

NOTES

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ALL REINFORCING STEEL CAST WITH THE CORED SLAB SECTIONS SHALL BE GRADE 60 AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE CORED SLABS.

RECESSES FOR TRANSVERSE STRANDS SHALL BE GROUTED AFTER THE TENSIONING OF THE STRANDS.

THE 1/2" Ø DOWEL HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH GROUT. THE 2/2" Ø DOWEL HOLES AT EXPANSION ENDS OF SLAB SECTIONS SHALL BE FILLED WITH JOINT SEALER MATERIAL TO 1/2" ABOVE THE TOP OF DOWELS AND THEN FILLED WITH GROUT.

THE JOINT SEALER MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF TYPE SL LOW MODULUS SILICONE SEALANT. THE 2" Ø BACKER ROD SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, A POSITIVE HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. THIS SYSTEM SHALL BE DESIGNED TO BE LEFT IN PLACE UNTIL THE CONCRETE HAS REACHED RELEASE STRENGTH. AT LEAST THREE WEEKS PRIOR TO CASTING CORED SLABS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND COMMENT, DETAILED DRAWINGS OF THE PROPOSED HOLD-DOWN SYSTEM. IN ADDITION TO STRUCTURAL DETAILS, LOCATION AND SPACING OF THE HOLD-DOWNS SHALL BE INDICATED.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE CORED SLAB UNIT SHALL BE DONE WHEN THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 4000 PSI.

PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE CORED SLAB UNIT ENDS.

APPLY EPOXY PROTECTIVE COATING TO CORED SLAB UNIT ENDS. FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC BEARINGS, SEE SPECIAL PROVISIONS.

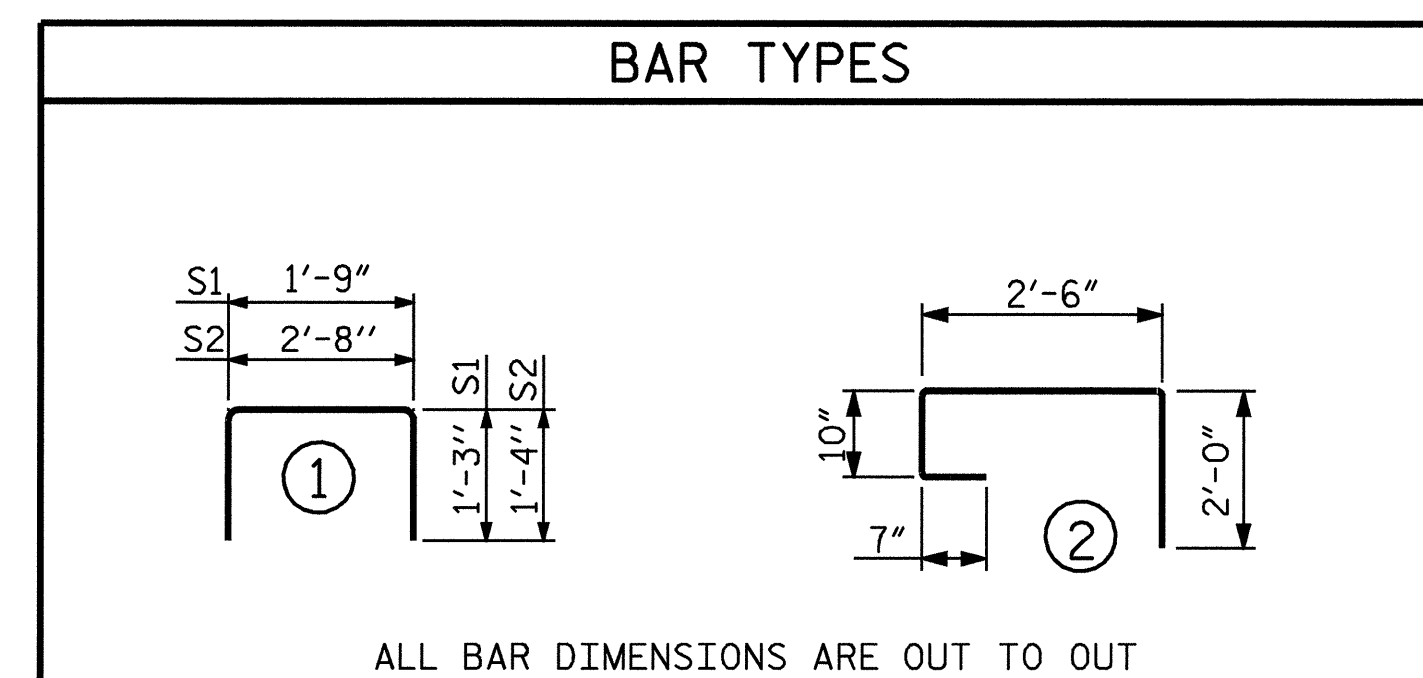
FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

PLACEMENT OF THE CONCRETE OVERLAY SHALL OCCUR AFTER CASTING THE SIDEWALK.

THE TOP SURFACE OF ALL THE CORED SLAB UNITS SHALL HAVE A 3/8" RAKED FINISH.

SUPERSTRUCTURE REINFORCING STEEL LENGTHS ARE BASED ON THE FOLLOWING MINIMUM SPLICE LENGTHS					
BAR SIZE	SUPERSTRUCTURE EXCEPT APPROACH SLABS, PARAPET, AND BARRIER RAIL		APPROACH SLABS		PARAPET AND BARRIER RAIL
	EPOXY COATED	UNCOATED	EPOXY COATED	UNCOATED	
#4	2'-0"	1'-9"	2'-0"	1'-9"	2'-9"
#5	2'-6"	2'-2"	2'-6"	2'-2"	3'-5"
#6	3'-0"	2'-7"	3'-10"	2'-7"	4'-4"
#7	5'-3"	3'-6"			
#8	6'-10"	4'-7"			

CORED SLABS REQUIRED			
SPAN A	NUMBER	LENGTH	TOTAL LENGTH
EXTERIOR C.S.	2	48'-9 3/4"	97'-7 1/2"
INTERIOR C.S.	18	48'-9 3/4"	878'-7 1/2"
TOTAL	20		976'-3"
SPAN B	NUMBER	LENGTH	TOTAL LENGTH
EXTERIOR C.S.	2	38'-9 3/4"	77'-7 1/2"
INTERIOR C.S.	18	38'-9 3/4"	698'-7 1/2"
TOTAL	20		776'-3"
TOTAL	40		1752'-6"



ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL FOR ONE CORED SLAB SECTION																		
			SPAN A						SPAN B									
			INTERIOR UNIT		INT. (SIDEWALK)		EXT. (SIDEWALK)		INTERIOR UNIT		INT. (SIDEWALK)		EXT. (SIDEWALK)		EXT. (SIDEWALK)			
BAR	SIZE	TYPE	NUMBER	LENGTH	WEIGHT	NUMBER	LENGTH	WEIGHT	NUMBER	LENGTH	WEIGHT	NUMBER	LENGTH	WEIGHT	NUMBER	LENGTH	WEIGHT	
B1	# 4	STR	4	25'-2"	67	4	25'-2"	67	4	25'-2"	67	4	20'-2"	54	4	20'-2"	54	
B2	# 4	STR													4	20'-2"	54	
S1	# 4	1	8	4'-3"	23	8	4'-3"	23	8	4'-3"	23	8	4'-3"	23	8	4'-3"	23	
S2	# 4	1	98	5'-4"	349	98	5'-4"	349	98	5'-4"	349	78	5'-4"	278	78	5'-4"	278	
*S3	# 4	2				7	5'-11"	28	7	5'-11"	28				6	5'-11"	24	
REINFORCING STEEL			439 LBS.		439 LBS.		439 LBS.		355 LBS.		355 LBS.		355 LBS.					
*EPOXY COATED REINF. STEEL			0		28 LBS.		28 LBS.		0		24 LBS.		24 LBS.					
5,000 P.S.I. CONCRETE			6.8 C. Y.		6.8 C. Y.		6.8 C. Y.		5.4 C. Y.		5.4 C. Y.		5.4 C. Y.					
1/2" Ø L.R. STRANDS			24		24		24		15		15		15					

GROOVING BRIDGE FLOORS	
BRIDGE DECK	3781 SQ.FT.
APPROACH SLAB	980 SQ.FT.
TOTAL	4761 SQ.FT.

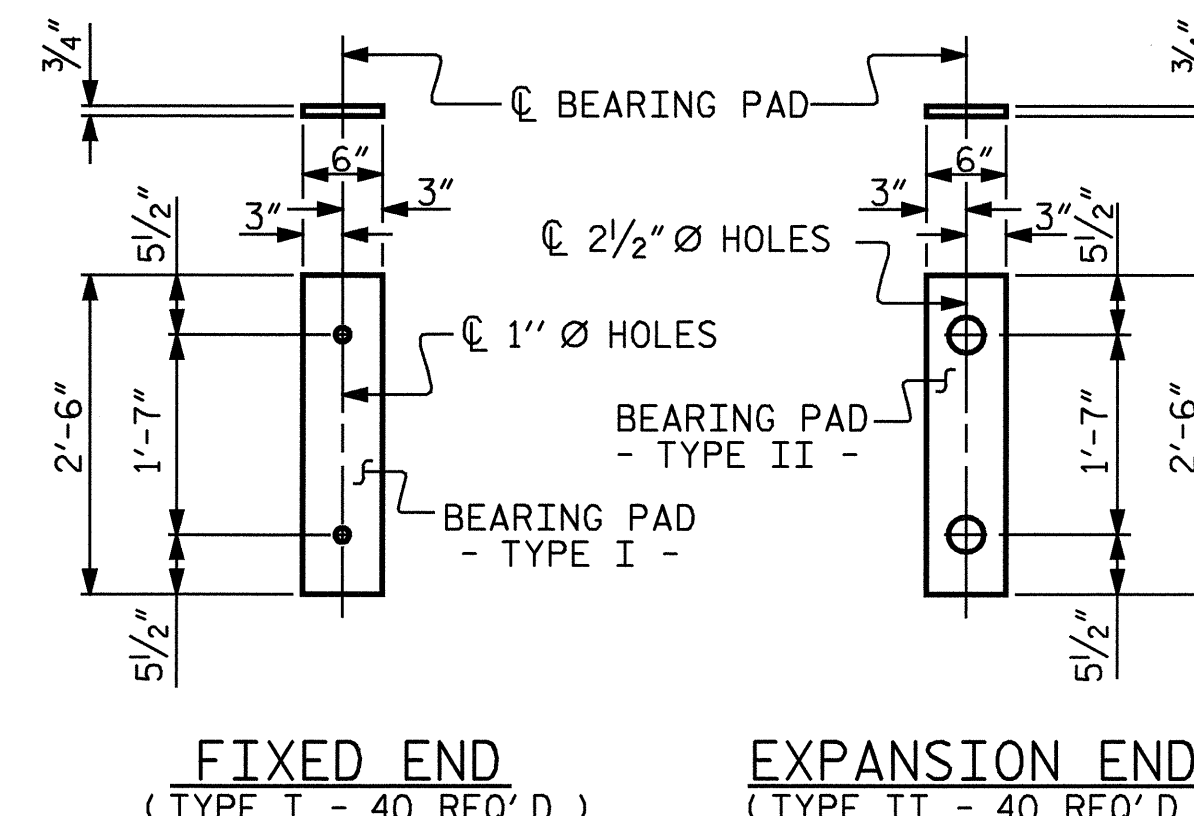
CLASS AA CONCRETE (FOR CONCRETE WEARING SURFACE)	
	(CU. YD.)
*CONCRETE WEARING SURFACE	62.6

*PAID FOR BY THE SQ. FT. PRICE FOR "CONCRETE WEARING SURFACE." (4058 SQ. FT.)

GRADE 270 STRANDS	
	1/2" Ø L.R.
AREA (SQUARE INCHES)	0.153
ULTIMATE STRENGTH (LBS. PER STRAND)	41,300
APPLIED PRESTRESS (LBS. PER STRAND)	30,980

DEAD LOAD DEFLECTION AND CAMBER		
	SPAN A	SPAN B
CAMBER (SLAB ALONE IN PLACE)	2 5/16" ↑	1 5/16" ↑
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD**	5/16" ↓	1/8" ↓
FINAL CAMBER	2" ↑	1 3/16" ↑

** INCLUDES FUTURE WEARING SURFACE



ELASTOMERIC BEARING DETAILS

PROJECT NO. B-3450
DURHAM COUNTY
 STATION: 14+31.00 -L-



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
3'-0" X 1'-9" PRESTRESSED CONCRETE CORED SLAB UNIT					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					53

ASSEMBLED BY : A.L.MEADOWS	DATE : 7/3/02
CHECKED BY : T.A.HARRIS	DATE : 9/25/02
DRAWN BY : WJH 4/89	REV. 10/17/00 RWW/LES
CHECKED BY : FCJ 5/89	REV. 7/10/01 RWW/LES
	REV. 5/7/03RR RWW/JTE