02-28-14 LETTING ITEM 093

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	1
	ILLINOIS	CONTRACT NO. 76G49		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

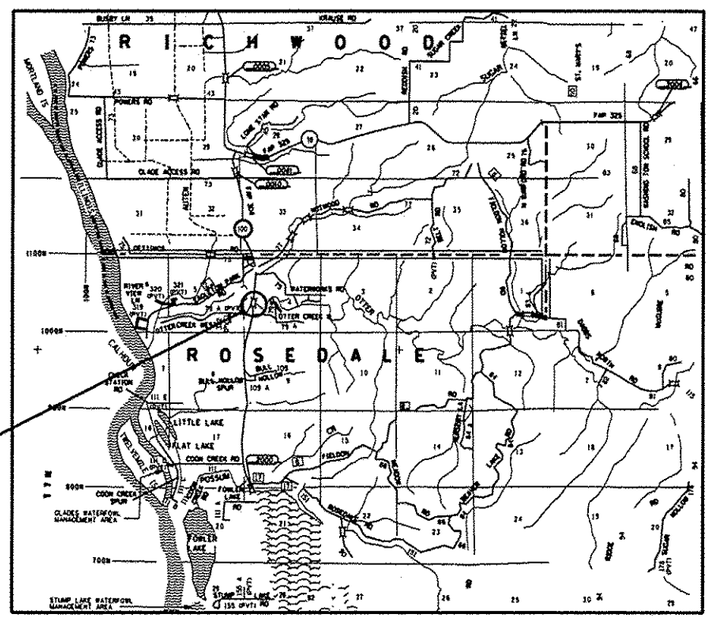
PROPOSED
HIGHWAY PLANS

FAP ROUTE 304 (IL 100)
SECTION 4–BY, 4B–1
BRIDGE REPAIR
JERSEY COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

C–98–051–13

R 13 W



D–98–053–13

LOCATION OF SECTION INDICATED THUS:–

TRAFFIC DATA

ADT: 1400 (2011) ACTUAL
1450 (2013) ESTIMATED
1750 (2033) ESTIMATED
SU: 3.6%
MU: 5.7%

BRIDGE REPAIR
OVER OTTER CREEK
STA 615+36.50
SN 042–0012
BEGIN STA 614+00
END STA 616+73

100′ 200′ 300′ — 1″= 100′
10′ 20′ 30′ — 1″= 10′
50′ 100′ — 1″= 50′
50′ 100′ — 1″= 40′
50′ 100′ — 1″= 30′
50′ 100′ — 1″= 20′

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

DESIGN DESIGNATION
N/A

LAYOUT
0 MI 1 MI 2 MI 3 MI
1″ = 1 MILE

GROSS LENGTH = 274.58 FT. = 0.052 MILE
NET LENGTH = 274.58 FT. = 0.052 MILE

LATITUDE: 39.07574 LONGITUDE: –90.55599

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 17 20 13
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER
Jan 24 20 14
ENGINEER OF DESIGN AND ENVIRONMENT
Jan 24 20 14
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: PATTI LeBEAU (618) 346–3179
PROJECT MANAGER: REBECCA THARP (618) 346–3323

CONTRACT NO. 76G49

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-04	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

   - FRONTIER NORTH, INC.
   - JERSEY COUNTY RURAL WATER COMPANY
   - M.J.M. ELECTRIC COOPERATIVE, INC.

   MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY •. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

2. THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING, TOPOGRAPHY, AND QUANTITIES SHOWN IN THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS. ALL SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

3. THE THICKNESS OF HOT-MIX ASPHALT SURFACE MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

4. A QUANTITY OF 862.5 FEET OF TEMPORARY PAVEMENT MARKING - LINE 6" WHITE HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER.

5. THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.

6. ACCESS SHALL BE MAINTAINED TO ALL PROPERTIES UNLESS OTHERWISE NOTED IN THE PLANS.

7. ALL TURF AREAS DISTURBED BY THE CONTRACTOR SHALL BE SEEDED WITH THE APPROPRIATE EROSION CONTROL, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

8. PROJECT SHALL BE CONSTRUCTED WITHOUT DISTURBING THE EXISTING GUARDRAIL OR THE EXISTING BRIDGE RAIL. HOWEVER, QUANTITIES FOR GUARDRAIL AND BARRIER WALL MARKERS HAVE BEEN INCLUDED IN THE PLANS AND SHALL BE INSTALLED AT 80' INTERVALS. BARRIER WALL MARKERS SHALL BE PLACED ON THE TOP OF THE TOP RAIL OF THE BRIDGE RAIL WITH MARKER LOCATIONS TO INCLUDE THE FAR CORNERS OF THE BRIDGE.

9. THE RESIDENT ENGINEER SHALL VERIFY THE EXISTENCE OF HIGHWAY LIGHTING AND/OR I.T.S. UTILITIES WITHIN THE PROJECT LIMITS. IF HIGHWAY LIGHTING AND/OR I.T.S. EXISTS WITHIN THE PROJECT LIMITS, AND IF THESE ITEMS REQUIRE LOCATING, THE CONTRACTOR SHALL BE DIRECTED TO DO SO ACCORDING TO SECTION 803 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

COMMITMENTS

NONE

PERTINENT INFORMATION

THE CONTRACTOR SHALL AVOID DISTURBING NEARBY WETLANDS. THESE WETLANDS ARE LOCATED APPROXIMATELY 30' FROM THE WEST EDGE OF THE STRUCTURE AND 125' FROM THE EAST EDGE.

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		DRAWN -	REVISED -			304	4-BY, 4B-1	JERSEY	26	2
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76G49		
	PLOT DATE = 12/19/2013	DATE -	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE: 100% STATE; BRIDGE 0014 S. N. 042-0012
20200100	EARTH EXCAVATION	CU YD	58.6	58.6
28100109	STONE RIPRAP, CLASS A5	SQ YD	1626	1626
28200200	FILTER FABRIC	SQ YD	1626	1626
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	263.5	263.5
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.1	0.1
40600300	AGGREGATE (PRIME COAT)	TON	1	1
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	284.4	284.4
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	135	135
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	2	2
50102400	CONCRETE REMOVAL	CU YD	9.6	9.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	10.5	10.5
50606701	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 1	L SUM	1	1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1140	1140
50800515	BAR SPLICERS	EACH	24	24

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	PLOT DATE = 12/19/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	3
		CONTRACT NO. 76649		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE 100% STATE BRIDGE 0014 S. N. 042-0012
52000110	PREFORMED JOINT STRIP SEAL	FOOT	66	66
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	954	954
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3
67100100	MOBILIZATION	L SUM	1	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6
70300100	SHORT TERM PAVEMENT MARKING	FOOT	104	104
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	947	947
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	862.5	862.5
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	348	348
70400100	TEMPORARY CONCRETE BARRIER	FOOT	437.5	437.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	425	425
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	1

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 48-1	JERSEY	26	4
		CONTRACT NO. 76G49		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE: 100% STATE; BRIDGE 0014 S. N. 042-0012
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1
	70600330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	1	1
	70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	1
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	947	947
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	5	5
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	5	5
*	78200530	BARRIER WALL MARKERS, TYPE C	EACH	8	8
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	50	50
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	5	5
	X5060601	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1
	X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	922	922
	X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1
	X7200200	WIDE LOAD SIGNING	L SUM	1	1
	Z0015802	PLUG EXISTING DECK DRAINS	EACH	16	16

* SPECIALTY ITEM

14

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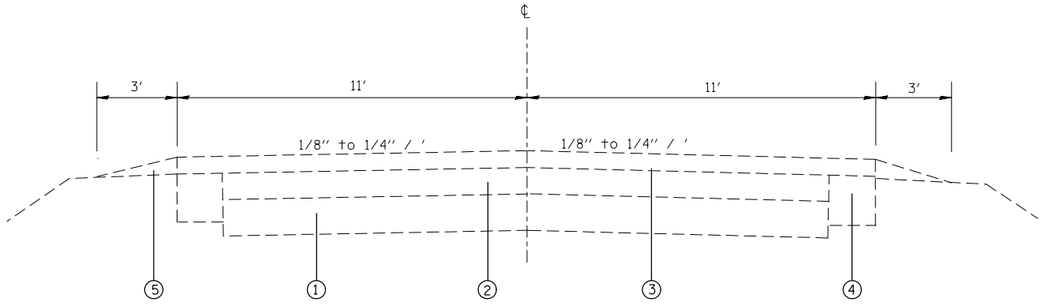
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

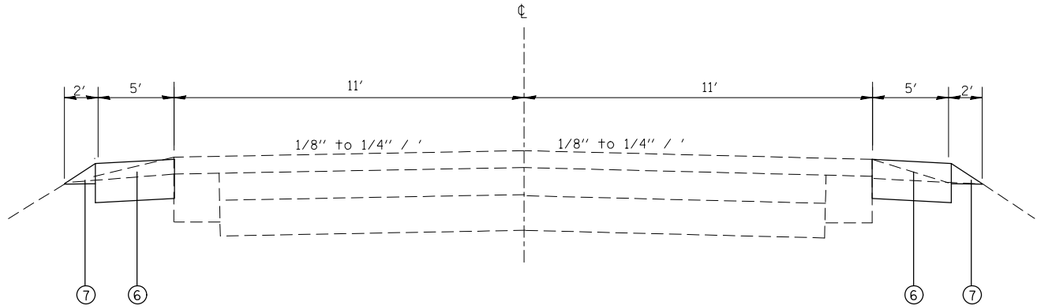
SCALE: | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-J	JERSEY	26	5
		CONTRACT NO. 76G49		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



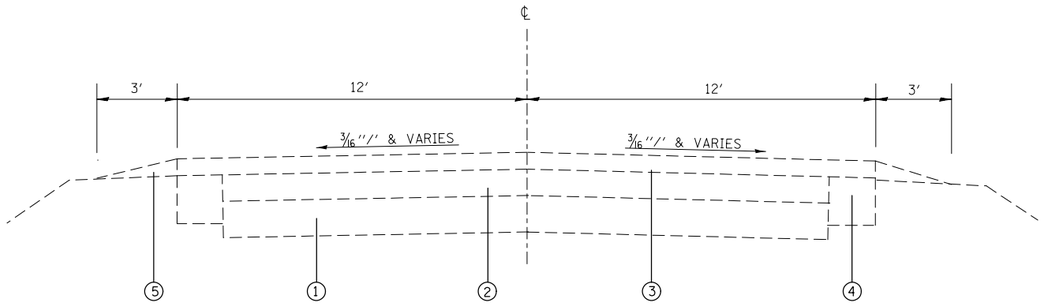
EXISTING TYPICAL SECTION

STA 610+00 TO STA 612+60
STA 618+30 TO STA 622+00



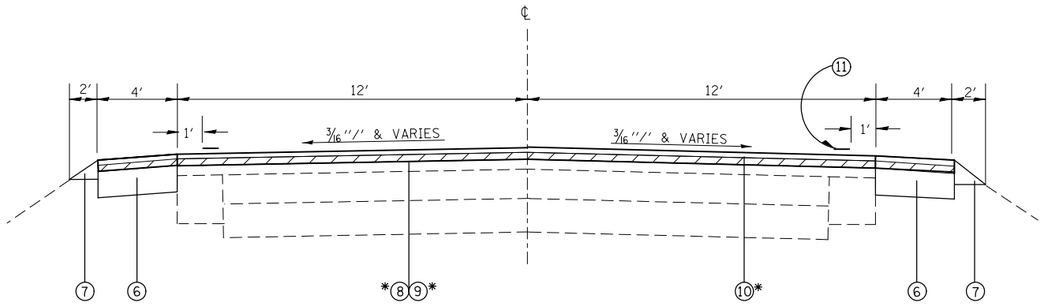
PROPOSED TYPICAL SECTION

STA 618+30 TO STA 618+70



EXISTING TYPICAL SECTION

STA 612+60 TO STA 613+79.71±
STA 616+93.29± TO STA 618+30



PROPOSED TYPICAL SECTION

STA 613+10 TO STA 613+99.71±
STA 616+73.29± TO STA 618+30

NOTE: THE ABOVE STATIONING INCLUDES THE BRIDGE APPROACHES.

* STA 613+59.71± TO STA 613+99.71±
STA 616+73.29± TO STA 617+13.29±
SEE BUTT JOINT DETAIL ON SHEET NO. 14.

LEGEND

1. EXISTING AGG. BASE, 6″
2. EXISTING RESURFACING, 5 1/2″
3. EXISTING RESURFACING, 2 1/4″ & VARIES
4. EXISTING AGGREGATE BASE COURSE, TYPE A, 10″
5. EXISTING AGGREGATE SHOULDER WEDGE
6. PROPOSED HMA BASE COURSE, 8″
7. PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
8. PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
9. PROPOSED AGGREGATE (PRIME COAT)
10. PROPOSED HMA SURFACE COURSE, MIX D, VARIES 2″ AT BRIDGE DECK & TAPERS TO 1 1/2″
11. PROPOSED PAVEMENT MARKING - LINE 4″

HMA SURFACE REMOVAL - BUTT JOINT

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS CONTRACT:

MIXTURE USE	BASE COURSE	HMA SURFACE
AC/PG	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPEC.	SEE SPEC.
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION		
(GRADATION MIXTURE)	IL 19.0 F.G.	IL 9.5
FRICTION AGG	MIXTURE ″B″	MIXTURE ″D″

PLAN QUANTITIES FOR HOT-MIX ASPHALT SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	6
		CONTRACT NO. 76G49		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGING SCHEDULE

LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	TEMPORARY RUMBLE STRIP	TEMPORARY BRIDGE TRAFFIC SIGNALS
	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH
STAGE I	437.5		1		1			
STAGE II		425		1		1		
STAGE I & II							6	1
TOTAL =	437.5	425	1	1	1	1	6	1

WIDENING FOR STAGING SCHEDULE

LOCATION	EARTH EXCAVATION				HOT-MIX ASPHALT BASE COURSE, 8"			
	LEFT SHLD		RIGHT SHLD		LEFT SHLD		RIGHT SHLD	
	WIDTH	VOLUME	WIDTH	VOLUME	WIDTH	AREA	WIDTH	AREA
STATION TO STATION	FOOT	CU YD	FOOT	CU YD	FOOT	SQ YD	FOOT	SQ YD
613+10 TO 613+99.71	4	8.9	4	8.9	4	39.87	4	39.87
616+73.29 TO 618+30	4	15.5	4	15.5	4	69.65	4	69.65
618+30 TO 618+70	5	4.9	5	4.9	5	22.22	5	22.22
SUBTOTAL =		29.3		29.3		131.74		131.74
TOTAL =		58.6				263.5		

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT SCHEDULE

LOCATION	*WIDTH	LENGTH	HMA SURF REMOVAL - BUTT JOINT
STATION TO STATION	FOOT	FOOT	SQ YD
613+59.71 TO 613+99.71	32	40	142.22
616+73.29 TO 617+13.29	32	40	142.22
SUBTOTAL =			284.4
TOTAL =			284.4

*INCLUDES SHOULDERS

RESURFACING SCHEDULE

LOCATION	AGGREGATE (PRIME COAT)	BITUMINOUS MATERIALS (PRIME COAT)	HOT-MIX ASPHALT SURFACE COURSE	AGGREGATE WEDGE SHOULDERS, TY B	
				LT	RT
STATION TO STATION	TON	TON	TON	TON	
613+59.71 TO 613+99.71	0.21	0.04	13.9	0.5	0.5
614+02.21 TO 616+70.79			107		
616+73.29 TO 617+13.29	0.21	0.04	13.9	0.5	0.5
SUBTOTAL =	0.43	0.09	134.9	1.0	1.0
TOTAL =	1	0.1	135	2	

PAVEMENT MARKING SCHEDULE

LOCATION	THERMOPLASTIC PVMT MARKING - LINE 4"			SHORT TERM PVMT MARKING	TEMPORARY PVMT MARKING - LINE 4"			PAVEMENT MARKING REMOVAL	WORK ZONE PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER
	CENTERLINE SKIP-DASH YELLOW	EDGE LINE WHITE			CENTERLINE SKIP-DASH YELLOW	EDGE LINE WHITE					
		LEFT	RIGHT			LEFT	RIGHT				
STA TO STA	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	SQ FT	EACH	EACH
611+45 TO 613+59.71	60			24	60			20	28		
613+59.71 TO 617+13.29	90	353.6	353.6	36	90	353.6	353.6		278	5	5
617+13.29 TO 620+40	90			36	90			30	42		
TOTAL =	947			104	947			50	348	5	5

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	7
		CONTRACT NO. 76G49		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES

1. ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.

2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RESIDENT ENGINEER/ RESIDENT TECHNICIAN. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

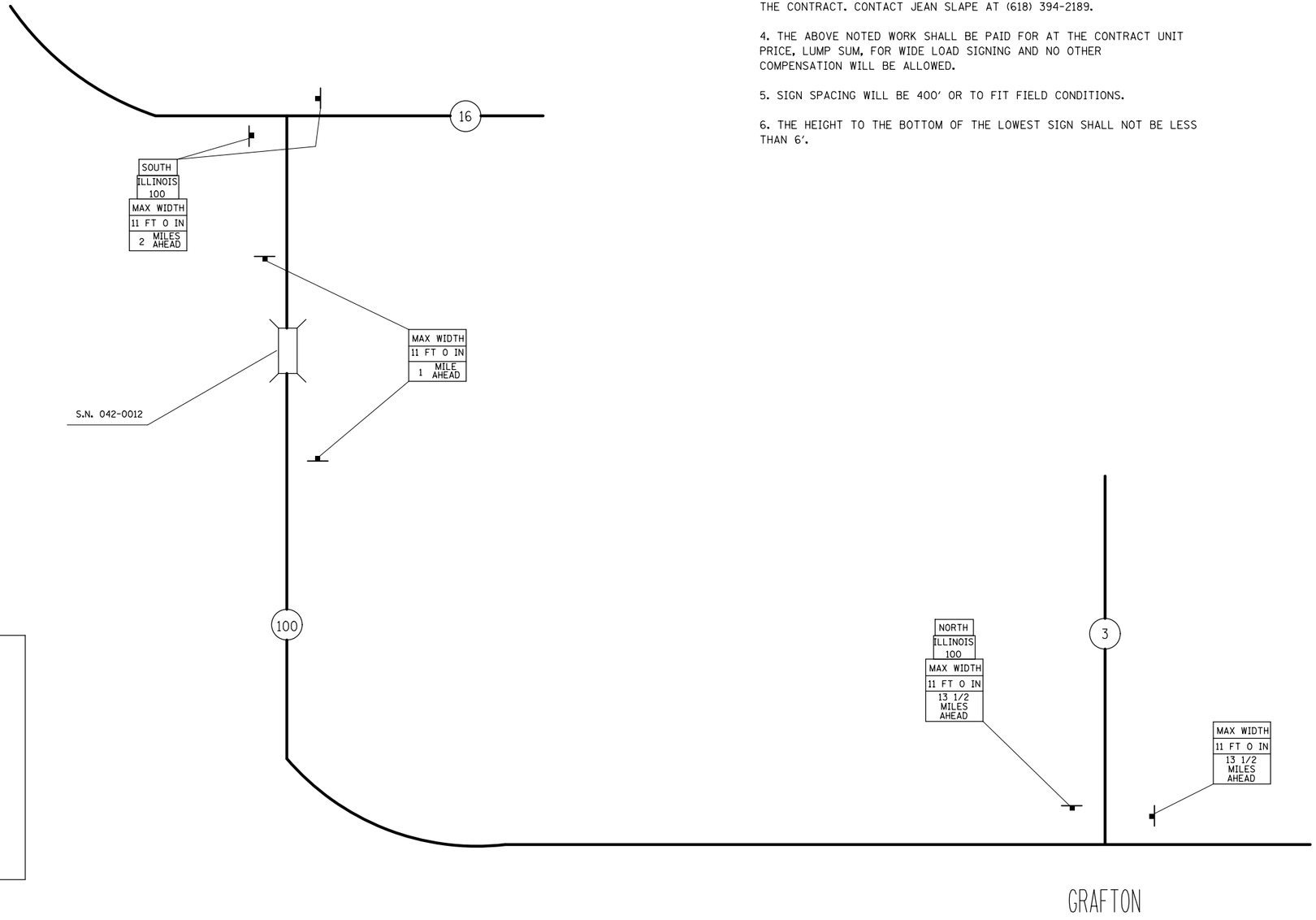
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE TRAFFIC MAINTENANCE BUILDING IN FAIRVIEW HGTS., AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE AT (618) 394-2189.

4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR WIDE LOAD SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.

5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.

6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.

N



SIGNS REQUIRED

(1)	12" × 24"	NORTH
(2)	12" × 24"	SOUTH
(3)	24" × 30"	ILLINOIS 100
(2)	48" × 48"	MAX WIDTH / 11 FT 0 IN / 1 MILE AHEAD
(2)	48" × 48"	MAX WIDTH / 11 FT 0 IN / 2 MILES AHEAD
(2)	48" × 48"	MAX WIDTH / 11 FT 0 IN / 13 1/2 MILES AHEAD

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDE LOAD SIGNING

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	8
		CONTRACT NO. 76G49		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUGGESTED SEQUENCE OF CONSTRUCTION

PRE - STAGE I:

REMOVE EXISTING HMA SHOULDERS & EARTH EXCAVATION (RIGHT) TO THE LIMITS DEFINED IN THE SCHEDULE.

CONSTRUCT 4' TO 5' HMA BASE CSE 8" IN THE NORTHWEST AND SOUTHWEST QUADRANTS AS SHOWN ON THE PLANS. HMA BASE COURSE SHALL BE CONSTRUCTED WITHOUT DISTURBING THE EXISTING GUARDRAIL.

TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION, STANDARD 701326.

STAGE I:

PLACE STOP BARS AS SHOWN ON PLANS.

INSTALL TEMPORARY RUMBLE STRIPS.

REMOVE CONFLICTING SKIP-DASH PAVEMENT MARKING BETWEEN STOP BARS.

PLACE 437.5 FOOT TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.

REMOVE EXISTING HMA SHOULDERS & EARTH EXCAVATION (LEFT) TO THE LIMITS DEFINED IN THE REMOVAL SCHEDULE.

CONSTRUCT 4' TO 5' HMA BASE CSE 8" IN THE NORTHEAST AND SOUTHEAST QUADRANTS AS SHOWN ON PLANS. HMA BASE COURSE SHALL BE CONSTRUCTED WITHOUT DISTURBING THE EXISTING GUARDRAIL.

PERFORM ALL STRUCTURAL WORK FOR STAGE I. SEE STRUCTURE PLANS.

PERFORM ANY ADDITIONAL NECESSARY WORK FOR STAGE I CONSTRUCTION.

STAGE II:

RELOCATE 425 FT TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, TEMPORARY.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.

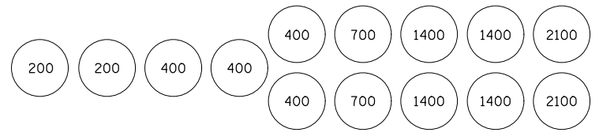
PERFORM ALL STRUCTURAL WORK FOR STAGE II. SEE STRUCTURE PLANS.

PERFORM ANY ADDITIONAL NECESSARY WORK FOR STAGE II CONSTRUCTION.

POST - STAGE II:

APPLY PAVEMENT MARKINGS UTILIZING TRAFFFIC CONTROL AND PROTECTION, STANDARD 701311.

PERFORM ANY ADDITIONAL WORK REQUIRED.



SAND MODULE IMPACT ATTENUATOR LAYOUT
(IF OPTION USED)

TRAFFIC CONTROL NOTES

ADDITIONAL SIGNING AND DEVICES SHALL BE PLACED ON BOTH LEGS OF OTTER CREEK ROAD. SIGNS SHALL INCLUDE "ROAD CONSTRUCTION AHEAD", SIGNAL AHEAD, "STOP HERE ON RED", AND "NO TURN ON RED". THE LOCATIONS OF THE SIGNING, STOP BARS AND TEMPORARY BRIDGE SIGNALS SHALL BE APPROVED BY THE RESIDENT ENGINEER.

ALL ADDITIONAL SIGNING, STOP BARS, AND TRAFFIC CONTROL DEEMED NECESSARY BY THE RESIDENT ENGINEER SHALL BE INCLUDED IN THE CONTRACT PRICE PER EACH OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL).

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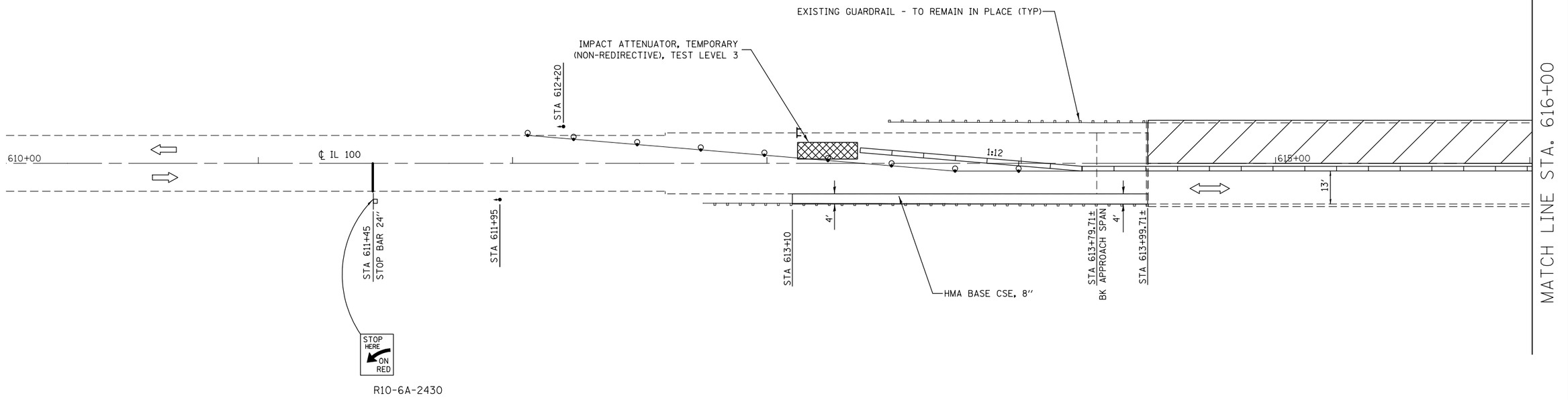
	PLOT DATE = 12/19/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	9
		CONTRACT NO. 76G49		
		ILLINOIS FED. AID PROJECT		



LEGEND

- WORK AREA
- IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER
- BARRELS WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY BRIDGE TRAFFIC SIGNALS
- TYPE III BARRICADE
- SIGN
- TEMPORARY RUMBLE STRIP
- DETECTOR LOOPS

NOTE: PLAN NOT TO SCALE.

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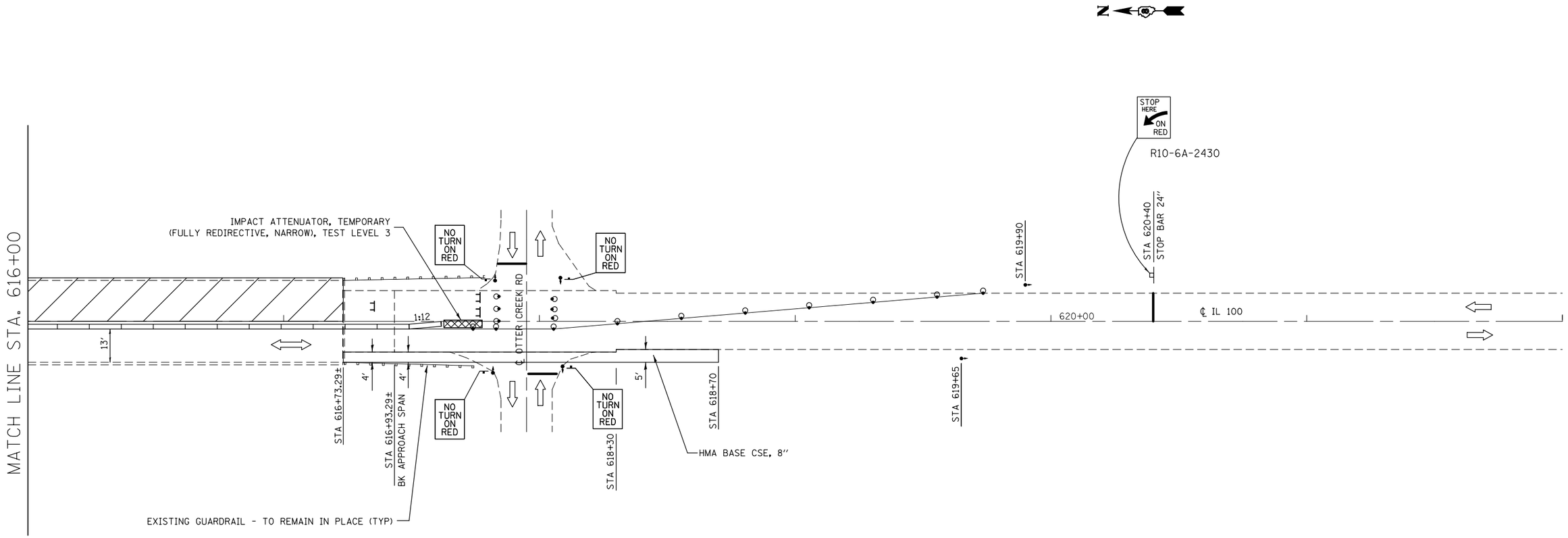
$MODELNAME$	PLOT DATE = 12/19/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE I CONSTRUCTION

SCALE: N/A | SHEET 1 OF 2 SHEETS | STA. 610+00 TO STA. 616+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	10
		CONTRACT NO. 76G49		
	ILLINOIS FED. AID PROJECT			



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$MODELNAME$	PLOT DATE = 12/19/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

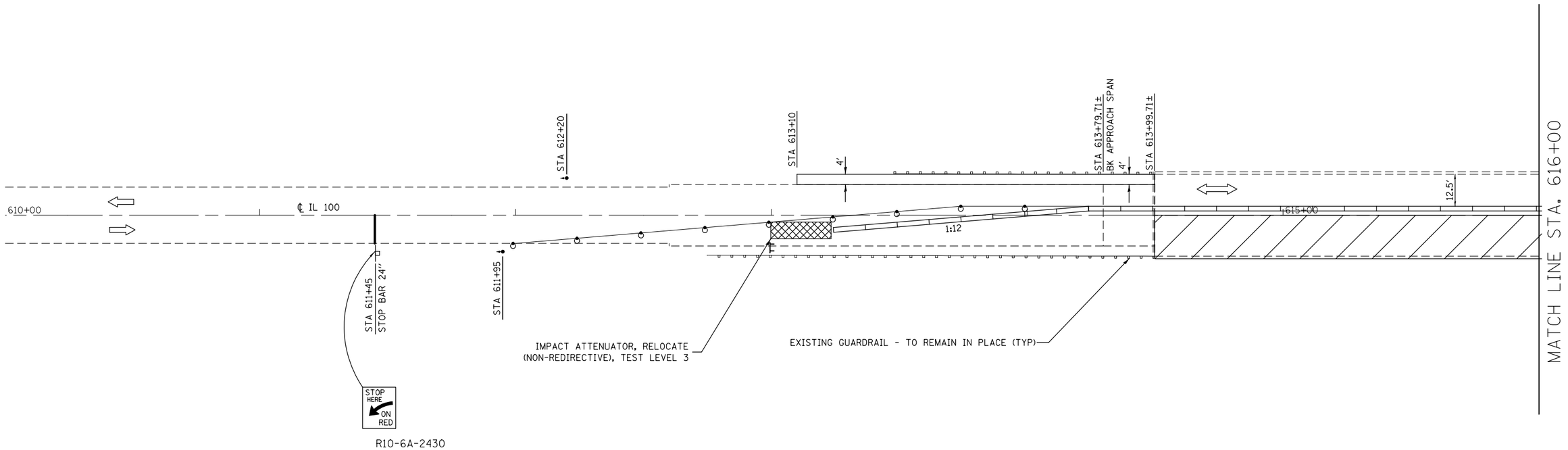
STAGE I CONSTRUCTION

SCALE: N/A | SHEET 2 OF 2 SHEETS | STA. 616+00 TO STA. 622+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	11

CONTRACT NO. 76G49

ILLINOIS FED. AID PROJECT



LEGEND

WORK AREA	TYPE III BARRICADE
IMPACT ATTENUATOR	SIGN
TEMPORARY CONCRETE BARRIER	TEMPORARY RUMBLE STRIP
BARRELS WITH STEADY BURNING BI-DIRECTIONAL LIGHT	DETECTOR LOOPS
TEMPORARY BRIDGE TRAFFIC SIGNALS	

NOTE: PLAN NOT TO SCALE.

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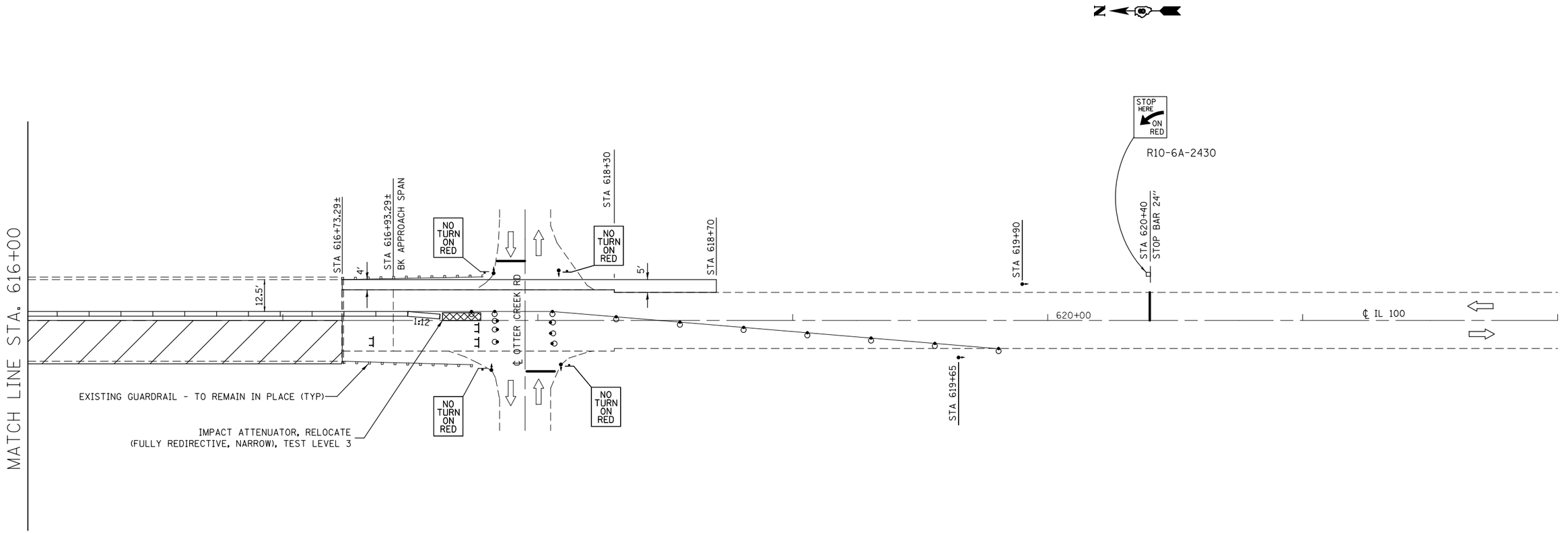
$MODELNAME$	PLOT DATE = 12/19/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION

SCALE: N/A | SHEET 1 OF 2 SHEETS | STA. 616+00 TO STA. 622+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	12
		CONTRACT NO. 76G49		
	ILLINOIS FED. AID PROJECT			



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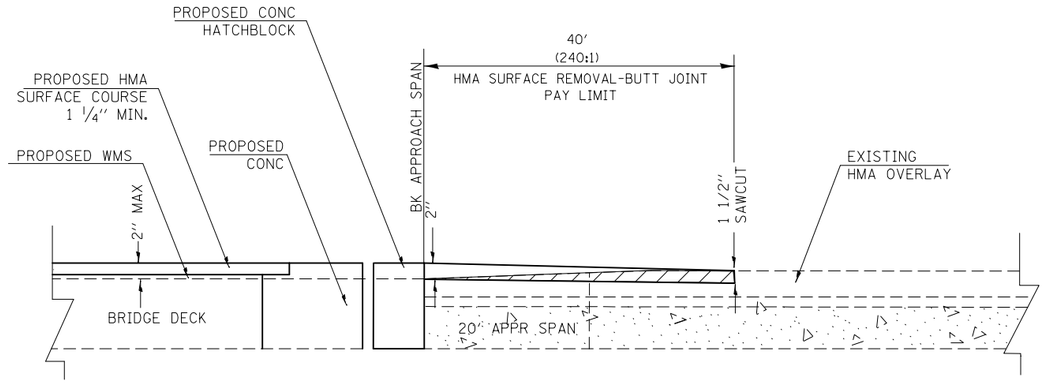
$MODELNAME$	PLOT DATE = 12/19/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II CONSTRUCTION

SCALE: N/A | SHEET 2 OF 2 SHEETS | STA. 616+00 | TO STA. 622+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	13
		CONTRACT NO. 76G49		
	ILLINOIS	FED. AID PROJECT		



BUTT JOINT DETAIL

SAW CUT TO BE INCLUDED IN THE COST OF
HMA SURFACE REMOVAL- BUTT JOINT

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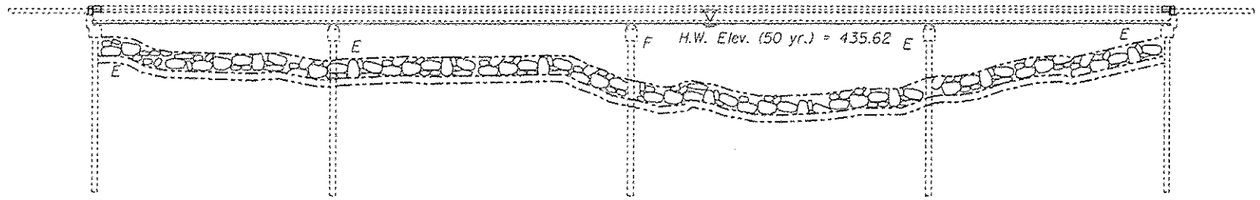
	PLOT DATE = 12/19/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

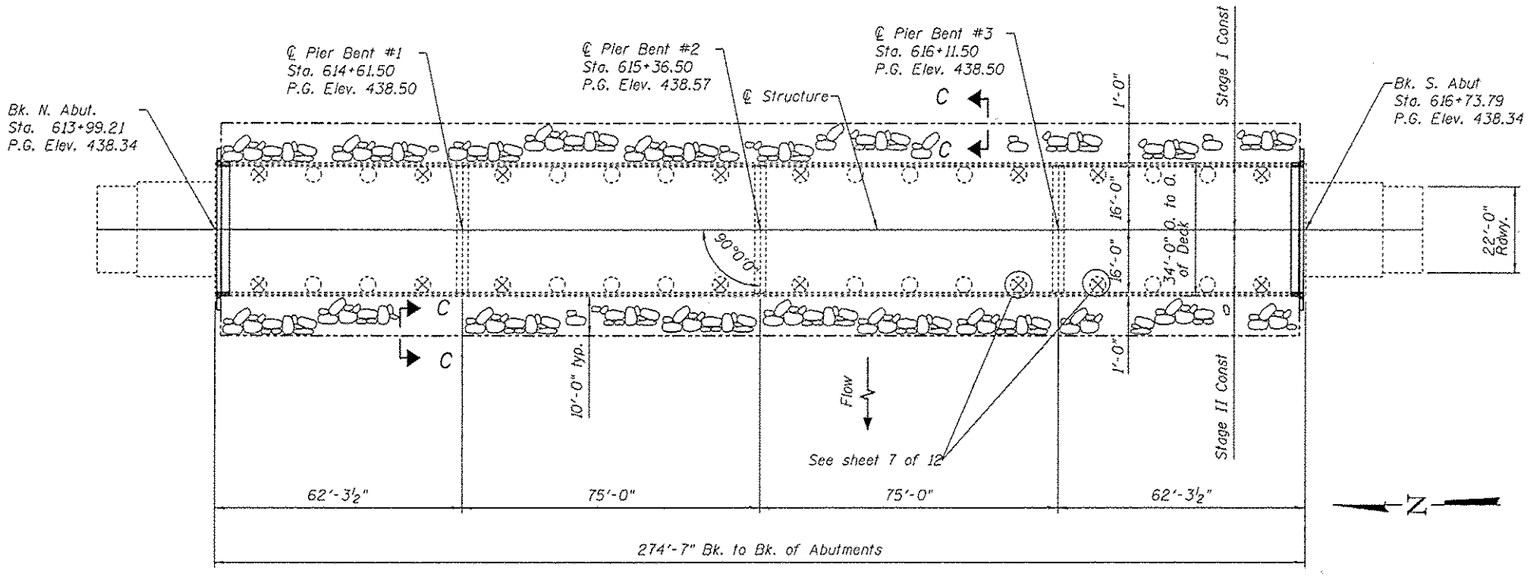
MISCELLANEOUS DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	14
		CONTRACT NO. 76G49		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION



PLAN

Replace deck ends, hatchblock and install Preformed Joint Strip Seals.

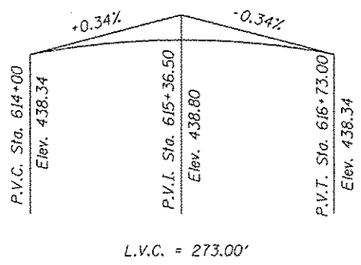
HMA overlay & WMS on deck

HMA overlay on approaches

Clean & paint beam ends.

Place A5 riprap from abut to abut per SET recommendations.

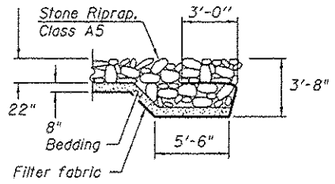
Plug Existing Drains



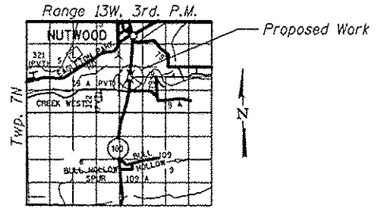
L.V.C. = 273.00'

PROFILE GRADE

INDEX OF SHEETS



SECTION C-C



LOCATION SKETCH

Plug Existing Drains (16 Req'd)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	9.6
Concrete Superstructure	Cu. Yd.	10.5
Preformed Joint Strip Seal	Foot	66
Waterproofing Membrane System	Sq. Yd.	954
Reinforcement Bars, Epoxy Coated	Pound	1140
Bridge Deck Concrete Sealer	Sq. Ft	922
Plug Existing Deck Drains	Each	16
Bar Splicers	Each	24
Stone Riprap, Class A5	Sq. Yd.	1626
Filter Fabric	Sq. Yd.	1626
HMA Surface Course, Mix "D" N70	Ton	107
Cleaning and Painting Structural Steel, Location 1	L. Sum	1
Containment & Disposal of Non-Lead Paint Cleaning Residues No. 1	L. Sum	1

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.

Reinforcement bars designated (E) shall be epoxy coated.

Bridge deck concrete sealer shall be placed on top/inside faces of curbs (full length) and wingwalls and on top of new concrete at joints.

Joint opening shall be adjusted according to Article 520.04 of the Standard Specs. when the deck is poured at an ambient temperature other than 50° F.

Existing reinforcement bars extending into removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Cleaning and Painting of the existing structural steel and bearings shall be included with "Cleaning and Painting Structural Steel, Location 1." All beams, bearings, deck drains, and other structural steel within 5 feet (measured along the beam) of either side of the deck joints shall be cleaned per "Near White Blast Cleaning-SSPC-SP10."

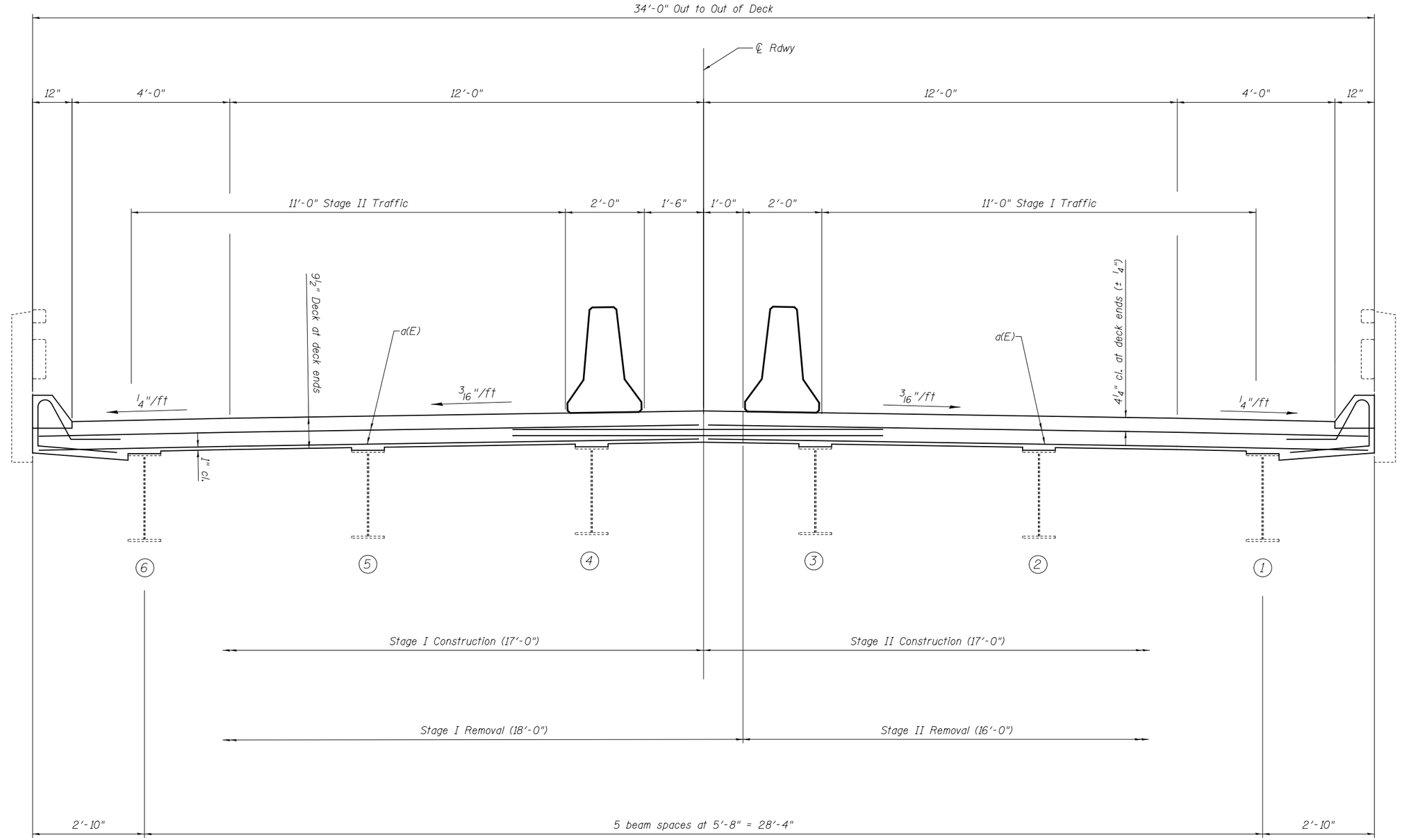
The designated areas cleaned per near white blast cleaning SSPC-SP10 shall be painted according to the requirement of paint system 1-OZ/E/U. The color of the final finish coat for all steel surfaces shall be Federal Standard Color Brown 595C 20045.

LICENSED STRUCTURAL ENGINEER
DAVID CARL PUZEY
031-005470
SPRINGFIELD ILLINOIS
STATE OF ILLINOIS

Expires 11/30/14

DESIGNED - AYV	EXAMINED	DATE - 1/21/14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - TLC	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - AYV	PASSED	REVISED	GENERAL PLAN & ELEVATION SN 042-0012
CHECKED - TLC	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	SHEET NO. 1 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	15
		CONTRACT NO. 76G49		
		ILLINOIS FED. AID PROJECT		

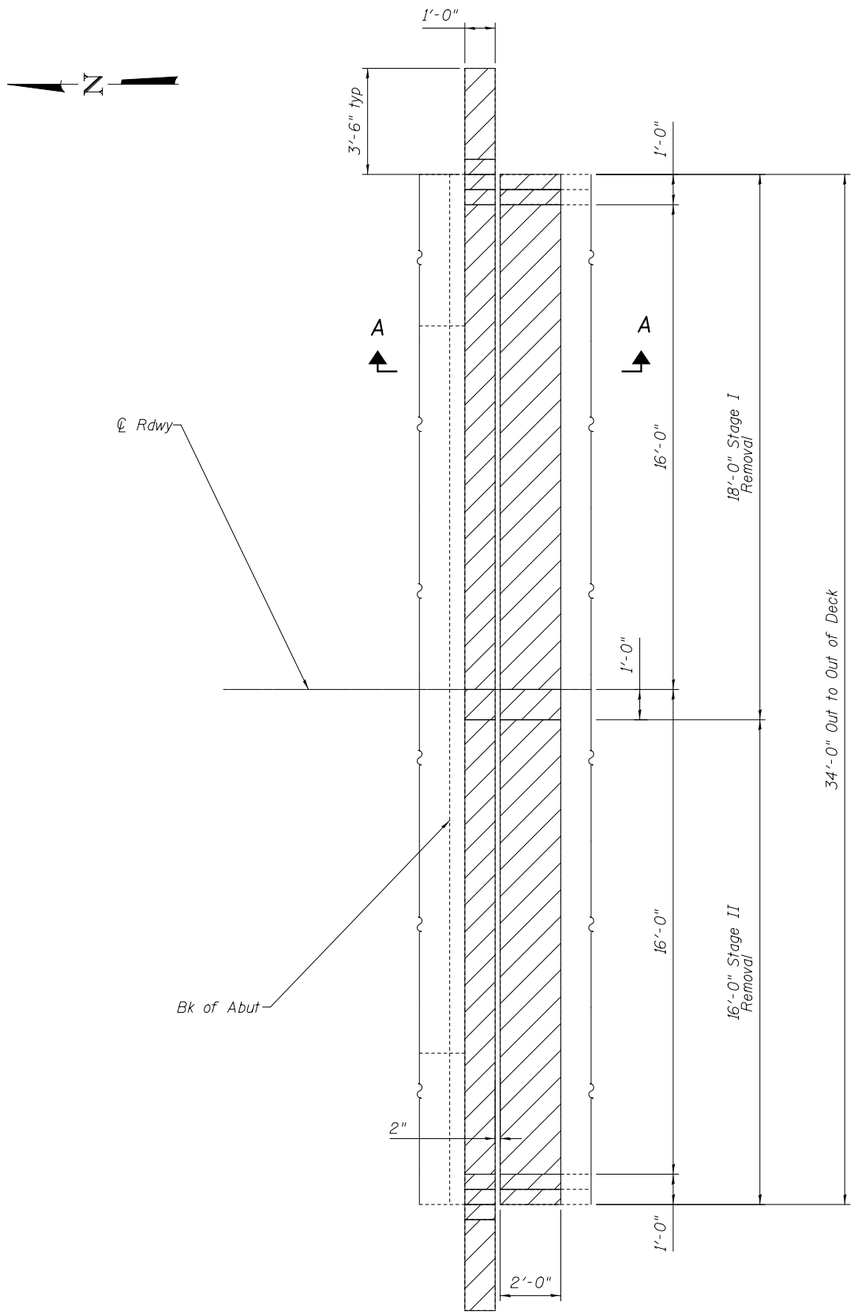


DECK CROSS SECTION

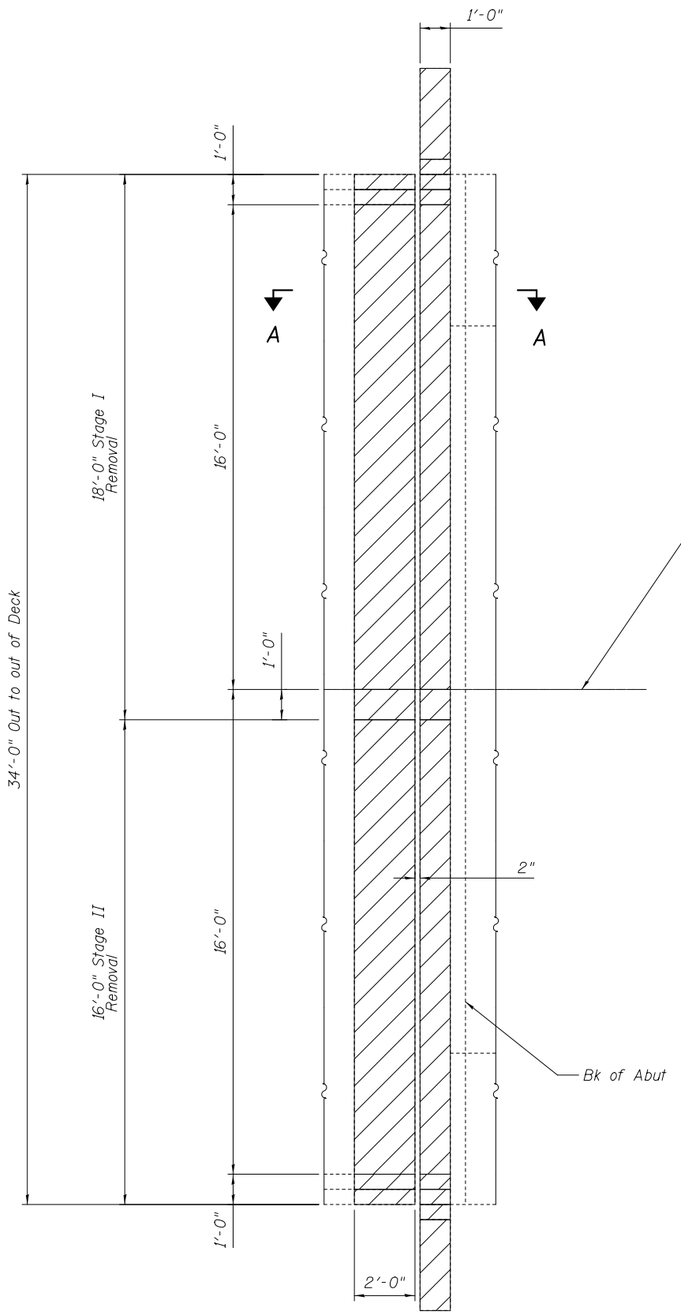
Looking South

@ Joint Locations

DESIGNED - AYV	EXAMINED	DATE -	**STATE OF ILLINOIS**	**DECK CROSS SECTION**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		**DEPARTMENT OF TRANSPORTATION**	**SN 042-0012**	304	4-BY, 4B-1	JERSEY	26	16
DRAWN - AYV	PASSED	REVISED					CONTRACT NO. 76G49		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 2 OF 12 SHEETS			ILLINOIS FED. AID PROJECT		



NORTH ABUTMENT

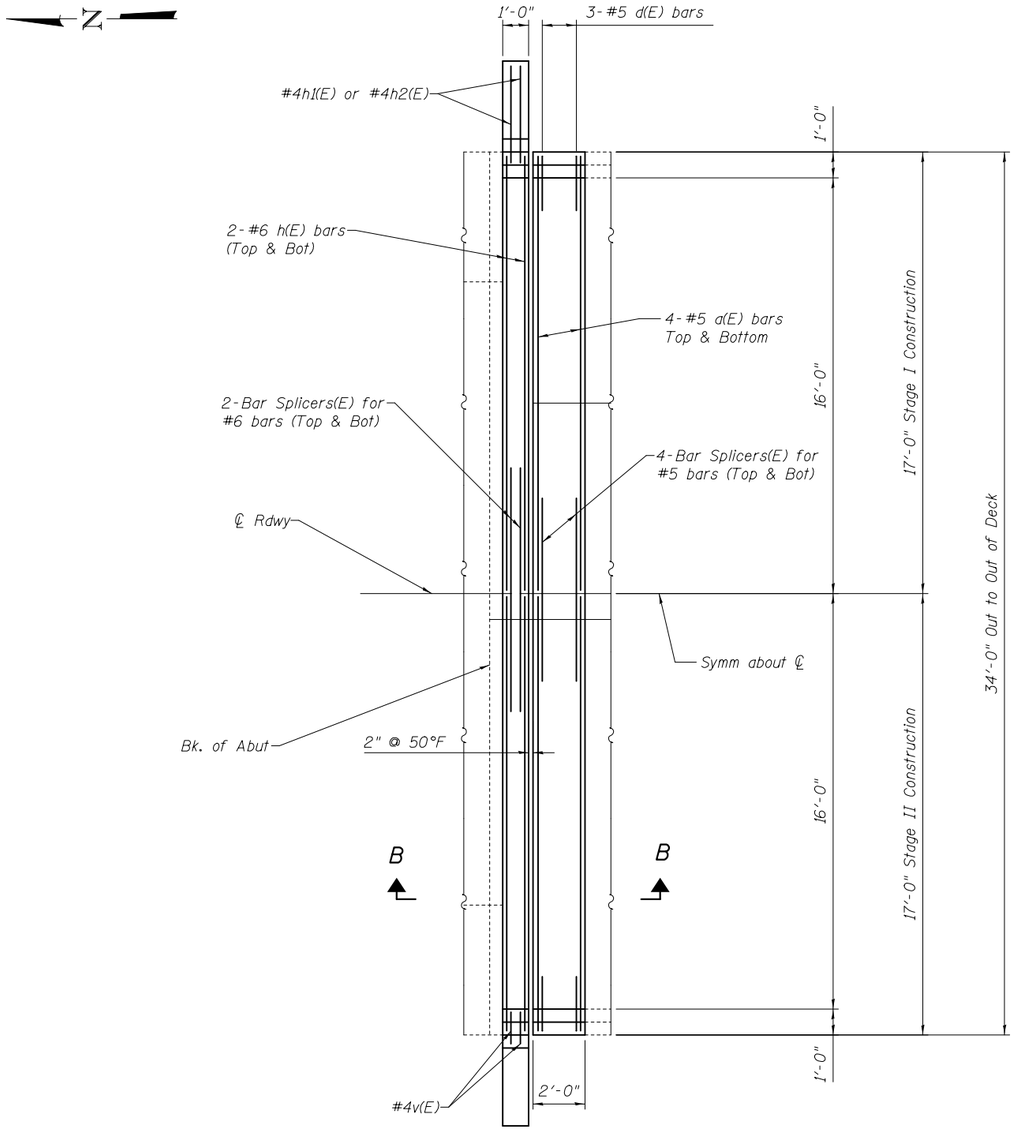


SOUTH ABUTMENT

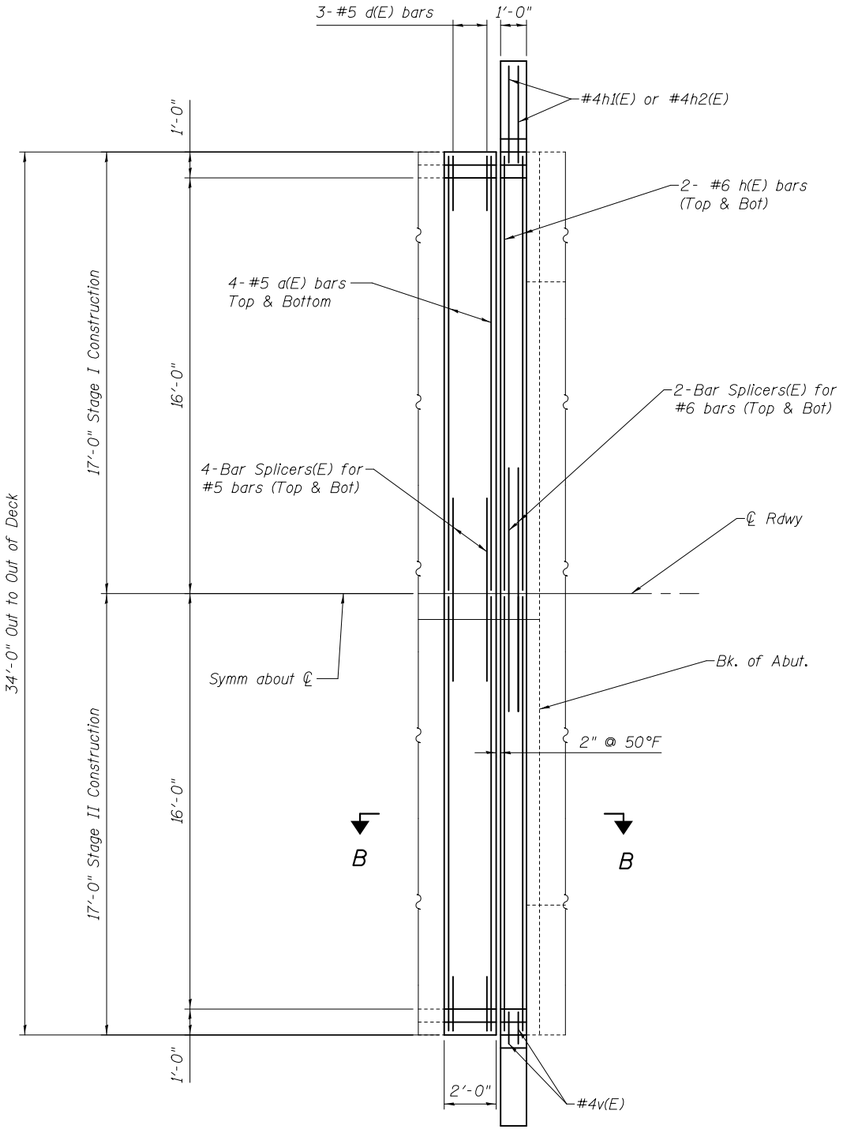
Note:

See sheet 5 of 12 for Section A-A

DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE REMOVAL SN 042-0012	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				304	4-BY, 4B-1	JERSEY	26	17
DRAWN - AYV	PASSED	REVISED					CONTRACT NO. 76G49		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 3 OF 12 SHEETS			ILLINOIS FED. AID PROJECT		



NORTH ABUTMENT



SOUTH ABUTMENT

Note:

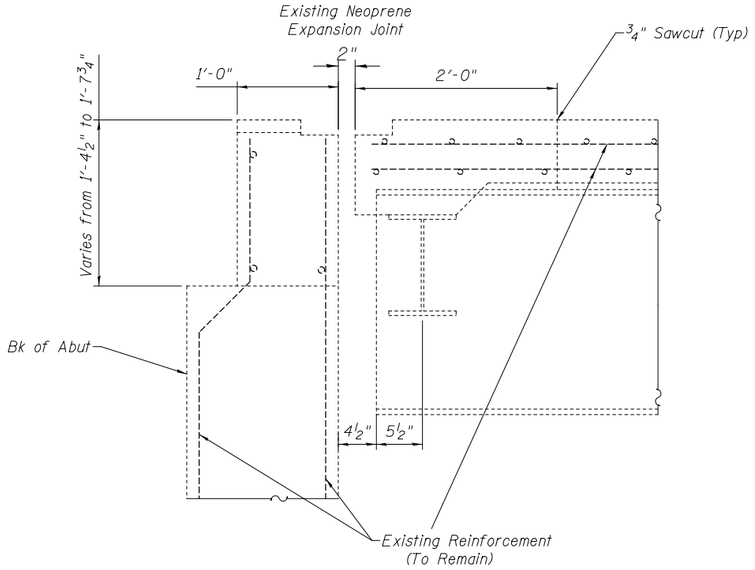
Existing reinforcement bars extending into removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

See sheet 5 of 12 for Section B-B & Reinforcement bars

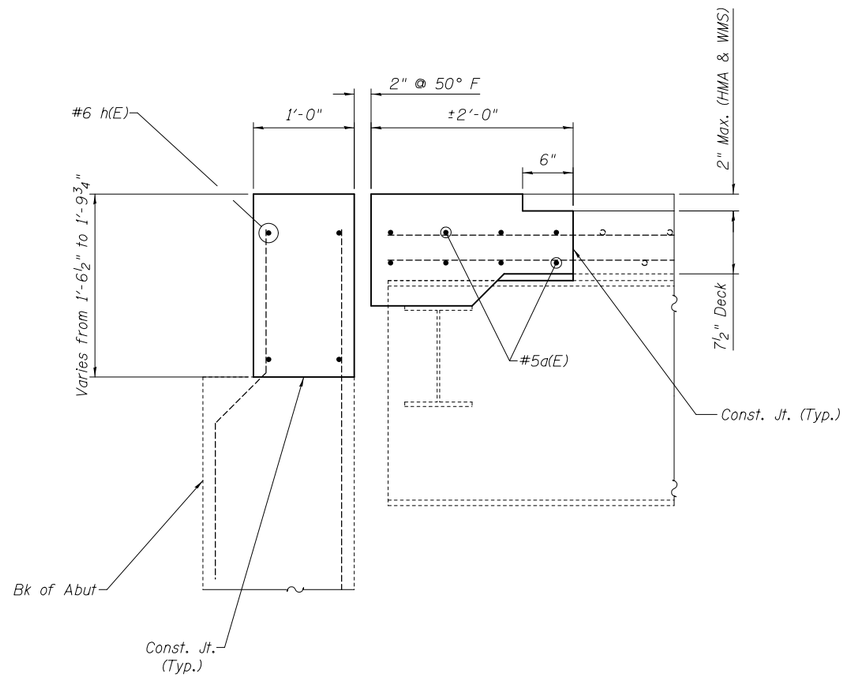
See sheet 6 of 12 for Hatchblock & Wingwall details

CONCRETE REPLACEMENT

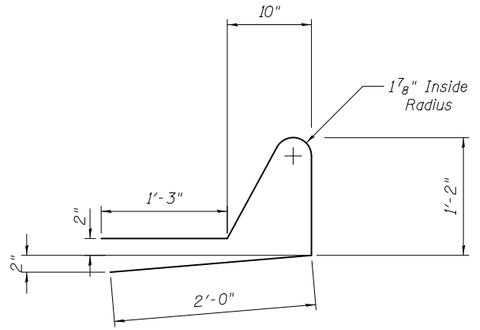
DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOINT REPLACEMENT SN 042-0012	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				304	4-BY, 4B-1	JERSEY	26	18
DRAWN - AYV	PASSED	REVISED					CONTRACT NO. 76G49		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 4 OF 12 SHEETS			ILLINOIS	FED. AID PROJECT	



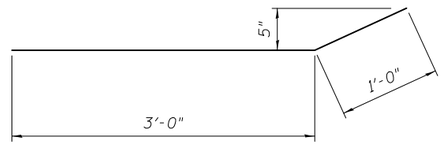
SECTION A-A



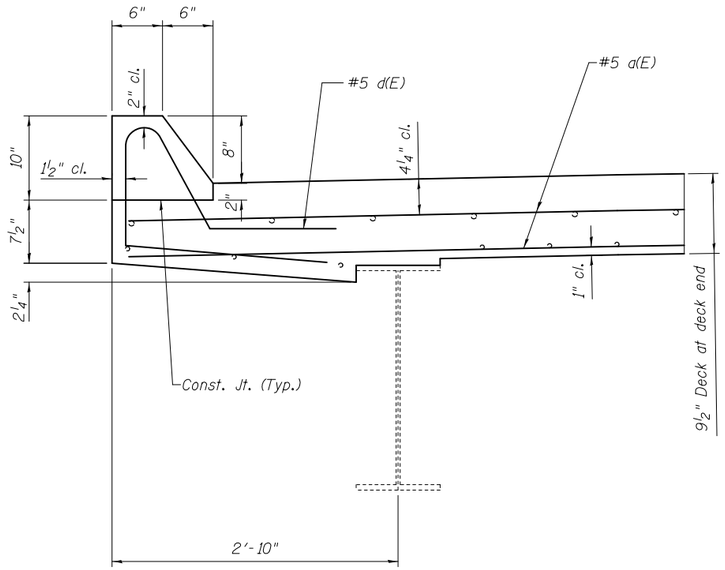
SECTION B-B



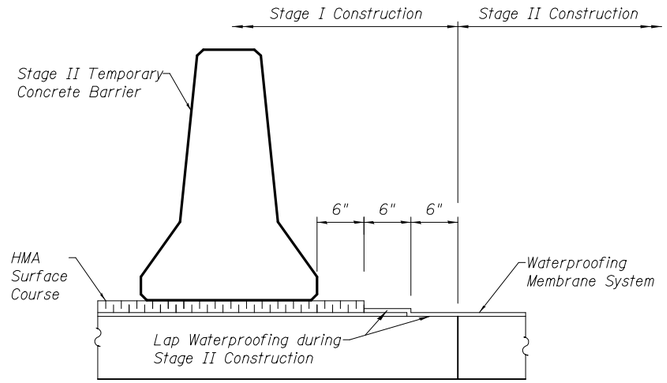
BAR d(E)



BAR h2(E)



PARAPET SECTION



WATERPROOFING STAGING

Looking South

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	32	#5	16'-8"	
d(E)	12	#5	5'-11"	
h(E)	16	#6	17'-7"	
h1(E)	16	#4	4'-3"	
h2(E)	8	#4	4'-0"	
v(E)	8	#4	3'-0"	
Concrete Removal			Cu. Yd.	9.6
Concrete Superstructure			Cu. Yd.	10.5
Reinforcement Bars, Epoxy Coated			Lbs.	1140

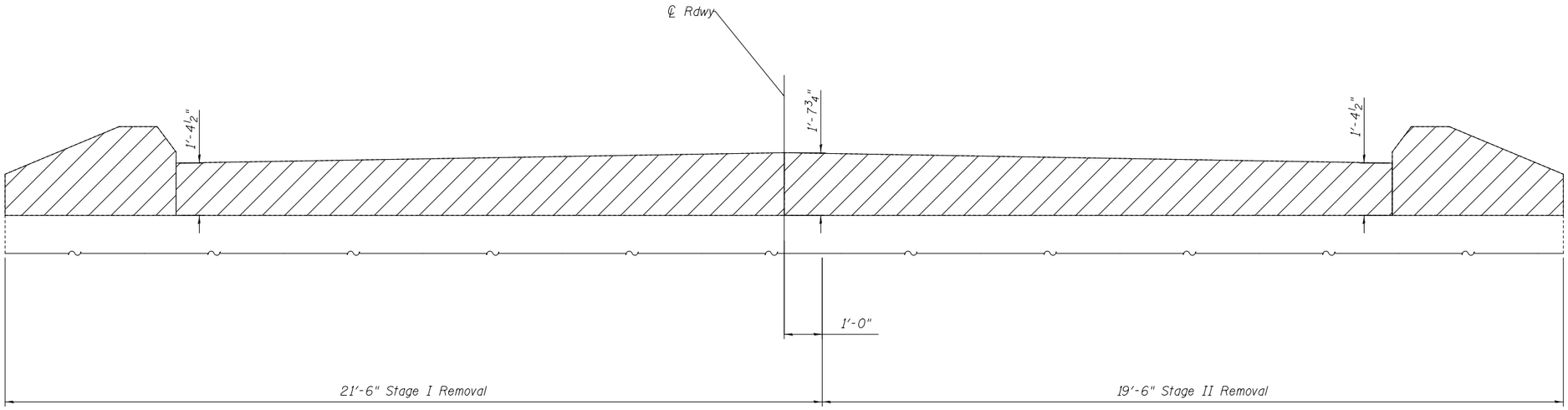
Reinforcement bars designated (E) shall be epoxy coated.

v(E) bar See Sheet 6 of 12

DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - AYV	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

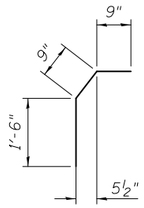
JOINT DETAILS & WATERPROOFING STAGING
SN 042-0012
SHEET NO. 5 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	19
		CONTRACT NO. 76G49		
	ILLINOIS	FED. AID PROJECT		

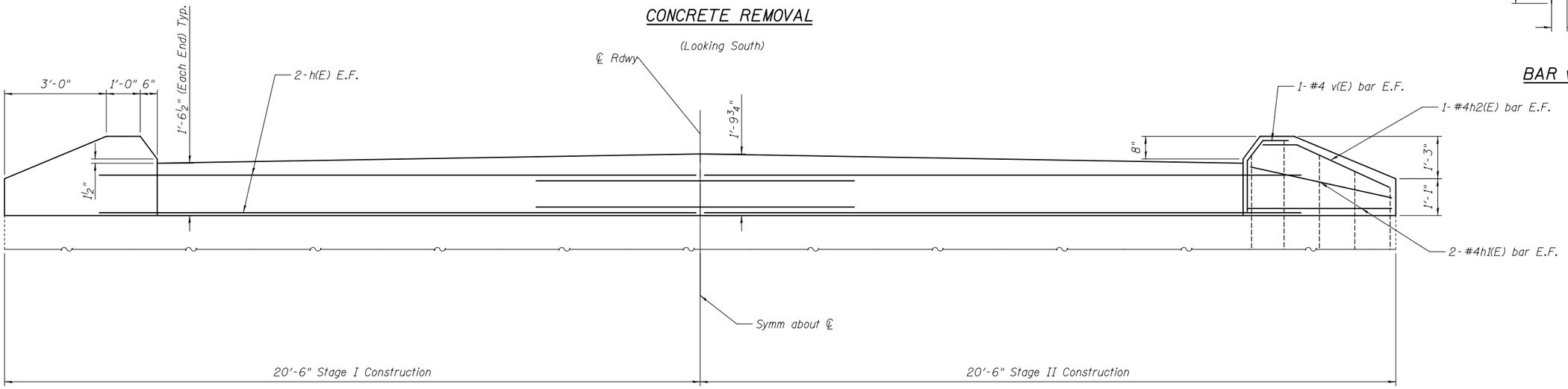


CONCRETE REMOVAL

(Looking South)



BAR v(E)

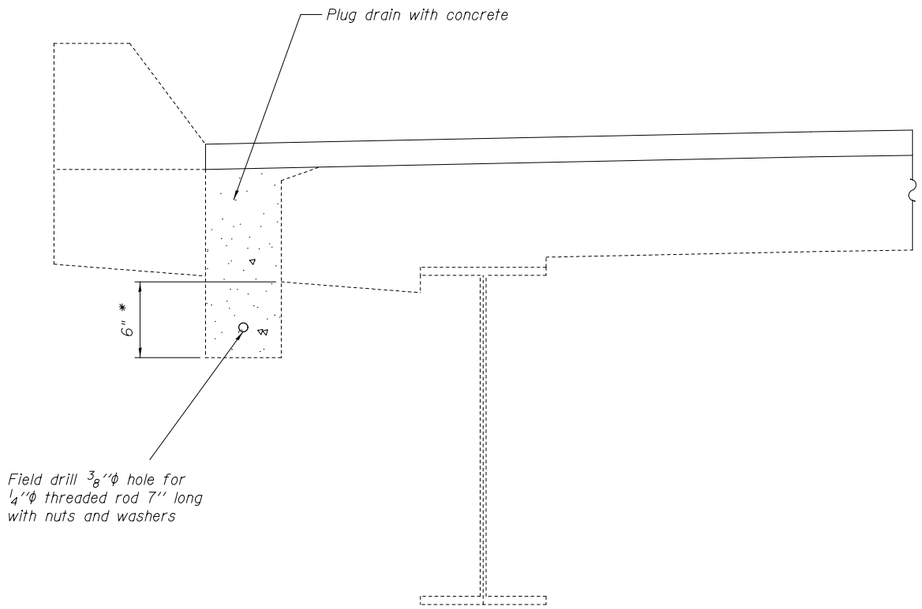


CONCRETE REPLACEMENT

(Looking South)

Note:
E.F. = Each Face

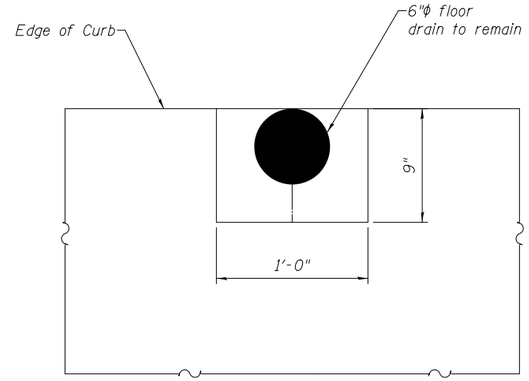
DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELEVATION N. & S. ABUTMENT HATCHBLOCKS & WINGWALLS SN 042-0012	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				304	4-BY, 4B-1	JERSEY	26	20
DRAWN - AYV	PASSED	REVISED		SHEET NO. 6 OF 12 SHEETS			CONTRACT NO. 76G49		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED					ILLINOIS FED. AID PROJECT		



*Cut off drain 6" below the deck

PLUG DRAIN DETAIL

(See sheet 1 of 12 for locations)
(16 Req'd)



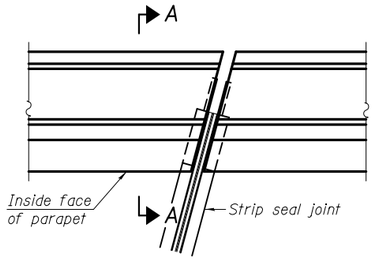
DRAIN DETAIL

Slope to drain with 1"
minimum HMA at drains

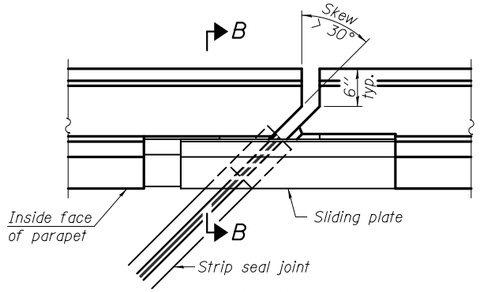
(See sheet 1 of 12 for locations to Remain)
(20 Req'd)

DESIGNED - AYV	EXAMINED	DATE -	**STATE OF ILLINOIS**
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		**DEPARTMENT OF TRANSPORTATION**
DRAWN - AYV	PASSED	REVISED	**DRAIN DETAILS**
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	**SN 042-0012**
			SHEET NO. 7 OF 12 SHEETS

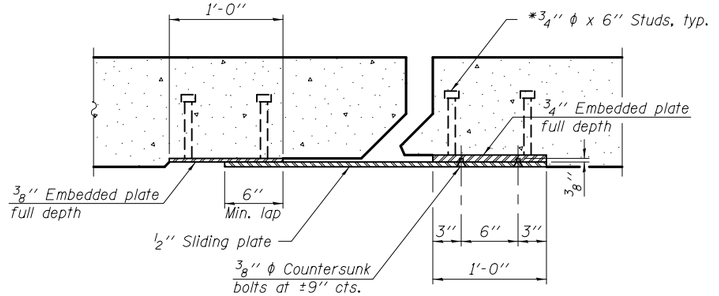
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	21
		CONTRACT NO. 76G49		
	ILLINOIS FED. AID PROJECT			



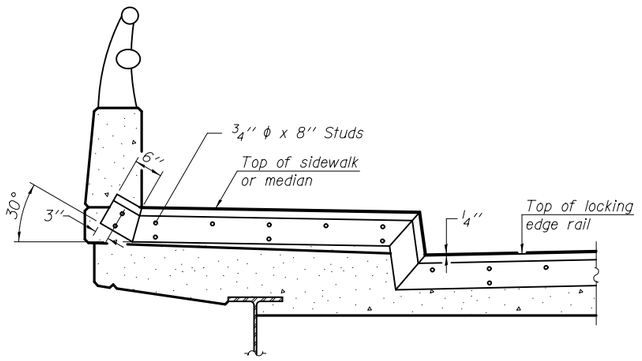
PLAN
(For skews ≤ 30°)



PLAN
(For skews > 30°)
Showing point block

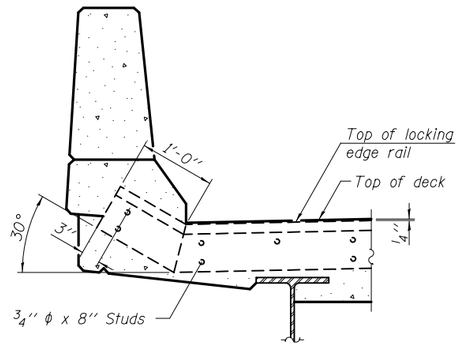


SECTION C-C

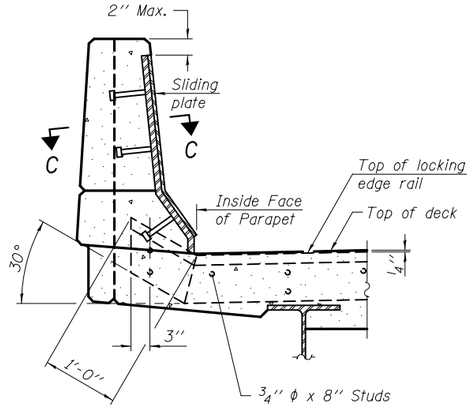


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

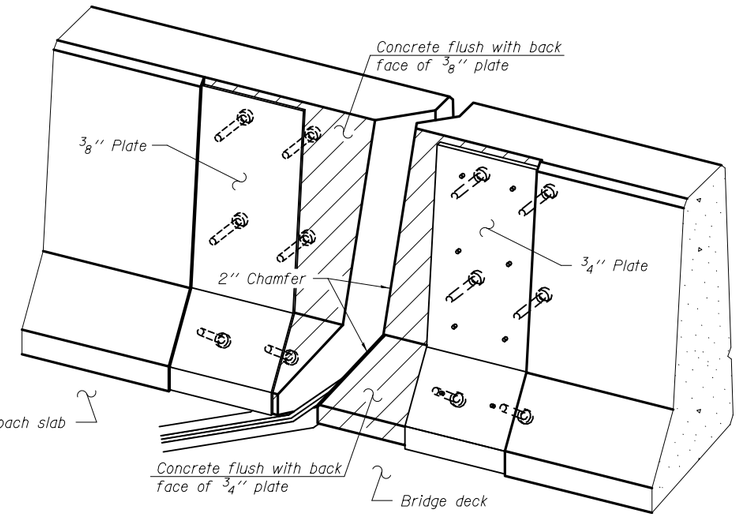
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

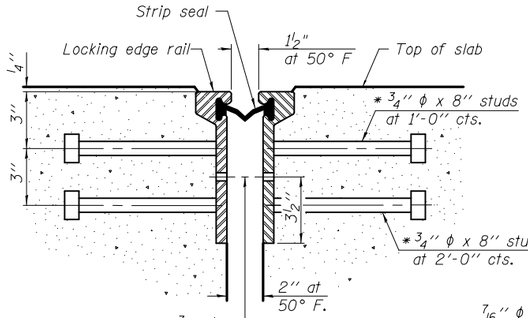
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

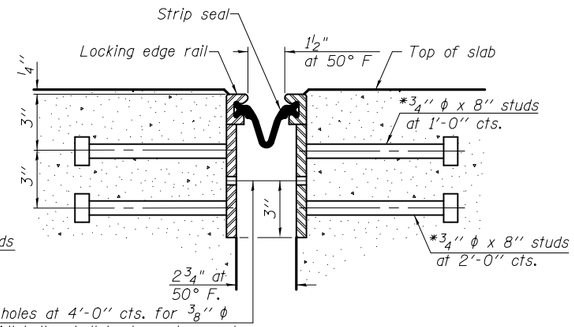
Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

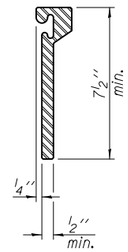
SECTION THRU ROLLED RAIL JOINT



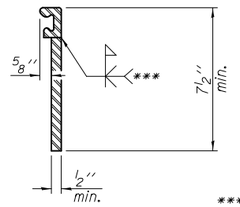
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

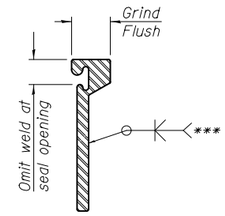
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	66

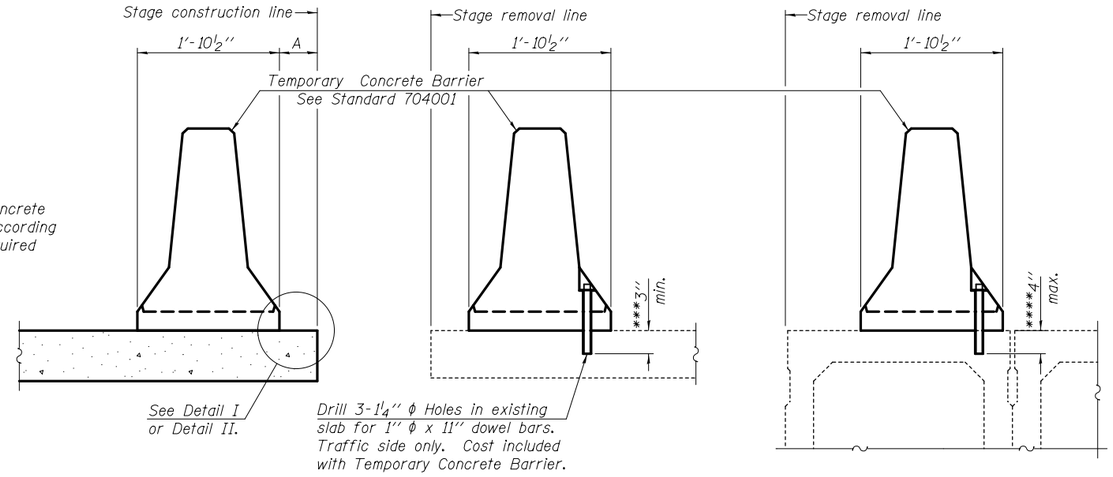
EJ-SSJ 1-27-12

DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - AYV	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 042-0012
SHEET NO. 8 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	22
		CONTRACT NO. 76G49		
	ILLINOIS FED. AID PROJECT			

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



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

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

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

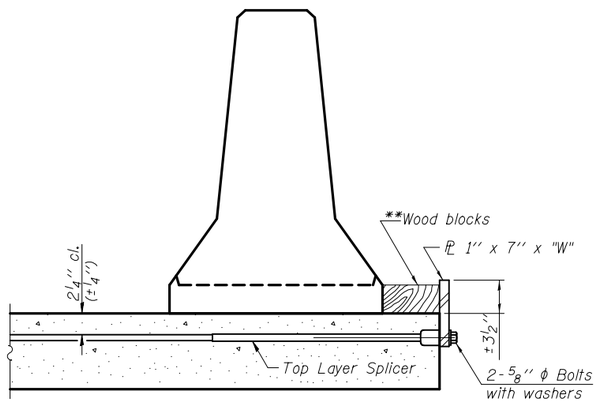
Cost of anchorage is included with Temporary Concrete Barrier.

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

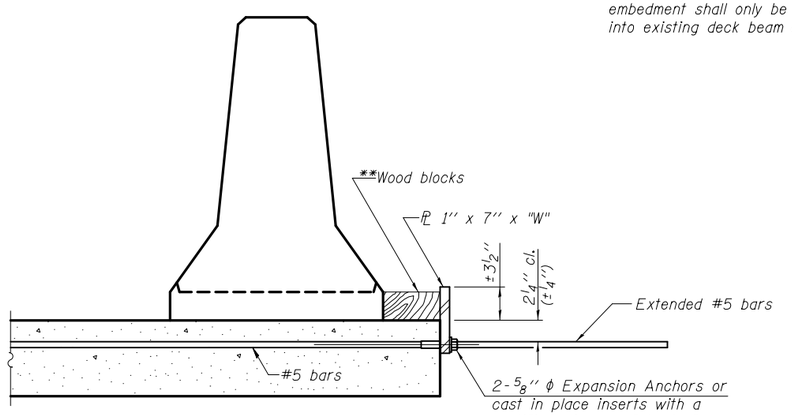
SECTIONS THRU SLAB OR DECK BEAM

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

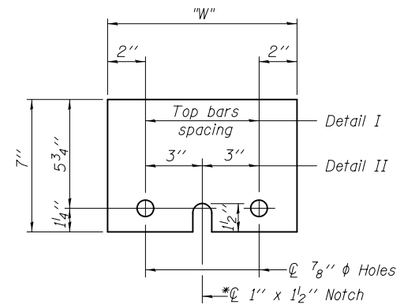
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1'' x 7'' x ''W''

* Required only with Detail II

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

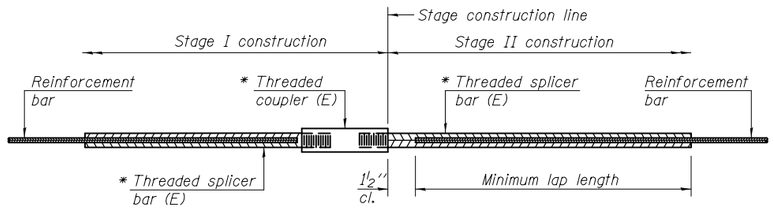
"W" = Top bars spacing + 4''

R-27 7-1-10

DESIGNED - AYV	EXAMINED	DATE -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - AYV	PASSED	REVISED	
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 042-0012
SHEET NO. 9 OF 12 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	23
		CONTRACT NO. 76G49		
	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

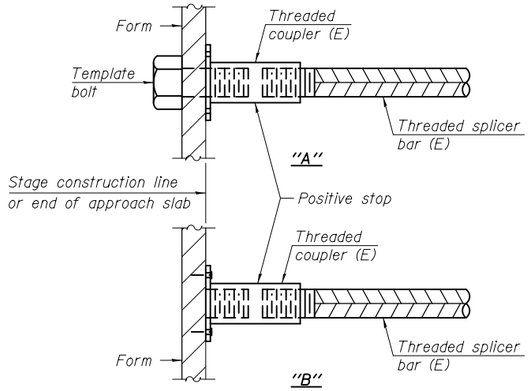
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

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

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

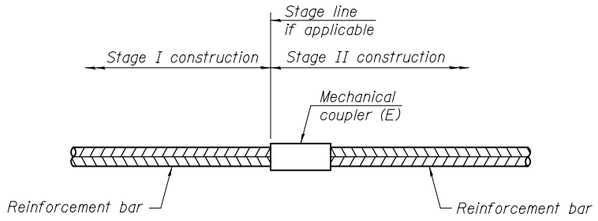
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
N Abut End of Deck	#5	8	3
N Abut Hatchblock	#6	4	3
S Abut End of Deck	#5	8	3
S Abut Hatchblock	#6	4	3



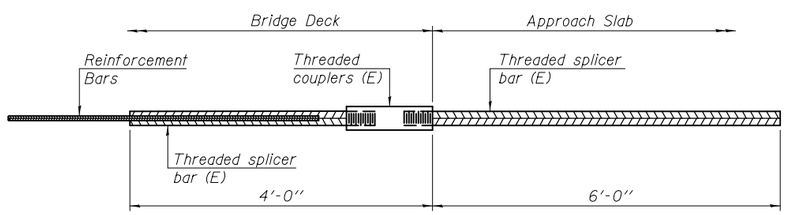
INSTALLATION AND SETTING METHODS

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



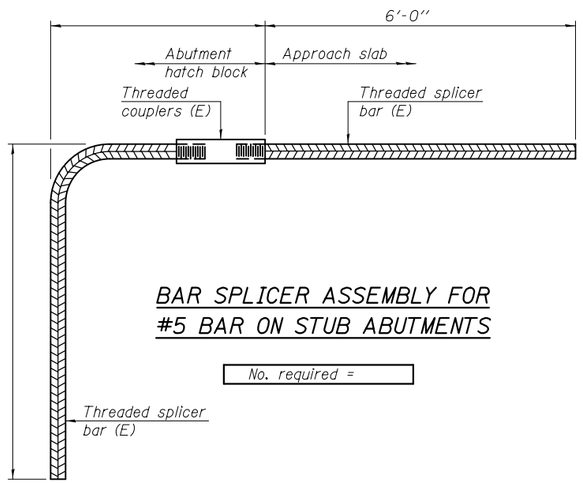
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

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

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

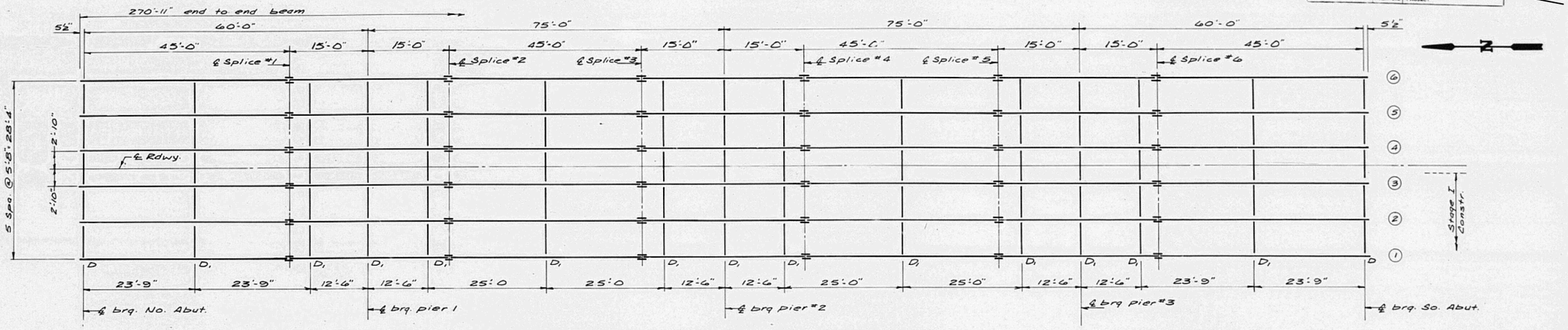
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 1-27-12

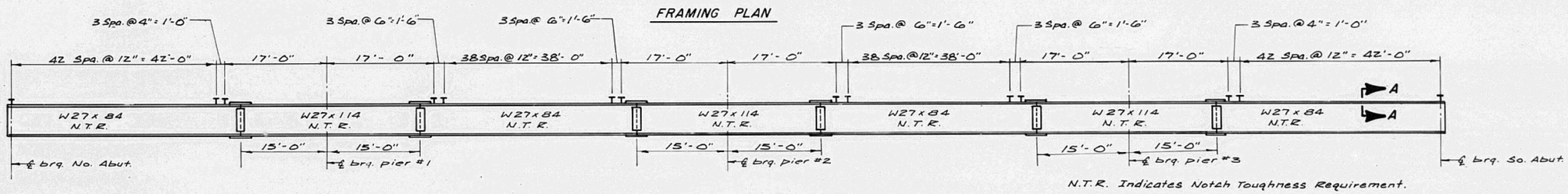
DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 042-0012	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES				304	4-BY, 4B-1	JERSEY	26	24
DRAWN - AYV	PASSED	REVISED					CONTRACT NO. 76G49		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 10 OF 12 SHEETS			ILLINOIS FED. AID PROJECT		

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.Z	4BY	JERSEY	27	16
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 9
13 SHEETS



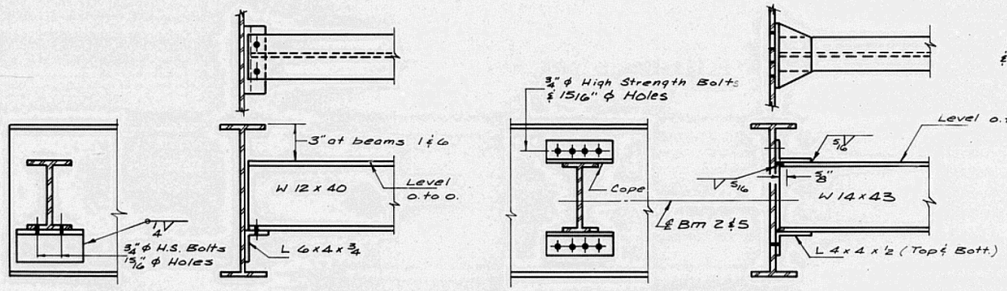
FRAMING PLAN



N.T.R. Indicates Notch Toughness Requirement.

BEAM ELEVATION

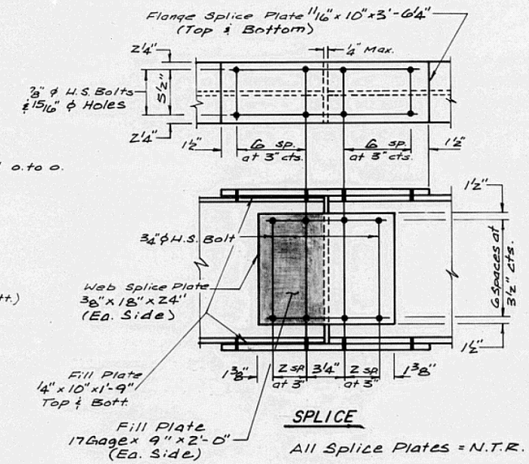
FOR INFORMATION ONLY



DIAPHAGM D
10 Required

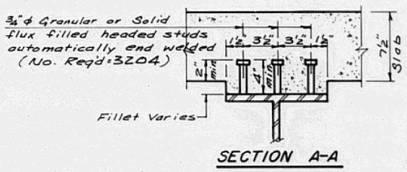
DIAPHAGM D1
65 Required

Note: Two hardened washers shall be required over all 15/16" ϕ holes. All contact surfaces of joints shall be free of paint or lacquer.



SPLICE

All Splice Plates = N.T.R.



SECTION A-A

TOP OF W BEAM ELEVATIONS*

	Beam 1 & 6	Beam 2 & 5	Beam 3 & 4
℄ Brg. So. Abut.	437.25	437.35	437.44
℄ Splice #1	437.36	437.46	437.55
℄ Brg. Pier #1	437.39	437.49	437.58
℄ Splice #2	437.42	437.52	437.61
℄ Splice #3	437.50	437.60	437.69
℄ Brg. Pier #2	437.50	437.60	437.69
℄ Splice #4	437.50	437.60	437.69
℄ Splice #5	437.42	437.52	437.61
℄ Brg. Pier #3	437.39	437.49	437.58
℄ Splice #6	437.36	437.46	437.55
℄ Brg. No. Abut	437.25	437.35	437.44

* Elevations are for fabrication only. At field splice locations, elevations given are at top of W27 x 114.

STRUCTURAL STEEL
F.A. ROUTE 2 SECTION 4BY
JERSEY COUNTY
STATION 615+36.50

DESIGNED - AYV	EXAMINED	DATE -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FOR INFORMATION ONLY – EXISTING STRUCTURAL STEEL SN 042-0012
CHECKED -	ENGINEER OF STRUCTURAL SERVICES			SHEET NO. 11 OF 12 SHEETS
DRAWN - AYV	PASSED	REVISED		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		

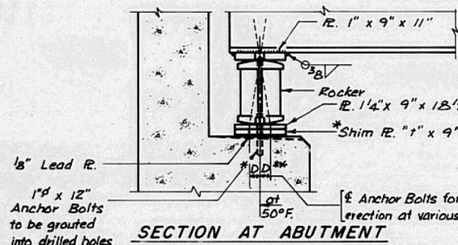
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	25
		CONTRACT NO. 76G49		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.Z	4BR	JERSEY	26	17
FED. ROAD DIST. NO.	STATE SECTIONS	PROJECT		

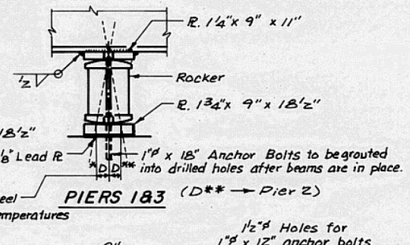
SHEET NO. 16
13 SHEETS

FOR INFORMATION ONLY

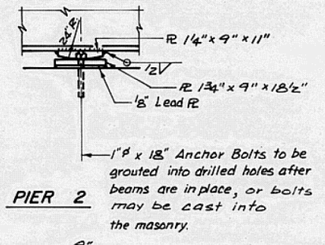
* Shim PL 1/2"x 9"x 18'2" S. Abut., Beams 1 & 6
Shim PL 1 1/8"x 9"x 18'2" N. Abut., Beams 1 & 6



SECTION AT ABUTMENT

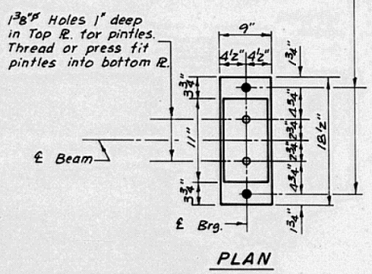


PIERS 1&3 (D** → Pier 2)

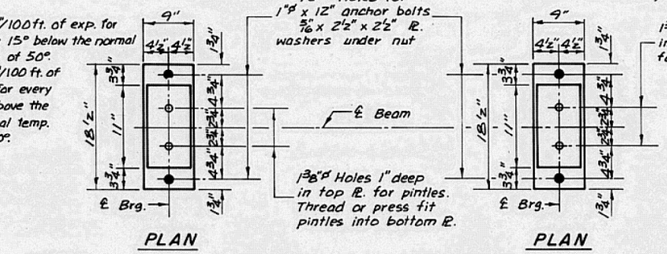


PIER 2

*D = 1/8"/100 ft. of exp. for every 15° below the normal temp. of 50°.
D** = 1/8"/100 ft. of exp. for every 15° above the normal temp. of 50°.

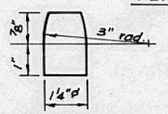


PLAN

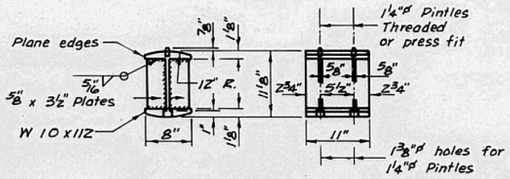


PLAN

PLAN



DETAIL OF PINTLE



DETAIL OF ROCKER AT ABUTS., PIERS 1&3

INTERIOR BEAM MOMENT TABLE

	0.4 Span 1&4	Pier 1&3	0.5 Span 2&3	Pier 2
Is (in⁴)	2850	4,090	2850	4,090
Ic PL (in⁴)	6173		6173	
Ic LL (in⁴)	8151		8151	
Ss (in³)	213	299	213	299
Sc PL (in³)	300		300	
Sc LL (in³)	324		324	
DL (K/ft)	0.65	0.85	0.65	0.85
MDL (ft-K)	196	421	173	423
fnon-comp(ksi)	11.0	16.9	9.7	17.0
SDL (K/ft)	0.18	—	0.18	—
M SDL (ft-K)	69	105	74	98
MLL (ft-K)	755	520	831	558
MImp (ft-K)	204	135	208	139
Total (ft-K)	1028	760	1,113	795
fs SDL+LL	38.3	30.5	41.4	31.9
fs total (ksi)	49.3	47.4	50	48.9
VR (K)	42.5		37.7	

INTERIOR BEAM REACTION TABLE

	ABUTMENT	PIER 1&3	PIER 2
R DL (K)	18.8	63.1	63.6
R LL (K)	34.3	40.2	41.3
Imp. (K)	9.3	10.5	10.3
R total (K)	62.4	113.8	115.2

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs Total.

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs Total. (n=9 for LL+I, 3n = 27 for SDL)

VR is the maximum LL+Impact shear range in span, for the composite areas.

The load factor 1.3 [DL + $\frac{5}{3}$ (LL+I)] is used in computing moments and stresses.

At 0.5 Span 2&3, plastic design analysis is used for a braced, compact section.

BEARING DETAILS
F.A. ROUTE 2 SECTION 4BY
JERSEY COUNTY
STATION 615+36.50

DESIGNED - AYV	EXAMINED	DATE -	**STATE OF ILLINOIS**	**FOR INFORMATION ONLY – EXISTING BEARING DETAILS**
CHECKED -	ENGINEER OF STRUCTURAL SERVICES		**DEPARTMENT OF TRANSPORTATION**	**SN 042–0012**
DRAWN - AYV	PASSED	REVISED		SHEET NO. 12 OF 12 SHEETS
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	4-BY, 4B-1	JERSEY	26	26
		CONTRACT NO. 76G49		
		ILLINOIS FED. AID PROJECT		