

BORING LOCATION INFORMATION
(SHOWING EXISTING BRIDGE)

- ① BM#B.M. NAIL IN TELEPHONE POLE
ELEV. = 100.00
- ① BENCHMARK INFORMATION PROVIDED BY TERRACON FOR GEOTECHNICAL EXPLORATION BORING LOCATION PURPOSES ONLY.
- BM#102-3/4" IRON BAR
STA. 313+78.23 46.33' LT.
ELEV. = 997.22
- BM#103-3/4" IRON BAR
STA. 315+94.13 42.77' RT.
ELEV. = 997.97

HYDRAULIC DATA

TOTAL D.A.	=	8.75 SQ. MI.
CONTROLLED D.A.	=	0.00 SQ. MI.
EFFECTIVE D.A.	=	8.75 SQ. MI.
Q2	=	670 CFS
V2	=	7.19 FPS
Q2 CHW	=	991.17 FT.
Q5	=	1460 CFS
V5	=	6.62 FPS
Q5 CHW	=	994.89 FT.
Q0.T. = Q9.81	=	2230 CFS
V0.T.	=	10.12 FPS
O.T. CHW	=	996.95 FT.
Q10	=	2260 CFS
V10	=	10.19 FPS
Q10 CHW	=	997.19 FT.
Q25	=	3610 CFS
V25	=	9.26 FPS
Q25 CHW	=	998.77 FT.
Q50	=	4650 CFS
V50	=	8.59 FPS
Q50 CHW	=	999.24 FT.
Q100	=	5860 CFS
V100	=	7.67 FPS
Q100 CHW	=	999.67 FT.

THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF DRILLING OPERATIONS.

EXISTING BRIDGE NOTE:
THE EXISTING BRIDGE STRUCTURE SHALL BE REMOVED IN ACCORDANCE WITH THE NOTES ON SHEET NO. 7

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN DATA

CLASS "AA" CONCRETE F'C = 4,000 PSI
 REINFORCING STEEL FY = 60,000 PSI
 NEW STRUCTURAL STEEL AASHTO M270 (GR. 36) FY = 36,000 PSI
 NEW STRUCTURAL STEEL AASHTO M270 (GR. 50) FY = 50,000 PSI
 EXISTING STRUCTURAL STEEL (GR. 36) FY = 36,000 PSI

LOADING: HL-93
 20 PSF FUTURE WEARING SURFACE
 5 PSF STAY-IN-PLACE FORMS

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2014 EDITION, WITH 2015 AND 2016 INTERIMS, EXCEPT AS MODIFIED BY THE PLANS.
 ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

LFD OPERATING RATING: HS 37

THE FOLLOWING STANDARDS SHALL BE REQUIRED:

- TR3-2-01E
- HP1-2-01E
- CB26..32-C-SK30-ABUT-MISC-01E

NOTES: ALL STATIONING FOLLOWS C SURVEY E0690 ROAD, UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL MAINTAIN DRAINAGE AT ALL TIMES DURING CONSTRUCTION.

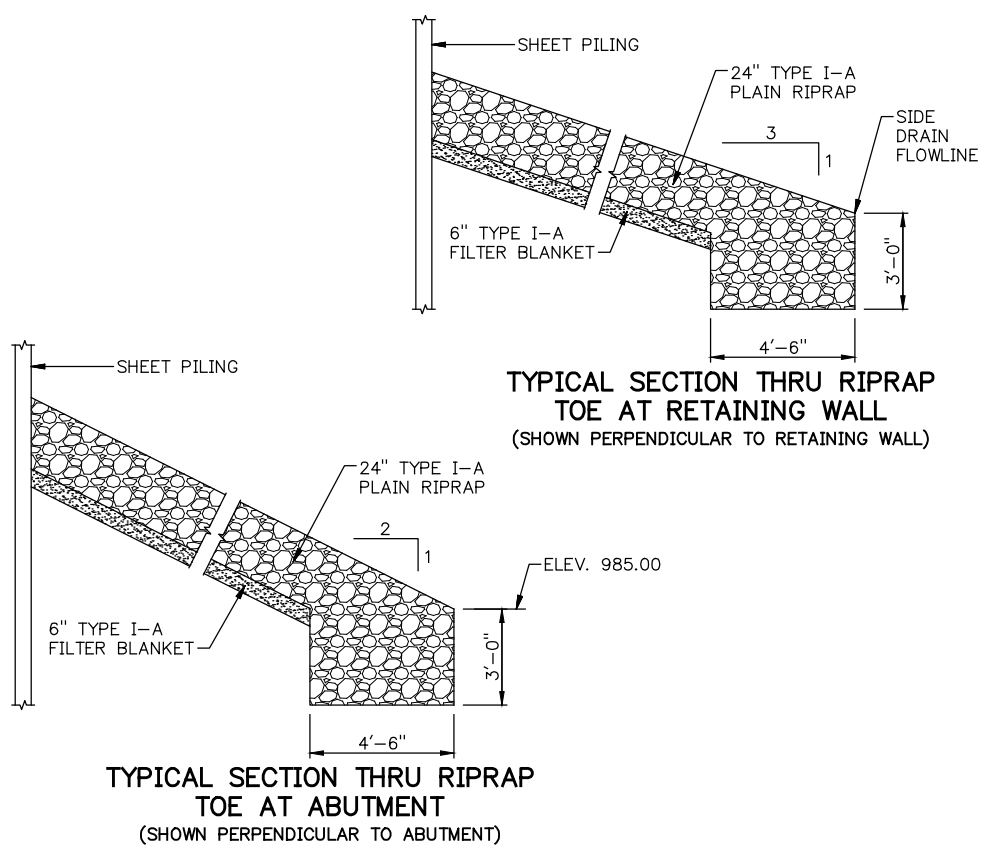
FOR CHANNEL WORK DETAILS, SEE THE PLAN AND PROFILE SHEETS AND CROSS-SECTIONS. (ROADWAY ITEMS).

FOR FINISH GRADE DATA, SEE THE PLAN AND PROFILE SHEETS AND CROSS-SECTIONS. (ROADWAY ITEMS).

FOUNDATION DATA

ABUTMENT NO. 1 AND 2 (HP14x102 PILING):
 MAXIMUM FACTORED PILE REACTION = 72.0 TONS/PILE

ABUTMENT PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.



SUMMARY OF QUANTITIES - BRIDGE "B"

DESCRIPTION	UNIT	ABUTS. (1)	SUPSTR.	RIPRAP	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	1,498.00			1,498.00
SELECT BACKFILL	CY	13.00			13.00
GRANULAR BACKFILL	CY	82.00			82.00
CONCRETE RAIL (TR3)	LF		100.00		100.00
STRUCTURAL STEEL	LB	16,880.00	9,560.00		26,440.00
CLASS AA CONCRETE	CY	102.40	37.00		139.40
CLASS C CONCRETE	CY	2.00			2.00
EPOXY COATED REINFORCING STEEL	LB		12,630.00		12,630.00
PILES, FURNISHED (HP 14x102)	LF	540.00			540.00
PILES, FURNISHED (HP 14x117)	LF	800.00			800.00
PILES, DRIVEN (HP 14x102)	LF	18.00			18.00
SHEET PILING, FURNISHED	SY	364.00			364.00
SHEET PILING, DRIVEN	SY	364.00			364.00
(PL) PILOT HOLES	LF	1,126.00			1,126.00
HAUL AND ERECT STEEL BEAMS	LSUM				1.00
TYPE I-A PLAIN RIPRAP	TON			189.00	189.00
TYPE I-A FILTER BLANKET	TON			46.00	46.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	226.00			226.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	6.00			6.00
STANDARD BEDDING MATERIAL, CLASS B	CY	321.00			321.00
REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM				1.00

(1) INCLUDES RETAINING WALL QUANTITIES. SEE SHEET NO. 43 FOR RETAINING WALL QUANTITIES.

INDEX OF BRIDGE SHEETS (BRIDGE "B")

- 7 PAY QUANTITIES AND GENERAL NOTES (BRIDGE "B" AND RETAINING WALLS)
- 26 GENERAL PLAN AND ELEVATION (BRIDGE "B")
- 27 GENERAL PLAN AND ELEVATION (BRIDGE "B")
- 28 FOUNDATION REPORT (BRIDGE "B")
- 29 SUBSTRUCTURE STAKING DIAGRAM (BRIDGE "B")
- 30 ABUTMENT 1 DETAILS (BRIDGE "B")
- 31 ABUTMENT 2 DETAILS (BRIDGE "B")
- 32 SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN DETAILS (BRIDGE "B")
- 33 TYPICAL CROSS SECTION AND LONGITUDINAL SECTION (BRIDGE "B")
- 34 BEAM FRAMING PLAN (BRIDGE "B")
- 35 SLAB REINFORCING PLAN (BRIDGE "B")
- 36 BEAM DETAILS (BRIDGE "B")
- 37 GENERAL PLAN AND ELEVATION (RETAINING WALL "A")
- 38 GENERAL PLAN AND ELEVATION (RETAINING WALL "B")
- 39 GENERAL PLAN AND ELEVATION (RETAINING WALL "C")
- 40 GENERAL PLAN AND ELEVATION (RETAINING WALL "D")
- 41 RETAINING WALL DETAILS
- 42 RETAINING WALL DETAILS
- 43 RETAINING WALL DETAILS

CONST. ONE (1) 50' STEEL GIRDER
 SPAN; 26'-0" CLR. RDWY. W/
 CONCRETE TRAFFIC RAILS (TR3)
 SKEWED 30° LF.

GENERAL PLAN AND ELEVATION
(BRIDGE "B")
(SHEET 2 OF 2)
C SURVEY STA. 314+58.28
State Job No. 28312(04) Sheet No. 27

S.H. 74D
LOGAN COUNTY