

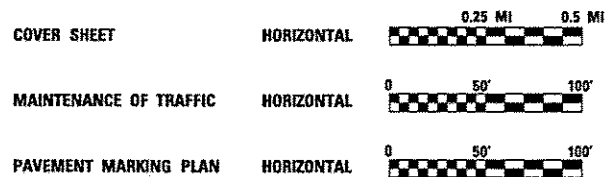
FOR INDEX OF SHEETS, SEE SHEET NO. 2  
 FOR LIST OF STANDARDS, SEE SHEET NO. 2

**IMPROVEMENTS LOCATED IN SUGAR GROVE, IL**

**US 30**  
 S.N. 045-0035 (EB)  
 ADT = 6,100 (2009)  
 POSTED SPEED: 55 MPH  
 S.N. 045-0036 (WB)  
 ADT = 8,200 (2009)  
 POSTED SPEED: 55 MPH

**IL 47**  
 ADT = 18,600 (2009)  
 POSTED SPEED: 45 MPH

**GRAPHIC SCALES:**



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

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

**PROJECT ENGINEER: ROBERT T. BORO, PE (847) 705-4237**  
**PROJECT MANAGER: ISSAM RAYYAN, PE (847) 705-4178**  
**CONTRACT NO.: 60N12**

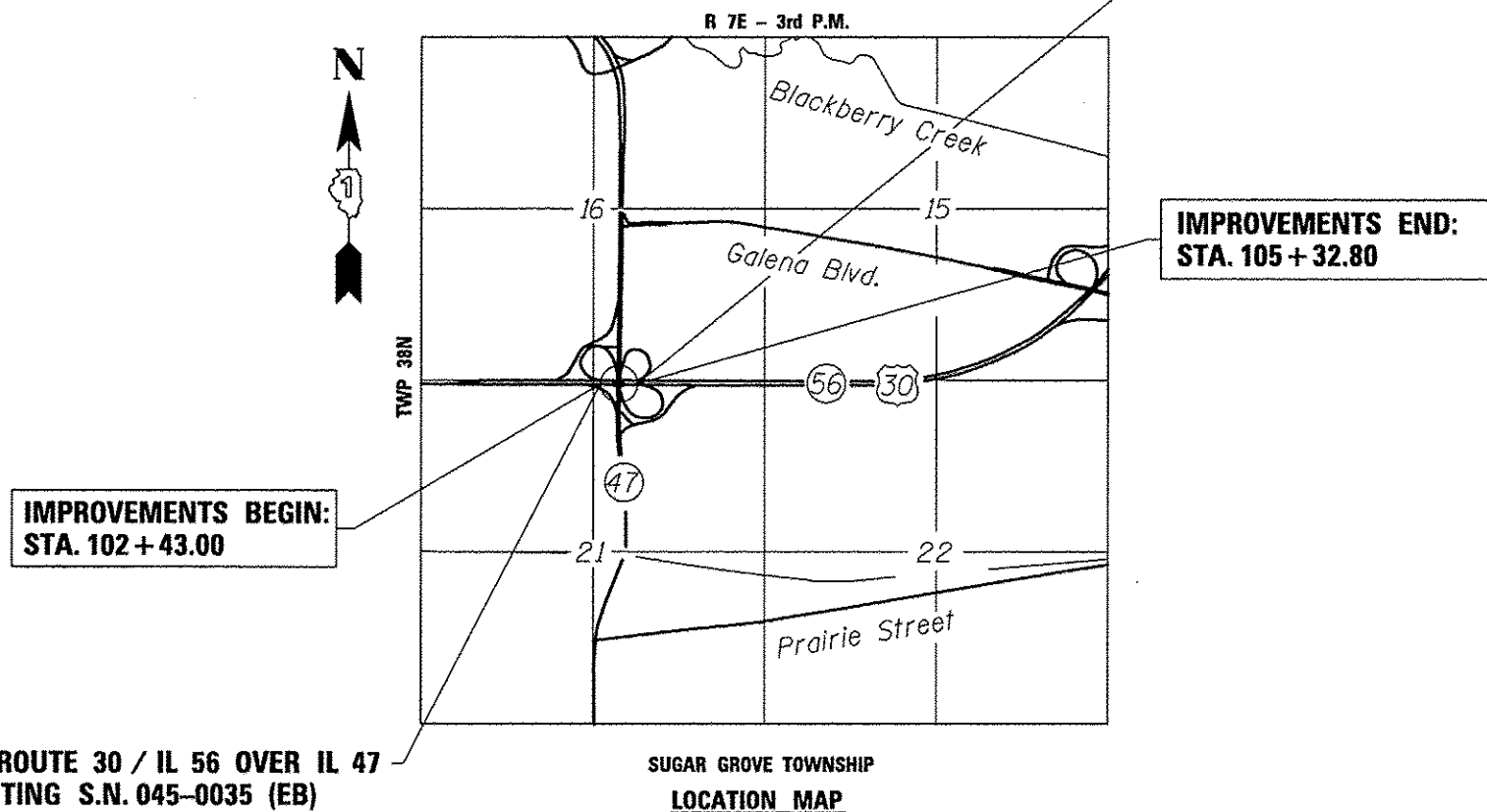
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

**PROPOSED**  
**HIGHWAY PLANS**

**F.A.P. 573 (US ROUTE 30 / IL 56) OVER IL 47**  
**SECTION 61 HB-1-7**

**BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE REPAIRS,**  
**REMOVAL AND REPLACEMENT OF APPROACH SLABS**  
**KANE COUNTY**

**JOB NO. C-91-239-11**



**US ROUTE 30 / IL 56 OVER IL 47**  
**EXISTING S.N. 045-0035 (EB)**  
**EXISTING S.N. 045-0036 (WB)**

**GROSS AND NET LENGTH OF IMPROVEMENT = 289.80 FEET = 0.05 MILE**



*Fred M. Lin*  
 FRED M. LIN, P.E.  
 ILLINOIS REGISTERED ENGINEER NO. 062-056704  
 REGISTRATION EXPIRES NOV. 30, 2013

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60N12		

\*48 + 10 = 58

D-91-239-11



LOCATION OF SECTION INDICATED THUS: —

**PREPARED BY:**  
**LIN ENGINEERING, LTD.**  
 SPRINGFIELD, ILLINOIS 62711  
 (217) 679-2928

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED July 12 2013  
*John P. Johnson*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Aug 16 2013  
*John D. Baranzelli, P.E.*  
 ENGINEER OF DESIGN AND ENVIRONMENT

Aug 16 2013  
*Orner Osman, P.E.*  
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS**

## INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, STANDARDS, GENERAL NOTES & COMMITMENTS
- 3 SUMMARY OF QUANTITIES
- 4 MAINTENANCE OF TRAFFIC TYPICAL SECTION
- 5-13 MAINTENANCE OF TRAFFIC PLANS
- 14-18 PAVEMENT MARKING PLAN
- \* 19-39 STRUCTURAL PLANS
- 40-48 DISTRICT STANDARDS

\* INCLUDES 33A. - 33I.

## STATE STANDARDS

606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER.
630001-10	STEEL PLATE BEAM GUARDRAIL
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701400-06	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-09	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701411-08	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
701423-06	LANE CLOSURE, MULTILANE, WITH BARRIER, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701426-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPE A AND B METAL POSTS (FOR SIGNS AND MARKERS)

## DISTRICT STANDARDS (Sheets 40-48)

BD24	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
TC10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC12	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS
TC13	TYPICAL PAVEMENT MARKINGS
TC16	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
TC22	ARTERIAL ROAD INFORMATION SIGN
TC26	DRIVEWAY ENTRANCE SIGNING

## COMMITMENTS

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

## GENERAL NOTES

1. THESE PLANS HAVE BEEN PREPARED FROM INFORMATION ACQUIRED FROM EXISTING PLANS AND NOTES RECEIVED FROM IDOT FIELD MAINTENANCE ENGINEERS.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO VARIATIONS FOUND IN THE FIELD. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. ANY ADJUSTMENTS PROPOSED BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE.
3. QUANTITIES FOR DECK SLAB REPAIR ARE APPROXIMATE. LOCATIONS WILL BE DETERMINED BY THE ENGINEER FOLLOWING REMOVAL OF THE HMA SURFACE COURSE AND SCARIFICATION. ACTUAL REPAIR LOCATIONS SHALL BE SHOWN ON THE AS-BUILT PLANS.
4. FORTY-EIGHT HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) OR 811 FOR LOCATIONS OF THE EXISTING UTILITIES.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
6. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
7. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
8. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
9. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
10. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
11. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR, ANDREW SCHUETZE, AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
12. THE CONTRACTOR SHALL CONTACT MR. DON CHIARUGI, THE AREA TRAFFIC FIELD TECHNICIAN, AT (847) 741-9857 TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
13. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
14. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN ANY RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
15. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF SUGAR GROVE.
16. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
17. AN OPER 2410 FORM REPORTING A WIDTH RESTRICTION DURING CONSTRUCTION SHALL BE SUBMITTED TO IDOT CENTRAL OFFICE IN SPRINGFIELD, BUREAU OF OPERATIONS A MINIMUM OF 21 DAYS PRIOR TO INSTALLING TEMPORARY CONCRETE BARRIER.

## HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS	LIFT THICKNESS
BRIDGE APPROACH PAVEMENT		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2"	4% @ 50 Gyr.	1-1/2"
TEMPORARY PAVEMENT (10")		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2"	4% @ 50 Gyr.	2"
TEMPORARY PAVEMENT (HMA BINDER IL-19.0mm), 8"	4% @ 50 Gyr.	2-1/4" MIN.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN. THE AC TYPE FOR POLYMERIZED HMA MIXTURES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS. PCC TEMPORARY PAVEMENT SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF ART. 1020 OF THE STANDARD SPECIFICATIONS; TYPICALLY 10" THICK.



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PLOT SCALE : #SCALE#	DRAWN - SEW	REVISED -
PLOT DATE : #DATE#	CHECKED - ST	REVISED -
	DATE - 11/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STANDARDS, GENERAL NOTES & COMMITMENTS  
US ROUTE 30 / IL 56 OVER IL 47

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

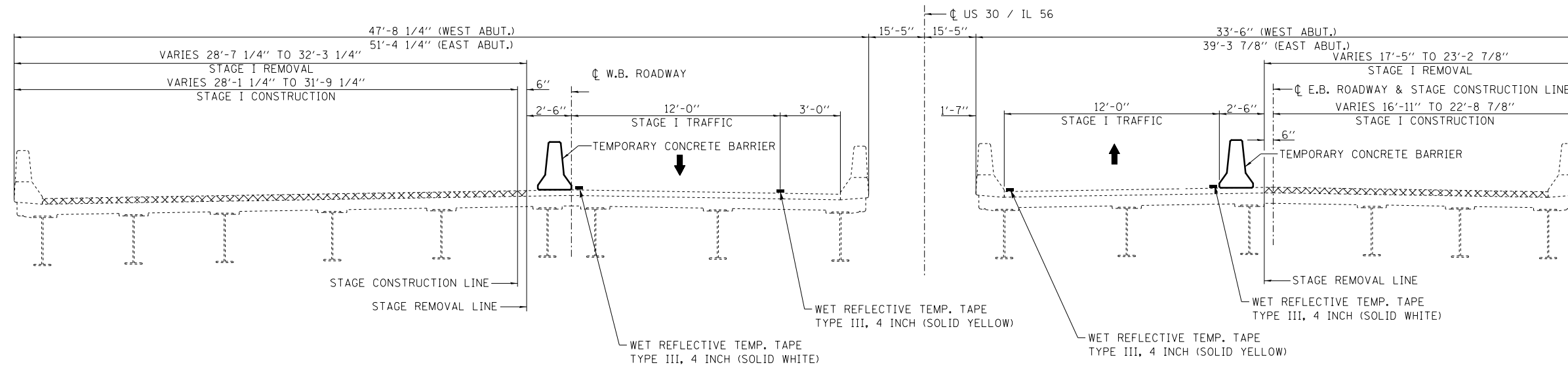
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	2
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60N12	

Rev.

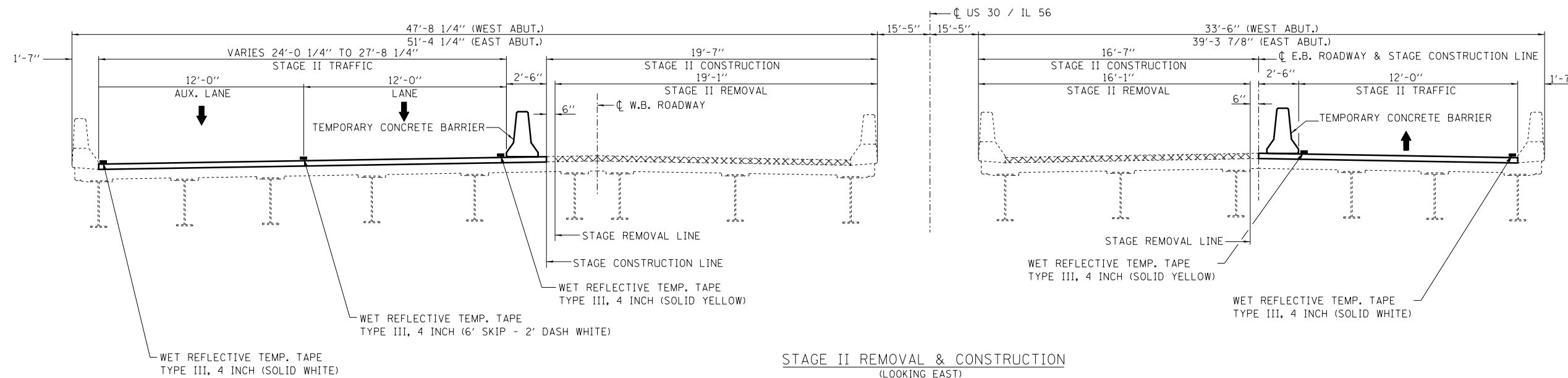
01 02  
SUMMARY OF QUANTITIES

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	S.N.	S.N.	0005 ROADWAY	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	S.N.	S.N.	0005 ROADWAY
				045-0035	045-0036						045-0035	045-0036	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	315	123	179	13	73304000	OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	FOOT	13.5	13.5		
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	135	55	80		78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	77			77
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	605	246	359		78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	11132			11132
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	320	160	160		78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	155			155
48101620	AGGREGATE SHOULDERS, TYPE B 10"	SQ YD	129			129	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	5819			5819
50102400	CONCRETE REMOVAL	CU YD	29.0	12.9	16.1		78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	395			395
50104650	SLOPE WALL REMOVAL	SQ YD	319	215	104		78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	149			149
50157300	PROTECTIVE SHIELD	SQ YD	898	383	515		78200530	BARRIER WALL MARKERS, TYPE C	EACH	264			264
50300100	FLOOR DRAINS	EACH	24	12	12		78300100	PAVEMENT MARKING REMOVAL	SO FT	8103			8103
50300255	CONCRETE SUPERSTRUCTURE	CU YD	29.2	13.0	16.2		78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	149			149
50300260	BRIDGE DECK GROOVING	SQ YD	1741	720	1021		X0326766	CLEAN & RESEAL RELIEF JOINT	FOOT	136	54	82	
50300300	PROTECTIVE COAT	SQ YD	424	205	219		X4400110	TEMPORARY PAVEMENT REMOVAL	SO YD	129			129
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	13570	11270	2300		X6060082	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.12 (SPECIAL)	FOOT	320	160	160	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2620	1120	1500		X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1			1
50800515	BAR SPLICERS	EACH	48	24	24		X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	13704			13704
51100100	SLOPE WALL 4 INCH	SO YD	319	213	106		X7030045	WET REFLECTIVE TEMPORARY TAPE TYPE III, 8 INCH	FOOT	6367			6367
52000110	PREFORMED JOINT STRIP SEAL	FOOT	166	70	96		Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SO YD	19	9	10	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	30	12	18		Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	30	12	18	
52100520	ANCHOR BOLTS, 1"	EACH	60	24	36		Z0001903	STRUCTURAL STEEL REMOVAL	POUND	9570	9570		
63301235	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	48	24	24		Z0001905	STRUCTURAL STEEL REPAIR	POUND	10610	4790	5820	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6			6	Z0003600	BEAM STRAIGHTENING	L SUM	1	0.3	0.7	
67100100	MOBILIZATION	L SUM	1			1	Z0006020	BRIDGE DECK LATEX CONCRETE OVERLAY 3/2"	SQ YD	1807	755	1052	
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2			2	Z0012152	BRIDGE DECK SCARIFICATION 3/2"	SO YD	1807	755	1052	
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	2			2	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	702	273	429	
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	6			6	Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SO FT	77		77	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6			6	Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	54	24	30	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	4			4	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	280			280
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	8834			8834	Z0062456	TEMPORARY PAVEMENT	SO YD	129			129
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1650.0			1650.0	Z0073300	TEMPORARY SHORING AND CRIBBING	L SUM	1	0.5	0.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1288			1288	Z0073351	TEMPORARY SLAB SUPPORT SYSTEM	L SUM	1	1		
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4			4							
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4			4							
72000300	SIGN PANEL - TYPE 3	SO FT	94.5	94.5									

30  
• DENOTES SPECIALTY ITEM



STAGE I REMOVAL & CONSTRUCTION  
(LOOKING EAST)











STAGE II REMOVAL & CONSTRUCTION  
(LOOKING EAST)

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	DRAWN - SEW	REVISED -
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PLOT DATE = #DATE#	DATE - 11/2011	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	4
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

**LEGEND**

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES OR DRUMS
-  SIGN
-  ARROW BOARD

**PRESTAGE CONSTRUCTION:**

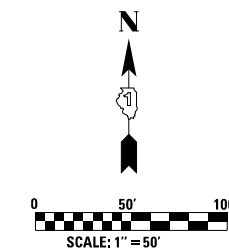
1. CONSTRUCT TEMPORARY PAVEMENT AT LOOP RAMP ALONG US ROUTE 30 / IL 56 AS SHOWN IN THE PLANS IN ACCORDANCE WITH HIGHWAY STANDARD 701411-08.

**STAGE I CONSTRUCTION:**

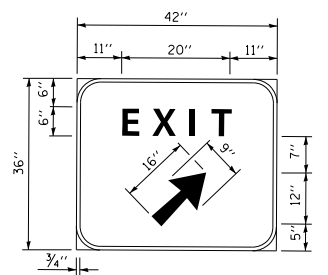
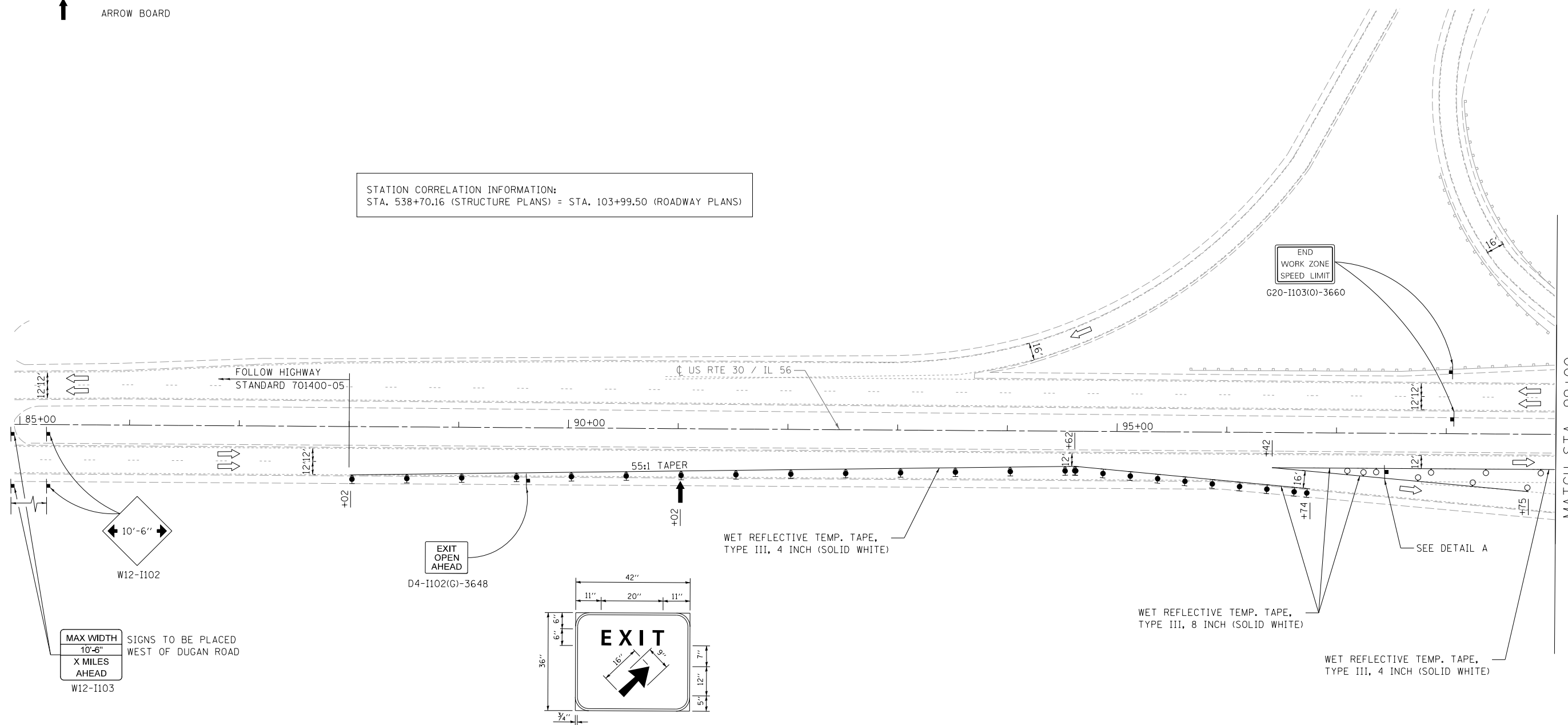
1. CLOSE OUTSIDE LANES OF US ROUTE 30 / IL 56 AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH HIGHWAY STANDARDS 701411-08, 701400-05, AND 701402-09.
2. REMOVE CONFLICTING EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS.
3. PERFORM OUTSIDE LANE STRUCTURAL AND APPROACH REPAIRS AS SHOWN IN THE PLANS.

**NOTES:**

1. FIRST TWO WARNING SIGNS IN EACH DIRECTION REQUIRE MONO-DIRECTIONAL FLASHING BEACONS.
2. FOR BARRICADE/DRUM SPACING SEE APPLICABLE HIGHWAY STANDARDS.



STATION CORRELATION INFORMATION:  
 STA. 538+70.16 (STRUCTURE PLANS) = STA. 103+99.50 (ROADWAY PLANS)



Background - Green  
 Border and legend - White  
 "D" size letters  
 EXIT SIGN - SPECIAL  
**DETAIL A**



USER NAME = \$USER\$	DESIGNED - SEW	REVISED -
DRAWN - SEW	REVISIONS -	
PLOT SCALE = \$SCALE\$	CHECKED - ST	REVISED -
PLOT DATE = \$DATE\$	DATE - 11/2011	REVISED -









**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

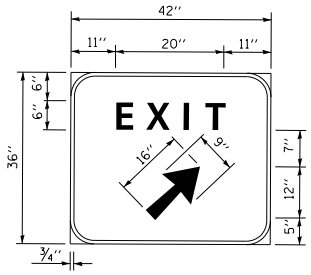
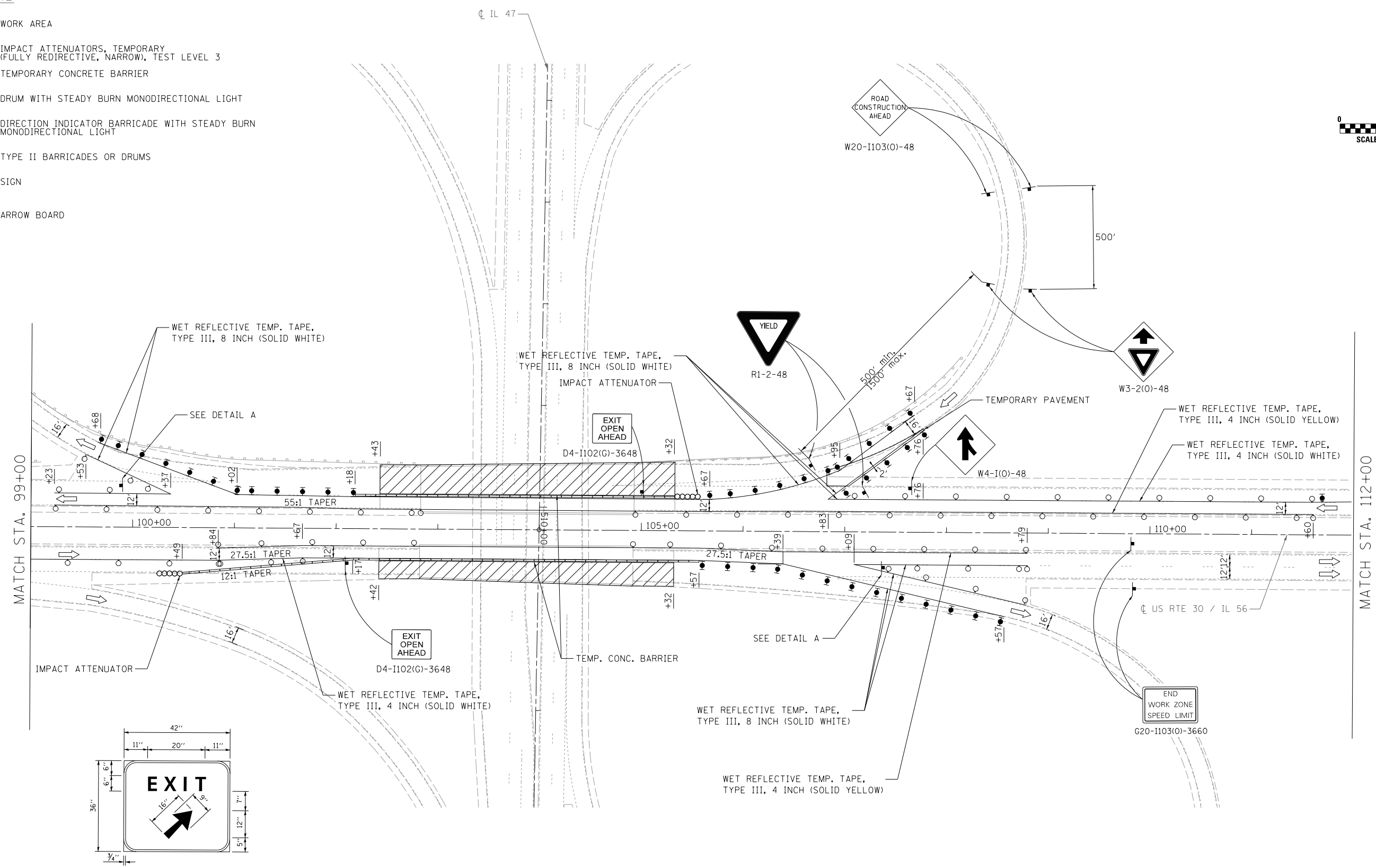
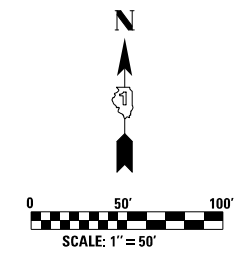
**MAINTENANCE OF TRAFFIC - STAGE I - US ROUTE 30 / IL 56  
 US ROUTE 30 / IL 56 OVER IL 47**

SCALE: 1"=50'    SHEET NO. 1 OF 3 SHEETS    STA. 85+00 TO STA. 99+00

F.A.P. RTE. 573	SECTION 61 HB-1-7	COUNTY KANE	TOTAL SHEETS 48	SHEET NO. 5
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**LEGEND**

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES OR DRUMS
-  SIGN
-  ARROW BOARD



Background - Green  
 Border and legend - White  
 "D" size letters  
 EXIT SIGN - SPECIAL  
 DETAIL A



USER NAME = *USER*	DESIGNED - SEW	REVISED -
PLOT SCALE = *SCALE*	DRAWN - SEW	REVISED -
PLOT DATE = *DATE*	CHECKED - ST	REVISED -
	DATE - 11/2011	REVISED -









**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

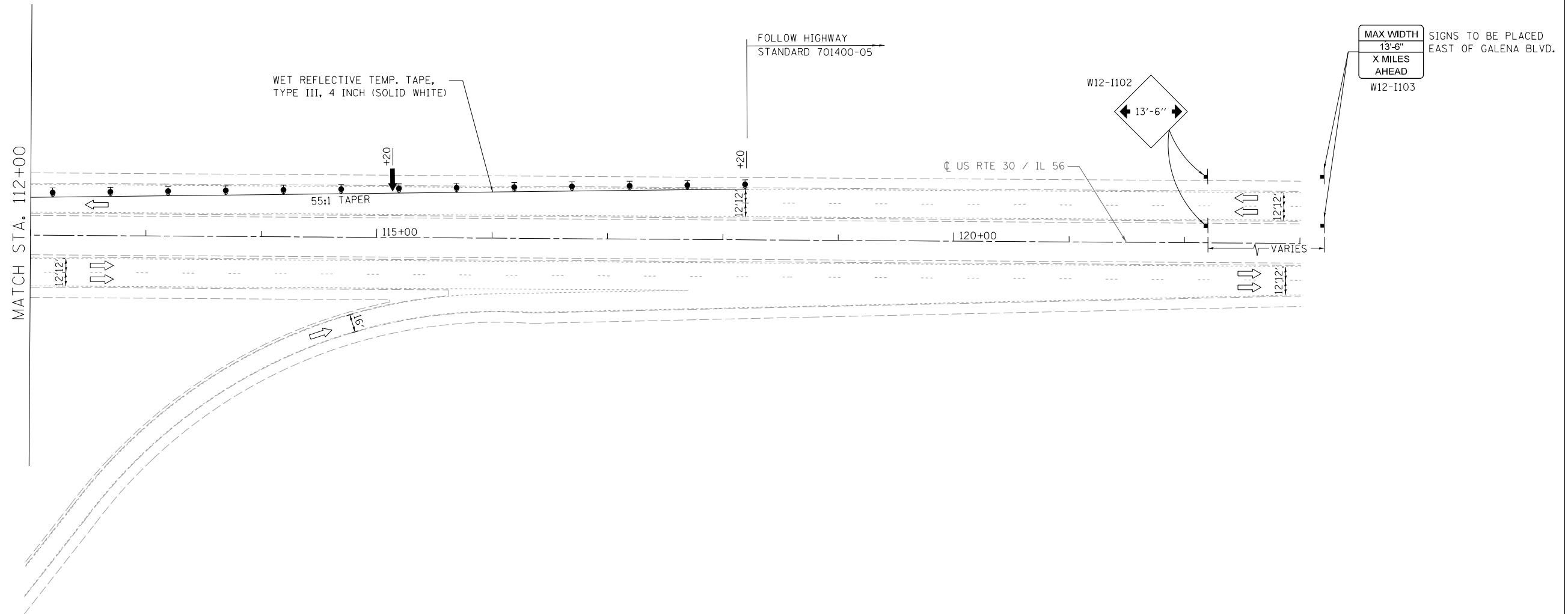
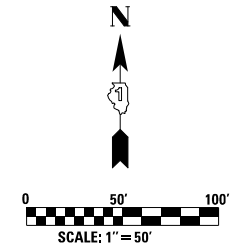
**MAINTENANCE OF TRAFFIC - STAGE I - US ROUTE 30 / IL 56  
 US ROUTE 30 / IL 56 OVER IL 47**

SCALE: 1"=50'    SHEET NO. 2 OF 3 SHEETS    STA. 99+00 TO STA. 112+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	6
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**LEGEND**









-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES OR DRUMS
-  SIGN
-  ARROW BOARD



USER NAME = *USER*	DESIGNED - SEW	REVISED -
	DRAWN - SEW	REVISED -
PLOT SCALE = *SCALE*	CHECKED - ST	REVISED -
PLOT DATE = *DATE*	DATE - 11/2011	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	7
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**LEGEND**

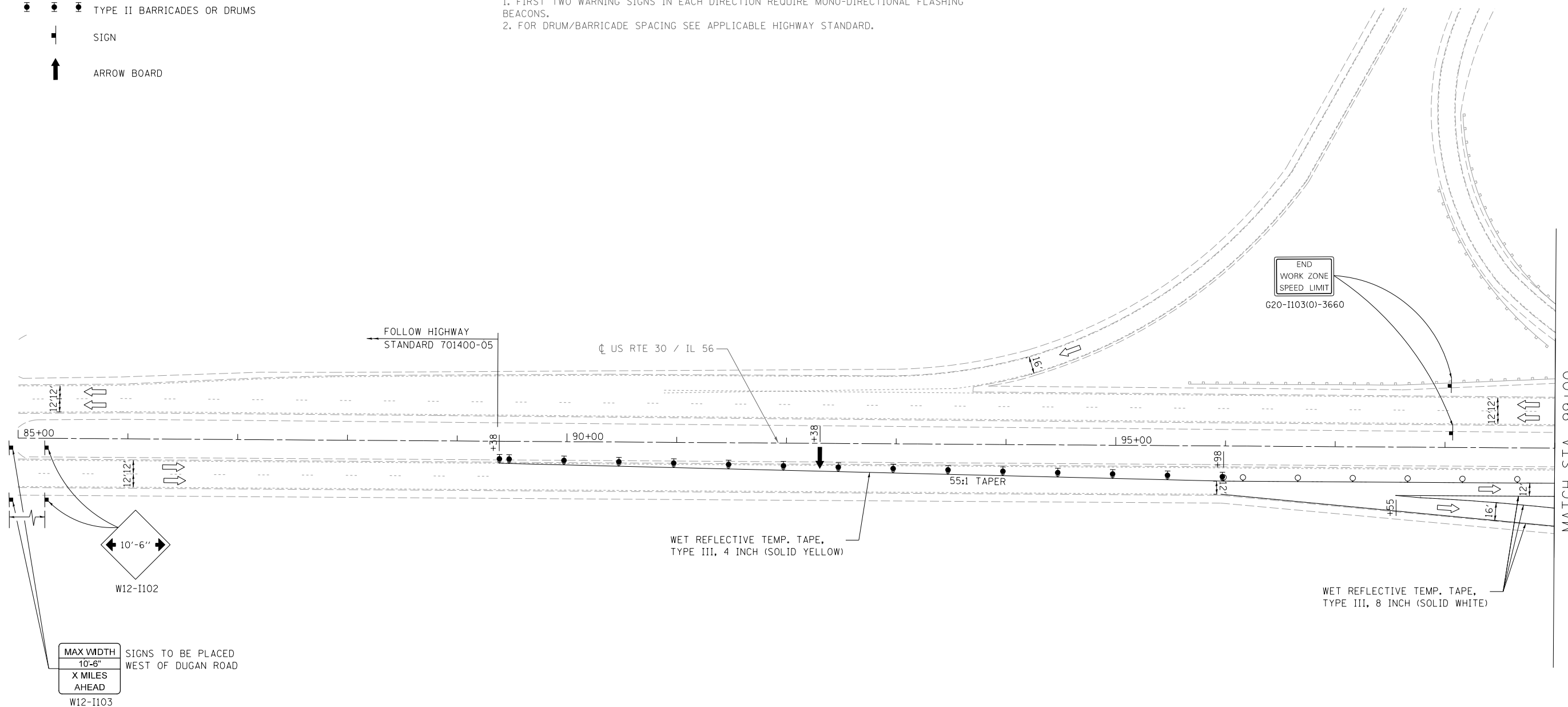
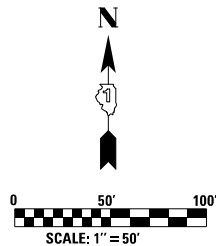
-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES OR DRUMS
-  SIGN
-  ARROW BOARD

**STAGE II CONSTRUCTION:**

1. CLOSE INSIDE LANES OF US ROUTE 30 / IL 56 AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH HIGHWAY STANDARDS 701400-05, 701402-09, AND 701411-08.
2. PERFORM INSIDE LANE STRUCTURAL AND APPROACH REPAIRS AS SHOWN IN THE PLANS.
3. REMOVE TEMPORARY PAVEMENT PLACED IN STAGE I ALONG US ROUTE 30 / IL 56 IN ACCORDANCE WITH HIGHWAY STANDARD 701411-08.
4. APPLY PERMANENT PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS AS SHOWN IN THE PROPOSED PAVEMENT MARKING PLANS IN ACCORDANCE WITH HIGHWAY STANDARD 701426-04.

**NOTES:**

1. FIRST TWO WARNING SIGNS IN EACH DIRECTION REQUIRE MONO-DIRECTIONAL FLASHING BEACONS.
2. FOR DRUM/BARRICADE SPACING SEE APPLICABLE HIGHWAY STANDARD.



USER NAME = \$USER*	DESIGNED - SEW	REVISED -
DRAWN - SEW	CHECKED - ST	REVISED -
PLOT SCALE = \$SCALE*	DATE - 11/2011	REVISED -
PLOT DATE = \$DATE*		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**









**MAINTENANCE OF TRAFFIC – STAGE II – US ROUTE 30 / IL 56  
US ROUTE 30 / IL 56 OVER IL 47**

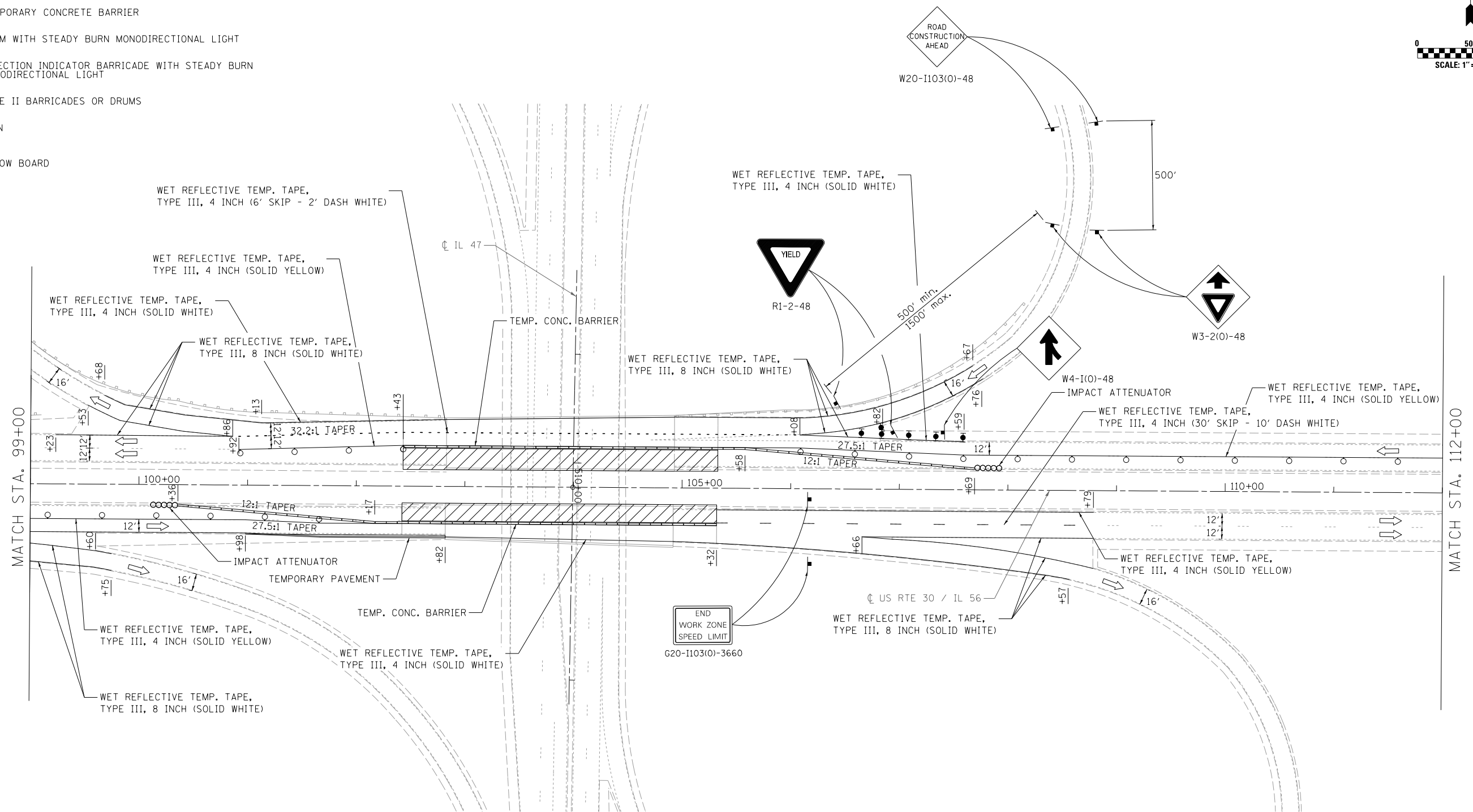
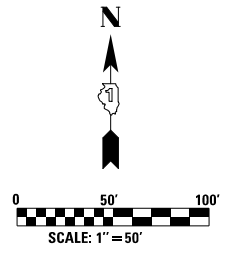
SCALE: 1"=50'    SHEET NO. 1 OF 3 SHEETS    STA. 85+00 TO STA. 99+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	8
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



**LEGEND**

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES OR DRUMS
-  SIGN
-  ARROW BOARD



USER NAME = *USER*	DESIGNED - SEW	REVISED -
DRAWN - SEW	CHECKED - ST	REVISED -
PLOT SCALE = *SCALE*	DATE - 11/2011	REVISED -
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







**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

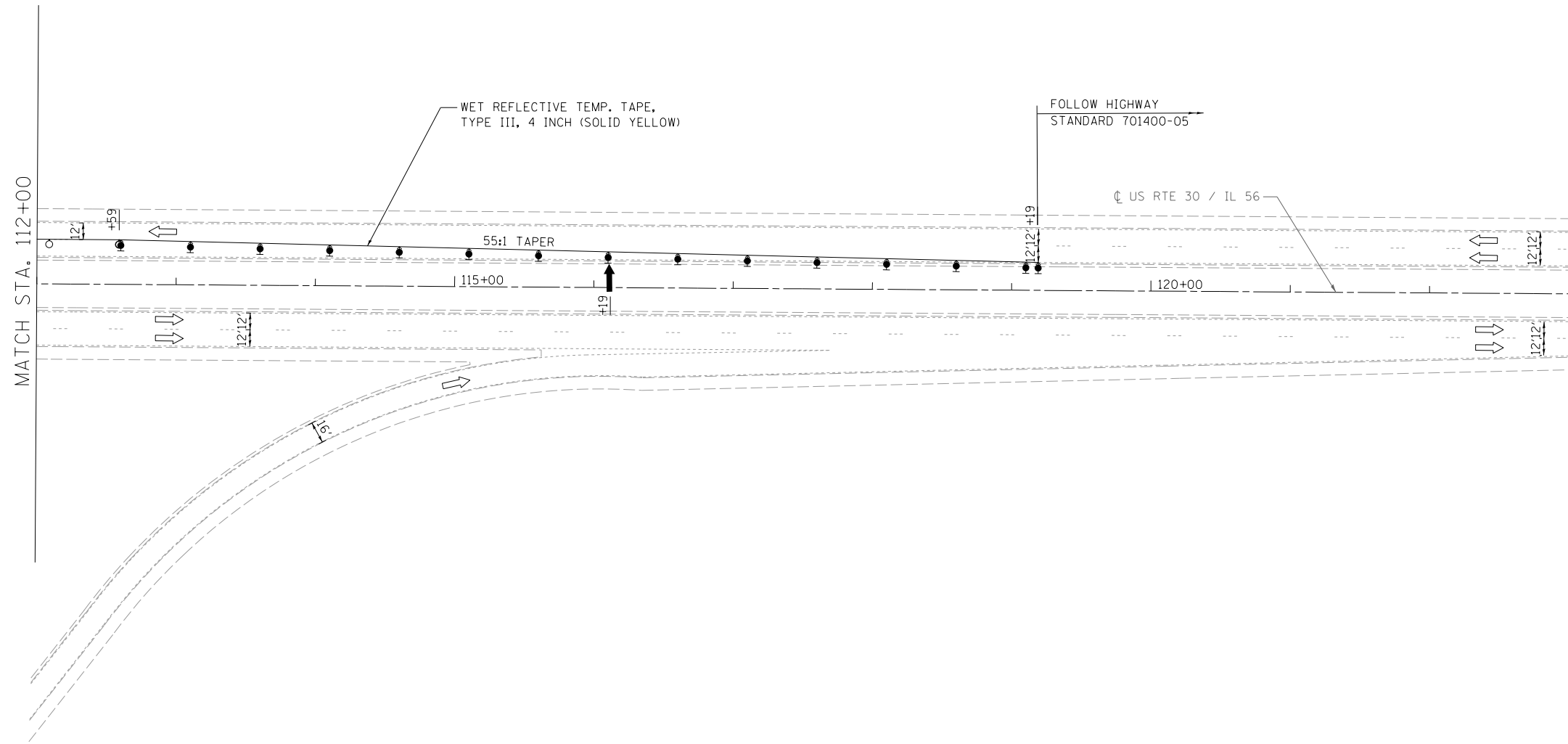
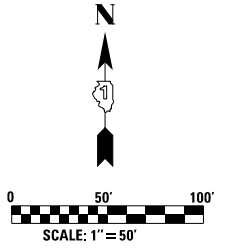
**MAINTENANCE OF TRAFFIC - STAGE II - US ROUTE 30 / IL 56  
US ROUTE 30 / IL 56 OVER IL 47**

SCALE: 1"=50'      SHEET NO. 2 OF 3 SHEETS      STA. 99+00 TO STA. 112+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	9
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**LEGEND**

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES OR DRUMS
-  SIGN
-  ARROW BOARD



USER NAME = \$USER\$	DESIGNED - SEW	REVISED -
	DRAWN - SEW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - ST	REVISED -
PLOT DATE = \$DATE\$	DATE - 11/2011	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**









**MAINTENANCE OF TRAFFIC - STAGE II - US ROUTE 30 / IL 56  
US ROUTE 30 / IL 56 OVER IL 47**

SCALE: 1"=50'      SHEET NO. 3 OF 3 SHEETS      STA. 112+00 TO STA. 123+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	10
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**LEGEND**

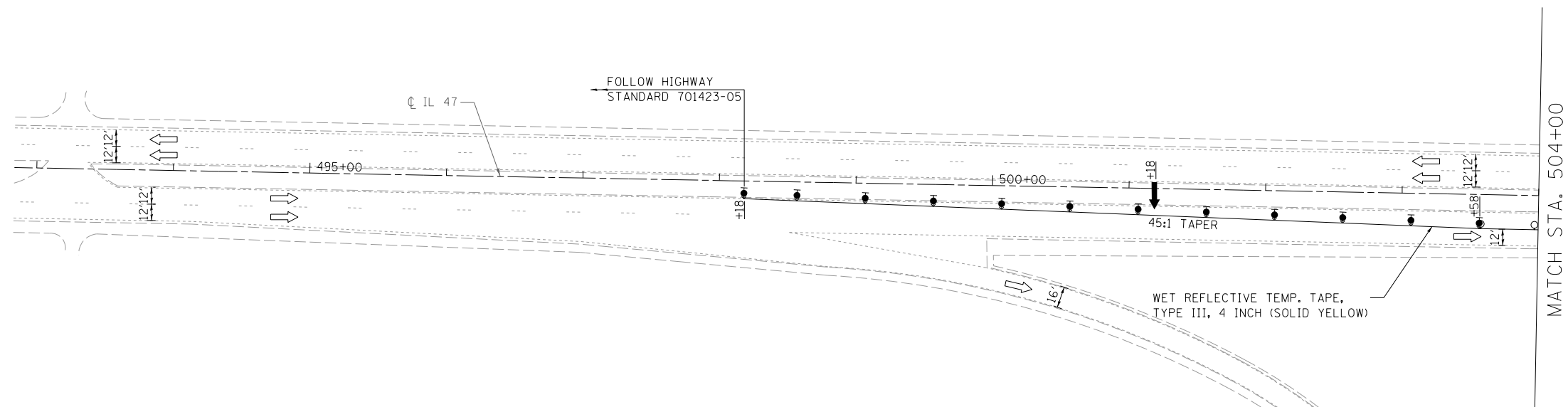
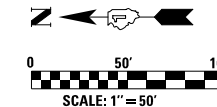
-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES OR DRUMS
-  SIGN
-  ARROW BOARD

**STAGE II CONSTRUCTION:**

1. CLOSE INSIDE LANES OF IL 47 AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH HIGHWAY STANDARD 701423-05.
2. PERFORM INSIDE LANE STRUCTURAL AND APPROACH REPAIRS AS SHOWN IN THE PLANS.
3. APPLY PERMANENT PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS AS SHOWN IN THE PROPOSED PAVEMENT MARKING PLANS IN ACCORDANCE WITH HIGHWAY STANDARD 701426-04.

**NOTES:**

1. FIRST TWO WARNING SIGNS IN EACH DIRECTION REQUIRE MONO-DIRECTIONAL FLASHING BEACONS.
2. FOR DRUM/BARRICADE SPACING SEE APPLICABLE HIGHWAY STANDARD.



USER NAME = \$USER\$	DESIGNED - SEW	REVISED -
	DRAWN - SEW	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED - ST	REVISED -
PLOT DATE = \$DATE\$	DATE - 11/2011	REVISED -









**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

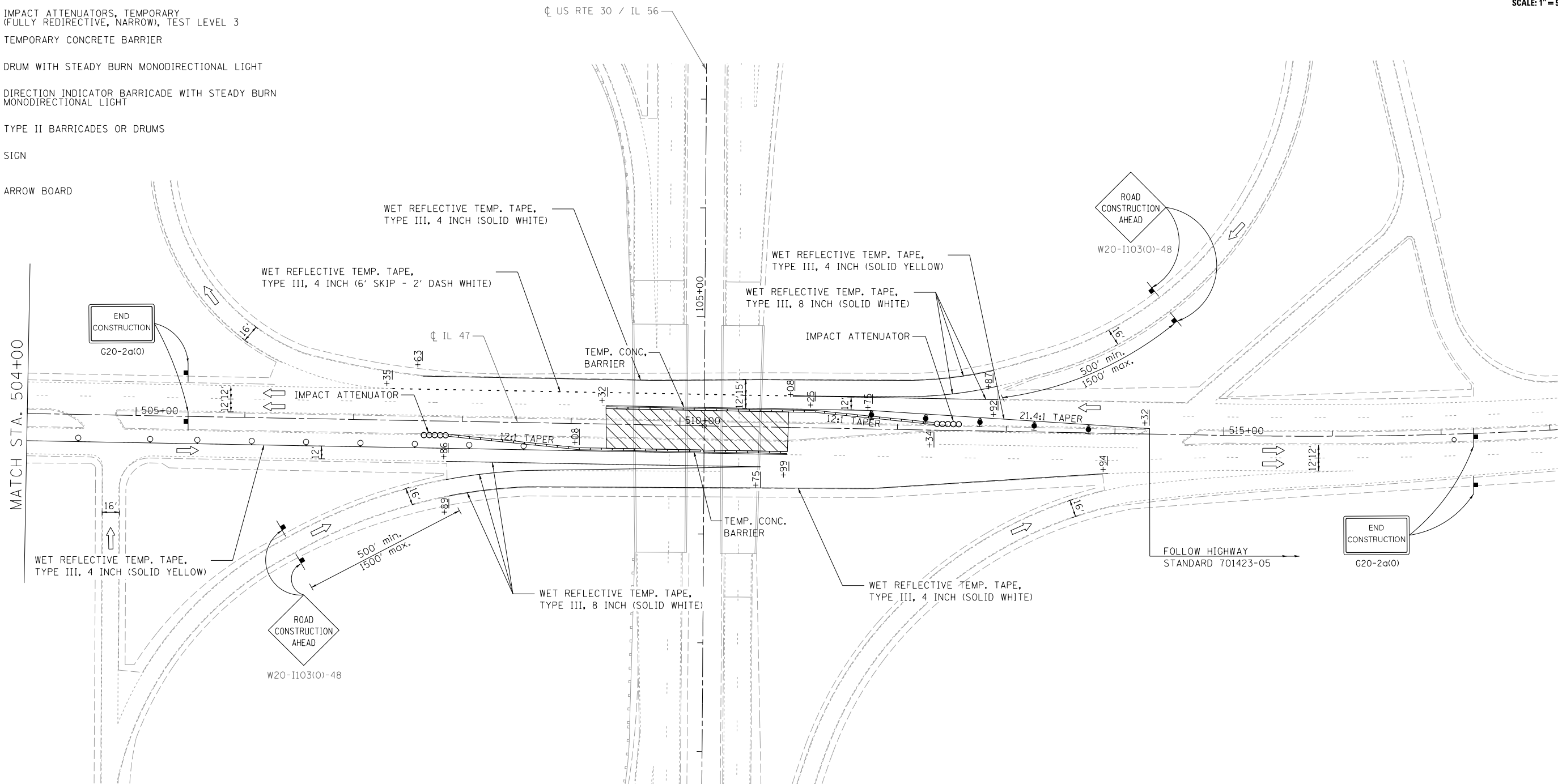
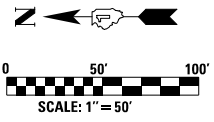
**MAINTENANCE OF TRAFFIC - STAGE II - IL 47  
US ROUTE 30 /IL 56 OVER IL 47**

SCALE: 1"=50'      SHEET NO. 1 OF 2 SHEETS      STA. 492+84 TO STA. 504+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	12
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.    ILLINOIS FED. AID PROJECT				

**LEGEND**

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES OR DRUMS
-  SIGN
-  ARROW BOARD



USER NAME = #USER#	DESIGNED - SEW	REVISED -
	DRAWN - SEW	REVISED -
PLOT SCALE = #SCALE#	CHECKED - ST	REVISED -
PLOT DATE = #DATE#	DATE - 11/2011	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

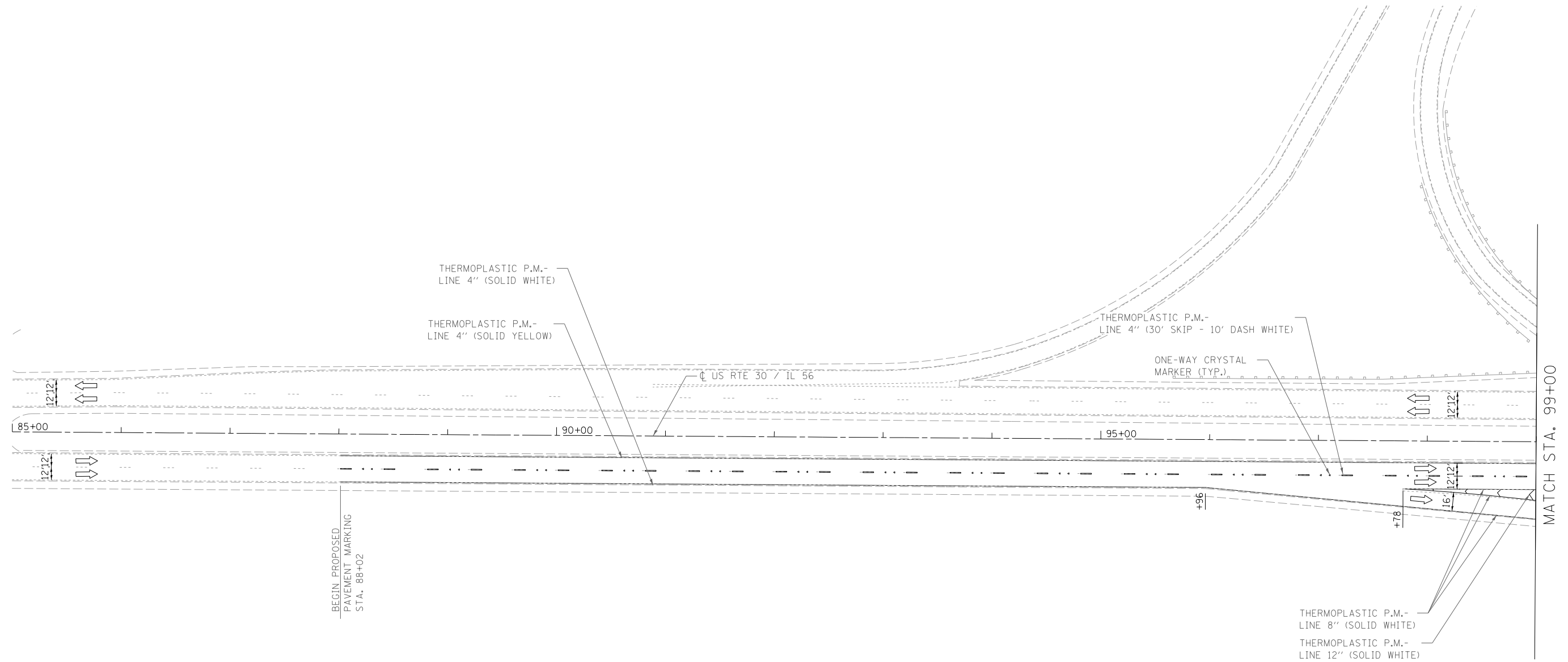
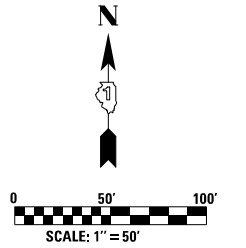
**MAINTENANCE OF TRAFFIC - STAGE II - IL 47  
US ROUTE 30 / IL 56 OVER IL 47**

SCALE: 1"=50'      SHEET NO. 2 OF 2 SHEETS      STA. 504+00 TO STA. 518+07

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	13
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**NOTES:**

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE STANDARD "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" (TC-11), "MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS" (TC-12), AND "TYPICAL PAVEMENT MARKINGS" (TC-13).
2. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID UNIT PRICE FOR THE WORK.



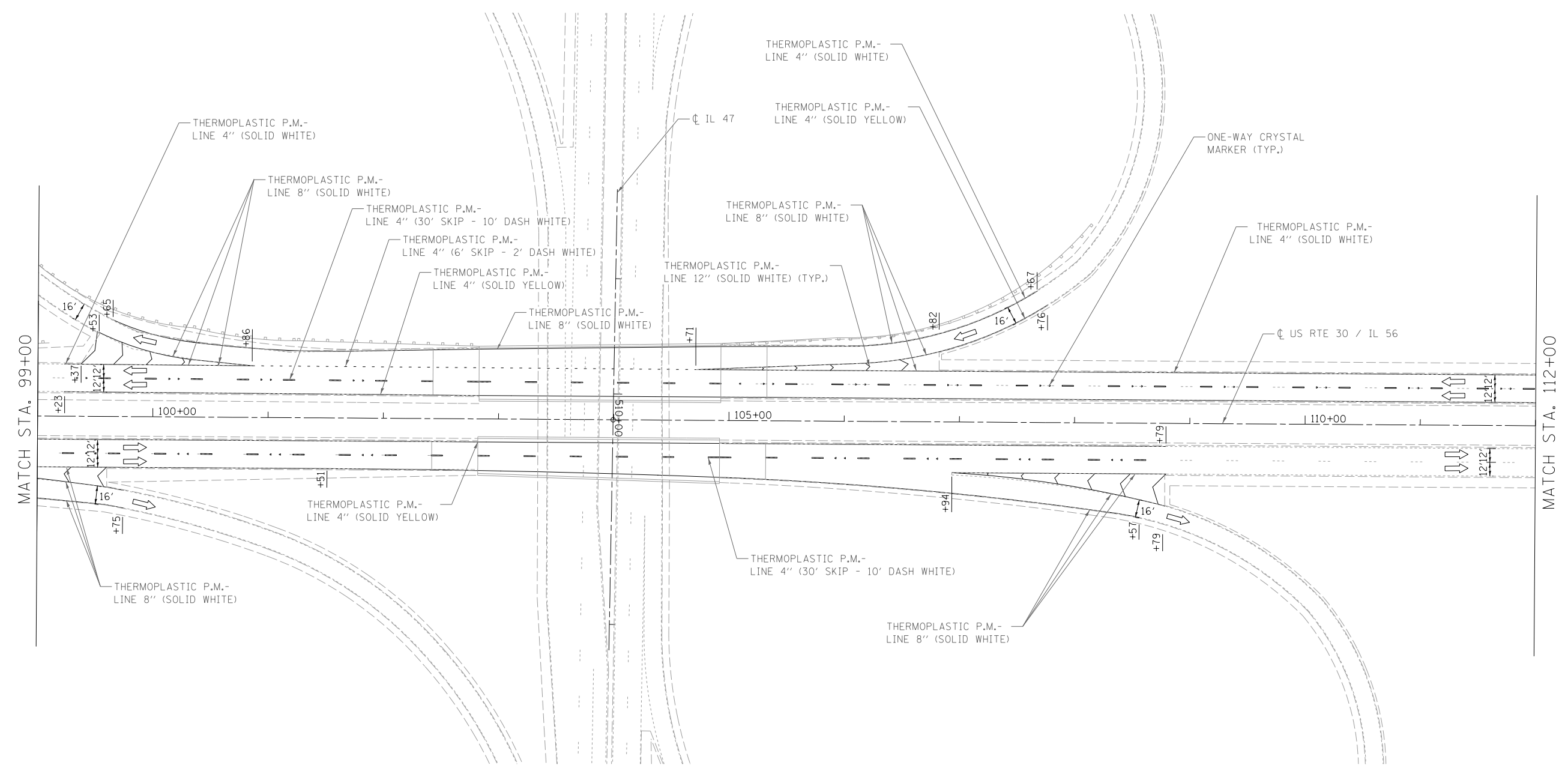
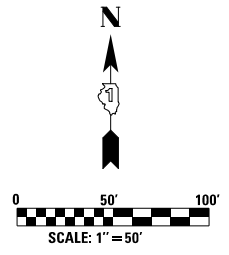
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN - US ROUTE 30 / IL 56  
US ROUTE 30 / IL 56 OVER IL 47**

SCALE: 1"=50'    SHEET NO. 1 OF 3 SHEETS    STA. 85+00 TO STA. 99+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	14
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



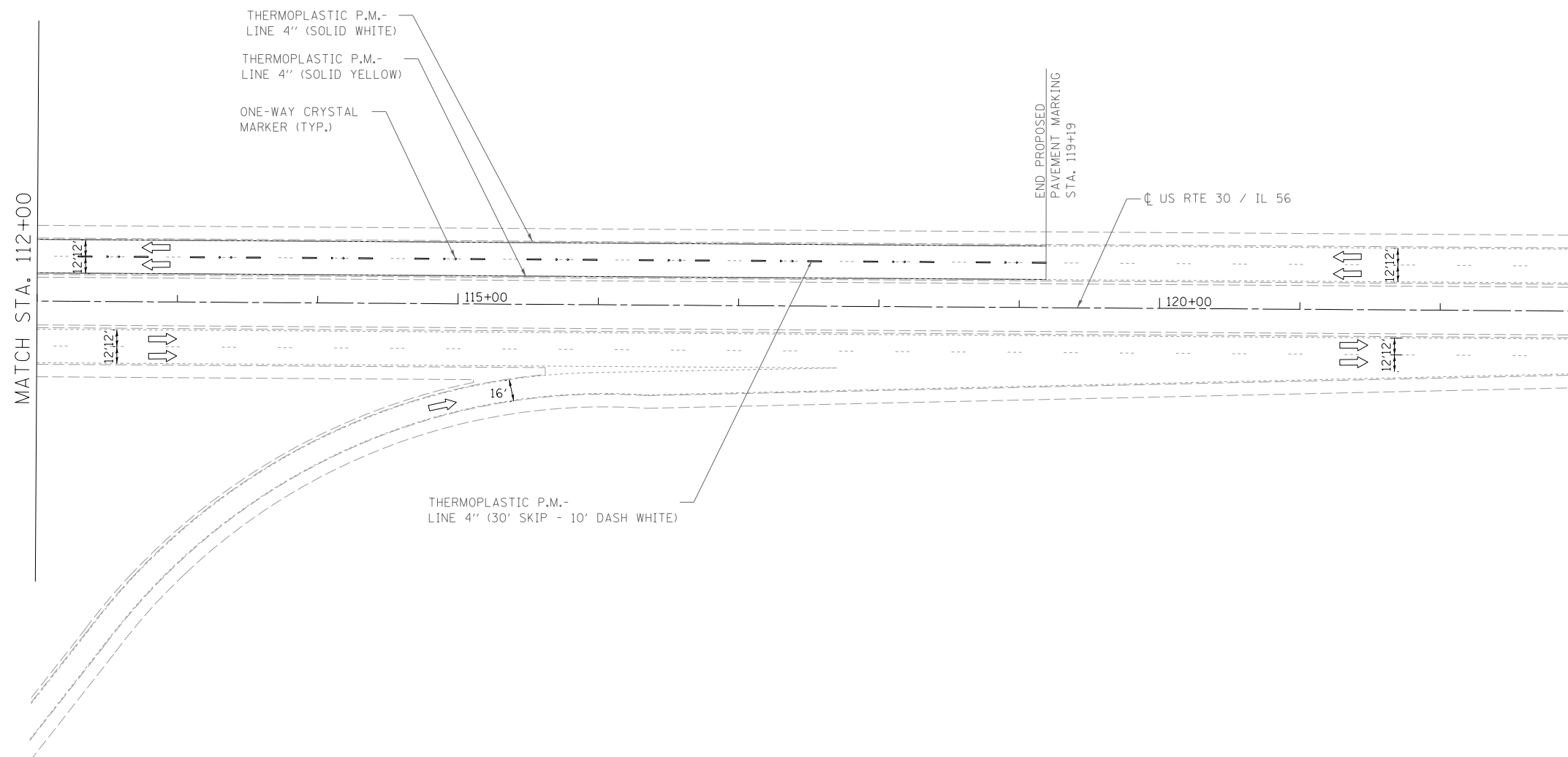
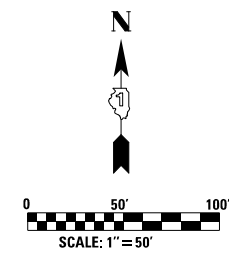
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PLOT DATE = \$DATE*	DATE - 11/2011	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN - US ROUTE 30 / IL 56  
US ROUTE 30 / IL 56 OVER IL 47**

SCALE: 1"=50'      SHEET NO. 2 OF 3 SHEETS      STA. 99+00 TO STA. 112+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	15
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



USER NAME = \$USER*	DESIGNED - SEW	REVISED -
	DRAWN - SEW	REVISED -
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PLOT DATE = \$DATE*	DATE - 11/2011	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN - US ROUTE 30 / IL 56**  
**US ROUTE 30 / IL 56 OVER IL 47**

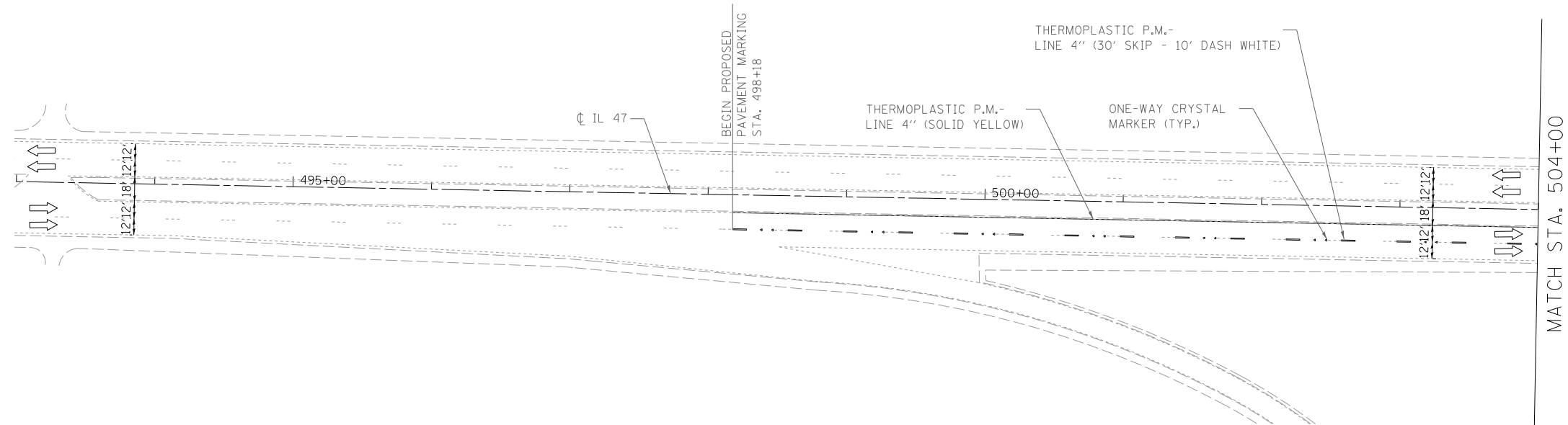
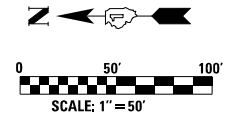
SCALE: 1"=50'      SHEET NO. 3 OF 3 SHEETS      STA. 112+00 TO STA. 123+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	16
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE STANDARD "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" (TC-11), "MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS" (TC-12), AND "TYPICAL PAVEMENT MARKINGS" (TC-13).
2. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID UNIT PRICE FOR THE WORK.



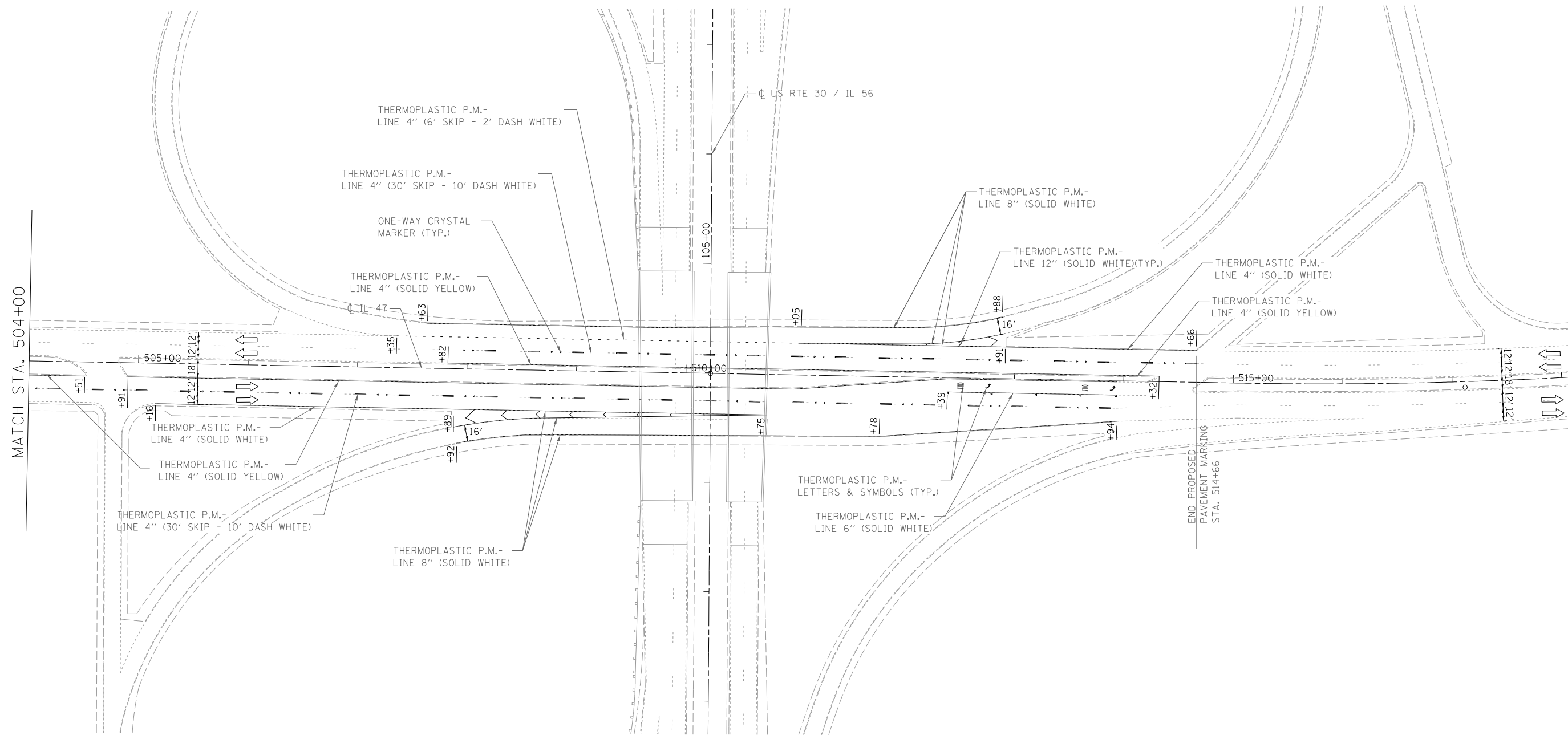
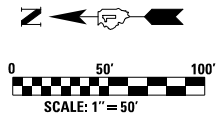
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PLOT DATE = *DATE*	DATE - 11/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN - IL 77  
US ROUTE 30 / IL 56 OVER IL 77

SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. 493+00 TO STA. 504+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	17
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



USER NAME = *USER*	DESIGNED - SEW	REVISED -
	DRAWN - SEW	REVISED -
PLOT SCALE = *SCALE*	CHECKED - ST	REVISED -
PLOT DATE = *DATE*	DATE - 11/2011	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN - IL 77  
US ROUTE 30 / IL 56 OVER IL 47**

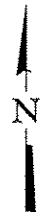
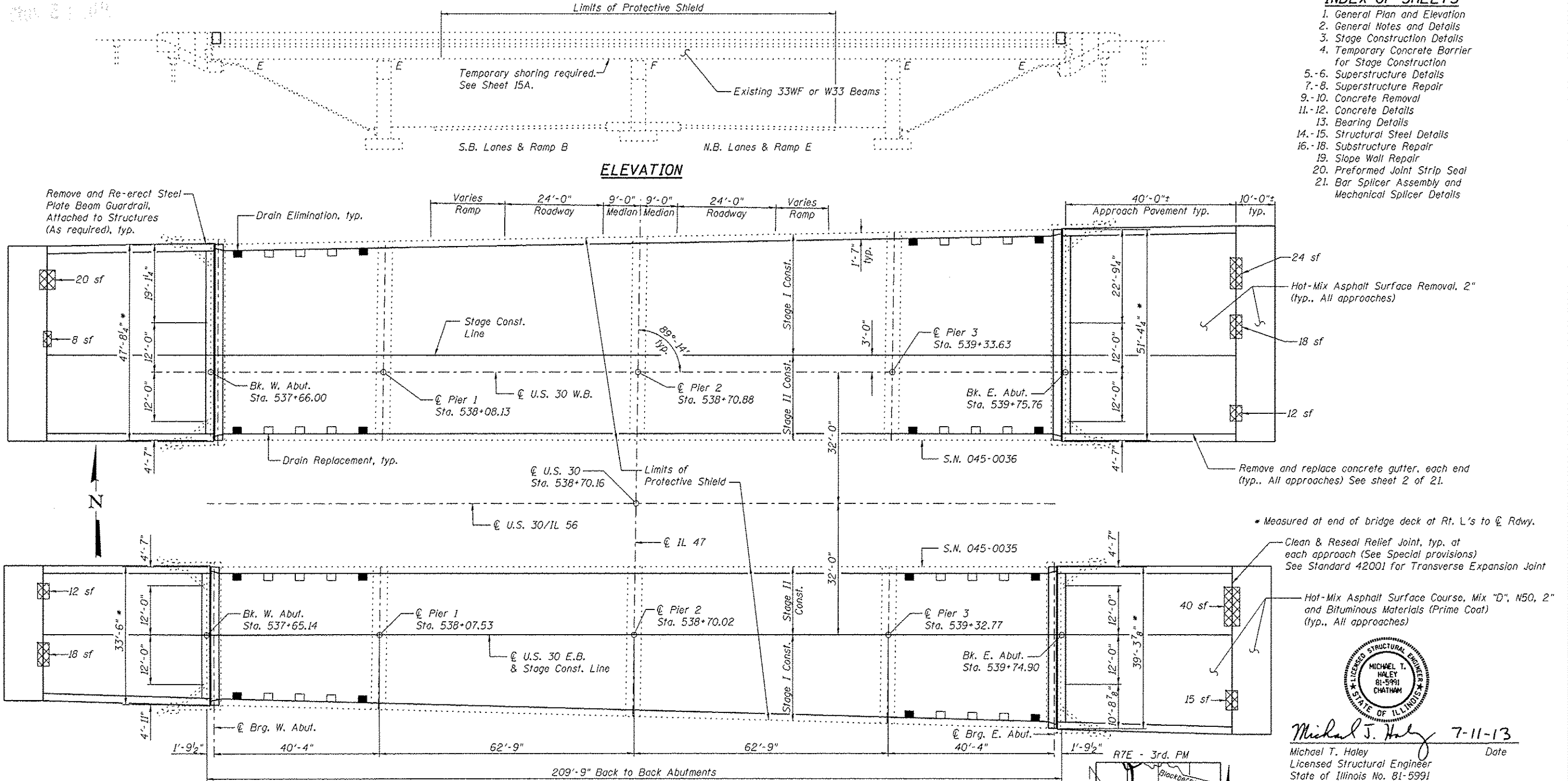
SCALE: 1"=50'      SHEET NO. 2 OF 2 SHEETS      STA. 504+00 TO STA. 517+15

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	18
CONTRACT NO. 60N12				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Existing Structure: S.N. 045-0035 and 045-0036 built in 1961 as F.A. Route 141, Section 61 HB at Station 103+99.59. In 1985, curb and bridge rails were removed and new parapets were installed, expansion joints reconstructed, and overlay was placed on deck. In 2002, collision damage on beam no. 15 on S.N. 045-0035 was repaired. Structures consist of 4-span continuous WF Beam bridge with 5'4" concrete slab and 3'3/4" overlay of variable width, and 209'-9" bk. to bk. abutments on pile supported stub abutments and multi-column piers. Stage construction shall be utilized to maintain one lane of traffic in each direction.

**INDEX OF SHEETS**

1. General Plan and Elevation
2. General Notes and Details
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
- 5.-6. Superstructure Details
- 7.-8. Superstructure Repair
- 9.-10. Concrete Removal
- 11.-12. Concrete Details
13. Bearing Details
- 14.-15. Structural Steel Details
- 16.-18. Substructure Repair
19. Slope Wall Repair
20. Preformed Joint Strip Seal
21. Bar Splicer Assembly and Mechanical Splicer Details



**PLAN**

**DESIGN STRESSES**  
FIELD UNITS

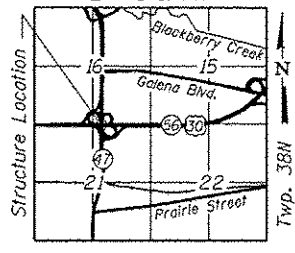
NEW CONSTRUCTION	ORIGINAL CONSTRUCTION
$f'_c = 3,500$ psi	$f_s = 20,000$ psi (Reinf.)
$f_y = 60,000$ psi (Reinforcement)	$f_s = 18,000$ psi (Structural Steel)
$f_y = 36,000$ psi (M270 Gr. 36, Structural Steel)	$f_c = 1,400$ psi (Superstructure & Piers)
	$f_c = 1,000$ psi (Abutts.)

**LOADING HS-20 & ALT.**  
(Original Construction)

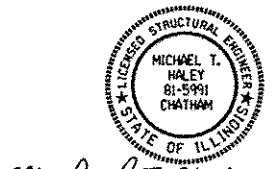
**DESIGN SPECIFICATIONS**  
(New Construction)  
2002 AASHTO "Standard Specifications for Highway Bridges"

**LEGEND**

- Approach slab repair (Partial)
- sf Square Feet



**LOCATION SKETCH**



Michael J. Haley 7-11-13  
Date

Michael T. Haley  
Licensed Structural Engineer  
State of Illinois No. 81-5991  
Expires 11/30/2012  
(Applies to all structural sheets except 15A-15I of 21)

**GENERAL PLAN AND ELEVATION**  
**U.S. 30/IL 56 OVER IL 47**  
**F.A.P. RTE 573 - SECTION 61 HB-1-7**  
**KANE COUNTY**  
**STATION 538+70.16**  
**STRUCTURE NOS. 045-0035 & 045-0036**

	USER NAME * FILE NAME * PLOT SCALE * PLOT DATE *	DESIGNED - TBP CHECKED - ADB DRAWN - AJF CHECKED - MTH	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN AND ELEVATION</b> <b>STRUCTURE NOS. 045-0035 (EB) &amp; 045-0036 (WB)</b> SHEET NO. 1 OF 21 SHEETS	F.A.P. RTE. 573 SECTION 61 HB-1-7 COUNTY KANE TOTAL SHEETS 48 SHEET NO. 19 CONTRACT NO. 60N12 ILLINOIS FED. AID PROJECT
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**GENERAL NOTES**

No field welding is permitted except as specified in the contract documents. Reinforcement bars designated (E) shall be epoxy coated.

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.

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.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

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.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8.

Fasteners shall be high strength bolts. Bolts 3/4" φ, open holes 15/16" φ, unless otherwise noted. Bolts 7/8" φ, open holes 15/8" φ, unless otherwise noted.

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Grinding shall be done parallel to the longitudinal axis of the member. Ground surfaces shall be inspected for cracks using dye penetrant or magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Structural Steel Repair.

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.

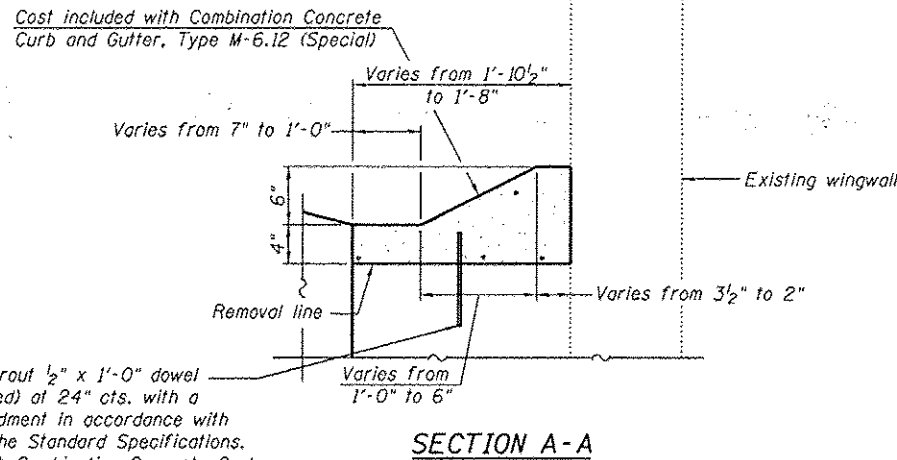
Diaphragm connection holes shall be 15/16" φ for 3/4" φ bolts. Two hardened washers shall be required at diaphragm connections.

**SCOPE OF WORK**

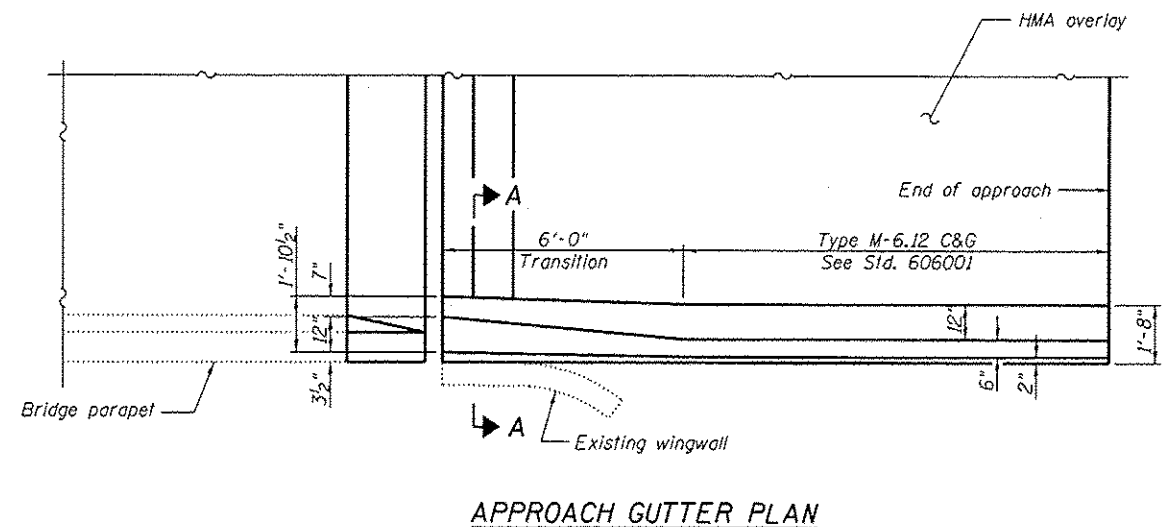
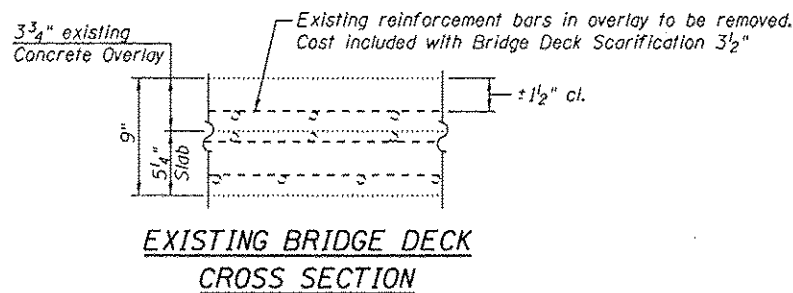
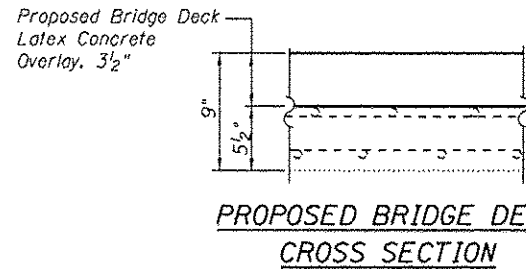
1. Remove and replace concrete deck and parapets adjacent to expansion joints in order to install preformed joint strip seal expansion joints.
2. Remove 3 1/2" of existing concrete overlay on bridge using Bridge Deck Scarification.
3. Repair deck slab.
4. Place 3 1/2" latex concrete overlay on bridge deck and perform bridge deck grooving. Apply protective coat to new concrete at abutment joints, front and top face of parapets of new concrete.
5. Remove and replace wearing surface on all approaches.
6. Jack and remove existing bearings at abutments and replace with elastomeric bearings.
7. Repair deteriorated concrete on substructure.
8. Remove and replace damaged portions of concrete slope walls.
9. Clean and reseal pavement relief joints at all approaches.
10. Remove or replace deck drains, as indicated.
11. Repair corroded steel on fascia beams, repair/replace steel with collision damage as indicated, and replace specified steel end diaphragms.

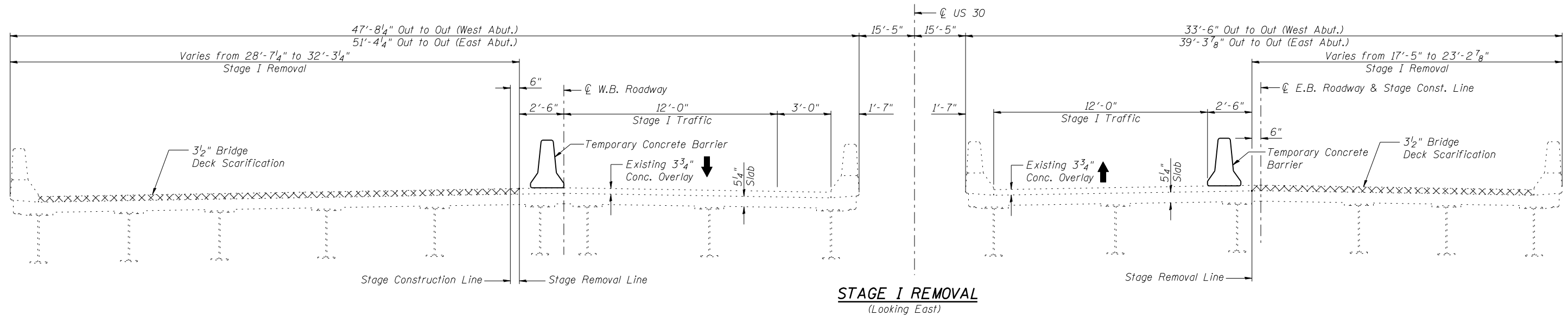
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Bituminous Materials (Prime Coat)	Gallon	302	-	302
Hot-Mix Asphalt Surface Course, Mix "D", N50, 2"	Ton	135	-	135
Hot-Mix Asphalt Surface Removal, 2"	Sq. Yd.	605	-	605
Combination Curb and Gutter Removal	Foot	320	-	320
Concrete Removal	Cu. Yd.	29.0	-	29.0
Slope Wall Removal	Sq. Yd.	-	319	319
Protective Shield	Sq. Yd.	898	-	898
Concrete Superstructure	Cu. Yd.	29.2	-	29.2
Bridge Deck Grooving	Sq. Yd.	1741	-	1741
Protective Coat	Sq. Yd.	424	-	424
Reinforcement Bars, Epoxy Coated	Pound	2620	-	2620
Bar Splicers	Each	48	-	48
Slope Wall 4 Inch	Sq. Yd.	-	319	319
Preformed Joint Strip Seal	Foot	166	-	166
Elastomeric Bearing Assembly, Type II	Each	-	30	30
Anchor Bolts, 1"	Each	-	60	60
Combination Concrete Curb and Gutter, Type M-6.12 (Special)	Foot	320	-	320
Jack and Remove Existing Bearings	Each	30	-	30
Bridge Deck Latex Concrete Overlay 3 1/2"	Sq. Yd.	1807	-	1807
Structural Steel Repair	Pound	10610	-	10610
Beam Straightening	L. Sum	1	-	1
Bridge Deck Scarification 3 1/2"	Sq. Yd.	1807	-	1807
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	-	702	702
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	-	77	77
Floor Drains	Each	24	-	24
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	54	-	54
Clean & Reseal Relief Joint	Foot	136	-	136
Remove and Reerect Steel Plate Beam Guardrail, Attached to Structures	Foot	48	-	48
Approach Slab Repair (Partial Depth)	Sq. Yd.	-	19	19
Temporary Shoring & Cribbing	L. Sum	1	-	1
Furnishing & Erecting Structural Steel	Pound	9740	3830	13570
Structural Steel Removal	Pound	9570	-	9570
Temporary Slab Support System	L. Sum	1	-	1
Overhead Sign Structure - Bridge Mounted	Foot	13.5	-	13.5
Sign Panel - Type 3	Sq. Ft.	94.5	-	94.5

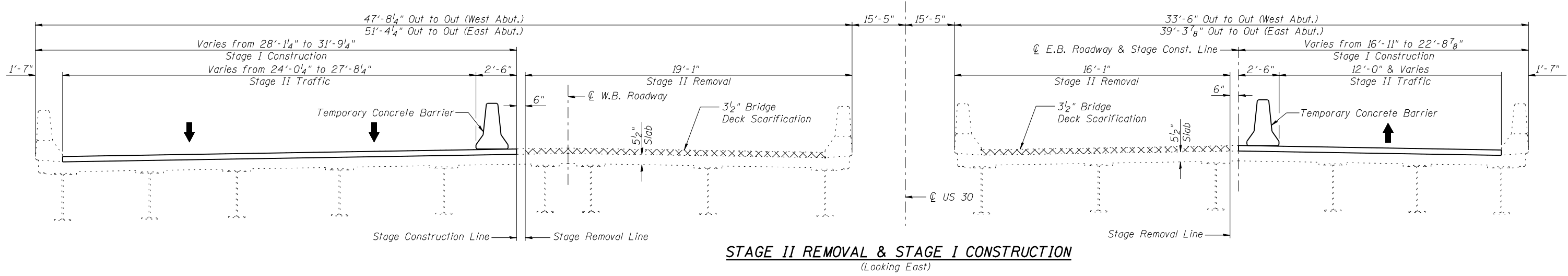


Drill and epoxy grout 1/2" x 1'-0" dowel bars (epoxy coated) at 24" cts. with a minimum 9" embedment in accordance with Section 584 of the Standard Specifications. Cost included with Combination Concrete Curb and Gutter, Type M-6.12 (Special).

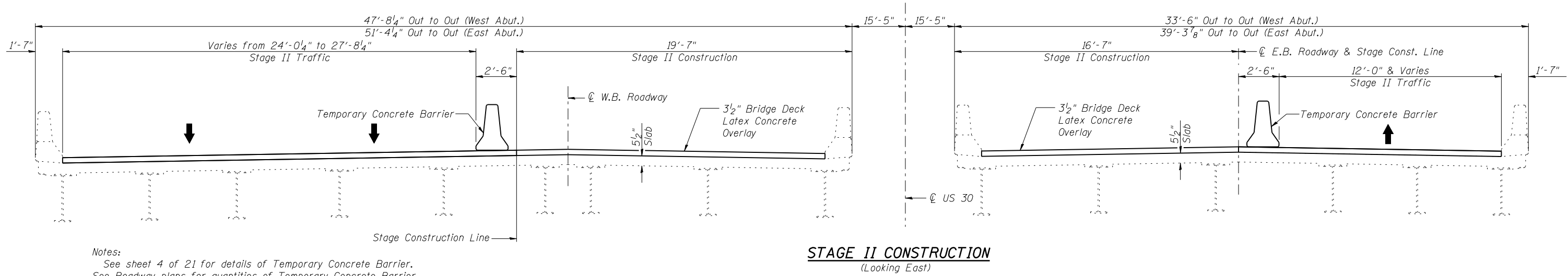




**STAGE I REMOVAL**  
(Looking East)



**STAGE II REMOVAL & STAGE I CONSTRUCTION**  
(Looking East)



**STAGE II CONSTRUCTION**  
(Looking East)

Notes:  
See sheet 4 of 21 for details of Temporary Concrete Barrier.  
See Roadway plans for quantities of Temporary Concrete Barrier.



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FILE NAME =	CHECKED - ADB	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

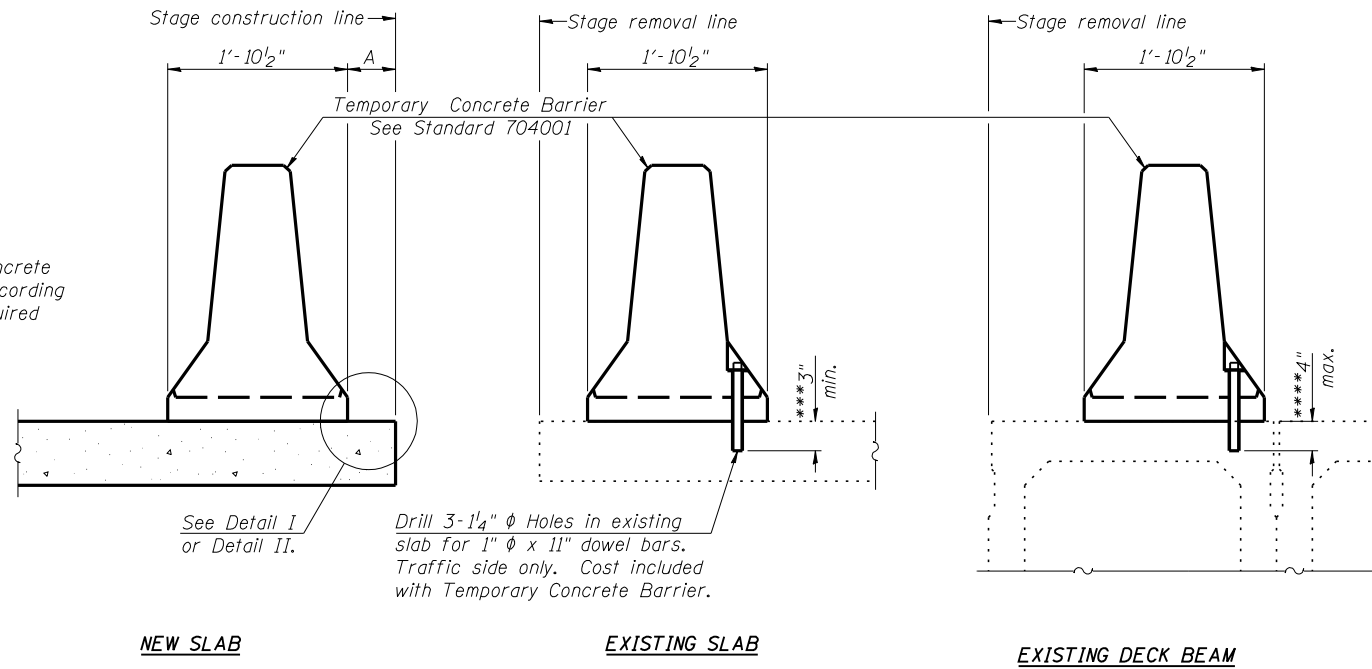
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 3 OF 21 SHEETS

F.A.P. RTE. = 573	SECTION = 61 HB-1-7	COUNTY = KANE	TOTAL SHEETS = 48	SHEET NO. = 21
CONTRACT NO. 60N12				
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".



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

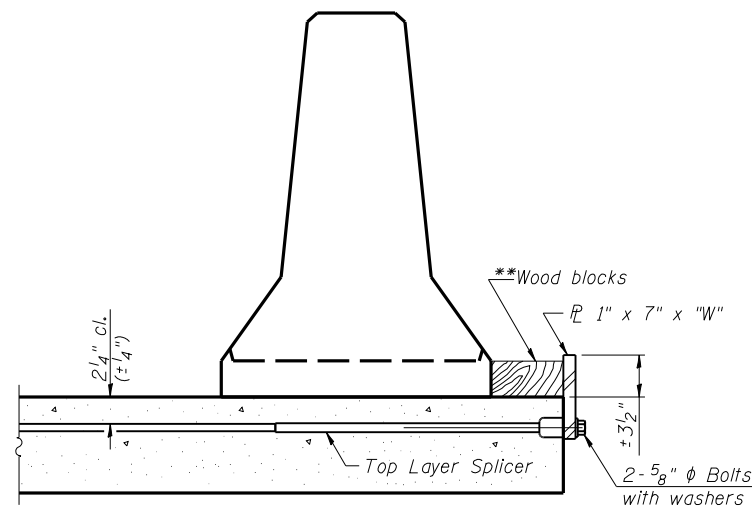
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

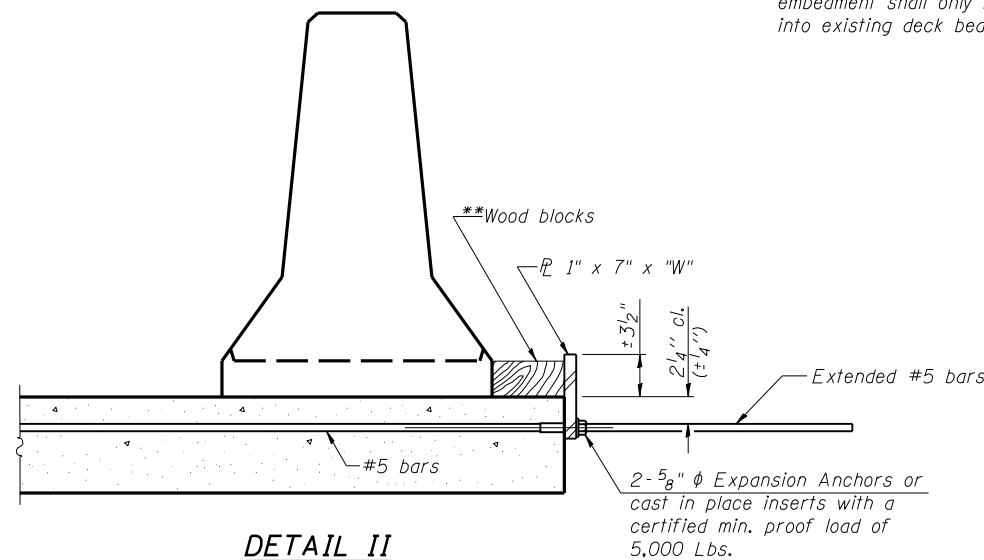
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* 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.

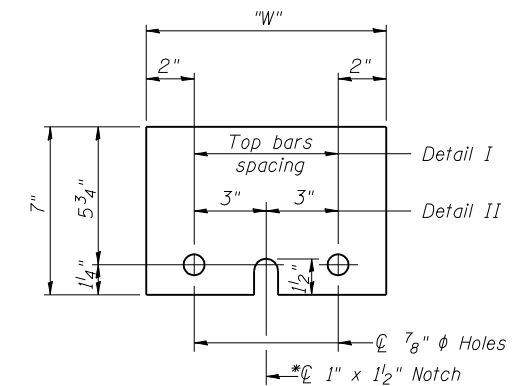
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**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



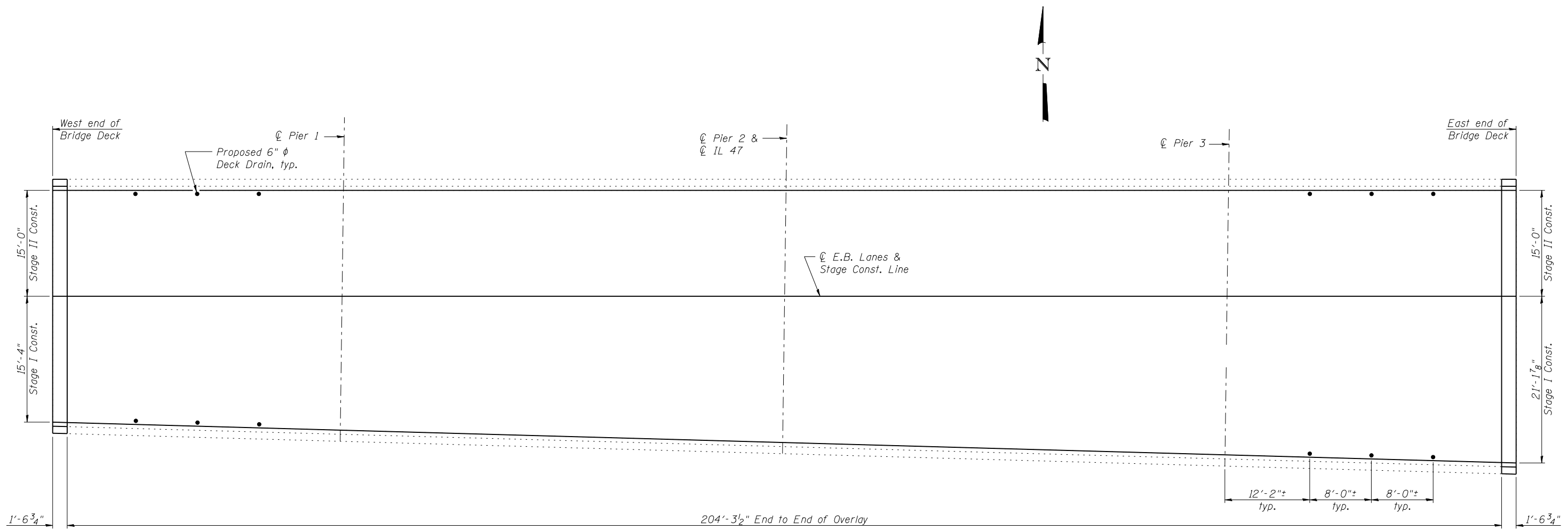
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 4 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	22
			CONTRACT NO. 60N12	
ILLINOIS FED. AID PROJECT				



**E.B. BRIDGE DECK PLAN**

**BILL OF MATERIAL**  
(E.B. Bridge)

Item	Unit	Total
Bridge Deck Latex Concrete Overlay 3 1/2"	Sq. Yd.	755
Bridge Deck Scarification, 3 1/2"	Sq. Yd.	755
Bridge Deck Grooving	Sq. Yd.	720

(Sheet 1 of 2)



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PLOT DATE =	CHECKED - MTH	REVISED -

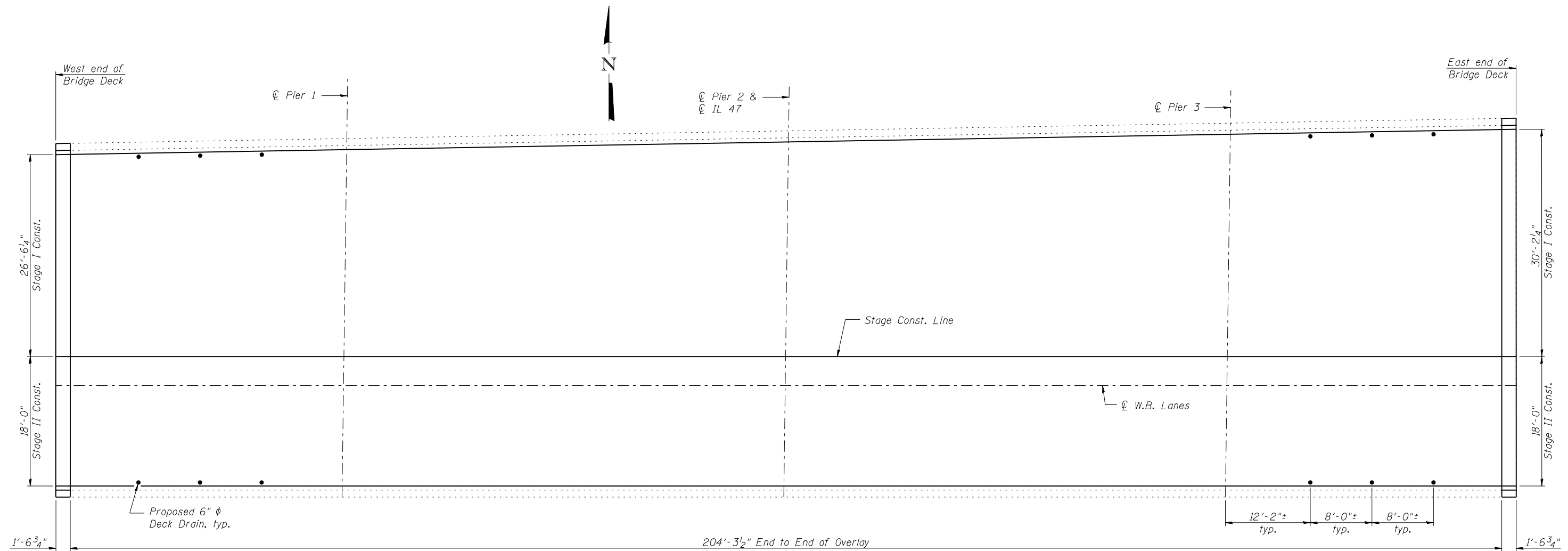
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS  
STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 5 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	23
CONTRACT NO. 60N12				

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**W.B. BRIDGE DECK PLAN**

**BILL OF MATERIAL**

(W.B. Bridge)

Item	Unit	Total
Bridge Deck Latex	Sq. Yd.	1052
Concrete Overlay 3 1/2"	Sq. Yd.	1052
Bridge Deck Scarification, 3 1/2"	Sq. Yd.	1052
Bridge Deck Grooving	Sq. Yd.	1021

(Sheet 2 of 2)



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

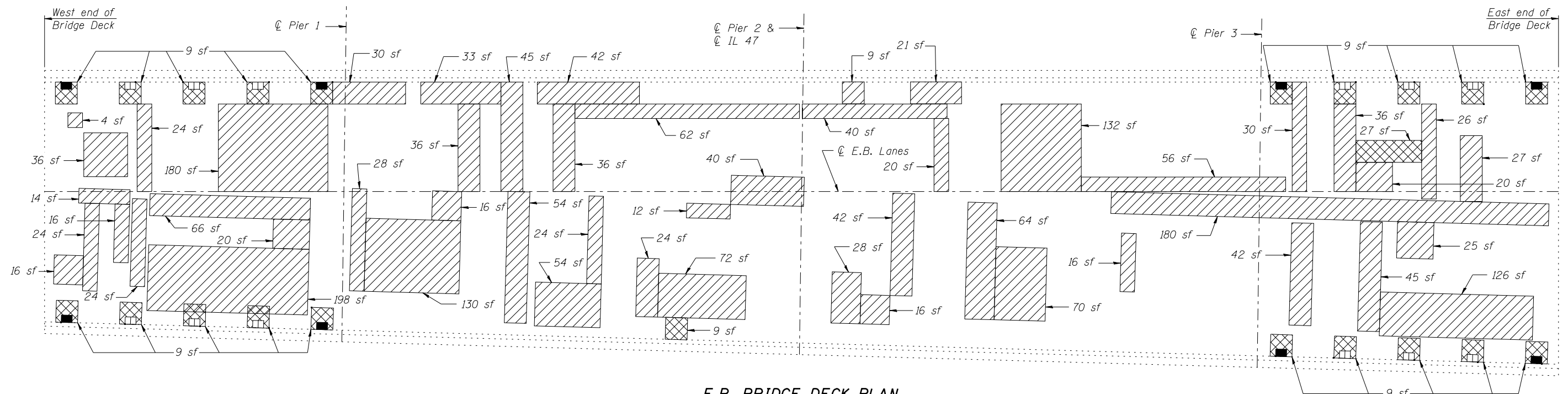
**SUPERSTRUCTURE DETAILS  
STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 6 OF 21 SHEETS

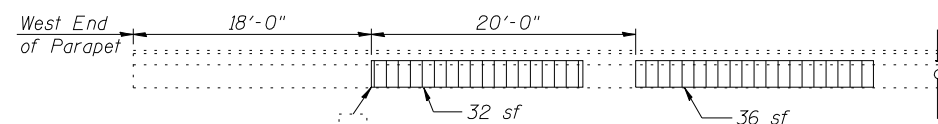
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	24
CONTRACT NO. 60N12				

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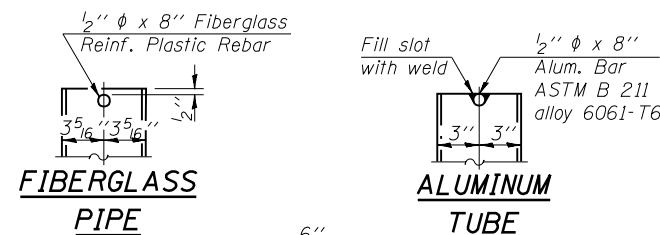


**E.B. BRIDGE DECK PLAN**



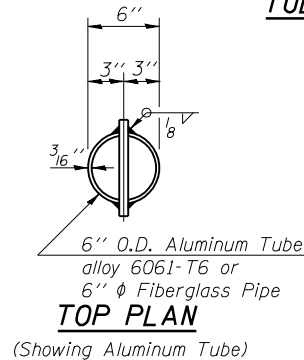
**SOUTH PARAPET ELEVATION**  
(Reflective View Looking South)

Existing Name Plate shall be removed, cleaned and reinstalled at its original location after structural repair of concrete. Cost included with Structural Repair of Concrete.



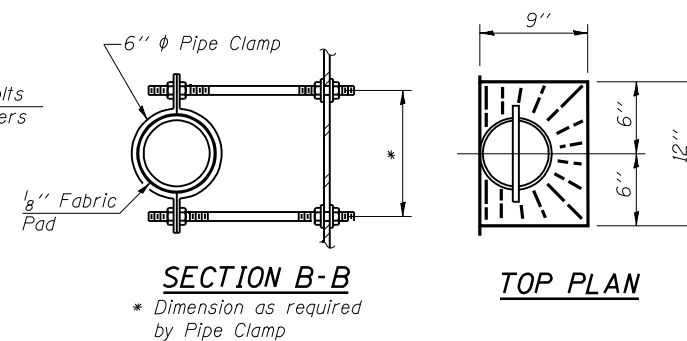
**FIBERGLASS PIPE**

**ALUMINUM TUBE**



**TOP PLAN**

(Showing Aluminum Tube)



**SECTION B-B**

\* Dimension as required by Pipe Clamp

**TOP PLAN**

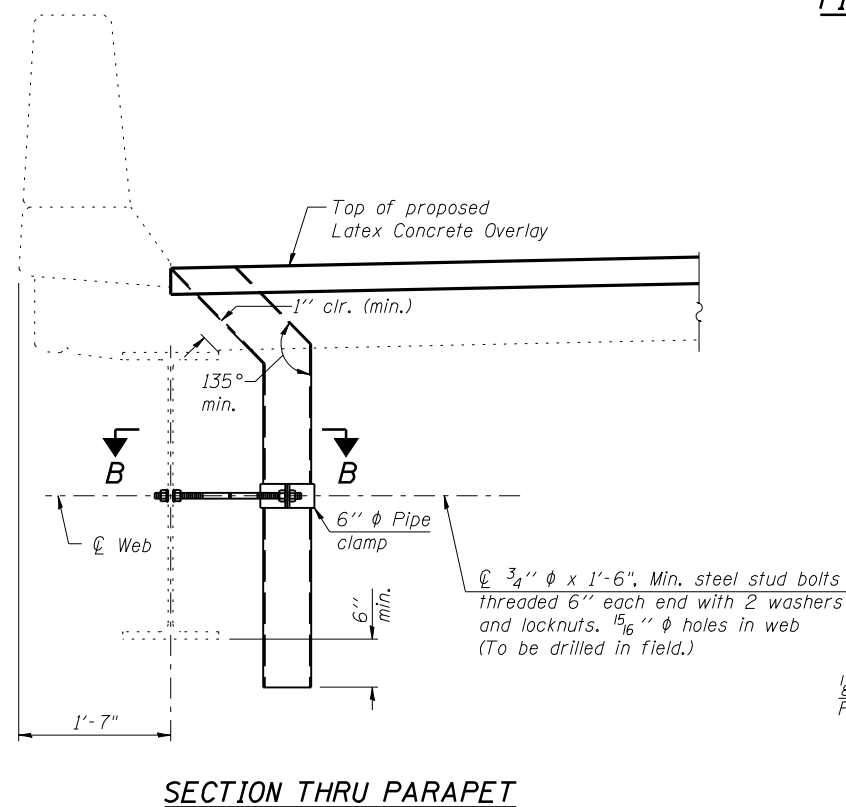
**Notes:**  
Deck Condition Survey performed on 08/2010. There is an estimated 270 sq. yards of Partial Depth Deck Slab Repair required. Partial Depth repairs shall be included with Bridge Deck Scarification. See special provision for Bridge Deck Latex Concrete Overlay.  
Repair of the existing deck slab shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction. The Engineer shall show actual locations of repairs on As-Built plans.  
Drains to be eliminated shall be removed during Deck Slab Repair. Cost included with Deck Slab Repair (Full Depth, Type II).  
Drains shall be located clear of all diaphragms. The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The color of the final finish coat shall be Interstate Green, Munsell No. 7.5G 4/8. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coating's Spec. SSPC-SP1 prior to painting.  
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.  
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	24
Structural Repair of Concrete (Depth equal to or less than 5 in.)	Sq. Ft.	68
Floor Drains	Each	12
Protective Shield	Sq. Yd.	383

**LEGEND**

- Drain Elimination (Included with Full Depth Slab Repair)
- Replace Drain with 6" φ Deck Drain
- Deck Slab Repair (Full Depth, Type II)
- Deck Slab Repair (Partial) (Information Only)
- Structural Repair of Concrete (Depth less than or equal to 5 in.)
- sf Square Feet



**SECTION THRU PARAPET**

(Sheet 1 of 2)



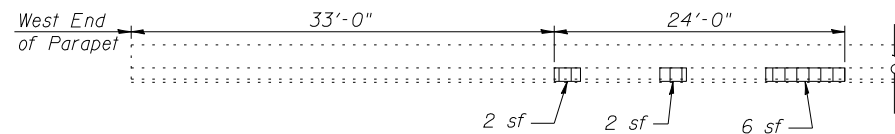
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

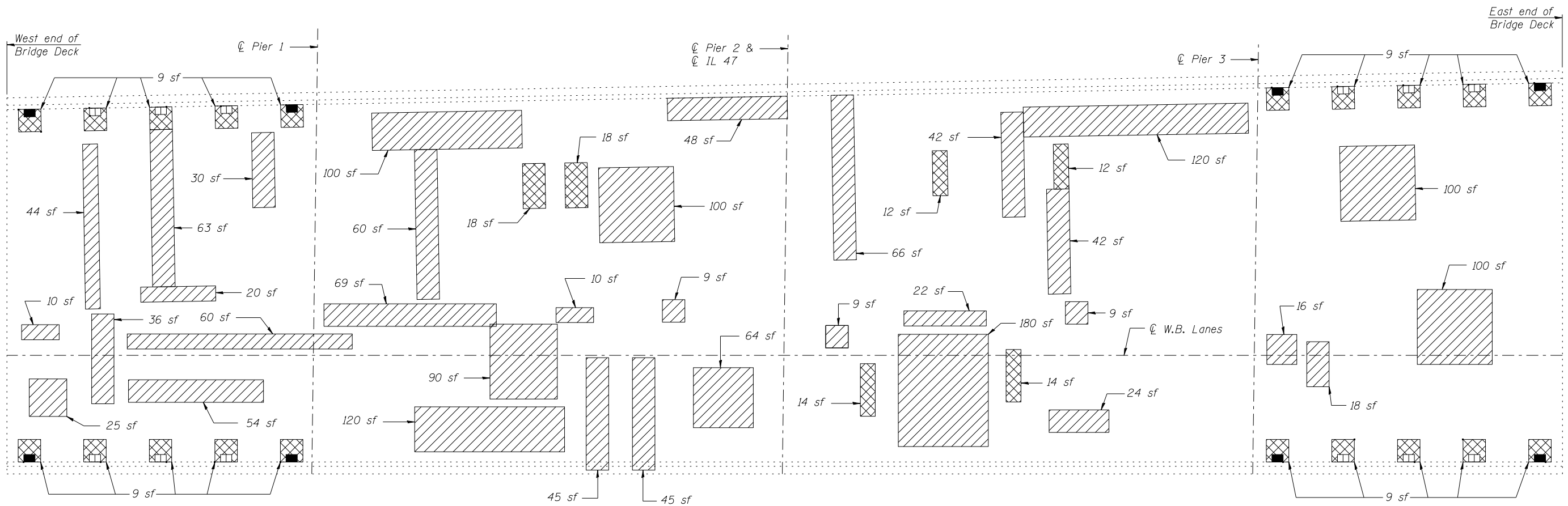
**SUPERSTRUCTURE REPAIR  
STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 7 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	25
CONTRACT NO. 60N12				
ILLINOIS FED. AID PROJECT				



**NORTH PARAPET ELEVATION**  
(Looking North)



**W.B. BRIDGE DECK PLAN**

**LEGEND**

- Drain Elimination (Included with Full Depth Slab Repair)
- Replace Drain with 6"  $\phi$  Deck Drain
- ▨ Deck Slab Repair (Full Depth, Type II)
- ▧ Deck Slab Repair (Partial) (Information Only)
- ▩ Structural Repair of Concrete (Depth less than or equal to 5 in.)
- sf Square Feet

**Notes:**  
 Deck Condition Survey performed on 08/2010.  
 There is an estimated 206 sq. yards of Partial Depth Deck Slab Repair required. Partial Depth repairs shall be included with Bridge Deck Scarification. See special provision for Bridge Deck Latex Concrete Overlay.  
 Repair of the existing deck slab shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction. The Engineer shall show actual locations of repairs on As-Built plans.  
 Drains to be eliminated shall be removed during Deck Slab Repair. Cost included with Deck Slab Repair (Full Depth, Type II).  
 See sheet 7 of 21 for deck drain details.

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	30
Structural Repair of Concrete (Depth equal to or less than 5 in.)	Sq. Ft.	10
Floor Drains	Each	12
Protective Shield	Sq. Yd.	515

(Sheet 2 of 2)



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PLOT DATE =	CHECKED - MTH	REVISED -

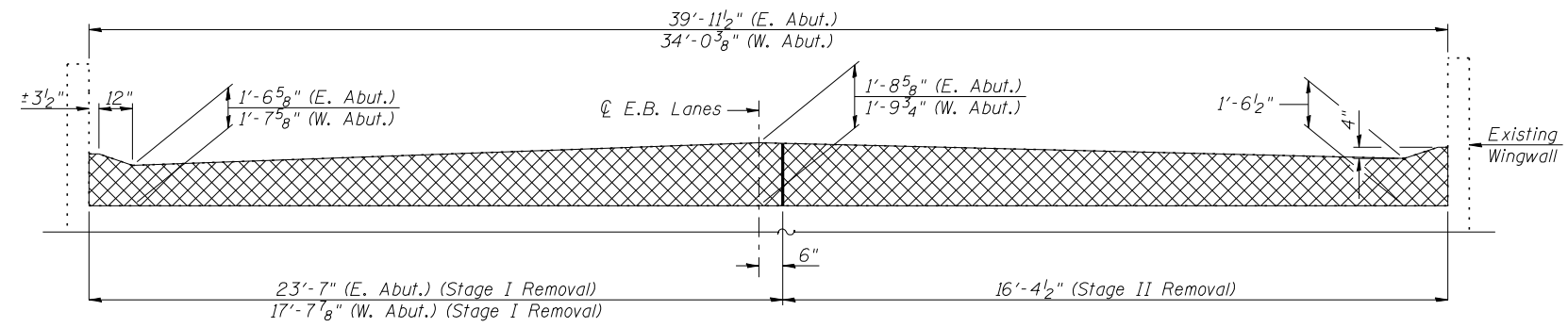
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE REPAIR**  
**STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

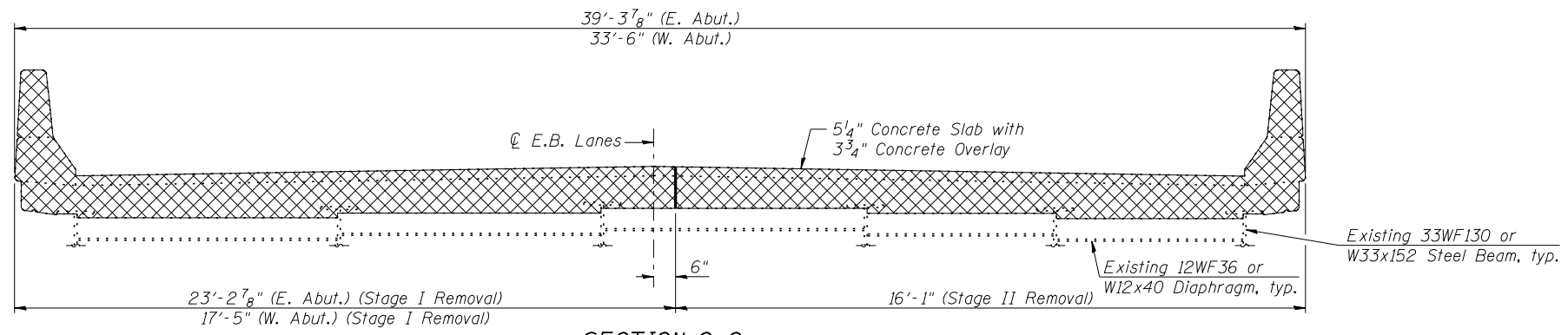
SHEET NO. 8 OF 21 SHEETS

F.A.P. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =
573	61 HB-1-7	KANE	48	26
CONTRACT NO. 60N12				

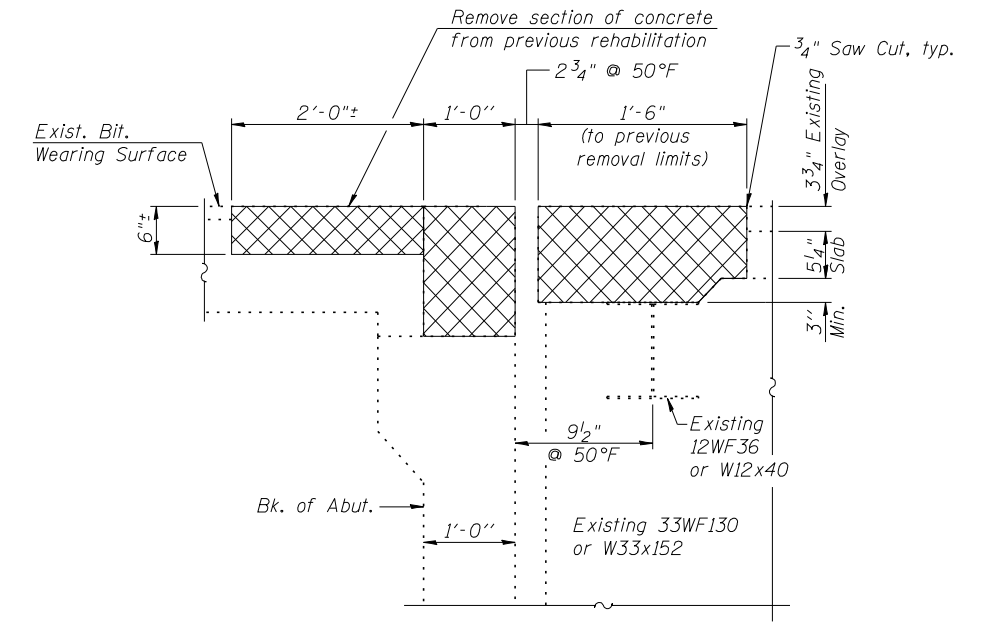
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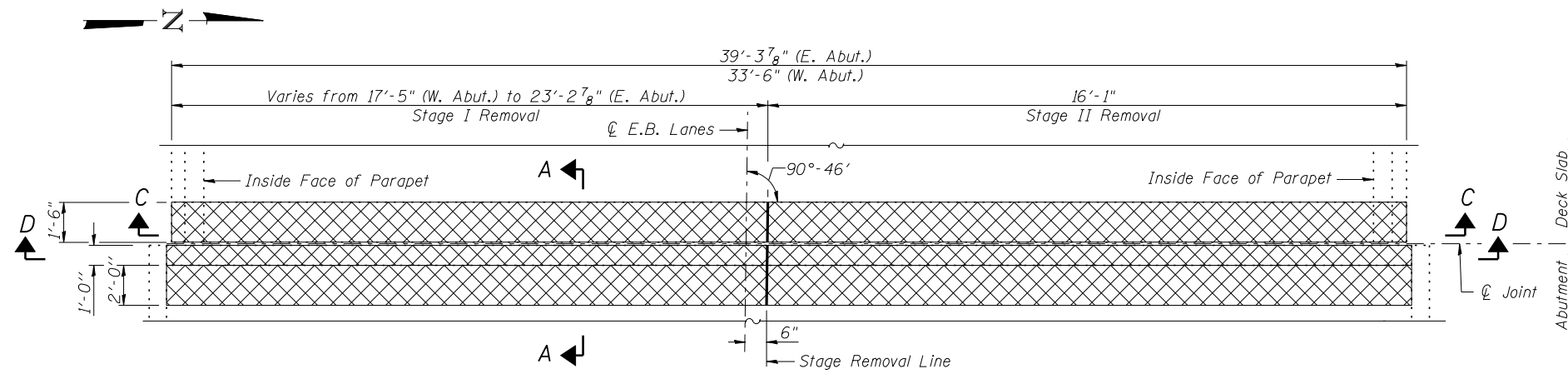
**SECTION D-D**  
(Dimensions shown @ Rt. L's)



**SECTION C-C**  
(Dimensions shown @ Rt. L's)



**SECTION A-A**  
(Dimensions @ Rt. L's)



**EXPANSION JOINT AT ABUTMENT-EB BRIDGE**  
(East Abut. shown, West Abut. similar)

- Notes:
1. Cross hatched area indicates concrete removal. Perimeter of concrete removal areas shall be saw cut  $\frac{3}{4}$ " prior to removal of the concrete.
  2. Overlay removal is included in pay item Bridge Deck Scarification, 3 $\frac{1}{2}$ ".
  3. Removal of the existing joint system is included with Concrete Removal.

**BILL OF MATERIAL**  
(E.B. Bridge)

Item	Unit	Total
Concrete Removal	Cu. Yd.	12.0

(Sheet 1 of 2)



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PLOT DATE =	CHECKED - MTH	REVISED -

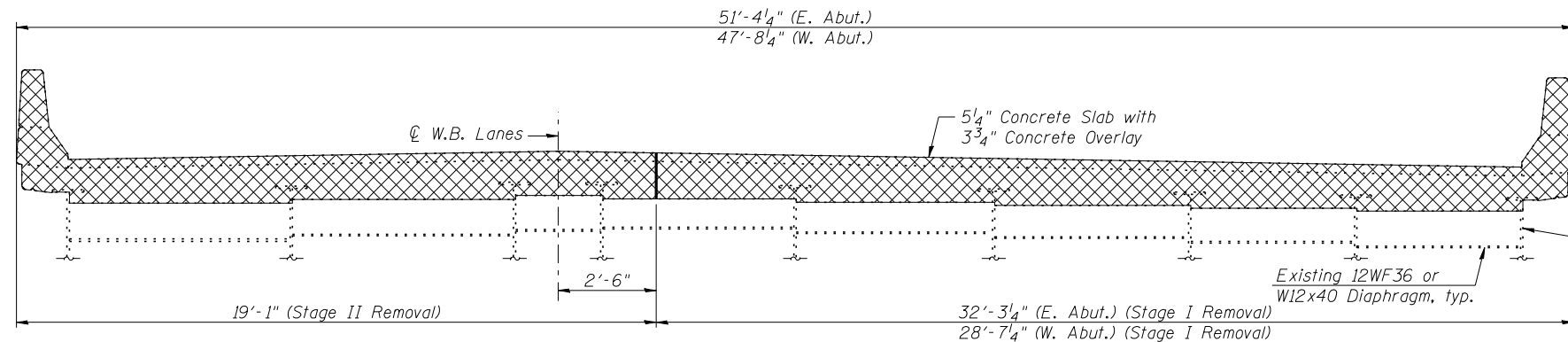
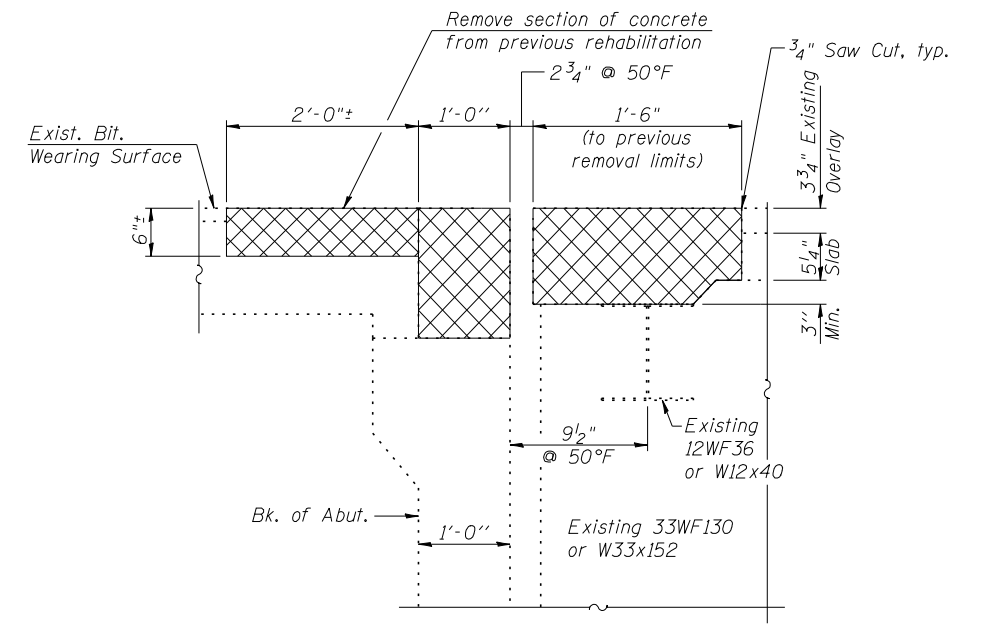
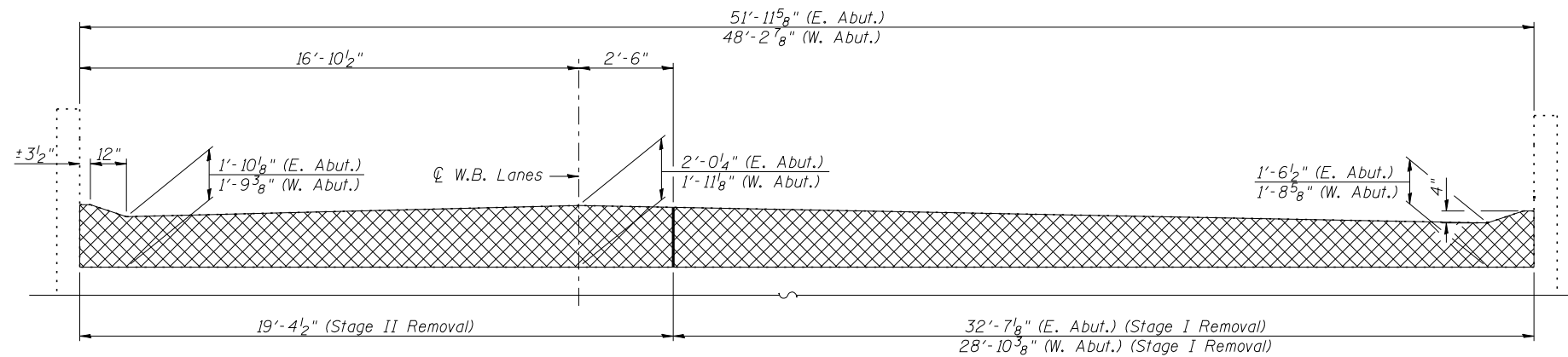
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CONCRETE REMOVAL**  
**STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 9 OF 21 SHEETS

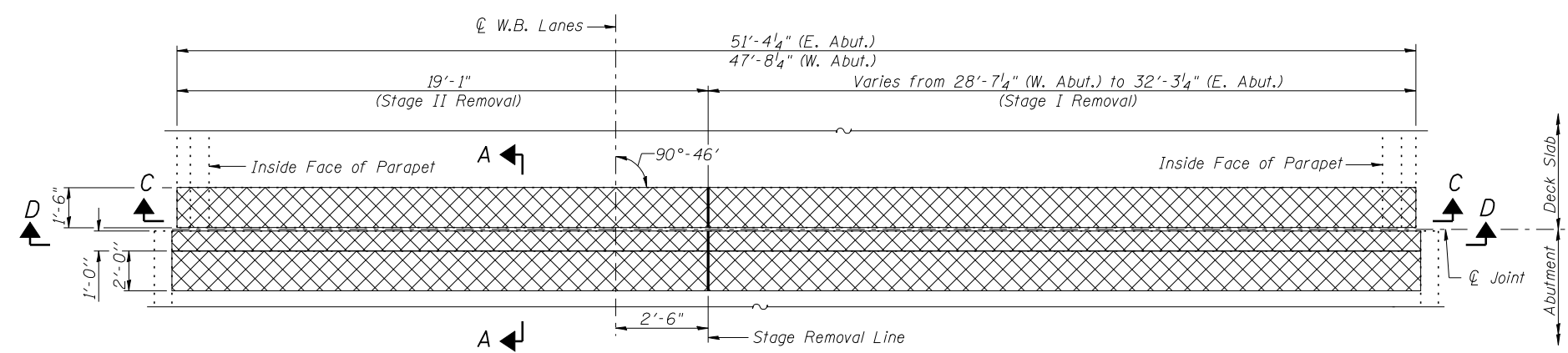
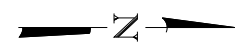
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	27
CONTRACT NO. 60N12				

ILLINOIS FED. AID PROJECT



Existing 33WF130 or W33x152 Steel Beam, typ.

Existing 12WF36 or W12x40 Diaphragm, typ.



- Notes:
1. Cross hatched area indicates concrete removal. Perimeter of concrete removal areas shall be saw cut  $\frac{3}{4}$ " prior to removal of the concrete.
  2. Overlay removal is included in pay item Bridge Deck Scarification,  $\frac{3}{2}$ ".
  3. Removal of the existing joint system is included with Concrete Removal.

**BILL OF MATERIAL**  
(W.B. Bridge)

Item	Unit	Total
Concrete Removal	Cu. Yd.	16.1

(Sheet 2 of 2)



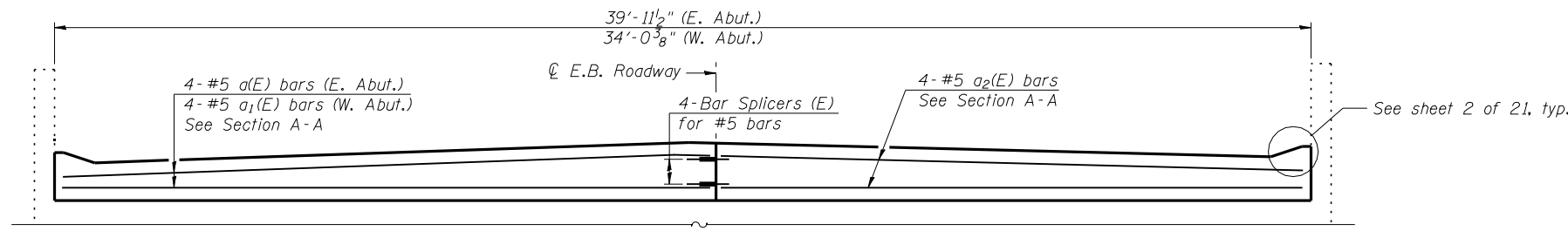
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FILE NAME =	CHECKED - ADB	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

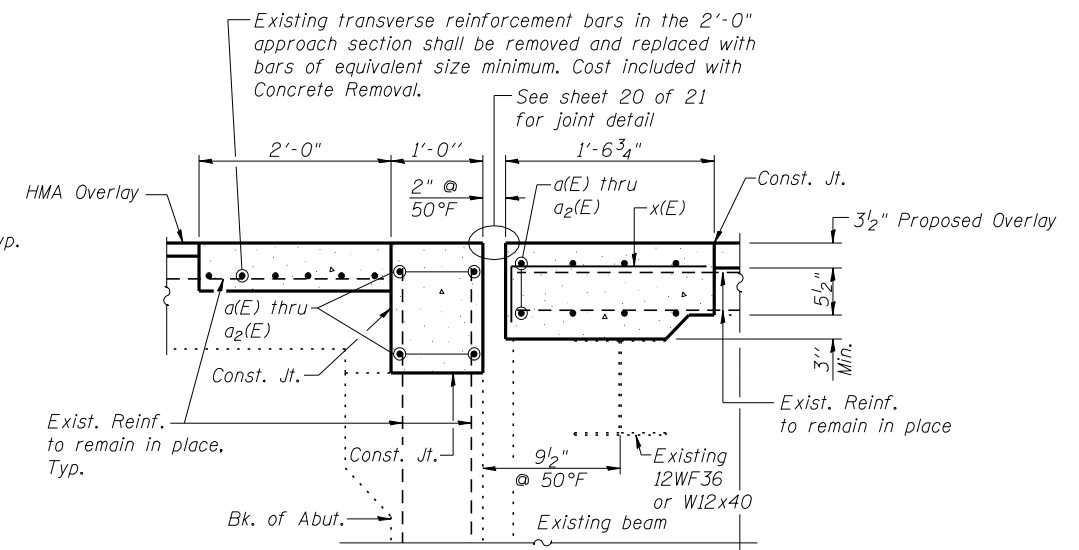
**CONCRETE REMOVAL**  
**STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 10 OF 21 SHEETS

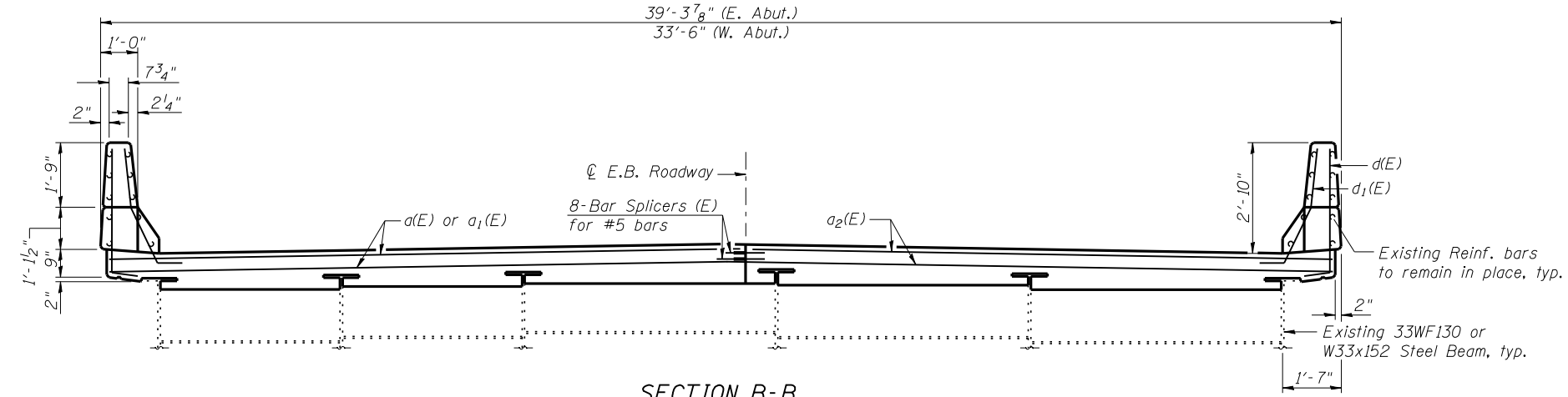
F.A.P. RTE. = 573	SECTION = 61 HB-1-7	COUNTY = KANE	TOTAL SHEETS = 48	SHEET NO. = 28
CONTRACT NO. 60N12				
ILLINOIS FED. AID PROJECT				



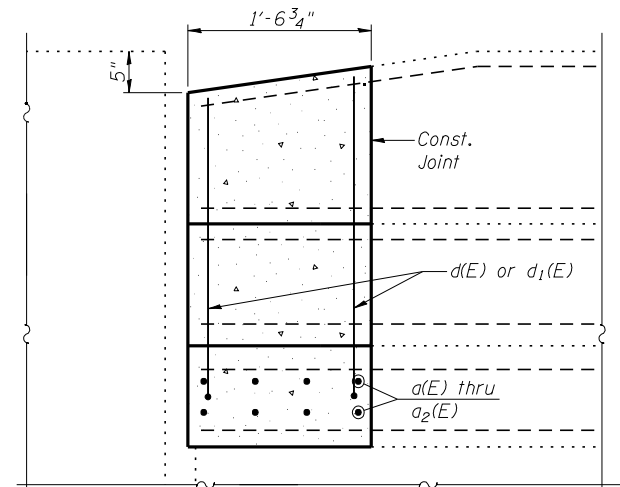
**SECTION C-C**  
(Dimensions @ Rt. L's)



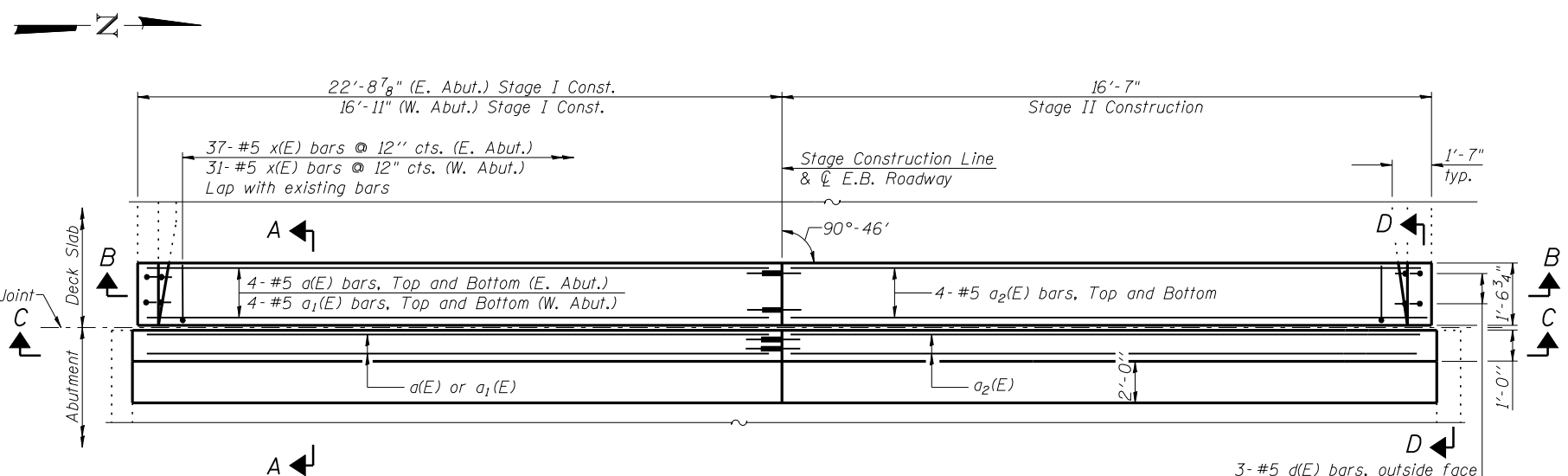
**SECTION A-A**  
(Dimension @ Rt. L's)



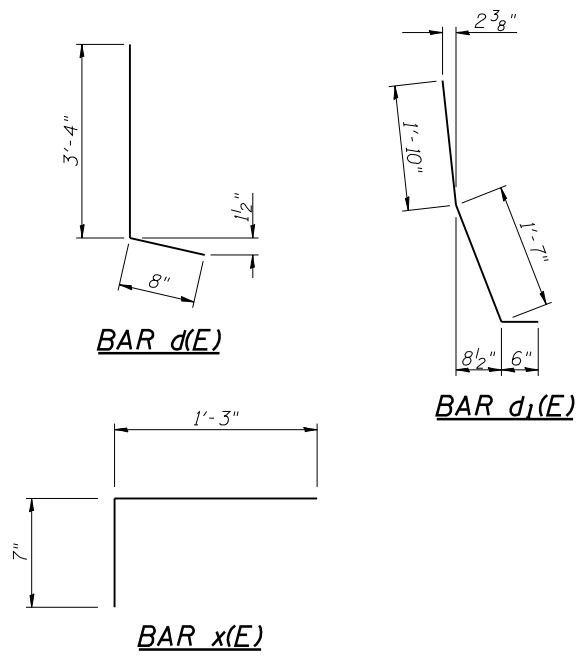
**SECTION B-B**  
(Dimensions @ Rt. L's)



**SECTION D-D**



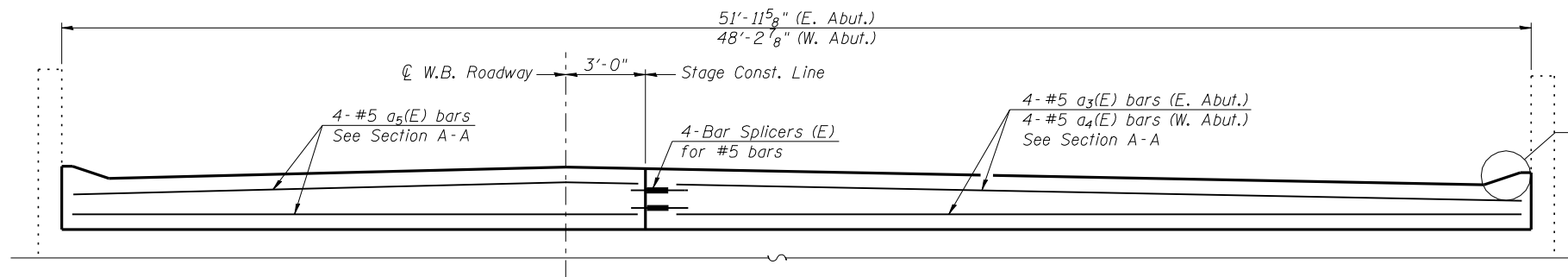
**EXPANSION JOINT AT ABUTMENT-EB BRIDGE**  
(East Abut. Shown, West Abut. Similar)



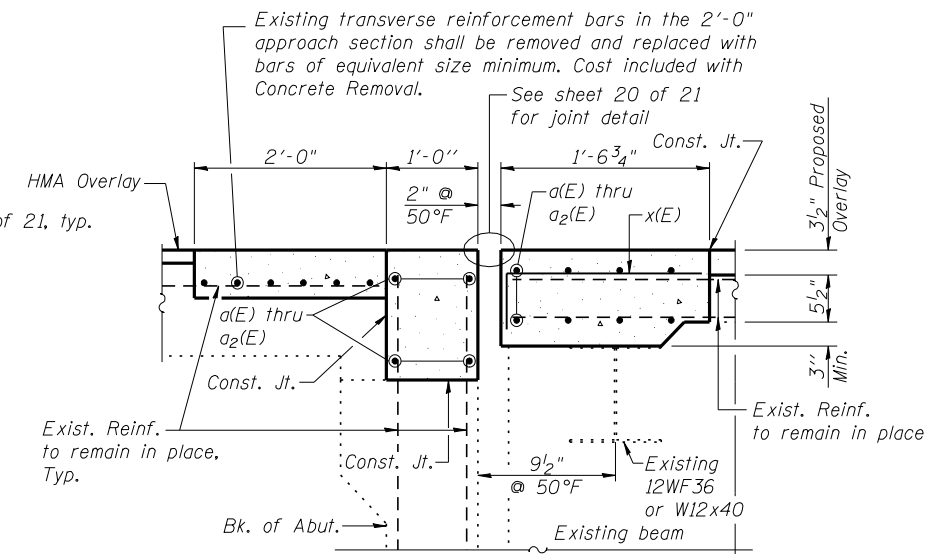
**BILL OF MATERIAL**  
(Both EB Abutments)

Bar	No.	Size	Length	Shape
a(E)	12	#5	22'-4"	—
a1(E)	12	#5	16'-6"	—
a2(E)	24	#5	16'-2"	—
d(E)	12	#5	4'-0"	U
d1(E)	12	#5	3'-11"	Z
x(E)	68	#5	1'-10"	—
Reinforcement Bars, Epoxy Coated			Pound	1120
Concrete Superstructure			Cu. Yds.	12.1
Protective Coat			Sq. Yd.	205

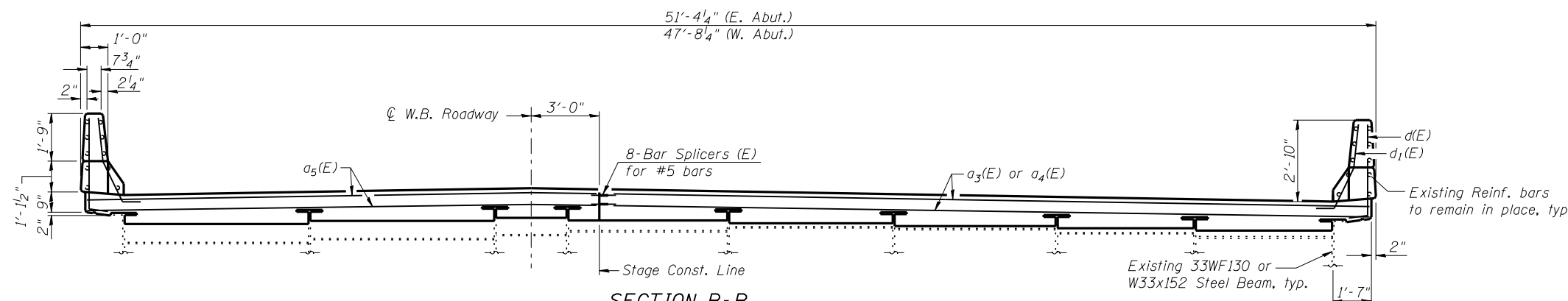
(Sheet 1 of 2)



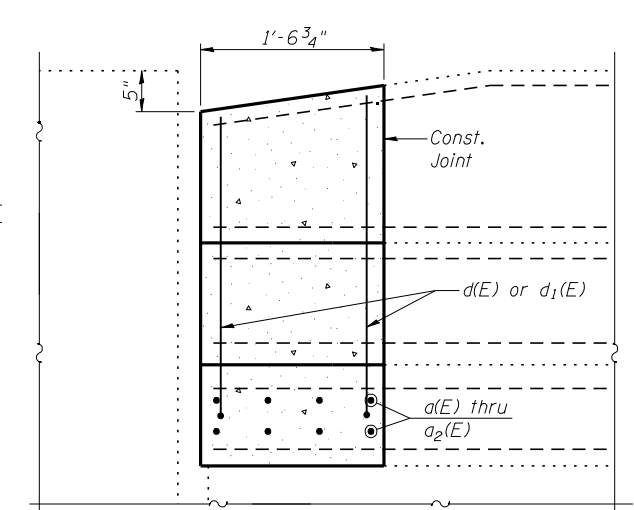
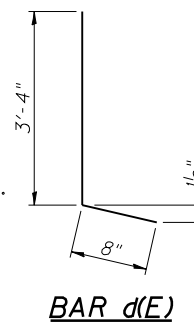
**SECTION C-C**  
(Dimensions @ Rt. L's)



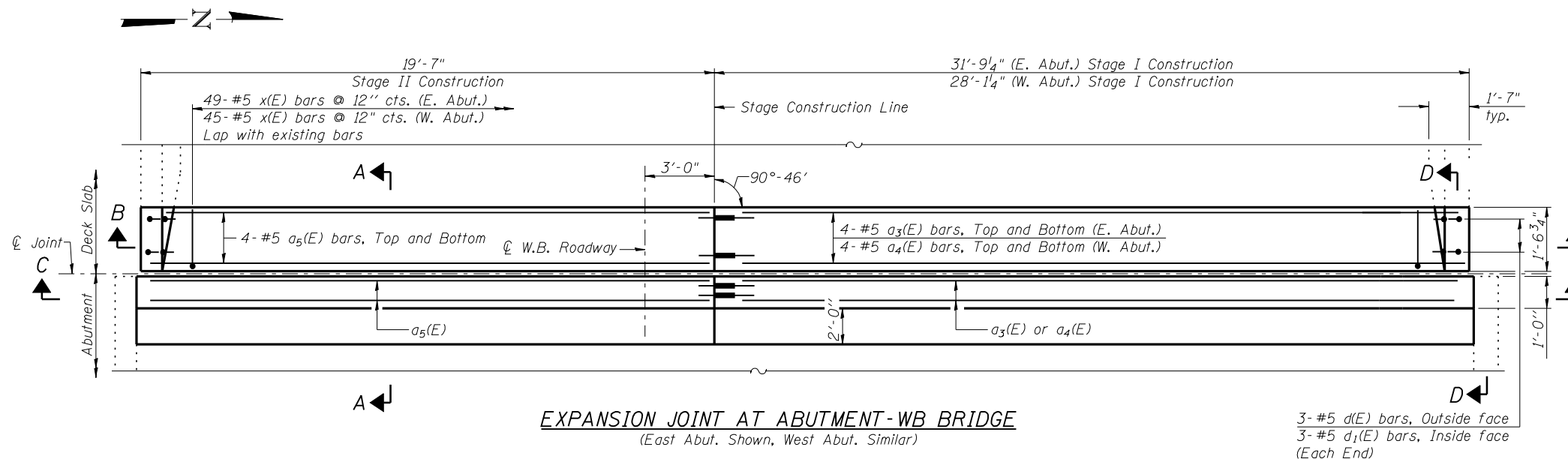
**SECTION A-A**  
(Dimension @ Rt. L's)



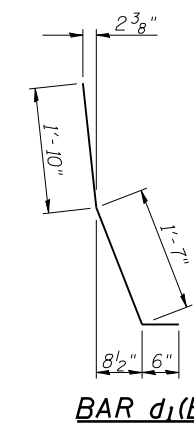
**SECTION B-B**  
(Dimensions @ Rt. L's)



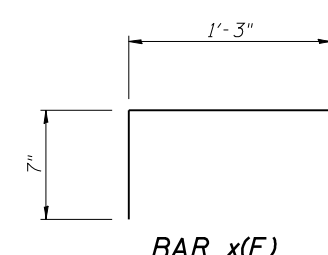
**SECTION D-D**



**EXPANSION JOINT AT ABUTMENT-WB BRIDGE**  
(East Abut. Shown, West Abut. Similar)



**BAR d1(E)**

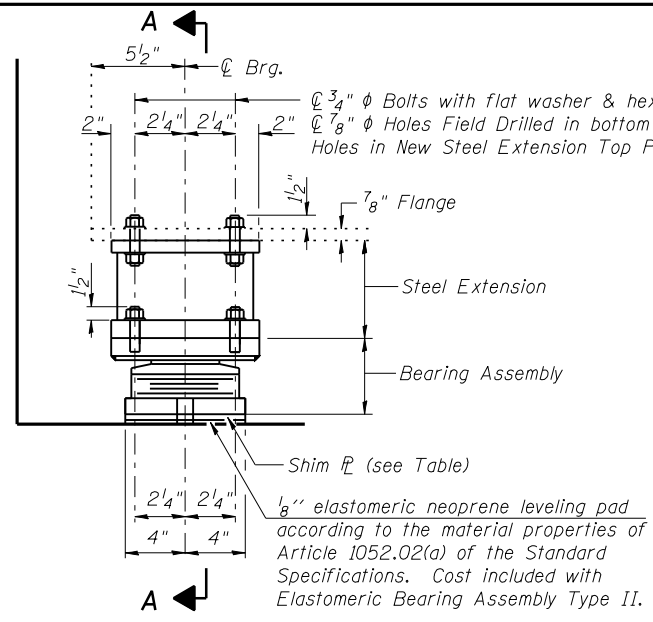


**BAR x(E)**

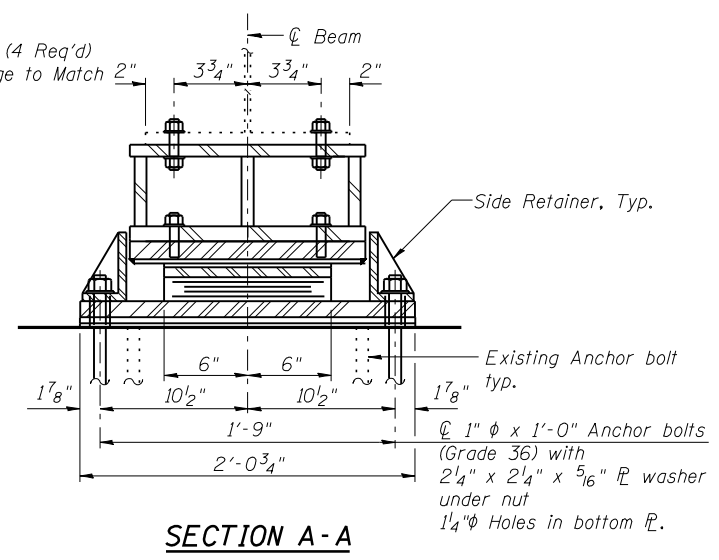
**BILL OF MATERIAL**  
(Both WB Abutments)

Bar	No.	Size	Length	Shape
a <sub>3</sub> (E)	12	#5	31'-4"	—
a <sub>4</sub> (E)	12	#5	27'-8"	—
a <sub>5</sub> (E)	24	#5	19'-2"	—
d(E)	12	#5	4'-0"	┘
d <sub>1</sub> (E)	12	#5	3'-11"	┘
x(E)	94	#5	1'-10"	┘
Reinforcement Bars, Epoxy Coated		Pound	1500	
Concrete Superstructure		Cu. Yds.	16.2	
Protective Coat		Sq. Yd.	219	

(Sheet 2 of 2)

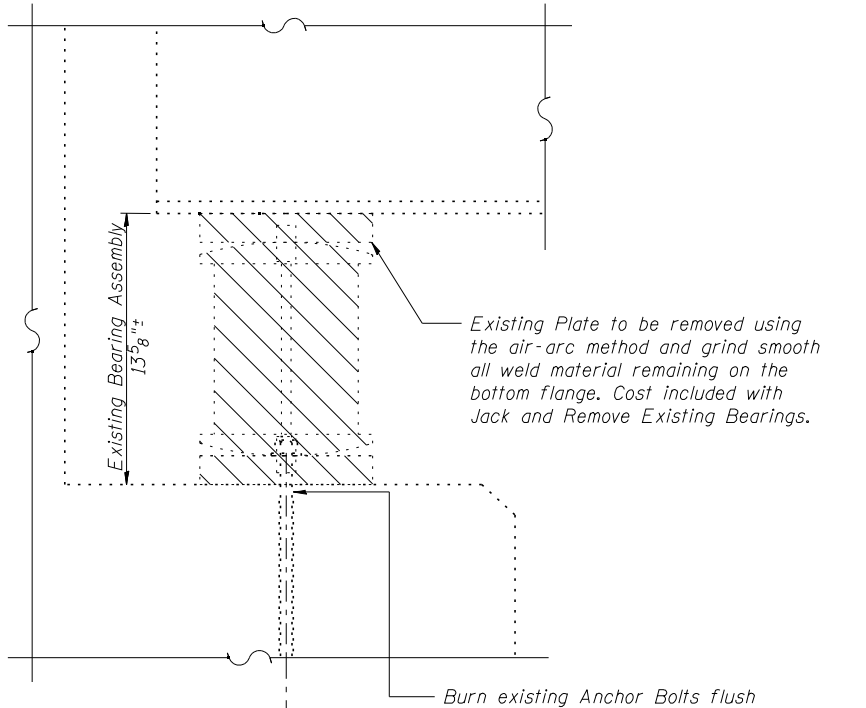


**ELEVATION AT ABUTS.**



**SECTION A-A**

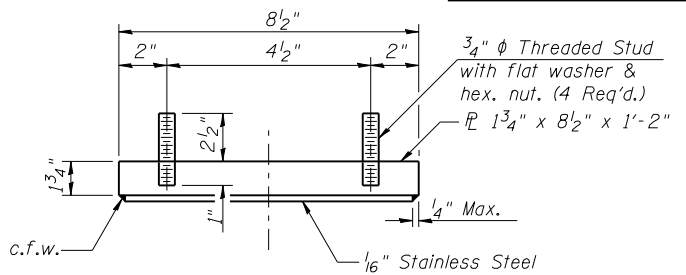
Notes:  
 Hatch area indicates Bearing removal. See Special Provision for Jack and Remove Existing Bearings.  
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
 Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
 Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.  
 Steel extensions and fasteners shall be included in the cost of Furnishing and Erecting Structural Steel.  
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.  
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.  
 Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts.  
 The Contractor is to verify the existing dimensions prior to fabricating the steel extensions. It is intended to keep the existing beams at their current elevation. Existing bearing dimensions shown are copied from original plans.  
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
 The bearings shall be in place and jacks lowered before the new concrete deck is poured.



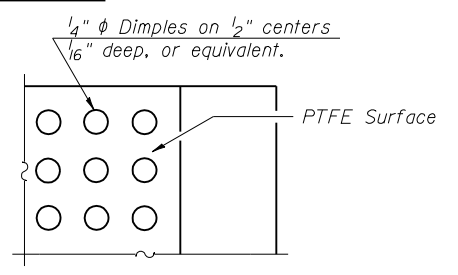
**EXISTING BEARING REMOVAL DETAIL**

Burn existing Anchor Bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy. Cost included with Jack and Remove Existing Bearings.

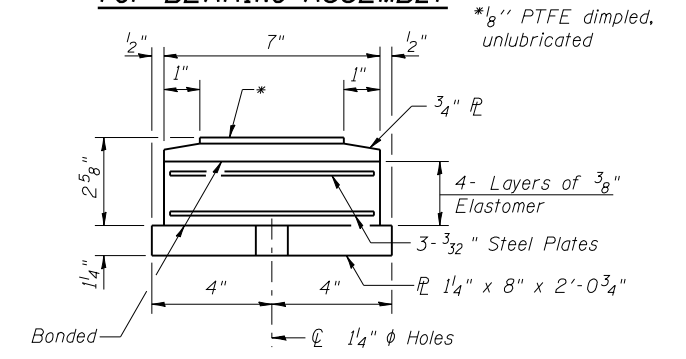
**TYPE II ELASTOMERIC EXP. BRG.**



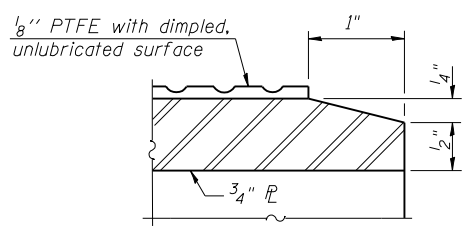
**TOP BEARING ASSEMBLY**



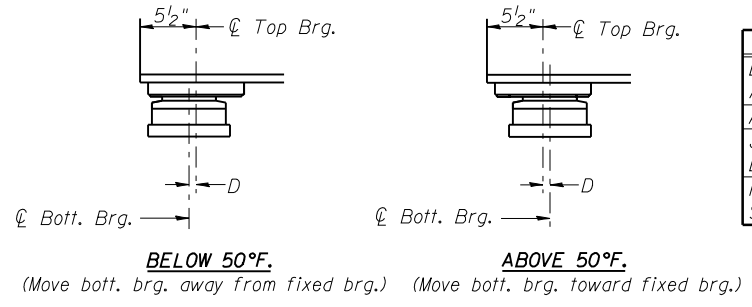
**PLAN-PTFE SURFACE**



**BOTTOM BEARING ASSEMBLY**



**SECTION THRU PTFE**



**SETTING ANCHOR BOLTS AT EXP. BRG.**

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	30
Anchor Bolts, 1"	Each	60
Jack and Remove Existing Bearings	Each	30
Furnishing & Erecting Structural Steel	Pound	3822

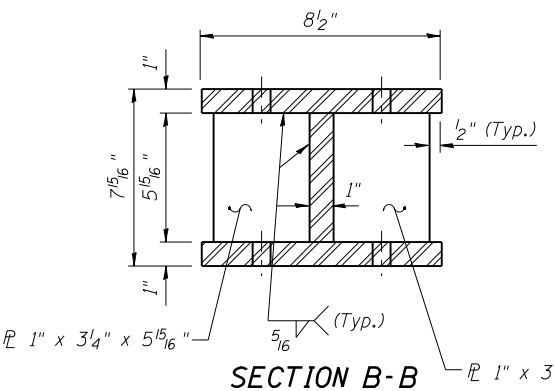
**EXISTING SHIM P TABLE**

Beam No.	W. Abut.	E. Abut.
5	3/8" x 9" x 1'-8"	3/8" x 9" x 1'-8"
6	1" x 9" x 1'-8"	1/8" x 9" x 1'-8"
7	1" x 9" x 1'-8"	1/8" x 9" x 1'-8"
8	1/4" x 9" x 1'-8"	1/4" x 9" x 1'-8"
11	1/2" x 9" x 1'-8"	-
12	1/8" x 9" x 1'-8"	1/4" x 9" x 1'-8"
13	1/8" x 9" x 1'-8"	-

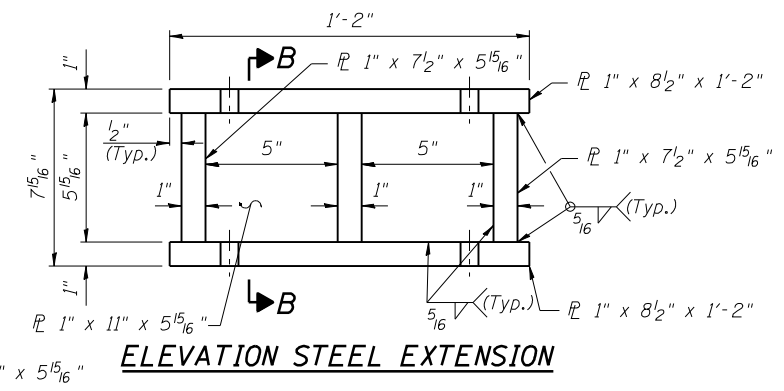
**BEAM REACTION TABLE**

(Governing Beam)

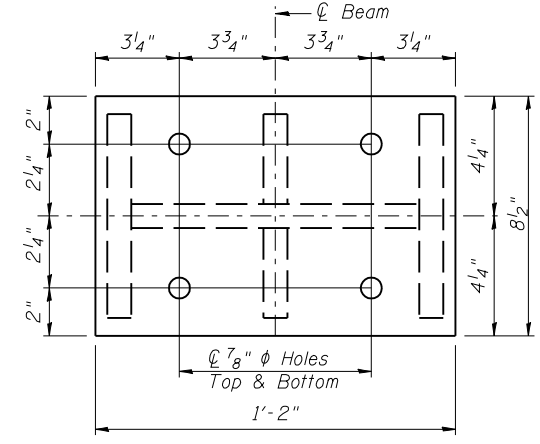
	045-0035		045-0036	
	W. Abut.	E. Abut.	W. Abut.	E. Abut.
Dead Load (k)	14.1	15.6	13.4	13.7
Live Load (k)	40.5	45.4	40.5	40.9
Impact (k)	12.2	13.6	12.2	12.3
Total (k)	66.8	74.6	66.1	66.9
Min. Jack Capacity (Tons)	31	34	30	31



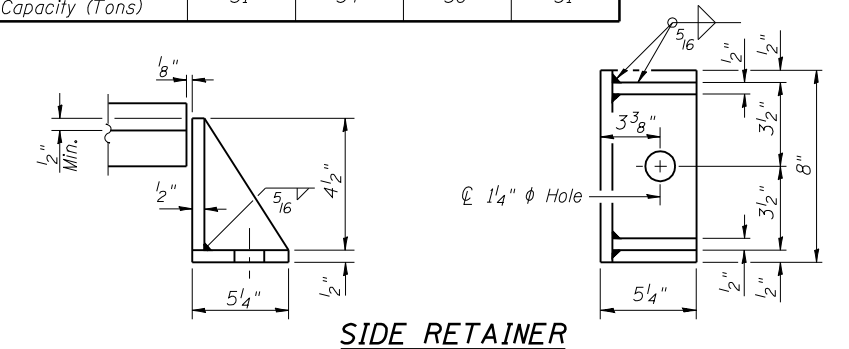
**SECTION B-B**



**ELEVATION STEEL EXTENSION**



**PLAN STEEL EXTENSION**



**SIDE RETAINER**

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



USER NAME =	DESIGNED - TBP	REVISED -
FILE NAME =	CHECKED - ADB	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

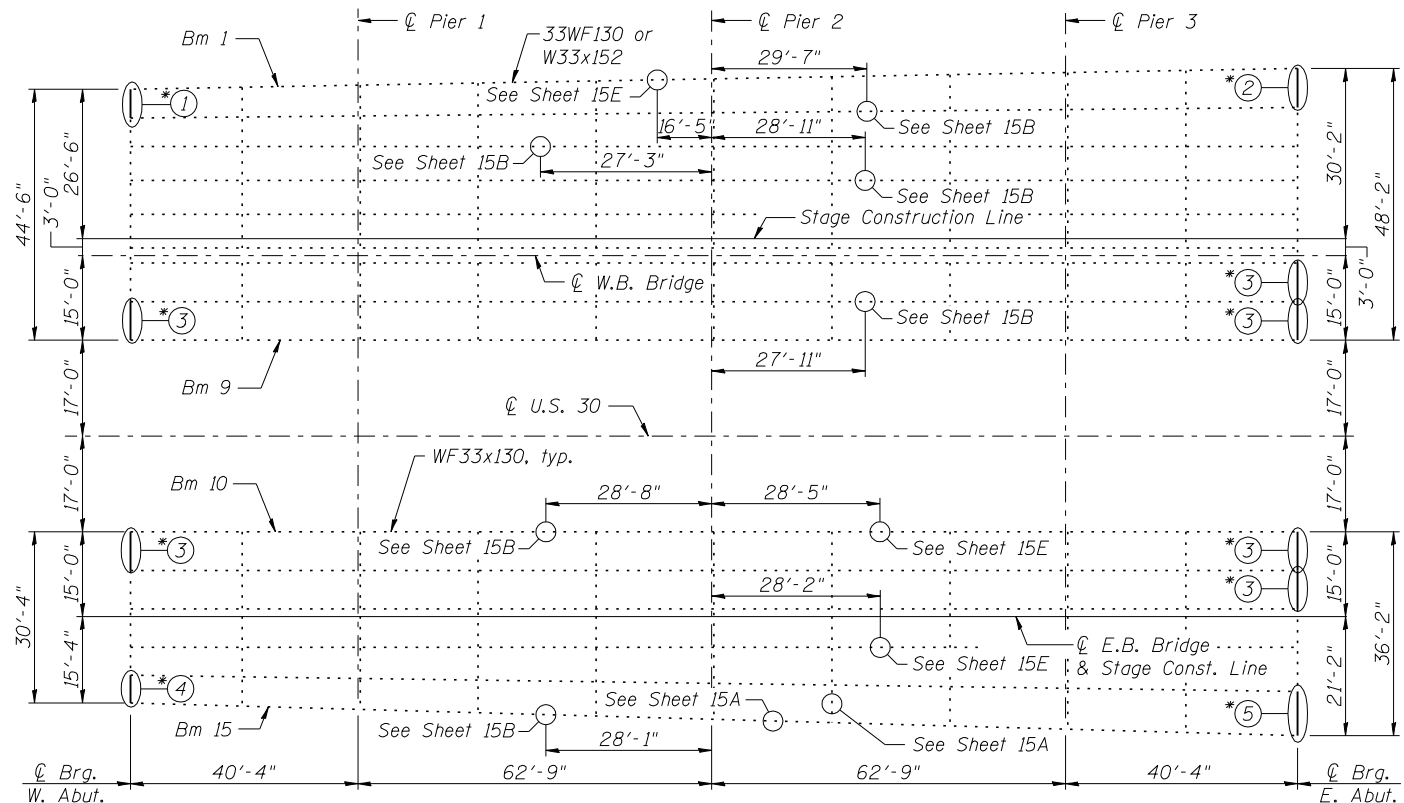
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BEARING DETAILS  
STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 13 OF 21 SHEETS

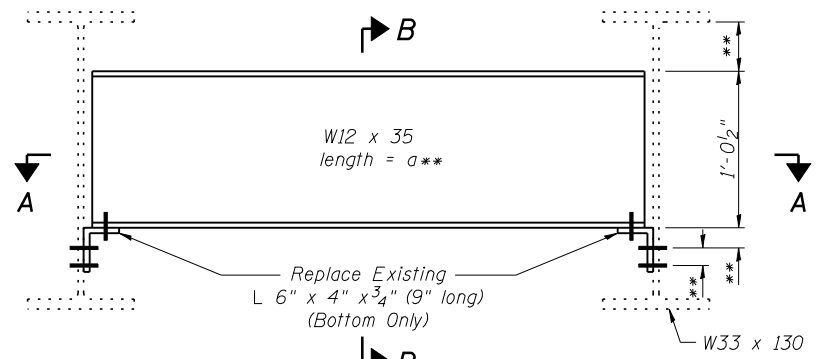
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	31

CONTRACT NO. 60N12  
ILLINOIS FED. AID PROJECT

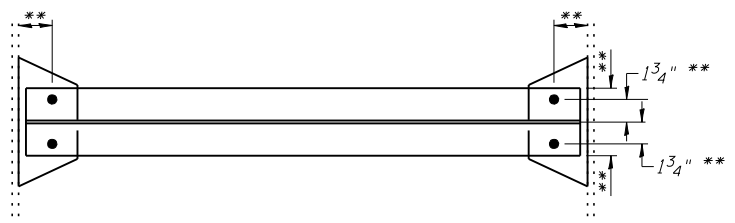


**FRAMING PLAN**

(Showing Beam Straightening and Diaphragm Replacement)

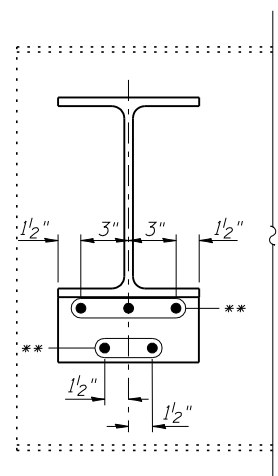


**DIAPHRAGM ELEVATION**



**SECTION A-A**

\*\* Match existing dimensions. Remove existing rivets and replace with 3/4" φ H.S. Bolts with hardened washers. Use existing members as a template when drilling new holes in new members.



**SECTION B-B**

**\* DIAPHRAGM REPLACEMENT**

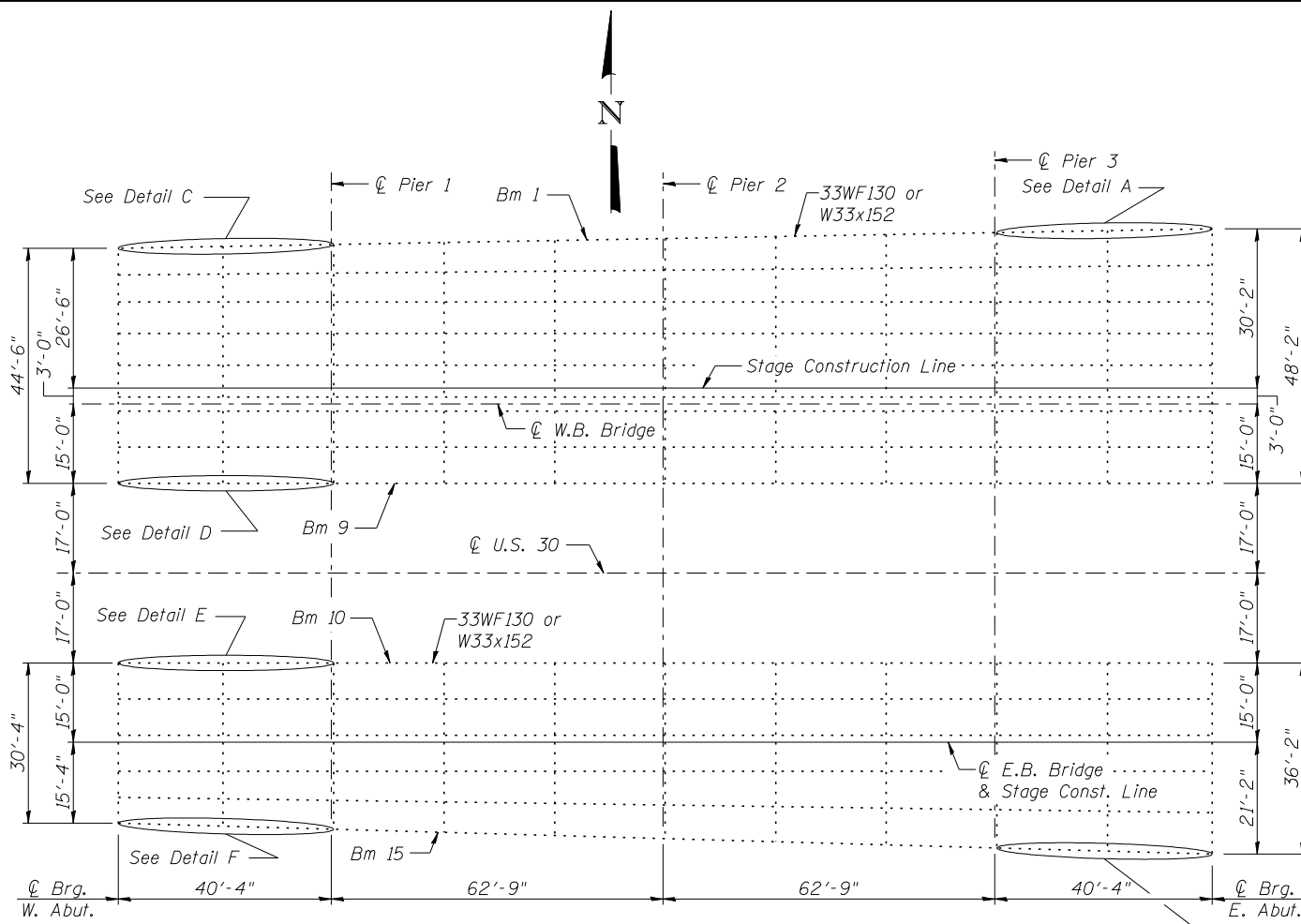
No.	length a**
1	4'-11 1/16"
2	6'-9 1/16"
3	6'-8 1/16"
4	4'-9 1/16"
5	7'-8 1/16"

**BILL OF MATERIAL**

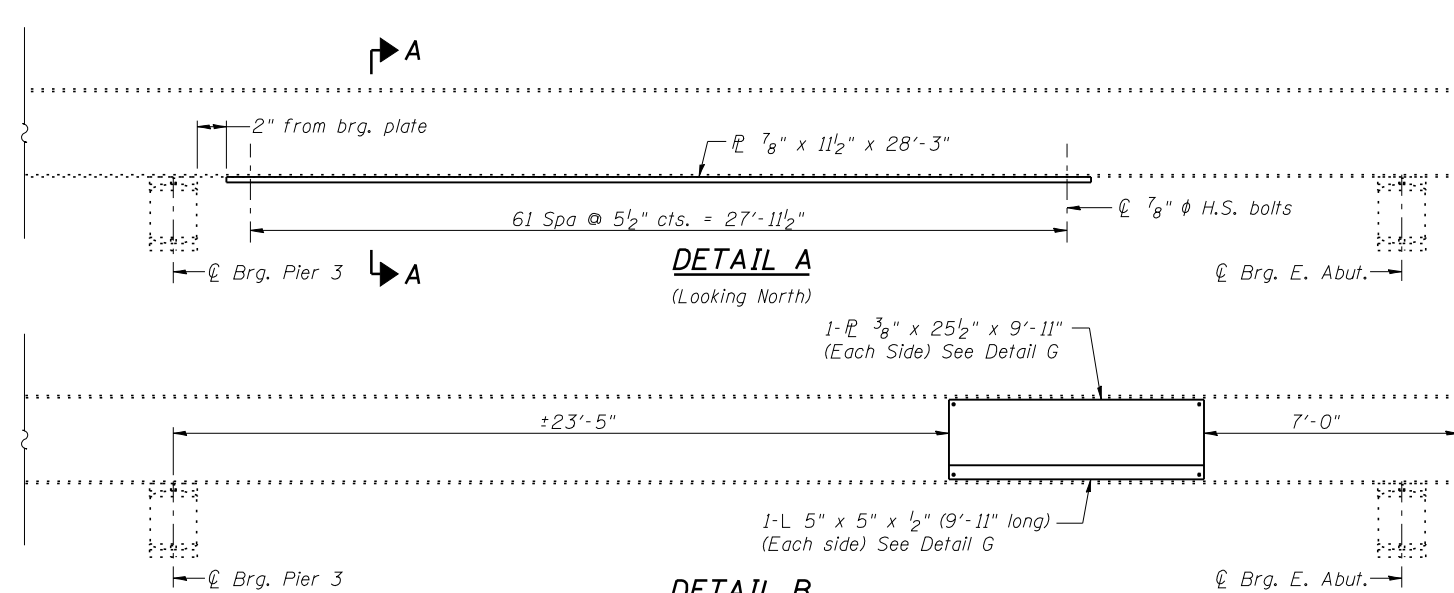
ITEM	UNIT	TOTAL
Structural Steel Repair	Pound	2694

(Sheet 1 of 2)



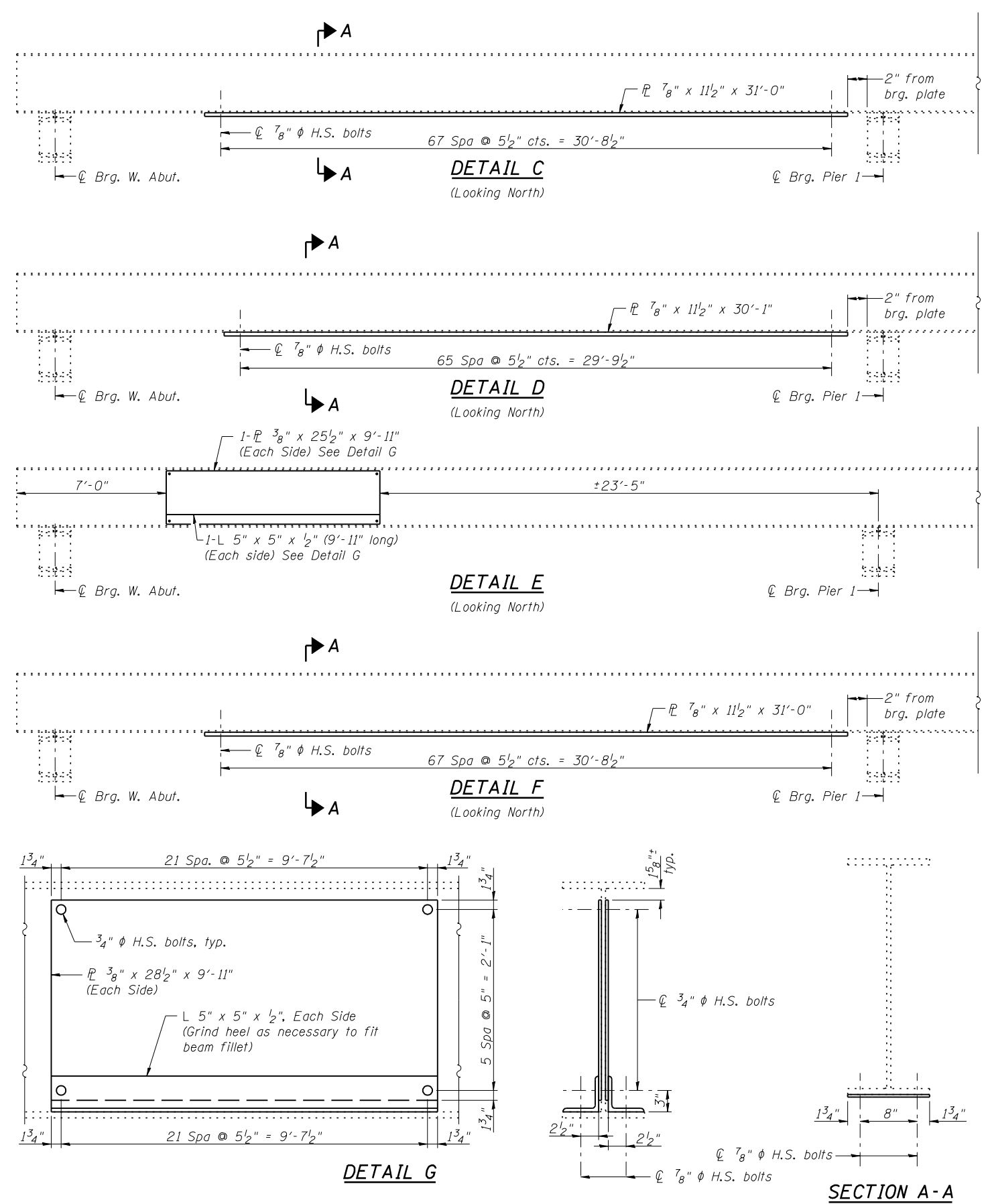


**FRAMING PLAN**  
(Showing Beam Straightening)



**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Steel Repair	Pound	6943



(Sheet 2 of 2)



USER NAME =	DESIGNED - TBP	REVISED -
FILE NAME =	CHECKED - ADB	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL DETAILS**  
**STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 15 OF 21 SHEETS

F.A.P. RTE. 573	SECTION 61 HB-1-7	COUNTY KANE	TOTAL SHEETS 48	SHEET NO. 33
CONTRACT NO. 60N12				
ILLINOIS FED. AID PROJECT				

**NOTES**

(Applies to sheets 15A thru 15I of 21)

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts 7/8" φ, open holes 15/16" φ, unless otherwise noted.

Diaphragm connection holes shall be 15/16" φ for 3/4" φ bolts. Two hardened washers shall be required at diaphragm connections.

The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing" and "Temporary Slab Support System."

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Grinding shall be done parallel to the longitudinal axis of the member. Ground surfaces shall be inspected for cracks using dye penetrant or magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.

Prior to pouring the new concrete deck, all heavy or loose rust, 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.

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.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8.

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.

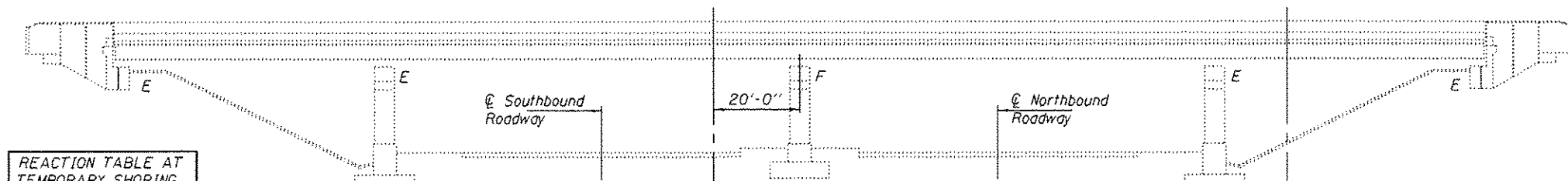
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

**BILL OF MATERIAL**

(Applies to sheets 15A thru 15I of 21)

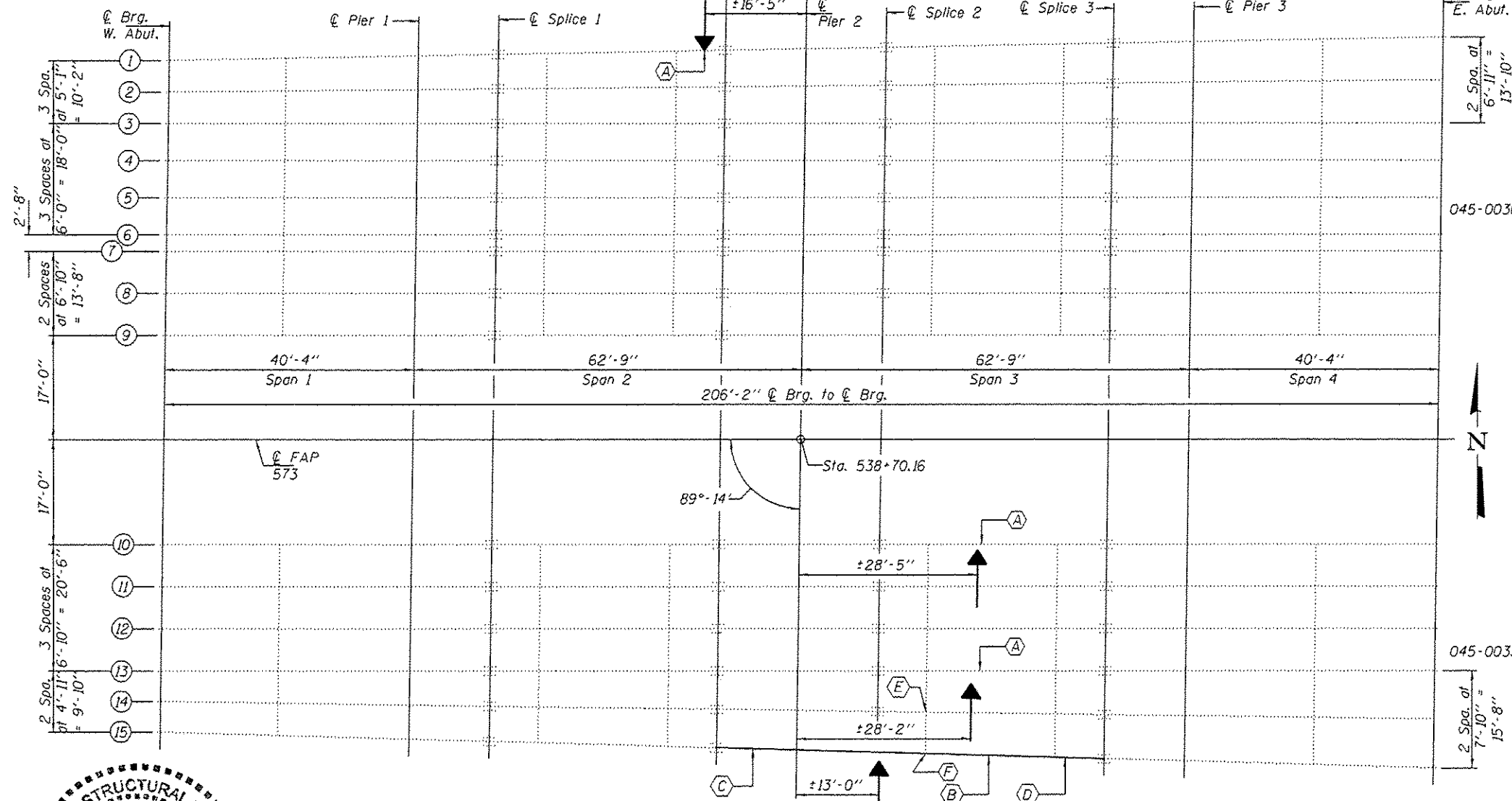
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	0.9
Concrete Superstructure	Cu. Yd.	0.9
Furnishing and Erecting Structural Steel	Pound	9740
Structural Steel Removal	Pound	9570
Structural Steel Repair	Pound	970
Beam Straightening	L.S.	1
Temporary Slab Support System	L.S.	1
Temporary Shoring and Cribbing	L.S.	1
Overhead Sign Structure - Bridge Mounted	Foot	13.5
Sign Panel - Type 3	Sq. Ft.	94.5



**REACTION TABLE AT TEMPORARY SHORING**

Q	(k)	95.6
L	(k)	44.5
Imp.	(k)	12.6
Total	(k)	152.7

**ELEVATION** Temporary shoring may be required for Beam 15 to facilitate alignment of existing splice. Use 12" x 12" Timbers or HP's to be paid for as Temporary Shoring and Cribbing. Remove and replace slopewall, if required. Cost included with Temporary Shoring and Cribbing.



**PLAN**

Impact Line

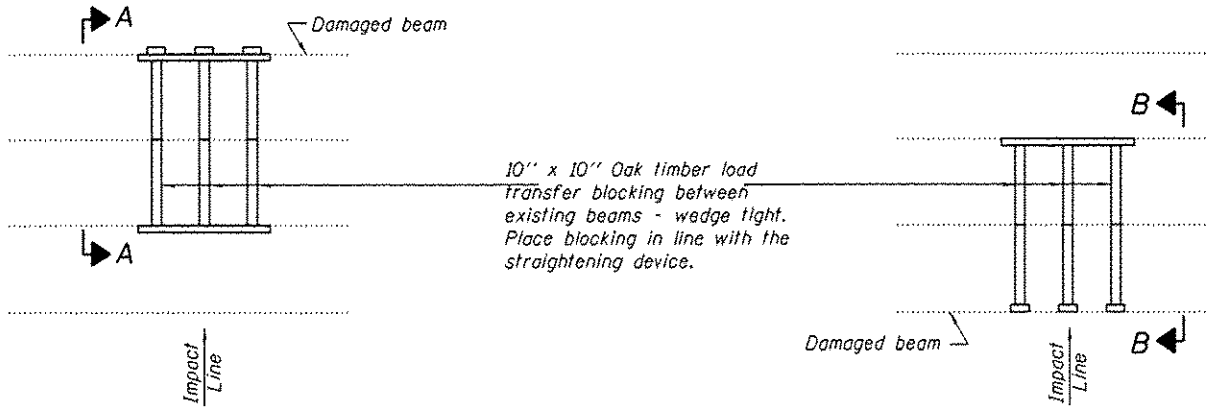
- (A) - Straighten & Strengthen existing beam.
- (B) - Remove and replace existing 33W152 with new W33x152.
- (C) - Epoxy inject void left by existing cover plate. (If work is to be done thru holes in the deck, each hole shall be drilled before installing new beam.) Cost to be included with Furnishing & Erecting Structural Steel.
- (D) - Remove and replace existing sign truss.
- (E) - Replace 1 broken bolt.
- (F) - Replace bottom clip angle and straighten diaphragm bottom flange.



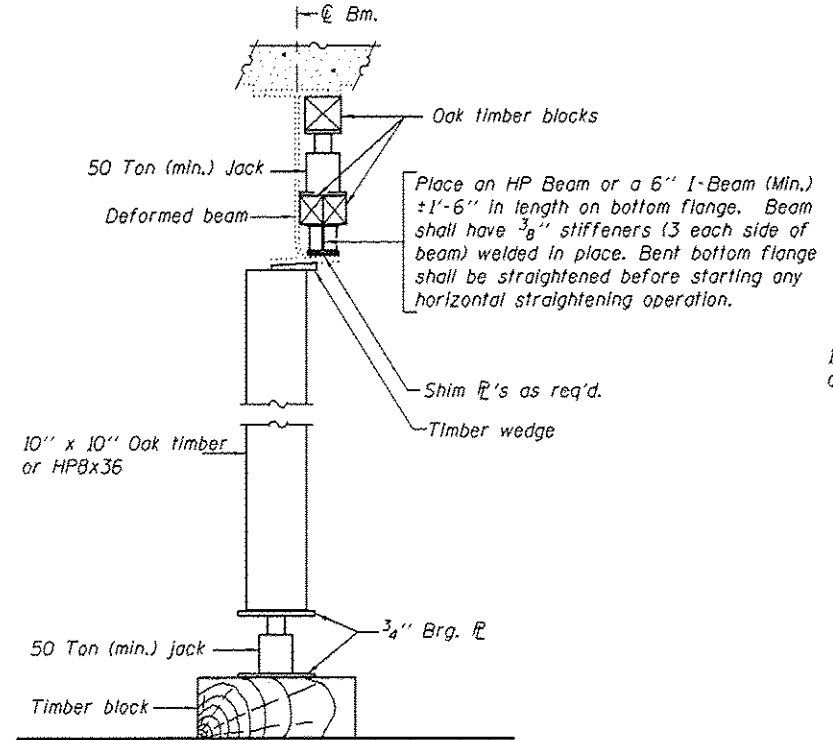
EXPIRES 11-30-2014

(Applies to sheets 15A thru 15I of 21)

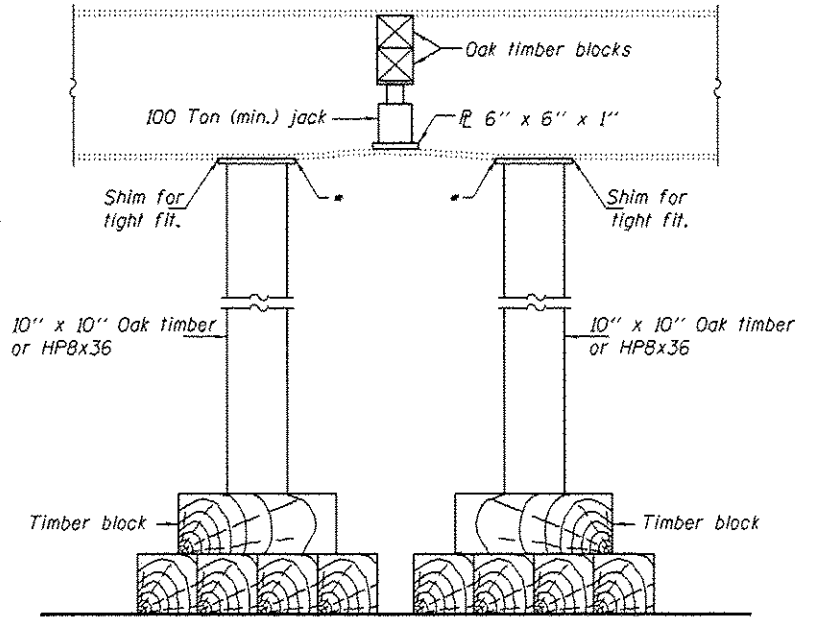
DESIGNED: <i>[Signature]</i>	EXAMINED: <i>[Signature]</i>	DATE: AUGUST 2, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		STEEL REPAIRS SPANS 2 & 3		F.A.P. RTE. 573	SECTION 61 HB-1-1	COUNTY KANE	TOTAL SHEETS 48	SHEET NO. 33A
CHECKED: <i>[Signature]</i>	PASSED: <i>[Signature]</i>	REVISED:			FAP RTE. 573 OVER IL. RTE. 47 (FAP 326) SN 045-0035 (EB) & 0036 (WB)		SHEET NO. 15A OF 21 SHEETS		CONTRACT NO. 60N12		ILLINOIS FED. AID PROJECT



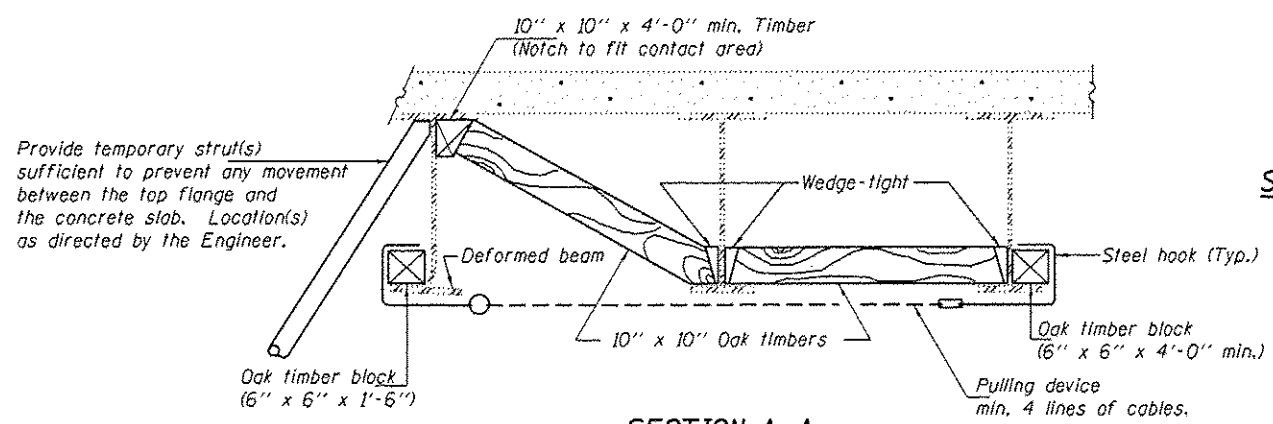
**PARTIAL PLANS**  
**SUGGESTED BEAM STRAIGHTENING METHODS**  
 Straightening force shall be maintained on all load transfer blocking during beam straightening.



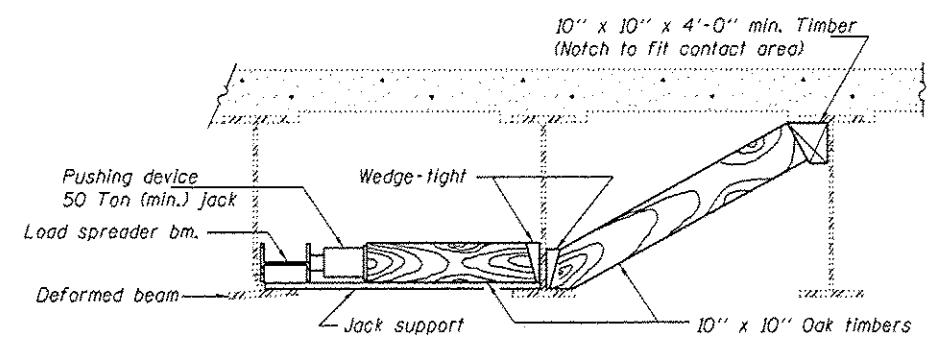
**SUGGESTED VERTICAL STRAIGHTENING DETAIL**  
 (To correct localized vertical flange deformations.)



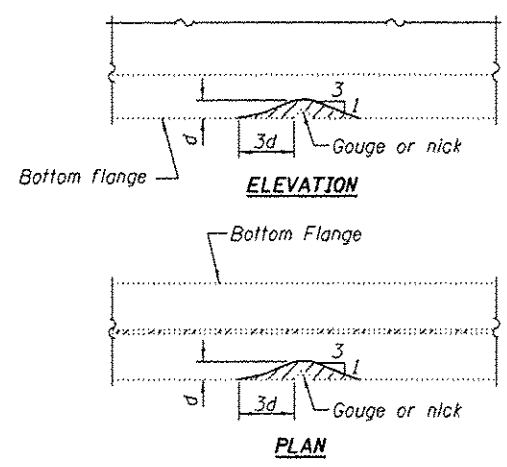
Note:  
 Braces and jack assembly shall be placed on same side of web.  
 Bent bottom flange shall be straightened before starting any horizontal straightening operations.



**SECTION A-A**



**SECTION B-B**



**GRINDING DETAIL**

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.

Beam	A	B	C
1	2 1/2"	1"	1'-9"
10 & 13	0"	1/2"	1'-6"

**EXISTING DEFORMATION TO BE STRAIGHTENED**

(Looking East at Beam 1 & West at Beams 10 & 13)  
 (Approximate max. deflections)  
 Deflected length of beam to be straightened is approximately "C".

REP-1 1-14-2005

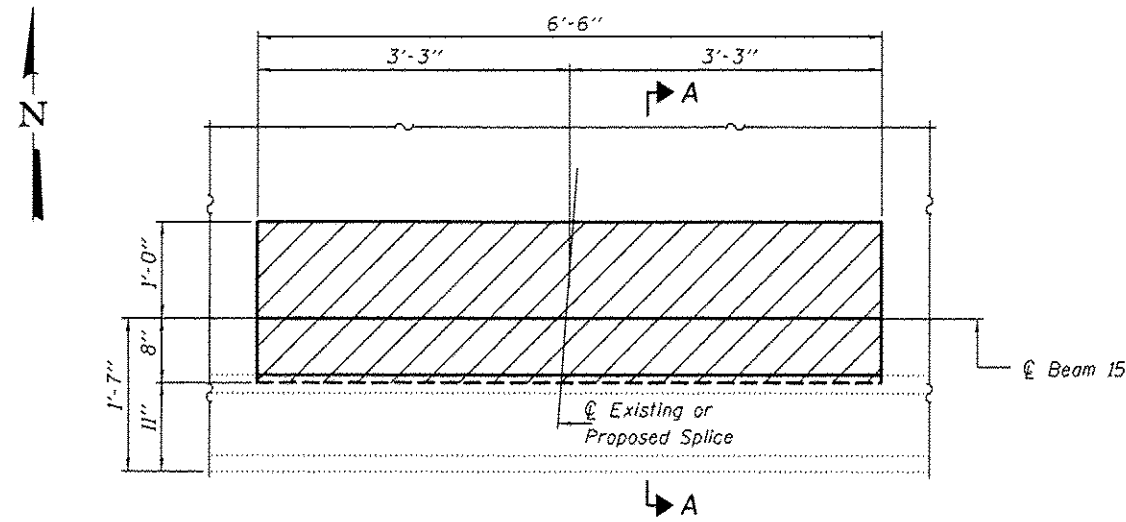
DESIGNED GGE	EXAMINED	DATE AUGUST 2, 2013
CHECKED TLC	PASSED	REVISED
DRAWN baliva		REVISED
CHECKED GGE TLC		

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

IMPACT REPAIR DETAILS  
 SN 045-0035 (EB) & 0036 (WB)

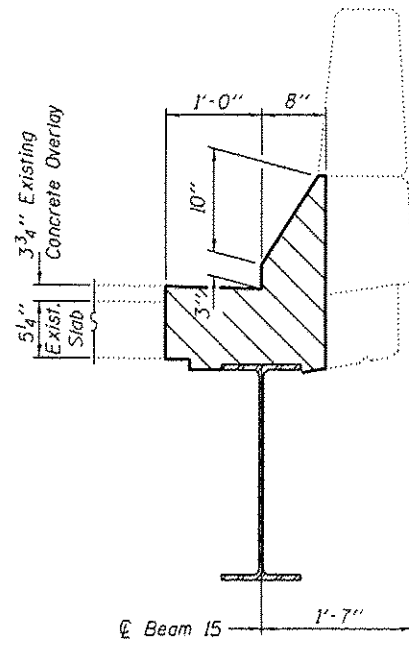
SHEET NO. 15B OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
513	61 HB-1-T	KANE	48	33B
				CONTRACT NO. 60N12
ILLINOIS FED. AID PROJECT				

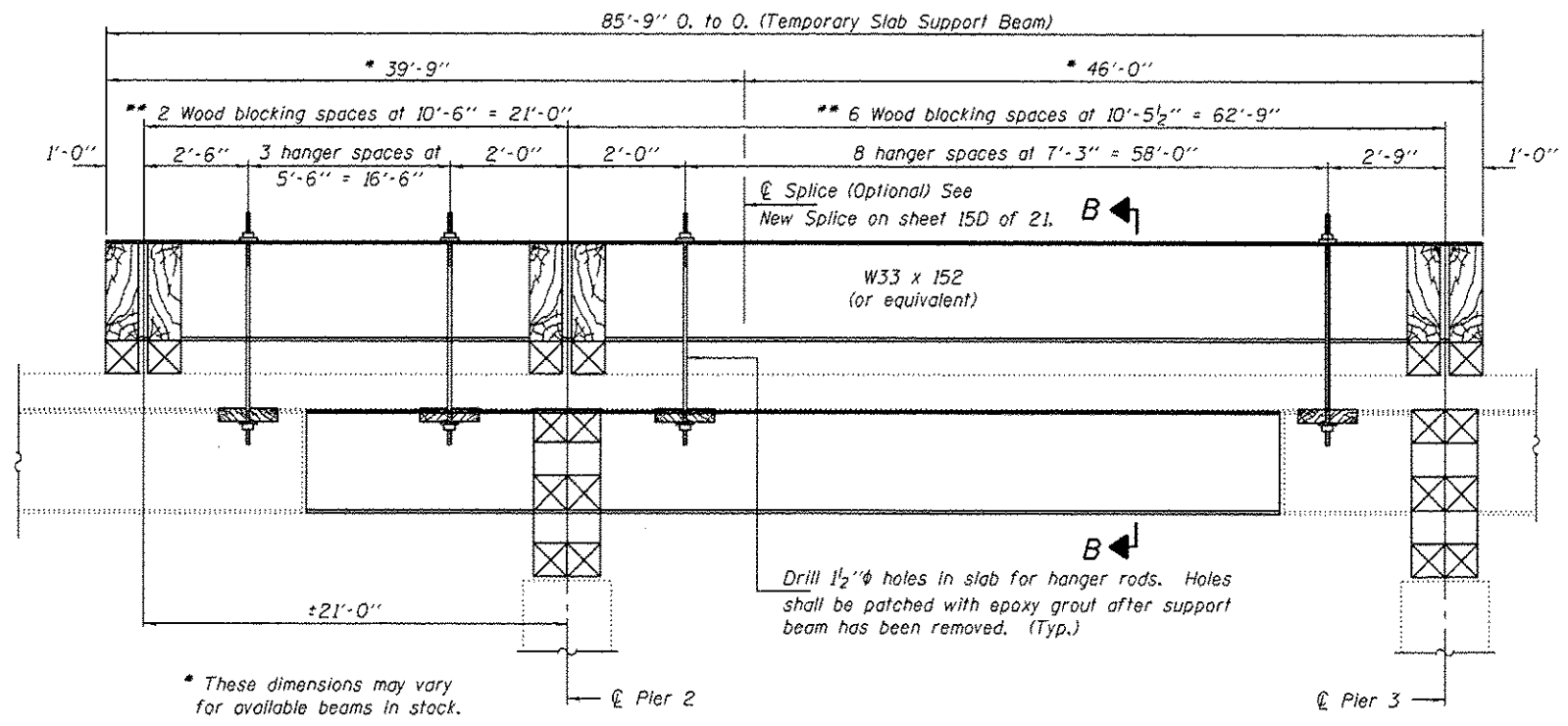


**TYPICAL CONCRETE REMOVAL AND REPLACEMENT**

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut  $\frac{3}{4}$ " prior to the removal of concrete.  
 Reinforcement shall be cut only if required for fitting bolts. Cut reinforcement shall be spliced as directed by the Engineer. Cost included with Concrete Removal.  
 Existing reinforcement 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.

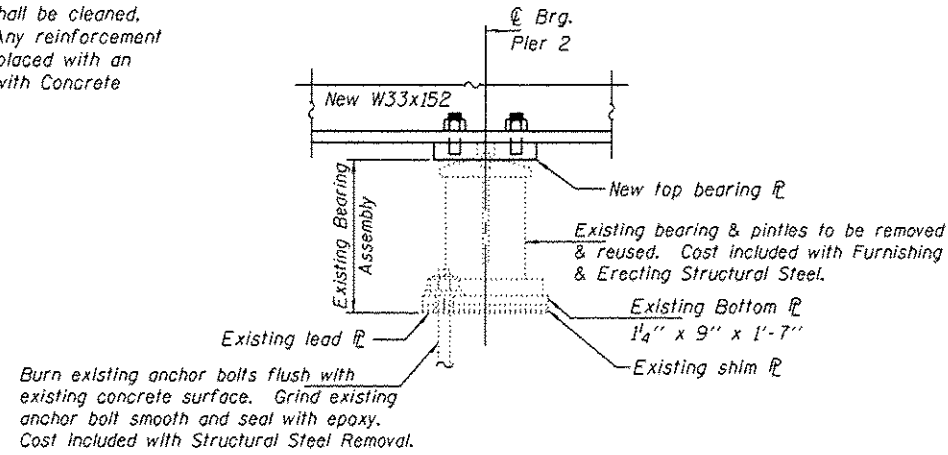


**SECTION A-A**

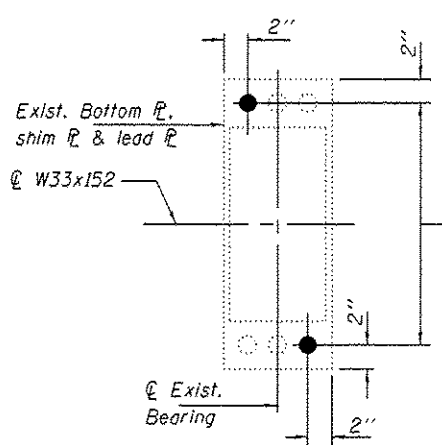


**LONGITUDINAL SECTION  
SUGGESTED TEMPORARY SLAB SUPPORT SYSTEM**

\*\* Wood blocking between supports to be placed after support beam deflects under its own weight.

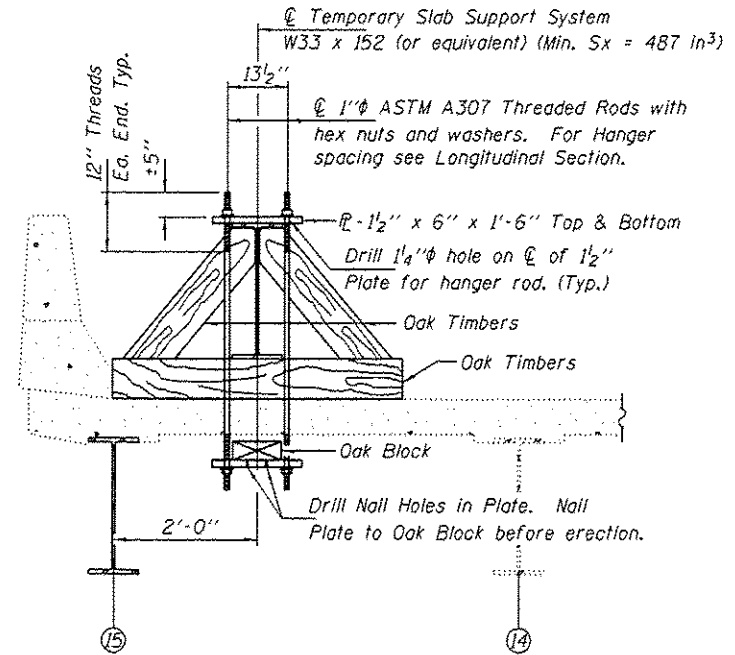


**BEARING DETAILS**



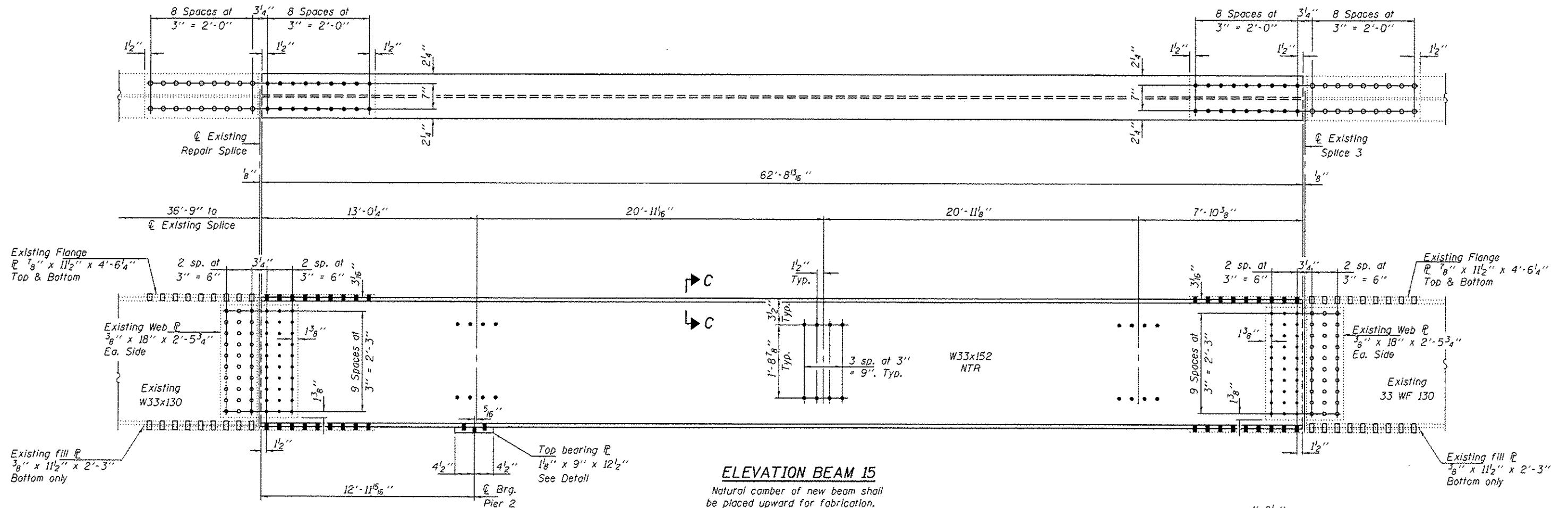
**ANCHOR BOLT LAYOUT**

Notes:  
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



**SECTION B-B**

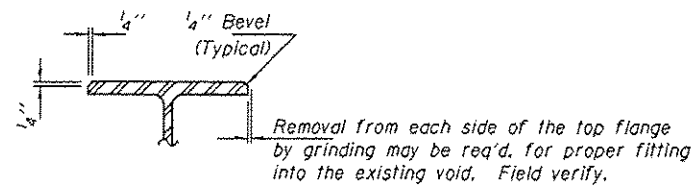
DESIGNED GGE	EXAMINED	DATE AUGUST 2, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		IMPACT REPAIR DETAILS SN 045-0035 (EB) & 0036 (WB)		F.A.P. RTE. 573	SECTION 61 HB-1-7	COUNTY KANE	TOTAL SHEETS 48	SHEET NO. 33C
CHECKED TLC	PASSED		TIMOTHY A. ADLGI ACTING ENGINEER OF STRUCTURAL SERVICES		SHEET NO. 15C OF 21 SHEETS		CONTRACT NO. 60N12		ILLINOIS FED. AID PROJECT		
DRAWN baliva			CARL J. JENSEN ACTING ENGINEER OF BRIDGES AND STRUCTURES								
CHECKED GGE TLC											



**ELEVATION BEAM 15**

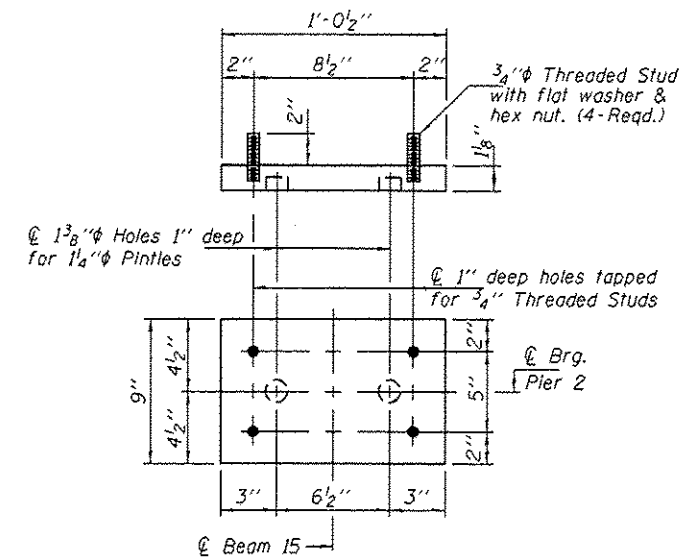
Natural camber of new beam shall be placed upward for fabrication.

- Use holes in existing splice plates as template for drilling holes in new beam.



**SECTION C-C**

Removal from each side of the top flange by grinding may be req'd. for proper fitting into the existing void. Field verify.



**TOP BEARING PLATE**

R 1/8" x 9" x 1'-0 1/2"

DESIGNED GGE	EXAMINED <i>Timothy A. ...</i>	DATE AUGUST 2, 2013
CHECKED TLC	PASSED <i>Carli ...</i>	REVISED
DRAWN <i>baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED
CHECKED GGE TLC		

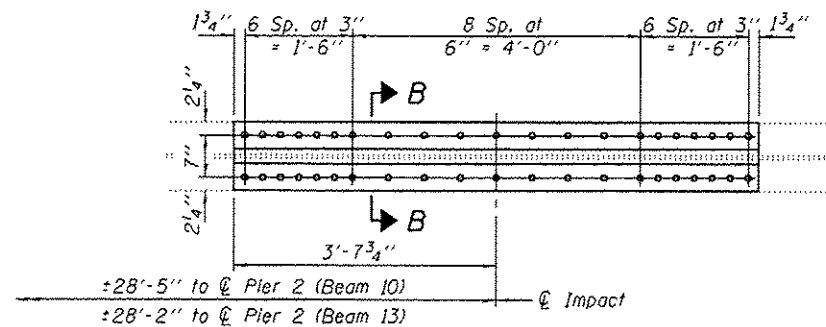
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IMPACT REPAIR DETAILS  
SN 045-0035 (EB) & 0036 (WB)

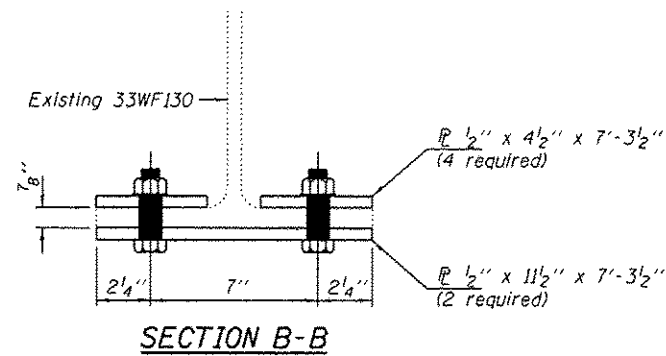
SHEET NO. 150 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 NB-1-T	KANE	48	330
			CONTRACT NO. 60N12	

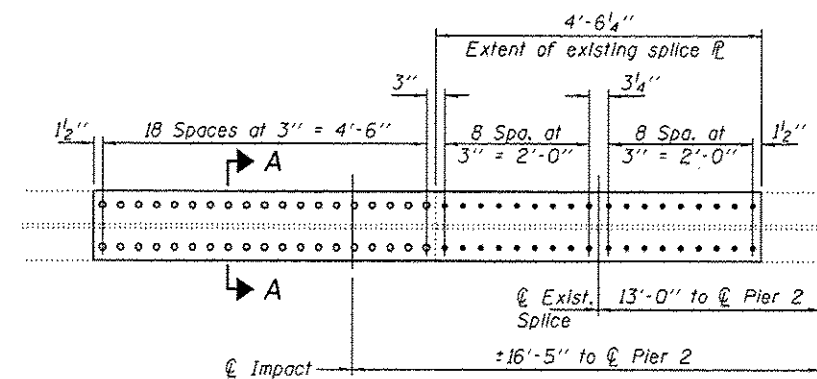
ILLINOIS FED. AID PROJECT



**STRENGTHENING DETAIL BEAMS 10 & 13**



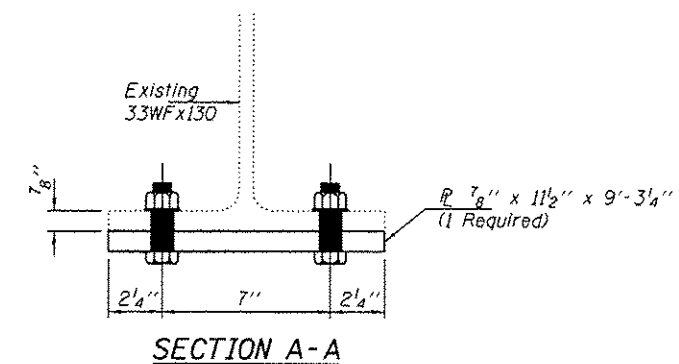
**SECTION B-B**



**STRENGTHENING DETAIL BEAM 1**

Existing Splice to be removed and replaced as shown in detail.

- - Use holes in existing plates as template for drilling holes in new plate.
- - Use holes in new plate as template for drilling holes in existing beam flange.



**SECTION A-A**

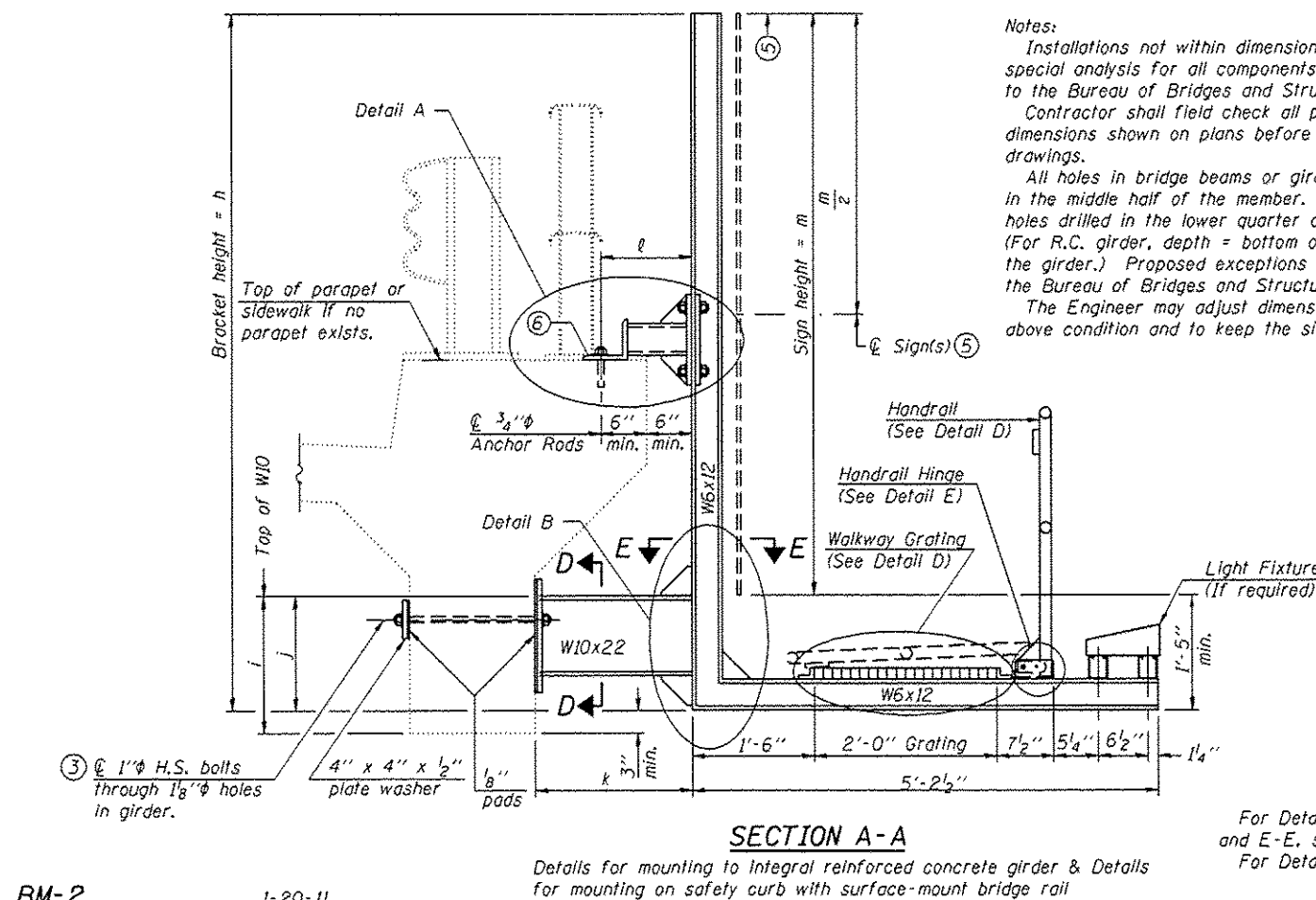
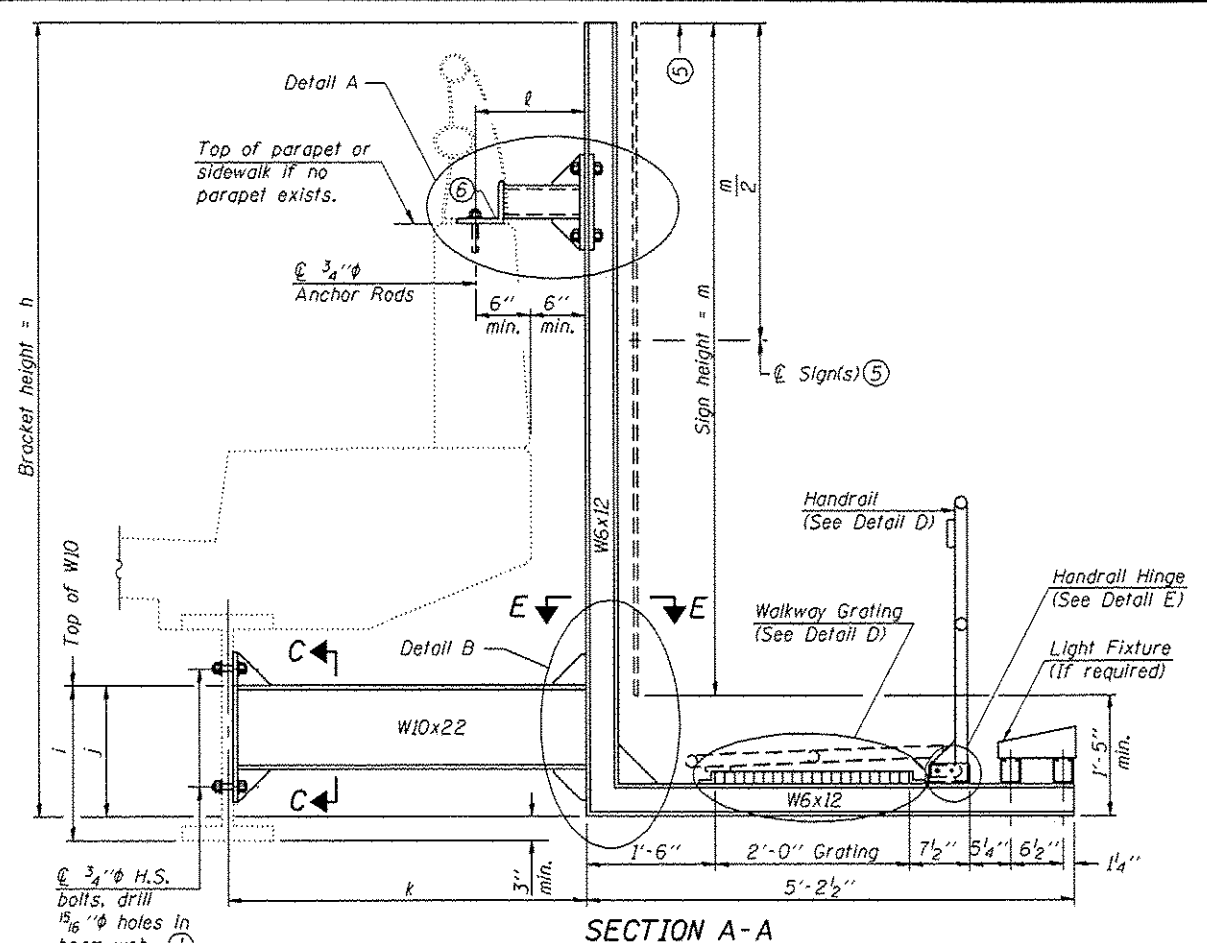
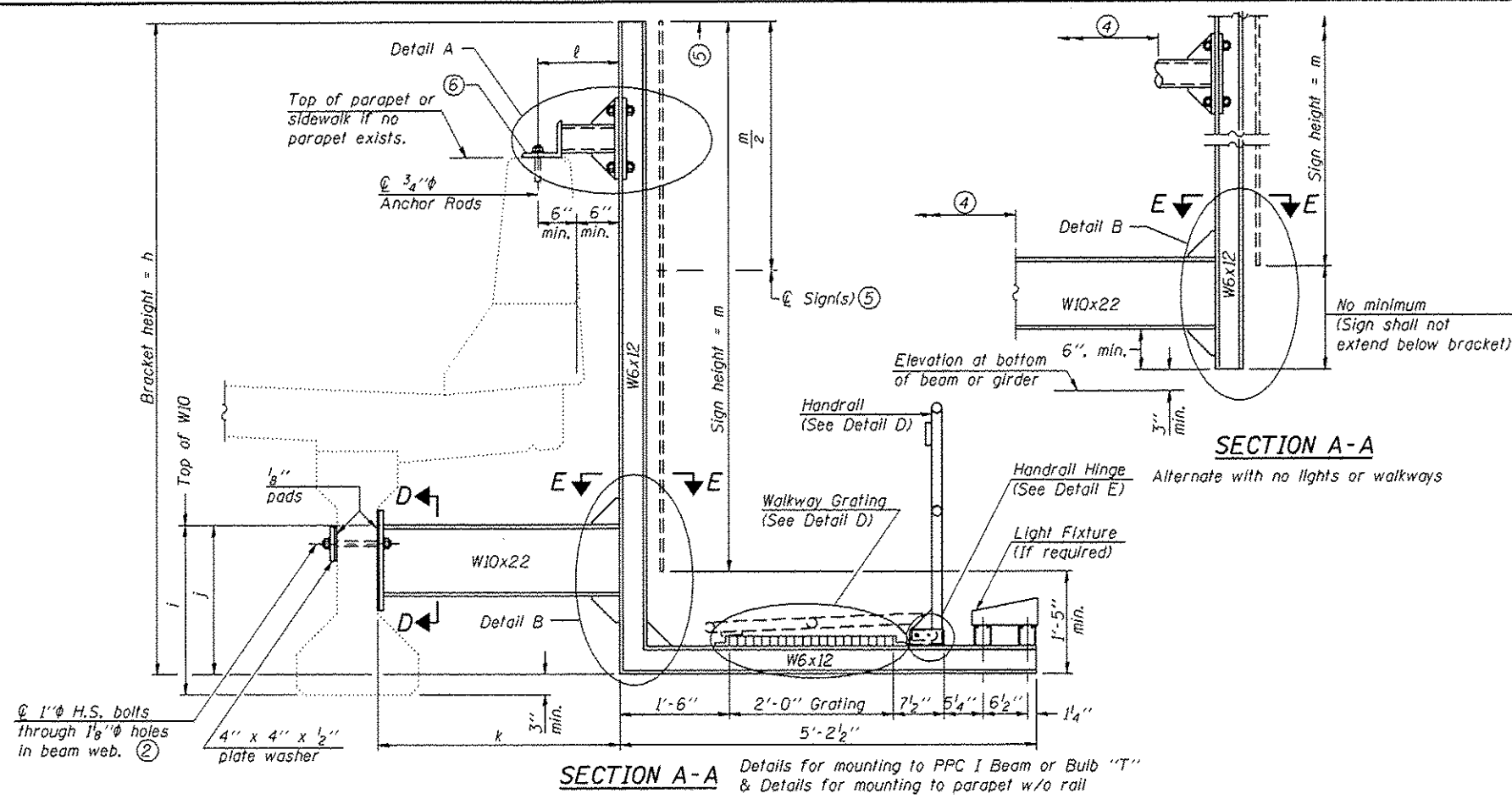
Item	Unit	Quantity
Q	(k)	95.6
L	(k)	44.5
Imp.	(k)	12.6
Total	(k)	152.7

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	950
Temporary Shoring and Cribbing	L.S.	1







**Notes:**  
 Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval. Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.  
 All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.  
 The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.

- ① Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
- ② For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.
- ③ For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.
- ④ For attachment details of 3/2" pipe and W10x22, see other sections as applicable.
- ⑤ Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket) only supporting walkway, dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
- ⑥ For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

Structure Number	Station	h	i	j	k max. (10'-0" max.)	l max. (8'-0" max.)	m (15'-0" max.)
045-0035	538+70.16	7'-0"	21 1/8"	18"	3'-10"	2'-8 1/8"	7'-0"

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3.  
 For Details D & E, see Base Sheet BM-4.

BM-2 1-20-11

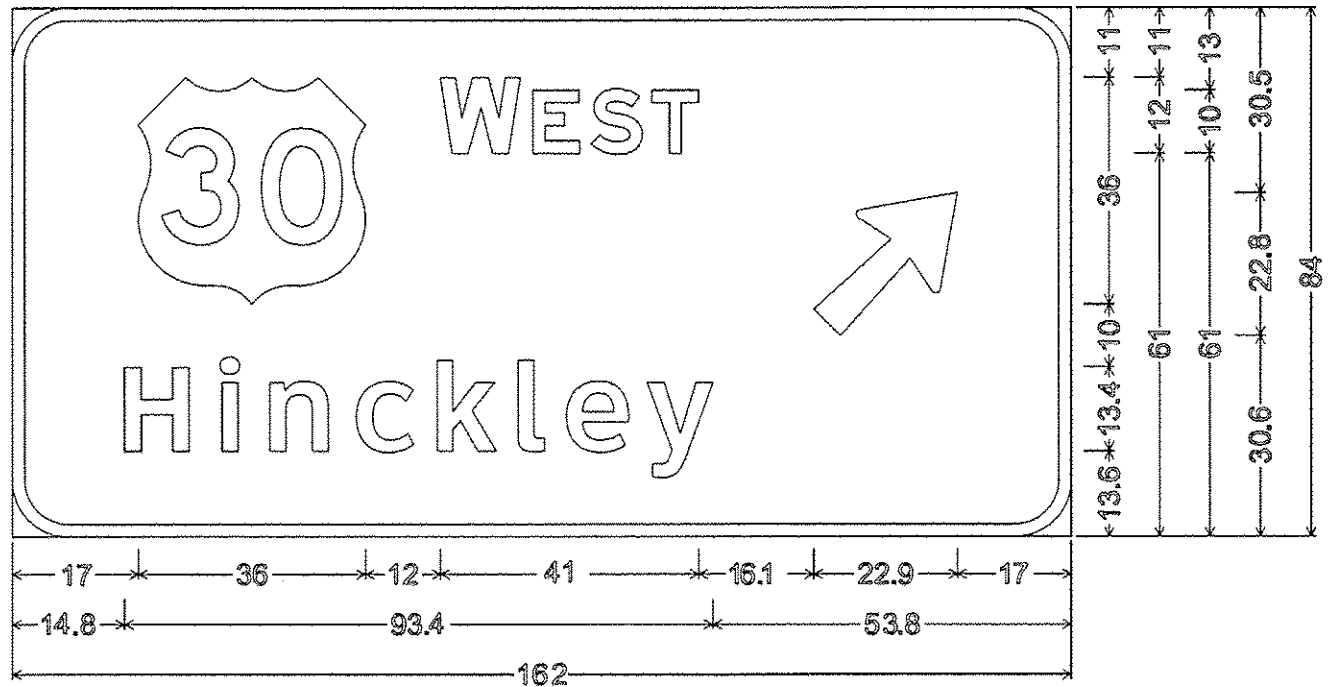
DESIGNED GGE	EXAMINED	DATE AUGUST 2, 2013
CHECKED TLC	PASSED	REVISED
DRAWN baliva		REVISED
CHECKED GGE TLC		

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BRIDGE MOUNT SIGN STRUCTURES WALKWAY AND CONNECTION DETAILS SN 045-0035 (EB) & 0036 (WB)		F.A.P. RTE. 573	SECTION 61 NB-1-T	COUNTY KANE	TOTAL SHEETS 48	SHEET NO. 33C
SHEET NO. 15G OF 21 SHEETS						ILLINOIS FED. AID PROJECT CONTRACT NO. 60N12





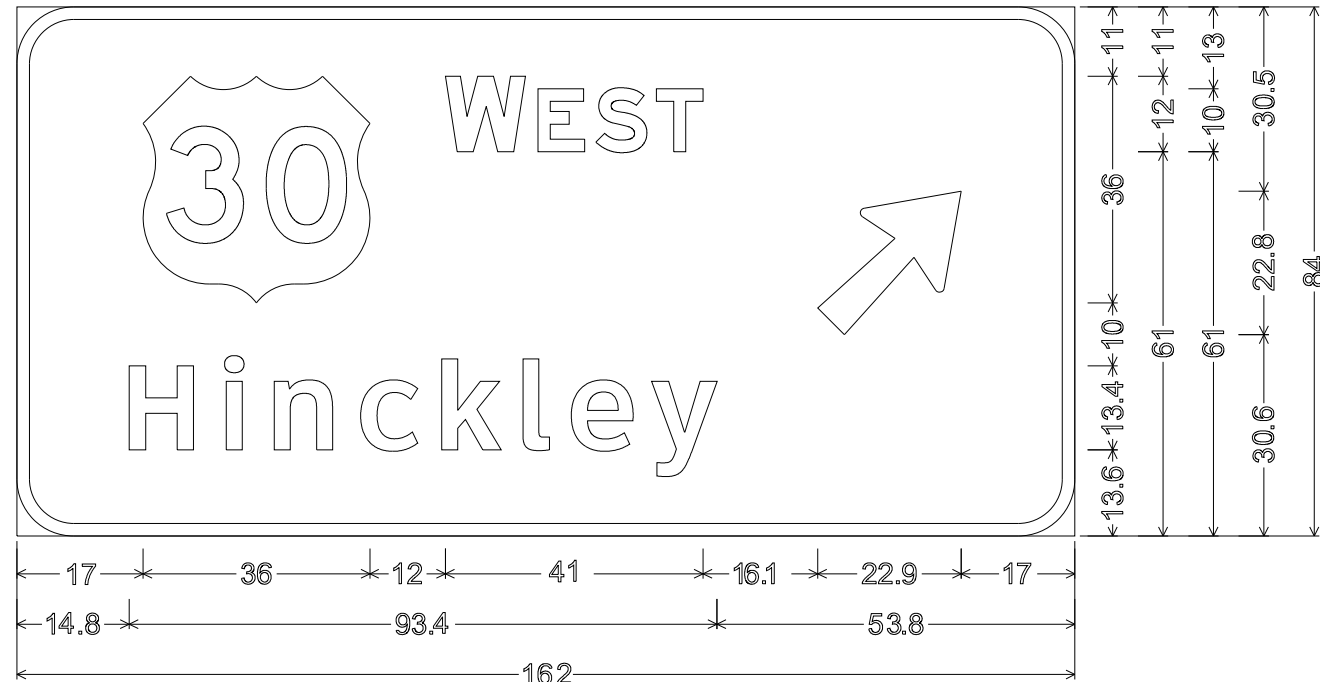


9.0" Radius, 2.0" Border, White on Green;  
 "WEST" E Mod 2K; "Hinckley" ClearviewHwy-5-W;  
 Type A Arrow 45°;  
 Table of distances between letter and object lefts.

	30	W	E	S	T	↗		
20.0	48.0	14.8	9.1	9.6	25.6	22.9	18.0	
17.9	H	i	n	c	k	l	e	y
	15.1	7.9	13.6	13.0	12.9	7.6	12.8	10.4
								56.8

WIDTH X HEIGHT	13.5' x 7'
MOUNTING	OVERHEAD
BACKGROUND	TYPE 1 Z SHEETING COLOR: GREEN - 3M 4097
LEGEND/BORDER	TYPE 1 Z SHEETING COLOR: WHITE - 3M 4090

\*\* SIGN DIMENSIONS ARE IN INCHES



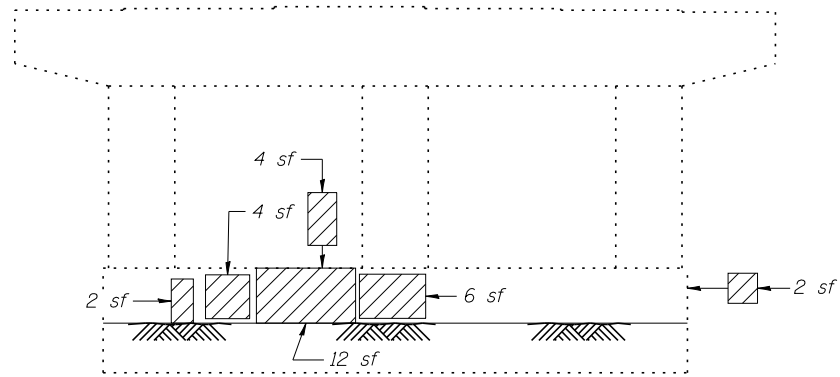
9.0" Radius, 2.0" Border, White on Green;  
 "WEST" E Mod 2K; "Hinckley" ClearviewHwy-5-W;  
 Type A Arrow 45°;  
 Table of distances between letter and object lefts.

	30	W	E	S	T	↗				
	20.0	48.0	14.8	9.1	9.6	25.6	22.9	18.0		
	H	i	n	c	k	l	e	y		
	17.9	15.1	7.9	13.6	13.0	12.9	7.6	12.8	10.4	56.8

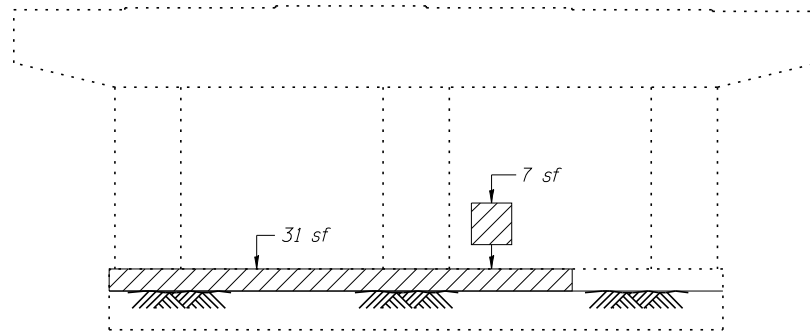
WIDTH X HEIGHT	13.5' x 7'
MOUNTING	OVERHEAD
BACKGROUND	TYPE: ZZ SHEETING COLOR: GREEN - 3M 4097
LEGEND/BORDER	TYPE: ZZ SHEETING COLOR: WHITE - 3M 4090

•• SIGN DIMENSIONS ARE IN INCHES

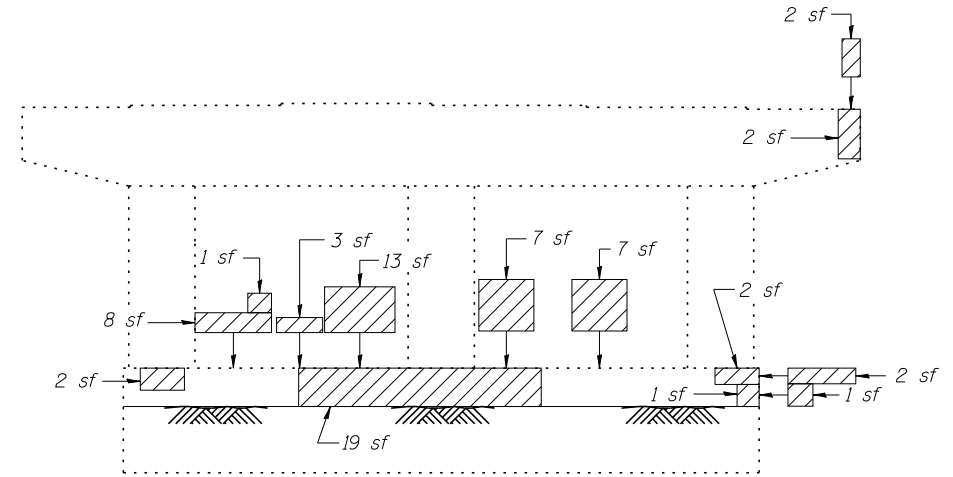
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S:\WP\Design\IRV\SIGN\60N12 US30-IL56(E) OVER IL47.dgn	OVER IL47\60N12 US30-IL56(E) OVER IL47 .dgn	DRAWN -	REVISED -						<b>CONTRACT NO.60N12</b>				
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS FED. AID PROJECT	
	PLOT DATE = 6/28/2013	DATE -	REVISED -										



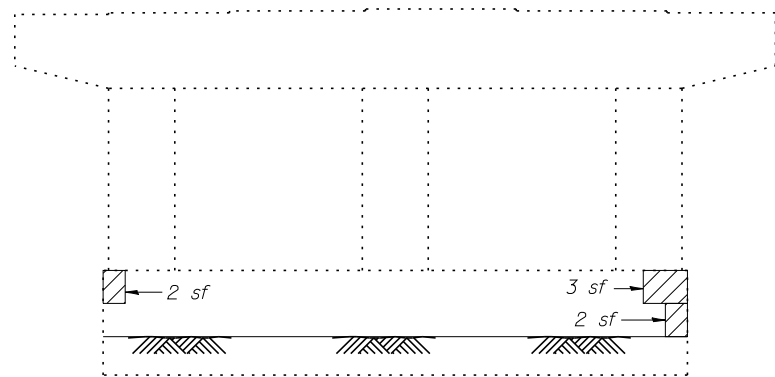
**PIER 1**  
(Looking West)  
(E.B. Bridge)



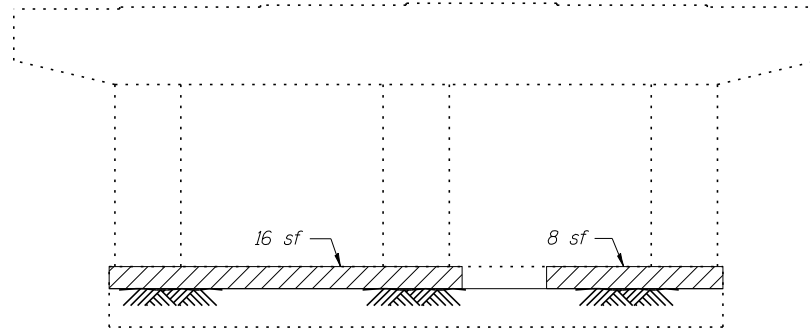
**PIER 2**  
(Looking West)  
(E.B. Bridge)



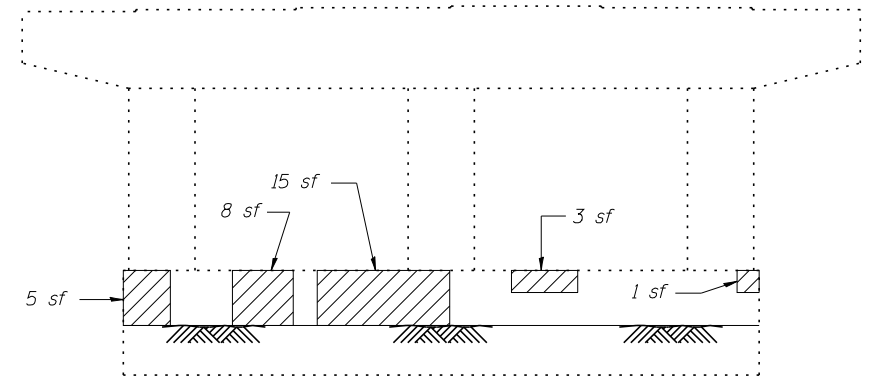
**PIER 3**  
(Looking West)  
(E.B. Bridge)



**PIER 1**  
(Looking East)  
(E.B. Bridge)




**PIER 2**  
(Looking East)  
(E.B. Bridge)



**PIER 3**  
(Looking East)  
(E.B. Bridge)

**LEGEND**

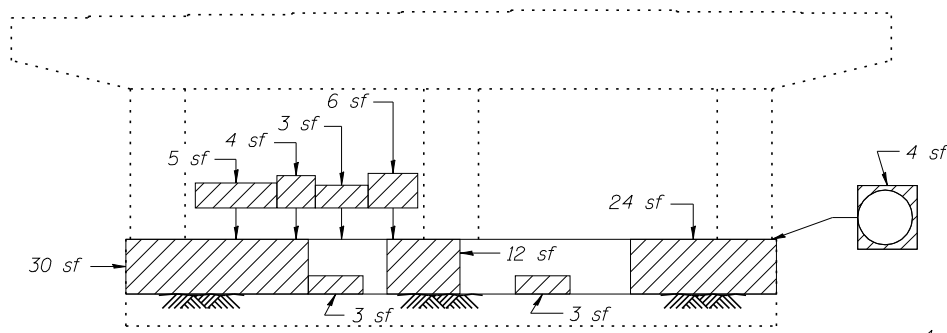
 Structural Repair of Concrete  
(Depth equal to or less than 5 in.)  
sf Square Feet

Note:  
Repair of the existing piers shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.

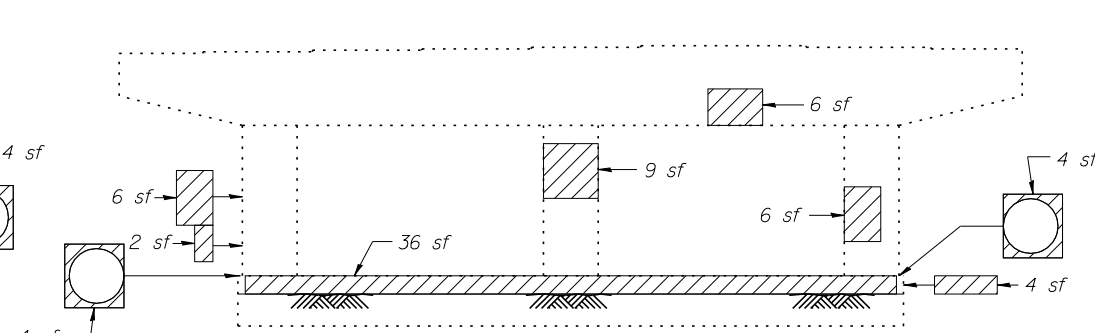
**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth equal to or less than 5 in.)	Sq. Ft.	201

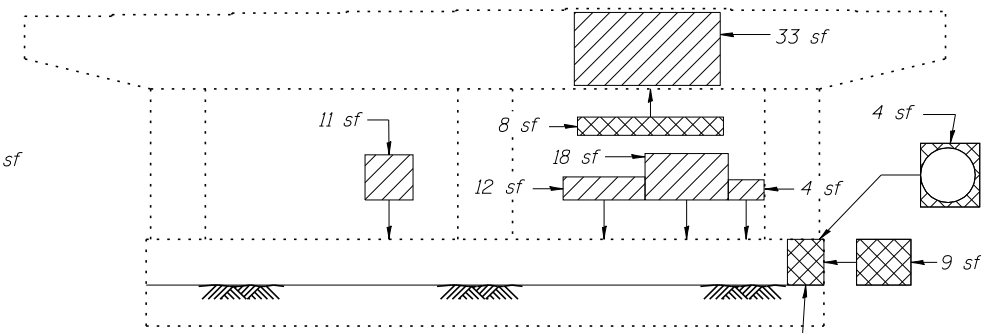
(Sheet 1 of 3)



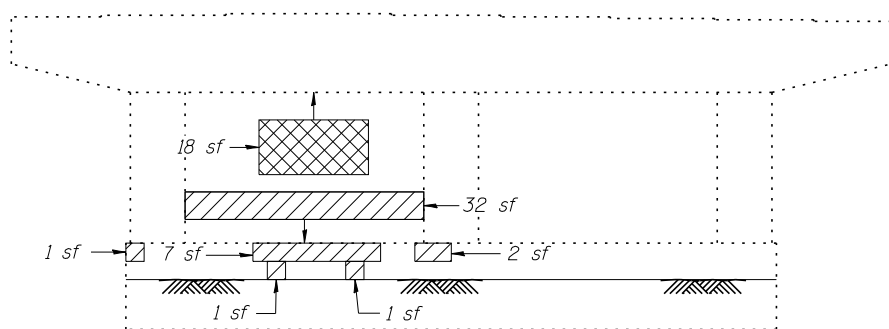
**PIER 1**  
(Looking East)  
(W.B. Bridge)



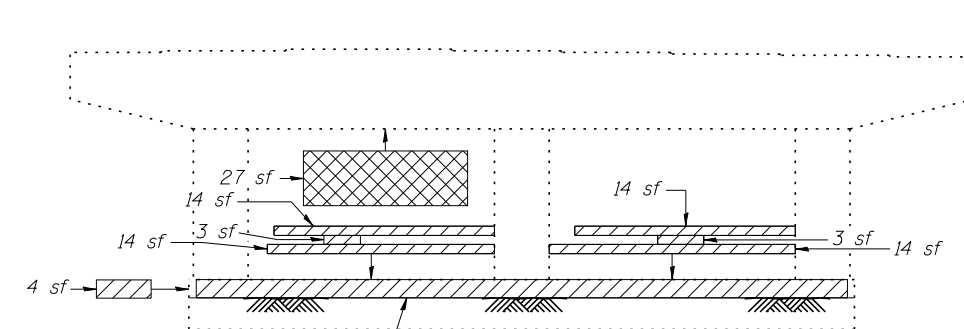
**PIER 2**  
(Looking East)  
(W.B. Bridge)



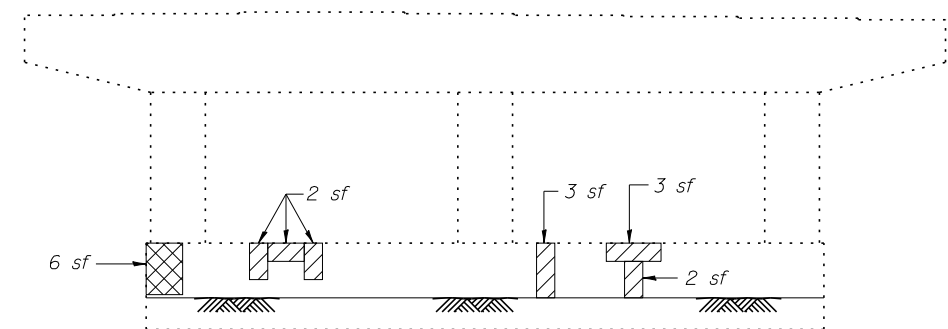
**PIER 3**  
(Looking East)  
(W.B. Bridge)



**PIER 1**  
(Looking West)  
(W.B. Bridge)



**PIER 2**  
(Looking West)  
(W.B. Bridge)



**PIER 3**  
(Looking West)  
(W.B. Bridge)

**LEGEND**

- Structural Repair of Concrete  
(Depth equal to or less than 5 in.)
- Structural Repair of Concrete  
(Depth greater than 5 in.)
- sf Square Feet

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth equal to or less than 5 in.)	Sq. Ft.	409
Structural Repair of Concrete (Depth greater than 5 in.)	Sq. Ft.	77

(Sheet 2 of 3)



USER NAME =	DESIGNED - TBP	REVISED -
FILE NAME =	CHECKED - ADB	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUBSTRUCTURE REPAIR  
STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 17 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	35
CONTRACT NO. 60N12				

ILLINOIS FED. AID PROJECT



**WEST ABUTMENT**  
(W.B. Bridge)




**WEST ABUTMENT**  
(E.B. Bridge)



**EAST ABUTMENT**  
(E.B. Bridge)

**LEGEND**

 Structural Repair of Concrete  
(Depth equal to or less than 5 in.)  
sf Square Feet

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth equal to or less than 5 in.)	Sq. Ft.	14

(Sheet 3 of 3)



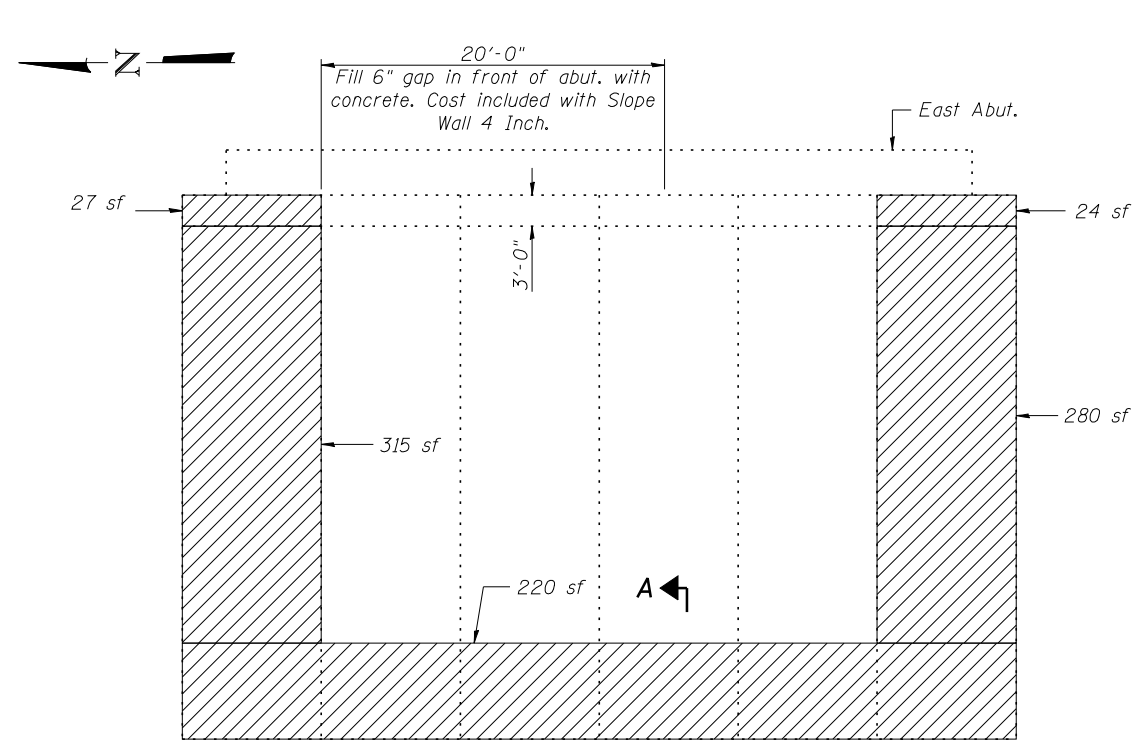
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FILE NAME =	CHECKED - ADB	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

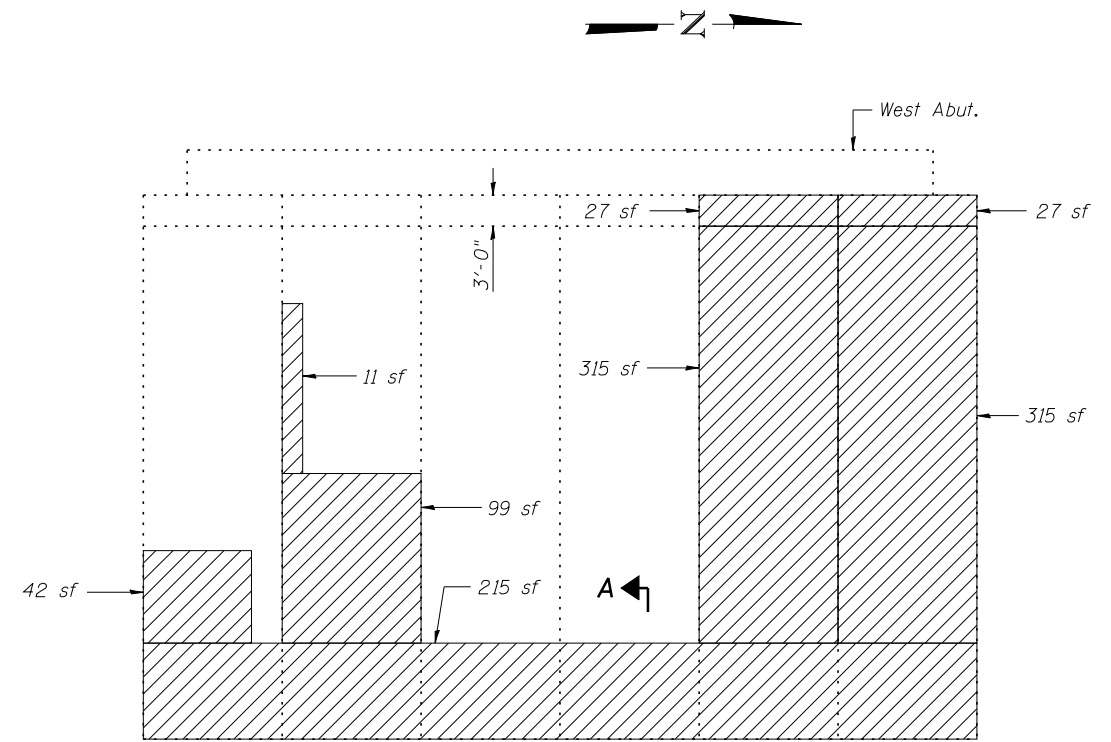
**SUBSTRUCTURE REPAIR  
STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 18 OF 21 SHEETS

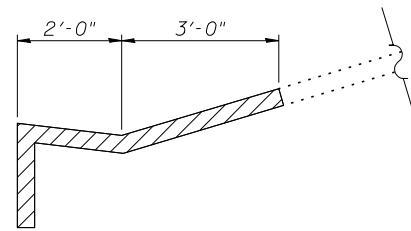
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573	61 HB-1-7	KANE	48	36
			CONTRACT NO. 60N12	
ILLINOIS FED. AID PROJECT				



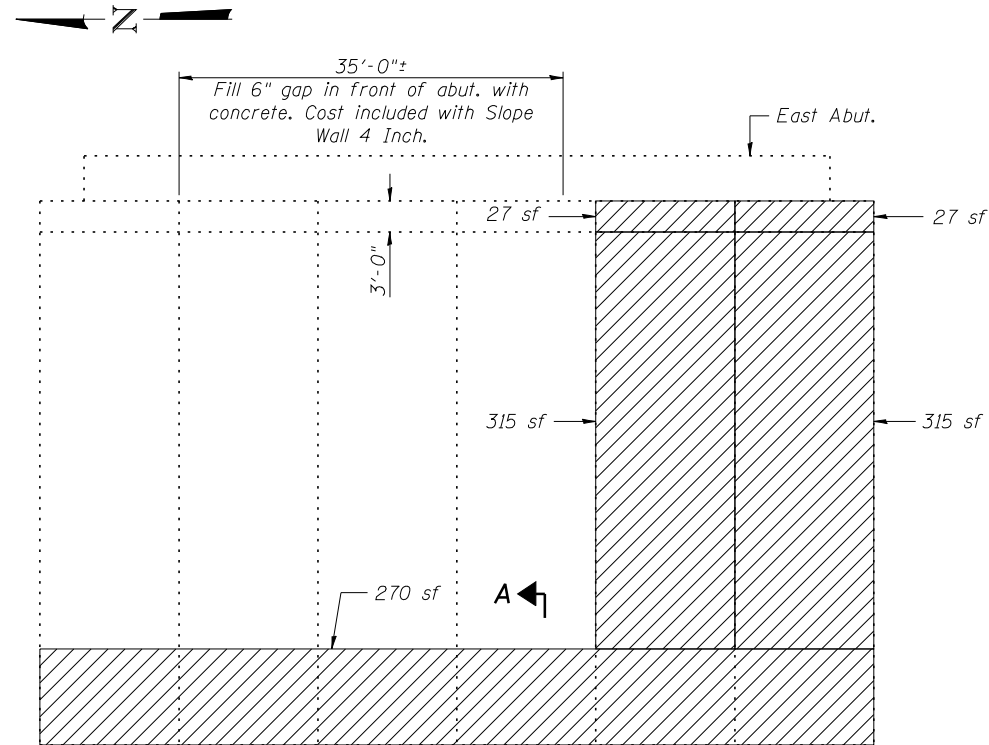
**EAST SLOPE WALL**  
(E.B. Bridge)



**WEST SLOPE WALL**  
(E.B. Bridge)



**SECTION A-A**




**EAST SLOPE WALL**  
(W.B. Bridge)

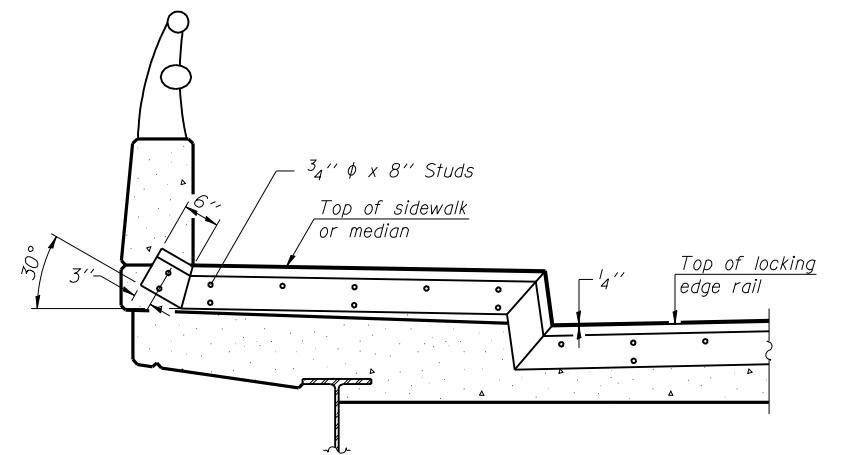
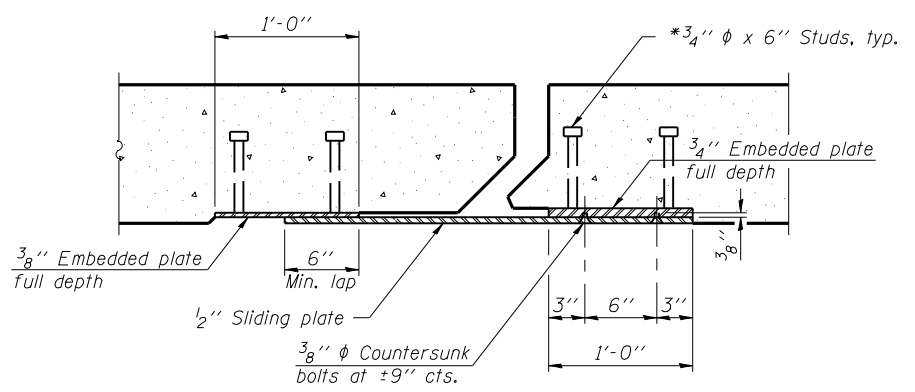
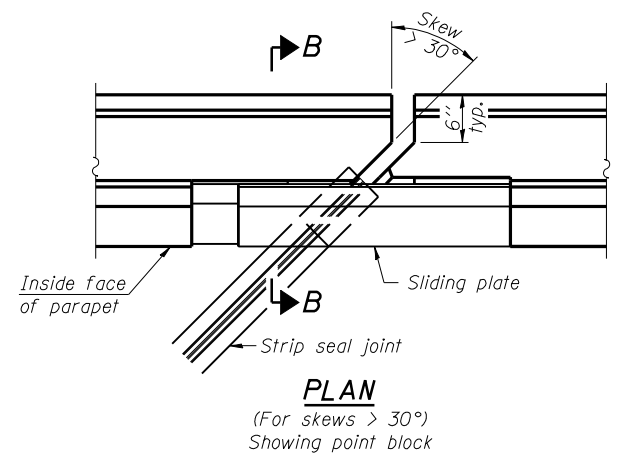
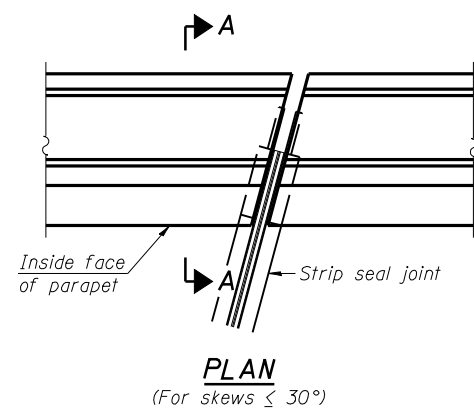
Notes:  
 Slopewall shall be reinforced with welded wire fabric, 6" x 6" -W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.  
 Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Slope Wall 4".  
 Lap existing welded wire fabric with proposed at the joint.  
 Repair of the existing slope wall shall include but may not be limited to the areas shown.  
 The actual areas to be repaired will be determined by the Engineer at the time of construction.

**BILL OF MATERIAL**

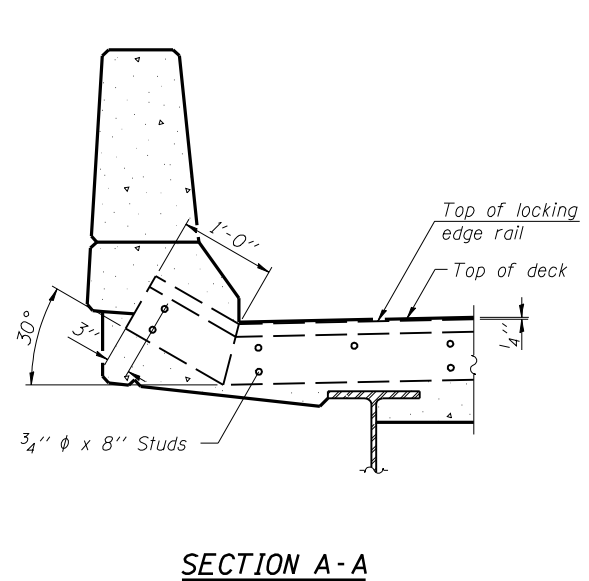
ITEM	UNIT	TOTAL
Slope Wall Removal	Sq. Yd.	319
Slope Wall 4 Inch	Sq. Yd.	319

**LEGEND**

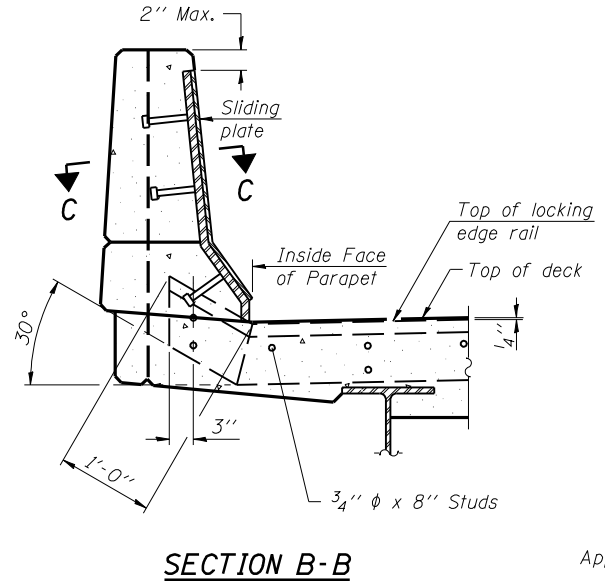
 Slope Wall Removal & Replacement  
 sf Square Feet



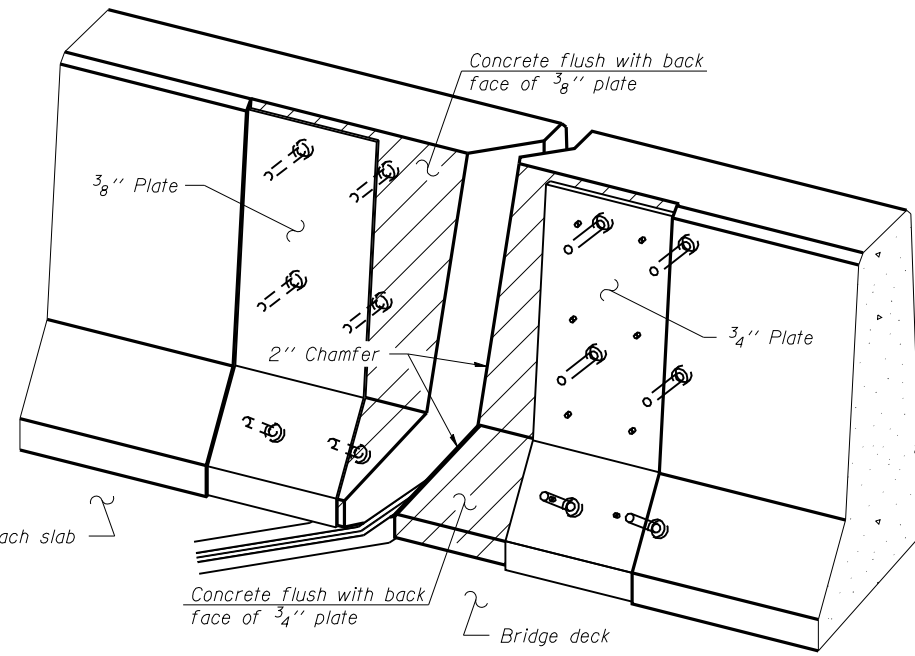
**TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN**  
 Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



**SECTION A-A**

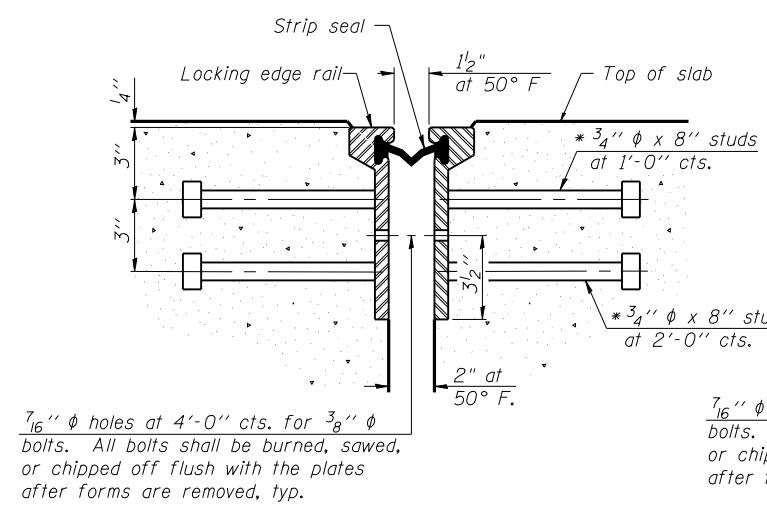


**SECTION B-B**

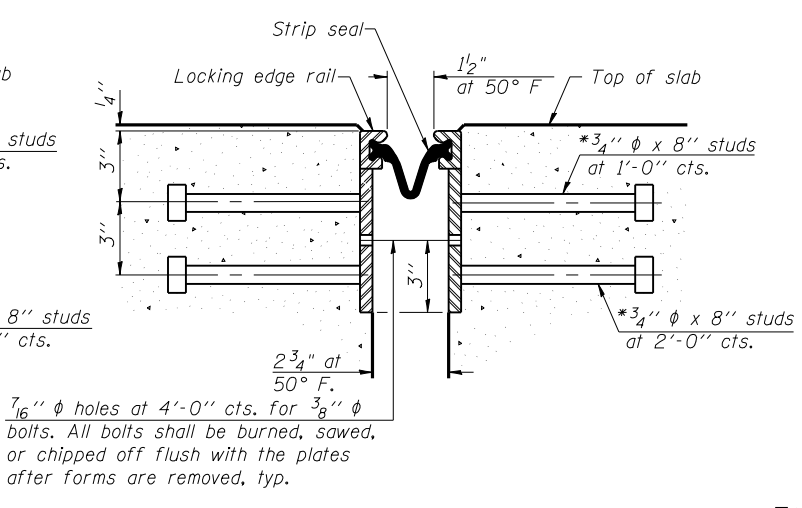


**TRIMETRIC VIEW (Showing back plates only)**

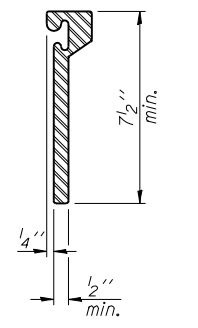
**Notes:**  
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated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



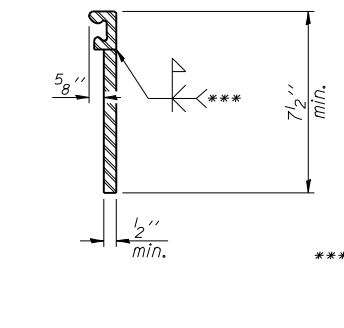
**SECTION THRU ROLLED RAIL JOINT**



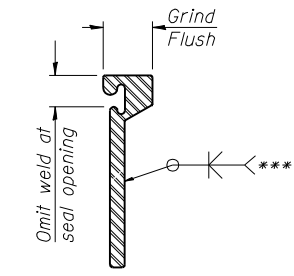
**SECTION THRU WELDED RAIL JOINT**



**ROLLED EXTRUDED RAIL**



**WELDED RAIL**



**LOCKING EDGE RAIL SPLICE**

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

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	166

EJ-SSJ

1-27-12

**LI ENGINEERING, LTD.**  
 Consulting Engineers  
 Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED -
FILE NAME =	CHECKED - ADB	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

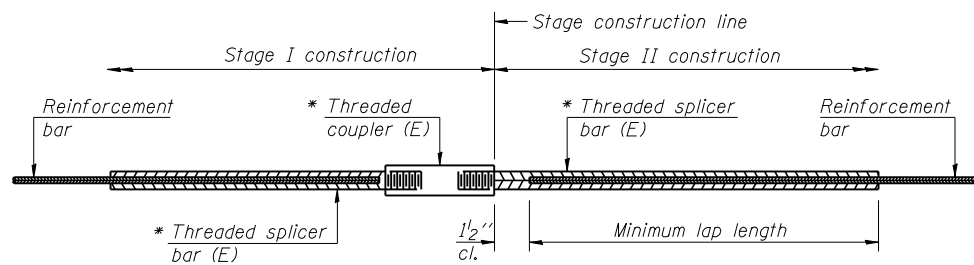
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 20 OF 21 SHEETS

F.A.P. RTE. 573	SECTION 61 HB-1-7	COUNTY KANE	TOTAL SHEETS 48	SHEET NO. 38
				CONTRACT NO. 60N12
ILLINOIS FED. AID PROJECT				





**STANDARD BAR SPLICER ASSEMBLY**

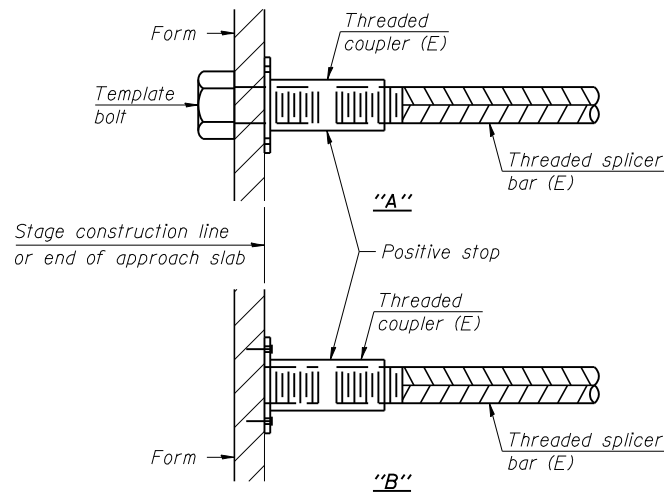
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

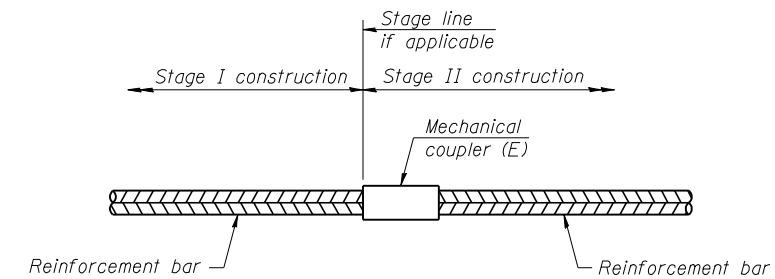
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Abutment	#5	16	Table 3
Deck	#5	32	Table 3



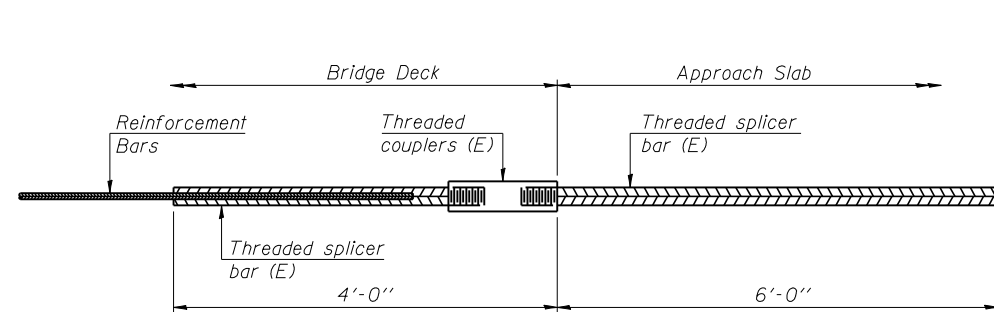
**INSTALLATION AND SETTING METHODS**

"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.



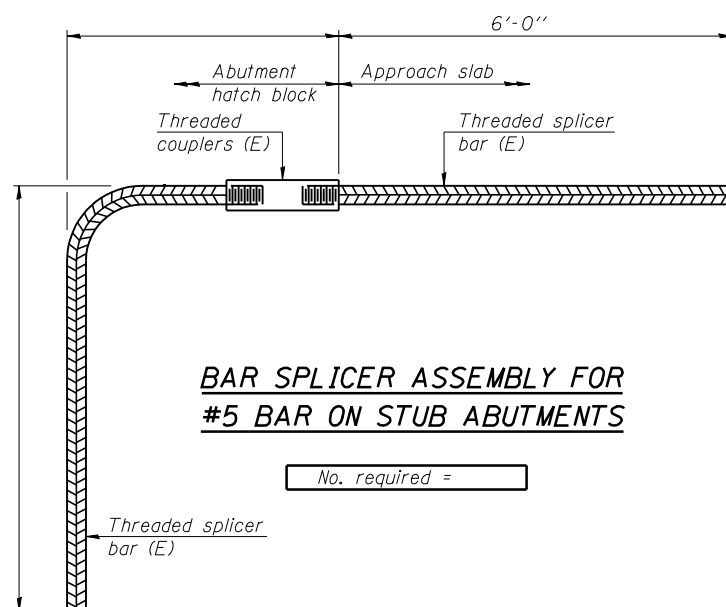
**STANDARD MECHANICAL SPLICER**

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



USER NAME =	DESIGNED - TBP	REVISED -
FILE NAME =	CHECKED - ADB	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

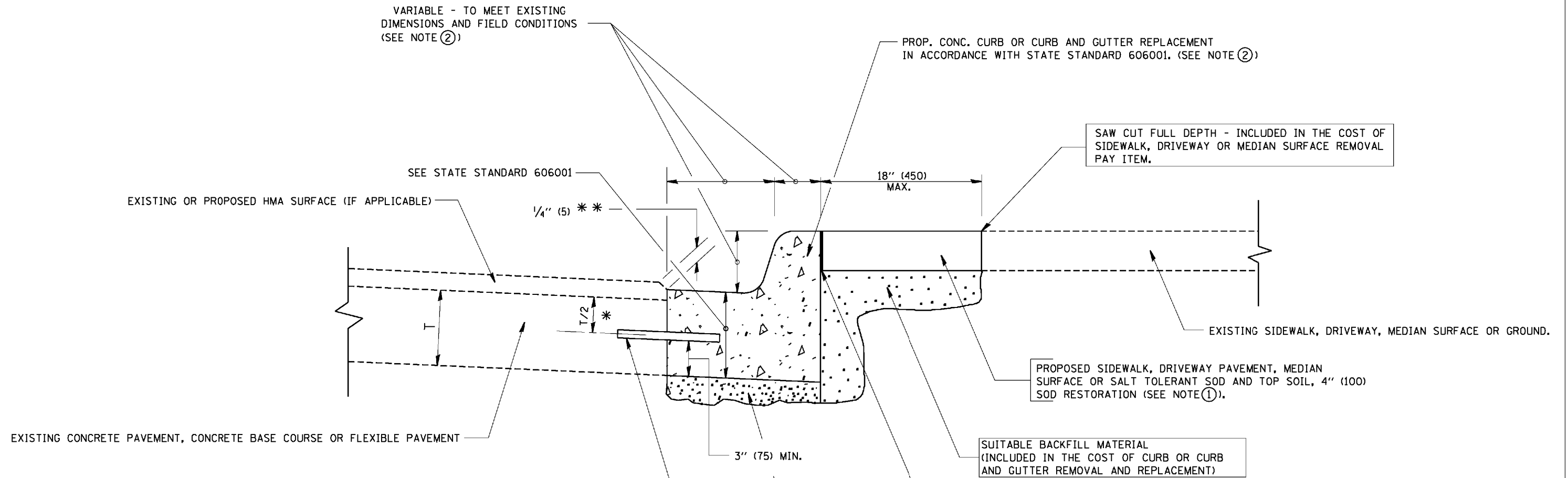
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NOS. 045-0035 (EB) & 045-0036 (WB)**

SHEET NO. 21 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	39
CONTRACT NO. 60N12				

ILLINOIS FED. AID PROJECT



- \* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- \*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

- ② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

UNSATISFACTORY SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

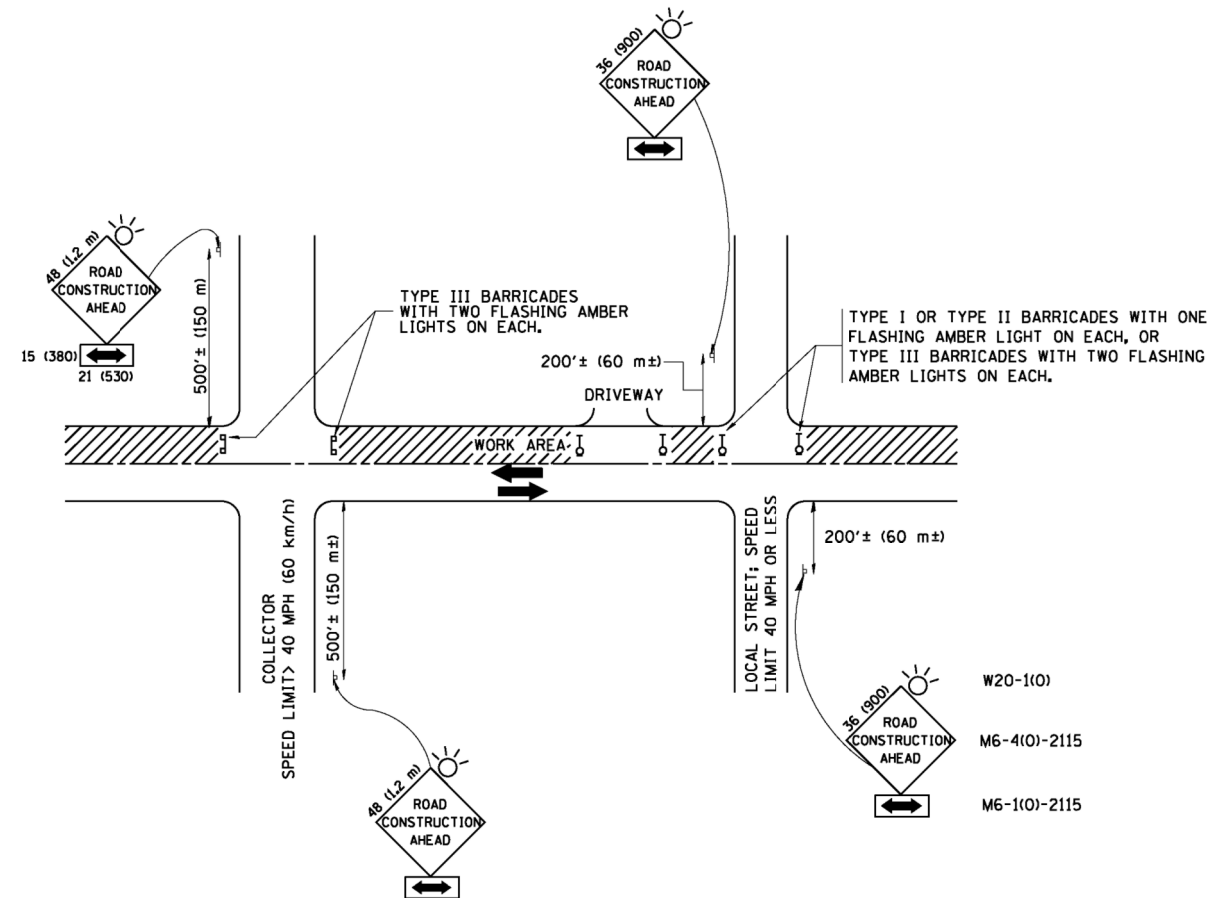
PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

**BASIS OF PAYMENT:**  
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

<b>E</b> LIN ENGINEERING LTD. Consulting Engineers <small>Springfield, Illinois</small>	USER NAME = *USER*	DESIGNED - SEW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS US ROUTE 30 / IL 56 OVER IL 47</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = *SCALE*	CHECKED - ST	REVISED -		SCALE: N/A	SHEET NO. 1 OF 9 SHEETS	STA.	TO STA.	573	61 HB-1-7	KANE	48	40
	PLOT DATE = *DATE*	DATE - 11/2011	REVISED -							BD-24		CONTRACT NO. 60N12	
												FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



## TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

### NOTES:

#### A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

#### B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

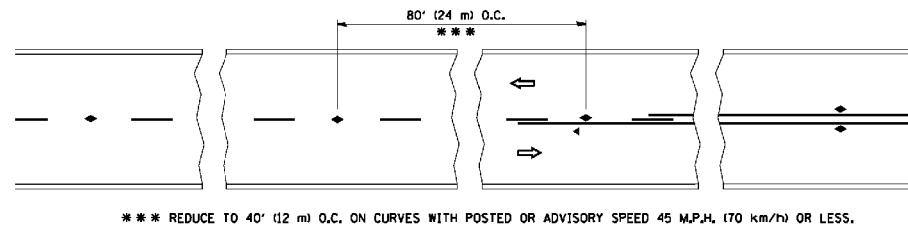
C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

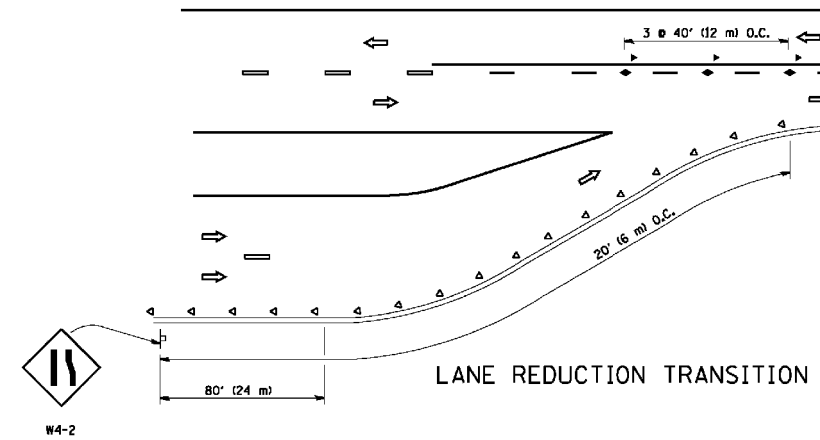
All dimensions are in millimeters (Inches)  
unless otherwise shown.

# TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

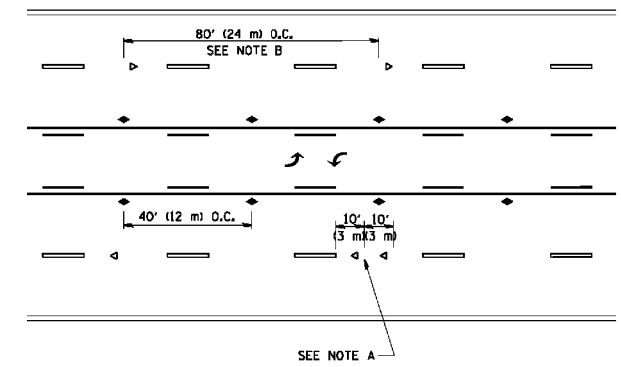
 <b>LIN ENGINEERING LTD.</b> Consulting Engineers <small>Springfield, Illinois</small>	USER NAME = *USER*	DESIGNED - SEW	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS</b> <b>US ROUTE 30 / IL 56 OVER IL 47</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - SEW	REVISED -			573	61 HB-1-7	KANE	48	41		
	PLOT SCALE = *SCALE*	CHECKED - ST	REVISED -			TC-10			CONTRACT NO. 60N12			
	PLOT DATE = *DATE*	DATE - 11/2011	REVISED -			SCALE: N/A	SHEET NO. 2 OF 9 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		



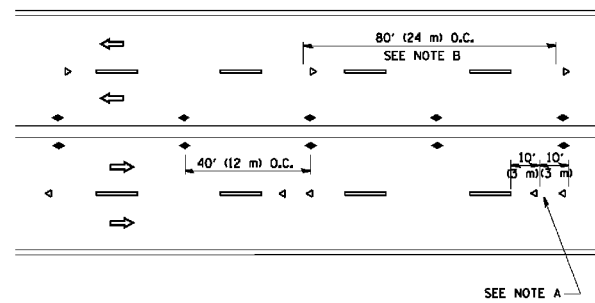
TWO-LANE/TWO-WAY



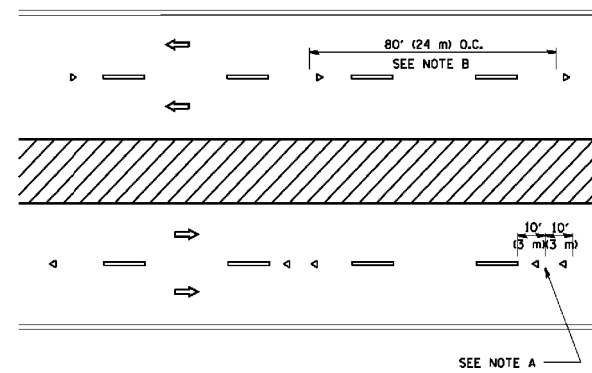
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

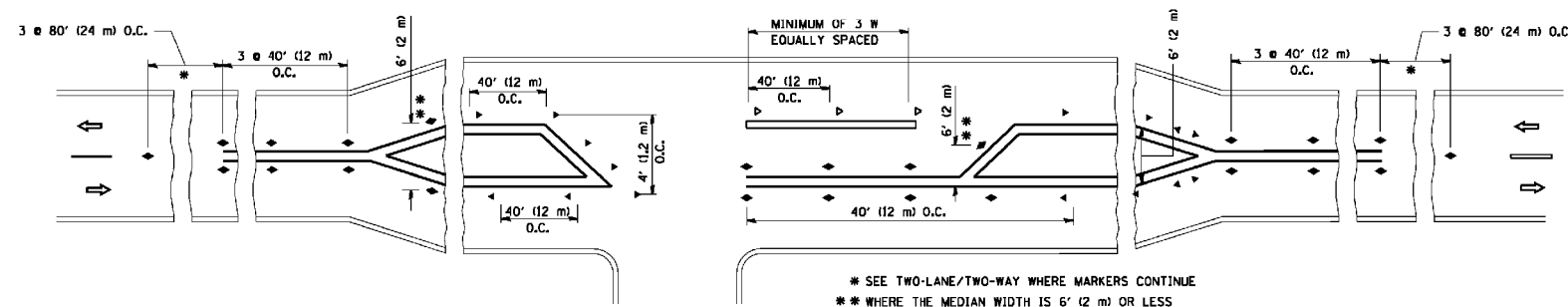
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

All dimensions are in inches (millimeters) unless otherwise shown.

# TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)



USER NAME = *USER*	DESIGNED - SEW	REVISED -
	DRAWN - SEW	REVISED -
PLOT SCALE = *SCALE*	CHECKED - ST	REVISED -
PLOT DATE = *DATE*	DATE - 11/2011	REVISED -

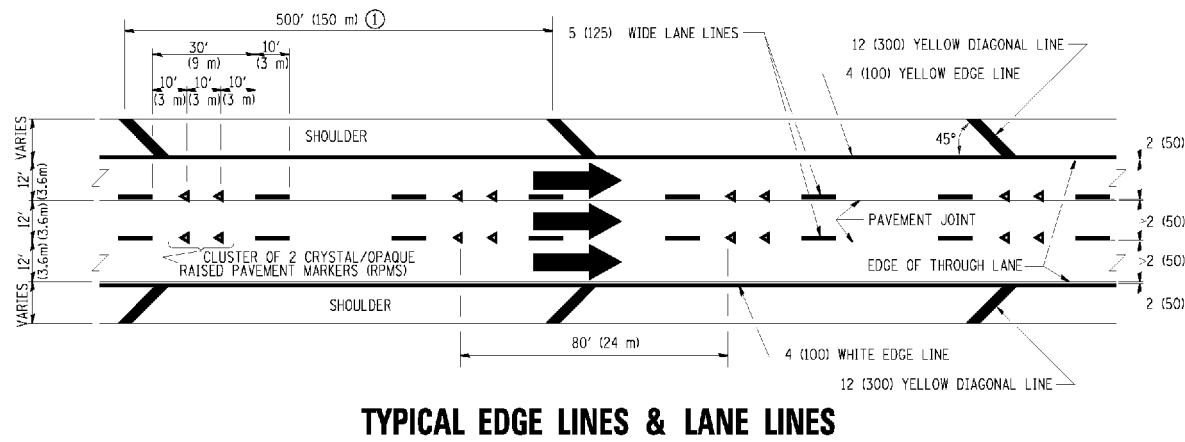
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT STANDARDS  
 US ROUTE 30 / IL 56 OVER IL 47

SCALE: N/A SHEET NO. 3 OF 9 SHEETS STA. TO STA.

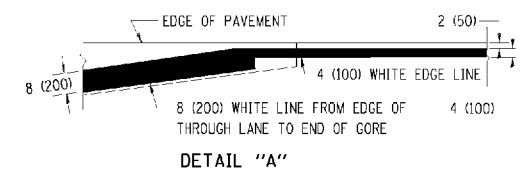
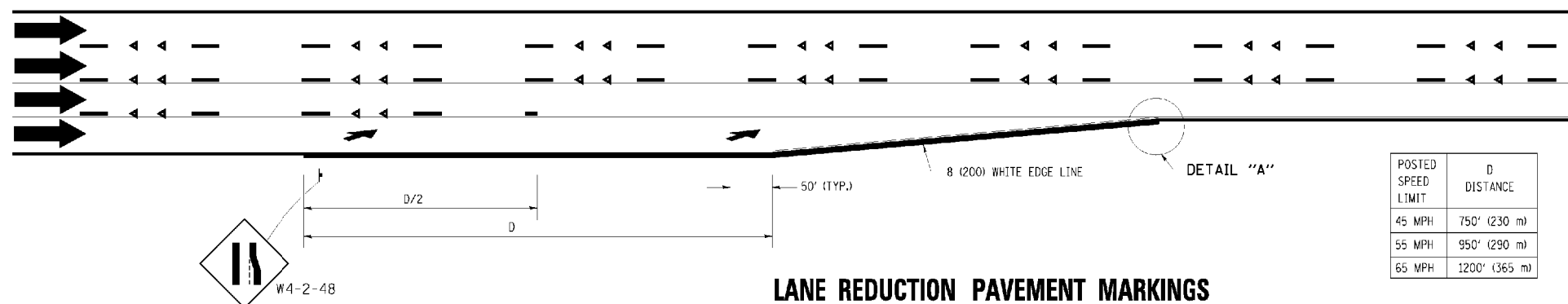
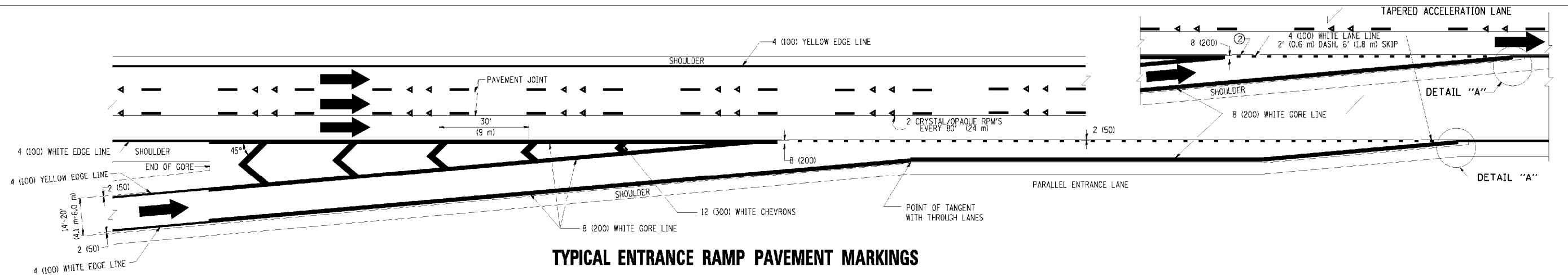
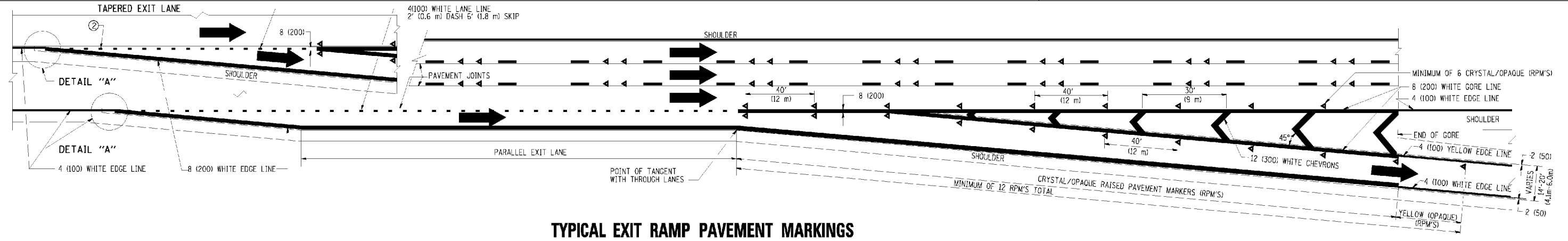
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	42
TC-11		CONTRACT NO. 60N12		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

# MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS



## PAVEMENT MARKING MATERIALS

1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT.
3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC.



## NOTES:

- ① THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.
- ② 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED ON TANGENT SECTIONS.



USER NAME = *USER*	DESIGNED - SEW	REVISED -
PLOT SCALE = *SCALE*	DRAWN - SEW	REVISED -
PLOT DATE = *DATE*	CHECKED - ST	REVISED -
	DATE - 11/2011	REVISED -

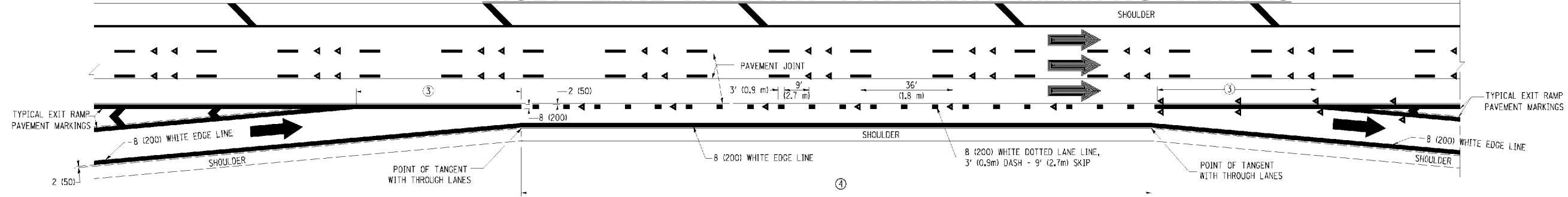
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT STANDARDS  
US ROUTE 30 / IL 56 OVER IL 47

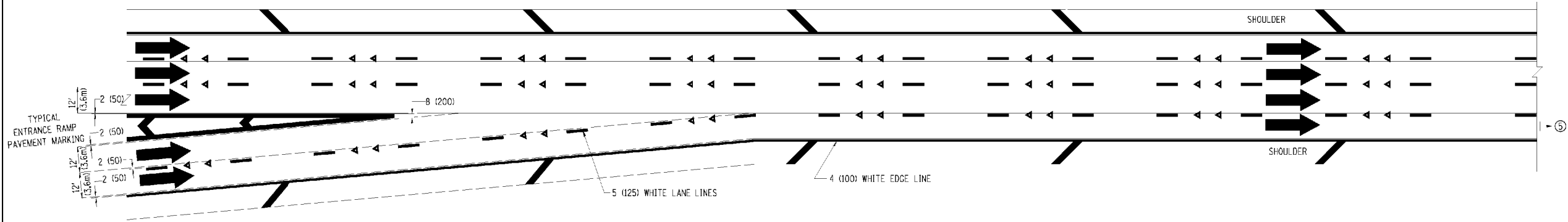
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	43
TC-12a		CONTRACT NO. 60N12		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

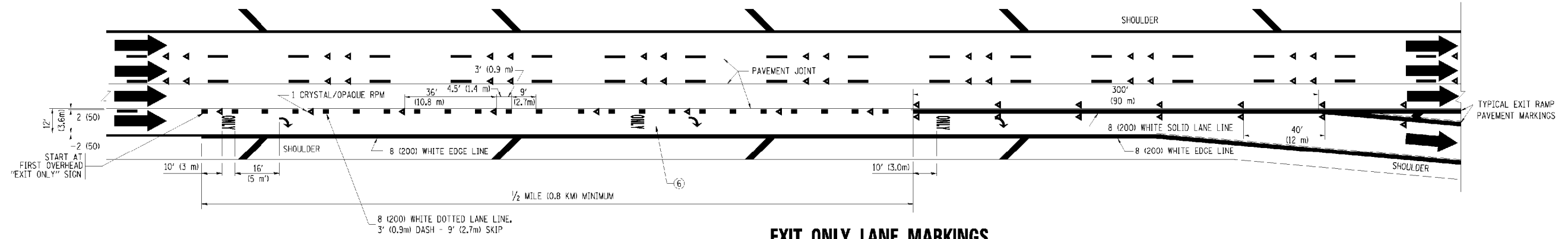
# MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS



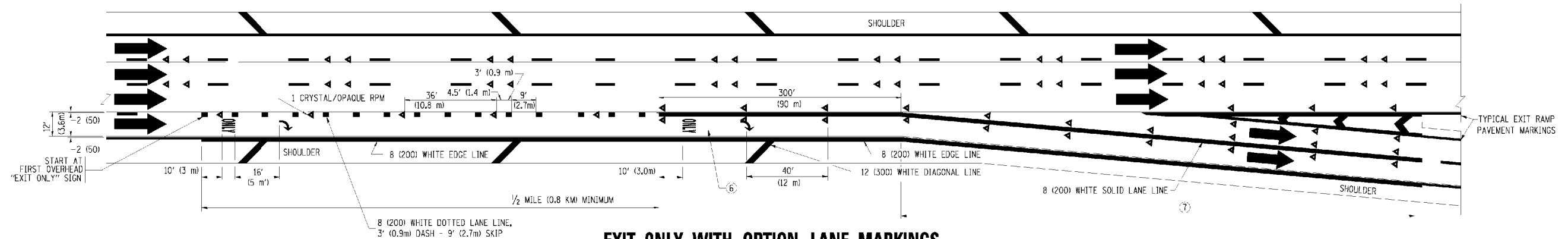
## AUXILIARY LANE MARKINGS



## TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS



## EXIT ONLY LANE MARKINGS



## EXIT ONLY WITH OPTION LANE MARKINGS

- NOTES
- ③ OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
  - ④ 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
  - ⑤ FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
  - ⑥ ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.
  - ⑦ CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

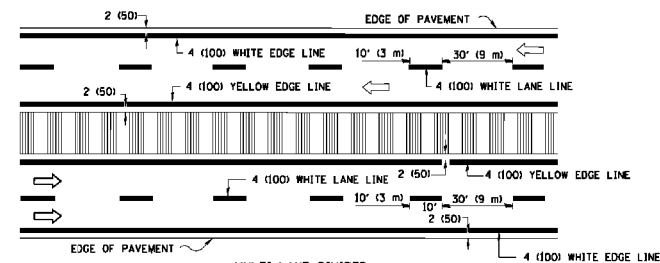
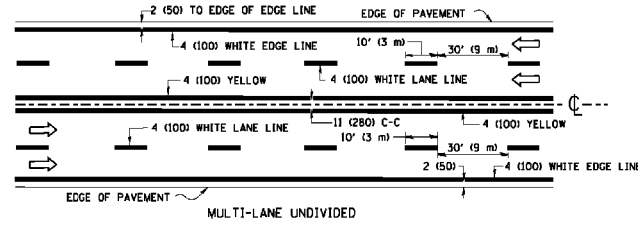
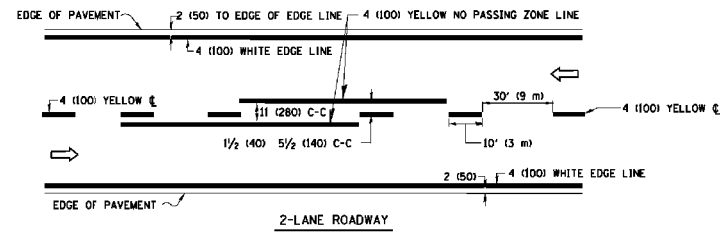


USER NAME = *USER*	DESIGNED - SEW	REVISED -
PLOT SCALE = *SCALE*	DRAWN - SEW	REVISED -
PLOT DATE = *DATE*	CHECKED - ST	REVISED -
	DATE - 11/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

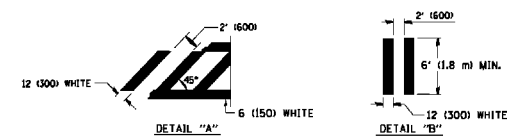
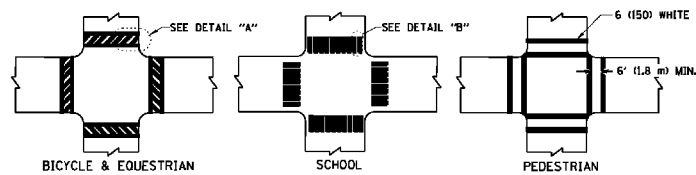
DISTRICT STANDARDS	
US ROUTE 30 / IL 56 OVER IL 47	
SCALE: N/A	SHEET NO. 5 OF 9 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	61 HB-1-7	KANE	48	44
TC-12b		CONTRACT NO. 60N12		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

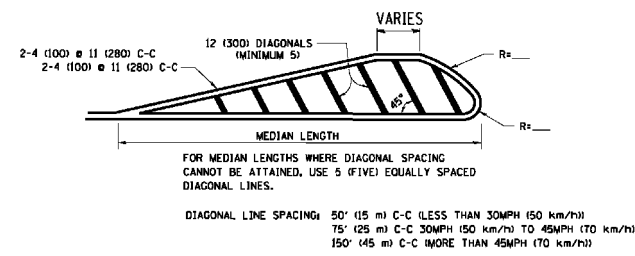
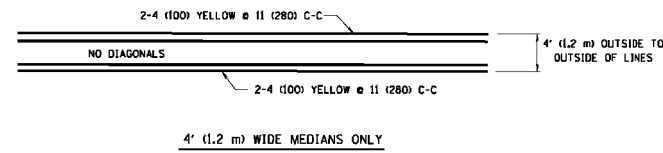


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

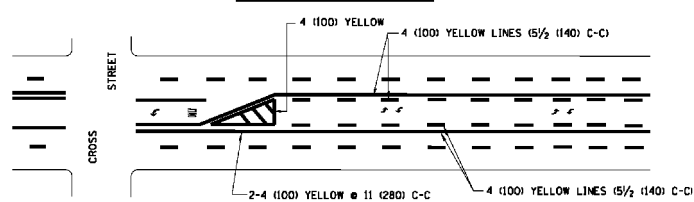
TYPICAL LANE AND EDGE LINE MARKING



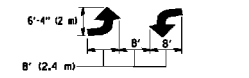
TYPICAL CROSSWALK MARKING



MEDIANS OVER 4' (1.2 m) WIDE

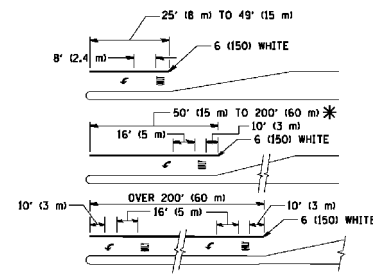


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

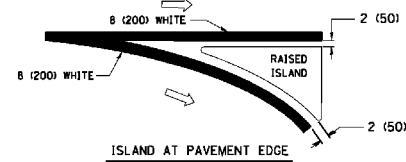
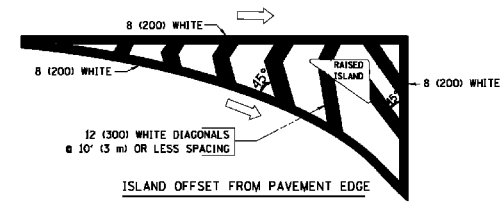
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



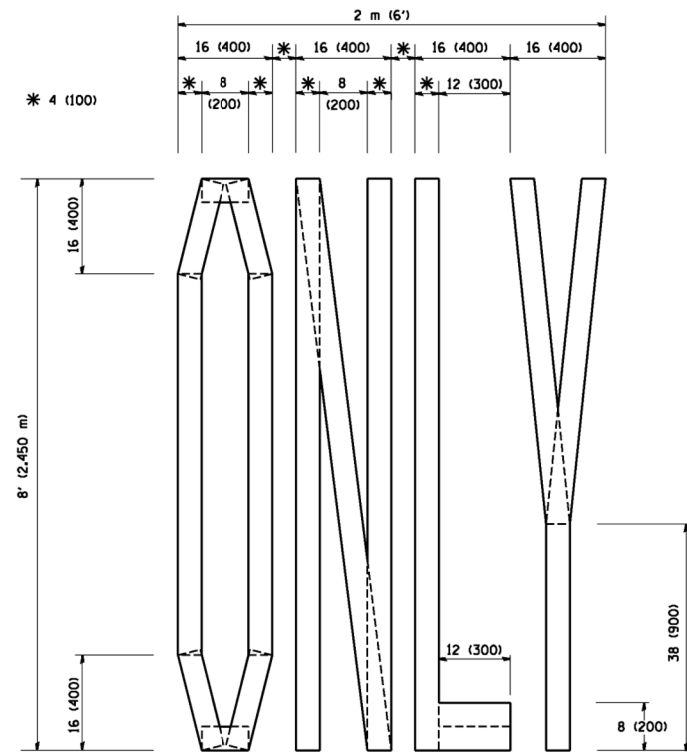
TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW. EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINES; FULL SIZE LETTERS & SYMBOLS 18" (2.4m)	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN A. DIAGONALS (BICYCLE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL))	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE.
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW TWO WAY TRAFFIC WHITE ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15' (4.5 m) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (23 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

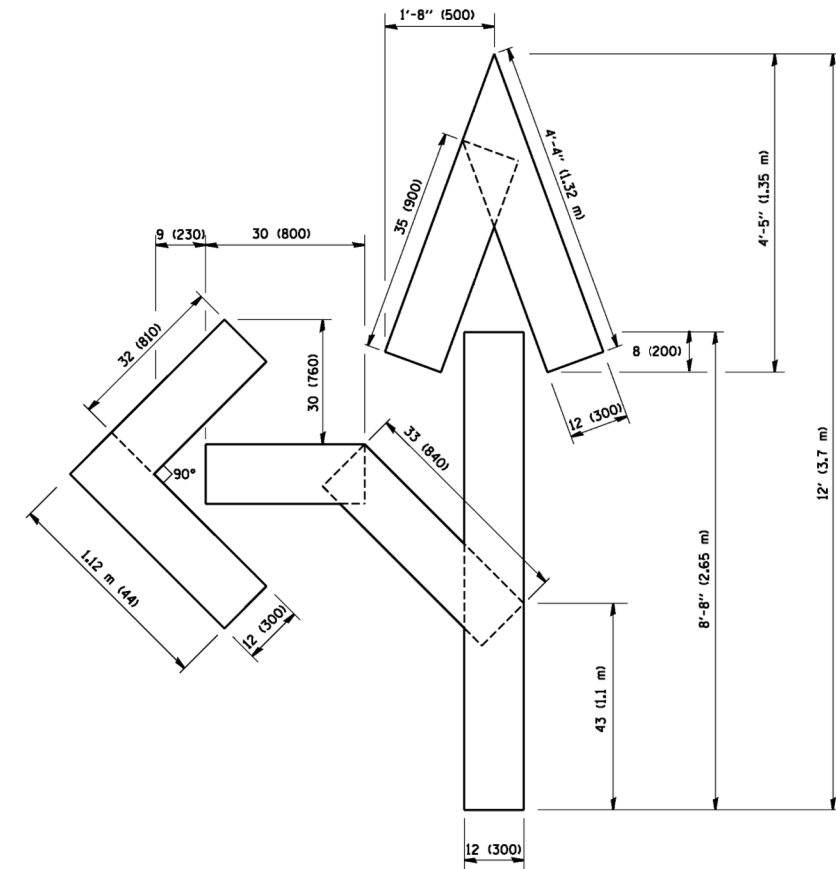
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

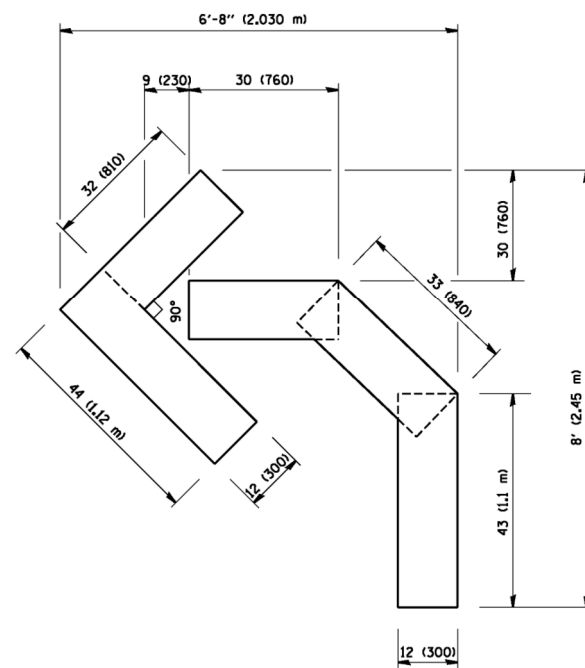
# TYPICAL PAVEMENT MARKINGS



QUANTITY  
 4 (100) LINE = 64.1 ft. (19.7 m)  
 21.1 sq. ft. (1.97 sq. m)



QUANTITY  
 4 (100) LINE = 82.5 ft. (25.3 m)  
 27.5 sq. ft. (2.53 sq. m)



QUANTITY  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.39 sq. m)

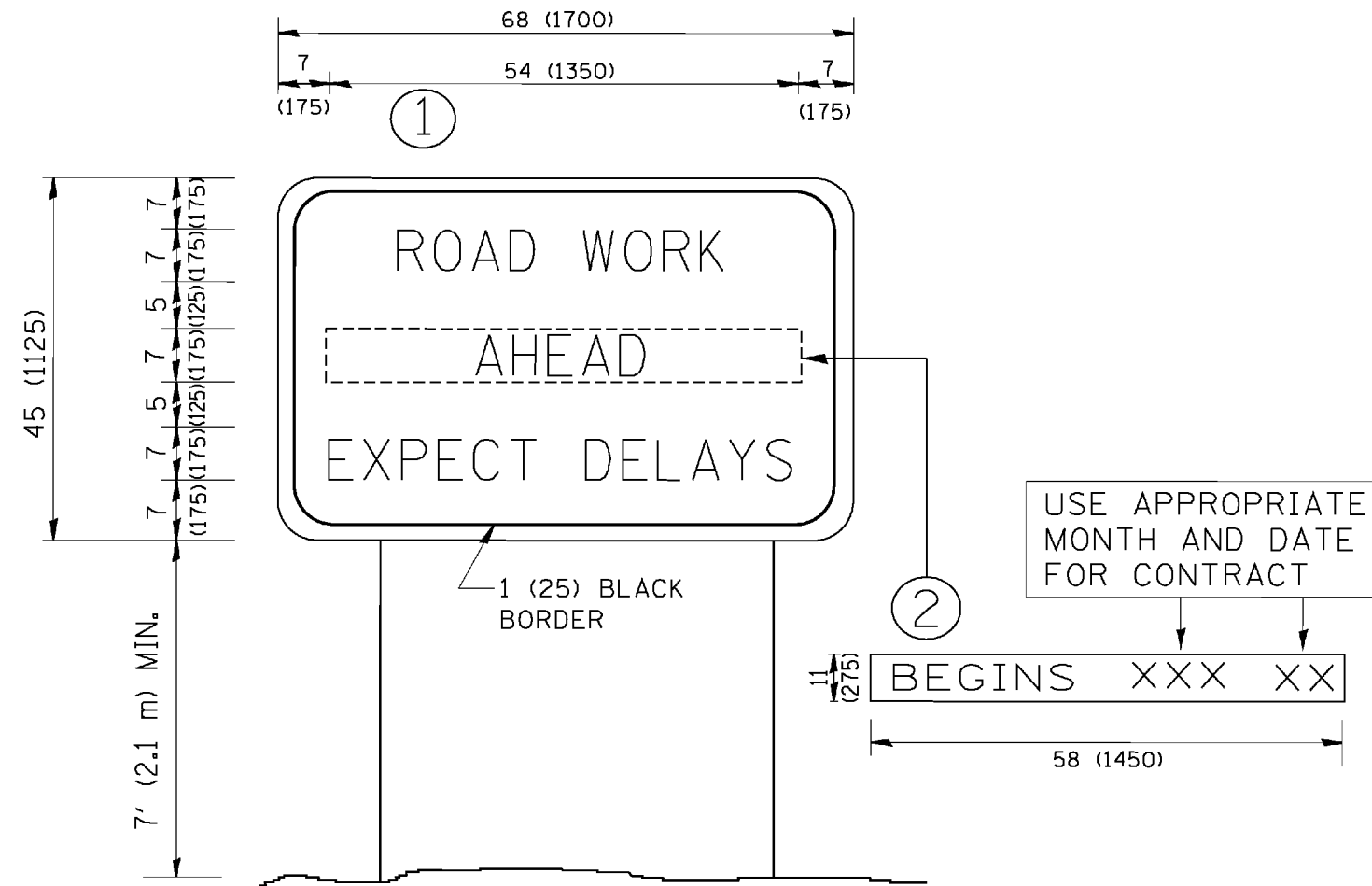
All dimensions are in inches (millimeters) unless otherwise shown.

## PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

USER NAME = *USER*	DESIGNED - SEW	REVISED -
DRAWN - SEW	REVISOR -	
PLOT SCALE = *SCALE*	CHECKED - ST	REVISED -
PLOT DATE = *DATE*	DATE - 11/2011	REVISED -

DISTRICT STANDARDS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US ROUTE 30 / IL 56 OVER IL 47		573	61 HB-1-7	KANE	48	46
SCALE: N/A		SHEET NO. 7 OF 9 SHEETS		STA.	TO STA.	
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



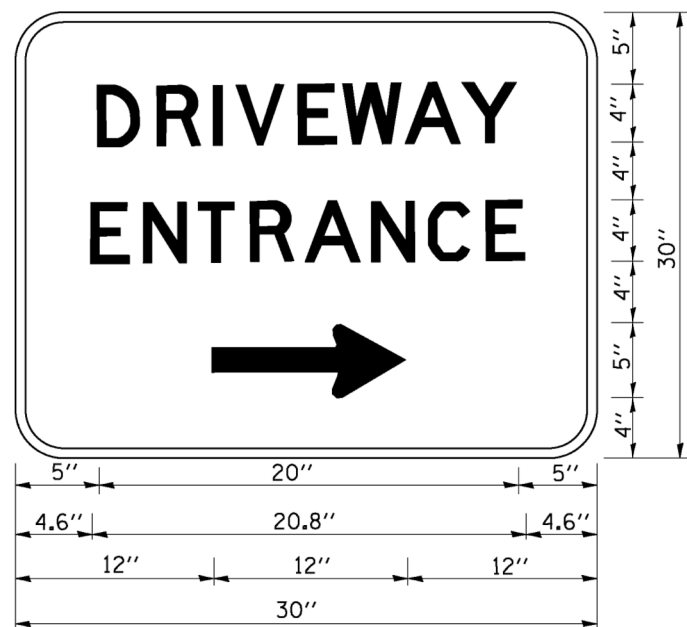


NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

## ARTERIAL ROAD INFORMATION SIGN

<b>LIN ENGINEERING LTD.</b> Consulting Engineers <small>Springfield, Illinois</small>	USER NAME = *USER*	DESIGNED - SEW	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS</b> <b>US ROUTE 30 /IL 56 OVER IL 47</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	PLOT SCALE = *SCALE*	CHECKED - ST	REVISED -		573	61 HB-1-7	KANE	48	47					
	PLOT DATE = *DATE*	DATE - 11/2011	REVISED -		SCALE: N/A		SHEET NO. 8 OF 9 SHEETS	STA. TO STA.	TC-22		CONTRACT NO. 60N12			
											FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE  
 PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN)  
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY  
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE  
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

## DRIVEWAY ENTRANCE SIGNING

<b>LIN ENGINEERING LTD.</b> Consulting Engineers <small>Springfield, Illinois</small>	USER NAME = *USER*	DESIGNED - SEW	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS</b> <b>US ROUTE 30 /IL 56 OVER IL 47</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = *SCALE*	CHECKED - ST	REVISED -		573	61 HB-1-7	KANE	48	48			
	PLOT DATE = *DATE*	DATE - 11/2011	REVISED -		SCALE: N/A		SHEET NO. 9 OF 9 SHEETS	STA.	TO STA.	CONTRACT NO. 60N12		
											FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	