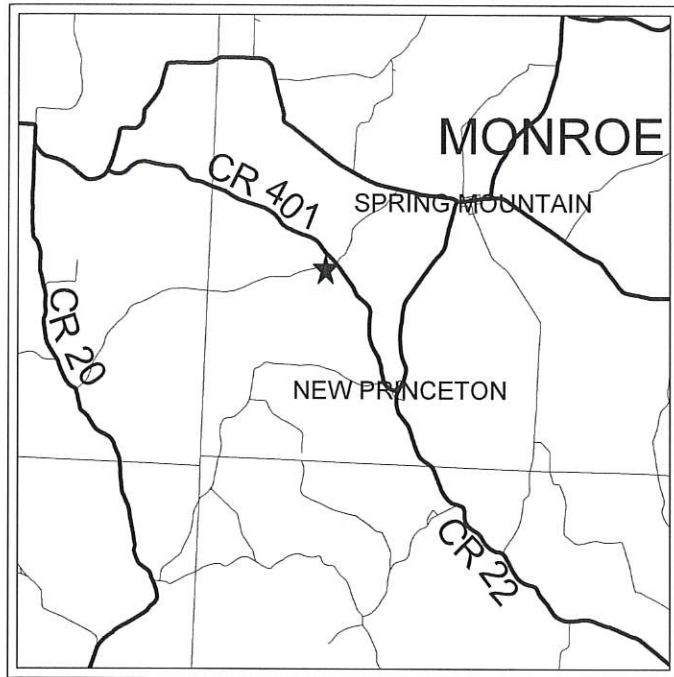


J:\ANDREWJONES\Construction\Bridges\2022 Bridges\TR 337 Bridge #1 Emergency\Plans\TR 337 Bridge 1 Title Sheet.dwg 26-Apr-22 10:07 AM



LOCATION MAP

LATITUDE: 40° 24' 04" LONGITUDE: -82° 04' 18"

NOT SHOWN TO SCALE



LOCATION TO BE IMPROVED.....★  
COUNTY ROADS.....  
TOWNSHIP ROADS.....

COSHOCTON COUNTY  
ENGINEER'S OFFICE

TR 337 BRIDGE 1  
REPLACEMENT  
MONROE TOWNSHIP

INDEX OF SHEETS:

TITLE SHEET	1
GENERAL NOTES AND SUMMARY	2
CULVERT PLAN AND PROFILE	3
CULVERT PLAN / ELEVATION DETAIL	4
CULVERT/FOOTER REINFORCEMENT DETAIL	5
QUANTITIES, DETAILS AND REINFORCEMENT SCHEDULE	6

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE REPLACEMENT OF TR 337 BRIDGE 1 WITH A 14' X 8' X 40' CONCRETE BOX CULVERT INCLUDING EXCAVATION, EMBANKMENT, DEWATERING, AND CONSTRUCTION OF CONCRETE CUTOFF WALLS AND MONOLITHIC CONCRETE WINGWALLS.

LIMITED ACCESS

ROAD WILL REMAIN CLOSED TO ALL TRAFFIC DURING CONSTRUCTION.

2019 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 APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE ROAD.

APPROVED

*Frederick J. Wachtel*

DATE 4/26/2022 COSHOCTON COUNTY ENGINEER



ENGINEERS SEAL	STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
 SIGNED: <i>Frederick J. Wachtel</i> DATE: <u>4/26/2022</u>	DM-4.3	1-15-16			800	4-15-22
	DM-4.4	1-15-16			832	10-19-18

DESIGN AGENCY  
COSHOCTON COUNTY ENGINEER'S OFFICE

PROJ. NO.  
CU53Y

TITLE SHEET  
TR 337 BRIDGE 1 REPLACEMENT

COSHOCTON COUNTY  
ENGINEER'S OFFICE

1  
6

UTILITIES

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

FRONTIER POWER COMPANY

FRONTIER COMMUNICATION

THE LOCATIONS OF UNDERGROUND UTILITIES HAVE NOT BEEN FIELD LOCATED BY THE ENGINEER AND ARE NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES FROM THEIR RESPECTIVE OWENERS PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL PROVIDE THE ENGINEER ALL OUPS REFERENCE NUMBERS FOR THIS PROJECT.

THE CONTRACTOR IS RESPONSIBLE FOR CALLING THE OHIO UTILITIES PROTECTION SERVICE AT LEAST TWO DAYS BEFORE DIGGING. THE TOLL-FREE NUMBER IS (800) 362-2764

ANY AND ALL WORK REQUIRED FOR REMOVING, RELOCATING & CONSTRUCTION OF NEW FACILITIES FOR PRIVATE OR PUBLIC UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THE RESPECTIVE OWNERS UNLESS OTHERWISE NOTED IN THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR OPERATIONS WITH THE WORK OF UTILITY OWNERS OR OTHERS WHO MAY BE MAKING THE RELOCATIONS IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

STANDARD DRAWINGS

REFERENCE SHOULD BE MADE TO THE MOST CURRENT ODOT STANDARD DRAWINGS SHOWN IN THE TABLE ON THE COVER SHEET.

BEST MANAGEMENT PRACTICES

BEST MANAGEMENT PRACTICES (BMP's) FOR SOIL EROSION AND SEDIMENT CONTROL SPECIFICATIONS SET FORTH IN THE MOST CURRENT VERSION OF ODOT'S "CONSTRUCTION AND MATERIAL SPECIFICATIONS, LOCATION AND DESIGN MANUAL SUPPLEMENTAL, SPECIFICATION 832, AND STANDARD DRAWINGS" SHALL BE USED TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL, ALONG WITH ADDITIONAL PROTECTIVE MEASURES TO AVOID IMPACTS TO ADJACENT PROPERTIES AND WETLANDS FROM CONSTRUCTION ACTIVITIES. EROSION/SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BMP's FOR SOIL EROSION AND SEDIMENTATION CONTROL. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SPECIFIED IN THE PLAN SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE AND THE AREA STABILIZED AS ACCEPTED BY THE ENGINEER. THEY SHALL ALSO COMPLY WITH ODOT'S "HANDBOOK OF SEDIMENT AND EROSION CONTROL."

REMOVAL OF TEMPORARY EROSION CONTROL ITEMS

ALL TEMPORARY EROSION CONTROL ITEMS SHALL BE REMOVED BEFORE THE PROJECT IS ACCEPTED. REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH THE APPROPRIATE C&MS SPECIFICATIONS

RIGHT OF WAY (ROW)

ALL NECESSARY CONSTRUCTION WILL BE PERFORMED WITHIN THE EXISTING RIGHT OF WAY FOR THIS PROJECT.

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY AASHTO 7TH EDITION - 2014, INCLUDING THE 2015 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL 2007.

DESIGN LOADING

HL-93 WITH 60 LBS/SQUARE FT WEARING SURFACE

DESIGN DATA

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4,000 PSI (SUBSTRUCTURE). REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI.

ITEM 611 14' X 8' CONDUIT, TYPE A, 706.05, AS PER PLAN  
DESIGN COVER FOR 14' x 8' CONCRETE BOX CULVERT SHALL BE 0' TO 2'. ALL #57 GRAVEL SHALL BE INCLUDED WITH THE UNIT PRICE FOR ITEM 611 14' x 8' CONDUIT, TYPE A, 706.05, AS PER PLAN.

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.

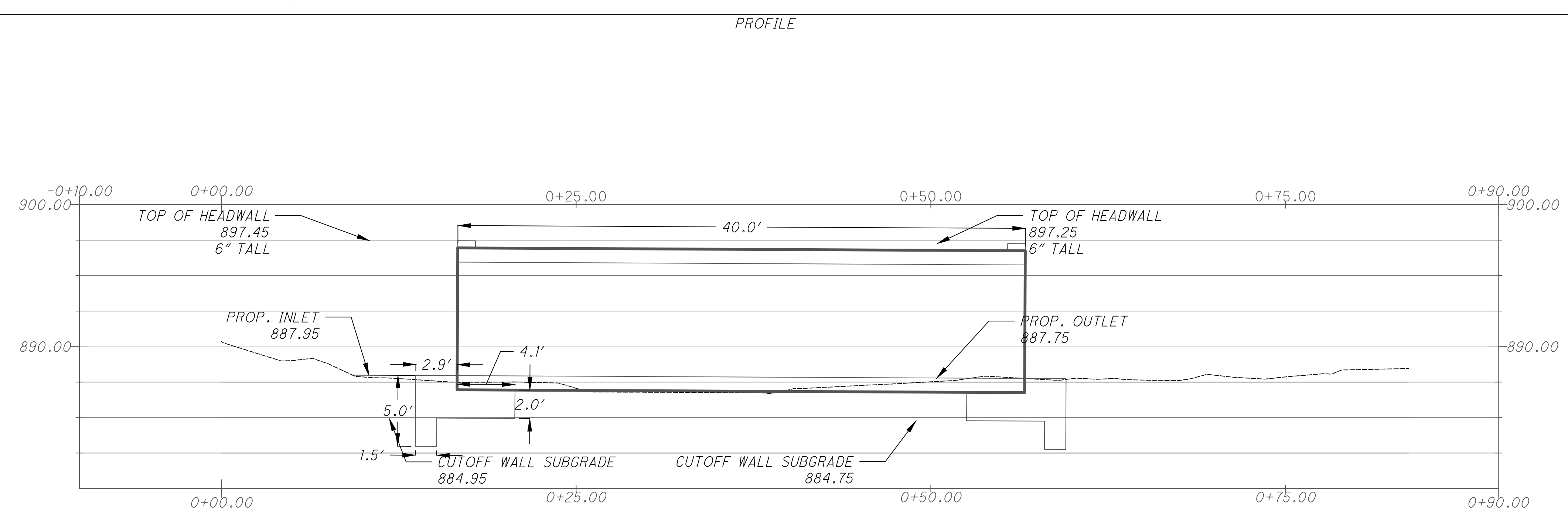
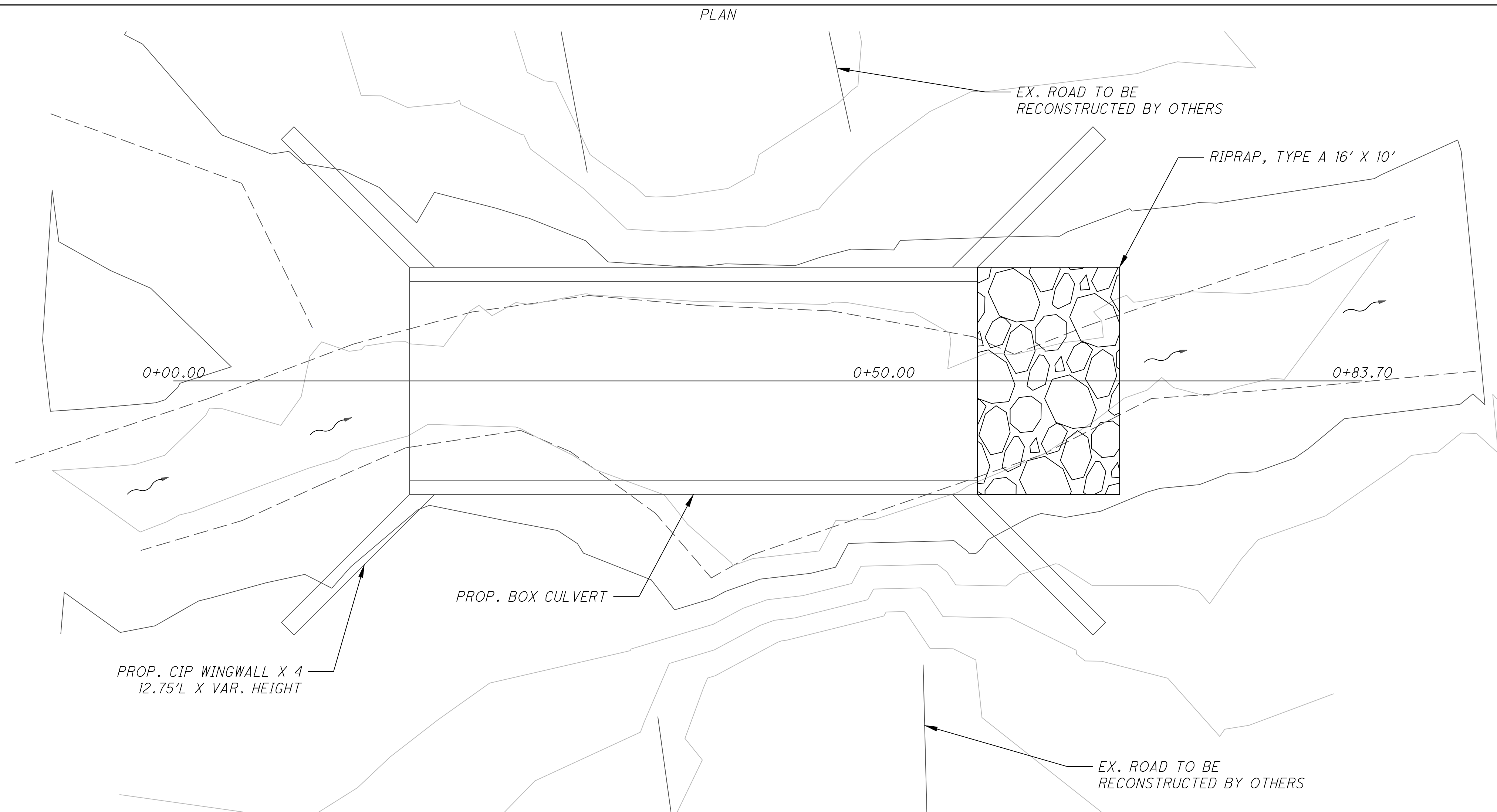
PREFORMED EXPANSION JOINT FILLER  
PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED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

WATERPROOFING  
TYPE 2 WATERPROOFING, PER CMS 512.09 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 WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 2 WATERPROOFING.

TYPE 2 WATERPROOFING, PER CMS 512.09 AND 711.25 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.

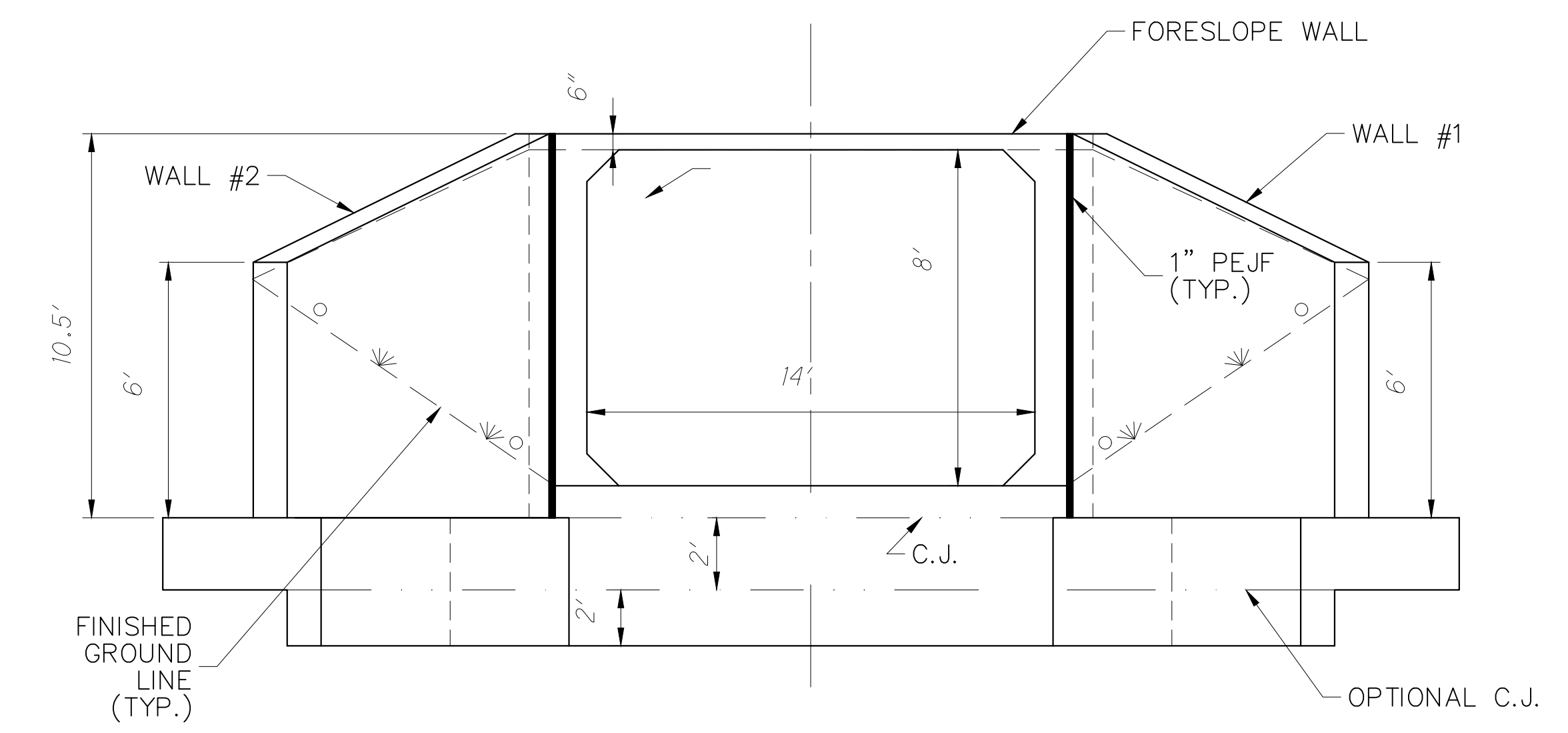
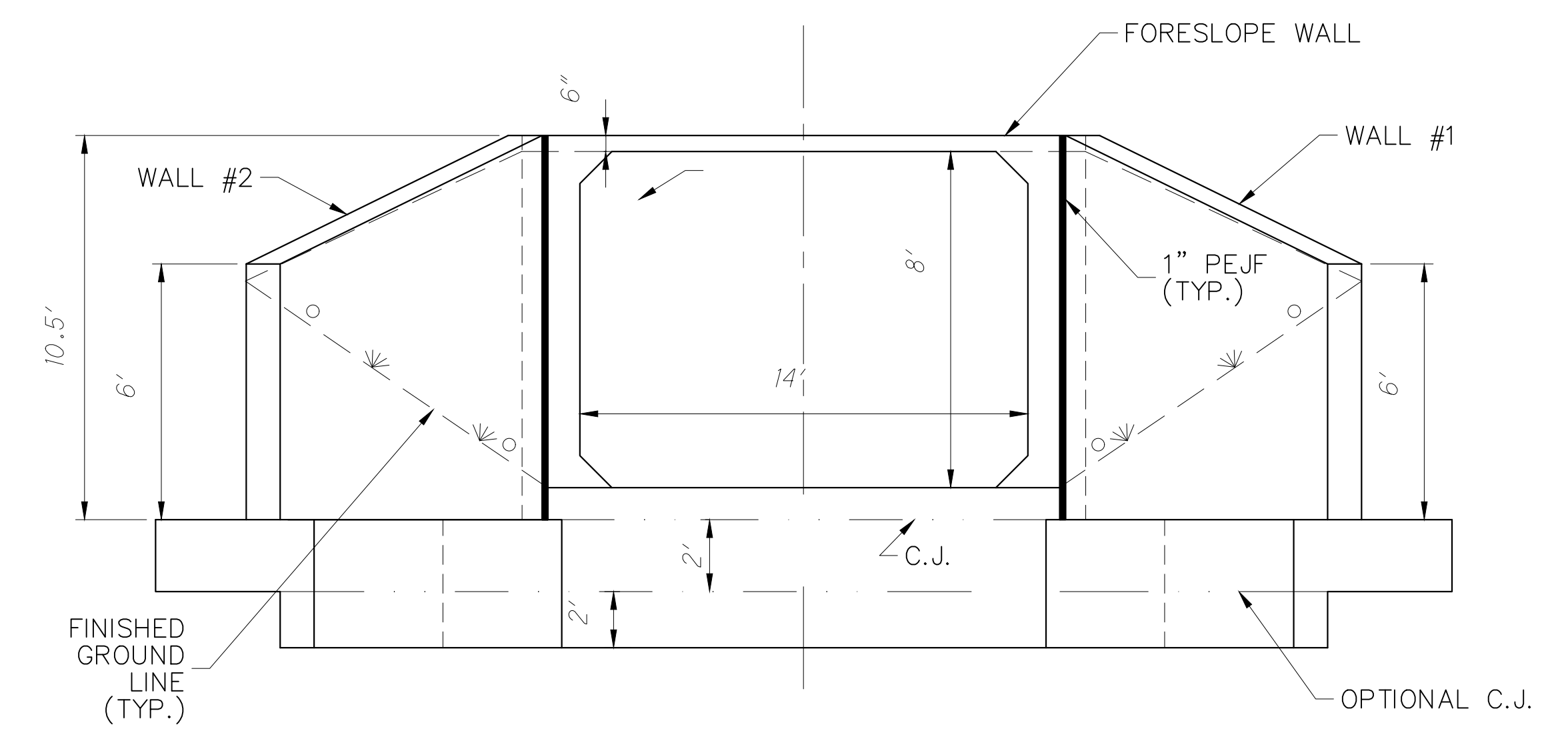
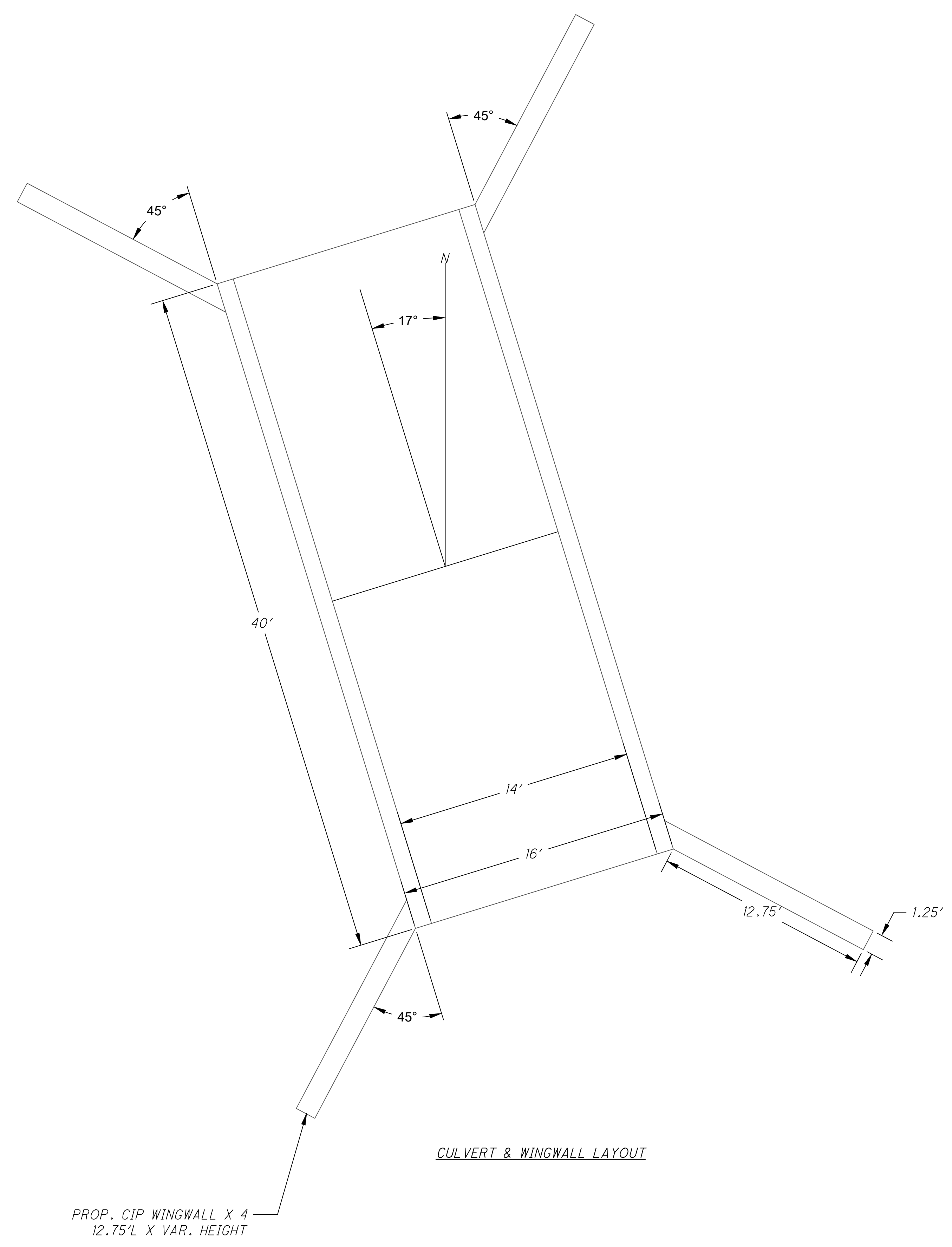
ITEM 659 SEEDING AND MULCHING, AS PER PLAN  
SEEDING AND MULCHING AND 2 INCHES OF TOPSOIL SHALL BE APPLIED TO ALL DISTURBED AREAS.

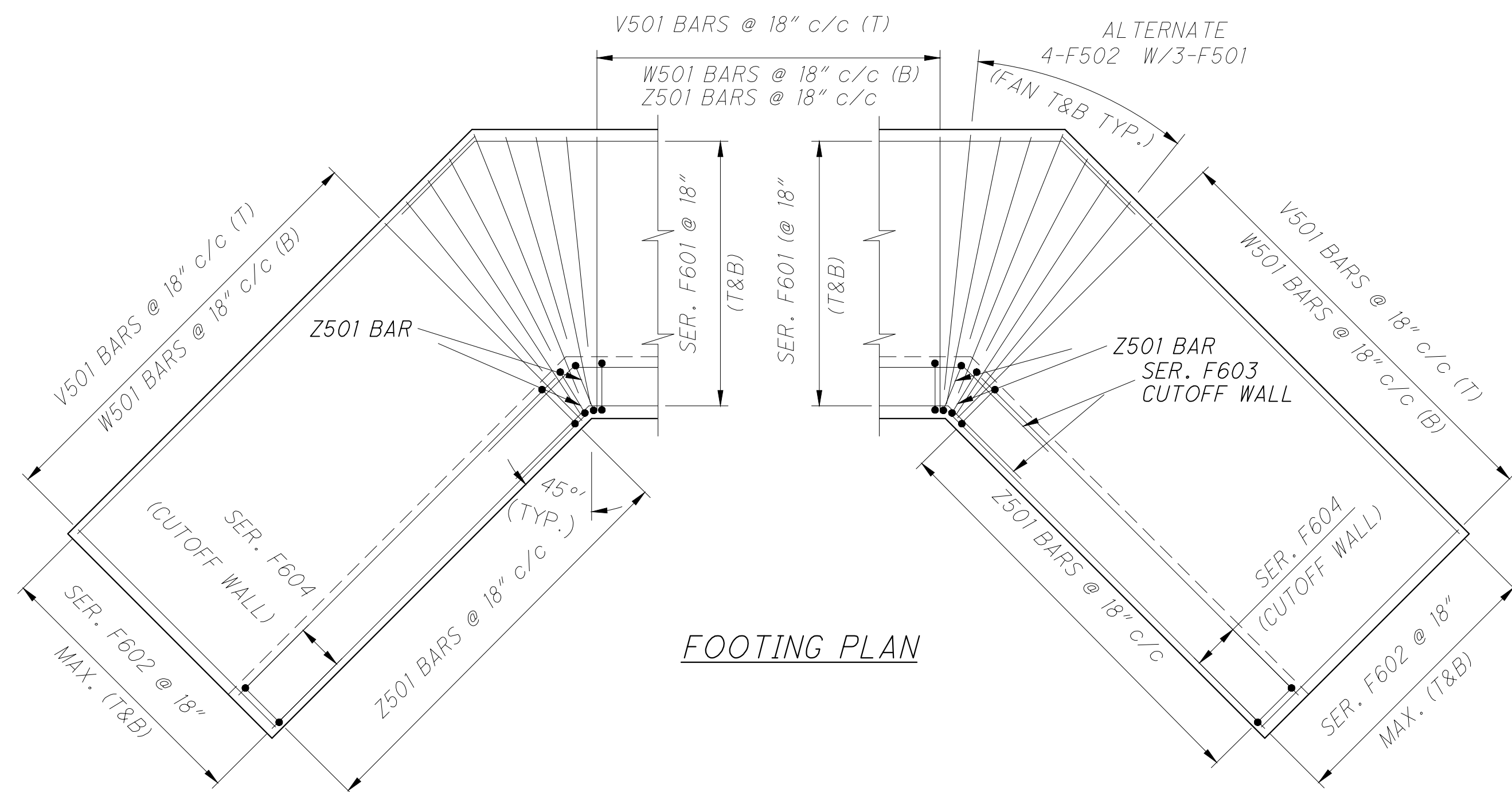
ITEM	GRAND	UNIT	DESCRIPTION
	TOTAL		
201	LS		CLEARING AND GRUBBING
304	27	CY	AGGREGATE BASE
503	LS		COFFERDAMS AND EXCAVATION BRACING
503	LS		UNCLASSIFIED EXCAVATION
509	6,324	LB	EPOXY COATED REINFORCING STEEL
511	78	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL INCLUDING FOOTING
512	160	SY	TYPE 2 WATERPROOFING
516	80	SF	1" PREFORMED EXPANSION JOINT FILLER
518	LS		POROUS BACKFILL WITH GEOTEXTILE FABRIC
601	18	SY	RIPRAP, TYPE A
611	40	FT	14' X 8' CONDUIT, TYPE A, 706.05, AS PER PLAN
623	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING
624	LS		MOBILIZATION
659	LS		SEEDING AND MULCHING, CLASS 1, AS PER PLAN
832	LS		EROSION CONTROL



14' X 8' X 40' CONDUIT  
TYPE A @ 0.50%  
TR 337 CULVERT PROFILE LOOKING EAST



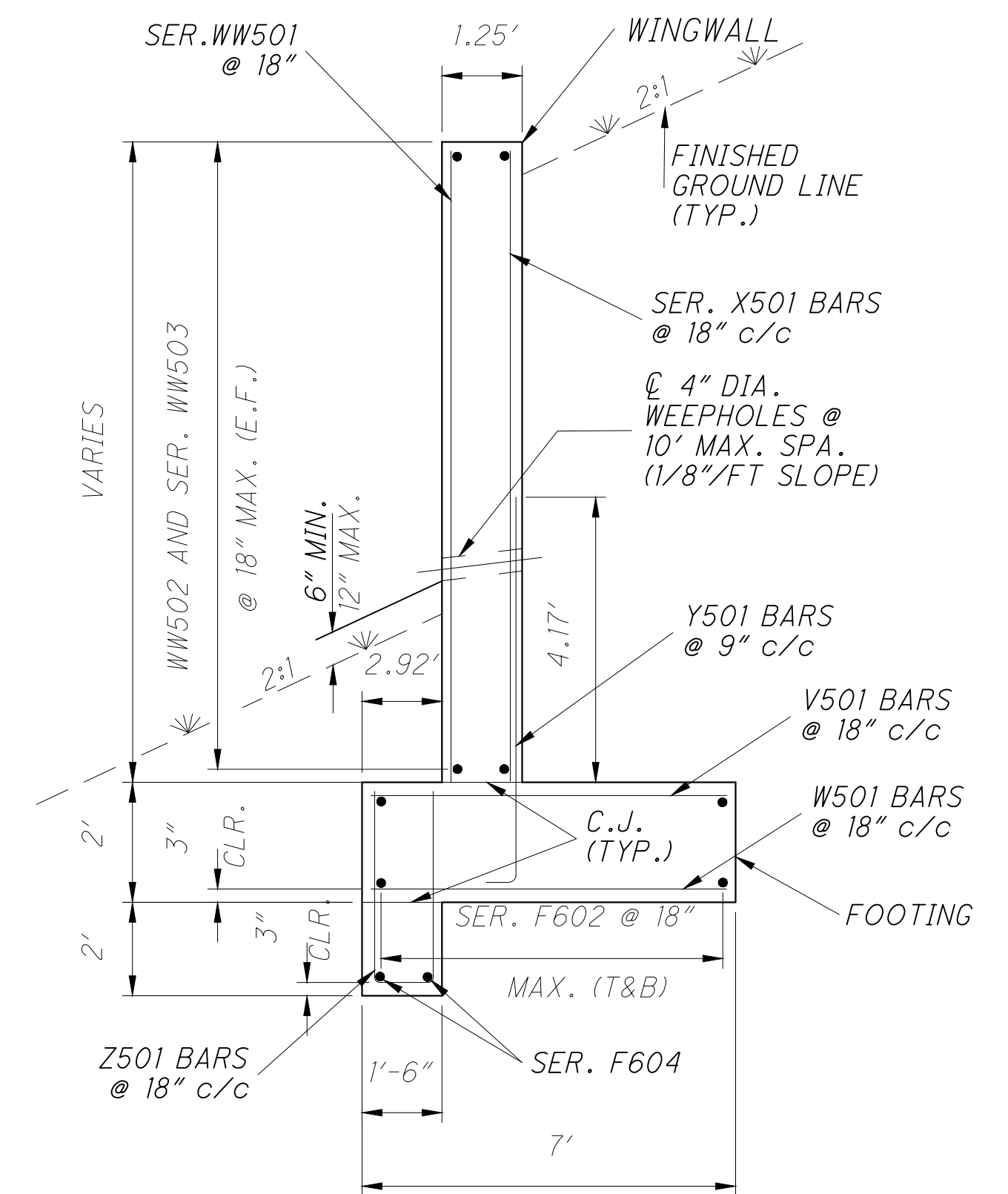




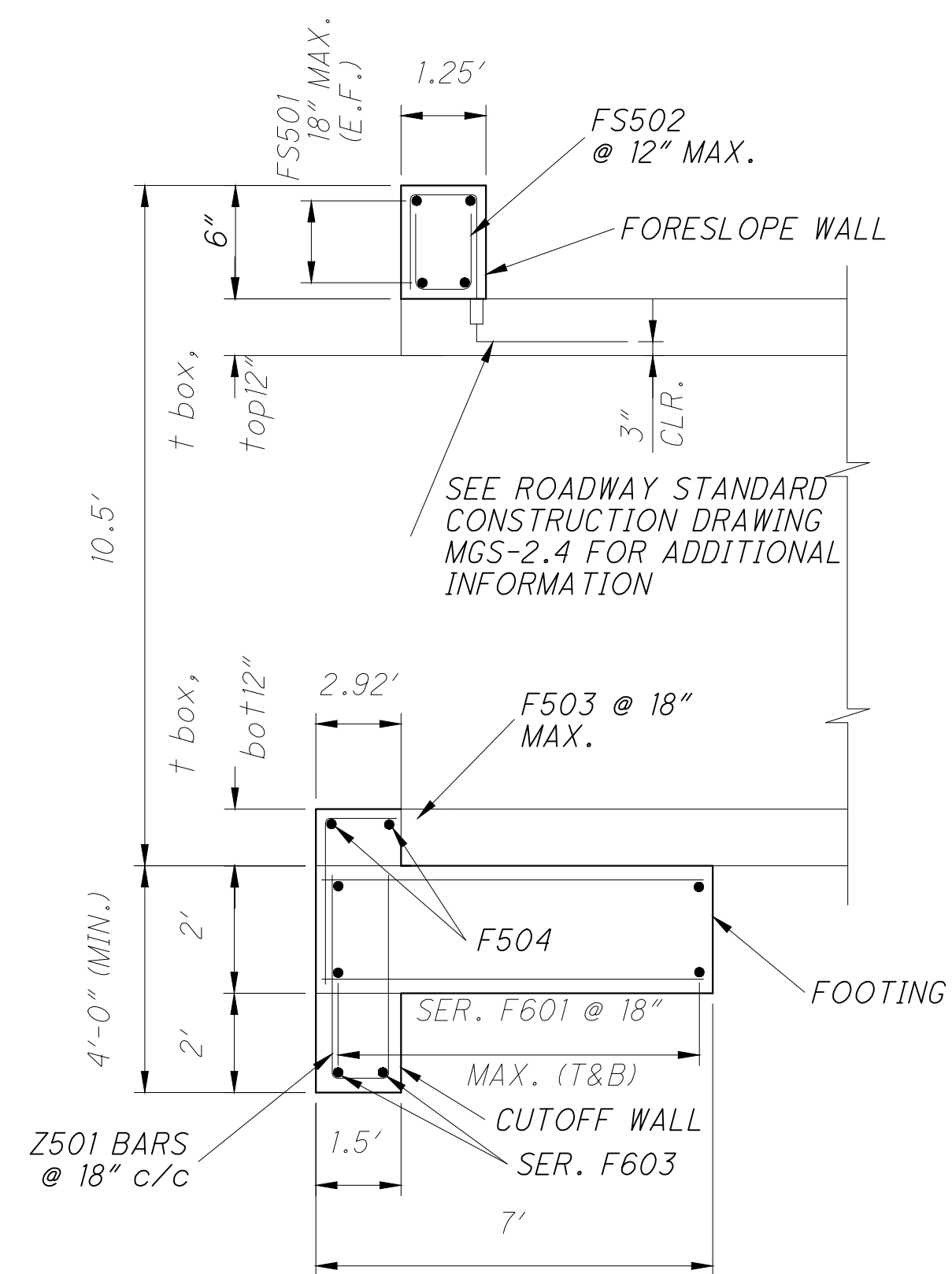
3. THE LAP SPLICE LENGTHS USED IN THESE DETAILS ARE AS FOLLOWS: 2'-5" FOR #5 BARS; 2'-11" FOR #6 BARS.

C.J.	CONSTRUCTION JOINT
CLR.	CLEAR
DIA.	DIAMETER
E.F.	EACH FACE
F.F.	FAR FACE
MAX.	MAXIMUM
MIN.	MINIMUM
PEJF	PREFORMED EXPANSION JOINT FILLER

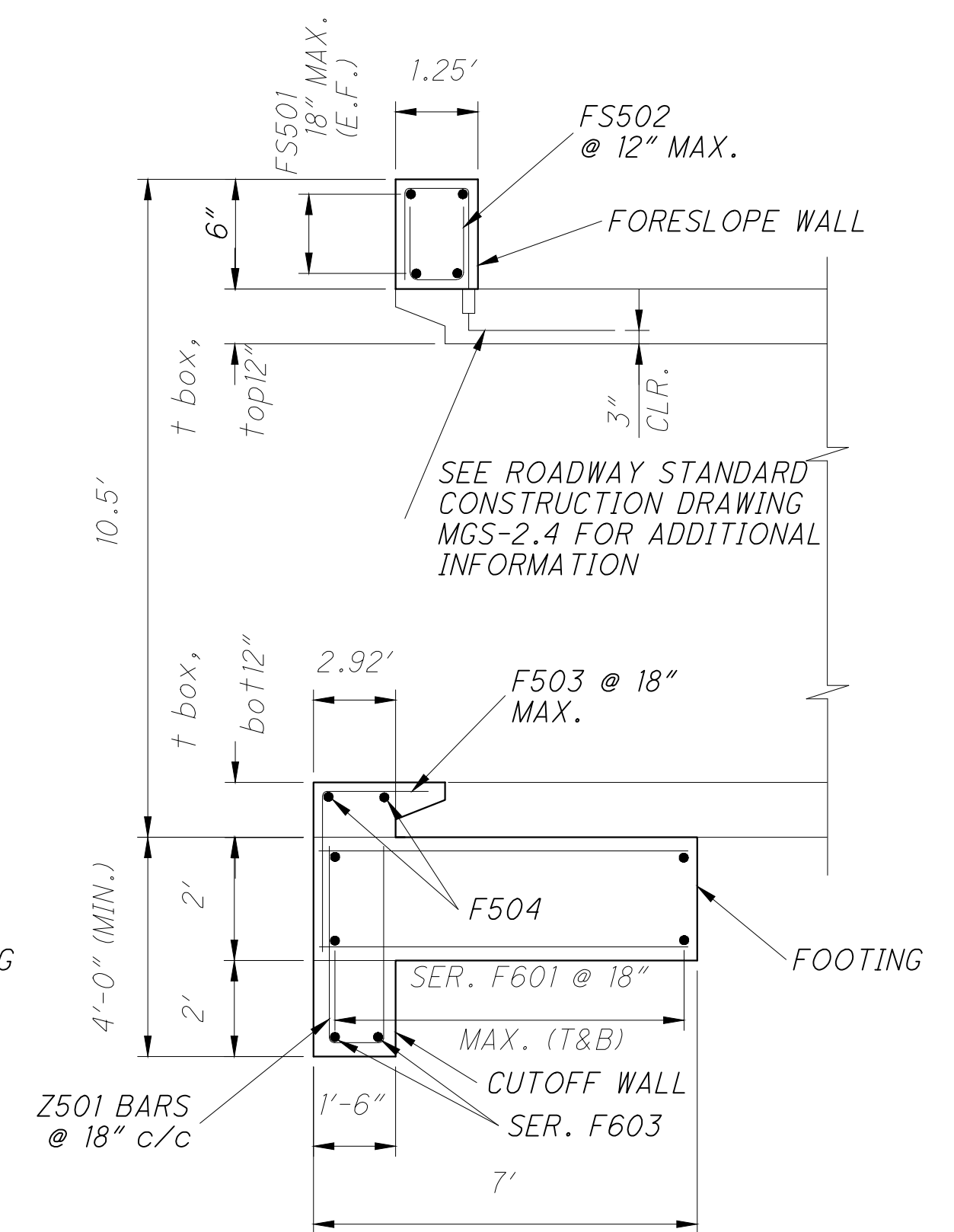
N.F.	NEAR FACE
SER.	SERIES
STR.	STRAIGHT
(T)	TOP
(B)	BOTTOM
T&B	TOP AND BOTTOM
TYP.	TYPICAL
INC.	INCREMENT



(POROUS BACKFILL NOT SHOWN FOR CLARITY)



(CULVERT FLUSH OUTLET SHOWN)



(CULVERT INLET BEVEL SHOWN)

ESTIMATED QUANTITIES			
ITEM	TOTAL	UNIT	DESCRIPTION
503	LUMP		COFFERDAMS, CRIBS, AND SHEETING
503	LUMP		UNCLASSIFIED EXCAVATION
509	6324	LB.	EPOXY COATED REINFORCING STEEL
511	78	CU. YD.	CLASS QCI CONCRETE, RETAINING WALL OR WINGWALL, INCLUDING FOOTING
512	160	SQ. YD.	TYPE 2 WATERPROOFING
516	80	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER
518	LUMP		POROUS BACKFILL WITH FILTER FABRIC
601	18	SQ. YD.	RIPRAP, TYPE A
611	40	LIN. FT.	14'-0" SPAN X 8'-0" RISE CONDUIT, TYPE A, 706.05, AS PER PLAN

FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

The diagram illustrates a cross-section of a bridge structure. On the left, a vertical wall is shown with a height of 8' indicated by a vertical dimension line. To the right of the wall, a gravel slope is depicted with a 1:1 ratio, indicated by a diagonal dimension line. The top of the gravel slope is labeled 'ITEM 304 1' DEPTH'. The gravel is labeled '#57 GRAVEL'. The bottom of the gravel slope is labeled '1' DEPTH'.

TYPE 2 WATERPROOFING

1'-0"

1" PEJF

PLAN VIEW

TYPE 2 WATERPROOFING

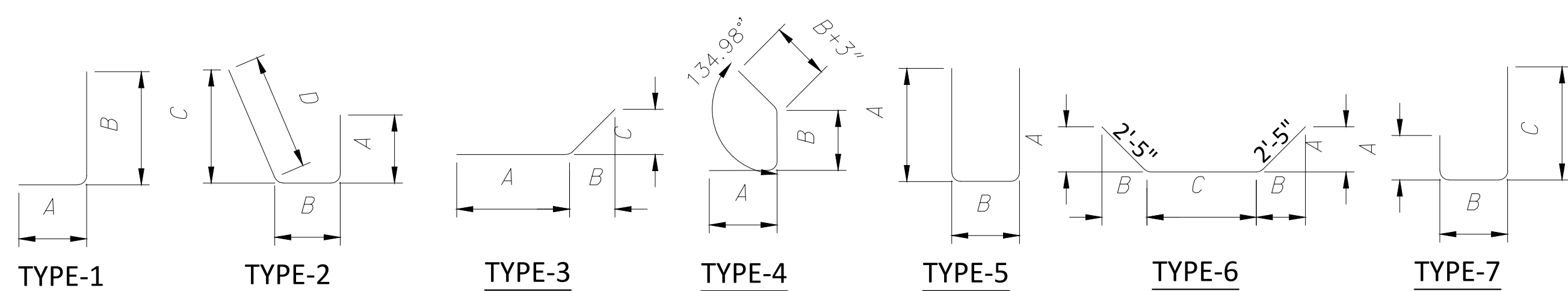
1'-0"

1" PEJF

TYPE 2 WATERPROOFING

SECTION VIEW

WATERPROOFING DETAILS

[illegible]

COSHOCTON COUNTY ENGINEER'S OFFICE	QUANTITIES, DETAILS AND REINFORCEMENT SCHEDULE TR 337 BRIDGE 1 REPLACEMENT
---------------------------------------	---