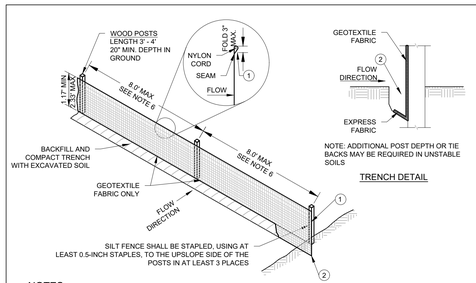

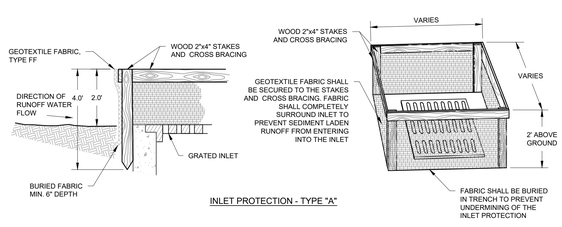

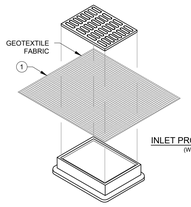

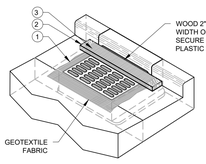

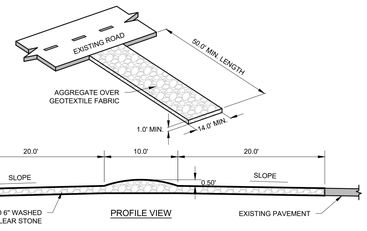

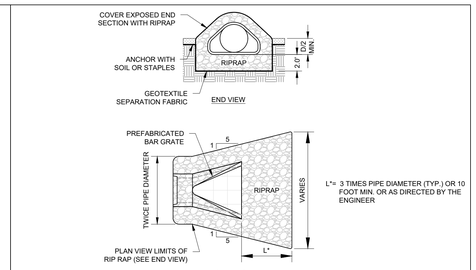

1.0 POTENTIAL POLLUTANT SOURCES

GIVEN THE PROPOSED ACTIVITY ON THE PROJECT SITE, THE PRIMARY POTENTIAL POLLUTANT SOURCE ASSOCIATED WITH THIS CONSTRUCTION PROJECT IS SOIL EROSION AND TRANSPORTATION; REFER TO SECTION 4 OF THIS PLAN. ADDITIONAL POTENTIAL SOURCES OF POLLUTION MAY INCLUDE: FUEL TANKS, WASTE CONTAINERS, OIL OR OTHER PETROLEUM PRODUCTS, DETERGENTS, PAINTS, CONSTRUCTION DEBRIS, SANITARY STATIONS, FERTILIZERS, AND DUST; REFER TO SECTION 5 OF THIS PLAN.

2.0 EROSION AND SEDIMENT CONTROL IMPLEMENTATION

THE FOLLOWING ARE DESCRIPTIONS OF THE EROSION AND SEDIMENT CONTROL PRACTICES THAT SHALL BE IMPLEMENTED DURING CONSTRUCTION OF THIS PROJECT. IN ADDITION TO THESE MEASURES, CONTRACTOR SHALL DISTURB ONLY AREAS NECESSARY TO COMPLETE THE CONSTRUCTION PROJECT. ALL PRACTICES SHALL BE CONDUCTED IN ACCORDANCE WITH THE BEST MANAGEMENT PRACTICES (BMP).

2.1 CONSTRUCTION AND EROSION CONTROL SEQUENCING

CONSTRUCTION SEQUENCING WILL BE UTILIZED AS A MEANS OF CONTROLLING EROSION AND LIMITING SEDIMENT TRANSPORT. SEQUENCING AS LISTED BELOW IS GENERAL IN NATURE AND MAY VARY DEPENDING ON WEATHER CONDITIONS AND/OR PHASING OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED SITE SEQUENCING PLAN TO OWNER FOR APPROVAL AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 6 AS NEEDED TO COMPLETE CONSTRUCTION ONLY IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL REQUIREMENTS.

1. INSTALL TEMPORARY CONSTRUCTION ENTRANCES, INLET PROTECTION ON EXISTING STORM SEWER AND CULVERT INLET LOCATIONS, AND PERIMETER SILT FENCING.
2. INSTALL SILT FENCING ALONG THE PERIMETER OF PROPOSED TOPSOIL STOCKPILE LOCATIONS. THE FIRST TOPSOIL DEPOSITED WITHIN THE STOCKPILE LIMITS SHALL BE PLACED TO CREATE TEMPORARY BERMING ALONG THE SILT FENCE TO PREVENT DIRECT STORMWATER RUNOFF AGAINST SILT FENCING. CONTRACTOR SHALL LIMIT LAND DISTURBING ACTIVITIES ASSOCIATED WITH TEMPORARY BERMING TO A MINIMUM.
3. STRIP TOPSOIL WITHIN THE LIMITS OF THE SEDIMENT TRAPS THAT WILL BE USED FOR TEMPORARY SEDIMENT CONTROL. STRIPPED TOPSOIL SHALL BE PLACED TO CONSTRUCT DIVERSION BERMING OR PLACED WITHIN THE STOCKPILE LIMITS.
4. STRIP TOPSOIL ALONG THE REMAINDER OF DIVERSION BERMING AND IMMEDIATELY PLACE TOPSOIL TO CREATE THE BERMING. MASS TOPSOIL STRIPPING SHALL NOT OCCUR UNTIL ALL DOWNSTREAM SEDIMENT CONTROLS ARE IN PLACE.
5. CONDUCT ROUGH GRADING OPERATIONS AND UTILITY PIPING INSTALLATION. DRAIN TILE SHALL NOT BE INSTALLED UNTIL UPLAND AREAS CONTRIBUTING STORMWATER RUNOFF ARE STABILIZED. DITCH CHECKS SHALL BE INSTALLED WITHIN DRAINAGE DITCHES IMMEDIATELY FOLLOWING CREATION OF DITCHES AND INLET PROTECTION SHALL BE INSTALLED TO PROTECT ANY STORM SEWER OR CULVERTS THAT WILL FUNCTION DURING CONSTRUCTION.
6. FINE GRADE SUB-GRADE SOILS WITHIN PAVEMENT AND BUILDING LIMITS. PLACE STONE BASE MATERIAL AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
7. FINE GRADE REMAINING DISTURBED AREAS. PLACE SALVAGED TOPSOIL, EROSION BLANKETS/MATTING, AND SEED/MULCH AS SOON AS POSSIBLE FOLLOWING COMPLETION OF FINE GRADING EFFORTS.
8. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF SILT FENCE, TEMPORARY FENCING/PRETECTION, DITCH CHECKS, AND OTHER TEMPORARY CONTROLS, AND RESTORATION PRACTICES AS NECESSARY, TO THE SATISFACTION OF THE OWNER.

2.2 STABILIZATION PRACTICES

THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED, SHALL BE RECORDED ON THE STABILIZATION SCHEDULE FOR MAJOR GRADING ACTIVITIES.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED UNLESS:

> THE INITIATION OF STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION MEASURE SHALL BE INITIATED AS SOON AS PRACTICABLE.
>
> CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITIES CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS). IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED. SEE THE SOIL PROTECTION CHART PRESENTED IN THE CONSTRUCTION DOCUMENTS FOR RATES OF PERMANENT AND TEMPORARY VEGETATION.

STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES.

PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED LANDSCAPING PLAN
TEMPORARY SEEDING MAY CONSIST OF SPRING OATS (100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LBS/ACRE)
HYDRO-MULCHING WITH A TACKIFIER
GEOTEXTILE EROSION MATTING
SODDING

2.3 STRUCTURAL PRACTICES

THE FOLLOWING ARE DESCRIPTIONS OF STRUCTURAL PRACTICES TO BE IMPLEMENTED TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS, OR OTHERWISE LIMIT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE INCLUDING THE PROPOSED AND EXISTING WETLAND AREAS. SUCH PRACTICES COULD INCLUDE SILT FENCE, PROTECTION FENCE, CONSTRUCTION ENTRANCE, DITCH CHECK, EROSION CONTROL MATTING, DIVERSION BERM/SWALE, SEDIMENT TRAP, LEVEL SPREADER, INLET PROTECTION, OUTLET PROTECTION, AND TEMPORARY OR PERMANENT SEDIMENT BASIN. THE FOLLOWING STRUCTURAL PRACTICES ARE TO BE UTILIZED DURING THIS PROJECT.

SILT FENCE SHALL BE PLACED DOWN SLOPE OF DISTURBED AREAS OF THE CONSTRUCTION SITE AND AROUND THE PERIMETER OF THE TOPSOIL STOCKPILE. THIS INCLUDES PROTECTION OF EXISTING WETLAND AREAS TO BE MAINTAINED. SILT FENCE MAY ALSO BE USED AS A TEMPORARY CONTROL DEVICE WHERE SEDIMENTATION RUNOFF IS DISCOVERED.

CONSTRUCTION ENTRANCE SHALL BE INSTALLED TO REDUCE SOIL EROSION POLLUTANTS FROM LEAVING THE SITE DURING CONSTRUCTION ACTIVITIES. IF THE CRUSHED STONE DOES NOT ADEQUATELY REMOVE MUD FROM VEHICLE TIRES, THEY SHALL BE HOSED OFF BEFORE ENTERING A PAVED ROADWAY. ANY SOIL DEPOSITED ON THE PUBLIC PAVED ROAD WAY SHALL BE REMOVED IMMEDIATELY.

DITCH CHECK (STRAW BALES) SHALL BE INSTALLED IN DRAINAGE CHANNELS AS NEEDED.

EROSION CONTROL MATTING SHALL BE PLACED ON AREAS OR EMBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V, BEFORE VEGETATION IS ESTABLISHED.

DIVERSION BERM/SWALE SHALL BE CONSTRUCTED TO DIVERT RUNOFF AROUND THE SITE AND TO DIVERT RUNOFF FROM THE DISTURBED AREA TO A SEDIMENT TRAP OR OTHER CONTROL. BERMS/SWALES SHALL BE STABILIZED WITH EQUIPMENT TRACKING AND TEMPORARY SEEDING.

SEDIMENT TRAPS/BASIN SHALL BE CONSTRUCTED TO COLLECT RUNOFF AND RUNOFF FROM SITE DIVERSION BERMS/SWALES.

INLET PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE INLETS TO REDUCE SEDIMENT WITHIN STORM SEWER CONVEYANCE FEATURES.

OUTLET SCOUR PROTECTION SHALL BE INSTALLED AT STORMWATER DRAINAGE OUTLETS TO DIFFUSE FLOWS.

3.0 ADDITIONAL PRACTICES

ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING.

CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.

DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:

> COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON-ERODIBLE MATERIAL.
>
> ROUGHENING (EQUIPMENT TRACKING) THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.
>
> FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
>
> PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.

STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

4.0 EROSION AND SEDIMENT STRUCTURAL PRACTICE MAINTENANCE

THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THE BELOW.

SILT FENCE - REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

CONSTRUCTION ENTRANCE - AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.

DITCH CHECK (STRAW BALES) - RE-SECURE STAKES; ADJUST OR REPOSITION BALES TO ADDRESS PROPER FLOW OF STORMWATER; AND REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE HEIGHT OF THE BALE.

EROSION CONTROL MATTING - REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE-GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.

DIVERSION BERM/SWALE - REPLACE OR RE-COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.

SEDIMENT TRAP - REMOVE AND DISPOSE OF THE ACCUMULATED SEDIMENT WHEN IT HAS REACHED THE SEDIMENT STORAGE ELEVATION.

INLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE ONE-HALF FULL OF SEDIMENT.

OUTLET PROTECTION - CLEAN, REPAIR OR REPLACE FILTER FABRIC, TURF REINFORCEMENT MATTING AND/OR STONE WHEN CONTROL MEASURE IS ONE-HALF FULL OF SEDIMENT.

SEDIMENT BASIN - AT THE END OF CONSTRUCTION, CONTRACTOR SHALL REMOVE AND DISPOSE OF THE ACCUMULATED SEDIMENT AND RESTORE BASIN AREA TO INTENDED POST-CONSTRUCTION DESIGN GRADES.

5.0 INSPECTION

INSPECTIONS SHALL BE COMPLETED WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A RAINFALL EVENT THAT IS ONE-HALF INCH OR GREATER OR EQUIVALENT SNOWFALL, OR AT A MINIMUM ONCE EVERY SEVEN (7) CALENDAR DAYS. INSPECTIONS SHALL BE UNDERTAKEN BY QUALIFIED PERSONNEL PROVIDED BY THE CONTRACTOR, AND SHALL INCLUDE: DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. A STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT SHALL BE COMPLETED AND ADDED TO THE SWPPP. RAINFALL SHALL BE RECORDED ON THE SWPPP RAINFALL LOG. CONTRACTOR SHALL IMMEDIATELY ARRANGE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED OR DEFICIENT CONTROL MEASURES OBSERVED DURING THE INSPECTION.

QUALIFIED PERSONNEL MEANS A PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS A LICENSED PROFESSIONAL ENGINEER, A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL, A CERTIFIED EROSION SEDIMENT OR STORMWATER INSPECTOR, OR OTHER TRAINED INDIVIDUAL.

6.0 SPILL PREVENTION

6.1 GENERAL MATERIAL MANAGEMENT PRACTICES

THE GOOD HOUSEKEEPING PRACTICES LISTED BELOW SHALL BE FOLLOWED THROUGHOUT THE CONSTRUCTION PROJECT.

1. CONTRACTOR SHALL STORE ONLY ENOUGH PRODUCTS REQUIRED TO COMPLETE THIS PROJECT.
2. ALL MATERIAL SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR ORIGINAL CONTAINERS CONTAINING MANUFACTURER'S LABEL.
3. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
4. MATERIALS REQUIRED TO HAVE A MATERIAL SAFETY DATA SHEET (MSDS) SHALL HAVE A COPY STORED IN THE PROJECT'S MSDS DATABASE.

6.2 SPILL CONTROL PRACTICES

THE PRACTICES LISTED BELOW SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP.

1. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE MAINTAINED ONSITE.
2. IMMEDIATELY UPON DISCOVERY, ALL SPILLS SHALL BE CLEANED UP ACCORDING TO THE MANUFACTURERS' RECOMMENDED METHODS.
3. PERSONNEL CLEANING UP A SPILL SHALL USE PERSONAL PROTECTIVE EQUIPMENT.
4. IMMEDIATELY UPON DISCOVERY, SPILLS OF TOXIC OR HAZARDOUS MATERIALS SHALL BE REPORTED TO THE OWNER AND GENERAL CONTRACTOR.
5. NOTIFICATION AND REPORTING TO THE APPROPRIATE FEDERAL, STATE, AND LOCAL GOVERNMENT AGENCIES SHALL BE MADE AS REQUIRED.

GENERAL INFORMATION:

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO FULFILL ONE OF THE REQUIREMENTS OF THE GENERAL ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (WISCONSIN POLLUTION DISCHARGE ELIMINATION SYSTEM "WPDES" PERMIT NO. WI-S067831-4) FOR THE DISCHARGE OF STORMWATER ASSOCIATED WITH CONSTRUCTION PROJECTS DISTURBING ONE ACRE OR MORE. THE OWNER AND CONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF THE WPDES FOR ALL SUCH CONSTRUCTION PROJECTS. THE STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY FROM THIS SITE ARE SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE PERMITS.

THE EXECUTED OWNER CERTIFICATION AND THE CONTRACTOR CERTIFICATIONS SHALL BE KEPT ONSITE WITH THE APPROVED PLANS.

SWPPP AVAILABILITY:

THE OWNER SHALL RETAIN A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF THE PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

KEEPING PLANS CURRENT:

THE CONTRACTOR SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE PLAN OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SITE ACTIVITY. IN ADDITION, THE THE PLAN SHALL BE AMENDED TO IDENTIFY ANY NEW CONTRACTOR AND/OR SUBCONTRACTOR THAT WILL IMPLEMENT A MEASURE OF THE PLAN. AMENDMENTS TO THE PLAN MAY BE REQUIRED BY THE MUNICIPALITY, OWNER, OR OTHER REVIEWING AGENCY. COPIES OF THE AMENDMENTS SHALL BE KEPT ONSITE AS PART OF THE SWPPP.

RETENTION OF RECORDS:

THE OWNER SHALL RETAIN COPIES OF THIS AND ALL REPORTS AND NOTICES REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE PERMIT COVERAGE EXPIRES OR IS TERMINATED. THIS PERIOD MAY BE EXTENDED BY THE REQUEST OF THE AGENCY AT ANY TIME. IN ADDITION, THE OWNER SHALL RETAIN A COPY OF THE PLAN REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

A NOTICE OF INTENT (NOI) APPLICATION MUST BE COMPLETED AND INCORPORATED INTO THE SWPPP.

WPDES NOTICE OF TERMINATION GUIDANCE:

WHEN A SITE HAS BEEN FINALLY STABILIZED AND ALL STORMWATER DISCHARGES FROM CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED, THE OWNER OF THE FACILITY MUST SUBMIT A COMPLETED NOTICE OF TERMINATION THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT. CONTRACTOR SHALL SUBMIT A COMPLETED NOTICE OF TERMINATION TO OWNER FOR EXECUTION PRIOR TO THEIR FINAL PAY APPLICATION REQUEST.

CONTROL MEASURE GROUP	CONTROL MEASURE	CONTROL MEASURE CHARACTERISTICS
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.
	PERMANENT SEEDING	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION, FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.
NON VEGETATIVE SOIL COVER	AGGREGATE COVER	PROVIDES TEMPORARY COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.
	PAVING	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.
DIVERSIONS	DIVERSION BERM / SWALE	DIVERTS RUNOFF TO A SEDIMENT TRAP OR OTHER CONTROL.
ENCLOSED DRAINAGE	STORM SEWER	CONVEYS SEDIMENT LADEN WATER TO A SEDIMENT BASIN.
OUTLETS	APRON ENDWALL OR RIPRAP	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURE.
SEDIMENT BASINS	TEMPORARY SEDIMENT TRAP	CONSTRUCTED TO REMOVE SILTATION FROM RUNOFF FROM SITE DIVERSION BERMS/SWALES AND IN OVERLAND FLOOD ROUTE. CAN BE CONVERTED TO PERMANENT SEDIMENT BASIN.
SEDIMENT FILTERS	SILT FENCE	PLACED DOWN SLOPE OF DISTURBED AREA TO KEEP RUNOFF CONTAINED ON-SITE.
	INLET PROTECTION	INSTALLED IN OPEN GRATE STRUCTURES TO COLLECT SEDIMENT.
	DITCH CHECK	PLACED IN DRAINAGE CHANNELS TO FILTER SEDIMENT FROM RUNOFF.
MUD AND DUST CONTROL	CONSTRUCTION ENTRANCE	REDUCES SOIL EROSION POLLUTANTS BEING TRANSPORTED OFF-SITE.
	STREET SWEEPING	REDUCES POLLUTANTS TRACKED FROM CONSTRUCTION SITE.
	DUST CONTROL	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.

STABILIZATION EFFECTIVENESS (TIME OF YEAR)

STABILIZATION TYPE	STABILIZATION UTILIZATION PERIODS											
	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING			A ⟶	* ⟶	* ⟶	* ⟶	* ⟶	* ⟶	* ⟶			
DORMANT SEEDING	B ⟶	⟶	⟶								B ⟶	⟶
TEMPORARY SEEDING			C ⟶	* ⟶	* ⟶	* ⟶	D * ⟶	* ⟶	⟶ *			
SODDING			E ⟶	* ⟶	* ⟶	* ⟶	* ⟶	* ⟶	* ⟶			

A. KENTUCKY BLUEGRASS 90 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE.
B. KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYEGRASS 45 LBS/ACRE + 2 TONS STRAW MULCH/ACRE.
C. SPRING OATS 100 LBS/ACRE.
D. WHEAT OR CEREAL RYE 150 LBS/ACRE.
E. SOD.
F. STRAW MULCH 2 TONS/ACRE.

* IRRIGATION/WATERING REQUIRED TO SUPPORT ESTABLISHMENT AS NEEDED.

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

TRENCH DETAIL

NOTES:

1. ALL SILT FENCE MATERIALS AND INSTALLATION SHALL BE IN CONFORMANCE WITH WI DNR TECHNICAL STANDARD 1056.
2. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
3. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8-INCHES OF FABRIC IN A 4-INCH WIDE AND 6-INCH DEEP TRENCH OR 6-INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
4. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
5. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125-INCHES x 1.125-INCHES OF DRIED OAK OR HICKORY.
6. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE, WHERE APPLICABLE.
7. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8-FEET FOR WOVEN AND 3-FEET FOR NON-WOVEN).

SILT FENCE

#100-C 07-31-14

INLET PROTECTION - TYPE "A"

INLET PROTECTION - TYPE "B"
(WITHOUT CURB BOX)

TYPE "B" & "C" INSTALLATION NOTES

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

NOTES:

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I, WITH AN EOS OF AT LEAST 30 FOR NONWOVEN AND 50 FOR WOVEN.
2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKET WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18 INCHES OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.

INLET PROTECTION, TYPE "C"
(WITH CURB BOX)

INLET PROTECTION

#104 04-24-13

PROFILE VIEW

NOTES:

1. ALL TRACKING PAD MATERIALS AND INSTALLATION SHALL BE IN CONFORMANCE WITH WI DNR TECHNICAL STANDARD 1057.
2. TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE. CONTRACTOR SHALL VERIFY LOCATION WITH OWNER.
3. THE AGGREGATE FOR TRACKING PADS SHALL BE 3 TO 6 INCH CLEAR OR WASHED STONE. ALL MATERIALS TO BE RETAINED ON A 3-INCH SIEVE
4. THE AGGREGATE SHALL BE PLACED IN A LAYER AT LEAST 12-INCHES THICK. ON SITES WHERE SATURATED CONDITIONS ARE EXPECTED DURING THE LIFE OF THE PAD, THE PAD SHALL BE UNDERLAIN WITH GEOTEXTILE FABRIC WHICH MEETS MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1 OR 2, CLASS I, II OR IV, TO PREVENT MIGRATION OF UNDERLYING SOILS INTO THE STONE LAYER.
5. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT. MINIMUM WIDTH IS 14 FEET FOR ONE-WAY TRAFFIC AND 20 FEET FOR TWO-WAY TRAFFIC, WITH AN ADDITIONAL INCREASE OF 4 FEET FOR TRAILER TRAFFIC. THE TRACKING PAD SHALL BE A MINIMUM 50-FEET LONG.
6. ANY SEDIMENT TRACKED ONTO A PUBLIC OR PRIVATE ROAD SHOULD BE REMOVED BY STREET CLEANING, NOT FLUSHING, AT THE END OF EACH WORKING DAY.
7. TRACKING PADS SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24-HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5-INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
8. THE TRACKING PAD PERFORMANCE SHALL BE MAINTAINED BY SCRAPING OR TOP-DRESSING WITH ADDITIONAL AGGREGATE.

CONSTRUCTION ENTRANCE

#107-WI 10-02-12

L*= 3 TIMES PIPE DIAMETER (TYP.) OR 10 FOOT MIN. OR AS DIRECTED BY THE ENGINEER

NOTES:

1. RIP RAP AND GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS FOR STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

RIP RAP AT END SECTIONS

#124 12/26/12

CONCRETE SIDEWALK

#507 10-11-12

NOTES:

1. CONTRACTION JOINTS SHALL BE PLACED EVERY 10 FEET
2. EXPANSION JOINTS (3/4" EXPANSION FIBER MATERIAL) SHALL BE PLACED EVERY 300 FEET AND AT EVERY PC/PT AND 3 FEET FROM STRUCTURES

TAPER CURB HEAD

#623 10-11-12

NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 15 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT ALL PT'S AND PC'S, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINTS FILLER SHALL BE A ONE PIECE FIBERBOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.
4. NEW CURB & GUTTER TO BE TIED TO EXISTING CURB & GUTTER AND PAVEMENT WITH 24" LONG NO. 4 TIES @ 3' O.C.

DRIVEWAY ENTRANCE

#633 2/20/15

NOTES:

1. TOOLED JOINTS SHALL BE PLACED EVERY 10'.
2. FELT EXPANSION JOINTS SHALL BE PLACED AT DISTANCE OF 300' & AT ALL PT'S & PC'S & 3 FT ON BOTH SIDES OF CATCH BASINS

30" ROLL BACK CURB

NOTES:

1. TOOLED JOINTS SHALL BE PLACED EVERY 10'.
2. FELT EXPANSION JOINTS SHALL BE PLACED AT DISTANCE OF 300' & AT ALL PT'S & PC'S & 3 FT ON BOTH SIDES OF CATCH BASINS

30" REVERSE ROLL BACK CURB

DRAFTED: AJS
DESIGNED: AJS
REVIEWED: JLJ

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(262) 754-8888
CHICAGO | MILWAUKEE : NATIONWIDE

ZILBER C251

CALEDONIA, WI

CONSTRUCTION DETAILS

REVISIONS

1	VILLAGE BSO SUBMITTAL	02/09/26	5	ISSUED FOR CONSTRUCTION	05/19/26
2	VILLAGE BSO RESUBMITTAL	03/27/26			
3	ISSUED FOR BID	03/30/26			
4	VILLAGE COMMENTS / BID SET	04/22/26			

PEG JOB No. 1912.40-WI
PEG PM JLJ
START DATE 02/09/26
SCALE N.T.S.

SHEET
C-15

CONSTRUCTION DETAILS

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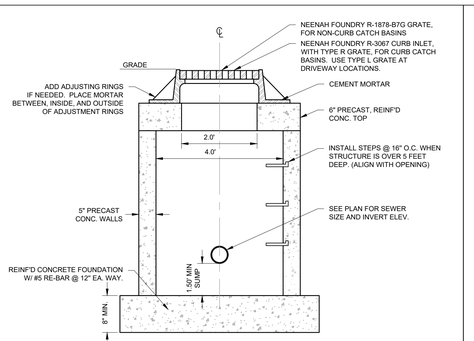
Z:\PROJECTS\2020\1912.40-WI\CAD\SHEETS\1912.40 WI CONSTRUCTION DETAILS.DWG

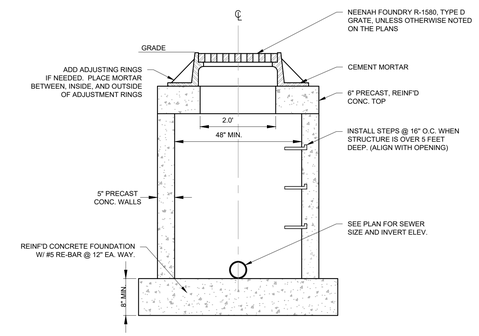


NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM CATCH BASINS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.
3. STRUCTURE TO BE 4.0' DIA. OR AS INDICATED ON THE PLANS.

CATCH BASIN

#302 10-04-13

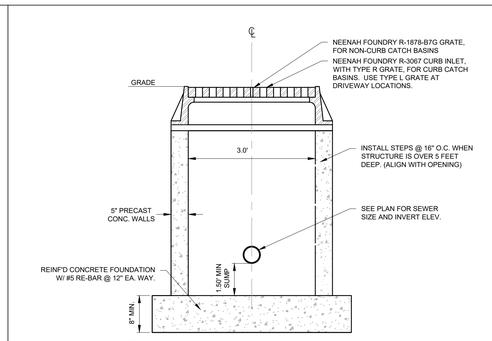


NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM CATCH BASINS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.
3. STRUCTURE TO BE 4.0' DIA. OR AS INDICATED ON THE PLANS.

STORM SEWER MANHOLE

#322 10-04-13

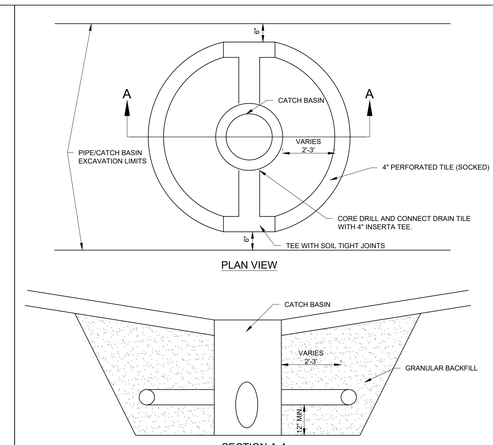


NOTES:

1. EASY STICK, RUBBER GASKET OR APPROVED EQUIVALENT SHALL BE PLACED AT ALL JOINTS BETWEEN ADJUSTING RINGS FOR STORM CATCH BASINS.
2. THE FLAT TOP MAY BE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT USE OF A TAPERED TOP.

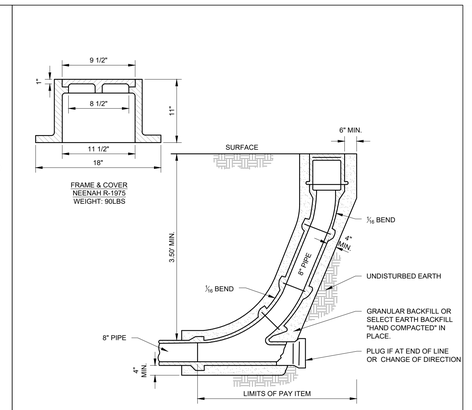
2' x 3' CATCH BASIN

#306 05/04/13



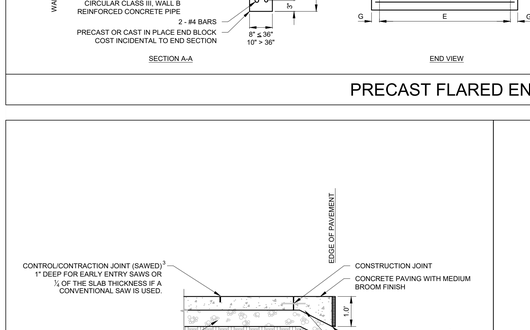
CATCH BASIN - UNDERDRAIN

DETAIL NUMBER AND REVISION DATE



SANITARY SEWER CLEANOUT STRUCTURE

#405 10-15-13



PIPE DIA.	APPROX. QTY. (lbs)	WALL (in)	A (in)	B (in)	C (in)	D (in)	E (in)	G (in)	R (in)	APPROX. SLOPE
12"	530	2	4	24	4'-0 7/8"	6'-0 7/8"	24	2	9	1:2.4
15"	740	2 1/4	6	27	3'-10"	6'-1"	30	2 1/4"	11	1:2.4
18"	990	2 1/2	9	27	3'-10"	6'-1"	36	2 1/2	12	1:2.4
21"	1280	2 3/4	9	35	38	6'-1"	3'-6"	2 3/4	13	1:2.4
24"	1520	3	9 1/2	3'-7 1/2"	30	6'-1 1/2"	4'-0"	3	14	1:2.5
27"	1930	3 1/4	10 1/2	4'-0"	25 1/2	6'-1 1/2"	4'-6"	3 1/4	14 1/2	1:2.4
30"	2190	3 1/2	12	4'-6"	19 3/4	6'-1 3/4"	5'-0"	3 1/2	15	1:2.5
33"	3200	3 3/4	13 1/2	4'-10 1/2"	39 1/4	8'-1 3/4"	5'-6"	3 3/4	17 1/2	1:2.5
36"	4100	4	15	5'-3"	34 3/4	8'-1 3/4"	6'-0"	4	20	1:2.5
42"	5380	4 1/2	21	5'-3"	35	8'-2"	6'-6"	4 1/2	22	1:2.5
48"	6550	5	24	6'-0"	26	8'-2"	7'-0"	5	22	1:2.5
54"	8240	5 1/2	27	5'-5"	35	8'-4"	7'-6"	5 1/2	24	1:2.0
60"	8730	6	35	5'-0"	39	8'-3"	8'-0"	5	*	1:1.9
66"	10710	6 1/2	30	6'-0"	27	8'-3"	8'-6"	5 1/2	*	1:1.7
72"	12520	7	36	6'-6"	21	8'-3"	9'-0"	6	*	1:1.8
78"	14770	7 1/2	36	7'-6"	21	9'-3 1/2"	10'-0"	6 1/2	*	1:1.8
84"	18160	8	36	7'-6 1/2"	21	9'-3 1/2"	10'-0"	6 1/2	*	1:1.6

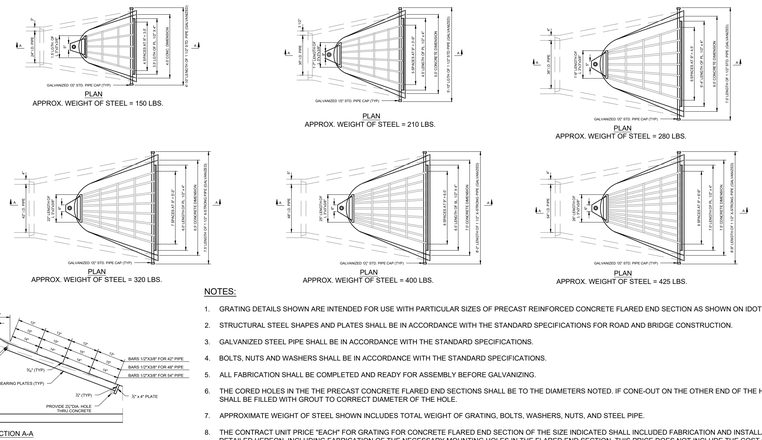
* RADIUS AS FURNISHED BY MANUFACTURER

NOTES:

1. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS 3, WALL B REINFORCED CONCRETE PIPE.
2. PRECAST CONCRETE END SECTIONS FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.
3. THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR PRECAST CONCRETE FLARED END SECTION OF THE DIAMETER SPECIFIED WHICH PRICE INCLUDES PROVIDING AND INSTALLATION OF EACH END SECTION SPECIFIED.
4. GRATES, WHERE SPECIFIED, SHALL BE PROVIDED FOR ALL PRECAST REINFORCED CONCRETE FLARED END SECTIONS.
5. A MINIMUM OF THREE SECTIONS OF RCP PIPE COMING INTO THE END SECTION SHALL BE TIE BOLTED.

PRECAST FLARED END SECTIONS

#312-A 6/18/13

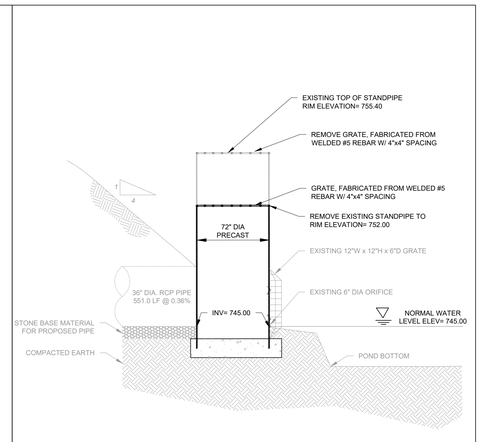


NOTES:

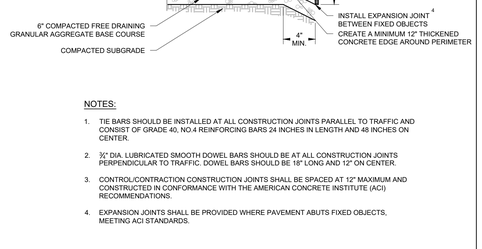
1. GRATING DETAILS SHOWN ARE INTENDED FOR USE WITH PARTICULAR SIZES OF PRECAST REINFORCED CONCRETE FLARED END SECTION AS SHOWN ON IDOT STANDARDS.
2. STRUCTURAL STEEL SHAPES AND PLATES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
3. GALVANIZED STEEL PIPE SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
4. BOLTS, NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
5. ALL FABRICATION SHALL BE COMPLETED AND READY FOR ASSEMBLY BEFORE GALVANIZING.
6. THE CORED HOLES IN THE THE PRECAST CONCRETE FLARED END SECTIONS SHALL BE TO THE DIAMETERS NOTED. IF CONE-OUT ON THE OTHER END OF THE HOLE OCCURS, THE HOLE SHALL BE FILLED WITH GROUT TO CORRECT DIAMETER OF THE HOLE.
7. APPROXIMATE WEIGHT OF STEEL SHOWN INCLUDES TOTAL WEIGHT OF GRATING, BOLTS, WASHERS, NUTS, AND STEEL PIPE.
8. THE CONTRACT UNIT PRICE "EACH" FOR GRATING FOR CONCRETE FLARED END SECTION OF THE SIZE INDICATED SHALL INCLUDED FABRICATION AND INSTALLATION OF THE GRATING AS DETAILED HEREON, INCLUDING FABRICATION OF THE NECESSARY MOUNTING HOLES IN THE FLARED END SECTION. THIS PRICE DOES NOT INCLUDE THE COST OF THE PRECAST CONCRETE FLARED END SECTION.

FLARED END SECTION GRATES

#313 5/18/13



POND C OUTLET STRUCTURE

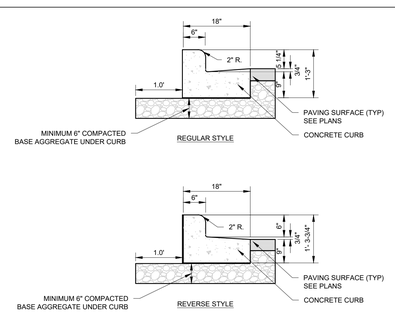


NOTES:

1. TIE BARS SHOULD BE INSTALLED AT ALL CONSTRUCTION JOINTS PARALLEL TO TRAFFIC AND CONSIST OF GRADE 40, NO.4 REINFORCING BARS 24 INCHES IN LENGTH AND 48 INCHES ON CENTER.
2. ¾" DIA. LUBRICATED SMOOTH DOWEL BARS SHOULD BE AT ALL CONSTRUCTION JOINTS PERPENDICULAR TO TRAFFIC. DOWEL BARS SHOULD BE 18" LONG AND 12" ON CENTER.
3. CONTROL/CONTRACTION CONSTRUCTION JOINTS SHALL BE SPACED AT 12" MAXIMUM AND CONSTRUCTED IN CONFORMANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI) RECOMMENDATIONS.
4. EXPANSION JOINTS SHALL BE PROVIDED WHERE PAVEMENT ABUTS FIXED OBJECTS, MEETING ACI STANDARDS.

CONCRETE PAVEMENT

#309 12-05-13

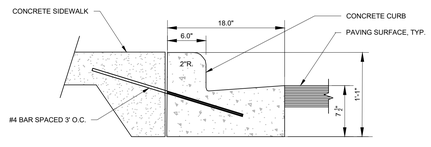


NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 10 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT ALL PT'S AND PC'S, 3 FEET EITHER SIDE OF THE CATCH BASINS IN THE CURB LINE, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINTS FILLER SHALL BE A ONE PIECE FIBERBOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.
4. REVERSE STYLE CURB LOCATIONS ARE NOTED ON THE PLANS.

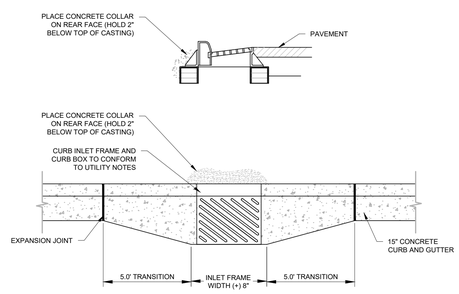
18" VERTICAL FACE CURB

#602-VF 12-14-13



18" CURB ADJACENT TO SIDEWALK

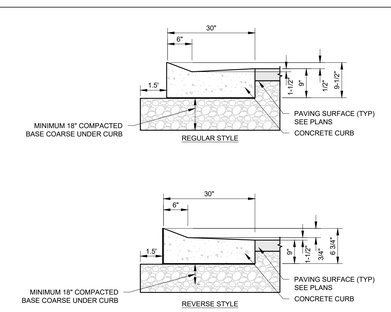
#619 3/2011



NOTE : CURB CONTRACTOR TO VERIFY POSITION AND ELEVATION OF FRAME AND GRATE PRIOR TO POUR. IF NOT CORRECT, FIVE (5) FOOT TRANSITION AREA TO BE LEFT UNPOURED UNTIL SITUATION IS CORRECTED BY CONTRACTOR.

CURB AND GUTTER BUMP OUT

#622 10-10-13



NOTES:

1. LATERAL CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 10 FEET NOR LESS THAN 6 FEET. THE JOINTS SHALL BE A MINIMUM OF 3 INCHES IN DEPTH.
2. EXPANSION JOINTS SHALL BE PLACED TRANSVERSELY AT ALL PT'S AND PC'S, AND AT ANGLE POINTS, OR AS DIRECTED BY THE ENGINEER OF RECORD. THE EXPANSION JOINTS FILLER SHALL BE A ONE PIECE FIBERBOARD OR THE APPROVED EQUIVALENT MATERIAL HAVING THE SAME DIMENSIONS AS CURB & GUTTER AT THAT STATION AND BE 0.5 INCH THICK.
3. IN ALL CASES, CONCRETE CURB & GUTTER SHALL BE PLACED ON THOROUGHLY COMPACTED CRUSHED STONE.
4. REVERSE STYLE CURB LOCATIONS ARE NOTED ON THE PLANS.

30" DEPRESSED CURB

#607-WI 12-17-13

REVIEWED: A-J
DESIGNED: A-S
DRAFTED: A-S

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CHICAGO I MILWAUKEE : NATIONWIDE

ZILBER C251

CALEDONIA, WI

CONSTRUCTION DETAILS

REVISIONS

1	VILLAGE BSO SUBMITTAL	02/09/26	5	ISSUED FOR CONSTRUCTION	05/19/26
2	VILLAGE BSO RESUBMITTAL	03/27/26			
3	ISSUED FOR BID	03/30/26			
4	VILLAGE COMMENTS / BID SET	04/22/26			

PEG JOB No. 1912.40-WI
PEG PM: JJJ
START DATE: 02/09/26
SCALE: N.T.S.

SHEET C-16

CONSTRUCTION DETAILS

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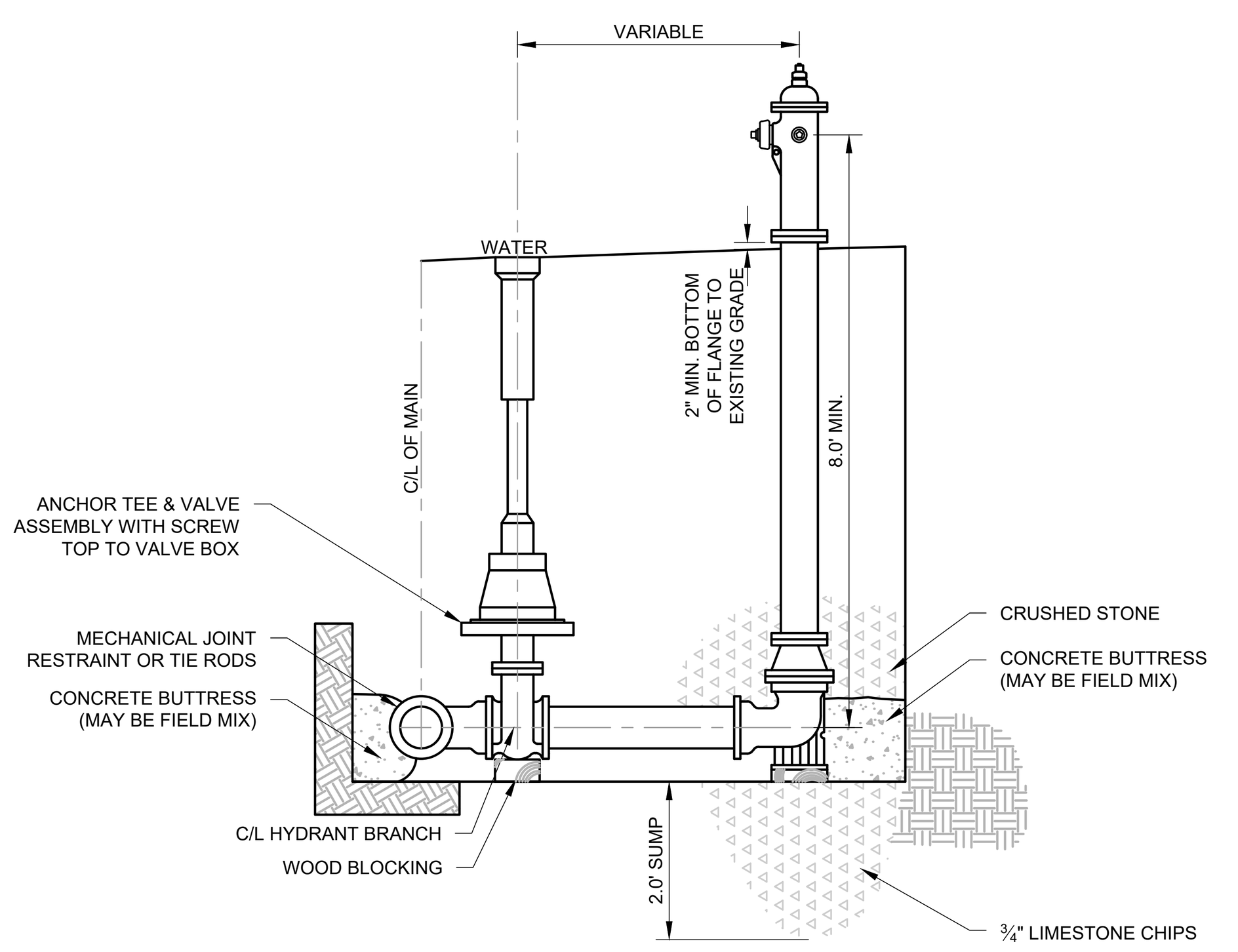
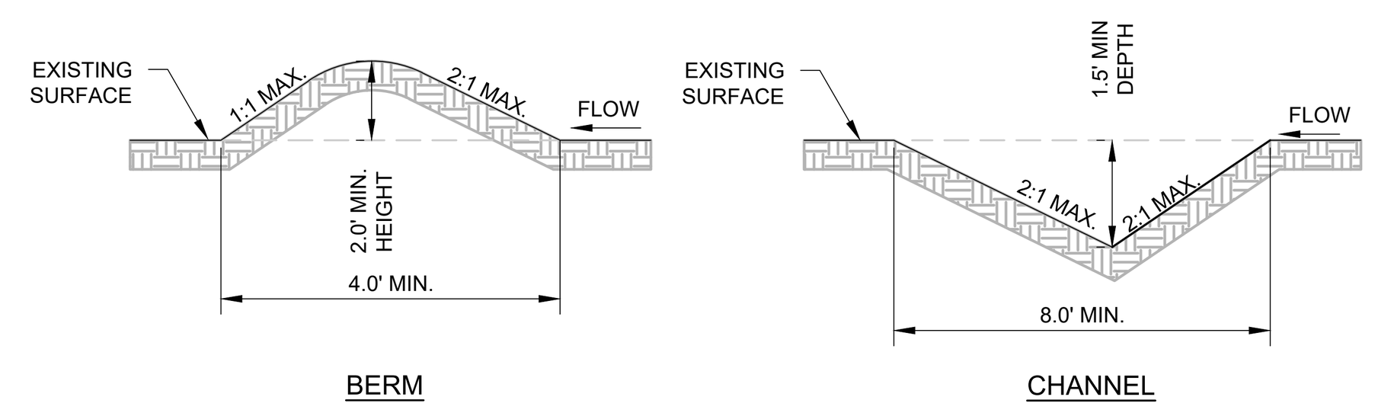


NOTES:

1. MEGALUG RESTRAINING GLANDS ON ALL MECHANICAL JOINTS, THE BOLTS & NUTS ARE TO BE HIGH STRENGTH LOW ALLOY STEEL (CORTEN) AS PER SECTION 11.6.5 OF A.W.W.A. C-111.
2. THE FOLLOWING HYDRANTS SHALL BE ALLOWED:
   MUELLER SUPER CENTURION 250 3-WAY FIRE HYDRANT
   U.S. PIPE METROPOLITAN / M-94 DUCTILE IRON FIRE HYDRANT
   WATEROUS 5¼" PACER FIRE HYDRANT

FIRE HYDRANT

#501 10-10-12

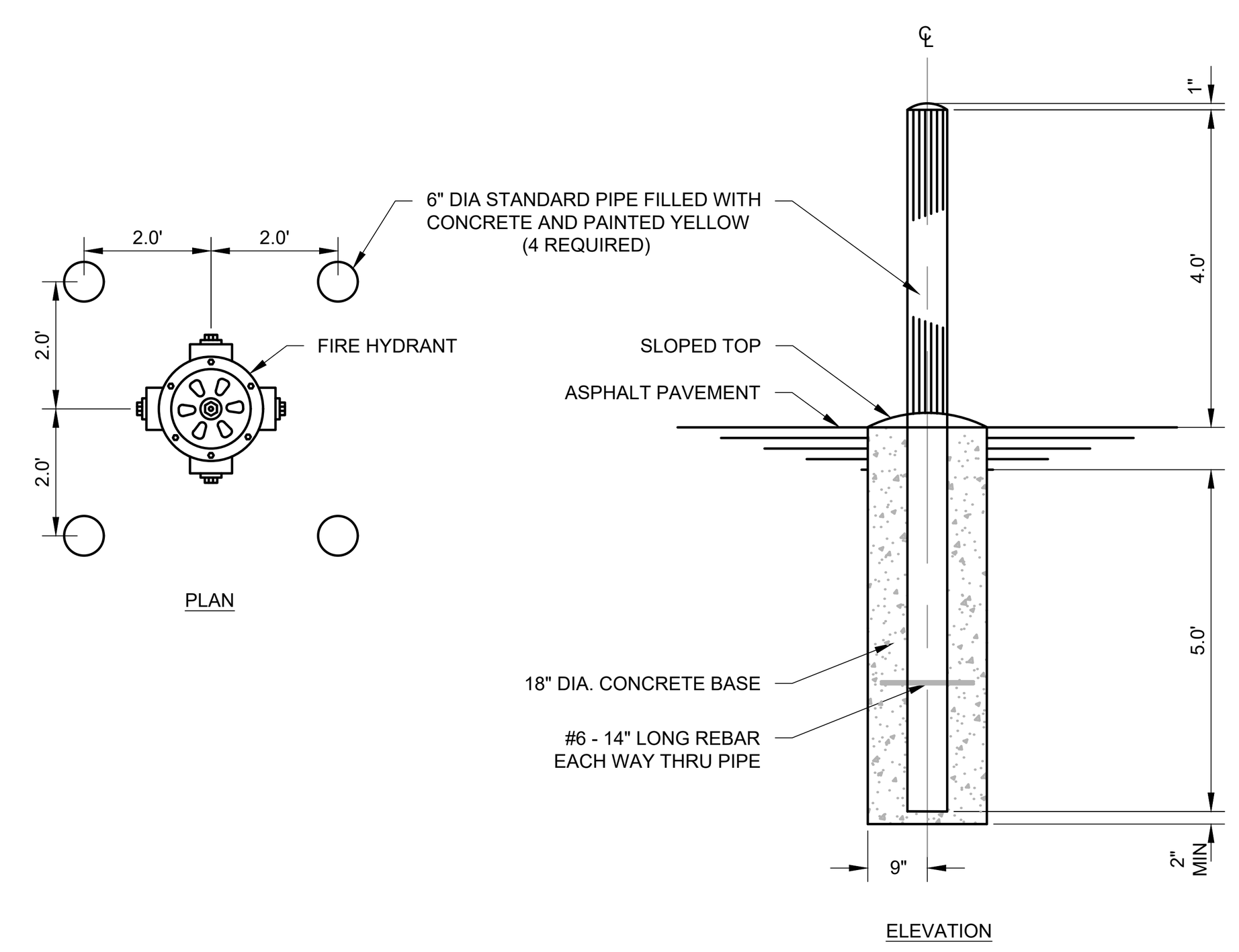


NOTES:

1. DIVERSION MAY REQUIRE AREAS OF BERM AND OTHER AREAS OF CHANNEL TO PROVIDE SUFFICIENT PERIMETER PROTECTION.
2. DIVERSION BERM VERSUS CHANNEL PRACTICES SHALL BE SELECTED SUCH TO PREVENT PONDING (E.G. - POSITIVE DRAINAGE SHALL BE MAINTAINED).
3. FOR DIVERSIONS THAT ARE TO SERVE LONGER THAN 30 DAYS, THE SIDE SLOPES INCLUDING THE RIDGE, AND THE DOWN SLOPE SIDE OF THE DIVERSION SHALL BE STABILIZED AS SOON AS THEY CONSTRUCTED BY EQUIPMENT TRACKING AND TEMPORARY SEEDING. FOR DIVERSIONS SERVING LESS THAN 30 DAYS, THE DOWN SLOPE SIDE OF THE DIVERSION SHALL BE STABILIZED AS SOON AS CONSTRUCTED BY EQUIPMENT TRACKING AND TEMPORARY SEEDING .
4. DIVERSIONS SHALL BE PROTECTED FROM DAMAGE BY CONSTRUCTION ACTIVITIES. AT ALL POINTS WHERE DIVERSION BERMS OR CHANNELS WILL BE CROSSED BY CONSTRUCTION EQUIPMENT, THE DIVERSION SHALL BE SHAPED APPROPRIATELY AND/OR TEMPORARY CULVERTS OF ADEQUATE CAPACITY MAYBE ADDED AT CROSSINGS.
5. AT MINIMUM, INSTALL ONE DITCH CHECK (SEE DETAIL) FOR EVERY 2 VERTICAL FEET OF DROP.
6. DIVERSIONS SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD. MAINTENANCE SHALL BE COMPLETED AS SOON AS POSSIBLE WITH CONSIDERATION TO SITE CONDITIONS. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE DIVERSION BERM.

DIVERSION BERM / CHANNEL

#113-A 10-02-12

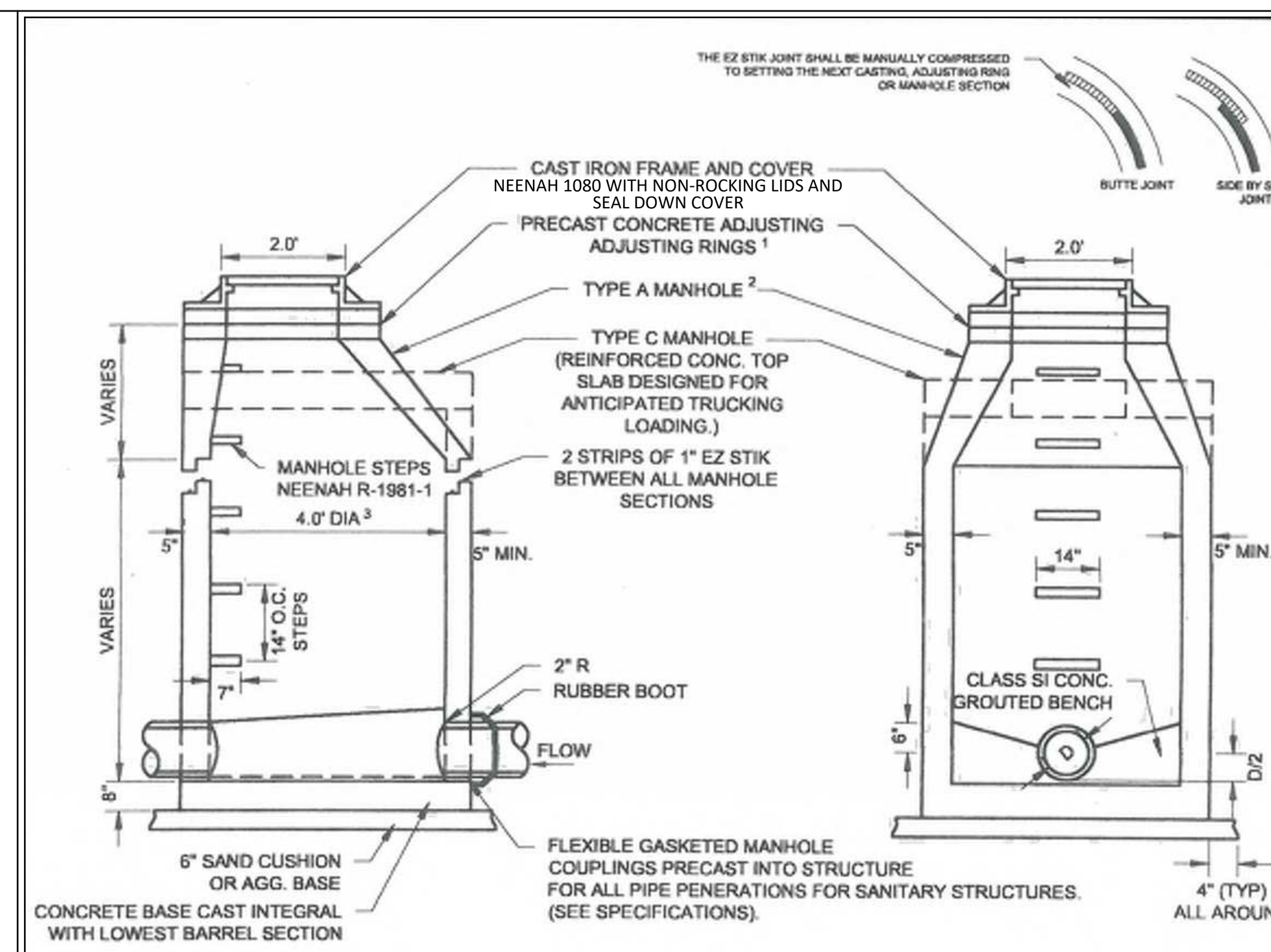


NOTES:

1. USE WHERE HYDRANT IS LOCATED WITHIN PAVED AREAS, COST INCIDENTAL.

HYDRANT BOLLARD

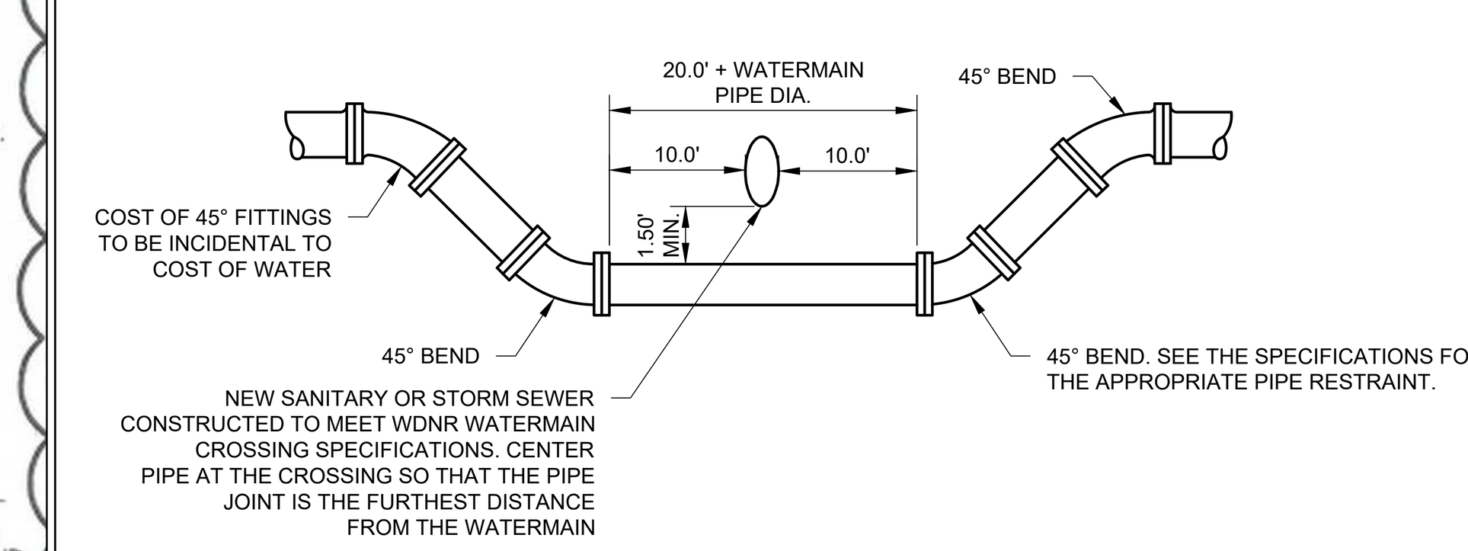
#503A 06-27-14



NOTES:

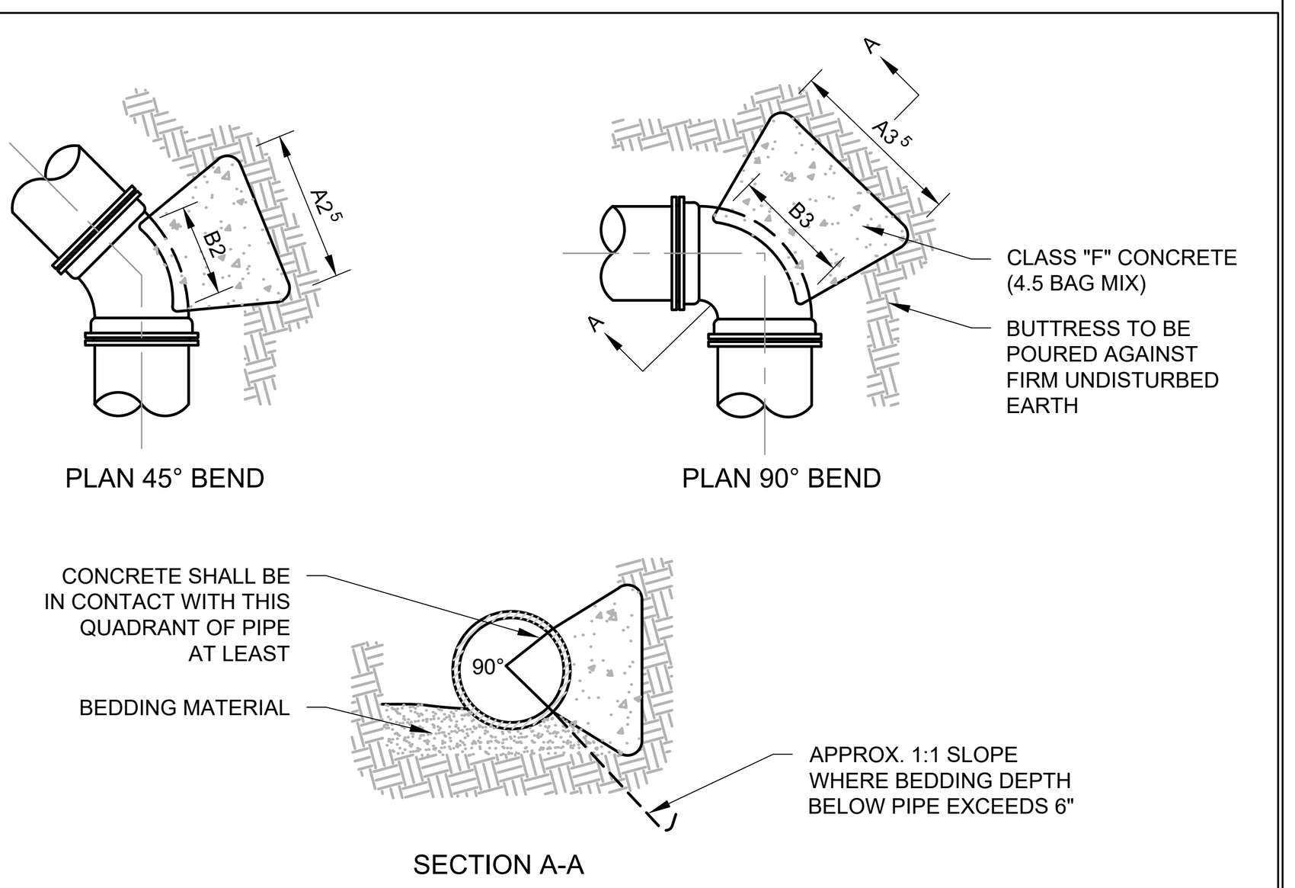
1. 1" EZ STIK BETWEEN ALL ADJUSTMENT RINGS, BETWEEN TOP ADJUSTMENT RINGS AND FRAME. USE INTERNAL/EXTERNAL CHIMNEY SEALS, ALL JOINTS MUST BE BACKPLASTERED INSIDE AND OUT.
2. THE FLAT TOP MAYBE USED IN LIEU OF THE TAPERED TOP WHEN FIELD CONDITIONS PROHIBIT THE USE OF A TAPERED TOP.
3. STRUCTURE TO BE 4' -0" DIA UNLESS OTHERWISE INDICATED ON THE PLANS.

SAMPLING MANHOLE



WATER MAIN DEPRESSION

#508



PIPE	22 1/2° BENDS		45° BENDS		90° BENDS	
SIZE	A1	B1	A2	B2	A3	B3
6"	1-'0"	1-'0"	1-'0"	1-'0"	1-'4"	1-'2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

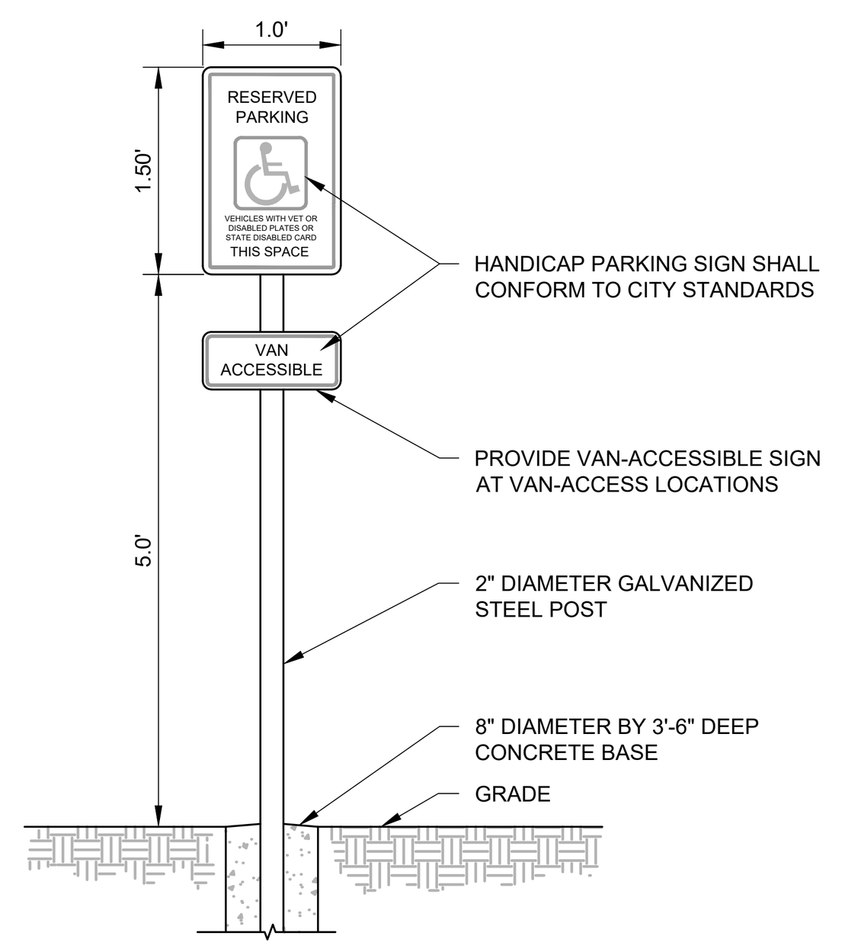
NOTES:

1. PROVIDE THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, AND AT POINTS SPECIFIED BY THE ENGINEER
2. ALL BLOCKING SHALL BE WITH POURED CLASS SI CONCRETE AGAINST UNDISTURBED VERTICAL EARTH SURFACE
3. THRUST BLOCKS TO BE AT ALL BENDS 11¼° OR GREATER
4. THE COST OF INSTALLING THE THRUST BLOCK SHALL BE INCIDENTAL TO THE CONSTRUCTION OF THE WATER
5. DIMENSION A2 & A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH M.J BOLTS

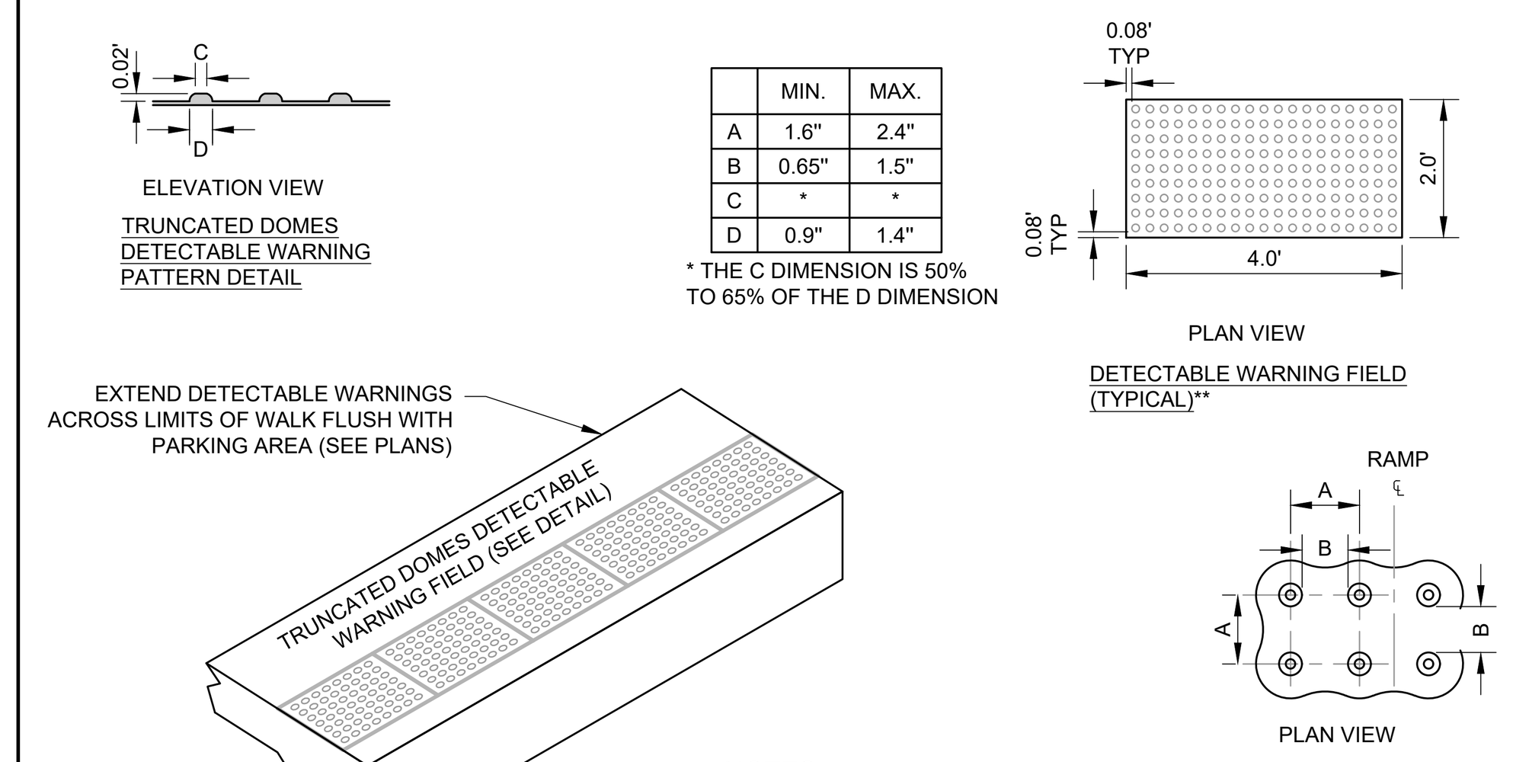
THRUST BLOCK

#502 10-10-12

5



ADA SIGN



	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION

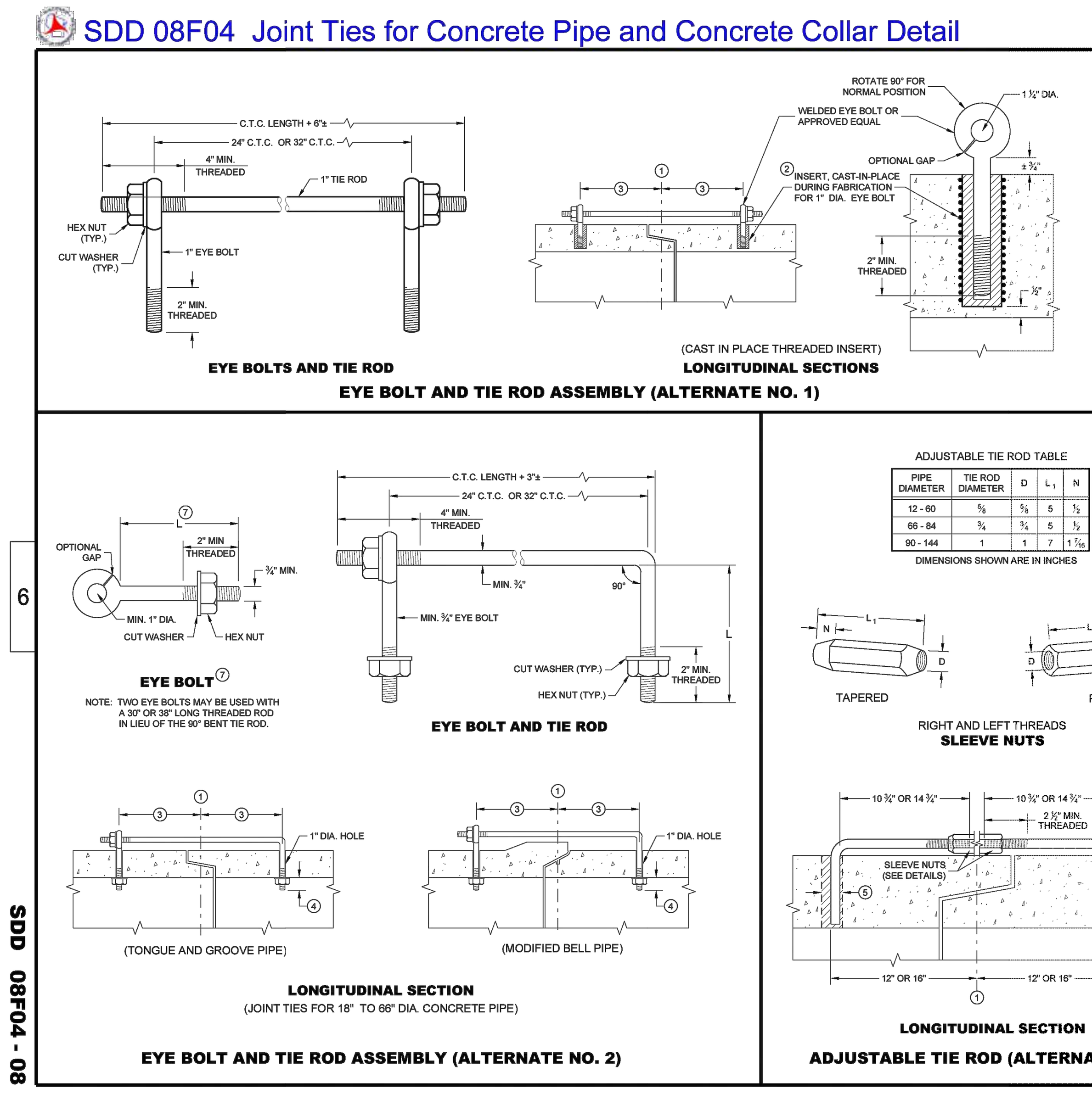
NOTES:

1. DETECTABLE WARNING FIELDS TO BE NEENAH FOUNDRY DETECTABLE WARNING FIELDS (OR APPROVED EQUAL), UNPAINTED NATURAL COLOR AND FIELD WEATHERED PRIOR TO INSTALLATION (VERIFY COLOR WITH OWNER PRIOR TO INSTALLATION.

DETECTABLE WARNING TRUNCATED DOMES

#705 4/30/13

SDD 08F04 Joint Ties for Concrete Pipe and Concrete Collar Detail



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

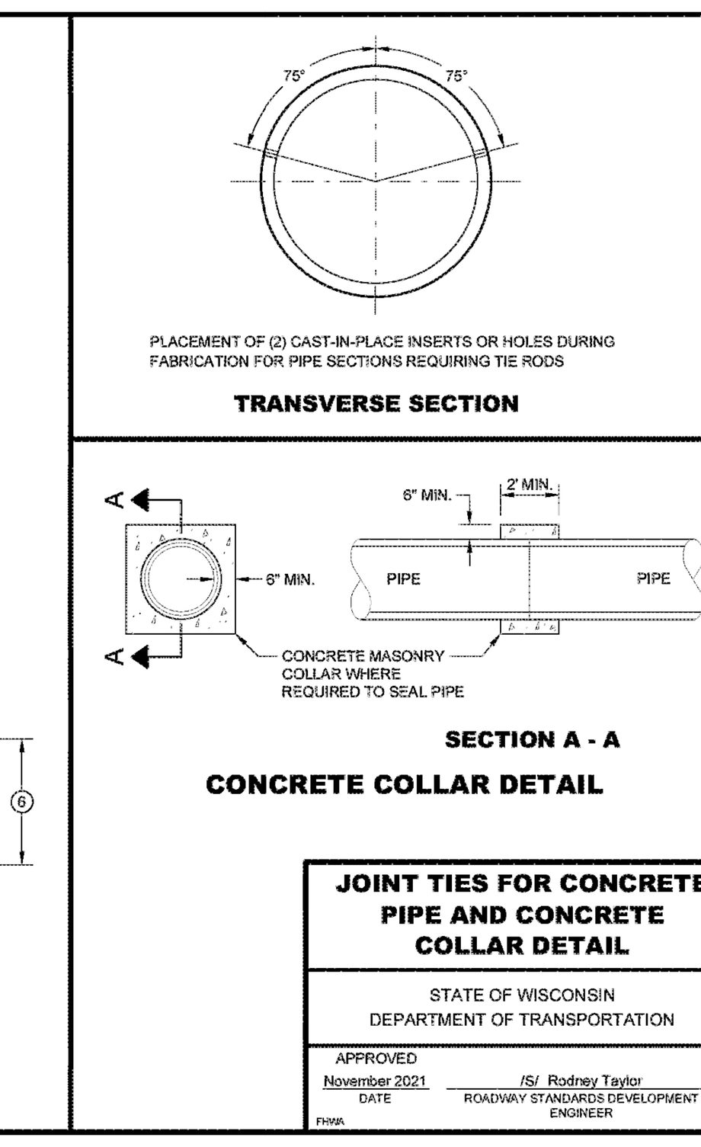
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

1. CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
2. THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
3. HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
4. BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
5. OPENING TO BE ROD DIAMETER PLUS 1 INCH.
6. LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.
7. EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES

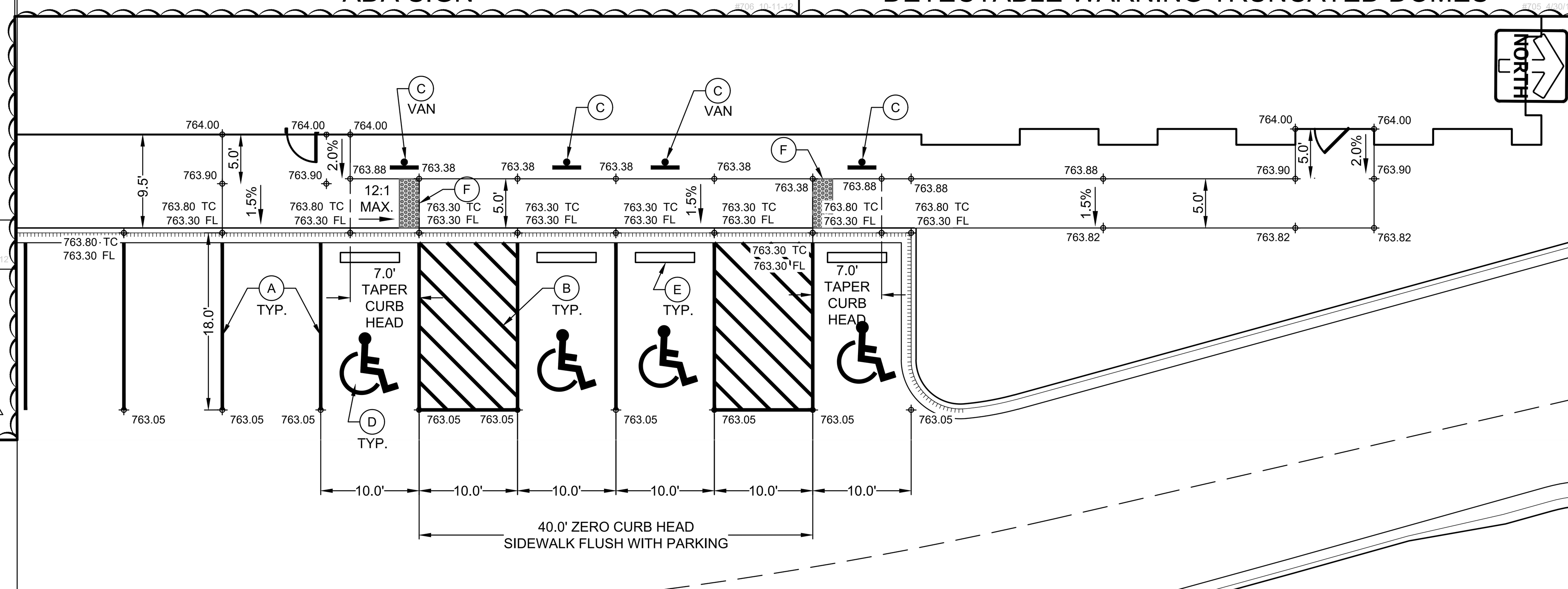


JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

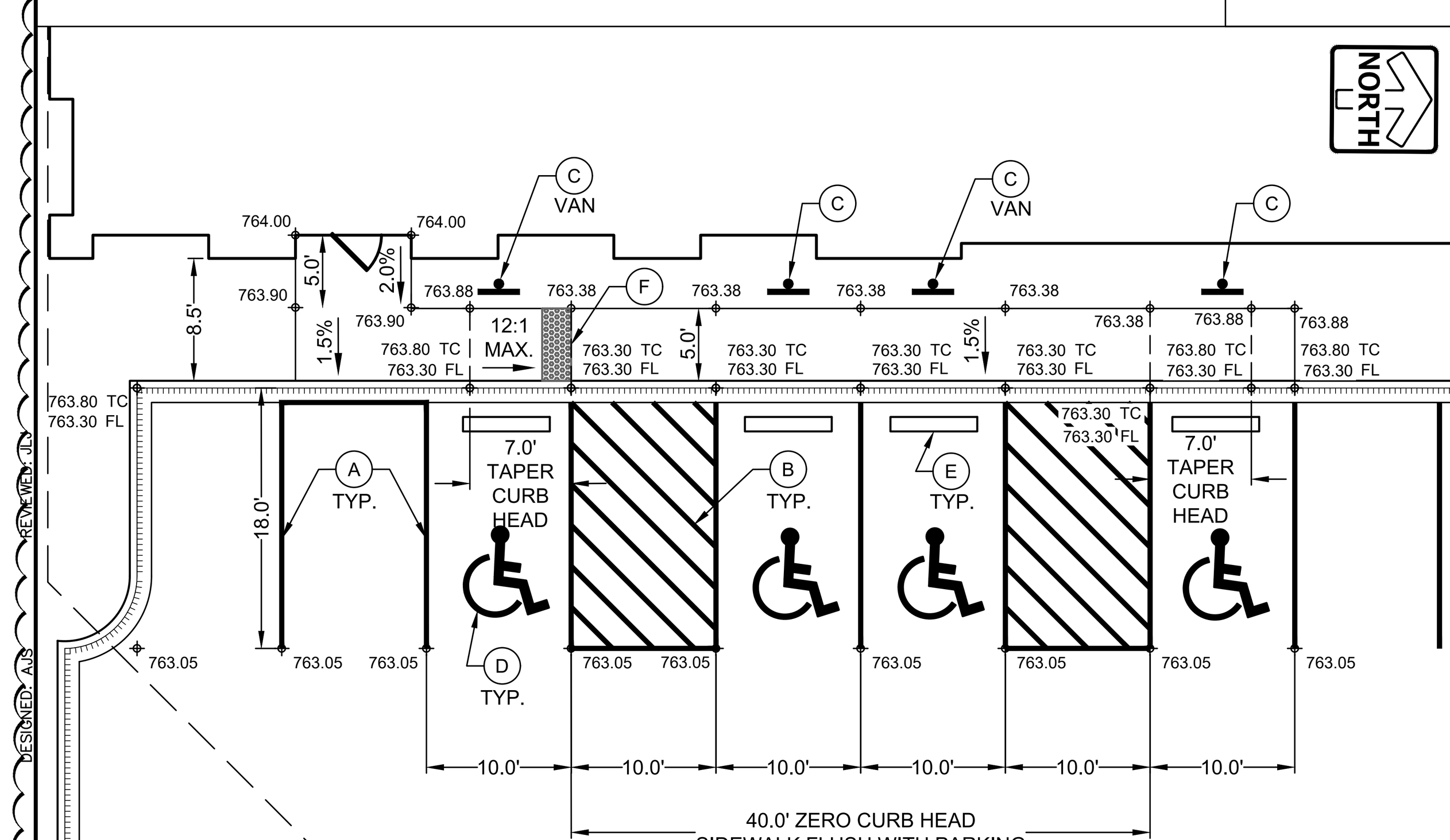
SDD 08F04 - 08

6



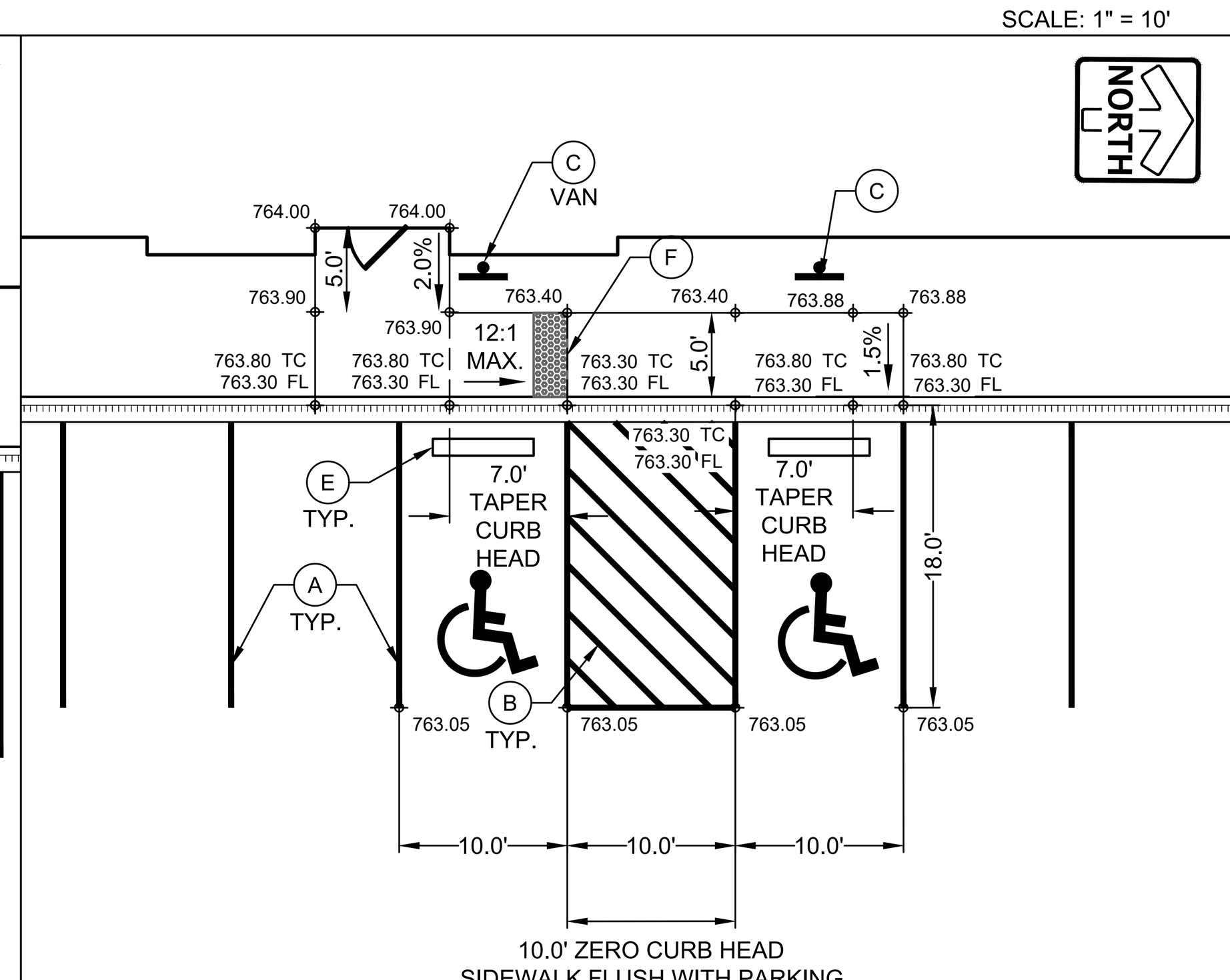
NORTHEAST ADA

SCALE: 1" = 10'



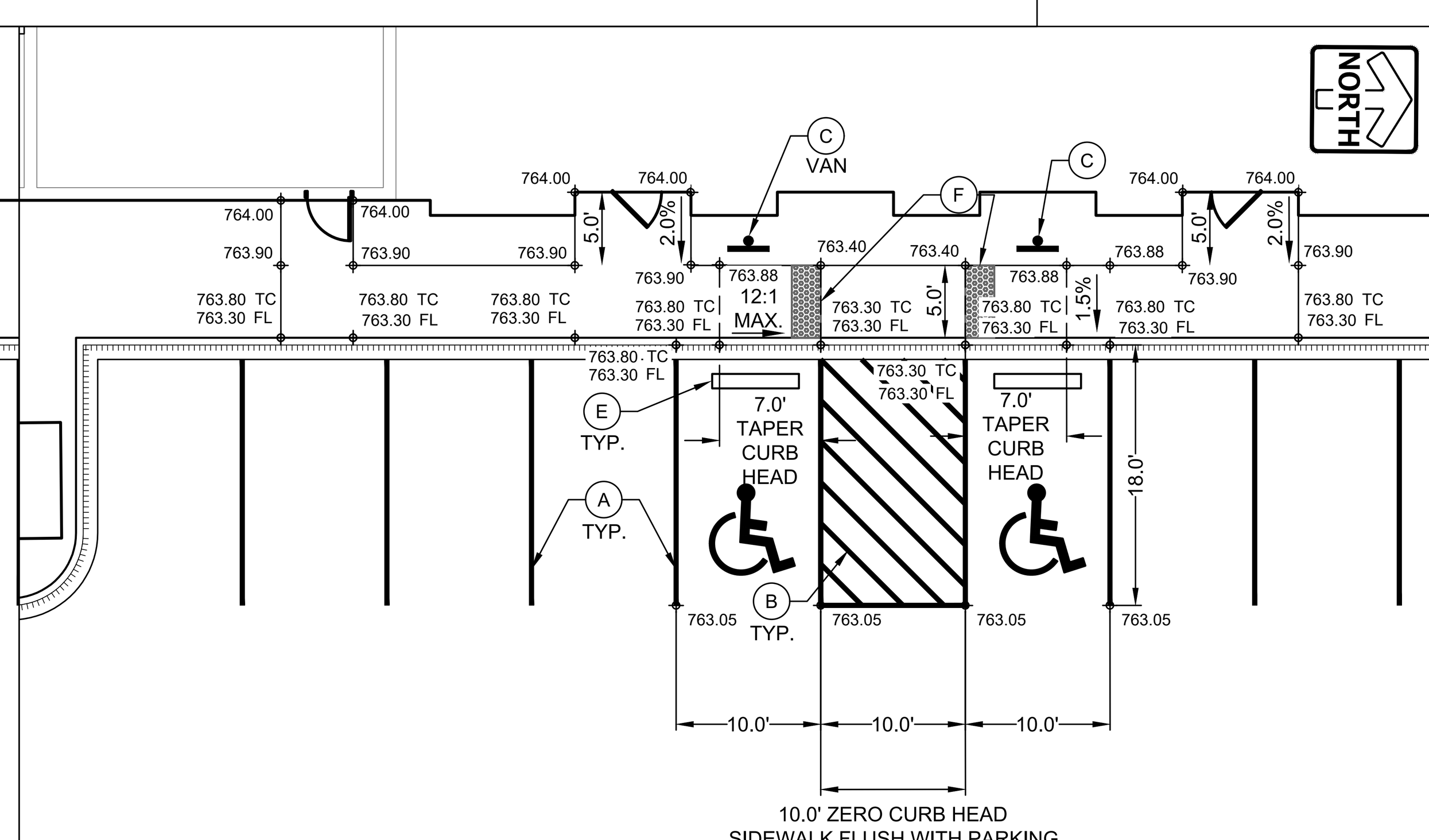
SOUTHEAST ADA

SCALE: 1" = 10'



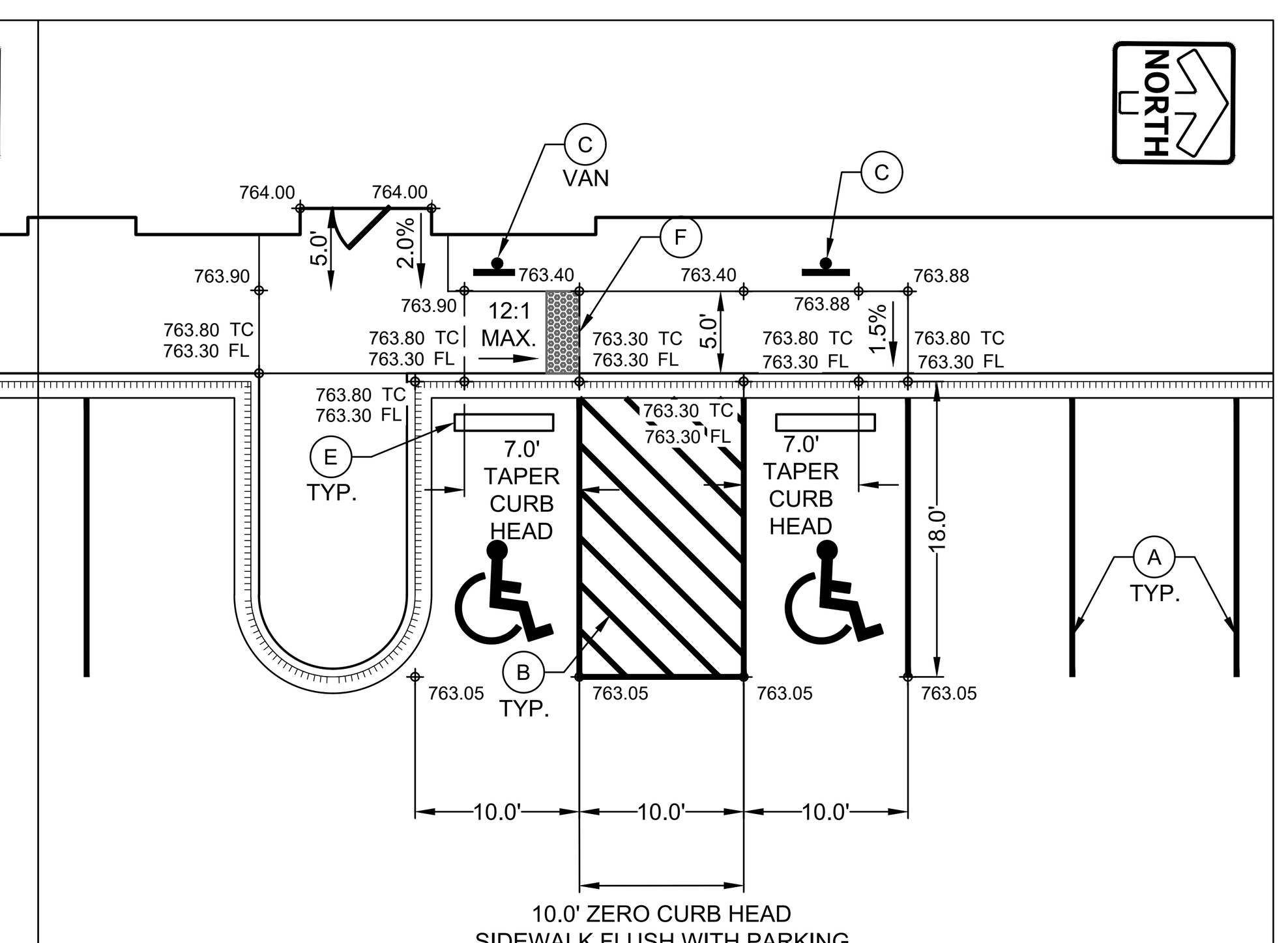
SOUTH CENTRAL ADA

SCALE: 1" = 10'



CENTER ADA

SCALE: 1" = 10'



NORTH CENTRAL ADA

SCALE: 1" = 10'

LEGEND

- (A) 4" SOLID WHITE STRIPE
- (B) 4" DIAGONAL AT 45° SPACED 2' O.C.
- (C) ADA PARKING STALL SIGNAGE
- (C) VAN ACCESSIBLE PARKING SIGNAGE VAN
- (D) ADA STALL INSIGNIA
- (E) CONCRETE CURB STOP
- (F) DETECTABLE WARNING FIELD

PLAN | DESIGN | DELIVER
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ZILBER C251

CALEDONIA, WI

CONSTRUCTION DETAILS

REVISIONS

No.	Description	Date
1	VILLAGE BSO SUBMITTAL	02/09/26
2	VILLAGE BSO RESUBMITTAL	03/27/26
3	ISSUED FOR BID	03/30/26
4	VILLAGE COMMENTS / BID SET	04/22/26
5	ISSUED FOR CONSTRUCTION	05/19/26

PEG JOB No. 1912.40-WI
PEG PM JLT
START DATE 02/09/26
SCALE N.T.S.

SHEET C-17

CONSTRUCTION DETAILS

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