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NTEGF	RAL BEN	T CONS	TRUCTION SE	QUENCE		INTEGRAL	BENT	NOTES (	BENT	<u>3)</u>	
IS BRI THE CO ST-TENS	DGE IS DES DNTRACTOR SIONING TE	SIGNED FOR USES AN A ENDONS AS	THE CONSTRUCTIO LTERNATE DESIGN ALLOWED BY THE S	N SEQUENCE FOR PECIAL PRO	SHOWN. VISION, To the	NO CONCRETE BENT UNTIL SUBMITTED B	SHALL BE REVIEW OF Y THE CON	PLACED IN THE POST- ITRACTOR HA	ANY PC TENSION S BEEN	RTION O NING SYS COMPLET	F THE TEM ED.
NSTRUC ALL BE ST-TENS ALL APP GINEER.	TION SEQUE SUBMITTEE SIONING DE PLY UNLESS	NCE. THE R FOR APP SIGN. THE OTHERWISI	EVISED CONSTRUCT ROVAL WITH THE A FOLLOWING CONSTR E APPROVED IN WR	ION SEQUER LTERNATE UCTION SEC ITING BY	NCE QUENCE THE	POST-TENSIO THRU T11) SHA CONFORMING ENGINEER.BE GIRDER WEB SURFACE IN TENDONS IS	NING BEAR ALL BE FAB TO ASTM A ARING PLA AND RECEI CONTACT W	ING PLATES RICATED OF A588 AND AP TES SHALL F VE AN ANSI /ITH THE WE	FOR CA HOT-RO PROVED TIT FLA 500 FI B. CENTE	AP TENDO DLLED ST BY THE T AGAIN INISH ON ERLINE O	NS (T1 EEL ST THE THE F THE F ARTNG
ERECT GIRDEF BE WIT STIFFE ERECT	INTEGRAL S ON BOTH HIN 10'-0" NERS IN T ALL STRUC	BENT CAP F SIDES OF OF CENTERI HE GIRDERS	ALSEWORK.FALSEWO INTEGRAL CAP.GIF INE BENT.PROVID AS NECESSARY.	RU E. SEE "G	SUPPORT RT SHALL	PLATE. POST-TENSIO DETERMINED SUPPLIER. DE DRAWINGS AN APPROVAL. TH	NING ANCH BY THE PO TAILS SHA D SUBMITT HE ANCHORA	ORAGE DETA ST-TENSION LL BE SHOWN TED TO THE AGE SYSTEM	ILS SHA ING MA <sup>-</sup> N ON TH ENGINE AND LE	ALL BE TERIALS IE SHOP ER FOR NGTH OF	
WHEN F	ON DETAIL MPORARY FA OOTING AN ESSIVE STR	ID COLUMN ( ENGTH VALL	T BENT 3. CONCRETE HAS ATT JE (f'c), CONSTRUCT	AINED THE INTEGRAL	ANCHORAGES SHALL PERMIT JACKING WITH THE SAME JACKING EQUIPMENT USED ON THE LIVE END. SEE SPECIAL PROVISION FOR POST-TENSIONING TENDONS.						
INCLUE REQUIF	ING POST- Red for ca	TENSIONINO P, IN ACCOR	G DUCTS.GROUT TU RDANCE WITH THE P	BAR REINFOR Shall BE AD.	CEMENT IN JUSTED AS	ITERFERING APPROVED E	WITH DU 3Y THE	JCT ALIG Engineef	SNMENT R.		
WHEN C COMPRE TENDON BELOW.	CAP CONCRE ESSIVE ST IS IN THE	TE HAS AT RENGTH VAL CAP (T1-T11	TAINED THE SPECIF LUE (f'ci) INSTALL ) AND TENSION IN	FIED INITI POST-TENSI THE ORDER	SPECIAL CARE SHALL BE TAKEN TO ENSURE PROPER CONSOLIDATION OF CONCRETE UNDER THE TOP FLANGE OF THE GIRDERS DURING PLACEMENT OF CONCRETE FOR INTEGRAL CAPS AND ANCHORAGE ENCASEMENTS TO ELIMINATE FORMATION OF VOIDS BENEATH TOP FLANGE.						
WHEN TENDON SEE PC ANCHOF	ENSIONING IS SHALL B ST-TENSIO RAGES.	E GROUTED NING SPECI	AP TENDONS (TI-TII AND ANCHORAGES S AL PROVISION FOF	SHALL BE PF R PROTECTI	AFTER CASTING CAP BUT PRIOR TO TENSIONING OF THE CAP, THE ENGINEER SHALL THOROUGHLY INSPECT THE INTERFACE BETWEEN THE GIRDER FLANGES AND CONCRETE						
REMOVE BENT 3	E FALSEWOR 3. Deck & rai	K AFTER CO	OMPLETION OF INT	egral caps perstructu	CONSOLIDATION DURING PLACEMENT OF CONCRETE.IF VOIDS ARE DETECTED OR AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL REMOVE A SUFFICIENT VOLUME OF CONCRETE AND REPLACE WITH NON-SHRINK GROUT.						
<u>)ST-T</u>	ENSION	IING DA	<u>T A</u>	ENCASEMENT BE SUBJECT CRITERIA AS	OF THE PO TO THE SA S SPECIFIE	ST-TENSION ME INSPECT D FOR THE (	ING ANC Ion Ane Cap Abc	CHORAGES ) REPAIR )VE.	SHALL		
CAP, H S	INGE & UP TRENGTH A TRENGTH A	PER PORTIC T 28 DAYS T POST-TEN	N OF COLUMN (f'c) = SIONING (f'ci) =	TOP SURFACE Roughened W Thoroughly	OF THE C 'ITH A WIF CLEANED P	AP SHALL BE Re Brush whi Rior to pl,	E INTEN EN CAS <sup>-</sup> ACING [	TIONALL` F AND DECK CON	Y CRETE.		
FOOTI S	NG AND LO' TRENGTH A	WER PORTIC T 28 DAYS	N OF COLUMN = (f'c)	THE DUCTS AND STRANDS SHALL BE FREE OF DIRT,LOOSE RUST AND OTHER DELETERIOUS SUBSTANCE BEFORE INSTALLING TENDONS POST TENSIONING DUCTS SHALL BE							
NDONS T1 T T8 <sup>-</sup>	IN BENT CA HRU T7: 19 LC Thru 11: 7-	AP 3 -0.6″DIA.,C W-RELAXATI 0.6″DIAGF	GRADE 270, SEVEN W Ion strands per Rade 270. seven W	VIRE, Tendon Ire.		FILLED WITH GROUT AFTER STRESSING HAS BEEN COMPLETED.SEE SPECIAL PROVISION FOR POST-TENSIONING TENDONS.					
FRIC	LC CTION (U) BLE (K)	W-RELAXAT:	ION STRANDS PER = 0.20 = 0.00	CONTRACTOR SHALL SUBMIT DESIGN AND DRAWINGS OF FALSEWORK AND ERECTION PROCEDURES TO THE ENGINEER FOR APPROVAL.SEE SPECIAL PROVISION FOR POST-TENSIONING TENDONS.							
ANCH MODI JACK (ALL	IOR SET JLUS OF EL (ING STRES TENDONS)	ASTICITY ( S BEFORE A	= 0.25 Es) = 28,5 NCHOR SET = 205	THERE IS NO PAYMENT FOR THE FALSEWORK AS THE FALSEWORK IS CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF BENT 3.							
CTS T1 T T8 <sup></sup>	HRU T7: M] Of Thru 11: M] RI	NIMUM 4 <sup>1</sup> /2 SEMI-RIG NIMUM 2 <sup>3</sup> 4 GID OR SEI	″NOMINAL DIAMETE ID DUCTS ″NOMINAL DIAMETE MI-RIGID DUCTS	ER GALVANI Er galvanı	ZED RIGID ZED						
	TEND	ON STR	ESSING DATA								
ENDON	STRESSING SEQUENCE	BEFORE AN	CHOR BEFORE ANCHOR SET	AFTER ANCHOR SE	νΝ .Τ						
T1 T2	10	845 845	<u> </u>	IN. 2.86							_
T3	5	845	3.11	2.86			PROJEC	T NO.	U-	2579AI	3
T5	2	<u> </u>	<u> </u>	2.86	_			FORSYTH	1	CC	)UNTY
T6	1	845	2.98	2.73	_		STATIC	)N: 60+6	6.06	-Y15FL	_YAC-
T8	8	311	3.11	2.13	_		01/(110				
T9	6	311	3.11	2.86							
T10 T11	9	311	3.11	2.86			DEPA	RTMENT OF	NORTH CARO	ISPORTA	TION
ENDO	<u>N STRES</u>	<u>SSING N</u>	OTES					r	ALLIGH		
L CAP <sup>-</sup> IE SAME	FENDONS (T1 END.	-T11) SHALL	BE STRESSED FROM		MANNA CH	ARO/	SCHE	MATIC	SEC	UENC	E OF
RING S HIND E	TRESSING N THER TEND	O PERSONS S ON END.	SHALL BE DIRECTLY		B B B B B C C C C C C C C C C C C C C C	SION AL 89	CONS ]	TRUCTI [NTEGR/	ON AL B	AND N Ent	NOTES 3
					Domani A. Colitte	10/15/2021		REVISION	IS		SHEET NO.
		ſ	HDR Engineering, Inc 555 Fayetteville St., Suite 90 N.C.B.E.L.S. License	c. of the Carolinas 0 Raleigh, N.C. 27601 9 Number: F-0116	DOCUMENT NOT C	ONSIDERED FINAL	NO. BY: 1 2	Date: No. З Д	BY: 	DATE:	S04-100 TOTAL SHEETS 144

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THIS BRI IF THE CO POST-TENS THEN THE	DGE IS DES ONTRACTOR SIONING T	SIGNED FOR USES AN A ENDONS AS	THE CONS LTERNATE ALLOWED B	TRUCTIC DESIGN Y THE S	NO CONCRETE SHALL BE PLACED IN ANY PORTION OF THE BENT UNTIL REVIEW OF THE POST-TENSIONING SYSTEM SUBMITTED BY THE CONTRACTOR HAS BEEN COMPLETED.							
CONSTRUC SHALL BE POST-TENS SHALL APF ENGINEER.	TION SEQU SUBMITTE SIONING DI PLY UNLESS	ENCE. THE R D FOR APP ESIGN. THE S OTHERWIS	EVISED CO ROVAL WIT FOLLOWING E APPROVE	NSTRUCI H THE A CONSTR D IN WR	POST-TENSIONING BEARING PLATES FOR CAP TENDONS (T1 THRU T11) SHALL BE FABRICATED OF HOT-ROLLED STEEL CONFORMING TO ASTM A588 AND APPROVED BY THE ENGINEER.BEARING PLATES SHALL FIT FLAT AGAINST THE GIRDER WEB AND RECEIVE AN ANSI 500 FINISH ON THE SURFACE IN CONTACT WITH THE WEB.CENTERLINF OF THF							
1. CONSTR	RUCT FOOT	eng and co	LUMN IN A	CCORDAN	TENDONS IS PLATE.	TO BE NORMA	AL TO OUTSID	DE FACE OF I	BEARING			
2. ERECT GIRDEF BE WI1 STIFFE	INTEGRAL RS ON BOTH THIN 10'-0' ENERS IN T	BENT CAP I SIDES OF OF CENTER THE GIRDERS	FALSEWORK. INTEGRAL LINE BENT. S AS NECES	FALSEW CAP.GI PROVID SARY.	POST-TENSIONING ANCHORAGE DETAILS SHALL BE DETERMINED BY THE POST-TENSIONING MATERIALS SUPPLIER.DETAILS SHALL BE SHOWN ON THE SHOP DRAWINGS AND SUBMITTED TO THE ENGINEER FOR APPROVAL. THE ANCHORAGE SYSTEM AND LENGTH OF PROJECTING PRESTRESSING STEEL AT THE DEAD END ANCHORAGES SHALL PERMIT JACKING WITH THE SAME JACKING EQUIPMENT USED ON THE LIVE END. SEE SPECIAL							
3. ERECT ERECTI BY TEN	ALL STRUC ION DETAIL MPORARY FA	TURAL STER S"SHEETS. Alsework a	EL IN SPAN STRUCTURAL T BENT 3.	IS A THI								
4. WHEN F COMPRE INCLUD REQUIF	ESSIVE STE ING POST- RED FOR CA	RENGTH VALU TENSIONIN P,IN ACCO	JE (f'c),CC G DUCTS.GF RDANCE WI	NSTRUC ROUT TU TH THE	BAR REINFORCEMENT INTERFERING WITH DUCT ALIGNMENT SHALL BE ADJUSTED AS APPROVED BY THE ENGINEER.							
5. WHEN C COMPRE TENDON BELOW.	CAP CONCRE ESSIVE ST NS IN THE	TE HAS AT RENGTH VA CAP (T1-T11	TAINED THE LUE (f'ci)I )AND TENS	E SPECI NSTALL ION IN	SPECIAL CARE SHALL BE TAKEN TO ENSURE PROPER CONSOLIDATION OF CONCRETE UNDER THE TOP FLANGE OF THE GIRDERS DURING PLACEMENT OF CONCRETE FOR INTEGRAL CAPS AND ANCHORAGE ENCASEMENTS TO ELIMINATE FORMATION OF VOIDS BENEATH TOP FLANGE.							
6. WHEN I TENDON SEE PC ANCHOF	IENSIONINU NS SHALL B DST-TENSIC RAGES.	GOFTHE CA E GROUTED NING SPEC:	AP TENDONS AND ANCHO IAL PROVIS	RAGES SION FO	BALL BE PF R PROTECTI	OTECTED. On of End	AFTER CASTING CAP BUT PRIOR TO TENSIONING OF THE CAP, THE ENGINEER SHALL THOROUGHLY INSPECT THE INTERFACE BETWEEN THE GIRDER FLANGES AND CONCRETE					
7. REMOVE BENT 3	7. REMOVE FALSEWORK AFTER COMPLETION OF INTEGRAL CAPS FOR BENT 3.							IO LOCATE ANY VOIDS DUE TO INCOMPLETE CONSOLIDATION DURING PLACEMENT OF CONCRETE.IF VOIDS ARE DETECTED OR AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL REMOVE A SUFFICIENT VOLUME OF				
8. CASI L	JECK & RA.	ILS AS SPE	LIFIED IN	THE SU	PERSIRUCIU	RE PLANS.	CONCRETE AND REPLACE WITH NON-SHRINK GROUT.					
POST-TENSIONING DATA							BE SUBJECT TO THE SAME INSPECTION AND REPAIR CRITERIA AS SPECIFIED FOR THE CAP ABOVE.					
CONCRETE CAP, HINGE & UPPER PORTION OF COLUMN STRENGTH AT 28 DAYS (f'c) = 6 KSI STRENGTH AT POST-TENSIONING (f'ci) = 4.5 KSI							TOP SURFACE OF THE CAP SHALL BE INTENTIONALLY ROUGHENED WITH A WIRE BRUSH WHEN CAST AND THOROUGHLY CLEANED PRIOR TO PLACING DECK CONCRETE.					
FOOTI S	NG AND LO TRENGTH A	WER PORTIO T 28 DAYS	DN OF COLL (f'c)	JMN =	= 4.5 KSI (C	LASS AA)	THE DUCTS AND STRANDS SHALL BE FREE OF DIRT,LOOSE RUST AND OTHER DELETERIOUS SUBSTANCE BEFORE					
TENDONS T T1 T	IN BENT C HRU T7: 19 L( Thru 11: 7-	AP 3 -0.6″DIA.,( )W-RELAXAT	GRADE 270, Ion stran Rade 270 s	SEVEN N DS PER SEVEN W	WIRE, Tendon Tre		INSTALLING TENDONS.POST TENSIONING DUCTS SHALL BE FILLED WITH GROUT AFTER STRESSING HAS BEEN COMPLETED.SEE SPECIAL PROVISION FOR POST-TENSIONING TENDONS.					
		DW-RELAXAT	ION STRAN	DS PER	TENDON		CONTRACTOR SHALL SUBMIT DESIGN AND DRAWINGS OF FALSEWORK AND ERECTION PROCEDURES TO THE ENGINEER					
FRICTION (U) = 0.20 WOBBLE (K) = 0.0002/FT ANCHOR SET = 0.25" MODULUS OF ELASTICITY (Es) = 28,500 KSI JACKING STRESS BEFORE ANCHOR SET = 205 KSI							THERE IS NO PAYMENT FOR THE FALSEWORK AS THE FALSEWORK IS CONSIDERED INCIDENTAL TO THE					
DUCTS	TENDONS)				CONSTRUCTIO	ON OF BENI 3	)					
T1 THRU T7: MINIMUM 4 <sup>1</sup> /2″NOMINAL DIAMETER GALVANIZED RIGID OR SEMI-RIGID DUCTS T8 THRU 11: MINIMUM 2¾″NOMINAL DIAMETER GALVANIZED RIGID OR SEMI-RIGID DUCTS												
	TENC	ON STR	ESSING	DATA	4							
TENDON S	STRESSING SEQUENCE	JACKING F BEFORE AN SET	ORCE ELON CHOR BE ANCH	NGATION EFORE HOR SET	ELONGATIO AFTER ANCHOR SE	N T						
T1	10	845		3.11	2.86	_						
T3	4	845		3.11 3.11	2.86	_		PROJECT	NO	U-2579A	B	
T4 T5	<u>11</u> 2	<u>845</u> 845		3.11 2.98	2.86			F	ORSYTH	C	YTAUC	
T6	1	845		2.98	2.73			STATION	I <u>■ 60+66</u> .(	06 -Y15F	I YAC-	
T8	3 8	<u> </u>		2.98 3.11	2.73			<b>JIAIION</b>				
T9 T10	6	311		3.11	2.86							
T11	9	311		3.11	2.86	_		DEPART	MENT OF T	H CAROLINA RANSPORT	ATION	
TENDO	TENDON STRESSING NOTES											
ALL CAP TENDONS (T1-T11) SHALL BE STRESSED FROM THE SAME END.							AROL	SCHEN	MATIC S	EQUENC	CE OF	
DURING STRESSING NO PERSONS SHALL BE DIRECTLY BEHIND EITHER TENDON END.							SION 4	CONSTI IN	RUCTION	N AND BENT	NOTES 3	
						NGI	VEEC COL		REVISIONS		SHEF T	
		1		Engineering In	c. of the Carolinas	Domani A. Coletti	10/15/2021	NO. BY:	DATE: NO. BY	: DATE:	NO. 504-100	
			<b>FJ</b>	ayetteville St., Suite 90 B.E.L.S. License	00 Raleigh, N.C. 27601 e Number: F-0116	DOCUMENT NOT O	CONSIDERED FINAL	2	उँ (मु		- SHEETS 144	

