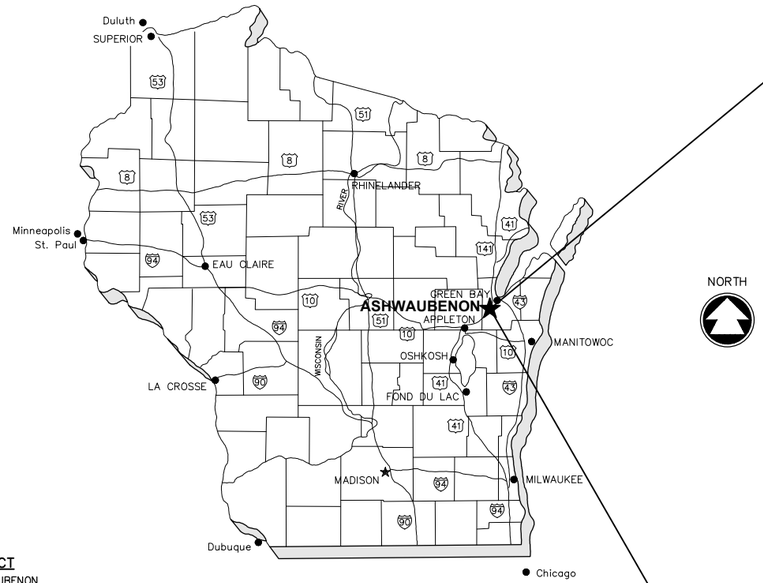
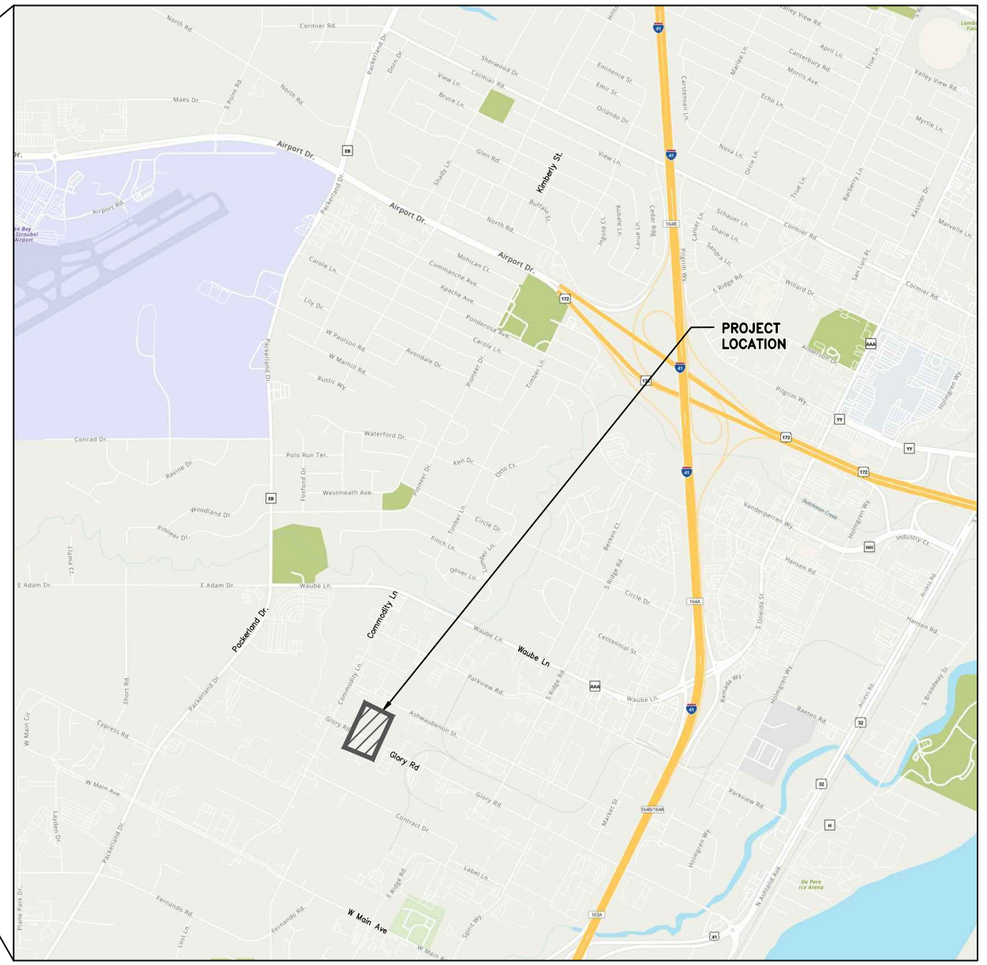
GLORY ROAD CULVERT REPLACEMENT

VILLAGE OF ASHWAUBENON

BROWN COUNTY, WISCONSIN
CONTRACT # A0017 09-24-00770



NORTH



811 DIGGERS HOTLINE
Call 811 or Toll Free (800) 242-8511
Hearing Impaired TTY (800) 542-2289
www.DiggersHotline.com

CONTACT INFORMATION

UTILITIES

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2037 ANN LANE
GREEN BAY, WI 54304
920-401-7512 / vk352k@att.com

WISCONSIN PUBLIC SERVICE (WPS)
JEFF HENKELMANN (GAS & ELECTRIC)
2850 S ASHLAND AV / P.O. BOX 19001
GREEN BAY, WI 54307-9001
920-433-1277

CHARTER
JODY THIEL (CABLE)
3520 E. DESTINATION DRIVE
APPLETON, WI 54915
920-831-9258

MI-TECH
ZACH CASPARY
46 S ROLLING MEADOWS DRIVE
FOND DU LAC, WI 54937
920.924.3690 x3200
ZCASPARY@MI-TECH.US

DNR

DEPARTMENT OF NATURAL RESOURCES
SARAH ANDERSON
2984 SHAWANO AVENUE
GREEN BAY, WI 54313-6727
(920) 662-5441
sarah.anderson@wisconsin.gov

OWNER CONTACT

VILLAGE OF ASHWAUBENON
STEVE BIRR, VILLAGE ENGINEER
2155 HOLMGREN WAY
ASHWAUBENON, WI 54304
sbirr@ashwaubenon.com

DESIGN CONTACT

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DATE
FEB., 2025
PROJECT NO.
A0017 09-24-00770

STANDARD ABBREVIATIONS

AC	ACRE	LT	LEFT
AGG	AGGREGATE	LVC	LENGTH OF VERTICAL CURVE
AH	AHEAD	MAINT	MAINTENANCE
ASPH	ASPHALT PAVEMENT	MAT'L	MATERIAL
AVG	AVERAGE	MAX	MAXIMUM
B-B	BACK TO BACK	MIN	MINIMUM
BEG	BEGIN	MH	MANHOLE
BIT	BITUMINOUS	MP	MILE POST
BK	BACK	NB	NORTHBOUND
B/L	BASE LINE	NO	NUMBER
BLDG	BUILDING	NOR	NORMAL
BM	BENCH MARK	OD	OUTSIDE DIAMETER
BOC	BACK OF CURB	OBLIT	OBLITERATE
BRG	BEARING	PAV'T	PAVEMENT
C-C	CENTER TO CENTER	PC	POINT OF CURVATURE
CY	CUBIC YARD	PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVATURE
C&G	CURB AND GUTTER		
CB	CATCH BASIN	PE	PRIVATE ENTRANCE
CE	COMMERCIAL ENTRANCE	PED	PEDESTAL
CHD	CHORD	PGL	PROFILE GRADE LINE
C/L	CENTER LINE	PI	POINT OF INTERSECTION
CL	CLASS (FOR CONC PIPE)	P/L	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	PLE	PERMANENT LIMITED EASEMENT
CO	CLEAN OUT	PP	POWER POLE
CONC	CONCRETE	PRC	POINT OF REVERSE CURVATURE
CORR	CORRUGATED	PROP	PROPOSED
CP	CONTROL POINT	PSD	PASSING SIGHT DISTANCE
CR	CRUSHED	PSI	POUNDS PER SQUARE INCH
CS	CURB STOP	PT	POINT OF TANGENCY
CSW	CONCRETE SIDEWALK	PVC	POLYVINYL CHLORIDE OR POINT OF VERTICAL CURVATURE
CTH	COUNTY TRUNK HIGHWAY		
CULV	CULVERT	PVI	POINT OF VERTICAL INTERSECTION
D	DEPTH OR DELTA	PVT	POINT OF VERTICAL TANGENCY
DI	DUCTILE IRON	R	RADIUS
DIA	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DIS	DISCHARGE	RD	ROAD
EA	EACH	REBAR	REINFORCEMENT ROD
EB	EASTBOUND	REM	REMOVE
EBS	EXCAVATION BELOW SUBGRADE	RECON	RECONSTRUCT
EG	EDGE OF GRAVEL	REQ'D	REQUIRED
ELEV	ELEVATION	R/L	REFERENCE LINE
ELEC	ELECTRIC	RP	RADIUS POINT
EMB	EMBANKMENT	RR	RAILROAD
EMAT	EROSION MAT	RT	RIGHT
ENT	ENTRANCE	R/W	RIGHT-OF-WAY
EOR	END OF RADIUS	SB	SOUTHBOUND
EP	EDGE OF PAVEMENT	SE	SUPERELEVATION
EXC	EXCAVATION	SF	SQUARE FEET
EX	EXISTING	SI	SLOPE INTERCEPT
EW	ENDWALL	STH	STATE TRUNK HIGHWAY
F-F	FACE TO FACE	SY	SQUARE YARD
FDN	FOUNDATION	SALV	SALVAGED
FE	FIELD ENTRANCE	SAN	SANITARY
FERT	FERTILIZER	SEC	SECTION
FG	FINISHED GRADE	SHLDR	SHOULDER
F/L	FLOW LINE	S/L	SURVEY LINE
FT	FOOT	SQ	SQUARE
FTG	FOOTING	STA	STATION
GRAV	GRAVEL	STD	STANDARD
GN	GRID NORTH	STO	STORM
GV	GAS VALVE	SW	SIDEWALK
HDPE	HIGH DENSITY POLYETHYLENE	TC	TOP OF CURB
HE	HIGHWAY EASEMENT	TEL	TELEPHONE
HMA	HOT MIX ASPHALT	TEMP	TEMPORARY
HP	HIGH POINT	TLE	TEMPORARY LIMITED EASEMENT
HT	HEIGHT	TV	TELEVISION
HYD	HYDRANT	TYP	TYPICAL
ID	INSIDE DIAMETER	UG	UNDERGROUND
IN	INCH	USH	U.S. HIGHWAY
INL	INLET	VAR	VARIES
INV	INVERT	VC	VERTICAL CURVE
IP	IRON PIPE	VERT	VERTICAL
JCT	JUNCTION	WB	WESTBOUND
LB	POUND	WM	WATER MAIN
LF	LINEAR FOOT	WV	WATER VALVE
LP	LIGHT POLE		

GENERAL NOTES

1. THE UTILITIES SHOWN IN PLAN AND PROFILE ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES, INCLUDING ANY PRIVATE UTILITIES, FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITIES SHALL BE NOTIFIED 72 HRS. PRIOR TO EXCAVATION.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PROPOSED SITE GRADES BY FIELD CHECKING TWO (2) BENCHMARKS AND A MINIMUM OF ONE (1) SITE FEATURE AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY MCMAHON OF ANY VERTICAL DISCREPANCY.
3. EXISTING STREET RIGHT-OF-WAY AND INTERSECTING PROPERTY LINES ARE ESTABLISHED FROM FIELD LOCATED SURVEY MONUMENTATION, PREVIOUS SURVEYS, PLATS AND CURRENT PROPERTY DEEDS.
4. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT PRIOR APPROVAL FROM THE OWNER.
5. A SAWED JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MATCHES EXISTING ASPHALTIC CONCRETE SURFACE.
6. ALL CURB RADII SHOWN ON THE PLAN SHEETS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
7. DIMENSIONS ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.

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STANDARD SYMBOLS (PLAN VIEW ONLY)

- 2" IRON PIPE FOUND
- 1 1/4" REBAR FOUND
- 1 1/4" x 30" IRON REBAR WEIGHING 4.30 LB/LF SET
- 1" (1.315 OD) IRON PIPE FOUND
- 1" IRON PIPE SET
- 3/4" IRON REBAR FOUND
- 3/4" IRON PIPE FOUND
- 3/4"x 24" IRON REBAR WEIGHING 1.5 LB/LF SET
- MAG NAIL FOUND
- MAG NAIL SET
- MAG SPIKE FOUND
- MAG SPIKE SET
- CHISEL CROSS FOUND
- CHISEL CROSS SET
- COUNTY MONUMENT
- CONCRETE MONUMENT FOUND
- CONTROL POINT HORIZONTAL
- VERTICAL BENCHMARK
- SOIL BORING or MONITORING WELL (SB or MW)
- POWER POLE
- POWER POLE W/GUY WIRE
- TELEPHONE OR TELEVISION PEDESTAL
- MAILBOX (MB)
- SIGN
- RAILROAD CROSS BUCK
- RAILROAD GATE ARM
- RAILROAD TRACKS
- LIGHT POLE
- WOOD POLE
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL MAST ARM
- CONIFEROUS TREE
- DECIDUOUS TREE
- TREE OR BRUSH LINE
- BED ROCK (IN PROFILE VIEW)
- HANDICAPPED PARKING STALL
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION (750.00)
- DRAINAGE HIGH POINT
- DRAINAGE DIRECTION
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING INLET
- PROPOSED INLET
- EXISTING YARD DRAIN
- PROPOSED YARD DRAIN
- EXISTING CLEAN OUT (CO)
- PROPOSED CLEAN OUT (CO)
- EXISTING DOWNSPOUT
- PROPOSED DOWNSPOUT
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING CURB STOP
- PROPOSED CURB STOP
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER FITTING
- PROPOSED WATER REDUCER
- PROPOSED ENDCAP
- GAS VALVE

- TELEPHONE CABLE - BURIED (T)
- ELECTRIC CABLE - BURIED (E)
- UTILITIES - OVERHEAD (OHU)
- FIBER OPTIC CABLE - BURIED (FO)
- GAS MAIN (G)
- CABLE TELEVISION - BURIED (TV)
- DITCH LINE
- STREET C/L OR R/L
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SECTION LINE
- EXISTING CONTOURS (746)
- PROPOSED CONTOURS (746)
- EXISTING FORCEMAIN SEWER
- EXISTING SANITARY SEWER (SAN)
- PROPOSED SANITARY SEWER (SAN)
- EXISTING WATER MAIN (WM)
- PROPOSED WATER MAIN (WM)
- EXISTING STORM SEWER (STO)
- PROPOSED STORM SEWER (STO)
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- PROPOSED REJECT CURB & GUTTER
- EXISTING CULVERT WITH END SECTIONS
- PROPOSED CULVERT WITH END SECTIONS
- BUILDING OUTLINE
- FENCE LINE
- SAW CUT REQ'D
- SILT FENCE
- GUARD RAIL
- DITCH CHECK
- INLET PROTECTION
- TRACKING PAD
- TURBIDITY BARRIER OR SHEET PILING
- SANDBAG COFFERDAM
- SLOPE INTERCEPT
- LIMITS OF DISTURBANCE

EXISTING / PROPOSED

- ASPHALT PAVEMENT
- CONCRETE SIDEWALK/DRIVEWAY
- GRAVEL
- RIP-RAP (SIZE AS SPECIFIED)
- EROSION MAT
- EXISTING DELINEATED WETLANDS

EROSION & SEDIMENT CONTROL PLAN

BEST MANAGEMENT PRACTICES:

THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING BEST MANAGEMENT PRACTICES IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES (DNR) TECHNICAL STANDARDS. THESE STANDARDS MAY BE FOUND ON THE DNR WEBSITE AT http://www.dnr.wi.gov/runoff/stormwater/techstds.htm. RIP-RAP SHALL BE IN ACCORDANCE WITH SECTION 606, WIS-DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, UNTIL TECHNICAL STANDARD 1065 IS COMPLETED BY THE DNR. THE MINIMUM BEST MANAGEMENT PRACTICES SPECIFIED FOR THIS PROJECT ARE AS FOLLOWS:

- [ ] LAND APPLICATION OF POLYACRYLAMIDE (1050)
- [ ] WATER APPLICATION OF POLYMERS (1051)
- [ ] NON-CHANNEL EROSION MAT (1052)
- [X] CHANNEL EROSION MAT (1053)
- [ ] VEGETATIVE BUFFER (1054)
- [ ] SEDIMENT BALE BARRIER (1055)
- [X] SILT FENCE (1056)
- [X] TRACKING PAD & TIRE WASHING (1057)
- [X] MULCHING (1058)
- [X] SEEDING (1059)
- [X] STORM DRAIN INLET PROTECTION (1060)
- [X] DE-WATERING (1061)
- [ ] DITCH CHECK (1062)
- [ ] SEDIMENT TRAP (1063)
- [ ] SEDIMENT BASIN (1064)
- [X] RIP-RAP (1065)
- [ ] CONSTRUCTION DIVERSION (1066)
- [ ] GRADING PRACTICES (1067)
- [X] DUST CONTROL (1068)
- [ ] TURBIDITY BARRIER (1069)
- [ ] SILT CURTAIN (1070)
- [ ] MANUFACTURED PERIMETER PRODUCTS (1071)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES AND IMPLEMENT BEST MANAGEMENT PRACTICES TO PREVENT OR REDUCE ALL OF THE FOLLOWING:

A. DEPOSITION OR TRACKING OF SOIL ONTO STREETS BY VEHICLES.
B. DISCHARGE OF SEDIMENT INTO STORM WATER INLETS.
C. DISCHARGE OF SEDIMENT INTO ADJACENT STREAMS, RIVERS, LAKES AND WETLANDS.
D. DISCHARGE OF SEDIMENT FROM DITCHES AND STORM SEWERS THAT FLOW OFFSITE.
E. DISCHARGE OF SEDIMENT FROM DEWATERING ACTIVITIES.
F. DISCHARGE OF SEDIMENT FROM SOIL STOCKPILES EXISTING FOR 7 DAYS OR MORE.
G. DISCHARGE OF SEDIMENT FROM EROSIVE OUTLET FLOWS.
H. TRANSPORT OF CHEMICALS, CEMENT AND BUILDING MATERIALS BY RUNOFF.
I. TRANSPORT OF UNTREATED VEHICLE AND WHEEL WASH WATER BY RUNOFF.

THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING PREVENTATIVE MEASURES:

A. PRESERVE EXISTING VEGETATION WHENEVER POSSIBLE.
B. MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL.
C. MINIMIZE LAND DISTURBANCES ON SLOPES OF 20% OR MORE.
D. MINIMIZE THE AMOUNT OF SOIL EXPOSED AT ANY ONE TIME.
E. DIVERT CLEAR WATER AWAY FROM EXPOSED SOILS.
F. TEMPORARILY STABILIZE EXPOSED SOILS THAT WILL NOT BE ACTIVE FOR 14 DAYS OR MORE. USE MULCHING, SEEDING, POLYACRYLAMIDE OR GRAVELING TO STABILIZE.
G. PERMANENTLY STABILIZE EXPOSED SOILS AS SOON AS POSSIBLE.
H. CONTRACTOR SHALL EDUCATE ITS EMPLOYEES AND SUBCONTRACTORS ABOUT PROPER SPILL PREVENTION AND RESPONSE PROCEDURES. IF A SPILL OCCURS, THE CONTRACTOR SHALL EVACUATE THE AREA AND IMMEDIATELY NOTIFY THE LOCAL MUNICIPALITY, FIRE DEPARTMENT OR 911 EMERGENCY SYSTEM. IF NO FIRE, EXPLOSION OR LIFE / HEALTH SAFETY HAZARD EXISTS, THE NEXT STEP IS TO CONTAIN THE SPILL AND PERFORM CLEANUP. USE DRY CLEANUP METHODS, NOT WET.

THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING BEST MANAGEMENT PRACTICES DESTROYED AS A RESULT OF CONSTRUCTION ACTIVITIES BY THE END OF THE WORK DAY. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING BEST MANAGEMENT PRACTICES TEMPORARILY REMOVED FOR CONSTRUCTION ACTIVITY AS SOON AS THOSE ACTIVITIES ARE COMPLETED. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING OF TEMPORARY BEST MANAGEMENT PRACTICES AFTER CONSTRUCTION IS COMPLETE AND PERMANENT VEGETATION IS ESTABLISHED.

INSPECTION & MAINTENANCE:

THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING BEST MANAGEMENT PRACTICES WEEKLY, AND WITHIN 24 HOURS FOLLOWING A RAINFALL OF 0.5 INCHES OR GREATER. WRITTEN DOCUMENTATION OF EACH INSPECTION SHALL BE KEPT AT THE CONSTRUCTION SITE AND SHALL INCLUDE THE FOLLOWING INFORMATION: DATE, TIME, AND LOCATION OF INSPECTION; NAME OF INDIVIDUAL WHO PERFORMED THE INSPECTION; AN ASSESSMENT OF THE CONDITION OF BEST MANAGEMENT PRACTICES; A DESCRIPTION OF ANY BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED; AND A DESCRIPTION OF THE PRESENT PHASE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, REPAIRING, OR REPLACING BEST MANAGEMENT PRACTICES AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR NOTIFICATION. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING, MAINTAINING, REPAIRING, OR REPLACING BEST MANAGEMENT PRACTICES UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY IS COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER IS ESTABLISHED WITH A DENSITY OF AT LEAST 70%.

THE CONTRACTOR IS RESPONSIBLE FOR POSTING THE PERMIT IN A CONSPICUOUS LOCATION ON THE CONSTRUCTION SITE. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING A COPY OF THE APPROVED REPORTS, PLANS, AMENDMENTS, INSPECTION REPORTS, AND PERMITS AT THE CONSTRUCTION SITE AT ALL TIMES UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY IS COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER IS ESTABLISHED WITH A DENSITY OF AT LEAST 70%. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE OWNER WHEN THE VEGETATIVE DENSITY REACHES AT LEAST 70%. THE OWNER IS RESPONSIBLE FOR TERMINATING DNR PERMIT COVERAGE.

AMENDMENTS:

THE CONTRACTOR IS RESPONSIBLE FOR AMENDING THE EROSION & SEDIMENT CONTROL PLAN IF: THERE IS A CHANGE IN CONSTRUCTION, OPERATION OR MAINTENANCE AT THE SITE WHICH HAS THE REASONABLE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS; THE ACTIONS REQUIRED BY THE PLAN FAIL TO REDUCE THE IMPACTS OF POLLUTANTS CARRIED BY CONSTRUCTION SITE RUNOFF; OR IF THE DNR NOTIFIES THE APPLICANT OF CHANGES NEEDED IN THE PLAN. THE DNR AND OWNER SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO MAKING CHANGES TO THE PLAN.

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REVISION | DATE | NO.

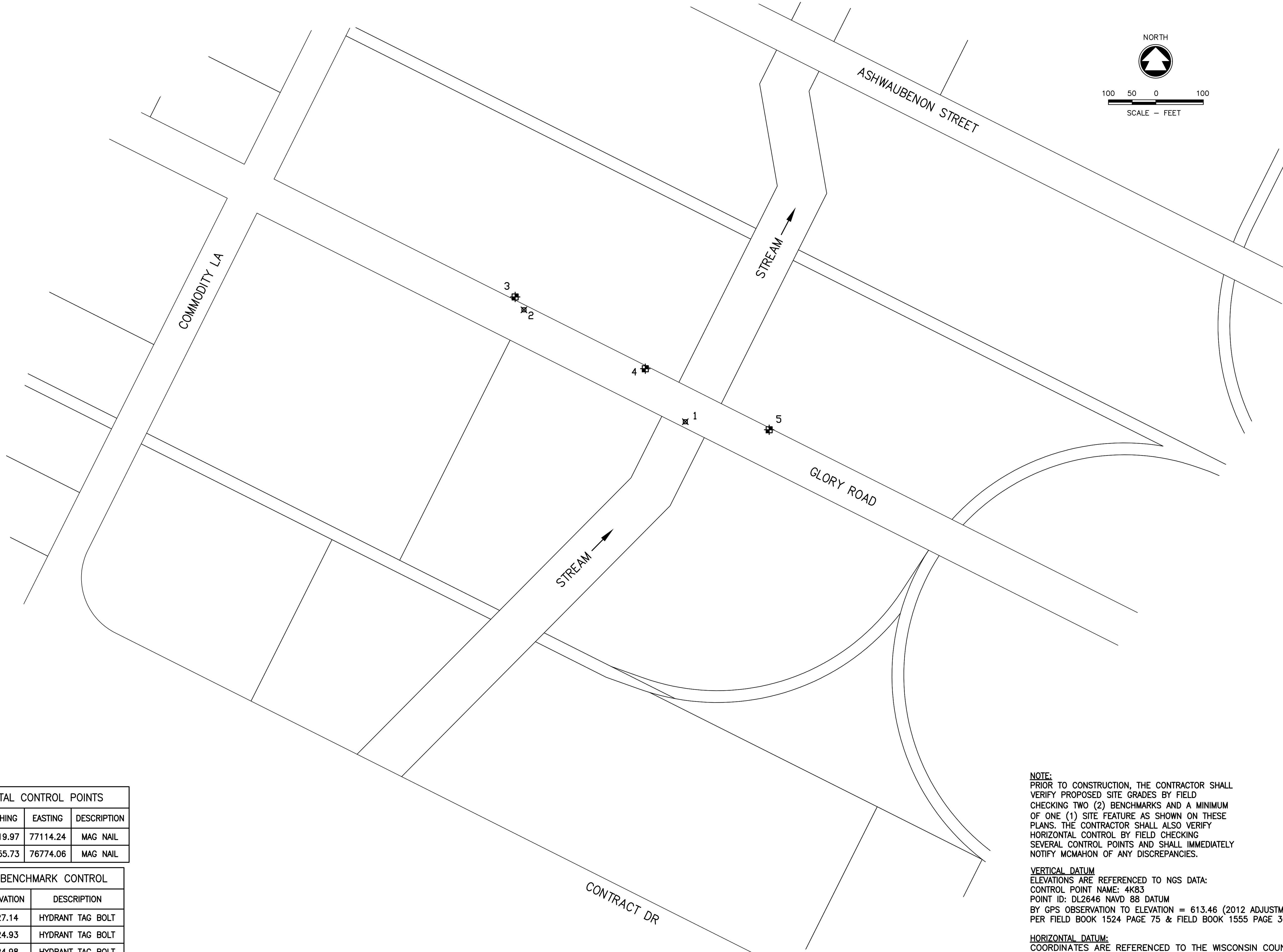
GLORY ROAD CULVERT REPLACEMENT
VILLAGE OF ASHWAUBENON
ABBREVIATIONS SYMBOLS NOTES

DESIGNED	DRAWN
AWS	AWS

PROJECT NO. A0017 09-24-00770

DATE FEB., 2025

SHEET NO. 01



HORIZONTAL CONTROL POINTS			
POINT #	NORTHING	EASTING	DESCRIPTION
1	549519.97	77114.24	MAG NAIL
2	549755.73	76774.06	MAG NAIL

VERTICAL BENCHMARK CONTROL		
POINT #	ELEVATION	DESCRIPTION
3	627.14	HYDRANT TAG BOLT
4	624.93	HYDRANT TAG BOLT
5	624.98	HYDRANT TAG BOLT

NOTE:
PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PROPOSED SITE GRADES BY FIELD CHECKING TWO (2) BENCHMARKS AND A MINIMUM OF ONE (1) SITE FEATURE AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL ALSO VERIFY HORIZONTAL CONTROL BY FIELD CHECKING SEVERAL CONTROL POINTS AND SHALL IMMEDIATELY NOTIFY MCMAHON OF ANY DISCREPANCIES.

VERTICAL DATUM
ELEVATIONS ARE REFERENCED TO NGS DATA:
CONTROL POINT NAME: 4K83
POINT ID: DL2646 NAVD 88 DATUM
BY GPS OBSERVATION TO ELEVATION = 613.46 (2012 ADJUSTMENT)
PER FIELD BOOK 1524 PAGE 75 & FIELD BOOK 1555 PAGE 36

HORIZONTAL DATUM:
COORDINATES ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM AS PUBLISHED FOR BROWN COUNTY NAD 83 (1991)

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NO.	DATE	REVISION

GLORY ROAD CULVERT REPLACEMENT
VILLAGE OF ASHWAUBENON
SURVEY CONTROL

DESIGNED	DRAWN
AWS	AWS

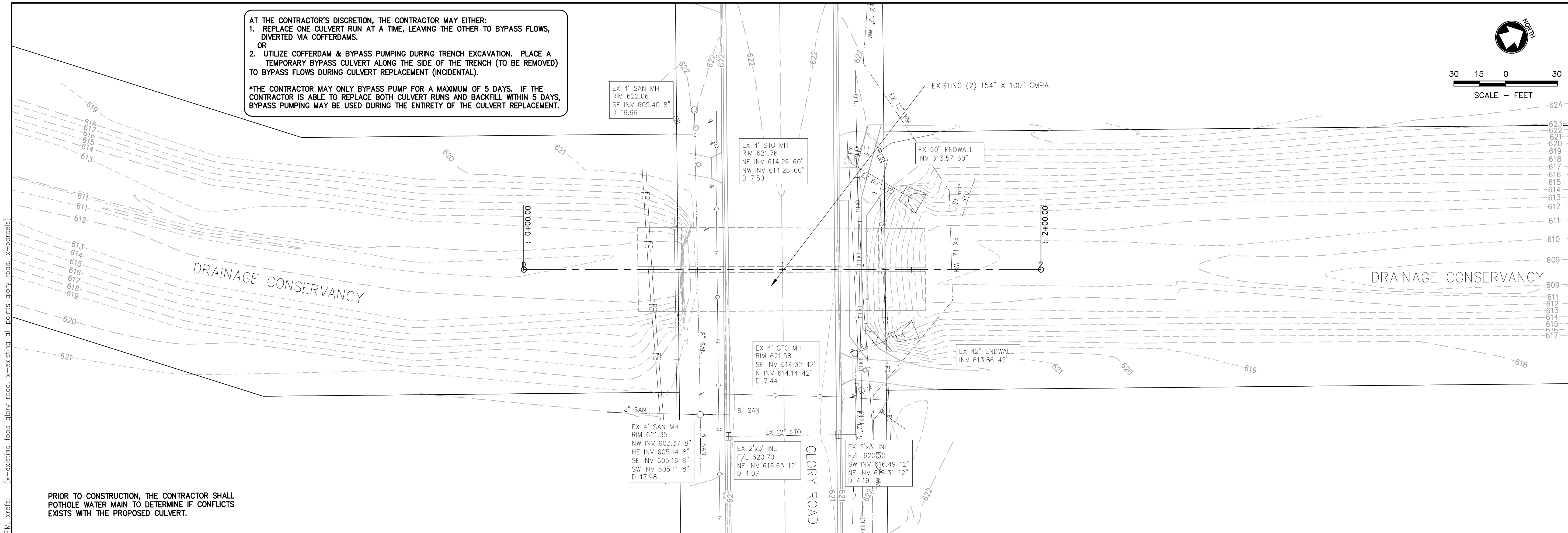
PROJECT NO.
A0017 09-24-00770

DATE
FEB., 2025

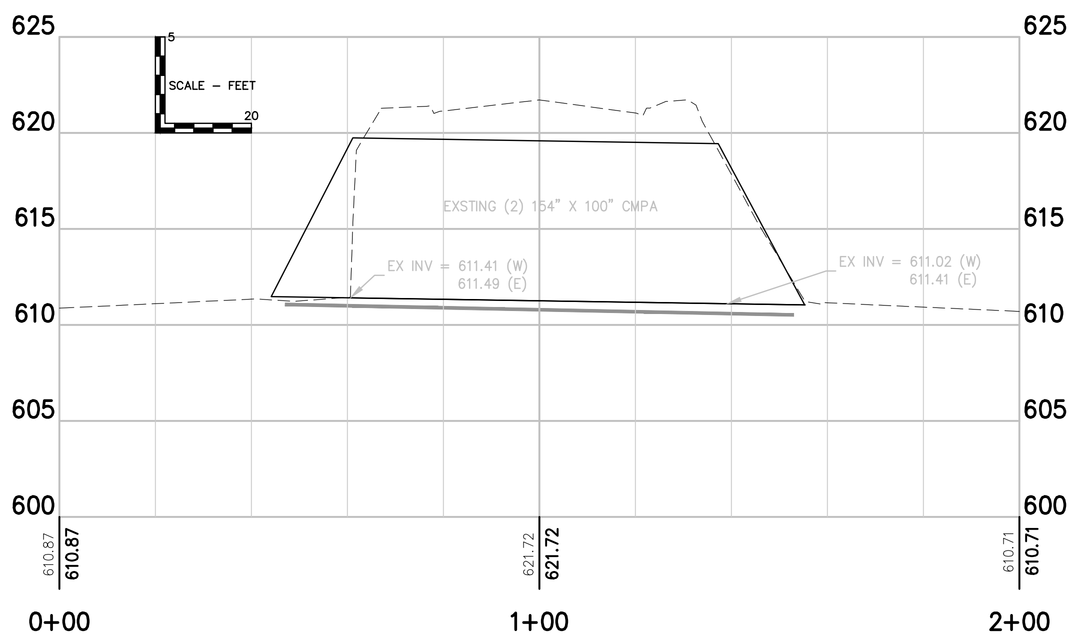
SHEET NO.
02

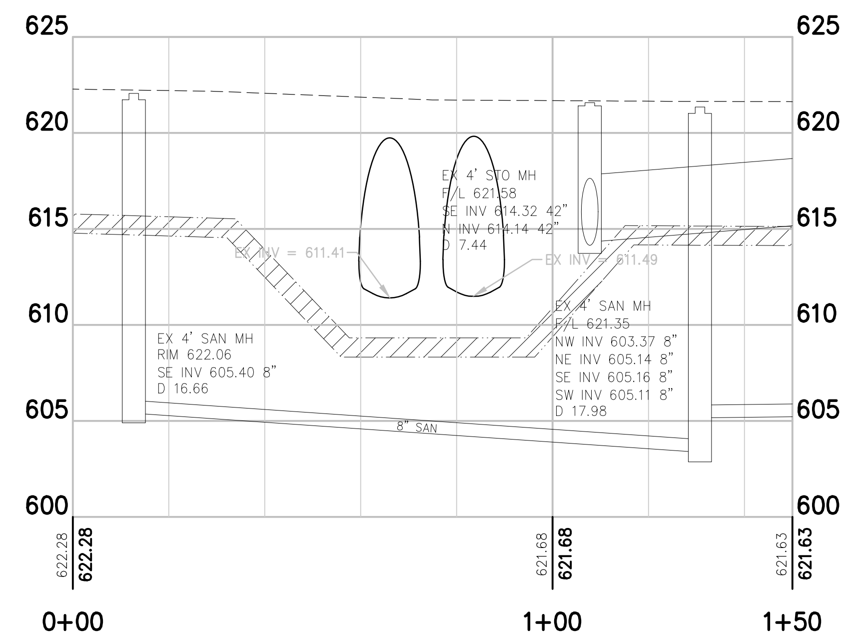
AT THE CONTRACTOR'S DISCRETION, THE CONTRACTOR MAY EITHER:
1. REPLACE ONE CULVERT RUN AT A TIME, LEAVING THE OTHER TO BYPASS FLOWS, DIVERTED VIA COFFERDAMS.
OR
2. UTILIZE COFFERDAM & BYPASS PUMPING DURING TRENCH EXCAVATION. PLACE A TEMPORARY BYPASS CULVERT ALONG THE SIDE OF THE TRENCH (TO BE REMOVED) TO BYPASS FLOWS DURING CULVERT REPLACEMENT (INCIDENTAL).

*THE CONTRACTOR MAY ONLY BYPASS PUMP FOR A MAXIMUM OF 5 DAYS. IF THE CONTRACTOR IS ABLE TO REPLACE BOTH CULVERT RUNS AND BACKFILL WITHIN 5 DAYS, BYPASS PUMPING MAY BE USED DURING THE ENTIRETY OF THE CULVERT REPLACEMENT.



PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL POTHOLE WATER MAIN TO DETERMINE IF CONFLICTS EXISTS WITH THE PROPOSED CULVERT.





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NO.	DATE	REVISION

GLORY ROAD CULVERT REPLACEMENT
VILLAGE OF ASHWAUBENON
EXISTING CULVERT

DESIGNED	DRAWN
AWS	AWS

PROJECT NO. A0017 09-24-00770

DATE FEB., 2025

SHEET NO. 03

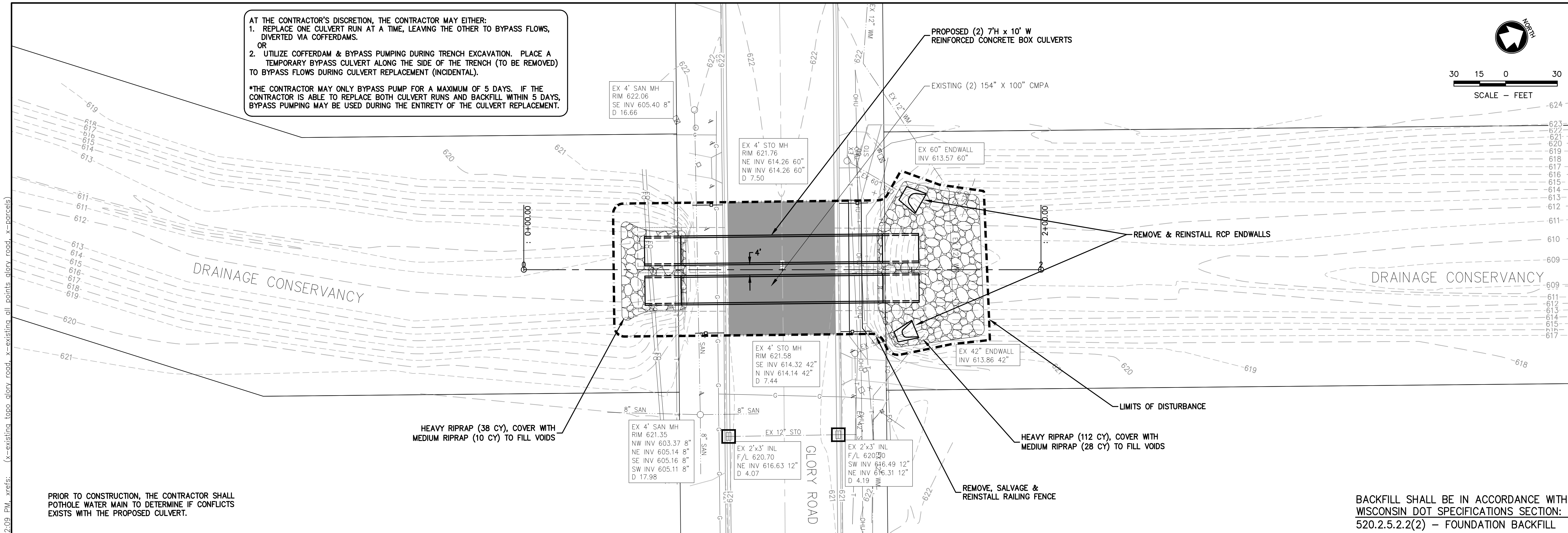
AT THE CONTRACTOR'S DISCRETION, THE CONTRACTOR MAY EITHER:

1. REPLACE ONE CULVERT RUN AT A TIME, LEAVING THE OTHER TO BYPASS FLOWS, DIVERTED VIA COFFERDAMS.

OR

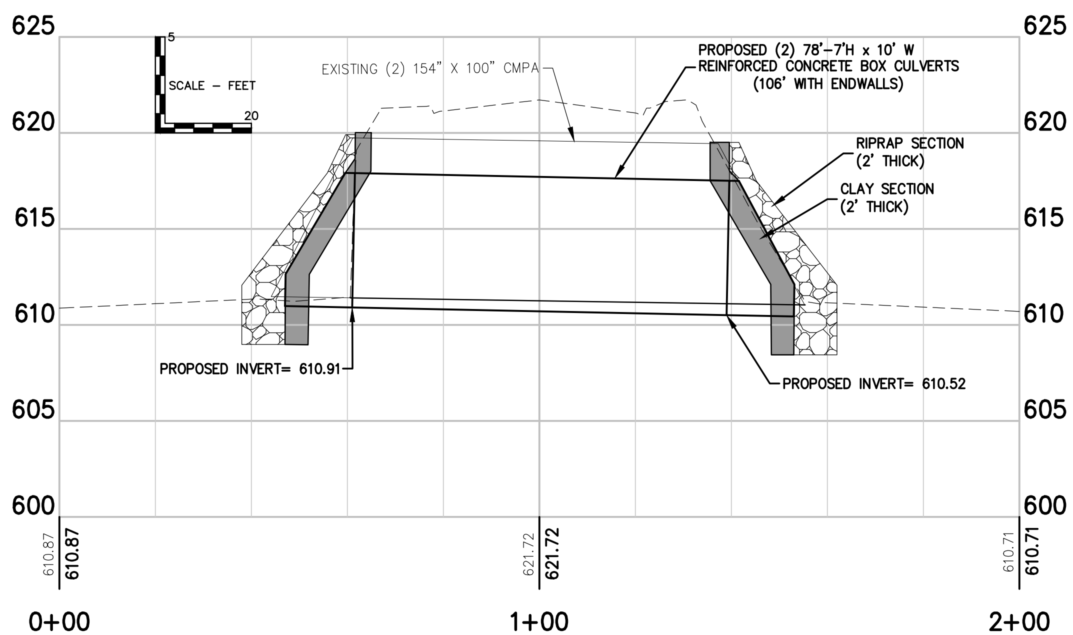
2. UTILIZE COFFERDAM & BYPASS PUMPING DURING TRENCH EXCAVATION. PLACE A TEMPORARY BYPASS CULVERT ALONG THE SIDE OF THE TRENCH (TO BE REMOVED) TO BYPASS FLOWS DURING CULVERT REPLACEMENT (INCIDENTAL).

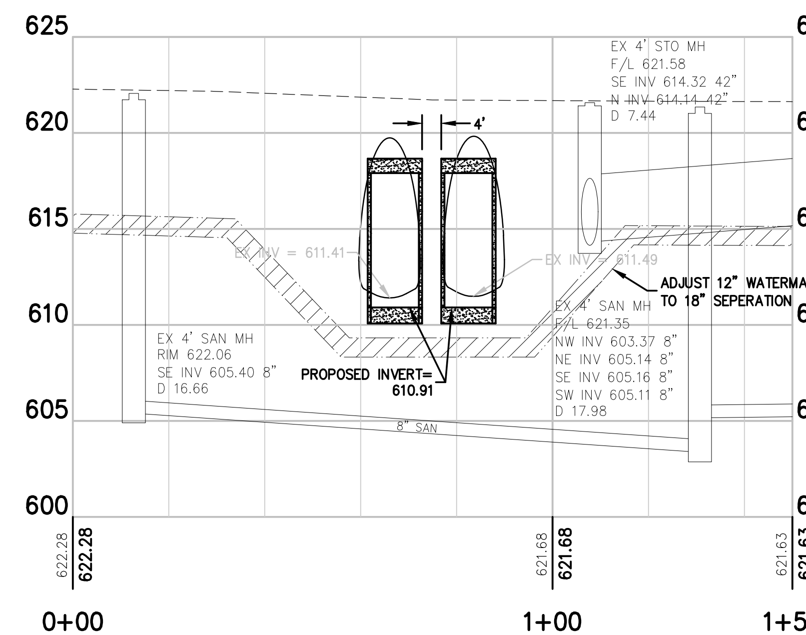
*THE CONTRACTOR MAY ONLY BYPASS PUMP FOR A MAXIMUM OF 5 DAYS. IF THE CONTRACTOR IS ABLE TO REPLACE BOTH CULVERT RUNS AND BACKFILL WITHIN 5 DAYS, BYPASS PUMPING MAY BE USED DURING THE ENTIRETY OF THE CULVERT REPLACEMENT.



PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL POTHOLE WATER MAIN TO DETERMINE IF CONFLICTS EXISTS WITH THE PROPOSED CULVERT.

BACKFILL SHALL BE IN ACCORDANCE WITH WISCONSIN DOT SPECIFICATIONS SECTION: 520.2.5.2.2(2) – FOUNDATION BACKFILL





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NO.	DATE	REVISION

GLORY ROAD CULVERT REPLACEMENT
VILLAGE OF ASHWAUBENON
PROPOED CULVERT

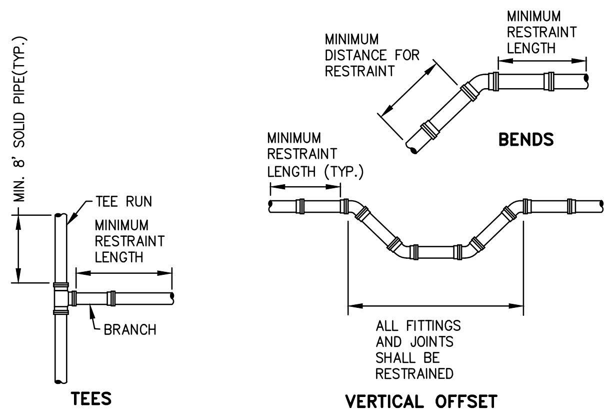
DESIGNED	DRAWN
AWS	AWS

PROJECT NO.
A0017 09-24-00770

DATE
FEB., 2025

SHEET NO.
04

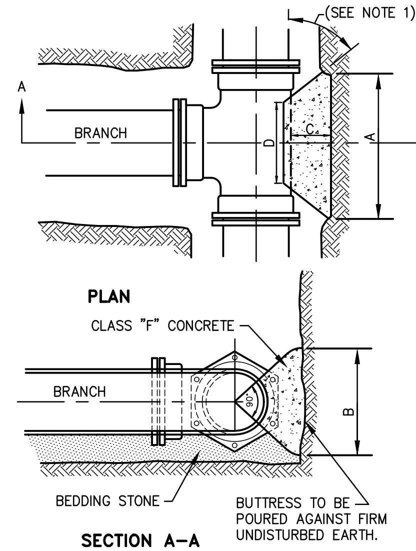
Minimum Restraint Length (ft) on both sides of the Fitting				
Fitting Type/Nominal Size	6"	8"	12"	16"
11 1/4° Bend	2	2	3	3
22 1/2° Bend	3	3	5	6
45° Bend	5	6	9	11
90° Bend	11	15	21	27
Dead End	30	40	56	73
Top Side of a Vertical Offset [1]	13	17	24	31
Tee Run x Branch 6"BY	14			
Tee Run x Branch 8"BY	10	24		
Tee Run x Branch 12"BY	1	15	40	
Tee Run x Branch 16"BY	1	7	33	56



WATER MAIN RESTRAINT DETAIL

BUTTRESS DIMENSIONS				
B.D.	A	B	C	D
6"	1'-3"	1'-0"	SEE NOTE 1	SEE NOTE 2
8"	1'-6"	1'-4"		
12"	2'-3"	2'-0"		
16"	3'-2"	2'-6"		
20"	4'-0"	3'-0"		
24"	5'-3"	3'-4"		
30"	6'-6"	4'-3"		

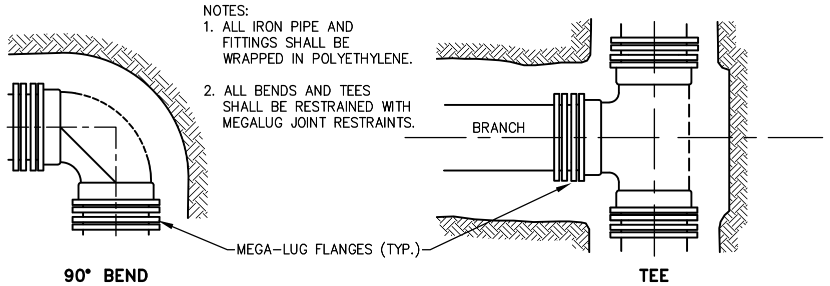
B.D. = BRANCH DIAMETER



NOTES:
1. DIMENSION "C" SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45°.
2. DIMENSION "D" EQUALS APPROX. I.D. OF PIPE LESS 2". AN EFFORT SHOULD BE MADE TO PREVENT THE CONCRETE FROM COVERING THE M.J. BOLTS.
3. WHERE BUTTRESSES ARE NOT POSSIBLE BECAUSE OF POOR SOIL CONDITIONS OR LACK OF ROOM, STRAPPING SHALL BE PERMITTED.
4. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND ON EARTH RESISTANCE OF 2 TONS PER SQ. FT.
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.
6. ALL FITTINGS SHALL BE EPOXY COATED.

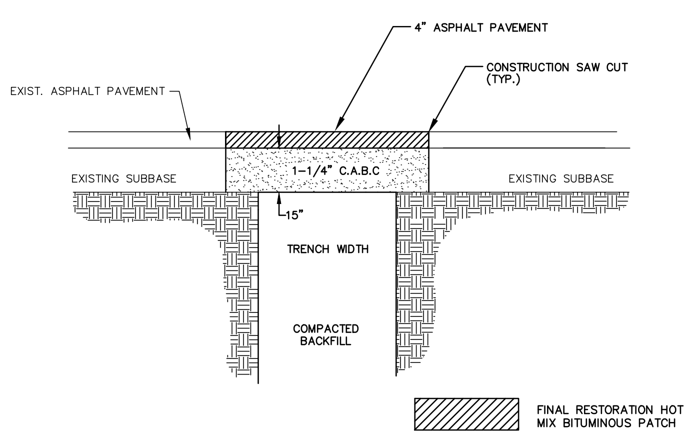
BLOCKING FOR TEES

NOTES:
1. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.
2. ALL BENDS AND TEES SHALL BE RESTRAINED WITH MEGALUG JOINT RESTRAINTS.



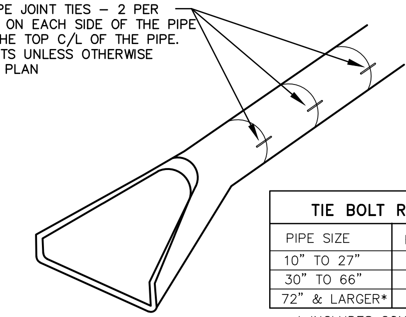
RESTRAINT FOR BENDS & TEES

FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON SSB OR CAST IRON WITH STAINLESS STEEL NUTS AND BOLTS. ALL FITTINGS SHALL HAVE A PRESSURE RATING OF 350 PSI. ALL FITTINGS SHALL BE EPOXY COATED.



BITUMINOUS PAVEMENT RESTORATION

GALVANIZED PIPE JOINT TIES – 2 PER JOINT LOCATED ON EACH SIDE OF THE PIPE AT 60° FROM THE TOP C/L OF THE PIPE. TIE THREE JOINTS UNLESS OTHERWISE NOTED ON THE PLAN

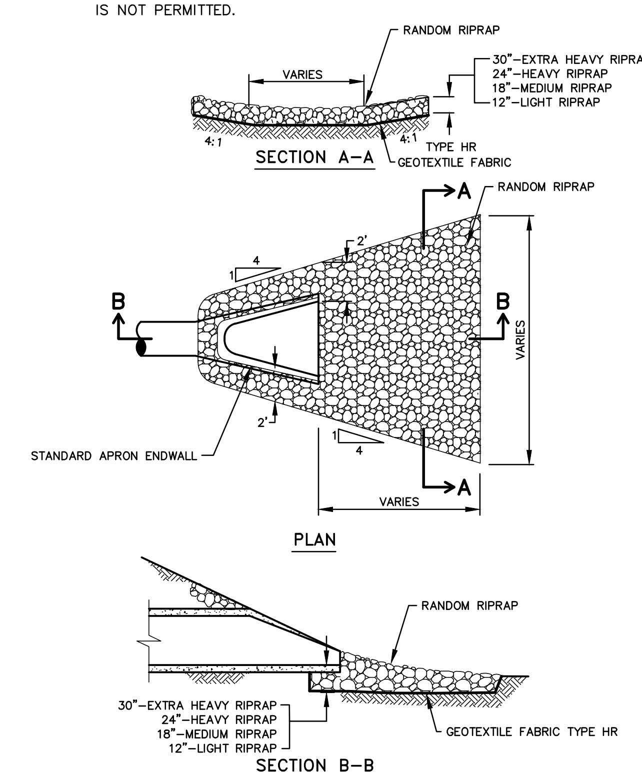


TIE BOLT REQUIREMENTS		
PIPE SIZE	BAR DIA.	BOLTS
10" TO 27"	5/8"	32"
30" TO 66"	3/4"	32"
72" & LARGER*	1"	32"

* INCLUDES CONCRETE BOX

CONCRETE APRON DETAIL

1. RIP-RAP SHALL BE IN ACCORDANCE WITH SECTION 606, WIS-DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION.
2. RIP-RAP SHALL BE ANGULAR. ROUND RIP-RAP IS NOT PERMITTED.



RIPRAP AT STORM SEWER OUTFALL

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NO.	DATE	REVISION

GLORY ROAD CULVERT REPLACEMENT
VILLAGE OF ASHWAUBENON
MISCELLANEOUS DETAILS

DESIGNED	DRAWN
AWS	AWS

PROJECT NO. A0017 09-24-00770

DATE FEB., 2025

SHEET NO. 05

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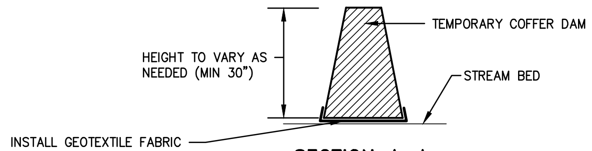
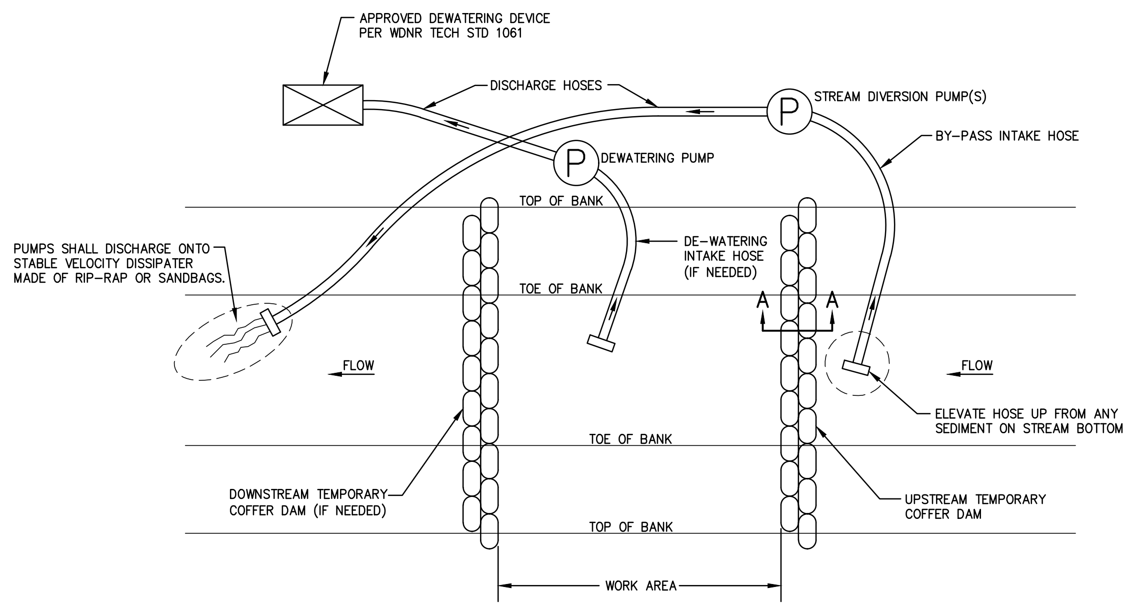


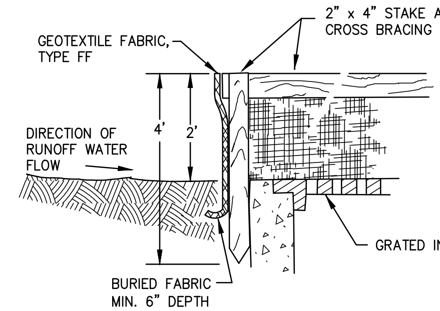
SECTION A–A

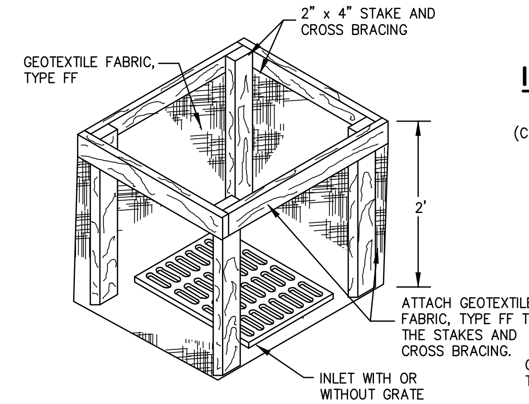


PLAN VIEW

NOTES:
1. COFFER DAM MAY BE SHEET PILE, CONCRETE JERSEY BARRIERS, SANDBAGS OR OTHER DEVICES AS APPROVED BY WDNR
2. BY-PASS PUMPING SHALL ONLY BE COMPLETED DURING LOW FLOW CONDITIONS.
3. DEWATERING SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061, IF NECESSARY
4. DISCHARGE FROM DEWATERING DEVISE SHALL DRAIN BACK INTO THE CHANNEL DOWNSTREAM OF SEDIMENT COFFER DAM.

TEMPORARY COFFER DAM & BY–PASS PUMPING DETAIL





INLET PROTECTION, TYPE A

GENERAL NOTES

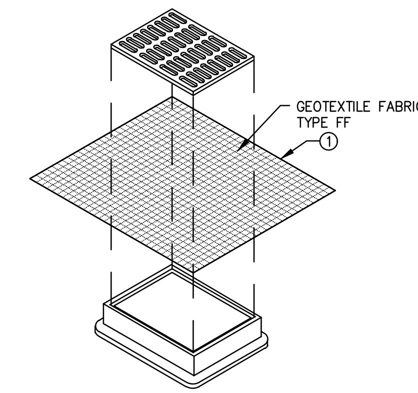
MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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.

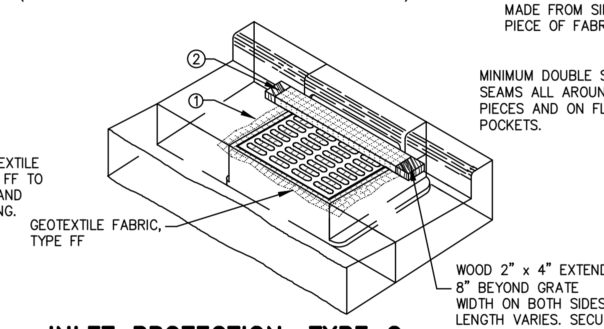
(1) FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

(2) FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" 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 B
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C
(WITH CURB BOX)

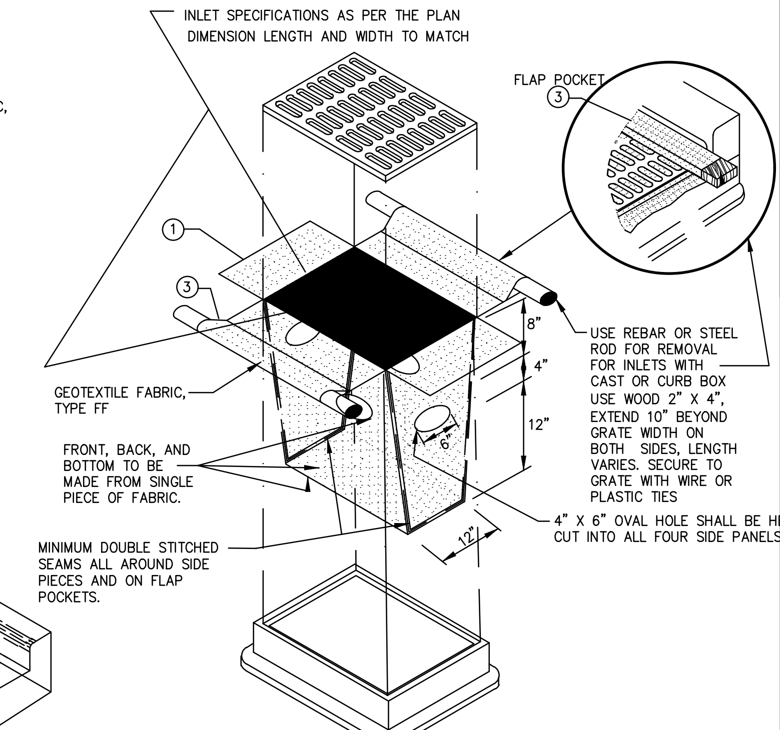
INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

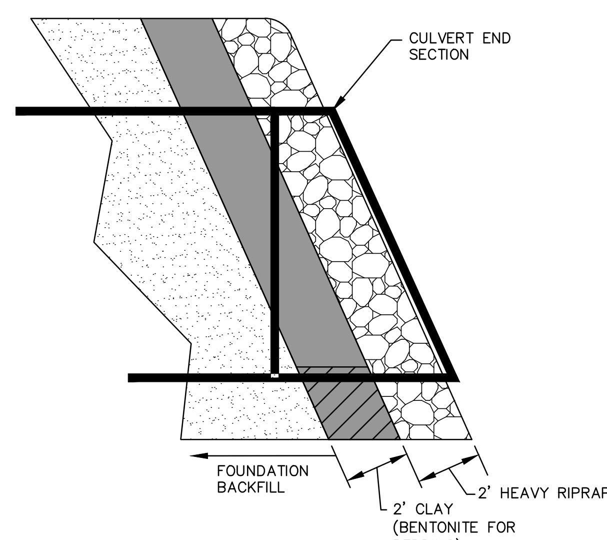
DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE (2))

This drawing based on Wisconsin Department of Transportation Standard Detail Drawing 8 E 10–2.

STORM DRAIN INLET PROTECTION



CULVERT ENDWALL BACKFILL SECTION

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GLORY ROAD CULVERT REPLACEMENT
VILLAGE OF ASHWAUBENON
EROSION CONTROL DETAILS

DESIGNED	DRAWN
AWS	AWS

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06