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11-09-2018 LETTING ITEM 026

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

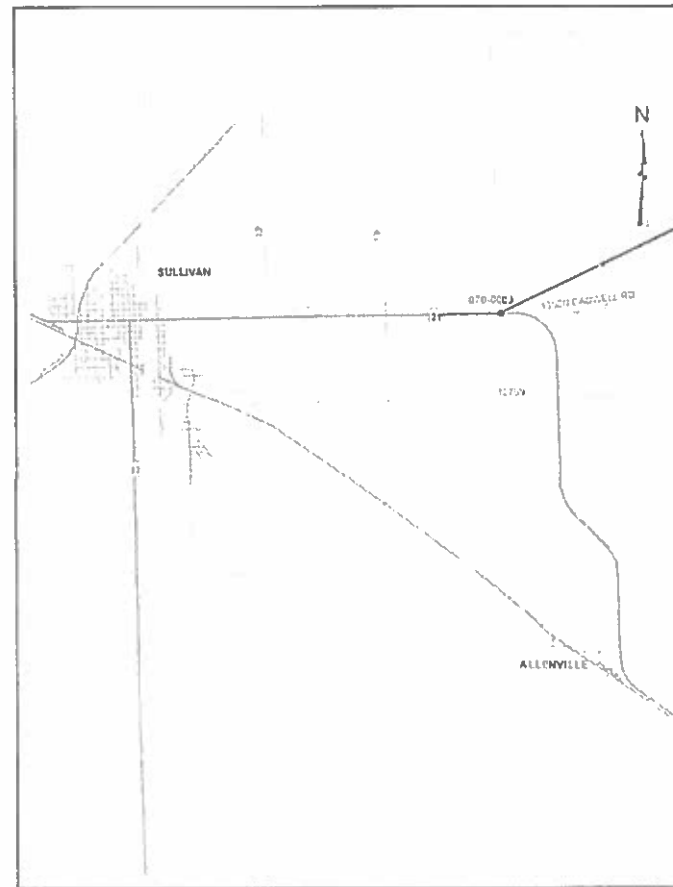
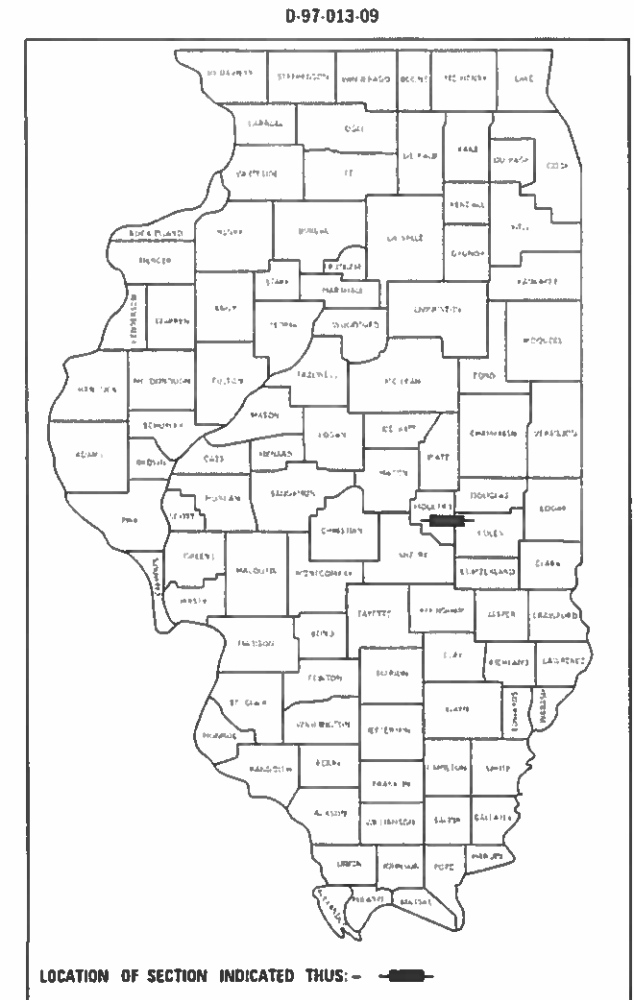
F.A.P. R.T.C.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	3
		ILLINOIS	CONTRACT NO 74358	

PROPOSED HIGHWAY PLANS

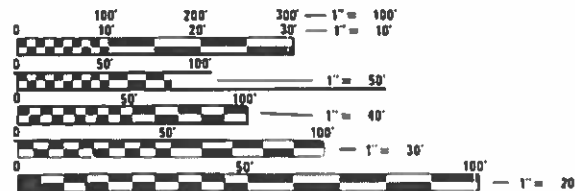
FOR INDEX OF SHEETS, SEE SHEET NO. 2
ADT = 5,800 (2017), 13.4% TRUCKS

F.A.P. ROUTE 320 (ILL 121)
SECTION (104BR)BR-1
PROJECT NHPP-F03L(468)
BRIDGE SUPERSTRUCTURE, BRIDGE WIDENING
MOULTRIE COUNTY

C-97-036-09



EXISTING SN 070-0003
PROPOSED SN 070-0003
STA. 138+26.29
223' - 0" BK. TO BK. ABUTMENTS



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

PROJECT ENGINEER: TOM RONAN (217) 342-8320
PROJECT MANAGER: RUSS WALKER (217) 342-8258

CONTRACT NO. 74358

GROSS LENGTH = 782.00 FT. = 0.148 MILE
NET LENGTH = 782.00 FT. = 0.148 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 07 2018
Jeffrey M. South
REGIONAL ENGINEER

Oct 5 2018
Paul P. [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 5 2018
Paul P. [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS & GENERAL NOTES
3-6	SUMMARY OF QUANTITIES
7-12	TYPICAL SECTIONS
13-14	SCHEDULES OF QUANTITIES
15-17	PLAN & PROFILE SHEETS
18-23	SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL
24-27	DETAILS
28-63	BRIDGE PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED FOLLOWING SHEET NUMBER 63.

STD 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
420401-12	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
421001-03	BAR REINFORCEMENT FOR CRC PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
630001-12	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-08	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-15	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE - SHORT TERM OPERATIONS
701316-12	LANE CLOSURE, 2L, 2W BRIDGE REPAIR, FOR SPEEDS ≥ 45 MPH
701321-17	LANE CLOSURE 2L, 2W BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-07	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

THE WORK INCLUDED IN SECTION (104BR)BR-1 CONSISTS OF BASE COURSE WIDENING, SUBSTRUCTURE WIDENING OF STRUCTURE NUMBER 070-0003, THE REMOVAL AND REPLACEMENT OF THE SUPERSTRUCTURE AND DECK, BRIDGE APPROACH PAVEMENTS, HOT-MIX ASPHALT RESURFACING, RIPRAP, GUARDRAIL, TRAFFIC CONTROL, PAVEMENT MARKING, AND ANY OTHER WORK NECESSARY TO COMPLETE THE SECTION. THE WORK SHALL BE COMPLETED UTILIZING STAGE CONSTRUCTION WITH TEMPORARY TRAFFIC SIGNALS. THE EXISTING STRUCTURE NUMBER 070-0003, CARRIES ILLINOIS ROUTE 121 OVER JONATHAN CREEK AND IS LOCATED APPROXIMATELY 3 MILES EAST OF SULLIVAN IN MOULTRIE COUNTY.

ALL ELEVATIONS REFER TO U.S.G.S. DATUM AT MEAN SEA LEVEL UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESSIBILITY TO THE HOT-MIX ASPHALT PLANT QUALITY CONTROL LAB SO THAT HOT-MIX ASPHALT PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL HOT-MIX ASPHALT ITEMS.

THE MATERIAL USED FOR AGGREGATE WEDGE SHOULDERS, TYPE B SHALL BE CRUSHED STONE, CRUSHED CONCRETE, OR RAP.

THE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321 SHALL BE REMOVED. THE REMOVED MARKINGS WILL BE PAID FOR AS PAVEMENT MARKING REMOVAL-WATER BLASTING. A QUANTITY OF BLACKOUT TAPE IS INCLUDED TO COVER CONFLICTING PAVEMENT MARKINGS OUTSIDE OF RESURFACING LIMITS.

WHEN APPLYING SHORT TERM PAVEMENT MARKINGS, TEMPORARY TAPE SHALL BE USED ON THE SURFACE COURSE AND PAINT SHALL BE USED ON MILLED SURFACES.

REMOVAL AND REPLACEMENT OF ROADWAY SIGNS IS INCLUDED IN THE COST OF THE CONTRACT.

QUANTITY OF SEEDING INCLUDED IN THE PLANS FOR REESTABLISHING VEGETATION WHERE SOIL IS DISTURBED DURING CONSTRUCTION ACTIVITIES.

THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND SHOULD BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF FACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 48 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING (800) 892-0123.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN THE CALCULATING OF PLAN QUANTITIES:

AGGREGATE SHOULDERS & RIPRAP	2.05 TONS/CU. YD.
HOT-MIX ASPHALT	112 LBS./SQ. YD/INCH

APPLICATION	AC/PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE	QUALITY MANAGEMENT
HMA SURFACE COURSE, MIX "D", N90 (1 1/2")	PG 64-22	4.0% @ N=90	IL - 9.5	MIXTURE D	QC/OA
HMA LEVEL BINDER, MACHINE METHOD, N90FG, (3/4")	PG 64-22	4.0% @ N=90	IL - 9.5FG	N/A	QC/OA
CLASS "D" PATCHING	PG 64-22	4.0% @ N=90	IL - 19.0	N/A	QC/OA
HMA SHOULDERS, SPECIAL, CRUSHED GRAVEL, TOP 1 1/2" LIFT	PG 64-22	4.0% @ N=90	IL - 9.5	MIXTURE C	QC/OA
HMA SHOULDERS, 8 1/2" & 10" (BOTTOM LIFTS)	PG 64-22	4.0% @ N=90	IL - 19.0	N/A	QC/OA

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, LIST OF ILLINOIS DOT
HIGHWAY STANDARDS, GENERAL NOTES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	2
			CONTRACT NO. 74358	
		ILLINOIS	FED. AID PROJECT	

80% FED
20% STATE

80% FED
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		MOULTRIE 0013		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	61	61		
20101000	TEMPORARY FENCE	FOOT	113	113		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	35	35		
28000400	PERIMETER EROSION BARRIER	FOOT	400	400		
28100109	STONE RIPRAP, CLASS A5	SO YD	262	262		
28100805	STONE DUMPED RIPRAP, CLASS A3	TON	190	190		
28200200	FILTER FABRIC	SO YD	262	262		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1153	1153		
40600647	LEVELING BINDER (MACHINE METHOD), IL-9.5FG, N90	TON	50	50		
40600990	TEMPORARY RAMP	SO YD	62	62		
40603345	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	100	100		
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SO YD	263	263		
42100615	PAVEMENT REINFORCEMENT	SO YD	263	263		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		MOULTRIE 0013		
44000100	PAVEMENT REMOVAL	SO YD	99	99		
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SO YD	324	324		
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SO YD	485	485		
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SO YD	100	100		
44201807	CLASS D PATCHES, TYPE III, 13 INCH	SO YD	15	15		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	130	130		
48203031	HOT-MIX ASPHALT SHOULDERS, 8 1/2"	SO YD	55	55		
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SO YD	747	747		
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	1		
50102400	CONCRETE REMOVAL	CU YD	42.2	42.2		
50200100	STRUCTURE EXCAVATION	CU YD	244.2	244.2		
50200300	COFFERDAM EXCAVATION	CU YD	113.4	113.4		
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1	1		
50201122	COFFERDAM (TYPE 2) (LOCATION - 2)	EACH	1	1		

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74358	

REV. - MS

80% FED
20% STATE

80% FED
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		MOULTRIE 0013		
50300100	FLOOR DRAINS	EACH	20	20		
50300225	CONCRETE STRUCTURES	CU YD	80.7	80.7		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	340.2	340.2		
50300260	BRIDGE DECK GROOVING	SO YD	1187	1187		
50300265	SEAL COAT CONCRETE	CU YD	40.2	40.2		
50300300	PROTECTIVE COAT	SO YD	1469	1469		
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	118.6	118.6		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1		
50500505	STUD SHEAR CONNECTORS	EACH	5346	5346		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	140520	140520		
50800515	BAR SPLICERS	EACH	1056	1056		
51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	265	265		
51202305	DRIVING PILES	FOOT	265	265		
51203200	TEST PILE METAL SHELLS	EACH	2	2		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		MOULTRIE 0013		
51500100	NAME PLATES	EACH	1	1		
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12	12		
52100520	ANCHOR BOLTS, 1"	EACH	36	36		
52100530	ANCHOR BOLTS, 1 1/4"	EACH	12	12		
52200010	TEMPORARY SHEET PILING	SO FT	158	158		
52200020	TEMPORARY SOIL RETENTION SYSTEM	SO FT	69	69		
59100100	GEOCOMPOSITE WALL DRAIN	SO YD	108	108		
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	125	125		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	344	344		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	4
CONTRACT NO. 74358			ILLINOIS FED. AID PROJECT	

80% FED
20% STATE

80% FED
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		MOULTRIE 0013		
67100100	MOBILIZATION	L SUM	1	1		
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	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 DAY	4	4		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	50	50		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	282	282		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	110	110		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1760	1760		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	625	625		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1075	1075		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		MOULTRIE 0013		
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	4		
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1760	1760		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	10	10		
* 78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	12	12		
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SO FT	487	487		
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.25	0.25		
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SO YD	1107	1107		
X4404260	PAVED SHOULDER REMOVAL (SPECIAL)	SO YD	1010	1010		
X4823105	HOT-MIX ASPHALT SHOULDERS, SPECIAL	TON	66	66		
X5210015	ELASTOMERIC BEARING ASSEMBLY, TYPE I (SPECIAL)	EACH	6	6		

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	5
CONTRACT NO. 74358			ILLINOIS FED. AID PROJECT	

80% FED
20% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		MOULTRIE 0013		
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	193	193		
X7015005	CHANGEABLE MESSAGE SIGN	CAL DAY	28	28		
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	586	586		
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	228	228		
Z0004552	APPROACH SLAB REMOVAL	SQ YD	213	213		
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	351	351		
Z0005010	HOT-MIX ASPHALT FOR PATCHING POTHOLES (COLD MIX)	TON	2	2		
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	55	55		
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	5	5		
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	57	57		
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	50	50		
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	190	190		
Z0049799	PROTECTING OR RESETTNG SURVEY MARKERS	EACH	1	1		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT				

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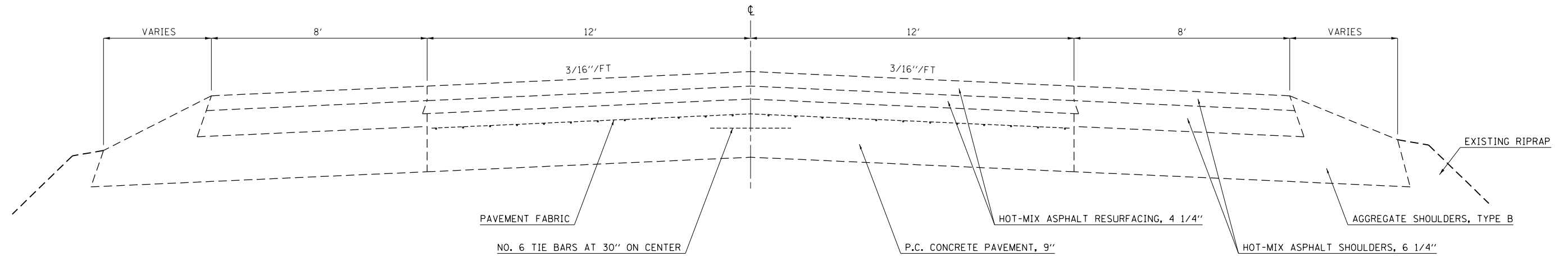
**STATE OF ILLINOIS
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SUMMARY OF QUANTITIES			
SCALE:	SHEET 4	OF 4	SHEETS STA.
			TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	6
			CONTRACT NO. 74358	
			ILLINOIS FED. AID PROJECT	

EXISTING TYPICAL CROSS SECTION

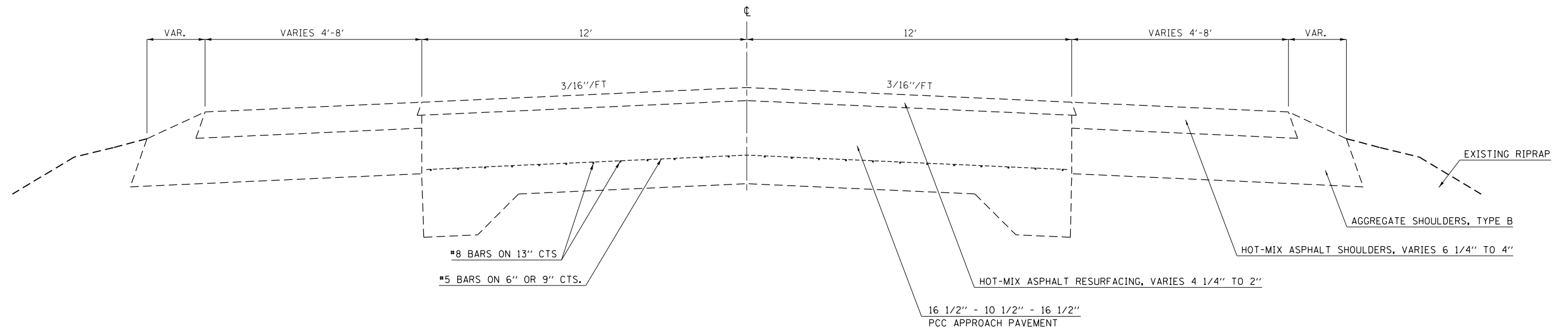
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*STA. 142+11 TO STA. 142+22 IN TRANSITION.

EXISTING TYPICAL CROSS SECTION

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**STATE OF ILLINOIS
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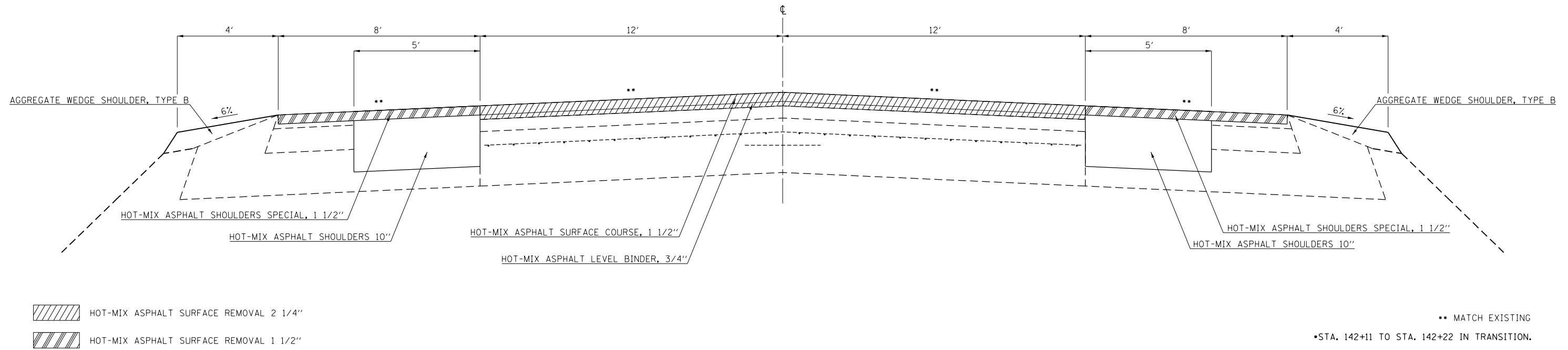
TYPICAL CROSS SECTIONS

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

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CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

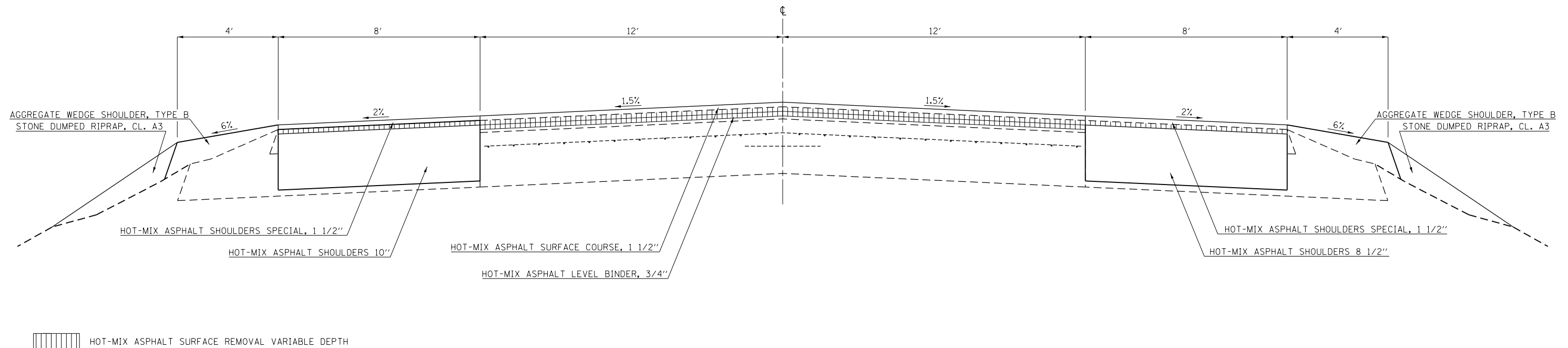
PROPOSED TYPICAL CROSS SECTION

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PROPOSED TYPICAL CROSS SECTION

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STATE OF ILLINOIS
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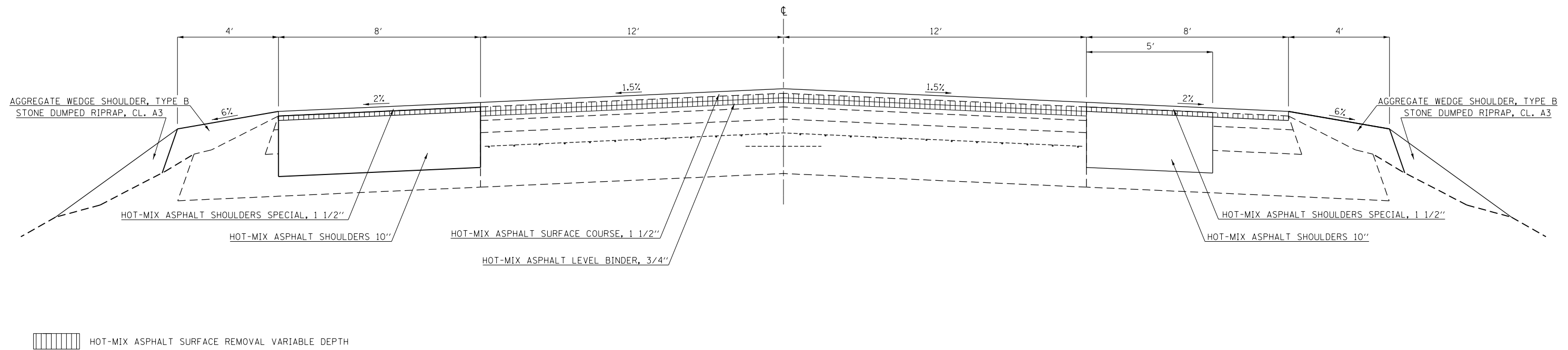
TYPICAL CROSS SECTIONS

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 74358			ILLINOIS FED. AID PROJECT	

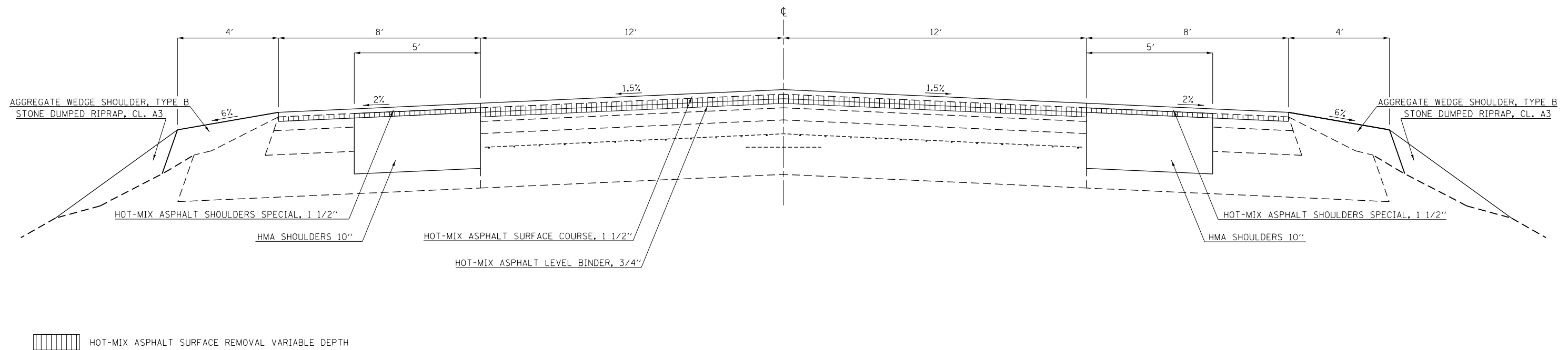
PROPOSED TYPICAL CROSS SECTION

STATION TO STATION
140+00.00 140+77.81



PROPOSED TYPICAL CROSS SECTION

STATION TO STATION
140+77.81 142+00.00



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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

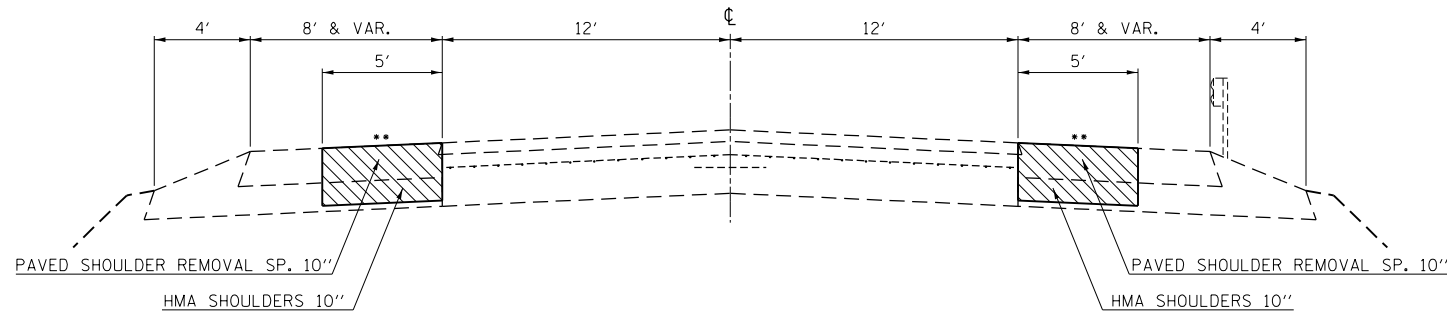
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	9
			CONTRACT NO. 74358	
ILLINOIS FED. AID PROJECT				

STAGING TYPICAL SECTIONS

PRE-STAGE ROADWAY CONSTRUCTION

STATION	TO	STATION
134+40.00		137+05.77 (R)
134+40.00		137+25.64 (L)
139+26.90		142+22.00 (R)
139+46.94		142+22.00 (L)

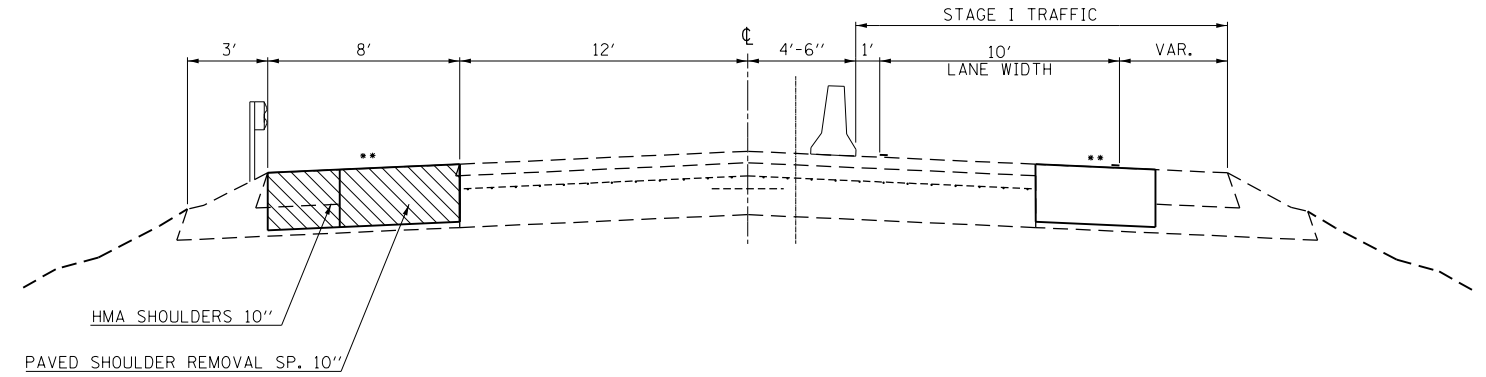


** MATCH EXISTING

PAVED SHOULDER REMOVAL (SPECIAL)

STAGE I ROADWAY CONSTRUCTION

STATION	TO	STATION
136+00.00		136+57.05
139+95.57		140+77.81



** MATCH EXISTING

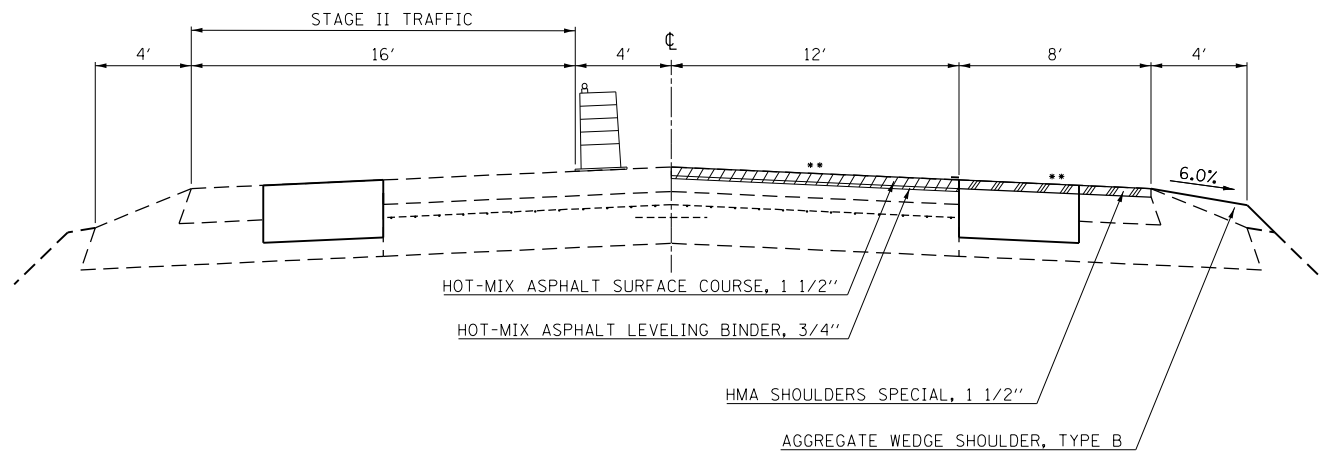
PAVED SHOULDER REMOVAL (SPECIAL)

NOTE: STAGE I ROADWAY CONSTRUCTION WILL BE DONE IN CONJUNCTION WITH STAGE I BRIDGE CONSTRUCTION.

CONSIDER PROPOSED FINISH GRADE OF ROADWAY (STAGE III ROADWAY CONSTRUCTION) WHEN INSTALLING GUARDRAIL DURING STAGE I ROADWAY CONSTRUCTION.

STAGE II ROADWAY CONSTRUCTION

STATION	TO	STATION
134+40.00		136+00.00
142+00.00		142+22.00



** MATCH EXISTING

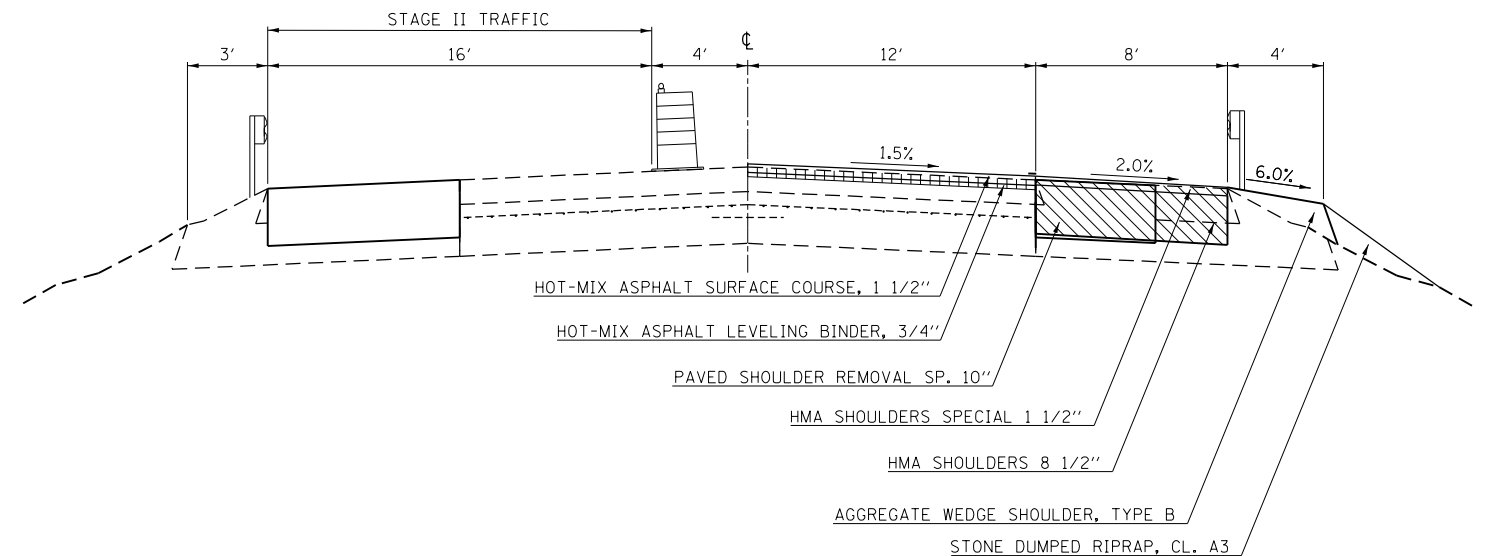
HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4"

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"

NOTE: STAGE II ROADWAY CONSTRUCTION WILL BEGIN AFTER STAGE II BRIDGE CONSTRUCTION IS COMPLETE. THIS PORTION OF STAGE II CONSTRUCTION MAY USE EITHER TRAFFIC CONTROL STANDARD 701316 OR 701201.

STAGE II ROADWAY CONSTRUCTION

STATION	TO	STATION
136+00.00		136+57.05
139+95.57		140+00.00



HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

PAVED SHOULDER REMOVAL (SPECIAL)

NOTE: STAGE II ROADWAY CONSTRUCTION WILL BEGIN AFTER STAGE II BRIDGE CONSTRUCTION IS COMPLETE. THIS PORTION OF STAGE II CONSTRUCTION SHALL BE COMPLETED USING TRAFFIC CONTROL STANDARD 701316.

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGING TYPICAL SECTIONS

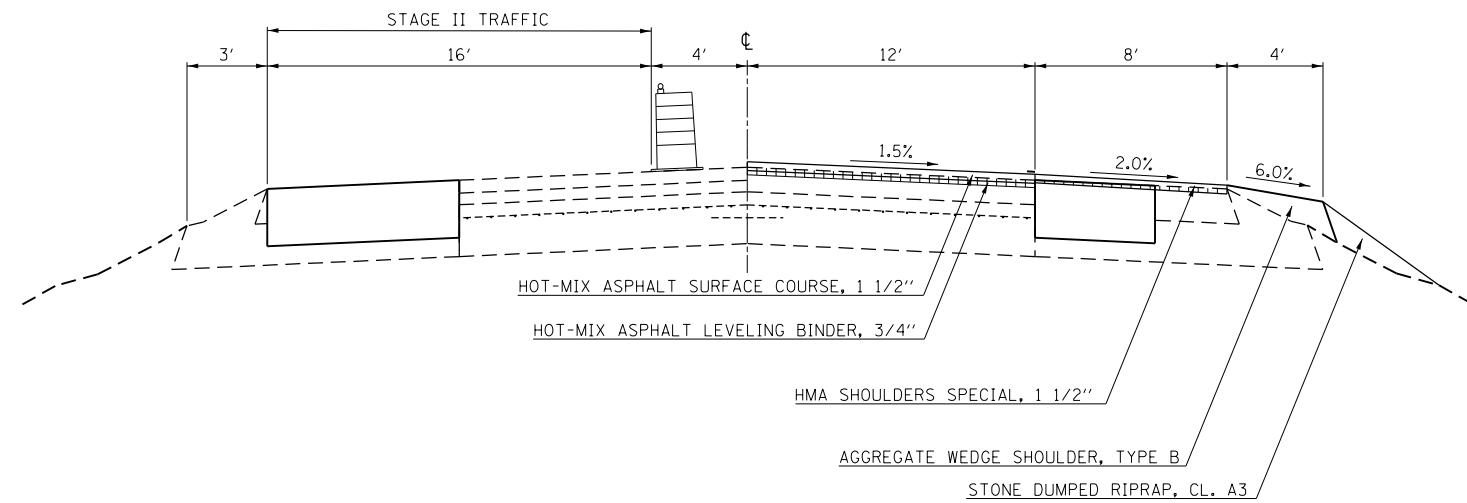
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	10
				CONTRACT NO. 74358
ILLINOIS FED. AID PROJECT				

STAGING TYPICAL SECTIONS

STAGE II ROADWAY CONSTRUCTION

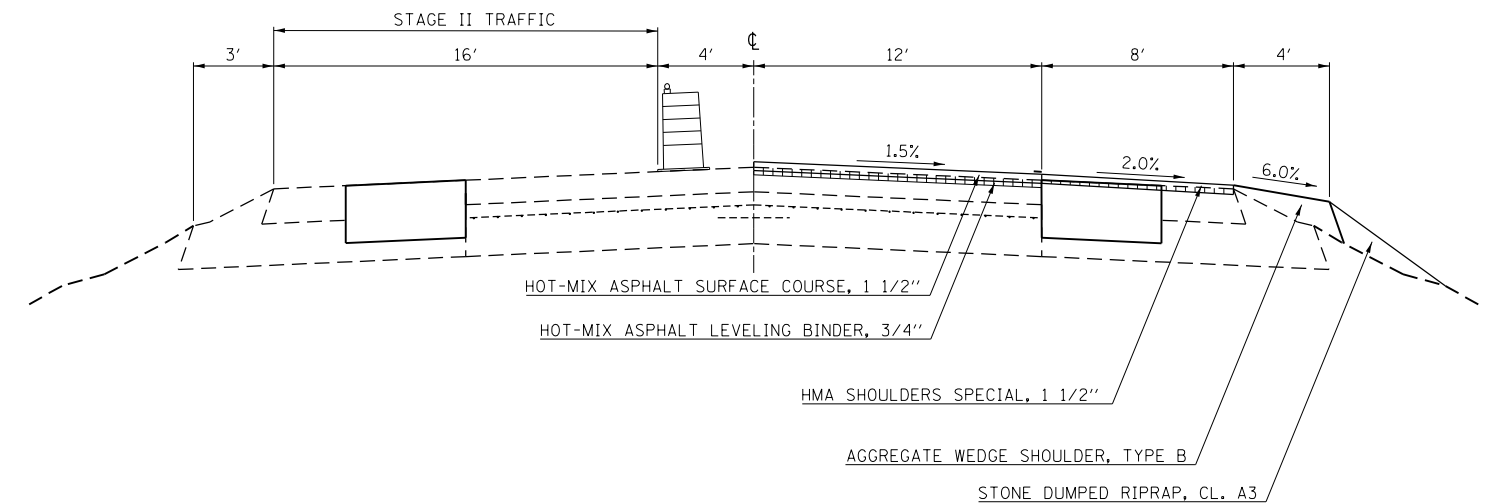
STATION TO STATION
140+00.00 TO 140+77.81



NOTE: STAGE II ROADWAY CONSTRUCTION WILL BEGIN AFTER STAGE II BRIDGE CONSTRUCTION IS COMPLETE. THIS PORTION OF STAGE II CONSTRUCTION MAY USE EITHER TRAFFIC CONTROL STANDARD 701316 OR 701201.

STAGE II ROADWAY CONSTRUCTION

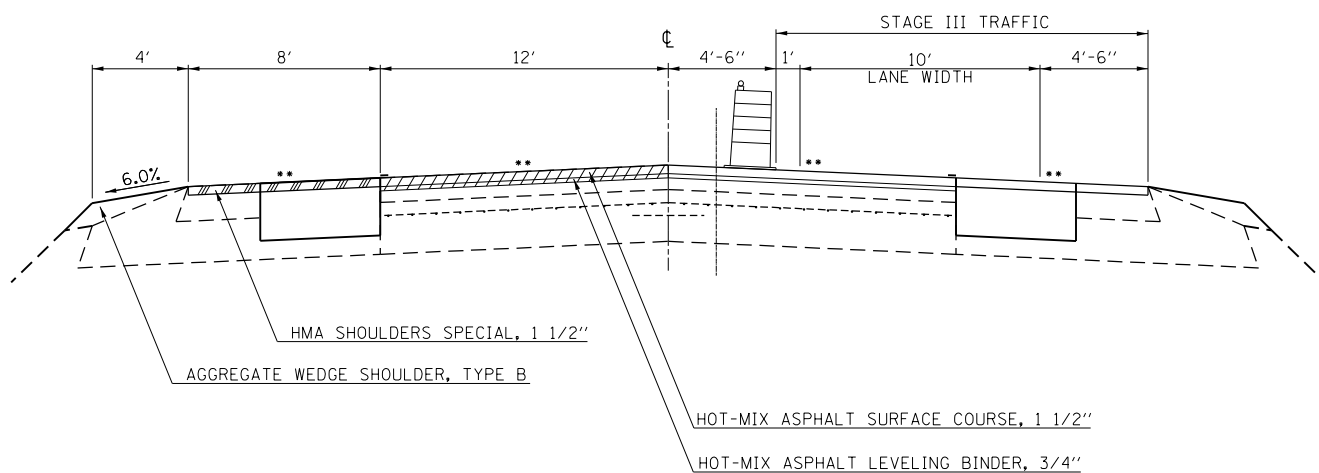
STATION TO STATION
140+77.81 TO 142+00.00



NOTE: STAGE II ROADWAY CONSTRUCTION WILL BEGIN AFTER STAGE II BRIDGE CONSTRUCTION IS COMPLETE. THIS PORTION OF STAGE II CONSTRUCTION MAY USE EITHER TRAFFIC CONTROL STANDARD 701316 OR 701201.

STAGE III ROADWAY CONSTRUCTION

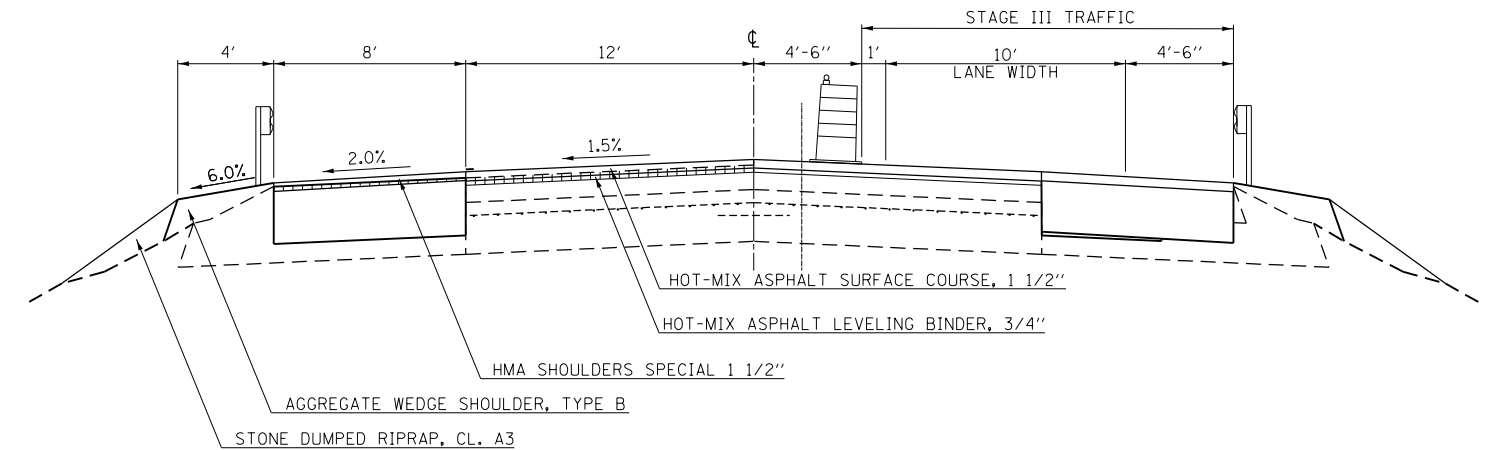
STATION TO STATION
134+40.00 TO 136+00.00



NOTE: STAGE III ROADWAY CONSTRUCTION IS TO BE COMPLETED AFTER STAGE II BRIDGE CONSTRUCTION USING TRAFFIC CONTROL STANDARD 701316 OR 701201.

STAGE III ROADWAY CONSTRUCTION

STATION TO STATION
136+00.00 TO 136+57.05
139+95.57 TO 140+00.00



NOTE: STAGE III ROADWAY CONSTRUCTION IS TO BE COMPLETED AFTER STAGE II BRIDGE CONSTRUCTION USING TRAFFIC CONTROL STANDARD 701316 OR 701201.

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PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 10/1/2018	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING TYPICAL SECTIONS

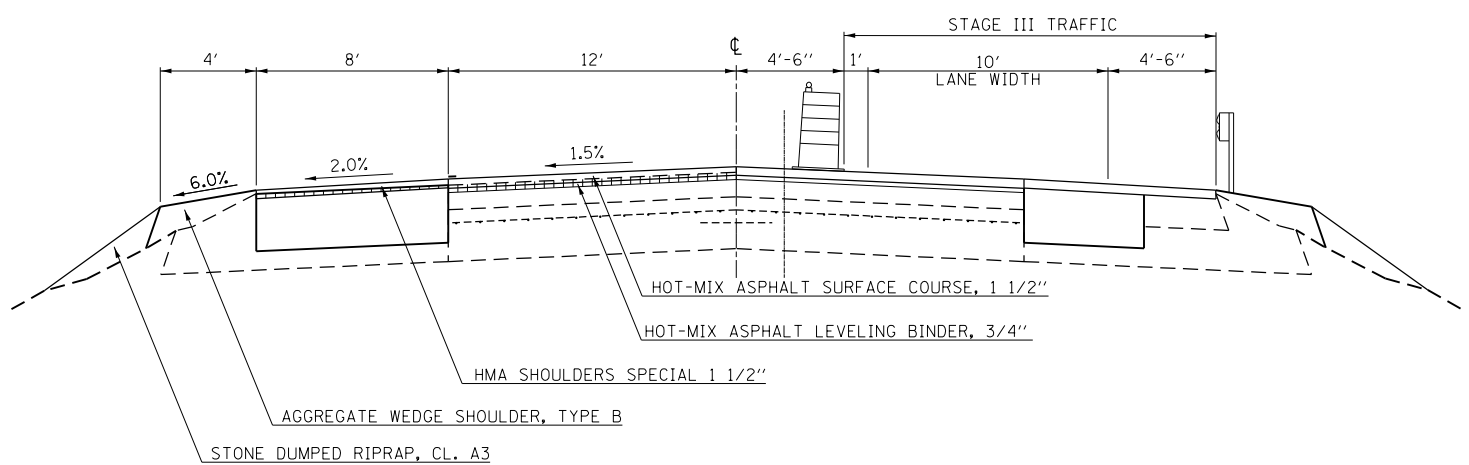
SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	11
				CONTRACT NO. 74358
				ILLINOIS FED. AID PROJECT

STAGING TYPICAL SECTIONS

STAGE III ROADWAY CONSTRUCTION

STATION TO STATION
140+00.00 TO 140+77.81

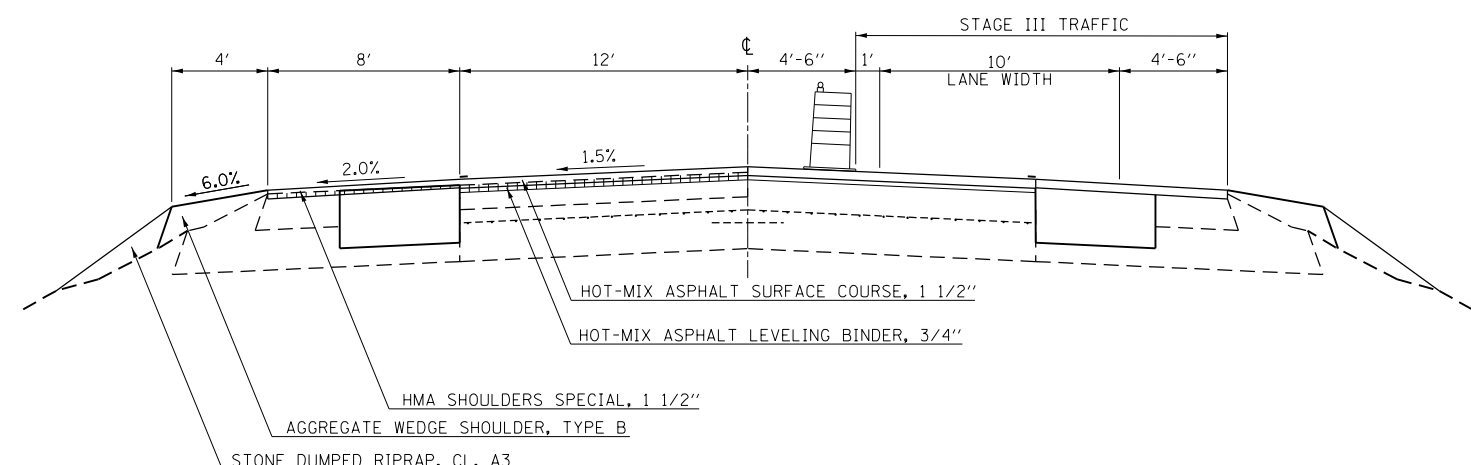


HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

NOTE: STAGE III ROADWAY CONSTRUCTION IS TO BE COMPLETED AFTER STAGE II BRIDGE CONSTRUCTION USING TRAFFIC CONTROL STANDARD 701316 OR 701201.

STAGE III ROADWAY CONSTRUCTION

STATION TO STATION
140+77.81 TO 142+00.00

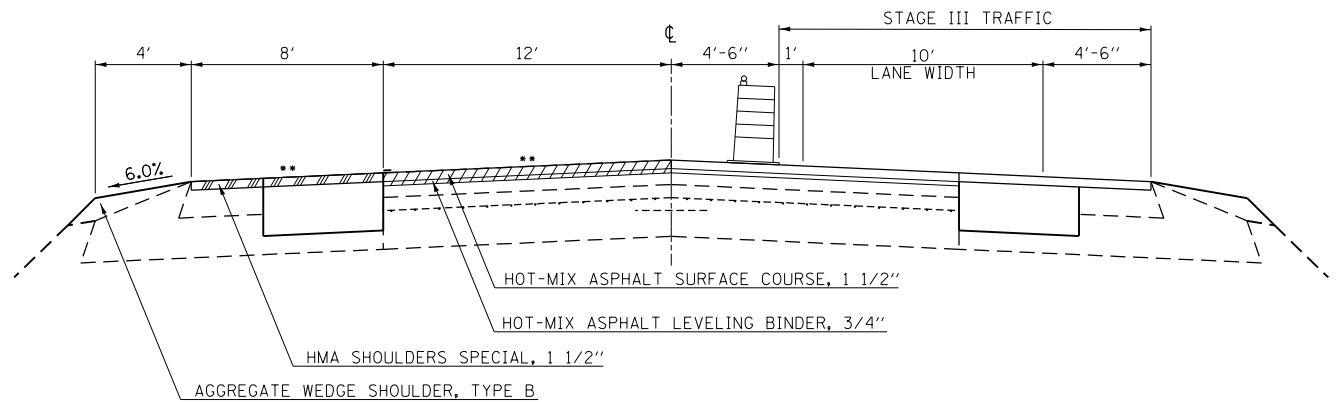


HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

NOTE: STAGE III ROADWAY CONSTRUCTION IS TO BE COMPLETED AFTER STAGE II BRIDGE CONSTRUCTION USING TRAFFIC CONTROL STANDARD 701316 OR 701201.

STAGE III ROADWAY CONSTRUCTION

STATION TO STATION
142+00.00 TO 142+22.00



•• MATCH EXISTING



HOT-MIX ASPHALT SURFACE REMOVAL 2 1/4"



HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"

NOTE: STAGE III ROADWAY CONSTRUCTION IS TO BE COMPLETED AFTER STAGE II BRIDGE CONSTRUCTION USING TRAFFIC CONTROL STANDARD 701316 OR 701201.

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PLOT DATE = 10/1/2018	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING TYPICAL SECTIONS

SCALE: SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	12
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

RESURFACING

STATION TO STATION	EB / WB	LENGTH FOOT	SHOULDER WIDTH FOOT	LANE WIDTH FOOT	BITUMINOUS MATERIALS (TACK COAT) POUND	LEVELING BINDER (MACHINE METHOD), 1L-9.5FC, N90 - 3/4" TON	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N 90 - 1 1/2" TON	HOT-MIX ASPHALT SHOULDERS, 8 1/2" SQ YD	HOT-MIX ASPHALT SHOULDERS, 10" SQ YD	HOT-MIX ASPHALT SHOULDERS, SPECIAL (1 1/2") TON			
PRE-STAGE ROADWAY CONSTRUCTION													
134+40.00 TO 137+05.77	EB	265.8	5.0						147.7				
134+40.00 TO 137+25.64	WB	285.6	5.0						158.7				
139+26.90 TO 142+22.00	EB	295.1	5.0						163.9				
139+46.94 TO 142+22.00	WB	275.1	5.0						152.8				
STAGE I ROADWAY CONSTRUCTION													
136+00.00 TO 136+57.05	WB	57.0	8.0						50.7				
139+95.57 TO 140+77.81	WB	82.2	8.0						73.1				
STAGE II ROADWAY CONSTRUCTION													
134+40.00 TO 136+00.00	EB	160.0	8.0	12.0	208.0	9.0	17.9			11.9			
136+00.00 TO 136+57.05	EB	57.0	8.0	12.0	74.1	3.2	6.4	50.7		4.3			
139+95.57 TO 140+00.00	EB	4.4	8.0	12.0	5.8	0.2	0.5	3.9		0.3			
140+00.00 TO 140+77.81	EB	77.8	8.0	12.0	101.2	4.4	8.7			5.8			
140+77.81 TO 142+00.00	EB	122.2	8.0	12.0	158.8	6.8	13.7			9.1			
142+00.00 TO 142+22.00	EB	22.0	8.0	12.0	28.6	1.2	2.5			1.6			
STAGE III ROADWAY CONSTRUCTION													
134+40.00 TO 136+00.00	WB	160.0	8.0	12.0	208.0	9.0	17.9			11.9			
136+00.00 TO 136+57.05	WB	57.0	8.0	12.0	74.1	3.2	6.4			4.3			
139+95.57 TO 140+00.00	WB	4.4	8.0	12.0	5.8	0.2	0.5			0.3			
140+00.00 TO 140+77.81	WB	77.8	8.0	12.0	101.2	4.4	8.7			5.8			
140+77.81 TO 142+00.00	WB	122.2	8.0	12.0	158.8	6.8	13.7			9.1			
142+00.00 TO 142+22.00	WB	22.0	8.0	12.0	28.6	1.2	2.5			1.6			
TOTALS								1153.0	49.6	99.4	54.6	746.9	66.0
ROUND TO								1153	50	100	55	747	66

PAVEMENT MARKING

STATION TO STATION	LOCATION EOP / CL	LENGTH FOOT	SHORT TERM PAVEMENT MARKING FOOT	PAVEMENT MARKING BLACKOUT TAPE, 5" FOOT	SHORT TERM PAVEMENT MARKING REMOVAL SQ FT	TEMPORARY PAVEMENT MARKING - LINE 4" FOOT	TEMPORARY PAVEMENT MARKING REMOVAL SQ FT	PAVEMENT MARKING REMOVAL - WATER BLASTING SQ FT	PAINT PAVEMENT MARKING - LINE 4" FOOT	
PRE-STAGE ROADWAY CONSTRUCTION										
134+40.52 TO 142+21.86	WB EOP	781.3						260.2		
134+40.52 TO 137+08.00	EB EOP	267.5						89.1		
139+28.60 TO 142+21.86	EB EOP	293.3						97.7		
133+30.00 TO 136+57.00	CL	327.0		30.0	10.0			20.0		
139+95.00 TO 143+32.00	CL	337.0		20.0	6.7			20.0		
STAGE II ROADWAY CONSTRUCTION										
134+40.00 TO 142+22.00	EB EOP	1564.0	62.6		20.8					
134+40.00 TO 142+22.00	CL	782.0	78.2		26.0					
STAGE III ROADWAY CONSTRUCTION										
134+40.00 TO 142+22.00	WB EOP	1564.0	62.6		20.8	1564.0	520.8		1564.0	
134+40.00 TO 142+22.00	CL	782.0	78.2		26.0	195.5	65.1		195.5	
TOTALS				281.6	50.0	110.3	1759.5	585.9	487.0	1759.5
ROUND TO				282	50	110	1760	586	487	1760

TEMPORARY RAMP

STATION TO STATION	EASTBOUND / WESTBOUND EB / WB	LENGTH FOOT	LANE WIDTH FOOT	TEMPORARY RAMP SQ YD
STAGE I BRIDGE CONSTRUCTION				
136+53.85 TO 136+57.05	WB	3.2	12.0	4.3
139+95.57 TO 139+98.77	WB	3.2	12.0	4.3
STAGE II BRIDGE CONSTRUCTION				
136+53.85 TO 136+57.05	EB	3.2	14.0	5.0
139+95.57 TO 139+98.77	EB	3.2	14.0	5.0
STAGE II ROADWAY CONSTRUCTION				
134+40.00 TO 134+47.50	EB	7.5	14.0	11.7
142+14.50 TO 142+22.00	EB	7.5	14.0	11.7
STAGE III ROADWAY CONSTRUCTION				
134+40.00 TO 134+47.50	WB	7.5	12.0	10.0
142+14.50 TO 142+22.00	WB	7.5	12.0	10.0
TOTALS				62.0
ROUND TO				62

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	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES			
SCALE:	SHEET 1 OF 2 SHEETS	STA.	TO STA.

F.A.P. RTE. 320	SECTION (104BR)BR-1	COUNTY MOULTRIE	TOTAL SHEETS 63	SHEET NO. 13
			CONTRACT NO. 74358	
ILLINOIS		FED. AID PROJECT		

GUARDRAIL

LOCATION	GUARDRAIL REMOVAL	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL TANGENT)	TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL REFLECTORS, TYPE B
	FOOT	FOOT	EACH	EACH	EACH	EACH
NORTHEAST QUADRANT	91	50.0	1	1	1	3
NORTHWEST QUADRANT	80	12.5	1	1	1	3
SOUTHEAST QUADRANT	80	12.5	1	1	1	3
SOUTHWEST QUADRANT	93	50.0	1	1	1	3
TOTALS	344	125	4	4	4	12

TREE REMOVAL

LOCATION	QUANTITY
	UNIT
NORTHEAST QUADRANT	17
SOUTHEAST QUADRANT	10
NORTHWEST QUADRANT	18
SOUTHWEST QUADRANT	16
TOTAL	61

PAVED SHOULDER REMOVAL

STATION TO STATION	EASTBOUND / WESTBOUND	LENGTH	WIDTH	PAVED SHOULDER REMOVAL (SPECIAL)
	EB / WB	FOOT	FOOT	SO YD
PRE-STAGE ROADWAY CONSTRUCTION				
134+40.00 TO 137+05.77	EB	265.8	5.0	147.7
134+40.00 TO 137+25.64	WB	285.6	5.0	163.9
139+26.90 TO 142+22.00	EB	295.1	5.0	158.7
139+46.94 TO 142+22.00	WB	275.1	5.0	152.8
STAGE I ROADWAY CONSTRUCTION				
136+00.00 TO 137+25.64	WB	125.6	8.0	111.7
139+46.94 TO 140+77.81	WB	130.9	8.0	116.3
STAGE II ROADWAY CONSTRUCTION				
136+00.00 TO 137+05.77	EB	105.8	8.0	94.0
139+26.90 TO 140+00.00	EB	73.1	8.0	65.0
TOTALS				1010.1
ROUND TO				1010

PAVEMENT AND APPROACH SLAB REMOVAL

STATION TO STATION	EASTBOUND / WESTBOUND	LENGTH	WIDTH	PAVEMENT REMOVAL	APPROACH SLAB REMOVAL
	EB / WB	FOOT	FOOT	SO YD	SO YD
STAGE I ROADWAY CONSTRUCTION					
136+57.05 TO 136+75.79	WB	18.7	14.0	34.0	
136+75.79 TO 137+15.79	WB	40.0	14.0		62.2
139+36.83 TO 139+76.83	WB	40.0	14.0		62.2
139+76.83 TO 139+95.57	WB	18.7	14.0	34.0	
STAGE II ROADWAY CONSTRUCTION					
136+57.05 TO 136+75.79	EB	18.7	10.0	15.4	
136+75.79 TO 137+15.79	EB	40.0	10.0		44.4
139+36.83 TO 139+76.83	EB	40.0	10.0		44.4
139+76.83 TO 139+95.57	EB	18.7	10.0	15.4	
TOTALS				98.8	213.2
ROUND TO				99	213

HOT-MIX ASPHALT SURFACE REMOVAL

STATION TO STATION	EASTBOUND / WESTBOUND	LENGTH	LANE WIDTH	SHOULDER WIDTH	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
	EB / WB	FOOT	FOOT	FOOT	SO YD	SO YD	SO YD
STAGE II ROADWAY CONSTRUCTION							
134+40.00 TO 136+00.00	EB	160.0	12.0	8.0	142.2	213.3	
136+00.00 TO 136+57.05	EB	57.0	12.0	8.0			76.1
139+95.57 TO 140+00.00	EB	4.4	12.0	8.0			5.9
140+00.00 TO 140+77.81	EB	77.8	12.0	8.0			172.9
140+77.81 TO 142+00.00	EB	122.2	12.0	8.0			271.5
142+00.00 TO 142+22.00	EB	22.0	12.0	8.0	19.6	29.3	
STAGE III ROADWAY CONSTRUCTION							
134+40.00 TO 136+00.00	WB	160.0	12.0	8.0	142.2	213.3	
136+00.00 TO 136+57.05	WB	57.0	12.0	8.0			126.8
139+95.57 TO 140+00.00	WB	4.4	12.0	8.0			9.8
140+00.00 TO 140+77.81	WB	77.8	12.0	8.0			172.9
140+77.81 TO 142+00.00	WB	122.2	12.0	8.0			271.5
142+00.00 TO 142+22.00	WB	22.0	12.0	8.0	19.6	29.3	
TOTALS					323.6	485.2	1107.4
ROUND TO					324	485	1107

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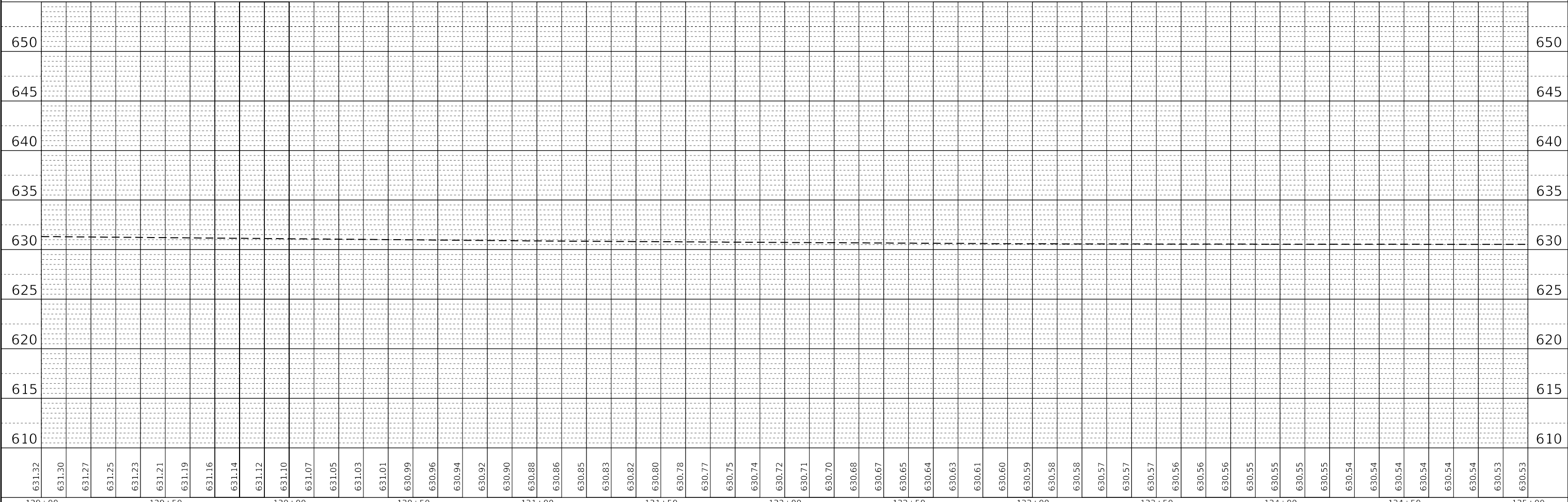
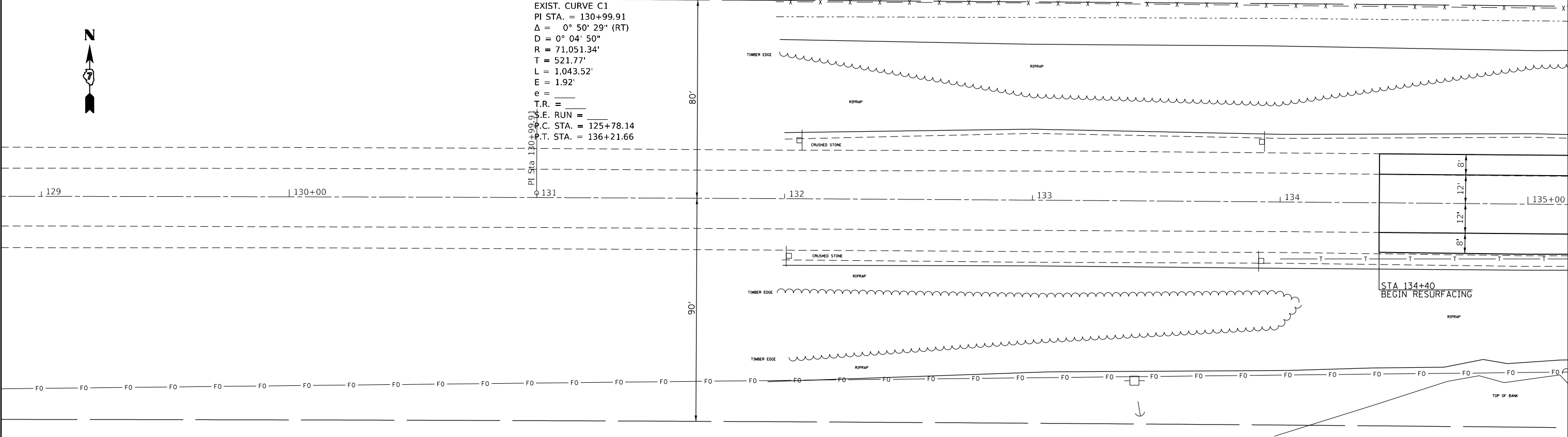
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES			
SCALE:	SHEET 2	OF 2	SHEETS
STA.	TO STA.		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	14
CONTRACT NO. 74358			ILLINOIS FED. AID PROJECT	



EXIST. CURVE C1
 PI STA. = 130+99.91
 $\Delta = 0^\circ 50' 29''$ (RT)
 $D = 0^\circ 04' 50''$
 $R = 71,051.34'$
 $T = 521.77'$
 $L = 1,043.52'$
 $E = 1.92'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 125+78.14$
 $P.T. STA. = 136+21.66$



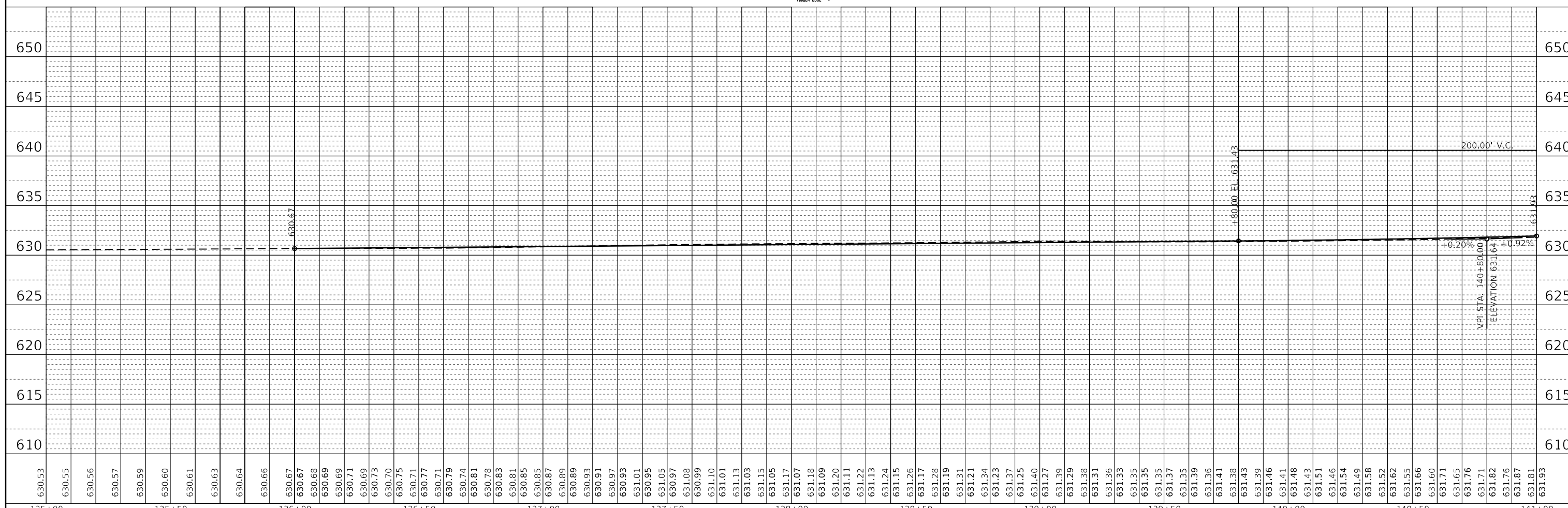
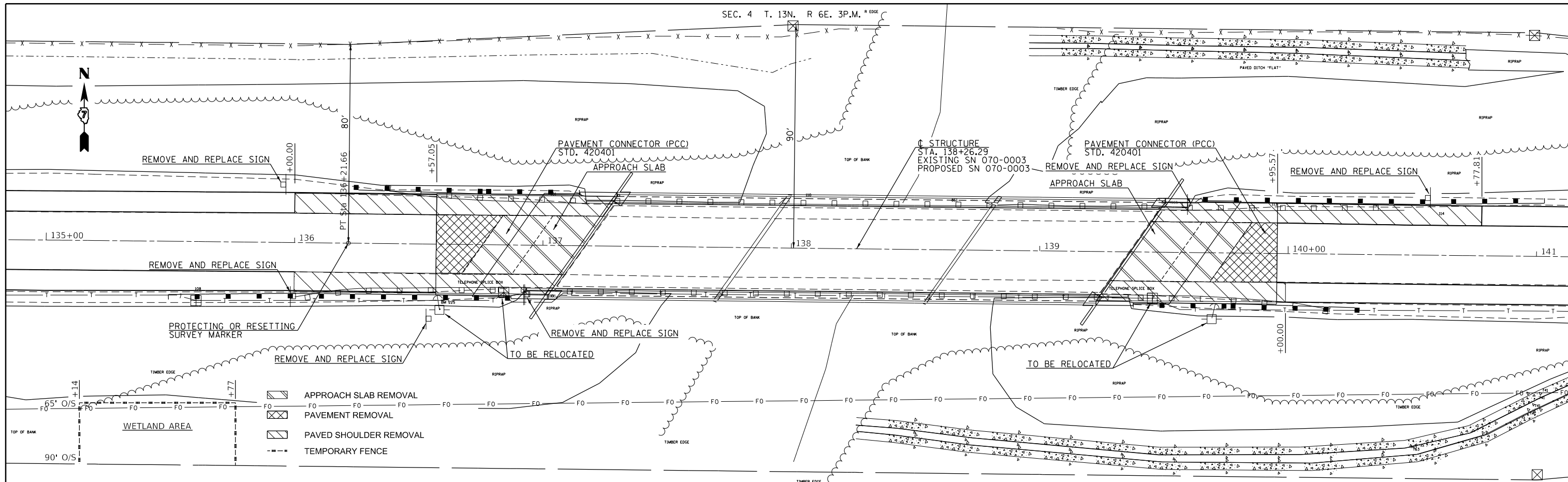
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	CHECKED		
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FILE NAME =	USER NAME = steffenk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE				F.A.P. RTE. 320	SECTION (104BR)BR-1	COUNTY MOULTRIE	TOTAL SHEETS 63	SHEET NO. 15
Default		CHECKED -	REVISED -		SCALE:	SHEET 1	OF 3	SHEETS	STA.	TO STA.	CONTRACT NO. 74358		
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

DATE	
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PLAN	SURVEYED
	PLOTTED
	ALIGNED
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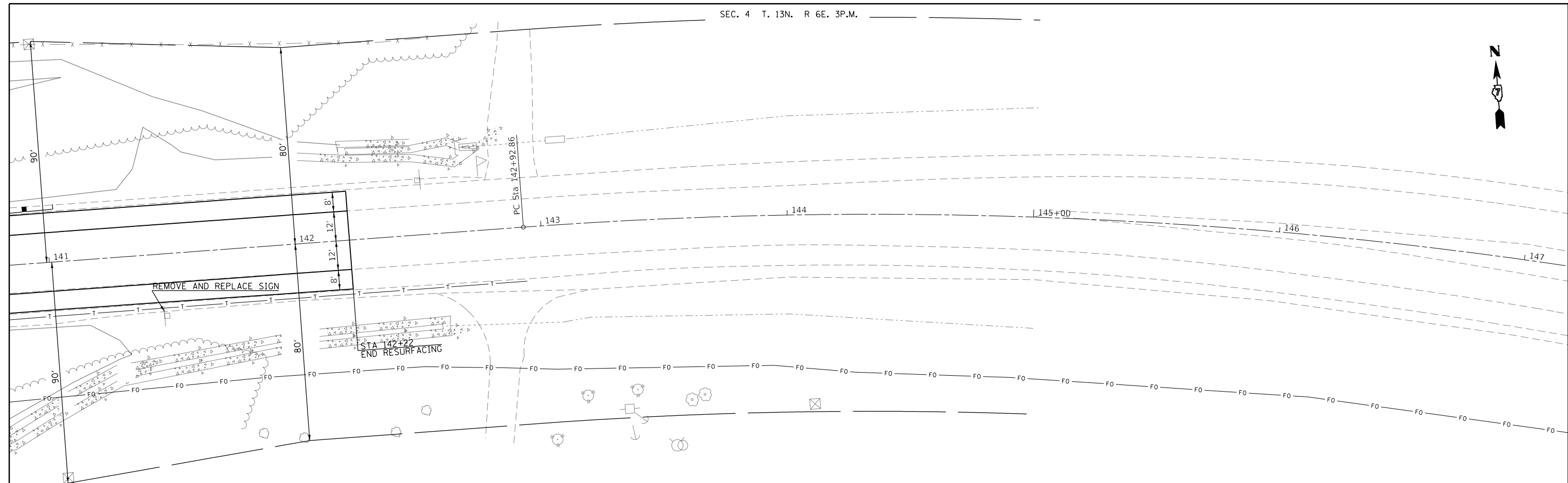
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BY	
PROFILE	SURVEYED
	PLOTTED
	GRADES CHECKED
	STRUCTURE NOTATIONS CHECKED
NOTE BOOK NO.	
STRUCTURE NO.	



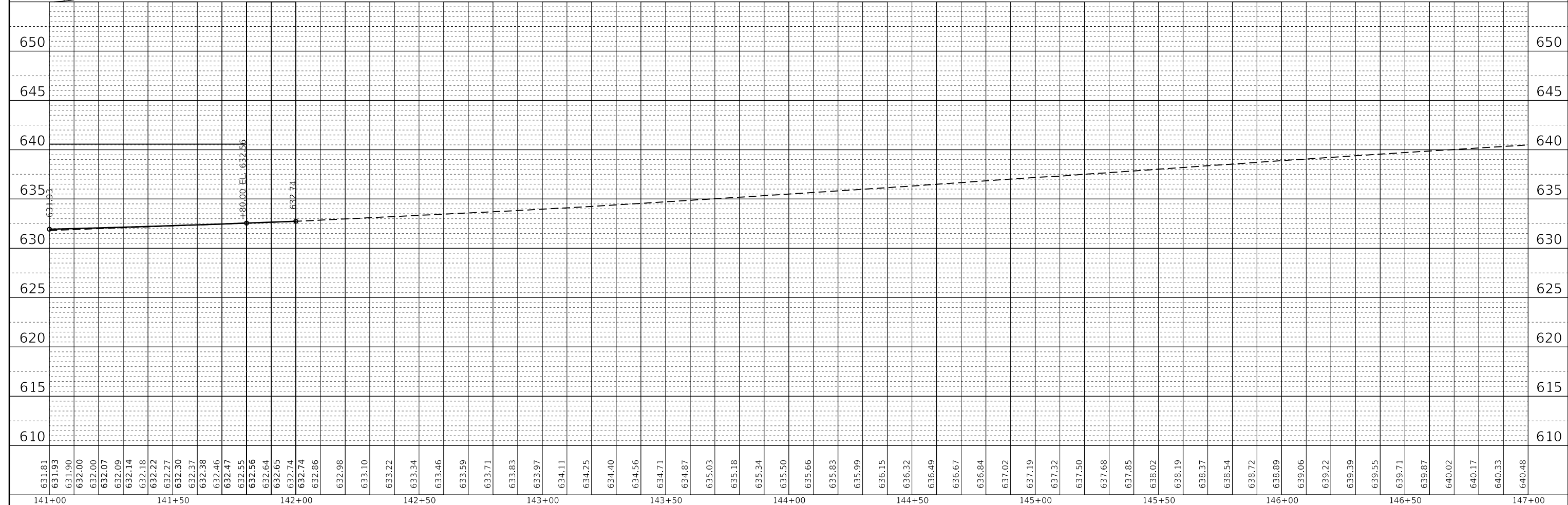
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		DATE -	REVISED -			CONTRACT NO. 74358					
						ILLINOIS FED. AID PROJECT					



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	FILE NAME		
	NO.		



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141+00	141+50	142+00	142+50	143+00	143+50	144+00	144+50	145+00	145+50	146+00	146+50	147+00																																																										

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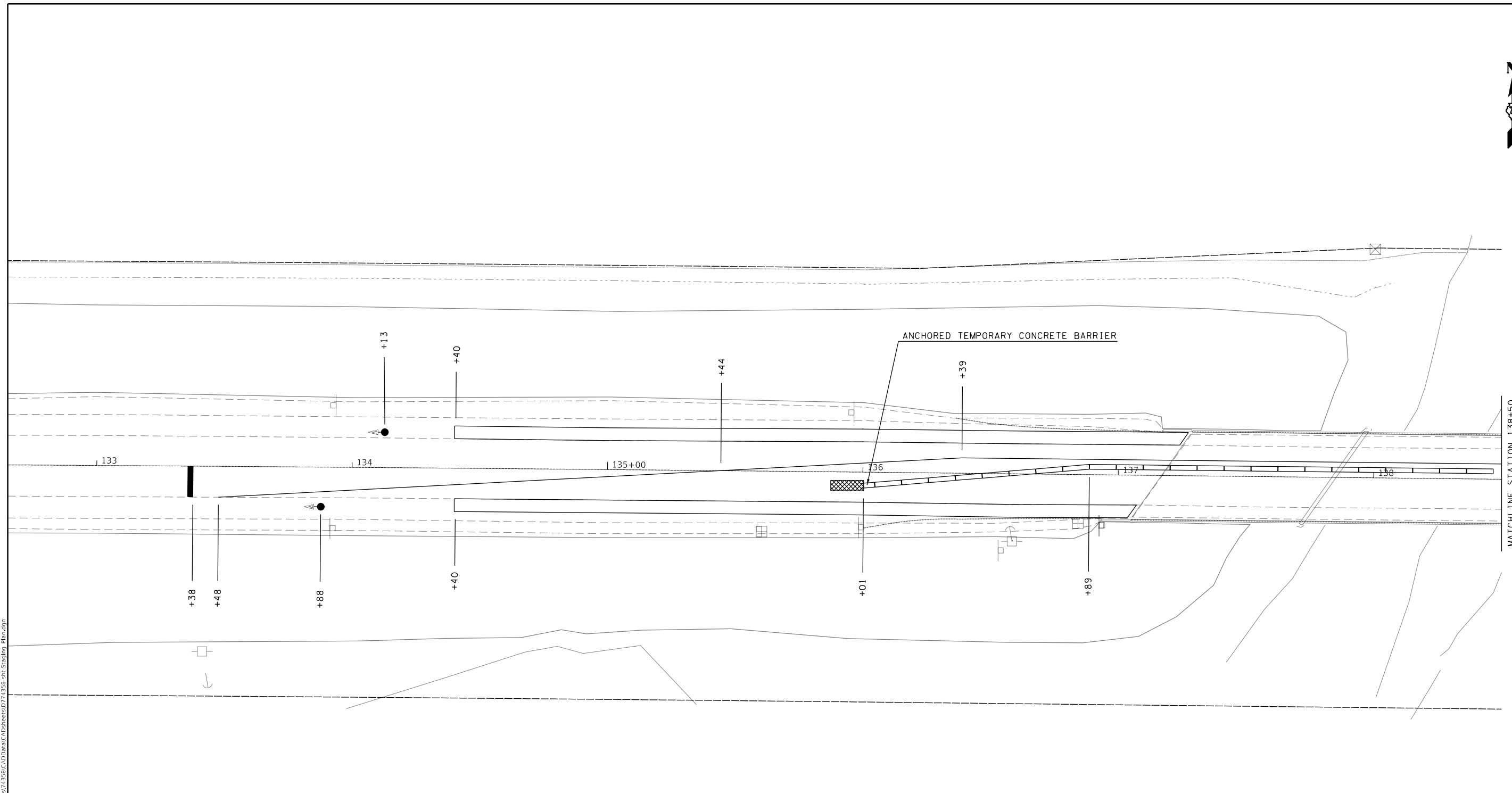
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PLAN & PROFILE

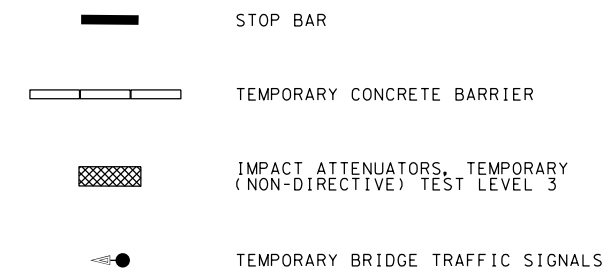
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	17
CONTRACT NO. 74358			ILLINOIS FED. AID PROJECT	



PRE STAGE I SEQUENCE OF OPERATIONS

1. SET UP TRAFFIC CONTROL PER STANDARD 701326.
2. REMOVE 5' WIDTH OF EXISTING PAVED SHOULDERS AND CONSTRUCT 10" HMA SHOULDERS ALONG EB & WB LANES.
3. ERECT SIGNS, TRAFFIC SIGNALS, TEMPORARY BARRIERS, ETC. ACCORDING TO TRAFFIC CONTROL STANDARD 701321 AND THE DETAILS IN THE PLANS.
4. REMOVE OVERLAY ON EASTBOUND LANE OF STRUCTURE, PATCH AND LAY 1 1/2" HMA WEARING SURFACE OVER EASTBOUND LANE.



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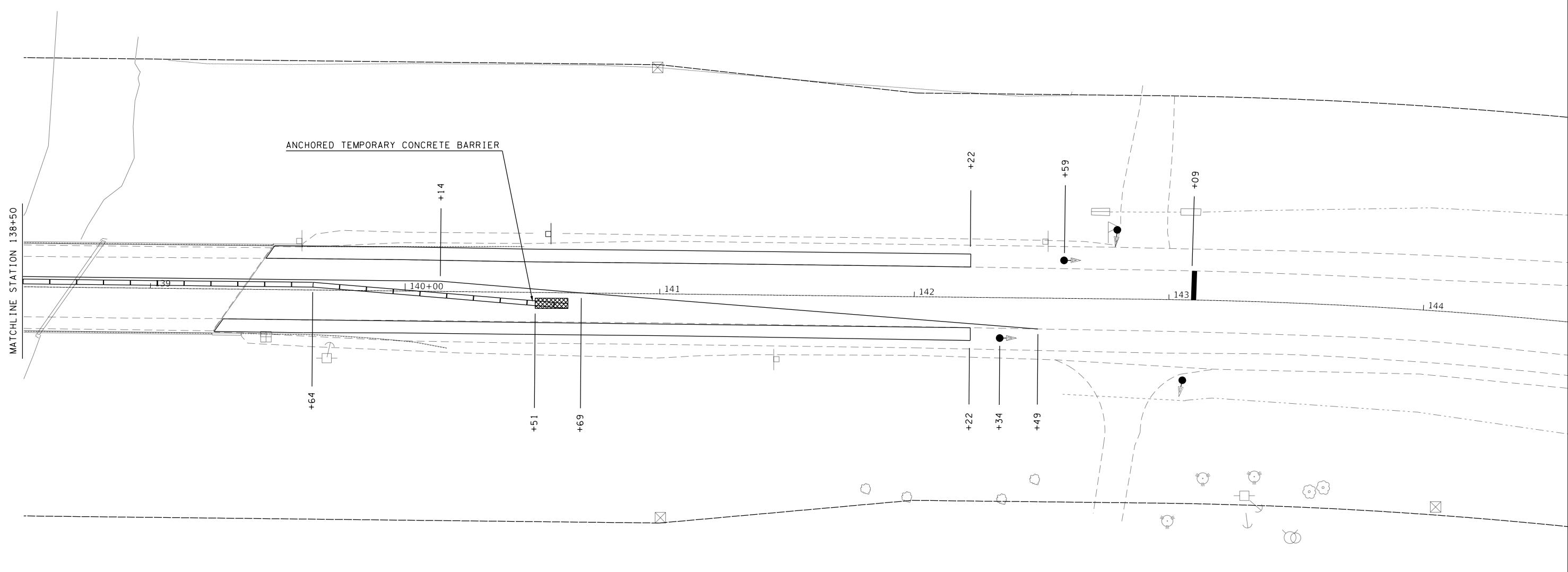
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION
PRE-STAGE I DECK REPAIRS

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	18
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



-  STOP BAR
-  TEMPORARY CONCRETE BARRIER
-  IMPACT ATTENUATORS, TEMPORARY (NON-DIRECTIVE) TEST LEVEL 3
-  TEMPORARY BRIDGE TRAFFIC SIGNALS

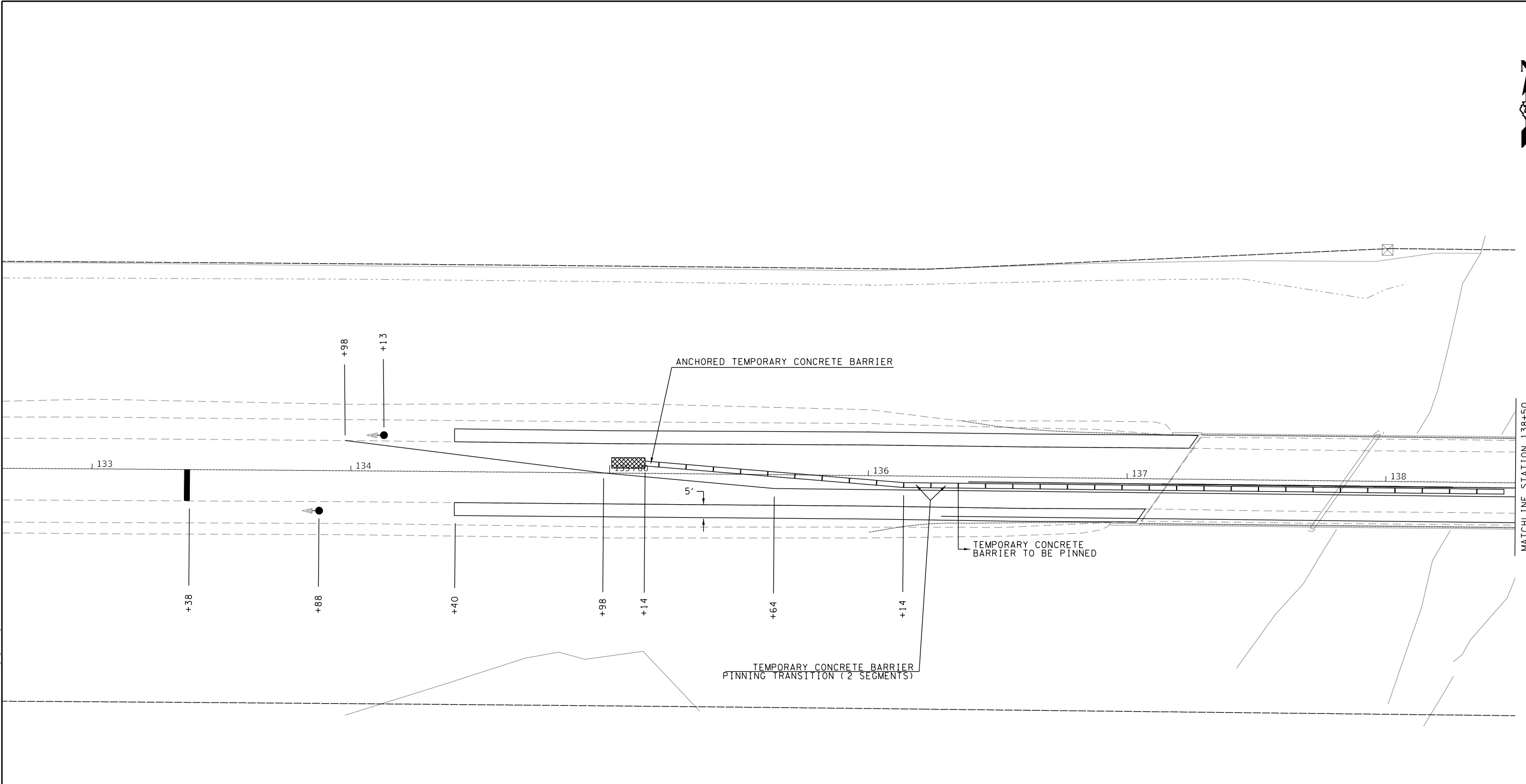
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





TRAFFIC CONTROL AND PROTECTION PRE-STAGE I DECK REPAIRS			
SCALE:	SHEET 2	OF 2	SHEETS
	STA.		TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	19
			CONTRACT NO. 74358	
		ILLINOIS	FED. AID PROJECT	



STAGE I BRIDGE CONSTRUCTION SEQUENCE OF OPERATIONS

1. RELOCATE TEMPORARY CONCRETE BARRIER, SIGNS, ETC. ACCORDING TO TRAFFIC CONTROL STANDARD 701321 AND THE DETAILS IN THE PLANS.
2. REMOVE STAGE I PORTION OF THE EXISTING STRUCTURE, BRIDGE APPROACH, PAVEMENT, SHOULDERS, AND GUARDRAIL.
3. CONSTRUCT STAGE I PORTION OF THE PROPOSED STRUCTURE, BRIDGE APPROACH, PAVEMENT CONNECTOR, RIP RAP, GUARDRAIL AND SHOULDERS IN STAGE I ROADWAY CONSTRUCTION.
4. CONSTRUCT TEMPORARY RAMP OFF OF APPROACH PAVEMENT.

-  STOP BAR
-  TEMPORARY CONCRETE BARRIER
-  IMPACT ATTENUATORS, TEMPORARY (NON-DIRECTIVE) TEST LEVEL 3
-  TEMPORARY BRIDGE TRAFFIC SIGNALS

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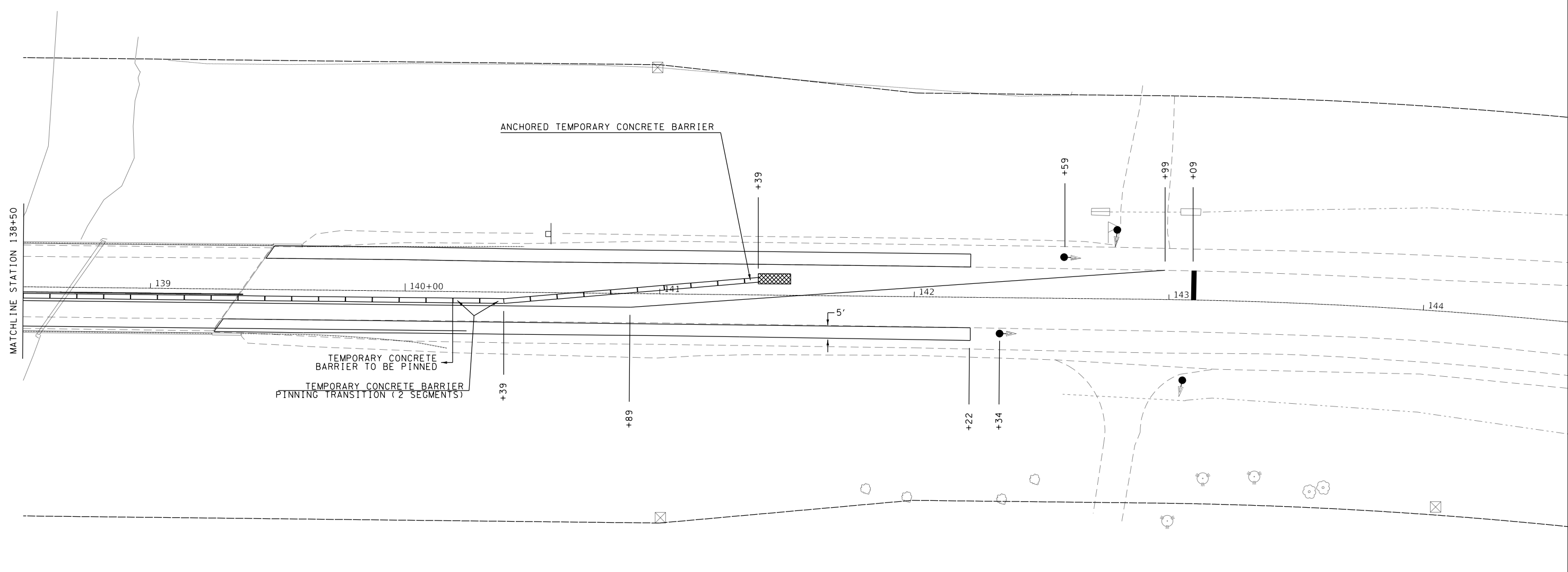
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	DATE -	REVISED -





**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION
STAGE I BRIDGE CONSTRUCTION**

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	20
				CONTRACT NO. 74358
				ILLINOIS FED. AID PROJECT



-  STOP BAR
-  TEMPORARY CONCRETE BARRIER
-  IMPACT ATTENUATORS, TEMPORARY (NON-DIRECTIVE) TEST LEVEL 3
-  TEMPORARY BRIDGE TRAFFIC SIGNALS

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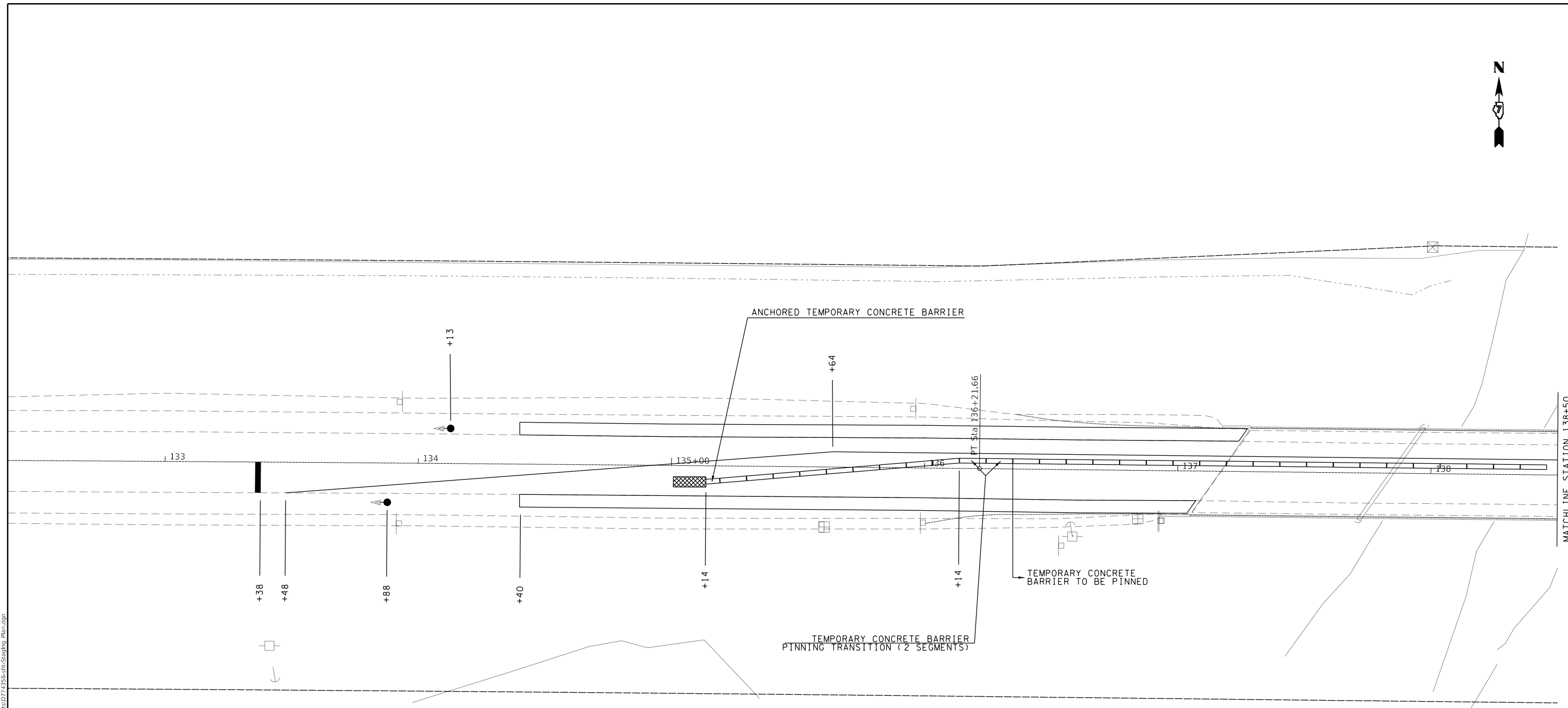
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION
STAGE I BRIDGE CONSTRUCTION

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	21
			CONTRACT NO. 74358	
		ILLINOIS	FED. AID PROJECT	



STAGE II BRIGE CONSTRUCTION SEQUENCE OF OPERATIONS

1. RELOCATE TEMPORARY CONCRETE BARRIER, SIGNS, ETC. ACCORDING TO TRAFFIC CONTROL STANDARD 701321 AND THE DETAILS IN THE PLANS.
2. REMOVE STAGE II PORTION OF THE EXISTING STRUCTURE, BRIDGE APPROACH, PAVEMENT, SHOULDERS, AND GUARDRAIL.
3. CONSTRUCT STAGE II PORTION OF THE PROPOSED STRUCTURE, BRIDGE APPROACH, PAVEMENT CONNECTOR, RIP RAP, AND GUARDRAIL.
4. REMOVE TRAFFIC CONTROL STANDARD 701321 AND SETUP TRAFFIC CONTROL STANDARD 701316 AND BEGIN STAGE II ROADWAY CONSTRUCTION.

- STOP BAR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (NON-DIRECTIVE) TEST LEVEL 3
- TEMPORARY BRIDGE TRAFFIC SIGNALS

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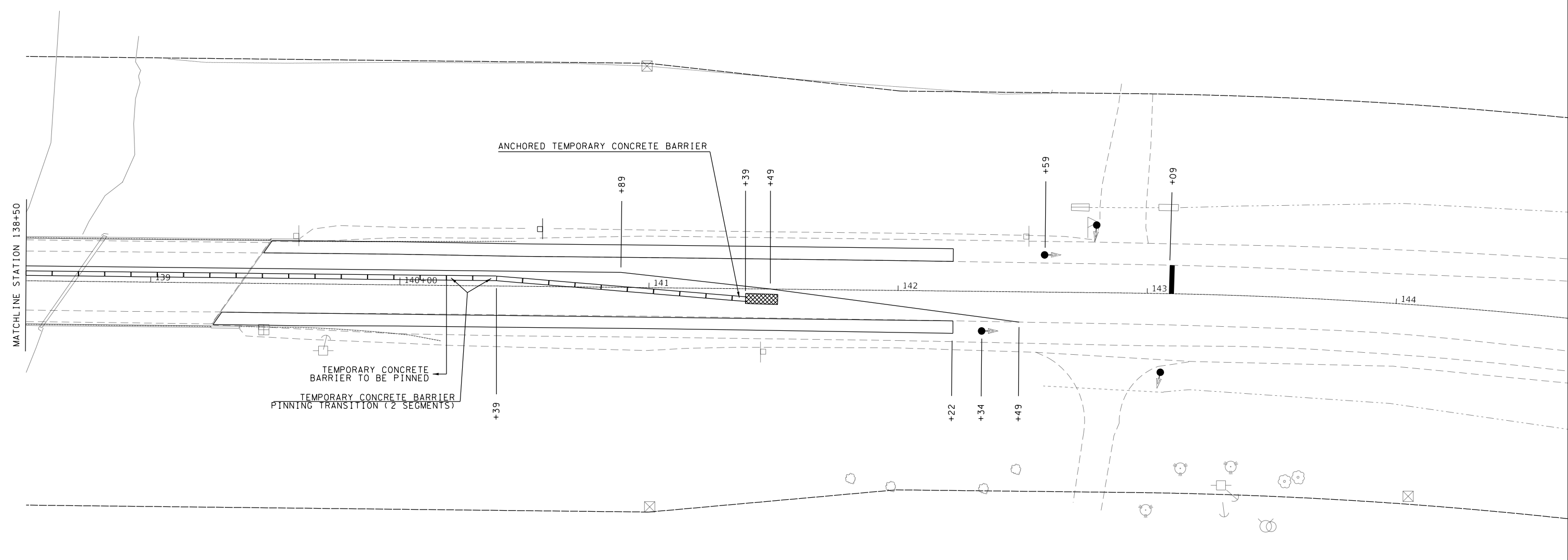
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION
STAGE II BRIDGE CONSTRUCTION**

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	22
			CONTRACT NO. 74358	
ILLINOIS FED. AID PROJECT				



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- STOP BAR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (NON-DIRECTIVE) TEST LEVEL 3
- ▲

TEMPORARY BRIDGE TRAFFIC SIGNALS

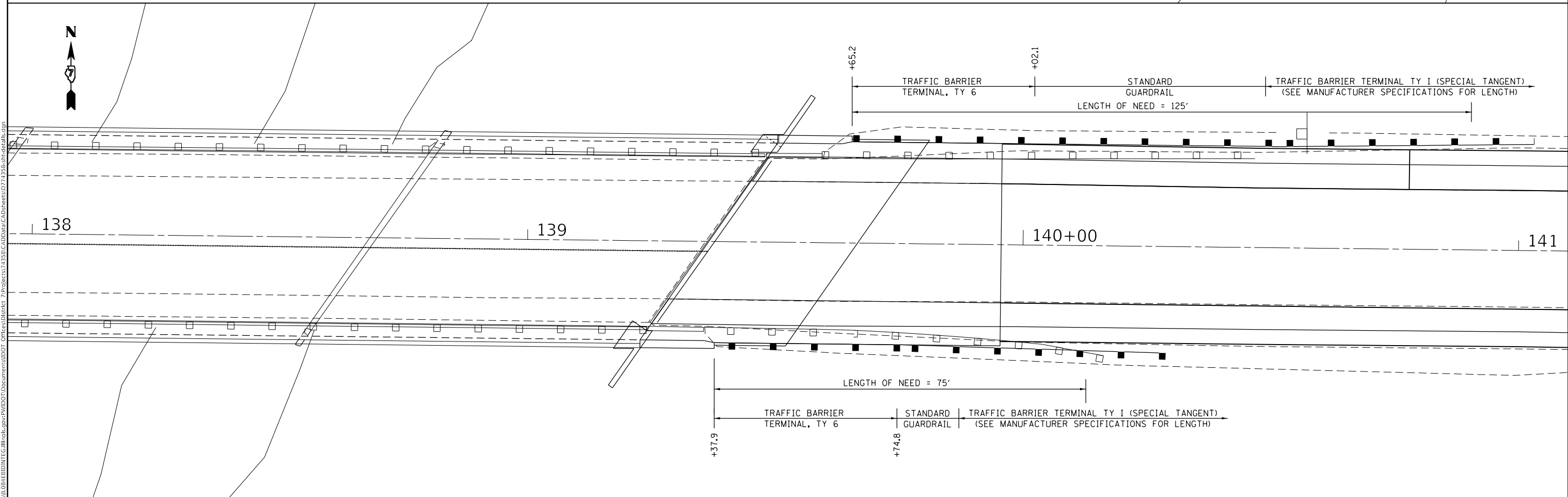
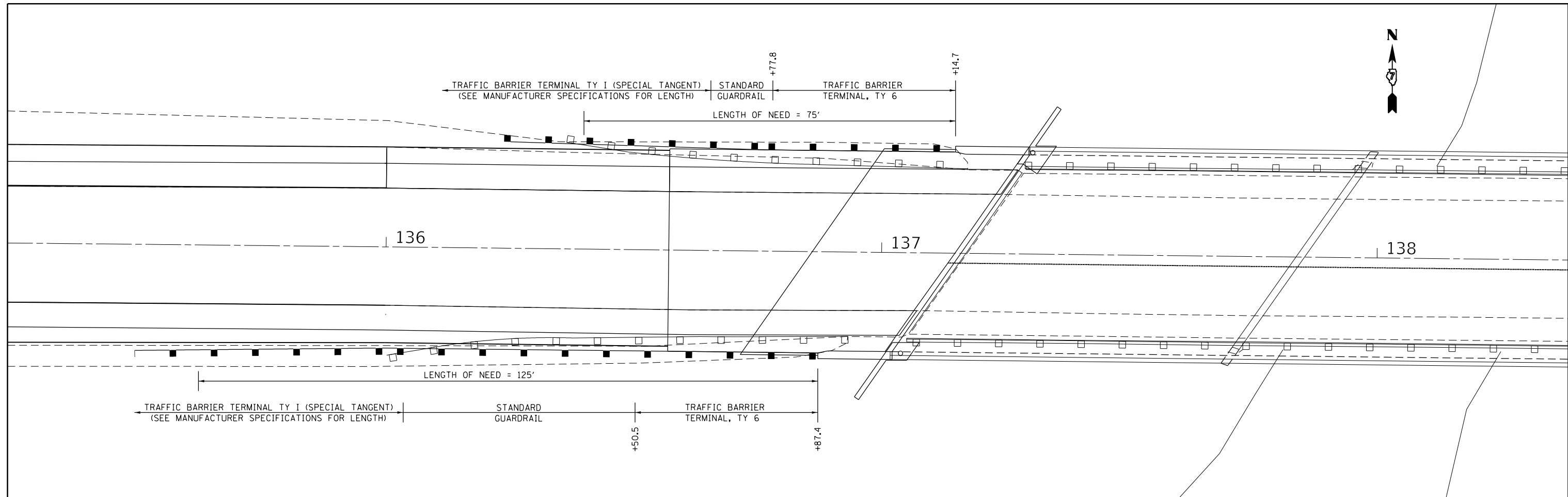
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION
 STAGE II BRIDGE CONSTRUCTION

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	23
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



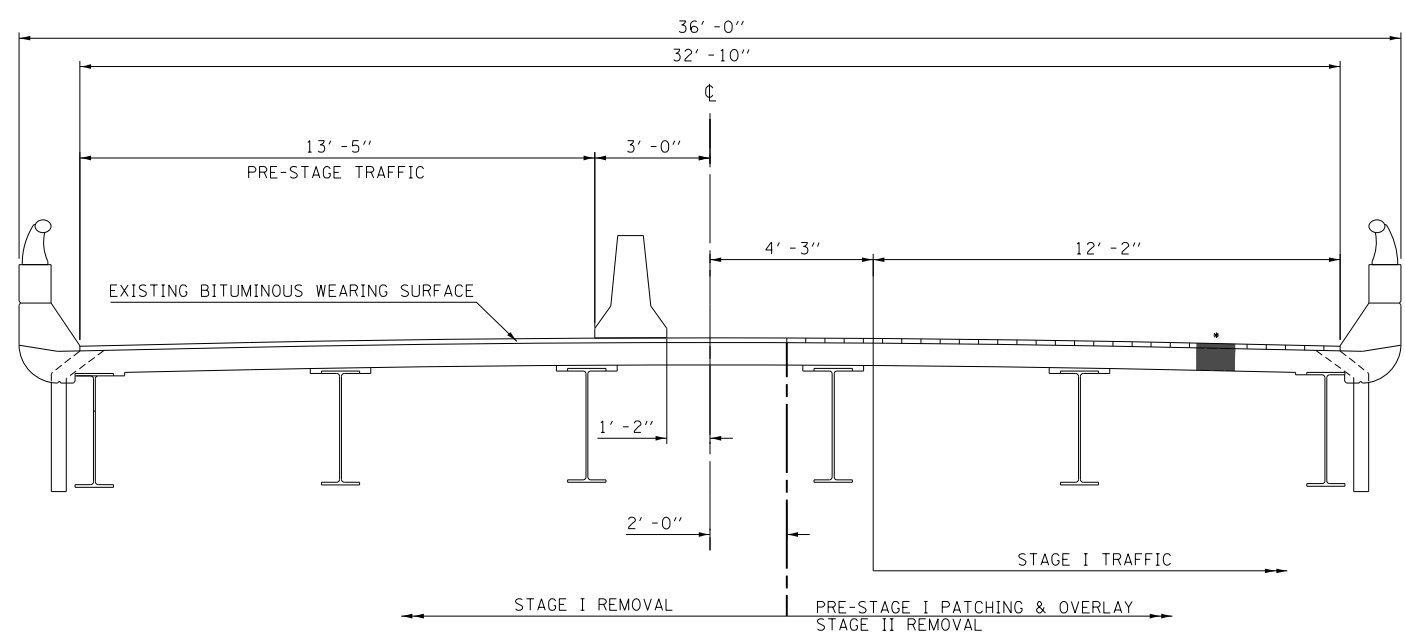
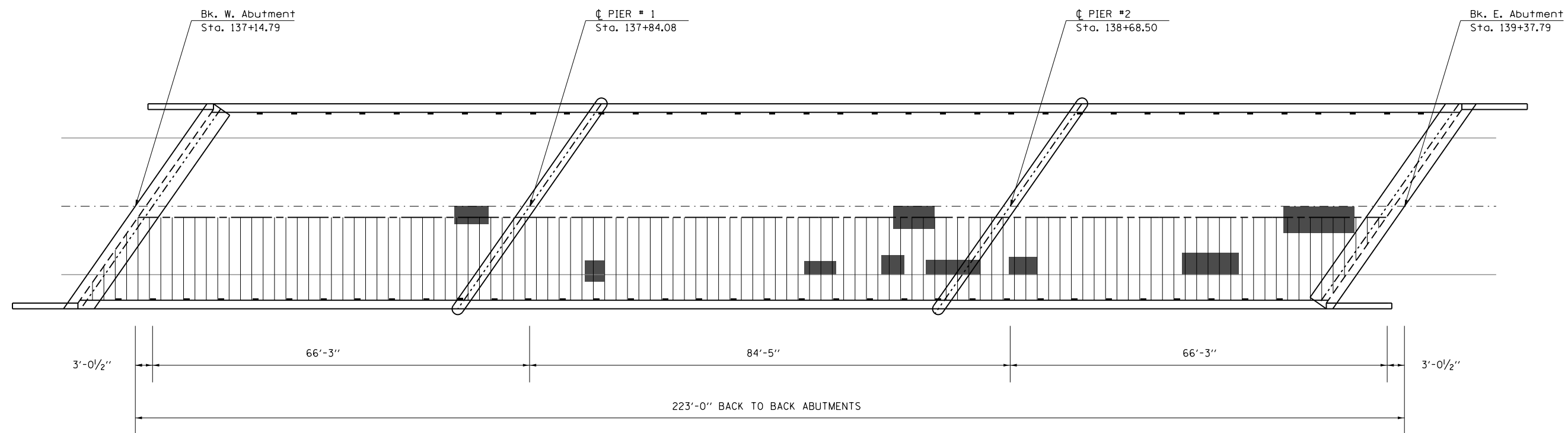
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL DETAILS			
SCALE:	SHEET 1	OF 1	SHEETS
	STA.	TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	24
			CONTRACT NO. 74358	
		ILLINOIS	FED. AID PROJECT	



HOT-MIX ASPHALT SURFACE REMOVAL (DECK) 1 1/2" AND PROPOSED 1 1/2" HOT-MIX ASPHALT OVERLAY



EXISTING FULL DEPTH AND PARTIAL DEPTH CONCRETE PATCHES, SHOWN FOR INFORMATIONAL PURPOSES ONLY. ACTUAL NUMBER OF PATCHES AND LOCATION IN FIELD MAY VARY.

EXISTING FULL DEPTH AND PARTIAL DEPTH CONCRETE PATCHES WERE FINISHED FLUSH WITH THE TOP OF THE EXISTING BITUMINOUS WEARING SURFACE. ALL EXISTING PATCHES STILL CONSIDERED SOUND BY THE ENGINEER SHALL NOT BE DISTURBED. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND THESE EXISTING PATCHES WHILE REMOVING THE EXISTING BITUMINOUS SURFACE AND PLACING THE NEW HOT-MIX ASPHALT OVERLAY.

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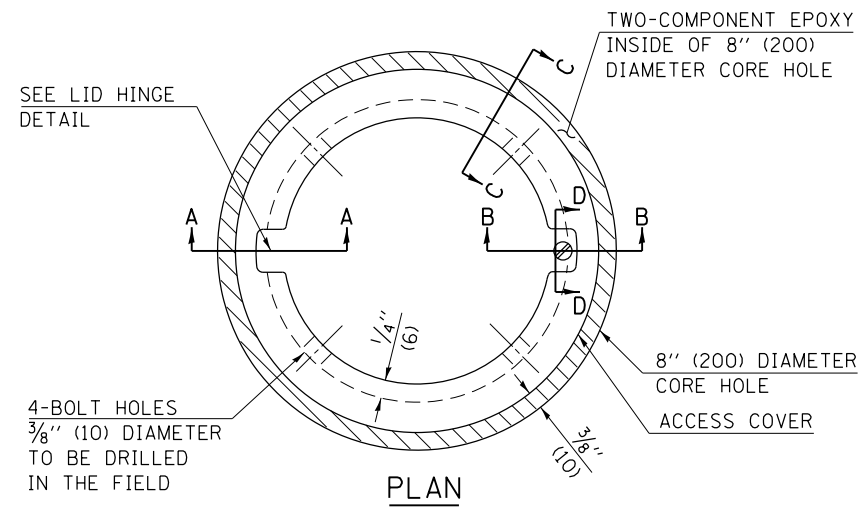
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PRE-STAGE DECK REPAIRS

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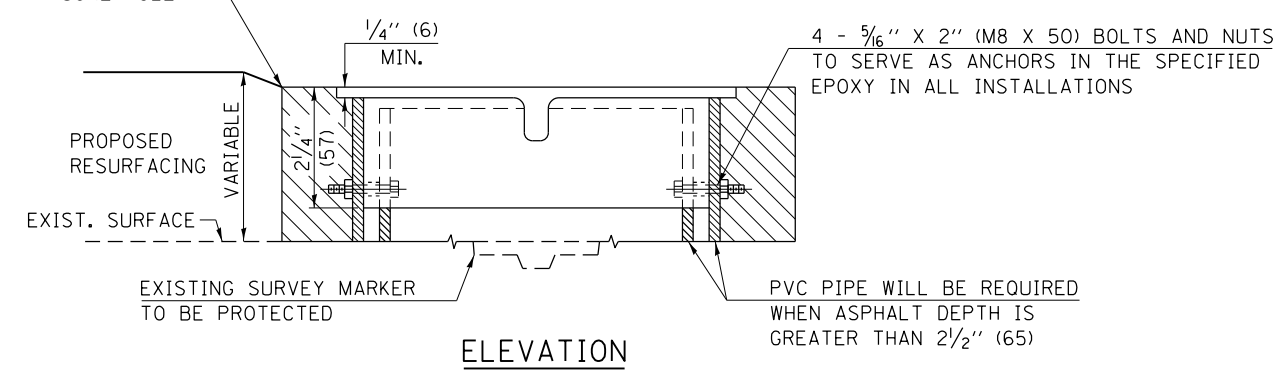
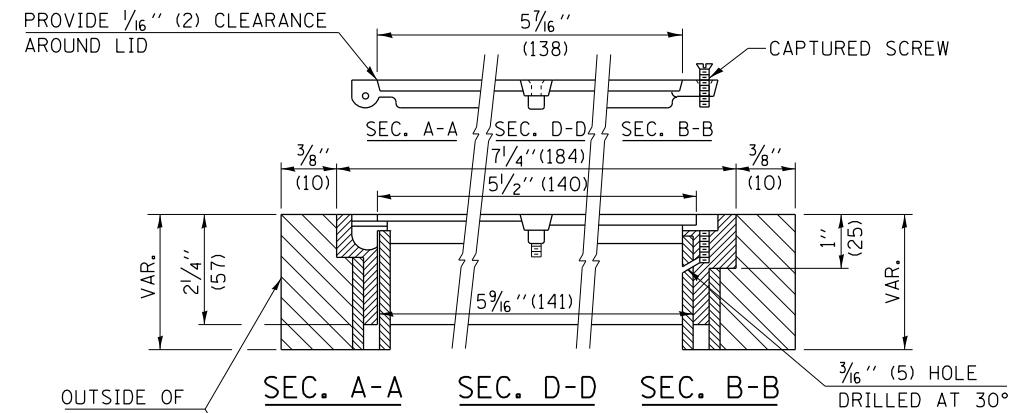
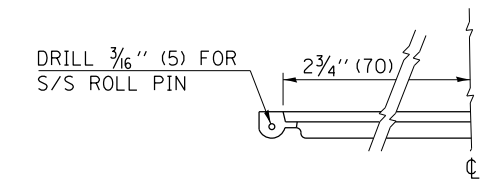
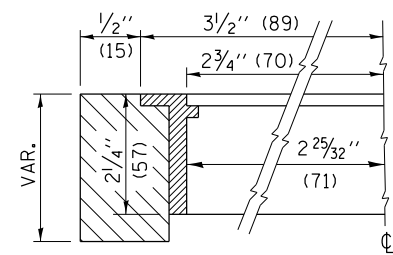
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320	(104BR)-1	MOULTRIE	63	25
			CONTRACT NO. 74358	
ILLINOIS FED. AID PROJECT				



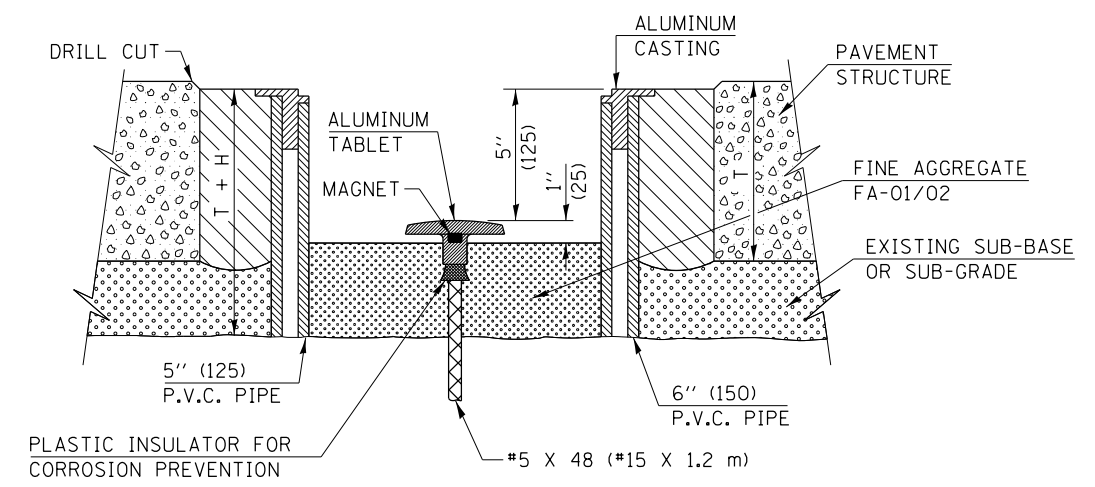
- LEGEND**
- ALUMINUM CASTING
 - 5" (125) OR 6" (150) P.V.C. PIPE
 - TWO-COMPONENT EPOXY
- T = THICKNESS OF PAVEMENT STRUCTURE
- H = THE THICKNESS OF THE SUB-BASE GRANULAR + 1" (25)

BILL OF MATERIAL

ALUMINUM CASTING OF THE DIMENSIONS AND SPECIFICATIONS SHOWN OR OTHER SUBJECT TO ENGINEER'S APPROVAL OF SHOP DRAWINGS, 4 EACH - 5/16" X 2" (M8 X 50) BOLTS WITH NUTS, EPOXY, 5" OR 6" (125 mm OR 150 mm) DIAMETER P.V.C. PIPE, SCHEDULE 40 (WHEN REQUIRED).



EXISTING SURVEY MARKER



PROPOSED SURVEY MARKER

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SURVEY MARKER VAULT			
SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

DISTRICT 7 DETAIL NO. Z0070202				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	27
CONTRACT NO. 74358				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

Benchmark: Chiseled "□" on top of Northeast parapet, Sta. 139+66; 17.8' Lt.; Elev. 634.306

Existing structure: SN 070-0003 built in 1967 as S.B.I. Route 132, Section 104-BR at Sta. 138+26.29. The existing structure consists of a three span steel wide flange beam superstructure supported on pile bent abutments and solid wall piers. Back-to-back of abutment length is 223'-0" and out-to-out width of deck is 36'-0". The existing superstructure is to be replaced and the structure shall be widened on each side. Traffic is to be maintained using stage construction.

No salvage of the superstructure.

DESIGN SPECIFICATIONS

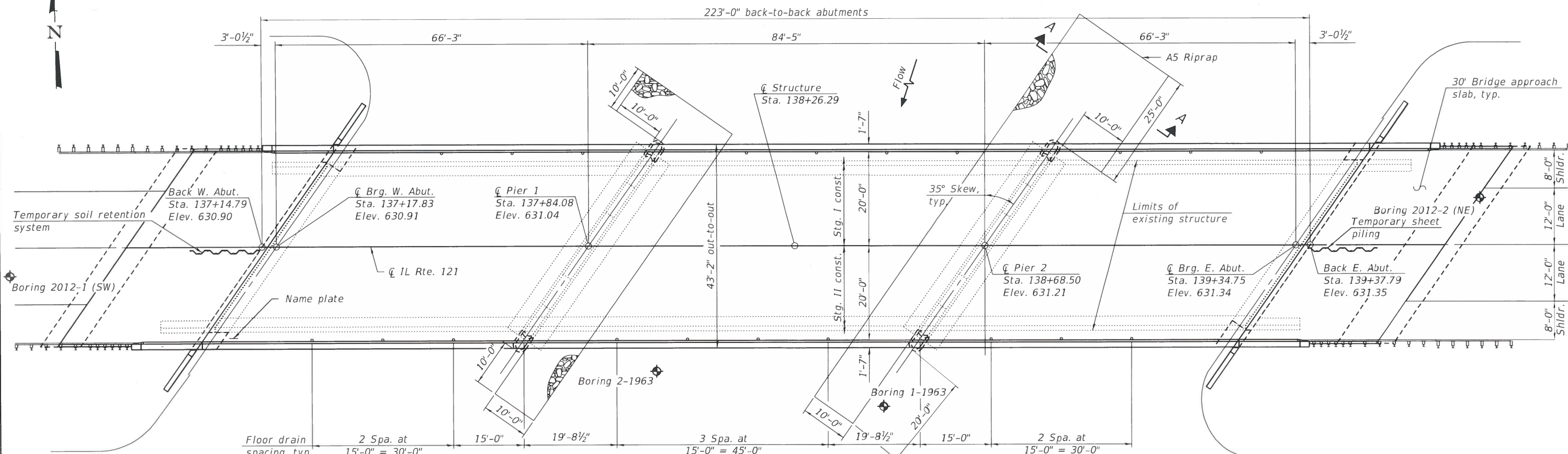
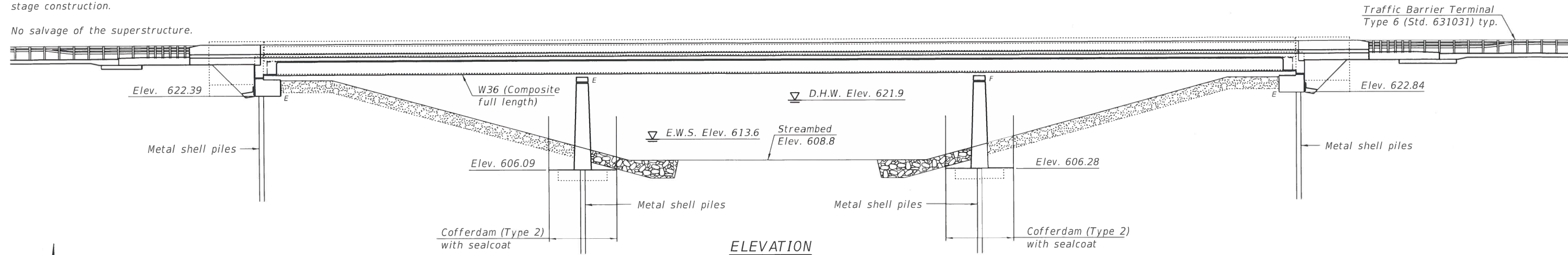
2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 and 2016 Interims
1995 FHWA Seismic Retrofitting Manual

LOADING HL-93

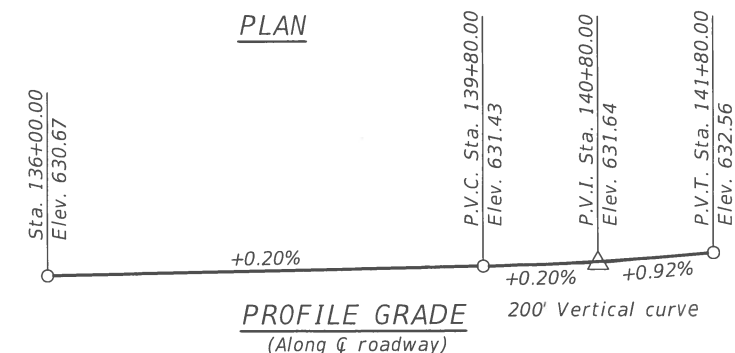
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.05 g
Site Coefficient = 1.5

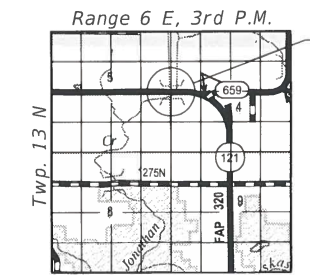


PLAN



PROFILE GRADE

(Along centerline roadway) 200' Vertical curve



LOCATION SKETCH

Proposed structure

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 121 OVER
JONATHAN CREEK
F.A.P. ROUTE 320 - SEC. (104BR)BR-1
MOULTRIE COUNTY
STA. 138+26.29
STRUCTURE NO. 070-0003

DESIGN STRESSES

FIELD UNITS (New construction)
f'c = 3,500 psi
f'c = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Structural Steel M270 Grade 50W)

FIELD UNITS (Existing construction)
f'c = 3,500 psi
fy = 40,000 psi (Reinforcement)



EXPIRES 11-30-2018

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED - <i>Pauline Gunkle</i>	EXAMINED - <i>Jay F. Smith</i>	DATE - 9-20-2018
CHECKED - <i>David S. G...</i>	PASSED - <i>David S. G...</i>	REVISOR -
DRAWN - MICHAEL B. MOSSMAN	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -
CHECKED - PG/DS		

SHEET 1 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	28
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

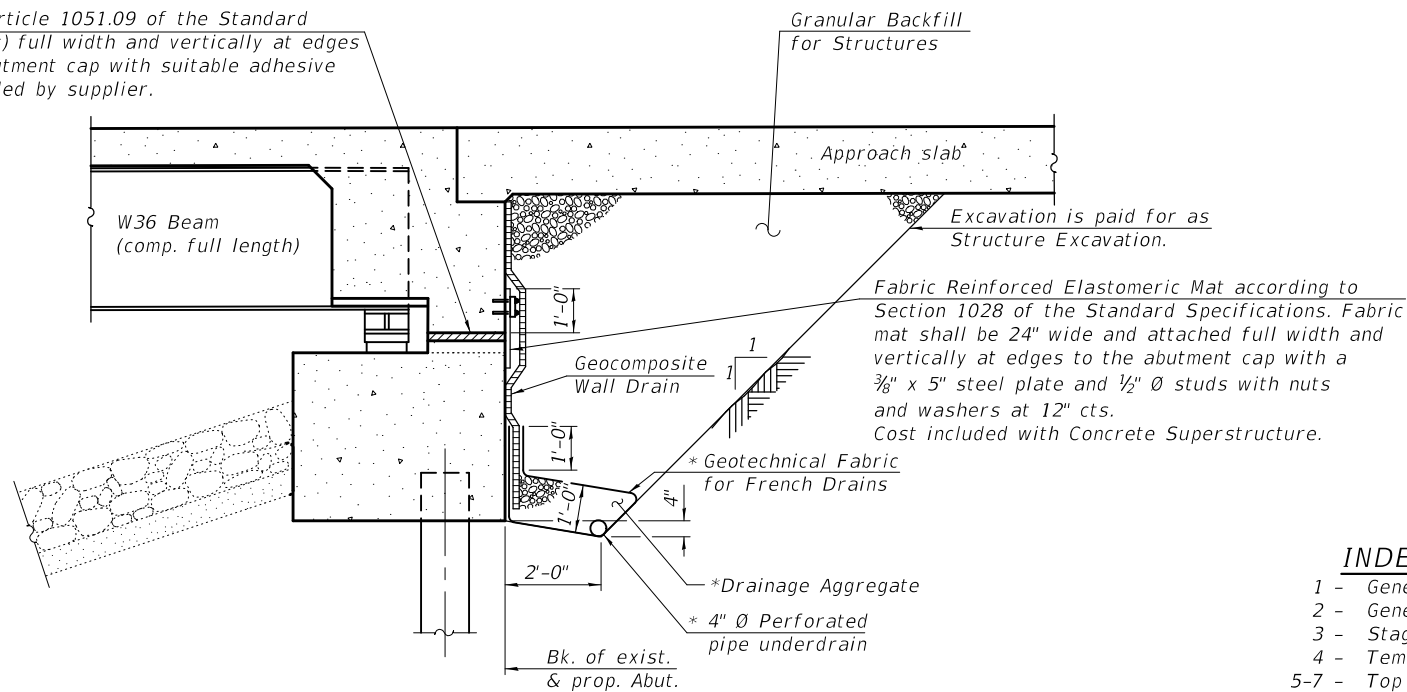
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\$DATES \$TIMES

GENERAL NOTES

Fasteners shall be ASTM A325 Type 3 bolts. Bolts 7/8" Ø holes 15/16" Ø, unless otherwise noted
 Calculated weight of Structural Steel = 278,580 Lbs.
 All structural steel shall be AASHTO M270 Grade 50W.
 No field welding is permitted except as specified in the contract documents.
 Reinforcement bars designated (E) shall be epoxy coated.
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8". (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete diaphragm plus 1'-6". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
 Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
 Seal coat thickness design is based on the Cofferdam Design Water Elevation (CDWE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.

2" PJF (per Article 1051.09 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.

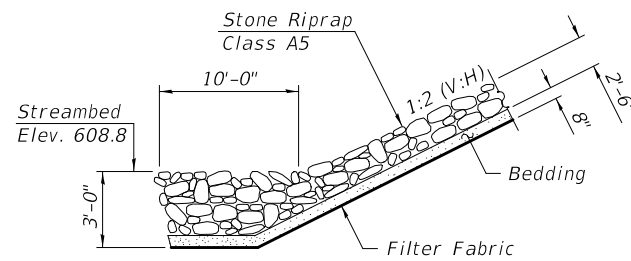


SECTION THRU SEMI-INTEGRAL ABUTMENT EXTENSION
 (Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



SECTION A-A

WATERWAY INFORMATION

Drainage Area = 53.6 sq. mi. Existing Overtopping Elev. = 630.5 at Sta. 135+00
 Proposed Overtopping Elev. = ____ at Sta. ____

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. Head - Ft.		Headwater E.		
			Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
10	2710	706	706	620.0	0.4	0.4	620.4	620.4	
Design	50	4230	1003	1003	621.9	0.4	0.4	622.3	622.3
Base	100	4890	1140	1140	622.7	0.3	0.3	623.0	623.0
Scour Design Check	200	5571	1283	1283	623.5	0.2	0.2	623.7	623.7
Overtop Existing									
Overtop Proposed									
Max. Calc.	500	6470	1492	1492	624.6	0.2	0.2	624.8	624.8

INDEX OF SHEETS

- 1 - General Plan & Elevation
- 2 - General Data
- 3 - Stage Construction Details
- 4 - Temporary Concrete Barrier
- 5-7 - Top of Slab Elevations
- 8-9 - Top of Approach Slab Elevations
- 10 - Superstructure
- 11 - Superstructure Details
- 12 - Diaphragm Details
- 13-14 - Bridge Approach Slab Details
- 15-16 - Structural Steel
- 17 - Abutment Bearing Details
- 18-19 - Pier Bearing Details
- 20-21 - Abutment Removal & Repair Details
- 22-23 - West Abutment
- 24-25 - East Abutment
- 26 - Pier Repairs
- 27-28 - Piers
- 29 - Bar Splicer Assembly and Mechanical Splicer Details
- 30 - Metal Shell Pile Details
- 31 - Concrete Parapet Slipforming Option
- 32-36 - Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		262	262
Filter Fabric	Sq. Yd.		262	262
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		42.2	42.2
Structure Excavation	Cu. Yd.		244.2	244.2
Cofferdam Excavation	Cu. Yd.		113.4	113.4
Cofferdam (Type 2) (Location 1)	Each		1	1
Cofferdam (Type 2) (Location 2)	Each		1	1
Floor Drains	Each	20		20
Concrete Structures	Cu. Yd.		80.7	80.7
Concrete Superstructure	Cu. Yd.	340.2		340.2
Bridge Deck Grooving	Sq. Yd.	1,187		1,187
Seal Coat Concrete	Cu. Yd.		40.2	40.2
Protective Coat	Sq. Yd.	1,469		1,469
Concrete Superstructure (Approach Slab)	Cu. Yd.	118.6		118.6
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	5,346		5,346
Reinforcement Bars, Epoxy Coated	Pound	133,940	6,580	140,520
Bar Splicers	Each	800	256	1,056
Furnishing Metal Shell Piles 14"x0.25"	Foot		265	265
Driving Piles	Foot		265	265
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Elastomeric Bearing Assembly, Type I	Each	12		12
Anchor Bolts, 1"	Each	36		36
Anchor Bolts, 1 1/2"	Each	12		12
Temporary Sheet Piling	Sq. Ft.		158	158
Temporary Soil Retention System	Sq. Ft.		69	69
Geocomposite Wall Drain	Sq. Yd.		108	108
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		55	55
Pipe Underdrains for Structures, 4"	Foot		190	190
Elastomeric Bearing Assembly, Type I (Special)	Each	6		6
Granular Backfill for Structures	Cu. Yd.		193	193

STATION 138+26.29
 RE-BUILT 20 BY
 STATE OF ILLINOIS
 F.A.P. RTE. 320 - SEC. (104BR)BR-1
 LOADING HL-93
 STRUCTURE NO. 070-0003

NAME PLATE

See Std. 515001
 Existing name plates shall be cleaned and relocated next to new name plates. Cost included with Name Plates.

DESIGN SCOUR ELEVATION TABLE

Event / Limit	Design Scour Elevations (ft.)				Item 113
	W. Abut.	Pier 1	Pier 2	E. Abut.	
Q100	622.39	587.42	587.61	622.82	7
Q200	622.39	586.78	586.97	622.82	
Design Check	622.39	603.84	604.03	622.82	

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DESIGNED - PAUL GURKLYS	EXAMINED - <i>Joanne F. Salvo</i>	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED - <i>Carl Perry</i>	
DRAWN - MICHAEL B. MOSSMAN		
CHECKED - P.G./D.S./G.R.A.		

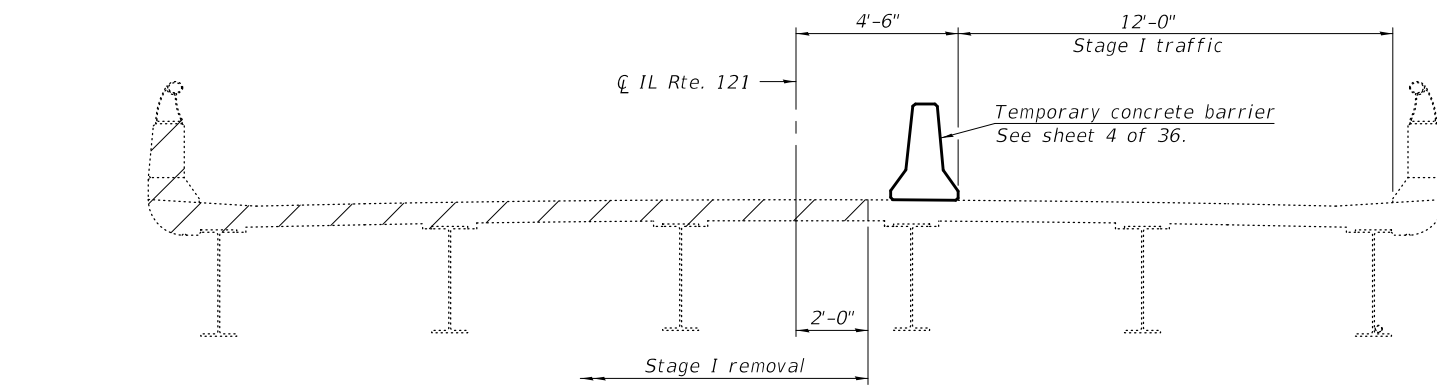
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA
 STRUCTURE NO. 070 - 0003**

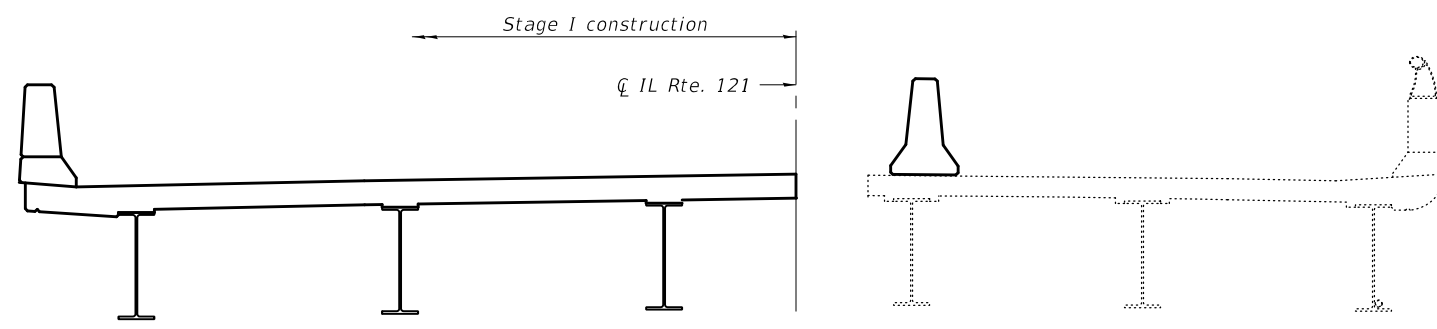
SHEET 2 OF 36 SHEETS

F.A.P. RTE. 320	SECTION (104BR)BR-1	COUNTY MOULTRIE	TOTAL SHEETS 63	SHEET NO. 29
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

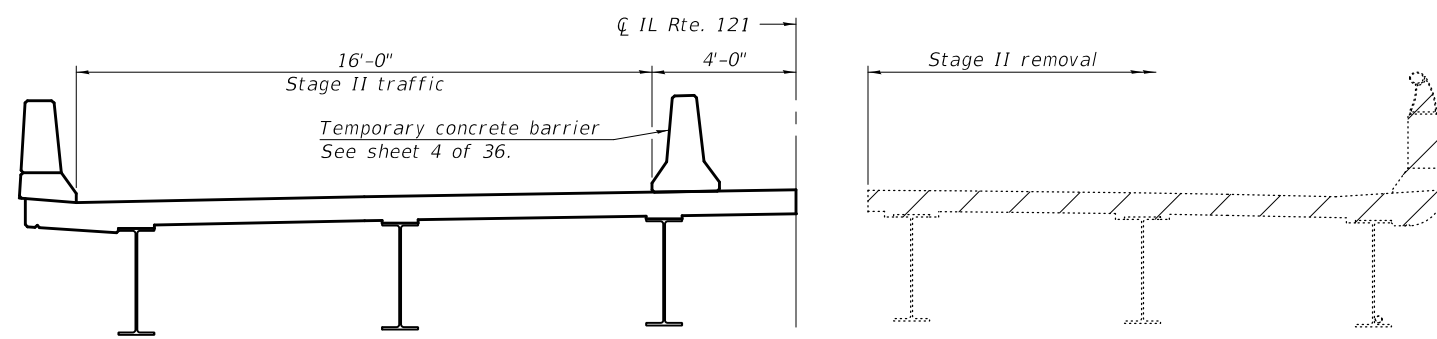
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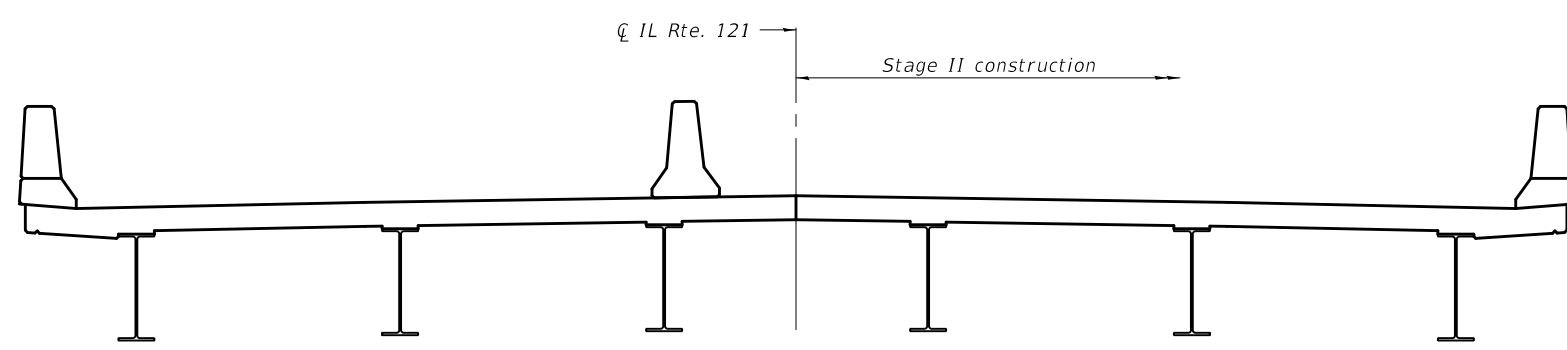
STAGE I REMOVAL



STAGE I CONSTRUCTION

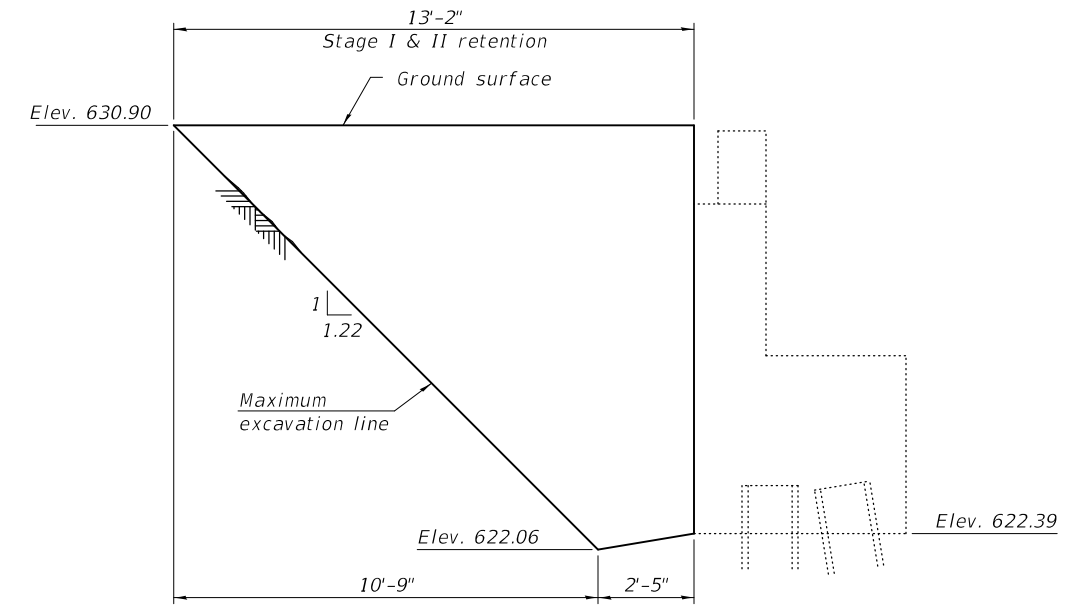


STAGE II REMOVAL



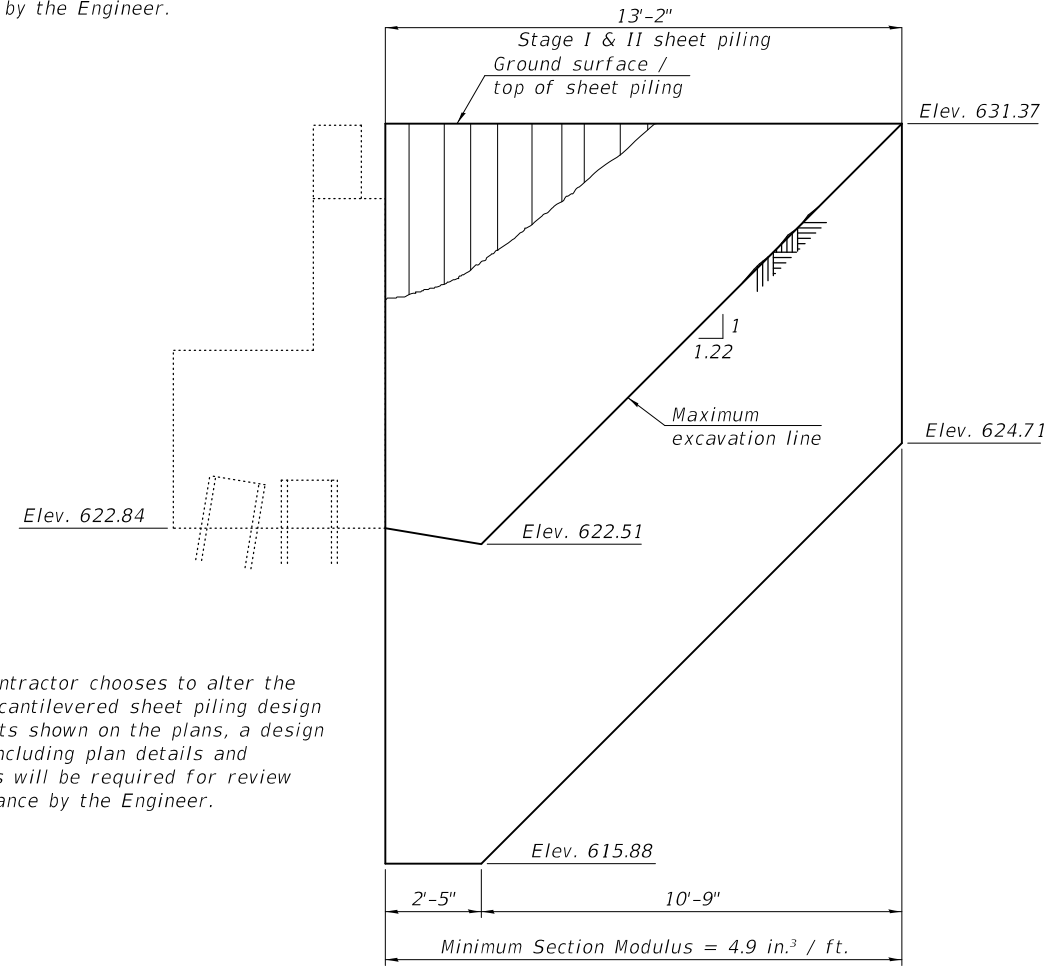
STAGE II CONSTRUCTION

Notes:
 All staging cross sections are looking East.
 For quantity of Temporary Concrete Barrier, see roadway plans.
 Hatched area indicates Removal of Existing Superstructures.
 Pre-stage deck repairs will be required on south lane (EBL) prior to opening of the stage I traffic. See pre-stage deck repair plans.



TEMPORARY SOIL RETENTION SYSTEM
 (West Abutment)

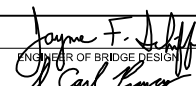
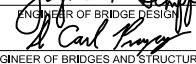
Note:
 A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



TEMPORARY SHEET PILING
 (East Abutment)

Note:
 If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

DESIGNED - PAUL GURKLYS	EXAMINED
CHECKED - DAVID SALGADO	PASSED
DRAWN - MICHAEL B. MOSSMAN	
CHECKED - P.G./D.S./G.R.A.	


 ENGINEER OF BRIDGE DESIGN

 ENGINEER OF BRIDGES AND STRUCTURES

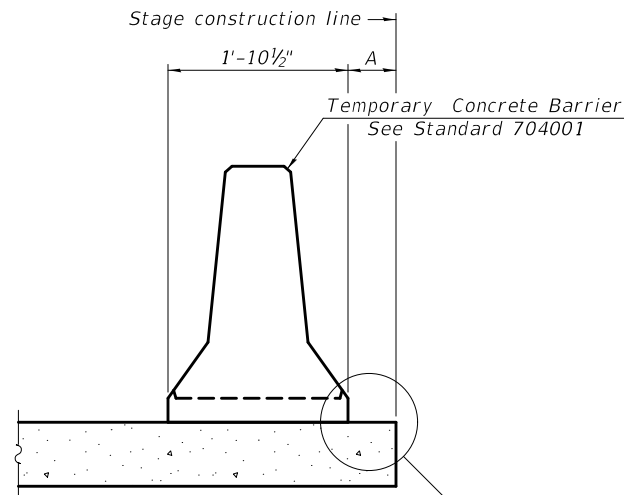
DATE - SEPTEMBER 20, 2018
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 070 - 0003

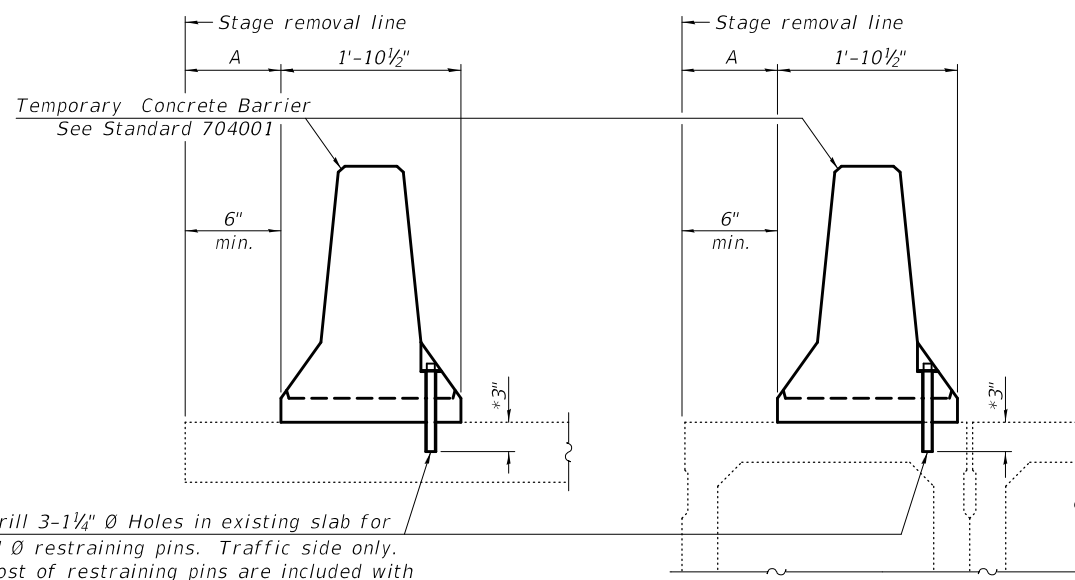
SHEET 3 OF 36 SHEETS

F.A.P. RTE. 320	SECTION (104BR)BR-1	COUNTY MOULTRIE	TOTAL SHEETS 63	SHEET NO. 30
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



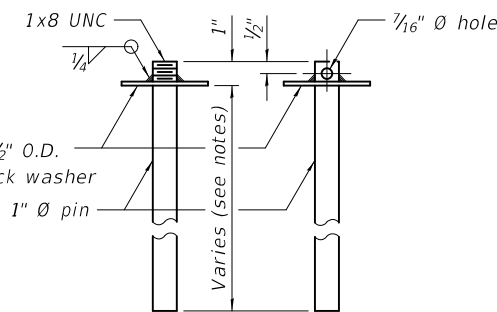
Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

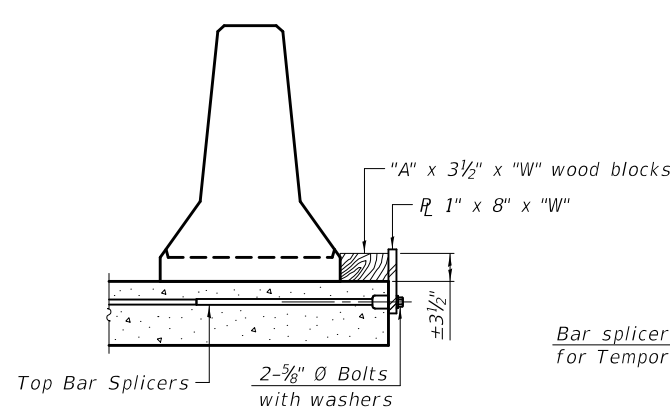
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

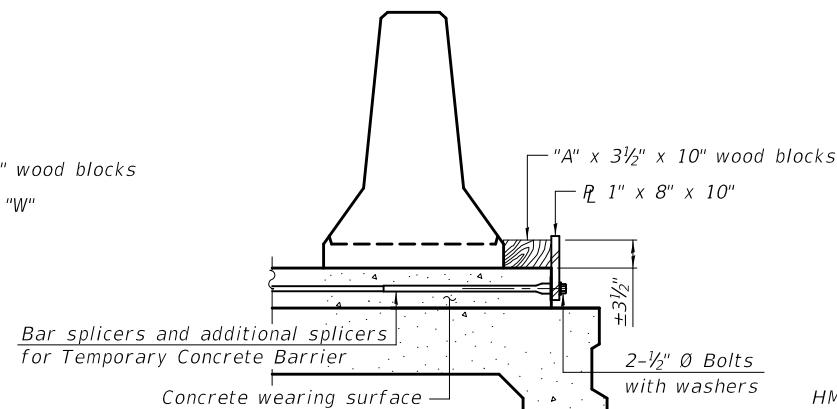
SECTIONS THRU SLAB OR DECK BEAM



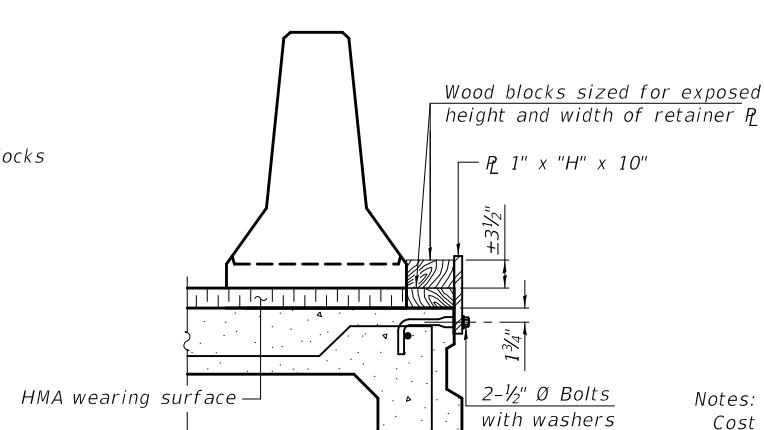
RESTRAINING PIN



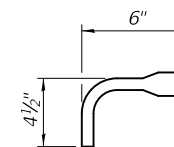
DETAIL I



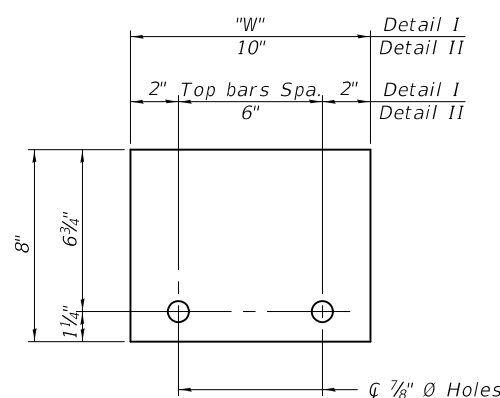
DETAIL II



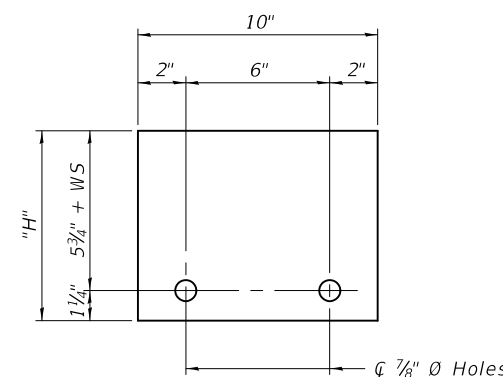
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER 1" x "H" x 10"
(Detail III)

Notes:

- Cost of retainer assembly is included with Temporary Concrete Barrier.
- A retainer assembly shall be located at the approximate center of each temporary concrete barrier.
- The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
- When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate.
- For deck beam applications the minimum required 'A' distance is 6' to accommodate the shear key clamping device.

- Detail I - Installation for a new bridge deck or bridge slab.
- Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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R-27 8-11-2017

DESIGNED - PAUL GURKLYS	EXAMINED
CHECKED - DAVID SALGADO	PASSED
DRAWN - MICHAEL B. MOSSMAN	
CHECKED - P.G./D.S./G.R.A.	

DATE - SEPTEMBER 20, 2018

 ENGINEER OF BRIDGES AND STRUCTURES

REVISIONS	
REVISIONS	

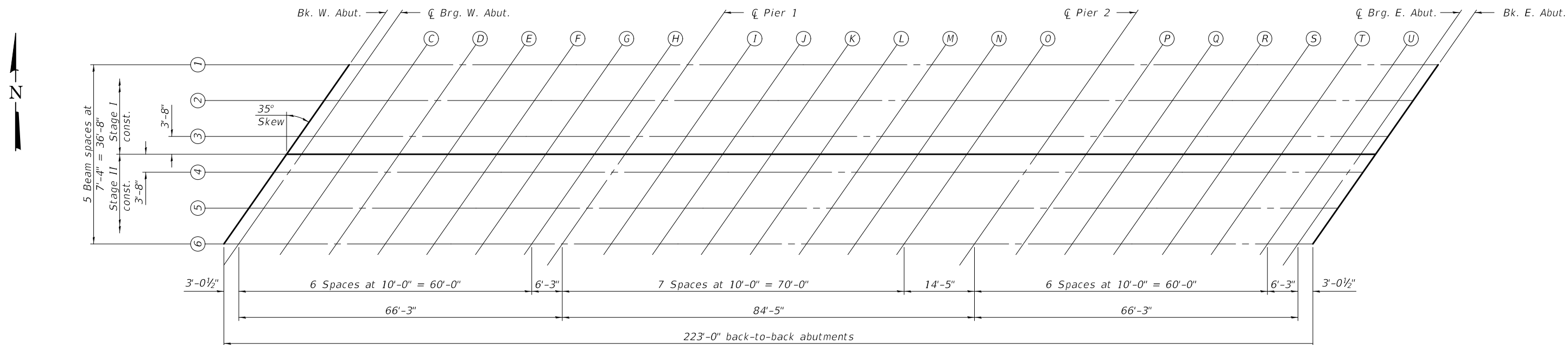
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 070 - 0003

SHEET 4 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	31
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

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BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	137+27.63	-18.33	630.62	630.62
Q Brg. W. Abut.	137+30.67	-18.33	630.62	630.62
C	137+40.67	-18.33	630.64	630.66
D	137+50.67	-18.33	630.66	630.69
E	137+60.67	-18.33	630.68	630.72
F	137+70.67	-18.33	630.70	630.73
G	137+80.67	-18.33	630.72	630.74
H	137+90.67	-18.33	630.74	630.75
Q Pier 1	137+96.92	-18.33	630.76	630.76
I	138+06.92	-18.33	630.78	630.79
J	138+16.92	-18.33	630.80	630.83
K	138+26.92	-18.33	630.82	630.86
L	138+36.92	-18.33	630.84	630.89
M	138+46.92	-18.33	630.86	630.90
N	138+56.92	-18.33	630.88	630.91
O	138+66.92	-18.33	630.90	630.92
Q Pier 2	138+81.34	-18.33	630.93	630.93
P	138+91.34	-18.33	630.95	630.95
Q	139+01.34	-18.33	630.97	630.98
R	139+11.34	-18.33	630.99	631.02
S	139+21.34	-18.33	631.01	631.04
T	139+31.34	-18.33	631.03	631.05
U	139+41.34	-18.33	631.05	631.06
Q Brg. E. Abut.	139+47.59	-18.33	631.06	631.06
Bk. E. Abut.	139+50.63	-18.33	631.06	631.06

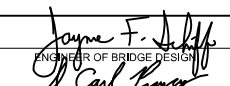
BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	137+22.49	-11.00	630.75	630.75
Q Brg. W. Abut.	137+25.53	-11.00	630.76	630.76
C	137+35.53	-11.00	630.78	630.79
D	137+45.53	-11.00	630.80	630.82
E	137+55.53	-11.00	630.82	630.85
F	137+65.53	-11.00	630.84	630.86
G	137+75.53	-11.00	630.86	630.87
H	137+85.53	-11.00	630.88	630.88
Q Pier 1	137+91.78	-11.00	630.89	630.89
I	138+01.78	-11.00	630.91	630.92
J	138+11.78	-11.00	630.93	630.96
K	138+21.78	-11.00	630.95	630.99
L	138+31.78	-11.00	630.97	631.02
M	138+41.78	-11.00	630.99	631.03
N	138+51.78	-11.00	631.01	631.04
O	138+61.78	-11.00	631.03	631.05
Q Pier 2	138+76.20	-11.00	631.06	631.06
P	138+86.20	-11.00	631.08	631.09
Q	138+96.20	-11.00	631.10	631.12
R	139+06.20	-11.00	631.12	631.15
S	139+16.20	-11.00	631.14	631.17
T	139+26.20	-11.00	631.16	631.18
U	139+36.20	-11.00	631.18	631.19
Q Brg. E. Abut.	139+42.45	-11.00	631.19	631.19
Bk. E. Abut.	139+45.49	-11.00	631.20	631.20

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	137+17.36	-3.67	630.85	630.85
Q Brg. W. Abut.	137+20.40	-3.67	630.86	630.86
C	137+30.40	-3.67	630.88	630.89
D	137+40.40	-3.67	630.90	630.92
E	137+50.40	-3.67	630.92	630.95
F	137+60.40	-3.67	630.94	630.96
G	137+70.40	-3.67	630.96	630.97
H	137+80.40	-3.67	630.98	630.98
Q Pier 1	137+86.65	-3.67	630.99	630.99
I	137+96.65	-3.67	631.01	631.02
J	138+06.65	-3.67	631.03	631.06
K	138+16.65	-3.67	631.05	631.09
L	138+26.65	-3.67	631.07	631.12
M	138+36.65	-3.67	631.09	631.13
N	138+46.65	-3.67	631.11	631.14
O	138+56.65	-3.67	631.13	631.15
Q Pier 2	138+71.07	-3.67	631.16	631.16
P	138+81.07	-3.67	631.18	631.19
Q	138+91.07	-3.67	631.20	631.22
R	139+01.07	-3.67	631.22	631.25
S	139+11.07	-3.67	631.24	631.27
T	139+21.07	-3.67	631.26	631.28
U	139+31.07	-3.67	631.28	631.29
Q Brg. E. Abut.	139+37.32	-3.67	631.29	631.29
Bk. E. Abut.	139+40.36	-3.67	631.30	631.30

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DESIGNED - PAUL GURKLYS	EXAMINED	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	 PAUL GURKLYS ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
DRAWN - MICHAEL B. MOSSMAN		REVISED -
CHECKED - P.G./D.S./G.R.A.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 070 - 0003

SHEET 5 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	32
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

CL ROADWAY, PG, & STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	137+14.79	0.00	630.90	630.90
CL Brg. W. Abut.	137+17.83	0.00	630.91	630.91
C	137+27.83	0.00	630.93	630.94
D	137+37.83	0.00	630.95	630.97
E	137+47.83	0.00	630.97	631.00
F	137+57.83	0.00	630.99	631.01
G	137+67.83	0.00	631.01	631.02
H	137+77.83	0.00	631.03	631.03
CL Pier 1	137+84.08	0.00	631.04	631.04
I	137+94.08	0.00	631.06	631.07
J	138+04.08	0.00	631.08	631.11
K	138+14.08	0.00	631.10	631.14
L	138+24.08	0.00	631.12	631.17
M	138+34.08	0.00	631.14	631.18
N	138+44.08	0.00	631.16	631.19
O	138+54.08	0.00	631.18	631.20
CL Pier 2	138+68.50	0.00	631.21	631.21
P	138+78.50	0.00	631.23	631.24
Q	138+88.50	0.00	631.25	631.26
R	138+98.50	0.00	631.27	631.30
S	139+08.50	0.00	631.29	631.32
T	139+18.50	0.00	631.31	631.33
U	139+28.50	0.00	631.33	631.34
CL Brg. E. Abut.	139+34.75	0.00	631.34	631.34
Bk. E. Abut.	139+37.79	0.00	631.35	631.35

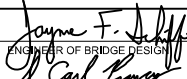

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	137+12.22	3.67	630.84	630.84
CL Brg. W. Abut.	137+15.26	3.67	630.85	630.85
C	137+25.26	3.67	630.87	630.88
D	137+35.26	3.67	630.89	630.91
E	137+45.26	3.67	630.91	630.94
F	137+55.26	3.67	630.93	630.95
G	137+65.26	3.67	630.95	630.96
H	137+75.26	3.67	630.97	630.97
CL Pier 1	137+81.51	3.67	630.98	630.98
I	137+91.51	3.67	631.00	631.01
J	138+01.51	3.67	631.02	631.05
K	138+11.51	3.67	631.04	631.08
L	138+21.51	3.67	631.06	631.11
M	138+31.51	3.67	631.08	631.12
N	138+41.51	3.67	631.10	631.13
O	138+51.51	3.67	631.12	631.14
CL Pier 2	138+65.93	3.67	631.15	631.15
P	138+75.93	3.67	631.17	631.18
Q	138+85.93	3.67	631.19	631.20
R	138+95.93	3.67	631.21	631.24
S	139+05.93	3.67	631.23	631.26
T	139+15.93	3.67	631.25	631.27
U	139+25.93	3.67	631.27	631.28
CL Brg. E. Abut.	139+32.18	3.67	631.28	631.28
Bk. E. Abut.	139+35.22	3.67	631.29	631.29

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	137+07.09	11.00	630.72	630.72
CL Brg. W. Abut.	137+10.13	11.00	630.73	630.73
C	137+20.13	11.00	630.75	630.76
D	137+30.13	11.00	630.77	630.79
E	137+40.13	11.00	630.79	630.82
F	137+50.13	11.00	630.81	630.83
G	137+60.13	11.00	630.83	630.84
H	137+70.13	11.00	630.85	630.85
CL Pier 1	137+76.38	11.00	630.86	630.86
I	137+86.38	11.00	630.88	630.89
J	137+96.38	11.00	630.90	630.93
K	138+06.38	11.00	630.92	630.96
L	138+16.38	11.00	630.94	630.99
M	138+26.38	11.00	630.96	631.00
N	138+36.38	11.00	630.98	631.01
O	138+46.38	11.00	631.00	631.02
CL Pier 2	138+60.80	11.00	631.03	631.03
P	138+70.80	11.00	631.05	631.06
Q	138+80.80	11.00	631.07	631.08
R	138+90.80	11.00	631.09	631.12
S	139+00.80	11.00	631.11	631.14
T	139+10.80	11.00	631.13	631.15
U	139+20.80	11.00	631.15	631.16
CL Brg. E. Abut.	139+27.05	11.00	631.16	631.16
Bk. E. Abut.	139+30.09	11.00	631.17	631.17

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DESIGNED - PAUL GURKLYS	EXAMINED	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO		
DRAWN - MICHAEL B. MOSSMAN	PASSED	
CHECKED - P.G./D.S./G.R.A.		REVISER -
	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
 STRUCTURE NO. 070 - 0003

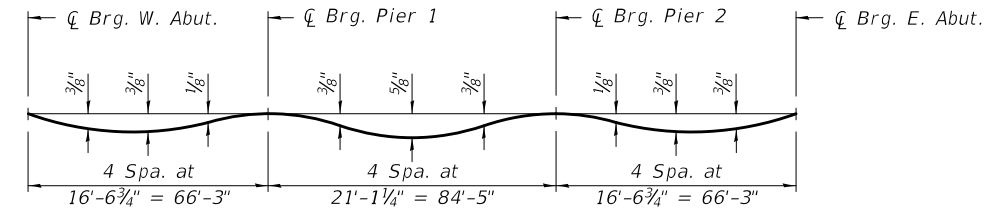
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	33
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

SHEET 6 OF 36 SHEETS

MODEL: 0700003-74358-007
 FILE NAME: p:\w\1084EBID\INTEG\Illinois\DOT Offices\Bureau of Bridges and Structures\Projects\0700003\CADD Plans\0700003-74358.dgn

BEAM 6

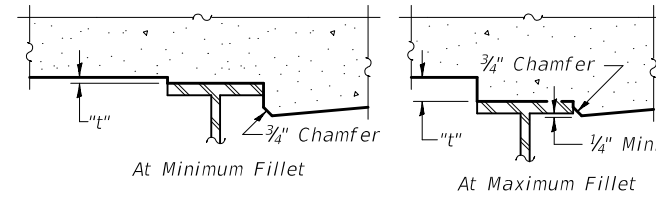
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	137+01.95	18.33	630.57	630.57
Cl Brg. W. Abut.	137+04.99	18.33	630.57	630.57
C	137+14.99	18.33	630.59	630.61
D	137+24.99	18.33	630.61	630.64
E	137+34.99	18.33	630.63	630.66
F	137+44.99	18.33	630.65	630.68
G	137+54.99	18.33	630.67	630.69
H	137+64.99	18.33	630.69	630.70
Cl Pier 1	137+71.24	18.33	630.71	630.71
I	137+81.24	18.33	630.73	630.74
J	137+91.24	18.33	630.75	630.77
K	138+01.24	18.33	630.77	630.80
L	138+11.24	18.33	630.79	630.84
M	138+21.24	18.33	630.81	630.85
N	138+31.24	18.33	630.83	630.86
O	138+41.24	18.33	630.85	630.87
Cl Pier 2	138+55.66	18.33	630.87	630.87
P	138+65.66	18.33	630.89	630.90
Q	138+75.66	18.33	630.91	630.93
R	138+85.66	18.33	630.93	630.96
S	138+95.66	18.33	630.95	630.99
T	139+05.66	18.33	630.97	631.00
U	139+15.66	18.33	630.99	631.01
Cl Brg. E. Abut.	139+21.91	18.33	631.01	631.01
Bk. E. Abut.	139+24.95	18.33	631.01	631.01



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
 The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 5 thru 7 of 36.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below on sheet 5 of 36. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 5 thru 7 of 36, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

DESIGNED - PAUL GURKLYS	EXAMINED	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	<i>Joanne F. Salvo</i> ENGINEER OF BRIDGE DESIGN	
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED -
CHECKED - P.G./D.S./G.R.A.	<i>Carl Kopper</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
 STRUCTURE NO. 070 - 0003**

SHEET 7 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	34
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	137+00.01	-20.00	630.53
A	137+10.01	-20.00	630.55
B	137+20.01	-20.00	630.57
E. End of W. Appr. Slab	137+30.01	-20.00	630.59

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	136+94.41	-12.00	630.68
A	137+04.41	-12.00	630.70
B	137+14.41	-12.00	630.72
E. End of W. Appr. Slab	137+24.41	-12.00	630.74

☐ ROADWAY, PG, & STAGE CONSTRUCTION JOINT

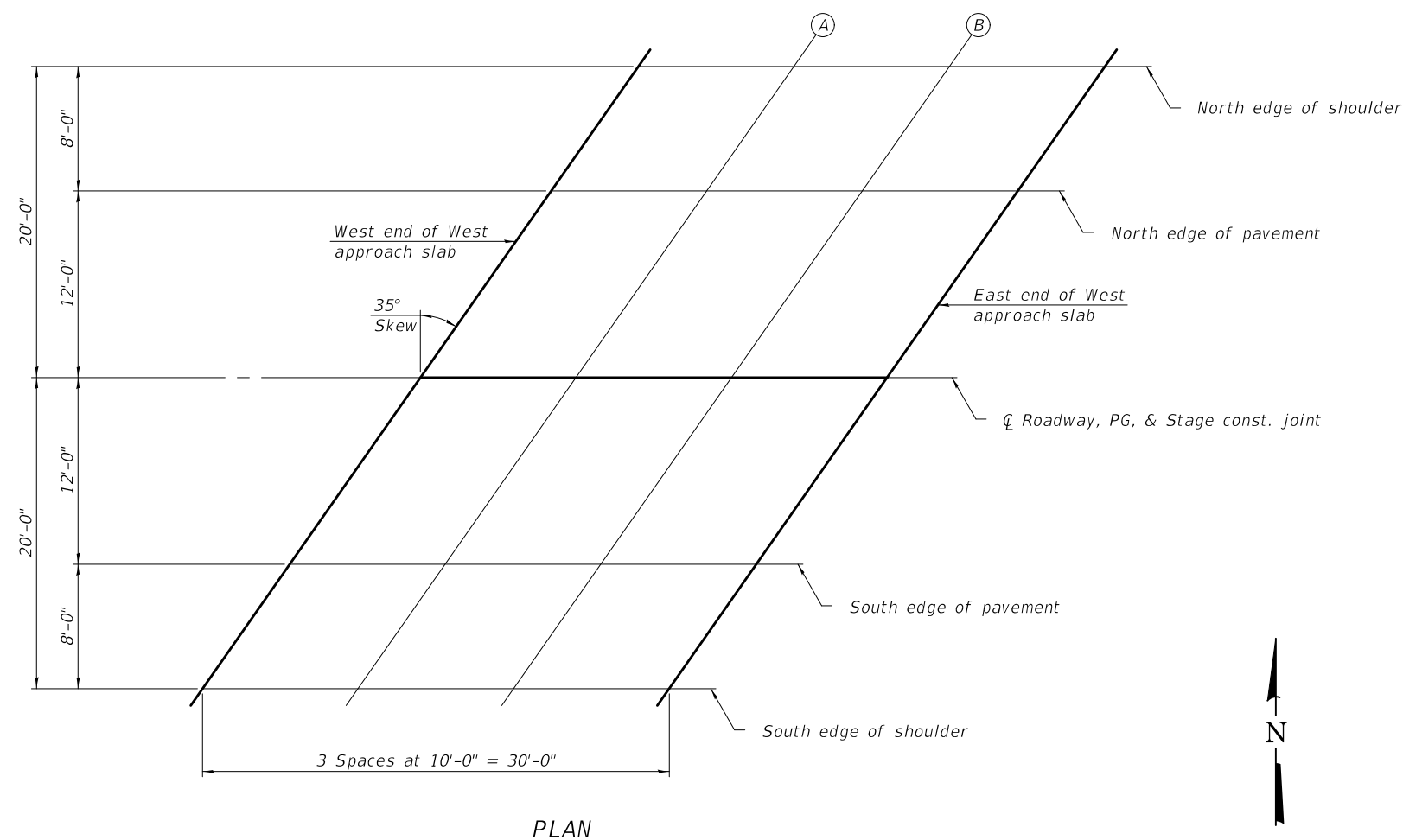
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	136+86.01	0.00	630.84
A	136+96.01	0.00	630.86
B	137+06.01	0.00	630.88
E. End of W. Appr. Slab	137+16.01	0.00	630.90

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	136+77.61	12.00	630.65
A	136+87.61	12.00	630.67
B	136+97.61	12.00	630.69
E. End of W. Appr. Slab	137+07.61	12.00	630.71

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	136+72.01	20.00	630.47
A	136+82.01	20.00	630.49
B	136+92.01	20.00	630.51
E. End of W. Appr. Slab	137+02.01	20.00	630.53



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DESIGNED - PAUL GURKLYS	EXAMINED	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED	
DRAWN - MICHAEL B. MOSSMAN		
CHECKED - P.G./D.S./G.R.A.		

Jaime F. Salgado
 ENGINEER OF BRIDGE DESIGN
Carl Meyer
 ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WEST TOP OF APPROACH SLAB ELEVATIONS
 STRUCTURE NO. 070 - 0003

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	35
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

SHEET 8 OF 36 SHEETS

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	139+50.57	-20.00	631.03
V	139+60.57	-20.00	631.05
W	139+70.57	-20.00	631.07
E. End of E. Appr. Slab	139+80.57	-20.00	631.09

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	139+44.97	-12.00	631.18
V	139+54.97	-12.00	631.20
W	139+64.97	-12.00	631.22
E. End of E. Appr. Slab	139+74.97	-12.00	631.24

☐ ROADWAY, PG, & STAGE CONSTRUCTION JOINT

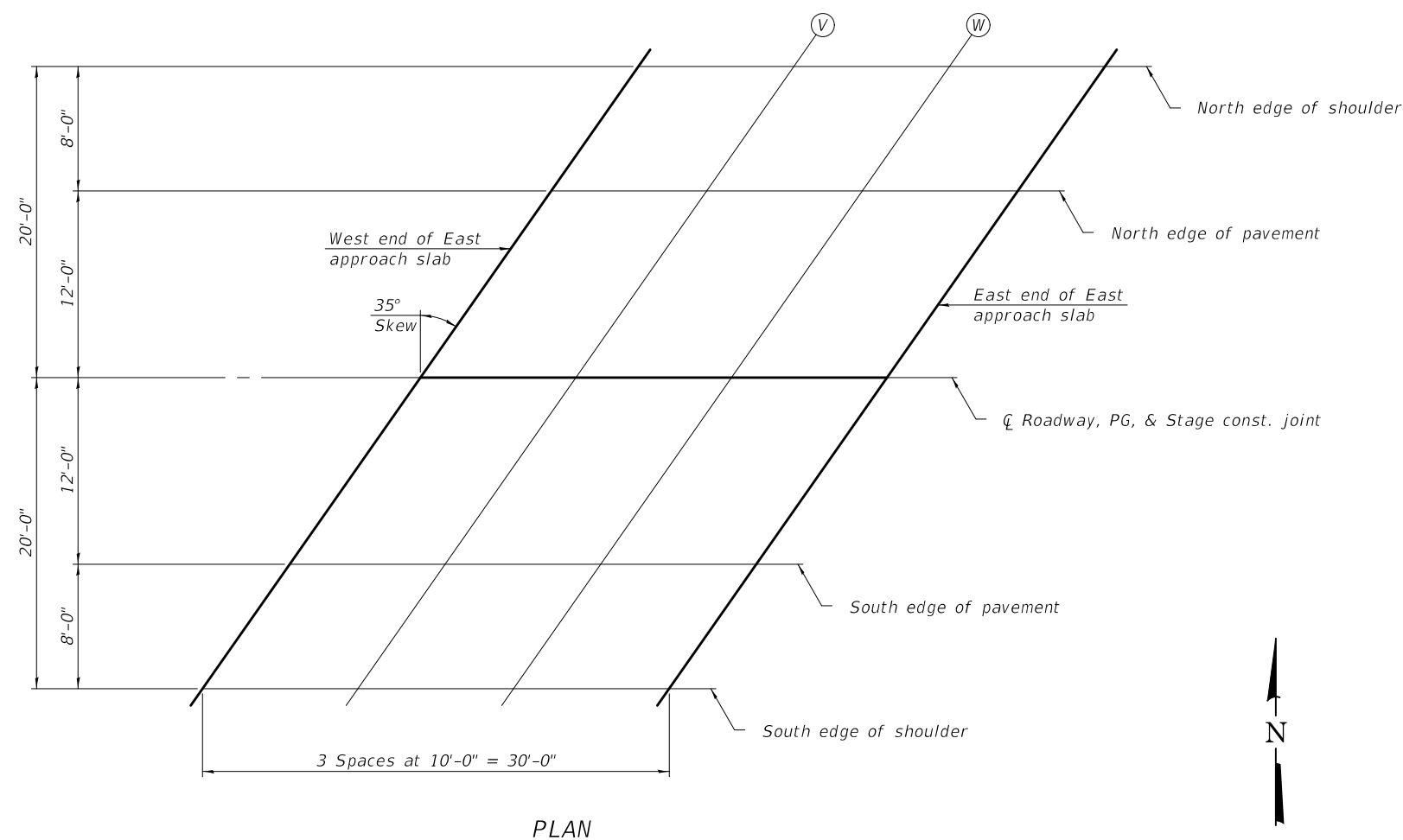
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	139+36.57	0.00	631.34
V	139+46.57	0.00	631.36
W	139+56.57	0.00	631.38
E. End of E. Appr. Slab	139+66.57	0.00	631.40

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	139+28.17	12.00	631.15
V	139+38.17	12.00	631.17
W	139+48.17	12.00	631.19
E. End of E. Appr. Slab	139+58.17	12.00	631.21

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	139+22.57	20.00	630.98
V	139+32.57	20.00	631.00
W	139+42.57	20.00	631.02
E. End of E. Appr. Slab	139+52.57	20.00	631.04



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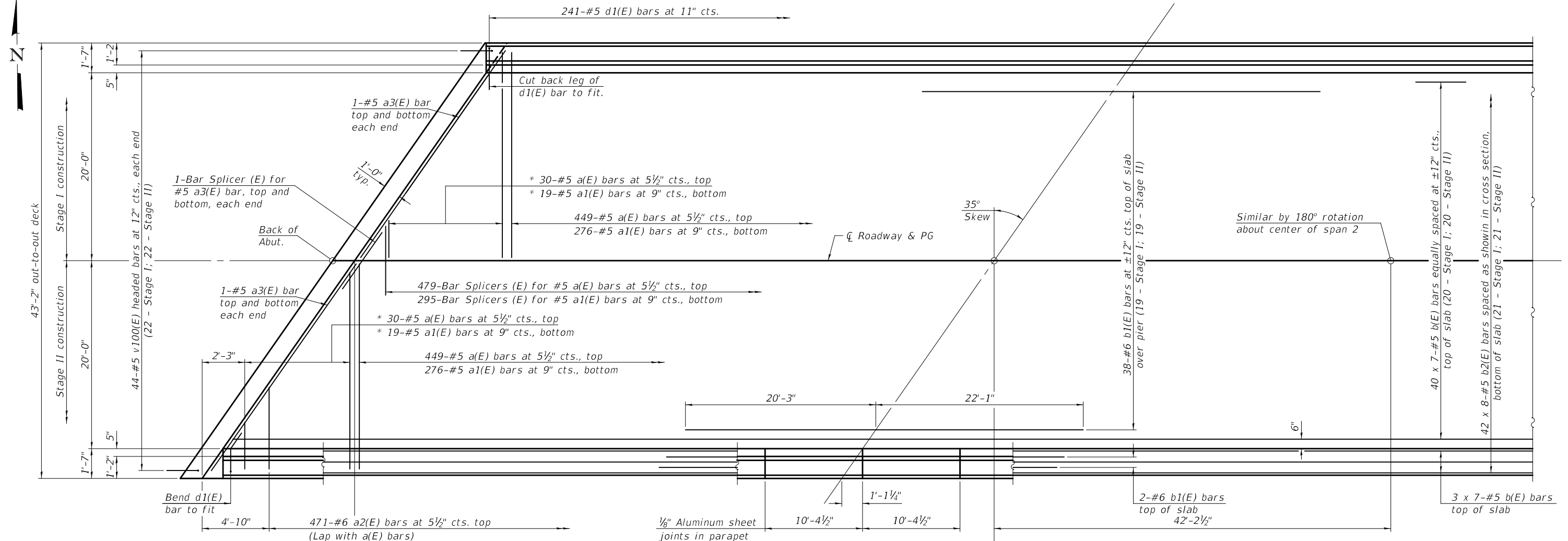
DESIGNED - PAUL GURKLYS	EXAMINED - <i>Joanne F. Joffe</i>	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED - <i>Carl Kasper</i>	REVISER -
DRAWN - MICHAEL B. MOSSMAN	ENGINEER OF BRIDGES AND STRUCTURES	REVISER -
CHECKED - P.G./D.S./G.R.A.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 070 - 0003

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	36
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

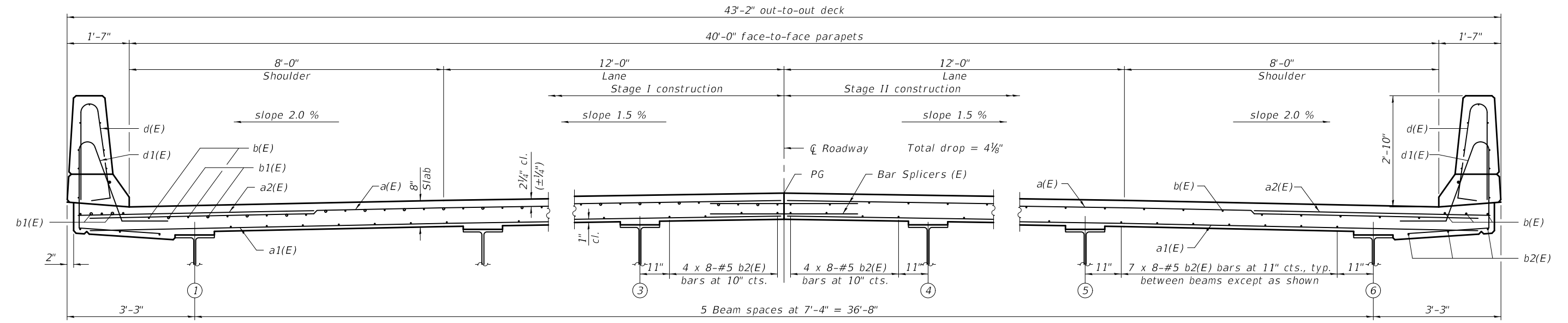
SHEET 9 OF 36 SHEETS



Notes:
 See sheet 11 of 36 for superstructure details and Bill of Material.
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

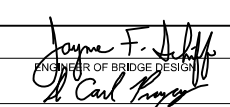
PARTIAL PLAN
MINIMUM BAR LAP
 #5 bar = 3'-6"

* Order a(E) & a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



CROSS SECTION
 (Looking East)

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DESIGNED - PAUL GURKLYS	EXAMINED	 ENGINEER OF BRIDGE DESIGN	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED		REVISED -
DRAWN - MICHAEL B. MOSSMAN		ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
CHECKED - P.G./D.S./G.R.A.			

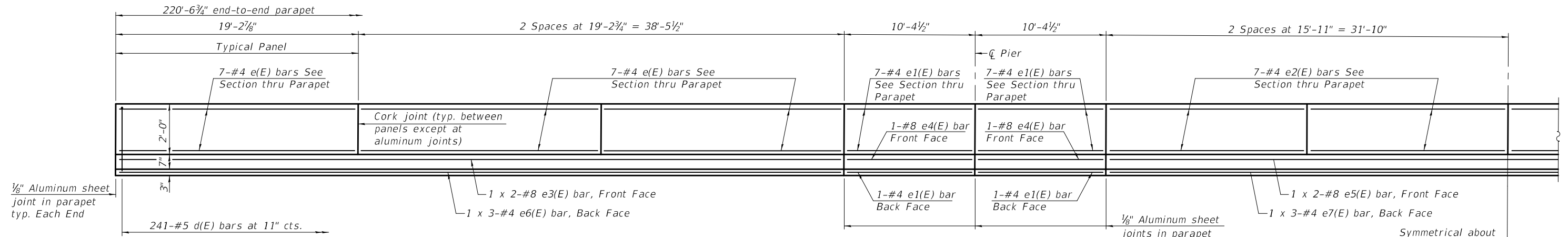
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 070 - 0003

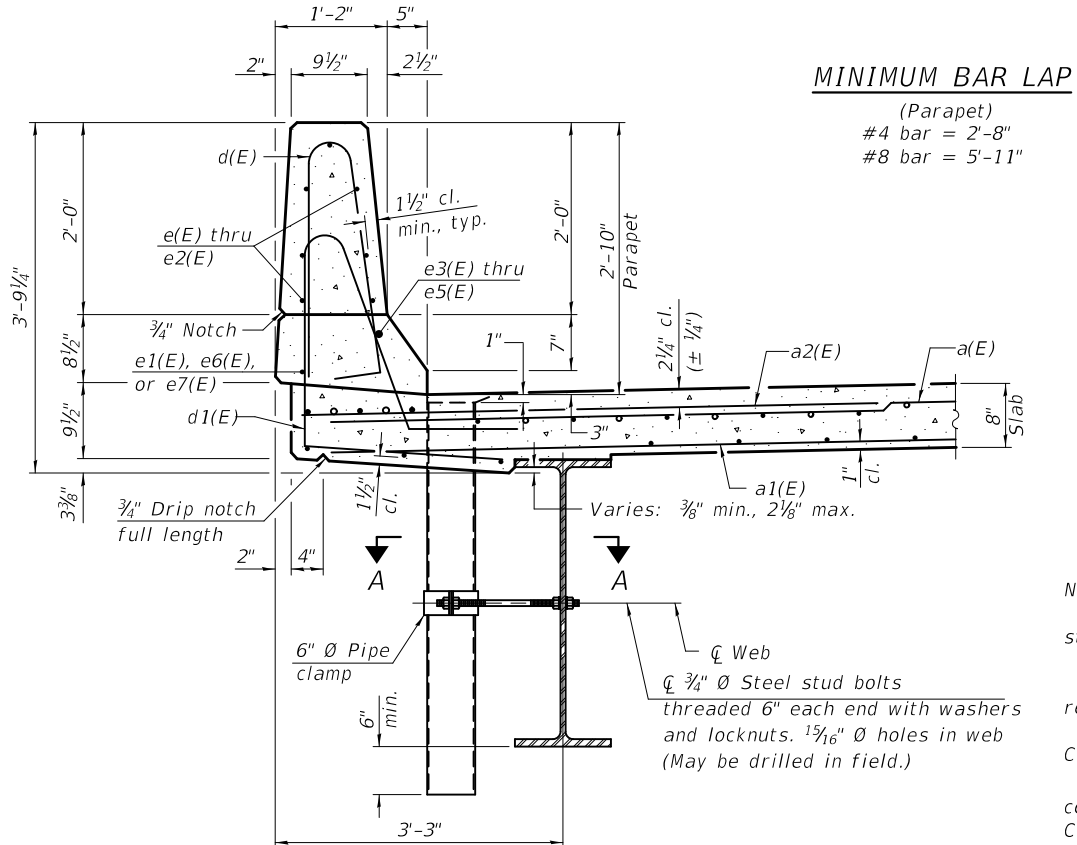
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	37
CONTRACT NO. 74358				

SHEET 10 OF 36 SHEETS

ILLINOIS FED. AID PROJECT



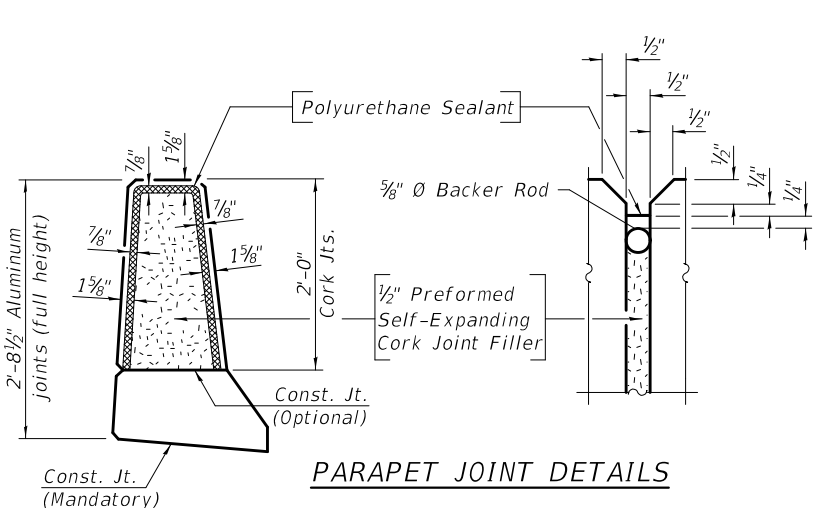
INSIDE ELEVATION OF PARAPET



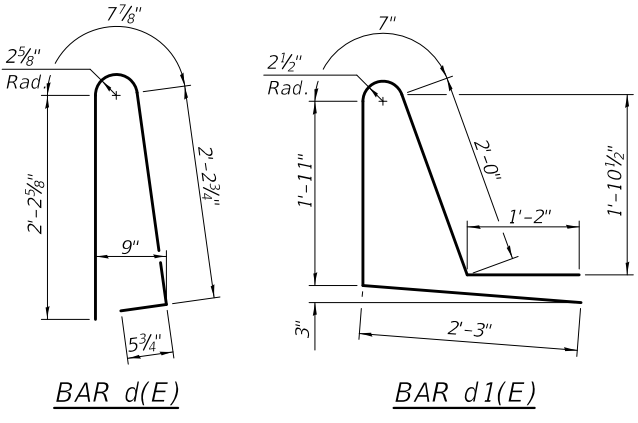
SECTION THRU PARAPET

MINIMUM BAR LAP

(Parapet)
 #4 bar = 2'-8"
 #8 bar = 5'-11"

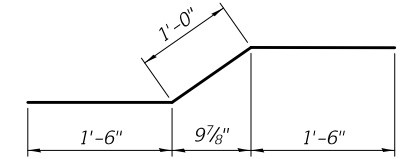


PARAPET JOINT DETAILS

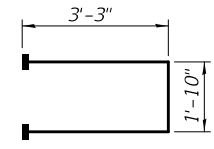


BAR d(E)

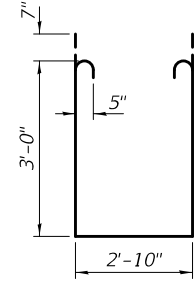
BAR d1(E)



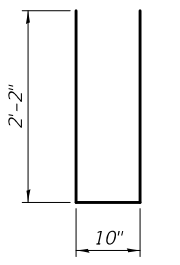
BAR m2(E)



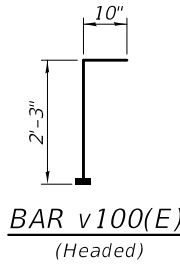
BAR s1(E)
(Headed)



BAR s(E)



BAR u(E)



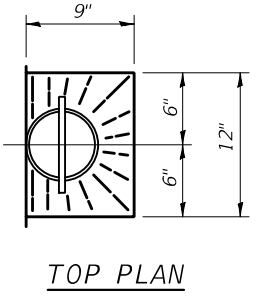
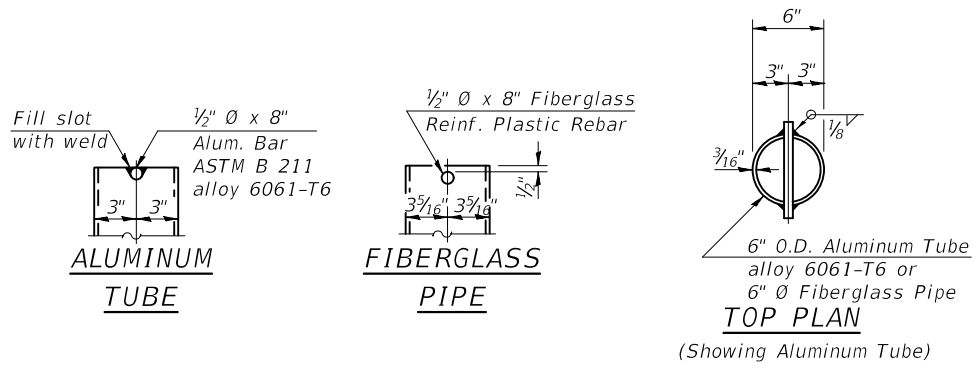
BAR v100(E)
(Headed)

SUPERSTRUCTURE
 BILL OF MATERIAL

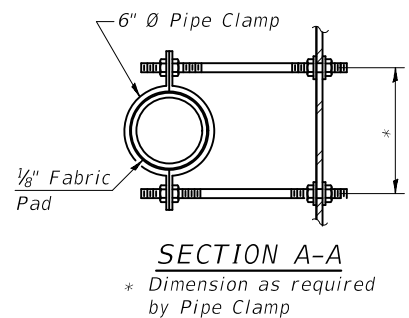
Bar	No.	Size	Length	Shape
a(E)	958	#5	21'-2"	—
a1(E)	590	#5	20'-3"	—
a2(E)	942	#6	6'-6"	—
a3(E)	8	#5	25'-9"	—
b(E)	322	#5	34'-6"	—
b1(E)	84	#6	42'-4"	—
b2(E)	336	#5	30'-8"	—
d(E)	482	#5	5'-7"	⌋
d1(E)	482	#5	7'-11"	⌋
e(E)	84	#4	18'-11"	—
e1(E)	64	#4	10'-1"	—
e2(E)	56	#4	15'-8"	—
e3(E)	8	#8	31'-9"	—
e4(E)	8	#8	10'-1"	—
e5(E)	4	#8	34'-8"	—
e6(E)	12	#4	21'-0"	—
e7(E)	6	#4	22'-11"	—
m(E)	24	#6	8'-6"	—
m1(E)	12	#6	3'-7"	—
m2(E)	36	#5	4'-0"	—
m3(E)	32	#6	26'-0"	—
s(E)	84	#5	10'-0"	⌋
s1(E)	96	#5	8'-4"	⌋
u(E)	88	#5	5'-2"	—
v100(E)	88	#5	3'-1"	⌋
Reinforcement Bars, Epoxy Coated		Lbs.		85,330
Concrete Superstructure		Cu. Yds.		333.5

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

Notes:
 Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 The exterior surfaces of the floor drains shall not be painted.
 The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.
 The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.
 The 1/8" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
 The Polyurethane Sealant shall be according to Article 1050.04 of the Standard Specifications and the color shall be gray.
 Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.



TOP PLAN



SECTION A-A

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DESIGNED - PAUL GURKLYS
CHECKED - DAVID SALGADO
DRAWN - MICHAEL B. MOSSMAN
CHECKED - P.G./D.S./G.R.A.

EXAMINED
 PASSED
 ENGINEER OF BRIDGES AND STRUCTURES

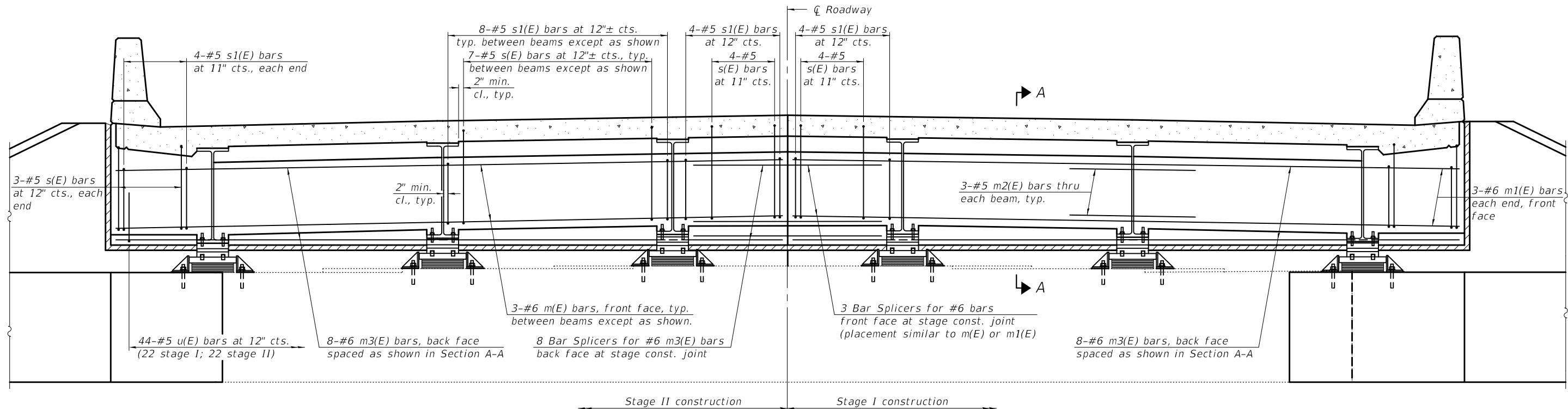
DATE - SEPTEMBER 20, 2018
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 DEPARTMENT OF TRANSPORTATION

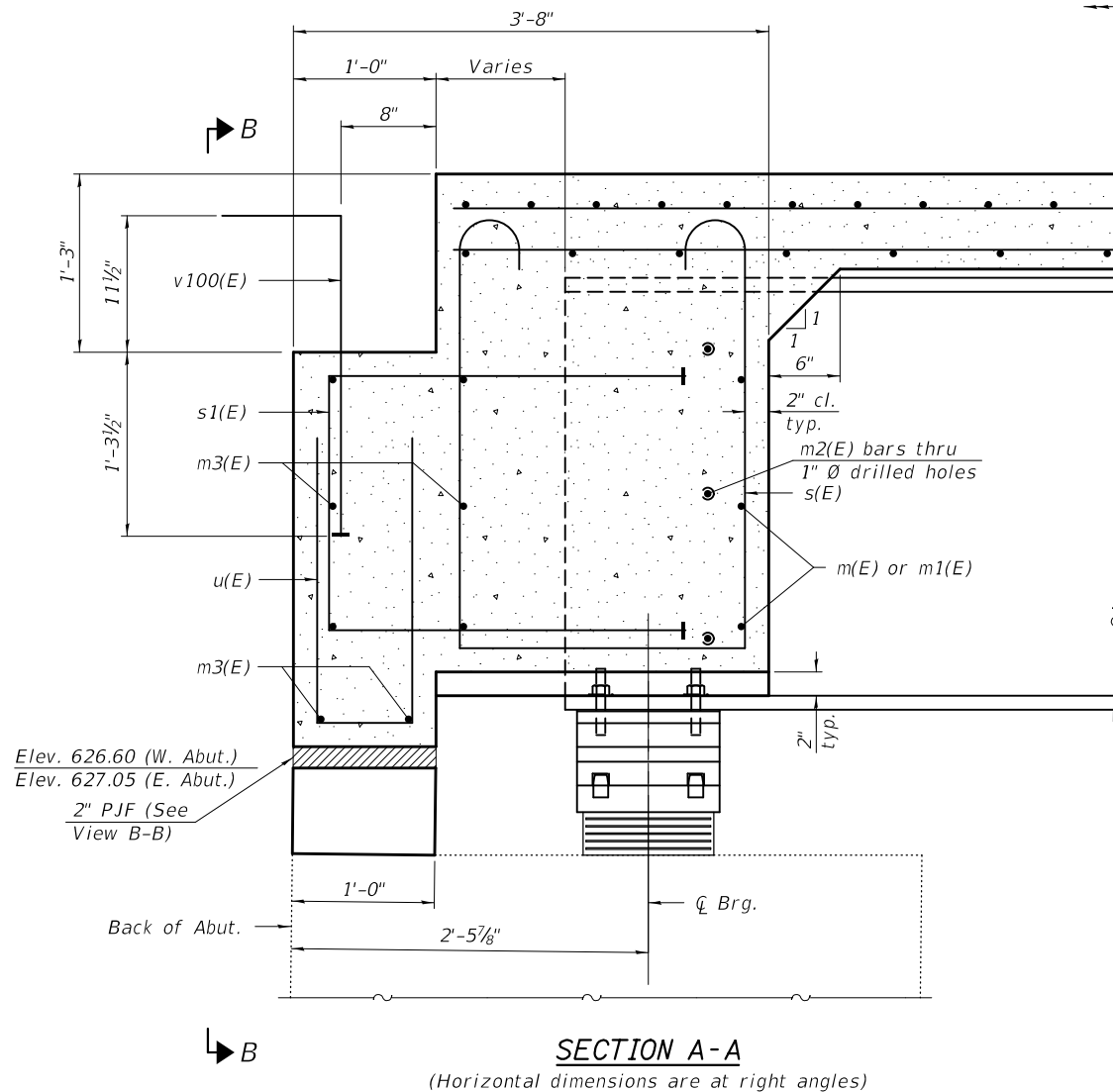
SUPERSTRUCTURE DETAILS
 STRUCTURE NO. 070 - 0003

SHEET 11 OF 36 SHEETS

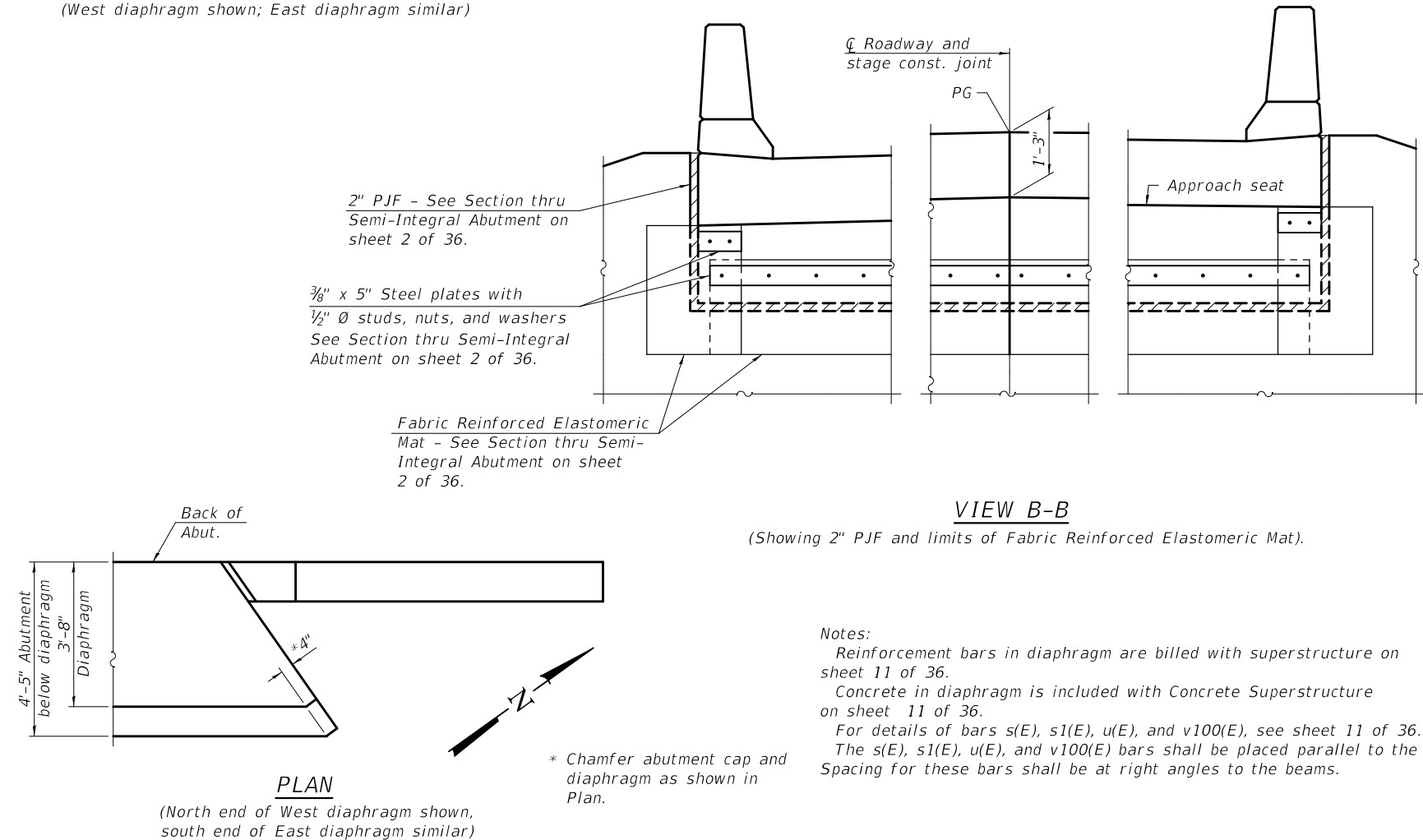
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	38
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



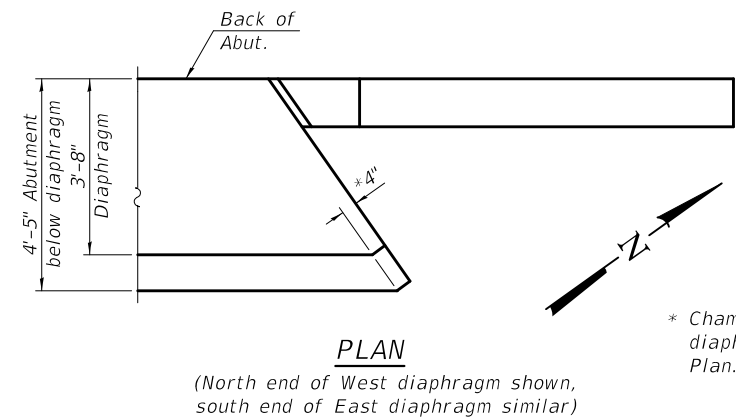
DIAPHRAGM ELEVATION AT ABUTMENTS
(West diaphragm shown; East diaphragm similar)



SECTION A-A
(Horizontal dimensions are at right angles)



VIEW B-B
(Showing 2" P.J.F. and limits of Fabric Reinforced Elastomeric Mat).



PLAN
(North end of West diaphragm shown, south end of East diaphragm similar)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 11 of 36.
Concrete in diaphragm is included with Concrete Superstructure on sheet 11 of 36.
For details of bars s(E), s1(E), u(E), and v100(E), see sheet 11 of 36.
The s(E), s1(E), u(E), and v100(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

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DRAWN - MICHAEL B. MOSSMAN
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9/24/2018 10:36:17 AM

DESIGNED - PAUL GURKLYS	EXAMINED	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED	REVISOR -
DRAWN - MICHAEL B. MOSSMAN		REVISOR -
CHECKED - P.G./D.S./G.R.A.		

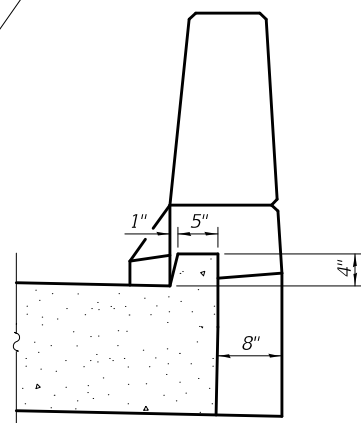
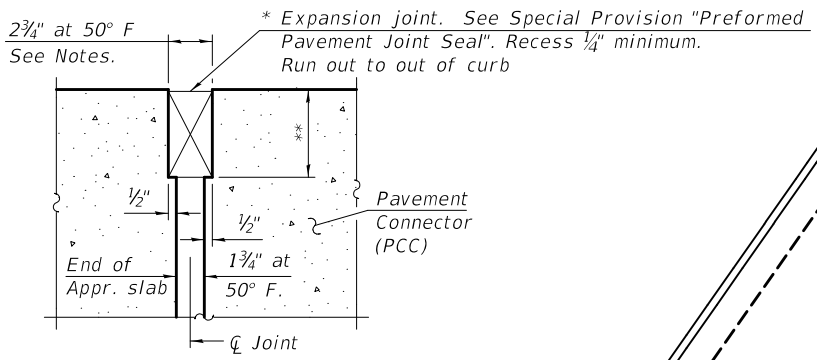
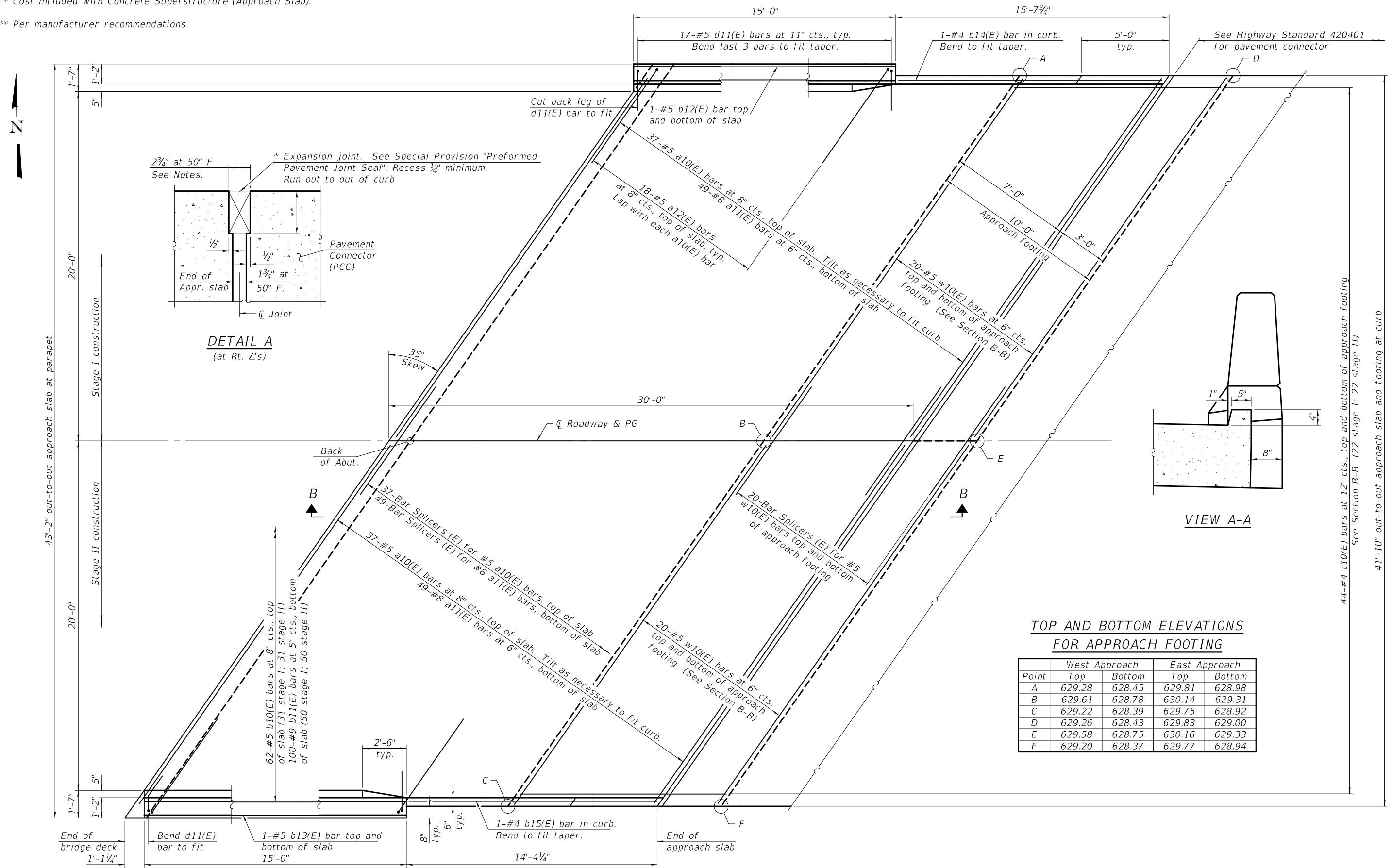
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO. 070 - 0003
SHEET 12 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	39
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations



TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	West Approach		East Approach	
	Top	Bottom	Top	Bottom
A	629.28	628.45	629.81	628.98
B	629.61	628.78	630.14	629.31
C	629.22	628.39	629.75	628.92
D	629.26	628.43	629.83	629.00
E	629.58	628.75	630.16	629.33
F	629.20	628.37	629.77	628.94

PLAN

(East approach shown; West approach similar by 180° rotation).

(Sheet 1 of 2)

MODEL: 0700003-74358-013
 FILE NAME: p:\w\084848\INTEG\illmod5.gov\PWIDOT\Documents\Projects\0700003\CADD Plans\0700003-74358.dgn

DESIGNED - PAUL GURKLYS
 CHECKED - DAVID SALGADO
 DRAWN - MICHAEL B. MOSSMAN
 CHECKED - P.G./D.S./G.R.A.

EXAMINED
 PASSED
 ENGINEER OF BRIDGES AND STRUCTURES

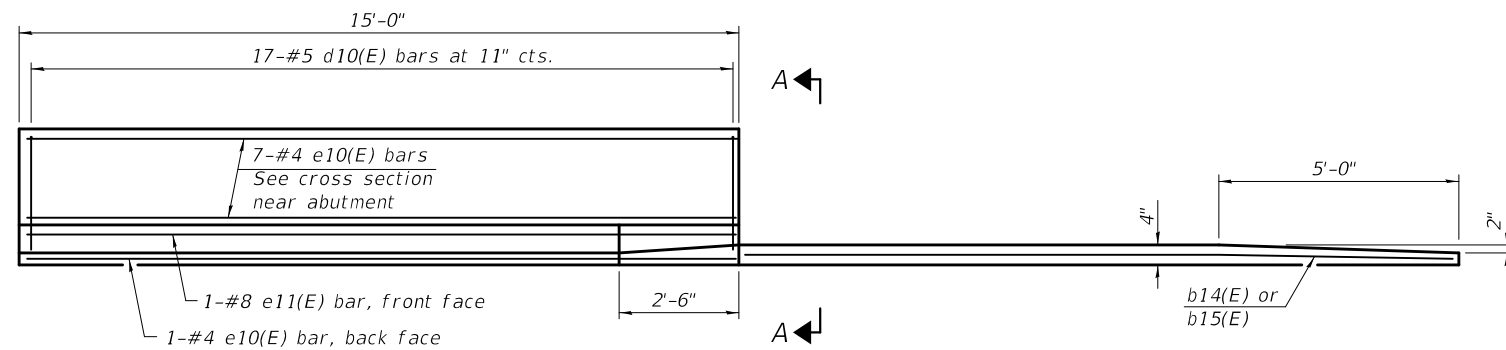
DATE - SEPTEMBER 20, 2018
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NO. 070 - 0003

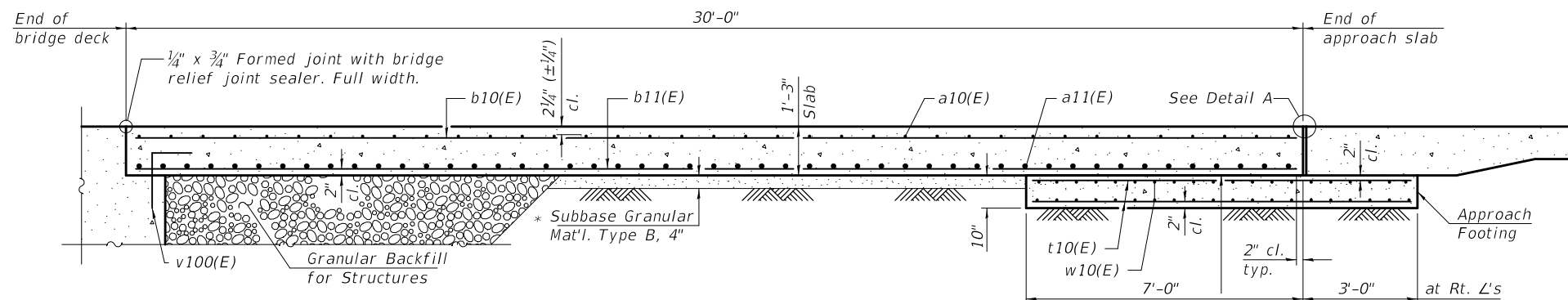
SHEET 13 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	40
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

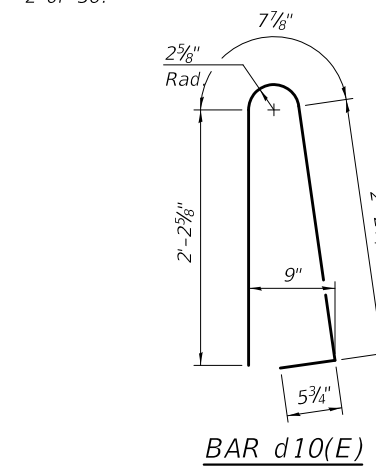


INSIDE ELEVATION OF PARAPET AND CURB

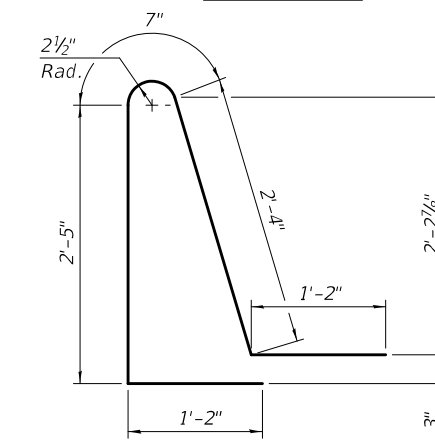
Notes:
 The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length used to calculate the adjustment shall be equal to 182'-5 7/8" for West expansion joint and 98'-0 1/8" for East expansion joint.
 Parapet concrete shall be paid for as Concrete Superstructure.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 36.



SECTION B-B



BAR d10(E)



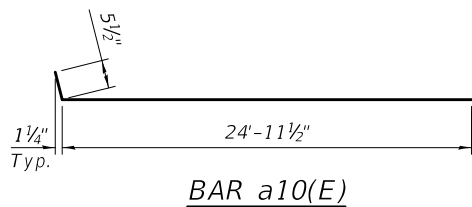
BAR d11(E)

TWO APPROACHES
 BILL OF MATERIAL

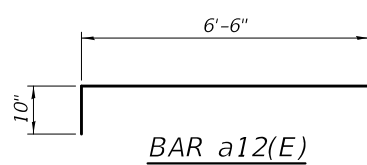
Bar	No.	Size	Length	Shape
a10(E)	148	#5	25'-5"	┌───┐
a11(E)	196	#8	25'-1"	┌───┐
a12(E)	72	#5	7'-4"	┌───┐
b10(E)	124	#5	29'-6"	┌───┐
b11(E)	200	#9	29'-6"	┌───┐
b12(E)	4	#5	13'-7"	┌───┐
b13(E)	4	#5	15'-7"	┌───┐
b14(E)	2	#4	15'-0"	┌───┐
b15(E)	2	#4	14'-2"	┌───┐
d10(E)	68	#5	5'-7"	┌───┐
d11(E)	68	#5	7'-8"	┌───┐
e10(E)	32	#4	14'-8"	┌───┐
e11(E)	4	#8	14'-8"	┌───┐
t10(E)	176	#4	11'-9"	┌───┐
w10(E)	160	#5	25'-1"	┌───┐
Concrete Superstructure		Cu. Yd.	6.7	
Concrete Superstructure (Approach Slab)		Cu. Yd.	118.6	
Concrete Structures		Cu. Yd.	31.5	
Reinforcement Bars, Epoxy Coated		Pound	48,610	

* Cost included with Concrete Superstructure (Approach Slab).

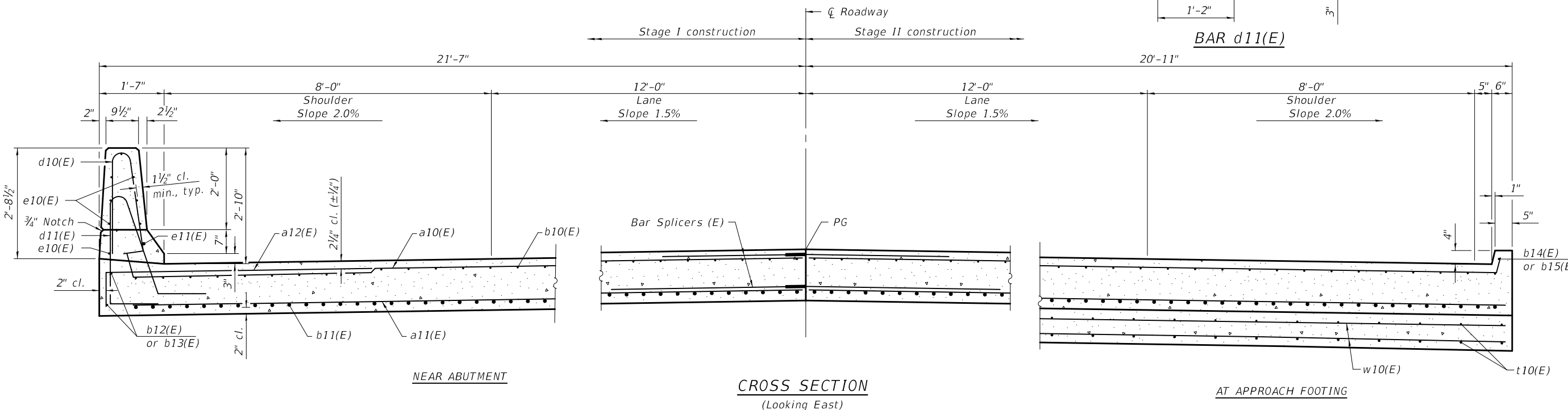
* 10 mil. Polyethylene bond breaker on steel trowel finish



BAR a10(E)



BAR a12(E)



CROSS SECTION
 (Looking East)

(Sheet 2 of 2)

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DESIGNED - PAUL GURKLYS
 CHECKED - DAVID SALGADO
 DRAWN - MICHAEL B. MOSSMAN
 CHECKED - P.G./D.S./G.R.A.

EXAMINED
 PASSED
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 20, 2018
 REVISED -
 REVISED -

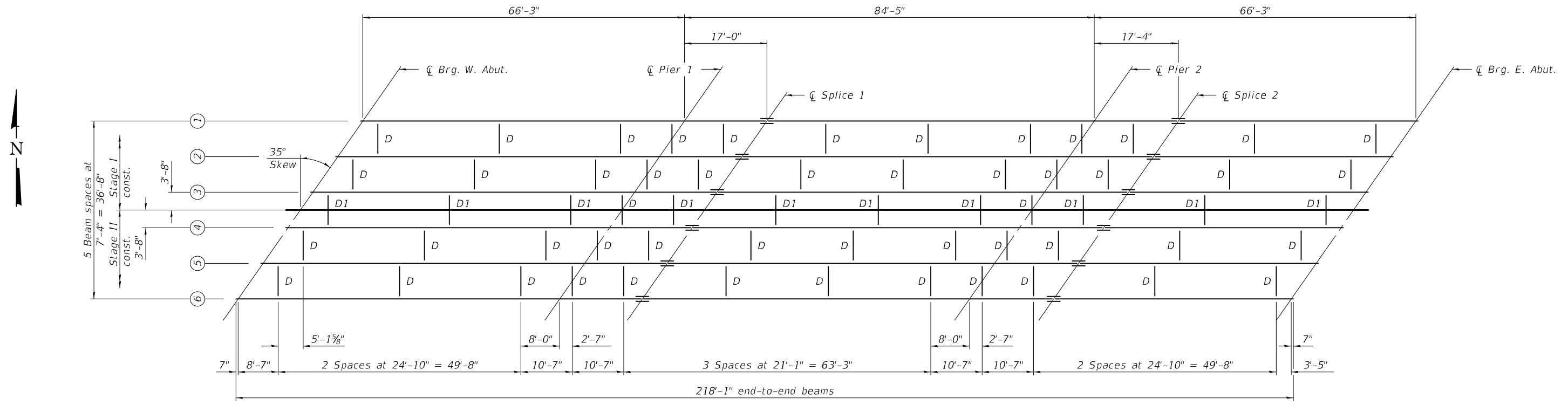
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NO. 070 - 0003

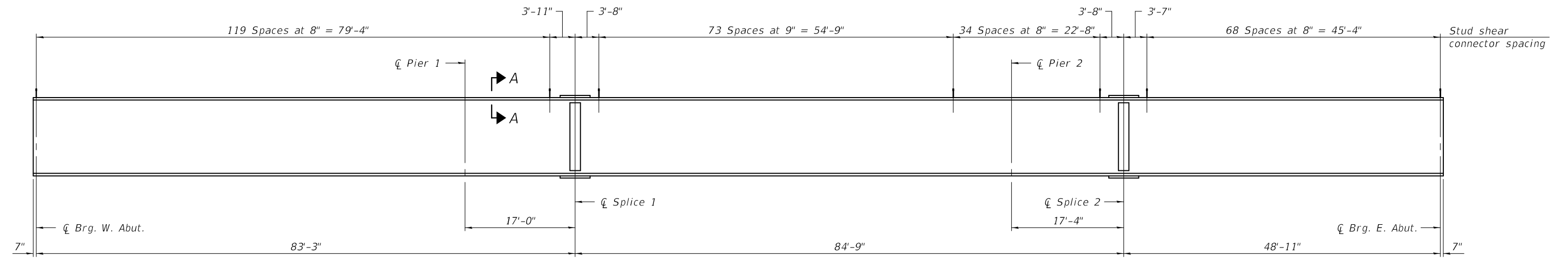
SHEET 14 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	41
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

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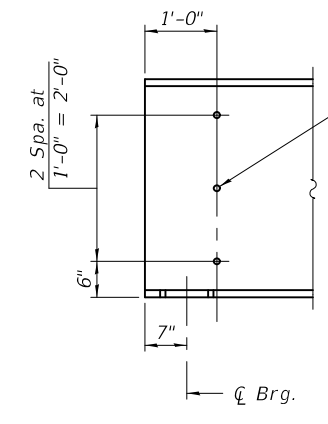


PLAN

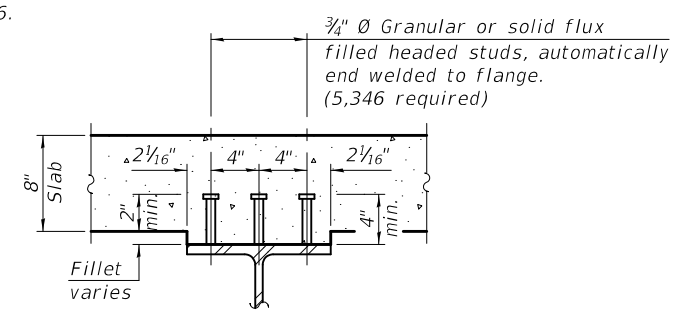


BEAM ELEVATION

(All beams are W36x182, AASHTO M270, Grade 50W, CVN)



END OF BEAM ELEVATION



SECTION A-A

*TOP OF BEAM ELEVATIONS

Location	℄ Bearing W. Abut.	℄ Bearing Pier 1	℄ Splice 1	℄ Bearing Pier 2	℄ Splice 2	℄ Bearing E. Abut.
Beam 1	629.91	629.98	629.99	630.10	630.18	630.35
Beam 2	630.05	630.11	630.12	630.23	630.32	630.48
Beam 3	630.15	630.21	630.22	630.33	630.42	630.58
Beam 4	630.14	630.20	630.21	630.32	630.40	630.57
Beam 5	630.02	630.08	630.09	630.20	630.28	630.45
Beam 6	629.86	629.93	629.94	630.04	630.13	630.30

* For fabrication use only.

Notes:
 "CVN" denotes Charpy-V-Notch impact energy requirements, zone 2.
 See sheet 16 of 36 for additional structural steel details.

MODEL: 0700003-74358-015
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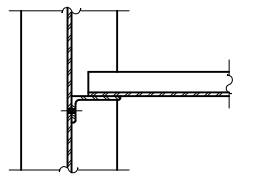
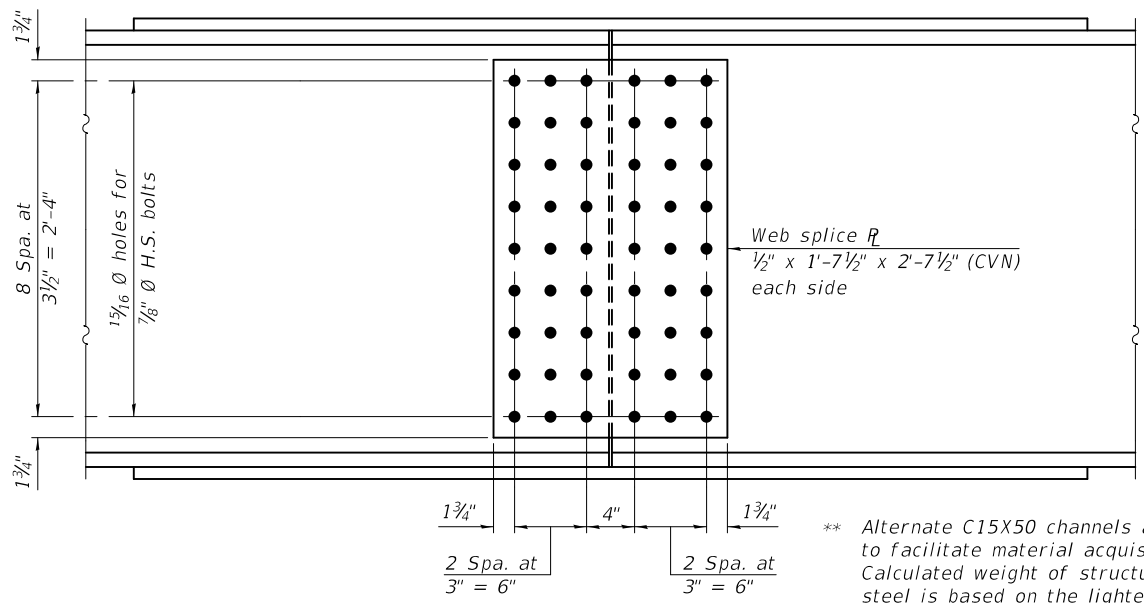
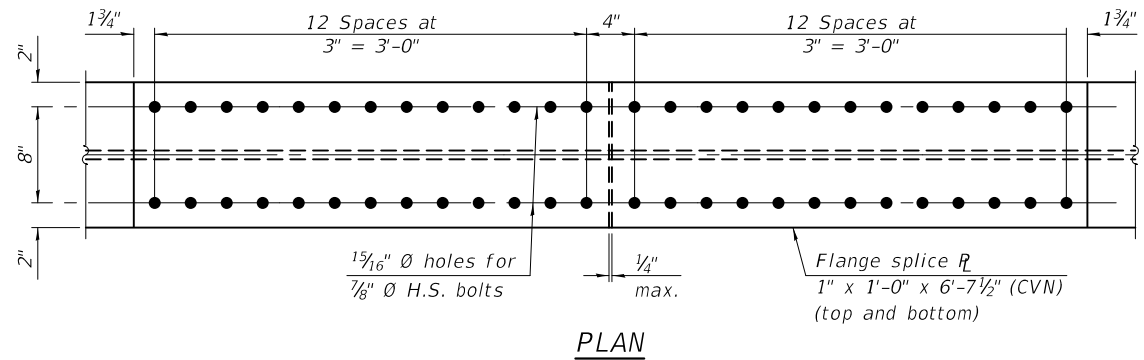
DESIGNED - PAUL GURKLYS	EXAMINED - <i>Joanne F. Salvo</i>	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED - <i>Carl Kasper</i>	REVISIONS -
DRAWN - MICHAEL B. MOSSMAN	ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS -
CHECKED - P.G./D.S./G.R.A.		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL
 STRUCTURE NO. 070 - 0003

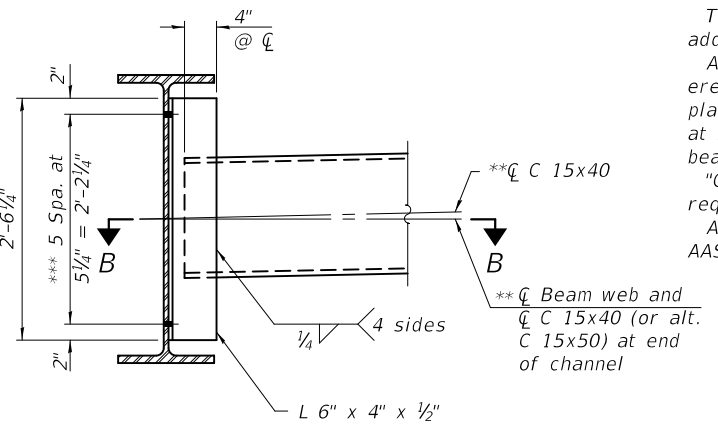
SHEET 15 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	42
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



SECTION B-B

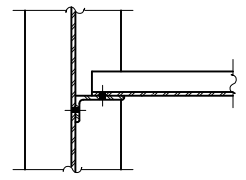
ELEVATION
SPLICE DETAILS



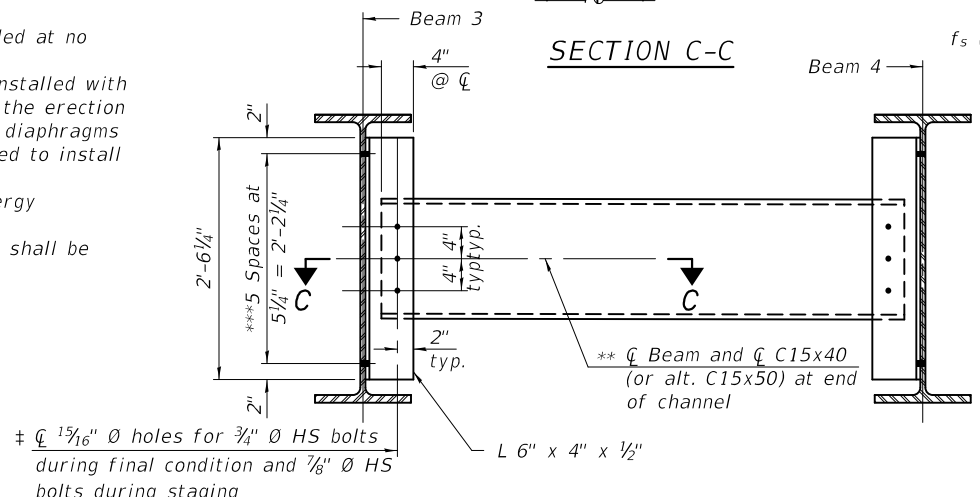
DIAPHRAGM D
(50 Required)

INTERIOR BEAM MOMENT TABLE				
		0.4 Span 1 or 0.6 Span 3	Pier 1 or Pier 2	0.5 Span 2
I_s	(in ⁴)	11300	11300	11300
$I_c(n)$	(in ⁴)	28859	28859	28859
$I_c(3n)$	(in ⁴)	21182	21182	21182
$I_c(cr)$	(in ⁴)		14551	
S_s	(in ³)	623	623	623
$S_c(n)$	(in ³)	895	895	895
$S_c(3n)$	(in ³)	810	810	810
$S_c(cr)$	(in ³)		695	
DC1	(k/ft)	0.945	0.945	0.945
M _{DC1}	(k)	279.1	546.5	295.3
DC2	(k/ft)	0.150	0.150	0.150
M _{DC2}	(k)	44.3	86.7	46.9
DW	(k/ft)	0.367	0.367	0.367
M _{DW}	(k)	108.4	212.2	114.7
LLDF		0.637	0.623	0.611
M _{ℓ + IM}	(k)	814.1	872.3	822.6
M _u (Strength I)	(k)	1991.5	2636.3	2039.3
φ _r M _n	(k)	4329.9		4317.5
f _s DC1	(ksi)	5.38	10.53	5.69
f _s DC2	(ksi)	0.66	1.50	0.69
f _s DW	(ksi)	1.61	3.67	1.70
f _s (ℓ + IM)	(ksi)	10.92	15.07	11.03
f _s (Service II)	(ksi)	21.83	35.28	22.42
0.95R _n F _{yf}	(ksi)	47.50	47.50	47.50
f _s (Total)(Strength I)	(ksi)		46.90	
φ _r F _n	(ksi)		50	
V _f	(k)	29.9	29.9	29.2

	Abut.		Pier	
	Interior	Exterior	Interior	Exterior
LLDF	0.767	0.655	0.767	0.655
OCF	-	1.152	-	-
R _{DC1}	(k) 67.0	65.5	79.4	74.6
R _{DC2}	(k) 3.7	3.7	12.6	12.6
R _{DW}	(k) 9.0	6.5	30.9	22.4
R _ℓ	(k) 60.6	59.6	100.3	85.6
R _{IM}	(k) 15.1	14.9	20.1	17.2
R _{TOTAL}	(k) 155.4	150.2	243.3	212.4



SECTION C-C



DIAPHRAGM D1
(10 Required)

- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in⁴ and in³).
- $I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in⁴ and in³).
- DC1: Un-factored non-composite dead load (kips/ft.).
- M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- LLDF: Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.
- M_{ℓ + IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- M_u (Strength I): Factored design moment (kip-ft.).
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{ℓ + IM}
- φ_rM_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
- f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}
- f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
M_{DC2} / S_{c(3n)} or M_{DC2} / S_{c(cr)} as applicable.
- f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
M_{DW} / S_{c(3n)} or M_{DW} / S_{c(cr)} as applicable.
- f_s (ℓ + IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
M_{ℓ + IM} / S_{c(n)} or M_{ℓ + IM} / S_{c(cr)} as applicable.
- f_s (Service II): Sum of stresses as computed below (ksi).
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (ℓ + IM)
- 0.95R_nF_{yf}: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (f_sDC1 + f_sDC2) + 1.5 f_sDW + 1.75 f_s (ℓ + IM)
- φ_rF_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
- V_f: Maximum factored shear range in span computed according to Article 6.10.10.
- OCF: Obtuse Correction Factor applied to non-continuous exterior beam ends and computed according to Article 4.6.2.2.3c-1 or as further simplified by IDOT provisions.
- R_{DC1}: Un-factored reaction due to non-composite dead load (kip).
- R_{DC2}: Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).
- R_{DW}: Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).
- R_ℓ: Un-factored live load reaction (kip).
- R_{IM}: Un-factored dynamic load allowance (impact) (kip).

** Alternate C15X50 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

*** 3/4" Ø HS bolts, 1 5/16" Ø holes

‡ Install only one 7/8" Ø HS bolt in center hole at each end of Diaphragm D1. The bolts shall be finger-tightened prior to deck pour to permit rotation of Diaphragm D1. Install 3/4" HS bolts and fully tighten after stage II deck pour is complete.

Note:
Two hardened washers required for each set of oversized holes.
The alternate, if utilized, shall be provided at no additional cost to the Department.
All diaphragms between beams shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
"CVN" denotes Charpy-V-Notch impact energy requirements, zone 2.
All splice plates, diaphragms, and angles shall be AASHTO M270, Grade 50W.

* Un-factored reaction due to non-composite deck, concrete end diaphragm, and approach slab with approach parapet dead loads.

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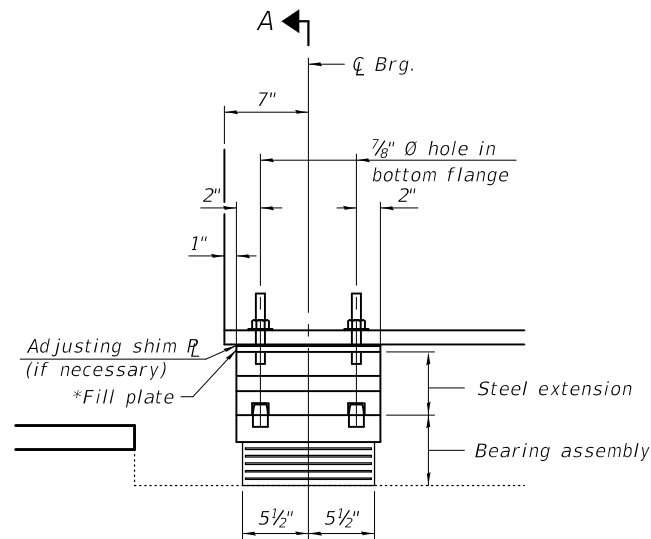
DESIGNED - PAUL GURKLYS	EXAMINED - <i>Joanne F. Salgado</i>	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED - <i>Paul Gurklys</i>	REVISIONS -
DRAWN - MICHAEL B. MOSSMAN	ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS -
CHECKED - P.G./D.S./G.R.A.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 070 - 0003

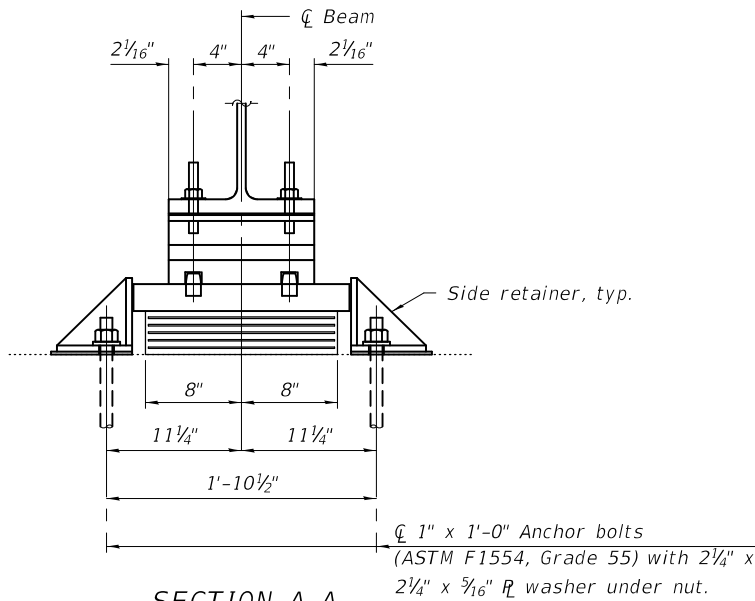
SHEET 16 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	43
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

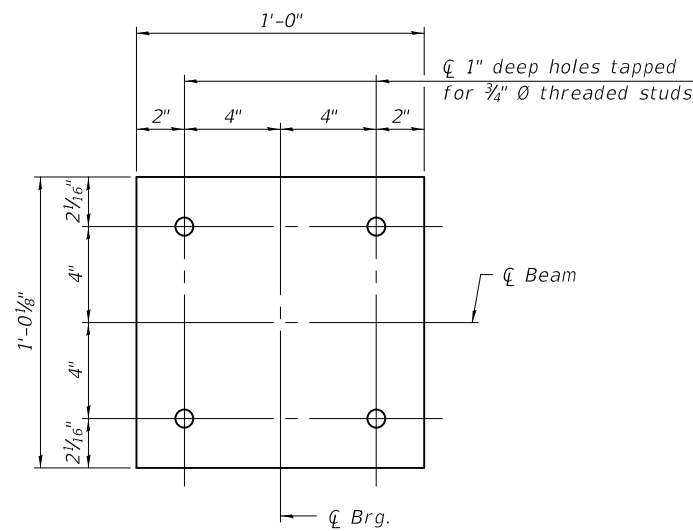


* See Top Extension Plate detail for dimensions of fill plates.

ELEVATION



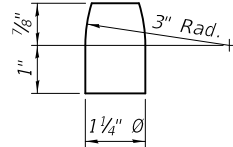
SECTION A-A



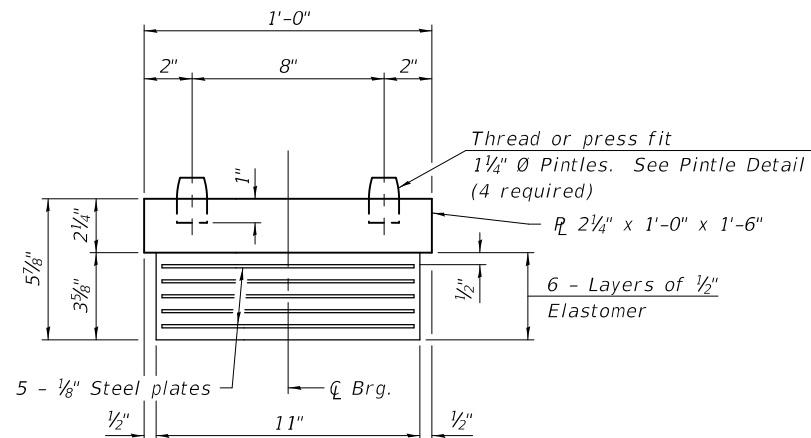
TOP EXTENSION PLATE

(Fill plates and 1/8" shim plates similar. See sheet 19 of 36 for fill plate thicknesses).

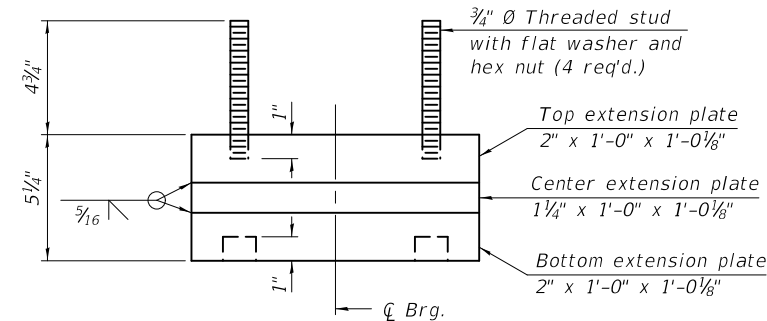
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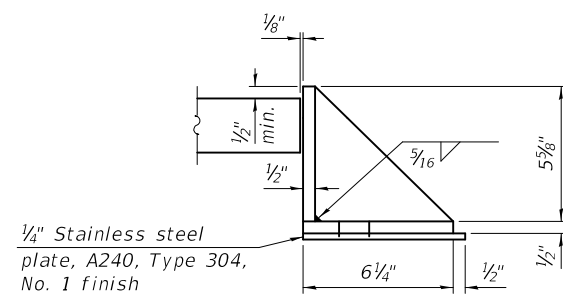
PINTLE



BEARING ASSEMBLY

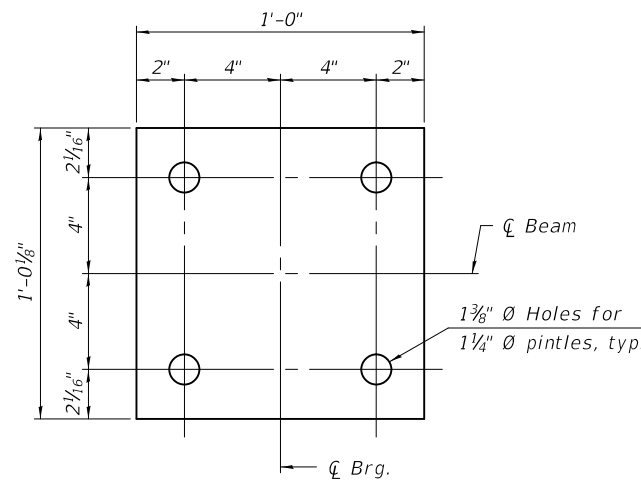


EXTENSION ASSEMBLY



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BOTTOM EXTENSION PLATE

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

The anchor bolt size and grade shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All bearing steel extension plates, side retainers, fill plates, and pintles shall be AASHTO M270, Grade 50W.

Steel extensions, fill plates, and shim plates shall be included in the contract unit lump sum cost for Furnishing and Erecting Structural Steel.

Shim plates shall not be placed under bearing assembly.

New bearings and side retainers shall be installed on level surface. The leveling will be achieved by grinding down the sloped portions of the existing abutment seats.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Anchor Bolts, 1"	Each	24

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DESIGNED - PAUL GURKLYS	EXAMINED -
CHECKED - DAVID SALGADO	PASSED -
DRAWN - MICHAEL B. MOSSMAN	
CHECKED - P.G./D.S./G.R.A.	

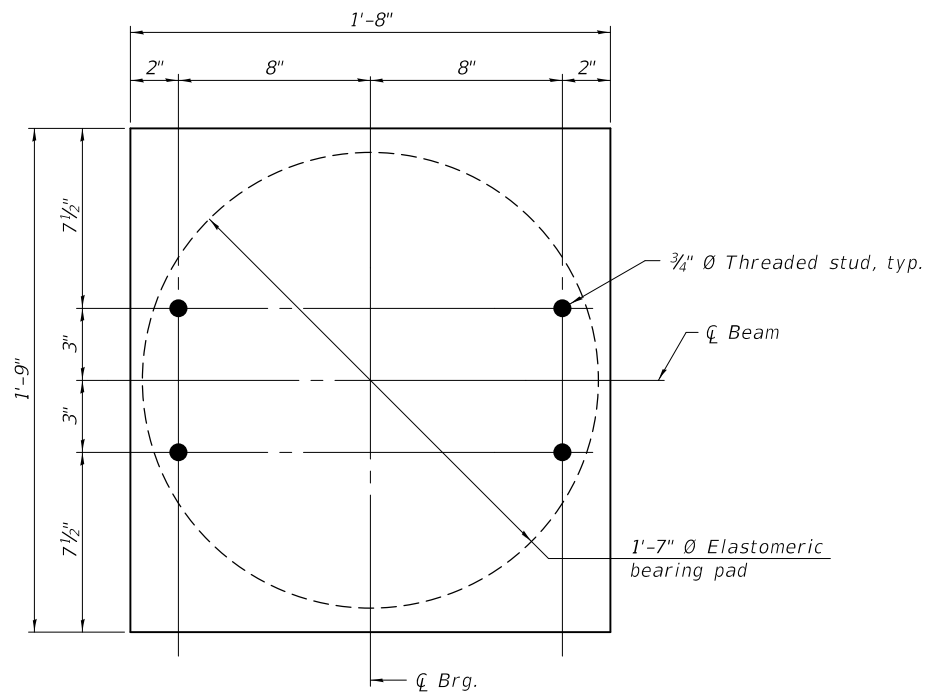
DATE - SEPTEMBER 20, 2018
 REVISIONS -
 REVISIONS -
James F. Salgado
 ENGINEER OF BRIDGE DESIGN
Carl Berger
 ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

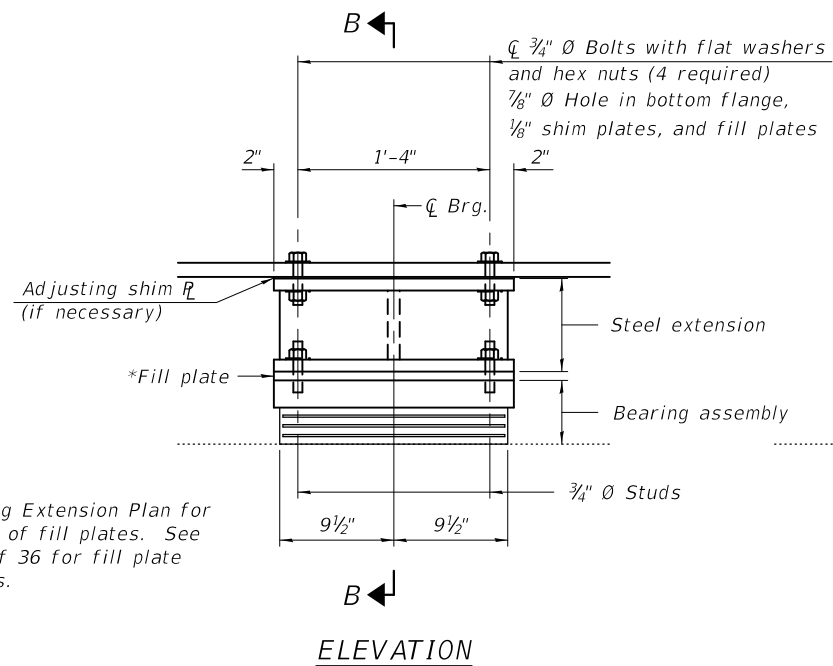
ABUTMENT BEARING DETAILS STRUCTURE NO. 070 - 0003

SHEET 17 OF 36 SHEETS

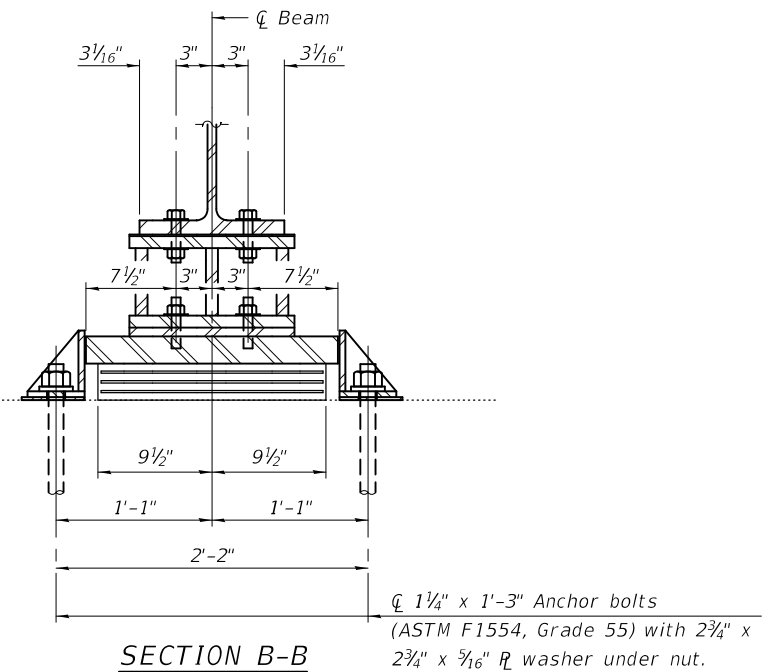
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	44
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



BEARING ASSEMBLY PLAN



ELEVATION

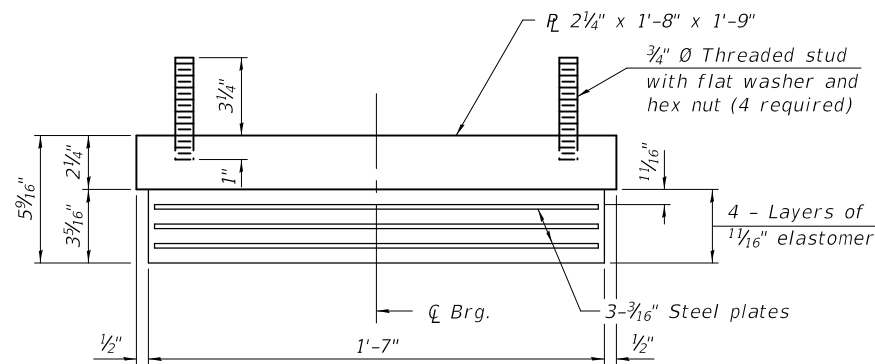


SECTION B-B

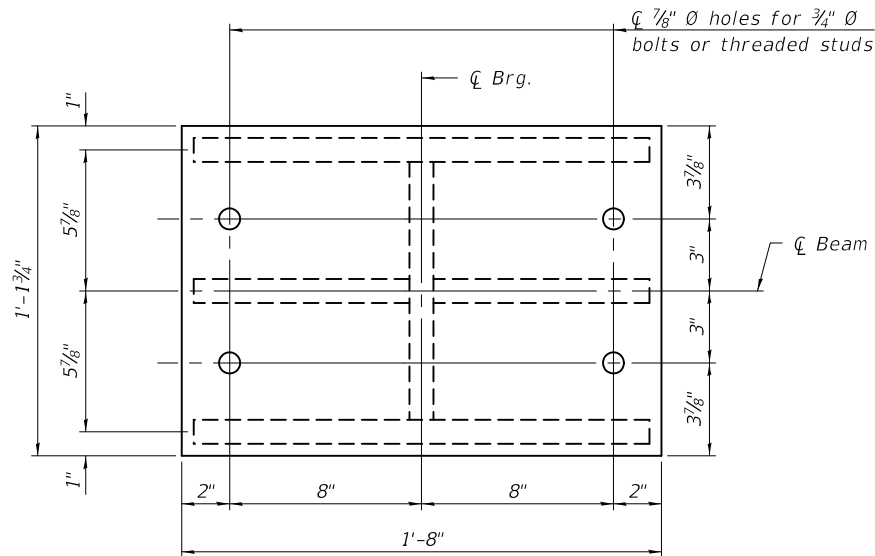
* See Bearing Extension Plan for dimensions of fill plates. See sheet 19 of 36 for fill plate thicknesses.

TYPE I ELASTOMERIC EXPANSION BEARING AT PIER 1

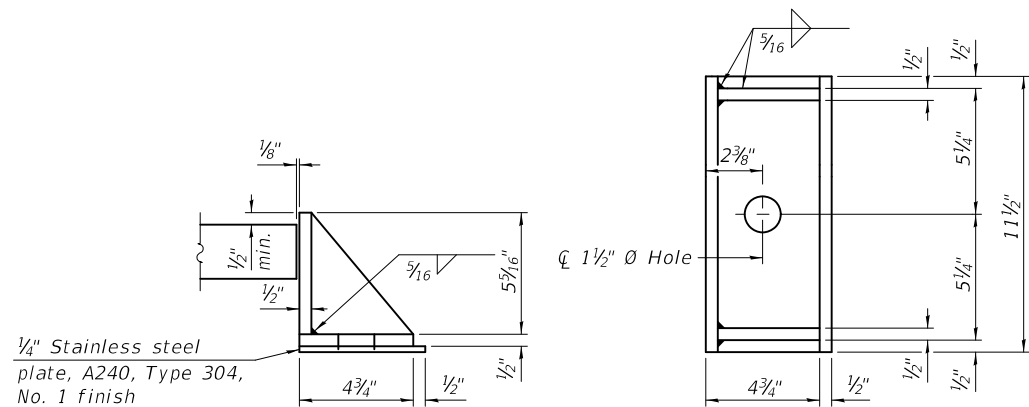
Notes:
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I (Special).
 Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
 The anchor bolt size and grade shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
 All bearing steel extension plates, side retainers, and fill plates shall be AASHTO M270, Grade 50W.
 Steel extensions, fill plates, and shim plates shall be included in the contract unit lump sum cost for Furnishing and Erecting Structural Steel.
 Shim plates shall not be placed under bearing assembly.



BEARING ASSEMBLY ELEVATION

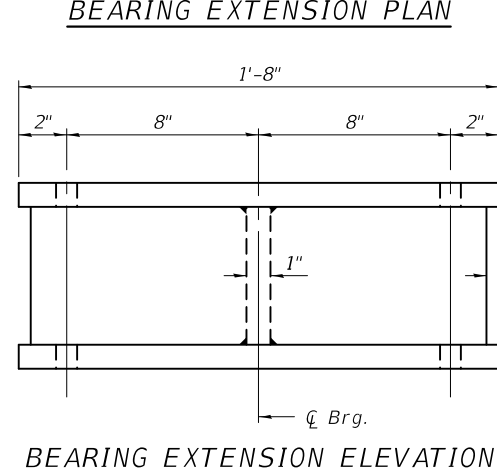


BEARING EXTENSION PLAN

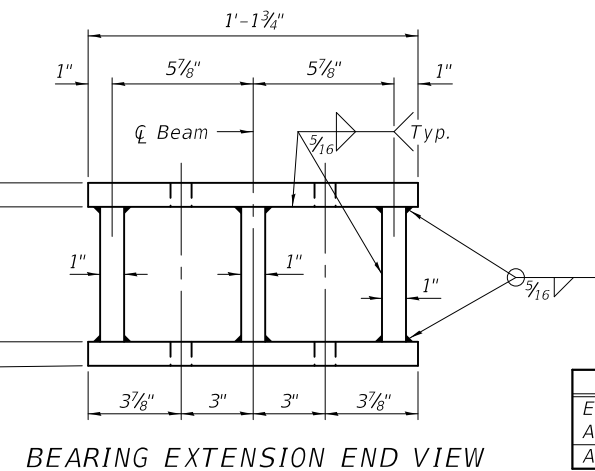


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BEARING EXTENSION ELEVATION



BEARING EXTENSION END VIEW

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I (Special)	Each	6
Anchor Bolts, 1 1/4"	Each	12

MODEL: 0700003-74358-018
 FILE NAME: p:\v\084848\ID\INTEG.sil\mde.gov\PIWIDOT\Documents\Bureau of Bridges and Structures\Projects\0700003\CADD Plans\0700003-74358.dgn

DESIGNED - PAUL GURKLYS
 CHECKED - DAVID SALGADO
 DRAWN - MICHAEL B. MOSSMAN
 CHECKED - P.G./D.S./G.R.A.

EXAMINED
 PASSED
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 20, 2018
 REVISED -
 REVISED -

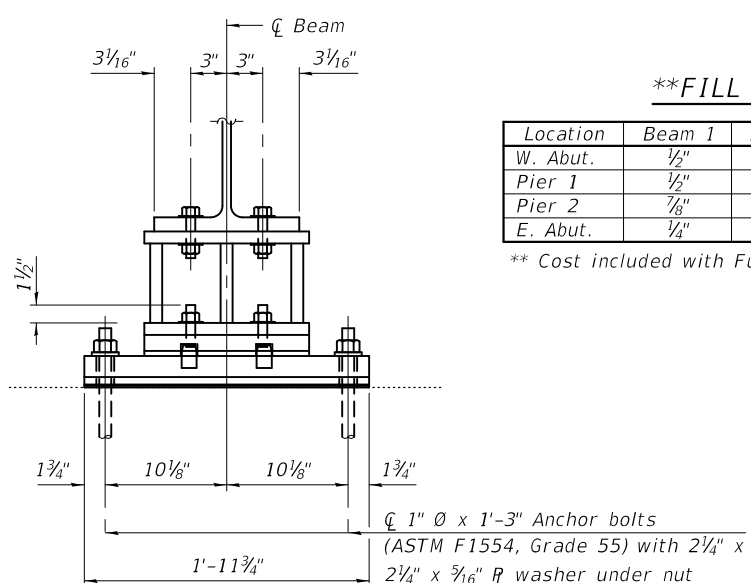
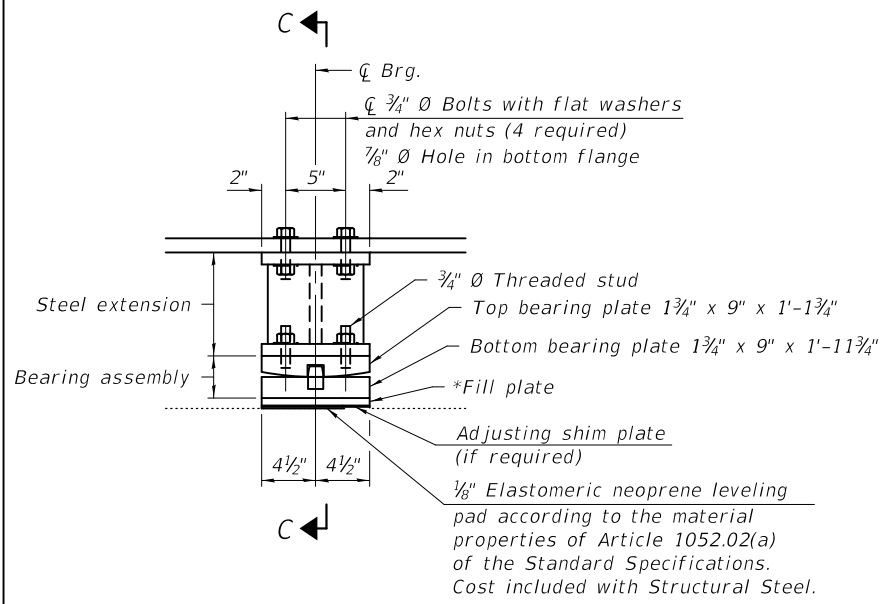
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BEARING DETAILS - PIER 1
 STRUCTURE NO. 070 - 0003**

SHEET 18 OF 36 SHEETS

F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
 320 (104BR)BR-1 MOULTRIE 63 45
 CONTRACT NO. 74358
 ILLINOIS FED. AID PROJECT

MODEL: 0700003-74358-019
FILE NAME: pw:\VIL084EBID\INTEG\Illinois.gov\PWIDOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0700003\CADD Plans\0700003-74358.dgn



****FILL PLATE THICKNESS TABLE**

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
W. Abut.	1/2"	1"	1 1/8"	1"	1/2"	1/8"
Pier 1	1/2"	3/8"	3/4"	5/8"	1/8"	0
Pier 2	7/8"	1 1/8"	1 1/8"	1 1/4"	3/8"	0
E. Abut.	1/4"	3/8"	1 3/4"	3/4"	1/2"	0

** Cost included with Furnishing and Erecting Structural Steel.

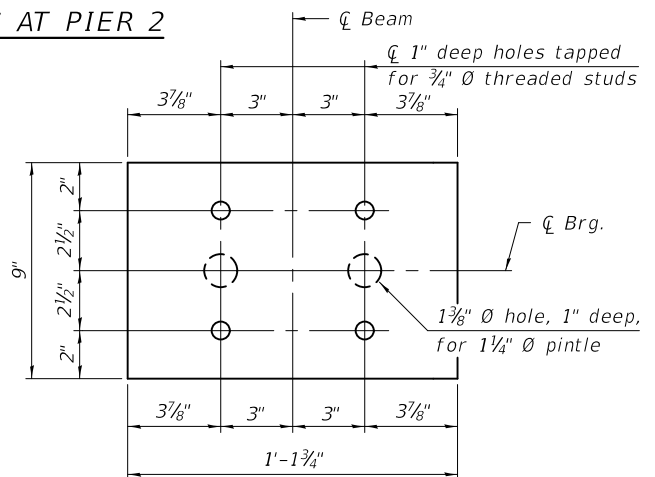
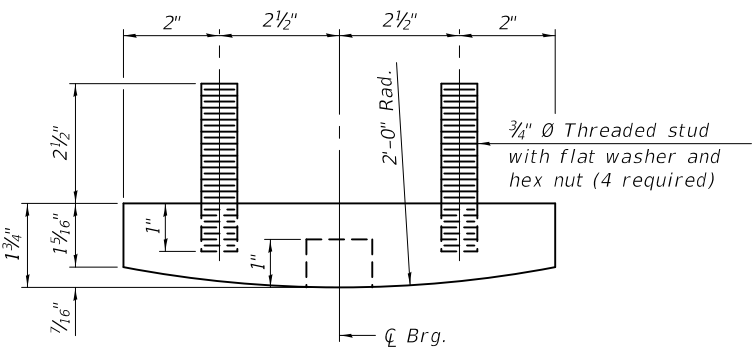
BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	12

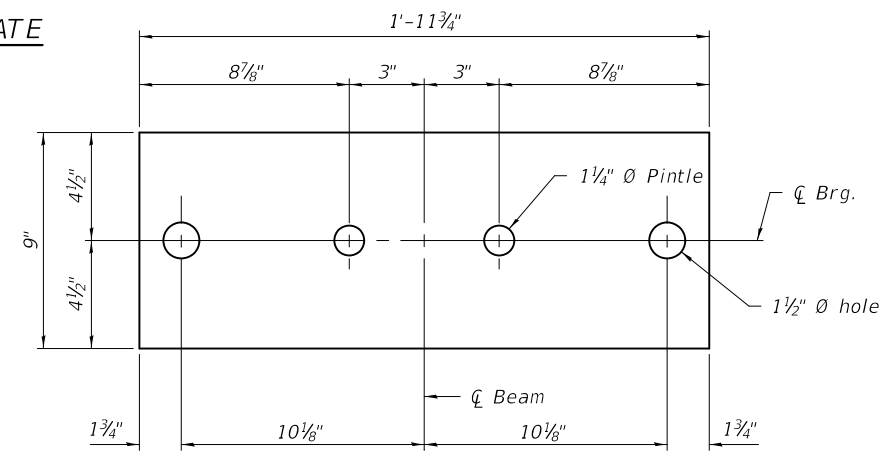
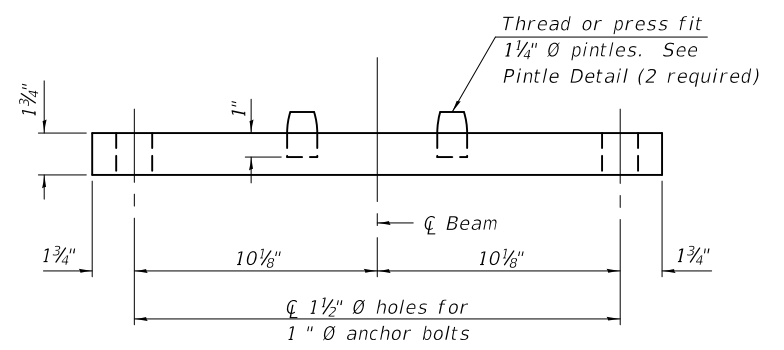
Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
The anchor bolt size and grade shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
All bearing steel extension plates, fill plates, and pintles shall be AASHTO M270, Grade 50W.
Steel extensions, bearing assemblies, fill plates and shim plates shall be included in the contract unit lump sum cost for Furnishing and Erecting Structural Steel.

* See bottom bearing plate details for fill plate and hole locations. For fill plate thicknesses, see table on this sheet.

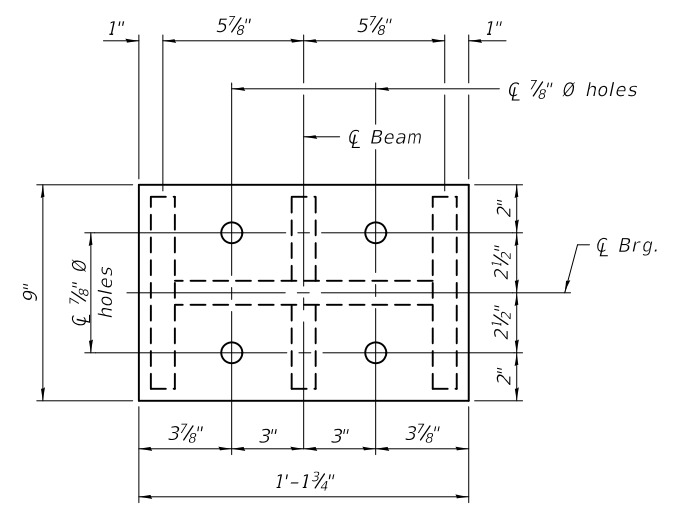
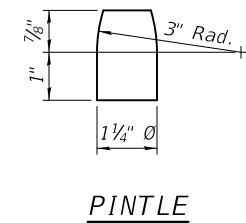
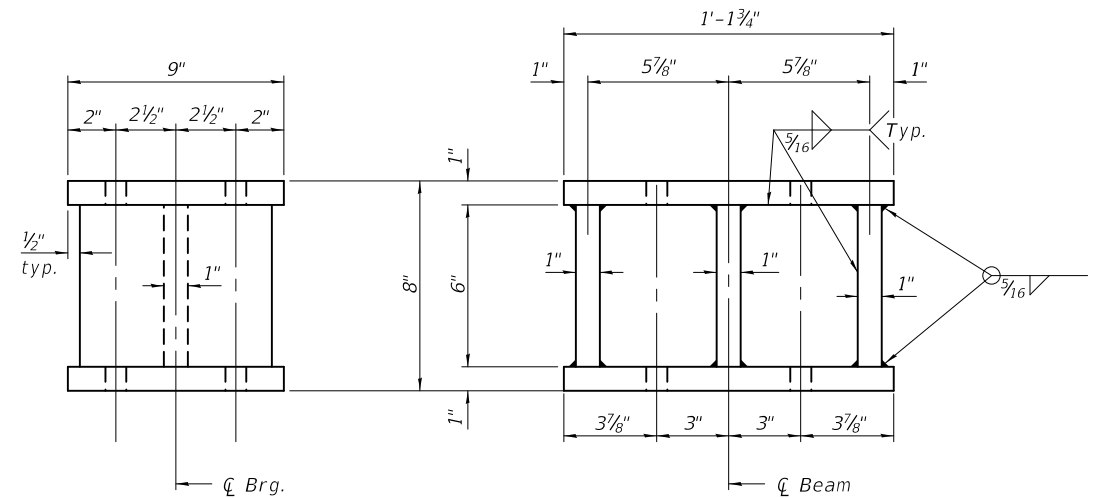
FIXED BEARING AT PIER 2



TOP BEARING PLATE



BOTTOM BEARING PLATE



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BEARING DETAILS - PIER 2
STRUCTURE NO. 070 - 0003**

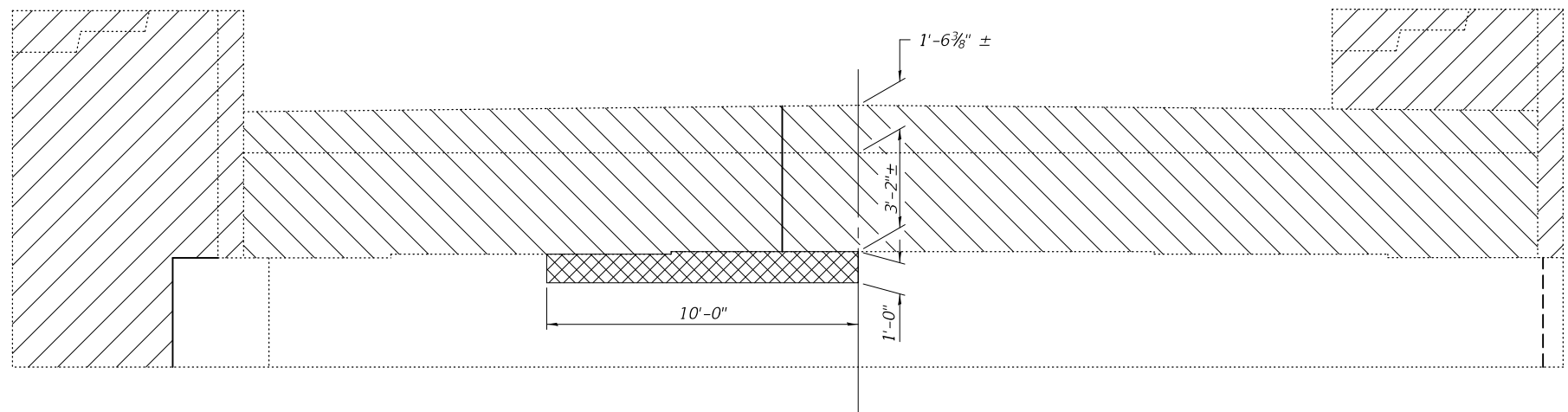
DESIGNED - PAUL GURKLYS
CHECKED - DAVID SALGADO
DRAWN - MICHAEL B. MOSSMAN
CHECKED - P.G./D.S./G.R.A.

EXAMINED
PASSED
Jaime F. Salgado
ENGINEER OF BRIDGE DESIGN
Carl Berger
ENGINEER OF BRIDGES AND STRUCTURES

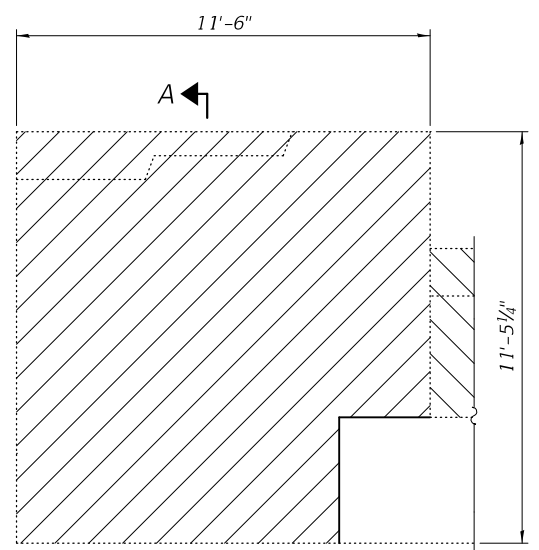
DATE - SEPTEMBER 20, 2018
REVISED -
REVISED -

SHEET 19 OF 36 SHEETS

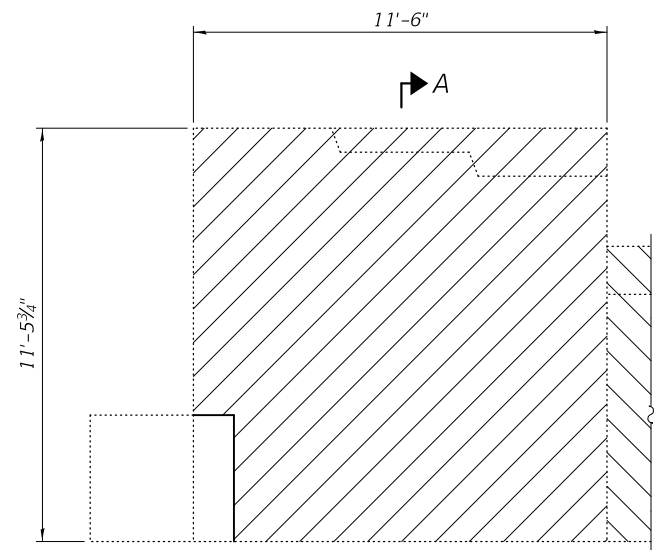
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	46
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



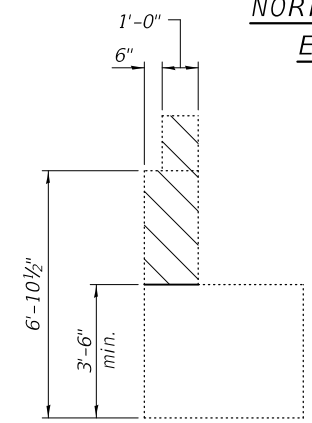
ELEVATION



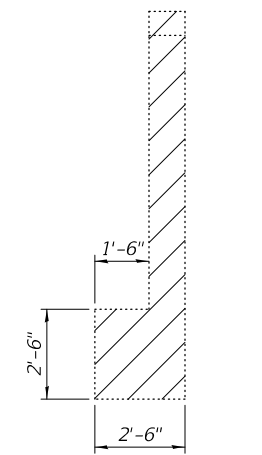
SOUTH WINGWALL ELEVATION



NORTH WINGWALL ELEVATION

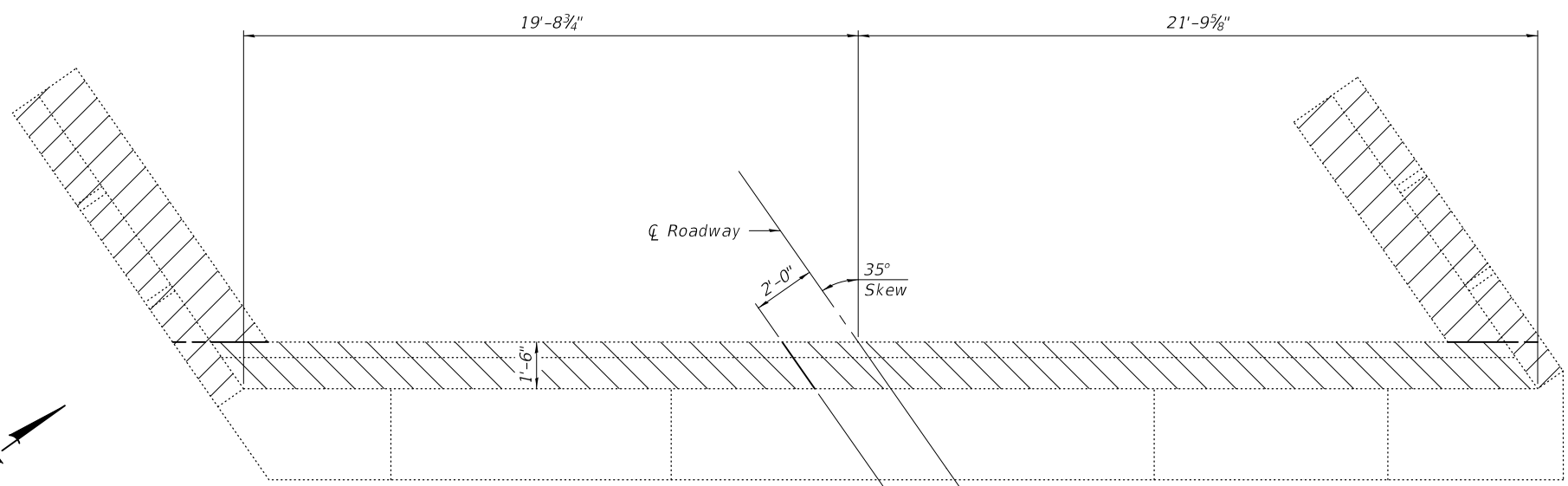


SECTION THRU ABUTMENT



SECTION A-A

- LEGEND**
- Concrete Removal
 - Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)



PLAN

Stage II removal Stage I removal

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	21.1
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	10.0

MODEL: 0700003-74358-020
FILE NAME: p:\w\1084EBID\INTEG\ilmds.gov\PWIDOT\Documents\Projects\0700003\CADD Plans\0700003-74358.dgn

DESIGNED - PAUL GURKLYS
CHECKED - DAVID SALGADO
DRAWN - MICHAEL B. MOSSMAN
CHECKED - P.G. / D.S. / G.R.A.

EXAMINED
PASSED
Joanne F. Salvo
ENGINEER OF BRIDGE DESIGN
Carl Kasper
ENGINEER OF BRIDGES AND STRUCTURES

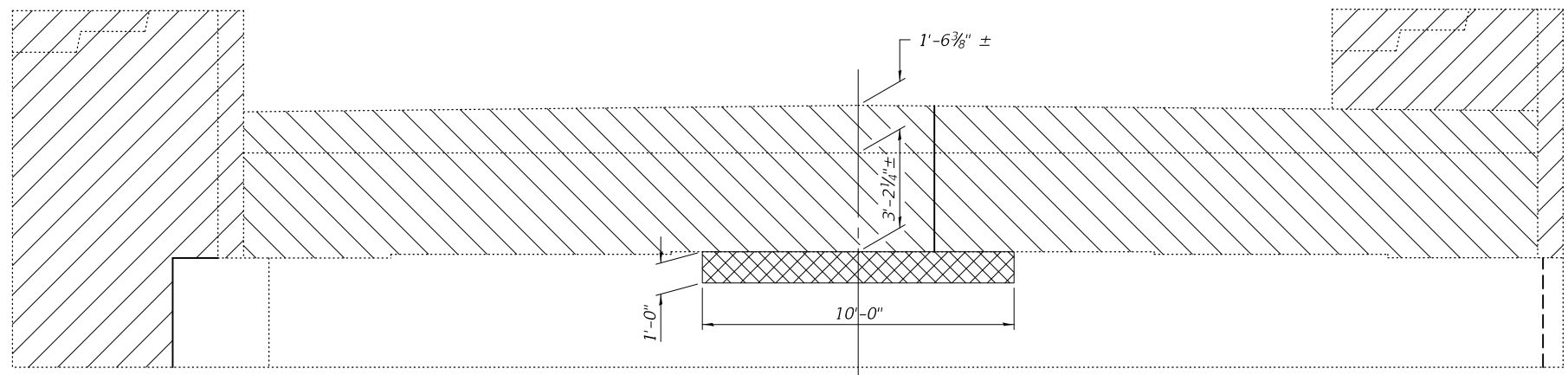
DATE - SEPTEMBER 20, 2018
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT REMOVAL & REPAIRS
STRUCTURE NO. 070 - 0003**

SHEET 20 OF 36 SHEETS

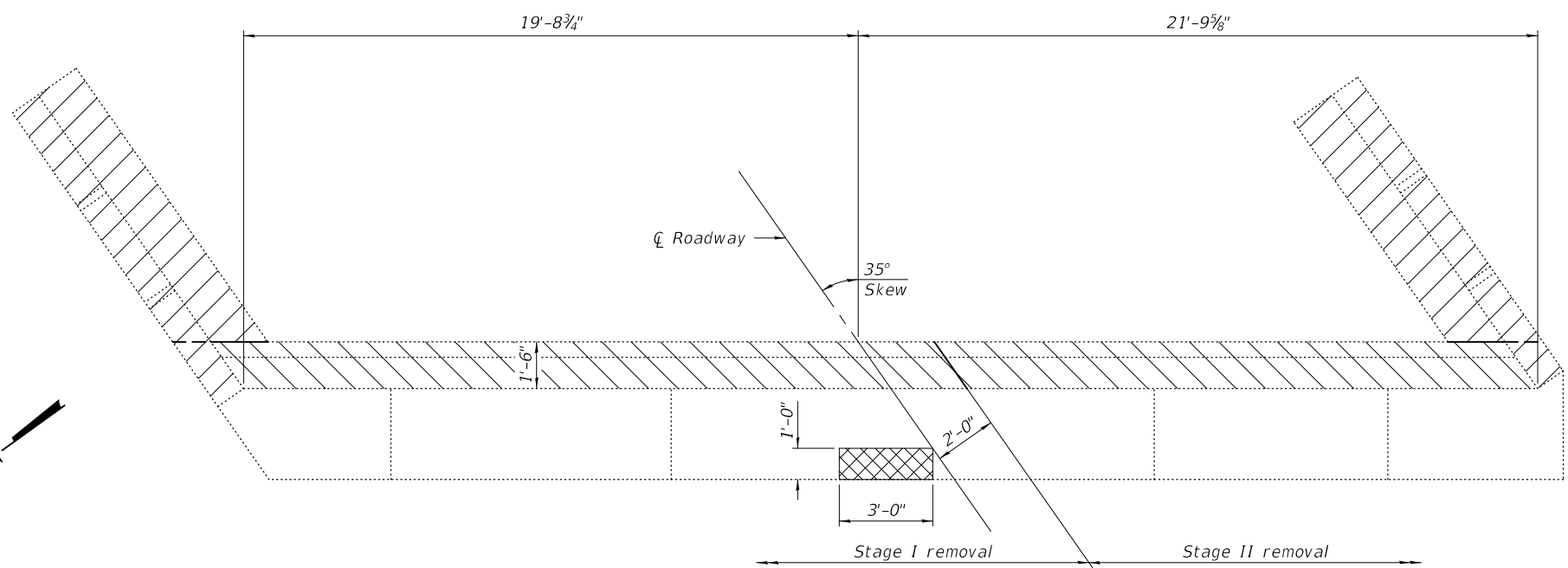
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	47
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



ELEVATION

LEGEND

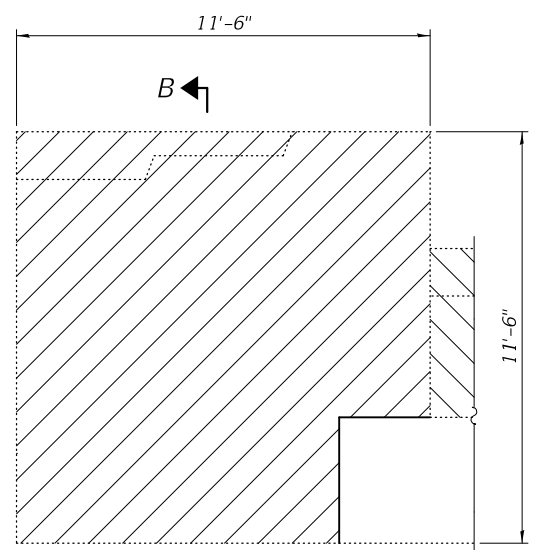
- Concrete Removal
- Structural Repair of Concrete
(Depth Equal to or Less than 5 Inches)



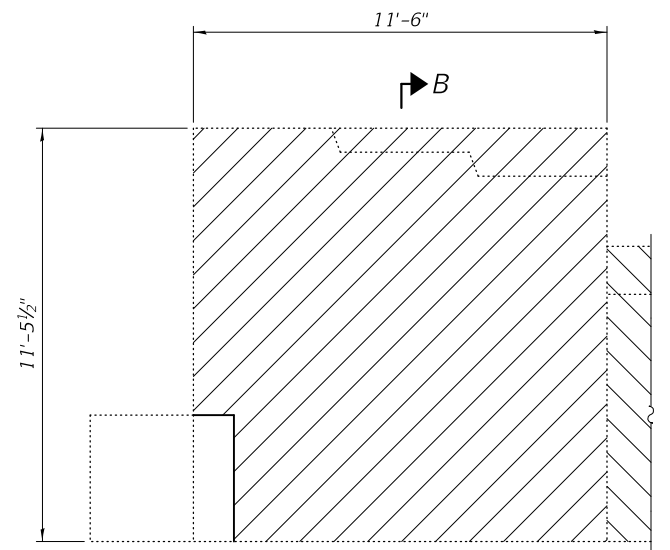
PLAN

BILL OF MATERIAL

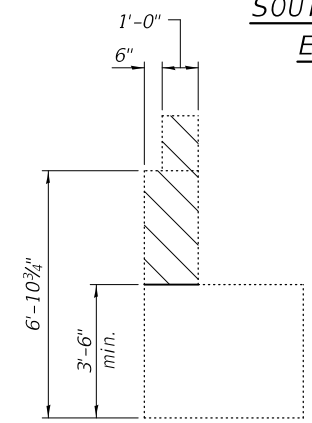
Item	Unit	Total
Concrete Removal	Cu. Yd.	21.1
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	13.0



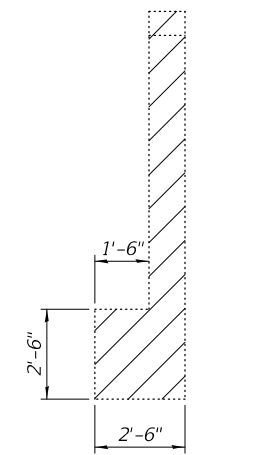
NORTH WINGWALL
ELEVATION



SOUTH WINGWALL
ELEVATION



SECTION THRU
ABUTMENT



SECTION B-B

MODEL: 0700003-74358-021
FILE NAME: p:\w\084848\INTEG\Illinois.gov\PWIDOT\Documents\Projects\0700003\CADD Plans\0700003-74358.dgn

DESIGNED - PAUL GURKLYS
CHECKED - DAVID SALGADO
DRAWN - MICHAEL B. MOSSMAN
CHECKED - P.G. / D.S. / G.R.A.

EXAMINED
PASSED
Joanne F. Salgado
ENGINEER OF BRIDGE DESIGN
Carl Kasper
ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 20, 2018
REVISED -
REVISED -

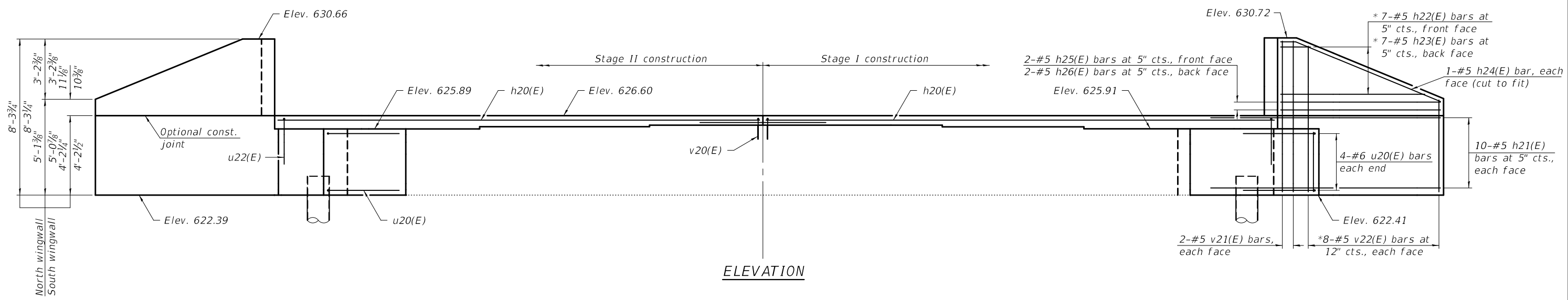
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EAST ABUTMENT REMOVAL & REPAIRS
STRUCTURE NO. 070 - 0003**

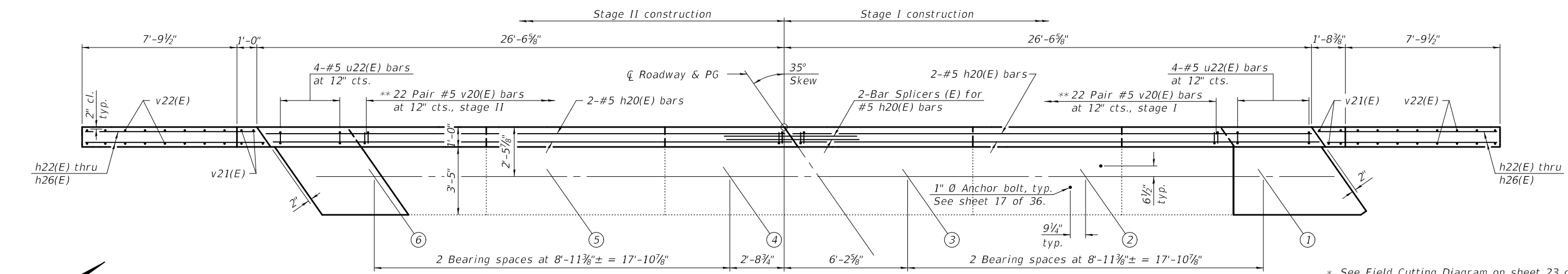
SHEET 21 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	48
CONTRACT NO. 74358				

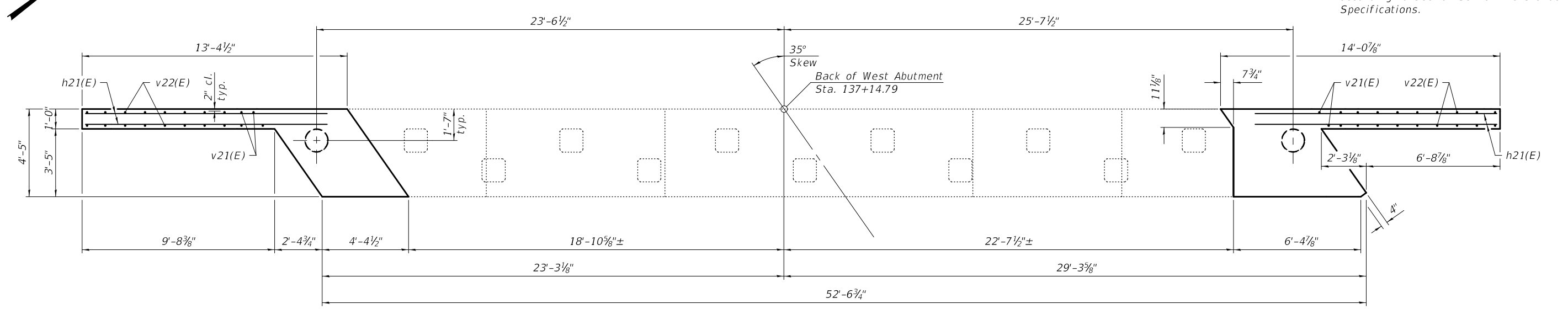
ILLINOIS FED. AID PROJECT



ELEVATION



TOP VIEW



PLAN - PILE CAP
See pile cap plan views on sheet 23 of 36 for North and South cap reinforcement.

* See Field Cutting Diagram on sheet 23 of 36.
** Epoxy grout v20(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications.

MODEL: 0700003-74358-022
FILE NAME: p:\v\084EBID\INTEG\ilmod5.gov\PWIDOT\Documents\Bureau of Bridges and Structures\Projects\0700003\CADD Plans\0700003-74358.dgn

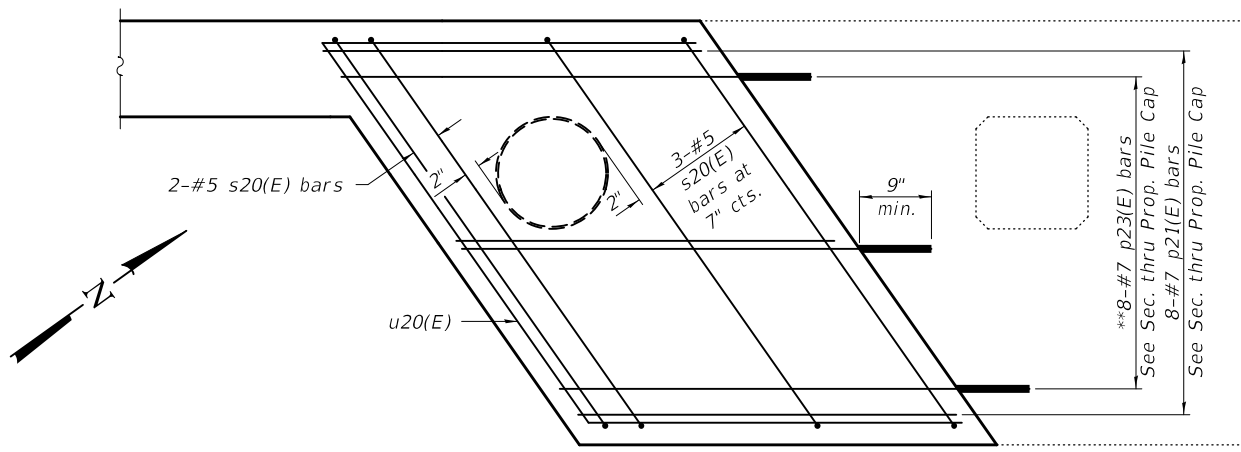
DESIGNED - PAUL GURKLYS	EXAMINED	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED	
DRAWN - MICHAEL B. MOSSMAN		
CHECKED - P.G./D.S./G.R.A.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
STRUCTURE NO. 070 - 0003

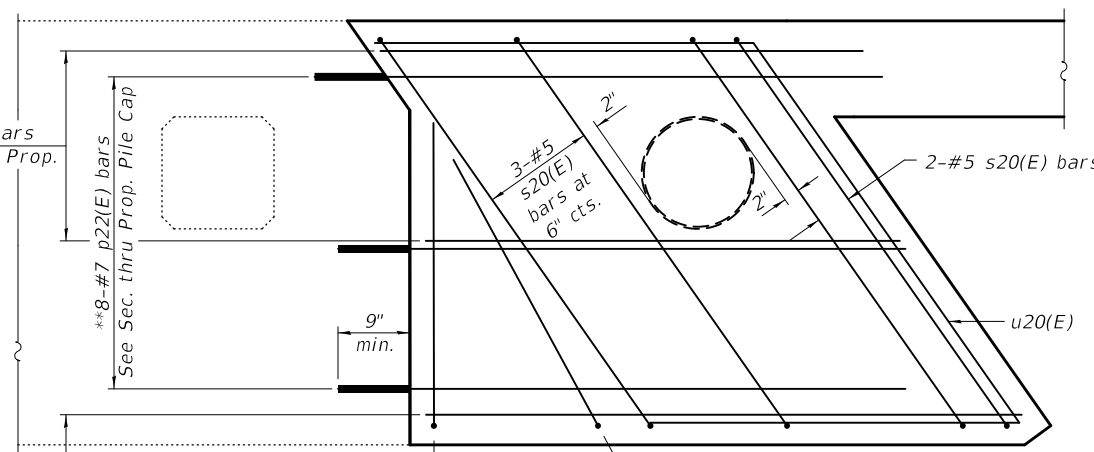
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	49
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

SHEET 22 OF 36 SHEETS



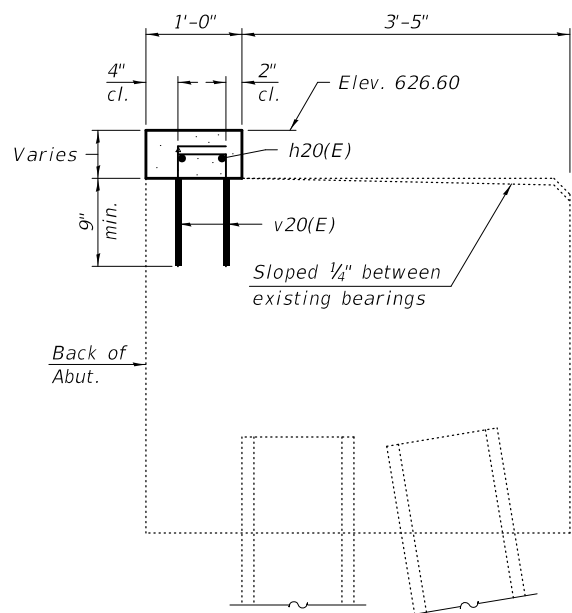
PLAN - SOUTH PILE CAP

See sheet 22 of 36 for wingwall reinf.

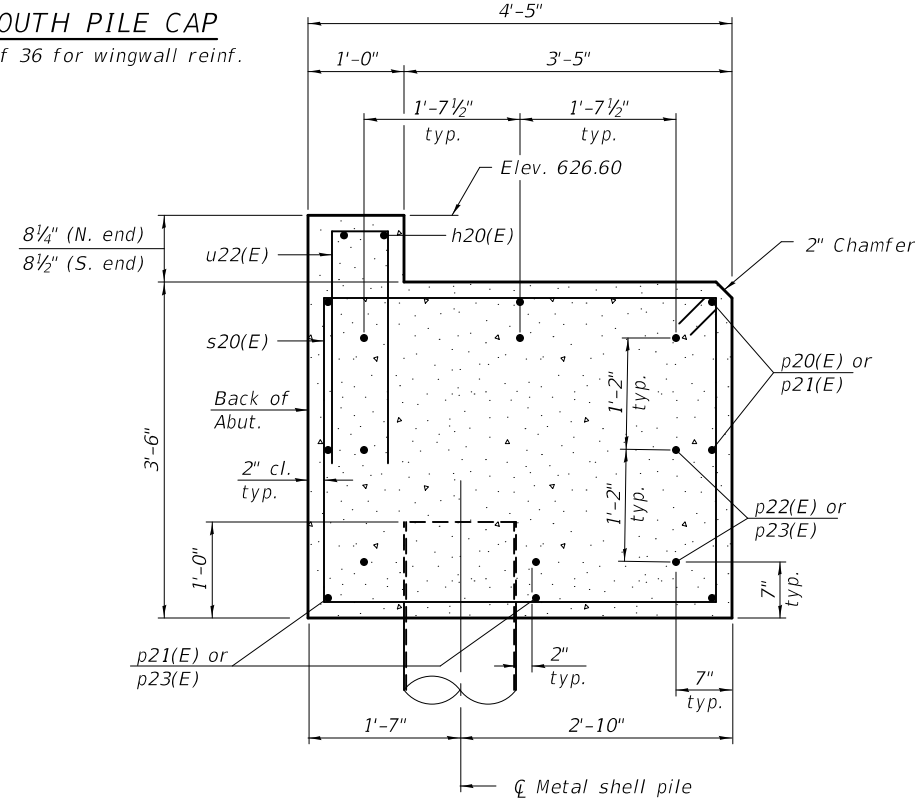


PLAN - NORTH PILE CAP

See sheet 22 of 36 for wingwall reinforcement.

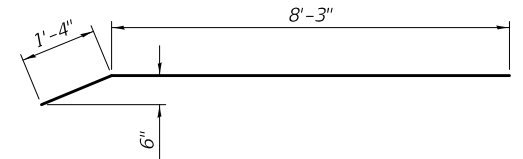


SECTION THRU EXISTING PILE CAP

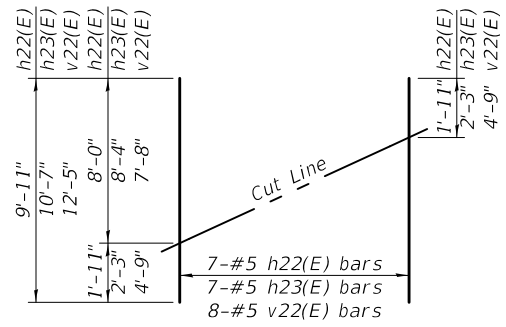


SECTION THRU PROPOSED PILE CAP

** Epoxy grout p22(E) and p23(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications.



BAR h24(E)



FIELD CUTTING DIAGRAM

Order h22(E), h23(E) and v22(E) full length. Cut as shown and use remainder of bars in opposite wingwall.

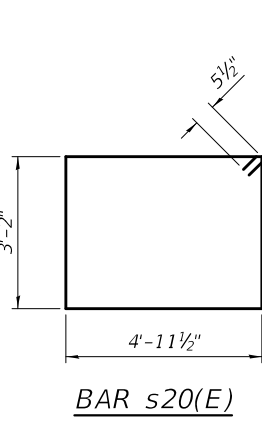
PILE DATA

Type: Metal Shells 14" x 0.25"
 Nominal Required Bearing: 216 kips
 Factored Resistance Available: 119 kips
 Est. Length: 35 ft.
 No. Production Piles: 1
 No. Test Piles: 1 (North end)

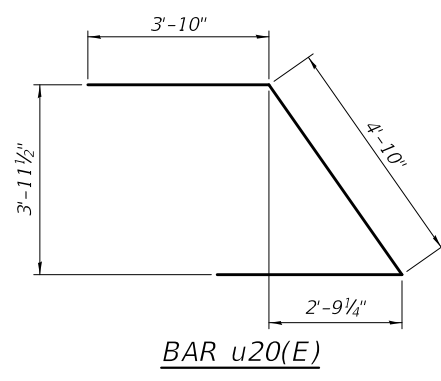
WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	4	#5	26'-0"	—
h21(E)	40	#5	12'-4"	—
h22(E)	7	#5	9'-11"	—
h23(E)	7	#5	10'-7"	—
h24(E)	4	#5	9'-7"	—
h25(E)	4	#5	8'-6"	—
h26(E)	4	#5	8'-11"	—
p20(E)	3	#7	6'-3"	—
p21(E)	8	#7	4'-0"	—
p22(E)	8	#7	5'-9"	—
p23(E)	13	#7	4'-10"	—
s20(E)	10	#5	17'-2"	□
u20(E)	8	#6	12'-6"	▤
u21(E)	4	#5	9'-6"	▤
u22(E)	8	#5	5'-6"	▤
v20(E)	88	#5	1'-10"	└
v21(E)	8	#5	7'-11"	—
v22(E)	16	#5	12'-5"	—
Structure Excavation		Cu. Yd.	122.1	
Concrete Structures		Cu. Yd.	11.4	
Reinforcement Bars, Epoxy Coated		Pound	2,070	
Furnishing Metal Shell Piles 14"x0.25"		Foot	35	
Driving Piles		Foot	35	
Test Pile Metal Shells		Each	1	

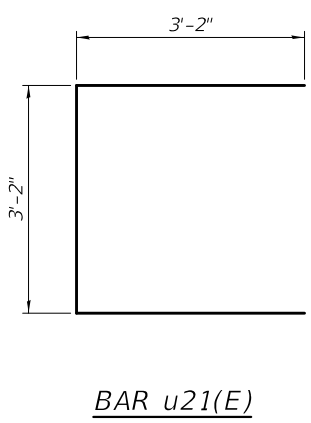
For details of piles see sheet 30 of 36.



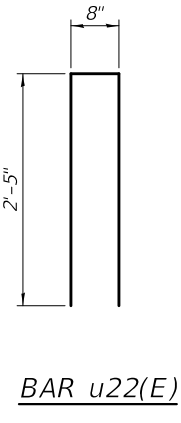
BAR s20(E)



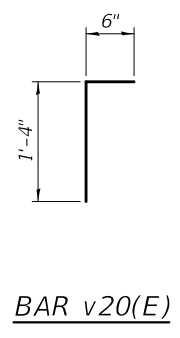
BAR u20(E)



BAR u21(E)



BAR u22(E)



BAR v20(E)

MODEL: 0700003-74358-023
 FILE NAME: p:\v\10848\BID\INTEG\Illinois\DOT\Documents\Projects\Bureau of Bridges and Structures\Projects\0700003\CADD\Plans\0700003-74358.dgn

DESIGNED -	PAUL GURKLYS
CHECKED -	DAVID SALGADO
DRAWN -	MICHAEL B. MOSSMAN
CHECKED -	P.G./D.S./G.R.A.

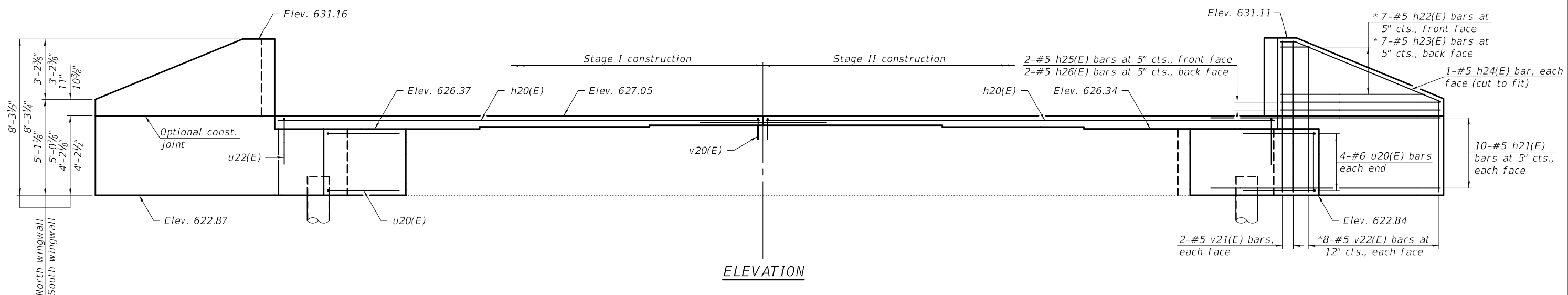
EXAMINED	<i>Joyce F. Salvo</i>	DATE -	SEPTEMBER 20, 2018
PASSED	<i>Carl Perry</i>	REVISOR -	
	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

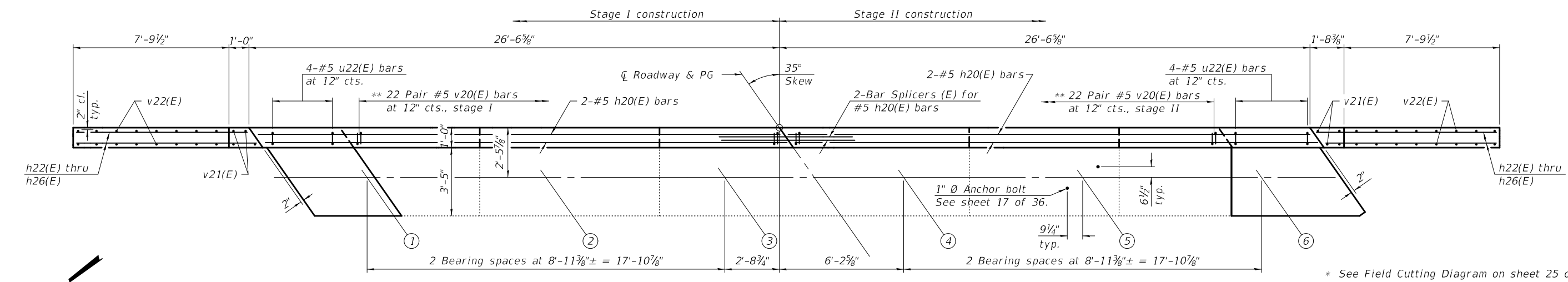
**WEST ABUTMENT DETAILS
 STRUCTURE NO. 070 - 0003**

SHEET 23 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	50
				CONTRACT NO. 74358
		ILLINOIS	FED. AID PROJECT	

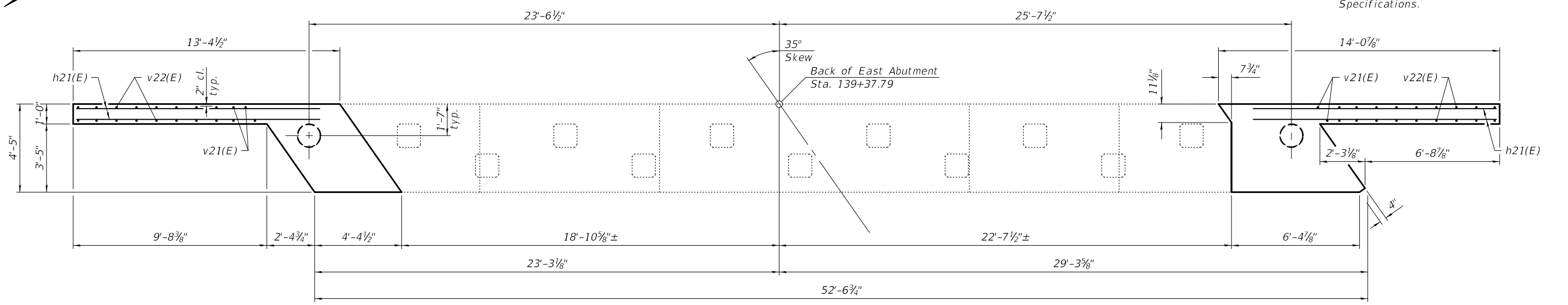


ELEVATION



TOP VIEW

* See Field Cutting Diagram on sheet 25 of 36.
 ** Epoxy grout v20(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications.



PLAN - PILE CAP
 See pile cap plan views on sheet 25 of 36 for North and South cap reinforcement.

MODEL: 0700003-74358-024
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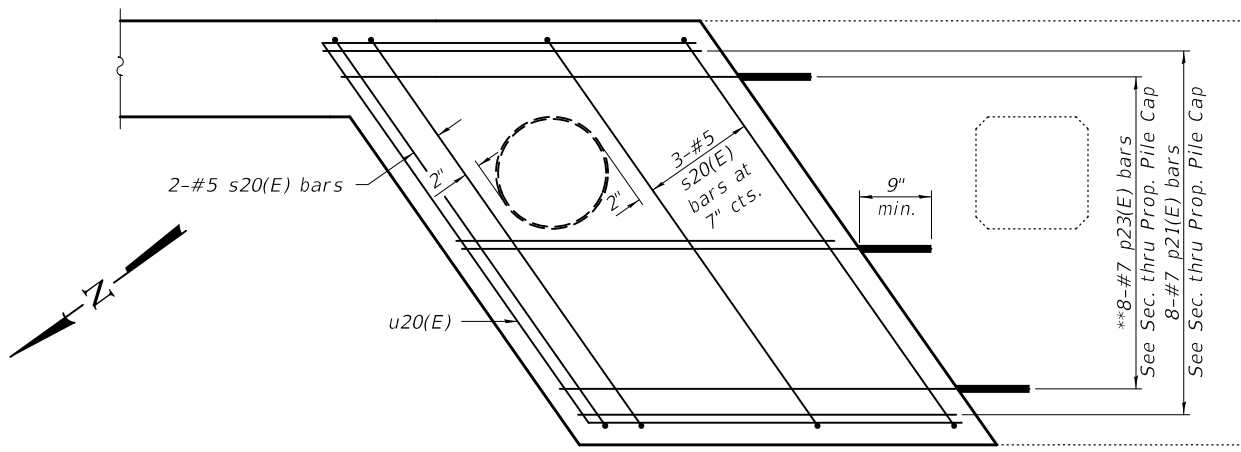
DESIGNED - PAUL GURKLYS	EXAMINED - <i>Joanne F. Salvo</i>	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED - <i>Carl Perry</i>	REVISOR -
DRAWN - MICHAEL B. MOSSMAN	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR -
CHECKED - P.G./D.S./G.R.A.		

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 DEPARTMENT OF TRANSPORTATION

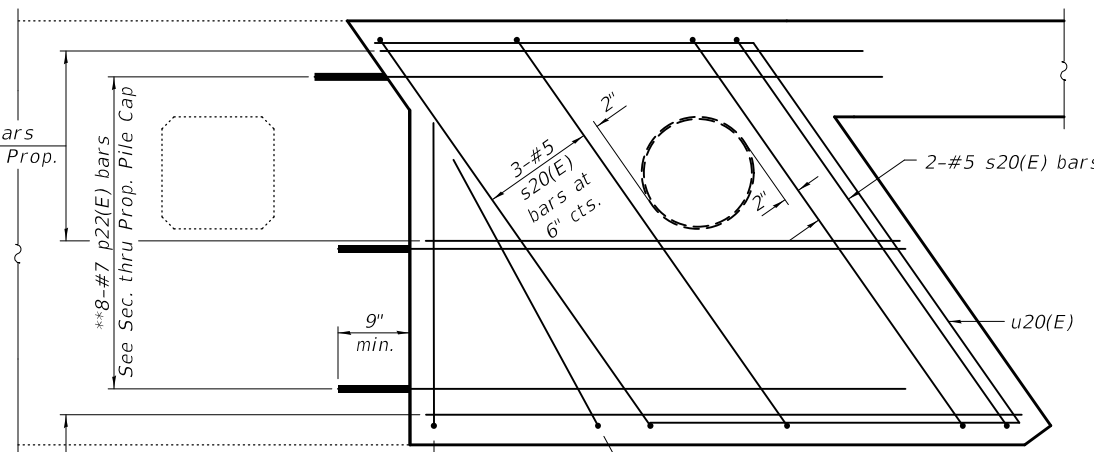
EAST ABUTMENT
 STRUCTURE NO. 070 - 0003

SHEET 24 OF 36 SHEETS

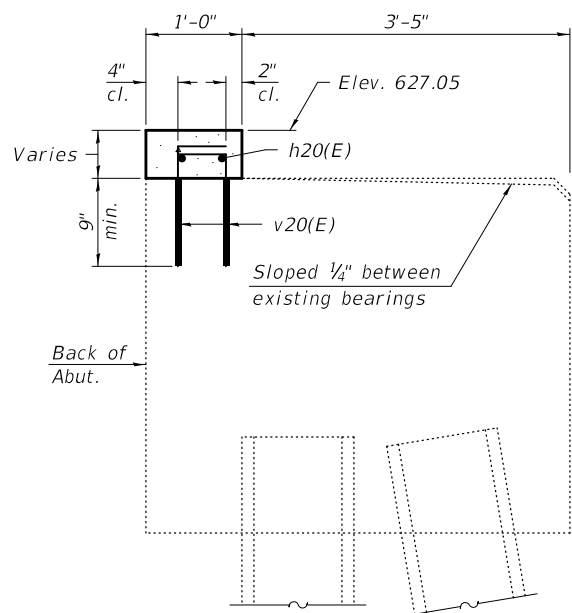
F.A.P. RTE. 320	SECTION (104BR)BR-1	COUNTY MOULTRIE	TOTAL SHEETS 63	SHEET NO. 51
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



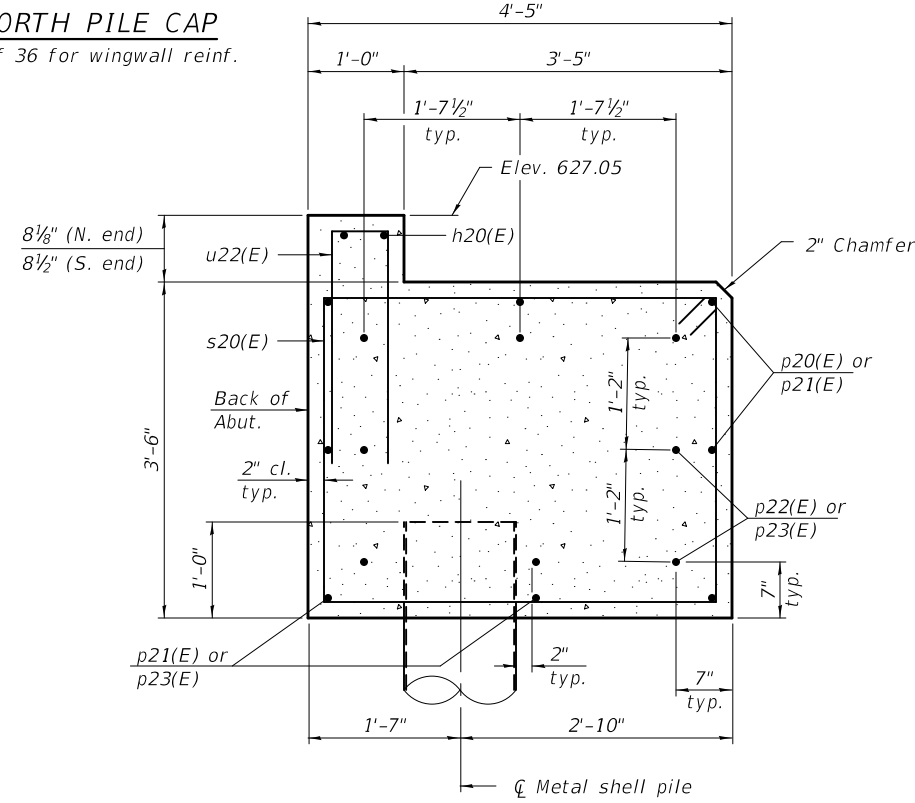
PLAN - NORTH PILE CAP
See sheet 24 of 36 for wingwall reinf.



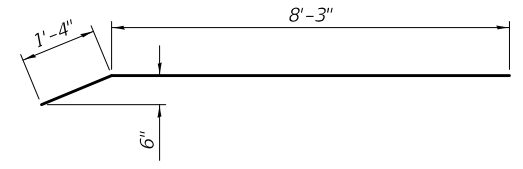
PLAN - SOUTH PILE CAP
See sheet 24 of 36 for wingwall reinforcement.



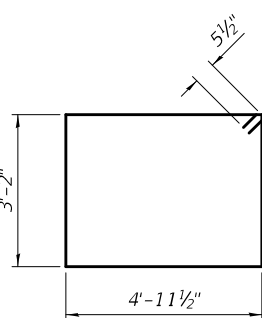
SECTION THRU EXISTING PILE CAP



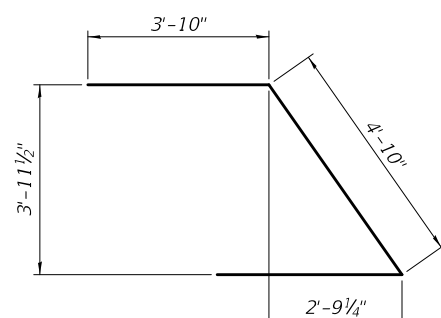
SECTION THRU PROPOSED PILE CAP



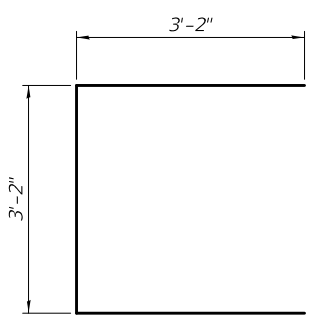
BAR h24(E)



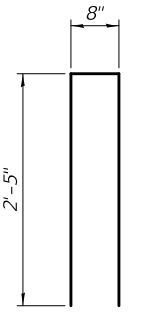
BAR s20(E)



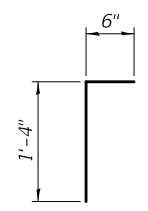
BAR u20(E)



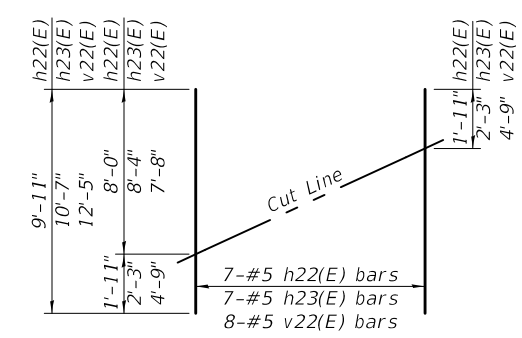
BAR u21(E)



BAR u22(E)



BAR v20(E)



FIELD CUTTING DIAGRAM

Order h22(E), h23(E) and v22(E) full length. Cut as shown and use remainder of bars in opposite wingwall.

PILE DATA

Type: Metal Shells 14" x 0.25"
Nominal Required Bearing: 216 kips
Factored Resistance Available: 119 kips
Est. Length: 28 ft.
No. Production Piles: 2

EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	4	#5	26'-0"	—
h21(E)	40	#5	12'-4"	—
h22(E)	7	#5	9'-11"	—
h23(E)	7	#5	10'-7"	—
h24(E)	4	#5	9'-7"	—
h25(E)	4	#5	8'-6"	—
h26(E)	4	#5	8'-11"	—
p20(E)	3	#7	6'-3"	—
p21(E)	8	#7	4'-0"	—
p22(E)	8	#7	5'-9"	—
p23(E)	13	#7	4'-10"	—
s20(E)	10	#5	17'-2"	□
u20(E)	8	#6	12'-6"	▤
u21(E)	4	#5	9'-6"	▤
u22(E)	8	#5	5'-6"	▤
v20(E)	88	#5	1'-10"	┌
v21(E)	8	#5	7'-11"	—
v22(E)	16	#5	12'-5"	—
Structure Excavation		Cu. Yd.	122.1	
Concrete Structures		Cu. Yd.	11.4	
Reinforcement Bars, Epoxy Coated		Pound	2,070	
Furnishing Metal Shell Piles 14"x0.25"		Foot	56	
Driving Piles		Foot	56	

For details of piles see sheet 30 of 36.

MODEL: 0700003-74358-025
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9/24/2018 10:36:24 AM

DESIGNED - PAUL GURKLYS
CHECKED - DAVID SALGADO
DRAWN - MICHAEL B. MOSSMAN
CHECKED - P.G./D.S./G.R.A.

EXAMINED	<i>Joanne F. Salvo</i>
PASSED	<i>Carl Kasper</i>

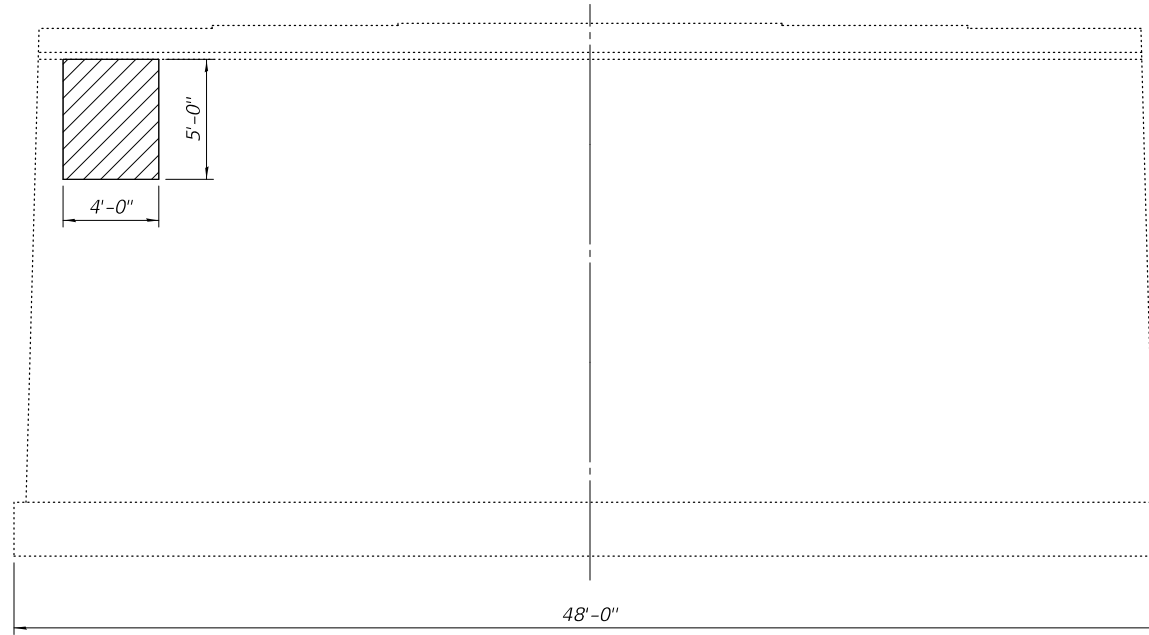
DATE - SEPTEMBER 20, 2018
REVISED -
REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

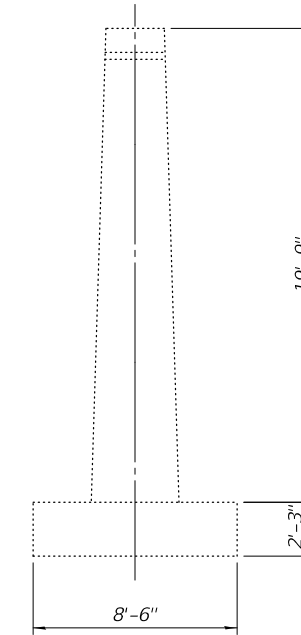
EAST ABUTMENT DETAILS STRUCTURE NO. 070 - 0003

SHEET 25 OF 36 SHEETS


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	52
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

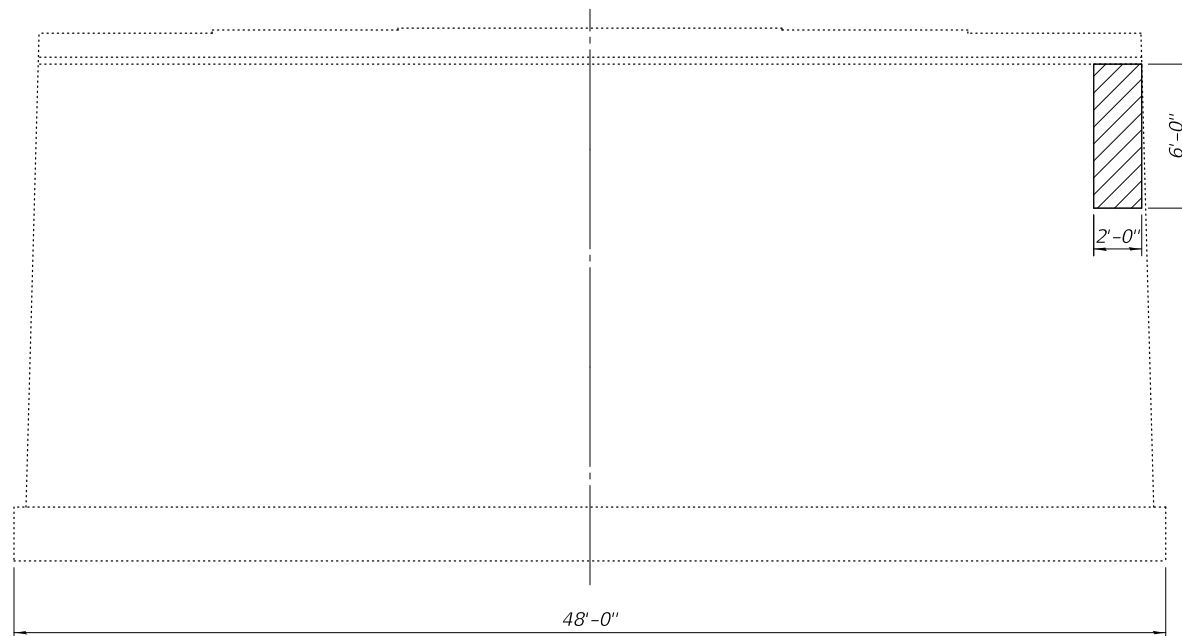


PIER 1 ELEVATION
(Looking at East face)

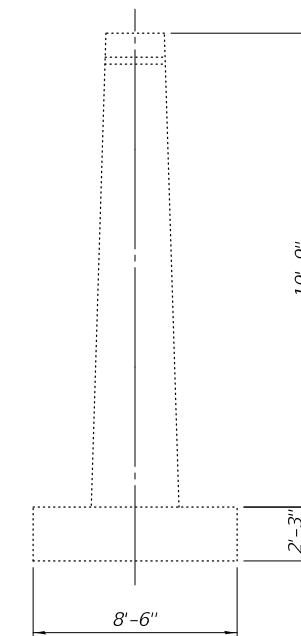


END VIEW

 Structural Repair of Concrete
(Depth Equal to or Less than 5 Inches)



PIER 2 ELEVATION
(Looking at West face)



END VIEW

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	32.0

MODEL: 0700003-74358-026
FILE NAME: p:\v\084848\INTEG\Illinois.gov\PW\DOT\Documents\Projects\0700003\CADD Plans\0700003-74358.dgn

DESIGNED -	PAUL GURKLYS
CHECKED -	DAVID SALGADO
DRAWN -	MICHAEL B. MOSSMAN
CHECKED -	P.G. / D.S. / G.R.A.

EXAMINED _____
PASSED _____
Joanne F. DeLoe
ENGINEER OF BRIDGE DESIGN
Carl Perry
ENGINEER OF BRIDGES AND STRUCTURES

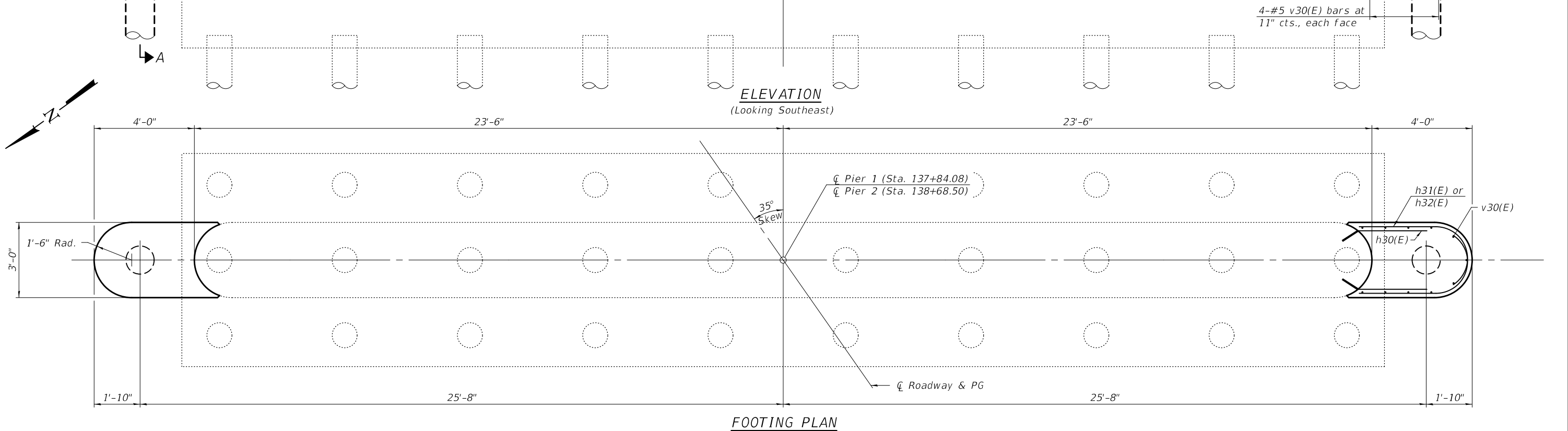
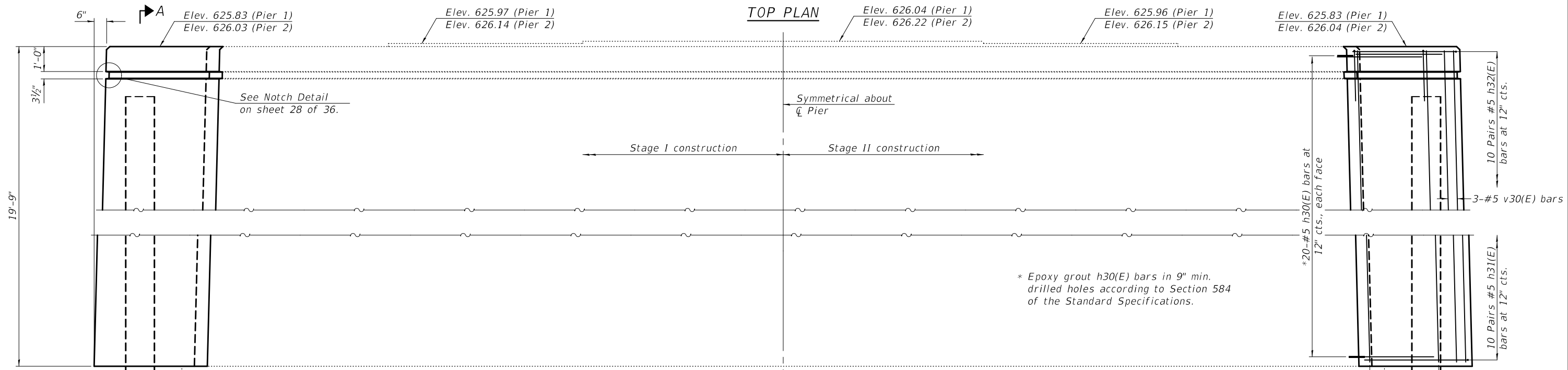
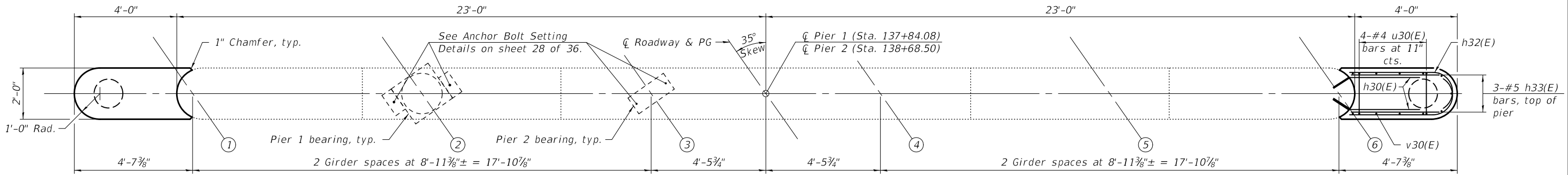
DATE -	SEPTEMBER 20, 2018
REVISED -	
REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER REPAIRS
STRUCTURE NO. 070 - 0003**

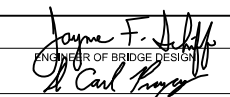

SHEET 26 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	53
			CONTRACT NO. 74358	
		ILLINOIS	FED. AID PROJECT	



MODEL: 0700003-74358-027
 FILE NAME: p:\w\084848\INTEG\ilmds.gov\PWIDOT\Documents\DOT Offices\Bureau of Structures\Projects\0700003\CADD Plans\0700003-74358.dgn

DESIGNED -	PAUL GURKLYS
CHECKED -	DAVID SALGADO
DRAWN -	MICHAEL B. MOSSMAN
CHECKED -	P.G. / D.S. / G.R.A.

EXAMINED _____
 PASSED _____

 ENGINEER OF BRIDGE DESIGN

 ENGINEER OF BRIDGES AND STRUCTURES

DATE -	SEPTEMBER 20, 2018
REVISED -	
REVISED -	

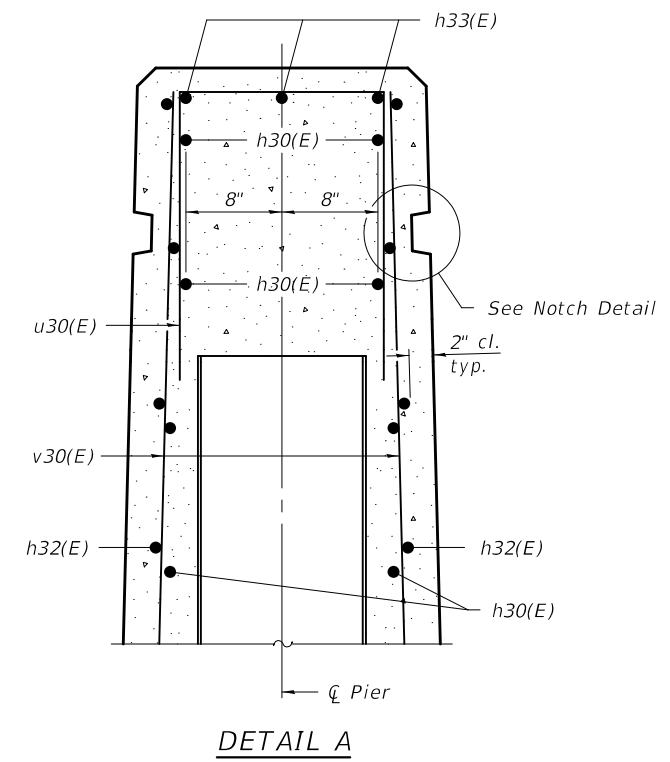
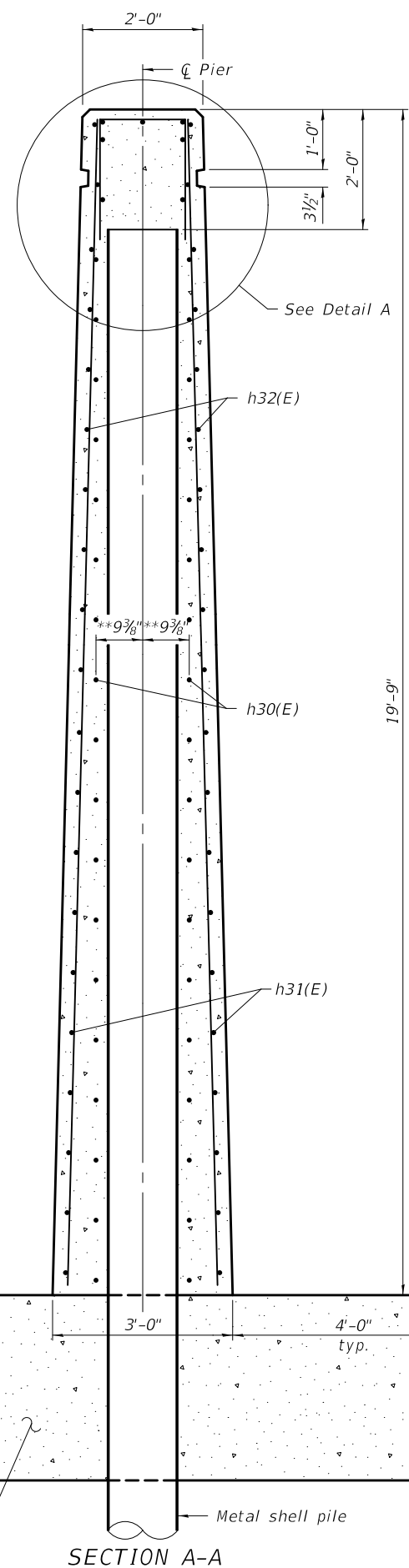
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIERS 1 & 2
STRUCTURE NO. 070 - 0003

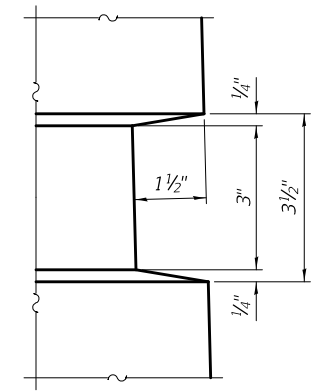
SHEET 27 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	54
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

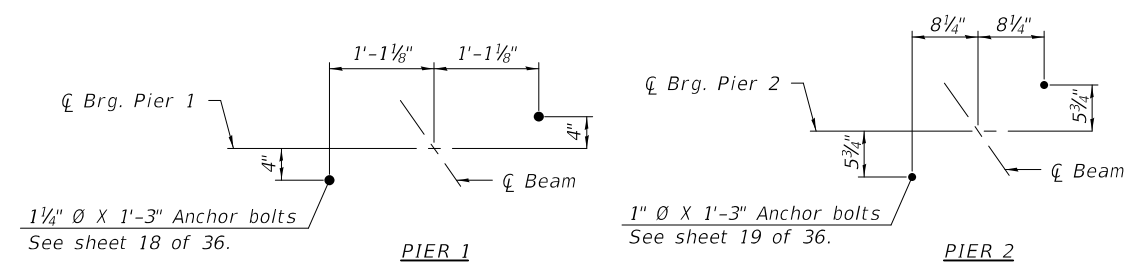
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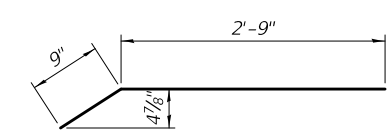
** Typical except as shown.



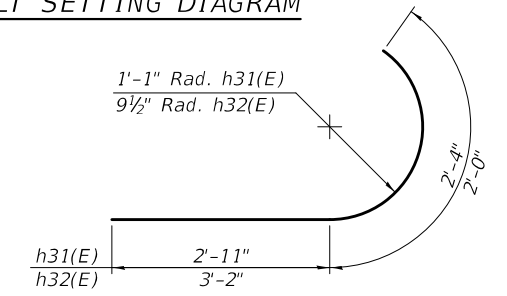
NOTCH DETAIL



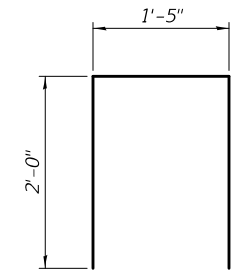
ANCHOR BOLT SETTING DIAGRAM



BAR h30(E)



BARS h31(E) & h32(E)



BAR u30(E)

PIERS 1 & 2
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h30(E)	160	#5	3'-6"	┌───┐
h31(E)	80	#5	5'-3"	┌───┐
h32(E)	80	#5	5'-2"	┌───┐
h33(E)	12	#5	3'-2"	┌───┐
u30(E)	16	#4	5'-5"	Π
v30(E)	44	#5	19'-5"	—
Cofferdam Excavation			Cu. Yd.	113.4
Cofferdam (Type 2) (Location 1)			Each	1
Cofferdam (Type 2) (Location 2)			Each	1
Concrete Structures			Cu. Yd.	26.4
Seal Coat Concrete			Cu. Yd.	40.2
Reinforcement Bars, Epoxy Coated			Pound	2,440
Furnishing Metal Shell Piles 14"x0.250"			Foot	174
Driving Piles			Foot	174
Test Pile Metal Shells			Each	1

PIER 1 PILE DATA

Type: Metal Shells 14" x 0.25"
 Nominal Required Bearing: 350 kips
 Factored Resistance Available: 193 kips
 Est. Length: 64 ft.
 No. Production Piles: 1
 No. Test Piles: 1 (North end)

PIER 2 PILE DATA

Type: Metal Shells 14" x 0.25"
 Nominal Required Bearing: 350 kips
 Factored Resistance Available: 193 kips
 Est. Length: 55 ft.
 No. Production Piles: 2

Notes:
 Space reinforcement in cap to miss anchor bolts.
 For details of piles, see sheet 30 of 36.

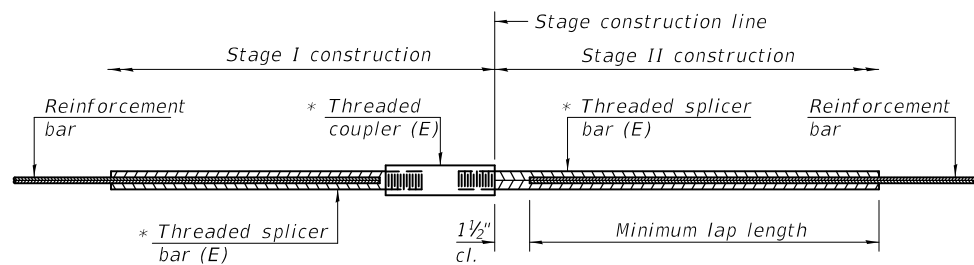
DESIGNED - PAUL GURKLYS	EXAMINED - <i>Jaime F. Salgado</i>	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED - <i>Michael B. Mossman</i>	REVISIONS -
DRAWN - MICHAEL B. MOSSMAN	ENGINEER OF BRIDGES AND STRUCTURES	REVISIONS -
CHECKED - P.G./D.S./G.R.A.		

STATE OF ILLINOIS
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PIERS 1 & 2 DETAILS
STRUCTURE NO. 070 - 0003

SHEET 28 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	55
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

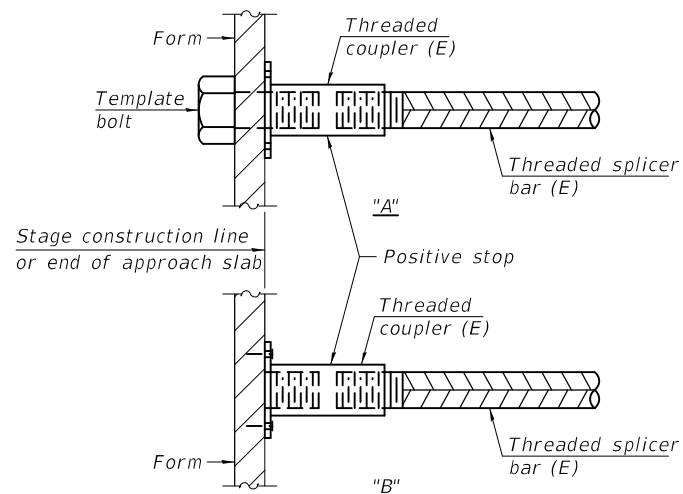


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

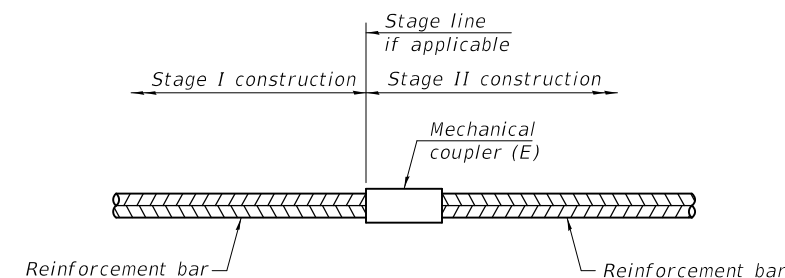
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Top of slab	#5	481	3'-6"
Bottom of slab	#5	297	3'-6"
Diaphragms	#6	22	4'-0"
Top of approach slabs	#5	74	3'-7"
Bottom of approach slabs	#8	98	5'-1"
Top and bottom of approach footings	#5	80	3'-2"
Abutment backwall	#5	4	3'-4"



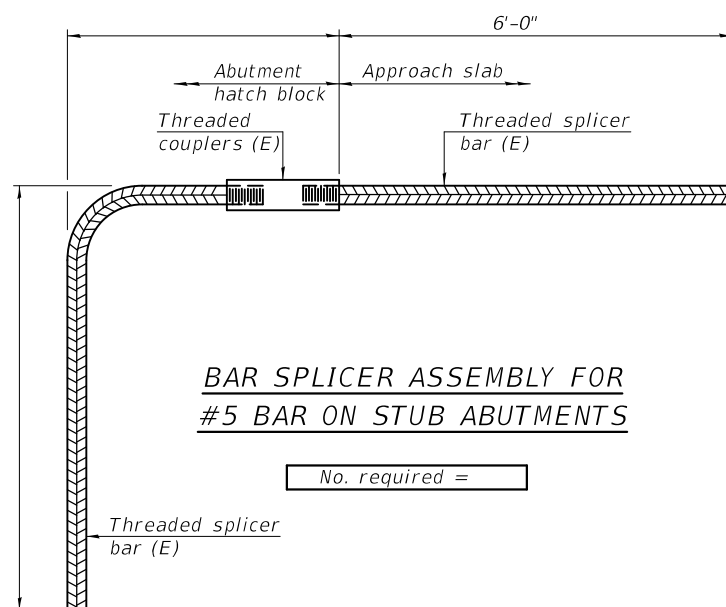
INSTALLATION AND SETTING METHODS

"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 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.

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 FILE NAME: p:\v\084848\INTEG\illinois.gov\PI\DOT\Documents\DOT Offices\Bureau of Structures and Structures\Projects\0700003\CADD Plans\0700003-74358.dgn

BSD-1 2-17-2017

DESIGNED - PAUL GURKLYS	EXAMINED	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED	
DRAWN - MICHAEL B. MOSSMAN		
CHECKED - P.G. / D.S. / G.R.A.		

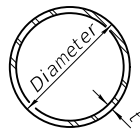
Joanne F. Salgado
 ENGINEER OF BRIDGE DESIGN
Carl Kasper
 ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 070 - 0003

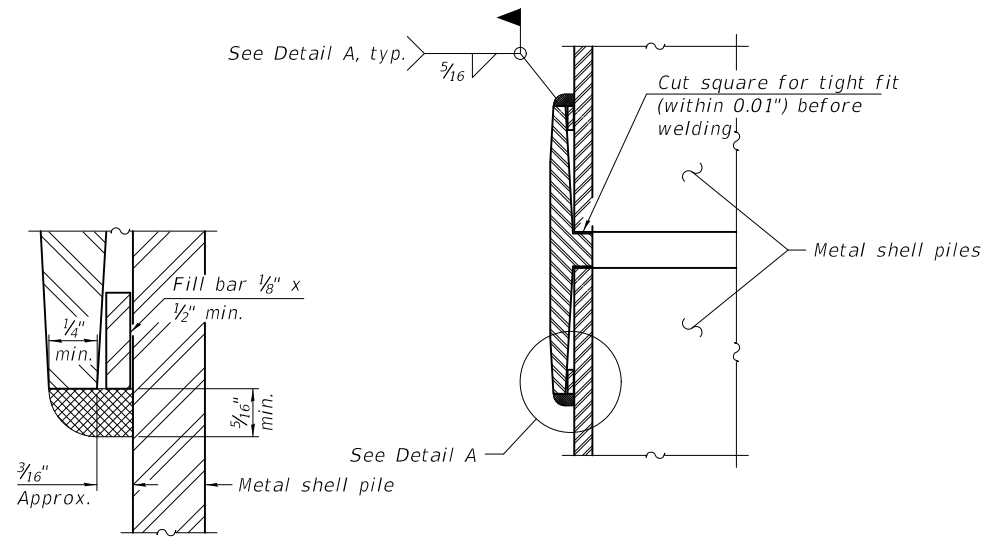
SHEET 29 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	56
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

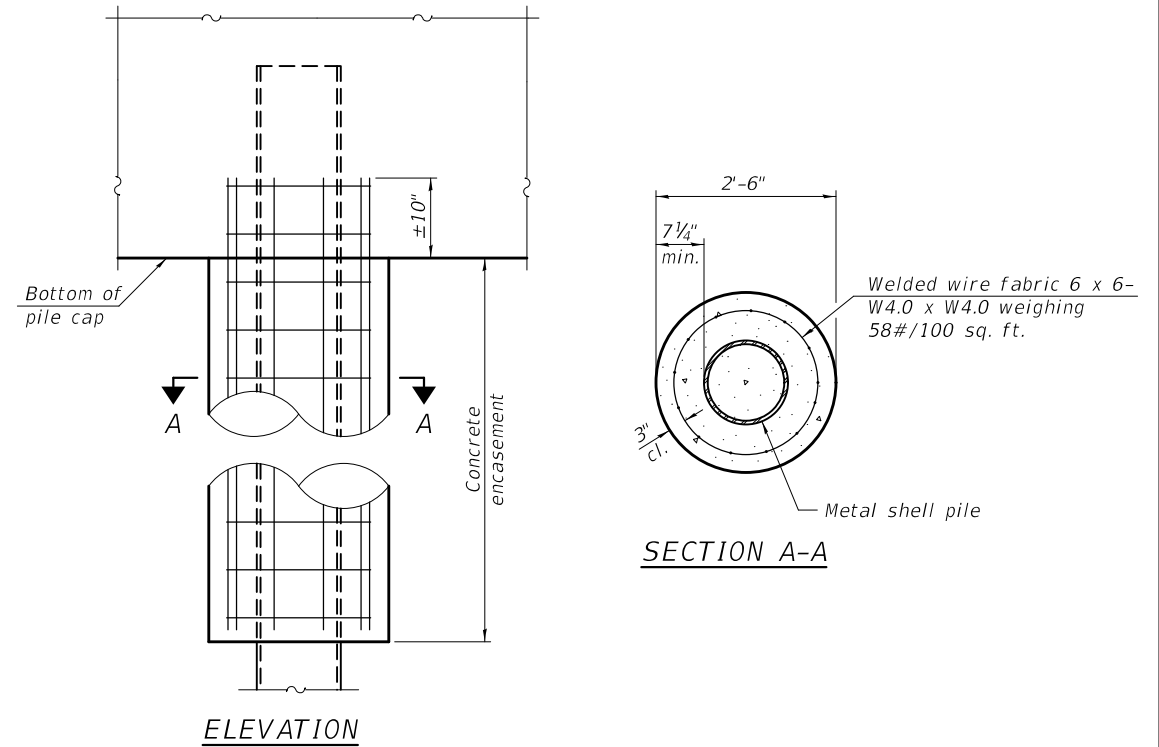


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



DETAIL A



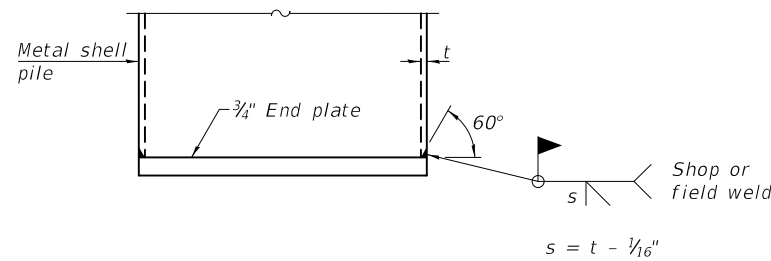
ELEVATION

SECTION A-A

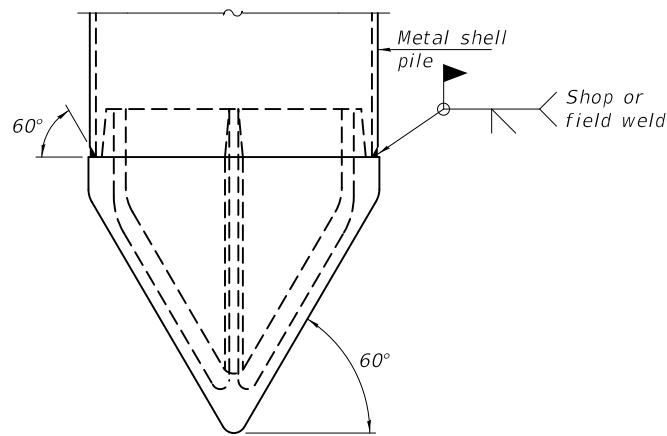
INDIVIDUAL PILE CONCRETE ENCASEMENT AT PIERS

WELDED COMMERCIAL SPLICE

Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

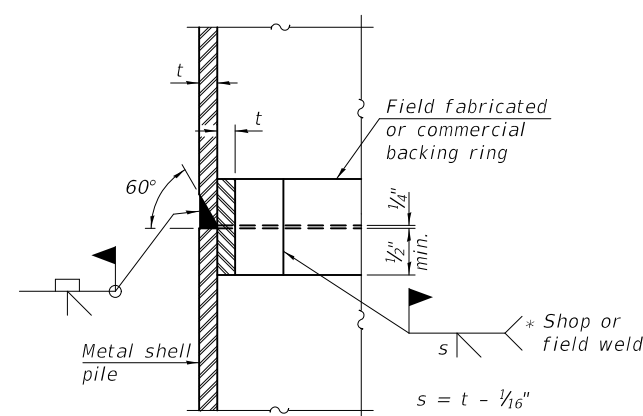


END PLATE ATTACHMENT



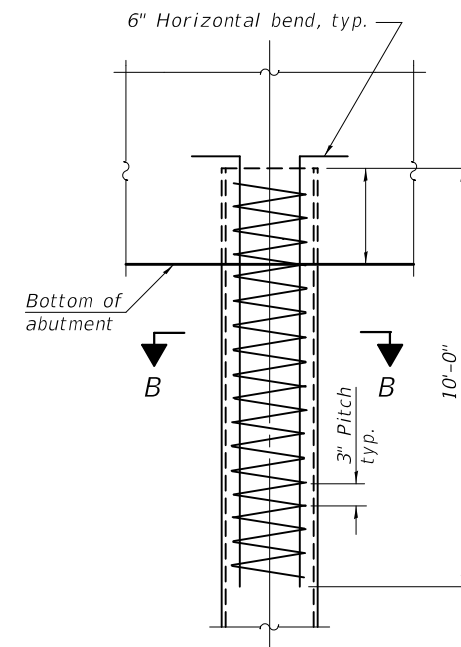
PILE SHOE ATTACHMENT

(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).

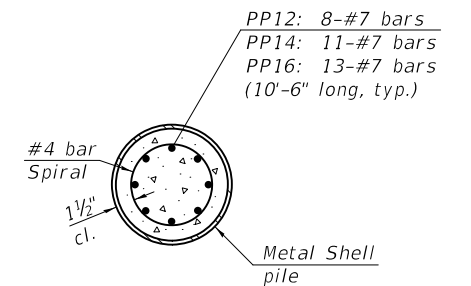


COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

REINFORCEMENT AT ABUTMENTS

Note:
 The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

MODEL: 0700003-74358-030
 FILE NAME: p:\v\084848\DOT Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0700003\CADD Plans\0700003-74358.dgn

F-MS 8-11-2017

DESIGNED - PAUL GURKLYS	EXAMINED	DATE - SEPTEMBER 20, 2018
CHECKED - DAVID SALGADO	PASSED	REVISOR
DRAWN - MICHAEL B. MOSSMAN		REVISOR
CHECKED - P.G./D.S./G.R.A.	 ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**METAL SHELL PILE DETAILS
 STRUCTURE NO. 070 - 0003**

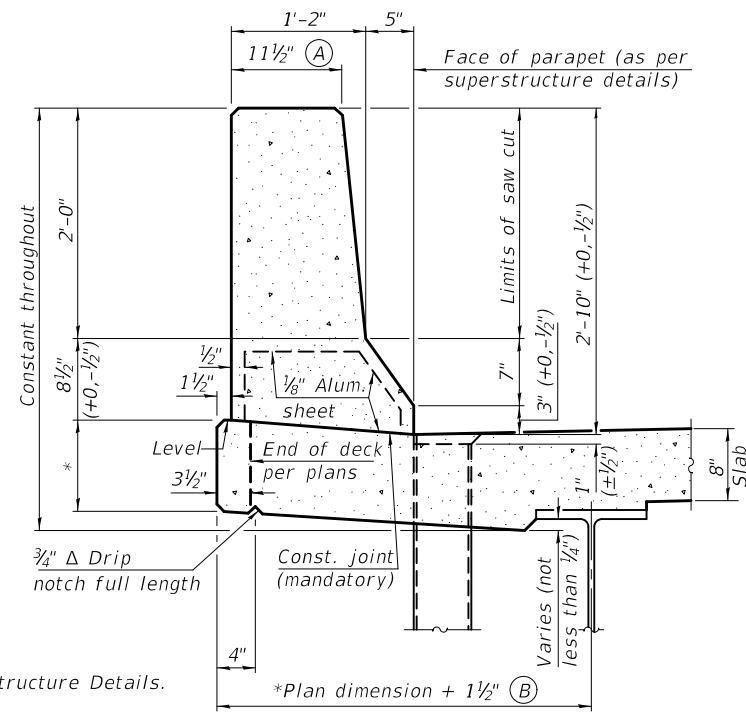
SHEET 30 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	57
CONTRACT NO. 74358				

ILLINOIS FED. AID PROJECT

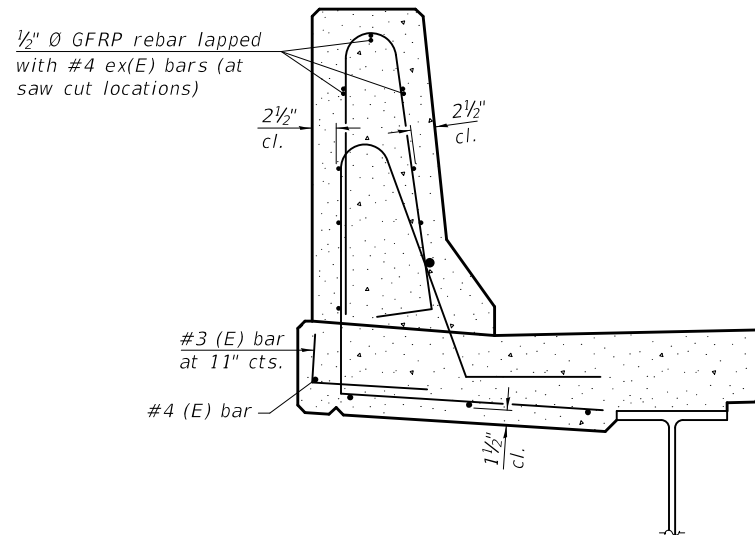
GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet.
Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler.
Steel superstructure shown. Other superstructure types similar.



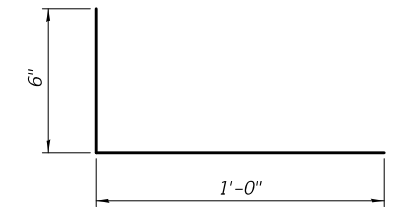
34" F SHAPE PARAPET SECTION
(Showing dimensions)

*See Superstructure Details.

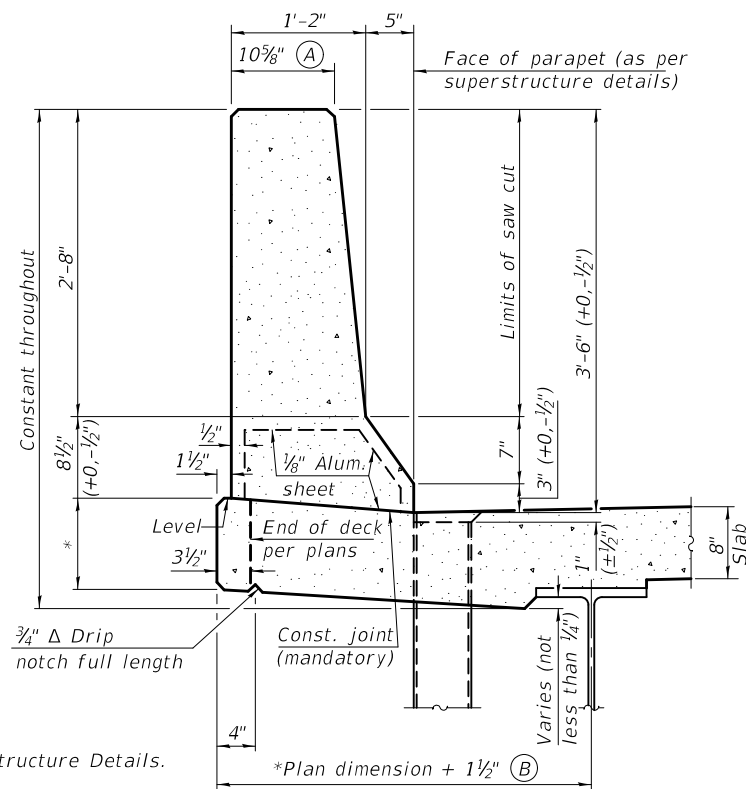


SECTION

(34" parapet shown - 42" parapet similar)
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

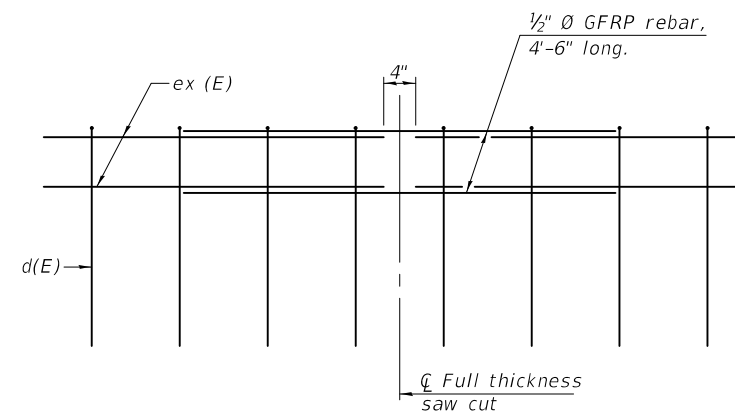


#3 (E) BAR



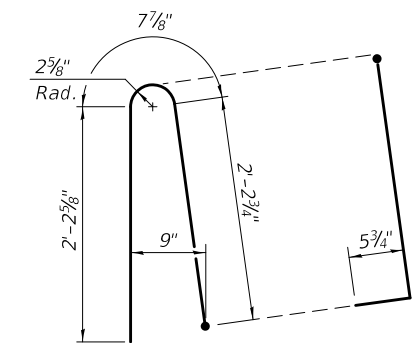
42" F SHAPE PARAPET SECTION
(Showing dimensions)

*See Superstructure Details.

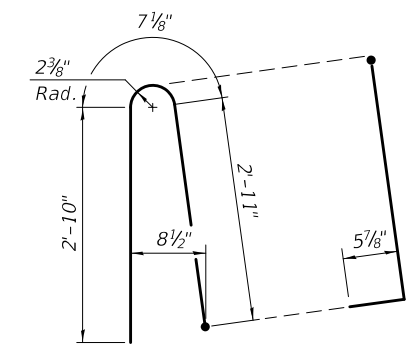


GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)



ALTERNATE BAR d(E)
(For 34" parapet when conduit is present)



ALTERNATE BAR d(E)
(For 42" parapet when conduit is present)

SFP 34-42

2-17-2017

DESIGNED - PAUL GURKLYS	EXAMINED
CHECKED - DAVID SALGADO	PASSED
DRAWN - MICHAEL B. MOSSMAN	
CHECKED - P.G./D.S./G.R.A.	

DATE - SEPTEMBER 20, 2018
 REVISIONS:
 REVISION -
 REVISION -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 070 - 0003

SHEET 31 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	58
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

MODEL: 0700003-74358-031
FILE NAME: p:\v\1084EBID\INTEG\ilmds.gov\PWIDOT\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0700003\CADD Plans\0700003-74358.dgn

9/24/2018 10:36:27 AM



**Illinois Department
of Transportation**
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 8/8/63

ROUTE FAP 320 (IL 121) DESCRIPTION Jonathan Creek LOGGED BY Baker

SECTION 104-BR(BR-1) LOCATION NE corner of SE 1/4, SEC. 5, TWP. 13 N, RNG. 6 E, 3 PM

COUNTY Moultrie DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 070-0003 Station 138+26.29
 BORING NO. 1-1963 Station 138+46.9
 Offset 34.0ft Rt
 Ground Surface Elev. 616.90 ft

	DEPTH (ft)	BLOW COUNT (tsf)	UCS (%)	Description	DEPTH (ft)	BLOW COUNT (tsf)	UCS (%)	Description
Medium, dark brown to black, SANDY CLAY LOAM & CLAY LOAM alluvium.					14			
	-5	8	0.8 B	20	-25	19		
				610.90				
Soft, highly organic, CLAY LOAM alluvium.					21			
	-10	2	0.1 B	34	-30	20		
				603.10				
Medium, gray, stratified fine and coarse, SAND w/ some fine Gravel.	-15	4	0.2 B	29	-35	30		
	17				12			
	596.90	20			576.90	40		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W,O,H - Sampler Advanced By Weight of Hammer, W,O,P - Advanced by Weight of Pipe, B,S, - Before Seating 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

Page 2 of 2

Date 8/8/63

ROUTE FAP 320 (IL 121) DESCRIPTION Jonathan Creek LOGGED BY Baker

SECTION 104-BR(BR-1) LOCATION NE corner of SE 1/4, SEC. 5, TWP. 13 N, RNG. 6 E, 3 PM

COUNTY Moultrie DRILLING METHOD _____ HAMMER TYPE _____

STRUCT. NO. 070-0003 Station 138+26.29
 BORING NO. 1-1963 Station 138+46.9
 Offset 34.0ft Rt
 Ground Surface Elev. 616.90 ft

	DEPTH (ft)	BLOW COUNT (tsf)	UCS (%)	Description	DEPTH (ft)	BLOW COUNT (tsf)	UCS (%)	Description
Medium, gray, stratified fine and coarse, SAND w/ some fine Gravel.								
	19							
	-45	19						
	-50	21						
	-55	19						
Limit of boring.	561.40							
	-60							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W,O,H - Sampler Advanced By Weight of Hammer, W,O,P - Advanced by Weight of Pipe, B,S, - Before Seating 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)

MODEL: 0700003-74358-032
 FILE NAME: pw:\IL084EBID\INTEG\Illinois.gov\PWIDOT\Documents\Projects\0700003\CADD Plans\0700003-74358.dgn
 9/24/2018 10:36:27 AM

DESIGNED - PAUL GURKLYS
 CHECKED - DAVID SALGADO
 DRAWN - MICHAEL B. MOSSMAN
 CHECKED - P.G. / D.S. / G.R.A.

EXAMINED
 PASSED

Jayme F. Salgado
 ENGINEER OF BRIDGE DESIGN

Carl Kasper
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 20, 2018
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
 STRUCTURE NO. 070 - 0003

SHEET 32 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	59
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				

ROUTE FAP 320 (IL 121) DESCRIPTION Jonathan Creek LOGGED BY E. Sandschafer
 SECTION 104-BR(BR-1) LOCATION NE corner of SE 1/4, SEC. 5, TWP. 13 N, RNg. 6 E, 3 PM
 COUNTY Moultrie DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	DEPTH (ft)	BLOW COUNT	UCS (tsf)	MOISTURE (%)	Surface Water Elev.		DEPTH (ft)	BLOW COUNT	UCS (tsf)	MOISTURE (%)
					608.59 ft	608.59 ft				
BORING NO. 2012 - 1 (SW) Station 136+15 Offset 6.0ft Rt Ground Surface Elev. 630.70 ft	2	2.6	15		1.5" asphalt on 12" concrete pavement.		1	0.6	19	
	2	3	B		Stiff, damp, gray, CLAY TILL, embankment.		2		B	
	3	B					2	0.1	21	
	-5	2			Very soft to medium, very damp, gray, SANDY LOAM w/ many organics, (continued)		3		B	
	2	1.4	17				4		B	
	2	B					1	0.1	20	
623.70	2				Very soft, wet, gray, SANDY LOAM.		2		S	
622.70	3	0.8	20				3		B	
Estimated Concrete, old pavement. Augered through to next sample.	0"/50"	B			Very stiff, damp, gray, CLAY LOAM TILL.		4	3.1	11	
621.70	3	B					5		B	
Stiff, damp, gray, SILTY CLAY, embankment.	-10	3					2		B	
618.70	4	1.7	13		Gray, fine grained, SAND. 13% passing #200 sieve.		7	0.3	14	
	4	B					8		B	
Loose, very damp, dark gray, SANDY LOAM w/ many organics.	3		14							
616.20	3									
Loose, damp, gray, fine grained, SAND, fluffly consistency. 5% passing #200 sieve.	-15	1			Medium, wet, gray, SAND w/ many 1/2" gravel. 1% passing #200 sieve.		1		13	
	3		12				2			
	3						9			
613.70	1									
Very soft to medium, very damp, gray, SANDY LOAM w/ many organics.	1	0.2	27							
	2	B								
	0						4			
	-20	0					4			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
 Abbreviations W,O,H - Sampler Advanced By Weight of Hammer, W,O,P - Advanced by Weight of Pipe, B,S. - Before Seating
 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)

ROUTE FAP 320 (IL 121) DESCRIPTION Jonathan Creek LOGGED BY E. Sandschafer
 SECTION 104-BR(BR-1) LOCATION NE corner of SE 1/4, SEC. 5, TWP. 13 N, RNg. 6 E, 3 PM
 COUNTY Moultrie DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	DEPTH (ft)	BLOW COUNT	UCS (tsf)	MOISTURE (%)	Surface Water Elev.		DEPTH (ft)	BLOW COUNT	UCS (tsf)	MOISTURE (%)
					608.59 ft	608.59 ft				
BORING NO. 2012 - 1 (SW) Station 136+15 Offset 6.0ft Rt Ground Surface Elev. 630.70 ft	5		13		Medium, wet, gray, SAND w/ many 1/2" gravel. 1% passing #200 sieve.		5		8	18
	5						6			
	-45	5					14			
	6									
2% passing #200 sieve.	10									
	-50	3								
	1		17		2% passing #200 sieve.		3		4	12
	3						5			
	-55									
	570.70	-60	3		1% passing #200 sieve.		5		5	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
 Abbreviations W,O,H - Sampler Advanced By Weight of Hammer, W,O,P - Advanced by Weight of Pipe, B,S. - Before Seating
 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)

MODEL: 0700003-74358-034
 FILE NAME: p:\w\84084EIB\INTEG\Illinois\Documents\DOT Offices\Bureau of Bridges and Structures\Projects\0700003\CADD Plans\0700003-74358.dgn

DESIGNED - PAUL GURKLYS
 CHECKED - DAVID SALGADO
 DRAWN - MICHAEL B. MOSSMAN
 CHECKED - P.G. / D.S. / G.R.A.

EXAMINED
 PASSED
Jaime F. Salgado
 ENGINEER OF BRIDGE DESIGN
Carl R. Rupp
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 20, 2018
 REVISED -
 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 070 - 0003
 SHEET 34 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	61
CONTRACT NO. 74358				
ILLINOIS		FED. AID PROJECT		



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 3 of 4

Date 3/29/12

ROUTE FAP 320 (IL 121) DESCRIPTION Jonathan Creek LOGGED BY E. Sandschafer
SECTION 104-BR(BR-1) LOCATION NE corner of SE 1/4, SEC. 5, TWP. 13 N, RNG. 6 E, 3 PM
COUNTY Moultrie DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO.	Station	DEPTH (ft)	BLU (Bulge)	UCS (tsf)	M O I S T (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.	First Encounter	Upon Completion	After Hrs.	Backfilled	DEPTH (ft)	BLU (Bulge)	UCS (tsf)	M O I S T (%)
070-0003	138+26.29	550.10	6	2.0	33	608.59	608.59						530.20	15	33	17
Gray, SILTY LOAM.																
Wet, gray, coarse grained, SAND w/ 1/4" gravel, 7% passing #200 sieve.																
Very soft, damp, gray, SANDY LOAM.																
Hard, damp, gray, CLAY LOAM TILL.																
Very dense.																
Stiff, damp, bluish gray, LOAM.																

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W,O,H - Sampler Advanced By Weight of Hammer, W,O,P - Advanced by Weight of Pipe, B,S, - Before Seating 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

Page 4 of 4

Date 3/29/12

ROUTE FAP 320 (IL 121) DESCRIPTION Jonathan Creek LOGGED BY E. Sandschafer
SECTION 104-BR(BR-1) LOCATION NE corner of SE 1/4, SEC. 5, TWP. 13 N, RNG. 6 E, 3 PM
COUNTY Moultrie DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO.	Station	DEPTH (ft)	BLU (Bulge)	UCS (tsf)	M O I S T (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.	First Encounter	Upon Completion	After Hrs.	Backfilled	DEPTH (ft)	BLU (Bulge)	UCS (tsf)	M O I S T (%)
070-0003	138+26.29	510.20	5	1.9	20	608.59	608.59						530.20	15	33	17
Stiff, damp, bluish gray, LOAM. (continued)																
Very damp, SANDY LOAM.																
Very dense, damp, gray, SANDSTONE, breaks easily. Extent of exploration.																
Benchmark: BM 225 - RR Spike in PP In SW quadrant of existing structure, Sta 136+67, 26.2' S of IL 121 CL = 630.51' elevation. Provided by Program Development.																
Very dense.																

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W,O,H - Sampler Advanced By Weight of Hammer, W,O,P - Advanced by Weight of Pipe, B,S, - Before Seating 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)

MODEL: 0700003-74358-035
FILE NAME: p:\w\1084EBID\INTEG\illinois.gov\PWIDOT\Documents\Projects\0700003\CADD Plans\0700003-74358.dgn

DESIGNED -	PAUL GURKLYS
CHECKED -	DAVID SALGADO
DRAWN -	MICHAEL B. MOSSMAN
CHECKED -	P.G. / D.S. / G.R.A.

EXAMINED *Joanne F. Salgado*
PASSED *Carl Berger*
ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 20, 2018
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 070 - 0003

SHEET 35 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	62
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 3

Date 3/30/12

ROUTE FAP 320 (IL 121) DESCRIPTION Jonathan Creek LOGGED BY E. Sandschafer
SECTION 104-BR(BR-1) LOCATION NE corner of SE 1/4, SEC. 5, TWP. 13 N, RNG. 6 E, 3 PM
COUNTY Moultrie DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO.	Station	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	DEPTH	BLOW	UCS	MOIST
070-0003	138+26.29					608.59	608.59				
2012 - 2 (NE)	139+74										
	10.0ft Lt										
	Ground Surface Elev.					631.24					
1.5" asphalt on 11" concrete pavement. 630.24											
Medium to stiff, damp, gray, CLAY LOAM TILL, embankment.											
		2						1	0.1		21
		3	1.5					2	B		
		3	B					5	0.1		11
606.74											
		-5	0					-25	5		15
		2	0.7					13			
		2	BS					12			
		0						6			
		0	0.8					8			16
		2	BS					9			
With 3/4" topsize Gravel. 5% passing #200 sieve.											
		-10	1					-30	10		
		1	1.0					8			13
		3	B					9			
With 3/4" topsize Gravel. 3% passing #200 sieve.											
		1									
		2	1.3								16
		2	B								
-15											
		1						-35	5		15
		2	2.1					6			
		3	B					9			
With 3/4" topsize Gravel. 2% passing #200 sieve.											
		1									
		2	1.5								22
		2	B								
613.04											
Dark gray, SANDY LOAM w/ organics.											
		611.24	-20	1				591.24	-40	5	

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W,O,H - Sampler Advanced By Weight of Hammer, W,O,P - Advanced by Weight of Pipe, B,S, - Before Seating 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

Page 2 of 3

Date 3/30/12

ROUTE FAP 320 (IL 121) DESCRIPTION Jonathan Creek LOGGED BY E. Sandschafer
SECTION 104-BR(BR-1) LOCATION NE corner of SE 1/4, SEC. 5, TWP. 13 N, RNG. 6 E, 3 PM
COUNTY Moultrie DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO.	Station	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	DEPTH	BLOW	UCS	MOIST
070-0003	138+26.29					608.59	608.59				
2012 - 2 (NE)	139+74										
	10.0ft Lt										
	Ground Surface Elev.					631.24					
Medium, wet, gray, fine grained, SAND.											
		7						9			15
		10						9			
1% passing #200 sieve.											
		-45	5					-65			
		7									20
		8									
With trace 3/8" topsize Gravel. 1% passing #200 sieve.											
		-50	7					-70	5		14
		7						6			
		9						7			
With 1 1/4" topsize Gravel. 2% passing #200 sieve.											
		-55						-75			
		571.24	-60	7				551.24	-80	5	

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W,O,H - Sampler Advanced By Weight of Hammer, W,O,P - Advanced by Weight of Pipe, B,S, - Before Seating 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

Page 3 of 3

Date 3/30/12

ROUTE FAP 320 (IL 121) DESCRIPTION Jonathan Creek LOGGED BY E. Sandschafer
SECTION 104-BR(BR-1) LOCATION NE corner of SE 1/4, SEC. 5, TWP. 13 N, RNG. 6 E, 3 PM
COUNTY Moultrie DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO.	Station	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	DEPTH	BLOW	UCS	MOIST
070-0003	138+26.29					608.59	608.59				
2012 - 2 (NE)	139+74										
	10.0ft Lt										
	Ground Surface Elev.					631.24					
Medium, wet, gray, medium grained, SAND, w/ 3/8" topsize Gravel. 1% passing #200 sieve.											
		6						9			13
		10									
Medium, wet, gray, medium grained, SAND, no return in sampler.											
		-85						-105			
		5									
		13									14
		15									6.3
Hard, damp, gray, CLAY LOAM TILL.											
		-90						-110			
		521.74						520.24			23
Extent of exploration.											
		-95						-115			
Benchmark: BM 225 - RR Spike In PP in SW quadrant of existing structure, Sta 136+67, 26.2' S of IL 121 CL = 630.51' elevation. Provided by Program Development.											
		531.24	-100	7				-120			

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W,O,H - Sampler Advanced By Weight of Hammer, W,O,P - Advanced by Weight of Pipe, B,S, - Before Seating 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)

MODEL: 0700003-74358-036
FILE NAME: pw:\IL084EBID\INTEG\Illinois\DOT - Offices\Bureau of Bridges and Structures\Projects\0700003\CADD - Plans\0700003-74358.dgn

DESIGNED -	PAUL GURKLYS
CHECKED -	DAVID SALGADO
DRAWN -	MICHAEL B. MOSSMAN
CHECKED -	P.G. / D.S. / G.R.A.

EXAMINED *Joanne F. Salgado*
PASSED *Carl Kasper*
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 20, 2018
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOGS
STRUCTURE NO. 070 - 0003**

SHEET 36 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
320	(104BR)BR-1	MOULTRIE	63	63
CONTRACT NO. 74358				
ILLINOIS FED. AID PROJECT				