

MSE WALL NOTES:

1. DESIGN CRITERIA
 PROPRIETARY MSE WALLS SHALL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING:
 -2007 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, INCLUDING 2008 AND 2009 INTERIMS
 -2005 DELDOT BRIDGE DESIGN MANUAL
 -FEDERAL HIGHWAY ADMINISTRATION PUBLICATION NO. FHWA-NHI-00-043, "MECHANICALLY STABILIZED EARTH WALLS AND REINFORCED SOIL SLOPES DESIGN AND CONSTRUCTION GUIDE".
2. CONCRETE
 ALL CONCRETE PROPERTIES SHALL BE IN ACCORDANCE WITH SECTION 812 OF THE DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

 CLASS A - MSE WALL PANELS AND PARAPETS (f'c=4,500 PSI).

 CLASS B - MSE WALL LEVELING PAD (f'c=3,000 PSI).

 CLASS D - MOMENT SLABS (f'c=4,500 PSI).

 ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4", UNLESS NOTED OTHERWISE.
3. REINFORCING STEEL
 ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM A615), GRADE 60 AND SHALL BE PROTECTED WITH FUSION BONDED EPOXY, CONFORMING TO AASHTO M 284 (ASTM A775).
4. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE 2" UNLESS NOTED OTHERWISE.

 THE MSE WALL MANUFACTURER MAY SUBSTITUTE ALTERNATE REINFORCING CONFIGURATIONS AND SUBMIT FOR APPROVAL.
5. ARCHITECTURAL FINISH
 COMPONENTS OF THE MSE WALL SHALL HAVE THE ARCHITECTURAL TREATMENT AS SPECIFIED IN THE SPECIAL PROVISION FOR ITEM 602772.
6. LEVELING PAD
 THE LEVELING PAD STEPS MAY BE RELOCATED AT THE DISCRETION OF THE PROPRIETARY WALL MANUFACTURER PROVIDED THAT THE MINIMUM EMBEDMENT IS MAINTAINED IN ACCORDANCE WITH THE SPECIFIED DESIGN CRITERIA. ANY CHANGES TO THE STEP LOCATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
7. BACKFILL AND FOUNDATION SOILS
 MSE WALL BACKFILL SHALL CONSIST OF SELECT BACKFILL AND MEET THE REQUIREMENTS PROVIDED IN THE SPECIAL PROVISIONS. FOR ADDITIONAL REQUIREMENTS OF MSE WALL BACKFILL AND FOUNDATION SOILS, SEE SOIL PROPERTIES TABLE ON THIS SHEET.
8. INTERNAL STABILITY
 THE INTERNAL STABILITY OF THE MSE WALL SHALL BE DESIGNED BY THE PROPRIETARY WALL MANUFACTURER USING THE SOIL PROPERTIES PROVIDED AT EACH WALL LOCATION. THE INTERNAL STABILITY CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF DELEWARE AS INDICATED IN THE PROJECT SPECIFICATIONS.
9. QUARANTINE PERIOD
 SEE BRIDGE NO. 1-433 DWG. NO. AB-02 FOR QUARANTINE PERIOD AND SETTLEMENT MONITORING REQUIREMENTS ASSOCIATED WITH THIS STRUCTURE.
10. SETTLEMENT REQUIREMENTS
 THE CONTRACTOR AND MSE WALL MANUFACTURER SHALL DESIGN AND CONSTRUCT THE FINAL WALL FACING SUCH THAT THE FINAL WALL FACING IS AT THE REQUIRED ELEVATIONS AFTER SETTLEMENT IS ACHIEVED. THE ANTICIPATED SETTLEMENT IS 4 INCHES AT THE FACE OF THE WALL.
11. SERVICE LIFE
 ALL RETAINING WALL COMPONENTS SHALL BE DESIGNED FOR A MINIMUM SERVICE LIFE OF 100 YEARS.
12. WALL SYSTEM
 ONLY ONE WALL SYSTEM MAY BE USED ON THIS PROJECT.
13. TRAFFIC BARRIER JOINTS
 TRAFFIC BARRIER FOOTING / MOMENT SLABS SHALL HAVE CONSTRUCTION JOINTS TO COINCIDE WITH THE PARAPET AND ROADWAY PAVEMENT JOINTS.
14. EXPANSION AND CONTRACTION JOINTS
 THE LOCATION OF THE EXPANSION AND CONTRACTION JOINTS IN THE PARAPET / MOMENT SLAB SHOWN ON THE PLANS ARE LOCATED TO ALIGN WITH ROADWAY PAVEMENT JOINTS. ANY CHANGE TO THESE JOINT LOCATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
15. COORDINATION
 CONTRACTOR AND PROPRIETARY WALL MANUFACTURER SHALL COORDINATE LOCATIONS OF DRAINAGE INLETS AND PIPES WITH LOCATIONS OF PROPRIETARY WALL TIE BACK SYSTEM AND MOMENT SLAB.

SOIL PROPERTIES			
SOIL TYPE	UNIT WEIGHT (PCF)	DRAINED ANGLE OF FRICTION (DEGREES)	UNDRAINED SHEAR (PSF)
SELECT BACKFILL	125	34° (MIN.)	0
IN-SITU FOUNDATION SOIL	120	30°	0
RETAINED FILL	120	30°	0

RETAINING WALL RW1-3 INDEX OF SHEETS		
SHEET NO.	DWG. NO.	TABLE OF CONTENTS
300	PN-01	PROJECT NOTES
301	GL-01	GEOMETRIC LAYOUT
302	PE-01	GENERAL PLAN AND ELEVATION - 1
303	PE-02	GENERAL PLAN AND ELEVATION - 2
304	PE-03	GENERAL PLAN AND ELEVATION - 3
305	PE-04	GENERAL PLAN AND ELEVATION - 4
306	RD-01	MSE WALL TYPICAL SECTIONS
307	MS-01	MOMENT SLAB PLAN - 1
308	MS-02	MOMENT SLAB PLAN - 2
309	MS-03	MOMENT SLAB PLAN - 3
310	MS-04	MOMENT SLAB PLAN - 4
311	MS-05	MOMENT SLAB PLAN - 5
312	MS-06	MOMENT SLAB PLAN - 6
313	MS-07	MOMENT SLAB PLAN - 7
314	MS-08	MOMENT SLAB REINFORCEMENT DETAILS - 1
315	MS-09	MOMENT SLAB REINFORCEMENT DETAILS - 2
316	MS-10	MOMENT SLAB REINFORCEMENT DETAILS - 3
317	MS-11	MOMENT SLAB REINFORCEMENT DETAILS - 4
318	MS-12	MOMENT SLAB REINFORCEMENT SECTION - 1
319	MS-13	MOMENT SLAB REINFORCEMENT SECTION - 2
320	MS-14	MOMENT SLAB MODIFICATION DETAILS - 1
321	MS-15	MOMENT SLAB MODIFICATION DETAILS - 2
322	BR-01	MOMENT SLAB REINFORCEMENT BAR LIST
323	BO-01	BORING PROFILE - 1
324	BO-02	BORING PROFILE - 2
325	BO-03	BORING PROFILE - 3
326	BO-04	BORING PROFILE - 4

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AUGUST 2015

QUANTITY SUMMARY			
ITEM NO.	ITEM DESCRIPTION	UNITS	QUANTITY
302012	DELAWARE NO. 57 STONE	TON	300
602017	PORTLAND CEMENT CONCRETE MASONRY, PARAPET, CLASS A	CY	115
602018	PORTLAND CEMENT CONCRETE MASONRY, CLASS D	CY	500
602772	MECHANICALLY STABILIZED EARTH WALLS	LS	1
604000	BAR REINFORCEMENT, EPOXY COATED	LB	94,220
760015	RUMBLE STRIPS, CONCRETE, SHALLOW DEPTH	LF	904

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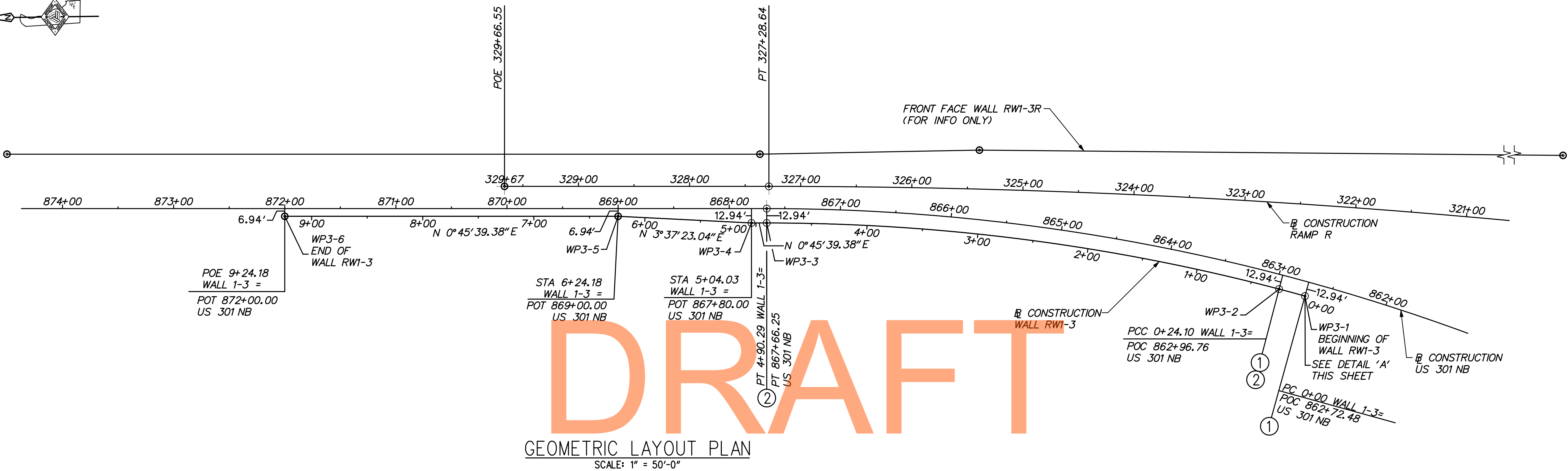
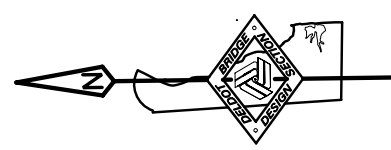


ADDENDUMS / REVISIONS

US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	KGD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

PROJECT NOTES	SHEET NO.	300
	TOTAL SHTS.	491
	RW1-3 PN-01	

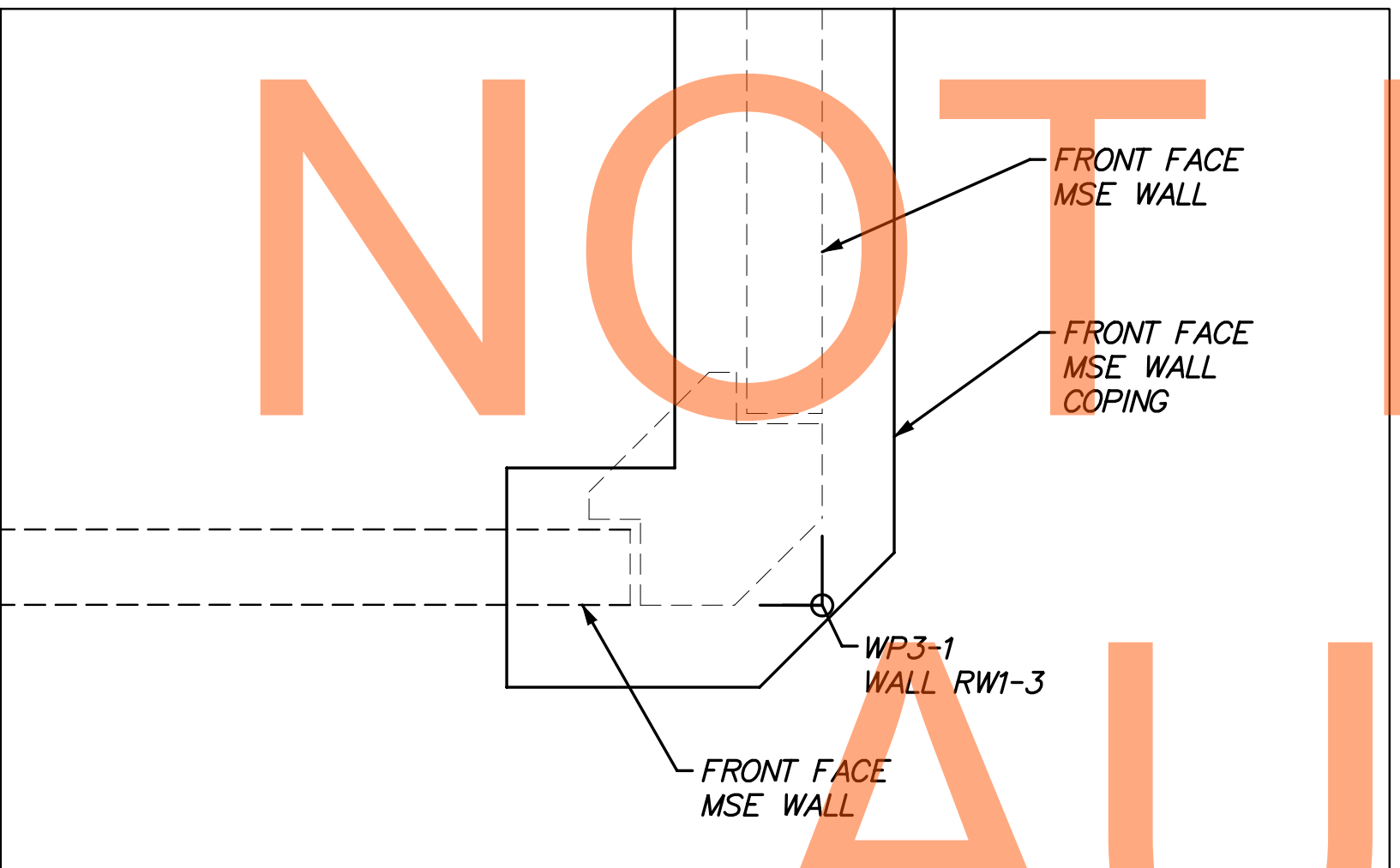


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GEOMETRIC LAYOUT PLAN
SCALE: 1" = 50'-0"

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AUGUST 2015



DETAIL 'A'
SCALE: 1" = 1'-0"

WORKING POINT COORDINATES			
WORKING POINT	BL CONSTRUCTION WALL RW1-3	COORDINATES	
		NORTHING	EASTING
WP3-1	STA. 0+00.00	557463.8239	590463.2145
WP3-2	STA. 0+24.10	557487.0131	590469.7942
WP3-3	STA. 4+90.29	557947.2681	590535.3867
WP3-4	STA. 5+04.03	557961.0133	590535.5692
WP3-5	STA. 6+24.18	558080.9230	590543.1623
WP3-6	STA. 9+24.18	558380.8966	590547.1465

CIRCULAR CURVE NO. 1 - BL CONSTRUCTION WALL RW1-3			
		NORTHING	EASTING
PC (WP3-1)	0+00.00	557463.8239	590463.2145
PI	0+12.05	557475.3967	590466.5812
CC		557971.3996	588718.4844
PCC (WP3-2)	0+24.10	557487.0131	590469.7942
RADIUS:	1817.0625		
DELTA:	0° 45' 36.2631" LEFT		
DEGREE OF CURVATURE (ARC):	3° 09' 11.5526"		
LENGTH:	24.1047		
TANGENT:	12.0526		
CHORD:	24.1046		
MIDDLE ORDINATE:	0.0400		
EXTERNAL:	0.0400		
TANGENT DIRECTION:	N 16° 13' 14.6407" E		
RADIAL DIRECTION:	S 73° 46' 45.3595" E		
CHORD DIRECTION:	N 15° 50' 26.5091" E		
RADIAL DIRECTION:	S 74° 32' 21.6226" E		
TANGENT DIRECTION:	N 15° 27' 38.3775" E		

CIRCULAR CURVE NO. 2 - BL CONSTRUCTION WALL RW1-3			
		NORTHING	EASTING
PC (WP3-2)	0+24.10	557487.0131	590469.7942
PI	2+58.48	557712.9103	590532.2740
CC		557971.3996	588718.4844
PCC (WP3-3)	4+90.29	557947.2681	590535.3867
RADIUS:	1817.0625		
DELTA:	14° 41' 59.0023" LEFT		
DEGREE OF CURVATURE (ARC):	3° 09' 11.5526"		
LENGTH:	466.1829		
TANGENT:	234.3785		
CHORD:	464.9054		
MIDDLE ORDINATE:	14.9299		
EXTERNAL:	15.0536		
TANGENT DIRECTION:	N 15° 27' 38.3775" E		
RADIAL DIRECTION:	S 74° 32' 21.6226" E		
CHORD DIRECTION:	N 8° 06' 38.8763" E		
RADIAL DIRECTION:	S 89° 14' 20.6247" E		
TANGENT DIRECTION:	N 0° 45' 39.3753" E		

NOTES:

1. THE BL CONSTRUCTION WALL RW1-3 IS ALONG FRONT FACE OF MSE WALL PANELS.
2. FOR WALL RW1-3 PLAN AND ELEVATIONS, SEE DWG. NOS. PE-01 THROUGH PE-04.
3. WALL 1-3 WORKING POINT OFFSETS ARE PERPENDICULAR TO BL CONSTRUCTION US 301 NB.
4. FOR ADDITIONAL BRIDGE 1-433 GEOMETRIC DETAILS, SEE DWG. NO. FT-02.

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ADDENDUMS / REVISIONS	

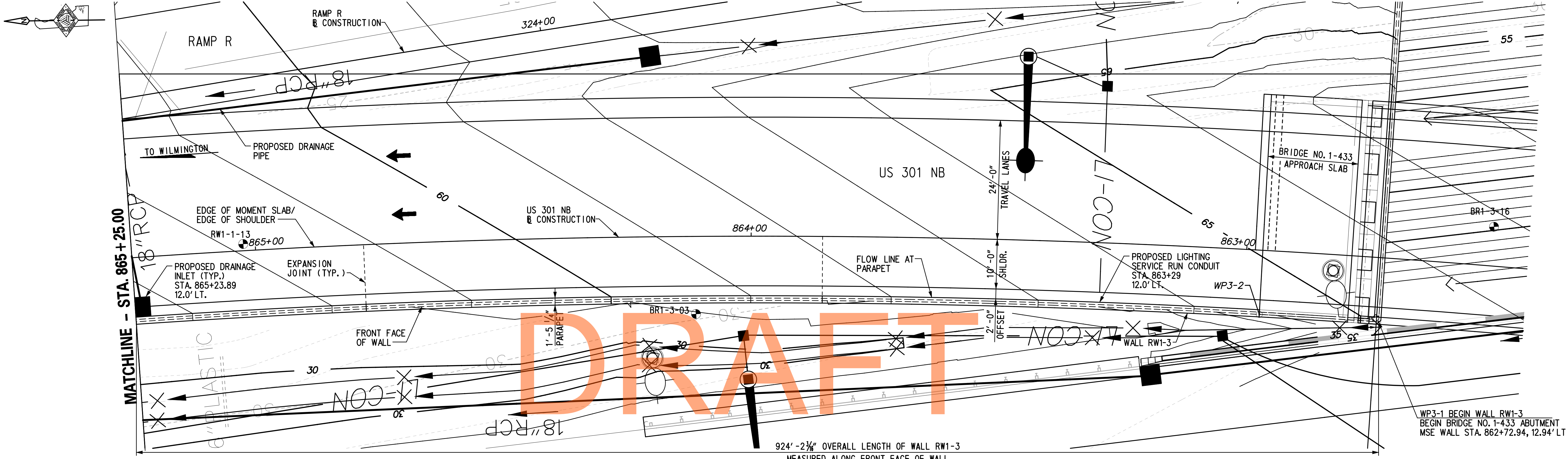
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US 301 & SR 1 INTERCHANGE

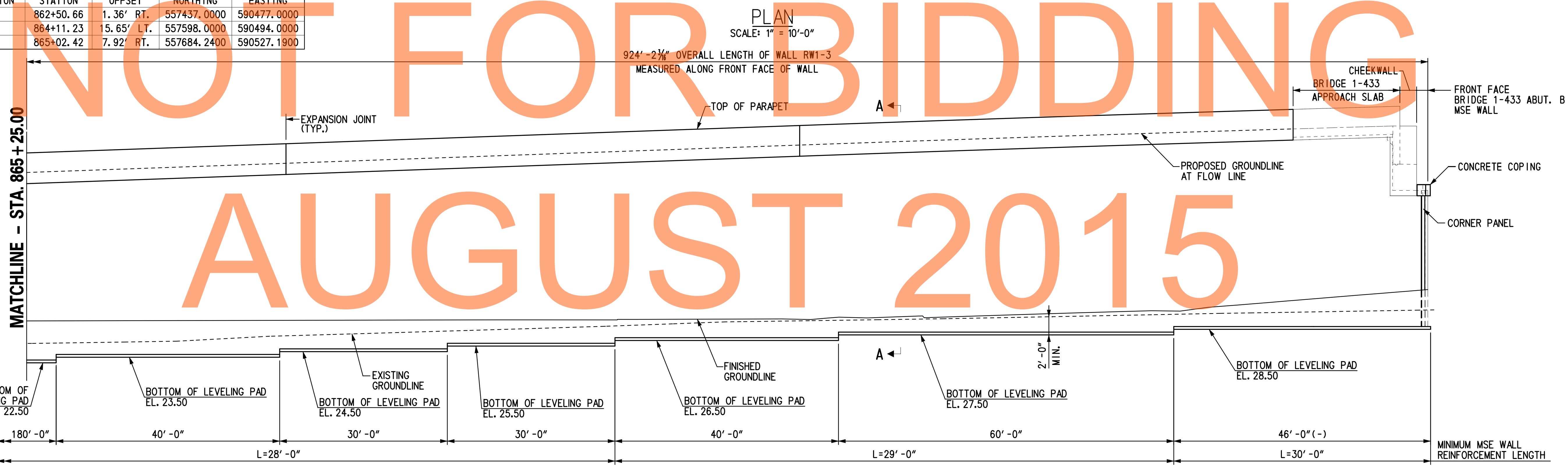
CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	KGD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

GEOMETRIC LAYOUT PLAN

RW1-3	SHEET NO.
GL-01	301
	TOTAL SHTS.
	491



TEST BORINGS				
BORING DESIGNATION	STATION	OFFSET	NORTHING	EASTING
BR1-3-16	862+50.66	1.36' RT.	557437.0000	590477.0000
BR1-3-03	864+11.23	15.65' LT.	557598.0000	590494.0000
RW1-3-13	865+02.42	7.92' RT.	557684.2400	590527.1900



- NOTES:**
- FOR ADDITIONAL ABUTMENT INFORMATION AND DETAILS, SEE BRIDGE 1-433 DWG. NO. AB-05.
 - RW1-3 MOMENT SLAB EXPANSION JOINTS SHALL ALIGN WITH ADJACENT ROADWAY PAVEMENT JOINTS, SEE RDWY DWG. NOS. EX-01 THROUGH EX-10.
 - FOR WALL RW1-3 LAYOUT INFORMATION AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
 - FOR ADDITIONAL INFORMATION ON MOMENT SLABS INCLUDING TYPICAL SECTION, REINFORCEMENT DETAILS AND NOTES, SEE DWG. NOS. RD-01 AND MS-01 THROUGH MS-15.

- REFERENCES:**
- FOR PROJECT NOTES, SEE DWG. NO. PN-01.
 - FOR GEOMETRIC LAYOUT, SEE DWG. NO. GL-01.
 - FOR SECTION A-A, SEE DWG. NO. RD-01.



ADDENDUMS / REVISIONS	

SCALE: AS NOTED

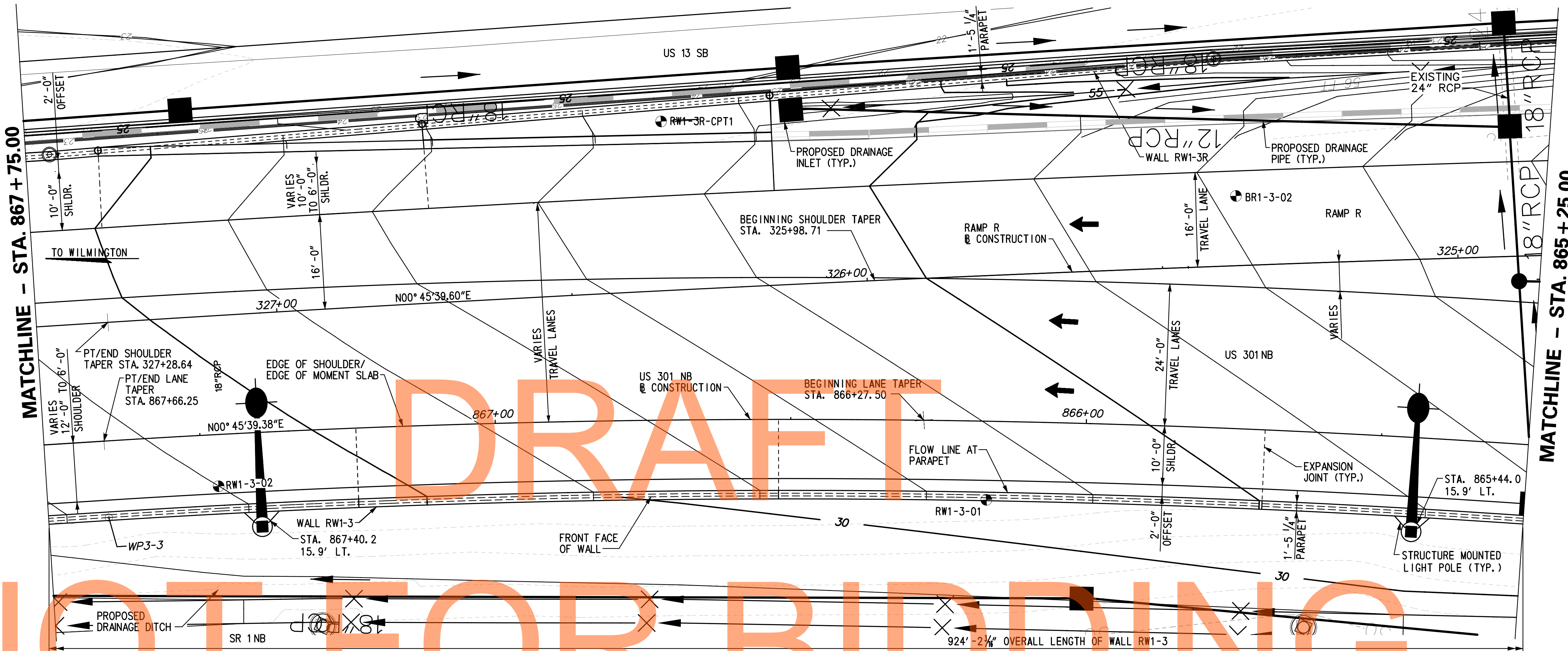
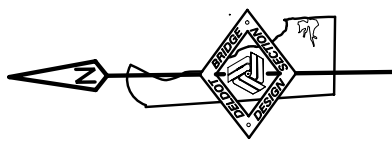
US 301 & SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	KGD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

GENERAL PLAN & ELEVATION - 1

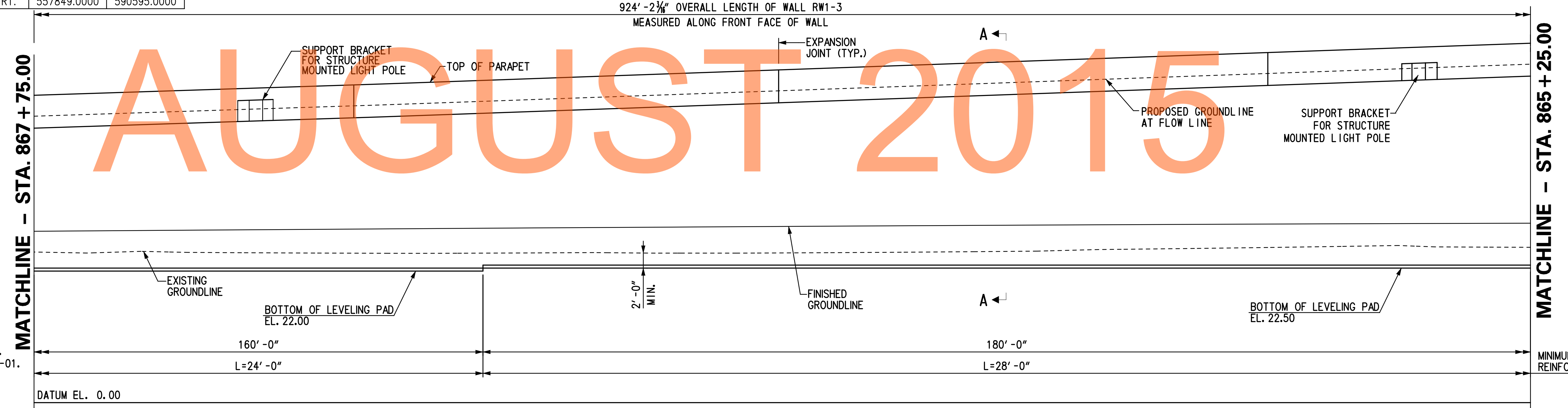
RW1-3 PE-01
SHEET NO.
302
TOTAL SHTS.
491

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PLAN
SCALE: 1" = 10'-0"

TEST BORINGS				
BORING DESIGNATION	STATION	OFFSET	NORTHING	EASTING
BR1-3-02	865+76.26	39.32' RT.	557753.0000	590575.0000
RW1-3-01	866+16.64	13.29' LT.	557799.0000	590527.1900
RW1-3-02	867+47.29	8.74' LT.	557928.3400	590539.2330
RW1-3R-CPT1	869+71.36	50.50' RT.	557849.0000	590595.0000



ELEVATION
SCALE: 1" = 10'-0"

REFERENCES:

1. FOR PROJECT NOTES, SEE DWG. NO. PN-01.
2. FOR GEOMETRIC LAYOUT, SEE DWG. NO. GL-01.
3. FOR SECTION A-A, SEE DWG. NO. RD-01.

NOTES:

1. FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
2. RW1-3 MOMENT SLAB EXPANSION JOINTS SHALL ALIGN WITH ADJACENT ROADWAY PAVEMENT JOINTS, SEE RDWY DWG. NOS. EX-01 THROUGH EX-10.



ADDENDUMS / REVISIONS	

SCALE: AS NOTED

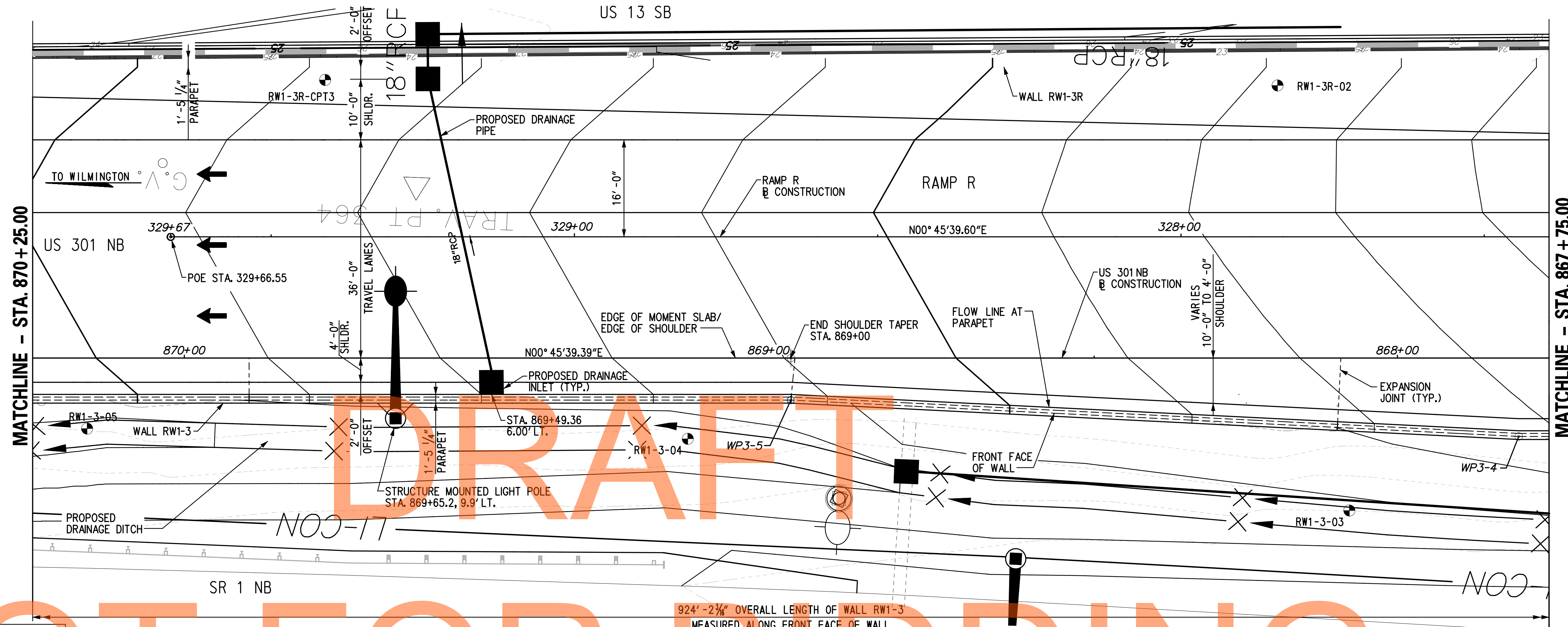
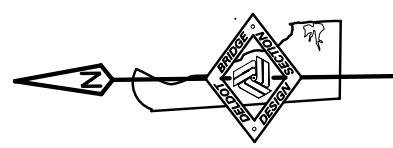
US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	KGD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

**GENERAL PLAN
& ELEVATION - 2**

RW1-3 PE-02
SHEET NO.
303
TOTAL SHTS.
491

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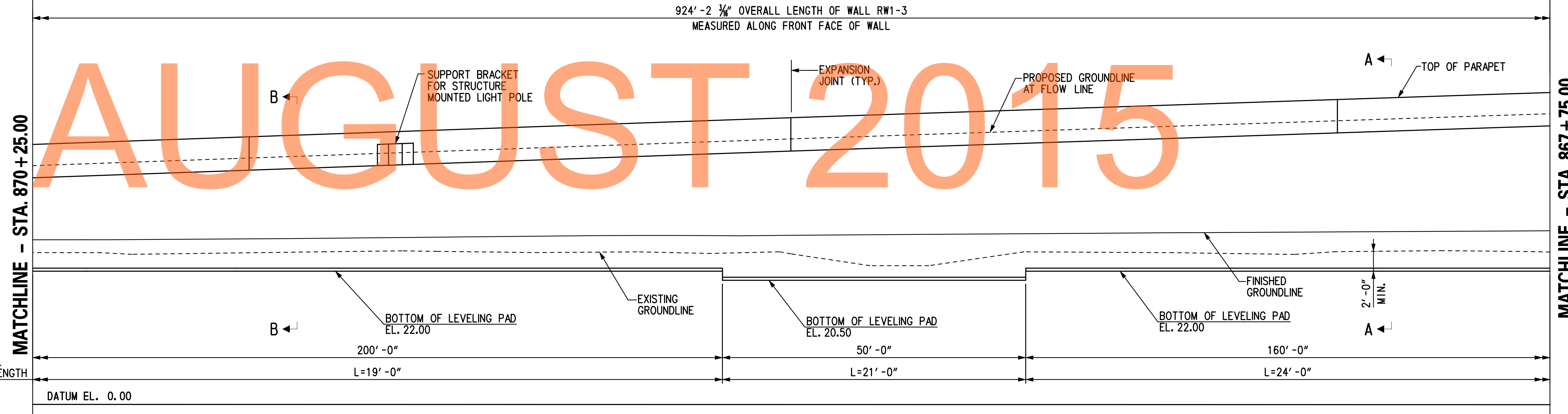


TEST BORINGS				
BORING DESIGNATION	STATION	OFFSET	NORTHING	EASTING
BR1-3-03	868+07.72	25.16 LT.	557989.0900	590523.7200
RW1-3-02	868+19.76	44.97 RT.	558000.0000	590594.0000
RW1-3-04	869+16.99	13.33' LT.	558098.0000	590537.0000
RW1-3-05	870+16.02	11.64' LT.	558197.0000	590540.0000
RW1-3R-CPT3	869+76.79	45.89' RT.	558157.0000	590597.0000

924' - 2 3/4" OVERALL LENGTH OF WALL RW1-3
MEASURED ALONG FRONT FACE OF WALL

PLAN
SCALE: 1" = 10'-0"

924' - 2 3/8" OVERALL LENGTH OF WALL RW1-3
MEASURED ALONG FRONT FACE OF WALL



ELEVATION
SCALE: 1" = 10'-0"

- REFERENCES:**
- FOR PROJECT NOTES, SEE DWG. NO. PN-01.
 - FOR GEOMETRIC LAYOUT, SEE DWG. NO. GL-01.
 - FOR SECTIONS A-A AND B-B, SEE DWG. NO. RD-01.

- NOTES:**
- FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
 - RW1-3 MOMENT SLAB EXPANSION JOINTS SHALL ALIGN WITH ADJACENT ROADWAY PAVEMENT JOINTS, SEE RDWY DWG. NOS. EX-01 THROUGH EX-10.

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ADDENDUMS / REVISIONS

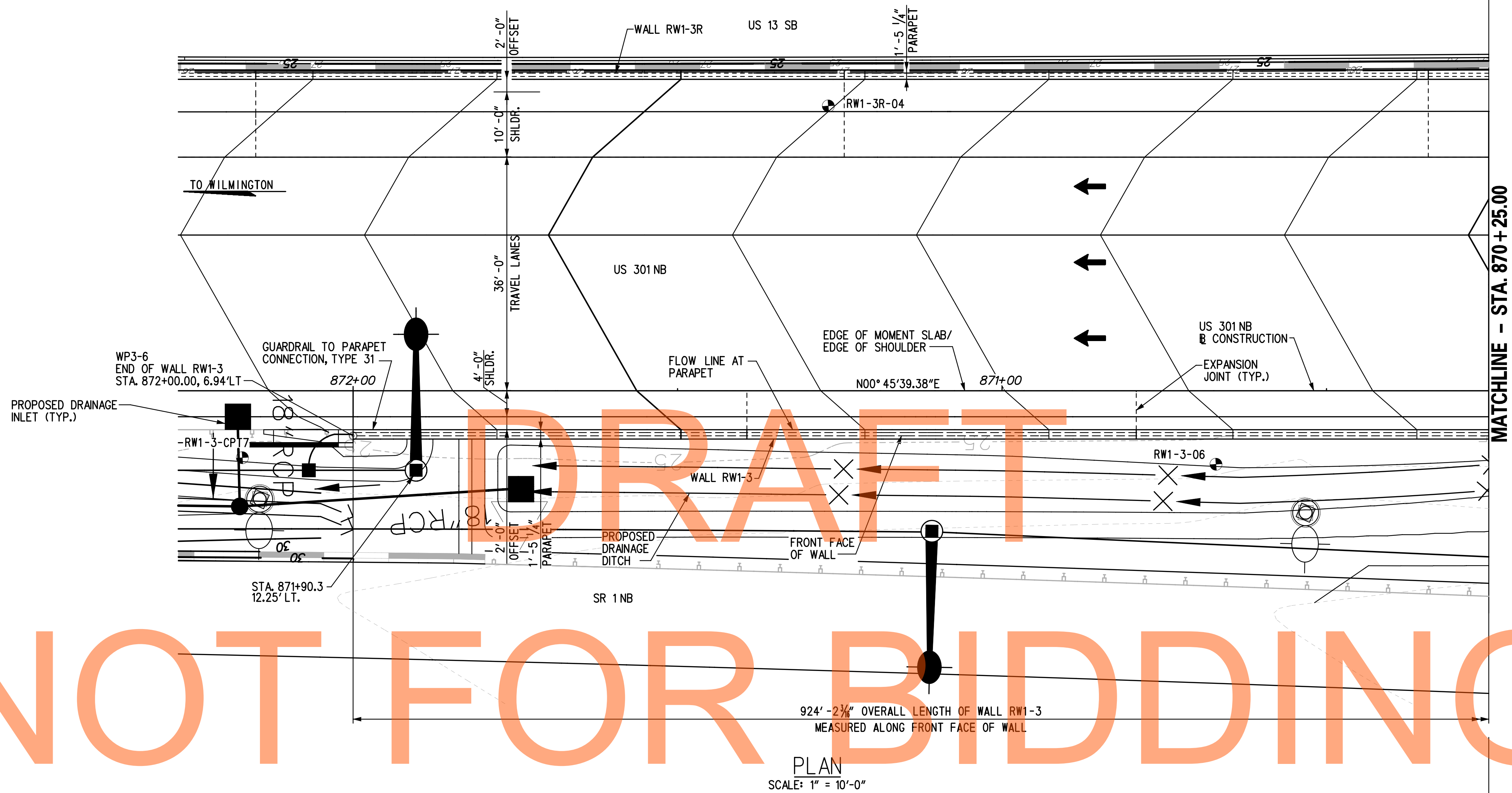
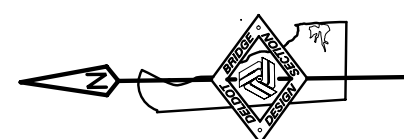
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US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	KGD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

**GENERAL PLAN
& ELEVATION - 3**

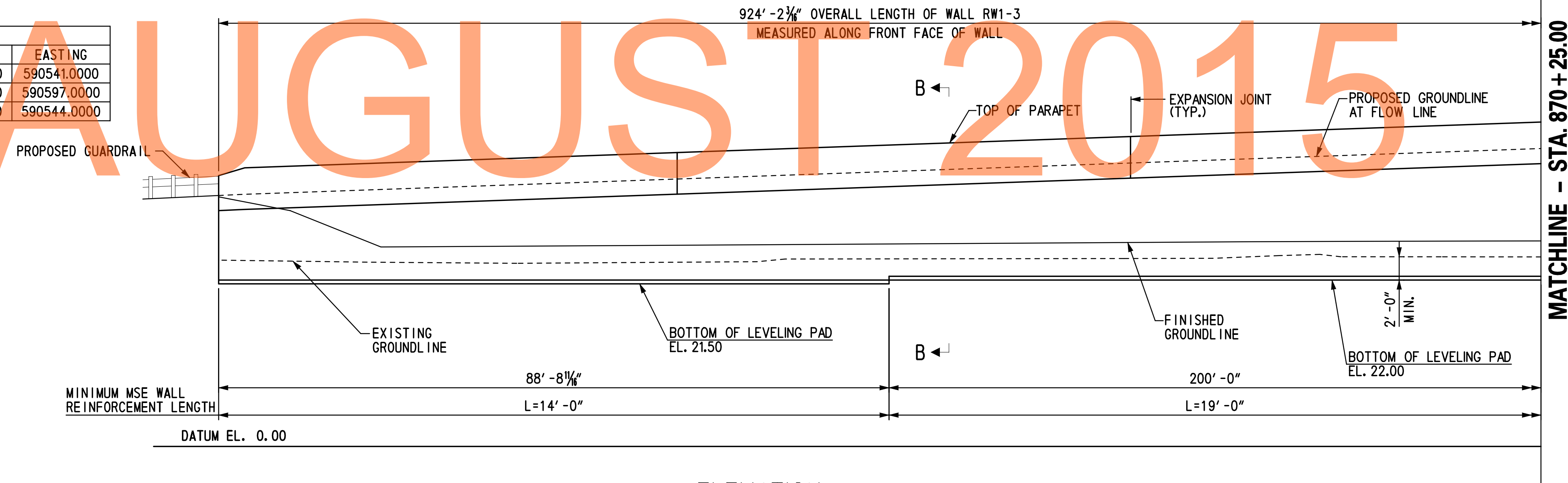
RW1-3 PE-03
SHEET NO.
304
TOTAL SHTS.
491



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PLAN
SCALE: 1" = 10'-0"

TEST BORINGS				
BORING DESIGNATION	STATION	OFFSET	NORTHING	EASTING
RW1-3-06	870+67.03	11.32' LT.	558248.0000	590541.0000
RW1-3R-04	871+26.77	43.89' RT.	558307.0000	590597.0000
RW1-3-CPT7	872+17.06	10.31' LT.	558398.0000	590544.0000



ELEVATION
SCALE: 1" = 10'-0"

REFERENCES:

- FOR PROJECT NOTES, SEE DWG. NO. PN-01.
- FOR GEOMETRIC LAYOUT, SEE DWG. NO. GL-01.
- FOR SECTION B-B, SEE DWG. NO. RD-01.

NOTES:

- FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
- FOR ADDITIONAL INFORMATION ON MOMENT SLABS INCLUDING TYPICAL SECTION, REINFORCEMENT, DETAILS AND NOTES, SEE DWG. NOS. RD-01, MS-01 THROUGH MS-15.
- RW1-3 MOMENT SLAB EXPANSION JOINTS SHALL ALIGN WITH ADJACENT ROADWAY PAVEMENT JOINTS, SEE RDWY DWG. NOS. EX-01 THROUGH EX-10.



ADDENDUMS / REVISIONS	

SCALE: AS NOTED

US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	KGD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

GENERAL PLAN & ELEVATION - 4

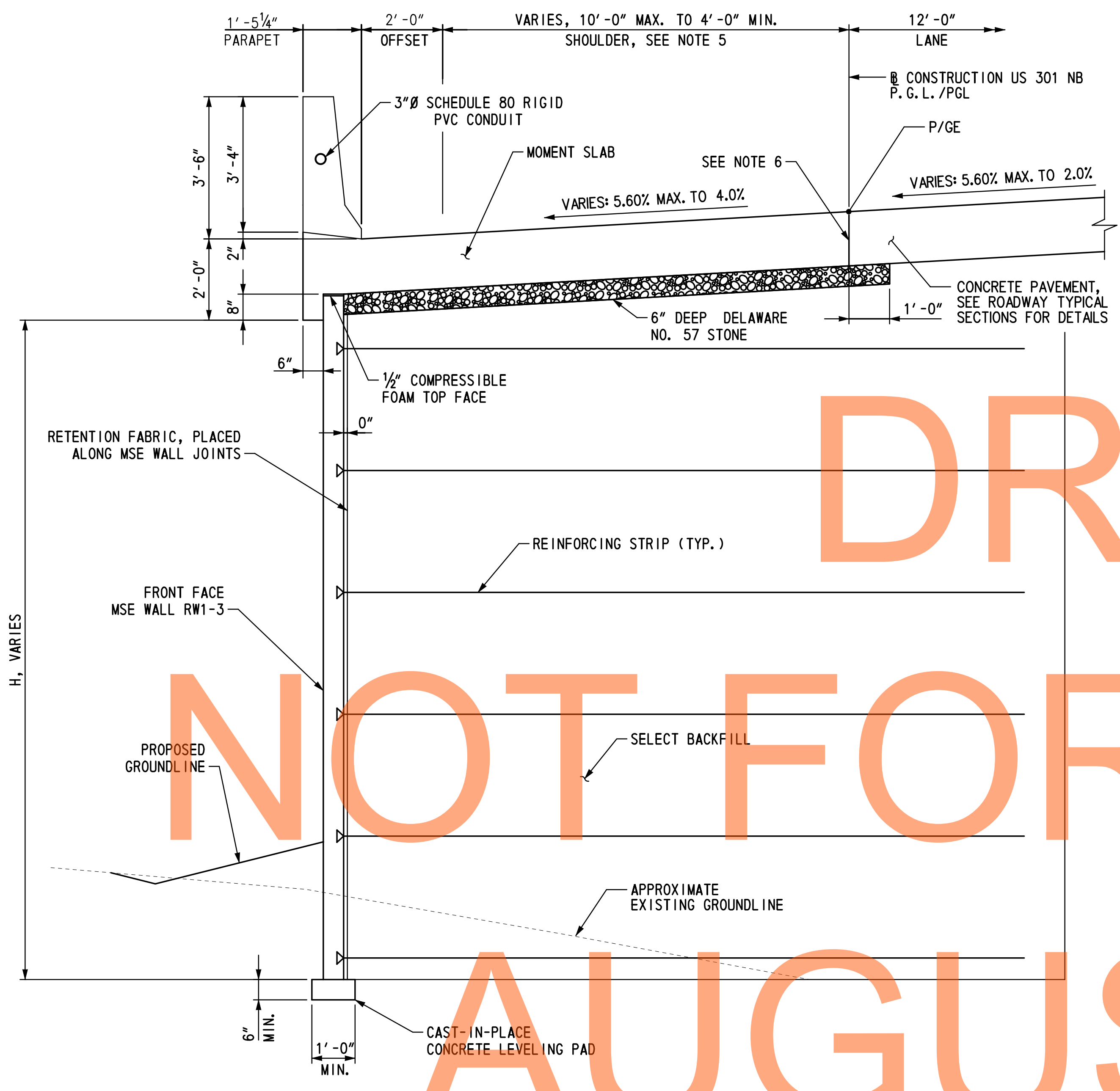
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SHEET NO.
305
TOTAL SHTS.
491

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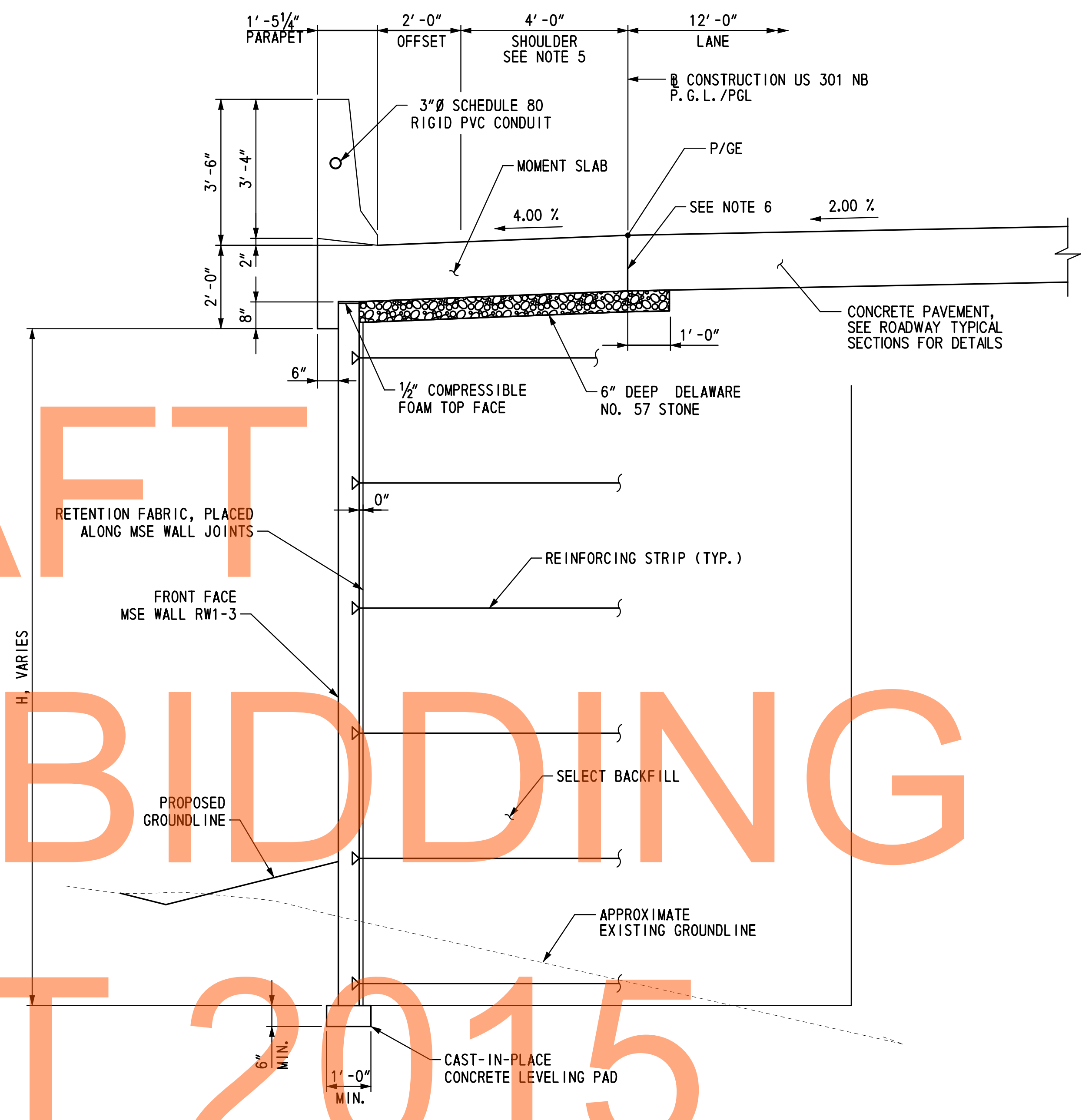
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AUGUST 2015



SECTION A-A
SCALE: 1/2"=1'-0"



SECTION B-B
SCALE: 1/2"=1'-0"

NOTES:

- FOR LOCATION OF SECTIONS A-A AND B-B, SEE DWG. NOS. PE-01 THRU PE-04.
- FOR MSE WALL NOTES AND SOIL PROPERTIES, SEE DWG. NO. PN-01.
- FOR ROADWAY TYPICAL SECTIONS, SEE DWG. NOS. TS-02 AND TS-03.
- PAYMENT FOR CONSTRUCTION OF MOMENT SLABS SHALL BE MADE UNDER ITEM 602018 - PORTLAND CEMENT MASONRY CLASS D. PAYMENT FOR PREFORMED JOINT FILLER, DOWEL BARS AND METAL EXPANSION SLEEVES SHALL BE INCIDENTAL TO THIS ITEM.
- RUMBLE STRIPS SHALL BE LOCATED IN THE MOMENT SLAB ADJACENT TO THE SHOULDER. FOR RUMBLE STRIP DETAIL, SEE DWG. NO. DT-01.
- PRIOR TO PLACING MOMENT SLAB CONCRETE ADJACENT TO EXISTING CONCRETE PAVEMENT, OR PRIOR TO PLACING CONCRETE PAVEMENT ADJACENT TO EXISTING MOMENT SLAB CONCRETE, AN APPROVED BOND BREAKER SHALL BE APPLIED TO THE EXISTING CONCRETE VERTICAL FACE. THIS LONGITUDINAL JOINT AT THE INTERFACE BETWEEN THE CONCRETE PAVEMENT AND THE MOMENT SLAB CONCRETE SHALL NOT BE SEALED. VERTICAL CRACKS IN THE EXISTING CONCRETE FACE SHALL BE COVERED OR SEALED AS APPROVED BY THE ENGINEER TO PREVENT INTRUSION OF THE NEW CONCRETE INTO THE EXISTING CONCRETE. ALL WORK SHALL BE INCIDENTAL TO ITEM NO. 602018 - PORTLAND CEMENT CONCRETE MASONRY, CLASS D.
- REFLECTORS SHALL BE INSTALLED ALONG PARAPET (ROADWAY ITEM). FOR DETAILS, SEE DWG. NO. DT-05.

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ADDENDUMS / REVISIONS	

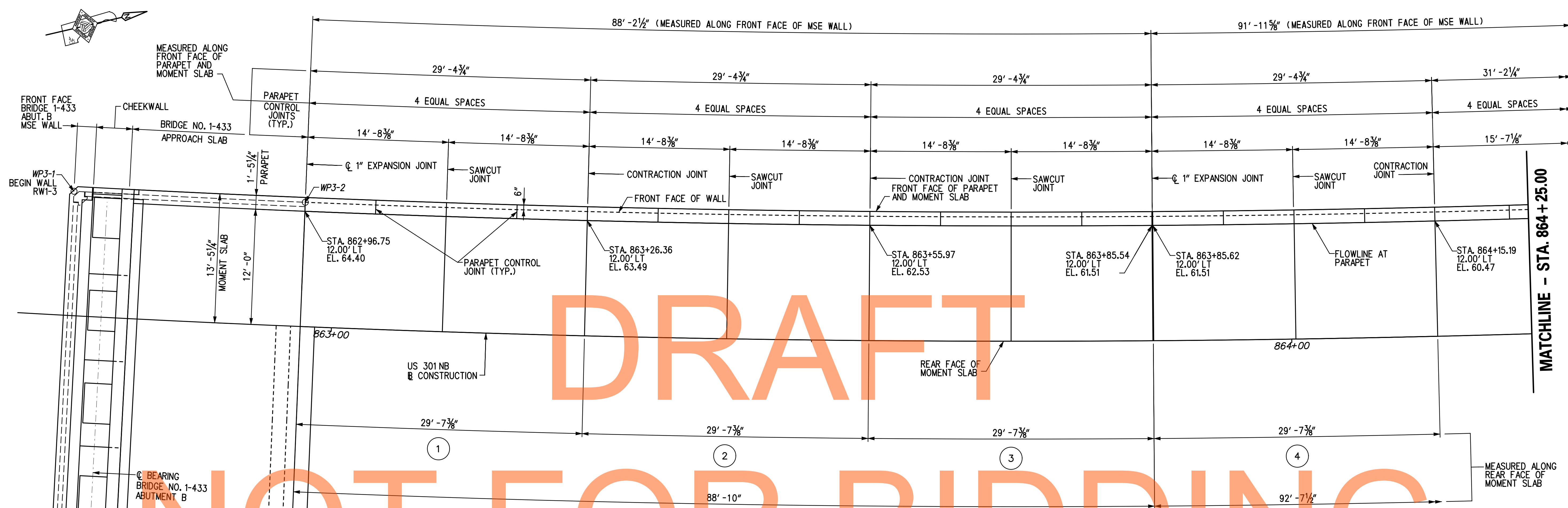
SCALE: AS NOTED

US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	KMG
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

**MSE WALL
TYPICAL SECTIONS**

RW1-3 RD-01
SHEET NO.
306
TOTAL SHTS.
491



DRAFT

NOT FOR BIDDING

AUGUST 2015

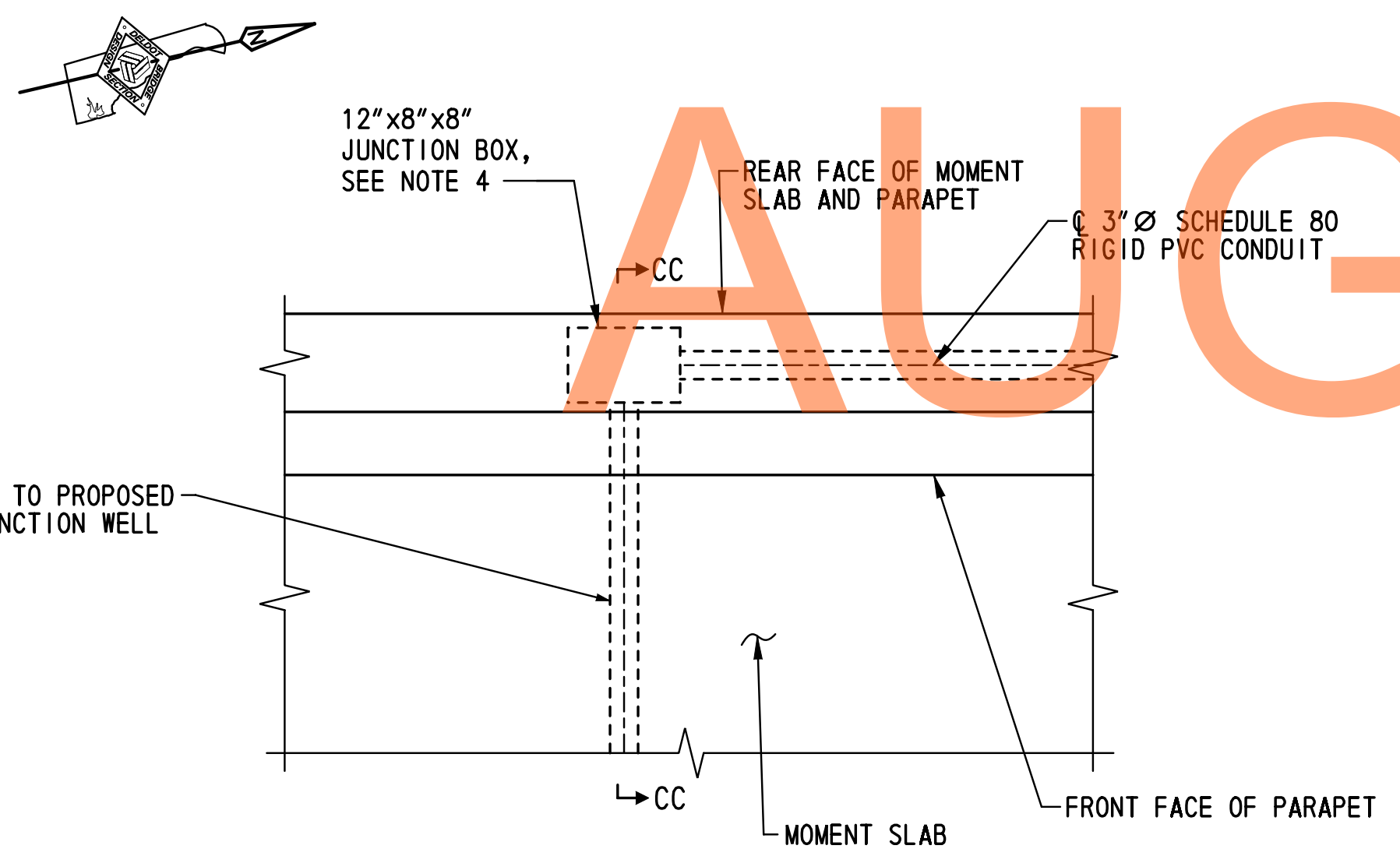
PLAN
SCALE: 3/16" = 1'-0"

LEGEND:

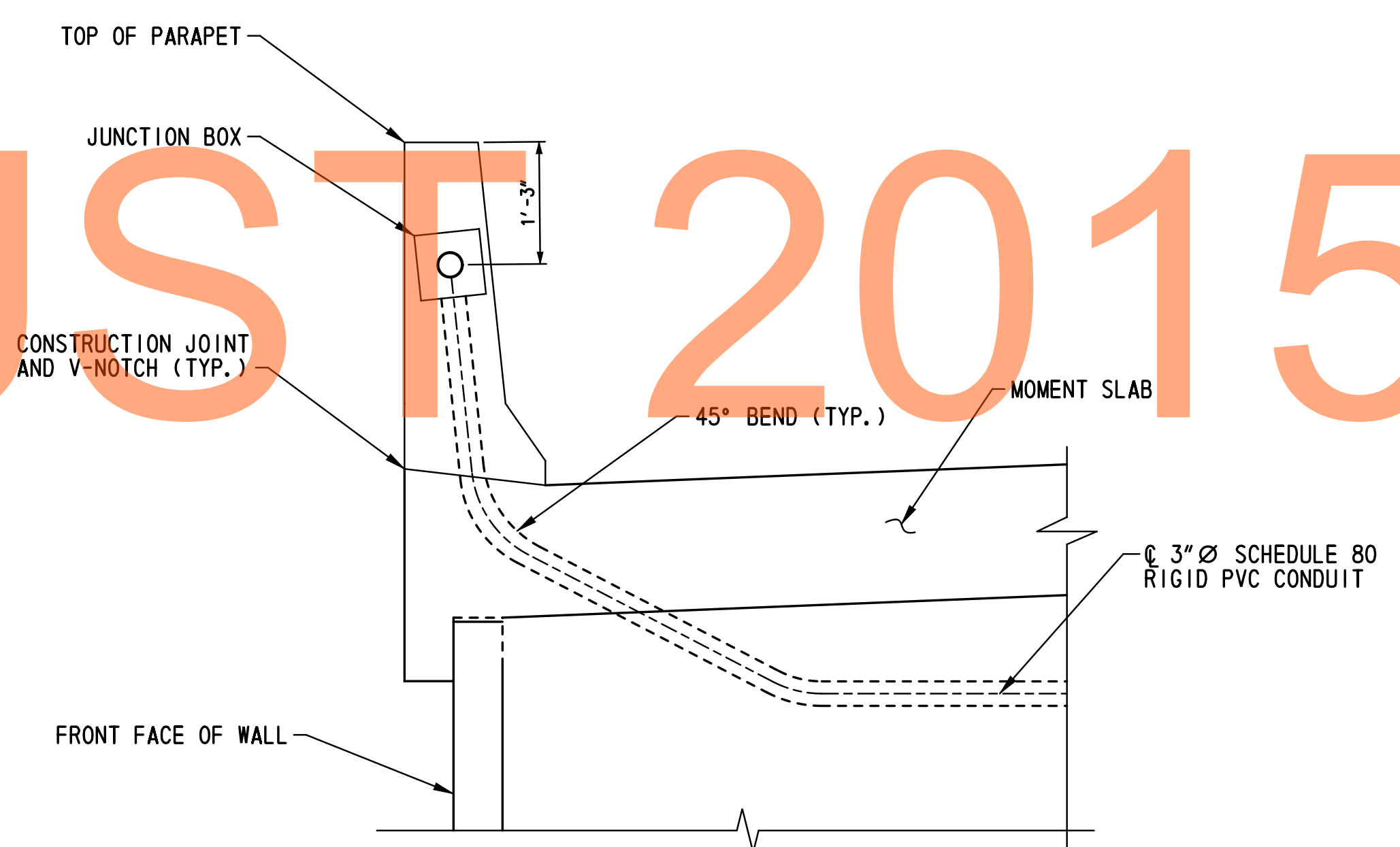
- ④ MOMENT SLAB I.D. DESIGNATION

NOTES:

1. FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
2. FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.
3. FOR REINFORCEMENT DETAILS, SEE DWG. NO. MS-08 TO MS-11.
4. ALL JUNCTION BOXES SHALL BE 12" LONG X 8" HIGH X 8" DEEP NEMA 4X STAINLESS STEEL JUNCTION BOXES WITH COVERS MOUNTED IN THE FRONT FACE OF THE PARAPET.
5. CONDUITS AND JUNCTION BOXES INSTALLED IN THE BRIDGE, APPROACH SLAB AND MOMENT SLAB PARAPETS WILL NOT BE MEASURED AND PAID OR SEPARATELY BUT WILL BE INCIDENTAL TO ITEM 602017 - PORTLAND CEMENT CONCRETE MASONRY, PARAPET, CLASS A. CONDUITS AND ALL NECESSARY FITTINGS SUPPLIED FOR INSTALLATION IN PARAPETS SHALL MEET THE MATERIAL REQUIREMENTS OF ITEM NO. 745522 - SUPPLY OF 3" SCHEDULE 80 PVC CONDUIT.
6. FOR ADDITIONAL CONDUIT SERVICE RUN AND LIGHTING DETAILS, SEE DWG. NOS. LI-04 AND LI-15.



PLAN - PARAPET AT MOMENT SLAB PANEL NO. 2
SCALE: 3/4" = 1'-0"



SECTION CC-CC
SCALE: 3/4" = 1'-0"

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ADDENDUMS / REVISIONS	

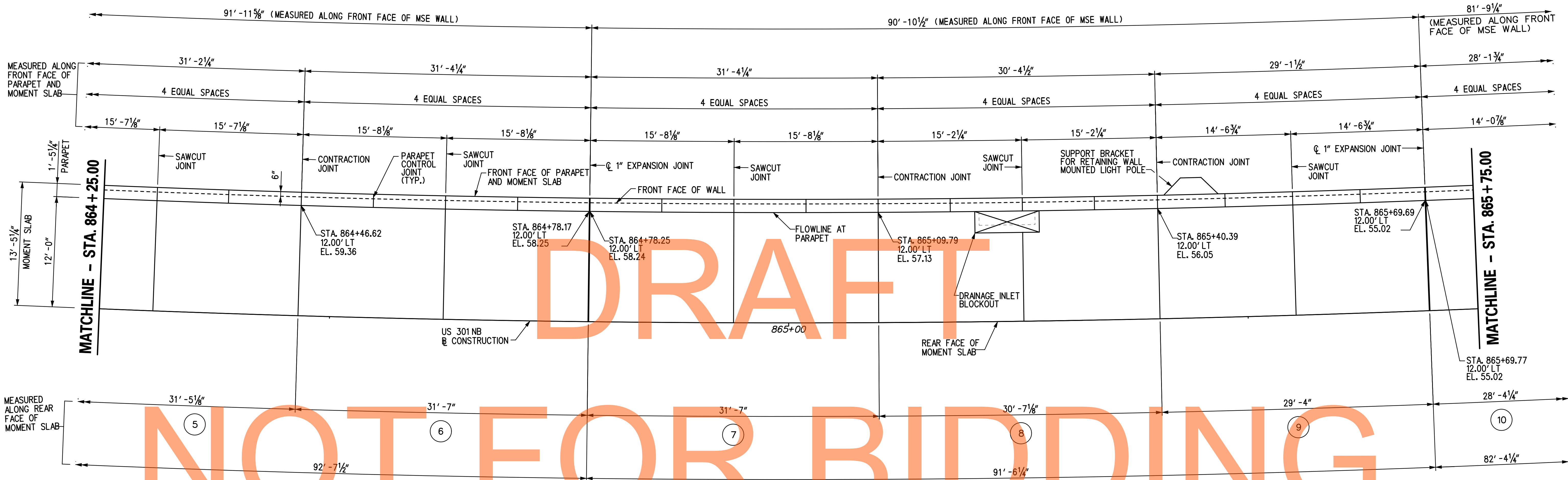
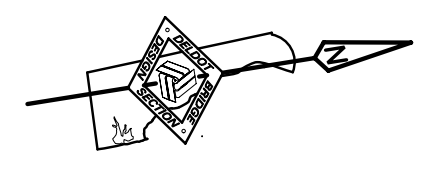
SCALE: AS NOTED

US 301 &
SR 1 INTERCHANGE

CONTRACT T200911302	BRIDGE NO. RW1-3
COUNTY NEW CASTLE	DESIGNED BY: RHM
	CHECKED BY: KEE

MOMENT SLAB PLAN - 1

RW1-3 MS-01
SHEET NO. 307
TOTAL SHTS. 491



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PLAN
SCALE: 3/16" = 1'-0"

LEGEND:
5 MOMENT SLAB I.D. DESIGNATION

- NOTES:
- FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
 - FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.
 - FOR REINFORCEMENT DETAILS, SEE DWG. NO. MS-08 TO MS-11.

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ADDENDUMS / REVISIONS

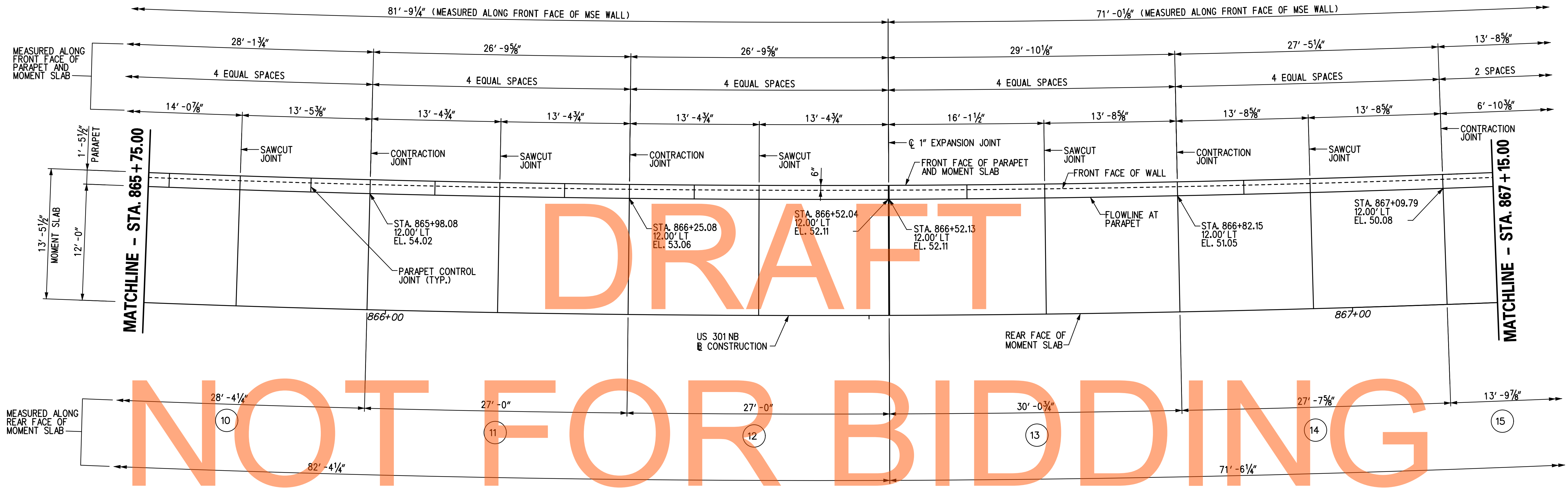
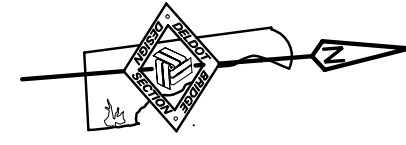
SCALE: AS NOTED

**US 301 &
SR 1 INTERCHANGE**

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	TSD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

MOMENT SLAB PLAN - 2

RW1-3 MS-02
SHEET NO. 308
TOTAL SHTS. 491



PLAN
SCALE: 3/16" = 1'-0"

LEGEND:
④ MOMENT SLAB I.D. DESIGNATION

- NOTES:
- FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
 - FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.
 - FOR REINFORCEMENT DETAILS, SEE MS-08 TO MS-11.

\\delaware\projects\2008\PEI-ED0836 (delDOT US 301_1445)\7. Transportation\1. Bridges\Drawings\Final_P&E\RW1-3 & RW1-3R\RW1-3 MS03.rvt-3.dgn
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ADDENDUMS / REVISIONS	

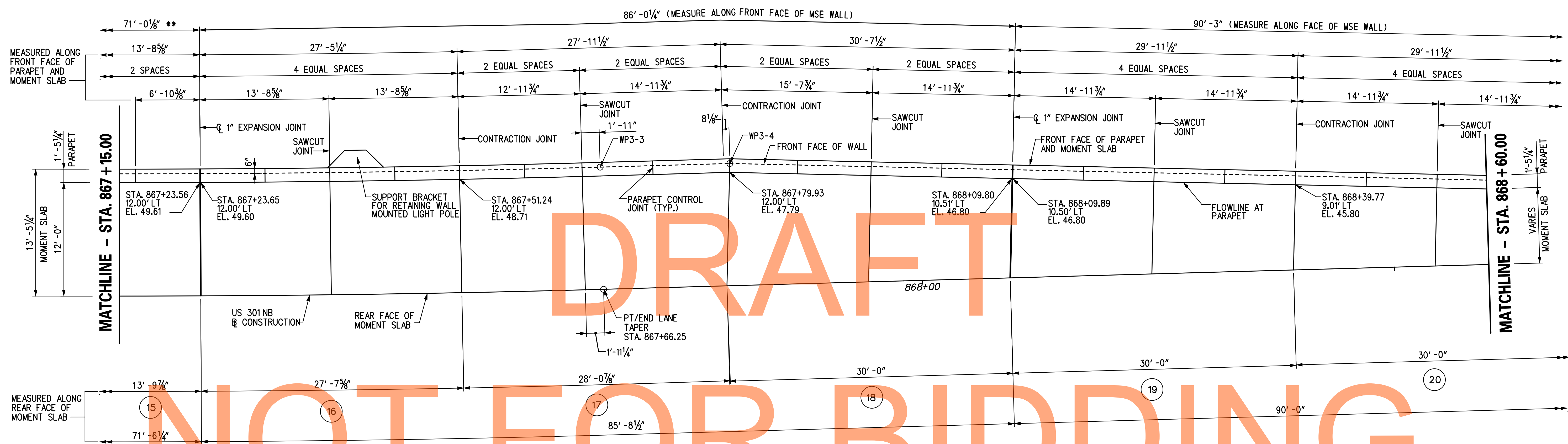
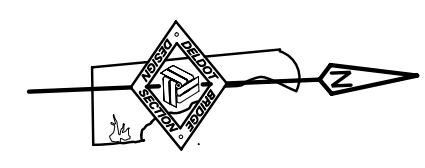
SCALE: AS NOTED

US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	TSD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

MOMENT SLAB PLAN - 3	
SHEET NO.	309
TOTAL SHTS.	491

RW1-3 MS-03
SHEET NO.
309
TOTAL SHTS.
491



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AUGUST 2015

PLAN
SCALE: 3/16" = 1'-0"

LEGEND:

- 15 MOMENT SLAB I.D. DESIGNATION
- ** MEASURED ALONG FRONT FACE OF MSE WALL

NOTES:

1. FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
2. FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.
3. FOR REINFORCEMENT DETAILS, SEE DWG. NO. MS-08 TO MS-11.

\\delaware\projects\2008\PEI-ED0836 (delDOT US 301_1445)\7. Transportation\1. Bridges\Drawings\Final_P&E\RW1-3 & RW1-3R\RW1-3\MS04_rw1-3.dgn
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ADDENDUMS / REVISIONS	

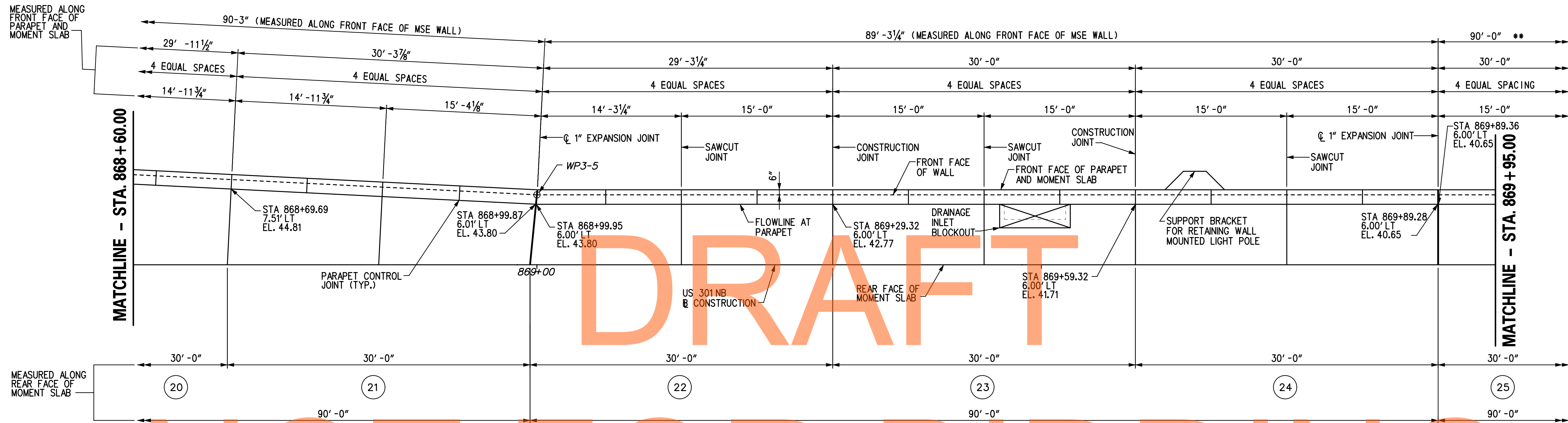
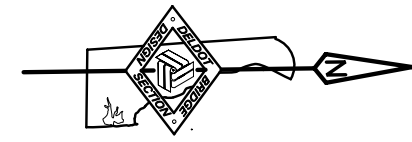
SCALE: AS NOTED

**US 301 &
SR 1 INTERCHANGE**

CONTRACT T200911302	BRIDGE NO.	RW1-3
COUNTY NEW CASTLE	DESIGNED BY:	TSD
	CHECKED BY:	KEE

MOMENT SLAB PLAN - 4

RW1-3 MS-04
SHEET NO. 310
TOTAL SHTS. 491



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NOT FOR BIDDING

PLAN
SCALE: 3/16" = 1'-0"

AUGUST 2015

LEGEND:

- ④ MOMENT SLAB I.D. DESIGNATION
- ** (MEASURED ALONG FRONT FACE OF MSE WALL)

NOTES:

1. FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
2. FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.
3. FOR REINFORCEMENT DETAILS, SEE DWG. NO. MS-08 TO MS-11.

ADDENDUMS / REVISIONS

SCALE: AS NOTED

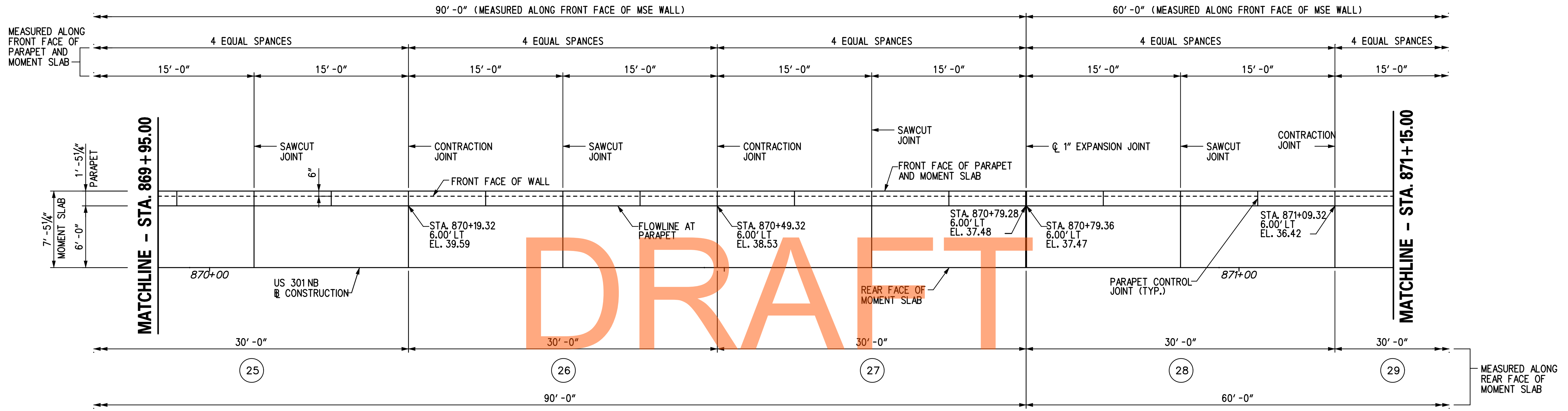
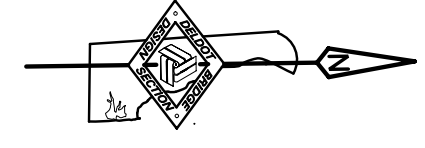
US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	TSD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

MOMENT SLAB PLAN - 5

**RW1-3
MS-05**

SHEET NO.	311
TOTAL SHTS.	491



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NOT FOR BIDDING

PLAN
SCALE: 3/16" = 1'-0"

AUGUST 2015

LEGEND:
25 MOMENT SLAB I.D. DESIGNATION

- NOTES:**
1. FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
 2. FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.
 3. FOR REINFORCEMENT DETAILS, SEE DWG. NO. MS-08 TO MS-11.

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ADDENDUMS / REVISIONS	

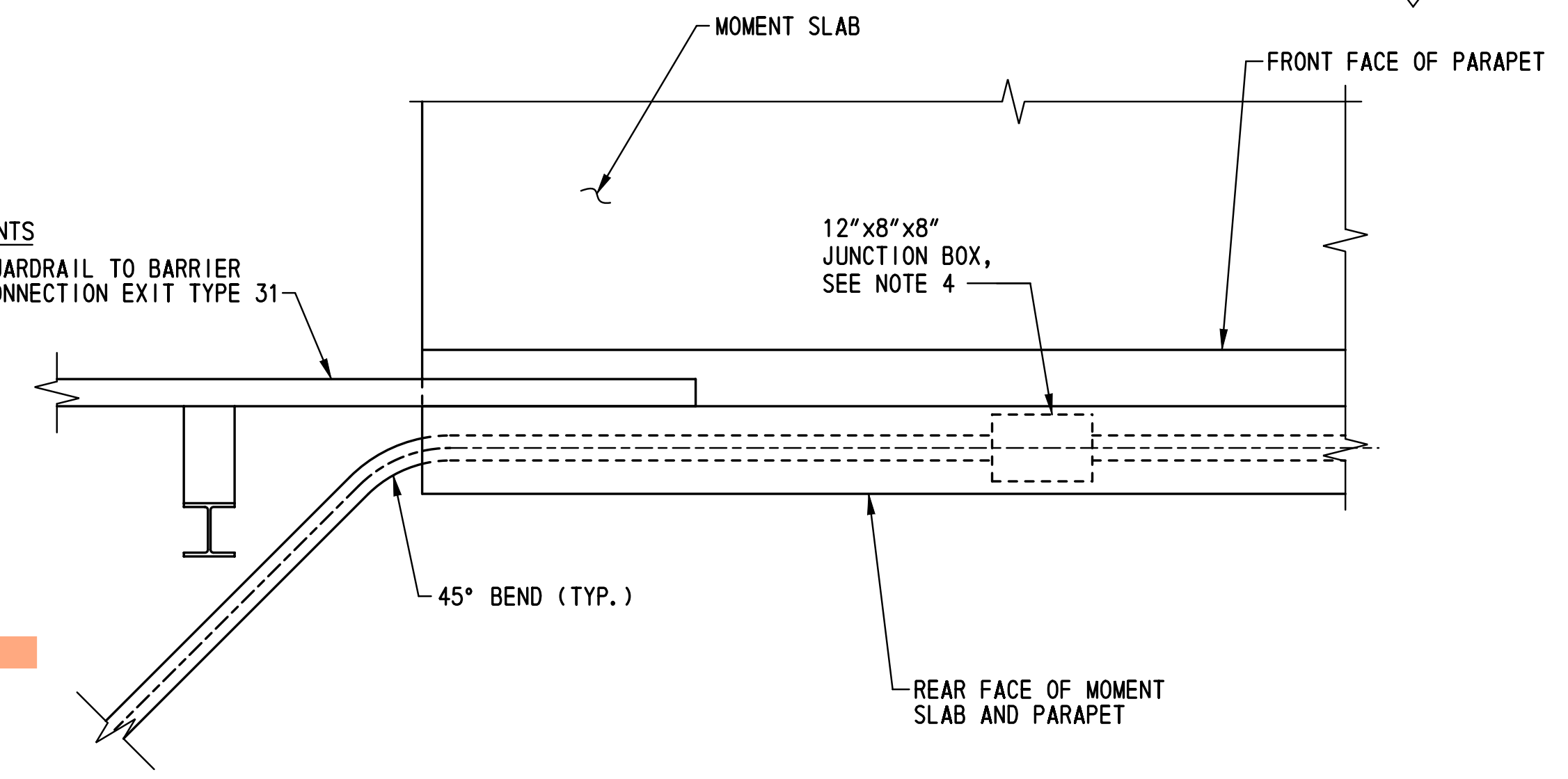
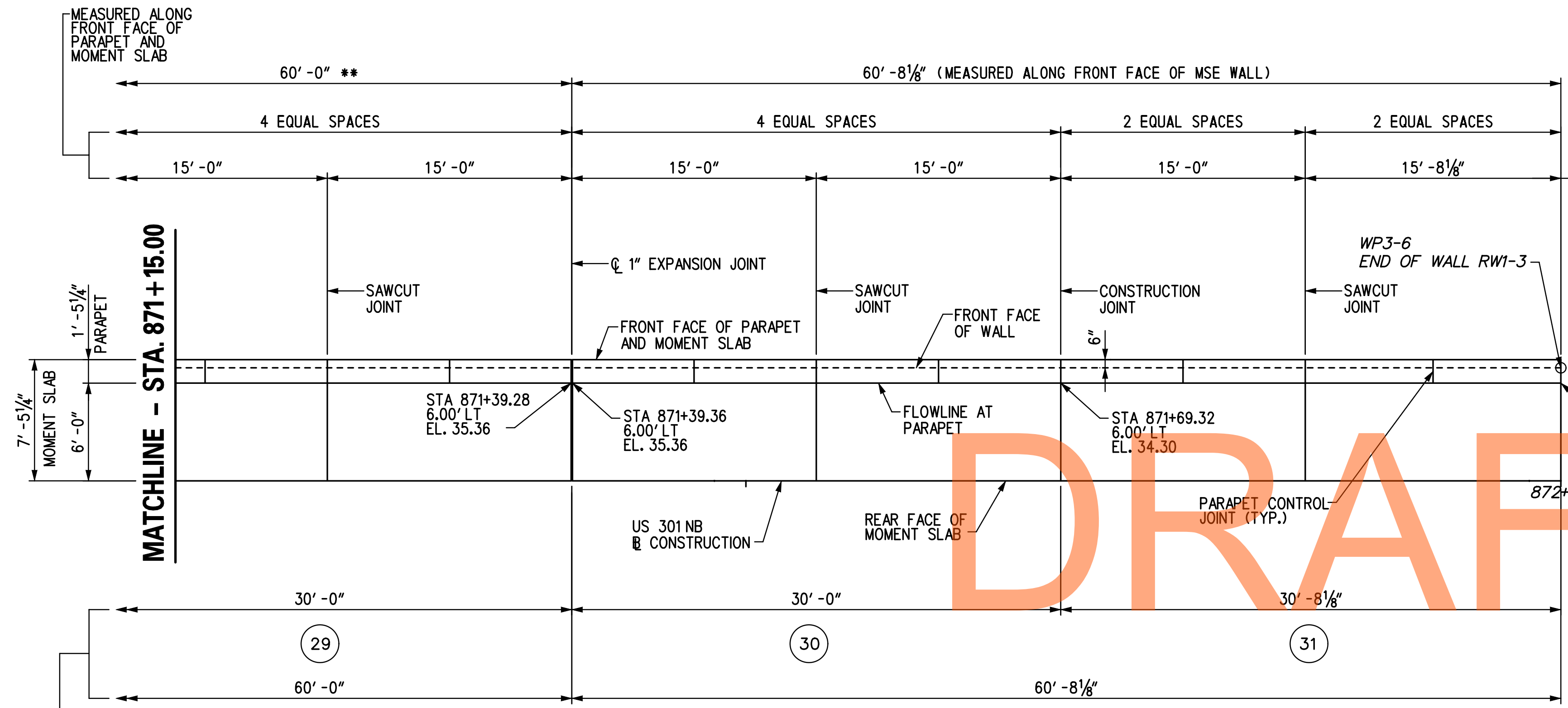
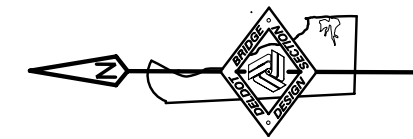
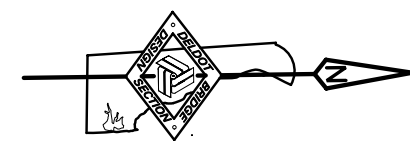
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**US 301 &
SR 1 INTERCHANGE**

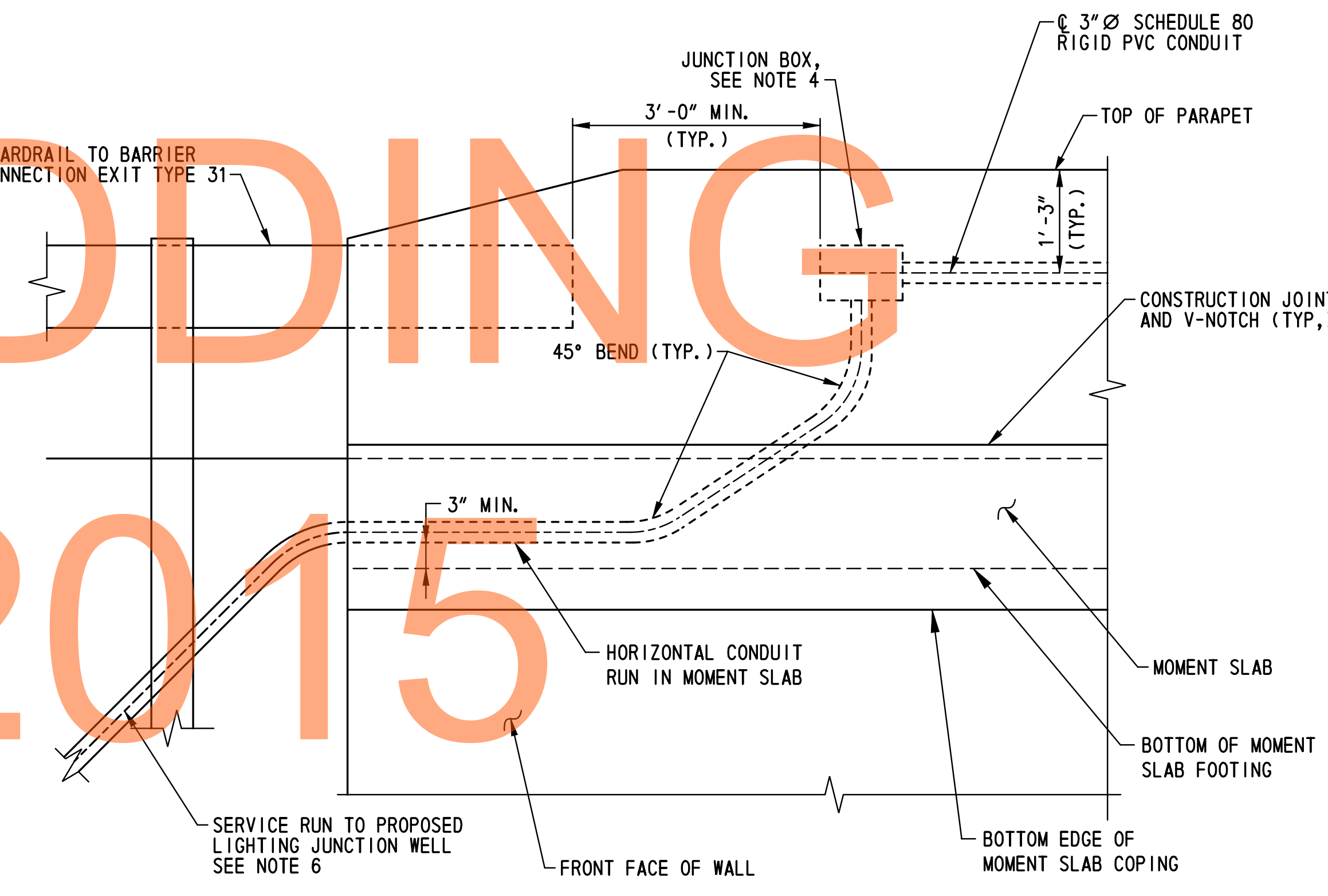
CONTRACT T200911302	BRIDGE NO.	RW1-3
COUNTY NEW CASTLE	DESIGNED BY:	TSD
	CHECKED BY:	KEE

MOMENT SLAB PLAN - 6

RW1-3 MS-06
SHEET NO. 312
TOTAL SHTS. 491



PLAN - PARAPET AT MOMENT SLAB PANEL NO. 31
SCALE: 3/4" = 1'-0"



ELEVATION - PARAPET AT MOMENT SLAB PANEL NO. 31
SCALE: 3/4" = 1'-0"

DRAFT

NOT FOR BIDDING

AUGUST 2015

LEGEND:

- (4) MOMENT SLAB I.D. DESIGNATION
- ** (MEASURED ALONG FRONT FACE OF MSE WALL)

NOTES:

1. FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
2. FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.
3. FOR REINFORCEMENT DETAILS, SEE DWG. NO. MS-08 TO MS-11.
4. ALL JUNCTION BOXES SHALL BE 12" LONG x 8" HIGH x 8" DEEP NEMA 4X STAINLESS STEEL JUNCTION BOXES WITH COVERS MOUNTED IN THE FRONT FACE OF THE PARAPET.
5. CONDUITS AND JUNCTION BOXES INSTALLED IN THE BRIDGE, APPROACH SLAB AND MOMENT SLAB PARAPETS WILL NOT BE MEASURED AND PAID OR SEPARATELY BUT WILL BE INCIDENTAL TO ITEM 602017 - PORTLAND CEMENT CONCRETE MASONRY, PARAPET, CLASS A. CONDUITS AND ALL NECESSARY FITTINGS SUPPLIED FOR INSTALLATION IN PARAPETS SHALL MEET THE MATERIAL REQUIREMENTS OF ITEM NO. 745522 - SUPPLY OF 3" SCHEDULE 80 PVC CONDUIT.
6. FOR ADDITIONAL CONDUIT SERVICE RUN AND LIGHTING DETAILS, SEE DWG. NOS. LI-04 AND LI-15.

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ADDENDUMS / REVISIONS	

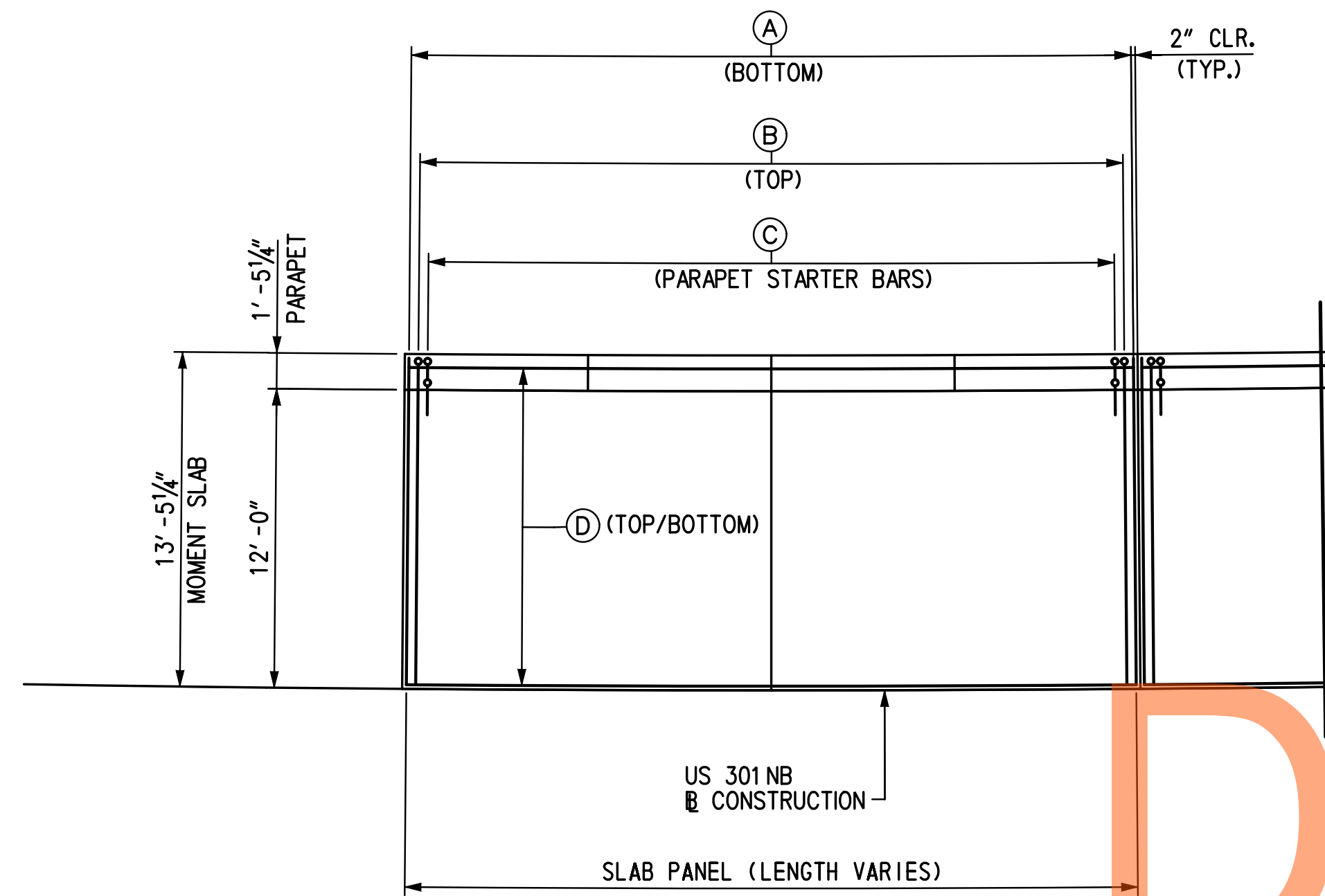
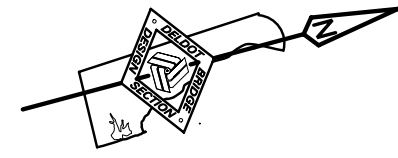
SCALE: AS NOTED

US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	TSJ
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

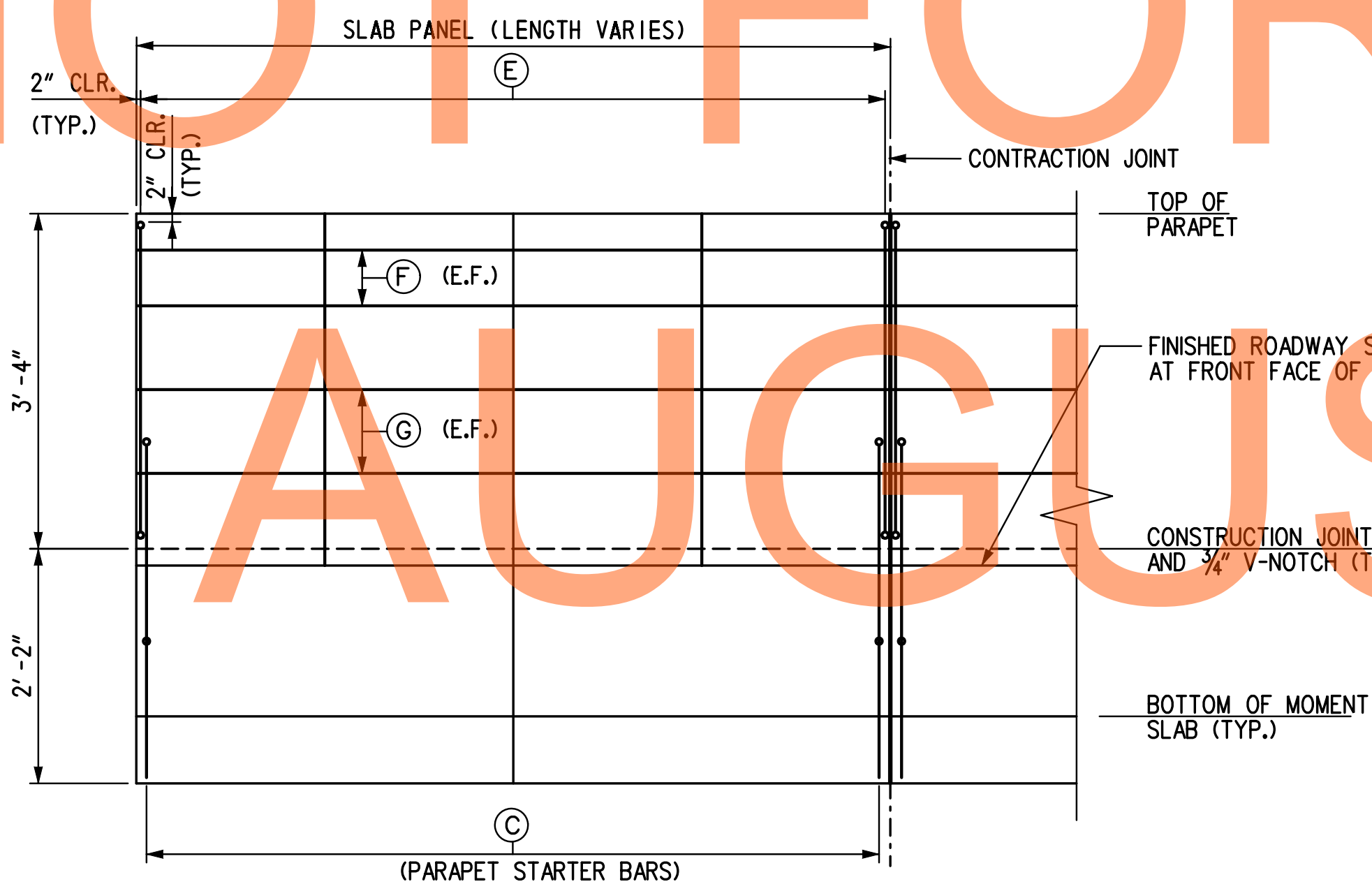
MOMENT SLAB PLAN - 7

RW1-3 MS-07
SHEET NO.
313
TOTAL SHTS.
491



MOMENT SLAB REINFORCEMENT PLAN

(SLAB PANEL I.D. (1) TO (16))
SCALE: 3/8" = 1'-0"



MOMENT SLAB PARAPET REINFORCEMENT ELEVATION

(SLAB PANEL I.D. (1) TO (16))
HORIZONTAL SCALE: 3/8" = 1'-0"
VERTICAL SCALE: 3/4" = 1'-0"

REINFORCEMENT TABLE

SLAB PANEL I. D.	A	B	C	D	E	F	G
(1) — (4)	30 - SL503E AT 12"	45 - SL502E AT 8"	45 - SL501E AT 8"	14 - SL504E AT 12"	45 - PA540E AT 8"	4 - PA740E	4 - PA840E
(5)	32 - SL503E AT 12"	47 - SL502E AT 8"	47 - SL501E AT 8"	14 - SL505E AT 12"	47 - PA540E AT 8"	4 - PA741E	4 - PA841E
(6) — (7)	32 - SL503E AT 12"	48 - SL502E AT 8"	48 - SL501E AT 8"	14 - SL506E AT 12"	48 - PA540E AT 8"	4 - PA742E	4 - PA842E
(8)	31 - SL503E AT 12"	91 - SL502E AT 4"	46 - SL501E AT 8"	14 - SL507E AT 12"	46 - PA540E AT 8"	4 - PA743E	4 - PA843E
(9)	30 - SL503E AT 12"	44 - SL502E AT 8"	44 - SL501E AT 8"	14 - SL508E AT 12"	44 - PA540E AT 8"	4 - PA744E	4 - PA844E
(10)	29 - SL503E AT 12"	43 - SL502E AT 8"	43 - SL501E AT 8"	14 - SL509E AT 12"	43 - PA540E AT 8"	4 - PA745E	4 - PA845E
(11) — (12)	27 - SL503E AT 12"	41 - SL502E AT 8"	41 - SL501E AT 8"	14 - SL510E AT 12"	41 - PA540E AT 8"	4 - PA746E	4 - PA846E
(13)	31 - SL503E AT 12"	45 - SL502E AT 8"	45 - SL501E AT 8"	14 - SL511E AT 12"	45 - PA540E AT 8"	4 - PA747E	4 - PA847E
(14) & (16)	28 - SL503E AT 12"	42 - SL502E AT 8"	42 - SL501E AT 8"	14 - SL512E AT 12"	42 - PA540E AT 8"	4 - PA748E	4 - PA848E
(15)	14 - SL503E AT 12"	21 - SL502E AT 8"	21 - SL501E AT 8"	14 - SL513E AT 12"	21 - PA540E AT 8"	4 - PA749E	4 - PA849E

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LEGEND:

(4) MOMENT SLAB I.D. DESIGNATION

NOTES:

- FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
- FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.

ADDENDUMS / REVISIONS

SCALE: AS NOTED

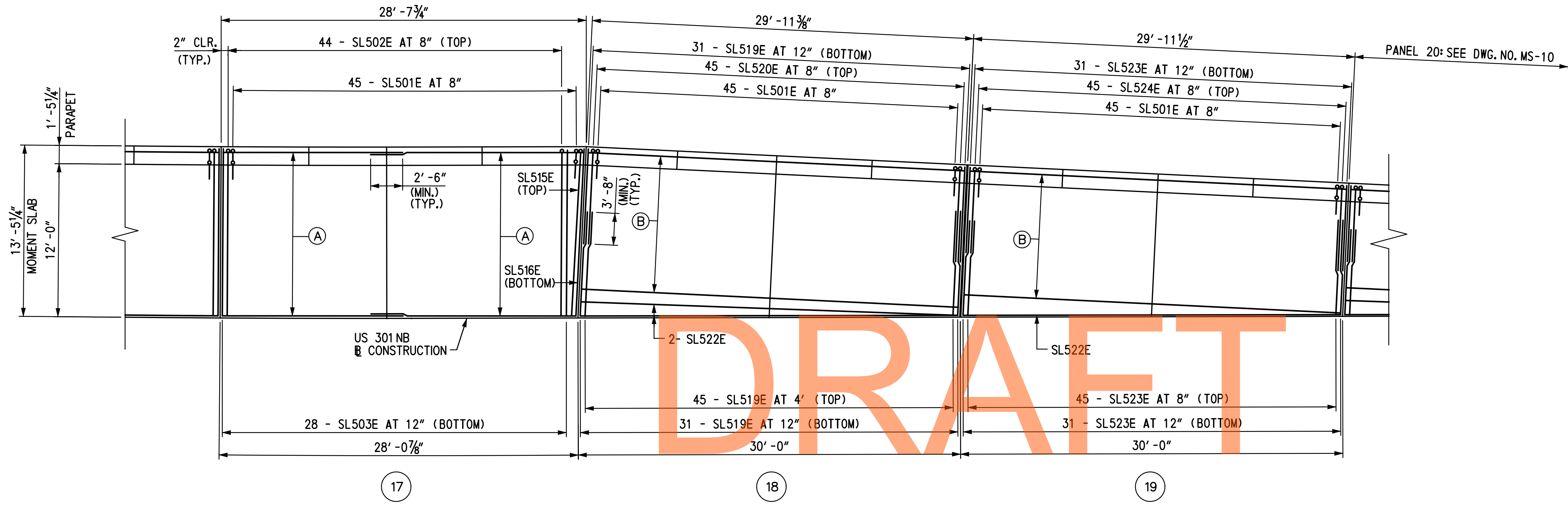
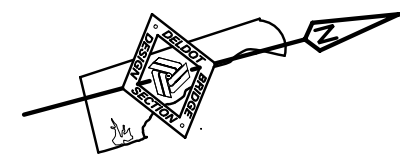
US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	RHM
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

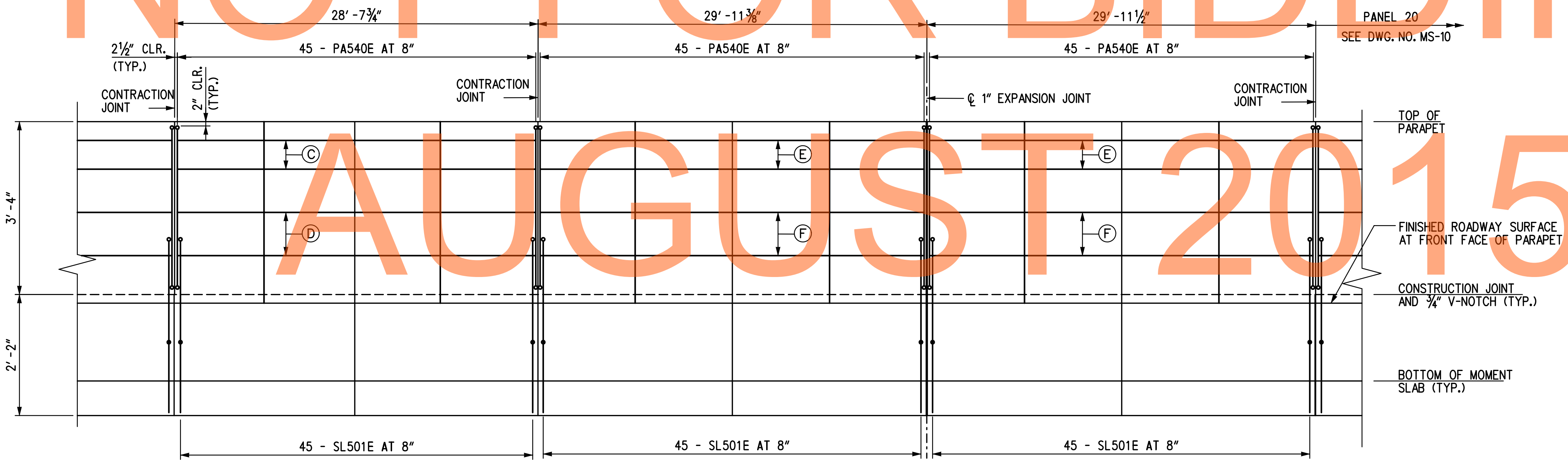
**MOMENT SLAB
REINFORCEMENT
DETAILS - 1**

RW1-3
MS-08

SHEET NO.	314
TOTAL SHTS.	491



NOT FOR BIDDING



- LEGEND:**
- ④ MOMENT SLAB I.D. DESIGNATION
 - Ⓐ 14 - SL514E AT 12" (TOP/BOTTOM)
 - Ⓑ PANEL 18: 11 - SL521E AT 12" (TOP/BOTTOM)
PANEL 19: 10 - SL521E AT 12" (TOP/BOTTOM)
 - Ⓒ 2 - PA750E (E.F.)
 - Ⓓ 2 - PA850E (E.F.)
 - Ⓔ 2 - PA751E (E.F.)
 - Ⓕ 2 - PA851E (E.F.)

- NOTES:**
1. FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
 2. FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.

MOMENT SLAB PARAPET REINFORCEMENT ELEVATION
 HORIZONTAL SCALE: 3/8" = 1'-0"
 VERTICAL SCALE: 3/4" = 1'-0"

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ADDENDUMS / REVISIONS	

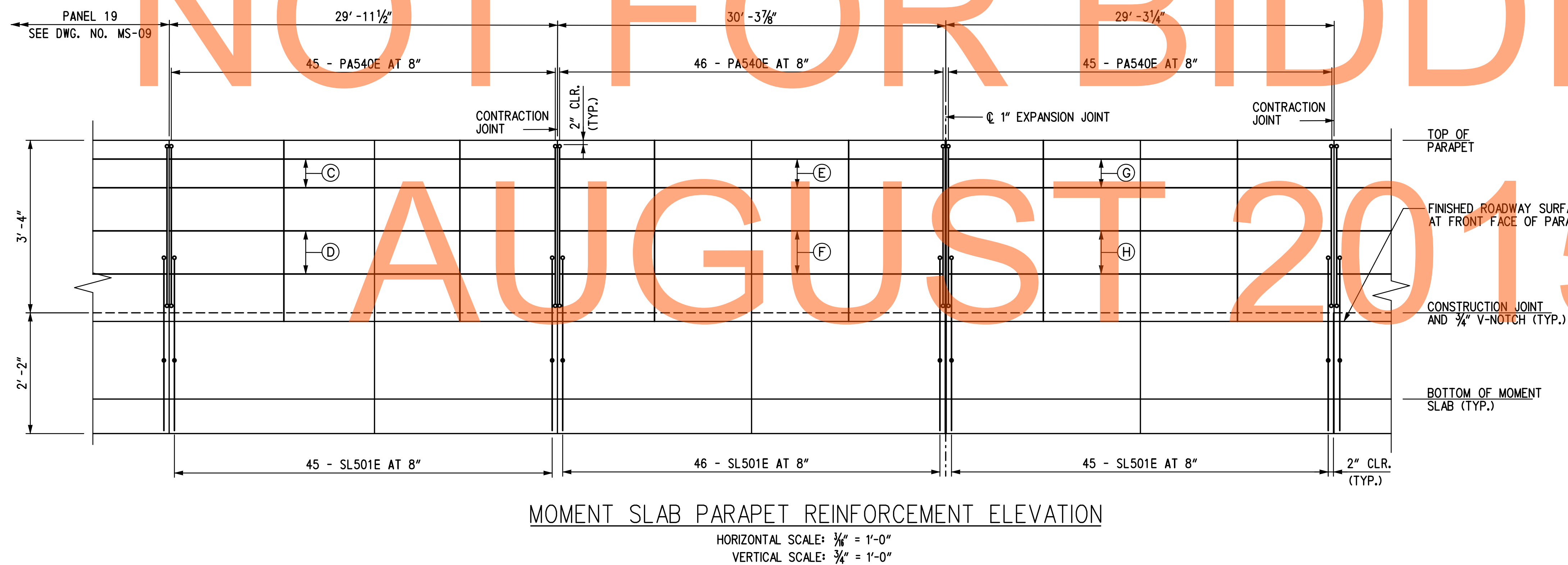
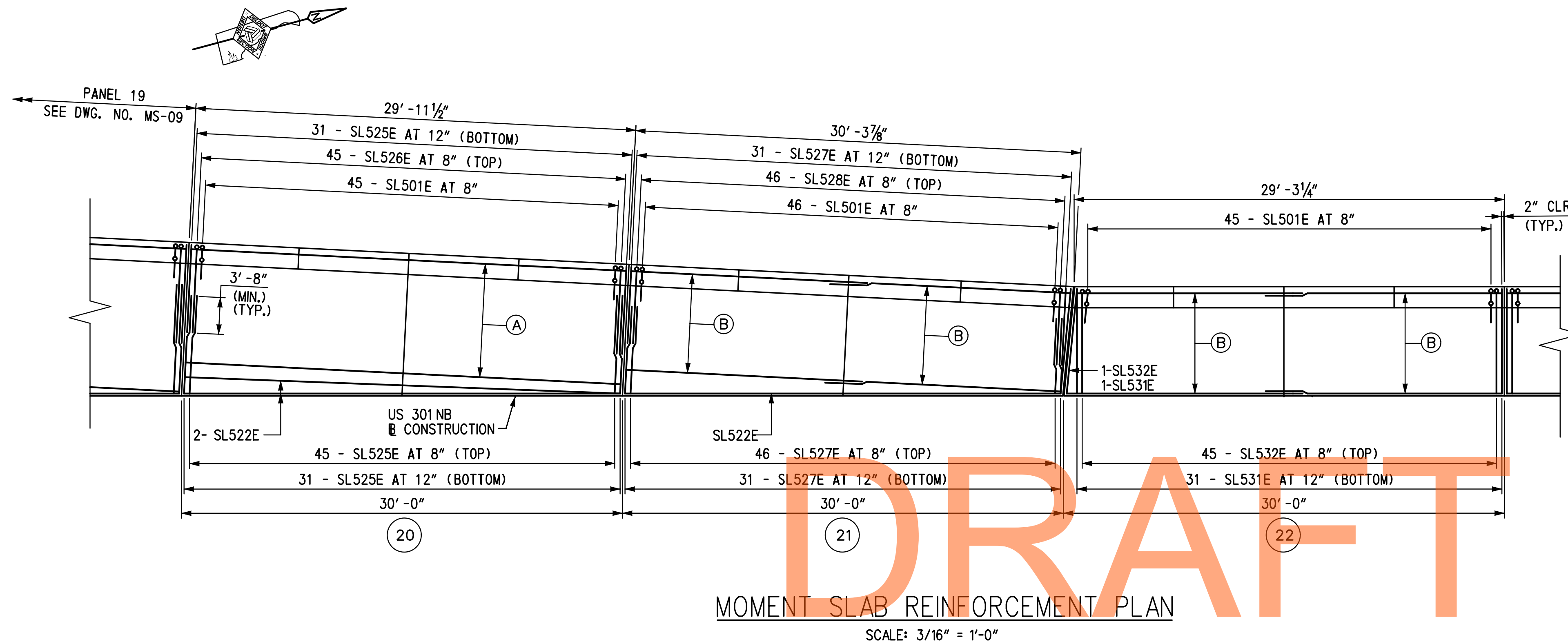
SCALE: AS NOTED

US 301 &
SR 1 INTERCHANGE

CONTRACT T200911302	BRIDGE NO. RW1-3
COUNTY NEW CASTLE	DESIGNED BY: RHM
	CHECKED BY: KEE

MOMENT SLAB REINFORCEMENT DETAILS - 2	SHEET NO. 315
	TOTAL SHTS. 491

RW1-3
MS-09



- LEGEND:**
- (20) MOMENT SLAB I.D. DESIGNATION
 - (A) 9 - SL521E AT 12" (TOP/BOTTOM)
 - (B) PANEL 21 : 9 - SL529E AT 12" (TOP/BOTTOM)
PANEL 22 : 8 - SL529E AT 12" (TOP/BOTTOM)
 - (C) 2 - PA751E (E.F.)
 - (D) 2 - PA851E (E.F.)
 - (E) 2 - PA752E (E.F.)
 - (F) 2 - PA852E (E.F.)
 - (G) 2 - PA755E (E.F.)
 - (H) 2 - PA855E (E.F.)
- NOTES:**
1. FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
 2. FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.

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ADDENDUMS / REVISIONS

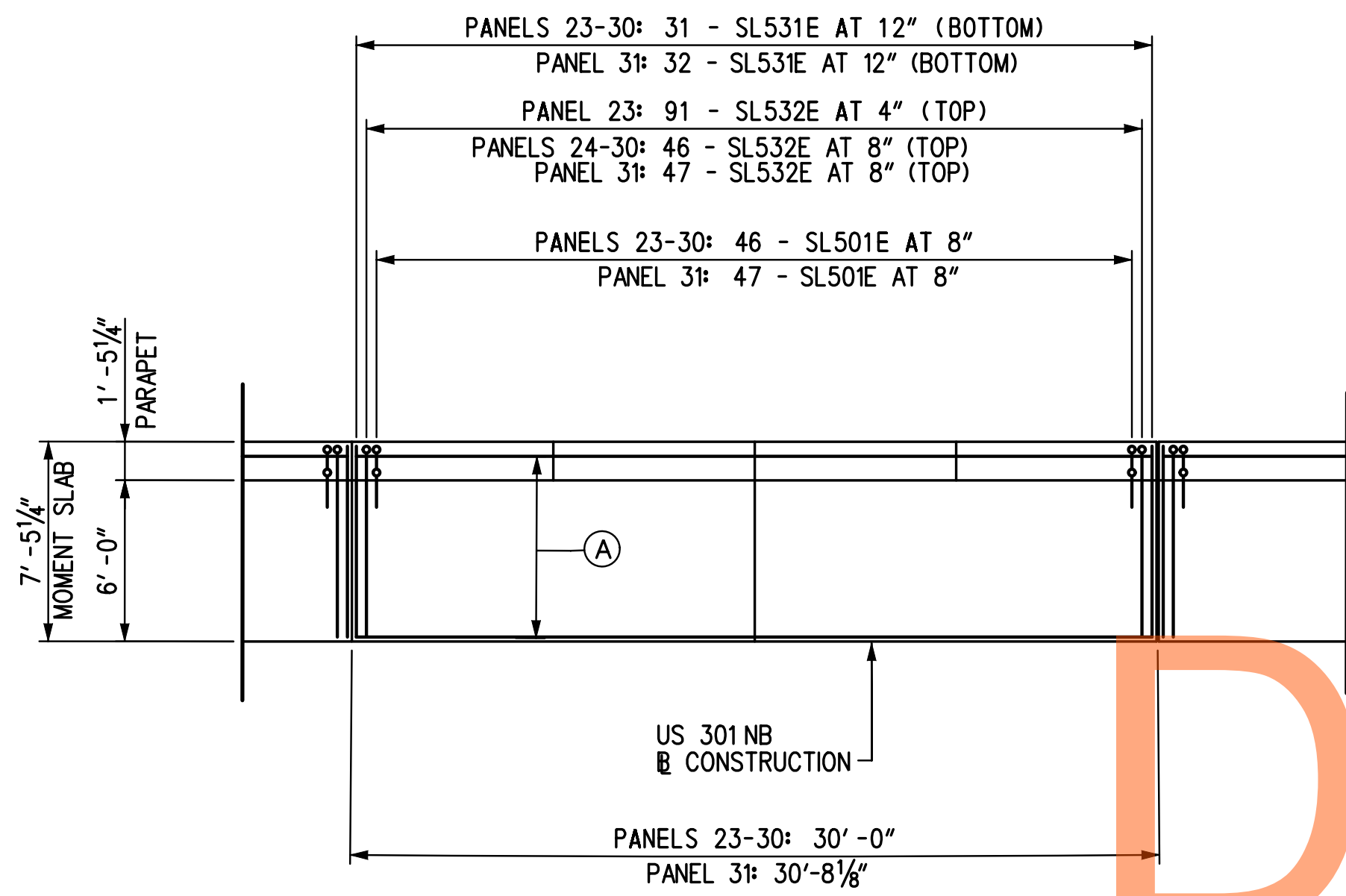
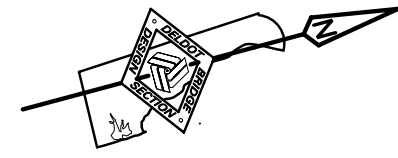
SCALE: AS NOTED

US 301 & SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	RHM
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

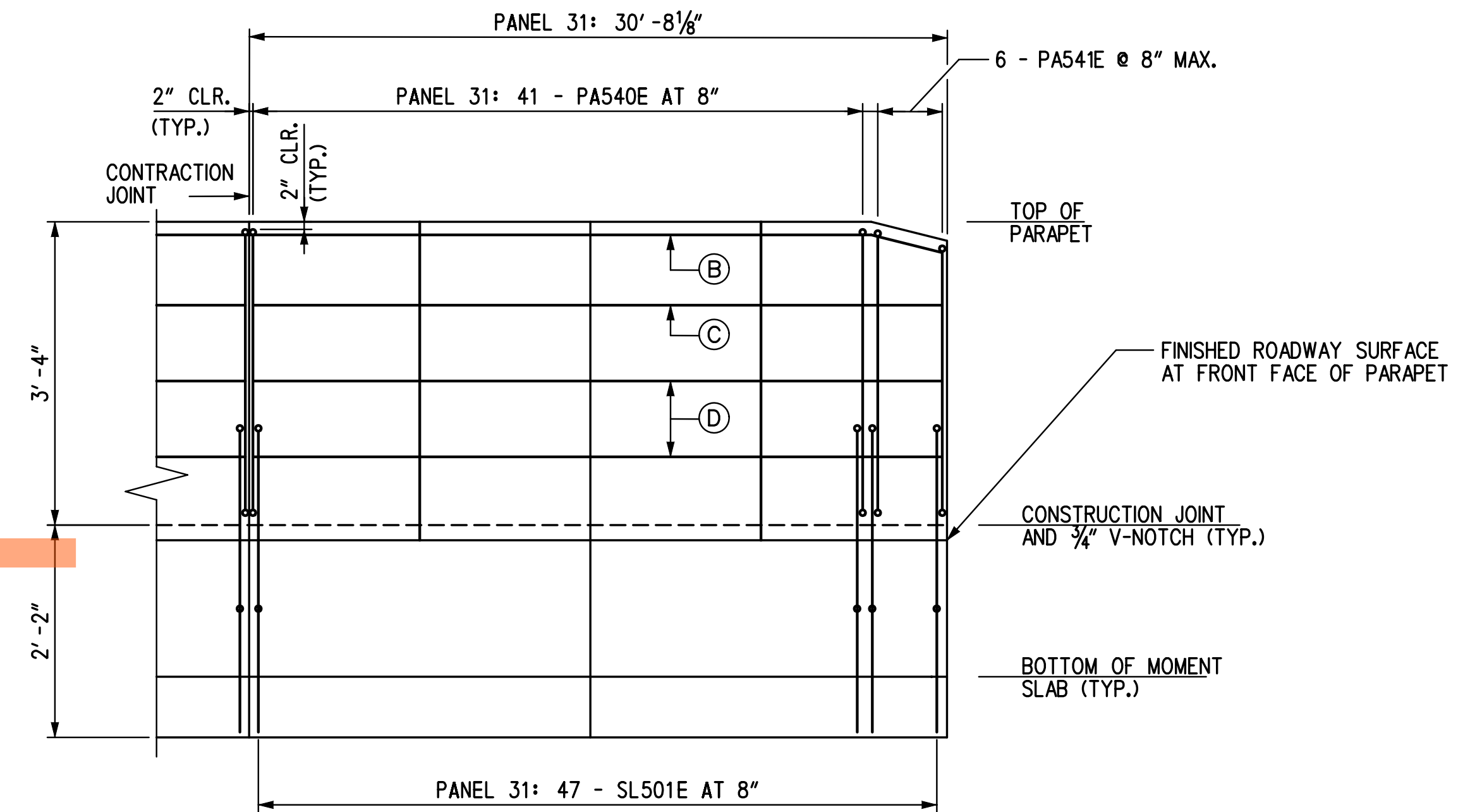
MOMENT SLAB REINFORCEMENT DETAILS - 3

RW1-3 MS-10
SHEET NO.
316
TOTAL SHTS.
491



MOMENT SLAB REINFORCEMENT PLAN

(SLAB PANEL I.D. (23) TO (31))
SCALE: 3/16" = 1'-0"

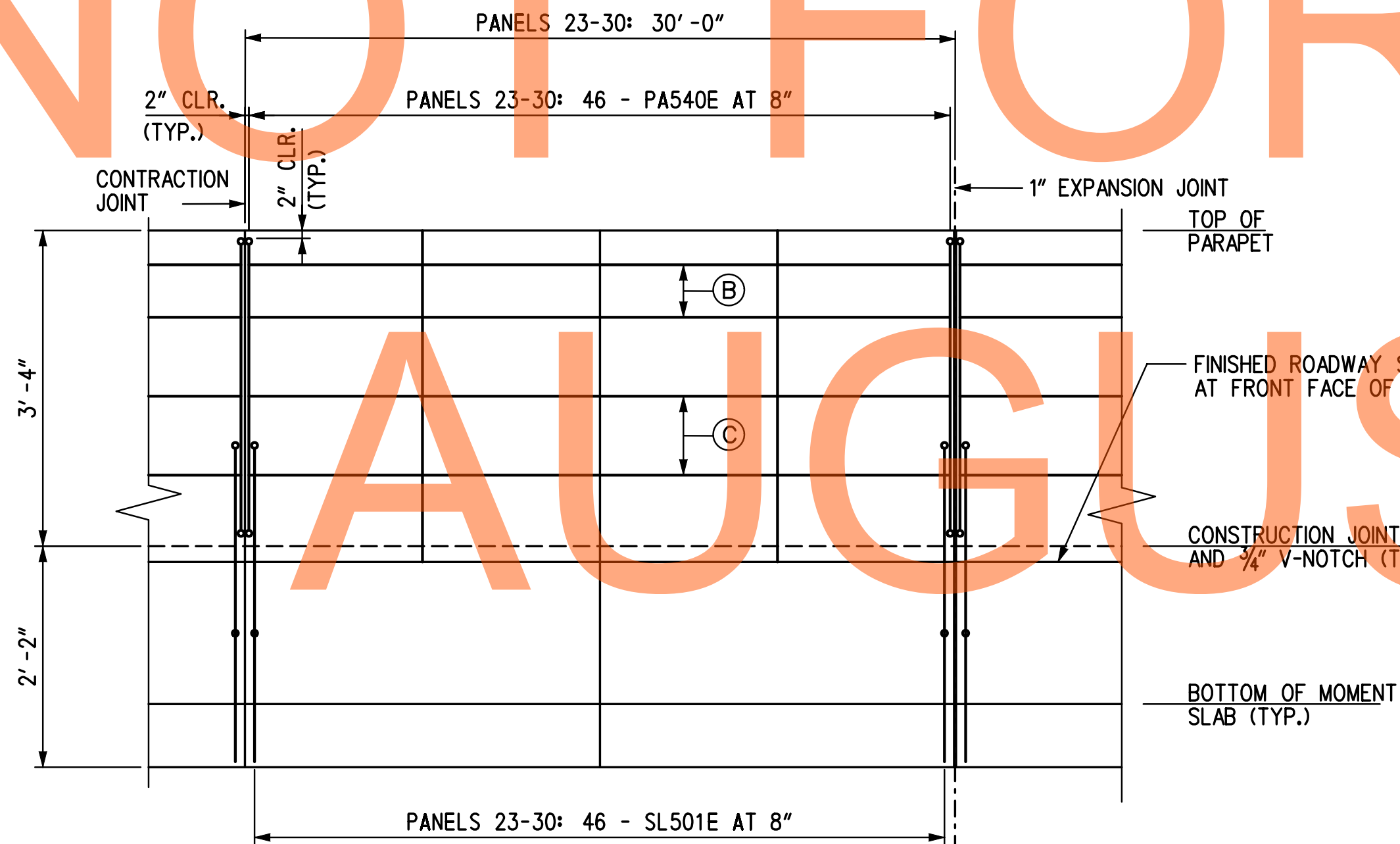


MOMENT SLAB PARAPET REINFORCEMENT ELEVATION

(SLAB PANEL I.D. (31))
SCALE: 3/16" = 1'-0"

NOT FOR BIDDING

AUGUST 2015



MOMENT SLAB PARAPET REINFORCEMENT ELEVATION

(SLAB PANEL I.D. (23) TO (30))
SCALE: 3/16" = 1'-0"

LEGEND:

- (23) MOMENT SLAB I.D. DESIGNATION
- (A) PANELS 23-30: 8 - SL533E AT 12" (TOP/BOTTOM)
PANEL 31: 8 - SL534E AT 12" (TOP/BOTTOM)
- (B) PANELS 23-30: 2 - PA753E (E.F.)
PANEL 31: 1 - PA754E (E.F.)
- (C) PANELS 23-30: 2 - PA853E (E.F.)
PANEL 31: 1 - PA756E (E.F.)
- (D) PANEL 31: 2 - PA854E (E.F.)

NOTES:

1. FOR RW1-3 GEOMETRIC LAYOUT AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
2. FOR MOMENT SLAB TYPICAL SECTION, SEE DWG. NO. RD-01.

\\delnet\AS\Projects\2008\PEI-ED0836 (DelDOT US 301_1445)\7. Transportation\1. Bridges\Drawings\Final_P&E\RW1-3 & RW1-3R\RW1-3.MST_rwt-3.dgn
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ADDENDUMS / REVISIONS

SCALE: AS NOTED

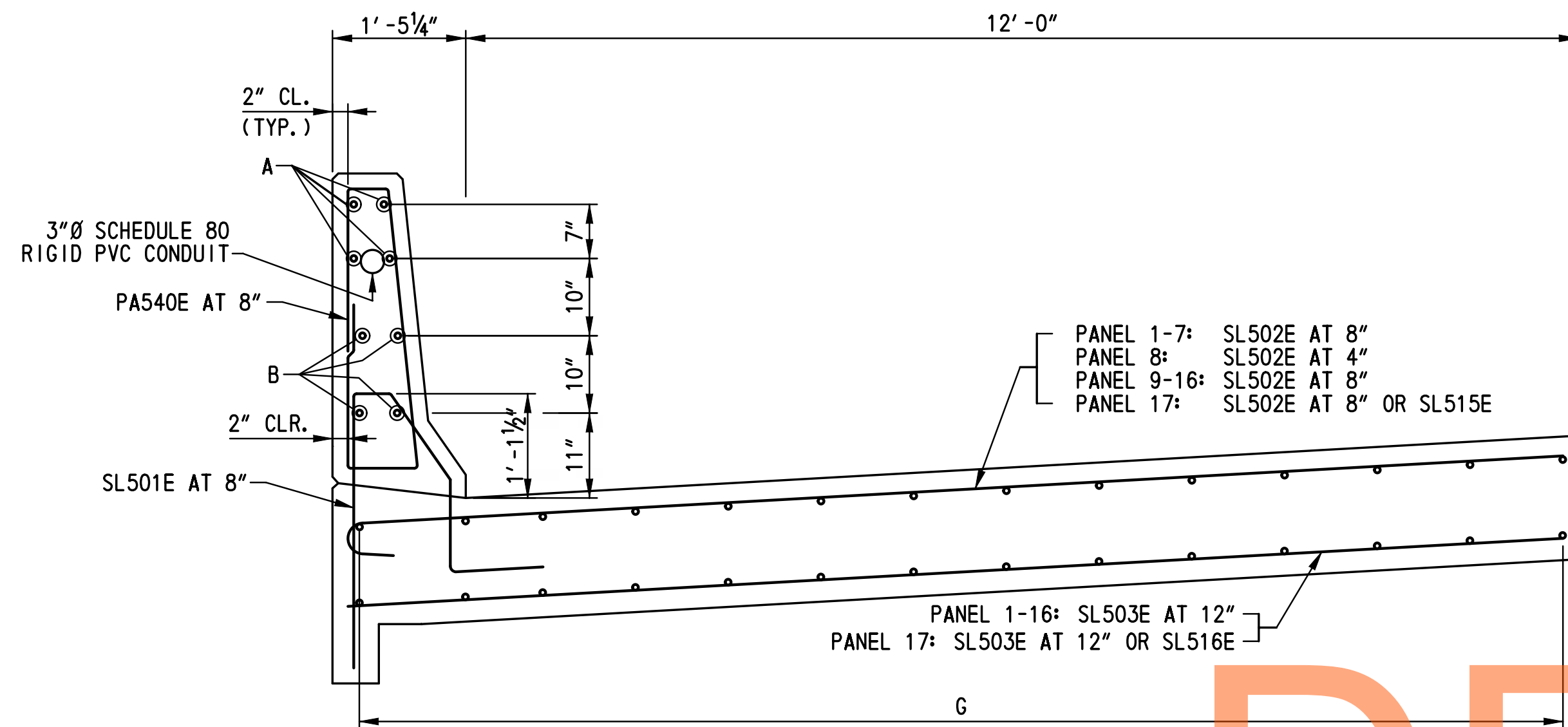
US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	RHM
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

**MOMENT SLAB
REINFORCEMENT
DETAILS - 4**

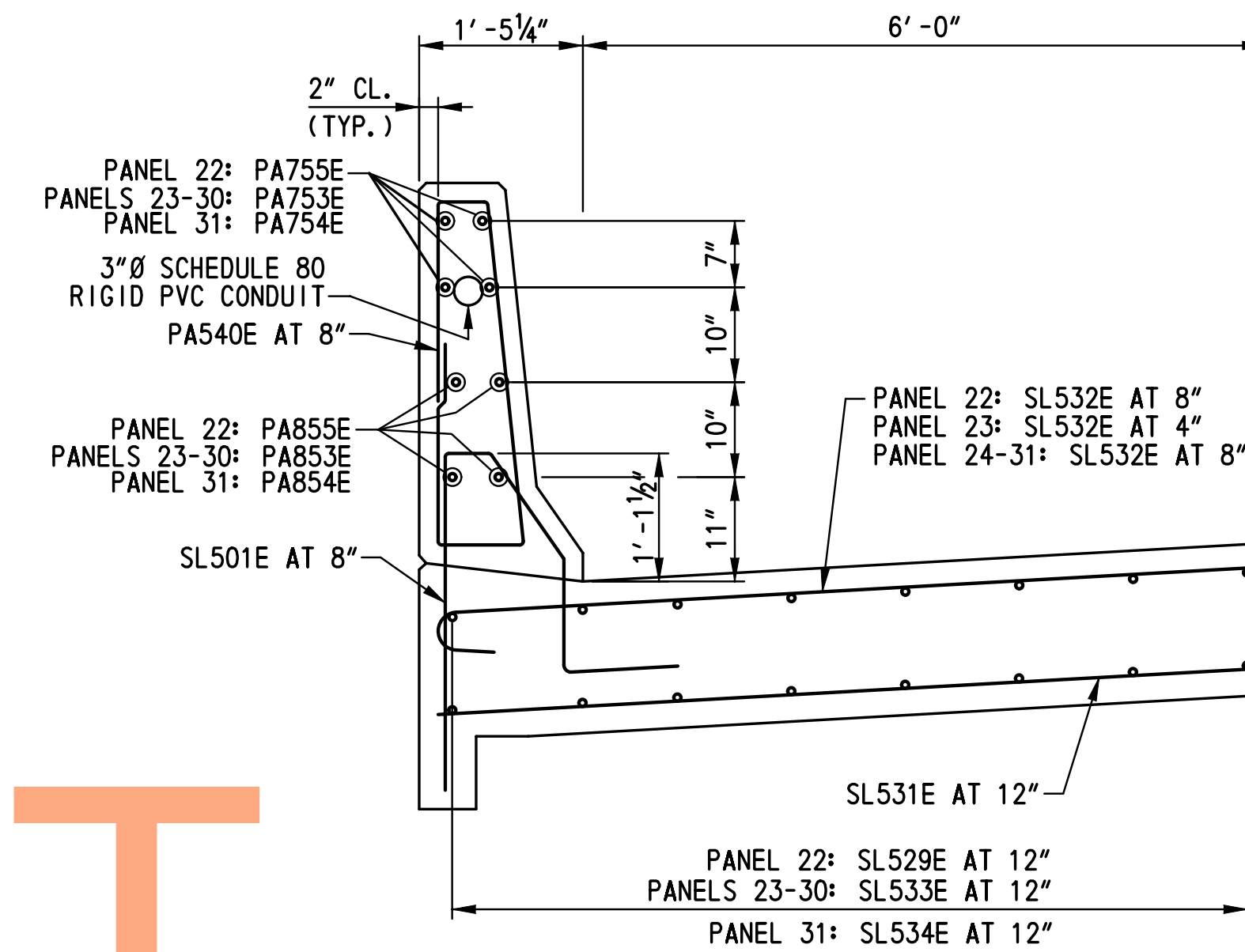
RW1-3 MS-11
SHEET NO.
317
TOTAL SHTS.
491

DRAFT



MOMENT SLAB REINFORCEMENT TYPICAL SECTION 1

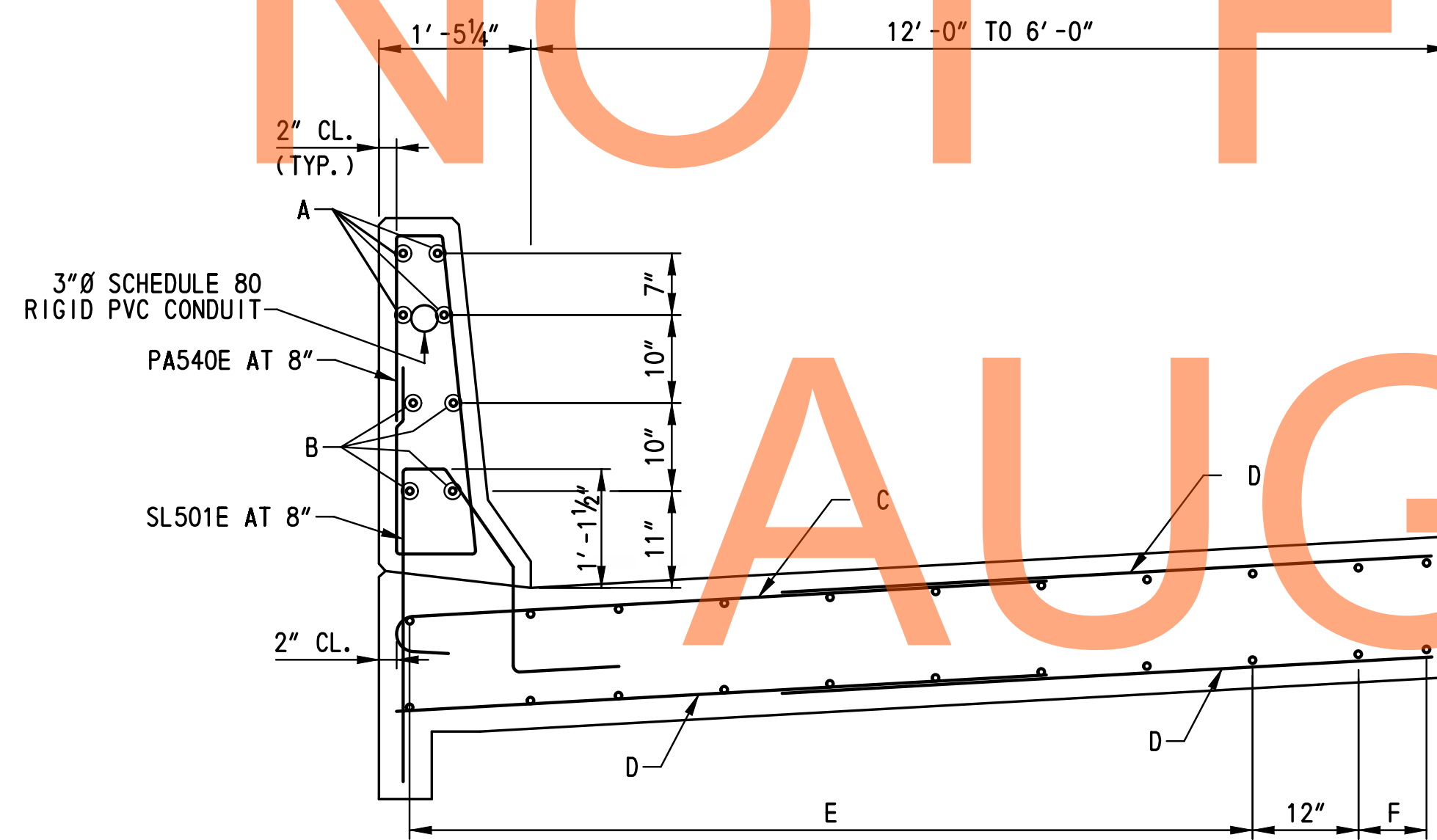
(SLAB PANEL I.D. ① TO ⑰)
SCALE: 3/4" = 1'-0"



MOMENT SLAB REINFORCEMENT TYPICAL SECTION 3

(SLAB PANEL I.D. ⑳ TO ㉿)
SCALE: 3/4" = 1'-0"

NOT FOR BIDDING



MOMENT SLAB REINFORCEMENT TYPICAL SECTION 2

(SLAB PANEL I.D. ⑱ TO ㉴)
SCALE: 3/4" = 1'-0"

LEGEND:

- | | | | | | | |
|---|--|--|--|--|--|---|
| A- PANEL 1-4: PA740E
PANEL 5: PA741E
PANEL 6-7: PA742E
PANEL 8: PA743E
PANEL 9: PA744E
PANEL 10: PA745E
PANEL 11-12: PA746E
PANEL 13: PA747E
PANEL 14,16: PA748E
PANEL 15: PA749E
PANEL 17: PA750E
PANEL 18-20: PA751E
PANEL 22: PA752E | B- PANEL 1-4: PA840
PANEL 5: PA841
PANEL 6-7: PA842
PANEL 8: PA843
PANEL 9: PA844
PANEL 10: PA845
PANEL 11-12: PA846
PANEL 13: PA847
PANEL 14,16: PA848
PANEL 15: PA849
PANEL 17: PA850
PANEL 18-20: PA851E
PANEL 22: PA852E | C PANEL 18: SL520E
PANEL 19: SL524E
PANEL 20: SL526E
PANEL 21: SL528E | D PANEL 18: SL519E
PANEL 19: SL523E
PANEL 20: SL525E
PANEL 21: SL527E | E PANEL 18: SL521E
PANEL 19: SL521E
PANEL 20: SL521E
PANEL 21: SL529E | F PANEL 18: 2- SL522E
PANEL 19: 1- SL522E
PANEL 20: 2- SL522E
PANEL 21: 1- SL522E | G PANEL 1-4: SL504E
PANEL 5: SL505E
PANEL 6-7: SL506E
PANEL 8: SL507E
PANEL 9: SL508E
PANEL 10: SL509E
PANEL 11-12: SL510E
PANEL 13: SL511E
PANEL 14,16: SL512E
PANEL 15: SL513E
PANEL 17: SL514E |
|---|--|--|--|--|--|---|

NOTES:

- TOLERANCE ON ALL JOINT SEALANT DETAILS DIMENSIONS SHOWN WITHOUT RANGES SHALL BE PLUS 1/8", MINUS 0".
- PAYMENT FOR CONSTRUCTION OF MOMENT SLAB WILL BE MADE UNDER ITEM NO. 602014 - PORTLAND CEMENT CONCRETE MASONRY, APPROACH SLAB, CLASS D. PAYMENT FOR THE PREFORMED CORK JOINT FILLER, SILICONE SEALER, DOWEL BARS AND METAL EXPANSION SLEEVES SHALL BE INCIDENTAL TO THIS ITEM.
- DOWEL BARS SHALL CONFORM TO 824.02(G).
- DOWELS SHALL BE ASSEMBLED IN A RIGID FRAMEWORK, SEE STANDARD P-1. THE EXPANSION JOINT FRAMEWORK SHALL PROVIDE ADEQUATE SUPPORT TO MAINTAIN THE PREFORMED JOINT FILLER IN PROPER HORIZONTAL AND VERTICAL ALIGNMENT.
- ANCHOR PINS SHALL BE USED TO SECURE THE FORMWORK ALONG THE SUBGRADE.
- THE FREE MOVING OR UNANCHORED END OF ALL DOWEL BARS IN BOTH CONTRACTION AND EXPANSION JOINTS SHALL BE COATED AFTER INSTALLATION OF THE DEVICE UPON THE SUBGRADE AND IMMEDIATELY PRIOR TO THE POURING OF THE CONCRETE WITH GRAPHITE GREASE APPLIED WITH A GLOVED HAND. THIS SAME END OF ALL EXPANSION JOINT DOWELS SHALL BE CAPPED WITH A SNUG FITTING, CLOSED END METAL EXPANSION SLEEVE TEMPORARILY SECURED TO THE BAR SO AS TO PROVIDE A 1" LONG OPEN SOCKET BEYOND THE BAR END AND TO LAP BACK 2" ON THE BAR AT THE TIME OF INSTALLATION.
- THE SILICONE SEALER SHALL BE ABLE TO ADHERE TO CONCRETE SUBSTRATES AND CONFORM TO FOLLOWING CRITERIA AFTER 21 DAYS AT 77° F:

ELONGATION, MINIMUM (PERCENT)	1400
JOINT MODULUS, AT 50 PERCENT ELONGATION, MAXIMUM (PSI)	7
JOINT MODULUS, AT 100 PERCENT ELONGATION, MAXIMUM (PSI)	8
JOINT MODULUS, AT 150 PERCENT ELONGATION, MAXIMUM (PSI)	9
ADHESION TO CONCRETE, MINIMUM ELONGATION, (PERCENT)	+600
ADHESION TO ASPHALT, MINIMUM ELONGATION, (PERCENT)	+600
JOINT MOVEMENT CAPABILITY, +100/-50, 10 CYCLES	NO FAILURE
- RUMBLE STRIPS SHALL BE LOCATED IN THE MOMENT SLAB ADJACENT TO THE SHOULDER LINE. FOR RUMBLE STRIP DETAIL, SEE DWG. NO. DT-01.

ADDENDUMS / REVISIONS

SCALE: AS NOTED

US 301 &
SR 1 INTERCHANGE

CONTRACT
T200911302
COUNTY
NEW CASTLE

BRIDGE NO.
RW1-3
DESIGNED BY:
RHM
CHECKED BY:
KEE

MOMENT SLAB
REINFORCEMENT
SECTION - 1

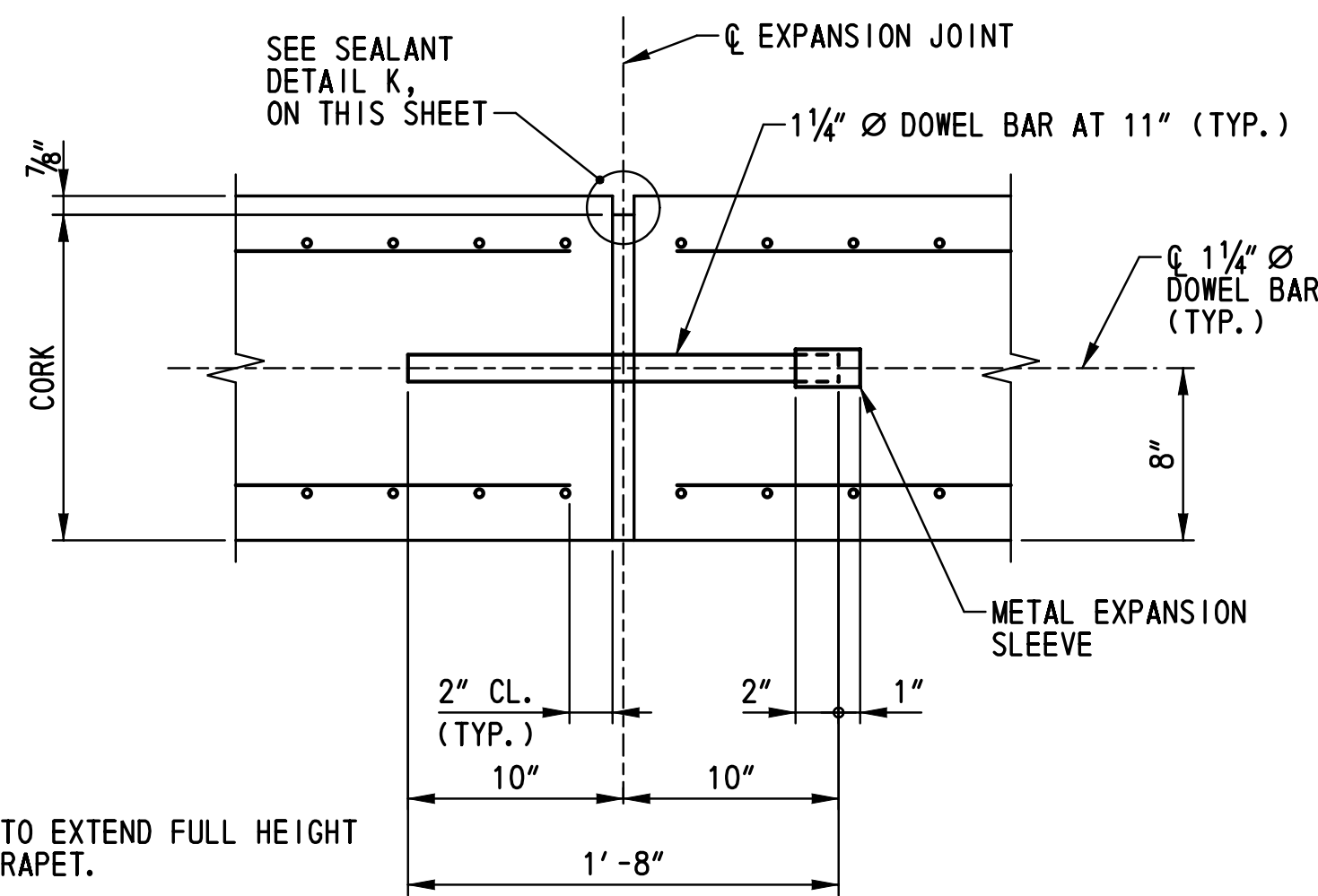
RW1-3
MS-12

SHEET NO.

318

TOTAL SHTS.

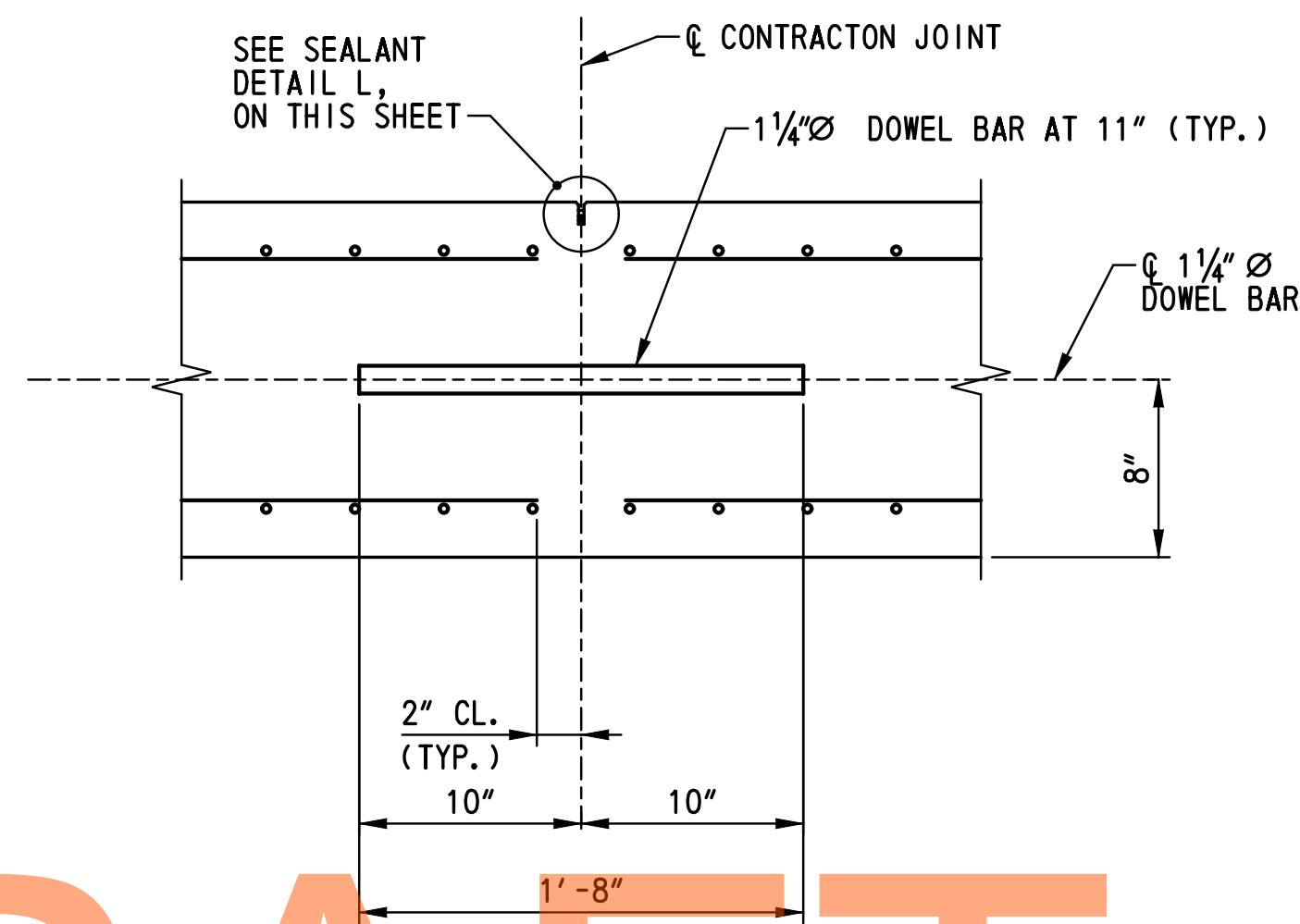
491



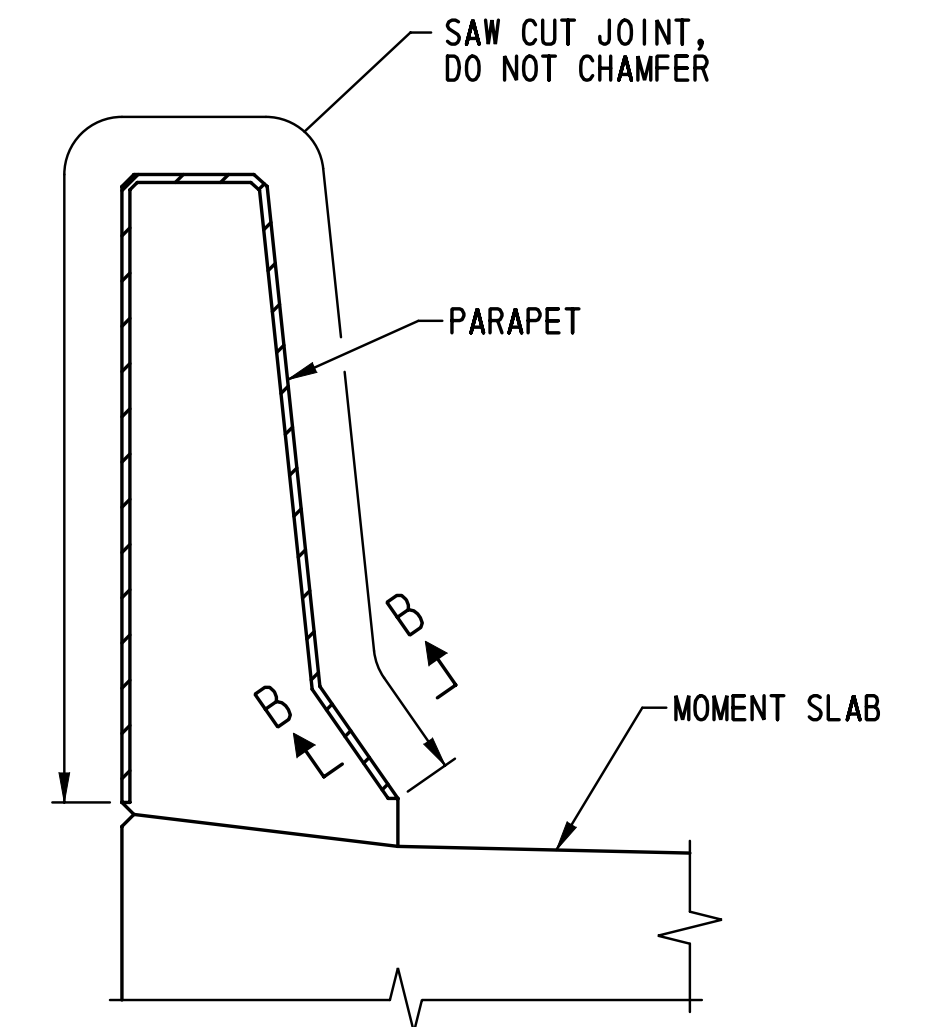
NOTES:

1. CORK TO EXTEND FULL HEIGHT OF PARAPET.
2. FOR EXPANSION JOINT BETWEEN APPROACH SLAB A AND MOMENT SLAB, SEE DETAIL B ON DWG. NO. AS-01.

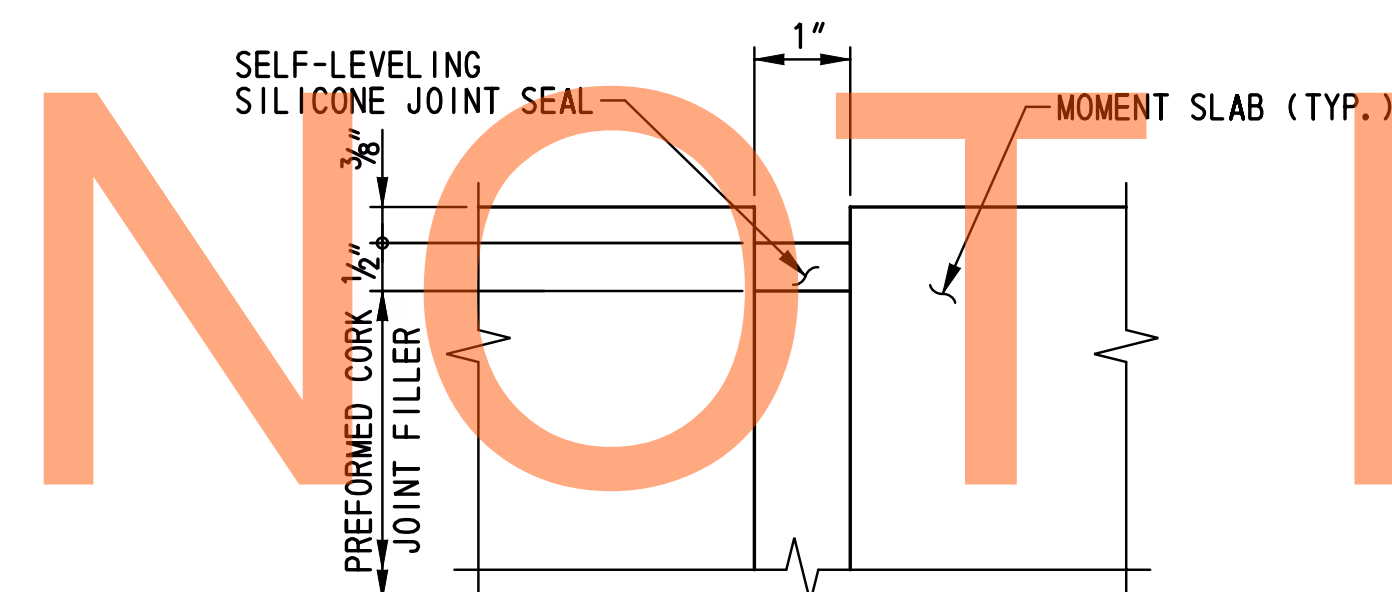
EXPANSION JOINT SECTION
SCALE: 1 1/2" = 1' - 0"



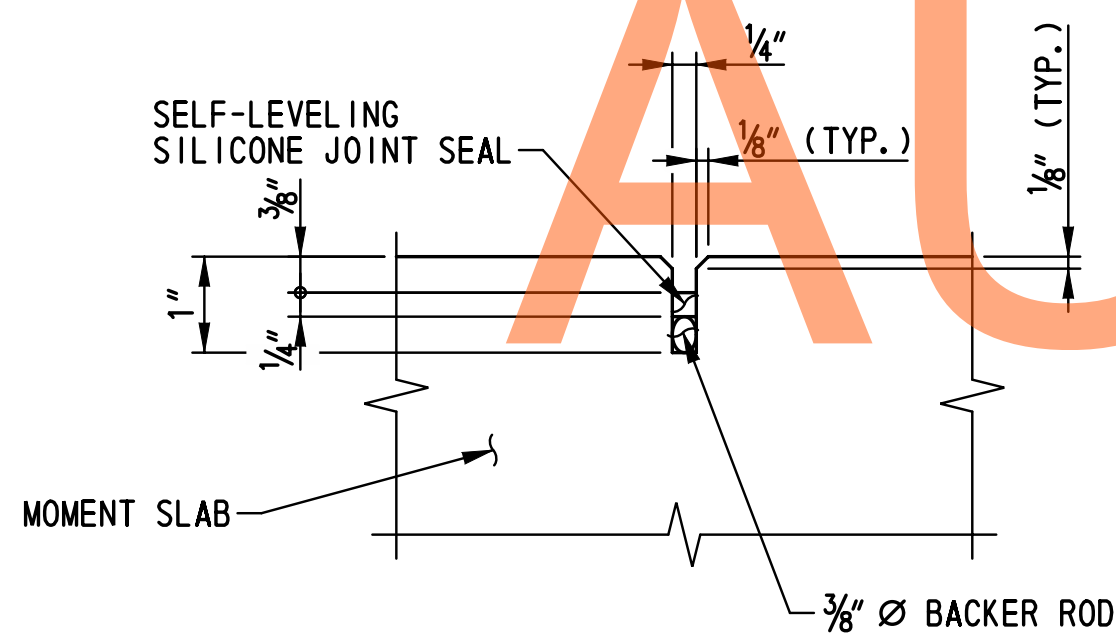
TYPICAL CONTRACTION JOINT SECTION
SCALE: 1 1/2" = 1' - 0"



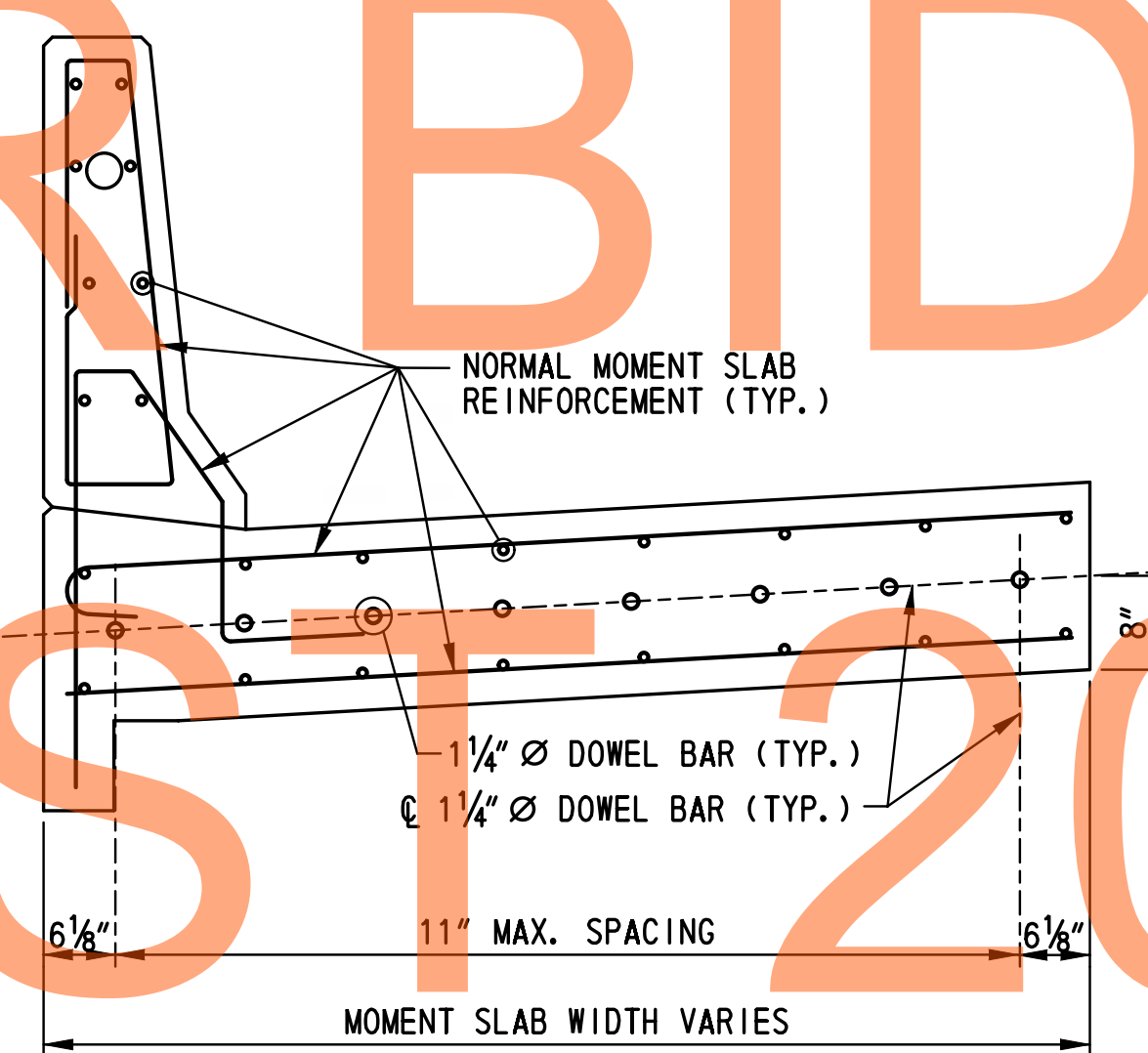
PARAPET CONTROL JOINT DETAIL
SCALE: 1" = 1' - 0"



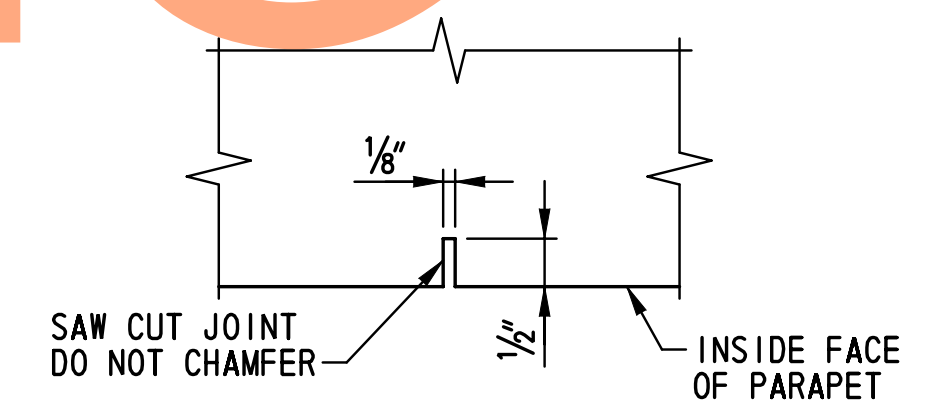
SEALANT DETAIL K
NOT TO SCALE



SEALANT DETAIL L
NOT TO SCALE



MOMENT SLAB JOINT TYPICAL SECTION
SCALE: 3/4" = 1' - 0"



SECTION B-B
SCALE: 6" = 1' - 0"

NOTE:
SAW CUT CONTROL JOINT SHALL BE SAWED SAME DAY AS CONCRETE IS POURED.

NOTES:

1. SEE DWG. NO. MS-12 FOR MOMENT SLAB NOTES.
2. SEE DWG. NOS. MS-01 THROUGH MS-07 FOR MOMENT SLAB PLANS AND LOCATIONS OF PARAPET CONTROL JOINTS.

DRAFT
NOT FOR BIDDING
AUGUST 2015

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ADDENDUMS / REVISIONS	

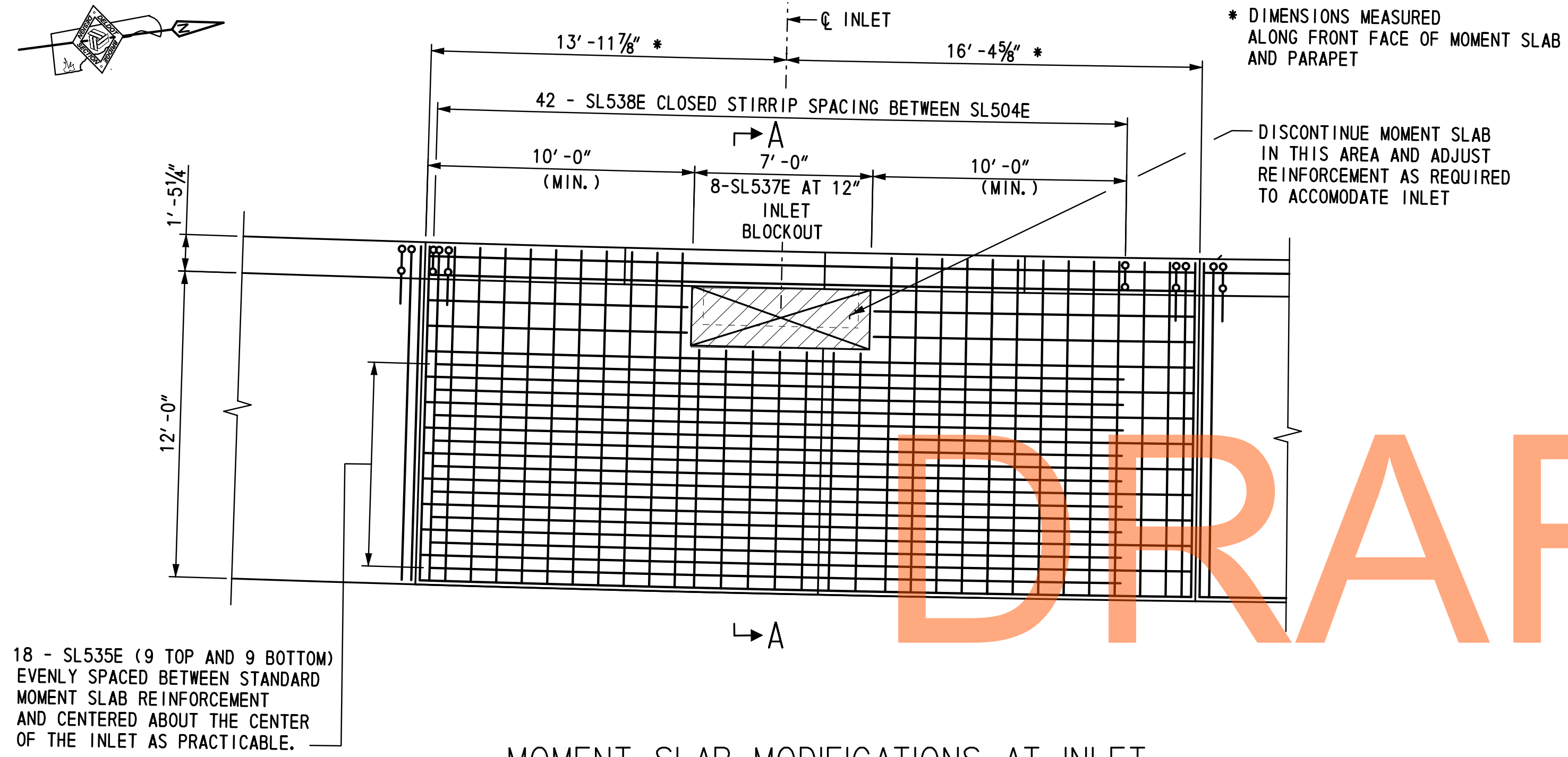
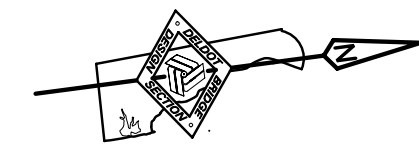
SCALE: AS NOTED

US 301 & SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	TSD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

MOMENT SLAB REINFORCEMENT SECTION - 2

RW1-3 MS-13
SHEET NO.
319
TOTAL SHTS.
491

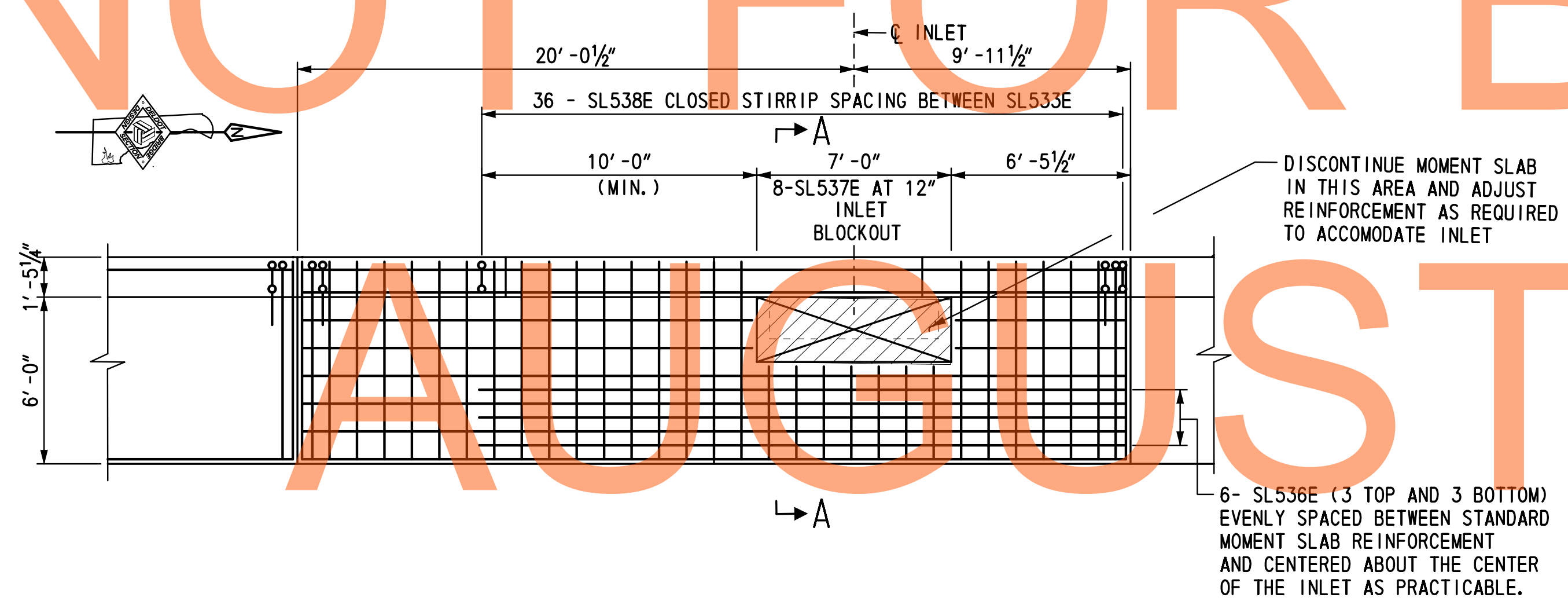


18 - SL535E (9 TOP AND 9 BOTTOM) EVENLY SPACED BETWEEN STANDARD MOMENT SLAB REINFORCEMENT AND CENTERED ABOUT THE CENTER OF THE INLET AS PRACTICABLE.

MOMENT SLAB MODIFICATIONS AT INLET

(SLAB PANEL I.D. 8)
SCALE: 1/4" = 1'-0"

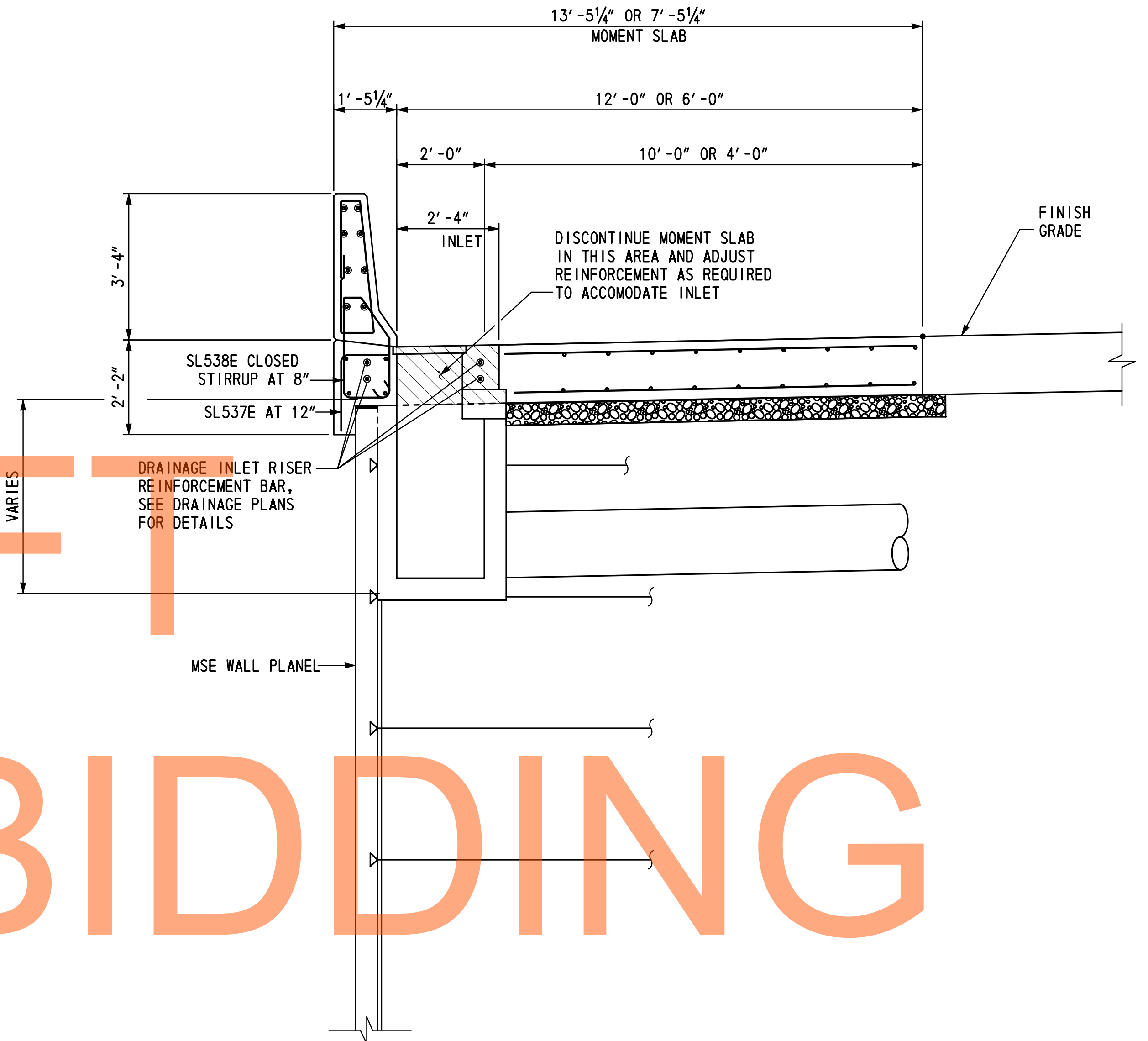
NOT FOR BIDDING



6 - SL536E (3 TOP AND 3 BOTTOM) EVENLY SPACED BETWEEN STANDARD MOMENT SLAB REINFORCEMENT AND CENTERED ABOUT THE CENTER OF THE INLET AS PRACTICABLE.

MOMENT SLAB MODIFICATIONS AT INLET

(SLAB PANEL I.D. 23)
SCALE: 1/4" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"

- NOTES:**
- FOR MOMENT SLAB PLAN, SEE DWG NOS. MS-01 TO MS-07.
 - FOR MOMENT SLAB TYPICAL SECTION DETAILS, SEE DWG. NO. RD-01.
 - FOR DRAINAGE INLET DETAILS, SEE DWG. NO. DT-12.

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ADDENDUMS / REVISIONS	

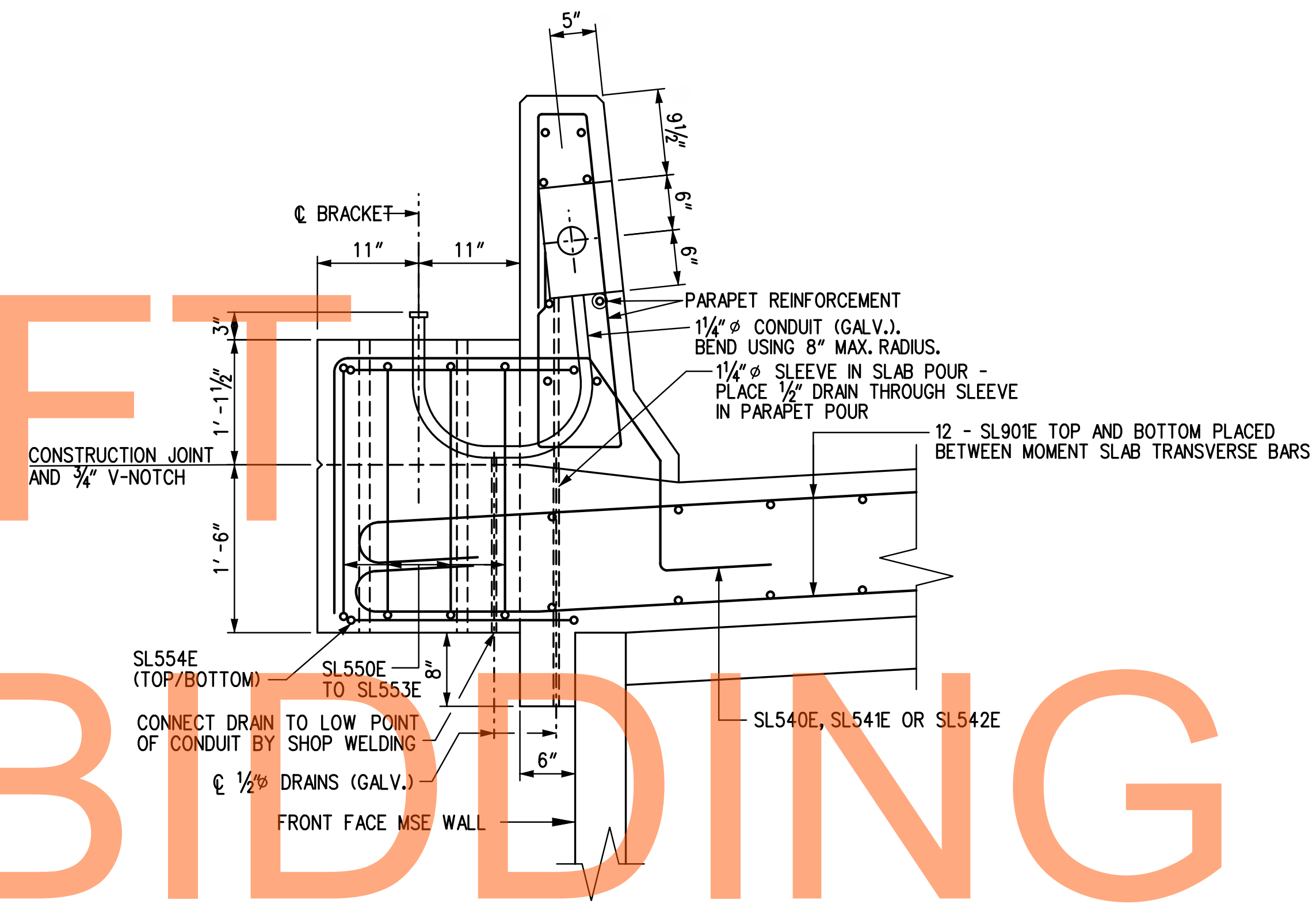
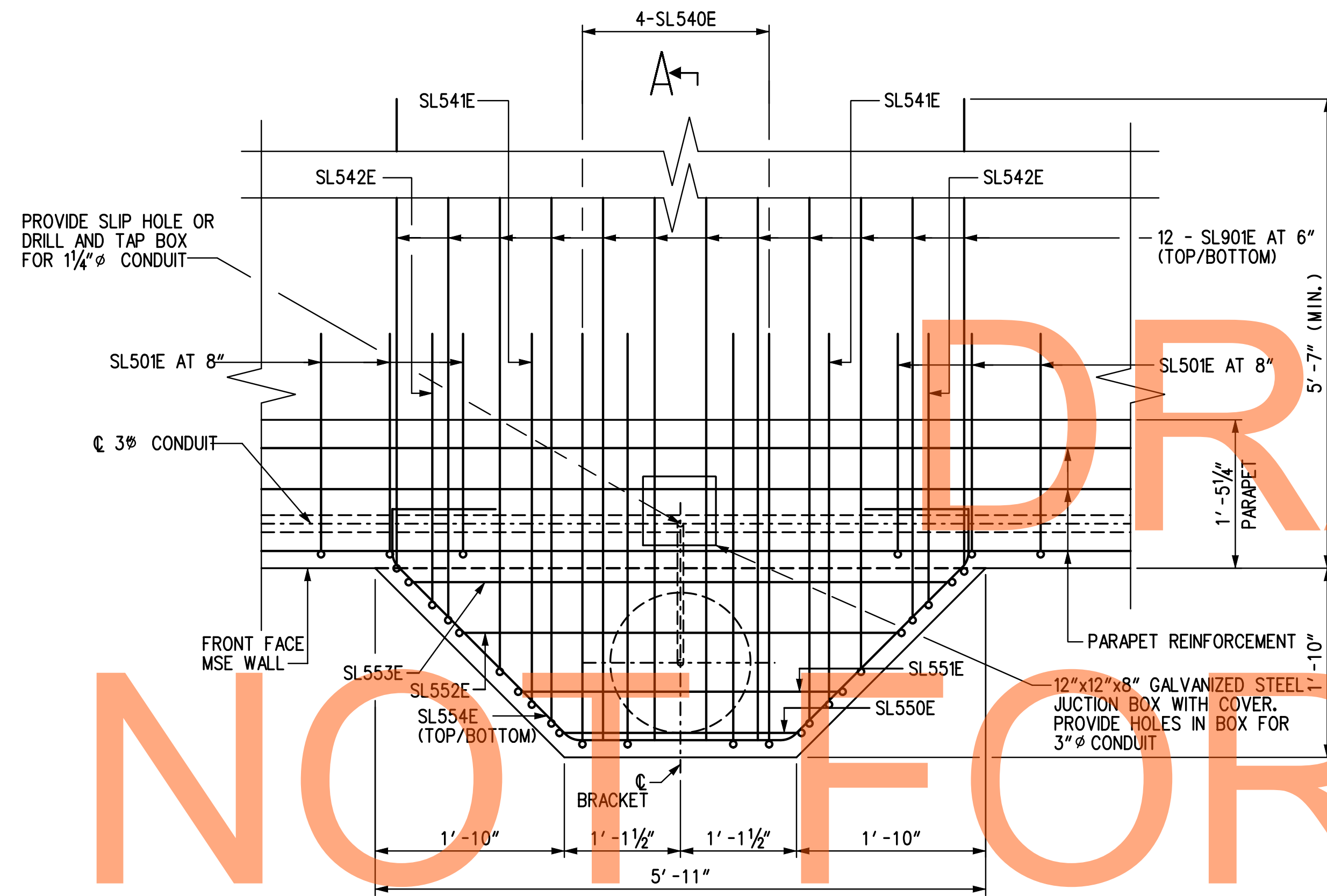
SCALE: AS NOTED

US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	TSD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

**MOMENT SLAB
MODIFICATION
DETAILS - 1**

RW1-3 MS-14
SHEET NO.
320
TOTAL SHTS.
491



NOT FOR BIDDING

AUGUST 2015

MOMENT SLAB MODIFICATION AT LIGHT POLE BRACKET
SCALE: 1" = 1'-0"

SECTION A-A
SCALE: 1" = 1'-0"

NOTES:

1. FOR LIGHT POST LOCATION SEE LIGHTING PLANS, DWG. NOS. LI-02 AND LI-04.
2. FOR PARAPET AND MOMENT SLAB REINFORCEMENT DETAILS SEE DWG. NOS. MS-08 TO MS-11.
3. CONTRACTOR TO ASCERTAIN THE BOLT CIRCLE DIMENSION AND SIZE OF ANCHOR BOLTS THAT WILL BE USED PRIOR TO PLACING SLEEVES FOR ANCHOR BOLTS. ALL LIGHT POLES TO BE SET PLUMB AND LOCATED MIDWAY BETWEEN PARAPET CONTROL JOINTS USING LEVELING NUTS ON ANCHOR BOLTS. MAX. HEIGHT OF POLE IS 40'.

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ADDENDUMS / REVISIONS	

SCALE: AS NOTED

US 301 &
SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	TSD
COUNTY	CHECKED BY:	KEE
NEW CASTLE		

**MOMENT SLAB
MODIFICATION
DETAILS - 2**

RW1-3 MS-15
SHEET NO.
321
TOTAL SHTS.
491

- 1 ANY MARK NUMBER WITH SUFFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.
- 2 ALL MARK 'LOCATION PREFIXES' SHALL CONSIST OF TWO LETTERS AND ARE AS FOLLOWS: AB = ABUTMENT, AS = APPROACH SLAB, BC = BOX CULVERT, BW = BACKWALL, CL = COLUMN, DK = DECK, DL = DOWEL, FT = FOOTING, HW = HEADWALL, MS = MISC. BARS, PA = PARAPET, PR = PIER, SC = SHEETPILE CAP, SL = SLAB, TW = TOEWALL, WL = WALL (UNIQUE LOCATION), WW = WINGWALL

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES /QUARTER INCH)											
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F/R	G	H	J	K	O	
MOMENT SLAB																
1374	5	6-60	SL501E	T15		2-110	0-52	1-12	1-00	1-00					0-73	1-11
777	5	14-30	SL502E	1	0-70	13-10					0-70				0-50	
489	5	13-10	SL503E	STR		13-10										
112	5	29-10	SL504E	STR		29-10										
28	5	30-100	SL505E	STR		30-100										
56	5	31-00	SL506E	STR		31-00										
28	5	30-20	SL507E	STR		30-20										
28	5	28-100	SL508E	STR		28-100										
28	5	27-110	SL509E	STR		27-110										
56	5	26-60	SL510E	STR		26-60										
28	5	29-60	SL511E	STR		29-60										
56	5	27-10	SL512E	STR		27-10										
28	5	13-50	SL513E	STR		13-50										
56	5	15-60	SL514E	STR		15-60										
1	5	14-40	SL515E	1	0-70	13-20								0-50		
1	5	13-20	SL516E	STR		13-20										
107	5	8-50	SL519E	STR		8-50										
45	5	9-00	SL520E	1	0-70	8-50								0-50		
60	5	29-70	SL521E	STR		29-70										
10	5	29-80	SL522E	STR		29-80										
107	5	7-80	SL523E	STR		7-80										
45	5	8-30	SL524E	1	0-70	7-80								0-50		
107	5	6-100	SL525E	STR		6-100										
45	5	7-50	SL526E	1	0-70	6-100								0-50		
108	5	6-20	SL527E	STR		6-20										
46	5	6-90	SL528E	1	0-70	6-20								0-50		
68	5	16-30	SL529E	STR		16-30										
312	5	7-10	SL531E	STR		7-10										
506	5	7-80	SL532E	1	0-70	7-10								0-50		
128	5	29-80	SL533E	STR		29-80										
16	5	30-40	SL534E	STR		30-40										
18	5	27-00	SL535E	STR		27-00										
6	5	23-30	SL536E	STR		23-30										
16	5	2-90	SL537E	STR		1-10	1-80									
78	5	7-72	SL538E	T11	0-60	1-11	1-00	1-22	1-11	2-22	0-60	1-00				
12	5	7-80	SL540E	T15		2-30	2-32	1-12	1-00	1-00				0-73	3-111	
6	5	7-30	SL541E	T15		2-30	1-02	1-12	1-00	1-00				0-73	3-61	
6	5	6-40	SL542E	T15		2-30	0-112	1-12	1-00	1-00				0-73	2-71	
3	5	10-20	SL550E	T2	0-60	2-32	2-32	2-32	2-32		0-60					

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES /QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F/R	G	H	J	K	O
3	5	11-92	SL551E	T2	0-60	3-11	2-32	3-11	2-32		0-60				
3	5	13-92	SL552E	T2	0-60	4-11	2-32	4-11	2-32		0-60				
3	5	15-92	SL552E	T2	0-60	5-11	2-32	5-11	2-32		0-60				
6	5	9-93	SL554E	C76	1-00	0-50	2-51	2-11	2-51	0-50	1-00	1-83		1-83	5-70
72	9	8-60	SL901E	1	1-30	7-30							0-113		
1368	5	9-31	PA540E	PA		2-62	0-90	3-01	0-50	2-62		3-00		0-40	
1X6	5	7-81	PA541E	PA		2-13	0-90	2-23	0-50	2-13		2-22		0-40	
		TO				TO	TO	TO	TO	TO		TO		TO	
		9-21				2-61	0-90	2-113	0-50	2-61		2-112		0-40	
16	7	29-10	PA740E	STR		29-10									
4	7	30-100	PA741E	STR		30-100									
8	7	31-00	PA742E	STR		31-00									
4	7	30-20	PA743E	STR		30-20									
4	7	28-100	PA744E	STR		28-100									
4	7	27-110	PA745E	STR		27-110									
8	7	26-60	PA746E	STR		26-60									
4	7	29-60	PA747E	STR		29-60									
8	7	27-10	PA748E	STR		27-10									
4	7	13-50	PA749E	STR		13-50									
4	7	28-30	PA750E	STR		28-30									
12	7	29-70	PA751E	STR		29-70									
4	7	29-110	PA752E	STR		29-110									
32	7	29-80	PA753E	STR		29-80									
2	7	30-51	PA754E	12			27-12	3-33			0-93		3-22	30-40	
4	7	28-110	PA755E	STR		28-110									
2	7	29-52	PA756E	STR		29-52									
16	8	29-10	PA840E	STR		29-10									
4	8	30-100	PA841E	STR		30-100									
8	8	31-00	PA842E	STR		31-00									
4	8	30-20	PA843E	STR		30-20									
4	8	28-100	PA844E	STR		28-100									
4	8	27-110	PA845E	STR		27-110									
8	8	26-60	PA846E	STR		26-60									
4	8	29-60	PA847E	STR		29-60									
8	8	27-10	PA848E	STR		27-10									
4	8	13-50	PA849E	STR		13-50									

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES /QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F/R	G	H	J	K	O
4	8	28-30	PA850E	STR		28-30									
12	8	29-70	PA851E	STR		29-70									
4	8	29-110	PA852E	STR		29-110									
32	8	29-80	PA853E	STR		29-80									
4	8	30-40	PA854E	STR		30-40									
4	8	28-110	PA855E	STR		28-110									

NOT FOR BIDDING DRAFT

\p\client\15\Projects\2008\FEL-ED0836 (DelDOT US 301_1145)7-1 Transportation\1.Bridges\Drawings\Final_P&E\RW1-3 & RW1-3R\RW1-3 BR01.rvt=3.dgn
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ASTM STANDARD ENGLISH REINFORCING BARS				RECOMMENDED END HOOKS, APPLICABLE TO ALL GRADES				STIRRUP AND TIE HOOKS, APPLICABLE TO ALL GRADES			
BAR SIZE	NOMINAL DIMENSIONS			180° HOOKS		90° HOOKS		90° HOOK		135° HOOK	
	DIAMETER (INCHES)	AREA (INCHES ²)	WEIGHT (LBS./FT.)	D	A OR G	J	A OR G	D	A OR G	A OR G	A OR G
3	0.375	0.110	0.376	2 1/4"	5"	3"	6"	1 1/2"	4"	4"	2 1/2"
4	0.500	0.200	0.668	3"	6"	4"	8"	2"	4 1/2"	4 1/2"	3"
5	0.625	0.310	1.043	3 3/4"	7"	5"	10"	2 1/2"	6"	5 1/2"	3 3/4"
6	0.750	0.440	1.502	4 1/2"	8"	6"	1-0"	4 1/2"	1-0"	8"	4 1/2"
7	0.875	0.600	2.044	5 1/4"	10"	7"	1-2"	5 1/4"	1-2"	9"	5 1/4"
8	1.000	0.790	2.670	6"	11"	8"	1-4"	6"	1-4"	10 1/2"	6"
9	1.128	1.000	3.400	9 1/2"	1-3"	11 3/4"	1-7"				
10	1.270	1.270	4.303	10 3/4"	1-5"	1-1 1/4"	1-10"				
11	1.410	1.560	5.313	1-0"	1-7"	1-2 3/4"	2-0"				
14	1.693	2.250	7.650	1-6 1/4"	2-3"	1-9 3/4"	2-7"				
18	2.257	4.000	13.600	2-0"	3-0"	2-4 1/2"	3-5"				

NOTES:

- FIGURES SHOWN IN CIRCLES REPRESENT BAR BEND TYPES.
- STANDARD BAR



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ADDENDUMS / REVISIONS	

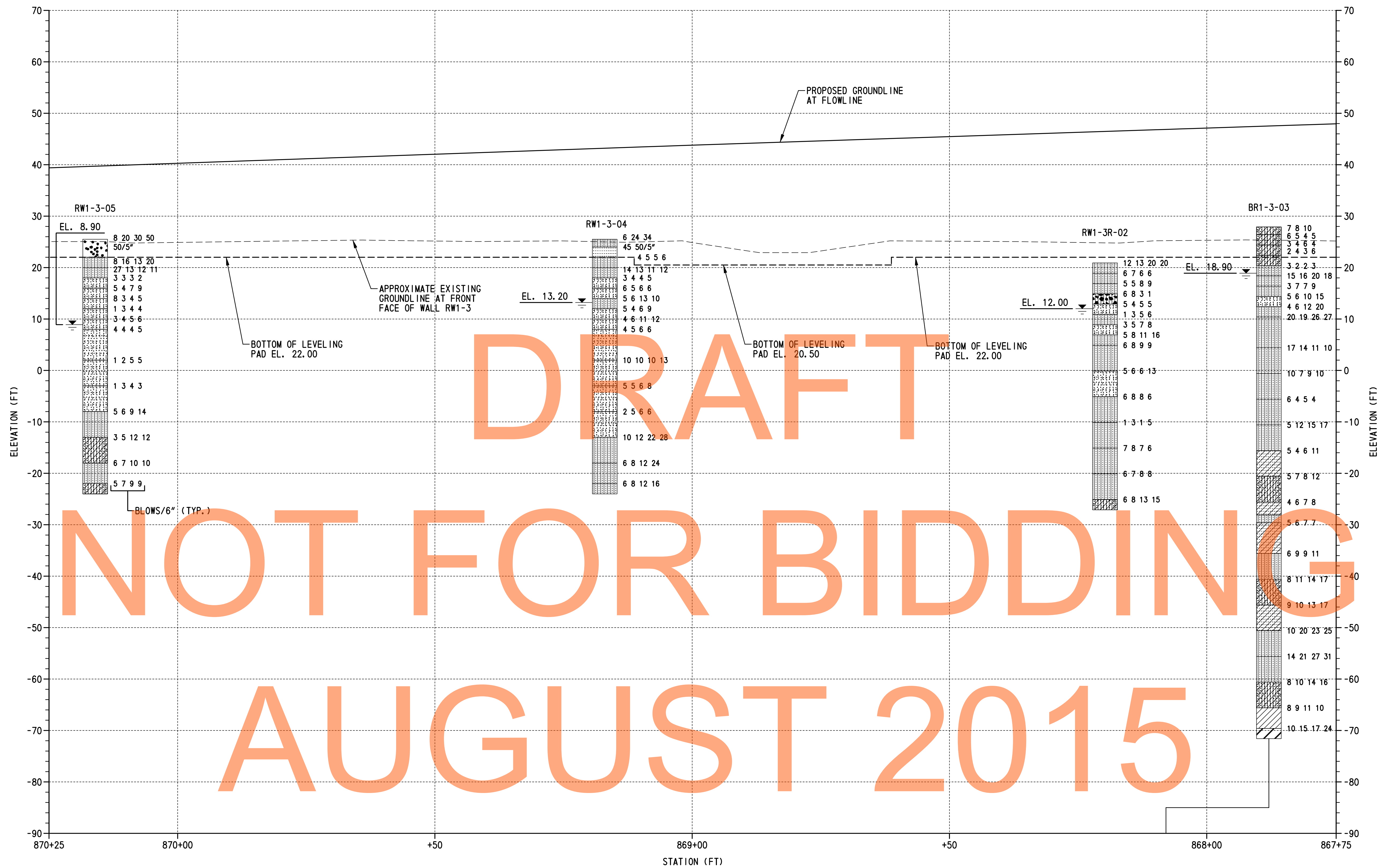


US 301 & SR 1 INTERCHANGE

CONTRACT T200911302	BRIDGE NO. RW1-3
COUNTY NEW CASTLE	DESIGNED BY: W.R.A. CHECKED BY: P.S.D.

BORING PROFILE - 1

VERTICAL SCALE 0 10 20 30 FEET
RW1-3 BO-01
SHEET NO. 323
TOTAL SHTS. 491



BORING PROFILE
SCALE: 1"=10'-0"

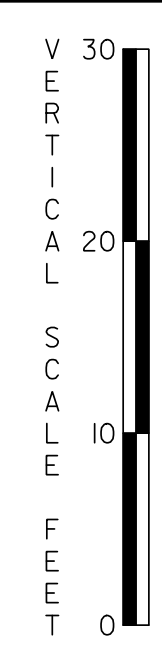
LEGEND:

	POORLY GRADED CLAYEY SILTY SAND		CLAYEY SAND		SILTY LOW PLASTICITY CLAY		POORLY GRADED SAND		WELL GRADED SAND WITH SILT
	SILTY SAND		LOW PLASTICITY CLAY		POORLY GRADED GRAVEL		WELL GRADED GRAVEL		SILTY GRAVEL
	POORLY GRADED SAND WITH SILT		HIGH PLASTICITY CLAY		SILT		POORLY GRADED GRAVEL WITH SILT		WATER TABLE AT BORING COMPLETION

NOTES:

- FOR BORING LOCATIONS, SEE DWG. NO. PE-02.
- BORING BR1-3-03 IS SHOWN OFFSET AS INDICATED FOR CLARITY.
- RESULTS CONDUCTED ON SAMPLES RECOVERED ARE REPORTED ON THE BORING LOGS. LOGS, LABORATORY TESTING AND CPT DATA ARE INCLUDED AS PART OF THE CONTRACT DOCUMENTS, SEE CD.

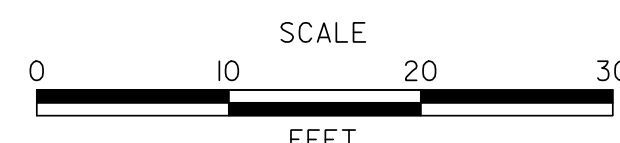
TEST BORINGS				
BORING DESIGNATION	STATION	OFFSET	NORTHING	EASTING
BR1-3-03	868+07.72	25.16 LT.	557989.0900	590523.7200
RW1-3R-02	868+19.76	44.97 RT.	558000.0000	590594.0000
RW1-3-04	869+16.99	13.33' LT.	558098.0000	590537.0000
RW1-3-05	870+16.02	11.64' LT.	558197.0000	590540.0000



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ADDENDUMS / REVISIONS

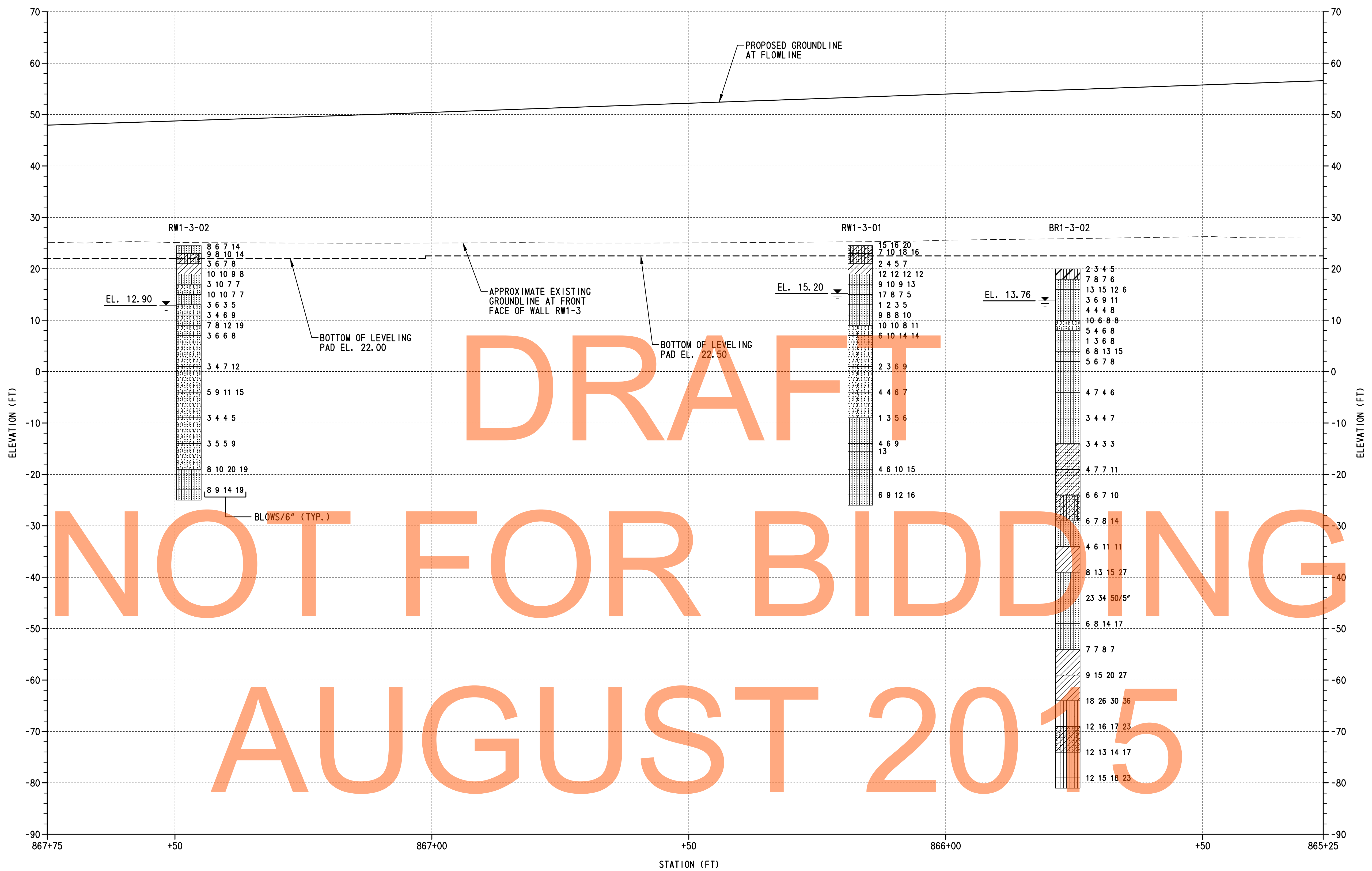


US 301 & SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	W.R.A.
COUNTY	CHECKED BY:	P.S.D.
NEW CASTLE		

BORING PROFILE - 2

RW1-3 BO-02
SHEET NO.
324
TOTAL SHTS.
491



DRAFT

NOT FOR BIDDING

AUGUST 2015

BORING PROFILE
SCALE: 1"=10'-0"

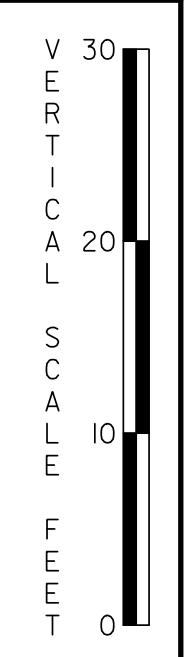
LEGEND:

	POORLY GRADED CLAYEY SILTY SAND		CLAYEY SAND		SILTY LOW PLASTICITY CLAY		POORLY GRADED SAND		WELL GRADED SAND WITH SILT
	SILTY SAND		LOW PLASTICITY CLAY		POORLY GRADED GRAVEL		WELL GRADED GRAVEL		SILTY GRAVEL
	POORLY GRADED SAND WITH SILT		HIGH PLASTICITY CLAY		POORLY GRADED GRAVEL WITH SILT		WATER TABLE AT BORING COMPLETION		
	SILT								

TEST BORINGS				
BORING DESIGNATION	STATION	OFFSET	NORTHING	EASTING
BR1-3-02	865+76.26	39.32' RT.	557753.0000	590575.0000
RW1-3-01	866+16.64	13.29' LT.	557799.0000	590527.1900
RW1-3-02	867+47.29	8.74' LT.	557928.3400	590539.2330

NOTES:

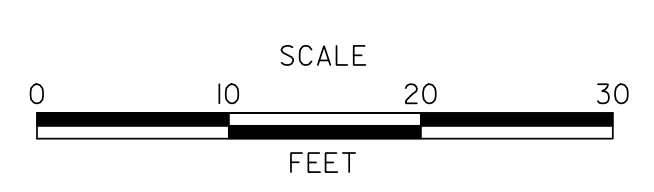
- FOR BORING LOCATIONS, SEE DWG. NO. PE-03.
- RESULTS CONDUCTED ON SAMPLES RECOVERED ARE REPORTED ON THE BORING LOGS. LOGS, LABORATORY TESTING AND CPT DATA ARE INCLUDED AS PART OF THE CONTRACT DOCUMENTS, SEE CD.



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ADDENDUMS / REVISIONS	

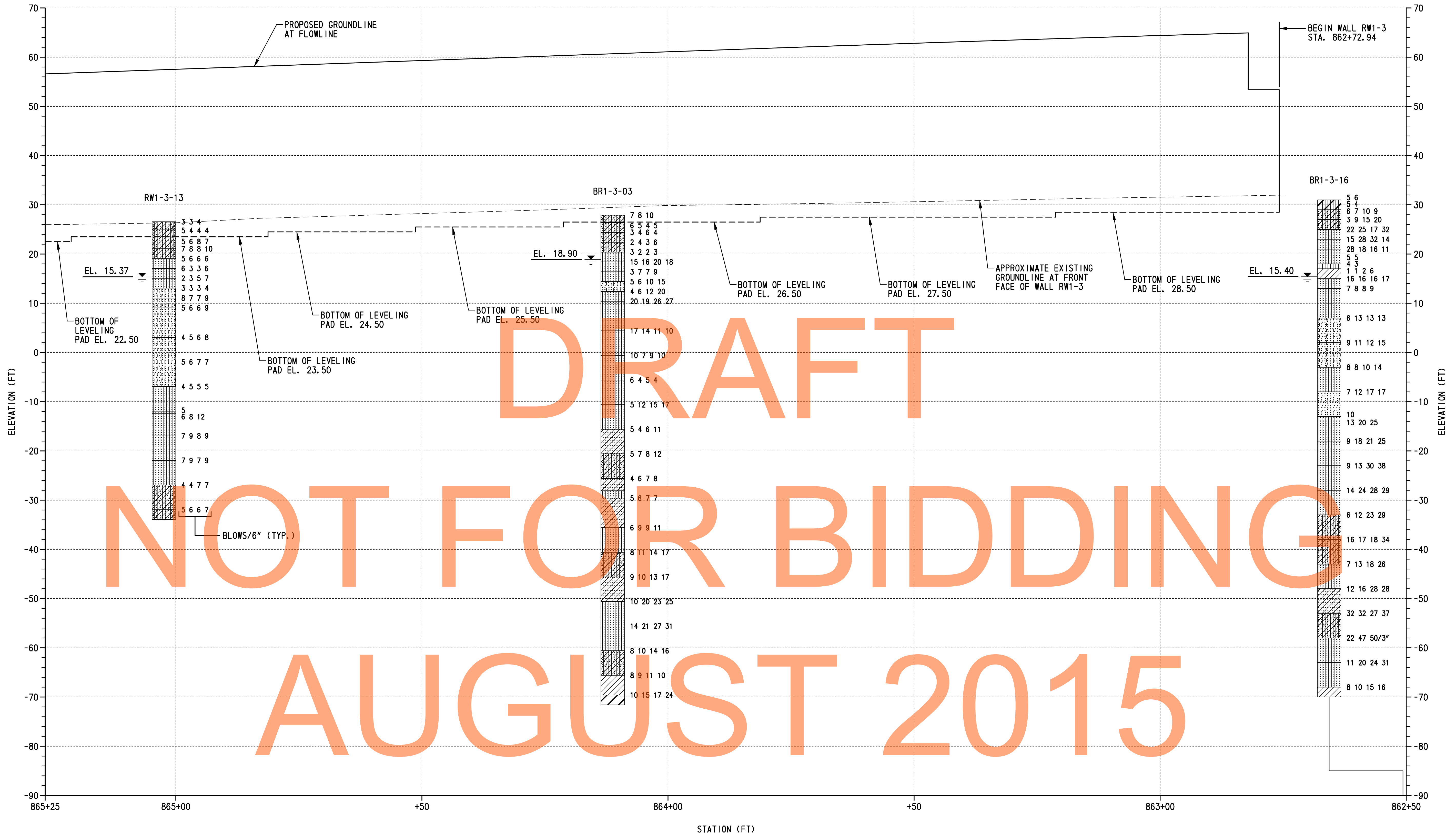


**US 301 &
SR 1 INTERCHANGE**

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	W.R.A.
COUNTY	CHECKED BY:	P.S.D.
NEW CASTLE		

BORING PROFILE - 3

RW1-3 BO-03
SHEET NO.
325
TOTAL SHTS.
491



DRAFT
NOT FOR BIDDING
AUGUST 2015

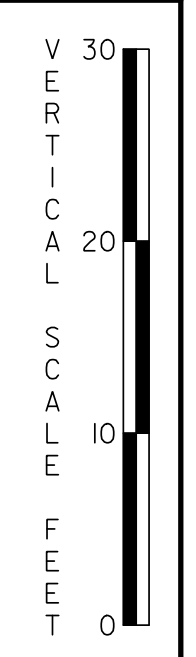
LEGEND:

- | | | | | | | | | | | | |
|--|---------------------------------|--|----------------------|--|---------------------------|--|--------------------|--|--------------------------------|--|----------------------------------|
| | POORLY GRADED CLAYEY SILTY SAND | | CLAYEY SAND | | SILTY LOW PLASTICITY CLAY | | POORLY GRADED SAND | | WELL GRADED SAND WITH SILT | | WATER TABLE AT BORING COMPLETION |
| | SILTY SAND | | LOW PLASTICITY CLAY | | POORLY GRADED GRAVEL | | WELL GRADED GRAVEL | | POORLY GRADED GRAVEL WITH SILT | | |
| | POORLY GRADED SAND WITH SILT | | HIGH PLASTICITY CLAY | | SILT | | | | | | |

BORING PROFILE
SCALE: 1"=10'-0"

TEST BORINGS				
BORING DESIGNATION	STATION	OFFSET	NORTHING	EASTING
BR1-3-16	862+50.66	1.36' RT.	557437.0000	590477.0000
BR1-3-03	864+11.23	15.65' LT.	557598.0000	590494.0000
RW1-3-13	865+02.42	7.92' RT.	557684.2400	590527.1900

- NOTES:**
- FOR BORING LOCATIONS, SEE DWG. NO. PE-04.
 - BORING BR1-3-16 IS SHOWN OFFSET AS INDICATED FOR CLARITY.
 - RESULTS CONDUCTED ON SAMPLES RECOVERED ARE REPORTED ON THE BORING LOGS. LOGS, LABORATORY TESTING AND CPT DATA ARE INCLUDED AS PART OF THE CONTRACT DOCUMENTS, SEE CD.



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ADDENDUMS / REVISIONS	



US 301 & SR 1 INTERCHANGE

CONTRACT	BRIDGE NO.	RW1-3
T200911302	DESIGNED BY:	W.R.A.
COUNTY	CHECKED BY:	P.S.D.
NEW CASTLE		

BORING PROFILE - 4
SHEET NO.
326
TOTAL SHTS.
491

RW1-3 BO-04