

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 2 1/2" Ø DOWEL HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH GROUT. THE 2 1/2" 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.

WHEN A CONCRETE WEARING SURFACE IS DETAILED ON THE CORED SLAB BRIDGE TYPICAL SECTION, THE TOP SURFACE OF THE CORED SLAB UNITS SHALL HAVE A 3/8" RAKED FINISH.

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.

ALL REINFORCING STEEL IN PARAPET & END POSTS SHALL BE EPOXY COATED.

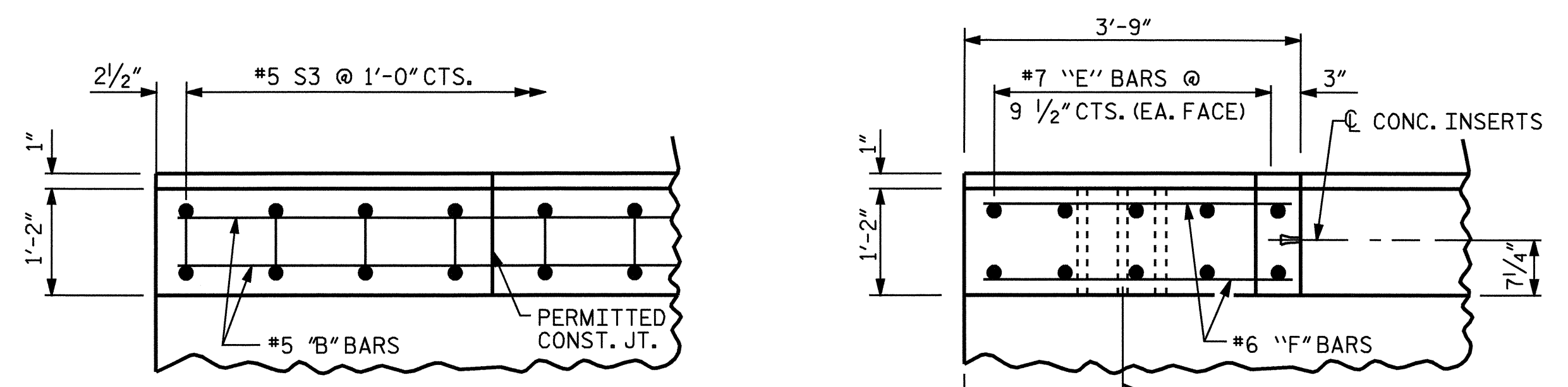
PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE CORED SLAB UNIT ENDS.

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

FOR ELASTOMERIC BEARINGS, SEE SPECIAL PROVISIONS.

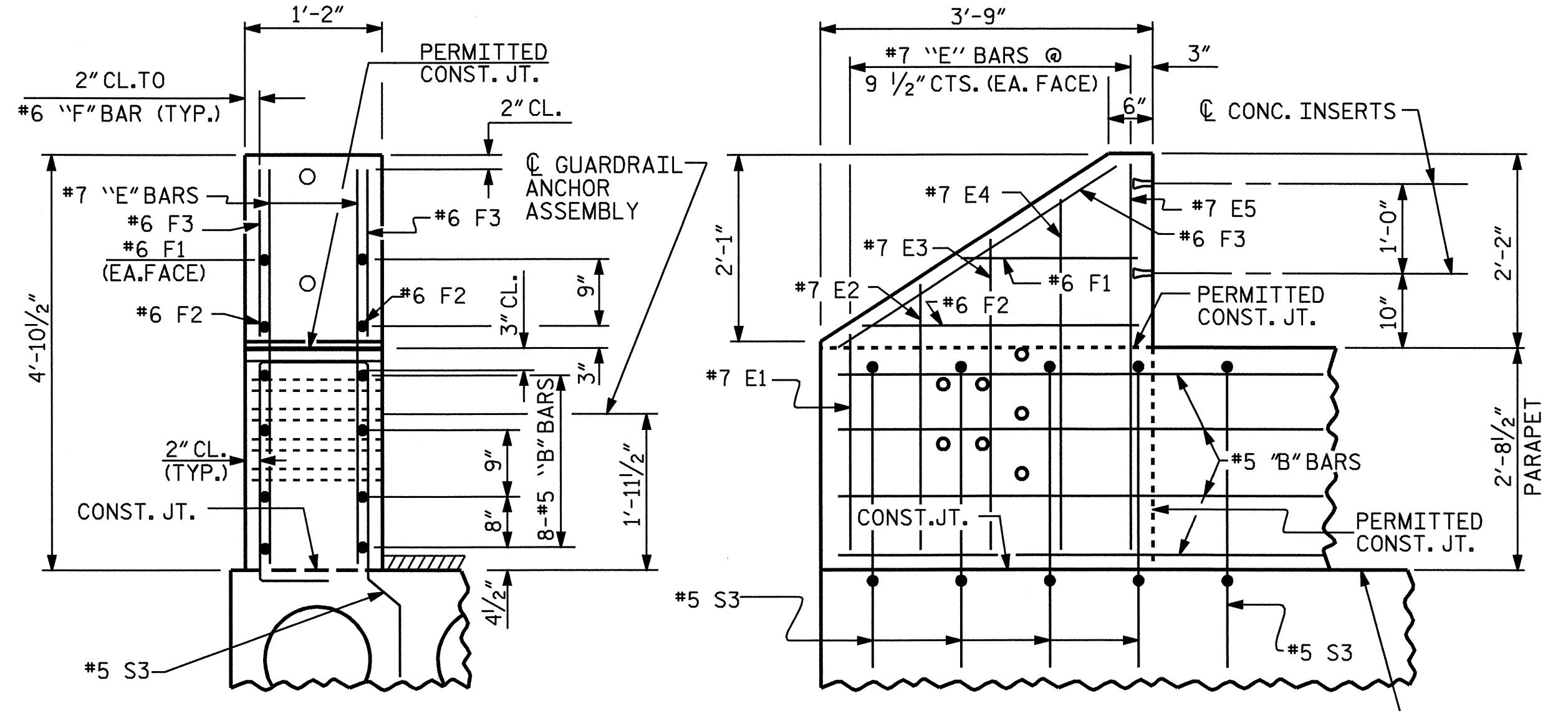
ELASTOMER IN ALL BEARINGS SHALL BE 60 DUROMETER HARDNESS.

FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.



PLAN OF PARAPET

PLAN OF END POST



END VIEW

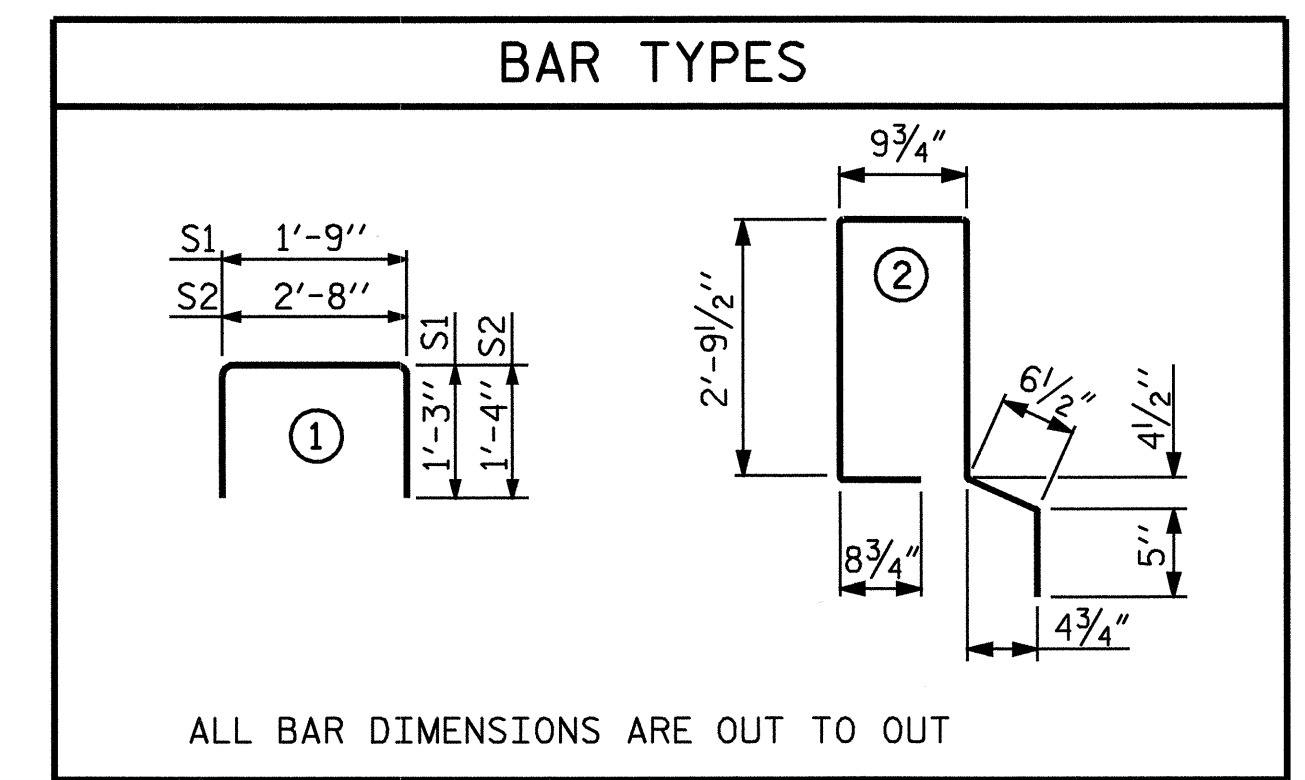
ELEVATION

PARAPET AND END POST FOR TWO BAR RAIL

DEAD LOAD DEFLECTION AND CAMBER					
	SPAN A	SPAN B	SPAN C	SPAN D	SPAN E
CAMBER (SLAB ALONE IN PLACE)	1/2" Ø L.R. STRAND	1/2" Ø L.R. STRAND	1/2" Ø L.R. STRAND	1/2" Ø L.R. STRAND	1/2" Ø L.R. STRAND
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD **	9/16" ↑	2/16" ↑	2/16" ↑	9/16" ↑	1/2" ↑
FINAL CAMBER	1/2" ↑	1 3/4" ↑	1 3/4" ↑	1/2" ↑	7/16" ↑

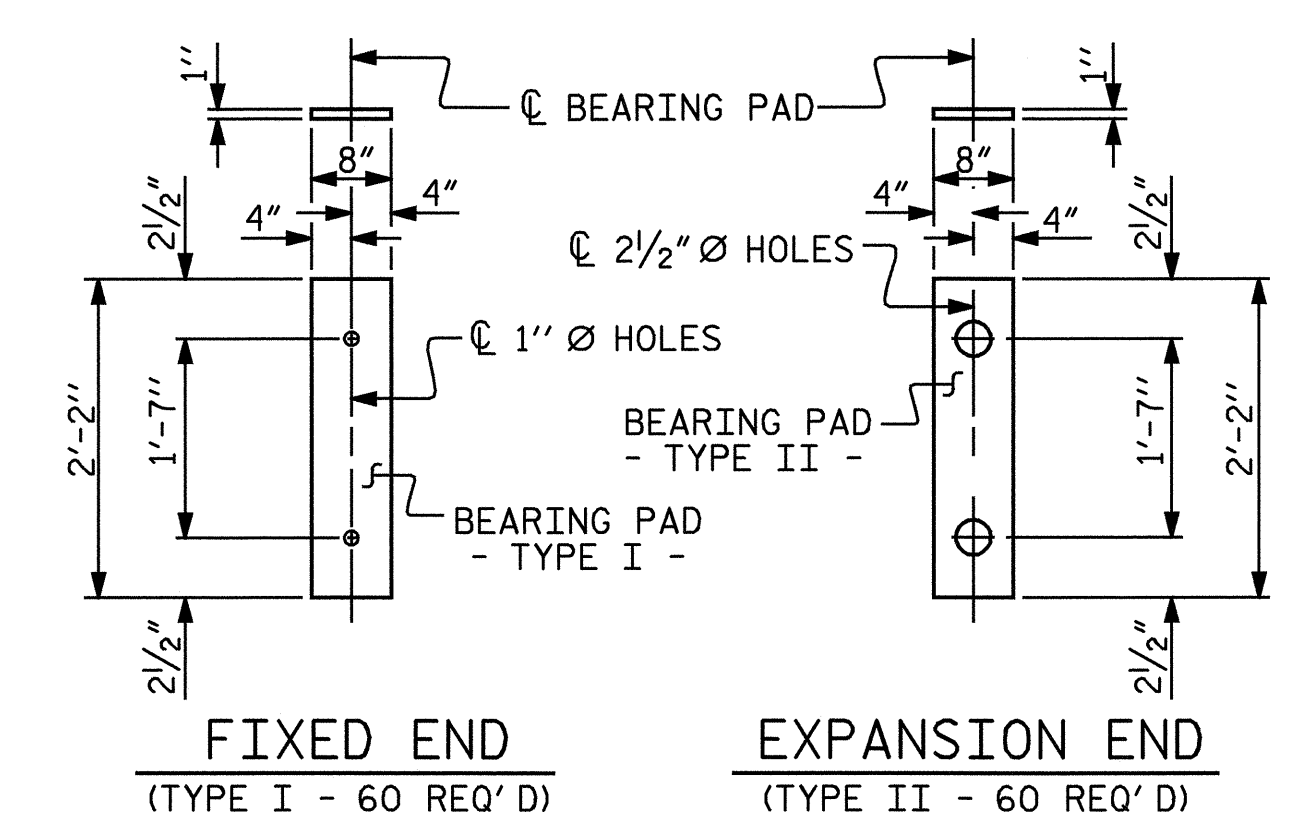
\*\* INCLUDES FUTURE WEARING SURFACE

BILL OF MATERIAL										
PARAPET AND END POSTS										
BAR	SPAN A	SPAN B	SPAN C	SPAN D	SPAN E	TOTAL NO.	SIZE	TYPE	LENGTH	WEIGHT
* B2	16			16		32	#5	STR	34'-6"	1151
* B4		16	16			32	#5	STR	49'-6"	1652
* B6					16	16	#5	STR	28'-5"	474
* E1	4				4	8	#7	STR	2'-7"	42
* E2	4				4	8	#7	STR	3'-1"	50
* E3	4				4	8	#7	STR	3'-7"	59
* E4	4				4	8	#7	STR	4'-1"	67
* E5	4				4	8	#7	STR	4'-6"	74
* F1	4				4	8	#6	STR	1'-10"	22
* F2	4				4	8	#6	STR	3'-0"	36
* F3	4				4	8	#6	STR	3'-8"	44
* EPOXY COATED REINF. STEEL									LBS.	3671
CLASS "AA" CONCRETE									C.Y.	47.4
CONCRETE PARAPET									L.F.	397.63



ALL BAR DIMENSIONS ARE OUT TO OUT

CORED SLABS REQUIRED				
		NUMBER	LENGTH	TOTAL LENGTH
SPANS A & D	EXTERIOR C.S.	4	34'-10 1/2"	139'-6"
	INTERIOR C.S.	20	34'-10 1/2"	697'-6"
SPAN B & C	EXTERIOR C.S.	4	49'-10 1/2"	199'-6"
	INTERIOR C.S.	20	49'-10 1/2"	997'-6"
SPAN E	EXTERIOR C.S.	2	28'-9 3/4"	57'-7 1/2"
	INTERIOR C.S.	10	28'-9 3/4"	288'-1 1/2"
TOTAL		60		2379.75



ELASTOMERIC BEARING DETAILS

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

BILL OF MATERIAL FOR ONE CORED SLAB SECTION																	
BAR	NUMBER	SIZE	TYPE	SPAN A & D		SPANS B & C				SPAN E							
				EXTERIOR UNIT LENGTH	INTERIOR UNIT WEIGHT	EXTERIOR UNIT LENGTH	INTERIOR UNIT WEIGHT	EXTERIOR UNIT LENGTH	INTERIOR UNIT WEIGHT	EXTERIOR UNIT LENGTH	INTERIOR UNIT WEIGHT						
B1	4	#4	STR	18'-6"	49	18'-6"	49										
B3	4	#4	STR					26'-0"	69	26'-0"	69						
B5	2	#4	STR							28'-5"	38	28'-5"	38				
S1	8	#5	1	4'-3"	35	4'-3"	35	4'-3"	35	4'-3"	35	4'-3"	35				
S2	68	#4	1	5'-4"	242												
S2	54	#4	1			5'-4"	192										
S2	98	#4	1			5'-4"	349										
S2	78	#4	1					5'-4"	278								
S2	56	#4	1							5'-4"	200						
S2	44	#4	1									5'-4"	157				
* S3	36	#5	2	8'-1"	304												
* S3	51	#5	2			8'-1"	430										
* S3	30	#5	2							8'-1"	253						
REINFORCING STEEL				LBS.		326		276		453		382		273		230	
* EPOXY COATED REINFORCING STEEL				LBS.		304		430		430		253		253			
5,000 P.S.I. CONCRETE				CU. YDS.		4.9		4.9		7.0		6.9		4.1		4.1	
1/2" Ø L.R. STRANDS				No.		12		12		23		23		12		12	

PROJECT NO. B-3682

ONSLow COUNTY

STATION: 27+84.47 -L-

SHEET 7 OF 7

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

STANDARD  
3'-0" X 1'-9"  
PRESTRESSED CONCRETE  
CORED SLAB UNIT

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-10	
1			3			TOTAL SHEETS 26	
2			4				



ASSEMBLED BY : A. V. ROYAL DATE : 1-04  
CHECKED BY : B. N. GRADY DATE : 4-04  
DRAWN BY : WJH 4/89 REV. 10/17/00 RWW/LES  
CHECKED BY : FCJ 5/89 REV. 7/10/01 RWW/LES  
REV. 5/17/03 RWW/JTE