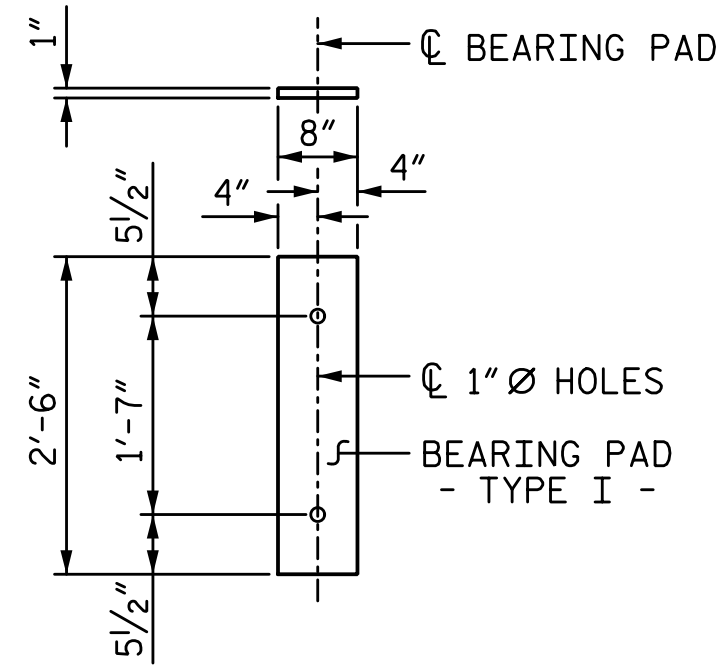


2/20/2020 2:19:47 PM G:\Projects\2018\Division 3 (SEA)\B-5626 (Onslow 31 NC50 over Sandy Run Swamp)\Structures\Drawings\Final\401_B5626_SMU_SUPER_660031.dgn



FIXED END
(TYPE I - 72 REQ'D)

ELASTOMERIC BEARING DETAILS

ELASTOMER IN ALL BEARINGS SHALL BE 50 DUROMETER HARDNESS.

CORED SLABS REQUIRED			
	NUMBER	LENGTH	TOTAL LENGTH
40' UNIT			
EXTERIOR C.S.	2	40'-0"	80'-0"
INTERIOR C.S.	10	40'-0"	400'-0"
TOTAL	12		480'-0"

CORED SLABS REQUIRED			
	NUMBER	LENGTH	TOTAL LENGTH
45' UNIT			
EXTERIOR C.S.	2	45'-0"	90'-0"
INTERIOR C.S.	10	45'-0"	450'-0"
TOTAL	12		540'-0"

CORED SLABS REQUIRED			
	NUMBER	LENGTH	TOTAL LENGTH
50' UNIT			
EXTERIOR C.S.	2	50'-0"	100'-0"
INTERIOR C.S.	10	50'-0"	500'-0"
TOTAL	12		600'-0"

BILL OF MATERIAL FOR ONE 40' CORED SLAB UNIT							
		EXTERIOR UNIT			INTERIOR UNIT		
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT
B4	4	#4	STR	20'-9"	55	20'-9"	55
S1	8	#5	3	4'-3"	35	4'-3"	35
S2	84	#4	3	5'-4"	299	5'-4"	299
* S3	48	#5	1	5'-7"	280		
REINFORCING STEEL				LB	389		389
* EPOXY COATED REINFORCING STEEL				LB	280		
5000 P.S.I. CONCRETE				CY	5.8		5.8
0.6" Ø L.R. STRANDS				No.	13		13

BILL OF MATERIAL FOR ONE 45' CORED SLAB UNIT							
		EXTERIOR UNIT			INTERIOR UNIT		
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT
B5	4	#4	STR	23'-3"	62	23'-3"	62
S1	8	#5	3	4'-3"	35	4'-3"	35
S2	94	#4	3	5'-4"	335	5'-4"	335
* S3	54	#5	1	5'-7"	314		
REINFORCING STEEL				LB	432		432
* EPOXY COATED REINFORCING STEEL				LB	314		
5000 P.S.I. CONCRETE				CY	6.5		6.5
0.6" Ø L.R. STRANDS				No.	13		13

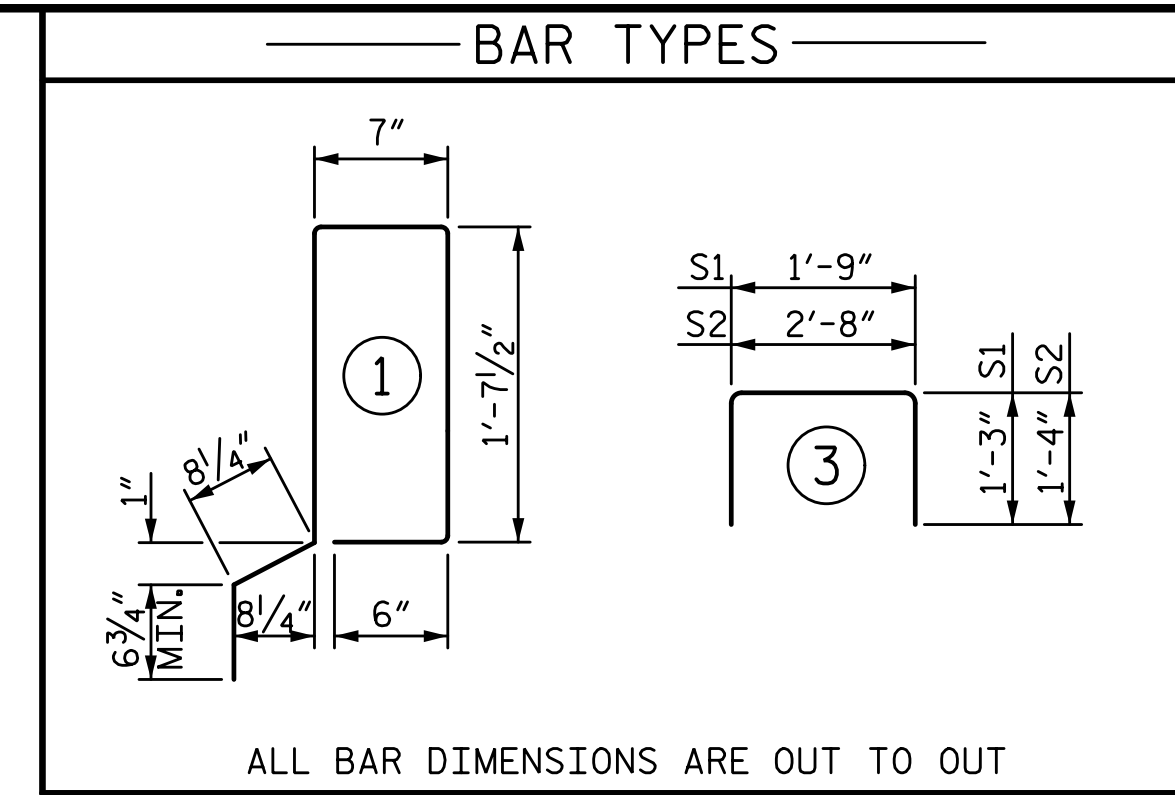
BILL OF MATERIAL FOR ONE 50' CORED SLAB UNIT							
		EXTERIOR UNIT			INTERIOR UNIT		
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT
B6	4	#4	STR	25'-9"	69	25'-9"	69
S1	8	#5	3	4'-3"	35	4'-3"	35
S2	104	#4	3	5'-4"	371	5'-4"	371
* S3	58	#5	1	5'-7"	338		
REINFORCING STEEL				LB	475		475
* EPOXY COATED REINFORCING STEEL				LB	338		
6500 P.S.I. CONCRETE				CY	7.1		7.1
0.6" Ø L.R. STRANDS				No.	19		19

DEAD LOAD DEFLECTION AND CAMBER	
40' & 45' CORED SLAB UNIT	3'-0" x 1'-9" 0.6" Ø L.R. STRAND
CAMBER (SLAB ALONE IN PLACE)	7/8" ↑
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD**	1/8" ↓
FINAL CAMBER	3/4" ↑

DEAD LOAD DEFLECTION AND CAMBER	
50' CORED SLAB UNIT	3'-0" x 1'-9" 0.6" Ø L.R. STRAND
CAMBER (SLAB ALONE IN PLACE)	1 1/2" ↑
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD**	3/8" ↓
FINAL CAMBER	1 1/8" ↑

CONCRETE RELEASE STRENGTH	
UNIT	PSI
40' & 45' UNITS	4000
50' UNITS	4900

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

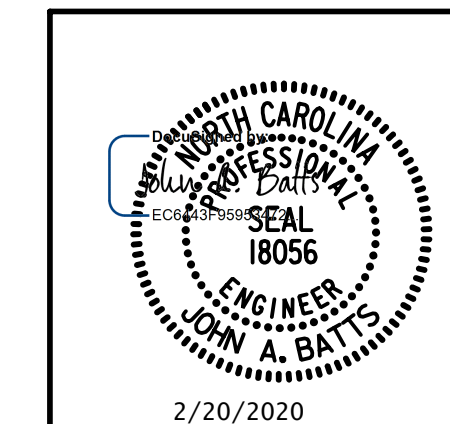


ALL BAR DIMENSIONS ARE OUT TO OUT

DRAWN BY: S.D. COOPER	DATE: 2-20
CHECKED BY: J.A. BATTS	DATE: 2-20
DESIGN ENGINEER OF RECORD: J.A. BATTS	DATE: 2-20

PLANS PREPARED BY:

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LICENSURE NO. C-2521



PROJECT NO. B-5626
ONSLow COUNTY
STATION: 23+71.50 -L-

SHEET 5 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
3'-0" X 1'-9"
PRESTRESSED CONCRETE
CORED SLAB UNIT
90° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-12
1			3			TOTAL SHEETS
2			4			26

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED