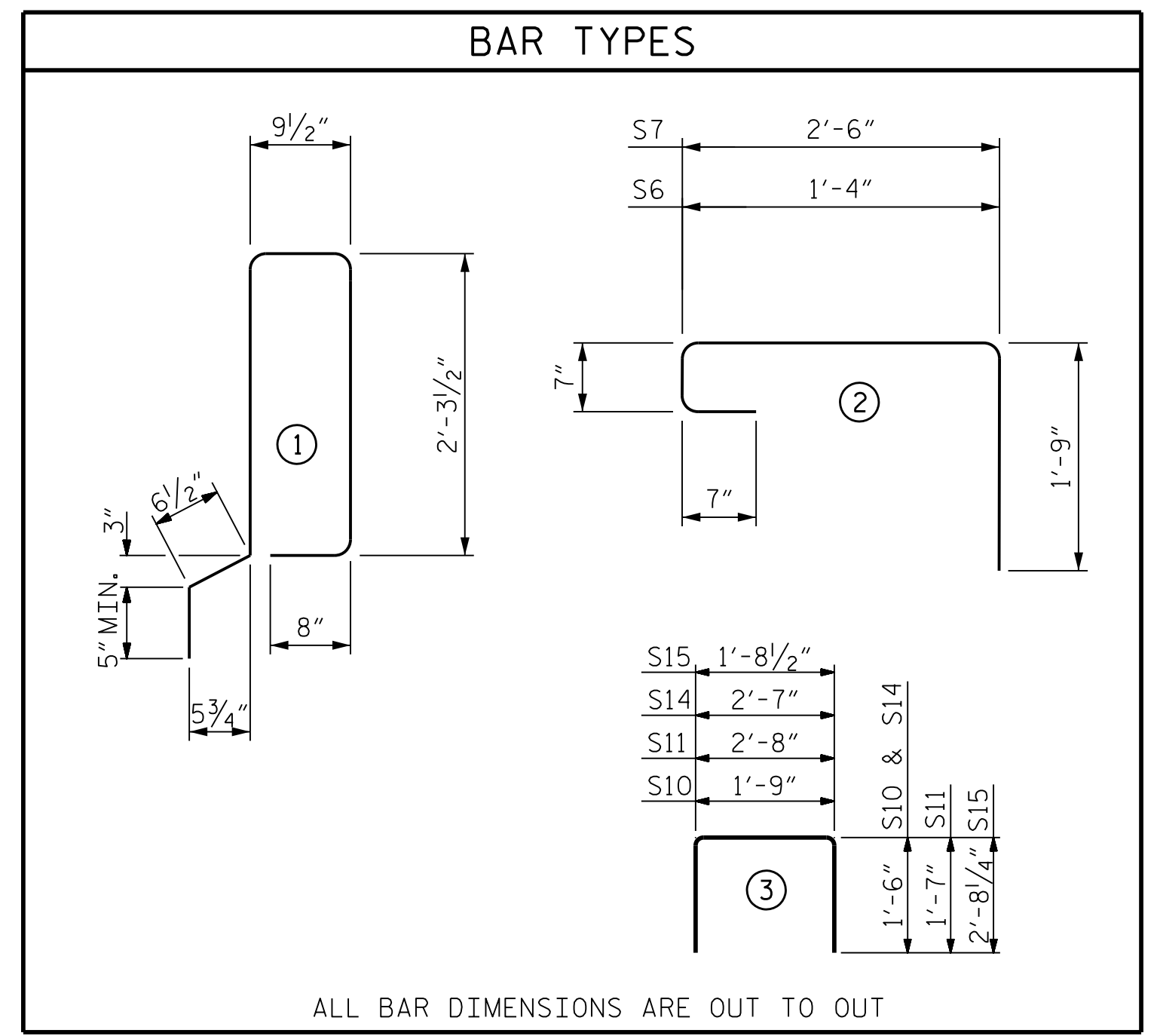
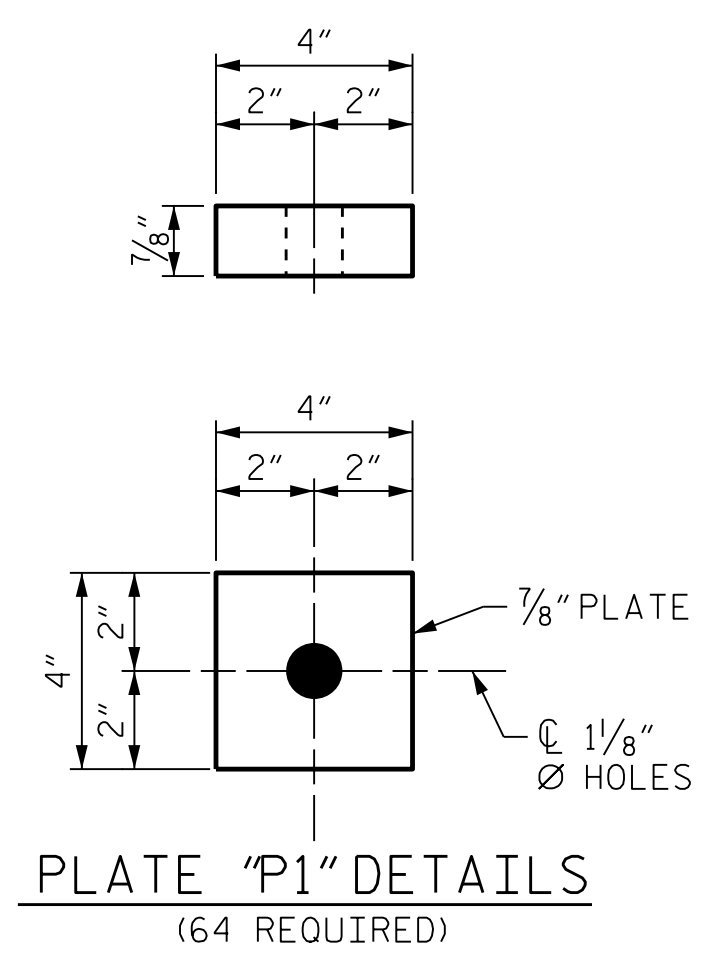


ELASTOMERIC BEARING DETAILS
ELASTOMER IN ALL BEARINGS SHALL BE 60 DUROMETER HARDNESS.



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 ANCHOR BOLT HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH NON-SHRINK GROUT.

THE BACKER RODS SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, AN INTERNAL HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. AT LEAST SIX 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 THE REQUIRED STRENGTH SHOWN IN THE "CONCRETE RELEASE STRENGTH" TABLE.

ALL REINFORCING STEEL IN CONCRETE PARAPET AND SIDEWALK 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.

GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE CONCRETE PARAPET AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. A CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN CONCRETE PARAPET EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF CONCRETE PARAPET SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

FLAME CUTTING OF THE TRANSVERSE POST-TENSIONING STRAND IS NOT ALLOWED.

MAINTAIN A SYMMETRIC TENSION FORCE BETWEEN EACH PAIR OF TRANSVERSE POST TENSIONING STRANDS IN THE DIAPHRAGM.

THE #4 S11 STIRRUPS MAY BE SHIFTED AS NECESSARY TO MAINTAIN 1" CLEAR TO THE GROUTED RECESS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

THE PERMITTED THREADED INSERTS ARE DETAILED AS AN OPTION FOR THE CONTRACTOR TO ATTACH FALSEWORK AND FORMWORK DURING CONSTRUCTION.

THE PERMITTED THREADED INSERTS IN THE EXTERIOR UNITS SHALL BE SIZED BY THE CONTRACTOR, SPACED AT 4'-0" CENTERS AND GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS. STAINLESS STEEL THREADED INSERTS MAY BE USED AS AN ALTERNATE.

THE PERMITTED THREADED INSERTS SHALL BE GROUTED BY THE CONTRACTOR IMMEDIATELY FOLLOWING REMOVAL OF THE FALSEWORK.

THE COST OF THE PERMITTED THREADED INSERTS SHALL BE INCLUDED IN THE PRICE BID FOR THE PRECAST UNITS.

BILL OF MATERIAL FOR ONE 70' CORED SLAB UNIT

				TYPE 1 EXTERIOR UNIT		TYPE 2 INTERIOR UNIT		TYPE 3 INTERIOR UNIT	
BAR	SIZE	TYPE	LENGTH	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT
B1	#4	STR	24'-6"	6	98	6	98	6	98
* S5	#5	1	7'-0"	70	511	--	--	--	--
* S6	#4	2	4'-3"	13	37	--	--	--	--
* S7	#4	2	5'-5"	--	--	13	47	--	--
S10	#5	3	4'-9"	8	40	8	40	8	40
S11	#4	3	5'-10"	144	561	144	561	144	561
S14	#4	3	5'-7"	4	15	4	15	4	15
S15	#5	3	7'-1"	4	30	4	30	4	30
REINFORCING STEEL				LBS.		744		744	
* EPOXY COATED REINFORCING STEEL				LBS.		548		47	
8000 P.S.I. CONCRETE				CU. YDS.		11.9		11.9	
0.6" Ø L.R. STRANDS				No.		28		28	

CORED SLABS REQUIRED

70' UNIT	NUMBER	LENGTH	TOTAL LENGTH
TYPE 1 (EXTERIOR) C.S.	2	70'-0"	140'-0"
TYPE 2 (INTERIOR) C.S.	2	70'-0"	140'-0"
TYPE 3 (INTERIOR) C.S.	12	70'-0"	840'-0"
TOTAL	16	70'-0"	1120'-0"

DEAD LOAD DEFLECTION AND CAMBER

	3'-0" x 2'-0"
70' CORED SLAB UNIT	0.6" Ø L.R. STRAND
CAMBER (SLAB ALONE IN PLACE)	2/4" ↑
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD**	3/4" ↓
FINAL CAMBER	1 1/2" ↑

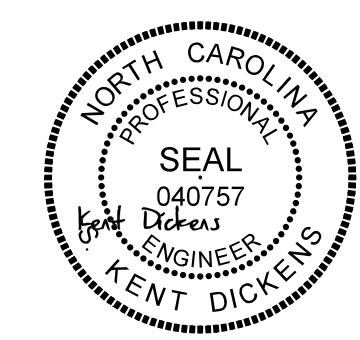
** INCLUDES FUTURE WEARING SURFACE

CONCRETE RELEASE STRENGTH

UNIT	PSI
70' UNITS	5500

GRADE 270 STRANDS

	0.6" Ø L.R.
AREA (SQUARE INCHES)	0.217
ULTIMATE STRENGTH (LBS. PER STRAND)	58,600
APPLIED PRESTRESS (LBS. PER STRAND)	43,950



PROJECT NO. 17BP.14.R.212
JACKSON COUNTY
STATION: 19+91.00 -L-

SHEET 3 OF 3

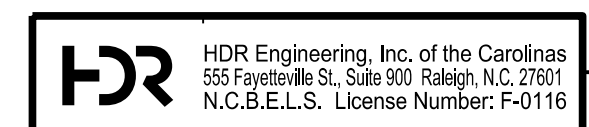
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE
3'-0" X 2'-0"
PRESTRESSED CONCRETE
CORED SLAB UNIT

REVISIONS						SHEET NO. S-7 TOTAL SHEETS 20
NO.	BY:	DATE:	NO.	BY:	DATE:	
1	--	--	3	--	--	
2	--	--	4	--	--	

PLOT DRIVER: NCDOT STRUCTURES DEFAULT PLOTTER.plt
PENTABLE: NCDOT STRUCTURES DEFAULT PEN.tbl
USER: DCARTER
DATE: 3/31/2021
FILE: ... \SUPERSTRUCTURE TYPICAL SECTION DETAILS

DES BY: S. DHONDE	DATE: 12/19	DWG BY: B. PETERSON	DATE: 08/19
DES CHK: J. ROBERTS	DATE: 12/19	CHK BY: K. DICKENS	DATE: 02/20



1/25/2022
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED