

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

**ADA-41-21.13**

**OLIVER TOWNSHIP  
ADAMS COUNTY**

**PROJECT DESCRIPTION**

REPLACEMENT OF A CONCRETE SLAB BRIDGE, OVER CURVEHILL COVE RUN, WITH A BOX CULVERT. PROJECT LENGTH IS 200 FT.

PROJECT EARTH DISTURBED AREA: 0.39 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.13 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A

**2013 SPECIFICATIONS**

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

I HEREBY APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

FEDERAL PROJECT NO.  
**E120 (899)**

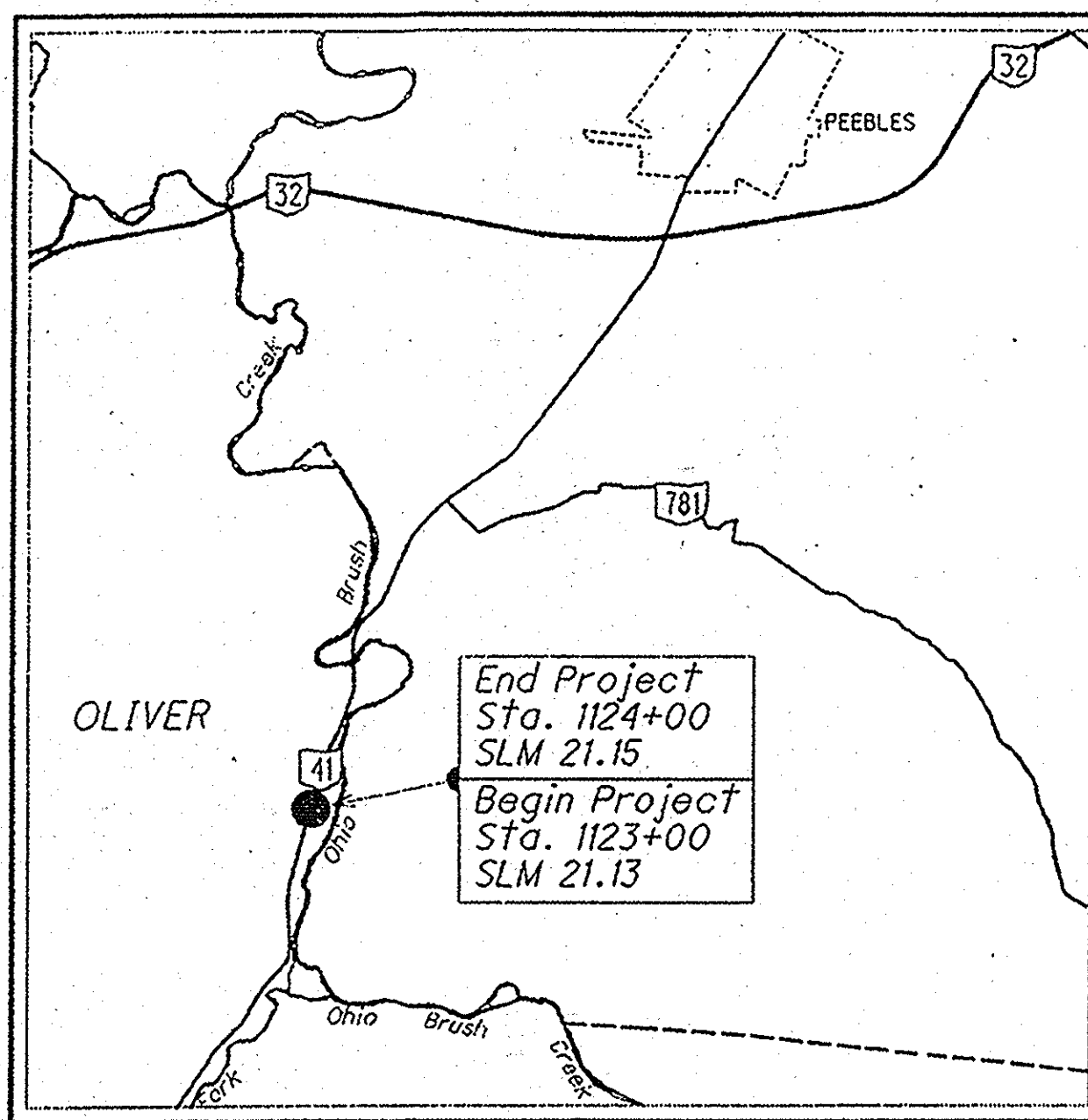
PID NO.  
**91601**

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
**NONE**

**ADA-41-21.13**

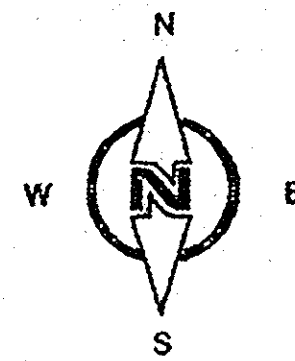
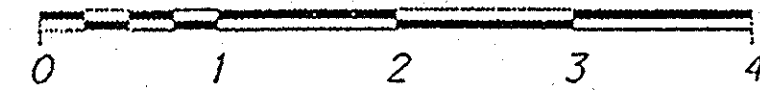
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**LOCATION MAP**

LATITUDE: 38°53'01" LONGITUDE: 83°27'25"

SCALE IN MILES



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

**DESIGN DESIGNATION**

CURRENT ADT (2016) .....	3200
DESIGN YEAR ADT (2036) .....	3300
DESIGN HOURLY VOLUME (2036) .....	300
DIRECTIONAL DISTRIBUTION .....	53 %
TRUCKS (24 HOUR B&C) .....	4.0 %
DESIGN SPEED .....	55 MPH
LEGAL SPEED .....	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION: .....	MINOR ARTERIAL
NHS PROJECT .....	N / A

**DESIGN EXCEPTIONS**

NONE

**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:  
OHIO DEPARTMENT OF TRANSPORTATION  
PLANNING AND ENGINEERING  
DISTRICT TEN --> MARIETTA, OHIO



**INDEX OF SHEETS:**

TITLE SHEET	1
TYPICAL SECTION	2
GENERAL NOTES	3-4
MAINTENANCE OF TRAFFIC	5-6
GENERAL SUMMARY	7, 7A
CALCULATIONS	8
PLAN & PROFILE (S.R. 41)	9
CROSS SECTIONS (S.R. 41)	10-15
STRUCTURES (UNDER 20')	
BRIDGE NO. ADA-41-2114	16-20
CHANNEL SECTIONS	21
REFERENCES, BENCHMARKS	22
RIGHT - OF - WAY	23-26

**STANDARD CONSTRUCTION DRAWINGS**

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	
DM-1.1	1-18-13	MT-96.11	7-17-15	TC-65.10	1-17-14	800	10-16-15
DM-4.4	7-20-12	MT-96.20	7-19-13	TC-65.11	7-18-14	832	1-17-14
BP-3.1	7-18-14	MT-96.26	7-19-13			902	12-31-12
RM-1.1	7-18-14	MT-97.10	7-18-14			961	10-17-14
RM-4.2	6-4-14	MT-101.70	1-17-14				
		MT-101.90	7-17-15				
		MT-105.10	7-19-13				

ENGINEERS SEAL:

SIGNED: *Matthew R. Mauk*  
DATE: 9/11/2015

SPECIAL PROVISIONS

WATERWAY PERMIT CONDITIONS DATED 12-29-14

APPROVED: *Valeta E. Wilson*  
DATE: 9-11-15 DISTRICT DEPUTY DIRECTOR

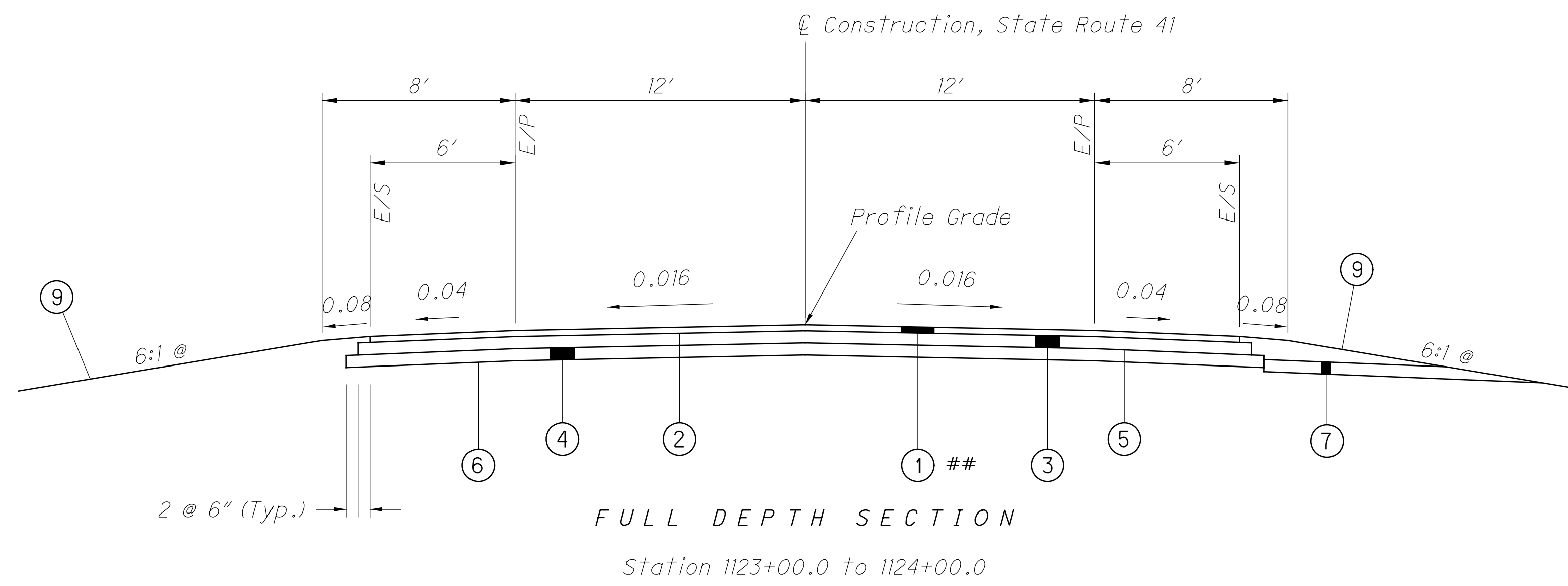
APPROVED: *Gregory W. ...*  
DATE: 10-23-15 PERMITTING DIVISION, DEPARTMENT OF TRANSPORTATION

ADA - SR 41-21.14 Brdg Replace  
160001 PID - 91601  
Dist 9 1/14/2016

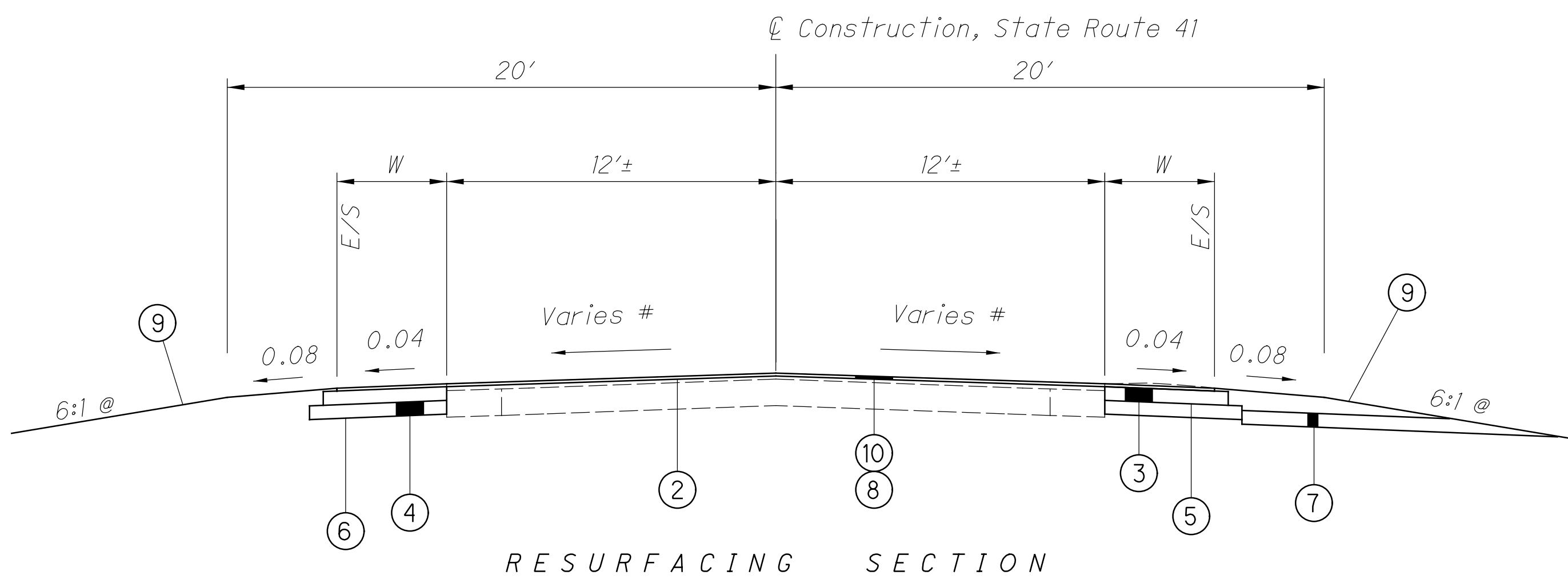
Contract Proposal Available  
@ www.contracts.dot.  
state.oh.us/home

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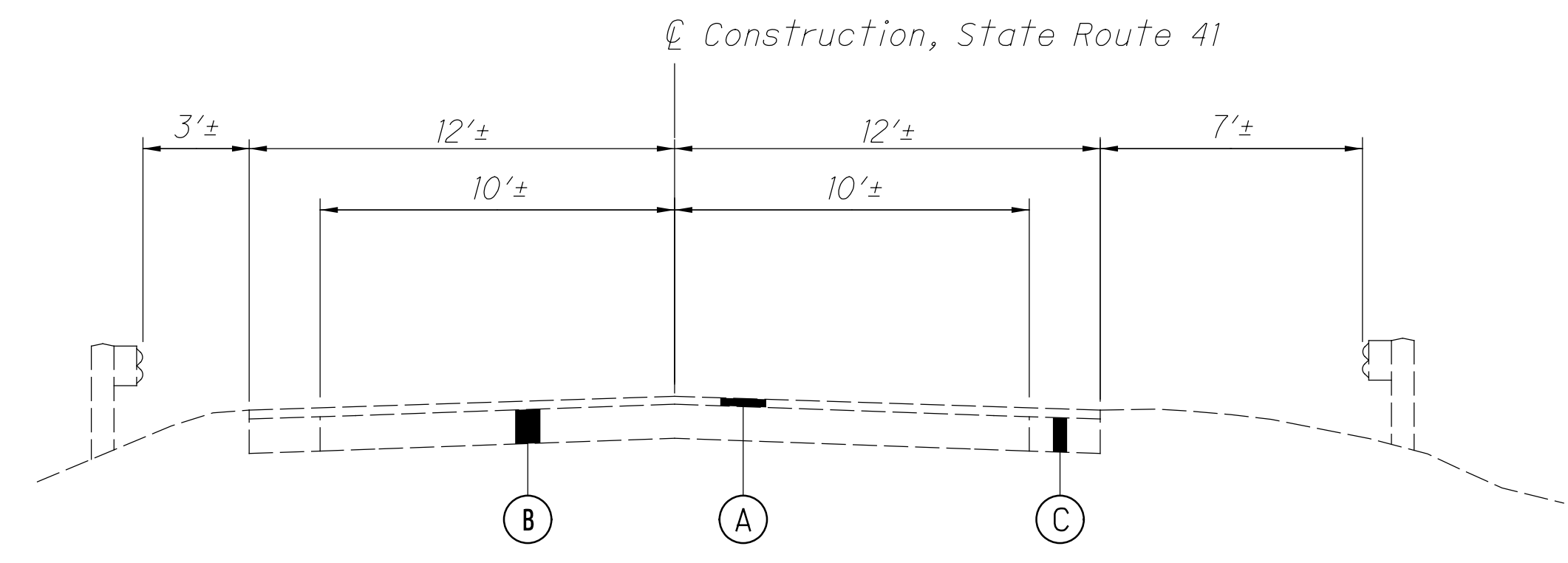
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FULL DEPTH SECTION  
Station 1123+00.0 to 1124+00.0



RESURFACING SECTION  
Station 1121+50.0 to 1123+00.0  
Station 1124+00.0 to 1125+40.0



ADJOINING SECTION

- (A) Bituminous Concrete
- (B) Macadam Base
- (C) Aggregate Base

NOTES

- # - MATCH EXISTING CROSS SLOPE
- ## - SURFACE COURSE IS TO BE PLACED IN TWO LIFTS, WITH NO LIFT EXCEEDING 1 1/2 INCHES.
- @ - SEE CROSS SECTIONS
- W - VARIES AS FOLLOWS : Sta. 1121+50 - 1123+00 -> 0' to 6'
- Sta. 1124+00 - 1125+40 -> 6' to 0'

PROPOSED LEGEND

- (1) ITEM 441 - 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 ##
- (2) ITEM 407 - TACK COAT (Applied @ 0.075 Gal./Sq.Yd.)
- (3) ITEM 301 - 6" ASPHALT CONCRETE BASE
- (4) ITEM 304 - 6" AGGREGATE BASE
- (5) ITEM 408 - PRIME COAT (Applied @ 0.40 Gal./Sq.Yd.)
- (6) ITEM 204 - SUBGRADE COMPACTION
- (7) ITEM 605 - AGGREGATE DRAINS ( Slope 0.04 Min., 0.08 Preferred)
- (8) ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE ( 1 1/4" Max.)
- (9) ITEM 659 - SEEDING AND MULCHING
- (10) ITEM 441 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

PAVEMENT ELEVATIONS

LEFT SIDE						CENTRAL CONTROL		RIGHT SIDE					
E/S ELEVATION	E/S OFFSET	E/P ELEVATION	E/P OFFSET	ELEVATION CORRECTION	CROSS SLOPE	STATION	PROFILE GRADE	CROSS SLOPE	ELEVATION CORRECTION	E/P OFFSET	E/P ELEVATION	E/S OFFSET	E/S ELEVATION
579.39'	18.0'	579.63'	12.0'	-0.19	-0.016	1123+00	579.82	-0.016	-0.19	12.0'	579.63'	18.0'	579.39'
.	.	.	.	.	.	.	.	.	.	.	.	.	.
579.13'	18.0'	579.37'	12.0'	-0.19	-0.016	1123+25	579.56	-0.016	-0.19	12.0'	579.37'	18.0'	579.13'
.	.	.	.	.	.	.	.	.	.	.	.	.	.
579.16'	18.0'	579.40'	12.0'	-0.19	-0.016	1123+50	579.59	-0.016	-0.19	12.0'	579.40'	18.0'	579.16'
.	.	.	.	.	.	.	.	.	.	.	.	.	.
579.48'	18.0'	579.72'	12.0'	-0.19	-0.016	1123+75	579.91	-0.016	-0.19	12.0'	579.72'	18.0'	579.48'
.	.	.	.	.	.	.	.	.	.	.	.	.	.
580.10'	18.0'	580.34'	12.0'	-0.19	-0.016	1124+00	580.53	-0.016	-0.19	12.0'	580.34'	18.0'	580.10'

**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:

AMERICAN ELECTRIC POWER (DISTRIBUTION)  
Mr. Paul Paxton  
850 Tech Center Drive  
Gahanna, Ohio 43230  
PHONE: (614) 883-6831  
E-mail: ptpaxton@aep.com

AMERICAN ELECTRIC POWER (TRANSMISSION)  
Ms. Tina Hairston  
Transmission Line Project Engineering  
700 Morrison Road  
Gahanna, Ohio 43230  
PHONE: (614) 552-1801  
E-mail: tthairston@aep.com

FRONTIER COMMUNICATIONS  
Mr. Paul Montavon  
1315 Albert Street  
Portsmouth, Ohio 45662  
Phone: (740) 354-0512  
E-mail: paul.montavon@ftr.com

ADAMS COUNTY REGIONAL WATER DISTRICT  
Mr. Rick Adamson  
Manager  
P.O. Box 427  
West Union, Ohio 45693  
Phone: (937) 544-2396  
E-mail: rickadamson@acrwd.com

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.

**MONUMENT ASSEMBLIES**

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET NO. 24 .

**CLEARING AND GRUBBING**

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

**SURVEYING POSITIONAL PARAMETERS**

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 22 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING VERTICAL AND HORIZONTAL PARAMETERS FOR THIS PROJECT:

**VERTICAL POSITIONING**

ORTHOMETRIC HEIGHT DATUM: NAVD88  
GEOID: GEOID12A

**HORIZONTAL POSITIONING**

COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE  
MAP PROJECTION: LAMBERT CONIC CONFORMAL  
REFERENCE FRAME: NAD83 (2011)  
ELLIPSOID: GRS80  
COMBINED SCALE FACTOR: 1.000048782

**UNITS**

U.S. SURVEY FEET

**SEEDING AND MULCHING**

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

659, SEEDING AND MULCHING 1864 SQ. YD.

659, REPAIR SEEDING AND MULCHING 93 SQ. YD  
( 5 % OF PERMANENT SEEDING AND MULCHING )

659, COMMERCIAL FERTILIZER 0.25 TON  
( 1ST APPLICATION: 20 LBS PER 1000 SQ FT )  
( 2ND APPLICATION: 10 LBS PER 1000 SQ FT )

659, LIME 0.39 ACRES

659, WATER 10 M. GAL.  
( 2 APPLICATIONS: 300 GALS. PER 1000 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 605 - AGGREGATE DRAINS**

AGGREGATE DRAINS SHALL BE PLACED AT 50 FOOT INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS, STAGGERED SO THAT EACH DRAIN IS 25 FEET FROM THE ADJACENT DRAIN ON THE OPPOSITE SIDE, AND AT 25 FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS. AN AGGREGATE DRAIN SHALL BE PLACED AT THE LOW POINT OF EACH SAG VERTICAL CURVE.

**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.

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CALCULATED  
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**GENERAL NOTES**

**ADA - 41 - 21 - 13**

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**ITEM 614 - MAINTAINING TRAFFIC**

NO WORK SHALL BE BEGIN PRIOR TO APRIL 1, 2016 UNLESS APPROVED BY THE DCA.  
 A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, AND ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

BEFORE THE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAME(S) AND TELEPHONE NUMBER(S) OF A PERSON OR PERSONS WHO CAN BE CONTACTED TWENTY-FOUR (24) HOURS PER DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR PLACING OR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE A OR B	20 CU. YD.
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	10 CU. YD.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 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.

**TRENCH FOR WIDENING**

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

**OVERNIGHT TRENCH CLOSING**

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN FIVE INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

**PART-WIDTH CONSTRUCTION**

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

**DELINEATION OF PORTABLE AND PERMANENT BARRIER**

Barrier Reflectors and Object Markers shall be installed on all Portable Barrier (PB) used for traffic control and on permanent concrete barrier (including bridge parapets) located within 5 feet of the edge of the adjacent travel lane.

Barrier Reflectors shall conform to C&MS 626, except that the spacing shall be as per Traffic SCD MT-101.70. Object Markers and their installation shall conform to C&MS 614.03 and SCD MT-101.70. When the PB contains glare screen, one set of three vertical stripes of sheeting shall be considered equivalent to an object marker, one-way.

The following estimated quantities have been included in the plans and carried to the General Summary:

Item 614, Barrier Reflector, Type B	10 Each
Item 614, Object Marker, 2-way	10 Each

Payment shall be full compensation for all material, labor, incidentals and equipment necessary for furnishing, installing, maintaining and removing each of the above items.

**DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL**

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL AND ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE A	5 EACH
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PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEM(S).

**CONSTRUCTION NOTIFICATION**

THE CONTRACTOR WILL ADVISE THE DISTRICT PUBLIC INFORMATION OFFICER AT (740) 774-8834, OR FAX (740) 773-2710 FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE PROJECT ENGINEER WILL PROVIDE ASSISTANCE/CLARIFICATION FOR ANY QUESTIONS.

**ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL)**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS. THE APPROVED LIST IS AVAILABLE AT THE "ROADWAY STANDARDS: PROPRIETARY ROADSIDE SAFETY DEVICES" WEB PAGE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**DUST CONTROL**

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER	3 M. GAL
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**ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS**

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	16 HOURS
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THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

**SUGGESTED SEQUENCE OF TRAFFIC**

**PHASE I**

BY THE USE OF FLAGGERS IN ACCORDANCE WITH STD. DWG. MT-97.10 PLACE ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC ALONG THE LEFT SIDE OF THE ROADWAY FROM STA. 1122+50 TO STA. 1124+50.

**PHASE II**

SET UP TRAFFIC CONTROL TO CLOSE THE RIGHT SIDE OF THE ROADWAY IN ACCORDANCE WITH STD. DWG. MT-96.11 AND MT-96.20 BY THE USE OF PB AS SHOWN ON SHEET 6. COMPLETE STAGE 2 WORK OF THE BRIDGE WITH THE EXCEPTION OF THE FINAL 1 1/2" ASPHALT SURFACE COURSE AND FINAL PAVEMENT MARKINGS.

**PHASE III**

SET UP TRAFFIC CONTROL TO CLOSE THE LEFT SIDE OF THE ROADWAY IN ACCORDANCE WITH STD. DWG. MT-96.11 AND MT-96.20 BY THE USE OF PB AS SHOWN ON SHEET 6. COMPLETE STAGE 3 WORK OF THE BRIDGE WITH THE EXCEPTION OF THE FINAL 1 1/2" ASPHALT SURFACE COURSE AND FINAL PAVEMENT MARKINGS.

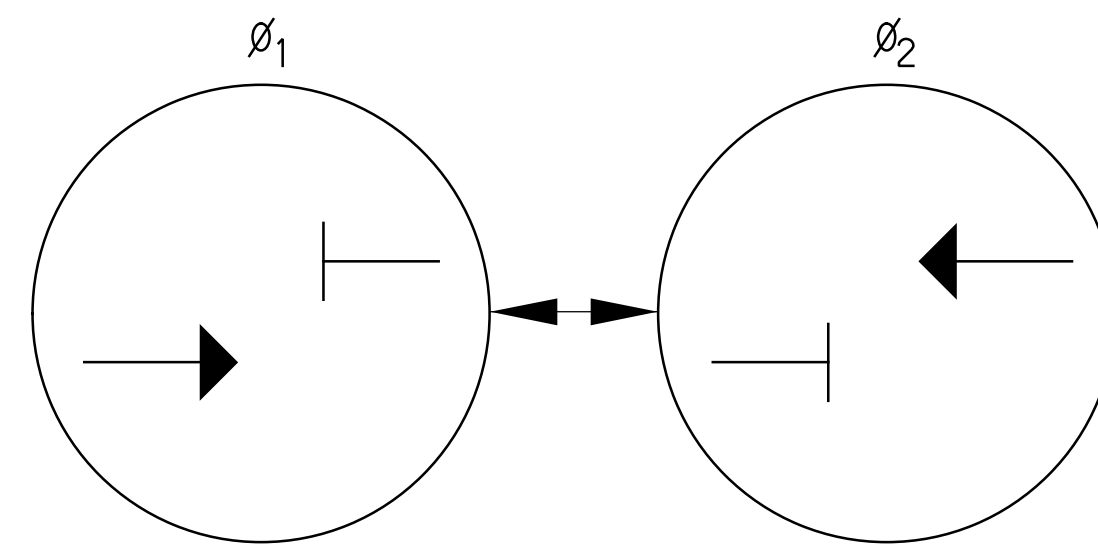
**PHASE IV**

AT THE COMPLETION OF STAGE 3 CONSTRUCTION REMOVE MAINTENANCE OF TRAFFIC DEVICES FOR PHASE III AND OPEN ALL LANES TO TRAFFIC. BY THE USE OF FLAGGERS IN ACCORDANCE WITH STD. DWG. MT-97.10 PLACE 1 1/2" ASPHALT SURFACE COURSE AND FINAL PAVEMENT MARKINGS.

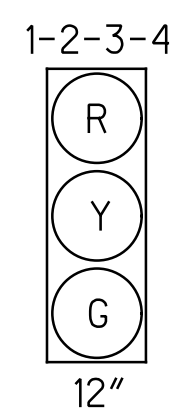
**FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL**

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT SHALL BE FULLY TRAFFIC-ACTUATED AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN CMS SECTION 733.02.

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.



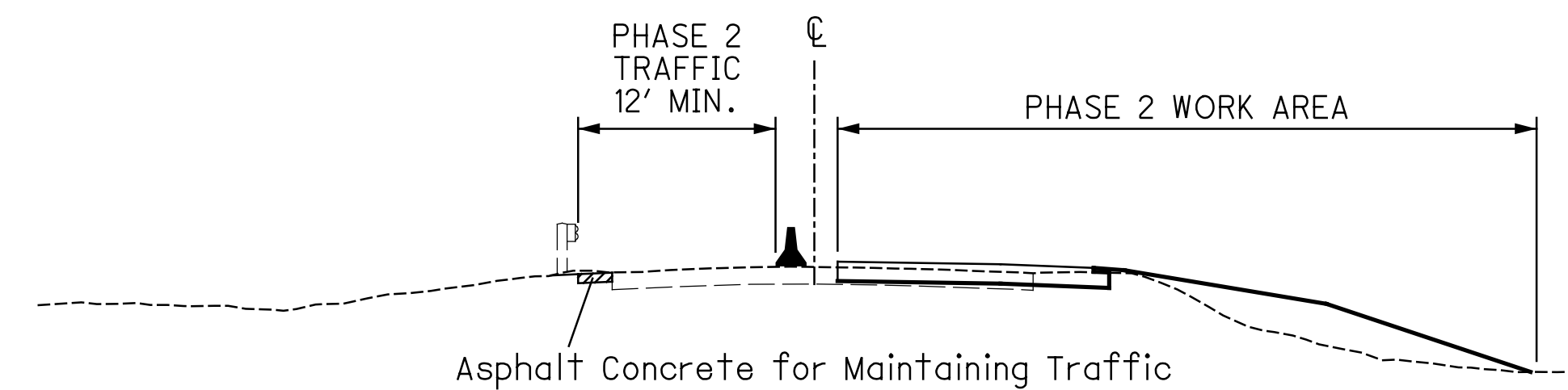
**PHASING DIAGRAM**



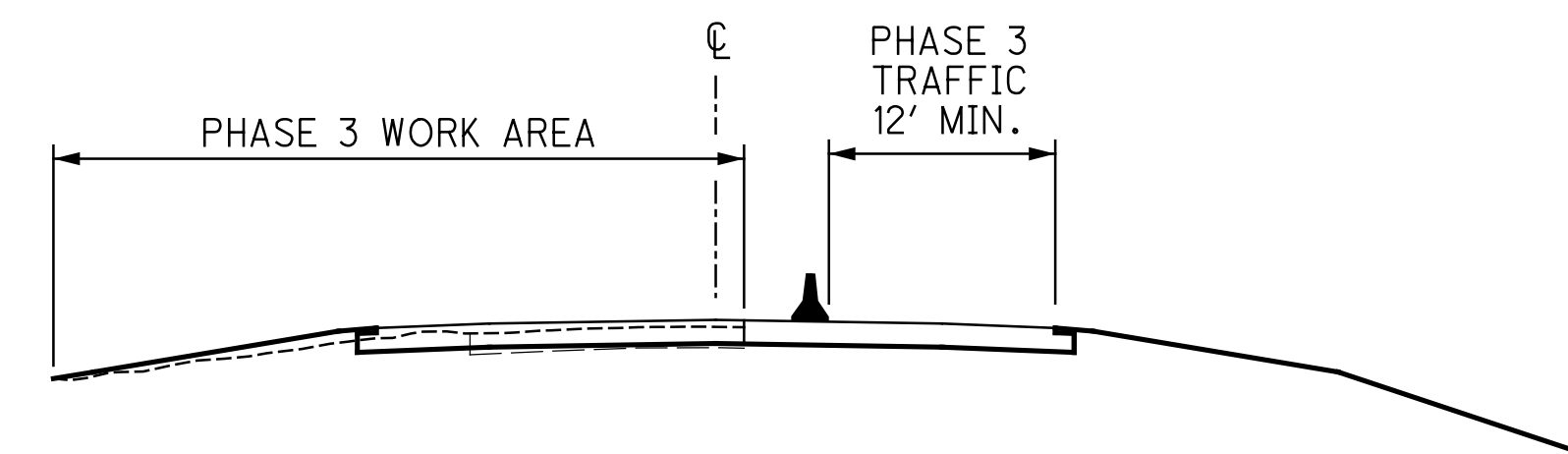
**SIGNAL INDICATORS**

COLOR SEQUENCE CHART							
INDICATIONS FACINGS	NO.	Ø <sub>1</sub>			Ø <sub>2</sub>		
		1	2	3	4	5	6
NORTHBOUND SR 41	1 & 2	G	Y	R	R	R	R
SOUTHBOUND SR 41	3 & 4	R	R	R	G	Y	R

TIMING CHART						
INTERVAL	Ø <sub>1</sub>			Ø <sub>2</sub>		
	1	2	3	4	5	6
GREEN	13			13		
YELLOW CHANGE		3			3	
ALL RED CLEARANCE			14			14
CYCLE LENGTH	60					
THE CONTROLLER SHALL REST IN RED.						



*Phase 2 Construction  
Section A-A*

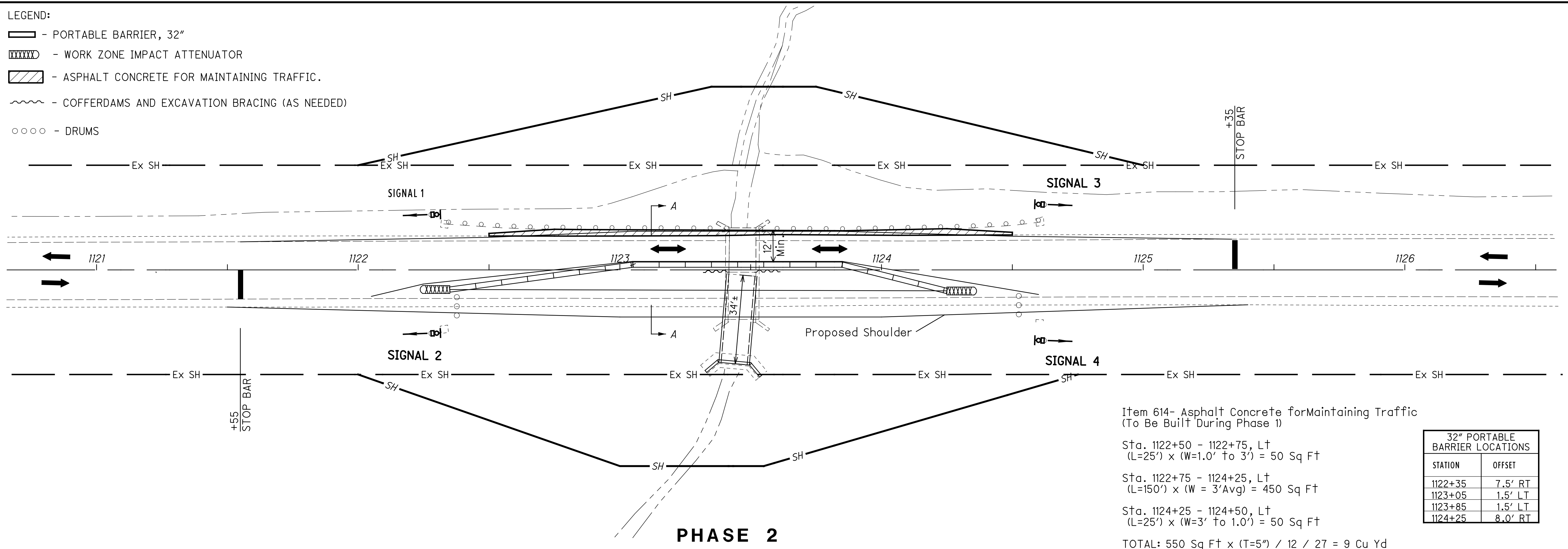


*Phase 3 Construction  
Section B-B*

MAINTENANCE OF TRAFFIC SUB-SUMMARY (SEE SHEET zz)			614	614	614	614	622	622
Station to Station	Side	Phase	Work Zone Impact Attenuator (Bi-Directional)	Asphalt Concrete For Maintaining Traffic	Work Zone Edge Line, Class 1	Work Zone Stop Line, Class 1	Portable Barrier, 32"	Portable Barrier, 32" Bridge Mounted
			EACH	CU YD	MILE	FT	FT	FT
1122+50 to 1124+50	Lt	1		9				
1121+55	CL	2 & 3				11		
1125+35	CL	2 & 3				11		
1122+50 to 1124+50	Lt	2						
1122+05 to 1124+60	Lt	2			0.05			
1121+55 to 1125+35	Lt	2			0.07			
1122+35 to 1124+25	Rt,Lt	2	2				170	20
1122+50 to 1124+50	Rt	3						
1122+05 to 1124+85	Lt,Rt	3			0.05			
1121+55 to 1125+35	Rt	3			0.07			
1122+65 to 1124+55	Lt,Rt	3	2				170	20
TOTALS TO GENERAL SUMMARY			4	9	0.24	22	340	40

LEGEND:

- PORTABLE BARRIER, 32"
- WORK ZONE IMPACT ATTENUATOR
- ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.
- COFFERDAMS AND EXCAVATION BRACING (AS NEEDED)
- DRUMS



**PHASE 2**

Item 614- Asphalt Concrete for Maintaining Traffic  
(To Be Built During Phase 1)

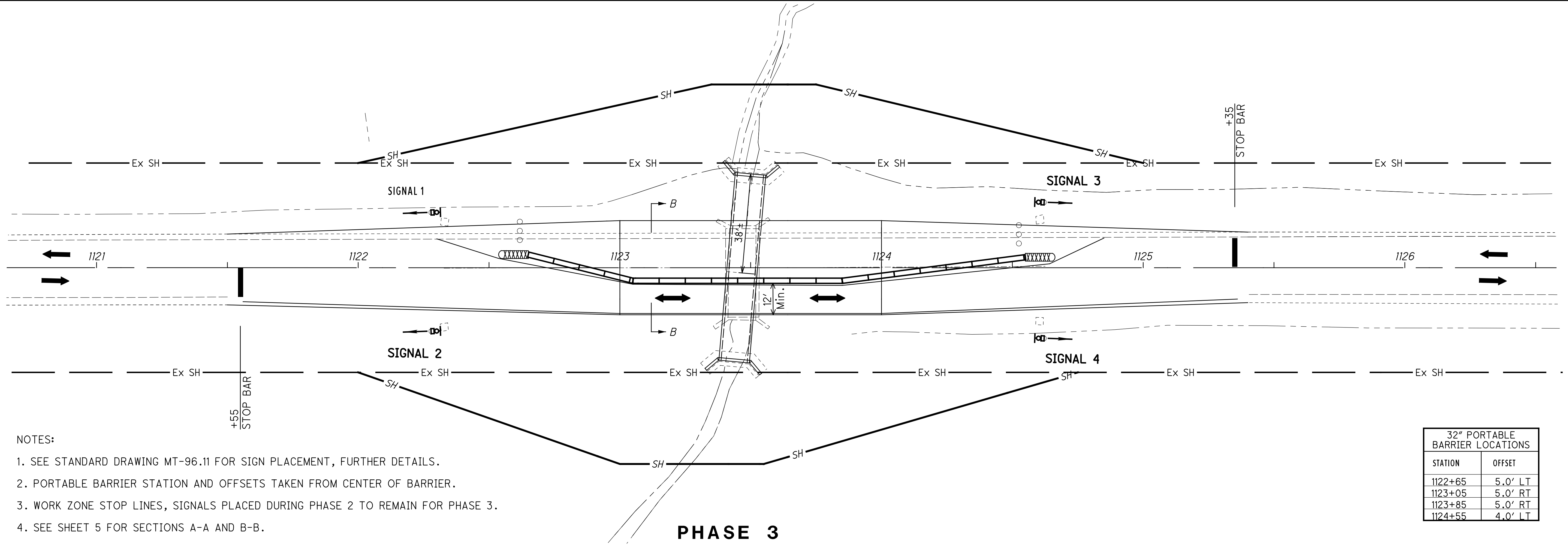
Sta. 1122+50 - 1122+75, Lt  
(L=25') x (W=1.0' to 3') = 50 Sq Ft

Sta. 1122+75 - 1124+25, Lt  
(L=150') x (W = 3' Avg) = 450 Sq Ft

Sta. 1124+25 - 1124+50, Lt  
(L=25') x (W=3' to 1.0') = 50 Sq Ft

TOTAL: 550 Sq Ft x (T=5") / 12 / 27 = 9 Cu Yd

32" PORTABLE BARRIER LOCATIONS	
STATION	OFFSET
1122+35	7.5' RT
1123+05	1.5' LT
1123+85	1.5' LT
1124+25	8.0' RT



**PHASE 3**

NOTES:

1. SEE STANDARD DRAWING MT-96.11 FOR SIGN PLACEMENT, FURTHER DETAILS.
2. PORTABLE BARRIER STATION AND OFFSETS TAKEN FROM CENTER OF BARRIER.
3. WORK ZONE STOP LINES, SIGNALS PLACED DURING PHASE 2 TO REMAIN FOR PHASE 3.
4. SEE SHEET 5 FOR SECTIONS A-A AND B-B.

32" PORTABLE BARRIER LOCATIONS	
STATION	OFFSET
1122+65	5.0' LT
1123+05	5.0' RT
1123+85	5.0' RT
1124+55	4.0' LT

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CALCULATED  
CHECKED

HORIZONTAL SCALE IN FEET

**MAINTENANCE OF TRAFFIC  
PHASE 2 & 3**







PAVEMENT ESTIMATED QUANTITY CALCULATIONS

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1

Sta. 1121+50.0 to 1123+00.0  
 (L-150') x (W-24' to 36') = 4500 Sq Ft  
 Sta. 1124+00.0 to 1125+40.0  
 (L- 140') x (W-36' to 24') = 4200 Sq Ft  
 (8700 SqFt) x (T=1.5") /12 /27 = 40.3 CuYd  
 Sta. 1123+00.0 to 1124+00.0  
 (L-100') x (W-36') = 3600 Sq Ft  
 (3600 SqFt) x (T=3") /12 /27 = 33.3 CuYd

TOTAL : = 74 CuYd

ITEM 407 - TACK COAT

Sta. 1121+50.0 to 1123+00.0  
 (L-150') x (W-24' to 36') = 4500 Sq Ft  
 Sta. 1123+00.0 to 1124+00.0  
 (L-100') x (W-36') = 3600 Sq Ft  
 Sta. 1124+00.0 to 1125+40.0  
 (L- 140') x (W-36' to 24') = 4200 Sq Ft

(12,300 SqFt) x (0.075) /9 = 102.5 Gal  
 TOTAL : 103 GAL.

ITEM 301 - ASPHALT CONCRETE BASE

Sta. 1121+50.0 to 1123+00.0  
 2 x (L-150')x(W-3.5' Avg.) = 1050 Sq Ft  
 Sta. 1123+00.0 to 1124+00.0  
 (L-100')x(W-37') = 3700 Sq Ft  
 Sta. 1124+00.0 to 1125+40.0  
 2 x (L-140')x(W-3.5' Avg.) = 980 Sq Ft

(5730 Sq Ft) x (T-6") / 12 / 27 = 106.1 Cu Yd  
 TOTAL = 106 CU YD

ITEM 304 - AGGREGATE BASE

Sta. 1121+50.0 to 1123+00.0  
 2 x (L-150')x(W-4.0' Avg.) = 1200 Sq Ft  
 Sta. 1123+00.0 to 1124+00.0  
 (L-100')x(W-38') = 3800 Sq Ft  
 Sta. 1124+00.0 to 1125+40.0  
 2 x (L-140')x(W-4.0' Avg.) = 1120 Sq Ft

(6120 Sq Ft) x (T-6") / 12 / 27 = 113.3 Cu Yd  
 TOTAL = 113 CU YD

ITEM 408 - PRIME COAT

Sta. 1121+50.0 to 1123+00.0  
 2 x (L-150')x(W-4.0' Avg.) = 1200 Sq Ft  
 Sta. 1123+00.0 to 1124+00.0  
 (L-100')x(W-38') = 3800 Sq Ft  
 Sta. 1124+00.0 to 1125+40.0  
 2 x (L-140')x(W-4.0' Avg.) = 1120 Sq Ft

(6120 Sq Ft) x (0.40) / 9 = 272.0 Gal  
 TOTAL = 272 GAL

ITEM 204 - SUBGRADE COMPACTION

Sta. 1121+50.0 to 1123+00.0  
 2 x (L-150')x(W-4.5' Avg.) = 1350 Sq Ft  
 Sta. 1123+00.0 to 1124+00.0  
 (L-100')x(W-39') = 3900 Sq Ft  
 Sta. 1124+00.0 to 1125+40.0  
 2 x (L-140')x(W-4.5' Avg.) = 1260 Sq Ft

(6510 Sq Ft) / 9 = 723.3 Sq Yd  
 TOTAL = 723 SQ YD

ITEM 202 - PAVEMENT REMOVED

Sta. 1123+00.0 to 1123+41.7  
 (L-41.7')x(W-27.2' Avg) = 1134 Sq Ft  
 Sta 1123+52.0 to 1124+00.0  
 (L-48.0')x(W-27.3' Avg) = 1310 Sq Ft

TOTAL : 272 SQ YD

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE

Sta. 1121+50.0 to 1123+00.0  
 (L-150') x (W-24' Avg) = 3600 Sq Ft  
 Sta. 124+00.0 to 1125+40.0  
 (L- 140') x (W-24') = 3360 Sq Ft

(6960 SqFt) / 9 = 773.3 Sq Yd

TOTAL : 773 SQ YD

ITEM 254 - FULL DEPTH PAVEMENT SAWING

Sta. 1123+00.0 & 1124+00.0

TOTAL : 58 FT

ITEM 605 - AGGREGATE DRAINS

Sta. 1121+50.0 to 1125+40.0  
 (L-390') /25 = 15 Ea

TOTAL: 15 x 16' = 240 FT

EARTHWORK & SEEDING TOTALS

SHEET	ITEM 203	ITEM 203	ITEM 659
	EXCAVATION	EMBANKMENT	SEEDING AND MULCHING (TOTAL TO SHEET 3)
	CU YD	CU YD	SQ YD
10	0	0	0
11	12	3	161
12	97	63	592
13	139	124	646
14	84	29	385
21	18	22	80
TOTAL	350	241	1864

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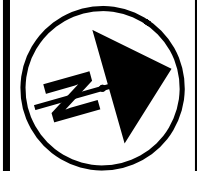
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CALCULATIONS

ADA-41-21.13

**Proposed Structure**  
 Type: 10' x 6' Conduit, Type A, 706.05, APP  
 Span: 10', Rise: 6', Length: 72'  
 Roadway: 36' (Paved Width)  
 Loading: HL-93  
 Skew: 5° Left Forward  
 Approach Slabs: None  
 Alignment: Tangent  
 New SFN: 0101362

 - See Typical Sections for Resurfacing / Pavement Taper Limits



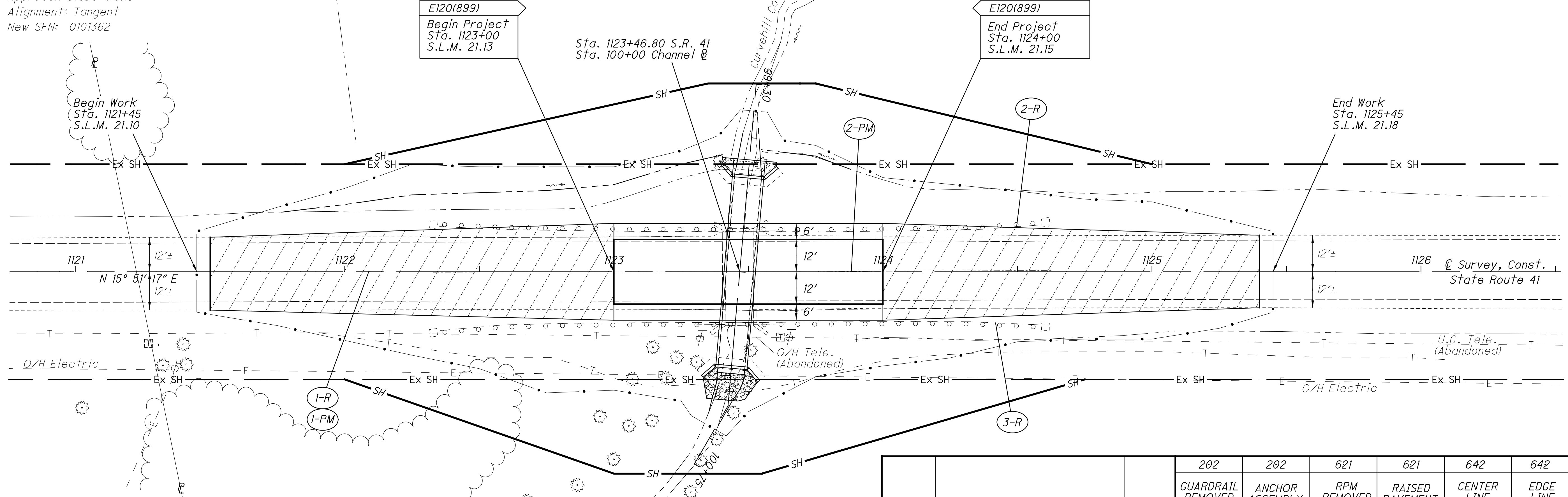
0 20 40  
 HORIZONTAL  
 SCALE IN FEET

CALCULATED  
 CHECKED

**PLAN AND PROFILE**  
 State Route 41

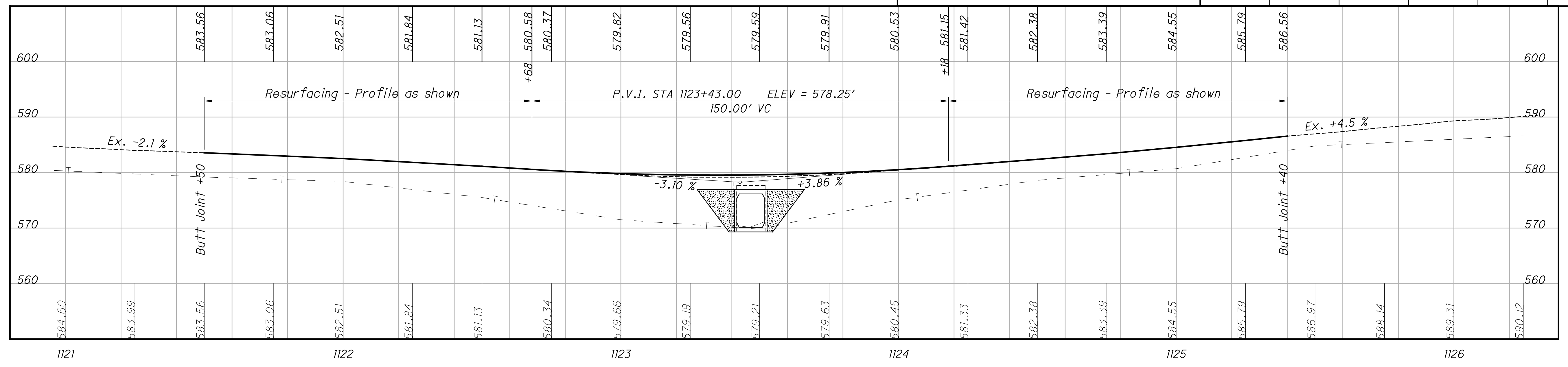
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26



**Existing Structure**  
 Type: Concrete Slab Bridge  
 Span: 10'-0", Length: 34'-4" o/o  
 Roadway: 34' f/f GR  
 Skew: 0°  
 Approach Slabs: None  
 Alignment: Tangent  
 Ex SFN: 0101354  
 Date Built: 1920 (Widened: 1983)

REF NO.	STATION		SIDE	202	202	621	621	642	642
	FROM	TO		GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED	RPM REMOVED	RAISED PAVEMENT MARKER	CENTER LINE	EDGE LINE
	FEET	EACH		EACH	EACH	MILE	MILE		
1-R	1121+50	1125+40	CL	.	.	5	5	.	.
2-R	1122+35	1124+60	LT	200	2	.	.	.	.
3-R	1122+35	1124+60	RT	200	2	.	.	.	.
1-PM	1121+45	1125+45	CL	.	.	.	.	0.08	.
2-PM	1121+45	1125+45	LT,RT	.	.	.	.	.	0:16
TOTALS CARRIED TO GENERAL SUMMARY				400	4	5	5	0.08	0:16

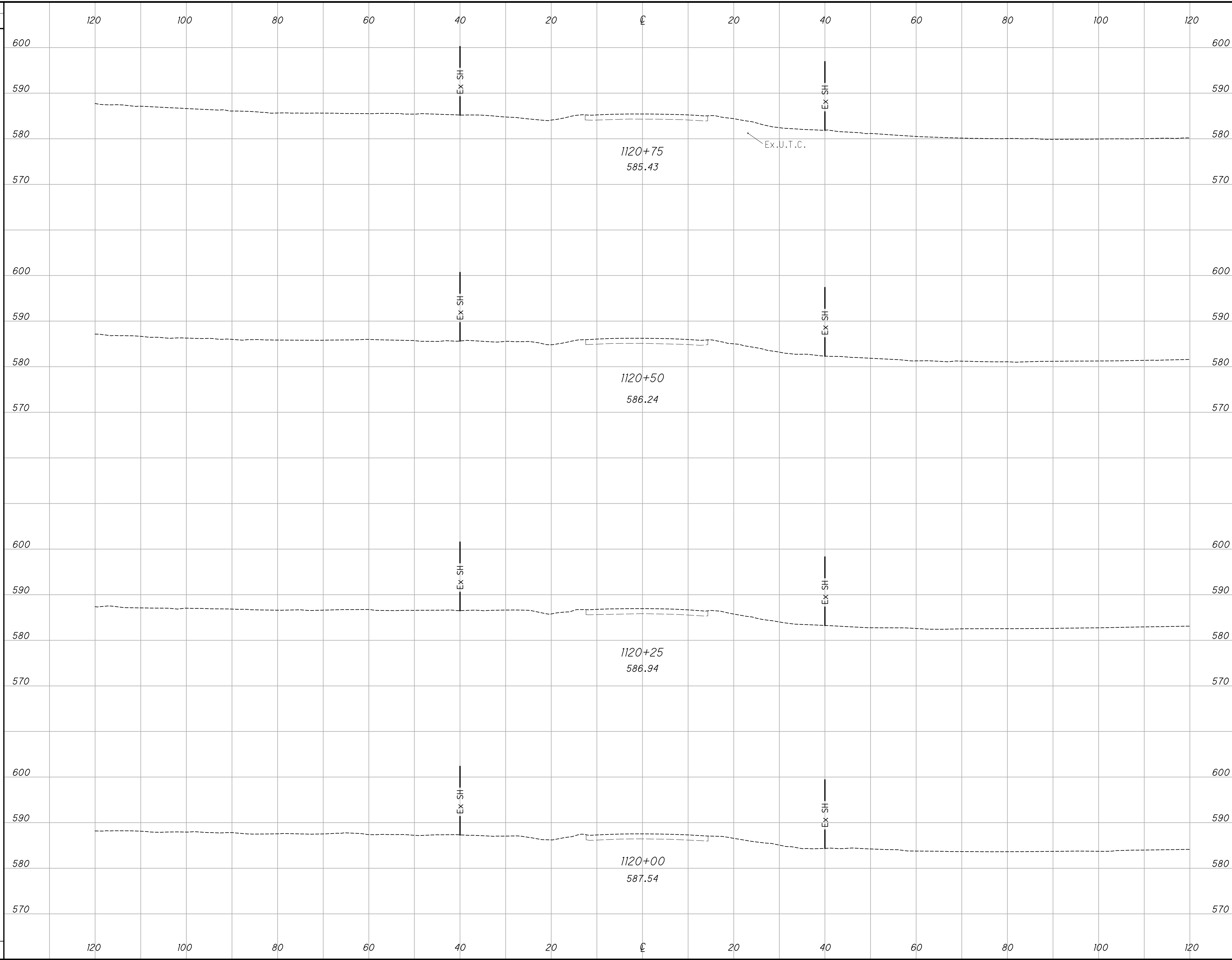


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SEEDING

END WIDTH	SO. YDS.
120	100
100	80
80	60
60	40
40	20
20	0
20	20
40	40
60	60
80	80
100	100
120	120



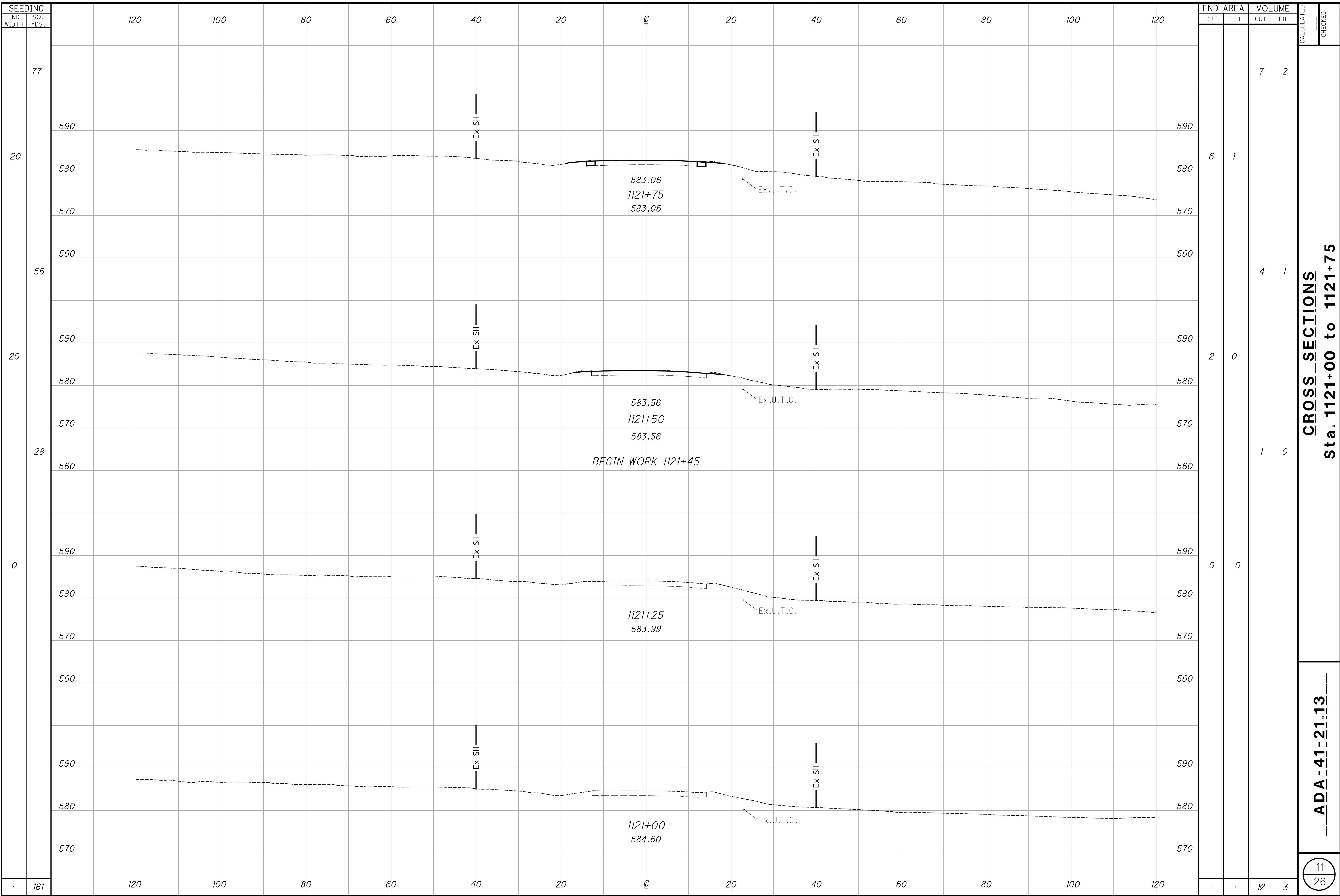
END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
.	.	.	.		

**CROSS SECTIONS**  
**Sta. 1120+00 to 1120+75**

**ADA-41-21.13**

10  
26

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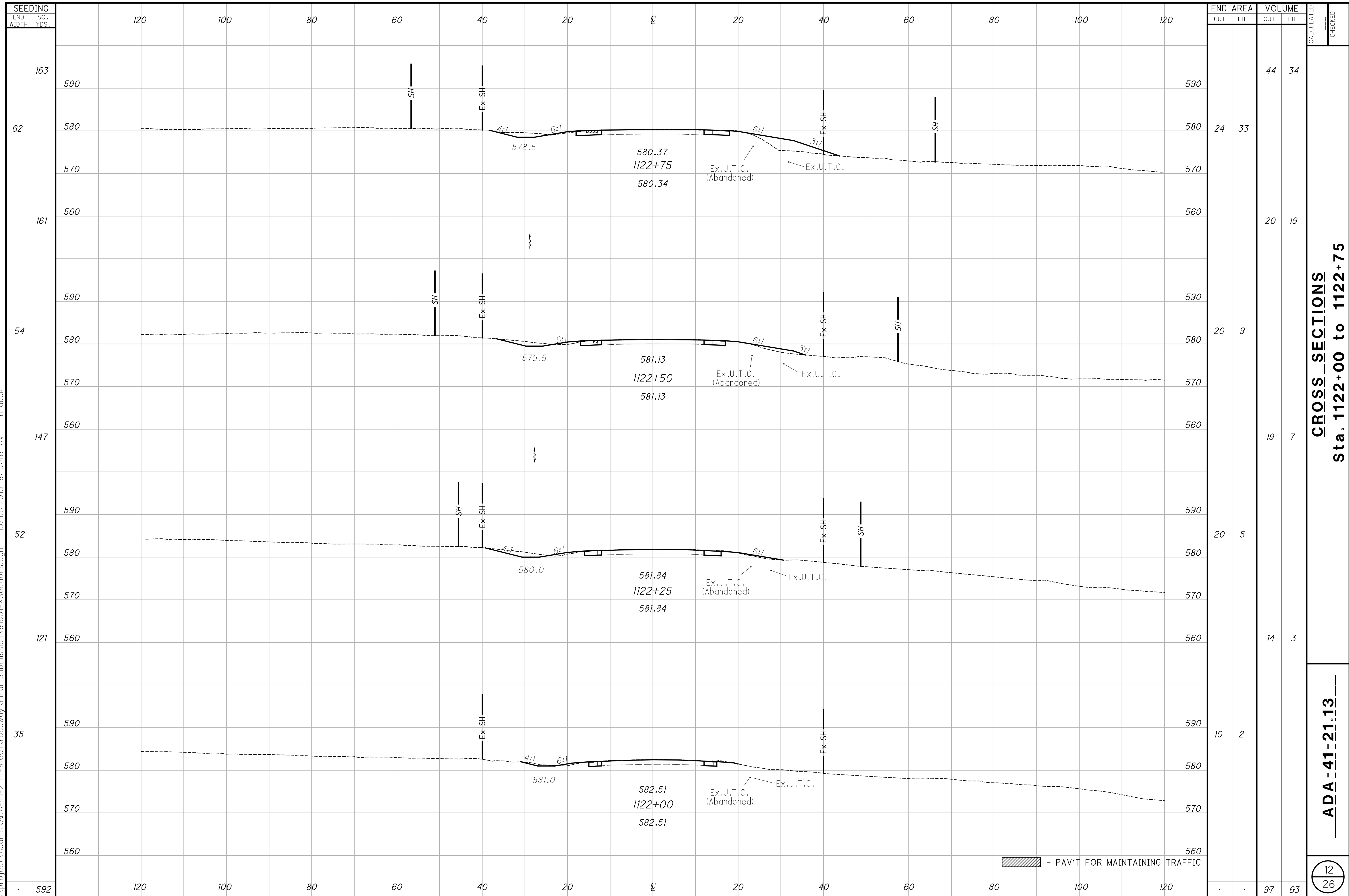


**CROSS SECTIONS**  
Sta. 1121+00 to 1121+75

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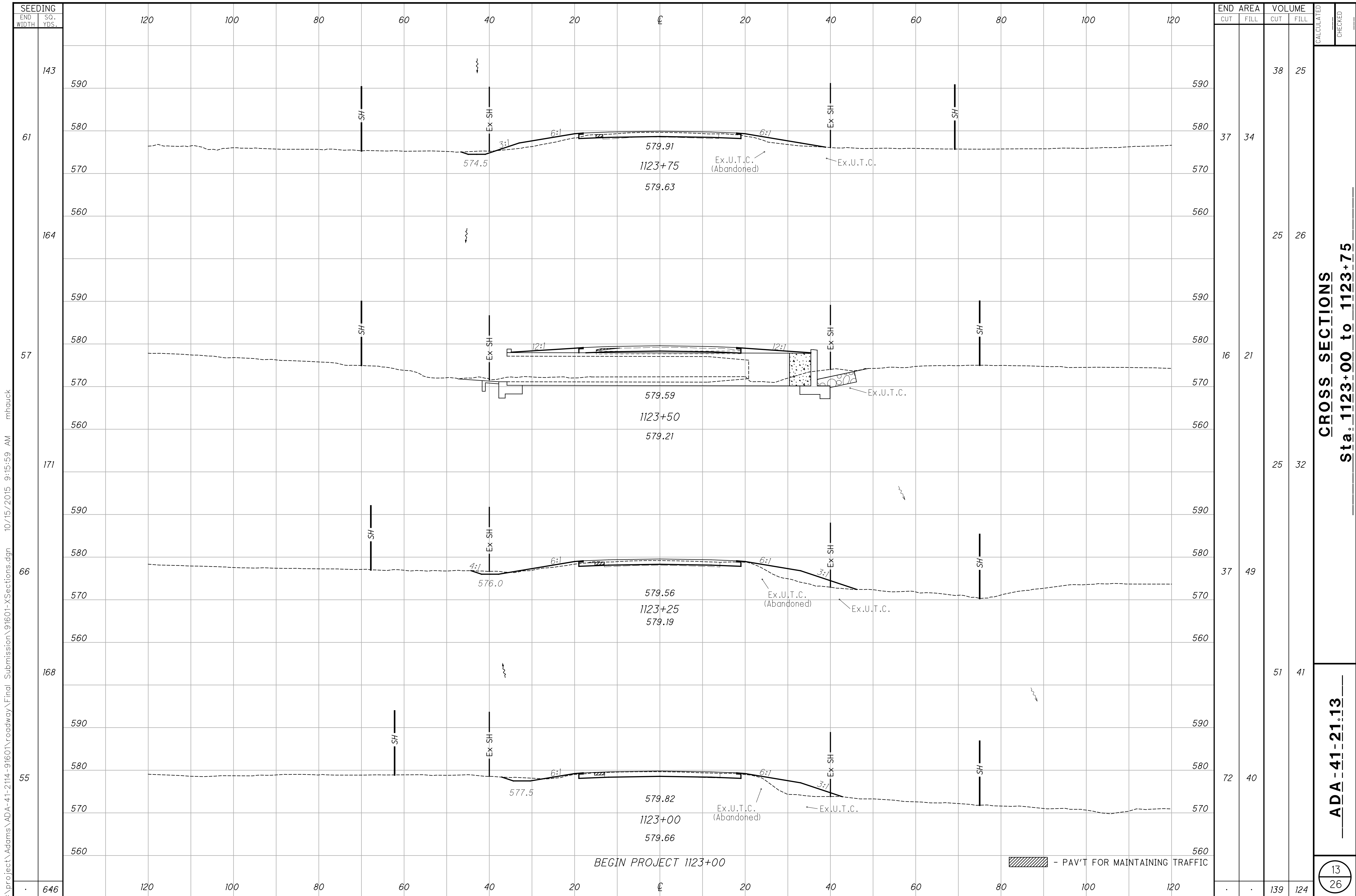


**CROSS SECTIONS**  
Sta. 1122+00 to 1122+75

ADA-41-21.13

12  
26

▨ - PAV'T FOR MAINTAINING TRAFFIC

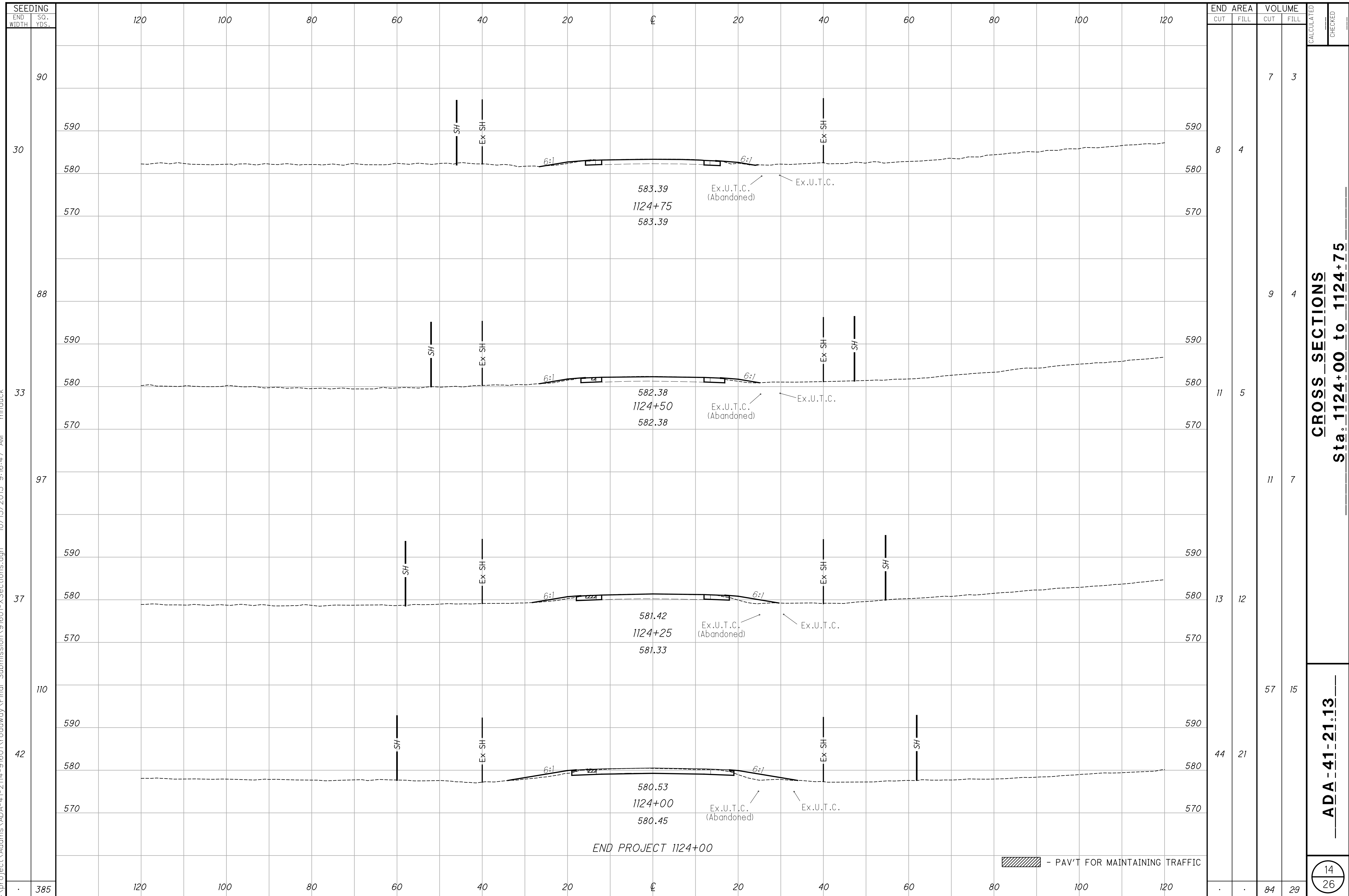


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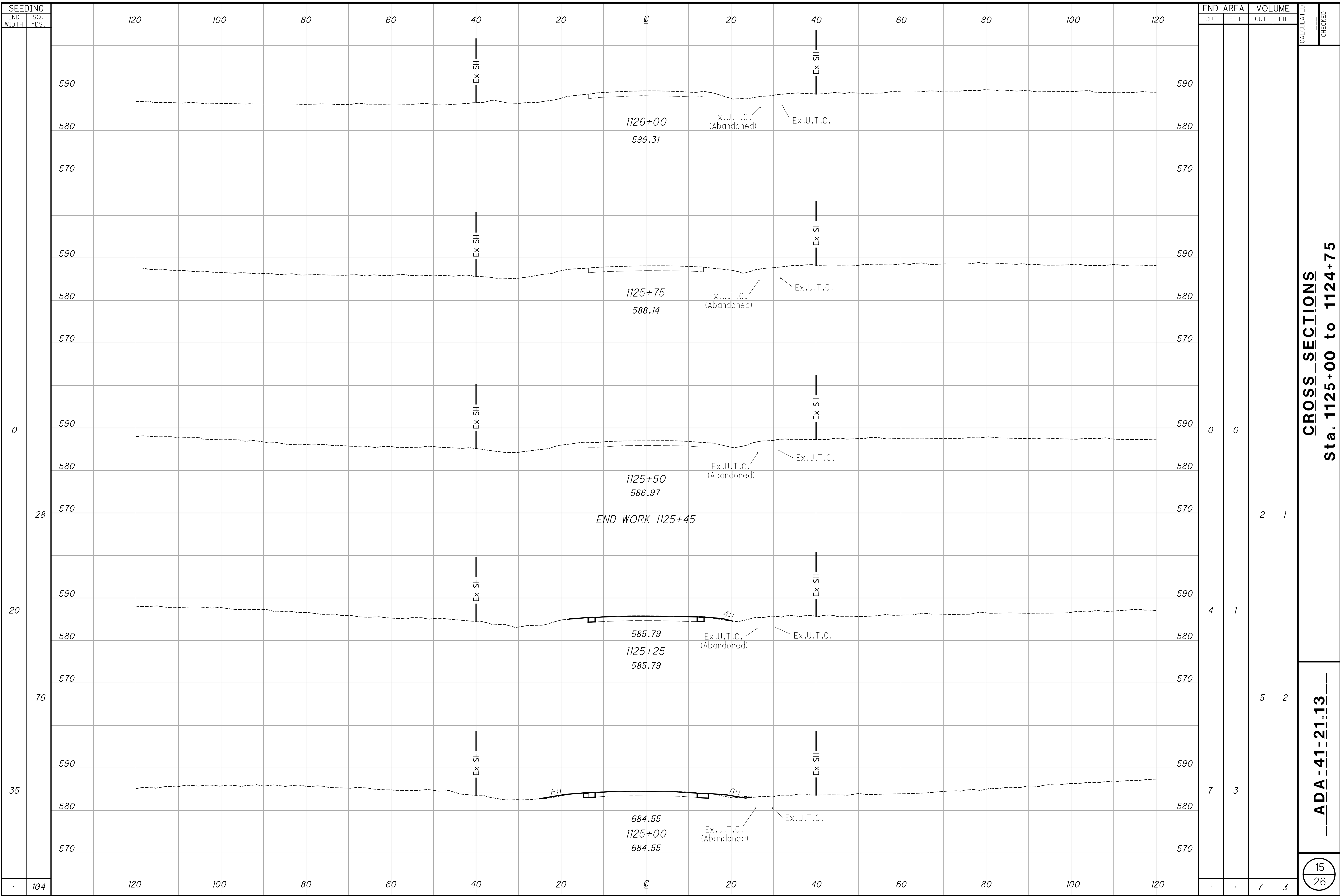
STATION	SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
143	120	590	37	34	38	25
61	120	580	37	34	38	25
164	120	570	16	21	25	26
57	120	560	16	21	25	26
171	120	550	37	49	25	32
66	120	540	37	49	25	32
168	120	530	72	40	51	41
55	120	520	72	40	51	41
646	120	560	139	124	139	124

**13**  
**26**

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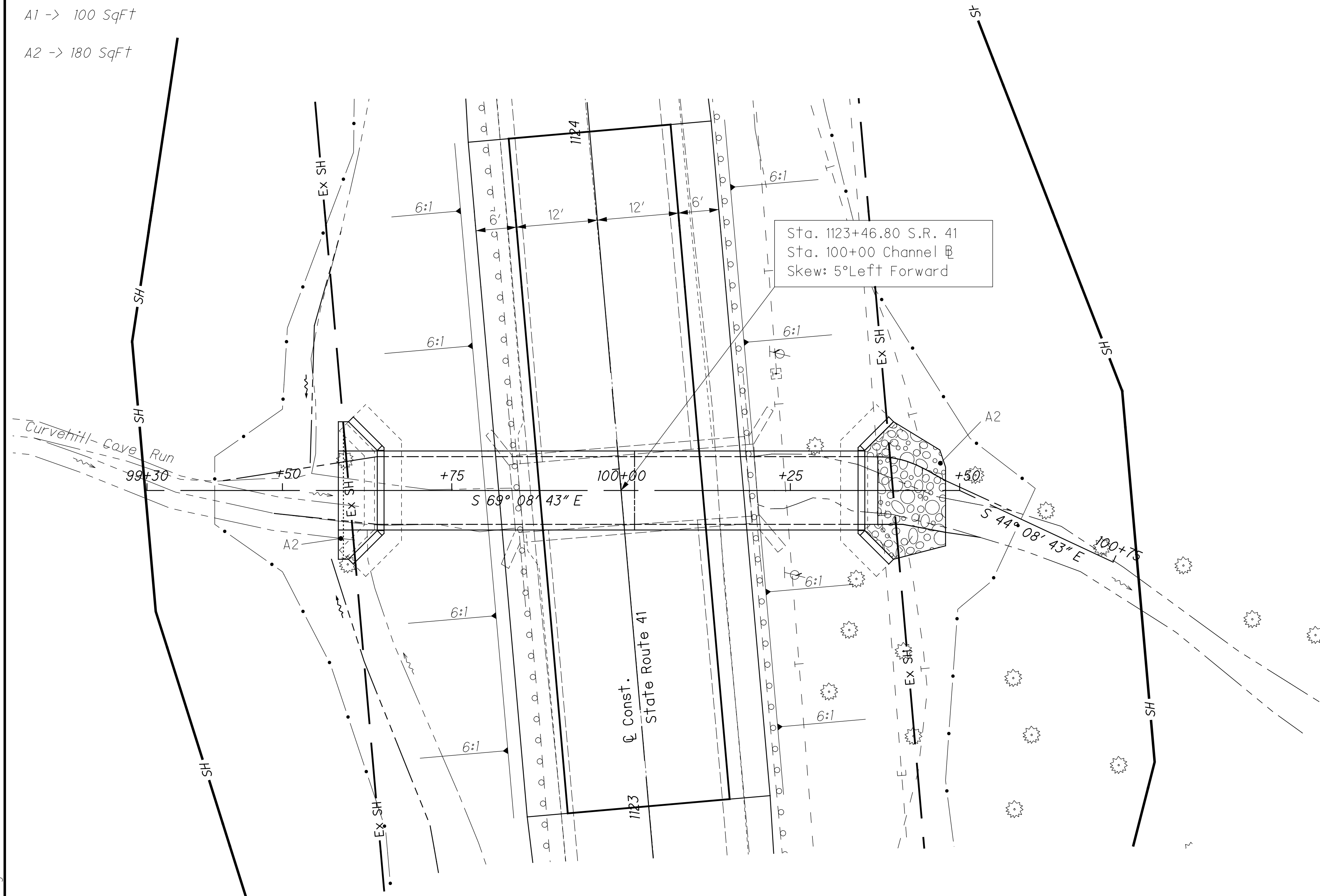
**CROSS SECTIONS**  
**Sta. 1125+00 to 1124+75**

**ADA-41-21.13**



A1 -> 100 SqFt

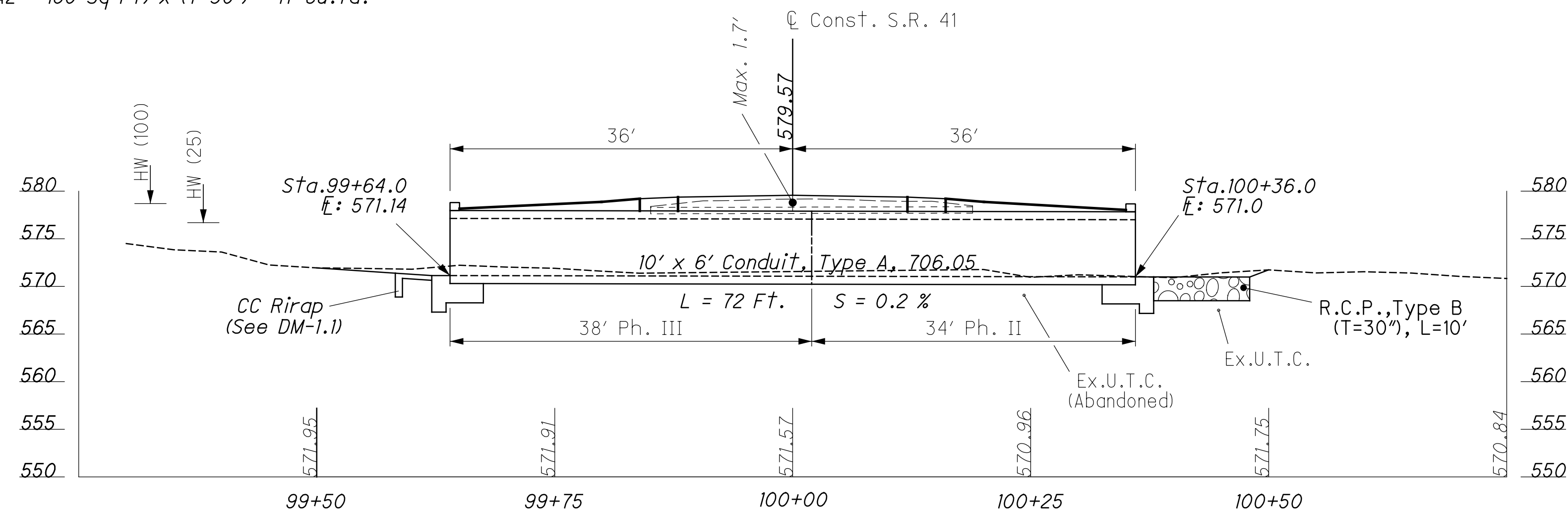
A2 -> 180 SqFt



**Estimated Quantities**

Item 601 - Riprap Using 6" Reinforced Concrete Slabs  
(A1 = 100 Sq Ft) / 9 = 11 Sq. Yd.

Item 601 - Rock Channel Protection, Type B, w/Filter (T=30")  
(A2 = 180 Sq Ft) x (T=30") = 17 Cu.Yd.



**HYDRAULIC DATA**

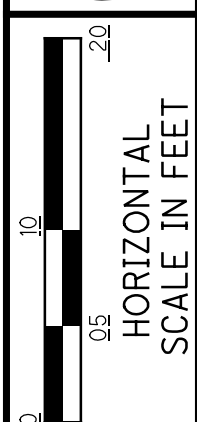
DRAINAGE AREA = 0.31 SQ. MILES  
 OHW ELEV. = 573.5 FT  
 Q (25) = 399 CFS  
 HW(25) = 576.7 FT  
 V (25) = 10.9 FT/S  
 Q (100) = 564 CFS

**EXISTING STRUCTURE**

TYPE: CONCRETE SLAB BRIDGE  
 SPAN: 10'-0" , LENGTH: 34'-0" O/O  
 ROADWAY: 34'-0" F/F GUARDRAIL  
 LOADING: H-15  
 SKEW: 0°  
 APPROACH SLABS: NONE  
 ALIGNMENT: TANGENT  
 STRUCTURAL FILE NUMBER: 0101354  
 DATE BUILT: 1920. (WIDENED IN 1983)  
 DISPOSITION: TO BE REMOVED

**PROPOSED STRUCTURE**

TYPE: 10' x 6' CONDUIT, TYPE A, 706.05, AS PER PLAN  
 SPAN: 10.04'  
 ROADWAY: 36'-0" PAVED WIDTH  
 LOADING: HL-93, FWS 60 PSF  
 SKEW: 5° LEFT FORWARD  
 APPROACH SLABS: NONE  
 ALIGNMENT: TANGENT  
 STRUCTURAL FILE NUMBER: 0101362  
 COORDINATES: LATITUDE 38° 53' 01"  
 LONGITUDE 83° 27' 25"



DESIGN AGENCY  
 OHIO DEPARTMENT OF TRANSPORTATION  
 PLANNING AND ENGINEERING  
 DISTRICT TEN --> MARIETTA, OHIO

DESIGNED	REVIEWED	DATE
CHECKED	REVIS	STRUCTURE FILE NUMBER
		0101362

CULVERT PLAN & PROFILE  
 ADA-41-21.14

ADA-41-21.13

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16 / 26

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GENERAL NOTES

**DESIGN SPECIFICATIONS:** THIS STANDARD DRAWING CONFORMS TO "LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2012 AND THE ODOT BRIDGE DESIGN MANUAL.

**DESIGN DATA:** THE FOLLOWING DESIGN DATA IS ASSUMED:

DESIGN LOADING: HL-93  
 INTERNAL ANGLE OF FRICTION = 30 DEGREES  
 COEFFICIENT OF FRICTION = 0.30  
 UNIT WEIGHT OF SOIL = 120 PCF  
 UNIT WEIGHT OF CONCRETE = 150 PCF  
 SLOPE OF BACKFILL = 2:1 (TYPE A & B HEADWALLS ONLY)  
 HEIGHT OF LIVE LOAD SURCHARGE = 2 FT (TYPE C HEADWALLS ONLY)  
 MAXIMUM FOUNDATION BEARING PRESSURE = 2000 P.S.F.

CONCRETE CLASS OCI - 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)

**HEADWALL ANCHOR DOWELS:** ANCHOR PER CMS 510 WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO CMS 705.20. DEPTH IS AS SHOWN ON SHEET 19. PAYMENT FOR DOWEL HOLES, GROUT AND INSTALLATION SHALL BE INCLUDED WITH ITEM 511.

AS AN ALTERNATIVE TO RESIN BONDING, THREADED INSERTS OR NONPROTRUDING MECHANICAL CONNECTORS CAST INTO THE CULVERT BY THE MANUFACTURER MAY BE USED PROVIDED THEY CAN RESIST AN ULTIMATE PULL-OUT STRENGTH OF 12 KIPS AND MAINTAIN A MINIMUM COVER OF 3 INCHES AT THE BOTTOM OF THE CULVERT SLAB. MECHANICAL CONNECTORS MUST PROVIDE AN "L-SHAPED" BAR INSIDE THE CULVERT WITH A MINIMUM HORIZONTAL LENGTH OF 12 INCHES. PAYMENT FOR INSERTS OR MECHANICAL CONNECTORS SHALL BE INCLUDED WITH ITEM 611.

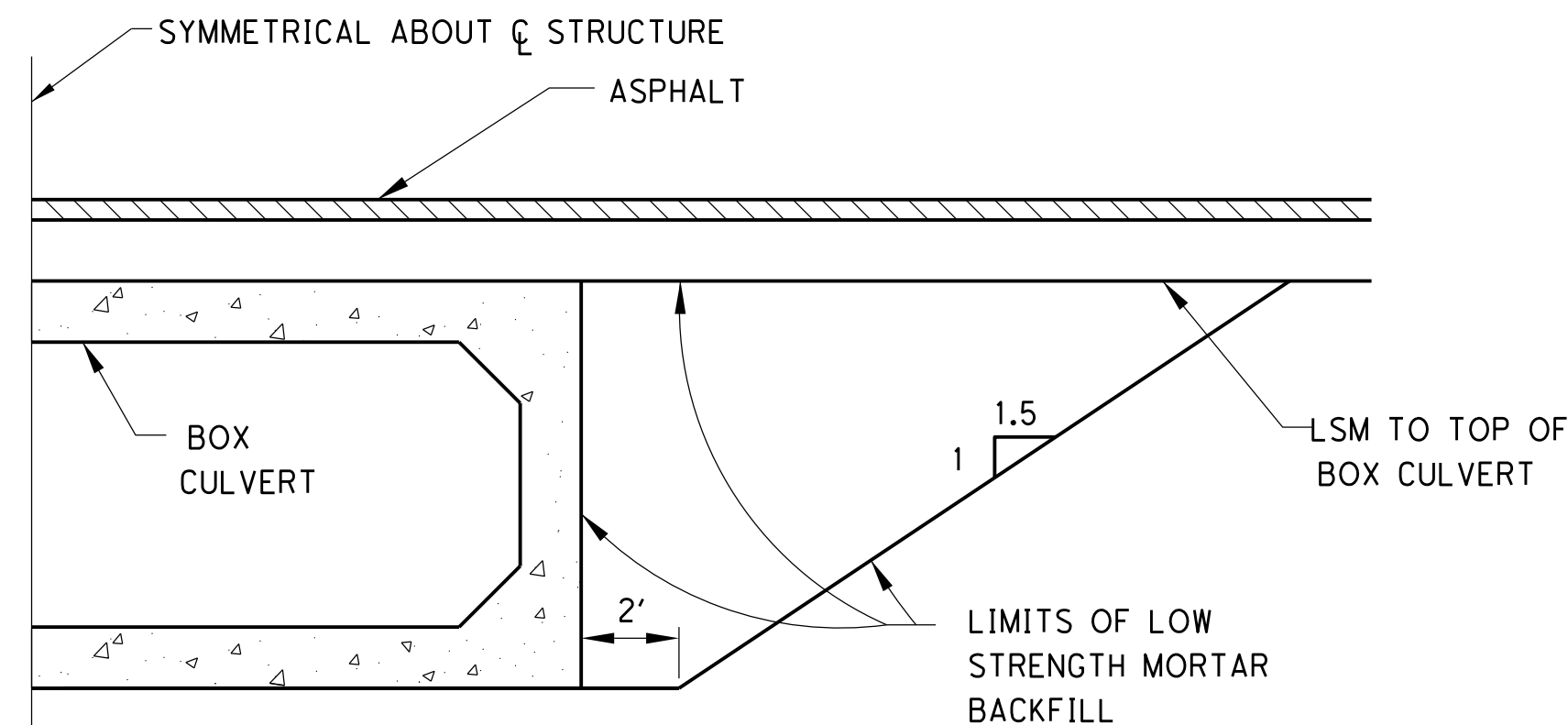
**BACKFILL LIMITATION:** WHEN THE DESIGN HEIGHT IS GREATER THAN 10 FT, THE BACKFILL BEHIND THE WINGWALLS SHALL NOT BE PLACED HIGHER THAN THE ELEVATION OF THE SOIL ABOVE THE TOE. WHEN THE SOIL ABOVE THE TOE IS AT ITS FINISHED ELEVATION, THE REMAINDER OF THE BACKFILL MAY BE PLACED.

**ITEM 511 WINGWALLS OR HEADWALLS FOR 611 ITEMS**  
 FOR ITEMS 706.05, 706.051, 706.052 AND 706.053 WITH A CAST-IN-PLACE WINGWALL OR HEADWALL A PRECAST ALTERNATIVE MAY BE FURNISHED PER 602.03. THE PRECAST ALTERNATIVE WILL MEET THE CAST-IN-PLACE STRUCTURAL DESIGN LOADINGS, DESIGN HEIGHT, AND DESIGN LENGTH DIMENSIONS.

FULL COMPENSATION FOR THE PRECAST WINGWALL OR HEADWALL IS THE NUMBER OF CUBIC YARDS OF ITEM 511 OR SUPPLEMENTAL SPECIFICATION SUPPLEMENTAL SPECIFICATION 898, AND POUNDS OF ITEM 509 FOR THE CORRESPONDING CAST-IN-PLACE STRUCTURE.

**ITEM 611 - 10' x 6' CONDUIT, TYPE A, 706.05, AS PER PLAN**

LOW STRENGTH MORTAR BACKFILL SHALL BE PLACED AS SHOWN. THE PLAN QUANTITY IS BASED ON A TRENCH LENGTH OF 70 FEET (SEE CALCULATIONS). PAYMENT FOR LOW STRENGTH MORTAR BACKFILL SHALL BE MADE ONLY FOR BACKFILL PLACED TO THE LIMITS SHOWN. LOW STRENGTH MORTAR BACKFILL SHALL BE ALLOWED TO CURE FOR A MINIMUM OF 5 DAYS. NO MATERAIL SHALL BE PLACED ON OR ABOVE THE LOW STRENGTH MORTAR PRIOR TO THE MINIMUM CURE TIME. THE EXCAVATION REQUIRED FOR THE PLACEMENT OF THE LOW STRENGTH MORTAR SHALL BE INCLUDED IN ITEM 611 FOR PAYMENT.

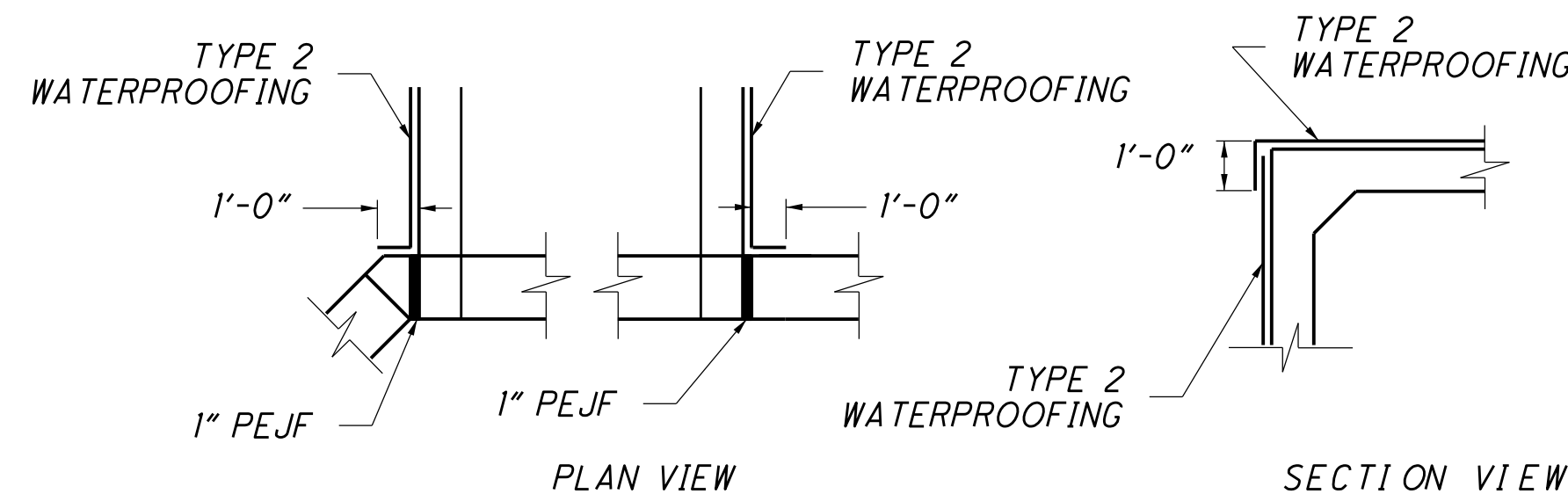


**BASIS OF PAYMENT:** ALL LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTING, CUTOFF WALL, WINGWALLS AND FORESLOPE WALL SHALL BE INCLUDED WITH EACH 511 ITEM. PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

**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.

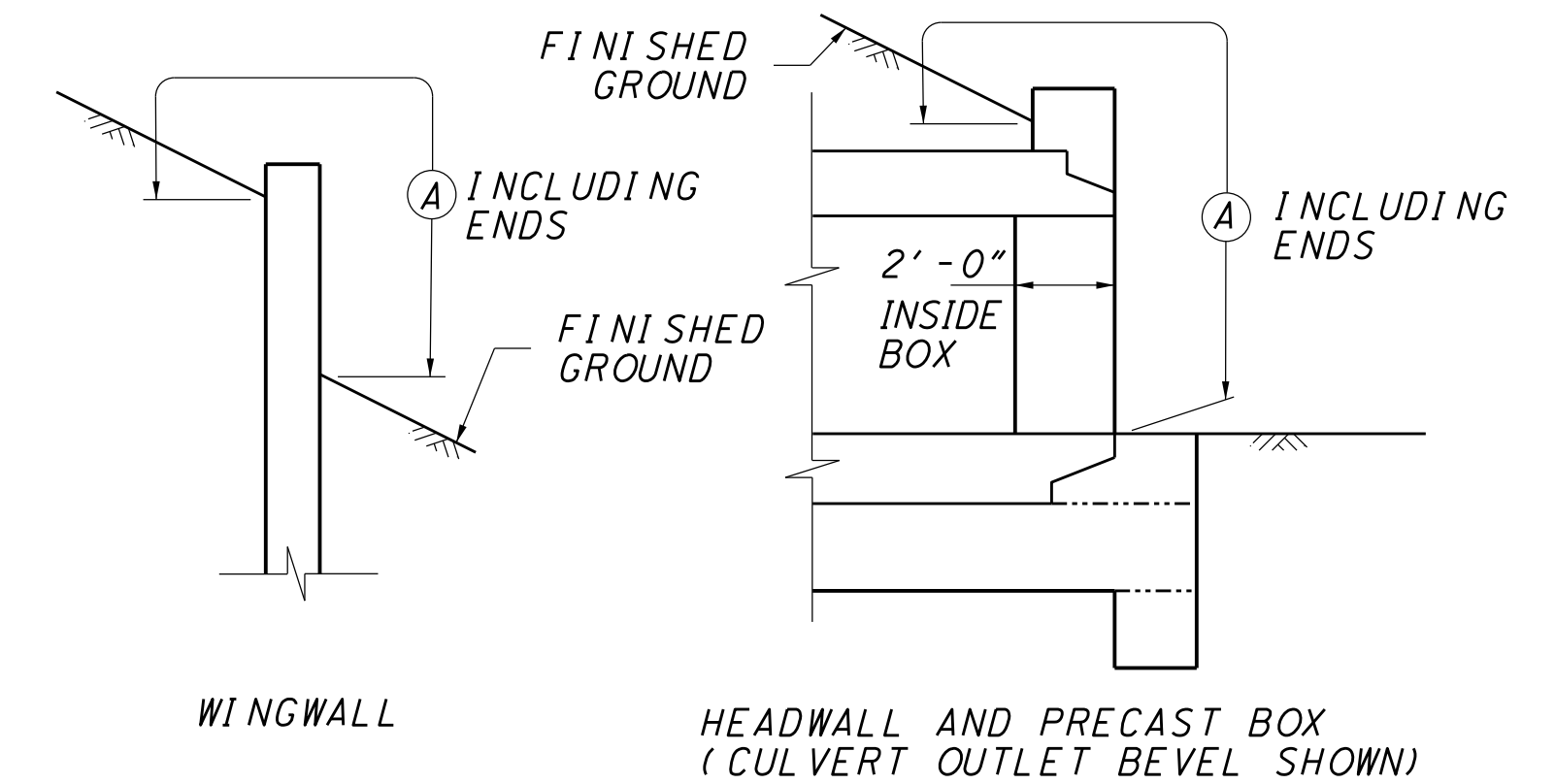
**PREFORMED EXPANSION JOINT FILLER:** PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED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

**WATERPROOFING:** 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. 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. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.



WATERPROOFING DETAILS

**SEALING OF HEADWALL AND WINGWALLS:** ALL EXPOSED HEADWALL 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. NOTE: THE 1" P.E.J.F. SHALL BE CLEANED PRIOR TO SEALING.



LIMITS OF ITEM 512-SEALING CONCRETE SURFACES

Ⓐ - SEAL ENTIRE CONCRETE SURFACE AREA

UTILITY LINES:

ALL EXPENSES INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE OWNER(S). THE CONTRACTOR AND OWNER(S) ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

UNCLASSIFIED EXCAVATION:

EXCAVATION LIMITS FOR THE PROPOSED STRUCTURE SHALL BE AS DEFINED IN 503.11. EXCAVATION OUTSIDE THESE LIMITS NECESSARY TO REMOVE THE EXISTING STRUCTURE SHALL BE INCLUDED IN 202 FOR PAYMENT.

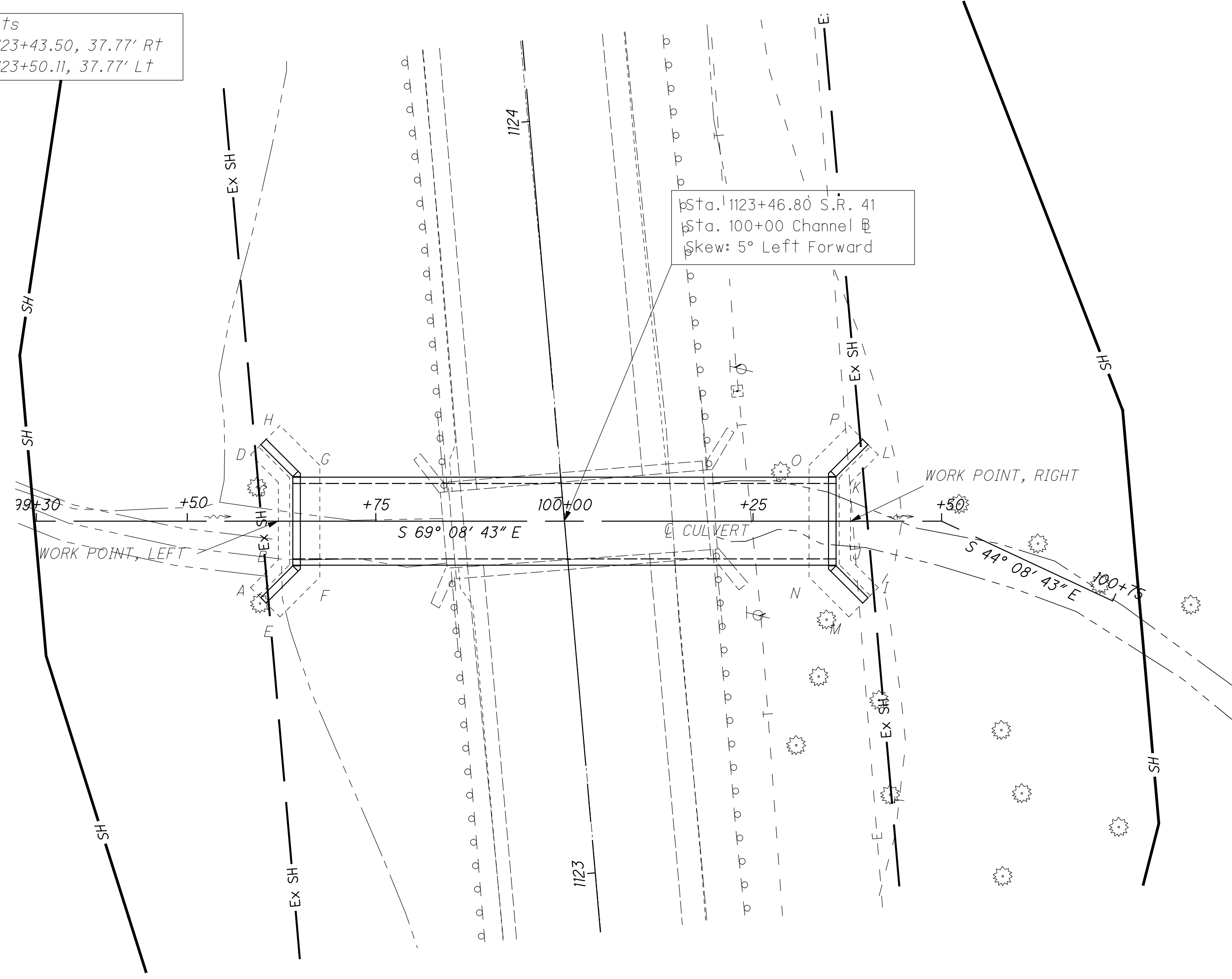
REMOVAL OF EXISTING STRUCTURE:

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURE SHALL BE REMOVED UPON RECEIVING PERMISSION FROM THE ENGINEER.

ESTIMATED QUANTITIES				
ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
202	11000	LUMP		STRUCTURE REMOVED
202	23500	41	SQ. YD.	WEARING COURSE REMOVED
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING
503	21300	LUMP		UNCLASSIFIED EXCAVATION (WINGWALL FOOTING)
509	10000	3421	LB.	EPOXY COATED REINFORCING STEEL
511	46010	8.0	CU. YD.	CLASS OCI CONCRETE
511	46510	25.0	CU. YD.	CLASS OCI CONCRETE, FOOTING
511	46610	1.0	CU. YD.	CLASS OCI CONCRETE, HEADWALL
512	10100	47	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	33000	229	SQ. YD.	TYPE 2 WATERPROOFING
516	13600	34	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER
518	21230	LUMP		POROUS BACKFILL WITH FILTER FABRIC
601	11000	11	SQ. YD.	RIPRAP USING 6" REINFORCED CONCRETE SLAB
611	95201	72	FT.	10' x 6' CONDUIT, TYPE A, 706.05, AS PER PLAN,
613	41300	353	CU. YD.	LOW STRENGTH MORTAR BACKFILL (TYPE 2)

Totals Carried to the General Summary on Sheet 7

Work Points  
 Station 1123+43.50, 37.77' Rt  
 Station 1123+50.11, 37.77' Lt



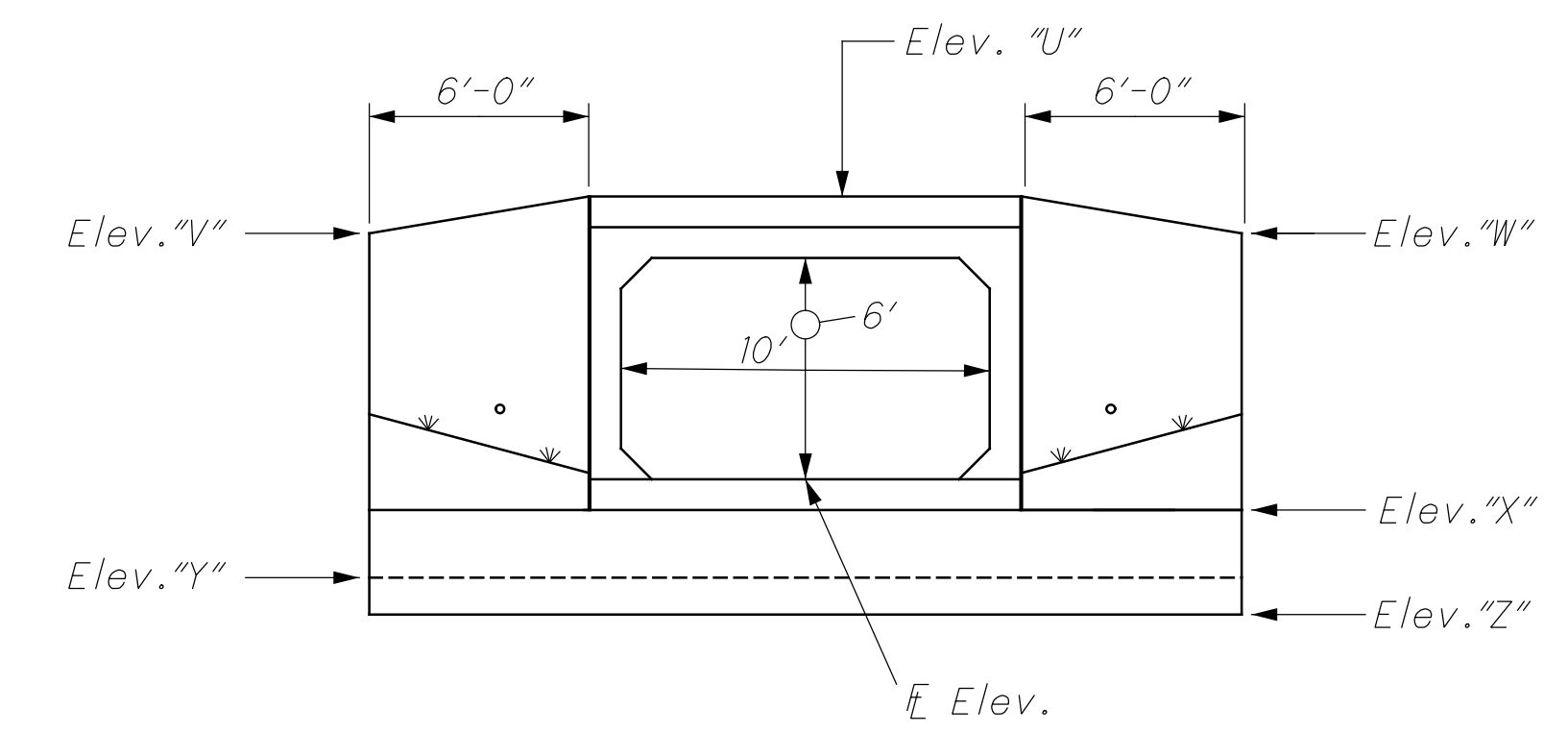
**CULVERT & WINGWALL LAYOUT**

**FOOTING "CORNERS"**

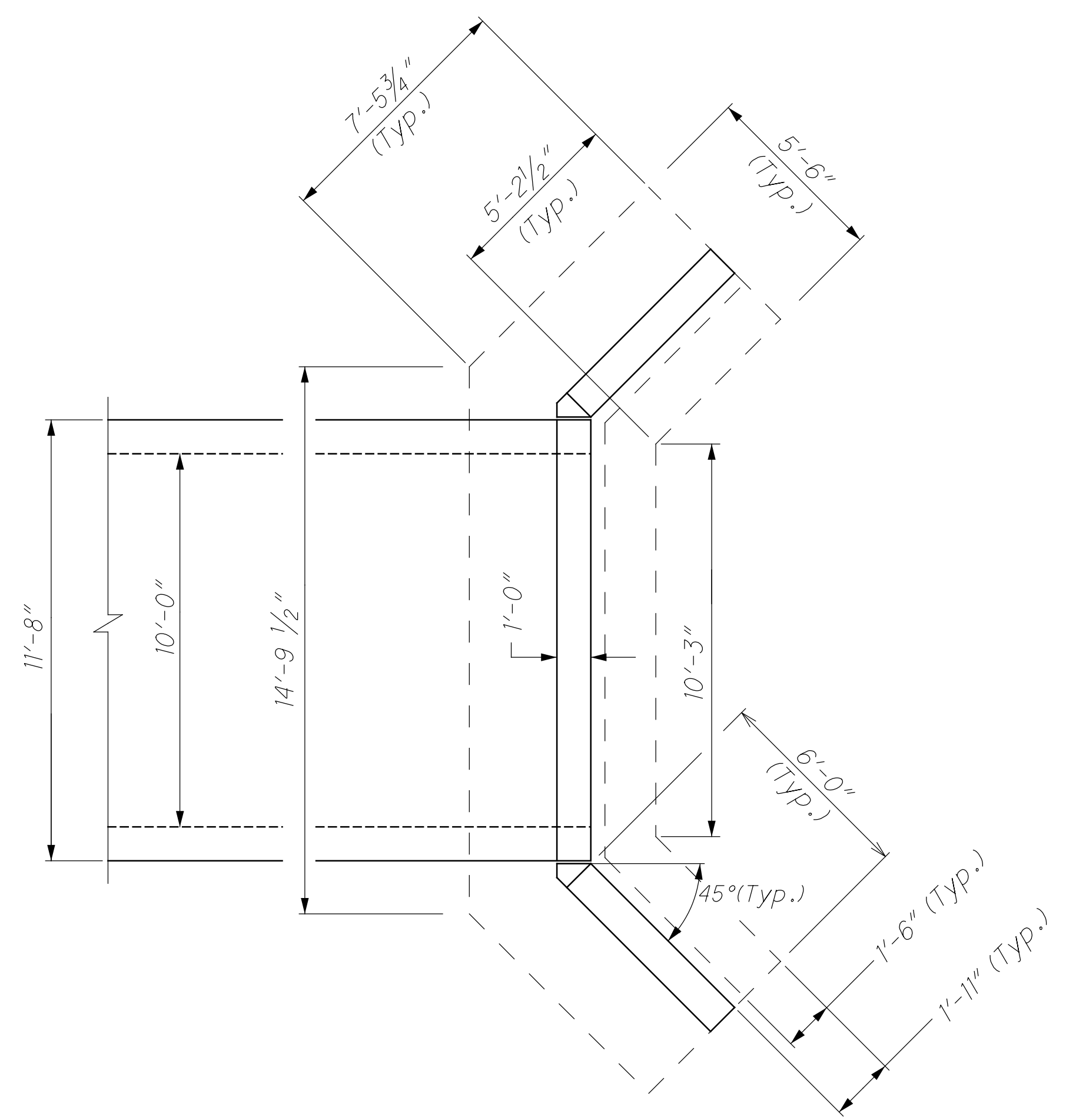
Pt.	Station	Offset	Pt.	Station	Offset
A	1123+41.66	42.21' Lt	I	1123+34.41	40.67' Rt
B	1123+45.00	38.22' Lt	J	1123+38.40	37.33' Rt
C	1123+55.21	37.33' Lt	K	1123+48.60	38.22' Rt
D	1123+59.20	40.67' Lt	L	1123+51.95	42.21' Rt
E	1123+37.45	38.67' Lt	M	1123+30.87	36.46' Rt
F	1123+42.26	32.94' Lt	N	1123+36.61	31.65' Rt
G	1123+57.00	31.65' Lt	O	1123+51.35	32.94' Rt
H	1123+62.73	36.46' Lt	P	1123+56.16	38.67' Rt

Sta. 1123+46.80 S.R. 41  
 Sta. 100+00 Channel @  
 Skew: 5° Left Forward

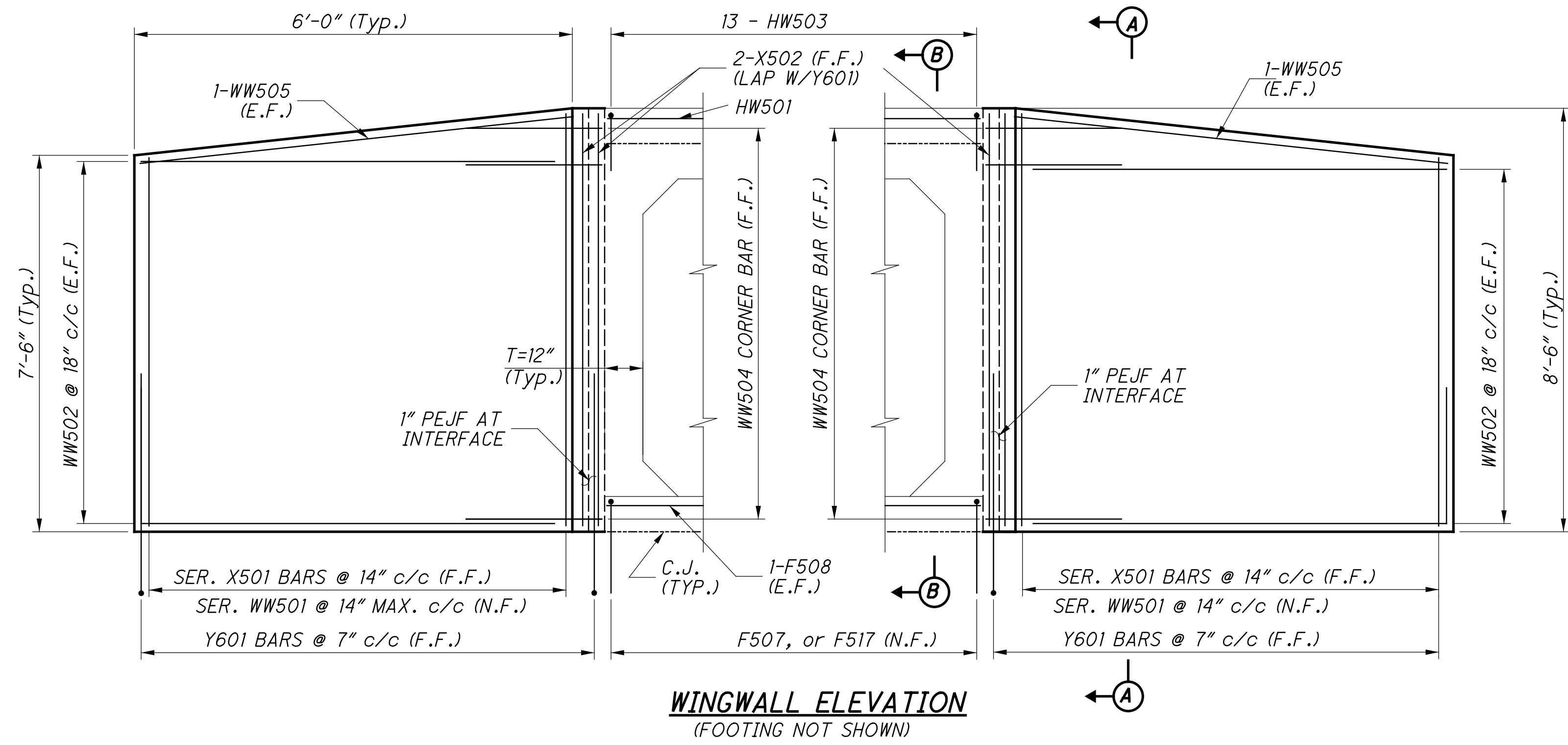
INLET	OUTLET	
578.81	578.67	Elev. U
577.81	577.67	Elev. V
577.81	577.67	Elev. W
570.31	570.17	Elev. X
568.31	568.17	Elev. Y
567.31	567.17	Elev. Z
571.14	571.00	Elev.



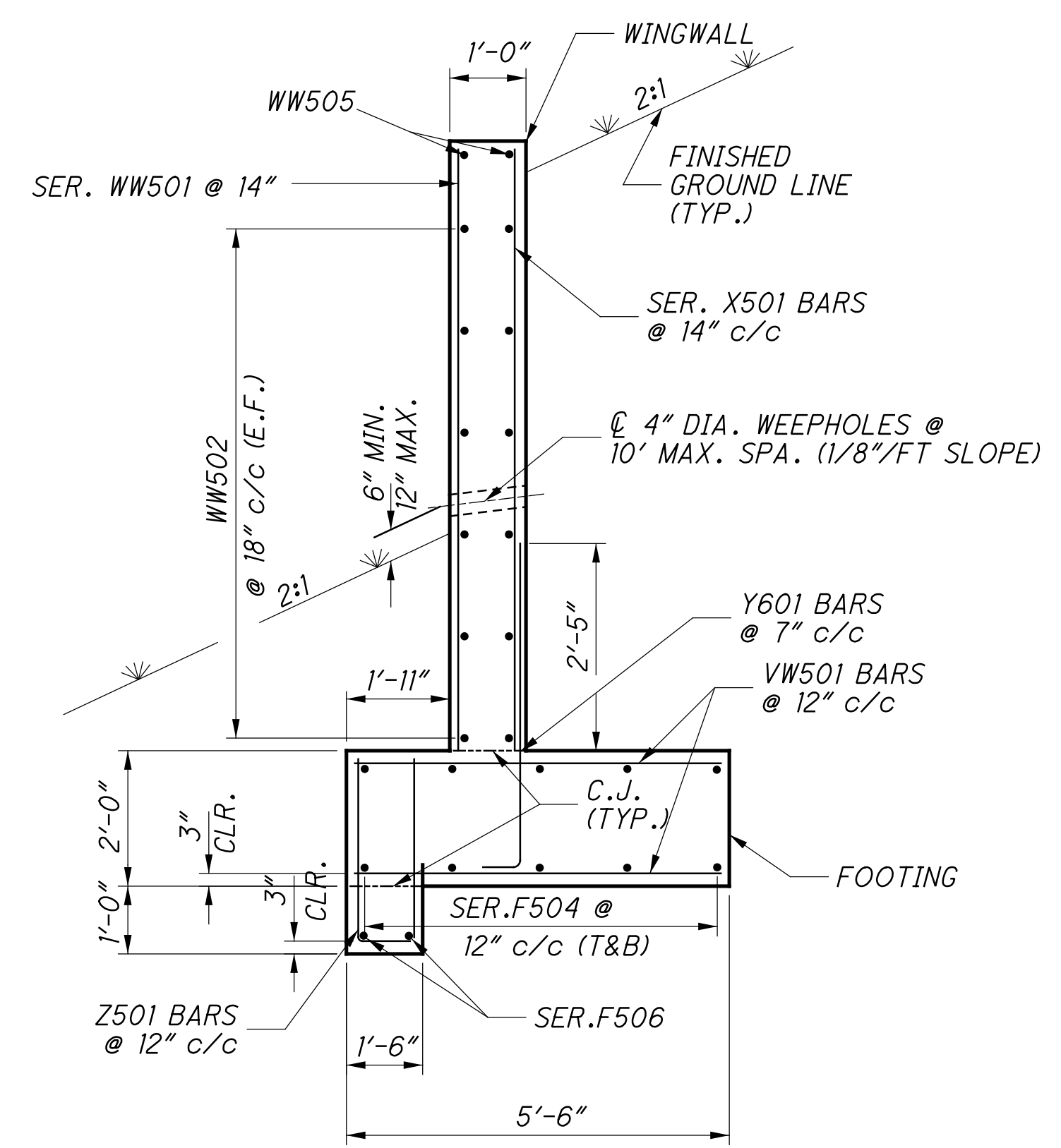
**INLET & OUTLET ELEVATION**



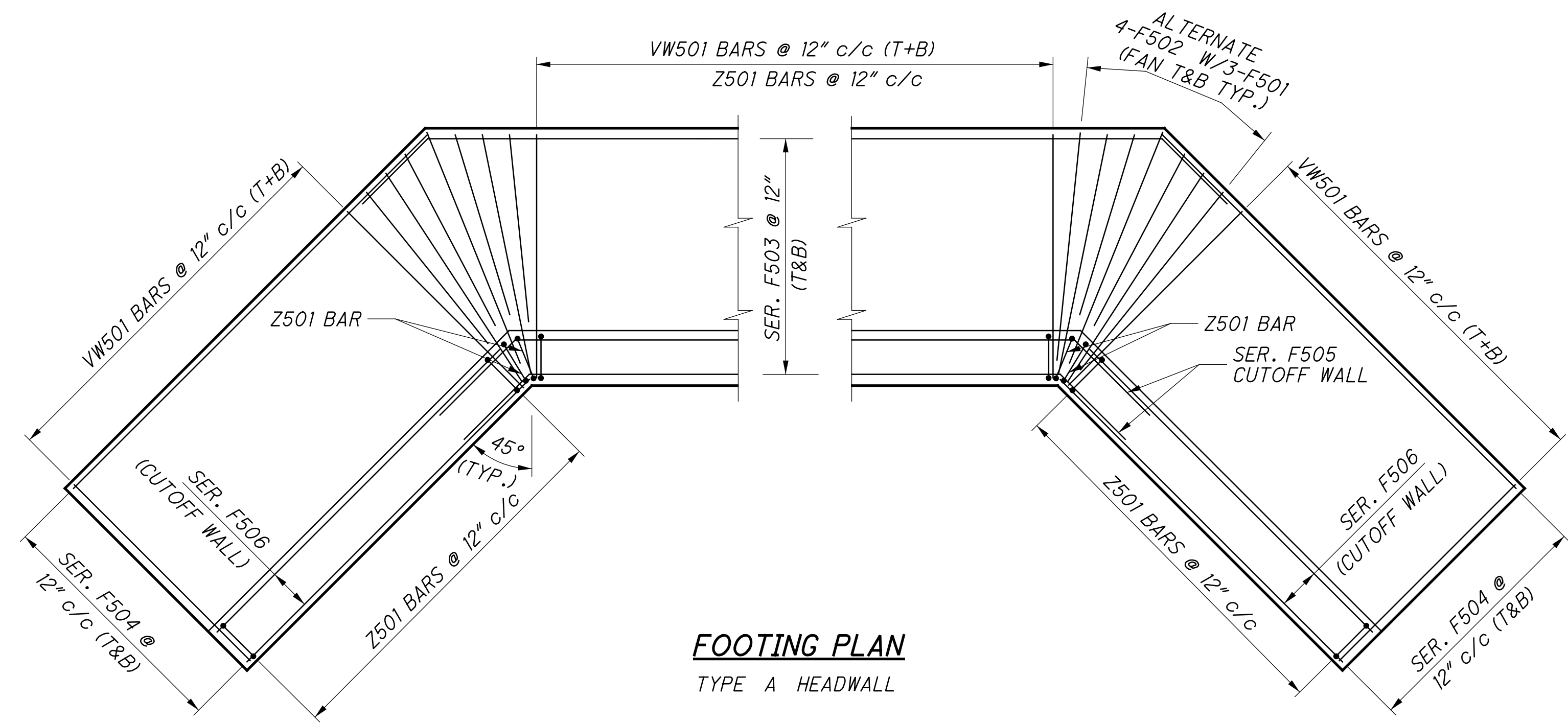
**FOOTING LAYOUT**



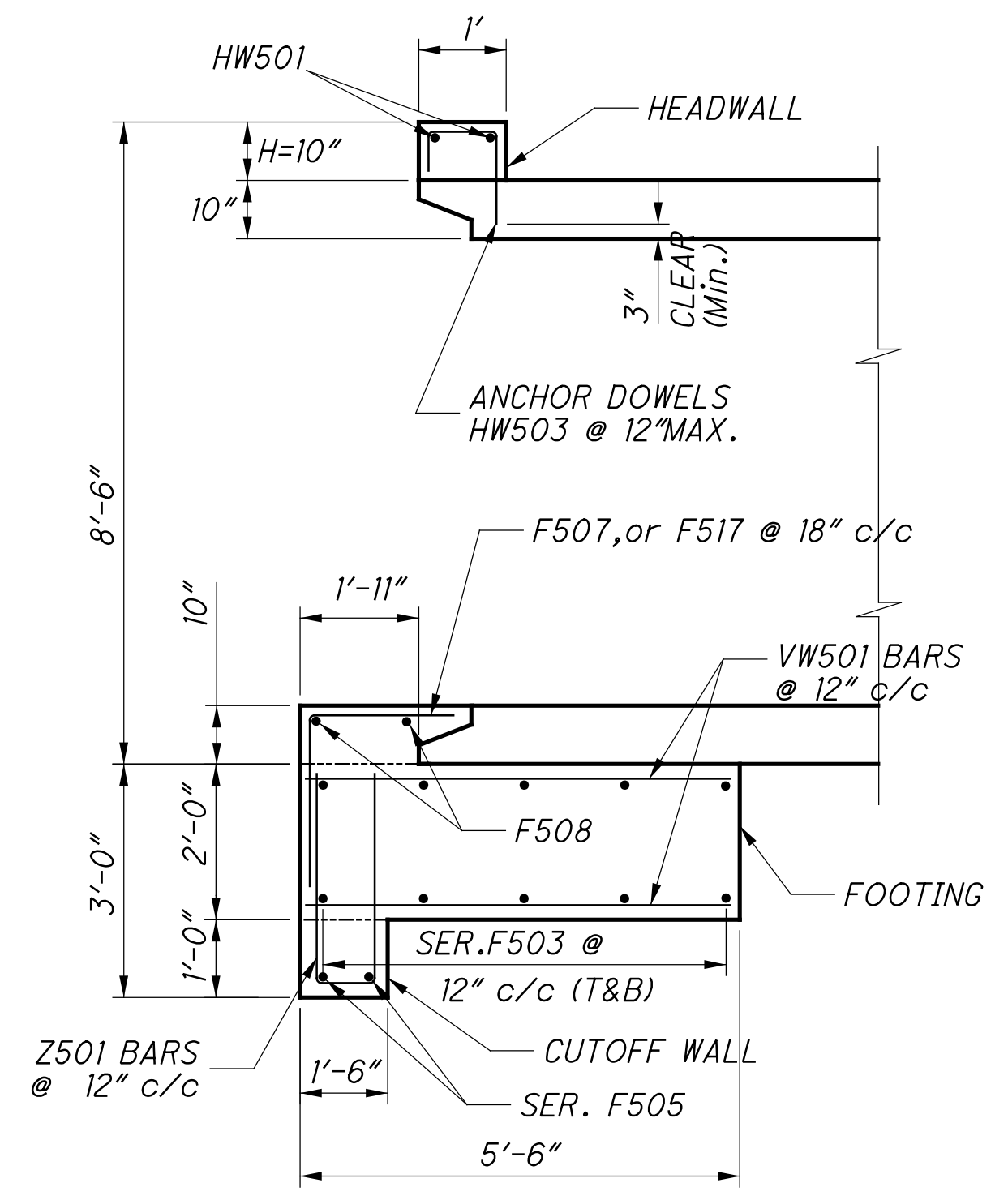
**WINGWALL ELEVATION**  
(FOOTING NOT SHOWN)



**SECTION A-A**  
(POROUS BACKFILL NOT SHOWN FOR CLARITY)



**FOOTING PLAN**  
TYPE A HEADWALL



**SECTION B-B**

**NOTES**

1. FOR CULVERT LOCATION PLAN, SEE SHEET 16.
2. 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. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
3. THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE AS FOLLOWS: 2'-5" FOR #5 BARS; 2'-11" FOR #6 BARS.

**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
PEJF	PREFORMED EXPANSION JOINT FILLER	INC.	INCREMENT

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REINFORCING SCHEDULE

MARK	NO. (Inlet)	NO. (Outlet)	NO. (Total)	LENGTH	WEIGHT	TYPE	A	B	C	D	INCR
WING WALLS											
X501	2	2	24	7'-4"	197	STR.					0'-2 3/8"
X502	4	4	8	8'-4"	70	STR.					
Y601	26	26	52	4'-6"	352	1	0'-6"	4'-2"			
WW501	2	2	24	7'-4"	197	STR.					0'-2 3/8"
WW502	6	6	24	8'-4"	197	STR.					
WW502	24	24	48	5'-8"	284	STR.					
WW504	14	14	28	2'-11"	86	3	0'-2"	2'- 1/4 "	2'- 1/4 "		
WW505	4	4	8	5'-11"	50	STR.					
FOOTING & CUTOFF WALL											
VW501	46	46	92	5'-2"	496	STR.					
Z501	27	27	54	6'-2"	348	5	2'-7"	1'-2"			
F501	12	12	24	4'-8"	117	STR.					
F502	16	16	32	3'-8"	123	STR.					
F503	2	2	24	15'-4"	438	6	1'-9"	1'-9"	10'-4 3/4"		0'- 10 1/4"
F503	6	6	24	19'-7"	438	6	1'-9"	1'-9"	14'-8"		
F503	4	4	24	5'-1"	438	6	1'-9"	1'-9"	14'-8"		
F504	6	6	48	7'-2"	307	STR.					0'- 5"
F504	1	1	48	15'-4"	307	STR.			10'-4 3/4"		
F505	2	2	4	16'-3"	66	6	1'-9"	1'-9"	11'-4 1/4"		0'-11 1/2 "
F505	2	2	4	5'-1"	66	6	1'-9"	1'-9"	11'-4 1/4"		
F506	2	2	8	5'-6"	45	STR.					0'-5"
F506	2	2	8	5'-6"	45	STR.					
F507	10		10	4'-4"	46	1	1'-11"	2'-6"			
F517		10	10	4'-2"	44	1	1'-9"	2'-6"			
F508	2	2	4	11'-4"	48	STR.					
HEAD WALL											
HW501	2	2	4	11'-4"	48	STR.					
HW503	13	13	26	2'-2"	59	7	0'-6"	0'-8"	1'-3"		
TOTAL					3,421 LB						

CULVERT ESTIMATED QUANTITY CALCULATIONS

ITEM 511 - CLASS QC1 CONCRETE (WINGWALLS)  
 (Area= 6.41 SqFt)x(H=8'-6") = 54.5 CuFt  
 Deduct 1/2 [(L=6'-0")x(T=1'-0")x(H=1'-0") = -3.0 Cu Ft  
 TOTAL: [4 x (51.5 CuFt)] / 27 = 7.7 Cu Yd.

ITEM 511 - CLASS QC1 CONCRETE, HEADWALL  
 (H=0'-10")x(L=11'-8")x(W=1'-0") = 9.7 Cu Ft  
 TOTAL: [2x (9.7 CuFt)] / 27 = 0.8 Cu Yd.

ITEM 511 - CLASS QC1 CONCRETE, FOOTING  
 (Area-Footer= 138.7 SqFt)x(H=2'-0") = 277.4 CuFt  
 (Area-Cutoff Wall= 32.9 SqFt)x(H=1'-0") = 32.9 CuFt  
 (Culvert-Lip: (L=11'-8")x(W=1'-11")x(T=0'-10") = 18.6 Cu Ft  
 TOTAL: 2x [328.9 CuFt] / 27 = 24.4 Cu Yd.

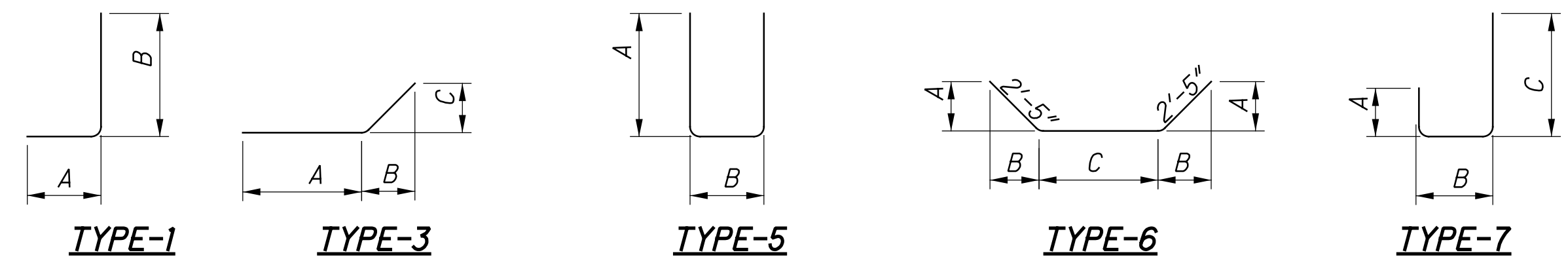
ITEM 512 - SEALING OF CONCRETE SURFACES  
 Wingwall: 4x(A=49.0 SqFt) = 196 SqFt  
 Headwalls: 2x (A=31 SqFt) = 62 SqFt  
 Culvert Face: 2x(A=21.1 SqFt) = 42 SqFt  
 Inside Culvert: 2x(P=30.1')x(L=2') = 120 SqFt  
 TOTAL : (420 SqFt)/9 = 47 SqYd

ITEM 512 - WATERPROOFING, TYPE 2  
 Culvert Sides  
 2x[(H=7'-8") x (L=72')] = 1104 SqFt  
 Culvert Top  
 (W=13'-8")x (L=70') = 957 SqFt  
 TOTAL : (2061 SqFt)/9 = 229 SqYd

ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER  
 TOTAL: 4x [(H=8'-6")x(W=1'-0")] = 34 SqFt

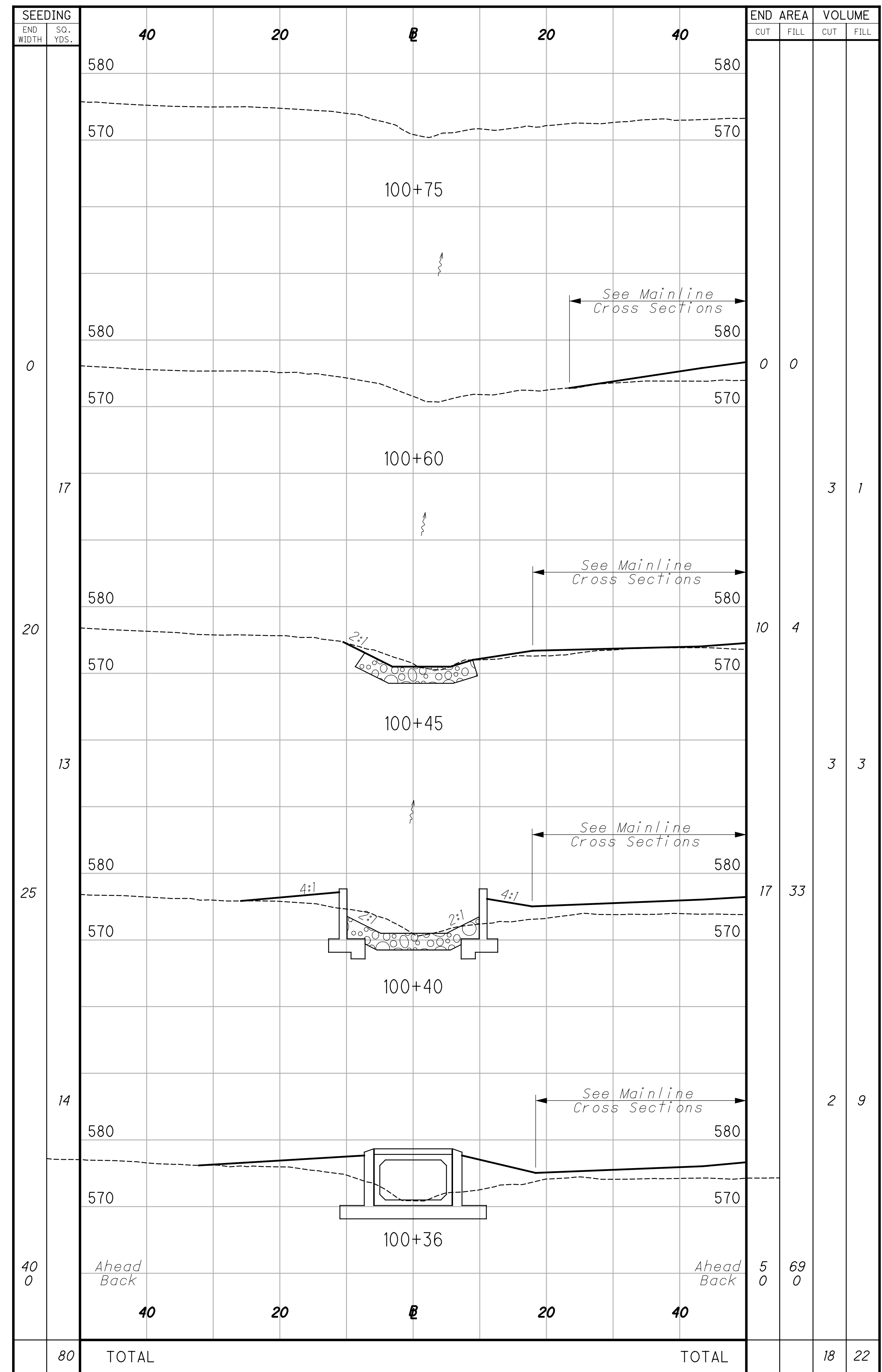
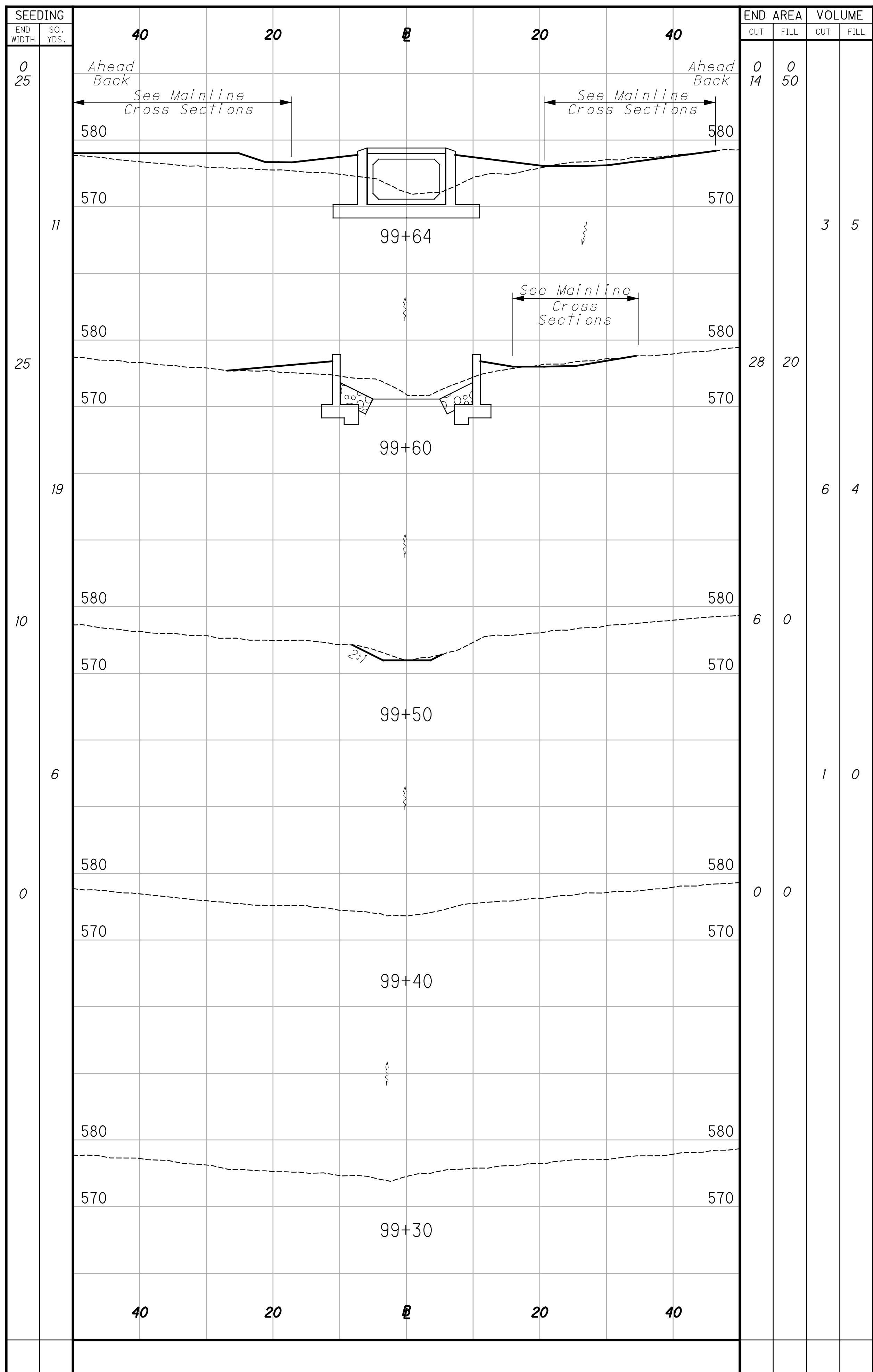
ITEM 613 - LOW STRENGTH MORTAR BACKFILL (TYPE 2)  
 Trench: (See Detail on Sheet 2 / 5 )  
 (A=64 Sq Ft)x (L=70') = 4480 CuFt  
 Wingwalls:  
 2 x (A=20.8 SqFt)x(H=7'-0") = 291 CuFt  
 TOTAL: [2x(4771 CuFt)] / 27 = 353 CuYd

Quantities Carried to Sheet 17.



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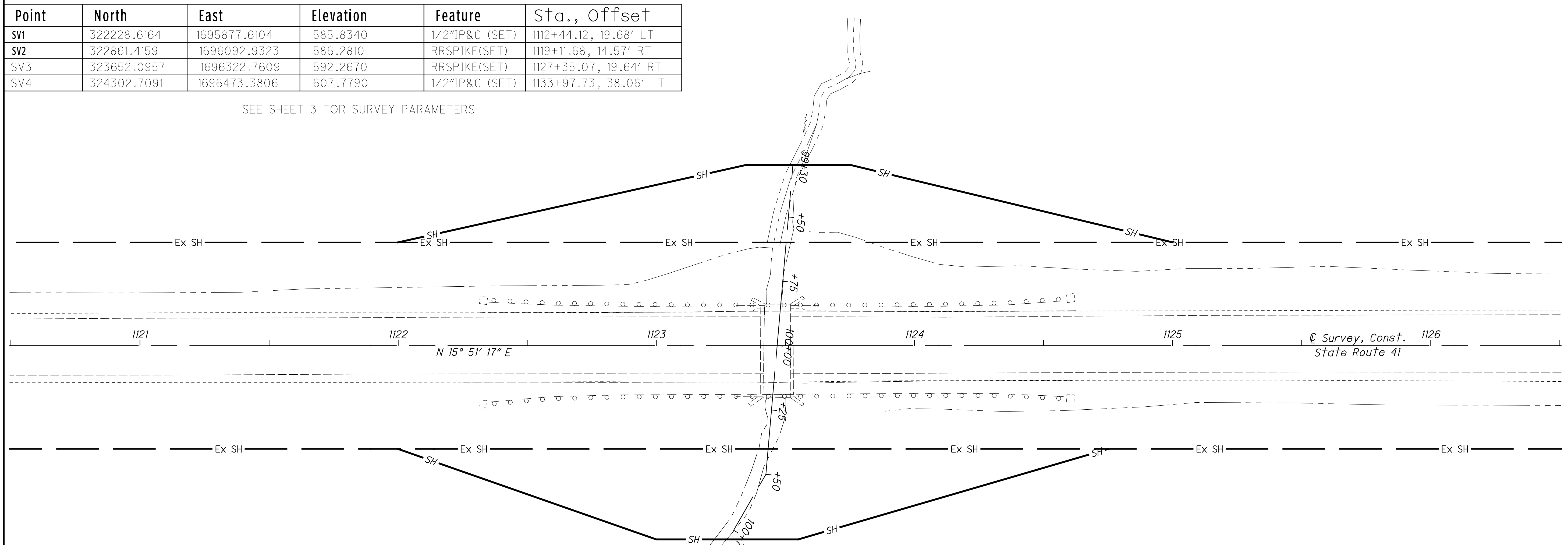
**CROSS SECTIONS  
ADA-41-21.14 Channel**

ADA-41-21.13

PROJECT COORDINATES

Point	North	East	Elevation	Feature	Sta., Offset
SV1	322228.6164	1695877.6104	585.8340	1/2"IP&C (SET)	1112+44.12, 19.68' LT
SV2	322861.4159	1696092.9323	586.2810	RRSPIKE(SET)	1119+11.68, 14.57' RT
SV3	323652.0957	1696322.7609	592.2670	RRSPIKE(SET)	1127+35.07, 19.64' RT
SV4	324302.7091	1696473.3806	607.7790	1/2"IP&C (SET)	1133+97.73, 38.06' LT

SEE SHEET 3 FOR SURVEY PARAMETERS



State Route 41

Station	Northing	Easting
1117+00.0000	322661.7732	1696021.0836
1117+25.0000	322685.8221	1696027.9136
1117+50.0000	322709.8710	1696034.7436
1117+75.0000	322733.9199	1696041.5737
1118+00.0000	322757.9689	1696048.4037
1118+25.0000	322782.0178	1696055.2337
1118+50.0000	322806.0667	1696062.0637
1118+75.0000	322830.1157	1696068.8937
1119+00.0000	322854.1646	1696075.7237
1119+25.0000	322878.2135	1696082.5537
1119+50.0000	322902.2624	1696089.3837
1119+75.0000	322926.3114	1696096.2137
1120+00.0000	322950.3603	1696103.0438
1120+25.0000	322974.4092	1696109.8738
1120+50.0000	322998.4582	1696116.7038
1120+75.0000	323022.5071	1696123.5338
1121+00.0000	323046.5560	1696130.3638
1121+25.0000	323070.6049	1696137.1938
1121+50.0000	323094.6539	1696144.0238
1121+75.0000	323118.7028	1696150.8538
1122+00.0000	323142.7517	1696157.6839
1122+25.0000	323166.8007	1696164.5139
1122+50.0000	323190.8496	1696171.3439
1122+75.0000	323214.8985	1696178.1739
1123+00.0000	323238.9474	1696185.0039
1123+25.0000	323262.9964	1696191.8339
1123+50.0000	323287.0453	1696198.6639

Culvert

Station	Northing	Easting
99+30.0000	323308.8905	1696132.3766
99+50.0000	323301.7704	1696151.0664
99+75.0000	323292.8704	1696174.4285
100+00.0000	323283.9704	1696197.7906
100+25.0000	323275.0704	1696221.1528
100+50.0000	323266.1703	1696244.5149
100+75.0000	323248.2309	1696261.9269

State Route 41

Station	Northing	Easting
1123+50.0000	323287.0453	1696198.6639
1123+75.0000	323311.0942	1696205.4939
1124+00.0000	323335.1432	1696212.3239
1124+25.0000	323359.1921	1696219.1540
1124+50.0000	323383.2410	1696225.9840
1124+75.0000	323407.2899	1696232.8140
1125+00.0000	323431.3389	1696239.6440
1125+25.0000	323455.3878	1696246.4740
1125+50.0000	323479.4367	1696253.3040
1125+75.0000	323503.4856	1696260.1340
1126+00.0000	323527.5346	1696266.9640
1126+25.0000	323551.5835	1696273.7940
1126+50.0000	323575.6324	1696280.6241
1126+75.0000	323599.6814	1696287.4541
1127+00.0000	323623.7303	1696294.2841
1127+25.0000	323647.7792	1696301.1141
1127+50.0000	323671.8281	1696307.9441
1127+75.0000	323695.8771	1696314.7741
1128+00.0000	323719.9260	1696321.6041
1128+25.0000	323743.9749	1696328.4341
1128+50.0000	323768.0239	1696335.2642
1128+75.0000	323792.0728	1696342.0942
1129+00.0000	323816.1217	1696348.9242
1129+25.0000	323840.1706	1696355.7542
1129+50.0000	323864.2196	1696362.5842
1129+75.0000	323888.2685	1696369.4142
1130+00.0000	323912.3174	1696376.2442



20  
HORIZONTAL  
SCALE IN FEET

CALCULATED  
CHECKED

REFERENCE POINTS

ADA - 41 - 21.13

22  
26

# RIGHT OF WAY LEGEND SHEET ADA-41-21.14

UTILITIES

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

AMERICAN ELECTRIC POWER  
(DISTRIBUTION)  
800 TECH CENTER DRIVE  
GAHANNA, OHIO 43230  
614-883-6831

ADAMS COUNTY REGIONAL  
WATER DISTRICT  
P.O. BOX 427  
WEST UNION, OHIO 45693  
937-544-2396

FRONTIER COMMUNICATIONS  
1315 ALBERT STREET  
PORTSMOUTH, OHIO 45662  
740-354-0521

V.M.S. No. 2021  
OLIVER TOWNSHIP  
ADAMS COUNTY, OHIO

**PROJECT DESCRIPTION**

REPLACEMENT OF A CONCRETE SLAB BRIDGE, OVER CURVEHILL COVE RUN, WITH A BOX CULVERT. PROJECT LENGTH IS 200 FT.

**INDEX OF SHEETS:**

LEGEND SHEET	1
CENTERLINE PLAT	2
PROPERTY MAP	3
R/W DETAIL SHEET	4

**PLANS PREPARED BY:**

FIRM NAME : O.D.O.T. DISTRICT 9  
R/W DESIGNER: MJW  
R/W REVIEWER: MJW  
FIELD REVIEWER: MJW  
PRELIMINARY FIELD REVIEW DATE: 11/13/14  
TRACINGS FIELD REVIEW DATE: 12/04/14  
OWNERSHIP UPDATED BY: MJW  
DATE COMPLETED: 12/05/14  
PLAN COMPLETION DATE: 12/05/14

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

**STRUCTURE KEY**

- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

TYPES OF TITLE LEGEND:  
WL = FEE SIMPLE WITH LIMITATION OF ACCESS  
WD = WARRANTY DEED  
PRW = PROPERTY RIGHT FEE SIMPLE  
SH = STANDARD HIGHWAY EASEMENT  
LA = LIMITED ACCESS EASEMENT  
T = TEMPORARY EASEMENT  
CH = CHANNEL EASEMENT  
A = AERIAL EASEMENT  
SL = SLOPE EASEMENT  
PRE = PROPERTY RIGHT EASEMENT

**CONVENTIONAL SYMBOLS**

County Line	-----	Ditch / Creek (Ex)	-----
Township Line	-----	Ditch / Creek (Pr)	-----
Section Line	-----	Tree Line (Ex)	~~~~~
Corporation Line	----- or -----	Ownership Hook Symbol	Z, Example
Fence Line (Ex)	-x-x-(Pr)	Property Line Symbol	P, Example
Center Line	-----	Break Line Symbol	^, Example
Right of Way (Ex)	----- Ex R/W	Tree (Pr)	☼, Tree (Ex) ☼, Shrub (Ex) ☼
Right of Way (Pr)	----- R/W	Tree (Remove)	☼, Shrub (Remove) ☼
Standard Highway Ease.(Ex)	----- Ex SH	Evergreen (Ex)	☼, Stump ☼
Temporary Right of Way	----- TMP	Evergreen (Remove)	☼, Stump (Remove) ☼
Channel Ease. (Pr)	----- CH	Wetland (Pr)	~ , Grass (Pr) ~ , Aerial Target
Utility Ease. (Ex)	----- Ex U	Post (Ex)	○, Mailbox (Ex) ☼, Mailbox (Pr) ☼
Railroad	or -----	Light (Ex)	☼, Telephone Marker (Ex) HTEL
Guardrail (Ex)	o o o o o (Pr)	Fire Hydrant (Ex)	☼, Water Meter (Ex) ☼
Construction Limits	.....	Water Valve (Ex)	☼, Utility Valve Unknown (Ex.) ☼
Edge of Pavement (Ex)	-----	Telephone Pole (Ex)	☼, Power Pole (Ex) ☼
Edge of Pavement (Pr)	-----	Light Pole (Ex)	☼
Edge of Shoulder (Ex)	-----		
Edge of Shoulder (Pr)	-----		

I, Michael James Ware, P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in November 2014. The results of that survey are contained herein. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinate System, South Zone on NAD 83 /2011 (EPOCH2010) datum. The Project Coordinates (US Survey feet) are relative to State Plane Grid Coordinates (US Survey feet) by a Project Adjustment Factor multiplier of 1.000071615. As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless noted. The words I and my as used herein are to mean either myself or someone working under my direct supervision.

Michael James Ware, Professional Land Surveyor No. 8054

Date:

SURVEYORS SEAL





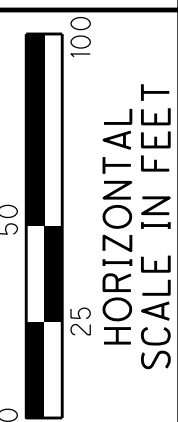
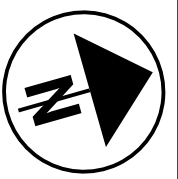
SETTING OF ALL MONUMENTS SHALL BE PERFORMED BY A SURVEYOR REGISTERED IN THE STATE OF OHIO. THE MONUMENT ASSEMBLIES AND REFERENCE MONUMENTS WILL BE INSTALLED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. THE IRON PIN AND CAP (WHEN REQUIRED) ARE TO BE INSTALLED BY THE CONTRACTOR'S SURVEYOR.

CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN IN THIS TABLE, REQUIRE PRIOR APPROVAL FROM THE DISTRICT REAL ESTATE ADMINISTRATOR OF THE OHIO DEPARTMENT OF TRANSPORTATION. IN THE EVENT THAT CHANGES OR ALTERATIONS ARE APPROVED, A REVISED CENTERLINE PLAT WITH THE NEW LOCATIONS SHALL BE RECORDED IN THE APPLICABLE COUNTY RECORDS AND THE OHIO DEPARTMENT OF TRANSPORTATION. SPECIFICATIONS FOR MONUMENT ASSEMBLIES, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1.

# ADA-41-21.14

V.M.S. No. 2021  
OLIVER TOWNSHIP  
ADAMS COUNTY, OHIO

RECEIVED \_\_\_\_\_, 20\_\_\_\_  
RECORDED \_\_\_\_\_, 20\_\_\_\_  
BOOK \_\_\_\_\_ PAGE \_\_\_\_\_  
COUNTY RECORDER

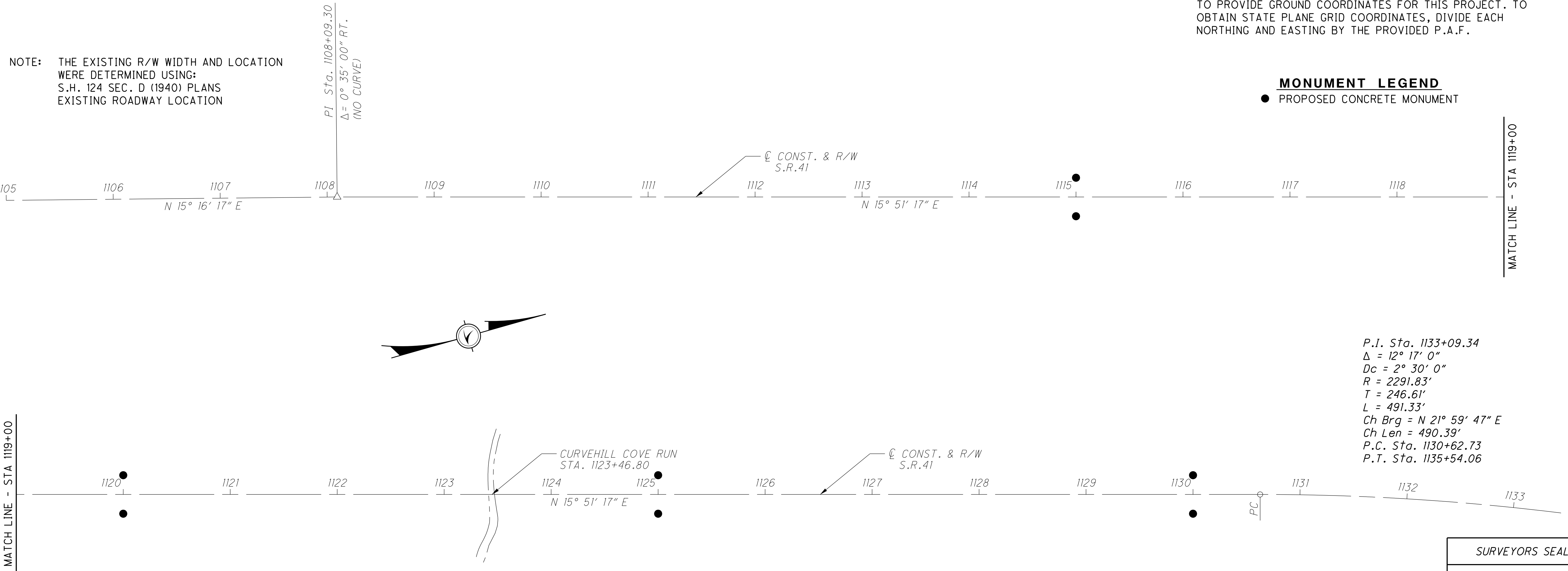


### BASIS FOR BEARINGS:

BEARINGS ARE BASED UPON OHIO STATE PLANE NAD83/2011 (EPOCH2010), OHIO SOUTH ZONE COORDINATES. A PROJECT ADJUSTMENT FACTOR (P.A.F.) OF 1.000048782 HAS BEEN USED TO PROVIDE GROUND COORDINATES FOR THIS PROJECT. TO OBTAIN STATE PLANE GRID COORDINATES, DIVIDE EACH NORTHING AND EASTING BY THE PROVIDED P.A.F.

### MONUMENT LEGEND

- PROPOSED CONCRETE MONUMENT



NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING:  
S.H. 124 SEC. D (1940) PLANS  
EXISTING ROADWAY LOCATION

P.I. Sta. 1133+09.34  
Δ = 12° 17' 0"  
Dc = 2° 30' 0"  
R = 2291.83'  
T = 246.61'  
L = 491.33'  
Ch Brg = N 21° 59' 47" E  
Ch Len = 490.39'  
P.C. Sta. 1130+62.73  
P.T. Sta. 1135+54.06

SURVEYORS SEAL



### MONUMENT TABLE

☉ of CONST. & R/W S.R. 41	PROJECT COORDINATES SEE SURVEY CERTIFICATION		MONUMENTS TO BE SET DURING CONSTRUCTION	
STATION / OFFSET	NORTH (Y)	EAST (X)	☉ REF. MON.	DESCRIPTION
1115+00.00 / 18' LT	322474.2993	1695949.1283	1	☉ REF. MON. TYPE A DESIGN 6
1115+00.00 / 18' RT	322464.4641	1695983.7588	1	
1120+00.00 / 18' LT	322955.2779	1696085.7285	1	
1120+00.00 / 18' RT	322945.4427	1696120.3590	1	
1125+00.00 / 18' LT	323436.2565	1696222.3288	1	
1125+00.00 / 18' RT	323426.4213	1696256.9592	1	
1130+00.00 / 18' LT	323917.2350	1696358.9290	1	
1130+00.00 / 18' RT	323907.3998	1696393.5594	1	☉ REF. MON. TYPE A DESIGN 6
TOTAL CARRIED TO GENERAL SUMMARY			8	ITEM 623E 40500

I, Michael James Ware, P. S. have conducted a survey of the existing conditions for the Ohio Department of Transportation in November 2014. The results of that survey are contained herein. The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinates System South Zone on NAD83 / 2011 (EPOCH 2010) datum. The Project Coordinates (US Survey Feet) are relative to State Plane Grid Coordinates (US Survey Feet) by a Project Adjustment Factor of 1.000048782. As a part of this project I have reestablished the locations of the existing property lines and the existing centerline of Right of Way for property takes contained herein. As a part of this project I have established the proposed property lines, calculated the Gross Take, present roadway occupied (PRO), Net Take and Net Residue; as well as prepared the legal descriptions necessary to acquire the parcels as shown herein. As a part of this work I have set right of way monuments at the property corners, property line intersection, points along the right of way and/or angle points on the right of way, Section Corners and other points as shown herein. All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "Minimum Standards for Boundary Surveys in the State of Ohio" unless noted. The words I and my as used herein are to mean either myself or someone working under my direct supervision.

Michael James Ware, Professional Land Surveyor S-8054

Date: \_\_\_\_\_

PID NO.  
**91601**

R/W DESIGNER  
M/JW  
R/W REVIEWER  
M/JW

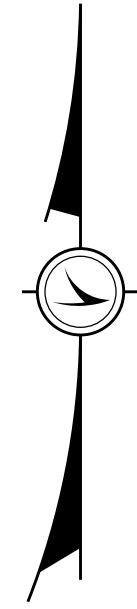
CENTERLINE PLAT

ADA-41-21.14

2 / 4

24  
26

V.M.S. No. 2021  
 OLIVER TOWNSHIP  
 ADAMS COUNTY, OHIO

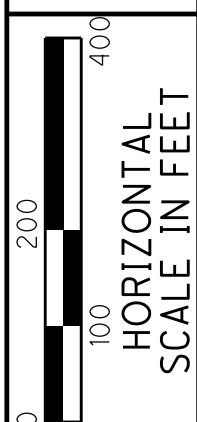


10  
 R. NORMAN BUTTS  
 R. ELEANOR ASAUD  
 ROGER L. BUTTS  
 DV 294 PG 268  
 079-00-00-018.000  
 163.50 AC

CHARLES R. HOOP  
 BETTY J. HOOP  
 OR 314 PG 776  
 079-00-00-017.000  
 40.092 AC

SHARON A. HARRIS  
 JAUNITA J. SHIVELY  
 TRUSTEES  
 OR 388 PG 10  
 079-00-00-009.000  
 4.593 AC

- End Work  
Sta. 1125+45
- End R/W Acq.  
Sta. 1125+00
- End Project  
Sta. 1124+00
- Begin Project  
Sta. 1123+00
- Begin R/W Acq.  
Sta. 1122+00
- Begin Work  
Sta. 1121+45



PID NO.  
**91601**

R/W DESIGNER  
 MJW  
 R/W REVIEWER  
 MJW

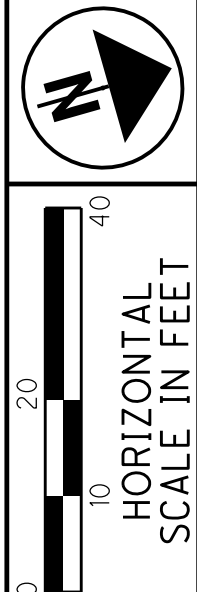
**PROPERTY MAP**

**ADA-41-21.14**

3 / 4

25  
 26

V.M.S. No. 2021  
OLIVER TOWNSHIP  
ADAMS COUNTY  
OHIO

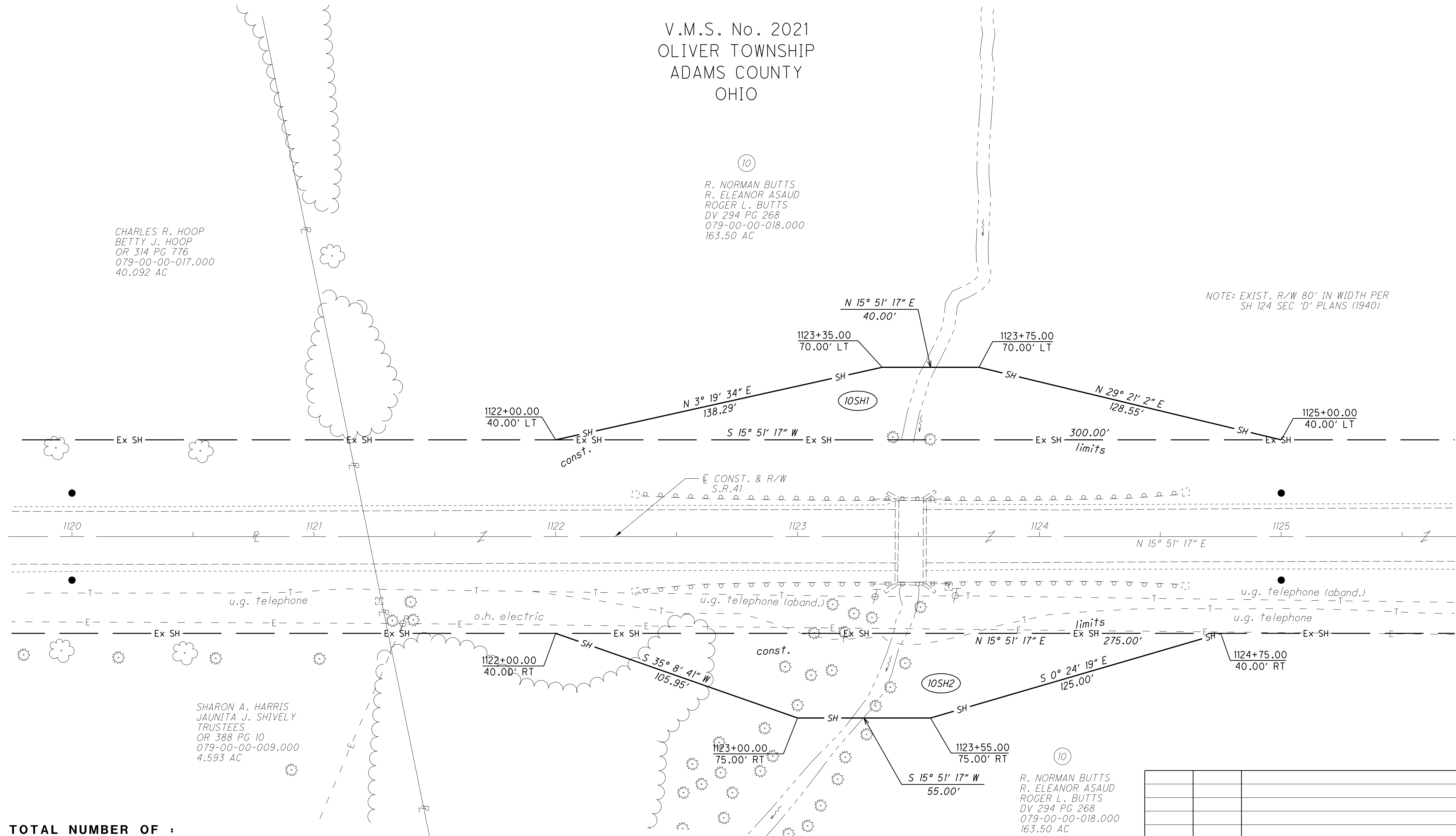


CHARLES R. HOOP  
BETTY J. HOOP  
OR 314 PG 776  
079-00-00-017.000  
40.092 AC

R. NORMAN BUTTS  
R. ELEANOR ASAUD  
ROGER L. BUTTS  
DV 294 PG 268  
079-00-00-018.000  
163.50 AC

SHARON A. HARRIS  
JAUNITA J. SHIVELY  
TRUSTEES  
OR 388 PG 10  
079-00-00-009.000  
4.593 AC

NOTE: EXIST. R/W 80' IN WIDTH PER  
SH 124 SEC 'D' PLANS (1940)



**TOTAL NUMBER OF :**  
 1 OWNERSHIPS                      0 OWNERSHIPS WITH STRUCTURES INVOLVED  
 2 PARCELS                            0 OWNERSHIPS WITH "P" ITEMS  
 0 TOTAL TAKES

NET TAKE = GROSS TAKE - PRO IN TAKE  
 NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

STATE JOB NO.      PID NO.      FEDERAL  
 495736              91601              E120(899)

ALL AREAS IN ACRES

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY: MJW	DATE: 12/04/14	
OWNERSHIP VERIFIED BY: MJW	DATE: 12/05/14	
DATE COMPLETED: 12/05/2014		

PARCEL NO.	OWNER	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		REMARKS AND PERSONALITY	AS ACQUIRED	
		BOOK	PAGE								LEFT	RIGHT		BOOK	PAGE
10-SH1	R. NORMAN BUTTS R. ELEANOR ASAUD	DV 294	268	079-00-00-018.000	163.50	3.6363	0.1171	0.0000	0.1171		133.4792				
10-SH2	ROGER L. BUTTS						0.1326	0.0000	0.1326		26.1348				

PID NO. **91601**

**RIGHT OF WAY PLAN**  
**STA. 1120+00 TO STA. 1125+50**

**ADA-41-21.14**

# SPECIAL PROVISIONS

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# WATERWAY PERMITS CONDITIONS

C-R-S: ADA-41-21.14

PID: 91601

Date: 12/29/2014

## 1. Waterway Permit Time Restrictions:

Regional General Permit (RGP) Section B (Maintenance) is authorized for ADA-41-21.14, PID 91601. A copy of the RGP shall be kept at the work site at all times and made available to all contractors and subcontractors. The permit is effective starting: **December 29, 2014**. The permit expires: **October 24, 2019**.

For permitted work in aquatic resources (including, but not limited to: streams, wetlands, jurisdictional ditches, captured streams, lakes, ponds), the Department will consider the Contractor's submission of a reauthorization to the waterway permit end date based on project constraints. In order to be considered, the Contractor must submit a justification to the Engineer at least 90 days prior to the waterway permit end date. The Engineer will submit the request for a time extension to ODOT-OES-WPU for consideration and coordination with the U.S. Army Corps of Engineers (USACE), Ohio Environmental Protection Agency (OEPA), U.S. Coast Guard (USCG), U.S. Fish and Wildlife Service (USFWS), and Ohio Department of Natural Resources (ODNR).

## 2. Deviations From Permitted Construction Activities

No deviation from the requirements for work in aquatic resources depicted in the plans, Special Provisions, and/or working drawings may be made unless a modification has been submitted to ODOT-OES-WPU and approved by the appropriate agencies (i.e., USACE, OEPA, USCG, ODNR, and USFWS).

For emergency situations resulting in unanticipated impacts to aquatic resources, provide notification (verbal or written) to the Engineer as soon as possible following discovery of the situation. Written notification to the Engineer and notification to the ODOT-OES-WPU (614-466-7100) must be made within 24 hours.

For non-emergency situations, notify the Engineer in writing for submission to the ODOT-OES-WPU (614-466-7100) for consideration and coordination with the appropriate agencies. Notification must be made at least 90 days prior to planned, non-permitted activities. Consideration of the requested deviation is at the discretion of the Director and must be coordinated with the appropriate regulatory agencies.

## 3. In-Stream Work Restrictions

Work in the following aquatic resources is further restricted as follows:

Stream Name /Description	Location	Work restriction dates (No in-stream work permitted)
Curvehill Cove Run	STA 1123+46.80	None

In-stream work has been defined as the placement and/or removal of fill materials (temporary or permanent) below ordinary high water of a stream. Examples of "fill" include, but are not limited to: bridge piers, abutments, culverts, rock channel protection, scour protection and temporary work pads.

Fills placed within a stream identified in the above table (outside of the work restriction dates) can continue to be worked from during the work restriction dates, but cannot be expanded, removed, or otherwise modified (below ordinary high water) until once again outside of the work restriction dates.

## 4. Materials:

Materials utilized in or adjacent to aquatic resources on this project for temporary or permanent fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities.



Broken asphalt is specifically excluded. Chromated Copper Arsenate (CCA), creosote, and other pressure treated lumber shall not be used in structures that are placed in aquatic resources.

#### 5. Cultural Resources

If archeological sites or human remains are discovered, cease all work in the immediate area and notify the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-Cultural Resource Section at 614-466-7100. In the event of human remains are identified by OES-Cultural Resources Section the Engineer shall also contact the Adams County Sheriff's Office at (937) 544-2314.

#### 6. Aquatic Resource Demarcation:

All aquatic resources indicated on the plans shall be demarcated in the field as per SS 832 prior to site disturbance. Permanent and temporary impacts shall not exceed 225 feet of Curvehill Cove Run. The remainder of the aquatic resources must be demarcated as to ensure avoidance. The fence shall remain in place and be maintained throughout the construction process. Following the completion of the project, the fence and posts shall be removed.

#### 7. Spill containment:

Provide and Maintain an Oil Spill Kit with a minimum capacity of 65 gallons. The Spill Kit shall contain:

- 6 - 3 in. X 8 ft. Oil only socks
- 4 - 18 in. X 18 in. Oil only pillows
- 2 - 5 in. X 10ft. Booms
- 50 - 16in. X 20 in. Oil only pads
- 10- Disposable Bags
- 1- 65 Gallon drum with lid
- 25 pounds of Granular Oil Absorbent

The Oil Spill Kit shall be located within 150 feet of any equipment working in a stream or wetland. The oil Spill Kit shall be maintained for the life of the contract. Any materials utilized during the project will be replaced within 48 hours. All costs associated with furnishing and maintaining the above referenced spill containment kit is incidental to work.

#### 8. Blasting:

State law requires notification to the Ohio Department of Natural Resources should blasting be required within or near stream channels (See ORC 1533.58 & CMS 107.09). Notify Engineer, in writing, for submission to ODOT-OES-WPU (614-466-7100) for coordination with ODNR.

#### 9. Bridge Inspection:

Prior to the removal of bridge structures, the underside must be carefully examined for the presence of birds and bats. Should any birds or bats be found roosting on the underside of the bridge, the Contractor is required to notify the Engineer for coordination with ODOT-OES-WPU (614-466-7100).

#### 10. Project Inspection:

Inspection of Work may include inspection by representatives of other government agencies or railroad corporations that pay a portion of the cost of the Work or regulate the Work through State and Federal law. Comments from the representatives of these agencies shall be directed to the Engineer. Please forward a copy to ODOT-OES-WPU (614-466-7100).

#### 11. Temporary Access Fills (Stream and River Crossings and Fills)

##### Special Provisions Notes:

**Regional General Permit (RGP) for the State of Ohio Department of Transportation**

##### **Definitions:**

##### **Hydraulic Opening**

The cross sectional area allowing an unimpeded discharge equal to twice the highest monthly flow without producing a rise in the backwater above the Ordinary High Water Mark (OHWM)\*.

##### **Standard Temporary Discharge**

The hydraulic opening providing a capacity for a discharge equal to twice the *highest monthly flow* without producing a rise in the backwater above the OHWM shall be known as the Standard Temporary Discharge. The U.S. Geologic Service publication "Techniques for estimating Selected Streamflow Characteristics of Rural Unregulated Streams in Ohio" provides equations that estimate monthly flow for Ohio Waterways These flows are also available in a web application by USGS StreamStats, (<http://water.usgs.gov/osw/streamstat/ohi.html>).

##### **Average Monthly Flow**

The average monthly flow represents the estimated "normal" flow.

##### **Temporary Access Fills (TAFs)**

In Streams and Rivers may include, but are not limited to, causeways, cofferdams (as described by other items of work), access pads, temporary bridges, etc. The Contractor will make every attempt minimize disturbance to water bodies, stream banks, stream beds, and approach sections during the construction, maintenance, and removal of the TAFs. Fording of streams and rivers is prohibited. Construct TAFs in such a manner that will maintain flows, minimize upstream flooding, and avoid overtopping the TAF on a regular basis. ***TAFs shall be designed and constructed so that the hydraulic opening provides capacity for a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the Ordinary High Water Mark (OHWM)\*.***

##### **Requirements**

21 calendar days prior to the initiation of any in-stream work, provide the Engineer with working drawings that include:

- Plan view drawing (200 scale or less) showing the location of all jurisdictional temporary fill proposed for use on the project.
- Scaled Cross section and profile drawing showing the OHWM and the proposed compliant hydraulic opening.
- A description of the installation and staging of all temporary jurisdictional fill over the life of the contract.
- A description of the removal of all jurisdictional temporary fill and restoration of the channel and all areas impacted by the jurisdictional temporary fill.
- A schedule outlining the timing of the placement and removal of all TAF.
- Have an Ohio Registered Engineer prepare, sign, seal, and date the working drawings. Have a second Ohio Registered Engineer check, sign, and seal and date the working drawings. The preparer and checker are two different Engineers. Include the following statement on the working drawings:  
"These working drawings were prepared in compliance with the terms of the Regional General Permit and all contract documents."
- Include supporting hydraulic calculations developed by the engineer(s) who sealed the working drawings.
- Do not begin in-stream work until the Engineer has accepted the working drawings.



If the OHWM is not shown on the plans, the Department will establish the OHWM based on the definition of OHWM (as defined in SS 832) or the peak discharge from the 2 year event, using the method described in the most current version of the Department's Location and Design Manual Volume II.

If the Contractor proposes a TAF which does not provide for the Standard Temporary Discharge (discharge equal to twice the highest monthly flow without producing a rise in the backwater), the Contractor is required to coordinate the request for the contractor's proposed TAF with the Engineer and the ODOT Office of Environmental Services (OES). The Department makes no guarantee to grant the request. The contractor's proposed TAF request will be coordinated by OES with the USACE and the OEPA, as appropriate.

In addition to the requirements described in SS 832, supply the Engineer/OES with the following:

1. A plan and profile showing the temporary access fill(s) with the OHWM.
2. Cross section showing the hydraulic opening and the anticipated discharge flow.
3. A restoration plan for the area affected by the temporary access fill(s).
4. A schedule outlining the timing of the placement and removal of the temporary access fill(s).

The time frame allowed for the coordination of the contractor's proposed TAF will be a minimum of 60 days. Installation of any jurisdictional fill without a 404 Permit authorized by the USACE is strictly prohibited. All direct coordination with the USACE and/or OEPA will be performed through OES.

#### **TAFs Construction and Payment**

Begin planning and installing causeways and access fills as early in construction as possible to avoid conflicts with 404/401 permits or other environmental commitments that have been included in the construction plans.

TAFs in Streams and Rivers may include, but are not limited to, causeways, cofferdams, access pads, temporary bridges, etc. Make every attempt minimize disturbance to water bodies, stream banks, stream beds, and approach sections during the construction, maintenance, and removal of the TAFs. Make every attempt to minimize disturbance to water bodies during construction, maintenance, and removal of the causeway and access fills. Construct the causeway and access fills as narrow as practical. Install in-stream conduits parallel to the stream banks. Make the causeway and access fills in shallow areas rather than deep pools where possible. Minimize clearing, grubbing, and excavation of stream banks, bed, and approach sections. Construct the causeway and access fills as to not erode stream banks or allow sediment deposits in the channel.

Prior to the initiation of any in-stream work, establish a monument upstream of proposed temporary crossing or temporary construction access fill to visually monitor the water elevation in the waterway where the fill is permitted. Maintain the monument throughout the project. Provide a visual mark on the monument that identifies the elevation 1 foot above the OHWM. If the OHWM is not shown on the plans, the Department will establish the OHWM based on the definition of OHWM (SS 832.02) or the peak discharge from the 2 year event, using the method described in the most current version of the Department's Location and Design Manual Volume II.

Ensure that the monument can be read from the bank of the waterway. Have this elevation set and certified by an Ohio Registered Surveyor.

TAFs placed by the contractor above the OHWM are not subject to the 404/401 permit constraints. All costs associated with furnishing and maintaining the above referenced monument is incidental to the work.

Should the water elevation of the waterway, exceed the elevation 1 foot above OHWM, the Department will compensate the Contractor for repair of any resulting damage to the permitted temporary access fill up to the elevation of 1 foot above the OHWM, except as noted. Follow the requirements in Item 502 for

Structures for Maintaining Traffic and in Item 503 for Cofferdams and any modifications to these items as shown in the plans. The Department will not pay for repair and maintenance of temporary access structures that are related to the construction access fill.

Should the water elevation of the waterway exceed the elevation shown on the monument, the Department will recognize this event as an excusable, non-compensable delay in accordance with Section 108.06 of the Construction & Materials Specifications.

Construct the causeway and fills, not including cofferdams and temporary bridges, to a water elevation at least 1 foot (0.3 m) above the OHWM. If more than one-third the width of the stream is filled, then use culvert pipes to allow the movement of aquatic life. Ensure that any ponding of water behind the causeway and access fills will not damage property or threaten human health and safety.

The following minimum requirements apply to TAFs where culverts are used.

- A. Furnish culverts on the existing stream bottom.
- B. Avoid a drop in water elevation at the downstream end of the culvert.
- C. Furnish a sufficient number of culverts in addition to stream openings to providing a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the OHWM.
- D. Furnish culverts with a minimum diameter of 18 inches (0.5 m).

For all fill and surface material placed in the channel, around the culverts, or on the surface of the causeway and access fills furnish clean, non-erodible, nontoxic dumped rock fill, Type B, C, or D, as specified in C&MS 703.19.B. Extend rock fill up the slope from original stream bank for 50 feet (10 m) to catch and remove erodible material from equipment.

When the work requiring the TAFs is complete all portions of the TAF (including all rock and culverts) will be removed in its entirety. The material will not be disposed in other waters of the US or isolated wetland. The stream bottom affected by the causeway and access fills will be restored to its pre-construction elevations. The TAF will not be paid as a separate item but will be included by the Contractor as part of the total project cost.

Unless specific TAFs compensation is included in the plans, all environmental protection and control associated with the 404/401 permit activities, including but not limited to TAFs, are incidental to the work within the boundaries of the 404/401 permit or as otherwise identified in the 404/401 permit application.

#### 12. Excavation Activities:

Excavated material will be placed at the upland site and disposed of in such a manner that sediment and runoff to streams and other waters is controlled and minimized. If any changes to the proposed work are deemed necessary, you must notify and coordinate with the ODOT-OES-WPU (614-466-7100).

#### 13. Bridge Demolition Debris:

Demolition debris from bridge removal activities is considered a fill activity by the USACE and Ohio EPA and placement must not exceed 72 hours within waters of the US. If removal of debris material cannot be achieved within 72 hours, please contact ODOT- Office of Environmental Services - Waterway Permits Unit at 614-466-7100.