04-24-2015 LETTING ITEM 178

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 74165		

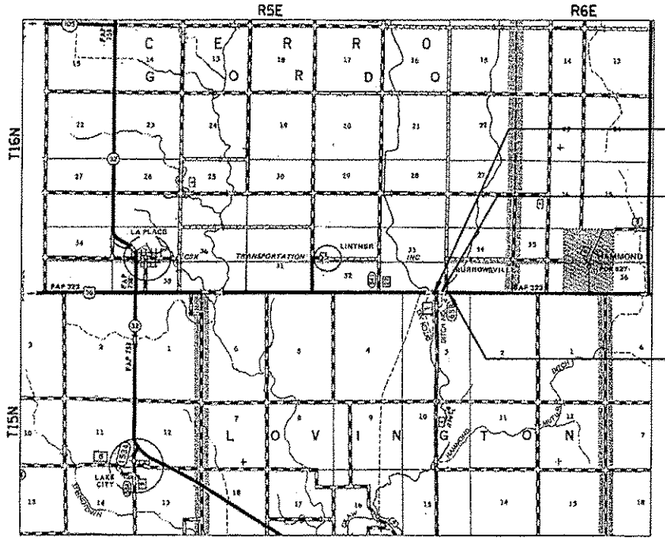
D-97-038-06

SEE SHEET NO. 2 FOR
INDEX OF SHEETS AND
LIST OF ILLINOIS DOT STANDARDS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

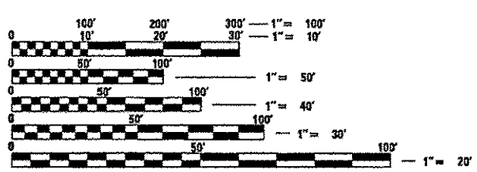
PROPOSED
HIGHWAY PLANS

FAP ROUTE 323 (US 36)
SECTION (142BY) BR
PROJECT ACNHPP-0323(033)
C-97-076-06
MOULTRIE COUNTY
STRUCTURE REPLACEMENT
OVER DRAINAGE DITCH NO. 4



LOCATION OF SECTION INDICATED THUS: ■

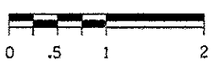
FUNCTIONAL CLASSIFICATION: OTHER PRINCIPLE ARTERIAL
DESIGN SPEED: 60 MPH
POSTED SPEED: 55 MPH
ADT 2,450 (2013)
PV 86.5%
SU 3.3%
MU 10.2%



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

NET LENGTH OF SECTION: 469.25 FEET = 0.089 MILES



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 13 2014
Roger L Driskell /cms
DEPOTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Oct 17 2014
John D. Baranzelli, P.E. /cms
ENGINEER OF DESIGN AND ENVIRONMENT
Oct 17 2014
Omer Osman, P.E. /cms
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

MICHAEL D. CUMMINS
43244
REGISTERED PROFESSIONAL ENGINEER
OF
ILLINOIS

Michael D. Cummins 8/6/14
ILLINOIS PROFESSIONAL NO. 43244
(Expires 11/30/15)

DISTRICT 7 NO. (217) 342-3951
PROJECT ENGINEER – MARK DAUGHERTY
UNIT CHIEF

CONTRACT NO. 74165

CEC Cummins Engineering Corporation
Civil and Structural Engineering

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGE
542306-02	PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
630001-10	STEEL PLATE BEAM GUARD RAIL
630101-09	GUARDRAIL MOUNTED ON EXISTING CULVERTS
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARD RAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAIL
666001-01	RIGHT OF WAY MARKERS
701006-05	OFF ROAD OPERATIONS 2L 2W, 15FT TO 24" FROM PAVEMENT EDGE
701011-04	OFF ROAD MOVING OPERATIONS 2L 2W, DAY ONLY,
701201-04	LANE CLOSURE 2L 2W, DAY ONLY
701301-04	LANE CLOSURE 2L 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L 2W, MOVING OPERATIONS DAY ONLY
701321-14	LANE CLOSURE 2L 2W, BRIDGE REPAIR BARRIER
701326-04	LANE CLOSURE 2L 2W, PAVEMENT WIDENING
701901-04	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

1. ALL SAWCUTTING OF EXISTING PAVEMENT SHALL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE MINIMUM SAW DEPTH IN THE PAVEMENT SHALL BE 1½" UNLESS OTHERWISE NOTED.

2. THE THICKNESS OF HMA MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.

3. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITIONS AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

4. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

HOT-MIX ASPHALT	112 LBS/SQ YD/1" THICKNESS
AGGREGATE	2.05 TONS/CU YD
BITUMINOUS MATERIALS:	
FOG COAT BETWEEN LIFTS	0.025 LB/SQ FT
ON MILLED HMA	0.05 LB/SQ FT

5. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

6. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED. SEEDING SHALL BE CLASS 2 (SPECIAL) ACCORDING TO THE APPLICABLE ARTICLES OF SECTION 250 OF THE STANDARD SPECIFICATIONS. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.

8. EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.

9. ALL ELEVATIONS REFER TO U.S.G.S MEAN SEA LEVEL DATUM.

10. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.

11. THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION EACH FOR THE INITIAL OPENING OF THE COMPLETED STRUCTURE TO TWO LANE TRAFFIC, HMA SURFACE REMOVAL, PRIME COAT, AND HMA SURFACE COURSE.

12. SHORT TERM PAVEMENT MARKING ON MILLED SURFACES SHALL BE PAINT.

13. THE CENTERLINE PAVEMENT MARKING SHALL BE REMOVED FROM THE STOP BAR TO THE IMPACT ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHALL BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.

14. THE CONTRACTORS SHALL PROVIDE INTERNET ACCESSIBILITY TO THE HMA PLAN QUALITY CONTROL LAB SO THAT HMA PLAN REPORTS CAN BE EMAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL HOT-MIX ASPHALT ITEMS.

15. ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC AND THE TEMPORARY TRAFFIC SIGNALS SHALL BE TURNED OR COVERED.

16. AGGREGATE SURFACE COURSE TYPE B SHALL BE CRUSHED STONE OR CRUSHED CONCRETE.

17. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

LOCATION	US 36	US 36
MIXTURE USE:	BASE COURSE	SURFACE COURSE
AC/PG:	PG 64-22	PG 64-22
RAP% (MAX):	25%	10%
DESIGN AIR VOIDS:	4.0% @ NDESIGN = 70	4.0% @ NDESIGN = 70
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-19.0	IL-9.5
FRICTION AGGREGATE:	N/A	MIXTURE "D"

COMMITMENTS

NONE

CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB # 2223.1	DESIGNED - NAK	REVISED -
	FILE NAME = D774165-sht-gennote.dgn	DRAWN - AJH	REVISED -
	PLOT SCALE = 2.2020 ' / in.	CHECKED - NAK	REVISED -
	PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	2
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

80/20 FED/STATE

SUMMARY OF QUANTITIES				CONSTRUCTION CODE					
				SN 070-2018	SN 070-2018				
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL	RURAL				
				0011	0021				
20200100	EARTH EXCAVATION	CU YD	310	310					
20400800	FURNISHED EXCAVATION	CU YD	160	160					
20700220	POROUS GRANULAR EMBANKMENT	CU YD	453	453					
25100630	EROSION CONTROL BLANKET	SQ YD	189	189					
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25	25					
28000305	TEMPORARY DITCH CHECKS	FOOT	64	64					
28000400	PERIMETER EROSION BARRIER	FOOT	141	141					
28000500	INLET AND PIPE PROTECTION	EACH	1	1					
28100107	STONE RIPRAP, CLASS A4	SQ YD	138	138					
28200200	FILTER FABRIC	SQ YD	138	138					
31101400	SUB-BASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	354	354					
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	71	71					
35501332	HOT-MIX ASPHALT BASE COURSE, 12"	SQ YD	928	928					
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	8	8					
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	747	747					

CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB # 2223.1	DESIGNED - NAK	REVISED -
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PLOT DATE = 8/11/2014	DATE - 8/25/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	3
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

80/20 FED/STATE

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: SN 070-2018 RURAL 0011	SN 070-2018 RURAL 0021				
40600990	TEMPORARY RAMP	SQ YD	56	56					
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	40	40					
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	14	14					
44000100	PAVEMENT REMOVAL	SQ YD	134	134					
44004250	PAVED SHOULDER REMOVAL	SQ YD	225	225					
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	307	307					
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1					
50105220	PIPE CULVERT REMOVAL	FOOT	52	52					
50800105	REINFORCEMENT BARS	POUND	37,580	37,580					
50800515	BAR SPLICERS	EACH	142	142					
51500100	NAME PLATES	EACH	1	1					
54003000	CONCRETE BOX CULVERTS	CU YD	198.5	198.5					
54214503	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 18"	EACH	2	2					
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A 6 FOOT POSTS	FOOT	237.5	237.5					

14

* SPECIALTY ITEM

CEC Cummins Engineering Corporation — Civil and Structural Engineering

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	4
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

80/20 FED / STATE

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: SN 070-2018 RURAL 0011	CONSTRUCTION CODE: SN 070-2018 RURAL 0021				
*	63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	62.5	62.5					
*	63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	4	4					
	63200310	GUARDRAIL REMOVAL	FOOT	226	226					
	66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	7	7					
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6					
	67100100	MOBILIZATION	L SUM	1	1					
	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1					
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1					
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1					
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	4	4					
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1					
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	224	224					
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1,779	1,779					
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	42	42					

* SPECIALTY ITEM

CEC Cummins Engineering Corporation
Civil and Structural Engineering

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FILE NAME = 0774165-sht-sog.dgn	DRAWN - AJH	REVISED -
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PLOT DATE = 8/11/2014	DATE - 8/25/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(1428Y) BR	MOULTRIE	35	5
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

80/20 FED / STATE

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE SN 070-2018 RURAL 0011	CONSTRUCTION CODE SN 070-2018 RURAL 0021				
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	275	275					
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	275	275					
	70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2		2				
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1		1				
	70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2		2				
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,779	1,779					
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8					
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4					
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	223	223					
	542A5473	PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 18"	FOOT	78	78					
	X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.3	0.3					
	X4400196	HOT-MIX ASPHALT SURFACE REMOVAL, SPECIAL	SQ YD	65	65					
	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	477	477					
	X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28					
	Z0001495	BRIDGE APPROACH SHOULDER REMOVAL	SQ YD	62	62					
	X7040125	PINNING TEMPORARY CONCRTE BARRIER	EACH	12	12					

* SPECIALTY ITEM

CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2223.1	DESIGNED - NAK	REVISED -	
FILE NAME = D774165-sht-soq.dgn	DRAWN - AJH	REVISED -	
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PLOT DATE = 8/11/2014	DATE - 8/25/2010	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	6
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

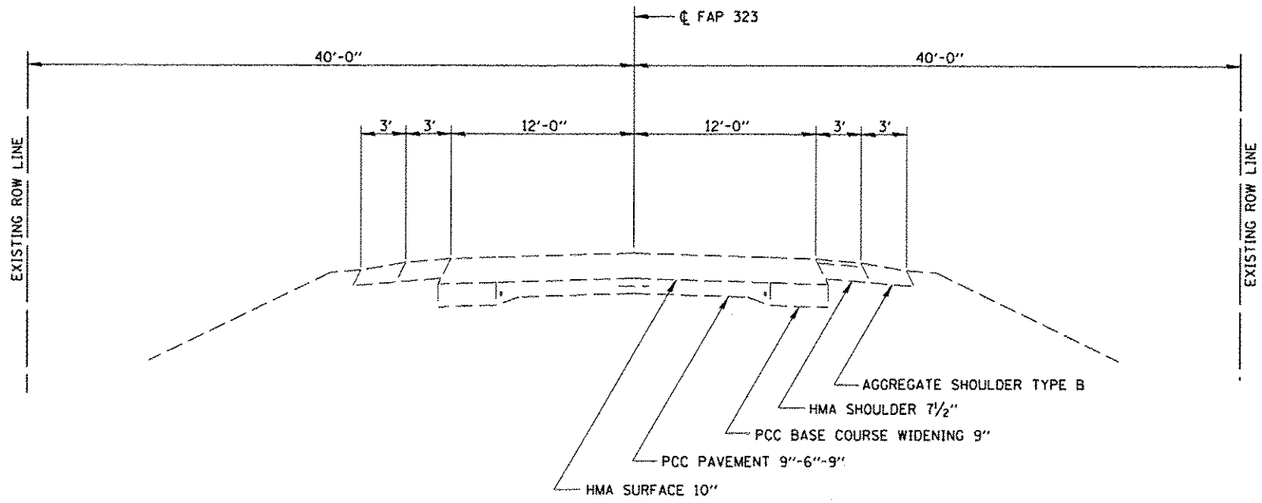
80/20 FED / STATE

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				SN 070-2018	SN 070-2018				
				RURAL	RURAL				
				0011	0021				
Z0004552	APPROACH SLAB REMOVAL	SQ YD	116	116					
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	307	307					
2									

CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB # 2223.1	DESIGNED - NAK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	FILE NAME = D774165-sht-soq.dgn	DRAWN - AJH	REVISED -	SUMMARY OF QUANTITIES
	PLOT SCALE = 20.2020 ' / in.	CHECKED - NAK	REVISED -	
	PLOT DATE = 8/11/2014	DATE - 8/25/2010	REVISED -	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	7
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

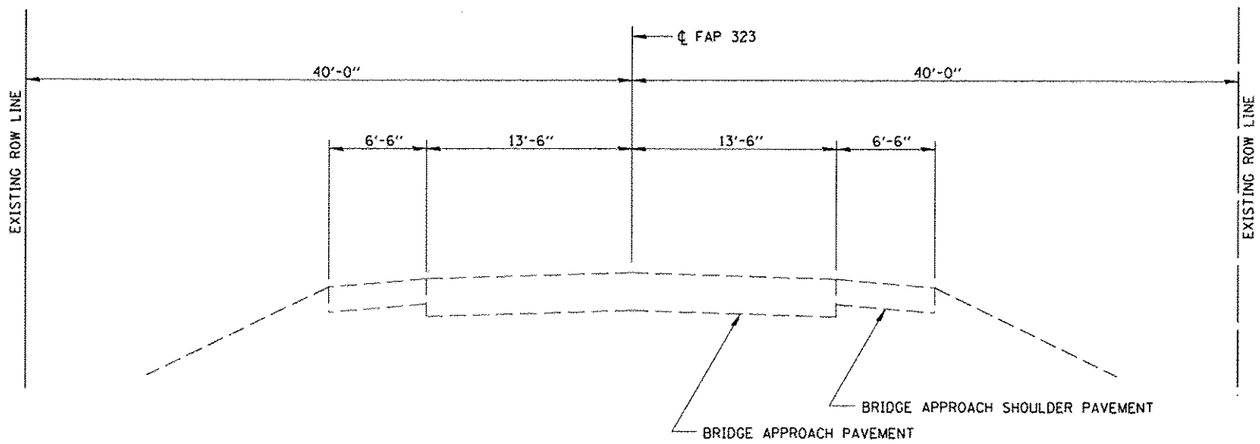


EXISTING TYPICAL CROSS SECTION

STA 314+28.25 TO STA 316+38.50
STA 317+11.50 TO STA 318+97.50

BRIDGE OMISSION

STA 316+58.50 TO STA 316+91.50



EXISTING TYPICAL CROSS SECTION

STA 316+38.50 TO STA 316+58.50
STA 316+91.50 TO STA 317+11.50

CEC Cummins Engineering Corporation
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JOB = 2223.1	DESIGNED - NAK	REVISED -
FILE NAME = 0774165-sht-typical.dgn	DRAWN - AJH	REVISED -
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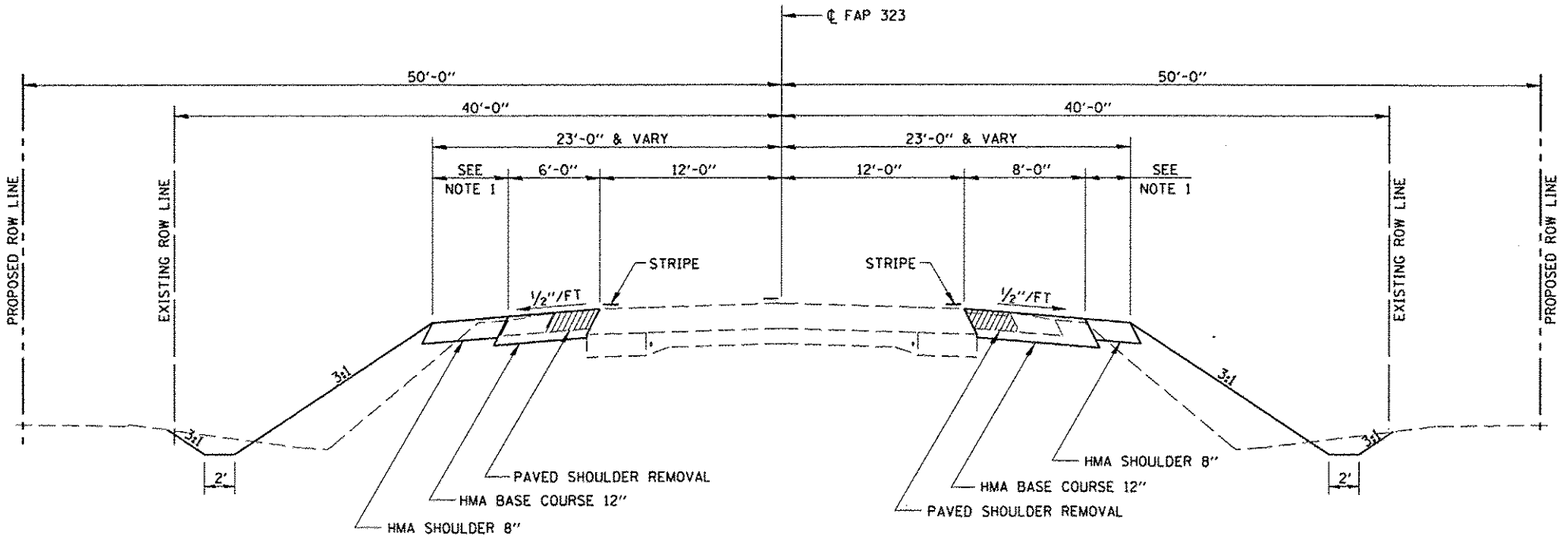
PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

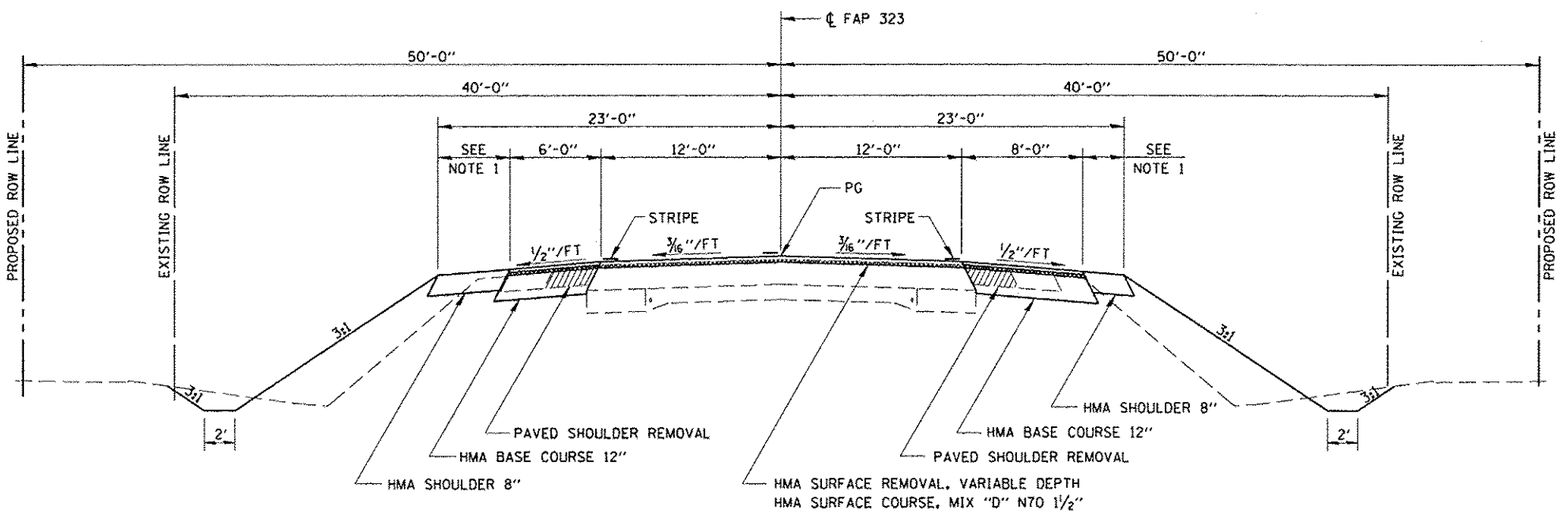
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	8
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTE 1
SEE SHEET 20 FOR LIMITS AND WIDTH OF HMA SHOULDER, EARTH SHOULDER AND LIMITS OF GUARDRAIL



PROPOSED TYPICAL CROSS SECTION

RT STA 314+28.25 TO STA 314+56.00
STA 314+56.00 TO STA 316+18.50
STA 317+31.50 TO STA 318+68.25
RT STA 318+68.25 TO STA 318+97.50

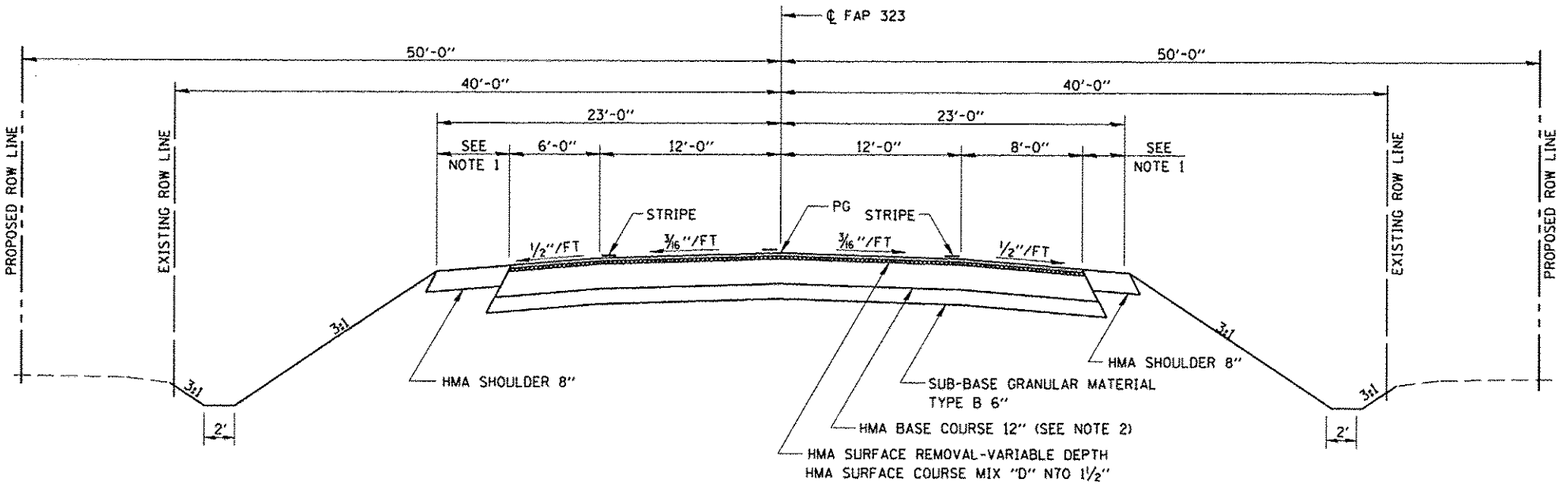


PROPOSED TYPICAL CROSS SECTION

STA 316+18.50 TO STA 316+32.00
STA 317+11.50 TO STA 317+31.50

CEC Cummins Engineering Corporation Civil and Structural Engineering	JOB - 2223.1 FILE NAME - 0774165-sht-typical.dgn PLOT SCALE - 10.0000 ' / in. PLOT DATE - 8/11/2014	DESIGNED - NAK DRAWN - AJH CHECKED - NAK DATE - 7/12/2010	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL CROSS SECTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						323	(142BY) BR	MOULTRIE	35	9
								CONTRACT NO. 74165		
						FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTE 1
SEE SHEET 20 FOR LIMITS AND WIDTH OF HMA SHOULDER, EARTH SHOULDER AND LIMITS OF GUARDRAIL



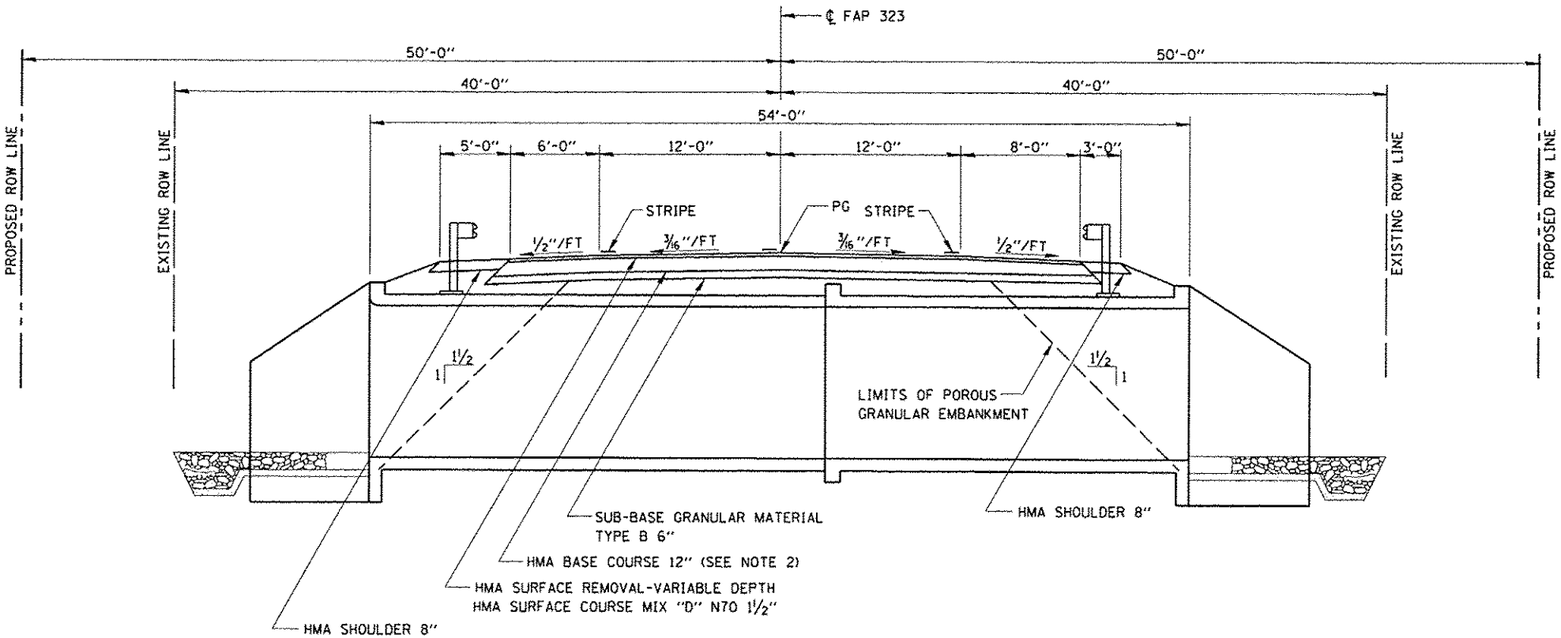
PROPOSED TYPICAL CROSS SECTION

STA 316+32.00 TO STA 316+58.75
STA 316+85.25 TO STA 317+11.50

VARIABLE DEPTH MILLING THICKNESS

STA	18' LT	12' LT	CL	12' RT	20' RT
316+18.5	0.12	0.12	0.12	0.12	0.12
316+25	0.14	0.14	0.08	0.16	0.16
316+37.5	0.09	0.09	0.04	0.16	0.16
316+50	0.00	0.00	0.00	0.00	0.00
316+62.5	0.01	0.01	0.01	0.01	0.01
316+75	0.04	0.04	0.04	0.04	0.04
316+87.5	0.08	0.08	0.08	0.08	0.08
317+00	0.03	0.03	0.03	0.03	0.03
317+12.5	0.14	0.14	0.06	0.00	0.00
317+25	0.16	0.16	0.11	0.04	0.04
317+31.5	0.12	0.12	0.12	0.12	0.12

NOTE 2: THE THICKNESS OF THE PROPOSED HMA BASE COURSE PLACED AS PERMANENT PAVEMENT SHALL BE INCREASED BY THE THICKNESS OF THE PROPOSED VARIABLE DEPTH MILLING. COST INCLUDED IN THE COST FOR HMA BASE COURSE 12"



PROPOSED TYPICAL CROSS SECTION

STA 316+58.75 TO STA 316+85.25

CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB # 2223.1	DESIGNED - NAK	REVISED -
	FILE NAME = D774165-sht-typical.dgn	DRAWN - AJH	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED - NAK	REVISED -
	PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	10
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK

LOCATION		EXCAVATION CU YD	EXCAVATION ADJUSTED FOR SHRINKAGE CU YD	EMBANKMENT CU YD	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) CU YD
PRELIMINARY PHASE					
LT STA 314+78	TO STA 318+68	65	50	0	50
STAGE 1					
RT STA 314+28	TO STA 318+98	180	135	200	-65
STAGE 2					
LT STA 315+30	TO STA 318+24	65	50	195	-145
TOTAL		310	235	395	-160

WIDENING

LOCATION		SUB-BASE GRANULAR MATERIAL, TYPE B 6" WIDTH	SUB-BASE GRANULAR MATERIAL, TYPE B 6" SQ YD	HOT-MIX ASPHALT BASE COURSE, 12" WIDTH	HOT-MIX ASPHALT BASE COURSE, 12" SQ YD
PRELIMINARY PHASE					
LT STA 314+56.00	TO STA 316+38.50			6'	121.67
LT STA 317+11.50	TO STA 318+68.25			6'	104.50
STAGE 1					
RT STA 314+28.25	TO STA 316+32.00			8'	181.11
RT STA 316+32.00	TO STA 317+11.50	16'	141.33	14'	123.67
RT STA 317+11.50	TO STA 318+97.50			8'	165.33
STAGE 2					
LT STA 316+32.00	TO STA 317+11.50	24'	212.00	24'	212.00
CR 600E					
LT STA 318+23.00	TO STA 318+53.00			6'	20.00
TOTAL			353.33		928.28

BITUMINOUS MATERIALS (PRIME COAT)

LOCATION		TYPE	RATE	APPLICATIONS	SQ FT	POUND
HMA BASE COURSE						
PRELIMINARY PHASE						
LT STA 314+56.00	TO STA 316+38.50	FOG COAT	0.025	2	1,095.03	54.75
LT STA 317+11.50	TO STA 318+68.25	FOG COAT	0.025	2	940.50	47.03
STAGE 1						
RT STA 314+28.25	TO STA 316+32.00	FOG COAT	0.025	2	1,629.99	81.50
RT STA 316+32.00	TO STA 317+11.50	FOG COAT	0.025	2	1,113.03	55.65
RT STA 317+11.50	TO STA 318+97.50	FOG COAT	0.025	2	1,487.97	74.40
STAGE 2						
LT STA 316+32.00	TO STA 317+11.50	FOG COAT	0.025	2	1,908.00	95.40
CR 600E						
LT STA 318+23.00	TO STA 318+53.00	FOG COAT	0.025	2	180.00	9.00
HMA SURFACE COURSE						
FINAL PHASE						
LT STA 316+18.50	TO STA 317+31.50	MILLED	0.05	1	2034.00	101.70
RT STA 316+18.50	TO STA 317+31.50	MILLED	0.05	1	2259.99	113.00
HOT-MIX ASPHALT SHOULDERS, 8"						
LT STA 315+38.80	TO STA 315+59.00	FOG COAT	0.025	1	101.97	2.55
LT STA 315+59.00	TO STA 316+01.10	FOG COAT	0.025	1	317.88	7.95
LT STA 316+01.10	TO STA 317+76.10	FOG COAT	0.025	1	874.98	21.87
LT STA 317+76.10	TO STA 318+18.00	FOG COAT	0.025	1	316.35	7.91
LT STA 318+18.00	TO STA 318+23.10	FOG COAT	0.025	1	25.74	0.64
RT STA 315+07.80	TO STA 315+24.00	FOG COAT	0.025	1	65.61	1.64
RT STA 315+24.00	TO STA 315+65.90	FOG COAT	0.025	1	232.56	5.81
RT STA 315+65.90	TO STA 317+40.90	FOG COAT	0.025	1	524.97	13.12
RT STA 317+40.90	TO STA 317+83.00	FOG COAT	0.025	1	233.64	5.84
RT STA 317+83.00	TO STA 317+99.20	FOG COAT	0.025	1	65.61	1.64
TOTAL						701.40

HOT-MIX ASPHALT SHOULDERS, 8"

LOCATION		WIDTH			SQ YD
LT STA 315+38.80	TO STA 315+59.00	0.0	TO	10.1	11.33
LT STA 315+59.00	TO STA 316+01.10	10.1	TO	5.0	35.32
LT STA 316+01.10	TO STA 317+76.10	5.0	TO	5.0	97.22
LT STA 317+76.10	TO STA 318+18.00	5.0	TO	10.1	35.15
LT STA 318+18.00	TO STA 318+23.10	10.1	TO	0.0	2.86
RT STA 315+07.80	TO STA 315+24.00	0.0	TO	8.1	7.29
RT STA 315+24.00	TO STA 315+65.90	8.1	TO	3.0	25.84
RT STA 315+65.90	TO STA 317+40.90	3.0	TO	3.0	58.33
RT STA 317+40.90	TO STA 317+83.00	3.0	TO	8.1	25.96
RT STA 317+83.00	TO STA 317+99.20	8.1	TO	0.0	7.29
TOTAL					306.59

RESURFACING

LOCATION		HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 WIDTH	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 TON
FINAL PHASE			
LT STA 316+18.50	TO STA 317+31.50	18'	18.98
RT STA 316+18.50	TO STA 317+31.50	20'	21.09
TOTAL			40.07

GUARDRAIL REMOVAL

LOCATION		FOOT
LT STA 316+18.50	TO STA 317+31.50	113
RT STA 316+18.50	TO STA 317+31.50	113
TOTAL		226

STEEL PLATE BEAM GUARD RAIL, TYPE A

LOCATION		FOOT
LT STA 316+13.60	TO STA 316+54.23	40.625
LT STA 316+85.48	TO STA 317+63.60	78.125
RT STA 315+78.40	TO STA 316+56.53	78.125
RT STA 316+87.78	TO STA 317+28.40	40.625
TOTAL		237.50

STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES

LOCATION		FOOT
LT STA 316+54.23	TO STA 316+85.48	31.25
RT STA 316+56.53	TO STA 316+87.78	31.25
TOTAL		62.50

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED

LOCATION		EACH
LT STA 315+63.60	TO STA 316+13.60	1
LT STA 317+63.60	TO STA 318+13.60	1
RT STA 315+28.40	TO STA 315+78.40	1
RT STA 317+28.40	TO STA 317+78.40	1
TOTAL		4

GUARDRAIL MARKERS, TYPE A

LOCATION		EACH
LT STA 316+13.60	TO STA 317+63.60	4
RT STA 315+78.40	TO STA 317+28.40	4
TOTAL		8

TERMINAL MARKER - DIRECT APPLIED

LOCATION	EACH
LT STA 315+63.60	1
LT STA 318+13.60	1
RT STA 315+28.40	1
RT STA 317+78.40	1
TOTAL	4

PIPE CULVERT REMOVAL

LOCATION		FOOT
LT STA 318+13.00	TO STA 318+65.00	52
TOTAL		52

PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE18"

LOCATION		FOOT
LT STA 317+82.00	TO STA 318+60.00	78
TOTAL		78

PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 18"

LOCATION	EACH
LT STA 317+75.00	1
LT STA 318+66.00	1
TOTAL	2

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	11
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ENTRANCES

LOCATION		TYPE	HMA SURFACE REMOVAL SPECIAL	BITUMINOUS MATERIALS (PRIME COAT)	INCIDENTAL HOT-MIX ASPHALT SURFACING	AGGREGATE SURFACE COURSE, TYPE B
			SQ YD	POUND	TON	TON
RT STA 314+56.00		FE	30.48	13.72	4	4
RT STA 318+36.00		FE	34.41	15.48	4	4
TOTAL			64.89	29.20	8	8

SIDE ROADS

LOCATION		RTE	HOT-MIX ASPHALT BASE COURSE 8"	TEMPORARY RAMP	BITUMINOUS MATERIALS (PRIME COAT)	INCIDENTAL HOT-MIX ASPHALT SURFACING
			SQ YD	SQ YD	POUND	TON
LT STA 318+36.00		CR 600 E	70.97	13.33	15.97	6
TOTAL			70.97	13.33	15.97	6

SHORT-TERM PAVEMENT MARKING

LOCATION		NO. OF APPLICATIONS	LOCATION	FOOT
LT STA 314+28.25	TO STA 318+68.25	1	SHOULDER	22
CL STA 312+54.00	TO STA 320+40.00	1	CENTERLINE	83
RT STA 314+28.25	TO STA 318+97.50	1	SHOULDER	23
LT STA 316+18.50	TO STA 317+31.50	3	SHOULDER	26
CL STA 316+18.50	TO STA 317+31.50	3	CENTERLINE	46
RT STA 316+18.50	TO STA 317+31.50	3	SHOULDER	26
TOTAL				224

WORK ZONE PAVEMENT MARKING REMOVAL

LOCATION		LOCATION	SQ FT
LT STA 314+28.25	TO STA 318+68.25	SHOULDER	7
CL STA 312+54.00	TO STA 320+40.00	CENTERLINE	28
RT STA 314+28.25	TO STA 318+97.50	SHOULDER	8
TOTAL			42

PAINT PAVEMENT MARKING - LINE 4"

LOCATION		TYPE	FOOT
LT STA 312+54.00	TO STA 320+40.00	SOLID WHITE EDGE LINE	786
CL STA 312+54.00	TO STA 320+40.00	YELLOW SKIP DASH	207
RT STA 312+54.00	TO STA 320+40.00	SOLID WHITE EDGE LINE	786
TOTAL			1,779

TEMPORARY PAVEMENT MARKING - LINE 4"

LOCATION		TYPE	FOOT
LT STA 312+54.00	TO STA 320+40.00	SOLID WHITE EDGE LINE	786
CL STA 312+54.00	TO STA 320+40.00	YELLOW SKIP DASH	207
RT STA 312+54.00	TO STA 320+40.00	SOLID WHITE EDGE LINE	786
TOTAL			1,779

PAVEMENT MARKING REMOVAL

LOCATION		TYPE	SQ FT
STAGE 1			
LT STA 315+03.00	TO STA 316+20.00	SOLID EDGE LINE	39
CL STA 312+54.00	TO STA 314+67.00	SKIP DASH	21
CL STA 318+26.00	TO STA 320+40.00	SKIP DASH	21
STAGE 2			
RT STA 314+62.00	TO STA 318+87.00	SOLID EDGE LINE	142
TOTAL			223

TEMPORARY CONCRETE BARRIER

LOCATION		FOOT
STA 315+37.50	TO STA 316+12.50	75
STA 316+12.50	TO STA 317+37.50	125
STA 317+37.50	TO STA 318+12.50	75
TOTAL		275

RELOCATE TEMPORARY CONCRETE BARRIER

LOCATION		FOOT
STA 314+62.50	TO STA 316+12.50	150
STA 316+12.50	TO STA 317+37.50	125
TOTAL		275

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3

LOCATION	EACH
STA 315+37.50	1
STA 318+12.50	1
TOTAL	2

IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3

LOCATION	EACH
STA 314+62.50	1
STA 317+37.50	1
TOTAL	2

IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

LOCATION	EACH
STA 317+37.50	1
TOTAL	1

SEEDING

LOCATION		SEEDING, CLASS 2 (SPECIAL)
		ACRE
LT STA 314+56.00	TO STA 318+68.25	0.11
RT STA 314+28.25	TO STA 318+97.50	0.14
TOTAL		0.25

EROSION CONTROL BLANKET

LOCATION		WIDTH	SQ YD
LT STA 315+50.00	TO STA 316+45.00	4'	42.22
LT STA 317+00.00	TO STA 317+75.00	4'	33.33
RT STA 315+00.00	TO STA 316+40.00	4'	62.22
RT STA 317+00.00	TO STA 318+15.00	4'	51.11
TOTAL			188.88

TEMPORARY EROSION CONTROL

LOCATION		TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION
		POUND	EACH	FOOT	EACH
LT STA 314+56.00	TO STA 318+68.25	11			
RT STA 314+28.25	TO STA 318+97.50	14			
LT STA 314+56	TO STA 315+50			94	
LT STA 316+20			8		
LT STA 316+40			8		
LT STA 317+00			8		
LT STA 317+20			8		
LT STA 318+65					1
RT STA 316+20			8		
RT STA 316+40			8		
RT STA 317+00			8		
RT STA 317+20			8		
RT STA 318+50	TO STA 318+97			47	
TOTAL		25	64	141	1

APPROACH SLAB REMOVAL

LOCATION		WIDTH	SQ YD
STAGE 1			
RT STA 316+38.50	TO STA 316+58.50	11.75'	26.11
RT STA 316+91.50	TO STA 317+11.50	11.75'	26.11
STAGE 2			
LT STA 316+38.50	TO STA 316+58.50	14.25'	31.67
LT STA 316+91.50	TO STA 317+11.50	14.25'	31.67
TOTAL			115.56

BRIDGE APPROACH SHOULDER REMOVAL

LOCATION		WIDTH	SQ YD
STAGE 1			
RT STA 316+38.50	TO STA 316+58.50	7'	15.56
RT STA 316+91.50	TO STA 317+11.50	7'	15.56
STAGE 2			
LT STA 316+38.50	TO STA 316+58.50	7'	15.56
LT STA 316+91.50	TO STA 317+11.50	7'	15.56
TOTAL			62.24

PAVED SHOULDER REMOVAL

LOCATION		WIDTH	SQ YD
PRELIMINARY PHASE			
LT STA 314+56.00	TO STA 316+38.50	3'	60.83
LT STA 317+11.50	TO STA 318+06.50	3'	31.67
STAGE 1			
RT STA 314+28.25	TO STA 316+38.50	3'	70.08
RT STA 317+11.50	TO STA 318+97.50	3'	62.00
TOTAL			224.58

PAVEMENT REMOVAL

LOCATION		WIDTH	SQ YD
PRELIMINARY PHASE			
CR 600E			
LT STA 318+06.50	TO STA 318+68.25	6'	41.17
STAGE 1			
US 36			
RT STA 316+32.00	TO STA 316+38.50	10.75	7.76
STAGE 2			
US 36			
LT STA 316+32.00	TO STA 316+38.50	19.25	13.90
CR 600E			
LT STA 318+23.00	TO STA 318+53.00	Vary	70.97
TOTAL			133.80

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

LOCATION		LENGTH	WIDTH	SQ YD
FINAL PHASE				
LT STA 316+18.50	TO STA 317+31.50		18'	226.00
RT STA 316+18.50	TO STA 317+31.50		20'	251.11
TOTAL				477.11

TEMPORARY RAMP

LOCATION		LENGTH	WIDTH	SQ YD
FINAL PHASE				
LT STA 316+18.50		5'	18'	10.00
LT STA 317+31.50		5'	18'	10.00
RT STA 316+18.50		5'	20'	11.11
RT STA 317+31.50		5'	20'	11.11
TOTAL				42.22

SEE SIDE ROAD SCHEDULE FOR ADDITIONAL QUANTITY

CEC Cummins Engineering Corporation
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JOB - 2223.1
FILE NAME = D:\74165-sht-sched.dgn
PLOT SCALE = 40.0000 ' / in.
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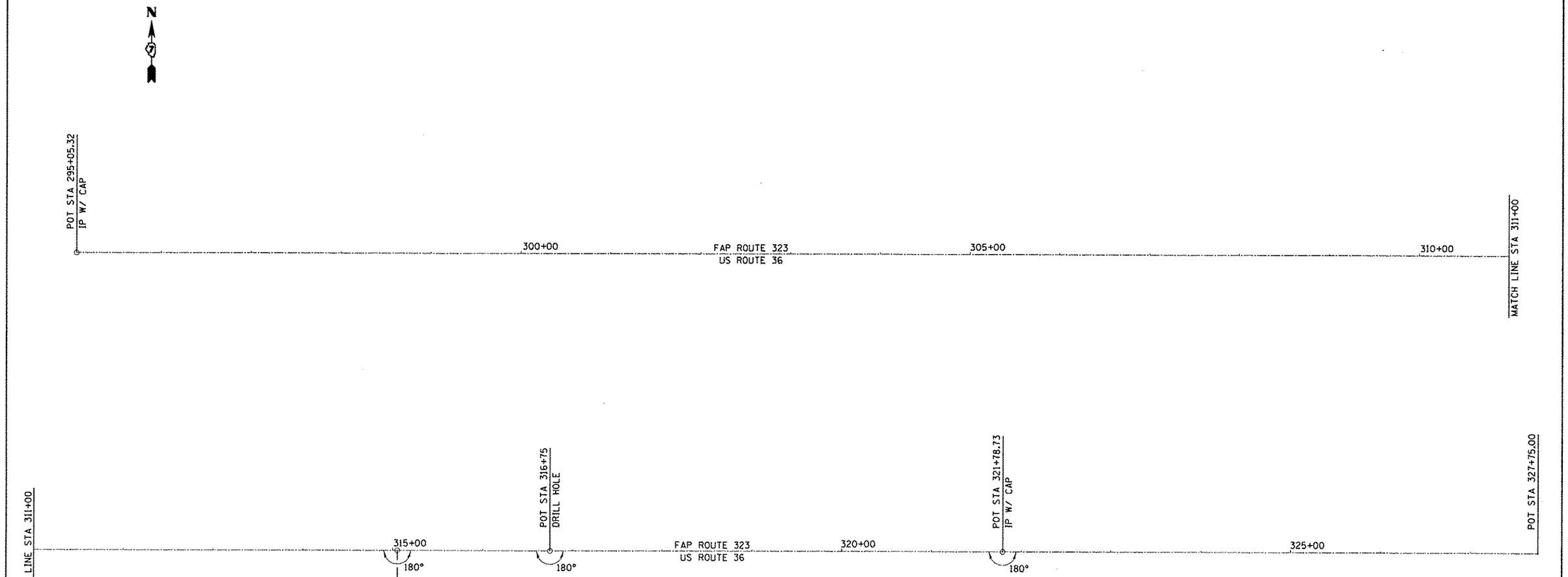
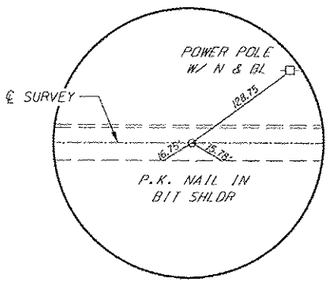
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

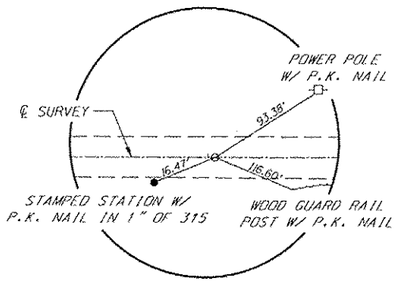
SCHEDULE OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	12
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

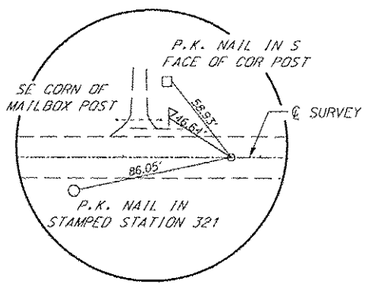




POT STA 295+05.32
IRON PIN W/ CAP



POT STA 315+05.16
IRON PIN W/ CAP



POT STA 321+78.73
IRON PIN W/ IDOT CAP

COORDINATE DATA:

STA 295+05.32	N	99,980.73
	E	97,760.00
STA 315+05.16	N	99,980.73
	E	99,759.84
STA 316+75.00	N	99,980.73
	E	99,929.68
STA 321+78.73	N	99,980.73
	E	100,433.42
STA 327+75	N	99,980.73
	E	101,029.68

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FILE NAME = D774165-sht-all.dgn	DRAWN - AJH	REVISED -	
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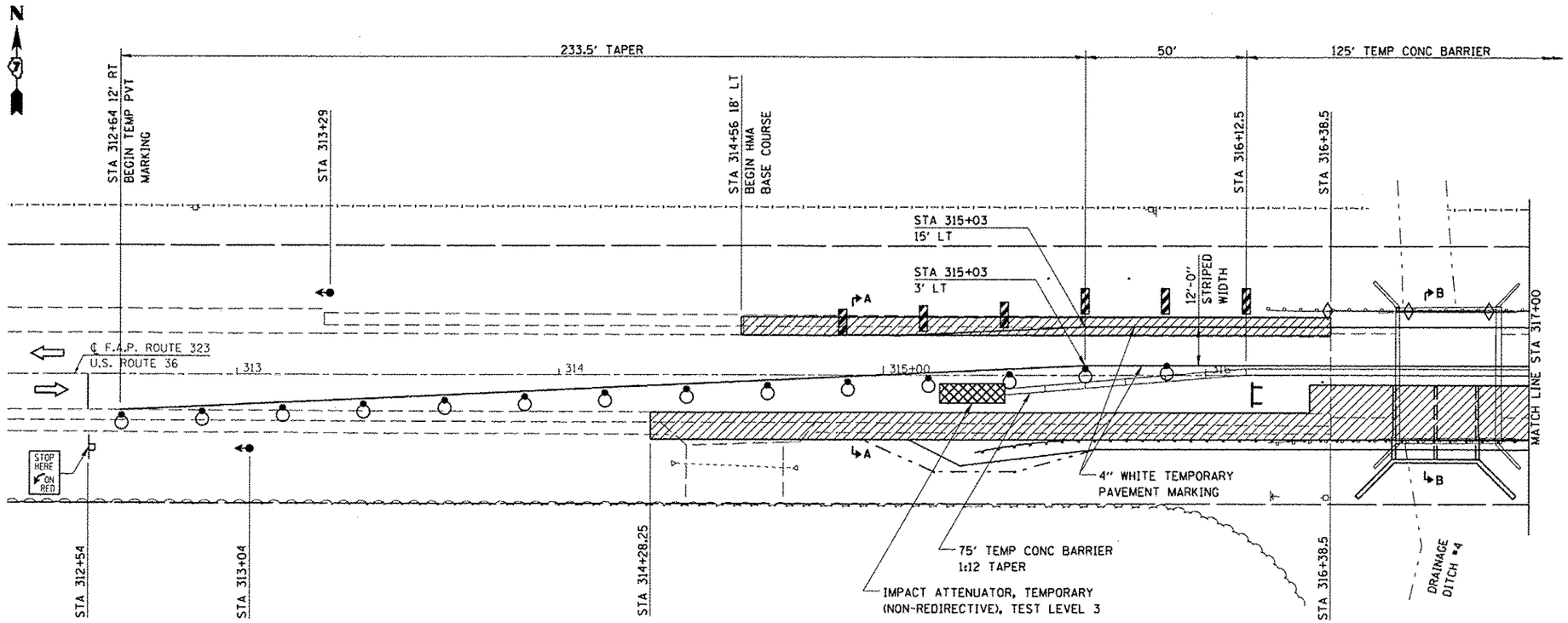
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT AND CROSS TIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	13
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

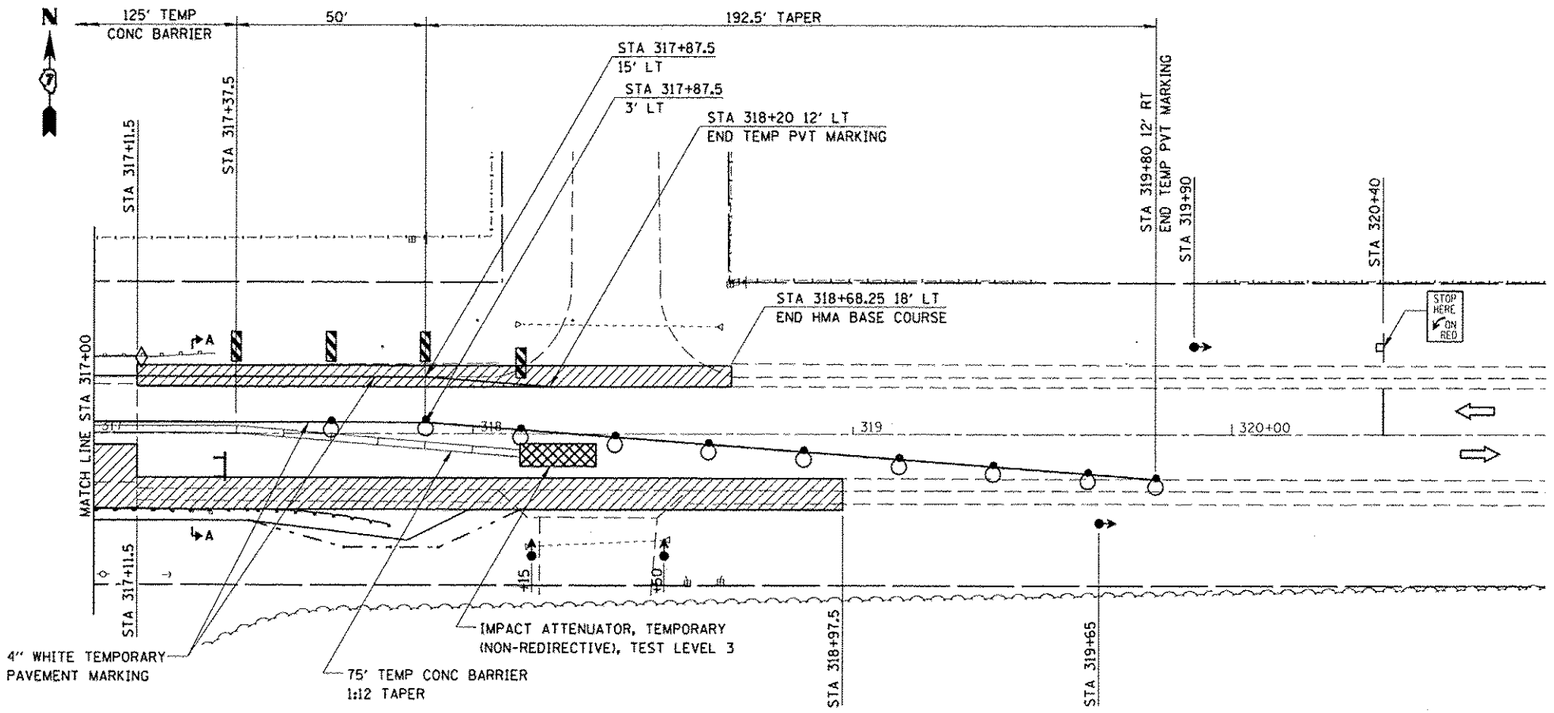


LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE
- DRUM WITH STEADY BURNING LIGHT
- CRYSTAL/BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER
- DOUBLE VERTICAL PANEL
- TYPE III BARRICADE
- IMPACT ATTENUATOR
- HMA BASE COURSE

GENERAL NOTES

1. SEE STANDARD 701321 FOR DETAILS OF TRAFFIC CONTROL AND PROTECTION NOT SHOWN
2. PLACEMENT AND REMOVAL OF TEMPORARY PAVEMENT MARKINGS - INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321
3. SEE SHEETS 16-17 FOR SECTION A-A AND B-B
4. DRUMS IN TAPER SHALL BE POSITIONED TO ALLOW ACCESS TO FIELD ENTRANCES ON THE SOUTH SIDE OF US 36



SEQUENCE OF OPERATIONS

PRELIMINARY PHASE

PRELIMIMNARY PHASE CONSTRUCTION WILL CONSIST OF THE FOLLOWING:

1. REMOVE PAVED SHOULDER LEFT STA. 314+78 TO STA. 318+06.5
2. REMOVE PAVEMENT LEFT STA 318+06.5 TO STA 318+68.25
3. CONSTRUCT HMA BASE COURSE LEFT STA 314+78 TO STA 318+68.25
4. INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON STANDARD 701321 AND AS DETAILED ON THE PLANS.

STAGE 1

STAGE 1 CONSTRUCTION WILL CONSIST OF THE FOLLOWING:

1. REMOVE GUARDRAIL ALONG EASTBOUND LANE
2. REMOVE PAVED SHOULDER RIGHT STA. 314+28.25 TO STA. 318+97.5
3. REMOVE STAGE 1 PORTIONS OF APPROACH SLABS RIGHT STA. 316+38.5 TO STA. 316+58.5 AND RIGHT STA. 316+91.5 TO STA. 317+11.5
4. REMOVE STAGE 1 PORTIONS OF EXISTING BRIDGE RIGHT STA. 316+58.5 TO STA. 316+91.5
5. CONSTRUCT STAGE 1 PORTION OF PROPOSED STRUCTURE
6. CONSTRUCT EMBANKMENT AND EXCAVATE DITCHES RIGHT STA. 314+28.25 TO STA. 318+97.5
7. CONSTRUCT HMA BASE COURSE AND HMA SHOULDER RIGHT STA. 314+28.25 TO STA. 318+97.4
8. INSTALL GUARDRAIL, TERMINALS, AND MARKERS RIGHT STA. 315+28.4 TO STA. 317+78.4

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Civil and Structural Engineering

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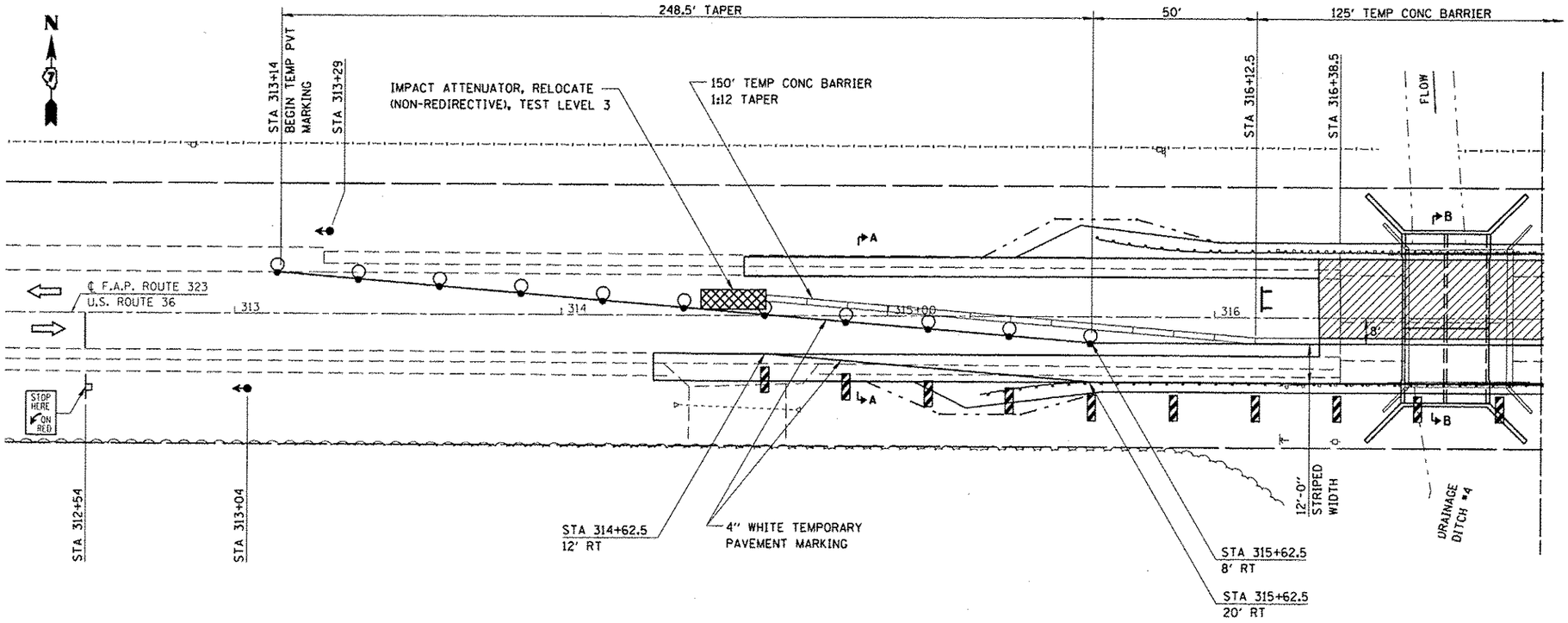
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 1 TRAFFIC CONTROL AND PROTECTION

SHEET NO. 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	14
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

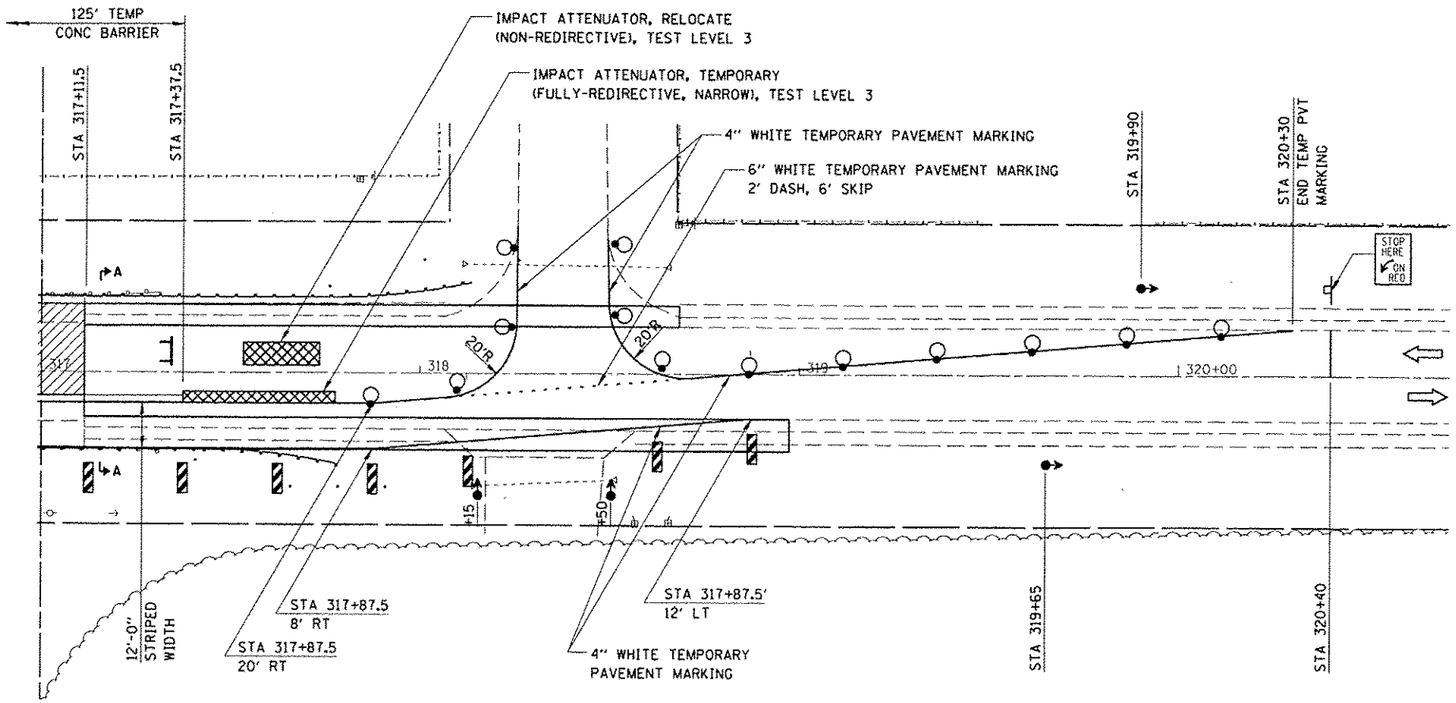


LEGEND

- TRAFFIC SIGNAL WITH BACKPLATE
- DRUM WITH STEADY BURNING LIGHT
- CRYSTAL/BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER
- DOUBLE VERTICAL PANEL
- TYPE III BARRICADE
- IMPACT ATTENUATOR
- HMA BASE COURSE

GENERAL NOTES

1. SEE STANDARD 701321 FOR DETAILS OF TRAFFIC CONTROL AND PROTECTION NOT SHOWN
2. PLACEMENT AND REMOVAL OF TEMPORARY PAVEMENT MARKINGS - INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321
3. ADDITIONAL DRUMS AND TEMPORARY PAVEMENT MARKINGS SHOWN FOR SIDE ROADS SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321
4. SEE SHEETS 16-17 FOR SECTION A-A AND SECTION B-B



SEQUENCE OF OPERATIONS

STAGE 2

STAGE 2 CONSTRUCTION WILL CONSIST OF THE FOLLOWING:

1. REMOVE STAGE 1 TEMPORARY MARKINGS AND CONFLICTING EASTBOUND PAVEMENT MARKINGS
2. RELOCATE TRAFFIC CONTROL DEVICES INCLUDING DRUMS, TEMPORARY CONCRETE BARRIER, AND TEMPORARY IMPACT ATTENUATORS.
3. REMOVE GUARDRAIL ALONG WESTBOUND LANE
4. REMOVE STAGE 2 PORTIONS OF APPROACH SLABS LEFT STA. 316+38.5 TO STA. 316+58.5 AND RIGHT STA. 316+91.5 TO STA. 317+11.5
5. REMOVE STAGE 2 PORTIONS OF EXISTING BRIDGE LEFT STA. 316+58.5 TO STA. 318+91.5
6. CONSTRUCT STAGE 2 PORTION OF PROPOSED STRUCTURE
7. EXCAVATE DITCHES AND CONSTRUCT EMBANKMENT LEFT STA. 314+78 TO STA. 318+68.25.
8. CONSTRUCT HMA BASE COURSE AND HMA SHOULDERS LEFT STA. 316+38.5 TO STA. 317+11.4
9. INSTALL GUARDRAIL, TERMINALS, AND MARKERS LEFT STA. 315+63.69 TO STA. 318+13.60

FINAL PHASE

FINAL PHASE CONSTRUCTION WILL CONSIST OF THE FOLLOWING:

1. REMOVE TEMPORARY MARKINGS
2. REMOVE TRAFFIC CONTROL DEVICES INCLUDING DRUMS, TEMPORARY CONCRETE BARRIER, TEMPORARY IMPACT ATTENUATORS AND TEMPORARY BRIDGE TRAFFIC SIGNALS.
3. INSTALL SHORT TERM PAVEMENT MARKINGS
4. MILL AND RESURFACE ROADWAY AND SHOULDERS
5. INSTALL PAVEMENT MARKINGS

CEC Cummins Engineering Corporation
Civil and Structural Engineering

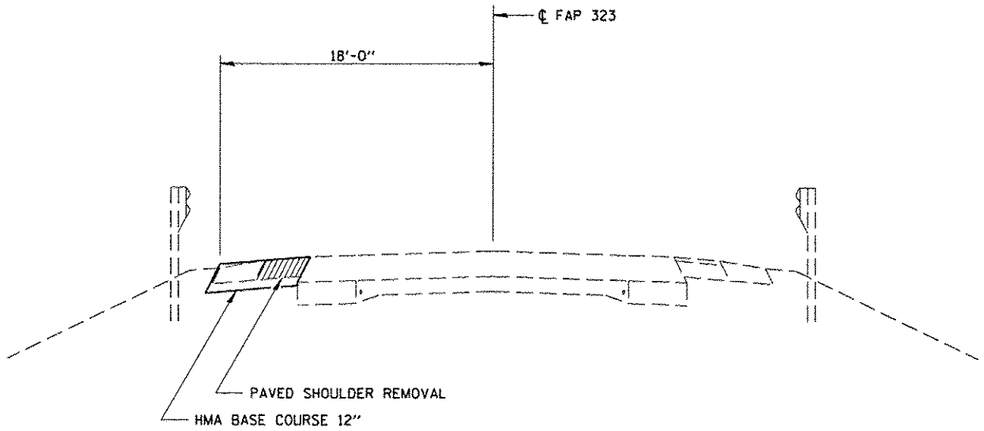
JOB = 2223.1	DESIGNED - NAK	REVISED -	
FILE NAME = 0774165-sht-stg2.dgn	DRAWN - AJH	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - NAK	REVISED -	
PLOT DATE = 8/11/2014	DATE - 8/25/2010	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

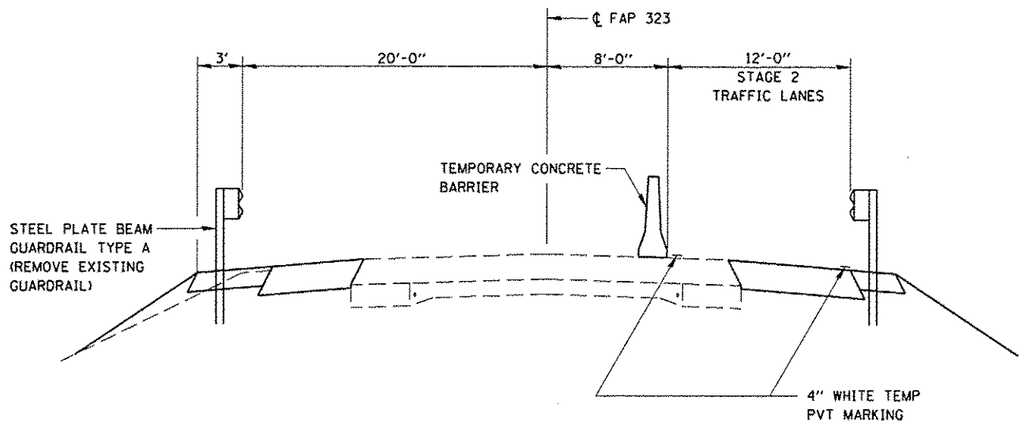
STAGE 2 TRAFFIC CONTROL AND PROTECTION

SHEET NO. 2 OF 2 SHEETS

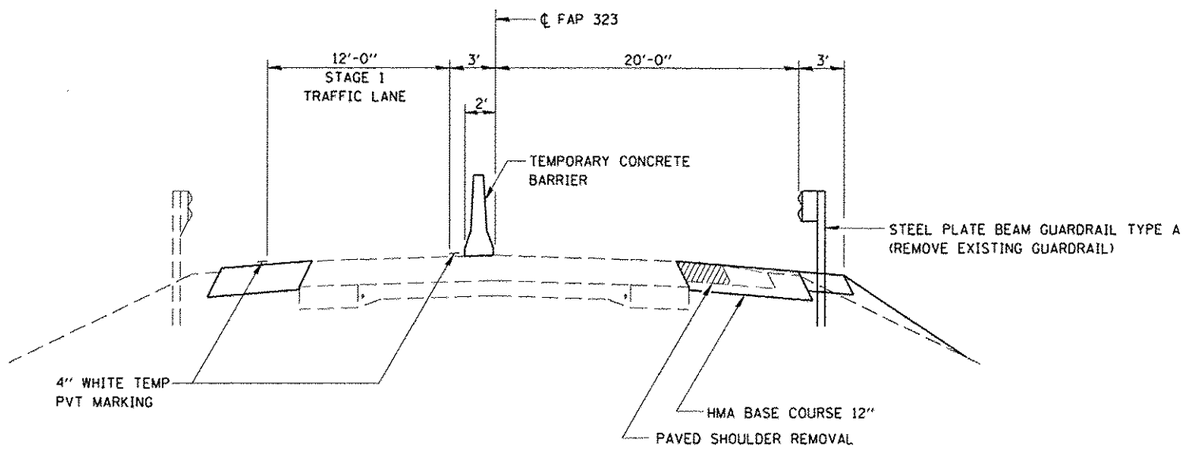
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	15
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SECTION A-A
PRELIMINARY PHASE



SECTION A-A
STAGE 2



SECTION A-A
STAGE 1

CEC Cummins Engineering Corporation Civil and Structural Engineering	JOB = 2223.1	DESIGNED - NAK	REVISED -
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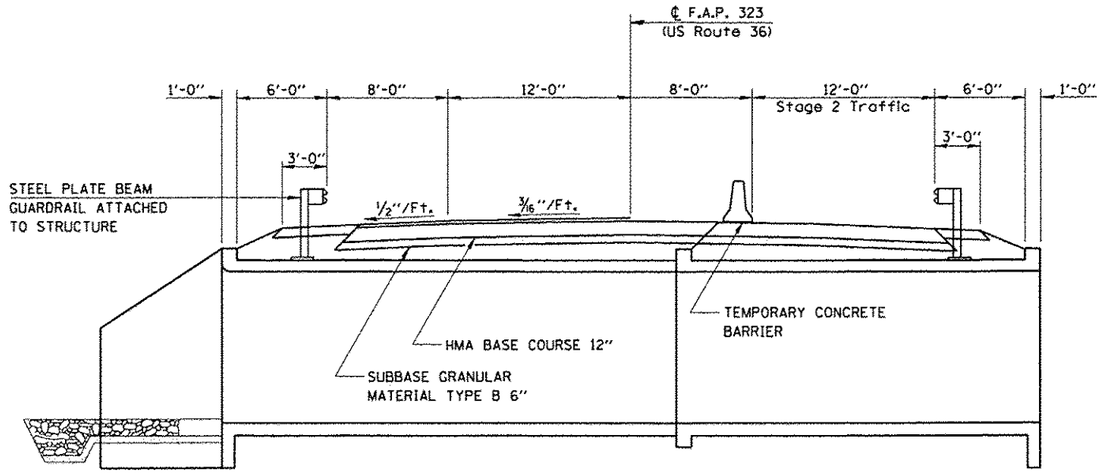
	PLOT SCALE = 10.0000 ' / in.	CHECKED - NAK	REVISED -
	PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

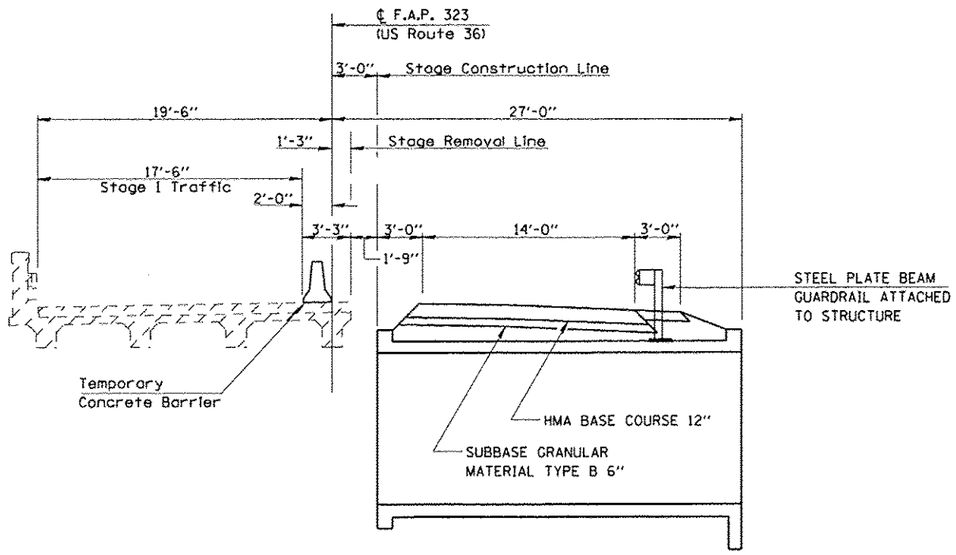
STAGE CONSTRUCTION DETAILS

SHEET NO. 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	16
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

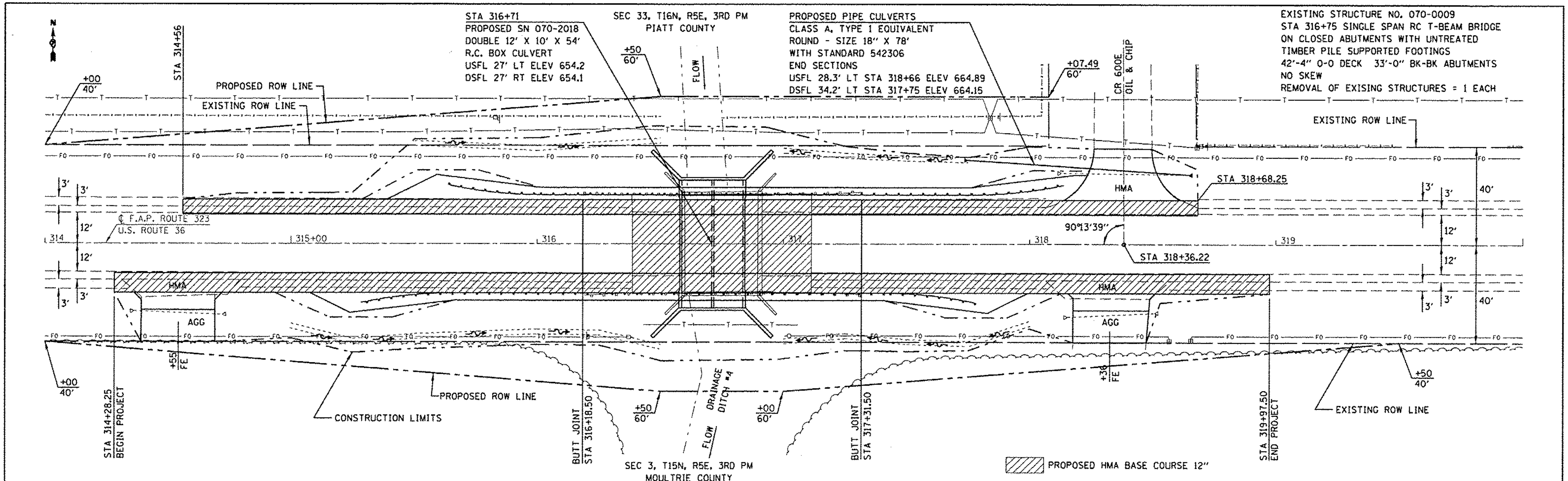


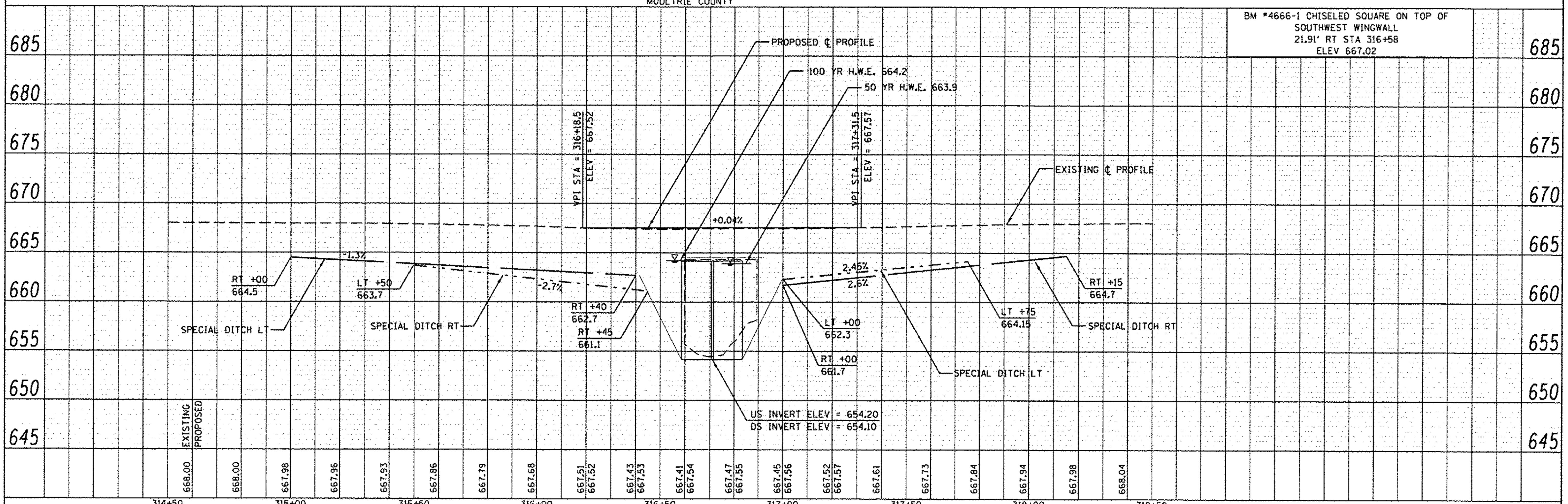
SECTION B-B
STAGE 2



SECTION B-B
STAGE 1

CEC Cummins Engineering Corporation Civil and Structural Engineering	JOB = 2223.1 FILE NAME = D774165-sht-stage.dgn PLOT SCALE = 10.0000 ' / in. PLOT DATE = 8/11/2014	DESIGNED - NAK DRAWN - AJH CHECKED - NAK DATE - 7/12/2010	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS SHEET NO. 2 OF 2 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						323	(142BY) BR	MOULTRIE	35	17
								CONTRACT NO. 74165		
						FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2223.1
FILE NAME = D774165-sht-pp.dgn
PLOT SCALE = 40.0000 ' / in.
PLOT DATE = 8/11/2014

DESIGNED - NAK
DRAWN - AJH
CHECKED - NAK
DATE - 1/12/2011

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE

STA 314+00 TO STA 320+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	18

CONTRACT NO. 74165

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

SEC 33, T16N, R5E, 3RD PM
PIATT COUNTY

STA 316+75 EXISTING SN 070-0009
SINGLE SPAN RC DECK GIRDER BRIDGE
33'-2" BK-BK ABUTMENT
40'-0" F-F RAIL
REMOVAL OF EXISTING STRUCTURES = 1 EACH

STAGE REMOVAL LINE

REMOVE EXISTING 18" CONCRETE
EQUIVALENT ROUND SIZE PIPE
CULVERT AND CONCRETE END SECTIONS

STA 314+56
STA 316+32
FLOW
STA 318+68.25
STA 318+06.5
GUARDRAIL REMOVAL
℄ F.A.P. ROUTE 323
U.S. ROUTE 36
314
315+00
316
318
319
3'
12'
7'
13'
1'-3"
AGG FE +55
AGG FE +36
DRAINAGE DITCH #4
STA 314+28.25
STA 316+38.50
STA 316+58.50
STA 316+91.50
STA 317+11.25
STA 318+97.50

SEC 3, T15N, R5E, 3RD PM
MOULTRIE COUNTY

PAVED SHOULDER REMOVAL
BRIDGE APPROACH SHOULDER REMOVAL
APPROACH SLAB REMOVAL
HMA SURFACE REMOVAL
PAVEMENT REMOVAL

CEC Cummins Engineering Corporation
Civil and Structural Engineering

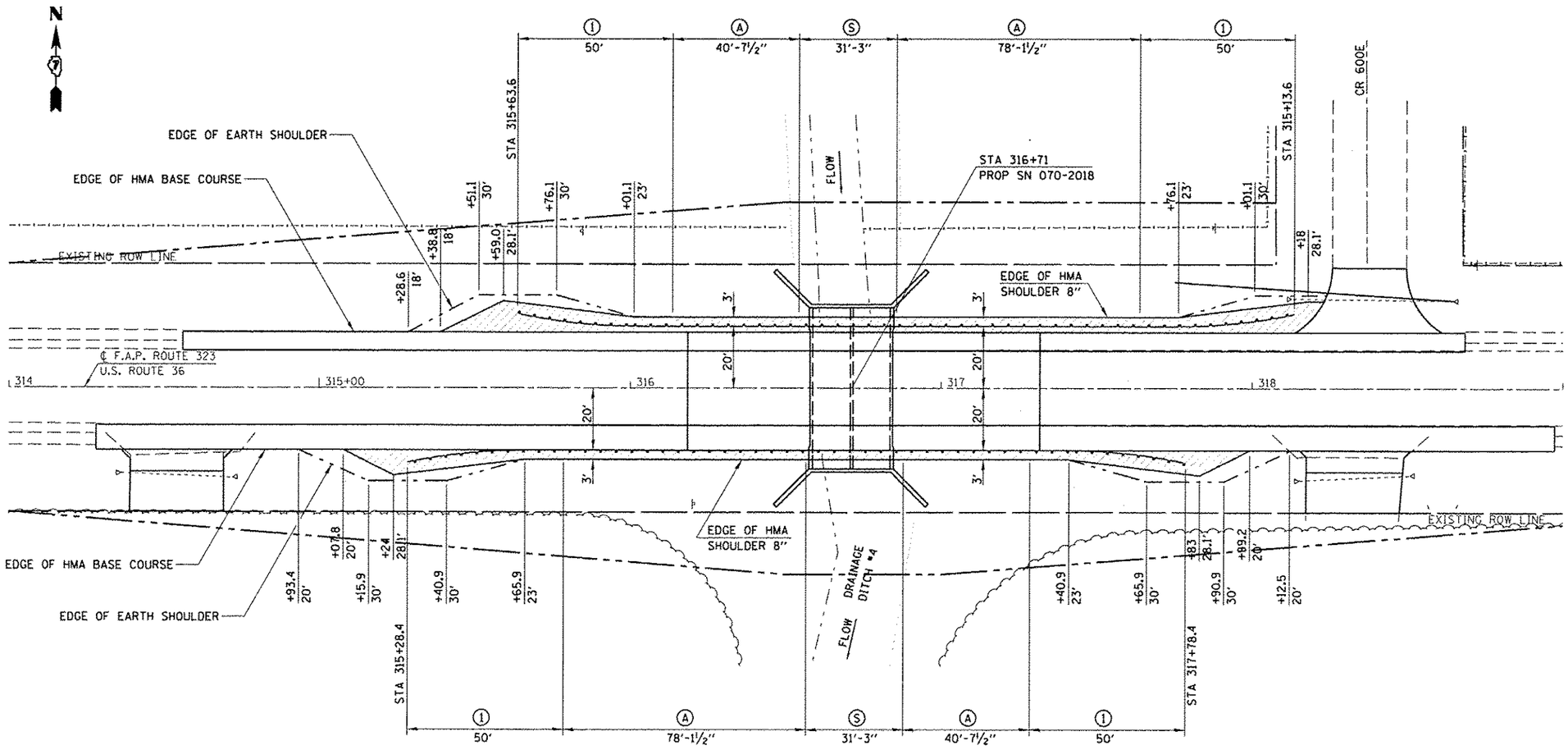
JOB - 2223.1	DESIGNED - NAK	REVISED -
FILE NAME = 0774165-sht-rem.dgn	DRAWN - AJH	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - NAK	REVISED -
	DATE - 8/25/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

STA 314+00 TO STA 320+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	19
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

(I) TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (FLARED)

(A) STEEL PLATE BEAM GUARDRAIL TYPE A

(S) STEEL PLATE BEAM GUARDRAIL ATTACHED TO STRUCTURES

INDICATES LIMITS OF HMA SHOULDER 8"

NOTES

1. SEE STANDARD 701301 FOR DETAILS OF SHOULDER WIDENING AT TYPE 1 GUARDRAIL TERMINAL
2. GUARDRAIL SHALL BE ATTACHED TO THE STRUCTURE AS DETAILED ON STANDARD 630101, CASE IV. POST SPACING ON CULVERT SHALL BE 3'-1 1/2"

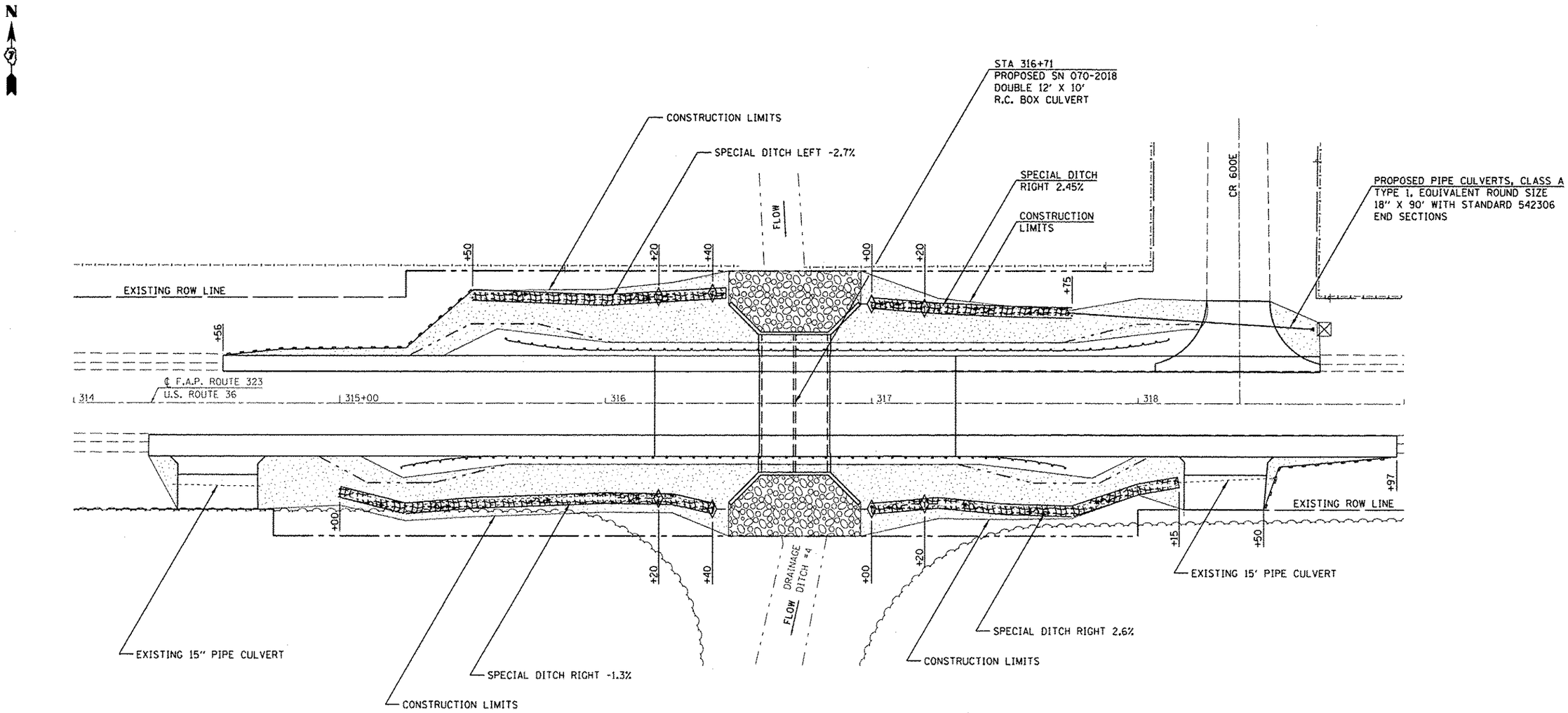
CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB - 2223.1	DESIGNED - NAK	REVISED -
FILE NAME - D774165-slshrealldgn	DRAWN - AJH	REVISED -
PLOT SCALE - 40.0000 ' / in.	CHECKED - NAK	REVISED -
PLOT DATE - 8/11/2014	DATE - 8/25/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL LAYOUT
SHOULDER WIDENING

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	20
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

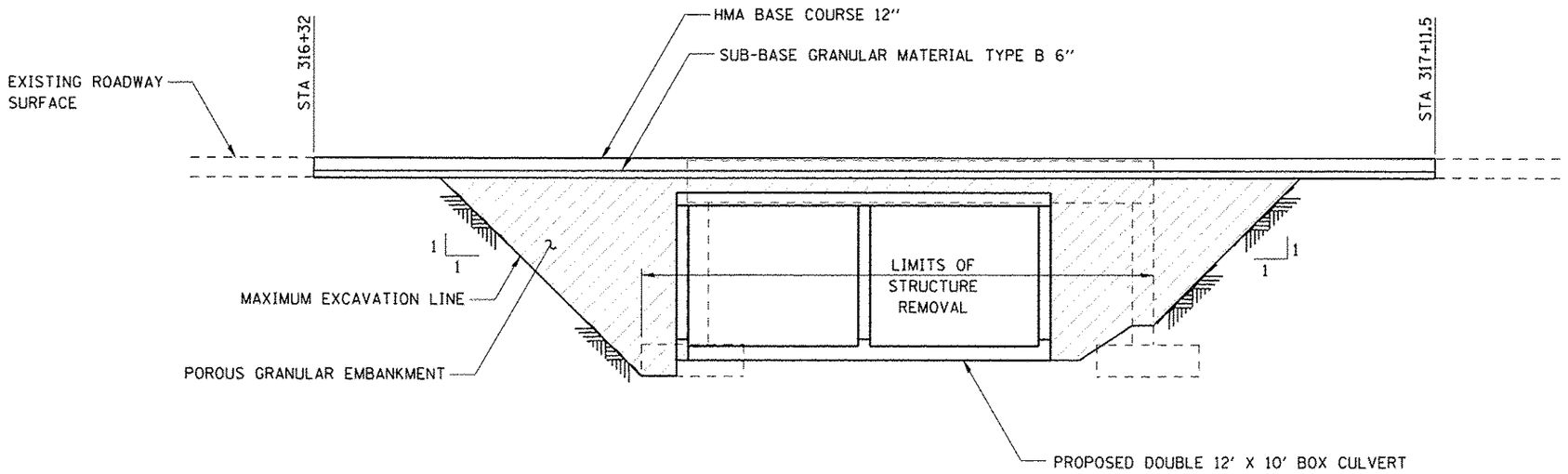
- STONE RIPRAP CLASS A4
- SEEDING CLASS 2 (SPECIAL)
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER
- INLET & PIPE PROTECTION
- TEMPORARY DITCH CHECKS

CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB = 2223.1	DESIGNED - NAK	REVISED -
	FILE NAME = 0774165-sht-erosion.dgn	DRAWN - AJH	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - NAK	REVISED -
	PLOT DATE = 8/11/2014	DATE - 8/25/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND EROSION CONTROL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	21
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SEE SHEET 10 FOR LIMITS OF POROUS GRANULAR EMBANKMENT

CULVERT BACKFILL

CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB - 2223.1	DESIGNED - NAK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CULVERT BACKFILL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME = 0774165-sht-details.dgn	DRAWN - AJH	REVISED -			323	(142BY) BR	MOULTRIE	35	22
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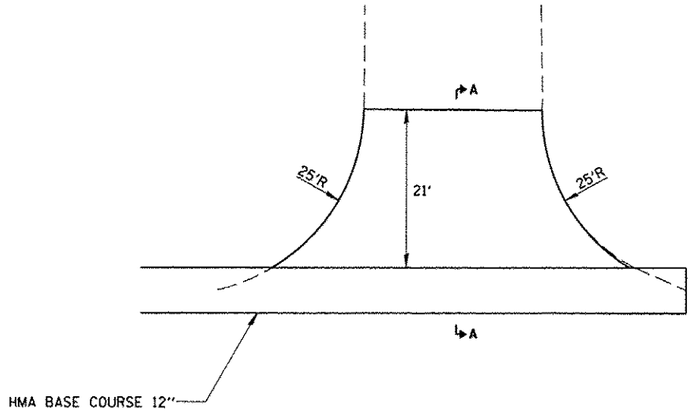
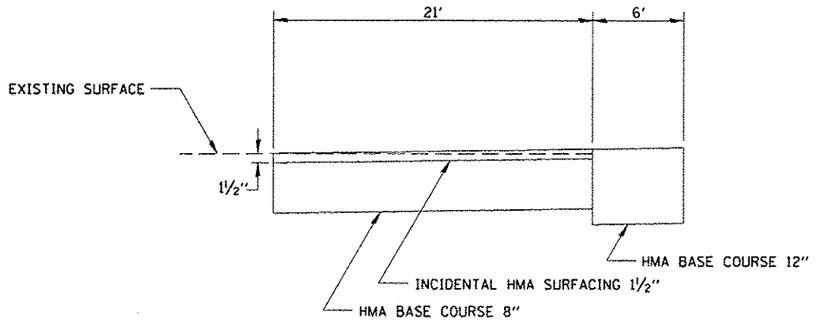
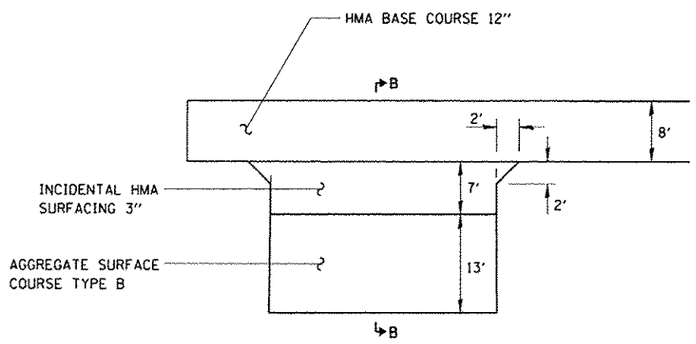
	PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



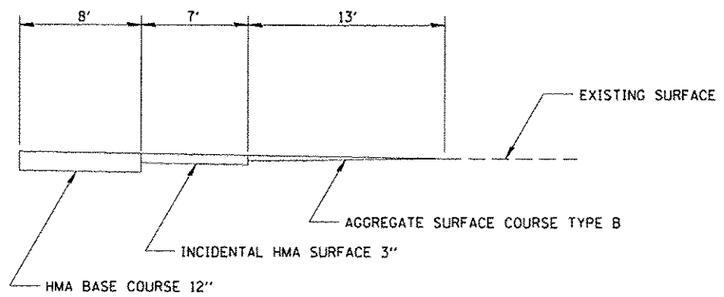
SIDE ROAD DETAIL



SECTION A–A



ENTRANCE DETAIL



SECTION B–B

CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB = 2223.1	DESIGNED - NAK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ENTRANCE & SIDE ROAD DETAILS
	FILE NAME = 0774165-abv-details.dgn	DRAWN - AJH	REVISED -		
	PLOT SCALE = 28.0000 ' / in.	CHECKED - NAK	REVISED -		SHEET NO. 2 OF 2 SHEETS
	PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	23
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

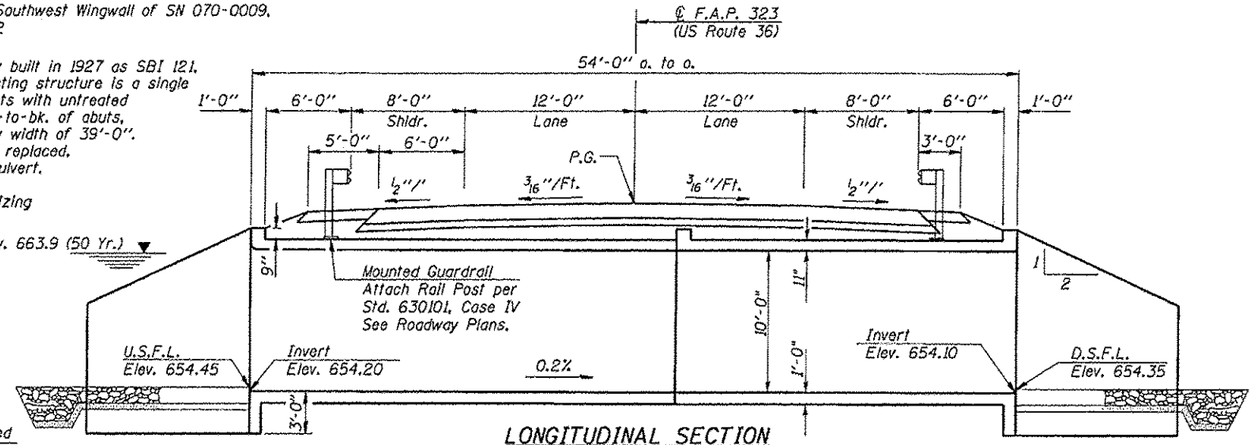
B.M. #4666-1 Chiseled Square on top of Southwest Wingwall of SN 070-0009, Station 316+58.00, 21.91' Rt., Elev. 667.02

Existing Structure: SN 070-0009, originally built in 1927 as SBI 121, Section 142B at Station 316+75. The existing structure is a single span RC T-beam bridge on closed abutments with untreated timber pile supported footings, 33'-0" bk.-to-bk. of abuts, 42'-4" o.-o. of deck with a clear roadway width of 39'-0". The existing structure will be removed and replaced, in stages, with a double 12'x10' CIP box culvert.

Traffic shall be maintained at all times utilizing Stage Construction.

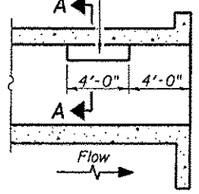
No Salvage.

Note: Precast culvert option will not be allowed at this site.

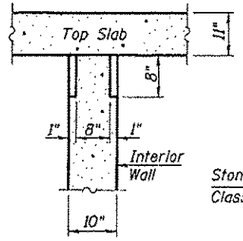


LONGITUDINAL SECTION
(Looking East)

Notch formed by rough finished board attached to and removed with form work, each interior wall. (Do not chamfer).

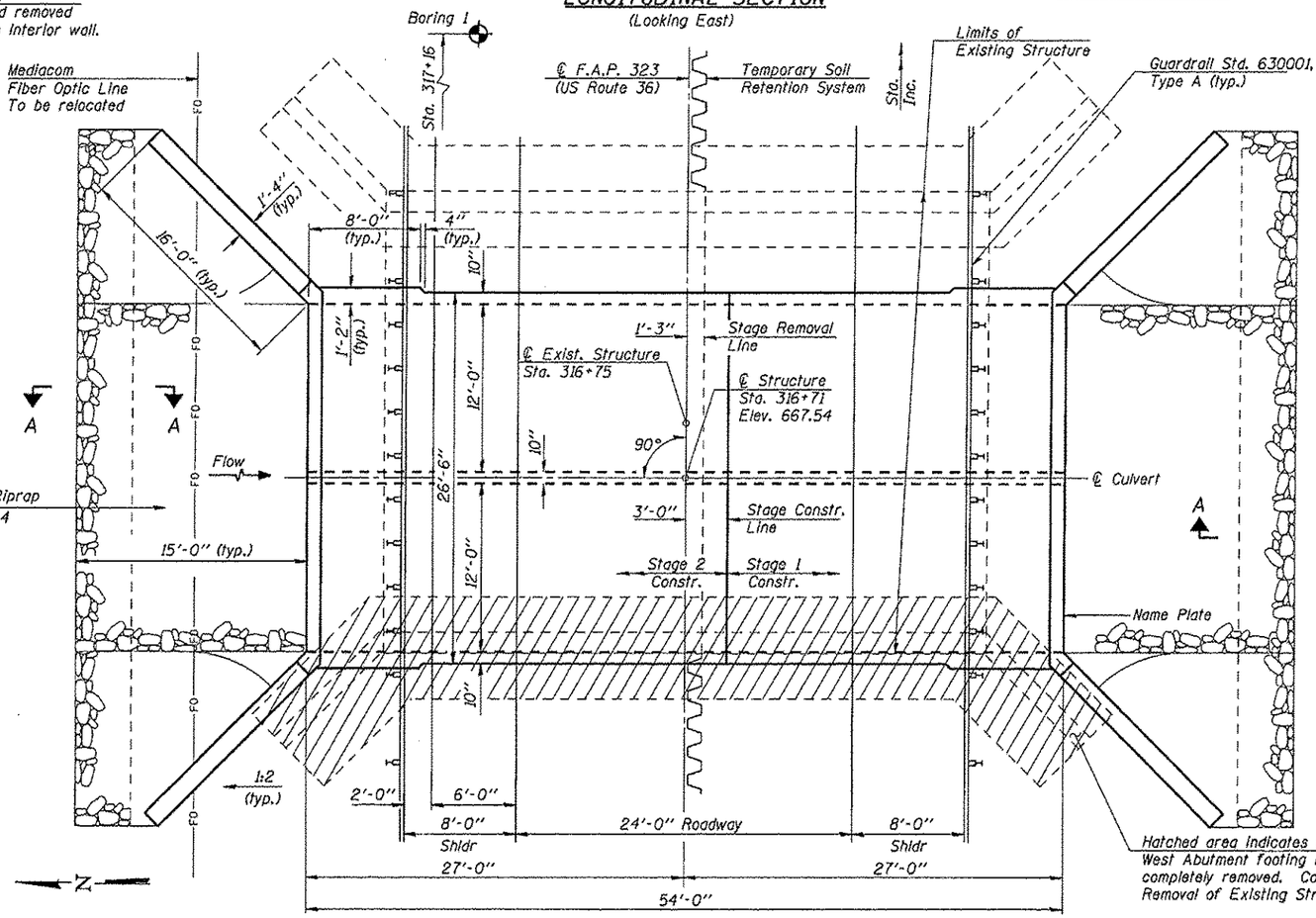


LONGITUDINAL SECTION

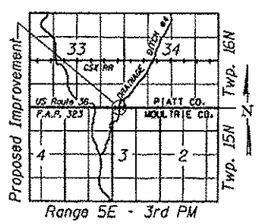


SECTION A-A

PHOEBE NESTING SITE DETAILS
(Downstream End Only)



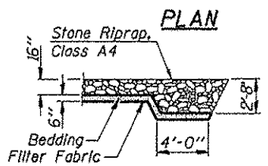
Hatched area indicates that the Existing West Abutment footing is to be to be completely removed. Cost included with Removal of Existing Structures.



LOCATION SKETCH

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	US	DS
	651.20	651.10



PLAN

SECTION A-A

Boring 2

WATERWAY INFORMATION

Drainage Area = 10.3 Sq. Mi. Existing Low Grade Elev: 667.35 ft. ℄ Sta. 316+56.4 Proposed Low Grade Elev: 667.50 ft. ℄ Sta. 316+71

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	534	198	190	662.4	-	0.5	662.4	662.9
Design	50	797	243	226	663.9	0.1	0.7	664.0	664.6
Base	100	905	252	233	664.2	-	1.0	664.2	665.2
Overtopping									
Max. Calc.	500	1159	257	240	665.0	0.3	1.9	665.3	666.9

10 year velocity through existing bridge = 2.85 fps
10 year velocity through proposed culvert = 2.82 fps

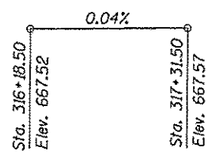
GENERAL NOTES

1. Layout of slope protection system may be varied in field to suit ground conditions as directed by Engineer.

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Stone Riprap, Class A4	Sq. Yd.	138
Filter Fabric	Sq. Yd.	138
Removal of Existing Structures	Each	1
Concrete Box Culverts	Cu. Yd.	198.5
Reinforcement Bars	Pound	37580
Temporary Soil Retention System	Sq. Ft.	307
Name Plates	Each	1
Bar Splicers	Each	142



PROFILE GRADE
(along ℄ F.A.P. Rte. 323)

STATION 316+71
BUILT 20 BY
STATE OF ILLINOIS
F.A.P RTE. 323
SEC. (142BY)BR
LOADING HS20
STR. NO. 070-2018

NAME PLATE
See Std. 515001

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

Allow 50#/Sq. Ft. for future wearing surface

DESIGN STRESSES

f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)

INDEX OF SHEETS

GENERAL PLAN
US ROUTE 36 OVER DRAINAGE DITCH NO. 4
F.A.P. ROUTE 323 SECTION (142BY)BR
MOULTRIE COUNTY
STATION 316+71
STRUCTURE NO. 070-2018

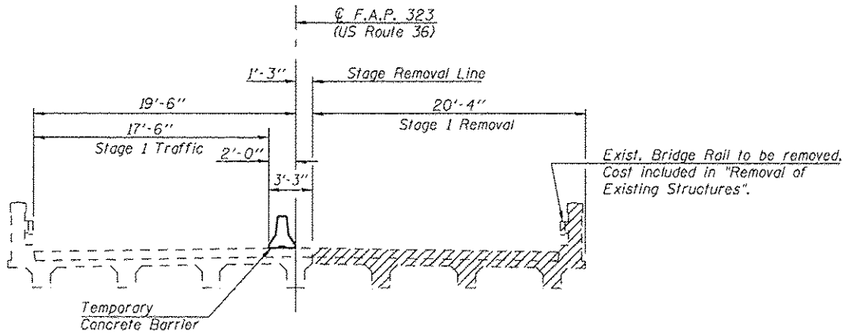
MICHAEL D. CUMMINS
081-004822
LICENSED STRUCTURAL ENGINEER OF SPRINGFIELD
ILLINOIS

Michael D. Cummins (8/6/14)
(Expires 11/30/2014)

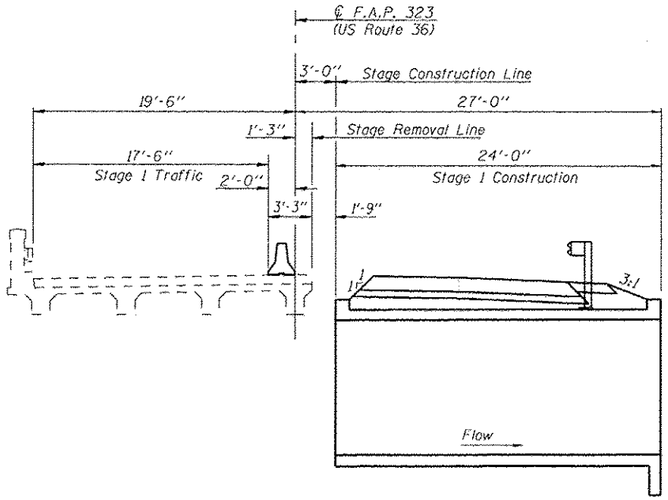
CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2223.1	DESIGNED	A.A.N. & T.S.H.	
FILE = 0702018-74185-001-gpa.dgn	CHECKED	M.D.C.	
DATE = 8/6/2014	DRAWN	T.S.H.	
	CHECKED	M.D.C.	

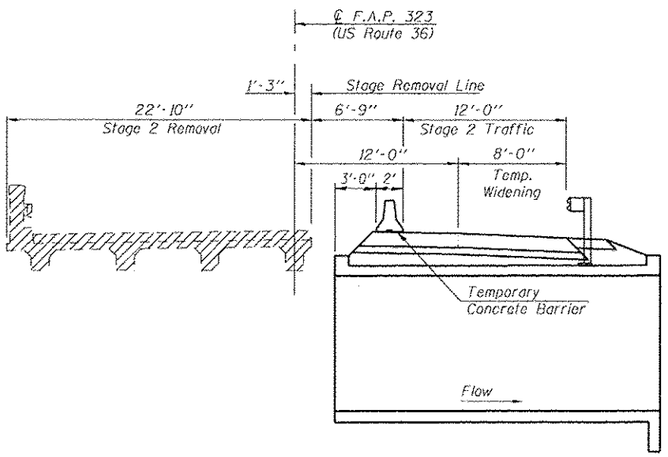
Sheet	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1 of 7	323	(142BY)BR	MOULTRIE	35	24
			CONTRACT NO. 74165		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



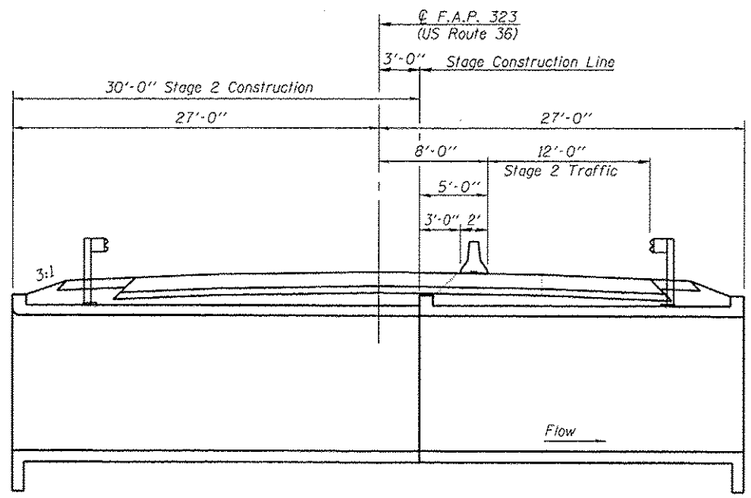
STAGE 1 REMOVAL
(Looking East)



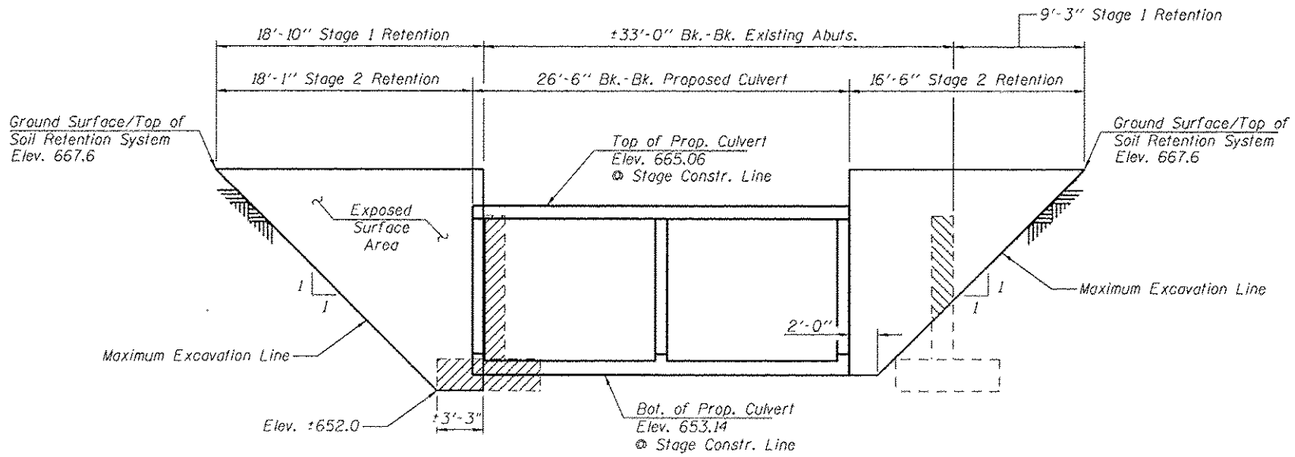
STAGE 1 CONSTRUCTION
(Looking East)



STAGE 2 REMOVAL
(Looking East)



STAGE 2 CONSTRUCTION
(Looking East)



TEMPORARY SOIL RETENTION SYSTEM
(Looking North)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Temporary Soil Retention System	Sq. Ft.	307

Notes:

Hatched areas indicate Removal of Existing Structures.
For details of Temporary Concrete Barrier, see sheet 5 of 7.
See Roadway Plans for quantity of Temporary Concrete Barrier.

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

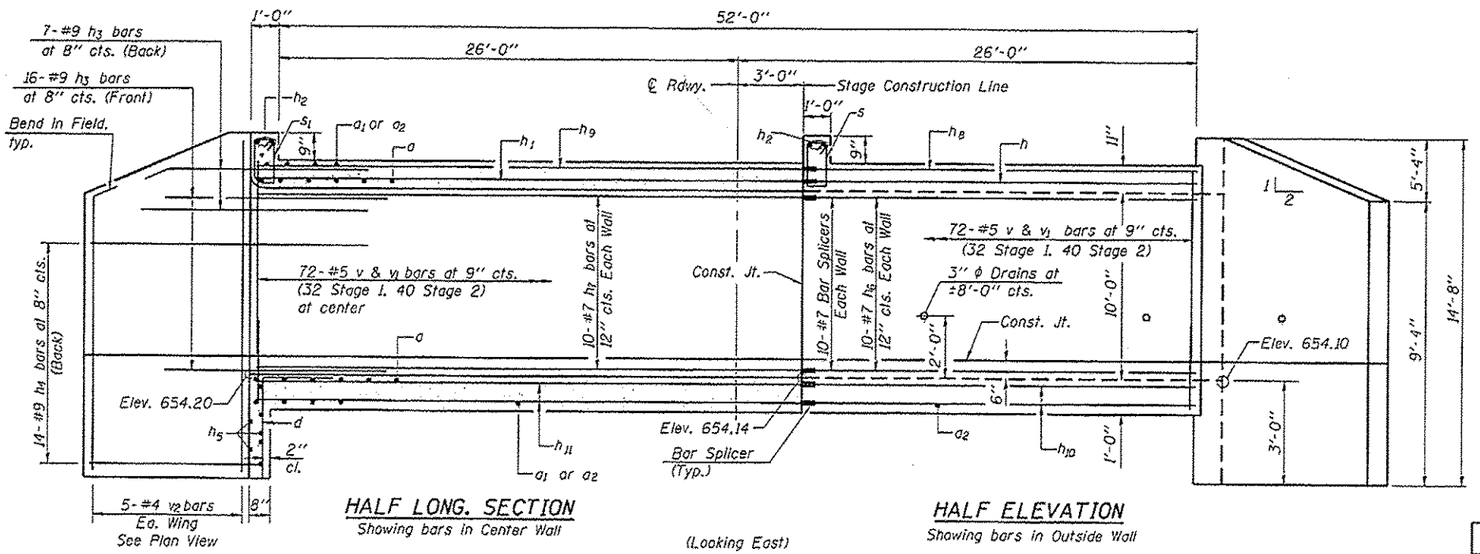
CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2223.1	DESIGNED A.A.N. & T.S.H.
FILE = 0702018-74165-002-stage.dgn	CHECKED M.D.C.
DATE = 8/11/2014	DRAWN T.S.H.
	CHECKED M.D.C.

STAGE CONSTRUCTION DETAILS & TEMPORARY SOIL RETENTION SYSTEM STRUCTURE NO. 070-2018

Sheet 2 of 7

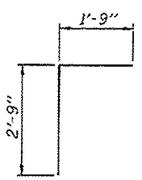
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY)BR	MOULTRIE	35	25
		CONTRACT NO. 74165		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



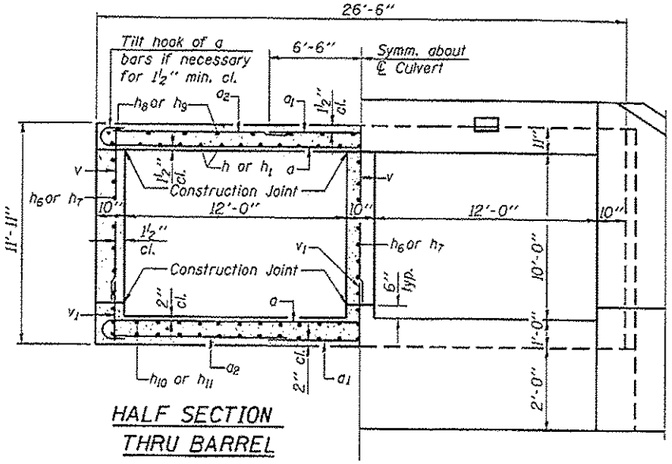
HALF LONG. SECTION
Showing bars in Center Wall

(Looking East)

HALF ELEVATION
Showing bars in Outside Wall

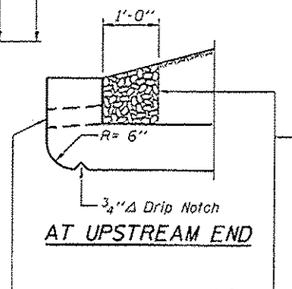


BAR d



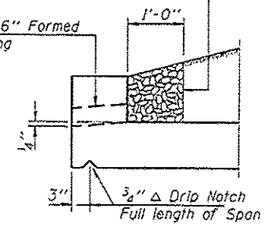
HALF SECTION THRU BARREL

HALF END ELEVATION



AT UPSTREAM END

Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cost included with Concrete Box Culverts.

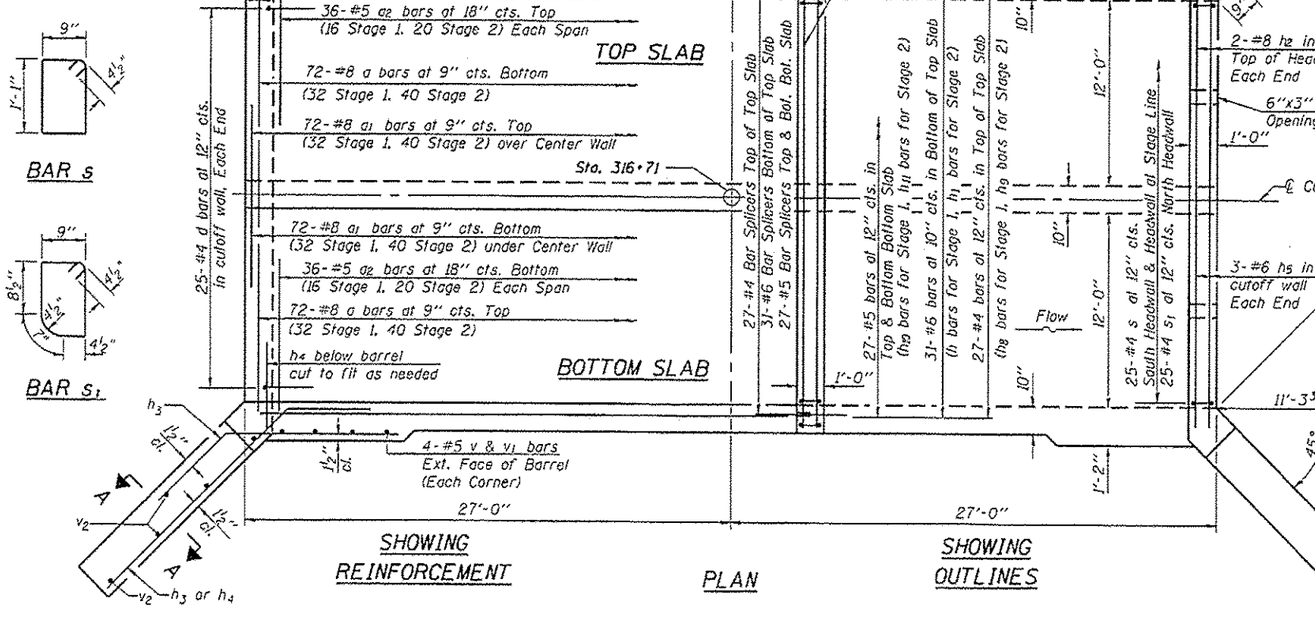


AT DOWNSTREAM END

DRAIN DETAIL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	144	#8	28'-0"	
a1	144	#8	13'-0"	
a2	72	#5	8'-9"	
d	50	#4	4'-6"	
h	31	#6	23'-9"	
h1	31	#6	29'-9"	
h2	6	#8	26'-2"	
h3	92	#9	11'-0"	
h4	56	#9	19'-0"	
h5	6	#6	26'-2"	
h6	30	#7	23'-9"	
h7	30	#7	29'-9"	
h8	27	#4	23'-9"	
h9	27	#4	29'-9"	
h10	54	#5	23'-9"	
h11	54	#5	29'-9"	
v	232	#5	10'-3"	
v1	232	#5	2'-8"	
v2	20	#4	14'-5"	
s	50	#4	4'-5"	
s1	25	#4	4'-3"	
Concrete Box Culverts			Cu. Yd.	198.5
Reinforcement Bars			Pound	37580



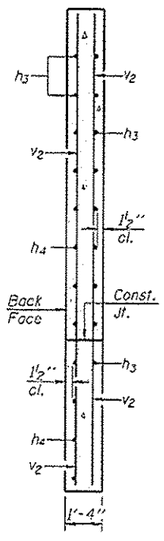
SHOWING REINFORCEMENT

PLAN

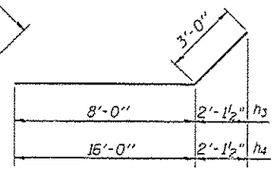
SHOWING OUTLINES

BAR s

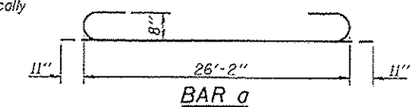
BAR s1



SECTION A-A



BARS h3 & h4



BAR a

Notes: A minimum distance of 8 feet of the barrel shall be poured monolithically with the wingwalls.

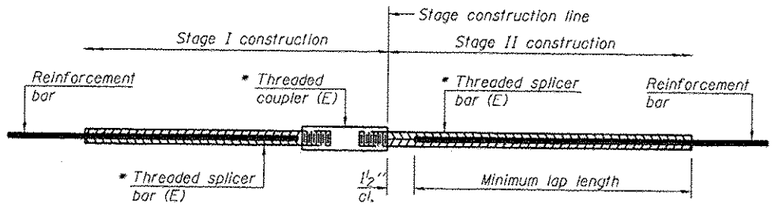
DB-H-0 10-1-08

CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2223.1		DESIGNED	A.A.H. & T.S.H.
FILE = 0702018-74165-003-culvert.dgn		CHECKED	M.D.C.
DATE = 8/11/2014		DRAWN	T.S.H.
		CHECKED	M.D.C.

CULVERT DETAILS
STRUCTURE NO. 070-2018

Sheet 3 of 7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	323	(142BY)BR	MOULTRIE	35	26
			CONTRACT NO. 74165		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

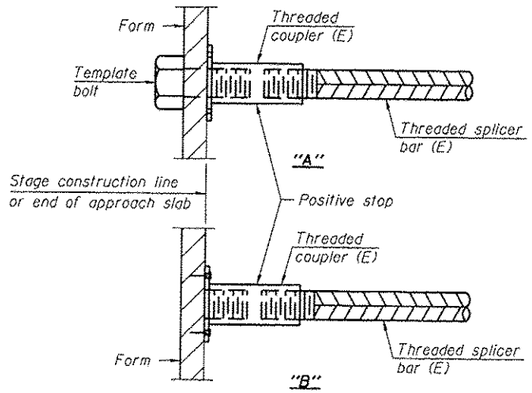
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar lap, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

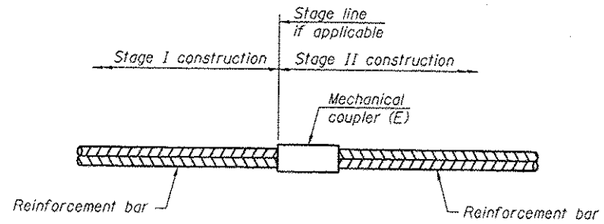
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top Slab	#4	27	Table 1
Top Slab	#6	31	Table 1
Bottom Slab	#5	54	Table 1
Barrel wall	#7	30	Table 2



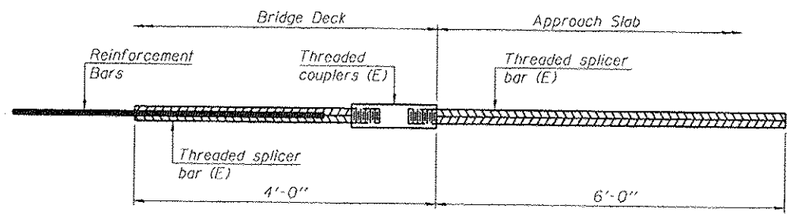
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



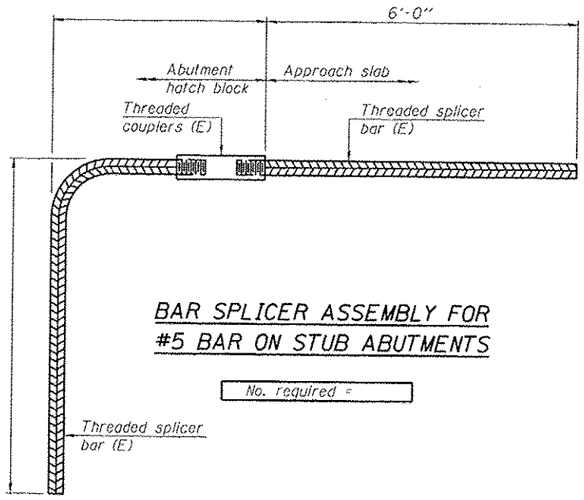
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BAR SPLICER ASSEMBLY DETAILS STRUCTURE NO. 070-2018

BSD-1

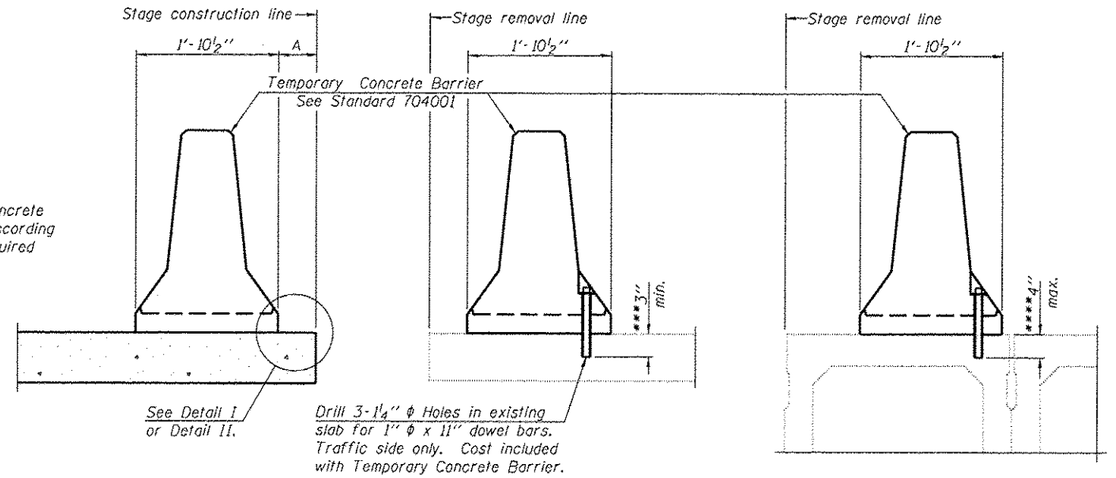
1-27-12

CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2223.1	DESIGNED A.A.N. & T.S.H.
FILE = 0702018-74165-004-barspl.dgn	CHECKED M.D.C.
DATE = 8/11/2014	DRAWN T.S.H.
	CHECKED M.D.C.

Sheet 4 of 7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	323	(142BY)BR	MOULTRIE	35	27
			CONTRACT NO. 74165		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel ℄ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel ℄ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

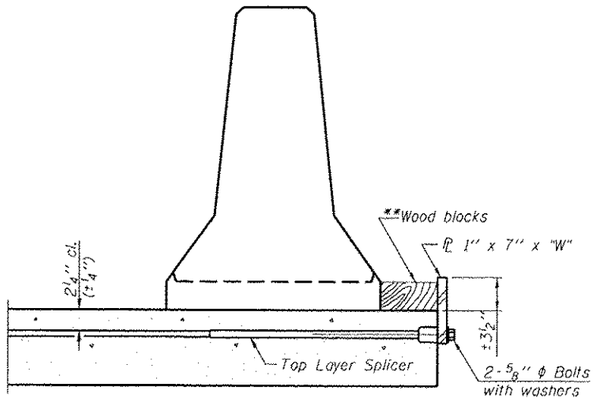
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

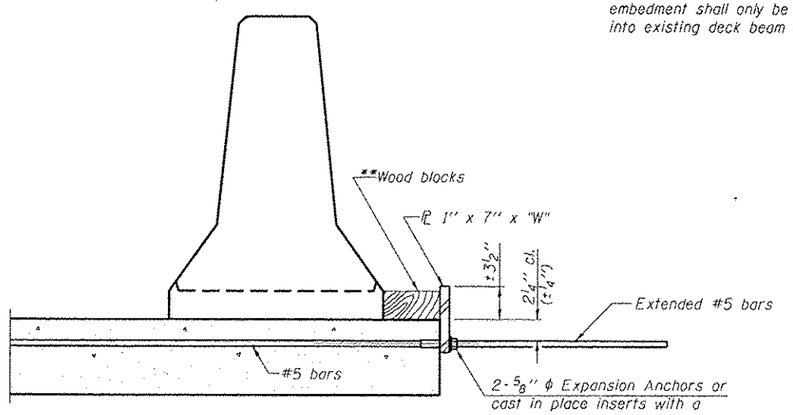
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



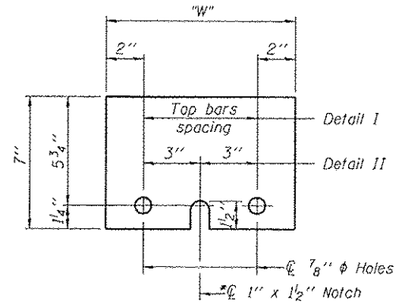
DETAIL I



DETAIL II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"



STEEL RETAINER ℄ 1" x 7" x "W"

* Required only with Detail II

R-27 7-1-10

CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2223.1		DESIGNED	A.A.N. & T.S.H.
FILE = 0702018-74165-005-barrier.dgn		CHECKED	M.D.C.
DATE = 8/11/2014		DRAWN	T.S.H.
		CHECKED	M.D.C.

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 070-2018

Sheet 5 of 7

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY)BR	MOULTRIE	35	28
		CONTRACT NO. 74165		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/11/05

ROUTE FAP 323 (US 36) DESCRIPTION 2 Miles West of Hammond Over Drainage Ditch #4 LOGGED BY CNA

SECTION (142BY)BR LOCATION NE, SEC. 3, TWP. 15N, RNG. 5E, PM

COUNTY Moultrie DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 070-0009
Station 316+75

BORING NO. 1 Northeast Abut.
Station 317+16
Offset 15.00ft Lt.
Ground Surface Elev. 667.5 ft

Surface Water Elev. 655.3 ft
Stream Bed Elev. 655.1 ft

Groundwater Elev.:
First Encounter 640.0 ft
Upon Completion Wash Bored ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Pavement 667.50			
665.50			
Dark Gray/Black Mottled Silty Clay Loam (Embankment)	2		
	1	1.2	23
-5	2	B	
	1		
660.50	2	1.4	25
Dark Gray Sandy Clay Loam Till	3	B	
659.00			
Gray/Brown Mottled Sandy Clay Loam Till (Trace of Free Water)	1		
	1	1	20
-10	2	B	
	2		
655.50	6	4.3	13
Gray Sandy Clay Loam Till	7	B	
	8		
	13		
(No Sample Obtained) -15	17		
651.50			
Dark Gray to Gray Sandy Clay Loam Till	6		
	10	9.9	10
	17	B	
	3		
-20	11	10.3	9
	17	S	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Dark Gray to Gray Sandy Clay Loam Till (continued)	28		
	39		
642.50 -25	36		
Dark Gray to Gray Sand Loam Till (Large Angular Gravel - Drilled Rough)			
640.00			
Gray Medium Sand	12		
638.50			
Dark Brown Clay to Clay Loam	17	4.8	21
-30	20	S	
636.50			
Brown Dirty Very Coarse Sand & Gravel with Traces of Sandy Clay Loam Till (Drilled Rough)	11		
	17		
-35	19		
630.50			
Brown Well Sorted Coarse Sand	6		
	6		
-40	6		

Latitude, Longitude, Map Datum

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/11/05

ROUTE FAP 323 (US 36) DESCRIPTION 2 Miles West of Hammond Over Drainage Ditch #4 LOGGED BY CNA

SECTION (142BY)BR LOCATION NE, SEC. 3, TWP. 15N, RNG. 5E, PM

COUNTY Moultrie DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 070-0009
Station 316+75

BORING NO. 1 Northeast Abut.
Station 317+16
Offset 15.00ft Lt.
Ground Surface Elev. 667.5 ft

Surface Water Elev. 655.3 ft
Stream Bed Elev. 655.1 ft

Groundwater Elev.:
First Encounter 640.0 ft
Upon Completion Wash Bored ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown Well Sorted Coarse Sand (continued)			
624.50			
Gray Sandy Clay Loam Till	36		
	50-4"		6
-45			
(Pulled Augers/Re-drilled Hole - 6' of Blow In)			
	48		
	50-3"		6
(Auger Refusal) 617.50 -50			
-55			
-60			

Latitude, Longitude, Map Datum

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

BORING LOGS
STRUCTURE NO. 070-2018

CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2223.1	DESIGNED A.A.N. & T.S.H.
FILE = 22231borings.dgn	CHECKED M.D.C.
DATE = 4/29/2009	DRAWN T.S.H.
	CHECKED M.D.C.

Sheet 6 of 7

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY)BR	MOULTRIE	35	29
		CONTRACT NO. 74165		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/16/05

ROUTE FAP 323 (US 36) DESCRIPTION 2 Miles West of Hammond Over Drainage Ditch #4 LOGGED BY CNA

SECTION (142BY)BR LOCATION NE, SEC. 3, TWP. 15N, RNG. 5E, PM

COUNTY Moultrie DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 070-0009
Station 316+75

BORING NO. 2 Southwest Abut.
Station 316+32
Offset 15.00ft Rt.
Ground Surface Elev. 667.6 ft

Surface Water Elev. 655.3 ft
Stream Bed Elev. 655.1 ft

Groundwater Elev.:
First Encounter 652.1 ft
Upon Completion Wash Bored ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Latitude . Longitude . Map Datum
Pavement				
665.60				
Brown/Black Mottled Silty Clay Loam (Embankment)				
	2			
	3			
-5	2			
	2			
660.60	2	1	28	
Gray/Brown Mottled Sandy Clay Loam	3	B		
	1			
	1	0.9	27	
657.60 -10	2	B		
Dark Gray Sandy Clay Loam with Trace Organics	1			
655.60	1		42	
Dark Gray / Brown Sandy Clay Loam Till	5			
	6			
	9	7.4	10	
-15	16	B		
652.10				
Gray Dirty Very Coarse Sand with Angular Gravel with Traces of Sandy Clay Loam Till	10			
	16			
	26			
649.60				
Gray Fine Sand to Silt	8			
	11			
-20	10			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Fine Sand to Silt (continued)			
645.60			
Gray Moderately Sorted Coarse Sand with Trace of Gravel	10		
	11		32
643.10 -25	9		
Brown Slightly Organic Silty Clay to Silt			
640.60			
Dark Gray to Brown Sand Loam Till	4		
	8	7	11
-30	11	S	
636.60			
Gray Sandy Clay Loam Till	6		
	11		13
-35	14		
	15		
	23		13
-40	24		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 8/16/05

ROUTE FAP 323 (US 36) DESCRIPTION 2 Miles West of Hammond Over Drainage Ditch #4 LOGGED BY CNA

SECTION (142BY)BR LOCATION NE, SEC. 3, TWP. 15N, RNG. 5E, PM

COUNTY Moultrie DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 070-0009
Station 316+75

BORING NO. 2 Southwest Abut.
Station 316+32
Offset 15.00ft Rt.
Ground Surface Elev. 667.6 ft

Surface Water Elev. 655.3 ft
Stream Bed Elev. 655.1 ft

Groundwater Elev.:
First Encounter 652.1 ft
Upon Completion Wash Bored ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Latitude . Longitude . Map Datum
Gray Sandy Clay Loam Till (continued)				
	24			
	38		8	
622.60 -45	45			
-50				
-55				
-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

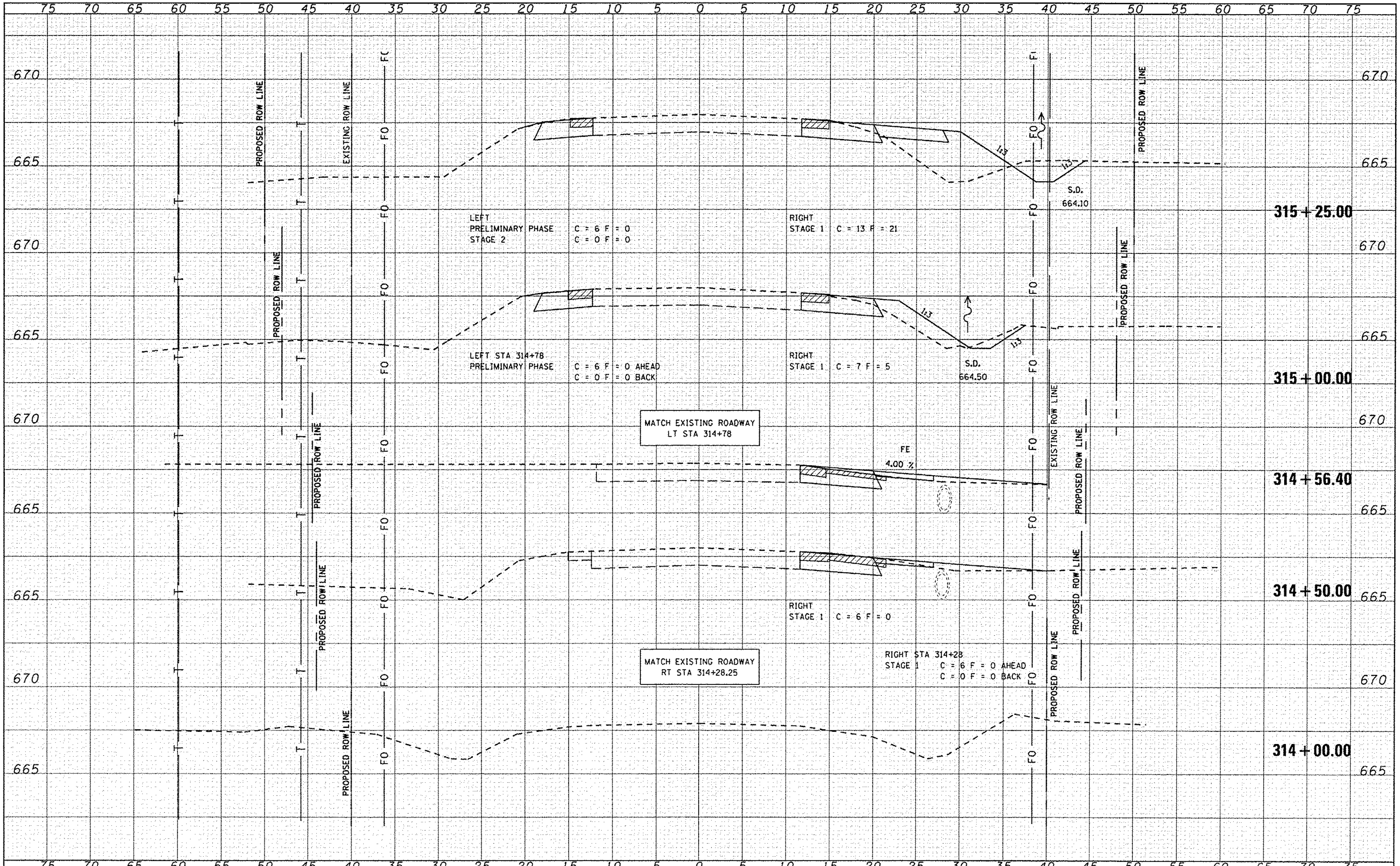
BBS, from 137 (Rev. 8-99)

CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2223.1	DESIGNED A.A.N. & T.S.H.
FILE = 22231borings.dgn	CHECKED M.D.C.
DATE = 4/29/2009	DRAWN T.S.H.
	CHECKED M.D.C.

BORING LOGS
STRUCTURE NO. 070-2018

Sheet	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7 of 7	323	(142BY)BR	MOULTRIE	35	30
			CONTRACT NO. 74165		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB = 2223.1	DESIGNED - NAK	REVISED -
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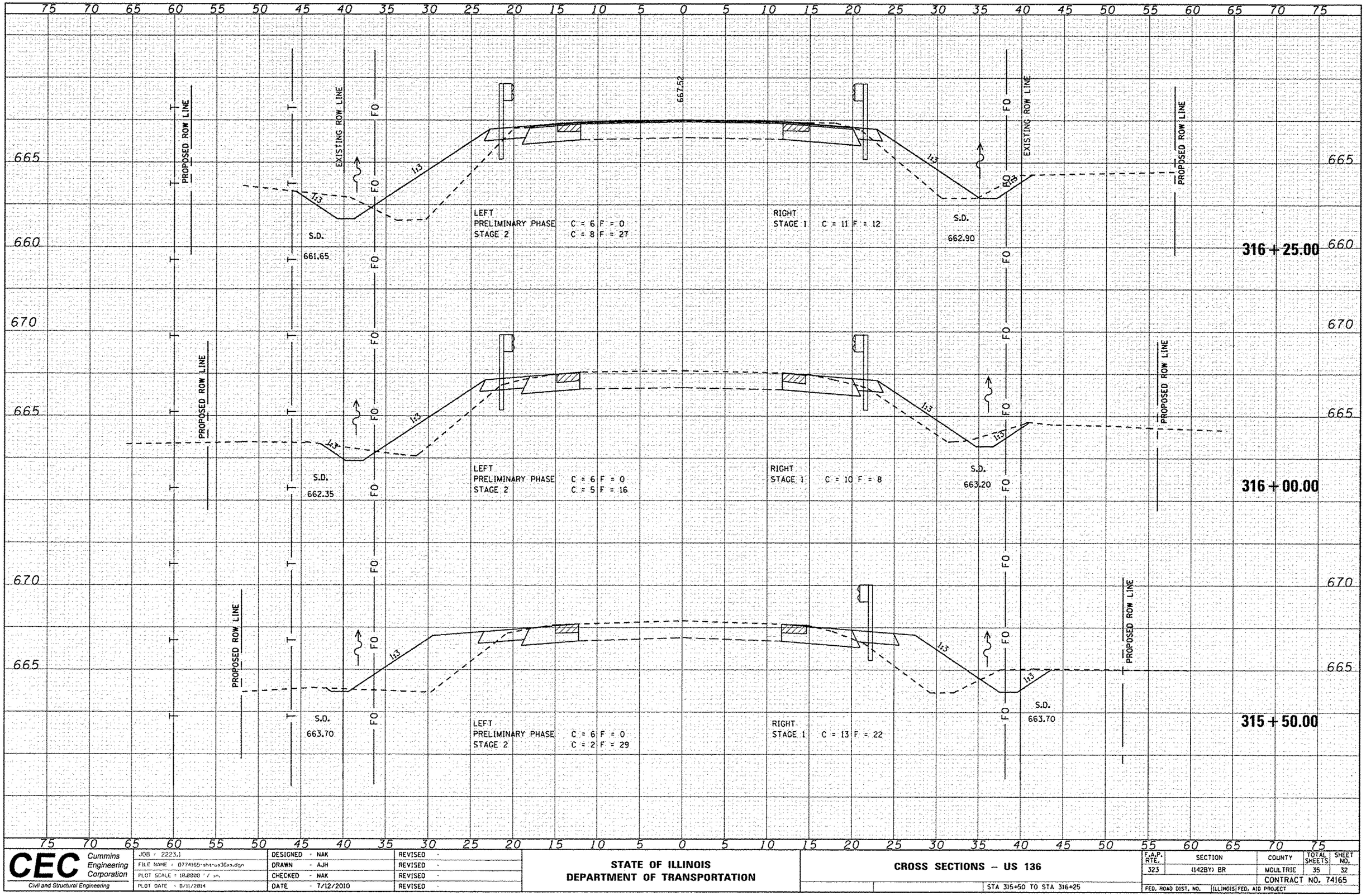
	PLOT SCALE = 10.0000 ' / in.	CHECKED - NAK	REVISED -
	PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – US 136

STA 314+00 TO STA 315+25

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	31
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

CEC Cummins Engineering Corporation
Civil and Structural Engineering

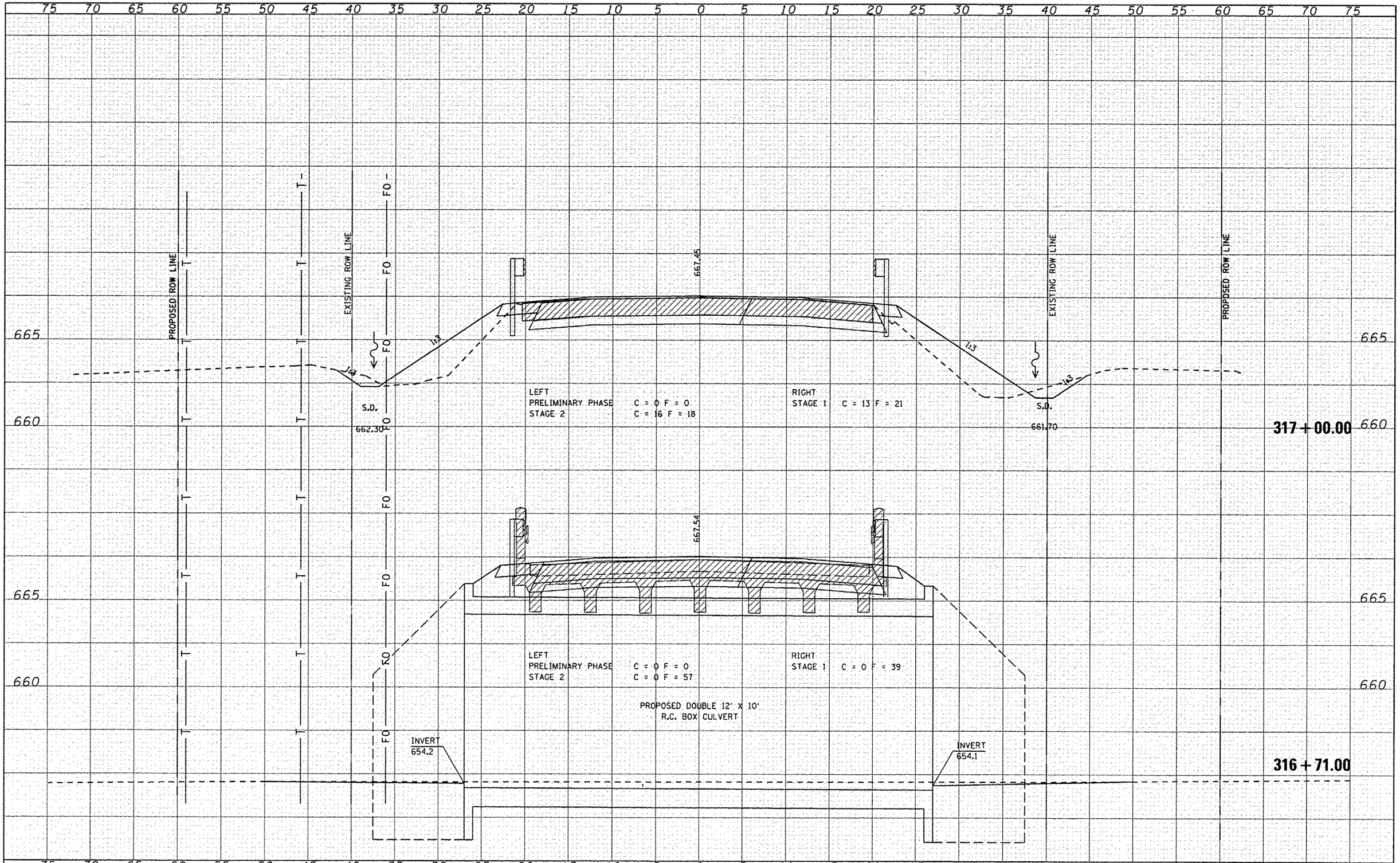
JOB # 2223.1	DESIGNED - NAK	REVISED -
FILE NAME = 0774165-sht-us36xs.dgn	DRAWN - AJH	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - NAK	REVISED -
PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – US 136

STA 315+50 TO STA 316+25

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	32
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



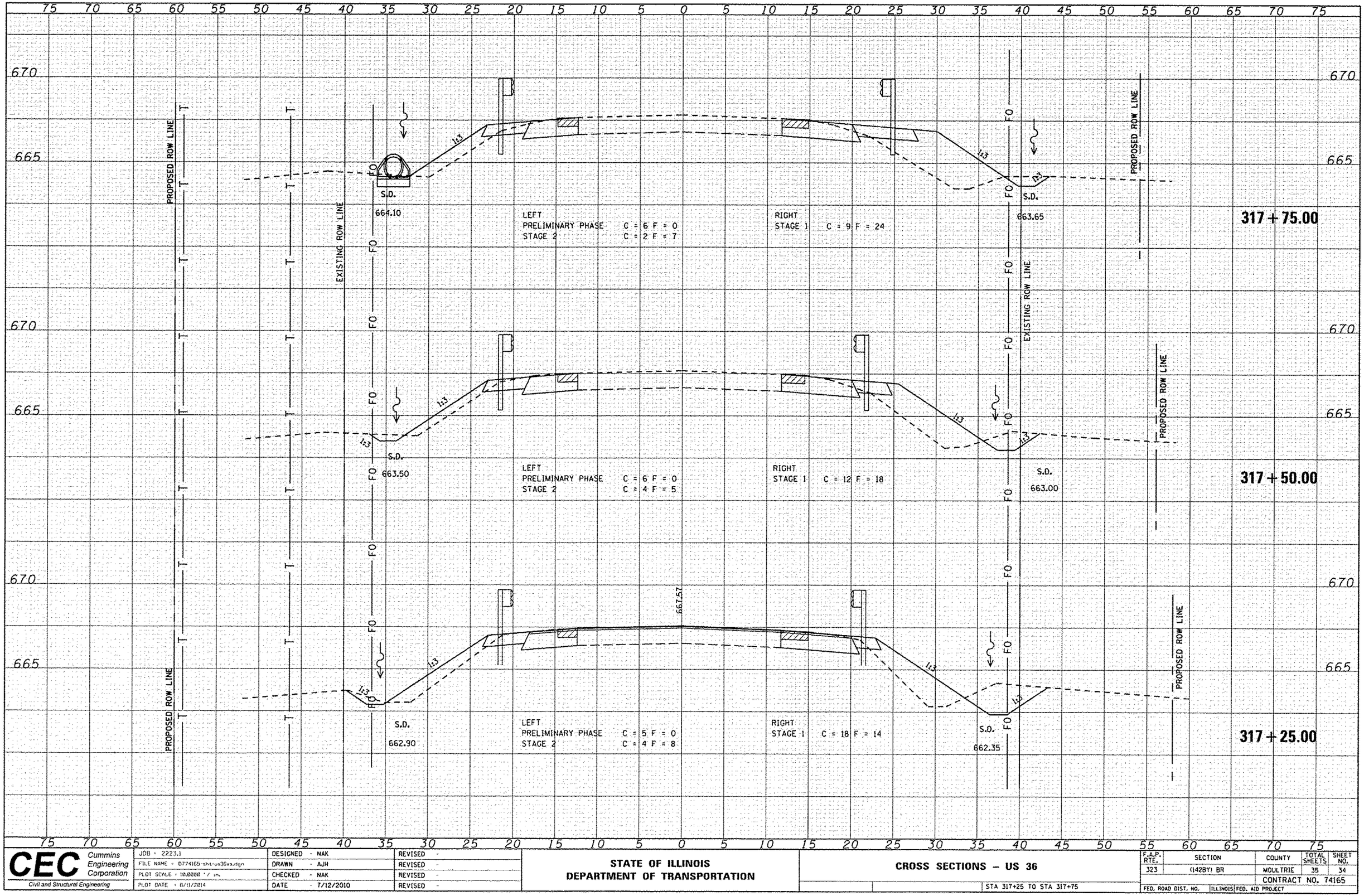
CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB = 2223.1	DESIGNED - NAK	REVISED -
	FILE NAME = D774165-sht-us36xs.dgn	DRAWN - AJH	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED - NAK	REVISED -
	PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – US 36

STA 316+71 TO STA 317+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	33
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



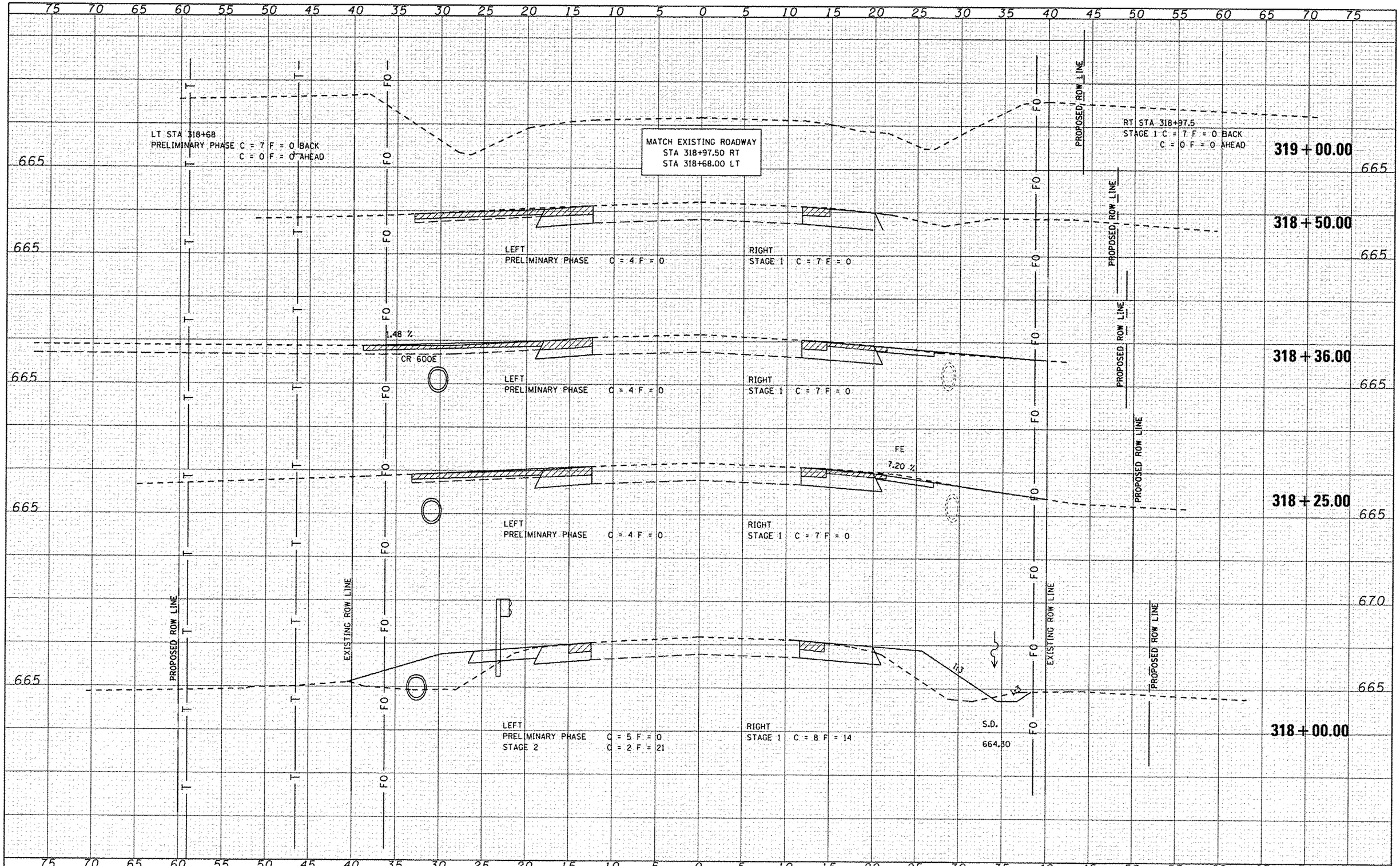
CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB = 2223.1	DESIGNED - NAK	REVISED -
	FILE NAME = 0774165-sht-us36xs.dgn	DRAWN - AJH	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED - NAK	REVISED -
	PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS – US 36

STA 317+25 TO STA 317+75

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	34
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CEC Cummins Engineering Corporation — Civil and Structural Engineering	JOB = 2223.1	DESIGNED - NAK	REVISED -
	FILE NAME = 0774165-sht-us36xs.dgn	DRAWN - AJH	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED - NAK	REVISED -
	PLOT DATE = 8/11/2014	DATE - 7/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORATION

CROSS SECTIONS – US 36

STA 318+00 TO STA 319+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
323	(142BY) BR	MOULTRIE	35	35
		CONTRACT NO. 74165		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY — NOTE BOOK — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE — NO.

ORIGINAL SURVEY — NOTE BOOK — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE — NO.