NOTES:

AT THE CONTRACTOR'S OPTION, A PRECAST CAP MAY BE SUBSTITUTED FOR THE CAST IN PLACE BENT CAP.

STIRRUPS AND U1 BARS IN THE PRECAST CAP MAY BE SHIFTED AS NECESSARY TO CLEAR DOWELS AND GROUT PIPES.

ALL REINFORCING STEEL AND BAR SUPPORTS SHALL BE EPOXY COATED ACCORDING TO THE STANDARD SPECIFICATIONS.

THE LATERAL GUIDE AT EACH END OF THE CAP IS NOT TO BE POURED UNTIL AFTER THE CORED SLAB UNITS IN THAT STAGE ARE IN PLACE.

DOWELS SHALL BE PRESET IN THE PRECAST CAP IN THE LOCATIONS SHOWN ON THE PLANS. DRILLING AND ADHESIVE ANCHORING OF DOWELS AFTER CASTING WILL NOT BE ALLOWED.

TWO LIFTING LOOPS SHALL BE ALLOWED IN THE PRECAST CAP FOR EACH STAGE IN ACCORDANCE WITH ARTICLE 1077-10 OF THE STANDARD SPECIFICATIONS WITH THE FOLLOWING ADDITIONS. THE LIFTING LOOPS SHALL BE BURNED OFF PRIOR TO PLACING THE ELASTOMERIC BEARING PADS. THE ENDS OF THE LIFTING LOOPS TO BE BURNED OFF SHALL BE RECESSED AND GROUTED. SEE DETAIL FOR GROUTED RECESS FOR LIFTING LOOPS. GROUT SHALL BE NON-METALLIC AND NON-SHRINK ACCORDING TO THE STANDARD SPECIFICATIONS. PROPOSED DEVICES FOR LIFTING LOOPS SHALL BE DETAILED IN SHOP DRAWINGS.

TWO 4 INCH Ø GROUT PIPES SHALL BE PROVIDED AT EACH PILE BLOCKOUT. THE 4 INCH Ø GROUT PIPES SHALL BE CUT FROM SCHEDULE 40 PVC PIPE.

THE CONCRETE USED TO FILL THE PILE BLOCKOUTS SHALL BE CLASS AA AND MEET THE REQUIREMENTS FOR CLASS AA CONCRETE EXCEPT THE MAXIMUM SIZE COURSE AGGREGATE USED IN THE CONCRETE MIX SHALL BE #78M. THE CLASS AA BLOCKOUT CONCRETE SHALL HAVE A MINIMUM SLUMP OF 6".

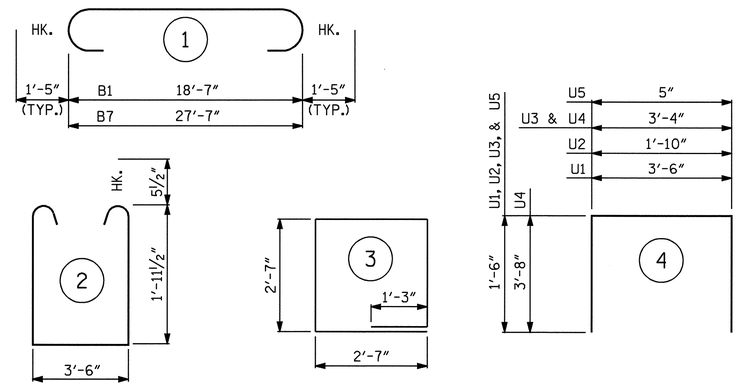
CONCRETE IN THE PILE BLOCKOUTS SHALL BE VIBRATED IN ACCORDANCE WITH SECTION 420-5 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A METHOD TO SUPPORT THE PRECAST CAPS IN THE PROPER LOCATION AND ELEVATION AS SHOWN ON THE PLANS PRIOR TO PLACEMENT OF AND CURING OF THE CLASS AA CONCRETE IN THE PILE BLOCKOUTS. THE METHOD CHOSEN SHALL PROVIDE A WATERTIGHT SEAL AT THE BOTTOM OF THE CAP SO NO LIVE OR FRESH CONCRETE COMES IN CONTACT WITH THE STREAM UNTIL THE CONCRETE HAS HARDENED.

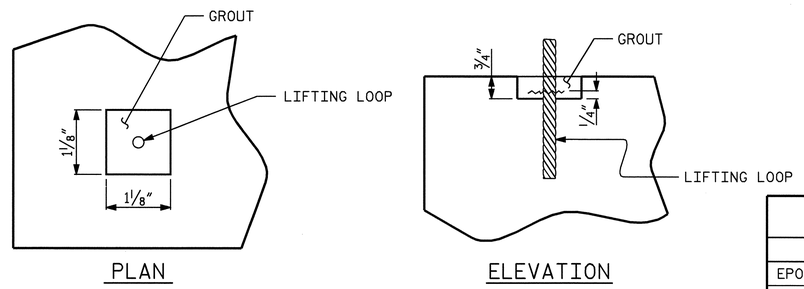
CONCRETE DISPLACED BY THE 16" PRESTRESSED CONCRETE PILES HAS BEEN DEDUCTED FROM THE PILE BLOCKOUT CONCRETE QUANTITY.

THE TOP OF THE PILE BLOCKOUT SHALL BE CHAMFERED 2" ALL AROUND.

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.



GROUTED RECESS FOR LIFTING LOOPS

LIFTING LOOPS TO BE CUT 1/4" ABOVE BOTTOM OF RECESS.

BILL OF MATERIAL

BENT No. 2

STAGE 1

BAR	No.	SIZE	TYPE	LENGTH	WEIGHT
B1	6	10	1	21'-5"	553
B2	4	10	STR	18'-9"	323
B3	4	5	STR	18'-9"	78
B4	4	4	STR	18'-9"	50
B5	6	4	STR	11'-8"	47
B6	7	4	STR	3'-6"	16
D1	24	6	STR	1'-6"	54
S1	17	5	2	8'-4"	148
S2	8	4	3	11'-7"	62
U1	8	4	4	6'-6"	35
U2	3	4	4	4'-10"	10
U3	2	4	4	6'-4"	8
U4	2	9	4	10'-8"	73
U5	5	4	4	3'-5"	11
EPOXY COATED REINFORCING STEEL					1,468 LBS.

CLASS AA CONCRETE BREAKDOWN

POUR #1 CAP	6.9 C.Y.
POUR #2 LATERAL GUIDE	0.1 C.Y.
TOTAL CLASS AA CONCRETE	7.0 C.Y.
PILE BLOCKOUT CONCRETE	0.7 C.Y.

16" PRESTRESSED CONCRETE PILES
No. = 4 LIN. FT. = 260.0

STAGE 2

BAR	No.	SIZE	TYPE	LENGTH	WEIGHT
B6	9	4	STR	3'-6"	21
B7	6	10	1	30'-5"	785
B8	4	10	STR	27'-9"	478
B9	4	5	STR	27'-9"	116
B10	4	4	STR	27'-9"	74
B11	6	4	STR	20'-9"	83
D1	36	6	STR	1'-6"	81
S1	29	5	2	8'-4"	252
S2	10	4	3	11'-7"	77
U1	14	4	4	6'-6"	61
U2	3	4	4	4'-10"	10
U3	2	4	4	6'-4"	8
U4	2	9	4	10'-8"	73
U5	5	4	4	3'-5"	11
EPOXY COATED REINFORCING STEEL					2,130 LBS.

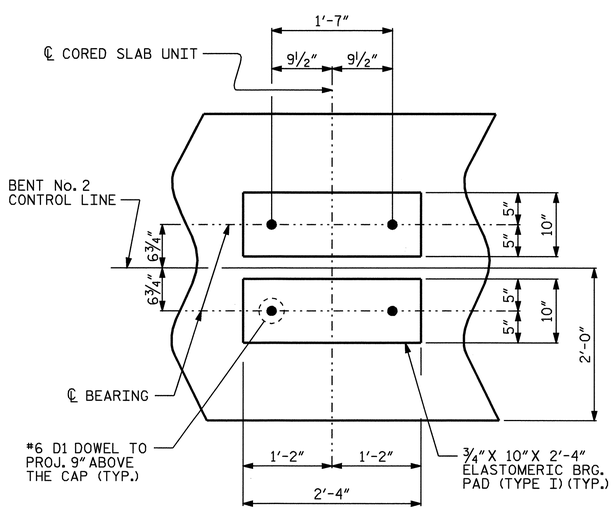
CLASS AA CONCRETE BREAKDOWN

POUR #1 CAP	10.7 C.Y.
POUR #2 LATERAL GUIDE	0.1 C.Y.
TOTAL CLASS AA CONCRETE	10.8 C.Y.
PILE BLOCKOUT CONCRETE	0.9 C.Y.

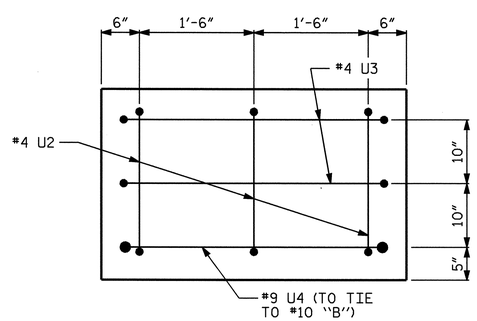
16" PRESTRESSED CONCRETE PILES
No. = 5 LIN. FT. = 325.0

TOTAL QUANTITIES (BENT No. 2)

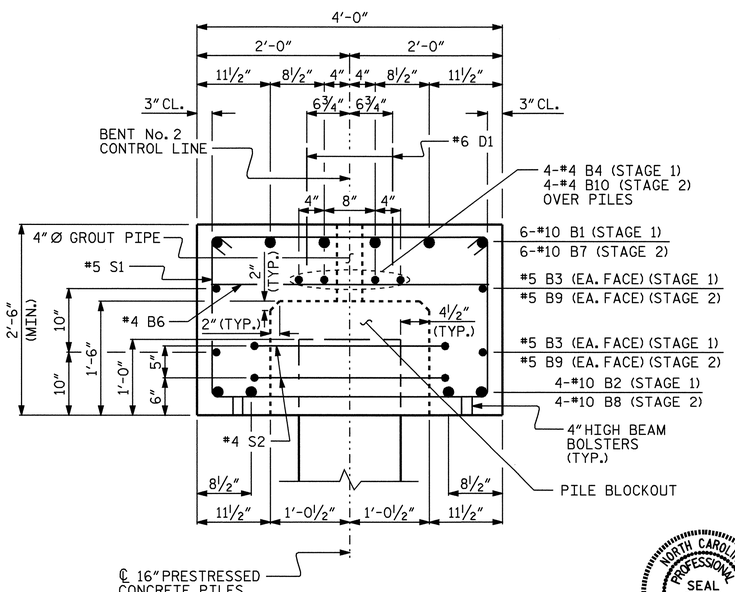
ITEM	STAGE 1	STAGE 2	TOTAL
EPOXY COATED REINFORCING STEEL	1,468 LBS.	2,130 LBS.	3,598 LBS.
CLASS AA CONCRETE	7.0 C.Y.	10.8 C.Y.	17.8 C.Y.
PILE BLOCKOUT CONCRETE	0.7 C.Y.	0.9 C.Y.	1.6 C.Y.
16" PRESTRESSED CONCRETE PILES	No. 4 LIN. FT. 260.0	No. 5 LIN. FT. 325.0	No. 9 LIN. FT. 585.0



DETAIL "A"



VIEW X-X



SECTION A-A

NORTH CAROLINA PROFESSIONAL SEAL 24390 ENGINEER THEO J. BEACH

Theo J. Beach 2/7/06

PROJECT NO. B-3349
HYDE COUNTY
STATION: 15+69.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

BENT No. 2
PRECAST OPTION

REVISIONS							
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.	S-34
1			3			TOTAL SHEETS	44
2			4				

DRAWN BY : P.C. BREWER DATE : 6/8/04
CHECKED BY : S.B. WILLIAMS DATE : 8/18/04

07-MAR-2006 09:06
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