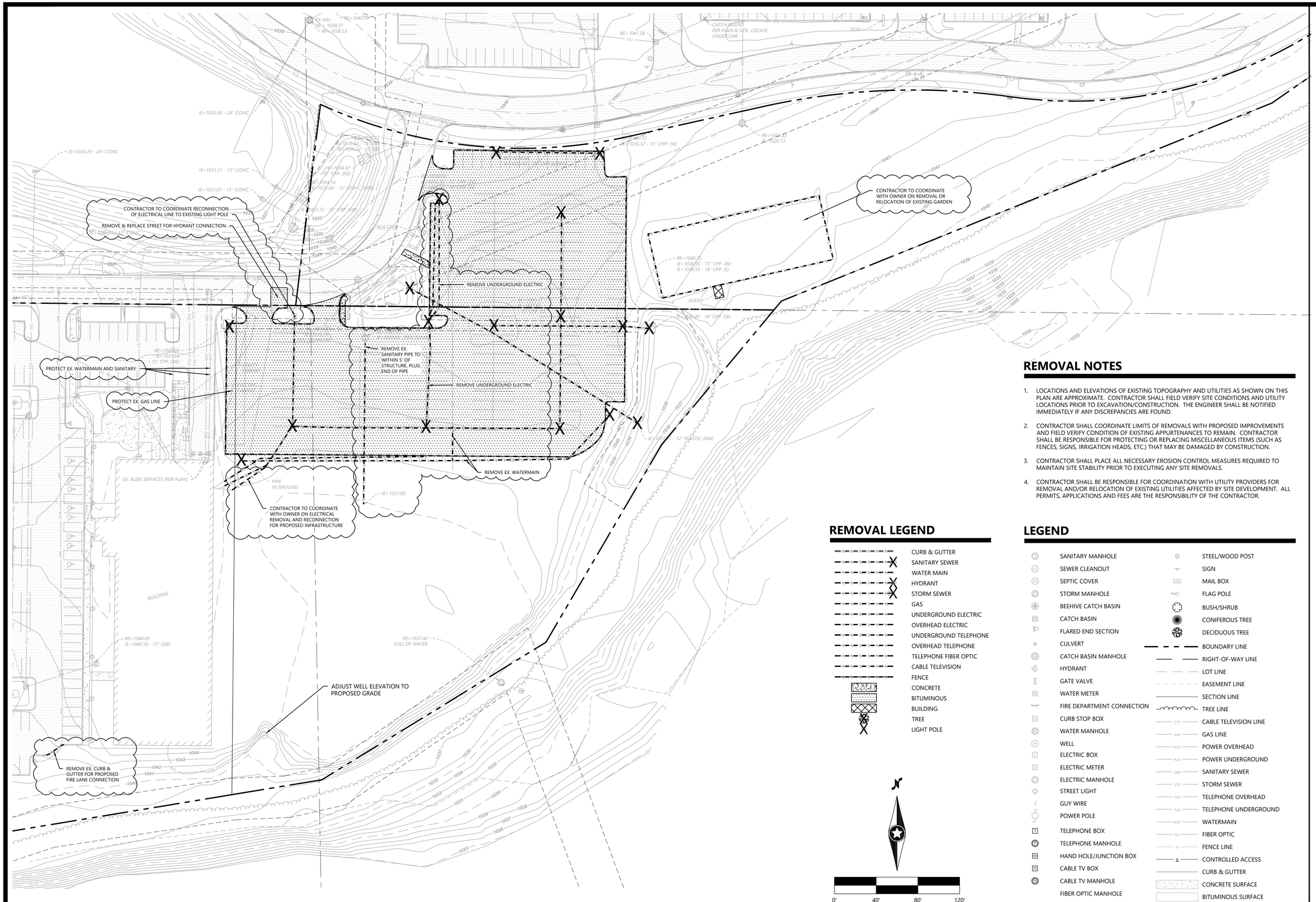

REMOVAL NOTES

1. LOCATIONS AND ELEVATIONS OF EXISTING TOPOGRAPHY AND UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY SITE CONDITIONS AND UTILITY LOCATIONS PRIOR TO EXCAVATION/CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
2. CONTRACTOR SHALL COORDINATE LIMITS OF REMOVALS WITH PROPOSED IMPROVEMENTS AND FIELD VERIFY CONDITION OF EXISTING APPURTENANCES TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING OR REPLACING MISCELLANEOUS ITEMS (SUCH AS FENCES, SIGNS, IRRIGATION HEADS, ETC.) THAT MAY BE DAMAGED BY CONSTRUCTION.
3. CONTRACTOR SHALL PLACE ALL NECESSARY EROSION CONTROL MEASURES REQUIRED TO MAINTAIN SITE STABILITY PRIOR TO EXECUTING ANY SITE REMOVALS.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITY PROVIDERS FOR REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES AFFECTED BY SITE DEVELOPMENT. ALL PERMITS, APPLICATIONS AND FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

REMOVAL LEGEND

- CURB & GUTTER
- SANITARY SEWER
- WATER MAIN
- HYDRANT
- STORM SEWER
- GAS
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- UNDERGROUND TELEPHONE
- OVERHEAD TELEPHONE
- TELEPHONE FIBER OPTIC
- CABLE TELEVISION
- FENCE
- CONCRETE
- BITUMINOUS
- BUILDING
- TREE
- LIGHT POLE

0' 40' 80' 120'

FOR PERMIT

LEGEND

- SANITARY MANHOLE
- SEWER CLEANOUT
- SEPTIC COVER
- STORM MANHOLE
- BEEHIVE CATCH BASIN
- CATCH BASIN
- FLARED END SECTION
- CULVERT
- CATCH BASIN MANHOLE
- HYDRANT
- GATE VALVE
- WATER METER
- FIRE DEPARTMENT CONNECTION
- CURB STOP BOX
- WATER MANHOLE
- WELL
- ELECTRIC BOX
- ELECTRIC METER
- ELECTRIC MANHOLE
- STREET LIGHT
- GUY WIRE
- POWER POLE
- TELEPHONE BOX
- TELEPHONE MANHOLE
- HAND HOLE/JUNCTION BOX
- CABLE TV BOX
- CABLE TV MANHOLE
- FIBER OPTIC MANHOLE
- FIBER OPTIC PEDESTAL
- STEEL/WOOD POST
- SIGN
- MAIL BOX
- FLAG POLE
- BUSH/SHRUB
- CONIFEROUS TREE
- DECIDUOUS TREE
- BOUNDARY LINE
- RIGHT-OF-WAY LINE
- LOT LINE
- EASEMENT LINE
- SECTION LINE
- TREE LINE
- CTV — CABLE TELEVISION LINE
- GAS — GAS LINE
- POH — POWER OVERHEAD
- PUG — POWER UNDERGROUND
- SAN — SANITARY SEWER
- STO — STORM SEWER
- TOH — TELEPHONE OVERHEAD
- TUG — TELEPHONE UNDERGROUND
- WAT — WATERMAIN
- FO — FIBER OPTIC
- X — FENCE LINE
- Δ — CONTROLLED ACCESS
- CURB & GUTTER
- CONCRETE SURFACE
- BITUMINOUS SURFACE
- GRAVEL SURFACE

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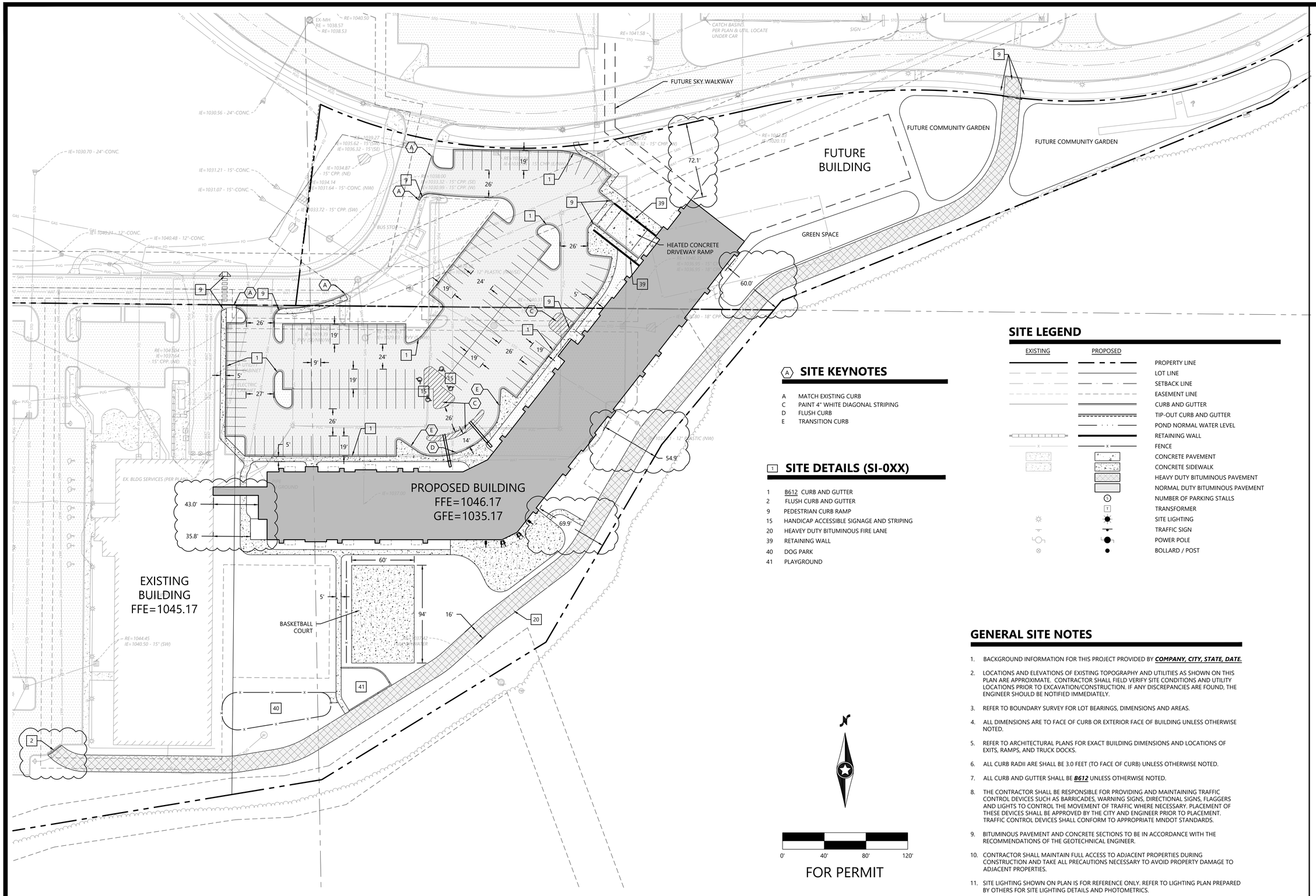
DATE 8/02/2024 LICENSE NO. 24755

No.	Revision / Issue	Date
2	CITY COMMENTS	8/02/24
1	BP# ADD#1	7/19/24

Project Name and Address
CCH MED SCHOOL HOUSING
160X CO HWY 134
ST CLOUD, MN 56303
BRADBURY STAMM CONS.
CHRIS KOEPP
(320) 253-2411

Project 2401
Date 07/16/2024
Scale AS INDICATED
Sheet EXISTING CONDITIONS & REMOVAL PLAN

C1



SITE KEYNOTES

A MATCH EXISTING CURB
C PAINT 4" WHITE DIAGONAL STRIPING
D FLUSH CURB
E TRANSITION CURB

1 SITE DETAILS (SI-0XX)

1 B612 CURB AND GUTTER
2 FLUSH CURB AND GUTTER
9 PEDESTRIAN CURB RAMP
15 HANDICAP ACCESSIBLE SIGNAGE AND STRIPING
20 HEAVY DUTY BITUMINOUS FIRE LANE
39 RETAINING WALL
40 DOG PARK
41 PLAYGROUND

SITE LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		SETBACK LINE
		EASEMENT LINE
		CURB AND GUTTER
		TIP-OUT CURB AND GUTTER
		POND NORMAL WATER LEVEL
		RETAINING WALL
		FENCE
		CONCRETE PAVEMENT
		CONCRETE SIDEWALK
		HEAVY DUTY BITUMINOUS PAVEMENT
		NORMAL DUTY BITUMINOUS PAVEMENT
		NUMBER OF PARKING STALLS
		TRANSFORMER
		SITE LIGHTING
		TRAFFIC SIGN
		POWER POLE
		BOLLARD / POST

GENERAL SITE NOTES

1. BACKGROUND INFORMATION FOR THIS PROJECT PROVIDED BY ***COMPANY, CITY, STATE, DATE.***
2. LOCATIONS AND ELEVATIONS OF EXISTING TOPOGRAPHY AND UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY SITE CONDITIONS AND UTILITY LOCATIONS PRIOR TO EXCAVATION/CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND, THE ENGINEER SHOULD BE NOTIFIED IMMEDIATELY.
3. REFER TO BOUNDARY SURVEY FOR LOT BEARINGS, DIMENSIONS AND AREAS.
4. ALL DIMENSIONS ARE TO FACE OF CURB OR EXTERIOR FACE OF BUILDING UNLESS OTHERWISE NOTED.
5. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND LOCATIONS OF EXITS, RAMPS, AND TRUCK DOCKS.
6. ALL CURB RADII ARE SHALL BE 3.0 FEET (TO FACE OF CURB) UNLESS OTHERWISE NOTED.
7. ALL CURB AND GUTTER SHALL BE ***B612*** UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGGERS AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE CITY AND ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MNDOT STANDARDS.
9. BITUMINOUS PAVEMENT AND CONCRETE SECTIONS TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
10. CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES.
11. SITE LIGHTING SHOWN ON PLAN IS FOR REFERENCE ONLY. REFER TO LIGHTING PLAN PREPARED BY OTHERS FOR SITE LIGHTING DETAILS AND PHOTOMETRICS.

0' 40' 80' 120'

FOR PERMIT

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Graeme H. Mahler
DATE 8/02/2024 LICENSE NO. 24755

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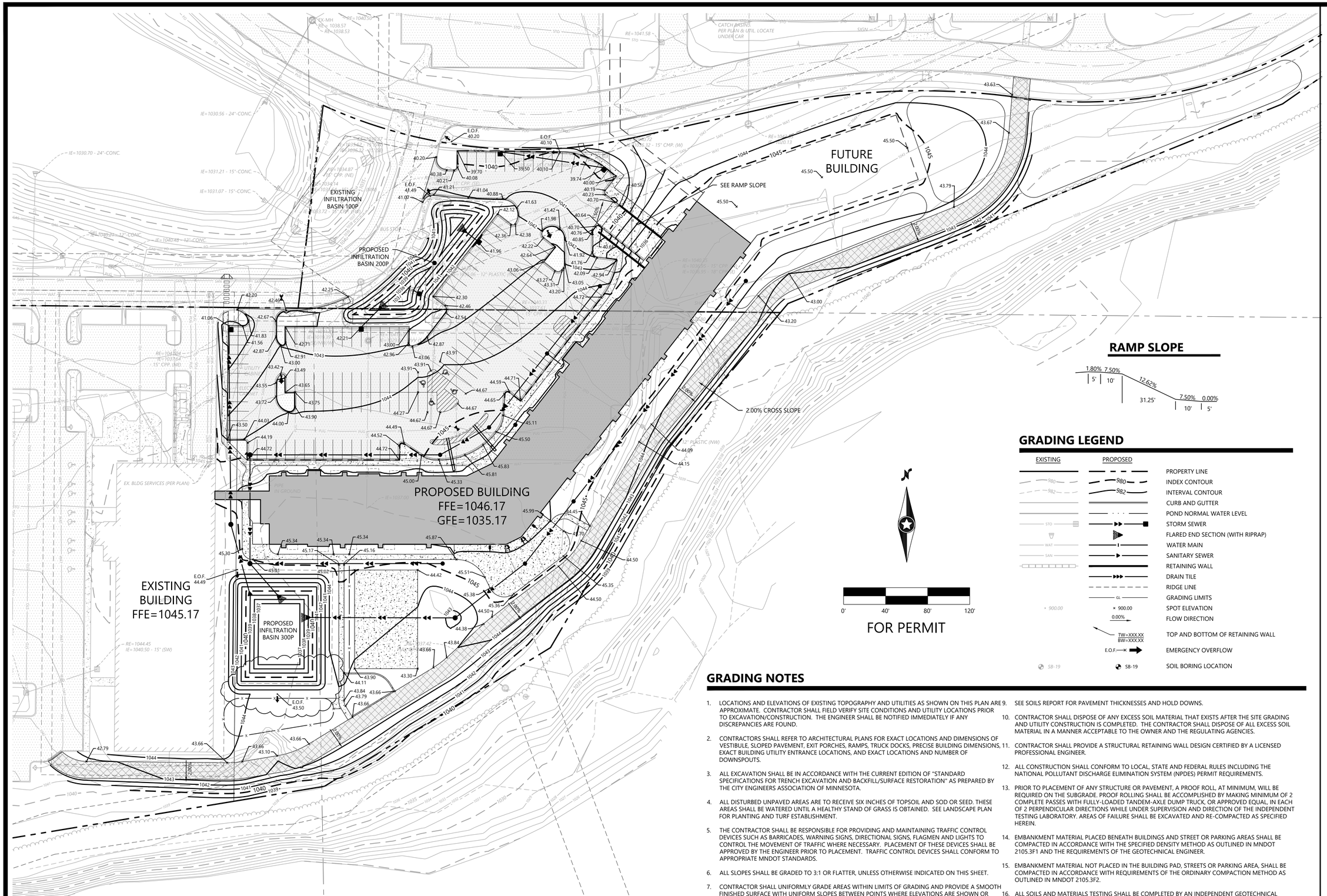
BRADBURY STAMM CONS.
CHRIS KOEPP
(320) 253-2411

Project 2401
Date 07/16/2024
Scale AS INDICATED
Sheet SITE PLAN

C2



RAMP SLOPE

GRADING LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
980	980	INDEX CONTOUR
982	982	INTERVAL CONTOUR
		CURB AND GUTTER
		POND NORMAL WATER LEVEL
STO		STORM SEWER
		FLARED END SECTION (WITH RIPRAP)
WAT		WATER MAIN
SAN		SANITARY SEWER
		RETAINING WALL
		DRAIN TILE
		RIDGE LINE
	GL	GRADING LIMITS
+ 900.00	× 900.00	SPOT ELEVATION
	0.00%	FLOW DIRECTION
	TW=XXX.XX BW=XXX.XX	TOP AND BOTTOM OF RETAINING WALL
	E.O.F.	EMERGENCY OVERFLOW
SB-19	SB-19	SOIL BORING LOCATION

0' 40' 80' 120'

FOR PERMIT

GRADING NOTES

1. LOCATIONS AND ELEVATIONS OF EXISTING TOPOGRAPHY AND UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY SITE CONDITIONS AND UTILITY LOCATIONS PRIOR TO EXCAVATION/CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
2. CONTRACTORS SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULE, SLOPED PAVEMENT, EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY ENTRANCE LOCATIONS, AND EXACT LOCATIONS AND NUMBER OF DOWNSPOUTS.
3. ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR TRENCH EXCAVATION AND BACKFILL/SURFACE RESTORATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
4. ALL DISTURBED UNPAVED AREAS ARE TO RECEIVE SIX INCHES OF TOPSOIL AND SOD OR SEED. THESE AREAS SHALL BE WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. SEE LANDSCAPE PLAN FOR PLANTING AND TURF ESTABLISHMENT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MNDOT STANDARDS.
6. ALL SLOPES SHALL BE GRADED TO 3:1 OR FLATTER, UNLESS OTHERWISE INDICATED ON THIS SHEET.
7. CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AND PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN OR BETWEEN SUCH POINTS AND EXISTING GRADES.
8. **SPOT ELEVATIONS SHOWN INDICATE FINISHED PAVEMENT ELEVATIONS & GUTTER FLOW LINE UNLESS OTHERWISE NOTED. PROPOSED CONTOURS ARE TO FINISHED SURFACE GRADE.**
9. SEE SOILS REPORT FOR PAVEMENT THICKNESSES AND HOLD DOWNS.
10. CONTRACTOR SHALL DISPOSE OF ANY EXCESS SOIL MATERIAL THAT EXISTS AFTER THE SITE GRADING AND UTILITY CONSTRUCTION IS COMPLETED. THE CONTRACTOR SHALL DISPOSE OF ALL EXCESS SOIL MATERIAL IN A MANNER ACCEPTABLE TO THE OWNER AND THE REGULATING AGENCIES.
11. CONTRACTOR SHALL PROVIDE A STRUCTURAL RETAINING WALL DESIGN CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER.
12. ALL CONSTRUCTION SHALL CONFORM TO LOCAL, STATE AND FEDERAL RULES INCLUDING THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.
13. PRIOR TO PLACEMENT OF ANY STRUCTURE OR PAVEMENT, A PROOF ROLL, AT MINIMUM, WILL BE REQUIRED ON THE SUBGRADE. PROOF ROLLING SHALL BE ACCOMPLISHED BY MAKING MINIMUM OF 2 COMPLETE PASSES WITH FULLY-LOADED TANDEM-AXLE DUMP TRUCK, OR APPROVED EQUAL, IN EACH OF 2 PERPENDICULAR DIRECTIONS WHILE UNDER SUPERVISION AND DIRECTION OF THE INDEPENDENT TESTING LABORATORY. AREAS OF FAILURE SHALL BE EXCAVATED AND RE-COMPACTED AS SPECIFIED HEREIN.
14. EMBANKMENT MATERIAL PLACED BENEATH BUILDINGS AND STREET OR PARKING AREAS SHALL BE COMPACTED IN ACCORDANCE WITH THE SPECIFIED DENSITY METHOD AS OUTLINED IN MNDOT 2105.3F1 AND THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER.
15. EMBANKMENT MATERIAL NOT PLACED IN THE BUILDING PAD, STREETS OR PARKING AREA, SHALL BE COMPACTED IN ACCORDANCE WITH REQUIREMENTS OF THE ORDINARY COMPACTION METHOD AS OUTLINED IN MNDOT 2105.3F2.
16. ALL SOILS AND MATERIALS TESTING SHALL BE COMPLETED BY AN INDEPENDENT GEOTECHNICAL ENGINEER. EXCAVATION FOR THE PURPOSE OF REMOVING UNSTABLE OR UNSUITABLE SOILS SHALL BE COMPLETED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOILS TESTS AND INSPECTIONS WITH THE GEOTECHNICAL ENGINEER.

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CHRIS KOEPP
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Project 2401
Date 07/16/2024
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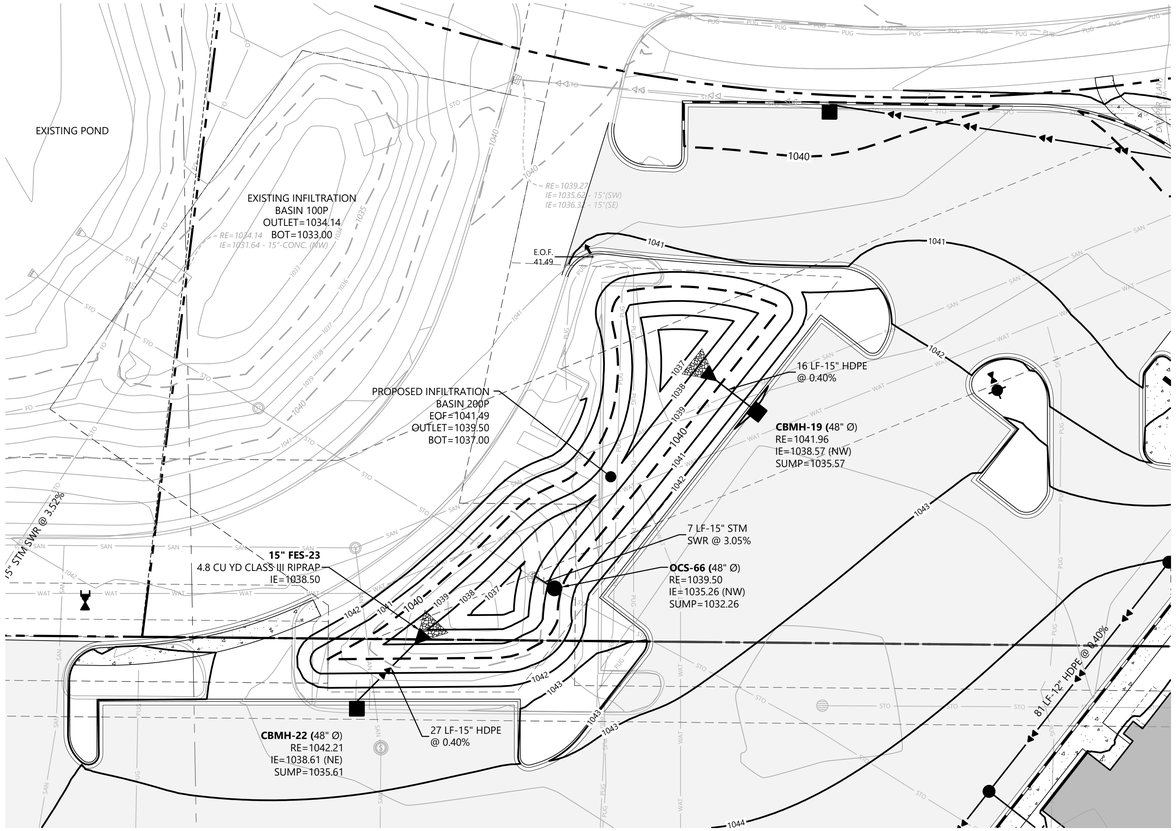
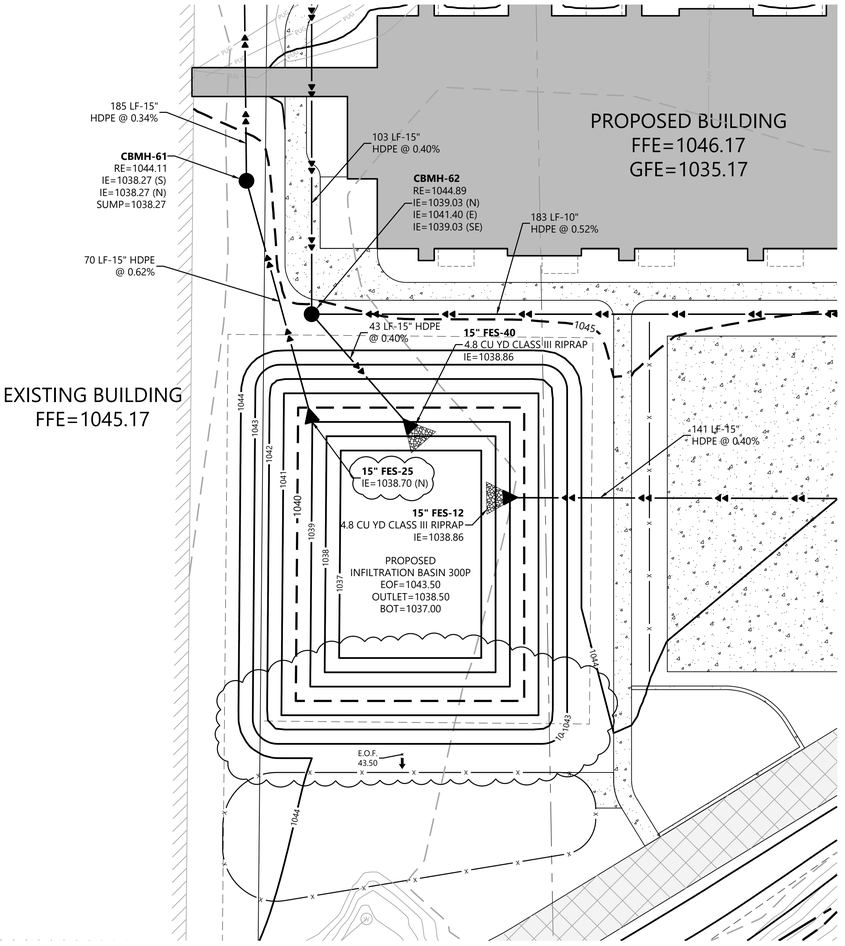
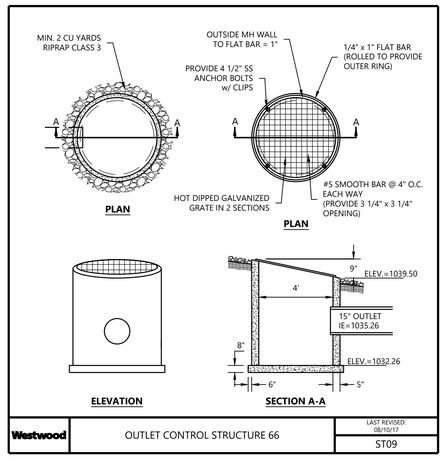




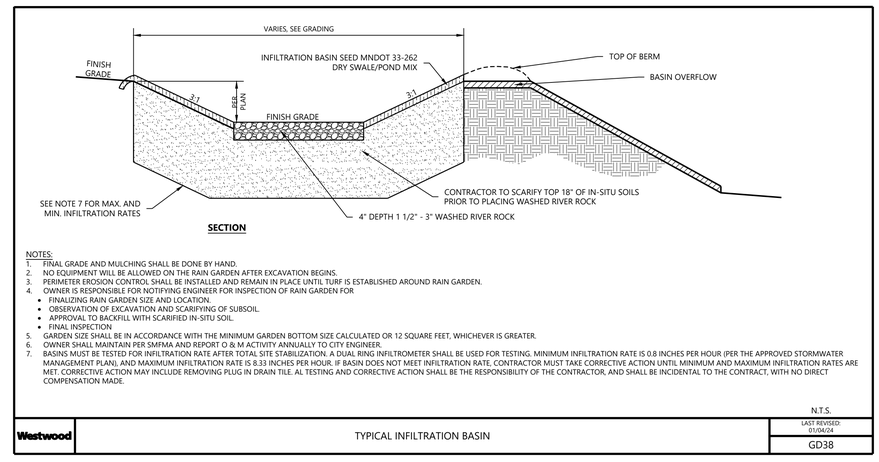
FILTRATION/INFILTRATION BASIN NOTES

1. BASIN EXCAVATION AND PIPE INSTALLATION MAY TAKE PLACE BEFORE CURB INSTALLATION. ALL OTHER BASIN CONSTRUCTION MUST WAIT UNTIL FINAL SITE LANDSCAPING. REMOVE SEDIMENT FROM EXCAVATED BASIN PRIOR TO PLACEMENT OF FILTER MEDIA. PLACE SAND BAGS OR SIMILAR ITEM IN CURB CUTS TO PRE-FILTER STORM WATER UNTIL PLANTS ARE ESTABLISHED IN BASINS. MAINTAIN INLET PROTECTION ON DOWN STREAM INLETS UNTIL BASINS ARE ON-LINE.
2. BASIN EXCAVATION SHALL BE WITH TOOTHED-BUCKETS TO SCARIFY THE BOTTOM.
3. PLACE SILT FENCE AROUND BASINS AS SHOWN IMMEDIATELY AFTER BASIN CONSTRUCTION.
4. DOUBLE RING INFILTROMETER TESTS MUST BE COMPLETED PRIOR TO INSTALLATION OF THE INFILTRATION SYSTEMS. RESULTS MUST BE APPROVED BY THE CITY PRIOR TO INSTALLATION. MINIMUM INFILTRATION RATE IS 0.8-INCH PER HOUR (PER THE APPROVED STORMWATER MANAGEMENT PLAN), AND THE MAXIMUM INFILTRATION RATE IS 8.33 INCHES PER HOUR. IF BASIN DOES NOT MEET INFILTRATION RATE, CONTRACTOR MUST TAKE CORRECTIVE ACTION UNTIL MINIMUM/MAXIMUM INFILTRATION RATE IS MET. ALL TESTING AND CORRECTIVE ACTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE INCIDENTAL TO THE CONTRACT, WITH NO DIRECT COMPENSATION MADE.

BMP Summary Table	
Proposed Project Area = 6.416 acres	**Impervious Drainage Area to BMPS**
Existing Impervious Area = 89,813 SF	100P – 32,185 SF
Existing Pervious Area = 189,657 SF	200P – 40,742 SF
	300P – 48,914 SF
Proposed Impervious Area = 144,808 SF	
Incl. Disconnected Imp. (Fire Lane) = 19,551 SF	Pervious Drainage to BMPS = 62,295 SF
Proposed Pervious Area = 134,662 SF	
	Design Infiltration Rate = 0.8"/hr (per MN Stormwater Manual)
New Impervious Area = 134,566 SF	
Existing Impervious to remain = 10,242 SF	**Time of Infiltration:**
	Basin 100P: 1.14' / 0.8 in/hr = 17.1 hr
Required Volume Reduction:	Basin 200P: 2.5' / 0.8 in/hr = 37.5 hr
125,257 SF (Proposed Imp – Disconnected Imp.) x 1" = 10,438 CF	Basin 300P: 1.5' / 0.8 in/hr = 22.5 hr
Provided Infiltration Volume (3 BMPS):	**Depth to Groundwater**
Basin 100P – 2079 CF (see calcs in report)	Basin 100P: more than 5.6' (no water encountered in Boring B-236)
Basin 200P – 3432 CF (see calcs in report)	Basin 200P: 10.8' (Boring B-237)
Basin 300P – 5146 CF (see calcs in report)	Basin 300P: more than 9.0' (no water encountered in Boring B-223)
Total Provided Volume = 10,657 CF	



Westwood | OUTLET CONTROL STRUCTURE 66 | LAST REVISED: 08/10/17 | ST09



NOTES:
1. FINAL GRADE AND MULCHING SHALL BE DONE BY HAND.
2. NO EQUIPMENT WILL BE ALLOWED ON THE RAIN GARDEN AFTER EXCAVATION BEGINS.
3. PERIMETER EROSION CONTROL SHALL BE INSTALLED AND REMAIN IN PLACE UNTIL TURF IS ESTABLISHED AROUND RAIN GARDEN.
4. OWNER IS RESPONSIBLE FOR NOTIFYING ENGINEER FOR INSPECTION OF RAIN GARDEN FOR
   - FINALIZING RAIN GARDEN SIZE AND LOCATION.
   - OBSERVATION OF EXCAVATION AND SCARIFYING OF SUBSOIL.
   - APPROVAL TO BACKFILL WITH SCARIFIED IN-SITU SOIL.
   - FINAL INSPECTION
5. GARDEN SIZE SHALL BE IN ACCORDANCE WITH THE MINIMUM GARDEN BOTTOM SIZE CALCULATED OR 12 SQUARE FEET, WHICHEVER IS GREATER.
6. OWNER SHALL MAINTAIN PER SMFMA AND REPORT O & M ACTIVITY ANNUALLY TO CITY ENGINEER.
7. BASINS MUST BE TESTED FOR INFILTRATION RATE AFTER TOTAL SITE STABILIZATION. A DUAL RING INFILTROMETER SHALL BE USED FOR TESTING. MINIMUM INFILTRATION RATE IS 0.8 INCHES PER HOUR (PER THE APPROVED STORMWATER MANAGEMENT PLAN), AND MAXIMUM INFILTRATION RATE IS 8.33 INCHES PER HOUR. IF BASIN DOES NOT MEET INFILTRATION RATE, CONTRACTOR MUST TAKE CORRECTIVE ACTION UNTIL MINIMUM AND MAXIMUM INFILTRATION RATES ARE MET. CORRECTIVE ACTION MAY INCLUDE REMOVING PLUG IN DRAIN TILE. AL TESTING AND CORRECTIVE ACTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE INCIDENTAL TO THE CONTRACT, WITH NO DIRECT COMPENSATION MADE.

N.T.S.

Westwood | TYPICAL INFILTRATION BASIN | LAST REVISED: 01/04/24 | GD38

0' 20' 40' 60'

FOR PERMIT

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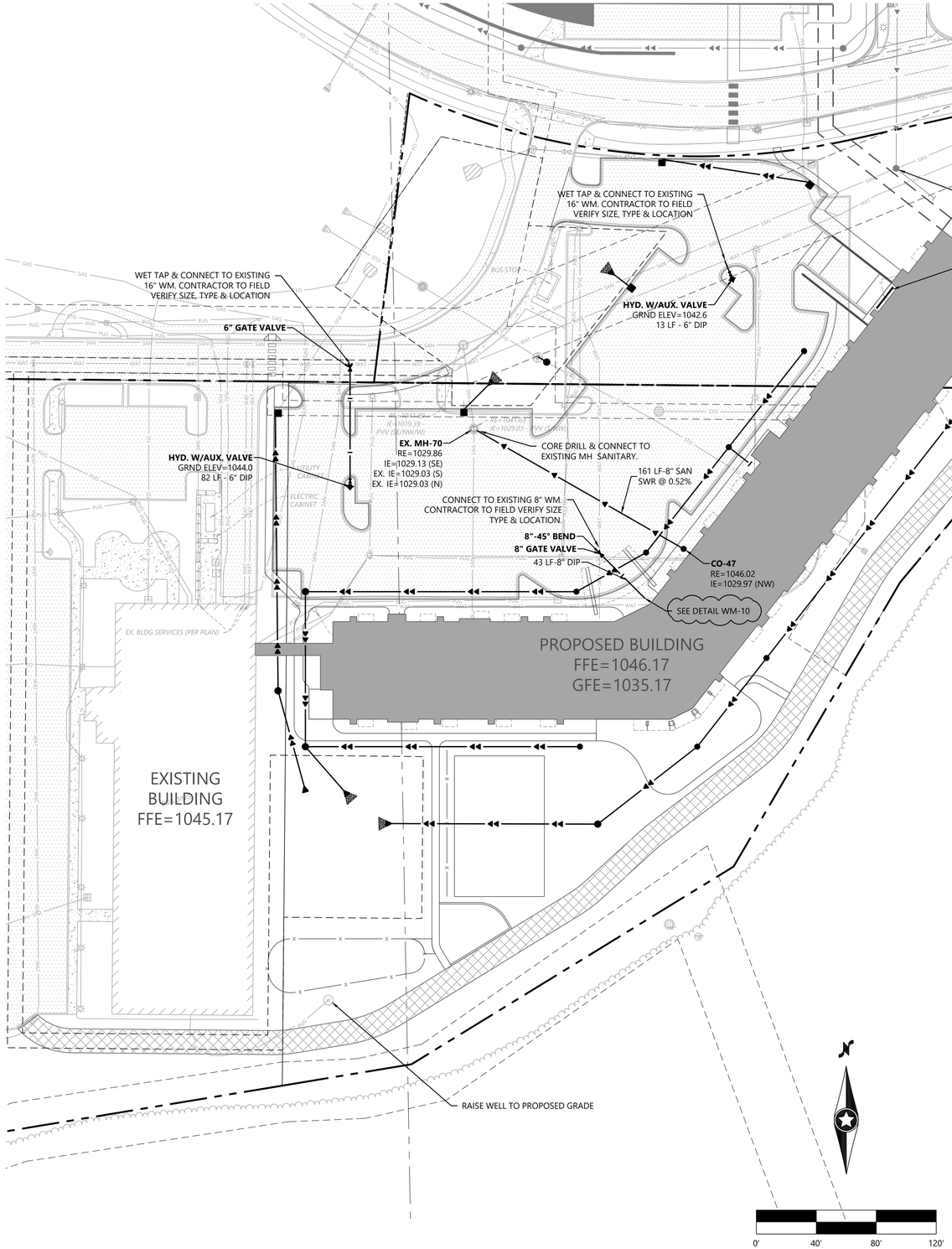
Scale AS INDICATED
Sheet
POND DETAIL

C4



FOR PERMIT

SANITARY SEWER AND WATERMAIN LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		EASEMENT LINE
		CURB AND GUTTER
SAN	SAN	SANITARY SEWER
FM	FM	SANITARY SEWER FORCE MAIN
STO	STO	STORM SEWER
WAT	WAT	WATER MAIN
WAT	WAT	HYDRANT
GAS	GAS	GAS
PUG	PUG	UNDERGROUND ELECTRIC
POH	POH	OVERHEAD ELECTRIC
TUG	TOH	UNDERGROUND TELEPHONE
TOH	TOH	OVERHEAD TELEPHONE
FO	FO	TELEPHONE FIBER OPTIC
CTV	CTV	CABLE TELEVISION
DT		DRAIN TILE
		GATE VALVE
		FLARED END SECTION (WITH RIPRAP)
		LIGHT POLE

GENERAL WATERMAIN & SANITARY SEWER NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.
2. ALL SANITARY SEWER AND WATER MAIN MATERIAL AND INSTALLATIONS SHALL BE PER CITY REQUIREMENTS, MINNESOTA PLUMBING CODE, AND IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THE NECESSARY FEDERAL, STATE AND LOCAL PERMITS FOR THE PROPOSED WORK OR VERIFY WITH THE OWNER OR ENGINEER THAT PERMITS HAVE BEEN OBTAINED. PERMIT FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE ARRANGED WITH THE OWNER.
4. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF DOORWAYS, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY CONNECTION LOCATIONS.
5. ALL PRIVATE UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE SERVICE LINE CONSTRUCTION WITH THE UTILITY COMPANIES.
6. CONTRACTOR SHALL OBTAIN ALL NECESSARY CITY PERMITS FOR UTILITY CONNECTIONS, AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48-HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. WATER MAIN LENGTHS AS SHOWN ARE APPROXIMATE HORIZONTAL LENGTHS. ALLOW FOR ADDITIONAL PIPE WHEN INSTALLING ON SLOPES OR WHEN DEFLECTIONS ARE REQUIRED. THE JOINT DEFLECTIONS SHALL NOT EXCEED THE MAXIMUM RECOMMENDED BY THE PIPE MANUFACTURER OR BY LOCAL GOVERNING SPECIFICATIONS. FITTINGS REQUIRED TO CONSTRUCT WATER MAIN SHALL BE INCLUDED IN WATER MAIN CONSTRUCTION.
8. PROVIDE WATER MAIN THRUST RESTRAINTS PER CITY STANDARD REQUIREMENTS.
9. A MINIMUM VERTICAL SEPARATION OF 18 INCHES IS REQUIRED AT ALL WATER LINE CROSSINGS WITH SANITARY SEWER OR STORM SEWER AND WATER LINES SHALL CROSS ABOVE ANY SEWER. IF THIS IS NOT ACHIEVABLE, SANITARY AND STORM SEWER SHALL BE CONSTRUCTED OF A MATERIAL APPROVED FOR USE WITHIN A BUILDING AND AS LISTED IN TABLE 701.2 OF THE MINNESOTA PLUMBING CODE. THE WATER LINE SHALL NOT HAVE JOINTS OR CONNECTION WITHIN 10-FEET OF THE CROSSING. INSULATE CROSSINGS WITH STORM SEWER.
10. UTILITY SERVICES TYPICALLY TERMINATE 5' OUTSIDE BUILDING WALL UNLESS OTHERWISE SHOWN OR NOTED.
11. DUCTILE IRON WATER LINES SHALL BE CLASS 52, PER AWWA C115 OR C151. COPPER WATER LINES SHALL BE TYPE K PER ASTM B88. PVC WATER LINES SHALL BE PER AWWA C900 AND INSTALLED PER AWWA C605 IF ALLOWED BY CITY.
12. ALL WATER LINES SHALL HAVE 8' MINIMUM COVER. INSULATE WATER MAIN IF LESS THAN 8' OF COVER. INSULATION SHALL BE DOW STYROFOAM HI BRAND 35 OR EQUIVALENT, WITH 4 INCHES OF THICKNESS.
13. SANITARY SEWER PIPE OUTSIDE THE BUILDING ENVELOPE AND NOT WITHIN 10' OF A WATER LINE SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 OR 26. SDR 26 IS REQUIRED FOR DEPTHS GREATER THAN 15 FEET. SANITARY SEWER PIPE WITHIN 10 FEET OF THE BUILDING AND UNDER FOOTINGS, AND WITHIN 10 FEET OF A WATER LINE SHALL BE SCHEDULE 40 PER ASTM D2665. ALL PLASTIC SANITARY SEWER SHALL BE INSTALLED PER D2321. SOLVENT WELD JOINTS MUST INCLUDE USE OF A PRIMER WHICH IS OF A CONTRASTING COLOR TO THE PIPE AND CEMENT. ALL SANITARY SEWER SHALL BE TESTED ACCORDING TO MINNESOTA PLUMBING CODE, PART 712.0.
14. ALL NONCONDUCTIVE PIPE SHALL BE INSTALLED WITH A LOCATE (TRACER) WIRE PER MINNESOTA PLUMBING CODE, PART 604.10.1.
15. POST INDICATOR VALVES SHALL BE CLOW F-5750 (OR EQUIVALENT) MEETING AWWA STANDARD C509 AND CITY STANDARDS. VALVE TO BE MECHANICAL JOINT RESILIENT WEDGE GATE VALVE. POST TO BE ADJUSTABLE FOR 8 FEET WATER MAIN DEPTH. THE ELECTRICAL ALARM SWITCH SHALL BE PART NO. PCVS2 (OR EQUIVALENT).
16. AFTER CONSTRUCTION IS COMPLETED, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH AN AS-BUILT RECORD OF UTILITY CONSTRUCTION. THE AS-BUILT SHALL INCLUDE LOCATION AND LENGTH DEVIATIONS OR CHANGES TO THE PLAN. CONTRACTOR TO VERIFY WITH OWNER OR ENGINEER WHETHER A PLAN WITH POST-CONSTRUCTION ELEVATIONS IS REQUIRED.
17. ALL MANHOLE CASTINGS IN PAVED AREAS SHALL BE SUMPED 0.05 FEET. RIM ELEVATIONS ON PLAN REFLECT THE SUMPED ELEVATIONS.
18. ALL PUBLIC AND PRIVATE WATERMAIN VALVES, HYDRANTS, AND SANITARY SEWER MANHOLES/CLEANOUTS SHALL BE ALWAYS PROTECTED AND REMAIN FULLY ACCESSIBLE.
19. ANY DEBRIS (SOILS, ROCKS, ETC.) SHALL BE REMOVED FROM GATE VALVE BOXES AND SANITARY STRUCTURES BY THE CONTRACTOR LISTED ON THE LDP, AT THEIR COST, TO INSURE NO DISRUPTION IN OPERATION.
20. SHUTOFFS FOR REMOVALS OR CAPPING OF PRIVATE WATERMAIN SHALL BE COORDINATED A MINIMUM OF 24HOURS IN ADVANCE. ALL VALVES (PUBLIC AND PRIVATE) SHALL BE ONLY OPERATED BY THE CITY.
21. NO HYDRANT (PUBLIC NOR PRIVATE) SHALL BE USED WITHOUT A CITY ISSUED HYDRANT METER WITH BACKFLOW ASSEMBLY.

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DATE 8/02/2024 LICENSE NO. 24755

No.	Revision/Issue	Date
2	CITY COMMENTS	8/02/24
1	BP#1 ADD#1	7/19/24

Project Name and Address
CCH MED SCHOOL HOUSING
160X CO HWY 134
ST CLOUD, MN 56303
BRADBURY STAMM CONS.
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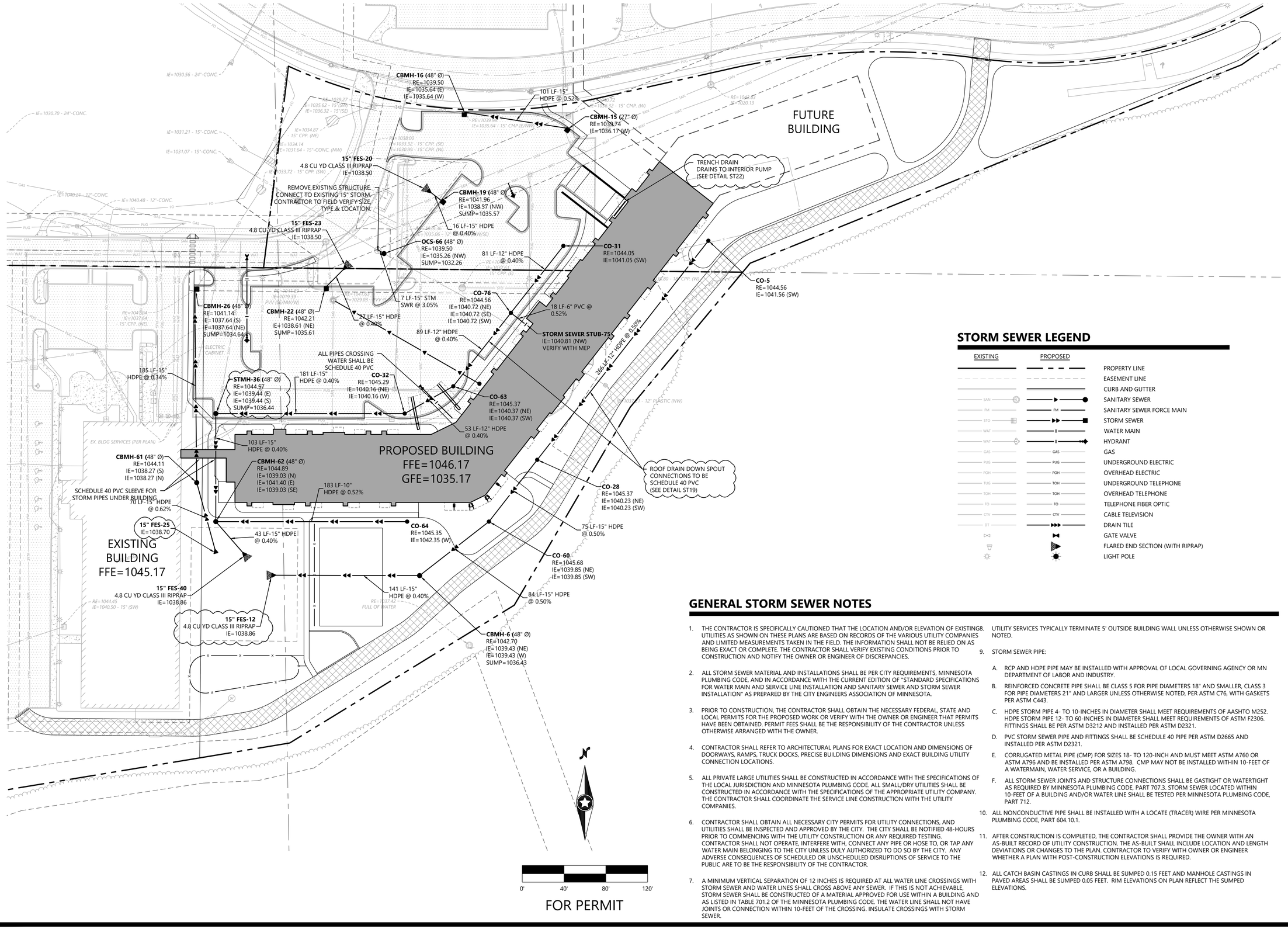
Project 2401
Date 07/16/2024
Scale AS INDICATED
Sheet
UTILITY PLAN



STORM SEWER LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		EASEMENT LINE
		CURB AND GUTTER
SAN	SAN	SANITARY SEWER
FM	FM	SANITARY SEWER FORCE MAIN
STO	STO	STORM SEWER
WAT	WAT	WATER MAIN
WAT	WAT	HYDRANT
GAS	GAS	GAS
PUG	PUG	UNDERGROUND ELECTRIC
POH	POH	OVERHEAD ELECTRIC
TUG	TOH	UNDERGROUND TELEPHONE
TOH	TOH	OVERHEAD TELEPHONE
FO	FO	TELEPHONE FIBER OPTIC
CTV	CTV	CABLE TELEVISION
DT		DRAIN TILE
		GATE VALVE
		FLARED END SECTION (WITH RIPRAP)
		LIGHT POLE

GENERAL STORM SEWER NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING8. UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.
2. ALL STORM SEWER MATERIAL AND INSTALLATIONS SHALL BE PER CITY REQUIREMENTS, MINNESOTA PLUMBING CODE, AND IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THE NECESSARY FEDERAL, STATE AND LOCAL PERMITS FOR THE PROPOSED WORK OR VERIFY WITH THE OWNER OR ENGINEER THAT PERMITS HAVE BEEN OBTAINED. PERMIT FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE ARRANGED WITH THE OWNER.
4. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF DOORWAYS, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY CONNECTION LOCATIONS.
5. ALL PRIVATE LARGE UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE LOCAL JURISDICTION AND MINNESOTA PLUMBING CODE. ALL SMALL/DRY UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE SERVICE LINE CONSTRUCTION WITH THE UTILITY COMPANIES.
6. CONTRACTOR SHALL OBTAIN ALL NECESSARY CITY PERMITS FOR UTILITY CONNECTIONS, AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48-HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. A MINIMUM VERTICAL SEPARATION OF 12 INCHES IS REQUIRED AT ALL WATER LINE CROSSINGS WITH STORM SEWER AND WATER LINES SHALL CROSS ABOVE ANY SEWER. IF THIS IS NOT ACHIEVABLE, STORM SEWER SHALL BE CONSTRUCTED OF A MATERIAL APPROVED FOR USE WITHIN A BUILDING AND AS LISTED IN TABLE 701.2 OF THE MINNESOTA PLUMBING CODE. THE WATER LINE SHALL NOT HAVE JOINTS OR CONNECTION WITHIN 10-FEET OF THE CROSSING. INSULATE CROSSINGS WITH STORM SEWER.

UTILITY SERVICES TYPICALLY TERMINATE 5' OUTSIDE BUILDING WALL UNLESS OTHERWISE SHOWN OR NOTED.

9. STORM SEWER PIPE:
   - A. RCP AND HDPE PIPE MAY BE INSTALLED WITH APPROVAL OF LOCAL GOVERNING AGENCY OR MN DEPARTMENT OF LABOR AND INDUSTRY.
   - B. REINFORCED CONCRETE PIPE SHALL BE CLASS 5 FOR PIPE DIAMETERS 18" AND SMALLER, CLASS 3 FOR PIPE DIAMETERS 21" AND LARGER UNLESS OTHERWISE NOTED, PER ASTM C76, WITH GASKETS PER ASTM C443.
   - C. HDPE STORM PIPE 4- TO 10-INCHES IN DIAMETER SHALL MEET REQUIREMENTS OF AASHTO M252. HDPE STORM PIPE 12- TO 60-INCHES IN DIAMETER SHALL MEET REQUIREMENTS OF ASTM F2306. FITTINGS SHALL BE PER ASTM D3212 AND INSTALLED PER ASTM D2321.
   - D. PVC STORM SEWER PIPE AND FITTINGS SHALL BE SCHEDULE 40 PIPE PER ASTM D2665 AND INSTALLED PER ASTM D2321.
   - E. CORRUGATED METAL PIPE (CMP) FOR SIZES 18- TO 120-INCH AND MUST MEET ASTM A760 OR ASTM A796 AND BE INSTALLED PER ASTM A798. CMP MAY NOT BE INSTALLED WITHIN 10-FEET OF A WATERMAIN, WATER SERVICE, OR A BUILDING.
   - F. ALL STORM SEWER JOINTS AND STRUCTURE CONNECTIONS SHALL BE GASTIGHT OR WATERTIGHT AS REQUIRED BY MINNESOTA PLUMBING CODE, PART 707.3. STORM SEWER LOCATED WITHIN 10-FEET OF A BUILDING AND/OR WATER LINE SHALL BE TESTED PER MINNESOTA PLUMBING CODE, PART 712.
10. ALL NONCONDUCTIVE PIPE SHALL BE INSTALLED WITH A LOCATE (TRACER) WIRE PER MINNESOTA PLUMBING CODE, PART 604.10.1.
11. AFTER CONSTRUCTION IS COMPLETED, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH AN AS-BUILT RECORD OF UTILITY CONSTRUCTION. THE AS-BUILT SHALL INCLUDE LOCATION AND LENGTH DEVIATIONS OR CHANGES TO THE PLAN. CONTRACTOR TO VERIFY WITH OWNER OR ENGINEER WHETHER A PLAN WITH POST-CONSTRUCTION ELEVATIONS IS REQUIRED.
12. ALL CATCH BASIN CASTINGS IN CURB SHALL BE SUMPED 0.15 FEET AND MANHOLE CASTINGS IN PAVED AREAS SHALL BE SUMPED 0.05 FEET. RIM ELEVATIONS ON PLAN RELECT THE SUMPED ELEVATIONS.

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James M. Sigfstead

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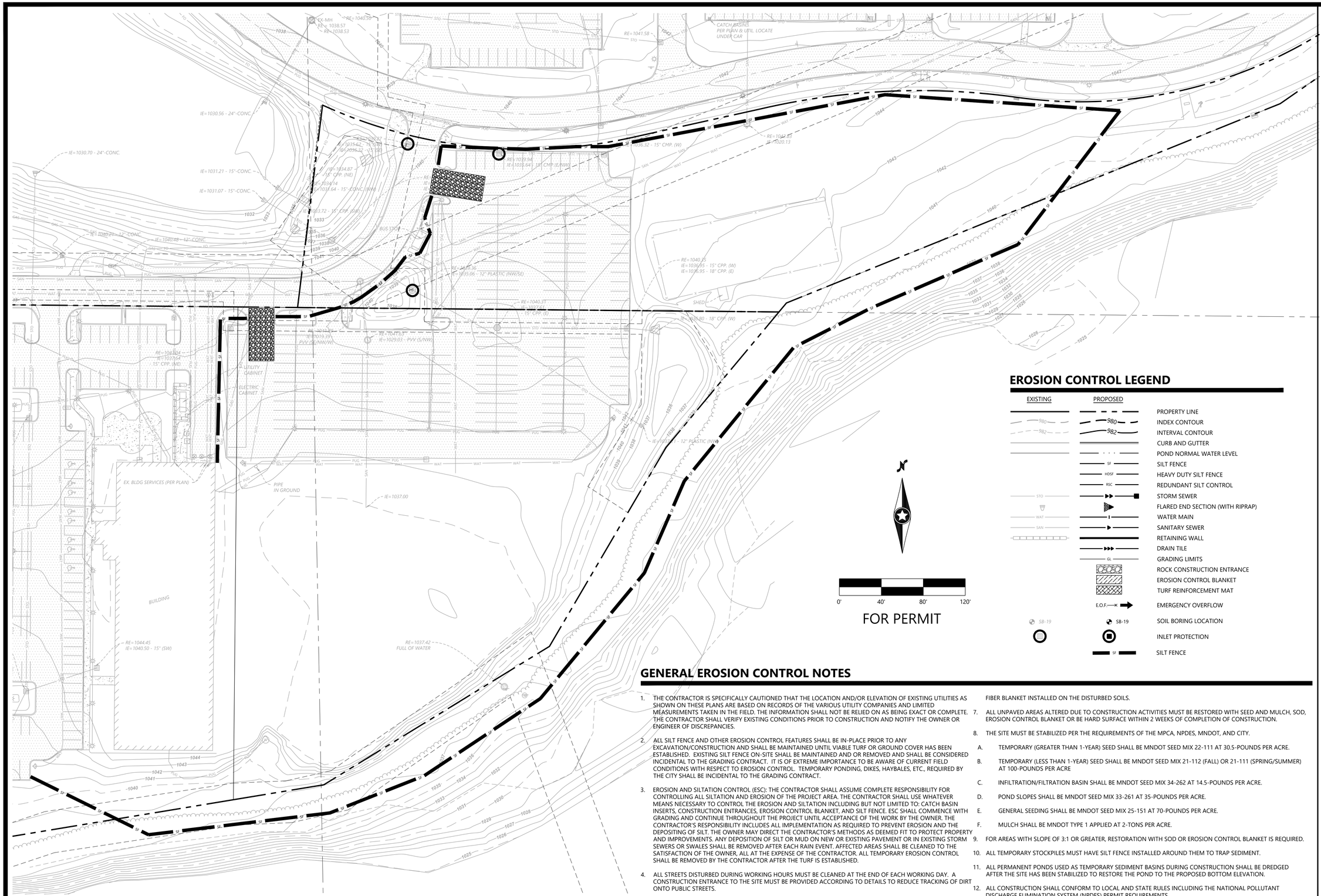
STORM SEWER PLAN



EROSION CONTROL LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
980	980	INDEX CONTOUR
982	982	INTERVAL CONTOUR
		CURB AND GUTTER
		POND NORMAL WATER LEVEL
	SF	SILT FENCE
	HDSF	HEAVY DUTY SILT FENCE
	RSC	REDUNDANT SILT CONTROL
STO		STORM SEWER
		FLARED END SECTION (WITH RIPRAP)
WAT		WATER MAIN
SAN		SANITARY SEWER
		RETAINING WALL
		DRAIN TILE
	GL	GRADING LIMITS
		ROCK CONSTRUCTION ENTRANCE
		EROSION CONTROL BLANKET
		TURF REINFORCEMENT MAT
	E.O.F.	EMERGENCY OVERFLOW
SB-19	SB-19	SOIL BORING LOCATION
		INLET PROTECTION
	SF	SILT FENCE

GENERAL EROSION CONTROL NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.

2. ALL SILT FENCE AND OTHER EROSION CONTROL FEATURES SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER HAS BEEN ESTABLISHED. EXISTING SILT FENCE ON-SITE SHALL BE MAINTAINED AND OR REMOVED AND SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONTRACT. IT IS OF EXTREME IMPORTANCE TO BE AWARE OF CURRENT FIELD CONDITIONS WITH RESPECT TO EROSION CONTROL. TEMPORARY PONDING, DIKES, HAYBALES, ETC., REQUIRED BY THE CITY SHALL BE INCIDENTAL TO THE GRADING CONTRACT.

3. EROSION AND SILTATION CONTROL (ESC); THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR CONTROLLING ALL SILTATION AND EROSION OF THE PROJECT AREA. THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO CONTROL THE EROSION AND SILTATION INCLUDING BUT NOT LIMITED TO: CATCH BASIN INSERTS, CONSTRUCTION ENTRANCES, EROSION CONTROL BLANKET, AND SILT FENCE. ESC SHALL COMMENCE WITH GRADING AND CONTINUE THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE OWNER. THE CONTRACTOR'S RESPONSIBILITY INCLUDES ALL IMPLEMENTATION AS REQUIRED TO PREVENT EROSION AND THE DEPOSITING OF SILT. THE OWNER MAY DIRECT THE CONTRACTOR'S METHODS AS DEEMED FIT TO PROTECT PROPERTY AND IMPROVEMENTS. ANY DEPOSITION OF SILT OR MUD ON NEW OR EXISTING PAVEMENT OR IN EXISTING STORM SEWERS OR SWALES SHALL BE REMOVED AFTER EACH RAIN EVENT. AFFECTED AREAS SHALL BE CLEANED TO THE SATISFACTION OF THE OWNER, ALL AT THE EXPENSE OF THE CONTRACTOR. ALL TEMPORARY EROSION CONTROL SHALL BE REMOVED BY THE CONTRACTOR AFTER THE TURF IS ESTABLISHED.

4. ALL STREETS DISTURBED DURING WORKING HOURS MUST BE CLEANED AT THE END OF EACH WORKING DAY. A CONSTRUCTION ENTRANCE TO THE SITE MUST BE PROVIDED ACCORDING TO DETAILS TO REDUCE TRACKING OF DIRT ONTO PUBLIC STREETS.

5. PROPOSED PONDS SHALL BE EXCAVATED FIRST AND USED AS TEMPORARY PONDING DURING CONSTRUCTION.

6. WHEN INSTALLING END-OF-LINE FLARED END SECTIONS, BRING THE SILT FENCE UP & OVER THE FLARED END SECTIONS & COVER DISTURBED AREAS WITH RIP RAP. THE UPSTREAM FLARED END SECTIONS SHALL HAVE WOOD FIBER BLANKET INSTALLED ON THE DISTURBED SOILS.

7. ALL UNPAVED AREAS ALTERED DUE TO CONSTRUCTION ACTIVITIES MUST BE RESTORED WITH SEED AND MULCH, SOD, EROSION CONTROL BLANKET OR BE HARD SURFACE WITHIN 2 WEEKS OF COMPLETION OF CONSTRUCTION.

8. THE SITE MUST BE STABILIZED PER THE REQUIREMENTS OF THE MPCA, NPDES, MNDOT, AND CITY.

A. TEMPORARY (GREATER THAN 1-YEAR) SEED SHALL BE MNDOT SEED MIX 22-111 AT 30.5-POUNDS PER ACRE.

B. TEMPORARY (LESS THAN 1-YEAR) SEED SHALL BE MNDOT SEED MIX 21-112 (FALL) OR 21-111 (SPRING/SUMMER) AT 100-POUNDS PER ACRE

C. INFILTRATION/FILTRATION BASIN SHALL BE MNDOT SEED MIX 34-262 AT 14.5-POUNDS PER ACRE.

D. POND SLOPES SHALL BE MNDOT SEED MIX 33-261 AT 35-POUNDS PER ACRE.

E. GENERAL SEEDING SHALL BE MNDOT SEED MIX 25-151 AT 70-POUNDS PER ACRE.

F. MULCH SHALL BE MNDOT TYPE 1 APPLIED AT 2-TONS PER ACRE.

9. FOR AREAS WITH SLOPE OF 3:1 OR GREATER, RESTORATION WITH SOD OR EROSION CONTROL BLANKET IS REQUIRED.

10. ALL TEMPORARY STOCKPILES MUST HAVE SILT FENCE INSTALLED AROUND THEM TO TRAP SEDIMENT.

11. ALL PERMANENT PONDS USED AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION SHALL BE DREDGED AFTER THE SITE HAS BEEN STABILIZED TO RESTORE THE POND TO THE PROPOSED BOTTOM ELEVATION.

12. ALL CONSTRUCTION SHALL CONFORM TO LOCAL AND STATE RULES INCLUDING THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.

13. THE SITE MUST BE KEPT IN A WELL-DRAINED CONDITION AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY DITCHES, PIPING OR OTHER MEANS REQUIRED TO INSURE PROPER DRAINAGE DURING CONSTRUCTION. LOW POINTS IN ROADWAYS OR BUILDING PADS MUST BE PROVIDED WITH A POSITIVE OUTFLOW.

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Graeme H. Mahler

DATE: 8/02/2024 LICENSE NO. 24755

No.	Revision / Issue	Date
2	CITY COMMENTS	8/02/24
1	BP# 1 ADD# 1	7/19/24

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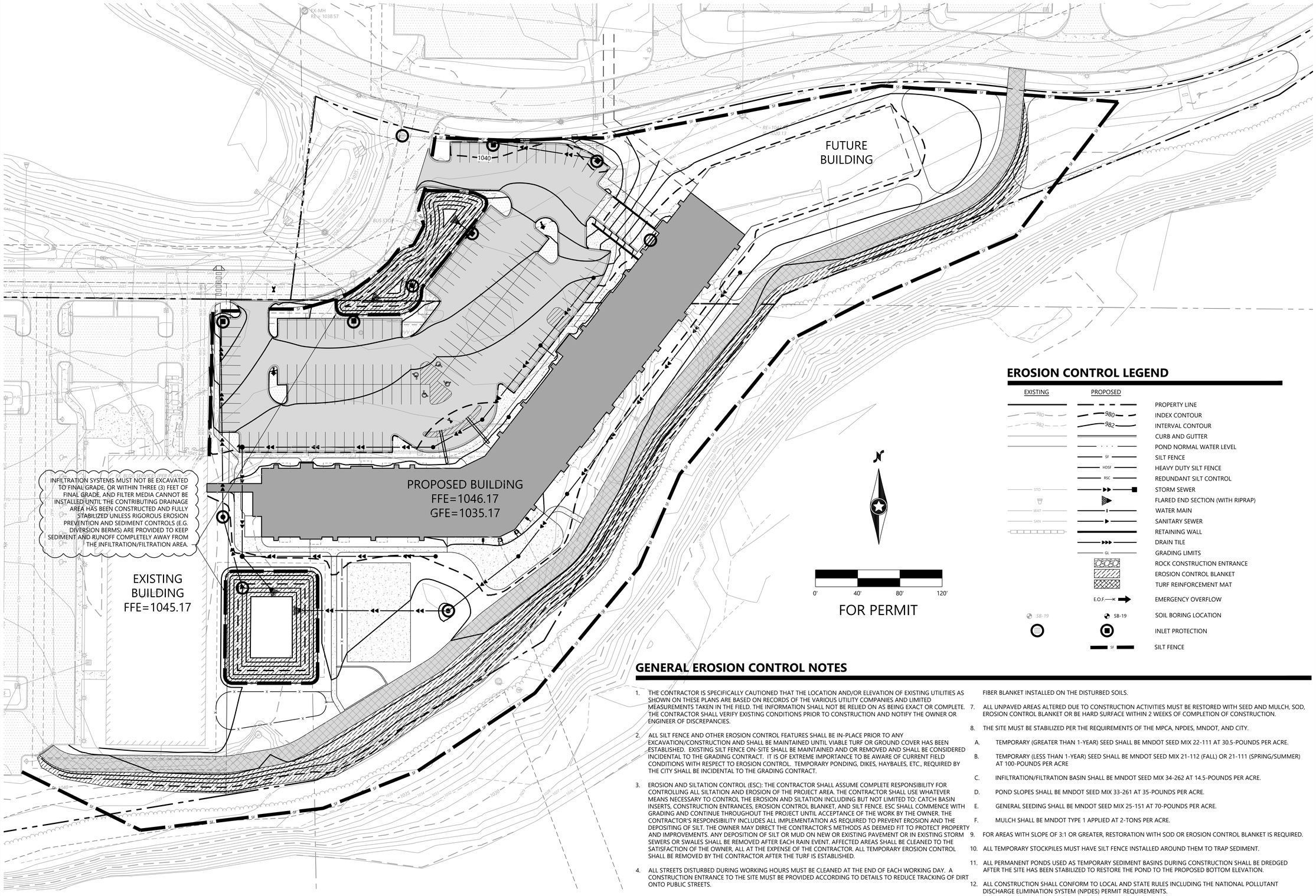
INITAIL EROSION



EROSION CONTROL LEGEND

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		POND NORMAL WATER LEVEL
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FINAL EROSION CONTROL

SWPPP NARRATIVE

THE SWPPP IS PREPARED IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REGULATIONS AS ESTABLISHED BY THE CLEAN WATER ACT. THE MINNESOTA POLLUTION CONTROL AGENCY'S CONSTRUCTION GENERAL PERMIT MN R100001 (CSGP) (EXPIRATION DATE: JULY 31, 2028) PROVIDES A FRAME WORK OF REQUIREMENTS FOR COMPLIANCE TO DISCHARGE STORMWATER FROM A CONSTRUCTION SITE.

THE SWPPP IS FOR IMPLEMENTATION BY THE OWNER AND OPERATOR, AS LISTED BELOW, AT CCH MED SCHOOL HOUSING. THIS REPORT SHALL BE ON THE SITE AT ALL TIMES DURING CONSTRUCTION. THE OWNER MUST ALSO KEEP THIS SWPPP ON FILE FOR THREE YEARS AFTER SUBMITTAL OF THE NOTICE OF TERMINATION. THE FOLLOWING ARE OUTLINED IN THIS SWPPP:

- CONTROL MEASURES FOR STORM WATER POLLUTION PREVENTION PRIOR TO AND DURING CONSTRUCTION
- CONTROL MEASURES FOR STORM WATER POLLUTION PREVENTION AFTER CONSTRUCTION
- SOURCES OF STORMWATER AND NON-STORMWATER POLLUTION
- INSPECTION AND MAINTENANCE PROCEDURES

THE GRADING AND EROSION CONTROL PLAN PREPARED FOR CCH MED SCHOOL HOUSING SHALL BE CONSIDERED PART OF THE SWPPP.

PROJECT LOCATION
THIS DOCUMENT PRESENTS A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR CCH MED SCHOOL HOUSING IN ST. CLOUD, MN. THE SITE IS LOCATED ON THE SOUTH END OF CENTRACARE CIRCLE IN ST. CLOUD.

PROJECT CONTACT INFORMATION

OWNER/DEVELOPER:	CONTRACTOR:
CONTACT NAME	CONTACT NAME
COMPANY NAME	COMPANY NAME
ADDRESS	ADDRESS
ADDRESS	ADDRESS
CONTACT NUMBER	CONTACT NUMBER
CONTACT E-MAIL	CONTACT E-MAIL

IDENTIFY PERSONNEL INVOLVED WITH THE PROJECT AND THEIR RELATED NECESSARY TRAINING COMMENSURATE WITH THEIR TASK PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

SWPPP DESIGNER:	SWPPP INSPECTION:	BMP INSTALLER:
CADEN WEBB		
WESTWOOD PROFFESSIONAL SERVICES		
1900 MEDICAL ARTS AVE. S, SUITE 100		
SARTELL, MN		
320-253-9495		
SWPPP DESIGN U OF M		
EXPIRATION DATE - 5-31-2026		

OWNER/OPERATOR RESPONSIBILITIES
OWNER
-DEVELOPMENT OF SWPPP PRIOR TO APPLICATION/NOI SUBMITTAL.
-SUBMIT A COMPLETE AND ACCURATE APPLICATION FORM (NOI)
-COMPLIANCE WITH ALL TERMS AND CONDITIONS OF CONSTRUCTION GENERAL STORMWATER PERMIT
-SWPPP SUBMITTAL FOR 30 DAY REVIEW FOR PROTECT GREATER THAN 50 ACRES & DISCHARGING TO SPECIAL/IMPAIRED WATERS WITHIN 1 MILE OF SITE DISCHARGE.
-KEEPING PERMIT COVERAGE UP-TO-DATE (TRANSFER/SUBDIVISION)
-SUBMIT NOTICE OF TERMINATION (NOT) WITHIN 30 DAYS AFTER ALL PERMIT TERMINATION CONDITIONS AS LISTED IN SECTION 13 ARE COMPETE
-SUBMIT NOTICE OF TERMINATION (NOT) WITHIN 30 DAYS OF MEETING REQUIREMENTS OF FINAL STABILIZATION
-IDENTIFY WHO HAS LONG TERM OPERATION AND MAINTENANCE RESPONSIBILITY OF THE PERMANENT STORMWATER SYSTEM.
-DEVELOP CHAIN OF RESPONSIBILITY WITH ALL OPERATORS TO ENSURE NPDES COMPLIANCE.
-IDENTIFY TRAINED PERSONNEL TO DEVELOP THE SWPPP, INSTALL AND MAINTAIN BEST MANAGEMENT PRACTICES, AND OVERSEE THE SWPPP AND CONDUCT INSPECTIONS

OPERATOR
-COMPLETION OF AN ACCURATE NOI WITH THE OWNER
-COMPLIANCE WITH CSGP SECTIONS 3, 4, 6-22, 24 AND ANY APPLICABLE REQUIREMENTS FOR CONSTRUCTION ACTIVITY IN SECTION 23 (MINN. R. 7090)
-KEEPING THE PERMIT UP-TO-DATE WITH THE OWNER (PARTIAL, WHOLE, CONTRACTOR, BUILDER, ETC)
-COMPLETE AND SIGN APPLICATIONS FOR PERMIT TRANSFER AND MODIFICATION AND NOTICE OF TERMINATION WITH OWNER AS NEEDED.

PROJECT DESCRIPTION
THE SITE IS APPROXIMATELY 6.50 ACRES. CONSTRUCTION WILL CONSIST OF, BUT IS NOT LIMITED TO, SITE GRADING, REMOVAL OF EXISTING PARKING LOT AND CONSTRUCTION OF NEW BITUMINOUS PARKING WITH A NEWLY CONSTRUCTED APARTMENT BUILDING. AN EXISTING INFILTRATION WILL STAY IN PLACE AND OPERATION. ONE INFILTRATION BASIN WILL BE EXPANDED TO TREAT ADDITIONAL STORM WATER. A NEW INFILTRATION BASIN WILL BE ADDED FOR ADDITIONAL STORM WATER TRERATMENT.

PROJECT AREA =6.50 ac
DISTURBED AREA =6.50 ac
EXISTING IMPERVIOUS AREA =2.00 ac
PROPOSED IMPERVIOUS AREA =3.50 ac

PRE-DEVELOPMENT SITE CONDITIONS
THE EXISTING SITE IS A GRASSY AREA AND A PARKING LOT. THERE ARE INFILTRATION BASINS DESIGN FOR EXISTING IMPERVIOUS AND FUTURE IMPERVIOUS. ONCE STORM WATER IS TREATED IT DRAINS TO AN EXISTING STORM WATER POND WHICH ULTIMATELY DRAINS TO THE SAUK RIVER.

POST-DEVELOPMENT SITE CONDITIONS
THE SITE WILL HAVE BITUMINOUS PARKING AND A NEW APARTMENT BUILDING. THREE INFILTRATION BASINS WILL CAPTURE STORM WATER VIA STORM SEWER AND CURB & GUTTER. THE BASINS WILL DRAIN TO AN EXISTING STORM WATER POND THEN TO THE SAUK RIVER.

STORM WATER MANAGEMENT PLAN
REFER TO THE CENTRACARE MEDICAL SCHOOL HOUSING STORMWATER MANAGEMENT PLAN FOR ANY ADDITIONAL STORM WATER INFORMATION.

REFER TO THE CENTRACARE MEDICAL SCHOOL HOUSING STORMWATER MANAGEMENT REPORT FOR MORE INFORMATION REGARDING THE PRE-DEVELOPMENT SITE CONDITIONS, POST-DEVELOPMENT SITE CONDITIONS, STORM WATER MANAGEMENT CALCULATIONS, AND DRAINAGE AREA MAPS.

THE SITE STORM WATER DETENTION FACILITY WILL BE CONSTRUCTED TO MEET OR EXCEED LOCAL, STATE AND FEDERAL REQUIREMENTS.

RECEIVING WATERS WITHIN 1 MILE OF THE PROJECT SITE

NAME	TYPE	IMPAIRED (Y/N)	SPECIAL (Y/N)	DISTANCE/ DIRECTION FROM SITE
SAUK RIVER	STREAM	Y	N	400± FEET

*THE SAUK RIVER IS IMPAIRED FOR NUTRIENTS, MERCURY IN FISH TISSUE AND PCB'S IN FISH TISSUE.

TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMP'S ALONG WITH THE PROCEDURES TO BE USED TO ESTABLISHED ADDITIONAL TEMPORARY BMP'S AS NECESSARY FOR SITE CONDITIONS DURING CONSTRUCTION ARE IDENTIFIED ON THE SITE GRADING AND EROSION CONTROL PLAN PREPARED FOR THE DEVELOPMENT OF THIS PROJECT, AND WITHIN THE PROJECT STORM WATER POLLUTION PREVENTION PLAN.

POTENTIAL STORM WATER POLLUTANTS
POTENTIAL POLLUTANT SOURCES, INCLUDING CONSTRUCTION AND WASTE MATERIALS THAT ARE USED OR STORED AT THE SITE, ARE DESCRIBED IN THE SECTION. BY IMPLEMENTATION OF THESE BMPS, THE POTENTIAL POLLUTANT SOURCES ARE NOT REASONABLY EXPECTED TO AFFECT THE STORM WATER DISCHARGES FROM THE SITE.

CONSTRUCTION MATERIALS, CHEMICALS AND WASTE MATERIALS THAT WILL BE USED OR STORED AT THE SITE:

POTENTIAL POLLUTANT	LOCATION	CONTROL MEASURE
ANTIFREEZE	VARIOUS	SECONDARY CONTAINMENT / DRIP PAN
DIESEL FUEL	VARIOUS	SECONDARY CONTAINMENT / DRIP PAN
FERTILIZER	LANDSCAPE CONTRACTOR	SECONDARY CONTAINMENT
GASOLINE	IN EQUIPMENT/FUELING AREA	SECONDARY CONTAINMENT / DRIP PAN
GLUE/ADHESIVES	CONTRACTOR	SECONDARY CONTAINMENT
HYDRAULIC OILS/FLUIDS	CONTRACTOR	SECONDARY CONTAINMENT
PAINTS	CONTRACTOR	SECONDARY CONTAINMENT
GREASE	CONTRACTOR	SECONDARY CONTAINMENT / DRIP PAN
SANITARY WASTE	PORTABLE BATHROOMS	SERVICE PROVIDER TO SECURE UNITS FROM TIPPING OVER AND MAINTAINED
SOIL AMENDMENTS	VARIOUS	SECONDARY CONTAINMENT
LANDSCAPING MATERIALS	LANDSCAPE CONTRACTOR	CONTRACTOR RESPONSIBLE
CONCRETE	TRUCK WASHOUT	WASHOUT AREA
CONCRETE / MORTAR	MOBILE MIXER	S.C. / WASHOUT AREA

CONSTRUCTION SEQUENCE
THE INTENDED SEQUENCING OF MAJOR SITE CONSTRUCTION ACTIVITIES IS AS FOLLOWS:

1. INSTALL PERIMETER CONTROL DEVICES (SILT FENCE, BIO-LOGS, ETC.) AND INLET PROTECTION TO EXISTING STRUCTURES AS SHOWN ON PLAN. INSTALL TREE PROTECTION FENCE AS SHOWN ON PLAN.
2. INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE.
3. CLEAR AND GRUB SITE.
4. STRIP AND STOCKPILE TOPSOIL.
5. ROUGH GRADE OF SITE.
6. STABILIZE DENUDED AREAS AND STOCKPILES.
7. INSTALL SANITARY SEWER, WATERMAIN, STORM SEWER AND SERVICES.
8. INSTALL INLET PROTECTION AROUND CATCH BASINS.
9. INSTALL STREET SECTION.
10. INSTALL CURB AND GUTTER.
11. INSTALL PAVEMENT.
12. INSTALL SMALL UTILITIES (GAS, ELECTRIC, PHONE, CABLE, ETC.)
13. FINE GRADE BOULEVARD, LANDSCAPE AREAS, SEED AND MULCH.
14. REMOVE ACCUMULATED SEDIMENT.
15. FINAL GRADE.
16. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED BY EITHER SEED OR SOD AND LANDSCAPING, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL.

CONSTRUCTION NOTES
IT IS HIGHLY RECOMMENDED THAT THE CONTRACTOR MAINTAIN A STOCKPILE OF EROSION CONTROL DEVICES AND SEDIMENT CONTROL BMP'S ON SITE AT ALL TIMES FOR IMMEDIATE USAGE. IN THE EVENT OF AN ACCIDENTAL SEDIMENT DISCHARGE TO WATERS OF THE STATE, OR ANY DISCHARGE OF HAZARDOUS MATERIAL OF REPORTABLE QUANTITY, CONTACT THE MPCA STATE DUTY OFFICER AT 1-800-422-0798.

TIMING OF BMP INSTALLATION
THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S SHALL BE INSTALLED TO MINIMIZE EROSION FROM DISTURBED SURFACES AND CAPTURE SEDIMENT ON SITE. THE FOLLOWING LIST DEFINES THE TIMING OF EROSION PREVENTION AND SEDIMENT CONTROL MEASURES IN SPECIFIC AREAS.

- PRIOR TO START OF CONSTRUCTION

THE FOLLOWING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE SHOWN IN THE PLANS AND SHALL BE IMPLEMENTED PRIOR TO CONSTRUCTION:

1. INSTALL SILT FENCE OR OTHER SEDIMENT CONTROL AROUND THE PERIMETER OF AREAS TO BE GRADED AND ALL AREAS WHICH ARE NOT TO BE DISTURBED AS SHOWN ON THE GRADING AND EROSION CONTROL PLAN.
2. CONSTRUCT GRAVEL CONSTRUCTION ENTRANCES AT FIELD ENTRANCES TO THE SITE AS SHOWN ON THE CONSTRUCTION PLANS.
3. INLET PROTECTION IS TO BE INSTALLED AT ALL STORM WATER INLETS WHICH HAVE THE POTENTIAL TO RECEIVE STORM WATER RUNOFF FROM THE CONSTRUCTION SITE WITHIN 200 FEET OF LIMITS OF CONSTRUCTION.
4. INSTALL SILT FENCE OR OTHER SEDIMENT CONTROL AROUND ALL TEMPORARY INACTIVE STOCKPILES. ALL SILT FENCES FOR STOCKPILES SHALL BE INCIDENTAL TO GRADING CONTRACT IF STOCKPILES ARE PLACED OUTSIDE OF SILT FENCES SHOWN ON THE PLAN.

- DURING CONSTRUCTION

THE FOLLOWING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE SHOWN IN THE PLANS AND SHALL BE IMPLEMENTED DURING CONSTRUCTION:

1. PHASE GRADING WORK TO MINIMIZE THE DURATION THAT ANY DISTURBED SOIL IS EXPOSED.
2. ALL DISTURBED AREAS SHALL HAVE TEMPORARY PROTECTION OR PERMANENT COVER OVER EXPOSED SOIL AREAS IF NOT BEING ACTIVELY GRADED AND/OR IF NOT AT FINAL GRADE WITHIN **7 DAYS** OF DISTURBANCE ACTIVITY TEMPORARILY OR PERMANENTLY CEASING. TEMPORARY SEED MIX 22-111, APPLIED AT A RATE OF 30.5 LBS/ACRE, SHALL BE USED PRIOR TO WINTER, IF SITE NOT SODDED.
3. STRIP AND STOCKPILE TOPSOIL FOR REPLACEMENT OF 6 INCHES OF TOPSOIL OVER TURF AREAS WHEN GRADING IS COMPLETE.
4. PLACE A MINIMUM OF 2 TONS/ACRE OF STRAW ON ALL AREAS AFTER REACHING FINAL GRADE WITH TOPSOIL AND ANCHOR STRAW WITH EITHER A STRAIGHT DISK, HYDROMULCH OR POLYMER.
5. STABILIZATION OF TEMPORARY OR PERMANENT DRAINAGE DITCHES THAT DRAIN WATER FROM THE CONSTRUCTION SITE MUST BE INITIATED WITHIN 24 HOURS OF CONNECTING THE DRAINAGE DITCH TO ANY CONVEYANCE SYSTEM THAT DISCHARGES TO SURFACE WATERS. THE FIRST 200 LINEAR FEET MUST BE STABILIZED WITHIN 24 HOURS. THE REMAINING DITCH SHALL BE STABILIZED WITHIN **7 DAYS**.
6. INSTALL SILT FENCE AROUND ALL TEMPORARY INACTIVE STOCKPILES WHICH ARE NOT PLACED WITHIN EXISTING SILT FENCES OR OTHER PERIMETER CONTROLS.
7. TEMPORARY OR PERMANENT ENERGY DISSIPATION AT PIPE APRON OUTLETS WILL BE PLACED PRIOR TO BUT NO SOONER THAN 7 DAYS BEFORE APRON IS INSTALLED. RIPRAP SHALL BE INSTALLED UNDER APRON LIP ACCORDING TO THE STANDARD DETAIL.
8. SUFFICIENT PERSONNEL, EQUIPMENT, AND MATERIALS SHALL BE MOBILIZED WITHIN 24 HOURS OF A WRITTEN ORDER BY THE OWNER OR OWNER'S REPRESENTATIVE TO CONDUCT CORRECTIVE WORK AND INSTALL TEMPORARY EROSION CONTROL WORK IN THE CASE OF AN EMERGENCY.
9. REMOVE ANY SEDIMENT THAT HAS BEEN TRACKED ONTO PUBLIC STREETS AT THE END OF THE DAY OR WITHIN 24 HOURS OF DETECTION, OR MORE FREQUENT AT DIRECTION OF SITE INSPECTOR.
10. COLLECT ALL CONSTRUCTION DEBRIS IN DUMPSTERS AND ROLL-OFF BOXES, EMPTY WHEN DEBRIS REACHES TOP OF DUMPSTER
11. INSPECT POLLUTION CONTROL MEASURES AS SPECIFIED WITHIN SECTION 11 OF THE GENERAL PERMIT.

- INLET SEDIMENT CONTROL BMP REMOVAL

IF INLET SEDIMENT CONTROLS (WIMCO TYPE OR EQUAL) BMP'S ARE REMOVED FOR FLOODING / FREEZING CONCERNS UPON REQUEST OF THE MUNICIPALITY, WATERSHED DISTRICT OR OTHER AGENCY, DOCUMENTATION SHALL BE ATTACHED TO THE INSPECTION REPORTS AND THIS SWPPP OR BE AVAILABLE WITHIN 72 HOURS OF REQUEST. DOCUMENTATION SHALL BE A WRITTEN FORM OF CORRESPONDENCE VERIFYING THE NEED FOR REMOVAL.

- UPON COMPLETION OF CONSTRUCTION ACTIVITIES

PERMIT TERMINATION CONDITIONS ARE ACHIEVED FOR THE PROJECT WHEN PERMANENT EROSION CONTROL BMP'S ARE APPLIED TO THE SITE. THE PERMANENT EROSION CONTROL BMP'S MAY BE A COMBINED OF VEGETATIVE AND NON-VEGETATIVE COVER TYPES. ADDITIONAL REQUIREMENTS TO ACHIEVING FINAL STABILIZATION PERMIT TERMINATION CONDITIONS INCLUDE :

1. ALL SOIL DISTURBING ACTIVITY IS COMPLETED. ALL DISTURBED AREA WITHOUT PERMANENT IMPERMEABLE SURFACES ARE VEGETATED FOR FINAL STABILIZATION.
2. PERMANENT STORMWATER TREATMENT SYSTEM (IF REQUIRED) IS CONSTRUCTED AND ACCUMULATED SEDIMENT HAS BEEN REMOVED FROM CONSTRUCTION ACTIVITY. CLEAN OUT ALL SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENT BASINS THAT ARE TO BE USED AS PERMANENT WATER QUALITY MANAGEMENT BASINS. THE CLEAN OUT OF PERMANENT BASINS MUST BE SUFFICIENT TO RETURN THE BASIN TO DESIGN CAPACITY.
3. THE VEGETATIVE COVER FOR THE SITE IS AT A DENSITY, WITH UNIFORM PERENNIAL COVER OF 70% OF THE EXPECTED FINAL GROWTH DENSITY.
4. ALL TEMPORARY, SYNTHETIC BMP'S HAVE BEEN REMOVED.

PERMANENT VEGETATION ESTABLISHMENT
(DESCRIBE THE PERMANENT TURF TO BE ESTABLISHED - I.E. SOD, SEED AND MULCH, NATIVE PLANTINGS, TREES AND SHRUBS, LANDSCAPE MULCH...)
PERMANENT TURF SHALL FOLLOW THE RECOMMENDATIONS PER NOTES AND SPECIFICATIONS IN THE GRADING AND/OR LANDSCAPE PLAN. SEED THAT IS TO OCCUR AFTER OCTOBER 20TH SHALL CONFORM TO THE MNDOT SPECIFICATIONS FOR DORMANT SEEDING.

SWPPP INSPECTIONS AND MAINTENANCE

EROSION AND SEDIMENT CONTROL INSPECTIONS
CONSTRUCTION ACTIVITY AND ALL SUPPORT ACTIVITIES MUST BE INSPECTED (USING MPCA CONSTRUCTION STORMWATER INSPECTION CHECKLIST OR AN ALTERNATIVE FORM) WITHIN THE PARAMETERS OF THE SCHEDULE BELOW. THE INSPECTOR SHALL BE A PERSON TRAINED AND FAMILIAR WITH THE REQUIREMENTS OF THIS SWPPPP AND THE MPCA MN R100001 PERMIT. ALTERNATES WILL INCLUDE INDIVIDUALS TO BE DESIGNATED BY THE OWNER AND MAY INCLUDE CONTRACTOR PERSONNEL OR OTHER QUALIFIED INDIVIDUALS AND SHALL BE LISTED IN THE PROJECT CONTACT INFORMATION SECTION OF THIS PLAN

INSPECTION SCHEDULE

- IF THE SITE IS ACTIVE: INSPECTION NEEDED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL GREATER THAT 0.5 INCHES.
- INACTIVE AND STABILIZED AREAS: INSPECTION NEEDED ONCE EVERY 30 CALENDAR DAYS.
- INACTIVE AREAS WITH FINAL STABILIZATION: INSPECTION NEEDED ONCE EVERY MONTH FOR 12 MONTHS (NOT INCLUDING FROZEN CONDITIONS).
- SUBJECT TO WINTER/FROZEN CONDITIONS: NOT APPLICABLE/NOT NEEDED IF NO CONSTRUCTION ACTIVITY IS OCCURRING.

SCOPE OF INSPECTION SHALL INCLUDE:

1. RECORD DATE AND TIME OF INSPECTION
2. NAME OF PERSON(S) CONDUCTING INSPECTION
3. FINDINGS OF THE INSPECTION
4. LOCATION AND CORRECTIVE ACTIONS NEEDED
5. CORRECTIVE ACTIONS TAKEN (DATE.TIME/BY WHOM)
6. DATE AND AMOUNT OF RAINFALL (RAINFALL AMOUNTS TO BE TAKEN FROM AN ONSITE RAIN GAUGE)
7. OBSERVED DISCHARGES LOCATIONS
8. DESCRIBE DISCHARGE (COLOR, ODOR, FLOATING. SETTLED, SOLIDS, FOAM, OIL SHEEN)
9. THE SITE INSPECTOR WILL VISUALLY CHECK A DISCHARGE FROM A TEMPORARY OR PERMANENT SEDIMENTATION BASIN TO ENSURE ADEQUATE TREATMENT IS OBTAINED AND DISCHARGE WATER WILL NOT CONTRIBUTE EXCESSIVE SEDIMENT OR OTHER NUISANCE CONDITIONS.
10. RECORD CHANGES MADE TO THE SWPPP. AMENDMENTS FROM INSPECTIONS NEED TO BE COMPLETED WITHIN 7 DAYS.
11. ALL INSPECTIONS SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER COMPLETING THE FIELD INSPECTION AND AVAILABLE IN PAPER OR ELECTRONIC FORM ON SITE.

MAINTENANCE OF EROSION AND SEDIMENT CONTROL DEVICES

THE OWNER/CONTRACTOR IS RESPONSIBLE FOR THE OPERATION, MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPS AS WELL AS ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS, FOR THE DURATION OF THE CONSTRUCTION WORK AT THE SITE. THE CONTRACTOR MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS DURING ALL ROUTINE AND POST RAINFALL EVENTS. ALL NONFUNCTIONAL BMPS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS UNLESS ANOTHER TIME FRAME IS SPECIFIED BELOW.

THE FOLLOWING GUIDELINES WILL BE USED TO DETERMINE IF THE EROSION AND SEDIMENT CONTROL DEVICES REQUIRE MAINTENANCE, REPAIR, OR REPLACEMENT:

1. ALL NON-FUNCTIONAL BMPS - OBSERVED CONDITION; SEDIMENT OVERTOPPING, UNDER WATER, SCOURED ENDS, UNDERMINED, DESTROYED, NON-FUNCTION AS DESIGNED, ETC. - SHALL BE MAINTAINED OR REPLACED BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY OR NOTIFICATION, OR AS SOON AS FIELD CONDITIONS ALLOW.
2. PERIMETER SEDIMENT CONTROL (SILT FENCE, FIBER LOGS, BERMS, ETC.) - OBSERVED CONDITION TO BE 1/2 FULL OF SEDIMENT, FLATTENED TO 1/2 HEIGHT, DRIVEN OVER, UNDERMINED, SCOURED, MOVED FOR ACCESS, ETC. - SHALL BE MAINTAINED, REPAIRED OR SUPPLEMENTATION OF PERIMETER SEDIMENT CONTROL SHOULD BE DONE BY THE END OF NEXT BUSINESS DAY OR AD FIELD CONDITIONS ALLOW.
3. INLET PROTECTION BMPS, CONVEYANCES, SURFACE WATERS - OBSERVED CONDITION; SEDIMENT DEPOSITION, SEDIMENT DELTAS AN ACCUMULATION OF SEDIMENT MATERIAL, DEVICES APPEAR PLUGGED WITH SEDIMENT - REMOVAL/CLEAN OUT OF ACCUMULATED SEDIMENT AND DELTAS TO BE REMOVED WITHIN 7 DAYS, STABILIZE AS NEEDED IF SOILS ARE EXPOSED DURING REMOVAL/CLEAN OUT.
4. TEMPORARY SEDIMENT BASINS AND TRAPS/PERMANENT SEDIMENT BASINS - OBSERVED TO HAVE SEDIMENT DEPOSITION AND ACCUMULATION TO ½ OF THE STORAGE VOLUME - CLEAN OUT, REMOVE ACCUMULATED SEDIMENT MATERIAL WITHIN 7 DAYS OF OBSERVATION, OR AS FIELD CONDITIONS ALLOW ACCESS.
5. SITE EXIT LOCATIONS, ROCK EXIT PADS, OTHER ANTI-TRACKING PRACTICES - OBSERVED TO HAVE ACCUMULATED SEDIMENT IN ROCK OR OTHER ANTI-TRACKING BMP, TRACKING OF SEDIMENT FROM THE SITE ONTO PAVED SURFACES - TOP DRESS ROCK, MAINTAIN ROCK EXIT OR OTHER ANTI-TRACKING CONTROLS, SCRAP PAVED SURFACES, SWEEP PAVED SURFACES WITHIN 1 CALENDAR DAY OF DISCOVERY.
6. PAVED SURFACES AND ADJACENT STREETS - OBSERVED TO BE TRACKED WITH SEDIMENT AND SOIL MATERIAL FRO THE SITE HAULING OR ACCESS - SWEEP WITHIN 1 CALENDAR DAY OF DISCOVERY, ADDITIONAL AND/OR MORE FREQUENT SWEEPING MAY BE NEEDED TO MAINTAIN PUBLIC SAFETY OR PREVENT WASHING FROM FORECASTED RAINS.

TERMINATION OF COVERAGE
THE PROJECT PERMIT MAY BE TERMINATED IN ONE OF THE FOLLOWING SCENARIOS:

1. ALL CONSTRUCTION ACTIVITY IS COMPLETE, TEMPORARY SYNTHETIC BMP'S ARE REMOVED, ACCUMULATED SEDIMENT FROM CONSTRUCTION IS REMOVED, AND PERMANENT COVER HAS BEEN ACHIEVED WITH VEGETATIVE AND/OR NON-VEGETATIVE COVER. THE NOTICE OF TERMINATION FORM FROM THE PCA SHOULD BE COMPLETED WITHIN 30 DAYS OF MEETING THE CONDITIONS ABOVE. UPON MIDNIGHT OF THE POST MARKED DATE, THE PERMIT COVERAGE IS TERMINATED UNLESS OTHERWISE NOTIFIED BY THE MPCA. OR:
2. WITHIN 30 DAYS OF SELLING OR OTHERWISE LEGALLY TRANSFERRING OWNERSHIP OF THE SITE IN IT'S ENTIRETY (INCLUDING STREET SWEEPING AND STORMWATER INFRASTRUCTURE) FROM THE ORIGINAL OWNER TO ANOTHER PARTY TAKING RESPONSIBILITY OF OWNERSHIP. THE TERMINATION IS EFFECTIVE UPON MIDNIGHT OF THE SUBMISSION DATE OF THE NOT. IF A PORTION OF THE SITE IS TRANSFERRED (I.E. OUTLOTS, LOTS/BLOCKS) THAT PORTION OF THE SITE IS TERMINATED FROM THE ORIGINAL PERMIT COVERAGE AT MIDNIGHT OF THE SUBMISSION DATE. OR:
3. PERMIT COVERAGE CAN BE TERMINATED IF ALL OF THE FOLLOWING ARE MET:
   - 3.a. CONSTRUCTION ACTIVITY HAS CEASED FOR 90 DAYS; AND
   - 3.b. AT LEAST 90% OF THE AREA OF THE ORIGINALLY PROPOSED ACTIVITY HAS BEEN COMPLETED AND PERMANENTLY ESTABLISHED WITH VEGETATION OR NON-VEGETATIVE COVER; AND
   - 3.c. WHERE CONSTRUCTION ACTIVITY IS NOT COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED; AND
   - 3.d. THE SITE IS COMPLIANT WITH PERMIT SECTIONS 13.3 THROUGH 13.7.
4. WHERE THE PROJECT OBTAINED PERMIT COVERAGE BUT NEVER STARTED CONSTRUCTION ACTIVITY DUE TO CANCELLATION OR OTHER REASONS, DOCUMENTATION SHOULD BE SENT TO THE PCA WITH THE NOT FORM AND IS SUBJECT TO PCA APPROVAL.

WHEN SUBMITTING FOR NOT, GROUND OR AERIAL PHOTOGRAPHS MUST BE SUBMITTED SHOWING PERMANENT/VEGETATIVE COVER REQUIREMENTS HAVE BEEN MET.

SWPPP BMP QUANTITIES

SILT FENCE	2,290 LF
INLET PROTECTION	9 EACH
CULVERT PROTECTION	1 EACH
TEMPORARY SEED MIX (22-111)	3 AC
PERMANENT SEED MIX (25-131)	3 AC
EROSION CONTROL BLANKET	36,360 SF
ROCK CONSTRUCTION ENTRANCE	2 EACH
STREET SWEEPING	1 EACH

MAHLER & ASSOCIATES
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Graeme H.D. Mahler, AIA
Principal
Firm Name and Address
G:\LOGO\Malgo M.jpg

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Graeme H. Mahler
DATE 8/02/2024 LICENSE NO. 24755

No.	Revision/Issue	Date
1	BP#1 ADD#1	7/19/24
2	CITY COMMENTS	8/02/24

Project Name and Address
CCH MED SCHOOL HOUSING
160X CO HWY 134
ST CLOUD, MN 56303
BRADBURY STAMM CONS.
CHRIS KOEPP
(320) 253-2411

Project 2401
Date 07/16/2024
Scale AS INDICATED
Sheet SWPPP NARRATIVE

SWPPP NOTES

LISTED BELOW ARE ADDITIONAL BMP'S THAT MAY BE CONSIDERED FOR USE IF THE BMP'S IDENTIFIED IN THE EROSION CONTROL PLANS PROVE TO BE INSUFFICIENT. PAYMENT FOR THESE BMP'S MAY ONLY BE MADE IF PRIOR APPROVAL FROM AN OWNER HAS BEEN GIVEN.

1. WORK ADJACENT TO RESIDENTIAL PROPERTIES
    - INSTALL SILT FENCE FOR PERIMETER BARRIER BETWEEN TOE OF FILL AND PROJECT BOUNDARY.
    - INSTALL RUNOFF DIVERSIONS TO TEMPORARY SEDIMENT BASINS IF 10 OR MORE ACRES ARE DRAINING TOWARD THE PROPERTY BOUNDARY.

2. IMPORTANT VEGETATION
    - SAFETY FENCE OR A SIMILAR METHOD OF PROTECTION SHALL BE INSTALLED TO PROTECT IMPORTANT VEGETATION AND PROHIBIT VEHICULAR TRAFFIC.
    - A SECONDARY SILT FENCE SHALL BE INSTALLED AT FIELD OFFICES, STORED EQUIPMENT (INCLUDING VEHICLE PARKING), CONSTRUCTION MATERIAL LOCATIONS, AND TOPSOIL OR FILL STOCKPILES INSTALLED WITHIN A 25- FOOT MINIMUM BUFFER OUTSIDE THE DRIP LINE OF TREES.

3. BLUFF PROTECTION
    - TREES SHALL BE SELECTIVELY TRIMMED ALONG BLUFFS OR CLEARED TO ALLOW EQUIPMENT TO OPERATE ONLY WITHIN CONSTRUCTION LIMITS SHOWN ON THE PLAN.
    - GRUBBING OF ROOTS SHALL BE AVOIDED EXCEPT WHERE NECESSARY TO COMPLETE WORK.
    - MACHINE SLICED SILT FENCE OR BIO-ROLLS SHALL BE PLACED AROUND STOCKPILES ON SLOPES NOT ALREADY CONTAINED BY SILT FENCES, AND NO STOCKPILES SHALL BE PLACED WITHIN 30 FEET OF BLUFF EDGE. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - RUNOFF FROM THE TOP OF BLUFFS MAY BE DIRECTED DOWN LONG OR STEEP SLOPES THROUGH SLOPE DRAINS.
    - PLASTIC SHEETING MAY BE USED TO PROTECT SMALL, STEEP AREAS OF EXPOSED SOIL.
    - FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS OF COMPLETION OF WORK. INSTALL EROSION CONTROL BLANKET ACCORDING TO AND AS INDICATED ON THE PLAN.

4. DITCH PROTECTION (TEMPORARY OR PERMANENT)
    - THE LAST 200 FEET OF ANY DITCH CONNECTING TO A SURFACE WATER SHALL HAVE TEMPORARY OR PERMANENT STABILIZATION MEASURES IN PLACE WITHIN 24 HOURS OF DIRECT CONNECTION TO A SURFACE WATER. DITCHES MAY BE KEPT IN A "SMOOTH" ROUGH GRADED CONDITION IN ORDER TO PROPERLY INSTALL EROSION CONTROL SEEDING, MULCH, MATS AND BLANKETS.
    - STABILIZATION METHODS FOR DITCH BOTTOM WETTED PERIMETER MAY INCLUDE ONE OF THE FOLLOWING OR COMBINATIONS OF EROSION CONTROL BLANKET, MATS, RIPRAP, BIO-ROLLS OR ROCK CHECK DAMS. THE METHOD CHOSEN WILL BE BASED ON AN ANALYSIS OF THE SLOPE AND VELOCITY OF THE RUNOFF. THESE ARE ADDITIONAL BMP'S WHICH MAY BE CONSIDERED FOR USE IF THE BMP'S IDENTIFIED IN THE EROSION CONTROL PLANS PROVE TO BE INSUFFICIENT. PAYMENT FOR THESE BMP'S MAY ONLY BE MADE IF PRIOR APPROVAL FROM AN OWNER HAS BEEN GIVEN.
    - WHERE DITCH GRADES EXCEED 5%, ROCK CHECK DAMS OR EQUIVALENT BMP SHALL BE INSTALLED. CHECK DAMS TO BE SPACED SO THAT THE CREST OF THE DOWNSTREAM DAM IS AT THE ELEVATION OF THE TOE OF THE UPSTREAM DAM. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - ABOVE THE WETTED PERIMETER, THE DITCH WILL BE STABILIZED BY SEEDING AND MULCH AND/OR EROSION CONTROL BLANKETS DEPENDING ON SIDE SLOPE STEEPNESS AND LENGTH.
    - ALL DITCHES WILL BE STABILIZED WITHIN 14 DAYS.

5. WORK NEXT TO STREAMS
    - NO DISTURBANCE SHALL OCCUR IN IMPAIRED STREAMS OR PROTECTED WATERS. THIS WILL BE ACCOMPLISHED USING TEMPORARY BRIDGING TO SPAN STREAMS FOR ACCESS DURING BRIDGE OR ROADWAY CONSTRUCTION. ALSO, PIERS AND PILING WILL NOT BE PLACED IN THE STREAM.
    - CONSTRUCTION ACTIVITIES NEXT TO STREAMS WILL BE SCHEDULED FOR PERIODS WHEN FLOWS AREA ANTICIPATED TO BE LOW.
    - GRUBBING OF ROOTS SHALL BE KEPT TO A MINIMUM.
    - A 4-FOOT WIDE BUFFER OF VEGETATION SHALL BE LEFT ON STREAM BANKS.
    - THE PRIMARY BMP SHALL BE MACHINE SLICED SILT FENCE AND HAY BALES PLACED ALONG THE BUFFER. AS A REDUNDANT BMP, A FLOATING SILT CURTAIN MAY LINE THE CHANNEL BANKS DURING PERIODS OF FLOWING WATER. THE FLOATING SILT CURTAIN SHALL NOT BE PLACED ACROSS A STREAM.
    - SHOULD THE PREVIOUS BMPS PROVE UNSUCCESSFUL, THE SILT FENCE/HAY BALES WILL BE REPLACED BY SANDBAGS, PLYWOOD BARRIERS OR SHEETPILE CUTOFFS AS DIRECTED BY THE OWNER AND TO THE SATISFACTION OF THE ENGINEER.

6. WORK IN STREAMS
    - CONSTRUCTION ACTIVITIES IN STREAMS WILL BE SCHEDULED FOR PERIODS WHEN FLOWS ARE ANTICIPATED TO BE AT A MINIMUM.
    - FLOATING SILT CURTAIN SHALL NOT BE PLACED ACROSS STREAMS.
    - TEMPORARY LOW FLOW DRAINAGE CROSSINGS (FORDS) SHALL BE CONSTRUCTED OF CLEAN STABILIZING MATERIAL SUCH AS ROCK. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - UPON COMPLETION OF WORK THE CROSSING WILL BE REMOVED AND THE STREAM BANKS STABILIZED. STABILIZATION ACTIVITIES WILL COMMENCE WITHIN 24 HOURS OF THE CROSSING BEING REMOVED. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - LARGE CULVERTS SHALL BE CONSTRUCTED UNDER DRY CONDITIONS.
    - IF THERE IS FLOWING WATER DURING CONSTRUCTION THE FLOW MAY BE DIVERTED AROUND THE WORK SITE IN A STABLE MANNER USING SANDBAGS AND PLASTIC SHEETING, PLYWOOD, OR SIMILAR METHODS.
    - IF A BYPASS CHANNEL IS NECESSARY, IT WILL BE STABILIZED WITH RIPRAP OR PLASTIC SHEETING BEFORE DIVERTING THE STREAM. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - IF DEWATERING OF CONTAMINATED WATER FROM EXCAVATION IS NEEDED, THE CONTAMINATED WATER SHALL BE PUMPED TO A TEMPORARY SEDIMENT BASIN.

7. WORK NEXT TO WETLANDS
    - PRESERVE A **50' (100' FROM SPECIAL WATERS)** NATURAL BUFFER, OR IF A BUFFER IS INFEASIBLE, PROVIDE REDUNDANT SEDIMENT CONTROLS PRIOR TO DISTURBANCE OF UP-GRADIENT AREAS.
    - FILL SLOPES ADJACENT TO WETLANDS SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS OF COMPLETION OF WORK. INSTALL EROSION CONTROL BLANKET AS INDICATED ON THE EROSION CONTROL / GRADING PLAN.

8. WORK IN WETLANDS
    - WORKPADS AND PATHS MADE OF WOOD CHIPS, LOG MATS, MUD MATS, OR GEOTEXTILE AND CRUSHED ROCK MAY BE USED.
    - HEAVY DUTY SILT FENCES WITH HAY BALES MAY BE USED FOR PERIMETER CONTROL TO LIMIT THE SIZE OF THE CONSTRUCTION SITE AS INDICATED ON THE GRADING PLANS. IN THE CASE OF OPEN WATER WETLANDS, FLOATING SILT CURTAINS SHALL BE INCORPORATED AS WELL AS INDICATED ON THE GRADING PLANS.
    - SOIL STOCKPILES SHALL NOT BE PLACED IN EXISTING WETLANDS.
    - TOPSOIL IMPORTED TO RESTORE WETLANDS SHOULD NOT CONTAIN THE FIRST 12 INCHES OF INPLACE SOIL. TOPSOIL THAT MAY CONTAIN PURPLE LOOSESTRIFE OR OTHER NOXIOUS WEEDS SHOULD NOT BE IMPORTED TO WETLANDS.

9. LONG-STEEP CUT/FILL SLOPES
    - THERE WILL BE NO UNBROKEN SURFACE SLOPE LENGTHS OF GREATER THAN 75 FEET FOR SLOPES WITH A GRADE OF 3:1 OR STEEPER WITHIN 200 FEET OF SURFACE WATERS. ALL EXPOSED AREAS WITH A CONTINUOUS POSITIVE SLOPE WITHIN 200 FEET OF A SURFACE WATER WILL HAVE A TEMPORARY OR PERMANENT COVER YEAR ROUND. THE EXPOSED SOILS SHALL BE STABILIZED WITHIN 14 DAYS
    - PLANNED SLOPES OF 3:1 (H:V) OR STEEPER AND GREATER THAN 75 FT IN LENGTH WILL BE TEMPORARILY OR PERMANENTLY STABILIZED IN INCREMENTS NOT TO EXCEED 75 FT, PRIOR TO CONSTRUCTION OR DISTURBING A NEW INCREMENT.
    - LONG SLOPES SHOULD BE BROKEN INTO SHORTER LENGTHS BY INSTALLING STRAW BIOROLLS IN INTERLOCKING HERRINGBONES AS SHOWN ON THE GRADING PLAN. IF TEMPORARY SEEDING AND MULCH CAN NOT BE USED ON SLOPES STEEPER THAN 3:1, THEN THE SLOPE MAY BE COVERED WITH TARPS OR PLASTIC SHEETING. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - THE SOIL SURFACE ON RE-VEGETATED SLOPES WILL BE ROUGHENED USING ANY APPROPRIATE IMPLEMENT THAT CAN BE SAFELY OPERATED ON THE SLOPE, SUCH AS BULLDOZERS OR DISKS. THE GROOVES SHALL BE CREATED PERPENDICULAR TO THE SLOPE TO HELP ESTABLISH VEGETATIVE COVER, REDUCE RUNOFF VELOCITY, INCREASE INFILTRATION, AND PROVIDE FOR SEDIMENT TRAPPING.

10. CULVERT INLET/OUTLET PROTECTION
    - SOD MAY BE PLACED AND ANCHORED AT CULVERT INLETS AS SHOWN ON THE GRADING PLAN, UNLESS VELOCITIES REQUIRE RIPRAP.
    - AT LEAST ONE 2-FOOT WIDE STRIP OF SOD OR FIBER BLANKET SHALL BE PLACED ALONG THE EDGES OF CULVERT HEADWALLS AND WINGWALLS AS SHOWN ON THE GRADING AND/OR UTILITY PLANS.
    - RIPRAP AT PIPE APRON OUTLETS WILL BE PLACED PRIOR TO BUT NO SOONER THAN 7 DAYS BEFORE APRON IS INSTALLED. RIPRAP SHALL BE INSTALLED UNDER APRON LIP ACCORDING TO THE STANDARD DETAIL.

11. STORM SEWER INLET PROTECTION
    - STORM DRAIN INLETS SHALL BE PROTECTED UNTIL THE DISTURBED AREAS THAT COULD DISCHARGE TO AN INLET HAVE BEEN STABILIZED.
    - INFRASAFE SEDIMENT CONTROL BARRIERS OR APPROVED EQUAL SHALL BE USED WHEN CASTINGS ARE NOT IN PLACE. AS INDICATED ON THE UTILITY PLAN AND AS APPROVED BY THE OWNER.
    - INFRASAFE DEBRIS COLLECTION DEVICE OR APPROVED EQUIVALENT SHALL BE USED WHEN CASTINGS ARE IN PLACE AS INDICATED ON THE UTILITY PLAN AND AS APPROVED BY THE OWNER.
    - DOCUMENTATION IS NEEDED WITHIN 72 HOURS IF REMOVAL OF PROTECTION BMPS IS NEEDED DUE TO WINTER CONDITIONS OR FLOODING CONCERNS.

12. STORM WATER POND OUTLETS
    - TEMPORARY OR PERMANENT ENERGY DISSIPATION MEASURES SHALL BE IN PLACE AT THE STORM WATER POND OUTLETS WITHIN 24 HOURS OF DIRECT CONNECTION TO A SURFACE WATER.
    - RIPRAP AT PIPE APRON OUTLETS WILL BE PLACED PRIOR TO APRON INSTALLATION AND SHALL BE INSTALLED UNDER THE APRON LIP.
    - POND EMERGENCY SPILLWAYS SHALL BE LINED BASED ON THE DESIGN DISCHARGE FLOW VELOCITY AND AS INDICATED ON GRADING AND/OR UTILITY PLANS.

13. TEMPORARY SEDIMENT BASINS
    - TEMPORARY SEDIMENT BASINS WILL BE PROVIDED WHERE 10 OR 5 OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION. THE BASIN SIZE IS BASED ON RUNOFF FROM A 2-YEAR, 24 HOUR STORM, FOR EACH ACRE DRAINED TO THE BASIN. AT A MINIMUM, THE BASIN WILL PROVIDE 1800 CUBIC FEET OF STORAGE FOR EACH ACRE DRAINED TO THE BASIN.
    - SEDIMENT BASINS WILL DETAIN WATER LONG ENOUGH TO SETTLE OUT AT LEAST 75 PERCENT OF THE SEDIMENT. THE USE OF FLOCS MAY BE NECESSARY. THE DISCHARGE QUALITY SHALL BE EQUAL TO OR BETTER THAN THE RECEIVING WATER. THE TEMPORARY BASIN MAY BE DRAWN DOWN WITH A PUMP TO INCREASE CAPACITY FOR THE NEXT RAIN EVENT. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - THE SEDIMENT PONDS WILL BE EXCAVATED TO MAINTAIN THE NECESSARY SEDIMENT CAPACITY AND CONTAINMENT.
    - TEMPORARY SEDIMENT FOREBAYS WILL BE CONSTRUCTED TO CAPTURE SEDIMENT BEFORE IT ENTERS THE POND, IF NECESSARY.
    - THE SEDIMENT PONDS WILL BE MONITORED BY THE CONTRACTOR TO DETERMINE THE SEDIMENT LEVEL IN THE POND.
    - WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE TEMPORARY BASIN REACHES ½ FULL (50% OF THE STORAGE VOLUME) THE BASIN SHALL BE DRAINED USING PUMPS AND ENERGY DISSIPATION AND SEDIMENT REMOVAL SHALL BE COMPLETED WITHIN 72 HOURS OF DISCOVERY OF THE BASIN BEING 1/2 FULL OF SEDIMENT, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - TEMPORARY SEDIMENT BASINS WILL HAVE A STABILIZED EMERGENCY OVERFLOW AND CONTAIN ENERGY DISSIPATION AT BASIN OUTLET.

14. DEEP UTILITIES: WATER AND SANITARY/GAS LINE
    - SILT FENCE OR A SIMILAR TYPE OF PERIMETER CONTROL SHALL BE PLACED DOWN GRADIENT OF THE EXCAVATED SOIL IF WORK IS DONE WITHIN 200 FEET OF WETLANDS OR STREAMS.
    - DISTURBANCE OF CHANNEL BANKS, WETLANDS, AND IMPORTANT VEGETATION AREAS SHALL BE MINIMIZED TO THE EXTENT POSSIBLE.
    - THE UTILITY CONSTRUCTION SITE SHALL BE SEEDED WITH A TEMPORARY
    - SEED MIX AND MULCH AFTER INSTALLATION IF THE SITE WILL BE IDLE FOR 7, 14, OR 21 DAYS DEPENDING UPON SLOPES OF STEEPER THAN 3:1, 3:1 TO 10:1 AND FLATTER THAN 10:1 RESPECTIVELY.

15. STOCKPILES (TEMPORARY AND PERMANENT)
    - LOCATE STOCKPILES A MINIMUM OF 100 FEET FROM CATCH BASIN INLETS, PONDS, AND SITE DRAINAGE ROUTES
    - PERIMETER CONTROLS SUCH AS SILT FENCE SHALL BE INSTALLED AROUND ALL STOCKPILES PRIOR TO INITIATION OF STOCKPILING IF NOT PLACED WITHIN EXISTING SILT FENCES OR OTHER SEDIMENT CONTROL.
    - TEMPORARY SEED AND MULCH SHALL BE USED TO STABILIZE THE STOCKPILES AND THE STOCKPILES SHALL BE SHAPED TO FACILITATE SEEDING AND MINIMIZE EROSION AND SHALL BE SEEDED WITHIN 7 DAYS. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - IF TEMPORARY SEED AND MULCH CANNOT BE USED, THEN THE STOCKPILES SHALL BE COVERED WITH HYDROMULCH, TARPS OR PLASTIC SHEETING AS APPROVED BY THE OWNER.
    - IF STOCKPILES MUST BE PLACED WITHIN A CONVEYANCE A TEMPORARY BYPASS SHALL BE INSTALLED (I.E. PVC PIPE) TO ADEQUATELY CONVEY RUNOFF. TEMPORARY BYPASS BMPS SHALL BE INCIDENTAL TO THE CONTRACT UNLESS PREVIOUSLY APPROVED BY THE OWNER / ENGINEER

16. CONSTRUCTION DEWATERING
    - DURING DEWATERING ACTIVITIES, THE SEDIMENT LADEN WATER CANNOT CAUSE NUISANCE CONDITIONS AND MUST DISCHARGE TO A SEDIMENT CONTROL DESIGNED TO PREVENT DISCHARGE WITH VISUAL TURBIDITY. OPTIONS FOR REDUCING THE TURBIDITY OF THE WATER INCLUDE:
        - CONSTRUCT A TEMPORARY SEDIMENT TRAP FOR TURBID WATER DISCHARGE.
        - USE A PORTABLE SEDIMENT TRAP SYSTEM.
        - APPLY NATURAL BASED FLOCCULENT TECHNOLOGY SUCH AS CHITOSAN IN SEDIMENT TRAPS OR A SERIES OF DITCH CHECKS TO CONTAIN SEDIMENT.
        - USE A FILTER BAG SYSTEM
        - PUMP TO A TEMPORARY SEDIMENT BASIN.
    - TO THE EXTENT FEASIBLE, USE WELL-VEGETATED UPLAND AREAS OF THE SITE TO INFILTRATE DEWATERING WATER BEFORE DISCHARGE.
    - ENERGY DISSIPATION WILL BE PROVIDED AT ALL DISCHARGE POINTS.
    - DEWATERING OR BASIN DRAINING ACTIVITIES WILL NOT CAUSE EROSION IN RECEIVING CHANNELS OR ADVERSELY IMPACT WETLANDS.
    - DEWATERING DISCHARGE MUST BE VISUALLY CHECKED. PHOTOGRAPH DISCHARGE AT THE BEGINNING AND AT LEAST EVERY 24 HOURS OF OPERATION. DEWATERING THAT ONLY LASTS FOR A FEW MINUTES, AS OPPOSED TO HOURS, AND DO NOT REACH SURFACE WATERS, DO NOT REQUIRE PHOTOGRAPHS OR DOCUMENTATION.
    - IF NUISANCE CONDITIONS RESULT (SEDIMENT PLUME IN THE DISCHARGE, DISCHARGE APPEARS CLOUDY OR OPAQUE, HAS A VISIBLE CONTRAST, HAS A VISIBLE OIL FILM, HAS AQUATIC HABITAT DEGRADATION), DEWATERING MUST BE CEASED IMMEDIATELY AND CORRECTIVE ACTIONS MUST OCCUR BEFORE DEWATERING IS RESUMED.
    - ALL EROSION CONTROL OR SEDIMENT TRAPS REQUIRED FOR CONSTRUCTION DEWATERING SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION ACTIVITY REQUIRING DEWATERING.

17. CONSTRUCTION ENTRANCES
    - A TEMPORARY CRUSHED ROCK OR WOOD CHIP PAD SHALL BE LOCATED WHERE VEHICLES LEAVE THE CONSTRUCTION SITE.
    - THE CONSTRUCTION ENTRANCE PAD SHALL BE AT LEAST 50 FEET IN LENGTH.
    - GEOTEXTILE FABRIC MAY BE PLACED UNDER THE CRUSHED ROCK OR WOOD CHIPS TO PREVENT MIGRATION OF MUD FROM UNDERLYING SOIL INTO THE CONSTRUCTION ENTRANCE MATERIAL.
    - ROCK PADS SHALL BE CONSTRUCTED OF ROCK 1 TO 3 INCHES IN SIZE AND PLACED IN 6 INCH LAYERS.
    - CONSTRUCTION ENTRANCES SHALL BE INSPECTED AT LEAST EVERY 7 DAYS AND MAINTAINED AS NEEDED.
    - TRACKED SEDIMENTS SHALL BE REMOVED FROM PAVED SURFACES AT THE END OF EACH DAY USING PICK-UP TYPE STREET SWEEPER.
    - IF TRACKING INTO ROADWAY BECOMES PROBLEMATIC THE ENTRANCE PADS SHALL BE LENGTHENED OR ANOTHER TECHNIQUE APPLIED. TEMPORARY EROSION CONTROL DEVICES REQUIRED DUE TO CONTRACTORS METHOD OF SEQUENCING THEIR CONSTRUCTION WORK SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
    - THE CONSTRUCTION ENTRANCE SHALL BE MONITORED CLOSELY DURING WET CONDITIONS. IF TRACKING INTO ADJACENT ROADWAYS OCCURS, THE FREQUENCY OF STREET SWEEPING SHALL BE INCREASED.

18. CONCRETE TRUCK WASHOUT
    - CONCRETE TRUCKS SHALL UTILIZE THE CONCRETE WASHOUT AREA SHOWN ON THE PLANS TO WASH AND RINSE THEIR EQUIPMENT PRIOR TO LEAVING THE SITE.
    - WASHOUT OF CONCRETE MIXER TRUCKS WILL BE PERFORMED IN THE DESIGNATED AREAS ONLY.
    - WASHOUTS WILL BE CONSTRUCTED AND MAINTAINED TO PROVIDE SUFFICIENT CONTAINMENT FOR ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
    - WASHOUTS SHALL BE CLEARLY MARKED ON SITE WITH SIGNAGE BY THE UTILITY CONTRACTOR WITH APPROVAL FROM OWNER.
    - WASHOUTS SHALL BE LOCATED A MINIMUM OF 50 FEET FROM DRAINAGE FACILITIES AND WATERCOURSES.
    - CONCRETE WASHOUT AREAS WILL HAVE AN IMPERMEABLE LINER TO PREVENT CONCRETE WASHOUT WATER FROM INFILTRATING/CONTACTING WITH SOIL.
    - IMPERMEABLE LINER SHALL CONSIST OF 10 MIL POLYLINER.
    - WASHOUT SYSTEMS CAN BE USED AS ALTERNATE WASHOUT AREAS.

19. VEHICLE MAINTENANCE
    - ROUTINE MAINTENANCE OF VEHICLES AND EQUIPMENT SHALL OCCUR IN STAGING AREAS ONLY.
    - VEHICLE WASHING SHOULD BE AVOIDED. IF WASHING IS NECESSARY, RUNOFF FROM THE WASHING WILL BE CONTAINED AND LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF.
    - ENGINE DEGREASING SHALL BE AVOIDED. IF DEGREASING IS NECESSARY, RUNOFF FROM THE OPERATION WILL BE CONTAINED IN A LINED SEDIMENT TRAP AND PROPERLY DISPOSED OF AT A TREATMENT FACILITY.
    - ALL REQUIRED SEDIMENT TRAPS AND CONTAINMENT FACILITIES AND PROPER DISPOSAL OF WASH WATER/DEGREASING AT A TREATMENT FACILITY SHALL BE INCIDENTAL TO THE CONSTRUCTION CONTRACT.

20. FUELING
    - ANY FUEL TANK OR TRUCK STORED ON THE PROJECT SITE SHALL BE PROTECTED BY A SECONDARY CONTAINMENT SYSTEM.
    - FUELING AREAS SHALL NOT BE WASHED OR RINSED WITH WATER SINCE THIS COULD CAUSE FUEL SPILLS TO BE DISCHARGED INTO STORM WATER SYSTEMS.
    - ABSORBENT MATERIALS SHALL BE AVAILABLE ON SITE FOR USE IN CLEANING UP SMALL SPILLS.
    - ALL REQUIRED FUEL CONTAINMENT AND CLEAN-UP MATERIALS AND THE PROPER DISPOSAL OF THE MATERIALS SHALL BE INCIDENTAL TO THE CONSTRUCTION CONTRACT.

21. HAZARDOUS MATERIALS
    - HAZARDOUS MATERIALS SHALL BE PROPERLY STORED TO PREVENT VANDALISM OR UNAUTHORIZED ACCESS.
    - CONTAINMENT UNITS SHALL BE INSTALLED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
    - MPCA STORING AND DISPOSAL REQUIREMENTS SHALL BE FOLLOWED FOR ALL HAZARDOUS WASTE.
    - NO HAZARDOUS MATERIAL SHOULD BE STORED WITHIN 200 FEET OF AN IDENTIFIED CRITICAL AREA.
    - ABSORBENT MATERIALS SHALL BE AVAILABLE FROM THE CONTRACTOR ON SITE FOR USE IN CLEANING UP SMALL SPILLS.
    - IF BUILDING MATERIALS, CHEMICALS, OR GENERAL REFUSE IS BEING USED, STORED, DISPOSED OF, OR OTHERWISE MANAGED INAPPROPRIATELY, THE CONTRACTOR SHALL CORRECT SUCH DEFECTS WITHIN 24 HOURS OF DETECTION OR NOTIFICATION.
    - ALL REQUIRED CONTAINMENT / STORAGE UNITS / ABSORBENT MATERIAL AND REQUIRED DISPOSAL SHALL BE INCIDENTAL TO THE CONSTRUCTION CONTRACT.

22. CHEMICAL CONTAINMENT
    - GASOLINE, OIL, PAINT, SOLVENTS, AND OTHER CHEMICALS NECESSARY FOR CONSTRUCTION ARE NOT ALLOWED TO CONTACT THE GROUND SURFACE, BE EXPOSED TO GROUNDWATER OR BE RELEASED TO A SURFACE OR GROUNDWATER EXCEPT IN DE MINIMIS QUANTITIES.
    - ALL PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINER, WITH ORIGINAL LABELS STILL ATTACHED, UNLESS THE CONTAINER IS NOT RESEALABLE.
    - HAZARDOUS MATERIALS SHALL BE RETURNED TO THE HAZARDOUS MATERIAL STORAGE AREA AT THE END OF EACH DAY.
    - AN EFFORT SHOULD BE MADE TO STORE ONLY ENOUGH PRODUCTS TO DO THE REQUIRED JOB.
    - THE CONTRACTOR SHALL PROVIDE TANKS OR BARRELS TO COLLECT LIQUID BYPRODUCTS THAT POSE A POLLUTION HAZARD.
    - THE POLLUTANTS SHALL BE REMOVED FROM THE SITE ON A WEEKLY BASIS AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
    - ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDED METHODS.
    - ALL REQUIRED CONTAINMENT / STORAGE UNITS / ABSORBENT MATERIAL AND REQUIRED DISPOSAL SHALL BE INCIDENTAL TO THE CONSTRUCTION CONTRACT
    - ALL STORAGE AREAS SHALL BE SECURED TO PREVENT UNAUTHORIZED ACCESS.

23. SOLID WASTE
    - SOLID WASTE SHALL BE STORED IN APPROPRIATE CONTAINERS AND PROPERLY DISPOSED OF ON A REGULAR BASIS.
    - CONTAINERS SHALL BE COVERED TO PREVENT WIND BLOWING THE WASTE AROUND THE SITE.
    - MPCA DISPOSAL REQUIREMENTS WILL BE FOLLOWED FOR ALL SOLID WASTE.
    - SOLID WASTE STORAGE CONTAINERS AND PROPER DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION CONTRACT.

24. DUST CONTROL
    - THE CONTRACTOR SHALL USE A VARIETY OF DUST CONTROL INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
        - A. RAPID STABILIZATION METHODS ON SLOPES
        - B. WATER ON ROADWAYS AND GRADED AREAS
        - C. ALTERNATIVES: IN THE FORM OF VEGETABLE POLYMERS, WATER AND CALCIUM CHLORIDE PETROLEUM EMULSION RESINS, OR ACRYLIC COPOLYMERS MAY ALSO BE USED.
    - ALL REQUIRED DUST CONTROL SHALL BE INCIDENTAL TO THE CONSTRUCTION CONTRACT AS PER SPECIFICATIONS.

25. WINTER STABILIZATION
    - COVER EXPOSED SOILS ON OR AROUND NOV. 15TH AND/OR PRIOR TO TERMINATION OF CONSTRUCTION ACTIVITIES FOR WINTER
    - ALL EXPOSED SOILS TO BE COVERED WITH 2 TONS TYPE 1 MULCH
    - ALL EXPOSED SOILS TO BE SEEDED WITH MNDOT SEED MIX 21-112ALL LOW POINTS IN ROADS TO BE ADEQUATELY DRAINED IN ACCORDANCE WITH NPDES DEWATERING REQUIREMENTS PART IV. CONSTRUCTION ACTIVITY REQUIREMENTS. SECTION D. DEWATERING AND BASIN DRAINING.
    - PERIMETER SILT FENCE OR OTHER CONTROLS TO BE INSTALLED 3-5 FEET FROM THE BACK OF THE CURB AND OUT OF THE PLOWED SNOW AREA.
    - PERIMETER CONTROLS AROUND PERMANENT STORMWATER BASINS TO BE INSTALLED AND MAINTAINED
    - INLET CONTROLS TO BE REMOVED ACCORDING TO LEGAL REQUIREMENTS WITH DOCUMENTATION WITHIN 72 HOURS FROM LEGAL AUTHORITY.
    - IF WORK HAS OCCURRED NEAR OR IN STREAMS OR OTHER SURFACE WATERS, THE EXPOSED SOILS SHALL BE STABILIZED TO PROTECT AGAINST FLOODING AND SPRING RUNOFF TO THE 100-YR FLOOD ELEVATION.
    - ALL TEMPORARY AND PERMANENT STORMWATER BASINS AND SEDIMENT BASINS SHOULD HAVE OUTLETS AND STABILIZED EMERGENCY OVERFLOWS INSTALLED AS PER THE GRADING AND/OR UTILITY PLAN AND AT THE APPROVAL OF THE OWNER.

26. NON-STORMWATER DEWATERING
    - HYDRANT FLUSHING: FLUSHING OF HYDRANTS WILL BE DISCHARGED
    - THROUGH TEMPORARY PIPES AS NECESSARY, ONTO IMPERVIOUS SURFACES OR TO STABILIZED ARES WITH ENERGY DISSIPATION AT THE DISCHARGE POINT. THE DISCHARGE SHOULD BE COLLECTED BY THE STORM WATER BASINS AND STORM SEWER SYSTEM.
    - POTABLE WATER DISCHARGE: ALL WATER LINES WILL BE FLUSHED USING HOSES AND DISCHARGED ONTO AN IMPERVIOUS SURFACE AND DIRECTED TO THE STORM SEWER INFRASTRUCTURE BY NON-EROSIVE MEANS.

27. WORK NEAR SPECIAL WATERS
    - EXPOSED SOILS MUST BE STABILIZED WITHIN 7 DAYS OF ACTIVITY TEMPORARILY OR PERMANENTLY CEASED.
    - TEMPORARY SEDIMENT BASIN NEEDED WITHIN AREAS 5 ACRE DISTURBANCE WITH COMMON POINT OF DISCHARGE.
    - IF WORK IS NEAR SPECIAL WATERS REFER TO APPENDIX A OF THE NPDES PERMIT FOR ADDITIONAL NOTES AND REQUIREMENTS.
    - MAINTAIN AT ALL TIMES, 100 FT UNDISTURBED BUFFER AROUND SPECIAL WATERS.
    - NO UNTREATED DEWATERING WILL TAKE PLACE AND DISCHARGE TO "SPECIAL WATERS"
    - **SEE PERMIT FOR ADDITIONAL NOTES AND REQUIREMENTS**

28. WORK NEAR OR IN IMPAIRED WATERS
    - EXPOSED SOILS MUST BE STABILIZED WITHIN 7 DAYS OF ACTIVITY TEMPORARILY OR PERMANENTLY CEASED.
    - TEMPORARY SEDIMENT BASIN NEEDED WITHIN AREAS 5 ACRE DISTURBANCE WITH COMMON POINT OF DISCHARGE.
    - IF WORK IS NEAR SPECIAL WATERS REFER TO APPENDIX A OF THE NPDES PERMIT FOR ADDITIONAL NOTES AND REQUIREMENTS.
    - NO UNTREATED DEWATERING WILL TAKE PLACE AND DISCHARGE TO "IMPAIRED WATERS"
    - **SEE PERMIT FOR ADDITIONAL NOTES AND REQUIREMENTS**

29. WORK IN KARST AREAS
    - **SEE PERMIT FOR ADDITIONAL NOTES AND REQUIREMENTS**

30. INFILTRATION/FILTRATION AREAS
    - FENCE OFF AREA PRIOR TO BEGINNING CONSTRUCTION.
    - EXCAVATION AREA SHALL TAKE PLACE AFTER CONTRIBUTING AREAS ARE AT FINAL GRADE AND STABILIZED.
    - DO NOT USE HEAVY/WHEELED EQUIPMENT IN FILTRATION AREA.
    - DIVERSIONS, REDUNDANT SEDIMENT AND EROSION CONTROLS MUST BE USED TO PROTECT AREA.
    - ENSURE 8 FT MAINTENANCE ACCESS IS ADEQUATE FOR AREA.
    - IF GRADING MUST OCCUR IN FILTRATION AREA, LEAVE GRADE 3 FT HIGH TEMPORARILY UNTIL AREA CAN BE FINAL GRADED AND STABILIZED

Firm Name and Address

MAHLER & ASSOCIATES
A R C H I T E C T U R E

Graeme H.D. Mahler, AIA
Principal

5150 Marson Drive
Suite 101
Sauk Rapids, MN 56379

TEL: (320) 257-2724
EMAIL: gmahler@mahlerarchitecture.com

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

James W.

DATE: 8/02/20214 LICENSE NO. 24755

No.	Revision/Issue	Date
2	CITY COMMENTS	8/02/24
1	BP#1 ADD#1	7/19/24

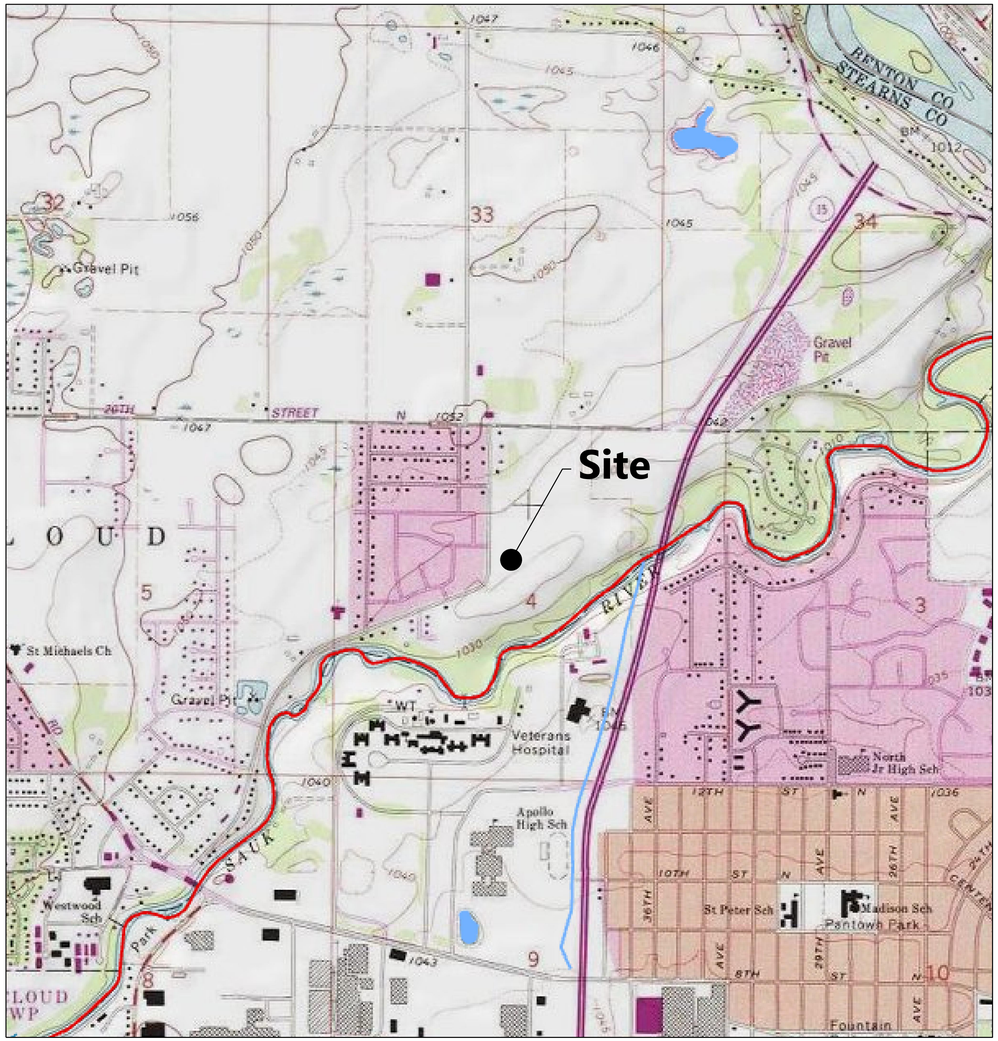
Project Name and Address
CCH MED SCHOOL HOUSING
160X CO HWY 134
ST CLOUD, MN 56303
BRADBURY STAMM CONS.
CHRIS KOEPP
(320) 253-2411

Project **2401**
Date **07/16/2024**
Scale **AS INDICATED**

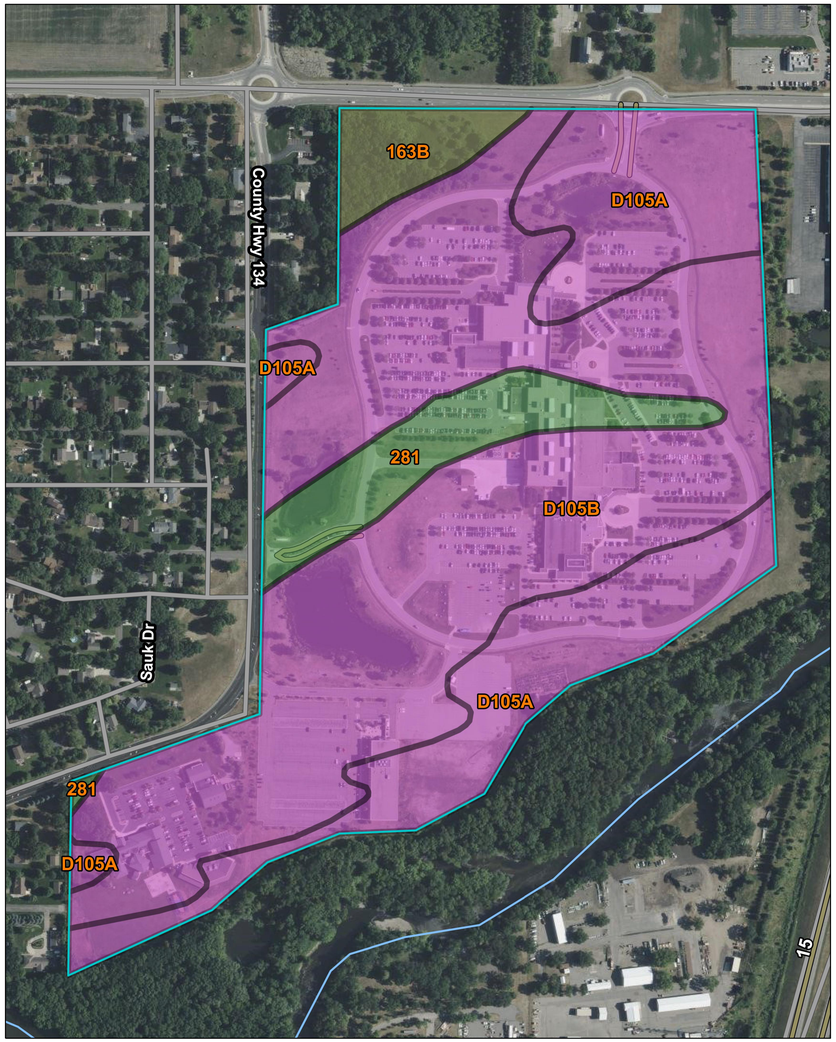
Sheet
SWPPP NOTES

C10

VICINITY MAP/IMPAIRED WATERS MAP



WEB SOIL SURVEY MAP



SWPPP AMENDMENTS
THIS PLAN AND THE ATTACHMENTS MUST BE AMENDED WITHIN 7 DAYS TO INCLUDE ADDITIONAL REQUIREMENTS OR MODIFIED REQUIREMENTS WHICH TAKE PLACE DURING CONSTRUCTION IF ONE OR MORE OF THE FOLLOWING OCCUR:

1. THERE IS A CHANGE IS DESIGN CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS THAT SIGNIFICANTLY IMPACTS THE DISCHARGE OF POLLUTANTS FROM THE SITE TO SURFACE OR GROUNDWATER.
2. INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER, OPERATOR, ENVIRONMENTAL PROTECTION AGENCY, MINNESOTA POLLUTION CONTROL AGENCY OFFICIALS INDICATE THIS PLAN IS NOT EFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING THE DISCHARGE OF POLLUTANTS.
3. THIS SWPPP IN NOT ACHIEVING THE GENERAL OBJECTIVES OF MINIMIZING POLLUTANTS IN STORMWATER DISCHARGES OR IF THIS PLAN IS NOT CONSISTENT WITH THE MN R1000011 CONSTRUCTION GENERAL PERMIT.
4. IF THE MPCA NOTIFIES THE OWNER AND/OR OPERATOR (i.e. PERMITTEES) THAT ADDITIONAL REQUIREMENTS ARE NEEDED, REQUIREMENTS ARE NOT BEING NET FOR TMDL OR OTHER WATER QUALITY STANDARDS, OR THAT THE SWPPP DID NOT INCORPORATE THE NECESSARY REQUIREMENTS.
5. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.

THE FOLLOWING TABLE SHOULD BE COMPLETED AS NECESSARY DURING CONSTRUCTION TO DOCUMENT CHANGES AND AMENDMENTS TO THIS DOCUMENT. AMENDMENTS MUST BE MADE BY ONE OF THE FOLLOWING INDIVIDUALS:THOSE PREPARING THIS DOCUMENT; THOSE OVERSEEING THE IMPLEMENTATION OF THE SWPPP; THOSE REVISING THE SWPPP; THOSE PERFORMING INSPECTIONS FOR THE PROJECT; AND/OR OTHER QUALIFIED INDIVIDUAL.

PLACE THE AMENDMENT NUMBER NEXT TO ALL APPLICABLE CHANGES, REDLINES, AND INFORMATION IN THE DOCUMENT TO REFERENCE BACK TO THE CHANGES SUMMARIZED BELOW.

AMENDMENT NO.	DATE	REASON, LOCATION, AND BRIEF DESCRIPTION OF CHANGE OR AMENDMENT	REQUESTED BY	PREPARED BY

SOIL MAP UNIT SYMBOL LEGEND

Map unit symbol	Map unit name	Rating
163B	Brainerd fine sandy loam, 1 to 4 percent slopes	C/D
281	Darfur coarse sandy loam	A/D
D105A	Arvilla sandy loam, 0 to 2 percent slopes	A
D105B	Arvilla sandy loam, 2 to 6 percent slopes	A

Firm Name and Address
MAHLER & ASSOCIATES
ARCHITECTURE
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DATE 8/02/2024 LICENSE NO. 24755

No.	Revision/Issue	Date
1	BP#1 ADD#1	7/19/24
2	CITY COMMENTS	8/02/24

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ST CLOUD, MN 56303
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Project 2401
Date 07/16/2024
Scale AS INDICATED
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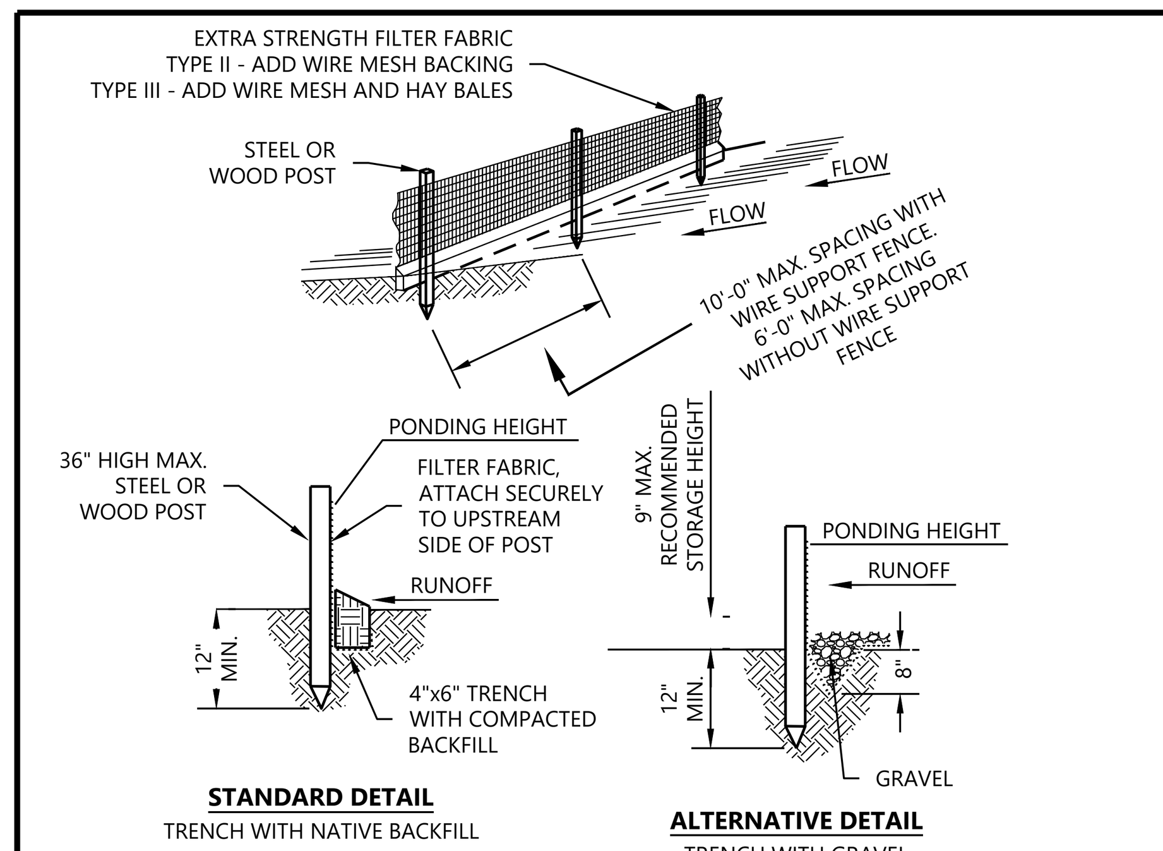
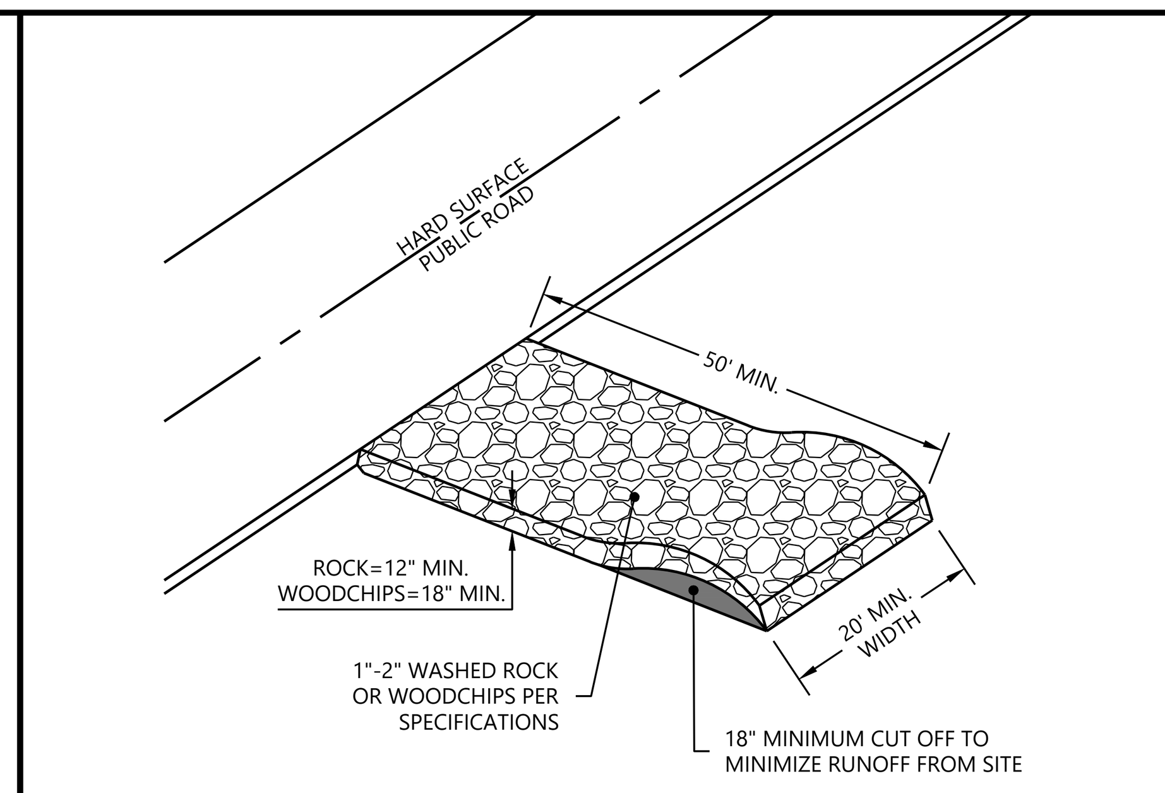
SWPPP MAPS



NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

Westwood | SILT FENCE | LAST REVISED: 08/15/17 | GD02



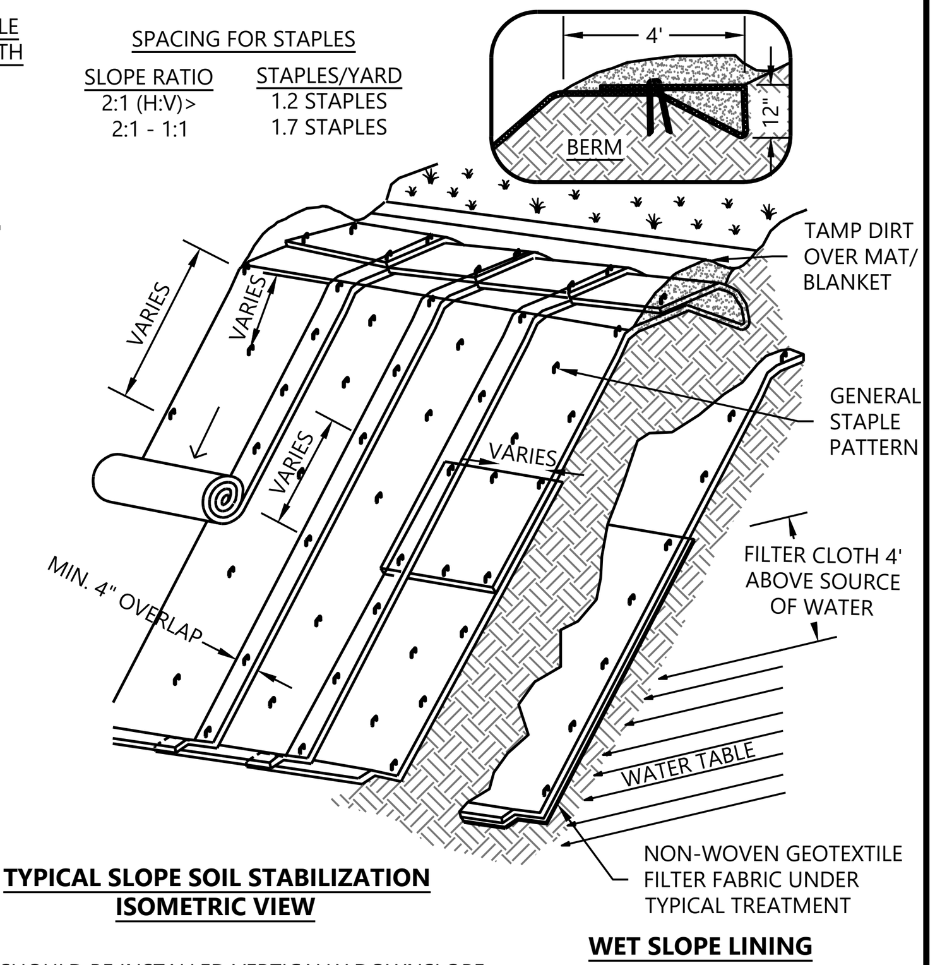
NOTES:
1. FILTER FABRIC SHALL BE PLACED UNDER ROCK/WOOD CHIPS TO STOP MUD MIGRATION THROUGH ROCK/WOOD CHIPS.
2. WOODCHIPS USED FOR CONSTRUCTION ENTRANCES MUST BE 80% NOT LESS THAN 2-INCHES AND NOT MORE THAN 5-INCHES. NO CHIPPED-UP MANUFACTURED WOOD AND/OR CHEMICALLY TREATED IS ALLOWED.
3. ENTRANCES MUST BE MAINTAINED REGULARLY TO PREVENT SEDIMENTATION ON PUBLIC ROADWAYS. FUGITIVE ROCK OR WOODCHIPS WILL BE REMOVED FROM ADJACENT ROADWAYS DAILY OR MORE FREQUENTLY AS NECESSARY.
4. LENGTH AND WIDTH TO BE ADJUSTED FOR SITE CONDITIONS.

Westwood | CONSTRUCTION ENTRANCE | LAST REVISED: 08/15/17 | GD05

CATEGORY OF BLANKET	STAPLE LENGTH
15	4"
20	6"
25	6"
30	8"
35	8"
45	10"

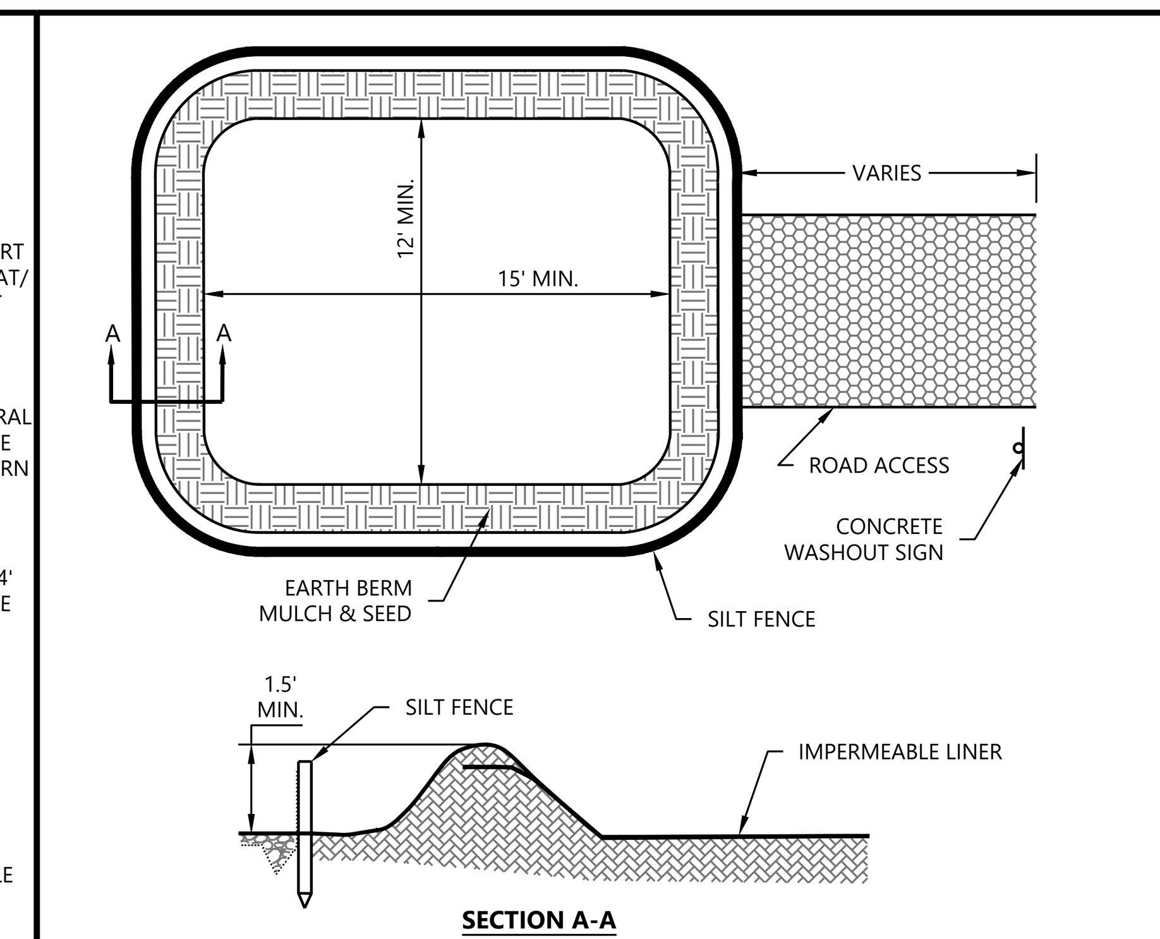
SPACING FOR STAPLES

SLOPE RATIO	STAPLES/YARD
2:1 (H:V)>	1.2 STAPLES
2:1 - 1:1	1.7 STAPLES



NOTES:
1. MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.
2. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICK AND GRASS.
3. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
4. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL.
5. DO NOT STRETCH.

Westwood | TEMPORARY EROSION BLANKETS TURF REINFORCEMENT MATS FOR SLOPES | LAST REVISED: 04/20/21 | GD21



NOTES:
1. CONCRETE WASHOUT AREAS WILL HAVE AN IMPERMEABLE LINER TO PREVENT CONCRETE WASHOUT WATER FROM INFILTRATING/CONTACTING WITH SOIL.
2. IMPERMEABLE LINER INCLUDES 10 MIL POLY LINER OR COMPACTED CLAY LINER.
3. WASHOUT SYSTEMS CAN BE USED AS ALTERNATE WASHOUT AREAS.

Westwood | CONCRETE WASHOUT AREA | LAST REVISED: 08/15/17 | GD08

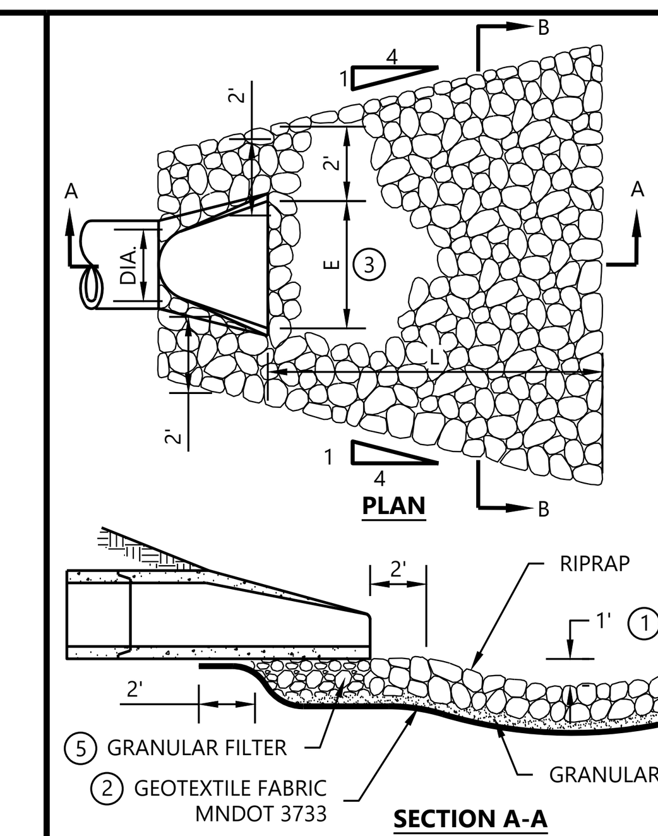
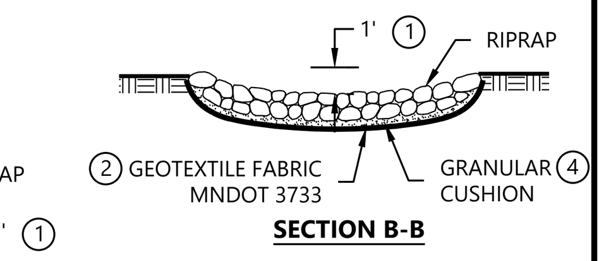


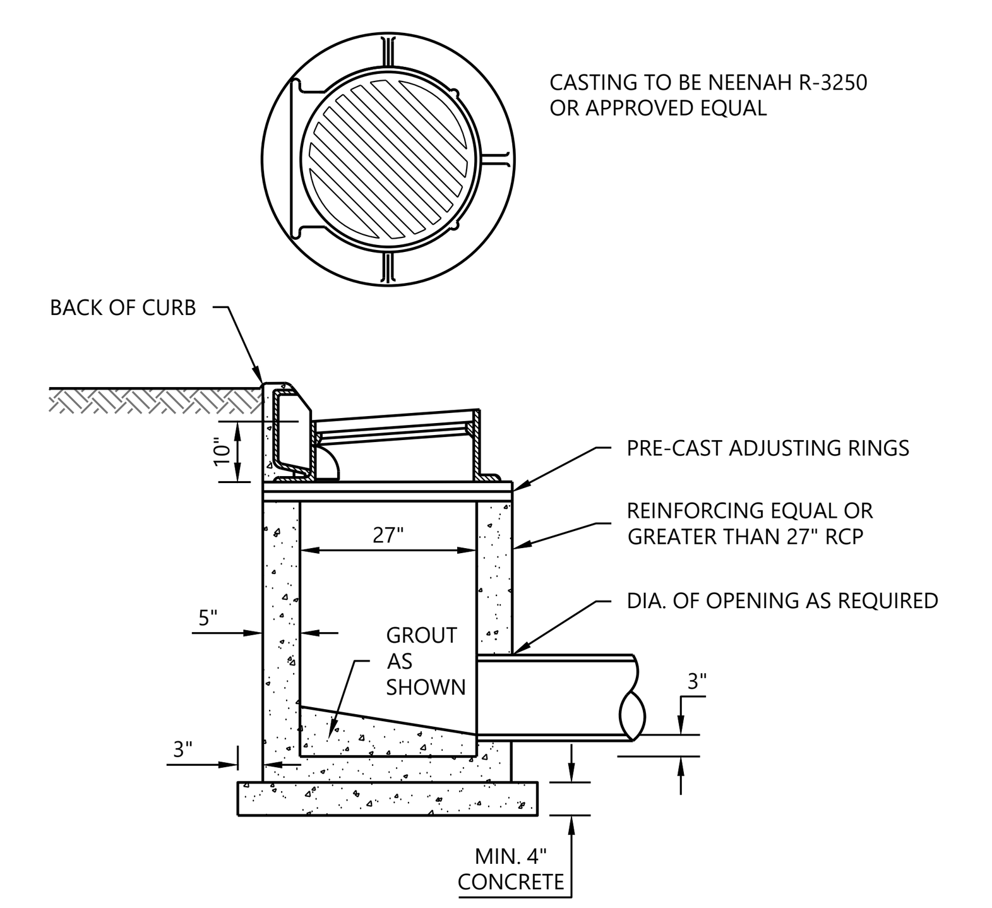
TABLE OF QUANTITIES
RIPRAP AT OUTLETS

		CLASS II d_{50} = 6"		CLASS III d_{50} = 9"		CLASS IV d_{50} = 12"	
Dia. Round Pipe (In.)	L (Ft.)	12" Depth Riprap (Cu. Yd.)	Granular Filter Under Apron (Cu. Yd.)	18" Depth Riprap (Cu. Yd.)	Granular Filter Under Apron (Cu. Yd.)	24" Depth Riprap (Cu. Yd.)	Granular Filter Under Apron (Cu. Yd.)
12	8	3.0	0.2	4.4	0.3	5.9	0.3
15	8	3.2	0.2	4.8	0.3	6.4	0.4
18	10	4.3	0.3	6.4	0.4	8.5	0.5
21	10	4.7	0.4	7.1	0.6	9.4	0.7
24	12	6.2	0.5	9.2	0.8	12.3	1.0
27	12	6.6	0.6	9.9	0.9	13.2	1.2
30	14	8.2	0.8	12.3	1.1	16.4	1.5
36	16	10.6	1.1	15.8	1.6	21.1	2.1
42	18	12.5	1.2	18.7	1.7	24.9	2.3
48	20	14.8	1.5	22.2	2.2	29.6	2.9

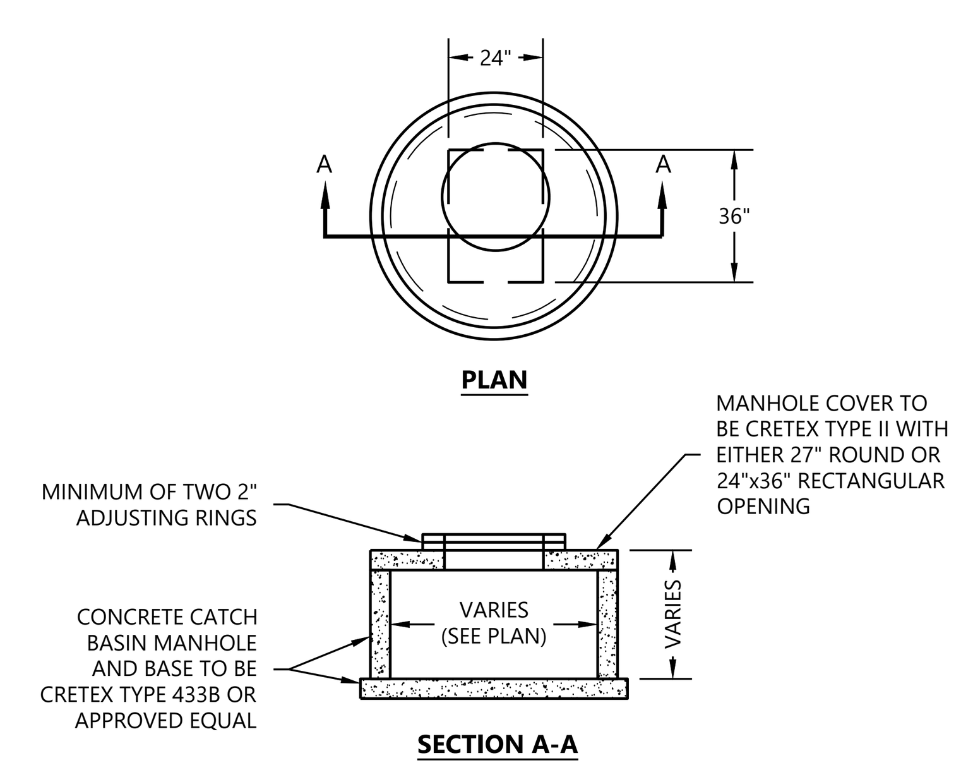


NOTES:
1. FOR PIPES GREATER OR EQUAL TO 30", USE 1.5'.
2. GEOTEXTILE FABRIC SHALL COVER THE BOTTOM AND SIDES OF THE AREA EXCAVATED FOR THE RIPRAP, GRANULAR FILTER MATERIALS.
3. DIMENSION "E" EQUALS INSIDE WIDTH OF APRON.
4. GRANULAR FILTER, MNDOT 3601, MAY BE USED AS A CUSHION LAYER. PLACE FILTER PER MNDOT 2511.
5. GRANULAR FILTER OR RIPRAP, MNDOT 3601, TO EXTEND UNDER ENTIRE OPEN PORTION OF PIPE APRON. DEPTH OF MATERIAL UNDER APRON SHALL MATCH RIPRAP DEPTH. WHEN USING RIPRAP INCREASE RIPRAP QUANTITY ACCORDINGLY AND PLACE A 3" LAYER OF 1.5" CRUSHED ROCK UNDER THE APRON TO AID IN GRADING FOR APRON PLACEMENT.
6. CONTRACTOR SHALL PLACE RIPRAP, PULVERIZED TOPSOIL, SEED AND WOODFIBER BLANKET IMMEDIATELY AFTER PIPE IS INSTALLED. EXTEND AREA TO MATCH UNDISTURBED SOIL.

Westwood | RIPRAP AT OUTLETS | LAST REVISED: 08/10/17 | ST05

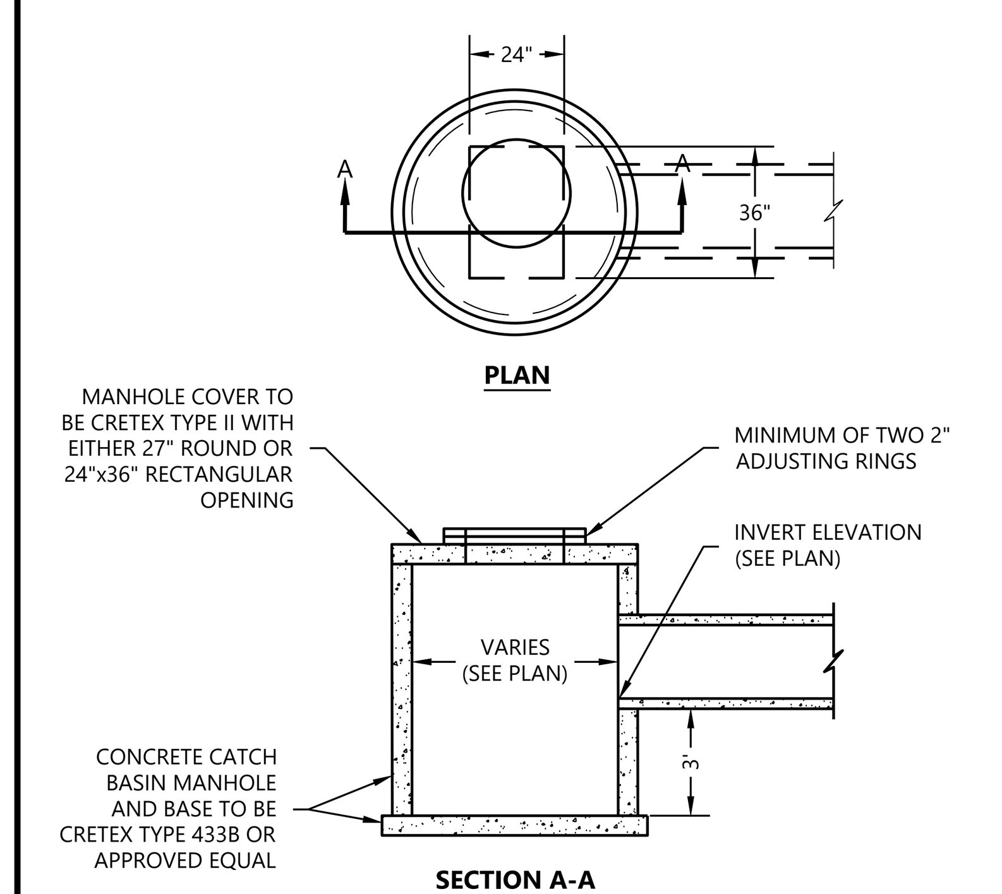


Westwood | ROUND CATCH BASIN | LAST REVISED: 08/15/17 | ST02



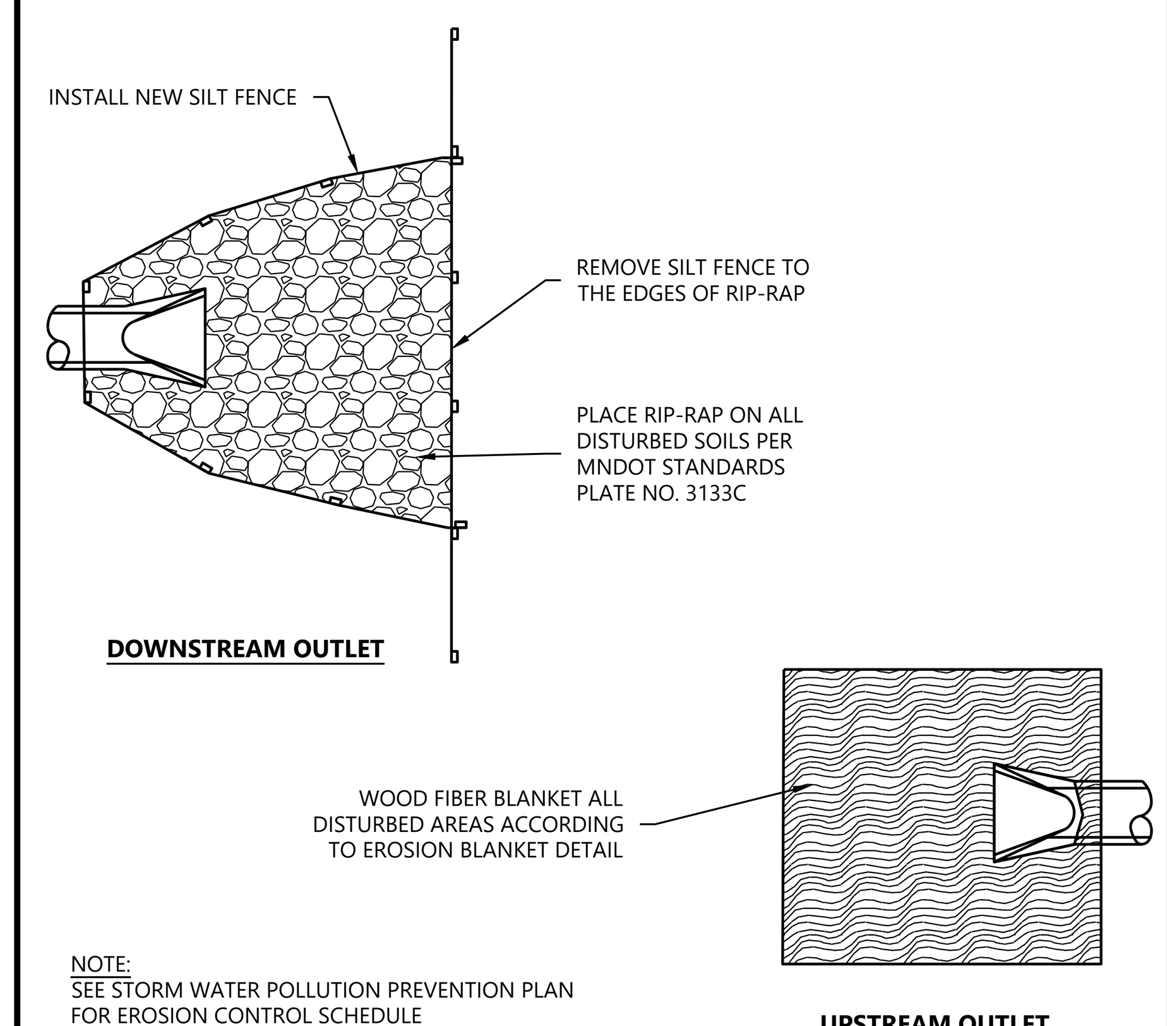
NOTES:
1. BASE TO BE GROUTED TO FORM A SMOOTH INVERT TO OUTLET.
2. PIPE CUT-OUTS TO BE LOCATED WHERE REQUIRED.
3. SEE DETAIL ST16 FOR CASTING TYPE.

Westwood | STANDARD MANHOLE | LAST REVISED: 08/10/17 | ST03



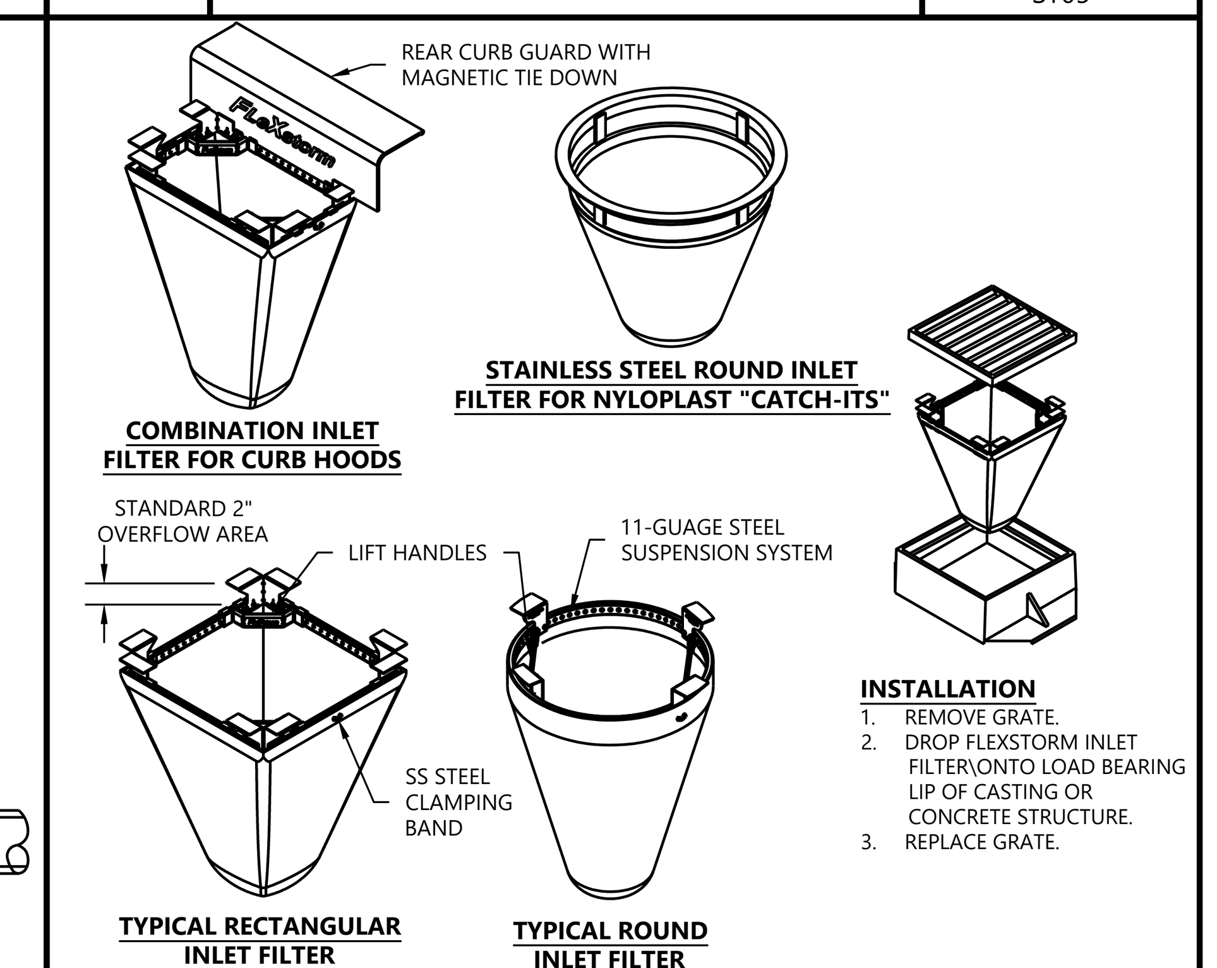
NOTES:
1. BASE TO BE GROUTED TO FORM A SMOOTH INVERT TO OUTLET.
2. PIPE CUT-OUTS TO BE LOCATED WHERE REQUIRED.
3. SEE DETAIL ST16 FOR CASTING TYPE.

Westwood | CATCH BASIN (SUMP) | LAST REVISED: 08/10/17 | ST04



NOTE:
SEE STORM WATER POLLUTION PREVENTION PLAN FOR EROSION CONTROL SCHEDULE

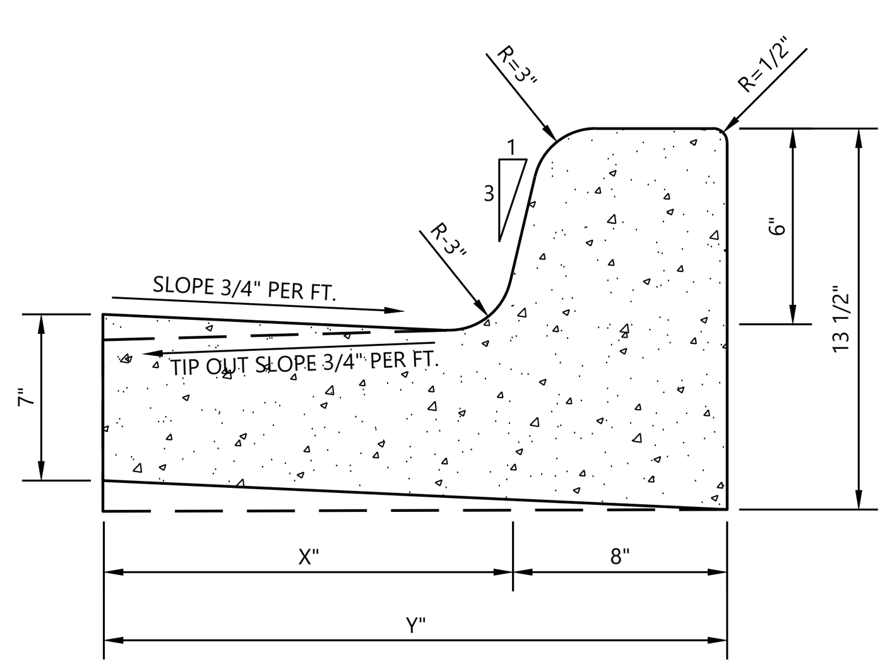
Westwood | EROSION CONTROL AT FLARED END SECTIONS | LAST REVISED: 08/15/17 | GD27



INSTALLATION
1. REMOVE GRATE.
2. DROP FLEXSTORM INLET FILTER(ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE.
3. REPLACE GRATE.

NOTES:
1. FILTERS MANUFACTURED BY FLEXSTORM.
2. MATCH INLET FILTER TO CASTING PER MANUFACTURE'S RECOMMENDATION.
3. USE CURB HOOD FOR ALL CURB INLETS.
4. MAINTAIN FILTER PER MANUFACTURE'S RECOMMENDATION AND THE SWPPP.
5. FILTER BAG SHALL BE FX TYPE (STANDARD WOVEN) UNLESS OTHERWISE STATED ON PLAN.

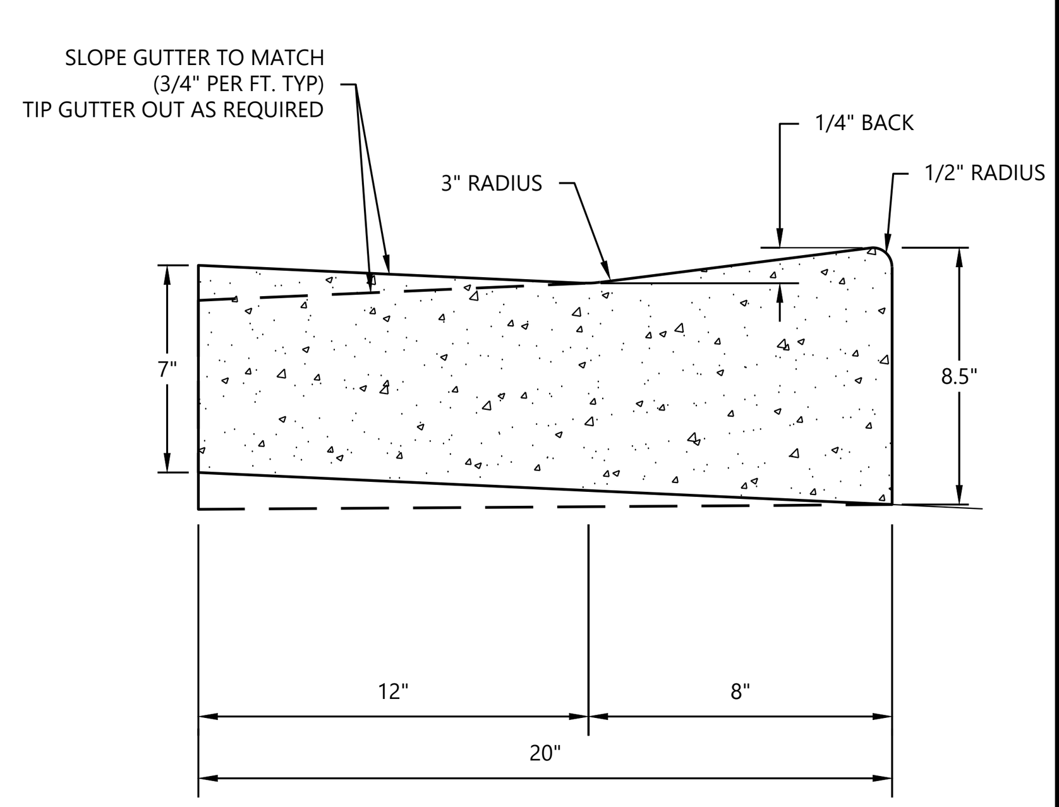
Westwood | MANUFACTURED INLET PROTECTION | LAST REVISED: 08/10/17 | GD32



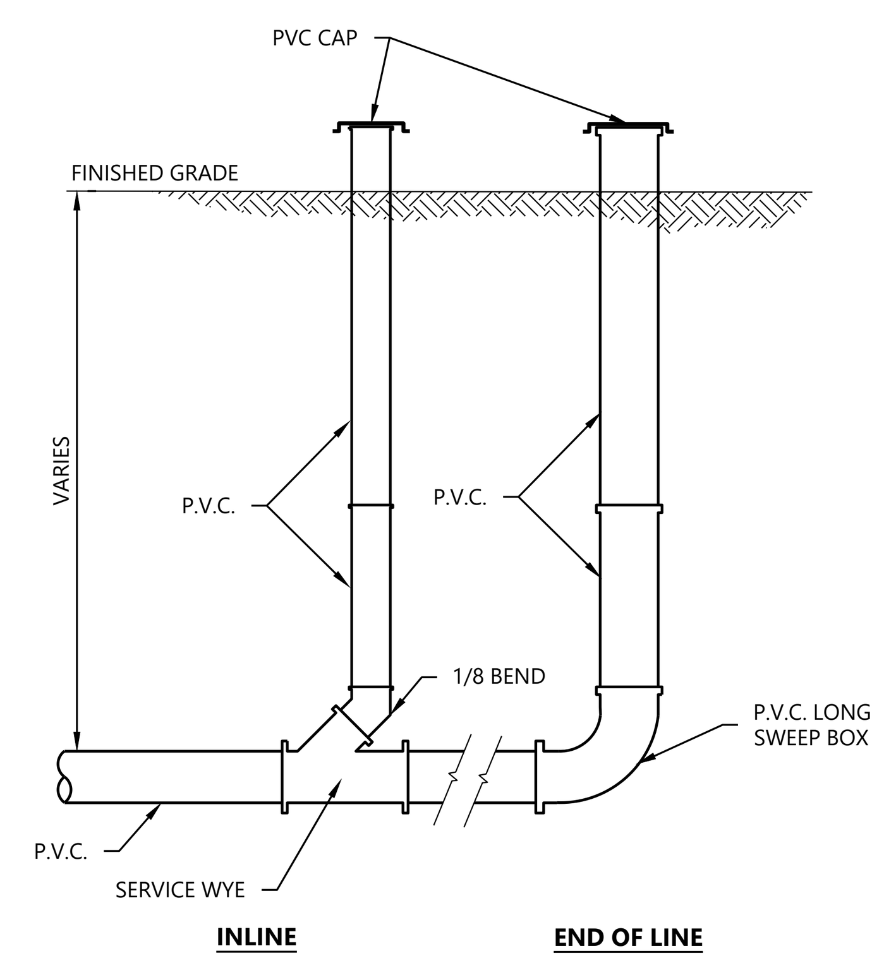
Curb Type	X	Y
B612	12"	20"
B618	18"	26"
B624	24"	32"

NOTES:
1. EXPANSION JOINT SPACING IS 100'
2. MIN. 3" CL. 5 UNDER C.&G.
3. CURB SHALL BE PER MnDOT SPEC 2531

Westwood | B6 STYLE CURB AND GUTTER | LAST REVISED: 01/09/20 | SI01

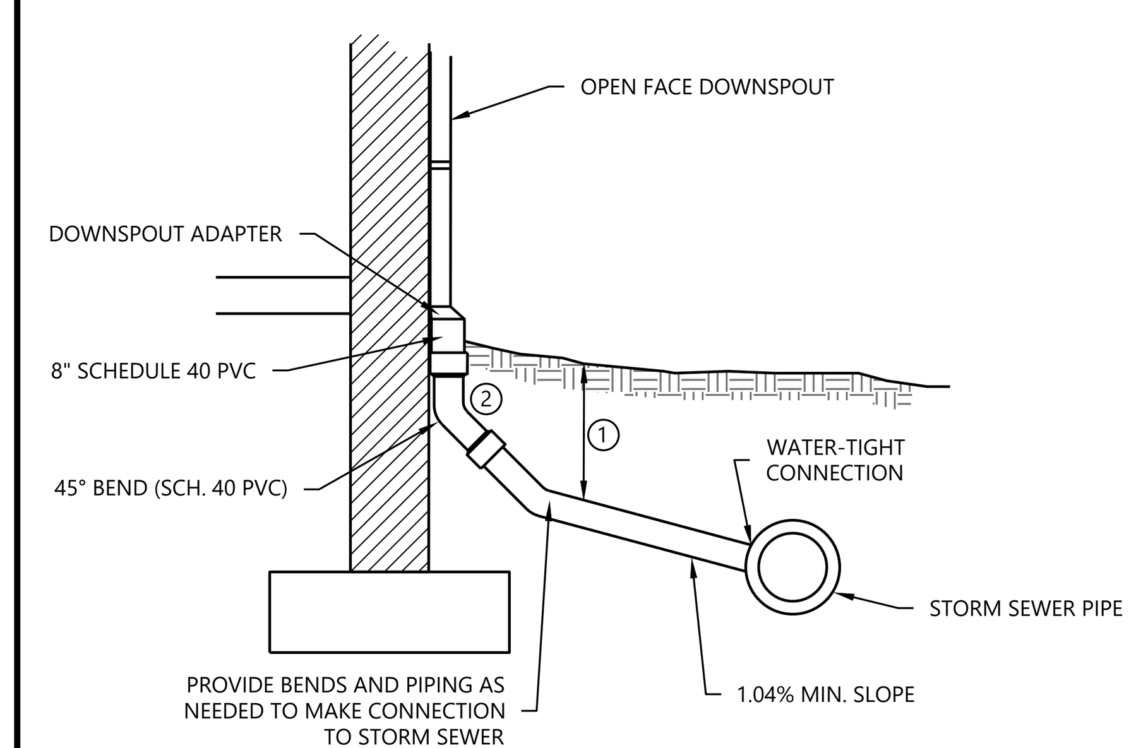


Westwood | FLUSH CURB AND GUTTER | LAST REVISED: 11/29/18 | SI02-D



NOTE:
1. CLEANOUT SHALL MATCH THE DRAINTILE DIAMETER

Westwood | STORM SEWER CLEANOUT | LAST REVISED: 08/15/17 | ST23



NOTES:
1. FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, OR WITHIN 10 FEET OF THE BUILDING, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, AND OUTSIDE THE 10 FOOT BUILDING ENVELOPE, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.
2. A WATER-TIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING.
3. INSTALL DOWNSPOUT CONNECTION AND STORM PIPE AFTER FOOTINGS AND FOUNDATION.

Westwood | DOWNSPOUT CONNECTION | LAST REVISED: 01/25/23 | ST19

STRUCTURE LOCATION	CASTING TYPE
CURB & GUTTER	R-3067-L
CURB & GUTTER @ LOW POINT	R-3067-VB
SURMOUNTABLE CURB & GUTTER AT DRIVEWAY LOCATION	R-3501-R
STMH IN PAVEMENT OR GREEN SPACE	R-1642 STAMPED "STORM SEWER"
CBMH IN PAVEMENT	R-2535
CBMH IN GREEN SPACE	R-4342
CBMH IN VALLEY GUTTER	R-3362-L

Westwood | STORM SEWER CASTING SCHEDULE | LAST REVISED: 08/11/17 | ST16

Firm Name and Address
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A R C H I T E C T U R E
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James W. Ijgelaar
DATE: 8/02/20214 LICENSE NO. 24755

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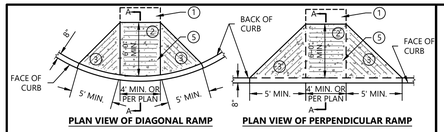
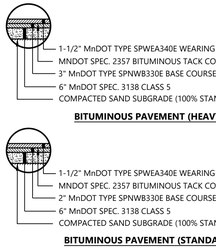
Project: 2401
Date: 07/16/2024
Scale: AS INDICATED
Sheet: DETAILS

C12



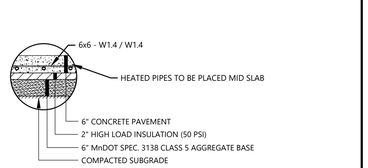
NOTES:
1. PROVIDE A RELATIVELY FLAT MINIMUM 4'x4' LANDING BEHIND THE PEDESTRIAN RAMP, 2% MAXIMUM CROSS SLOPE BOTH DIRECTIONS.
2. CURB RAMP AREA TO BE CONCRETE AND MEET LATEST ADA REQUIREMENTS. RAMP CROSS SLOPE 2% MAXIMUM. BACK-TO-BACK PEDESTRIAN RAMPS SHALL HAVE MINIMUM 48" LANDING BETWEEN, OR PROVIDE AT-GRADE CROSSING.
3. SIDE FLARES TO BE CONCRETE AND IMPLEMENTED WHERE ADJACENT TO PAVED AREAS. FLARED SLOPE TO BE 10% MAXIMUM. EXISTING CURB RAMP ALTERATIONS, WITH NO LANDING, SHALL BE 8.33% MAXIMUM. PROVIDE 10% MAXIMUM SLOPE, UNLESS NOTED OTHERWISE.
4. ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE MAY NOT BE GREATER THAN 1/4 INCH.
5. RAMP AND FLARED SIDE SURFACE TO BE MEDIUM BROOM FINISH, PERPENDICULAR TO TRAVEL PATH.
6. WALK SHALL BE PER MnDOT SPEC 2521 MIX NO. 3A32 WITH A 28-DAY DESIGN STRENGTH OF 3900-PSI.

Westwood	PRIVATE PEDESTRIAN CURB RAMP	LAST REVISED: 08/15/17
		SI09



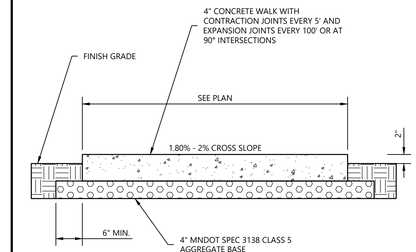
PAVEMENT SECTIONS SHOWN ARE FOR PLANNING PURPOSES ONLY. REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTIONS.

Westwood	PAVEMENT SECTIONS	LAST REVISED: 08/15/17
		SI19



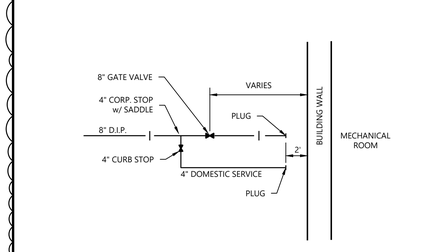
PAVEMENT SECTIONS SHOWN ARE FOR PLANNING PURPOSES ONLY. REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTIONS.

Westwood	HEATED CONCRETE PAVEMENT	LAST REVISED: 12/11/14
		SI19A

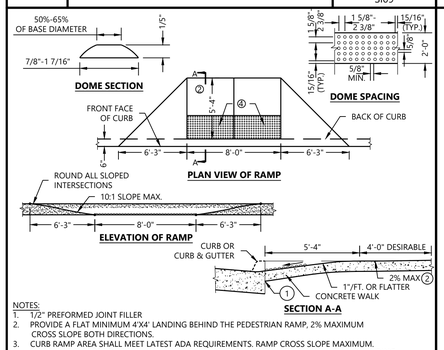


NOTES:
1. SEE ARCHITECTURAL PLANS FOR WALK SCORING AND JOINT LAYOUT.
2. WALK SHALL BE PER MnDOT SPEC 2521 MIX NO. 3A32 WITH A 28-DAY DESIGN STRENGTH OF 3900-PSI.

Westwood	PRIVATE CONCRETE SIDEWALK	LAST REVISED: 08/15/17
		SI08

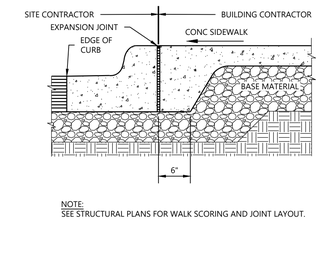


Westwood	DOMESTIC WATER & FIRE SERVICE	LAST REVISED: 08/08/17
		WM10



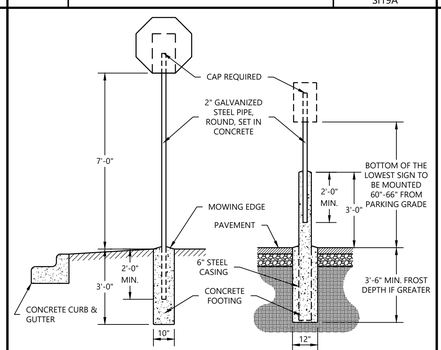
NOTES:
1. 1/2" PREFORMED JOINT FILLER
2. PROVIDE A FLAT MINIMUM 4'X4' LANDA BEHIND THE PEDESTRIAN RAMP, 2% MAXIMUM CROSS SLOPE BOTH DIRECTIONS.
3. CURB RAMP AREA SHALL MEET LATEST ADA REQUIREMENTS. RAMP CROSS SLOPE MAXIMUM.
4. SIDE FLARE SLOPES TO BE 10% MAXIMUM. EXISTING CURB RAMP ALTERATIONS WITH NO LANDING SHALL BE 8.33% MAXIMUM. PROVIDE 10% MAXIMUM SLOPE, UNLESS OTHERWISE NOTED.
5. ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE MAY NOT BE GREATER THAN 1/4 INCH.
6. ADA REQUIRED DETECTABLE WARNING SURFACE (TRUNCATED DOMES) SHALL BE 2' MIN. IN DIRECTION OF LANDING AT CURB AND SHALL EXTEND THE FULL WIDTH OF THE LANDING. AREA SHALL BE CONTRASTING COLOR TO THE ADJACENT WALKING SURFACE WITH A PREFABRICATED CAST IRON TRUNCATED DOME INSERT MEETING THE ADA DOME SIZE AND SPACING REQUIREMENT.

Westwood	PEDESTRIAN CURB RAMP FOR BITUMINOUS TRAILS	LAST REVISED: 08/15/17
		SI34



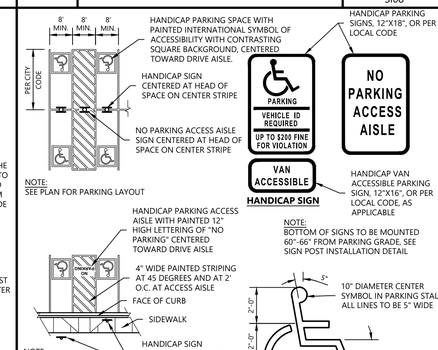
NOTE:
SEE STRUCTURAL PLANS FOR WALK SCORING AND JOINT LAYOUT.

Westwood	CONCRETE CURB AT SIDEWALK	LAST REVISED: 08/15/17
		SI24

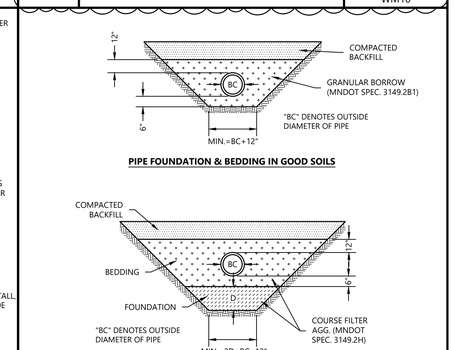


NOTE:
1. SIGN TO BE 2-SIDED WHERE ACCESSIBLE PARKING STALLS FACE ONE ANOTHER.
2. PARKING GRADE IS DEFINED AS EITHER FLOW LINE OF CURB OR PAVEMENT SURFACE AT THE HEAD OF THE STALL.

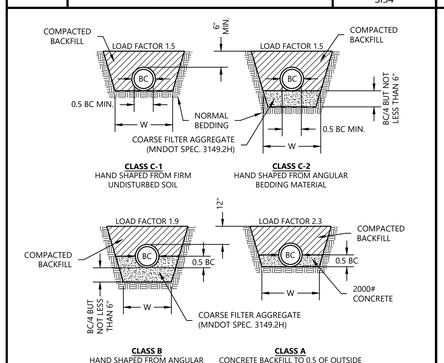
Westwood	SIGN POST INSTALLATION	LAST REVISED: 11/16/2023
		SI14



Westwood	ACCESSIBLE SIGNAGE AND STRIPING	LAST REVISED: 04/21/17
		SI15

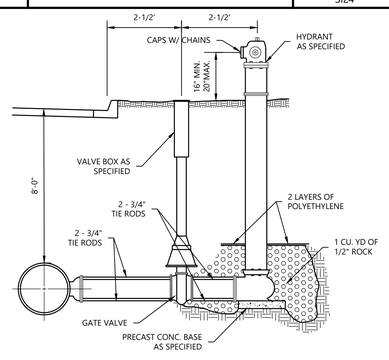


Westwood	DOMESTIC WATER & FIRE SERVICE	LAST REVISED: 08/08/17
		WM10



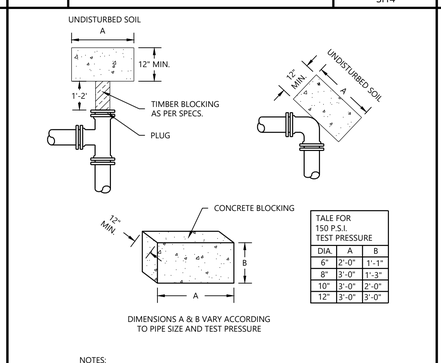
NOTES:
1. "BC" DENOTES OUTSIDE DIAMETER OF PIPE
2. "W" BC+12" MIN.

Westwood	PIPE BEDDING DETAILS FOR RCP & DIP	LAST REVISED: 08/15/17
		SS11



NOTE:
1. MEGA-LUGS MAY BE USED IN LIEU OF TIE RODS

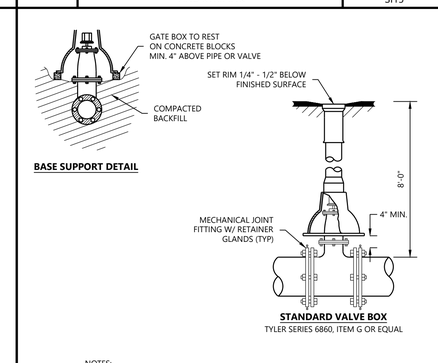
Westwood	FIRE HYDRANT	LAST REVISED: 04/21/17
		WM01



TALE FOR 150 P.S.I. TEST PRESSURE		
DIA.	A	B
6"	2'-0"	1'-1"
8"	3'-0"	1'-3"
10"	3'-0"	2'-0"
12"	3'-0"	3'-0"

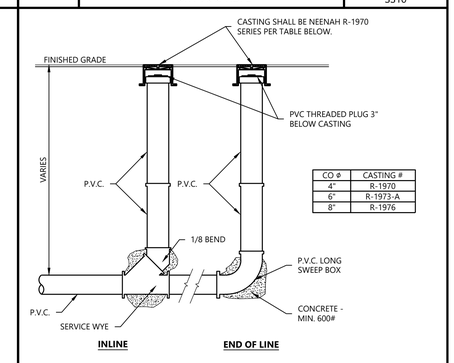
NOTES:
1. GATE VALVE CLOCKWISE OPENING ON SPWU SYSTEM OPENING
2. COUNTERCLOCKWISE OPENING ON NORTH ST. PAUL SYSTEM VALVES CONFORMING TO AWWA C-509
3. 12" WATERMAIN AND LARGER REQUIRE BUTTERFLY VALVES

Westwood	WATERMAIN BLOCKING	LAST REVISED: 08/08/17
		WM04



NOTES:
1. GATE VALVE CLOCKWISE OPENING ON SPWU SYSTEM OPENING
2. COUNTERCLOCKWISE OPENING ON NORTH ST. PAUL SYSTEM VALVES CONFORMING TO AWWA C-509
3. 12" WATERMAIN AND LARGER REQUIRE BUTTERFLY VALVES

Westwood	GATE VALVE	LAST REVISED: 04/21/17
		WM02



CO #	CASTING #
4"	R-1970
6"	R-1973-A
8"	R-1976

NOTES:
1. ADJUST TO FINISHED GRADE PRIOR TO PAVING
2. CLEANOUT SHALL BE 4" DIAMETER ON 4" AND LARGER DIAMETER SERVICES UNLESS OTHERWISE STATED ON PLANS.

Westwood	SANITARY SEWER SERVICE CLEANOUT	LAST REVISED: 08/15/17
		SS06A

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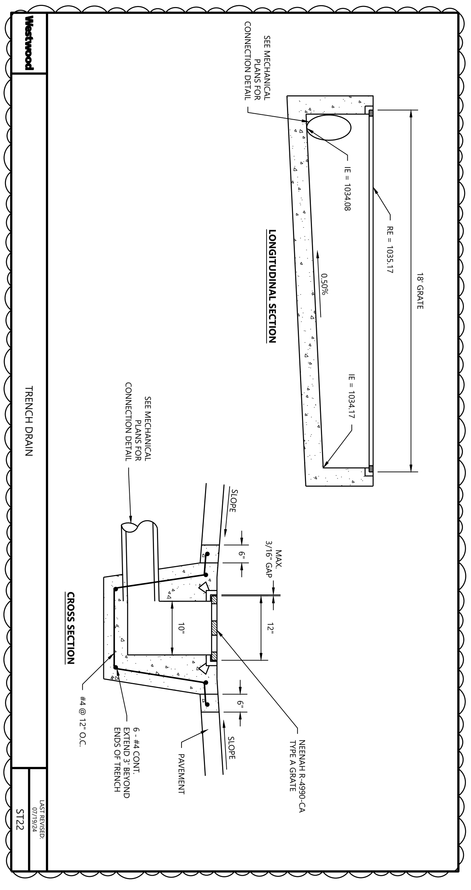
Graeme H.D. Mahler, AIA
Principal
Firm Name and Address
G:\LOGO\Mlgo M.jpg

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Graeme H. Mahler
DATE: 8/02/2024 LICENSE NO. 24755

No.	Revision / Issue	Date
2	CITY COMMENTS	8/02/24
1	BP#1 ADD#1	7/19/24

Project Name and Address
CCH MED SCHOOL HOUSING
160X CO HWY 134
ST CLOUD, MN 56303
BRADBURY STAMM CONS.
CHRIS KOEPP
(320) 253-2411

Project 2401
Date 07/16/2024
Scale AS INDICATED
Sheet DETAILS



Sheet: DETAILS

C14

Project: 2401

Date: 07/16/2024

Scale: AS INDICATED

Project Name and Address

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160X CO HWY 134
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James W. Tigelaar

DATE: 8/02/20214 LICENSE NO. 24755

Firm Name and Address

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