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-							<u>SS-4</u>		6.02		. 46' RT	
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E	ΓOF		ESTIMATED			ľ	<u>SS-7</u>		8.26	forstations	25' LT	
			SHALER ST CONSTR B				SS-8	12+7	4.38	11.	.54′ RT	
			= SR 0019 CONSTR B	SB SURVE	Y &		<u>SS-9</u>		7.16		39' RT	
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1			SHALER ST CONSTR B	STA 12+29	. 52	╞	SS-12)3.85		12' LT	-
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TEM NUMBER												APPROXIMATE QUANTITIES, E
				ABUT 1	PIER	ABUT 2	SUPER- STR	APPR SL 1	APPR SL 2	TOTAL	ITEM NUMBER	ITEM
	BRIDGE STRUCTURE, AS DESIGNED, S-37605 CLASS 3 EXCAVATION		LS CY	260	30	1820	_	_	_	LS 2110	AND 9000-0003	SOLDIER PILES, W24×207 - GALVANIZED
(2)	MEMBRANE WATERPROOFING SYSTEM INSTALLED ON OTHER SURFACES	(7)	SY	52	8	98	-	_	_	158	AND 9000-0004	SOLDIER PILES, W24x250 - GALVANIZED
		(1)	CY CY	12	-	18	- 20	- 58	- 68	30 147	AND 9000-0009	6" DIAMETER HOLE AND FLOWABLE CONCRETE SEAL
(2)	CLASS AA CEMENT CONCRETE	(6)	CY	_	_	-	40	-	-	40	AND	54" DIAMETER DRILLED CAISSONS, SHAFT SECTION
	CLASS A CEMENT CONCRETE CLASS C CEMENT CONCRETE MODIFIED	(5)	CY CY	30	-	346 212	-	_	-	376 212	9000-0026	
		15)	CY	_	_	10	5	12	12	39	AND 9000-0027	54" DIAMETER DRILLED CAISSONS, SHAFT SECTION IN SOIL
	6" STRUCTURE FOUNDATION DRAIN		LF	46	_	120	_	_	_	166	AND 9000-0028	54" DIAMETER DRILLED CAISSONS, SHAFT SECTION IN ROCK
	6" PVC PIPE (SCHEDULE 40) SELECTED BORROW EXCAVATION, STRUCTURE BACKFILL		LF CY	28 170	-	26 1280	-	-	_	54 1450	AND	
		(3)	CY	-	-	-	180	-	-	180	9000-0029	48" DIAMETER DRILLED CAISSONS, ROCK SOCKET
	NON-SHRINK GROUT (PRECAST CONCRETE LAGGING	10)	CF SF	4	5	19	_	_	-	28 777	AND 9000-0030	66" DIAMETER DRILLED CAISSONS, SHAFT SECTION IN SOIL
(2)	PRECAST CHEEKWALL		EACH	2	-	2	-	-	-	4	AND	66" DIAMETER DRILLED CAISSONS, SHAFT SECTION IN
	PRECAST ABUTMENT CAP PRECAST PIER COLUMN		EACH EACH	-	- 2	1	-	-	-	1	9000-0031	ROCK
	PRECAST PIER CAP		EACH	_	1	_	-	_	-	1	AND 9000-0032	66" DIAMETER DRILLED CAISSONS, SHAFT SECTION THROUGH OBSTRUCTION
(2)	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, REINFORCED CONCRETE		SY	173	116	176	_	_	_	465	AND 9000-0033	54" PERMANENT CASING FOR DRILLED CAISSONS
	SUBSTRUCTURE SURFACES										AND 9000-0034	66" PERMANENT CASING FOR DRILLED CAISSONS
(2)	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE)		SY	_	-	-	407	66	69	542	AND	DRULED SHAFT HO CONCRETE CORING
	TEXTURIZING CONCRETE BRIDGE DECK SURFACE WITH TRANSVERSE SAWED GROOVES		SY	-	_	-	417	74	80	571	9000-0035	
	DIAMOND GRINDING OF CONCRETE DECK		SY	_	_	-	417	74	80	571	AND 9000-0036	TEST HOLES
	NEOPRENE STRIP SEAL DAM, (3 ½" MOVEMENT)	1.4		-	-	-	_	_	35	35		SELECTED BORROW EXCAVATION ROCK, CLASS R-4
	LAMINATED NEOPRENE BEARING PAD(FABRICATED STRUCTURAL STEEL(12)(EACH LB	6	-	6	- 148500	-	-	23 148500	5018-0050	GEOTEXTILE, CLASS 4, TYPE A REMOVAL OF PORTION OF EXISTING BRIDGE MODIFIED
(2)		(9)	LB EACH	4066 118	-		- 2070	-	-	4066 2188	9000-0005	SUPERSTRUCTURE INSTALLATION, SELF PROPELLED MODUL TRANSPORTER, ENGINEERING
AND 1002-0053	REINFORCEMENT BARS, EPOXY COATED	(8)	LB	3510	2460	34460	58440	15810	17670	132350	9000-0006	SUPERSTRUCTURE INSTALLATION, SELF PROPELLED MODUL TRANSPORTER, TEMPORARY SUBSTRUCTURES
	MECHANICAL SPLICE SYSTEM FOR NO. 4 REINFORCEMENT BARS, EPOXY COATED	(8)	EACH	-	_	-	16	-	-	16	9000-0007	SUPERSTRUCTURE INSTALLATION, SELF PROPELLED MODUL TRANSPORTER
AND 1002-0152	MECHANICAL SPLICE SYSTEM FOR NO. 5 REINFORCEMENT BARS, EPOXY COATED	(8)	EACH	-	-	45	310	-	-	355	9000-0046	SOIL NAILS REMOVE AND RESET BLOCK WALL
1002-0153	BARS, EPUXI CUATED	(8)	EACH	_	-	-	112	_	_	112		CSL TESTING SAFETY HARNESSES AND DOUBLE LANYARDS, FALL
AND 1002-0155	MECHANICAL SPLICE SYSTEM FOR NO. 8 REINFORCEMENT BARS, EPOXY COATED	(8)	EACH	-	-	21	-	-	-	21		PROTECTION DISPOSAL OF BRIDGE WASTE
AND 9000-0001	36" DIAMETER DRILLED CAISSONS, SHAFT SECTION IN SOIL	(4)	LF	214	_	-	-	-	-	214		WORKER HEALTH AND SAFETY TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTE S-37605
AND 9000-0002	36" DIAMETER DRILLED CAISSONS, SHAFT SECTION IN ROCK	(4)	LF	55	_	-	-	-	-	55	3203-0101	S-37605
1) INCLUDES	S GEOTEXTILE CLASS 1 AT STRUCTURE FOUNDATION DRAINS (84 S SY AT ABUTMENT 2).	SY AT	ABUT	MENT 1								CTURE ITEMS
 2) ITEMS IN 3) INCLUDES 	N LUMP SUM ITEM 8120-0001 GIVEN FOR INFORMATION ONLY. S CLASS AAAP CEMENT CONCRETE IN DECK SLAB AND APPROXIMATE MENT CONCRETE IN VALLEYS OF STAY-IN-PLACE FORMS.	ELY 1	5 CY (OF CLASS	5	ITE	M NUMBE				ITEM	UNIT TOTAL
4) INCLUDED	D IN BRIDGE BID ITEMS.	ARII		1			20-0001				ESIGNED, S-3	
J/ INCLUDES	S CLASS A CEMENT CONCRETE IN ABUTMENTS BELOW BRIDGE SEAT L CLOSURE POURS, ABUTMENT 2 WINGWALLS, AND ABUTMENT 2 FOO S CLASS AA CEMENT CONCRETE IN SIDEWALK, CURBS, AND BARRIE S 2" THICK PREFORMED CELLULAR POLYSTYRENE (33 SY AT ABUTM	OTING ERS.	1. 92	΄ ςγ Δτ		80	00-0001	PREST	RESSED C		RIDGE STRUCT	
WINGWALL 6) INCLUDES 7) INCLUDES												
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DES: CMS

DWG: JCM

CKD: MEC



8/3/2018

(4) LF 162 - - - - - 162 (4) LF 234 - - - - 54 (4) LF 54 - - - - 54 (4) LF 54 - - - - 54 (4) LF 128 - - - - - 34 (4) LF 14 - - - - - 128 (4) LF 14 - - - - - 14 (4) LF 14 - - - - - 25 (4) LF - 25 - - - 11 (4) LF 180 - - - - 20 (16) LF - 20 - - - 211 <	BRIDGE	STRU)ESTON	IFD			
(4) LF 162 - - - - 102 (4) LF 234 - - - - - 234 (4) LF 54 - - - - - 34 (4) LF 14 - - - - - 34 (4) LF 14 - - - - - 128 (4) LF 14 - - - - - 14 (4) LF - 7 - - - - 49 (4) LF - 3 - - - - 7 (4) LF - 11 - - - - 110 (4) LF - 11 - - - - 111 (4) LF - 11 - - - - 111 (4) LF - 11 -						SUPER-			TOTAL
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	<u>GENERAL NOTES</u>	
CONSTRUCTION SPECIFICATIONS: PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS PUBLICATION 408/2016, AASHTO/AWS D1.5M/D1.5-2008 BRIDGE WELDING CODE 2008, AND THE CONTRACT SPECIAL PROVISIONS. USE AASHTO/AWS D1.1/D1.1M: 2008 FOR WELDING NOT COVERED IN AASHTO/AWSD1.5M/D1.5-2008.	USE PERMANENT METAL FORMS TO CONSTRUCT THE DECK SLAB. DECK SLAB THICKNESS IS MEASURED PERPENDICULAR TO THE ROADWAY GRADE AND INCLUDES A $\frac{1}{2}$ " INTEGRAL WEARING SURFACE AND $\frac{1}{4}$ " ADDITIONAL FOR GRINDING. SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68 DEGREES F.	BLAST CLEAN THE FAYING S IN ACCORDANCE WITH PUBLI REMAIN UNASSEMBLED FOR A SUBMIT AN ERECTION PLAN
DESIGN SPECIFICATIONS:	PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH STANDARD DRAWING BC-736M, UNLESS OTHERWISE INDICATED.	MAINTAIN THE STABILITY (
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION, 2014, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, APRIL 2015.	PERMANENT PRECAST BARRIERS AND SLIP FORMED BARRIERS ARE NOT PERMITTED, EXCEPT AS SHOWN ON THE PRECAST APPROACH SLABS.	SUBMIT DESIGNS FOR TEMPO ERECTION TO THE REPRESEN
LIVE LOAD DISTRIBUTION TO GIRDERS IS BASED UPON DM-4 DISTRIBUTION FACTOR METHOD. DESIGN IS IN ACCORDANCE WITH THE LRFD METHOD.	NO ALTERNATE DECK PLACEMENT SEQUENCE IS PERMITTED. PROVIDE EPOXY BONDING COMPOUND AT ALL TRANSVERSE DECK CONSTRUCTION JOINTS, SEE BC-752M FOR ADDITIONAL NOTES AND DETAILS.	PROVIDE TEMPORARY WIND E BRACING CONFIGURATION, S AND APPROVAL. THE BRACIN DISTRIBUTION ASSUMED FOR
DESIGN LIVE LOADS: PHL-93 OR P-82 (204 KIP PERMIT LOAD)	BEAM HAUNCH REINFORCEMENT WAS NOT DETERMINED TO BE REQUIRED FOR THE COMPUTED BEAM CAMBERS. HOWEVER, PROVIDE HAUNCH REINFORCEMENT IN ACCORDANCE WITH BC-752M WHERE IRREGULAR BEAM CAMBERS OR OTHER CONSTRUCTION CONDITIONS PROVIDE ACTUAL HAUNCHES THAT EXCEED THE THICKNESS SPECIFIED IN BC-752M.	OR AFTER CONSTRUCTION. THE COST FOR FALSEWORK, SYSTEMS REQUIRED DURING STRUCTURAL STEEL ITEM. 1
FATIGUE DESIGN IS BASED ON THE FOLLOWING: STEEL STRUCTURES: ADTT 160 (2038)	APPLY A PROTECTIVE COATING (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE) IN ACCORDANCE WITH PUB 408, SECTION 1019 TO THE LIMITS AS INDICATED:	SUPPORTS NECESSARY FOR 1 BRACE STEEL FRAMEWORK IN
(ONE-DIRECTIONAL)	BRIDGE DECK: SIDEWALK SURFACE AND FRONT, TOP AND REAR FACES	IN STABLE (FINAL BRACED)
INCLUDES A SURFACE AREA DENSITY OF 30 LB/FT² FOR FUTURE WEARING SURFACE ON THE DECK SLAB.	OF BARRIERS FROM GUTTERLINÉ TO DRIP NOTCH ON THE BOTTOM OF OVERHANG APPROACH SLAB AND	PROVIDE ADDITIONAL TEMPO FASCIA BEAM COULD ROTATE
INCLUDES A SURFACE AREA DENSITY OF 15 LB/FT ² FOR PERMANENT METAL DECK FORMS WHICH TAKES INTO ACCOUNT THE WEIGHT OF THE FORM, PLUS	ABUTMENT BARRIERS: SIDEWALK SURFACE AND FRONT, TOP AND REAR FACES OF BARRIERS	EXISTING STRUCTURE
THE WEIGHT OF THE CONCRETE IN THE VALLEYS OF THE FORMS.	DO NOT ATTACH BARRIER FORMS TO THE CONCRETE DECK ALONG GUTTERLINES. TEXTURIZE BRIDGE DECK AND APPROACH SLAB SURFACES PRIOR TO OPENING BRIDGE TO TRAFFIC.	VERIFY DIMENSION AND GEO ENSURE ADEQUATE SPACE EX
STATIONS AND ELEVATIONS ARE GIVEN IN FEET UNLESS OTHERWISE NOTED. PROVIDE 2" CONCRETE COVER ON REINFORCEMENT BARS, EXCEPT AS NOTED. USE CLASS AAAP CEMENT CONCRETE, OPTIMIZED MIX IN:	APPLY A PROTECTIVE COATING (PENETRATING SEALERS, BRIDGE SUBSTRUCTURE) IN ACCORDANCE WITH PUB 408, SECTION 1019 TO THE LIMITS AS INDICATED (DO NOT APPLY PROTECTIVE COATING WITHIN 2" OF BEARING PADS; APPLY PROTECTIVE COATING FOR PRECAST ELEMENTS IN THE FABRICATION SHOP):	DO NOT CONSIDER ANY OF 1 DRAWINGS OR MADE AVAILAE REPRESENTATIONS OF ANY 0
DECK SLAB END DIAPHRAGMS	ABUTMENTS 1 & 2: TOPS (INCLUDING BEAM SEATS) AND FRONT FACE OF ABUTMENT AND WINGWALLS TO 3'-O" BELOW FINISHED GRADE.	THE INFORMATION SHOWN ON PROPOSAL, OR CONTRACT AN
USE CLASS AA CEMENT CONCRETE IN: SIDEWALKS AND BARRIERS	PIER: ALL EXPOSED FACES OF PIER CAP AND COLUMNS AND TOPS OF DRILLED CAISSONS (DO NOT APPLY TO INTERFACE AREAS OF PRECAST ELEMENT CONNECTIONS).	PRICES USED FOR BIDDING INFORMATION IS CORRECTLY TO ASSUME THE POSSIBILIT TO BE PERFORMED MAY DIFF
USE CLASS AAA CEMENT CONCRETE MODIFIED IN: PIER CONTINUITY DIAPHRAGM AND DECK SLAB CLOSURE POUR APPROACH SLABS AND SLEEPER SLABS	AFTER THE ENTIRE SUPERSTRUCTURE HAS BEEN SET IN PLACE AND ALL CLOSURE POURS HAVE BEEN COMPLETED, DIAMOND GRIND 1/4 " MAXIMUM OFF OF THE CONCRETE DECK AND APPROACH SLABS FROM GUTTERLINE TO GUTTERLINE BETWEEN THE BRIDGE BARRIER AND	REFERENCE D
STRIP SEAL BLOCKOUTS (APPROACH SLAB AND SIDEWALK/CURB) USE CLASS A CEMENT CONCRETE IN:	SIDEWALK. DO NOT BEGIN GRINDING OPERATIONS UNTIL DIRECTED BY THE REPRESENTATIVE AND NOT UNTIL THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF 4000 PSI.	DWG. NO. SHEET NO.
ABUTMENT 1 FACING CORNER CLOSURE POURS AND WINGWALL A AND B CLOSURE POURS ABUTMENT 2 AND WINGWALLS DRILLED CAISSONS AND ROCK SOCKETS	GRINDING IS TO BE COMPLETED PRIOR TO TEXTURIZING THE CONCRETE DECK SURFACE. UTILITY NOTES: COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE	S-1582 4 THE EXISTING BRIDGE STRU PAINT AND OTHER TOXIC MA
USE CLASS H.E.S. CEMENT CONCRETE IN: BARRIER/SIDEWALK CLOSURE POURS APPROACH SLAB SIDEWALK AND BARRIER WINGWALL C AND D CLOSURE POURS	UTILITIES IN ACCORDANCE WITH PUBLICATION 408, SECTIONS 105.06 AND 107.12. STEEL NOTES: PROVIDE STRUCTURAL STEEL FOR ALL MEMBERS CONFORMING TO AASHTO	FIELD WELDING: WELDING SPECIFICATIONS:
USE CEMENT CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI	M 270/M 270M GRADE 50 (ASTM A 709/A 709M GRADE 50) DESIGNATION, EXCEPT WHEN NOTED OTHERWISE.	PUBLICATION 408 1105.03(PART OF THE STRUCTURE, E REPRESENTATIVE.
IN PRECAST CONCRETE, UNLESS NOTED OTHERWISE. IN ADDITION TO NORMAL CONCRETE CURING REQUIREMENTS IN PUB 408, MEET COOL/COLD WEATHER CONCRETE CURING REQUIREMENTS IN ACCORDANCE WITH PUB 408, SECTION 1001.3(p) 4 AND 5 AS NECESSARY	IF GIRDERS CANNOT BE SHIPPED IN THE LENGTHS SHOWN ON THE PLANS, FIELD SPLICE(S) ARE PERMITTED AT THE REQUEST OF THE CONTRACTOR, BUT NO COMPENSATION WILL BE ALLOWED FOR SPLICES.	WELDING OF EXISTING STRU ELECTRODES WHICH ARE COM AN APPROVED WELD PROCEDU
USE CLASS C CEMENT CONCRETE BELOW THE BOTTOM OF FOOTINGS WHEN SPECIFIED.	DO NOT USE FORM SUPPORT SYSTEMS THAT WILL CAUSE UNACCEPTABLE OVERSTRESS OR DEFORMATION TO PERMANENT BRIDGE MEMBERS.	MAKE TACK WELDS WITH THE OTHER TACK WELDING WILL
PLACE FOOTING CONCRETE AGAINST THE EXCAVATED VERTICAL ROCK SURFACE. A VERTICAL CUT WAS ASSUMED FOR EXCAVATION QUANTITY INTO ROCK. EXCAVATION QUANTITY ABOVE ROCK WAS ASSUMED AT A 1.5 (HORIZONTAL):1 (VERTICAL) SLOPE, EXCEPT AT THE SOIL NAIL WALL.	ALL FASTENERS ARE $\%$ " DIAMETER HS (ASTM A 325, TYPE 1) BOLTS, EXCEPT AS NOTED. REAM SUBDRILLED OR SUBPUNCHED HOLES FOR FIELD SPLICES IN THE FABRICATION SHOP.	(CONTINUED ON SHI
A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT.	DO NOT MAKE WELDS BY MANUAL SHIELDED METAL ARC PROCESS FOR PRIMARY GIRDER WELDS, SUCH AS FLANGE-TO-WEB WELDS OR FOR SHOP SPLICES OF WEBS AND FLANGES.	
PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A 615/A 615M, A 996/A 996M, OR A 706/A 706M. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL	DO NOT WELD PERMANENT METAL DECK FORMS OR OTHER ATTACHMENTS TO GIRDER TOP FLANGES IN TENSION AREAS. THREADED STUDS FOR THE SUPPORT OF THE OVERHANG DECK FORMING BRACKET IS PERMITTED PROVIDED THE STUD IS ATTACHED WITH THE SAME WELDING PROCESS AS THE SHEAR STUDS.	
BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA, IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A 996/A 996M REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, FOOTINGS, PILES, BARRIERS, APPROACH SLABS OR SLEEPER SLABS WHERE BENDING OR WELDING OF	PROVIDE WELDED STUD SHEAR CONNECTORS MANUFACTURED FROM STEEL CONFORMING TO ASTM A108.	
THE REINFORCEMENT BARS IS INDICATED. EPOXY-COAT ALL REINFORCING BARS UNLESS NOTED OTHERWISE.	PROVIDE ROLLED SWEDGED ANCHOR BOLTS CONFORMING TO ASTM F1554, GRADE 105. MECHANICALLY GALVANIZE BOLTS, NUTS AND WASHERS.	
WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED. GALVANIZED REINFORCEMENT BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCEMENT BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.	STABILITY OF PARTIAL GIRDERS AND COMPLETE GIRDERS IS TO BE MAINTAINED BY THE CONTRACTOR DURING ERECTION, UNTIL ALL GIRDERS AND DIAPHRAGMS ARE IN-PLACE AND ALL BOLTS ARE PROPERLY INSTALLED. ERECTION LOADS INCLUDING SELF-WEIGHT OF THE STEEL MEMBERS, WIND LOADING AND CONSTRUCTION LIVE LOAD EFFECTS ARE TO BE EVALUATE BY THE CONTRACTOR FOR STABILITY, STRESSES, AND DEFLECTIONS ON THE STEEL MEMBERS	D
RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.	DURING ANY STAGE OF ERECTION.	
PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408, SECTION 1001.3(k)9. DO NOT APPLY PROTECTIVE COATING WITHIN 2" OF THE BEARING PADS.	THE STEEL SUPERSTRUCTURE SHALL BE DETAILED AND FABRICATED FOR TOTAL DEAD LOAD FIT (TDLF). GIRDER WEBS SHALL BE PLUMB UNDER THE FULL DEAD LOAD EXISTING AT THE END OF CONSTRUCTION.	
SET ANCHOR BOLTS TO TEMPLATE IN PREFORMED HOLES. DO NOT DRILL UNLESS SPECIFICALLY INDICATED ON PLANS. FILL THE PREFORMED HOLES WITH NON-SHRINK GROUT.	SUPPORT DECK SLAB OVERHANG FORMS FROM THE BOTTOM FLANGE OF THE FASCIA GIRDER, UNLESS THE GIRDER WEB IS ADEQUATELY SUPPORTED TO PREVENT BUCKLING DUE TO LOADS FROM WEB-BEARING FORM SUPPORTS. NO CONSTRUCTABILITY TRANSVERSE STIFFENERS HAVE BEEN PROVIDED.	
SITE CLASS IS NOT CLASS E. CONSTRUCT DECK SLAB TRANSVERSE CONSTRUCTION JOINTS PARALLEL TO BRIDGE CENTERLINE OF BEARINGS.	GALVANIZE SOLDIER-PILE STEEL AND FABRICATED STRUCTURAL STEEL SECTIONS RETAINING L AT FRONT FACE OF ABUTMENT 1 IN ACCORDANCE WITH PUBLICATION 408, SECTION 1105.02 (
CHAMFER EXPOSED CONCRETE EDGES 1 IN BY 1 IN, EXCEPT AS NOTED.	PAINT ALL PERMANENT STRUCTURAL STEEL FOR GIRDERS IN ACCORDANCE WITH PUBLICATION 4 SECTION 1060.	08, PROFESSIONAL
PLACE CHEEKWALLS AND WINGWALLS C AND D POUR 2 AFTER SUPERSTRUCTURE IS SET IN FINAL LOCATION.	PROVIDE FINISH COAT COLOR CONFORMING TO FEDERAL COLOR STANDARD #25299.	MATTHEW EARL COCHRAN ENGINEER
ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.	PROVIDE PAINT CHIPS TO THE DISTRICT BRIDGE ENGINEER FOR REVIEW AND APPROVAL PRIOR APPLICATION.	$\begin{array}{c} TO \\ V \\ \mathsf$
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AN THE FAYING SURFACES OR SPLICES AND CONNECTIONS OF ALL STRUCTURAL ELEMENTS ANCE WITH PUBLICATION 408, SECTION 1060.3(b)3. REBLAST UNPAINTED ELEMENTS THAT ASSEMBLED FOR A PERIOD OF 12 MONTHS OR MORE FOLLOWING THE INITIAL CLEANING. ERECTION PLAN FOR REVIEW AND APPROVAL PRIOR TO PLACING BEAMS. THE STABILITY OF THE GIRDERS DURING ALL STAGES OF CONSTRUCTION. SIGNS FOR TEMPORARY BENTS, GUY WIRES AND ALL OTHER SUPPORT SYSTEMS REQUIRED FOR TO THE REPRESENTATIVE FOR REVIEW AND APPROVAL. EMPORARY WIND BRACING DURING GIRDER ERECTION AND DECK SLAB PLACEMENT. DESIGN THE ONFIGURATION, SIZES AND LOCATIONS AND SUBMIT TO THE REPRESENTATIVE FOR REVIEW VAL. THE BRACING IS NOT TO CHANGE THE SUPERSTRUCTURE BEHAVIOR AND LOAD ION ASSUMED FOR THE DESIGN OF THE GIRDERS EITHER TEMPORARILY DURING CONSTRUCTION FOR FALSEWORK, TEMPORARY BENTS, WIND BRACING AND ALL OTHER TEMPORARY SUPPORT EQUIRED DURING ANY STAGES OF CONSTRUCTION IS INCIDENTAL TO THE FABRICATED _ STEEL ITEM. TEMPORARY SUBSTRUCTURE UNITS IN THE BRIDGE STAGING AREA AND ANY NECESSARY FOR THE SPMT SUPERSTRUCTURE MOVE ARE PAID SEPARATELY. EL FRAMEWORK IN LONGITUDINAL AND LATERAL DIRECTIONS UNTIL MEMBERS ARE (FINAL BRACED) CONDITION. DDITIONAL TEMPORARY BRACING BETWEEN THE FASCIA AND THE FIRST INTERIOR BEAM IF THE AM COULD ROTATE, IN THE OPINION OF THE REPRESENTATIVE, WHEN PLACING DECK CONCRETE. CHARPY V-NOTCH TESTS AS SPECIFIED AS PER PUBLICATION 408, SECTION 1105.02(a)5. STRUCTURE: MENSION AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY TO EQUATE SPACE EXISTS FOR CONSTRUCTION OF THE SOIL NAIL WALL. NSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN OR MADE AVAILABLE TO YOU BY THE DEPARTMENT OR ITS AUTHORIZED AGENTS AS POSITIVE ATIONS OF ANY OF THE CONDITIONS THAT YOU WILL ENCOUNTER IN THE FIELD. MATION SHOWN ON THE PLANS FOR THE EXISTING BRIDGE IS NOT PART OF THE PLANS, OR CONTRACT AND IS NOT TO BE CONSIDERED A BASIS FOR COMPUTATION OF THE UNIT ED FOR BIDDING PURPOSES. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT ON IS CORRECTLY SHOWN. THE BIDDER IS NOT TO RELY ON THIS INFORMATION, BUT IS THE POSSIBILITY THAT CONDITIONS AFFECTING THE COST AND/OR QUANTITIES OF WORK FORMED MAY DIFFER FROM THOSE INDICATED.

D	RAWINGS	EXISTING BRIDGE
•	DATE	DESCRIPTION
	1949	ORIGINAL DESIGN DRAWINGS

ING BRIDGE STRUCTURAL MEMBERS ARE ASSUMED TO CONTAIN LEAD OTHER TOXIC MATERIALS SUCH AS CADMIUM, CHROMIUM, ARSENIC, ETC.

PECIFICATIONS: AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE (2008) CONSISTENT WITH ON 408 1105.03(m) AND THE CONTRACT SPECIAL PROVISIONS. DO NOT FIELD WELD ON ANY HE STRUCTURE, EXCEPT WHERE SHOWN ON THE DRAWINGS, WITHOUT PRIOR APPROVAL OF THE

EXISTING STRUCTURAL STEEL: USE THE SHIELDED METAL ARC PROCESS AND LOW HYDROGEN S WHICH ARE COMPATIBLE WITH THE BASE METAL AS SPECIFIED, AND IN ACCORDANCE WITH ED WELD PROCEDURE SPECIFICATION.

WELDS WITH THE SAME TYPE OF ELECTRODE AND INCORPORATE IN THE FINAL WELD. NO K WELDING WILL BE PERMITTED.

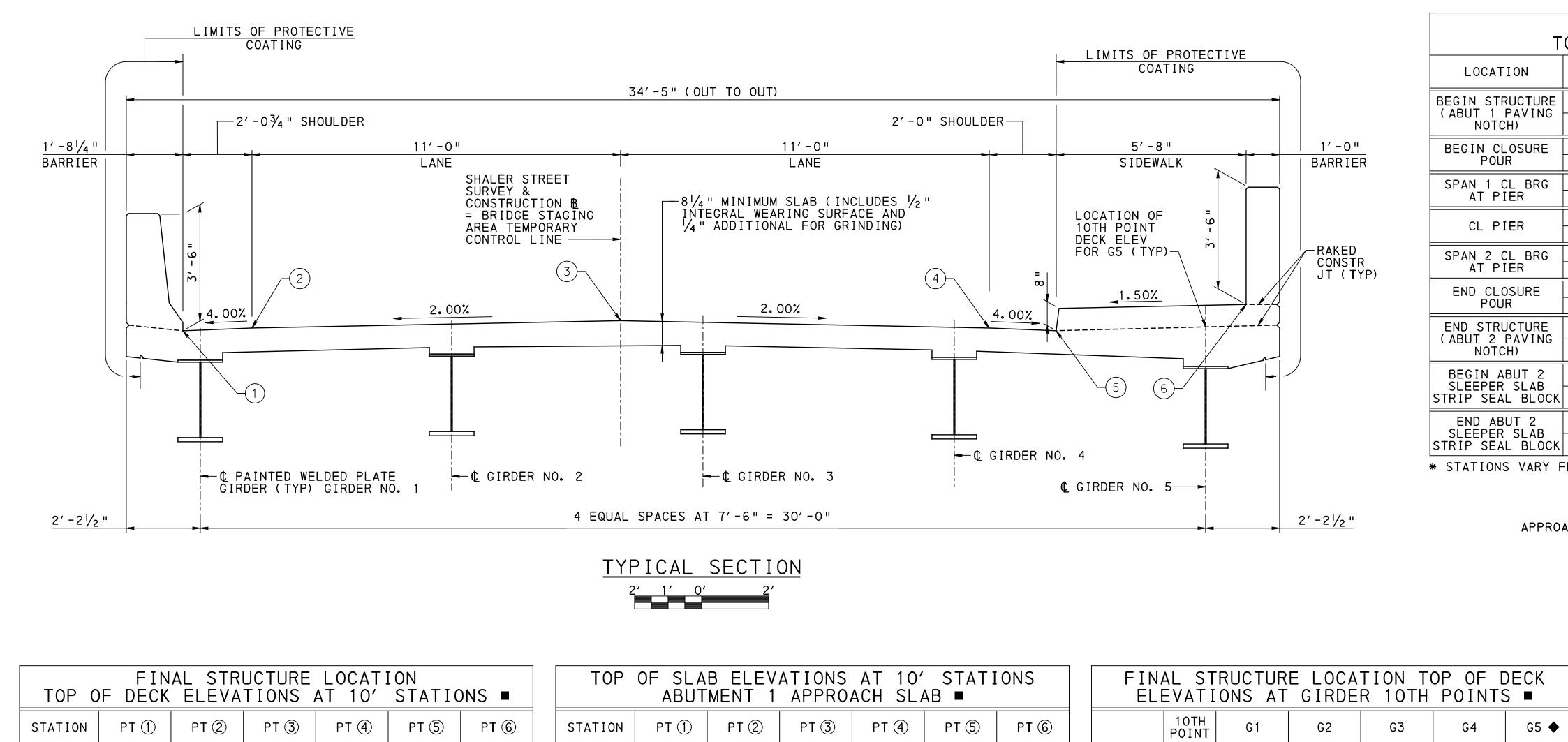
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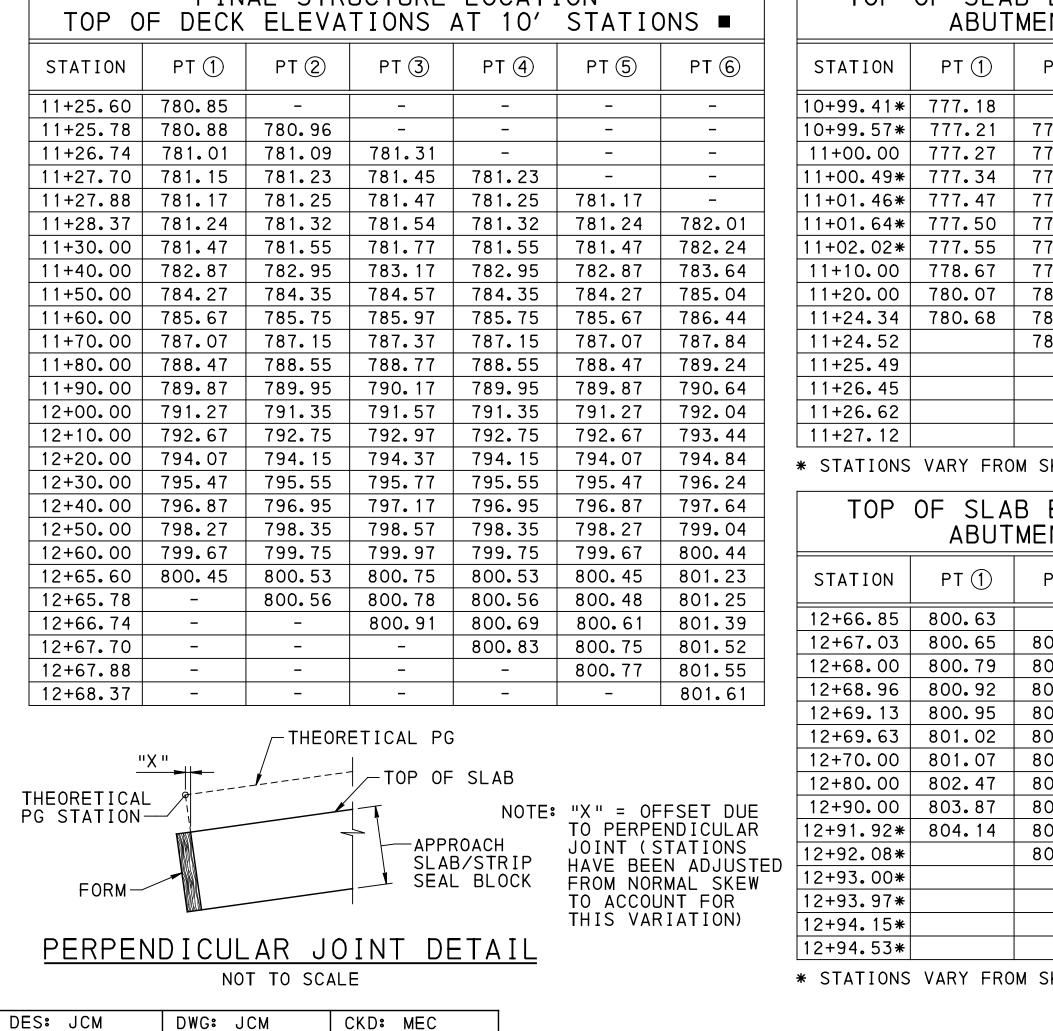
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<u>GENERAL NOTES (CONT'D)</u>	USE CONCRETE WITH F'c = 3 KSI FOR DRILLED S	SHAFTS.	BRIDGE		VITH FUTURE WEARIN	G SURFACE
FIELD WELDING (CONT'D): DO NOT WELD WHEN SURFACES TO BE WELDED ARE MOIST OR EXPOSED TO RAIN, SNOW, OR WIND,NOR WHEN WELDERS ARE EXPOSED TO INCLEMENT CONDITIONS THAT WILL ADVERSELY AFFECT THE QUALITY OF THE WORK.	THE DRILLED SHAFT CONTRACTOR SHALL PREPARE INSTALLATION RECORD FOR EACH SHAFT EXCAVATE RECORD SHALL PROVIDE ALL EXCAVATION AND INS BECOME THE AS-BUILT RECORD FOR THE DRILLED	AND COMPLETE A DRILLED SHAFT ED AND CONSTRUCTED. THIS STALLATION DATA AND WILL	STEEL PLATE GIRDER, 27 DISTRIBUTIC BEAM	INCH DEEP WEB H20	HS20 ML-80 T	K-527 PHL-93 P-82 0.704 0.704 N/A 5 5 N/A
DO NOT WELD OR BURN WHEN THE TEMPERATURE IS BELOW O°F. PREHEAT AND MAINTAIN THE TEMPERATURE OF THE METAL TO AT LEAST 70°F WHEN THE TEMPERATURE OF THE METAL IS BETWEEN O°F AND 32°F DURING WELDING OR BURNING.	REMOVE CAKED MATERIAL FROM THE SIDEWALLS AN THE DRILLED SHAFT PRIOR TO CONCRETE PLACEME	ENT.	INVENTORY RATING (IR) LOCATION (F	(JF AN	1) (SPAN 1) (SPAN 1) (S	31.80 31.80 N/A SPAN 1) (SPAN 1) N/A STR-I STR-I N/A
PREHEAT THE STEEL TO THE SPECIFIED MINIMUM TEMPERATURE FOR A DISTANCE EQUAL TO THE THICKNESS OF THE PART BEING WELDED, BUT NOT LESS THAN 3" IN ALL DIRECTIONS FROM THE POINT OF WELDING.	UPON COMPLETION OF SHAFT EXCAVATION, ALLOW ROCK SOCKET. PROVIDE A CAMERA CAPABLE OF AF SOCKET SURFACE TO ASSESS THE ROCK QUALITY I THAT WHICH FORMED THE BASIS OF THE AXIAL RE	THE ENGINEER TO INSPECT THE RTICULATING TO VIEW THE ROCK DESIGNATION (RQD) RELATIVE TO ESISTANCE CALCULATION.	RATING FACT DISTRIBUTIC BEAM			1.46M1.23MN/A0.7040.7040.704555
REMOVE BY APPLICATION OF HEAT ANY MOISTURE PRESENT AT POINT OF WELD. PROVIDE WINDBREAKS FOR PROTECTION FROM DIRECT WIND.	PROVIDE AND INSTALL TIP TUBES/THERMAL WIRES PROVISION, "DRILLED CAISSON". PERFORM TIP ON THE PROJECT.	S IN ACCORDANCE WITH THE SPECIAL TESTING IN ALL DRILLED SHAFTS	OPERATING RATING (OR) LIMIT STATE	(SF AN	1) (SPAN 1) (SPAN 1) (S	31.8031.8028.27SPAN 1)(SPAN 1)(SPAN 1)STR-IISTR-IASTR-II
PRIOR TO PLACING THE WELD, THOROUGHLY CLEAN ALL PORTIONS OF NEW AND EXISTING SURFACES TO RECEIVE WELDS OF ALL FOREIGN MATTER, INCLUDING PAINT FILM, FOR A DISTANCE OF 2" FROM EACH SIDE OF THE OUTSIDE LINES OF THE WELD. TEST COMPLETED WELDS USING VISUAL AND NONDESTRUCTIVE METHODS IN ACCORDANCE WITH	SPREAD FOOTINGS: FOR SPREAD FOOTINGS, OVER-EXCAVATE TO TOP (AND BACKFILL TO BOTTOM OF FOOTING WITH CLAS THE SPECIAL PROVISION "CLASS C CEMENT CONC	OF SANDSTONE BELOW THE FOOTING, SS C CONCRETE AS SPECIFIED ON	RATING FACT			1.90M 1.59M 1.24M
AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE CHAPTER 6.	THE SPECIAL PROVISION "CLASS C CEMENT CONC ABUTMENT 2 EXCAVATION DETAILS.	RETE MODIFIED" AND THE	BRIDGE L		THOUT FUTURE WEAR	ING SURFACE
PRECAST ELEMENTS: ULTRA HIGH PERFORMANCE CONCRETE FOR LONGITUDINAL CLOSURE POURS IN APPROACH SLABS: F'c = 2,500 @ 2 HRS. F'c = 5,000 @ 7 DAYS	SPREAD FOOTINGS MAY BE ORDERED BY A REPRESE BE AT ANY ELEVATIONS OR OF ANY DIMENSIONS N FOUNDATION. SOLDIER PILE AND LAGGING WALL:	ENTATIVE OF THE DEPARTMENT TO NECESSARY TO PROVIDE A PROPER	STEEL PLATE GIRDER, 27 DISTRIBUTIC BEAM	N FACTOR 0.704 5	4 0.704 0.704 0 5 5	K-527PHL-93P-820.7040.704N/A55N/A
NON-SHRINK GROUT: F'c = 5,000 PSI @ 24 HRS.	TEMPORARY CASING MAY BE REQUIRED DURING CA MAINTAIN AN OPEN SHAFT. IF CASING IS USED, THE BOTTOM OF THE CASING AT ALL TIMES DURIN	ISSON CONSTRUCTION IN ORDER TO MAINTAIN CONCRETE LEVELS ABOVE	INVENTORY RATING (IR)	STR-1	1) (SPAN 1) (SPAN 1) (S I STR-I STR-I S	31.80 31.80 N/A SPAN 1) (SPAN 1) N/A STR-I STR-I N/A
SPLICE COUPLER: NMB SPLICE SLEEVE - TYPE 2 CONNECTION PROVIDE GROUTED SPLICE COUPLERS, PRE-APPROVED BULLETIN 15.	PREVENT CAVED MATERIAL FROM CONTAMINATING BACKFILL THE DRILLED SHAFT EXCAVATION WITH:	THE CONCRETE. IN 24-HOURS AFTER DRILLING TO	RATING FACT DISTRIBUTIC BEAM			1.53M1.28MN/A0.7040.7040.704555
SS MORTAR - f'c = 9,500 PSI	LIMIT THE DETERIORATION OF BEARING MATERIAL SOIL NAIL WALL:		OPERATING RATING (OR) LOCATION (F	(JF AN	1) (SPAN 1) (SPAN 1) (S	31.8031.8028.27SPAN 1)(SPAN 1)(SPAN 1)STR-IISTR-IASTR-II
GALVANIZE AND CHROMATE ALL STRUCTURAL STEEL. PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M 270/M 270M (ASTM A 709/A 709M)	INSTALL NAILS IN ACCORDANCE WITH SPECIAL PE MEASURE NAIL SPACING ALONG FACE OF EXCAVAT	ION.	RATING FACT			1.98M 1.66M 1.30M
GRADE 36 DESIGNATION, EXCEPT WHEN NOTED OTHERWISE. BOLTS: ASTM F1554, GRADE 55	ALL NAILS ARE NO. 11, 150 KSI STEEL, AND 25 SHOTCRETE AS REQUIRED TO PREVENT SLOUGHING	OF MATERIAL.			_IVE LOAD DISTRIBUTION FAC	TOR
NUTS: ASTM A563/ A 563M, GRADE DH WASHERS: ASTM F436/ F436M, TYPE I	GRADE EXCAVATION ABOVE WALL AND ON SIDES TO UTILIZE NAILS IF NECESSARY. FOR PROOF TEST NAILS. DRILL THE ENTIRE LENG		SYMBOL DESIGNATION FOR M - MOMENT RATING F V - SHEAR RATING FA	ACTOR CONTROLS		
SHIMS: PERMANENT PLASTIC SHIMS PROVIDE TEMPORARY BRACING FOR ALL ELEMENTS UNTIL CONNECTIONS HAVE ACHIEVED ADEQUATE STRENGTH. SUBMIT WORKING DRAWINGS IN ACCORDANCE WITH PUBLICATION 408, SECTION 105.02(c).	FOR PROOF TEST NAILS, DRILL THE ENTIRE LENG TO GROUTING, INSTALL A FREE STRESSING SLEED OF TEST LOAD TO THE DESIGN BEARING ZONE DUF FREE STRESSING SLEEVE AFTER THE TESTING IS	VE TO ENSURE FULL TRANSFER RING TESTING. REMOVE THE COMPLETED ON THE TEST NAIL.	MAXIMUM MOMENT CAPACITY			
SHOW LIFTING LOCATIONS FOR ALL COMPONENTS. CONTRACTOR TO DESIGN THE LIFTING HARDWARE.	INDEX OF	DRAWINGS				
PLACE DRILLED SHAFTS AND DRIVEN PILES WITHIN A HORIZONTAL TOLERANCE AS INDICATED IN THE DRILLED CAISSON SPECIAL PROVISION.	SHEET TITLE 1 GENERAL PLAN & ELEVATION	SHEET TITLE 36 PIER CAP DETAILS 37 PIER BAR SCHEDULE				
SUBMIT, FOR EACH SIZE OF REINFORCEMENT BAR USED, THREE (3) REPRESENTATIVE SPLICE COUPLING SYSTEMS, EITHER SAMPLE OR ACTUAL, TO THE MATERIALS TESTING DIVISION AS PER PUBLICATION 408, SECTION 102.3(e).	2 QUANTITIES 3 GENERAL NOTES 1 4 GENERAL NOTES 2 & RATING TABLES 5 TYP SECTION & FINISHED DECK ELEV	37FIER BAR SCHEDULE38FRAMING PLAN39SPAN 1 - GIRDER ELEVATIO40SPAN 2 - GIRDER ELEVATIO		<u>LEGEND</u>		
PROVIDE 2" CLEAR COVER FOR REINFORCING UNLESS NOTED OTHERWISE.	6 BRIDGE STAGING AREA DECK ELEVS 7 CONCEPTUAL CONSTR SEQUENCE 1	41 STEEL DETAILS 42 LIFT PLATE DETAILS		SPMT = SELF	PROPELLED MODULAR TRANSP	ORTER
THE CONTRACTOR MAY SUBSTITUTE ALTERNATE LEVELING DEVICES PROVIDED THEY CAN PRODUCE A STRUCTURE WITHIN THE SPECIFIED ERECTION TOLERANCES.	8 CONCEPTUAL CONSTR SEQUENCE 2 9 CONCEPTUAL CONSTR SEQUENCE 3	43 MISC GIRDER DETAILS 44 PIER CONTINUITY CONNECTI				
USE A TROWEL FINISH ON THE TOP SURFACES OF ALL PRECAST ELEMENTS. CHAMFER ALL EXPOSED CONCRETE EDGES 1" $ imes$ 1".	10CONCEPTUAL CONSTR SEQUENCE 411STAKE-OUT PLAN	45 CAMBER TABLE & REACTIONS 46 BEARING DETAILS 1				
FOUNDATION NOTES:	12ABUTMENT1PLAN13ABUTMENT1ELEVATION	47BEARING DETAILS 248DECK SLAB PLAN		Mark	Description E	By Chk'd. Recm'd. Date
GENERAL:	14ABUTMENT 1 SECTIONS15ABUTMENT 1 CAP DETAILS	49TYPICAL DECK SLAB SECTIO50BARRIER/SIDEWALK DETAILS			REVISIONS	
BLASTING FOR EXCAVATION OF FOUNDATIONS IS NOT PERMITTED. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL EXCAVATED SLOPES. DIRECT	16 WINGWALL A 17 WINGWALL B	51 ABUTMENT 1 CONCRETE DIAP 52 ABUTMENT 2 CONCRETE DIAP		BMS#	SR 3110 PREVIOUSLY KN 02 3110 0010 0001 MPMS*	
RUNOFF AWAY FROM THE EXCAVATION. PERFORM ALL EXCAVATIONS IN ACCORDANCE WITH OSHA REQUIREMENTS. CONSTRUCT TEMPORARY SHORING SOIL NAIL WALL BELOW EXISTING ABUTMENT 2 IN	18SOLDIER PILE & LAGGING DETAILS19ABUT 1 DRAINAGE & WATERPROOFING20ABUTMENT 1 BAR SCHEDULE	53PIER CONCRETE DIAPHRAGM54SUPERSTRUCTURE BAR SCHED55APPROACH SLAB 1	JLE		COMMONWEALTH OF A	
ACCORDANCE WITH SPECIAL PROVISION "SOIL NAILS", PLANS AND DETAILS.	21 ABUTMENT 2 PLAN & ELEVATION 22 ABUTMENT 2 FOOTING PLAN	56APPROACH SLAB 1 DETAILS57APPROACH SLAB 2			ALLEGHENY (
DESIGN AND CONSTRUCT TEMPORARY SHORING/EXCAVATIONS EXCEPT THE SOIL NAIL WALL AT ABUTMENT 2 IN ACCORDANCE WITH PUBLICATION 408, CONTRACT SPECIAL PROVISION, "TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM", AND OSHA.	23ABUTMENT 2 SECTIONS24ABUTMENT 2 PRECAST CAP DETAILS25WINCWALL C DETAILS	58 APPROACH SLAB 2 DETAILS 59 APPROACH SLAB BARRIERS			SR 3110, SEC	
DRILLED SHAFTS: AT ABUTMENT 1, PROVIDE 4.0-FOOT DIAMETER ROCK SOCKETS FOR THE DRILLED CAISSONS AT ABUTMENT 1.	25WINGWALL C DETAILS26WINGWALL D DETAILS27ABUT 2 DRAINAGE & WATERPROOFING	60ABUT 1 APPROACH SLAB BAR61ABUT 2 APPROACH SLAB BAR62CONCEPTUAL ERECTION PLAN	SCHEDULE 1	SR 311	SEGMENT 0010 OF 0-A02 STA. 11+96.	74 (SHALER STREET)
CONSTRUCT DRILLED CAISSONS IN ACCORDANCE WITH SPECIAL PROVISION "DRILLED CAISSON" AND PUBLICATION 408, SECTION 1006.		63 CONCEPTUAL ERECTION PLAN 64 CONCEPTUAL BRIDGE STAGIN	G AREA	2-SPAN	OVER SR 001 COMP STEEL PLA	9-A63 TE GIRDER BRIDGE
DO NOT USE DRILLING SLURRY FOR CAISSON CONSTRUCTION, UNLESS OTHERWISE DIRECTED BY THE REPRESENTATIVE. USE TREMIE METHOD FOR CONCRETE PLACEMENT IN THE CAISSONS.	30SOIL NAIL WALL DETAILS 131SOIL NAIL WALL DETAILS 232SOIL NAIL WALL DETAILS 3	65TEMPORARY ABUTMENT DETAI66SPAN 2: SPMT CONCEPTUAL67SPAN 1: SPMT CONCEPTUAL	MOVE PATH MOVE PATH MOVE PATH		AL NOTES 2 &	RATING TABLES
PRIOR TO PLACING CONCRETE IN THE DRILLED CAISSONS, CLEAN THE BOTTOM OF ROCK SOCKET, AND INSPECT IT USING MINI-SID. DO NOT PLACE CONCRETE UNTIL MINI-SID RESULTS ARE REVIEWED AND APPROVED BY THE REPRESENTATIVE.	33PIER PLAN & ELEVATION34PIER CAISSON DETAILS35PIER COLUMN DETAILS	68CONSTRUCTION TOLERANCES69MISCELLANEOUS DETAILS70-83STRUCTURE BORINGS	1 I INATTILI LAILE PEOT943I N S Y L	RECOMMEN	DED 08/03/2018	SHEET <u>4</u> OF <u>83</u>
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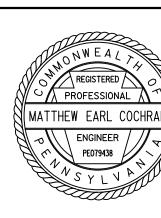
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			777.55	777.77	777.55	777.47
		777.50	777.58	777.80	777.58	777.50
SPAN	778.33	777.55	777.63	777.85	777.63	777.55
	779.44	778.67	778.75	778.97	778.75	778.67
	780.84	780.07	780.15	780.37	780.15	780.07
	781.45	780.68	780.76	780.98	780.76	780.68
	781.48	780.70	780.78	781.00	780.78	
¢ BRO	781.61	780.84	780.92	781.14		
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¢ BRO SPAN © PIE SPAN	T DETAIL ONS PT 6	STAT I AB ■ PT (5) 800.95	AT 10' ACH SLA PT (4) 801.00 801.03	ATIONS APPRO PT ③ 801.09 801.22 801.25	B ELEV MENT 2 PT 2 800.73 800.87 801.00 801.03	OF SLA ABUT PT ① 800.63 800.65 800.79 800.92 800.95
¢ BRO SPAN © PIE SPAN	T DETAIL ONS PT 6	STATI AB ■ PT (5) 800.95 801.02	AT 10' ACH SLA PT (4) 801.00 801.03 801.10	ATIONS APPRO PT ③ 801.09 801.22 801.25 801.32	B ELEV MENT 2 PT 2 800.73 800.87 801.00 801.03 801.10	OF SLA ABUT PT (1) 800.63 800.65 800.79 800.92 800.95 801.02
¢ BRO SPAN © PIE SPAN	T DETAIL ONS PT 6 801.79 801.84	STATI AB ■ PT ⑤ 800.95 801.02 801.07	AT 10' ACH SLA PT (4) 801.00 801.03 801.10 801.15	ATIONS APPRO PT ③ 801.09 801.22 801.25 801.32 801.37	B ELEV MENT 2 PT 2 800.73 800.87 801.00 801.03 801.10 801.15	OF SLA ABUT PT ① 800.63 800.65 800.79 800.92 800.95 801.02 801.07
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¢ BRO SPAN © PIE SPAN	T DETAIL ONS PT 6 801.79 801.84 803.24 804.64	STATI AB ■ PT (5) 800.95 801.02 801.07 802.47 803.87	AT 10' ACH SLA PT (4) 801.00 801.03 801.10 801.15 802.55 803.95	ATIONS APPRO PT ③ 801.09 801.22 801.25 801.32 801.37 802.77 804.17	B ELEV MENT 2 PT 2 800.73 800.87 801.00 801.03 801.10 801.15 802.55 803.95	OF SLA ABUT PT (1) 800.63 800.65 800.79 800.92 800.92 800.95 801.02 801.07 802.47 803.87
© BRO SPAN © PIE SPAN SPAN © BRO ABUT	T DETAIL ONS PT 6 801.79 801.84 803.24 804.64 804.91	STATI AB ■ PT ⑤ 800.95 801.02 801.07 802.47 803.87 804.14	AT 10' ACH SLA PT (4) 801.00 801.03 801.10 801.15 802.55 803.95 804.22	ATIONS APPRO PT ③ 801.09 801.22 801.25 801.32 801.37 802.77 804.17 804.44	B ELEV MENT 2 PT 2 800.73 800.87 801.00 801.03 801.10 801.15 802.55 803.95 804.22	OF SLA ABUT PT (1) 800.63 800.65 800.79 800.92 800.92 800.95 801.02 801.07 802.47 803.87
¢ BRO SPAN © PIE SPAN	T DETAIL ONS PT 6 801.79 801.84 803.24 804.64 804.91 804.93	STATI AB ■ PT ⑤ 800.95 801.02 801.07 802.47 803.87 804.14 804.16	AT 10' ACH SLA PT (4) 801.00 801.03 801.10 801.15 802.55 803.95 804.22 804.24	ATIONS APPRO PT ③ 801.09 801.22 801.25 801.32 801.37 802.77 804.17 804.44 804.46	B ELEV MENT 2 PT 2 800.73 800.87 801.00 801.03 801.10 801.15 802.55 803.95 804.22	OF SLA ABUT PT (1) 800.63 800.65 800.79 800.92 800.92 800.95 801.02 801.07 802.47 803.87
© BRO SPAN © PIE SPAN SPAN © BRO ABUT	T DETAIL ONS PT 6 801.79 801.84 803.24 804.64 804.91 804.93 805.06	STAT I AB ■ PT (5) 800.95 801.02 801.07 802.47 803.87 804.14 804.16 804.29	AT 10' ACH SLA PT (4) 801.00 801.03 801.10 801.15 802.55 803.95 804.22 804.24 804.37	ATIONS APPRO PT ③ 801.09 801.22 801.25 801.32 801.37 802.77 804.17 804.44 804.46	B ELEV MENT 2 PT 2 800.73 800.87 801.00 801.03 801.10 801.15 802.55 803.95 804.22	OF SLA ABUT PT (1) 800.63 800.65 800.79 800.92 800.92 800.95 801.02 801.07 802.47 803.87

				ſ			F	INAL ST	TRUCTURE	E LOCAT	ION		
						Τ			EVATIONS			S∎	
LIMITS OF COA	<u>PROTEC</u> TING	TIVE		-	LOCAT			PT (1)	PT (2)	PT (3)	PT (4)	PT (5)	PT 6
0011	11110			-	LUCAT					FI J	FT (4)		FIO
					BEGIN STR (ABUT 1 F		STATION	11+24.34	11+24.52	11+25.49	11+26.45	11+26.62	11+27.12
					NOTC		ELEV	780.68	780.78	781.14	781.05	781.00	781.84
5′-8			1′-0"	_	BEGIN CL		STATION	11+91.92	11+92.10	11+93.06	11+94.02	11+94.20	11+94.69
SIDEW	ALK		BARRIE	२ ₌	POU	8	ELEV	790.14	790.24	790.60	790.51	790.46	791.30
					SPAN 1 C AT PI		STATION	11+94.60	11+94.78	11+95.74	11+96.70	11+96.88	11+97.37
OCATION OF	: =			=			ELEV STATION	790.51	790.62	790.97	790.89	790.83	791.67
OTH POINT ECK ELEV	- 6				CL PI	ER -	ELEV	790.65	790.76	791.11	791.03	790.97	791.81
OR G5 (TYP	r)``			,	SPAN 2 C	L BRG	STATION	11+96.60	11+96.78	11+97.74	11+98.70	11+98.88	11+99.37
			CONSTR		AT PI	ER	ELEV	790.79	790.90	791.25	791.17	791.11	791.95
1.50%	_ \ `				END CLO POUF		STATION	11+99.28	11+99.46	12+00.42	12+01.38	12+01.56	12+02.05
				=			ELEV	791.17	791.27	791.63	791.54	791.49	792.33
	- 4				END STRU (ABUT 2 f		STATION	12+66.85	12+67.03	12+67.99	12+68.96	12+69.13	12+69.63
	/	~~~			NOTC	H)	ELEV	800.63	800.73	801.09	801.00	800.95	801.79
	~ 71				BEGIN AF SLEEPER		STATION	12+92.08*	12+92.25*	12+93.16*	12+94.13*	12+94.32*	12+94.70*
<u>(5)</u>	6)-/				STRIP SEAL		ELEV	804.16	804.26	804.61	804.53	804.47	805.30
				=	END ABI	JT 2	STATION	12+94.07*	12+94.23*	12+95.15*	12+96.12*	12+96.30*	12+96.69*
					SLEEPER STRIP SEAL	SLAB -	ELEV	804.44	804.54	804.89	804.81	804.75	805.58
1				L					PERPENDICU				
IRDER NO.	5				· STATIONS					JEAN OOTHI	DETAIL		
	-												
			2' -2 <mark>1/2</mark> "			APPROA	CH SLAB-	▲				J -	
	I.	I									L		
								Y			1 and 1		
								$ \rightarrow $		UT 2 APHRAGM		└─ APPRO SLAB	АСН
							I		\mathbf{X}				
									- ABUT DIAPI	1 HRAGM			IG NOTCH
													TIONS AT THIS
				T T A N L T				ABUT	1		<u>ABUT</u>		ION (SEE
FIN/		RUCTUR				ECK		PAVIN	IC NOTO	H ELE			57
ELI	EVATI	ONS AT	GIRDE	R IUIH	POINTS)	_		OWN AFTER [<u> </u>	
	10TH POINT	G 1	G2	G3	G4	G5 🔶		(JII		0 SCALE	IND INO/		
								TES:					
€ BRG ABUT 1	0.00	780.88	781.15	781.29	781.24	781.36	1.	FOR GENER	RAL PLAN AN	D ELEVATIO	DN, SEE SH	EET 1.	
	0.10	781.84	782.12	782.26	782.20	782.33	2.	FOR GENER	RAL NOTES,	SEE SHEETS	5 3 AND 4.		
	0.20	782.81	783.08	783.23	783.17	783.29			ATIONS PROV				F
	0.30	783.78	784.05 785.01	784.19	784.13	784.26		SUPERSTRL	JCTURE IN T	'HE FINAL L	_OCATION O	N THE SUBS	TRUCTURE
SPAN 1	0.40	785.71	785.98	786.12	786.07	786.19		SEE SHEET	DR DECK ELE F 6.	VALLONS IN	N IHE BRID	GE STAGING	AREA,
	0.60	786.67	786.95	787.09	787.03	787.16	4.	EINISHED	DECK AND A	PPROACH SI	AB FLEVAT	IONS SHOWN	ARE FOR
	0.70	787.64	787.91	788.06	788.00	788.12			DECK AND A NDITION AFT	ER GRINDIN	NG OF ADDI	TIONAL 1/4 "	ON DECK
	0.80	788.61 789.57	788.88 789.84	789.02	788.96	789.09		SURFACE.					
¢ BRG	0.30		103.04			1 3 0 0 0 3	-						
SPAN 1	1.00	790.54	790.81	790.95	790.90	791.02							
© PIER													
¢ pier	-	790.68	790.95	791.09	791.04	791.16				ion			
€ BRG SPAN 2	0.00	790.82	791.09	791.23	791.18	791.30	Mar		Descript			nk'd. Recm	′d. Date
© PIER						101000				REVISIO)NS		
	0.10	791.78	792.06	792.20	792.14	792.27				PREVIOUSL			-
	0.20	792.75	793.02	793.17	793.11	793.23		BMS# 0	2 3110 0010	0001 M	PMS# 96562	2 BRKEY:	54732
	0.30	793.72 794.68	793.99 794.95	794.13	794.07 795.04	794.20 795.16			OMMONWE	AI TH O	F PFNN	SYI VANI	ΙΑ
SPAN 2	0.40	795.65	795.92	796.06	796.04	796.13			EPARTME				
	0.60	796.61	796.89	797.03	796.97	797.10		U			INANJE		71 1
	0.70	797.58	797.85	798.00	797.94	798.06			ΔΙΙΕ	GHENY		NTY	
	0.80	798.55 799.51	798.82 799.78	798.96 799.93	798.90 799.87	799.03 799.99		C					
C BRG									SR 311	•			
⊈ BRG ABUT 2	1.00	800.48	800.75	800.89	800.84	800.96				T 0010			· TOFF .
			TOP OF R	∆K ⊑ D				ык 3110	-A02 ST				IKEEI)
			ICAL SECT							ER SR C			
■ SEE	E NOTE	4			, D	NWEAL	2						BRIDGE
NOTE: DF(CK ELFV	ATIONS AR	E GIVEN A	T THE C	A Share	REGISTERED	入 TY	P SEC	CTION	& FIN	VISHE	D DEC	K ELEV
OF	EACH G	IRDER. LO	CATIONS G INDIVIDU	IVEN ARE		ROFESSIONAL A							
SPA	ANS AS I	MEASURED	BETWEEN 🕻	BRGS				ECOMMENDE	D08	/03/201	8	SHEET	<u> 5 </u> 0F <u>83</u>
(SF	PAN 1 AI '-0")	NU 2 SIMP	LE SPAN L	=NGTH =	ALL'S	PE079438							
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		jmarshall	<u>۶</u> /۲	3/2018	l:40:54 PM			PRJ\0000 388	\Cadd\Plans\Al	so\Structure	\Final Desian\	-	

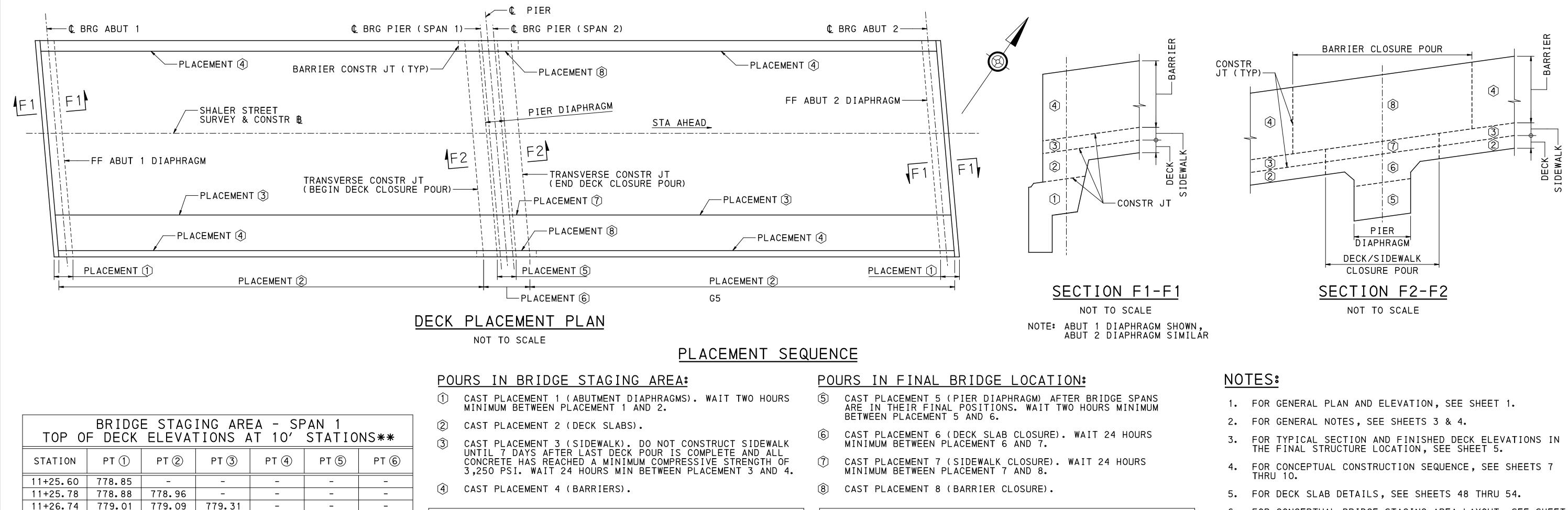


* STATIONS VARY FROM SKEW ANGLE, SEE PERPENDICULAR JOINT DETAIL

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	BRIDGE STAGING AREA - SPAN 1											
TOP 0	F DECK	ELEVA	FIONS A	AT 10'	STATIO	NS**						
STATION	PT ①	PT ②	PT ③	PT (4)	PT (5)	PT (6)						
11+25.60	778.85	-	-	-	-	-						
11+25.78	778.88	778.96	_	_	_	_						
11+26.74	779.01	779.09	779.31	_	_	_						
11+27.70	779.15	779.23	779.45	779.23	_	_						
11+27.88	779.17	779.25	779.47	779.25	779.17	_						
11+28.37	779.24	779.32	779.54	779.32	779.24	779.99						
11+30.00	779.47	779.55	779.77	779.55	779.47	780.22						
11+40.00	780.87	780.95	781.17	780.95	780.87	781.62						
11+50.00	782.27	782.35	782.57	782.35	782.27	783.02						
11+60.00	783.67	783.75	783.97	783.75	783.67	784.42						
11+70.00	785.07	785.15	785.37	785.15	785.07	785.82						
11+80.00	786.47	786.55	786.77	786.55	786.47	787.22						
11+90.00	787.87	787.95	788.17	787.95	787.87	788.62						
11+91.92*	788.14	788.22	788.44	788.22	788.14	788.89						
11+92.10*	_	788.24	788.46	788.24	788.16	788.92						
11+93.06*	_	_	788.60	788.38	788.30	789.05						
11+94.02*	_	_	_	788.51	788.43	789.18						
11+94.20*	_	_	_	_	788.46	789.21						
11+94.69*	_	_	_	_	_	789.28						

TOP OF	BRIDGE STAGING AREA - SPAN 2 TOP OF DECK ELEVATIONS AT 10' STATIONS**											
STATION	PT ①	PT (2)	PT ③	PT ④	PT (5)	PT (6)						
11+99.28*	779.42	_	_	_	_	-						
11+99.46*	779.44	779.52	-	-	_	-						
12+00.00	779.52	779.60	-	-	-	-						
12+00.42*	779.58	779.66	779.88	-	-	-						
12+01.38*	779.71	779.79	780.01	779.79	-	_						
12+01.56*	779.74	779.82	780.04	779.82	779.74	-						
12+02.05*	779.81	779.89	780.11	779.89	779.81	780.56						
12+10.00	780.92	781.00	781.22	781.00	780.92	781.67						
12+20.00	782.32	782.40	782.62	782.40	782.32	783.07						
12+30.00	783.72	783.80	784.02	783.80	783.72	784.47						
12+40.00	785.12	785.20	785.42	785.20	785.12	785.87						
12+50.00	786.52	786.60	786.82	786.60	786.52	787.27						
12+60.00	787.92	788.00	788.22	788.00	787.92	788.67						
12+65.60	788.70	788.78	789.00	788.78	788.70	789.46						
12+65.78	_	788.81	789.03	788.81	788.73	789.48						
12+66.74	_	-	789.16	788.94	788.86	789.62						
12+67.70	_	-	-	789.08	789.00	789.75						
12+67.88	_	-	-	-	789.02	789.77						
12+68.37	_	-	-	-	-	789.84						

UNTIL 7 DAYS AFTER LAST DECK POUR IS COMPLETE AND ALL CONCRETE HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,250 PSI. WAIT 24 HOURS MIN BETWEEN PLACEMENT 3 AND 4.						
(4) CAST	PLACEM	ENT 4 (BAI	RRIERS).			
BRIDGE STAGING AREA - SPAN 1 TOP OF DECK ELEVATIONS AT GIRDER 10TH POINTS (SEE NOTES 8 AND 9)						
	10TH POINT	G1	G2	G3	G4	G5 ♦
⊈ BRG ABUT 1	0.00	778.88	779.15	779.29	779.24	779.34
	0.10	779.84	780.12	780.26	780.20	780.30
	0.20	780.81	781.08	781.23	781.17	781.27
	0.30	781.78	782.05	782.19	782.13	782.24
	0.40	782.74	783.01	783.16	783.10	783.20
SPAN 1	0.50	783.71	783.98	784.12	784.07	784.17
	0.60	784.67	784.95	785.09	785.03	785.13
	0.70	785.64	785.91	786.06	786.00	786.10
	0.80	786.61	786.88	787.02	786.96	787.07
	0.90	787.57	787.84	787.99	787.93	788.03
BEGIN DECK CLOSURE POUR	0.96	788.16	788.44	788.58	788.52	788.62
			1	L	1	1

	0.90	787.57	787.84	787.99	787.93	788.03		0.80	78
BEGIN DECK								0.90	78
CLOSURE POUR	0.96	788.16	788.44	788.58	788.52	788.62	¢ BRG ABUT 2	1.00	78
		BR I	DGE ST	AGING /	AREA -	SPAN 1			
	TOP OF DECK ELEVATIONS AT KEY POINTS**								
LOCATIO	ЛС		PT (1)	PT (2)	PT ③	PT (4)	PT (5)	PT (6)
BEGIN STRU (ABUT 1 P		STATION	11+24.34	11+24.52	11+25.4	19 11+26.4	45 11+26.62	11+27.	.12
NOTCH		ELEV	778.68	778.78	779.14	1 779.05	5 779.00	779.8	82
	RIER	STATION	11+90.85	11+91.03	11+91.9	99 11+92.9	95 11+93.13	11+93.	.62
CLOSURE F	POUR	ELEV	787.99	788.09	788.45	5 788.30	5 788.31	789.	13

BRIDGE STAGING AREA - SPAN 2 TOP OF DECK ELEVATIONS AT KEY POINTS**							
LOCATION		PT (1)	PT ②	PT ③	pt (4)	PT (5)	PT 6
END BARRIER	STATION	12+00.35	12+00.53	12+01.49	12+02.45	12+02.63	12+03.12
CLOSURE POUR	ELEV	779.57	779.67	780.03	779.94	779.89	780.71
END STRUCTURE (ABUT 2 PAVING NOTCH)	STATION	12+66.85	12+67.03	12+67.99	12+68.96	12+69.13	12+69.63
	ELEV	788.88	788.98	789.34	789.25	789.20	790.02

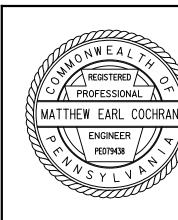
DES: JCM DWG: JCM

CKD: MEC

- ELEVATION GIVEN AT TOP OF RAKED CONSTRUCTION JT (SEE TYPICAL SECTION) * BEGIN/END STATION OF DECK CLOSURE POUR

789.14

- ** FOR PT (1) PT (6) LOCATIONS, SEE TYPICAL SECTION (SEE NOTES 3, 8, AND 9)
- NOTE: DECK ELEVATIONS ARE GIVEN AT THE C OF EACH GIRDER. LOCATIONS ARE GIVEN AT THE 10TH POINTS OF THE INDIVIDUAL SIMPLE SPANS AS MEASURED BETWEEN & BRGS (SPAN 1 AND 2 SIMPLE SPAN LENGTH = 69' - 0")



jmarshall	

8/3/2018

- BRIDGE STAGING AREA SPAN 2 AT GIRDER 10TH POINTS (SEE NOTES 8 AND 9) 10TH POINT END DECK CLOSURE POUR

SPAN 2

0.04 | 779.44 | 779.72 | 779.86 | 779.80 | 779.90 0.10 | 780.03 | 780.31 780.45 780.39 780.50 0.20 | 781.00 | 781.27 781.42 781.36 781.46 782.38 0.30 781.97 782.24 782.32 782.43 783.35 783.39 0.40 782.93 783.21 783.29 0.50 783.90 784.26 784.17 784.31 784.36 785.28 785.33 0.60 784.86 785.14 785.22 0.70 785.83 786.10 786.25 786.19 786.29 0 00 786.80 787.21 787.07 787.15 787.26 788.18 788.12 788.22 787.76 788.04

G3

G4

789.09

G5♦

789.19

TOP OF DECK ELEVATIONS

G2

789.00

G 1

788.73

- FOR CONCEPTUAL BRIDGE STAGING AREA LAYOUT, SEE SHEET 6. 64.
- 7. TEMPORARY DECK ELEVATIONS ARE NOT PROVIDED WITHIN THE DECK CLOSURE POUR REGION.
- 8. FOR TEMPORARY ABUTMENT DETAILS IN THE BRIDGE STAGING AREA, SEE SHEET 65. BRIDGE STAGING AREA DECK ELEVATIONS ASSUME GROUND AND BEAM SEAT ELEVATIONS AS INDICATED WITH 6'-3" OF VERTICAL CLEARANCE BELOW THE BEARING ASSEMBLIES TO PROVIDE ADEQUATE CLEARANCE FOR JACKING PRIOR TO MOVING SPMTS UNDER THE STRUCTURE FOR THE BRIDGE MOVE. ALTERNATE CONFIGUREATIONS ARE PERMITTED. SUBMIT ANY CHANGES IN TEMPORARY DECK ELEVATIONS FOR REVIEW AND APPROVAL.
- 9. TEMPORARY DECK ELEVATIONS SHOWN ASSUME 81/4 " DECK PRIOR TO GRINDING.

Mark	Description	Ву	Chk' d.	Recm' d.	Date
REVISIONS					

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

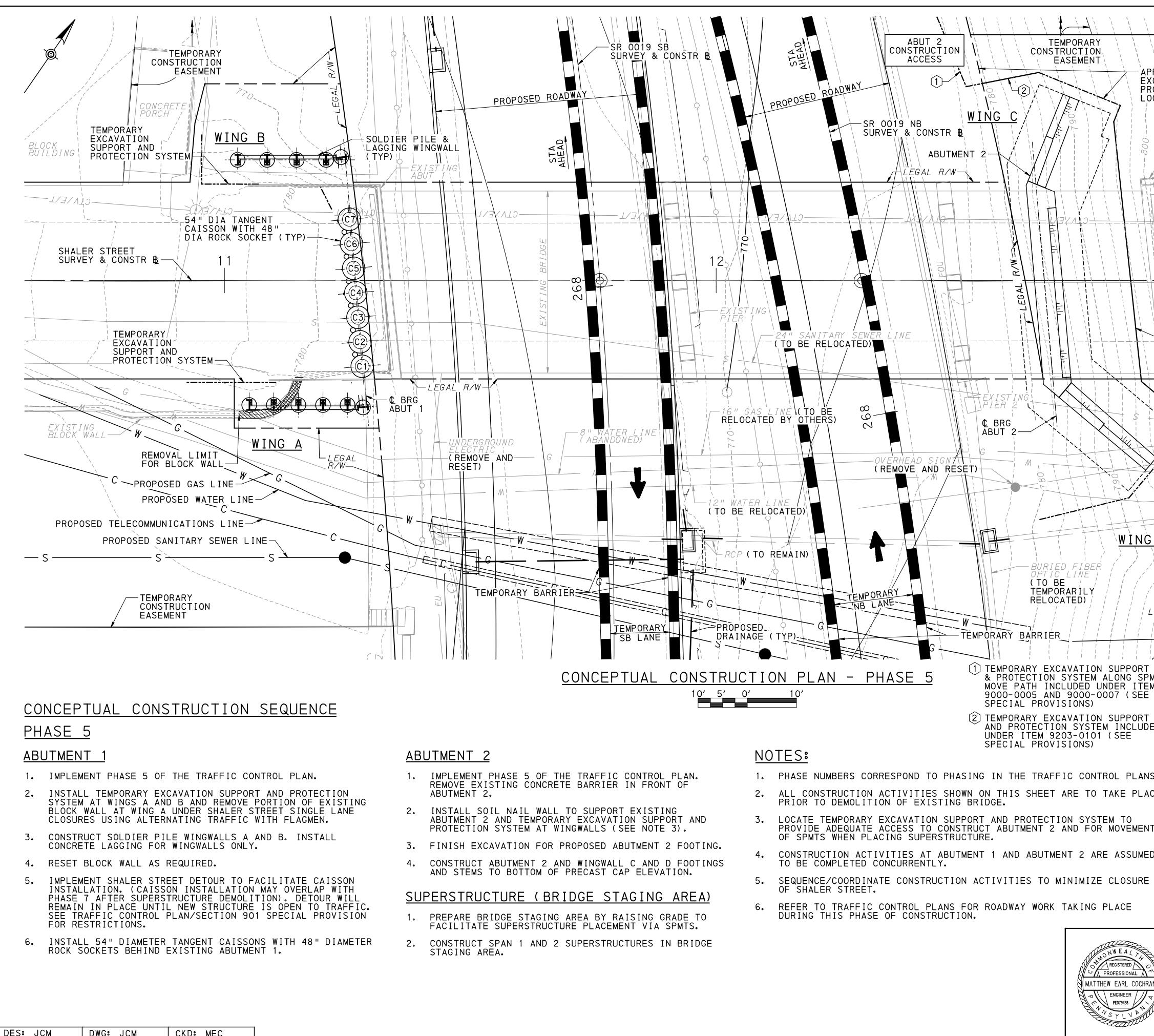
ALLEGHENY COUNTY SR 3110, SECTION A02 SEGMENT 0010 OFFSET 0001

SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63 2 CDAN COMP STEEL DLATE SIDDED DDIDGE

Z-SPAN	COMP	SIEEL	PLAIE	GIRDER	BRIDGE
BRIDG	E ST	AGING	AREA	DECK	ELEVS

RECOMMENDED	08/03/2018	SHEET <u>6</u> OF <u>83</u>
		S - 37605

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M DWG: JCM CKD: MEC

- CONSTRUCTION ACTIVITIES AT ABUTMENT 1 AND ABUTMENT 2 ARE ASSUMED

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	<u>/////</u>	LJ V V V V V V V V V V V V ELFCT	EAD RIC AND				/	
	13 	/ <i>TELEC</i> / (TO E / RELOC	COM LINES BE ! CATED					
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		ORARY SOIL LIMITS	NAIL	LEGEN				
	LIM	T 2 RELO TING BY 0 ITS	RHEAD TRIC (TO BE CATED THERS)		EX (2 PR (2 TE AN	ISTING ' INTER OPOSED ' INTER MP EXCA D PROTE	CONTOUR VALS) VATION S CTION SY	
	EXCAVA PROTEC	XIMATE TEMF ATION SUPPO CTION SYSTE ION (SEE NO	DRT AND	— S — — W — — C — — G —	- SE - PR - PR - TE - PR - EX	WER LIN OPOSED OPOSED LECOMMU OPOSED ISTING	WATER LI NICATION GAS LINE GAS LINE	S LINE
	CMP (EXPOSED)	C	— W — — E — - CTV / E / T — S —	EX EX EX EX EX SE	ISTING ISTING LECOM L ISTING WER LIN	SANITARY	LINE /
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MT MS ED								
_0	Mark	De	scription		Ву	Chk' d.	Recm' d.	Date
5.			SR 3110 PRE	REVISION		AS LR	247	
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				3/2018				_ I <u>/</u> OF <u>83</u>
		RJ\0000 388\Co	add\Plans\Also	Structure	·\Final D4	esian\SR 3	S - 3	

BLOCK BUILDING L/3/AD SHALER STREET SURVEY & CONSTR & 11 EXISTING EXISTING EXISTING BUILDING CARSON CA	OO19 SB RVEY & CONSTR B PROPOSED ROAD PROPOSED ROAD S S S S S S S S S S S S S
EASEMENT	PROPOSE
CONCEPTUAL CONSTRUCTION SEQUENCE	1. 1
PHASE 6	<u></u>
<u>SR 0019 CLOSURE - WEEKEND 1</u>	(1) TEMPORARY EXC & PROTECTION MOVE PATH INC
DEMOLITION:	9000-0005 AND SPECIAL PROVI
1. SHALER STREET DETOUR IS IN PLACE FROM PHASE 5.	(2) TEMPORARY EXC AND PROTECTIO UNDER ITEM 92
2. IMPLEMENT PHASE 6 OF THE TRAFFIC CONTROL PLAN (SR 0019 NB AND SB WEEKEND DETOUR). SEE TRAFFIC CONTROL PLAN/SECTION 901 SPECIAL PROVISION FOR RESTRICTIONS.	SPECIAL PROVI
3. DEMOLISH EXISTING SPANS 1, 2 AND 3 AND APPROACH SLABS (IF PRESENT). SUBMIT DEMOLITION PROCEDURE FOR DEPARTMENT'S REVIEW AND APPROVAL PRIOR TO DEMOLITION ACTIVITIES IN ACCORDANCE WITH PUB 408.	<u>LEG</u>
3. DEMOLISH EXISTING PIER 1 TO 2'-O" MINIMUM BELOW FINISHED GRADE.	
 4. DEMOLISH EXISTING PIER 2 TO 2'-O" MINIMUM BELOW FINISHED GRADE. 5. DEMOLISH ABUTMENT 2 STEM TO 2'-O" MINIMUM BELOW PROPOSED APPROACH 	
SLAB/SLEEPER SLAB. 6. REMOVE ANY DEBRIS LEFT AFTER BRIDGE DEMOLITION.	
ABUTMENT 2:	X
1. INSTALL PROPOSED PRECAST CAP AT ABUTMENT 2. FIELD SURVEY BEARING SEAT	— s
ELEVATIONS AND ADJUST AS REQUIRED USING SHIMS (SEE ABUTMENT 2 ERECTION PLAN).	— w — c
2. REOPEN SR 0019 NB AND SB AS INDICATED ON THE TRAFFIC CONTROL PLAN.	— c — c

DES: JCM	DWG: JCM	CKD: MEC

STR B <u>SED ROADWAY</u> <u>SED ROADWAY</u> SED ROADWAY	DEMOLISH EXISTING PIER 1 TO 2'-O" BELOW FINISHED GRADE SR 0019 NB SURVEY & CONSTR B		APPE EXCA PROT LOCA
DEMOLISH EXISTING SUPERSTRUCTURE			
	CONSTRUCTION PL	OVERHEAD SIGN (REMOVE AND RESET	DEMOLISH EXISTING PIER 2 TO 2'-O" BELOW FINISHED GRADE G BURIED FIBER (TO BE TEMPORARILY RELOCATED) LE
ARY EXCAVATION SUPPORT TECTION SYSTEM ALONG SPMT PATH INCLUDED UNDER ITEMS DO05 AND 9000-0007 (SEE AL PROVISIONS) RARY EXCAVATION SUPPORT ROTECTION SYSTEM INCLUDED ITEM 9203-0101 (SEE AL PROVISIONS)	-	CONTROL PLANS. DEMOLITION ACTIVITIES SH TAKE PLACE DURING THE FI	TO PHASING IN THE TRAFFIC OWN ON THIS SHEET ARE TO RST WEEKEND CLOSURE OF SR G THE SHALER STREET DETOUR.
AND PROTECT AND PROTECT EXISTING FEI PROPOSED SAI SEWER LINE W PROPOSED WAT PROPOSED	NTOUR - W LS) - E TION SUPPORT ION SYSTEM - S NCING NITARY TER LINE SB CATIONS LINE	EXISTING WATER LINE EXISTING ELECTRIC LINE	NG 8/3/2018 :41:08 PM

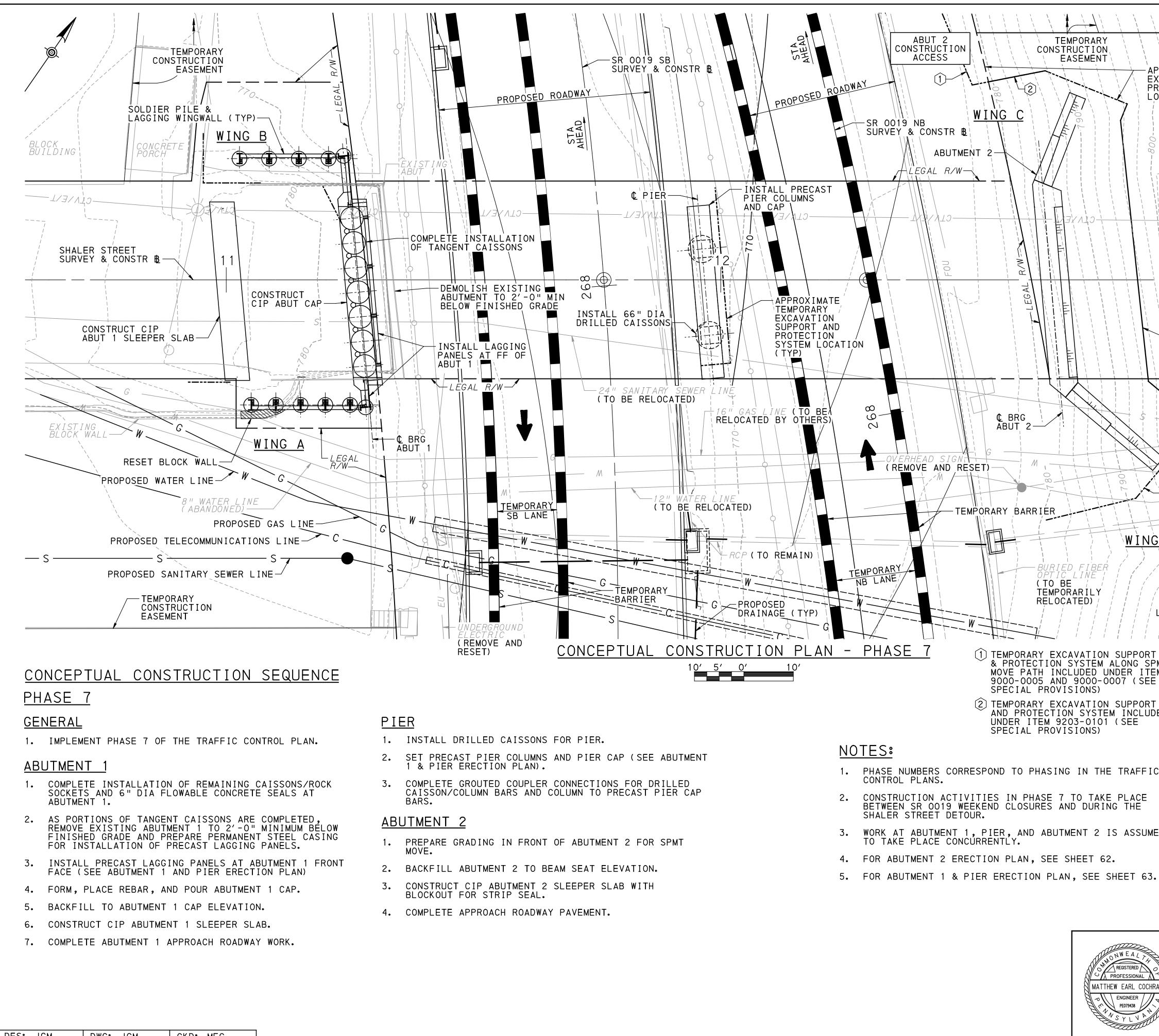
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ABUT 2 CONSTRUCTION ACCESS

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V PROPOSED ROADWAY

EXCAVA	IMATE TEM	ORT AND \							
PROTEC	TION SYST								
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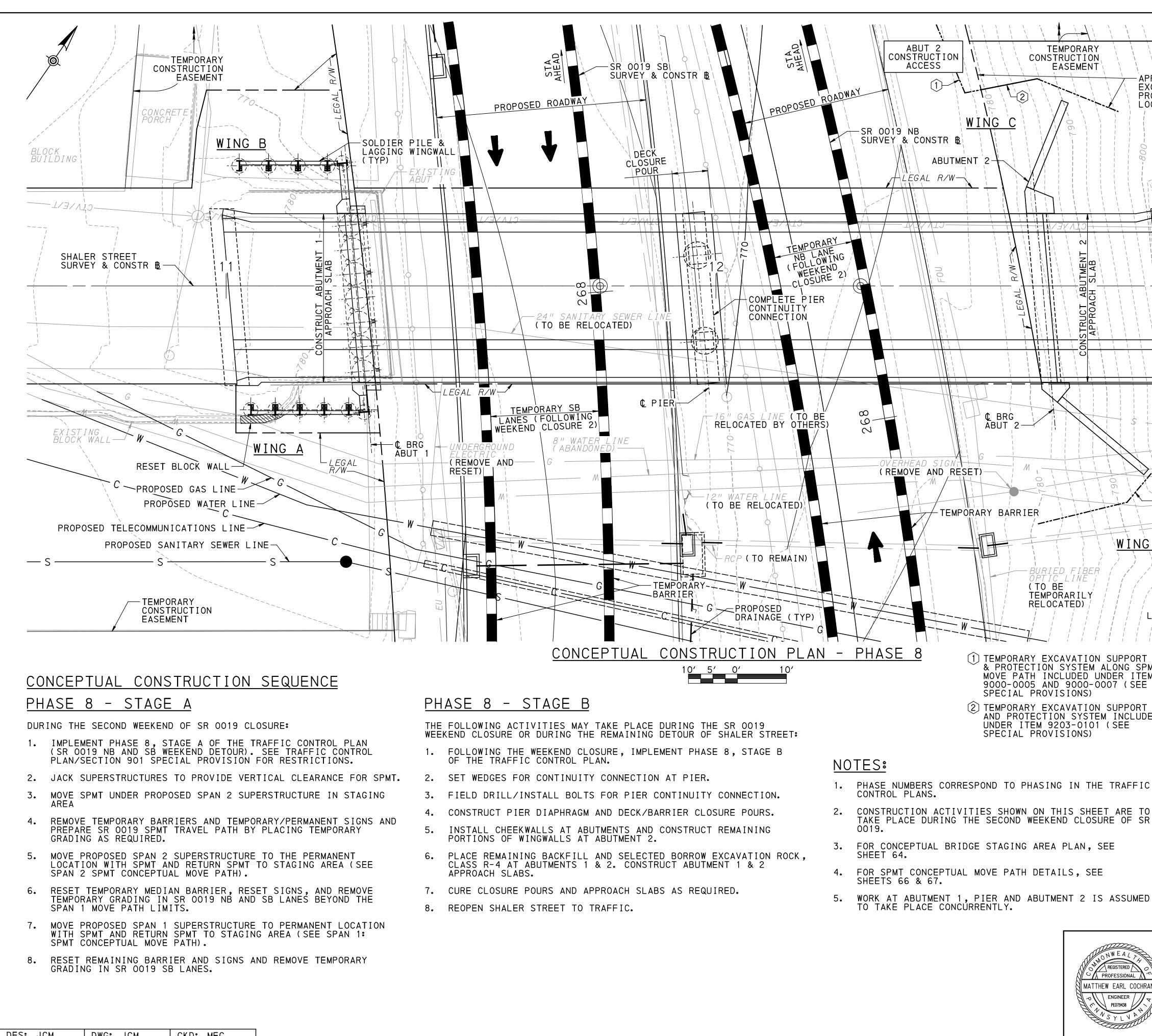


DES: JCM DWG: JCM	CKD: MEC
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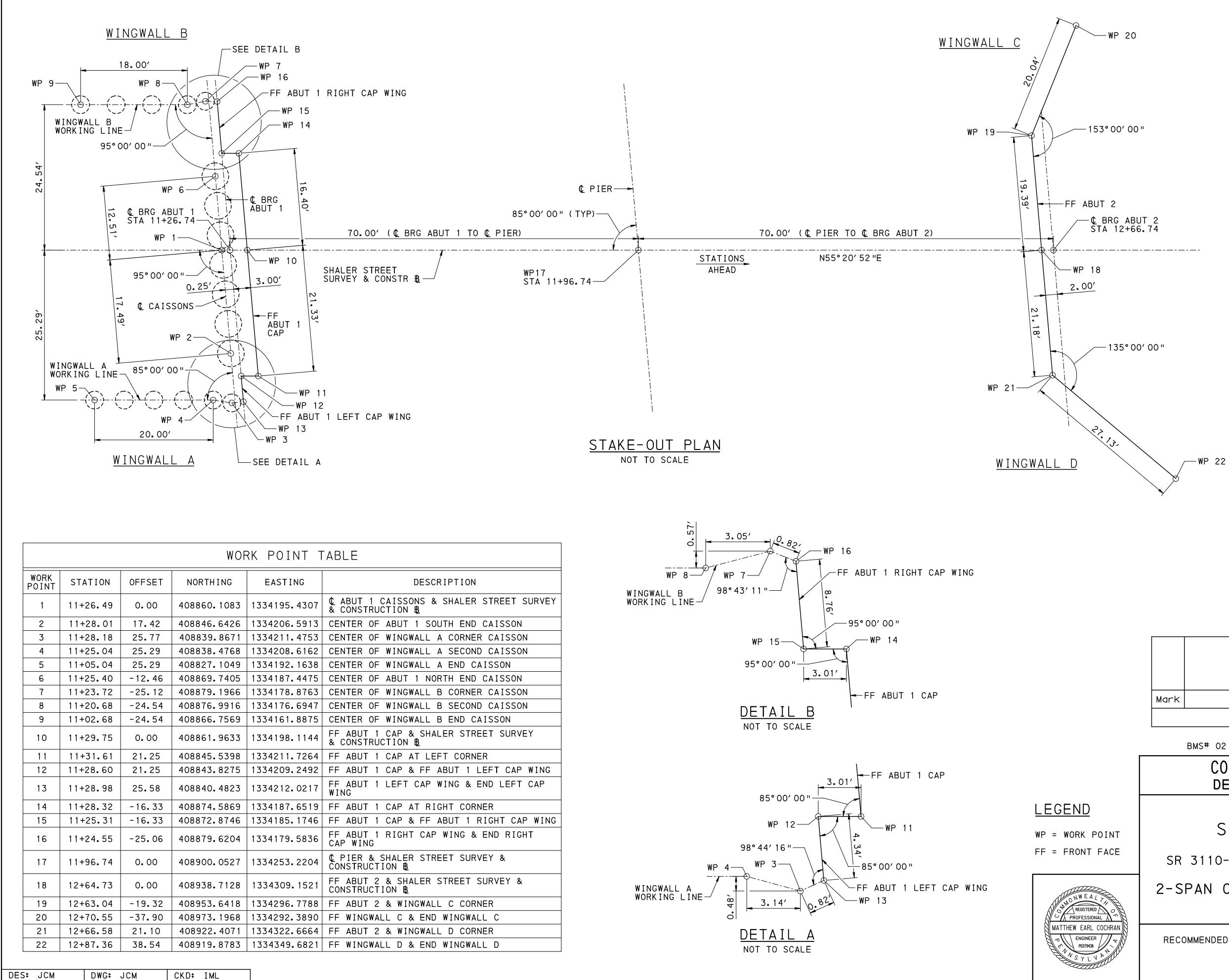
(CAVA)	IMATE TEMPORARY TION SUPPORT AND TION SYSTEM ON LEGAL R/W (TO REMAIN)
	OVERHEAD ELECTRIC AND TELECOM LINES (TO BE RELOCATED BY OTHERS) CONSTRUCT CIP ABUT 2 SLEEPER SLAB WITH BLOCKOUT FOR STRIP SEAL TEMPORARY SOIL NAIL WALL LIMITS LEGEND
EXC PRO	OVERNEAD LIECTRIC OVERNEAD LIECTRIC LIME (TO BE RELOCATED BY OTHERS) BY OTHERS) S S PROPOSED SANITARY SEWER LINE W PROPOSED WATER LINE W PROPOSED GAS LINE C C SUPPORT AND C C PROPOSED GAS LINE C C C C C SEWER LINE EXISTING ELECTRIC/ TELECOM LINE SEWER LINE SEWER LINE SEWER LINE EXISTING GUIDERAIL NB
ED	Mark Description By Chk'd. Recm'd. Date REVISIONS
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D	COMMONWEALTH OF PENNSYLVANIA
	DEPARTMENT OF TRANSPORTATION ALLEGHENY COUNTY SR 3110, SECTION AO2 SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63 2-SPAN COMP STEEL PLATE GIRDER BRIDGE
	CONCEPTUAL CONSTR SEQUENCE 3
AN	RECOMMENDED 08/03/2018 SHEET 9 OF 83 S - 37605
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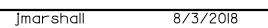
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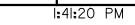
- 1. PHASE NUMBERS CORRESPOND TO PHASING IN THE TRAFFIC

CAVA		GAL R/W	ATED HERS)		 EX	ISTING		
EXC	AVATION	ELEC LINE RELO	TRIC (TO BE CATED THERS)		(2 - PR (2 - TE AN - PR - PR - PR - PR - PR - PR - PR - PR - EX - EX - EX - EX - EX - EX - SE - NO - SO	' INTE OPOSED ' INTE MP EXC D PROT OPOSED OPOSED OPOSED ISTING ISTING ISTING ISTING ISTING USTING WER LI ISTING WER LI ISTING WER LI	RVALS) CONTOUR RVALS) AVATION S ECTION SY SANITARY NE WATER LI GAS LINE GAS LINE GAS LINE ELECTRIC ELECTRIC LINE SANITARY NE GUIDERAI	STEM NE S LINE LINE /
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WORK POINT	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
1	11+26.49	0.00	408860.1083	1334195.4307	© ABUT 1 CAISSONS & SHALER STREET S & CONSTRUCTION ₿
2	11+28.01	17.42	408846.6426	1334206.5913	CENTER OF ABUT 1 SOUTH END CAISSON
3	11+28.18	25.77	408839.8671	1334211.4753	CENTER OF WINGWALL A CORNER CAISSON
4	11+25.04	25.29	408838.4768	1334208.6162	CENTER OF WINGWALL A SECOND CAISSON
5	11+05.04	25.29	408827.1049	1334192.1638	CENTER OF WINGWALL A END CAISSON
6	11+25.40	-12.46	408869.7405	1334187.4475	CENTER OF ABUT 1 NORTH END CAISSON
7	11+23.72	-25.12	408879.1966	1334178.8763	CENTER OF WINGWALL B CORNER CAISSON
8	11+20.68	-24.54	408876.9916	1334176.6947	CENTER OF WINGWALL B SECOND CAISSON
9	11+02.68	-24.54	408866.7569	1334161.8875	CENTER OF WINGWALL B END CAISSON
10	11+29.75	0.00	408861.9633	1334198.1144	FF ABUT 1 CAP & SHALER STREET SURVE & CONSTRUCTION \mathbf{B}
11	11+31.61	21.25	408845.5398	1334211.7264	FF ABUT 1 CAP AT LEFT CORNER
12	11+28.60	21.25	408843.8275	1334209.2492	FF ABUT 1 CAP & FF ABUT 1 LEFT CAP
13	11+28.98	25.58	408840.4823	1334212.0217	FF ABUT 1 LEFT CAP WING & END LEFT WING
14	11+28.32	-16.33	408874.5869	1334187.6519	FF ABUT 1 CAP AT RIGHT CORNER
15	11+25.31	-16.33	408872.8746	1334185.1746	FF ABUT 1 CAP & FF ABUT 1 RIGHT CAF
16	11+24.55	-25.06	408879.6204	1334179.5836	FF ABUT 1 RIGHT CAP WING & END RIGH CAP WING
17	11+96.74	0.00	408900.0527	1334253.2204	©L PIER & SHALER STREET SURVEY & CONSTRUCTION BL
18	12+64.73	0.00	408938.7128	1334309.1521	FF ABUT 2 & SHALER STREET SURVEY & CONSTRUCTION B
19	12+63.04	-19.32	408953.6418	1334296.7788	FF ABUT 2 & WINGWALL C CORNER
20	12+70.55	-37.90	408973.1968	1334292.3890	FF WINGWALL C & END WINGWALL C
21	12+66.58	21.10	408922.4071	1334322.6664	FF ABUT 2 & WINGWALL D CORNER
22	12+87.36	38.54	408919.8783	1334349.6821	FF WINGWALL D & END WINGWALL D



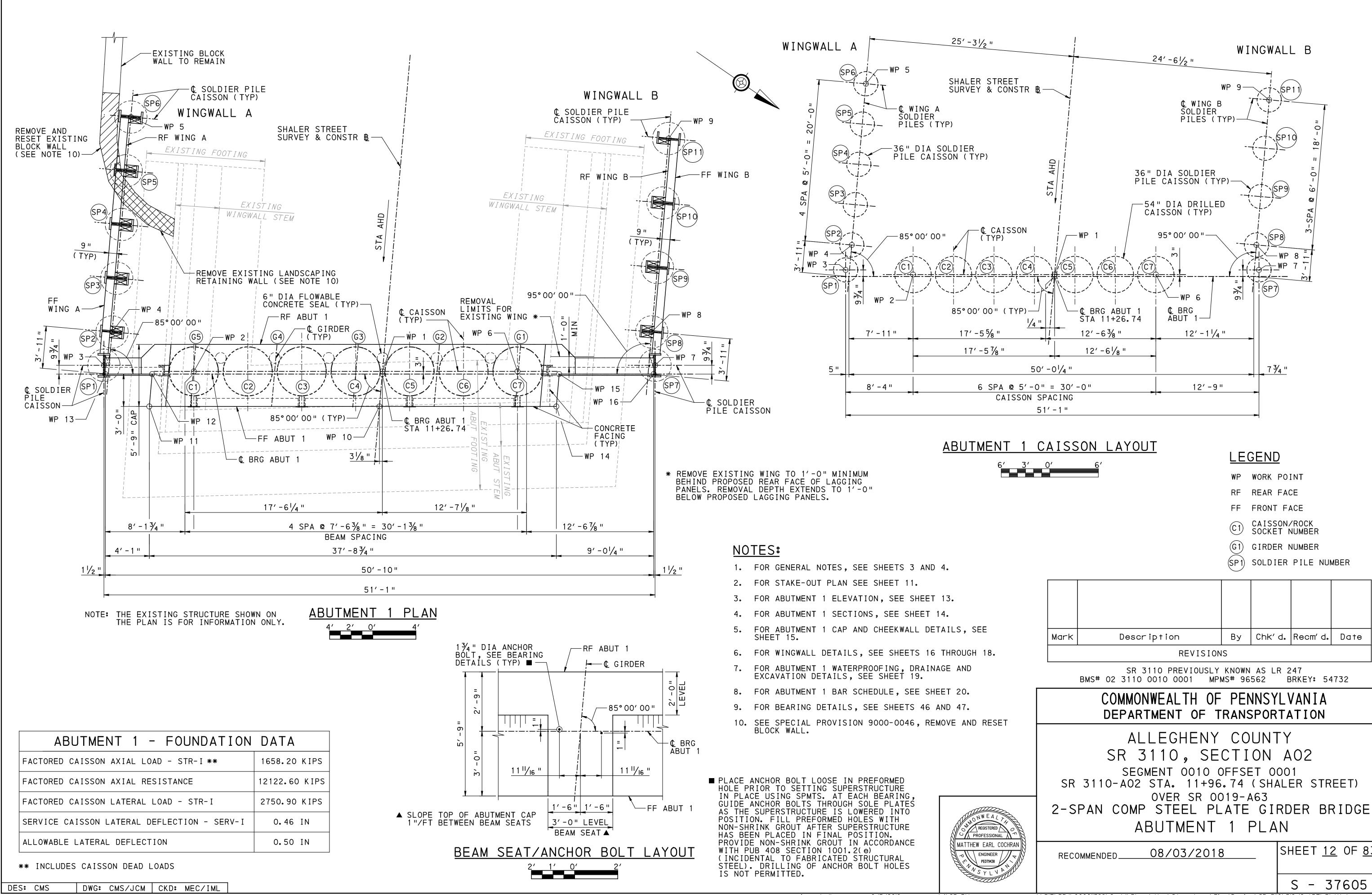


<u>NOTES</u>

- 1. FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1
- 2. FOR GENERAL NOTES, SEE SHEETS 3 & 4
- 3. FOR TYPICAL DECK SECTION, SEE SHEET 5
- 4. FOUR PLACE COORDINATES ARE FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO DECIMAL POINTS

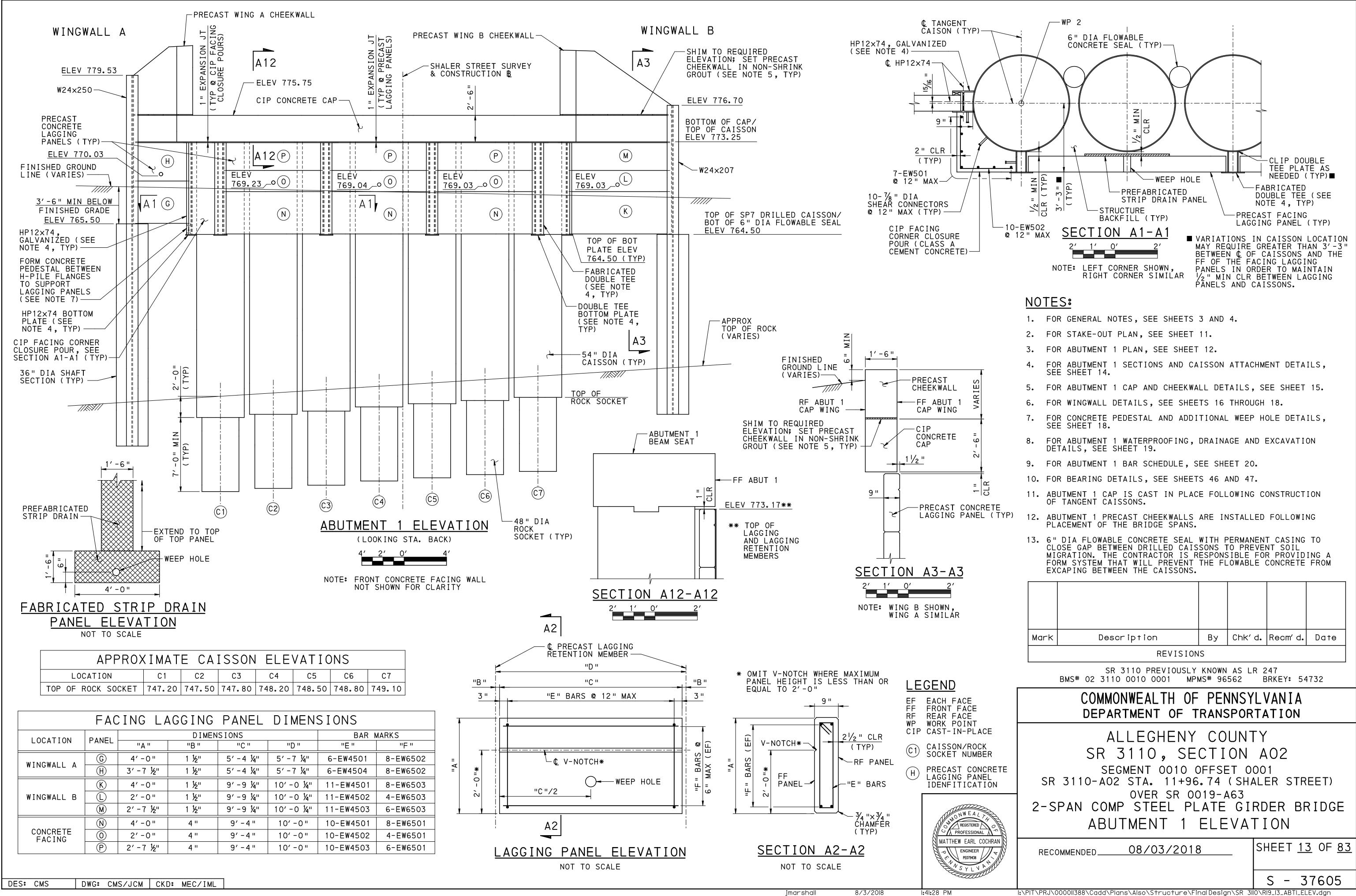
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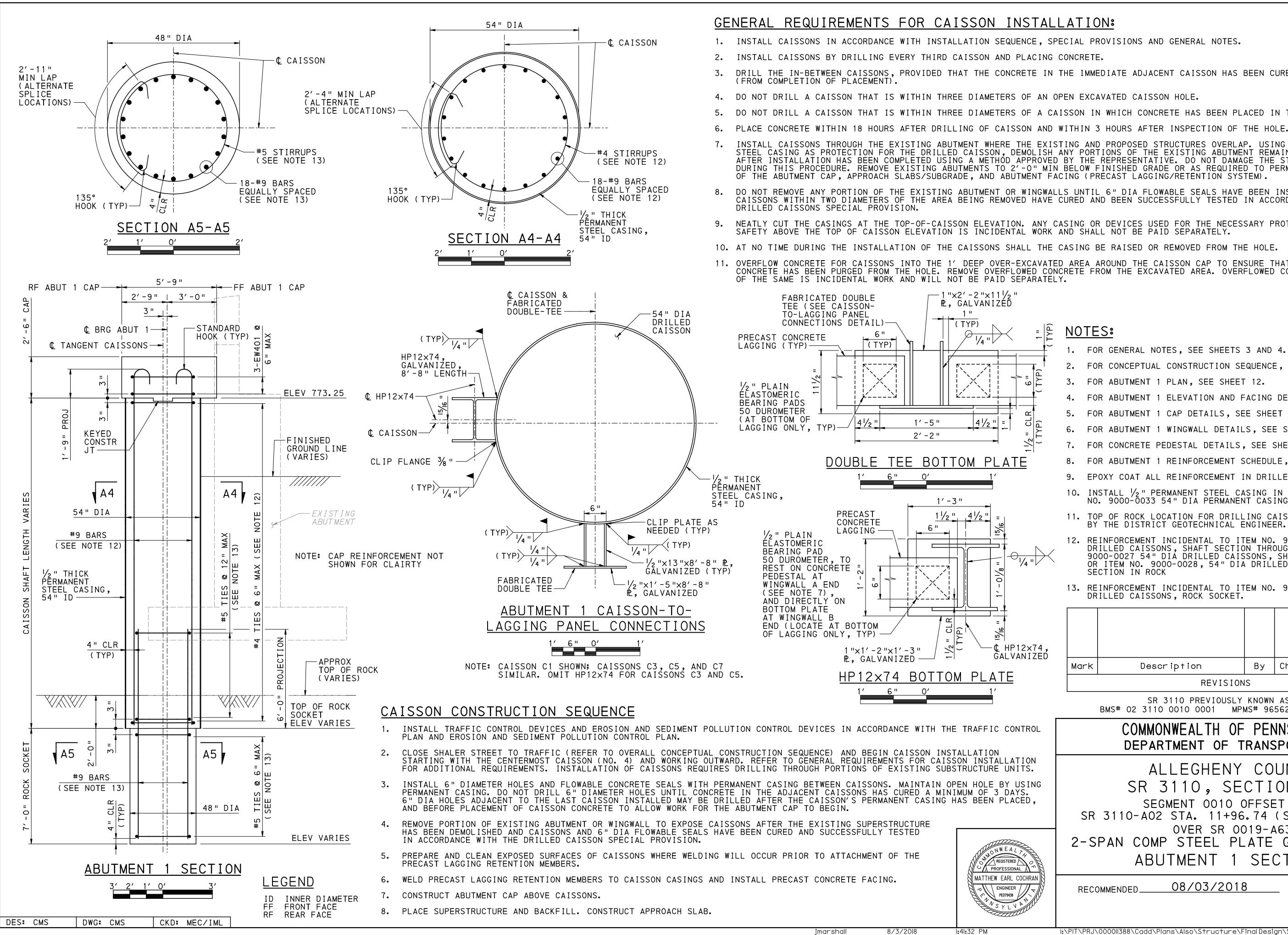


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RECOMMENDED	08/03/2018	SHEET <u>12</u> OF <u>83</u>
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3. DRILL THE IN-BETWEEN CAISSONS, PROVIDED THAT THE CONCRETE IN THE IMMEDIATE ADJACENT CAISSON HAS BEEN CURED AT LEAST 3 DAYS

DO NOT DRILL A CAISSON THAT IS WITHIN THREE DIAMETERS OF A CAISSON IN WHICH CONCRETE HAS BEEN PLACED IN THE LAST 24 HOURS.

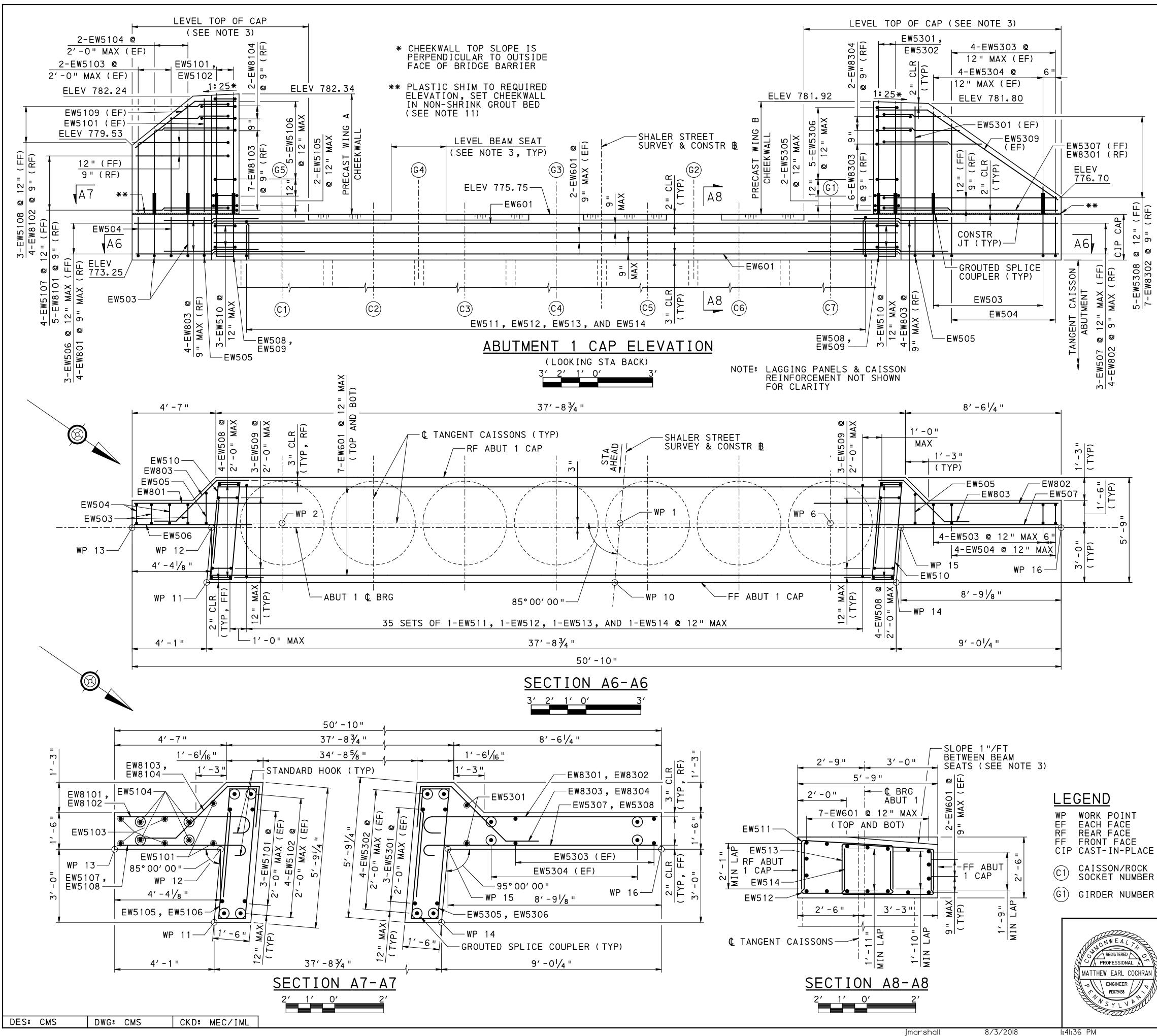
7. INSTALL CAISSONS THROUGH THE EXISTING ABUTMENT WHERE THE EXISTING AND PROPOSED STRUCTURES OVERLAP. USING THE PERMANENT STEEL CASING AS PROTECTION FOR THE DRILLED CAISSON, DEMOLISH ANY PORTIONS OF THE EXISTING ABUTMENT REMAINING IN PLACE AFTER INSTALLATION HAS BEEN COMPLETED USING A METHÓD APPROVED BY THE REPRESENTATIVE. DO NOT DAMAGE THE STEEL CASING DURING THIS PROCEDURE. REMOVE EXISTING ABUTMENTS TO 2'-O" MIN BELOW FINISHED GRADE OR AS REQUIRED TO PERMIT CONSTRUCTION

DO NOT REMOVE ANY PORTION OF THE EXISTING ABUTMENT OR WINGWALLS UNTIL 6" DIA FLOWABLE SEALS HAVE BEEN INSTALLED AND THE CAISSONS WITHIN TWO DIAMETERS OF THE AREA BEING REMOVED HAVE CURED AND BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH THE

9. NEATLY CUT THE CASINGS AT THE TOP-OF-CAISSON ELEVATION. ANY CASING OR DEVICES USED FOR THE NECESSARY PROTECTION OF WORKERS

11. OVERFLOW CONCRETE FOR CAISSONS INTO THE 1' DEEP OVER-EXCAVATED AREA AROUND THE CAISSON CAP TO ENSURE THAT ALL CONTAMINATED CONCRETE HAS BEEN PURGED FROM THE HOLE. REMOVE OVERFLOWED CONCRETE FROM THE EXCAVATED AREA. OVERFLOWED CONCRETE AND REMOVAL OF THE SAME IS INCIDENTAL WORK AND WILL NOT BE PAID SEPARATELY.

1 = [YP]	<u>N0</u>	<u>ТЕ</u>	S:							
	1.	F0	R GENERAL NC)TES, S	EE SHEETS	3 AND	4.			
	2.	F0	R CONCEPTUAL	CONST	RUCTION SE		E, SEE	SHEETS	7 THF	RU 10.
	3.	F0	R ABUTMENT 1	PLAN,	, SEE SHEET	- 12 .				
T	4.	F0	R ABUTMENT 1	ELEVA	TION AND F	ACING	DETAIL	_S, SEE	SHEE	T 13.
	5.	F0	R ABUTMENT 1	CAP D	ETAILS, SE	E SHE	ET 15.			
(TYP)	6.	F0	R ABUTMENT 1	WINGW	ALL DETAIL	.S, SE	E SHEET	rs 16 T⊦	IROUGI	H 18.
- / 2	7.	F0	R CONCRETE P	PEDESTA	L DETAILS	, SEE S	SHEET 1	8.		
	8.	F0	R ABUTMENT 1	REINF	ORCEMENT S	CHEDUI	_E, SEE	E SHEET	20.	
	9.	ΕP	OXY COAT ALL	. REINF	ORCEMENT	N DRII	LED CA	AISSONS.		
	10.	IN NO	STALL ½" PE • 9000-0033	RMANEN 54" DI	IT STEEL CA A PERMANEN	SING T CAS	IN ACCO ING FOF	DRDANCE R DRILLE	WITH D CA	ITEM ISSONS.
	11.							S TO BE	VERI	=IED
	12.	DR 90 OR	ILLED CAISSC 00-0027 54" ITEM NO. 90)NS, SH DIA DF)00-002	AFT SECTION	ON THRU SSONS,	DUGH OS SHAFT	STRUCTIC SECTION	DN, I ⁻ N IN S	TEM NO. SOIL,
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	•	лс	JIIU-AUZ			AND FACING DETAILS, SEE SHEET 13. S, SEE SHEET 15. ETAILS, SEE SHEETS 16 THROUGH 18. AILS, SEE SHEET 18. ENT SCHEDULE, SEE SHEET 20. ENT IN DRILLED CAISSONS. EL CASING IN ACCORDANCE WITH ITEM MANENT CASING FOR DRILLED CAISSONS. DRILLING CAISSONS TO BE VERIFIED CAL ENGINEER. TO ITEM NO. 9000-0026 54" DIA ECTION THROUGH OSTRUCTION, ITEM NO. CAISSONS, SHAFT SECTION IN SOIL, " DIA DRILLED CAISSONS, SHAFT TO ITEM NO. 9000-0029 48" DIA CKET. DITEM NO. 9000-0029 48" DIA CKET. DITEM NO. 9000-0029 48" DIA CKET. DITEM NO. 9000-0029 48" DIA CKET. DITEM NO. 9000-0029 48" DIA CKET. DISLY KNOWN AS LR 247 MPMS* 96562 BRKEY: 54732 DF PENNSYLVANIA DF TRANSPORTATION ENY COUNTY SECTION AO2 10 OFFSET 0001 1+96.74 (SHALER STREET) R 0019-A63 PLATE GIRDER BRIDGE 1 SECTIONS 2018 SHEET 14 OF 83 CHEAT 14 OF				
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PRECAST WING A CHE		
FOR INFORMATION ONLY PICK W	VEIGHT	= 15 KIP
ITEM		QUANTITY
REINFORCEMENT BARS, EPOXY COATED	LB	610
CEMENT CONCRETE, 5000 PSI	CY	4
LIFTING DEVICE	EA	2
GROUTED SPLICE COUPLER	EA	12

PRECAST WING B CHE	EKW	ALL
FOR INFORMATION ONLY PICK W	VEIGHT	= 17 KIP
ITEM	UNIT	QUANTITY
REINFORCEMENT BARS, EPOXY COATED	LB	650
CEMENT CONCRETE, 5000 PSI	CY	5
LIFTING DEVICE	EA	2
GROUTED SPLICE COUPLER	EA	16



- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- FOR STAKE-OUT PLAN SEE SHEET 11. 2.
- FOR ABUTMENT 1 PLAN AND BEAM SEAT/ANCHOR BOLT LAYOUT, 3. SEE SHEET 12.
- FOR ABUTMENT 1 ELEVATION, SEE SHEET 13. 3.
- FOR ABUTMENT 1 SECTIONS, SEE SHEET 14.
- FOR WINGWALL DETAILS, SEE SHEETS 16 THROUGH 18.
- FOR ABUTMENT 1 DRAINAGE, WATERPROOFING AND EXCAVATION DETAILS, SEE SHEET 19.
- 8. FOR ABUTMENT 1 BAR SCHEDULE. SEE SHEET 20.
- 10. FOR BEARING DETAILS, SEE SHEETS 46 AND 47.
- 11. FOR PRECAST CHEEKWALL CONSTRUCTION TOLERANCES, AND GROUTED SPLICE COUPLER DETAIL, SEE SHEETS 68 THRU 69.
- 12. CHEEKWALL LIFTING LOCATIONS ARE TO BE DETERMINED BY CONTRACTOR. SUBMIT LIFTING STRESSES FOR REVIEW AND APPROVAL

Mark	Description	Ву	Chk' d.	Recm'd.	Date		
REVISIONS							

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

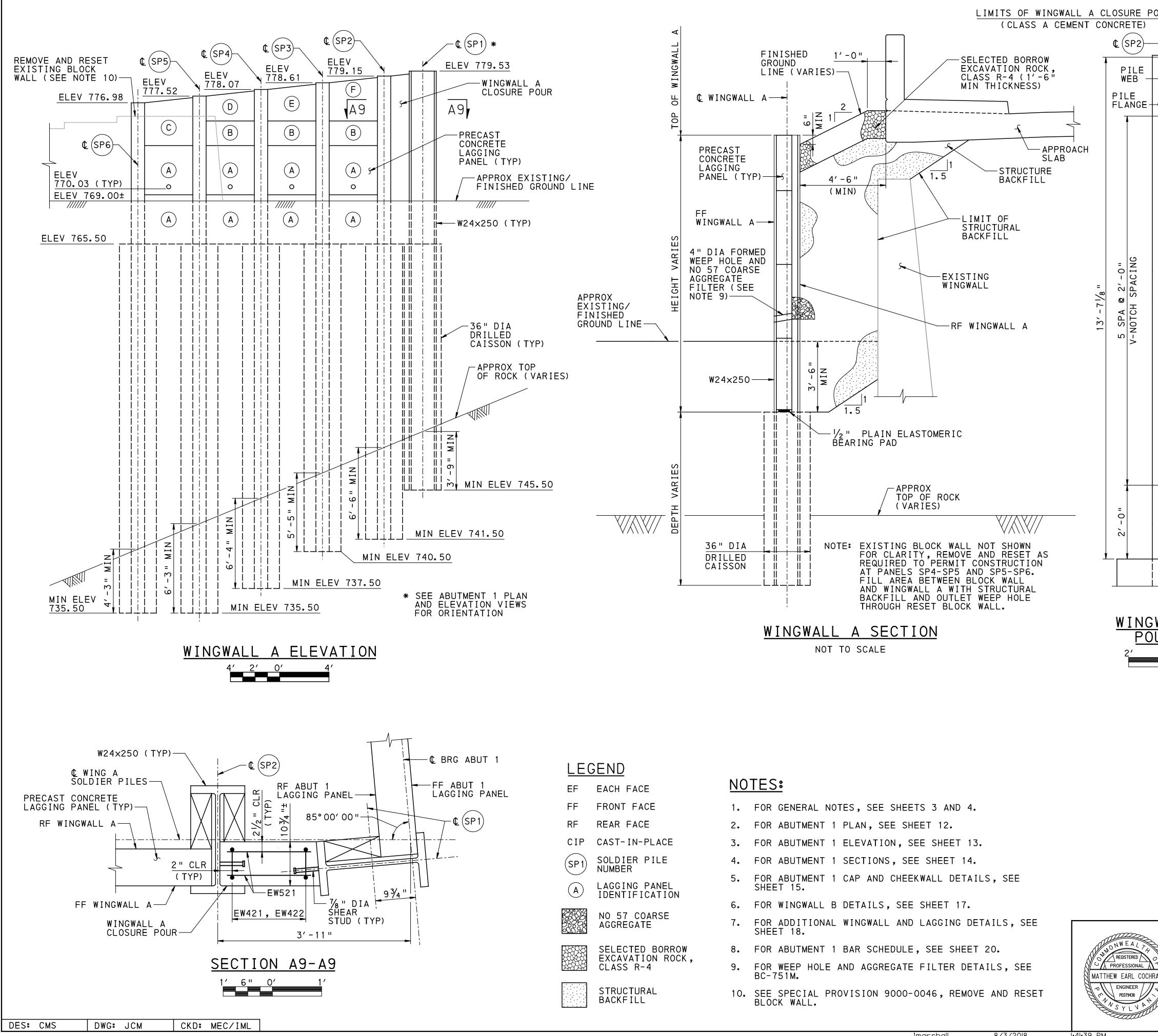
ALLEGHENY COUNTY SR 3110, SECTION A02 SEGMENT 0010 OFFSET 0001

SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63

2-SPAN (COMP	SIEEL	.	PLAIE	GIRDER	BRIDGE
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RECOMMENDED	08/03/2018	SHEET <u>15</u> OF <u>83</u>
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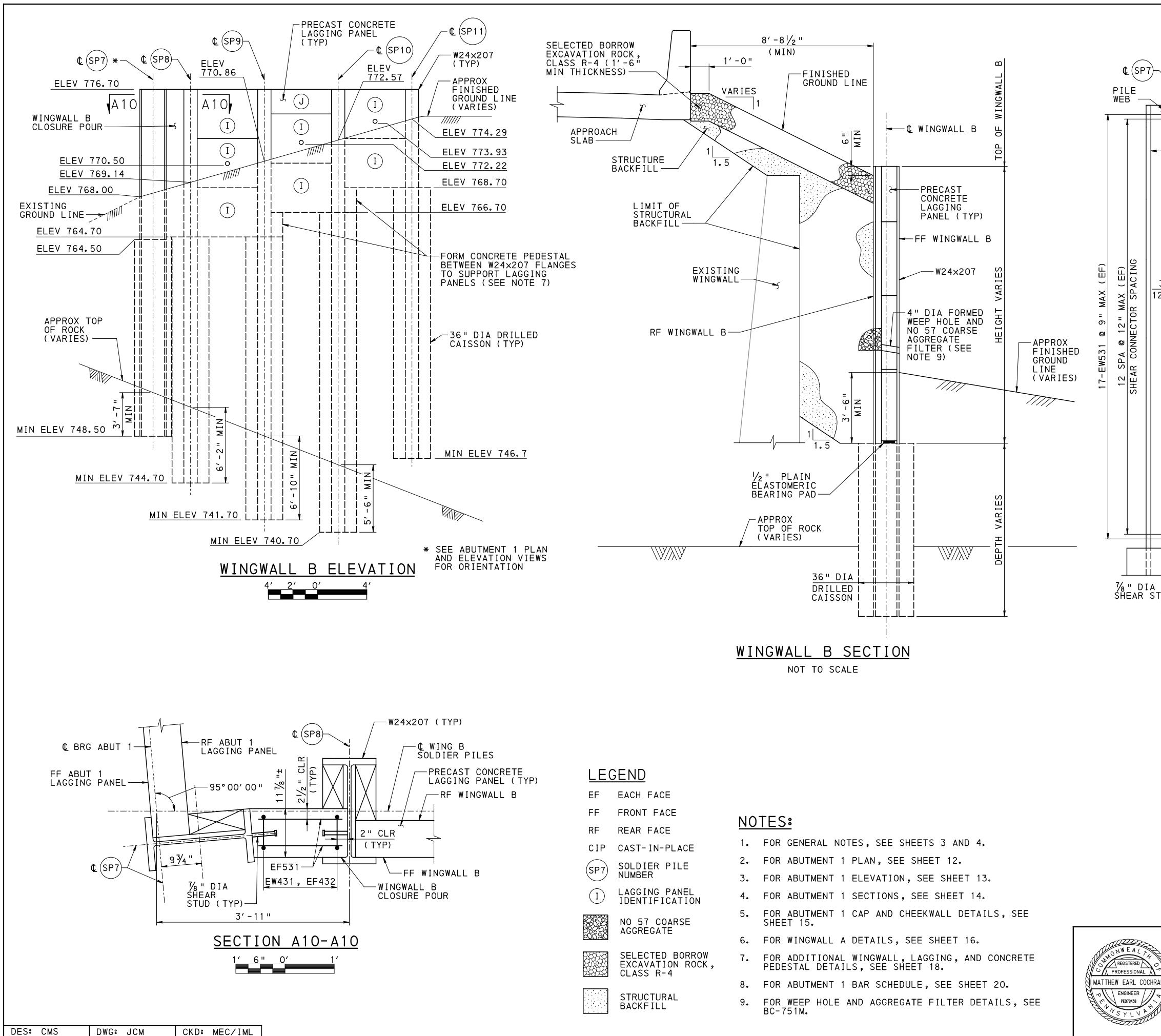
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EF	EACH FACE	<u>N0</u>	<u>TES:</u>	
FF	FRONT FACE	1.	FOR GENERAL NOTES, SEE SHEETS 3 AND 4.	
RF	REAR FACE	2.	FOR ABUTMENT 1 PLAN, SEE SHEET 12.	
CIP	CAST-IN-PLACE	3.	FOR ABUTMENT 1 ELEVATION, SEE SHEET 13.	
(SP1)	SOLDIER PILE NUMBER	4.	FOR ABUTMENT 1 SECTIONS, SEE SHEET 14.	
A	LAGGING PANEL IDENTIFICATION	5.	FOR ABUTMENT 1 CAP AND CHEEKWALL DETAILS, SEE SHEET 15.	
2000.001		6.	FOR WINGWALL B DETAILS, SEE SHEET 17.	
00000 00000 00000 00000	NO 57 COARSE AGGREGATE	7.	FOR ADDITIONAL WINGWALL AND LAGGING DETAILS, SEE SHEET 18.	
	SELECTED BORROW	8.	FOR ABUTMENT 1 BAR SCHEDULE, SEE SHEET 20.	NN WEAL 74
	EXCAVATION ROCK, CLASS R-4	9.	FOR WEEP HOLE AND AGGREGATE FILTER DETAILS, SEE BC-751M.	MATTHEW EARL COCHRAI
	STRUCTURAL BACKFILL	10.	SEE SPECIAL PROVISION 9000-0046, REMOVE AND RESET BLOCK WALL.	PEOT9438

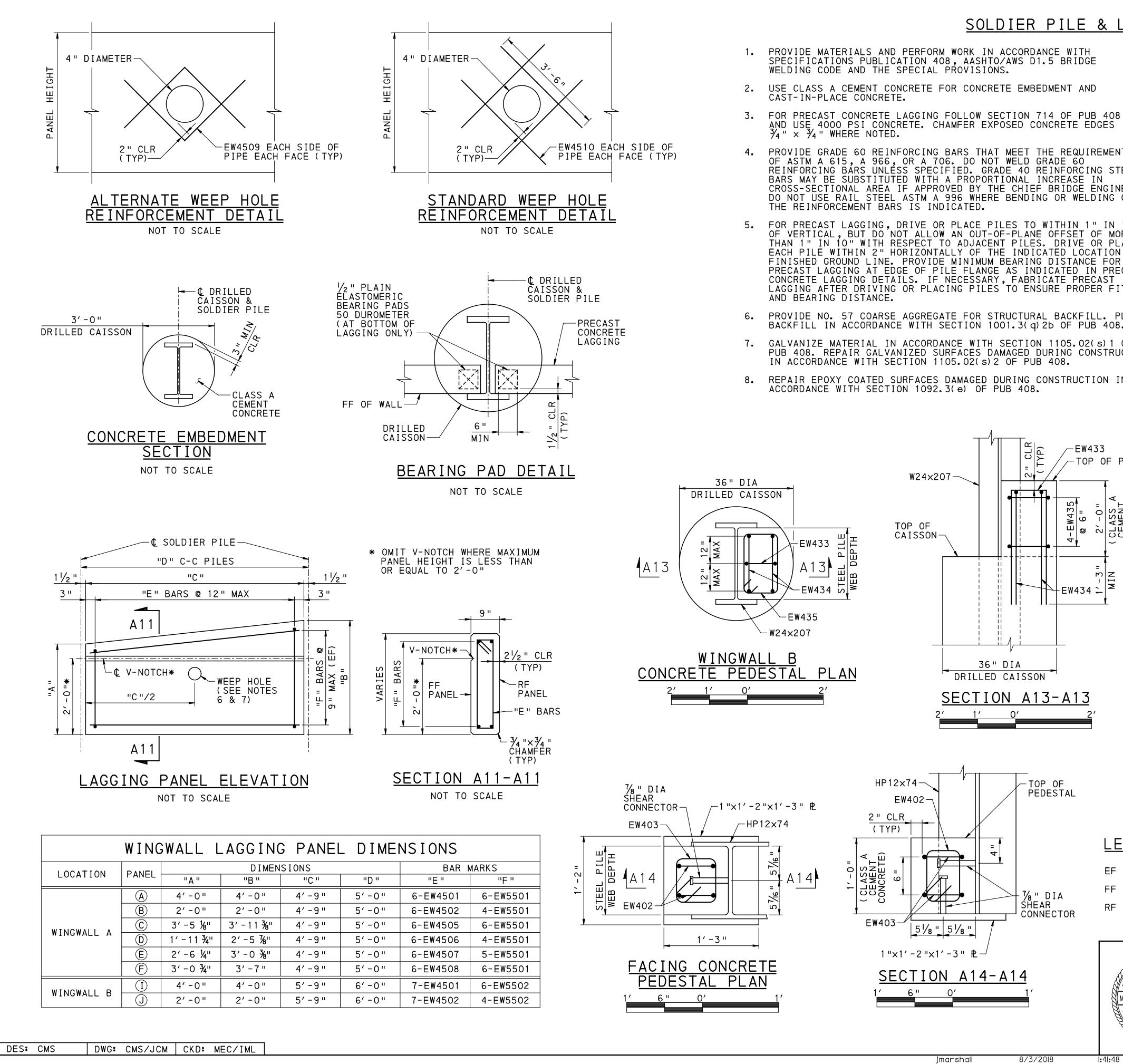
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<u>UR</u>	<u>ELEVAT</u>	<u>10N</u>					POUR SE	
	0′						2' 1' 0'	2′
	Mark	Dea	script	ion			By Chk'd. Re	ecm'd. Date
					REVIS	5101	NS	
	BM	S IS# 02 31					KNOWN AS LR 247 MS# 96562 BRK	EY: 54732
	2.							
							RANSPORTAT	
		/					COUNTY	
							CTION AO	2
					•		OFFSET 0001	۷
	SR 3						5.74 (SHALER	STREET)
	o						019-A63	
Â.	2-SP/	AN CO					ATE GIRDE	K RKIDGE
			V	V I	NG	WΑ	ALL A	
	RECOM	MENDED	08	/0	3/2	01	8 SHE	ET <u>16</u> OF <u>83</u>
							S	- 37605
				so\S-	tructu	re\F	inal Design\SR 3110\R19_1	6 ABTI WWA.dan



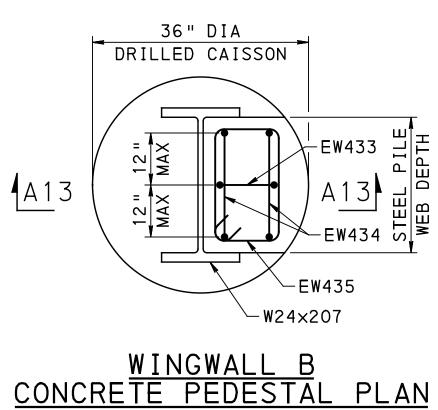
	GEND			
EF	EACH FACE			
FF	FRONT FACE			
RF	REAR FACE	INC	DTES:	
CIP	CAST-IN-PLACE	1.	FOR GENERAL NOTES, SEE SHEETS 3 AND 4.	
	SOLDIER PILE	2.	FOR ABUTMENT 1 PLAN, SEE SHEET 12.	
(SP7	NUMBER	3.	FOR ABUTMENT 1 ELEVATION, SEE SHEET 13.	
I	LAGGING PANEL IDENTIFICATION	4.	FOR ABUTMENT 1 SECTIONS, SEE SHEET 14.	
	NO 57 COARSE AGGREGATE	5.	FOR ABUTMENT 1 CAP AND CHEEKWALL DETAILS, SEE SHEET 15.	
003	AGGREGATE	6.	FOR WINGWALL A DETAILS, SEE SHEET 16.	
	SELECTED BORROW EXCAVATION ROCK, CLASS R-4	7.	FOR ADDITIONAL WINGWALL, LAGGING, AND CONCRETE PEDESTAL DETAILS, SEE SHEET 18.	NN WEAL 74
	- ק	8.	FOR ABUTMENT 1 BAR SCHEDULE, SEE SHEET 20.	MATTHEW EARL COCHRAN
	STRUCTURAL BACKFILL	9.	FOR WEEP HOLE AND AGGREGATE FILTER DETAILS, SEE BC-751M.	PENGINEER PEO79438 NSYLVA

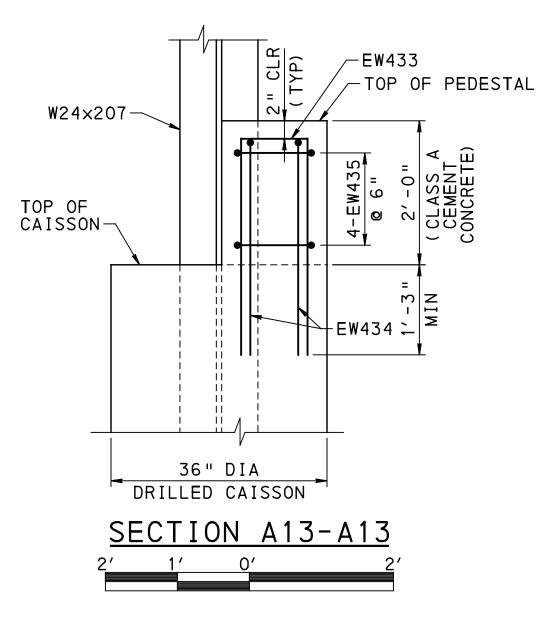
			-	ASS A	<u>GWALL B (</u> CEMENT C			ł	
<u>\$</u>		© 12 " MAX 6 " (TYP)		ILE					F
— PIL FLA	E ANGE		S - PIL FLA	E NGE		EW431	=		
	432 @ X (EF)		4 SPA @	V-NUICH SPACING 12'-0"	(TY	отсн		EW531 12′-0"	
rud (WIN F	TYP) JGWAL POUR	$\frac{1}{2} = \frac{1}{2}$	<u>SURE</u>		3/2 CF (1 ILLED ISSON YP) <u>WIN(</u> F	EW431 AMFER TYP)		B CLOS	L GWALL
2′	1'	0'	2'		2′	1'	0'		2′
	Mark	Des	scriptio		Ву	Chk' d	d. Recm	′d.Do	ite
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		COMM	ONWEA	LTH (DF PEN	INSY	LVAN]	[Α	
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	SR	SR	311C EGMENT 2 STA.), S 0010 11+9	ECTI offse	ON t oc (sha	A02	STREE	T)
	2-5	SPAN CON	AP STE	EEL f		GIF	RDER	BRIC	DGE
	REC	OMMENDED		03/20			SHEET	<u>17</u> C)F <u>83</u>
				<u>.</u>			S -	376	05

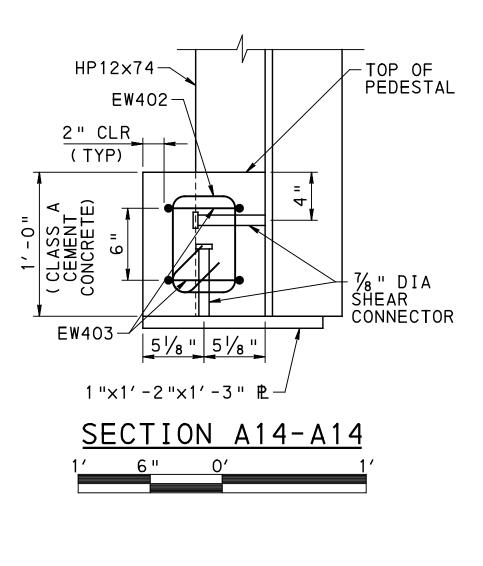


SOLDIER PILE & LAGGING WALL NOTES:

- - PROVIDE GRADE 60 REINFORCING BARS THAT MEET THE REQUIREMENTS OF ASTM A 615, A 966, OR A 706. DO NOT WELD GRADE 60 REINFORCING BÁRS UNLÉSS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL ASTM A 996 WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.
 - FOR PRECAST LAGGING, DRIVE OR PLACE PILES TO WITHIN 1" IN 10' OF VERTICAL, BUT DO NOT ALLOW AN OUT-OF-PLANE OFFSET OF MORE THAN 1" IN 10" WITH RESPECT TO ADJACENT PILES. DRIVE OR PLACE EACH PILE WITHIN 2" HORIZONTALLY OF THE INDICATED LOCATION AT FINISHED GROUND LINE. PROVIDE MINIMUM BEARING DISTANCE FOR PRECAST LAGGING AT EDGE OF PILE FLANGE AS INDICATED IN PRECAST CONCRETE LAGGING DETAILS. IF NECESSARY, FABRICATE PRECAST LAGGING AFTER DRIVING OR PLACING PILES TO ENSURE PROPER FIT AND BEARING DISTANCE.
 - PROVIDE NO. 57 COARSE AGGREGATE FOR STRUCTURAL BACKFILL. PLACE BACKFILL IN ACCORDANCE WITH SECTION 1001.3(q) 25 OF PUB 408.
 - 7. GALVANIZE MATERIAL IN ACCORDANCE WITH SECTION 1105.02(s) 1 OF PUB 408. REPAIR GALVANIZED SURFACES DAMAGED DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 1105.02(s) 2 OF PUB 408.
 - REPAIR EPOXY COATED SURFACES DAMAGED DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 1092.3(e) OF PUB 408.







LEGEND

EF EACH FACE FF FRONT FACE RF REAR FACE



8/3/2018

9.

WELDING SPECIFICATIONS: ANSI/AASHTO/AWS/D1.5 BRIDGE WELDING CODE AND IN ACCORDANCE WITH SECTION 1105.03(m) OF PUB 408 AND THE SPECIAL PROVISIONS. USE QUALIFIED WELDERS IN ACCORDANCE WITH AWS D1.5 SECTION 5 PART B. FOLLOW D1.1 FOR TUBULAR (API OR ASTM A53) MATERIAL.

10. FIELD WELDING OF STEEL: USE THE SHIELDED METAL ARC PROCESS AND LOW HYDROGEN ELECTRODES WHICH ARE COMPATIBLE WITH THE BASE METAL AS SPECIFIED, AND IN ACCORDANCE WITH AN APPROVED WELD PROCEDURE SPECIFICATION.

11. DO NOT WELD WHEN SURFACES TO BE WLEDED ARE MOIST OR EXPOSED TO RAIN, SNOW OR WIND, OR WHEN WELDERS ARE EXPOSED TO INCLEMENT CONDITIONS THAT WILL ADVERSELY AFFECT THE QUALITY OF THE WORK. 12. REMOVE ANY MOISTURE PRESENT AT POINT OF WELD BY APPLICATION OF HEAT. PROVIDE WINDBREAKS FOR PROTECTION FROM DIRECT WIND.

13. DO NOT WELD OR BURN WHEN THE TEMPERATURE IS BELOW O-DEGREES F. PREHEAT AND MAINTAIN THE TEMPERATURE OF THE METAL TO AT LEAST 70-DEGREES F WHEN THE TEMPERATURE OF THE METAL IS BETWEEN O-DEGREES AND 30-DEGREES F DURING WELDING OR BURNING. EXTEND THE AREA TO BE HEATED 3 INCHES BEYOND THE WELD IN ALL DIRECTIONS.

14. THOROUGHLY CLEAN ALL PORTIONS OF NEW SURFACES TO RECEIVE WELDS OF ALL FOREIGN MATTER, INCLUDING PAINT FILM, FOR A DISTANCE OF 2" FROM EACH SIDE OF THE OUTSIDE LINES OF WELD PRIOR TO PLACING THE WELD.

15. TEST INDICATED WELDS USING NON-DESTRUCTIVE METHODS IN ACCORDANCE WITH AASHTO AWS D1.5 2002 BRIDGE WELDING CODE. SECTION 6.7. 16. LAGGING MAY BE PLACED INSIDE THE REAR FLANGE. IF BLOCKED. OR INSIDE THE FRONT FLANGE.

17. CHAMFER EXPOSED CONCRETE EDGES $1" \times 1"$ EXCEPT AS NOTED. 18. QUANTITY CALCULATIONS ARE BASED ON BOTTOM UP CONSTRUCTION

NOTES:

- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR ABUTMENT 1 PLAN, SEE SHEET 12.
- 3. FOR ABUTMENT 1 ELEVATION, SEE SHEET 13.
- FOR ABUTMENT 1 SECTIONS. SEE SHEET 14.
- FOR ABUTMENT 1 CAP DETAILS, SEE SHEET 15.
- 6. FOR WINGWALL A DETAILS AND WEEPHOLE LOCATIONS, SEE SHEET 16.
- 7. FOR WINGWALL B DETAILS AND WEEPHOLE LOCATIONS,
- SEE SHEET 17.
- 8. FOR ABUTMENT 1 BAR SCHEDULE, SEE SHEET 20.
- 9. FOR WEEP HOLE AND AGGREGATE FILTER DETAILS, SEE BC-751M.
- 10. USE ALTERNATE WEEP HOLE REINFORCEMENT DETAIL WHERE SPACING CONSTRAINTS DO NOT PERMIT THE STANDARD WEEP HOLE REINFORCEMENT DETAIL.

Mark	Description	Ву	Chk' d.	Recm'd.	Date				
	REVISIONS								

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

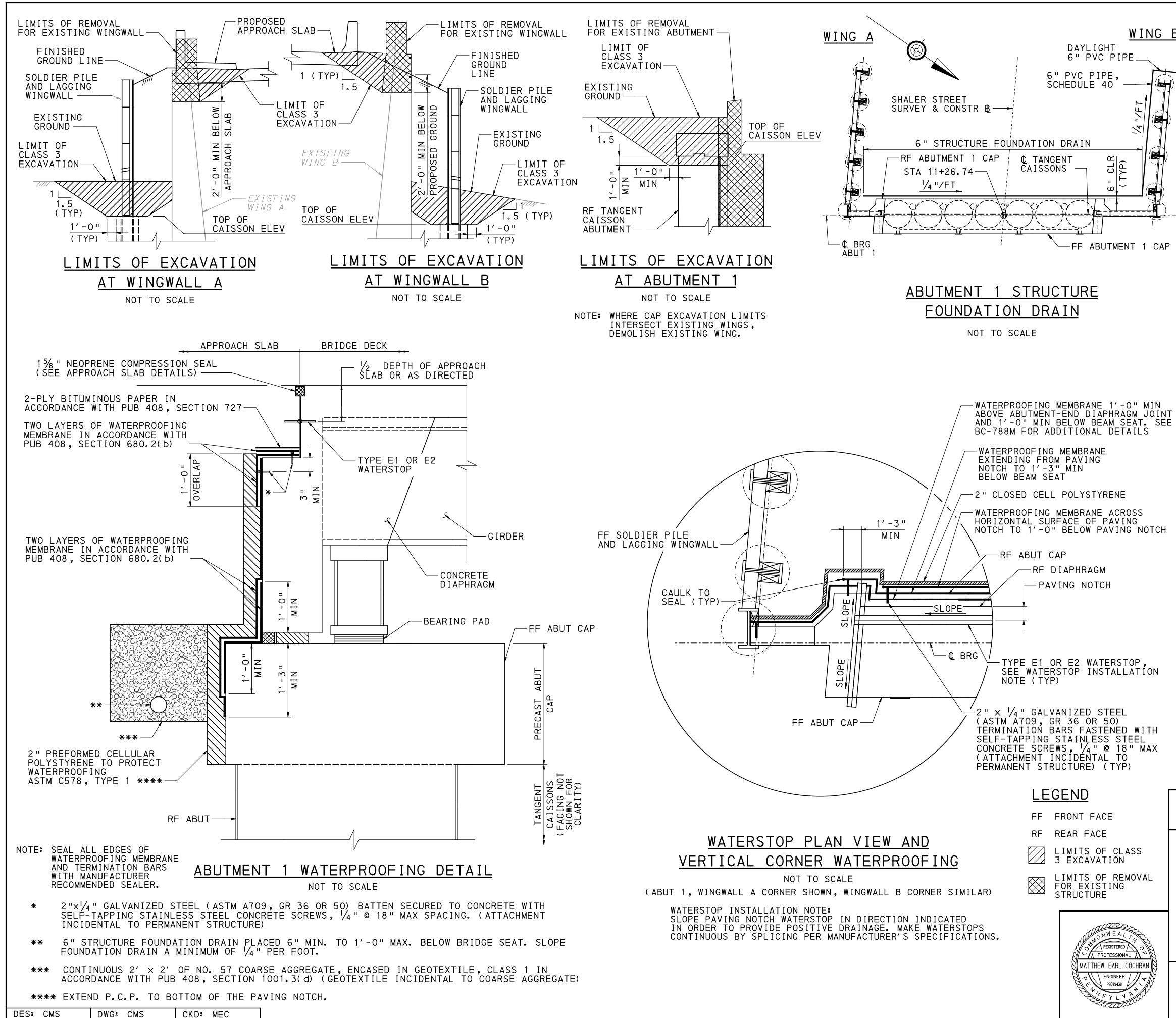
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY SR 3110, SECTION A02 SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET)

		OVER	SR	0019-A	63		
2-SPAN	COMF	° STEE	EL	PLATE	GIRE	DER	BRIDGE
SOLDI	ER f	PILE	&	LAGG	ING	DE	TAILS

RECOMMENDED	08/03/2018	_ SHEET <u>18</u> OF <u>83</u>
		S - 37605

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WATERPROOFING INSTALLATION SEQUENCE

- 1. INSTALL WATERPROOFING MEMBRANE OVER THE JOINT BETWEEN THE DIAPHRAGM AND REAR FACE OF ABUTMENT CAP. SEAL ALL EDGES OF MEMBRANE WITH MANUFACTURER'S RECOMMENDED SEALER PRIOR TO INSTALLATION OF OVERLAPPING MEMBRANE.
- 2. INSTALL WATERPROOFING MEMBRANE ON THE VERTICAL SURFACE OF THE DIAPHRAGM AND REAR FACE OF ABUTMENT STARTING DIRECTLY BELOW THE PAVING NOTCH TO 1'-3" BELOW THE BEAM SEAT. INSTALL 2" × 1/4" GALVANIZED STEEL (ASTM A709, GR 36 OR 50) TERMINATION BARS FASTENED WITH SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS (1/4" AT 1'-6" MAX SPACING TYP.) NEAR THE TOP OF THE FULL DEPTH DIAPHRAGM AS INDICATED. SEAL ALL EDGES OF MEMBRANE WITH MANUFACTURER'S RECOMMENDED SEALER PRIOR TO INSTALLATION OF OVERLAPPING MEMBRANE.
- INSTALL WATERPROOFING MEMBRANE OVER THE HORIZONTAL SURFACE OF THE PAVING NOTCH AND EXTENDING 1'-O" DOWN THE REAR FACE OF THE DIAPHRAGM OVERLAPPING THE PREVIOUSLY INSTALLED MEMBRANE AND TERMINATION BARS. INSTALL 2" \times $\frac{1}{4}$ " GALVANIZED STEEL (ASTM A709, GR 36 OR 50) TERMINATION BARS FASTENED WITH SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS (1/4 " AT 1'-6" MAX SPACING TYP.) AT THE PAVEMENT NOTCH AS INDICATED. SEAL ALL EDGES OF MEMBRANE WITH MANUFACTURER'S RECOMMENDED SEALER.
- 4. INSTALL WATERPROOFING MEMBRANE OVER THE HORIZONTAL SURFACE OF THE PAVING NOTCH OVERLAPPING THE PREVIOUSLY INSTALLED MEMBRANE AND TERMINATION BARS. SEAL ALL EDGES OF MEMBRANE WITH MANUFACTURER'S RECOMMENDED SEALER.
- 5. INSTALL TWO-PLY BITUMINOUS PAPER ON THE HORIZONTAL SURFACE OF THE PAVING NOTCH OVERLAPPING THE PREVIOUSLY INSTALLED WATERPROOFING MEMBRANE.
- 6. INSTALL 2" CLOSED CELL POLYSTYRENE (ASTM C578, TYPE 1) ADJACENT TO THE VERTICAL PORTION OF THE PREVIOUSLY INSTALLED WATERPROOFING MEMBRANE ON THE REAR FACE OF THE DIAPHRAGM AND ABUTMENT AS INDICATED.

NOTES:

1.	FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
2.	FOR ABUTMENT 1 PLAN, SEE SHEET 12.
3.	FOR ABUTMENT 1 ELEVATION, SEE SHEET 13.
4.	FOR ABUTMENT 1 SECTIONS, SEE SHEET 14.
5.	FOR ABUTMENT 1 CAP AND CHEEKWALL DETAILS, SEE SHEET 15.
6.	FOR WINGWALL DETAILS, SEE SHEETS 16 THRU 18.
7.	FOR ABUTMENT 1 END DIAPHRAGM DETAILS, SEE SHEET 51.
8.	FOR APPROACH SLAB DETAILS, SEE SHEETS 55 THRU 61.
9.	FOR ADDITIONAL DRAINAGE DETAILS, SEE BC-751M.
10.	FOR ADDITIONAL WATERPROOFING DETAILS, SEE BC-788M.

Mark

REVISIONS

Description

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

By

Chk'd. Recm'd. Date

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION ALLEGHENY COUNTY

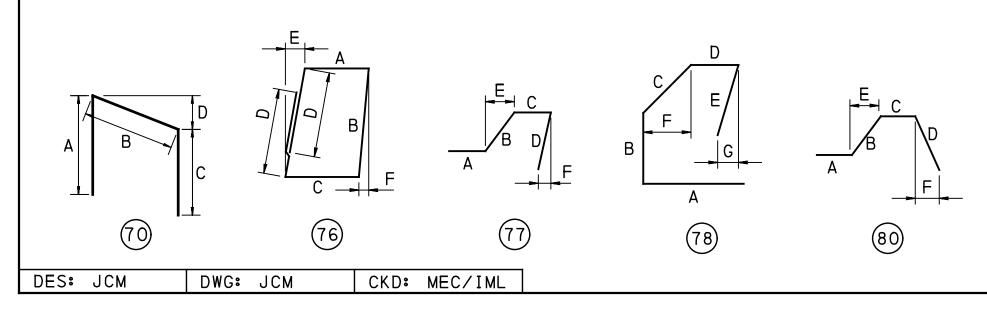
SR 3110, SECTION A02 SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63

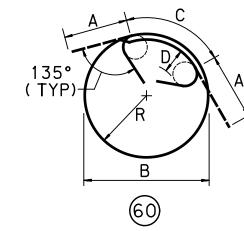
2-SPAN	COMP	STEEL	PLAT	E GIRD	ER BRI	DGE
ABUT	1 DRA	AINAGE	&	WATER	PROOF	ING

RECOMMENDED	08/03/2018	 SHEET <u>19</u> OF <u>83</u>
		S - 37605

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A	ABUTM	ENT	1 PRECAST RE	EINF	ORCEMENT	BAR SC	HEDULE	(FOR IN	NFORMAT	ION ONLY)
	QUANTITY ST WING		LENGTH KWALL	TYPE	A	В	С	D	E	REMARKS
EW5101	8	5	6'-0"	STR						
EW5102	8	5	5′-7"	STR						**
EW5103	4	5	VARIES 3'-6" TO 5'-0"	STR						2 SETS OF 2, ΔL = 1'-6"
EW5104	4	5	VARIES 3'-9" TO 5'-5"	STR						2 SETS OF 2 ** ΔL = 1'-8"
W5105	2	5	16′-9″	76	1′-2″	5′-4″	1′ -2 "	4'-6 ½"	5 5%"	F = 5 %
EW5106	5	5	15′-9"	76	11 ¼"	5′ - 1 ½″	11 ¼"	4' - 4 ½"	5 % "	F = 5 ⅔"
EW5107	4	5	5'-10"	14	7 "	5'-3"		5 "		
EW5108	3	5	VARIES 2'-9" TO 5'-3"	14	7 "	VARIES 2'-2" TO 4'-8"		5 "		1 SETS OF 3, ΔB = 1'-3" ΔL = 1'-3"
EW5109	2	5	6′ - 4 "	11	2'-3"	4' - 1 "	2'-4 %"			
EW8101	5	8	6' - 4 "	14	11"	<u> </u>	2 - 4 /8	8 "		
EW8102	4	8	VARIES 3'-3" TO 6'-0"	14	11 "	VARIES 2'-4" TO 5'-1"		8 "		1 SETS OF 4, ΔB = 11" ΔL = 11"
	7	9	7′ -2 "	77			1′-2 ½″	1'-8 34"	2'-0 ½"	$F = 1\frac{3}{4}$
EW8103 EW8104	2	8	6' - 10 "	78	1′ - 4 ¼″ 1′ - 4 ¼″	<u>2'-10 ¾"</u> 11 ¼"	1' - 2 ½" 1' - 8 "	1'-8 %	<u>2' - 0 ½''</u> 1' - 8 "	F = 1.4 F = 1.4 G = 1
	ST WING				· · /4	1 1 /4				· · 2 /8 9 0 - 1
EW5301	8	5	5' - 8 "	STR						
W5302	8	5	5′-3 "	STR						**
EW5303	8	5	VARIES 9" TO 4'-9"	STR						2 SETS OF 4, ΔL = 1'-4"
EW5304	8	5	VARIES 10" TO 5'-0"	STR						2 SETS OF 4, ΔL = 1'-4 %"(+)
W5305	2	5	16′ -9 "	76	1′-2 "	5′ – 4 "	1′ -2 "	4'-6 ½"	5 %"	F = 5 %"
W5306	5	5	15′-9"	76	11 ¼"	5′ - 1 ½″	11¼"	4' - 4 ½"	5 % "	F = 5 ⅔"
EW5307	1	5	10' -3 "	14	7 "	9′ - 8 "		5 "		
W5308	5	5	VARIES 4'-1" TO 9'-9"	14	7 "	VARIES 3'-6" TO 9'-2"		5 "		1 SETS OF 5, ΔB = 1'-5" ΔL = 1'-5"
W5309	2	5	11′-6 "	11	2′ -9 "	8′ - 9 "	4′-9 ½″			
EW8301	1	8	10′ -6 "	14	11"	9′-7 "		8 "		
EW8302	7	8	VARIES 4'-0" TO 10'-5"	14	11 "	VARIES 3'-1" TO 9'-6"		8 "		1 SETS OF 7, ΔB = 1'-0 %"(- ΔL = 1'-0 %"(-
W8303	6	8	7′ -2 "	80	1'-4 ¼"	2'-10 ¾"	1′ – 3 "	1′ – 8 "	2'-0 1/2"	F = 1 ¾"
EW8304	2	8	6′ - 1 1 "	81	1'-4 ¼"	11 ¼"	1′ – 8 ''	1′-3 "	1'-8 ½"	F = 1'-2 1/8", G = 1
PRECA	ST LAGGI	ING PAN	ELS	1			-	-		
EW4501	144	4	8′ -7 "	25	3′ -7 "	4 "	3 "	2 "		
W4502	66	4	4' -7 "	25	1'-7"	4 "	3 "	2 "		
EW4503 EW4504	<u>41</u> 6	4	<u> </u>	25 25	2'-2 ½" 3'-2 ½"	<u>4 "</u> 4 "	3 " 3 "	2 "		
EW4505	6	4	VARIES 7'-5" TO 8'-5"		VARIES 3'-0" TO 3'-6"	4 "	3 "	2 "		$\Delta A = 1 \frac{1}{4} (-)$ $\Delta L = 2 \frac{3}{8} (+)$
W4506	6	4	VARIES 4'-5" TO 5'-5"	25	VARIES 1'-6" TO 2'-0"	4 "	3 "	2 "		$\Delta A = 1 \frac{1}{4} (-)$ $\Delta L = 2 \frac{3}{8} (+)$
EW4507	6	4	VARIES 5'-7" TO 6'-7"	25	VARIES 2'-1" TO 2'-7"	4 "	3 "	2 "		$\Delta A = 1 \frac{1}{4} (-)$ $\Delta L = 2 \frac{3}{8} (+)$
EW4508	6	4	VARIES 6'-7" TO 7'-7"	25	VARIES 2'-7" TO 3'-1"	4 "	3 "	2 "		$\Delta A = 1 \frac{1}{4} (-)$ $\Delta L = 2 \frac{3}{8} (+)$
EW4509	44	4	4'-4"	11	2'-2"	2'-2"	1'-5 %			
EW4510	8	4	3'-6"	STR		<u> </u>				
EW5501	162	5	4′ - 4 "	STR						
W5502	92	5	5′ - 4 "	STR						
EW6501	108	6	8′ - 11 "	STR						
W6502	32	6	4′ - 1 1 "	STR						
W6503	<u> </u>	6 B	9′ – 4 "	STR	ו ח			B	<u>مل</u> ر ۵	C
С	А			A	B E	A B	<u>к</u> А		135° (TYP)	
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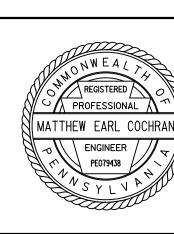
			ABUTME	NT 1	REINFO	RCEMENT	BAR SC	HEDULE		
MARK	QUANTITY	SIZE	LENGTH	TYPE	Α	В	C	D	E	REMARKS
ABU1	LMENT 1									-
EW401	21	4	15′ -2 "	60	4 1⁄2"	3′ - 10 "	2′ - 4 "	2 "		R = 1′-10 ½"
EW402	2	4	2′ - 11 "	25	8 "	5 "	3 "	2 "		
EW403	2	4	2' - 10 "	25	6 ½"	6 "	3" 2"			
EW501	14	5	8′ – 4 "	STR						
EW502	18	5	4′ – 1 1 "	10	2′ -5 "	2′ -6 "				
EW503	6	5	6′ -5 "	4	2′-10"	9 "	2' - 10 "			**
EW504	6	5	4′ – 1 1 "	4	2′ - 1 "	9 "	2′ - 1 "			
EW505	2	5	5′-7 "	4	2′ - 1 "	1′ -5 "	2′ – 1 "			
EW506	3	5	6′ -5 "	STR						
EW507	3	5	10′ -9 "	STR						
EW508	8	5	6′ - 6 "	4	2′-10″	10"	2' - 10 "			**
EW509	6	5	5′-0"	4	2′ - 1 "	10"	2′ - 1 "			
EW510	6	5	15′-9"	76	11¼"	5′ - 1 ½"	11¼"	4' - 4 ½"	5 ¾"	F = 5 ⅔"
EW511	35	5	7′-4″	70	2′ - 1 "	3′ -5 "	1′ – 10 "	3 "		
EW512	35	5	7′-4″	4	2′ - 1 "	3′ -5 "	1′ – 10 "			
EW513	35	5	7′ – 1 "	70	1′ – 1 1 "	3′ -5 "	1′-9″	2 "		
EW514	35	5	7′ – 1 "	4	1′ – 1 1 "	3′ -5 "	1′-9 "			
EW601	18	6	37′ - 4 "	STR						
EW801	4	8	9′ - 2 "	STR						
EW802	4	8	13′ -5 "	STR						
EW803	8	8	5′ - 11 "	12	1′ – 4 "	2′-10 ¾″	1′-8 ¼″	2'-0 1/2"	2'-0 1/2"	
WINC	GWALL A									
EW421	6	4	5′-1 "	4	2′ - 4 "	5 "	2′ - 4 "			
EW422	6	4	13′ -2 "	STR						
EW521	38	5	1′ -6 "	STR						
WINC	GWALL B									
EW431	6	4	4′ - 10 "	4	2′ -2 "	6 "	2' -2 "			
EW432	6	4	11′ -7 "	STR						
EW433	2	4	6′ - 11 "	4	3′ - 1 "	9 "	3′ – 1 "			
EW434	4	4	7′-7″	4	3′ - 1 "	1′-5 "	3′ – 1 "			
EW435	8	4	5′ -5 "	25	1′ -6 "	10"	3 "	2 "		
EW531	34	5	1′ -6 "	STR						

<u>LEGEND</u>

** REBAR LENGTHS AND PROJECTIONS AT GROUTED SPLICE COUPLERS ARE BASED ON AN ASSUMED COUPLER SYSTEM. CONTRACTOR TO VERIFY REBAR LENGTHS AND PROJECTIONS WITH ACTUAL GROUTED SPLICE COUPLER USED.

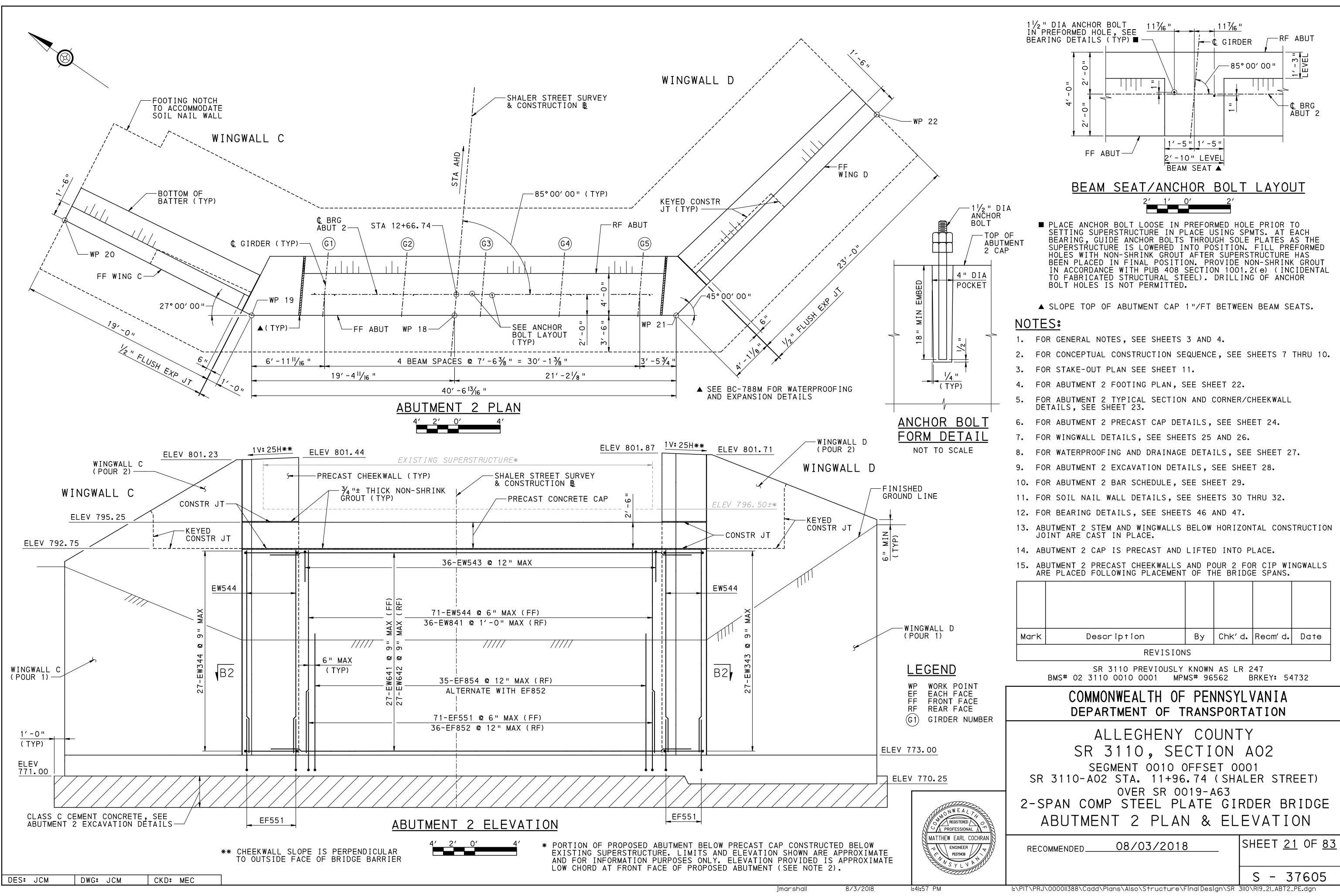
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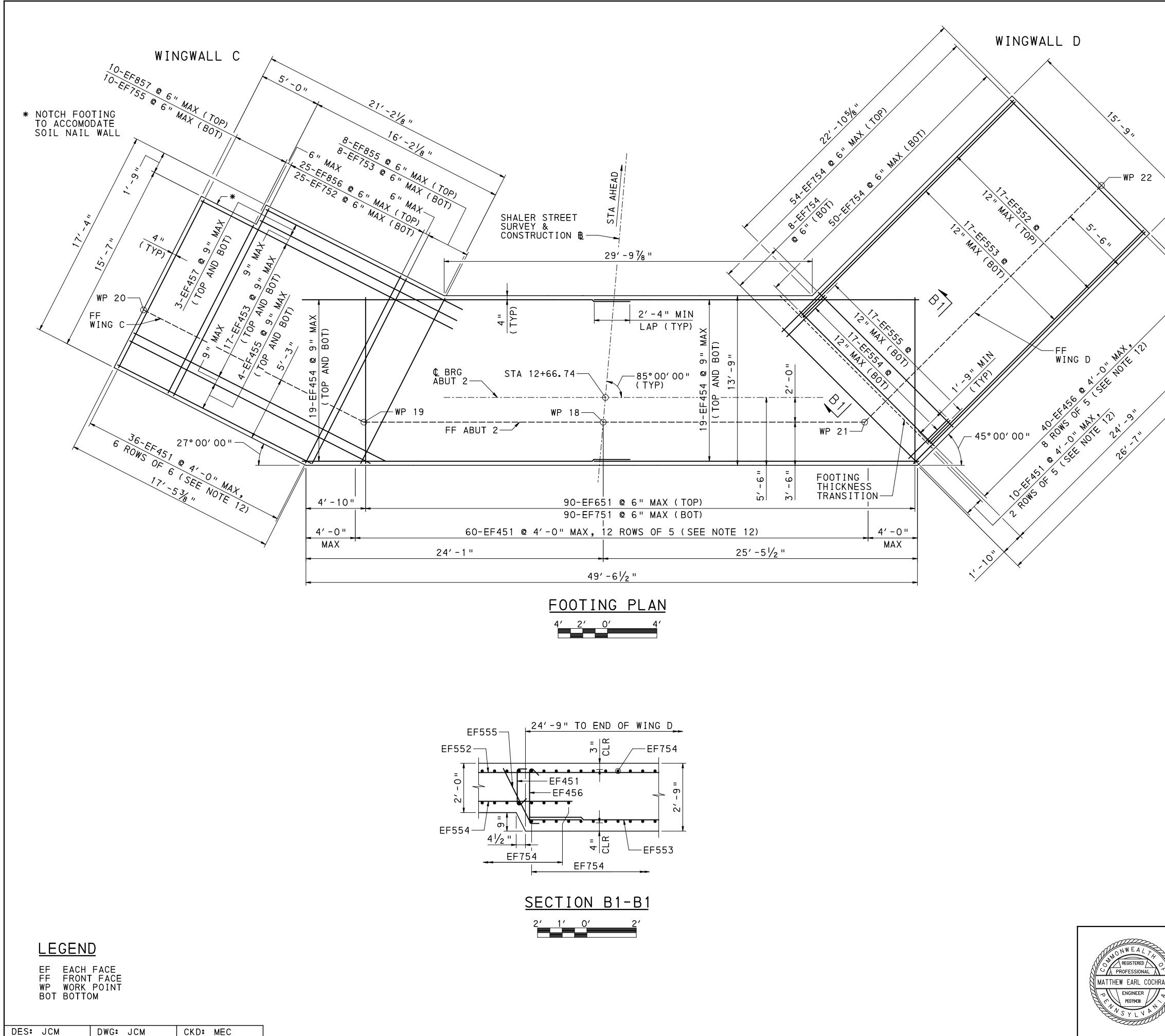
- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR ABUTMENT 1 PLAN, SEE SHEET 12.
- 3. FOR ABUTMENT 1 ELEVATION, SEE SHEET 13.
- 4. FOR ABUTMENT 1 SECTIONS, SEE SHEET 14.
- 5. FOR ABUTMENT 1 CAP AND CHEEKWALL DETAILS, SEE SHEET 15.
- 6. FOR WINGWALL DETAILS, SEE SHEETS 16 THROUGH 18.
- 7. FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE STANDARD DRAWING BC-736M.
- 8. PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT BARS.
- 9. ALL DIMENSIONS ARE OUT-TO-OUT OF BARS EXCEPT "A" ON STANDARD 180°HOOKS AND "R" WHICH IS SHOWN AT THE INSIDE OF THE BAR.
- 10. FIGURES IN CIRCLES SHOW BAR TYPE.
- 11. STR DENOTES STRAIGHT BAR.



8/3/2018

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Mark	Desc	pription		Ву	Chk' d.	Recm' d.	Date	1					
REVISIONS													
SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732													
COMMONWEALTH OF PENNSYLVANIA													
DEPARTMENT OF TRANSPORTATION													
ALLEGHENY COUNTY													
	SR 、	3110,	SE	СТІ	ON A	02							
	SEC	GMENT 00	10 (DFFSE	ET 000	1							
SR	3110-A02					ER STR	EET)						
2-S	PAN COM	OVER SI STEEL				ER BF	RIDGE						
	2-SPAN COMP STEEL PLATE GIRDER BRIDGE ABUTMENT 1 BAR SCHEDULE												
RECO	MMENDED	08/03/2	2018	3	_ Sł	HEET <u>20</u>	<u>)</u> OF <u>8</u>	<u> </u>					
							7605						
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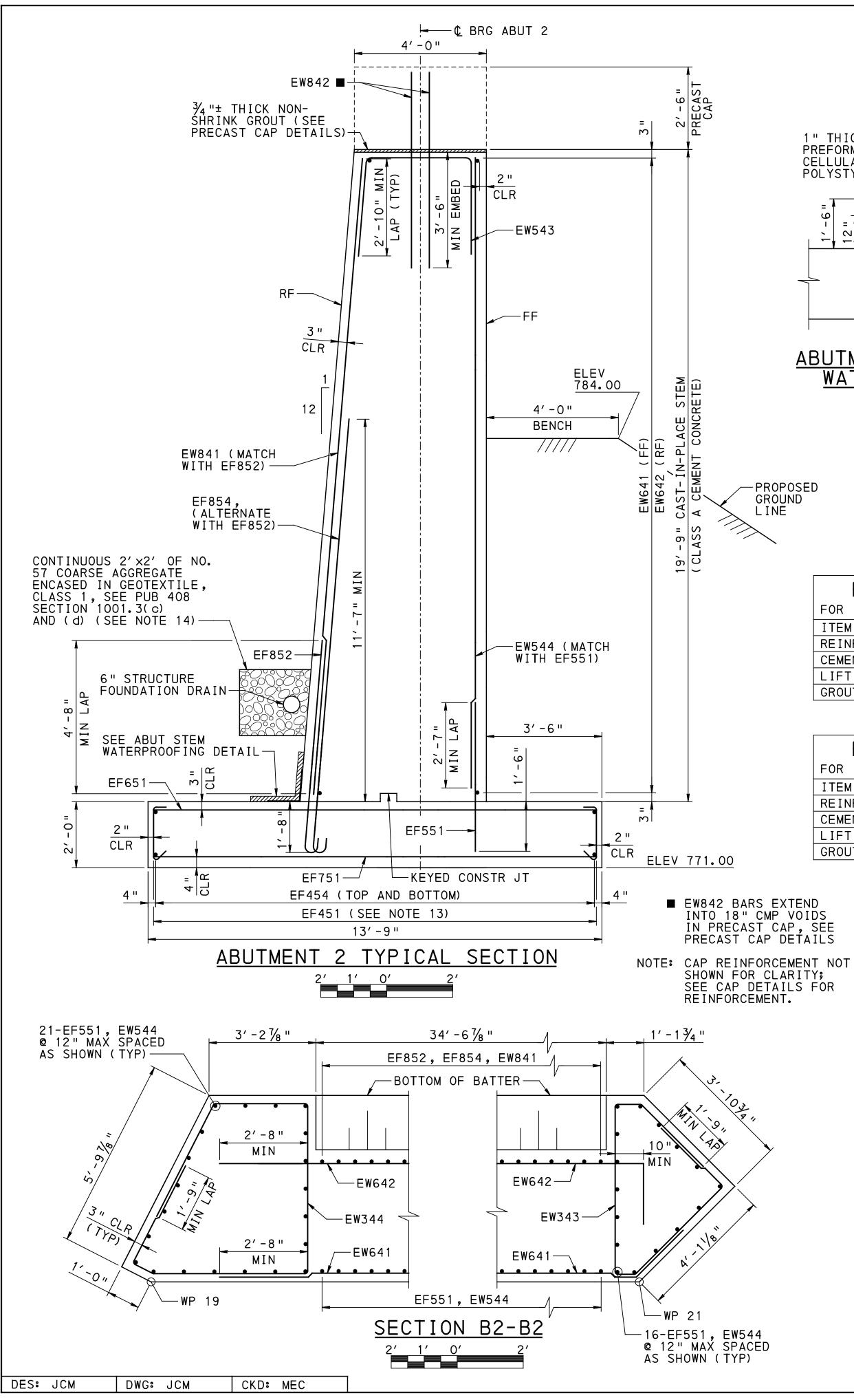
FOUNDATION BEARING PRESSURE

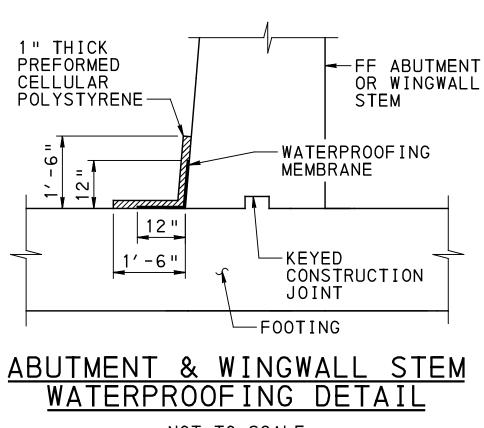
BEARING RESISTANCE	13.00 KSF
MAXIMUM FACTORED BEARING PRESSURE	12.55 KSF (STR-I)

NOTES: 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4. 2. FOR CONCEPTUAL CONSTRUCTION SEQUENCE, SEE SHEETS 7 THROUGH 10. 3. FOR STAKE-OUT PLAN SEE SHEET 11. 4. FOR ABUTMENT 2 PLAN AND ELEVATION, SEE SHEET 21. FOR ABUTMENT 2 TYPICAL SECTION, CORNER AND CHEEKWALL DETAILS, AND STEM WATERPROOFING DETAIL, SEE SHEET 23. 5. 6. FOR ABUTMENT 2 PRECAST CAP DETAILS, SEE SHEET 24. 7. FOR WINGWALL DETAILS, SEE SHEETS 25 AND 26. 8. FOR WATERPROOFING AND DRAINAGE DETAILS, SEE SHEET 27. 9. FOR ABUTMENT 2 EXCAVATION DETAILS, SEE SHEET 28. 10. FOR ABUTMENT 2 BAR SCHEDULE, SEE SHEET 29. 11. FOR SOIL NAIL WALL DETAILS, SEE SHEETS 30 THRU 32 12. TIE TOP AND BOTTOM MATS OF REINFORCEMENT WITH EF451 AND EF456 BARS. ALTERNATE 90°AND 135° HOOKS AT TOP MAT IN ALTERNATE TIES IN BOTH LENGTH AND WIDTH OF FOOTING. By Chk'd. Recm'd. Date Description Mark REVISIONS SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732 COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
SR 3110, SECTION AO2
SEGMENT 0010 OFFSET 0001
SR 3110-A02 STA. 11+96.74 (SHALER STREET)
OVER SR 0019-A63
2-SPAN COMP STEEL PLATE GIRDER BRIDGE
ABUTMENT 2 FOOTING PLAN
RECOMMENDED 08/03/2018 SHEET 22 OF 83

S - 37605





NOT TO SCALE

FOR INFORMATION ONLY

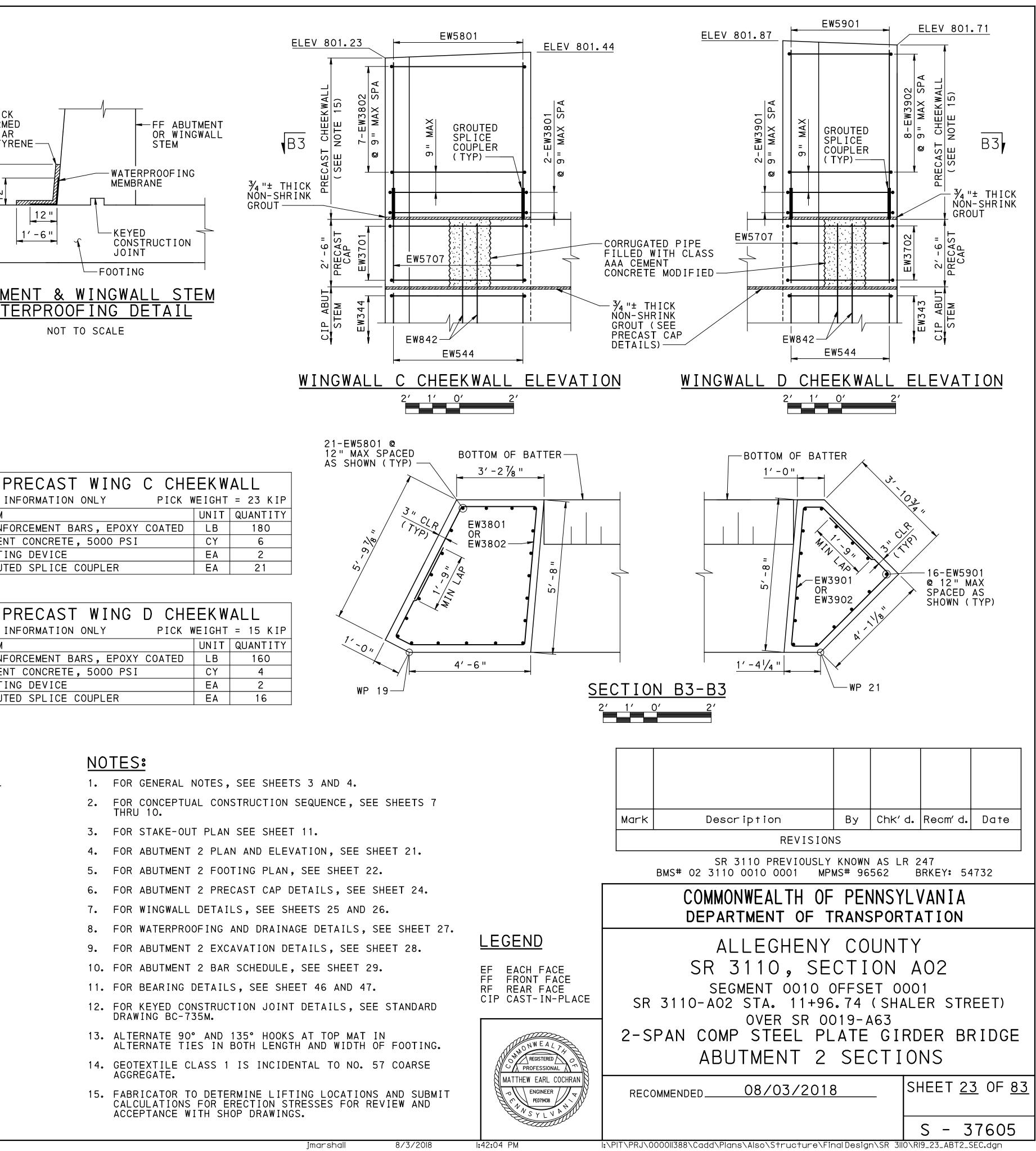
LIFTING DEVICE

CEMENT CONCRETE, 5000 PSI

GROUTED SPLICE COUPLER

REINFORCEMENT BARS, EPOXY COATED

ITEM



PROPOSED GROUND LINE

PRECAST WING C CHE	EKW	ALL							
FOR INFORMATION ONLY PICK WEIGHT = 23 K									
ITEM	UNIT	QUANTITY							
REINFORCEMENT BARS, EPOXY COATED	LB 180								
CEMENT CONCRETE, 5000 PSI	CY	6							
LIFTING DEVICE	EA	2							
GROUTED SPLICE COUPLER	EA	21							

AS SHOWN (TYP)	
3", CLR EW3801 (TYP), OR EW3802	
in (TYP) EW3801 OR EW3802 is in of the second secon	5′ - 8 =
1'-0"	
4'-6" WP 19	

PRECAST CAP DETAILS

SEE CAP DETAILS FOR

NOTES:

- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4. 2. FOR CONCEPTUAL CONSTRUCTION SEQUENCE, SEE SHEETS 7 THRU 10.
- 3. FOR STAKE-OUT PLAN SEE SHEET 11.

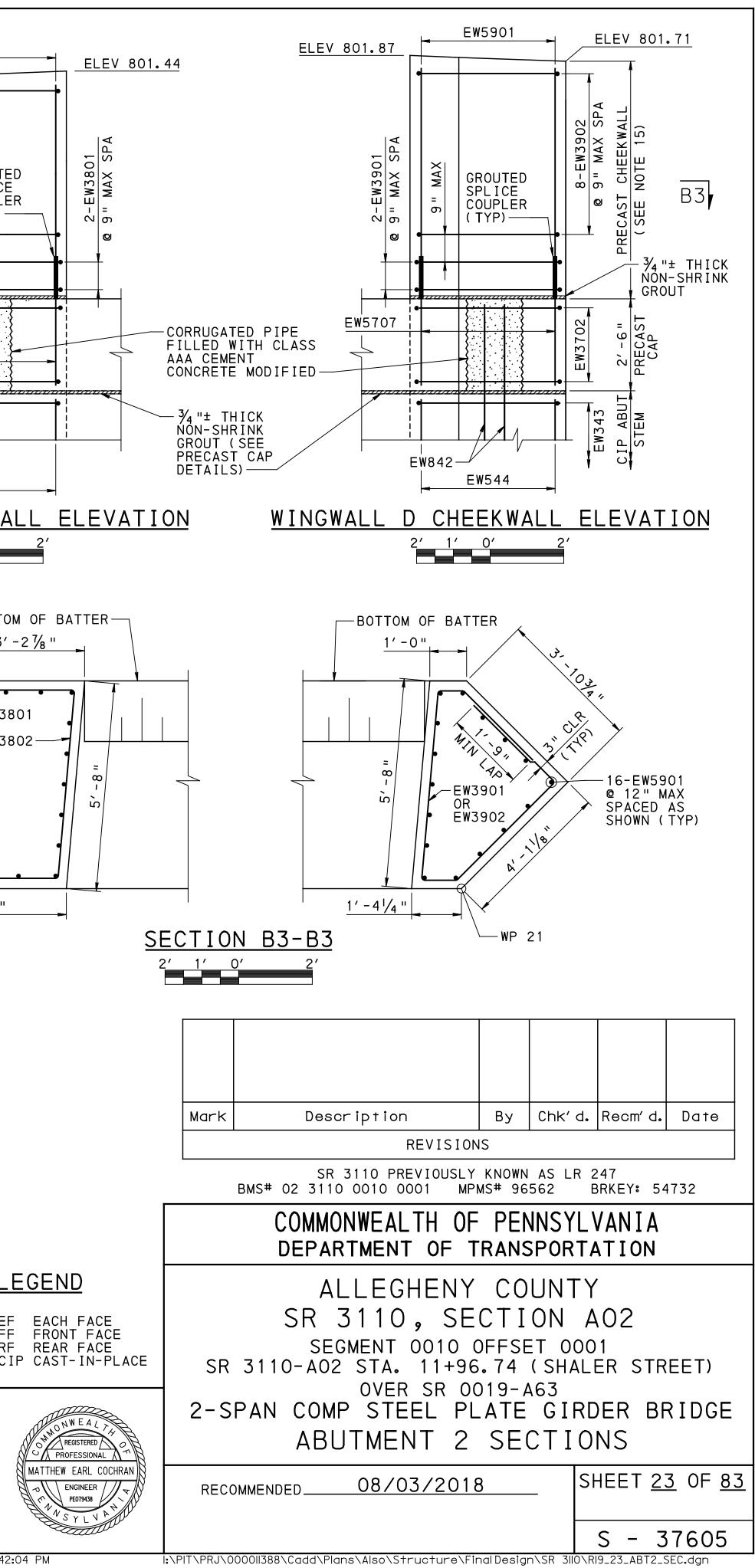
LB

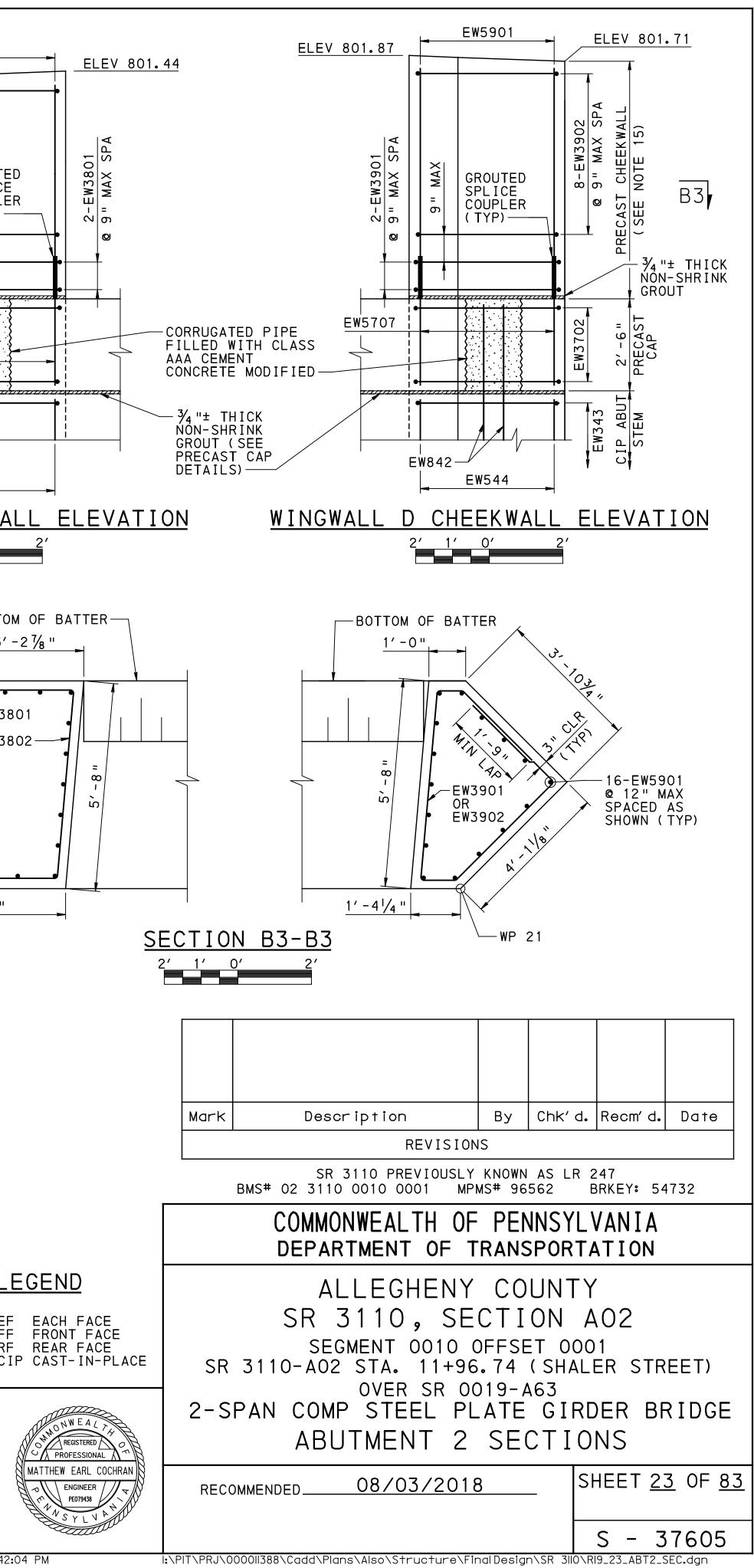
СҮ

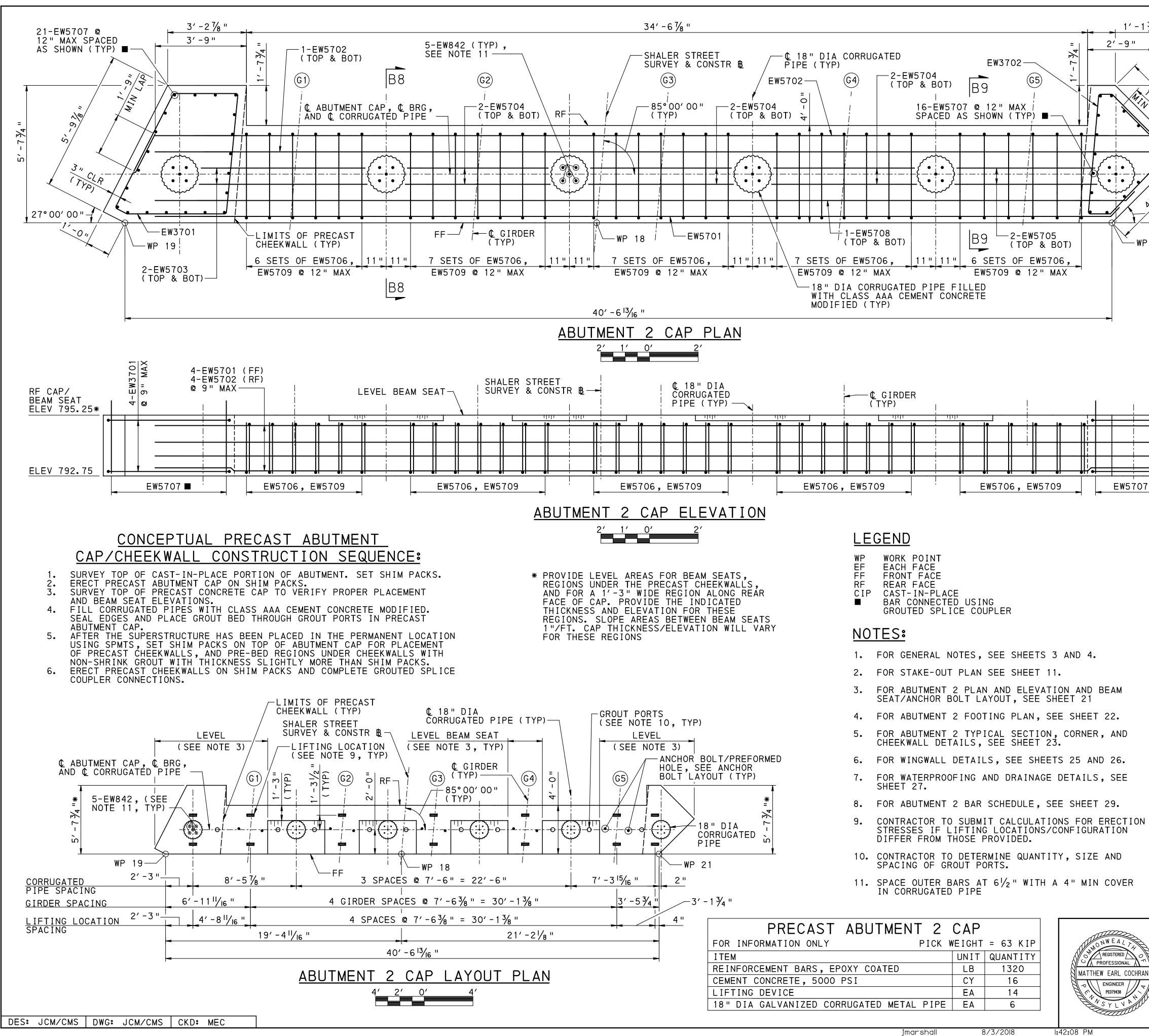
ΕA

EA |

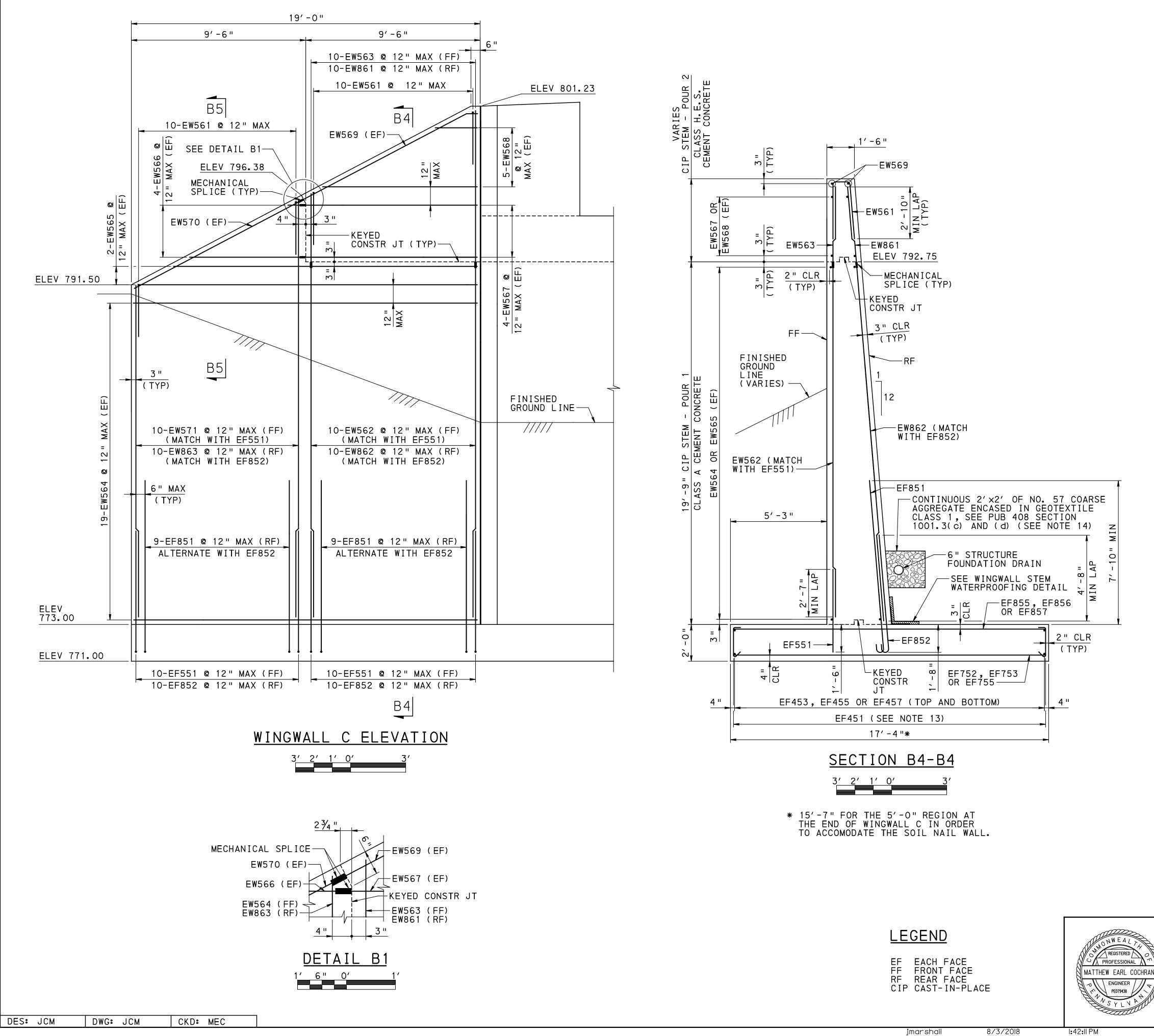
- 4. FOR ABUTMENT 2 PLAN AND ELEVATION, SEE SHEET 21.
- 5. FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 22.
- 6. FOR ABUTMENT 2 PRECAST CAP DETAILS, SEE SHEET 24.
- 7. FOR WINGWALL DETAILS, SEE SHEETS 25 AND 26.
- 8. FOR WATERPROOFING AND DRAINAGE DETAILS, SEE SHEET 27.
- 9. FOR ABUTMENT 2 EXCAVATION DETAILS, SEE SHEET 28.
- 10. FOR ABUTMENT 2 BAR SCHEDULE, SEE SHEET 29.
- 11. FOR BEARING DETAILS, SEE SHEET 46 AND 47.
- 12. FOR KEYED CONSTRUCTION JOINT DETAILS, SEE STANDARD DRAWING BC-735M.
- 13. ALTERNATE 90° AND 135° HOOKS AT TOP MAT IN ALTERNATE TIES IN BOTH LENGTH AND WIDTH OF FOOTING.
- 14. GEOTEXTILE CLASS 1 IS INCIDENTAL TO NO. 57 COARSE AGGREGATE.
- 15. FABRICATOR TO DETERMINE LIFTING LOCATIONS AND SUBMIT CALCULATIONS FOR ERECTION STRESSES FOR REVIEW AND ACCEPTANCE WITH SHOP DRAWINGS.





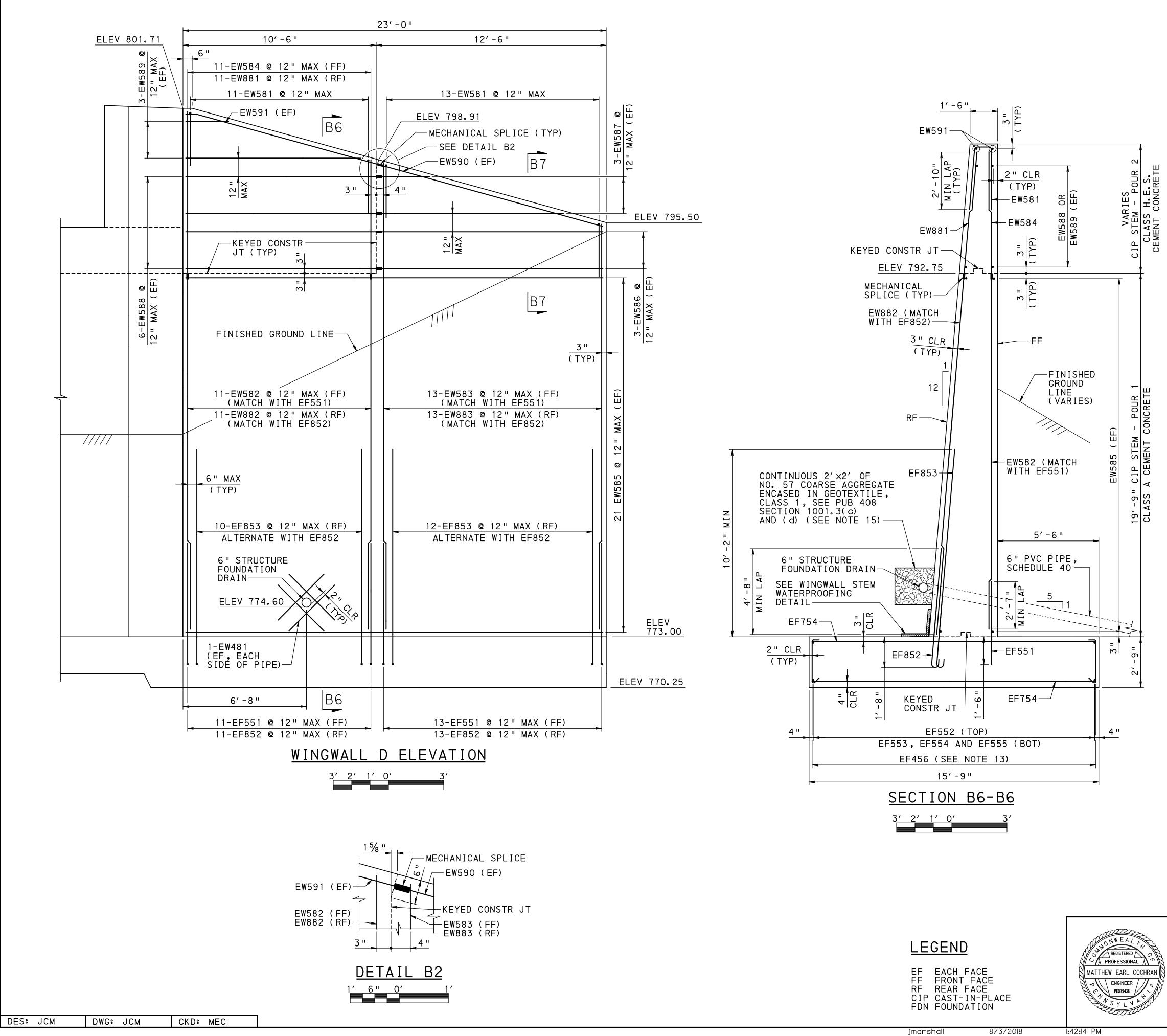


			2, -6"	MAX SPA OP & BOT) 2" CLR TOP & BOT) EW5702	4' - 0 "	LE	SLOPE 1 BETWEEN SEATS (S EW5709 EW5708) BOT) "/FT BEAM SEE NO	2' - 31/4 "					
45 21	<u>م</u> 5° 0	0′ 00 "	ૐ4 "± THIO SHRINK GF	IC SHIMS CK NON- ROUT PAD = ABUT	MIN EMBED	CEM	EW5706 SS AAA MENT CONCE IFIED EW842 (TYP) FF A S8		CIP ABUT STEM					
	(TYPICAL AT CORRUGATED PIPE VOIDS)													
4-EW3702	-	2, -0 = *	ĒW 	2" CLR TOP & BOT) = 0 COLS = 0 COLS COLS COLS COLS COLS COLS COLS COLS	9" MAX S (TOP & E OR 30T) -3" -3" -3" -3" -3" -3" -3" -3" -3" -3"	SPA SOT) SOT) SOT) SOT SOT SOT SOT SOT SOT SOT SOT	BETWEEN SEATS (1 NOTE 3) 3" CLR (TYP) EW5708	TE 3) "/FT BEAM SEE ULVEN	CIP ABUT STEM 2' - 3/4 "					
				2'	1′ 0′	2	, 							
		Mark	Desc	ription	Ву	Chk'	d. Recm' d	j. Da1	re					
				REVIS		AS I F	R 247	I						
			BMS# 02 3110	NWEALTH	MPMS# 96	562	BRKEY:							
			DEPAR	TMENT OF	TRANS	SPOR	TATION							
		SR	SR 3 SEG	LEGHEN 3110, S MENT 0010 STA. 11+ OVER SR	5ECTI) offse 96.74	ON et o((sha	AO2	REET)					
APP.				P STEEL 2 PREC	PLATE	GI								
		RECO	OMMENDED	08/03/20)18	_	SHEET	<u>24</u> OF	= <u>83</u>					
	 :\P	IT\PRJ\0	000 388\Cadd\Plar	ns\Also\Structure	•\Final Desiar	ראר SR 3∥0	S - D\RI9_24_ABT2							



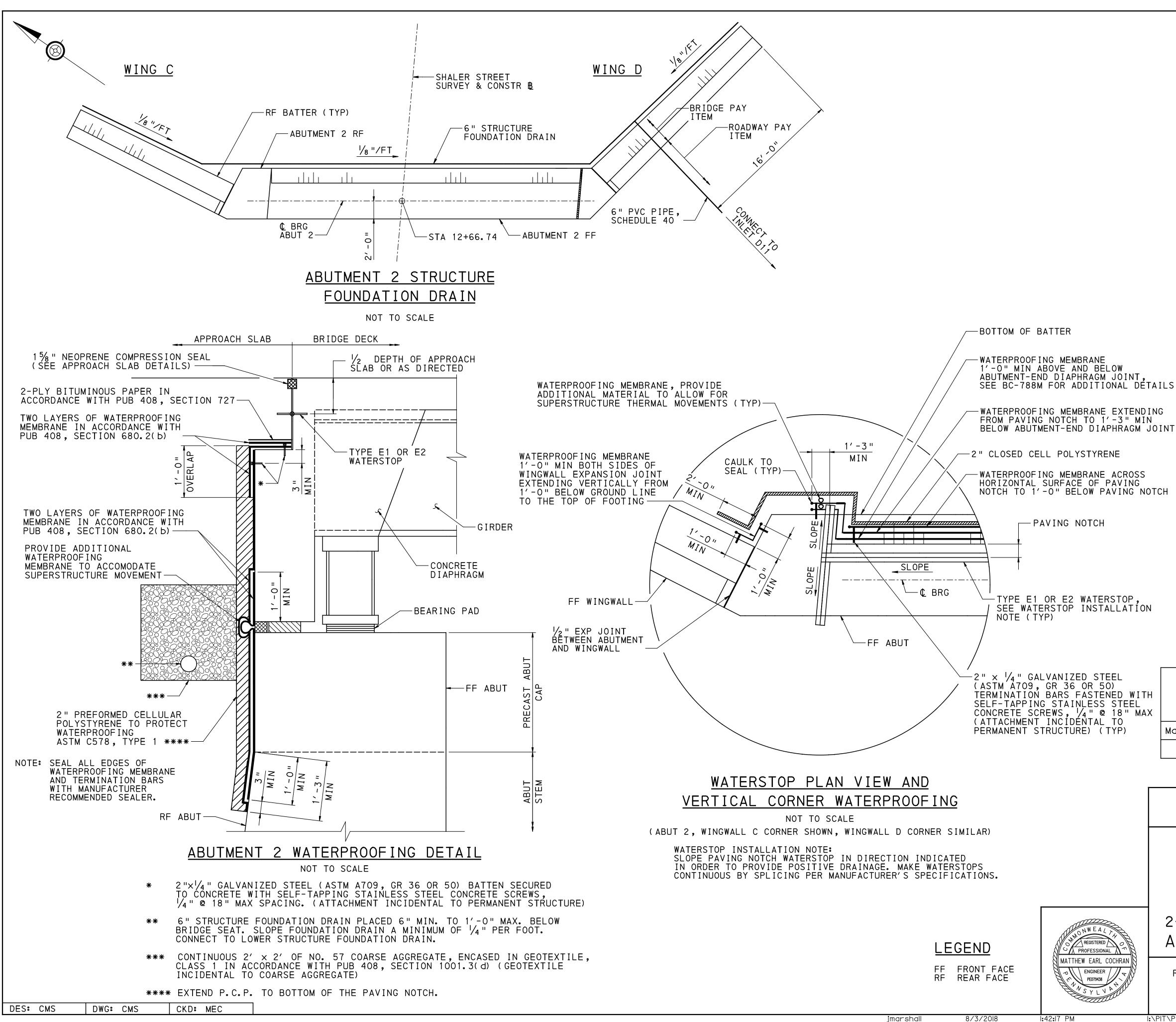
VARIES (TOP OF STEM TO TOP OF FOOTING)		63 (MA 1 EF85 EE SEC		-B4								
$\frac{\text{SECTION B5-B5}}{3' 2' 1' 0' 3'}$												
NOTE	S:]										
	GENERAL NOTES, SEE SHEETS	3 AND	4.									
	R STAKE-OUT PLAN SEE SHEET 1 R ABUTMENT 2 PLAN AND ELEVAT		FF CHEE	F 21.								
	R ABUTMENT 2 FOOTING PLAN, S											
	ABUTMENT 2 TYPICAL SECTION AILS, SEE SHEET 23.	AND C	ORNER/CH	HEEKWALL								
	R ABUTMENT 2 PRECAST CAP DET			Г 24.								
	R WINGWALL D DETAILS, SEE SH R WATERPROOFING AND DRAINAGE			SHEET 2	7.							
10. FOF	R ABUTMENT 2 EXCAVATION DETA	ILS, S	EE SHEE	F 28.								
12. FOF	R ABUTMENT 2 BAR SCHEDULE, S R KEYED CONSTRUCTION JOINT D			TANDARD								
	AWING BC-735M. FERNATE 90° AND 135° HOOKS A	Τ ΤΟΡ	MAT IN A	LTERNAT	=							
	ES IN BOTH LENGTH AND WIDTH			COARSE								
	GREGATE.											
Mark	Description	By	Chk' d.	Recm'd.	Date							
	REVISION SR 3110 PREVIOUSLY	_	AS LR 2	:47								
				RKEY: 54	1732							
	COMMONWEALTH OF DEPARTMENT OF T											
	ALLEGHENY											
	SR 3110, SE segment 0010 (
SR	3110-A02 STA. 11+96	.74	(SHAL		EET)							
2-51	OVER SR OC PAN COMP STEEL PL			ER BF	RIDGE							
	WINGWALL C	DE	TAIL	S								
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<u>1′−6″</u>	
EW883 (MATCH WITH EF852) SEE SECTION B6-B6	
SECTION B7-B7	
3' 2' 1' 0' 3'	
NOTES:	
1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.	
2. FOR CONCEPTUAL CONSTRUCTION SEQUENCE, SEE SHEETS 7 THROUGH 10.	
3. FOR STAKE-OUT PLAN SEE SHEET 11.	
 FOR ABUTMENT 2 PLAN AND ELEVATION, SEE SHEET 21. FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 22. 	
6. FOR ABUTMENT 2 TYPICAL SECTION AND CORNER/CHEEKWALL DETAILS, SEE SHEET 23.	
7. FOR ABUTMENT 2 PRECAST CAP DETAILS SEE SHEET 24.	
8. FOR WINGWALL C DETAILS, SEE SHEET 25.	
9. FOR WATERPROOFING AND DRAINAGE DETAILS, SEE SHEET 27.	
10. FOR ABUTMENT 2 EXCAVATION DETAILS, SEE SHEET 28. 11. FOR ABUTMENT 2 BAR SCHEDULE, SEE SHEET 29.	
12. FOR KEYED CONSTRUCTION JOINT DETAILS, SEE STANDARD DRAWING BC-735M.	
13. ALTERNATE 90° AND 135° HOOKS AT TOP MAT IN ALTERNATE	
TIES IN BOTH LENGTH AND WIDTH OF FOOTING. 14. ADJUST STEM REINFORCEMENT AS REQUIRED TO CLEAR	
FOUNDATION DRAIN	
15. GEOTEXTILE, CLASS 1 IS INCIDENTAL TO NO. 57 COARSE AGGREGATE.	
Mark Description By Chk'd. Recm'd. Date	
REVISIONS	
SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732	
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION	
ALLEGHENY COUNTY	
SR 3110, SECTION A02	
SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET)	
OVER SR 0019-A63	
2-SPAN COMP STEEL PLATE GIRDER BRIDGE WINGWALL D DETAILS	
RECOMMENDED 08/03/2018 SHEET 26 OF 83	
RECOMMENDED 08/03/2018 SHELL 20 01 03	_
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WATERPROOFING INSTALLATION SEQUENCE

- 1. INSTALL WATERPROOFING MEMBRANE OVER THE JOINT BETWEEN THE DIAPHRAGM AND REAR FACE OF ABUTMENT. SEAL ALL EDGES OF MEMBRANE WITH MANUFACTURER'S RECOMMENDED SEALER PRIOR TO INSTALLATION OF OVERLAPPING MEMBRANE.
- 2. INSTALL WATERPROOFING MEMBRANE ON THE VERTICAL SURFACE OF THE DIAPHRAGM AND REAR FACE OF ABUTMEN STARTING DIRECTLY BELOW THE PAVING NOTCH TO 1'-3" BELOW THE TOP OF THE PRECAST ABUTMENT CAP JOINT. INSTALL 2" × 1/4" GALVANIZED_STEEL (ASTM A709, GR 36 OR 50) TERMINATION BARS FASTENED WITH SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS ($\frac{1}{4}$ " AT 1'-6" MAX SPACING TYP.) NEAR THE TOP OF THE FULL DEPTH DIAPHRAGM AS INDICATED. SEAL ALL EDGES OF MEMBRANE WITH MANUFACTURER'S RECOMMENDED SEALER PRIOR TO INSTALLATION OF OVERLAPPING MEMBRANE.
- 3. INSTALL WATERPROOFING MEMBRANE OVER THE HORIZONTAL SURFACE OF THE PAVING NOTCH AND EXTENDING 1'-0" DOWN THE REAR FACE OF THE DIAPHRAGM OVERLAPPING THE PREVIOUSLY INSTALLED MEMBRANE AND TERMINATION BARS. INSTALL 2" × 1/4" GALVANIZED STEEL (ASTM A709, GR 36 OR 50) TERMINATION BARS FASTENED WITH SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS ($\frac{1}{4}$ " AT 1'-6" MAX SPACING TYP.) AT THE PAVEMENT NOTCH AS INDICATED. SEAL ALL EDGES OF MEMBRANE WITH MANUFACTURER'S RECOMMENDED SEALER.
- 4. INSTALL WATERPROOFING MEMBRANE OVER THE HORIZONTAL SURFACE OF THE PAVING NOTCH OVERLAPPING THE PREVIOUSLY INSTALLED MEMBRANE AND TERMINATION BARS. SEAL ALL EDGES OF MEMBRANE WITH MANUFACTURER'S RECOMMENDED SEALER.
- 5. INSTALL TWO-PLY BITUMINOUS PAPER ON THE HORIZONTAL SURFACE OF THE PAVING NOTCH OVERLAPPING THE PREVIOUSLY INSTALLED WATERPROOFING MEMBRANE.

6. INSTALL 2" CLOSED CELL POLYSTYRENE (ASTM C578, TYPE 1) ADJACENT TO THE VERTICAL PORTION OF THE PREVIOUSLY

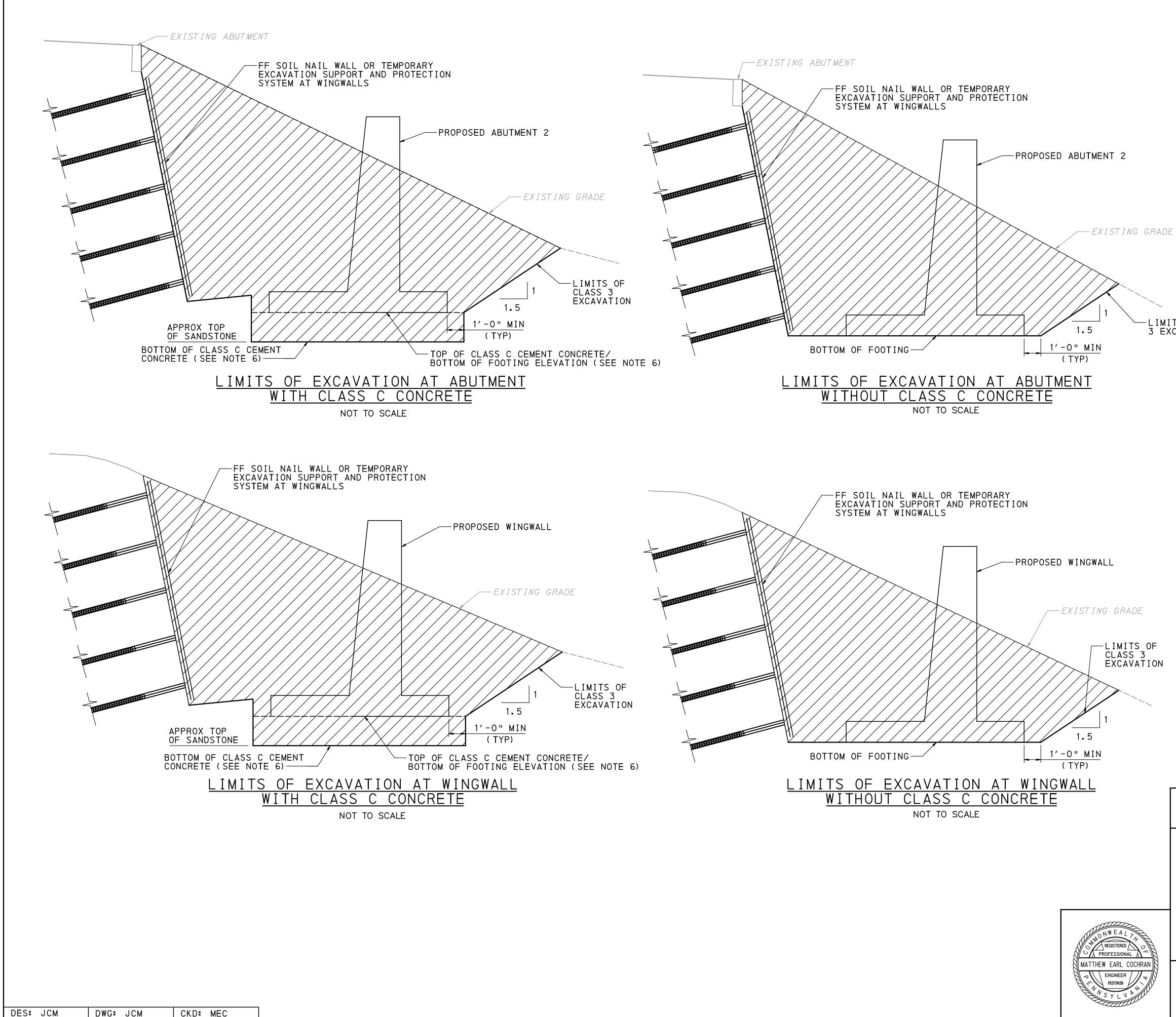
INSTALLED WATERPROOFING MEMBRANE ON THE REAR FACE OF THE DIAPHRAGM AND ABUTMENT AS INDICATED.

NOTES:

- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR ABUTMENT 2 PLAN AND ELEVATION. SEE SHEET 21.
- 3. FOR ABUTMENT 2 TYPICAL SECTION, CORNER AND CHEEKWALL DETAILS, SEE SHEET 23.
- 4. FOR WINGWALL DETAILS, SEE SHEETS 25 AND 26.
- 5. FOR ABUTMENT 2 END DIAPHRAGM DETAILS, SEE SHEET 52.
- 6. FOR APPROACH SLAB DETAILS, SEE SHEETS 55 THRU 61.
- 7. FOR ADDITIONAL DRAINAGE DETAILS, SEE BC-751M.
- 8. FOR ADDITIONAL WATERPROOFING DETAILS, SEE BC-788M.

WITH EEL '' MA>	-													
)	Mark	De	escription		Ву	Chk' d.	Recm' d.	Date						
	REVISIONS SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732													
_														
	COMMONWEALTH OF PENNSYLVANIA													
-	DEPARTMENT OF TRANSPORTATION													
	ALLEGHENY COUNTY													
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	CD		EGMENT 001 02 STA. 11											
	ЛС	JIIU-A	OVER SR											
	2-S	PAN CO	MP STEEL	ΡL	ATE	GIRI	DER BI	RIDG	E					
	ABL	JT 2 [)RAINAGE	E 8	& W /	ATER	PROO	FIN	G					
	RECO	MMENDED	08/03/2	2018	3	S	HEET <u>2</u>	<u>7</u> OF	<u>83</u>					
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-LIMITS OF CLASS 3 EXCAVATION

Mark

RECOMMENDED_

<u>LEGEND</u>

NOTES:

CONCRETE.

Description

CLASS 3 EXCAVATION

- 4. FOR ABUTMENT 2 TYPICAL SECTION, CORNER AND CHEEKWALL DETAILS, SEE SHEET 23.
- 3. FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 22.

6. OVER-EXCAVATE BELOW THE BOTTOM OF FOOTING TO THE TOP OF SANDSTONE AND BACKFILL WITH CLASS C CEMENT

By Chk'd. Recm'd. Date

SHEET <u>28</u> OF <u>83</u>

S - 37605

5. FOR WINGWALL DETAILS, SEE SHEETS 25 AND 26.

REVISIONS

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

SR 3110, SECTION A02

SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET)

OVER SR 0019-A63

2-SPAN COMP STEEL PLATE GIRDER BRIDGE

ABUTMENT 2 EXCAVATION DETAILS

08/03/2018

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- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.

- 2. FOR ABUTMENT 2 PLAN AND ELEVATION, SEE SHEET 21.

										ABUT	MENT 2	REINFORCEMENT B	AR SCH		:			
MARK	QUANTITY	S17E	LENGTH	TYPE	Λ	В	С	D	E	F	G			QUANTITY		LENGTH	TYPE	
FOOT		JIZL					C	D	L	Ι	0		WINC					
EF451 EF453	106 34	4 4	2'-2" 22'-5"	26 STR	4 ½"	1′-5 "	4 ½"					R = 1"	EW561 EW562	20 10	5 5	6′ -9 " 19′ -7 "	7 STR	2' -
EF454	76	4	26' -2 " VARIES	STR								2 SETS OF 4	— EW563	10	5	VARIES 3'-11" TO 8'-6"	STR	
EF455	8	4	17'-6" TO 21'-10	STR								2 SETS OF 4, VARY EA BY ΔL = 1'-5 ¾"(-)	EW564	38	5	18' -8 "	STR	
EF456 EF457	40	4 4	2' - 11 " 17' - 5 "	26 STR	4 ½"	2' -2 "	4 ½"						- EW565	4	5	VARIES 16'-6" TO 18'-5"	STR	_
EF551 EF552 EF553	152 17 17	5 5 5	4' - 4 " 26' - 6 " 24' - 5 "	STR STR STR									EW566	8	5	VARIES 7" TO 6'-3"	STR	
EF554	17 17	5	3' - 11 "	STR	24 2 11	0/ 7 11							EW567	8	5	9'-7"	STR	
EF555 EF651	90	5 6	4' -5 " 13' -5 "	11 STR	2'-2"	2'-3"	2'-0 1/8"						— EW568	10	5	VARIES 2'-2" TO 8'-0"	STR	
EF751 EF752	90 25	7	13' -5 " 17' -0 "	STR STR									EW569 EW570	2 2	5	10' - 10 " 10' - 4 "	11 STR	10'
EF752	<u> </u>	7	VARIES	стр								1 SET OF 8 VARY EA BY ΔL = 3"	EW571	10	5	VARIES	стр	+
EF754	112	7	15'-0" TO 16'-9" 15'-5"	STR								VARY EA BY $\Delta L = 3$ "				18'-3" TO 22'-11' VARIES		
EF755	10	7	15′ - 3 "	STR									- EW861	10	8	3'-11" TO 8'-6"	STR	
EF851 EF852	<u>18</u> 80	8 8	10' -5 " 7' -6 "	14	11" 11"	<u>9'-6"</u> 6'-7"		<u> </u>					EW862	10	8	19' - 7 " VARIES	STR	
EF853	22	8	12′ -9 "	14	11"	11′ - 10 "		8 "					— EW863	10	8	18'-3" TO 22'-11'	STR	
EF854	35	8	14' -2 "	14	11"	13′ -3 "		8 "					WIN0 EW481	G D R	1	3′ -6 "	STR	
EF855	8	8	VARIES 15'-0" TO 16'-9"	STR								1 SET OF 8 VARY EA BY ΔL = 3"	EW481	24	5	6' - 9 "	7	2' -
EF856	25	8	17'-0"	STR									EW582	11	5	19' - 7 "	STR	
	10 MENT 2	8	15'-3"	STR									— EW583	13	5	VARIES 22'-2" TO 25'-6"	STR	
EW343 EW344	<u>27</u> 27	3 3	<u>15' -8 "</u> 20' -7 "	57 57	3'-8 ¾" 8 ¼"	<u>7 ¾"</u> 4′ - 8 ¼"	5′ - 1 ¾" 5′ - 1 ¾"	9 ½" 2′ - 10 "	2′-8 ¼″ 3′-7 ¾″	<u>2'-7 ¾"</u> 3 ¾"	0 " 0 "	H = 2'-6" H = 2'-5 ½"	- EW584	11	5	VARIES 6'-4" TO 9'-0"	STR	
EW543	36	5	9'-3"	7	2'-10 ¼"	3'-6 ½"	2'-10 ¼"	2 7/8"	5 1 78	5 74	•		EW585	42	5	22' -8 "	STR	
EW544 EW641	<u>108</u> 27	5	<u>19' - 4 ''</u> 40' - 6 ''	STR 11	38'-6"	2'-0"	1′ -5 "						EW586	6	5	12' -4 "	STR	
EW642	27	6	40′ -5 "	10	1'-10"	38'-7"	1 - 5						EW587	6	5	VARIES 2'-9" TO 10'-0"	STR	
EW841 EW842	<u> </u>	8 8	<u>19'-4"</u> 5'-8"	STR STR									EW588	12	5	10' - 7 "	STR	
		0		<u> </u>									EW589	6	5	VARIES	STR	
													EW590	2	5	2'-3" TO 9'-6" 12'-8"	STR	
			MENT 2 PREC								1		EW591	2	5	11′-0"	11	10
MARK	QUANTIT	Y SIZ	E LENGTH		= A	B	C		E		G	REMARKS	EW881	11	8	VARIES 6'-4" TO 9'-0"	STR	
EW3701	4	3	19′ - 4 "	57	6 3/4"	4' - 1 1/8"	-		-	3 1/8"	5 ¼"	H = 2′ - 4 5⁄8"	EW882	11	8	19′ – 7 "	STR	
EW3702 EW5701	4	<u> </u>	<u>15' - 1 "</u> 40' - 9 "	58	<u> </u>	<u> </u>	<u>4′ - 11 %"</u> 1′ - 0 "	<u> </u>	2' -7 "	2′-6 ½″	5 ¼"	H = 2'-4 %"	EW883	13	8	VARIES 22'-2" TO 25'-6"	STR	
EW5702		5	41′ - 1 "	STR										•			1	_1
EW5703 EW5704	4	5		STR									NOTES	0 				
EW5705		5		STR									1. FOR (GENERAL N	NOTES,	, SEE SHEETS 3 AND	4.	
EW5706	33	5	7'-7"	4	1′ – 11 "	3′ -6 "	2' - 2 "						2. FOR	ABUTMENT	2 PLA	N AND ELEVATION,	SEE SH	EET 2
EW5707 EW5708	37	<u> </u>	<u>2' - 1 1 "</u> 40' - 10 "	STR 11	40′ - 1 "	9"	6 %"					**	3. FOR	ABUTMENT	2 F00	TING PLAN, SEE SH	EET 22	•
EW5709 PREC	33 AST WING	5 C CH	7'-7" IEEKWALL	70	2′ -2 "	3' - 6 "	1′-11"									PICAL SECTION AND SEE SHEET 23.	CORNER	/
EW3801 EW3802	2	3		<u> </u>	<u> </u>	<u>4' - 2 ½''</u> 4' - 1 ½''		2′-9 ¾″ 2′-7 ¾″			5 ¾" 5 ¼"	$\frac{H = 2' - 5 \frac{1}{2}''}{H = 2' - 4 \frac{5}{8}''}$				CAST CAP DETAILS,	SEE S	ПЕЕТ
EW5801	21	5	5′ -2 "	STR	· · ·	<u> </u>			5 6 78	5 78	5 /4	**						
PREC EW3901	AST WING	D CH		58	3' - 8 ¾"	11 3⁄4"	5'-2"	8 "	2'-8 1/4"	2'-7 ¾"	5 %"	H = 2′-6"				LS, SEE SHEETS 25		
EW3902	8	3	15′ – 1 "	58	3'-7 1/8"	9 %"	4′ - 11 %"		2'-7"	2'-6 ½"	5 1/4"	H = 2'-4 %"		REINFORCE DARD DRAV		BAR FABRICATION D 3C-736M.	ETAILS	, SEE
EW5901	16	5	5′-8 "	STR						 		**	8. PREF BARS.		ENOTES	S EPOXY COATED REI	NFORCE	MENT
	IS SPLICE		TH MECHANICAL SPL H WHERE "THREADED				А	СА	c	A	A		"A" (ON STANDA	ARD 18	OUT-TO-OUT OF BA O° HOOKS AND "R" DE OF THE BAR.		
WHER	E "MECH S	SPLIC	E, ONE END" IS IN NT FOR THE LENGTH	DICATED) HAVE NOT	BEEN	B	I	N C	10	((14)	10. FIGU	RES IN CI	RCLES	S SHOW BAR TYPE.		
	ST BAR LE		S FOR ACTUAL DIME				(4)	7				11. STR [DENOTES S	STRAIG	GHT BAR.		
									Ц		11	G .						

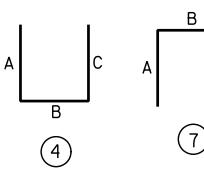
										ABUTN	MENT 2	2 REINFORCEMENT E	BAR SCH	EDULE				
	QUANTITY	SIZE	LENGTH	TYPE	А	В	С	D	E	F	G			QUANTITY	SIZE	LENGTH	TYPE	
F00T EF451 EF453	ING 106 34	4	2' -2 " 22' -5 "	26 STR	4 ½"	1'-5"	4 ½"					R = 1 "	WINC EW561 EW562	<u>20</u> 20	5	6′ -9 " 19′ -7 "	7 STR	2'-
EF454	76	4	26' -2 "	STR									— EW563	10	5	VARIES 3'-11" TO 8'-6"	STR	
EF455	8	4	VARIES 17'-6" TO 21'-10"	STR								2 SETS OF 4, VARY EA BY ΔL = 1'-5 ¾"(·	-) EW564	38	5	18'-8"	STR	
EF456 EF457	40 6	4	2' - 11 " 17' - 5 "	26 STR	4 ½"	2' -2 "	4 ½"						EW565	4	5	VARIES 16'-6" TO 18'-5"	STR	
EF551 EF552	152 17	5 5	4'-4" 26'-6"	STR STR									EW566	8	5	VARIES 7" TO 6'-3"	STR	
EF553 EF554	17 17	5	24' -5 " 3' - 1 1 "	STR STR									EW567	8	5	9′ – 7 "	STR	
EF555 EF651	<u>17</u> 90	5	4′ -5 " 13′ -5 "	11 STR	2′ -2 "	2'-3"	2'-0 1/8"						EW568	10	5	VARIES 2'-2" TO 8'-0"	STR	
EF751 EF752	90 25	7	13′ -5 " 17′ -0 "	STR STR									EW569 EW570	2	5	10' - 10 " 10' - 4 "	11 STR	10'
EF752	8	7	VARIES 15'-0" TO 16'-9"	STR								1 SET OF 8 VARY EA BY ΔL = 3"	EW570	10	5	VARIES 18'-3" TO 22'-11"	STR	
EF754	112	7	15'-5"	STR								$\nabla ART EA BT \Delta L = 5"$	EW861	10	8	VARIES	STR	
EF755 EF851	10 18	7	15'-3" 10'-5"	STR 14	11"	9′-6"		8 "					EW862	10	8	3'-11" TO 8'-6"	STR	
EF852	80	8	7′-6"	14	11"	6' - 7 "		8 "					EW863	10	8	VARIES	CTD	
EF853 EF854	22 35	8	<u>12'-9"</u> 14'-2"	14 14	11"	<u>11'-10"</u> 13'-3"		8 " 8 "					WINC			18'-3" TO 22'-11"		
EF855	8	8	VARIES	STR								1 SET OF 8	EW481	8	4	3′ -6 "	STR	
EF856	25	8	15'-0" TO 16'-9" 17'-0"	STR								VARY EA BY AL = 3"	EW581 EW582	<u>24</u> 11	5	6′-9" 19′-7"	7 STR	2' - '
EF857	10 MENT 2	8	15′-3 "	STR									EW583	13	5	VARIES 22'-2" TO 25'-6"	STR	
EW343	27	3	15′ - 8 "	57	3' - 8 3/4"	7 3/4"	5' - 1 ¾"	9 1/2"	2'-8 1/8"	2'-7 3/4"	0"	H = 2' - 6''	EW584	11	5	VARIES	STR	
EW344 EW543	27 36	3 5	20' - 7 " 9' - 3 "	57 7	8 ¼" 2′-10 ¼"	4' - 8 ¼" 3' - 6 ½"	5' - 1 ¾" 2' - 10 ¼"	2'-10" 2 %	3′-7 ¾″	3 ¾"	0 "	H = 2'-5 ½"	EW585	42	5	6'-4" TO 9'-0" 22'-8"	STR	
EW544 EW641	108 27	56	19′ - 4 " 40′ - 6 "	STR 11	38′-6"	2' -0 "	1′-5″						EW586	6	5	12' - 4 "	STR	
EW642 EW841	27 36	6 8	40'-5"	10 STR	1′ - 10 "	38'-7"							EW587	6	5	VARIES 2'-9" TO 10'-0"	STR	
EW842	30	8	5′ -8 "	STR									EW588	12	5	10′ -7 "	STR	
													EW589	6	5	VARIES 2'-3" TO 9'-6"	STR	
	AE	BUTN	MENT 2 PREC	AST	REINFO	RCEMEN	T BAR	SCHEDI	JLE (FC	DR INFO	RMATI	ON ONLY)	EW590 EW591	2	5	12′ -8 " 11′ -0 "	STR 11	10'
	QUANTIT	YSIZ	E LENGTH	TYPE	A	В	C	D	E	F	G	REMARKS	EW881	11	8	VARIES 6'-4" TO 9'-0"	STR	
EW3701	AST CAP	3	19′ - 4 "	57	6 34"	4' - 1 1/8"	4′-115%"	2'-7 34"	3'-6 3/8"	3 1/8"	5 ¼"	H = 2' - 4 %"	EW882	11	8	19'-7"	STR	-
EW3702 EW5701	4	3	15′ - 1 " 40′ - 9 "	58	3′ - 7 ¹ ⁄ ₈ " 39′ - 4 "	9 %" 1′-5 "	4′ - 11 <u>%</u> " 1′ - 0 "	6 ¾"	2′-7 "	2'-6 ½"	5 ¼"	H = 2' - 4 ⁷ / ₈ "	EW883	13	8	VARIES 22'-2" TO 25'-6"	STR	
EW5702	6	5	41′ - 1 "	STR STR									NOTES	5	_1		1	-
EW5703 EW5704	4 12	5 5	<u> </u>	STR										-		SEE SUFETS 7 AND	Λ	
EW5705 EW5706	4	5	<u>5′ -5 "</u> 7′ -7 "	STR 4	1′ – 1 1 "	3′ - 6 "	2'-2"									SEE SHEETS 3 AND		
EW5707	37	5	2′ - 11 "	STR								**				N AND ELEVATION, S		
EW5708 EW5709	2 33	5 5		11 70	40' - 1 " 2' - 2 "	9" 3'-6"	6 ¾" 1′ - 1 1 "	2 1/2"								TING PLAN, SEE SHE		
PREC EW3801	AST WING 2	5 C CH 3	IEEKWALL 20' - 1 "	57	8 ¼"	4'-2 ½"	5' - 2 "	2'-9 ¾"	3'-7 ¼"	3 3/4"	5 %"	H = 2′-5 ½"				SEE SHEET 23.		
EW3802 EW5801	7 21	3		57 57	6 ¾"	4′ – 1 ¹ ⁄8''	4′ - 11 %"	2′-7 ¾″	3′-6 ¾"	3 ¼"	5 ¼"	H = 2'-4 %" **				CAST CAP DETAILS,		
PREC EW3901	AST WING		EEKWALL	58	3′ - 8 ¾"	11 3⁄4"	5'-2"	8 "	2'-8 ¼"	2'-7 ¾"	5 %"	H = 2′-6 "				LS, SEE SHEETS 25		
EW3902 EW5901	8	3	15′ – 1 "	58 58 STR	3'-7 1/8"	9 %"	4' - 11 5%"	6¾"	2'-7"	2'-6 1/2"	5 1/4"	H = 2' - 4 ⁷ / ₈ "		REINFORCE		BAR FABRICATION DE C-736M.	ETAILS	, SEE
			5 - 6 *									**	8. PREF BARS.		NOTES	EPOXY COATED REIN	NFORCEN	MENT
	S SPLIC		TH MECHANICAL SPLI H WHERE "THREADED				А	СА		A	A		"A" (ON STANDA	ARD 18	OUT-TO-OUT OF BAN O° HOOKS AND "R" N E OF THE BAR.		
WHERE Adjus	MECH TED TO	SPLIC ACCOU	E, ONE END" IS IND NT FOR THE LENGTH	ICATED OF MEC	HAVE NOT HANICAL SP	BEEN LICE.	В	→ I	(7)	. (10)		(11) (14)	10. FIGUF	RES IN CI	RCLES	SHOW BAR TYPE.		
ADJUS SPLIC		⊨иетн	S FOR ACTUAL DIMEN	10 I UN2	OF MECHANI	UAL	(4)		, н,	C	Н	G	11. STR [ENOTES S	STRAIG	HT BAR.		

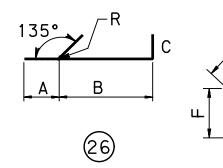
(57) G

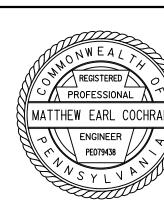
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(70)

- ** REBAR LENGTHS AND PROJECTIONS AT GROUTED SPLICE COUPLERS ARE BASED ON AN ASSUMED COUPLER SYSTEM. CONTRACTOR TO VERIFY REBAR LENGTHS AND PROJECTIONS WITH ACTUAL GROUTED SPLICE COUPLER USED.



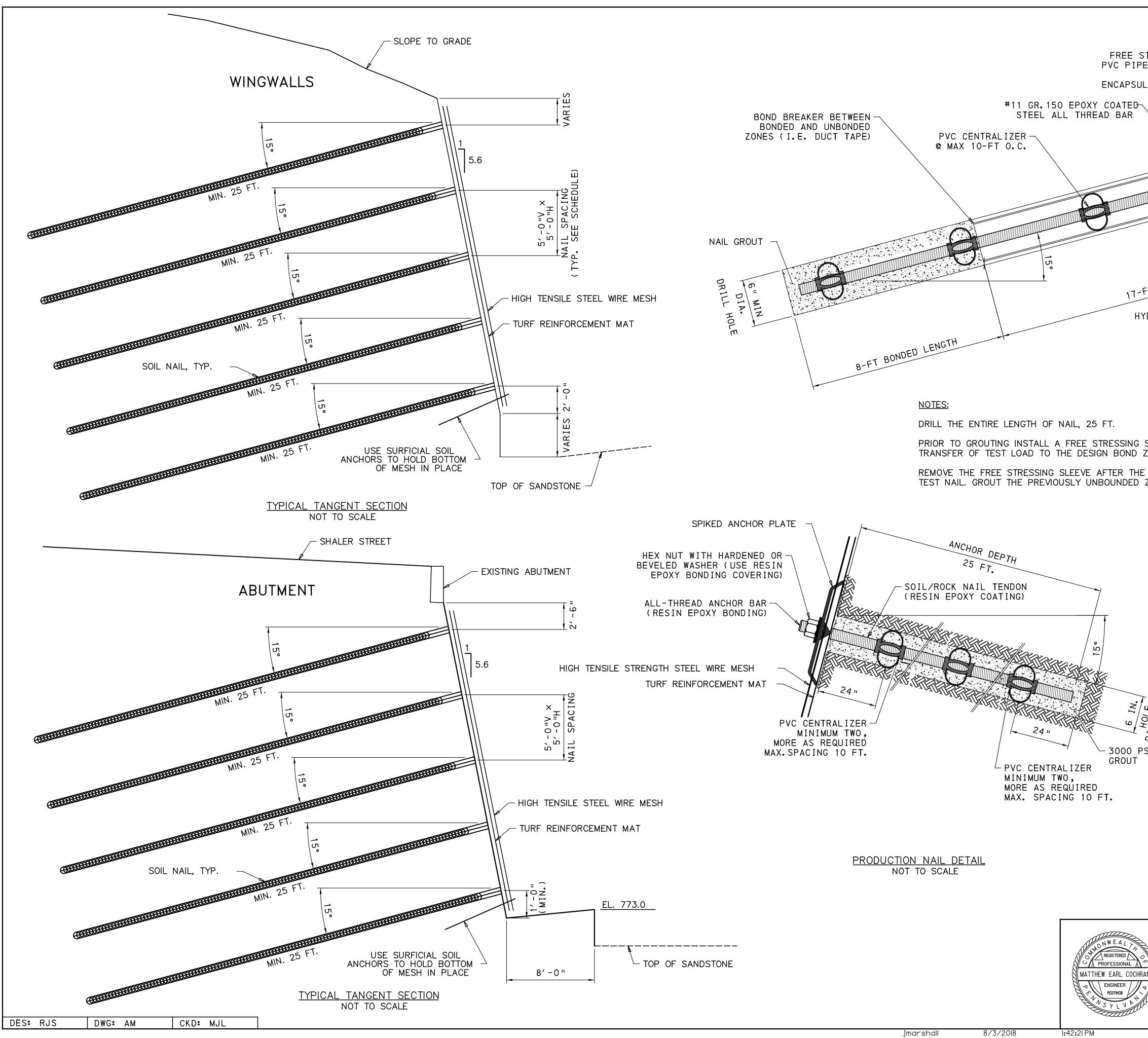




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A	В	C	D	REMARKS
10 ¼"	1'-0 ½"	2'-10 ¼"	2 7/8"	MECH SPLICE, ONE END ■ THREADED 3", ONE END ■, 1 SET OF 10, ΔL = 6 ⅛"(-)
				2 SETS OF 2, VARY EA BY $\Delta L = 1' - 11''$ MECH SPLICE. ONE END
				2 SETS OF 4, VARY EA BY $\Delta L = 1' - 10 \frac{5}{8}$ " (+) THREADED 3", ONE END 2 SETS OF 5, VARY EA BY $\Delta L = 1' - 5 \frac{1}{2}$ "
′-7"	3 "	1 3/8"		LEG "A" THREADED 3" ■
				MECH SPLICE, ONE END ■
				1 SET OF 10, $\Delta L = 6 \frac{1}{4}$ "(-)
				THREADED 3", ONE END \blacksquare , 1 SET OF 10, $\Delta L = 6 \frac{1}{8}$ "(-)
				MECH SPLICE, ONE END ■ 1 SET OF 10, Δ L = 6 ¼"(-)
				Τ SET OF TO, ΔL - 6 /4 (-)
10 ¼"	1'-0 ½"	2'-10 ¼"	2 7/8"	MECH SPLICE, ONE END ■
				1 SET OF 13, ΔL = 3 ¾"(-)
				THREADED 3", ONE END ■, 1 SET OF 11, ΔL = 3 ¼"(-)
				MECH SPLICE, ONE END ■
				MECH SPLICE, ONE END ■ 2 SETS OF 3, VARY EA BY ΔL = 3'-7 ½"
				THREADED 3", ONE END \blacksquare
				2 SETS OF 3, VARY EA BY ΔL = 3'-7 ½"
				MECH SPLICE, ONE END ■
′ - 8 "	4 "	1 ½"		LEG "A" THREADED 3" ■ THREADED 3", ONE END ■, 1 SET OF 11, ΔL = 3 ¼"(-)
				1 SET OF 11, ΔL = 3 ¼"(-) MECH SPLICE, ONE END ■
				1 SET OF 13, $\Delta L = 3\frac{3}{8}$ "(-)
21.				
24.	Mark	Descrip		By Chk'd. Recm'd. Date
			REVI 0 PREVIO	By Chk'd. Recm'd. Date SIONS JSLY KNOWN AS LR 247 MPMS# 96562 BRKEY: 54732
		SR 311 \$ 02 3110 00	REVI 0 PREVIO 010 0001	SIONS JSLY KNOWN AS LR 247 MPMS# 96562 BRKEY: 54732
24.		SR 311 * 02 3110 00	REVI	SIONS JSLY KNOWN AS LR 247
		SR 311 • 02 3110 00 COMMONW DEPARTM	REVI	SIONS JSLY KNOWN AS LR 247 MPMS# 96562 BRKEY: 54732 OF PENNSYLVANIA
		SR 311 ± 02 3110 00 COMMONW DEPARTM ALL	REVI	SIONS JSLY KNOWN AS LR 247 MPMS# 96562 BRKEY: 54732 OF PENNSYLVANIA F TRANSPORTATION
	BMS‡	SR 311 ± 02 3110 00 COMMONW DEPARTM ALL SR 31 SEGME 10-A02 S	REVI O PREVIO DIO 0001 EALTH ENT O EGHE 10, NT 001 TA. 11	SIONS JSLY KNOWN AS LR 247 MPMS# 96562 BRKEY: 54732 OF PENNSYLVANIA F TRANSPORTATION NY COUNTY SECTION AO2 0 OFFSET 0001 +96.74 (SHALER STREET)
	BMS [‡]	SR 311 ± 02 3110 00 COMMONW DEPARTM ALL SR 31 SEGME 10-A02 S	REVI O PREVIOU D10 0001 EALTH EGHE 10, EGHE 10, TA. 11 OVER SF	SIONS JSLY KNOWN AS LR 247 MPMS# 96562 BRKEY: 54732 OF PENNSYLVANIA F TRANSPORTATION NY COUNTY SECTION AO2 0 OFFSET 0001 +96.74 (SHALER STREET) CO19-A63
	BMS [‡] SR 31 2-SPAN	SR 311 ± 02 3110 00 COMMONW DEPARTM ALL SR 31 SEGME 10-A02 S O COMP	REVI O PREVIOU D10 0001 EALTH ENT OU EGHE 10, NT 001 TA. 11 OVER SF STEEL	SIONS JSLY KNOWN AS LR 247 MPMS# 96562 BRKEY: 54732 OF PENNSYLVANIA F TRANSPORTATION NY COUNTY SECTION AO2 0 OFFSET 0001 +96.74 (SHALER STREET)

S - 37605 I:\PIT\PRJ\0000||388\Cadd\Plans\Also\Structure\FinalDesign\SR_3||0\R|9_29_ABT2_BAR.dgn



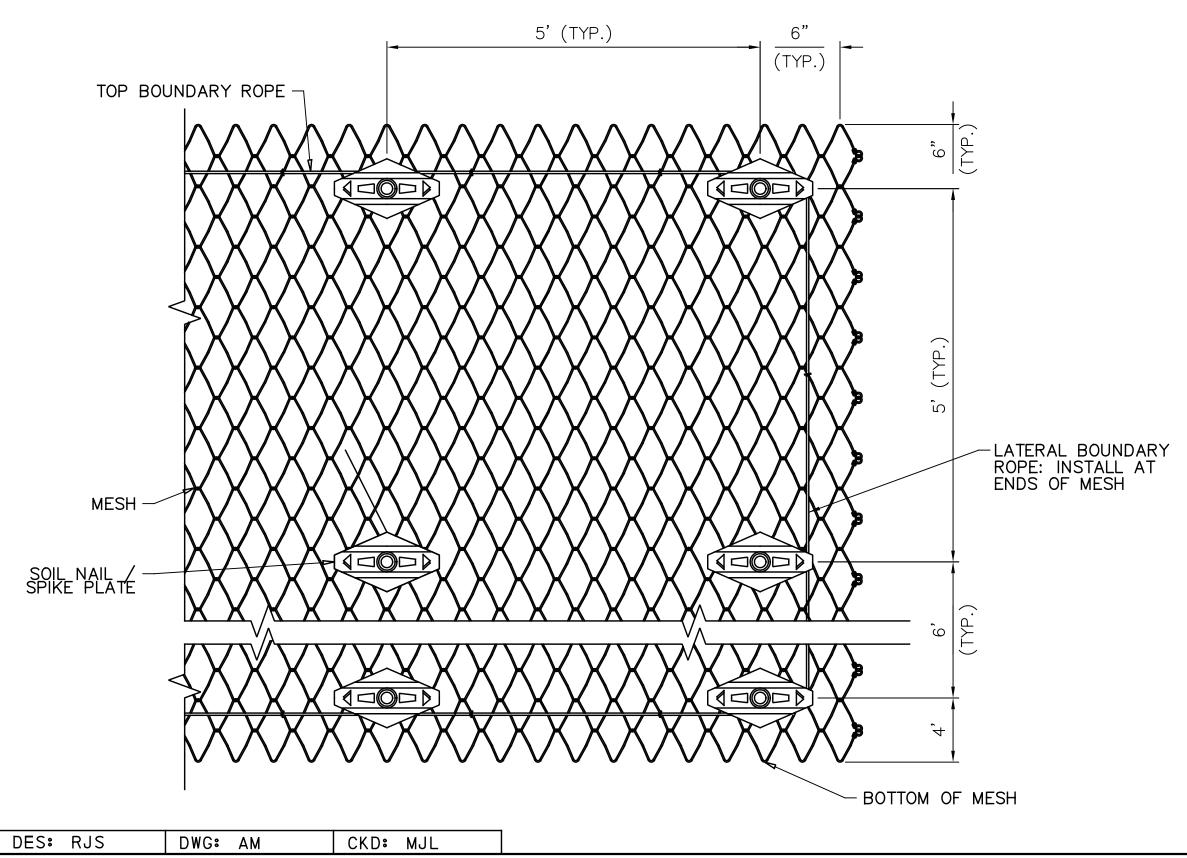
E, MI TO	SING SLE N. DIAME ACCOMOUN N AND SE	ETER DATE		TYPIC 2FT X	NG PLA AL PLA 2FT X ARGER	TE DI 1"3 IF NE – LOC	6KSI S	STEEL. RY.	
DRUA				AND					
SLEEV ZONE	NOT E TO ENS DURING TE ING IS CO	<u>ST NAIL DETA</u> T TO SCALE SURE FULL ESTING. OMPLETED ON	<u>IIL</u>						
DIAMETER									
a S I	Mark	Desc	cription REV:	By ISIONS	Chk'	d. Re	ecm' d.	Date	-
	L	SR BMS# 02 3110	3110 PREVIC 0 0010 0001				EY: 54	1732	
			NWEALTH						
			RTMENT 0				1 O N		
			LLEGHE 3110,				2		
	SR	SE0 3110-A02	GMENT 00 2 STA. 11				STR	EET)	
	2-S	PAN COM SOIL			GI				-
	RECO	OMMENDED	08/03/2	2018		SHE	ET <u>3</u> (<u>0</u> OF <u>8</u>	33
V						S	- 3	57605	

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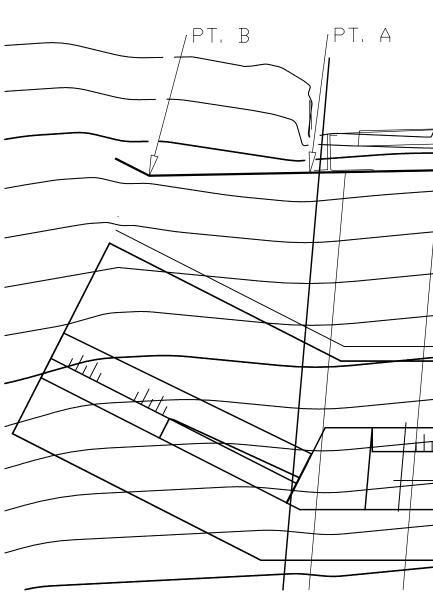
	SOIL NAIL SCHEDU	LE
FRONT	FACE OF TEMPORAR	Y SHORING
NAIL	HORIZONTAL DISTANCE FROM REFERENCE POINT C	ELEVATION
FF1-1	47'-10 1/2" LT	793.00'
FF1-2	42'-10 1/2" LT	793.00'
FF1-3	39'-0 3/8" LT	793.00'
FF1-4A	34'-0 3/8" LT	793.00'
FF1-4B	32'-5 7/8" LT	793.00'
FF1-5A	27'-5 7/8" LT	793.00'
FF1-5B	26'-5 9/16" LT	793.00'
FF1-6A	21'-5 9/16" LT	793.00'
FF1-6B	20'-5 1/8" LT	793.00'
FF1-7	15'-5 1/8" LT	793.00'
FF1-8	14'-4 11/16" LT	793.00'
FF1-9A	9'-4 11/16" LT	793.00'
FF1-9B	8'-4 1/4" LT	793.00'
FF1-10	3'-4 1/4" LT	793.00'
FF2-1	47'-10 1/2" LT	788.00'
FF2-2	42'-10 1/2" LT	788.00'
FF2-3	37'-10 1/2" LT	788.00'
FF2-4	32'-10 1/2" LT	788.00'
FF2-5	27'-10 1/2" LT	788.00'
FF2-6	22'-10 1/2" LT	788.00'
FF2-7	17'-10 1/2" LT	788.00'
FF2-8	12'-10 1/2" LT	788.00'
FF2-9	7'-10 1/2" LT	788.00'
FF2-10	2'-10 1/2" LT	788.00'
FF3-1	47'-10 1/2" LT	783.00'
FF3-2	42'-10 1/2" LT	783.00'
FF3-3	37'-10 1/2" LT	783.00'
FF3-4	32'-10 1/2" LT	783.00'
FF3-5	27'-10 1/2" LT	783.00'
FF3-6	22'-10 1/2" LT	783.00'
FF3-7	17'-10 1/2" LT	783.00'
FF3-8	12'-10 1/2" LT	783.00'
FF3-9	7'-10 1/2" LT	783.00'
FF3-10	2'-10 1/2" LT	783.00'

SOIL NAIL SCHEDULE								
FRONT F	ACE OF TEMPORAR	Y SHORING						
NAIL	HORIZONTAL DISTANCE FROM REFERENCE POINT C	ELEVATION						
FF4-1	47'-10 1/2" LT	778.00'						
FF4-2	42'-10 1/2" LT	778.00'						
FF4-3	37'-10 1/2" LT	778.00'						
FF4-4	32'-10 1/2" LT	778.00'						
FF4-5	27'-10 1/2" LT	778.00'						
FF4-6	22'-10 1/2" LT	778.00'						
FF4-7	17'-10 1/2" LT	778.00'						
FF4-8	12'-10 1/2" LT	778.00'						
FF4-9	7'-10 1/2" LT	778.00'						
FF4-10	2'-10 1/2" LT	778.00'						
FF5-1	47'-10 1/2" LT	773.00'						
FF5-2	42'-10 1/2" LT	773.00'						
FF5-3	37'-10 1/2" LT	773.00'						
FF5-4	32'-10 1/2" LT	773.00'						
FF5-5	27'-10 1/2" LT	773.00'						
FF5-6	22'-10 1/2" LT	773.00'						
FF5-7	17'-10 1/2" LT	773.00'						
FF5-8	12'-10 1/2" LT	773.00'						
FF5-9	7'-10 1/2" LT	773.00'						
FF5-10	2'-10 1/2" LT	773.00'						

SOIL NAIL SCHEDULE								
TEMPORARY SHORING - WING WALL C								
NAIL	HORIZONTAL DISTANCE FROM REFERENCE POINT B	ELEVATION						
WC1-1	1'-5 5/16" LT	792.06						
WC2-1	1'-8 1/8" LT	787.07						
WC3-1	3'-2 5/16" LT	782.14						
WC3-2	1'-5 15/16" LT	782.06						
WC4-1	3'-11 9/16" LT	777.17						
WC4-2	1'-5 3/4" LT	777.04						
WC5-1	3'-8 15/16" LT	772.15						
WC5-2	1'-4 1/2" LT	772.04						



	SOIL NAIL SCHEDU	ILE
TEMPOR	ARY SHORING – WI	NG WALL D
NAIL	HORIZONTAL DISTANCE FROM REFERENCE POINT C	ELEVATION
WD1-1	5'-7 1/8" RT	794.00
WD1-2	9'-1 1/8" RT	794.00
WD2-1	0'-8 1/4" RT	791.44
WD2-2	5'-8 1/4" RT	791.44
WD3-1	9'-1 1/8" RT	789.00
WD4-1	0'-3 5/8" RT	786.44
WD4-2	5'-3 5/8" RT	786.44
WD5-1	9'-1 1/8" RT	784.00
WD6-1	0'-2 11/16" LT	782.23
WD6-2	4'-9 5/16" RT	781.73
WD7-1	0'-9 5/16" LT	777.52
WD7-2	9'-1 1/8" RT	779.00
WD7-3	4'-2 11/16" RT	778.69
WD7-4	11'-0 13/16" RT	777.54
WD8-1	1'-5 13/16" LT	772.48
WD8-2	3'-3 3/16" RT	774.15
WD8-3	8'-1 1/8" RT	774.00
WD8-4	11'-0 13/16" RT	772.54
WD9-1	2'-3 3/16" RT	771.51
WD9-2	8'-3 3/16" RT	771.15



GENERAL CONSTRUCTION SEQUENCE:

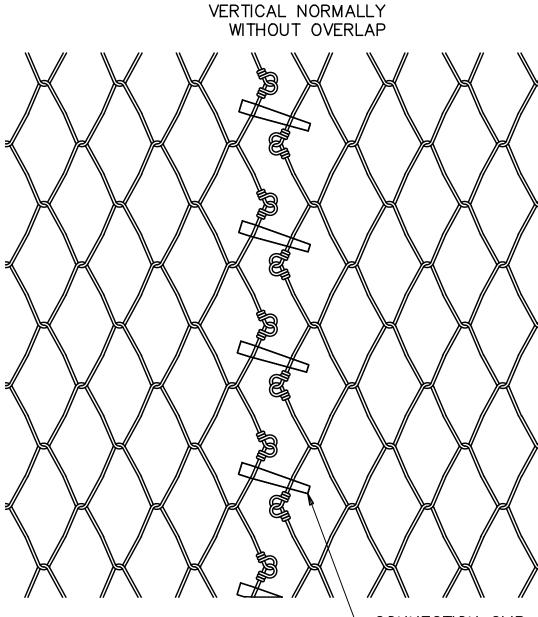
EXCAVATION AND NAIL INSTALLATION WILL BE PERFORMED USING AN EXCAVATOR ARM WITH ADEQUATE REACH TO WORK FROM BENCHES AS EXCAVATION PROGRESSES FROM TOP DOWN.

1. START EXCAVATION FROM THE TOP OF THE SLOPE LIMITING THE EXCAVATION TO 1 FOOT BELOW EACH ROW OF NAILS UNTIL THAT ROW OF NAILS IS INSTALLED. CLEAR THE AFFECTED SLOPE AREA FROM VEGETATION AS REQUIRED.

2. INSTALL NAILS FROM THE BOTTOM OF THE EXCAVATED ZONE FOLLOWING THE REQUIREMENTS SPECIFIED IN SPECIAL PROVISION SOIL NAILS, AND THE GENERAL RECOMMENDATIONS PROVIDED LATER IN THIS CONSTRUCTION SEQUENCE.

3. PERFORM PROOF TESTING OF NAILS IN ACCORDANCE WITH THE SPECIAL PROVISION SOIL NAILS AND AS INDICATED IN THE PLANS AS CONSTRUCTION PROGRESSES. FAILURE OF ANY TESTS TO MEET LOADING REQUIREMENTS WILL REQUIRE RE-ASSESSMENT OF THE SOIL NAIL DESIGN AND RECOMMENDATION FOR FURTHER ACTION BY THE ENGINEER. PROOF TESTING SHOULD BE PERFORMED ON PRODUCTION NAILS CONCURRENTLY WITH CONSTRUCTION.

4. ONCE EACH ROW OF NAILS HAVE BEEN INSTALLED, INSTALL THE MESH, TURF REINFORCEMENT MAT, AND SPIKED PLATE CONNECTIONS.



MESH CONNECTION



- CONNECTION CLIP

8/3/2018

	PT. C
	790/
	780
<u>PLAN VIEW</u>	
NOTES:	
I. MEASURE NAIL SPACING	ALONG FACE OF EXCAVATION

- 2. ALL NAILS ARE NO. 11 150KSI STEEL, 25 FT. LONG
- 3. NAILS ON FRONT FACE ARE NUMBERED FF (ROW)-(COLUMN). NAILS ON WINGWALL ARE NUMBERED BY ROW
- 4. ESTIMATED TOTAL OF SOIL NAIL TREATMENT AREA = 1050 SF
- 5. SHOTCRETE AS REQUIRED TO PREVENT SLOUGHING OF MATERIAL.
- 6. GRADE EXCAVATION ABOVE WALL AND ON SIDES TO MEET EXISTING SLOPES. UTILIZE NAILS IF NECESSARY.

NAIL INSTALLATION AND TESTING:

INSTALL NAILS FOLLOWING THE REQUIREMENTS SPECIFIED IN SPECIAL PROVISION SOIL NAILS. DRILL HOLES FOR NAILS AT THE ANGLE AND LENGTH SPECIFIED IN THE PLANS. CASING MAY BE NECESSARY TO MAINTAIN A CLEAN OPEN HOLE. INJECT GROUT FROM THE BOTTOM OF THE NAIL PROGRESSIVELY TO THE TOP TO PREVENT AIR VOIDS. USE NAIL CENTRALIZERS AS INDICATED ON THE DETAILS.

PROOF TESTING OF NAILS SHOULD BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISION SOIL NAILS AND AS INDICATED IN THE PLANS. PROOF TESTING SHOULD BE PERFORMED ON PRODUCTION NAILS CONCURRENTLY WITH CONSTRUCTION.

MESH:

IN ACCORDANCE WITH SPECIAL PROVISIONS "SOIL NAILS".

Mark	Description	Ву	Chk' d.	Recm'd.	Date		
REVISIONS							

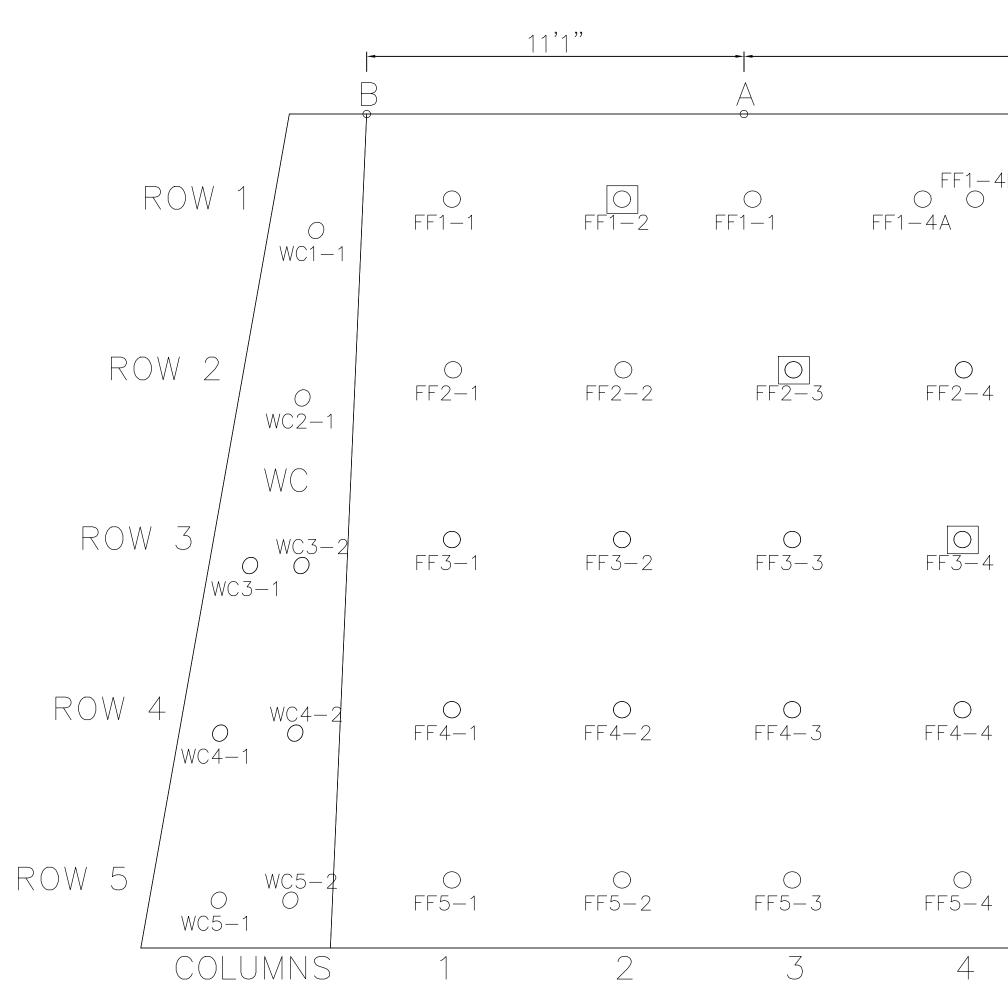
SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
SR 3110, SECTION A02
SEGMENT 0010 OFFSET 0001
SR 3110-A02 STA. 11+96.74 (SHALER STREET)
OVER SR 0019-A63

2-SPAN	COMP	STEEL	PLATE	GIRDER	BRIDGE
SO	IL N	AIL W	VALL D	ETAILS	2

	RECOMMENDED	08/03/2018		SHE	ΕT	<u>31</u>	0F	83	3
				S	_	37	60	5	
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* REFERENCE POINT A IS BOTTOM LEFT CORNER OF EXISTING ABUTMENT, POINT B IS 11'-1" LEFT OF POINT A, AND POINT C IS 39'-3 1/2" RIGHT OF POINT A. REFERENCE POINTS ARE MEASURED ALONG THE TOP FRONT FACE OF TEMPORARY SHORING.

FRONT FACE AND WING C HAVE 5 ROWS, WING D HAS 9 ROWS.

DES: RJS	CKD: MJL

		39'-	-3 1/2"				- -
-1-4B O	FF1-5E 0 0 FF1-5A	B FF O C FF1—6A	-1—6B) C FF1—	FF1-8) O 7	FF1-9B OO FF1-9A	0 FF1-10	0 WD2-1
$\frac{2}{2}-4$	O FF2-5	O FF2-6	O FF2-7	O FF2-8	O FF2-9	0 FF2-10	O WD4-
<u>)</u> 3-4	FF O FF3-5	5'- 5 (T FF3-6	<u>-0"</u> YP) FF3-7 5'-0"	O FF3–8	0 FF3-9	0 FF3-10	O WD6-
) 	0 FF4-5	O FF4-6	(TYP) ↓ ↓ FF4−7	O FF4-8	0 FF4-9	0 FF4—10	O WD7
) 5-4	O FF5-5	0 FF5-6	O FF5-7	O FF5–8	0 FF5-9	0 FF5-10	WD 8 O
4	5	6	7	8	9	10	

🔘 – DENOTES PROOF TEST NAIL

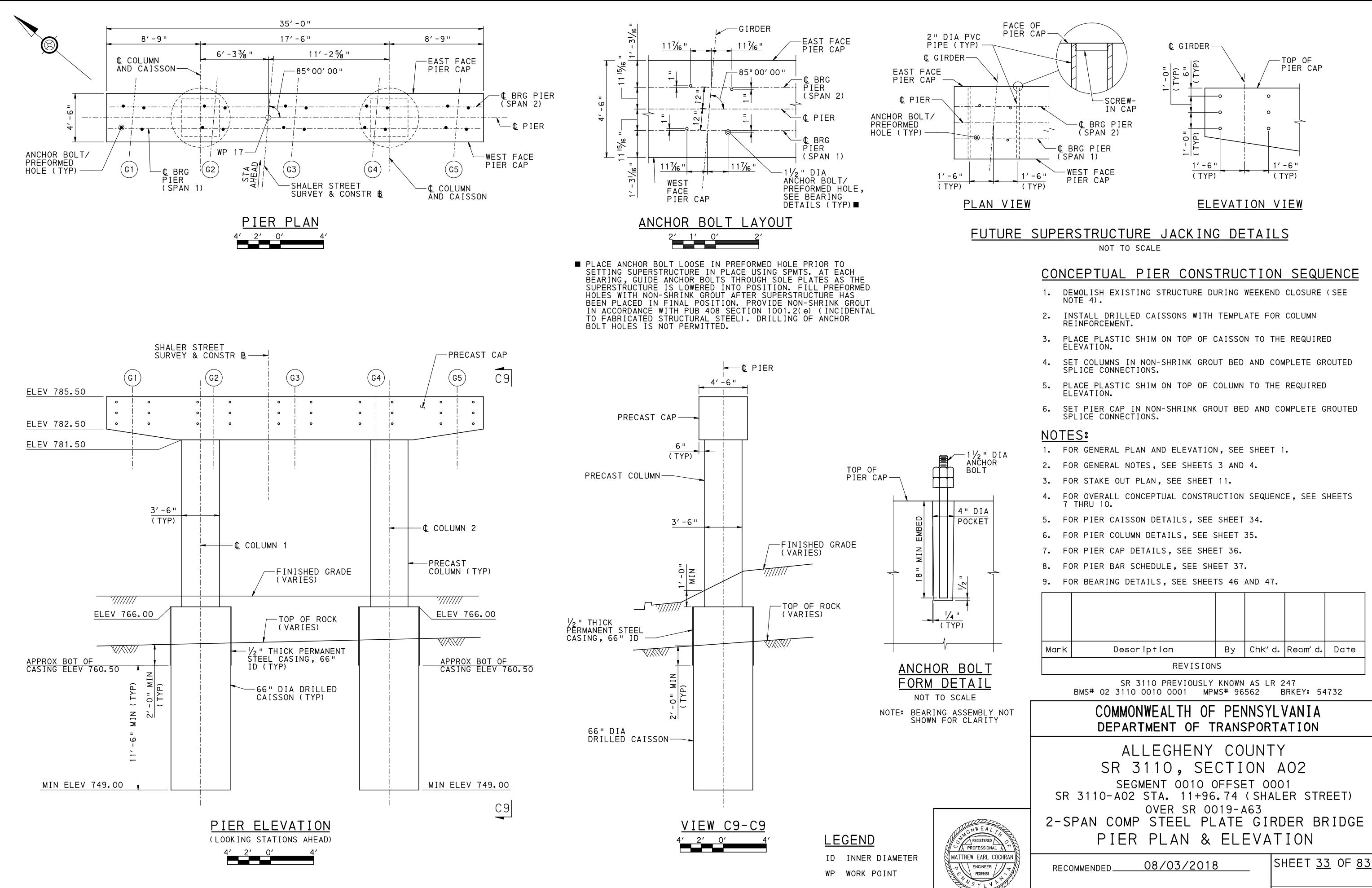
NAILS	<u>TEST</u>	LC	DAD	P
	16.	3	KIP	
	23.	1	KIP	
	39.	8	KIP	
	39.	8	KIP	
	6.	.3	KIP	
		16. 23. 39. 39.	16.3 23.1 39.8 39.8	16.3 KIP

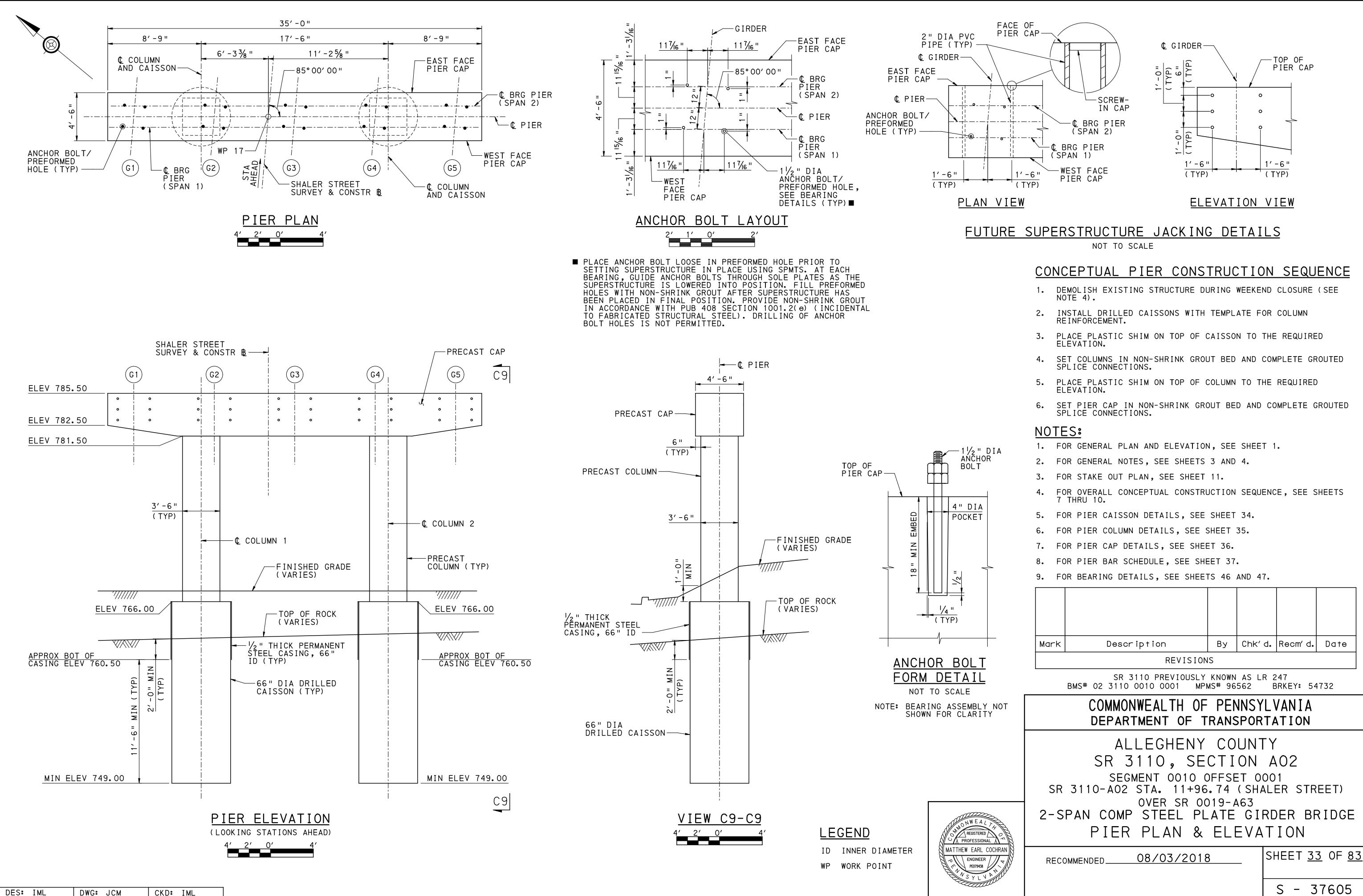


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	EL. 795.5
WD	$ \begin{array}{c} \text{WD1-2} \\ 1-1 \end{array} \\ ROW 1 \end{array}$
1	$ O_{WD2-2} $ ROW 2
	$\left(\begin{array}{c} 0 \\ WD3-1 \end{array} \right) ROW 3$
- 1	WD_{4-2} WD O_{WD5-1} ROW 5
-1	O WD6-2 ROW 6
7-1	$ \begin{array}{c} 0 \\ WD7-2 \\ WD7-4 \end{array} ROW 7 \\ WD7-4 \end{array} $
)8—1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	Mark Description By Chk'd. Recm'd. Date
	REVISIONS SR 3110 PREVIOUSLY KNOWN AS LR 247
	BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732
	DEPARTMENT OF TRANSPORTATION
	ALLEGHENY COUNTY SR 3110, SECTION AO2 SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET)
	OVER SR 0019-A63 2-SPAN COMP STEEL PLATE GIRDER BRIDGE SOIL NAIL WALL DETAILS 3
	RECOMMENDED 08/03/2018 SHEET 32 OF 83
Ø	RECOMMENDED <u>0070372010</u> S - 37605
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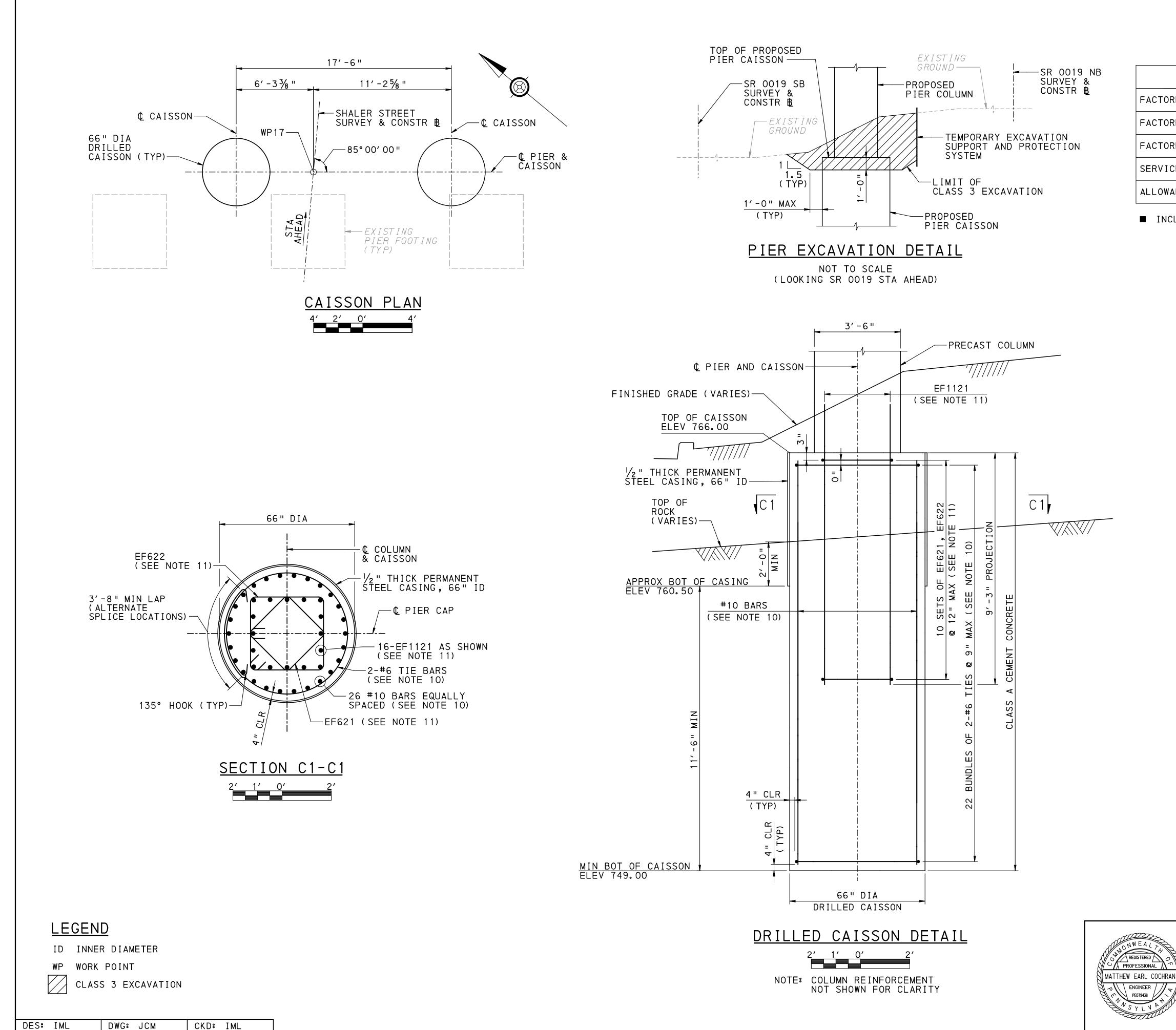




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PIER	PLAN	& ELEVATION

RECOMMENDED	08/03/2018	SHEET <u>33</u> OF <u>83</u>
		S - 37605
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PIER - FOUNDATION DATA				
RED CAISSON AXIAL LOAD - EXT-II ■	1053.33 KIPS			
RED CAISSON AXIAL RESISTANCE	3670.44 KIPS			
RED CAISSON LATERAL LOAD - EXT-II	515.80 KIPS			
CE CAISSON LATERAL DEFLECTION - SERV-I	0.16 IN			
ABLE LATERAL DEFLECTION	0.50 IN			

■ INCLUDES CAISSON DEAD LOADS

NOTES:

- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR STAKE OUT PLAN, SEE SHEET 11.
- 3. FOR PIER PLAN AND ELEVATION, SEE SHEET 33.
- 4. FOR PIER COLUMN DETAILS, SEE SHEET 35.
- 5. FOR PIER CAP DETAILS, SEE SHEET 36.
- 6. FOR PIER BAR SCHEDULE, SEE SHEET 37.
- 7. EPOXY COAT ALL REINFORCEMENT IN DRILLED CAISSONS.
- 8. TOP OF ROCK LOCATIONS FOR DRILLING CAISSONS TO BE VERIFIED BY THE DISTRICT GEOTECHNICAL ENGINEER.
- 9. INSTALL 1/2" PERMANENT STEEL CASING IN ACCORDANCE WITH ITEM NO. 9000-0034 66" DIA PERMANENT CASING FOR DRILLED CAISSONS.
- 10. REINFORCEMENT INCIDENTAL TO ITEM NO. 9000-0030 66" DIAMETER DRILLED CAISSONS, SHAFT SECTION IN SOIL, ITEM NO. 9000-0031 66" DIAMETER DRILLED CAISSONS, SHAFT SECTION IN ROCK, AND ITEM NO. 9000-0032 66" DIAMETER DRILLED CAISSONS, SHAFT SECTION THROUGH OBSTRUCTION.
- 11. REINFORCEMENT ACCOUNTED FOR IN ITEM 1002-0053 REINFORCEMENT BARS, EPOXY COATED.

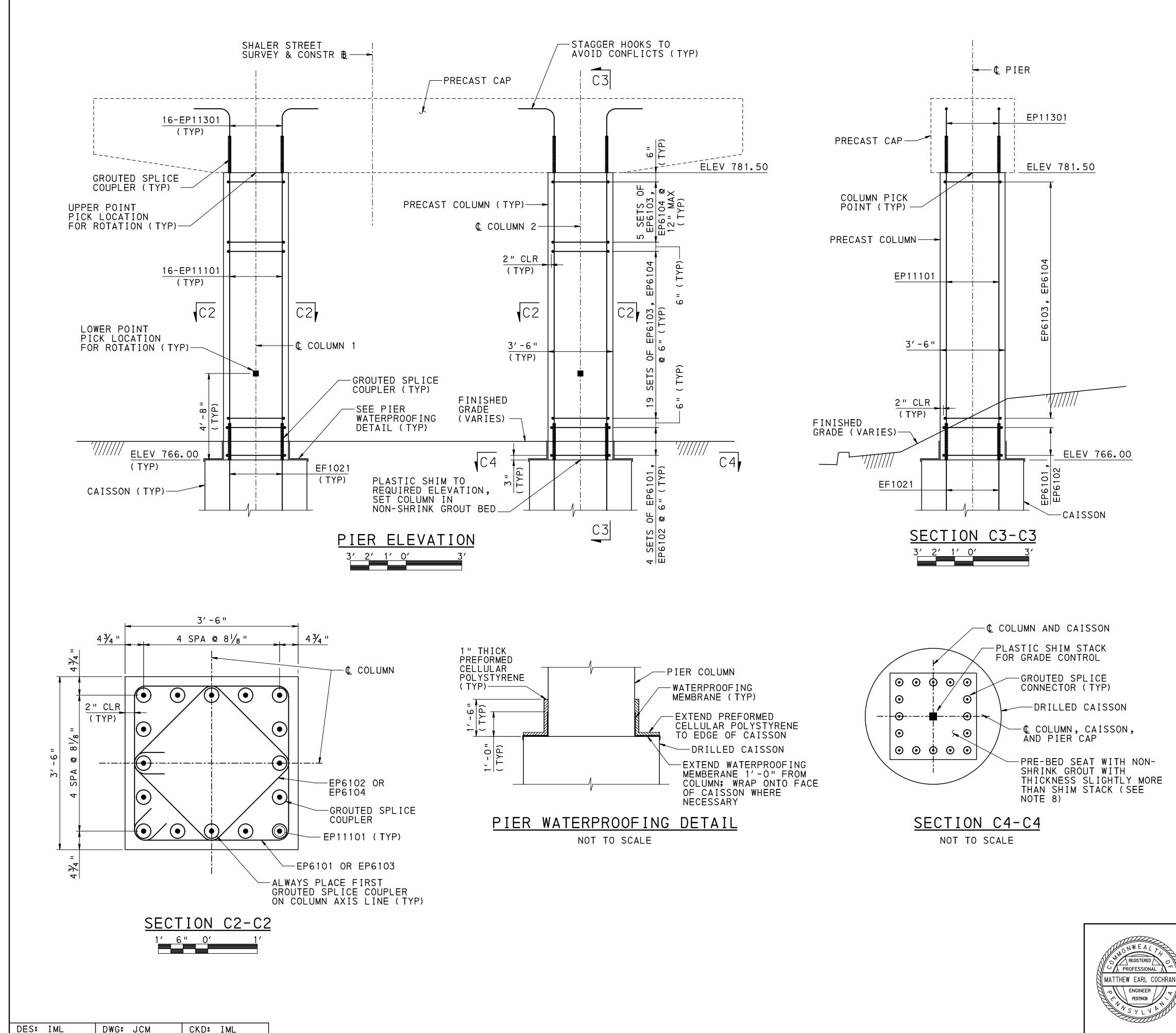
Mark	Description	Ву	Chk' d.	Recm'd.	Date
REVISIONS					
SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732					

COMMONWEALTH C	OF PENNSYLVANIA
DEPARTMENT OF	TRANSPORTATION

ALLEGHENY COUNTY						
SR 3110, SECTION A02						
SEGMENT 0010 OFFSET 0001						
SR 3110-A02 STA. 11+96.74 (SHALER STREET)						
OVER SR 0019-A63						

2-SPAN COMP	STEEL PLAT	TE GIRDER BRIDGE
PIER	CAISSON	DETAILS

1	RECOMMENDED	08/03/2018		SHEET	- <u>34</u> 0	F <u>83</u>
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PRECAST PIER COL	UMN	1
FOR INFORMATION ONLY PICK W	VEIGHT	= 29 KIP
ITEM	UNIT	QUANTITY
REINFORCEMENT BARS, EPOXY COATED	LB	2320
CEMENT CONCRETE, 5000 PSI	CY	8
LIFTING DEVICE	EA	2
GROUTED SPLICE COUPLER	EA	16

PRECAST PIER COL	UMN	2
FOR INFORMATION ONLY PICK W	VEIGHT	= 29 KIP
ITEM	UNIT	QUANTITY
REINFORCEMENT BARS, EPOXY COATED	LB	2320
CEMENT CONCRETE, 5000 PSI	CY	8
LIFTING DEVICE	EA	2
GROUTED SPLICE COUPLER	EA	16

NOTES:

- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR STAKE OUT PLAN, SEE SHEET 11.
- 3. FOR PIER PLAN AND ELEVATION, SEE SHEET 33.
- 4. FOR PIER CAISSON DETAILS, SEE SHEET 34.
- 5. FOR PIER CAP DETAILS, SEE SHEET 36.
- 6. FOR PIER REBAR SCHEDULE, SEE SHEET 37.
- 7. FOR CONSTRUCTION TOLERANCES AND GROUTED SPLICE COUPLER DETAIL, SEE SHEET 68.
- 8. PLACE SHIM STACK AS NOTED ON PLANS. PLACE NON-SHRINK GROUT AROUND SHIM STACK WITHIN LIMITS OF CONNECTION OR RIGID PLASTIC FORM, AND AS SHOWN ON PLANS. NON-SHRINK GROUT TO BE SLIGHTLY HIGHER THAN SHIM STACK TO ACHIEVE FULL CONTACT BETWEEN BOTH CONNECTION SURFACES. SHIMS ARE TO REMAIN IN PLACE.
- 9. ERECTION TOLERANCE ON ELEVATION = $\pm \frac{1}{4}$ "

			-			
Mark	Description	Ву	Chk' d.	Recm' d.	Date	
REVISIONS						

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

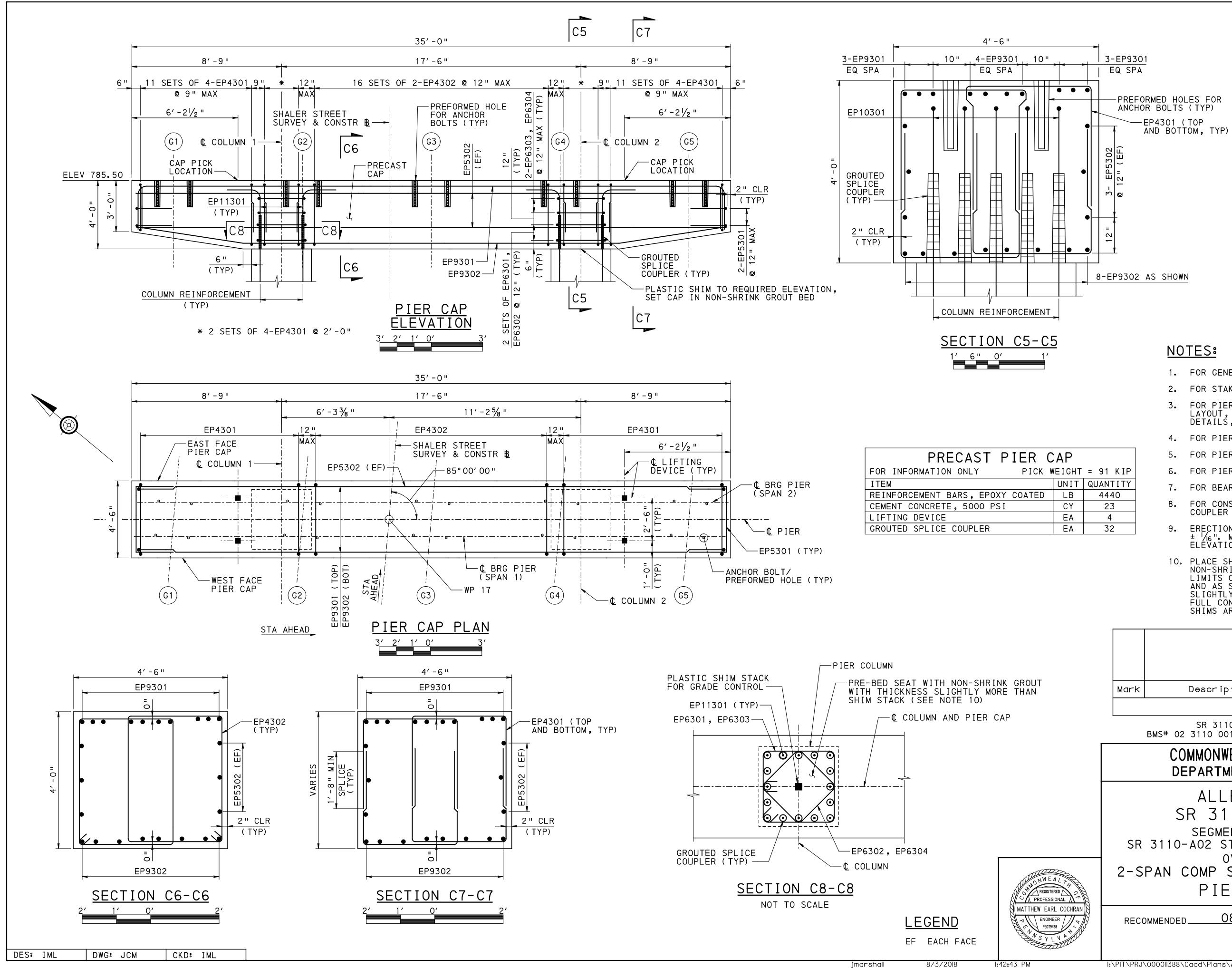
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY SR 3110, SECTION AO2 SEGMENT 0010 OFFSET 0001

SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63

2-SPAN	COMP	SIEEL	PLAIE	GIRDER	BRIDGE
	PIER	COLL	JMN DE	ETAILS	

RECOMMENDED	08/03/2018		SHE	ΕT	<u>35</u>	0F	<u>83</u>
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- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR STAKE-OUT PLAN SEE SHEET 11.
- FOR PIER PLAN AND ELEVATION, ANCHOR BOLT LAYOUT, AND FUTURE SUPERSTRUCTURE JACKING DETAILS, SEE SHEET 33.
- 4. FOR PIER CAISSON DETAILS, SEE SHEET 34.
- 5. FOR PIER COLUMN DETAILS, SEE SHEET 35.
- FOR PIER BAR SCHEDULE, SEE SHEET 37.
- 7. FOR BEARING DETAILS, SEE SHEETS 46 & 47.
- 8. FOR CONSTRUCTION TOLERANCES AND GROUTED SPLICE COUPLER DETAIL, SEE SHEET 68.
- ERECTION TOLERANCE FOR BEAM SEAT ELEVATION = ± 1/16". MAY BE SET HIGH AND GROUND TO SPECIFIED ELÉVATION.
- 10. PLACE SHIM STACK AS NOTED ON PLANS. PLACE NON-SHRINK GROUT AROUND SHIM STACK WITHIN LIMITS OF CONNECTION OR RIGID PLASTIC FORM, AND AS SHOWN ON PLANS. NON-SHRINK GROUT TO BE SLIGHTLY HIGHER THAN SHIM STACK TO ACHIEVE FULL CONTACT BETWEEN BOTH CONNECTION SURFACES. SHIMS ARE TO REMAIN IN PLACE.

Mark	Description	Ву	Chk' d.	Recm'd.	Date
REVISIONS					

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY SR 3110, SECTION A02 SEGMENT 0010 OFFSET 0001

SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63 2-SPAN COMP STEEL PLATE CIRDER BRIDGE

Z-JFAN		JIEEL		GINDEN	DUIDRE
	PIE	ER CAI	P DET	AILS	

RECOMMENDED	08/03/2018	SHEET <u>36</u> OF <u>83</u>
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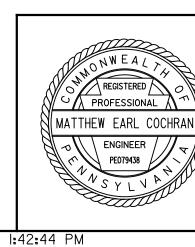
PIER REINFORCEMENT BAR SCHEDULE									
MARK	QUANTITY	SIZE	LENGTH	TYPE	А	B	С	D	REMARKS
CAIS	SON								
EF621	20	6	10′ – 4 "	25	2′ -3 "	2'-3"	4 1/2"	4 1/2"	
EF622	20	6	13′ – 4 "	25	3′ -0 "	3′ -0 "	4 1⁄2"	4 1⁄2"	
EF1121	32	11	10′ -3 "	STR					**

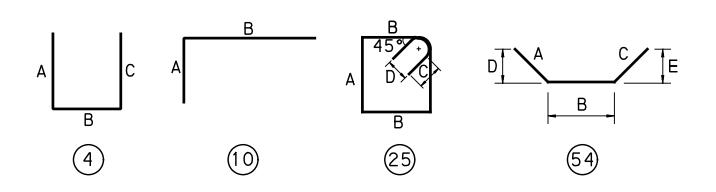
	PIER	PREC	CAST REINFOR	RCEMEI	NT BAR	SCHEDUL	E (FOR	INFORMA	TION	ONLY)
MARK	QUANTITY	SIZE	LENGTH	TYPE	Α	В	С	D	E	REMARKS
COLL	JMN									
EP6101	8	6	14′ -0 "	25	3′ -2 "	3′ -2 "	4 1/2"	4 ½"		
EP6102	8	6	10′ - 10 "	25	2′-4 ½″	2'-4 1/2"	4 1/2"	4 ½"		
EP6103	48	6	13′ – 4 "	25	3′ -0 "	3′ -0 "	4 1⁄2"	4 ½"		
EP6104	48	6	10′ – 4 "	25	2′ -3 "	2' - 3 "	4 1⁄2"	4 ½"		
EP11101	32	11	15′ - 6 "	STR						**
CAP										
EP4301	104	4	8′ – 1 "	4	2′ -8 "	2′ - 9 "	2′ -8 "			
EP4302	32	4	13′ -5 "	25	3′ - 8 "	2′ -9 "	3 "	2 "		
EP5301	4	5	8′ -5 "	4	2′ -2 "	4′ – 1 "	2′ -2 "			
EP5302	6	5	34′ -8 "	STR						
EP6301	4	6	14′ -0 "	25	3′ -2 "	3′ -2 "	4 1/2"	4 ½"		
EP6302	4	6	10′ -8 "	25	2′ -4 "	2′ -4 "	4 1/2"	4 ½"		
EP6303	4	6	13′ - 4 "	25	3′ -0 "	3′ -0 "	4 1/2"	4 ½"		
EP6304	4	6	10′ -4 "	25	2′ -3 "	2' - 3 "	4 1/2"	4 ½"		
EP9301	10	9	39′ - 8 "	4	2′ -7 "	34′ - 6 "	2' -7 "			
EP9302	8	9	34′ -8 "	54	6′ - 4 "	22′-0"	6′ - 4 "	11 ½"	11 1/2"	
EP11301	32	11	4′ -5 "	10	2′ -5 "	2′ -0 "				**

<u>Legend:</u>

** REBAR LENGTHS AND PROJECTIONS AT GROUTED SPLICE COUPLERS ARE BASED ON AN ASSUMED COUPLER SYSTEM. CONTRACTOR TO VERIFY REBAR LENGTHS AND PROJECTIONS WITH ACTUAL GROUTED SPLICE COUPLER USED.

DES: JCM	A DWG: JCM CKD: JC





NOTES:

- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR PIER PLAN AND ELEVATION, SEE SHEET 33.
- 3. FOR PIER CAISSON DETAILS, SEE SHEET 34.
- 4. FOR PIER COLUMN DETAILS, SEE SHEET 35.
- 5. FOR PIER CAP DETAILS, SEE SHEET 36.
- 6. FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE STANDARD DRAWING BC-736M.
- 7. PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT BARS.
- 8. ALL DIMENSIONS ARE OUT-TO-OUT OF BARS EXCEPT "A" ON STANDARD 180° HOOKS AND "R" WHICH IS SHOWN AT THE INSIDE OF THE BAR.
- 9. FIGURES IN CIRCLES SHOW BAR TYPE.
- 10. STR DENOTES STRAIGHT BAR.

Mark	Description	Ву	Chk' d.	Recm'd.	Date			
	REVISIONS							

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

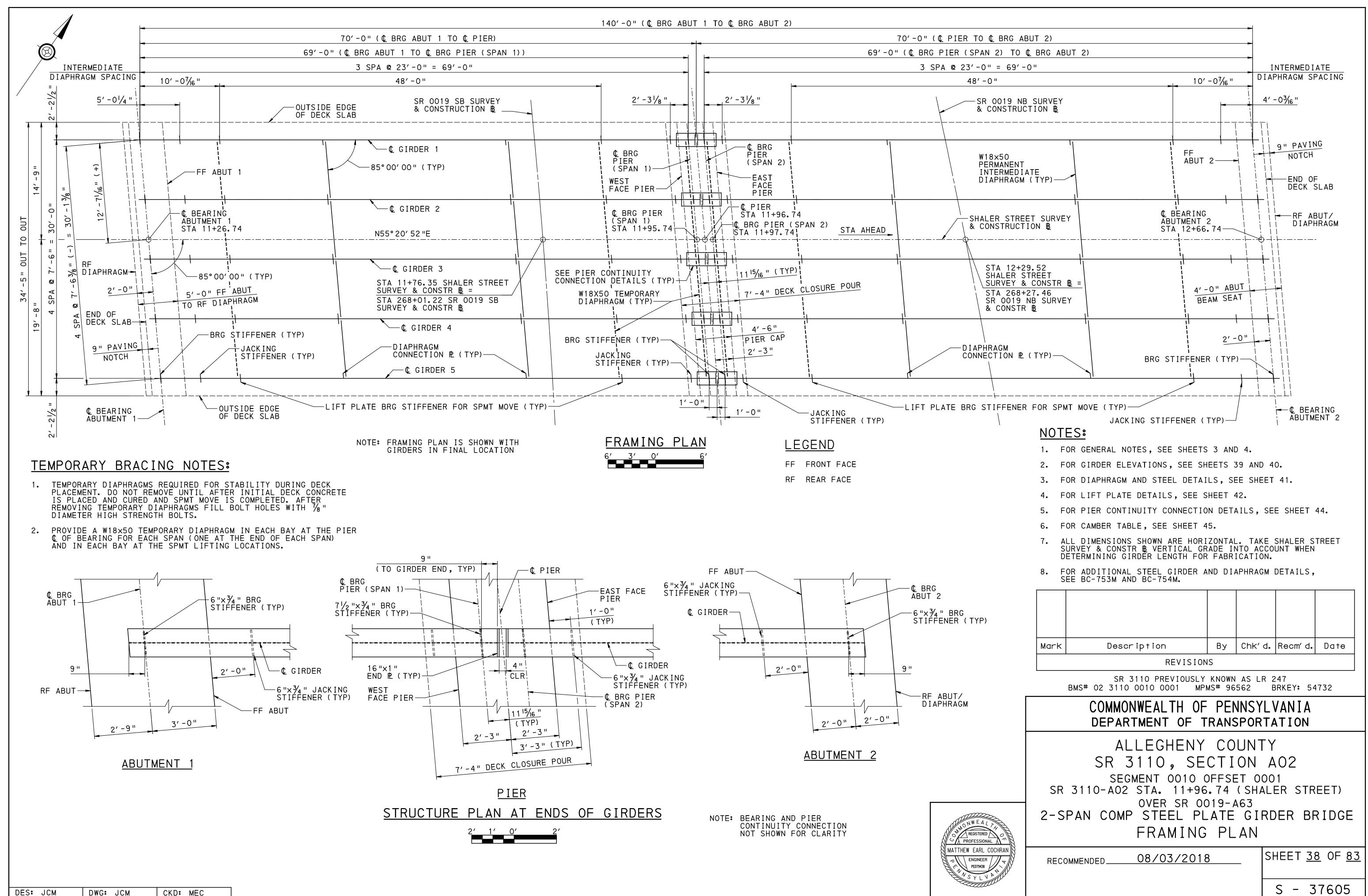
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY SR 3110, SECTION AO2 SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63

2-SPAN	COMP	SIEEL	PLAIE	GIRDER	BRIDGE
	PIE	R BAF	R SCHE	EDULE	

RECOMMENDED	08/03/2018	SHEET <u>37</u> OF <u>83</u>
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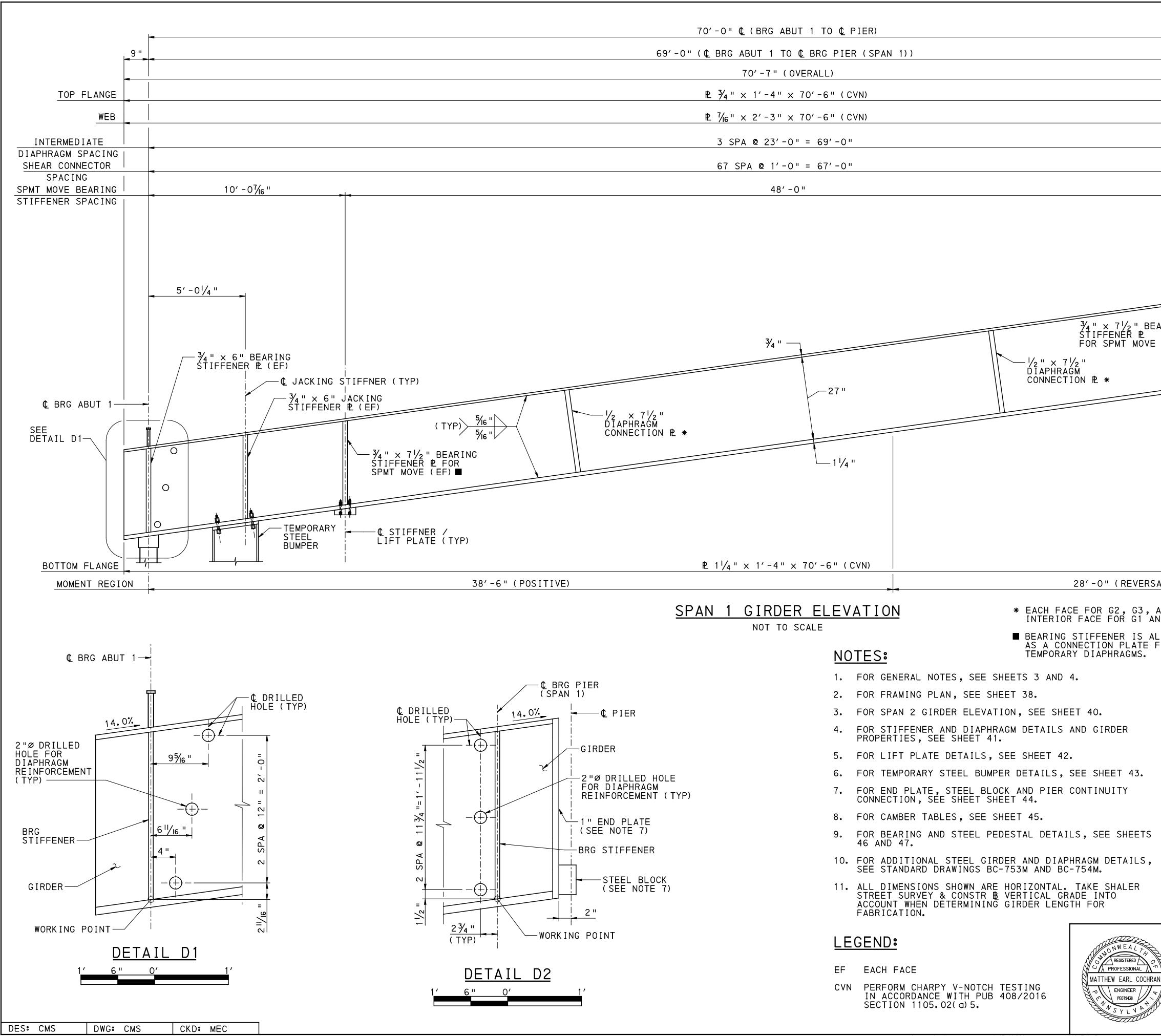


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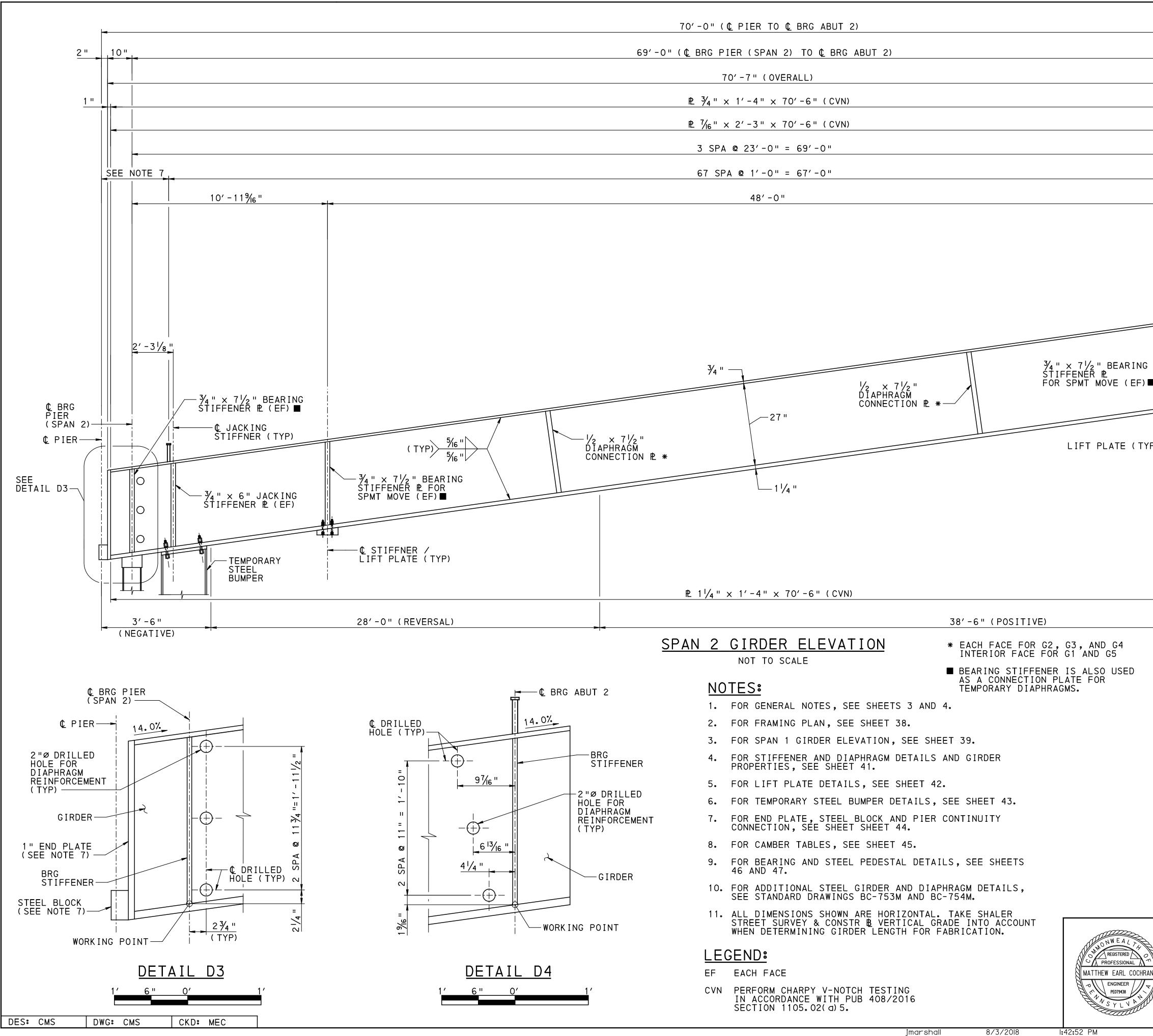
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70'-0" 🕻 (BRG ABUT 1 TO 🕻 PIER)
69'-0" (¢_ BRG ABUT 1 TO ¢_ BRG PIER (SPAN 1))
70'-7" (OVERALL)
₽ ¾ "× 1′-4 "× 70′-6 " (CVN)
₽ 1/16" × 2'-3" × 70'-6" (CVN)
3 SPA @ 23'-0" = 69'-0"
67 SPA @ 1'-0" = 67'-0"
48′-0"

						-	4		
						10"	2"		
							<u>1"</u> 		
			-	SEE	NOTE	7 	-		
	,	-	0′ – 11 <u>%</u> 6 "	<u>-2' -</u>	3 ¹ / ₈ "				
		3/4 " STI	×7½"B FFENER₽	EARING (EF)∎──			└ € ₽1	ER	
					N				
					0				
ARIN (EF)		∛4" × 6" STIFFENEF	JACKING ≹ LEF) —		0			E TAIL D2	
				¢ BRG PIER				TAIL DZ	
		LIFT PLAT (TYF	Ē	(SPAN	1)- - -		STEEL PEDES (TYP)	STAL	
		Ì							
AL)							3′-6"	(NEGATIVE	<u>)</u>
AND (ND GS LSO (5								
FOR	JSED								
	Maala								
	Mark	Des	cription R	EVISION	By IS	CUK,	d. Recm'	d. Date	
		BMS# 02 311		01 MPI	MS# 96	562	BRKEY:		
			NWEAL RTMENT						
	٢R		3110 gment (2 sta.	010 0	OFFSE	ET O	001	(REET)	
		PAN COM	OVER	SR OC)19-A	463			_
		SPAN					VATI	ON	
T	RECO	DMMENDED	08/03	3/2018	3	-	SHEET	<u>39</u> OF <u>8</u>	<u>33</u>
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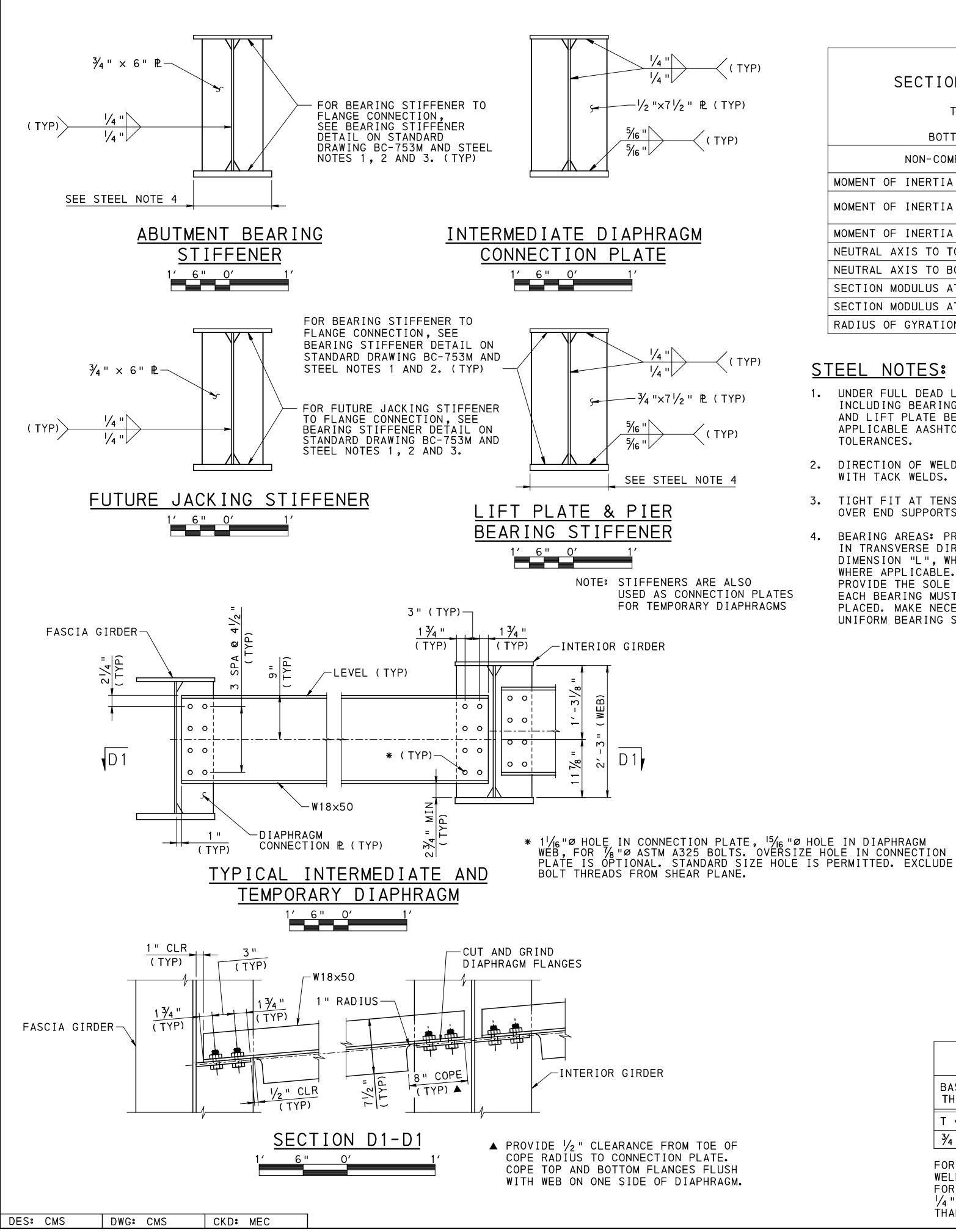
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70'-0" (C_PIER TO C_BRG ABUT 2)	
69'-0" (C_BRG PIER (SPAN 2) TO C_BRG ABUT 2)	
70'-7" (OVERALL)	
₽ ¾ " × 1′-4 " × 70′-6 " (CVN)	
₽ 1/ ₆ " × 2'-3" × 70'-6" (CVN)	
3 SPA @ 23'-0" = 69'-0"	
67 SPA @ 1'-0" = 67'-0"	
48′-0"	

				-
				- TOP FLANGE
				WEB
				INTERMEDIATE DIAPHRAGM SPACING SHEAR CONNECTOR
		10′ -0 1⁄16 ''		SPACING SPMT MOVE BEARING
		4′ - 0 ³ / ₁₆ "		STIFFENER SPACING
				-
				│
		JÁCKÍNG STIFFENER		SEE DETAIL D4
		₽ (EF)		
				-¢_BRG_ABUT_2
'P)—⁄		Ι		
				BOTTOM FLANGE
			МОМ	ENT REGION
	[<u>ј г</u>	
	Mark	Description REVISIO		Chk' d. Recm' d. Date
		SR 3110 PREVIOUSLY	KNOWN	
		BMS# 02 3110 0010 0001 MP	MS# 965 PFN	
		DEPARTMENT OF 1		
		ALLEGHENY		
		SR 3110, SE segment 0010		
	SF	R 3110-A02 STA. 11+96	5.74 (SHALER STREET)
	2-3	OVER SR O SPAN COMP STEEL PL		
		SPAN 2 - GIRD	ER E	LEVATION
	REC	COMMENDED 08/03/201	8	SHEET <u>40</u> OF <u>83</u>
У				S - 37605

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___/₂ "x7 /₂ " ₧ (TYP)

(TYP)

<u>____3⁄4</u> "×7 1⁄2 " ⅊(TYP)

SEE STEEL NOTE 4

NOTE: STIFFENERS ARE ALSO USED AS CONNECTION PLATES FOR TEMPORARY DIAPHRAGMS

STEEL GIRDER SECTION PROPERTIES (ALL GIRD	ERS)
TOP FLANGE: 1'-4" X ¾" GRADE 5 WEB: 2'-3" X ¼6" GRADE 5 BOTTOM FLANGE: 1'-4" X 1¼" GRADE 5	0
NON-COMPOSITE, POSITIVE & NEGATIVE FLEX	(URE
MOMENT OF INERTIA, IX, in ⁴	6714
MOMENT OF INERTIA (COMPR. FLG.), IYC, in4	256 (TOP FLG) 427 (BOT FLG)
MOMENT OF INERTIA, IY, in⁴	683
NEUTRAL AXIS TO TOP OF GIRDER, in	16.898
NEUTRAL AXIS TO BOTTOM OF GIRDER, in	12.102
SECTION MODULUS AT TOP OF GIRDER, in ³	397
SECTION MODULUS AT BOTTOM OF GIRDER, in ³	555
RADIUS OF GYRATION OF GIRDER, in	3.948

STEEL NOTES:

- 1. UNDER FULL DEAD LOAD GIRDER ENDS AND ALL BEARING STIFFENERS, INCLUDING BEARING STIFFENERS AT PIERS. FUTURE JACKING STIFFENERS AND LIFT PLATE BEARING STIFFENERS ARE VERTICAL TO WITHIN APPLICABLE AASHTO/AWS FABRICATION AND CONSTRUCTION TOLERANCES.
- 2. DIRECTION OF WELDS IS NOT APPLICABLE IF STIFFENERS ARE FITTED WITH TACK WELDS.
- 3. TIGHT FIT AT TENSION FLANGES AT INTERIOR SUPPORTS. FILLET WELDS OVER END SUPPORTS.
- 4. BEARING AREAS: PROVIDE BOTTOM FLANGE IN A TRUE HORIZONTAL PLANE IN TRANSVERSE DIRECTION AND IN A TRUE PLANE LONGITUDINALLY OVER DIMENSION "L", WHERE L = WIDTH OF SOLE PLATE + 6" AHEAD AND BACK, WHERE APPLICABLE. IF THE SOLE PLATE IS WELDED TO THE BOTTOM FLANGE PROVIDE THE SOLE PLATE MEETING THE SAME FLATNESS REQUIREMENTS. EACH BEARING MUST BE STRESSED UNIFORMLY AFTER ALL DEAD LOAD IS PLACED. MAKE NECESSARY SHOP AND/OR FIELD ADJUSTMENTS TO PROVIDE UNIFORM BEARING STRESS UNDER ALL DEAD LOADS.

GIRDERS MOMENT C NEUTRAL SECTION SECTION

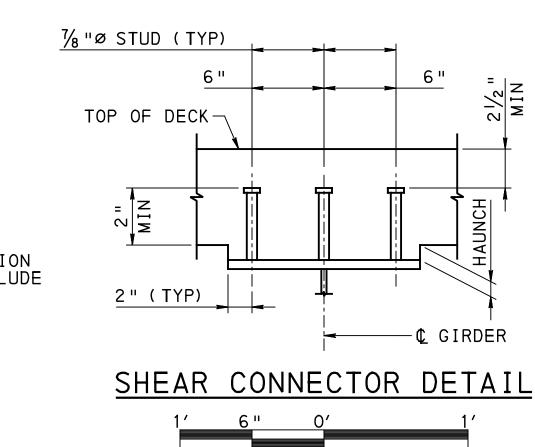
GIRDERS MOMENT C NEUTRAL

SECTION SECTION COMPC

GIRDERS MOMENT C NEUTRAL SECTION SECTION

COMPO GIRDERS

MOMENT C NEUTRAL SECTION SECTION



FILLET WELD TAB	LE		
BASE METAL THICKNESS OF THICKER PART JOINED (T)	MIN SIZE		
T <= ³ / ₄ "	¹ /4 "	м Ф	
³ ∕ ₄ " < T	5/16 "		
FOR MATERIAL LESS THAN 1/4			

E MAXIMUM VELU SIZE IS THE THICKNESS OF THE MATERIAL. FOR MATERIAL THAT IS GREATER THAN OR EQUAL TO $1\!\!/_4$ " THICK, THE MAXIMUM WELD SIZE IS $1\!\!/_{16}$ " LESS THAN THE THICKNESS OF THE MATERIAL.



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STEEL GIRDER SECTION PROPERTIES		
TOP FLANGE: 1'-4" X 3⁄4" GRADE WEB: 2'-3" X 1⁄16" GRADE BOTTOM FLANGE: 1'-4" X 11/4" GRADE	50	
COMPOSITE, 3N = 24, POSITIVE FLE		
	1,5	2,3,4
OF INERTIA, IX, in⁴	13127	14149
AXIS TO BOTTOM OF GIRDER, in	19.076	20.175
MODULUS AT TOP OF GIRDER, in ³	1323	1603
MODULUS AT BOTTOM OF GIRDER, in ³	688	701
COMPOSITE, N = 8, POSITIVE FLEX	URE	
	1,5	2,3,4
OF INERTIA, IX, in⁴	18324	19404
AXIS TO BOTTOM OF GIRDER, in	24.589	25.693
MODULUS AT TOP OF GIRDER, in ³	4154	5867
MODULUS AT BOTTOM OF GIRDER, in ³	745	755
OSITE, NEGATIVE FLEXURE (SPAN 1: O'-38.5' &	SPAN 2: 31.5	5′-70′**)
	1,5	2,3,4
OF INERTIA, IX, in⁴	7979	8277
AXIS TO BOTTOM OF GIRDER, in	13.546	13.886
MODULUS AT TOP OF GIRDER, in ³	516	548
MODULUS AT BOTTOM OF GIRDER, in ³	589	596
OSITE, NEGATIVE FLEXURE (SPAN 1: 38.5'-70' &	SPAN 2: 0'-	-31.5′**)
	1,5	2,3,4
OF INERTIA, IX, in⁴	9361	9926
AXIS TO BOTTOM OF GIRDER, in	15.055	15.685
MODULUS AT TOP OF GIRDER, in ³	671	745
MODULUS AT BOTTOM OF GIRDER, in ³	622	633
FOR SPAN 1 AND FROM & PIER FOR	⊈ BRG SPAN 2	
FOR SPAN 1 AND FROM & PIER FOR	SPAN 2	
FOR SPAN 1 AND FROM & PIER FOR <u>NOTES</u> 1. For general notes, see sheets 3 a	SPAN 2	
FOR SPAN 1 AND FROM & PIER FOR <u>NOTES</u> 1. FOR GENERAL NOTES, SEE SHEETS 3 A 2. FOR FRAMING PLAN, SEE SHEET 38.	SPAN 2 ND 4.	
FOR SPAN 1 AND FROM & PIER FOR <u>NOTES</u> 1. FOR GENERAL NOTES, SEE SHEETS 3 A 2. FOR FRAMING PLAN, SEE SHEET 38. 3. FOR GIRDER ELEVATIONS, SEE SHEETS	SPAN 2 ND 4. 5 39 AND 40.	
FOR SPAN 1 AND FROM & PIER FOR <u>NOTES</u> 1. FOR GENERAL NOTES, SEE SHEETS 3 A 2. FOR FRAMING PLAN, SEE SHEET 38.	SPAN 2 ND 4. 39 AND 40. 91APHRAGM DE	TAILS,
FOR SPAN 1 AND FROM & PIER FOR <u>NOTES</u> 1. FOR GENERAL NOTES, SEE SHEETS 3 A 2. FOR FRAMING PLAN, SEE SHEET 38. 3. FOR GIRDER ELEVATIONS, SEE SHEETS 4. FOR ADDITIONAL STEEL GIRDER AND D	SPAN 2 ND 4. 39 AND 40. 91APHRAGM DE	TAILS,

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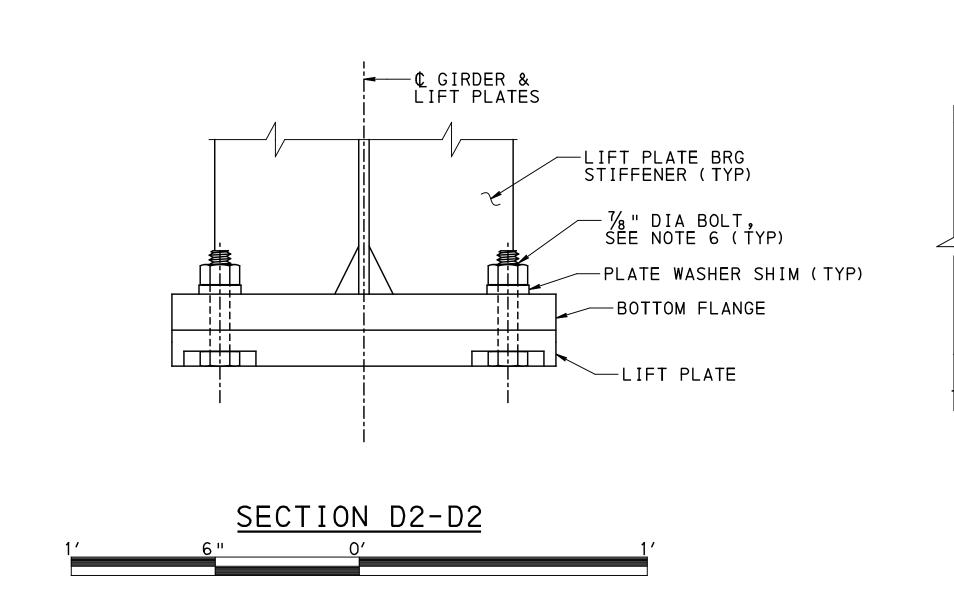
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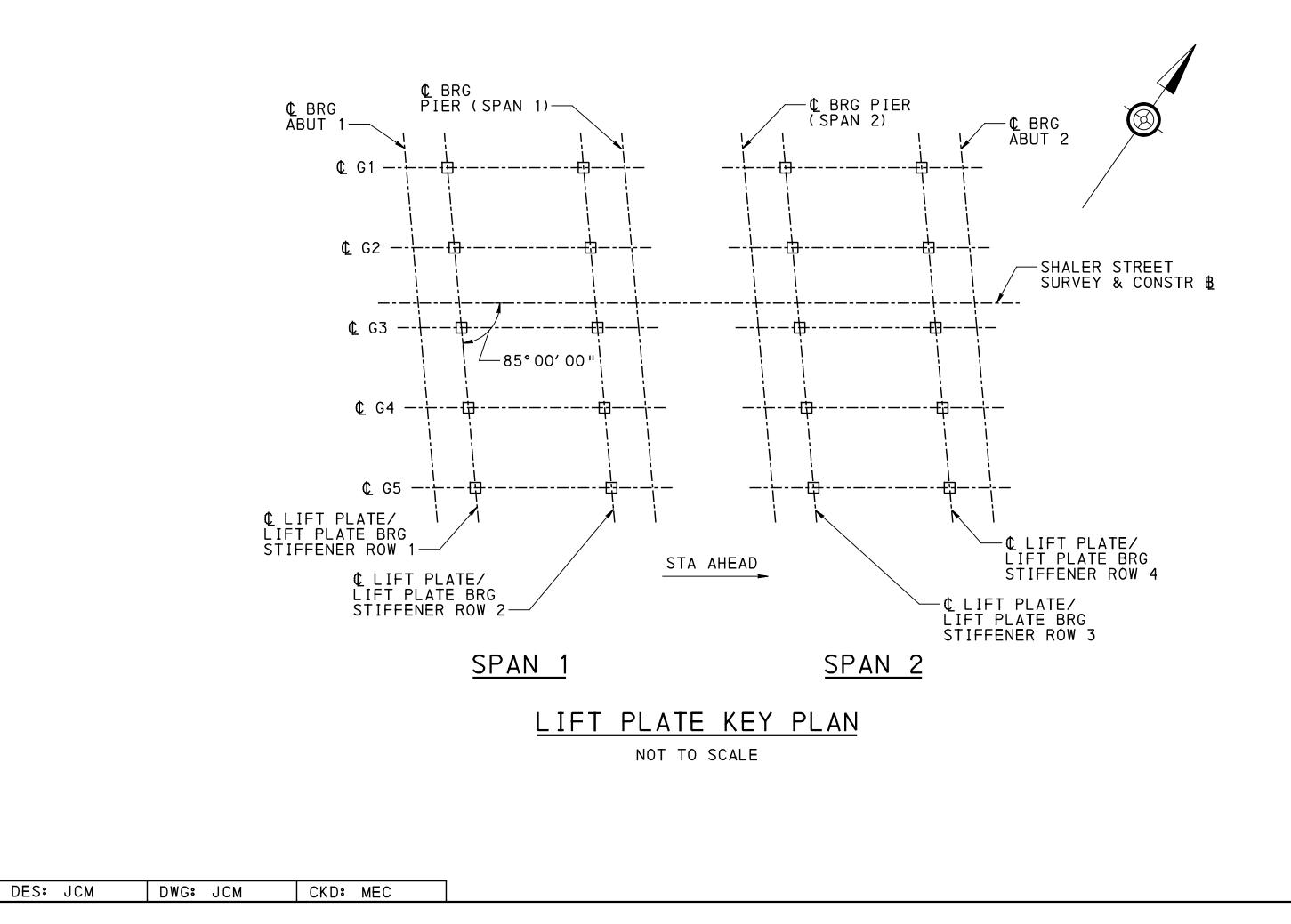
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

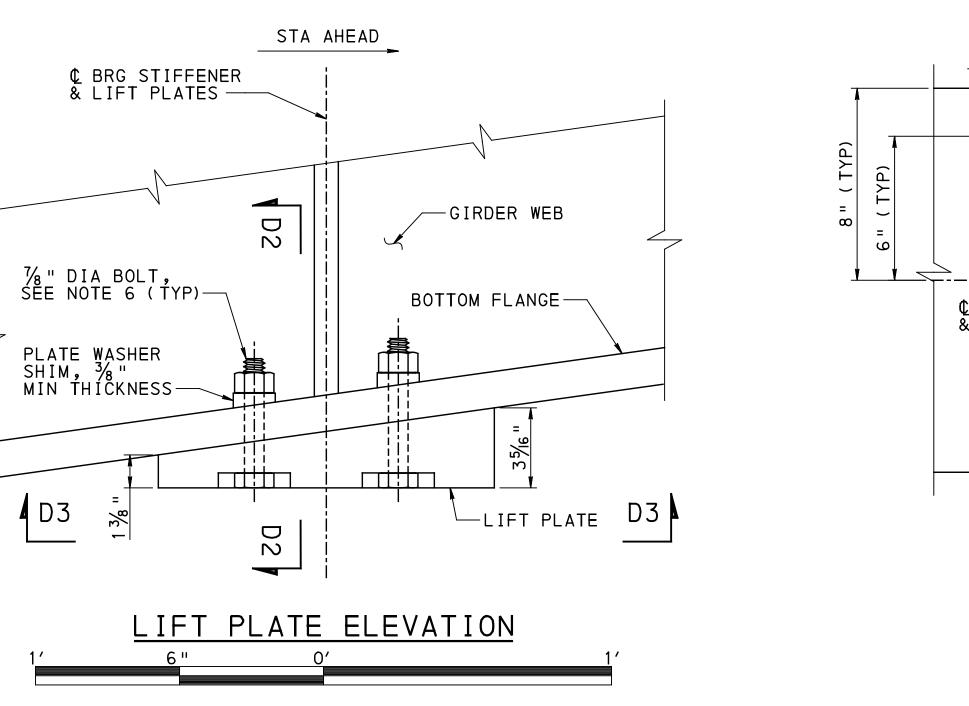
ALLEGHENY COUNTY SR 3110, SECTION A02 SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63 2-SPAN COMP STEEL PLATE GIRDER BRIDGE STEEL DETAILS

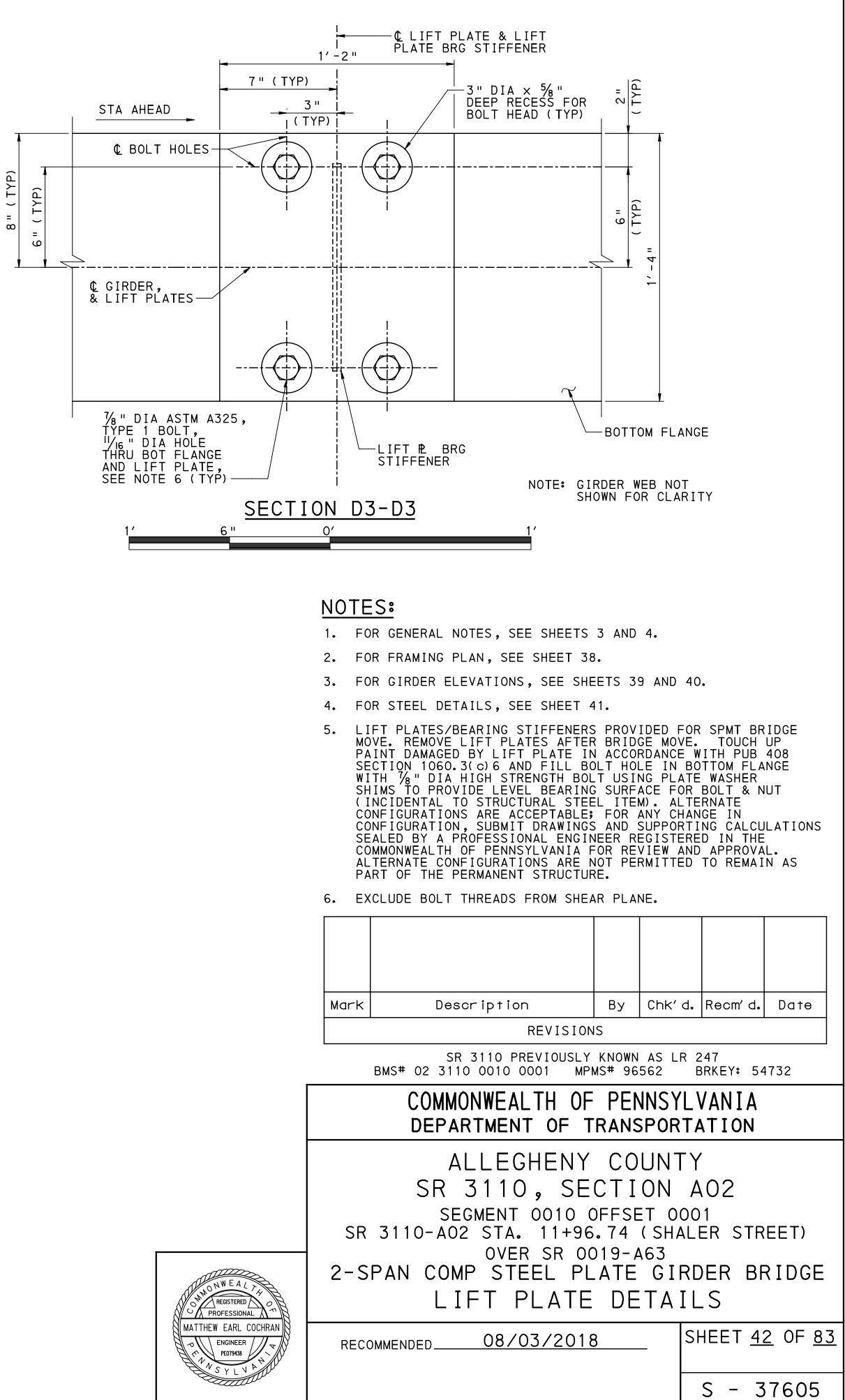
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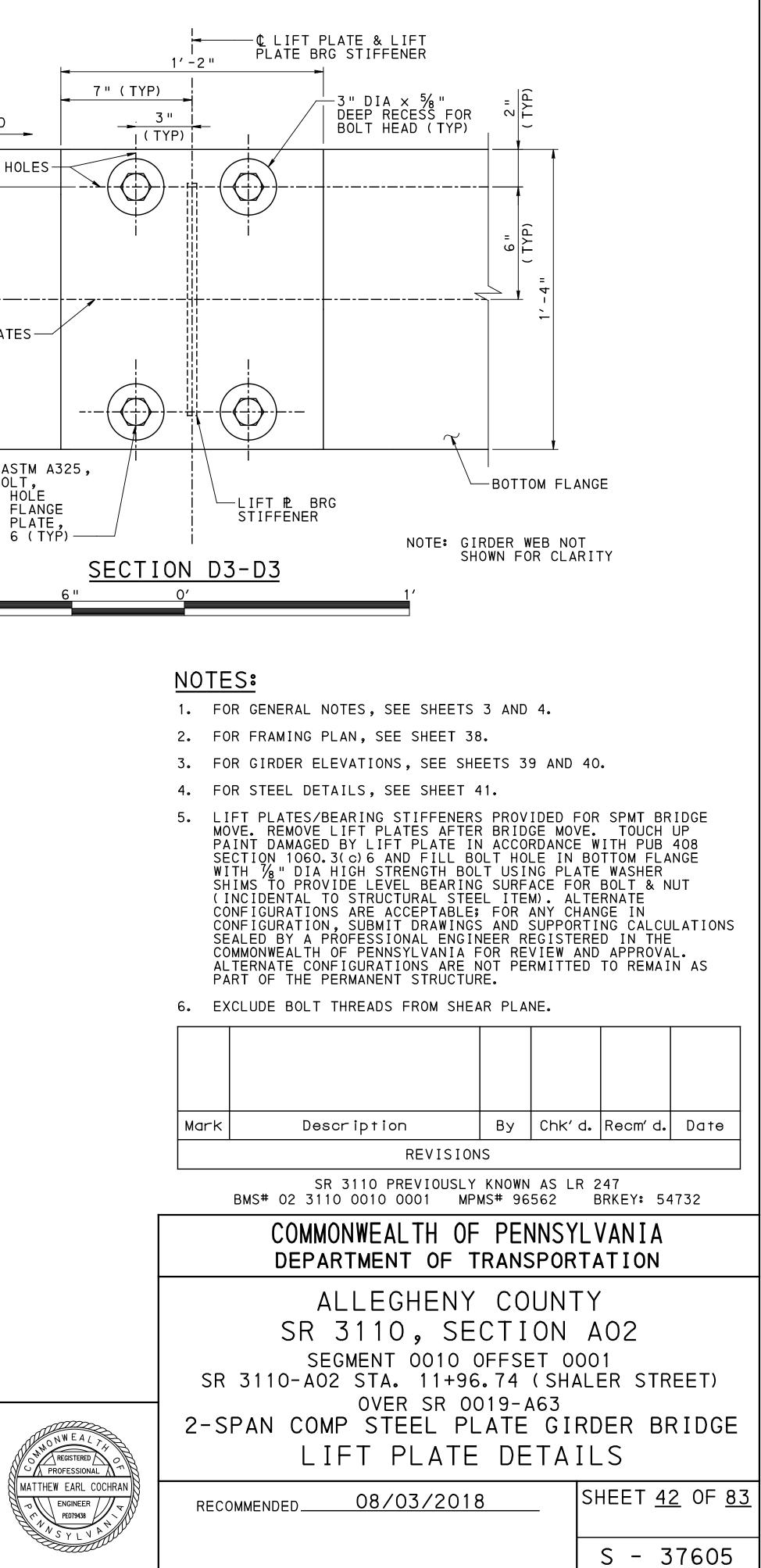
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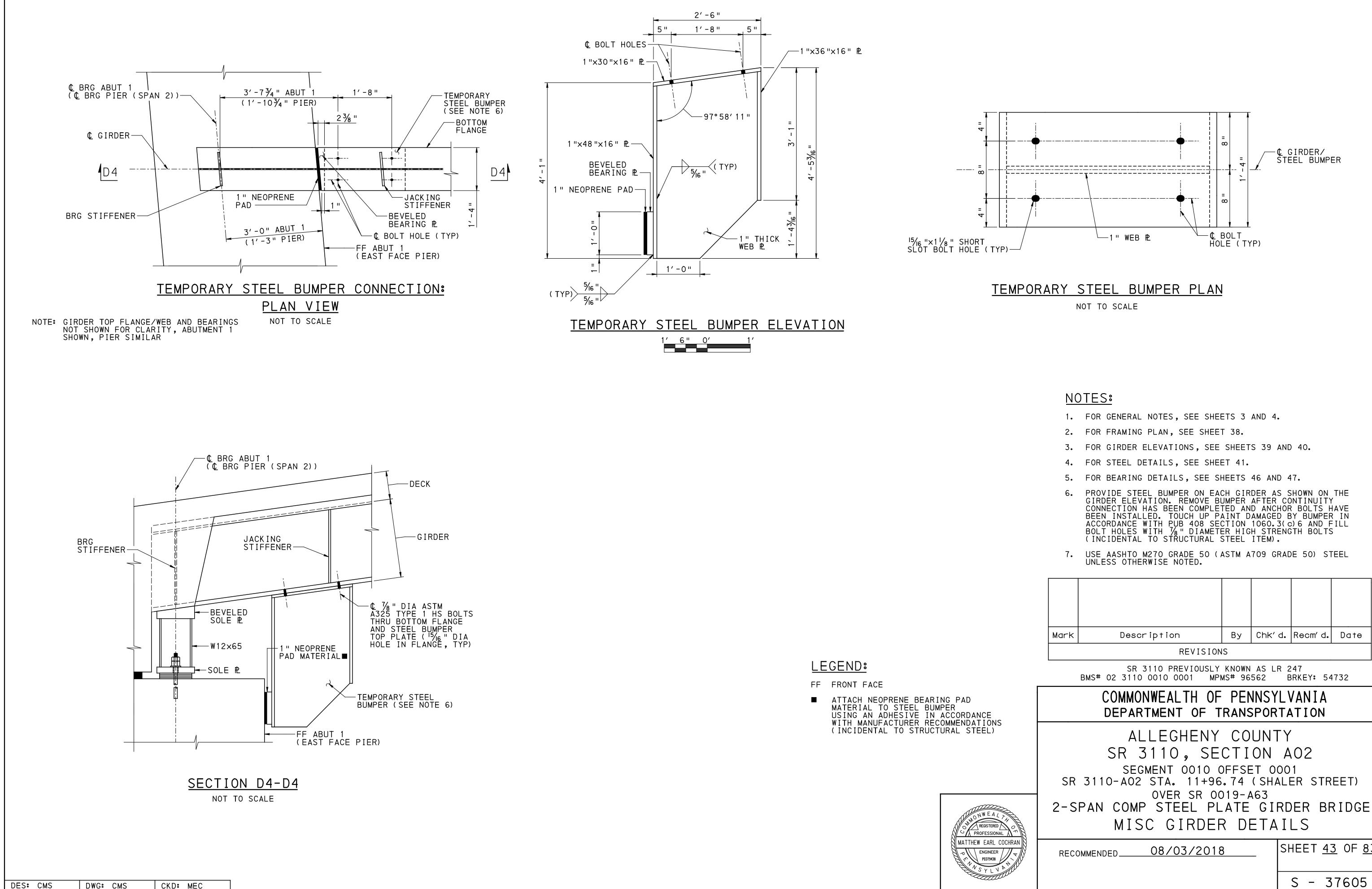


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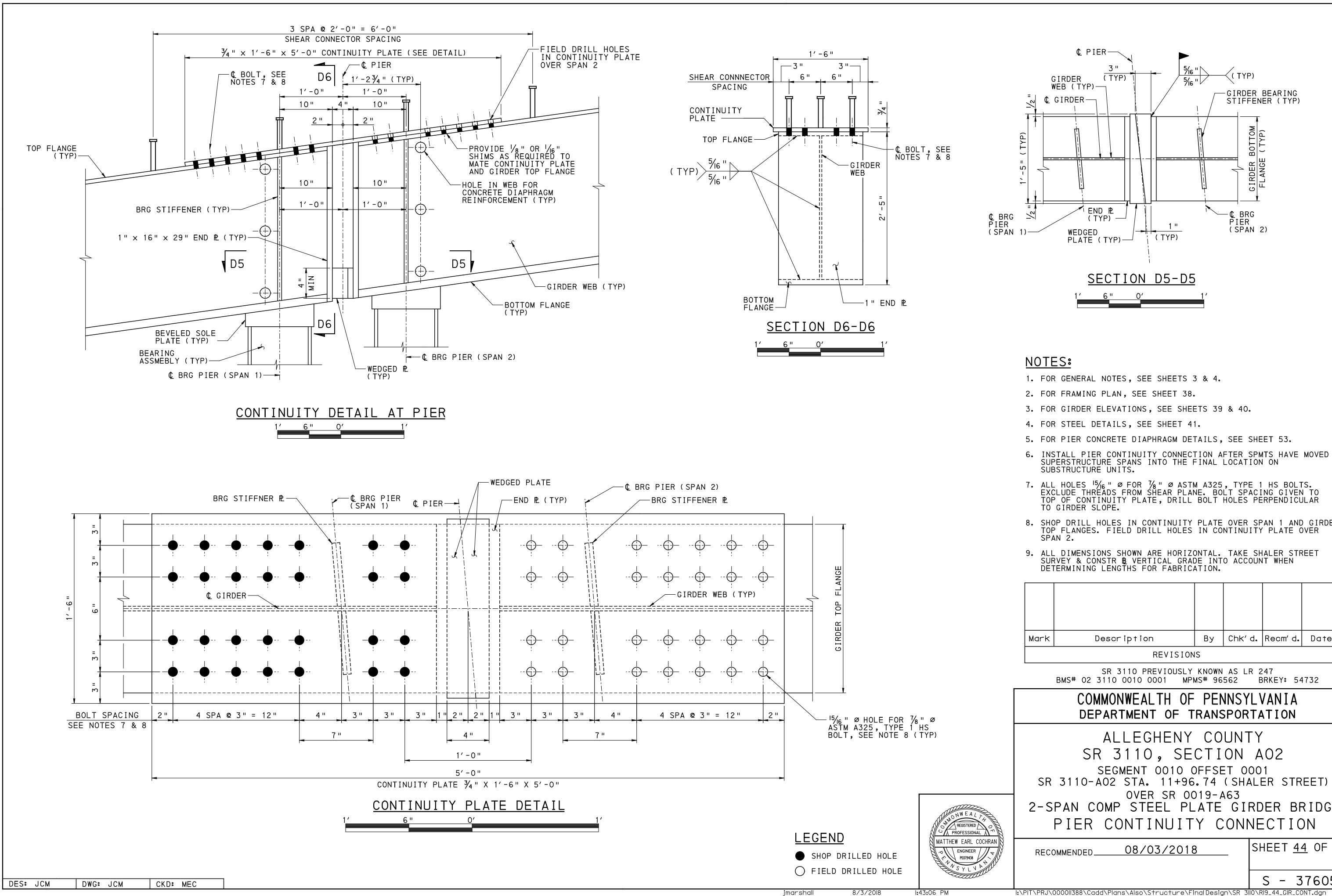
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- 6. INSTALL PIER CONTINUITY CONNECTION AFTER SPMTS HAVE MOVED
- 8. SHOP DRILL HOLES IN CONTINUITY PLATE OVER SPAN 1 AND GIRDER TOP FLANGES. FIELD DRILL HOLES IN CONTINUITY PLATE OVER

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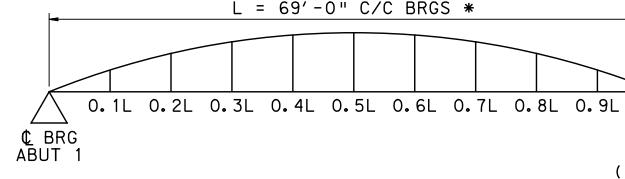
2-SPAN	COMP	SIEEL	PLAI	E G	IRDER	BRIDGE
PIEF	r coi	NTINU	ΙΤΥ	COI	NNECT	ION

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							MON	MENT TA	BLE (UN	FACTORED)										* DC1 AND DC2 DEAD LOAD MOMENTS ARE
GIRDER		G	1			G2				G	3			G	4			G	5		BASED ON SIMPLE
LOADING	POSITIVE MOMENT (K-FT)	LOCATION (FT) ■	NEGATIVE MOMENT (K-FT)	LOCATION (FT) ■	POSITIVE MOMENT (K-FT)	LOCATION (FT) ■	NEGATIVE MOMENT (K-FT)	LOCATION (FT) ■	POSITIVE MOMENT (K-FT)	LOCATION (FT) ■	NEGATIVE MOMENT (K-FT)	LOCATION (FT) ■	POSITIVE MOMENT (K-FT)	LOCATION (FT) ■	NEGATIVE MOMENT (K-FT)	LOCATION (FT) ■	POSITIVE MOMENT (K-FT)	LOCATION (FT)	NEGATIVE MOMENT (K-FT)	LOCATION (FT) ■	
NON-COMPOSITE DEAD LOAD (DC1) *	620.50	35.00 (S1)	-	-	686.01	35.00 (S1)	-	-	684.21	35.00 (S1)	-	-	678.11	35.00 (S1)	-	_	712.70	35.00 (S1)	-	-	ANALYSIS. LIVE L
COMPOSITE DEAD LOAD (DC2) *	197.20	35.00 (S1)	-	-	197.20	35.00 (S1)	_	-	-	-	-	-	350.22	35.00 (S1)	-	_	350.22	35.00 (S1)	-	-	 MOMENTS ASSUME N SIDEWALK IS PRES
FWS**	66.50	24.50 (S1)	-118.30	0.0 (S2)	66.50	24.50 (S1)	-118.30	0.0 (S2)	66.50	24.50 (S1)	-118.30	0.0 (S2)	66.50	24.50 (S1)	-118.30	0.0 (S2)	66.50	24.50 (S1)	-118.30	0.0 (S2)	AND INCLUDE IMPA
TOTAL DEAD LOAD	877.20	35.00 (S1)	-118.30	0.0 (S2)	942.72	35.00 (S1)	-118.30	0.0 (S2)	743.71	35.00 (S1)	-118.30	0.0 (S2)	1087.83	35.00 (S1)	-118.30	0.0 (S2)	1122.41	35.00 (S1)	-118.30	0.0 (S2)	AND DISTRIBUTION
PHL-93**	963.20	28.00 (S1)	-1020.70	0.0 (S2)	884.90	28.00 (S1)	-937.70	0.0 (S2)	884.90	28.00 (S1)	-937.70	0.0 (S2)	884.90	28.00 (S1)	-937.70	0.0 (S2)	1016.10	28.00 (S1)	-1076.70	0.0 (S2)	FACTORS.
P-82**	1250.50	28.00 (S1)	-919.60	0.0 (S2)	1148.80	28.00 (S1)	-844.80	0.0 (S2)	1148.80	28.00 (S1)	-844.80	0.0 (S2)	1148.80	28.00 (S1)	-844.80	0.0 (S2)	1319.20	28.00 (S1)	-970.10	0.0 (S2)	
NOTE: S1 = CONTROLING LOCATION]	IS ON SPAN	1; S2 = CONT	ROLING LC	CATION IS	ON SPAN 2	• STRUCURE I	S SYMETRIC	CAL.													└ HORIZONTAL BETWE ⊈ BRGS
	CAMBER TABLE (INCHES)							CAMBER TABLE (INCHES)									<u>S:</u>				

		CAMBER TABLE (INCHES)										CAMBER TABLE (INCHES)														
					SPA	AN 1 (L :	= 69′-0") 🔺											SPA	AN 2 (L :	= 69'-0")				
GIRDER	ITEM	⊈ BRG ABUT 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	€ BRG PIER (SPAN 1)		GIRDER	ITEM	€ BRG PIER (SPAN 2)	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	⊈ BRG ABUT 2
	A	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000			Α	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000
	В	0.000	0.727	1.374	1.882	2.204	2.314	2.204	1.882	1.374	0.727	0.000			В	0.000	0.727	1.374	1.882	2.204	2.314	2.204	1.882	1.374	0.727	0.000
	С	0.000	0.143	0.271	0.372	0.435	0.457	0.435	0.372	0.271	0.143	0.000			С	0.000	0.143	0.271	0.372	0.435	0.457	0.435	0.372	0.271	0.143	0.000
	D	0.000	1.016	1.921	2.632	3.082	3.236	3.082	2.632	1.921	1.016	0.000			D	0.000	1.016	1.921	2.632	3.082	3.236	3.082	2.632	1.921	1.016	0.000
	A	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000			Α	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000
	В	0.000	0.818	1.549	2.120	2.483	2.608	2.483	2.120	1.549	0.818	0.000			В	0.000	0.818	1.549	2.120	2.483	2.608	2.483	2.120	1.549	0.818	0.000
2	С	0.000	0.133	0.252	0.345	0.404	0.424	0.404	0.345	0.252	0.133	0.000		2	С	0.000	0.133	0.252	0.345	0.404	0.424	0.404	0.345	0.252	0.133	0.000
	D	0.000	1.097	2.077	2.843	3.330	3.497	3.330	2.843	2.077	1.097	0.000			D	0.000	1.097	2.077	2.843	3.330	3.497	3.330	2.843	2.077	1.097	0.000
	Α	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000			Α	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000
	B	0.000	0.816	1.544	2.114	2.475	2.600	2.475	2.114	1.544	0.816	0.000			В	0.000	0.816	1.544	2.114	2.475	2.600	2.475	2.114	1.544	0.816	0.000
3	С	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		3 -	С	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D	0.000	0.962	1.820	2.492	2.918	3.065	2.918	2.492	1.820	0.962	0.000			D	0.000	0.962	1.820	2.492	2.918	3.065	2.918	2.492	1.820	0.962	0.000
	Δ	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000			٨	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000
	B	0.000	0.807	1.528	2.092	2.450	2.572	2.450	2.092	1.528	0.807	0.000		-		0.000	0.807	1.528	2.092	2.450	2.572	2.450	2.092	1.528	0.807	0.000
4	C	0.000	0.240	0.454	0.622	0.728	0.765	0.728	0.622	0.454	0.240	0.000		4	<u> </u>	0.000	0.240	0.454	0.622	0.728	0.765	0.728	0.622	0.454	0.240	0.000
	D	0.000	1.193	2.258	3.092	3.621	3.802	3.621	3.092	2.258	1.193	0.000			 D	0.000	1.193	2.258	3.092	3.621	3.802	3.621	3.092	2.258	1.193	0.000
				1		1	1	1			1									1	[
	A	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000			A	0.000	0.146	0.276	0.378	0.443	0.465	0.443	0.378	0.276	0.146	0.000
5		0.000	0.856	1.619 0.490	2.218 0.670	2.597 0.785	2.727 0.824	2.597 0.785	2.218	1.619 0.490	0.856	0.000		5		0.000	0.856 0.259	1.619 0.490	2.218 0.670	2.597 0.785	2.727 0.824	2.597 0.785	2.218	1.619 0.490	0.856 0.259	0.000
		0.000	1.261	2.385	3.266	3.825	4.016	3.825	3.266	2.385	1.261	0.000			D	0.000	1.261	2.385	3.266	3.825	4.016	3.825	3.266	2.385	1.261	0.000

LOCATION	LOADING		1	GIRDER	1	1
		G1	G2	G3	G4	G5
	DC1 (STEEL)	5.96	5.96	5.96	5.96	5.96
	DC1 (CONCRETE)	39.75	43.51	43.41	43.06	45.04
	DC2	36.60	36.60	25.28	45.40	45.40
	DC1 + DC2	82.31	86.07	74.65	94.42	96.40
ABUT 1	FWS	7.39	7.39	7.39	7.39	7.39
ADOT	TOTAL DL	89.70	93.46	82.04	101.81	103.79
	PHL-93 MAX	70.00	81.13	81.13	81.13	75.13
	PHL-93 MIN	-7.54	-8.80	-8.80	-8.80	-8.12
	P-82 MAX	101.14	118.00	118.00	118.00	108.91
	P-82 MIN	-11.06	-12.90	-12.90	-12.90	-11.90
	DC1 (STEEL)	5.96	5.96	5.96	5.96	5.96
	DC1 (CONCRETE)	34.52	38.28	38.18	37.83	39.81
€ BRG	DC2	11.71	11.71	0.39	20.51	20.51
SPAN 1 &	DC1 + DC2	52.19	55.95	44.53	64.30	66.28
🗘 BRG	FWS	8.39	8.39	8.39	8.39	8.39
SPAN 2	TOTAL DL	60.58	64.34	52.92	72.69	74.67
AT PIER (SEE	PHL-93 MAX	60.42	70.49	70.49	70.49	63.74
NOTE 8)	PHL-93 MIN	0.00	0.00	0.00	0.00	0.00
	P-82 MAX	73.81	86.11	86.11	86.11	77.86
	P-82 MIN	0.00	0.00	0.00	0.00	0.00
	DC1 (STEEL)	5.96	5.96	5.96	5.96	5.96
	DC1 (CONCRETE)	40.37	44.13	44.03	43.68	45.66
	DC2	36.60	36.60	25.28	45.40	45.40
	DC1 + DC2	82.93	86.69	75.27	95.04	97.02
ABUT 2	FWS	7.39	7.39	7.39	7.39	7.39
ADUI Z	TOTAL DL	90.32	94.08	82.66	102.43	104.41
	PHL-93 MAX	71.39	81.13	81.13	81.13	73.67
	PHL-93 MIN	-7.70	-8.80	-8.80	-8.80	-7.96
	P-82 MAX	103.24	118.00	118.00	118.00	106.70
	P-82 MIN	-11.28	-12.90	-12.90	-12.90	-11.66



<u>RE</u>	<u>: AC I</u>	
1.	ALL	R
2	ALL	R
3.	PHL- FACT ABUT	0
4.	DC1	(
5.	DC1 ADDI	(T
6.	DC2 AT A	I B
7.	FWS	R
8.	REAC SPAN	:T IS
9.	DC1 ANAL CONT	Y

REACTION AND JACKING LOADS NOTES:

L = 69' - 0" C/C BRGS *

REACTIONS ARE IN KIPS.

REACTIONS ARE UNFACTORED.

33 AND P-82 REACTIONS INCLUDE IMPACT AND DISTRIBUTION DRS AND ASSUME NO SIDEWALK IS PRESENT. REACTIONS AT MENTS INCLUDE LANE LIVE LOAD ON APPROACH SLABS. (STEEL) INCLUDES WEIGHT OF GIRDERS AND STEEL DETAILS.

(CONCRETE) INCLUDES WEIGHT OF DECK SLAB WITH 1/4 " TIONAL THICKNESS FOR GRINDING, HAUNCH, AND DIAPHRAGMS.

INCLUDES WEIGHT OF BARRIERS AND SIDEWALK. DC2 REACTIONS BUTMENTS INCLUDE APPROACH SLABS.

REACTIONS AT ABUTMENTS INCLUDE FWS ON APPROACH SLABS. FIONS AT PIER ARE BASED ON REACTIONS FOR INDIVIDUAL S. VALUES ARE IDENTICAL FOR SPAN 1 AND SPAN 2.

AND DC2 REACTIONS ARE BASED ON SIMPLE SPAN GIRDER YSIS. LIVE LOAD AND FWS REACTIONS ARE BASED ON CONTINUOUS GIRDER ANALYSIS.

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© BRG © BRG PIER PIER (SPAN 1) (SPAN 2)

CAMBER DIAGRAM

L = 69'-0" C/C BRGS *

0.1L 0.2L 0.3L 0.4L 0.5L 0.6L 0.7L 0.8L 0.9L

- 1. SELF-WEIGHT OF STEEL INCLUDES ALL STRUCTURAL FRAMING.
- NON-COMPOSITE DEAD LOAD INCLUDES DECK SLAB 2. WITH $\frac{1}{4}$ " ADDITIONAL THICKNESS FOR GRINDING. HAUNCH' PERMANENT METAL DECK FORMS, AND CONCRETE IN THE VALLEYS OF STAY-IN-PLACE FORMS.
- SUPERIMPOSED DEAD LOAD INCLUDES BARRIERS AND 3. SIDEWALK. FUTURE WEARING SURFACE IS NOT INCLUDED.
- 4. NO CAMBER IS REQUIRED FOR VERTICAL GEOMETRY OR SUPERELEVATION TRANSITION DUE TO CONSTANT GRADE AND ROADWAY CROSS SLOPES.
- 5. FOR CALCULATION OF FORM HAUNCH HEIGHTS, SUBTRACT THE STEEL CAMBER (A) FROM THE TOTAL CAMBER (D).

CAMBER LEGEND:

- A = CAMBER DUE TO WEIGHT OF STEEL
- B = CAMBER DUE TO NON-COMPOSITE DEAD LOAD
- C = CAMBER DUE TO SUPERIMPOSED DEAD LOAD
- D = TOTAL CAMBER (A+B+C)
- ▲ = DIMENSION MEASURED HORIZONTALLY BETWEEN CENTERLINES OF BEARING

NOTES:

© BRG ABUT 2

- 1. FOR GENERAL NOTES, SEE SHEETS 3 & 4.
- 2. FOR FINISHED DECK_ELEVATIONS AT THE FINAL BRIDGE LOCATION, SEE SHEET 5.
- 3. FOR FINISHED DECK ELEVATIONS IN THE BRIDGE STAGING AREA AND DECK PLACEMENT SEQUENCE, SEE SHEET 6.
- 4. FOR CONCEPTUAL CONSTRUCTION SEQUENCE, SEE SHEETS 7 THRU 10.

Mark	Description	Ву	Chk' d.	Recm'd.	Date
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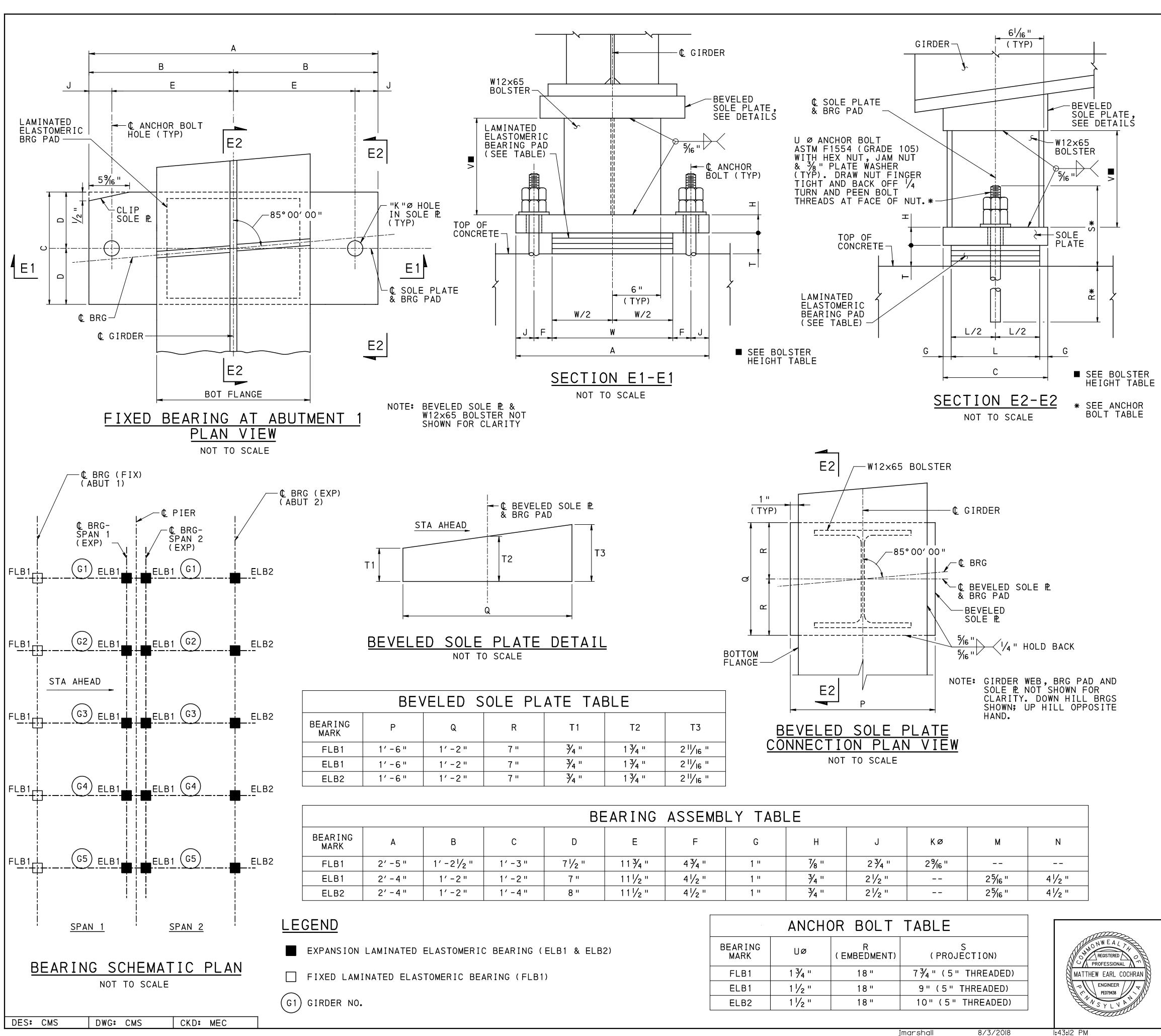
SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY SR 3110, SECTION A02 SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63

2-SPAN	COMP	STEEL	PLA1	ГΕ	GIRDER	BRIDGE
СА	MBER	TABL	E &	RE	EACTIO	NS

RECOMMENDED	08/03/2018	SHE	ΕT	<u>45</u>	OF	<u>83</u>	
		S	_	37	60	5	_
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BEARING ASSEMBLY TABLE										
D	E	F	G	Н	J	Κø	М	Ν		
7 /2 "	11 3⁄4 "	4 ³ ⁄4 "	1 "	7⁄8 "	2 3⁄4 "	2 ⁹ / ₁₆ "				
7 "	11 ¹ / ₂ "	4 / ₂ "	1 "	3⁄4 "	2 ¹ / ₂ "		2 ⁵ ⁄16 "	4 / ₂ "		
8 "	111/2 "	4 / ₂ "	1 "	3⁄4 "	21/2 "		25⁄16 "	4 / ₂ "		

BEARING NOTES:

- 1. ELASTOMERIC BEARINGS MANUFACTURED IN ACCORDANCE WITH THE CONTRACT DRAWINGS DO NOT REQUIRE SHOP DRAWINGS.
- MANUFACTURE ALL BEARINGS IN ACCORDANCE WITH THE COMMONWEALTH 2. OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PLANS AND SPECIFICATIONS (PUB. 408) SECTION 1113.
- 3. MOLD ALL BEARING PADS ARE TO DESIGN DIMENSIONS. CUTTING TO SIZE AFTER FABRICATION IS PROHIBITED.
- 4. HOLES ARE NOT PERMITTED IN ELASTOMERIC BEARINGS.
- 5. PROVIDE NEOPRENE 50 ± 5 DUROMETER.
- VULCANIZE PATCH PIN GROOVES. 6.
- PROVIDE MINIMUM LOW-TEMPERATURE NEOPRENE GRADE 3. 7.
- BEARING DESIGN FOR ROTATIONAL CONSTRUCTION TOLERANCE 8. ABOUT THE LONGITUDINAL AXIS EQUAL TO 0.000 RAD. BEARING DESIGN FOR ROTATIONAL CONSTRUCTION TOLERANCE ABOUT TRANSVERSE AXIS EQUAL TO:

ABUTMENT 1 & PIER = 0.003 RADIANS ABUTMENT 2 = 0.005 RADIANS

9. PROVIDE INTERNAL SHIMS IN ACCORDANCE WITH A36/A36M ASTM A1001 OR EQUIVALENT

10. SMOOTH CUT AND DEBURR METAL SHIMS.

11. GRIT BLAST AND DEGREASE METAL SHIMS.

- 12. PROVIDE STRUCTURAL STEEL (PEDESTAL, SOLE PLATE, AND BEVELED SOLE PLATE) CONFORMING TO AASHTO M270 GRADE 50 (ASTM A709 GRADE 50) DESIGNATION. PROVIDE FLATNESS TOLERANCE IN ACCORDANCE WITH PUB 408 SECTION 1105.03(a).
- 13. DO NOT USE THE BEARING PADS FOR SUPERSTRUCTURE CONSTRUCTION IN THE BRIDGE STAGING AREA. CONTRACTOR TO DETERMINE METHOD OF SUPPORT IN THE BRIDGE STAGING AREA.

NOTES:

- 1. WORK THIS SHEET WITH SHEET 47.
- 2. FOR GENERAL NOTES, SEE SHEETS 3 & 4.
- FOR FRAMING PLAN, SEE SHEET 38. 3.
- FOR GIRDER ELEVATIONS, SEE SHEETS 39 AND 40.
- FOR ADDITIONAL BEARING PAD DETAILS AND NOTES SEE 5. STANDARD DRAWING BC-755M.
- 6. VERTICAL DIMENSIONS ARE AT C BEARINGS UNLESS NOTED OTHERWISE.
- MECHANICALLY GALVANIZE ANCHOR BOLTS, NUTS AND WASHERS.
- INSTALL BEAM AND BEARINGS TO ENSURE FULL CONTACT WITH BEARING SURFACE. IF FULL CONTACT IS NOT ACHIEVED AFTER THE SUPERSTRUCTURE IS IN THE FINAL LOCATION ON SUBSTRUCTURE UNITS, MAKE FIELD ADJUSTMENTS OR 8. MODIFICATIONS TO ENSURE FULL CONTACT.

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SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

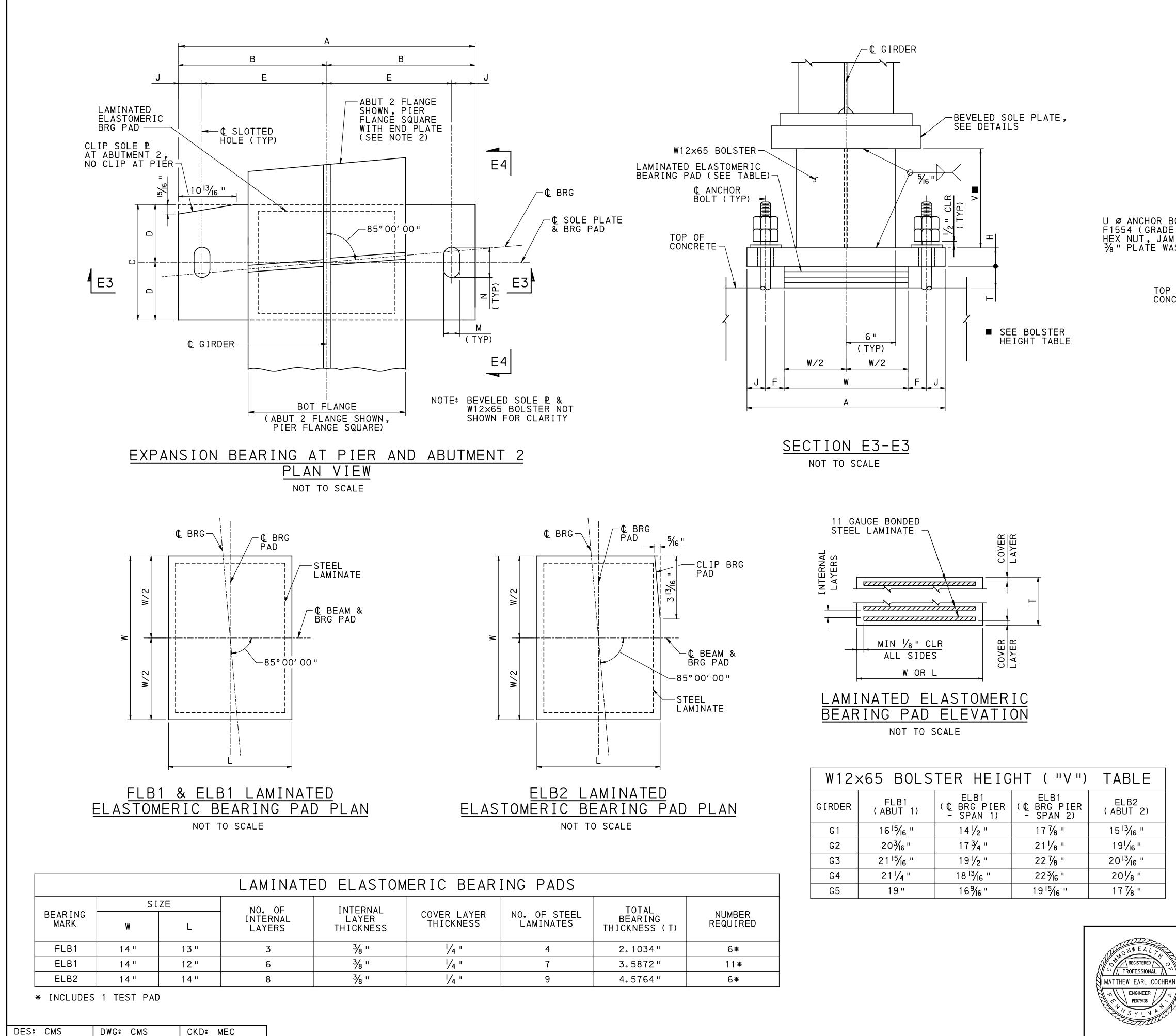
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ALLEGHENY COUNTY SR 3110, SECTION A02 SEGMENT 0010 OFFSET 0001

SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63

2-SPAN COMP STEEL PLATE GIRDER BRIDGE BEARING DETAILS 1

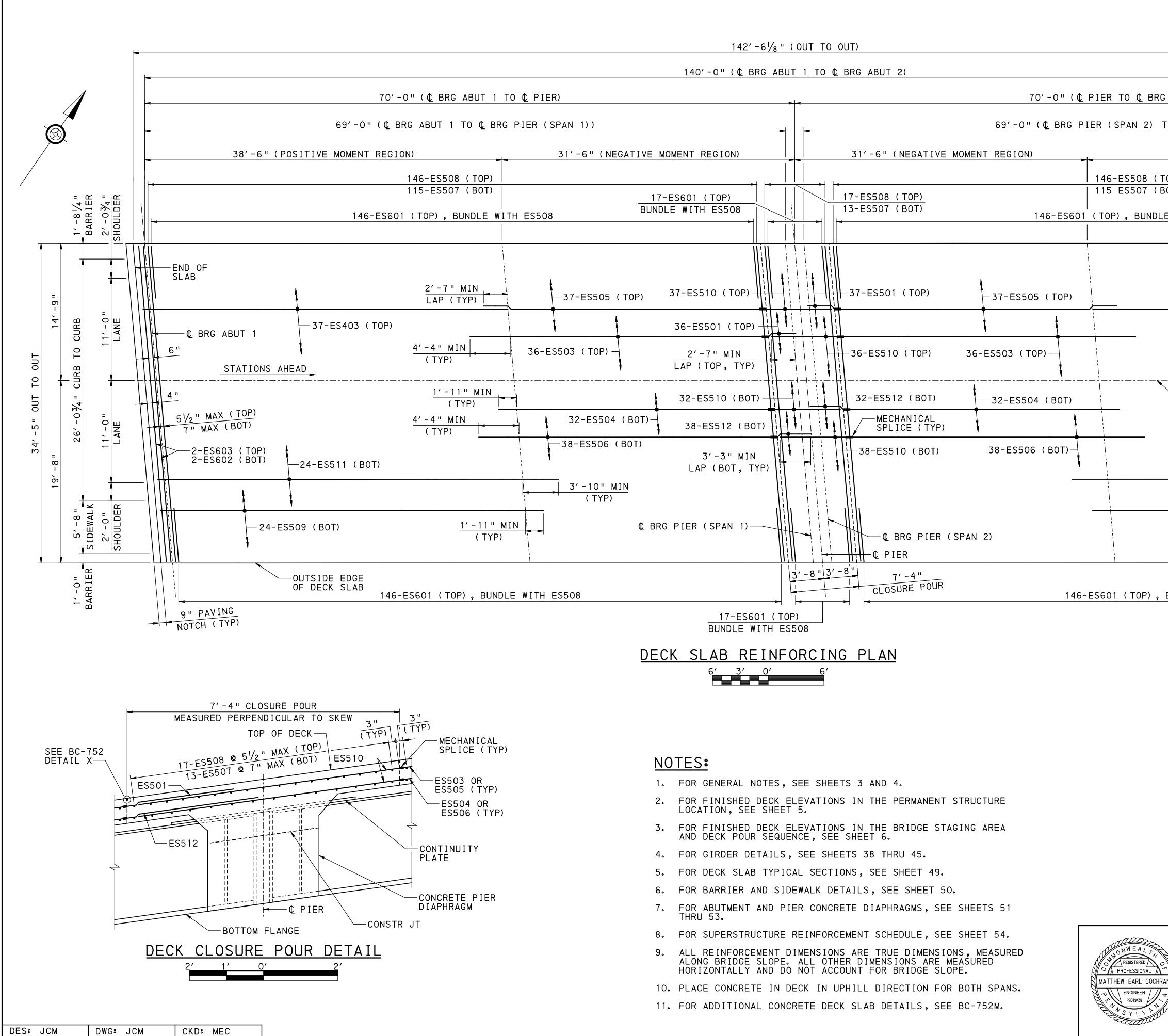
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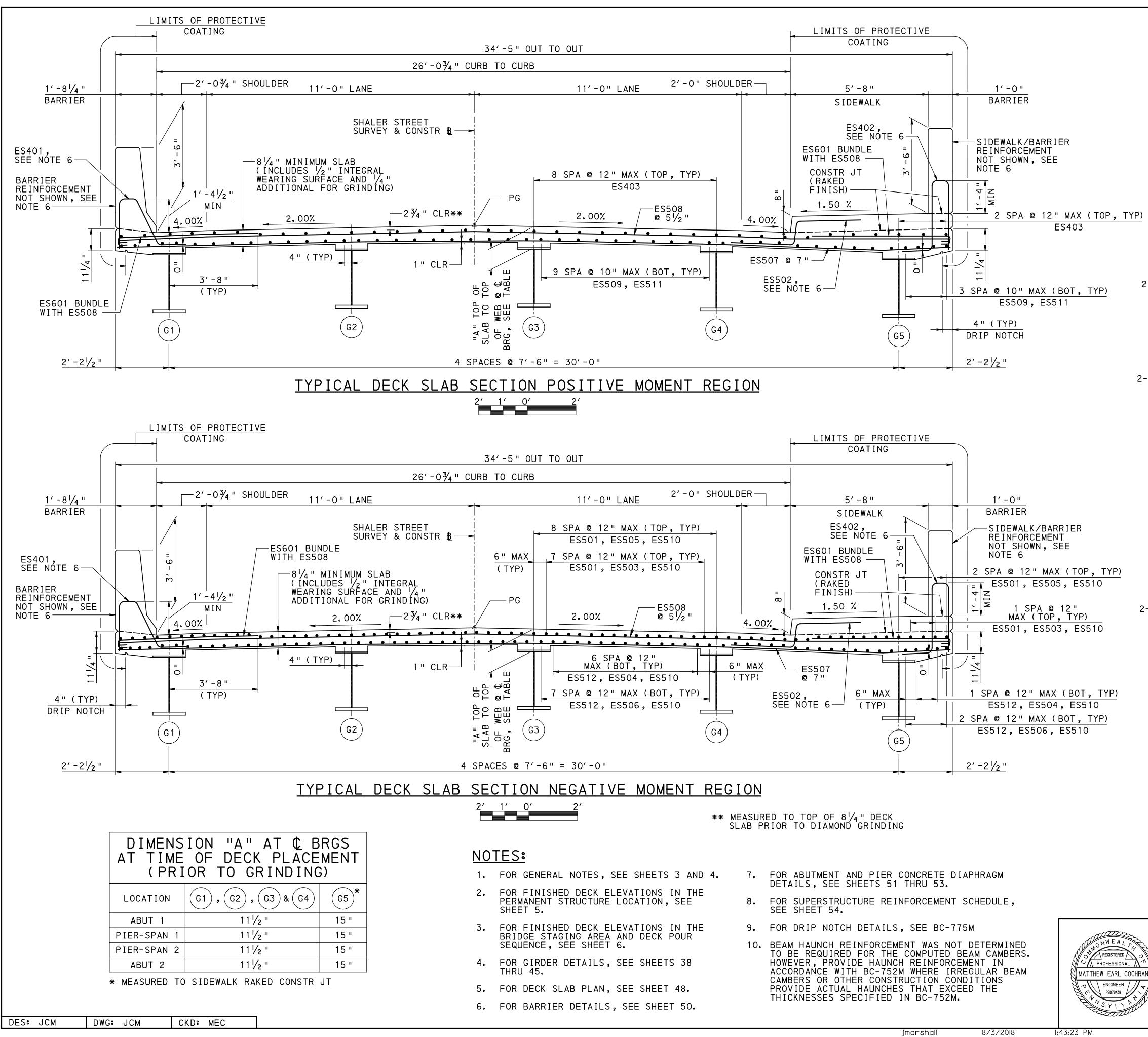
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_	GIRDER	6 ¹ / ₁₆ " (TYP)	SEE NOTE	2
& BRG 80LT A: 105) 1 NUT	STM WITH (TYP) *	ET WITH SHEET ND DETAILS AT	E SEE BOLSTEF HEIGHT TABLE * SEE ANCHOR BOLT TABLE	Ε.
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			PLATE GI	RDER BRIDGE 5 2
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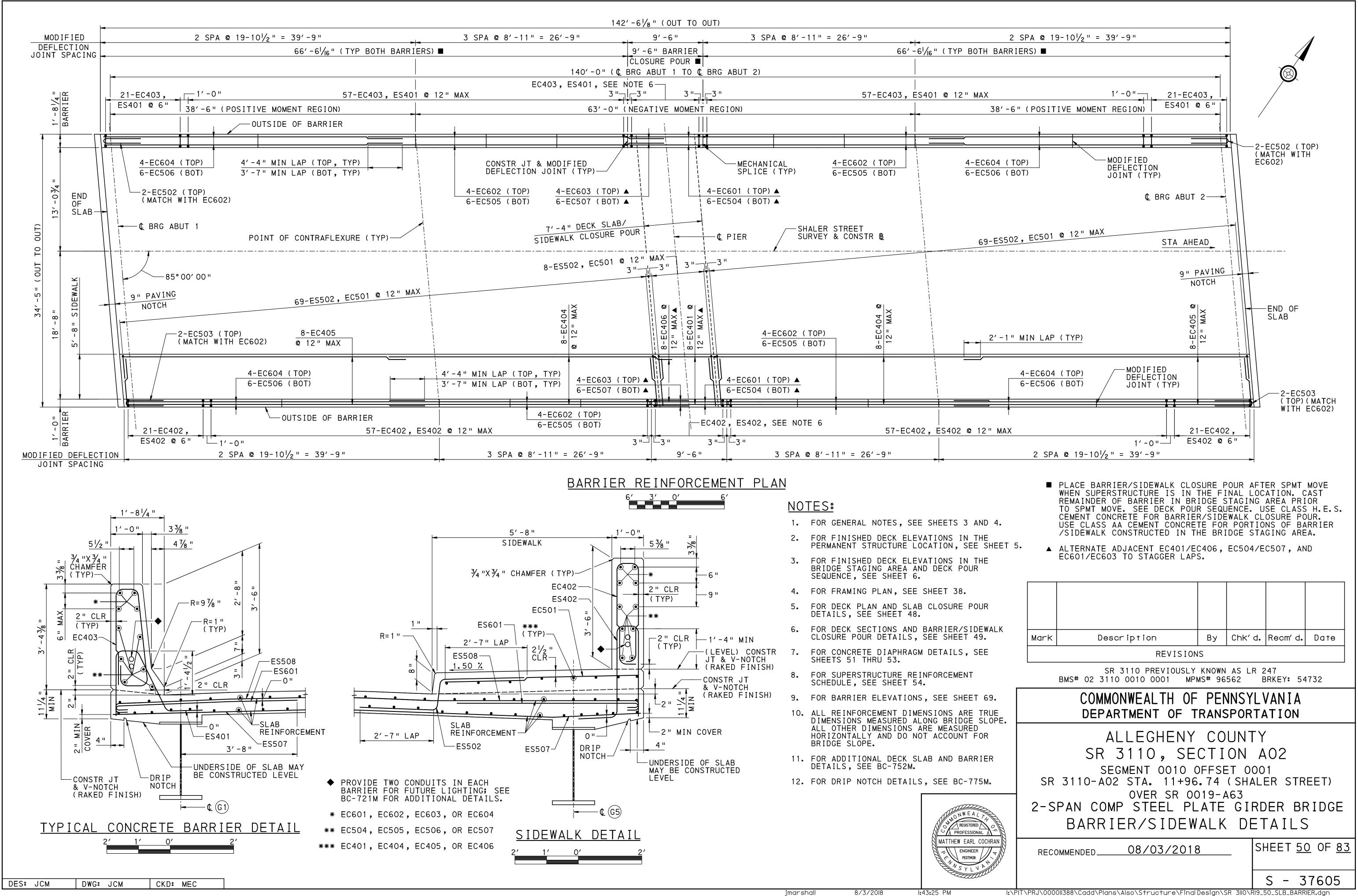


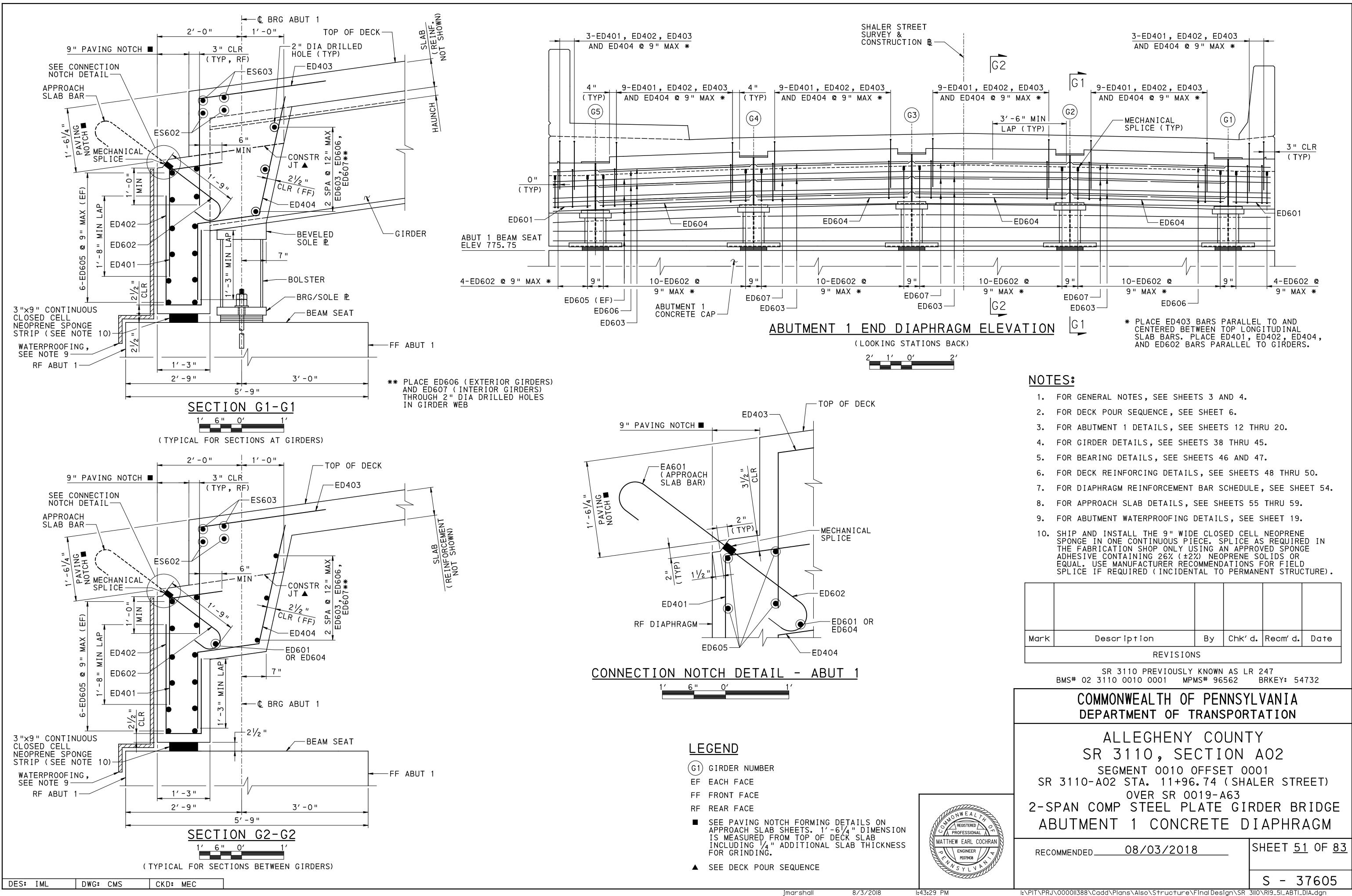
ABUT	Г 2)	
0 (<u>)</u> (BRG ABUT 2)	
38′	-6" (POSITIVE MOMENT REGION)	
0P) 0T)		
	H ES508	
	OUTSIDE EDGE OF DECK SLAB	
	— 37-ES403 (TOP)	4 "
	GHALER STREET SURVEY & CONSTR B	6" 5 ¹ / ₂ " MAX (TOP) 7" MAX (BOT)
	-24-ES511 (BOT)	2-ES603 (TOP) 2-ES602 (BOT)
	-24-ES509 (BOT)	END OF SLAB
BUNDL	E WITH ES508	G
	NOTCH (T)	(7)
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	OVER SR 0019-A63 2-SPAN COMP STEEL PLATE GI DECK SLAB PLA	
	RECOMMENDED 08/03/2018	SHEET <u>48</u> OF <u>83</u>
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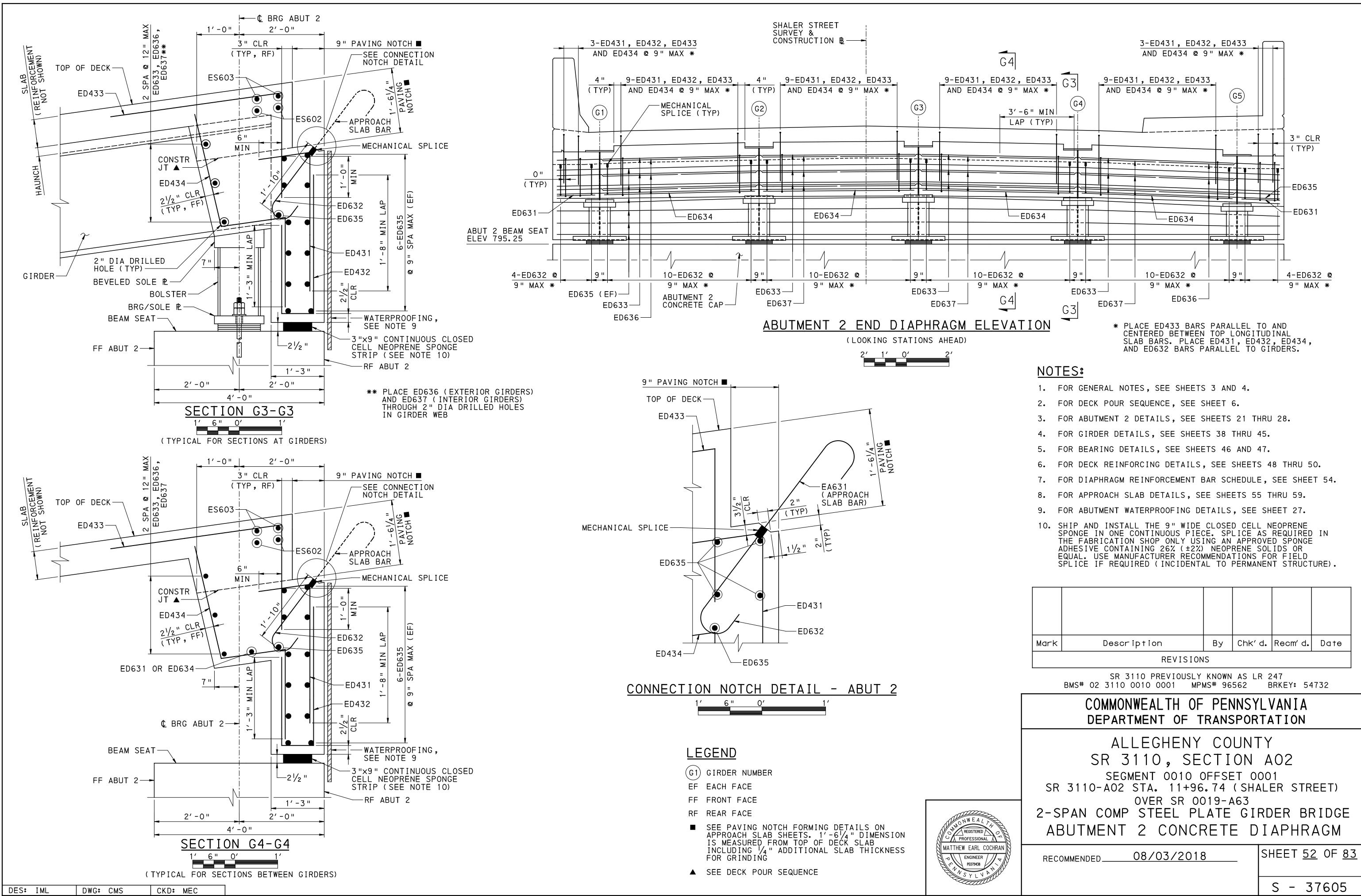


	9'-6" BARRIER CLOSURE POUR	
	CLASS H.E.S. CEMENT CONCRETE 2-EC403 @ 12" MAX ■	
	EC403 - 2-EC403 @ 12" MAX ■ = EC403 - 8-EC403 @ 12" MAX ■	EC403
	EC603EC504EC601	EC602
	EC507	
	2" CLR	EC505
	(TYP)	MECHANICAL SPLICE (TYP)
		— CONSTR JT (TYP) — PIER
	ES401 8-ES401 @ 12" MAX	DIAPHRAGM ES401 .
2-ES4	$\frac{1}{101} \otimes 12 \text{ MAX} = \frac{7' - 4\frac{5}{16}}{7' - 4\frac{5}{16}} \text{ DECK} = \frac{7' - 45}{16}$	ES401 @ 12" MAX ■
<u>T`</u>	YPICAL BARRIER CLOSURE POUR	ELEVATION
	3′2′1′0′ 3′	SPACE 3" ON EITHER SIDE OF CONSTR JT.
	9'-6" BARRIER CLOSURE POUR	
-EC4(EC402 @ 12" MAX ■ C402
	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	EC602
	ICE (TYP)	
	2" CLR	EC505
	(TYP)	
		EC404 ES502 OR
		EC501 (TYP) —CONSTR JT (TYP)
		- PIER DIAPHRAGM
	$-\frac{1}{2}$	ES402
	SIDEWALK CLOSURE POUR	ES402 @ 12" MAX ■
<u>51</u>	DEWALK BARRIER CLOSURE POUR	ELEVATION
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<u>م</u>	2-SPAN COMP STEEL PLATE GI	
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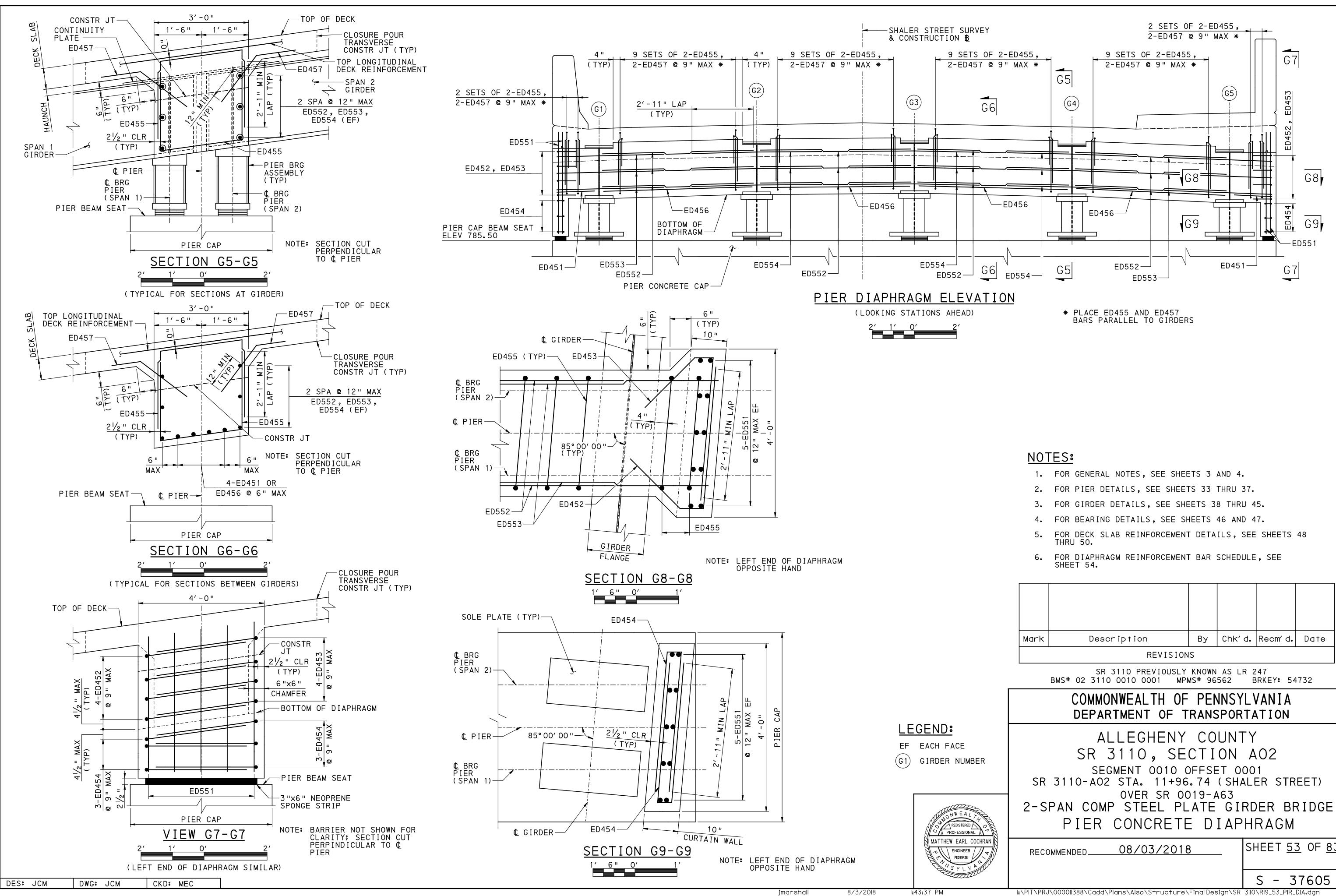


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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION										
ALLEGHENY COUNTY SR 3110, SECTION AO2 SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63 2-SPAN COMP STEEL PLATE GIRDER BRIDGE PIER CONCRETE DIAPHRAGM										
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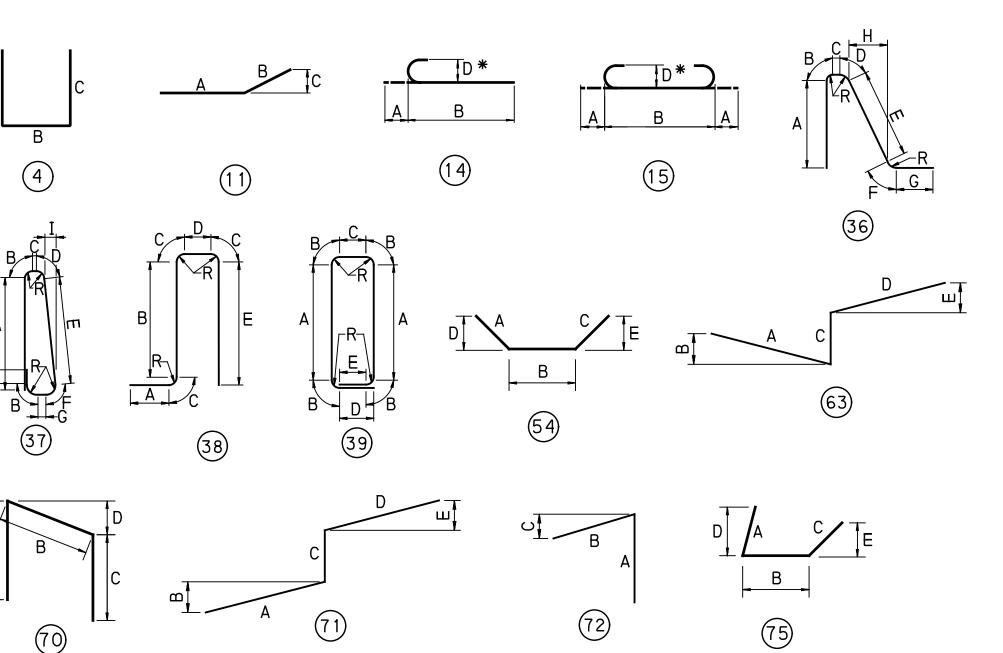
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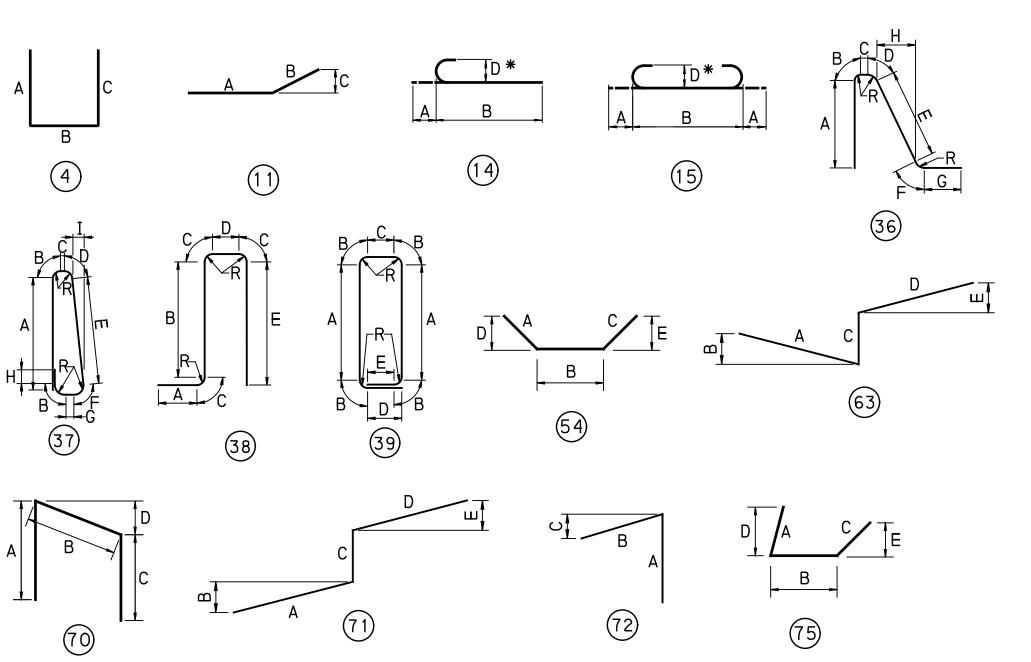
MARK	QUANTITY	SIZE	LENGTH	TYPE	А	В	С	D	E	F	G	Н	I	R	REMARKS
	<u>SLAB</u> 168	1	5′ - 10 "	30	1/ 0 11	4 11	A 11	0.3/11	1/ 111	0.3/11	1/ 01/1	10 1/1		0.11	
ES401 ES402	168	4	7'-2"	36 38	1′-9" 1′-0 ½"	4 " 2′ - 4 "	4 " 4 "	2 ¾" 3 "	1′ - 11 " 2′ - 6 ½"	2 34"	1′-0 ½″	10 %"		2 " 2 "	
ES403	74	4	40′ -0 "	STR											
ES501	73	5	3' - 3 "	STR		7.									THREADED 3", ONE ENI
ES502 ES503	146 72	5	6′-6" 32′-8"	71 STR	2′-9"	34"	1′-0"	2′-9"	2 %6"						MECH SPLICE, ONE END
ES504	64	5	30' - 1 "	STR											MECH SPLICE, ONE EN
ES505	74	5	30′ - 11 "	STR											MECH SPLICE, ONE EN
ES506	76	5	32'-6"	STR											MECH SPLICE, ONE EN
ES507 ES508	243 309	5 5	34' -2 " 35' -4 "	STR 15	7 "	34′ -2 "		5 "							
 	48	5	41'-11"	STR	I	J7 Z		5							
ES510	143	5	7′ – 4 "	STR											THREADED 3", ONE EN
ES511	48	5	43' - 10 "	STR											
ES512 ES601	70 618	5	3′ - 11 " 6′ - 5 "	STR 14	8 "	5′-9″		6 "							THREADED 3", ONE EN
ES602	4	6	34' - 2 "	STR	0	2 - 3		0							
ES603	4	6	35'-6"	15	8 "	34′-2"		6"							
	RIERS & S	IDEWA		1				·							
EC401	8	4	7'-4"	STR	0/ 0"	A 11	7	E 1/0	– 1/11					0."	THREADED 3", ONE EN
EC402 EC403	<u>168</u> 168	4	7′ – 10 " 8′ – 1 "	39 37	2'-9" 2'-9½"	4 " 4 "	3 " 3 % "	5½" 3%"	<u> </u>	4 1/8"	6 34"	5 %"	3 %"	2 " 2 "	
EC403	16	4	35'-2"	STR		<u> </u>	<u>ک</u> /ک	8/ 2	<u> </u>	א ד /୪	0 /4	J /8	<u>۲</u> ۳ ۲۳		MECH SPLICE, ONE EN
EC405	16	4	35′ -2 "	STR											
EC406	8	4	2'-9"	STR											THREADED 3", ONE EN
EC501	<u>146</u> 4	5	6′ -2 '' 9′ -4 ''	STR 4	<u>Λ/_</u> ⊑ 1/μ	<u>с</u> 1/ш	<u>Λ/_</u> Ε 1/υ								
EC502 EC503	4	5 5	9' - 4 " 9' - 4 "	4	4'-5 ¼" 4'-5 ¾"	5 ½" 5 ¼"	4' -5 ¼" 4' -5 ¾"								
EC503	12	5	9'-6"	STR		- /୩									THREADED 3", ONE EN
C505	24	5	35′ - 4 "	STR											MECH SPLICE, ONE EN
	24	5	35' - 4 "	STR											
EC507 EC601	<u>12</u> 8	5	4′ -3 '' 9′ -6 ''	STR STR											THREADED 3", ONE EN THREADED 3", ONE EN
EC602	16	6	35′-8"	STR											MECH SPLICE, ONE EN
EC603	8	6	5′-0"	STR											THREADED 3", ONE EN
EC604	16	6	35′-8"	STR											
		IAPHR	AGM 4′ - 0 ''	1 1	2′-7 "	1/ 51	1/ 17/11								
ED401 ED402	42	4	5' - 4 "	11 4	2' - 7 "	1′-5" 9½"	1′-4 ½″ 1′-11 ½″								
ED403	42	4	6' -7 "	11	2'-9"	3' - 10 "	3'-9 ½"								
ED404	42	4	5′ -8 "	71	1′-5 "	2 %"	1'-4 ½"	2'-10 ½"	1′-0"						
ED601	2	6	1'-9"	STR	0.11										
ED602 ED603	48	6 6	2′ -5 " 7′ -1 "	14 STR	8 "	1′-9 "		6"							MECH SPLICE, ONE EN
ED604	4	6	7'-0"	STR											
ED605	12	6	34'-0"	STR											
ED606	6	6	5′-9"	STR											
	9 MENT 2 D		7'-6"	STR											
ED431	42		4' - 7 "	72	3'-2 1/2"	1′-4 ½″	2 1⁄4"								
ED432	42	4	5′-9″	4	2'-4"	9 1/2"	2'-7 1/2								
ED433	42	4	6' - 1 1 "	72	2′ - 8 "	4′-3"	7 "								
ED434	42	4	5' - 10 "	63 STP	1′-9"	3 "	1'-4 ¾"	2'-8 ¼"	2 7/8"						
ED631 ED632	2 48	6	1′-9" 2′-6"	STR 14	8 "	1′ – 10 "		6"							MECH SPLICE, ONE EN
ED633	12	6	7' - 1 "	STR											
ED634	4	6	7′-0"	STR											
ED635	13	6	34'-0"	STR											
ED636 ED637	<u>6</u> 9	6	5′-9" 7′-6"	STR STR											
	J DIAPHRA	•			I	L	-	1					I	I	
ED451	8	4	1′-9 "	STR											
D452	8	4	5'-7"	54	3'-4 ½"	6 ½"	1′-8"	3' - 4 3/8"	$1' - 2\frac{1}{4}''$						
D453	8	4	5′ - 8 '' 7′ - 1 ''	75 70	3′ - 4 ¾" 3′ - 4 "	<u> </u>	1′-9" 3′-4"	3' - 4 %"	1′-2 1⁄8"						
D454 D455	80	4	7' - 1 1 "	70	2' - 8 "	5 " 2′ -7 "	2'-8"	0 ⁷ ⁄16" 4 ¾"							
D455	16	4	7'-0"	STR				0							
D457	80	4	3′ - 1 "	11	1′-3 "	1′ - 10 "	1'-3 ½"								
ED551	20	5	VARIES	STR											4 SETS OF 5 VARY EA BY ΔL = 1
			4'-3" TO 4'-9"												VARTEA BY $\Delta L = 1$
ED552 ED553	<u>24</u> 12	5 5	7′ – 1 " 5′ – 2 "	STR STR											
ED5554	18	5	6' - 4 "	STR											
I													•		

CKD: MEC

DES: JCM

DWG: JCM







8/3/2018

LEGEND:

■ BAR IS SPLICED WITH MECHANICAL SPLICE. BAR LENGTH INCLUDES 3" THREADED LENGTH WHERE "THREADED 3" IS INDICATED. BARS WHERE "MECH SPLICE, ONE END" IS INDICATED HAVE NOT BEEN ADJUSTED TO ACCOUNT FOR THE LENGTH OF MECHANICAL SPLICE. ADJUST BAR LENGTHS FOR ACTUAL DIMENSIONS OF MECHANICAL SPLICE.

NOTES:

- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR DECK DETAILS, SEE SHEETS 48 AND 49.
- 3. FOR DECK SIDEWALK/BARRIER DETAILS, SEE SHEET 50.
- 4. FOR DIAPHRAGM DETAILS, SEE SHEETS 51 THRU 53.
- 5. FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE STANDARD DRAWING BC-736M.
- 6. PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT BARS.
- 7. ALL DIMENSIONS ARE OUT-TO-OUT OF BARS EXCEPT "A" ON STANDARD 180°HOOKS AND "R" WHICH IS SHOWN AT THE INSIDE OF THE BAR.
- 8. FIGURES IN CIRCLES SHOW BAR TYPE.
- 9. "STR" DENOTES STRAIGHT BAR.

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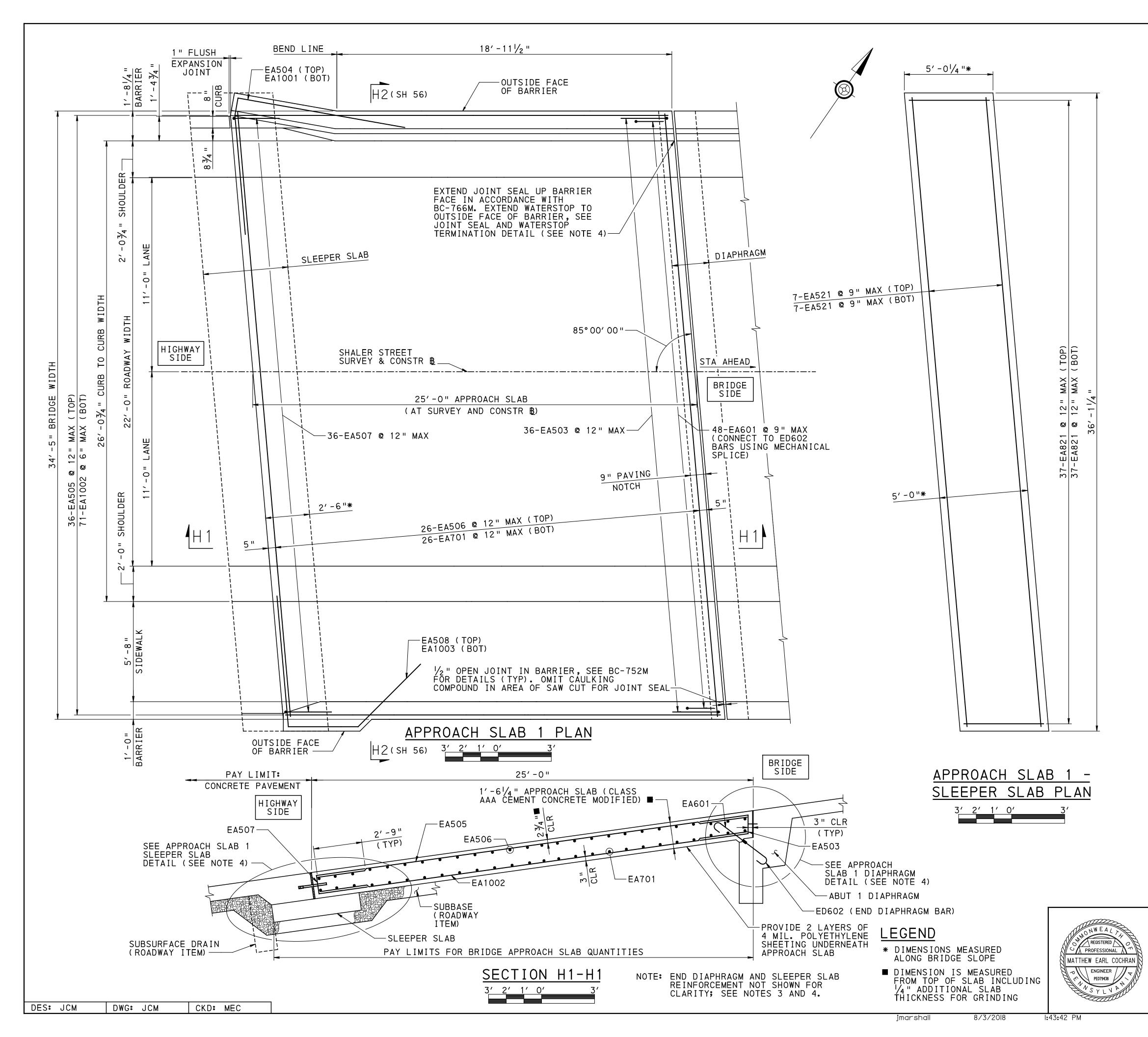
ALLEGHENY COUNTY SR 3110, SECTION A02 SEGMENT 0010 OFFSET 0001

SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63 2-SPAN COMP STEEL PLATE GIRDER BRIDGE

Z-SFAN CUMF	SIEEL FL	AIC (JUDEN	DRIDGE
SUPERST	RUCTURE	BAR	SCHED)ULE

RECOMMENDED	08/03/2018	
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NOTES:

- 1. FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- 2. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 3. FOR ABUTMENT 1 CONCRETE DIAPHRAGM DETAILS, SEE SHEET 51.
- 4. FOR ADDITIONAL APPROACH SLAB 1 DETAILS, SEE SHEET 56.
- 5. FOR APPROACH SLAB 2 DETAILS, SEE SHEETS 57 AND 58.
- 6. FOR APPROACH SLAB BARRIER DETAILS, SEE SHEET 59.
- 7. FOR APPROACH SLAB 1 REINFORCEMENT SCHEDULE SEE SHEET 60.
- 8. FOR BARRIER ELEVATION VIEWS, SEE SHEET 69.
- 9. FOR BARRIER OPEN JOINT DETAILS, SEE BC-752M.
- 10. FOR ADDITIONAL PREFORMED NEOPRENE COMPRESSION SEAL JOINT DETAILS, SEE BC-766M.

APPROACH SLAB NOTES:

- 1. CONSTRUCT BRIDGE APPROACH SLAB AFTER THE SUPERSTRUCTURE SEGMENTS HAVE BEEN SET IN THEIR PERMANENT LOCATIONS AND ANCHOR BOLTS HAVE BEEN INSTALLED.
- 2. PLACE CONCRETE IN ONE CONTINUOUS OPERATION, UNLESS OTHERWISE INDICATED OR DIRECTED.
- 3. TRANSVERSE CONSTRUCTION JOINTS ARE NOT PERMITTED IN THE CONCRETE APPROACH SLAB OR SLEEPER SLAB UNLESS OTHERWISE INDICATED.
- 4. ALL REINFORCEMENT DIMENSIONS ARE TRUE DIMENSIONS, MEASURED ALONG BRIDGE SLOPE. ALL OTHER DIMENSIONS ARE MEASURED HORIZONTALLY AND DO NOT ACCOUNT FOR BRIDGE SLOPE, UNLESS OTHERWISE INDICATED.

JOINT PREPARATION NOTES:

- 1. THE JOINT OPENING IS TO BE FORMED BY A TWO-STAGE SAWING OPERATION WHERE ACCESSIBLE. WHERE ACCESSIBILITY IS LIMITED, THE JOINT OPENING SHALL BE FORMED. THE FIRST SAW CUT IS DESIGNED TO CONTROL CRACKING. THE SECOND SAW CUT IS MADE USING A DOUBLE-BLADED WATER-COOLED SAW CAPABLE OF HOLDING A TOLERANCE OF $\pm \frac{1}{16}$ " TO CREATE THE PROPER OPENING FOR THE PREFORMED NEOPRENE COMPRESSION SEAL OR INVERTED V JOINT SEAL.
- 2. WATER BLAST OPENING IMMEDIATELY FOLLOWING SAW CUTTING OPERATION TO REMOVE ANY RESIDUAL SLURRY BEFORE IT DRIES.
- 3. THE DEPTH OF THE JOINT OPENING EQUALS THE HEIGHT OF THE SEAL PLUS 1". THE WIDTH OF THE SECOND SAW CUT SHOULD BE ADJUSTED TO ACCOUNT FOR THE CONCRETE SURFACE TEMPERATURE AT THE TIME OF SAWING; SEE MANUFACTURER'S PRODUCT INFORMATION.
- 4. BEFORE INSTALLING THE SEAL, ABRASIVE BLAST THE BONDING SURFACES TO THOROUGHLY CLEAN THE JOINT OPENING AND REMOVE FOREIGN MATERIAL, INCLUDING BROKEN CONCRETE. USE WATER AND OIL FREE COMPRESSED AIR TO BLOW OUT RESIDUE FROM THE SEAL GROOVE OPENING.
- 5. PREPARE BONDING SURFACES AND INSTALL JOINT SEAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 6. DO NOT EXCEED 3% ELONGATION OF THE SEAL, IF STRETCHING OCCURS.

Mark	Description	Ву	Chk' d.	Recm'd.	Date						
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SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

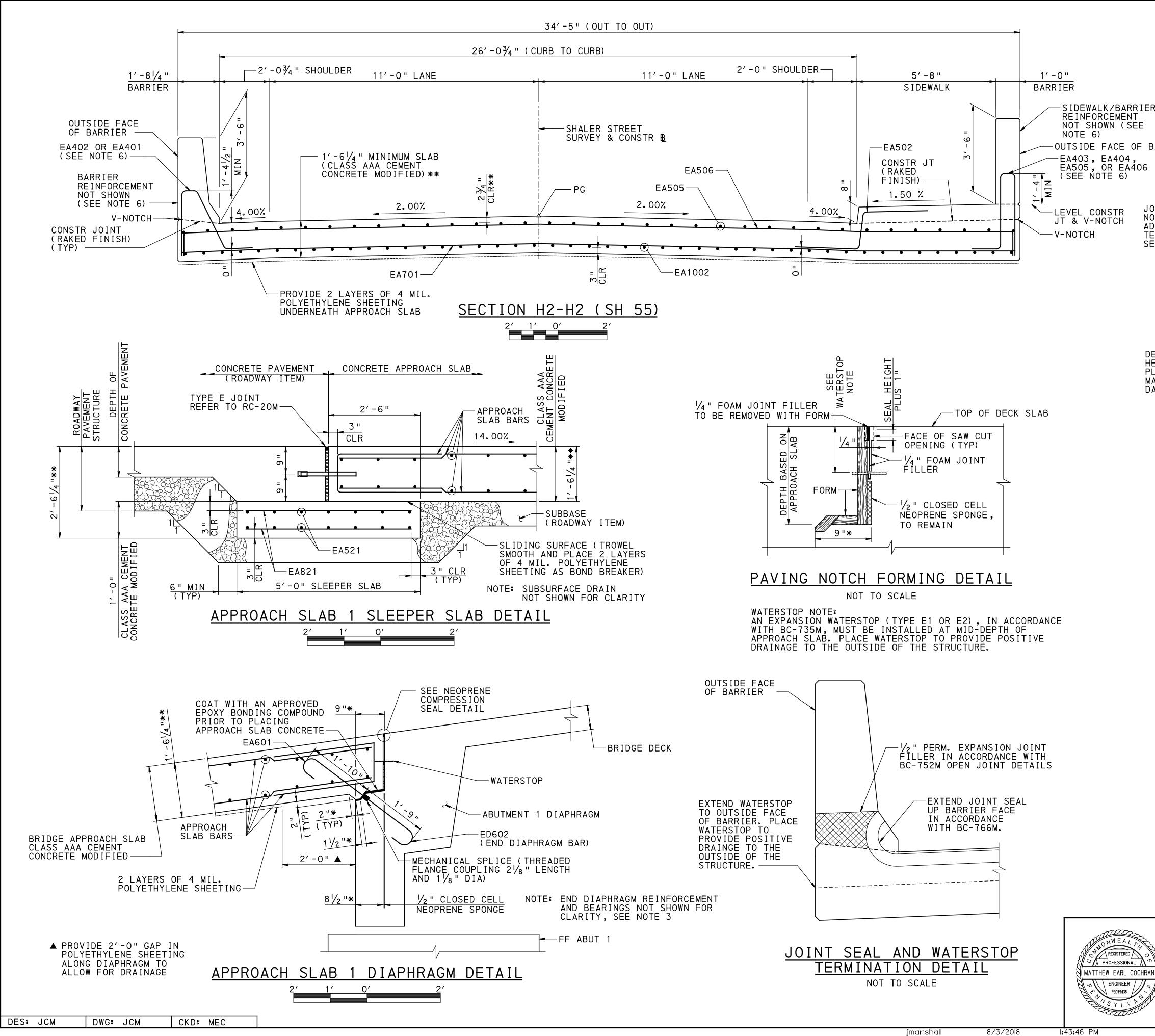
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY SR 3110, SECTION AO2 SEGMENT 0010 OFFSET 0001

SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63

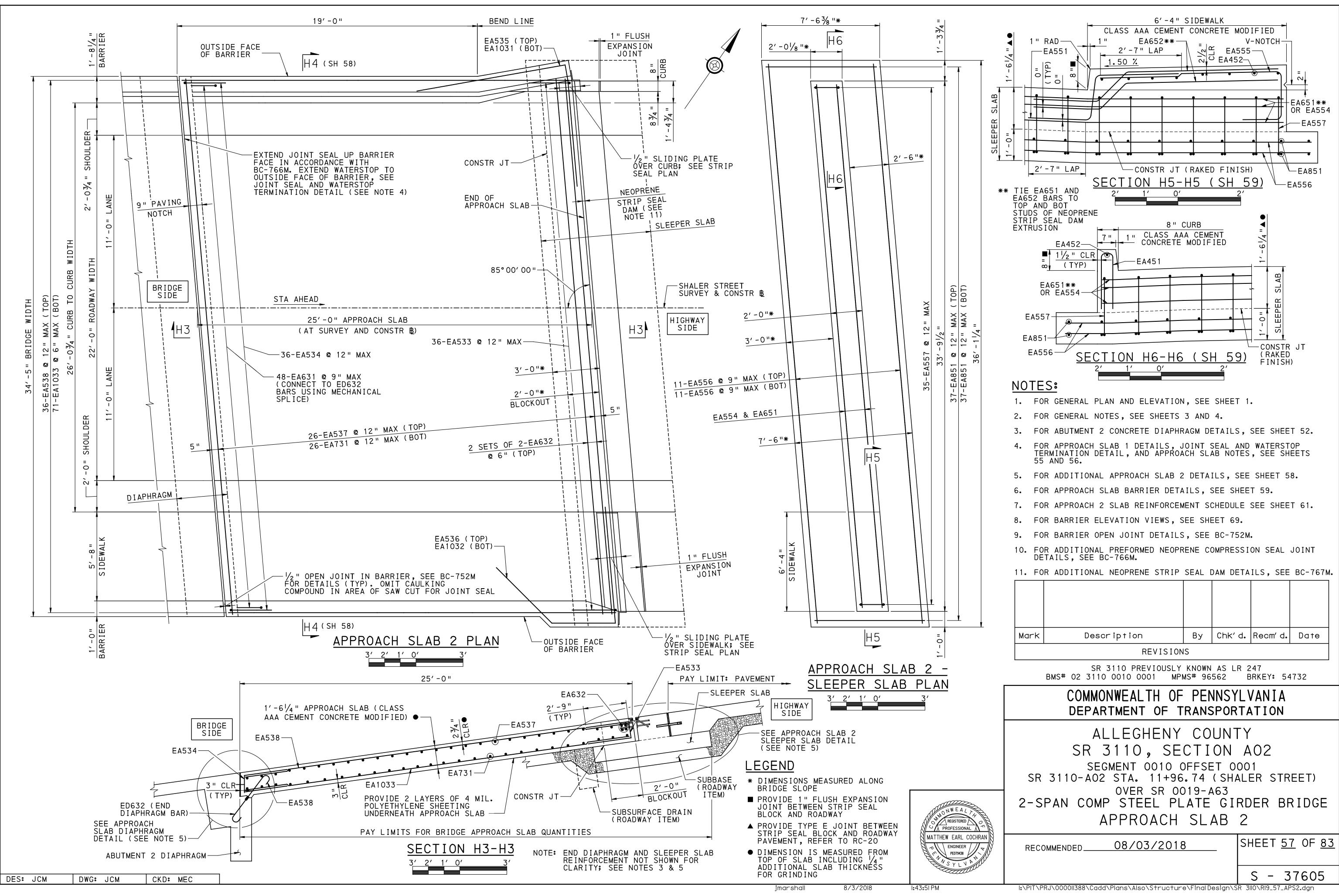
2-SPAN COMP STEEL PLATE GIRDER BRIDGE APPROACH SLAB 1

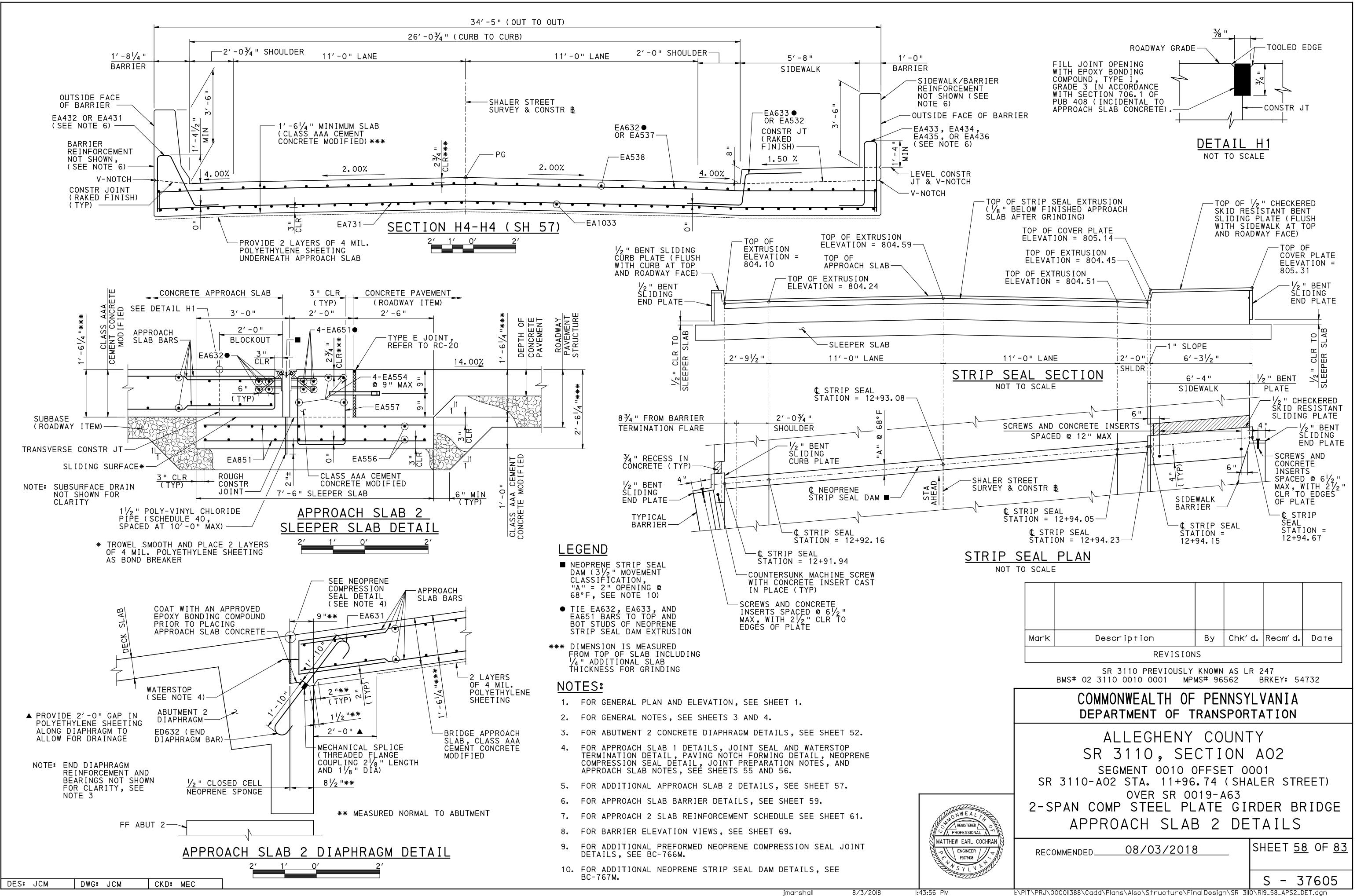
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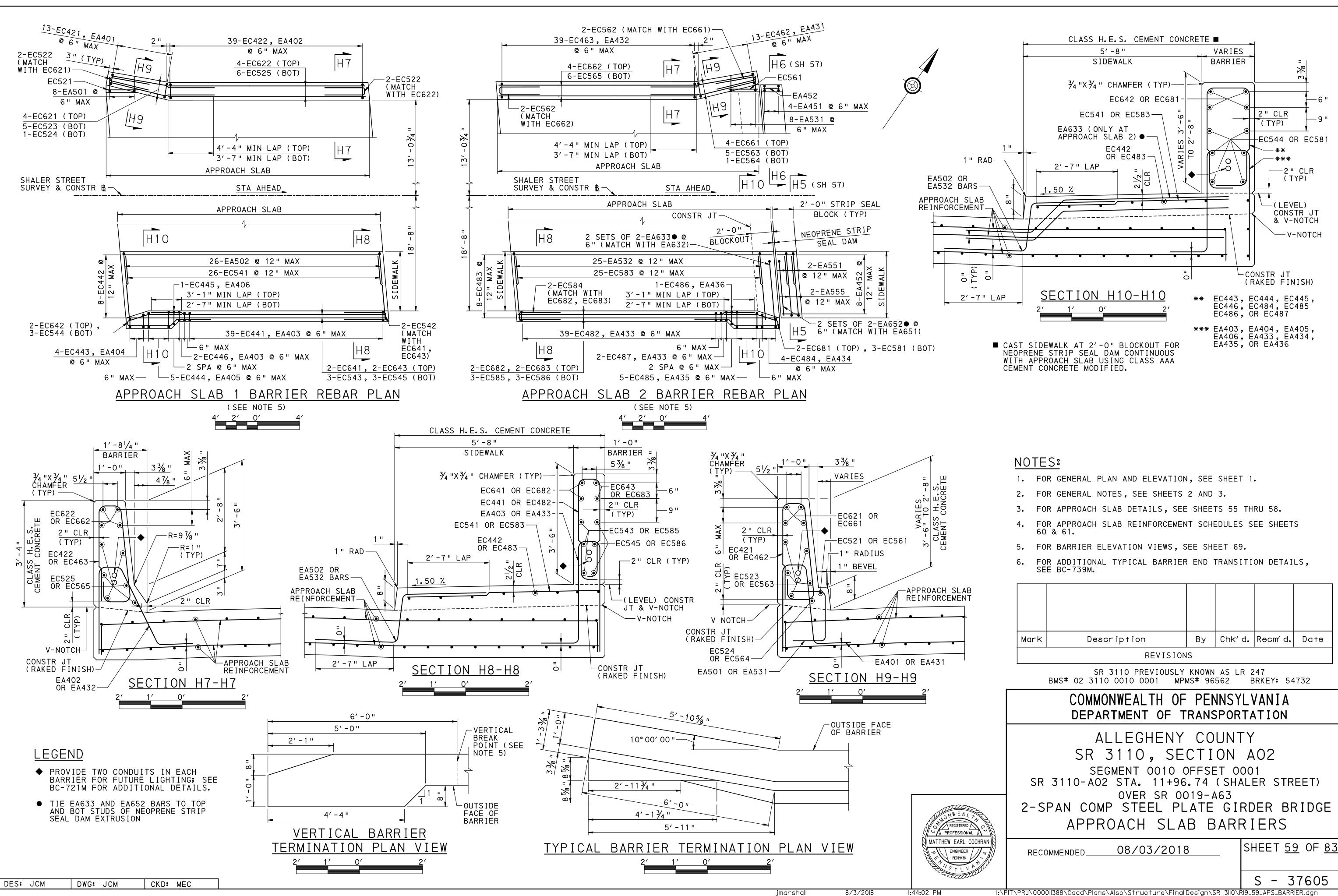
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R SARR I	 * MEASURED NORMAL TO ABUTMENT ** DIMENSION IS MEASURED FROM TOP OF SLAB INCLUDING 1/4 " ADDITIONAL SLAB THICKNESS FOR GRINDING USE ONLY APPROVED SEALS, AS LISTED IN BULLETIN 15. INSTALL JOINT SEALS TO A UNIFORM DEPTH WITH THE TOP OF THE SEAL FROM 1/4 " TO 1/2 " BELOW THE LEVEL OF THE CHAMFER. MAKE THE TOP EDGES OF THE CONTACT SURFACES ON BOTH SIDES OF THE SEAL AT THE SAME ELEVATION.
)TES)JUS1 MPEF	DPENING FOR JOINT SEAL, SEE JOINT PREPARATION SEE NOTE 4). WIDTH OF OPENING SHOULD BE ED TO ACCOUNT FOR THE CONCRETE SURFACE ATURE AT THE TIME OF SAWING. NUFACTURER'S DATA.
EIGH LUS ANUF ATA —	EQUALS OF SEAL ". SEE CONCRETE NEOPRENE COMPRESSION SEAL DETAIL
	 SEAL DETAIL NOT TO SCALE NOT TO SCALE FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4. FOR ABUTMENT 1 CONCRETE DIAPHRAGM DETAILS, SEE SHEET 51. FOR ADDITIONAL APPROACH SLAB 1 DETAILS, APPROACH SLAB NOTES, AND JOINT PREPARATION NOTES, SEE SHEET 55. FOR APPROACH SLAB 2 DETAILS, SEE SHEET 59. FOR APPROACH SLAB BARRIER DETAILS, SEE SHEET 59. FOR APPROACH SLAB 1 REINFORCEMENT SCHEDULE SEE SHEET 60. FOR APPROACH SLAB BARRIER ELEVATION VIEWS, SEE SHEET 69. FOR APPROACH SLAB BARRIER ELEVATION VIEWS, SEE SHEET 69.
	Mark Description By Chk'd. Recm'd. Date REVISIONS SR 3110 PREVIOUSLY KNOWN AS LR 247
	BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732 COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
	ALLEGHENY COUNTY SR 3110, SECTION AO2 SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63
	2-SPAN COMP STEEL PLATE GIRDER BRIDGE APPROACH SLAB 1 DETAILS
	RECOMMENDED 08/03/2018 SHEET <u>56</u> OF <u>83</u> S - 37605





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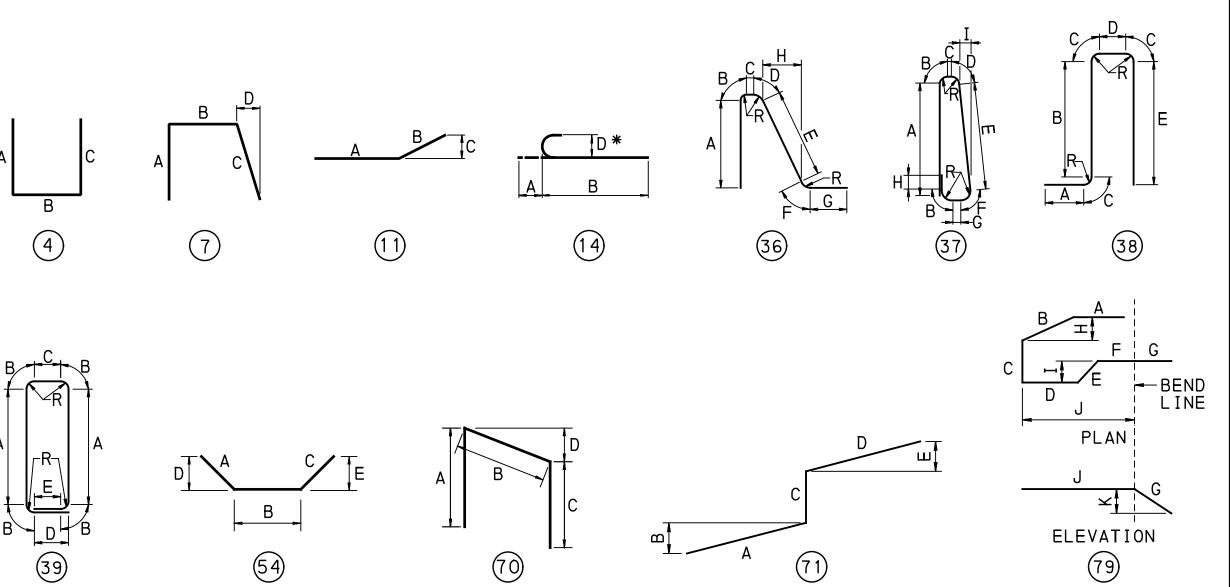


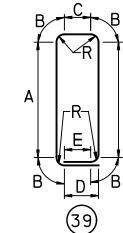
Mark	Description	Ву	Chk' d.	Recm'd.	Date
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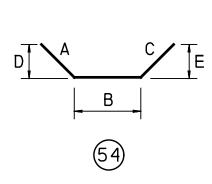
2-SPAN COMP	STEEL	. PLATI	E GIRDER	BRIDGE
APPRO	ACH S	SLAB	BARRIER	S

	RECOMMENDED	08/03/2018		SHE	ΕT	<u>59</u>	0F	<u>83</u>
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MARK ABUTM	QUANTITY ENT 1 APP	SIZE ROACH	LENGTH SLAB	TYPE	A	B	C	D	E	F	G	H	1	REMARKS
EA401	13	4	VARIES 6′-9" TO 6′-11"	36	2′ - 4 "	4 "	4 ''	2 ¾"	VARIES 2'-3 ½" TO 2'-5 ½"	2 ¾"	1′-0"	VARIES 5 ¾" TO 1'-0 ¾"		1 SET OF 13, R = 2" $\Delta E = \frac{3}{6}$ "(-) $\Delta H = \frac{9}{6}$ "(-) $\Delta L = \frac{3}{6}$ "(-)
EA402	39	4	6' - 11 "	36	2' - 4 "	4 "	4 "	2 3/4"	2'-5 ½"	2 3⁄4"	1′-0"	1′-0 ¾"		R = 2 "
EA403	41	4	8′ - 1 "	38	1′-0"	2' - 10 "	4 "	3 "	3'-0"					R = 2 "
EA404	4	4	VARIES 8' - 1 " TO 8' - 7 "	38	1′-0"	2′-10"	4 ''	VARIES 3" TO 9"	3′-0"					1 SET OF 4, R = 2" ΔD = 2" ΔL = 2"
EA405	5	4	8′-9 "	38	1′-0"	2' - 10 "	4 "	11"	3'-0"					R = 2 "
EA406	1	4	8'-6"	38	1'-0"	2'-10"	4"	8 "	3'-0"					R = 2 "
EA501	8	5	3'-7"	4	1'-0"	1'-7"	1'-0"		<u> </u>					
EA502 EA503	26 36	5 5	6′ - 10 " 6′ - 7 "	71	2'-7" 2'-9 ¼"	0 %" 1′ -0 %"	1′-7" 2′-9 1⁄8"	2′-8" 1 ¾"	2 3⁄8"					
EA503 EA504	1	5	11'-9"	7	<u>2 - 9 74</u> 7' - 10 "	1'-0"	2'-11"	2'-9 ³ / ₄ "						
EA504	36	5	24'-8"	STR										
EA506	26	5	35'-10"	4	11"	34'-0"	11"							
EA507	36	5	6' - 7 "	4	2'-9 ¼"	1'-0 1/2"	2'-9 ¼"							
EA508	1	5	10′ - 9 "	54	3'-8"	3' - 11 "	3'-2"	3'-7 %"	2'-2 %"					
EA601	48	6	2′ -9 "	14	8 "	2′ - 1 "		4 1/2"						THREADED 3", ONE END
EA701	26	7	34'-0"	STR										
A1001	1	10	17'-4"	7	9′-7″	1′-0"	6′-9″	6'-6 ¼"						
A1002	71	10	24'-6"	STR										
A1003	1		16' - 4 "	54	7′-5″	3' - 11 "	5'-0"	7'-4 %%"	3′-6 ¾"					
ABUT	1 APPROAC	H SLAB	NORTH BAR	RIER	1	1		1			1	1		
EC421	13	4	VARIES 6'-3" T0 7'-11"	37	VARIES 1'-11½" TO 2'-9½"	4 "	3 ⅔"	3 %"	VARIĘS 1'-9 ¾" TO 2'-7 ¾"	4 ¼"	5 %"	5 "	2 ¾"	1 SET OF 13, R = 2 $\Delta A = {}^{13}/_{6}"(+)$ $\Delta E = {}^{13}/_{6}"(+)$ $\Delta L = 1 {}^{11}/_{6}"(-)$
EC422	39	4	8′ – 1 "	37	2'-9 ½"	4 "	3 3/8"	3 5/8"	2'-7 3/4"	4 ¹ ⁄8"	6 ¾"	5 7/8"	3 ⅔"	R = 2 "
EC521	1	5	5′-8 "	STR										
C522	4	5	7′-9"	4	3'-7"	7 "	3' - 7 "							
EC523	5	5	9′ - 7 "	11	3'-10"	5'-9"	1'-0"							
C524	1	5	9'-8"		3'-9 1/8"	5'-10 %	1′-4 ½″							
	6	5	18' - 11 "	STR			47 7 5/11							
	4	6 6	10' - 4 "		4'-6 ¹ ⁄4"	5′-9¾"	1′-3 %"							
EC622 ABUT	4 1 APPROAC		18'-11" SOUTH BAR											
EC441	<u>39</u>	4	7'-10"	39	2'-9"	4 "	3 "	5 ½"	3 1/2"					R = 2"
C442	8	4	24' - 8 "	STR		•			0 72					
EC443	4	4	VARIES 6' -2 " T0 8' -0 "	39	VARIES 1'-11" TO 2'-1"	4 "	VARIES 3"TO 9"	VARIES 5 ½" TO 11 ½"	VARIES 3 ½" TO 9 ½"					1 SET OF 4, R = 2" $\Delta A = {}^{1}1_{6}$ "(-) $\Delta C = 2$ " $\Delta D = 2$ " $\Delta E = 2$ " $\Delta E = 2$ " $\Delta L = 7 {}^{5}_{6}$ "(+)
EC444	5	4	VARIES 8'-8" TO 9'-2"	39	VARIES 2'-2" T0 2'-5"	4 "	11"	13 ½"	11 ½"					1 SET OF 5 R = 2" ΔA = ¾" ΔL = 1½"
EC445	1	4	8′ - 8 "	39	2'-6 1/2"	4 "	8 "	10 ½"	8 ½"					R = 2"
EC446	2	4	VARIES 7' - 6 " T0 7' - 8 "	39	VARIES 2'-7" TO 2'-8"	4 "	3 "	5 ½"	3 ½"					1 SET OF 2, R = 2" ΔA = 1" ΔL = 2"
EC541	26	5	6′ -2 "	STR										
C542	2	5	7′ – 9 "	4	3′ - 7 "	7"	3' - 7 "							
C543	3	5	22′ - 11 "	STR										
EC544	3	5	12′ - 11 "	79	2′ -8 "	2'-0"	7 "	4' - 1 "	11"	2′ -8 "	0 "	7 ½"	7 3⁄4"	J = N/A, K = N/A
EC545	3	5	20′ - 1 "	STR										
EC641	2	6	23'-0"	11	19'-0"	4′ -0 "	6 ⁷ /6"							
C642	2	6	14′ -0 "	79	3′ -2 "	2′-0"	7"	4' - 1 "	11"	1′ – 1 "	2′ -2 "	7 ½"	7 ¾"	$J = 5' - 9 \frac{3}{4}$, $K = 3 \frac{1}{4}$
C643	2	6	20' - 1 "	11	19'-0"	1′ – 1 "	1 3⁄4"							
ABUT	1 APPROAC	1	PER SLAB	1	1	1	1	1	1		1			
EA521 EA821	<u> 14 </u> 74	5	35' - 8 "	STR										
		8	4'-6"	STR		1	i i					1		









8/3/2018

LEGEND:

■ BAR IS SPLICED WITH MECHANICAL SPLICE. BAR LENGTH INCLUDES 3" THREADED LENGTH WHERE "THREADED 3" IS INDICATED. BARS WHERE "MECH SPLICE, ONE END" IS INDICATED HAVE NOT BEEN ADJUSTED TO ACCOUNT FOR THE LENGTH OF MECHANICAL SPLICE. ADJUST BAR LENGTHS FOR ACTUAL DIMENSIONS OF MECHANICAL SPLICE.

NOTES:

- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR APPROACH SLAB 1 DETAILS, SEE SHEETS 55 AND 56.
- 3. FOR APPROACH SLAB SIDEWALK/BARRIER DETAILS, SEE SHEET 59.
- 4. FOR BARRIER ELEVATION VIEWS, SEE SHEET 69.
- 5. FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE STANDARD DRAWING BC-736M.
- 6. PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT BARS.
- 7. ALL DIMENSIONS ARE OUT-TO-OUT OF BARS EXCEPT "A" ON STANDARD 180°HOOKS AND "R" WHICH IS SHOWN AT THE INSIDE OF THE BAR.
- 8. FIGURES IN CIRCLES SHOW BAR TYPE.
- 9. STR DENOTES STRAIGHT BAR.

Mark	Description	Ву	Chk' d.	Recm'd.	Date							
	REVISION	REVISIONS										

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY SR 3110, SECTION A02

SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63

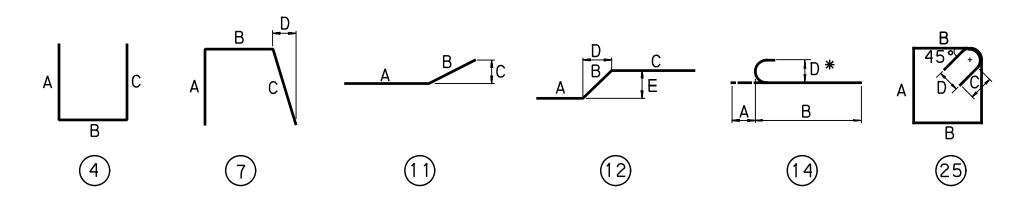
2-SPAN	COMP STEEL	PLATE	GIRD	ER BRIDGE
ABUT 1	APPROACH	SLAB	BAR	SCHEDULE

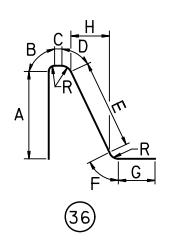
RECOMMENDED	08/03/2018	_ SHEET <u>60</u> OF <u>83</u>
		S - 37605

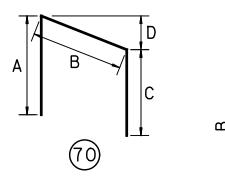
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	QUANTITY ENT 2 APF		LENGTH SLAB	TYPE	A	В	C	D	E	F	G	H	Ι	REMARKS
EA431	13	4	VARIES 6'-9" TO 6'-11"	36	2′ - 4 "	4 "	4 "	2 34"	VARIES 2′-3 ½" TO 2′-5 ½"	2 ¾"	1′-0"	VARIES 5 ¾" TO 1′-0 ¾"		$\Delta E = \frac{3}{6} $
A432	39	4	6′ - 11 "	36	2'-4"	4 "	4 "	2 3/4"	2′-5 ½″	2 ¾"	1′-0"	1′-0 3⁄8"		R = 2"
A433	41	4	8' - 1 " VARIES	38	1'-0" 1'-0"	2' - 10" 2' - 10"	4 " 4 "	3" VARIES 3" TO	3'-0"					R = 2" 1 SET OF 4, R = 2"
EA435	5	4	8'-1" TO 8'-7" 8'-9"	38	1'-0"	2'-10"	4 "	9 " 11 "	3'-0"					$\Delta D = 2"$ $\Delta L = 2"$ $R = 2"$
EA435	<u></u>	4	8'-9	38	1'-0"	2'-10"	4 4 11	8"	3'-0"					R = 2"
EA531	8	5	3' - 7 "	4	1'-0"	1'-7"	1′-0"							
A532	25	5	6' - 10 "	71	2' - 7 "	0 %"	1'-7"	2′ - 8 "	2 3/8"					
A533	36	5	6' -7 "	4	2'-9 ¼"	1'-0 ½"	2'-9 ¼"							
A534	36	5	6' -7 "	70	2'-9 ¼"	1'-0 %	2'-9 1/8"	1 3⁄4"						
A535	1	5	11'-9"	7	7' - 10 "	1'-0"	2' - 11 "	2'-10 %"						
A536	1	5	9'-6"	75	2' - 10 "	3'-11"	2'-9"	2'-9 %"	1′ – 11 ⅔"					
	26		35'-10"	13	11"	34'-0"	11"	2 3 78	1 1 /8					
A537		5		4	11"	54 - 0 "	11							
A538	36	5	24' - 9 "	STR	•	.		. 1						
EA631	48	6	2′-9 "	14	8 "	2′ - 1 "		4 ½"						THREADED 3", ONE END
A632	4	6	34' - 0 "	STR										
A633	4	6	9′ – 5 "	12	3'-6 ¼"	1'-0 ¼"	4'-10 ½"	9"	9 "					
EA731	26	7	34′-0"	STR										
A1031	1	10	17′ – 4 "	7	9′ - 7 "	1′-0"	6′ - 9 "	6′-8 ¾″						
A1032	1	10	16′ - 4 "	75	7′-5 "	3′ - 11 "	5'-0"	7'-4 5%"	3'-6 3%"					
A1033	71	10	24′ -9 "	STR										
	2 APPROA		NORTH BARRIER		•		I	•			1			
					VARIES		- 300	– <i>E</i> /	VARIES	. 1	E Fru	-	- 3	1 SET OF 13, R = 2"
C462	13	4	VARIES 6'-3" TO 7'-11"	37	1′ – 11 ½" TO 2′ – 9 ½"	4 ''	3 ¾"	3 5⁄8"	VARIES 1'-9 ¾" TO 2'-7 ¾"	4 1⁄8"	5 5%"	5 "	2 ⅔"	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
C463	39	4	8′ – 1 "	37	2'-9 1/2"	4 "	3 3/8"	3 5%"	2'-7 3/4"	4 1/8"	6 3/4"	5 7/8"	3 %"	R = 2 "
EC561	1	5	5′ -8 "	STR		•				1 70	0 /4	0 /8	0 /8	
C562	4	5	7'-9"	4	3′ - 7 "	7 "	3′ – 7 "							
	5	5	9'-7"	1 1		, 5′-9"								
C563	<u> </u>	_			3' - 10"		1'-0"							
C564	1	5	9′ - 8 "	11	3'-9 1/8"	5'-10 %	1'-4 %"							
C565	6	5	18′ – 11 "	STR	· · ·									
EC661	4	6	10′ – 4 "	11	4′-6 ¼″	5′-9 ¾″	1′-3 %"							
C662	4	6	18′ – 11 "	STR										
ABUT 2	2 APPROAG	CH SLAB	SOUTH BARRIER/SIDE	WALK			-							
C482	39	4	7′ – 10 "	39	2′-9 "	4 "	3 "	5 ½"	3 ½"					R = 2 "
C483	8	4	24′ -8 "	STR										
														1 SET OF 4 R = 2"
	4		VARIES	70	VARIES	4 "	VARIES	VARIES 5 ½" TO 11 ½"	VARIES 3 ½" TO 9 ½"					1 SET OF 4, R = 2" $\Delta A = \frac{11}{16}$ "(-), $\Delta C = 2$ $\Delta D = 2$ ", $\Delta E = 2$ " $\Delta L = 7\frac{5}{6}$ "(+)
EC484	4	4	VARIES 6'-2" TO 8'-0"	39	1'-11" TO 2'-1"	4 "	3" TO 9"	5 /2" U 1 1 1/4"	ן כ <i>יי</i> ב" ו ט ק 1/גיי					ΔD = 2", ΔΈ = 2"
									5 72					$\Delta L = 7 \mathscr{Y}_6'' (+)$
					VARIES									1 SET OF 5 P - 2"
C485	5	4	VARIES 8'-8" TO 9'-2"	39	2'-2" TO	4 "	11"	13 ½"	11 1/2"					1 SET OF 5, R = 2"
	0		8'-8" 10 9'-2"		2'-5"	•								$\Delta A = \frac{3}{4}''$ $\Delta L = 1\frac{1}{2}''$
C486	1	4	8′ – 8 "	39	2'-6 1/2"	4 "	8 "	10 ½"	8 1/2"					R = 2 "
10400		4	8 - 8	- 23		4	0	10 /2	0 /2					
0.407	0		VARIES	70	VARIES	4 11			– 1/11					1 SET OF 2, R = 2"
C487	2	4	7'-6" TO 7'-8"	39	2'-7" TO 2'-8"	4 ''	3 "	5 ½"	3 1⁄2"					$\Delta A = 1 "$ $\Delta L = 2 "$
													_ ¬	
EC581	3	5	12′ - 11 "	79	2′ -8 "	2′-0"	7 "	4' - 1 "	11"	2′-8 "	0"	7 ½"	7 ¾"	J = N/A; K = N/A
C583	25	5	6′ -2 "	STR										
EC584	2	5	7′-9"	4	3' - 7 "	7 "	3′ - 7 "							
C585	3	5	22′ - 11 "	STR										
C586	3	5	20′ - 1 "	STR										
EC681	2	6	14′ -0 "	79	3′ -2 "	2′-0"	7 "	4′ – 1 "	11"	1′-1 "	2′-2 "	7 1⁄2"	7 3⁄4"	$J = 5' - 9 \frac{3}{4}$, $K = 3 \frac{5}{8}$
C682	2	6	22' - 10 "	11	18' - 11 "	3' - 11 "	6 1⁄2"		+ +			-	•	
C683	2	6	20' -0 "	11	18' - 11 "	1'-1"	1 3/4"							
	2 APPROA	-				<u> </u>	<u>, ·т</u>	I			1	1		
EA451	4	4	4'-0"	4	1′ – 10 "	4 "	1′ – 10 "							
A452	9	4	1′-6"	STR		•			+ +					
EA551	2	5	6′ - 10 "	71	2′ -7 "	0 %"	1′ - 7 "	2′-8″	2 3/8"					
EA551	<u> </u>	5	33'-5"	STR		- 78			<u> </u>					
	•			2 SIR	5/ 10 "	1/_0"	1/_0"		+					
A555	2	5	8'-7"		5' - 10 "	1′-9"	1′-0"		+					
A556	22	5	35' - 8 "	STR		<u> </u>	_ 7							
A557	35	5	8'-0"	25	2'-0 ½"	1′-6 "	3 3/4"	2 1/2"						
EA651	4	6	33′ -5 "	STR										
A652	4	6	9′ – 5 "	12	3'-6 ¼"	1'-0 ¼"	4'-10 ½"	9"	9 "					
	74	8	7′ -0 "	STR										
EA851														

DES: JCM	DWG: JCM	CKD: MEC

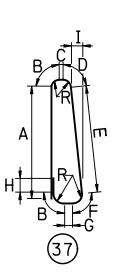


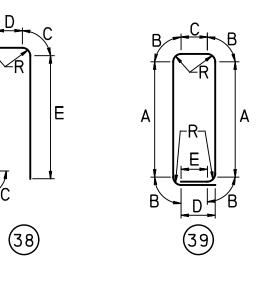


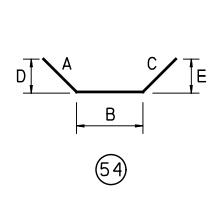


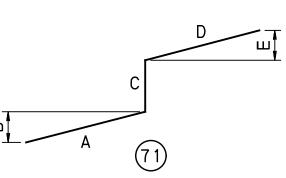


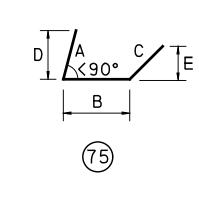
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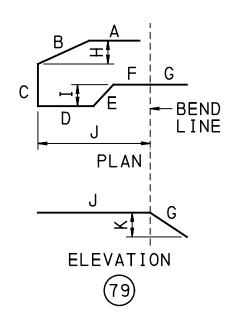












NOTES:

- 1. FOR GENERAL NOTES, SEE SHEETS 3 AND 4.
- 2. FOR APPROACH SLAB 2 DETAILS, SEE SHEETS 57 AND 58.
- 3. FOR APPROACH SLAB SIDEWALK/BARRIER DETAILS, SEE SHEET 59.
- 4. FOR BARRIER ELEVATION VIEWS, SEE SHEET 69.
- 5. FOR REINFORCEMENT BAR FABRICATION DETAILS, SEE STANDARD DRAWING BC-736M.
- 6. PREFIX "E" DENOTES EPOXY COATED REINFORCEMENT BARS.
- 7. ALL DIMENSIONS ARE OUT-TO-OUT OF BARS EXCEPT "A" ON STANDARD 180°HOOKS AND "R" WHICH IS SHOWN AT THE INSIDE OF THE BAR.
- 8. FIGURES IN CIRCLES SHOW BAR TYPE.
- 9. STR DENOTES STRAIGHT BAR.

Mark	Description	Ву	Chk' d.	Recm'd.	Date	
REVISIONS						

SR 3110 PREVIOUSLY KNOWN AS LR 247 BMS# 02 3110 0010 0001 MPMS# 96562 BRKEY: 54732

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION	
ALLEGHENY COUNTY	

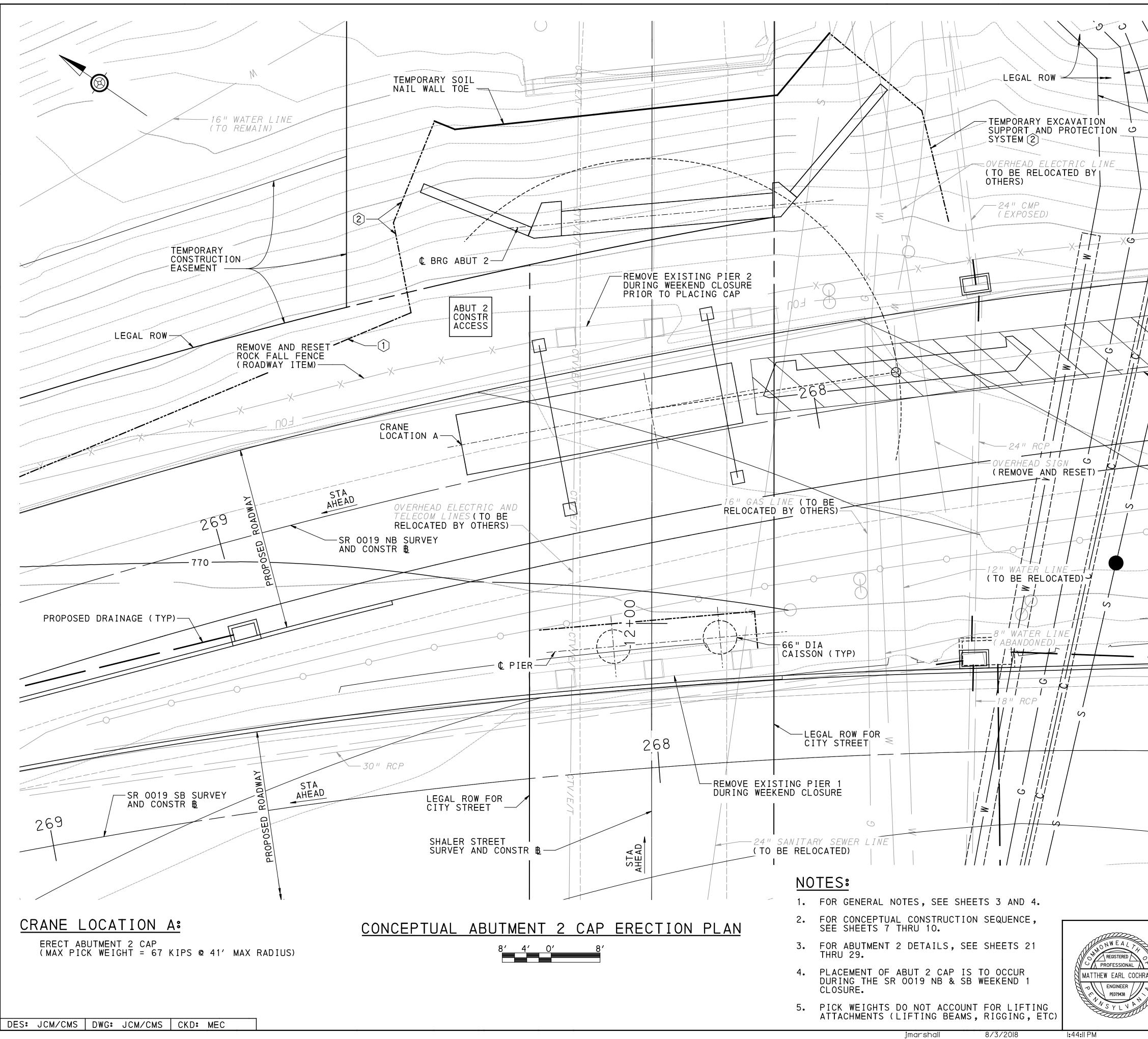
SR 3110, SECTION A02

SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET) OVER SR 0019-A63 2-SPAN COMP STEEL PLATE CIPDER PRIDCE

						ER BRIDGE
ARUI	2	APPF	KUACH	SLAB	BAK	SCHEDULE

RECOMMENDED	08/03/2018	_ SHEET <u>61</u> OF <u>83</u>
		S - 37605

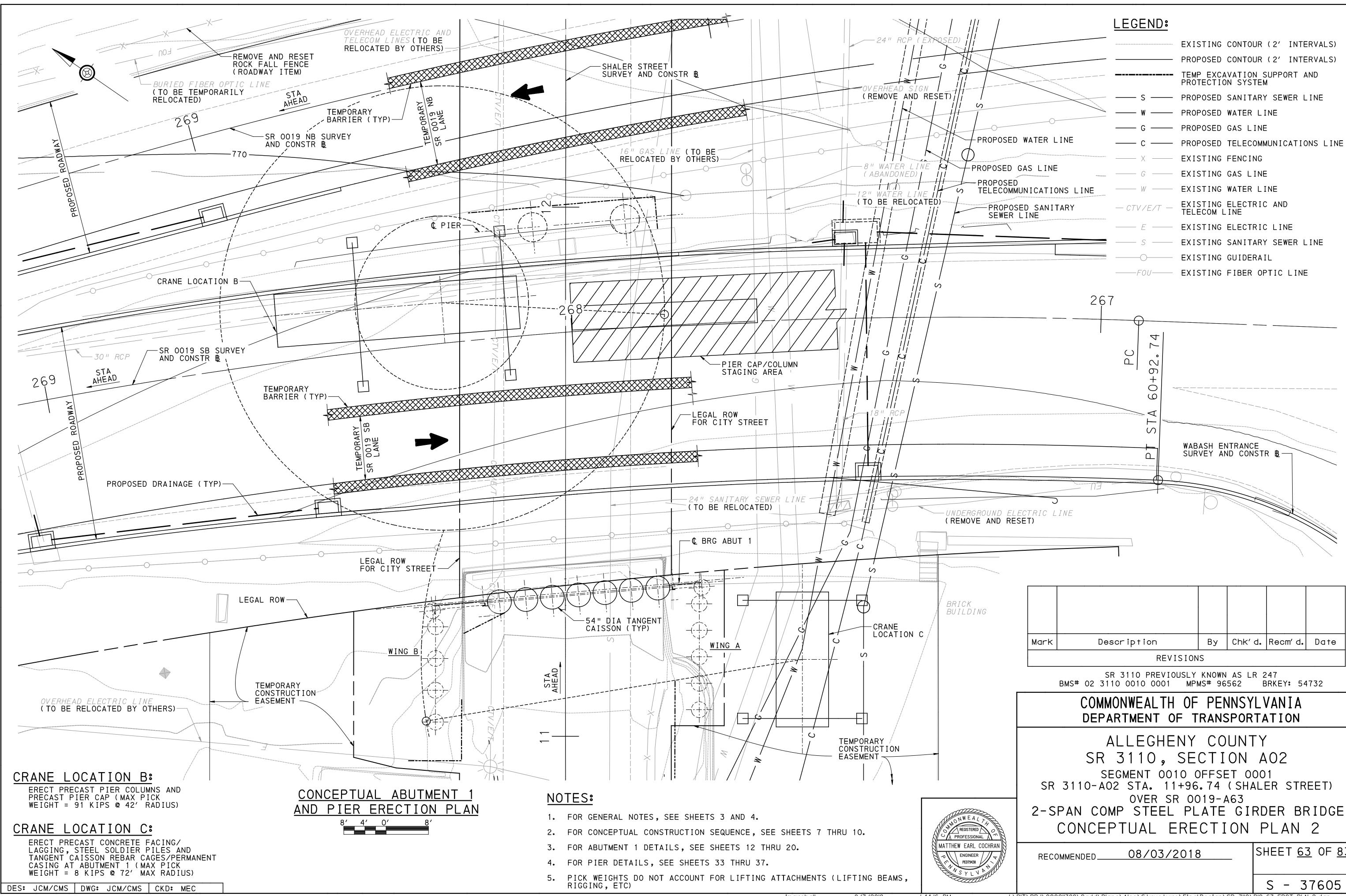
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	RECO	OMMENDED	08/03/2	018	S	HEET <u>6</u>	<u>2</u> OF <u>83</u>
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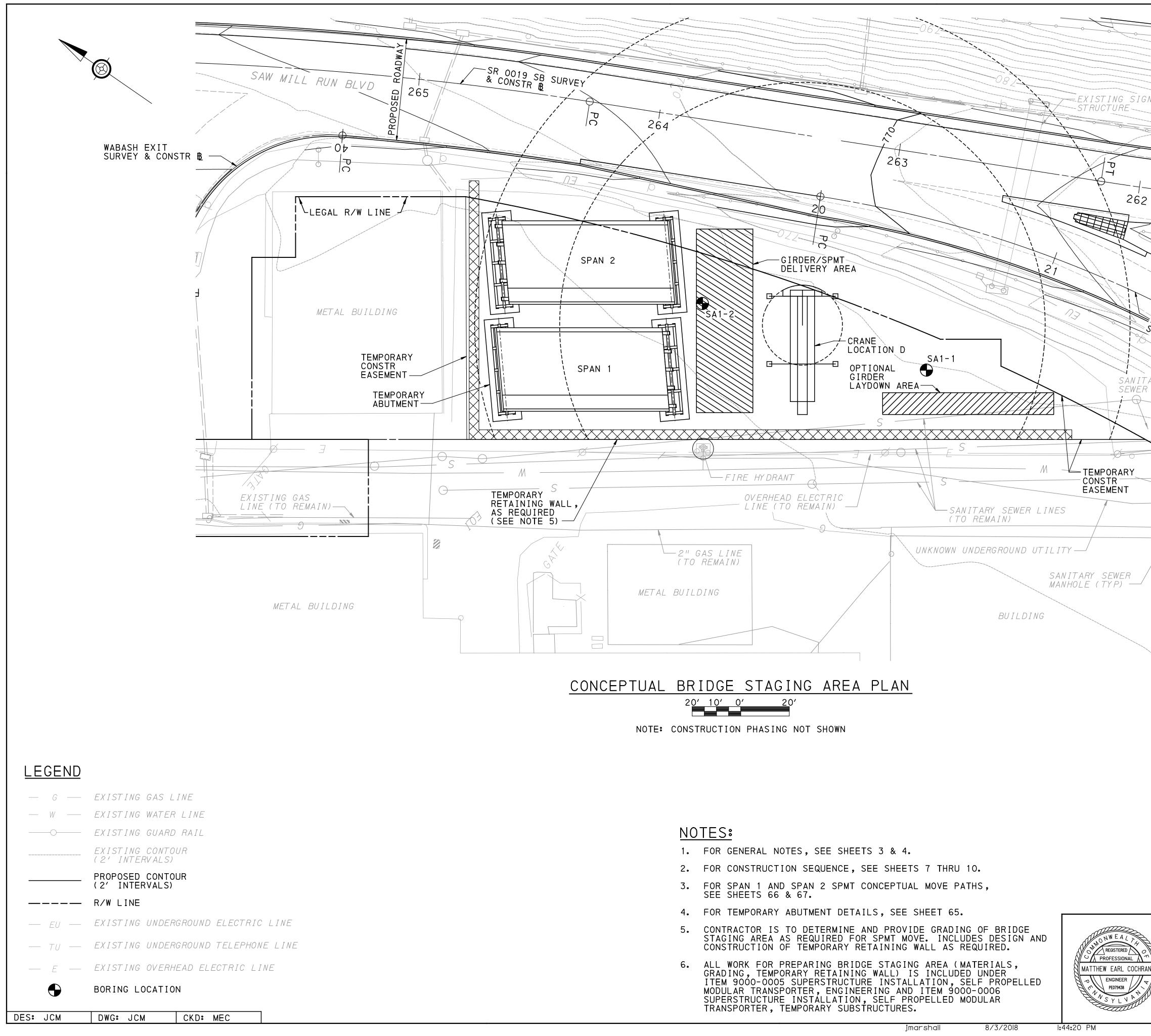
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		EXISTING CONTOUR (2' INTERVALS)
		PROPOSED CONTOUR (2' INTERVALS)
		TEMP EXCAVATION SUPPORT AND PROTECTION SYSTEM
	s	PROPOSED SANITARY SEWER LINE
	—— w ——	PROPOSED WATER LINE
-000	G	PROPOSED GAS LINE
POSED WATER LINE	c	PROPOSED TELECOMMUNICATIONS LINE
	X	EXISTING FENCING
POSED GAS LINE	G	EXISTING GAS LINE
DPOSED ECOMMUNICATIONS LINE	W	EXISTING WATER LINE
PROPOSED SANITARY SEWER LINE	— CTV/E/T —	EXISTING ELECTRIC AND TELECOM LINE
	<i>E</i>	EXISTING ELECTRIC LINE
	S	EXISTING SANITARY SEWER LINE
	O	EXISTING GUIDERAIL
	FOU	EXISTING FIBER OPTIC LINE

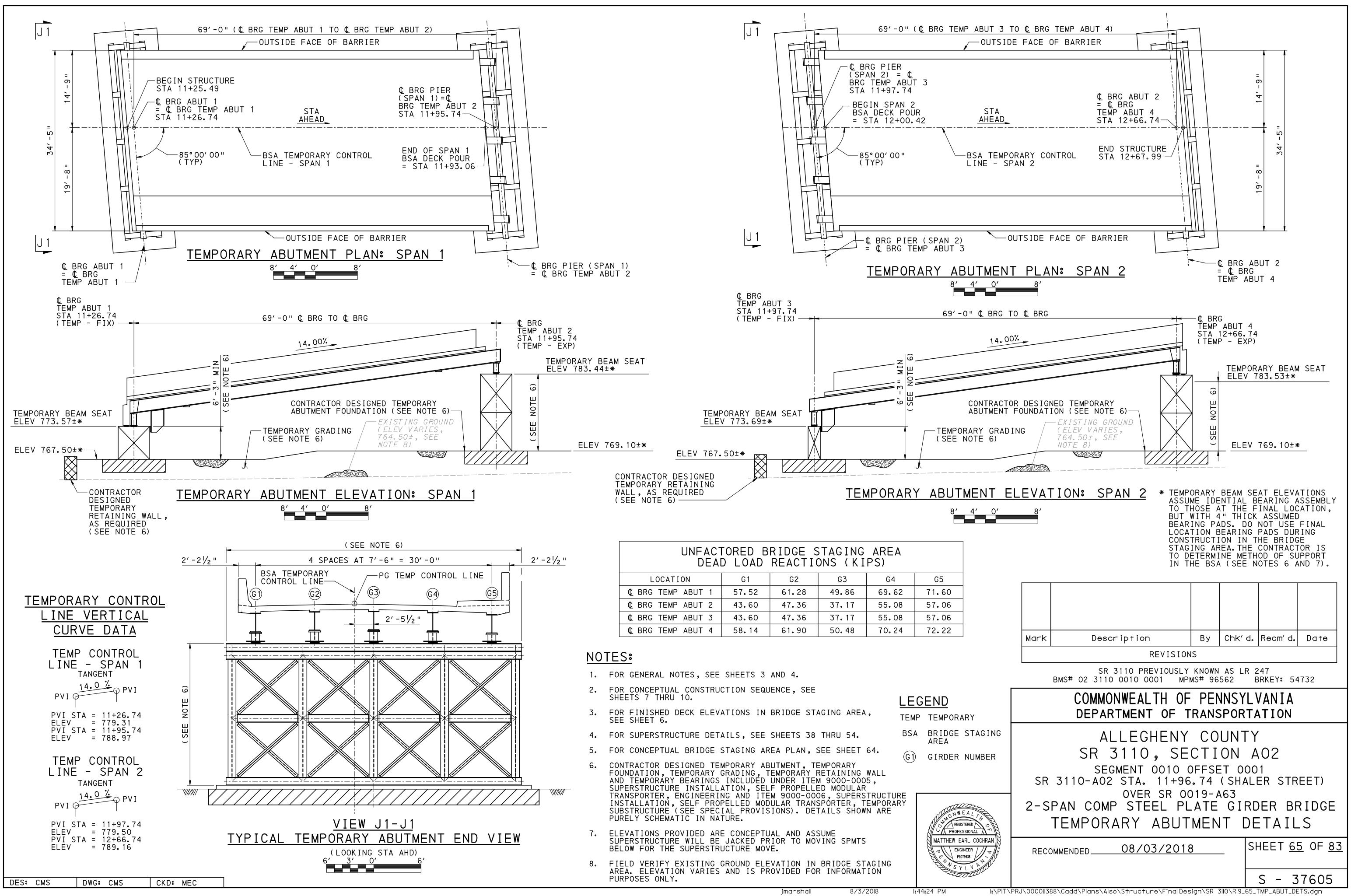
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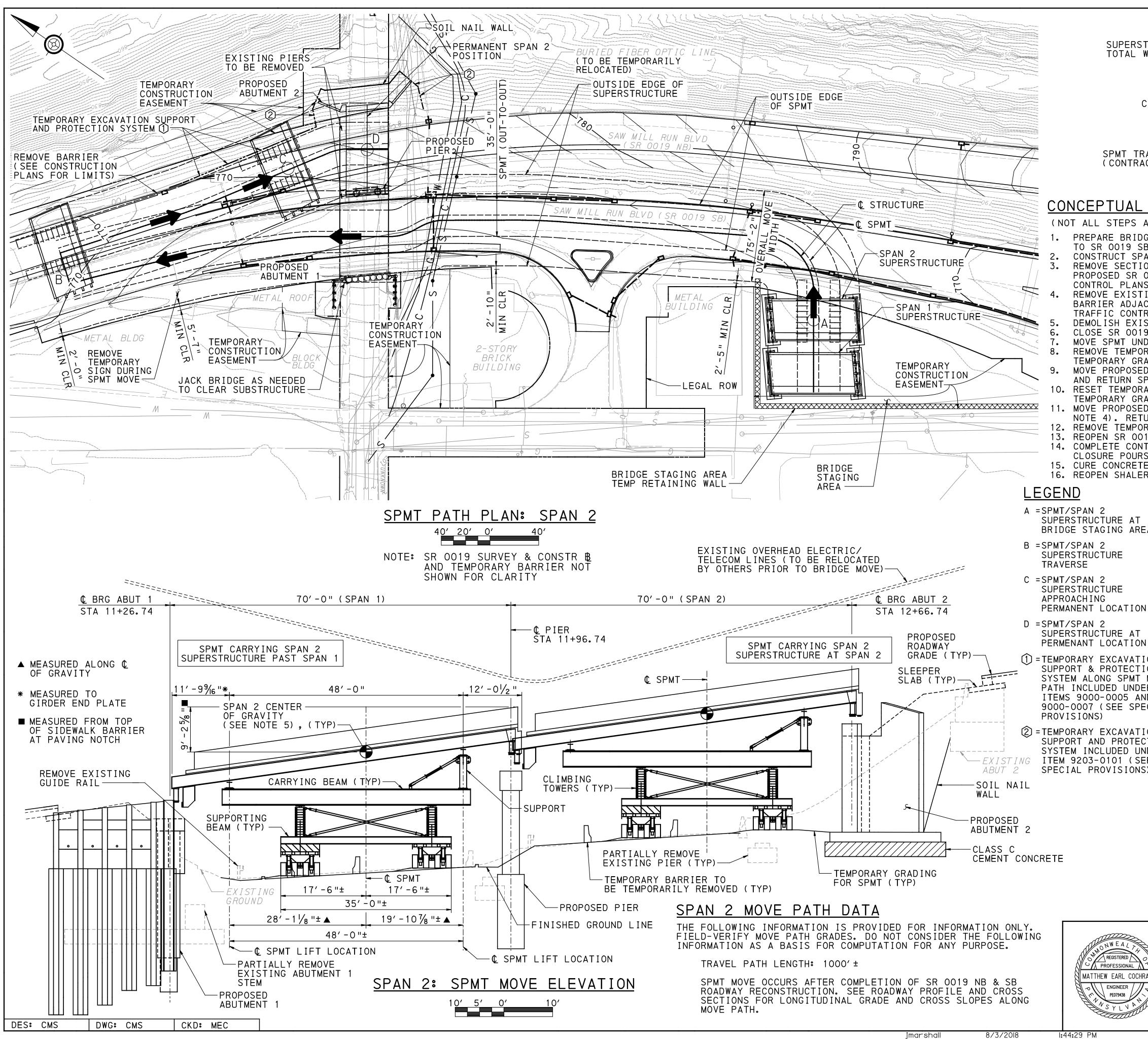
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SR 3110, SECTION AO2
SEGMENT 0010 OFFSET 0001
SR 3110-A02 STA. 11+96.74 (SHALER STREET)
OVER SR 0019-A63
2-SPAN COMP STEEL PLATE GIRDER BRIDGE

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Ş	RECOMMENDED	08/03	/2018	SHE	ΕT	<u>63</u>	0F <u>8</u>	<u>33</u>
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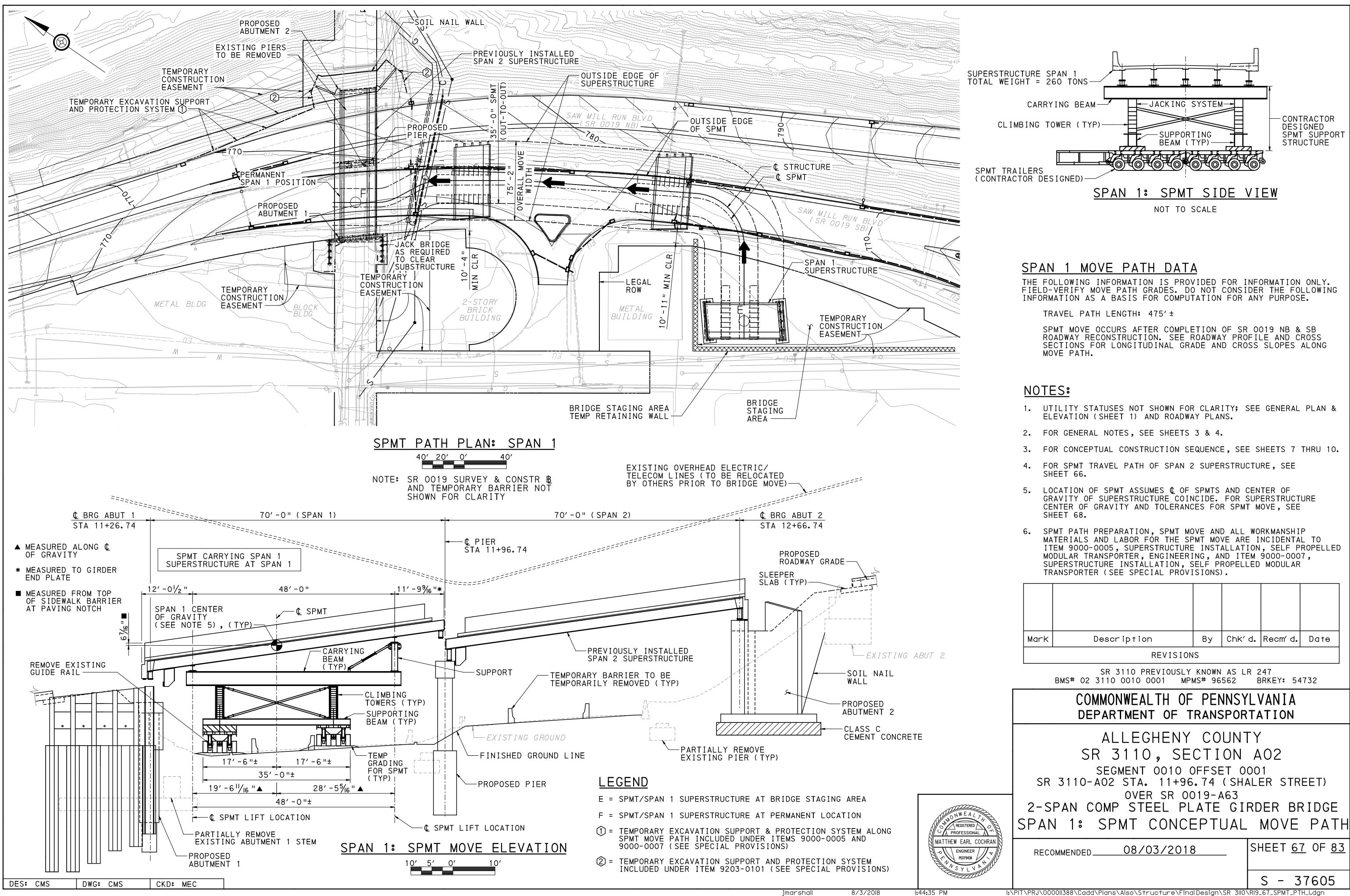


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			PAN COMP STEEL PL					
	С	0	NCEPTUAL BRIDGE	ΞS	TAG	SING A	AREA	
			OMMENDED 08/03/2018			SHEET <u>6</u>	4 OF 83	┥
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	URE SPAN 2 T = 261 TONS $\underline{\qquad}$ \underline{\qquad} $\underline{\qquad}$ \underline{\qquad} $\underline{\qquad}$ \underline{\qquad} $\underline{\qquad}$ \underline	
С	ARRYING BEAM JACKING SYSTEM	
LIMB	ING TOWER (TYP)	
	SUPPORTING SPMT SUPPOR BEAM (TYP) STRUCTURE	т
AILEF CTOR	DESIGNED) SPAN 2: SPMT SIDE VIEW	
	NOT TO SCALE	
	PERSTRUCTURE CONSTRUCTION SEQUENCE:	
GE ST	HOWN, SOME STEPS ARE CONCURRENT) AGING AREA: GRADE BRIDGE STAGING AREA TO PROVIDE EVEN TRANSITION	
	ES. AND SPAN 2 SUPERSTRUCTURES IN BRIDGE STAGING AREA. CIP MEDIAN BARRIERS AND REPLACE WITH TEMPORARY BARRIER/CONSTRUC	т
0019 S.	NB/SB ROADWAY IN PHASE OF CONSTRUCTION INDICATED IN THE TRAFFIC	
CENT	ARRIER AND CONSTRUCT REQUIRED TEMPORARY SHORING WITH TEMPORARY TO SR 0019 NB LANES IN PHASE OF CONSTRUCTION INDICATED IN THE	
	LANS. STRUCTURE. COMPLETE SUBSTRUCTURE CONSTRUCTION (SEE NOTE 3). & SB (WEEKEND CLOSURE 2).	
DER P RARY	ROPOSED SPAN 2 SUPERSTRUCTURE IN BRIDGE STAGING AREA. BARRIERS; REMOVE TEMPORARY/PERMANENT SIGNS AND PREPARE REQUIRED	
) SPA	FOR SPMT TRAVEL PATH. N 2 SUPERSTRUCTURE TO PERMANENT LOCATION WITH SPMT (PATH A-B-C-D)
ARY M	O STAGING AREA. EDIAN BARRIER, RESET PERMANENT/TEMPORARY SIGNS AND REMOVE ALONG SR 0019 NB.	
JRN S	N 1 SUPERSTRUCTURE WITH SPMT TO PERMANENT LOCATION (PATH E-F, SE PMT TO STAGING AREA.	E
19 NB	GRADING ALONG SR 0019 SB. & SB. TY CONNECTION AT PIER, POUR CONCRETE DIAPHRAGM AND DECK BARRIER	
S AT E AND	PIER, CONSTRUCT APPROACH SLABS AT ABUTMENTS AND SET STRIP SEAL. CONNECT GUIDERAIL.	
r str I	EET. NOTES:	
•	• UTILITY STATUSES NOT SHOWN FOR CLARITY, SEE GENERAL PLAN AND	
A 2	ELEVATION (SHEET 1) AND ROADWAY PLANS. 2. FOR GENERAL NOTES, SEE SHEETS 3 & 4.	
	5. FOR CONCEPTUAL CONSTRUCTION SEQUENCE, SEE SHEETS 7 THRU 10.	
	. FOR SPMT TRAVEL PATH OF SPAN 1 SUPERSTRUCTURE, SEE SHEET 67. . LOCATION OF SPMT ASSUMES & OF SPMT'S AND CENTER OF GRAVITY OF	
	SUPERSTRUCTURE COINCIDE. FOR SUPERSTRUCTURE CENTER OF GRAVITY AND TOLERANCES FOR SPMT MOVE, SEE SHEET 68.	
6	S. SPMT PATH PREPARATION, SPMT MOVE AND ALL WORKMANSHIP MATERIAL AND LABOR FOR THE SPMT MOVE ARE INCIDENTAL TO ITEM 9000-0005 SUPERSTRUCTURE INSTALLATION, SELF PROPELLED MODULAR	
	TRANSPORTER, ENGINEERING, AND ITEM 9000-0007, SUPERSTRUCTURE INSTALLATION, SELF PROPELLED MODULAR TRANSPORTER. REMOVAL OF	
ON ON	SIGN STRUCTURE AT STA 269+65 IS INCIDENTAL TO ITEM 9000-0040 REMOVE EXISTING SIGN STRUCTURE (SEE SPECIAL PROVISIONS).	9
MOVE R D		$\left \right $
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	ALLEGHENY COUNTY	
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	SEGMENT 0010 OFFSET 0001 SR 3110-A02 STA. 11+96.74 (SHALER STREET)	
	OVER SR 0019-A63	.
<i>B</i>	2-SPAN COMP STEEL PLATE GIRDER BRIDGE SPAN 2: SPMT CONCEPTUAL MOVE PAT	
T D	RECOMMENDED 08/03/2018 SHEET <u>66</u> OF <u>8</u>	<u>5</u>
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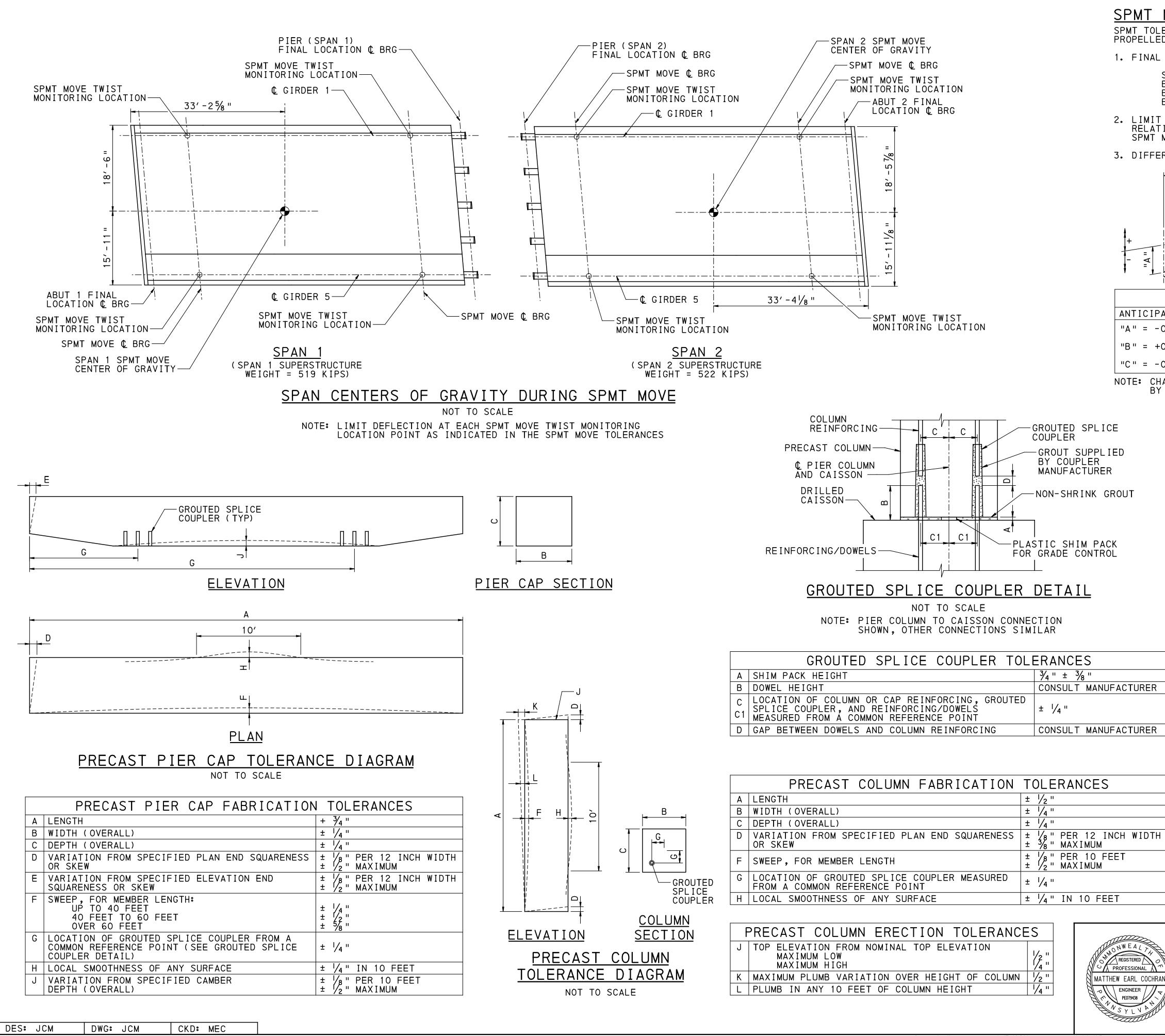
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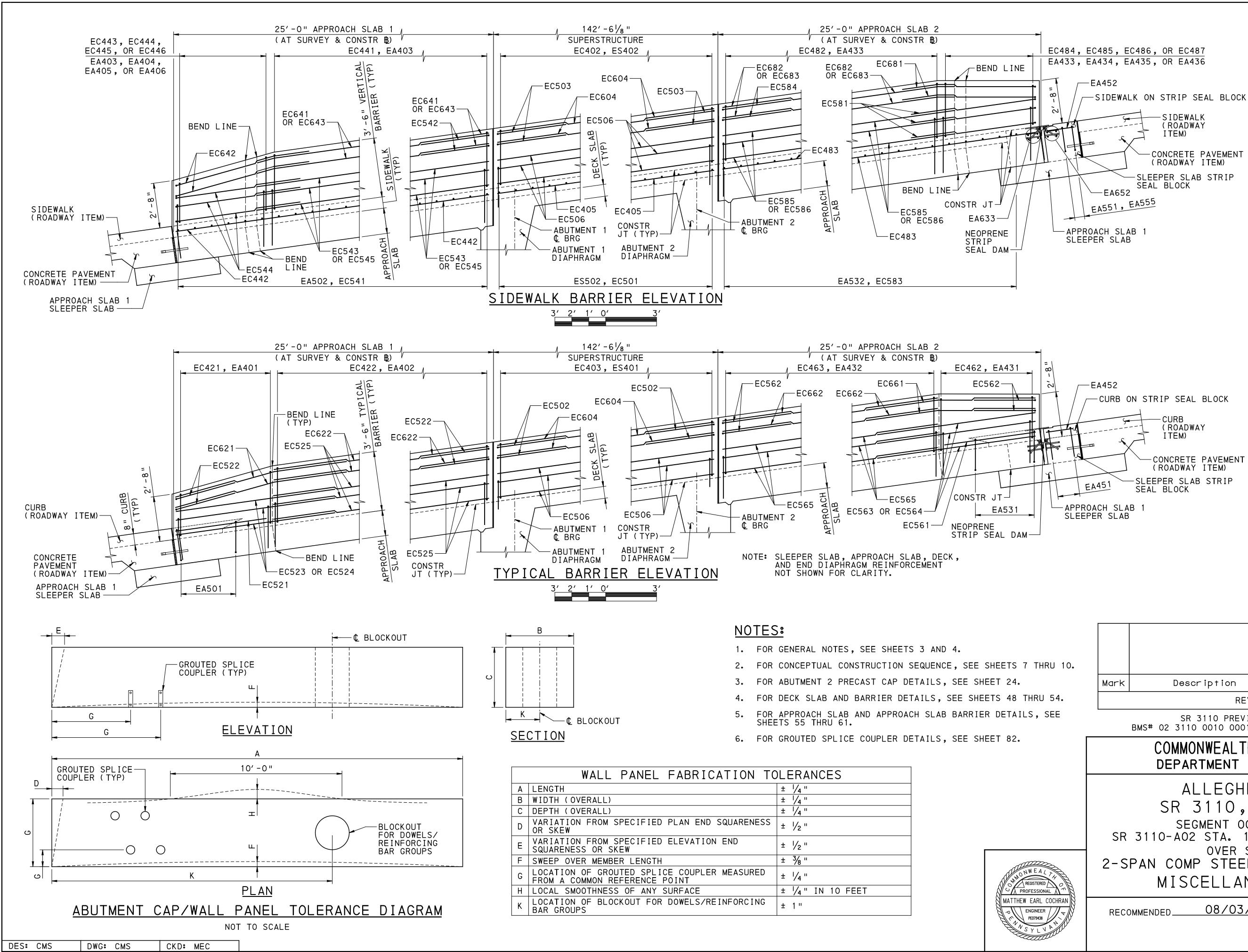
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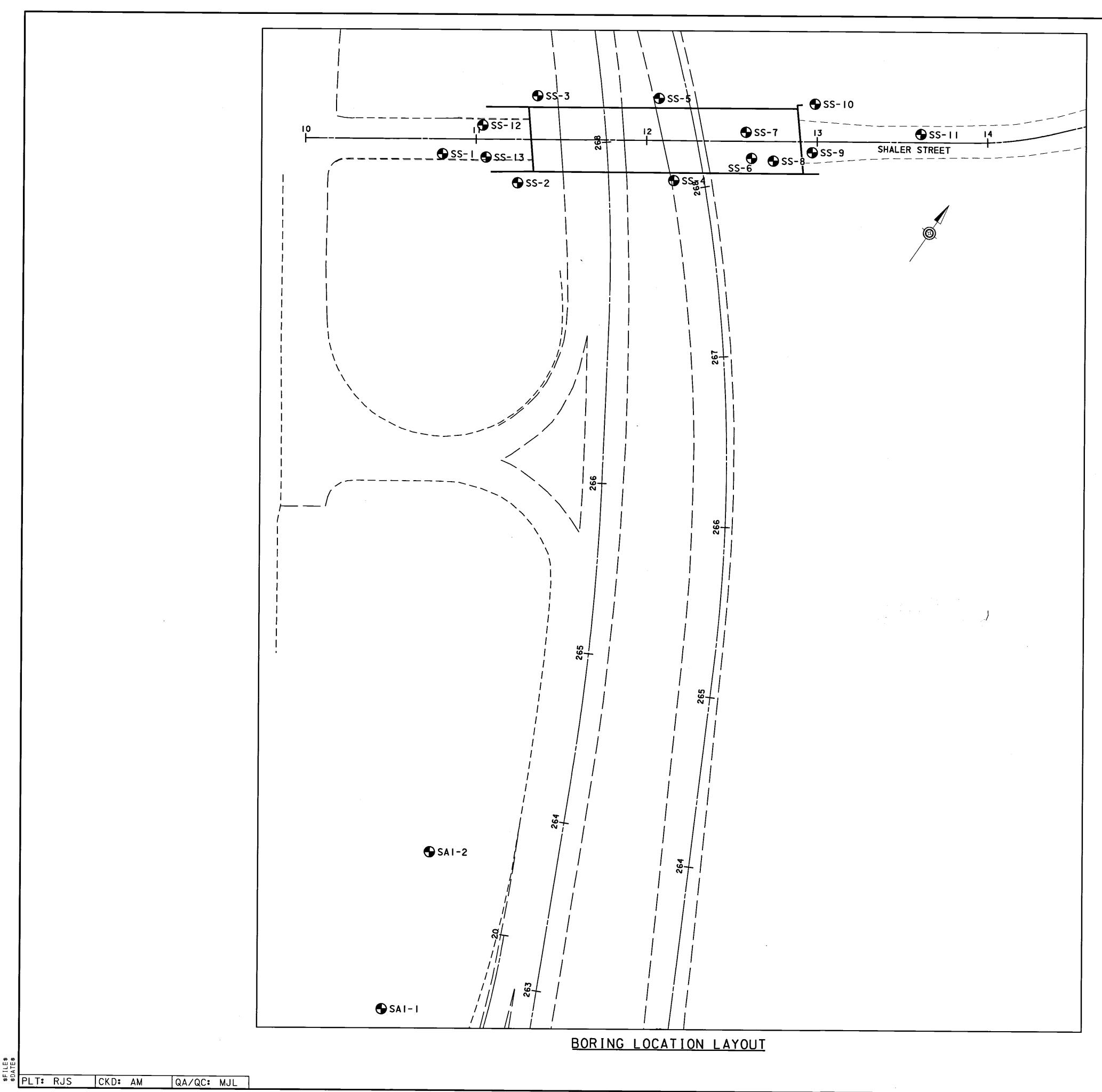
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	5.	FO	r sf	РМТ І	MOVE	ΡΑΤ	HS A	AND [DETAII	_S, SE	E SHEI	ETS	66 & 6	57.		
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GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

LEGEND

TRS - TOP OF ROCK SOCKET BRS - BOTTOM OF ROCK SOCKET TOC - TOP OF CAISSON BOC - BOTTOM OF CAISSON BFE - BOTTOM OF FOOTING ELEVATION

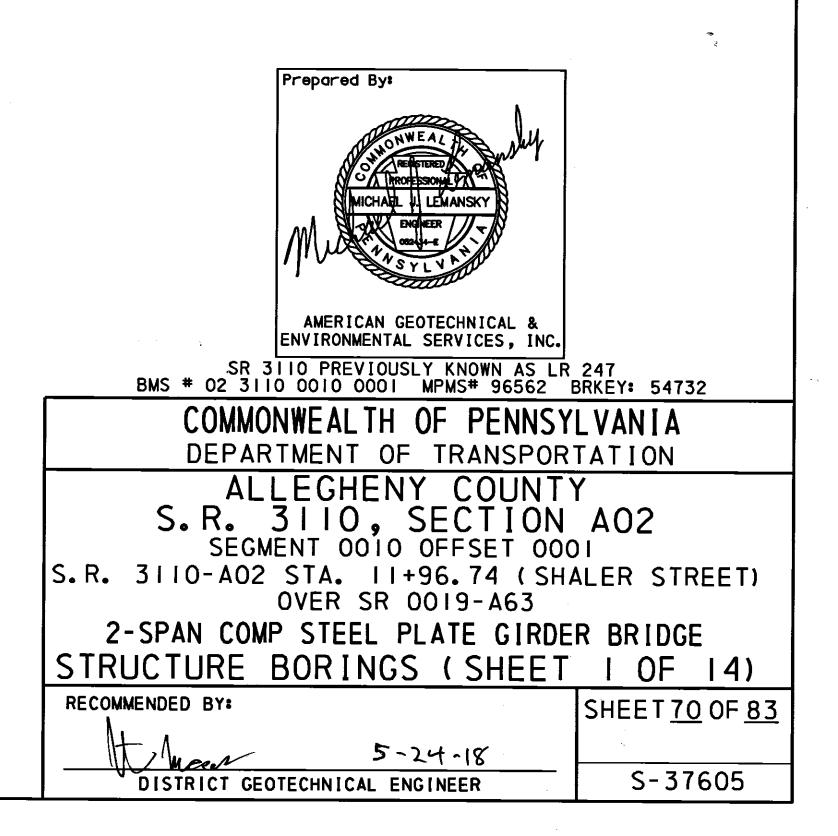
BCC - BOTTOM OF CLASS C CONCRETE ELEVATION

THE DESCRIPTION OF THE MATERIALS HAVE BEEN VERIFIED. MAL

THE SUBSURFACE EXPLORATION DATA THAT ARE PRESENTED ON THESE DRAWINGS (INCLUDING BORING LOGS, EARTH SAMPLES, ROCK CORES, CLASSIFICATION OF MATERIALS AND DEPTH OF BORINGS) ACCURATELY REPRESENT THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM AT EACH BORING LOCATION.

Lomansky GEOTECHNICAL ENGINEER/ENGINEERING GEOLOGIST

8-29-17 DATE:



ABUTMENT 1 BORING NUMBER: BORING LOCATION SS-1 BORING LOCATION STATION: 10+81.8 START: 12/07/2015 10:00 AM OFESET: 6.4 FT RT FINISH: 12/08/2015 11:45 AM
OFFSET: 6.4 FT. RT.FINISH: 12/08/2015 11:45 AMEFFICIENCY: 0.8 ERaDRILLING METHOD AND EQUIPMENT: DBLE TUBE SOLID INNER BAR-NX, AUTOMATIC, ACKER TRACK RIGSIZE OF CORE: 2.154 IN.VERTICAL SCALE: 0 FT. 5 FT.TOP OF BORING ELEVATION: 774.4 FT.
DRILLING INSPECTOR: DAVID ROEBUCK DRILLER & DRILLING COMPANY: W. REAGLE TRC ENGINEERS, INC.
NATERIAL NATERIAL DESCRIPTION
BITUMINOUS CONCRETE.
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$760 - \frac{3 - 2}{2} + \frac{3 - 2}$
$ \begin{array}{c} 250\\ \hline \\ \hline$
735 36.0 5.24 17.16-17 44 0.6 40 735 5.25 13.13.8 28 1.0 67 90.0 5.26 7.8-17 33 0.8 53 40.5 5.27 14.10.8 24 0.6 40 6 6 40 67 5.27 14.10.8 24 0.6 730 5 5.29 8.8-8 21 1.0 67 6 6 45.0 5.30 12.8-9 23 1.0 67 6 6 5 5.31 12.17.50/.1' 89 1.0 91
TOR 47.6/El. 726.8 47.6 53.1 12-17-30.1 89 1.0 91 725 SANDSTONE, gray to dark gray, coarse grained, medium hard to hard, weathered, narrow to moderate bedding with flat dip, jointed, wide spacing, (RQD=0%). 47.6 R-1 0% 1.9 79 Joint (RD=50-60), 51.5-51.6'. 51.7'/El. 722.7 R-2 23% 2.6 87 CLAYSTONE, gray, soft, weathered, narrow to moderate bedding with flat dip, no apparent joints, (RQD=54%). 53.0//El. 721.4 53.0//El. 721.4

GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

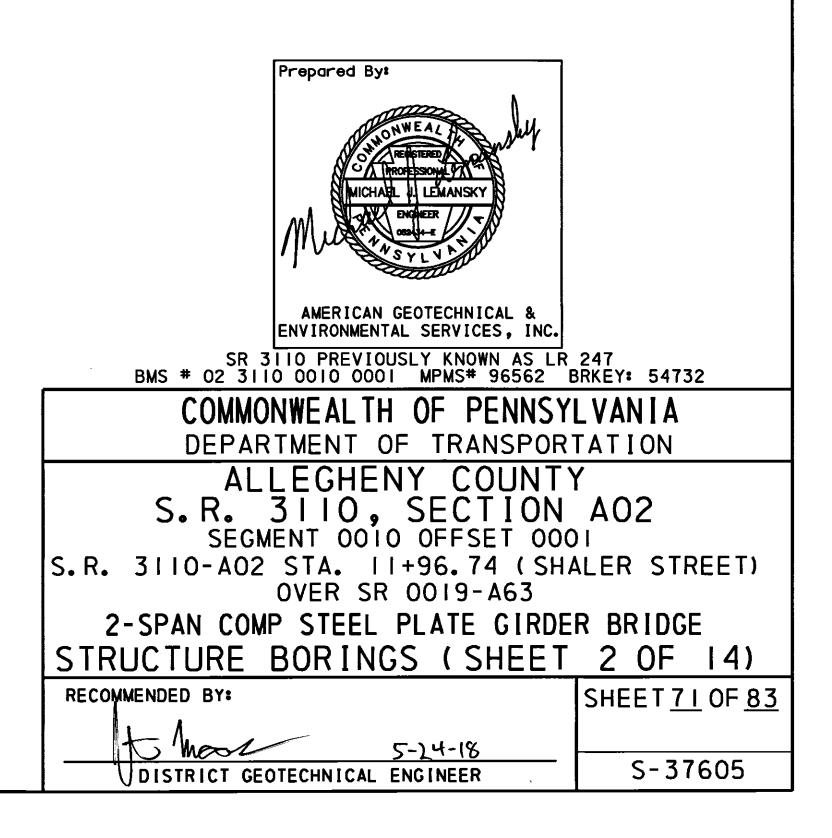
FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

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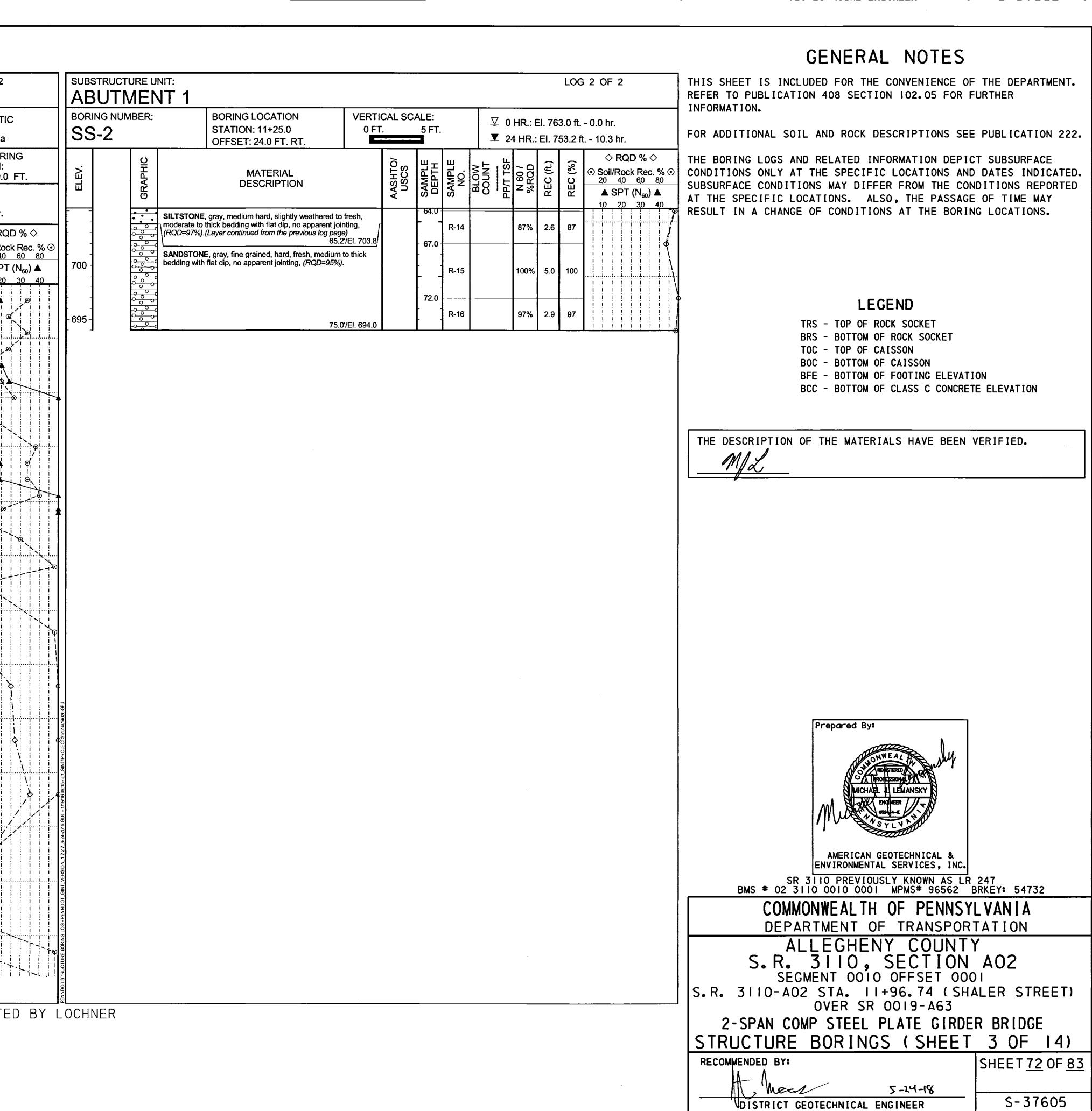
LEGEND

TRS - TOP OF ROCK SOCKET BRS - BOTTOM OF ROCK SOCKET TOC - TOP OF CAISSON BOC - BOTTOM OF CAISSON BFE - BOTTOM OF FOOTING ELEVATION BCC - BOTTOM OF CLASS C CONCRETE ELEVATION

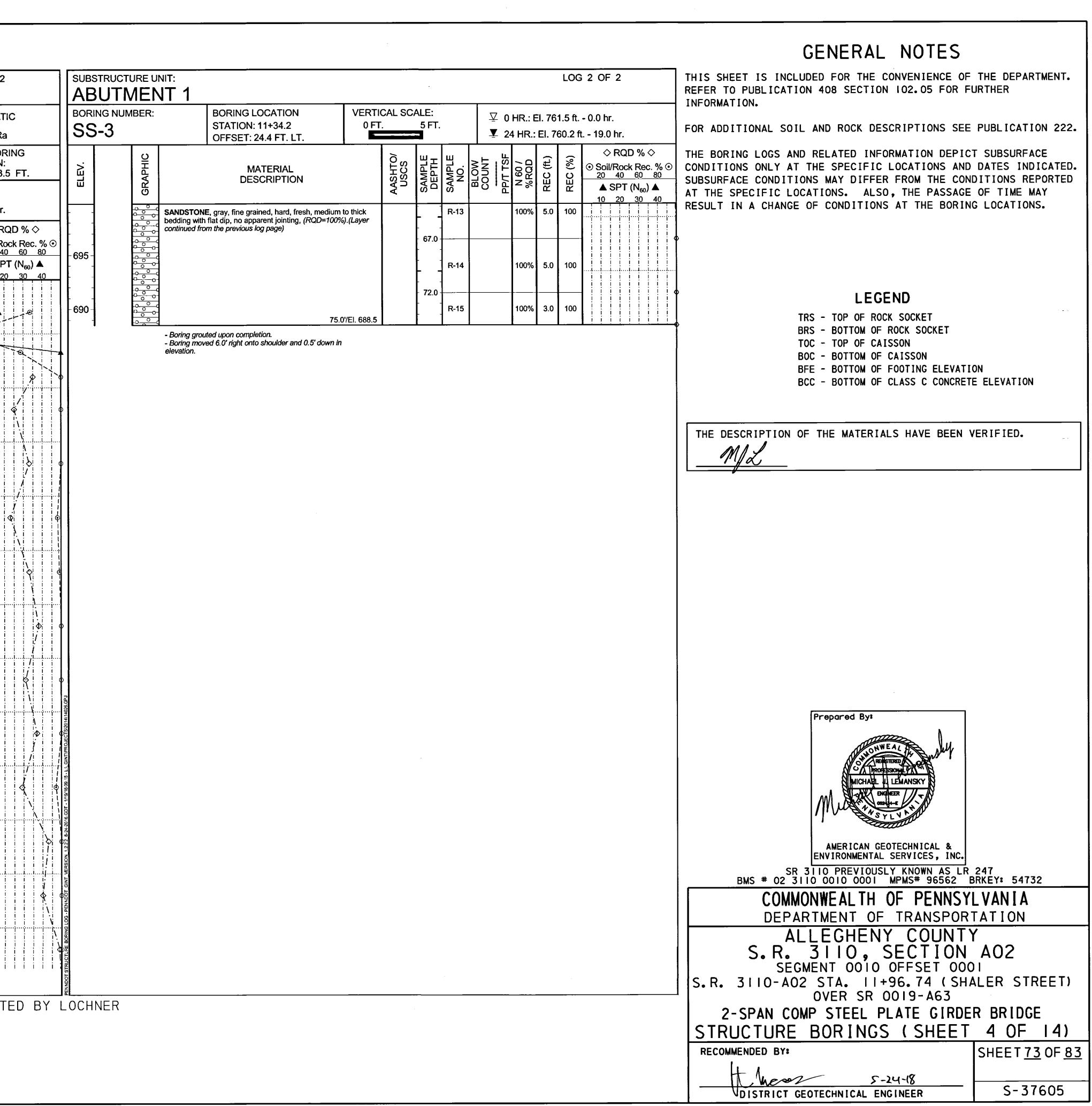
THE DESCRIPTION OF THE MATERIALS HAVE BEEN VERIFIED.



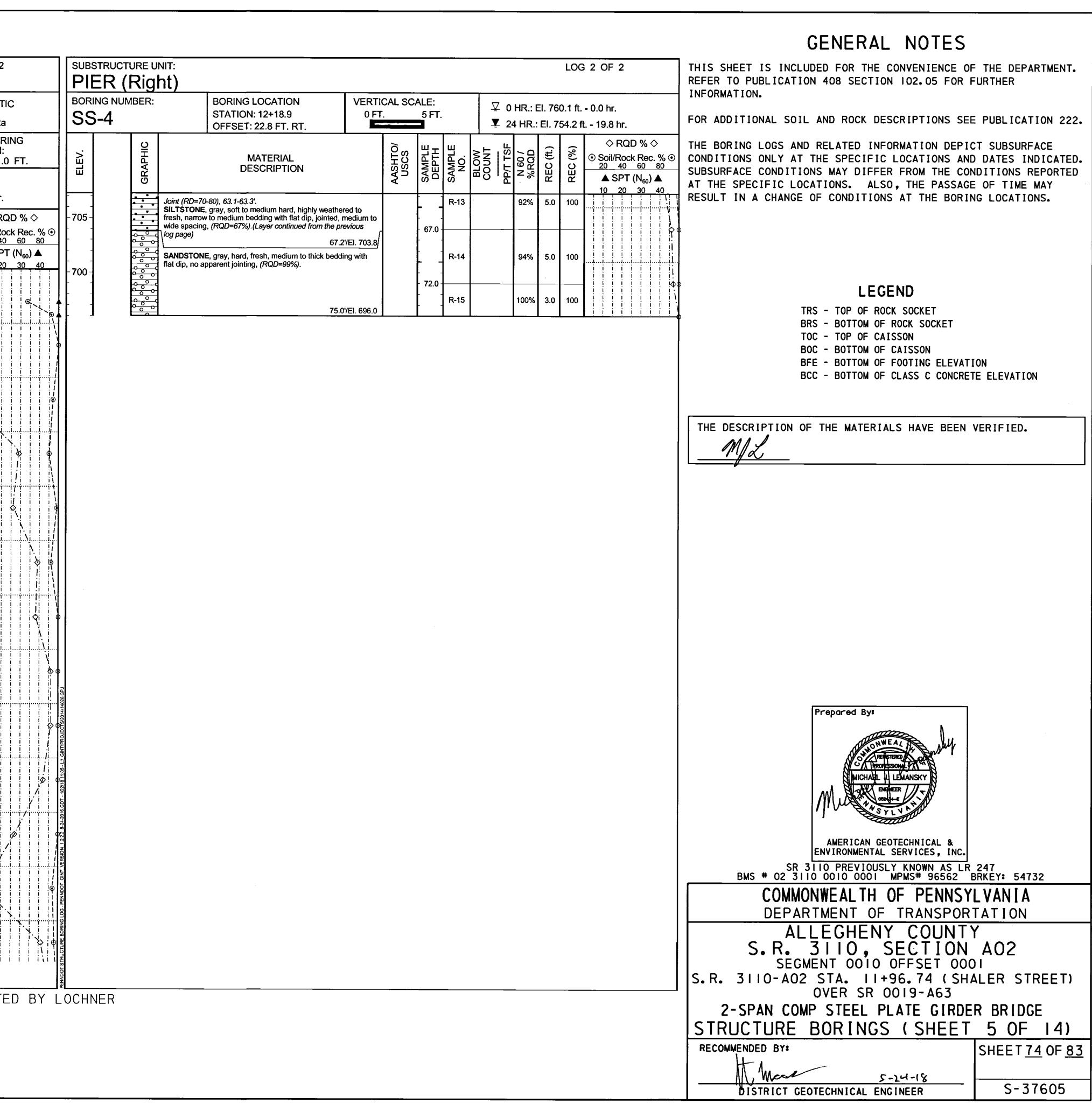
	NG NUM			BORING LOCATION STATION: 11+25.0 OFFSET: 24.0 FT. RT.		ART: 12							AUTO Y: 0.8
DBLE		SOLID I			_	ZE OF C 154 IN.	ORE:		VERTICA 0 FT.		ALE: 5 FT.		P OF EVAT
DRILL		RILLIN		ROEBUCK IY: W. REAGLE					LAPSED T ELAPSED				
ELEV.		GRAPHIC		MATERIAL DESCRIPTION		AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.	BLOW COUNT 	N 60/ %RQD	REC (ft.)	REC (%)	⊙ So 20 10
			L		4'/EI. 768.6		1.5	S-1 S-2	43-8-6 4-3-4	19 9	1.0 0.7	67 47	
- 765 -		000 000 000		Sand, stiff to very stiff, moist, homogened ded, high plastic fines, brown, fill.	ous,	a-6 / cl	- 3.0 - 4.5	S-3	<u>1.00</u> 5-7-6	17	1.0	67	
∑ . 				AND, some Gravel, very stiff to hard, wet,	0'/El. 763.0		6.0	S-4 S-5	3-4-4 1.00 5-8-7	11 20	0.7 0.3	47 20	
 - 760 -			fill.	is, uniformly graded, medium plastic fines		a-6 / cl	7.5 9.0	S-6 S-7	6-6-12 3-4-50	24 72	0.6 0.8	40 53	
		• • •	FOOTING.	10.5	57EI. 758.5		10.5	S-7 S-8	<u> </u>	72 >67/	0.8	53 0	
 - 7 55 -				15 ()//EI. 75 4.0			R-1		0%	3.4	76	
[⊻]				RAVEL, some Clay, medium dense to ver moist, homogeneous, uniformly graded,	у		- 15.0- 16.5	S-9	6-7-7	19	1.0	67	
- 750 -			alluvium.			a-1-b / sc	- 18.0	S-10 S-11	6-6-8 7-7-46	19 71	1.0 1.2	67 80	
	TRS (RT)				0/EI. 748.0		19.5 20.7 21.0	S-12 S-13	3-6-50/.2' 50/.3'	75 >67	0.5 0.0	42 0	
	749.10 TOR 748.00		hard, highly v bedding with	E, brown to gray, coarse grained, medium weathered to weathered, narrow to modera flat dip, jointed, wide to massive spacing,	ate		23.5	R-2		0%	1.5	60	
-743-	• TRS (LT) 747.20		dip, <i>(RQD</i> =3:	3%).			- 26.0 -	R-3		0%	2.4	96	
	BRS (RT)		Soft material,	26.0-27.0', unable to recover sample.			27.5	R-4		0%	0.3	20	
* 40-	742.10 BRS (LT)		Gray streaks,	29.2-30.1'.				R-5		0%	4.3	96	
	740.20		Becomes gra	y in color with shale laminations, 30.1'.			32.0						
- 735 -							. -	R-6		50%	5.0	100	
							 - 37.0 -						
-730-								R-7		54%	5.0	100	
			Joint (RD=70,), orange staining, 40.3-40.4'.			 - 42.0 -						
- 725 -								R-8		70%	5.0	100	
			\Joint (RD=70)		7/EI. 722.3	-	47.0 -						
 - 720 -			CLAYSTONE with flat dip, j	, gray, soft, weathered, thin to moderate to onted, wide spacing, steep dip, narrow jo				R-9		30%	1.7	34	
			opening, (RC No recovery,	(D=13%). 47.1-50.4', driller noted soft drilling conditio	ns.					/0			
- 715 -							- U.U 						
							- -	R-10		0%	0.4	8	
							- 57.0 - - 59.0 -	R-11		0%	0.4	20	€
			Fracture zone		5'/EI. 707.5			R-12		16%	2.4	96	
			(Layer descrij	ption on next log page)			61.5	R-13		96%	2.4	96	
						•	• 	• 	•	•	• •		• • •
NOTE	_; ⊺	OP A	ND BO	TTOM OF ROCK SOC	KET	BASE	DO	N C	ALCUL	ATI	ON	CO	MPL



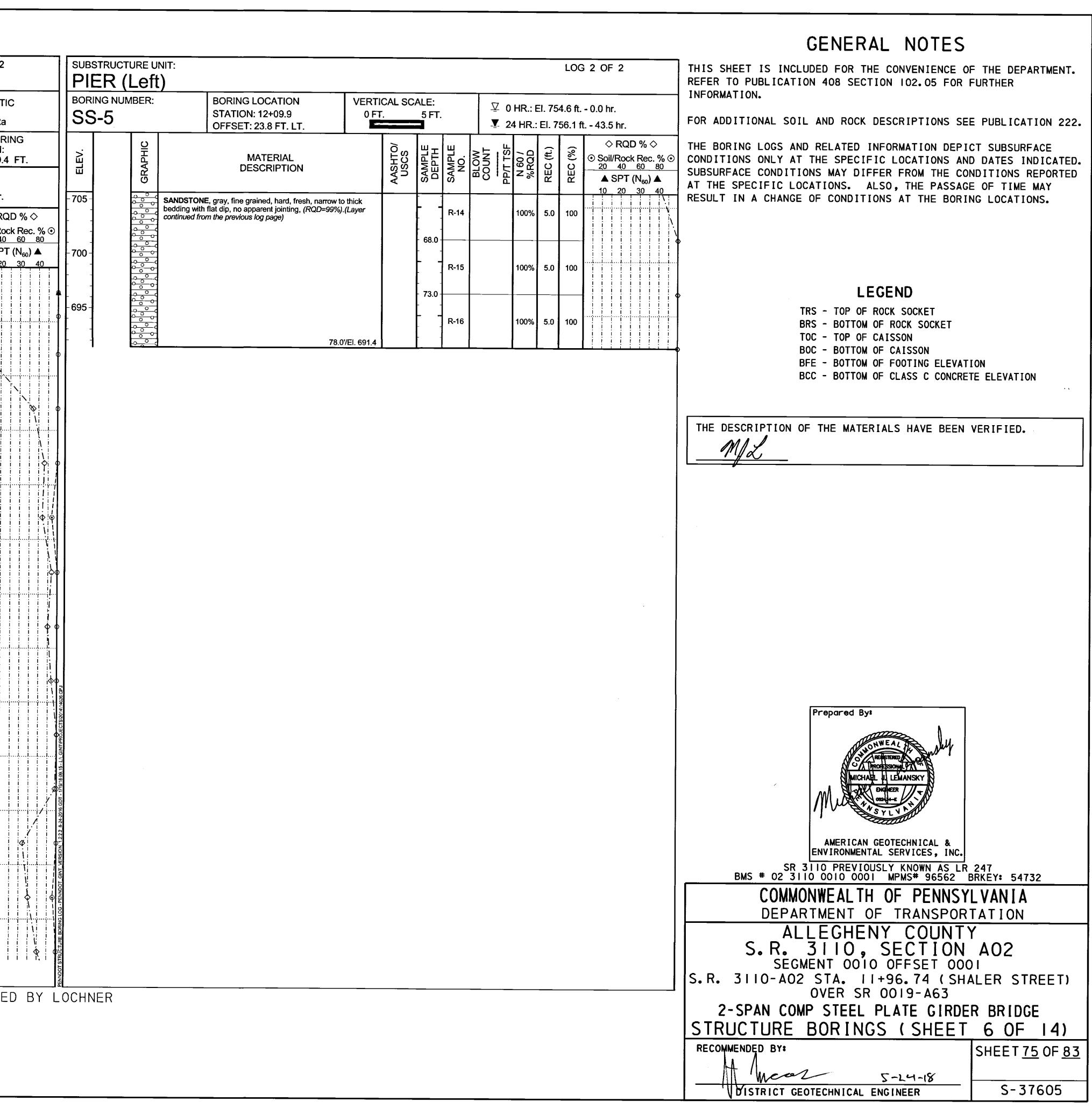
	BUTN NG NUM 5-3			BORING LOCATION STATION: 11+34.2 OFFSET: 24.4 FT. LT.		TART: 12 NISH: 12							UTOI Y: 0.8
DBLE		SOLID I				ZE OF C 2.154 IN.	ORE:		VERTIC 0 FT.		ALE: 5 FT.		P OF EVATI
DRILI		RILLIN	G COMPAN	ROEBUCK NY: W. REAGLE					LAPSED 1 ELAPSED T				- 19.0
ELEV.		GRAPHIC		MATERIAL DESCRIPTION		AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.	BLOW COUNT	N 60 / %RQD	REC (ft.)	REC (%)	⊙ Sc 20 10
 Z -				S CONCRETE.	1.5'/El. 762.0	/	1.5	PC-1 S-1	12-7-6	17	1.0	67	
- 760 -		* * * * * *	SAND and G dense, wet to	RAVEL, some Clay, medium dense to o moist, homogeneous, uniformly grade	very ed, brown, fill.	a-1-b /	- 3.0 -	S-1	5-4-4	11	0.2	13	
					6.7'/El. 756.8	SC	- ^{4.5} -	S-3 S-4	4-4-8 5-50/.2'	16 >67	0.5 0.4	33 57	
-755-	- TOR 756.80		hard, moder	E, brown to gray, coarse grained, media ately weathered to slightly weathered, n	arrow to		6.7	R-1	<u></u>	70%	2.3	100	
				edding with flat dip, jointed, medium to r eer dip, (RQD-63%).	nassive		- 9.0 -	R-2		50%	3.0	100	
			Joint (RD=90)) orange staining, 11.0-11.3'.			12.0 -					-	
-750-	- TRS		Joint (RD=80)) clay infilling, 13.5-13.9'.				R-3		66%	5.0	100	
	(RT) 749.10 - TRS		Joint (RD=90	0) clay infilling, 15.8-16.0'.			- 17.0 -						
- 745 -	(LT) 747.20									4004			
	- BRS		Becomes gra	ay in color with shale laminations, 19.2'.			 .	R-4		46%	4.8	96	····• · · ·
4 40-	(RT) 742.10						22.0						
	- BRS (LT)							R-5		66%	4.9	98	····
	740.20						- 27.0	-					
-735 -			Joint (RD=60	0) orange staining, 27.5-27.6'.				R-6		76%	5.0	100	
 - 730 -							- 32.0 ·						
								R-7		62%	5.0	100	ļļ ļļ
			Joint (RD=30	D), 35.6-35.7°.			37.0						
- 725 -								R-8		74%	5.0	100	
			Coal at 41.2				- 42.0	- 					
- 720 -			Limestone, 4 Claystone, 4	2.1-42.5'.	43.57EI. 720.0	Г		R-9		58%	4.7	94	
			narrow to me	E, gray, soft, weathered to slightly weat edium bedding with flat dip, jointed, wid				1					
- 715 -			sheer dip, <i>(F</i>	{QD-79%).			47.0	-					
								R-10		86%	5.0	100	
			- - -				- 52.0						
- 710 - 			Reddish in c	olor, 54.2'.				R-11		80%	5.0	100	
				0) clay infilling, slickensided, 55.7-55.9'.	57.0'/El. 706.5	r	57.0						
- 705 -				0), 56.7-568'. E, gray, medium hard, slightly weathered	d to fresh,	/ 		R-12		98%	5.0	100	
			thick beddin	g with flat dip, no apparent jointing, (RC	QD=87%). 5 <u>9.37</u> E1. 704.2	/	 						
			bedding with	E, gray, fine grained, hard, fresh, median flat dip, no apparent jointing, (RQD=10)			- 62.0 -						
NOT	E: T	OP /	AND BC	TTOM OF ROCK SC	DCKET	BASE	DO	N C	ALCUL	ATI	ON	C0	MPL



SS		/BER:		BORING LOCATION STATION: 12+18.9 OFFSET: 22.8 FT. R	т.	START: FINISH:	12/15/20		40 AM		Ε	FFIC		AUTOM
DBLE ACK	E TUBE S ER TRAC	Solid I Sk rig		R-NX, AUTOMATIC,		SIZE OF 2.154 IN			VER 0 F		AL SC	ALE: 5 FT.		P OF B EVATIC 77
DRIL		RILLIN	G COMPAI	ROEBUCK NY: W. REAGLE		⊻ 0 HR. ⊻ 24 HF								
ELEV.		GRAPHIC		MATERIAL DESCRIPTIOI	N	AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.	BLOW COUNT	 PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	 ◇ Soil/ 20 ▲ \$ 10
- 770 - 			CONCRETE	S CONCRETE, 0.0-0.5'. , 0.5-1.5'. RAVEL, some Sand, hard, m	1.5'/EI. 769	0.5 a−6 / c	0.0	PC-1 S-1 S-2	5-14- 4.0 46-49-{	0	52 132	1.0 1.1	67 92	
765	TOR 766.80 TOC 766.00		uniformly gra	aded, medium plastic fines, g E, brown to gray, fine grained weathered, narrow bedding w	ray, residuum. 4.2'/El. 766 d, soft to medium		- 4.2	R-1	4.0		0%	2.8	100	
7 60 -			close spacin	g, sheer dip, <i>(RQD=0%)</i> .	12.0'/EI. 759	.0		R-2			0%	4.7	94	
755-			weathered to	E, light brown to gray, medium ofresh, narrow to thick beddin sive spacing, sheer dip, (RQL	ng with flat dip, jointed		- 12.0 - - -	R-3			58%	4.5	90	
			Joint (RD=7(ŀ90), 17.3-18.2'.			- 17.0 	R-4			52%	4.9	98	
750 - -	- BOC 749.00						22.0	R-5			78%	4.6	92	
-745 -			Shale lamina	tions begin at 26.0'.			- 27.0 -					4.0		
-740 -			Becomes me	dium to coarse grained at 30.	9'.		32.0	R-6			76%	5.0	100	
- 735 -								R-7			92%	5.0	100	
730 -							- 37.0 -	R-8			92%	5.0	100	
-							- 42.0 - 	R-9			84%	5.0	100	
725 -			Coal, 48.5-48	2 7'			- 47.0 -							
- 720 - -			Limestone, 4 CLAYSTONI slightly weat	8.7-49.7'. E, gray, soft to medium hard, hered, narrow to moderate be	49.8'/El. 721 highly weathered to edding with flat dip, no	~	 - 52.0 -	R-10			54%	5.0	100	
715 -			Clay infilling, Clay infilling, SILTSTONE	53.8'. , gray, soft to medium hard, t				R-11			20%	4.7	94	
- 710 -					dip, jointed, medium i	Ö		R-12			82%	4.8	96	
							62.0			ĺ				
NOTI	_ E: T(DP A	ND BO	TTOM OF ROC	K SOCKET	BASE	ED OI	N C.	ALCI	JLA	AT I	ON	COI	MPLE



BORING N SS-5		BORING LOCATION STATION: 12+09.9 OFFSET: 23.8 FT. LT. AND EQUIPMENT:	FII	TART: 12 NISH: 12 ZE OF C	2/15/20		00 AM		EFFIC		
DBLE TUE	BE SPLIT I	NNER BRL-NQ, AUTOMATIC, TRACK RIG		.874 IN.			0 FT.		5 FT.		DP OF BO EVATION 769
	& DRILLIN	OR: DANIEL MARTT G COMPANY: R. CRUM NC		0 HR. F 24 HR.							- 0.0 hr. t 43.5 h
ELEV.	GRAPHIC	MATERIAL DESCRIPTION		AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.	BLOW COUNT	PP/T TSF N 60 / %ROD	REC (ft.)	REC (%)	 ◇ I ③ Soil/F 20 ▲ S 10
		BITUMINOUS CONCRETE, 0.0-0.6'. CONCRETE, 0.6-1.5'. 1.5'	/EI. 767.9/	a-1-b /	1.5	PC-1 S-1	23-50/.3	5' >67	0.8	100	
765 - 767. 765 - 766.		GRAVEL, (mechanically broken limestone), very dense homogeneous, brown, residuum.	, //El. 767.1	gp⁄	4.5	R-1		0%	2.2	100	
	<u> </u>	FLINT CLAY, brown, pearly luster, soft to medium hard, weathered, narrow to moderate bedding with flat dip, joi medium spacing, very steep dip, open joints, smooth su	, inted.			R-2		23%	3.5	100	
760		(RQD=0%).	/El. 763.3			R-3		74%	5.0	100	
		slightly weathered, narrow to moderate bedding with flat jointed, laminated to wide spacing, sheer dip, open joint surfaces, (RQD=52%).	t dip, ts, <i>rough</i>		- 13.0 -						
<u>7</u> 55 -		SANDSTONE, gray, shaley, fine to medium grained, has slightly weathered to fresh, thin to thick bedding with flat	/El. 758.7 rd, t dip, no			R-4		86%	5.0	100	
-		apparent jointing, (RQD=92%).			- 18.0 -						
750 - BOC - 749.0						R-5		84%	4.7	94	
-		Black shale layers (0.1-0.5' thick), 22.5-47.0'.			- 23.0						
745-						R-6		94%	5.0	100	
740 -					- 28.0 -						
						R-7		90%	5.0	100	
735 -					- 33.0 -						
-						R-8		94%	5.0	100	
730 -					- 38.0 -						
-						R-9		100%	5.0	100	
725					- 43.0 -	R-10	-	98%	5.0	100	
-		LIMESTONE, gray to dark gray, fine to coarse grained, v	/El. 722.4 very	-	- 48.0 -				0.0		
720 -			%). 'El. 721.4			R-11		64%	5.0	100	
		CLAYSTONE, gray, very soft to soft, fresh, narrow to mo bedding with flat dip, jointed, medium spacing, moderate slickensided, (RQD=59%). Very soft, 49.5-49.7' and 53.8-54.1'.	oderate e dip,		- 53.0 -						
715-		55.07 SILTSTONE, gray, medium hard, fresh, thin to medium bedding with flat dip, jointed, medium to wide spacing, ve	El. 714.4			R-12		70%	4.8	96	
740		steep dip, <i>slickensided</i> , (<i>RQD</i> =78%). <i>Clayey</i> , 56.1-56.2'.	ery	i	- 58.0			-			
710 -		SANDSTONE, gray, fine grained, hard, fresh, narrow to t	El. 708.6 thick			R-13		80%	5.0	100	
		bedding with flat dip, no apparent jointing, (RQD=99%).			63.0			-			

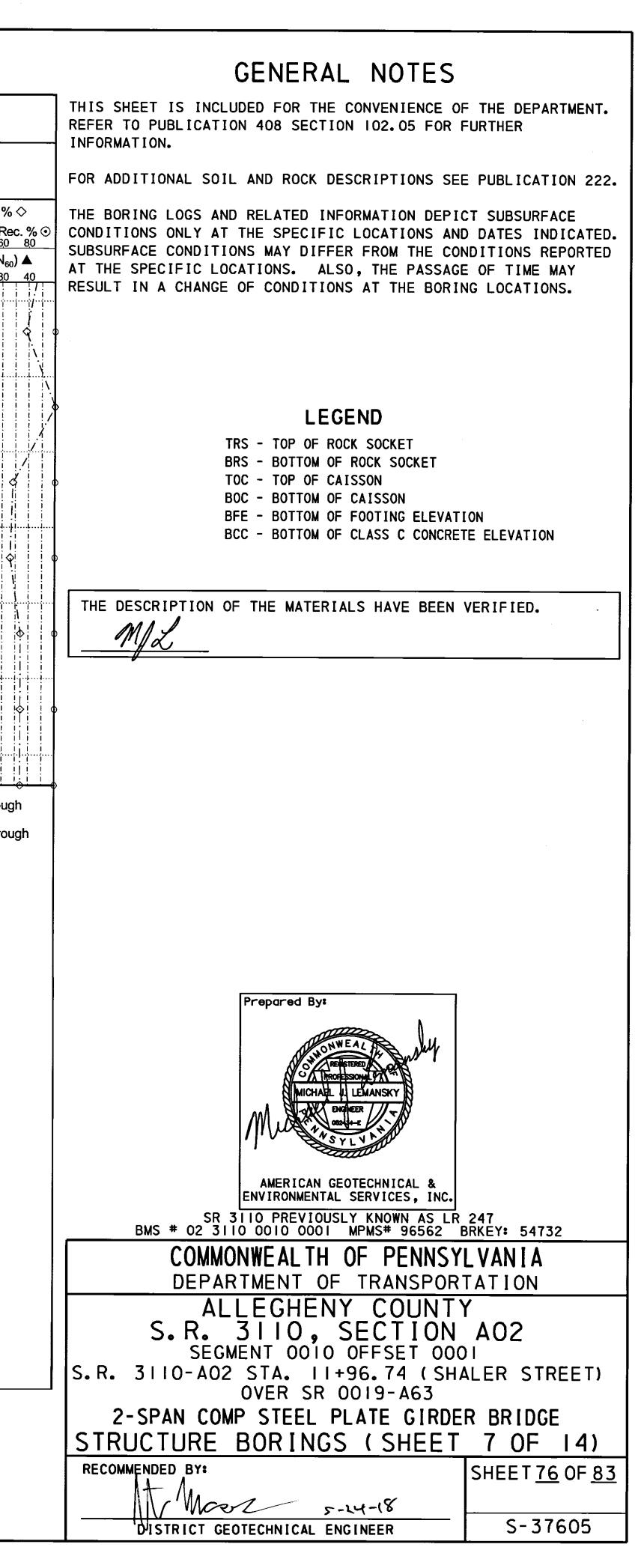


SUBSTRUCTURE UNIT: ABUTMENT							L	.0G	1 OF 2	11			NIT: NT 2							LOC	3 2 OF	; 2
BORING NUMBER:	BORING LOCATION STATION: 12+60.3	START: 1 FINISH: 1							UTOMATIC 1:0.8 ERa		RING NU 5-6	JMBER:	STATION: 12+60.3	0 FT		_5 FT.						
DRILLING METHOD AND DBLE TUBE SOLID INNE		SIZE OF 0	ORE:	VEF	RTICAL FT.		E: '	TOP	P OF BORING VATION:			일 표	OFFSET: 15.9 FT. RT.		۶ آن		ш	₹ 24 H		T		> RQD %
ACKER TRACK RIG DRILLING INSPECTOR: E		⊻ 0 HR. I		G - ELAPS		ME:EI. 7	/61.8	ft (800.1 FT.	ELEV.		GRAPHIC	MATERIAL DESCRIPTION		AASHTO/ USCS	SAMPLE DEPTH	SAMP NO.	BLOW COUNT PP/T TSF N 60 /	REC (I	REC (© Soil 20	I/Rock Re 40 60 SPT (N ₆₀
DRILLER & DRILLING CO TRC ENGINEERS, INC.	MPANY: W. REAGLE								- 44.5 hr. ²	- 735			SANDSTONE, brown gray, medium hard, highly weathere slightly weathered, narrow to thick bedding with flat dip, jo close to massive spacing, narrow joint opening,	d to nted,		- - -	R-9		% 5.0	100		<u>20 30</u>
ELEV. GRAPHIC	MATERIAL DESCRIPTION	AASHTO/ USCS	SAMPLE DEPTH	BLOW COUNT	PP/T TSF	%RQD		REC (%)	 ◇ RQD % ◇ ○ Soil/Rock Rec. % ⊙ 20 40 60 80 ▲ SPT (N₆₀) ▲ 10 20 30 40 	> - 730 -	-		close to massive spacing, narrow joint opening, (RQD=72%).(Layer continued from the previous log page) Joint (RD=10-20), 64.5-65.0'.			67.0 -	R-10	100	% 5.0	100		
	MINOUS CONCRETE, 0.0-0.4'. CRETE, 0.4-1.0'. 1.0'/EI. Distance between bridge deck and ground elevation.	799.1	- 1.0 -	PC-1							-					72.0 -	R-11	68	× 50	100		
795 -										- 725 -	-		Coal, 75.5-75.6' and 76.0-76.5'. Breccia, 75.6-76.0'. 79.1'/E	. 721.0		- 77.0 -						
790 -										- 720 -	-		SILTSTONE , gray, soft to medium hard, highly weathered slightly weathered, narrow to medium bedding with flat dip jointed, moderate to wide spacing, steep to sheer dip, (RQD=74%).	to		82.0	R-12	66	% 5.0	100		
785 -										-715-	-		Clay infilling, 80.3' Joint (RD=60-70), 80.5-80.7'. Joint (RD=45), 82.4-82.7'. Joint (RD=83.6-83.7. Clay infilling, 85.2-85.5'.				R-13	74	6 5.0	100		
780										-710-	-						R-14	74	6 5.0	100		
775			23.5	S-1 WOH- S-2 20-2 S-2 4.1	5 6-48		.4 2	30		- 705 -	-				-	- 92.0 - 	R-15	74	6 5.0	100		
	hered limestone. 26.8'/El. T CLAY , gray, medium hard, highly weathered to rately weathered, narrow to moderate bedding with flat d, close to moderate spacing, steep to sheer dip, oper (ROD=23%)		26.5	S-3 49-5 S-4 50/ R-1	<u>'.3'</u>	>67	.8 8			↓	1	• <u>•</u> ••	Joint (RD=80-90), 94.5-96.2'. 97.0'/E Boring offset 3' RT.	م <u>703.1 .</u>		trem	ni.	: Water level			-	-
to 770.25	29.0'/El. 29.0'/El. 29.0'/El. 29.0'/El. 29.0'/El. 29.0'/El. 20.0'/	o ed.	32.0	R-2		3% 2.										tren						
$765 - \qquad $	(RD=30-40), 32.1-32.2'. (RD=45-50), orange staining, 32.9-33.0'. (RD=60-65), orange staining, 37.6-37.7'.		37.0	R-3	84	4% 5.	.0 10	00		•												
	(RD=60), orange staining, 39.5-39.6'.			R-4	38	8% 4.	.7 94	¥		CTS2014114026.GPJ												
	(RD=70-80), orange staining, 44.0-44.5'. (RD=90), orange staining, 45.7-46.0'.			२-5	50	6% 5.	0 10	00		A15-LI GINTIPROJE												
	nfilling, 48.3'. nfilling, 49.2-49.3'.			र-6	58	8% 4.	8 9	96		2016.007 - 1/19/18:00												
	laminations/streaking, 52.0-79.1'.		52.0		80	0% 5.	0 10	00		ERSION 1.222 8-24												
			57.0							PENNDOT GINT V												
740			62.0	₹-8	90	0% 5.0	0 10	00		CITINE BORING LOG												
		1	r 1	I	I	I	Ι	I		OT STRU												

QA/QC: MJL

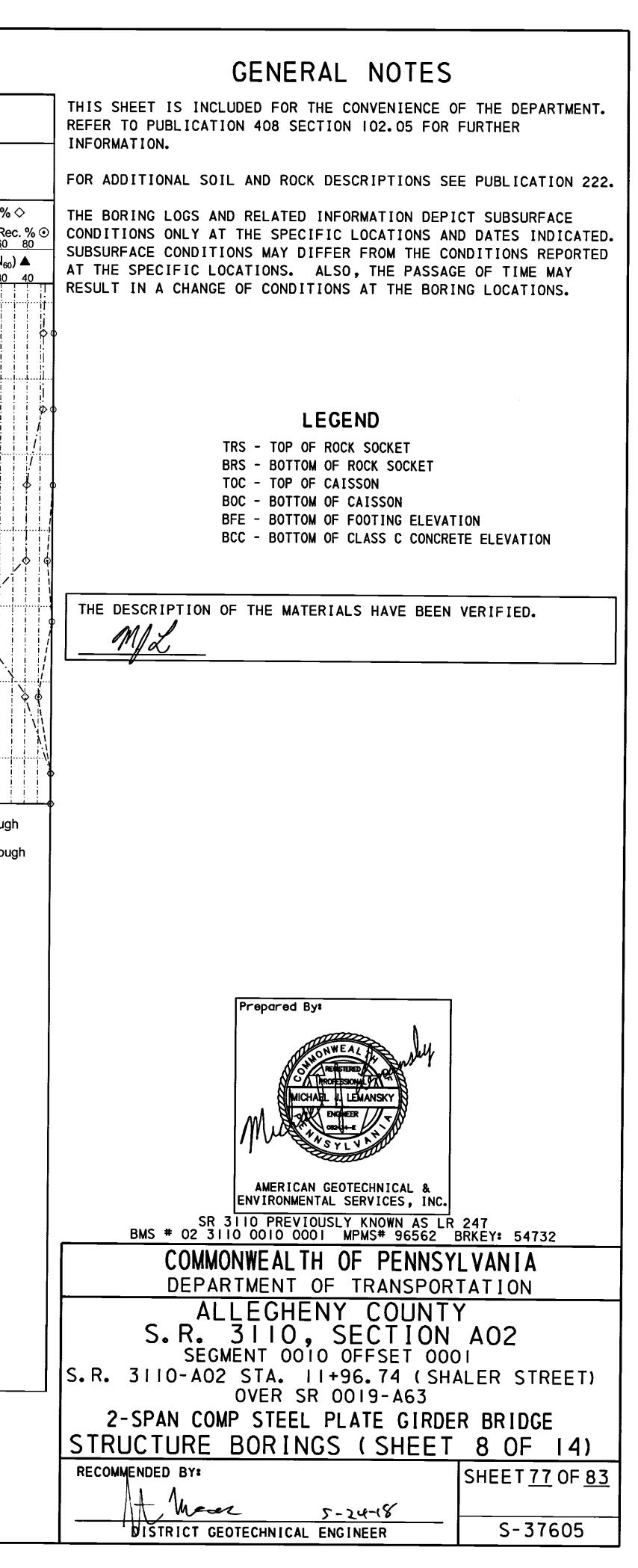
PLT: RJS

CKD: AM



SS-	g number: 7		BORING LOCATION STATION: 12+56.7 OFFSET: 15.0 FT. LT.		TART: 1					HAMN EFFIC	
DBLE T		D AND EQUI			IZE OF C 2.154 IN.			VERTIC 0 FT.		-	Т
	IG INSPECT	FOR: DAVID	ROEBUCK NY: W. REAGLE					LAPSED ELAPSED			
IRC EN	IGINEERS, I DIHAVAD		MATERIAL DESCRIPTION		AASHTO/ USCS	SAMPLE DEPTH					
-795-				1.0'/El. 797.2	Г	1.0	PC-1		-		
		Air - Distance	e between bridge deck and ground	elevation.							
- 785 - - 785 -											
- 780 - - 780 - 											
- 775 -		SAND, some graded, black		24.5'/El. 773.7	a-1-b / sm	23.0 - 24.5 26.0 -	S-1 S-2	10-3-2 17-25-32	7 76	0.4	27 73
77 to 77 TC	Image: Second	Uniformly grad Weathered lin SANDSTONE to slightly weat jointed, close	Sand, some Gravel, hard, moist, ded, medium plastic fines, gray, r <i>nestone.</i> E, gray to brown, medium hard, his athered, narrow to thick bedding v to massive spacing, sheer dip, (<i>i</i> <i>b</i> , orange staining, 29.3-30.3'.	esiduum. 28.3'/EI. 769.9/ ghly weathered with flat dip.	a-6 / cl	27.5 28.3 - 30.0-	S-3 S-4 R-1 R-2	32-34-29 11-50/.3' <u>4.00</u>	84 <u>>67</u> 24% 77%	1.5 0.7 1.7 3.0	100 <u>87</u> 100 86
- 765 - BC - 765 - 76 - 76 - 760 -		Fracture zone Joint (RD=70-	, orange staining, 33.5-34.0'. 80), 34.7-34.9'. 9, orange staining, 35.5-35.9'.			33.5	R-3		62%	4.0	80
 -755 -		Joint (RD=80- Sandstone be	90), orange staining, 39.6-39.9'. comes MG at 39.9'.			38.5 43.5	R-4		80%	5.0	100
 - 750 -						48.5	R-5		82%	5.0	100
 - 745 - 		Shale beds, la	minations, 53.9-78.0'.			53.5	R-6 R-7		90%	5.0	100
- 740 - 						57.0	R-8		100% 94%	3.5 5.0	100
- 735 -						62.0					

BORING	G NUMBER:		BORING LOCATION STATION: 12+56.7 OFFSET: 15.0 FT. LT.	VERTI 0 FT	CAL SC	ALE: 5 FT.						0.0 h it 23.(
ELEV.	GRAPHIC		MATERIAL DESCRIPTION		AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.	BLOW COUNT PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	 ♥ Soi 20 ▲ 10 	S
		to slightly wea jointed, close	i, gray to brown, medium hard, high athered, narrow to thick bedding wi to massive spacing, sheer dip, (Re n the previous log page)	th flat dip.		67.0	R-9		92%	5.0	100		
730 -							R-10		92%	5.0	100		
- 725 -		Coal, 74.4-74. Breccia sands	5'. tone, 74.3-75.1'.			72.0	R-11		80%	5.0	100		
- 720 -		Coal, 75.0-75.	1'. 8'. gray, soft to medium hard, highly v to medium bedding with flat dip, jo	78.0'/El. 720.2 weathered to inted, massive		- 77.0	R-12		80%	4.8	96		
-715-		Clay infilling, 1	o to sheer dip, (<i>RQD=74%</i>). '9.9-80.2'. clay infilling, 84.2-86.0'.			- 82.0 - 	R-13		38%	4.0	100		
- 710 -						- 86.0 - 	R-14		80%	4.5	90		
- 705 -				94.4'/El. 703.8		- 91.0 - 	R-15		100%	5.0	100		
		no apparent jo	gray, hard, fresh, medium bedding inting, <i>(RQD=100%).</i>	g with flat dip, 98.0'/El. 700.2		- 96.0 - 	R-16	,	100%	2.0	100		
		Boring offset 3	'RT.			tren	ni. <u>r. Wate</u>	Water le <u>r:</u> Water le				-	



BOR	BUTN Ing nun S-8			BORING LOC STATION: 12+			START:									AUTON
DRIL	LING ME		AND EQUI	OFFSET: 0.0	FT.		FINISH:	COF		15 2::		TICA	AL SC		ТО	Y: 0.8 P OF I EVATI
ACK DRIL	ER SOIL LING IN	S XLS T	TRACK RIG OR: DANIEL	MARTT			1.874 I ⊻ 0 HF			NG - E						
		ERS, IN		IY: R. CRUM			¥ 24 H	<u> </u>		f		11			1	:. - 23.0
ELEV.		GRAPHIC		MATE DESCR			AASHTO/		DEPTH	SAMPLE NO.	BLOW	PP/T TS	N 60/ %RQD	REC (ft.)	REC (%)	⊙ So 20
- 800 - 			Ĩ	oncrete, 0.0-0.35'		1.0'/El. 799	9.5									
- 795 -			Air - Distance Drilled 8' sout Driller using N	between bridge dec th of location. NQ tools to advance t	o ground surface,			-	-					;		
			top with casin	ng to keep boring stra	ight.			-								
								-	•							
- 785 - - 785 -			GRAVEL , sol dense, wet to	me Clay, (mechanic damp, laminated, b	ally broken shale rown to dark gray	<u>15.4'/El. 785</u> e), medium y, residuum.	5.1 a-2-6 gc	5/	- 6.0 - 7.5	S-1	2-5-1	11	21	1.2	80	
 - 780 -			GRAVEL, (m	to 16' prior to samplin echanically broken l s, brown, residuum.		<u>19.0'/El. 781</u> dense, damp,	1.5/ a-1-l		- 19.0 - 19.9 20.5	S-2 S-3 S-4	8-12 20-50	/.4'	28 >67 >67	1.2 0.9	80 100 91	
	TOR 778.10		LIMESTONE, weathered to	, brown, soft to medi weathered, narrow to lose to medium spa	o moderate bedd	ding with flat	gp 9.1		20.9 22.0 22.4 22.4	<u>S-5</u> R-1	50/.4		<u>>67</u> 19%	0.4 1.6	100 76	
- 775 - Ī				mooth surfaces, (RG		o sheer dip,		F	26.5	R-2 R-3	-		25% 32%	1.3 2.1	65 84	
- 770 -	BFE varies 771.00	S	medium hard dip, jointed, c	, gray brown to brow , weathered, narrow lose to moderate sp	to moderate bed	Iding with flat		F	29.0 - 31.5	R-4	-		28%	2.0	80	
	to 770.25 BCC 766.60	S°°°°		9-31.9'. E, brown gray, fine g			_	-	-	R-5			54%	4.6	92	
-765- - <u>¥</u> -			jointed, media smooth surface	nered, narrow to medum to wide spacing, ces, (RQD=85%).	steep to sheer di	38.7%EI. 761	i,	3	36.5				7404			
- 760 - -			SANDSTONE weathered, th	rehealed fracture (ca E, brown, fine graine in to moderate bedo moderate spacing, r surfaces, (RQD=0%)	d, hard, moderate ling with shallow noderate to shee	ely dip, jointed,			-	R-6			74%	4.9	98	
			SANDSTONE weathered, na	, brown gray, hard, arrow to medium be	weathered to slig	39.7'/El. 760 jhtly w dip, no).8	2.	trem	ni. <mark>r. Wat</mark>						ridge de oridge e
				ting, (RQD=89%). on bedding at 40.6', -		41.5'/El. 759	0.0									



GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

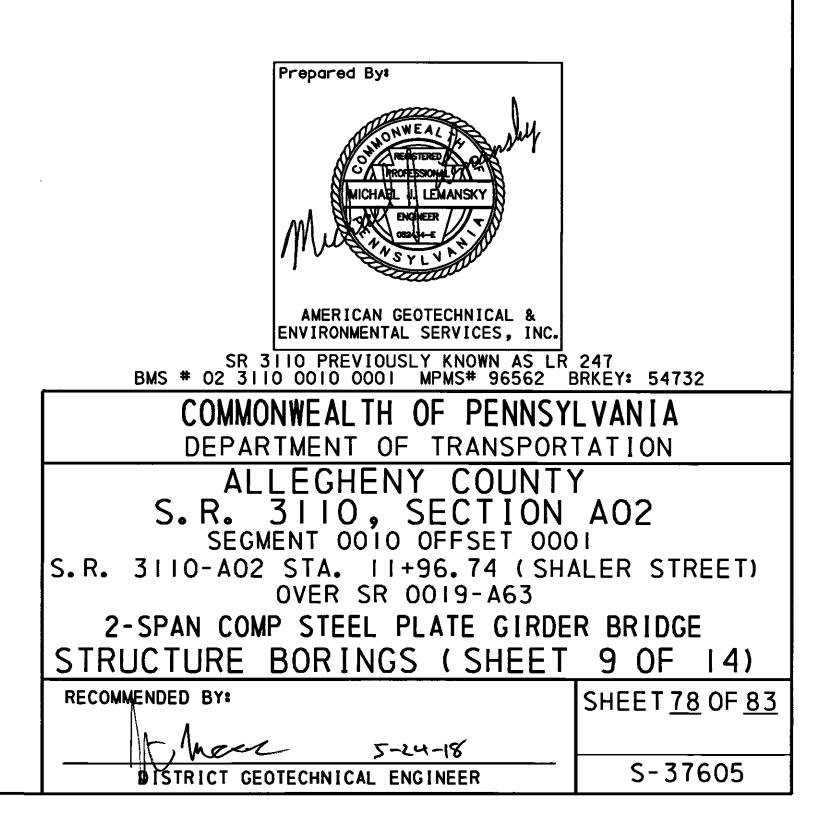
FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

LEGEND

TRS - TOP OF ROCK SOCKET BRS - BOTTOM OF ROCK SOCKET TOC - TOP OF CAISSON BOC - BOTTOM OF CAISSON BFE - BOTTOM OF FOOTING ELEVATION BCC - BOTTOM OF CLASS C CONCRETE ELEVATION

THE DESCRIPTION OF THE MATERIALS HAVE BEEN VERIFIED.

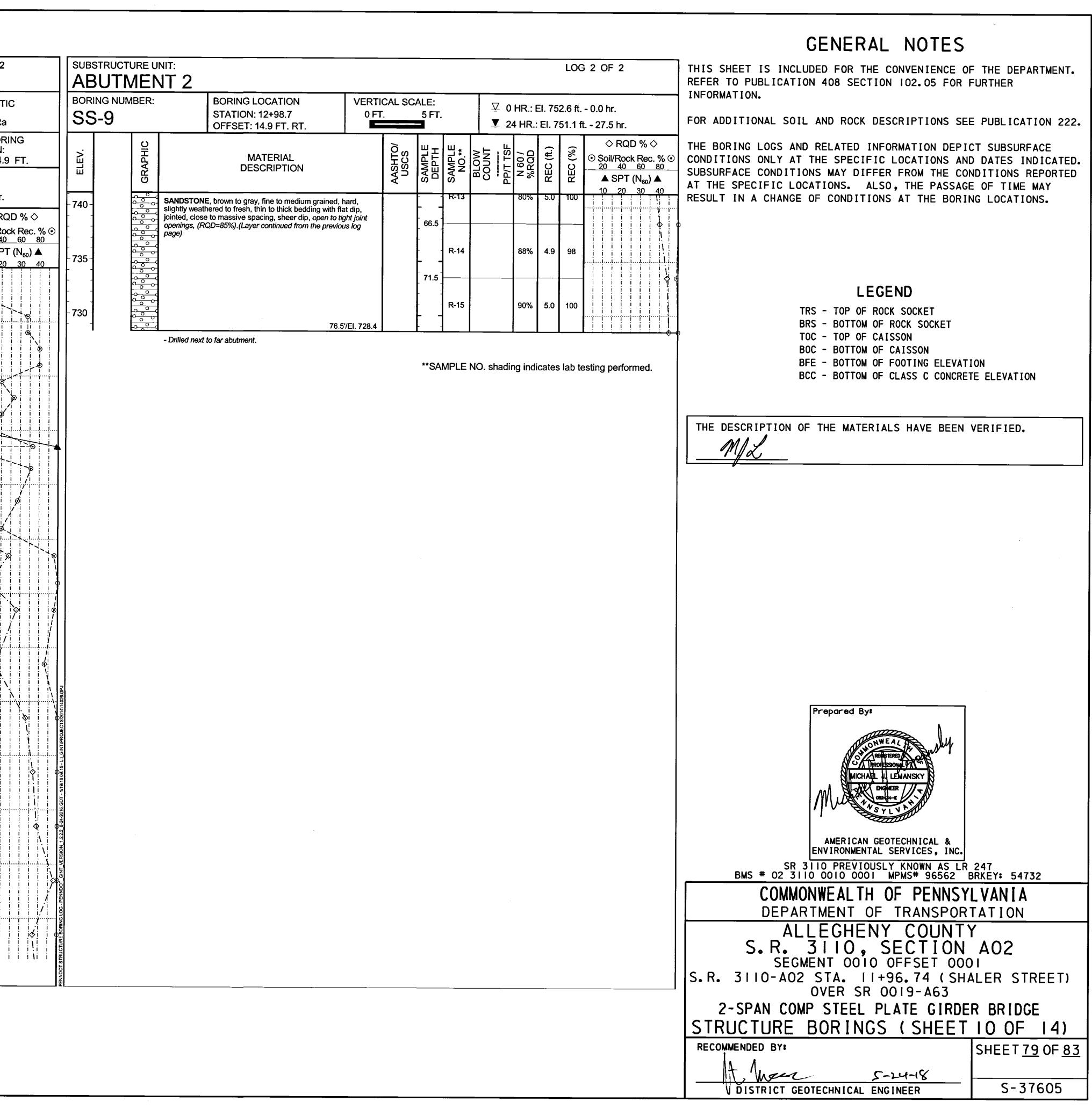


BOR	ing nur 5-9	1BER:		BORING LOCA STATION: 12+9 OFFSET: 14.9	98.7		TART: 1 NISH: 1						IER: /	
DBLE	E TUBE S	SPLIT I	AND EQUI NNER BRL- TRACK RIG	NQ, AUTOMATI	C,		ize of C 1.874 in.			VERTIC		ALE: 5 FT.		P OF EVAT
DRIL		RILLIN		MARTT Y: R. CRUM						LAPSED T				
ELEV.		GRAPHIC		MATE DESCRI			AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT	N 60 / %RQD	REC (ft.)	REC (%)	⊙ Si 20
			Subbase, 0.7- GRAVEL, little fragments), v. stratified (0.1- plastic fines, S-1, slag fragi Class. on S-1	oncrete, 0.0-0.7'. 1.5'. e Clay, little Sand, little ery loose to very den 0.2' shale layers), ga red brown with gray, f ments, possible subba to S-5 (1.5-9.0'), N.M to S-9 (9.0-15.0'), N.H	tle Silt, (shale and sa se, moist, homogen ap graded, angular, f fill. ase. I.C. = 16.0%.	neous to	A-2-4 / GC	1.5 3.0 4.5 6.0 7.5 9.0	PC-1 S-1 S-2 S-3 S-4 S-5 S-6	2-4-3 0.25 3-5-6 1.50 4-3-3 1.00 5-6-5 1.00 6-4-6 1.25 3-2-1 0.25	9 15 8 15 13 4	0.4 1.0 1.2 1.2 0.6	27 67 67 80 80 40	
- 790 - - 790 - 	- TOR 788.40		Organic odor, Sandstone, 16 SANDSTONE		ey, with coal laminat	5'/EI. 788.4 tions, athered.		12.0 13.5 15.0 16.5 16.5 18.5	S-7 S-8 S-9 S-10 S-11 R-1 R-2	3-2-3 0.50 2-2-4 0.50 1-1-2 0.25 3-6-31 0.25 50/.0'	7 8 4 49 >67 0%	0.8 0.6 0.5 1.1 0.0 1.4	53 40 33 73 0 71 57	
		فرالمعلى كمركم محرك كم يسمع والمحلم والمحلول المعرفيان والمعلول المكريون والمركون والمركون والمحلول المكريون والمحلول المكريون والمحلول المكريون والمحلول المكريون والمحلول المكريون والمحلول المكريون والمحلول المحلول المكريون والمحلول المحلول المكريون والمحلول المكريون والمحلول المحلول الم	SHALE, brown weathered, lan narrow spacin surfaces, (RQ LIMESTONE, weathered to	n to dark gray, very s minated bedding with g, sheer dip, <i>open to</i> D=0%). brown, soft to mediu weathered, medium t	18.0 oft to medium hard, of flat dip, jointed, lan large openings, smo 23.2 m hard, moderately pedding with flat dip,	0//EI. 786.9 highly ninated to poth 2'/EI. 781.7		21.5 24.0 26.5 29.0	R-3 R-4 R-5		0% 48% 28%	1.0 2.4 2.5	40 96 100	7
- 775 - 770 - 			Surfaces, (RG	gray to brown, pearly	35.8 / luster, medium har	<u>8'/El. 769.1</u> rd,		31.5	R-6 R-7		56% 34%	2.4 4.3	96 86	
			flat dip, jointed joints, rough s SANDSTONE	slightly weathered, th d, close to moderate urfaces, (RQD=29%) , gray, fine grained, h o apparent jointing, (spacing, sheer dip, 38.2 nard, fresh, thick beo RQD=85%).	open 2'/El. 766.7 dding	ſ	41.5	R-8		66%	5.0	100	· · - · · - · · · · · · · · · · · ·
 - 760 - 		\sim	weathered to i flat dip, jointed	, brown, fine grained, noderately weathere d, laminated to close opening, <i>some clay</i>	hard to very soft, h d, thin to narrow bec spacing, moderate fill, (RQD=0%).	dding with	-	46.5	R-9		74%	5.0	100	
 - 755 - 			slightly weather	brown to gray, fine t ered to fresh, thin to t to massive spacing,	thick bedding with fla	at dip,		51.5	R-10		78%	5.0	100	· · · · · · · · · · · · · · · · · · ·
- 7 50 -			Shala lawar	6 5. 76 <i>5</i> '				56.5	R-11		96%	5.0	100	
- 745 - - 745 -			-	(RD=15-20), 60-66.5' -7-15; ST. 12-8-15.	(cross bedding).			61.5	R-12		74%	5.0	100	

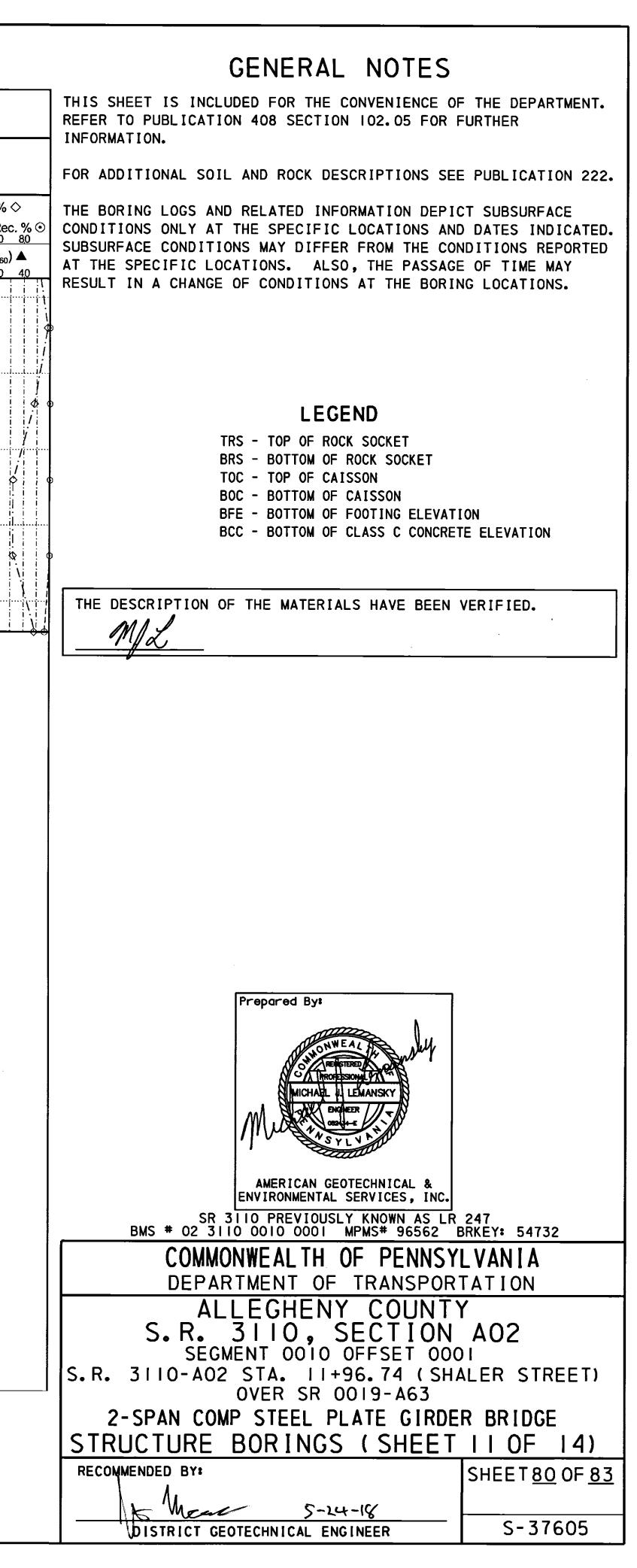
🛱 🖗 PLT: RJS

CKD: AM

QA/QC: MJL



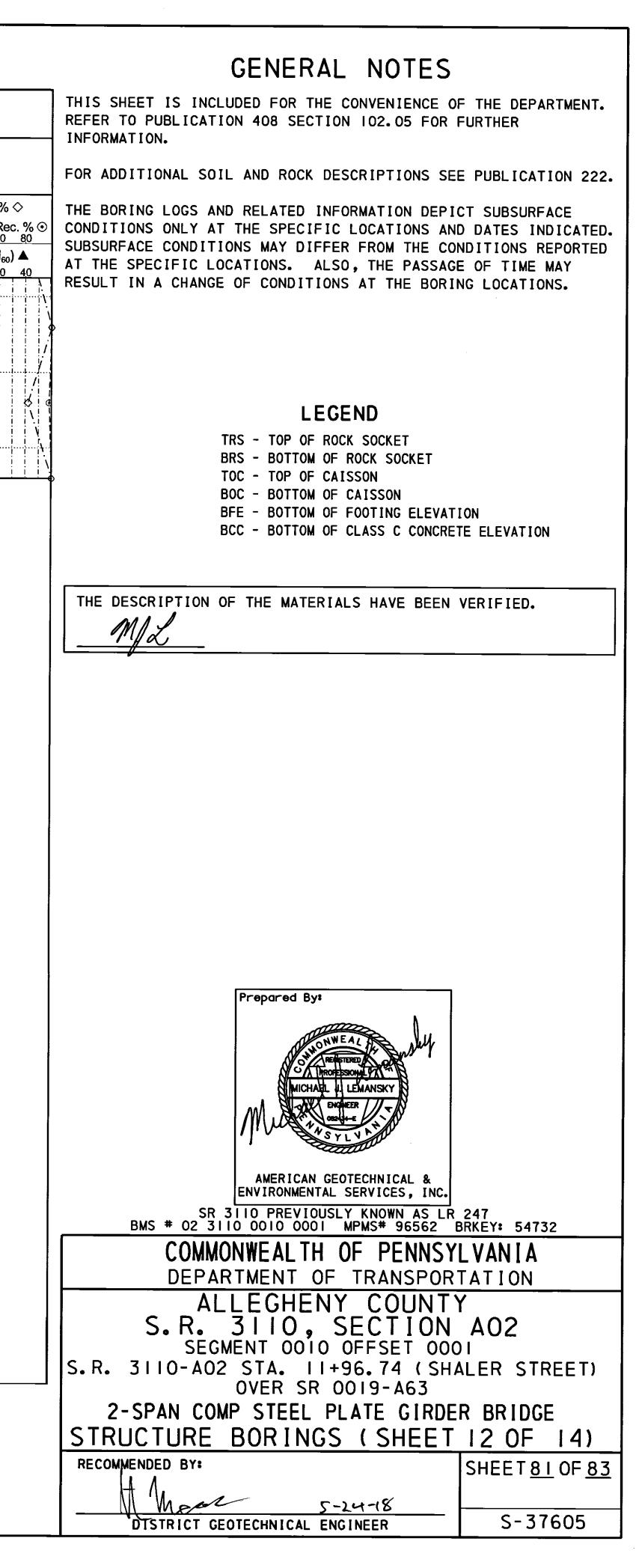
SUBST ABL										LOC	G 1 OF 2												LOG	32 OF 2	, ,
BORING	G NUM		BORING LOCATION STATION: 12+96.2	START: 1								BOR		NUMBER		BORING LOCATION VERTIC STATION: 12+96.2 0 FT		ALE:						- 0.0 hr.	
DRILLII			OFFSET: 21.8 FT. LT. AND EQUIPMENT: INER BRL-NQ, AUTOMATIC,	FINISH: 1	CORE:		VERTIC	AL SC		ТС	CY: 0.8 ERa		J-1 	<u>₽</u>	T	OFFSET: 21.8 FT. LT.	ò,,	┛ ╵╜┮	ш					t 45.5 hr	
ACKER DRILLII	SOILS	XLS TI PECTO	RACK RIG DR: DANIEL MARTT	1.874 IN.		ING - E					805.4 FT.	ELEV		GRAPH		MATERIAL DESCRIPTION	AASHTO/ USCS	SAMPLE	SAMPLE NO.	BLOW COUNT 	N 60. %RQI	REC (ft.)	REC (%	 ⊙ Soil/Ro 20 40 ▲ SP 	0
DRILLE TRC EN		RS, IN	COMPANY: R. CRUM								t 45.5 hr.	- 740-				SANDSTONE, gray, fine to medium grained, shaley layers, hard, fresh, thin to medium bedding with flat dip, jointed, wide			R-14		98%	5.0	100		2
ELEV.		GRAPHIC	MATERIAL DESCRIPTION	AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.	BLOW COUNT	N 60 / %RQD	REC (ft.)	REC (%)	 ◇ RQD % ◇ ③ Soil/Rock Rec. % ④ 20 40 60 80 ▲ SPT (N₆₀) ▲ 		-		6	spacing, tight joints, moderate dip, rough surfaces, (RQD=88%).(Layer continued from the previous log page) Shallow dip (RD=10-15), cross bedded, 67.9-71.2'.		- - 67.0 -	R-15		88%	5.0	100		
805-	0	ం <u></u> ంైం ం	CLAY , some Sand, little Silt, (shale and sandstone), very sti moist, homogeneous, gap graded, angular, medium plastic fines, brown, fill, <i>topsoil</i> , 0.0-0.4'.	^{ff,} a-6/cl	1.5		8-4-11 2.50 21-50/.3'	20 >67	1.5 0.8			- 735 - - -			4 4 4			72.0		<u></u>					
- 8	OR 02.10		GRAVEL, (mechanuically broken shale), very dense, damp, laminated, gray, residuum.	03.4/gp	2.3 3.0 3.3	102	N	<u>>67</u> 45%				-730-	-			75.2/EI. 730.2			- R-16		72%	5.0	100		
800 - -	19.1 Y Q		3.3'/EI. 8 SANDSTONE, brown to gray, shaley, cross bedded, fine to medium grained, moderately weathered to slightly weathered		5.5	R-2		77%	3.0	100						SANDSTONE, gray to black, shaley, fine to coarse grained, very hard, fresh, laminated to moderate bedding with flat to moderate dip, no apparent jointing, (RQD=66%), (brecciated sandstone with thin coal layers).		77.0	1						
- - 795 -	ь I б.Х II		narrow to thick bedding with shallow dip, jointed, medium to spacing, sheer dip, open joints, <i>rough surfaces</i> , (<i>RQD=72%</i>).	wide -	- 8.5	 R-3		43%	3.5	100		• - 725 -	-			78.7'/El. 726.7/ SANDSTONE, gray, shaley, fine to medium grained, hard, fresh, laminated to medium bedding with shallow dip, no			R-17		72%	5.0	100		
	0 10 1		SHALE, black, medium hard, fresh, laminated bedding with shallow dip, no apparent jointing, (RQD=0%). 8.5'/El. 7	96.9	- - 12.0 -	-										apparent jointing, (RQD=75%), (occassional to frequent shale and coal partings). 82.3'/El. 723.1		82.0							
- 790 -	1.6.7.6.		SANDSTONE , brown gray, shaley, fine to medium grained, hard, weathered to slightly weathered, laminated to moderate bedding with shallow dip, jointed, close to wide spacing, she dip, open joints, <i>rough surfaces, (RQD=68%)</i> .	er		R-4		68%	5.0	100		- 720 -	-			SILTSTONE, gray, medium hard, fresh, moderate to medium bedding with flat dip, no apparent jointing, (RQD=94%). Very broken, 74.8-75.0'. 87.0'/El. 718.4			R-18		88%	4.8	96		•
-	TO LO		19.0/El. 7	86.4	- 17.0	-						Ф 1	•			- Moved 6.5' az. 063, 1.1' higher (slope overhead electric).					· 4				
785		S	SHALE, black, lustrous, laminated bedding with shallow dip, jointed, laminated to moderate spacing, sheer dip, (RQD=0% 19.7'/El. 7). 85.7		R-5		72%	4.7	94															
-	TAN LAN		Possible loss of recovery, 19.0-19.7'. Soft clay, 19.7-19.8'. FLINT CLAY, brown gray, pearly luster, soft, slightly	[22.0	R-6	_	50%	4.6	02															
780 -	ר האת היו		weathered, thin to medium bedding with flat dip, jointed, med spacing, <i>slickensided, (RQD=62%)</i> . 22.3'/EI. 7 LIMESTONE, dark gray to gray brown, hard, weathered to		27.0			50%	4.0	J2															
775-	ת האת ה		slightly weathered, laminated to moderate bedding with flat d jointed, close to medium spacing, steep to sheer dip, open joints, rough surfaces (RQD=61%).	ip,		R-7		62%	5.0	100															
//5- - -	אר. אארו א		Shaley, black, 22.3-23.0' and 23.3-23.8'. Probable loss of recovery, 22.3-23.0' in black, shaley limestone Very broken, 30.2-30.3'. 33.1'/EL 7		- - 32.0	 					R	Ð													
770 -	-	<u>></u> ;	FLINT CLAY, gray, medium hard, fresh, thin to medium bedding with flat dip, jointed, medium spacing, moderate to sheer dip, tight joints, <i>smooth surfaces, (RQD</i> =85%).		- 	R-8		84%	4.5	90															
<u>Z</u>	-	S	Core possible ground up, 34.4-34.9'. 39.2'/EL 7	66.0	- 37.0	 				2															
765	KI O KI		SANDSTONE, brown gray, fine grained, hard, weathered to slightly weathered, narrow to medium bedding with flat dip, jointed, medium to wide spacing, sheer dip, open joints, roug			R-9		96%	5.0	100		2014/14026.GP													
⊻	51 6 7 1 6		hackly surfaces (RQD=86%).	, , , , , , , , , , , , , , , , , , ,	- 42.0 -						Ŷ	THROJECTS													
760 -	6791 0		45.7'/El. 7 SANDSTONE, gray, fine to medium grained, shaley layers, hard, fresh, thin to medium bedding with flat dip, jointed, wide		47.0	R-10		82%	5.0	100		09:15 - L:\ GIN													
-	0 A 0 A		spacing, tight joints, moderate dip, <i>rough surfaces, (RQD=88</i>	* %).	-	R-11		94%	5.0	100		.GDT - 1/19/18													
755-	o k l o k l				- 52.0	- 						222_8-24-2016													
- - 750 -	619613		Very broken, 52.5-52.6'.			R-12		82%	5.0	100		VERSION 1.2													
-	6 6 6		Very broken, shaley, joint (RD-25-30), 56.6'.		- 57.0					. <u> </u>		ENNDOT GINT													
745-	9 9 0		Dark shale layers, <0.1-0.6', 58.0-75.2'.			R-13		90%	5.0	100		RING LOG - PI													
-	2 d 4 d				- 62.0 -							RUCTURE BO													
												PENNDOT S	.												-
T: RJ																									



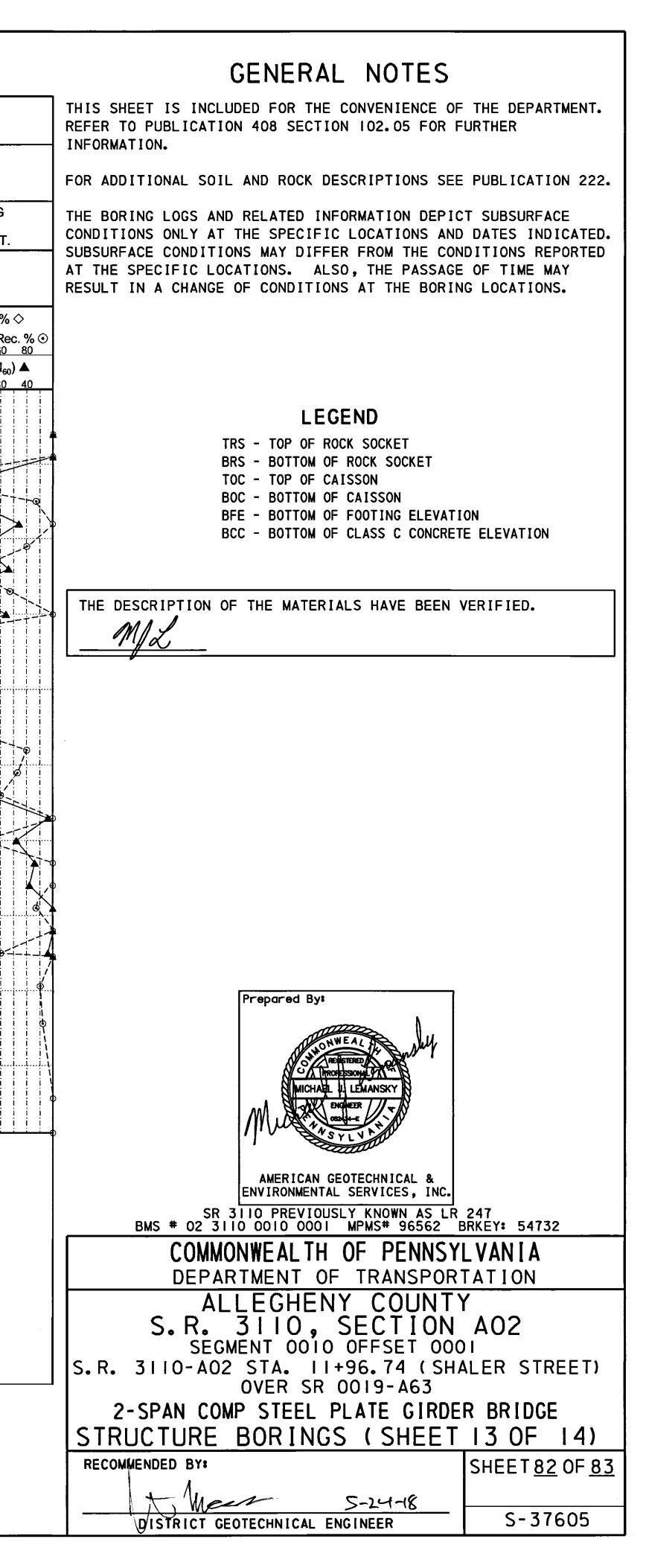
	NG NUN	/BER:		BORING L STATION:				ART: 12	-	•			ŀ	IAMN	IER: /	AUT	ON	1AT
				OFFSET: 5	5.0 FT. LT.)15 2:	<u> </u>							
DBLE	E TUBE S	SPLIT I	INNER BRL-	NQ, AUTOM	IATIC,			ZE OF C .874 IN.	ORE:		VERT			ALE: 5 FT.)F E ATIC 8	
			OR: DANIEL				∑	0 HR. F	READI	NG - E	LAPSE		IME:E	I. 792	 2.1 ft.	- 0.0		
	ENGINE		IG COMPAN NC.	IY: R. CRUN	l		Ţ	24 HR.	READ	ING - E	ELAPSE	ED 1	ΓIME:	El. 78	33.0 ft	2	0.5	hr.
ELEV.		GRAPHIC			ATERIAL SCRIPTION			AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.		PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	•	Soil	4 SP
				S CONCRETE.		0.3'/EI. 81	3 3		1.5		· · · ·						10	
4 810-	TOR 811.70		COBBLES.			1.0'/El. 81		a-2-6/ 	2.3	S-1 R-1	21-50/	.3'	>67 0%	0.8 1.4	100 82			
-			SUBBASE.			1.5'/El. 81	-1		- 4.0 -	R-2			27%	2.9	97			
			GRAVEL, sor	ne Sand, little (s, well graded, a	Jay, very dense, angular, brown, fi	damp,			7.0		1						N N N	
805 -				, gray to brown	, shaley, fine to n	2.3'/EI. 81 nedium grained.	1.3			R-3			52%	4.2	84			N i N
1			with moderate	e dip, jointed, la	eathered, thin to minated to mediues, (RQD=39%).	medium bedding um spacing, shee) Ər									···· i	··i····	ii i i i i
800 -			Clay on joints Lost water ret	(RD=90), 7.0-7.	5'.				- 12.0 -				-					
-				(100-30), 10.7-1						R-4			46%	4.5	90	 ļ. 		
-			SANDSTONE	, brown gray, st	naley, fine to med	17.0'/EI. 79			- 17.0 -									
795 -			hard, slightly with shallow c	weathered to fre lip, no apparent	esh, moderate to jointing, (RQD=8	medium bedding 89%).	3			R-5			100%	5.0	100			
7 -									- 22.0 -									
790 -		0000 0000 0000																
-										R-6			84%	5.0	100			
			Shale and coa	l partings (RD=2	20-25 and 40-45),				27.0 -			_						
785 - ▼		<u> </u>	SHALE, gray	to dark gray, cla	ayey, very soft to	29.11/EI. 784 medium hard,				R-7			48%	4.2	84	1		
		S	fiat dip, no ap	red to slightly w parent jointing,	eathered, lamina (RQD=0%).	ited bedding with 30.7'/El. 782	Í											
780 -		C-L-L-L	Shale, clayey,	shale, 29.1-29. 29.5-30.7'. ary probably, 29.						БQ			700/		400			
			Possible shea	r zone, 29.5-30.3		arrow to medium				R-8			76%	5.0	100	i i	i i i	
775 -			bedding with f steep dip, (RC	lat dip, jointed,	laminated to med	dium spacing, ve	ry		- 37.0 -									Ī
			Black shale, 3		ay, hard, slightly	33.0'/EI. 780				R-9		:	64%	5.0	100	; ; ; ;	i i i i	i ī
4			fresh, narrow wide spacing,	to thick bedding	y with shallow dip dip, open joints,	, jointed, close to	5		- 42.0 -			_						1
770 -			(RQD=71%). Slickensided jo	oint (RD=60-65),	41.0'.					R-10			62%	4.6	92			
			Very broken, 4 Nobable loss	15.1-45.2'. of recovery, 45.1	1-45.5'.		г	-								ļ i	l i i i	ļ i
765 -					n, narrow to mode		7.1/		47.0									
-			with shallow d slidkensided, (ip, jointed, mod RQD=50%).	erate spacing, m	oderate dip, 47.5'/EI. 766	5.1			R-11		Í	88%	4.9	98			
-			SANDSTONE medium beddi	, gray, fine grair	ned, hard, fresh, i no apparent join	narrow to			52.0			-			_			
760 -			٦		edium grained, h	53.3/El. 760				R-12			98%	5.0	100			
-			to medium be	dding with flat d s, (RQD=93%).	ip, jointed, massi	ive spacing, she	er		- 57.0 -									i
755 -													Ī					
										R-13			84%	4.9	98	•		i i
1			Frequent black	shale layers (0.	.1-0.8" thick), 61.(0-77.0'.			62.0			-						
-1	I	<u> </u>					I	I	I	l		I	I	I	[i	ii	i

PLT: RJS CKD: AM QA/QC: MJL

										LOC	
BORING	NUMBER: 11		BORING LOCATION STATION: 13+61.0 OFFSET: 5.0 FT. LT.	VERT 0 F	TICAL SC	ALE: 5 FT.					- 0.0 hr. t 20.5 hr.
ELEV.	GRAPHIC		MATERIAL DESCRIPTION		AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO.	PP/T TSF N 60 / %RQD	REC (ft.)	REC (%)	 ◇ RQD ③ Soil/Rock 20 40 ▲ SPT (
		SANDSTON to medium b dip, tight join log page)	E, gray, fine to medium grained edding with flat dip, jointed, mas ts, (RQD=93%).(Layer continued	hard, fresh, thin ssive spacing, sheer from the previous		67.0	R-14	 100%	5.0	100	
-745-						- 72.0 -	R-15	82%	4.9	98	
 - 740 - 				77.0'/El. 736.6			R-16	100%	5.0	100	



ABUTME	NT 1			LOG 1 OF 1					~				LOG	1 OF 1
ORING NUMBER:		START: 12/15/2016 FINISH: 12/15/2016		MER: AUTOMATIC CIENCY: 0.8 ERa	BORING NU	JMBER:	STATION: 11+06.0	START: 1 FINISH: 1						UTOMATIC (: 0.8 ERa
	D AND EQUIPMENT: RE LINE-NQ, AUTOMATIC, K MOUNT RIG	SIZE OF CORE: 2.000 IN.	VERTICAL SCALE 0 FT. 5 FT		DOUBLE TU	IETHOD AND EQUI JBE WIRE LINE-NQ TRACK MOUNT R	, AUTOMATIC,	SIZE OF C 2.000 IN.			/ERTICAL 0 FT.			P OF BORING VATION: 778.0 FT
	TOR: ZACHERY ROBERTSON NG COMPANY: W. REAGLE INC.		ELAPSED TIME:EI. 76 - ELAPSED TIME:EI. 7			NSPECTOR: ZACHE DRILLING COMPAI IEERS, INC.		☑ 0 HR. I ፶ 24 HR.						0.0 hr.
ELEV. GRAPHIC	MATERIAL DESCRIPTION	AASHTO/ USCS SAMPLE DEPTH SAMPLE	NO. BLOW COUNT PP/T TSF N 60 / %RQD REC (ft.)	$ \begin{array}{c c} & & & & & & \\ & & & & \\ & & & & \\ & & & &$	ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO. BLOW	COUNT PP/T TSF	N 60/ %RQD REC (ft.)	REC (%)	 ◇ RQD ◇ Soil/Rock F 20 40 6 ▲ SPT (N
75 - 70 - 65 - 55 - 50 - 45 - 77 - 70 -	GRAVEL. 1.5/EI. 7 SAND and GRAVEL, little Clay, contains slag, rock fragment medium dense to very dense, wet to dry, heterogeneous, well graded, angular, brown gray, fill. <i>Reddog, S-1. Slag, S-4. Some clay, S-6.</i> 10.5/EI. 7 SAND and CLAY, some Gravel, contains rock fragments, loose to dense, wet, heterogeneous, well graded, angular, br gray, fill. <i>Coal fragments, S-13. Wood fragments, S-14. QLOYEL. 7</i> CLAY and SAND, trace Gravel, very stiff, wet, homogeneous medium plastic fines, brown, alluvium. <i>30.07EL. 7</i> SAND and CLAY, some Gravel, contains rock fragments, loose to very dense, wet, homogeneous, well graded, angular, br gray, fill. CLAY and SAND, trace Gravel, contains rock fragments, dense to very dense, wet, homogeneous, well graded, angular, sub-angular, gray, residuum, <i>decomposed sandstone</i> . 33.6/EL. 7 SAND and CLAY, some Gravel, contains rock fragments, dense to very dense, wet, homogeneous, well graded, angular, sub-angular, gray, residuum, <i>decomposed sandstone</i> . SANDSTONE, gray to brown, hard, slightly weathered, thin to moderate bedding with flat dip, jointed, wide spacing, sheer on narrow joint opening, <i>dark gray laminations throughout sandstone</i> . (<i>RQD=10%</i>). <i>R-2, Inner barrel frozen, didn't latch into outer barrel. Pulled roc to get recovery. Possibly lost 0.5 in the recovery process</i> . <i>Thin bedding and fracture zone, clay infilling (RD=90), 39.3'</i> .	76.4 3.0 S 5, $a-1-b/$ 6.0 S $5,$ $a-1-b/$ 6.0 S 57.4 0.0 S 9.0 S 57.4 10.5 S 9.0 S 57.4 10.5 S 9.0 S 57.4 10.5 S 5.5 9.0 S 57.4 10.5 S 5.5 5.5 5.5 9.0 S 12.0 S 5.5 5.5 53.9 $a-2.6/$ 16.5 S 5.5 53.9 24.0 S 5.5 5.5 53.9 $a-6/$ cl 27.0 S S 47.9 $a-6/$ cl 27.0 S S 47.9 $a-2.6/$ 31.5 S S 41.3 33.0 S S S 41.3 35.6 R 38.6 R 43.1 R 43.1 R	1 $22-27-28$ 73 1.5 2 $14-15-18$ 44 0.8 3 $19-16-17$ 44 0.9 4 $8-10-6$ 21 1.5 5 $6-23-11$ 45 1.0 5 $25-12-11$ 31 1.2 7 $3-5-4$ 12 0.0 8 $5-6-6$ 16 1.3 9 $4-12-13$ 33 1.5 0 $3-3-3$ 8 0.0 1 $3-3-5$ 11 0.9 2 $4-3-3$ 8 0.6 3 $3-4-3$ 9 0.4 4 $4-4-5$ 12 0.7 5 $5-5-4$ 12 0.7 5 $5-5-4$ 12 0.7 5 $5-5-4$ 12 1.5 6 $7-10-10$ 27 0.5 7 $9-7-11$ 24 0.6 8 $8-10-8$ 24 1.5 <t< td=""><td>$\begin{array}{c} 5 & 100 \\ 3 & 53 \\ 5 & 100 \\ 5 & 100 \\$</td><td></td><td>Image: Sand and Close to demblack, fill. Image: Sand and Close to demblack, fill.</td><td>1.0'/EI. 77 RAVEL, little Clay, contains slag, very dense, bgeneous, poorly graded, angular, black brown, fil 4.5'/EI. 77 LAY, some Gravel, contains rock fragments, se, wet, heterogeneous, well graded, angular, bro</td><td>a-1-b / sp an a-2-6 / sc a-6 / cl 4.0 a-1-b / sw a-1-b / sw</td><td>22.5 24.0 25.5 27.0 28.5 30.0 31.5 33.0 34.5 36.0 37.5 37.7 39.7 42.2</td><td>S-2 2 S-3 1 S-3 1 S-4 1 S-5 1 S-6 2 S-7 3 S-7 3 S-7 1 S-7 1 S-7 1 S-10 1 S-11 1 S-12 1 S-13 1 S-14 1 S-15 1 S-16 1 S-17 1 S-18 1 S-17 1 S-18 1 S-19 1 S-20 1 S-21 1 S-22 1 S-23 1 S-24 1 S-25 1 R-1 1 R-2 1 R-3 1 R-4 1</td><td>15-9-6 6-8-6 7-17-11 8-8-9 6-18-7 7-6-6 8-11-13 4-4-4 3-3-3 3-2-3 5-3-1 1.00 1-1-2 0.50 1-1-4 1.00 6-8-5 17-12-7 7-25-11 15-18-9 13-19-13 12-11-20 13-24-23 13-46-15 8-9-27 50/.2'</td><td>1081.5200.0191.3371.5231.2330.6161.0321.5110.080.070.050.240.471.2171.1250.9481.5360.7431.5631.3811.5480.9>670.20%2.316%5.030%2.3</td><td>0 87 100 80 40 67 100 0 0 100 0 0 0 100 0 13 27 80 73 60 100 47 100 87 100 90 92 100 100 100 100 100 100 100 100</td><td></td></t<>	$ \begin{array}{c} 5 & 100 \\ 3 & 53 \\ 5 & 100 \\ 5 & 100 \\ $		Image: Sand and Close to demblack, fill. Image: Sand and Close to demblack, fill.	1.0'/EI. 77 RAVEL , little Clay, contains slag, very dense, bgeneous, poorly graded, angular, black brown, fil 4.5'/EI. 77 LAY , some Gravel, contains rock fragments, se, wet, heterogeneous, well graded, angular, bro	a-1-b / sp an a-2-6 / sc a-6 / cl 4.0 a-1-b / sw a-1-b / sw	22.5 24.0 25.5 27.0 28.5 30.0 31.5 33.0 34.5 36.0 37.5 37.7 39.7 42.2	S-2 2 S-3 1 S-3 1 S-4 1 S-5 1 S-6 2 S-7 3 S-7 3 S-7 1 S-7 1 S-7 1 S-10 1 S-11 1 S-12 1 S-13 1 S-14 1 S-15 1 S-16 1 S-17 1 S-18 1 S-17 1 S-18 1 S-19 1 S-20 1 S-21 1 S-22 1 S-23 1 S-24 1 S-25 1 R-1 1 R-2 1 R-3 1 R-4 1	15-9-6 6-8-6 7-17-11 8-8-9 6-18-7 7-6-6 8-11-13 4-4-4 3-3-3 3-2-3 5-3-1 1.00 1-1-2 0.50 1-1-4 1.00 6-8-5 17-12-7 7-25-11 15-18-9 13-19-13 12-11-20 13-24-23 13-46-15 8-9-27 50/.2'	1081.5200.0191.3371.5231.2330.6161.0321.5110.080.070.050.240.471.2171.1250.9481.5360.7431.5631.3811.5480.9>670.20%2.316%5.030%2.3	0 87 100 80 40 67 100 0 0 100 0 0 0 100 0 13 27 80 73 60 100 47 100 87 100 90 92 100 100 100 100 100 100 100 100	



BORI	NG NUM		ARE	BORING	LOCATION : 262+75.0			ART: 12						IER: A		
DRILL				PMENT:	88.0 FT. L T .		SIZ	ISH: 12 E OF C		015 11	:30 AM VERTIC/ 0 FT.	AL SC			Y: 0.8 	BC
ACKE	RSOILS	S XLS T	N-NQ, AUT RACK RIC DR: DANIE	<u> </u>				374 IN. 		NG - El	_APSED T		<u> </u>			767
	ER & DI			NY: R. CRU	M		₹				LAPSED	TIME:	NR - 1	NR ¹		
ELEV.		GRAPHIC			IATERIAL SCRIPTION			AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT 	N 60/ %RQD	REC (ft.)	REC (%)	⊙ S(2(oil/f
		_0_0_0		Gravel, (cinder ogeneous, angu	s, foundry sand), ular, brown, fill.	very dense, 1.0'/El. 7	′66.8	a-1-a / 	1.5	S-1 S-2	12-40-7 6-6-9	63 20	0.8 1.3	53 87		
- 765 - 		_o_o_o _o_o_o o o o	fragments), homogeneo	medium dense	Silt, trace Sand, (to very dense, w , angular, mediur	sandstone et to moist,		A-6 / SC		S-3 S-4	2.50 19-15-15 3.50 15-17-18	40 47	1.5 1.4	100 93		
 - 76 0 -		 _ooo o	brown, fill. Class. on S- Water on roo		0'), N.M.C. = 18.6	%. 9.0'/El. 7	758 <u>8</u>		- 6.0 - 7.5	S-5 S-6	4.00 8-9-12 4.00 18-19-20	28 52	1.5 1.3	100 87		
 		ి 8 8 ం ం ం	moist, strati	fied (0.1-0.2' sa	Sand, little Silt, v ind and gravel lay ies, brown, alluvit	very stiff to hard, vers), gap graded			9.0 ·	S-7 S-8	3.50 18-13-13 2.50 8-10-15	35	1.3 1.2	87 80		
- 755 - - 7		0000 0000	angular, me						12.0 13.5	S-9 S-10	2.00 9-8-14 2.50 10-14-12	29 35	1.2	80 87		
									- 15.0- [16.5	S-11	3.00 10-8-9 2.50	23	1.2	80		l i i
- 750 - ⊻		0,0,0 0,0,0 0,0,0						a-6 / cl	- 18.0 19.5	S-12 S-13	10-8-9 1.25 7-8-7 2.50	23 20	1.0 1.1	67 73		
			Very rocky,	21.1-22.5'.					- 21.0 22.5	S-14 S-15	8-11-15 1.50 8-9-8	35 23	1.1 1.1	73 73		i
-745- 		ం సిని లి							24.0	S-16 S-17	8-14-9 <u>1.00</u> 8-13-9 1.00	31 29	1.0 1.5	67 100		
 - 740 -		०००० ००००				28.5%EL 7	739.3		25.9 27.0	<u>S-18</u> S-19	<u>50/.4</u> 9-13-9	<u>>67</u> 29	0.4 1.0	<u>100</u> 67		
			CLAY and S moist, homo fines, brown	ogeneous, gap	ravel, (sandstone graded, angular,	fragments), hard medium plastic	d,		28.5 - 30.0-	S-20 S-21	3.00 13-15-17 3.50 26-20-25	43 60	1.2 1.5	80 100		
 - 735 -						34.5'/El. 7	733 3	a-6 / cl	31.5	S-22 S-23	3.50 11-12-20 3.00 12-20-31	43 68	1.3 1.0	87 67		
				ry dense, wet, l	e Clay, (sandston homogeneous, w	e fragments),			_ 34.5 - 36.0	S-24 S-25	3.50 40-40-29 15-12-14	92 35	0.8	53 93		!
- 730 -								a-2-6 / gc	37.5 38.3 39.0 39.4	S-26 S-27	49-50/.3'	>67 >67	0.8	100		
			Coal fragme						40.5	S-28 S-29	20-31-24 27-48-29	73 103	0.8	53 80		, , , , , , , , , , , , , , , , , , ,
-725- -	- TOR 724.20		h .	ottom of S-29. .9' prior to corin	g.	43.6'/El. 7	724.2		43.5 43.6 - 44.5	S-30	50/.1'	>67 0% 0%	1.2 0.1 0.0 1.4	100 100 93		
 - 720 -			bedding wit	h flat dip, jointe	n hard, fresh, nar d, close to model ints, <i>rough surfac</i>	rate spacing, ver es, (RQD=0%).	עז		- 46.0 -	R-3		30%	3.0	100		
		<u></u>	to moderate spacing, sh	e bedding with f allow dip, tight	o medium grained ilat dip, jointed, cl joints, rough surfa	ose to medium	n				t <u>er:</u> Boring NO. shad	-	-		-	
VENGO 1			Soll, Clayey	, 47.7-47.5'.		49.0'/El. 7	718.8		Ŭ,	4VN CC	NO. Shad		nouto		Count	, .
PENNDOL GINT																
BORING LOG																
T STRUCTURE																
PENNDO																

	NG NUM			BORING LOCATION STATION: 263+70.0 OFFSET: 75.0 FT. LT.			RT: 12 SH: 12			:00 AM	E		ENC	Y: 0.	8 EF	Ra	
DBLE		Solid II	AND EQUI	PMENT: R-NX, AUTOMATIC,			E OF C 54 IN.	ORE:		VERTICA 0 FT.		ALE: 5 FT.	TO ELE		TIOI	N:	NG FT.
DRIL		RILLIN	G COMPAN	ROEBUCK IY: W. REAGLE						LAPSED T				0.0	hr.		
ELEV.		GRAPHIC		MATERIAL DESCRIPTION			AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)		Soil/I <u>20</u> ▲ S	Rocl 40	⊃ % k Re <u>60</u> (N ₆₀ 30
- 765 -			uniformly gra	Silt, medium dense, moist, homogene aded, non-plastic, dark gray, fill.	3.0'/EI. 76		a-2-4 / sm	1.5 3.0 -	S-1 S-2	10-7-4 3-5-5	15 13	0.5 0.0	33 0	\~ i-			
-760 -			CLAY, little homogeneou fill.	Sand, trace Gravel, very stiff to hard, n us, uniformly graded, high plastic fines	noist, , dark brow		a-6 / cl	4.5 6.0 - 7.5 9.0 -	S-3 S-4 S-5 S-6	11-12-10 2.50 6-8-9 14-21-18 4.00 19-15-14	29 23 52 39	1.5 1.0 1.2 1.0	100 67 80 67				
- 755 - - 755 -		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	dense, mois fines, dark b	ome Sand, trace Clay, trace Silt, mediu t, homogeneous, uniformly graded, me	10.5'/EI. 75 m dense te dium plast	D lic	A-2-6 / GC	10.5 12.0 13.5	S-7 S-8 S-9 S-10	5-8-9 10-14-16 <u>3.50</u> 10-6-3 2-6-5	23 40 12 15	1.0 1.5 0.8 0.8	67 100 53 53				
- 750 - ⊉		_o_o_o _o_o_o	dense, wet te	d CLAY, some Sand, medium dense to o moist, homogeneous, uniformly grad , brown, alluvium.	18.0'/El <i>.</i> 74 o very ed, mediui			16.5 18.0 - 19.5	S-11 S-12 S-13 S-14	6-9-13 10-10-10 <u>3.00</u> 11-13-21 21-17-21	29 27 45 51	1.0 1.0 1.1 0.8	67 67 73 53				
- 745 - - -			•					21.0 22.5 24.0 25.5	S-15 S-16 S-17	22-18-14 12-10-10 17-15-16	43 27 41	0.9 0.7 0.7	60 47 47				
- 740 - - -							a-1-b / gc	27.0 28.5 - 30.0-	S-18 S-19 S-20 S-21	16-13-13 15-15-12 47-26-22 13-9-12	35 36 64 28	1.0 0.8 1.0 0.9	67 53 67 60				
- 735 - - -					36.0'/El. 7	31.0		31.5 33.0 34.5	S-22 S-23 S-24	12-14-15 14-10-12 10-14-14	39 29 37	1.0 0.8 1.2	67 53 80			 	
- 730 -				d SAND, some Clay, dense to very de ogeneous, uniformly graded, brown, res			a-1-b / gc	36.0 37.5 39.0 40.5	S-25 S-26 S-27	13-11-12 44-25-20 18-21-28	31 60 65	0.8 0.9 0.7	53 60 47			, F	
- 725 - -	TOR 723.30		SANDSTON	E, gray, medium grained, medium har weathered, thin to moderate bedding w	43.7'/El. 7: d, áth flat dio			42.0 43.5 43.7	S-28 S-29 S-30 R-1	39-32-19 23-16-16 50/.2'	68 43 >67 0%	0.6 1.0 0.0 2.3	40 67 0 100		······································		
- -720 ·			apparent joi	nting, (RQD=30%). ations, 43.7-46.7'.	49.0'/ <u>EI. 7</u>			- 46.0	R-2		53%	3.0	100	/			
	7									<u>ter:</u> Boring NO. shadi	-	-		-			rme

