

SYCAMORE TOWNSHIP

GIDEON LANE

CULVERT IMPROVEMENTS

PROJECT DESCRIPTION

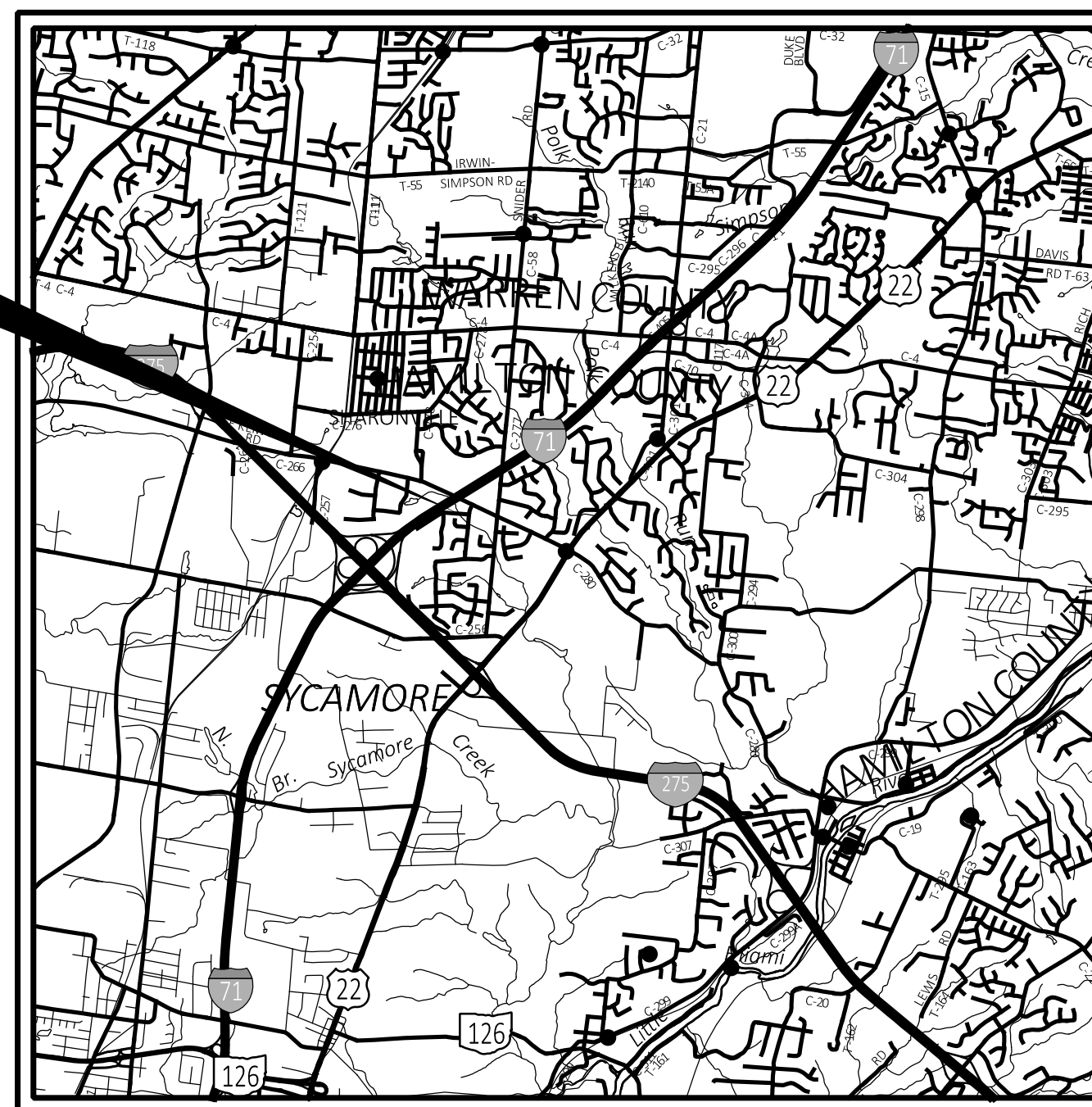
CULVERT REPLACEMENT OF AN EXISTING 84" CMP BENEATH GIDEON LANE IN SYCAMORE TOWNSHIP. IMPROVEMENTS INCLUDE, BUT ARE NOT LIMITED TO, NEW HEADWALLS, SITE GRADING, ENHANCED EROSION CONTROL MEASURES, AND STORM SEWER UPDATES.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE ROAD AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 5.

8' x 7' BOX CULVERT ON GIDEON LANE
(11481 GIDEON LANE)



LOCATION MAP
LATITUDE: 39.276072 LONGITUDE: -84.340362



INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC PLAN	2
GENERAL NOTES	3-4
DETOUR PLAN	5
CULVERT DETAIL	6
GRADING PLAN	7-8
CROSS SECTIONS	9-11
HEADWALL AND WINGWALL DETAILS	12-17
GREATER CINCINNATI WATER WORKS PLANS	18-19

UNDERGROUND UTILITIES	
CONTACT BOTH SERVICES CALL TWO WORKING DAYS BEFORE YOU DIG	
CALL 1-800-362-2764 (TOLL FREE)	
OHIO UTILITIES PROTECTION SERVICE NON-MEMBERS MUST BE CALLED DIRECTLY	
OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988	

PLAN PREPARED BY:

CARPENTER

MARTY

10816 MILLINGTON COURT, SUITE 104
CINCINNATI, OH 45242
513.734.8542 - WWW.CMTRAN.COM

ENGINEERS SEAL:

SIGNED: *Dustin GoHS*
DATE: 12/13/2022

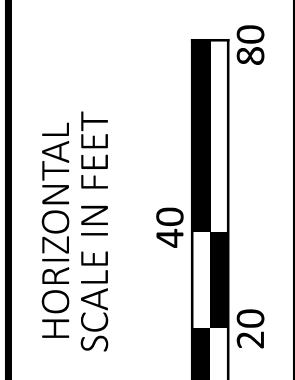
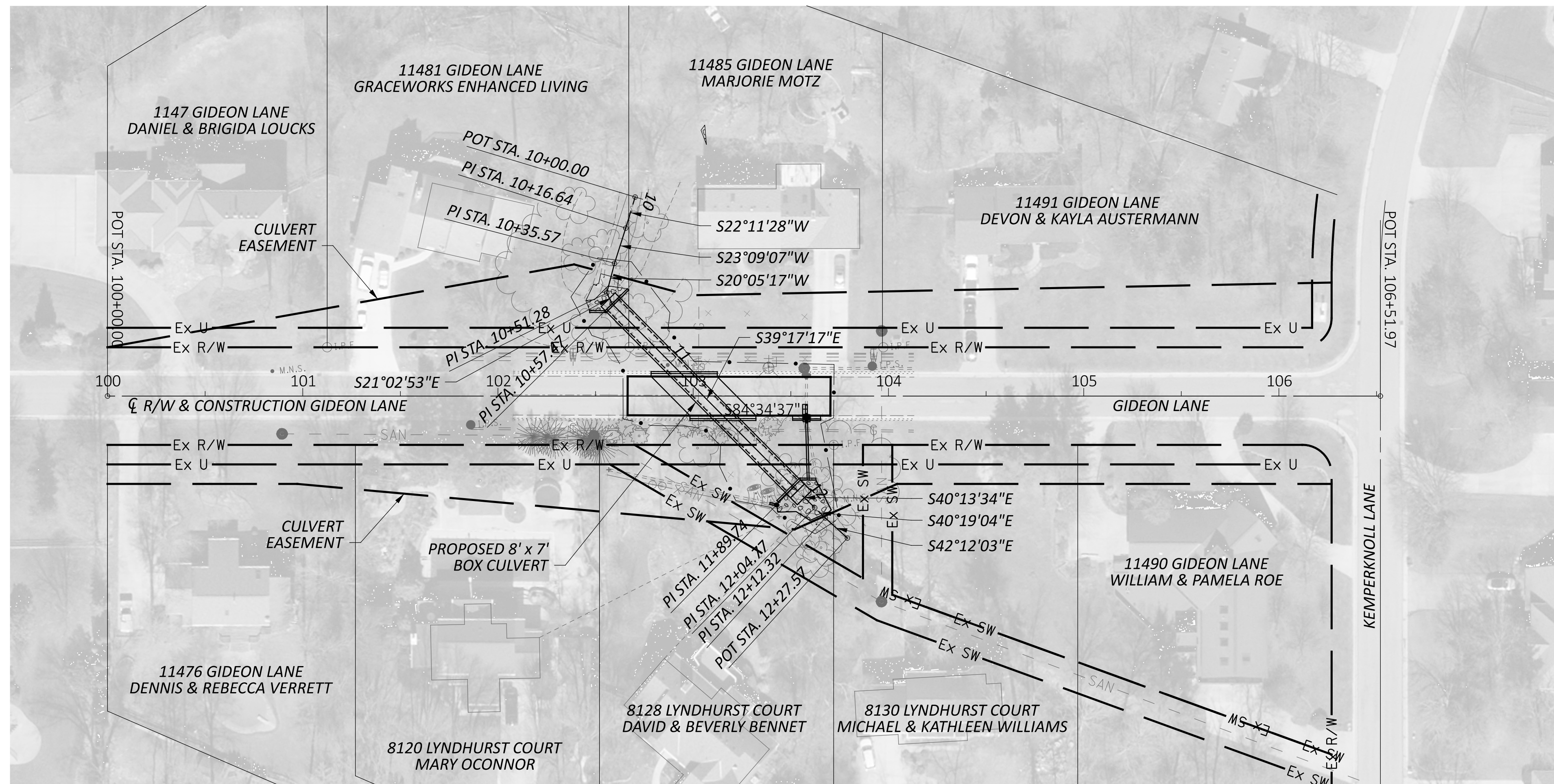
STANDARD CONSTRUCTION DRAWINGS					
CB-3A	07/16/21				
BP-5.1	07/15/21				

APPROVED Tracy Kellums
DATE 12/13/2022 SYCAMORE TOWNSHIP
ADMINISTRATOR

REVISIONS	NUMBER	DATE	DESCRIPTION

GIDEON LANE CULVERT IMPROVEMENTS	TITLE SHEET	PROJECT NO. TSY00003
-------------------------------------	-------------	-------------------------

P:\TWP\SYCAMORE (SY)\00003_Gideon Ln_Culvert\Gideon Ln_Culvert\Engineering_Roadway\Sheets\Gideon_Culvert_GT001.dgn Sheet 12/13/2022 8:02:29 AM dgchs



SCHEMATIC PLAN

PROJECT CONTROL AND BENCHMARKS - GIDEON LANE						
STATION	OFFSET (FT)	SIDE	NORTHING	EASTING	ELEVATION	DESCRIPTION
100+84.42	12.77	LT	470103.62	1447358.13	831.22	MAG NAIL SET
101+86.04	14.73	RT	470066.64	1447456.69	826.61	IRON PIN SET
102+86.95	15.92	LT	470087.61	1447560.05	821.37	MAG NAIL SET
103+38.55	14.54	LT	470081.28	1447611.28	822.48	BM#1 - CHISSELED "X" ON SOUTHERN MOST BOLT OF FH
103+91.72	15.36	LT	470077.16	1447664.29	821.16	IRON PIN SET

CENTERLINE CONSTRUCTION REFERENCES - GIDEON LANE						
STATION	OFFSET (FT)	SIDE	NORTHING	EASTING	DESCRIPTION	
100+00.00	0	CL	470098.88	1447272.88	P.O.T.	
106+51.97	0	CL	470037.27	1447921.93	P.O.T.	

CENTERLINE CONSTRUCTION REFERENCES - 8' x 7' BOX CULVERT						
STATION	OFFSET (FT)	SIDE	NORTHING	EASTING	DESCRIPTION	
10+00.00	0	CL	470174.87	1447551.56	P.O.T.	
10+16.64	0	CL	470159.46	1447545.27	P.I.	
10+35.57	0	CL	470142.06	1447537.83	P.I.	
10+51.28	0	CL	470127.31	1447532.43	P.I.	
10+57.47	0	CL	470121.52	1447534.66	P.I.	
11+89.74	0	CL	470019.15	1447618.41	P.I.	
12+04.77	0	CL	470007.68	1447628.12	P.I.	
12+12.32	0	CL	470001.92	1447633.00	P.I.	
12+27.57	0	CL	469990.62	1447643.25	P.O.T.	

DESIGN AGENCY



DESIGNER	DMG
REVIEWER	BAA
PROJECT ID	TSY0003
SHEET	2
TOTAL	19

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

GAS:
DUKE ENERGY
139 EAST 4th STREET, ANNEX 460
CINCINNATI, OHIO 45202
ATTN: ANDY MCNICHOLS
PHONE: 513-384-4731
EMAIL: ANDREW.MCNICHOLS@DUKE-ENERGY.COM

ELECTRIC:
DUKE ENERGY
2010 DANA AVENUE, RM EF324
CINCINNATI, OHIO 45207
ATTN: CRAIG HUTCHISON
ATTN: 513-458-3847
EMAIL: CRAIG.HUTCHISON@DUKE-ENERGY.COM

TELECOMMUNICATIONS:
ALTA FIBER (CBT)
221 EAST 4th STREET
CINCINNATI, OHIO 45202
ATTN: JOHN STRAUSS
PHONE: 513-566-5120
EMAIL: JOHN.STRAUSS@CINBELL.COM

CHARTER/SPECTRUM COMMUNICATIONS
10920 KENWOOD ROAD
BLUE ASH, OHIO 45242
PHONE: 513-386-5483
ATTN: KENT RIEGER
EMAIL: KENT.RIEGER@CHARTER.COM
ATTN: JIM O'REILLY
EMAIL: JIM.O'REILLY@CHARTER.COM

WATER:
GREATER CINCINNATI WATER WORKS
4747 SPRING GROVE AVENUE
CINCINNATI, OHIO 45204
ATTN: MIKE LAWSON
PHONE: 513-378-0819
EMAIL: MICHAEL.LAWSON@GCWW.CINCINNATI-OH.GOV

SANITARY:
METROPOLITAN SEWER DISTRICT
1600 GEST STREET
CINCINNATI, OHIO 45204
ATTN: ROB KERN
PHONE: 513-244-5588
EMAIL: ROB.KERN@CINCINNATI-OH.GOV

SPECIFICATIONS

THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, SHALL GOVERN THIS IMPROVEMENT.

PERMITS, FEES, AND NOTICES

THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ANY AND ALL PERMITS AND INSPECTIONS REQUIRED FOR THE EXECUTION OF THE WORK BY LOCAL LAWS, ORDINANCES, RULES, AND REGULATIONS.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 2 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL
POSITIONING METHOD: ODOT VRS

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 12B

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD 83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLAN, SOUTH ZONE
COMBINED SCALE FACTOR: 1.00000000
ORIGIN OF COORDINATE SYSTEM: 0,0

UNITS ARE IN U.S. SURVEY FEET.

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	3	---	3
30"	1	---	1

BENCHING OF FOUNDATION SLOPES

BENCH ALL SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

ITEM 614, MAINTAINING TRAFFIC

THIS ROAD CLOSURE WILL REQUIRE A DETOUR PLAN. SEE SHEET 5 FOR DETOUR PLAN.

SEEDING AND MULCHING

THIS ITEM OF WORK SHALL CONSIST OF THE WORK DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659 SEEDING AND MULCHING, EXCEPT AS HEREIN MODIFIED.

UNDER THIS ITEM, THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO FURNISH AND PLACE 3" TOPSOIL, SEEDING AND MULCHING, COMMERICALLY FERTILIZE, PLACE AGRICULTURAL LIME, AND WATER OVER DISTRIBUTED AREAS DUE TO THE CONSTRUCTION. GRASS SEED SHALL CONSIST OF THE FOLLOWING MIXTURE:

URBAN ECSTASY MIX "C"
29.68% KALAHARI TALL FESCUE (GRM: 85.00%)
24.97% ZANZIBAR TALL FESCUE (GRM: 85.00%)
24.90% CROSSFIRE II TALL FESCUE (GRM: 85.00%)
14.90% CRUISER PERENNIAL RYEGRASS (GRM: 90.00%)
4.90% BROOKLAWN KENTUCKY BLUEGRASS (GRM: 85.00%)
CROP SEED: 0.00%
INERT: 0.65%
WEED SEED: 0.00%

IN ADDITION TO THE TWO WATERINGS SPECIFIED IN 659.09, THE CONTRACTOR SHALL BE REQUIRED TO WATER SEEDED AREAS AT 7 TO 10 DAY INTERVALS, DEPENDING ON WEATHER CONDITIONS, TO ESTABLISH GRASS TO A UNIFORM HEIGHT OF FOUR INCHES. COST OF WATER APPLICATIONS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF THIS ITEM.

THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SEEDED AND MULCHED AREAS UNTIL SUCH A TIME WHEN ADEQUATE COVER OF GRASS HAS BEEN ESTABLISHED AS DETERMINED BY THE TOWNSHIP. THIS SHALL INCLUDE REMOVAL OF WEEDS AND RE-SEEDING WHEN NECESSARY AS DETERMINED BY THE TOWNSHIP. COST OF ANY RE-SEEDING REQUIRED BY THE TOWNSHIP SHALL BE INCLUDED IN THE UNIT COST PRICE OF THIS ITEM.

SEEDING AND MULCHING AND PROTECTING OF MAJOR EXPOSED SLOPES SHALL NOT BE DELAYED UNTIL SUCH TIME AS THEY CAN BE PERFORMED ON A PROJECT WIDE BASIS. THIS WORK SHALL BE PERFORMED IN STAGES AND SHALL BE ACCOMPLISHED AS SOON AS FINISHED GRADE FOR SEEDING CAN BE ESTABLISHED IN ANY SIGNIFICANT PORTION OF THE PROJECT.

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SEEDING AND MULCHING	453.4 SQ. YD.
659, REPAIR SEEDING AND MULCHING (453.4 SY) * (5%) =	22.7 SQ. YD.
659, INTER-SEEDING (453.4 SY) * (5%) =	22.7 SQ. YD.
659, TOPSOIL (453.4 SY) * (3 IN/12 IN) * (1 YD/3 FT) =	37.8 CU. YD.
659, COMMERCIAL FERTILIZER (453.4 SY) * (1 TON / 7410 SY) =	0.06 TON
659, LIME (453.4 SY) * (1 TON / 4840 SY) =	0.1 ACRES
659, WATER (453.4 SY) * (2) * (0.0027 MGAL / SY) =	2.5 M. GAL.

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS AND/OR EMBANKMENT SOLIDS FROM ENTERING THE ADJACENT WATERWAYS. ANY DEBRIS MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE BY THE TOWNSHIP, REPRESENTATIVES OF THE TOWNSHIP AND THE CONTRACTOR SHALL PERFORM AN INSPECTION OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE TOWNSHIP. INSPECTION SHALL BE KEPT IN WRITING BY THE STATE AS WELL.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE TOWNSHIP.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

DESIGN AGENCY



DESIGNER

DMG

REVIEWER

BAA 11-09-22

PROJECT ID

TSY0003

SHEET

TOTAL

3 | 19

TRENCH DETAIL NOTES

A. STRUCTURAL BEDDING SHALL BE NATURAL CRUSHED STONE OR NATURAL GRAVEL, ODOT 703.11 TYPE 3 (#57 OR #67), OR OTHER APPROVED EQUIVALENT.

B. ALL TRENCHES NOT UNDER PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS CAN BE COMPACTED EXISTING NATIVE MATERIAL IN 12" MAXIMUM LIFTS OR AS APPROVED BY THE TOWNSHIP. NO MATERIAL SHALL BE USED FOR BACK FILLING THAT CONTAINS STONE, ROCKS, ETC. GREATER THAN 4 INCH DIAMETER.

ALL TRENCHES WITHIN THREE (3) FEET OF AND UNDER PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS SHALL BE CONTROLLED DENSITY FILL (CLSM-CDF), PER HAMILTON COUNTY STANDARDS.

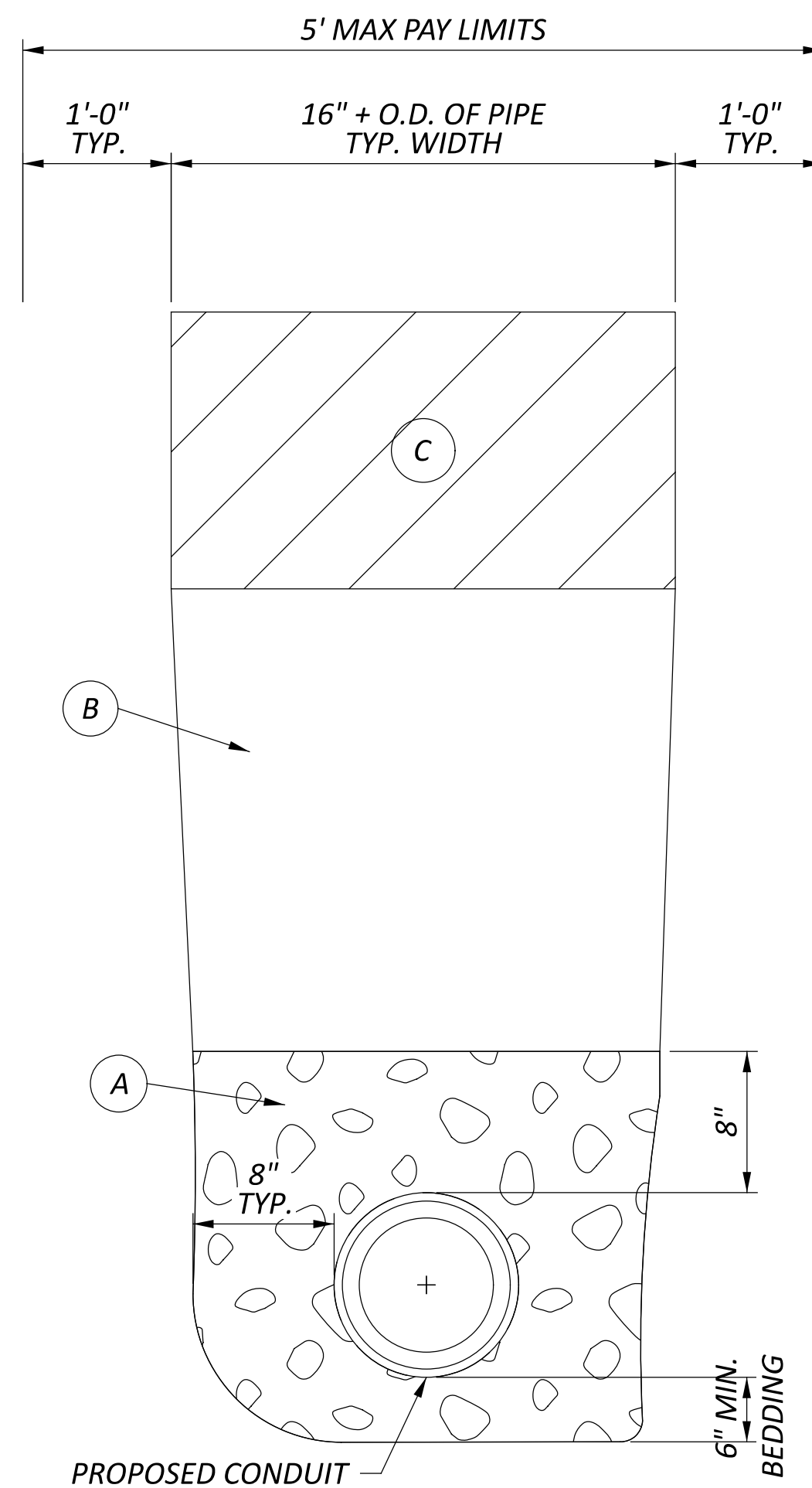
A DENSITY TEST ON STRUCTURAL BACKFILL OF 98% OF ASTM D698 STANDARD PROCTOR CURVE MAY BE REQUIRED TO BE PERFORMED BY A COMMERCIAL TESTING LAB SATISFACTORY TO THE MUNICIPALITY.

C. OFF-PAVEMENT AREAS SHALL BE PROVIDED WITH A MINIMUM OF 3" OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED AND MULCHED PER ODOT ITEM 659.

IN-PAVEMENT AREAS SHALL BE BACKFILLED WITH 12" OF ITEM 301, ASPHALT CONCRETE BASE (2 EQUAL LIFTS).

D. THE OPEN ENDS OF ALL PIPES SHALL BE PLUGGED TO THE APPROVAL OF THE TOWNSHIP OR COUNTY BEFORE LEAVING THE WORK FOR THE NIGHT.

E. THE CONTRACTOR SHALL CONFORM TO ALL APPLICABLE OSHA RULES & REGULATIONS CONCERNING TRENCHES, CONFINED AREAS, & OTHER RELATED AREAS OF SAFETY, SUCH AS TRENCH BOXES, LADDERS, HARD HATS, ETC.



TRENCH DETAIL

*MAX PAY LIMITS, ANY PAVEMENT REPAIRS BEYOND THE MAXIMUM PAY LIMITS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ITEM 611 - 8' X 7' CONDUIT, TYPE A, AS PER PLAN

THE CONTRACTOR SHALL INSTALL THE 8' X 7' CONDUIT, TYPE A IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 611, EXCEPT THAT THE EXCAVATION OF UNSUITABLE MATERIALS SHALL BE TO A DEPTH OF 1'-6". THE CONTRACTOR SHALL FILL THE EXCAVATED AREA WITH STRUCTURAL BACKFILL AS PER ITEM 611.

THIS ITEM SHALL ALSO INCLUDE FULL DEPTH SAWCUTTING OF THE EXISTING ASPHALT PAVEMENT, IN ACCORDANCE WITH ODOT ITEM 252 - FULL DEPTH PAVEMENT SAWING.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL COORDINATE WITH THE TOWNSHIP BEFORE PERFORMING THE UNDERCUTTING OF UNSUITABLE SOILS BENEATH THE EXISTING CULVERT.

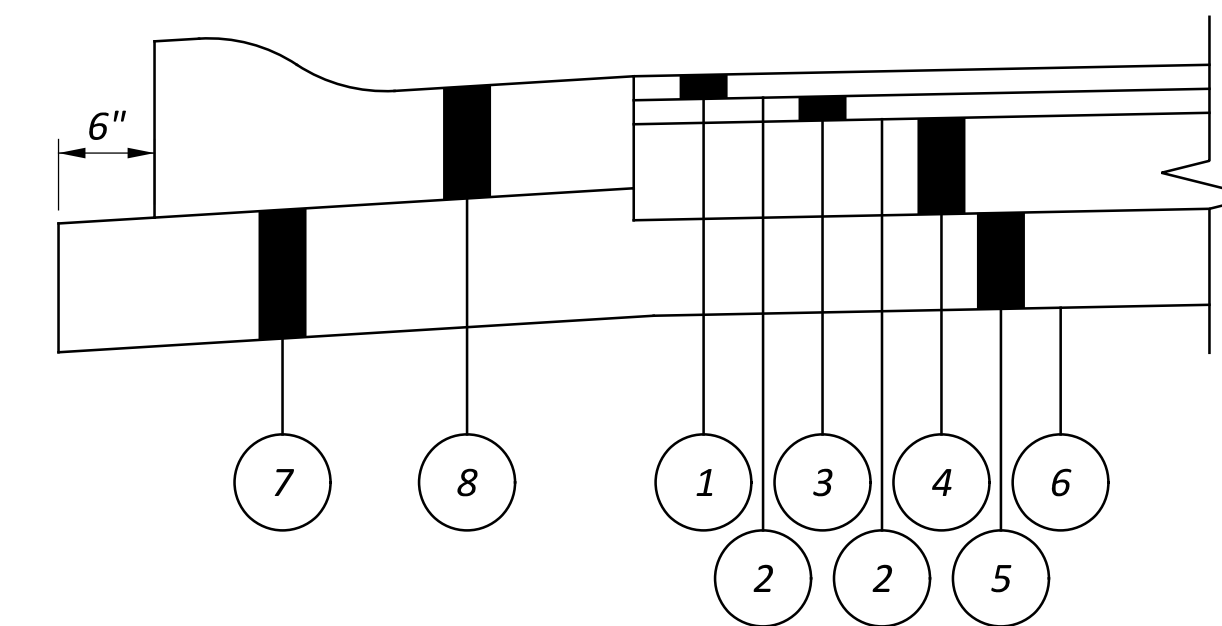
- ITEM 203 - EXCAVATION (UNDERCUTTING AS DIRECTED) 84 CY
- ITEM 204 - GRANULAR MATERIAL, TYPE C (UNDERCUTTING AS DIRECTED) 84 CY
- ITEM SPECIAL - GEOGRID TENSAR TX5, INCLUDING NON-WOVEN GEOTEXTILE FABRIC 216 SY

ITEM 252 - FULL DEPTH PAVEMENT SAWING 56.3 FT

PAVEMENT RESTORATION

FULL-DEPTH PAVEMENT

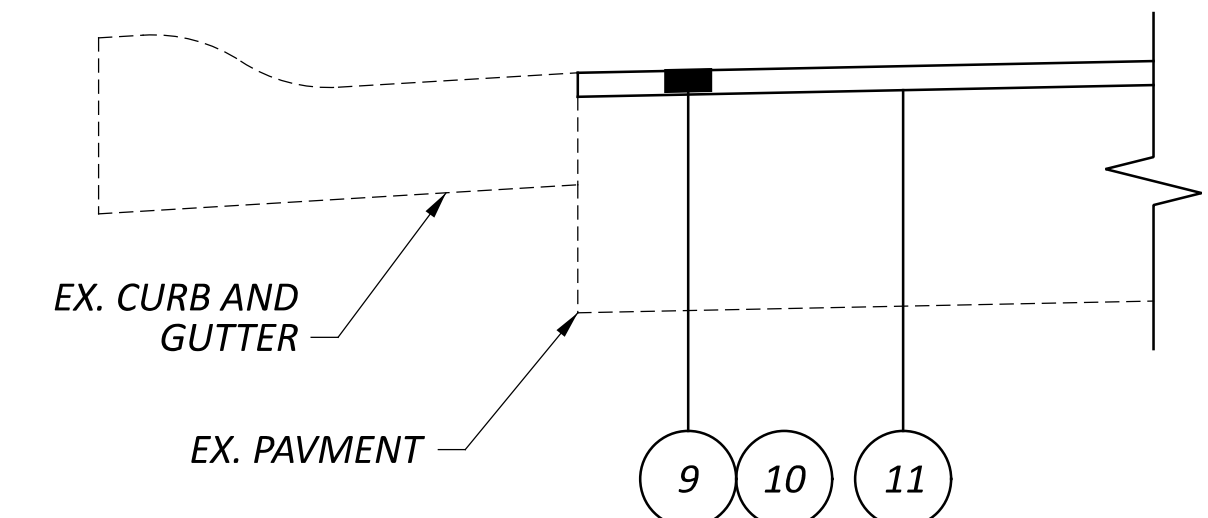
THE CONTRACTOR SHALL REMOVE EXISTING PAVEMENT AND EXISTING CURB AND GUTTER IN THE LOCATIONS SHOWN ON SHEET 6. ONCE THE PROPOSED CULVERT HAS BEEN INSTALLED, THE CONTRACTOR SHALL REPLACE THE FULL-DEPTH PAVEMENT AND CURB AND GUTTER AS PER THE DETAIL SECTION SHOWN BELOW.



- 1 ITEM 441 - 1 1/2" A.C. SURFACE COURSE, TYPE 1, (448), PG64-22
- 2 ITEM 407 - TACK COAT (0.055 GAL/SY)
- 3 ITEM 441 - 1 1/2" A.C. INTERMEDIATE COURSE, TYPE 2, (448)
- 4 ITEM 301 - 9" A.C. BASE
- 5 ITEM 304 - 6" AGGREGATE BASE
- 6 ITEM 204 - SUBGRADE COMPACTION
- 7 ITEM 304 - 8" AGGREGATE BASE
- 8 ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 3

ASPHALT OVERLAY

THE CONTRACTOR SHALL PERFORM PAVEMENT PLANING AND ASPHALT OVERLAY IN THE LOCATIONS SHOWN ON SHEET 6 AS PER THE DETAIL SECTION SHOWN BELOW.



- 9 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)
- 10 ITEM 441 - 1 1/2" A.C. SURFACE COURSE, TYPE 1, (448), PG64-22
- 11 ITEM 407 - TACK COAT (0.055 GAL/SY)

GENERAL NOTES

DESIGN AGENCY



DESIGNER

DMG

REVIEWER

BAA 11-09-22

PROJECT ID

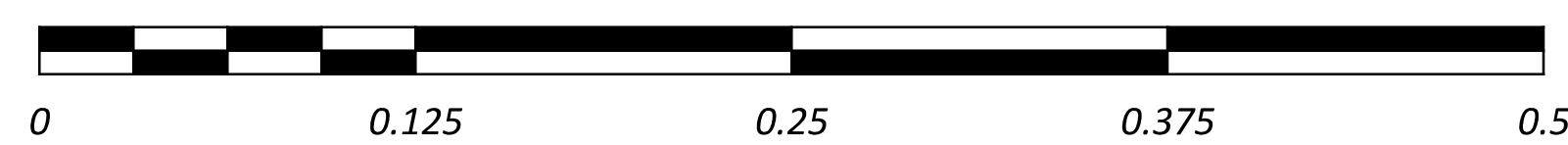
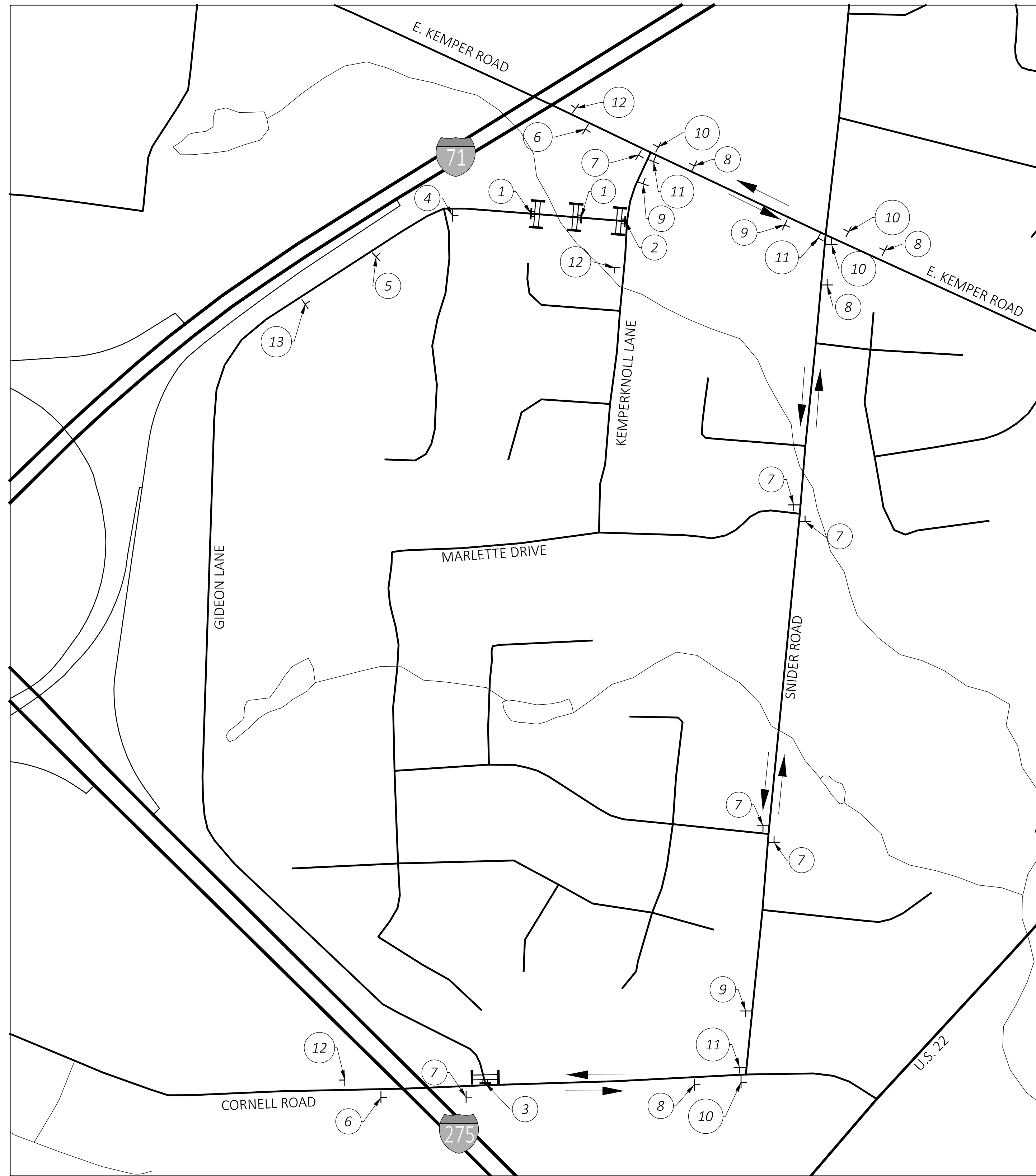
TSY0003

SHEET TOTAL

4 19

GIDEON LANE CULVERT REPLACEMENT

MODEL: Sheet PAPER: 34x22 (in.) DATE: 12/13/2022 TIME: 8:03:57 AM USER: dghs
 P:\TWP\Sycamore (SY)00003_Gideon Ln Culvert\Gideon_Culvert\400-Engineering\MOT\Sheets\Gideon_Culvert_MD001.dgn



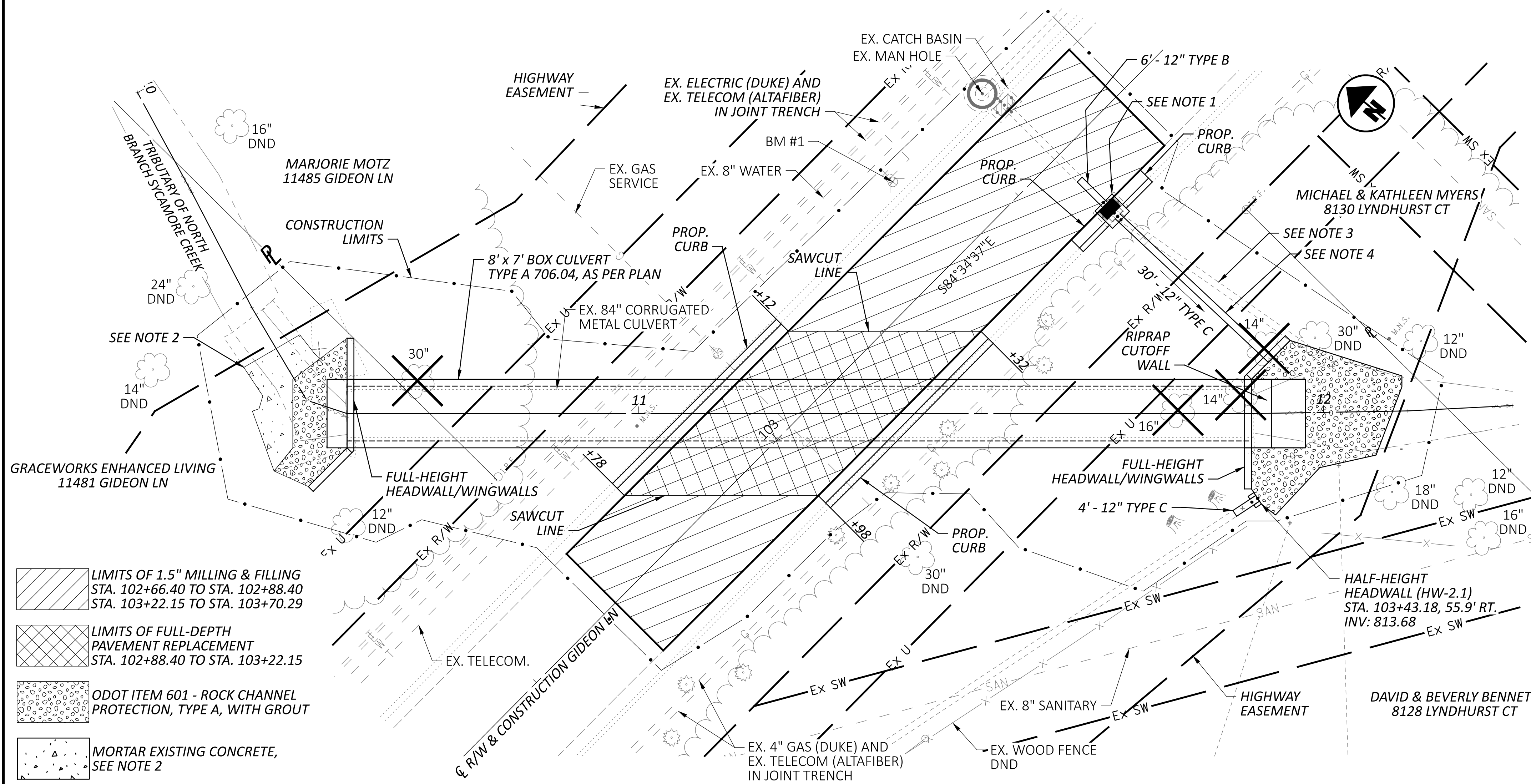
<p>① TYPE B WARNING LIGHT</p> <p>ROAD CLOSED</p> <p>R11-2-48 TYPE III BARRICADE</p>	<p>② TYPE B WARNING LIGHT</p> <p>ROAD CLOSED 0.1 MILE AHEAD LOCAL TRAFFIC ONLY</p> <p>DETOUR →</p> <p>R11-3A-60 M4-10R-48 TYPE III BARRICADE</p>	<p>TYPE B WARNING LIGHT</p> <p>GIDEON LANE WILL BE CLOSED FOR <u> </u> DAYS SYCAMORE TOWNSHIP</p> <p>W20-H13-60 TYPE III BARRICADE (SEE NOTE 1)</p>
<p>③ TYPE B WARNING LIGHT</p> <p>ROAD CLOSED 1.0 MILES AHEAD LOCAL TRAFFIC ONLY</p> <p>DETOUR →</p> <p>R11-3A-60 M4-10R-48 TYPE III BARRICADE</p>	<p>TYPE B WARNING LIGHT</p> <p>GIDEON LANE WILL BE CLOSED FOR <u> </u> DAYS SYCAMORE TOWNSHIP</p> <p>W20-H13-60 TYPE III BARRICADE (SEE NOTE 1)</p>	<p>④ ROAD CLOSED AHEAD</p> <p>500 FEET</p> <p>W20-3-48 W16-2-30</p>
<p>⑤ TYPE A WARNING LIGHT</p> <p>ROAD CLOSED AHEAD</p> <p>1000 FEET</p> <p>W20-3-48 W16-2-30</p>	<p>⑥ DETOUR AHEAD</p> <p>W20-2-48</p>	<p>⑦ GIDEON LANE</p> <p>DETOUR</p> <p>↑</p> <p>D3-1-48 M4-8-30 M6-3-30</p>
<p>⑧ GIDEON LANE</p> <p>DETOUR</p> <p>↙</p> <p>D3-1-48 M4-8-30 M5-1-30</p>	<p>⑨ GIDEON LANE</p> <p>DETOUR</p> <p>↘</p> <p>D3-1-48 M4-8-30 M5-1-30</p>	<p>⑩ GIDEON LANE</p> <p>DETOUR</p> <p>←</p> <p>D3-1-48 M4-9L-30</p>
<p>⑪ GIDEON LANE</p> <p>DETOUR</p> <p>→</p> <p>D3-1-48 M4-9R-30</p>	<p>⑫ END DETOUR</p> <p>M4-8A-24</p>	<p>⑬ TYPE A WARNING LIGHT</p> <p>ROAD WORK AHEAD</p> <p>W20-1-48</p>

NOTES

1. THE CONTRACTOR SHALL COORDINATE WITH THE TOWNSHIP FOR CLOSURE DATES AND DURATION.

DETOUR PLAN

DESIGN AGENCY	
DESIGNER	DMG
REVIEWER	BAA
PROJECT ID	11-09-22
SHEET	TSY0003
TOTAL	19



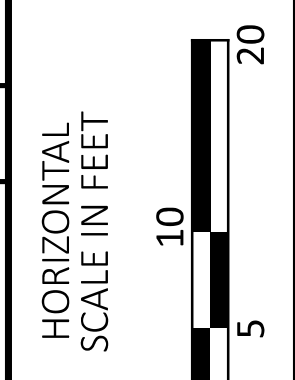
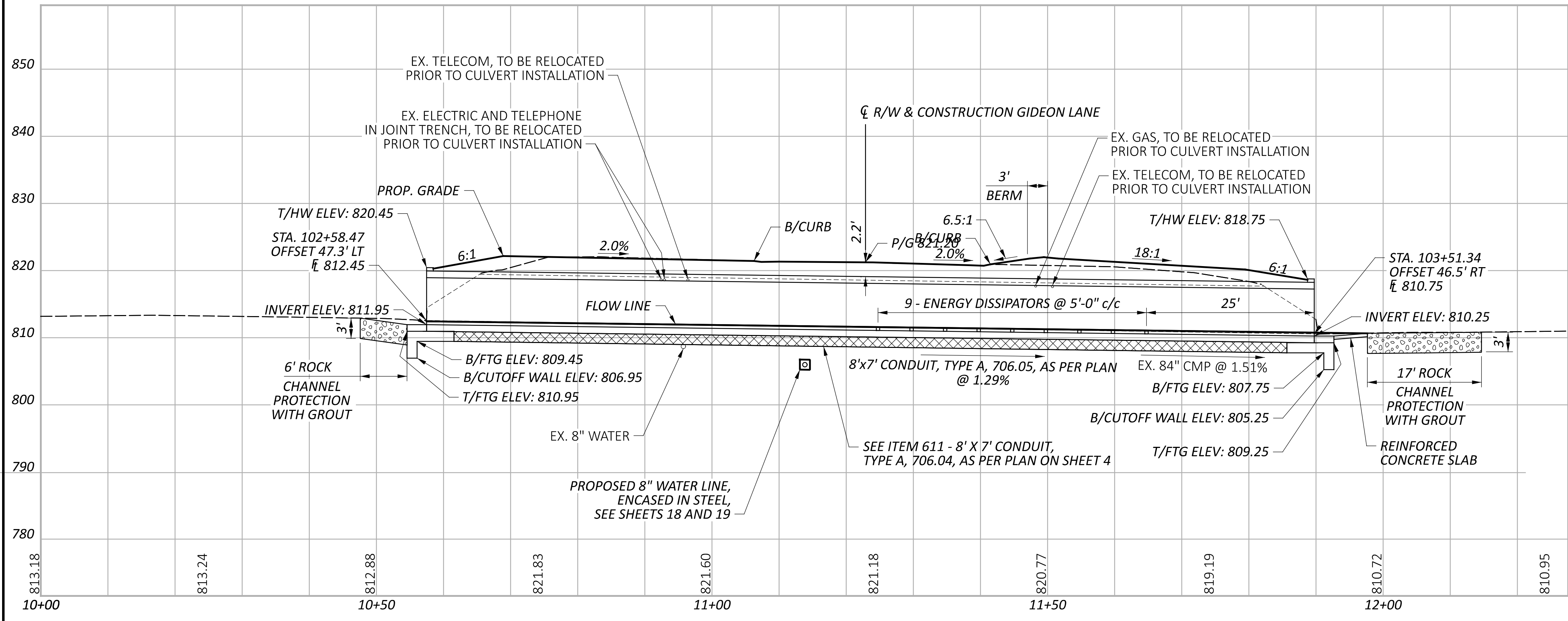
- LIMITS OF 1.5" MILLING & FILLING
STA. 102+66.40 TO STA. 102+88.40
STA. 103+22.15 TO STA. 103+70.29
- LIMITS OF FULL-DEPTH
PAVEMENT REPLACEMENT
STA. 102+88.40 TO STA. 103+22.15
- ODOT ITEM 601 - ROCK CHANNEL
PROTECTION, TYPE A, WITH GROUT
- MORTAR EXISTING CONCRETE,
SEE NOTE 2

HYDRAULIC DATA			
DRAINAGE AREA =	217.6 ACRES		
Q (25) =	247 CFS	V (25) =	14.58 FT/S
Q (100) =	360 CFS	V (100) =	15.97 FT/S
ORDINARY HIGH WATER MARK:	811.50 FT	HW (25) =	817.31 FT
DESIGN SERVICE LIFE:	75 YEARS	HW (100) =	818.69 FT
ABRASION LEVEL:	6		
pH:	7.6		

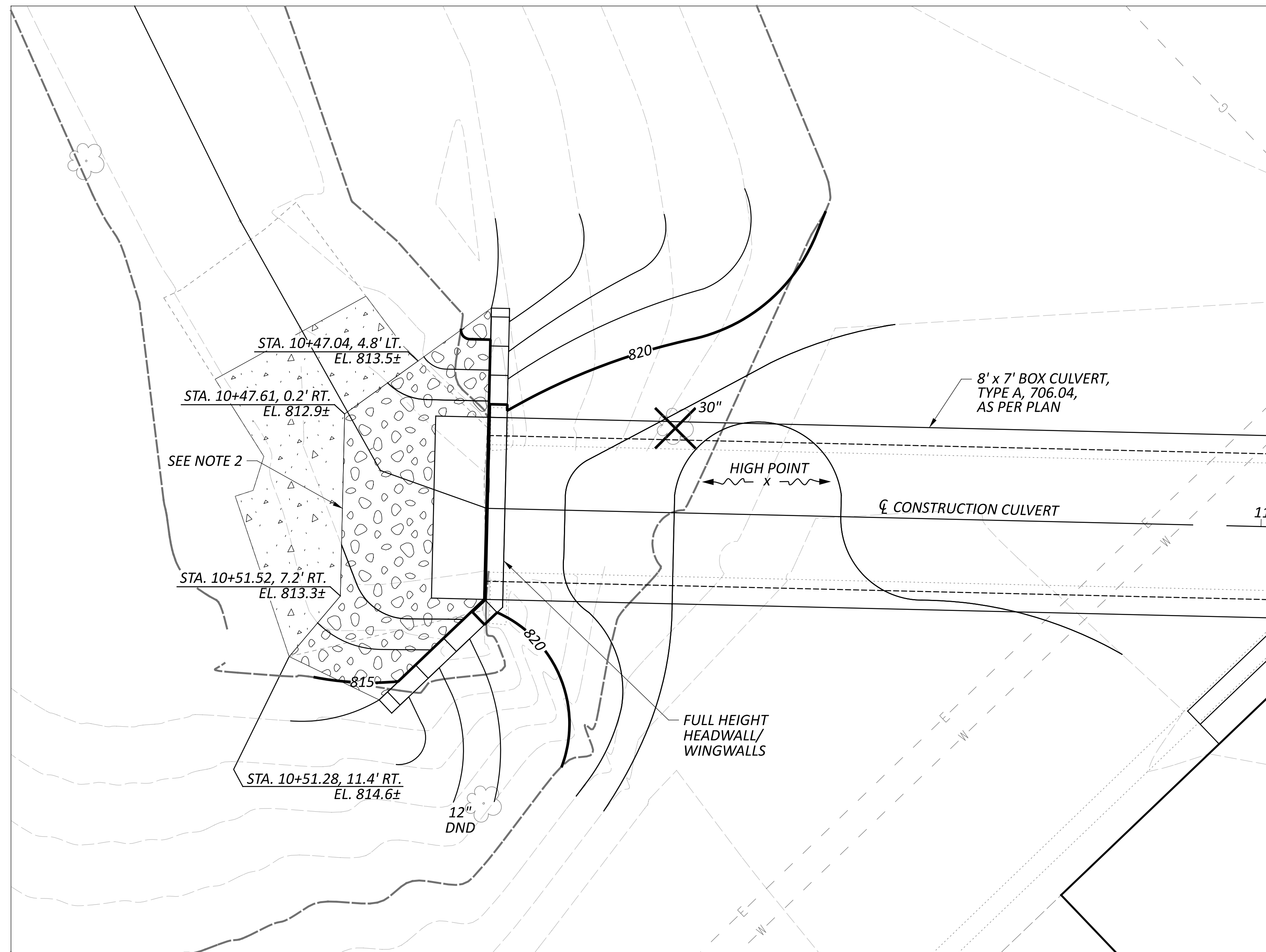
EXISTING STRUCTURE	
TYPE:	CORRUGATED METAL PIPE
SIZE:	84"
SKEW:	45° RIGHT FORWARD
ALIGNMENT:	STRAIGHT
DATE BUILT:	
CONDITION:	POOR
CFN:	N/A

PROPOSED STRUCTURE	
TYPE:	PRECAST CONCRETE BOX CULVERT
	8' X 7' WITH BURIED INVERT, 132' LONG
SKEW:	45° RIGHT FORWARD
ALIGNMENT:	STRAIGHT
CFN:	

- NOTES**
- THE CONTRACTOR SHALL REMOVE THE EXISTING CATCH BASIN AND REPLACE WITH AN ODOT NO. 3A CATCH BASIN. THE CONTRACTOR SHALL REMOVE AND REPLACE THE EXISTING CURB TO THE NEAREST JOINT ON EITHER SIDE OF THE CATCH BASIN AND REPLACE WITH NEW CURB TO TIE IN THE NEW CATCH BASIN.
 - THE CONTRACTOR SHALL REMOVE A PORTION OF THE EXISTING CONCRETE APRON TO ALLOW FOR INSTALLATION OF THE GROUTED ROCK CHANNEL PROTECTION. THE CONTRACTOR SHALL ALSO MORTAR THE AREAS OF THE EXISTING CONCRETE APRON THAT HAVE DETERIORATED TO REPAIR EXISTING CRACKS. THE FOLLOWING QUANTITIES WERE USED FOR ESTIMATING PURPOSES:
 - ODOT ITEM 202 - CONCRETE SLOPE PROTECTION REMOVED 11.7 SY
 - ODOT ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR 10 SF
 - THE CONTRACTOR SHALL REMOVE A PORTION OF THE EXISTING STORM PIPE AS NECESSARY TO INSTALL THE NEW STORM PIPE. THE REMAINDER OF THE EXISTING STORM PIPE SHALL BE FILLED AND PLUGGED IN ACCORDANCE WITH ODOT ITEM 202 - FILL AND PLUG EXISTING CONDUIT.
 - ODOT ITEM 202 - FILL AND PLUG EXISTING CONDUIT 25 FT
 - THE PROPOSED STORM SEWER SHALL OUTLET THROUGH THE PROPOSED OUTLET WINGWALL. SEE SHEET 14 FOR WINGWALL DETAILS AND SHEET 16 FOR THE STORM SEWER PROFILE. THE PROPOSED STORM PIPE SHALL BE PLYPROPYLENE CORRUGATED DOUBLE WALL PIPE, 707.65.
 - THE CONTRACTOR SHALL MAINTAIN CREEK FLOW IN ACCORDANCE WITH ODOT CMS ITEM 611.
 - THE CONTRACTOR SHALL PROVIDE SHEETING AND SHORING IN ACCORDANCE WITH ODOT CMS ITEM 602.

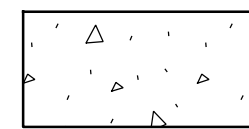
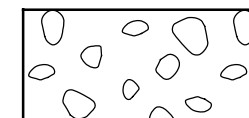


DESIGN AGENCY	
DESIGNER	
DMG	
REVIEWER	
BAA 11-09-22	
PROJECT ID	
TSY0003	
SUBSET	TOTAL
1	3
SHEET	
6	19



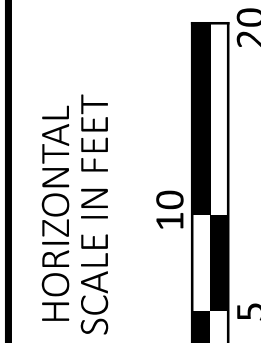
8'x7' BOX CULVERT INLET GRADING PLAN

LEGEND

-  MORTAR EXISTING CONCRETE
-  ROCK CHANNEL PROTECTION, TYPE A, WITH GROUT

NOTES

1. SEE SHEET 8 FOR CULVERT OUTLET GRADING PLAN.
2. THE CONTRACTOR SHALL INSTALL THE ROCK CHANNEL PROTECTION, WITH GROUT, TO MEET THE EXISTING ELEVATIONS OF THE CONCRETE APRON. THE CONTRACTOR SHALL GROUT BETWEEN THE CONCRETE APRON AND THE ROCK CHANNEL PROTECTION TO CREATE A SMOOTH TRANSITION BETWEEN THEM.



DESIGN AGENCY



DESIGNER

DMG

REVIEWER

BAA 11-09-22

PROJECT ID

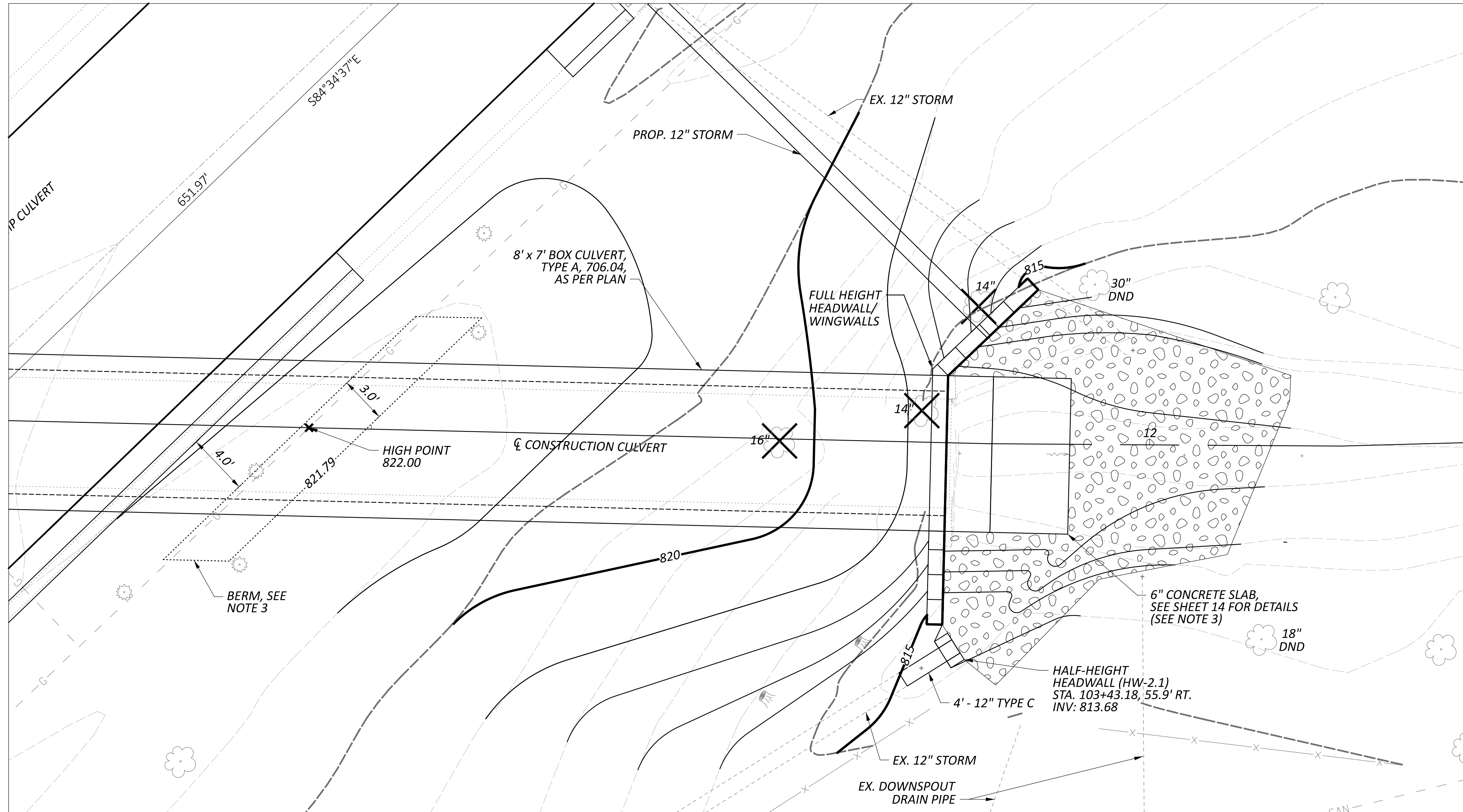
TSY0003

SUBSET TOTAL

2	3
---	---


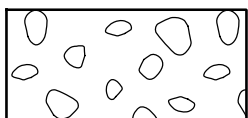
SHEET TOTAL

7	19
---	----



8'x7 BOX CULVERT OUTLET GRADING PLAN

LEGEND

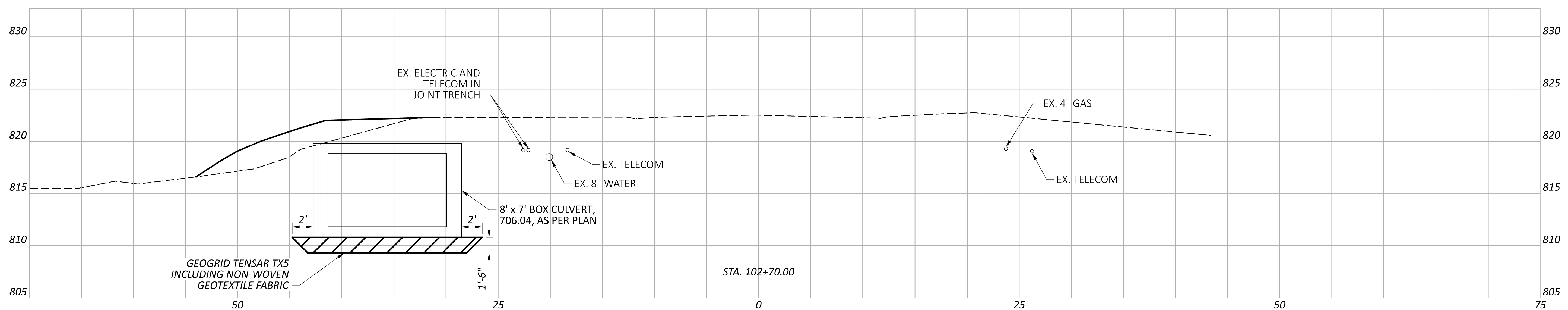
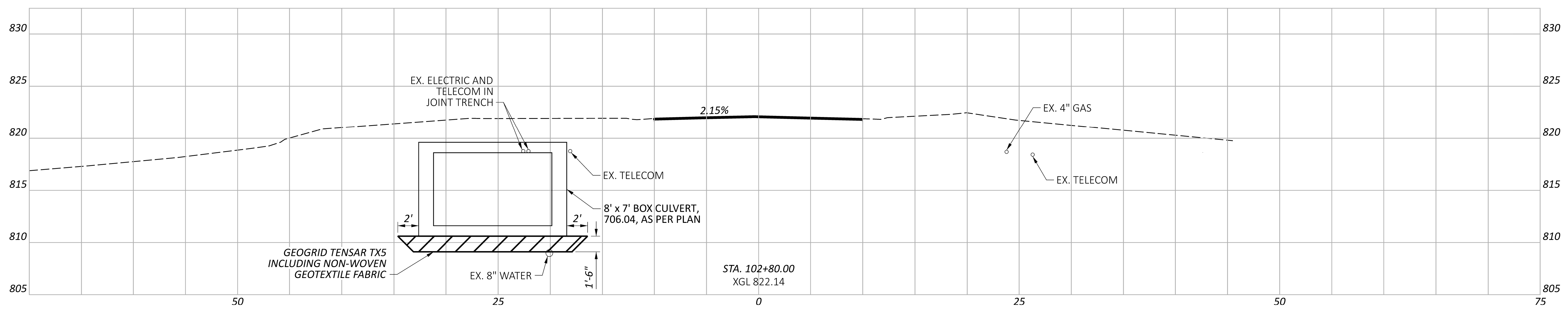
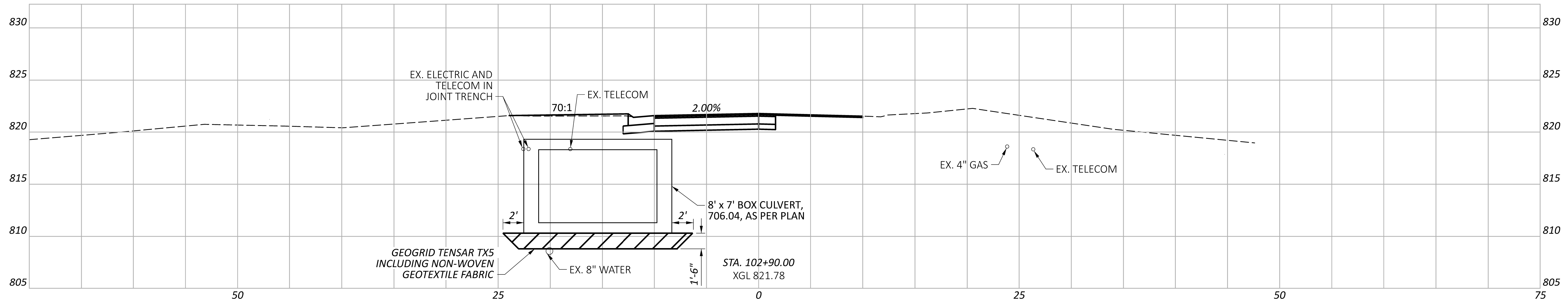
-  MORTAR EXISTING CONCRETE
-  ROCK CHANNEL PROTECTION, TYPE A, WITH GROUT

NOTES

1. SEE SHEET 7 FOR BOX CULVERT INLET GRADING PLAN.
2. SEE SHEET 16 FOR STORM SEWER PROFILE.
3. THE CONTRACTOR SHALL GROUT BETWEEN THE CONCRETE SLAB AND THE ROCK CHANNEL PROTECTION TO CREATE A SMOOTH TRANSITION BETWEEN THEM.
4. THE CONTRACTOR SHALL CONSTRUCT A BERM AS SHOWN BEHIND THE PROPOSED CURB. THE BERM SHALL EXTEND A MINIMUM OF 3 FEET BEYOND THE OUTSIDE EDGES OF THE CULVERT BEFORE TYING INTO THE SURROUNDING GRADING.

GIDEON LANE CULVERT REPLACEMENT

MODEL: CLP_Gideon - 102+70.00 [Sheet] PAPER SIZE: 34x22 (in.) DATE: 12/13/2022 TIME: 8:04:03 AM USER: dgoths
 P:\TWP\SYCAMORE [SY]\00003_Gideon Ln Culvert\Gideon_Culvert\Roadway\Engineering\Roadway\Gideon_Culvert_X5001.dgn

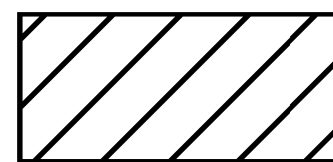
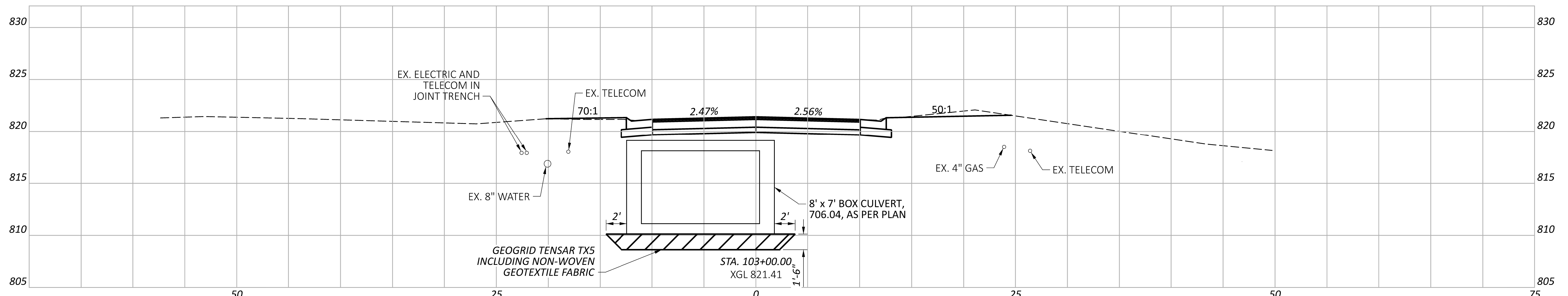
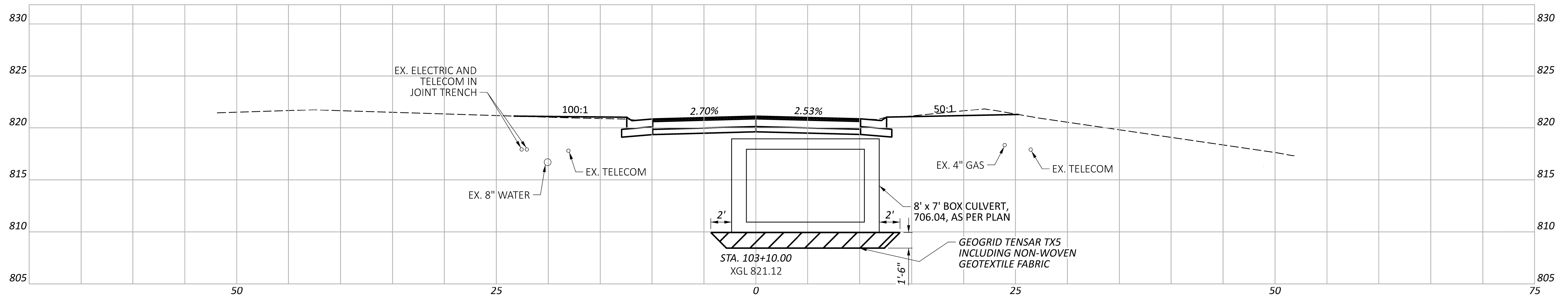
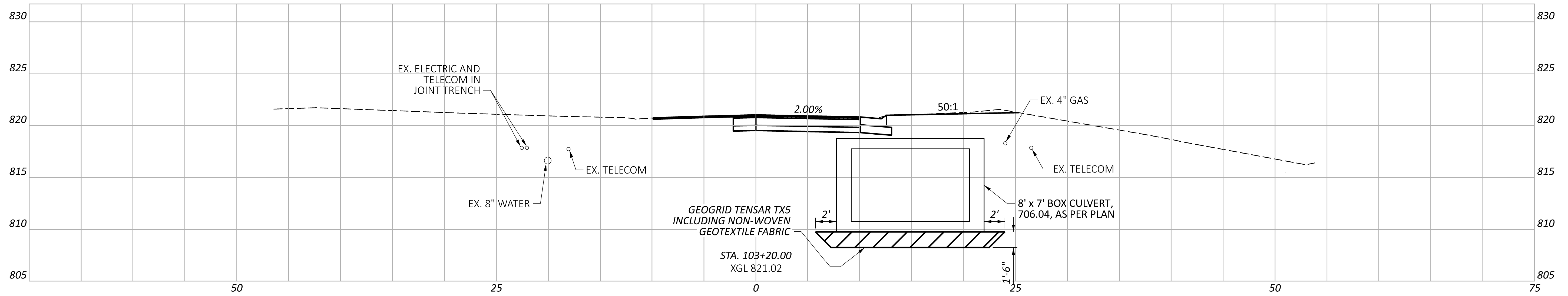


- ITEM 203 - EXCAVATION (UNDERCUTTING AS DIRECTED)
- ITEM 204 - GRANULAR MATERIAL, TYPE C (UNDERCUTTING AS DIRECTED)

NOTES
 ALL UTILITIES TO BE RELOCATED PRIOR TO CONSTRUCTION.

**CROSS SECTIONS - GIDEON LANE
 STA. 102+70.00 TO STA. 102+90.00**

DESIGN AGENCY	
DESIGNER	
DMG	
REVIEWER	
BAA 11-09-22	
PROJECT ID	
TSY0003	
Sheet Totals	TOTAL
Seeding	9
Cut	19
Fill	.



ITEM 203 - EXCAVATION (UNDERCUTTING AS DIRECTED)
 ITEM 204 - GRANULAR MATERIAL, TYPE C (UNDERCUTTING AS DIRECTED)

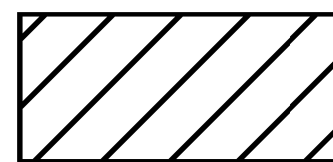
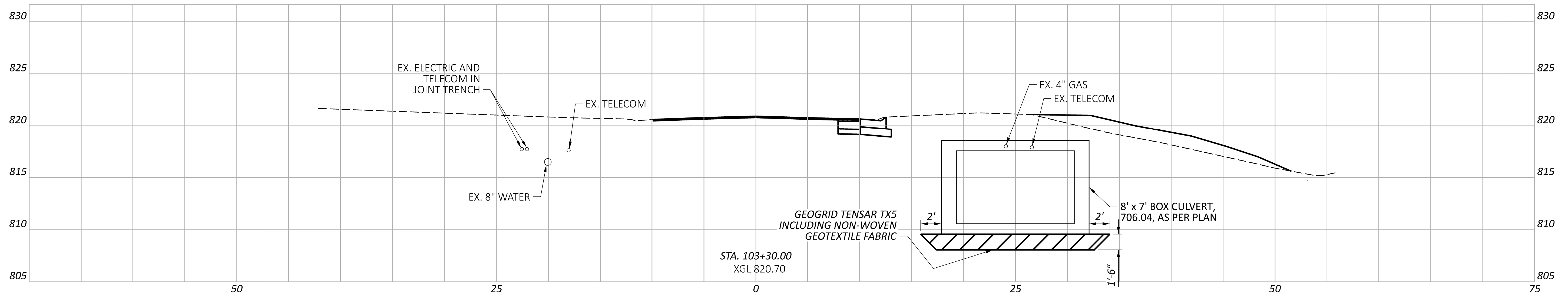
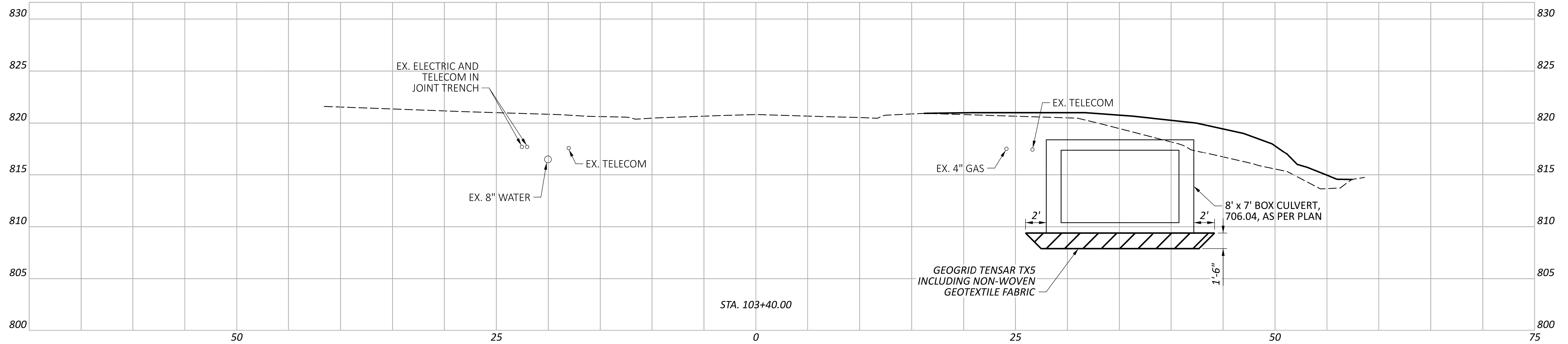
NOTES

ALL UTILITIES TO BE RELOCATED PRIOR TO CONSTRUCTION.

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
.	.	.	10	19

DESIGN AGENCY
CARPENTER MARTY
 DESIGNER
DMG
 REVIEWER
BAA 11-09-22
 PROJECT ID
TSY0003

CROSS SECTIONS - GIDEON LANE
 STA. 103+00.00 TO STA. 103+20.00



ITEM 203 - EXCAVATION (UNDERCUTTING AS DIRECTED)
ITEM 204 - GRANULAR MATERIAL, TYPE C (UNDERCUTTING AS DIRECTED)

NOTES

ALL UTILITIES TO BE RELOCATED PRIOR TO CONSTRUCTION.

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
.	.	.	11	19

DESIGN AGENCY



DESIGNER

DMG

REVIEWER

BAA 11-09-22

PROJECT ID

TSY0003

SHEET

TOTAL

11 19

GENERAL NOTES

DESIGN SPECIFICATIONS: THIS STANDARD DRAWING CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN DATA: THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION OF BACKFILL SOIL, $\phi_{yt} = 30^\circ$
 TOTAL UNIT WEIGHT OF BACKFILL SOIL = 120 PCF
 INTERNAL ANGLE OF FRICTION (DRAINED), FOUNDATION SOIL, $\phi_s = 28^\circ$
 UNDRAINED SHEAR STRENGTH (COHESIVE), FOUNDATION SOIL, $S_{uy} = 1500$ PSF
 UNIT WEIGHT OF CONCRETE = 150 PCF
 SLOPE OF BACKFILL = 2.2:1 MAX.

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI
 (FOOTING, WINGWALL AND FORESLOPE WALL)

REINFORCING STEEL - ASTM A615, A616, OR A617
 GRADE 60 MINIMUM YIELD STRENGTH
 60,000 PSI (ALL REINFORCING SHALL BE
 EPOXY COATED)

BACKFILL LIMITATION: WHEN THE DESIGN HEIGHT IS GREATER THAN 10 FT, THE BACKFILL BEHIND THE WINGWALLS SHALL NOT BE PLACED HIGHER THAN THE ELEVATION OF THE SOIL ABOVE THE TOE. WHEN THE SOIL ABOVE THE TOE IS AT ITS FINISHED ELEVATION, THE REMAINDER OF THE BACKFILL MAY BE PLACED.

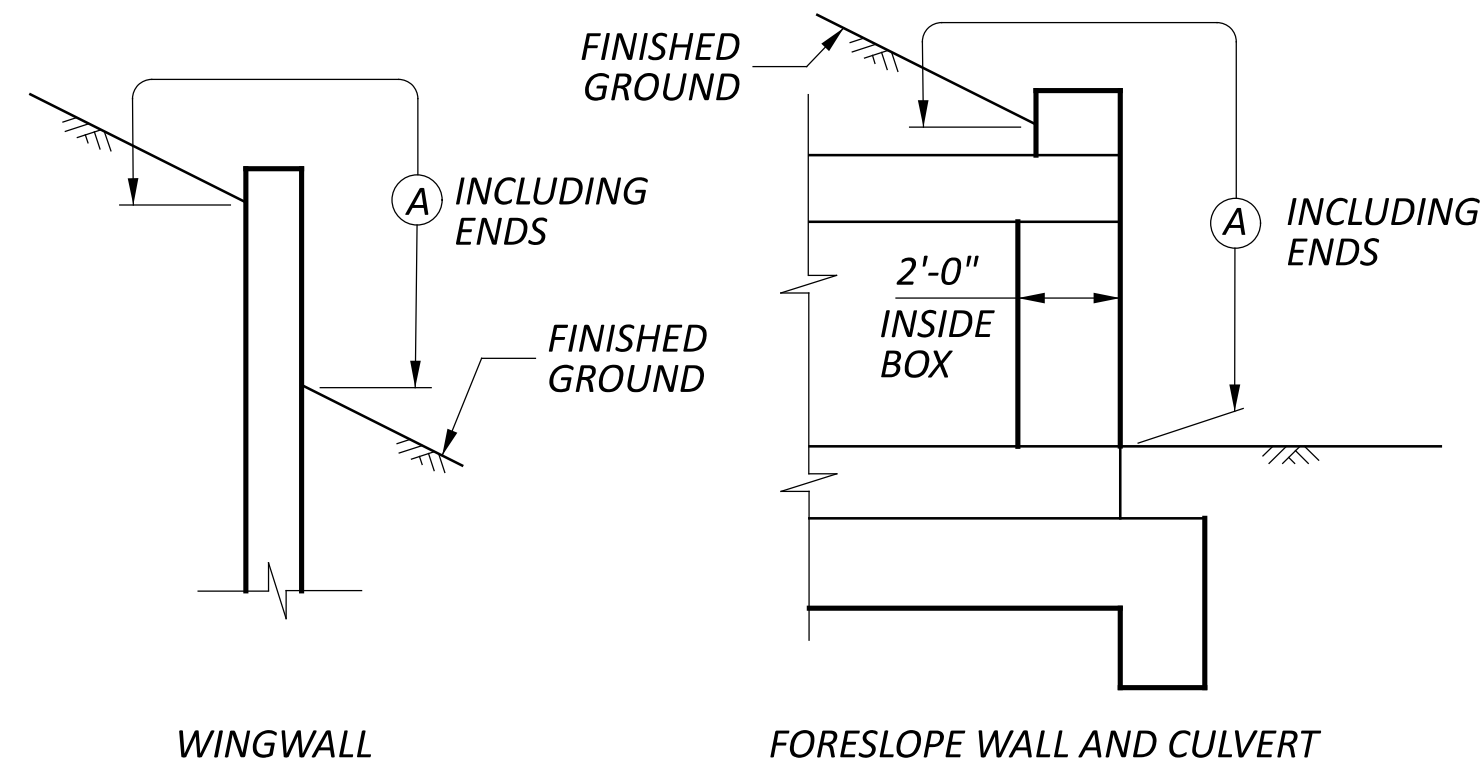
FORESLOPE WALL CONSTRUCTION: THE CONTRACTOR SHALL CONSTRUCT THE FORESLOPE WALL AS A CAST-IN-PLACE FORESLOPE WALL. THE CONTRACTOR SHALL NOT USE PRECAST SECTIONS TO CONSTRUCT THE FORESLOPE WALL.

ITEM 516 - PREFORMED EXPANSION JOINT FILLER
 THIS ITEM SHALL CONFORM TO CMS 705.03, 1 INCH THICK, AND SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER.

POROUS BACKFILL WITH GEOTEXTILE FABRIC 1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC TYPE A SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND EMBANKMENT ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

SEALING OF FORESLOPE WALL AND WINGWALLS: ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512 - SEALING OF CONCRETE SURFACES.



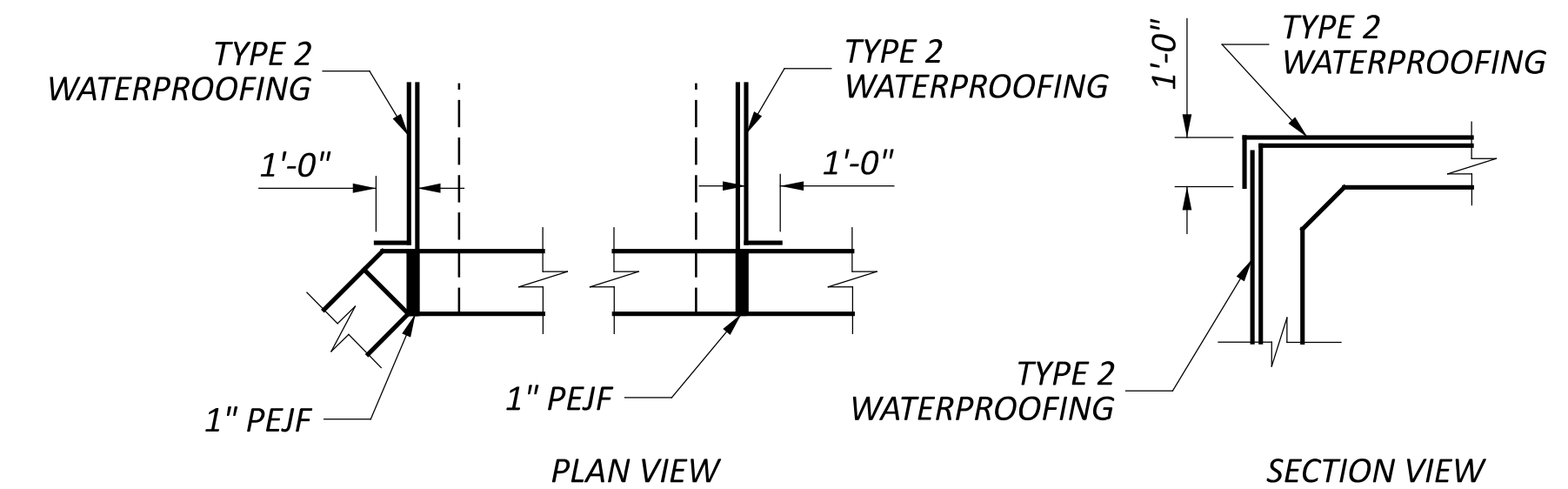
LIMITS OF ITEM 512 - SEALING CONCRETE SURFACES

(A) - SEAL ENTIRE CONCRETE SURFACE AREA

BASIS OF PAYMENT:

1. ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO CONSTRUCT THE WINGWALLS SHALL BE INCLUDED IN ITEM 511.
2. ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTINGS AND CUTOFF WALLS SHALL BE INCLUDED IN ITEM 511.
3. ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO CONSTRUCT THE FORESLOPE WALLS SHALL BE INCLUDED IN ITEM 511.
4. PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

ITEM 512 - TYPE 2 MEMBRANE WATERPROOFING:
 FOR FOUR-SIDED STRUCTURES, INSTALL TYPE 2 MEMBRANE ON THE EXTERIOR VERTICAL AND EXTERIOR HORIZONTAL SURFACES. TYPE 2 WATERPROOFING SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL.



WATERPROOFING DETAILS

ESTIMATED QUANTITIES				
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING
503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN
509	10000	3485	LB	EPOXY COATED REINFORCING STEEL
511	46010	7.9	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING
511	46510	27.8	CY	CLASS QC1 CONCRETE, FOOTING
511	46610	0.4	CY	CLASS QC1 CONCRETE, HEADWALL
512	10100	464.1	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	13600	38	SF	1" PREFORMED EXPANSION JOINT FILLER
518	21200	2.3	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC

DESIGN AGENCY



DESIGNER

DMG

REVIEWER

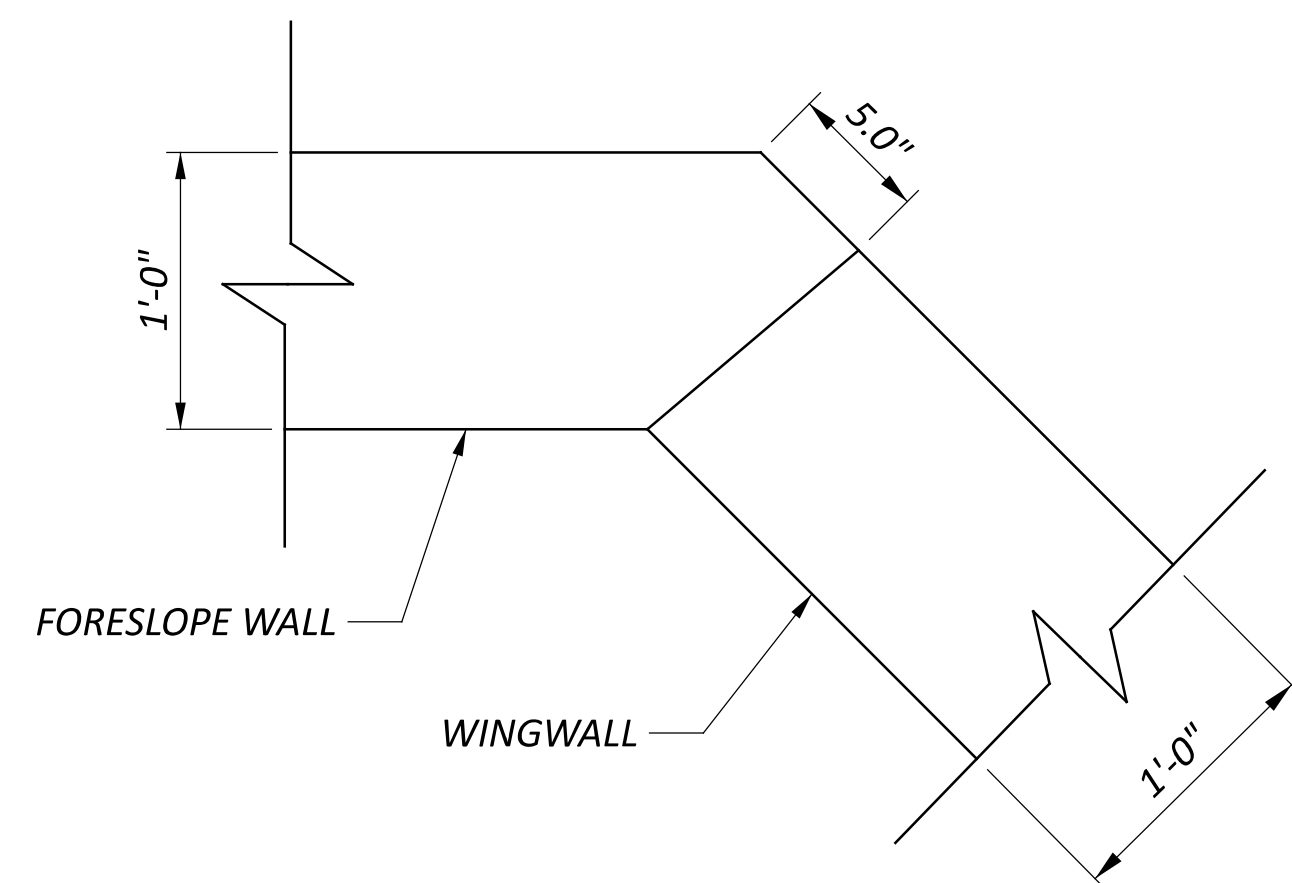
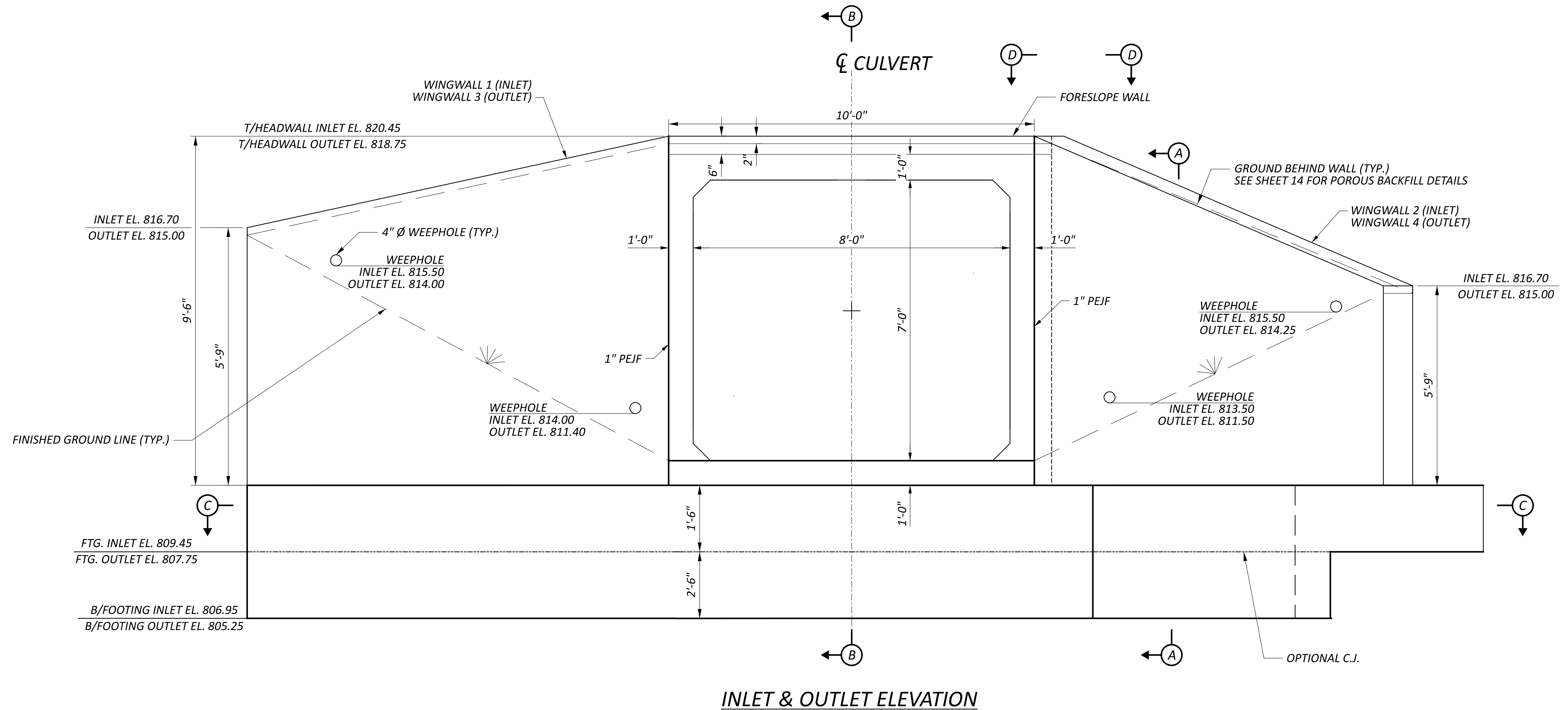
BAA 11-09-22

PROJECT ID

TSY0003

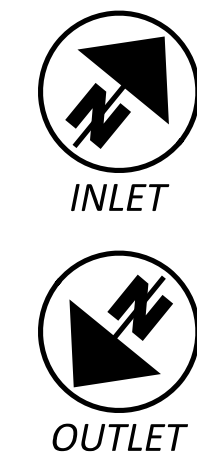
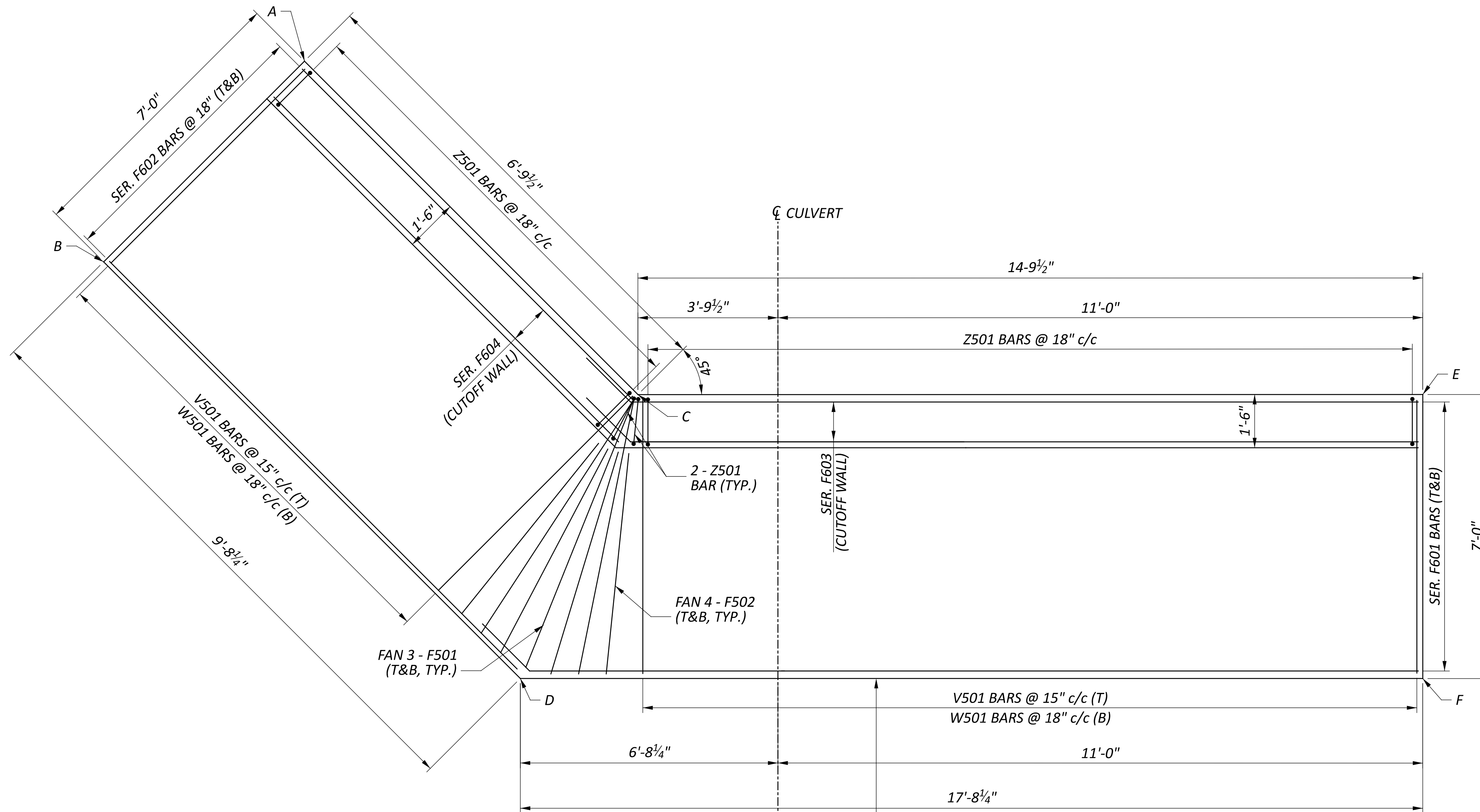
SHEET TOTAL

12 19



INLET		
POINT	STATION	OFFSET FROM ϕ GIDEON LANE
A	102+46.93	46.72' LT.
B	102+46.90	39.72' LT.
C	102+53.73	46.68' LT.
D	102+56.59	39.67' LT.
E	102+64.24	57.09' LT.
F	102+69.16	52.12' LT.

OUTLET		
POINT	STATION	OFFSET FROM ϕ GIDEON LANE
A	103+62.89	45.97' RT.
B	103+62.91	38.97' RT.
C	103+56.09	45.93' RT.
D	103+53.22	38.92' RT.
E	103+45.57	56.34' RT.
F	103+40.65	51.37' RT.



LEGEND

C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CL.R.	CLEAR	SER.	SERIES
DIA.	DIAMETER	STR.	STRAIGHT
E.F.	EACH FACE	(T)	TOP
F.F.	FAR FACE	(B)	BOTTOM
MAX.	MAXIMUM	T&B	TOP AND BOTTOM
MIN.	MINIMUM	TYP.	TYPICAL
c/c	CENTER TO CENTER	INC.	INCREMENT

NOTES

1. FOR CULVERT LOCATION PLAN, SEE SHEET 6 OF 16.
2. THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE AS FOLLOWS: 2'-5" FOR #5 BARS; 2'-11" FOR #6 BARS.

FOOTING PLAN

**HEADWALL AND WINGWALL DETAILS
FOUNDATION PLAN**

DESIGN AGENCY



DESIGNER

DMG

REVIEWER

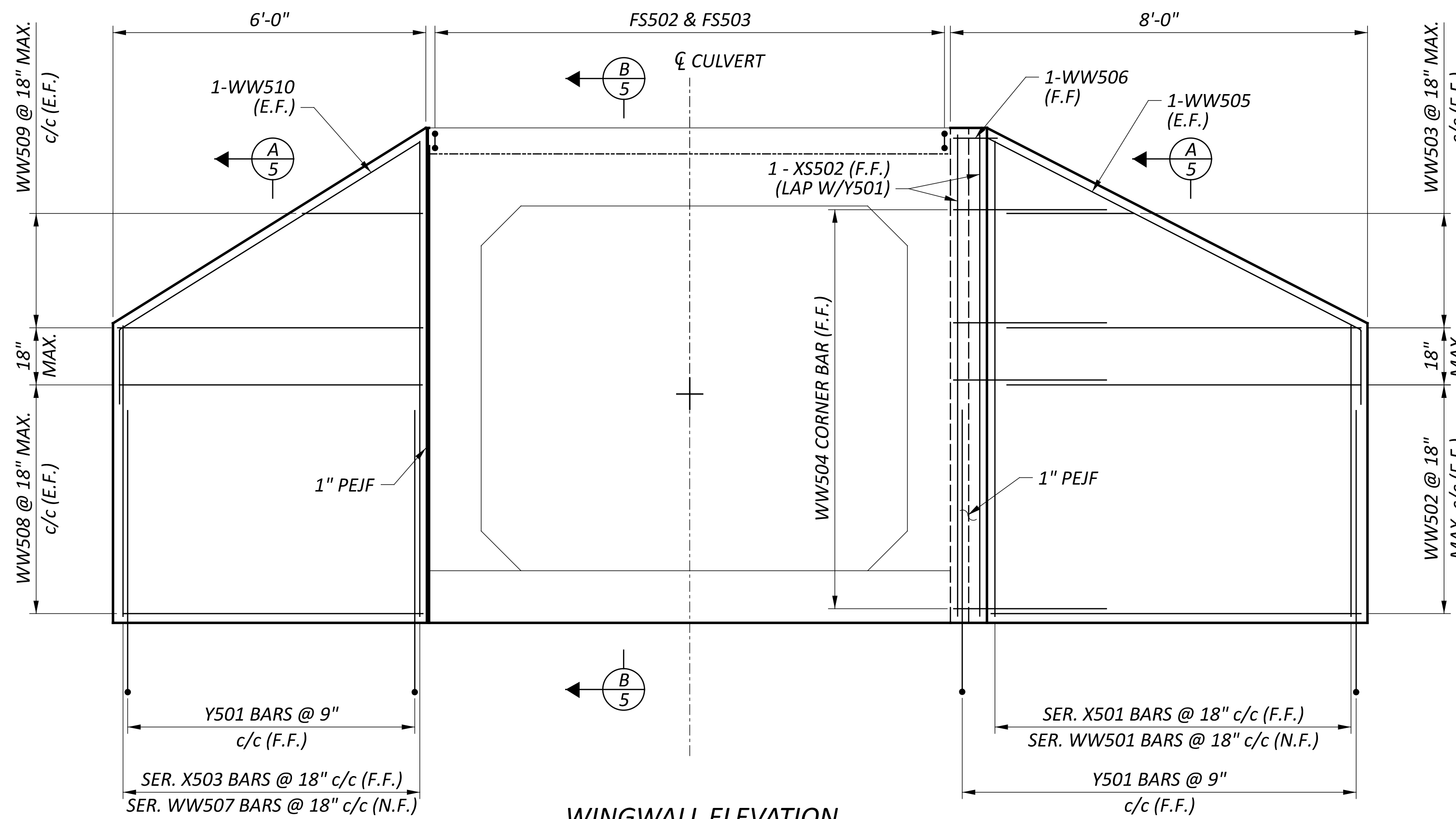
BAA 11-09-22

PROJECT ID

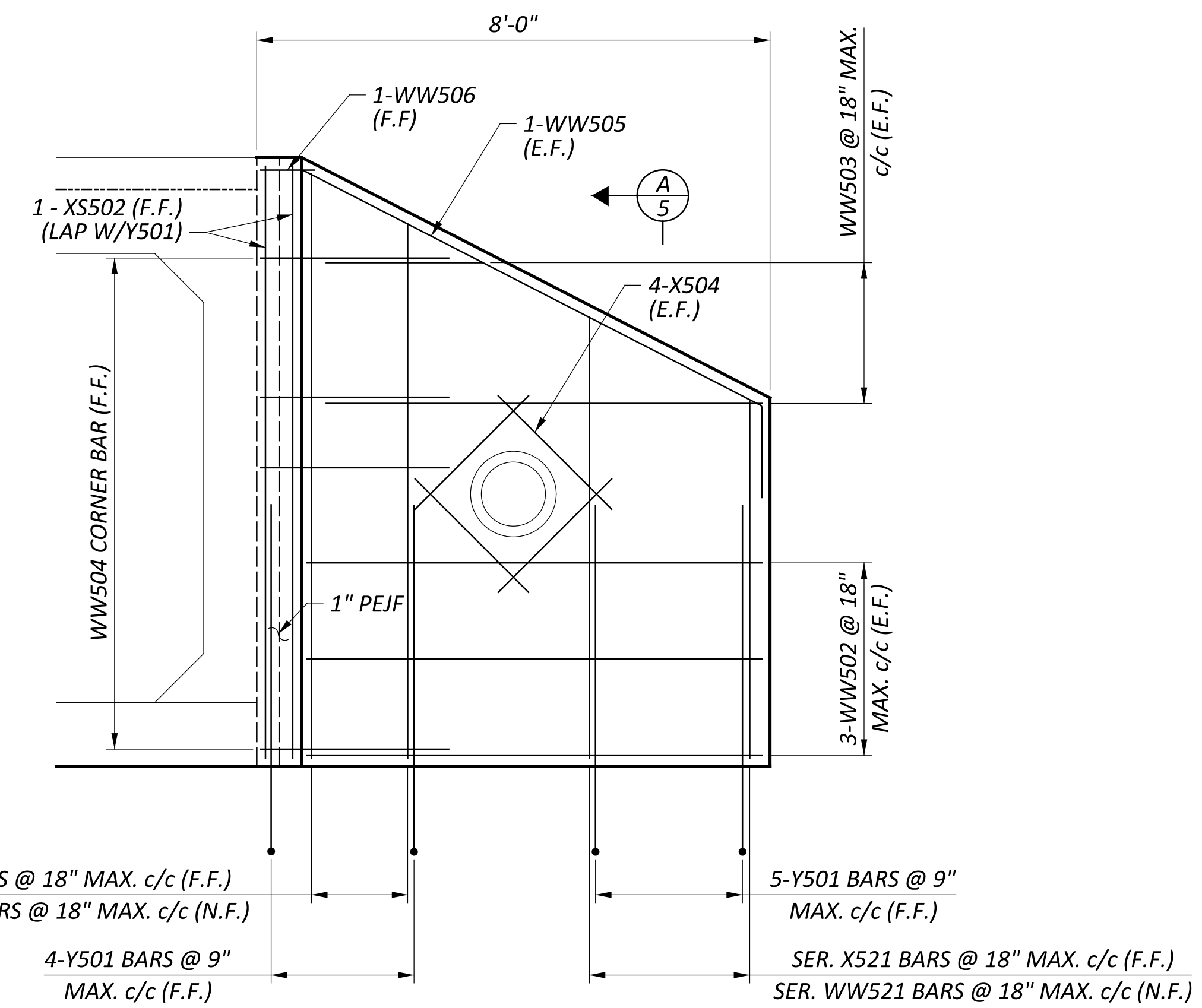
TSY0003

SHEET TOTAL

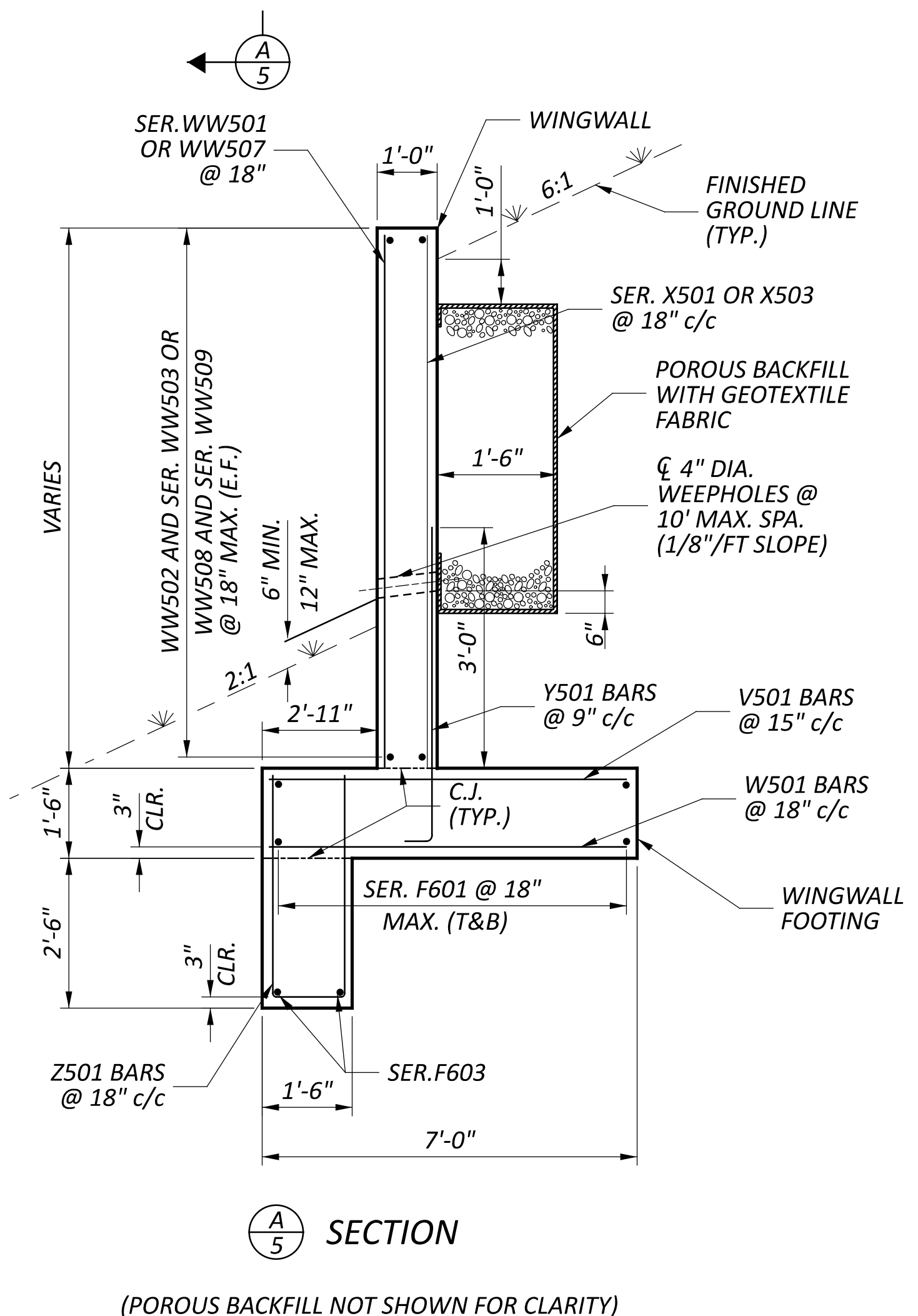
14 19



WINGWALL ELEVATION
CUTOFF WALL NOT SHOWN

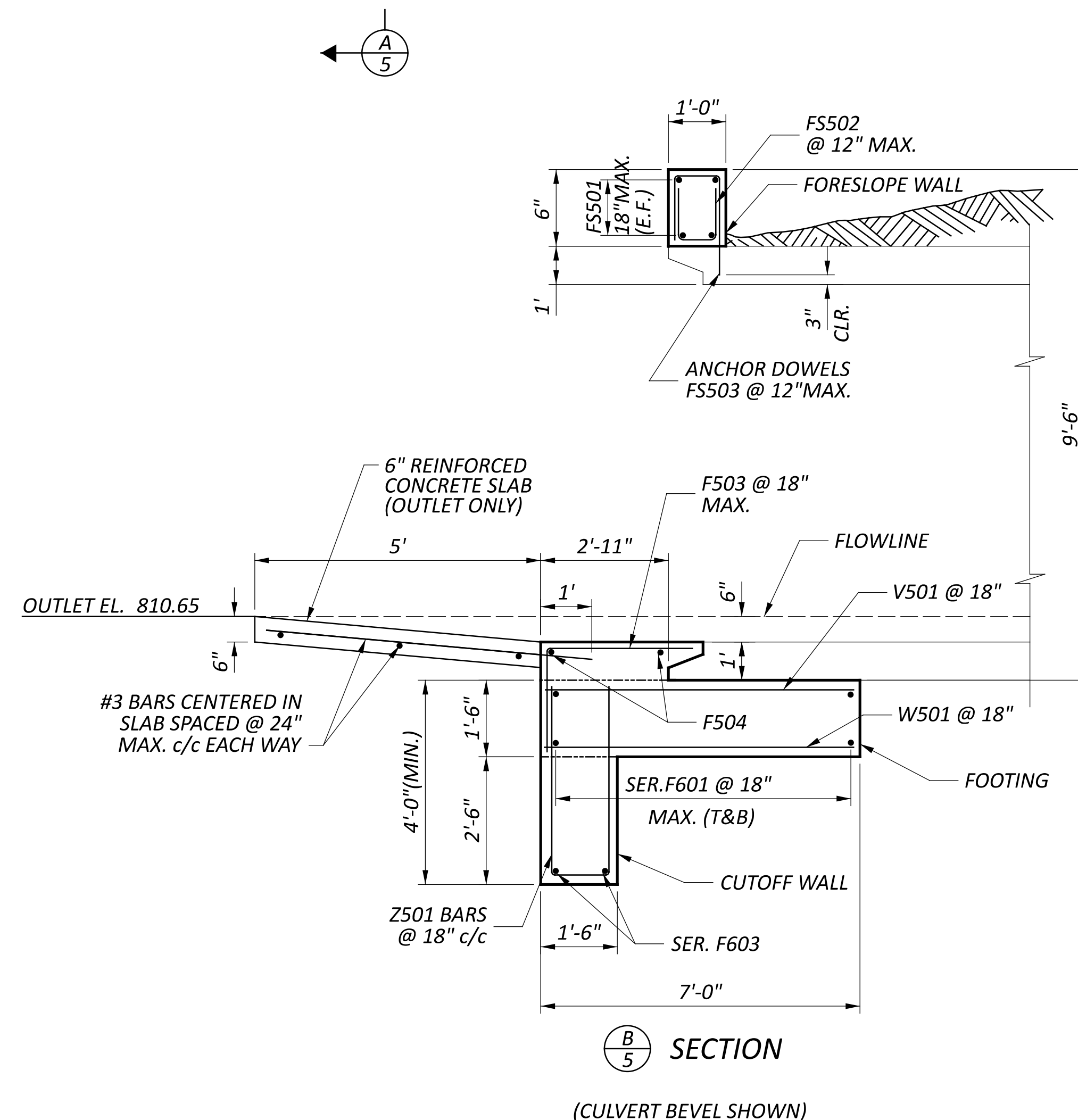


OUTLET WINGWALL ELEVATION (WINGWALL 4)
WITH STORM PIPE INTEGRATION



SECTION A-A

(POROUS BACKFILL NOT SHOWN FOR CLARITY)



SECTION B-B

(CULVERT BEVEL SHOWN)

LEGEND

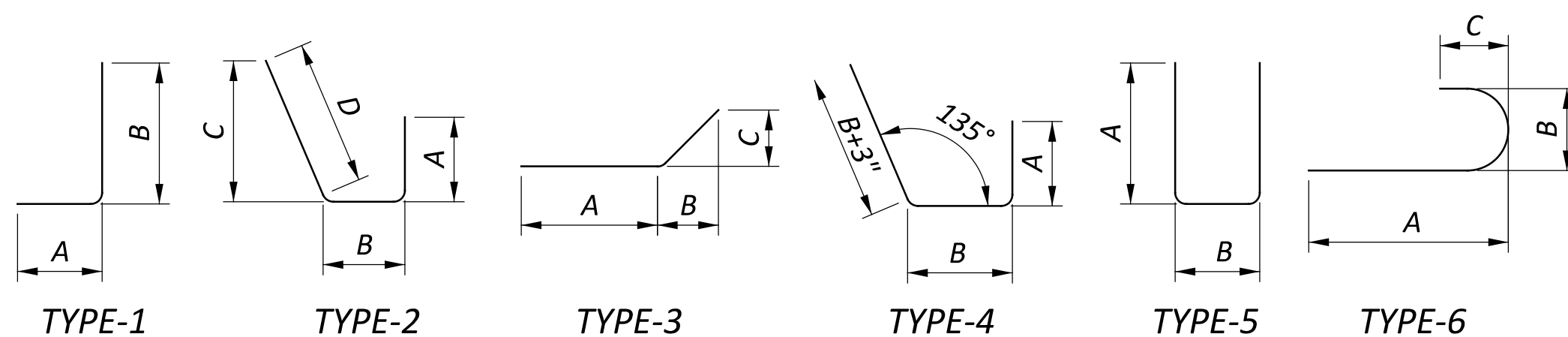
C.J.	CONSTRUCTION JOINT	N.F.	NEAR FACE
CLR.	CLEAR	SER.	SERIES
DIA.	DIAMETER	STR.	STRAIGHT
E.F.	EACH FACE	(T)	TOP
F.F.	FAR FACE	(B)	BOTTOM
MAX.	MAXIMUM	T&B	TOP AND BOTTOM
MIN.	MINIMUM	TYP.	TYPICAL
c/c	CENTER TO CENTER	INC.	INCREMENT

NOTES

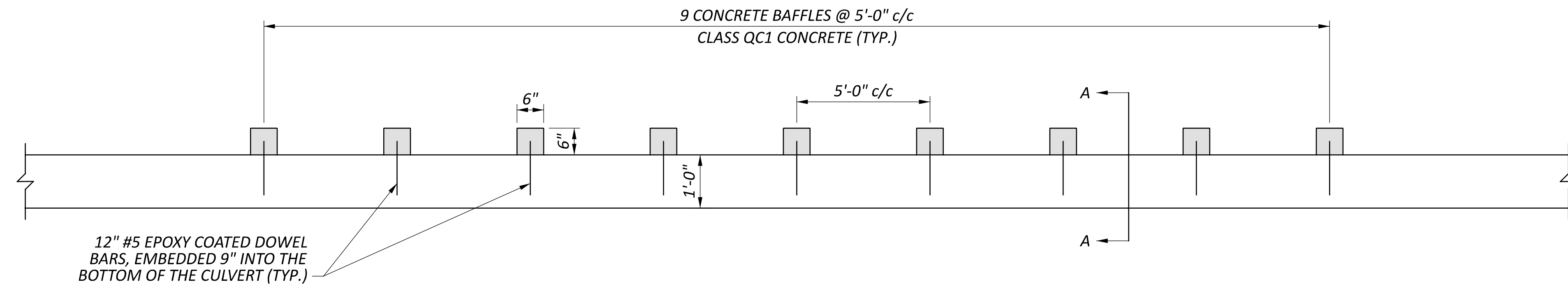
1. ADJUST HORIZONTAL REINFORCEMENT TO AVOID INTERFERENCE WITH WEEPHOLES.
2. THE INTERFACE BETWEEN THE TOP OF FOOTING AND THE BASE OF THE WINGWALL STEM SHALL BE INTENTIONALLY ROUGHED TO A FULL AMPLITUDE OF APPROXIMATELY 1/4" BY MEANS OF A SERRATED TROWEL.
3. THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE AS FOLLOWS: 2'-5" FOR #5 BARS.
4. SEE END ELEVATIONS SHEET 12 OF 16 FOR WEEPHOLE ELEVATIONS.
5. ALL REINFORCING STEEL SHALL BE A MINIMUM OF 2" CLEAR FROM FACE OF CONCRETE UNLESS NOTED OTHERWISE.

TYPE B INLET HEADWALL REINFORCING SCHEDULE									
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS				INC.
					A	B	C	D	
WINGWALLS									
X501	1	5'- 7"	55	STR.					0'- 7 1/2"
	SERIES of 7	9'- 4"							
X502	2	9'- 4"	20	STR.					
X503	1	5'- 7"	39	STR.					0'- 11 1/4"
	SERIES of 5	9'- 4"							
Y501	23	4'- 11"	118	1	0'- 10"	4'- 3"			
WW501	1	5'- 7"	55	STR.					0'- 7 1/2"
	SERIES of 7	9'- 4"							
WW502	8	7'- 8"	64	STR.					
WW503	2	2'- 7"	33	STR.					2'- 6 1/2"
	SERIES of 3	7'- 8"							
WW504	7	3'- 6"	26	2	0'- 7"	0'- 2 "	2'- 1/4"	2'- 10 "	
WW505	2	10'- 11"	23	3	2'- 5"	3'- 7"	7'- 8"		
WW506	1	1'- 1"	2	8	0'- 7"	0'- 2 "			
WW507	1	5'- 7"	39	STR.					0'- 11 1/4"
	SERIES of 5	9'- 4"							
WW508	8	5'- 8"	48	STR.					
WW509	2	1'- 11"	24	STR.					1'- 10 1/2"
	SERIES of 3	5'- 8"							
WW510	2	9'- 2"	20	3	2'- 5"	3'- 7"	5'- 8"		
FOOTING & CUTOFF WALL									
V501	20	6'- 8"	140	STR.					
W501	17	6'- 8"	119	STR.					
Z501	19	8'- 2"	162	5	3'- 7"	1'- 2"			
F501	6	6'- 0"	38	STR.					
F502	8	4'- 8"	39	STR.					
F503	8	5'- 1"	43	1	3'- 0"	2'- 2"			
F504	2	9'- 8"	21	STR.					
F601	2	17'- 8"	344	3	14'- 8 1/2"	2'- 3/4"	2'- 3/4"		0'- 6 5/8"
	SERIES of 6	20'- 5"			17'- 5 1/2"				
F602	2	6'- 8"	145	STR.					0'- 6 5/8"
	SERIES of 6	9'- 5"							
F603	1	17'- 8"	54	3	14'- 8 1/2"	2'- 3/4"	2'- 3/4"		0'- 5 "
	SERIES TO				TO				
	2	18'- 1"			15'- 2 1/4"				
F604	1	6'- 8"	21	STR.					0'- 5 "
	SERIES TO								
	2	7'- 1"							
FORESLOPE WALL									
FS501	4	9'- 8"	41	STR.					
FS502	11	0'- 9"	9	5	0'- 2"	0'- 8"			
FS503	11	1'- 8"	20	7	0'- 2"	0'- 8"	1'- 1"		
INLET HEADWALL TOTAL			1,762						

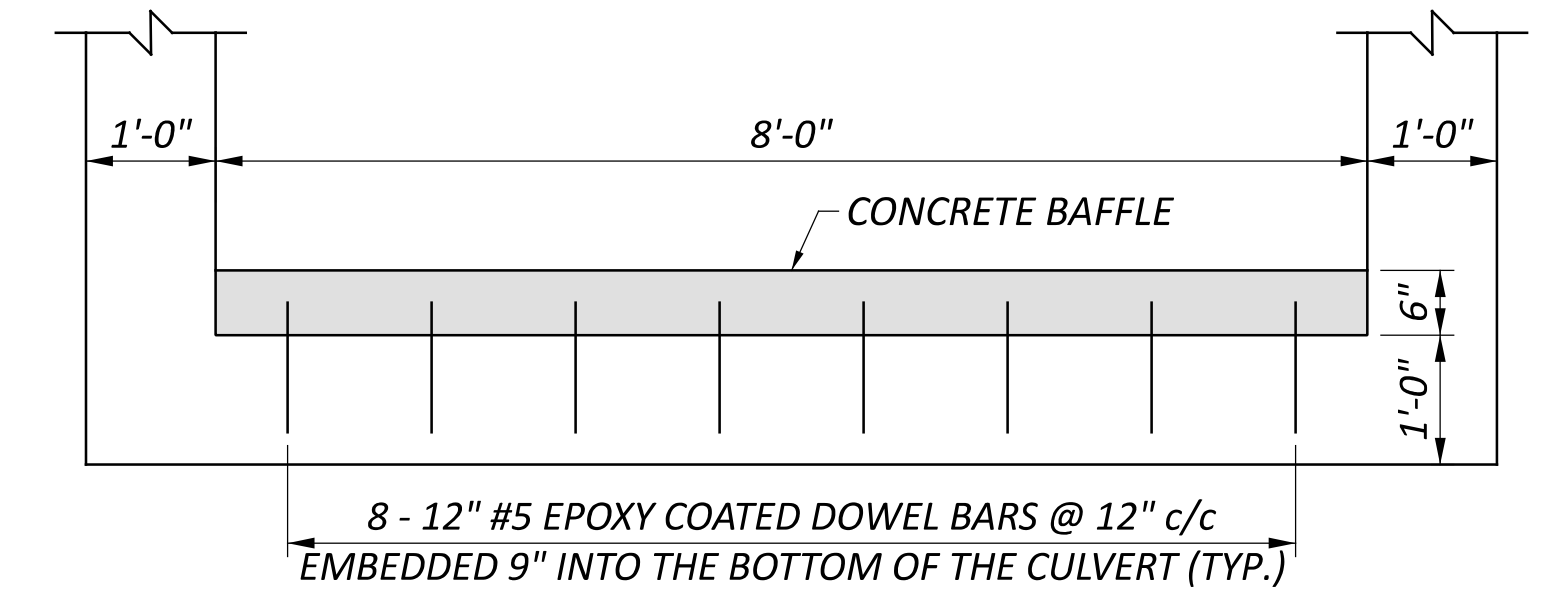
- NOTES:**
- ALL REINFORCING STEEL TO BE EPOXY COATED
 - THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, WW501 IS A NO. 5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT.



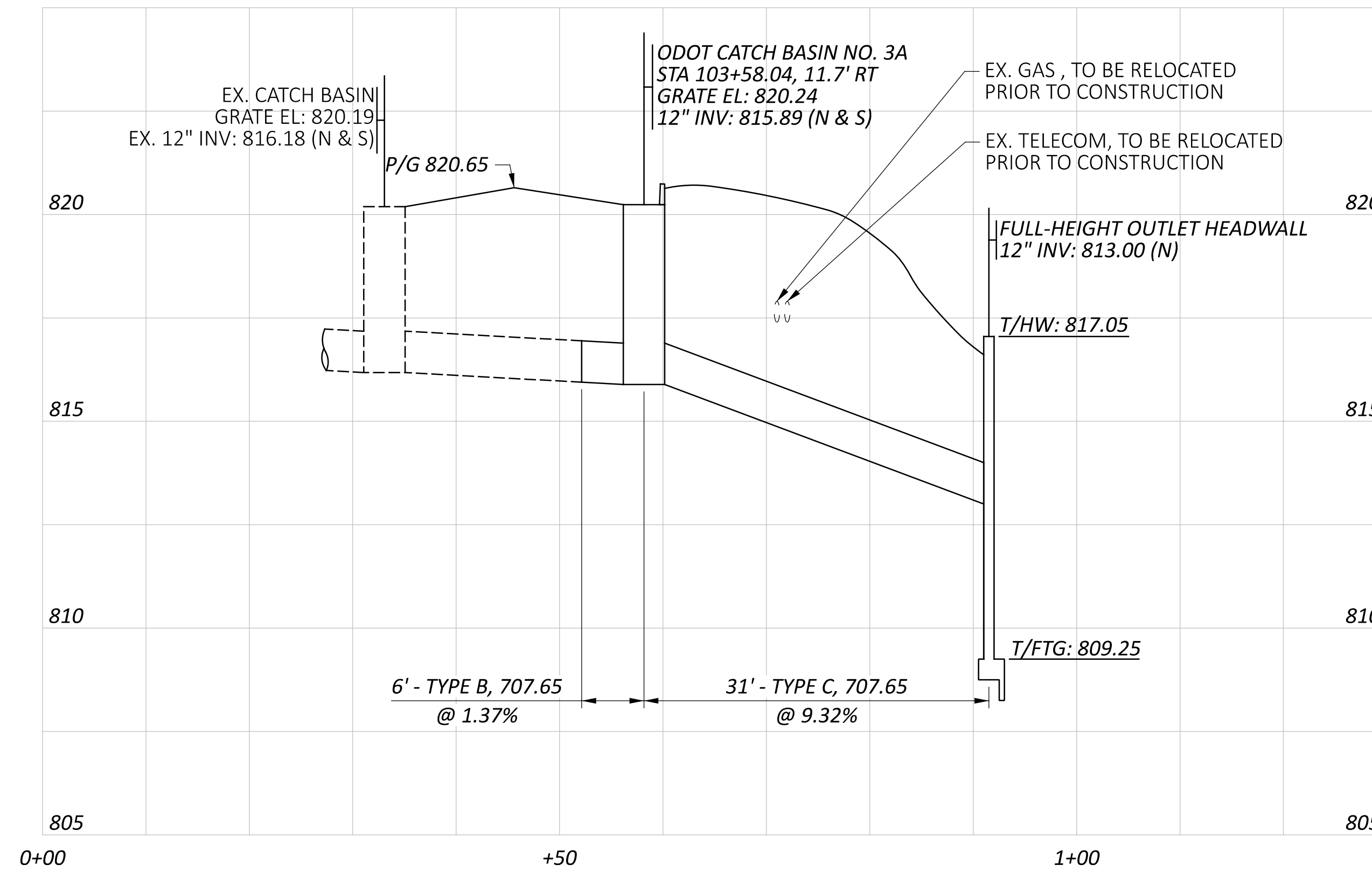
TYPE B OUTLET HEADWALL REINFORCING SCHEDULE									
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS				INC.
					A	B	C	D	
WINGWALLS									
X521	1	5'- 7"	20	STR.					0'- 9 "
	SERIES of 3	7'- 1"							
X522	1	8'- 5"	27	STR.					0'- 11 1/8"
	SERIES of 2	9'- 4"							
X502	2	9'- 4"	20	STR.					
X503	1	5'- 7"	39	STR.					0'- 11 1/4"
	SERIES of 5	9'- 4"							
X504	8	2'- 6"	21	STR.					
Y501	20	4'- 11"	103	1	0'- 10"	4'- 3"			
WW521	1	5'- 7"	20	STR.					0'- 9 "
	SERIES of 3	7'- 1"							
WW522	1	8'- 5"	19	STR.					0'- 11 1/8"
	SERIES of 2	9'- 4"							
WW502	6	7'- 8"	48	STR.					
WW503	2	2'- 7"	33	STR.					2'- 6 1/2"
	SERIES of 3	7'- 8"							
WW504	6	3'- 6"	22	2	0'- 7"	0'- 2 "	2'- 1/4"	2'- 10 "	
WW505	2	10'- 11"	23	3	2'- 5"	3'- 7"	7'- 8"		
WW506	1	1'- 1"	2	8	0'- 7"	0'- 2 "			
WW507	1	5'- 7"	39	STR.					0'- 11 1/4"
	SERIES of 5	9'- 4"							
WW508	8	5'- 8"	48	STR.					
WW509	2	1'- 11"	24	STR.					1'- 10 1/2"
	SERIES of 3	5'- 8"							
WW510	2	9'- 2"	20	3	2'- 5"	3'- 7"	5'- 8"		
FOOTING & CUTOFF WALL									
V501	20	6'- 8"	140	STR.					
W501	17	6'- 8"	119	STR.					
Z501	19	8'- 2"	162	5	3'- 7"	1'- 2"			
F501	6	6'- 0"	38	STR.					
F502	8	4'- 8"	39	STR.					
F503	8	5'- 1"	43	1	3'- 0"	2'- 2"			
F504	2	9'- 8"	21	STR.					
F601	2	17'- 8"	344	3	14'- 8 1/2"	2'- 3/4"	2'- 3/4"		0'- 6 5/8"
	SERIES of 6	20'- 5"			17'- 5 1/2"				
F602	2	6'- 8"	145	STR.					0'- 6 5/8"
	SERIES of 6	9'- 5"							
F603	1	17'- 8"	54	3	14'- 8 1/2"	2'- 3/4"	2'- 3/4"		0'- 5 "
	SERIES TO				TO				
	2	18'- 1"			15'- 2 1/4"				
F604	1	6'- 8"	21	STR.					0'- 5 "
	SERIES TO								
	2	7'- 1"							
FORESLOPE WALL									
FS501	4	9'- 8"	41	STR.					
FS502	11	0'- 9"	9	5	0'- 2"	0'- 8"			
FS503	11	1'- 8"	20	7	0'- 2"	0'- 8"	1'- 1"		
OUTLET HEADWALL TOTAL			1,723						



ENERGY DISSIPATOR DETAIL



SECTION A-A



STORM SEWER PROFILE

GENERAL PROVISIONS

The Contractor is advised that there are several changes to the most recent edition of the City of Cincinnati Supplement dated January 1, 2019. These General Provisions include these changes. The Supplement and a Summary of Changes can be purchased or downloaded from the City's website:

Water main items are to be constructed in accordance with the provisions of the State of Ohio, Department of Transportation, Construction and Material Specifications, dated January 1, 2019, and modified by the City of Cincinnati Supplement to said State of Ohio Specifications, effective January 1, 2019, and any supplements or changes thereto.

The Greater Cincinnati Water Works (GCWW) understands that differing site conditions results in extra work/change orders to the project. Change orders on GCWW contracts will be done in strict accordance with Item 109.05 C of the State of Ohio Department of Transportation Construction and Material Specifications dated January 1, 2019 or most recent edition and as modified in this City of Cincinnati Supplement.

As defined in the City of Cincinnati Supplement, sections 107.07 and 107.071, the Contractor is required to submit, at the time of the pre-construction meeting, a Site Safety Plan. Furthermore, the Contractor shall have an authorized and competent safety representative assigned to the project site.

The Contractor is advised that he has certain responsibilities under Section 153.64 of the Ohio Revised Code. For all underground utilities, contact the Ohio Utilities Protection Service at 1-800-362-2764 (toll free) 48 hours in advance of work.

The Contractor must locate or "pot hole" all utilities within the alignment of the proposed main a minimum of 50 feet ahead of pipe laying. Test holes must be dug, or trench excavated, a minimum of 50 feet (15.2 m) in advance of pipe laying, to assure proper clearance between the water main and any utility crossing, or underground structure.

Item 1120, "Exploratory Excavation", shall not include excavations within the limits of the proposed trench as defined in 1101.04 and 1101.05. Test holes are required on all utilities within 50 feet of the last laid pipe.

It is the nature of construction that unmarked utilities or utilities not shown on the plans may be encountered within the excavation for the proposed work. The Contractor is responsible to identify and remove any abandoned utilities encountered in the excavation.

Street pavement or sidewalk should not be disturbed for a distance of more than 200 Feet (61.0 m) ahead of the last laid pipe. Backfill shall be completed within 50 feet (15.2 m) of the last laid pipe. Temporary or permanent surface restoration must be installed within a distance of 200 feet (61.0 m) of the laid pipe, including those areas where main installations occur within a closed lane or closed street condition.

Any undermined pavement of more than 6 inches horizontal must be removed prior to starting trench backfill. If undermining of pavement occurs more than 1 foot, then pavement must be shored to protect traffic, or arrangements made for additional lane closures must be made.

The GCWW has made every effort to depict the pipe sewers and lateral information on the plans. The Contractor is advised that sewer laterals are shown in plan view only. The Contractor shall determine the elevation of the sewer laterals in advance of laying the water main at these crossings.

Notice of Confidentiality -- Public Infrastructure Record

This Document is a Public Infrastructure Record of the City of Cincinnati and its Greater Cincinnati Water Works, and is not subject to the public disclosure requirements of the public records laws of the State of Ohio and Federal government.

The failure to observe the confidentiality requirements of this Notice shall serve as the basis for the City of Cincinnati to immediately seek legal recourse, including the recovery of actual damages resulting from unauthorized access or disclosure of the Document.



The Contractor is advised that due to the alignment of the proposed water main, it may be necessary to install a temporary valve box over an existing chambered valve that must remain in service during the water main installation as directed by the GCWW Inspector.

It is the Contractor's responsibility to provide adequate water supply for domestic and fire fighting purposes. In order to accomplish the water main connections with a minimum amount of inconvenience to the consumers, it may be necessary to do the work at other than normal working hours or as may be scheduled by the GCWW.

The Contractor is advised that the operating pressure of the existing water main within the limits of the subject project is approximately 73 P.S.I.

In order to minimize the inconvenience of the consumers, the number of shutdowns required to do the proposed water main work shall be limited. Only one shutdown, limited to 8 hours, will be allowed during a 24 hour period.

All water service branches have a minimum cover of 3.0 feet.

The Contractor is advised that it shall be necessary to install temporary Plug/caps on the existing and proposed water mains in order to maintain service during testing and water main and branch connections.

The Contractor is required to excavate and expose the existing utilities and existing water mains along the line of the proposed water main and all proposed connection points to verify location, diameter, line and grade.

The Contractor is advised that all C.J. Plug are to be restrained with a Field Lok Gasket and all M.J. caps are to be restrained using a Megalug Assembly. This includes temporary Plug and caps for testing purposes.

The Contractor is advised that on any fire hydrant required to be relocated with this project, all bolt assemblies shall be replaced. The cost for this work shall be included in the unit bid price for Item 1113 "Relocating Existing Fire Hydrants".

Item 1111, "Water Works Valve Chambers", shall also cover the furnishing and installing of Precast Reinforced Concrete Chambers in accordance with O.D.O.T. Specification 706.13.

Air cocks may be necessary for the proper operation of the water system. The Air Release Assembly, which may not be shown on the drawing, will be furnished and installed by the Contractor per the detail on these plans, if required by the GCWW.

It shall be the Contractor's responsibility to arrange for the removal and replacement of any poles and guys necessary for the installation of the proposed water mains, and any cost connected thereto shall be at his expense.

All pipe and specials shall be in accordance with City of Cincinnati Specification 40-110-12.

All procured water main and appurtenance materials, other than those furnished through the GCWW must be properly certified; certified for GCWW inspection; or already inspected by the GCWW.

The Contractor should be advised that all Fittings (Bends, Offset Bends, Tees, Crosses, Sleeves, Caps and Plug) supplied for this job may be either ANSI/AWWA C-110 Full-body Ductile Iron, Cement Lined Fittings or ANSI/AWWA C-153 Compact Ductile Iron, Fusion Bonded Epoxy Coated Fittings in accordance with City of Cincinnati, Department of Purchasing, Standard Specification No. 40-110-12 for Pipe and Fittings Water, Ductile Iron 3" to 60".

All rejected material, including pipe and fittings, shall be removed from the project site immediately.

The Contractor must maintain access to sidewalks at all times. Storage of any materials within the public Right of Way, including sidewalks, is not permitted unless approved by GCWW, the Project Engineer, or as indicated on the approved plans.

All copper tubing shall be type "K" of a standard nominal size: 3/4", 1", 1-1/2" and 2". All fittings will have copper flare type connections and shall be in accordance with City of Cincinnati Specification No. 40-113-05.

The contractor shall furnish the necessary certifications for branch material.

All proposed water mains will be hydrostatically tested for leakage in accordance with 1101.054, "Hydrostatic Test for Leakage", of the appropriate Item 1101, "Furnishing & Laying Ductile Iron Pipe and Fittings".

The Contractor will be responsible for filling, flushing, and pressure testing new water mains, 20" or smaller. The contractor will provide all labor, material and equipment (including the necessary pumps to apply the pressure test).

The Contractor is responsible for all pipe sewers disturbed in the completion of this project. In the event it becomes necessary to repair or replace existing pipe sewers, the Contractor must notify Sewer Maintenance, (513)244-1369, before proceeding with the work.

The Contractor is advised that his unit bid prices for the appropriate Item 1101, "Furnish & Install Pipe and Fittings", includes final restoration of all disturbed surfaces. The GCWW will not make full compensation under Item 1101 until final restoration is complete.

SUGGESTED BILL OF MATERIAL

FURNISHED BY CONTRACTOR

- 5 Each 8" Ductile Iron Pipe, C.J., Th. Cl. 55, 20' Length
6 Each 20" Wide Polyethylene Flattened Tube, 4 Mil Thickness, Cross Laminate, 20' Length
1 Each 1 1/2" Wide Polyethylene Tape with Adhesive
8 Each 8" 45" Bend, 2 M.J.
2 Each 8" Cap, M.J. (Temporary)
2 Each 8" Solid Sleeve, M.J.
22 Each 8" M.J.R.C.
19 L.F. 18" Steel Casing, 5/16" Pl. Th.

AIR RELEASE MATERIAL (See Detail Sheet 2)

- 1 Each Valve Box Complete, Iron
1 Each Valve Box Frost Plug
1 Each 1" Ferrule
4 Lin. Ft. 1" Copper Service Pipe
1 Each 1" x 1" x 3/4" Blow Off Ball Valve Assembly (AY McDonald Part #76109BCAP)

Note: Contractor shall verify the size and material of each service branch at the property line prior to installing branch. Cost for this work to be included in Item 1126 - "Furnishing and Installing Copper Service Pipe w/ Aqua Shield".

The materials listed are only suggested for use during the water main and branch relocation work as proposed on the drawings. The contractor shall furnish additional material where needed. No allowance will be made for unused material nor will any extra payment be made for additional specials required to complete the water main work.

Note 1: Valves furnished by the contractor shall be: American Resilient Wedge Gate Valve Series 2500, U.S. Pipe Metrosal Gate Valve, Kennedy Valve Ken Seal II Resilient Gate Valve, Clow F-6100 Series Resilient Wedge Gate Valve, Mueller 2360 Resilient Wedge Gate Valve.

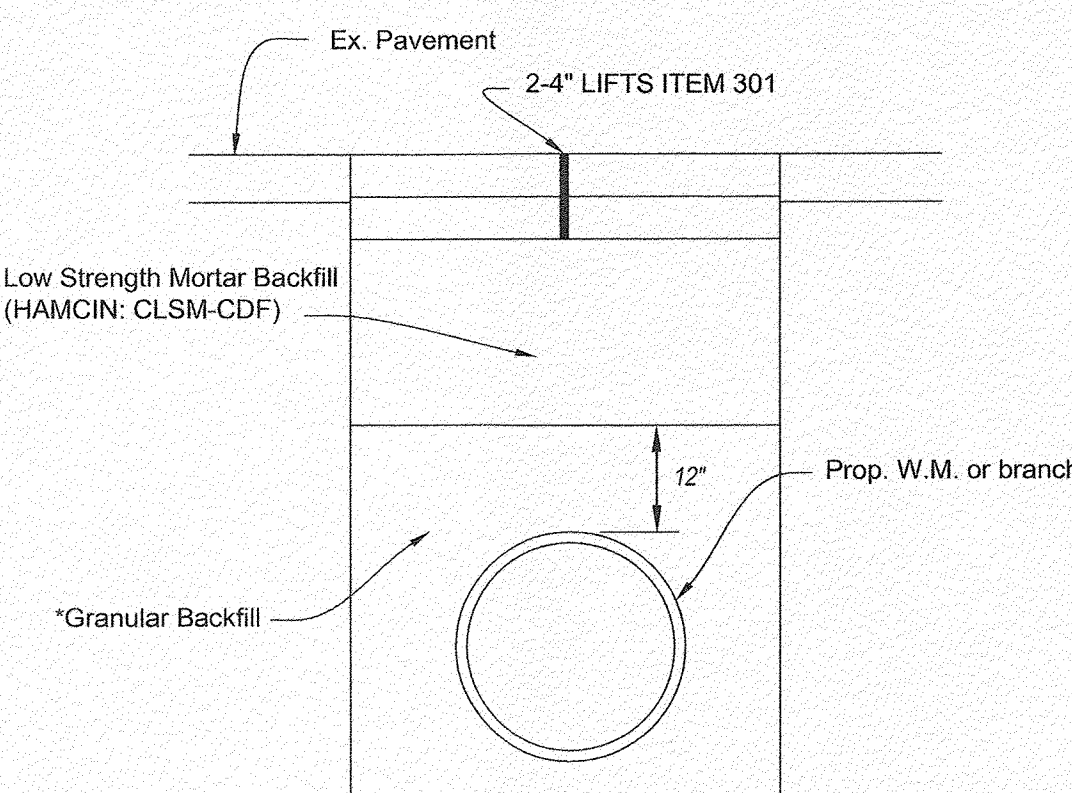
Note 2: Low-Lead Brass Material Requirements: All components in contact with water shall be fabricated from Seibloy II or Federalloy I-836 alloys or a material approved by the Engineer.

Note 3: Special Note on Service Pipe in Corrosive Soils: Service tubing is to be soft K Copper manufactured to the requirements of ASTM B88. Service tubing coating shall have NOVA Polyethylene LLDPE extrusion resin PP-0118-F coating to meet minimum of .026 mil thickness containing UV inhibitors.

Note 4: Mechanical Joint Restrain Gland (MJRG): All mechanical joint restraint glands furnished by the contractor shall be any of the following: EBAA--Megalug TYLER/UNION--Tufgrip STAR--Stargrip FORD--Uni-Flange Series 1400

All products shall be domestically manufactured.

STANDARD WATER MAIN TRENCH INSTALLATION DETAIL (TEMPORARY RESTORATION)



**PERMANENT RESTORATION SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND/OR PROJECT PLAN TYPICAL SECTIONS.

IN AREAS WHERE THE PAVEMENT; BASE AND/OR SUB-BASE IS TO BE REPLACED AS PART OF THE ROADWAY CONTRACT, THE COST FOR PERMANENT PAVEMENT RESTORATION SHALL BE INCLUDED UNDER THE APPROPRIATE PAVEMENT BID ITEM.

UNLESS OTHERWISE NOTED ON THE PLANS, AREAS WHERE THE EXISTING PAVEMENT, BASE AND/OR SUB-BASE ARE NOT TO BE DISTURBED, THE COST FOR TEMPORARY AND PERMANENT PAVEMENT RESTORATION SHALL BE INCLUDED IN THE CONTRACTOR'S APPROPRIATE UNIT BID PRICE FOR ITEM 1101 OR ITEM 1126.

"BACKFILL OF THE WATER MAIN AND BRANCH TRENCH SHALL BE DONE IN ACCORDANCE WITH G.C.W.W. SPECIFICATIONS. ALL WATER MAINS AND BRANCHES INSTALLED OUTSIDE OF THE PAVEMENT AREA SHALL UTILIZE GRANULAR BACKFILL IN LIEU OF THE CONTROL DENSITY FILL.

CONTROLLED DENSITY FILL MUST MEET BOTH HAMCIN CLSM-CDF PERFORMANCE SPECIFICATION AND O.D.O.T. SPECIFICATION. ALL FLOWABLE FILL PRODUCTS SHALL MEET THE REQUIREMENTS OF THE CURRENT HAMCIN CLSM-CDF BACKFILL SPECIFICATION (DATED MARCH 2015).

PLEASE NOTE THAT THE G.C.W.W. REQUIREMENT IS IN ADDITION TO HAMCIN SPECIFICATIONS FOR FLOWABLE FILL PRODUCTS. A COPY OF THE G.C.W.W. REQUIREMENT IS AVAILABLE AT THE G.C.W.W. ENGINEERING OFFICE LOCATED AT 4747 SPRING GROVE AVENUE.

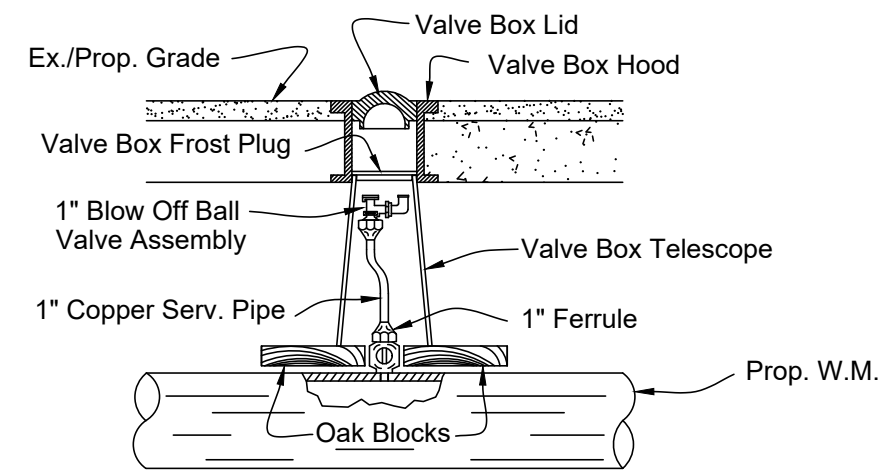
PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT THE NECESSARY CONTROLLED DENSITY FILL COMPLIANCE DOCUMENTATION FOR REVIEW AND APPROVAL BY THE G.C.W.W.

GCWW NOTE: ALL FIELD LAYOUT OF WATER MAIN PIPE AND SPECIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED BY A LICENSED SURVEYOR.

INDEX
General Provisions 1
Suggested Bill of Materials 1
Restoration Details 1
Plan 2

PROJECT NAME GIDEON LANE CULVERT REPLACEMENT
APPROVED: WW004126 / 4-4074 / MF-16863
Signatures and dates for GCWW SUPERVISING ENGINEER - DESIGN (8-30-2022), GCWW PRINCIPAL ENGINEER - SYSTEM FACILITIES (08-30-22), and GCWW CHIEF ENGINEER (09/08/22). Includes OhioEPA logo and certification exempt status.

Vertical sidebar containing REVISIONS table, project title 'GIDEON LANE CULVERT REPLACEMENT GENERAL PROVISIONS', drawing ID '4-4074 WW004126 MF-16863', and a SHEET TOTAL table showing 18 of 19 sheets.

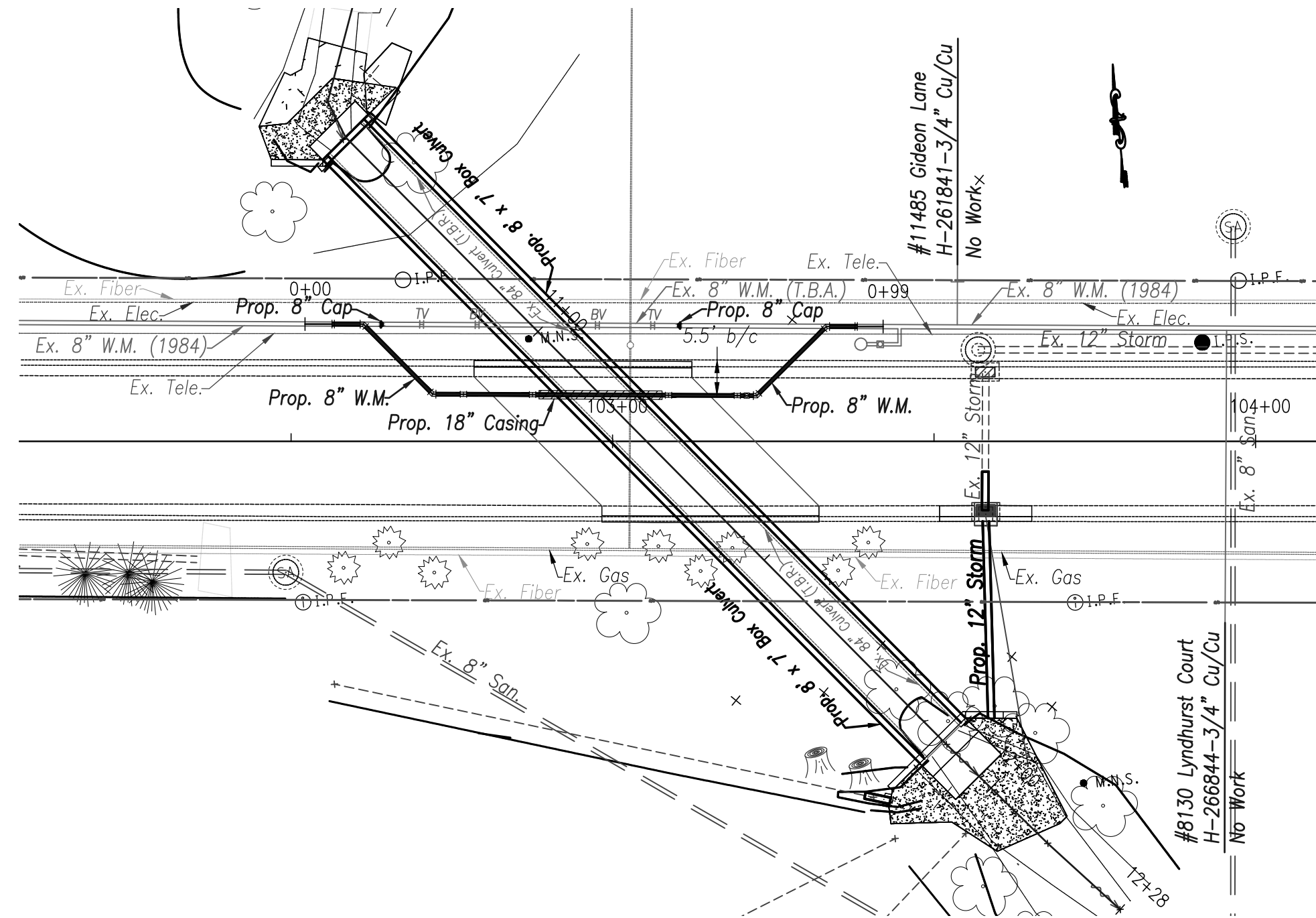


NOTE: AIR RELEASE MUST BE 15" - 19" BELOW FINAL GRADE

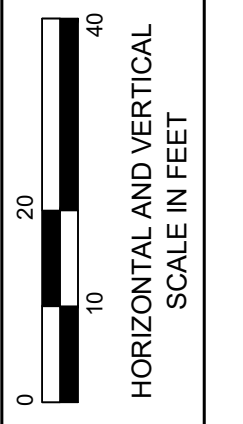
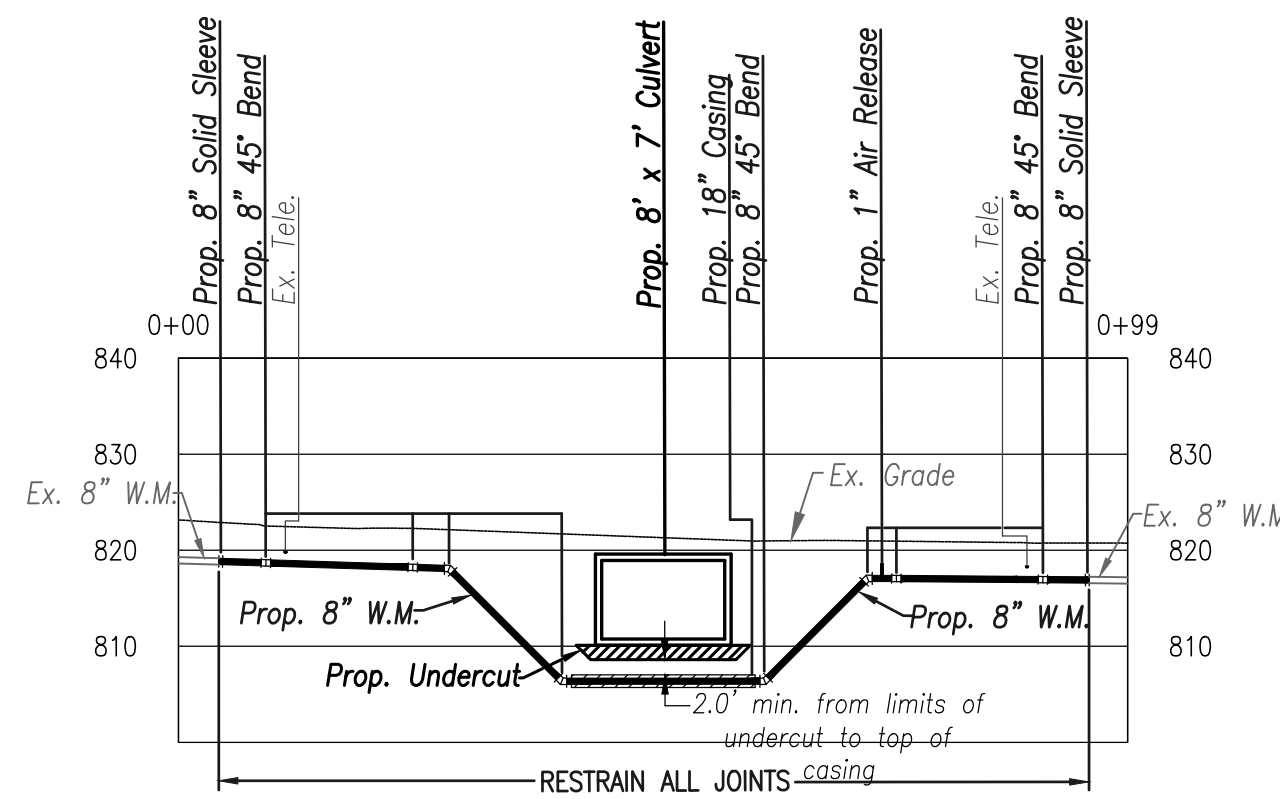
- 1 - VALVE BOX COMPLETE
- 1 - VALVE BOX FROST PLUG
- 1 - 1" FERRULE
- 4 - L.F. +/- 1" COPPER SERVICE PIPE (LENGTH VARIES DEPENDING ON WM DEPTH)
- 1 - 1"x1"x3/4" BLOW-OFF BALL VALVE ASSEMBLY (A.Y. McDONALD PART #76109BCAP)

NOTE: ALL COST FOR MATERIAL AND LABOR SHALL BE INCLUDED IN THE CONTRACTOR UNIT BID UNDER ITEM 1116 "FURNISH AND INSTALL 1" AIR RELEASE WITH VALVE BOX"

1" AIR RELEASE ASSEMBLY DETAIL



- 8-8" 45° BEND, 2 M.J.
- 2-8" CAP, M.J. (TEMP.)
- 2-8" SOLID SLEEVE, M.J.
- 22-8" MJRG
- 19-L.F. 18" STEEL CASING
- 1-1" AIR RELEASE ASSEMBLY W/VALVE BOX



CALCULATED	
MJC	CHECKED
RR	

GREATER CINCINNATI
WATER WORKS
 ENGINEERING DIVISION / DESIGN SECTION
 3845 EASTERN AVENUE, CINCINNATI, OHIO 45226

**GIDEON LANE CULVERT REPLACEMENT
 PLAN AND PROFILE**

4-4074
 WW004126
 MF-16863

SUBSET	TOTAL
2	2
SHEET	TOTAL
19	19

NOTICE OF CONFIDENTIALITY - PUBLIC INFRASTRUCTURE RECORD

THIS DOCUMENT IS A PUBLIC INFRASTRUCTURE RECORD OF THE CITY OF CINCINNATI AND ITS GREATER CINCINNATI WATER WORKS, AND IS NOT SUBJECT TO THE PUBLIC DISCLOSURE REQUIREMENTS OF THE PUBLIC RECORDS LAWS OF THE STATE OF OHIO AND FEDERAL GOVERNMENT. THIS DOCUMENT IS BEING PROVIDED ON THE BASIS OF YOUR REPORTED NEED, AND SHALL BE CONSIDERED CONFIDENTIAL. BY ACCEPTING THIS DOCUMENT, YOU AGREE THAT IT WILL NOT BE SHARED OR OTHERWISE DISCLOSED TO ANYONE OTHER THAN PERSONS WHO HAVE A DIRECT NEED TO KNOW FOR THE SOLE PURPOSE OF CARRYING OUT THE PROJECT FOR WHICH THIS DOCUMENT WAS OBTAINED. ANYONE RECEIVING THIS DOCUMENT IS BOUND BY THE SAME CONFIDENTIALITY REQUIREMENTS AND MUST TAKE PRECAUTIONS TO PROTECT AGAINST ITS DISSEMINATION.

THE FAILURE TO OBSERVE THE CONFIDENTIALITY REQUIREMENTS OF THIS NOTICE SHALL SERVE AS THE BASIS FOR THE CITY OF CINCINNATI TO IMMEDIATELY SEEK LEGAL RECOURSE, INCLUDING THE RECOVERY OF ACTUAL DAMAGES RESULTING FROM UNAUTHORIZED ACCESS OR DISCLOSURE OF THE DOCUMENT.

GIDEON LANE CULVERT REPLACEMENT