

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES					TYPE CODE		
					RURAL	RURAL	RURAL
					ROADWAY	LIGHTING	BOX CULVERT
					80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
	Code No.	Item	Unit	Total Quantity	0004	0021	0004
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	775	775		
*	63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2		
*	63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	2	2		
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2		
	63200310	GUARDRAIL REMOVAL	FOOT	1107	1107		
	63800920	MODULAR GLARE SCREEN SYSTEM, TEMPORARY	FOOT	3013	3013		
	64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	3172	3172		
*	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	2	2		
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	5	5		
*	66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1		
*	66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1		
*	66901006	REGULATED SUBSTANCES MONITORING	CAL DA	60	60		
	67100100	MOBILIZATION	L SUM	1	1		
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	568	568		
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	15286	15286		
	70307100	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - TYPE IV TAPE	SQ FT	42	42		
	70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	42978	42978		
	70307130	TEMPORARY PAVEMENT MARKING - LINE 6" - TYPE IV TAPE	FOOT	2121	2121		
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	3013	3013		
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	2963	2963		

* = SPECIALTY ITEM

MODEL: SQ-Q4 [Sheet]
FILE NAME: c:\pwworking\primera\pwwpord\rice\dms6074\p162p01-SQ-Q.dgn



USER NAME = mmathews	DESIGNED - MM	REVISED - ####
	DRAWN - JMR	REVISED - ####
	CHECKED - MM	REVISED - ####
PLOT DATE = 11/5/2025	DATE - 11/05/2025	REVISED - ####

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE:	SHEET 4	OF 7	SHEETS
STA.	TO STA.		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	2021-064-CR	WILL	173	06
		CONTRACT NO. 62P01		
		ILLINOIS FED. AID PROJECT		

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REV-SEP

SUMMARY OF QUANTITIES					TYPE CODE		
					RURAL	RURAL	RURAL
					ROADWAY	LIGHTING	BOX CULVERT
					80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
	Code No.	Item	Unit	Total Quantity	0004	0021	0004
*	X8900104	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1		
	Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	534	534		
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
	X8040102	ELECTRIC SERVICE INSTALLATION (SPECIAL)	EACH	2	2	1	
	Z0054406	ROCK FILL - FOUNDATION	CU YD	160			160
	Z0062456	TEMPORARY PAVEMENT	SQ YD	3323	3323		
*	X8040106	ELECTRIC SERVICE INSTALLATION AND CONNECTION	EACH	2		2	1
Ø	Z0076600	TRAINEES	HOUR	500	500		
Ø	Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	500	500		

* = SPECIALTY ITEM

MODEL: SQ-Q-7 [Sheet]
FILE NAME: c:\pwworking\primera\pwworking\dms66074\12P01-SQ-Q.dgn



USER NAME = jrice	DESIGNED - MM	REVISED -
	DRAWN - JMR	REVISED -
	CHECKED - MM	REVISED -
PLOT DATE = 12/5/2025	DATE - 11/05/2025	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

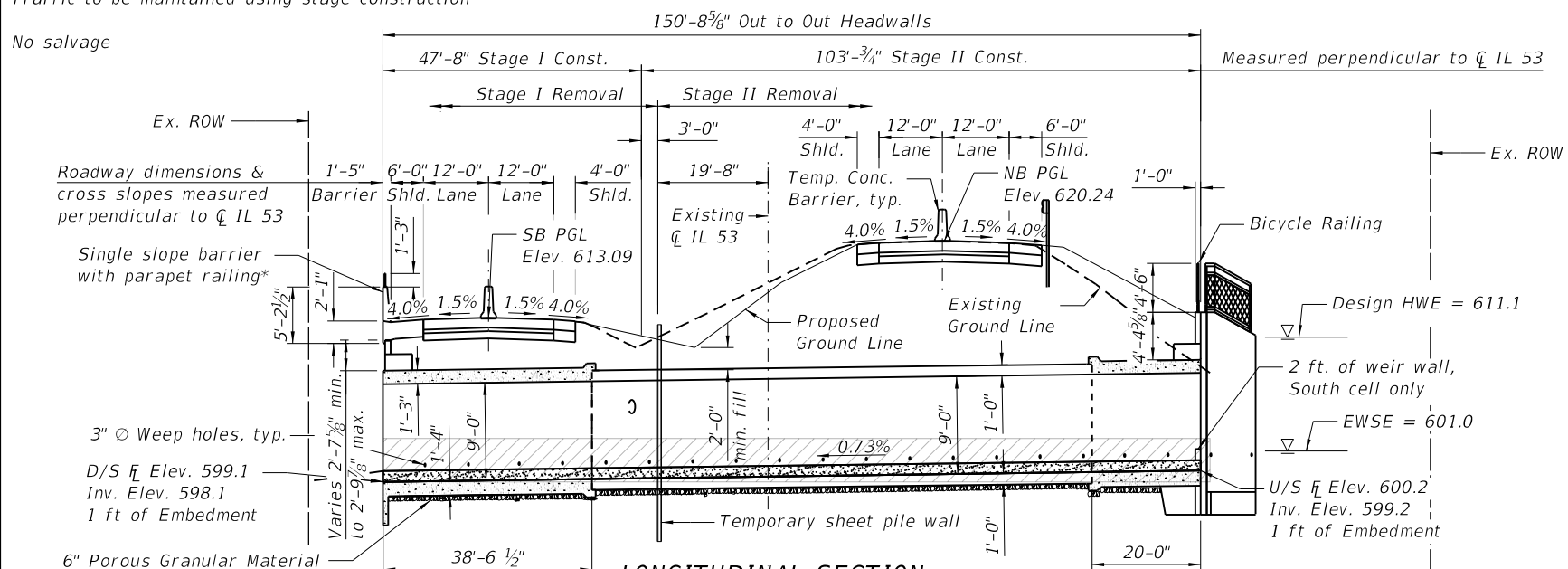
SUMMARY OF QUANTITIES			
SCALE:	SHEET 7	OF 7	SHEETS
STA.	TO STA.		

1		REVISED SHEET 2/9/2026		Ø 0042	
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
846	2021-064-CR	WILL	173	09	
		CONTRACT NO. 62P01			
		ILLINOIS	FED. AID PROJECT		

Note: The top and bottom slabs of the double box culvert extensions are designed as continuous members

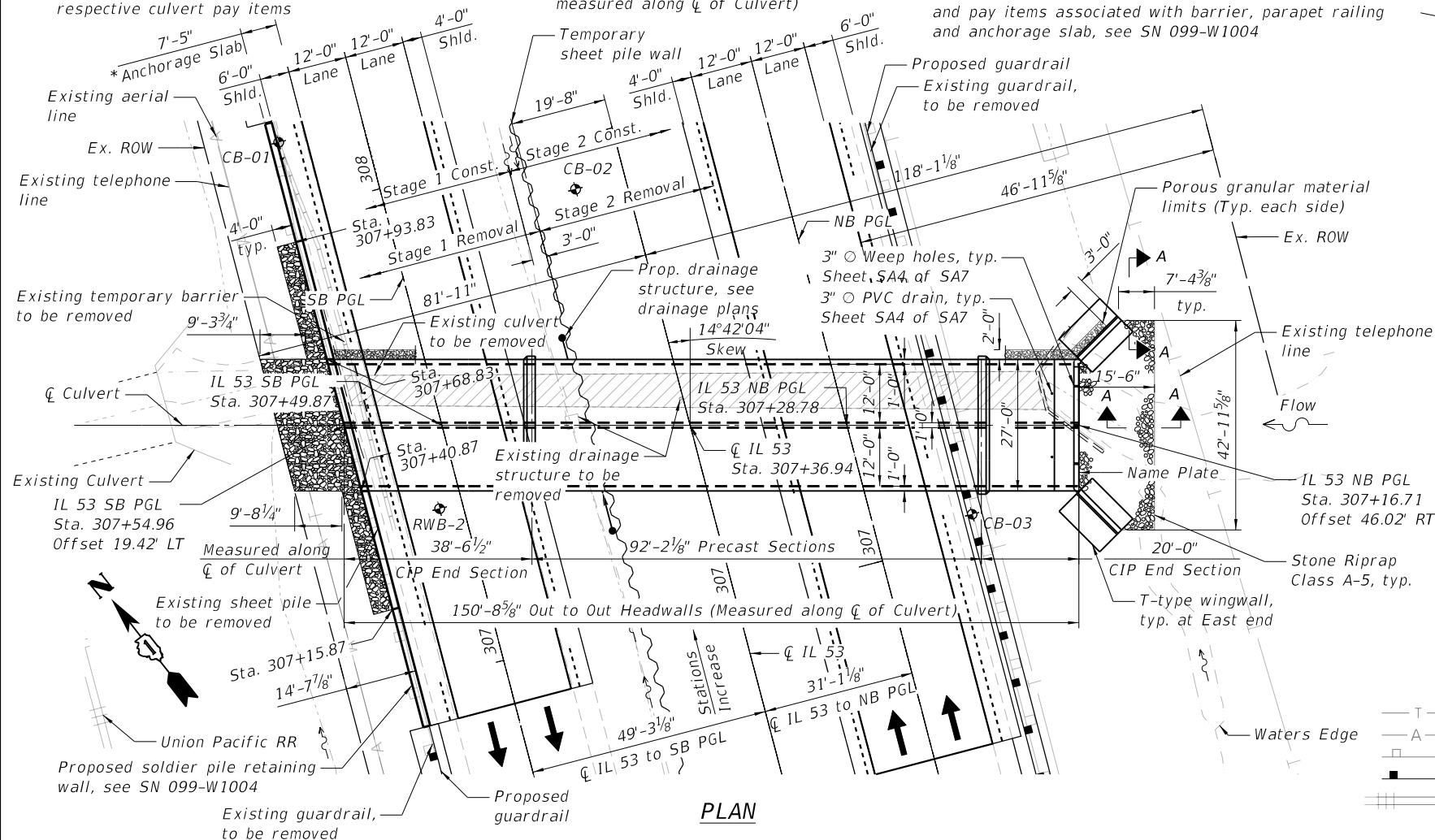
Traffic to be maintained using stage construction

No salvage



LONGITUDINAL SECTION
(Elevations & culvert dimensions
measured along C of Culvert)

**For other information such as dimensions, details and pay items associated with barrier, parapet railing and anchorage slab, see SN 099-W1004*



PLAN

Drainage Area = 3.64 Sq. miles					Existing Overtopping Elev. = 620.41 @ Sta. 253+94				
					Proposed Overtopping Elev. = 620.41 @ Sta. 253+94				
Flood	Freq. Yr.	Discharge ft ³ /s	Opening Sq. Ft.		Natural H.W.E. - ft	Head - Ft.		Headwater El.	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
	10	724	64	168	608.9	3.2	0.0	612.1	608.9
Design	50	996	64	168	611.1	6.8	0.0	617.9	611.1
Base	100	1096	64	168	612.0	8.2	0.0	620.2	612.0
Max. Calc.	500	1329	64	168	614.1	6.8	1.1	620.9	615.2

10-Year Velocity through Existing Culvert = 11.3 ft/s
10-Year Velocity through Proposed Culvert = 4.5 ft/s
2-Year Flow Rate = 392 ft³/sec

DESIGN STRESSES

FIELD UNITS

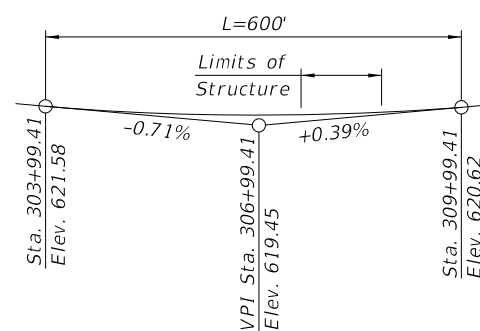
$f'_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi (Reinforcement)}$
 $f_y = 50,000 \text{ psi (M270 Grade 50)}$

PRECAST UNITS

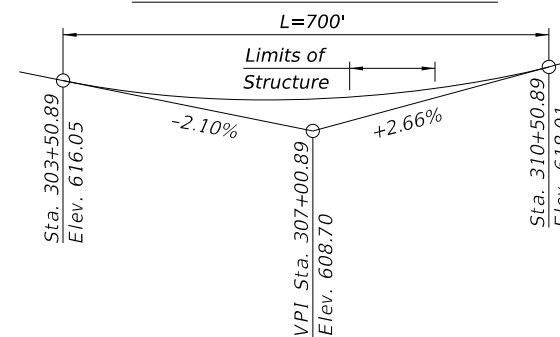
$f'_c = 5,000 \text{ psi}$
 $f_y = 60,000 \text{ psi (Reinforcement)}$
 $f_y = 65,000 \text{ psi (Welded Wire Fabric)}$

LOADING HL-93

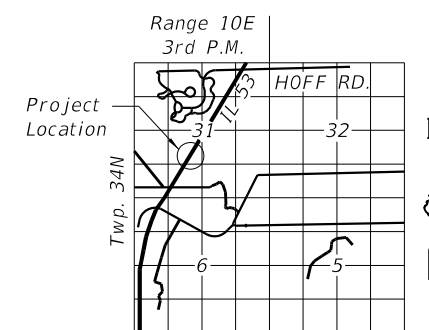
Allow 50#/sq. ft. for future wearing surface.



IL 53 NB PROFILE GRADE



IL 53 SB PROFILE GRADE



LOCATION SKETCH

LEGEND

 T Exist. Underground Telephone
  A Exist. Aerial Line
  Exist. Guardrail
 Proposed Guardrail
 Active Railroad Track
 Exist. Drainage Item
  Exist. Drainage Item
  Exist. Private Property Slab
 Soil Boring Location

1 REVISED SHEET 2/9/2026



USER NAME = AMeshkova	DESIGNED - AIM	REVISED -
	DRAWN - JVE	REVISED -
	CHECKED - CPB	REVISED -
PLOT DATE = 1/30/2026	DATE - 11/05/2025	REVISED -

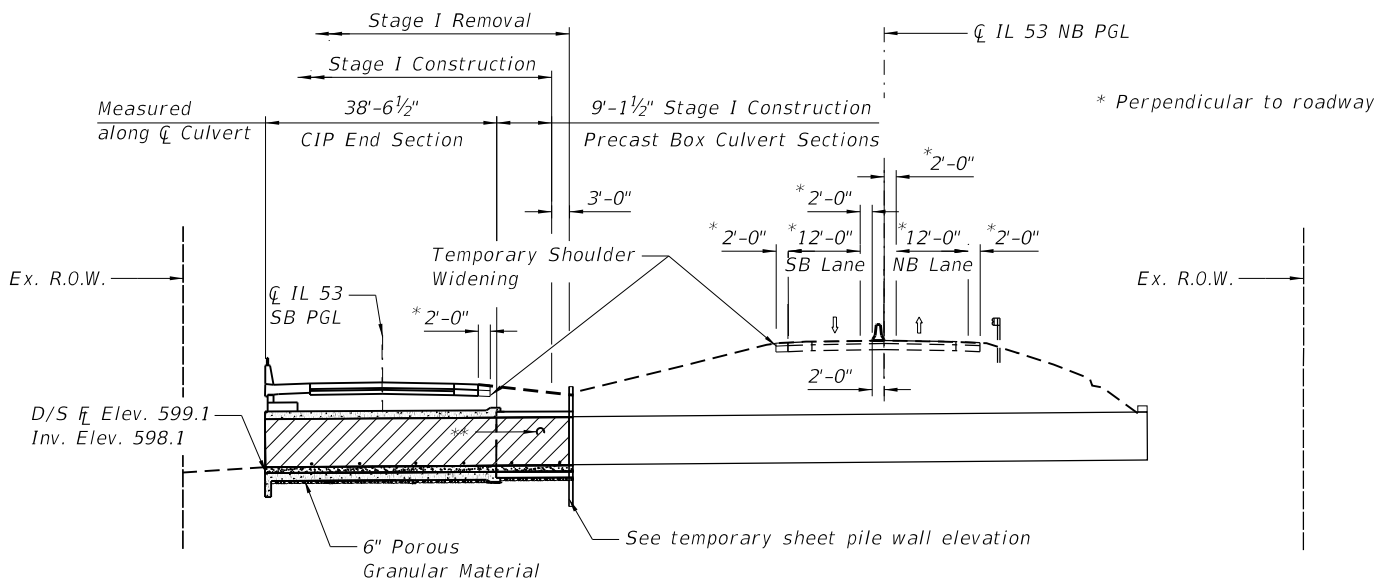
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO: 099-8302

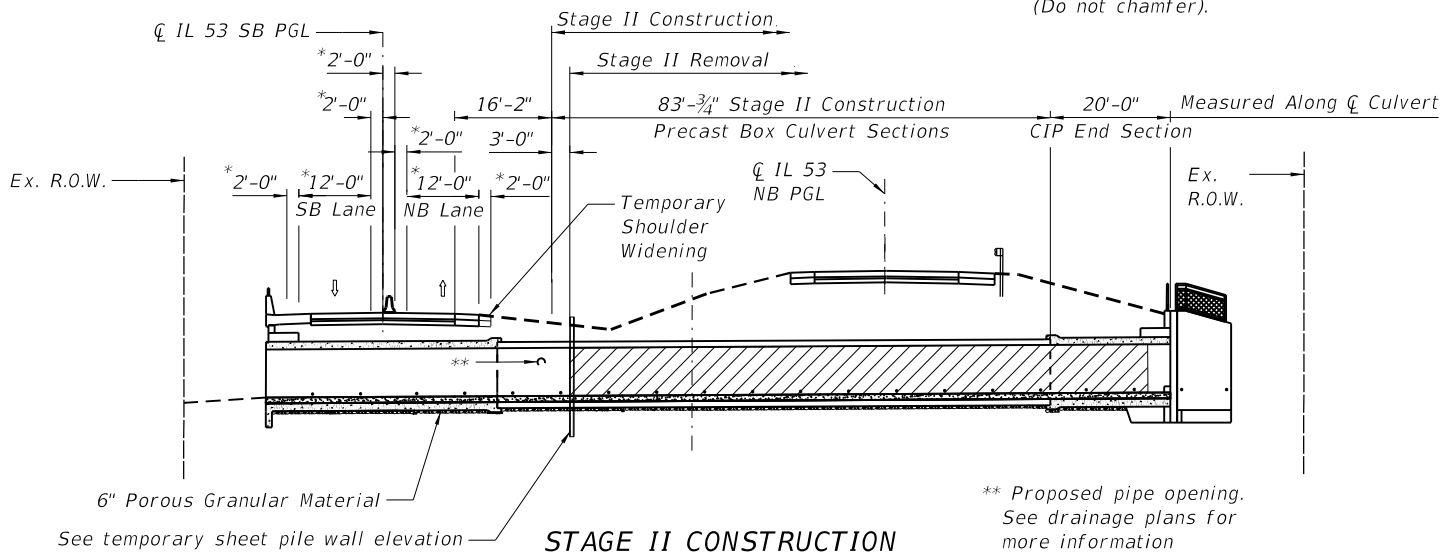
SCALE:	SHEET SA1	OF	SA7	SHEETS	STA.	TO STA.
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F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	2021-064-CR	WILL	173	95
		CONTRACT NO. 62P01		
ILLINOIS		FED. AID PROJECT		

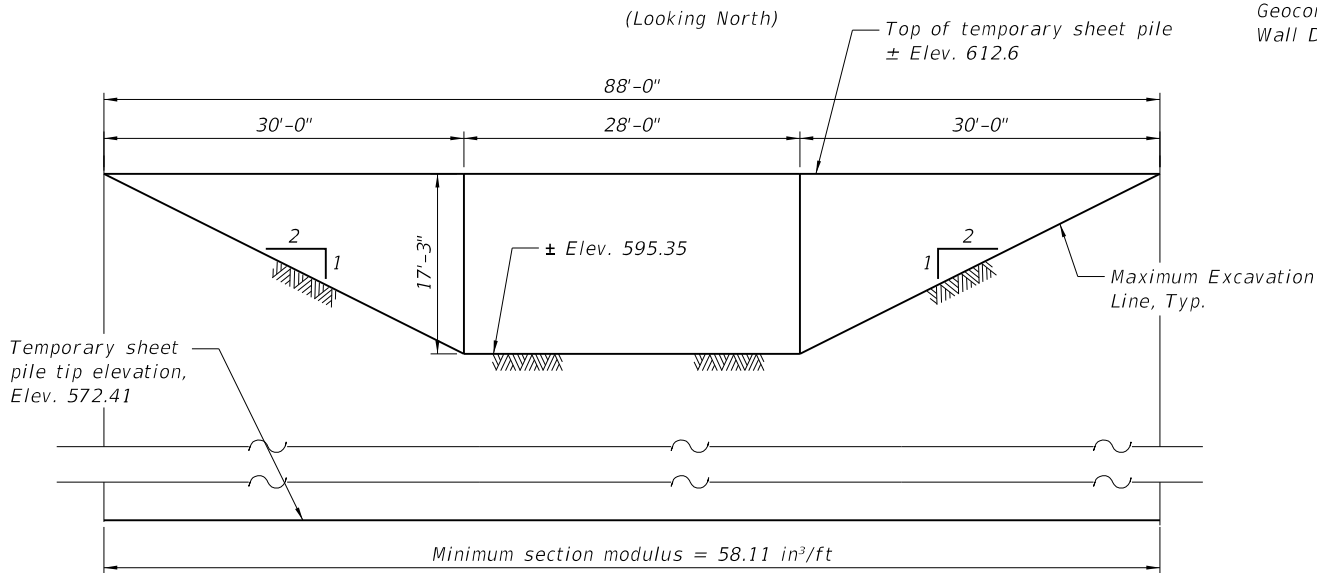
MODEL: General Notes and Stage Construction Details (Sheet)
FILE NAME: c:\pwworking\primera\proposals\knox\adms607b02 - 62p01_General Notes and Stage Construction Details.dgn



STAGE I CONSTRUCTION
(Looking North)



STAGE II CONSTRUCTION
(Looking North)



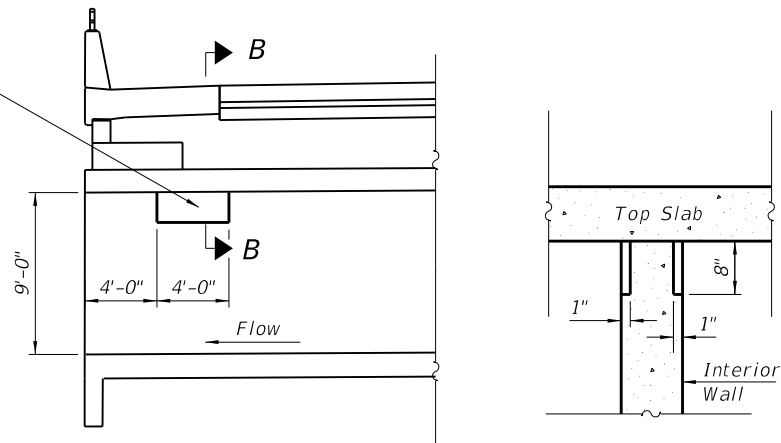
TEMPORARY SHEET PILE WALL ELEVATION

REVISI
1
REVISED SHEET 2/9/2026

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Stone Riprap, Class A5	Sq Yd	129
Removal Of Existing Structures	Each	1
Removal And Disposal Of Unsuitable Material For Structures	Cu Yd	160
Reinforcement Bars, Epoxy Coated	Pound	74,200
Bicycle Railing	Foot	51
Name Plates	Each	1
Temporary Sheet Piling	Sq Ft	3,537
Concrete Box Culverts	Cu Yd	261.5
Precast Concrete Box Culverts 12' X 9'	Foot	185
Geocomposite Wall Drain	Sq Yd	305
Sheet Pile Removal, Special	Sq Ft	1,167
Membrane Waterproofing System For Buried Structures	Sq Yd	298
Rock Fill - Foundation	Cu Yd	160

Pay Item "Removal and Disposal of Unsuitable Material for Structures, Cu. Yd." can be used to remove any unstable or unsuitable material that is encountered in the field during construction, in accordance with Article 502.13. Any undercut should be back filled with rock fill capped with 6 inches of CA-6 in accordance with IDOT Rock Fill - Foundation Specification. A nominal quantity is provided for bidding purposes.

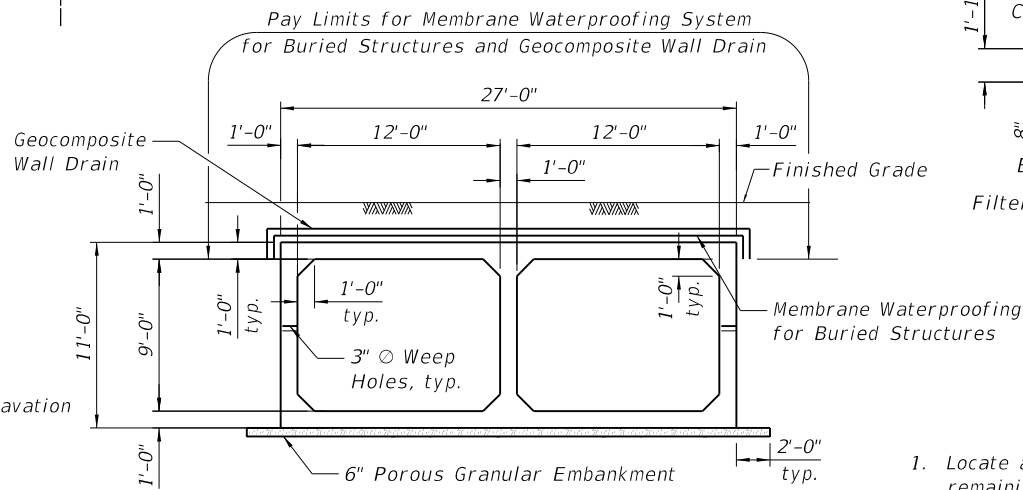


LONGITUDINAL SECTION

SECTION B-B

PHOEBE NESTING SITE DETAILS

(Downstream End Only)



PRECAST BOX CULVERT

(Dimensions of the precast culvert shown here are based on ASTM C1577-14)

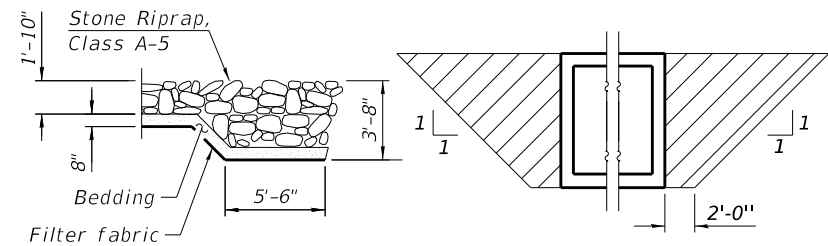
Notes: 1. Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.
2. The limits of membrane waterproofing includes entire length of the precast box culvert.

INDEX OF SHEETS

SA1 - General Plan and Elevation
SA2 - General Notes and Stage Construction Details
SA3 - West and East Culvert End Section and Headwall
SA4 - Culvert Section and Details
SA5 - Bicycle Railing I
SA6 - Bicycle Railing II
SA7 - Soil Boring Logs

GENERAL NOTES

- The design fill high for C.I.P. end section is 3'-10⁵/₈".
- The design fill height for this precast box is 2 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
- Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
- Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
- Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.



SECTION A-A

PAY LIMITS FOR POROUS GRANULAR EMBANKMENT
(Hatched area)

SUGGESTED SEQUENCE OF CONSTRUCTION

- Locate all existing utilities that are remaining. The contractor shall coordinate any required improvements to, or removals of the existing utilities with utility owner(s) and IDOT.
- Install temporary sheet pile, remove existing culvert and sheet pile wall at West end.
- Place soldier piles, see SN 099-W1004 plans.
- Construct the culvert and the head wall.
- Complete soldier pile retaining wall construction and construct Anchorage slab and Barrier, see SN 099-W1004 plans.
- Remove the existing culvert at east end.
- Construct the culvert, the head wall and T-type wall.
- Remove Temporary Sheet pile and complete final grading.



USER NAME = AMeshkova	DESIGNED - AIM	REVISED -
	DRAWN - JVE	REVISED -
	CHECKED - CPB	REVISED -
PLOT DATE = 2/3/2026	DATE - 11/05/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND STAGE CONSTRUCTION DETAILS
STRUCTURE NO: 099-8302

SCALE: SHEET SA2 OF SA7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	2021-064-CR	WILL	173	96
CONTRACT NO. 62P01				
ILLINOIS FED. AID PROJECT				