



UTILITIES SHOWN ARE FROM FIELD MEASUREMENTS OF VISIBLE EVIDENCE OR AVAILABLE RECORDS. THIS INFORMATION SHOULD NOT BE CONSTRUED TO BE A GUARANTEE OF COMPLETENESS OR ACCURACY. ROOSEEN AND ASSOCIATES TAKES NO RESPONSIBILITY FOR INACCURACIES IN UTILITY MARKINGS OR IN THE INTERPRETATION OF PLANS PROVIDED. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITY LINES WHERE THE GRADE IS TO BE LOWERED OR THE EXISTING UTILITIES CROSS PROPOSED UTILITY LINES. NOTIFY THE DESIGN PROFESSIONAL OF ANY CONFLICTS PRIOR TO CONSTRUCTION.

LEGAL DESCRIPTION

Part of the Southeast 1/4 of the Southeast 1/4 of the Southeast 1/4 of Section 16, Township 9 North, Range 6 East, described as beginning at the Southeast Corner of said Section 16; thence West along the South line of said Section 16, a distance of 392.20 feet; thence N00°03'14"E, 657.70 feet thence N89°59'45"E 392.92 feet to the East line of said Section; thence S00°07'17"W 657.73 feet to the point of beginning.

BENCHMARK NO. 1 ELEV. = 706.63'
TOP OF SOUTHEAST FLANGE BOLT ON
PANEL OF CROSS WALK POLE BASE
LOCATED 3'± NORTH OF THE SOUTHEAST
PROPERTY CORNER
(N.A.V.D. 88)

BENCHMARK NO. 2 ELEV. = 707.00'
TOP OF NORTHEAST FLANGE BOLT ON
HYDRANT LOCATED 263'± WEST OF THE
SOUTHWEST PROPERTY CORNER
(N.A.V.D. 88)

DEMOLITION NOTES:

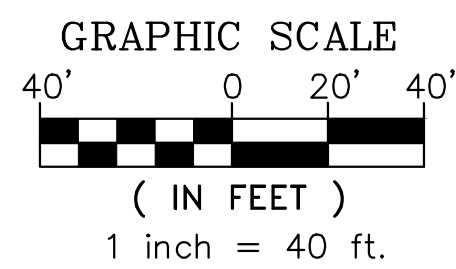
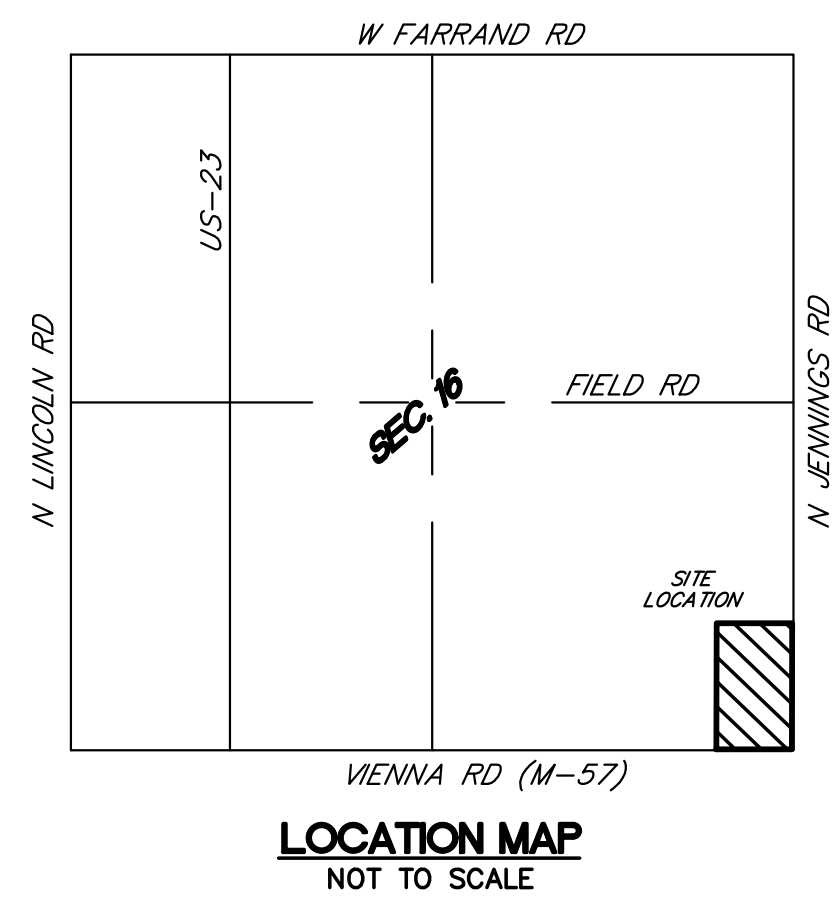
ALL MATERIAL THAT IS NOT SUITABLE AS BACKFILL AND MATERIALS THAT ARE EXCESS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

ALL AREAS OF UNDERGROUND DEMOLITION; UTILITY LINE REMOVAL; AND UNDERGROUND TREE, STUMP AND VEGETATION REMOVAL SHALL BE BACKFILLED.

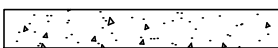
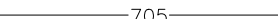
BACKFILLING SHALL PROMPTLY FOLLOW UNDERGROUND DEMOLITION OR REMOVAL WORK AND SHALL CONTINUE AS THE DEMOLITION PROGRESSES.

NOTIFY ARCHITECT/ENGINEER OF ANY OTHER UNDERGROUND MATERIALS OR EQUIPMENT ENCOUNTERED DURING EXCAVATION NOT SPECIFICALLY NOTED ON THE DRAWING(S).

WHERE CURBING OR PAVEMENT IS INDICATED TO BE REMOVED, IT SHALL BE SAWCUT FULL DEPTH. REMOVE TO THE NEAREST JOINT, IF THE JOINT IS WITHIN 3 FEET OF THE REMOVAL LINE. VERIFY REMOVAL LIMITS WITH ENGINEER PRIOR TO BEGINNING WORK.



EXISTING LEGEND

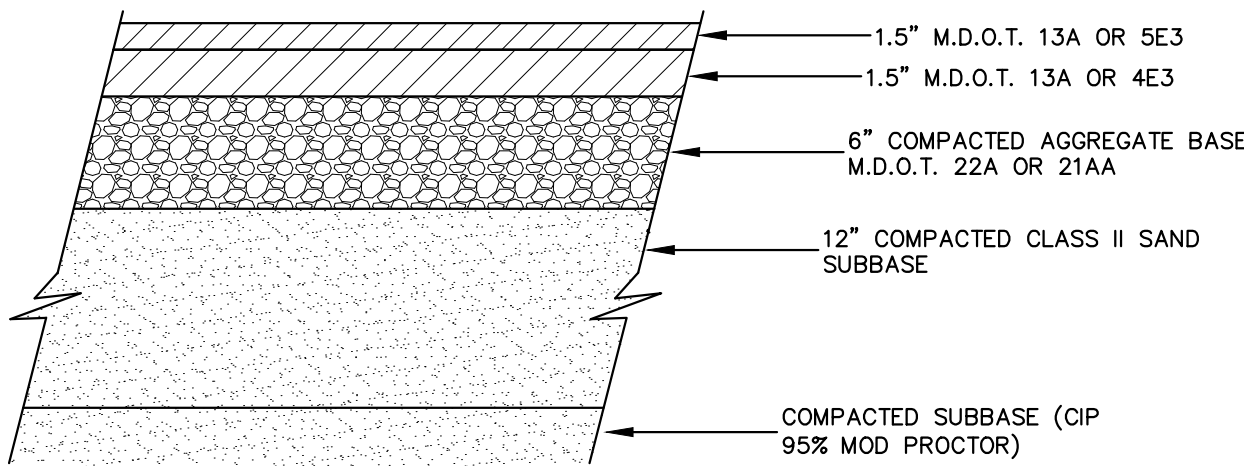
SURVEY - SECTION CORNER - PROPERTY IRON FOUN - PROPERTY IRON SET BM# BENCHMARK	TREES CONIFEROUS TREE DECIDUOUS TREE
WATER - MANHOLE - VALVE - HYDRANT	ELECTRICAL - UTILITY POLE - GUY WIRE - LIGHT POLE - UTILITY RISER/METER
SANITARY SEWER - MANHOLE - CLEANOUT MISC - MAILBOX - SIGN	STORM SEWER - CURB CATCH BASIN - ROUND CATCH BASIN
 	CONCRETE BITUMINOUS
   	CENTER LINE PROPERTY LINE CONTOUR LINE (MAJOR) CONTOUR LINE (MINOR)
 	PR. TREE LINE EXIST. TREE LINE
 WTR SAN STM G FIBER OH E UG-T UG-C UG-E	EXIST. TREE LINE REMOVAL WATER MAIN SANITARY SEWER STORM SEWER NATURAL GAS FIBER OPTIC OVERHEAD ELECTRIC UNDERGROUND TELEPHONE UNDERGROUND CABLE UNDERGROUND ELECTRIC

EXISTING CONDITIONS AND REMOVALS PLAN
CULVER'S - VIENNA
PART OF SECTION 16, T9N, R6E
VIENNA TOWNSHIP, GENESEE COUNTY, MI

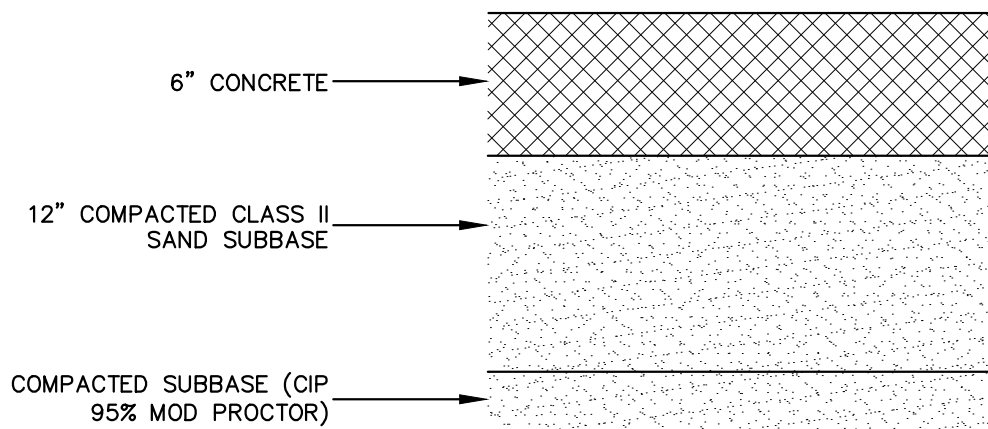
CLIENT:
ODW MANAGEMENT
PO BOX 478
ST JOHNS, MI 48879

PROJECT NO.
220423

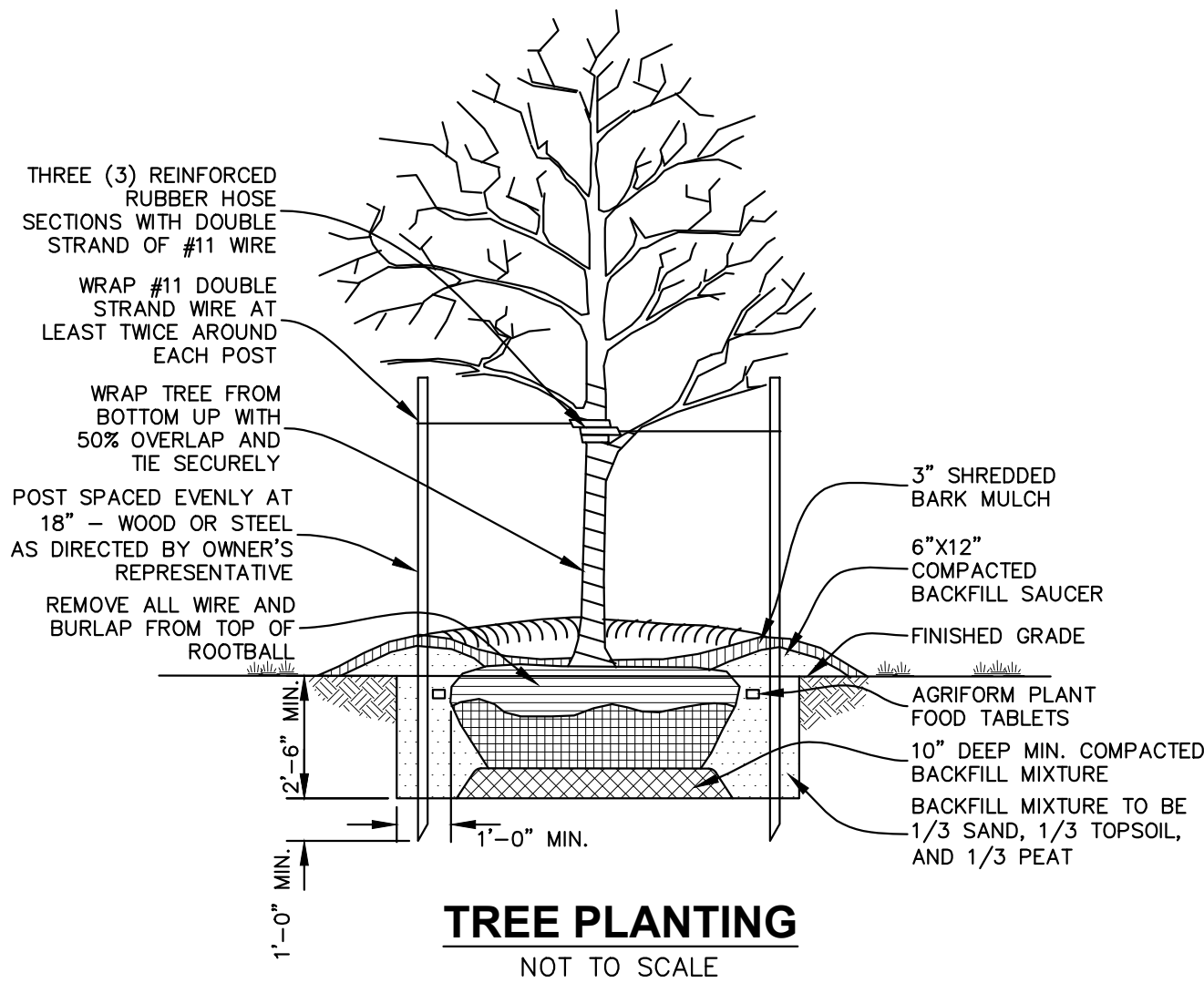
C-101



BIT PAVEMENT-SECTION
NOT TO SCALE



CONCRETE PAVEMENT
NOT TO SCALE



TREE PLANTING
NOT TO SCALE

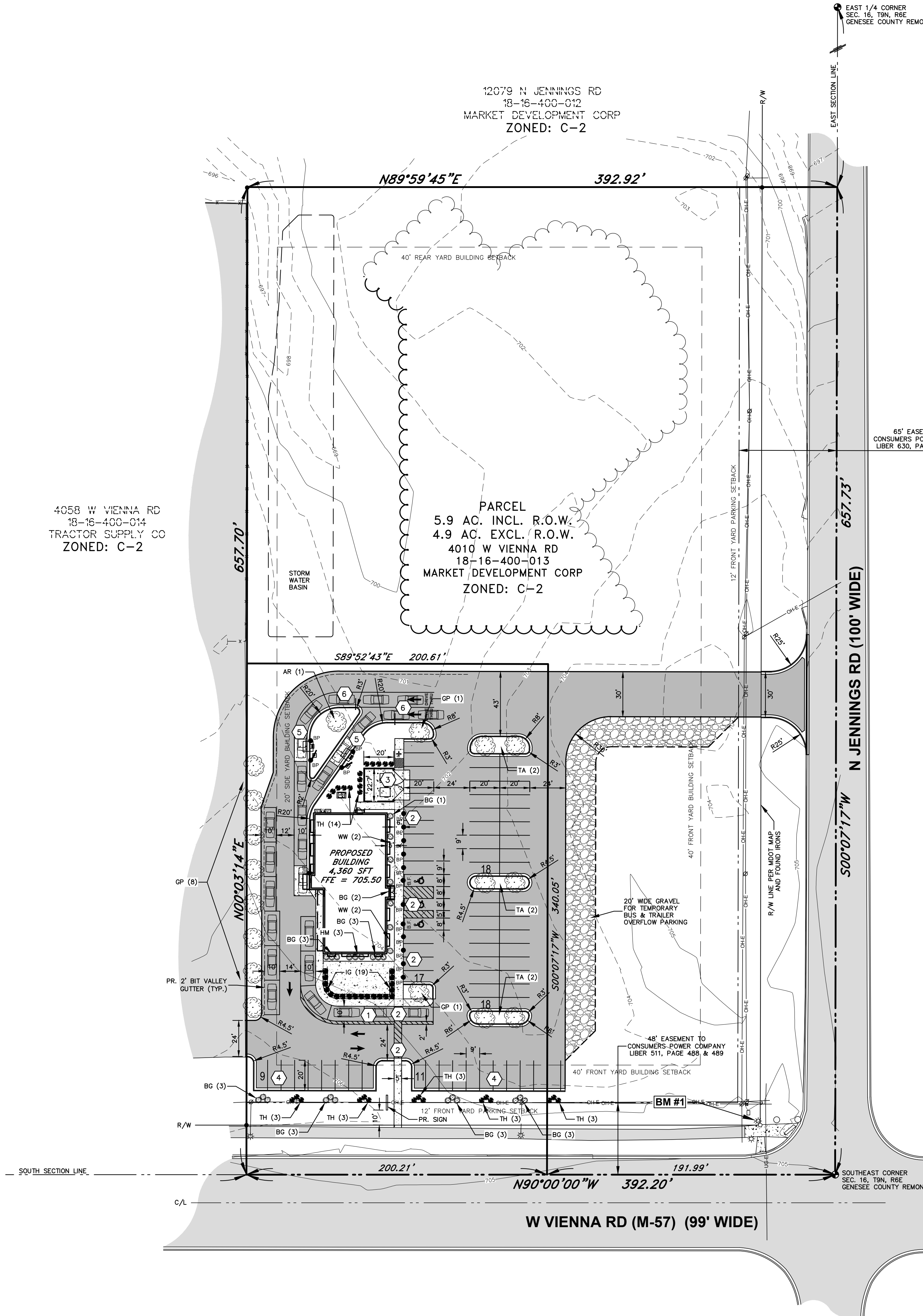
NOTES:

- ALL LANDSCAPING SHALL BE INSTALLED BY A QUALIFIED LANDSCAPE CONTRACTOR TO THE SIZE SPECIFIED ON THE LANDSCAPE PLAN. SMALLER SIZES WILL BE REJECTED.
- ALL PLANTINGS SHALL BE MULCHED WITH 3" SHREDDED PREMIUM HARDWOOD BARK MULCH. TREES IN LAWN AREAS SHALL RECEIVE A 6" DIAMETER BARK RING 3" DEEP.
- THE LANDSCAPE CONTRACTOR SHALL REMOVE ANY TWINE THAT IS WRAPPED AROUND THE TRUNK OF A TREE OR SHRUB AS WELL AS TOP THIRD OF ANY BURLAP. REMOVE EXCESS SOIL ON THE TOP OF THE ROOT BALL TO EXPOSE THE ROOT FLARE OR FIRST LAYER OF ROOTS PRIOR TO PLANTING. USE A WIRE CUTTER TO MAKE 35 CUTS IN THE WIRE BASKET TO ALLOW ROOTS TO GROW THROUGH.
- PLANTING AREAS SHALL BE EDGED WITH A MECHANICAL BED EDGER AT A DEPTH OF 4" TO DEFINE BORDER FOR SHREDDED BARK MULCH.
- PARKING ISLANDS SHALL BE BACK FILLED WITH AT LEAST 24" OF TOPSOIL. AMEND THE TOPSOIL WITH COMPOSTED MANURE AND MIX INTO THE TOP SOIL AT A DEPTH OF 6-12". ANY AGGREGATE OR STONE FROM THE CONSTRUCTION OF THE PARKING LOT SHALL BE REMOVED PRIOR TO BACKFILL.
- LAWN AREAS SHALL RECEIVE AT LEAST 4" OF TOPSOIL AND HYDROSEED. TOPSOIL FOR LAWNS SHALL BE APPROPRIATE FOR GROWING AND SUSTAINING A HEALTHY LAWN. ALL LAWNS EXCLUDING THE NORTH AND EAST AREAS STEEPER THAN 1:3 SLOPE SHALL BE HYDROSEED WITH A SEED BLEND CONSISTING OF 30% KENTUCKY BLUEGRASS, 20% PERENNIAL RYEGRASS, 10% HARD FESCUE, 20% CREEPING RED FESCUE AND 20% CHEWINGS FESCUE.
- MAINTENANCE OF THE LANDSCAPE SHALL BE PROVIDED FOR BY THE OWNER AND INCLUDING FERTILIZING OF LAWN AND PLANT MATERIAL, YEARLY PRUNING, TOP DRESSING OF MULCH AREAS EVERY OTHER YEAR, AND PROVIDE 1" OF WATER PER WEEK DURING THE GROWING SEASON.
- PLANT MATERIALS SHALL BE CHOSEN AND INSTALLED IN ACCORDANCE WITH STANDARD RECOMMENDED BY THE COUNTY COOPERATIVE EXTENSION SERVICE OR AMERICAN NURSERY ASSOCIATION.
- ALL LAWN AND SHRUB BED AREAS SHALL BE WATERED BY AN AUTOMATIC IRRIGATION SYSTEM UNLESS DIRECTED OTHERWISE BY OWNER. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED BY THE LANDSCAPE CONTRACTOR. SHRUB AREAS SHALL BE IRRIGATED WITH DRIP IRRIGATION UNLESS DIRECTED OTHERWISE BY THE OWNER.
- ALL DISEASED, DAMAGED, OR DEAD PLANT MATERIALS SHALL BE PROMPTLY REPLACED.

4058 W VIENNA RD
18-16-400-014
TRACTOR SUPPLY CO
ZONED: C-2

12079 N JENNINGS RD
18-16-400-012
MARKET DEVELOPMENT CORP
ZONED: C-2

PARCEL
5.9 AC. INCL. R.O.W.
4.9 AC. EXCL. R.O.W.
4010 W VIENNA RD
18-16-400-013
MARKET DEVELOPMENT CORP
ZONED: C-2



SITE DATA:
SITE: 1.56 ACRES
ZONED: C-2, GENERAL COMMERCIAL
USE: DRIVE THRU RESTAURANT; HOURS FROM 10AM TO 11PM SEVEN DAYS A WEEK; 60 TOTAL EMPLOYEES WITH MAX OF 18 EMPLOYEES AT ONE TIME

	REQUIRED	PROVIDED
MAXIMUM BUILDING HEIGHT:	35'	SEE ARCH.
FRONT BUILDING SETBACK:	40'	114'
SIDE BUILDING SETBACK:	20'	42'
REAR BUILDING SETBACK:	40'	99.4'

PARKING DATA:
MIN. REQUIRED PARKING: 60 SPACES
(1 PER 4 SEATS PLUS 1 PER EMPLOYEE)
(104 / 4 + 15 = 41)

PROPOSED PARKING: 73 SPACES
(INCLUDES 3 BARRIER FREE SPACES)
STACKING FROM WINDOW: 14 SPACES
PULL AHEAD WAITING: 6 SPACES
FOOD DELIVERY: 4 SPACES

PARKING SPACE:	9' x 20'	9' x 20' MIN.
DRIVE AISLE WIDTH (TWO WAY):	20'	2x MIN.
(ONE WAY):	12'	1x MIN.

LOADING WILL OCCUR DURING NON BUSINESS HOURS BY BONDED CARRIER. AS A RESULT, NO LOADING ZONE IS REQUIRED FOR OPERATIONS.

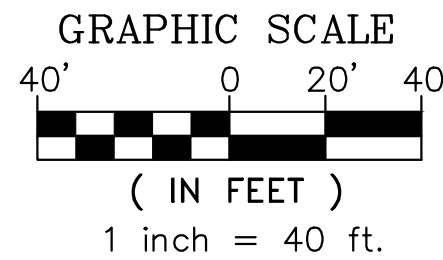
REFUSE WILL BE COLLECTED DURING NON-BUSINESS HOURS PRIOR TO 10 AM.

NOTES

- ALL DIMENSIONS SHOWN TO THE CONCRETE CURB AND GUTTER ARE TO THE FACE OF THE CURB (6 INCHES FROM THE BACK OF THE CURB) UNLESS NOTED OTHERWISE.
- THE CONCRETE GUTTER PAN IS TO TIP IN THE SAME DIRECTION AS THE ADJACENT PAVEMENT. THE GUTTER PAN IN THE BARRIER FREE SPACES AND CROSS WALKS SHALL BE PLACED FLAT.
- THE LAST 3 FEET OF ALL OF THE CURB SHALL BE DUBBED DOWN UNLESS NOTED OTHERWISE.
- REFER TO ARCHITECTURAL PLANS FOR DETAILS OF CONCRETE DOOR STOPS, DUMPSTER ENCLOSURE, DETAIL OF BUILDING, EXACT BUILDING DIMENSIONS, AND EXACT LOCATION OF DRIVE THROUGH MENU BOARDS, ORDER STATIONS, AND HEIGHT CLEARANCE BAR.
- ALL BARRIER FREE SPACES AND SIDEWALKS SHALL MEET A.D.A. REQUIREMENTS.
- ALL SIGNAGE SHALL CONFORM TO VIENNA TOWNSHIP STANDARDS.
- PAVEMENT SECTION TO BE GREATER OF THOSE ON THE PLANS OR AS SPECIFIED BY A GEOTECHNICAL REPORT IF ONE IS PROVIDED UNLESS DIRECTED OTHERWISE BY OWNER.

SITE PLAN KEY NOTES

- 1 RAISED CONCRETE SIDEWALK
- 2 FLUSH SLAB EDGE AND BARRIER FREE RAMP
- 3 DUMPSTER ENCLOSURE (SEE ARCH)
- 4 MDOT F-4 CURB AND GUTTER
- 5 ORDER STATION AND MENU BOARD
- 6 HEIGHT CLEARANCE BAR



LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED BIT. PAVEMENT
- PROPOSED CONC.
- BUMP BLOCK
- BUMP POST
- PROPOSED LIGHT POLE
- PROPOSED SHRUB
- PROPOSED CANOPY TREE
- PROPOSED UNDERSTORY TREE
- PROPOSED EVERGREEN TREE

REQUIRED LANDSCAPING NOTES:

- INTERIOR ISLANDS:
 - A. 1 ISLAND WITH 1 TREE PER 20 PARKING SPACES
 - B. 4 ISLANDS REQUIRED AND 6 ISLANDS PROVIDED
- ALL DISTURBED AREAS TO BE RESTORED WITH TOPSOIL, SEED, AND MULCH.
- ALL REQUIRED LANDSCAPING MATERIALS SHALL CONFORM TO VIENNA TOWNSHIP LANDSCAPING ORDINANCE.
 - CANOPY TREE SIZE: 2 TO 3 INCH CALIPER (MIN.)
 - EVERGREEN TREE SIZE: 6 FEET HEIGHT (MIN.)
 - ORNAMENTAL TREE SIZE: 2 INCH CALIPER (MIN.)
 - TREE-LIKE SHRUB SIZE: 6 FEET HEIGHT (MIN.)
 - LARGE DECIDUOUS SHRUB SIZE: 5 FEET HEIGHT (MIN.)

PLANT SCHEDULE:

TREES	COMMON NAME	SIZE	CONTAINER	QUANTITY
AR	RED SUNSET MAPLE	2" CAL.	B&B	1
GP	PRINCETON SENTRY GINKGO	2" CAL.	B&B	10
TA	AMERICAN LINDEN	2" CAL.	B&B	6
SHRUBS				
HM	ENDLESS SUMMER HYDRANGEA	18"	POT	3
TH	HICKS YEW	18"	POT	29
WW	WINE & ROSES WEIGELA	18"	POT	4
BG	GREEN VELVET BOXWOOD	18"	POT	21
IG	INKBERRY HOLLY	18"	POT	19

SITE LAYOUT PLAN
CULVERS - VIENNA
PART OF SECTION 16, T9N, R6E
VIENNA TOWNSHIP, GENESEE COUNTY, MI

CLIENT:
ODW MANAGEMENT
PO BOX 478
ST JOHNS, MI 48879

PROJECT NO.
220423

C-102

GENERAL STORM SEWER NOTES:

SITE CONTRACTOR TO END STORM CONNECTION 5' FROM BUILDING WITH A CLEAN-OUT AND TEMPORARY CAP. COORDINATE CONNECTION WITH BUILDING PLUMBING CONTRACTOR.

UNLESS NOTED OTHERWISE ON THE PLAN, STORM SEWER PIPE SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE PER AASHTO M294 TYPE S. JOINTS SHALL BE WATER TIGHT IN ACCORDANCE WITH ASTM F477.

ROOF DRAIN PIPE OR PIPE INDICATED TO BE PVC SHALL MEET THE REQUIREMENTS OF ASTM D3034, SDR 35. JOINTS TO BE ELASTOMERIC SEALS IN ACCORDANCE WITH ASTM F477.

MATERIALS, INSTALLATION, AND TESTING OF THE STORM SEWER SYSTEM SHALL CONFORM TO VIENNA TOWNSHIP STANDARDS.

GENERAL WATER SERVICE NOTES:

SITE CONTRACTOR TO END FIRE PROTECTION LINE 12" ABOVE FINISHED FLOOR INSIDE THE BUILDING WITH A TEMPORARY CAP. COORDINATE CONNECTION WITH BUILDING PLUMBING CONTRACTOR.

IRRIGATION WATER SERVICE TO BE TAPPED OFF WATER SERVICE INSIDE BUILDING UTILITY ROOM. COORDINATE WITH LANDSCAPER AND BUILDING PLUMBER.

WATER MAIN AND FIRE PROTECTION LINE PIPE SHALL BE CLASS 52 DUCTILE IRON PER ANSI/AWWA C151/A21.51, THICKNESS CLASS PER ANSI/AWWA C110/A21.50. FITTINGS SHALL BE DUCTILE IRON PER ANSI/AWWA C153/21.53, PRESSURE CLASS 350.

DOMESTIC SERVICE SHALL BE COPPER, TYPE K, ANNEALED AND SOFT TEMPER PER ASTM B-88. FITTINGS SHALL CONFORM TO ASTM B-88. MINIMUM COVER OVER PIPE SHALL BE 5.5'.

MATERIALS, INSTALLATION, AND TESTING OF WATER SERVICE LINES SHALL CONFORM TO VIENNA TOWNSHIP STANDARDS AND THE STATE PLUMBING CODE.

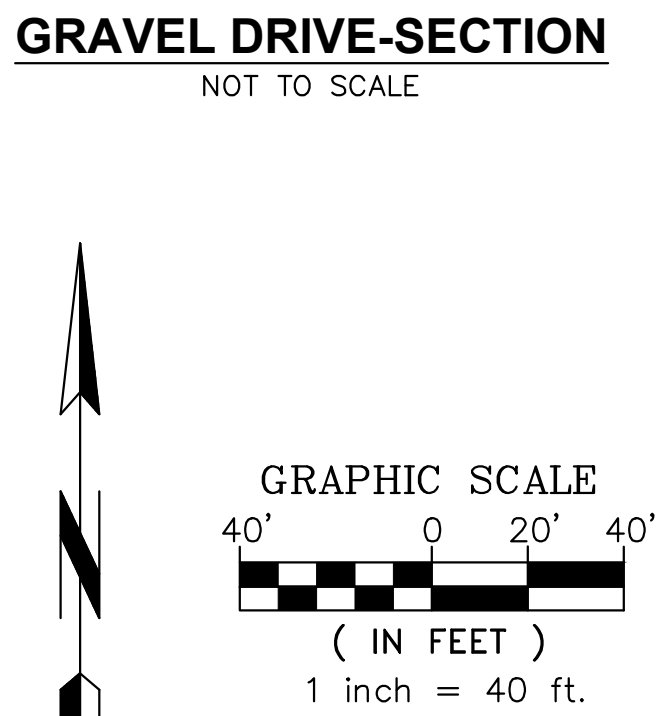
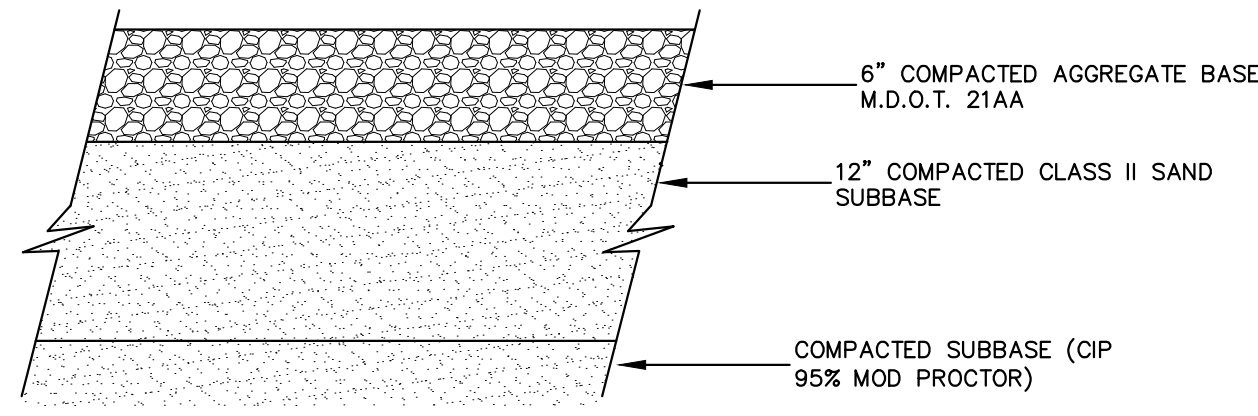
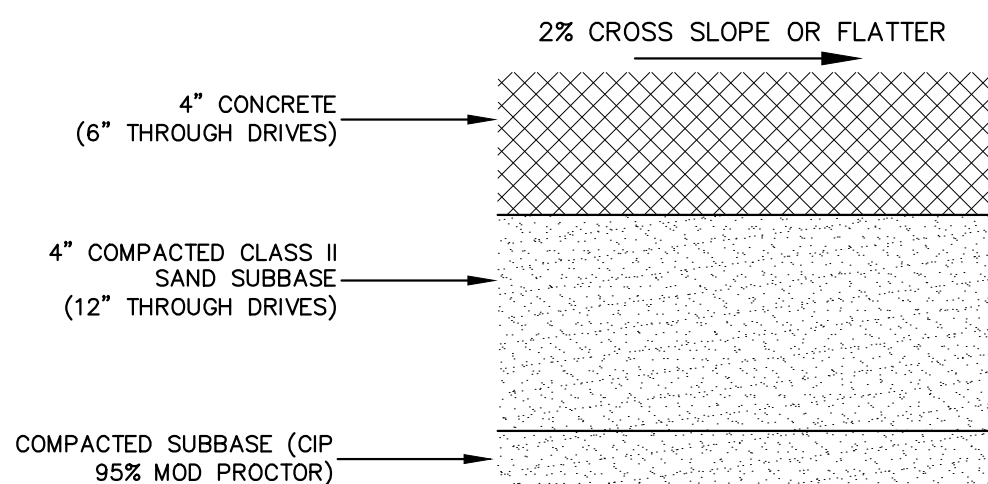
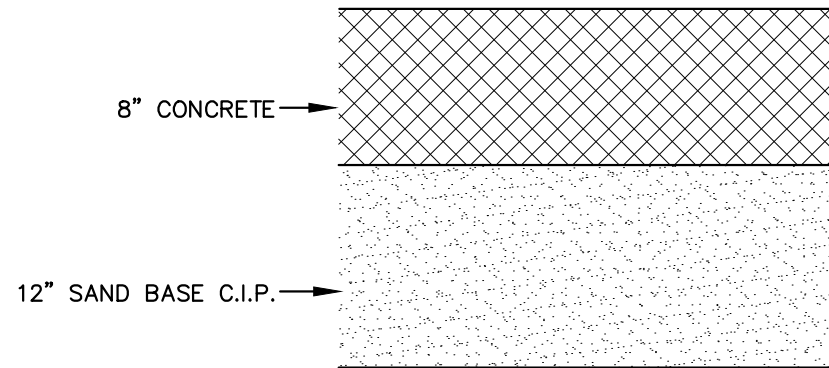
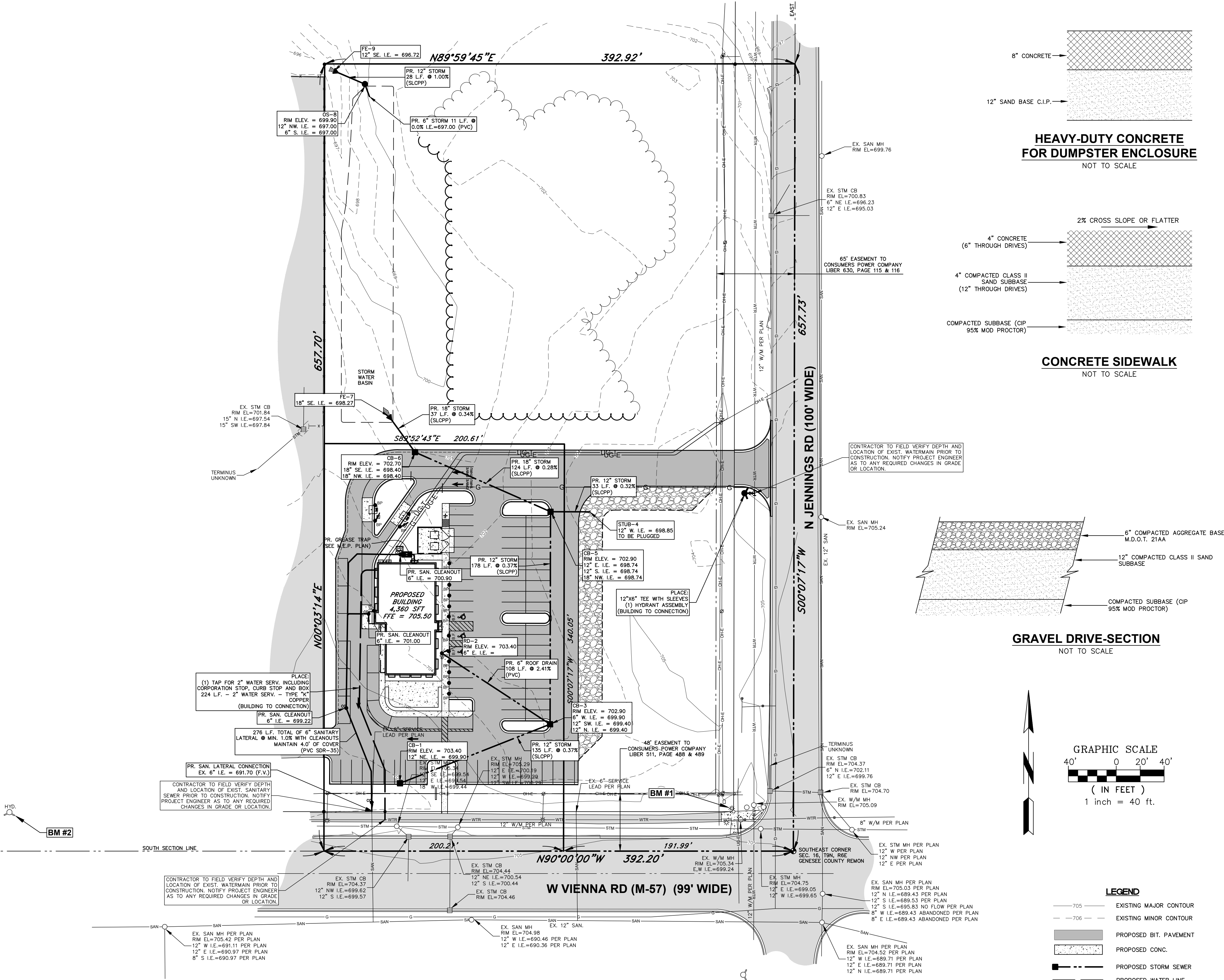
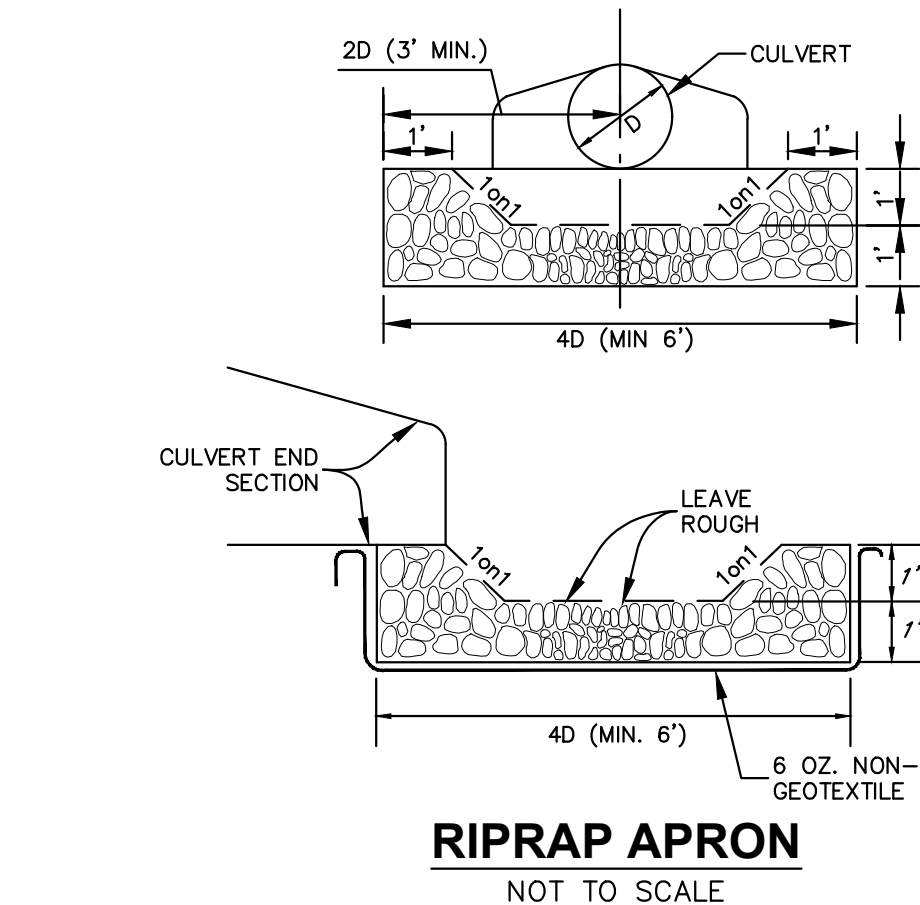
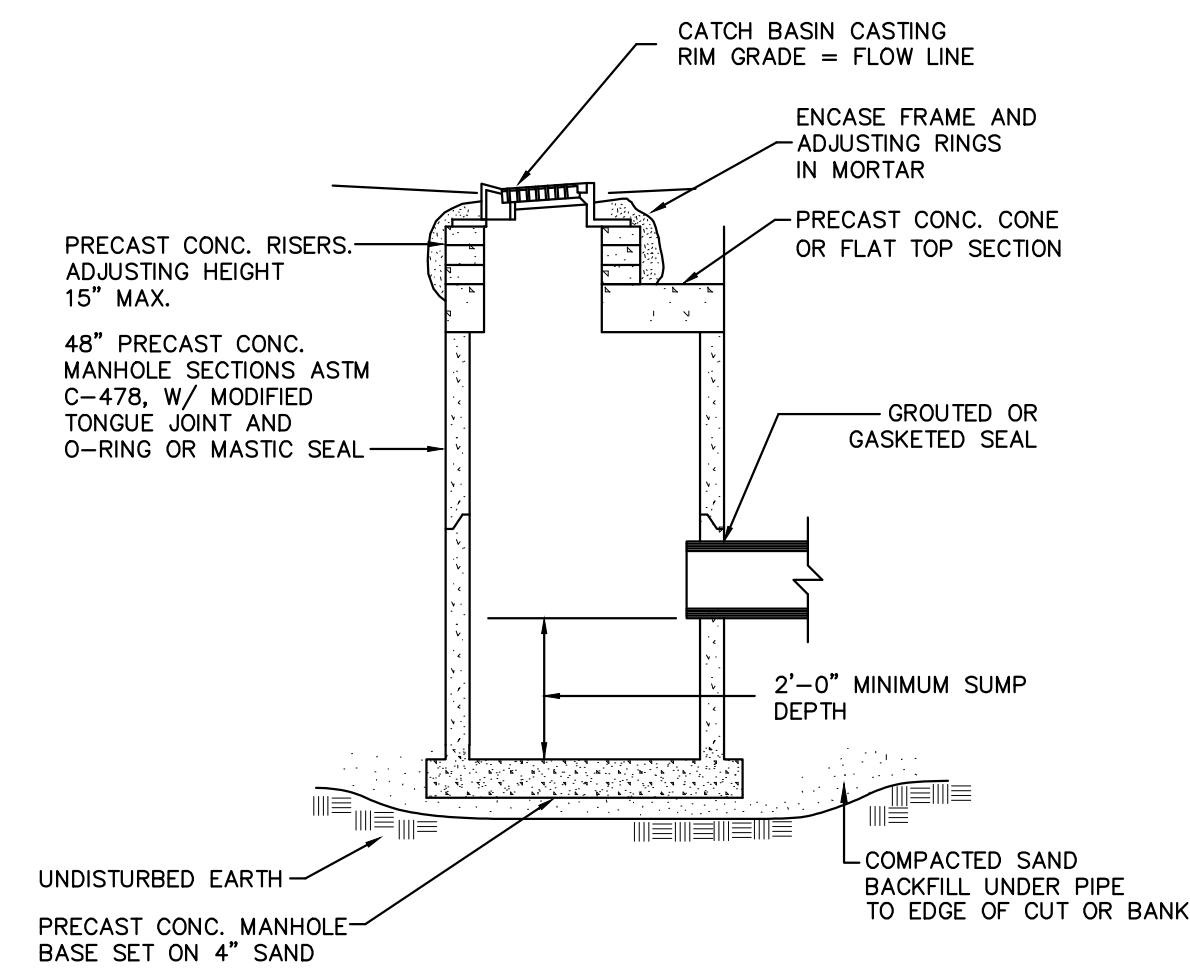
GENERAL SANITARY SEWER NOTES:

SITE CONTRACTOR TO END SANITARY LATERAL 5' FROM BUILDING WITH A CLEAN-OUT AND TEMPORARY CAP. COORDINATE CONNECTION WITH BUILDING PLUMBING CONTRACTOR.

SANITARY SEWER LATERALS AND FITTINGS SHALL BE PVC PER ASTM D3034, SDR 35. JOINTS TO BE ELASTOMERIC SEALS IN ACCORDANCE WITH ASTM D3212.

MATERIALS, INSTALLATION, AND TESTING OF SANITARY SEWER SHALL CONFORM TO THE VIENNA TOWNSHIP STANDARDS.

MINIMUM COVER OVER SANITARY LATERAL SHALL BE 3.5'.



- LEGEND**
- 705 — EXISTING MAJOR CONTOUR
 - 706 — EXISTING MINOR CONTOUR
 - PROPOSED BIT. PAVEMENT
 - PROPOSED CONC.
 - PROPOSED STORM SEWER
 - PROPOSED WATER LINE
 - PROPOSED SANITARY LINE
 - PROPOSED CLEAN OUT
 - UG-E — UNDERGROUND ELECTRIC
 - FIBER — UNDERGROUND FIBER
 - G — NATURAL GAS

REVISIONS:

NO.	DESCRIPTION	DATE
1	DRAWN BY: VS	
2	APPROVED BY: MC	
3	DATE: JULY 28, 2026	
4	REVISIONS:	

Rooston & Associates
SURVEYING AND ENGINEERING

SITE LAYOUT PLAN
CULVERS - VIENNA
PART OF SECTION 16, T9N, R6E
VIENNA TOWNSHIP, GENESEE COUNTY, MI

CLIENT:
ODW MANAGEMENT
PO BOX 478
ST JOHNS, MI 48879

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Know what's below.
Call before you dig.

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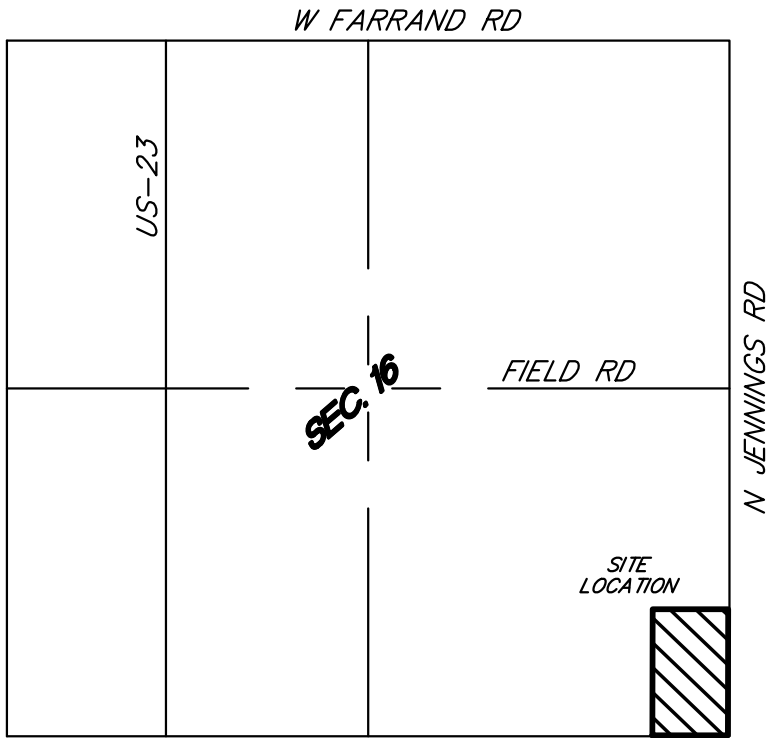
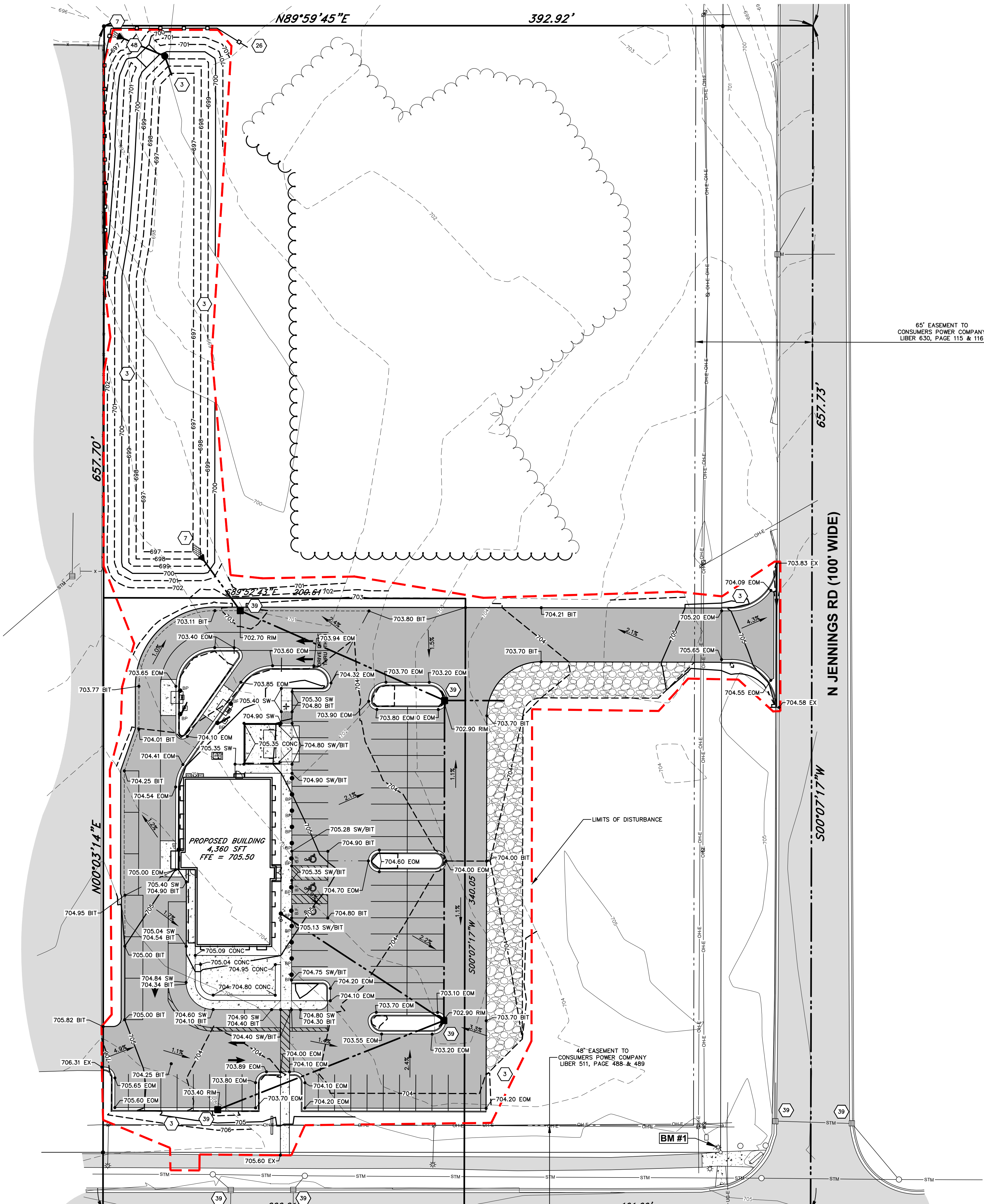
NOTE:
- REFER TO MDOT SOIL EROSION & SEDIMENTATION CONTROL MANUAL.
- CONTRACTOR SHALL PLACE NA-GREEN S-150 (OR APPROVED EQUAL) EROSION CONTROL BLANKET ON ALL SLOPES 1 ON 3 OR STEEPER AND IN THE BOTTOM ONE FOOT OF THE DRAINAGE SWALES.
- SITE SOILS CONSIST OF SAND PER USDA NRCS MAPS.
- TOTAL DISTURBED AREA IS 2.3 ACRES.
- PINE RUN CREEK IS LOCATED 730 FEET NORTHEAST OF THE SITE.
- CONTRACTOR SHALL SWEEP THE STREET OF ANY DIRT TRACKED ONTO IT BY THE CONSTRUCTION OPERATION AS NEEDED AND AS DIRECTED BY COUNTY SESC AGENT.
- THESE MEASURES ARE MINIMUM REQUIRED. CONTRACTOR MAY NEED ADDITIONAL MEASURES DEPENDING ON WEATHER, TIMING, ETC.
- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% PER ADA STANDARDS.
- PRIOR TO ANY EXCESS SOILS BEING HAULED OFF THE SITE, VERIFY WITH OWNER IF THEY SHOULD BE WASTED ON-SITE.

CONSTRUCTION SEQUENCE	2026			2027							REMARKS
	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	
INSTALL SILT FENCING AND INLET PROTECTION											REQUIRED
CLEAR VEGETATION AND STRIP AND STOCKPILE TOPSOIL											
ROUGH GRADE SITE											
CONSTRUCT BUILDING											
INSTALL UTILITIES											
INSTALL CURBING AND PAVEMENT											
FINISH GRADE, PLACE PLANTINGS, TOPSOIL AND SEED, AND MULCH BLANKETS											
CLEAN PAVEMENTS AND STORM SEWER											
REMOVE TEMPORARY EROSION CONTROL											

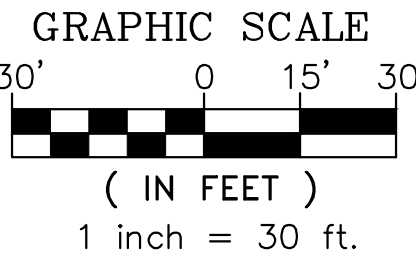
STORM WATER MANAGEMENT SYSTEM MAINTENANCE

THE STORM SEWER AND DETENTION SYSTEMS MUST BE INSPECTED AND MAINTAINED ON A REGULAR BASIS FOR OPTIMAL PERFORMANCE. SEE CHART BELOW FOR SUGGESTED INTERVALS.

TASKS	COMPONENTS						SCHEDULE
	BASIN	DOCK SLOPES	BASIN BOTTOM	BASIN INLETS	CATCH BASIN INLETS	STORM SEWER SYSTEM	
INSPECT FOR ACCUMULATION	●	●	●	●	●	●	ANNUALLY
REMOVE SEDIMENT ACCUMULATION	●	●	●	●	●	●	EVERY 5-10 YEARS AS NEEDED
INSPECT FOR DEBRIS (DEAD VEGETATION AND TRASH)	●	●	●	●	●	●	EARLY SPRING, FALL AND AFTER MAJOR STORMS
CLEAN DEBRIS	●	●	●	●	●	●	AS NEEDED
INSPECT FOR EROSION ON BANKS AND BOTTOM	●	●	●	●	●	●	EARLY SPRING, FALL AND AFTER MAJOR STORMS
REESTABLISH PERMANENT VEGETATION ON ERODED SLOPES	●	●	●	●	●	●	AS NEEDED
RAKE OUT DEAD VEGETATION	●	●	●	●	●	●	ANNUALLY-EARLY SPRINGS
REPLACE STONE RIP-RAP	●	●	●	●	●	●	AS NEEDED
MOWING	●	●	●	●	●	●	AS NEEDED (MIN. ANNUALLY)



LOCATION MAP
NOT TO SCALE



SOIL EROSION CONTROL KEY

- 3 PERMANENT/TEMPORARY SEEDING
- 7 RIP RAP
- 26 GEOTEXTILE SILT FENCE
- 39 INLET PROTECTION WITH GEOTEXTILE AND STONE
- 48 SOIL EROSION CONTROL BLANKET (N.A.G. S-150 OR EQUAL)

LEGEND

- 705 EXISTING MAJOR CONTOUR
- 706 EXISTING MINOR CONTOUR
- 705 PROPOSED MAJOR CONTOUR
- 706 PROPOSED MINOR CONTOUR
- PROPOSED BIT. PAVEMENT
- PROPOSED CONC.
- PROPOSED STORM SEWER
- DRAINAGE ARROW
- 750.00 PROPOSED SPOT ELEVATION
- GRADE BREAK LINE
- SIDEWALK RAMP W/ LANDINGS AT EACH END
- LIMITS OF DISTURBANCE

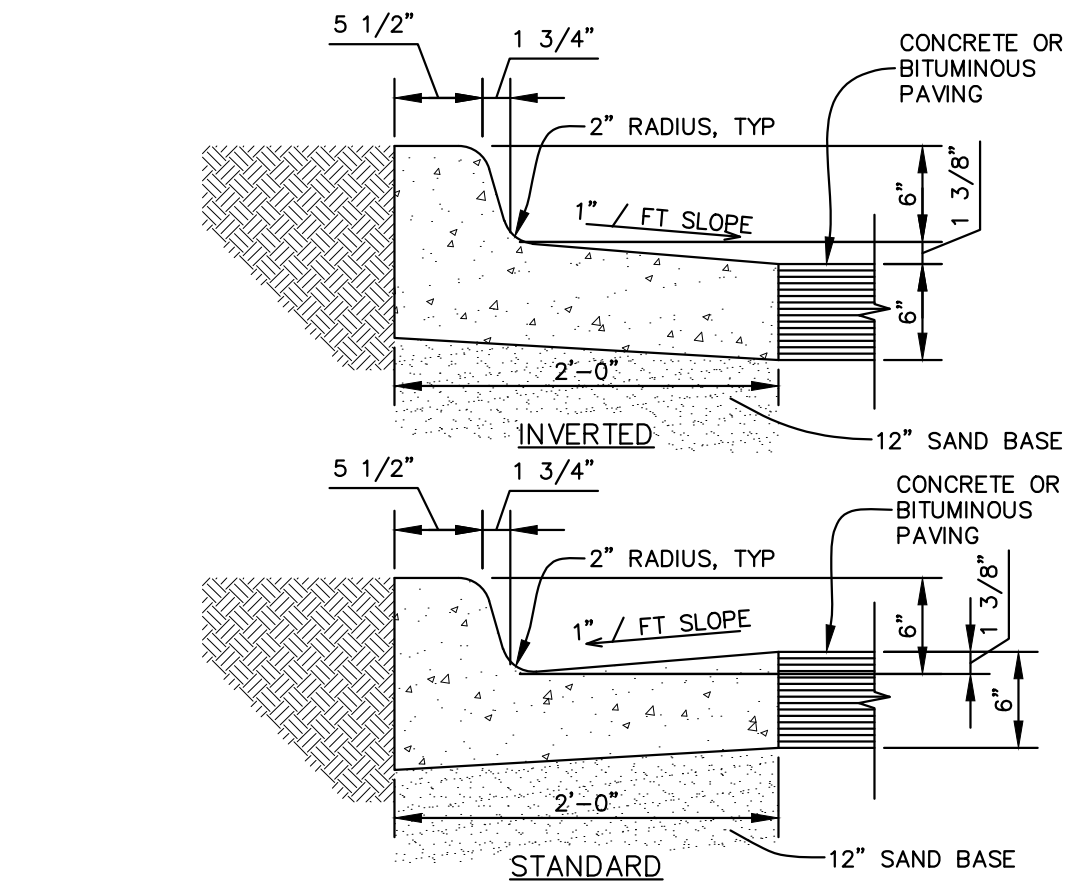
- FG FINISHED GROUND
- FL FLOW LINE GRADE
- RIM STRUCTURE RIM ELEVATION
- EX MATCH EXISTING ELEVATION
- EOM EDGE OF METAL GRADE
- SW SIDEWALK GRADE
- CONC CONCRETE GRADE
- BIT BITUMINOUS GRADE

SITE GRADING AND SESC PLAN
CULVERS - VIENNA
PART OF SECTION 16, T9N, R6E
VIENNA TOWNSHIP, GENESEE COUNTY, MI

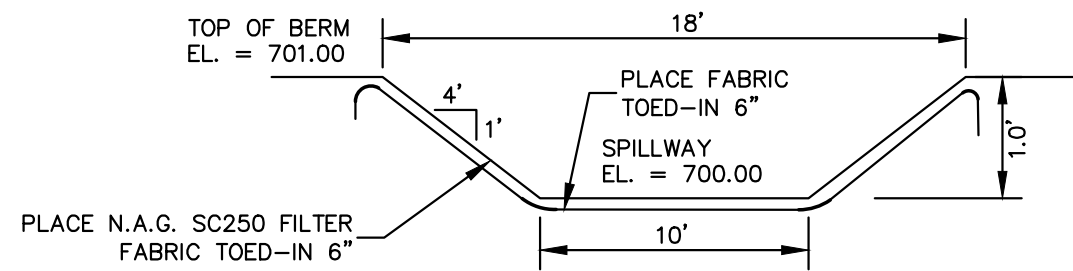
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PO BOX 478
ST JOHNS, MI 48879

PROJECT NO.
220423

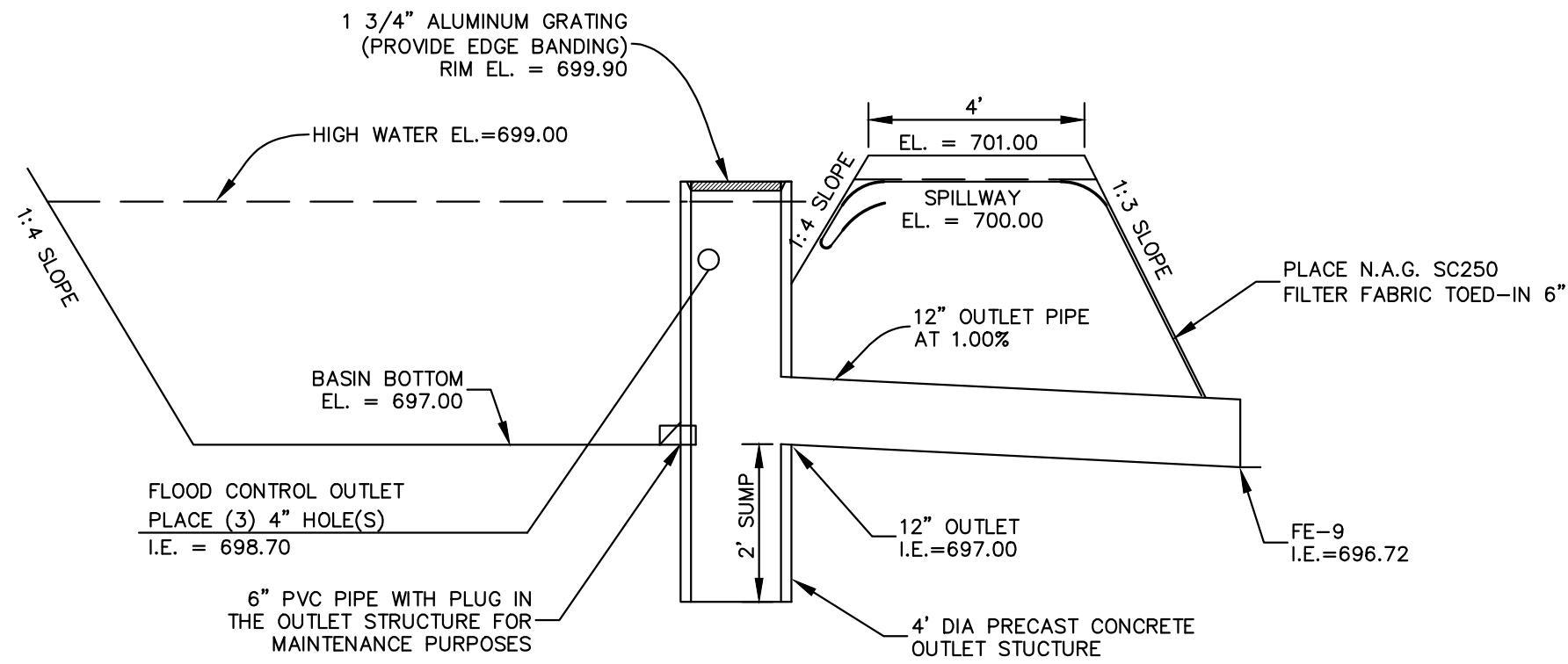
C-104



24" CURB AND GUTTER
NOT TO SCALE



BASIN OVERFLOW SPILLWAY
NOT TO SCALE



OUTLET STRUCTURE (OS-8)
NOT TO SCALE

INLET PROTECTION - FABRIC DROP SPECIFICATIONS

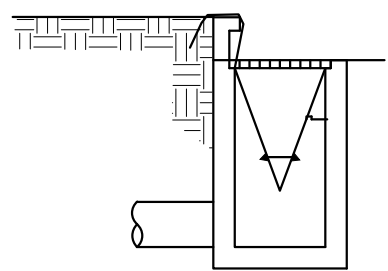
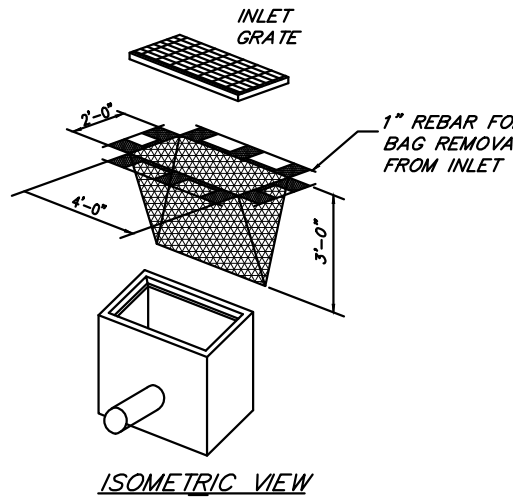
(S58)

- When • When sediment laden stormwater requires treatment before entering a stormwater drainage system.
- Why • To prevent sediment from entering stormwater systems.
- Where • Use in or at stormwater inlets, especially at construction sites or in streets.
- How 1. A filter fabric bag is hung inside the inlet, beneath the grate.
2. Replace grate, which will hold bag in place.
3. Anchor filter bag with 1" rebar for removal from inlet.
4. Flaps of bag that extend beyond the bag can be buried in soil in earth areas.
- Maintenance • Drop inlet filters should be inspected routinely and after each major rain event.
• Damaged filter bags should be replaced.
• Clean and/or replace filter bag when 1/2 full.
• Replace clogged fabric immediately.
• If needed, initiate repairs immediately upon inspection.
• Remove entire protective mechanism when upgradient areas are stabilized and streets have been swept.
- Limitations • Can only accommodate small flow quantities.
• Requires frequent maintenance.
• Ponding may occur around storm drains if filter is clogged.

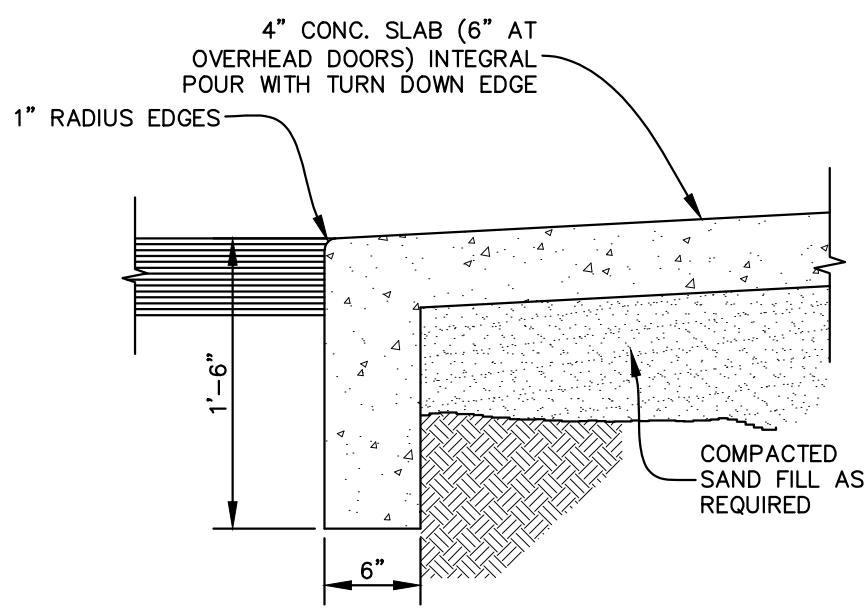


INLET PROTECTION - FABRIC DROP

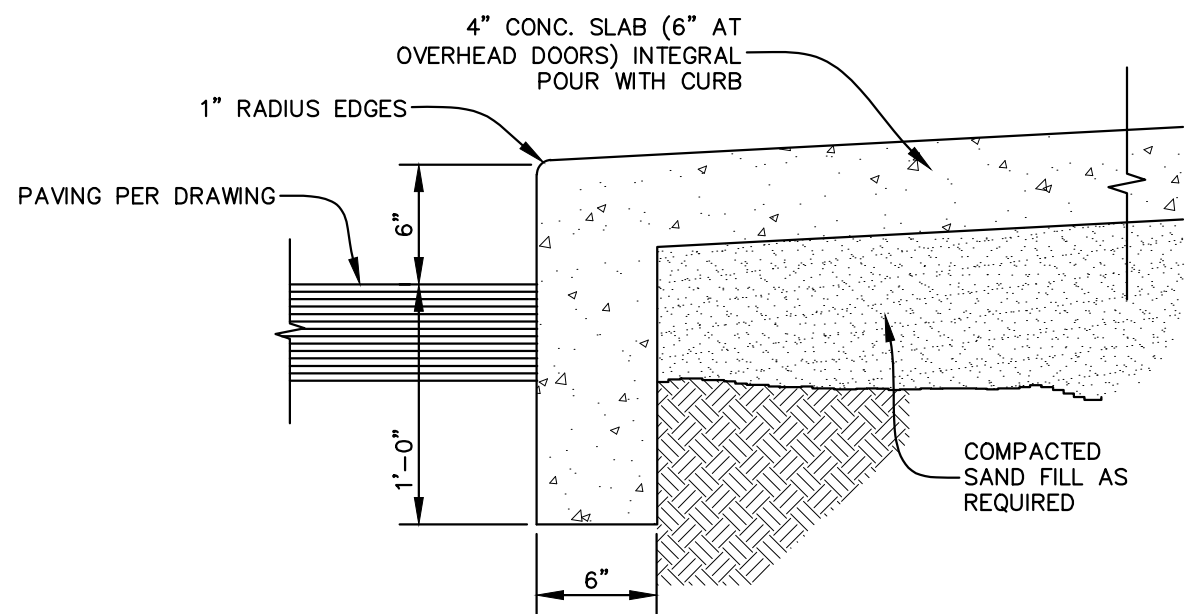
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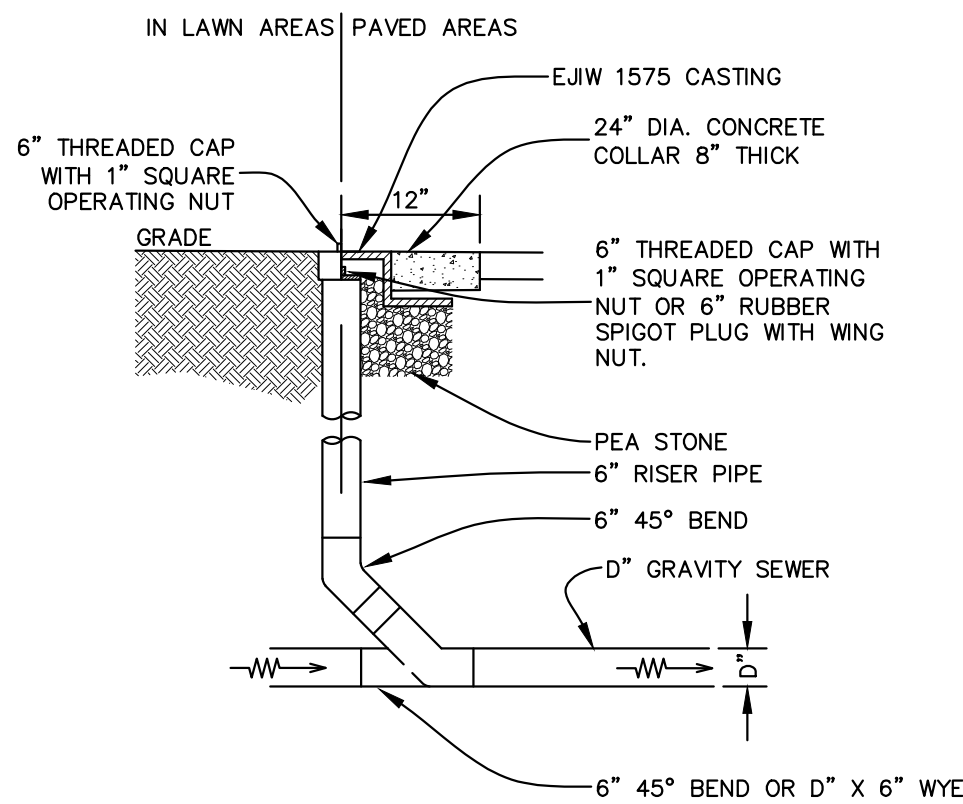
INSTALLATION DETAIL



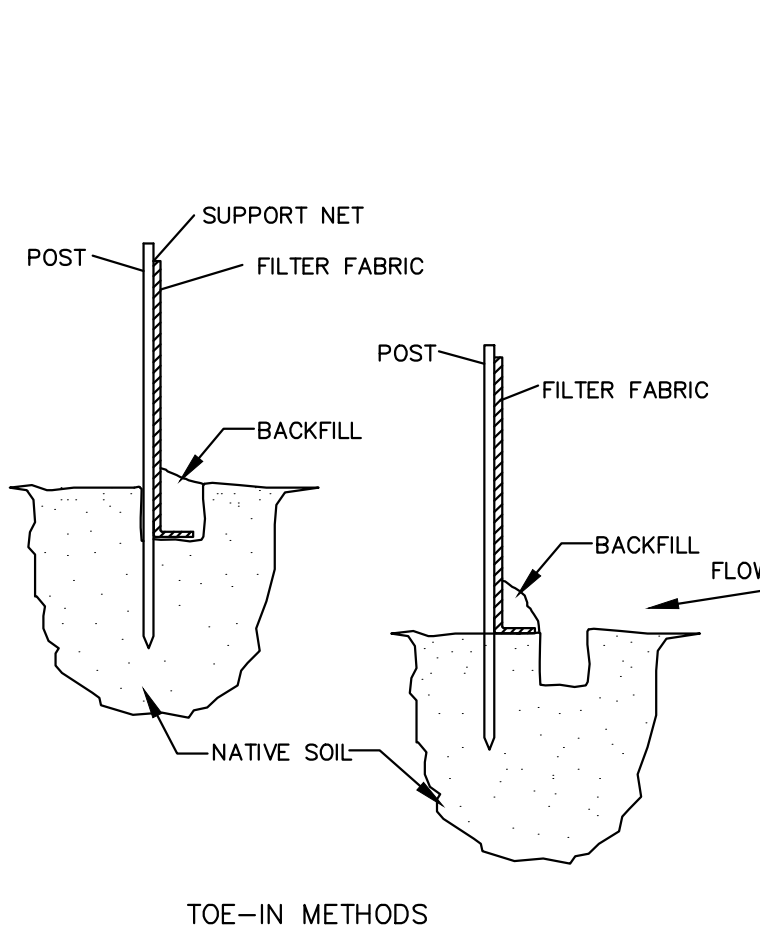
FLUSH SIDEWALK EDGE
NOT TO SCALE



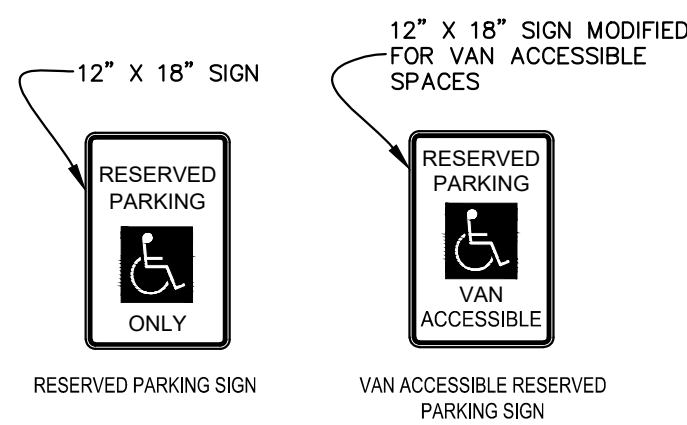
RAISED SIDEWALK EDGE
NOT TO SCALE



GRAVITY SEWER CLEAN OUT
NOT TO SCALE

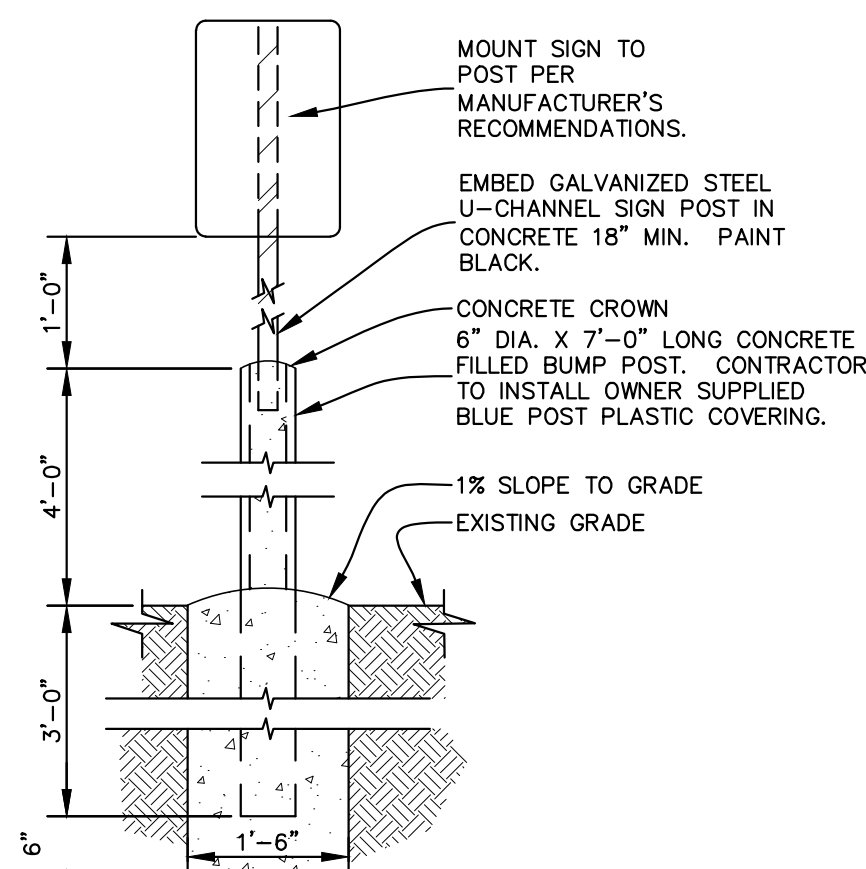


FABRIC SILTATION FENCING
NOT TO SCALE

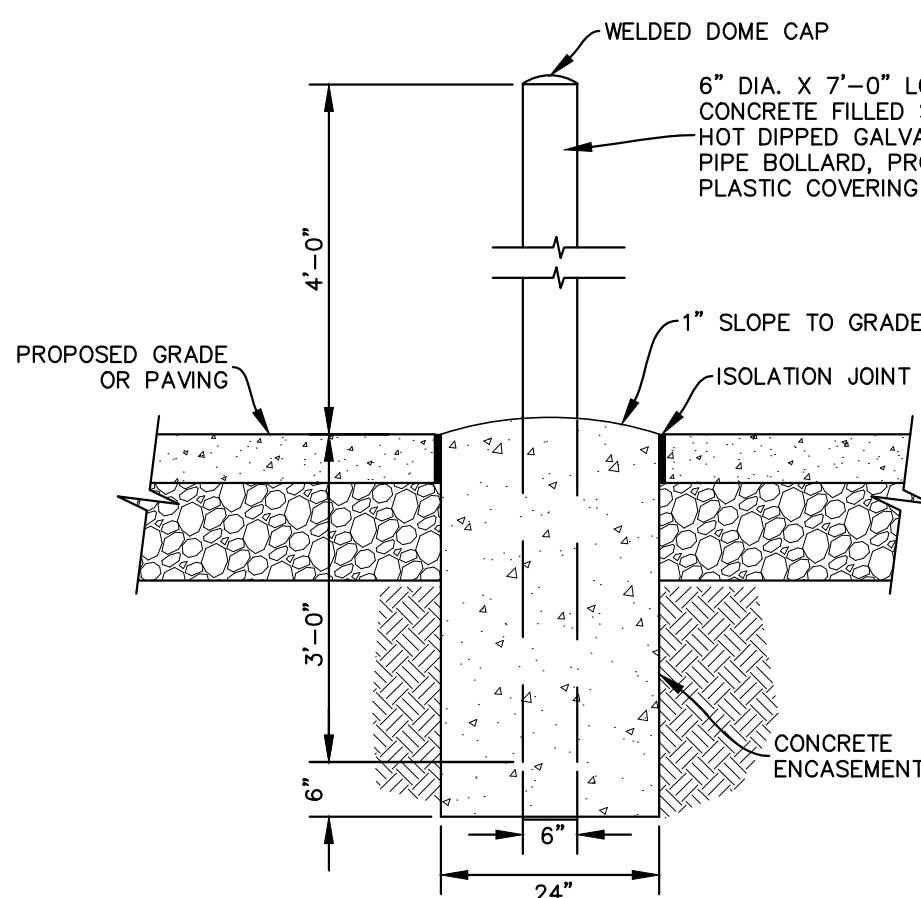


SIGN MATERIALS:
GENERAL: SIGNS SHALL CONFORM WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
MOUNTING HARDWARE: STAINLESS STEEL.
PANEL MATERIAL: ALUMINUM SHEET.
SIGN FACE: REFLECTORIZED BACKGROUND, REFLECTORIZED LEGEND.

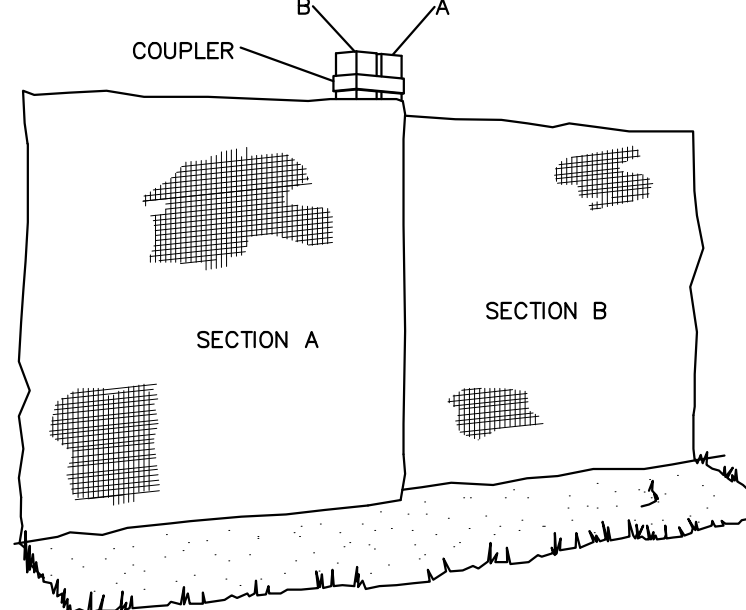
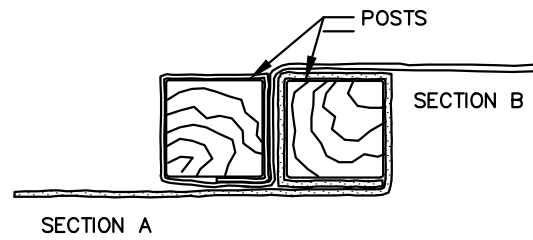
BARRIER FREE SIGNS
NOT TO SCALE



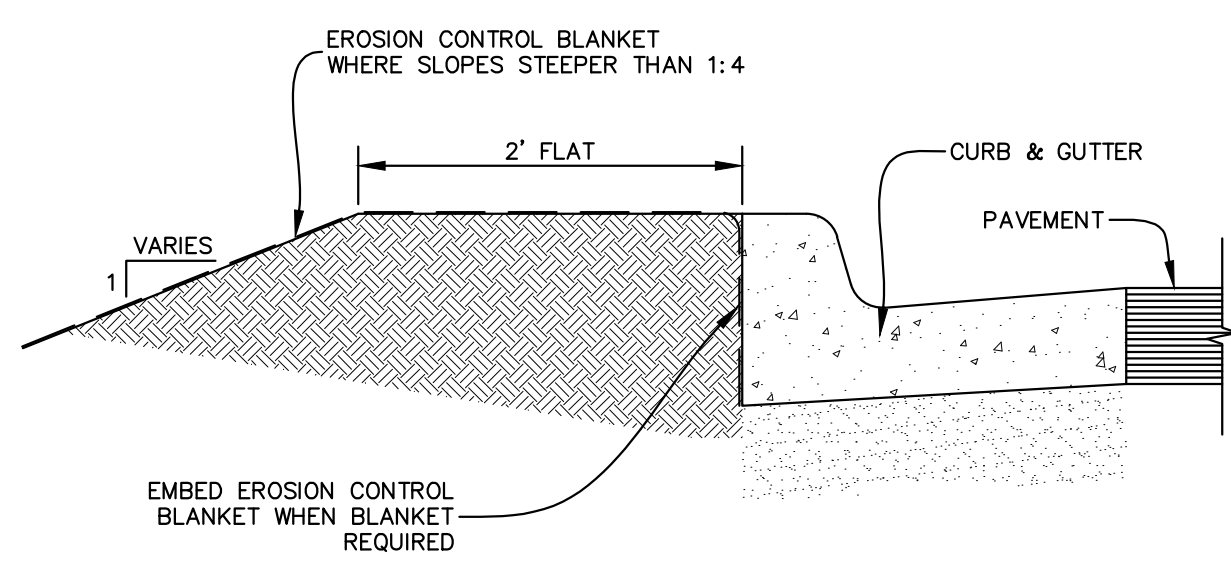
SIGN MOUNTED IN BUMP POST
NOT TO SCALE



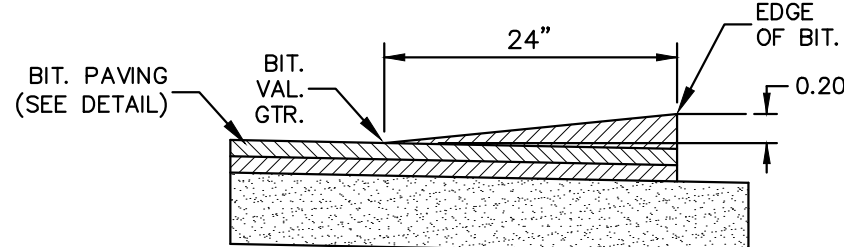
BUMP POST
NOT TO SCALE



JOINING SECTIONS OF ENVIROFENCE



SLOPE BEHIND CURB IN FILL SECTION
NOT TO SCALE



BIT. VALLEY GUTTER
NOT TO SCALE

PROJECT NOTES AND SPECIFICATIONS

GENERAL NOTES

- A) ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, CODES, RULES AND REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED BY STATE AND LOCAL AGENCIES RELATED TO SOIL EROSION AND SEDIMENTATION.
- B) ALL ITEMS OF WORK NOT COVERED BY THESE SPECIFICATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE VIENNA TOWNSHIP SPECIFICATIONS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION. THE MOST STRINGENT REQUIREMENTS AS LISTED IN THE GEOTECHNICAL REPORT, PLANS AND SPECIFICATIONS SHALL APPLY.
- C) ALL LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE BEGINNING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS DIG AT 811/482-7171 AT LEAST 3 WORKING DAYS PRIOR TO ANY UNDERGROUND CONSTRUCTION.

D) CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER 48 HOURS BEFORE WORK BEGINS.

E) ROOSSEN AND ASSOCIATES AS THE DESIGN PROFESSIONAL SHALL NOT BE RESPONSIBLE OR LIABLE FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE DRAWINGS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH RISE FROM OTHERS' FAILURE TO OBTAIN AND FOLLOW THE DESIGN PROFESSIONAL'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

F) CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY, CONSTRUCTION MEANS, CONTROLS, TECHNIQUES, SEQUENCES AND PROCEDURES.

GENERAL SPECIFICATIONS

- A) ALL CONSTRUCTION AREAS SHALL BE CLEARED OF ALL TREES, BRUSH, WEEDS, ETC. ALL SPOIL MATERIAL IS TO BE DISPOSED OF IN AREAS DESIGNATED BY THE OWNER AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- B) STRIP ALL TOPSOIL AND ORGANIC MATERIAL ON SITE WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT WHERE GRADES ARE TO BE CHANGED, OR IN AREAS TO BE IMPROVED. IF MATERIAL IS FREE OF ROOTS, ROCKS AND DEBRIS, AND IS APPROVED BY THE ENGINEER, IT SHALL BE TEMPORARILY STOCKPILED ON SITE FOR LATER USE.
- C) CONSTRUCTION ACCESS AND MATERIAL STORAGE IS LIMITED TO THE AREAS DESIGNATED ON THE DRAWINGS OR AS APPROVED BY THE OWNER.
- D) WHERE IT IS NECESSARY TO WORK OUTSIDE THE PROPERTY CONTROLLED BY THE OWNER, THE CONTRACTOR SHALL OBTAIN LEGAL AUTHORITY FROM ADJACENT PROPERTY OWNERS TO COMPLETE THE WORK AS OUTLINED IN THESE DOCUMENTS.
- E) ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE BROUGHT TO FINISH GRADES AS SHOWN ON THE DRAWINGS. ALL AREAS DISTURBED SHALL BE RESTORED WITH A MINIMUM OF 4" OF TOPSOIL, SEEDED AND MULCHED.
- F) THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION ON THE NEED FOR IMPORTED OR EXPORTED MATERIAL. THE PROPOSED GRADING PLAN MAY NOT PROVIDE FOR A "BALANCED" SITE.
- G) ALL AREAS DISTURBED DUE TO SITE ACCESS SHALL BE RESTORED TO THE PRECONSTRUCTION CONDITION OR BETTER.
- H) BACKFILL AND COMPACTION: ALL BACKFILL SHALL BE CLEAN, FREE OF LARGE ROCKS, DEBRIS AND ORGANIC MATERIAL. COMPACT ALL BACKFILL TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST, ASTM D-1557. BACKFILL SHALL BE PLACED IN A MAXIMUM OF 12" LIFTS.
- I) STORM SEWER CATCH BASINS AND OUTLET STRUCTURES TO BE 4' DIA., UNLESS OTHERWISE NOTED. ALL CATCH BASINS SHALL HAVE A 2' DEEP SUMP. CATCH BASIN GRATE SHALL BE E.J.I.W. #7045 TYPE M1 IN CURB AND GUTTER AREAS AND E.J.I.W. #7065 IN VALLEY GUTTER AREAS.

SITE CONCRETE FLATWORK

A) MATERIALS: READY MIXED CONCRETE: ASTM C94. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 3,500 PSI FOR ALL EXTERIOR CONCRETE. 1. SLUMP RANGE: 2 INCHES TO 4 INCHES. 2. AIR CONTENT: 4 PERCENT TO 7 PERCENT. 3. LIMESTONE AGGREGATE SHALL BE USED.

B) CURING MATERIAL: ASTM C171 WHITE, OPAQUE POLYETHYLENE FILM TYPE.

C) EXPANSION JOINT FILLERS: SHALL BE ASTM D1751 PREFORMED, BITUMINOUS FIBER TYPE WITH EXPANSION BOARD CAP AND REMOVABLE TOP CAP SECTION.

D) CONCRETE SEALER: SEALANT TO BE 2-PART URETHANE PAVING SEALANT. SEALANT TO BE POURABLE, CHEMICALLY CURING COMPLYING WITH FS 55-5-200 WITH MINIMUM MOVEMENT CAPABILITY OF 12.5 PERCENT. HYDRO20, ENVIROSEAL 40.

E) CONSTRUCTION JOINTS FLATWORK 1) MAXIMUM DISTANCE BETWEEN EXPANSION JOINTS 100 FEET, UNLESS OTHERWISE SHOWN. SCORE CONTROL JOINTS EQUAL TO THE WIDTH OF THE WALK, OR DRIVE BUT NOT TO EXCEED THE LESSER OF 12 FEET OR 24 TIMES THE THICKNESS. 2) INSTALL EXPANSION JOINTS MATERIAL AT ABUTMENT TO CURBS AND ADJACENT STRUCTURES, UNLESS OTHERWISE SHOWN.

F) CONSTRUCTION JOINTS CURBS AND GUTTERS 1) MAXIMUM CONSTRUCTION BETWEEN EXPANSION JOINTS 20 FEET, STRAIGHT CURB 10 FEET.

G) PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAIL SHOWN ON THIS DRAWING.

H) PRIOR TO PLACEMENT OF GRAVEL, THE SAND SUBBASE SHALL BE ROLLED TO OBTAIN A MINIMUM OF 95% OF MAXIMUM DENSITY PER THE MODIFIED PROCTOR TEST, ASTM D-1557

I) PRIOR TO PLACEMENT OF ASPHALT, THE GRAVEL SHALL BE PROOF ROLLED AND COMPACTED TO 98% OF MAXIMUM UNIT DENSITY PER THE MODIFIED PROCTOR TEST, ASTM D-1557

STRIPING

- A) PARKING LOT STRIPING SHOULD FOLLOW THE BELOW COLOR SCHEDULE.
- PARKING AND STORAGE LOT STALLS SHOULD BE STRIPED IN YELLOW PAINT.
- BARRIER-FREE STALLS SHOULD BE STRIPED IN BLUE PAINT

B) FOR UNCURED SURFACES USE SETFAST WATERBORNE TRAFFIC MARKING PAINT.

REVISIONS:

DRAWN BY: VS
APPROVED BY: MC
DATE: JULY 28, 2026
REVISIONS:

Roosien & Associates
SURVEYING AND ENGINEERING

DETAIL PLAN
CULVERS - VIENNA
PART OF SECTION 16 T9N, R6E
VIENNA TOWNSHIP, GENESEE COUNTY, MI

CLIENT:
ODW MANAGEMENT
PO BOX 478
ST JOHNS, MI 48879

PROJECT NO.
220423

C-501