

# DEPARTMENT OF TRANSPORTATION

***WIL-127-12.43/15.09***

# BRADY AND JEFFERSON TOWNSHIPS

*WILLIAMS COUNTY*

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**FEDERAL PROJECT NUMBER**

NON-FEDERAL

## RAILROAD INVOLVEMENT

NONE

## PROJECT DESCRIPTION

REPLACE CULVERTS AT WIL-127-12.43 (CFN 1806949)  
AND WIL-127-15.09 (CFN 1861325) ON US 127 IN  
WILLIAMS COUNTY. PERFORM NECESSARY RELATED WORK

## ***EARTH DISTURBED AREAS***

PROJECT EARTH DISTURBED AREA:	ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)

## 2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON 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 HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET .

Pat McColley, P.E.  
Pat McColley, P.E., S.I.  
District 02 Deputy Director

  
Pamela Boratyn  
Director, Department of Transportation

**RESUME PROJECT**  
STA. 18+40.00  
**END PROJECT**  
STA. 18+96.00

**BEGIN PROJECT**  
STA. 655+86.00  
**SUSPEND PROJECT**  
STA. 656+71.00

Map labels include: BEAVER CREEK, WALNUT CREEK, LIFF, WEST UNITY, BRADY, WILLIAMS COUNTY, and various road markers (127, 80, 20A).

## LOCATION MAP

LATITUDE: 41°34'40" LONGITUDE: 84°26'47"



PORTION TO BE IMPROVED .....	
INTERSTATE HIGHWAY .....	
FEDERAL ROUTES .....	
STATE ROUTES .....	
COUNTY & TOWNSHIP ROADS .....	
OTHER ROADS .....	

## DESIGN DESIGNATION

DESIGN DESIGNATION	WIL-127-12.43	WIL-127-15.09
CURRENT ADT (2026)	3300	2100
DESIGN YEAR ADT (2046)	4100	2800
DESIGN HOURLY VOLUME (2046)	500	350
DIRECTIONAL DISTRIBUTION	52%	58%
TRUCKS (24 HOUR B&C)	13%	16%
DESIGN SPEED	60 MPH	60 MPH
LEGAL SPEED	55 MPH	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:		
RURAL MAJOR COLLECTOR (BOTH LOCATIONS)		
NHS PROJECT	NO	NO

## DESIGN EXCEPTIONS

*NONE REQUIRED*

## ADA DESIGN WAIVERS

*NONE REQUIRED*

<b>UNDERGROUND UTILITIES</b>
<b>Contact Two Working Days Before You Dig</b>
 <b>OHIO811.org</b> <b>Before You Dig</b>
<b>OHIO811, 8-1-1, or 1-800-362-2764</b> (Non members must be called directly)

PLAN PREPARED BY:  
ODOT DISTRICT 2  
317 E. POE RD.  
BOWLING GREEN, OH 4340.

[illegible]

# TITLE SHEET

DESIGN AGENCY



DESIGNER

ADB

REVIEWER

XXX MM-DD

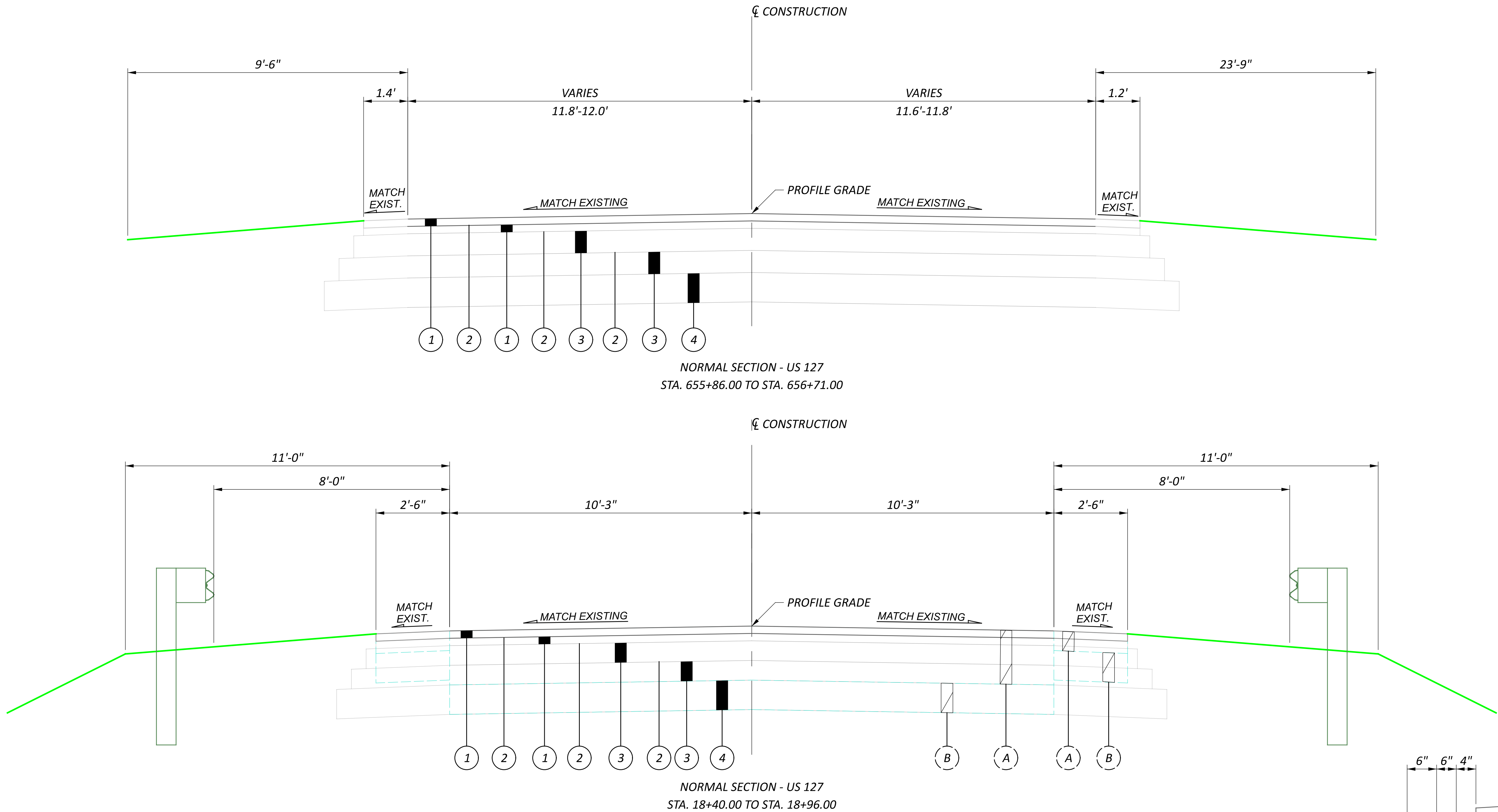
PROJECT ID:

114749

1715

SHEET TOTAL

P.1



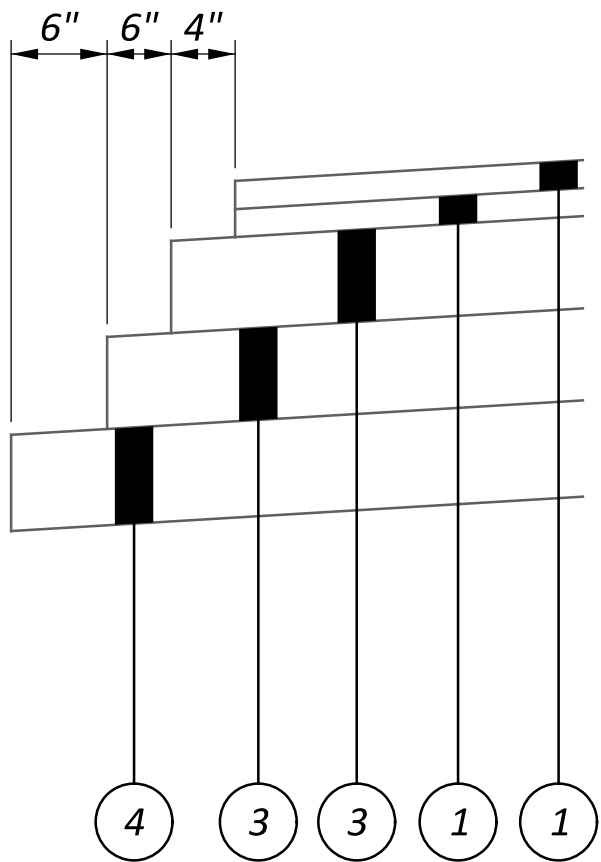
**LEGEND**

- 1 ITEM 441 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22\*
- 2 ITEM 407 - TACK COAT
- 3 ITEM 301 - ASPHALT CONCRETE BASE, (449), PG64-22 (THICKNESS AS SHOWN)
- 4 ITEM 304 - 6" AGGREGATE BASE

\*ITEM 441 TO BE PLACED IN TWO LIFTS 1 1/2" EACH FOR A TOTAL THICKNESS OF 3".

**EXISTING LEGEND**

- A ASPHALT CONCRETE (VARIES 8" TO 12.5")
- B AGGREGATE BASE (VARIES 8" TO 9")
- C SUBBASE





ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

FRONTIER	TOLEDO EDISON
3126 N. MCCORD RD.	6099 ANGOLA RD.
TOLEDO, OH 43617	HOLLAND, OH 43528
(419) 841-7281	(419) 249-5218

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

SURVEYING PARAMETERS - OHIO COUNTY COORDINATE SYSTEM (OCCS)

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET \_\_\_\_ 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:	_____
MONUMENT TYPE:	_____

VERTICAL POSITIONING	
ORTHOMETRIC HEIGHT DATUM:	NAVD88
GEOID:	GEOID 18

HORIZONTAL POSITIONING	
REFERENCE FRAME:	NAD83 (2011)
ELLIPSOID:	GRS1980
COORDINATE SYSTEM:	OHDOT WILLIAMS (CCS)
MAP PROJECTION:	_____
CENTRAL LATITUDE:	_____
CENTRAL LONGITUDE:	_____
FALSE NORTHING:	_____
FALSE EASTING:	_____
PROJECTION SCALE FACTOR:	_____

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

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.

CLEARING AND GRUBBING

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER 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.

FARM DRAINS

PROVIDE UNOBSTRUCTED OUTLETS TO ALL FARM DRAINS ENCOUNTERED DURING CONSTRUCTION. REPLACE EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY WITHIN THE (RIGHT OF WAY)( CONSTRUCTION) LIMITS WITH ITEM 611, CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

OUTLET EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES INTO THE ROADWAY DITCH USING ITEM 611, TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION IS ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. INTERCEPT LATERAL FIELD TILES WHICH CROSS THE ROADWAY WITH ITEM 611, TYPE E CONDUIT, AND CARRY IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS IS DETERMINED BY THE ENGINEER AND PAYMENT MADE ON FINAL MEASUREMENTS.

PROVIDE EROSION CONTROL PADS AT THE OUTLET END OF ALL FARM DRAINS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE.

PAYMENT FOR THE EROSION CONTROL PADS AND ANY NECESSARY BENDS OR BRANCHES IS INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

611 \_\_\_\_" CONDUIT, TYPE B \_\_\_\_ FT.  
611 \_\_\_\_" CONDUIT, TYPE E \_\_\_\_ FT.  
611 \_\_\_\_" CONDUIT, TYPE F \_\_\_\_ FT.  
601 ROCK CHANNEL PROTECTION TYPE C WITH FILTER \_\_\_\_ CU. YD.

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS 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 ARE MAINTAINED BY THE DEPARTMENT.

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.

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT, AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

SEEDING AND MULCHING

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

659, SOIL ANALYSIS TEST \_\_\_\_ EACH  
659, TOPSOIL \_\_\_\_ CU. YD.  
659, SEEDING AND MULCHING \_\_\_\_ SQ. YD.  
659, REPAIR SEEDING AND MULCHING \_\_\_\_ SQ. YD.  
659, INTER-SEEDING \_\_\_\_ SQ. YD.  
659, COMMERCIAL FERTILIZER \_\_\_\_ TON  
659, LIME \_\_\_\_ ACRES  
659, WATER \_\_\_\_ M. GAL.  
659, MOWING \_\_\_\_ M. SQ.FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE) (DOUBLE).

DESIGN AGENCY



DESIGNER

ADB

REVIEWER

XXX MM-DD-YY

PROJECT ID

114748

SHEET

P.3

TOTAL

0



ITEM 614, MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 30 CONSECUTIVE CALENDAR DAYS PER LOCATION, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON THIS SHEET. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

THE WIL-127-12.43 AND WIL-127-15.09 CLOSURES SHALL NOT BE CONCURRENT.

WIL-127-12.43 CLOSURE SIGNED DETOUR ROUTE

THE SIGNED DETOUR ROUTE FOR THIS CLOSURE SHALL BE THE FOLLOWING:

NORTHBOUND US 127:  
SR 15 (WEST) TO US 20A (EAST) TO US 127

SOUTHBOUND US 127:  
US 20A (WEST) TO SR 15 (EAST) TO US 127

WIL-127-15.09 CLOSURE SIGNED DETOUR ROUTE

THE SIGNED DETOUR ROUTE FOR THIS CLOSURE SHALL BE THE FOLLOWING:

NORTHBOUND US 127:  
US 20A (WEST) TO SR 15 (WEST) TO US 20 (EAST) TO US 127

SOUTHBOUND US 127:  
US 20 (WEST) TO SR 15 (EAST) TO US 20A (EAST) TO US 127

THE DEPARTMENT WILL ERECT, MAINTAIN, AND SUBSEQUENTLY REMOVE THE DETOUR SIGNS FOR THE DETOURS LISTED ABOVE.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED SPECIAL EVENTS:

US 127 YARD SALE      8/6/26-8/9/26

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE  
ITEM      DURATION      SIGN DISPLAYED  
                 OF CLOSURE      TO PUBLIC

RAMP &      >=2 WEEKS      14 CALENDAR DAYS  
                 PRIOR TO CLOSURE

ROAD      > 12 HOURS      7 CALENDAR DAYS  
                 & < 2 WEEKS      PRIOR TO CLOSURE

CLOSURES      <= 12 HOURS      2 BUSINESS DAYS  
                 PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

ITEM 614, MAINTAINING TRAFFIC (ROAD CLOSED SIGN)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

(LIST LOCATIONS, EXAMPLE - LOYAL ROAD JUST WEST OF SR 1000 INTERSECTION.)

ITEM 614, MAINTAINING TRAFFIC (SIGNS AND BARRICADES)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS FOLLOWS:

(LIST THE TYPE AND LOCATIONS.)

ITEM 614, MAINTAINING TRAFFIC (CLOSING PARAGRAPH FOR NOTE)

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DESIGNATED LOCAL DETOUR ROUTE

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON SHEET NO. \_\_\_\_\_. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 301, ASPHALT CONCRETE BASE, PG 64-22      \_\_\_\_ CU. YD.  
ITEM 304, AGGREGATE BASE      \_\_\_\_ CU. YD.  
ITEM 448, ASPHALT CONCRETE SURFACE COURSE,  
                 TYPE 1, PG 64-22      \_\_\_\_ CU. YD.  
ITEM 407, TACK COAT      \_\_\_\_ GAL.  
ITEM 408, PRIME COAT      \_\_\_\_ GAL.  
ITEM 614, ASPHALT CONCRETE FOR  
                 MAINTAINING TRAFFIC      \_\_\_\_ CU. YD.  
ITEM 616, WATER      \_\_\_\_ M. GAL.  
ITEM 617, COMPACTED AGGREGATE, TYPE A      \_\_\_\_ CU. YD.  
ITEM 617, WATER      \_\_\_\_ M. GAL.  
ITEM 642, CENTER LINE      \_\_\_\_ MILE

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE  
ITEM      DURATION OF      NOTICE DUE TO  
                 CLOSURE      PERMITS & PIO

RAMP &      >= 2 WEEKS      21 CALENDAR DAYS  
ROAD CLOSURES      PRIOR TO CLOSURE

> 12 HOURS      14 CALENDAR DAYS  
& < 2 WEEKS      PRIOR TO CLOSURE

<= 12 HOURS      4 CALENDAR DAYS  
PRIOR TO CLOSURE

LANE      >= 2 WEEKS      14 CALENDAR DAYS  
CLOSURES &      PRIOR TO CLOSURE  
RESTRICTIONS  
                 < 2 WEEKS      5 BUSINESS DAYS  
                 PRIOR TO CLOSURE

START OF      N/A      14 CALENDAR DAYS  
CONSTRUCTION &      PRIOR TO  
TRAFFIC PATTERN      IMPLEMENTATION  
CHANGES

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

DESIGN AGENCY



DESIGNER

ADB

REVIEWER

XXX MM-DD-YY

PROJECT ID

114748

SHEET

P.4

TOTAL

0





DESIGN AGENCY
DESIGNER
ADB
REVIEWER
XXX MM-DD-YY
PROJECT ID
114748
SHEET
P.5
TOTAL
0

GENERAL SUMMARY



**WIL-127-12.43/15.09**

MODEL: Sheet PAPER:SIZE: 34x22 (in.) DATE: 1/17/2025 TIME: 4:27:22 PM USER: abarnes  
pw:\ahiddo-pw-bentley.com\ahiddo-pw-02\Documents\01 Active Projects\District 02\Williams\114748\400-Engineering\Roadway\Sheets\114748\_GS001.dgn

DESIGN AGENCY



DESIGNER

ADB

REVIEWER

XXX MM-DD-YY

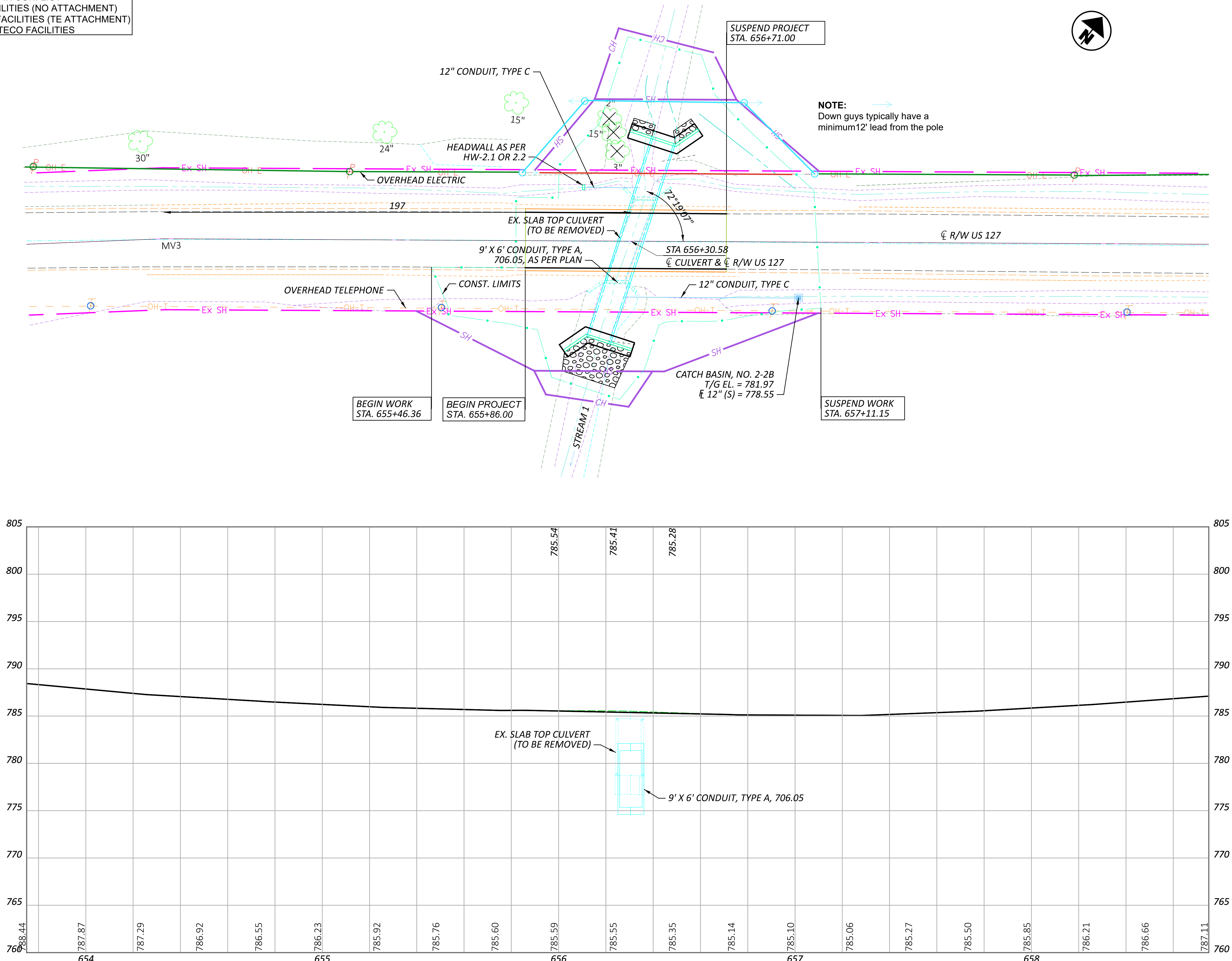
PROJECT ID  
114748

SHEET	TOTAL
P.6	0

## SUMMARY



GREEN = TECO FACILITIES NO CONFLICT  
RED = TECO FACILITIES IN CONFLICT  
BLUE = NON TECO FACILITIES (NO ATTACHMENT)  
ORANGE = NON TECO FACILITIES (TE ATTACHMENT)  
LT BLUE = PROPOSED TECO FACILITIES






The graph illustrates the convergence of a function value over iterations. The X-axis represents the iteration number, and the Y-axis represents the function value. The data points are as follows:


Iteration	Function Value
16	793.46
17	790.63
18	788.56
19	786.99
20	786.11

A red rectangle highlights the region around iteration 18.5, where the value of the function is approximately 787.39.



**NOTE:**  Down guys typically have a minimum 12' lead from the pole

HORIZONTAL  
SCALE IN FEET



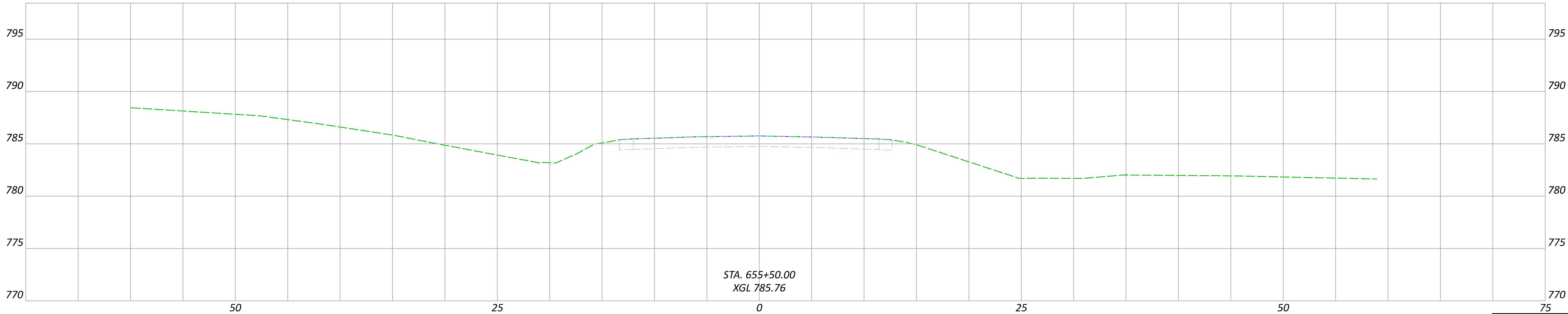
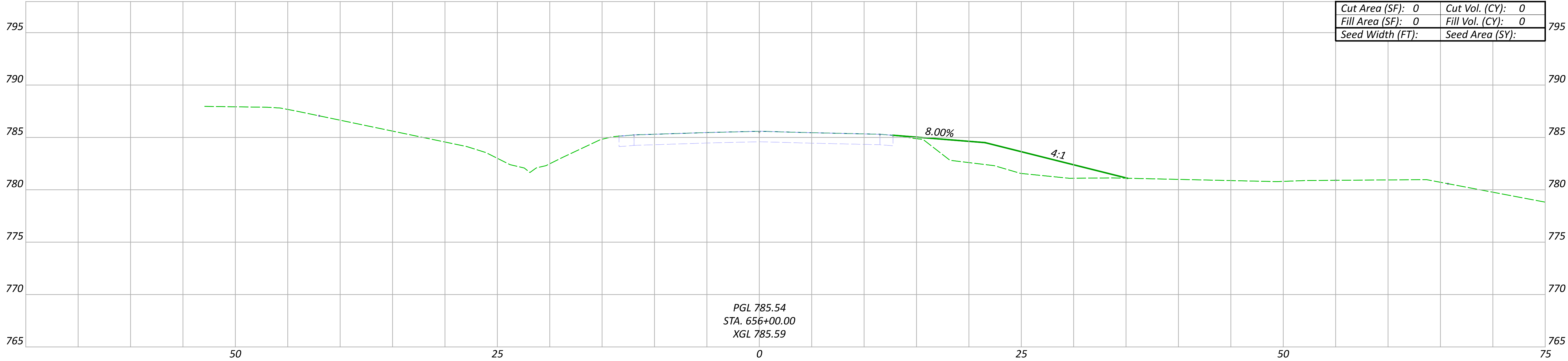
0 20 40

10



DESIGNER  
ADB  
REVIEWER  
XXX MM-DD-YY  
PROJECT ID  
114748  
SHEET TOTAL  
P.8 0





Sheet Totals		
Seeding	Cut	Fill

SHEET	TOTAL
P.9	0

DESIGN AGENCY

DESIGNER

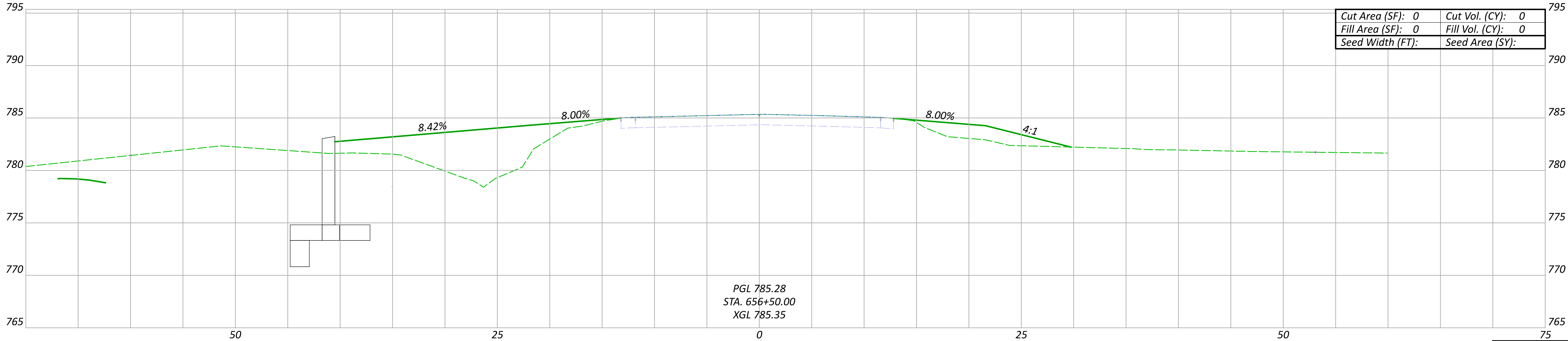
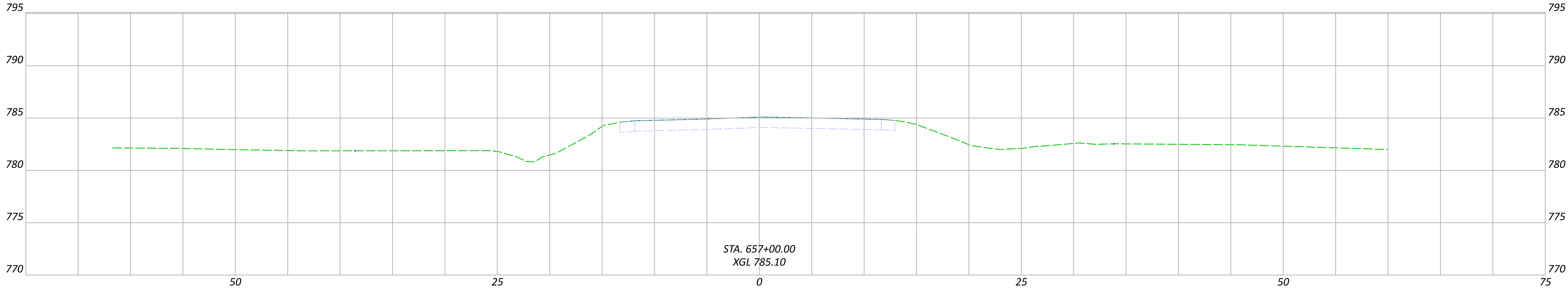
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REVIEWER

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PROJECT ID

114748



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CROSS SECTIONS  
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DESIGN AGENCY

DESIGNER

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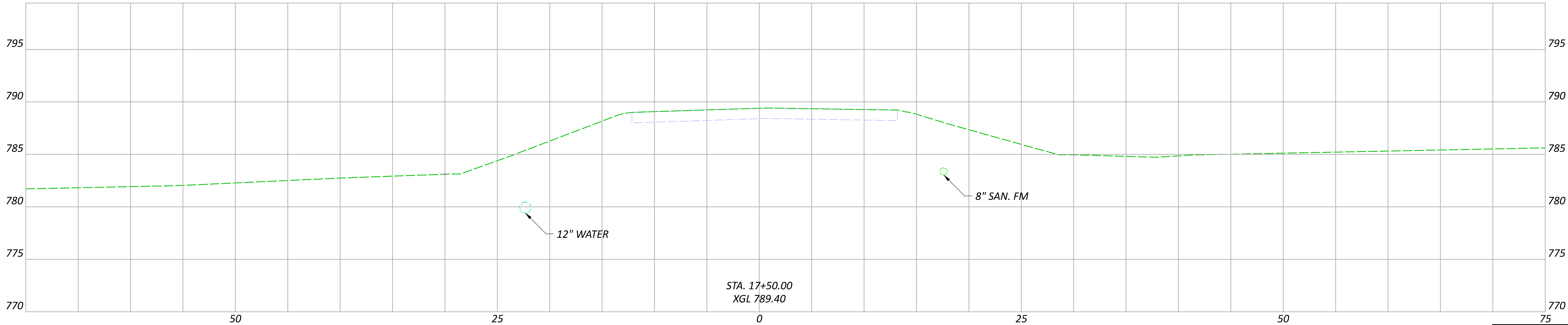
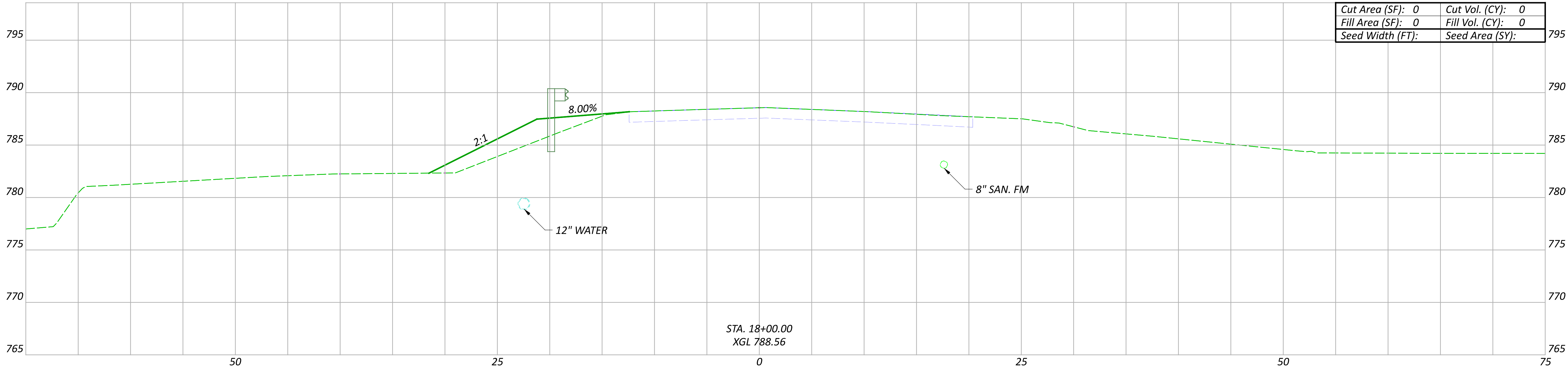
REVIEWER

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PROJECT ID

114748





Sheet Totals		
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SHEET	TOTAL
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DESIGN AGENCY



DESIGNER

ADB

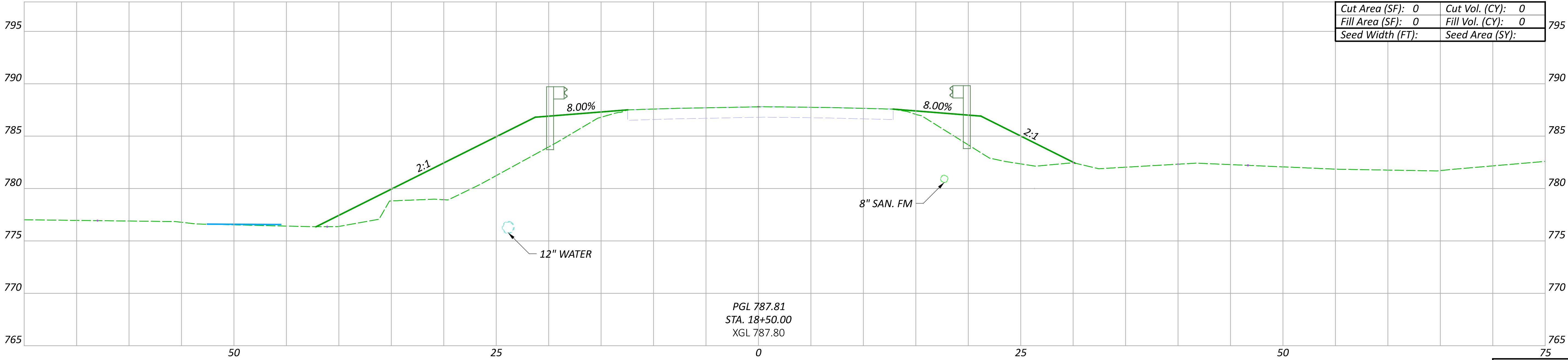
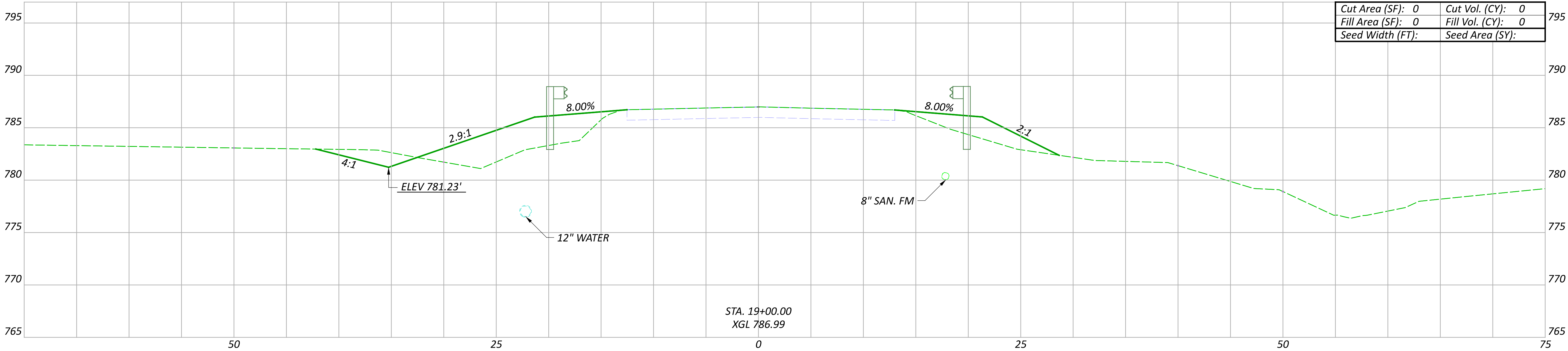
REVIEWER

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PROJECT ID

114748

CROSS SECTIONS  
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DESIGN AGENCY

DESIGNER

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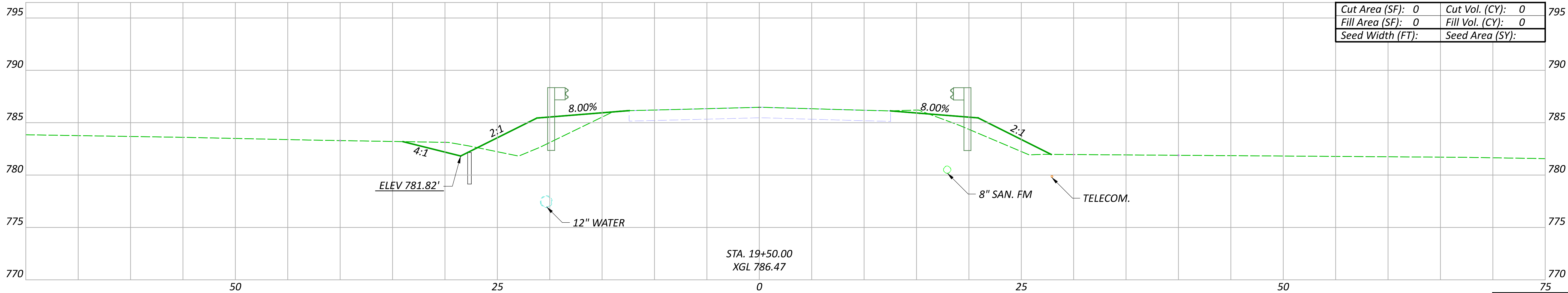
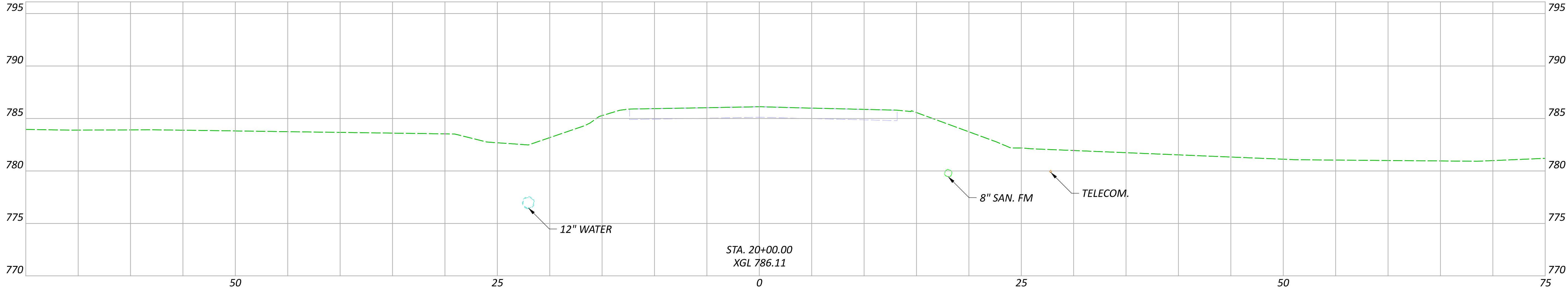
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PROJECT ID

114748





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Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY

DESIGNER

ADB

REVIEWER

XXX MM-DD-YY

PROJECT ID

114748

SHEET

P.13

TOTAL

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CROSS SECTIONS  
STA. 19+50.00 TO STA. 20+00.00

WIL-127-12.43/15.09  
PRECAST CONCRETE BOX CULVERT  
GENERAL NOTES & ESTIMATED QUANTITIES

THIS STANDARD DRAWING CONFORMS TO "LRFD BRIDGE DESIGN SPECIFICATION"  
ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION  
OFFICIALS AND THE BRIDGE DESIGN MANUAL.

THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION OF BACKFILL SOIL,  $\phi_{bf} = 30^\circ$   
TOTAL UNIT WEIGHT OF BACKFILL SOIL = 120 PCF  
INTERNAL ANGLE OF FRICTION (DRAINED), FOUNDATION SOIL,  $\phi_f = 28^\circ$   
UNDRAINED SHEAR STRENGTH (COHESIVE), FOUNDATION SOIL,  $S_{uf} = 1500$  PSF  
UNIT WEIGHT OF CONCRETE = 150 PCF  
SLOPE OF BACKFILL = 2:1 (TYPE A & B HEADWALLS)  
HEIGHT OF LIVE LOAD SURCHARGE = 2 FT (TYPE C HEADWALLS)

CONCRETE - 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)

BASED ON THE ASSUMED DESIGN DATA, THE WINGWALLS ACHIEVE FACTORED BEARING RESISTANCES THAT ARE GREATER THAN THEIR RESPECTIVE BEARING PRESSURES. IF A BACKFILL MATERIAL WITH A HIGHER INTERNAL ANGLE OF FRICTION OR A LIGHTER TOTAL UNIT WEIGHT IS USED; OR IF A FOUNDATION SOIL WITH A HIGHER DRAINED INTERNAL ANGLE OF FRICTION OR A HIGHER UNDRAINED SHEAR STRENGTH IS ENCOUNTERED; THEN THE STABILITY OF THE WINGWALLS IS SATISFACTORY.

THE CONTRACTOR SHALL FILL THE TOP EXTERIOR, SIDE INTERIOR AND EXTERIOR AND BOTTOM INTERIOR JOINT GAPS WITH MORTAR PRIOR TO APPLYING THE JOINT WRAP AND TYPE 2 WATERPROOFING.

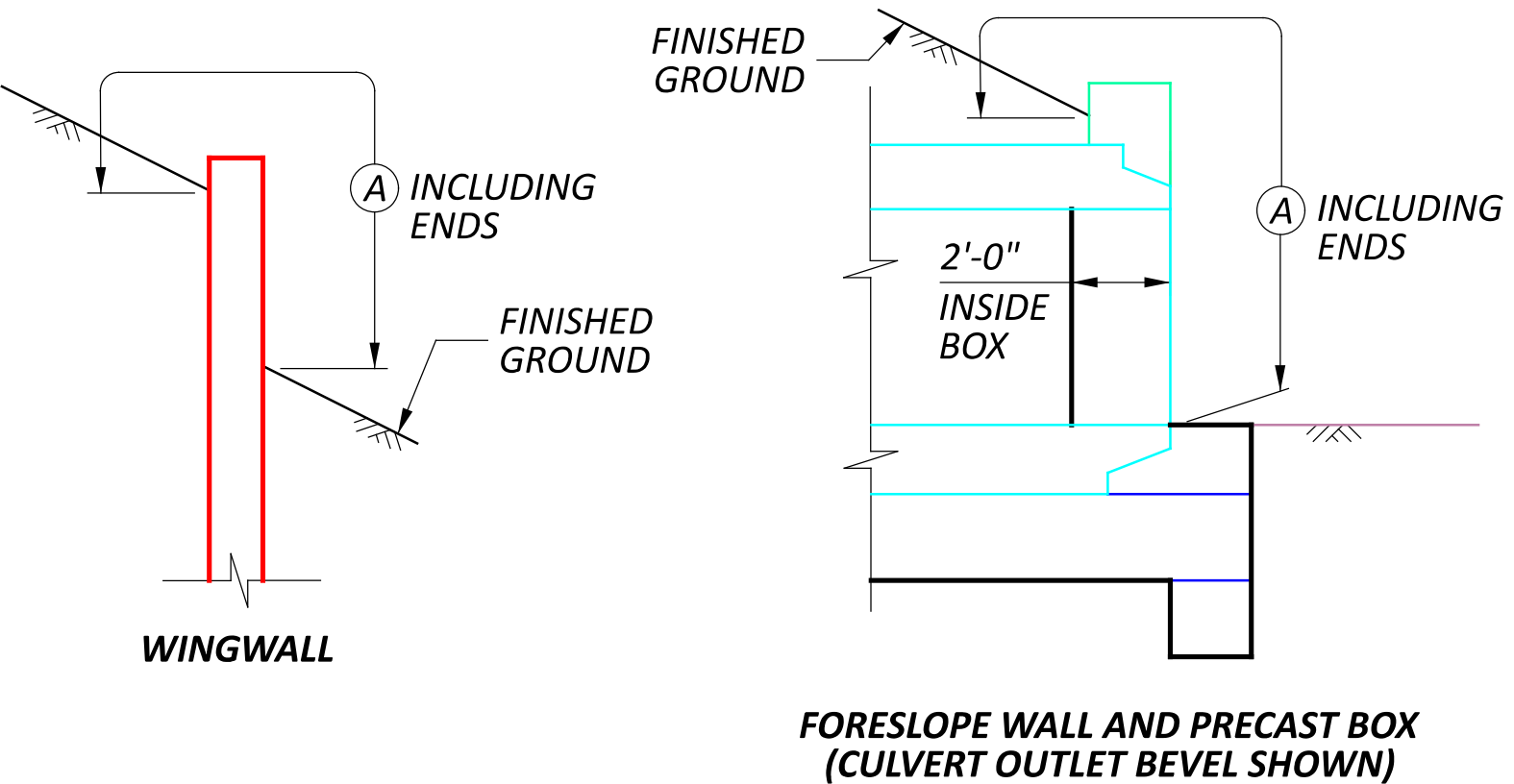
THE CONTRACTOR SHALL FILL THE TOP EXTERIOR, SIDE INTERIOR AND EXTERIOR AND BOTTOM INTERIOR JOINT GAPS WITH MORTAR PRIOR TO APPLYING THE JOINT WRAP AND TYPE 2 WATERPROOFING.

POROUS BACKFILL WITH FILTER FABRIC 1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION 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.

PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, 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.

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.



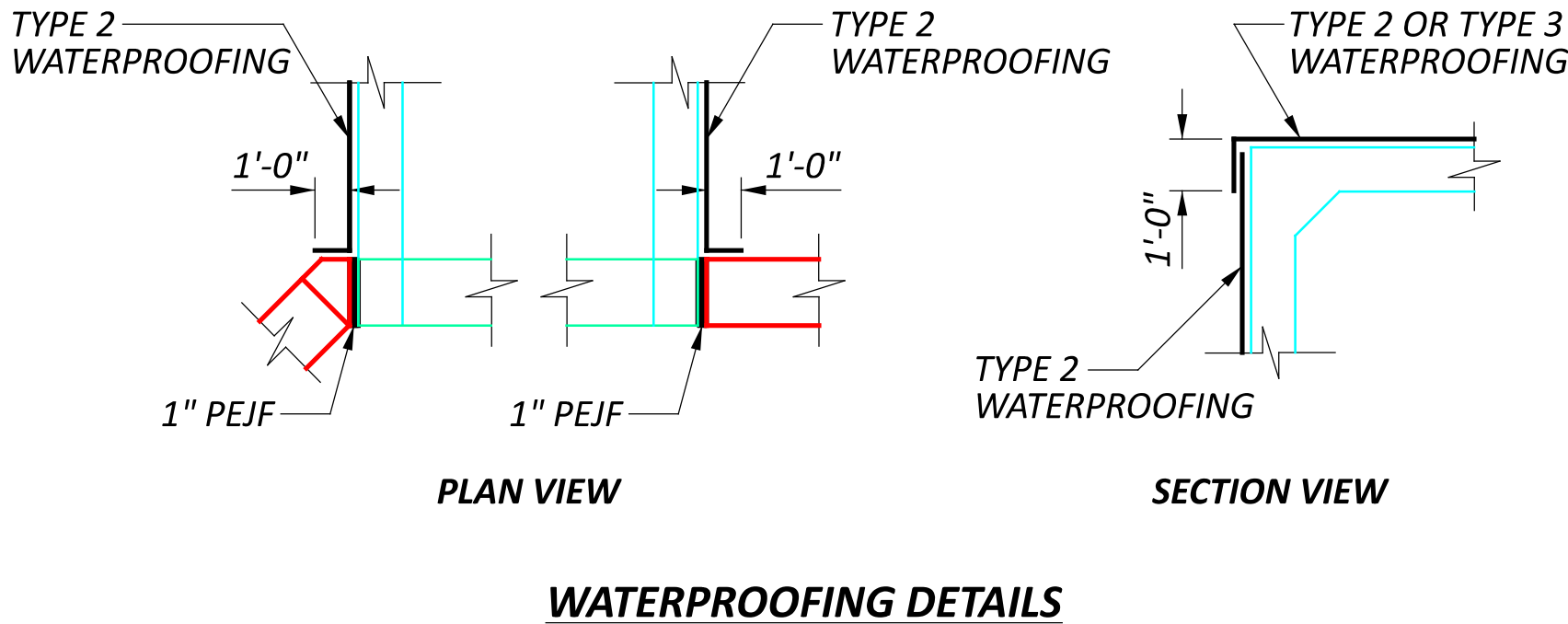
(A) - SEAL ENTIRE CONCRETE SURFACE AREA

## LIMITS OF ITEM 512-SEALING CONCRETE SURFACES DETAILS

TYPE 2 WATERPROOFING, PER CMS 512.08 AND 711.25, SHALL EXTEND VERTICALLY DOWN THE ENTIRE SIDES OF THE PRECAST CULVERT SECTIONS FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. PAYMENT FOR THE MEMBRANE WATER-PROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

IF PAVEMENT IS NOT PLACED DIRECTLY ON TOP OF THE CULVERT, TYPE 2 WATERPROOFING, PER CMS 512.08 AND 711.25 SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRE-CAST 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. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

IF PAVEMENT IS TO BE USED DIRECTLY ON TOP OF THE CULVERT, TYPE 3 WATERPROOFING, PER CMS 512.08 AND 711.29 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. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 3 WATERPROOFING.



ALL LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTING, CUTOFF WALL, WINGWALLS AND FORESLOPE WALL SHALL BE INCLUDED WITH ITEM 511 - CLASS QC1 CONCRETE, RETAINING WALL/WINGWALL NOT INCLUDING FOOTING ITEM 511 - CLASS QC1 CONCRETE, FOOTING, AND ITEM 511 - CLASS QC1 CONCRETE HEADWALL. PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCEMENT.

[illegible]

**NOTE: TOTALS CARRIED TO GENERAL SUMMARY SHEET**



DESIGNER

ADB

REVIEWER

PROJECT ID

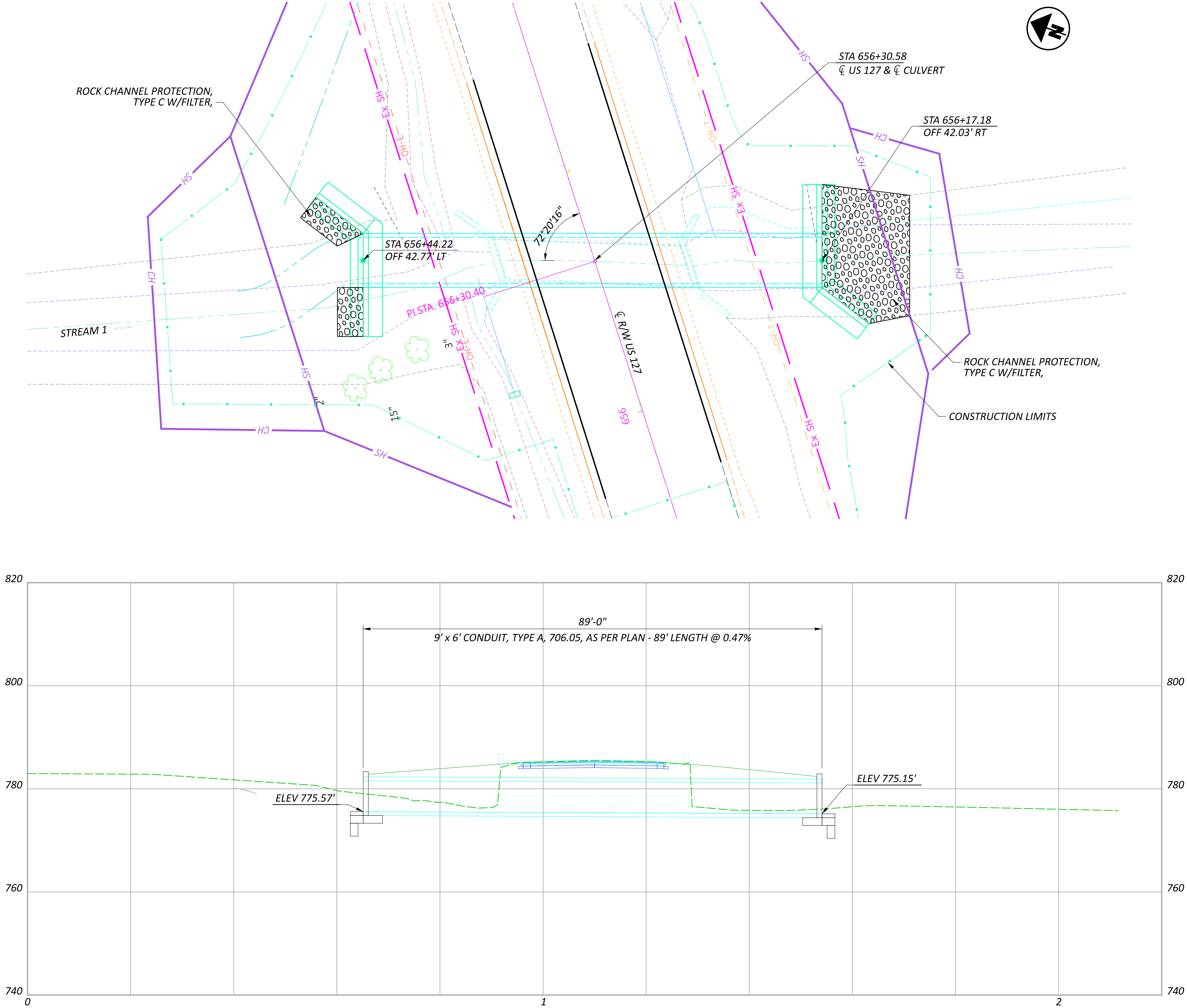
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SHEET

TOTAL

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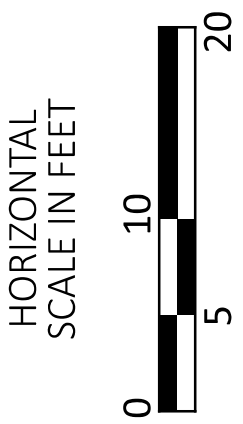


ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION

HYDRAULIC DATA			
DRAINAGE AREA = 544 ACRES			
Q (4%) = 159 CFS	V (4%) = 9.64 FT/S	HW (4%) = 779.19 FT	
Q (1%) = 218 CFS	V (1%) = 10.59 FT/S	HW (1%) = 780.02 FT	
ORDINARY HIGH WATER MARK: 779.15 FT			
DESIGN SERVICE LIFE: 75 YEARS			
ABRASION LEVEL: 1			
pH: 7.7			

EXISTING STRUCTURE	
TYPE:	CONCRETE SLAB TOP CULVERT
SIZE:	9' SPAN X 5' RISE
SKEW:	20° 00' 00" L.F.
ALIGNMENT:	TANGENT
DATE BUILT:	1932
CONDITION:	FAIR
CFN:	1806949

PROPOSED STRUCTURE	
TYPE:	9' SPAN X 6' RISE REINFORCED CONCRETE BOX CULVERT, 706.05, AS PER PLAN, 89' LENGTH
SKEW:	17° 40' 52.7" L.F.
ALIGNMENT:	TANGENT
CFN:	TO BE DETERMINED



CULVERT DETAILS  
WIL-127-12.43

DESIGN AGENCY

DESIGNER  
XXX

REVIEWER  
XXX MM-DD-YY

PROJECT ID  
114748

SUBSET  
0

TOTAL  
0

SHEET  
P.0

TOTAL  
0

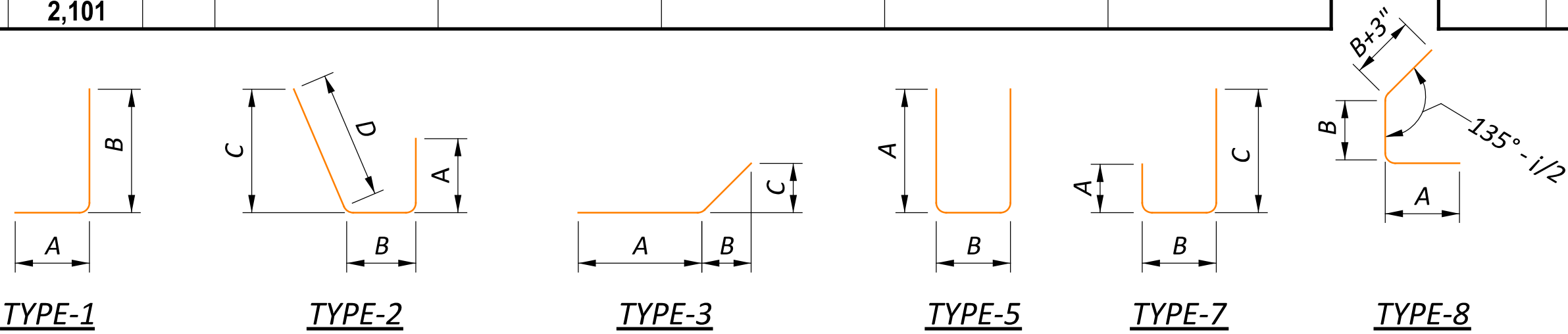






TYPE B HEADWALL REINFORCING SCHEDULE									
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS				INC.
					A	B	C	D	
WINGWALLS									
	1	4'- 10"							
X501	SERIES	TO	62	STR.					0'- 5 1/4"
	of 9	8'- 4"							
X502	2	8'- 4"	18	STR.					
	1	6'- 1"							
X503	SERIES	TO	61	STR.					0'- 3 7/8"
	of 8	8'- 4"							
Y501	32	4'- 9"	159	1	0'- 10"	4'- 1"			
	1	4'- 10"							
WW501	SERIES	TO	62	STR.					0'- 5 1/4"
	of 9	8'- 4"							
WW502	8	11'- 2"	94	STR.					
	2	3'- 9"							
WW503	SERIES	TO	47	STR.					3'- 8 1/2"
	of 3	11'- 2"							
WW504	7	3'- 8"	27	2	0'- 7"	0'- 3 "	2'- 4 "	2'- 11 "	
WW505	2	14'- 1"	30	3	2'- 5"	3'- 4"	11'- 2"		
WW506	1	1'- 3"	2	8	0'- 7"	0'- 3 "			
	1	6'- 1"							
WW507	SERIES	TO	61	STR.					0'- 3 7/8"
	of 8	8'- 4"							
WW508	8	9'- 2"	77	STR.					
	2	4'- 7"							
WW509	SERIES	TO	29	STR.					4'- 7 "
	of 2	9'- 2"							
WW510	2	11'- 10"	25	3	2'- 5"	2'- 1"	9'- 2"		
FOOTING & CUTOFF WALL									
V501	26	5'- 11"	161	STR.					
W501	22	5'- 11"	136	STR.					
Z501	24	8'- 2"	205	5	3'- 7"	1'- 2"			
F501	6	5'- 4"	34	STR.					
F502	8	4'- 2"	35	STR.					
F503	8	4'- 4"	37	1	2'- 6"	1'- 11"			
F504	2	10'- 2"	22	STR.					
	2	21'- 8"			18'- 8 1/4"				
F601	SERIES	TO	348	3	TO	1'- 9 1/2"	2'- 4 "		0'- 8 3/4"
	of 5	24'- 7"			21'- 7 1/4"				
	2	10'- 2"							
F602	SERIES	TO	175	STR.					0'- 8 3/4"
	of 5	13'- 1"							
	1	21'- 8"			18'- 8 1/4"				
F603	SERIES	TO	66	3	TO	1'- 9 1/2"	2'- 4 "		0'- 7 "
	2	22'- 3"			19'- 3 1/4"				
	1	10'- 2"							
F604	SERIES	TO	32	STR.					0'- 7 "
	2	10'- 9"							
FORESLOPE WALL									
FS501	4	10'- 2"	43	STR.					
FS502	12	1'- 9"	22	5	0'- 8"	0'- 8"			
FS503	12	2'- 5"	31	7	0'- 8"	0'- 8"	1'- 4"		
		TOTAL	2,101						

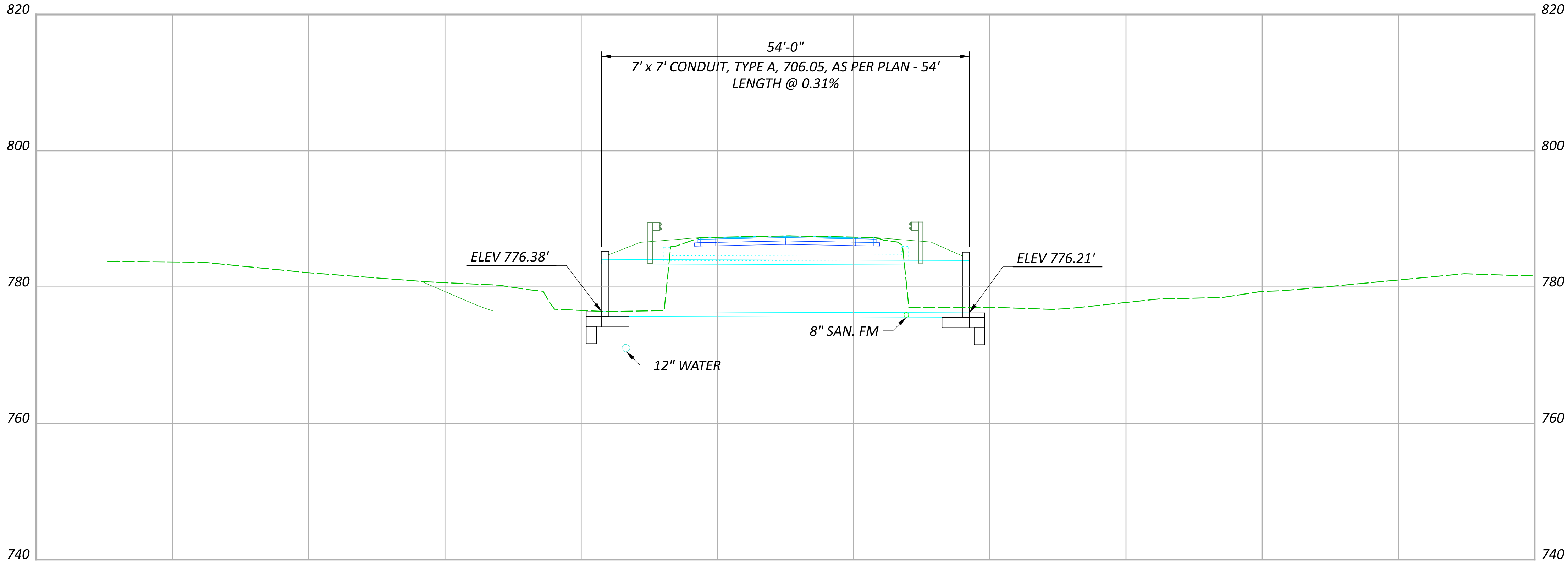
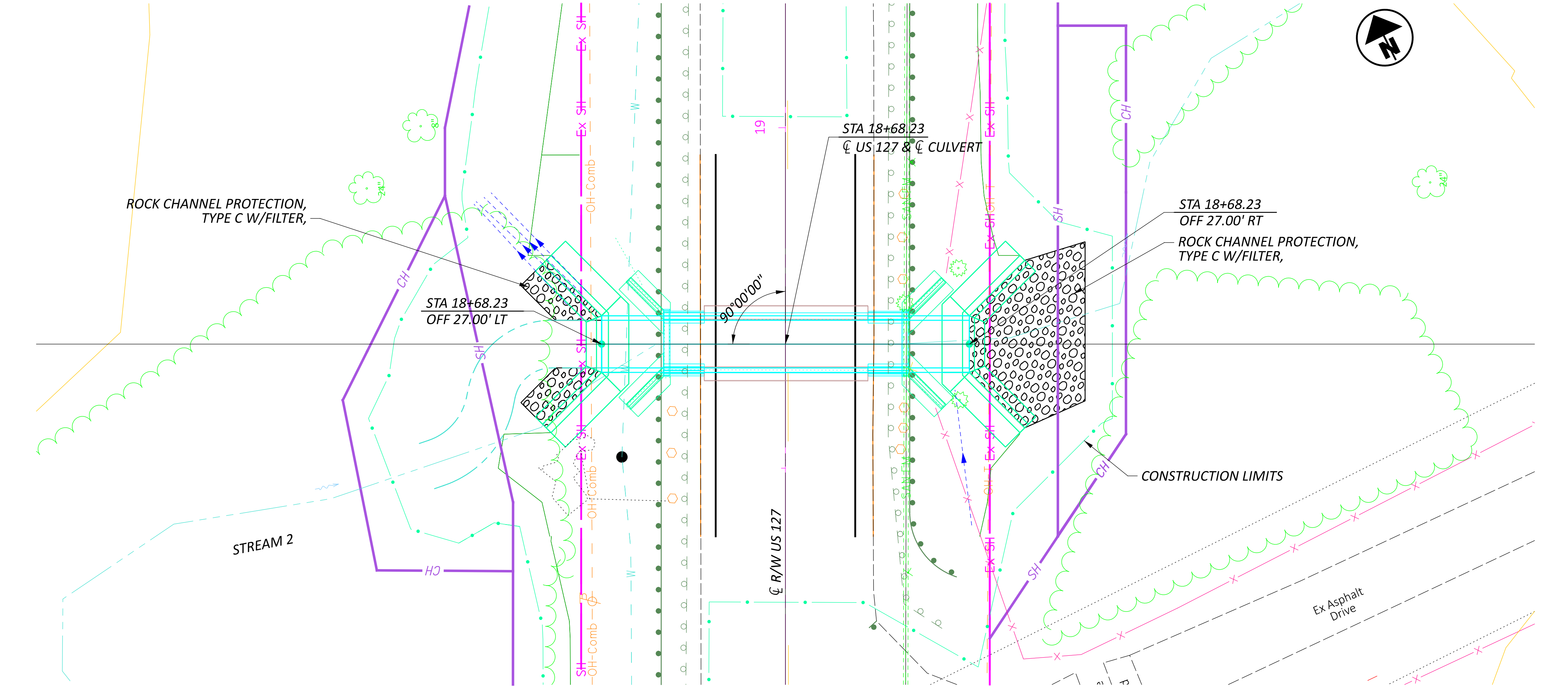
TOTAL CARRIED TO SHEET XX: 4,202 LBS.



TYPE B HEADWALL REINFORCING SCHEDULE									
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS				INC.
					A	B	C	D	
WINGWALLS									
	1	4'- 10"							
X501	SERIES	TO	62	STR.					0'- 5 1/4"
	of 9	8'- 4"							
X502	2	8'- 4"	18	STR.					
	1	6'- 1"							
X503	SERIES	TO	61	STR.					0'- 3 7/8"
	of 8	8'- 4"							
Y501	32	4'- 9"	159	1	0'- 10"	4'- 1"			
	1	4'- 10"							
WW501	SERIES	TO	62	STR.					0'- 5 1/4"
	of 9	8'- 4"							
WW502	8	11'- 2"	94	STR.					
	2	3'- 9"							
WW503	SERIES	TO	47	STR.					3'- 8 1/2"
	of 3	11'- 2"							
WW504	7	3'- 8"	27	2	0'- 7"	0'- 3 "	2'- 4 "	2'- 11 "	
WW505	2	14'- 1"	30	3	2'- 5"	3'- 4"	11'- 2"		
WW506	1	1'- 3"	2	8	0'- 7"	0'- 3 "			
	1	6'- 1"							
WW507	SERIES	TO	61	STR.					0'- 3 7/8"
	of 8	8'- 4"							
WW508	8	9'- 2"	77	STR.					
	2	4'- 7"							
WW509	SERIES	TO	29	STR.					4'- 7 "
	of 2	9'- 2"							
WW510	2	11'- 10"	25	3	2'- 5"	2'- 1"	9'- 2"		
FOOTING & CUTOFF WALL									
V501	26	5'- 11"	161	STR.					
W501	22	5'- 11"	136	STR.					
Z501	24	8'- 2"	205	5	3'- 7"	1'- 2"			
F501	6	5'- 4"	34	STR.					
F502	8	4'- 2"	35	STR.					
F503	8	4'- 4"	37	1	2'- 6"	1'- 11"			
F504	2	10'- 2"	22	STR.					
	2	21'- 8"			18'- 8 1/4"				
F601	SERIES	TO	348	3	TO	1'- 9 1/2"	2'- 4 "		0'- 8 3/4"
	of 5	24'- 7"			21'- 7 1/4"				
	2	10'- 2"							
F602	SERIES	TO	175	STR.					0'- 8 3/4"
	of 5	13'- 1"							
	1	21'- 8"			18'- 8 1/4"				
F603	SERIES	TO	66	3	TO	1'- 9 1/2"	2'- 4 "		0'- 7 "
	2	22'- 3"			19'- 3 1/4"				
	1	10'- 2"							
F604	SERIES	TO	32	STR.					0'- 7 "
	2	10'- 9"							
FORESLOPE WALL									
FS501	4	10'- 2"	43	STR.					
FS502	12	1'- 9"	22	5	0'- 8"	0'- 8"			
FS503	12	2'- 5"	31	7	0'- 8"	0'- 8"	1'- 4"		
		TOTAL	2,101						







ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION

HYDRAULIC DATA		
DRAINAGE AREA = 711 ACRES		
Q (10%) = 169 CFS	V (10%) = 9.19 FT/S	HW (10%) = 780.97 FT
Q (1%) = 310 CFS	V (1%) = 11.26 FT/S	HW (1%) = 783.20 FT
ORDINARY HIGH WATER MARK: 781.62 FT		
DESIGN SERVICE LIFE: 75 YEARS		
ABRASION LEVEL: 2		
pH: 7.7		

EXISTING STRUCTURE	
TYPE:	CONCRETE SLAB ON STONE MASONRY ABUTMENTS WITH CONCRETE EXTENSIONS AND WINGWALLS
SIZE:	7' SPAN X 7' RISE X 36' LENGTH
SKEW:	0°
ALIGNMENT:	TANGENT
DATE BUILT:	STONE MASONRY ABUTMENTS: PRE 1907 CONCRETE SLAB & EXTENSIONS: 1932
CONDITION:	FAIR (GA = 5)
CFN:	1861325

PROPOSED STRUCTURE	
TYPE:	7' SPAN X 7' RISE REINFORCED CONCRETE BOX CULVERT, 706.05, AS PER PLAN, 54' LENGTH
SKEW:	0°
ALIGNMENT:	TANGENT
CFN:	TO BE DETERMINED



CULVERT DETAILS  
WIL-127-15.09

DESIGN AGENCY



DESIGNER

XXX

REVIEWER

XXX MM-DD-YY

PROJECT ID

114748

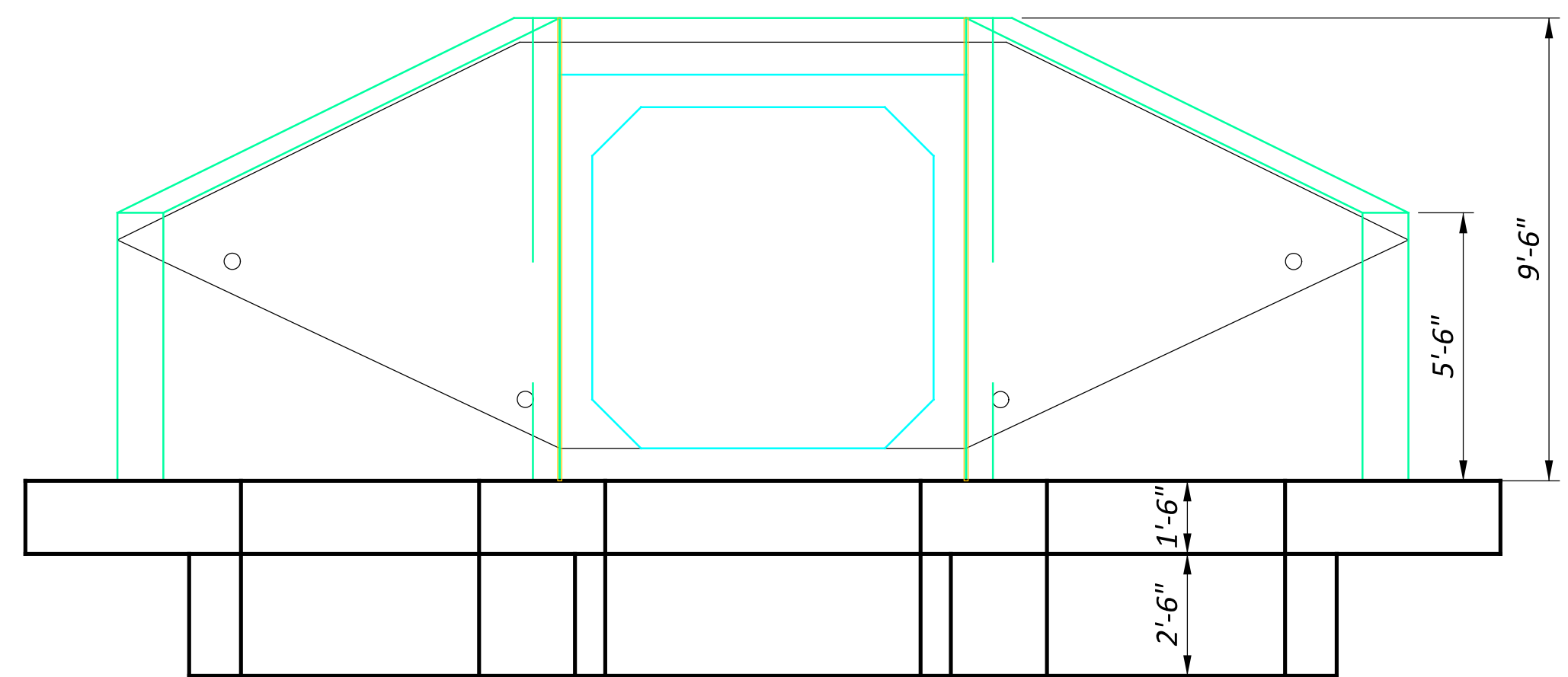
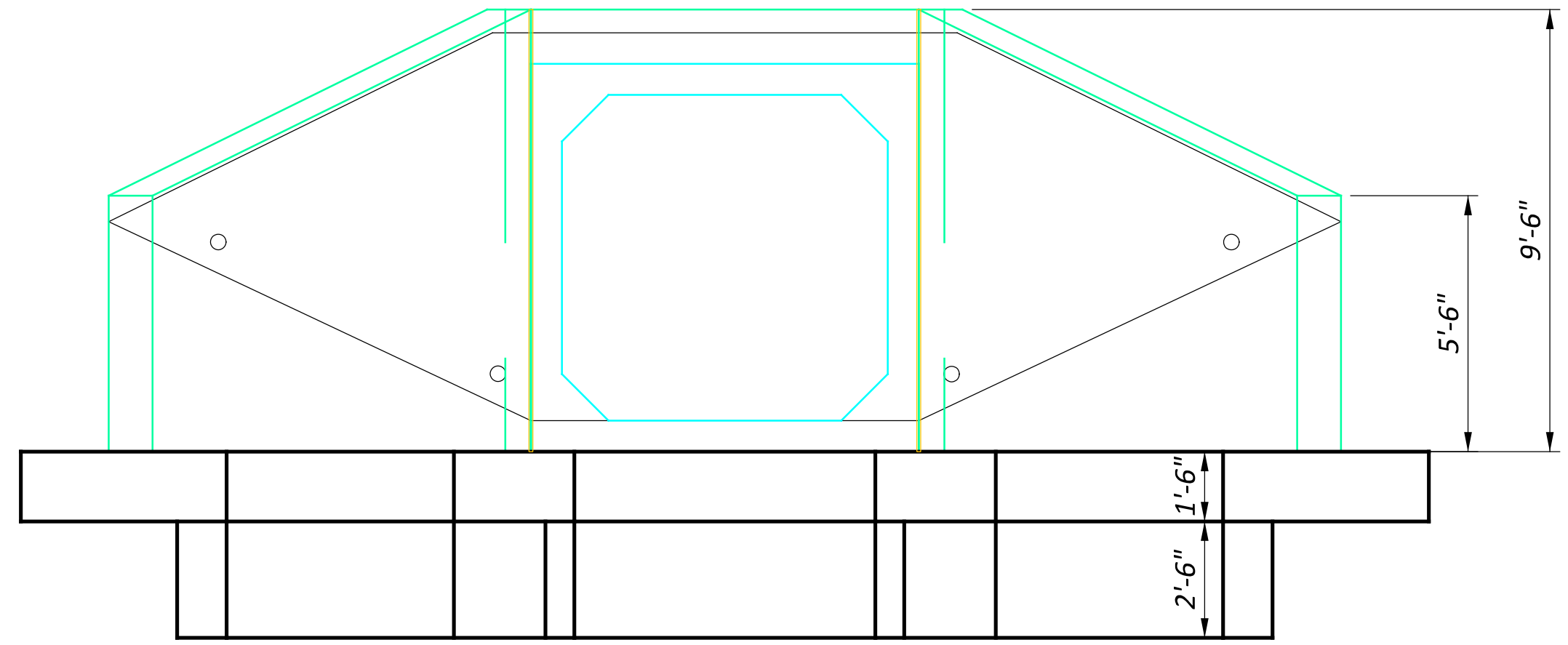
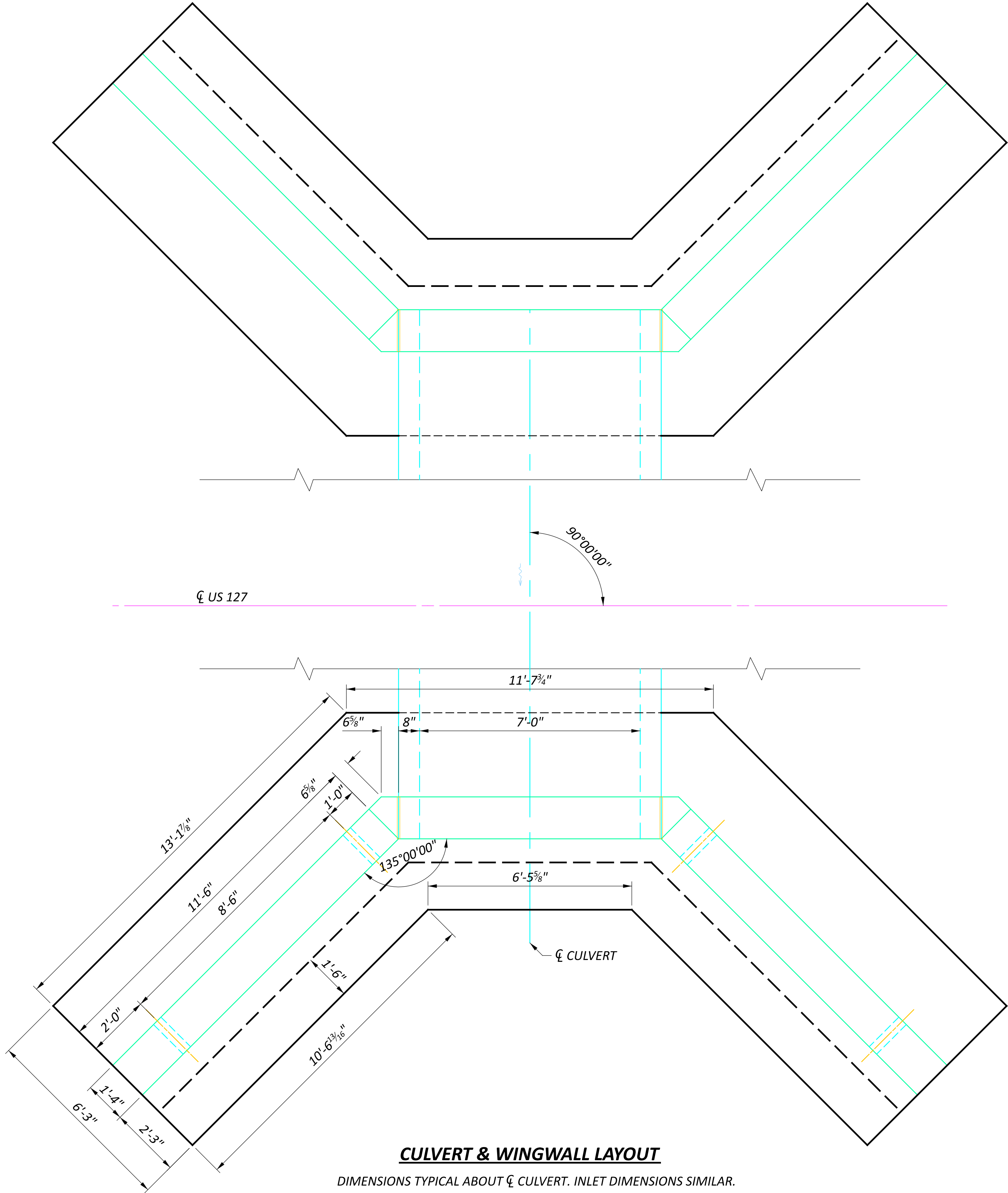
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SHEET TOTAL

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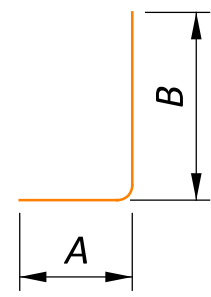




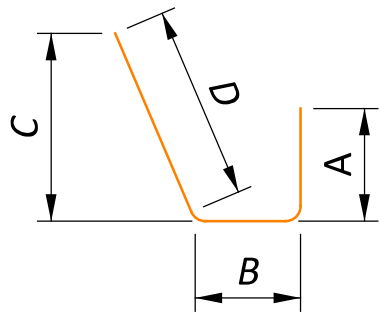


TYPE A HEADWALL REINFORCING SCHEDULE									
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS				INC.
					A	B	C	D	
WINGWALLS									
	2	5'- 4"							
X501	SERIES	TO	138	STR.					0'- 6 "
	of 9	9'- 4"							
X502	4	9'- 4"	39	STR.					
Y501	36	5'- 9"	216	1	0'- 10"	5'- 1"			
	2	5'- 4"							
WW501	SERIES	TO	138	STR.					0'- 6 "
	of 9	9'- 4"							
WW502	16	11'- 2"	187	STR.					
	4	3'- 9"							
WW503	SERIES	TO	94	STR.					3'- 8 1/2"
	of 3	11'- 2"							
WW504	14	4'- 1"	60	2	0'- 11"	0'- 3 3/4"	2'- 1 1/2"	2'- 11 3/4"	
WW505	4	14'- 3"	60	3	2'- 5"	3'- 10"	11'- 2"		
WW506	2	1'- 8"	4	4	0'- 11"	0'- 3 3/4"			
FOOTING & CUTOFF WALL									
V501	27	5'- 11"	167	STR.					
W501	22	5'- 11"	136	STR.					
Z501	26	8'- 2"	222	5	3'- 7"	1'- 2"			
F501	12	5'- 4"	67	STR.					
F502	16	4'- 2"	70	STR.					
F503	7	4'- 0"	30	1	2'- 3"	1'- 10"			
F504	2	8'- 0"	17	STR.					
	2	12'- 8"					6'- 9 1/2"		
F601	SERIES	TO	228	6	2'- 1"	2'- 1"	TO		1'- 2 3/4"
	of 5	17'- 7"					11'- 8 1/4"		
	4	10'- 5"							
F602	SERIES	TO	350	STR.					0'- 7 1/4"
	of 5	12'- 10"							
	1	12'- 8"					6'- 9 1/2"		
F603	SERIES	TO	40	6	2'- 1"	2'- 1"	TO		0'- 11 1/2"
	2	13'- 7"					7'- 9 "		
	2	10'- 5"							
F604	SERIES	TO	65	STR.					0'- 6 "
	2	10'- 11"							
FORESLOPE WALL									
FS501	4	8'- 0"	34	STR.					
FS502	9	2'- 5"	23	5	0'- 10"	1'- 0"			
FS503	9	3'- 0"	29	7	0'- 10"	1'- 0"	1'- 5"		
		TOTAL	2,414						

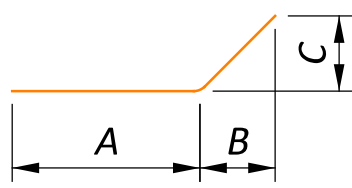
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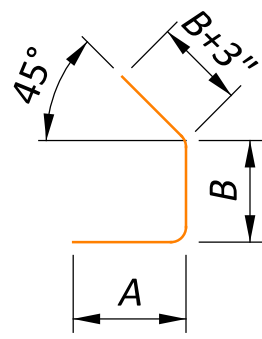
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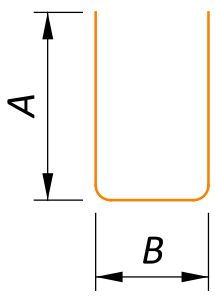
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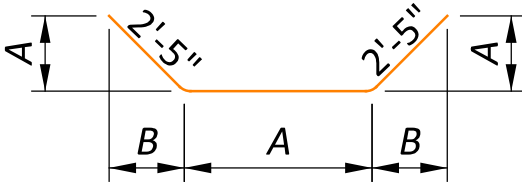
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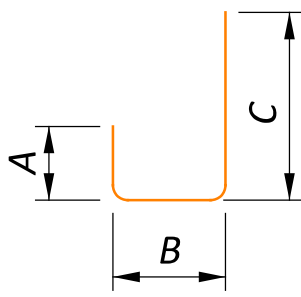
TYPE-4



TYPE-5



TYPE-6



TYPE-7

TYPE A HEADWALL REINFORCING SCHEDULE									
BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS				INC.
					A	B	C	D	
WINGWALLS									
	2	5'- 4"							
X501	SERIES	TO	138	STR.					0'- 6 "
	of 9	9'- 4"							
X502	4	9'- 4"	39	STR.					
Y501	36	5'- 9"	216	1	0'- 10"	5'- 1"			
	2	5'- 4"							
WW501	SERIES	TO	138	STR.					0'- 6 "
	of 9	9'- 4"							
WW502	16	11'- 2"	187	STR.					
	4	3'- 9"							
WW503	SERIES	TO	94	STR.					3'- 8 1/2"
	of 3	11'- 2"							
WW504	14	4'- 1"	60	2	0'- 11"	0'- 3 3/4"	2'- 1 1/2"	2'- 11 3/4"	
WW505	4	14'- 3"	60	3	2'- 5"	3'- 10"	11'- 2"		
WW506	2	1'- 8"	4	4	0'- 11"	0'- 3 3/4"			
FOOTING & CUTOFF WALL									
V501	27	5'- 11"	167	STR.					
W501	22	5'- 11"	136	STR.					
Z501	26	8'- 2"	222	5	3'- 7"	1'- 2"			
F501	12	5'- 4"	67	STR.					
F502	16	4'- 2"	70	STR.					
F503	7	4'- 0"	30	1	2'- 3"	1'- 10"			
F504	2	8'- 0"	17	STR.					
	2	12'- 8"					6'- 9 1/2"		
F601	SERIES	TO	228	6	2'- 1"	2'- 1"	TO		1'- 2 3/4"
	of 5	17'- 7"					11'- 8 1/4"		
	4	10'- 5"							
F602	SERIES	TO	350	STR.					0'- 7 1/4"
	of 5	12'- 10"							
	1	12'- 8"					6'- 9 1/2"		
F603	SERIES	TO	40	6	2'- 1"	2'- 1"	TO		0'- 11 1/2"
	2	13'- 7"					7'- 9 "		
	2	10'- 5"							
F604	SERIES	TO	65	STR.					0'- 6 "
	2	10'- 11"							
FORESLOPE WALL									
FS501	4	8'- 0"	34	STR.					
FS502	9	2'- 5"	23	5	0'- 10"	1'- 0"			
FS503	9	3'- 0"	29	7	0'- 10"	1'- 0"	1'- 5"		
		TOTAL	2,414						

