

TIP PROJECT: 2BPR.10741



STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

PITT COUNTY

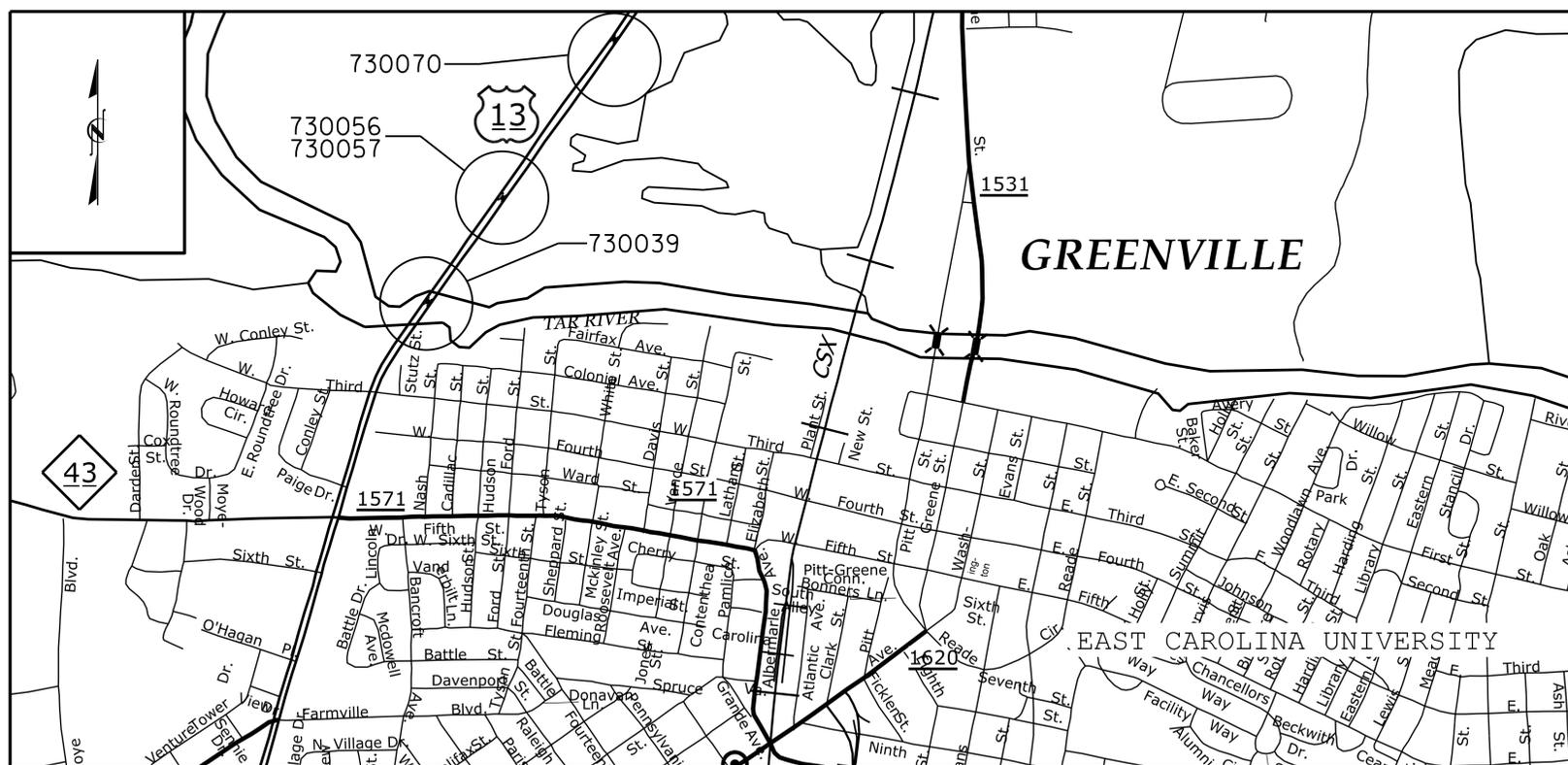
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2BPR.10741	1	30
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
2BPR.10741	-	P.E.	
2BPR.10741	-	CONST.	

LOCATION:

PITT COUNTY
BRIDGE #39 ON US13 SOUTHBOUND OVER THE TAR RIVER
BRIDGE #56NBL AND #57SBL ON US13 OVER TAR RIVER OVERFLOW
BRIDGE #70 ON US13 SOUTHBOUND OVER TAR RIVER OVERFLOW

TYPE OF WORK:

BRIDGE PRESERVATION - POLYESTER POLYMER CONCRETE OVERLAY,
DECK REPAIR, JOINT REPLACEMENT, ASPHALT MILLING AND RESURFACING,
APPROACH SLAB WIDENING



VICINITY MAP - PITT COUNTY (N.T.S.)

STRUCTURES



DESIGN DATA

PITT COUNTY
 #39 ADT 2012=12,000
 #56 ADT 2014=12,500
 #57 ADT 2014=12,500
 #70 ADT 2014=11,500

PROJECT LENGTH

PITT COUNTY
 #39=0.102 MILE
 #56=0.053 MILE
 #57=0.053 MILE
 #70=0.027 MILE
TOTAL=0.235 MILE

Prepared in the Office of:

KCA 301 FAYETTEVILLE ST., SUITE 1500
 KISINGER CAMPO & ASSOCIATES RALEIGH, NC 27601
 (919) 882-7839

JACOB H. DUKE
 PROJECT ENGINEER

DIEGO AGUIRRE
 PROJECT DESIGN ENGINEER



Prepared for the Office of:
DIVISION OF HIGHWAYS
 HIGHWAY DIVISION 2
 2815 ROUSE ROAD EXT.
 KINSTON, NC 28504

2018 STANDARD SPECIFICATIONS

LETTING DATE :
 NOVEMBER 20, 2018

CONTRACT: -

PROJECT NUMBER: 2BPR.10741

INDEX OF SHEETS - STRUCTURES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2BPR.10741	1A	30
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
2BPR.10741	-	P.E.	
2BPR.10741	-	CONST.	

	1	TITLE SHEET
	1A	INDEX OF SHEETS
	S-1	TOTAL BILL OF MATERIALS
	S-2	CONCRETE RESTORATION DETAILS
<hr/>		
	S1-1	GENERAL DRAWING
	S1-2	PLAN OF SPAN - SPANS 1 THRU 4 & 9 THRU 12
	S1-3	PLAN OF SPAN - SPANS 5 THRU 8
730039	S1-4	TYPICAL SECTIONS - PPC OVERLAY
	S1-5	JOINT DETAILS
	S1-6	JOINT DETAILS
	S1-7	APPROACH ROADWAY - MILLING AND RESURFACING
	S1-8	APPROACH SLAB DETAILS
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	S2-1	GENERAL DRAWING
730056	S2-2	PLAN OF SPAN - SPANS 1 THRU 8
	S2-3	TYPICAL SECTIONS - PPC OVERLAY
	S2-4	JOINT DETAILS
	S2-5	APPROACH ROADWAY - MILLING AND RESURFACING
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	S3-1	GENERAL DRAWING
	S3-2	PLAN OF SPAN - SPAN 1 & 8
730057	S3-3	TYPICAL SECTIONS - PPC OVERLAY
	S3-4	JOINT DETAILS
	S3-5	APPROACH ROADWAY - MILLING AND RESURFACING
	S3-6	APPROACH SLAB DETAILS
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	S4-1	GENERAL DRAWING
	S4-2	PLAN OF SPANS
730070	S4-3	TYPICAL SECTIONS - PPC OVERLAY
	S4-4	JOINT DETAILS
	S4-5	APPROACH ROADWAY - MILLING AND RESURFACING
	S4-6	APPROACH SLAB DETAILS
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		STANDARD NOTES



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SUMMARY OF QUANTITIES

TOTAL BILL OF MATERIAL

BRIDGE No.	REMOVAL OF EXISTING ASPHALT PAVEMENT	SELECT MATERIAL CLASS V	INCIDENTAL MILLING	ASPHALT CONCRETE SURFACE COURSE TYPE, S9.5C	ASPHALT BINDER FOR PLANT MIX	GROOVING BRIDGE FLOORS	CLASS A CONCRETE BRIDGE (APP. SLAB WIDENING)	REINFORCING STEEL (BRIDGE)	CLASS II, SURFACE PREPARATION	FOAM JOINT SEALS	SILICONE JOINT SEALANT	PPC MATERIALS	SCARIFYING BRIDGE DECK	SHOTBLASTING BRIDGE DECK	PLACING AND FINISHING PPC OVERLAY	COLD APPLIED PLASTIC PAV. MARKING LINES TYPE II (4")	SNOWPLOW-ABLE PAVEMENT MARKERS
	SO.YD.	TON.	SO.YD.	TONS.	TONS	SQ. FT.	CU. YDS.	LB.	SO. YDS.	LUMP SUM	LIN. FT.	CU. YDS.	SO. YDS.	SO. YDS.	SO. YDS.	LIN. FT.	EA.
730039	86	52	375	25	1.5	21925	18	2914	21	LUMP SUM		83	2658	2658	2658	1566	9
730056			267	22	1.3	6946			30	LUMP SUM	37	28	874	874	874	857	5
730057	72	48	303	25	1.5	11742	15	2408	16	LUMP SUM		45	1430	1430	1430	947	6
730070	72	48	569	47	2.8	6611	15	2408	11	LUMP SUM		25	806	806	806	857	5
TOTAL	230	148	1514	119	7.1	47224	48	7730	78	LUMP SUM	37	181	5768	5768	5768	4227	25

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 39, 56, 57, 70

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
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DRAWN BY : OMAR KHALAFALLA DATE : 09/2018
 CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

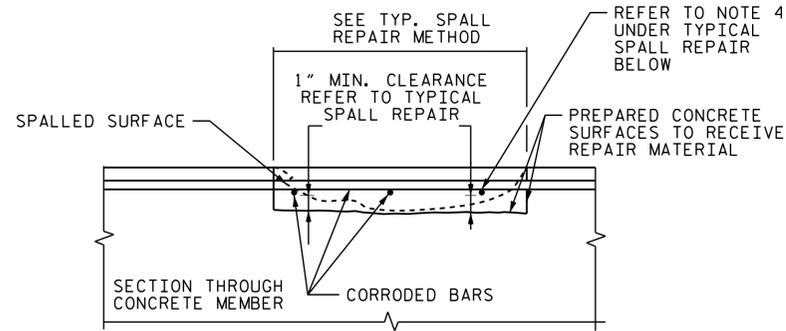


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TOTAL BILL OF MATERIAL

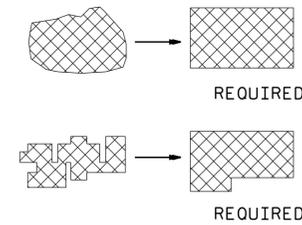
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-1
1			3			TOTAL SHEETS
2			4			30

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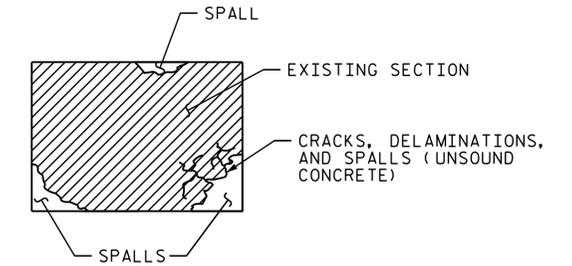
EXPOSING AND UNDERCUTTING REINFORCING STEEL

APPLICABLE TO HORIZONTAL, VERTICAL, AND OVERHEAD LOCATIONS



SIMPLE PATCH CONFIGURATION

AT CORNER LOCATIONS PROVIDE RIGHT ANGLE CUTS. PATCH CONFIGURATION SHALL BE KEPT AS SIMPLE AS POSSIBLE. INDIVIDUAL REPAIR AREAS WITHIN 2 FEET SHALL BE JOINED AT THE DIRECTION OF THE ENGINEER.



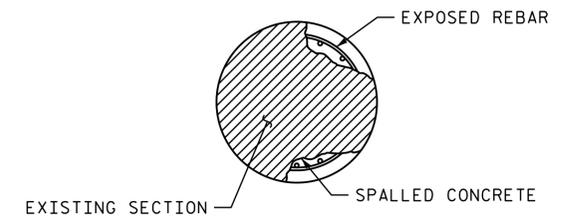
TYPICAL DELAMINATIONS AND SPALLS

TYPICAL SPALL REPAIR

- FOR CONCRETE RESTORATION, REMOVE AND REPAIR UNSOUND CONCRETE FROM AREAS TO BE REPAIRED IN ACCORDANCE WITH THIS SHEET AND THE PROJECT SPECIAL PROVISIONS. AREAS WELL ADHERED TO EXISTING STRAND OR REINFORCEMENT SHALL REMAIN.
- ALL UNSOUND CONCRETE MUST BE REMOVED.
- ALL REPAIRS SHALL BE MARKED FOR APPROVAL OF APPROXIMATE PERIMETER PRIOR TO INITIATION OF WORK.
- THE CONTRACTOR SHALL SUBMIT A PLAN FOR CONTROL AND DISPOSAL OF DEBRIS TO THE ENGINEER FOR APPROVAL.
- ANY REINFORCEMENT WHICH IS LOOSE SHALL BE SECURED IN PLACE BY TYING TO OTHER SECURED BARS OR BY OTHER APPROVED METHODS. LAP SPLICES SHALL BE INSTALLED IN ACCORDANCE WITH THE TABLE BELOW.
- CLEAN EXPOSED REBARS AND ANY LOOSE CONCRETE OR ABRASIVES BY SANDBLASTING OR APPROVED ALTERNATE. CLEANED STEEL SHALL NOT BE LEFT EXPOSED FOR MORE THAN 72 HOURS PRIOR TO ENCAPSULATION OF CONCRETE.
- AN APPROVED CEMENTITIOUS BASED BONDING AGENT SHALL BE USED ON ALL EXPOSED CONCRETE SURFACES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS BEFORE THE REPAIR MATERIAL IS APPLIED.
- FILL VOIDS WITH REPAIR MATERIAL IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS AND NCDOT SPECIFICATIONS. NOTE THAT ANY REPAIR MATERIAL APPLIED TO OVERHEAD LOCATIONS SHALL BE SPECIFICALLY DESIGNATED FOR OVERHEAD USE BY THE MANUFACTURER'S SPECIFICATIONS.

TYPICAL CRACK REPAIR METHOD

- OBTAIN ENGINEER'S APPROVAL TO CARRY OUT CRACK REPAIR (IN LIEU OF SPALL REPAIR) FOR CASES WHERE ADJACENT CONCRETE IS OTHERWISE SOUND AND CRACKING IS NOT A RESULT OF CORRODING REINFORCEMENT.
- ADDRESS CRACKS IN NEW CONSTRUCTION IN ACCORDANCE WITH PROJECT SPECIAL PROVISIONS. ADDRESS EXISTING CRACKS IN ACCORDANCE WITH THIS SHEET AND PROJECT SPECIAL PROVISIONS.
- REMOVE UNSOUND CONCRETE FROM CRACK AREA.
- THE CONTRACTOR SHALL SUBMIT A PLAN FOR CONTROL AND DISPOSAL OF DEBRIS TO THE ENGINEER FOR APPROVAL.
- FOR CRACKS UP TO 1/8" USE AN EPOXY RESIN WITH MINIMUMS OF VISCOSITY OF 325 CPS, 28 DAY COMPRESSIVE STRENGTH OF 13000 PSI. FOR CRACKS 1/8" TO 1/4", USE AN INJECTION GEL OR EQUAL NON-SAG PASTE WITH 28 DAY COMPRESSIVE STRENGTH OF 10000 PSI.
- TO SEAL CRACK SURFACES PRIOR TO CRACK INJECTION, USE INJECTION GEL WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 12000 PSI.
- ENGINEER TO APPROVE CRACK AND CAP SEAL MATERIAL PRIOR TO BEGINNING OF CONSTRUCTION.
- APPLY CLASS II FINISH AT COMPLETION OF CRACK REPAIR TO REMOVE FINS OR KNOBS.
- COORDINATE ALL CRACK INJECTIONS WITH THE PROJECT SPECIAL PROVISION FOR "POLYESTER POLYMER CONCRETE FOR BRIDGE DECK OVERLAY".



TYPICAL SPALL WITH EXPOSED REBAR

CONCRETE REPAIR NOTES

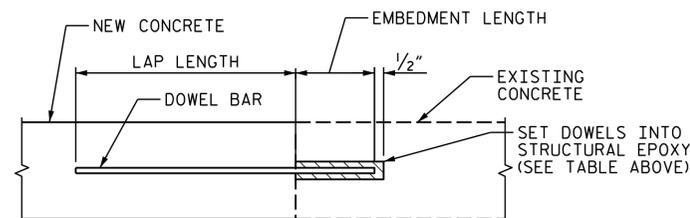
- PERFORM A SOUNDING SURVEY IN THE PRESENCE OF THE ENGINEER TO IDENTIFY ALL LOCATIONS IN NEED OF CONCRETE REPAIR.
- GAIN CONCURRENCE ON ALL REPAIR AREAS AT EACH LOCATION PRIOR TO COMMENCING WORK AT THE BENT.
- THE DETERIORATED AREAS SHOWN ON OTHER PAGES ARE BASED ON BRIDGE INSPECTION REPORTS, AND PARTIAL FIELD REVIEWS OF THE STRUCTURE, AS SUCH, THEY ARE FOR INFORMATIONAL PURPOSES AND SUBJECT TO CHANGE BASED ON CONTINUED DETERIORATION.
- GENERALLY EXTEND REPAIR AREAS 2"-3" INTO SOUND CONCRETE BEYOND EDGE OF SPALLS AND SQUARE OFF AREAS IN ACCORDANCE WITH DETAILS ON THIS SHEET.

REBAR SIZE	LAP SPLICE LENGTH
4	1'-9"
5	2'-2"
6	2'-7"
7	3'-6"
8	4'-6"
9	5'-10"
10	7'-4"

DOWEL DETAIL:

DOWEL SIZE	HOLE DIAMETER	EMBEDMENT LENGTH	MIN LAP LENGTH
4	5/8"	8"	1'-9"
5	3/4"	9"	2'-2"
6	7/8"	11"	2'-7"
8	1 1/8"	1'-4"	4'-0"

- ANY REQUIRED DOWEL HOLES SHALL BE DRILLED INTO EXISTING CONCRETE ACCORDING TO THE DETAIL AND NCDOT SPECIFICATIONS.
- NOTIFY THE ENGINEER OF ANY BROKEN BARS OR BARS WHICH ARE DETERMINED TO HAVE A SECTION LOSS OF 25% OR GREATER.
- INSTALL DOWELS IN ACCORDANCE WITH NCDOT SPECIFICATIONS.



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 CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

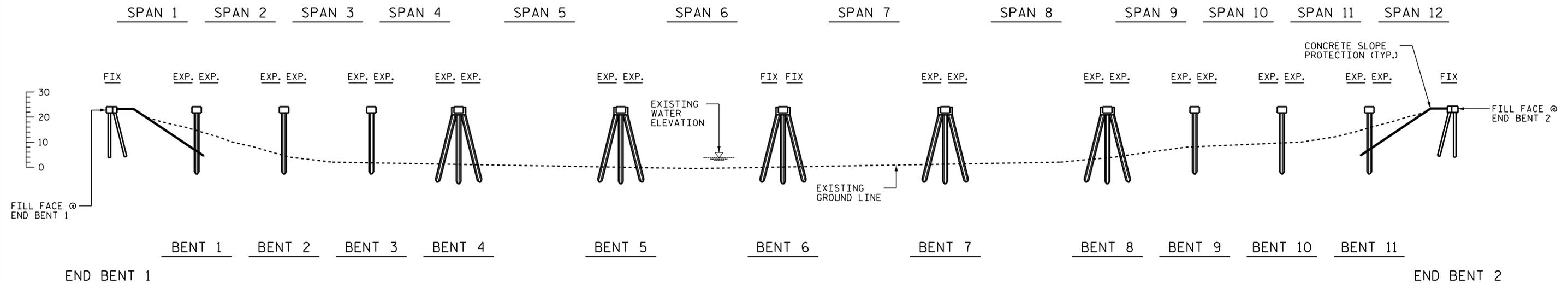
PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 39, 56, 57, 70



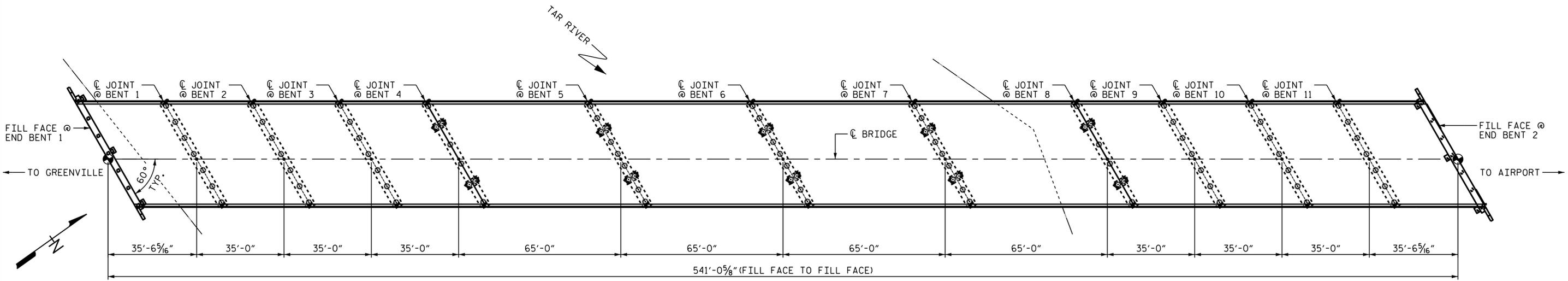
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
CONCRETE RESTORATION DETAILS

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S-2	
2				4			TOTAL SHEETS 30	

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SECTION ALONG $\text{\textcircled{C}}$ ROADWAY
(BENTS AT RIGHT ANGLES)



PLAN

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730039

SCOPE OF WORK:

1. POLYESTER POLYMER CONCRETE OVERLAY
2. JOINT REPLACEMENT
3. APPROACH ROADWAY MILLING AND RESURFACING
4. APPROACH SLAB WIDENING

NOTES:

PROFILE INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION DATED 07/13/2015.

BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL REQUIREMENTS.

FOR TRAFFIC CONTROL AND PHASING, SEE TRANSPORTATION MANAGEMENT PLANS.

EXISTING BRIDGE JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECKS.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

REPAIR CONCRETE DECK AREAS AT LOCATIONS DESCRIBED ON THE PLANS OR AT THE DIRECTION OF THE ENGINEER AFTER SCARIFICATION, BUT PRIOR TO SHOTBLASTING AND APPLICATION OF POLYESTER POLYMER CONCRETE (PPC) OVERLAY. UNLESS OTHERWISE PERMITTED, REPAIRS SHALL BE MADE WITH PPC.

FOR CONCRETE DECK REPAIR FOR PPC OVERLAY, PPC MATERIALS, AND PLACING AND FINISHING PPC OVERLAY, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR OVERLAY SURFACE PREPARATION FOR POLYESTER POLYMER CONCRETE, SEE SPECIAL PROVISIONS.



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE ON US13 SBL
 OVER TAR RIVER

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

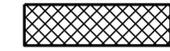
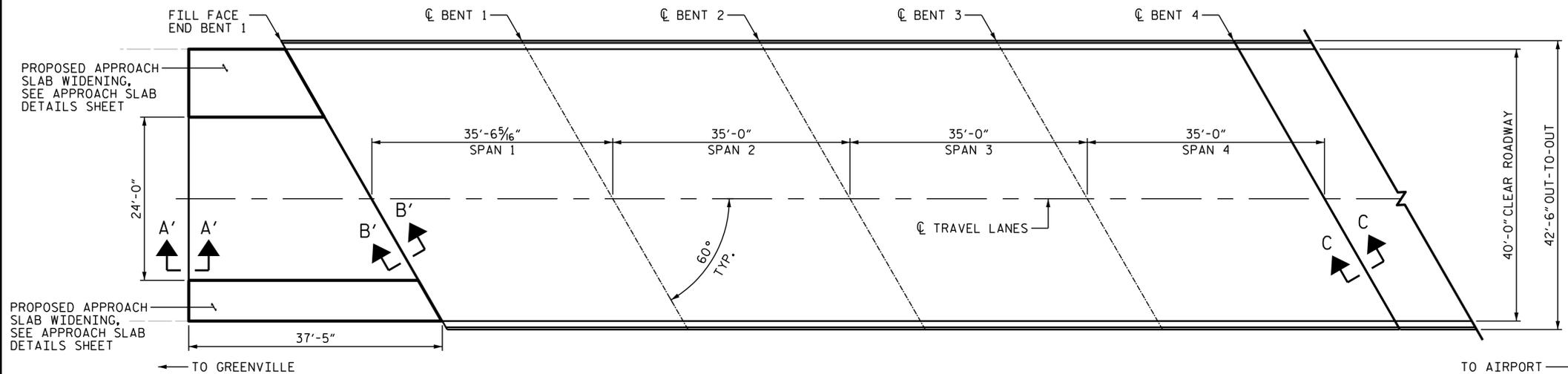
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REVISIONS						SHEET NO.
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1			3			TOTAL SHEETS
2			4			30

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 SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS								
	APPROACH SLABS		SPANS 1 & 12		SPANS 2, 3, 10, 11		SPANS 4 & 9	
	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	125 SY		158 SY		156 SY		156 SY	
CLASS II SURFACE PREPARATION	22.8 SY *		22.8 SY *		0.2 SY *		22.8 SY *	
CONCRETE DECK REPAIR FOR PPC OVERLAY	22.8 SY *		22.8 SY *		0.2 SY *		22.8 SY *	
SHOTBLASTING BRIDGE DECK	125 SY		158 SY		156 SY		156 SY	
PPC MATERIALS	4.3 CY		4.8 CY		4.8 CY		4.8 CY	
PLACING & FINISHING PPC OVERLAY	125 SY		158 SY		156 SY		156 SY	
GROOVING BRIDGE FLOORS	1027 SF		1302 SF		1283 SF		1283 SF	



APPROX. CLASS II SURFACE PREPARATION

NOTES:

WHERE MULTIPLE SPANS ARE LISTED, ESTIMATED QUANTITIES ARE BASED ON THE ANTICIPATED VALUES FOR A SINGLE SPAN OF THAT CONFIGURATION.

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE COVER FOR TOP BARS IN THE DECK SLAB IS 2" PER THE EXISTING BRIDGE PLANS. ACTUAL CONCRETE COVER SHALL BE DETERMINED BY THE CONTRACTOR AND PRESENTED TO THE ENGINEER PRIOR TO BEGINNING SCARIFICATION.

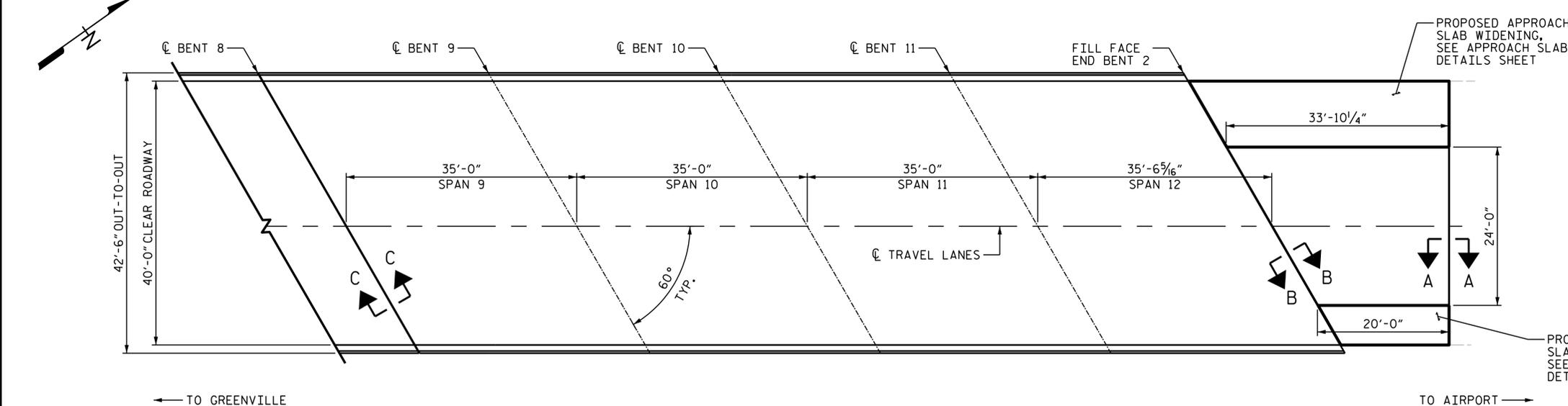
CURRENT AVERAGE COVER IS EXPECTED TO BE FROM 1 1/2" TO 2" BASED ON VISUAL INSPECTION.

* MINOR QUANTITIES OF CLASS II AREAS ARE ANTICIPATED, PARTICULARLY NEAR JOINTS. HOWEVER, DUE TO THEIR SMALL SIZE, THE CLASS II LOCATIONS HAVE NOT BEEN DELINEATED ON THESE PLANS. THE CLASS II QUANTITIES INDICATED ARE ANTICIPATED TO BE SUFFICIENT FOR THE ACTUAL QUANTITIES ENCOUNTERED.

BRIDGE DECK GROOVING QUANTITY BASED ON LIMITS REQUIRED IN SUBSECTION 240-14(B) OF STANDARD SPECIFICATIONS.

BRIDGE DECK SCARIFICATION LIMITS ARE THE FULL CLEAR ROADWAY WIDTH (INSIDE FACE OF EACH BRIDGE RAIL).

FOR CLASS II SURFACE PREPARATION LOCATIONS AT BRIDGE JOINTS, SEE "JOINT DETAILS" SHEETS.



PLAN

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730039



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN OF SPANS
 1 THRU 4 &
 9 THRU 12

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

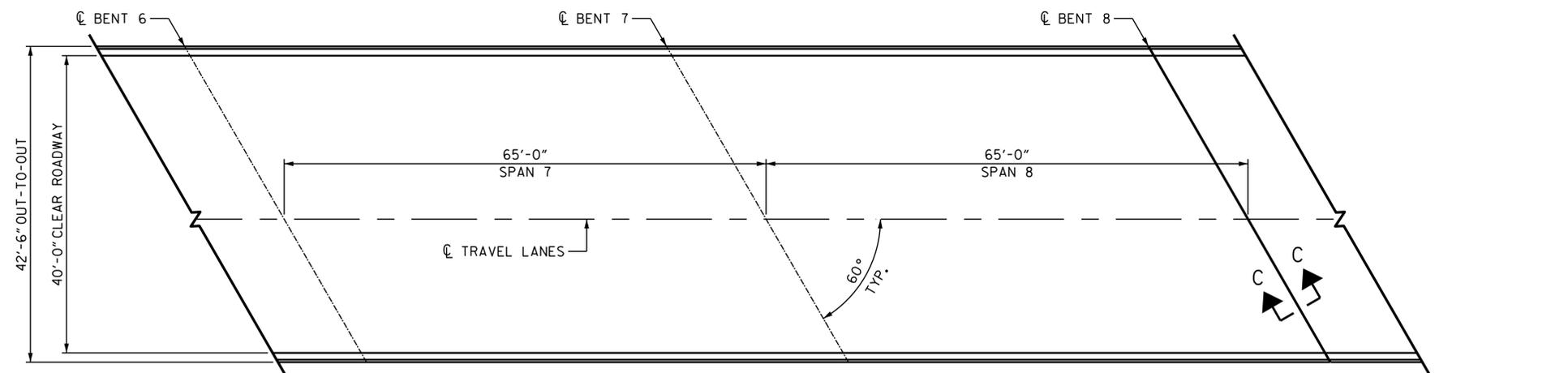
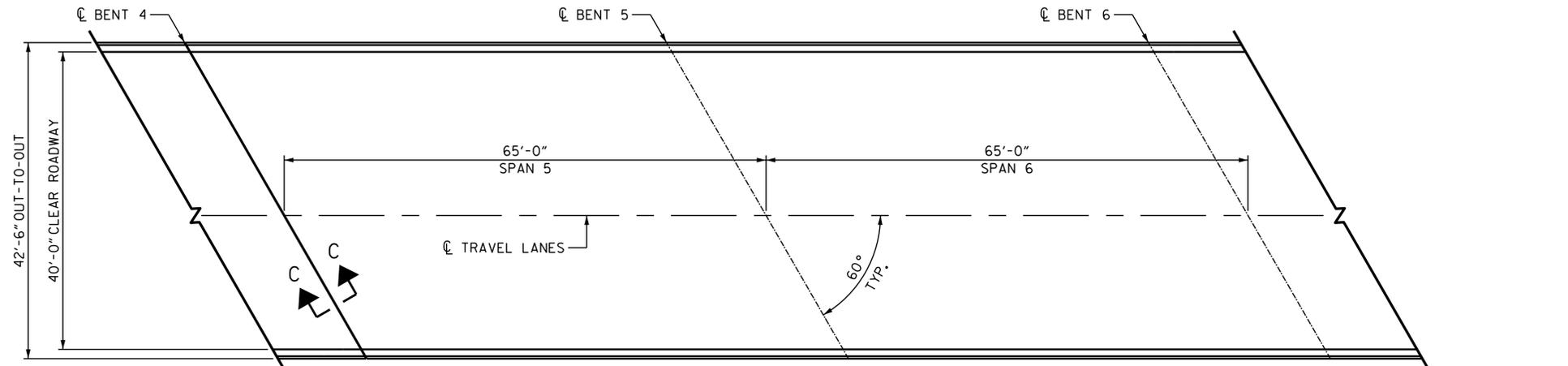
DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
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1			3			S1-2
2			4			TOTAL SHEETS 30

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AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS				
	SPANS 5 & 8		SPANS 6 & 7	
	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	289 SY		289 SY	
CLASS II SURFACE PREPARATION	22.8 SY *		0.2 SY *	
CONCRETE DECK REPAIR FOR PPC OVERLAY	22.8 SY *		0.2 SY *	
SHOTBLASTING BRIDGE DECK	289 SY		289 SY	
PPC MATERIALS	8.9 CY		8.9 CY	
PLACING & FINISHING PPC OVERLAY	289 SY		289 SY	
GROOVING BRIDGE FLOORS	2393 SF		2393 SF	



PLAN



APPROX. CLASS II SURFACE PREPARATION

NOTES:

WHERE MULTIPLE SPANS ARE LISTED, ESTIMATED QUANTITIES ARE BASED ON THE ANTICIPATED VALUES FOR A SINGLE SPAN OF THAT CONFIGURATION.

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE COVER FOR TOP BARS IN THE DECK SLAB IS 2" PER THE EXISTING BRIDGE PLANS. ACTUAL CONCRETE COVER SHALL BE DETERMINED BY THE CONTRACTOR AND PRESENTED TO THE ENGINEER PRIOR TO BEGINNING SCARIFICATION.

CURRENT AVERAGE COVER IS EXPECTED TO BE FROM 1 1/2" TO 2" BASED ON VISUAL INSPECTION.

* MINOR QUANTITIES OF CLASS II AREAS ARE ANTICIPATED, PARTICULARLY NEAR JOINTS. HOWEVER, DUE TO THEIR SMALL SIZE, THE CLASS II LOCATIONS HAVE NOT BEEN DELINEATED ON THESE PLANS. THE CLASS II QUANTITIES INDICATED ARE ANTICIPATED TO BE SUFFICIENT FOR THE ACTUAL QUANTITIES ENCOUNTERED.

BRIDGE DECK GROOVING QUANTITY BASED ON LIMITS REQUIRED IN SUBSECTION 240-14(B) OF STANDARD SPECIFICATIONS.

BRIDGE DECK SCARIFICATION LIMITS ARE THE FULL CLEAR ROADWAY WIDTH (INSIDE FACE OF EACH BRIDGE RAIL).

FOR CLASS II SURFACE PREPARATION LOCATIONS AT BRIDGE JOINTS, SEE "JOINT DETAILS" SHEETS.

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PITT COUNTY
 BRIDGE NO. 730039



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 RALEIGH

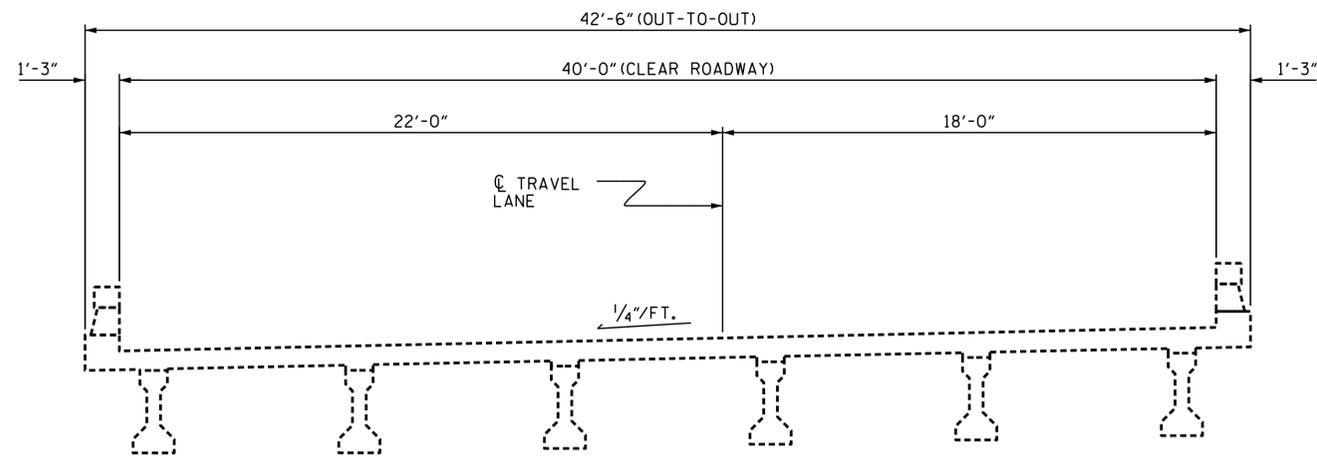
PLAN OF SPANS 5 THRU 8

KCA 301 FAYETTEVILLE ST., SUITE 1500
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DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
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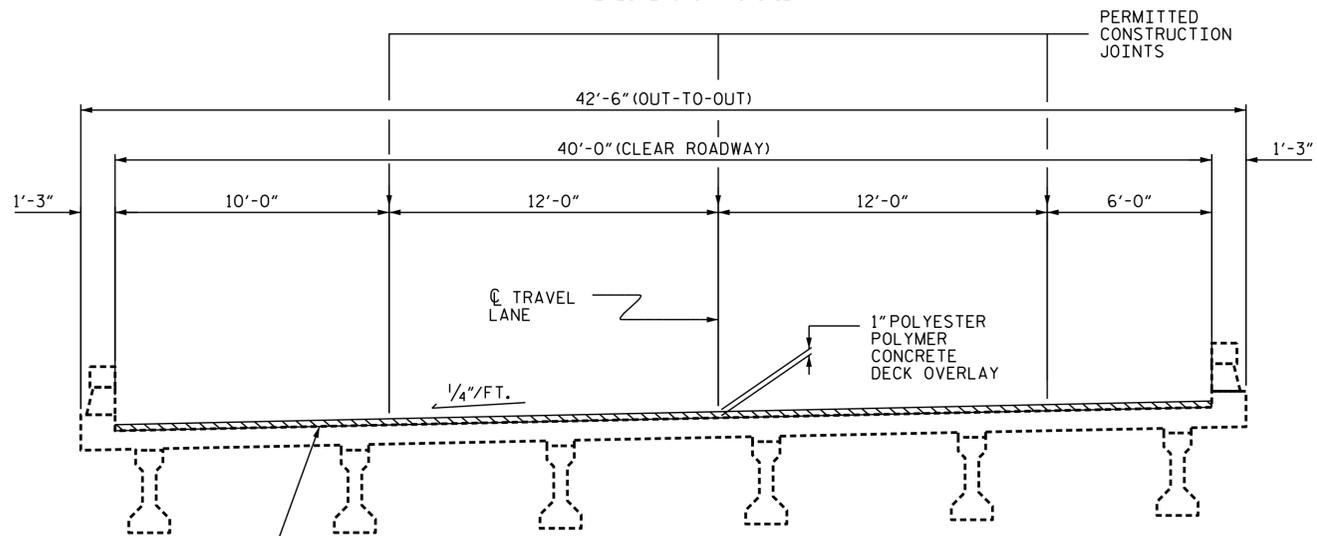
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-3
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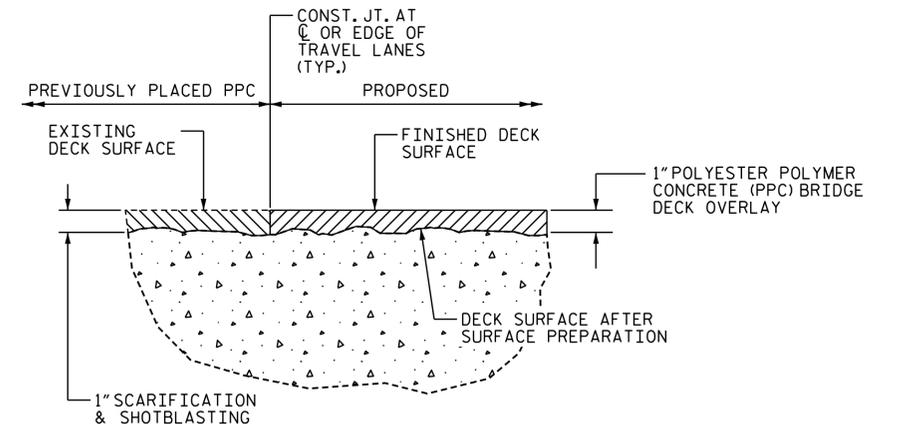
TYPICAL SECTION

(EXISTING SPANS 1-12)

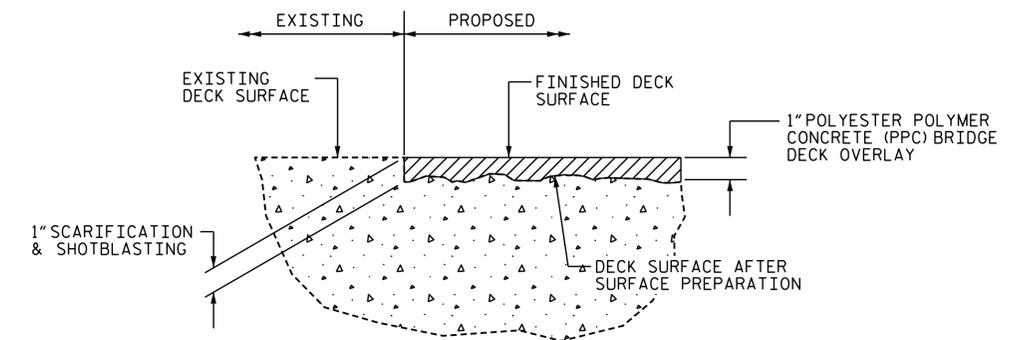


TYPICAL SECTION

(PROPOSED SPANS 1-12)



DETAIL FOR STAGED PPC OVERLAY



DETAIL FOR PPC OVERLAY

NOTES:

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF POLYESTER POLYMER CONCRETE (PPC) SYSTEM AND SURFACE PREPARATION.

PROJECT NO. 2BPR.10741
PITT COUNTY
BRIDGE NO. 730039

KCA 301 FAYETTEVILLE ST., SUITE 1500
KISINGER CAMPO & ASSOCIATES RALEIGH, NC 27601
(919) 882-7839

DRAWN BY : JACOB H. DUKE DATE : 09/2018
CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

10/16/2018
G:\4201720.19-Pitt+County.Bridge.PPC.Overlay\Structures\401.035.2BPR.10741.SMU.TS.S1-4.730039.56.57.70.DGN
User:jduke

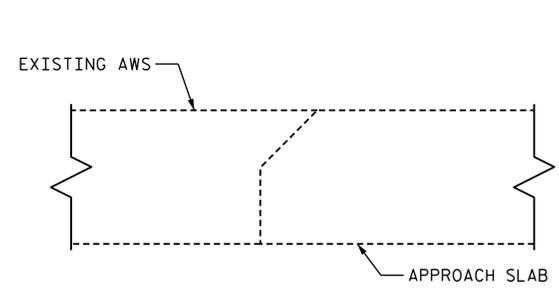


STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

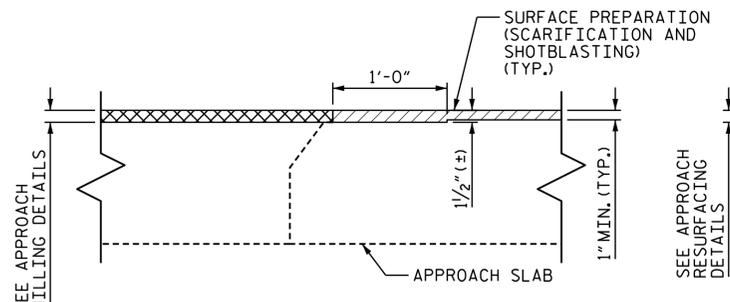
TYPICAL SECTIONS
PPC OVERLAY

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

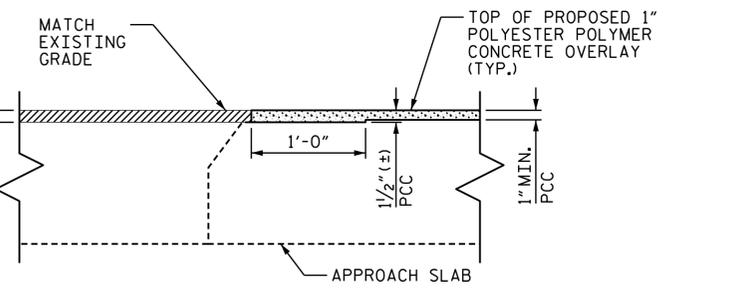
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S1-4
2			4			TOTAL SHEETS 30



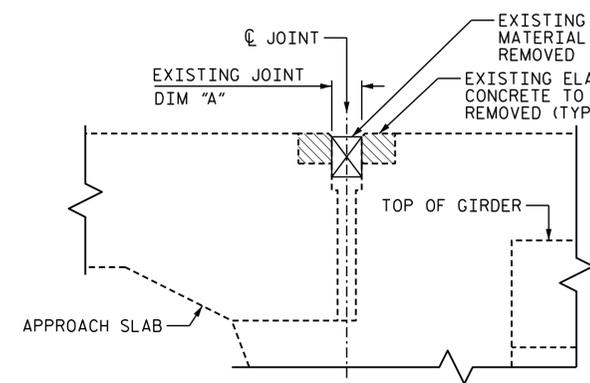
SECTION A-A
(EXISTING PRIOR TO PPC OVERLAY)



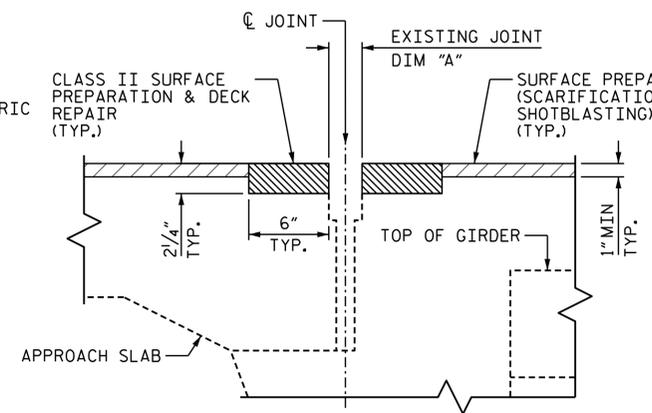
SECTION A-A
(MIN. EXISTING JOINT DEMOLITION)



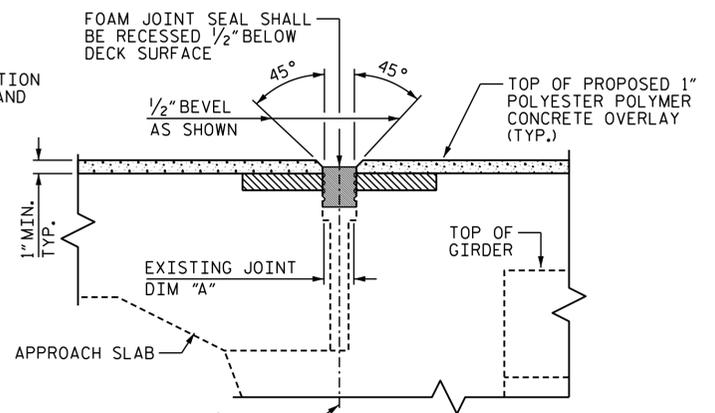
SECTION A-A
(PROPOSED JOINT)



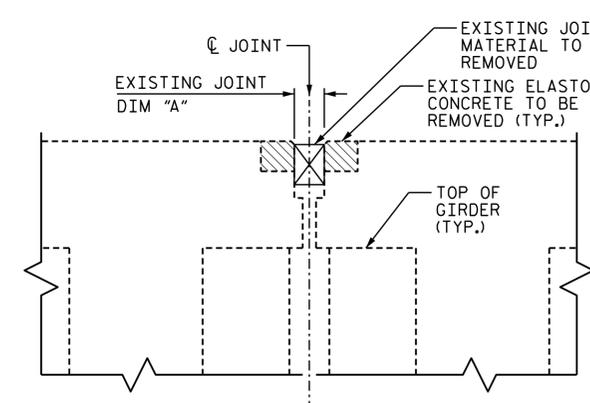
SECTION B-B
(EXISTING PRIOR TO PPC OVERLAY)



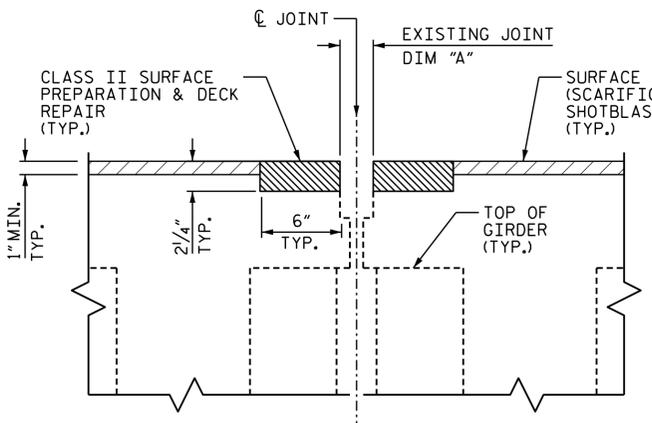
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(MIN. EXISTING JOINT DEMOLITION)



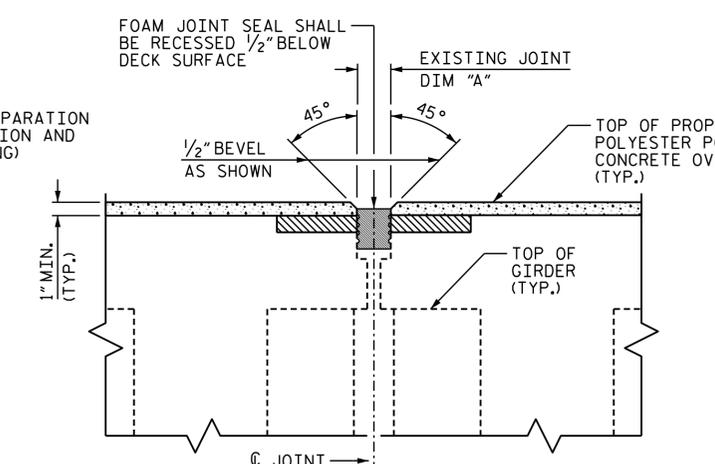
SECTION B-B
(PROPOSED JOINT SEAL)



SECTION C-C
(EXISTING PRIOR TO PPC OVERLAY)



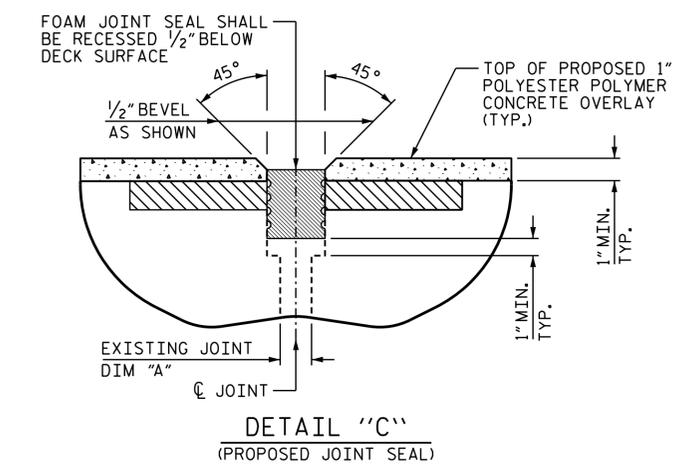
SECTION C-C
(MIN. EXISTING JOINT DEMOLITION)



SECTION C-C
(PROPOSED FOAM JOINT SEAL)

NOTES:
 RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.
 FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.
 FOR CONCRETE FOR DECK REPAIR FOR PPC OVERLAY, SEE SPECIAL PROVISIONS.
 THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAIL BY MORE THAN 1/4", NOTIFY THE ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.
 THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL BASED ON JOINT OPENINGS.

AREA OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PPC OVERLAY



DETAIL "C"
(PROPOSED JOINT SEAL)

TABLE 1	
Table Date 9-2018	
BENT/ JOINT	DIM "A" @ 65°F
EB 1	2 1/4"
BT 4	2 1/4"
BT 8	2 1/4"
EB 2	2 3/8"

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730039

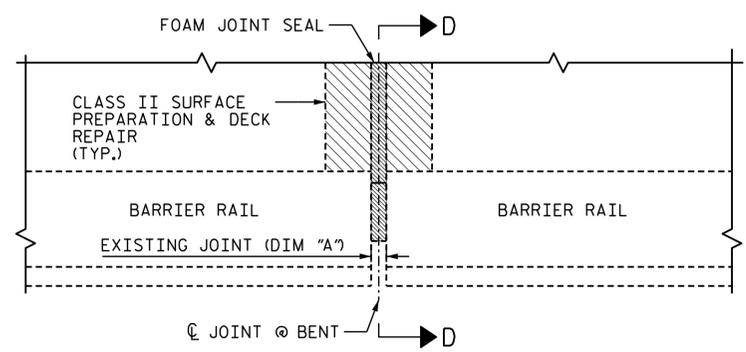
SHEET 1 OF 2



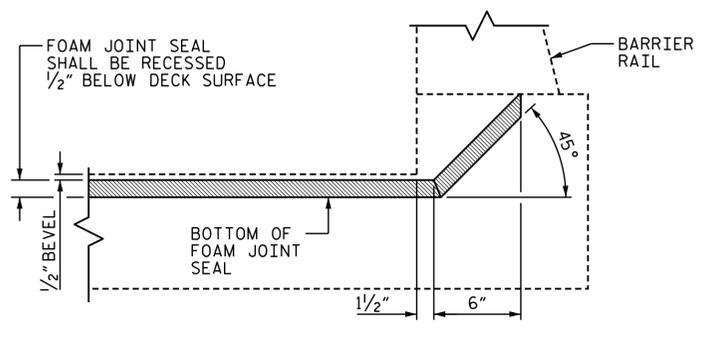
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
JOINT DETAILS

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
 CHECKED BY : JACOB H. DUKE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018



PLAN AT BARRIER
(PROPOSED JOINT SEAL)



SECTION D-D
(PROPOSED JOINT SEAL)

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:	DATE:		BY:	DATE:	DATE:	
1				3				S1-5
2				4				TOTAL SHEETS 30

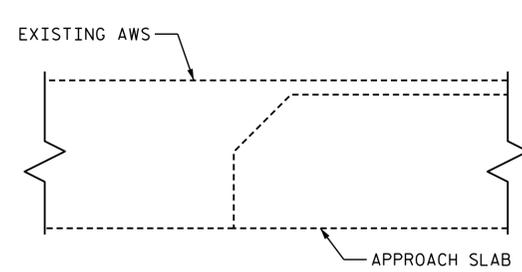
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NOTES:

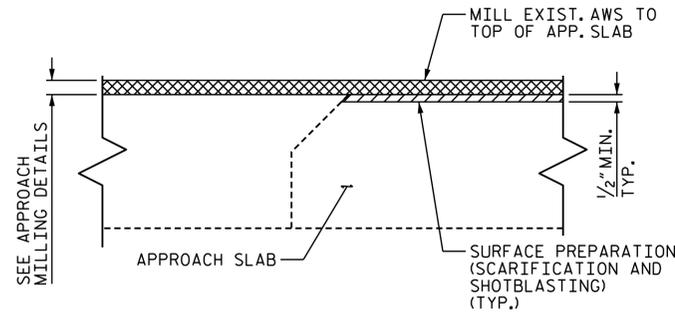
FOR DIM "A", SEE TABLE 1 IN SHEET S1-5.

COORDINATE THIS SHEET WITH INFORMATION ON SHEET S1-5.

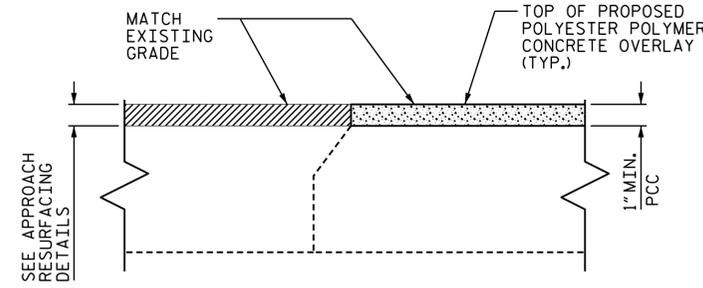
 AREA OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PPC OVERLAY



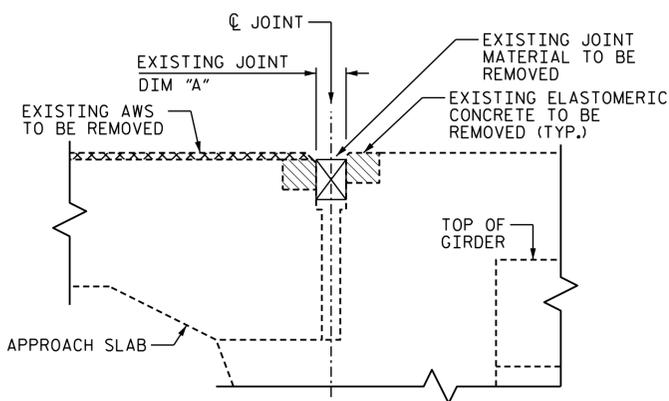
SECTION A'-A'
(EXISTING PRIOR TO PPC OVERLAY)



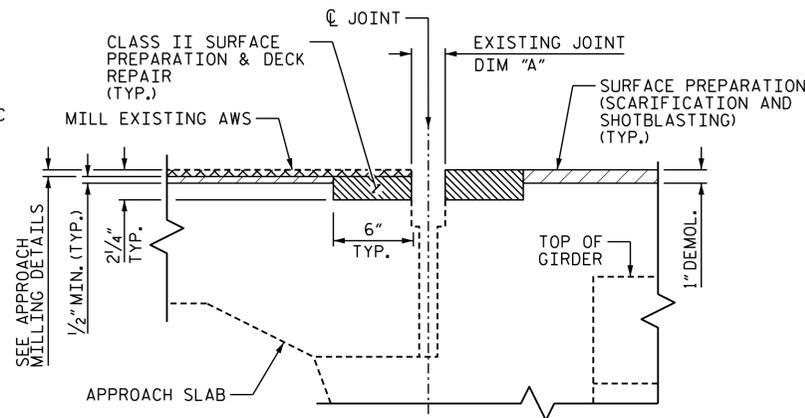
SECTION A'-A'
(PROPOSED)



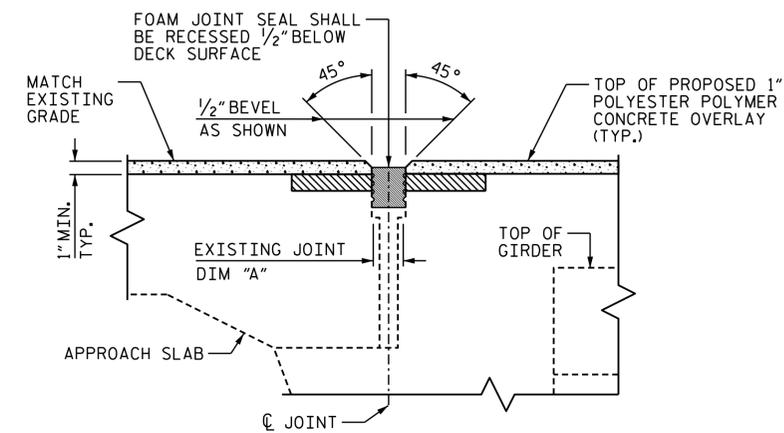
SECTION A'-A'
(PROPOSED JOINT)



SECTION B'-B'
(EXISTING PRIOR TO PPC OVERLAY)



SECTION B'-B'
(MIN. EXISTING JOINT DEMOLITION)



SECTION B'-B'
(PROPOSED JOINT SEAL)

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730039

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT DETAILS



KCA 301 FAYETTEVILLE ST., SUITE 1500
 KISINGER CAMPO & ASSOCIATES RALEIGH, NC 27601
 (919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
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10/16/2018
 G:\4201720.19-Pitt+County.Bridge.PPC.Overlay\Structures\401.043.2BPR.10741.SMU.JT.S1-6.730039.56.57.70.dgn
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DOCUMENT NOT CONSIDERED
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-6
1			3			TOTAL SHEETS
2			4			30

AS-BUILT QUANTITY TABLE

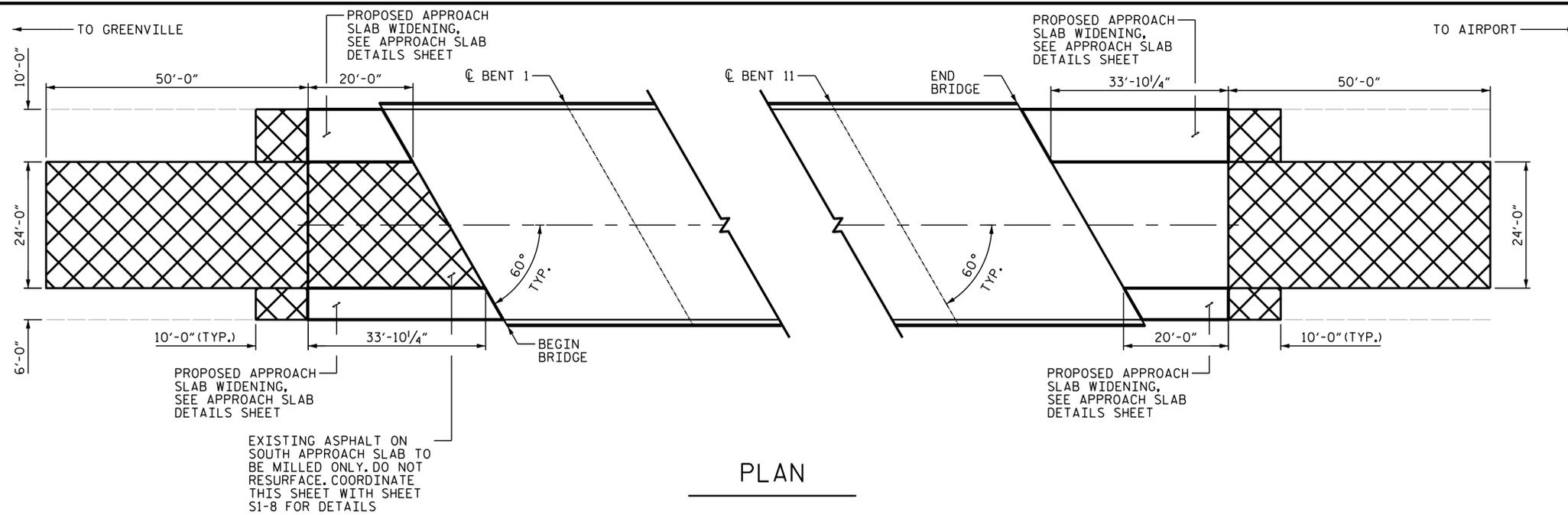
	ESTIMATE	ACTUAL
INCIDENTAL MILLING	375 SY	
ASPHALT BINDER FOR PLANT MIX	1.5 TONS	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C	25 TONS	
REMOVAL OF EXISTING ASPHALT PAVEMENT	86 SY	

NOTES:

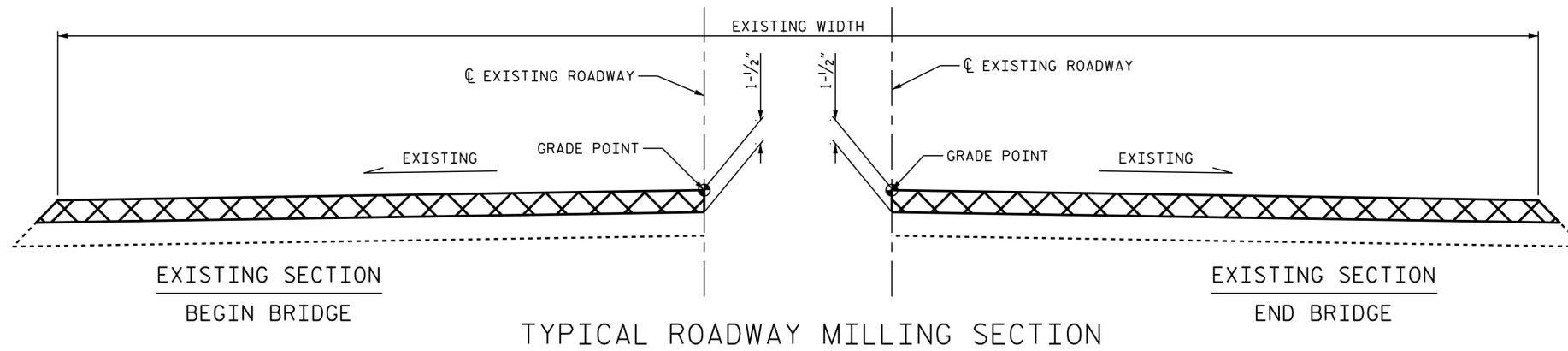
- INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVEMENT TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 1 1/2" DEPTH OF NEW ASPHALT PAVEMENT. NEW ASPHALT PAVEMENT SHALL BE OF THICKNESS NECESSARY TO PROVIDE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK. THE NEW ASPHALT PAVEMENT THICKNESS MAY EXCEED 1 1/2" DUE TO SETTLEMENT OF THE EXISTING APPROACH.
- FOR NEW ASPHALT PLACEMENT, SEE STANDARD SPECIFICATIONS.
- GRADE MAY BE ADJUSTED BY THE ENGINEER TO ENSURE PROPER TIE-IN AT THE APPROACH ROADWAY AT EACH END BENT.

-  INCIDENTAL MILLING
-  ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C

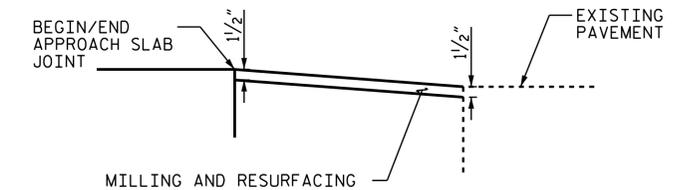
C1 PROPOSED ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD, PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1" OR GREATER THAN 2" IN DEPTH.



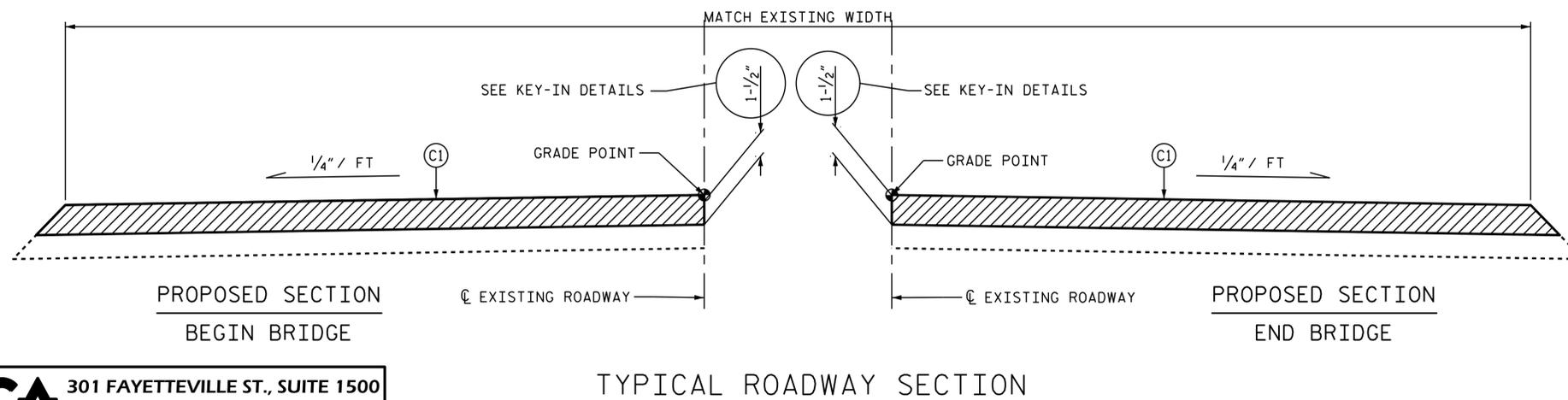
PLAN



TYPICAL ROADWAY MILLING SECTION



PAVEMENT KEY-IN DETAIL



TYPICAL ROADWAY SECTION

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730039



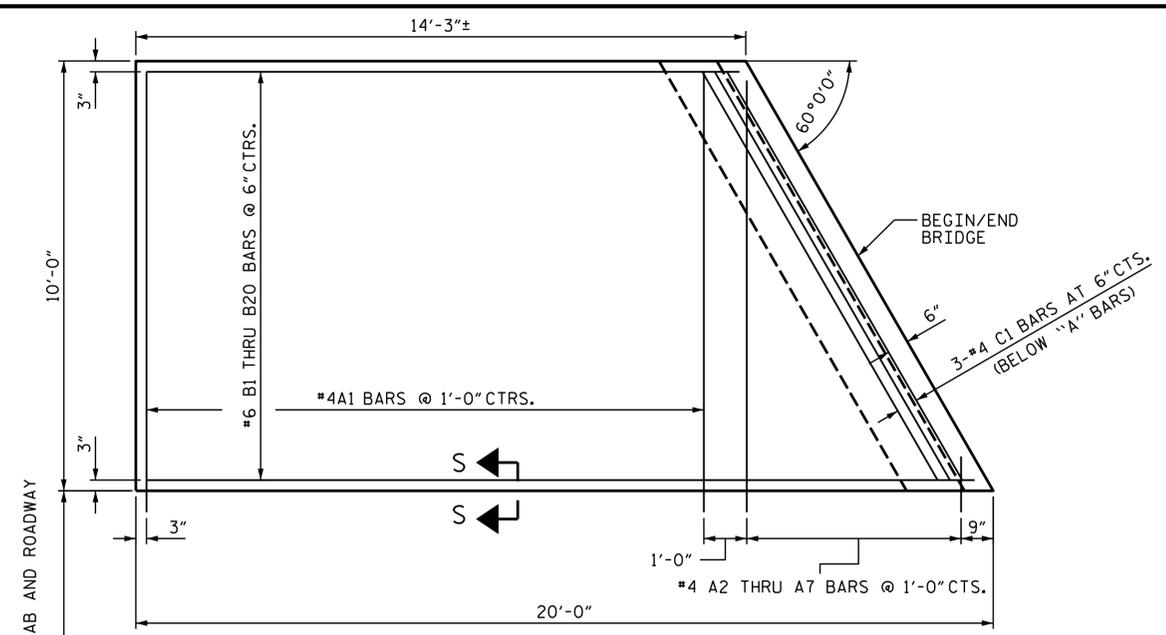
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**APPROACH ROADWAY
 MILLING AND RESURFACING**

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
 CHECKED BY : JACOB H. DUKE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

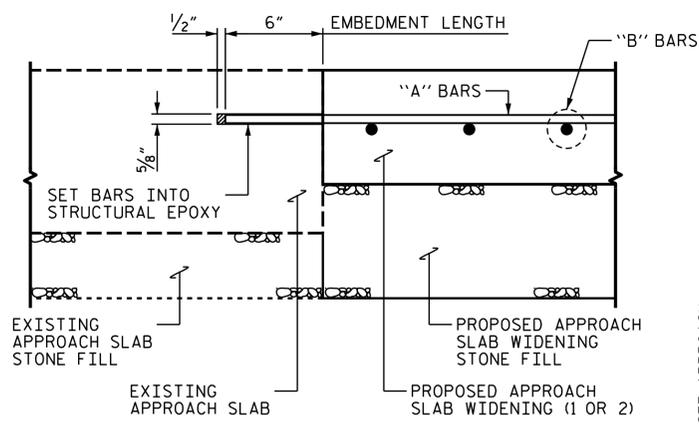
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
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2			4			TOTAL SHEETS 30

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

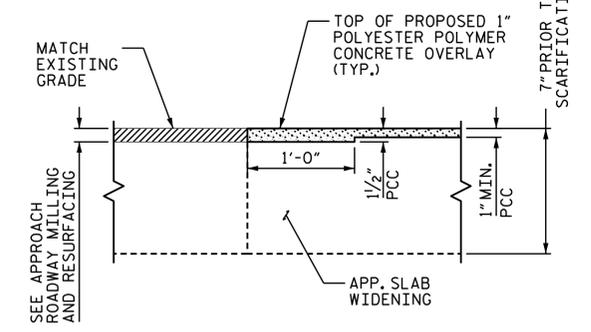


PLAN OF SLAB

APPROACH SLAB AT END BENT 1 SHOWN
APPROACH SLAB AT END BENT 2 SIMILAR BY ROTATION



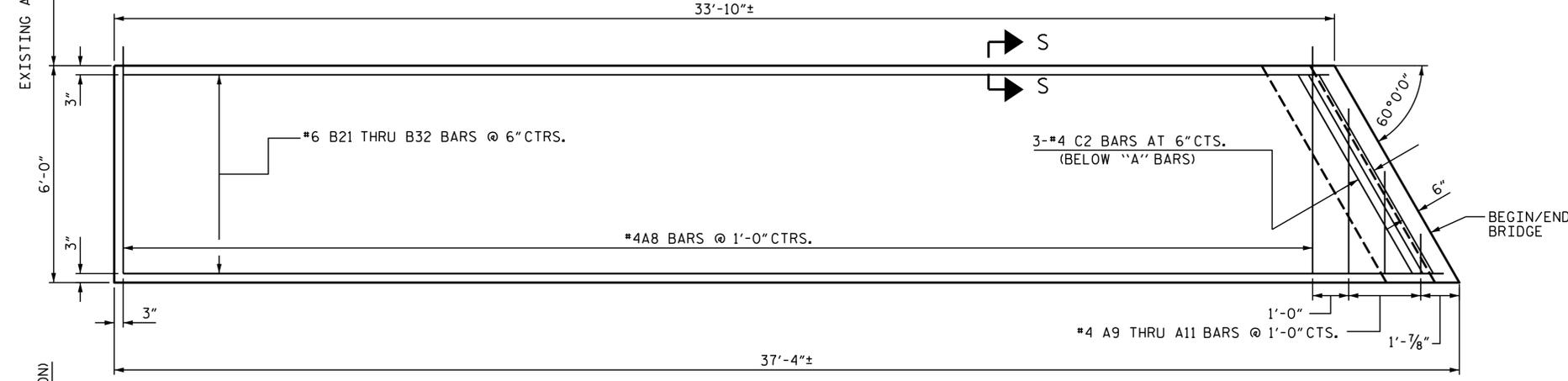
SECTION S-S



APPROACH SLAB WIDENING
END DETAIL

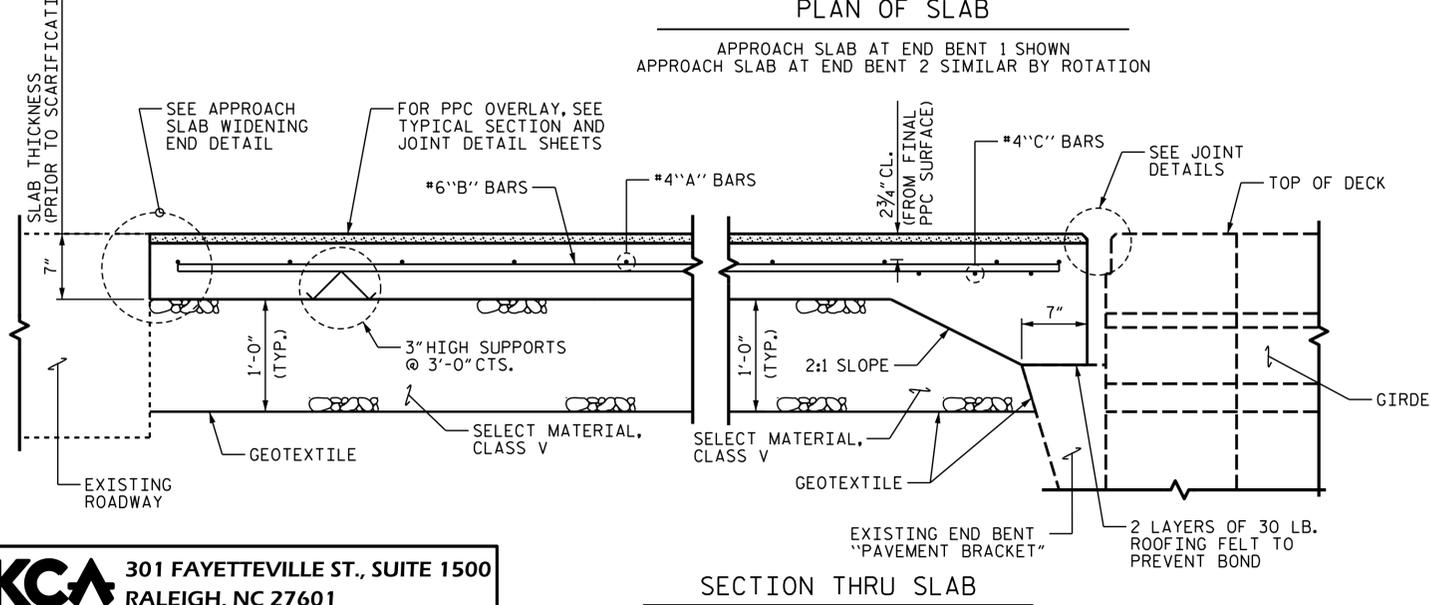
NOTES:

1. GEOTEXTILE SHALL BE TYPE 1 IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
2. #78M STONE (CLASS V SELECT MATERIAL) SHALL BE IN ACCORDANCE WITH SECTION 1016 OF THE STANDARD SPECIFICATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE GLOBAL STABILITY OF THE APPROACH SLAB(S), SLOPE, ADJACENT ROADWAY, AND UTILITIES. ANY DAMAGE CAUSED TO THESE FACILITIES AS A RESULT OF THIS WORK WILL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE DEPARTMENT. DAMAGED AREAS WILL BE DETERMINED BY THE ENGINEER. PAYMENT FOR MAINTENANCE OF THESE FACILITIES IS INCIDENTAL TO THE COST FOR THE PROPOSED APPROACH SLAB ADDITIONS.
4. APPROACH SLAB AND ROADWAY GRADES SHOULD BE FIELD ADJUSTED AS NECESSARY TO APPROPRIATELY MATCH FIELD CONDITIONS.
5. EXISTING PLANS SHOW A "PAVEMENT BRACKET" ALONG THE FULL LENGTH OF THE BACKWALL TO SUPPORT THE APPROACH SLABS. IF THIS IS THE AS-BUILT CONDITION, USE THE DETAILS PROVIDED IN "SECTION THRU SLAB". IF NO "PAVEMENT BRACKET" EXISTS BEYOND THE EXISTING APPROACH SLAB, COORDINATE DETAILS IN "SECTION THRU SLAB" AND "SLAB DETAIL WITHOUT BRACKET".



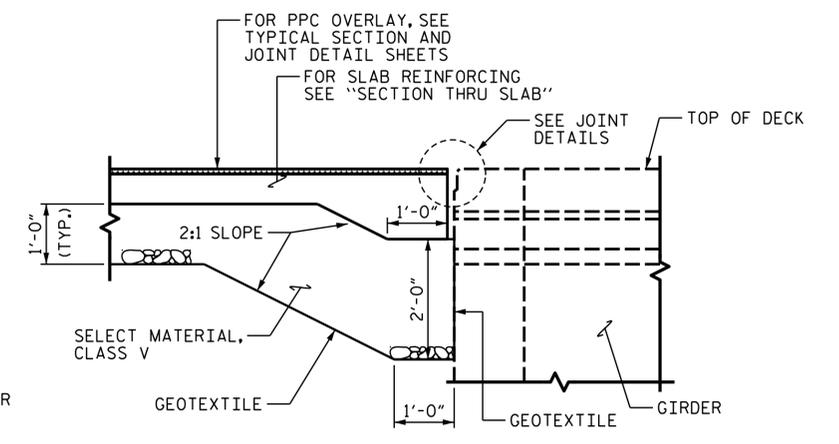
PLAN OF SLAB

APPROACH SLAB AT END BENT 1 SHOWN
APPROACH SLAB AT END BENT 2 SIMILAR BY ROTATION



SECTION THRU SLAB

DETAIL ASSUMES 9" PAVEMENT
BRACKET FOR FULL END BENT LENGTH



SLAB DETAIL WITHOUT BRACKET

DETAIL ASSUMES NO EXISTING 9" PAVEMENT
BRACKET FOR FULL END BENT LENGTH

BILL OF MATERIALS FOR BOTH APPROACH SLABS AT ONE END BENT					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A1	14	#4	STR	10'-3"	96
A2	1	#4	STR	9'-11"	7
A3	1	#4	STR	8'-2"	6
A4	1	#4	STR	6'-5"	5
A5	1	#4	STR	4'-9"	4
A6	1	#4	STR	3'-0"	3
A7	1	#4	STR	1'-3"	1
A8	34	#4	STR	6'-3"	142
A9	1	#4	STR	4'-6"	4
A10	1	#4	STR	2'-10"	2
A11	1	#4	STR	1'-1"	1
B1	1	#6	STR	13'-10"	21
B2	1	#6	STR	14'-1"	22
B3	1	#6	STR	14'-4"	22
B4	1	#6	STR	14'-8"	23
B5	1	#6	STR	14'-11"	23
B6	1	#6	STR	15'-3"	23
B7	1	#6	STR	15'-6"	24
B8	1	#6	STR	15'-10"	24
B9	1	#6	STR	16'-1"	25
B10	1	#6	STR	16'-5"	25
B11	1	#6	STR	16'-8"	26
B12	1	#6	STR	17'-0"	26
B13	1	#6	STR	17'-3"	26
B14	1	#6	STR	17'-7"	27
B15	1	#6	STR	17'-10"	27
B16	1	#6	STR	18'-1"	28
B17	1	#6	STR	18'-5"	28
B18	1	#6	STR	18'-8"	29
B19	1	#6	STR	19'-0"	29
B20	1	#6	STR	19'-3"	29
B21	1	#6	STR	33'-5"	51
B22	1	#6	STR	33'-9"	51
B23	1	#6	STR	34'-0"	52
B24	1	#6	STR	34'-3"	52
B25	1	#6	STR	34'-7"	52
B26	1	#6	STR	34'-10"	53
B27	1	#6	STR	35'-2"	53
B28	1	#6	STR	35'-5"	54
B29	1	#6	STR	35'-9"	54
B30	1	#6	STR	36'-0"	55
B31	1	#6	STR	36'-4"	55
B32	1	#6	STR	36'-7"	55
C1	3	#4	STR	10'-11"	22
C2	3	#4	STR	6'-4"	13
REINFORCING STEEL			LBS.		1450
CLASS A CONCRETE			CU.YDS.		8.8
SELECT MATERIAL, CLASS V			TONS		25

PROJECT NO. 2BPR.10741
PITT COUNTY
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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**APPROACH SLAB
DETAILS**

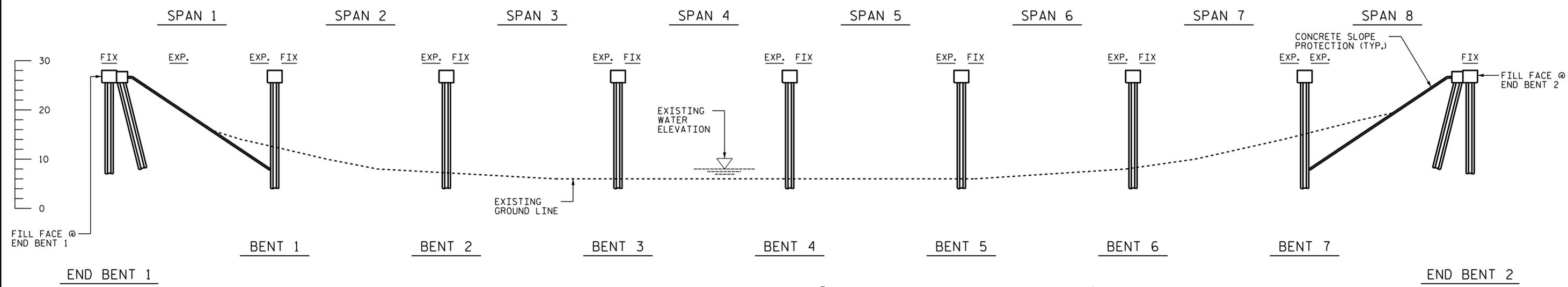
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-8
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2			4			

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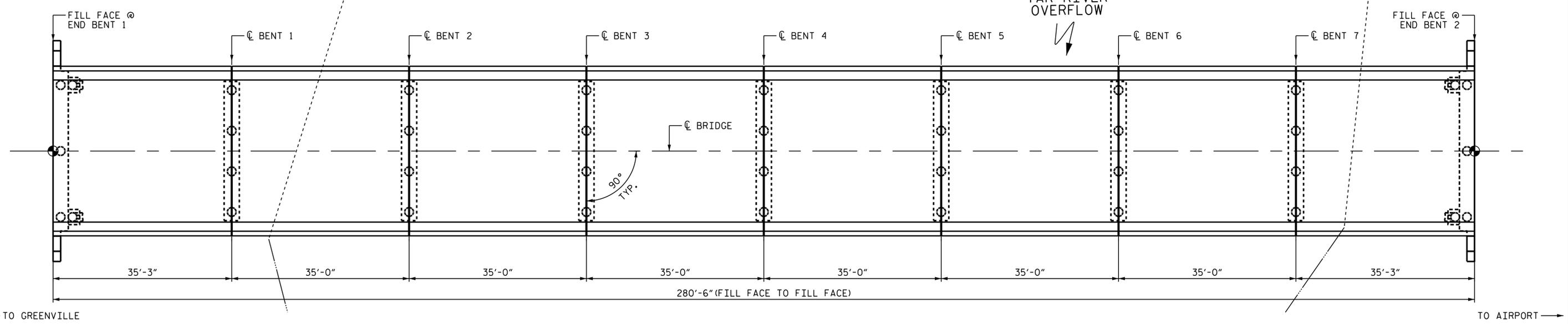
KCA 301 FAYETTEVILLE ST., SUITE 1500
RALEIGH, NC 27601
KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : JACOB H. DUKE DATE : 09/2018
CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018





SECTION ALONG \bar{C} ROADWAY
(BENTS AT RIGHT ANGLES)



PLAN

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730056

SCOPE OF WORK:

1. POLYESTER POLYMER CONCRETE OVERLAY
2. JOINT REPLACEMENT
3. APPROACH ROADWAY MILLING AND RESURFACING

NOTES:

PROFILE INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION DATED 07/19/2017.

BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL REQUIREMENTS.

FOR TRAFFIC CONTROL AND PHASING, SEE TRANSPORTATION MANAGEMENT PLANS.

EXISTING BRIDGE JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECKS.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

REPAIR CONCRETE DECK AREAS AT LOCATIONS DESCRIBED ON THE PLANS OR AT THE DIRECTION OF THE ENGINEER AFTER SCARIFICATION, BUT PRIOR TO SHOTBLASTING AND APPLICATION OF POLYESTER POLYMER CONCRETE (PPC) OVERLAY. UNLESS OTHERWISE PERMITTED, REPAIRS SHALL BE MADE WITH PPC.

FOR CONCRETE DECK REPAIR FOR PPC OVERLAY, PPC MATERIALS, AND PLACING AND FINISHING PPC OVERLAY, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR OVERLAY SURFACE PREPARATION FOR POLYESTER POLYMER CONCRETE, SEE SPECIAL PROVISIONS.



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE ON US13 NBL
 OVER TAR RIVER

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

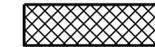
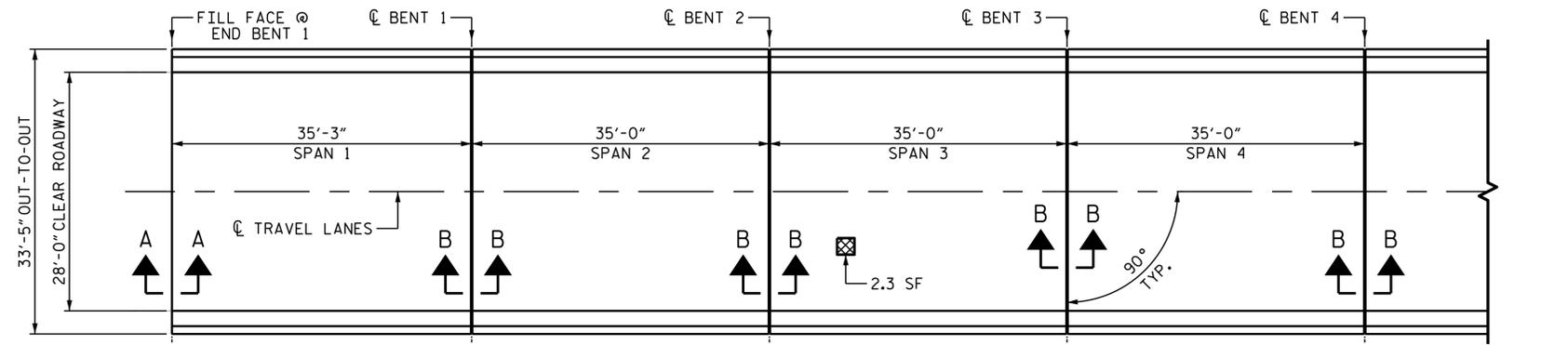
DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
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 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S2-1 TOTAL SHEETS 30
2			4			

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS								
	SPANS 1 & 8		SPANS 2, 4, 5, 6		SPAN 3		SPAN 7	
	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	110 SY		109 SY		109 SY		109 SY	
CLASS II SURFACE PREPARATION	32.1 SY *		32.1 SY *		34.7 SY *		34.3 SY *	
CONCRETE DECK REPAIR FOR PPC OVERLAY	32.1 SY *		32.1 SY *		34.7 SY *		34.3 SY *	
SHOTBLASTING BRIDGE DECK	110 SY		109 SY		109 SY		109 SY	
PPC MATERIALS	3.4 CY		3.4 CY		3.4 CY		3.4 CY	
PLACING & FINISHING PPC OVERLAY	110 SY		109 SY		109 SY		109 SY	
GROOVING BRIDGE FLOORS	873 SF		867 SF		867 SF		867 SF	



APPROX. CLASS II SURFACE PREPARATION

NOTES:

WHERE MULTIPLE SPANS ARE LISTED, ESTIMATED QUANTITIES ARE BASED ON THE ANTICIPATED VALUES FOR A SINGLE SPAN OF THAT CONFIGURATION.

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONCRETE COVER FOR TOP BARS IN THE DECK SLAB IS 2" PER THE EXISTING BRIDGE PLANS. ACTUAL CONCRETE COVER SHALL BE DETERMINED BY THE CONTRACTOR AND PRESENTED TO THE ENGINEER PRIOR TO BEGINNING SCARIFICATION.

CURRENT AVERAGE COVER IS EXPECTED TO BE FROM 1 1/2" TO 2" BASED ON VISUAL INSPECTION.

* MINOR QUANTITIES OF CLASS II AREAS ARE ANTICIPATED, PARTICULARLY NEAR JOINTS. HOWEVER, DUE TO THEIR SMALL SIZE, THE CLASS II LOCATIONS HAVE NOT BEEN DELINEATED ON THESE PLANS. THE CLASS II QUANTITIES INDICATED ARE ANTICIPATED TO BE SUFFICIENT FOR THE ACTUAL QUANTITIES ENCOUNTERED.

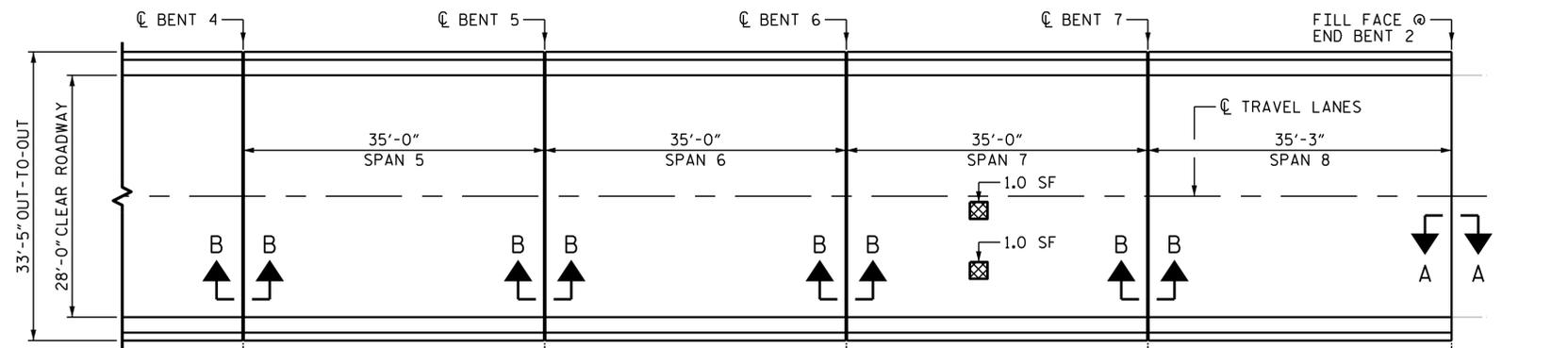
BRIDGE DECK GROOVING QUANTITY BASED ON LIMITS REQUIRED IN SUBSECTION 240-14(B) OF STANDARD SPECIFICATIONS.

BRIDGE DECK SCARIFICATION LIMITS ARE THE FULL CLEAR ROADWAY WIDTH (INSIDE FACE OF EACH BRIDGE RAIL).

FOR CLASS II SURFACE PREPARATION LOCATIONS AT BRIDGE JOINTS, SEE "JOINT DETAILS" SHEETS.

← TO GREENVILLE

TO AIRPORT →



← TO GREENVILLE

TO AIRPORT →

PLAN

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730056

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
 CHECKED BY : JACOB H. DUKE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

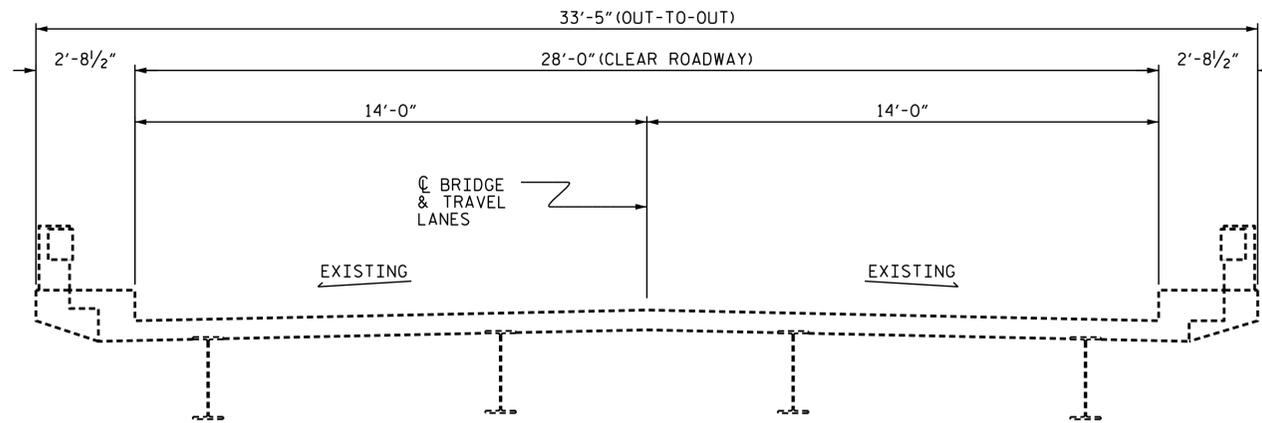
10/16/2018 G:\4201720.19-Pitt+County.Bridge.PPC.Overlay\Structures\401.060.2BPR.10741.SMU.DSRO1.S2-2.730039.56.57.70.dgn User:jduke



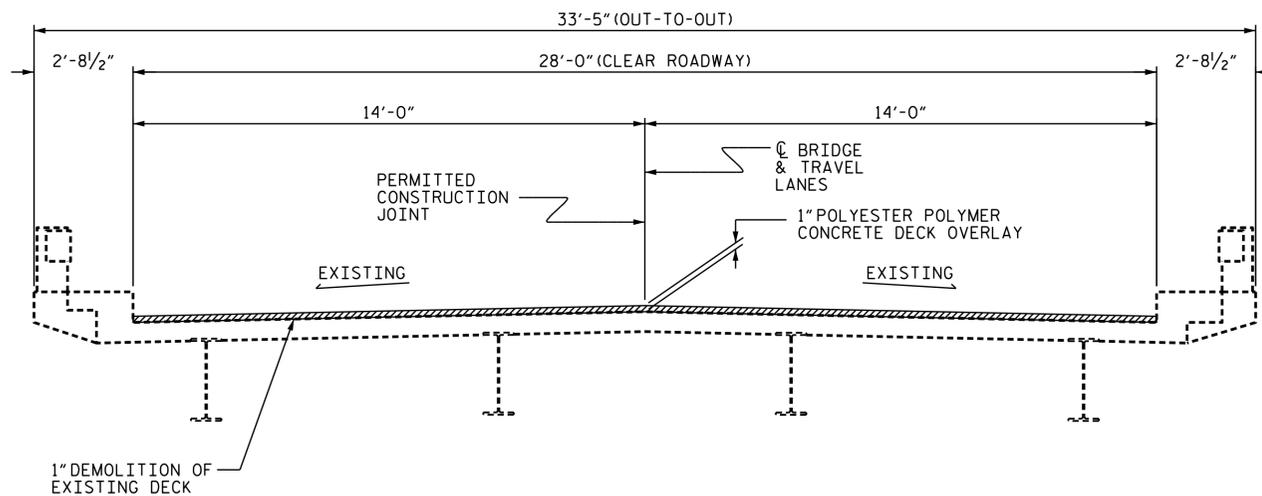
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**PLAN OF SPANS
 1 THRU 8**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S2-2
2			4			TOTAL SHEETS 30

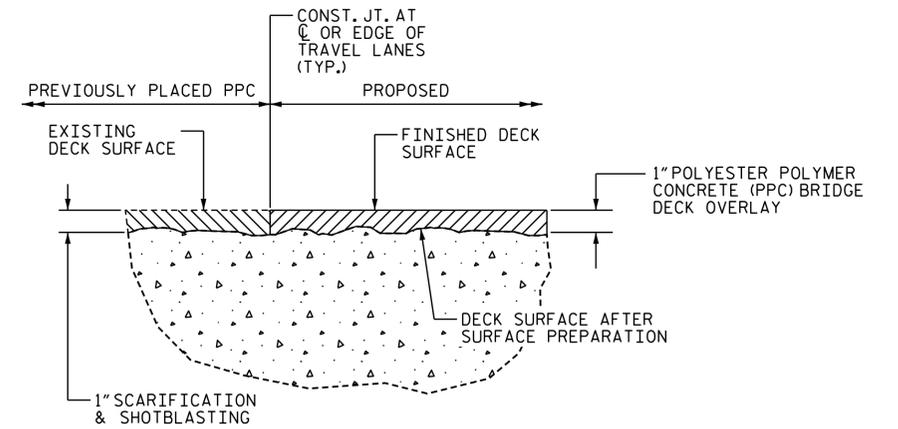
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



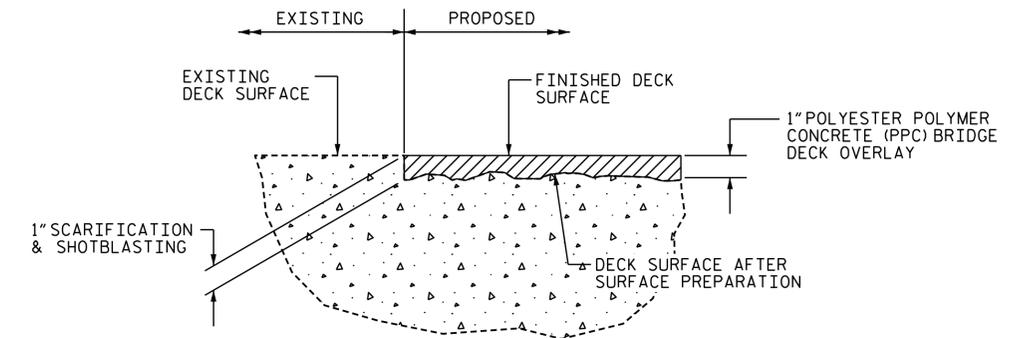
TYPICAL SECTION
(EXISTING SPANS 1-8)



TYPICAL SECTION
(PROPOSED SPANS 1-8)



DETAIL FOR STAGED PPC OVERLAY



DETAIL FOR PPC OVERLAY

NOTES:

- LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.
- SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF POLYESTER POLYMER CONCRETE (PPC) SYSTEM AND SURFACE PREPARATION.

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730056

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 KISINGER CAMPO & ASSOCIATES RALEIGH, NC 27601
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DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
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10/16/2018
 G:\4201720.19-Pitt+.County.Bridge.PPC.Overlay\Structures\401.065.2BPR.10741.SMU.TS.S2-3.730039.56.57.70.DGN
 User:jduke

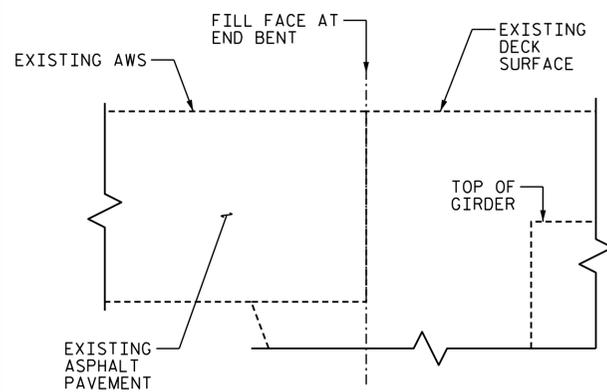


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

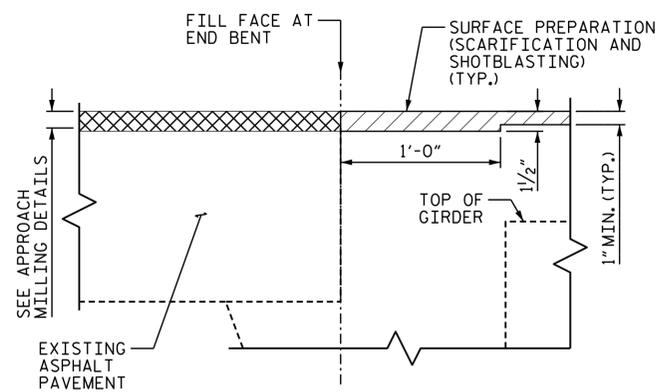
**TYPICAL SECTIONS
 PPC OVERLAY**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-3
1			3			TOTAL SHEETS
2			4			30

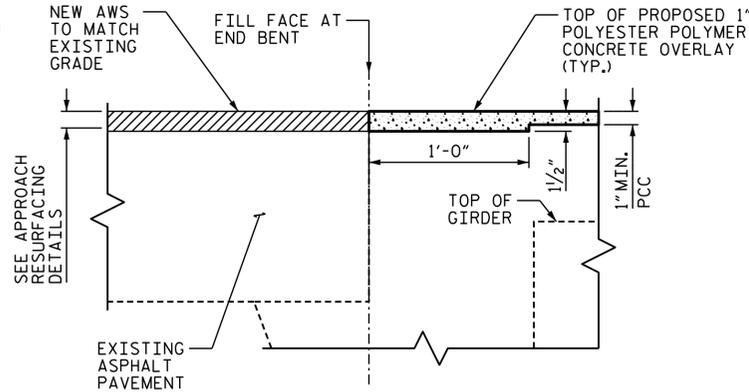
DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



SECTION A-A
(EXISTING PRIOR TO PPC OVERLAY)



SECTION A-A
(MIN. EXISTING JOINT DEMOLITION)

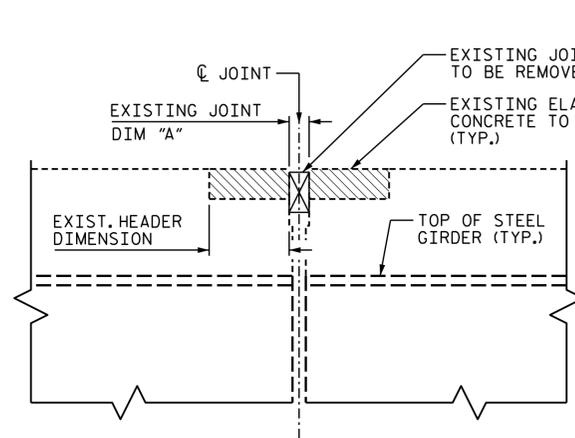


SECTION A-A
(PROPOSED JOINT)

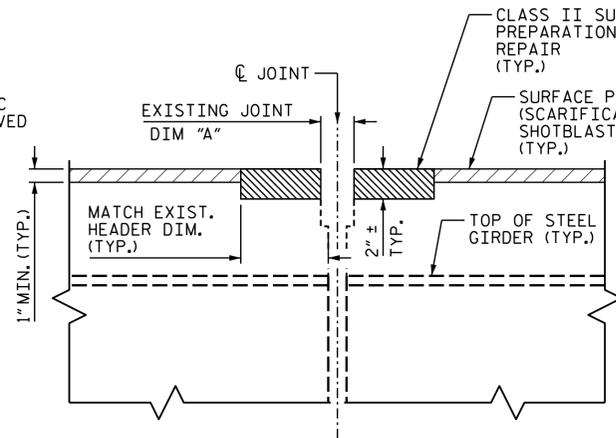
NOTES:

- RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.
- FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.
- FOR CONCRETE FOR DECK REPAIR FOR PPC OVERLAY, SEE SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAIL BY MORE THAN 1/4"; NOTIFY THE ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.
- THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL BASED ON JOINT OPENINGS.
- FOR SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.
- SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
- * NON-SAG SILICONE JOINT SEALANT TO BE PLACED AND ALLOWED TO SET, PRIOR TO PLACEMENT OF SELF-LEVELING SILICONE JOINT SEALANT.

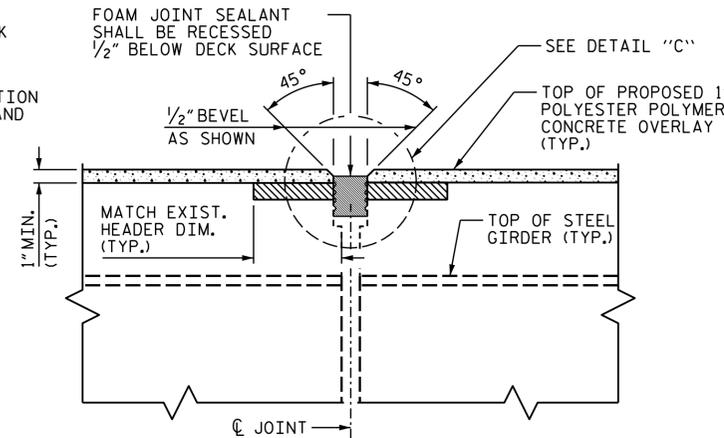
AREA OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PPC OVERLAY



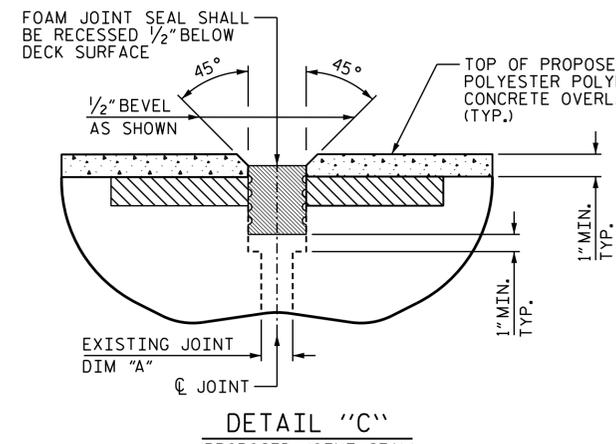
SECTION B-B
(EXISTING PRIOR TO PPC OVERLAY)



SECTION B-B
(MIN. EXISTING JOINT DEMOLITION)



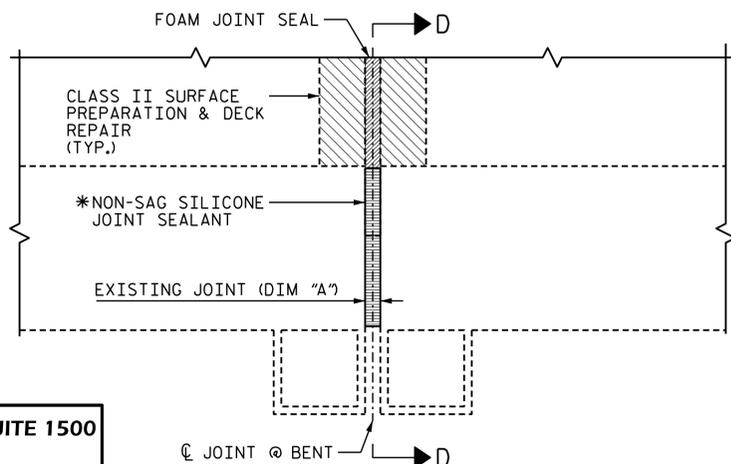
SECTION B-B
(PROPOSED FOAM JOINT SEAL)



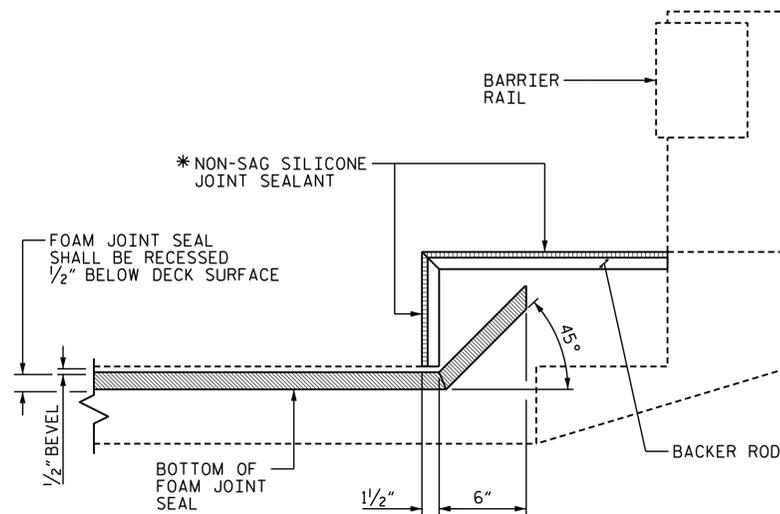
DETAIL "C"
(PROPOSED JOINT SEAL)

TABLE 1	
Table Date 9-2018	
BENT/ JOINT	DIM "A" @ 65°F
BT 1	1"
BT 2	1"
BT 3	1"
BT 4	1 1/8"
BT 5	1"
BT 6	1 1/8"
BT 7	1 1/4"

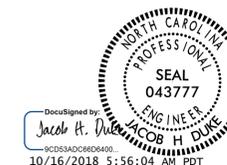
PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730056



PLAN AT BARRIER
(PROPOSED JOINT SEAL)



SECTION D-D
(PROPOSED JOINT SEAL)



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
JOINT DETAILS

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
 CHECKED BY : JACOB H. DUKE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-4
1			3			TOTAL SHEETS
2			4			30

AS-BUILT QUANTITY TABLE

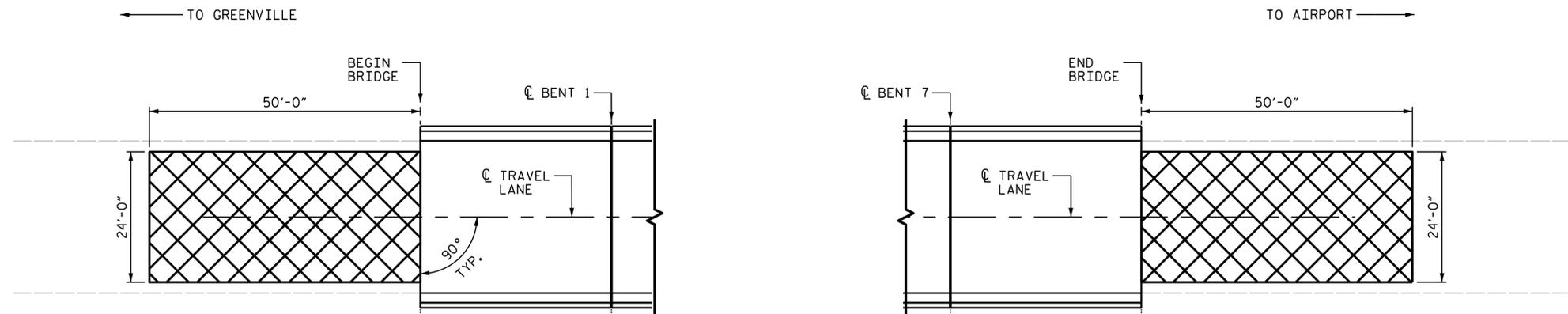
	ESTIMATE	ACTUAL
INCIDENTAL MILLING	267 SY	
ASPHALT BINDER FOR PLANT MIX	1.3 TONS	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C	22 TONS	
REMOVAL OF EXISTING ASPHALT PAVEMENT		

NOTES:

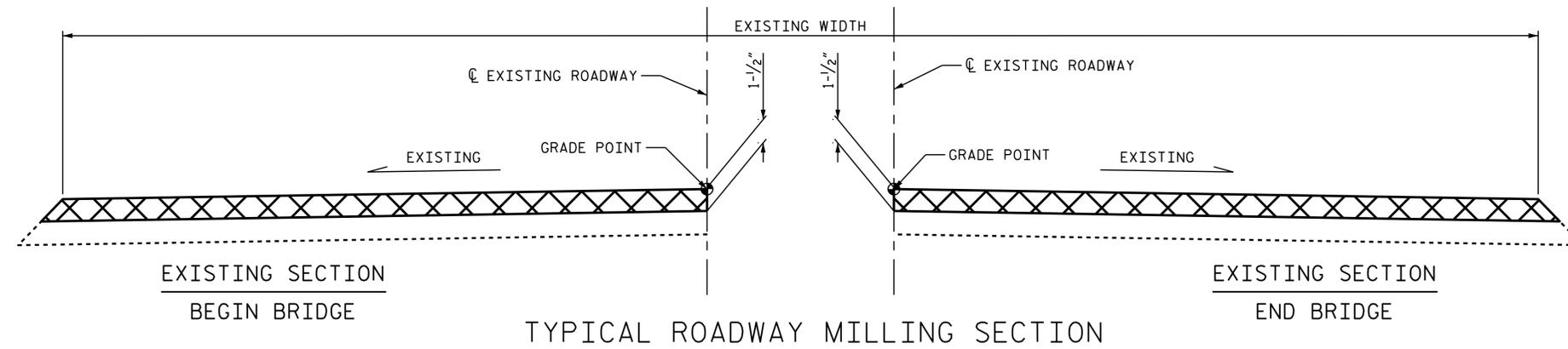
- INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVEMENT TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 1 1/2" DEPTH OF NEW ASPHALT PAVEMENT. NEW ASPHALT PAVEMENT SHALL BE OF THICKNESS NECESSARY TO PROVIDE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK. THE NEW ASPHALT PAVEMENT THICKNESS MAY EXCEED 1 1/2" DUE TO SETTLEMENT OF THE EXISTING APPROACH.
- FOR NEW ASPHALT PLACEMENT, SEE STANDARD SPECIFICATIONS.
- GRADE MAY BE ADJUSTED BY THE ENGINEER TO ENSURE PROPER TIE-IN AT THE APPROACH ROADWAY AT EACH END BENT.

-  INCIDENTAL MILLING
-  ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C

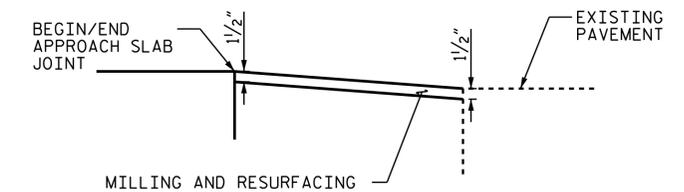
C1 PROPOSED ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD, PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1" OR GREATER THAN 2" IN DEPTH.



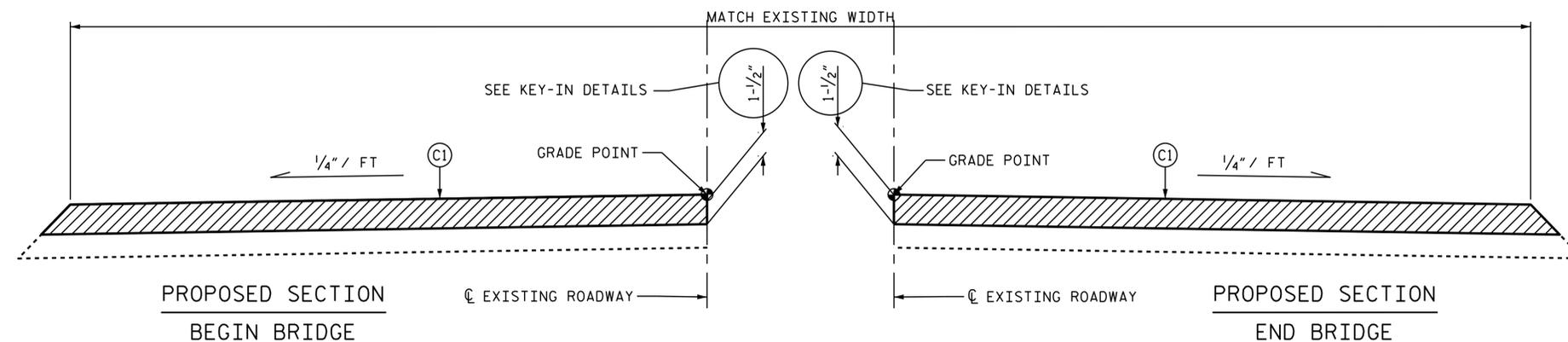
PLAN



TYPICAL ROADWAY MILLING SECTION

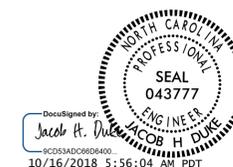


PAVEMENT KEY-IN DETAIL



TYPICAL ROADWAY SECTION

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730056



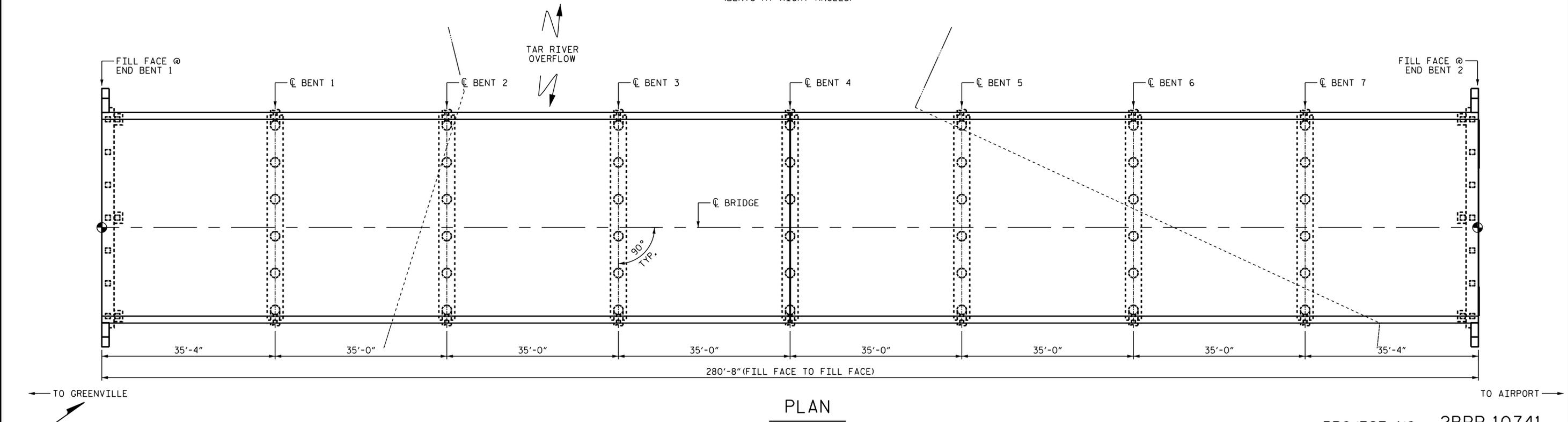
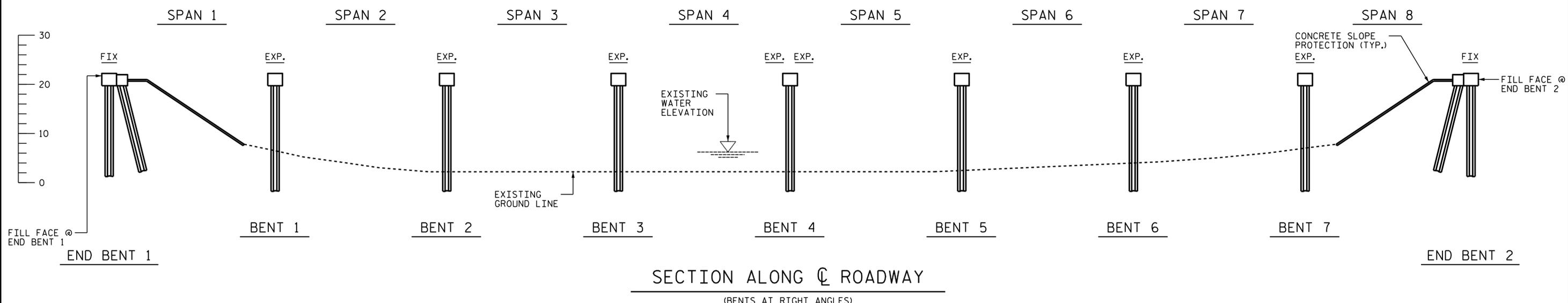
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**APPROACH ROADWAY
 MILLING AND RESURFACING**

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
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 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-5
1			3			TOTAL SHEETS
2			4			30

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



SCOPE OF WORK:

1. POLYESTER POLYMER CONCRETE OVERLAY
2. JOINT REPLACEMENT
3. APPROACH ROADWAY MILLING AND RESURFACING
4. APPROACH SLAB WIDENING.

NOTES:

PROFILE INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION DATED 07/18/2017.

BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL REQUIREMENTS.

FOR TRAFFIC CONTROL AND PHASING, SEE TRANSPORTATION MANAGEMENT PLANS.

EXISTING BRIDGE JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECKS.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

REPAIR CONCRETE DECK AREAS AT LOCATIONS DESCRIBED ON THE PLANS OR AT THE DIRECTION OF THE ENGINEER AFTER SCARIFICATION, BUT PRIOR TO SHOTBLASTING AND APPLICATION OF POLYESTER POLYMER CONCRETE (PPC) OVERLAY. UNLESS OTHERWISE PERMITTED, REPAIRS SHALL BE MADE WITH PPC.

FOR CONCRETE DECK REPAIR FOR PPC OVERLAY, PPC MATERIALS, AND PLACING AND FINISHING PPC OVERLAY, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR OVERLAY SURFACE PREPARATION FOR POLYESTER POLYMER CONCRETE, SEE SPECIAL PROVISIONS.

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730057

KCA 301 FAYETTEVILLE ST., SUITE 1500
 KISINGER CAMPO & ASSOCIATES RALEIGH, NC 27601
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DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

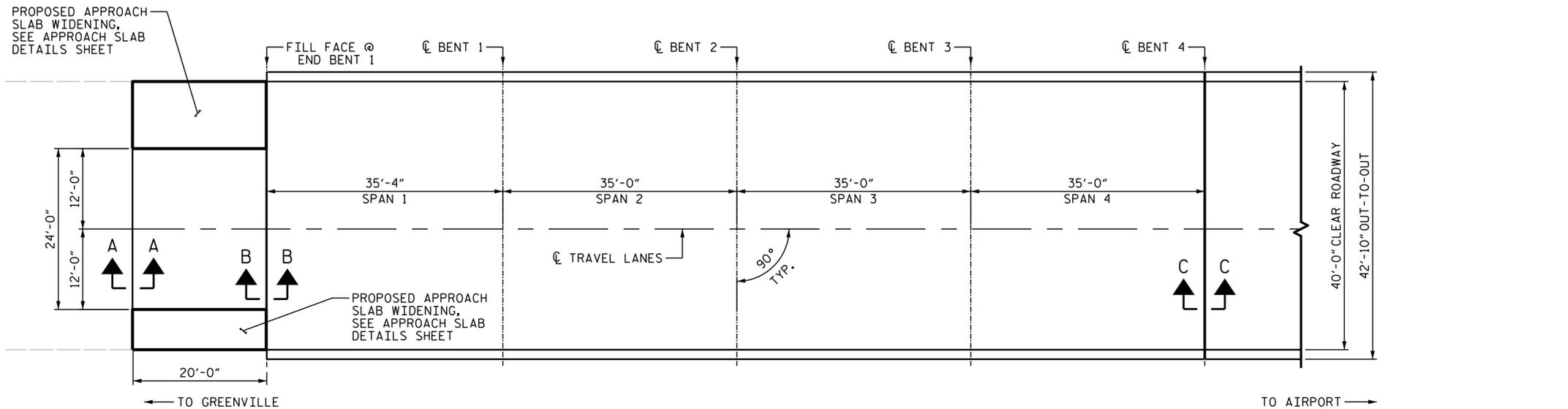
GENERAL DRAWING
 FOR BRIDGE ON US13 NBL
 OVER TAR RIVER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-1
2			4			TOTAL SHEETS 30

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS										
	APPROACH SLABS		SPAN 1		SPANS 2, 3, 6, 7		SPANS 4 & 5		SPAN 8	
	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	89 SY		158 SY		156 SY		156 SY		158 SY	
CLASS II SURFACE PREPARATION	22.8 SY *		22.8 SY *		0.2 SY *		22.8 SY *		23.9 SY *	
CONCRETE DECK REPAIR FOR PPC OVERLAY	22.8 SY *		22.8 SY *		0.2 SY *		22.8 SY *		23.9 SY *	
SHOTBLASTING BRIDGE DECK	89 SY		158 SY		156 SY		156 SY		158 SY	
PPC MATERIALS	2.8 CY		4.8 CY		4.8 CY		4.8 CY		4.8 CY	
PLACING & FINISHING PPC OVERLAY	89 SY		158 SY		156 SY		156 SY		158 SY	
GROOVING BRIDGE FLOORS	728 SF		1295 SF		1283 SF		1283 SF		1295 SF	



APPROX. CLASS II SURFACE PREPARATION

NOTES:

WHERE MULTIPLE SPANS ARE LISTED, ESTIMATED QUANTITIES ARE BASED ON THE ANTICIPATED VALUES FOR A SINGLE SPAN OF THAT CONFIGURATION.

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE.

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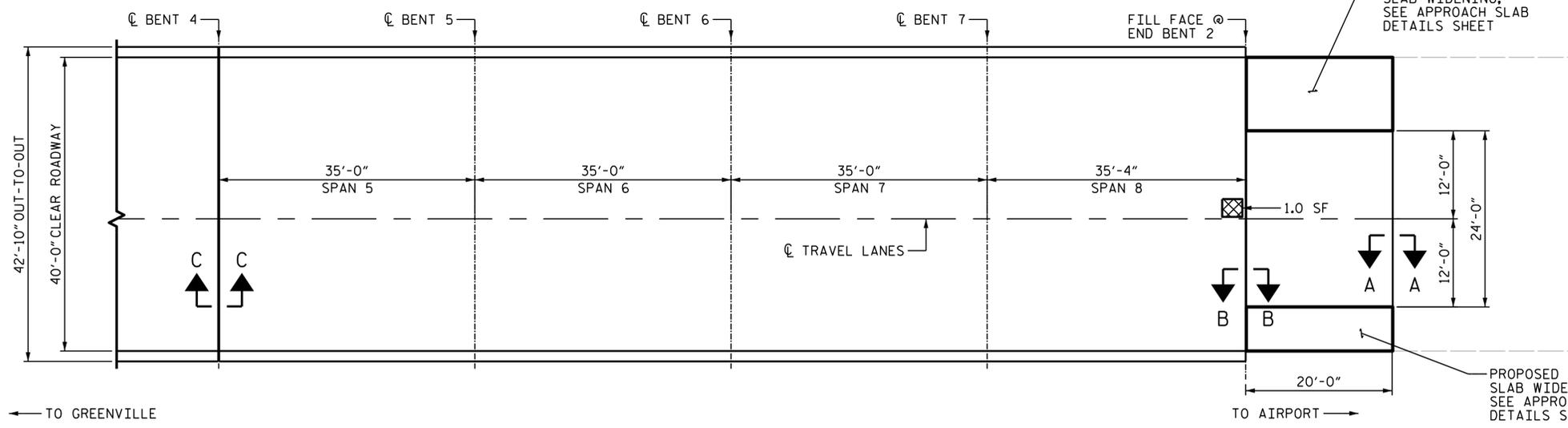
CURRENT AVERAGE COVER IS EXPECTED TO BE FROM 1 1/2" TO 2" BASED ON VISUAL INSPECTION.

* MINOR QUANTITIES OF CLASS II AREAS ARE ANTICIPATED, PARTICULARLY NEAR JOINTS. HOWEVER, DUE TO THEIR SMALL SIZE, THE CLASS II LOCATIONS HAVE NOT BEEN DELINEATED ON THESE PLANS. THE CLASS II QUANTITIES INDICATED ARE ANTICIPATED TO BE SUFFICIENT FOR THE ACTUAL QUANTITIES ENCOUNTERED.

BRIDGE DECK GROOVING QUANTITY BASED ON LIMITS REQUIRED IN SUBSECTION 240-14(B) OF STANDARD SPECIFICATIONS.

BRIDGE DECK SCARIFICATION LIMITS ARE THE FULL CLEAR ROADWAY WIDTH (INSIDE FACE OF EACH BRIDGE RAIL).

FOR CLASS II SURFACE PREPARATION LOCATIONS AT BRIDGE JOINTS, SEE "JOINT DETAILS" SHEETS.



PLAN

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730057



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

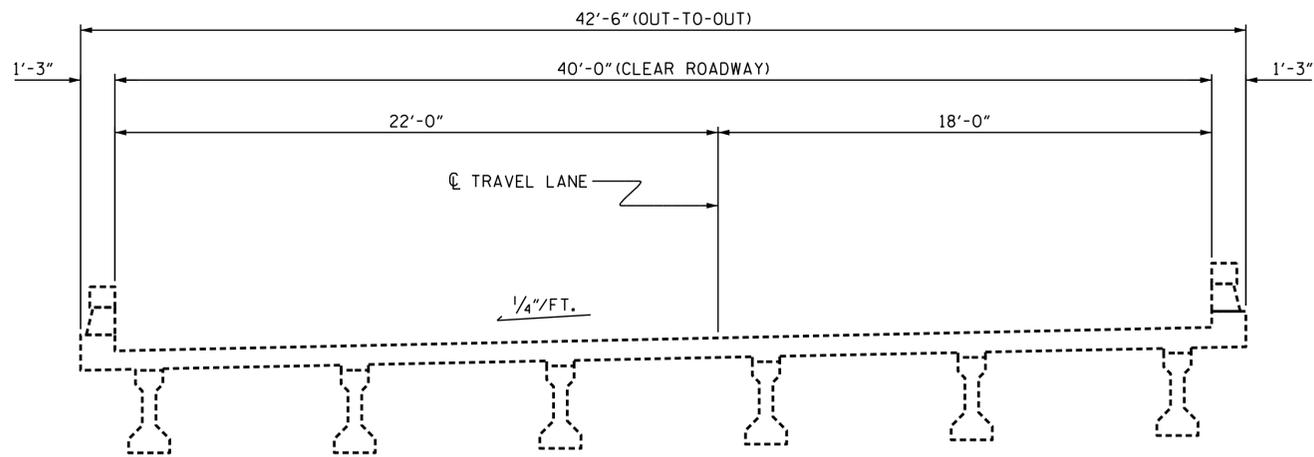
**PLAN OF SPANS
 1 THRU 8**

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
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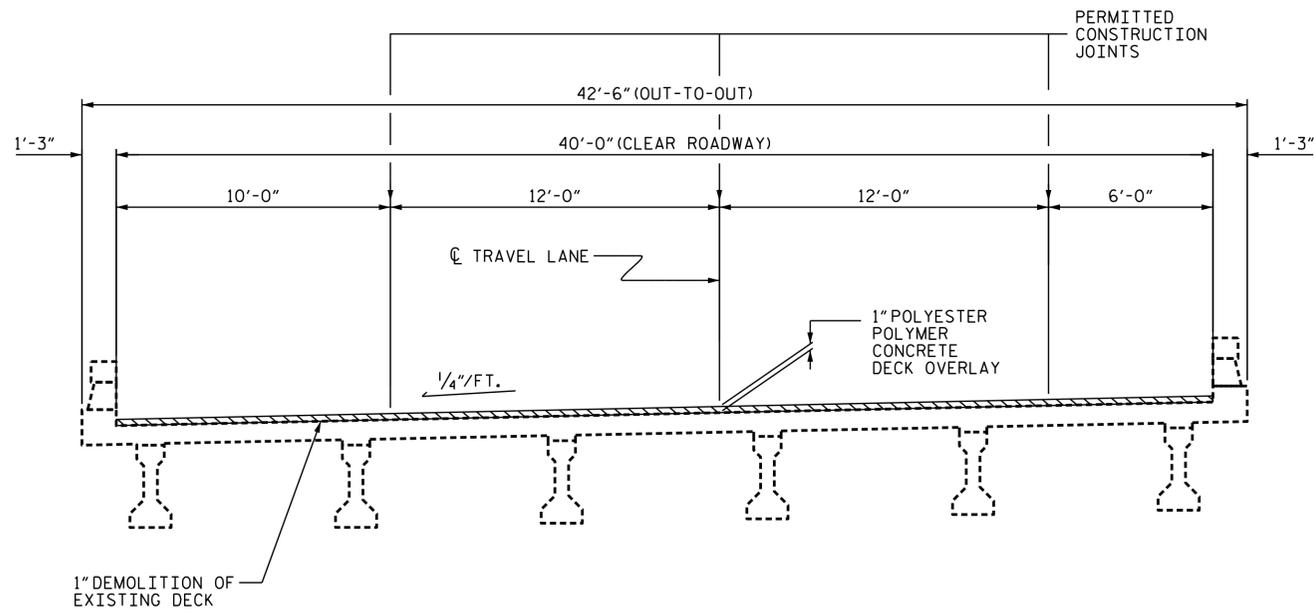
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-2
2			4			TOTAL SHEETS 30

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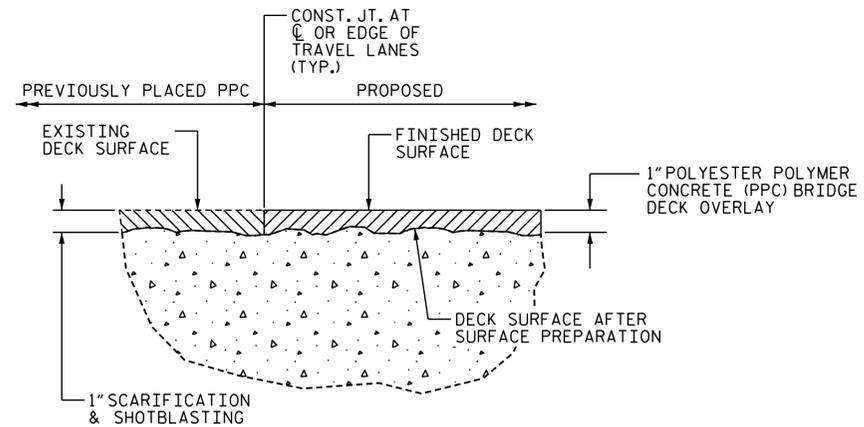
TYPICAL SECTION

(EXISTING SPANS 1-8)

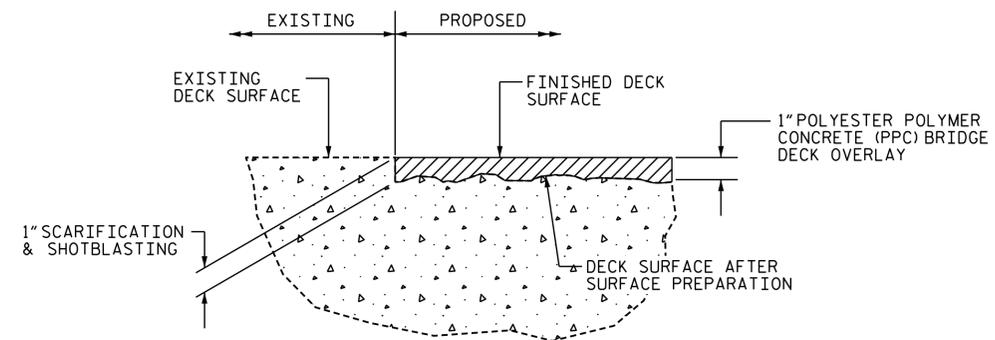


TYPICAL SECTION

(PROPOSED SPANS 1-8)



DETAIL FOR STAGED PPC OVERLAY



DETAIL FOR PPC OVERLAY

NOTES:

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF POLYESTER POLYMER CONCRETE (PPC) SYSTEM AND SURFACE PREPARATION.

PROJECT NO. 2BPR.10741
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KCA 301 FAYETTEVILLE ST., SUITE 1500
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 G:\4201720.19-Pitt+.County.Bridge.PPC.Overlay\Structures\401.090.2BPR.10741.SMU.TS.S3-3.730039.56.57.70.DGN
 User:jduke

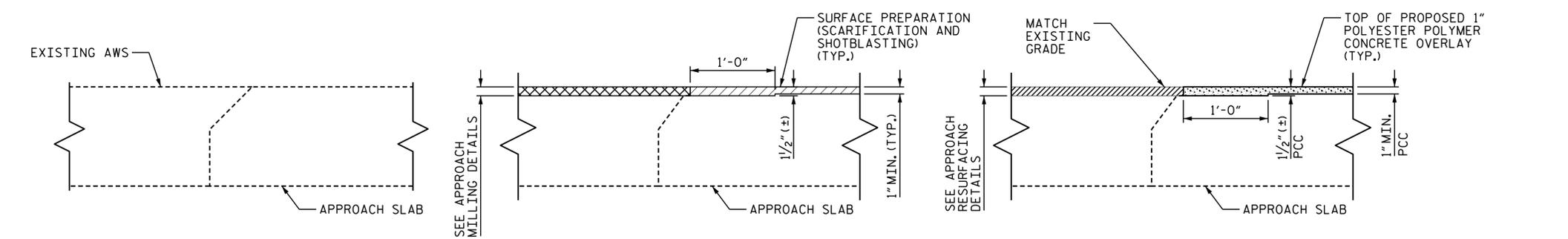


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TYPICAL SECTIONS
 PPC OVERLAY

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-3
1			3			TOTAL SHEETS
2			4			30

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 FINAL UNLESS ALL
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NOTES:
 RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.
 FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.
 FOR CONCRETE FOR DECK REPAIR FOR PPC OVERLAY, SEE SPECIAL PROVISIONS.
 THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAIL BY MORE THAN 1/4", NOTIFY THE ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.
 THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL BASED ON JOINT OPENINGS.

AREA OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PPC OVERLAY

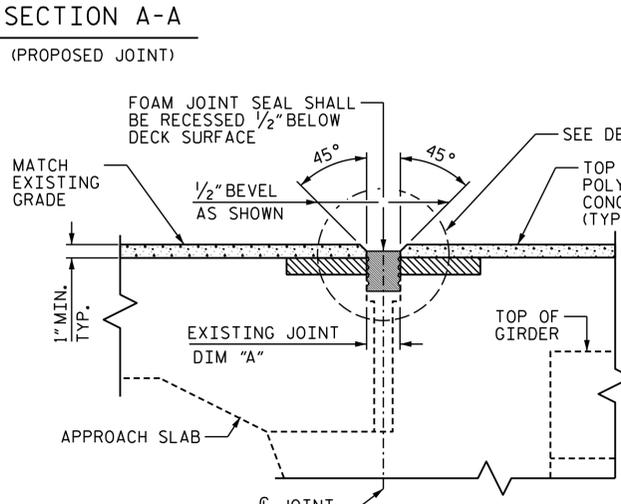
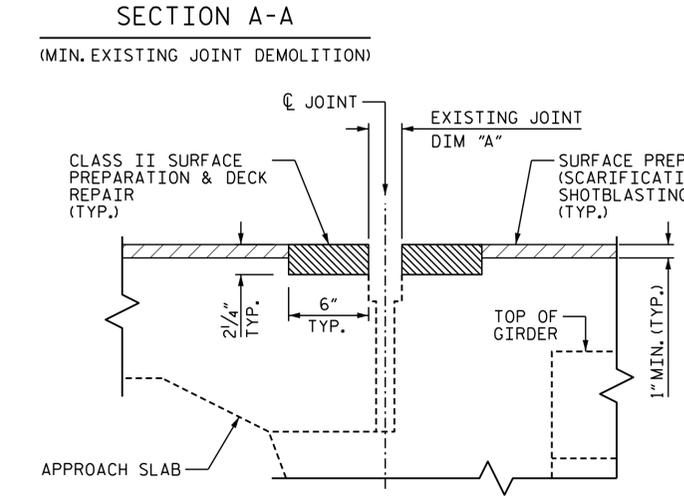
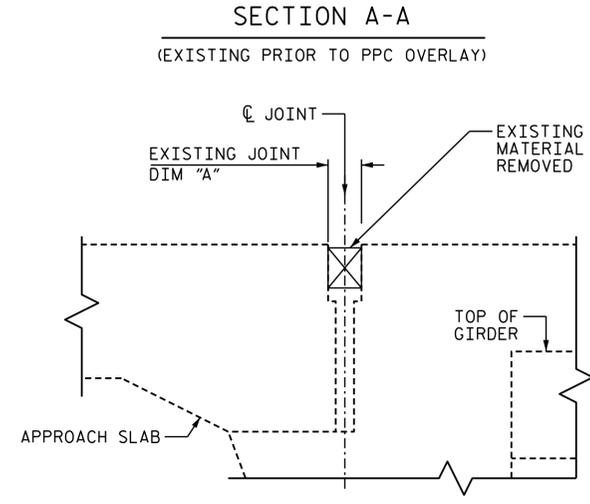
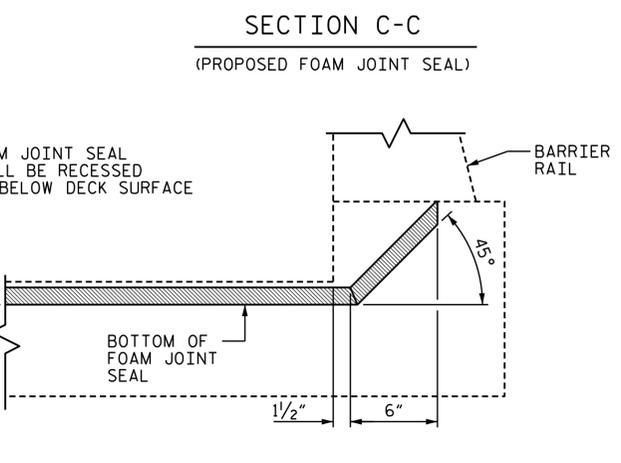
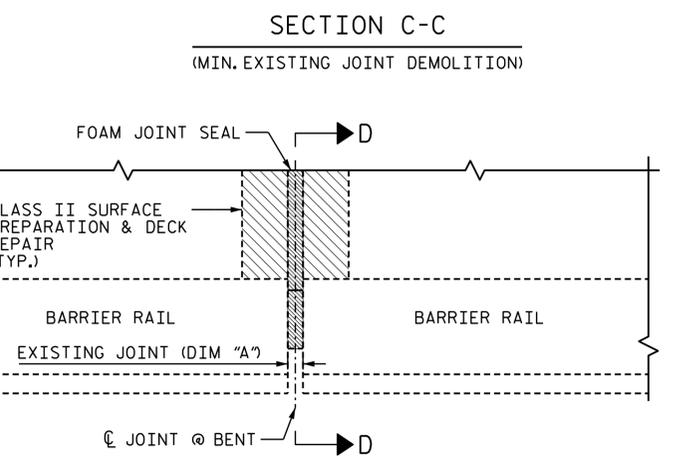
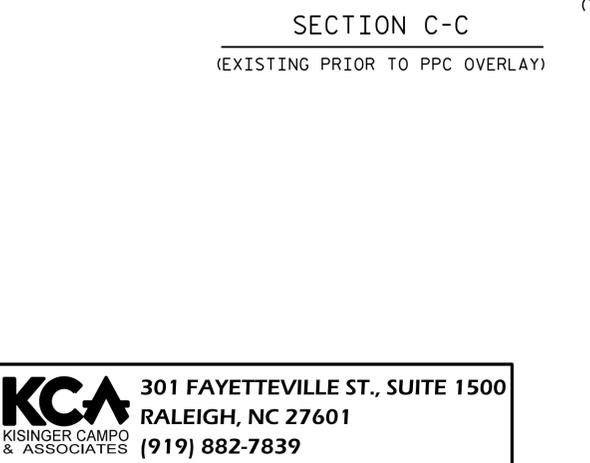
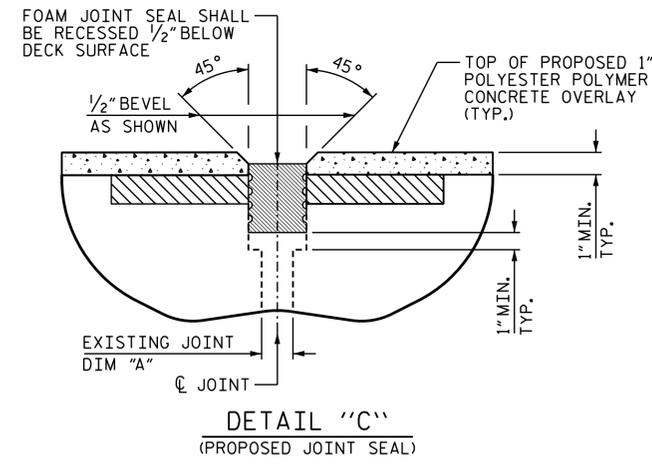
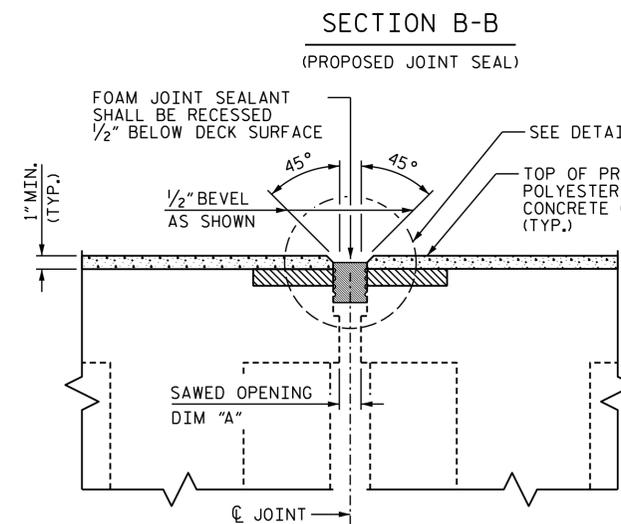
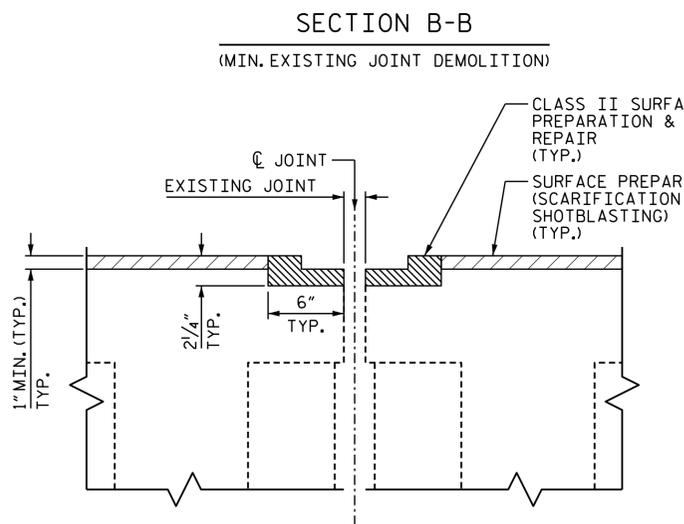
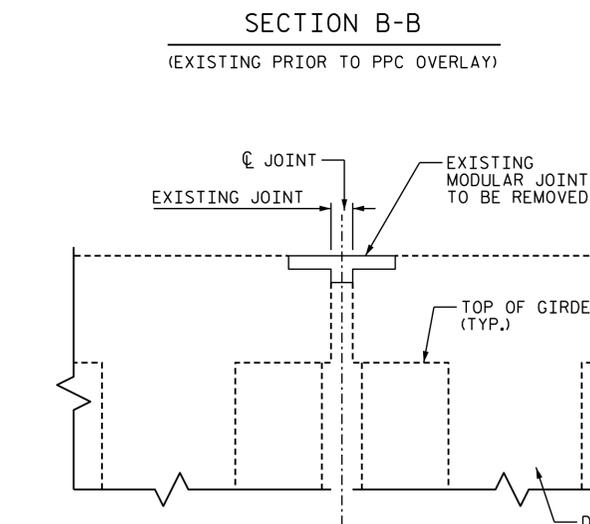


TABLE 1	
Table Date 9-2018	
BENT/JOINT	DIM "A" @ 65°F
EB 1	1 3/4"
BT 4	2 1/8"
EB 2	1 3/4"



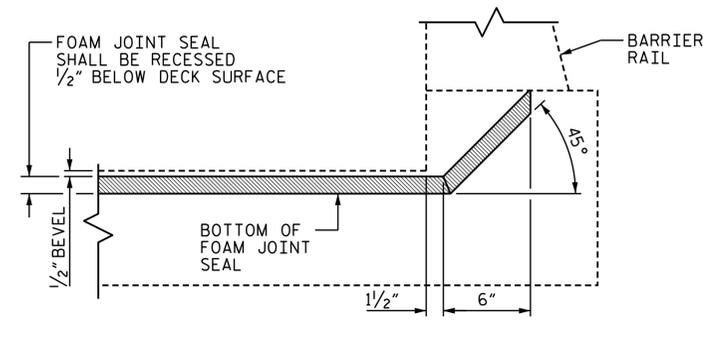
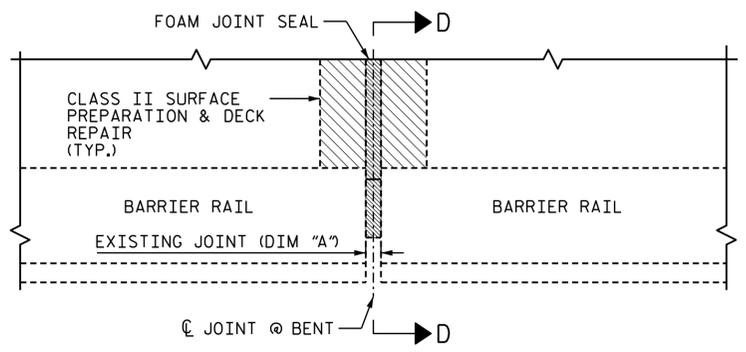
PROJECT NO. 2BPR.10741
 PITT COUNTY
 BRIDGE NO. 730057

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
JOINT DETAILS



KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
 CHECKED BY : JACOB H. DUKE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-4
1			3			TOTAL SHEETS
2			4			30

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

AS-BUILT QUANTITY TABLE

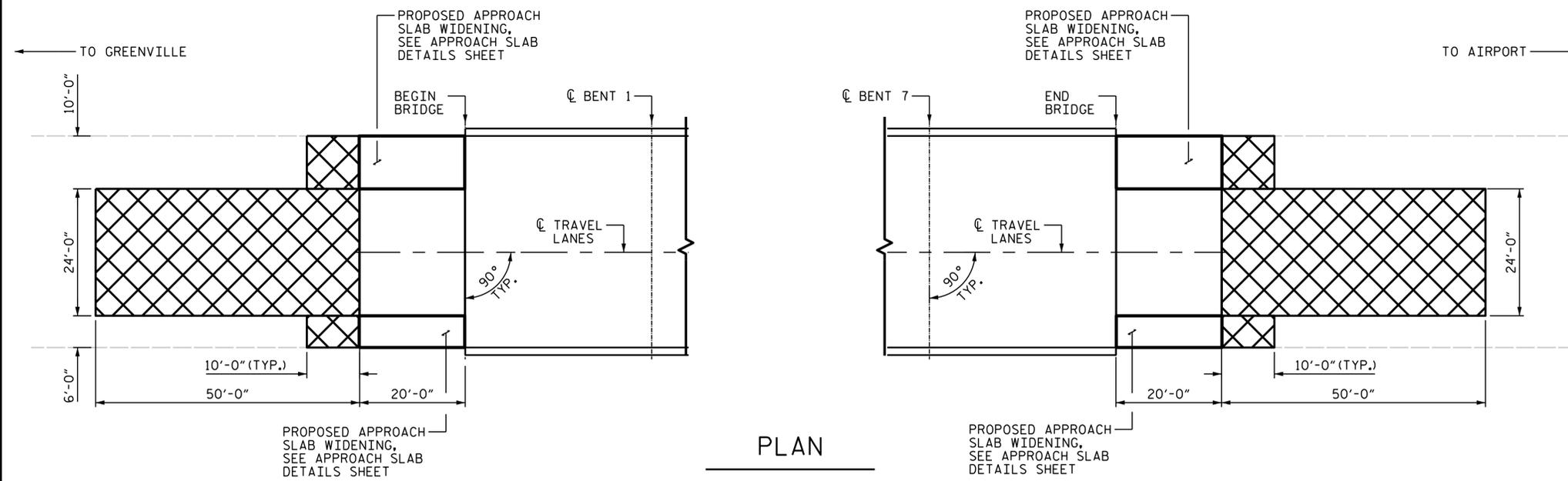
	ESTIMATE	ACTUAL
INCIDENTAL MILLING	303 SY	
ASPHALT BINDER FOR PLANT MIX	1.5 TONS	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C	25 TONS	
REMOVAL OF EXISTING ASPHALT PAVEMENT	72 SY	

NOTES:

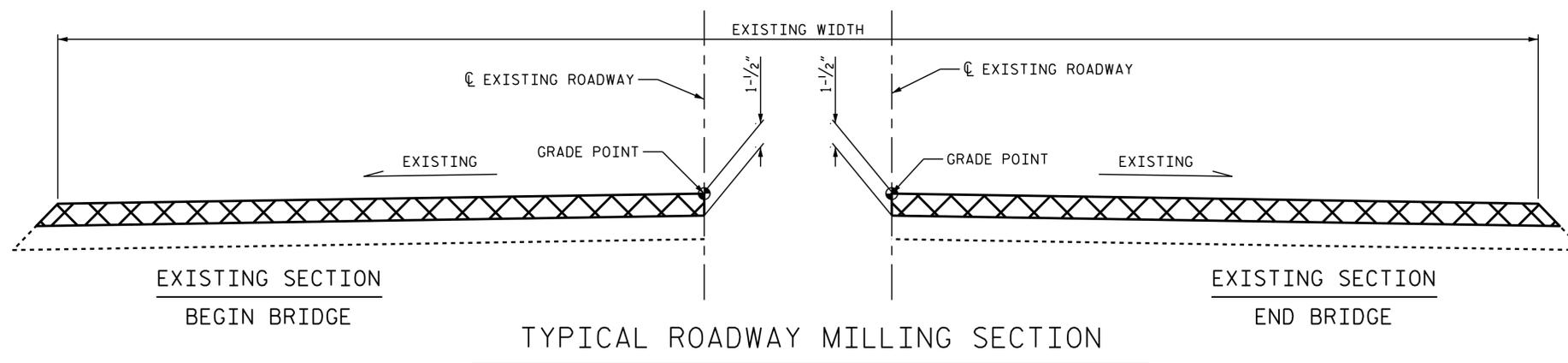
- INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVEMENT TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 1 1/2" DEPTH OF NEW ASPHALT PAVEMENT. NEW ASPHALT PAVEMENT SHALL BE OF THICKNESS NECESSARY TO PROVIDE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK. THE NEW ASPHALT PAVEMENT THICKNESS MAY EXCEED 1 1/2" DUE TO SETTLEMENT OF THE EXISTING APPROACH.
- FOR NEW ASPHALT PLACEMENT, SEE STANDARD SPECIFICATIONS.
- GRADE MAY BE ADJUSTED BY THE ENGINEER TO ENSURE PROPER TIE-IN AT THE APPROACH ROADWAY AT EACH END BENT.

-  INCIDENTAL MILLING
-  ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C

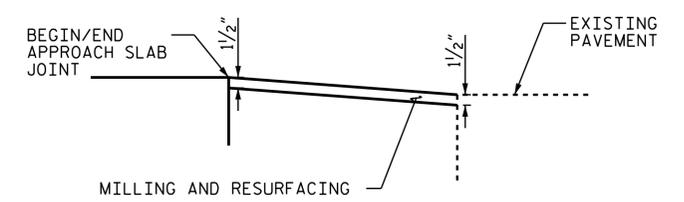
C1 PROPOSED ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD, PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1" OR GREATER THAN 2" IN DEPTH.



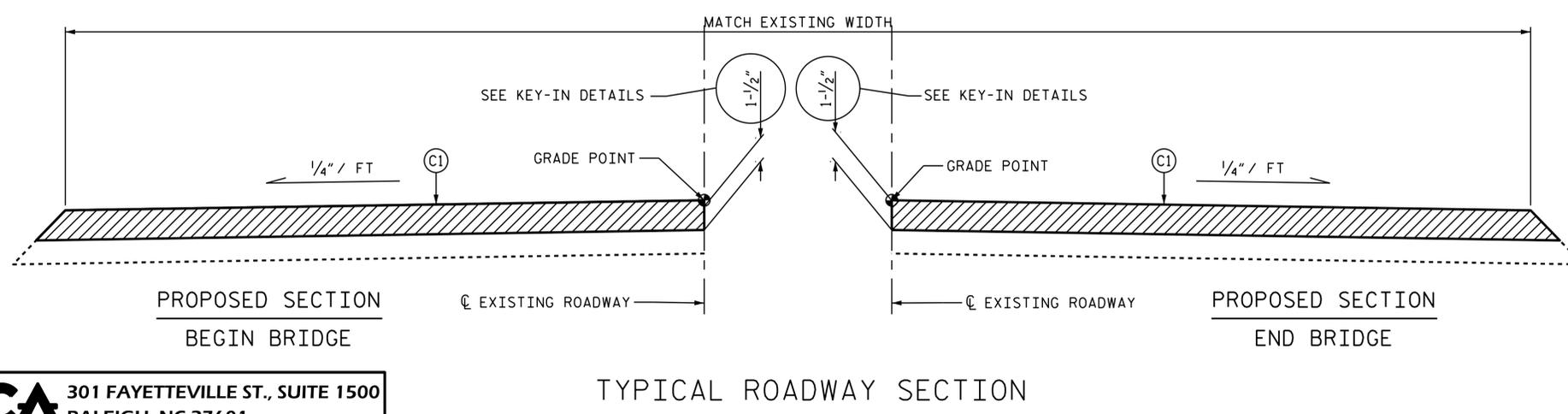
PLAN



TYPICAL ROADWAY MILLING SECTION



PAVEMENT KEY-IN DETAIL



TYPICAL ROADWAY SECTION

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730057



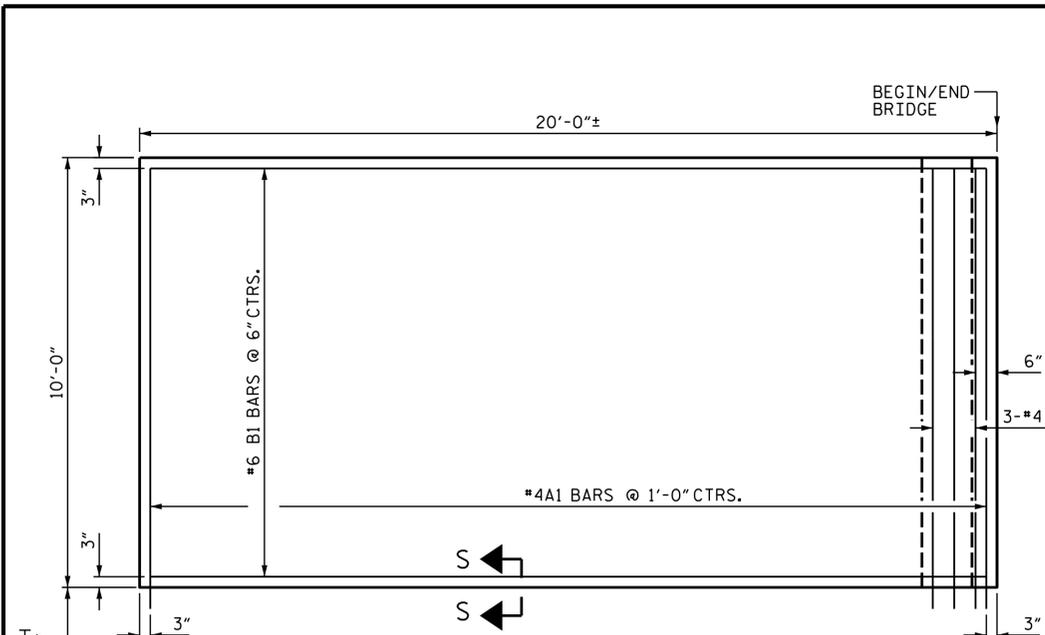
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**APPROACH ROADWAY
 MILLING AND RESURFACING**

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 09/2018
 CHECKED BY : JACOB H. DUKE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

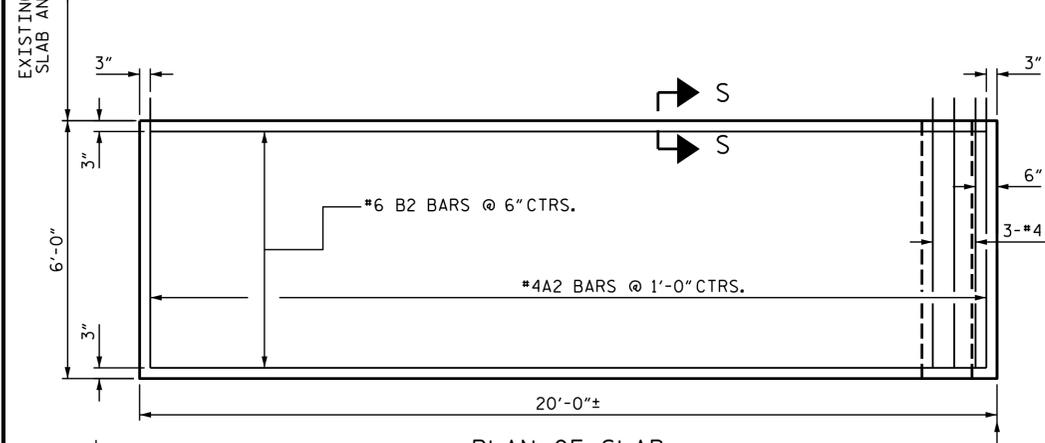
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-5
2			4			TOTAL SHEETS 30

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



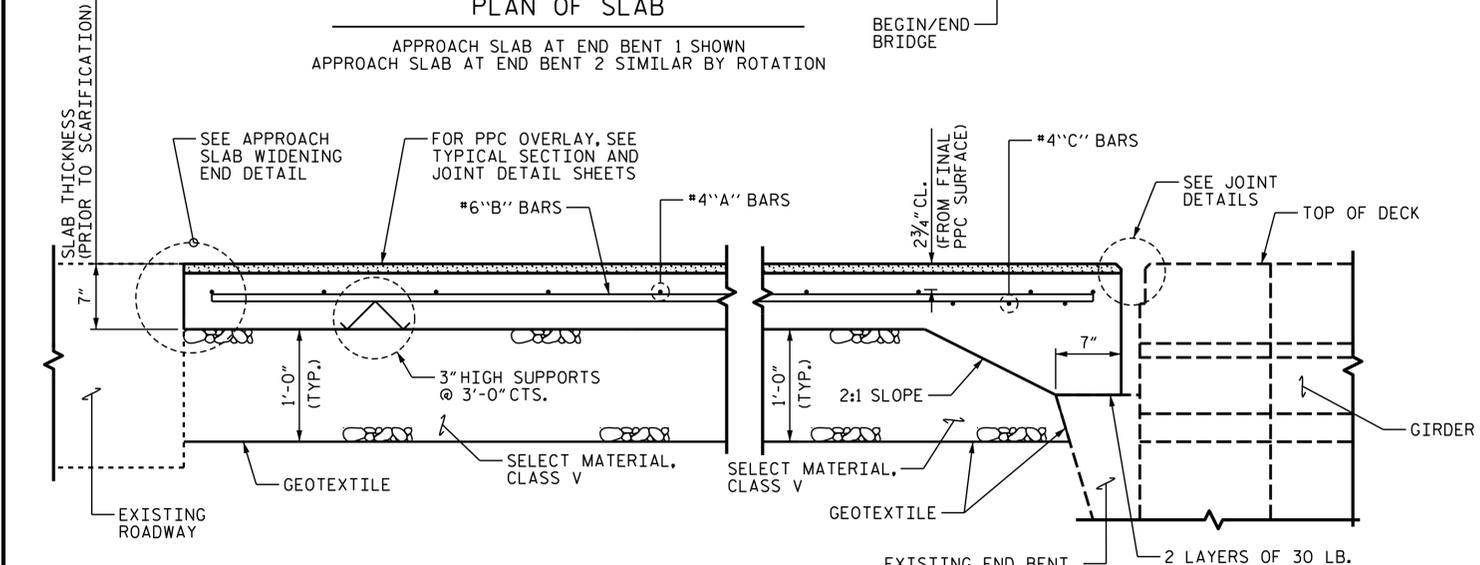
PLAN OF SLAB

APPROACH SLAB AT END BENT 1 SHOWN
APPROACH SLAB AT END BENT 2 SIMILAR BY ROTATION



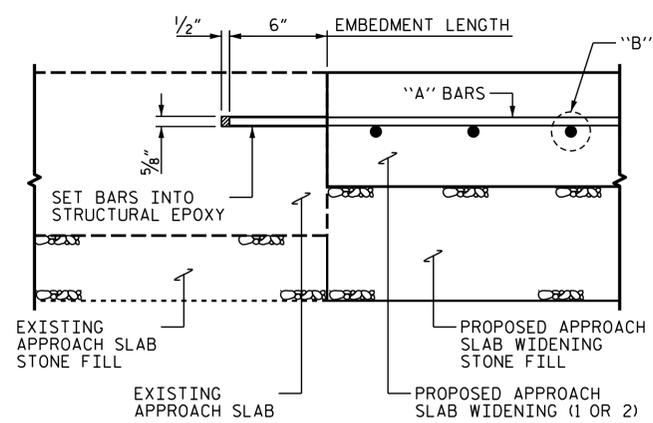
PLAN OF SLAB

APPROACH SLAB AT END BENT 1 SHOWN
APPROACH SLAB AT END BENT 2 SIMILAR BY ROTATION

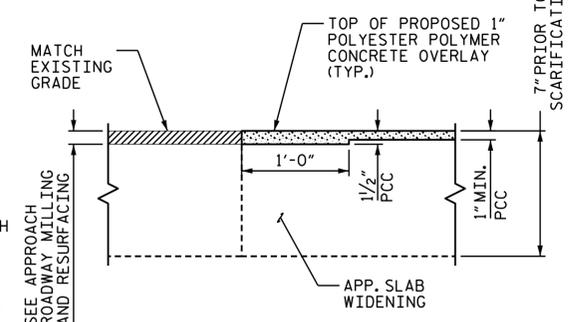


SECTION THRU SLAB

DETAIL ASSUMES 9" PAVEMENT
BRACKET FOR FULL END BENT LENGTH



SECTION S-S

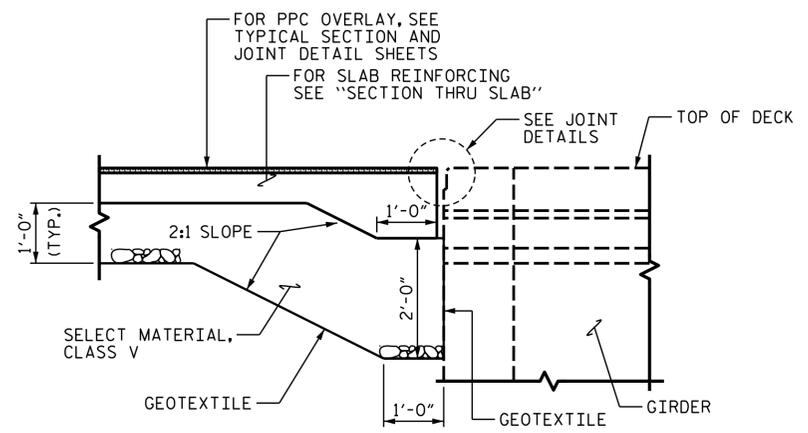


APPROACH SLAB WIDENING
END DETAIL

BILL OF MATERIALS FOR BOTH APPROACH SLABS AT ONE END BENT					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A1	21	#4	STR	10'-3"	144
A2	21	#4	STR	6'-3"	88
B1	20	#6	STR	19'-6"	586
B2	12	#6	STR	19'-6"	352
C1	3	#4	STR	10'-3"	21
C2	3	#4	STR	6'-3"	13
REINFORCING STEEL				LBS.	1204
CLASS A CONCRETE				CU.YDS.	7.3
SELECT MATERIAL, CLASS V				TONS	24

NOTES:

1. GEOTEXTILE SHALL BE TYPE I IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
2. #78M STONE (CLASS V SELECT MATERIAL) SHALL BE IN ACCORDANCE WITH SECTION 1016 OF THE STANDARD SPECIFICATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE GLOBAL STABILITY OF THE APPROACH SLAB(S), SLOPE, ADJACENT ROADWAY, AND UTILITIES. ANY DAMAGED CAUSED TO THESE FACILITIES AS A RESULT OF THIS WORK WILL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE DEPARTMENT. DAMAGED AREAS WILL BE DETERMINED BY THE ENGINEER. PAYMENT FOR MAINTENANCE OF THESE FACILITIES IS INCIDENTAL TO THE COST FOR THE PROPOSED APPROACH SLAB ADDITIONS.
4. APPROACH SLAB AND ROADWAY GRADES SHOULD BE FIELD ADJUSTED AS NECESSARY TO APPROPRIATELY MATCH FIELD CONDITIONS.
5. EXISTING PLANS SHOW A "PAVEMENT BRACKET" ALONG THE FULL LENGTH OF THE BACKWALL TO SUPPORT THE APPROACH SLABS. IF THIS IS THE AS-BUILT CONDITION, USE THE DETAILS PROVIDED IN "SECTION THRU SLAB". IF NO "PAVEMENT BRACKET" EXISTS BEYOND THE EXISTING APPROACH SLAB, COORDINATE DETAILS IN "SECTION THRU SLAB" AND "SLAB DETAIL WITHOUT BRACKET".



SLAB DETAIL WITHOUT BRACKET

DETAIL ASSUMES NO EXISTING 9" PAVEMENT
BRACKET FOR FULL END BENT LENGTH

PROJECT NO. 2BPR.10741
PITT COUNTY
BRIDGE NO. 730057

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KISINGER CAMPO & ASSOCIATES

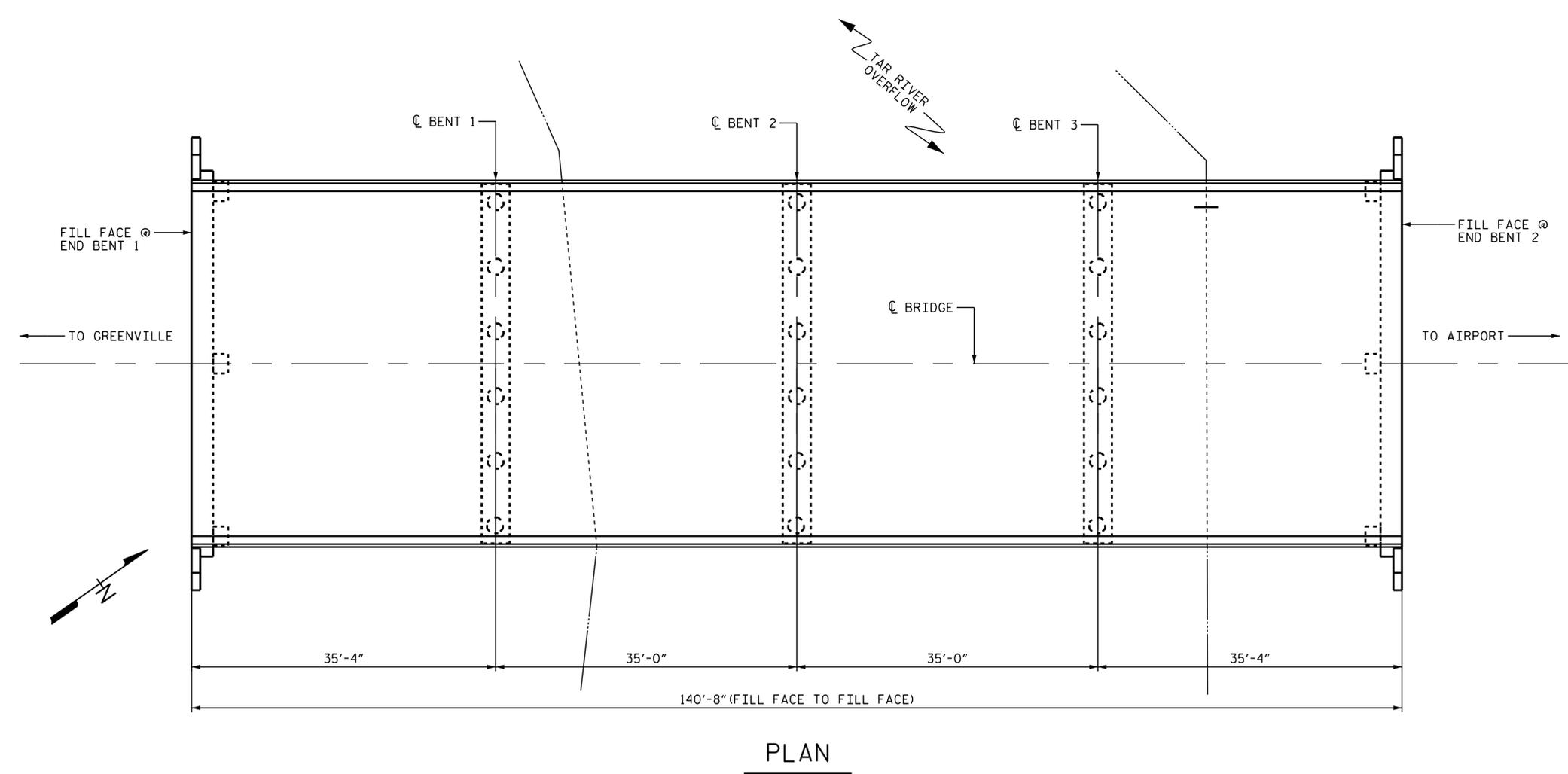
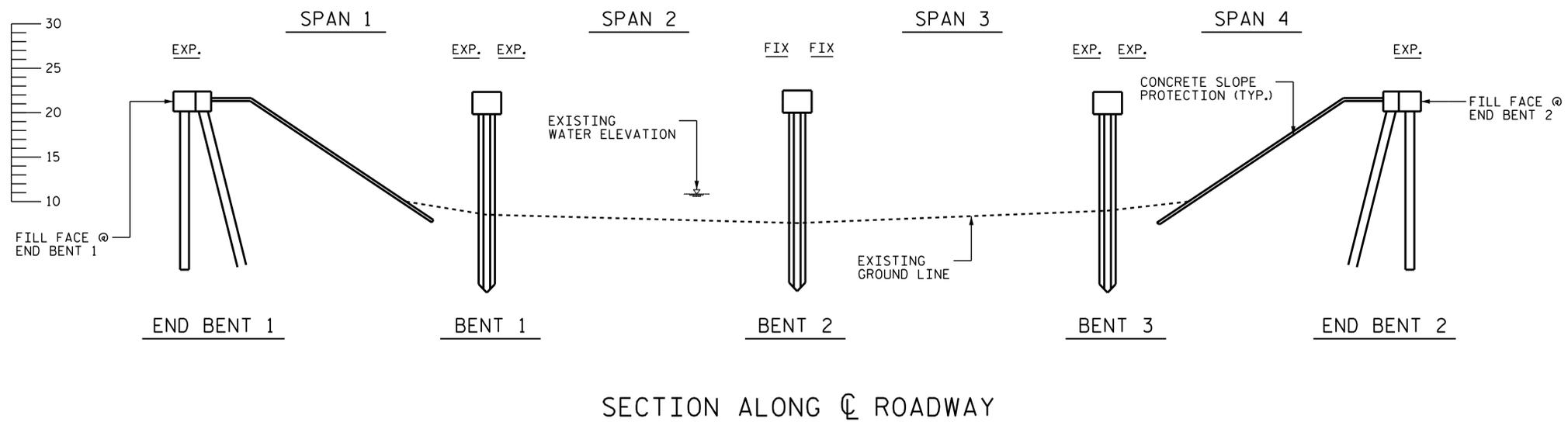
DRAWN BY : JACOB H. DUKE DATE : 09/2018
CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
APPROACH SLAB
DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S3-6
2			4			TOTAL SHEETS 30

DOCUMENT NOT CONSIDERED
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SIGNATURES COMPLETED



NOTES:

- PROFILE INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION DATED 07/12/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.
- EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL REQUIREMENTS.
- FOR TRAFFIC CONTROL AND PHASING, SEE TRANSPORTATION MANAGEMENT PLANS.
- EXISTING BRIDGE JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECKS.
- LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.
- REPAIR CONCRETE DECK AREAS AT LOCATIONS DESCRIBED ON THE PLANS OR AT THE DIRECTION OF THE ENGINEER AFTER SCARIFICATION, BUT PRIOR TO SHOTBLASTING AND APPLICATION OF POLYESTER POLYMER CONCRETE (PPC) OVERLAY. UNLESS OTHERWISE PERMITTED, REPAIRS SHALL BE MADE WITH PPC.
- FOR CONCRETE DECK REPAIR FOR PPC OVERLAY, PPC MATERIALS, AND PLACING AND FINISHING PPC OVERLAY, SEE SPECIAL PROVISIONS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR OVERLAY SURFACE PREPARATION FOR POLYESTER POLYMER CONCRETE, SEE SPECIAL PROVISIONS.

SCOPE OF WORK:

1. POLYESTER POLYMER CONCRETE OVERLAY
2. JOINT REPLACEMENT
3. APPROACH ROADWAY MILLING AND RESURFACING
4. APPROACH SLAB WIDENING.

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730070

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
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DRAWN BY : JACOB H. DUKE DATE : 09/2018
 CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018



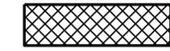
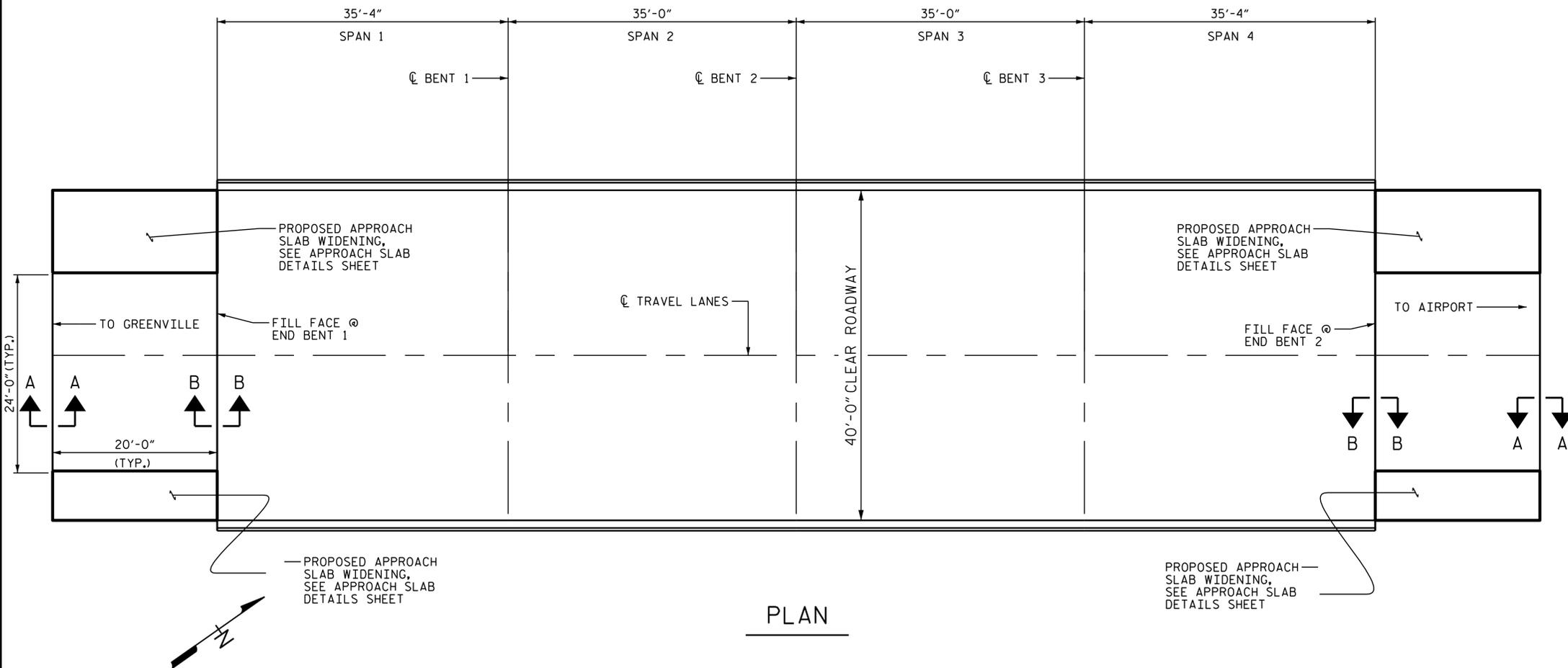
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON US13 SBL
 OVER TAR RIVER OVERFLOW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-1
1			3			TOTAL SHEETS
2			4			30

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AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS						
	APPROACH SLABS		SPANS 1 & 4		SPANS 2 & 3	
	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	89 SY		158 SY		156 SY	
CLASS II SURFACE PREPARATION	22.8 SY *		22.8 SY *		0.2 SY *	
CONCRETE DECK REPAIR FOR PPC OVERLAY	22.8 SY *		22.8 SY *		0.2 SY *	
SHOTBLASTING BRIDGE DECK	89 SY		158 SY		156 SY	
PPC MATERIALS	2.8 CY		4.8 CY		4.8 CY	
PLACING & FINISHING PPC OVERLAY	89 SY		158 SY		156 SY	
GROOVING BRIDGE FLOORS	728 SF		1295 SF		1283 SF	



APPROX. CLASS II SURFACE PREPARATION

NOTES:

- WHERE MULTIPLE SPANS ARE LISTED, ESTIMATED QUANTITIES ARE BASED ON THE ANTICIPATED VALUES FOR A SINGLE SPAN OF THAT CONFIGURATION.
- REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE.
- CONCRETE COVER FOR TOP BARS IN THE DECK SLAB IS 2" PER THE EXISTING BRIDGE PLANS. ACTUAL CONCRETE COVER SHALL BE DETERMINED BY THE CONTRACTOR AND PRESENTED TO THE ENGINEER PRIOR TO BEGINNING SCARIFICATION.
- CURRENT AVERAGE COVER IS EXPECTED TO BE FROM 1 1/2" TO 2" BASED ON VISUAL INSPECTION.
- * MINOR QUANTITIES OF CLASS II AREAS ARE ANTICIPATED, PARTICULARLY NEAR JOINTS. HOWEVER, DUE TO THEIR SMALL SIZE, THE CLASS II LOCATIONS HAVE NOT BEEN DELINEATED ON THESE PLANS. THE CLASS II QUANTITIES INDICATED ARE ANTICIPATED TO BE SUFFICIENT FOR THE ACTUAL QUANTITIES ENCOUNTERED.
- BRIDGE DECK GROOVING QUANTITY BASED ON LIMITS REQUIRED IN SUBSECTION 240-14(B) OF STANDARD SPECIFICATIONS.
- BRIDGE DECK SCARIFICATION LIMITS ARE THE FULL CLEAR ROADWAY WIDTH (INSIDE FACE OF EACH BRIDGE RAIL).
- FOR CLASS II SURFACE PREPARATION LOCATIONS AT BRIDGE JOINTS, SEE "JOINT DETAILS" SHEETS.

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730070



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

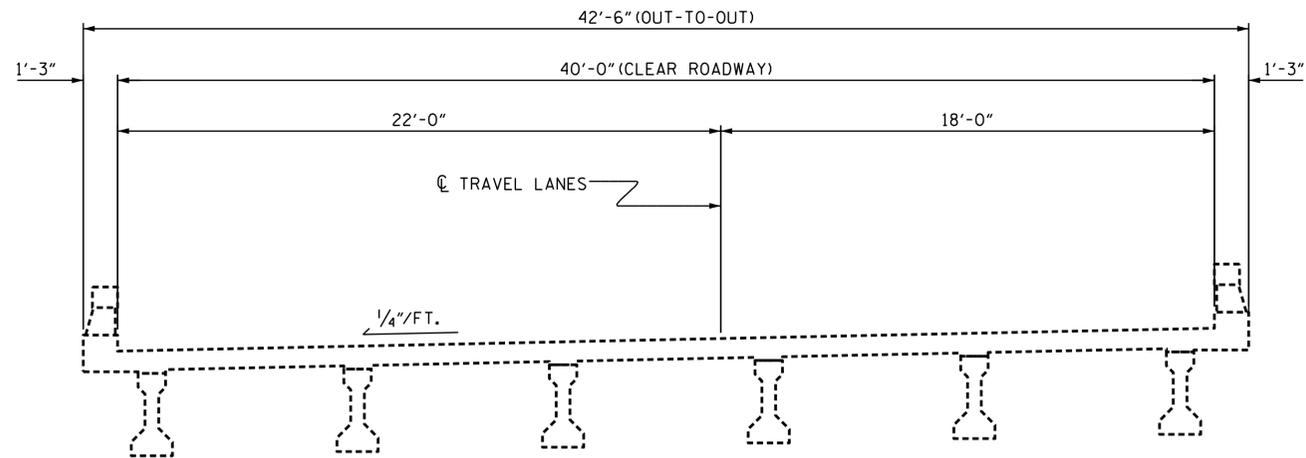
PLAN OF SPANS

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : JACOB H. DUKE DATE : 09/2018
 CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

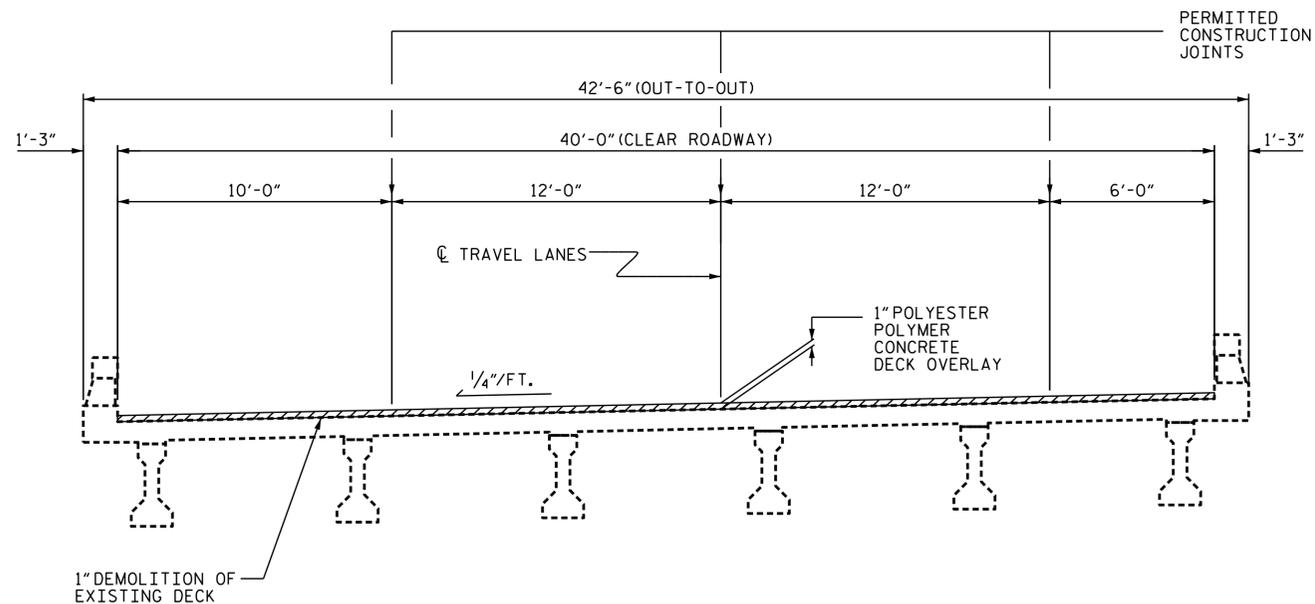
NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
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2				4			TOTAL SHEETS 30	

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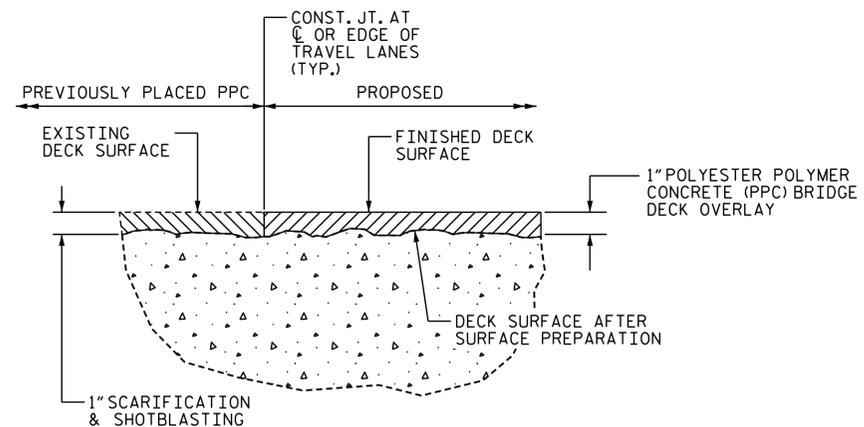
TYPICAL SECTION

(EXISTING SPANS 1-12)

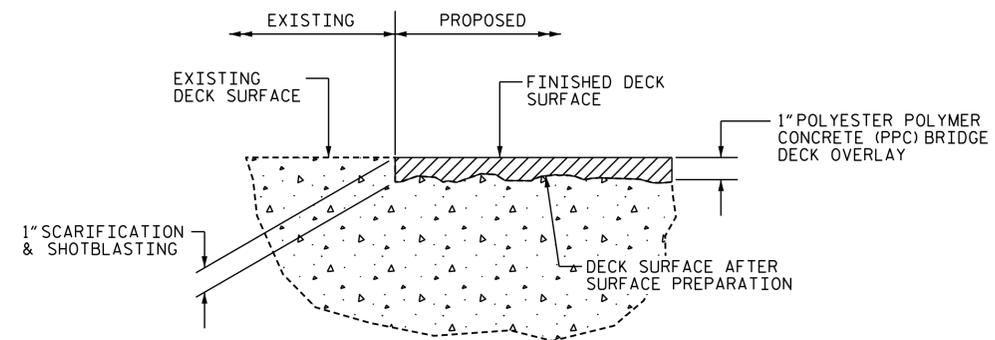


TYPICAL SECTION

(PROPOSED SPANS 1-12)



DETAIL FOR STAGED PPC OVERLAY



DETAIL FOR PPC OVERLAY

NOTES:

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

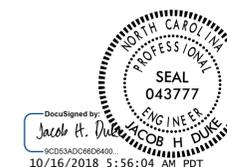
SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF POLYESTER POLYMER CONCRETE (PPC) SYSTEM AND SURFACE PREPARATION.

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730070

KCA 301 FAYETTEVILLE ST., SUITE 1500
 KISINGER CAMPO & ASSOCIATES RALEIGH, NC 27601
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DRAWN BY : JACOB H. DUKE DATE : 03-2018
 CHECKED BY : DIEGO A. AGUIRRE DATE : 03-2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 03-2018

10/16/2018
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 User:jduke

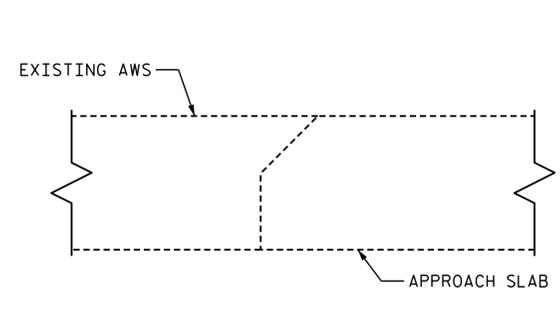


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

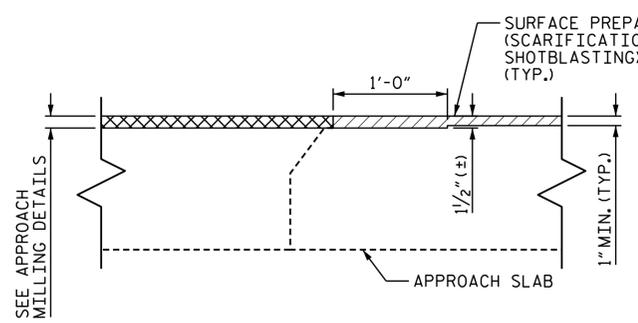
TYPICAL SECTIONS
 PPC OVERLAY

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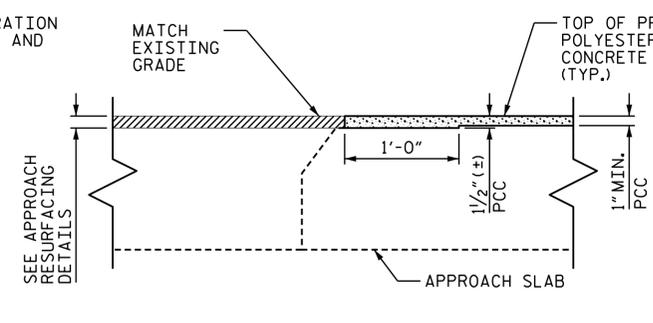
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S4-3
2			4			TOTAL SHEETS 30



SECTION A-A
(EXISTING PRIOR TO PPC OVERLAY)



SECTION A-A
(MIN. EXISTING JOINT DEMOLITION)



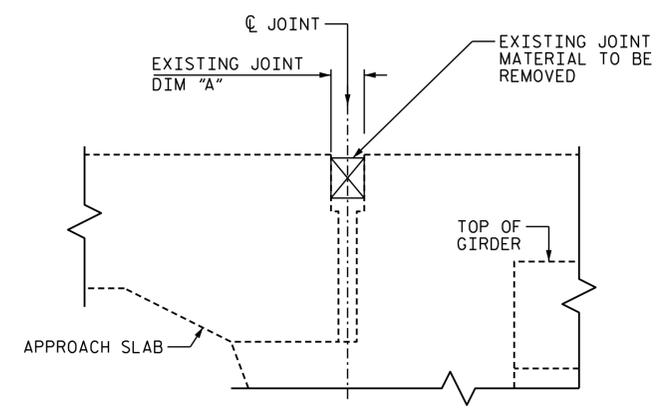
SECTION A-A
(PROPOSED JOINT)

NOTES:

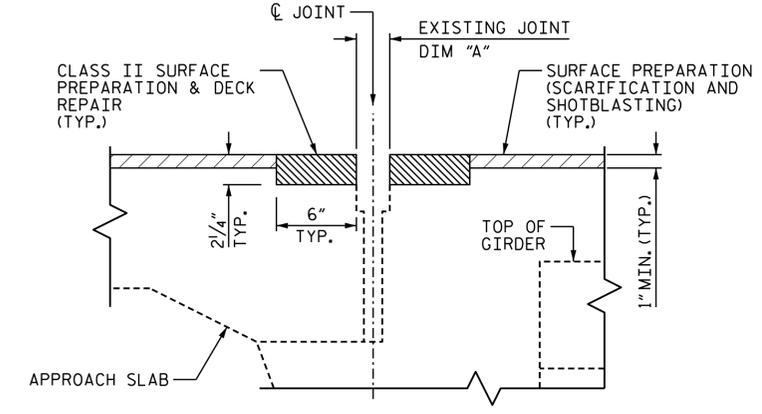
- RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.
- FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.
- FOR CONCRETE FOR DECK REPAIR FOR PPC OVERLAY, SEE SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING INDICATED IN THE DETAIL BY MORE THAN 1/4", NOTIFY THE ENGINEER. REVISION TO THE JOINT SEAL SIZE MIGHT BE NECESSARY.
- THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF FOAM JOINT SEAL BASED ON JOINT OPENINGS.

AREA OF CLASS II SURFACE PREPARATION AND CONCRETE DECK REPAIR FOR PPC OVERLAY

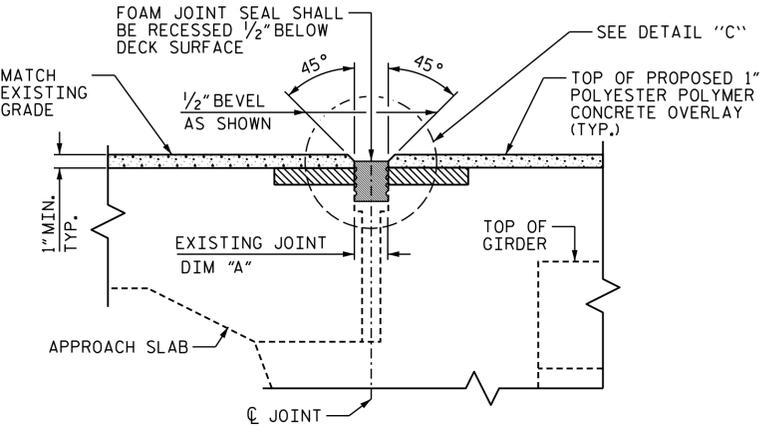
TABLE 1	
Table Date 9-2018	
BENT/ JOINT	DIM "A" @ 65°F
EB 1	2 1/2"
EB 2	2 3/4"



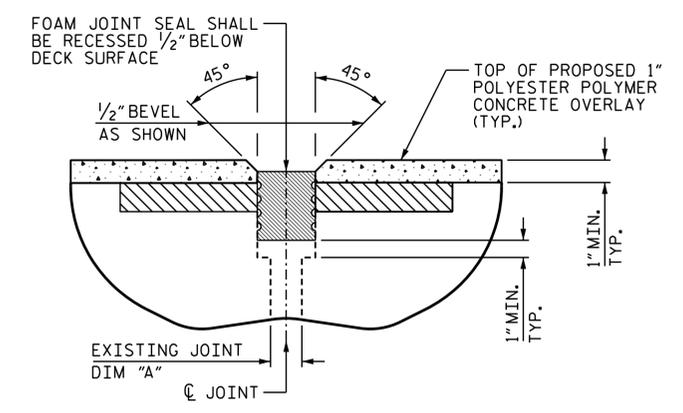
SECTION B-B
(EXISTING PRIOR TO PPC OVERLAY)



SECTION B-B
(MIN. EXISTING JOINT DEMOLITION)



SECTION B-B
(PROPOSED JOINT SEAL)



DETAIL "C"
(PROPOSED JOINT SEAL)

PROJECT NO. 2BPR.10741
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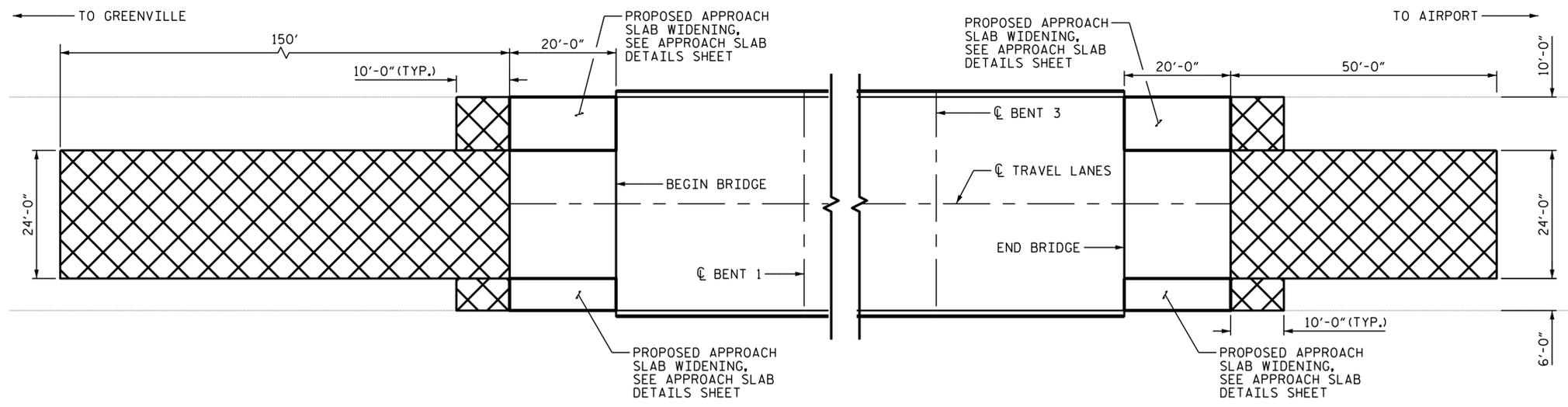
DRAWN BY : OMAR M. KHALAFALLA DATE : 09/2018
 CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018



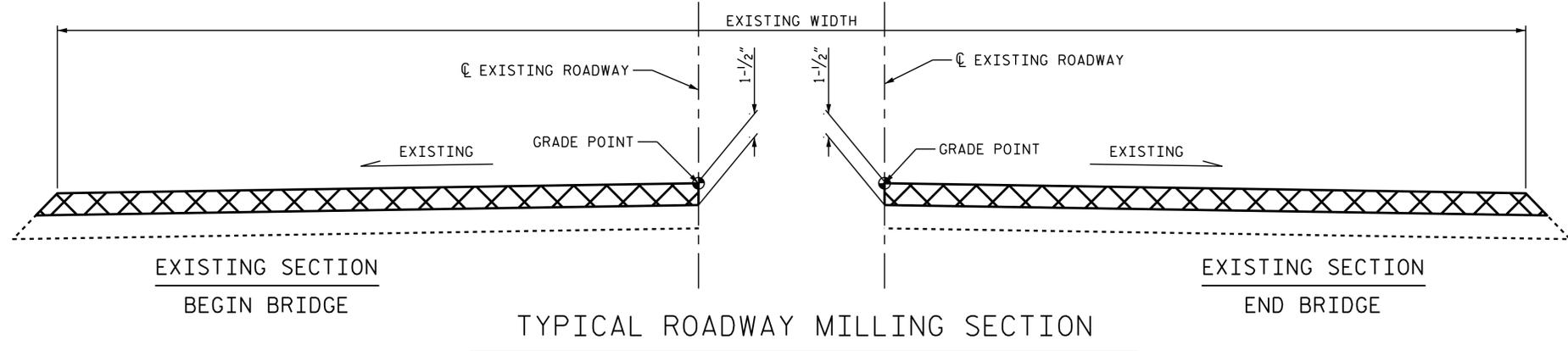
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
JOINT DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-4
1			3			TOTAL SHEETS
2			4			30

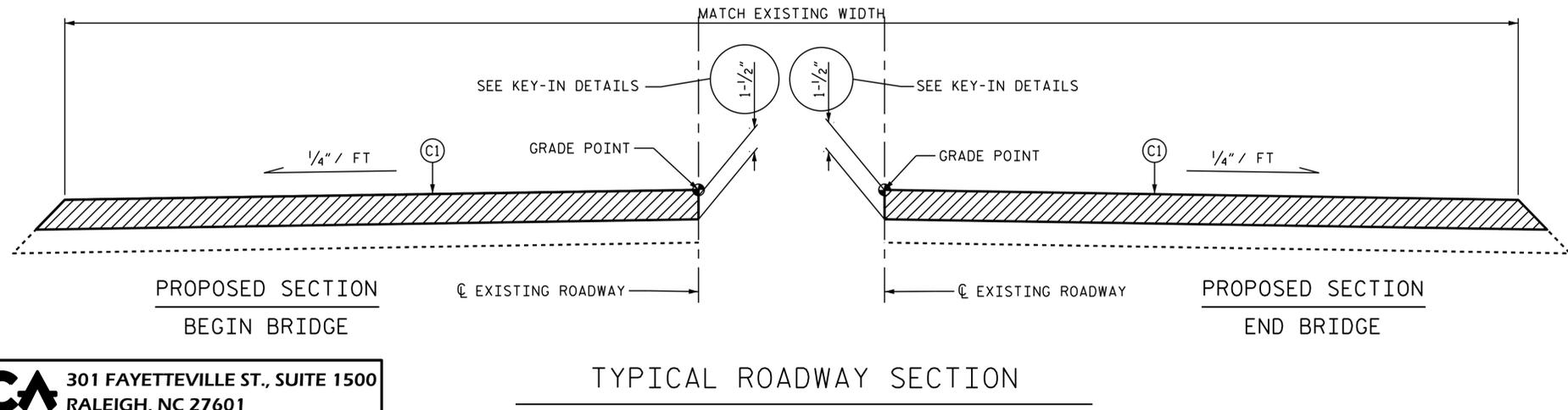
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PLAN



TYPICAL ROADWAY MILLING SECTION



TYPICAL ROADWAY SECTION

AS-BUILT QUANTITY TABLE

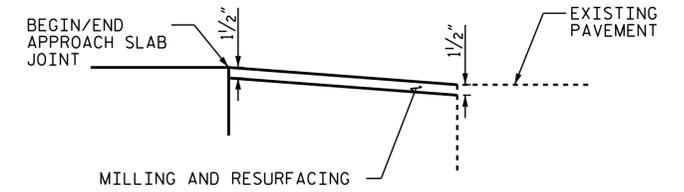
	ESTIMATE	ACTUAL
INCIDENTAL MILLING	569 SY	
ASPHALT BINDER FOR PLANT MIX	2.8 TONS	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C	47 TONS	
REMOVAL OF EXISTING ASPHALT PAVEMENT	72 SY	

NOTES:

1. INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVEMENT TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 1 1/2" DEPTH OF NEW ASPHALT PAVEMENT. NEW ASPHALT PAVEMENT SHALL BE OF THICKNESS NECESSARY TO PROVIDE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK. THE NEW ASPHALT PAVEMENT THICKNESS MAY EXCEED 1 1/2" DUE TO SETTLEMENT OF THE EXISTING APPROACH.
2. FOR NEW ASPHALT PLACEMENT, SEE STANDARD SPECIFICATIONS.
3. GRADE MAY BE ADJUSTED BY THE ENGINEER TO ENSURE PROPER TIE-IN AT THE APPROACH ROADWAY AT EACH END BENT.

- INCIDENTAL MILLING
- ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C

C1 PROPOSED ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD, PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1" OR GREATER THAN 2" IN DEPTH.



PAVEMENT KEY-IN DETAIL

PROJECT NO. 2BPR.10741
PITT COUNTY
 BRIDGE NO. 730070



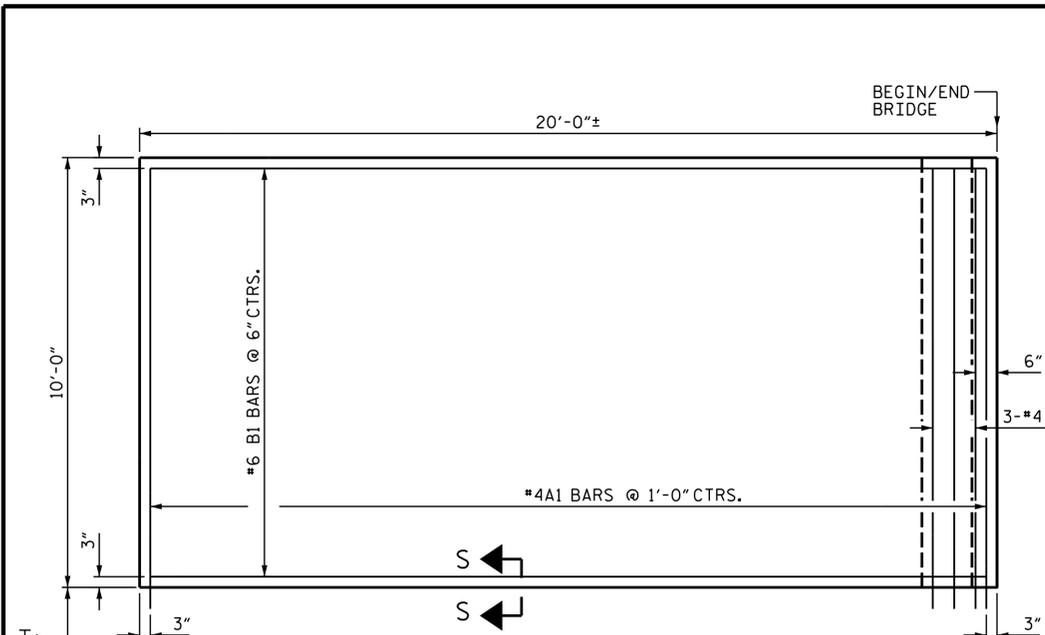
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**APPROACH ROADWAY
 MILLING AND RESURFACING**

KCA 301 FAYETTEVILLE ST., SUITE 1500
 RALEIGH, NC 27601
 KISINGER CAMPO & ASSOCIATES (919) 882-7839

DRAWN BY : JACOB H. DUKE DATE : 09/2018
 CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
 DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

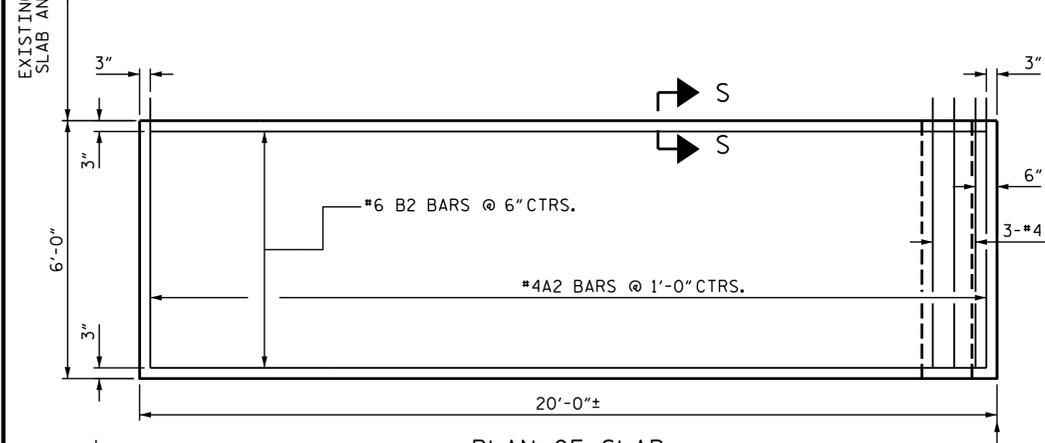
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S4-5
2			4			TOTAL SHEETS 30

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



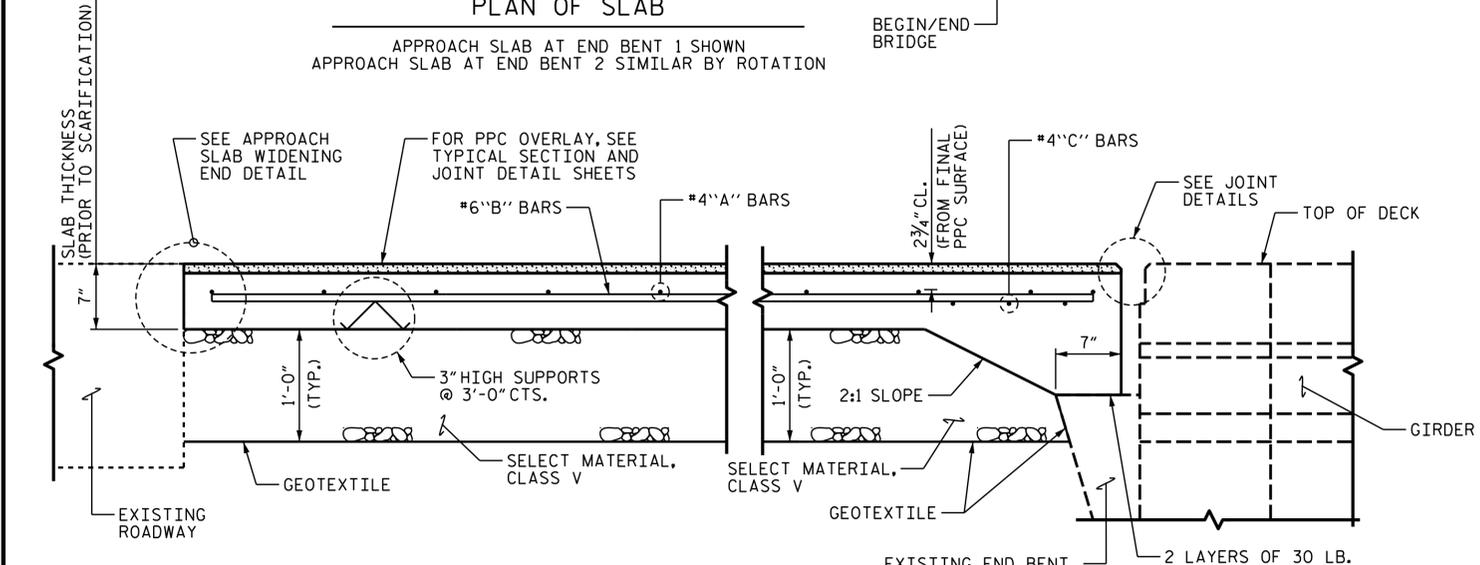
PLAN OF SLAB

APPROACH SLAB AT END BENT 1 SHOWN
APPROACH SLAB AT END BENT 2 SIMILAR BY ROTATION



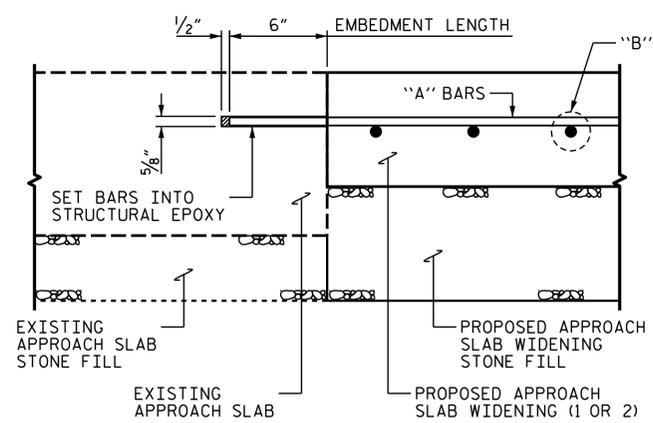
PLAN OF SLAB

APPROACH SLAB AT END BENT 1 SHOWN
APPROACH SLAB AT END BENT 2 SIMILAR BY ROTATION

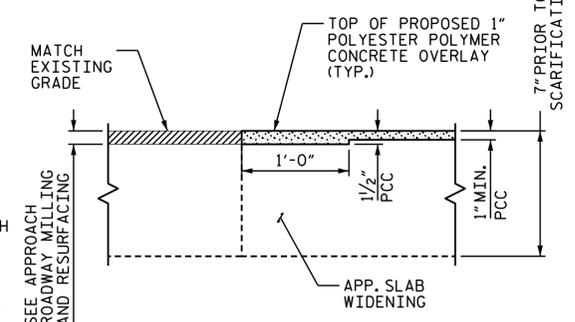


SECTION THRU SLAB

DETAIL ASSUMES 9" PAVEMENT
BRACKET FOR FULL END BENT LENGTH



SECTION S-S

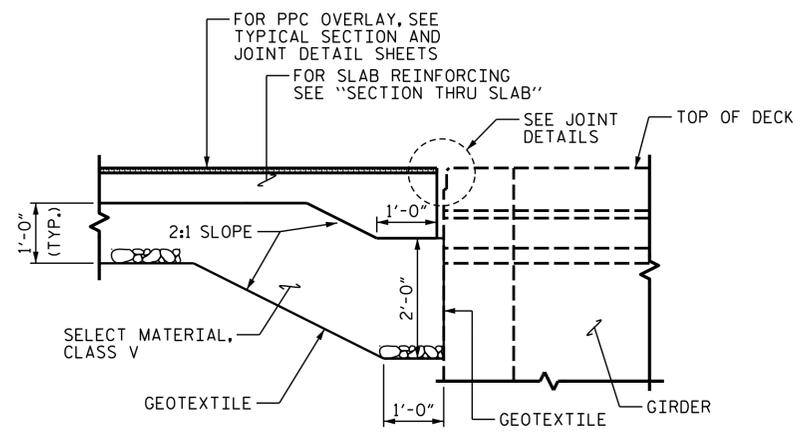


APPROACH SLAB WIDENING
END DETAIL

BILL OF MATERIALS FOR BOTH APPROACH SLABS AT ONE END BENT					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A1	21	#4	STR	10'-3"	144
A2	21	#4	STR	6'-3"	88
B1	20	#6	STR	19'-6"	586
B2	12	#6	STR	19'-6"	352
C1	3	#4	STR	10'-3"	21
C2	3	#4	STR	6'-3"	13
REINFORCING STEEL				LBS.	1204
CLASS A CONCRETE				CU.YDS.	7.3
SELECT MATERIAL, CLASS V				TONS	24

NOTES:

1. GEOTEXTILE SHALL BE TYPE I IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
2. #78M STONE (CLASS V SELECT MATERIAL) SHALL BE IN ACCORDANCE WITH SECTION 1016 OF THE STANDARD SPECIFICATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE GLOBAL STABILITY OF THE APPROACH SLAB(S), SLOPE, ADJACENT ROADWAY, AND UTILITIES. ANY DAMAGED CAUSED TO THESE FACILITIES AS A RESULT OF THIS WORK WILL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE DEPARTMENT. DAMAGED AREAS WILL BE DETERMINED BY THE ENGINEER. PAYMENT FOR MAINTENANCE OF THESE FACILITIES IS INCIDENTAL TO THE COST FOR THE PROPOSED APPROACH SLAB ADDITIONS.
4. APPROACH SLAB AND ROADWAY GRADES SHOULD BE FIELD ADJUSTED AS NECESSARY TO APPROPRIATELY MATCH FIELD CONDITIONS.
5. EXISTING PLANS SHOW A "PAVEMENT BRACKET" ALONG THE FULL LENGTH OF THE BACKWALL TO SUPPORT THE APPROACH SLABS. IF THIS IS THE AS-BUILT CONDITION, USE THE DETAILS PROVIDED IN "SECTION THRU SLAB". IF NO "PAVEMENT BRACKET" EXISTS BEYOND THE EXISTING APPROACH SLAB, COORDINATE DETAILS IN "SECTION THRU SLAB" AND "SLAB DETAIL WITHOUT BRACKET".



SLAB DETAIL WITHOUT BRACKET

DETAIL ASSUMES NO EXISTING 9" PAVEMENT
BRACKET FOR FULL END BENT LENGTH

PROJECT NO. 2BPR.10741
PITT COUNTY
BRIDGE NO. 730070



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

APPROACH SLAB DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S4-6
2			4			TOTAL SHEETS 30

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

KCA 301 FAYETTEVILLE ST., SUITE 1500
RALEIGH, NC 27601
(919) 882-7839

DESIGNED BY : JACOB H. DUKE DATE : 09/2018
CHECKED BY : DIEGO A. AGUIRRE DATE : 09/2018
DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 09/2018

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	-----	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	-----	SEE PLANS
IMPACT ALLOWANCE	-----	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF STRUCTURAL STEEL - AASHTO M270 GRADE 36	- -	20,000 LBS. PER SQ. IN.
	- -	27,000 LBS. PER SQ. IN.
	- -	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION - GRADE 60	- - -	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	-----	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	-----	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR UNTREATED EXTREME FIBER STRESS	- - -	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	- - - -	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	- - - - -	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2018 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N.C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED $\frac{3}{4}$ " WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO $1\frac{1}{2}$ " RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A $\frac{1}{4}$ " FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A $\frac{1}{4}$ " RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE $\frac{7}{8}$ " \emptyset SHEAR STUDS FOR THE $\frac{3}{4}$ " \emptyset STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - $\frac{7}{8}$ " \emptyset STUDS FOR 4 - $\frac{3}{4}$ " \emptyset STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF $\frac{7}{8}$ " \emptyset STUDS ALONG THE BEAM AS SHOWN FOR $\frac{3}{4}$ " \emptyset STUDS BASED ON THE RATIO OF 3 - $\frac{7}{8}$ " \emptyset STUDS FOR 4 - $\frac{3}{4}$ " \emptyset STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST $\frac{3}{16}$ " IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY $\frac{1}{16}$ " INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

ENGLISH

JANUARY, 1990

STD. NO. SN

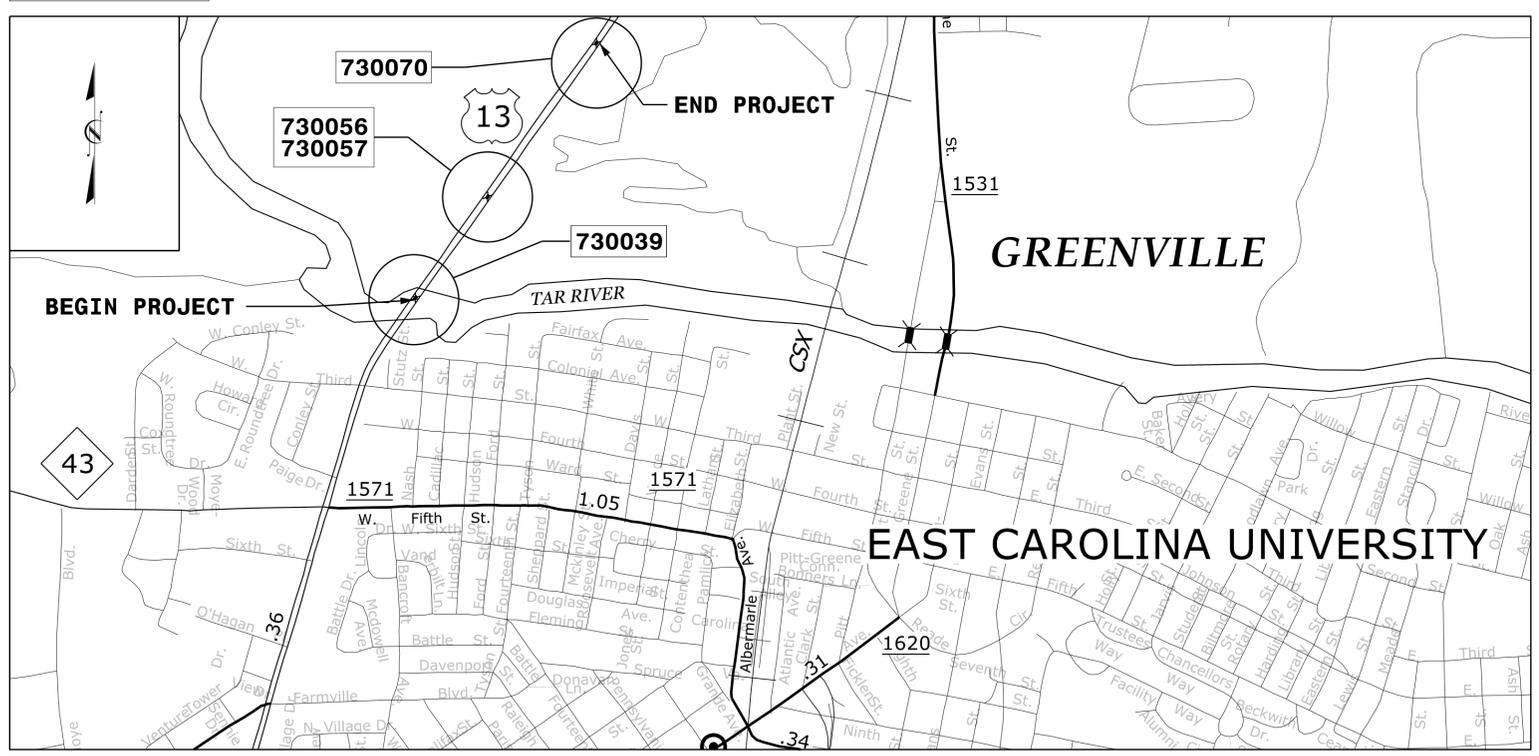
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

PITT COUNTY



BRIDGE NUMBER



VICINITY MAP - PITT COUNTY (N.T.S.)

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	ROADWAY STANDARD DRAWINGS, LEGEND AND PCMS MESSAGES
TMP-1B	GENERAL NOTES
TMP-1C	PHASING NOTES
TMP-1D	TMP TYPICAL SECTIONS

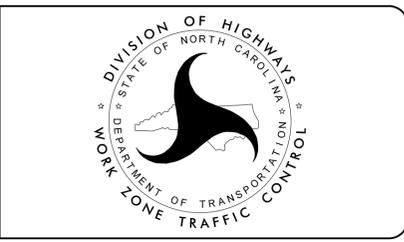
SHEET NO.
TMP-1

10/10/2018
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 User: jduke



PLANS PREPARED BY:
 JACOB H. DUKE, P.E.
 WORK ZONE TRAFFIC CONTROL ENGINEER

NCDOT CONTACTS:
 J.S. (STEVE) KITE, P.E.
 PROJECT ENGINEER
 MATT SPRINGER, P.E.
 PROJECT DESIGN ENGINEER



KCA
 KISINGER CAMPO & ASSOCIATES
 301 FAYETTEVILLE ST.
 SUITE 1500
 RALEIGH, NC 27601
 (919) 882-7839

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UNLESS ALL SIGNATURES COMPLETED

APPROVED: *Jacob H. Duke*
 DATE: 10/16/2018 6:00:27 AM PDT
 SEAL

TIP PROJECT: 2BPR.10741

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.06	WARNING SIGNS FOR BLASTING ZONES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.12	PAVEMENT MARKINGS - BRIDGES
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

LEGEND

GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  WORK AREA

TRAFFIC CONTROL DEVICES

-  DRUM
-  SKINNY DRUM
-  FLASHING ARROW BOARD
-  LAW ENFORCEMENT
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

-  CRYSTAL/CRYSTAL
-  CRYSTAL/RED
- MF - SNOWPLOWABLE MARKER (CRYSTAL & RED)

PAVEMENT MARKINGS

- CA - WHITE PLASTIC EDGELINE (4")
- CB - YELLOW PLASTIC EDGELINE (4")
- CC - 10FT WHITE PLASTIC SKIP (4")

PCMS MESSAGES

PCMS MESSAGE
ONE WEEK
PRIOR TO LANE CLOSURES

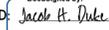
MESSAGE NO. 1	MESSAGE NO. 2
LANE CLOSURES	MM/DD ## AM TO ## PM
CHANGEABLE MESSAGE SIGN	

PCMS MESSAGE
DURING
LANE CLOSURES

MESSAGE NO. 1	MESSAGE NO. 2
LANE CLOSURES AHEAD	STAY ALERT
CHANGEABLE MESSAGE SIGN	

CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE USED AT LEAST (7) SEVEN CALENDAR DAYS IN ADVANCE OF THE WORK. RETAIN THESE MESSAGE BOARDS ON THE PROJECT WITH UPDATED MESSAGING THROUGHOUT THE DURATION OF THE PROJECT. THESE BOARDS SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE WORK ZONE. SEE ABOVE FOR TIMING AND MESSAGES. MESSAGES SIGN LOCATION CAN BE CHANGED AT THE APPROVAL OF THE ENGINEER.

I0/10/2018
 G:\42072019-P111-County_Bridge_PPC_Overlay\Traffic\TrafficControl\TCP\200_010_2BPR10741_TC_TMP-1A_ROADWAY_STANDARD_DRAWINGS_AND_LEGEND.dgn
 User: jduke

APPROVED:  DATE: 10/16/2018 6:00:27 AM PDT			ROADWAY STANDARD DRAWINGS LEGEND, AND PCMS MESSAGES
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

GENERAL NOTES

PROJ. REFERENCE NO. 2BPR.10741	SHEET NO. TMP-1B
 <small>Kisinger Campo & Associates Corp. 301 FAYETTEVILLE ST., SUITE 1500 RALEIGH, NC 27601 KISINGER CAMPO & ASSOCIATES Jacob H. Duke, PE No. 043777</small>	

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR UNDESIRE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME

1. NC 11/US 13/NC 903

BETWEEN 6:00 A.M. TO 9:00 P.M. MONDAY THRU FRIDAY.

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31ST TO 9:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. TWO DAYS BEFORE INDEPENDENCE DAY AND 9:00 P.M. TWO DAYS AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE WEDNESDAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE WEDNESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

B) FOR ALL REMAINING REPAIR/REHAB WORK, DO NOT CLOSE OR NARROW TRAVEL LANES IN EITHER DIRECTION BETWEEN THE HOURS LISTED IN NOTE A.

GENERAL NOTES

- C) ALL TRAFFIC CONTROL SETUP, MAINTENANCE AND BREAKDOWN/REMOVAL SHALL ADHERE TO THE STANDARDS AND SPECIFICATIONS SET FORTH BY THE MOST RECENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL (MUTCD), THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARDS AND SPECIFICATIONS AND ROADWAY STANDARD DRAWINGS.
- D) THE CONTRACTOR SHALL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS AND DRIVEWAYS ENTERING THIS PROJECT.
- E) THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION BY CONTACTING THE NORTH CAROLINA ONE CALL CENTER (1-800-632-4949).

- F) THE CONTRACTOR SHALL COORDINATE THE FINAL PAVEMENT MARKING LAYOUT WITH ALL LONGITUDINAL PAVEMENT JOINTS ON THE FINAL SURFACE LAYER PRIOR TO PAVING.
- G) PERFORM WORK ONLY WHEN WEATHER AND VISIBILITY CONDITIONS ALLOW SAFE OPERATIONS.
- H) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF ANY OPEN TRAVELWAY UNLESS HAULING OPERATIONS IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.
- I) ALL PEDESTRIAN TRAFFIC SHALL BE MAINTAINED DURING THE LIFE OF THE PROJECT. INCLUDING ANY CROSSWALKS, SIDEWALKS, SIDE STREETS AND DRIVEWAYS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- J) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.
- K) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- L) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- M) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- N) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- O) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.
- P) DO NOT INSTALL MORE THAN ONE LANE CLOSURE, IN ANY ONE DIRECTION, ON NC 11/US 13/NC 903.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- Q) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.
- R) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

- S) NOTIFY THE ENGINEER AND DIVISION TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

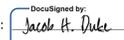
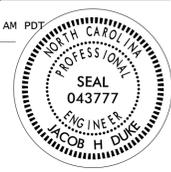
- T) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- U) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- V) AT THE END OF EACH WORK PERIOD, FOR MAINTENANCE OF TRAFFIC WHERE NECESSARY, INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500FT IN ACCORDANCE OF THE CONDITION. THE CONTRACTOR SHALL FEATHER ALL TRANSVERSE JOINTS.

TRAFFIC CONTROL DEVICES

- W) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT. WHEN SKINNY DRUMS ARE ALLOWED, REFER TO SECTION 1180 OF STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES OR AS SHOWN IN THE PLANS.
- X) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.
- Y) THE CONTRACTOR SHALL PROVIDE CHANGEABLE MESSAGE BOARDS AS DIRECTED BY THE ENGINEER TO ADVISE MOTORISTS OF UPCOMING WORK AT LEAST (7) SEVEN CALENDAR DAYS IN ADVANCE OF THE WORK AND RETAIN THESE MESSAGE BOARDS ON THE PROJECT WITH UPDATED MESSAGING THROUGHOUT THE DURATION OF THE PROJECT. SEE TMP-1A FOR DETAILS.
- Z) PLACE PORTABLE CHANGEABLE MESSAGE SIGNS OUTSIDE OF TRAVELWAY AT LOCATIONS DETERMINED BY THE ENGINEER. ADJUST AND RELOCATE MESSAGE BOARDS AS NECESSARY OR AS DIRECTED BY THE ENGINEER.

PAVEMENT MARKINGS AND MARKERS

- AA) REVIEW AND RECORD EXISTING PAVEMENT MARKINGS AND MARKERS PRIOR TO MILLING AND DECK RESURFACING. USE THE RECORD OF EXISTING PAVEMENT MARKINGS AND MARKERS IN CONJUNCTION WITH THE BRIDGE PLANS AND THE MOST RECENT VERSION OF THE ROADWAY STANDARD DRAWINGS TO REESTABLISH THE PROPOSED PAVEMENT MARKINGS AND MARKERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- BB) REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS, SYMBOLS AND CHARACTERS OBLITERATED BY WORK WITH TEMPORARY PAINT IN ACCORDANCE WITH SECTION 1205 OF THE LATEST VERSION OF THE NCDOT STANDARD SPECIFICATION BY THE END OF EACH WORK DAY AT NO COST TO THE DEPARTMENT.
- CC) PERFORM THE NECESSARY LAYOUT TO TIE IN EITHER TEMPORARY OR PERMANENT PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

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PHASING NOTES

PROJ. REFERENCE NO. 2BPR.10741	SHEET NO. TMP-1C
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KCA Kisinger Campo & Associates Corp.
301 FAYETTEVILLE ST., SUITE 1500
Raleigh, NC 27601
Jacob H. Duke, PE No. 043777

ALL LANE CLOSURES SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE NCDOT STANDARD SPECIFICATIONS, STANDARD DRAWINGS AND THE TRANSPORTATION MANAGEMENT PLAN.

USE NCDOT RSD 1101.01 SHEET 2 OF 3 TO INSTALL ADVANCED WARNING SIGNS AND DEVICES ALONG NC 11/US 13/NC 903.

USE NCDOT RSD 1101.01 SHEET 3 OF 3 TO INSTALL ADVANCED WARNING SIGNS AT THE FOLLOWING LOCATIONS:

1. ON BOTH THE EAST AND WEST SIDES OF NC 11/US 13/NC 903 ON NC 43/W. 5TH ST.
2. ON BOTH THE EAST AND WEST SIDES OF NC 11/US 13/NC 903 ON W 3RD. ST.
3. ON THE EAST SIDE OF NC 11/US 13/NC 903 ON W. MOORE ST.
4. ON BOTH THE EAST AND WEST SIDES OF NC 11/US 13/NC 903 ON AIRPORT RD.

SEE SHEET TMP-1D FOR TMP TYPICAL SECTIONS.

BRIDGE NO. 730039

PHASE 1:

- STEP 1: USE NCDOT RSD 1101.02 SHEET 3 OF 14 TO INSTALL SIGNS AND DEVICES TO CLOSE THE OUTSIDE LANE OF BRIDGE #39 AND ITS APPROACHES.
- STEP 2: PERFORM ALL WORK PER BRIDGE PLANS.
- STEP 3: AT THE END OF EACH WORK PERIOD, REMOVE ALL SIGNS AND DEVICES AND REOPEN THE BRIDGE AND ROADWAY TO TRAFFIC.
- STEP 4: REPEAT STEPS 1 THRU 3 UNTIL ALL WORK IS COMPLETE.

PHASE 2:

- STEP 1: USE NCDOT RSD 1101.02 SHEET 3 OF 14 TO INSTALL SIGNS AND DEVICES TO CLOSE THE INSIDE LANE OF BRIDGE #39 AND ITS APPROACHES.
- STEP 2: PERFORM ALL WORK PER BRIDGE PLANS.
- STEP 3: AT THE END OF EACH WORK PERIOD, REMOVE ALL SIGNS AND DEVICES AND REOPEN THE BRIDGE AND ROADWAY TO TRAFFIC.
- STEP 4: REPEAT STEPS 1 THRU 3 UNTIL ALL WORK IS COMPLETE.

BRIDGE NO. 730056

PHASE 1:

- STEP 1: USE NCDOT RSD 1101.02 SHEET 3 OF 14 TO INSTALL SIGNS AND DEVICES TO CLOSE THE INSIDE LANE OF BRIDGE #56 AND ITS APPROACHES.
- STEP 2: PERFORM ALL WORK PER BRIDGE PLANS.
- STEP 3: AT THE END OF EACH WORK PERIOD, REMOVE ALL SIGNS AND DEVICES AND REOPEN THE BRIDGE AND ROADWAY TO TRAFFIC.
- STEP 4: REPEAT STEPS 1 THRU 3 UNTIL ALL WORK IS COMPLETE.

PHASE 2:

- STEP 1: USE NCDOT RSD 1101.02 SHEET 3 OF 14 TO INSTALL SIGNS AND DEVICES TO CLOSE THE OUTSIDE LANE OF BRIDGE #56 AND ITS APPROACHES.
- STEP 2: PERFORM ALL WORK PER BRIDGE PLANS.

STEP 3: AT THE END OF EACH WORK PERIOD, REMOVE ALL SIGNS AND DEVICES AND REOPEN THE BRIDGE AND ROADWAY TO TRAFFIC.

STEP 4: REPEAT STEPS 1 THRU 3 UNTIL ALL WORK IS COMPLETE.

BRIDGE NO. 730057

PHASE 1:

- STEP 1: USE NCDOT RSD 1101.02 SHEET 3 OF 14 TO INSTALL SIGNS AND DEVICES TO CLOSE THE OUTSIDE LANE OF BRIDGE #57 AND ITS APPROACHES.
- STEP 2: PERFORM ALL WORK PER BRIDGE PLANS.
- STEP 3: AT THE END OF EACH WORK PERIOD, REMOVE ALL SIGNS AND DEVICES AND REOPEN THE BRIDGE AND ROADWAY TO TRAFFIC.
- STEP 4: REPEAT STEPS 1 THRU 3 UNTIL ALL WORK IS COMPLETE.

PHASE 2:

- STEP 1: USE NCDOT RSD 1101.02 SHEET 3 OF 14 TO INSTALL SIGNS AND DEVICES TO CLOSE THE INSIDE LANE OF BRIDGE #57 AND ITS APPROACHES.
- STEP 2: PERFORM ALL WORK PER BRIDGE PLANS.
- STEP 3: AT THE END OF EACH WORK PERIOD, REMOVE ALL SIGNS AND DEVICES AND REOPEN THE BRIDGE AND ROADWAY TO TRAFFIC.
- STEP 4: REPEAT STEPS 1 THRU 3 UNTIL ALL WORK IS COMPLETE.

BRIDGE NO. 730070

PHASE 1:

- STEP 1: USE NCDOT RSD 1101.02 SHEET 3 OF 14 TO INSTALL SIGNS AND DEVICES TO CLOSE THE OUTSIDE LANE OF BRIDGE #70 AND ITS APPROACHES.
- STEP 2: PERFORM ALL WORK PER BRIDGE PLANS.
- STEP 3: AT THE END OF EACH WORK PERIOD, REMOVE ALL SIGNS AND DEVICES AND REOPEN THE BRIDGE AND ROADWAY TO TRAFFIC.
- STEP 4: REPEAT STEPS 1 THRU 3 UNTIL ALL WORK IS COMPLETE.

PHASE 2:

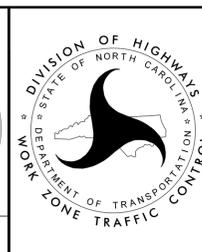
- STEP 1: USE NCDOT RSD 1101.02 SHEET 3 OF 14 TO INSTALL SIGNS AND DEVICES TO CLOSE THE INSIDE LANE OF BRIDGE #70 AND ITS APPROACHES.
- STEP 2: PERFORM ALL WORK PER BRIDGE PLANS.
- STEP 3: AT THE END OF EACH WORK PERIOD, REMOVE ALL SIGNS AND DEVICES AND REOPEN THE BRIDGE AND ROADWAY TO TRAFFIC.
- STEP 4: REPEAT STEPS 1 THRU 3 UNTIL ALL WORK IS COMPLETE.

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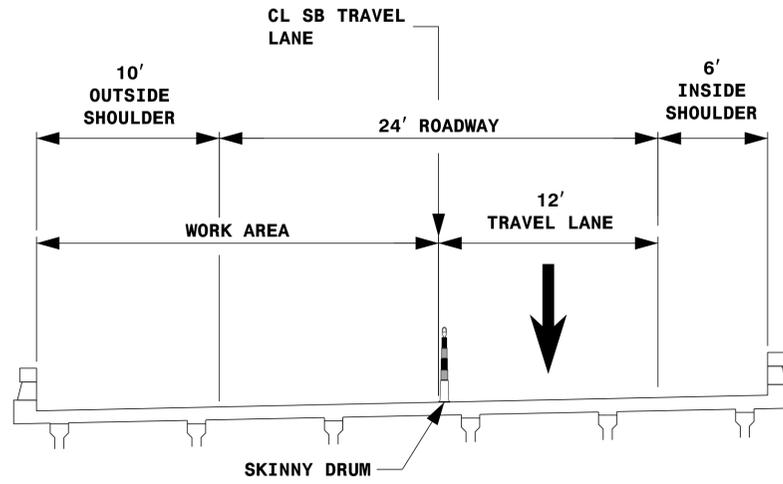
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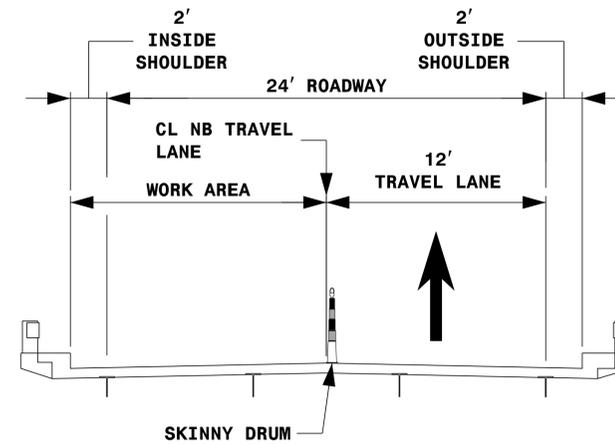
PHASING NOTES

TMP TYPICAL SECTIONS

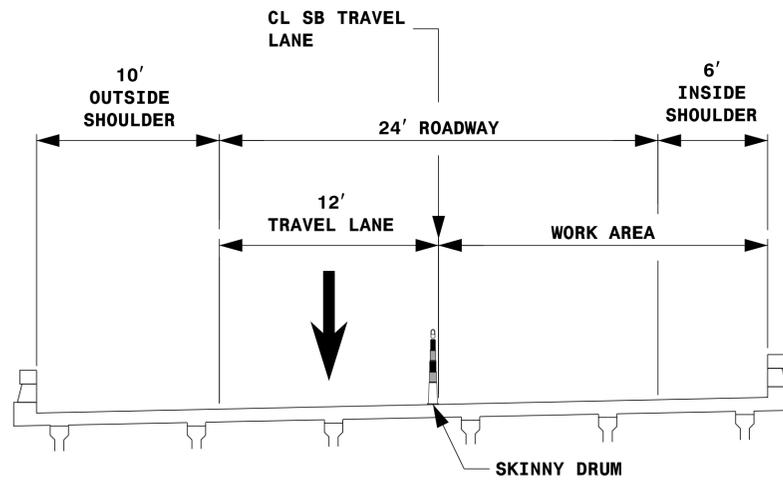
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2BPR.10741	TMP-1D
 Kisinger Campo & Associates Corp. 301 FAYETTEVILLE ST., SUITE 1500 Raleigh, NC 27601 Jacob H. Duke, PE No. 043777	



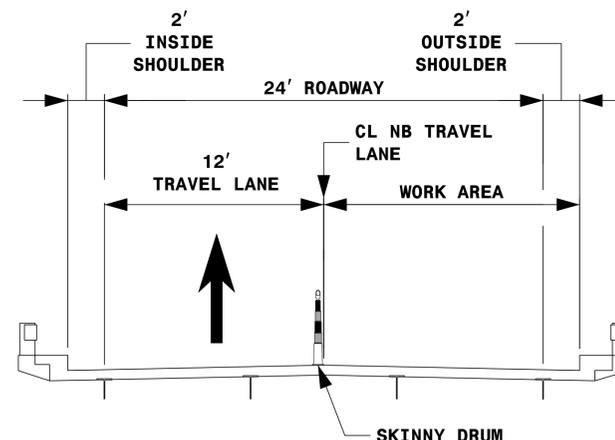
PHASE 1
TMP TYPICAL SECTION (BRIDGES #39, #57 & #70)



PHASE 1
TMP TYPICAL SECTION (BRIDGE #56)

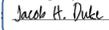


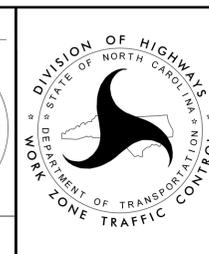
PHASE 2
TMP TYPICAL SECTION (BRIDGES #39, #57 & #70)



PHASE 2
TMP TYPICAL SECTION (BRIDGE #56)

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TMP TYPICAL SECTIONS

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