

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

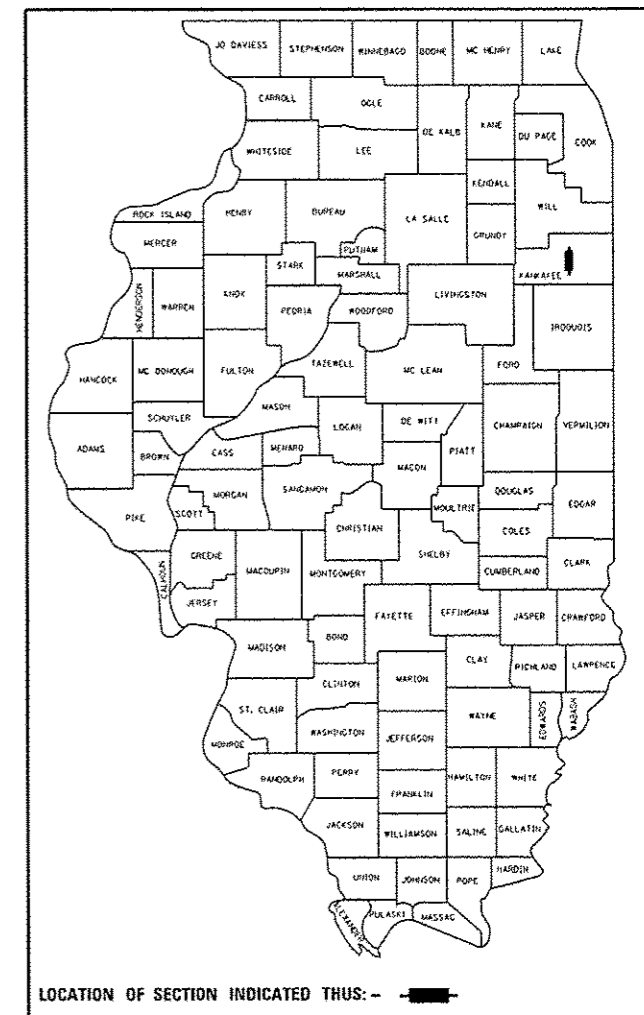
**PROPOSED
HIGHWAY PLANS**

**F.A.P. 840 (US 45/52)
SECTION (46-4HBK)IR
BRIDGE REPAIR
KANKAKEE COUNTY**

C-93-107-15

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	1
		ILLINOIS	CONTRACT NO. 66E83	

D-93-002-15



URBAN		URBAN INTERSTATE	
OTHER PRINCIPLE ARTERIAL (OPA)		F. A. I. 57 (I-57)	
F. A. P. 840 (US 45/52)		2015	
NORTH	SOUTH	WEST	EAST
ADT = 11800	ADT = 8950	ADT = 20100	ADT = 23000
P. V. = 90.26%	P. V. = 85.34%	P. V. = 63.93%	P. V. = 72.06%
S. U. = 5.93%	S. U. = 7.52%	S. U. = 9.20%	S. U. = 4.46%
M. U. = 3.81%	M. U. = 7.14%	M. U. = 26.87%	M. U. = 23.48%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Nov 9 2016
Kevin Marchel P.E.
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 9 2016
Matthew M. Addis P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Dec 9 2016
Chris Osman P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

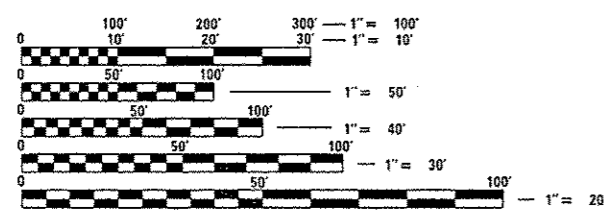
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OF THE STATE OF ILLINOIS**

1. COVER SHEET
2. GENERAL NOTES
- 3-6. SUMMARY OF QUANTITIES
7. TYPICAL SECTIONS
- 8-9. SCHEDULES
10. STAGING DETAILS
11. TRAFFIC CONTROL AND PROTECTION, STANDARD 701431- STAGE I, II AND III
12. TRAFFIC CONTROL AND PROTECTION, STANDARD 701431- STAGE I
13. TRAFFIC CONTROL AND PROTECTION, STANDARD 701431- STAGE II AND III
14. PAVEMENT MARKING DETAILS
16. WIDTH RESTRICTION SIGNING
16. MEDIAN DETAILS
- 17-30. STRUCTURE REPAIR PLANS
- 31-35. EXISTING TRAFFIC SIGNAL INSTALLATION - FOR INFORMATION ONLY
36. TYPICAL PAVEMENT MARKING

STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001008 DECIMAL OF AN INCH AND OF A FOOT
- 606001-06 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 631026-06 TRAFFIC BARRIER TERMINAL, TYPE 5
- 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
- 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701206-03 LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS ≥ 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701400-09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701406-11 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701428-01 TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
- 701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701431-12 LANE CLOSURE, MULTILANE, UNDIVIDED, WITH CROSSOVER, FOR SPEEDS ≥ 45 MPH TO 55 MPH
- 782006 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
- 701901-06 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER

STRUCTURE NO.046-0052
CARRYING FAP 840 (US 45/52) OVER I-57
(I-57/US 45/52 INTERCHANGE)
SOUTH SIDE OF KANKAKEE

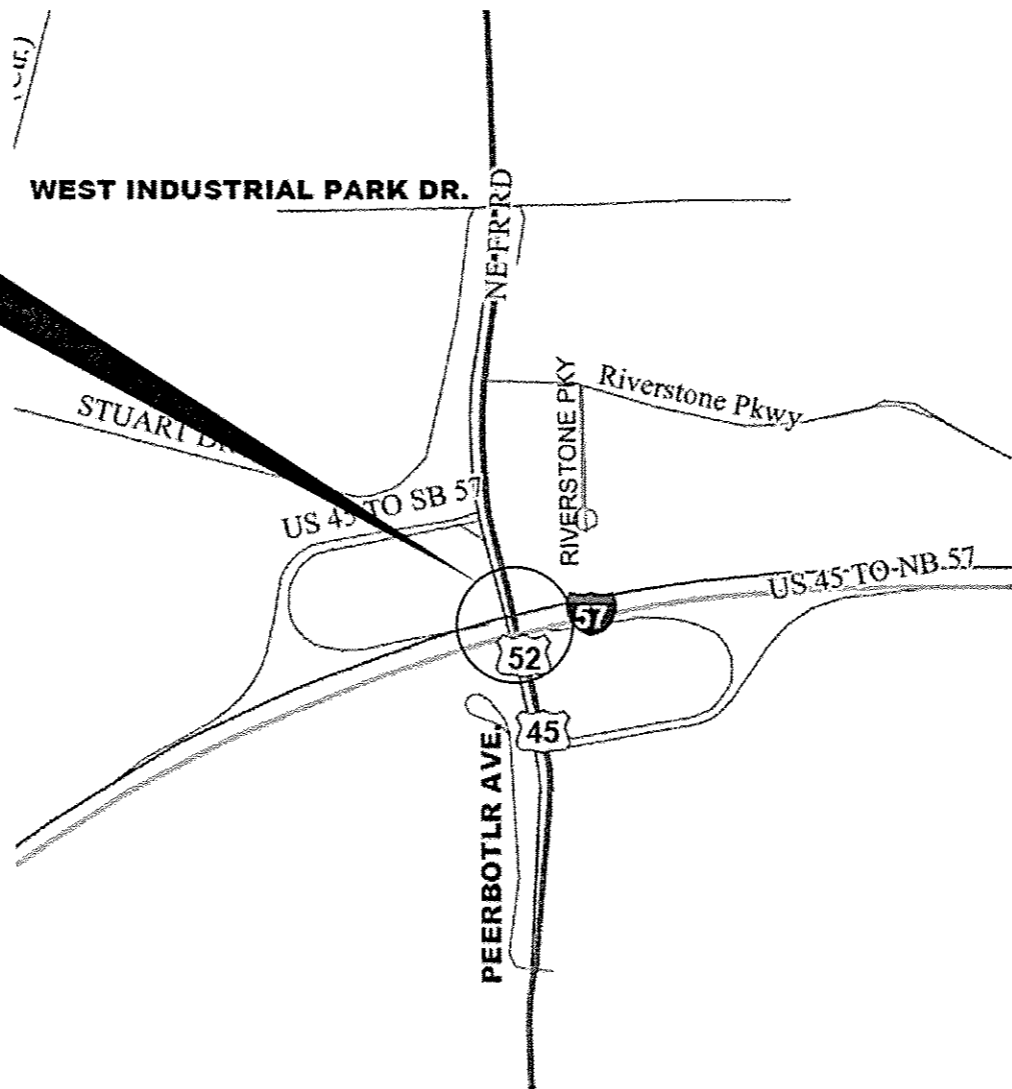


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

DISTRICT 3 (815) 434/6131
PROJECT ENGINEER: JOE KANNEL P.E.
UNIT CHIEF: RON WOODSHANK

CONTRACT NO. 66E83



GROSS LENGTH = 225 FT. = 0.043 MILE
NET LENGTH = 225 FT. = 0.043 MILE

GENERAL NOTES

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

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES WILL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

ALL EXCAVATED MATERIAL, WHICH INCLUDES DIGGING OR GRADING OF ANY SOIL OR FILL MATERIAL, WITH THE EXCEPTION OF AGGREGATE FILLS, MUST BE INCORPORATED WITHIN THE IDOT RIGHT OF WAY DUE TO ENVIRONMENTAL DOCUMENTATION REQUIREMENTS.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW HMA PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

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

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

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

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT / 100 FT OF APPLICATION

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

COMMITMENTS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION

SUPERVISING CONSTRUCTION FIELD ENGINEER

RESIDENT ENGINEER / TECHNICIAN

START & END DATES
OF CONSTRUCTION:

INSPECTORS:

DATE: November 9, 2016

PREPARED BY: *Don Benick*
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: *Keith K. Jung*
DISTRICT CONSTRUCTION ENGINEER

[Signature]
DISTRICT MATERIALS ENGINEER

[Signature]
DISTRICT OPERATIONS ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	146-4HBK1R	KANKAKEE	36	2
CONTRACT NO. 66E83				
ILLINOIS FED. AID PROJECT				

FILE NAME :	USER NAME = woodshankr1	DESIGNED - RW	REVISED -
Path: \\IL094EBIDINTEG\illinois.gov\IDOT\Documents\IDOT Offices\District 3\Projects\036	DRAWN	DATA\PRELIMINARY PLANS	REVISED -
Defaults	PLOT SCALE = 100.0000' / in.	CHECKED - EP	REVISED -
	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

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

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				CONT. MAINT. 100% STATE BRIDGE 0014 S. N. 046-0052
20200100	EARTH EXCAVATION	CU YD	163.3	163.3
35101400	AGGREGATE BASE COURSE, TYPE B	TON	939	939
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	405	405
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1000	1000
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	1795	1795
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1069	1069
44004250	PAVED SHOULDER REMOVAL	SQ YD	40	40
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	40	40
50102400	CONCRETE REMOVAL	CU YD	70	70
50157300	PROTECTIVE SHIELD	SQ YD	465	465
50300255	CONCRETE SUPERSTRUCTURE	CU YD	71.5	71.5
50300260	BRIDGE DECK GROOVING	SQ YD	1644	1644
50300300	PROTECTIVE COAT	SQ YD	274	274
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	12849	12849

14

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				CONT. MAINT. 100% STATE BRIDGE 0014 S. N. 046-0052
50800515	BAR SPLICERS	EACH	12	12
52000110	PREFORMED JOINT STRIP SEAL	FOOT	136	136
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SO FT	2568	2568
63300575	REMOVE AND REERECT RAIL ELEMENT OF EXISTING GUARDRAIL	FOOT	100	100
67100100	MOBILIZATION	L SUM	1	1
70100400	TRAFFIC CONTROL AND PROTECTION, STANDARD 701431	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	1
70100455	TRAFFIC CONTROL AND PROTECTION, STANDARD 701206	LSUM	1	1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	LSUM	1	1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	LSUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1132	1132
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	374	374
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SO FT	108.4	108.4

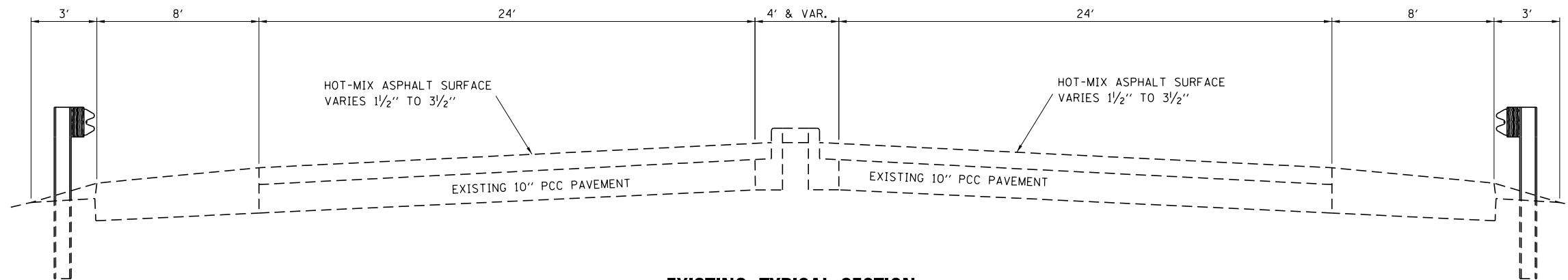
*SPECIALITY ITEMS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				CONT. MAINT. 100% STATE BRIDGE 0014 S. N. 046-0052
X4402020	CONCRETE MEDIAN SURFACE REMOVAL	SQ FT	2568	2568
X5080525	BAR SPLICERS, SPECIAL	EACH	4	4
X6061610	COMBINATION CONCRETE CURB AND GUTTER, TYPE B (MODIFIED)	FOOT	1069	1069
X7010410	SPEED DISPLAY TRAILER	CAL MO	7	7
X7200201	WIDTH RESTRICTION SIGNING	LSUM	1	1
Z0006012	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	1770	1770
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1770	1770
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	372	372
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	5	5
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	78	78
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	42	42
Z0062456	TEMPORARY PAVEMENT	SQ YD	405	405

12
*SPECIALITY ITEMS

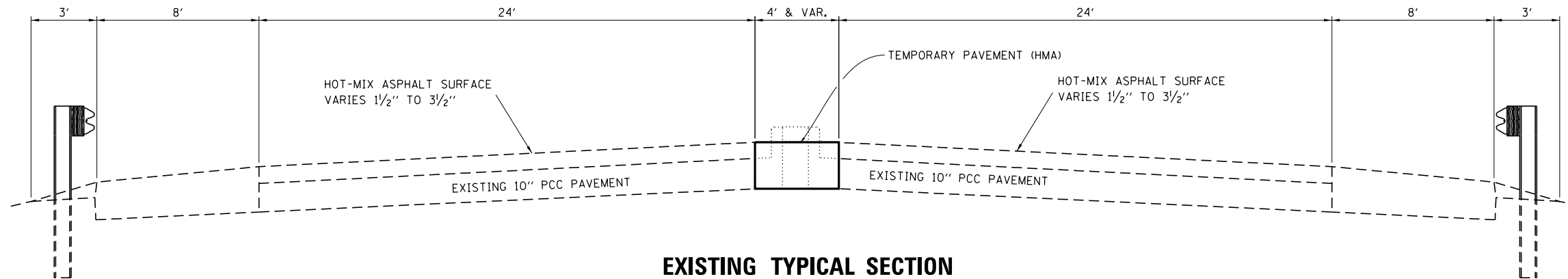
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\\IL084EBID\INTEG\illinois.gov\PI\DOT\Documents\1007 Offices\District 3\Projects\0364\DRAWING\PRELIMINARY PLANS	CHECKED - EP	REVISED -	840			(46-4HBK)IR	KANKAKEE	36	6	
PLOT SCALE = 1/8" = 1' / in.	DATE - 7/12/2016	REVISED -	CONTRACT NO. 66E83							
PLOT DATE = 11/5/2016			ILLINOIS FED. AID PROJECT							
Default			SCALE: _____	SHEET 4 OF 4 SHEETS	STA. _____ TO STA. _____					

46A 79 104



EXISTING TYPICAL SECTION

127+32.21 - 130+09.74
133+14.74 - 136+31.66



**EXISTING TYPICAL SECTION
FOR STAGE CONSTRUCTION**

127+32.21 - 130+09.74
133+14.74 - 136+31.66

HMA MIXTURE REQUIREMENT TABLE				
LOCATION(S):	STA. 127+32.21 - 130+09.74 MEDIAN STA. 133+14.74 - 136+31.66 MEDIAN		STA. 130+10 - STA. 130+20 LT & RT SHOULDER STA. 132+95 - STA. 133+15 LT & RT SHOULDER	
MIXTURE USE(S):	TEMPORARY PAVEMENT FOR STAGING - LOWER LIFTS - BINDER	TEMPORARY PAVEMENT FOR STAGING - TOP LIFT - SURFACE	SHOULDER BOTTOM LIFT(S) BINDER	SHOULDER TOP LIFT SURFACE
BINDER GRADE (PG):	PG64-22	PG64-22	PG64-22	PG64-22
DESIGN AIR VOIDS:	4.0% @N90	4.0% @N90	4.0% @N50	4.0% @N50
MIXTURE COMPOSITION: (MIXTURE GRADATION)	IL 19.0	IL 9.5	IL 19.0	IL 9.5
FRICTION AGGREGATE:		MIXTURE C		MIXTURE C
MIXTURE WEIGHT:	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN
QUALITY MANAGEMENT PROGRAM:	QC/OA	QC/OA	QC/OA	QC/OA
SUBLOT SIZE:	N/A	N/A	N/A	N/A
DENSITY TEST METHOD:	CORES	CORES	CORES	CORES

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED - _____
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Default	PLOT SCALE = 100.0000' / in.	DATE - 7/12/2016	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	7
CONTRACT NO. 66E83				
ILLINOIS FED. AID PROJECT				

SCHEDULE - TEMPORARY PAVEMENT MARKING

LOCATION	TEMPORARY PAVEMENT MARKING L&S	TEMPORARY PAVEMENT MARKING LINE 4"		TEMPORARY PAVEMENT MARKING LINE 6"	TEMPORARY PAVEMENT MARKING LINE 8"	TEMPORARY PAVEMENT MARKING LINE 24"	PAVEMENT MARKING REMOVAL WATER BLASTING										
	SO FT	FOOT		FOOT	FOOT	FOOT	SO FT										
	(WHITE)	(YELLOW)	(WHITE)	(WHITE)	(WHITE)	(WHITE)	(EXISTING)					(TEMPORARY)					
STA. - STA.							(L&S)	4"	6"	8"	12"	(L&S)	4"	6"	8"	24"	
STAGE I																	
122+32.21 - 127+32.21	LT																
122+32.21 - 127+32.21	RT		370.0											60.0			
127+32.21 - 130+09.74	LT		411.0	214.0			52.0							30.0			
127+32.21 - 130+09.74	RT		60.0	308.0				121.8						30.0			
130+09.74 - 133+14.74	LT		610.0	610.0			26.0	201.3						40.0			
130+09.74 - 133+14.74	RT						37.5	201.3						40.0			
133+14.74 - 136+31.66	LT		636.0	242.0		48.0								35.0	55.0	12.0	
133+14.74 - 136+31.66	RT		109.0	205.0										37.5	196.5	35.0	
136+31.66 - 145+00.00	LT		754.0											11.5	165.3	55.0	
136+31.66 - 145+00.00	RT																
STAGE I SUBTOTALS			2950.0	1579.0		48.0	164.5	886.2	325.0	55.0	12.0						
STAGE II																	
122+32.21 - 127+32.21	LT																
122+32.21 - 127+32.21	RT																122.1
127+32.21 - 130+09.74	LT	27.1		158.0	72.0		23.0										206.3
127+32.21 - 130+09.74	RT		440.0	202.0													121.4
130+09.74 - 133+14.74	LT				110.0		11.5										402.6
130+09.74 - 133+14.74	RT		610.0	610.0													
133+14.74 - 136+31.66	LT			175.0		170.0											289.7
133+14.74 - 136+31.66	RT		542.0	363.0	60.0												103.6
136+31.66 - 145+00.00	LT	81.3															248.8
136+31.66 - 145+00.00	RT																
STAGE II SUBTOTALS		108.4	1592.0	1508.0	242.0	170.0	34.5										1494.5
STAGE III																	
122+32.21 - 127+32.21	LT																
122+32.21 - 127+32.21	RT																
127+32.21 - 130+09.74	LT																27.1
127+32.21 - 130+09.74	RT																52.1
130+09.74 - 133+14.74	LT																36.0
130+09.74 - 133+14.74	RT																211.9
133+14.74 - 136+31.66	LT																55.0
133+14.74 - 136+31.66	RT																5.0
136+31.66 - 145+00.00	LT																402.6
136+31.66 - 145+00.00	RT																17.0
STAGE III SUBTOTALS																	81.3
TOTALS		108.4	7629.0	242.0	218.0	22.0											108.4
																	4392

SCHEDULE - PERMANENT PAVEMENT MARKING

LOCATION	MODIFIED URETHANE PAVEMENT MARKING L&S		MODIFIED URETHANE PAVEMENT MARKING LINE 4"		MODIFIED URETHANE PAVEMENT MARKING LINE 6"	MODIFIED URETHANE PAVEMENT MARKING LINE 8"	MODIFIED URETHANE PAVEMENT MARKING LINE 12"	
	SQ FT		FOOT		FOOT	FOOT	FOOT	
	(WHITE)		(YELLOW)	(WHITE)	(WHITE)	(WHITE)	(WHITE)	
STA. TO STA.	THROUGH ARROW	TWO ARROW COMBINATION						
122+32.21 - 127+32.21	LT							
122+32.21 - 127+32.21	RT				120			
127+32.21 - 130+09.74	LT	23	52	246	219	60		
127+32.21 - 130+09.74	RT			252	120	60		
130+09.74 - 133+14.74	LT	11.5	26	305	305	80		
130+09.74 - 133+14.74	RT	11.5	26	305	305	80		
133+14.74 - 136+31.66	LT			302	243	70	52	
133+14.74 - 136+31.66	RT			290	309	70	15	
136+31.66 - 145+00.00	LT	11.5	26			110		
136+31.66 - 145+00.00	RT							
SUBTOTALS		58	130	1700	1501			
STAGE I TOTALS		188		3201		650	52	15

SCHEDULE - MEDIAN

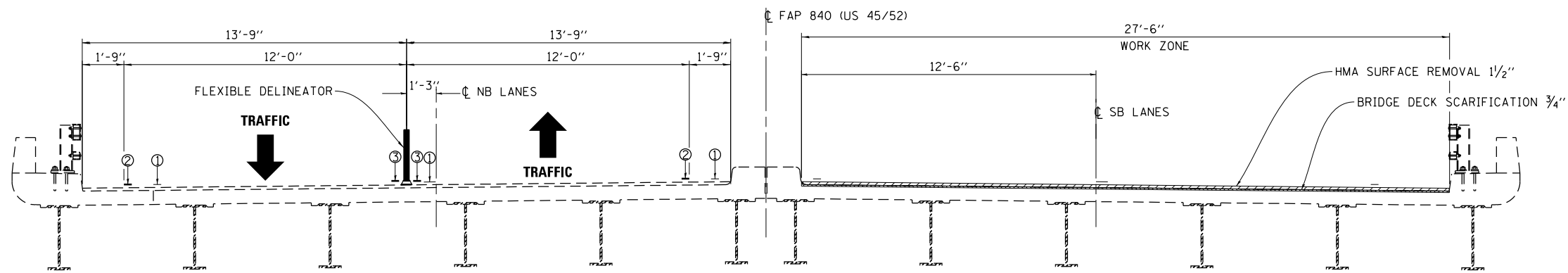
LOCATION	EARTH EXCAVATION	COMBINATION CURB AND GUTTER REMOVAL	CONCRETE MEDIAN SURFACE REMOVAL	TEMPORARY PAVEMENT	TEMPORARY PAVEMENT REMOVAL	AGGREGATE BASE CSE. TYPE B 4"	AGGREGATE BASE CSE. TYPE B	COMBINATION CONCRETE CURB AND GUTTER TYPE B, MODIFIED	CONCRETE MEDIAN SURFACE, 4 INCH
STA. - STA.	CU YD	FOOT	SQ FT	SQ YD	SQ YD	SQ YD	TON	FOOT	SQ FT
127+32.21 - 130+09.74	73.2	488	1149	182	182	182	423	488	1149
133+14.74 - 136+31.66	90.1	581	1419	223	223	223	516	581	1419
TOTALS	163.3	1069	2568	405	405	405	939	1069	2568

SCHEDULE - SHOULDER

LOCATION	PAVED SHOULDER REMOVAL	HMA SHOULDER 8"
	SQ YD	SQ YD
130+10 - 130+30 LT.	10	10
130+10 - 130+30 RT.	10	10
132+95 - 133+15 LT.	10	10
132+95 - 133+15 RT.	10	10
TOTAL	40	40

SCHEDULE - GUARDRAIL

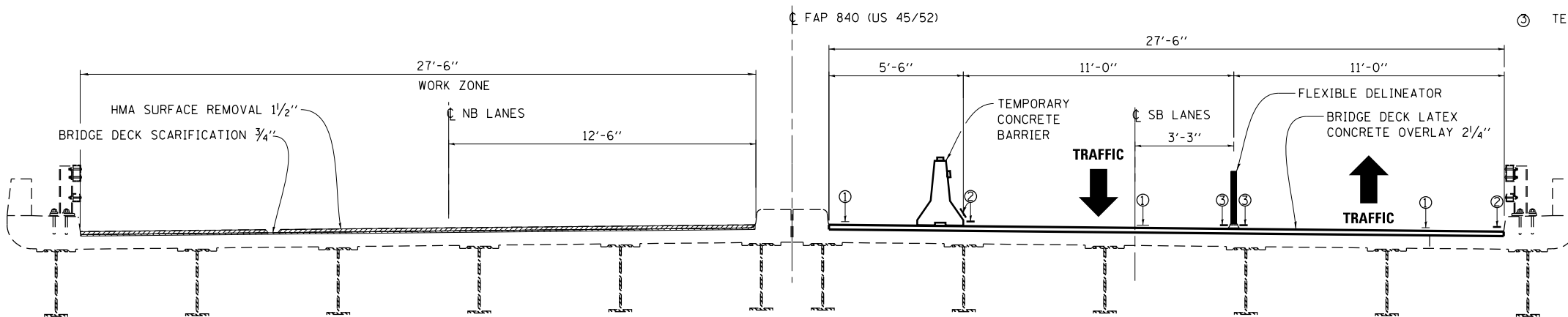
LOCATION	REMOVE AND RE-ERECT RAIL ELEMENT OF EXISTING GUARDRAIL
	FOOT
STA. 130+49.74 LT.	25
STA. 130+49.75 RT.	25
STA. 132+74.74 LT.	25
STA. 132+74.75 RT.	25
TOTALS	100



CROSS SECTION

STAGE I

LOOKING SOUTH



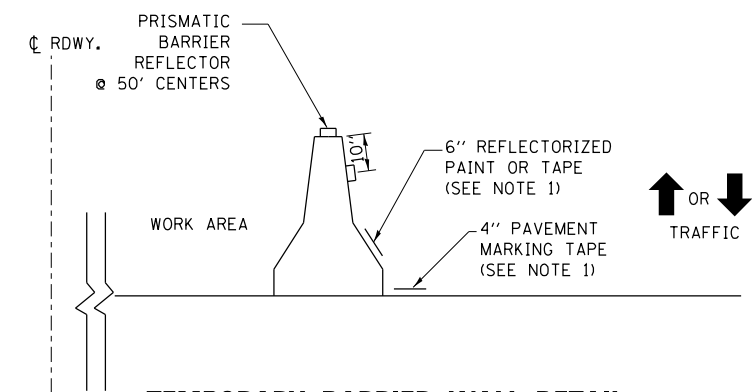
CROSS SECTION

STAGE II

LOOKING SOUTH

LEGEND

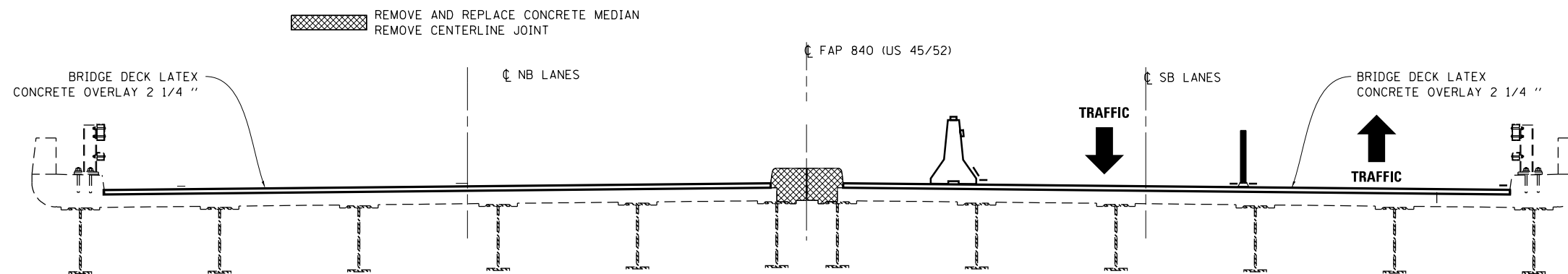
- ① PAVEMENT MARKING REMOVAL
- ② TEMPORARY PAVEMENT MARKING, LINE 4" (WHITE)
- ③ TEMPORARY PAVEMENT MARKING, LINE 4" (YELLOW)



TEMPORARY BARRIER WALL DETAIL

NOTES:

1. THE CONTRACTOR HAS THE OPTION OF USING EITHER THE LINE ON THE TEMPORARY CONCRETE BARRIER OR ON THE PAVEMENT.
2. THE COLOR OF THE REFLECTORS AND PAVEMENT/BARRIER MARKING LINE WILL VARY WITH STAGING AND SHALL MATCH THE EXISTING LINE IN THE WORK AREA.
3. THE COST OF THE REFLECTORS AND THE BARRIER MARKING LINE IS INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.



CROSS SECTION

STAGE III

LOOKING SOUTH

NOTE:
ALL WORK ASSOCIATED FOR STAGE III REMOVAL AND RECONSTRUCTION SHALL BE COMPLETED UNDER THE TRAFFIC CONTROL AND PROTECTION DETAILS SHOWN FOR STAGE II CONSTRUCTION.

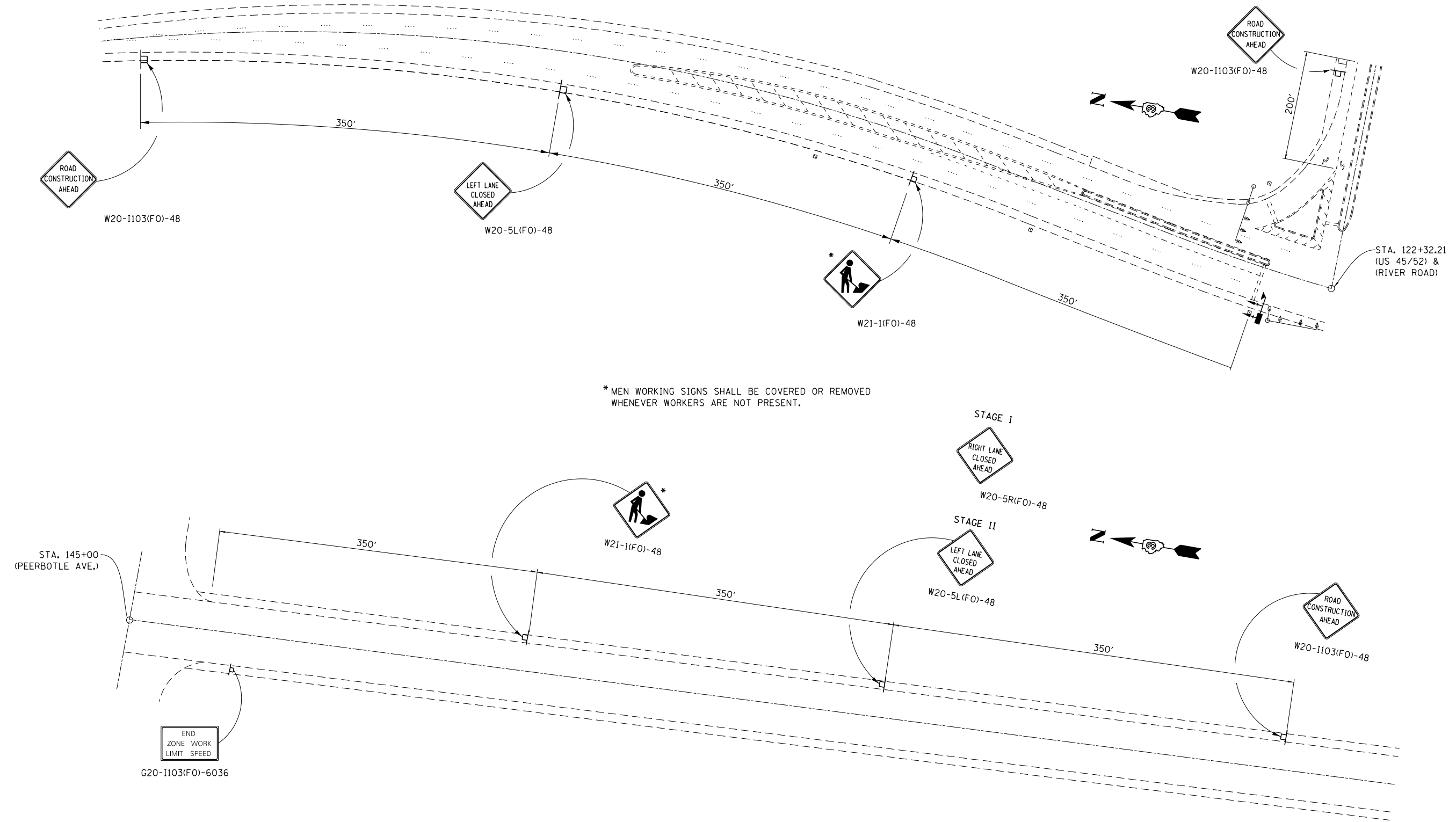
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGING DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	10
			CONTRACT NO. 66E83	
ILLINOIS FED. AID PROJECT				



* MEN WORKING SIGNS SHALL BE COVERED OR REMOVED WHENEVER WORKERS ARE NOT PRESENT.

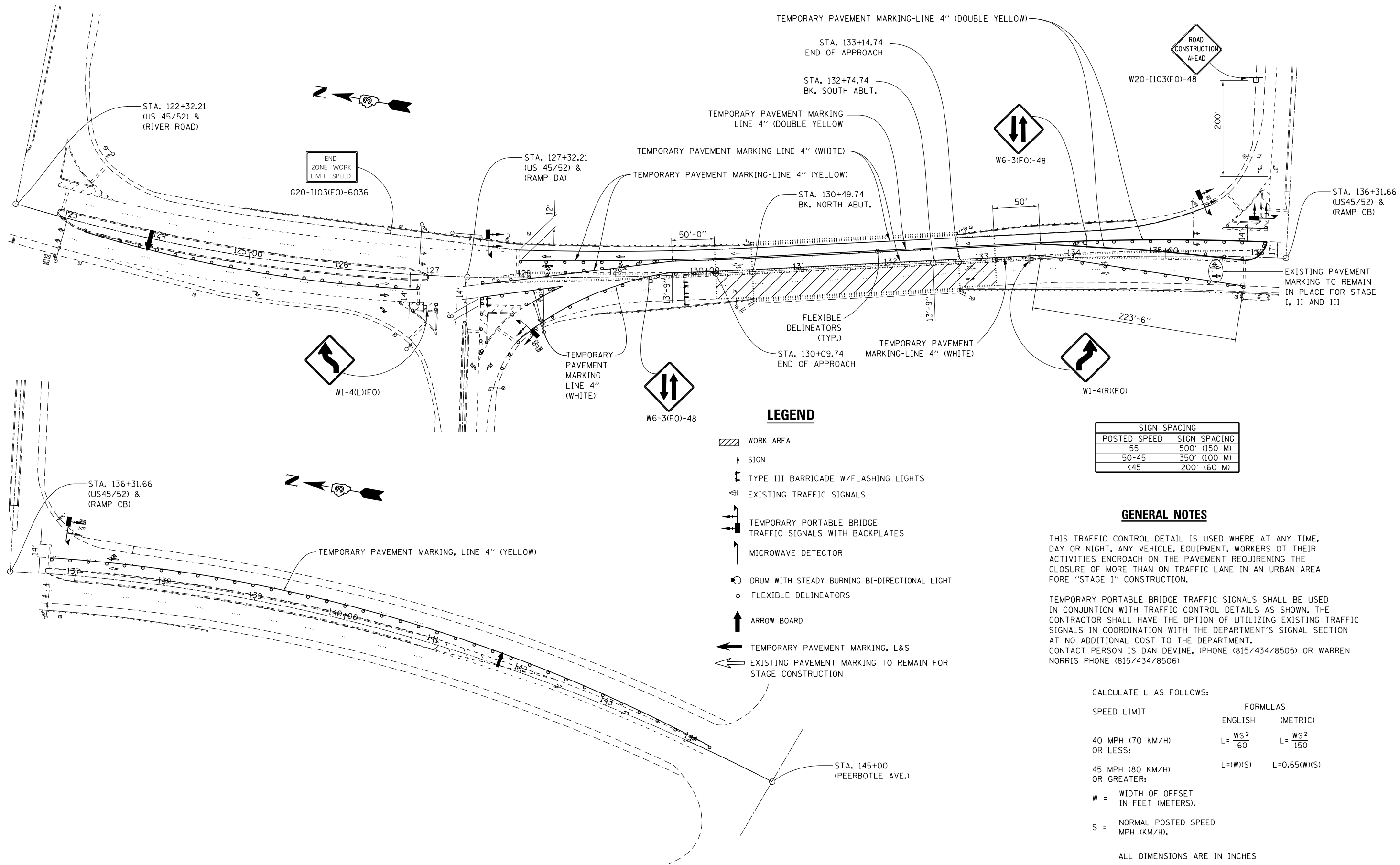
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Default	PLOT SCALE = 100.0000' / in.	DATE - 7/12/2016	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION
STANDARD 701431 – STAGE I, II AND III**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	11
ILLINOIS FED. AID PROJECT			CONTRACT NO. 66E83	



LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE W/FLASHING LIGHTS
- EXISTING TRAFFIC SIGNALS
- TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS WITH BACKPLATES
- MICROWAVE DETECTOR
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- FLEXIBLE DELINEATORS
- ARROW BOARD
- TEMPORARY PAVEMENT MARKING, L&S
- EXISTING PAVEMENT MARKING TO REMAIN FOR STAGE CONSTRUCTION

SIGN SPACING	
POSTED SPEED	SIGN SPACING
55	500' (150 M)
50-45	350' (100 M)
<45	200' (60 M)

GENERAL NOTES

THIS TRAFFIC CONTROL DETAIL IS USED WHERE AT ANY TIME, DAY OR NIGHT, ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCOACH ON THE PAVEMENT REQUIRING THE CLOSURE OF MORE THAN ONE TRAFFIC LANE IN AN URBAN AREA FOR "STAGE I" CONSTRUCTION.

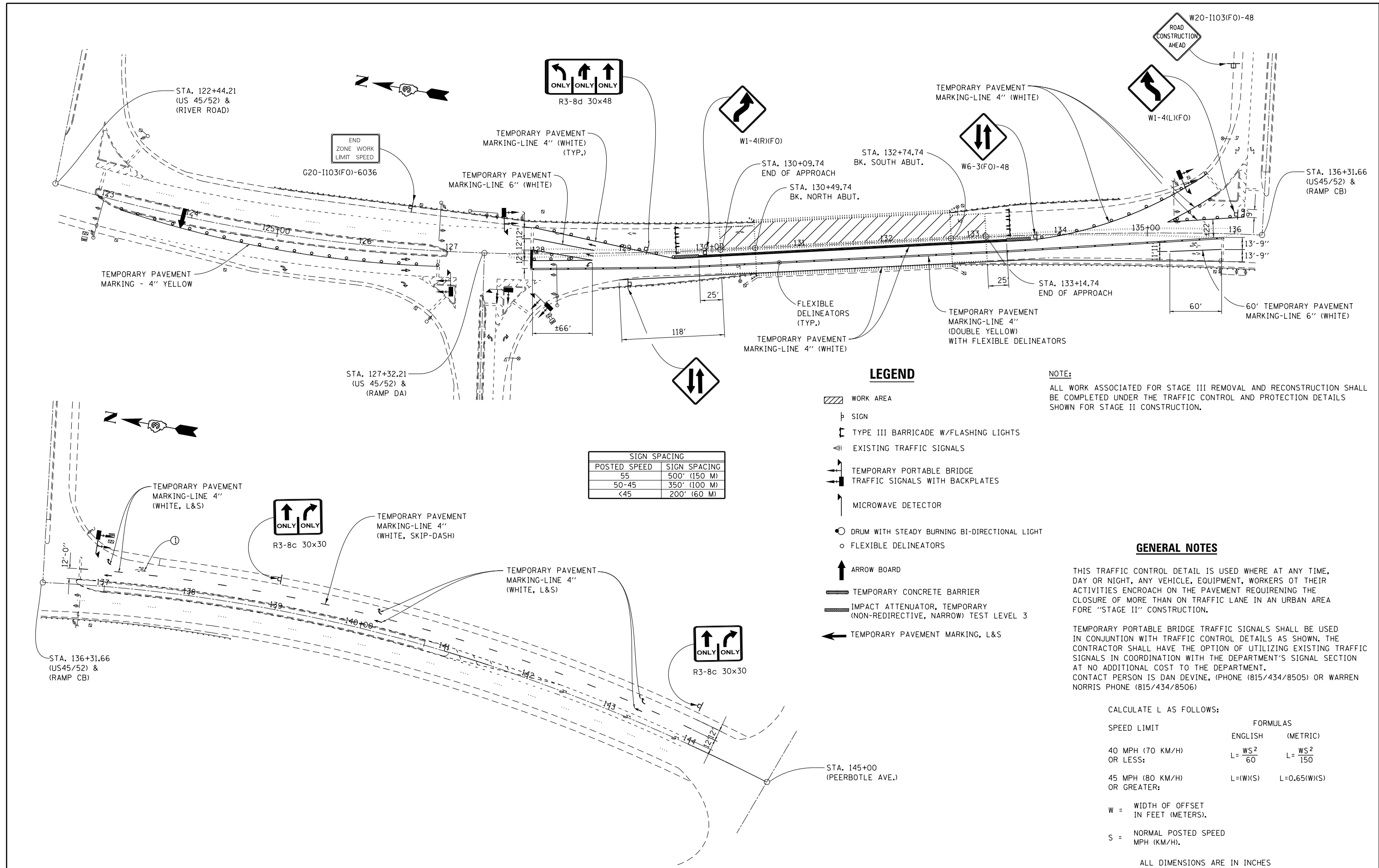
TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL DETAILS AS SHOWN. THE CONTRACTOR SHALL HAVE THE OPTION OF UTILIZING EXISTING TRAFFIC SIGNALS IN COORDINATION WITH THE DEPARTMENT'S SIGNAL SECTION AT NO ADDITIONAL COST TO THE DEPARTMENT. CONTACT PERSON IS DAN DEVINE, (PHONE (815/434/8505) OR WARREN NORRIS PHONE (815/434/8506)

CALCULATE L AS FOLLOWS:

SPEED LIMIT	FORMULAS	
	ENGLISH	(METRIC)
40 MPH (70 KM/H) OR LESS:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 MPH (80 KM/H) OR GREATER:	$L = (W)(S)$	$L = 0.65(W)(S)$

W = WIDTH OF OFFSET IN FEET (METERS).
S = NORMAL POSTED SPEED MPH (KM/H).

ALL DIMENSIONS ARE IN INCHES



SIGN SPACING	
POSTED SPEED	SIGN SPACING
55	500' (150 M)
50-45	350' (100 M)
<45	200' (60 M)

LEGEND

- WORK AREA
- SIGN
- TYPE III BARRICADE W/FLASHING LIGHTS
- EXISTING TRAFFIC SIGNALS
- TEMPORARY PORTABLE BRIDGE
- TRAFFIC SIGNALS WITH BACKPLATES
- MICROWAVE DETECTOR
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- FLEXIBLE DELINEATORS
- ARROW BOARD
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, NARROW) TEST LEVEL 3
- TEMPORARY PAVEMENT MARKING, L&S

NOTE:

ALL WORK ASSOCIATED FOR STAGE III REMOVAL AND RECONSTRUCTION SHALL BE COMPLETED UNDER THE TRAFFIC CONTROL AND PROTECTION DETAILS SHOWN FOR STAGE II CONSTRUCTION.

GENERAL NOTES

THIS TRAFFIC CONTROL DETAIL IS USED WHERE AT ANY TIME, DAY OR NIGHT, ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRUCH ON THE PAVEMENT REQUIRING THE CLOSURE OF MORE THAN ON TRAFFIC LANE IN AN URBAN AREA FOR "STAGE II" CONSTRUCTION.

TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL DETAILS AS SHOWN. THE CONTRACTOR SHALL HAVE THE OPTION OF UTILIZING EXISTING TRAFFIC SIGNALS IN COORDINATION WITH THE DEPARTMENT'S SIGNAL SECTION AT NO ADDITIONAL COST TO THE DEPARTMENT. CONTACT PERSON IS DAN DEVINE, (PHONE (815/434/8505) OR WARREN NORRIS PHONE (815/434/8506)

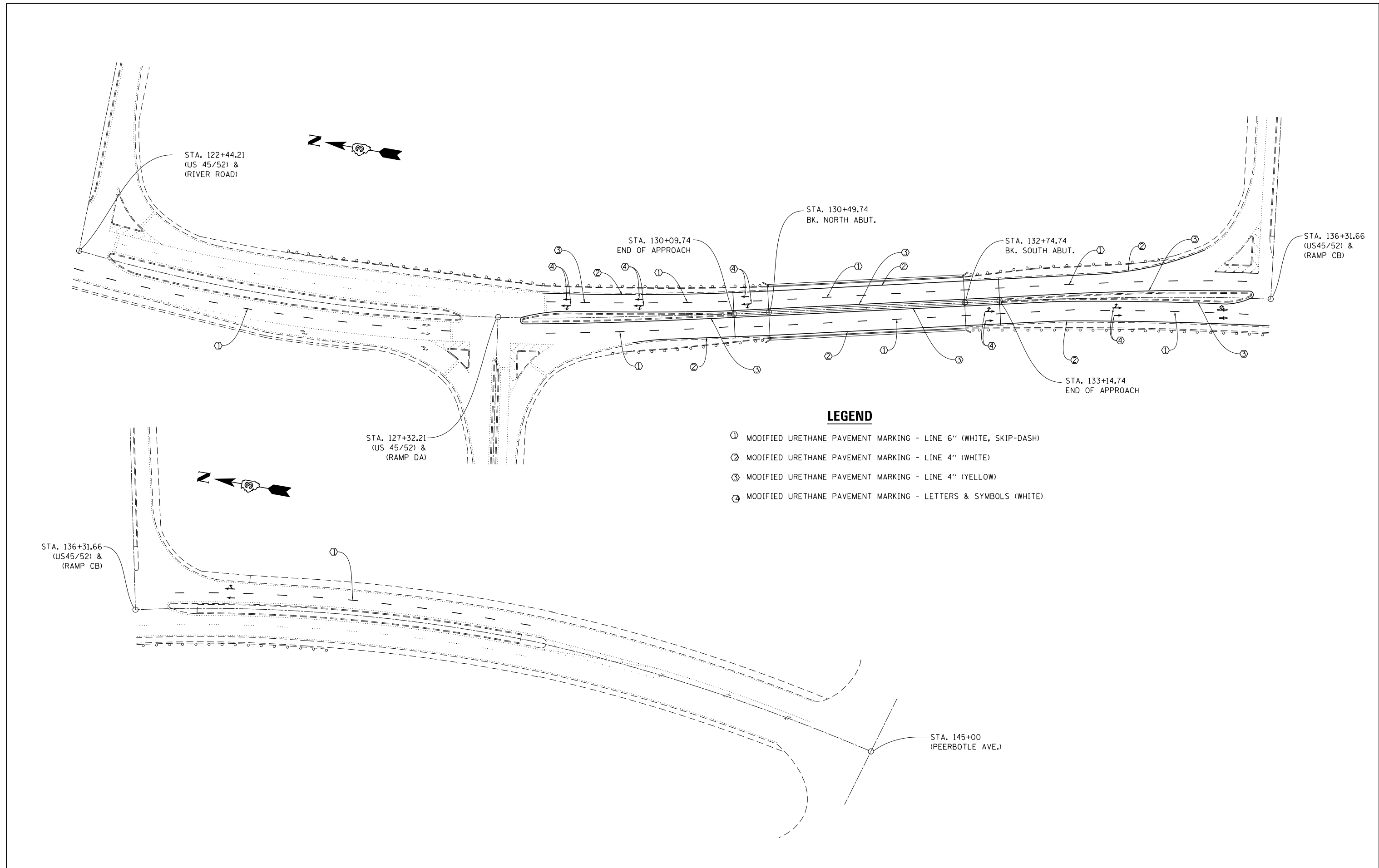
CALCULATE L AS FOLLOWS:

SPEED LIMIT	FORMULAS	
	ENGLISH	(METRIC)
40 MPH (70 KM/H) OR LESS:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 MPH (80 KM/H) OR GREATER:	$L = (W)(S)$	$L = 0.65(W)(S)$

W = WIDTH OF OFFSET IN FEET (METERS).

S = NORMAL POSTED SPEED MPH (KM/H).

ALL DIMENSIONS ARE IN INCHES



LEGEND

- ① MODIFIED URETHANE PAVEMENT MARKING - LINE 6" (WHITE, SKIP-DASH)
- ② MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (WHITE)
- ③ MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (YELLOW)
- ④ MODIFIED URETHANE PAVEMENT MARKING - LETTERS & SYMBOLS (WHITE)

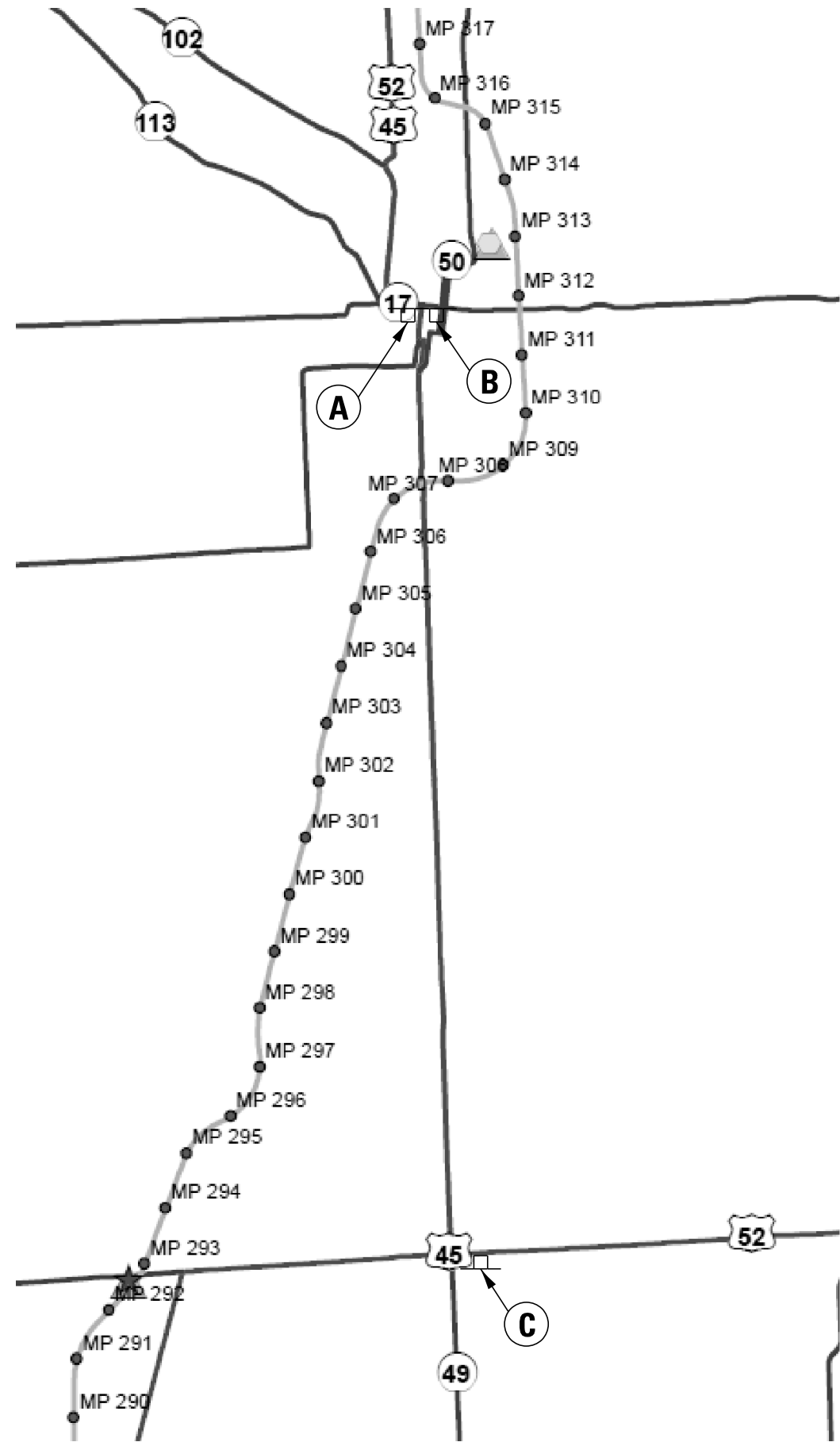
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Default	PLOT SCALE = 100.0000' / 1in.	DATE - 7/12/2016	REVISED - _____
	PLOT DATE = 11/5/2016		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	14
			CONTRACT NO. 66E83	
ILLINOIS FED. AID PROJECT				



STAGE I

MAX WIDTH
12'-3"
3.15 MILES
AHEAD

W12-I103-4848

A

US 45/52 SOUTHBOUND AT
 INTERSECTION WITH IL 17

MAX WIDTH
12'-3"
3.20 MILES
AHEAD

W12-I103-4848

B

IL 50 SOUTHBOUND AT
 INTERSECTION WITH IL 17

MAX WIDTH
12'-3"
13.1 MILES
AHEAD

W12-I103-4848

C

US 45/52 NORTHBOUND AT
 INTERSECTION WITH IL 49

STAGE II

MAX WIDTH
9'-6"
3.15 MILES
AHEAD

W12-I103-4848

A

US 45/52 SOUTHBOUND AT
 INTERSECTION WITH IL 17

MAX WIDTH
9'-6"
3.20 MILES
AHEAD

W12-I103-4848

B

IL 50 SOUTHBOUND AT
 INTERSECTION WITH IL 17

MAX WIDTH
9'-6"
13.1 MILES
AHEAD

W12-I103-4848

C

US 45/52 NORTHBOUND AT
 INTERSECTION WITH IL 49

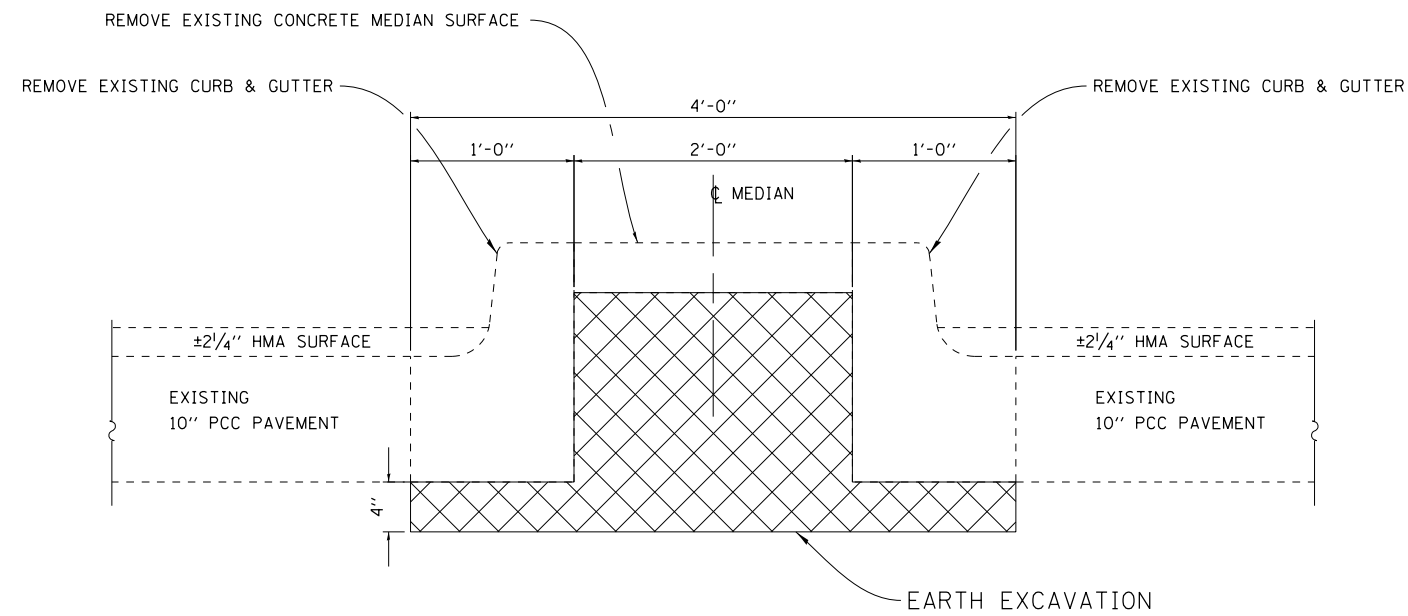
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

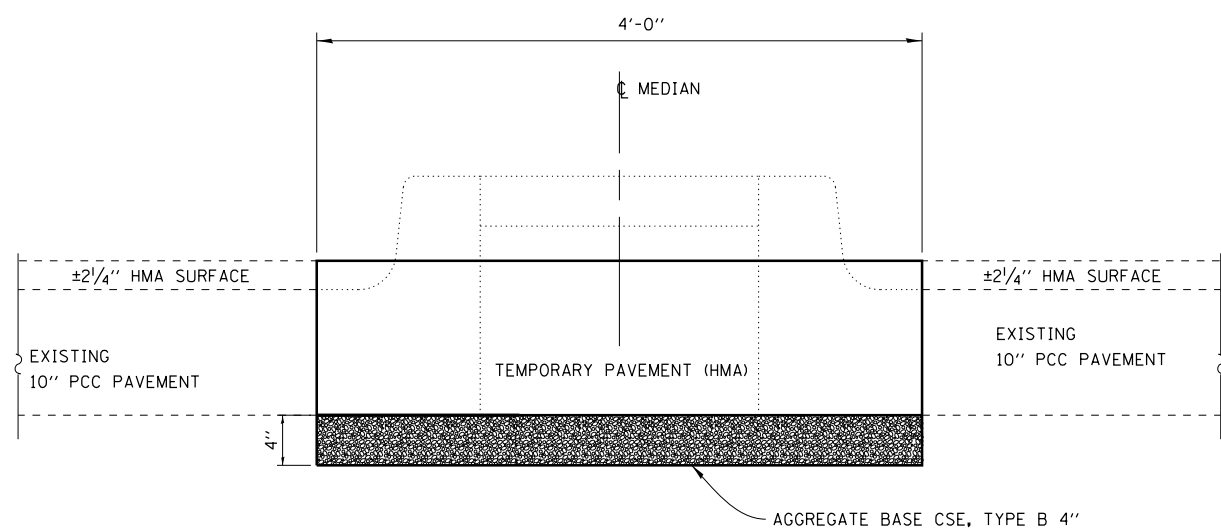
WIDTH RESTRICTION SIGNING

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

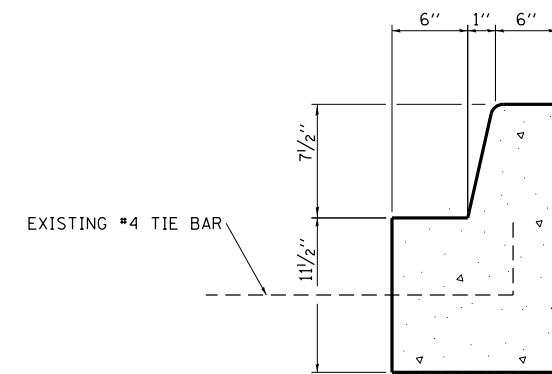
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	15
			CONTRACT NO. 66E83	
ILLINOIS FED. AID PROJECT				



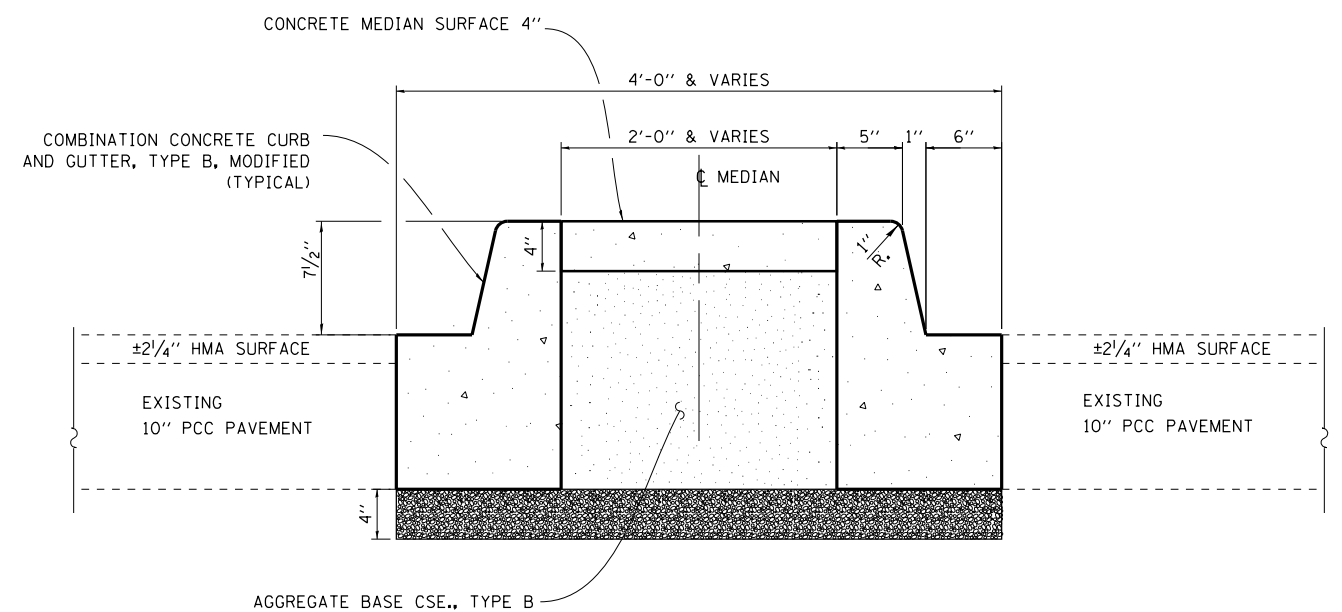
ROADWAY MEDIAN REMOVAL



ROADWAY MEDIAN TEMPORARY PAVEMENT



COMBINATION CONCRETE CURB AND GUTTER, TYPE B, MODIFIED



ROADWAY MEDIAN RECONSTRUCTION

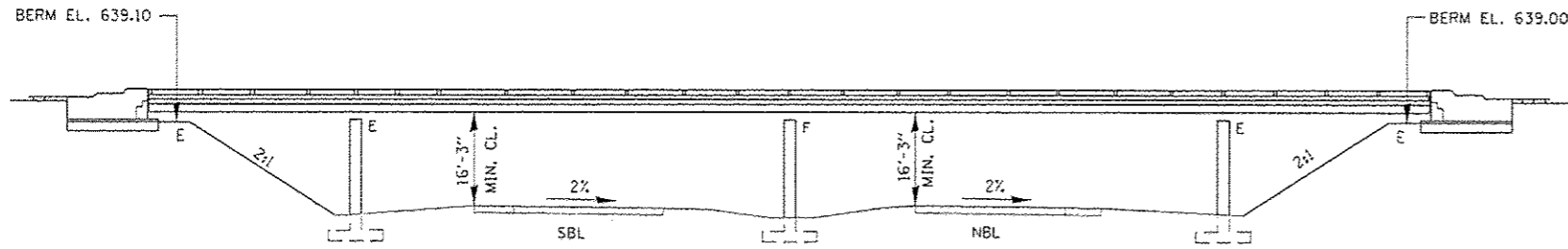
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MEDIAN DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	16
CONTRACT NO. 66E83			ILLINOIS FED. AID PROJECT	



ELEVATION

GENERAL NOTES

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.

PRIOR TO POURING THE NEW LAYTEX CONCRETE OVERLAY, 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.

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

JOINT PLATES AND ATTACHED BARS SHALL BE SHOP PAINTED WITH THE INORGANIC ZINC RICH PRIMER PER AASHTO M300, TYPE, 1. NO FIELD PAINT REQUIRED.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE 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.

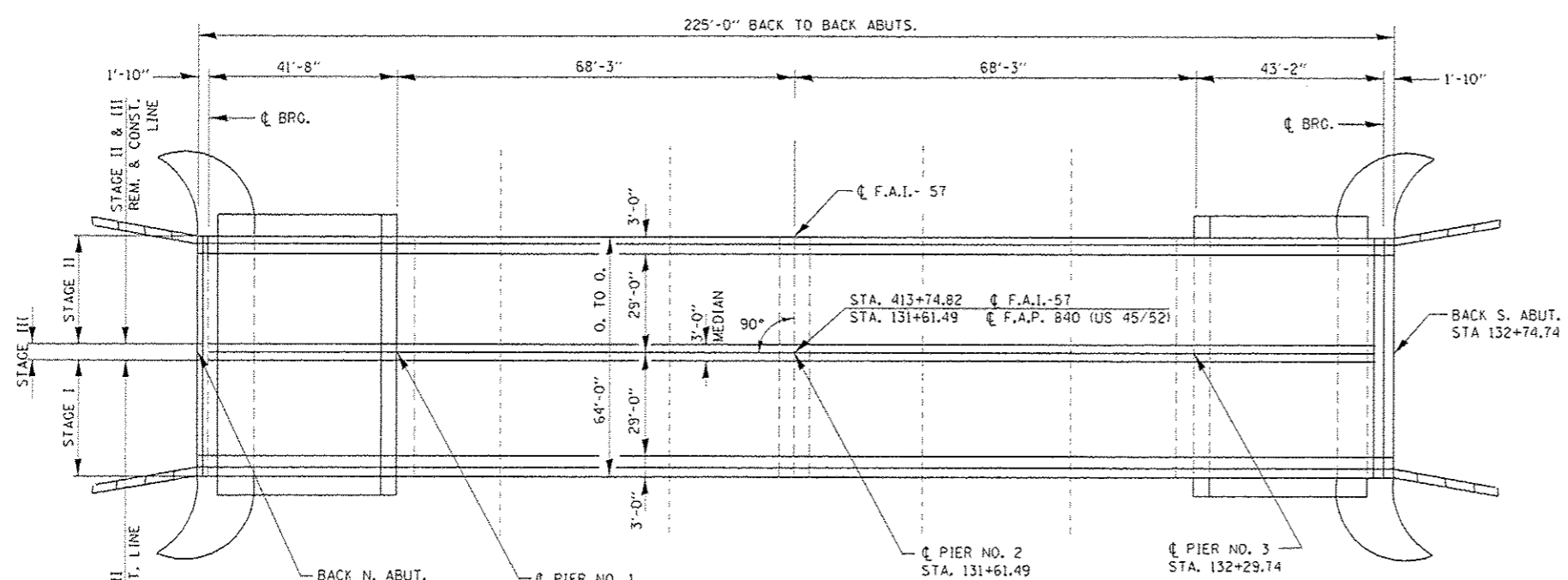
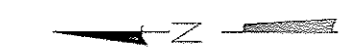
AREAS OF DECK REPAIRS SHOWN ARE ESTIMATED. THE ENGINEER SHALL SHOW ACTUAL LOCATIONS OF DECK REPAIRS ON AS-BUILT PLANS.

JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STD. SPECS. WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50° F.

SYNTHETIC FIBER SHALL BE ADDED TO THE BRIDGE DECK CONCRETE OVERLAY. SEE SPECIAL PROVISIONS.

PROTECTIVE COAT SHALL BE APPLIED TO NEWLY PLACED CONCRETE SURFACES WITH THE FOLLOWING EXCEPTION:

PROTECTIVE COAT SHALL NOT BE APPLIED TO THE NEW LATEX CONCRETE OVERLAY.



PLAN

STRUCTURE NO. 046-0052

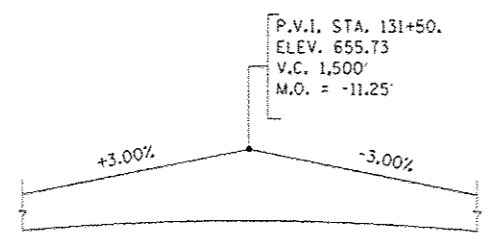
TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY
HOT-MIX ASPHALT SURFACE REMOVAL 1 1/2"	SQ YD	1795
CONCRETE REMOVAL	CU YD	70
PROTECTIVE SHIELD	SQ YD	465
CONCRETE SUPERSTRUCTURE	CU YD	71.5
BRIDGE DECK GROOVING	SQ YD	1644
PROTECTIVE COAT	SQ YD	274
REINFORCEMENT BARS, EPOXY COATED	POUND	12849
BAR SPLICERS	EACH	12
PREFORMED JOINT STRIP SEAL	FOOT	136
REMOVE AND REERECT EXISTING BRIDGE RAIL	FOOT	450
BAR SPLICERS, SPECIAL	EACH	4
BRIDGE DECK LATEX CONCRETE OVERLAY 2 1/4"	SQ YD	1770
BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1770
STRUCTURAL REPAIR FO CONCRETE (DEPTH EQUAL TO OR LAESS THAN 5")	SQ FT	372
DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	5
DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	78

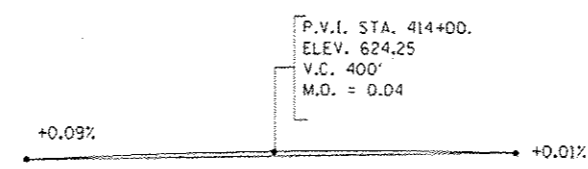
QUANTITIES OF DECK SLAB REPAIR (FULL DEPTH, TYPE I) HAS BEEN INCLUDED TO ESTABLISH A UNIT BID PRICE.



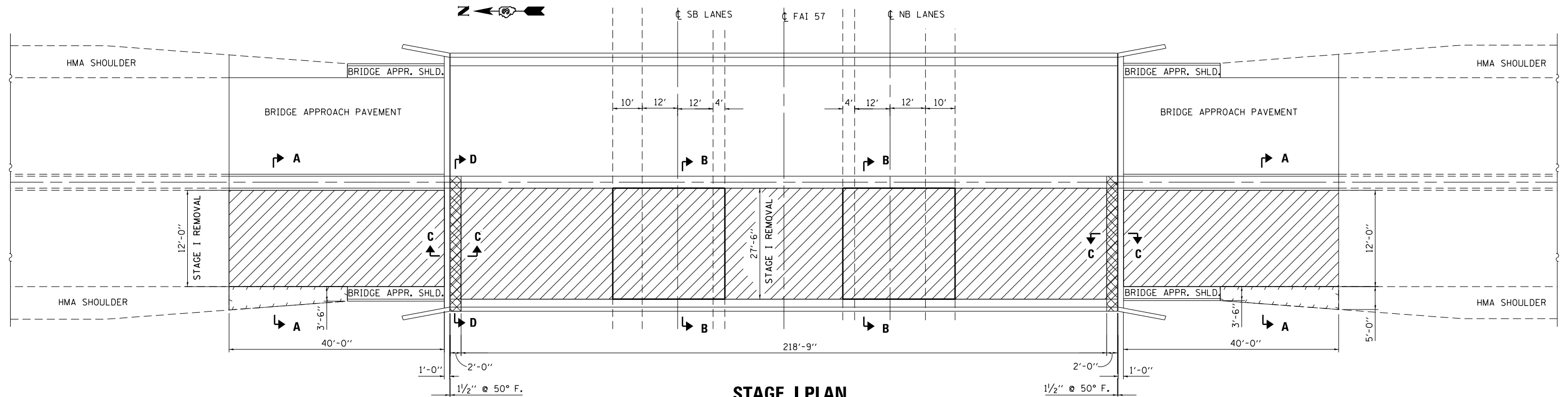
David Carl Puzey 12/4/16
Expires 11/30/18



CENTERLINE PROFILE GRADE US 45/52

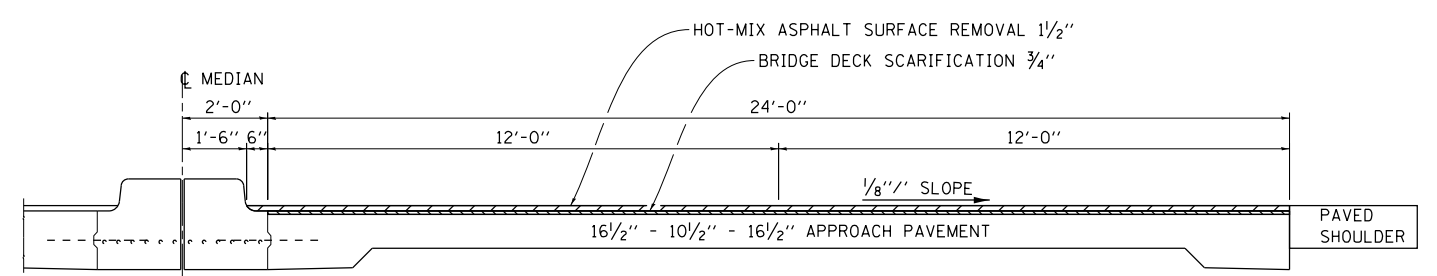


CENTERLINE PROFILE GRADE FAI-57

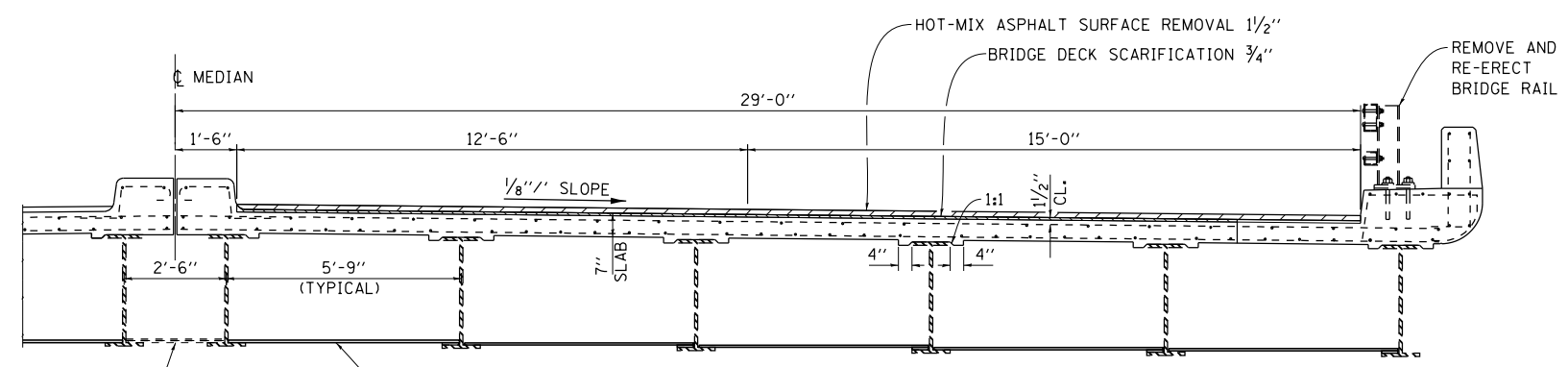


STAGE I PLAN
STRUCTURE NO. 046-0052

STAGE II REMOVAL IS A MIRROR IMAGE OF WHAT IS SHOWN



SECTION A-A



SECTION B-B

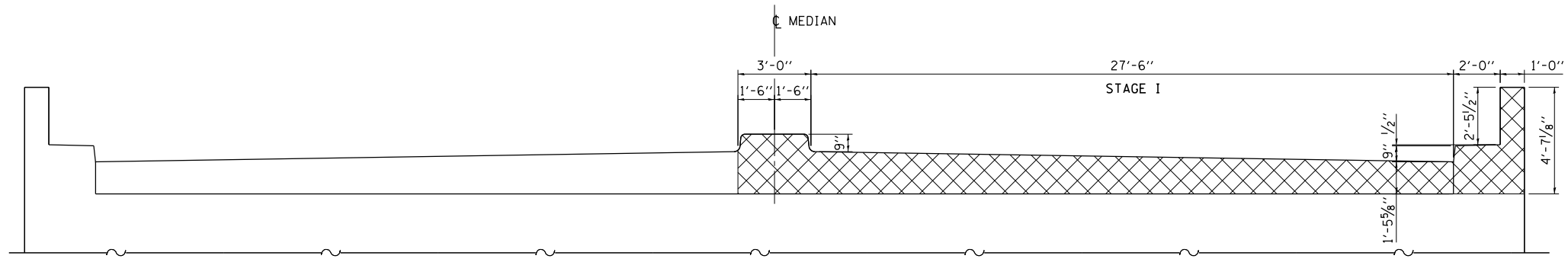
LEGEND

- HOT-MIX ASPHALT SURFACE REMOVAL $1/2''$ & BRIDGE DECK SCARIFICATION $3/4''$
- BRIDGE DECK SCARIFICATION $3/4''$
- CONCRETE REMOVAL
- LIMITS OF PROTECTIVE SHIELD
- HMA SHOULD REMOVAL AND REPLACEMENT

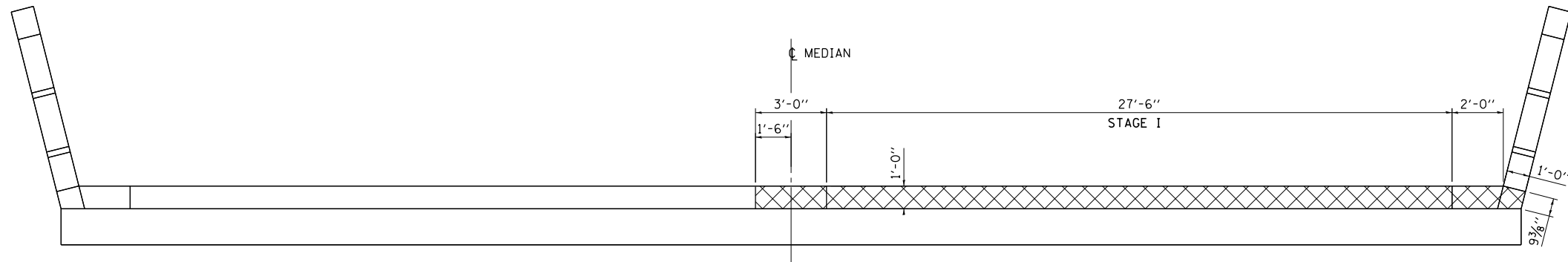
SEQUENCE OF OPERATIONS

1. REMOVE EXISTING HOT-MIX ASPHALT SURFACE FROM DECK AND APPROACH AREA.
2. SCARIFY EXISTING CONCRETE DECK AND APPROACH SURFACE TO THE DEPTH SPECIFIED.
3. REMOVE CONCRETE & EXPANSION JOINT ON SUPERSTRUCTURE, SUPERSTRUCTURE MEDIAN.
4. REMOVE AND REERECT EXISTING BRIDGE RAIL WHERE NECESSARY TO PROVIDE FORM WORK CLEARANCES FOR "STRUCTURAL REPAIR OF CONCRETE" WORK.

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURE REPAIR DETAILS FOR S.N. 046-0052 STAGE I REMOVAL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\11\084EBID\INTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 3\Projects\036\EBID\DATA\PRELIMINARY PLANS	DESIGNED - RW	REVISED -	840			(46-4BK)IR	KANKAKEE	36	18	
Default	PLOT SCALE = 100.0000' / in.	CHECKED - EP	REVISED -			CONTRACT NO. 66E83			ILLINOIS FED. AID PROJECT	
	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -			SCALE:	SHEET 2 OF 14 SHEETS	STA.	TO STA.	

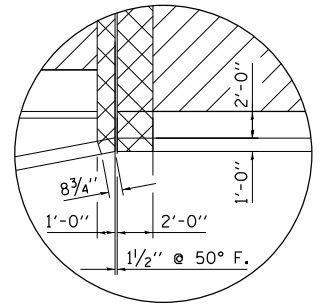


ABUTMENT ELEVATION



ABUTMENT PLAN

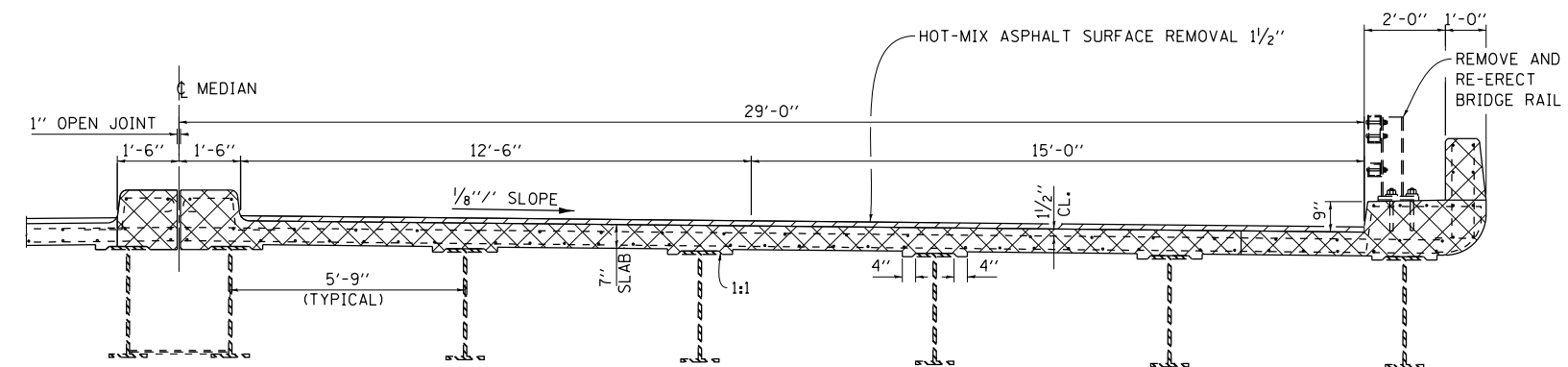
**NORTH ABUTMENT SHOWN,
SOUTH ABUTMENT SIMILAR**



**CORNER DETAIL
(TYPICAL)**

LEGEND

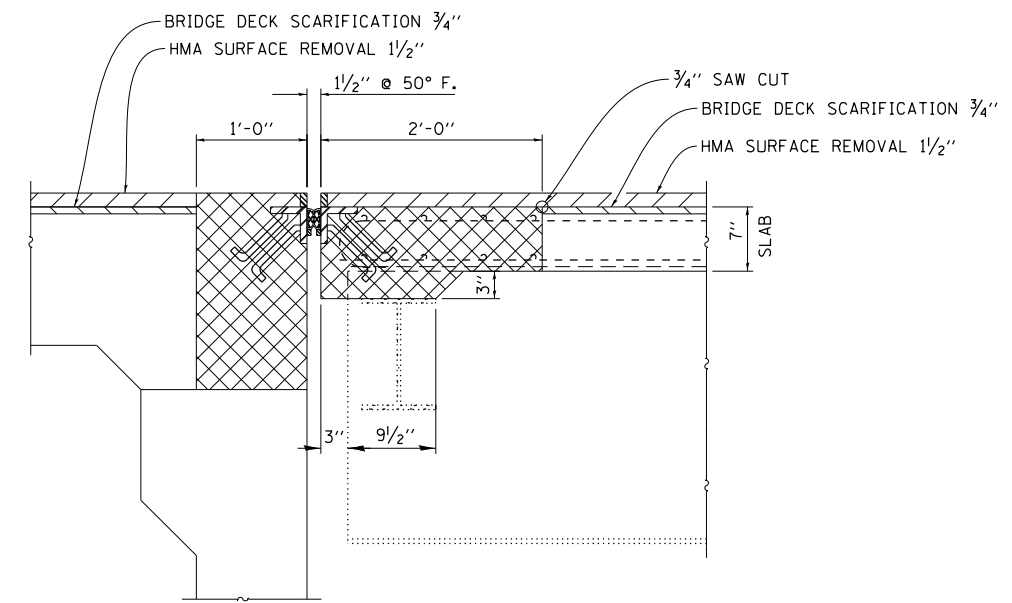
- HOT-MIX ASPHALT SURFACE REMOVAL 1 1/2"
- CONCRETE REMOVAL



SECTION D-D

**STAGE I SHOWN, STAGE II SIMILAR THRU 180°
ROTATION OF CENTERLINE OF ROADWAY.**

**NORTH ABUTMENT SHOWN,
SOUTH ABUTMENT SIMILAR**



SECTION C-C

SUPERSTRUCTURE

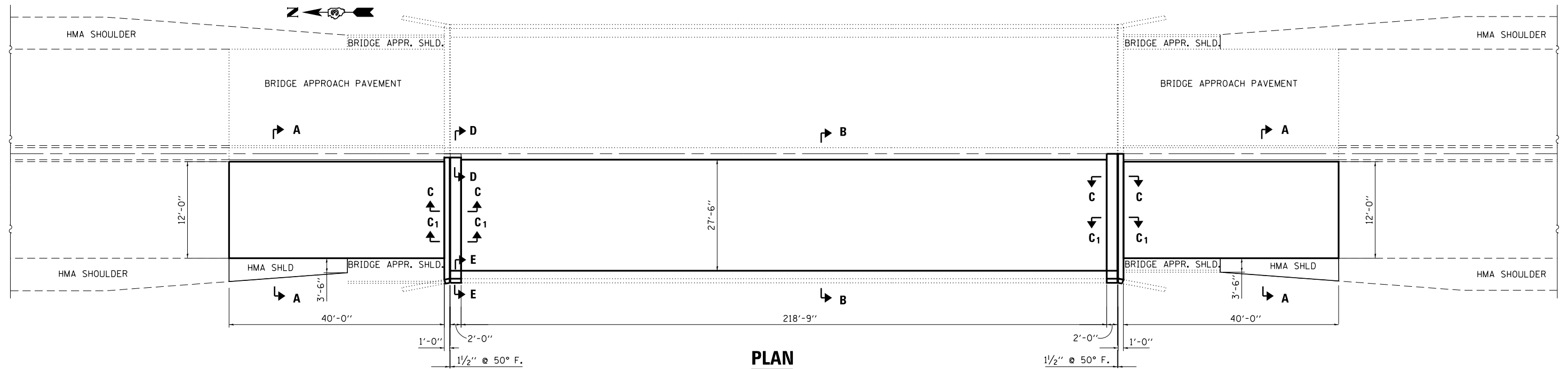
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
STAGE I REMOVAL**

SCALE: SHEET 3 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	19
CONTRACT NO. 66E83			ILLINOIS FED. AID PROJECT	

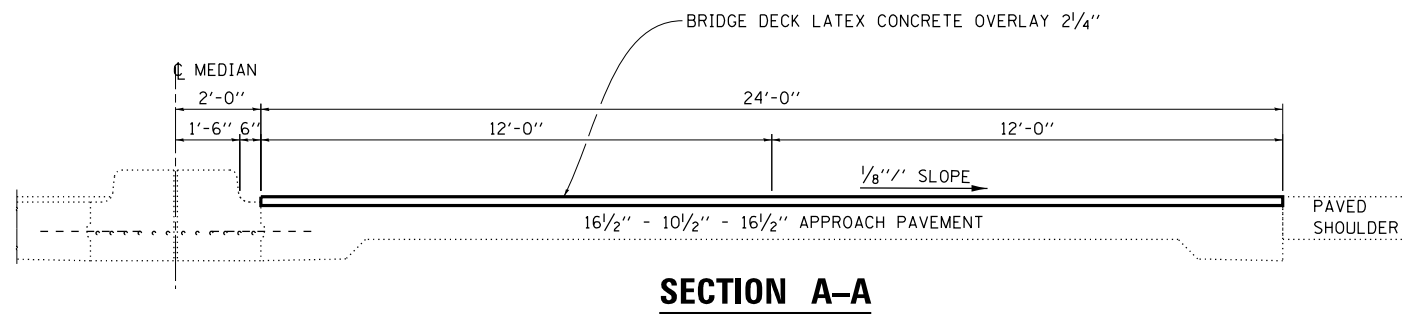


N. ABUT.

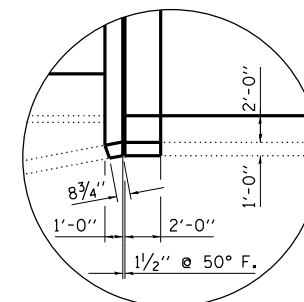
STRUCTURE NO. 046-0052

S. ABUT.

STAGE II CONSTRUCTION IS A MIRROR IMAGE OF WHAT IS SHOWN

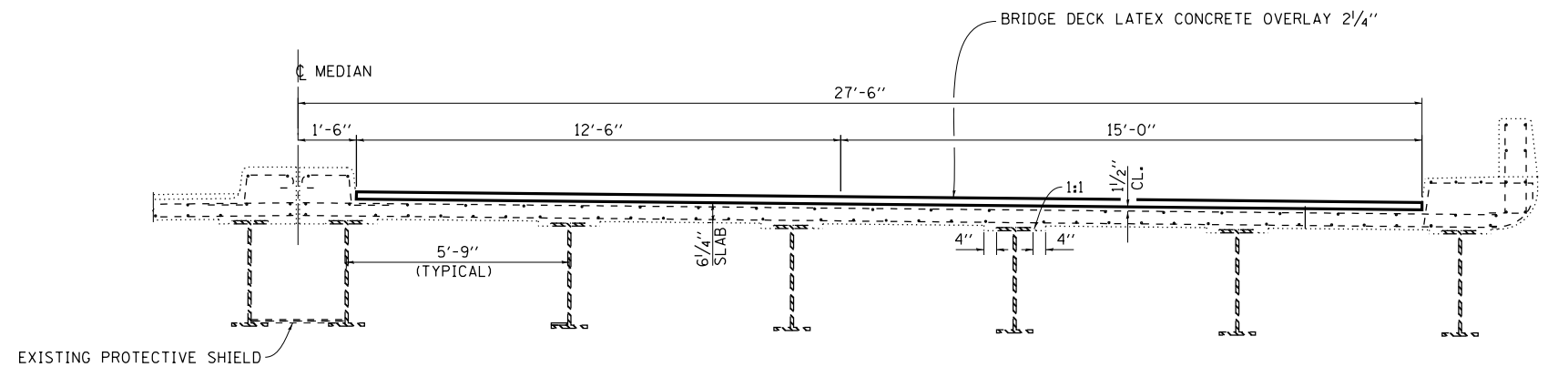


SECTION A-A



CORNER DETAIL
(TYPICAL)

NOTE:
SEE SHEET 28 OF 37 FOR SECTIONS
C-C, D-D AND E-E.



SECTION B-B

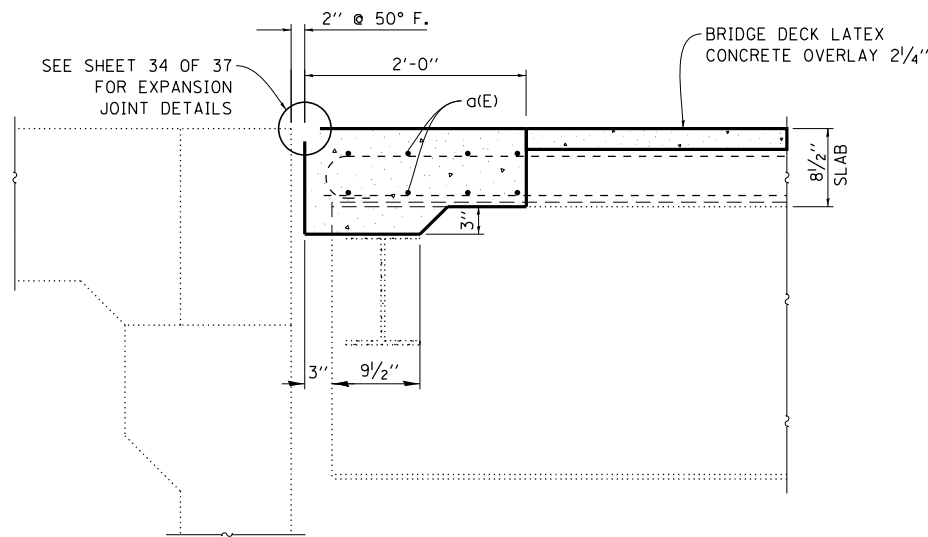
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
STAGE I CONSTRUCTION

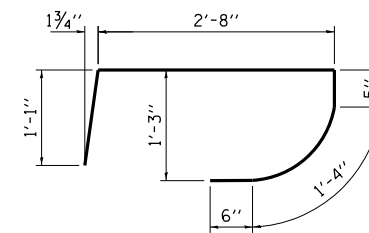
SCALE: SHEET 4 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	20
CONTRACT NO. 66E83				
ILLINOIS FED. AID PROJECT				

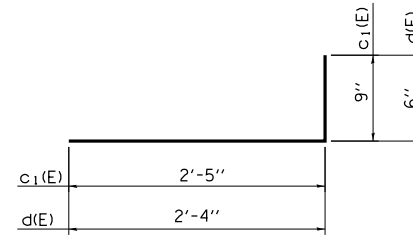


SECTION C-C

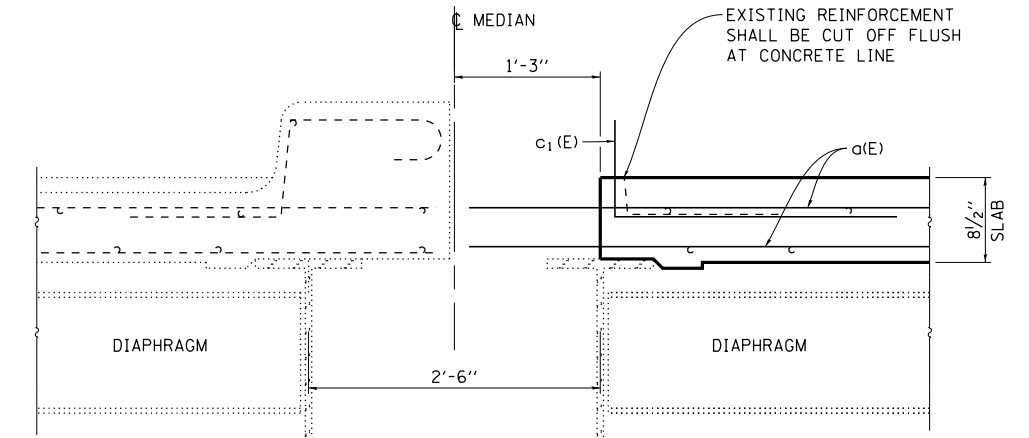
N. ABUT. SHOWN S. ABUT. MIRROR IMAGE



c(E)

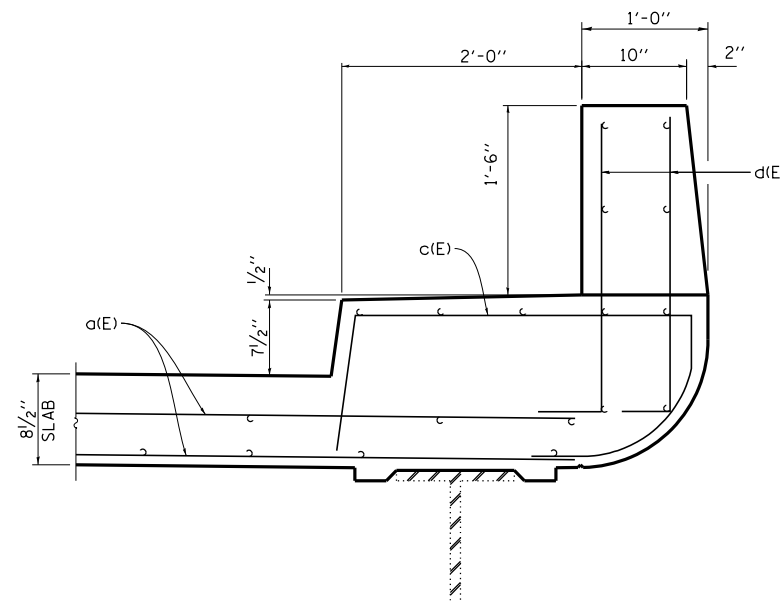


c1(E), d(E)



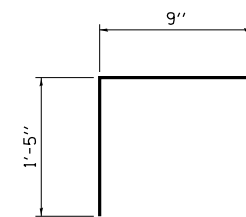
SECTION D-D

N. ABUT. SHOWN S. ABUT. SIMILAR

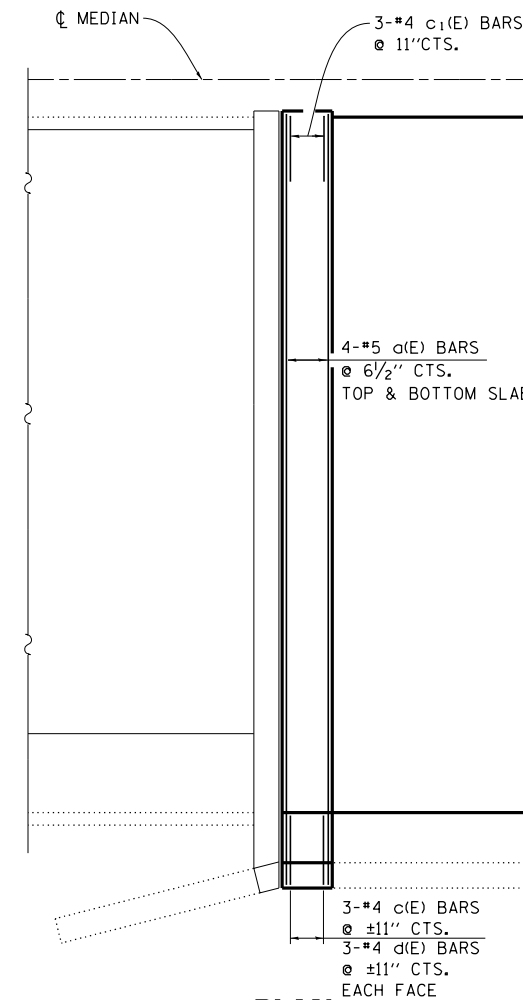


SECTION E-E

N. ABUT. SHOWN S. ABUT. MIRROR IMAGE

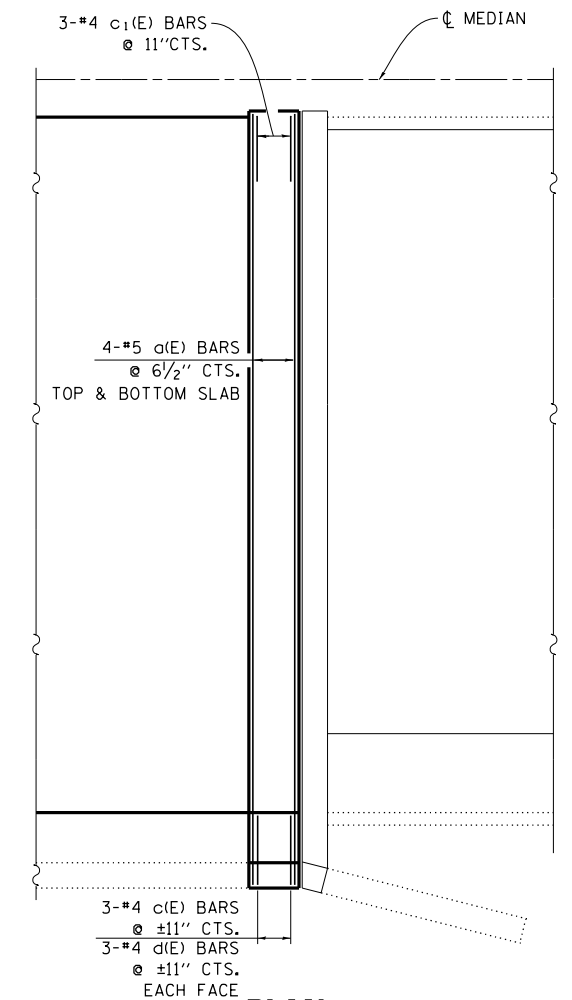


u(E)



PLAN

NORTH ABUT. SHOWING REINFORCEMENT



PLAN

SOUTH ABUT. SHOWING REINFORCEMENT

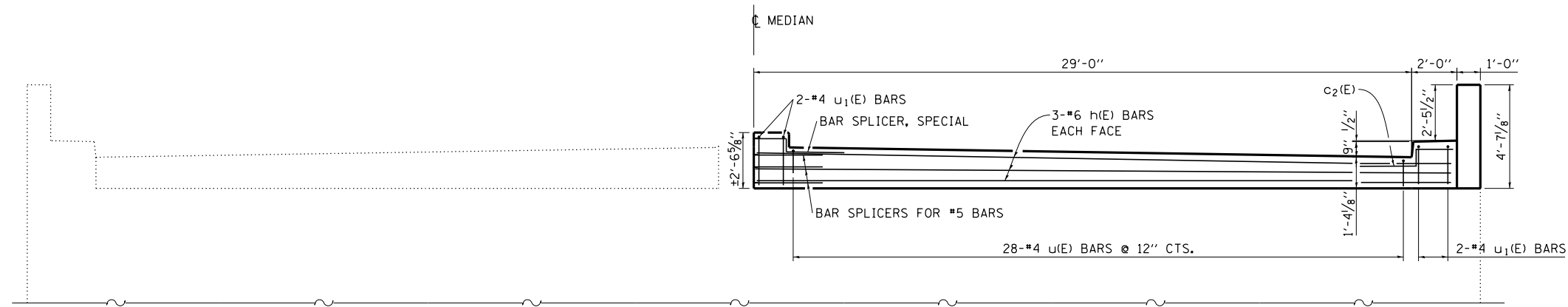
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

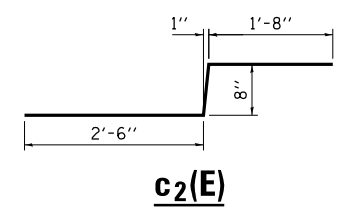
STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
STAGE I CONSTRUCTION

SCALE: SHEET 5 OF 14 SHEETS STA. TO STA.

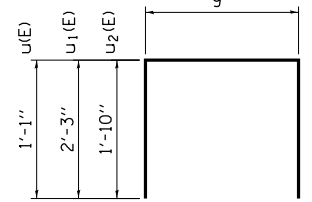
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	21
			CONTRACT NO. 66E83	
ILLINOIS FED. AID PROJECT				



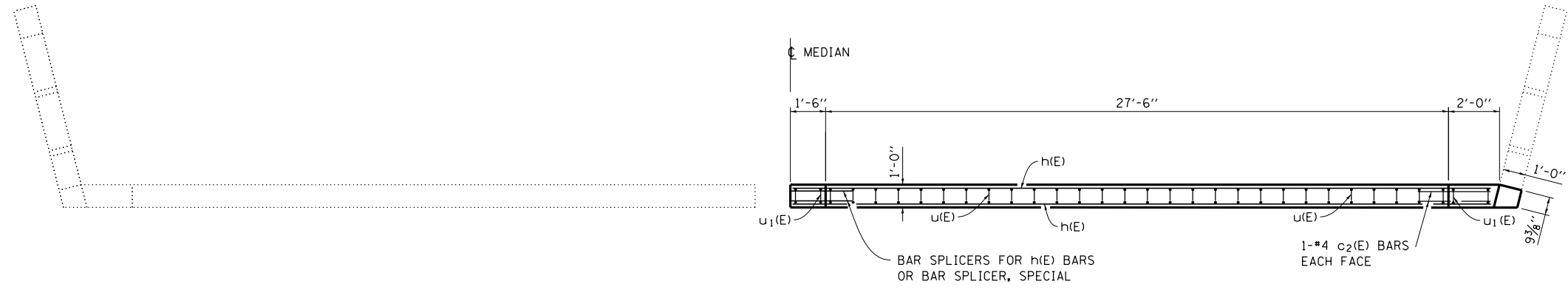
ABUTMENT ELEVATION



c2(E)



u1(E)

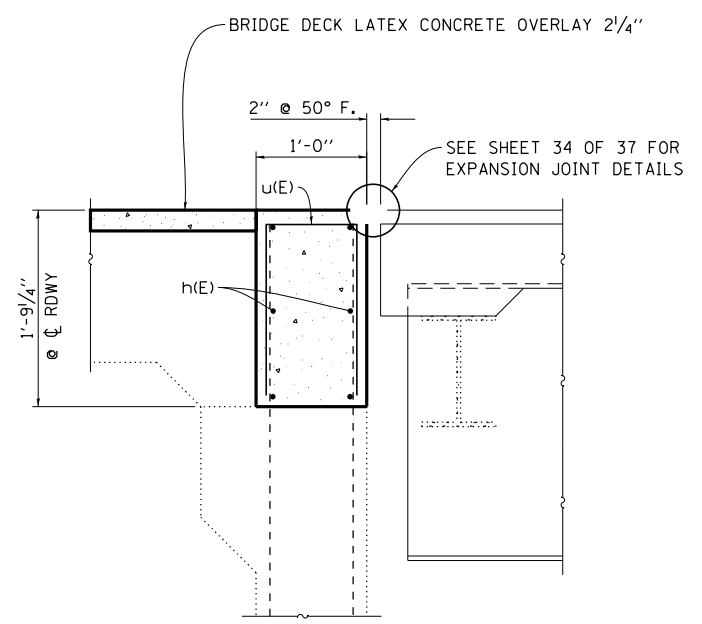


ABUTMENT PLAN

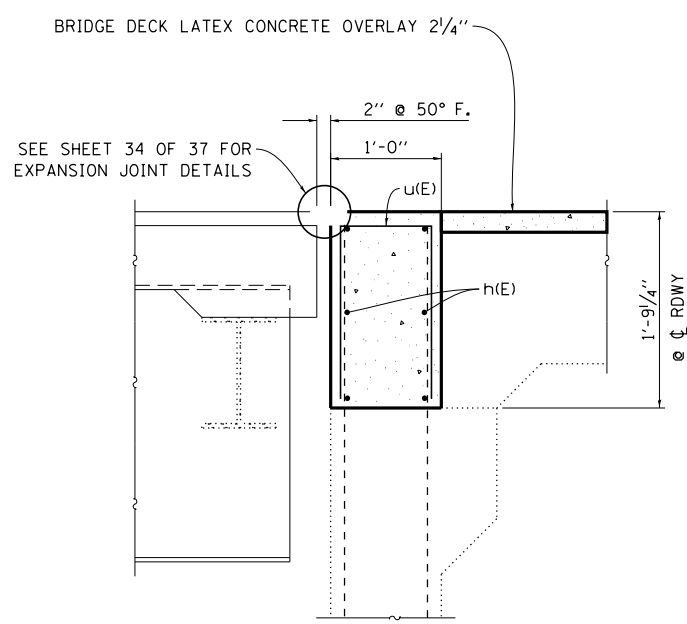
**NORTH ABUTMENT SHOWN,
SOUTH ABUTMENT SIMILAR**

**BILL OF MATERIAL
FOR STAGE I & STAGE II CONSTRUCTION**

BAR	NO. BARS	SIZE	LENGTH	SHAPE
a(E)	32	5	30'-9"	
c(E)	12	4	6'-0"	┌┐
c1(E)	12	4	3'-2"	┌┐
c2(E)	8	4	4'-10"	┌┐
d(E)	24	4	2'-10"	┌┐
h(E)	24	6	30'-9"	
u(E)	112	4	3'-9"	┌┐
u1(E)	8	4	5'-3"	┌┐
u2(E)	8	4	4'-5"	┌┐
HOT-MIX ASPHALT SURFACE REMOVAL 1 1/2"			SQ YD	1795
REMOVE AND REERECT EXISTING BRIDGE RAIL			FOOT	450
CONCRETE REMOVAL			CU YD	15.4
PROTECTIVE SHIELD			SQ YD	465
CONCRETE SUPERSTRUCTURE			CU YD	15.6
BRIDGE DECK GROOVING			SQ YD	1644
PROTECTIVE COAT			SQ YD	103
REINFORCEMENT BARS, EPOXY COATED			POUND	2612
PREFORMED JOINT STRIP SEAL			FOOT	136
BRIDGE DECK LATEX CONCRETE OVERLAY 2 1/4"			SQ YD	1770
BRIDGE DECK SCARIFICATION 3/4"			SQ YD	1770
BAR SPLICERS			EACH	12
BAR SPLICERS, SPECIAL			EACH	4
STRUCTURAL REPAIR FO CONCRETE (DEPTH EQUAL TO OR LAESS THAN 5")			SQ FT	372
DECK SLAB REPAIR (FULL DEPTH, TYPE I)			SQ YD	5
DECK SLAB REPAIR (FULL DEPTH, TYPE II)			SQ YD	78



**SECTION C1-C1
NORTH ABUT.**



**SECTION C1-C1
SOUTH ABUT.**

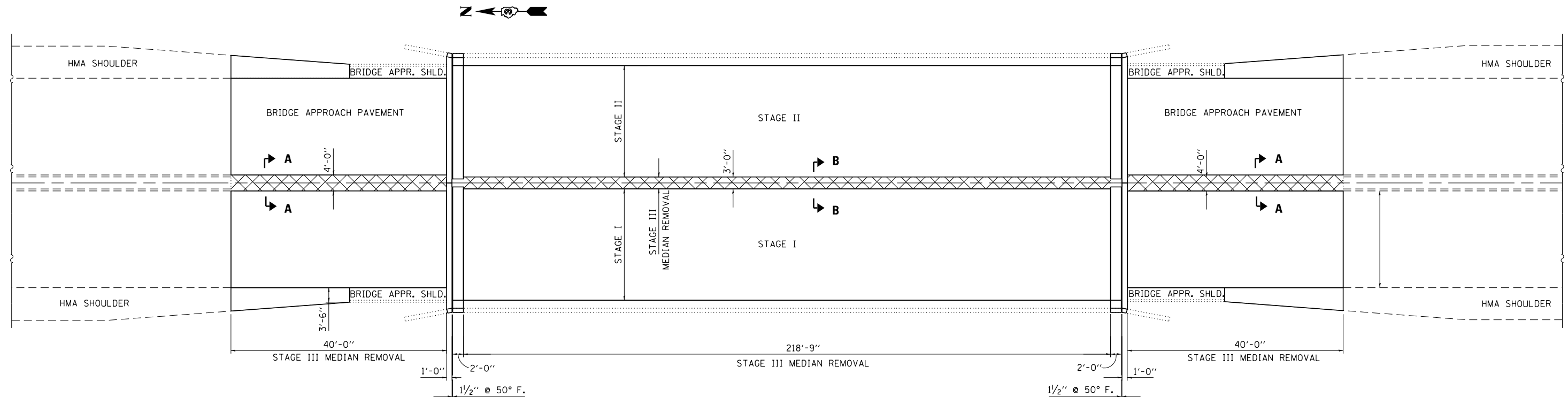
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
STAGE I CONSTRUCTION**

SCALE: SHEET 6 OF 14 SHEETS STA. TO STA.

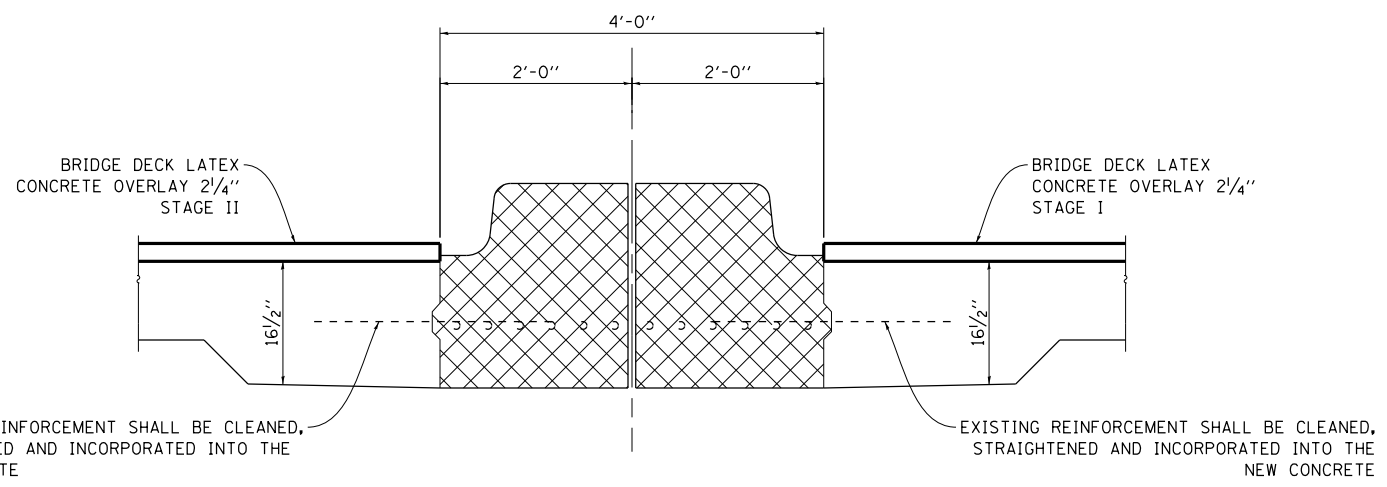
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	22
			CONTRACT NO. 66E83	
ILLINOIS FED. AID PROJECT				



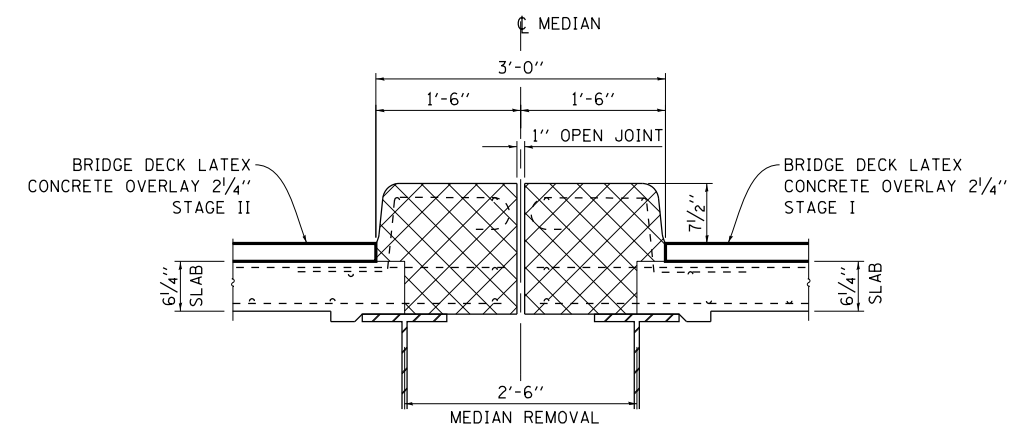
N. ABUT.

PLAN
STRUCTURE NO. 046-0052
STAGE III REMOVAL

S. ABUT.



SECTION A-A
 MEDIAN REMOVAL



SECTION B-B

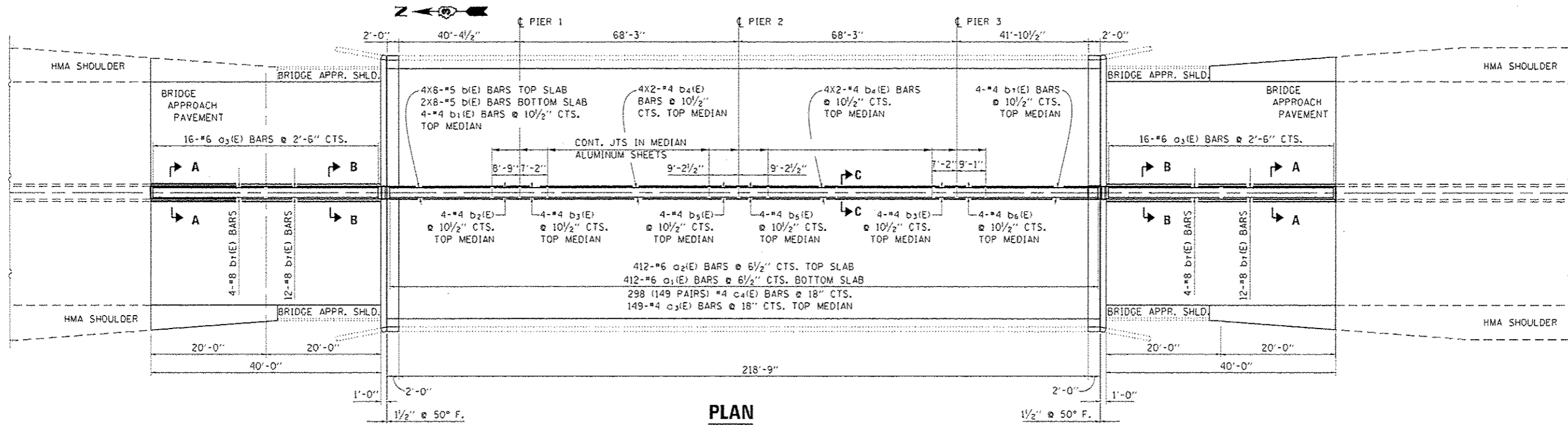
FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED - _____
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
STAGE III REMOVAL

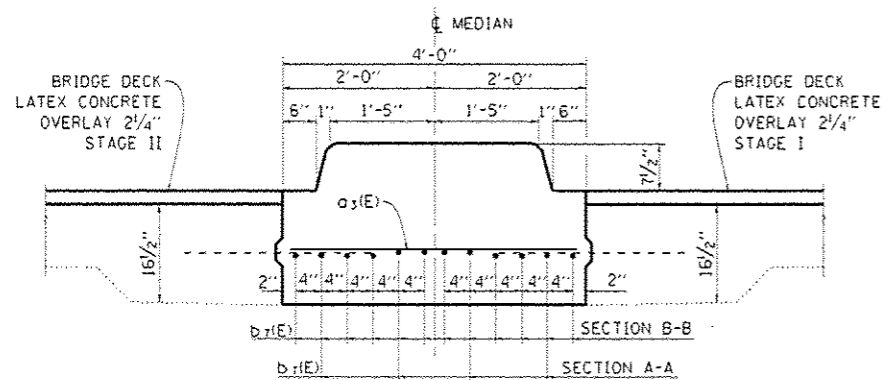
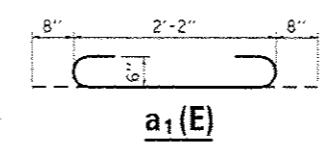
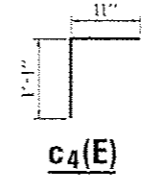
SCALE: _____ SHEET 7 OF 14 SHEETS STA. _____ TO STA. _____

F.A.P. RTE. 840	SECTION (46-4HBK)IR	COUNTY KANKAKEE	TOTAL SHEETS 36	SHEET NO. 23
				CONTRACT NO. 66E83
ILLINOIS FED. AID PROJECT				

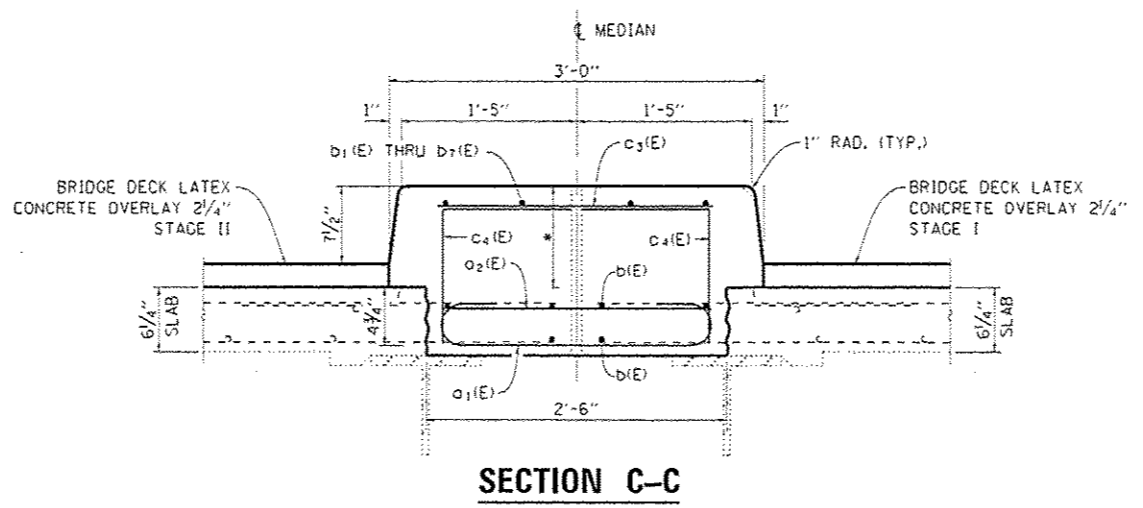


N. ABUT.

S. ABUT.

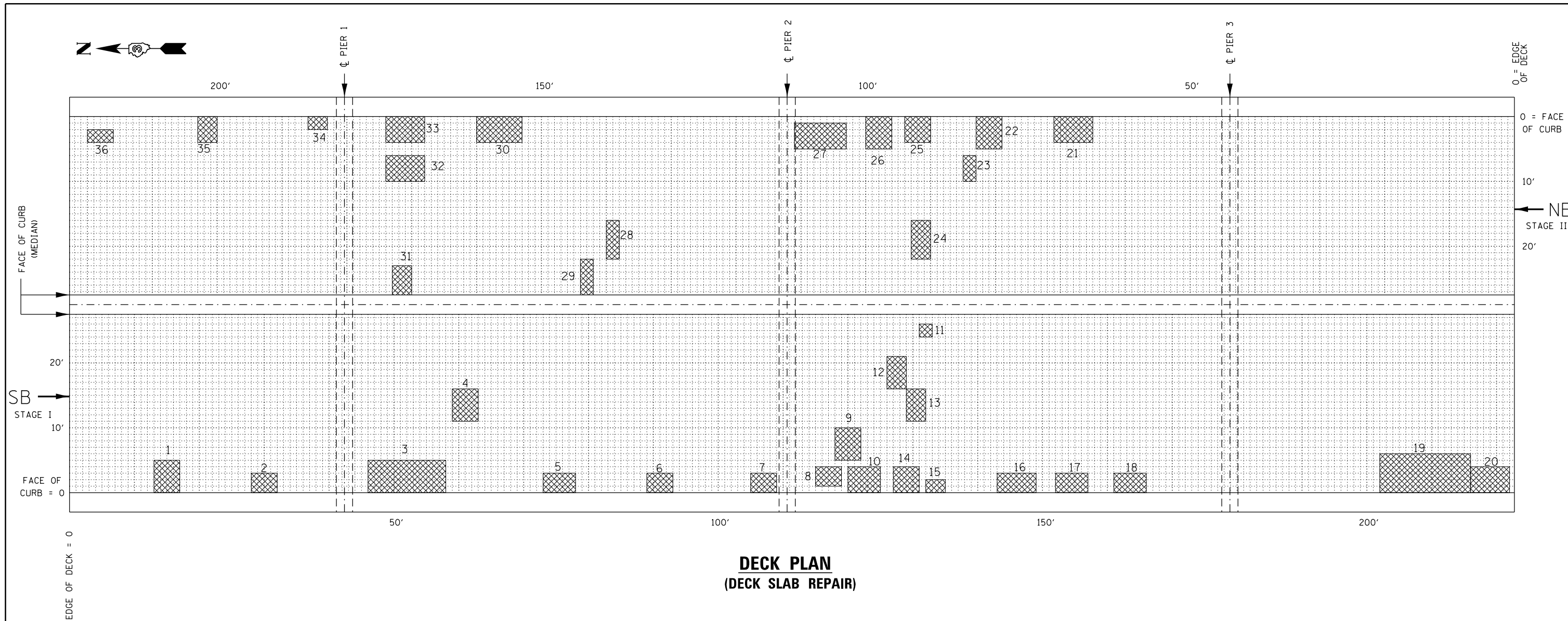


*CONST. JTS. AT PIERS 1/8" ALUMINUM SHEET
 ASTM B 209 ALLOY 3003-H14 COATED TO
 MINIMIZE REACTION WITH WET CONCRETE. COST
 INCLUDED WITH CONCRETE SUPERSTRUCTURE



**BILL OF MATERIAL
 FOR STAGE III CONSTRUCTION**

BAR	NO. BARS	SIZE	LENGTH	SHAPE
a1(E)	412	6	3'-6"	
a2(E)	412	6	2'-2"	
a3(E)	412	6	3'-9"	
b1(E)	48	5	30'-5"	
b2(E)	4	4	33'-4"	
b3(E)	4	4	8'-5"	
b4(E)	8	4	6'-10"	
b5(E)	16	4	26'-3"	
b6(E)	8	4	8'-9"	
b7(E)	4	4	8'-10"	
b8(E)	4	4	34'-3"	
b9(E)	32	8	19'-8"	
c3(E)	149	4	2'-2"	
c4(E)	298	4	2'-0"	
CONCRETE REMOVAL			CU YD	54.6
CONCRETE SUPERSTRUCTURE			CU YD	55.9
PROTECTIVE COAT			SQ YD	171
REINFORCEMENT BARS, EPOXY COATED			POUND	10237



**DECK PLAN
(DECK SLAB REPAIR)**

SCHEDULE - DECK SLAB REPAIR - STAGE I

LOCATION PATCH NO.	DECK SLAB REPAIR (FULL DEPTH, TYPE II) SQ YD			
	LENGTH (FT)	WIDTH (FT)	SQ FT	SQ YD
1	4	5	20	2.2
2	4	3	12	1.3
3	12	5	60	6.7
4	4	5	20	2.2
5	5	3	15	1.8
6	4	3	12	1.3
7	4	3	12	1.3
8	4	3	12	1.3
9	4	5	20	2.2
10	5	4	20	2.2
11	2	3	6	0.8
12	3	5	15	1.7
13	3	5	15	1.7
14	4	4	16	1.8
15	3	2	6	0.9
16	6	3	18	2.0
17	5	3	15	1.7
18	5	3	15	1.7
19	14	6	84	9.3
20	6	4	24	2.7
STAGE I TOTAL			SQ YDS	46.8

SCHEDULE - DECK SLAB REPAIR - STAGE II

LOCATION PATCH NO.	DECK SLAB REPAIR (FULL DEPTH, TYPE II) SQ YD			
	LENGTH (FT)	WIDTH (FT)	SQ FT	SQ YD
21	6	4	24	2.7
22	4	5	20	2.2
23	2	4	8	0.9
24	3	6	18	2.0
25	4	4	16	1.8
26	4	5	20	2.2
27	8	4	32	3.6
28	2	6	12	1.3
29	2	6	12	1.3
30	4	7	28	3.1
31	3	5	15	1.7
32	6	4	24	2.7
33	6	4	24	2.7
34	3	2	6	0.8
35	3	4	12	1.3
36	4	2	8	0.9
STAGE II TOTAL			SQ YDS	31.2

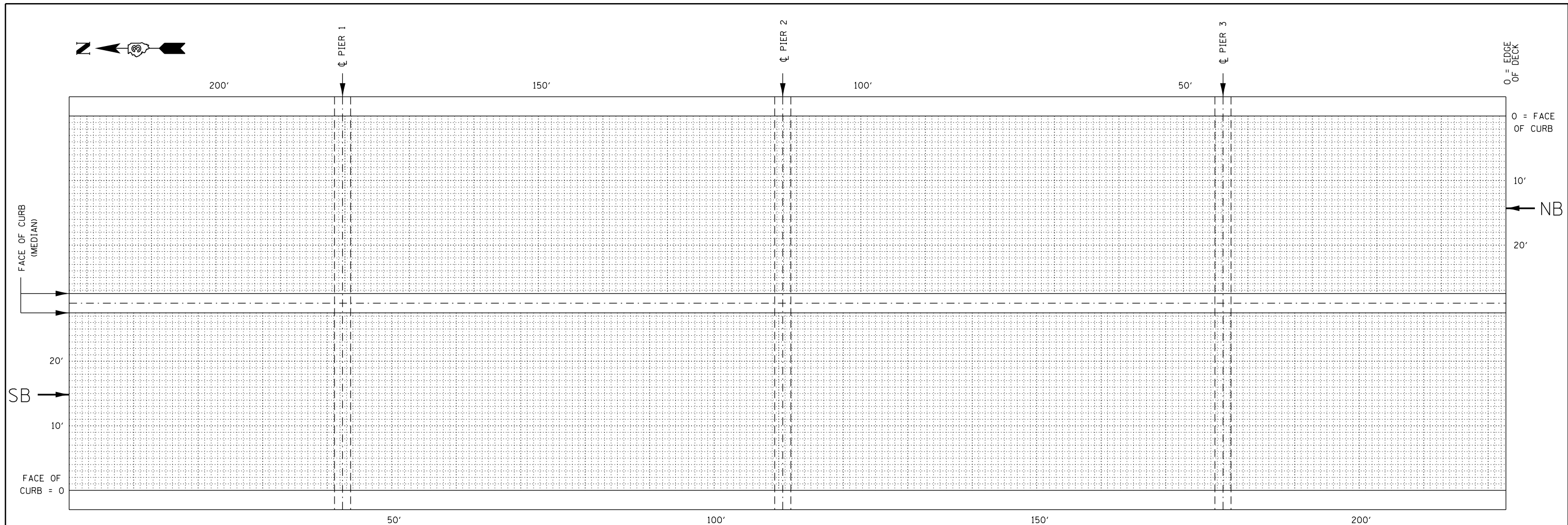
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Default	PLOT SCALE = 100.0000' / 1in.	DATE - 7/12/2016	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
DECK SLAB REPAIRS - STAGE 1 AND II**

SCALE: _____ SHEET 9 OF 14 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	25
			CONTRACT NO. 66E83	
ILLINOIS FED. AID PROJECT				



**DECK PLAN
(DECK SLAB REPAIR)**

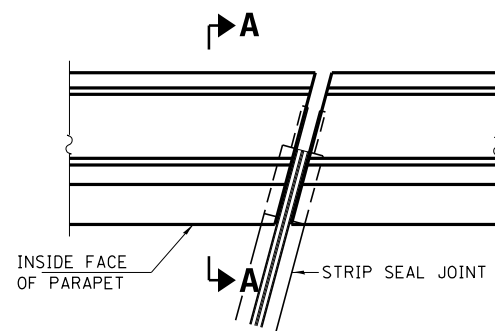
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Default	PLOT SCALE = 100.0000' / 1in.	DATE - 7/12/2016	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

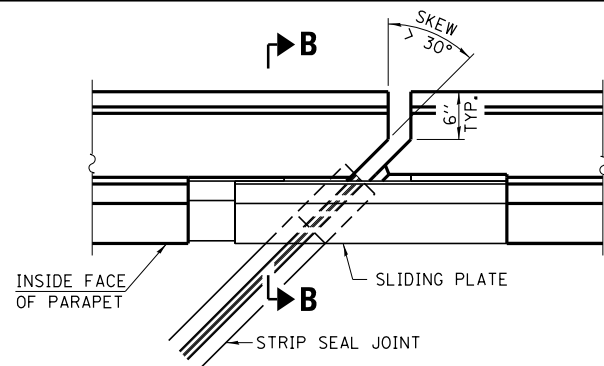
**STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
DECK SLAB REPAIRS - "AS-BUILTS"**

SCALE: _____ SHEET 10 OF 14 SHEETS STA. _____ TO STA. _____

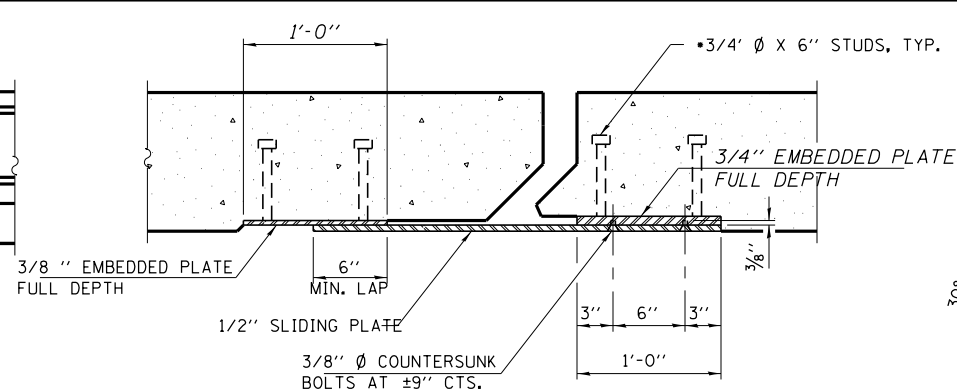
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	26
			CONTRACT NO. 66E83	
ILLINOIS FED. AID PROJECT				



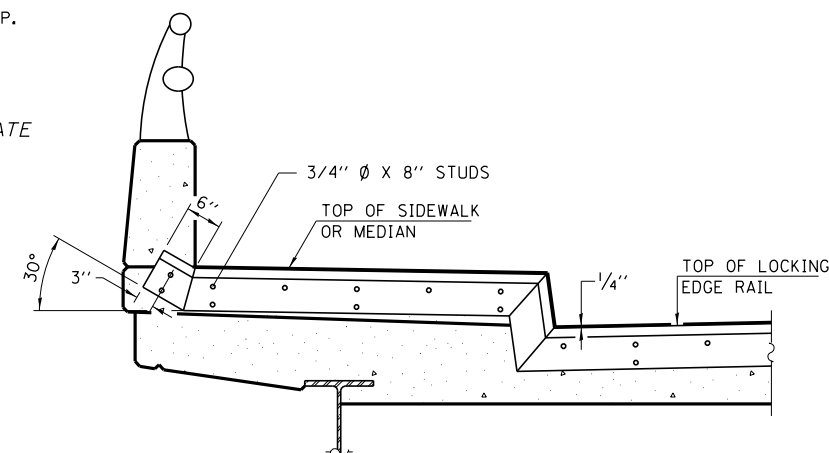
PLAN
(FOR SKEWS $\leq 30^\circ$)



PLAN
(FOR SKEWS $> 30^\circ$)
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.

NOTES:
THE STRIP SEAL SHALL BE MADE CONTINUOUS AND SHALL HAVE A MINIMUM THICKNESS OF 1/2". 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.

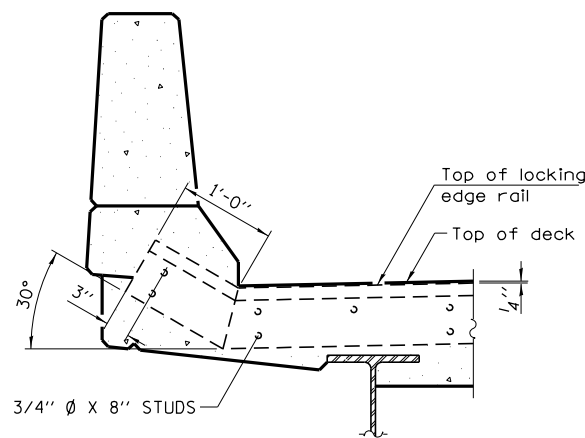
THE LOCKING EDGE RAILS DEPICTED ARE CONCEPTUAL ONLY, EXCEPT FOR THE MINIMUM DIMENSIONS SHOWN. THE ACTUAL CONFIGURATION OF THE LOCKING EDGE RAILS AND MATCHING STRIP SEAL MAY VARY FROM MANUFACTURER TO MANUFACTURER. FLANGED EDGE RAILS WILL NOT BE ALLOWED. LOCKING EDGE RAILS MAY BE SPLICED AT SLOPE DISCONTINUITIES.

THE MANUFACTURER'S RECOMMENDED INSTALLATION METHODS SHALL BE FOLLOWED.

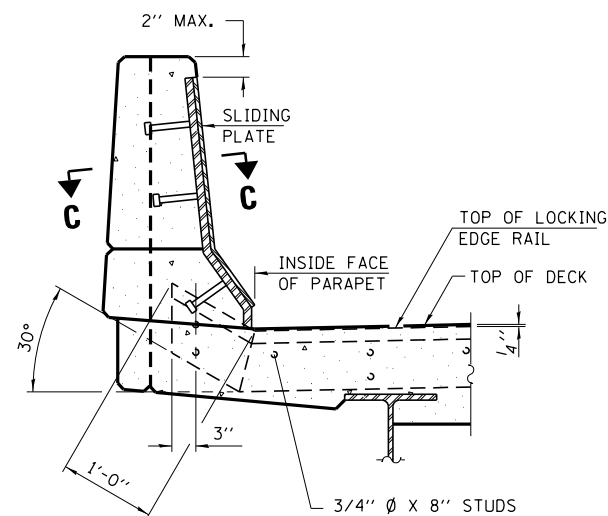
THE JOINT OPENING AND DECK DIMENSIONS DETAILED ON THE SUPERSTRUCTURE ARE BASED ON A ROLLED RAIL EXPANSION JOINT. IF THE CONTRACTOR ELECTS TO USE THE WELDED RAIL EXPANSION JOINT, THE OPENING AND DECK DIMENSIONS SHALL BE MODIFIED ACCORDING TO THE DIMENSIONS DETAILED ON THIS SHEET. REQUIRED MODIFICATIONS 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 1/4". SEALED WITH A SUITABLE SEALANT. JOINTS IN RAILS WITHIN 10 FT. OF CURBS SHALL BE WELDED.

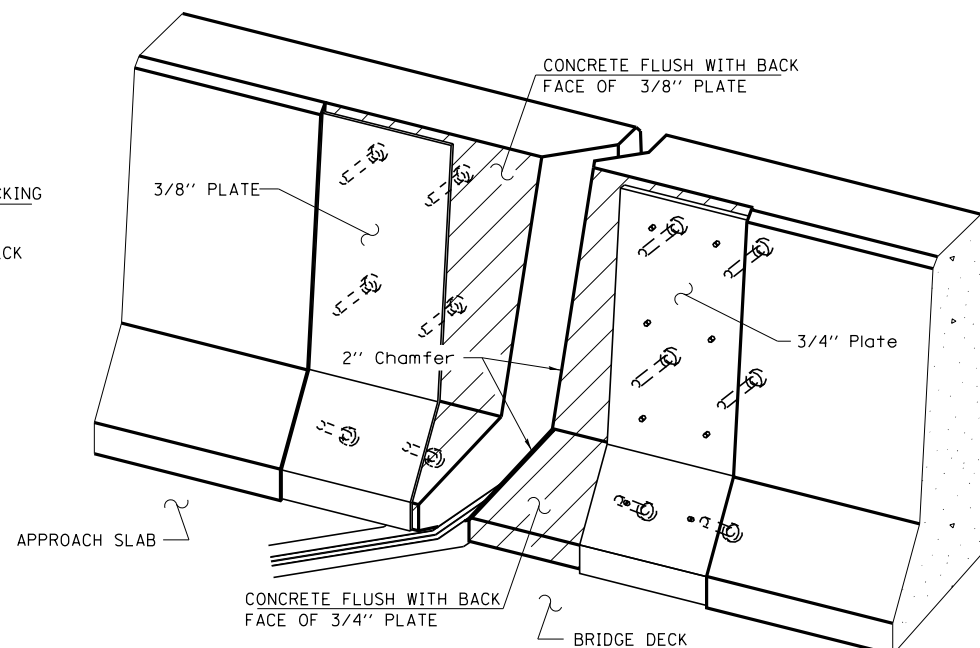
PARAPET PLATES AND ANCHORAGE STUDS FOR SKEWS $> 30^\circ$ INCLUDED IN THE COST OF PREFORMED JOINT STRIP SEAL.



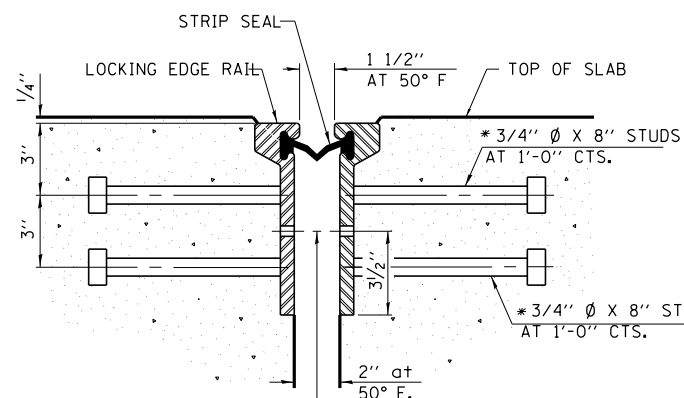
SECTION A-A



SECTION B-B

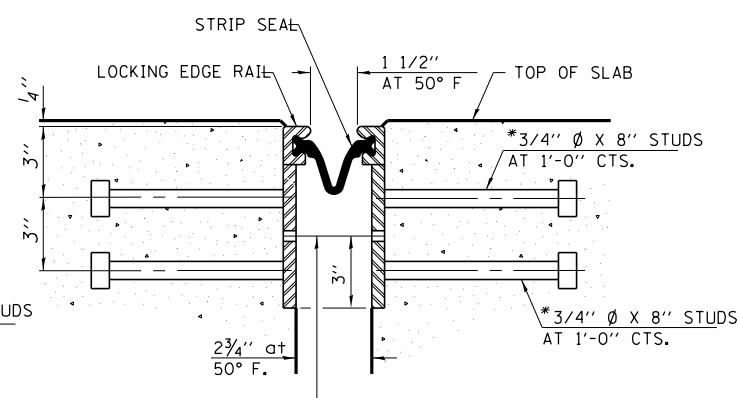


TRIMETRIC VIEW
(SHOWING BACK PLATES ONLY)



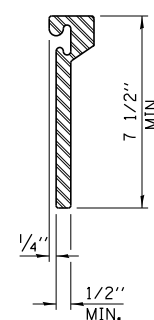
**SECTION THRU
ROLLED RAIL JOINT**

1/16" diameter holes at 4'-0" cts. for 3/8" diameter bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

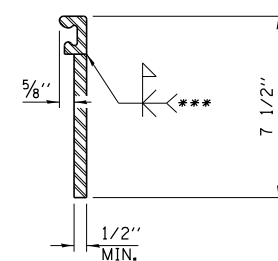


**SECTION THRU
WELDED RAIL JOINT**

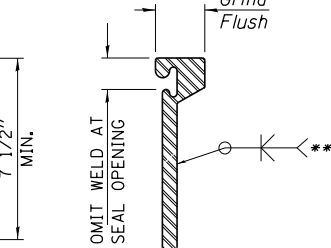
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



**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
STAGE I**

ITEM	UNIT	TOTAL
PREFORMED JOINT STRIP SEAL	FOOT	30.5

**BILL OF MATERIAL
STAGE II**

ITEM	UNIT	TOTAL
PREFORMED JOINT STRIP SEAL	FOOT	30.5

**BILL OF MATERIAL
STAGE III**

ITEM	UNIT	TOTAL
PREFORMED JOINT STRIP SEAL	FOOT	9

EJ-SSJ 1-27-12

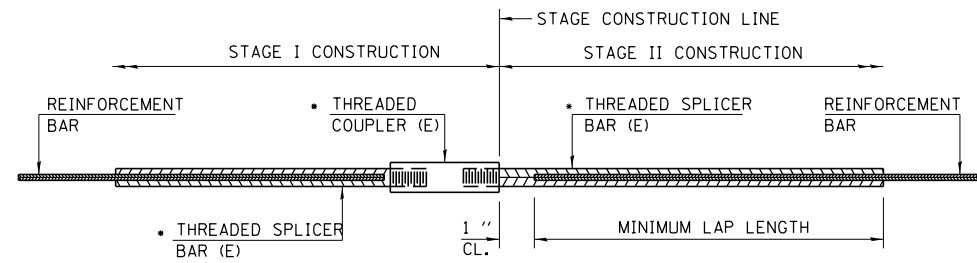
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
PREFORMED JOINT STRIP SEAL

SCALE: SHEET 11 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	27
			CONTRACT NO. 66E83	
ILLINOIS FED. AID PROJECT				

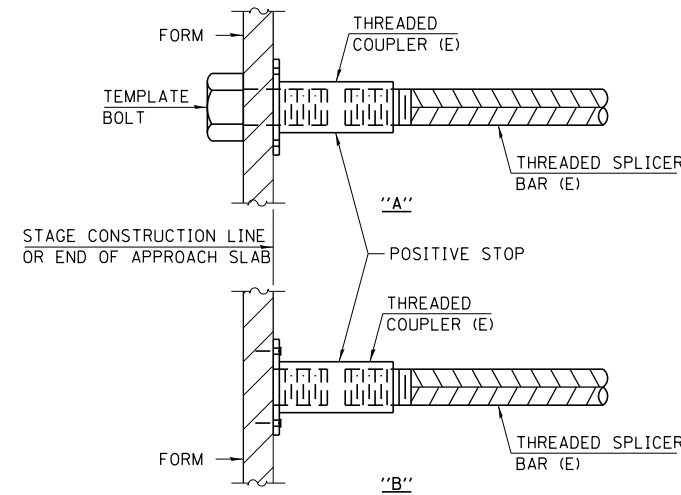


STANDARD BAR SPLICER ASSEMBLY

THREADED SPLICER BAR LENGTH = MIN. LAP LENGTH + 1" + THREAD LENGTH

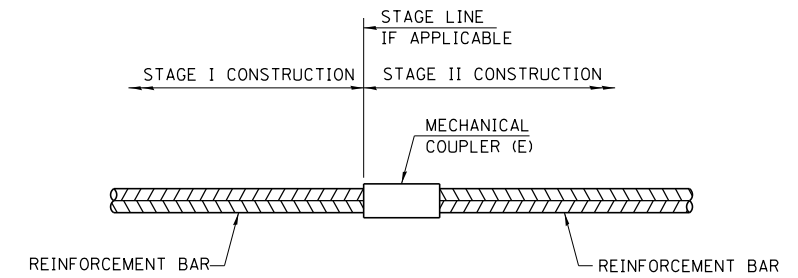
- EPOXY NOT REQUIRED ON BAR SPLICER ASSEMBLY COMPONENTS USED IN CONJUNCTION WITH BLACK BARS.

LOCATION	BAR SIZE	NO. ASSEMBLIES REQUIRED	MINIMUM LAP LENGTH
N. ABUT BLOCK OUT	#5	6	3'-0"
S. ABUT BLOCK OUT	#5	6	3'-0"



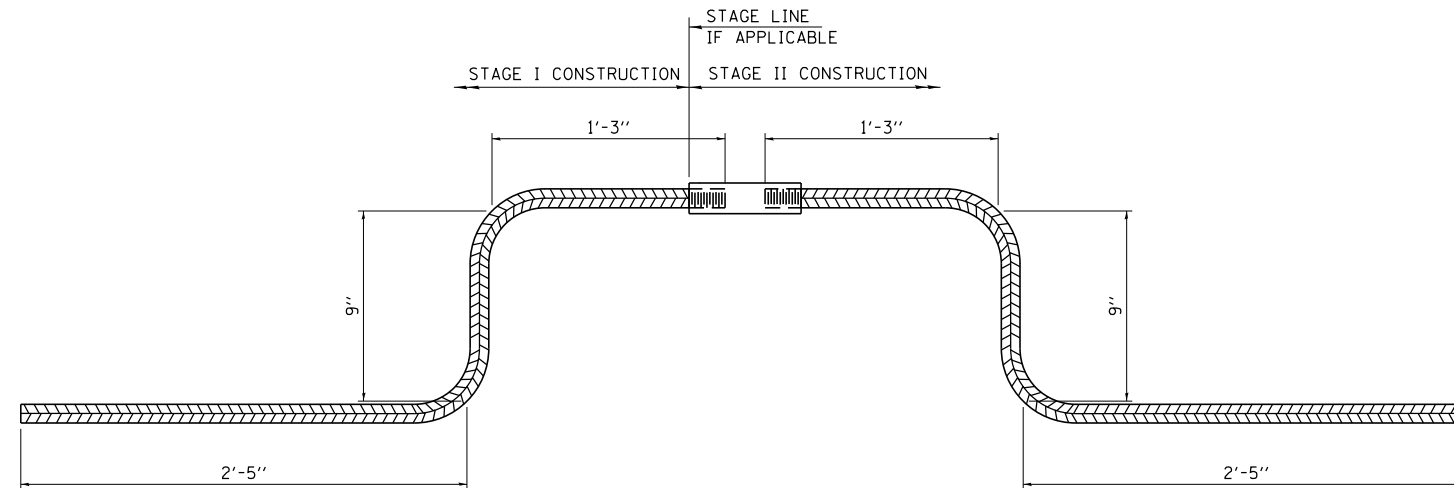
INSTALLATION AND SETTING METHODS

"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



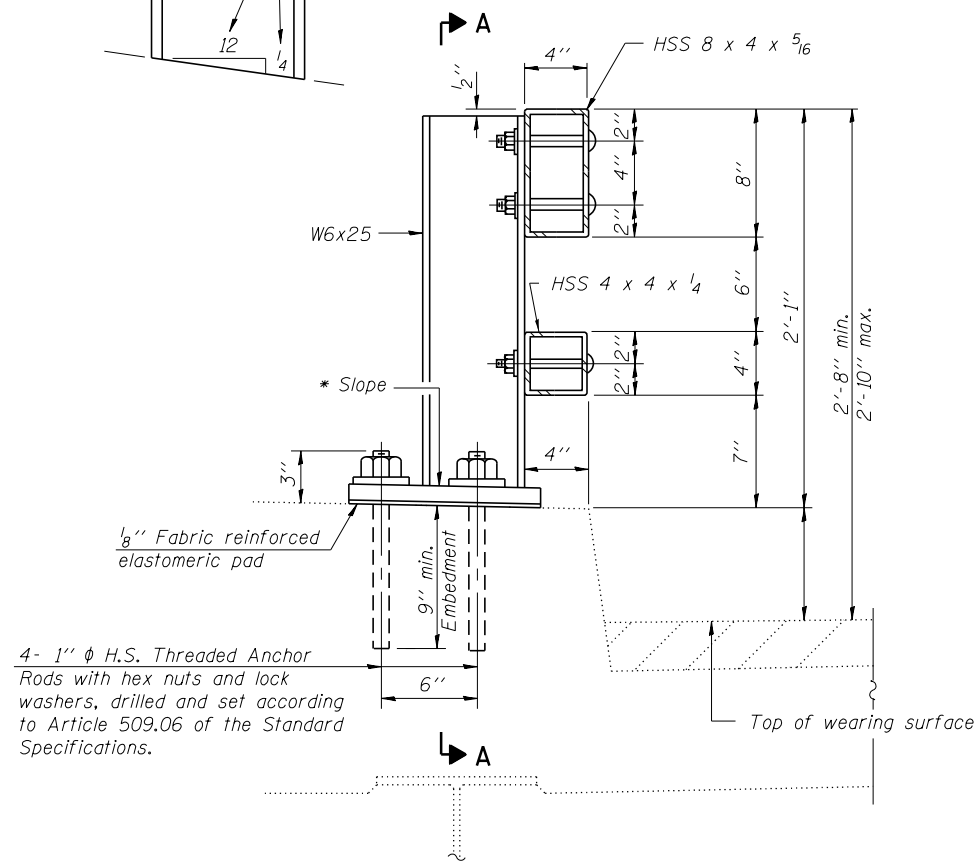
BAR SPLICER, SPECIAL

LOCATION	BAR SIZE	NO. ASSEMBLIES REQUIRED
N. ABUT. MEDIAN	#4	2
S. ABUT. MEDIAN	#4	2

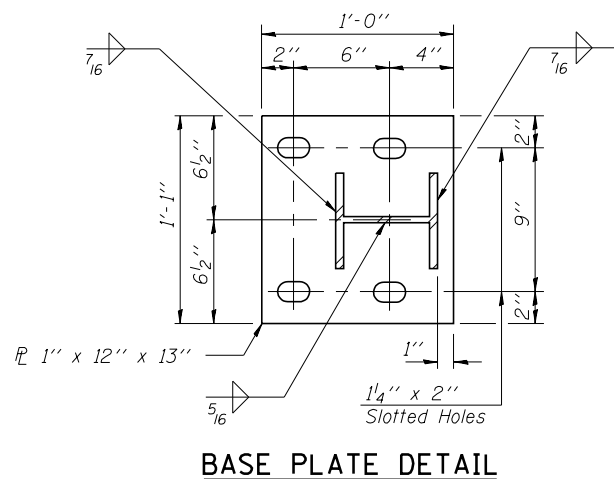
NOTES

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.

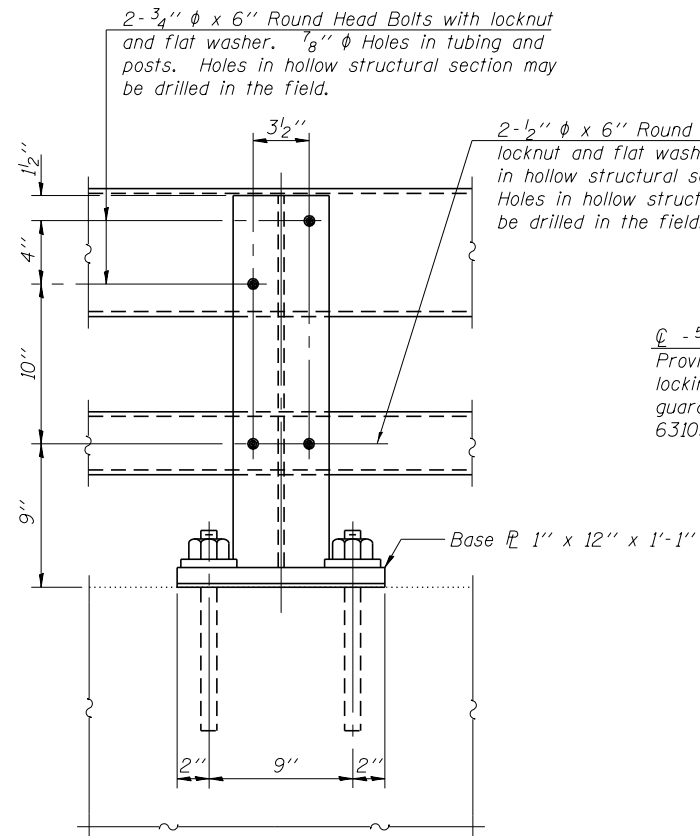
* Cut bottom end of post to curb slope.



SECTION AT RAIL POST

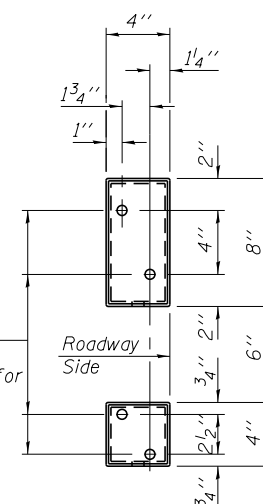


BASE PLATE DETAIL

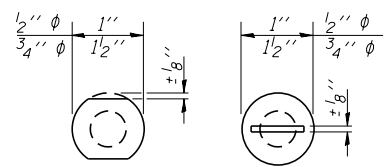


SECTION A-A

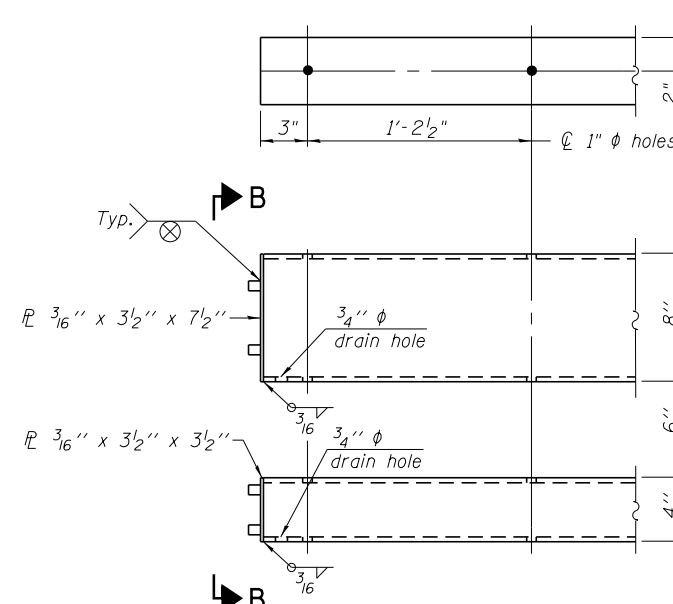
2- 5/8 inch reduced base welded studs. Provide 4 - 5/8 inch washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.



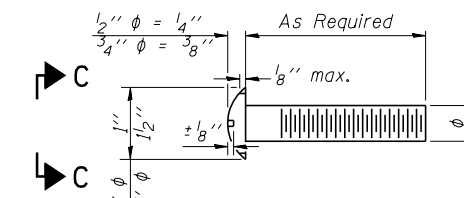
VIEW B-B



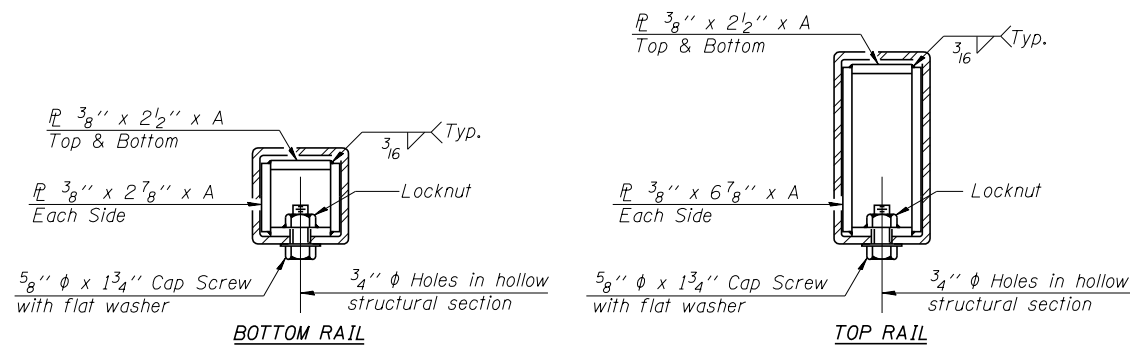
VIEW C-C



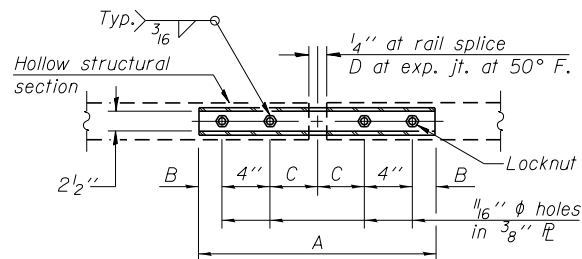
END OF RAIL DETAILS



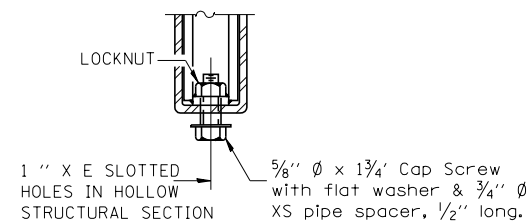
DETAIL OF 1/2" & 3/4" ROUND HEAD BOLTS



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

NOTES:
 POSTS SHALL NOT BE LOCATED CLOSER THAN 1'-3" TO AN EXISTING BRIDGE EXPANSION JOINT OR END OF BRIDGE.
 STEEL BRIDGE RAIL EXPANSION JOINT SHALL BE PROVIDED BETWEEN ANY TWO (2) POSTS WHICH SPAN A BRIDGE EXPANSION JOINT. BOLTS LOCATED AT EXPANSION JOINT SHALL BE PROVIDED WITH LOCKNUTS AND SHALL BE TIGHTENED ONLY TO A POINT THAT WILL ALLOW RAILING MOVEMENT.
 PROVIDE ONE " AND TWO " STEEL SHIMS FOR 25% OF THE POSTS. SHIMS SHALL BE SIMILAR TO BASE PLATES IN SIZE AND HOLES.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤4"	2 1/2"	1'-8"	2"	4"	2 1/2"
>4" ≤6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
>6 1/2" ≤9"	5"	2'-4"	3 1/2"	6 1/2"	9"
>9" ≤13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

Item	Unit	Quantity
REMOVE AND RE-ERECT EXISTING BRIDGE RAIL	Foot	450

R-31

1-12-15

(6'-3" Maximum Post Spacing)

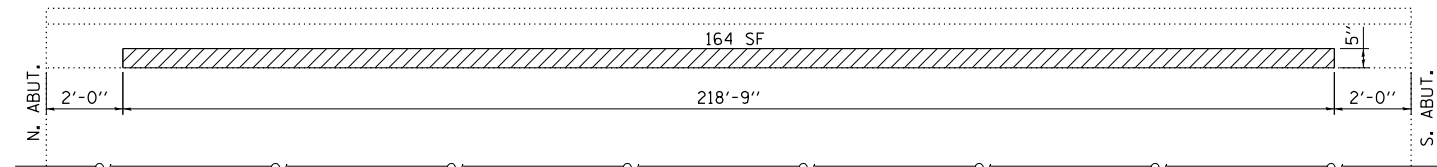
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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

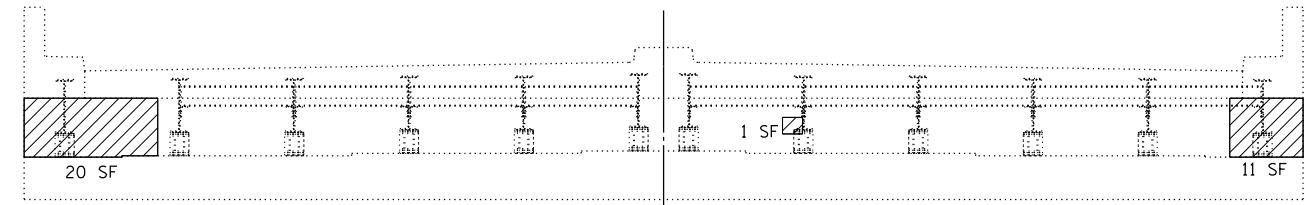
STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
 STEEL RAILING, TYPE 2399 DETAILS

SCALE: SHEET 13 OF 14 SHEETS STA. TO STA.

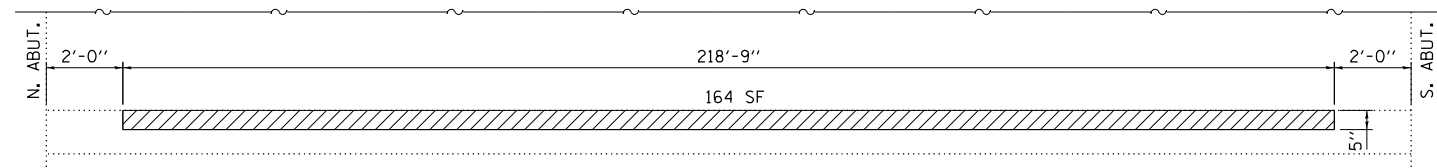
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HB)IR	KANKAKEE	37	29
CONTRACT NO. 66E83				
ILLINOIS FED. AID PROJECT				



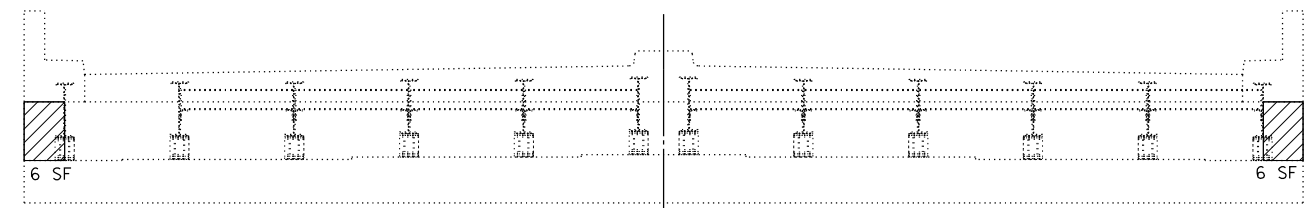
**PLAN
NORTHBOUND PARAPET**



**ELEVATION
NORTH ABUTMENT**

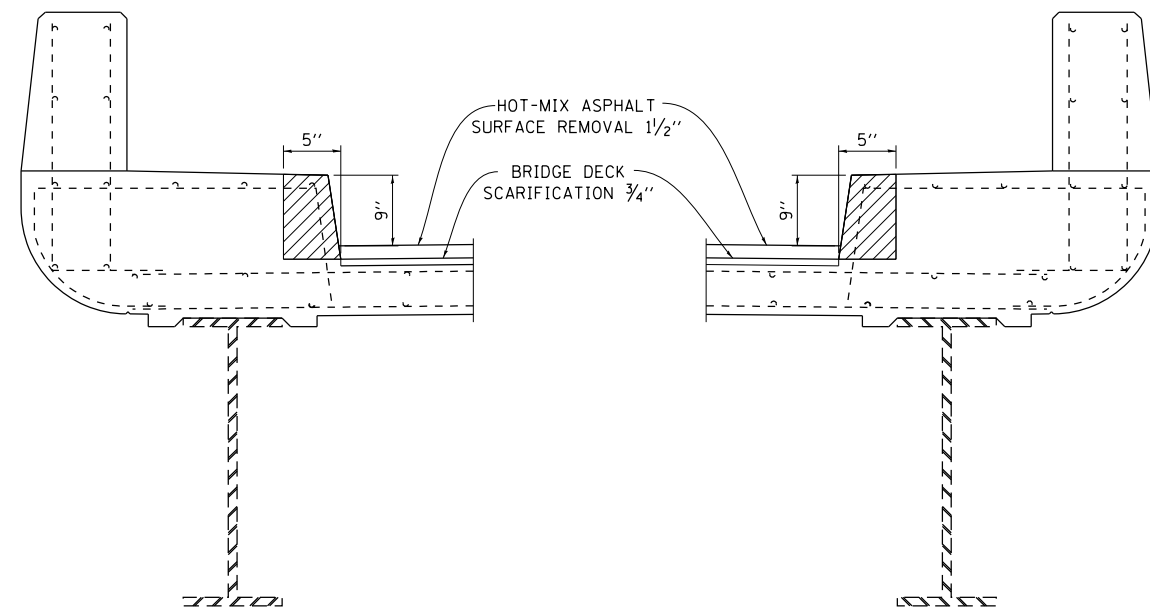


**PLAN
SOUTHBOUND PARAPET**



**ELEVATION
SOUTH ABUTMENT**

STRUCTURAL REPAIR OF CONCRETE
DEPTH EQUAL TO OR LESS THAN 5"



WESTD PARAPET

EAST PARAPET

BILL OF MATERIAL

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONCRETE DEPTH EQUAL TO OR LESS THAN 5"	SQ FT	372

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED - _____
pw:\IL\084EBID\INTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 3\Projects\0366\BRIDGE\DATA\PRELIMINARY PLANS		CHECKED - EP	REVISED - _____
Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURE REPAIR DETAILS FOR S.N. 046-0052
STRUCTURAL REPAIR OF CONCRETE DETAILS**

SCALE: _____ SHEET 14 OF 14 SHEETS STA. _____ TO STA. _____

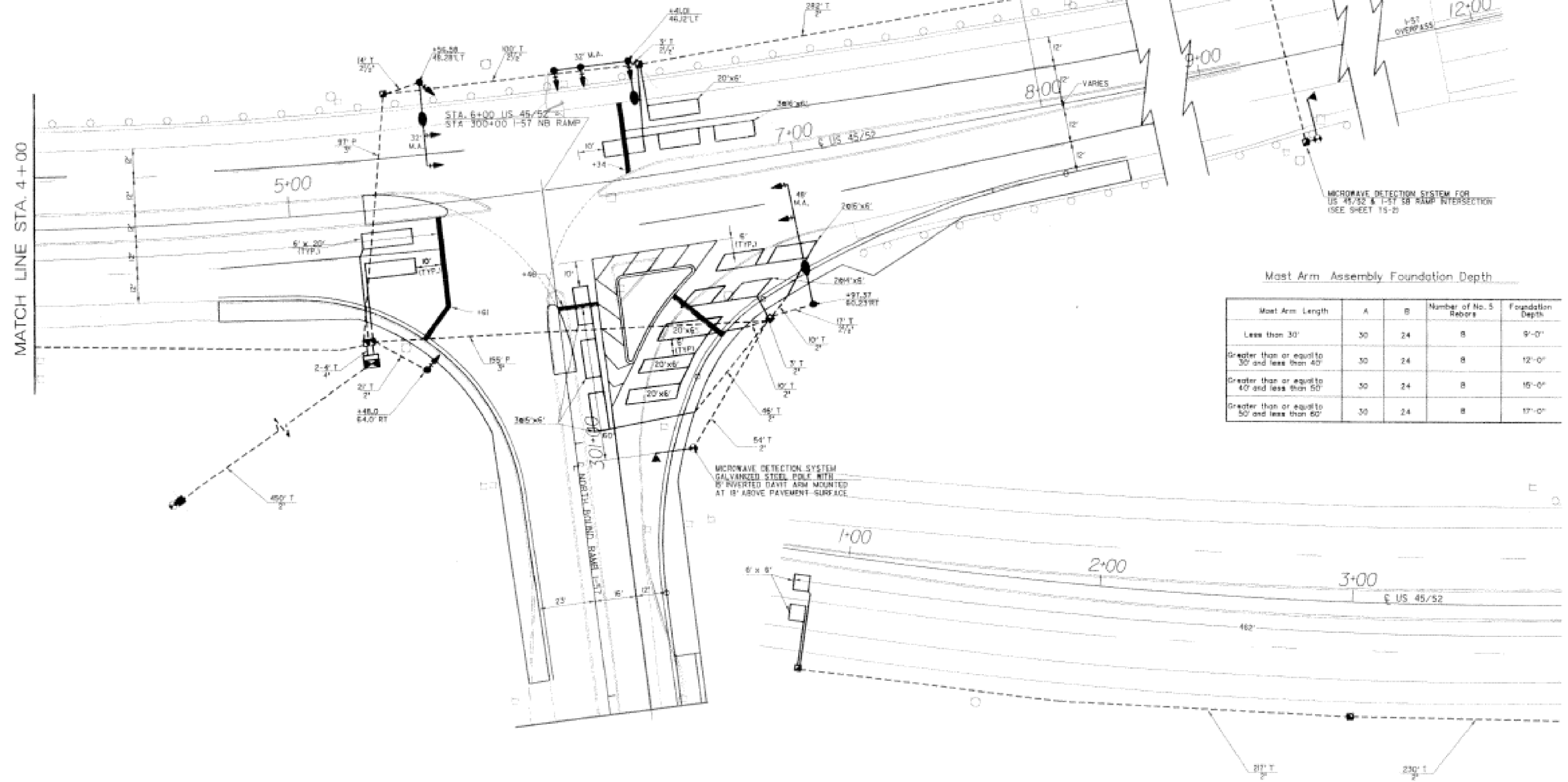
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	30
				CONTRACT NO. 66E83
ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL LEGEND

- | | | | |
|--|--|--|---|
| | PROPOSED CONTROLLER | | PROPOSED DOUBLE HANDHOLE |
| | SERVICE INSTALLATION | | PVC CONDUIT IN TRENCH OR PUSHED |
| | PROPOSED SIGNAL HEAD WITH BACKPLATE | | CONDUIT ATTACHED TO STRUCTURE, PVC COATED RIGID STEEL |
| | PROPOSED SIGNAL POST | | DETECTOR LOOP |
| | PROPOSED MAST ARM ASSEMBLY AND POLE, STEEL | | LIGHTING UNIT |
| | PROPOSED HANDHOLE | | MICROWAVE DETECTION UNIT |
| | PROPOSED HEAVY-DUTY HANDHOLE | | GALVANIZED POLE |



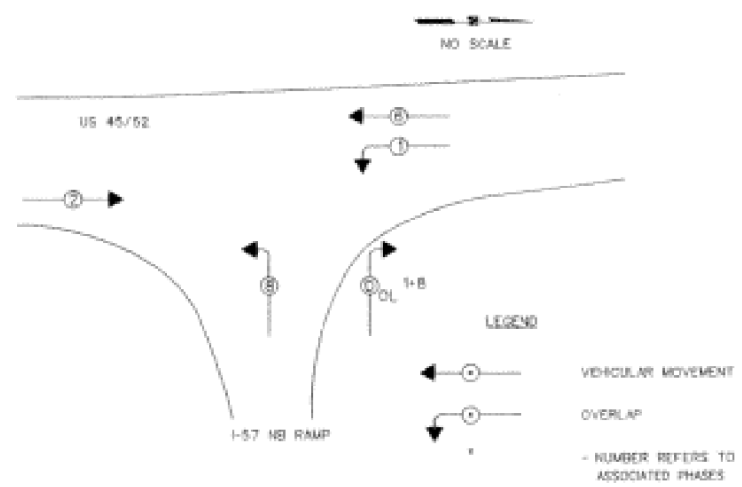
FBI 1111	KAN
STA 1+00	1
FED. ROAD DIST. NO. 1	42



Mast Arm Assembly Foundation Depth

Mast Arm Length	A	B	Number of No. 5 Rebars	Foundation Depth
Less than 30'	30	24	8	9'-0"
Greater than or equal to 30' and less than 40'	30	24	8	12'-0"
Greater than or equal to 40' and less than 50'	30	24	8	15'-0"
Greater than or equal to 50' and less than 60'	30	24	8	17'-0"

FOR INFORMATION ONLY



CONTROLLER SEQUENCE
 REFERRING TO STANDARD 85700, THE VEHICULAR PHASES USED ARE DESIGNATED ABOVE.

N.B. RAMP			
CODE NO.	ITEM	UNIT	QUANTITY
70101700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L. SUM	0.53
72000100	SIGN PANEL TYPE 1	SQ. FT.	5
81012600	CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	1300
81012700	CONDUIT IN TRENCH, 2 1/2" DIA., PVC	FOOT	134
81013000	CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	8
81021350	CONDUIT PUSHED, 3" DIA., PVC	FOOT	252
81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6"x6"x4"	EACH	4
81400400	CONCRETE HANDHOLE	EACH	5
81400600	CONCRETE DOUBLE HANDHOLE	EACH	1
82401240	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 SC	FOOT	1580
82401250	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	415
82401300	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 PAIR	FOOT	1780
82401800	ELECTRIC CABLE IN CONDUIT, SERVICE NO. 8 2C	FOOT	450
82500140	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 12F	FOOT	798
83202520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18"	EACH	2
83402890	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48"	EACH	2
83402970	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48"	EACH	1
83800100	CONCRETE FOUNDATION, TYPE A	FOOT	3
83800200	CONCRETE FOUNDATION, TYPE D	FOOT	3
83800400	CONCRETE FOUNDATION, TYPE E 30" DIAMETER	FOOT	19
84020180	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
84020170	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	5
84020270	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
84020280	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
84200400	TRAFFIC SIGNAL BACKPLATE FORMED PLASTIC	EACH	8
84400250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250W	EACH	3
84800105	INDUCTION LOOP DETECTOR (SPECIAL)	EACH	10
84700100	DETECTOR LOOP, TYPE 1	FOOT	850
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86500100	TRANSDUCER-FIBER OPTIC	EACH	1
88700200	SERVICE INSTALLATION, TYPE B	EACH	1
89800100	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1440
	MICROWAVE DETECTION UNIT	EACH	2
	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED RIGID STEEL	FOOT	273

DETECTOR LOOP INDUCTANCE CHART						
LOOP SYSTEM	LABEL	PHASE	NUMBER OF TURNS	INDUCTANCE (mH)	FREQUENCY (HERTZ)	J PIN STATUS
A	SB STBR	6	4	310	34654	OFF
B	SB LT	1	4	883	23353	ON
C	WBRT FR	8	4	482	27800	OFF
D	WBRT MD	8	4	418	29852	OFF
E	WBRT BK	8	4	821	21418	ON
F	WBLT	8	4	685	23319	ON
G	NB STBR	2	4	529	28538	OFF
H	NB FAR	2	6	808	24752	ON

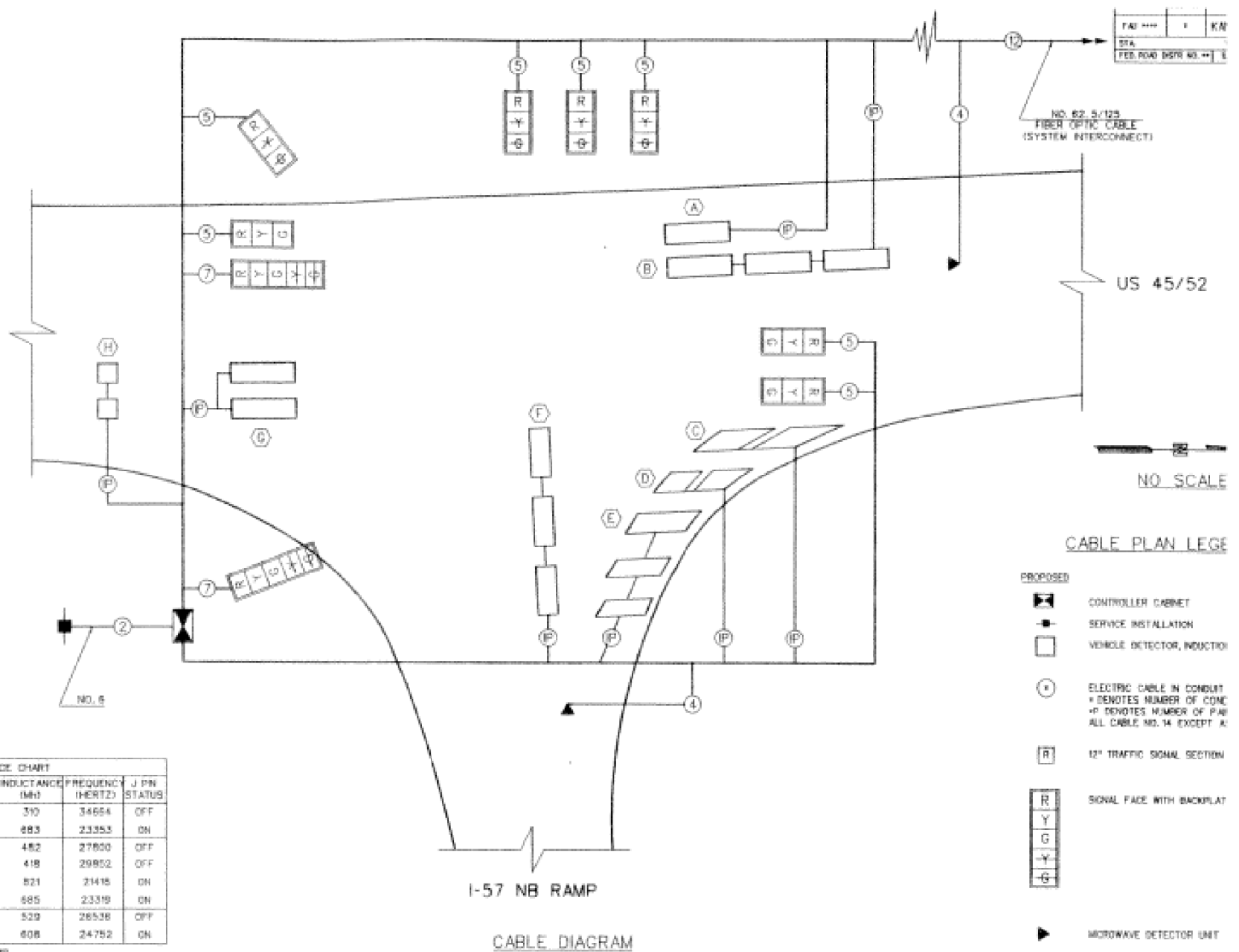
J PIN STATUS:
 'ON' MEANS STANDARD DETECTOR SETUP
 'OFF' MEANS THE J WIRE HAS BEEN DISCONNECTED, BUT INTACT AT THE HARNESS PANEL WITH THE NECESSARY SPACE CONNECTION, ATTACHED, MARKED, AND INSULATED.

ELECTRICAL LOAD CHART			
U.S. ROUTE 45/52			
NUMBER	WATTAGE	EACH	BURN TIME (S)
RED	5	135	61.7
YELLOW	5	135	6.7
GREEN	5	135	31.7
YELLOW ARROW	2	135	6.7
GREEN ARROW	2	135	29.2

I-57 NORTHSIDE RAMP			
NUMBER	WATTAGE	EACH	BURN TIME (S)
RED	4	135	78.7
YELLOW ARROW	4	135	6.7
GREEN ARROW	4	135	45.8

TRAFFIC SIGNAL CABINET			
NUMBER	WATTAGE	EACH	BURN TIME (S)
CONTROLLER	1	6	100
LOOP DETECTOR	8	4	100

- TRAFFIC SIGNAL GENERAL NOTES**
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. (ILL. I.E. 800-892-0123)
 - ALL DETECTOR AMPLIFIERS SHALL BE SINGLE CHANNEL AND SHELF MOUNTED.
 - ALL SIGNAL BASES SHALL BE LOCATED A MINIMUM OF 18 FEET FROM THE EDGE OF PAVEMENT OR 6 FEET FROM THE EDGE OF SHOULDER UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 - A 1/2" DIAMETER CONTINUOUS NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER AS INCIDENTAL TO THE RESPECTIVE CONDUIT PAY ITEM.
 - THE PROPOSED TRAFFIC SIGNAL CONTROL CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CORD WITHIN THE POLICE DOOR COMPARTMENT AS INCIDENTAL TO THE CONTROL CABINET PAY ITEM.
 - THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON, INCIDENTAL TO THE CONTROLLER PAY ITEM.
 - THE DEPARTMENT OF TRANSPORTATION (815-434-8508) SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO THE TURNING ON OF THE CONTROLLER UNIT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNAL AND STREET LIGHTING. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO BEGINNING WORK TO OBTAIN THE UTILITY COMPANY REQUIREMENTS FOR THE SERVICE INSTALLATION.
 - NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2 FEET MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
 - ALL MAST ARM MOUNTED SIGNAL HEADS ON AN INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATORS ARE LEVEL WITH EACH OTHER.
 - THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
 - ALL DETECTOR LOOP HARNESSES SHALL BE FURNISHED WITH PLASTIC TAGS LABELED WITH RESPECTIVE PHASES AND DIRECTION AS LISTED IN THE DETECTOR LOOP CHART. MINIMUM TAG SIZE OF 3/8" BY 3/4". ALL DETECTOR AMPLIFIERS SHALL BE LABELED THE SAME AS THE HARNESS WITH A REMOVABLE TAG. TAGS SHALL BE MADE OF A MATERIAL THAT DOES NOT ALLOW WRITING TO FADE OVER TIME.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY, INCIDENTAL TO THE CONDUIT OR FOUNDATION PAY ITEM.
 - ALL THREADS OF BOLTS USED IN ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
 - THE LENGTH OF DETECTOR LOOP CABLE FROM THE SHOULDER TO THE HANDHOLE IS INCIDENTAL TO THE DETECTOR LOOP PAY ITEM.
 - DOUBLE FUSED FUSE HOLDERS AND SURGE ARRESTORS ARE TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR IN THE BASE OF THE COMBINATION MAST ARM AS INCIDENTAL TO THE LIGHT FIXTURE PAY ITEM. THE LIGHT FIXTURE ON THE COMBINATION MAST ARM SHALL BE ATTACHED TO AN 18 FOOT ARM AS SHOWN IN THE STANDARD DRAWINGS, UNLESS SPECIFICALLY STATED OTHERWISE ELSEWHERE IN THE PLANS.
 - THE ENGINEER SHALL APPROVE THE LOCATION OF THE DETECTOR LOOPS BEFORE SLOTS ARE SAWS IN THE PAVEMENT.

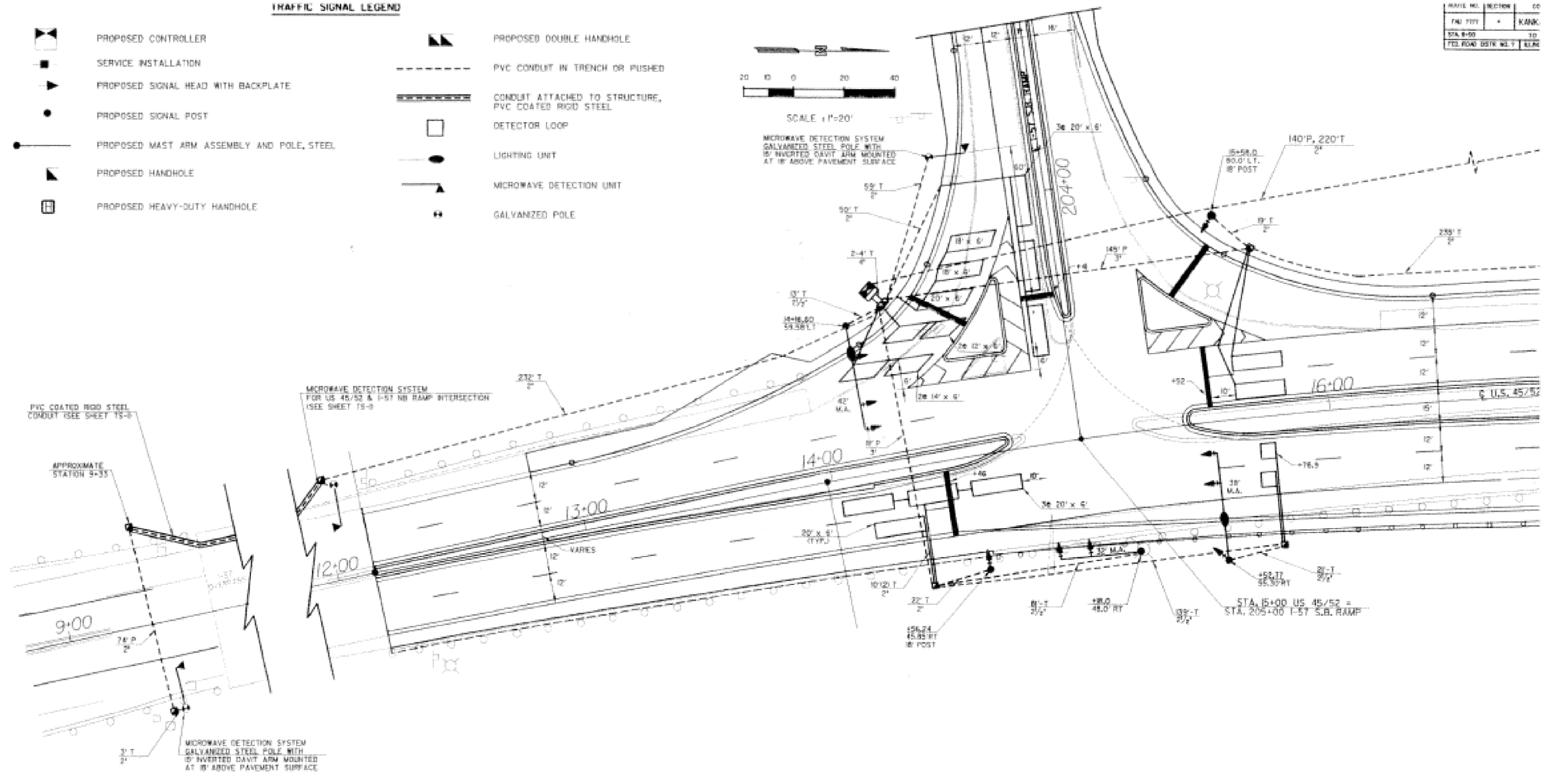


- CABLE PLAN LEGEND**
- PROPOSED
 - CONTROLLER CABINET
 - SERVICE INSTALLATION
 - VEHICLE DETECTOR, INDUCTIVE
 - ELECTRIC CABLE IN CONDUIT - DENOTES NUMBER OF CONDUCTORS - DENOTES NUMBER OF PAIR ALL CABLE NO. 14 EXCEPT A
 - 12" TRAFFIC SIGNAL SECTION
 - SIGNAL FACE WITH BACKPLATE
 - MICROWAVE DETECTOR UNIT

FOR INFORMATION ONLY

TRAFFIC SIGNAL LEGEND

- | | | | |
|--|--|--|---|
| | PROPOSED CONTROLLER | | PROPOSED DOUBLE HANDHOLE |
| | SERVICE INSTALLATION | | PVC CONDUIT IN TRENCH OR PUSHED |
| | PROPOSED SIGNAL HEAD WITH BACKPLATE | | CONDUIT ATTACHED TO STRUCTURE, PVC COATED RIGID STEEL |
| | PROPOSED SIGNAL POST | | DETECTOR LOOP |
| | PROPOSED MAST ARM ASSEMBLY AND POLE, STEEL | | LIGHTING UNIT |
| | PROPOSED HANDHOLE | | MICROWAVE DETECTION UNIT |
| | PROPOSED HEAVY-DUTY HANDHOLE | | GALVANIZED POLE |



Mast Arm Assembly Foundation Depth

Mast Arm Length	A	B	Number of No. 5 Rebars	Foundation Depth
Less than 30'	30	24	8	8'-0"
Greater than or equal to 30' and less than 40'	30	24	8	12'-0"
Greater than or equal to 40' and less than 50'	30	24	8	15'-0"
Greater than or equal to 50' and less than 60'	30	24	8	17'-0"

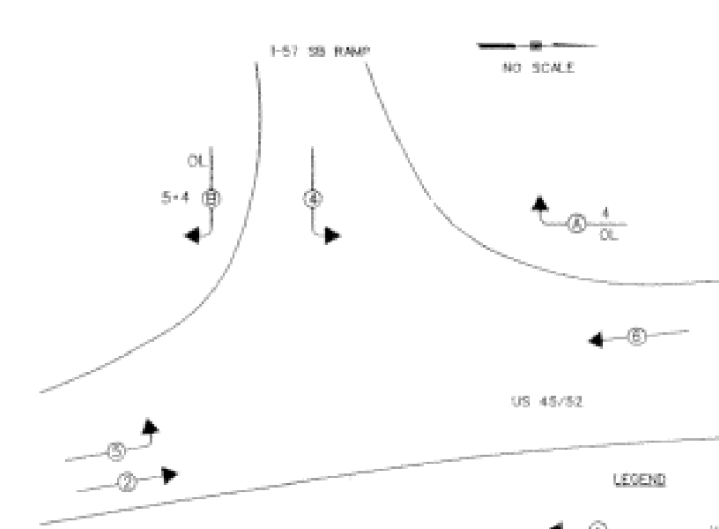
FOR INFORMATION ONLY

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Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

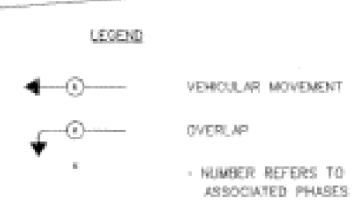
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EXISTING TRAFFIC SIGNAL INSTALLATION FOR US 45/52 AND SB RAMP	
SCALE:	SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4BK)IR	KANKAKEE	36	33
CONTRACT NO. 66E83				
ILLINOIS FED. AID PROJECT				



CONTROLLER SEQUENCE
 REFERRING TO STANDARD 857001, THE VEHICULAR PHASES USED ARE DESIGNATED ABOVE.



SB RAMP			
CODE NO.	ITEM	UNIT	QUANTITY
70101700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L. SUM	0.33
72000100	SIGN PANEL, TYPE 1	SQ. FT.	5
81012800	CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	467
81012700	CONDUIT IN TRENCH, 2 1/2" DIA., PVC	FOOT	116
81013000	CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	8
81021350	CONDUIT PUSHED, 3" DIA., PVC	FOOT	750
81400400	CONCRETE HANDHOLE	EACH	1
81400600	CONCRETE DOUBLE HANDHOLE	EACH	1
82401240	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1385
82401250	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	650
82401300	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1325
82401800	ELECTRIC CABLE IN CONDUIT, SERVICE NO. 8 2C	FOOT	350
82500140	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 12F	FOOT	650
83202520	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 10'	EACH	2
83400200	STEEL MAST ARM ASSEMBLY AND POLE, 32'	EACH	1
83402820	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 38'	EACH	1
83402840	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 42'	EACH	1
83800100	CONCRETE FOUNDATION, TYPE A	FOOT	5
83800200	CONCRETE FOUNDATION, TYPE D	FOOT	3
83800400	CONCRETE FOUNDATION, TYPE E, 30" DIAMETER	FOOT	39
84020180	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
84020170	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
84020270	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
84020280	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	3
84200400	TRAFFIC SIGNAL BACKPLATE, FORMED PLASTIC	EACH	10
84400250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250W	EACH	2
84800105	INDUCTION LOOP DETECTOR (SPECIAL)	EACH	2
84700100	DETECTOR LOOP, TYPE 1	FOOT	1025
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
88000100	MASTER CONTROLLER	EACH	1
88400100	TRANSCEIVER-FIBER OPTIC	EACH	1
88700200	SERVICE INSTALLATION, TYPE B	EACH	1
88800100	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1152
	MICROWAVE DETECTION UNIT	EACH	2

ELECTRICAL LOAD CHART
 U.S. ROUTE 45/52

	NUMBER	WATTAGE	EACH	BURN TIME	IS
RED	6	135		55	
YELLOW	6	135		6.7	
GREEN	6	135		38.3	
YELLOW ARROW	2	135		6.7	
GREEN ARROW	2	135		40.6	

1-57 SB RAMP

	NUMBER	WATTAGE	EACH	BURN TIME	IS
RED	4	135		58.3	
YELLOW ARROW	4	135		6.7	
GREEN ARROW	4	135		51.7	

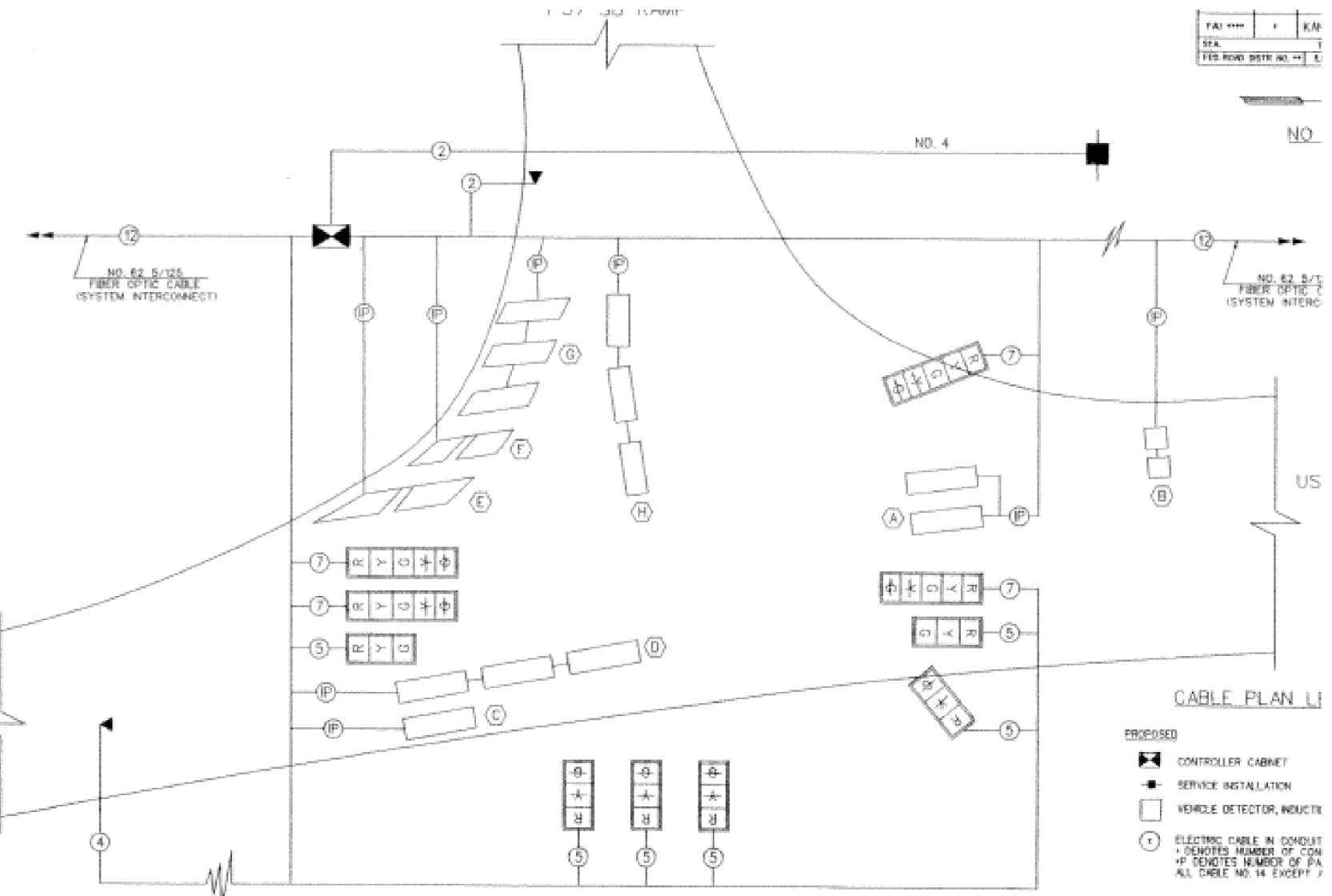
TRAFFIC SIGNAL CABINET

	NUMBER	WATTAGE	EACH	BURN TIME	IS
CONTROLLER	1	6		100	
LOOP DETECTOR	6	4		100	

DETECTOR LOOP INDUCTANCE CHART

LOOP SYSTEM	LABL.	PHASE	NUMBER OF TURNS	INDUCTANCE (mH)	FREQUENCY (HERTZ)	J PIN STATUS
A	SB STBR	6	4	545	28144	ON
B	SB FAR	6	6	624	24428	ON
C	NB STBR	2	4	290	35840	ON
D	NBLT	5	4	814	21392	ON
E	EBRT FR	4	4	448	28835	OFF
F	EBRT MD	4	4	384	31146	OFF
G	EBRT BK	4	4	765	22088	ON
H	EBLT	4	4	799	21592	ON

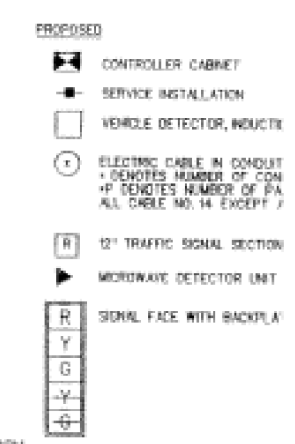
J PIN STATUS:
 ON MEANS STANDARD DETECTOR SETUP
 OFF MEANS THE J WIRE HAS BEEN DISCONNECTED, BUT INFECT AT THE HARMLESS PANEL WITH THE NECESSARY SPARE CONNECTION, ATTACHED, MARKED, AND INSULATED.



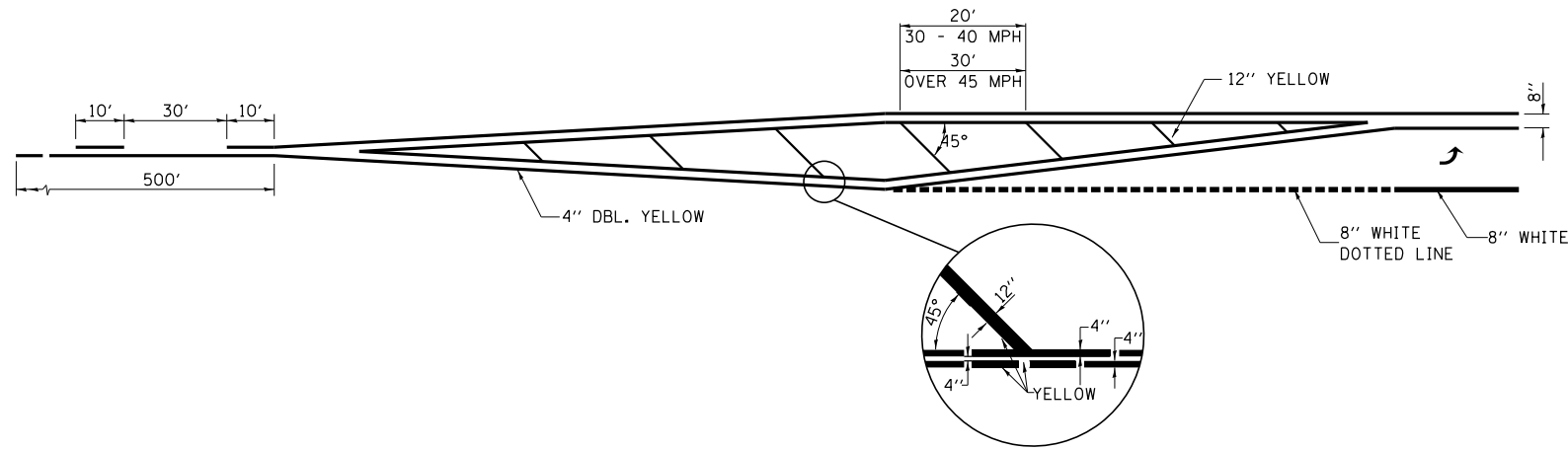
CABLE DIAGRAM

TRAFFIC SIGNAL GENERAL NOTES

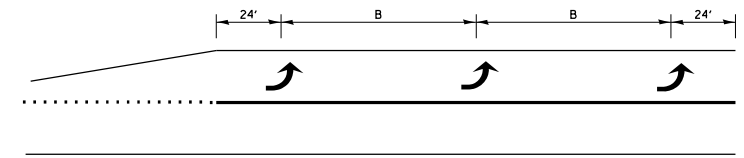
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. (I.L.L.E. 800-892-0123)
- ALL DETECTOR AMPLIFIERS SHALL BE SINGLE CHANNEL AND SHELF MOUNTED.
- ALL SIGNAL BASES SHALL BE LOCATED A MINIMUM OF 15 FEET FROM THE EDGE OF PAVEMENT OR 6 FEET FROM THE EDGE OF SHOULDER UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- A 1/2" DIAMETER CONTRAIDUS NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER AS INCIDENTAL TO THE RESPECTIVE CONDUIT PAY ITEM.
- THE PROPOSED TRAFFIC SIGNAL CONTROL CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CORD WITHIN THE POLICE DOOR COMPARTMENT AS INCIDENTAL TO THE CONTROL CABINET PAY ITEM.
- THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON, INCIDENTAL TO THE CONTROLLER PAY ITEM.
- THE DEPARTMENT OF TRANSPORTATION (815-434-8506) SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO THE TURNING ON OF THE CONTROLLER UNIT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNAL AND STREET LIGHTING. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO BEGINNING WORK TO OBTAIN THE UTILITY COMPANY REQUIREMENTS FOR THE SERVICE INSTALLATION.
- NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2 FEET MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
- ALL MAST ARM MOUNTED SIGNAL HEADS ON AN INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATIONS ARE LEVEL WITH EACH OTHER.
- THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLD, SOFT COPPER.
- ALL DETECTOR LOOP HARNESSSES SHALL BE FURNISHED WITH PLASTIC TAGS LABELED WITH RESPECTIVE PHASES AND DIRECTION AS LISTED IN THE DETECTOR LOOP CHART. MINIMUM TAG SIZE OF 3/8" BY 1/4". ALL DETECTOR AMPLIFIERS SHALL BE LABELED THE SAME AS THE HARNESS WITH A REMOVABLE TAG. TAGS SHALL BE MADE OF A MATERIAL THAT DOES NOT ALLOW WRITING TO FADE OVER TIME.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY, INCIDENTAL TO THE CONDUIT OR FOUNDATION PAY ITEM.
- ALL THREADS OF BOLTS USED IN ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
- THE LENGTH OF DETECTOR LOOP CABLE FROM THE SHOULDER TO THE HANDHOLE IS INCIDENTAL TO THE DETECTOR LOOP PAY ITEM.
- DOUBLE FUSED FUSE HOLDERS AND SURGE ARRESTORS ARE TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR IN THE BASE OF THE COMBINATION MAST ARM AS INCIDENTAL TO THE LIGHT FIXTURE PAY ITEM. THE LIGHT FIXTURE ON THE COMBINATION MAST ARM SHALL BE ATTACHED TO AN 18 FOOT ARM AS SHOWN IN THE STANDARD DRAWINGS, UNLESS SPECIFICALLY STATED OTHERWISE ELSEWHERE IN THE PLANS.
- THE ENGINEER SHALL APPROVE THE LOCATION OF THE DETECTOR LOOPS BEFORE SLOTS ARE SAWED IN THE PAVEMENT.
- THE CONTROLLER SH THAT INTERSECTION CONTROLLER COMPO SIMULTANEOUSLY.
- GIVE HOLES FOR ALL TALS SHALL BE SEP OF SIX INCHES.



FOR INFORMATION ONLY

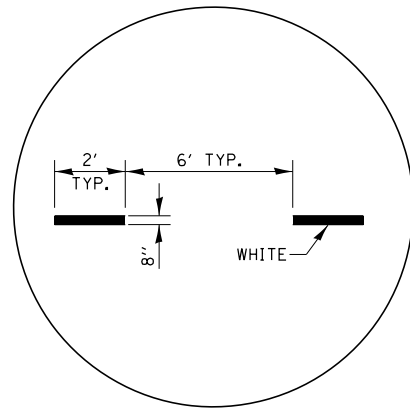


**TYPICAL APPLICATION
MEDIAN AND LEFT TURN LANE**

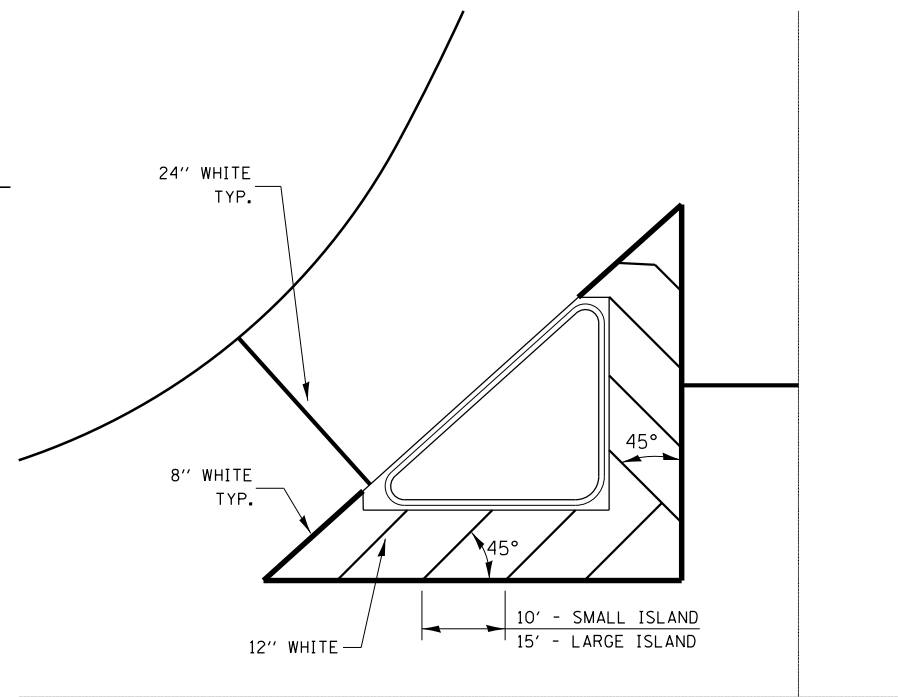


150' AND LONGER

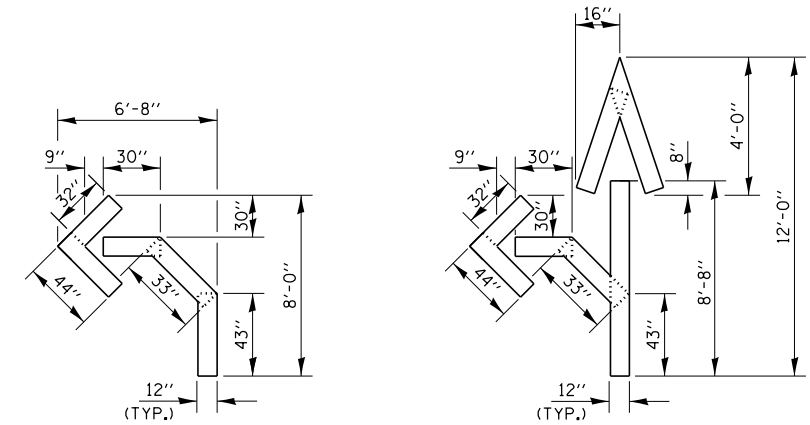
**TYPICAL PLACEMENT OF ARROWS
IN TURN LANES**



**ADVANCE AND INTERSECTION LANE
DIVIDER LINES**

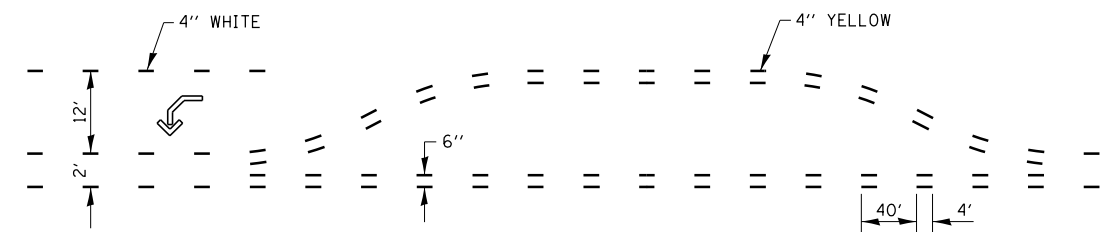


TYPICAL ISLAND



QUANTITY
12" LINE = 16 LIN. FT.
OR 4" LINE = 48 LIN. FT.

QUANTITY
12" LINE = 29 LIN. FT.
OR 4" LINE = 87 LIN. FT.



**SHORT-TERM PAVEMENT MARKING
FOR MEDIANS AND ARROWS**

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED -
p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 3\Projects\0366\BROWNDATA\PRELIMINARY PLANS		CHECKED - EP	REVISED -
Default	PLOT DATE = 11/5/2016	DATE - 7/12/2016	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL PAVEMENT MARKINGS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
840	(46-4HBK)IR	KANKAKEE	36	36
CONTRACT NO. 66E83				
ILLINOIS FED. AID PROJECT				