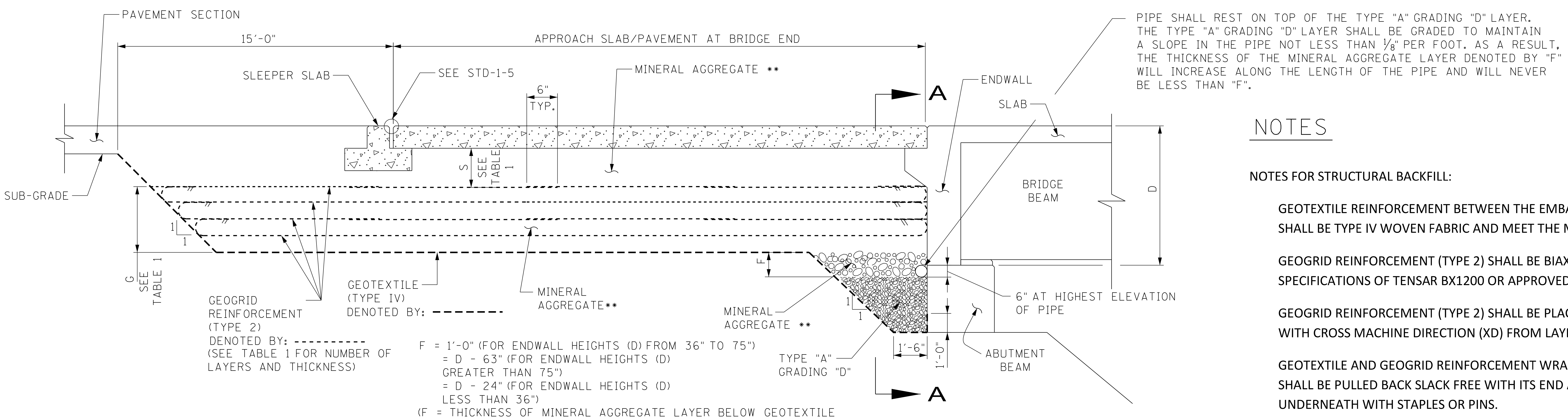
CONST. NO.:

PROJECT NO.	YEAR	SHEET NO.
- -	2020	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	03-01-22	TAK	GENERAL REVISIONS
2	06-05-23	ALP	GENERAL REVISIONS
	- -		
	- -		
	- -		



F = 1'-0" (FOR ENDWALL HEIGHTS (D) FROM 36" TO 75")
= D - 63" (FOR ENDWALL HEIGHTS (D) GREATER THAN 75")
= D - 24" (FOR ENDWALL HEIGHTS (D) LESS THAN 36")
(F = THICKNESS OF MINERAL AGGREGATE LAYER BELOW GEOTEXTILE AT THE HIGHEST PIPE ELEVATION)

ELEVATION

STUB ABUTMENT DETAILS SHOWN, CLOSED ABUTMENT DETAILS SIMILAR. SEE TABLE 1 BELOW.

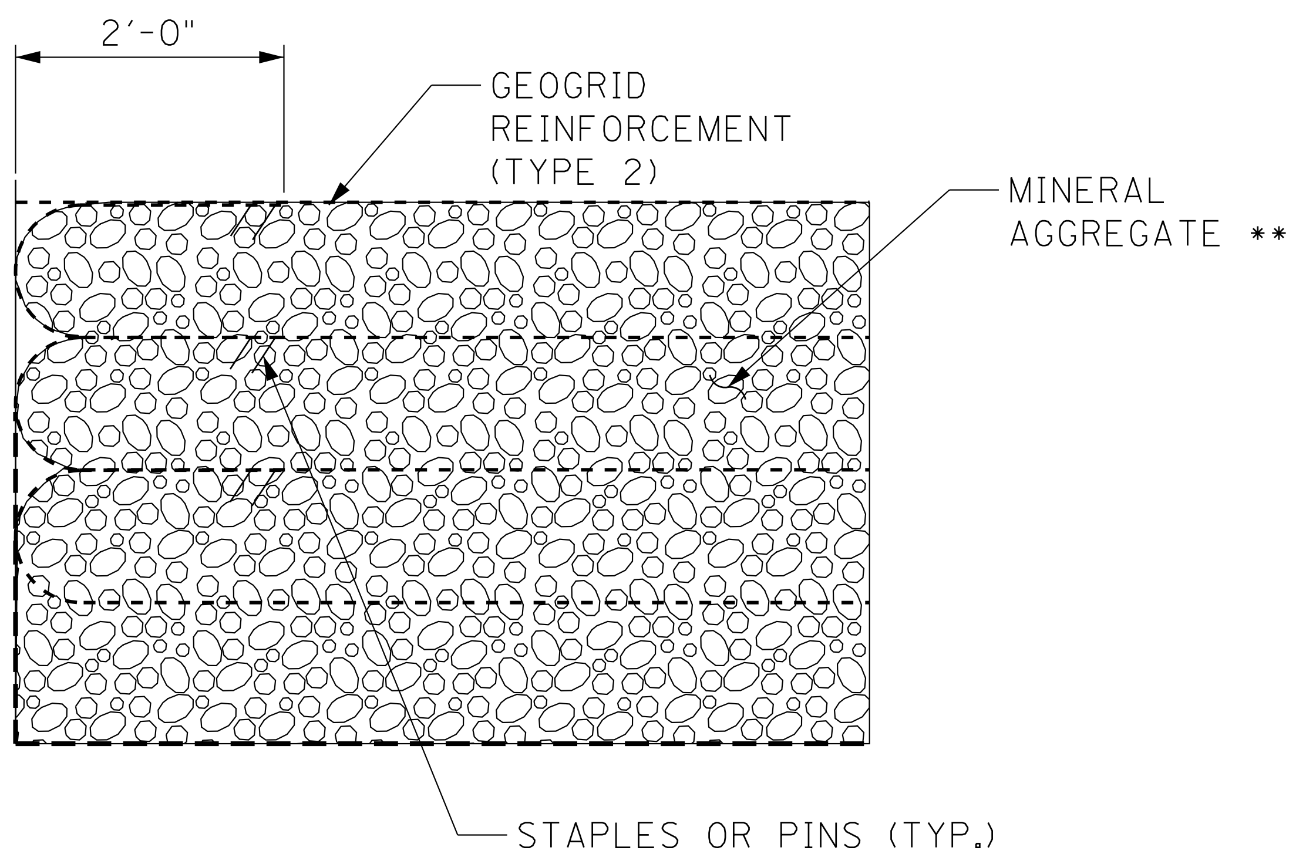
ROADWAY PAY ITEMS

303-10.04	MINERAL AGGREGATE (SIZE **)	TON
740-10.04	GEOTEXTILE (TYPE IV) (STABILIZATION)	S.Y.
740-07.04	GEOGRID REINFORCEMENT TYPE 2	S.Y.

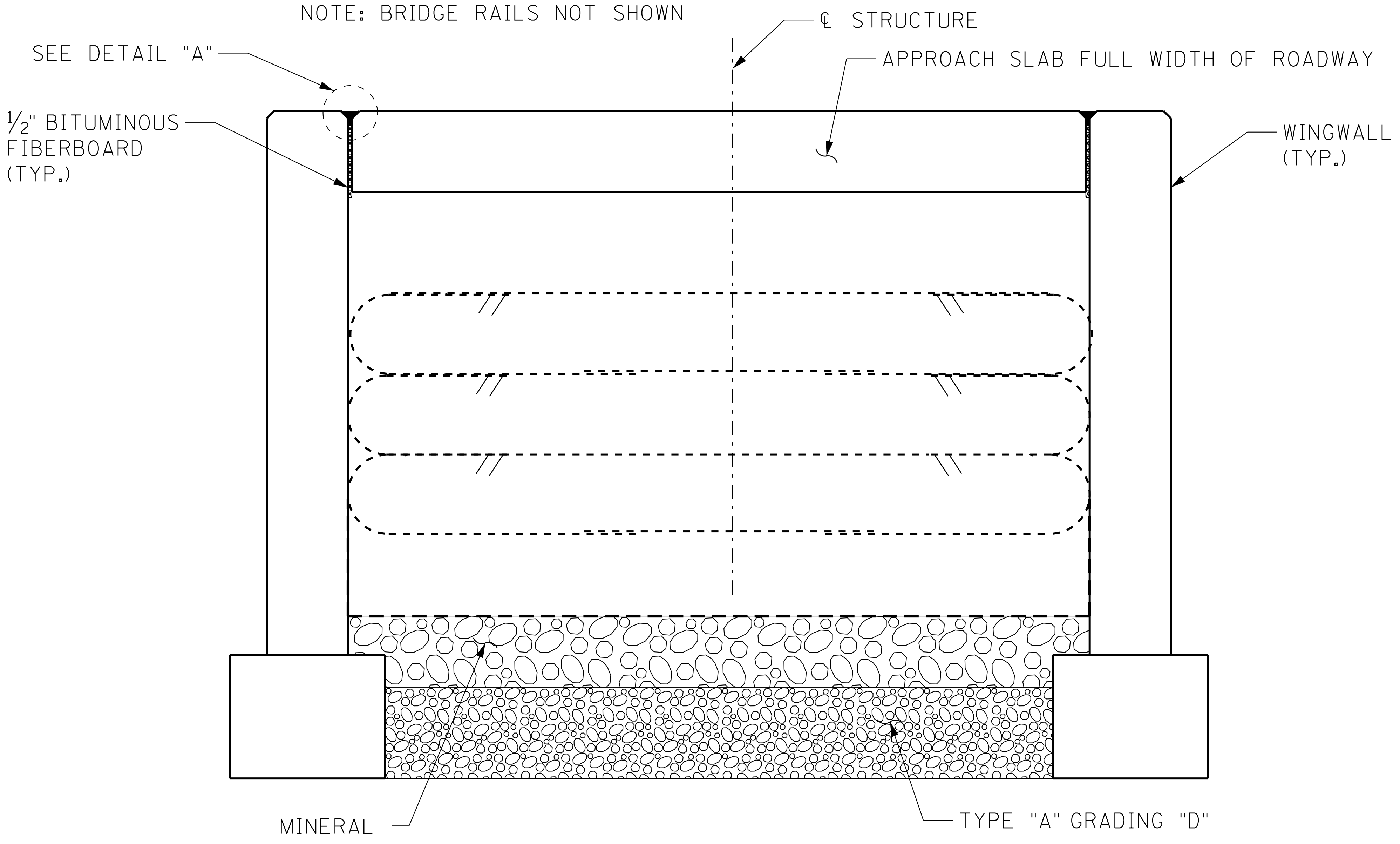
BRIDGE PAY ITEM

604-03.04	PAVEMENT AT BRIDGE ENDS	S.Y.

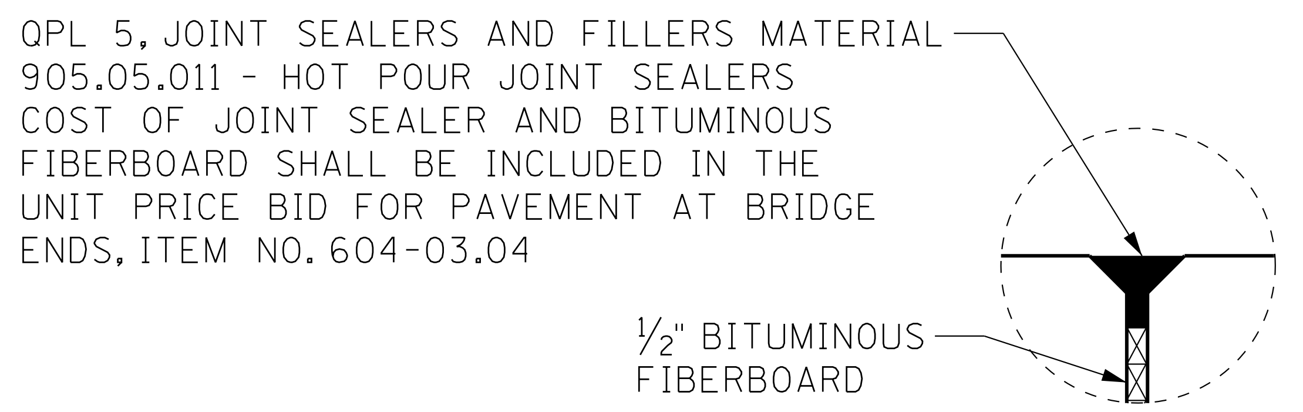
NOTE: BRIDGE RAILS NOT SHOWN



WRAP DETAILS



SECTION A-A



DETAIL "A"

AT EACH WINGWALL

NOTES

NOTES FOR STRUCTURAL BACKFILL:

GEOTEXTILE REINFORCEMENT BETWEEN THE EMBANKMENT MATERIAL AND MINERAL AGGREGATE SHALL BE TYPE IV WOVEN FABRIC AND MEET THE MATERIAL REQUIREMENTS OF TDOT QPL 36.

GEOGRID REINFORCEMENT (TYPE 2) SHALL BE BIAXIAL TYPE AND SHALL MEET OR EXCEED THE SPECIFICATIONS OF TENSAR BX1200 OR APPROVED EQUAL.

GEOGRID REINFORCEMENT (TYPE 2) SHALL BE PLACED BY ALTERNATING MACHINE DIRECTION (MD) WITH CROSS MACHINE DIRECTION (XD) FROM LAYER TO LAYER.

GEOTEXTILE AND GEOGRID REINFORCEMENT WRAP AT FACE OF ABUTMENT AND WINGWALLS SHALL BE PULLED BACK SLACK FREE WITH ITS END ANCHORED TO MINERAL AGGREGATE UNDERNEATH WITH STAPLES OR PINS.

MINIMUM SPLICE LENGTHS OF GEOTEXTILE AND GEOGRID REINFORCEMENT SHALL CONSIST OF A MINIMUM OF 6" OVERLAP.

MINERAL AGGREGATE SHALL BE PLACED IN LAYERS AS SHOWN ON THIS DRAWING. EACH LAYER SHALL BE COMPACTED WITH A MINIMUM OF FOUR (4) PASSES WITH A THREE (3) TON VIBRATORY ROLLER. ALL EDGES SHALL BE COMPACTED WITH A MECHANICAL TAMPER.

** ALLOWABLE GRADATIONS FOR THE MINERAL AGGREGATE BACKFILL ARE #4, #5, #57, #67, #68, #7, #78, AND #8.

SPECIAL NOTES FOR PAVEMENT AT BRIDGE ENDS:

TWO LAYERS OF 6 MIL POLY SHALL BE PLACED BETWEEN THE COMPACTED FILL AND THE BOTTOM OF PAVEMENT AT BRIDGE ENDS WITH THE COST TO BE INCLUDED IN THE COST OF THE PAVEMENT AT BRIDGE ENDS.

PAVEMENT AT BRIDGE ENDS CONTROL ELEVATIONS SHALL BE ADJUSTED TO MATCH THE IN-PLACE DECK SLAB IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.

THE JOINT SEAL SYSTEM AND SLEEPER SLAB ARE NOT REQUIRED WHEN THE BRIDGE HAS AN EXPANSION JOINT AT THE ADJACENT ABUTMENT. THE REINFORCED BACKFILL SHALL BE ADJUSTED AS REQUIRED FOR THIS CONDITION.

SPECIAL NOTES FOR PHASED CONSTRUCTION:

A TEMPORARY WALL OR SUPPORT SYSTEM WILL BE REQUIRED AT THE PHASE LINE DURING INSTALLATION OF THE PAVEMENT AT BRIDGE ENDS. SYSTEM TYPE SHALL BE SELECTED BY THE CONTRACTOR AND WILL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

GEOTEXTILE AND GEOGRID REINFORCEMENT SHALL BE TURNED UP ALONG THE SUPPORT SYSTEM TO ALLOW FOR OVERLAP DURING THE SECOND PHASE OF CONSTRUCTION. A MINIMUM OF 6" OVERLAP IS REQUIRED FOR THE GEOTEXTILE AND GEOGRID REINFORCEMENT.

COST FOR SUPPORT SYSTEM IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN OTHER ITEMS.

LAYER DESCRIPTION	D = MINIMUM ENDWALL/WINGWALL HEIGHT (IN.) (DOES NOT INCLUDE THE HEIGHT OF THE ABUTMENT BEAM OR WING BEAM)							
	D < 36"	36" ≤ D ≤ 40"	41" ≤ D ≤ 48"	49" ≤ D ≤ 55"	56" ≤ D ≤ 62"	63" ≤ D ≤ 68"	69" ≤ D ≤ 75"	D ≥ 76" ◑
MINERAL AGGREGATE LAYER "S"	14"	S = D - 22"	S = D - 27"	S = D - 34"	S = D - 40 1/2"	S = D - 48"	S = D - 54"	S = 21"
GEOGRID-ENCAPSULATED LAYERS "G"	1 LAYER @ 4" = 4"	1 LAYER @ 4" = 4"	2 LAYERS @ 4 1/2" = 9"	2 LAYERS @ 8" = 1'-4"	3 LAYERS @ 7 1/2" = 1'-10 1/2"	4 LAYERS @ 7 1/2" = 2'-6"	4 LAYERS @ 9" = 3'-0"	4 LAYERS @ 9" = 3'-0"

TABLE 1

◑ DENOTES: USE THIS CASE FOR ALL CLOSED ABUTMENTS REGARDLESS OF D.

DESIGN BY: TDOT STRUCTURES DATE: 08/01/2020
DRAWN BY: GARY YOUNG DATE: 08/01/2020
SUPERVISED BY: TED KNIAZEWYCZ DATE: 08/01/2020
CHECKED BY: TED KNIAZEWYCZ DATE: 08/01/2020

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

2 1

MISC. ABUTMENT
AND PAVEMENT
AT BRIDGE ENDS
BACKFILL DETAILS
2020

STD-10-2