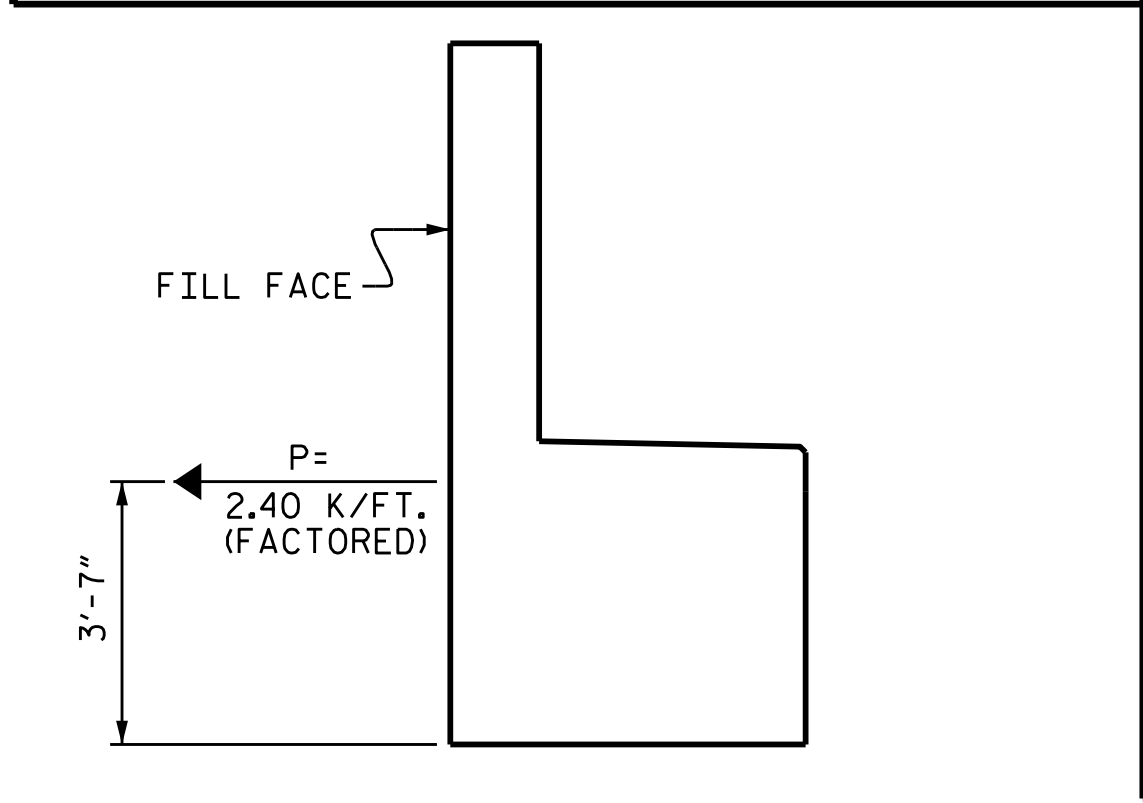


BILL OF MATERIAL						BILL OF MATERIAL					
END BENT 2 - STAGE I						END BENT 2 - STAGE II					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	10	#9	1	45'-11"	1561	B3	11	#4	STR	3'-5"	25
B2	42	#4	STR	29'-0"	814	B4	20	#4	STR	3'-4"	45
B3	20	#4	STR	3'-5"	46	B8	28	#4	STR	23'-6"	440
B4	40	#4	STR	3'-4"	89	B9	5	#4	STR	2'-10"	9
B5	5	#9	STR	44'-9"	761	B10	2	#9	1	44'-0"	299
B6	5	#9	STR	42'-3"	718	B11	2	#9	1	44'-2"	300
B7	5	#4	STR	3'-0"	10	B12	2	#9	1	44'-4"	301
						B13	2	#9	1	44'-6"	303
						B14	2	#9	1	44'-8"	304
K1	42	#4	STR	29'-0"	814						
S1	95	#4	3	11'-5"	725	K2	28	#4	STR	23'-3"	435
S2	95	#4	2	4'-2"	264	S1	53	#4	3	11'-5"	404
S3	64	#4	4	6'-6"	278	S2	53	#4	2	4'-2"	148
U1	80	#4	5	3'-8"	196	S3	36	#4	4	6'-6"	156
U2	27	#4	5	6'-5"	116						
V1	150	#5	STR	9'-9"	1525	U1	44	#4	5	3'-8"	108
V2	10	#5	STR	9'-1"	95	U2	15	#4	5	6'-5"	64
						V1	78	#5	STR	9'-9"	793
						V2	10	#5	STR	9'-1"	95

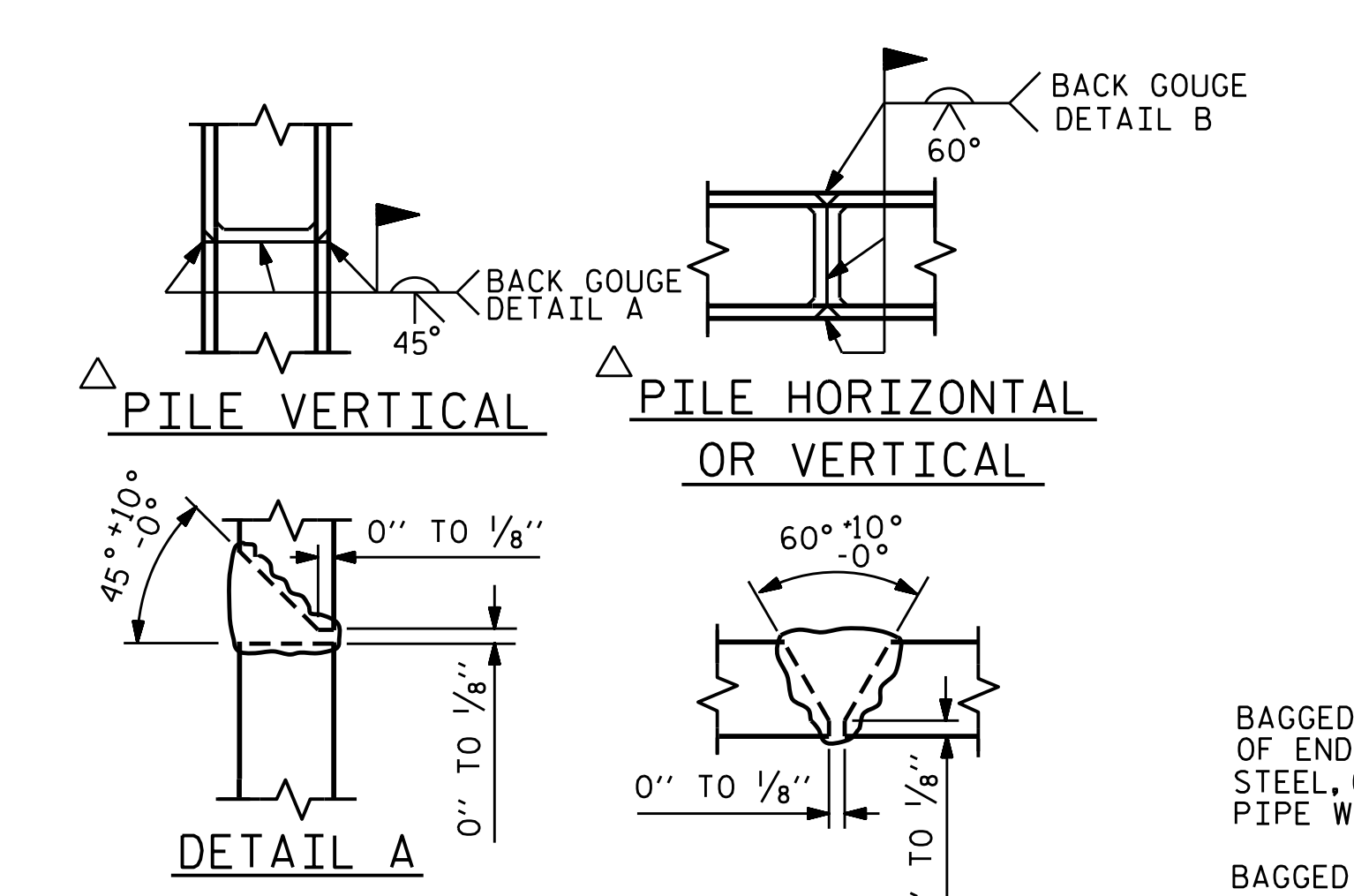


TIE BACK DETAILS
(DETAIL SHOWING TIE BACK RESTRAINT FOR END BENT)

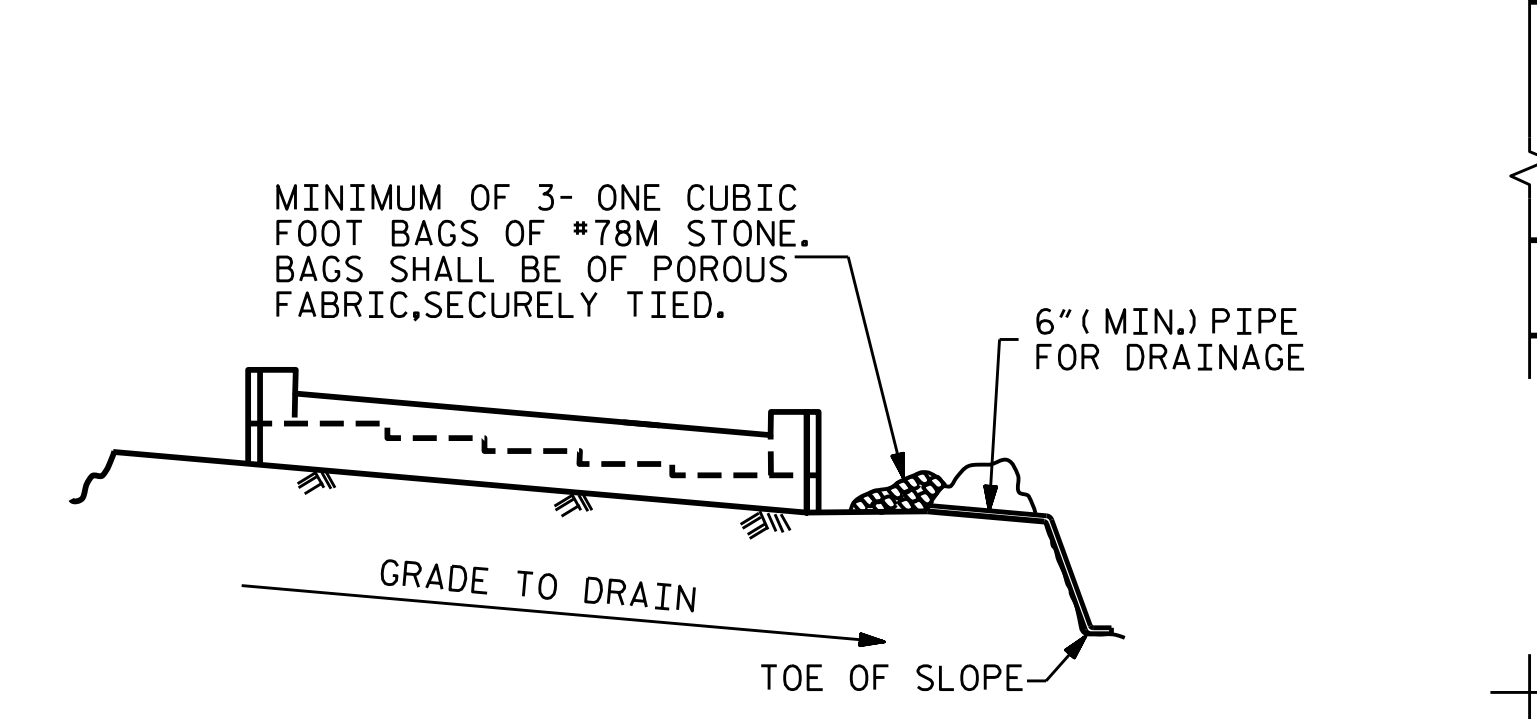
REINFORCING STEEL =	8,012 LBS	REINFORCING STEEL =	4,229 LBS
CLASS A CONCRETE BREAKDOWN		CLASS A CONCRETE BREAKDOWN	
POUR #1 CAP	46.6 C.Y.	POUR #1 CAP	26.1 C.Y.
POUR #2 BACKWALL	17.3 C.Y.	POUR #2 BACKWALL	9.5 C.Y.
TOTAL CLASS A CONCRETE	63.9 C.Y.	TOTAL CLASS A CONCRETE	35.6 C.Y.
HP 12 X 53 STEEL PILES NO. = 17	425 LIN. FT.	HP 12 X 53 STEEL PILES NO. = 8	200 LIN. FT.
STEEL PILE POINTS	17 EA.	STEEL PILE POINTS	8 EA.
PILE EXCAVATION IN SOIL		35 LIN. FT.	
PILE EXCAVATION NOT IN SOIL		20 LIN. FT.	

SECTION A-A

SECTION C-C



PILE SPLICE DETAILS

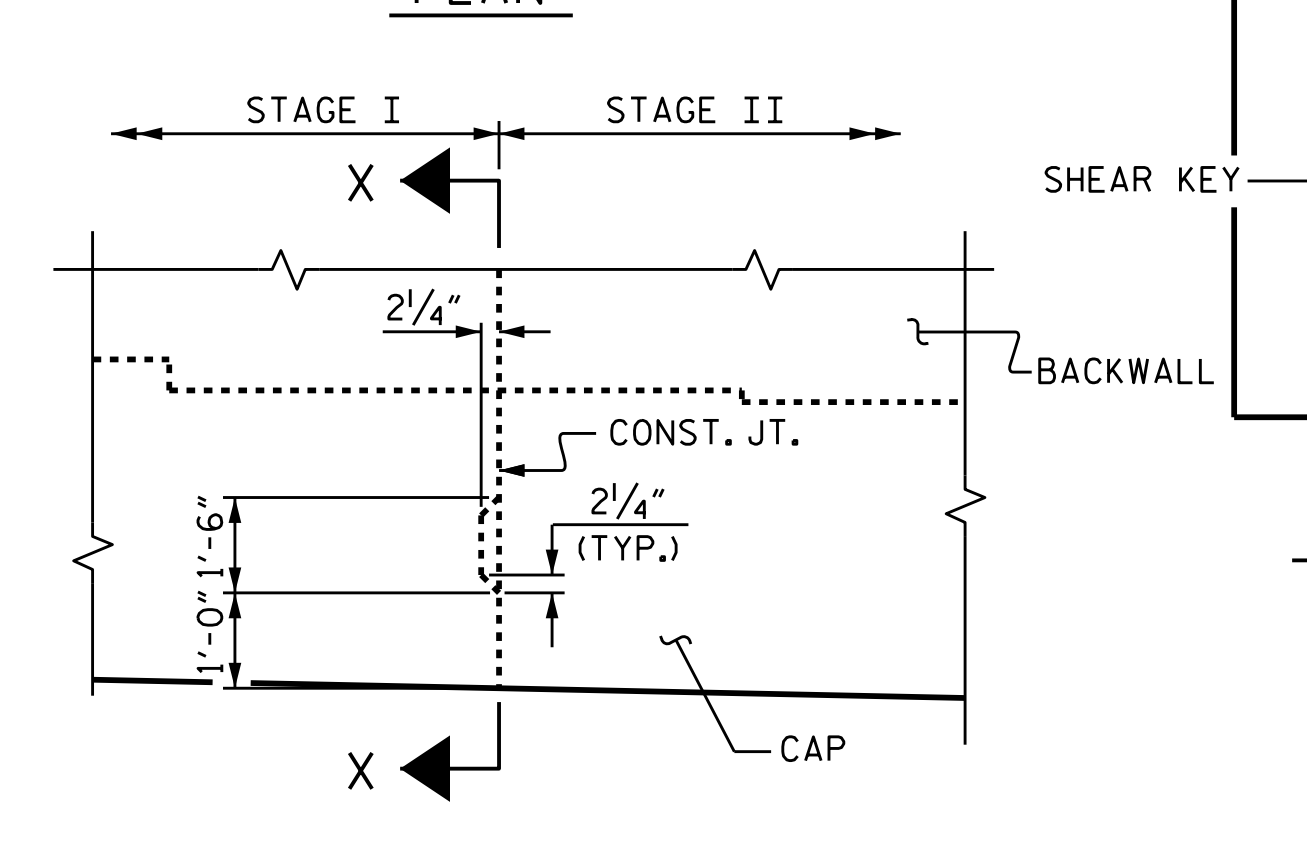
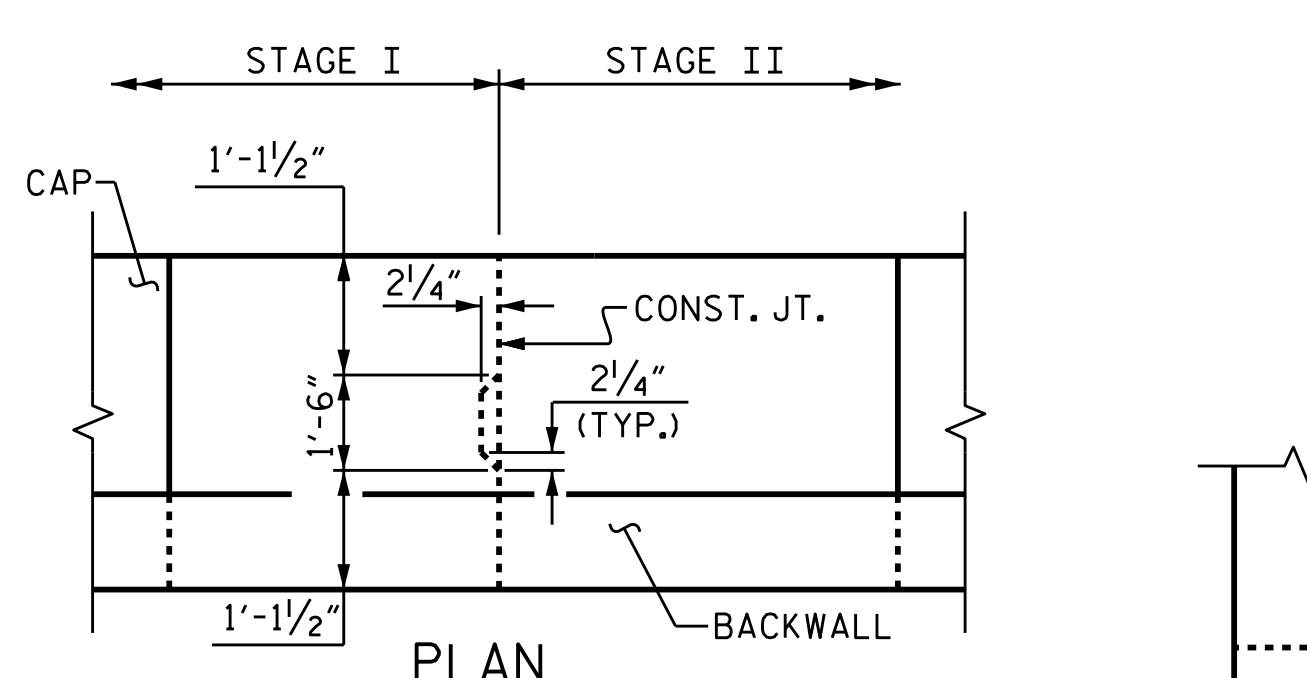


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

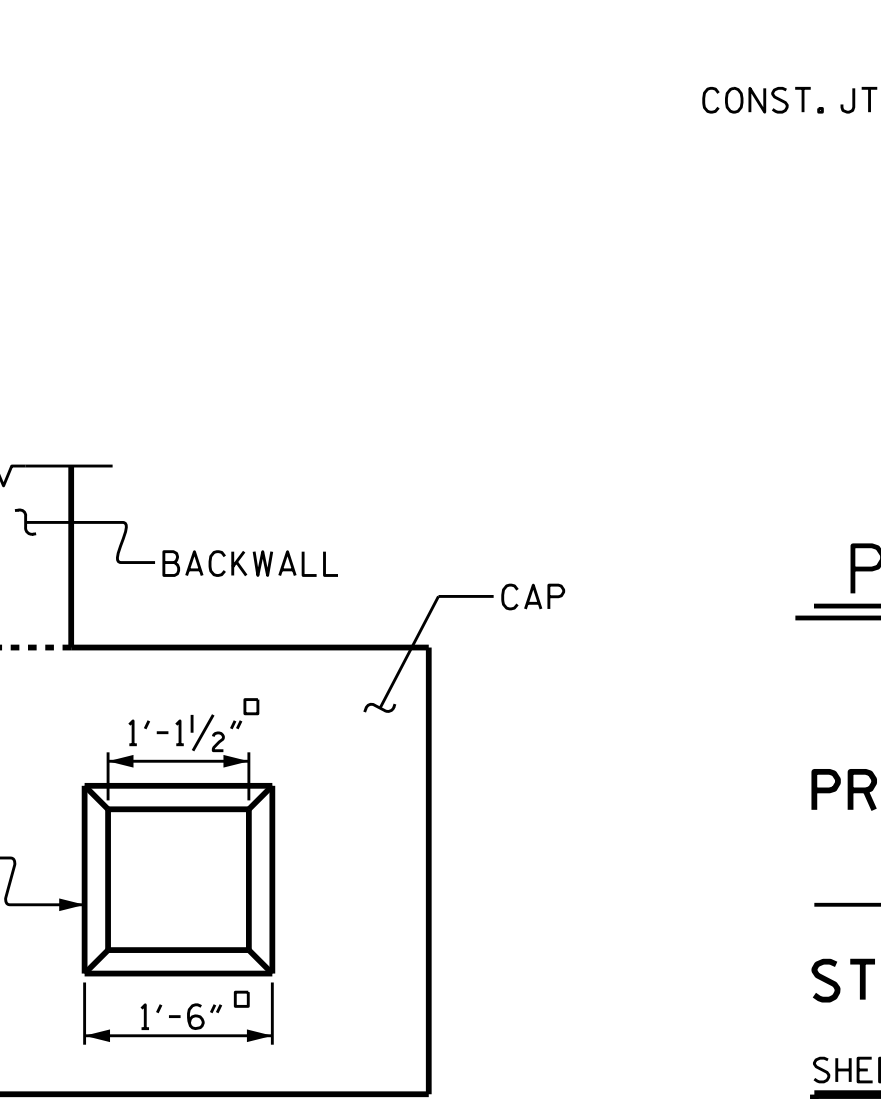
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR EFFECTIVENESS.

NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



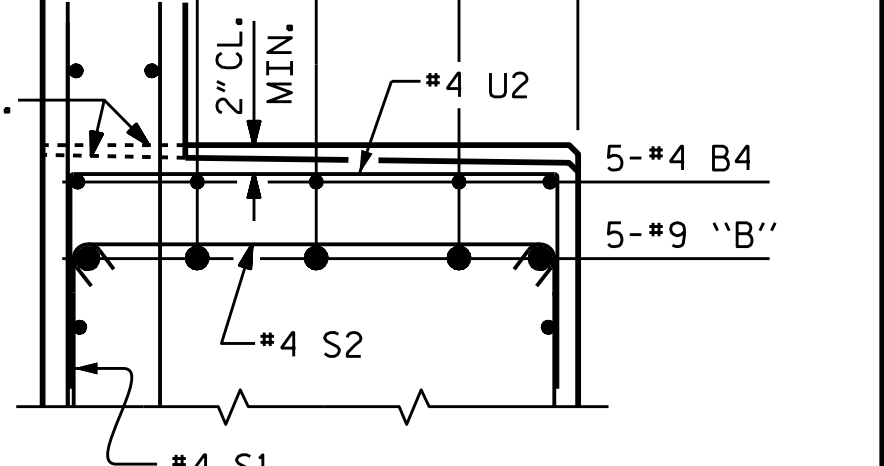
SHEAR KEY DETAIL
REINFORCING STEEL NOT SHOWN



PARTIAL SECTION B



SECTION X-X



PARTIAL SECTION B

PROJECT NO. B-5121/B-5317
WAKE COUNTY
STATION: 22+06.91 -L-
SHEET 3 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE END BENT 2					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					S-32
TOTAL SHEETS					110

DRAWN BY: I.L. AVERETTE DATE: 2-16
CHECKED BY: J.P. ADAMS DATE: 2-16
DESIGN ENGINEER OF RECORD: F. LEA DATE: 2-16

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STR. #1