from erosion to be repaired by Sub Contractor.
3. In event Sub Contractor does not establish dense lawn during first germination period, return to project to re-fertilize and reseed to establish dense lawn.
4. Should the seeded lawn become largely weeds after germination, Sub Contractor is responsible to kill the weeds and reseed the proposed lawn area to produce a dense turf, as specified.
3.4 CLEANING
3.4.1 Perform Cleaning during installation of the work and upon completion of the work to the approval of the Landscape Architect. Remove from site all excess materials, debris, and equipment. Repair damage resulting from seeding operations.
3.5 MAINTENANCE
3.5.1 See Landscape Maintenance and Warranty Section.
3.6 ACCEPTANCE
3.6.1 See Landscape Maintenance and Warranty Section.
END OF SECTION
LAWN SODDING
1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1.2 Submittals
1.2 SUBMITTALS
1.2.1 Sod Comply with American Sod Producers Association (ASPA) classes of sod materials.
1.3 SUBMITTALS
1.3.1 Submit sod growers certification of grass species. Identify source location.
1.3.2 Submit manufacturer's certification of fertilizer.
1.4 DELIVERY, STORAGE, AND HANDLING
1.4.1 Cut, deliver, and install sod within 24 hour period.
1.4.2 Do not harvest or transport sod when moisture content may adversely affect sod survival.
1.4.3 Protect sod from sun, wind, and dehydration prior to installation. Do not let, stretch, or drop sod during handling and installation.
1.4.4 Sod which is not used after installation will be rejected.
1.5 PROJECT CONDITIONS
1.5.1 See Landscape Preparation section.
1.5.2 Work notification: Notify Landscape Architect or General Contractor's representative at least seven (7) working days prior to start of sodding operation.
1.5.3 Protect existing utilities, paving, and other facilities from damage caused by sodding operations.
1.5.4 Perform sodding work only after planting and other work affecting ground surface has been completed.
1.5.5 Restrict traffic from lawn areas until grass is established. Erect signs and barriers as required.

- 1.5.6 Provide hose and lawn watering equipment as required.
1.5.7 The irrigation system will be installed prior to sodding. Locate, protect, and maintain the irrigation system during sodding operations. Repair irrigation system components damaged during sodding operations at the Subcontractor's expense.
1.6 WARRANTY
1.6.1 See Landscape Maintenance and Warranty Section.
2.0 PRODUCTS
2.1 MATERIALS
2.1.1 Sod: An "Approved" nursery grown blend of improved Kentucky Bluegrass varieties.
2.1.2 Sod containing Common Bermuda grass, Quackgrass, Jersey Bluegrass, Palsen Ivy, Nutgrass, Nutsedge, Canada Thistle, Timothy, Bentgrass, Wild Garlic, Ground Ivy, French Sorrel, or Bromegrass weeds will not be acceptable.
2.1.3 Provide well drained, healthy sod, free of diseases, nematodes and soil borne fungi. Provide sod uniform in color, leaf texture, density, and free of weeds, undesirable grasses, stones, roots, twigs, and extraneous material; viable and capable of growth and development when planted.
2.1.4 Fertilizer: granular, non burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer.
2.1.5 Type A: starter fertilizer containing 20% nitrogen, 12% phosphoric acid, and 8% potash by weight if required approved composition.
2.1.6 Type A: starter fertilizer containing 20% nitrogen, 12% phosphoric acid, and 8% potash by weight if required approved composition.
2.1.7 Ground Limestone: Used if required by soil test report. Containing not less than 85% of total carbonates and ground to such fineness that 50% will pass through a 100 mesh sieve and 90% will pass through a 20% mesh sieve.
2.1.8 Slaked softwood, 3/4" x 8" long.
2.1.9 Water: Free of substance harmful to seed growth. Hoses or other methods to transport fertilizer furnished by Sub Contractor.
2.1.10 Topsoil: See Topsoil Placement section.
3.0 EXECUTION
3.1 INSPECTION
3.1.1 Landscape Architect or General Contractor's representative must approve finish surfaces, grades, topsoil quality and depth. Do not start sodding work until unsatisfactory conditions are corrected.
3.2 PREPARATION
3.2.1 Surface Preparation:
1. Seven days minimum prior to sodding, -
A. Treat Low areas if required with herbicide per manufacturer recommendations to kill existing vegetation prior to sodding.
B. Loosen topsoil area to minimum depth of 4", dampen thoroughly, and cultivate to properly break up clods and lumps.
C. Rake area to remove clods, rocks, weeds, roots, debris, and stones over 1" in any dimension.
D. Grade lawn areas to smooth, free draining even surface with a loose, moderately coarse texture. Roll and rake, remove ridges, and fill depressions as required to drain.
E. Apply limestone to supplied topsoil if required by soil test report at rate determined by the soil test, to adjust pH of topsoil to not less than 6.0 no more than 6.8. Distribute evenly by machine and incorporate thoroughly into topsoil.
F. Apply fertilizers to indicated turf areas at a rate equal to 1 lb. of actual nitrogen 1,000 sq. ft. (43 lbs / acre).
G. Apply fertilizers by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment with hand tools and incorporate into soil.
2. Immediately following application of slurry mix, make separate application of seed cellulose mulch at the rate of 1,000 pounds, dry weight, per acre.
3. Apply cover so that rainfall or applied water will percolate to underlying soil.
3.3.3 MULCHING
3.3.3.1 Place straw mulch on seeded areas within 24-hours after seeding.
3.3.3.2 Place straw mulch uniformly in a continuous blanket at a rate of 2-1/2 tons per acre, or two (2) 50 lb. bales per 1,000 sq. ft. of area. A mechanical blower may be used for straw mulch application when acceptable to the Landscape Architect.
3.3.3.3 Crimp straw into soil by use of a "crimper". Two passes in opposite directions required to crimp straw into soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment will be approved by the Landscape Architect or Owner's Representative.
3.3.3.4 Establish LAWN
1. Establish dense lawn of permanent grasses, free from lumps and depressions. Any area failing to show uniform germination to be reseeded; continue until lawn established.
2. Damage to seeded area resulting from erosion to be repaired by Sub Contractor.
3. In event Sub Contractor does not establish dense lawn during first germination period, return to project to re-fertilize and reseed to establish dense lawn.
4. Should the seeded lawn become largely weeds after germination, Sub Contractor is responsible to kill the weeds and reseed the proposed lawn area to produce a dense turf, as specified.
3.4 CLEANING
3.4.1 Perform Cleaning during installation of the work and upon completion of the work to the approval of the Landscape Architect. Remove from site all excess materials, debris, and equipment. Repair damage resulting from seeding operations.
3.5 MAINTENANCE
3.5.1 See Landscape Maintenance and Warranty Section.
3.6 ACCEPTANCE
3.6.1 See Landscape Maintenance and Warranty Section.
END OF SECTION
LAWN SODDING
1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1.2 Submittals
1.2 SUBMITTALS
1.2.1 Sod Comply with American Sod Producers Association (ASPA) classes of sod materials.
1.3 SUBMITTALS
1.3.1 Submit sod growers certification of grass species. Identify source location.
1.3.2 Submit manufacturer's certification of fertilizer.
1.4 DELIVERY, STORAGE, AND HANDLING
1.4.1 Cut, deliver, and install sod within 24 hour period.
1.4.2 Do not harvest or transport sod when moisture content may adversely affect sod survival.
1.4.3 Protect sod from sun, wind, and dehydration prior to installation. Do not let, stretch, or drop sod during handling and installation.
1.4.4 Sod which is not used after installation will be rejected.
1.5 PROJECT CONDITIONS
1.5.1 See Landscape Preparation section.
1.5.2 Work notification: Notify Landscape Architect or General Contractor's representative at least seven (7) working days prior to start of sodding operation.
1.5.3 Protect existing utilities, paving, and other facilities from damage caused by sodding operations.
1.5.4 Perform sodding work only after planting and other work affecting ground surface has been completed.
1.5.5 Restrict traffic from lawn areas until grass is established. Erect signs and barriers as required.

- 1.5.6 Provide hose and lawn watering equipment as required.
1.5.7 The irrigation system will be installed prior to sodding. Locate, protect, and maintain the irrigation system during sodding operations. Repair irrigation system components damaged during sodding operations at the Subcontractor's expense.
1.6 WARRANTY
1.6.1 See Landscape Maintenance and Warranty Section.
2.0 PRODUCTS
2.1 MATERIALS
2.1.1 Sod: An "Approved" nursery grown blend of improved Kentucky Bluegrass varieties.
2.1.2 Sod containing Common Bermuda grass, Quackgrass, Jersey Bluegrass, Palsen Ivy, Nutgrass, Nutsedge, Canada Thistle, Timothy, Bentgrass, Wild Garlic, Ground Ivy, French Sorrel, or Bromegrass weeds will not be acceptable.
2.1.3 Provide well drained, healthy sod, free of diseases, nematodes and soil borne fungi. Provide sod uniform in color, leaf texture, density, and free of weeds, undesirable grasses, stones, roots, twigs, and extraneous material; viable and capable of growth and development when planted.
2.1.4 Fertilizer: granular, non burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer.
2.1.5 Type A: starter fertilizer containing 20% nitrogen, 12% phosphoric acid, and 8% potash by weight if required approved composition.
2.1.6 Type A: starter fertilizer containing 20% nitrogen, 12% phosphoric acid, and 8% potash by weight if required approved composition.
2.1.7 Ground Limestone: Used if required by soil test report. Containing not less than 85% of total carbonates and ground to such fineness that 50% will pass through a 100 mesh sieve and 90% will pass through a 20% mesh sieve.
2.1.8 Slaked softwood, 3/4" x 8" long.
2.1.9 Water: Free of substance harmful to seed growth. Hoses or other methods to transport fertilizer furnished by Sub Contractor.
2.1.10 Topsoil: See Topsoil Placement section.
3.0 EXECUTION
3.1 INSPECTION
3.1.1 Landscape Architect or General Contractor's representative must approve finish surfaces, grades, topsoil quality and depth. Do not start sodding work until unsatisfactory conditions are corrected.
3.2 PREPARATION
3.2.1 Surface Preparation:
1. Seven days minimum prior to sodding, -
A. Treat Low areas if required with herbicide per manufacturer recommendations to kill existing vegetation prior to sodding.
B. Loosen topsoil area to minimum depth of 4", dampen thoroughly, and cultivate to properly break up clods and lumps.
C. Rake area to remove clods, rocks, weeds, roots, debris, and stones over 1" in any dimension.
D. Grade lawn areas to smooth, free draining even surface with a loose, moderately coarse texture. Roll and rake, remove ridges, and fill depressions as required to drain.
E. Apply limestone to supplied topsoil if required by soil test report at rate determined by the soil test, to adjust pH of topsoil to not less than 6.0 no more than 6.8. Distribute evenly by machine and incorporate thoroughly into topsoil.
F. Apply fertilizers to indicated turf areas at a rate equal to 1 lb. of actual nitrogen 1,000 sq. ft. (43 lbs / acre).
G. Apply fertilizers by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment with hand tools and incorporate into soil.
2. Immediately following application of slurry mix, make separate application of seed cellulose mulch at the rate of 1,000 pounds, dry weight, per acre.
3. Apply cover so that rainfall or applied water will percolate to underlying soil.
3.3.3 MULCHING
3.3.3.1 Place straw mulch on seeded areas within 24-hours after seeding.
3.3.3.2 Place straw mulch uniformly in a continuous blanket at a rate of 2-1/2 tons per acre, or two (2) 50 lb. bales per 1,000 sq. ft. of area. A mechanical blower may be used for straw mulch application when acceptable to the Landscape Architect.
3.3.3.3 Crimp straw into soil by use of a "crimper". Two passes in opposite directions required to crimp straw into soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment will be approved by the Landscape Architect or Owner's Representative.
3.3.3.4 Establish LAWN
1. Establish dense lawn of permanent grasses, free from lumps and depressions. Any area failing to show uniform germination to be reseeded; continue until lawn established.
2. Damage to seeded area resulting from erosion to be repaired by Sub Contractor.
3. In event Sub Contractor does not establish dense lawn during first germination period, return to project to re-fertilize and reseed to establish dense lawn.
4. Should the seeded lawn become largely weeds after germination, Sub Contractor is responsible to kill the weeds and reseed the proposed lawn area to produce a dense turf, as specified.
3.4 CLEANING
3.4.1 Perform Cleaning during installation of the work and upon completion of the work to the approval of the Landscape Architect. Remove from site all excess materials, debris, and equipment. Repair damage resulting from seeding operations.
3.5 MAINTENANCE
3.5.1 See Landscape Maintenance and Warranty Section.
3.6 ACCEPTANCE
3.6.1 See Landscape Maintenance and Warranty Section.
END OF SECTION
LAWN SODDING
1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1.2 Submittals
1.2 SUBMITTALS
1.2.1 Sod Comply with American Sod Producers Association (ASPA) classes of sod materials.
1.3 SUBMITTALS
1.3.1 Submit sod growers certification of grass species. Identify source location.
1.3.2 Submit manufacturer's certification of fertilizer.
1.4 DELIVERY, STORAGE, AND HANDLING
1.4.1 Cut, deliver, and install sod within 24 hour period.
1.4.2 Do not harvest or transport sod when moisture content may adversely affect sod survival.
1.4.3 Protect sod from sun, wind, and dehydration prior to installation. Do not let, stretch, or drop sod during handling and installation.
1.4.4 Sod which is not used after installation will be rejected.
1.5 PROJECT CONDITIONS
1.5.1 See Landscape Preparation section.
1.5.2 Work notification: Notify Landscape Architect or General Contractor's representative at least seven (7) working days prior to start of sodding operation.
1.5.3 Protect existing utilities, paving, and other facilities from damage caused by sodding operations.
1.5.4 Perform sodding work only after planting and other work affecting ground surface has been completed.
1.5.5 Restrict traffic from lawn areas until grass is established. Erect signs and barriers as required.

- 1.5.6 Provide hose and lawn watering equipment as required.
1.5.7 The irrigation system will be installed prior to sodding. Locate, protect, and maintain the irrigation system during sodding operations. Repair irrigation system components damaged during sodding operations at the Subcontractor's expense.
1.6 WARRANTY
1.6.1 See Landscape Maintenance and Warranty Section.
2.0 PRODUCTS
2.1 MATERIALS
2.1.1 Sod: An "Approved" nursery grown blend of improved Kentucky Bluegrass varieties.
2.1.2 Sod containing Common Bermuda grass, Quackgrass, Jersey Bluegrass, Palsen Ivy, Nutgrass, Nutsedge, Canada Thistle, Timothy, Bentgrass, Wild Garlic, Ground Ivy, French Sorrel, or Bromegrass weeds will not be acceptable.
2.1.3 Provide well drained, healthy sod, free of diseases, nematodes and soil borne fungi. Provide sod uniform in color, leaf texture, density, and free of weeds, undesirable grasses, stones, roots, twigs, and extraneous material; viable and capable of growth and development when planted.
2.1.4 Fertilizer: granular, non burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer.
2.1.5 Type A: starter fertilizer containing 20% nitrogen, 12% phosphoric acid, and 8% potash by weight if required approved composition.
2.1.6 Type A: starter fertilizer containing 20% nitrogen, 12% phosphoric acid, and 8% potash by weight if required approved composition.
2.1.7 Ground Limestone: Used if required by soil test report. Containing not less than 85% of total carbonates and ground to such fineness that 50% will pass through a 100 mesh sieve and 90% will pass through a 20% mesh sieve.
2.1.8 Slaked softwood, 3/4" x 8" long.
2.1.9 Water: Free of substance harmful to seed growth. Hoses or other methods to transport fertilizer furnished by Sub Contractor.
2.1.10 Topsoil: See Topsoil Placement section.
3.0 EXECUTION
3.1 INSPECTION
3.1.1 Landscape Architect or General Contractor's representative must approve finish surfaces, grades, topsoil quality and depth. Do not start sodding work until unsatisfactory conditions are corrected.
3.2 PREPARATION
3.2.1 Surface Preparation:
1. Seven days minimum prior to sodding, -
A. Treat Low areas if required with herbicide per manufacturer recommendations to kill existing vegetation prior to sodding.
B. Loosen topsoil area to minimum depth of 4", dampen thoroughly, and cultivate to properly break up clods and lumps.
C. Rake area to remove clods, rocks, weeds, roots, debris, and stones over 1" in any dimension.
D. Grade lawn areas to smooth, free draining even surface with a loose, moderately coarse texture. Roll and rake, remove ridges, and fill depressions as required to drain.
E. Apply limestone to supplied topsoil if required by soil test report at rate determined by the soil test, to adjust pH of topsoil to not less than 6.0 no more than 6.8. Distribute evenly by machine and incorporate thoroughly into topsoil.
F. Apply fertilizers to indicated turf areas at a rate equal to 1 lb. of actual nitrogen 1,000 sq. ft. (43 lbs / acre).
G. Apply fertilizers by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment with hand tools and incorporate into soil.
2. Immediately following application of slurry mix, make separate application of seed cellulose mulch at the rate of 1,000 pounds, dry weight, per acre.
3. Apply cover so that rainfall or applied water will percolate to underlying soil.
3.3.3 MULCHING
3.3.3.1 Place straw mulch on seeded areas within 24-hours after seeding.
3.3.3.2 Place straw mulch uniformly in a continuous blanket at a rate of 2-1/2 tons per acre, or two (2) 50 lb. bales per 1,000 sq. ft. of area. A mechanical blower may be used for straw mulch application when acceptable to the Landscape Architect.
3.3.3.3 Crimp straw into soil by use of a "crimper". Two passes in opposite directions required to crimp straw into soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment will be approved by the Landscape Architect or Owner's Representative.
3.3.3.4 Establish LAWN
1. Establish dense lawn of permanent grasses, free from lumps and depressions. Any area failing to show uniform germination to be reseeded; continue until lawn established.
2. Damage to seeded area resulting from erosion to be repaired by Sub Contractor.
3. In event Sub Contractor does not establish dense lawn during first germination period, return to project to re-fertilize and reseed to establish dense lawn.
4. Should the seeded lawn become largely weeds after germination, Sub Contractor is responsible to kill the weeds and reseed the proposed lawn area to produce a dense turf, as specified.
3.4 CLEANING
3.4.1 Perform Cleaning during installation of the work and upon completion of the work to the approval of the Landscape Architect. Remove from site all excess materials, debris, and equipment. Repair damage resulting from seeding operations.
3.5 MAINTENANCE
3.5.1 See Landscape Maintenance and Warranty Section.
3.6 ACCEPTANCE
3.6.1 See Landscape Maintenance and Warranty Section.
END OF SECTION
LAWN SODDING
1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1.2 Submittals
1.2 SUBMITTALS
1.2.1 Sod Comply with American Sod Producers Association (ASPA) classes of sod materials.
1.3 SUBMITTALS
1.3.1 Submit sod growers certification of grass species. Identify source location.
1.3.2 Submit manufacturer's certification of fertilizer.
1.4 DELIVERY, STORAGE, AND HANDLING
1.4.1 Cut, deliver, and install sod within 24 hour period.
1.4.2 Do not harvest or transport sod when moisture content may adversely affect sod survival.
1.4.3 Protect sod from sun, wind, and dehydration prior to installation. Do not let, stretch, or drop sod during handling and installation.
1.4.4 Sod which is not used after installation will be rejected.
1.5 PROJECT CONDITIONS
1.5.1 See Landscape Preparation section.
1.5.2 Work notification: Notify Landscape Architect or General Contractor's representative at least seven (7) working days prior to start of sodding operation.
1.5.3 Protect existing utilities, paving, and other facilities from damage caused by sodding operations.
1.5.4 Perform sodding work only after planting and other work affecting ground surface has been completed.
1.5.5 Restrict traffic from lawn areas until grass is established. Erect signs and barriers as required.

- 1.5.6 Provide hose and lawn watering equipment as required.
1.5.7 The irrigation system will be installed prior to sodding. Locate, protect, and maintain the irrigation system during sodding operations. Repair irrigation system components damaged during sodding operations at the Subcontractor's expense.
1.6 WARRANTY
1.6.1 See Landscape Maintenance and Warranty Section.
2.0 PRODUCTS
2.1 MATERIALS
2.1.1 Sod: An "Approved" nursery grown blend of improved Kentucky Bluegrass varieties.
2.1.2 Sod containing Common Bermuda grass, Quackgrass, Jersey Bluegrass, Palsen Ivy, Nutgrass, Nutsedge, Canada Thistle, Timothy, Bentgrass, Wild Garlic, Ground Ivy, French Sorrel, or Bromegrass weeds will not be acceptable.
2.1.3 Provide well drained, healthy sod, free of diseases, nematodes and soil borne fungi. Provide sod uniform in color, leaf texture, density, and free of weeds, undesirable grasses, stones, roots, twigs, and extraneous material; viable and capable of growth and development when planted.
2.1.4 Fertilizer: granular, non burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer.
2.1.5 Type A: starter fertilizer containing 20% nitrogen, 12% phosphoric acid, and 8% potash by weight if required approved composition.
2.1.6 Type A: starter fertilizer containing 20% nitrogen, 12% phosphoric acid, and 8% potash by weight if required approved composition.
2.1.7 Ground Limestone: Used if required by soil test report. Containing not less than 85% of total carbonates and ground to such fineness that 50% will pass through a 100 mesh sieve and 90% will pass through a 20% mesh sieve.
2.1.8 Slaked softwood, 3/4" x 8" long.
2.1.9 Water: Free of substance harmful to seed growth. Hoses or other methods to transport fertilizer furnished by Sub Contractor.
2.1.10 Topsoil: See Topsoil Placement section.
3.0 EXECUTION
3.1 INSPECTION
3.1.1 Landscape Architect or General Contractor's representative must approve finish surfaces, grades, topsoil quality and depth. Do not start sodding work until unsatisfactory conditions are corrected.
3.2 PREPARATION
3.2.1 Surface Preparation:
1. Seven days minimum prior to sodding, -
A. Treat Low areas if required with herbicide per manufacturer recommendations to kill existing vegetation prior to sodding.
B. Loosen topsoil area to minimum depth of 4", dampen thoroughly, and cultivate to properly break up clods and lumps.
C. Rake area to remove clods, rocks, weeds, roots, debris, and stones over 1" in any dimension.
D. Grade lawn areas to smooth, free draining even surface with a loose, moderately coarse texture. Roll and rake, remove ridges, and fill depressions as required to drain.
E. Apply limestone to supplied topsoil if required by soil test report at rate determined by the soil test, to adjust pH of topsoil to not less than 6.0 no more than 6.8. Distribute evenly by machine and incorporate thoroughly into topsoil.
F. Apply fertilizers to indicated turf areas at a rate equal to 1 lb. of actual nitrogen 1,000 sq. ft. (43 lbs / acre).
G. Apply fertilizers by mechanical rotary or drop type distributor, thoroughly and evenly incorporated with soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment with hand tools and incorporate into soil.
2. Immediately following application of slurry mix, make separate application of seed cellulose mulch at the rate of 1,000 pounds, dry weight, per acre.
3. Apply cover so that rainfall or applied water will percolate to underlying soil.
3.3.3 MULCHING
3.3.3.1 Place straw mulch on seeded areas within 24-hours after seeding.
3.3.3.2 Place straw mulch uniformly in a continuous blanket at a rate of 2-1/2 tons per acre, or two (2) 50 lb. bales per 1,000 sq. ft. of area. A mechanical blower may be used for straw mulch application when acceptable to the Landscape Architect.
3.3.3.3 Crimp straw into soil by use of a "crimper". Two passes in opposite directions required to crimp straw into soil to a depth of 1" by approved method. Fertilizer areas inaccessible to power equipment will be approved by the Landscape Architect or Owner's Representative.
3.3.3.4 Establish LAWN
1. Establish dense lawn of permanent grasses, free from lumps and depressions. Any area failing to show uniform germination to be reseeded; continue until lawn established.
2. Damage to seeded area resulting from erosion to be repaired by Sub Contractor.
3. In event Sub Contractor does not establish dense lawn during first germination period, return to project to re-fertilize and reseed to establish dense lawn.
4. Should the seeded lawn become largely weeds after germination, Sub Contractor is responsible to kill the weeds and reseed the proposed lawn area to produce a dense turf, as specified.
3.4 CLEANING
3.4.1 Perform Cleaning during installation of the work and upon completion of the work to the approval of the Landscape Architect. Remove from site all excess materials, debris, and equipment. Repair damage resulting from seeding operations.
3.5 MAINTENANCE
3.5.1 See Landscape Maintenance and Warranty Section.
3.6 ACCEPTANCE
3.6.1 See Landscape Maintenance and Warranty Section.
END OF SECTION
LAWN SODDING
1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1

EXTERIOR PLANTS

- 1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1.1.1 Furnish and install landscaping plants as described in Contract Documents.
1.2 QUALITY ASSURANCE
1.2.1 Plant names indicated, comply with "Standardized Plant Names" as adopted by the latest edition of the American Society of Horticultural Nomenclature.
1.2.2 Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock".
1.2.3 All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of two years.
1.2.4 Stock furnished shall be of at least the minimum size indicated.
1.2.5 Provide "specimen" plants with a special height, shape, or character of growth.
1.2.6 Plants may be inspected and approved at the place of growth for compliance with specification requirements for quantity, size, and variety.
1.2.7 Approval of plant selection at the place of growth shall not impair the right of inspection and rejection upon delivery at the site or during the period of the work.
1.2.8 Provide germination testing by filling plant pits with water and monitoring the length of time for water to completely percolate into soil.
1.2.9 Before proceeding with work, check and verify dimensions and quantities.
1.3 SUBMITTALS
1.3.1 Provide and pay for material testing.
1.3.2 Submit the following material samples to Landscape Architect:
1.3.3 Submit the following materials certification to Landscape Architect:
1.4 DELIVERY, STORAGE, AND HANDLING
1.4.1 Deliver fertilizer materials in original, unopened and undamaged containers showing weight, analysis, and name of manufacturer.
1.4.2 Take all precautions customary in good trade practice in preparing plants for moving.
1.4.3 Spray deciduous plants in foliage with an approved "Anti-Desiccant" immediately after packing to prevent wilting.
1.4.4 Dig, pack, transport, and handle plants with care to ensure protection against injury.
1.4.5 Inspection certificates required by law shall accompany such shipment invoice or order to stock on arrival.
1.4.6 Protect all plants from drying out.
1.4.7 Water heeled in plantings daily.
1.4.8 No plant shall be bound with rope or wire in a manner that could damage or break the branches.
1.4.9 Cover plants transported on open vehicles with a protective covering to prevent wind burn.
1.4.10 Frozen or muddy topsoil is not acceptable.
1.5 PROJECT CONDITIONS
1.5.1 See Landscape Preparation Section.
1.5.2 Work notification notify Landscape Architect at least seven working days prior to installation of plant materials.
1.5.3 Protect existing utilities, paving, and other facilities from damage caused by landscaping operations.
1.5.4 A complete list of plants including a schedule of sizes, quantities, and other requirements is shown on the proposal form.
1.5.5 An irrigation system will be installed prior to planting.
1.5.6 The Landscape Subcontractor shall inspect existing soil conditions at all areas of the site where his operations will take place.
1.6 WARRANTY
1.6.1 See Landscape Maintenance and Warranty Standards.
2.0 PRODUCTS
2.1 MATERIALS
2.1.1 Plants: Provide plants typical of their species or variety, with normal, density developed branches and vigorous, fibrous root systems.
2.1.2 Shrubs and woody plants: Provide plants free from defects, disfiguring insects, sunscald injuries, insect damage, and other diseases.
2.1.3 Evergreen trees shall be unshaded and branched to the spread.
2.1.4 Single stemmed or thin plants shall meet the requirements for spread and height indicated on the drawings.
2.1.5 Plant materials shall be subject to approval by the Landscape Architect prior to their use, healthy, quality, and character.
2.1.6 Bare root trees are not acceptable.
2.1.7 Provide plant materials from licensed nursery or grower.
2.1.8 Bare root plants: dig with adequate fibrous roots, to be covered with a uniformly thick coating of mud by being pushed immediately after they are dug or pressed in moist straw or peat moss.
2.1.9 Container grown stock grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm, and whole.
2.1.10 No plants shall be loose in the container.
2.1.11 Container stock shall not be root bound.
2.1.12 Single stemmed or thin plants will not be accepted.
2.1.13 Side branches shall be generous, well twigged, and the plant as a whole well bushed to the ground.
2.1.14 Collected stock consists of plants grown under natural conditions in soils and climate as exist at location to be planted, in locations leading themselves to proper collecting practices.
2.1.5 Specimen stocks of specimen designated plantings are to be nursery grown, fully developed, essential quality and typical examples of the species.
2.1.6 Topsoil for planting mix: fertile, friable, natural topsoil of loamy character, without admixture of subsoil materials, obtained from a well drained orabon soil.
2.1.7 Peat moss: brown to black in color, weed and seed free granulated raw peat.
2.1.8 Planting mixture Type A - forest standard planting backfill shall be a mixture of native soil (excavated from plant pits), topsoil, and sand.
2.1.9 Planting mixture Type B for perennial flowers, groundcover beds, and fibrous plant materials.
2.1.10 Plant fertilizer Type A to be "Drinmore" applied per manufacturer recommendations.
2.1.11 Plant fertilizer Type B to be "14-14-14".
2.1.12 Bone Meal - 5 lbs. per cubic yard of soil mixes.
2.1.13 Lime to be ground dolomitic limestone, ninety-five percent (95%) passing through #100 mesh screen.
2.1.14 Sand to be clean, coarse, ungraded conforming to ASTM-C-3 for fine aggregate.
2.1.15 Anti-Desiccant: protective film emulsion providing a protective film over plant surfaces; permeable to permit transpiration.
2.1.16 Shredded bark mulch shall be double processed, dark shredded hardwood bark that is clean, free of debris and sticks.
2.1.17 Water: free of substances harmful to plant growth.
2.1.18 Stakes for staking: (3) Three Horwood, 2" x 2" x 8'-0" long.
2.1.19 Guying/staking materials: With 2" x 3/4" wide fabric straps, connect from tree to stake.
2.1.20 Tree wrap: standard waterproofed tree wrapping paper.
2.1.21 Twine: two-ply jute material.
2.2 MEASUREMENTS
2.2.1 Measure height and spread of specimen plant materials with branches in their normal position as indicated on Drawing or Plant List.
2.2.2 The measurements for height shall be taken from the ground level to the average height of the top of the plant and not the longest branch.
2.2.3 Measurement shall be average of plant, not greatest diameter.
2.2.4 Plants properly trimmed and transplanted should measure same in every direction.
2.2.5 Measure caliper of trees 6 inches above surface of ground.
2.2.6 Where caliper or other dimensions of plant materials are omitted from Plant List, plant materials shall be normal stock for type listed.
2.2.7 Plant materials larger than those specified may be supplied, with prior written approval of Landscape Architect, and:
2.2.8 The height of the trees, specified by height, measured from the crown of the roots to the top of the main trunk, shall not be less than the minimum size designated on the drawings.
3.0 EXECUTION
3.1 INSPECTION
3.1.1 Landscape Architect or General Contractor's representative must approve proposed planting areas and conditions of installation.
3.1.2 Individual plant locations shall be staked on the project site by the

- 4. Plants planted in rows shall be matched in form, (see specimen stock).
4. Plants larger than those specified in the plant list may be used when acceptable to the Landscape Architect.
4. No pruning wounds shall be present with a diameter of more than 1" and no cuts shall be made above the soil line.
4. Evergreen trees shall be unshaded and branched to the spread.
4. Shrubs and small plants shall meet the requirements for spread and height indicated on the drawings.
4. Plant materials shall be subject to approval by the Landscape Architect prior to their use, healthy, quality, and character.
4. Bare root trees are not acceptable.
4. Provide plant materials from licensed nursery or grower.
4. Bare root plants: dig with adequate fibrous roots, to be covered with a uniformly thick coating of mud by being pushed immediately after they are dug or pressed in moist straw or peat moss.
4. Container grown stock grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm, and whole.
4. No plants shall be loose in the container.
4. Container stock shall not be root bound.
4. Single stemmed or thin plants will not be accepted.
4. Side branches shall be generous, well twigged, and the plant as a whole well bushed to the ground.
4. Plants shall be in a moist, vigorous condition, free from dead wood, buds, or other root or branch injuries.
4. Collected stock consists of plants grown under natural conditions in soils and climate as exist at location to be planted, in locations leading themselves to proper collecting practices.
4. Specimen stocks of specimen designated plantings are to be nursery grown, fully developed, essential quality and typical examples of the species.
4. Matched plantings shall be obtained from the same nursery and, preferably, from the same row or line.
4. Topsoil for planting mix: fertile, friable, natural topsoil of loamy character, without admixture of subsoil materials, obtained from a well drained orabon soil.
4. Peat moss: brown to black in color, weed and seed free granulated raw peat.
4. Provide ASTM D2607 sphagnum peat moss with a pH below 6.0 for ericaceous plants.
4. Planting mixture Type A - forest standard planting backfill shall be a mixture of native soil (excavated from plant pits), topsoil, and sand.
4. Planting mixture Type B for perennial flowers, groundcover beds, and fibrous plant materials.
4. Plant fertilizer Type A to be "Drinmore" applied per manufacturer recommendations.
4. Plant fertilizer Type B to be "14-14-14".
4. Bone Meal - 5 lbs. per cubic yard of soil mixes.
4. Lime to be ground dolomitic limestone, ninety-five percent (95%) passing through #100 mesh screen.
4. Sand to be clean, coarse, ungraded conforming to ASTM-C-3 for fine aggregate.
4. Anti-Desiccant: protective film emulsion providing a protective film over plant surfaces; permeable to permit transpiration.
4. Shredded bark mulch shall be double processed, dark shredded hardwood bark that is clean, free of debris and sticks.
4. Water: free of substances harmful to plant growth.
4. Stakes for staking: (3) Three Horwood, 2" x 2" x 8'-0" long.
4. Guying/staking materials: With 2" x 3/4" wide fabric straps, connect from tree to stake.
4. Tree wrap: standard waterproofed tree wrapping paper.
4. Twine: two-ply jute material.
4. MEASUREMENTS
4.1 Measure height and spread of specimen plant materials with branches in their normal position as indicated on Drawing or Plant List.
4.2 The measurements for height shall be taken from the ground level to the average height of the top of the plant and not the longest branch.
4.3 Measurement shall be average of plant, not greatest diameter.
4.4 Plants properly trimmed and transplanted should measure same in every direction.
4.5 Measure caliper of trees 6 inches above surface of ground.
4.6 Where caliper or other dimensions of plant materials are omitted from Plant List, plant materials shall be normal stock for type listed.
4.7 Plant materials larger than those specified may be supplied, with prior written approval of Landscape Architect, and:
4.8 The height of the trees, specified by height, measured from the crown of the roots to the top of the main trunk, shall not be less than the minimum size designated on the drawings.
4.9 EXECUTION
4.10 INSPECTION
4.10.1 Landscape Architect or General Contractor's representative must approve proposed planting areas and conditions of installation.
4.10.2 Individual plant locations shall be staked on the project site by the

- Landscape Architect and approved by the Landscape Architect before any planting pits are dug.
4.10.3 Accurately stake plant material according to the Drawings.
4.11 TIME OF PLANTING
4.11.1 Evergreen material: Plant Evergreen materials between September 1 and October 15 or in spring before new growth begins.
4.11.2 Deciduous material: Plant deciduous materials in a dormant condition.
4.11.3 Planting times for those not indicated must be acceptable to the Landscape Architect.
4.12 PREPARATION
4.12.1 General: See Landscape Preparation Section
4.12.2 Vegetation Removal
4.12.3 Herbicide as required to prepare area for new planting applied to all ground cover, evergreen and shrubby beds and all much areas before application of presurgence herbicide, per manufacturer's recommendations.
4.12.4 Pre-Emergence Herbicide: applied per manufacturer recommendations to same area where Herbicide has been applied and to planting bed areas, after area is cleared of dead vegetation.
4.12.5 Herbicides to be applied by licensed applicator as required by the State.
4.12.6 Excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds.
4.12.7 Rough sides of excavations.
4.12.8 Provide pre-mixed planting mixture Type "A" for use around the balls and roots of all deciduous and evergreen tree plantings.
4.12.9 Ground Cover Beds, Perennial Flower Beds, and Ericaceous Plant Beds
4.12.10 Excavate existing soil to 12" depth over entire bed area and remove soil from site.
4.12.11 Mass Shrub Beds / Hedge Beds
4.12.12 Annual Flower Beds
4.12.13 Planting pits shall be round, with vertical sides and flat bottoms, and sized in accordance with quantities and dimensions shown on the plantings details.
4.12.14 See drawings for planting details.
4.12.15 If obstructions are encountered that are not indicated, do not proceed with planting operations until alternative plant locations have been selected and approved in writing by the Landscape Architect.
4.12.16 Set plant material in the planting pit to proper grade and alignment.
4.12.17 Set plant material so it is flush to finish grade after settling, or 1-2" high above finished grade, soil, or as directed by Landscape Architect.
4.12.18 No filling will be permitted around the trunks or stems.
4.12.19 Do not cover top of root ball with soil.
4.12.20 Backfill pit with planting mixture.
4.12.21 Form a ring of soil around the edge of the planting pit to retain water.
4.12.22 After balled and burlapped plants are set, tamp planting mixture around of balls and fill all voids and remove air pockets.
4.12.23 Remove all burials, roots, and wires from top 1/3 of balls.
4.12.24 Space ground cover plants in accordance with indicated dimensions.
4.12.25 Spread and arrange roots of bare rooted plants in their natural position.
4.12.26 Work in planting mixture.
4.12.27 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.28 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.29 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.30 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.31 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.32 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.33 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.34 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.35 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.36 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.37 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.38 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.39 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.40 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.41 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.42 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.43 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.44 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.45 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.46 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.47 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.48 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.49 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.50 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.51 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.52 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.53 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.54 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.55 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.56 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.57 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.58 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.59 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.60 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.61 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.62 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.63 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.64 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.65 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.66 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.67 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.68 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.69 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.70 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.71 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.72 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.73 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.74 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.75 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.76 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.77 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.78 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.79 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.80 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.81 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.82 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.83 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.84 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.85 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.86 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.87 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.88 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.89 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.90 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.91 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.92 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.93 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.94 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.12.95 The Landscape Subcontractor shall remove and replace trees, shrubs or other plants found to be dead or in an unhealthy condition.
4.12.96 Replacements must meet the standards specified on the Landscape plans and in the specifications, i.e. quality, species of plant material and planting procedures to receive approval of replacement materials by Landscape Architect.
4.12.97 Coats for replacements are assumed part of bid quantities and therefore not included in an additional cost to General Contractor and Landscape Architect.
4.12.98 Areas damaged as a result of replacement operation are to be restored by Landscape Subcontractor at no cost to the General Contractor or Landscape Architect.
4.12.99 The Landscape Subcontractor shall be responsible for watering all plantings through the warranty period and shall keep any extra soil, extra tree balls which settle, furnish and apply spray as necessary to keep the plants healthy and free of disease and insects until the end of the warranty period.
4.13 PRUNING

- 3.7.1 Remove or cut back broken, damaged, and unsymmetrical growth of new wood.
3.7.2 Multiple leader plants: preserve the leader which will best promote the symmetry of the plant.
3.7.3 Prune evergreens only to remove broken or damaged branches.
3.7.6 MAINTENANCE
3.7.6.1 See Landscape Maintenance and Warranty Standards.
3.9 CLEANING
3.9.1 Perform cleaning during installation of the work and upon completion of the work.
END OF SECTION
LANDSCAPE MAINTENANCE AND WARRANTY STANDARDS
1.0 GENERAL
1.1 SUMMARY
1.1.1 Includes But Not Limited To
1.1.1.1 Provide maintenance for new landscaping as described in Contract Documents.
2.0 PRODUCTS - Not Used
3.0 EXECUTION
3.1 PERFORMANCE
3.1.1 Acceptance of Installation
3.1.2 Project Warranty
3.1.3 Maintenance During One (1) Year Project Warranty
3.1.4 Maintenance of Saded Low Areas
3.1.5 Maintenance of Sodded Low Areas
3.1.6 Final Acceptance Upon Conclusion of the Warranty Period
END OF SECTION
NOTE: The Owners may at their option elect to utilize a Construction Manager in lieu of a General Contractor for all matters pertaining to these specifications and the work.

- 3.1.4 Maintenance of Saded Low Areas
1. The Landscape Subcontractor shall maintain saded low areas.
a. Water, fertilize, weed, and apply chemicals until a dense lawn of permanent grasses, free from lumps and depressions or any bare spots, none of which is larger than one (1) foot of area up to a maximum of 3% of the total saded low area is established.
b. Saded low that fails to show a uniform growth and/or germination shall be reseeded until a dense cover is established, regardless of what season the seed was installed.
2. The Landscape Subcontractor shall maintain and mow all lawn areas for unit acceptance of installation (typically 3 mow) - when lawn reaches 3" in height it shall be cut to 2" in height.
3. The Owner assumes cutting responsibilities following the Acceptance of installation of the saded law.
4. At conclusion of Project Warranty Period and after receiving Written Final Acceptance by General Contractor's representative and Landscape Architect, the Owner shall assume all saded low maintenance responsibilities.
3.1.5 Maintenance of Sodded Low Areas
1. The Landscape Subcontractor shall maintain sodded low areas.
a. Water, fertilize, weed, apply herbicides, fungicides, insecticides and reseed until a full uniform, smooth sodd of sod is laid to topsoil, and accepted by the Landscape Architect or his or her representative.
2. Water sod thoroughly, as required to establish proper rooting.
3. Repair, reseed, and reseed areas that have washed out or are eroded. Replace undesirable or dead areas with new sod.
4. Mow lawn areas once as soon as sod has rooted sufficiently and knitted to the topsoil. Cut back to 2" height. Not more than 40% of grass leaf shall be removed at any single mowing. Excess clipping to be removed by the Landscape Subcontractor. The Landscape Subcontractor shall be responsible for lawn mowing until acceptance of installation (typically 3-mow).
5. The Owner assumes mowing responsibilities following the Acceptance of installation of the sodded lawn.
4. At conclusion of Project Warranty Period and after receiving Written Final Acceptance by General Contractor's representative and Landscape Architect, the Owner shall assume all sodded low maintenance responsibilities.
3.1.6 Final Acceptance Upon Conclusion of the Warranty Period
1. At the conclusion of the Project Warranty Period the Landscape Subcontractor shall request a project inspection for final acceptance in which the Landscape Contractor, Landscape Architect and Owner's Representative shall be present.
2. After the inspection for final acceptance, a punch list will be issued by the Landscape Architect. Upon completion of all punch list items, the Landscape Architect and the Owner's Representative shall inspect the project and issue a Written Statement of Final Acceptance.
END OF SECTION
NOTE: The Owners may at their option elect to utilize a Construction Manager in lieu of a General Contractor for all matters pertaining to these specifications and the work.



CAUTION!
This drawing is the property of Lynna A Whipple Landscape Architecture, Inc. and is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Lynna A Whipple Landscape Architecture, Inc.

CLIENT
CVS HEALTH
475 PARK EAST DRIVE MC6010
MC6000-0010000
PROJECT TITLE
CVS DISTRIBUTION CENTER NOVI
43802 GEM MAR ROAD
07100-0000

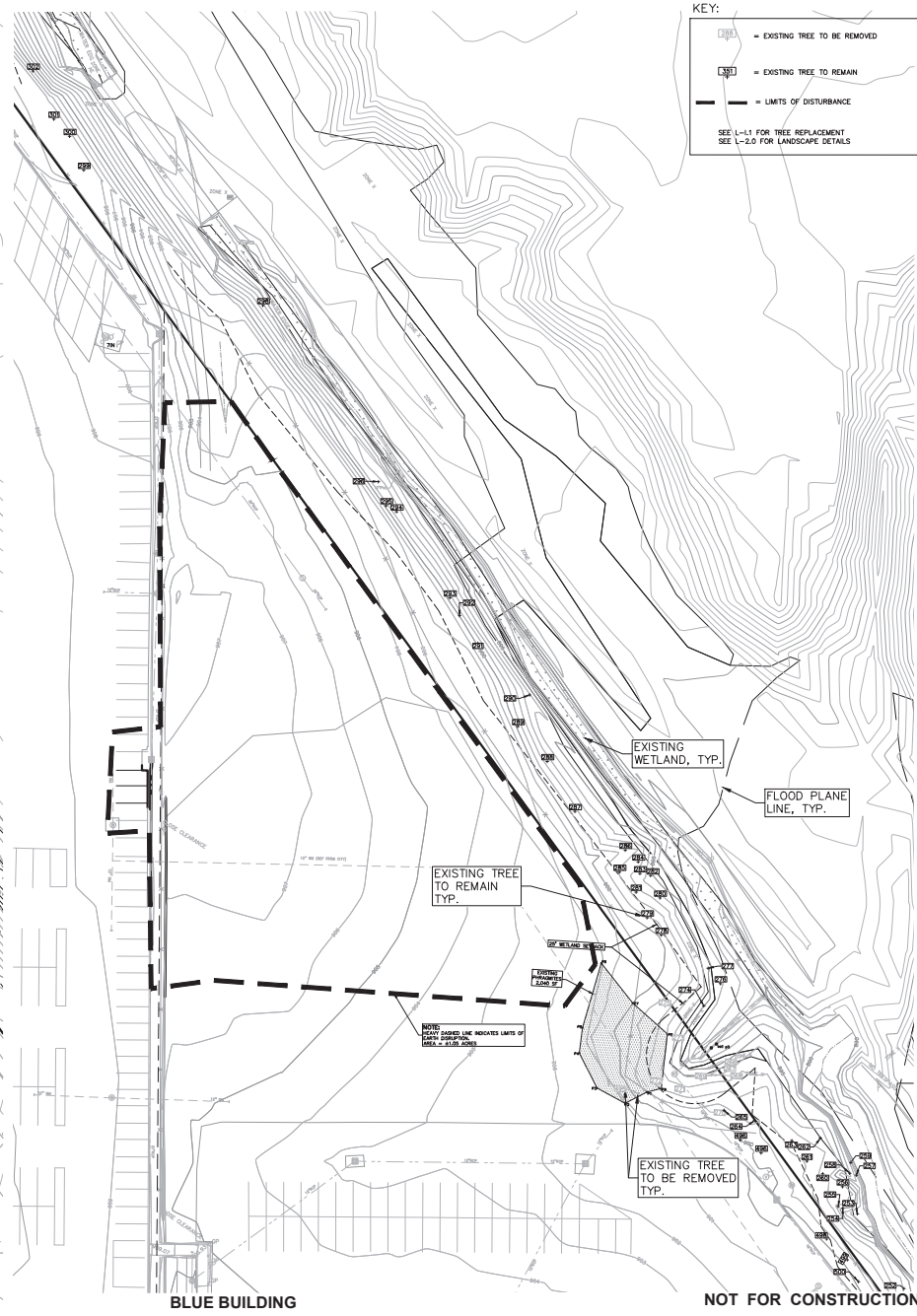
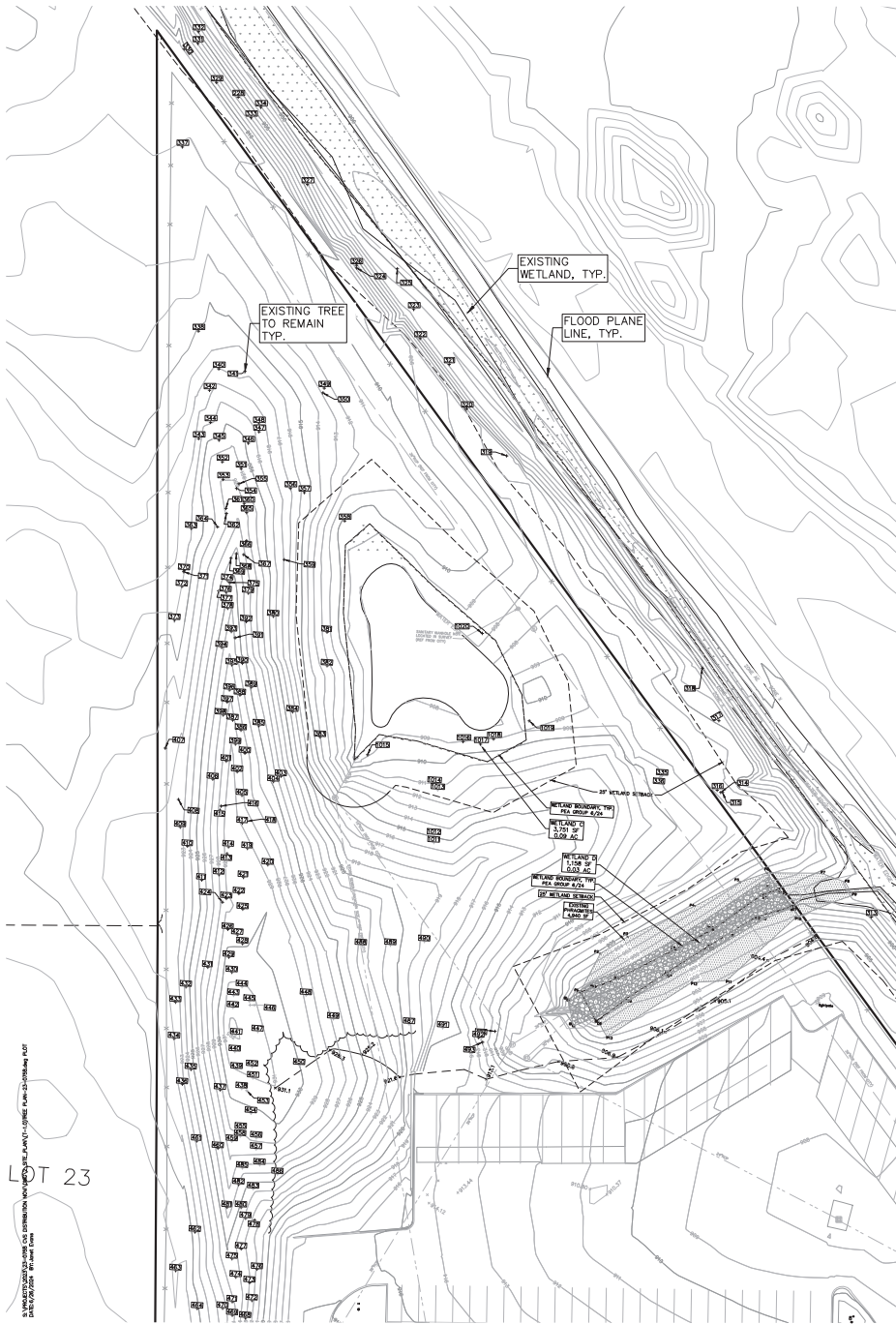
Table with 2 columns: REVISIONS, and 2 columns for dates and descriptions.

ORIGINAL ISSUE DATE:
01.11.2023

LANDSCAPE SPECIFICATIONS

Table with 2 columns: PEA JOB NO. 2023-0758 and P.E.M. ID.

NOT FOR CONSTRUCTION L-2.2



**KEY:**

- TYP = EXISTING TREE TO BE REMOVED
- TYP = EXISTING TREE TO REMAIN
- = LIMITS OF DISTURBANCE

SEE L-1.1 FOR TREE REPLACEMENT  
SEE L-2.0 FOR LANDSCAPE DETAILS

**PEA GROUP**  
t. 844.813.2949  
www.peagroup.com



NORTH

0 10 20 40  
SCALE: 1" = 20'



**CAUTION!**  
THIS DRAWING IS THE PROPERTY OF PEA GROUP AND IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF PEA GROUP. ANY REPRODUCTION OR COPIING OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF PEA GROUP IS STRICTLY PROHIBITED.

CLIENT  
**CVS HEALTH**  
475 PARK EAST DRIVE MC6910  
MICHIGAN, MI 48063

PROJECT TITLE  
**CVS DISTRIBUTION CENTER NOVI**  
48802 GEN MAR ROAD  
NOVI, MI 48240

REVISIONS	DATE
701 RESPONSE	10/20/23
SPA SUBMITTAL	04/23/24
RESPONSE TO COMMENTS	04/23/24
RESPONSE TO COMMENTS	05/22/24
AMENDED SPA SUBMITTAL	06/26/24

ORIGINAL ISSUE DATE:  
OCT. 11, 2023

DRAWING TITLE  
**TREE PRESERVATION PLAN**

PEA JOB NO. 2023-0758  
P.M. TD  
D.N. SZ  
DES. LAW

DRAWING NUMBER  
**T-1.0**

LOT 23  
 IN WASHINGTON COUNTY, OHIO, COMMUNION WITHIN THE TOWN OF CHAMBERLAIN, OHIO  
 DATE: 05/20/2024 BY: [unreadable]

NOT FOR CONSTRUCTION

TAG	CODE	DBH	COMMON NAME	LATIN NAME	COND.	TRUNKS/COMM	EXEMPT??	SAVE/REMOVE	REPLACEMENTS REQ'D
201	RP	17	Red Pine	Pinus resinosa	Fair			SAVE	-
202	RP	10	Red Pine	Pinus resinosa	Fair			SAVE	-
203	MW	10	White Mulberry	Morus alba	Fair			SAVE	-
204	MW	7	White Mulberry	Morus alba	Fair			SAVE	-
205	RP	10	Red Pine	Pinus resinosa	Fair			EXEMPT-SIZE	SAVE
206	RP	13	Red Pine	Pinus resinosa	Fair	x1 11"		SAVE	-
207	RP	15	Red Pine	Pinus resinosa	Fair			SAVE	-
208	WS	9	White Spruce	Picea glauca	Good			SAVE	-
209	NM	10	Norway Maple	Acer platanoides	Good			SAVE	-
210	SM	10	Silver Maple	Acer saccharinum	Good			SAVE	-
211	WS	9	White Spruce	Picea canadensis	Fair			SAVE	-
212	NS	14	Norway Spruce	Picea abies	Fair			SAVE	-
213	WS	11	White Spruce	Picea glauca	Good			SAVE	-
214	RP	16	Red Pine	Pinus resinosa	Good			SAVE	-
215	RP	15	Red Pine	Pinus resinosa	Fair			SAVE	-
216	RP	13	Red Pine	Pinus resinosa	Fair			SAVE	-
217	RP	16	Red Pine	Pinus resinosa	Good			SAVE	-
218	RP	12	Red Pine	Pinus resinosa	Fair			SAVE	-
219	RP	13	Red Pine	Pinus resinosa	Fair			SAVE	-
220	CA	8	Crab Apple	Malus coronaria	Fair	x1 6"		SAVE	-
221	AP	9	Domestic Apple	Malus sylvestris	Fair	x1 8", 17", 6"		SAVE	-
222	RP	13	Red Pine	Pinus resinosa	Poor			SAVE	-
223	RP	14	Red Pine	Pinus resinosa	Good			SAVE	-
224	RP	13	Red Pine	Pinus resinosa	Fair			SAVE	-
225	RP	15	Red Pine	Pinus resinosa	Fair			SAVE	-
226	RC	7	Red Cedar	Juniperus virginiana	Fair			EXEMPT-SIZE	SAVE
227	E	7	American Elm	Ulmus americana	Fair			EXEMPT-SIZE	SAVE
228	E	13	American Elm	Ulmus americana	Fair	x1 6"		SAVE	-
229	E	11	American Elm	Ulmus americana	Fair	x1 6"		SAVE	-
230	E	11	American Elm	Ulmus americana	Fair			SAVE	-
231	E	8	American Elm	Ulmus americana	Fair			EXEMPT-SIZE	SAVE
232	E	6	American Elm	Ulmus americana	Fair			EXEMPT-SIZE	SAVE
233	CT	12	Cottonwood	Populus deltoides	Poor			EXEMPT-SIZE	SAVE
234	CT	10	Cottonwood	Populus deltoides	Poor			EXEMPT-SIZE	SAVE
235	CT	12	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	SAVE
236	CT	12	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	SAVE
237	SU	6	Sugar Maple	Acer saccharum	Good			SAVE	-
238	E	8	American Elm	Ulmus americana	Fair			SAVE	-
239	BWW	7	Black Willow	Salix nigra	Fair			EXEMPT-SIZE	SAVE
240	BWW	7	Black Willow	Salix nigra	Poor			EXEMPT-SIZE	SAVE
241	E	7	American Elm	Ulmus americana	Fair			EXEMPT-SIZE	SAVE
242	SU	6	Sugar Maple	Acer saccharum	Fair			EXEMPT-SIZE	SAVE
243	BX	7	Box elder	Acer negundo	Fair			EXEMPT-SIZE	SAVE
244	SU	10	Sugar Maple	Acer saccharum	Fair			EXEMPT-SIZE	SAVE
245	B	15	Basswood	Tilia americana	Good	x2 8", 6"		SAVE	-
246	SU	6	Sugar Maple	Acer saccharum	Fair			EXEMPT-SIZE	SAVE
247	CT	9	Cottonwood	Populus deltoides	Fair			SAVE	-
248	CT	9	Cottonwood	Populus deltoides	Fair			SAVE	-
249	NM	6	Norway Maple	Acer platanoides	Good			EXEMPT-SIZE	SAVE
250	SU	7	Sugar Maple	Acer saccharum	Fair			EXEMPT-SIZE	SAVE
251	BX	6	Box elder	Acer negundo	Fair			EXEMPT-SIZE	SAVE
252	BX	6	Box elder	Acer negundo	Dead	broken in mostly 2		EXEMPT-SIZE	SAVE
253	BL	9	Black Locust	Robinia pseudoacacia	Dead			EXEMPT-SIZE	SAVE
254	BL	6	Black Locust	Acer negundo	Dead			EXEMPT-SIZE	SAVE
255	BL	6	Black Locust	Robinia pseudoacacia	Poor			EXEMPT-SIZE	SAVE
257	BL	6	Black Locust	Robinia pseudoacacia	Good			EXEMPT-SIZE	SAVE
258	BX	6	Box elder	Acer negundo	Fair			EXEMPT-SIZE	SAVE
259	BL	6	Black Locust	Robinia pseudoacacia	Fair			EXEMPT-SIZE	SAVE
260	BL	9	Black Locust	Robinia pseudoacacia	Good			EXEMPT-SIZE	SAVE
261	BL	6	Black Locust	Robinia pseudoacacia	Fair			EXEMPT-SIZE	SAVE
262	BX	9	Box elder	Acer negundo	Fair			EXEMPT-SIZE	SAVE
263	BL	6	Black Locust	Robinia pseudoacacia	Good			EXEMPT-SIZE	SAVE
264	CA	6	Crab Apple	Malus coronaria	Good			EXEMPT-SIZE	SAVE
265	DF	8	Douglas Fir	Pseudotsuga menziesii	Good			REMOVE	1 Tree
266	CT	11	Cottonwood	Populus deltoides	Fair			REMOVE	1 Tree
267	CT	6	Cottonwood	Acer glabrum	Good			REMOVE	1 Tree
268	CT	6	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	REMOVE
269	CT	6	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	REMOVE
270	CT	6	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	REMOVE
271	BG	11	Bigleaf Aspen	Populus grandidentata	Fair			REMOVE	1 Tree
272	IG	9	Bigleaf Aspen	Populus grandidentata	Poor			REMOVE	1 Tree
273	CT	11	Cottonwood	Populus deltoides	Fair			REMOVE	1 Tree
274	CT	9	Cottonwood	Populus deltoides	Fair			SAVE	-
275	GA	12	Green Ash	Fraxinus pennsylvanica	Fair			REMOVE	2 Trees
276	E	8	American Elm	Ulmus americana	Good			SAVE	-
277	BX	7	Box elder	Acer negundo	Dead			EXEMPT-SIZE	SAVE
278	GA	6	Green Ash	Fraxinus pennsylvanica	Fair			EXEMPT-SIZE	SAVE
279	GA	6	Green Ash	Fraxinus pennsylvanica	Fair			SAVE	-
280	BX	6	Box elder	Acer negundo	Poor			EXEMPT-SIZE	SAVE
281	BX	7	Box elder	Acer negundo	Poor			EXEMPT-SIZE	SAVE
282	BX	11	Box elder	Acer negundo	Fair			EXEMPT-SIZE	SAVE
283	GA	6	Green Ash	Fraxinus pennsylvanica	Fair			EXEMPT-SIZE	SAVE
284	GA	6	Green Ash	Fraxinus pennsylvanica	Fair			EXEMPT-SIZE	SAVE
285	BC	9	Wild Black Cherry	Prunus serotina	Fair			EXEMPT-SIZE	SAVE
287	BX	6	Box elder	Acer negundo	Fair	x1 5"		EXEMPT-SIZE	SAVE
288	SA	6	Shadbush	Lonicera alba	Fair			SAVE	-
289	GA	6	Green Ash	Fraxinus pennsylvanica	Fair			SAVE	-
290	RC	6	Red Cedar	Juniperus virginiana	Fair			EXEMPT-SIZE	SAVE
291	E	9	American Elm	Ulmus americana	Fair			SAVE	-
292	RC	6	Red Cedar	Juniperus virginiana	Fair			SAVE	-
293	E	7	American Elm	Ulmus americana	Fair			EXEMPT-SIZE	SAVE
294	CT	15	Cottonwood	Populus deltoides	Fair			SAVE	-
295	BC	8	Wild Black Cherry	Prunus serotina	Good			SAVE	-
296	RC	6	Red Cedar	Juniperus virginiana	Good			SAVE	-
297	CT	24	Cottonwood	Populus deltoides	Fair			SAVE	-
298	E	8	American Elm	Ulmus americana	Fair			SAVE	-
299	SB	6	Siberian Elm	Ulmus pumila	Fair			EXEMPT-SIZE	SAVE
300	EE	6	Siberian Elm	Ulmus pumila	Fair			EXEMPT-SIZE	SAVE
301	EE	6	Siberian Elm	Ulmus pumila	Good	x1 5"		EXEMPT-SIZE	SAVE
302	BX	8	Box elder	Acer negundo	Fair			EXEMPT-SIZE	SAVE
303	EE	6	Siberian Elm	Ulmus pumila	Fair			EXEMPT-SIZE	SAVE
304	EE	7	Siberian Elm	Ulmus pumila	Good			EXEMPT-SIZE	SAVE
305	RC	8	Red Cedar	Juniperus virginiana	Fair			SAVE	-
306	EE	10	Siberian Elm	Ulmus pumila	Fair			SAVE	-
307	CT	12	Cottonwood	Populus deltoides	Fair			SAVE	-
308	CT	12	Cottonwood	Populus deltoides	Good			SAVE	-
309	CA	7	Crab Apple	Malus coronaria	Fair	x2 5" 6"		EXEMPT-SIZE	SAVE
310	CT	12	Cottonwood	Populus deltoides	Fair			SAVE	-
311	E	8	American Elm	Ulmus americana	Fair			SAVE	-
312	CA	6	Crab Apple	Malus coronaria	Fair	x4 5" 5" 6"		EXEMPT-SIZE	SAVE
313	E	6	American Elm	Ulmus americana	Good			EXEMPT-SIZE	SAVE

TAG	CODE	DBH	COMMON NAME	LATIN NAME	COND.	TRUNKS/COMM	EXEMPT??	SAVE/REMOVE	REPLACEMENTS REQ'D
314	CT	10	Cottonwood	Populus deltoides	Fair			SAVE	-
315	CT	10	Cottonwood	Populus deltoides	Fair			SAVE	-
316	CT	10	Cottonwood	Populus deltoides	Fair			SAVE	-
317	RC	7	Red Cedar	Juniperus virginiana	Fair			EXEMPT-SIZE	SAVE
318	CT	13	Cottonwood	Populus deltoides	Fair			SAVE	-
319	E	12	American Elm	Ulmus americana	Fair	x1 4"		SAVE	-
320	RC	7	Red Cedar	Juniperus virginiana	Fair			SAVE	-
321	GA	6	Green Ash	Fraxinus pennsylvanica	Fair			EXEMPT-SIZE	SAVE
322	PA	10	Sweet Cherry	Prunus avium	Good			SAVE	-
323	CT	11	Cottonwood	Populus deltoides	Good			SAVE	-
324	BC	7	Wild Black Cherry	Prunus serotina	Fair			EXEMPT-SIZE	SAVE
325	BWW	9	Black Willow	Salix nigra	Fair			SAVE	-
326	PA	6	Sweet Cherry	Prunus avium	Fair			EXEMPT-SIZE	SAVE
327	BC	7	Wild Black Cherry	Prunus serotina	Fair			EXEMPT-SIZE	SAVE
328	RC	6	Red Cedar	Juniperus virginiana	Fair			EXEMPT-SIZE	SAVE
329	RC	10	Red Cedar	Juniperus virginiana	Fair			SAVE	-
330	GA	6	Green Ash	Fraxinus pennsylvanica	Fair			SAVE	-
331	BC	8	Wild Black Cherry	Prunus serotina	Fair			SAVE	-
332	BC	8	Wild Black Cherry	Prunus serotina	Fair			SAVE	-
333	BC	7	Wild Black Cherry	Prunus serotina	Fair			EXEMPT-SIZE	SAVE
334	E	7	American Elm	Ulmus americana	Fair	x1 6"		EXEMPT-SIZE	SAVE
335	CT	13	Cottonwood	Populus deltoides	Good			SAVE	-
336	CT	11	Cottonwood	Populus deltoides	Good			SAVE	-
337	RC	7	Red Cedar	Juniperus virginiana	Poor			EXEMPT-SIZE	SAVE
338	EE	6	Siberian Elm	Ulmus pumila	Fair			SAVE	-
339	CT	6	Cottonwood	Populus deltoides	Good			SAVE	-
340	CT	7	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	SAVE
341	CT	7	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	SAVE
342	GA	7	Green Ash	Fraxinus pennsylvanica	Poor			EXEMPT-SIZE	SAVE
343	RC	9	Red Pine	Pinus resinosa	Fair			EXEMPT-SIZE	SAVE
344	RP	9	Red Pine	Pinus resinosa	Poor			EXEMPT-SIZE	SAVE
345	RP	11	Red Pine	Pinus resinosa	Poor			SAVE	-
346	RP	8	Red Pine	Pinus resinosa	Fair			SAVE	-
347	CT	6	Cottonwood	Populus deltoides	Good			SAVE	-
348	GA	6	Green Ash	Fraxinus pennsylvanica	Fair	x1 5"		EXEMPT-SIZE	SAVE
349	CT	15	Cottonwood	Populus deltoides	Fair			SAVE	-
350	CT	15	Cottonwood	Populus deltoides	Good			SAVE	-
351	RP	8	Red Pine	Pinus resinosa	Fair	x1 5"		SAVE	-
352	RP	7	Red Pine	Pinus resinosa	Poor			EXEMPT-SIZE	SAVE
353	RP	7	Red Pine	Pinus resinosa	Poor			EXEMPT-SIZE	SAVE
354	RP	8	Red Pine	Pinus resinosa	Fair			EXEMPT-SIZE	SAVE
355	RP	8	Red Pine	Pinus resinosa	Poor			EXEMPT-SIZE	SAVE
356	CT	6	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	SAVE
357	CT	6	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	SAVE
358	CT	6	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	SAVE
359	CT	8	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	SAVE
360	RP	10	Red Pine	Pinus resinosa	Fair			SAVE	-
361	RP	10	Red Pine	Pinus resinosa	Fair			EXEMPT-SIZE	SAVE
362	RP	10	Red Pine	Pinus resinosa	Poor			EXEMPT-SIZE	SAVE
363	EE	8	Siberian Elm	Ulmus pumila	Fair			SAVE	-
364	RP	8	Red Pine	Pinus resinosa	Fair			SAVE	-
365	RP	8	Red Pine	Pinus resinosa	Fair			SAVE	-
366	RP	8	Red Pine	Pinus resinosa	Fair			SAVE	-
367	RP	10	Red Pine	Pinus resinosa	Fair			SAVE	-
368	CT	6	Cottonwood	Populus deltoides	Fair			EXEMPT-SIZE	SAVE
369	CT	6	Cottonwood	Populus deltoides	Good			EXEMPT-SIZE	SAVE
370	CT	14	Cottonwood	Populus deltoides	Good			SAVE	-
371	CT	17	Cottonwood	Populus deltoides	Good			SAVE	-
372	CT	17	Cottonwood	Populus deltoides	Good			SAVE	-
373	PA	8	Sweet Cherry	Prunus avium	Fair			SAVE	-
374	RP	10	Red Pine	Pinus resinosa	Fair			SAVE	-
375	CT	7	Cottonwood	Populus deltoides	Fair			EX	

## PLANNING REVIEW



**PLAN REVIEW CENTER REPORT**  
**Planning Review**  
**CVS DISTRIBUTION CENTER SITE IMPROVEMENTS**  
 JSP 23-45  
 July 18, 2024

**PETITIONER**

PEA Group

**REVIEW TYPE**

2<sup>nd</sup> Revised Preliminary Site Plan

**PROPERTY CHARACTERISTICS**

Section	22	
Site Location	43600 Gen Mar 50-11-11-276-008 and 009	
Site School	Novi Consolidated School District	
Site Zoning	I-1 Light Industrial	
Adjoining Zoning	North	TC-1 Town Center 1
	East	TC-1 Town Center 1 and I-1 Light Industrial
	West	R-4 One-Family Residential
	South	I-1 Light Industrial
Current Site Use	CVS Distribution Center	
Adjoining Uses	North	Future site of The Bond (separated by railroad tracks)
	East	Light Industrial use
	West	Residential
	South	Active Dynamics Novi and Hirosawa Automotive
Site Size	29.48 acres	
Plan Date	June 26, 2024	

**PROJECT SUMMARY**

The applicant is proposing to construct an additional 56 vehicle parking spaces for the CVS Distribution Center on the north side of the property referred to as the "Blue Building" located to the east of the CVS Distribution property. The property to be developed into a parking lot is currently a gravel lot used for storing tractor trailers. CVS is proposing to remove a portion of an existing chain link fence to add an access driveway onto the subject property, and pave and stripe the lot for employee vehicles.

**RECOMMENDATION**

**Approval of the 2nd revised Preliminary Site Plan is recommended by staff.** All reviewers are now recommending approval of the Preliminary Site Plan, some with conditions and comments to be addressed in a future submittal.

## ORDINANCE REQUIREMENTS

---

This project was reviewed for compliance with the City of Novi Zoning Ordinance and any other applicable provisions of the ordinance, as noted. The plans show general compliance with ordinance requirements. Please address any items listed below with the next review.

1. Property Split: If a property split and combination is proposed for the new parking lot, the applicant will be required to complete that process through the Assessing Department prior to Stamping Set approval. Final property line locations shall be shown on all final drawings, in addition to the new parcel number(s). If the subject property is intended to be leased, access easement documents will be required.
2. Chain Link Fence: It is unclear whether the applicant intends to extend the 6-foot-tall chain link fence around the new parking lot. Please clarify these details on the next submittal.
3. Retaining Wall: We would like details of the retaining wall including dimensions and material during site plan review and before the time of building permit application is being reviewed.
4. Woodland Permit: Applicant acknowledges that a Woodland Permit will be required.
5. Wetland Permit: A City of Novi Minor Wetland Permit will be required.
6. EGLE Wetland Permit: (TBD)
7. Planning Chart: Please refer to the attached Planning Chart for additional comments to address in the next submittal.

## OTHER REVIEWS

---

- a. Engineering Review: Engineering recommended approval of the revised Preliminary Site Plan with comments to be addressed on the Final Site Plan submittal.
- b. Landscape Review: Landscape recommended approval of the Preliminary Site Plan with comments to be addressed on the Final Site Plan submittal.
- c. Traffic Review: Traffic recommended approval of the Preliminary Site Plan with comments to be addressed on the Final Site Plan submittal.
- d. Fire Review: Fire recommended approval of the Preliminary Site Plan with comments to be addressed on the Final Site Plan submittal.
- e. Woodland Review: Woodland recommended approval of the Preliminary Site Plan with comments to be addressed on the Final Site Plan submittal. A woodland use permit is required and will be considered by the Planning Commission at a public hearing.
- f. Wetland Review: Wetland is recommending approval of the 2<sup>nd</sup> revised Preliminary Site Plan with comments to be addressed on the Final Site Plan submittal.

## NEXT STEP: PLANNING COMMISSION AND RESPONSE LETTER

---

The Preliminary Site Plan, Woodland Permit, Wetland Permit, and Stormwater Management Plan are required to go before the Planning Commission at a Public Hearing. All reviewers are now recommending approval. The next available Planning Commission meeting is August 28th, but there are also meetings September 11<sup>th</sup> and September 22<sup>nd</sup>. Please confirm which meeting would best work for your schedule so that staff may send out the public hearing notices.

The following will need to be provided at least one week before the Planning Commission meeting:

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 (to be used for Planning Commission presentation).

#### **FUTURE STEP: FINAL SITE PLAN SUBMITTAL**

---

After receiving Planning Commission's approval of the Preliminary Site Plan, Woodland Permit, Wetland Permit, Stormwater Management Plan, and EGLE Wetland Permit (TBD), please submit the following for review:

1. **Six** 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. [Final Site Plan Checklist](#)
5. [No Revision Façade Affidavit](#) (only if no façade changes have been made)
6. 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.)
7. 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.)
8. A [Soil Erosion Permit Application](#)
9. An [Other Agencies Checklist](#)

#### **FUTURE STEP: ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER**

---

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 stamping sets. Please note that any off-site easements will need to be approved prior to Stamping Set approval.*

#### **FUTURE STEP: STAMPING SET APPROVAL**

---

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, folded, with signature and seal (may be electronic)** to the Community Development Department for final Stamping Set approval.

#### **FUTURE STEP: PRE-CONSTRUCTION MEETING**

---

**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**

---



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 [dcommer@cityofnovi.org](mailto:dcommer@cityofnovi.org).

*Dan Commer*

---

Dan Commer, AICP, Planner

## ENGINEERING REVIEW

---



# PLAN REVIEW CENTER REPORT

07/24/2024

## Engineering Review

CVS Distribution Center Site Improvements  
JSP23-0045

### APPLICANT

---

CVS Health

### REVIEW TYPE

---

2<sup>nd</sup> Revised Preliminary Site Plan

### PROPERTY CHARACTERISTICS

---

- Site Location: South side of Grand River Ave and west of Novi Rd
- Site Size: Approximately 2.26 acres
- Plan Date: 06/26/2024
- Design Engineer: PEA Group

### PROJECT SUMMARY

---

- Storm water in the proposed north-east parking lot will be collected by a collection system, which includes a sediment forebay and detention basin, and discharged off-site into the railroad floodplain to the east.

### RECOMMENDATION

---

**Approval of the 2<sup>nd</sup> Revised Preliminary Site Plan is recommended, with items to be addressed at Final Site Plan submittal.**

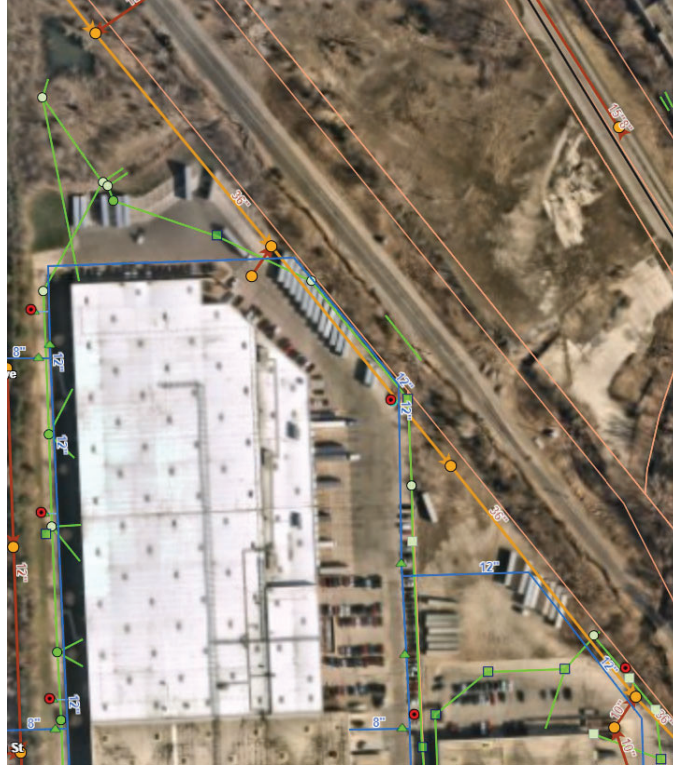
#### **Comments:**

The 2<sup>nd</sup> Revised Preliminary Site Plan meets the general requirements of the design and construction standards as set forth in [Chapter 11 of the City of Novi Code of Ordinances](#), the Storm Water Management Ordinance and the [Engineering Design Manual](#) with the following items to be addressed at the time of Final Site Plan submittal:

#### **General**

1. 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. All utilities shall be shown on the landscape plan, or other appropriate sheet, to confirm the separation distance.

2. Our current utility map shows sanitary sewer along the entire east side of the complex. Currently, only a short leg of the sewer is shown on the plan sheets. However, we need to be able to see the entire line that goes along the east side of the site. Please include these utilities on all applicable sheets.



3. There is currently a discrepancy between the infiltration report and the soil boring for the basin north of the blue building. The infiltration report shows that test pit 1 had groundwater at 5'-6", whereas soiling boring B-8 just a few feet away showed potential groundwater at 13'. Please elaborate as to why these results are so different even though they are in close proximity to each other and from nearly the same timeframe.

**Irrigation Comments**

4. Please indicate if new irrigation is proposed or if there is an existing irrigation system to be used.

**Storm Sewer**

5. Illustrate the existing watermain on the storm profiles to ensure adequate clearance.
6. Show the connector pipe between the sediment forebay and the detention basin on the grading sheet.

### **Storm Water Management Plan**

7. At its proposed location, the detention basin outflow pipe will be crossing into the railroad property and an off-site easement will be needed. Also, the outlet pipe will be in a wetland/floodplain area, so the applicant will need to have a conversation with EGLE to decide whether the impact will be substantial enough to warrant a permit or not. A potential solution would be to install a sump pump at this location that will bring the water back to the surface and allow the stormwater to sheet flow to the east of the site like it does currently.
8. Provide an explanation of the purpose of the SESC required volume calculations, where the 4,320CA formula is from, and why these calcs are necessary when the CPRC volume already accounts for the 100-year volumes.
9. Show the contour line elevations on sheet C-8.0.
10. The calculations are currently stating the 100-year storage elevation is 905.79', whereas the outside elevation of the detention basin is at 905'. This would mean that the 100-year storage is not contained in the detention basin alone and would overflow back into the sediment forebay and the rest of the basin complex. Please revise the detention basin elevations to ensure that the 100-year storage volume will be self-contained in the Detention Basin.

### **Paving & Grading**

11. Show proposed grades for all adjusted sanitary, water, and storm structures.

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

12. A SESC permit is required. A full review has not been completed at this time. A review will be done when a completed packet is submitted to Sarah Marchioni at Community Development.
13. The limits of land disturbance line covers the linework for silt fence at times. Please adjust line styles/thicknesses so that it is easier to follow.
14. Include sediment guards on all storm manholes with perforated covers.

### **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 the **legal review transmittal form that is attached to this review letter**. Partial submittals will **not** be accepted. Links to the PDF copy of the easements are below, word document versions of each legal document can be found on the City's Website under [Forms and Permits](#))*

15. 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.

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 Ben Nelson at (248)735-5643 or email [bnelson@cityofnovi.org](mailto:bnelson@cityofnovi.org) with any questions.

*Benjamin Nelson*

---

Ben Nelson,  
Project Engineer

cc: Dan Commer, Community Development  
Diana Shanahan, Planning Assistant  
Humna Anjum, Engineering  
Ben Croy, City Engineer

## LANDSCAPE REVIEW



# PLAN REVIEW CENTER REPORT

July 22, 2024  
**CVS Distribution Center**  
**Revised Preliminary Site Plan - Landscaping**

**Review Type**

Revised Preliminary Site Plan Landscape Review

**Job #**

JSP23-0045

**Property Characteristics**

- Site Location: 43800 Gen Mar Road
- Site Acreage: 23.34 ac.
- Site Zoning: I-1
- Adjacent Zoning: North/ East: RR& TC-1, South:I-1, West: R-4
- Plan Date: 6/26/2024

**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 revised Preliminary Site Plan submittal. Underlined items must be addressed on the Final Site Plans. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. 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**. The changes noted below can be addressed on the Final Site Plans.

**NO LANDSCAPE DEVIATIONS ARE REQUIRED FOR THE PROPOSED LAYOUT.**

**Ordinance Considerations**

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

1. Tree survey is provided.
2. Wetland survey is provided.

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

1. The project is adjacent to single family residences west of the site.
2. The proposed site work does not impact the existing berm along the west side of the site.

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

1. The project does not require any changes to the landscaping along Gen Mar Drive.
2. Any missing landscaping from the original plan needs to be replaced.

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

1. The correct interior landscaping space and trees are provided.
2. The required parking lot perimeter trees are provided.
3. Interior and perimeter trees must be located within 15 feet of the parking lot edge. Please move two perimeter trees to the west edge of the lot to provide better shading



for the parking lot. Some area should still be left for snow removal. The trees should be at least 10 feet from any underground sanitary sewer line and 5 feet from the water line.

Building Foundation landscaping (Sec 5.5.D)

1. As the building is not changing, no additional foundation landscaping is required.
2. Any foundation landscaping missing from the original approval plan needs to be replaced.

Plant List (LDM 4, 10)

1. All of the plants proposed are native to Michigan. This is appreciated.
2. The tree diversity meets the requirements of the Landscape Design Manual.

Planting Notations and Details (LDM 10)

Provided

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

1. If possible, please change the maintenance accessway to access the pond directly from the parking lot to the west instead of along the pond from the south. This would allow more trees to be planted on the west side of the pond as is required.
2. If the accessway is revised, please add 2 or 3 of the replacement trees along the west side of the pond.

Irrigation (LDM 10)

1. If an irrigation system is used, a plan for it must be provided with Final Site Plans.
2. A note indicates that temporary measures will be used for the establishment of the new plantings where an irrigation system is not provided. The plants must have enough water to survive long-term. Any plantings that fail will need to be replaced on an ongoing basis.

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 [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org).



---

Rick Meader – Landscape Architect

## WOODLAND REVIEW

---



July 15, 2024

Dan Commer  
Planner – Community Development  
City of Novi  
45175 Ten Mile Road  
Novi, MI 48375

Submitted electronically to [dcommer@cityofnovi.org](mailto:dcommer@cityofnovi.org)

Re: CVS Distribution Center Improvements – Re-revised Preliminary Site Plan Wetland Review (JSP23-45)

Dear Dan,

Merjent, Inc. (Merjent) has conducted a review of the re-revised preliminary site plan (rrPSP) for the CVS Distribution Center Improvements (also referred to as 43800 Gen Mar Road; site) prepared by PEA Group (rev. date 6/26/2024). The site (parcels 50-22-22-276-008 and 50-22-22-276-009) contains City-regulated woodlands (**Figure 1**) and City-regulated wetlands (**Figure 2**).

Merjent initially reviewed the PSP for conformance with the City of Novi’s (City) Woodland Protection Ordinance, Chapter 37, and Wetlands and Watercourse Protection Ordinance, Chapter 12 Article V on March 10, 2024 (PSP review). Merjent recommended approval of the woodlands portion of the original PSP (dated 1/23/2024) in the PSP review. Merjent provided the City with a second review to address additional wetland and watercourse concerns on May 3, 2024 (rPSP Review).

Since the previous reviews, changes have been made to the rrPSP that significantly reduce woodland and wetland impacts. The current rrPSP primarily depicts the proposed addition of a parking lot and detention basin north of the existing building located in the eastern portion of the site; the eastern building is also referred to in the rrPSP as the “Blue Building.”

**Woodlands**

**Woodland Recommendation:** Merjent **recommends approval** of the CVS Distribution Center Improvements. Merjent initially recommended approval of the woodlands portion of the PSP in the PSP Review. Since then, woodland impacts have been significantly reduced and altered. A list of comments is provided below to meet the requirements of the Woodland Protection Ordinance and may repeat information previously provided in the PSP Review. 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, if possible

---

Woodland Review Comments

1. City-regulated woodlands, as identified on the City of Novi Woodlands interactive map website, are present onsite. As noted in the PSP Review, the extent of regulated woodlands on-site has been modified. Note that both the woodlands and property limits depicted on the City map are considered approximations, and the modified boundaries have been estimated in **Figure 1**.
2. When a proposed site plan is located within a regulated woodland, any tree proposed for removal with a diameter at breast height (DBH) greater than or equal to eight inches will require tree replacement and a Woodland Use Permit per Section 37-8. This also applies to any tree that will be preserved, but where impacts to critical root zones are proposed.
3. Regardless of the presence of regulated woodlands onsite, a Woodland Use Permit is required to perform construction on any site containing the removal of trees larger than 36 inches DBH. No trees on-site are larger than 36 inches DBH.
4. The plan has proposed the removal of 7 regulated trees in total. A **Woodland Use Permit** is required to perform construction on any site containing regulated woodlands. Because more than three trees are proposed for removal, Planning Commission Approval is required.
5. **Woodland Replacement.** Based on a review of the plan, the following woodland replacements are required:

Tree Size (DBH, inches)	Number of Trees	Ratio Replacement/Removed Tree	Total Replacements Required
8-11	6	1	6
12-20	1	2	2
21-29	0	3	0
30+	0	4	0
Multi-stem	0	Sum of Stem DBH/8 (rounded up)	0
Total	7	-	-
<b>Total Replacements Required</b>			<b>8</b>

Sheet No L-1.1 provides a summary of the eight trees to be planted onsite in satisfaction of the replacement requirement.

6. **Critical root zone.** Accurate critical root zones must be depicted on the site plan for all regulated trees within 50 feet of the proposed grading or construction activities. Tree symbols are present on the plan but appear to be the same size. Critical root zones should be identified using a separate symbol on the site plans. Section 37-2 defines a critical root zone as a circular area around a tree with a radius measured to the tree's longest dripline radius plus one foot.
  - a. All tree symbols in the PSP are the same size. It should be verified that trees within 50 feet of grading will not have impacts to critical root zones. Even if a tree is preserved but a critical root zone is impacted, that will be considered a tree requiring replacement.

- 
7. For tree replacement credits that will be planted on-site, a financial guarantee of \$400/tree replacement credit is required to ensure the planting of the on-site woodland replacement credits. The financial guarantee will be released after trees have been planted and approved by the City of Novi. The applicant must request a tree planting inspection. For the CVS Distribution Center Project, a **Woodland Replacement Financial Guarantee of \$3,200** is required as part of the Woodland Use Permit fees to ensure a successful planting of on-site Woodland Replacement Tree Credits.

The Applicant shall guarantee trees for two growing seasons after installation and the City's acceptance, per the City's Performance Guarantees Ordinance. A two-year maintenance bond in the amount of 25% of the value of the trees, but in no case less than \$1,000 (**\$1,000**), shall be required to ensure the continued health of the trees following acceptance (Chapter 26.5, Section 26.5-37).

Note that the Applicant is responsible for requesting an inspection of the installed on-site Woodland Replacement Trees.

8. A **woodland fence guarantee of \$6,000** (\$5,000 x 120%) is required per Chapter 26.5-37. The financial guarantee shall be paid prior to issuance of the City of Novi Woodland Use Permit.
- The cost to stake, install, and remove the tree protection fencing should be added to either Sheet L-1.1 or L-2.0 in order to calculate woodland fence inspection fees. Prior to final site plan approval, this should be added to either Sheet L-1.1 or L2.0.
  - The location and extent of tree protection fence should be added to the site plan prior to final site plan approval. This can be added to sheets that indicate grading or construction activities (Sheet C-4.0 and/or Sheet C-5.0) and/or landscape activities (Sheet T-1.0).
  - Appropriate Tree Protection Details have been included on Sheet L-2.0.
9. **Woodland Replacement Inspection** – The Applicant is responsible for walking the entire site to confirm that all woodland replacement trees/shrubs have been planted on site according to the approved site plan stamping set. If any material is missing, dead or dying, replacements should be made prior to requesting the inspection. The applicant should also provide an as-built landscape plan if the trees planted do not match the species and/or location shown on the approved site plan stamping set. Once this occurs the Applicant should contact the Bond Coordinator to schedule the inspection (Angie Sosnowski at [asosnowski@cityofnovi.org](mailto:asosnowski@cityofnovi.org); 248-347-0441) and complete the inspection request form. If additional inspections are needed, then additional inspection fees will be required to be paid by the applicant.
10. **Woodland Guarantee Inspection** – Prior to requesting the 2-year woodland guarantee inspection, the Applicant is responsible for walking the entire site to confirm that all plant material has survived and is healthy. If any material is missing, dead or dying, replacements should be made prior to requesting the inspection. Once this occurs the Applicant should contact the Bond Coordinator to schedule the 2-year guarantee inspection (Angie Sosnowski at [asosnowski@cityofnovi.org](mailto:asosnowski@cityofnovi.org) / 248-347-0441) and complete the inspection request form. If additional inspections are needed, then additional inspection fees will be required to be paid by the applicant. Based upon a successful inspection for the 2-year warranty the Landscape/Woodland/Street trees financial guarantee will be returned to the Applicant.

If the woodland replacements, street trees, or landscaping guarantee period is scheduled to end during the period when inspections are not conducted (November 15th – April 15th) the Applicant is

---

responsible for contacting the Bond Coordinator and Woodland/Landscape Inspector in the late summer/early fall prior to the 2-year expiration to schedule an inspection.

11. The Applicant may be required to provide preservation/conservation easements as directed by the City of Novi Community Development Department for any areas of woodland replacement trees. The applicant shall demonstrate that all proposed woodland replacement trees and existing regulated woodland trees to remain 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. Any associated easement boundaries shall be indicated on the Plan.
- a. Sheet L-1.1 depicts 4 different non-adjacent sets of tree replacements: a single *Gleditsia triacanthos*, two *Cercis canadensis*, two *Liriodendron tulipefera*, two *Platanus occidentalis*, and a single *Acer rubrum*. The applicant may consider adjusting the locations of trees to allow for a single stand of trees or a single group of adjacent trees to be placed in a conservation easement as opposed to four separate stand-alone conservation easements.

### **Wetlands**

**Wetland Recommendation:** Merjent **recommends approval** of the CVS Distribution Center Improvements based on the comments provided below.

Upon review of published resources, the Site appears to contain or immediately borders:

- City-regulated wetlands, as identified on the City of Novi interactive map website. Note that both wetland and property limits depicted on the City's map are considered approximations (**Figure 2**).
- Wetlands that are regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).
- Wetlands as identified on National Wetland Inventory (NWI) and Michigan Resource Inventory System (MIRIS) maps, as identified on the EGLE Wetlands Viewer interactive map website (maps included in previous reviews). NWI and MIRIS wetlands are identified by the associated governmental bodies' interpretation of topographic data and aerial photographs.
- Hydric (wetland) soil as mapped by the U.S. Department of Agriculture, Natural Resource Conservation Service, as identified on the EGLE Wetlands Viewer interactive map website (maps included in previous reviews).

### **Permits and Regulatory Status**

The PSP depicts portions of two wetlands (Wetlands A and B) northeast of the site and the location of one wetland (Wetland C) in the northern portion of the site. The applicant has modified the rrPSP to exclude any development to the northern portion of the site. The applicant has added a previously requested wetland to the northern portion of the site, now identified as Wetland D. Additionally, a watercourse was added northeast of the Blue Building and new associated 25-foot setbacks were added to the rrPSP.

The City of Novi Code of Ordinances, Chapter 12, Article V defines an essential wetland as meeting one or more of the criteria listed in subsections 12-174(b)(1) through (10). It is Merjent's opinion that the delineated wetlands on-site provide the functional characteristics of stormwater storage capacity and/or wildlife habitat.

Due to the comments below, the following wetland-related considerations may be required for this project (Table 1):

**Table 1. Permitting Considerations**

Item	Required/Not Required
<b>Wetland Permit (specify Non-minor or Minor)</b>	Required, Minor
<b>Wetland Mitigation</b>	Not Required
<b>Environmental Enhancement Plan</b>	Not Required
<b>Wetland Buffer Authorization</b>	Not Required*
<b>EGLE Wetland Permit</b>	TBD
<b>Wetland Conservation Easement</b>	Not Required

\*See comment 4

Wetland Review Comments

1. All proposed development north of the existing western building has been removed and no impacts to Wetland C or Wetland D will occur.
2. Comment 1 from the rPSP Review has been addressed and Wetland D and Stream 2 were added to the rrPSP.
3. Similar to Comment 4 from the PSP Review, rrPSP Sheet C-6.0 depicts a 12-inch reinforced concrete pipe (RCP) outfalling directly adjacent/into Wetland A; this is also identified as end section 1 (ES1) in the rrPSP. Per Section 12-173 (b)(2), a *Nonresidential minor use permit* may be granted for a single water outfall, provided that the outlet is riprapped or otherwise stabilized to prevent soil erosion. .
  - a. For final site plan approval, the amount, extent/location, and type of riprap (or other soil erosion prevention material) should be specified on the plan in order to quantify the fill adjacent to the outfall and wetland.
  - b. Due to ES1 being directly adjacent to a wetland and within 500 feet of a stream, there is a potential that EGLE may also require this outfall to be permitted. EGLE is the final authority of the location and regulatory status of wetlands in Michigan. This determination cannot be made by Merjent nor the City of Novi. Therefore, if the outfall does not require EGLE permitting, the applicant can provide correspondence from EGLE identifying as such before final site plan approval. If the outfall does require EGLE permitting, the applicant should provide the City of Novi with a copy of the permit prior to final site plan approval.
4. In addition to wetlands, the City of Novi regulates wetland and watercourse buffers/setbacks. Article 24 of the Zoning Ordinance, Schedule of Regulations, states: "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". The established wetland and watercourse buffer/setback limit is 25 horizontal feet, regardless of grade change.

Appropriate buffers have been added to the rrPSP as requested. Because the only proposed impacts within the 25-foot buffer is the ES1 outfall, any impacts associated with the installation of this outfall can be addressed in the wetland permit. No other impacts within the 25-foot buffer will be authorized unless identified on site plans.

---

Should you have any questions or concerns with this review, please contact me via email at [jason.demoss@merjent.com](mailto:jason.demoss@merjent.com) or via phone at (619) 944-3835.

Sincerely,

**Merjent, Inc.**



Jason DeMoss, PWS  
Environmental Consultant



Robb Roos, PWS  
Environmental Consultant

Enclosures:

Figure 1 – City of Novi Woodlands Map  
Figure 2 – City of Novi Wetlands Map

CC:

Diana Shanahan, City of Novi, [dshanahan@cityofnovi.org](mailto:dshanahan@cityofnovi.org)  
Rick Meader, City of Novi, [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org)  
Barbara McBeth, City of Novi, [bmcbeth@cityofnovi.org](mailto:bmcbeth@cityofnovi.org)  
Robb Roos, Merjent, [robb.roos@merjent.com](mailto:robb.roos@merjent.com)

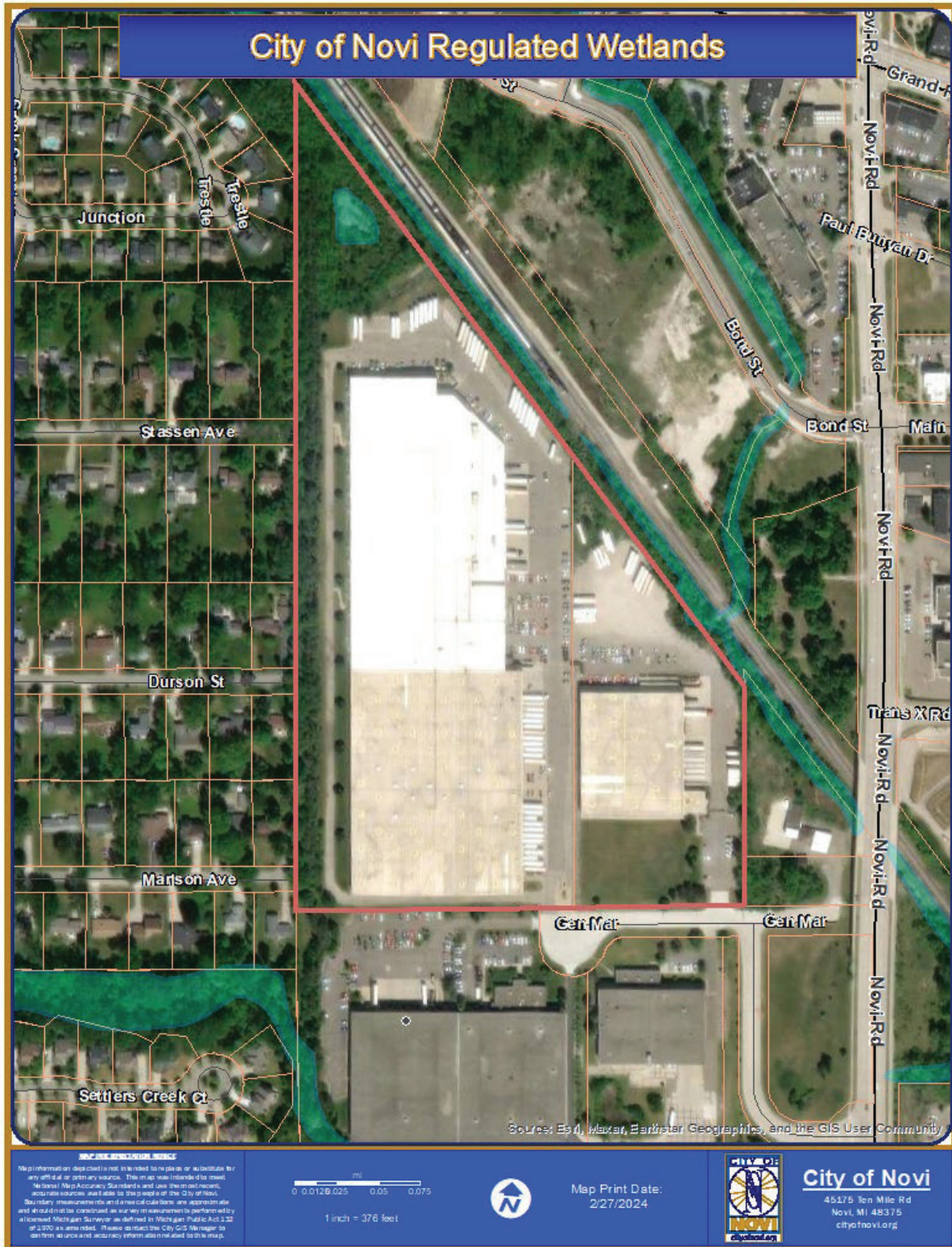




**Figure 1. City of Novi Regulated Woodlands Map**

Approximate Site boundary is shown in Red.

(Approximate) Regulated Woodland areas are shown in Green. Extended approximate woodland areas are shown in Orange.



**Figure 2. City of Novi Regulated Wetlands Map**  
Approximate Site boundary is shown in red.  
(Approximate) Regulated Wetland areas are shown in turquoise.

## TRAFFIC REVIEW

---



AECOM  
 39575 Lewis Dr, Ste. 400  
 Novi  
 MI, 48377  
 USA  
 aecom.com

**Project name:**  
 JSP23-45 – CVS Distribution Center Site  
 Improvements Preliminary Traffic Review

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

**From:**  
 AECOM

**Date:**  
 March 7, 2024

**CC:**  
 Lindsay Bell, James Hill, Ian Hogg, Heather Zeigler,  
 Humna Anjum, Diana Shanahan, Adam Yako

# Memo

**Subject:** JSP23-45 – CVS Distribution Center Site Improvements Preliminary Traffic Review

The preliminary site plan was reviewed to the level of detail provided and AECOM recommends **approval** as long as the comments provided below are adequately addressed to the satisfaction of the City.

## GENERAL COMMENTS

1. The applicant, PEA Group, is proposing improvements to the CVS Distribution Center site including the addition of vehicular and trailer parking. There are no changes proposed to the existing building footprints.
2. The development is located on the north side of Gen Mar Road, west of Novi Road. Gen Mar Road is under the jurisdiction of the City of Novi.
3. The site is zoned I-1 (Light Industrial).
4. There are no traffic related deviations required at this time.

## TRAFFIC IMPACTS

1. AECOM did not perform an initial trip generation based on the ITE Trip Generation Manual, 11<sup>th</sup> Edition, since the existing buildings are not changing.
2. 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	N/A

## 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.	Item	Proposed	Compliance	Remarks
1	Driveway Radii   O <a href="#">Figure IX.3</a>	10' and not indicated	<b>Partially Met</b>	<b>Dimension radii of 25' wide entrance.</b>
2	Driveway Width   O <a href="#">Figure IX.3</a>	25'	Met	Within range.
3	Driveway Taper   O <a href="#">Figure IX.11</a>	N/A	-	
3a	Taper length			
3b	Tangent			
4	Emergency Access   O <a href="#">11-194.a.19</a>	2 points	Met	
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>			
6b	Opposite side   O <a href="#">11.216.d.1.e</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:			

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
11	Loading zone   <a href="#">ZO 5.4</a>	N/A	-	
12	Trash receptacle   <a href="#">ZO 5.4.4</a>	N/A	-	
13	Emergency Vehicle Access	N/A	-	
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	10' width, radii dimensioned	<b>Partially Met</b>	<b>End islands should be 3' shorter than adjacent space.</b>
15b	Internal to parking bays	One proposed	<b>Not Met</b>	<b>Dimension radii and width of internal island.</b> Note internal islands are not required to be 3' shorter than adjacent space.

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
16	Parking spaces   <a href="#">ZO 5.2.12</a>			See Planning review letter.
17	Adjacent parking spaces   <a href="#">ZO 5.5.3.C.ii.i</a>	<15 spaces in parking bays	Met	
18	Parking space length   <a href="#">ZO 5.3.2</a>	17' and 19' – vehicular spaces, 46' – trailer spaces	Met	
19	Parking space Width   <a href="#">ZO 5.3.2</a>	9' – non-accessible vehicular spaces, 11' – trailer spaces	Met	
20	Parking space front curb height   <a href="#">ZO 5.3.2</a>	4" and 6"	Met	
21	Accessible parking – number   <a href="#">ADA</a>	1	Met	
22	Accessible parking – size   <a href="#">ADA</a>	9' x 19'	Met	
23	Number of Van-accessible space   <a href="#">ADA</a>	1	Met	
24	Bicycle parking	Not indicated	<b>Inconclusive</b>	<b>Provide information on existing bicycle parking or confirm with City if grandfathered in since no changes to buildings.</b>
24a	Requirement   <a href="#">ZO 5.16.1</a>			
24b	Location   <a href="#">ZO 5.16.1</a>			
24c	Clear path from Street   <a href="#">ZO 5.16.1</a>			
24d	Height of rack   <a href="#">ZO 5.16.5.B</a>			
24e	Other (Covered / Layout)   <a href="#">ZO 5.16.1</a>			
25	Sidewalk – min 5' wide   <a href="#">Master Plan</a>	None proposed	-	
26	Sidewalk ramps   <a href="#">EDM 7.4 &amp; R-28-J</a>	N/A	-	
27	Sidewalk – distance back of curb   <a href="#">EDM 7.4</a>	N/A	-	
28	Cul-De-Sac   <a href="#">O Figure VIII-F</a>	N/A	-	
29	EyeBrow   <a href="#">O Figure VIII-G</a>	N/A	-	
30	Turnaround   <a href="#">ZO 5.10</a>	N/A	-	
31	Any Other Comments:			

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
32	Signing: Sizes   <a href="#">MMUTCD</a>	1 Barrier Free parking sign	Met	

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
33	Signing table: quantities and sizes	Included	<b>Partially Met</b>	<b>List both the R7-8 and R7-8p sign and sizes in the table.</b>
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>	N/A	-	
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>	N/A	-	
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	4" yellow and blue	Met	
41	The international symbol for accessibility pavement markings   ADA	Included	Met	
42	Crosswalk pavement marking detail	N/A	-	
43	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**



Paula K. Johnson, PE  
Senior Transportation Engineer



Saumil Shah, PMP  
Project Manager

## FIRE REVIEW

---





July 17, 2024

TO: Barbara McBeth - City Planner  
Lindsay Bell - Plan Review Center  
Heather Zeigler – Plan Review Center  
Dan Commer – Plan Review Center  
Diana Shanahan – Planning Assistant

**CITY COUNCIL**

**Mayor**  
Justin Fischer

**Mayor Pro Tem**  
Laura Marie Casey

Dave Staudt

Brian Smith

Ericka Thomas

Matt Heintz

Priya Gurumurthy

**City Manager**  
Victor Cardenas

**Director of Public Safety  
Chief of Police**  
Erick W. Zinser

**Fire Chief**  
John B. Martin

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

**Assistant Fire Chief**  
Todd Seog

RE: CVS Distribution Center Site Improvements.

PreApp23-0026  
**PSP# 24-0015**

**Project Description:**

Redo parking lot.

**Comments:**

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

**Recommendation:**

Approved

Sincerely,

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

cc: file

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

cityofnovi.org

**RESPONSE LETTER**

# PEA GROUP



7927 Nemco Way, Suite 115  
Brighton, MI 48116

517.546.8583  
peagroup.com

July 30, 2024  
Project No: 23-0758

Dan Commer  
City of Novi  
45175 W 10 Mile Rd  
Novi, MI 48375

**RE: Preliminary Site Plan Review  
CVS Distribution Center Site Improvements  
43600 Gen Mar  
City File Number: JSP23-45**

Dear Dan:

This office is in receipt of your review letter dated July 18, 2024, regarding the subject development. Below are our responses to the review comments:

1. CVS is not planning to perform a property split and combination for the area of the new parking lot. It will remain a part of parcel tax ID #50-22-22-276-009. FYI, the tax ID # provided in the review letter is incorrect based on the Oakland County GIS system.
2. At this time, CVS is not planning on extending the 6 ft. high fence around the new parking lot.
3. CVS agrees to install any missing foundation landscaping from the original approved plan.
4. No retaining walls are proposed as part of this project.
5. We understand several permits will be required for the construction of this project.
6. Two perimeter trees will be moved to the west edge of the parking lot to provide better shading.
7. The detention basin maintenance accessway will be relocated to allow the planting of 2 or 3 replacement trees along the west edge of the parking lot.
8. CVS is not intending to install a permanent irrigation system. The proposed plantings will be maintained with enough water to allow for establishment. CVS agrees to replace any trees that may have died.

If you should need any information prior to the planning Commission meeting on August 14<sup>th</sup>, do not hesitate to contact us.

Regards,

Thomas Dumond, PLA, LEED AP  
Senior Project Manager