

026

03-08-2019 LETTING ITEM 026

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.P. RATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	49	1
				CONTRACT NO. 62H01

49 + 3 = 52 TOTAL SHEETS  
D-91-362-18

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED  
WITHIN VILLAGES OF HINSDALE,  
CLARENDON HILLS, AND  
WESTMONT

TRAFFIC DATA

IL ROUTE 83:  
FUNCTIONAL CLASSIFICATION:  
OTHER PRINCIPAL ARTERIAL  
ADT (2017)=64,300  
P.V.=85% S.U.=10% M.U.=5%  
POSTED SPEED LIMIT=55 MPH  
DESIGN SPEED LIMIT=55 MPH



DATE SIGNED: 12/4/2018  
EXP. DATE: 11-30-19

PROPOSED  
HIGHWAY PLANS

FAP ROUTE 344 (IL 83)  
OVER US 34 (OGDEN AVE) & AT BNSF RR  
SECTION 2018-041-BD&BJR  
PROJECT NHPP 6N2W(561)  
BRIDGE DECK OVERLAY AND  
BRIDGE JOINT REPAIR  
DuPAGE COUNTY

C-91-287-18

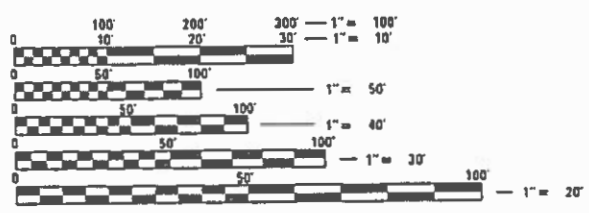


LOCATION OF SECTION INDICATED THUS: -

CHASTAIN & ASSOCIATES LLC  
CONSULTING ENGINEERS  
SERVICE | SOLUTIONS | COMMITMENT™

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
SUBMITTED ~~December 6, 2018~~  
*Anthony J. Durkin, P.E.*  
REGIONAL ENGINEER  
Feb 1 2019  
*Scott E. Etkin*  
ENGINEER OF DESIGN AND ENVIRONMENT  
Feb 1 2019  
*Paul R. Chaffin*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS



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 MANAGER: FAWAD AQUEEL, P.E., P.T.O.E. (847)705-4247



BRIDGE REPAIR  
SN: 022-0157  
BEGIN PROJECT:  
STA. 394 + 14  
END PROJECT:  
STA. 396 + 55

BRIDGE REPAIR  
SN: 022-0155  
BEGIN PROJECT:  
STA. 349 + 68  
END PROJECT:  
STA. 354 + 29



GROSS LENGTH = 7810 FT. = 1.479 MILE  
NET LENGTH = 702 FT. = 0.133 MILE

CONTRACT NO. 62H01

## INDEX OF SHEETS

SHEET NO.	DESCRIPTION	STANDARD NO.
1	COVER SHEET	BD-32
2	INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES	TC-11
3	ALIGNMENT, TIES, AND BENCHMARKS	TC-12
4-8A	SUMMARY OF QUANTITIES	TC-13
9-14	MAINTENANCE OF TRAFFIC	TC-22
15-16	PAVEMENT MARKING PLANS	
	BRIDGE STRUCTURE 022-0155	
17	GENERAL PLAN AND ELEVATION	
18	GENERAL STRUCTURAL DATA	
19	STAGE CONSTRUCTION DETAILS	
20	BRIDGE DECK REPAIRS	
21	SOUTH ABUTMENT EXPANSION JOINT DETAILS	
22	NORTH ABUTMENT EXPANSION JOINT DETAILS	
23-25	PREFORMED JOINT STRIP SEAL	
26	FRAMING PLAN	STANDARD NO.
27	PPC I-BEAM REPAIR	000001-06
28	ABUTMENT AND SLOPE WALL REPAIRS	606101-05
29	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS	701101-05
	BRIDGE STRUCTURE 022-0157	701411-09
30	GENERAL PLAN AND ELEVATION	701416-11
31	GENERAL STRUCTURAL DATA	701421-08
32	STAGE CONSTRUCTION DETAILS	701422-10
33	BRIDGE DECK REPAIRS	701426-09
34	SOUTH ABUTMENT EXPANSION JOINT DETAILS	701901-06
35	SOUTH ABUTMENT EXPANSION JOINT DETAILS	704001-08
36	NORTH ABUTMENT EXPANSION JOINT DETAILS	782006
37	NORTH ABUTMENT EXPANSION JOINT DETAILS	
38	PREFORMED JOINT STRIP SEAL	
39	PPC I-BEAM REPAIR	
40	BEARING DETAILS - ABUTMENTS	
41	ABUTMENT AND SLOPE WALL REPAIRS	
42	PIER REPAIRS	
43	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS	
44-45	TRANSITION DETAILS	
46-51	DISTRICT DETAILS	

## DISTRICT ONE DETAILS

STANDARD NO.	DESCRIPTION
BD-32	BUTT JOINT AND HMA TAPER DETAILS
TC-11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC-12	MULTI-LANE FREEWAY PAVEMENT MARKINGS
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-22	ARTERIAL ROAD INFORMATION SIGN

## GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES (48 HOURS NOTIFICATION REQUIRED).
- NO CONSTRUCTION SHALL BEGIN UNTIL ALL PROPER TEMPORARY SIGNS AND BARRICADES HAVE BEEN INSTALLED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE LOCAL MUNICIPALITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND 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.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO FIELD VARIATION. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATION SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR QUANTITY ACTUALLY FURNISHED BASED AT THE UNIT PRICE BID FOR THE WORK.
- UNLESS OTHERWISE NOTED IN THE PLANS OR CONTRACT SPECIFICATIONS, THE CONTRACTOR SHALL SURVEY THE TOP OF RAIL OF EACH RAILROAD TRACK A MINIMUM OF 1000-FT ON EACH SIDE OF THE OVERPASS STRUCTURE IN 50' INCREMENTS BEFORE BEGINNING CONSTRUCTION. IN ADDITION, UPON COMPLETION OF STRUCTURE 022-0155, THE CONTRACTOR SHALL MEASURE THE RESULTING HORIZONTAL AND VERTICAL CLEARANCES AND SUBMIT THEM TO THE ENGINEER FOR REVIEW AND INCLUSION IN THE RECORD DRAWINGS. THIS WORK SHALL BE INCLUDED IN THE COST OF CONSTRUCTION LAYOUT).
- PROTECTIVE SHIELD SHALL BE INSTALLED IN ALL AREAS INVOLVING CONCRETE REMOVAL TO PREVENT DEBRIS FROM ENTERING RAILROAD OR ROADWAY RIGHT OF WAY. THE LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO CONCRETE REMOVAL.
- ALL SAW CUTTING REQUIRED SHALL BE INCLUDED IN THE CORRESPONDING REMOVAL PAY ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVALS.
- THE ENGINEER SHALL CONTACT DON CHIARUGI, IDOT'S AREA TRAFFIC FIELD ENGINEER, VIA E-MAIL AT DON.CHIARUGI@ILLINOIS.GOV, A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMNT MARKINGS.
- THE CONTRACTOR SHALL CONTACT THE ROADSIDE DEVELOPMENT UNIT AT (847)705-4171 AT LEAST 2 WEEKS PRIOR TO BEGINNING ANY FORESTRY WORK FOR LAYOUT.

## HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
606101-05	TYPE A GUTTER (INLET, OUTLET & ENTRANCE)
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
701416-11	LANE CLOSURE, FREEWAY / EXPRESSWAY, WITH CROSSOVER AND BARRIER
701421-08	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701422-10	LANE CLOSURE, MULTILANE, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
701901-06	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

## MIXTURES TABLE

HOT-MIX ASPHALT MIXTURE REQUIREMENTS			
OPERATION	MIXTURE TYPE	AIR VOIDS @ NDES	QUALITY MANAGEMENT PROGRAM (QMP)
PAVEMENT AND SHOULDER RESURFACING	HMA SURFACE COURSE, MIX "D", N70, (IL 9.5 mm), 1¾"	4% @ 70 GYR.	QC/QA
	LEVELING BINDER (MACHINE METHOD), N70, (IL 9.5 mm), ¾"	4% @ 70 GYR.	QC/QA
QMP DESIGNATIONS: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA):			

### NOTES:

- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
- THE "AC TYPE" FOR POLYMERIZED HMA MIXES 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 USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.
- QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR	
INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	2
	SN 022-0155 & SN 022-0157			CONTRACT NO. 62H01
	ILLINOIS	FED. AID PROJECT		



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				NHPP FUNDS		
				80% FED 20% STATE		80% FED 20% STATE
				STRUCTURES 0013 1L 83		STRUCTURE 0013 022-0157
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	10.5	10.5		
28000510	INLET FILTERS	EACH	1	1		
28100125	STONE RIPRAP, CLASS B3	SQ YD	10	10		
28200200	FILTER FABRIC	SQ YD	10	10		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	171	171		
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	60	60		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	925	925		
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	56	56		
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	140	140		
44000152	HOT-MIX ASPHALT SURFACE REMOVAL, 3/4"	SQ YD	1,137	1,137		
44000400	GUTTER REMOVAL	FOOT	637	637		
44000100	PAVEMENT REMOVAL	SQ YD	240	240		
44004250	PAVED SHOULDER REMOVAL	SQ YD	30	30		
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	82	82		
48300300	PORTLAND CEMENT CONCRETE SHOULDERS 8"	SQ YD	30	30		

\* = SPECIALTY ITEMS

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR  
SUMMARY OF QUANTITIES**

SCALE: SHEET 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	4
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				NHPP FUNDS		
				80% FED 20% STATE		80% FED 20% STATE
				STRUCTURES 0013 1L 83		STRUCTURE 0013 022-0157
50102400	CONCRETE REMOVAL	CU YD	82.0	34.8		47.2
50157300	PROTECTIVE SHIELD	SQ YD	2,198	1337		861
50300255	CONCRETE SUPERSTRUCTURE	CU YD	91.2	38.6		52.6
50300260	BRIDGE DECK GROOVING	SQ YD	3,446	1828		1,618
50300300	PROTECTIVE COAT	SQ YD	559	305		254
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	16,730	6520		10,210
50800515	BAR SPLICERS	EACH	52	26		26
52000110	PREFORMED JOINT STRIP SEAL	FOOT	321	130		191
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	28			28
52100510	ANCHOR BOLTS, 3/4"	EACH	112			112
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	5			5
60260100	INLETS TO BE ADJUSTED	EACH	1	1		
60602500	CONCRETE GUTTER, TYPE A	FOOT	637	637		
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	27	27		
63800920	MODULAR GLARE SCREEN SYSTEM, TEMPORARY	FOOT	11,525	11,525		

\* = SPECIALTY ITEMS

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR  
SUMMARY OF QUANTITIES**

SCALE: SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	5
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				NHPP FUNDS		
				80% FED 20% STATE		80% FED 20% STATE
				STRUCTURES 0013 IL 83		STRUCTURE 0013 022-0157
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	6		6
67100100	MOBILIZATION	L SUM	1	0.5		0.5
70100315	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	EACH	8	8		
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	56	56		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1,252	1,252		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	418	418		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	17,678	17,678		
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	27,988	27,988		
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	4,378	4,378		
70300900	PAVEMENT MARKING TAPE, TYPE IV - LETTERS AND SYMBOLS	SQ FT	166	166		
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	50,517	50,517		
70300908	PAVEMENT MARKING TAPE, TYPE IV 8"	FOOT	3,102	3,102		
70300912	PAVEMENT MARKING TAPE, TYPE IV 12"	FOOT	198	198		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	5,763	5,763		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	5,763	5,763		

\* = SPECIALTY ITEMS

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR  
SUMMARY OF QUANTITIES**

SCALE: SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	6
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				NHPP FUNDS		
				80% FED 20% STATE		80% FED 20% STATE
				STRUCTURES		STRUCTURE
				0013		0013
				1L 83		022-0157
70400600	RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED	FOOT	2,975	2,975		
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2		
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	15,818	15,818		
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	3,898	3,898		
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	540	540		
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1,620	1,620		
* 78009008	MODIFIED URETHANE PAVEMENT MARKING - LINE 8"	FOOT	480	480		
* 78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	60	60		
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	40	40		
* 78100300	REPLACEMENT REFLECTOR	EACH	344	344		
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	570	570		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	40	40		
X0323491	SLOPE WALL CRACK SEALING	FOOT	461			461
X0325748	ACRYLIC COATING	SQ YD	298	24		274

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR  
SUMMARY OF QUANTITIES**

SCALE: SHEET 4 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	7
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				NHPP FUNDS		
				80% FED 20% STATE		80% FED 20% STATE
				STRUCTURES 0013 1L 83		STRUCTURE 0013 022-0157
X0325749	FIBER WRAP	SQ FT	1,348	119		1229
X0326331	CLEANING AND PAINTING BEARINGS	EACH	100	72		28
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	9,412	9,412		
X0327900	TREE REMOVAL (UNDER 6 INCH DIAMETER SAWED FLUSH)	IN DIA	16	16		
X1700078	REMOVE AND RE-ERECT EXISTING SOUND BARRIER WALL	FOOT	215	215		
* X2700003	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	240	240		
* X2700005	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 7"	FOOT	240	240		
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		
X7010410	SPEED DISPLAY TRAILER	CAL MO	12	12		
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	47,844	47,844		
X7040210	RELOCATE TEMPORARY CONCRETE BARRIER, SPECIAL	FOOT	2,788	2,788		
X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	344	344		
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	28			28
Z0006014	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2 INCHES	SQ YD	3,371	1823		1,548
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	3,371	1823		1,548

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR  
SUMMARY OF QUANTITIES**

SCALE: SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	8
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				NHPF FUNDS		
				80% FED 20% STATE STRUCTURES		80% FED 20% STATE STRUCTURE
				00 13		0013
						022-0157
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	539	49		490
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	107	62		45
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.5		0.5
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	103	103		
Z0038116	PORTLAND CEMENT CONCRETE SURFACE REMOVAL 3/4"	SQ YD	395	395		
Z0043800	PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	13	6		7
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1		
Z0062456	TEMPORARY PAVEMENT	SQ YD	240	240		
Z0064800	SELECTIVE CLEARING	UNIT	6	6		
Ø Z0076600	TRAINEES	HOUR	500	500		
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500		

Ø 0042

\* = SPECIALTY ITEMS

MODEL NUMBER NAME  
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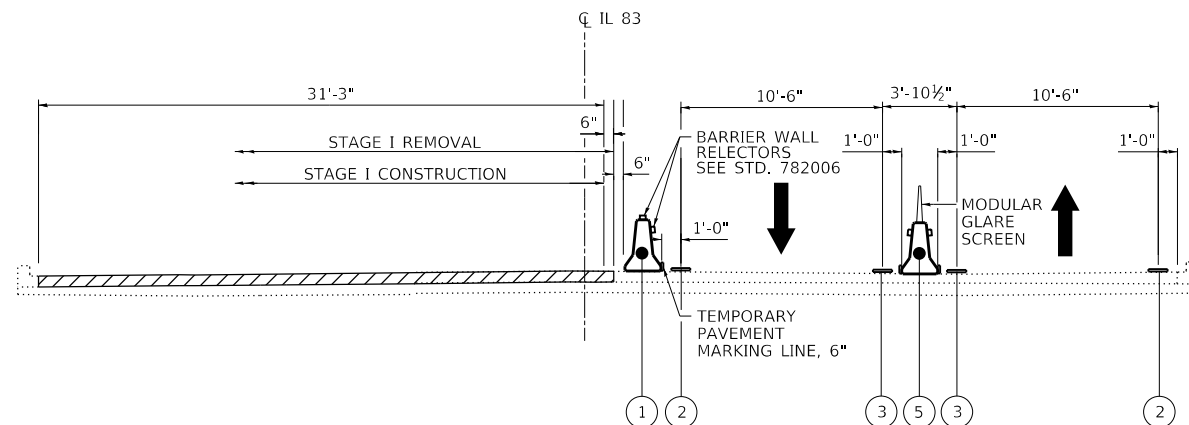
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PLOT DATE = 1/14/2019	DATE - 11-02-2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR**  
SUMMARY OF QUANTITIES

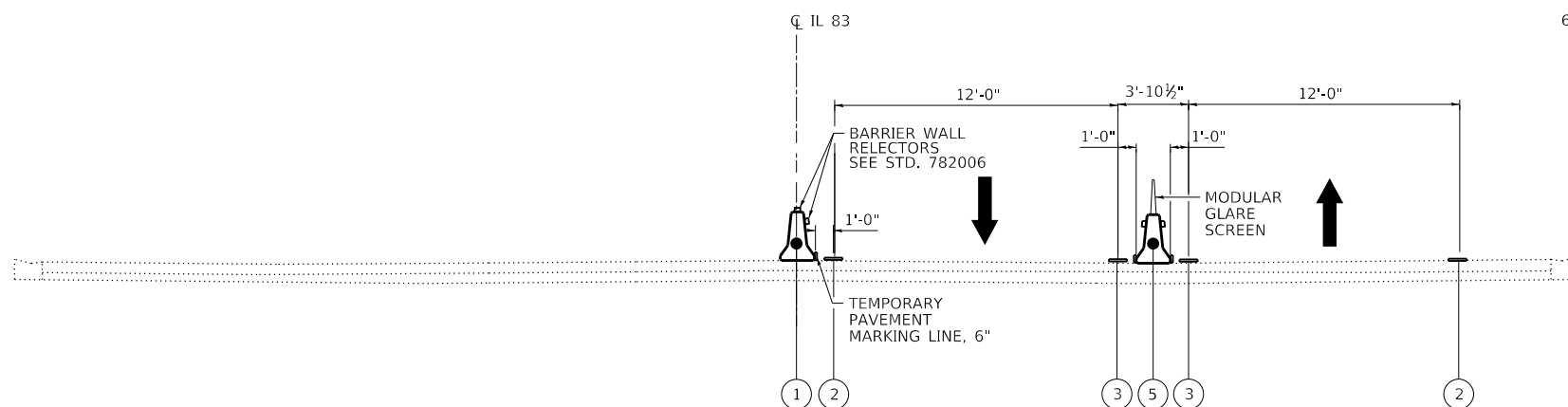
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	8A
	SN 022-0155 & SN 022-0157	CONTRACT NO. 62H01		
	ILLINOIS	FED. AID PROJECT		

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



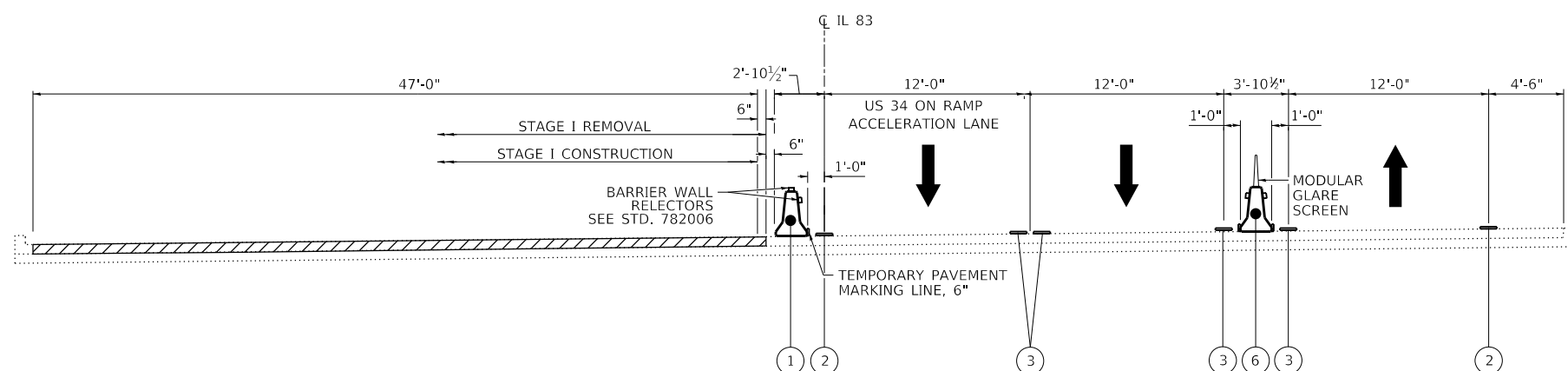
**MAINTENANCE OF TRAFFIC ROADWAY TYPICAL SECTION STAGE I**

STRUCTURE 022-0155 (OVER BNSF)  
LOOKING NORTH



**MAINTENANCE OF TRAFFIC ROADWAY TYPICAL SECTION STAGE I**

IL 83 STA. 361+57 TO STA 384+30  
LOOKING NORTH



**MAINTENANCE OF TRAFFIC ROADWAY TYPICAL SECTION STAGE I**

STRUCTURE 022-0157 (OVER US 34)  
LOOKING NORTH

**MAINTENANCE OF TRAFFIC LEGEND**

- ① RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED
- ② PAVEMENT MARKING TAPE, TYPE IV - LINE 4" (WHITE)
- ③ PAVEMENT MARKING TAPE, TYPE IV - LINE 4" (YELLOW)
- ④ PAVEMENT MARKING TAPE, TYPE IV - LINE 4" (WHITE SKIP DASH - 2' DASH, 6' SKIP)
- ⑤ TEMPORARY CONCRETE BARRIER
- ⑥ RELOCATE TEMPORARY CONCRETE BARRIER

**SUGGESTED SEQUENCE OF CONSTRUCTION & MAINTENANCE OF TRAFFIC**

**STAGE I**

1. INSTALL ADVANCED WIDTH RESTRICTION SIGNAGE, REMOVE CURB AND GUTTER AS SHOWN IN PLAN, INSTALL TEMPORARY PAVEMENT, RELOCATE EXISTING TEMPORARY CONCRETE BARRIER (STATE OWNED), AND INSTALL ADDITIONAL TEMPORARY CONCRETE BARRIER UTILIZING STANDARD 701422-10.
2. INSTALL STAGE I TRAFFIC CONTROL ALONG IL ROUTE 83. SHIFT TRAFFIC TO NORTH BOUND LANES TO STAGE I TRAFFIC LANES.
3. PERFORM BRIDGE REPAIRS ON WEST SIDE ABUTMENTS, PIERS, BEAMS, AND BEARINGS.
4. COMPLETE BRIDGE DECK PATCHING, JOINT REPLACEMENT, HMA MILLING, BUTT JOINTS, OVERLAY APPROACH SLAB, SLOPE WALL REPAIR, AND SCARIFYING AND LATEX CONCRETE OVERLAY.

**STAGE II**

1. RELOCATE STAGE II TRAFFIC CONTROL ON IL ROUTE 83 AND REMOVE STAGE I TRAFFIC CONTROL DEVICES. SHIFT TRAFFIC TO SOUTH BOUND LANES TO STAGE II TRAFFIC LANES.
2. PERFORM EAST SIDE BRIDGE REPAIRS ON ABUTMENTS, PIERS, BEAMS, AND BEARINGS.
3. COMPLETE BRIDGE DECK PATCHING, JOINT REPLACEMENT, HMA MILLING, BUTT JOINTS, OVERLAY APPROACH SLAB, SLOPE WALL REPAIR, AND SCARIFYING AND LATEX CONCRETE OVERLAY.
4. REMOVE STAGE II TRAFFIC CONTROL DEVICES. SHIFT TRAFFIC BACK TO NORMAL LANES ALONG IL ROUTE 83.
5. RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED) BACK TO CENTER MEDIAN LOCATION, REMOVE TEMPORARY PAVEMENT, AND INSTALL CURB AND GUTTER.
6. COMPLETE PERMANENT PAVEMENT MARKING ALONG IL ROUTE 83 UTILIZING DAYTIME LANE CLOSURES.

**MAINTENANCE OF TRAFFIC GENERAL NOTES:**

1. THE TRAFFIC CONTROL DEPICTED HEREIN IS THE MINIMUM REQUIREMENT. ADDITIONAL TRAFFIC CONTROL DEVICES AS SPECIFIED IN THE HIGHWAY STANDARDS AS SHOWN IN THE INDEX OF SHEETS AND THE SPECIAL PROVISIONS SHALL BE PLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. ALL TRAFFIC CONTROL DEVICES SHALL BE CONSIDERED INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL) UNLESS OTHERWISE INDICATED WITHIN THESE GENERAL NOTES, PLANS OR SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR MAINTENANCE OF TRAFFIC.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING LABOR, SIGNS AND TRAFFIC CONTROL DEVICES NECESSARY FOR THE MAINTENANCE OF TRAFFIC UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.
4. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING THE WORK.
5. IN ADVANCE OF ALL STAGE CHANGES ON IL ROUTE 83, THE CONTRACTOR SHALL PLACE ONE (1) PORTABLE CHANGEABLE MESSAGE SIGN AT EACH END OF THE PROJECT ALONG IL ROUTE 83 AS DIRECTED AT A LOCATION DESIGNATED BY THE ENGINEER TO INFORM MOTORISTS OF THE UPCOMING STAGE CHANGE ON IL ROUTE 83. THE MESSAGE SHALL BE APPROVED BY THE ENGINEER.
6. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
7. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE DESIGNATED TRAFFIC CONTROL PLAN.
8. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER. ANY CHANGES TO THE MAINTENANCE OF TRAFFIC SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO IMPLEMENTING ANY CHANGES.
9. TRAFFIC CONDITIONS, ACCIDENTS, AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL PROMPTLY RESPOND AT THE TIME OF NOTIFICATION BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC CONTROL DEVICES.
10. THE ENGINEER SHALL BE INFORMED A MINIMUM OF 48 HOURS IN ADVANCE OF ANY PROPOSED CHANGE TO THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN.
11. ALL TEMPORARY PAVEMENT MARKINGS SHOWING DETERIORATION AFTER SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. ALL MARKINGS THAT REQUIRE REPLACEMENT PRIOR TO SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
12. WHEN THEY ARE NO LONGER NECESSARY, ALL TRAFFIC CONTROL DEVICES SHALL IMMEDIATELY BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC. WHEN A SIGN IS COVERED, ITS POST SHALL HAVE A REFLECTIVE 3" X 6" DELINEATOR INSTALLED. THE COST OF THE DELINEATOR IS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
13. TEMPORARY CONCRETE BARRIERS AND TEMPORARY IMPACT ATTENUATORS SHALL BE PLACED AS SHOWN IN THE PLANS. EXISTING TEMPORARY CONCRETE BARRIERS ALONG MEDIAN SHALL BE USED AS TEMPORARY CONCRETE BARRIERS ALONG WORK ZONE AND AS SHOWN IN THE PLANS. THIS WORK SHALL BE PAID FOR AS RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWN. EXISTING TEMPORARY CONCRETE BARRIERS NOT BEING USED SHALL BE TEMPORARY RELOCATED TO UNUSED AREA AND APPROVED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR AS RELOCATE TEMPORARY CONCRETE BARRIER, SPECIAL. TEMPORARY CONCRETE BARRIERS SEPARATING OPPOSING TRAFFIC SHALL UTILIZE NEW TEMPORARY CONCRETE BARRIERS AND SHALL BE PAID FOR AS TEMPORARY CONCRETE BARRIER AND RELOCATE TEMPORARY CONCRETE BARRIER. ALL EXISTING TEMPORARY CONCRETE BARRIERS SHALL BE RELOCATED BACK TO EXISTING MEDIAN LOCATION AFTER COMPLETION OF CONSTRUCTION. FURNISHING, INSTALLING AND RELOCATING TEMPORARY CONCRETE BARRIER AND TEMPORARY IMPACT ATTENUATORS SHALL BE IN ACCORDANCE WITH IDOT SPECIAL PROVISIONS, IDOT HIGHWAY STANDARDS, STANDARD SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.
14. IMMEDIATELY AFTER THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE ALL PERMANENT PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES THAT WERE COVERED, REMOVED, DAMAGED OR OTHERWISE AFFECTED BY CONSTRUCTION.
15. FULL ACCESS THROUGH HINSDALE AVENUE UNDER THE IL 83 BRIDGE MUST BE MAINTAINED THROUGHOUT CONSTRUCTION.
16. CONSTRUCTION ACTIVITIES CAN ONLY TAKE PLACE BETWEEN 8AM - 8PM (MONDAY TO FRIDAY) AND 9AM - 4PM (SATURDAY). NO CONSTRUCTION ACTIVITIES ALLOWED ON SUNDAY AND HOLIDAYS. ANY NIGHT WORK MUST BE APPROVED BY THE VILLAGE BOARD OF TRUSTEES AND THE VILLAGE MANAGER. WRITTEN REQUEST MUST BE SUBMITTED 60 DAYS PRIOR TO START OF WORK.

MODEL: STAGE I TYPICAL SECTIONS.dgn



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PLOT SCALE = 20.0000' / in.	DRAWN - DMW	REVISED -
PLOT DATE = 1/9/2019	CHECKED - SPF	REVISED -
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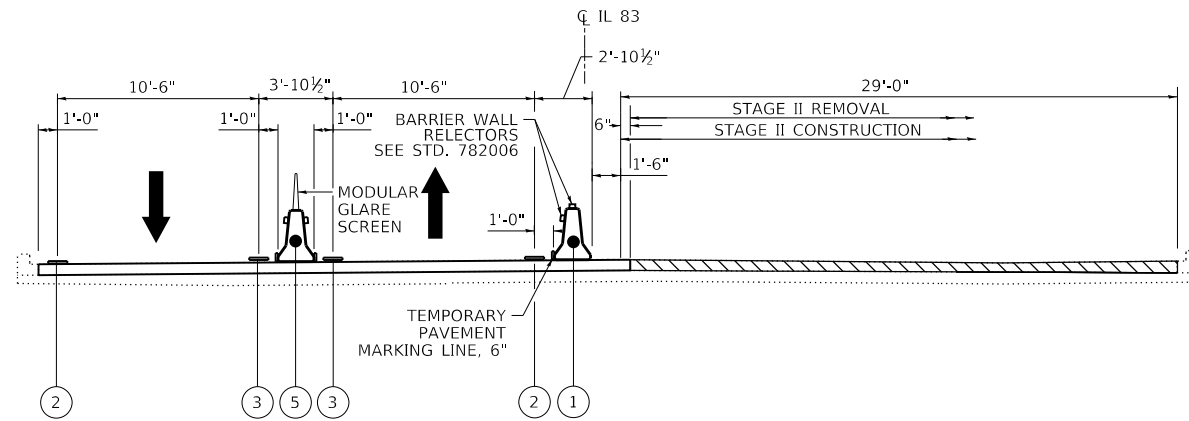
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER BNSF AND US 34 (OGDEN AVE.)  
BRIDGE DECK OVERLAY AND BRIDGE JOINT REPAIR  
MAINTENANCE OF TRAFFIC - STAGE I TYPICAL SECTIONS**

SCALE: SHEET 1 OF 6 SHEETS STA. TO STA.

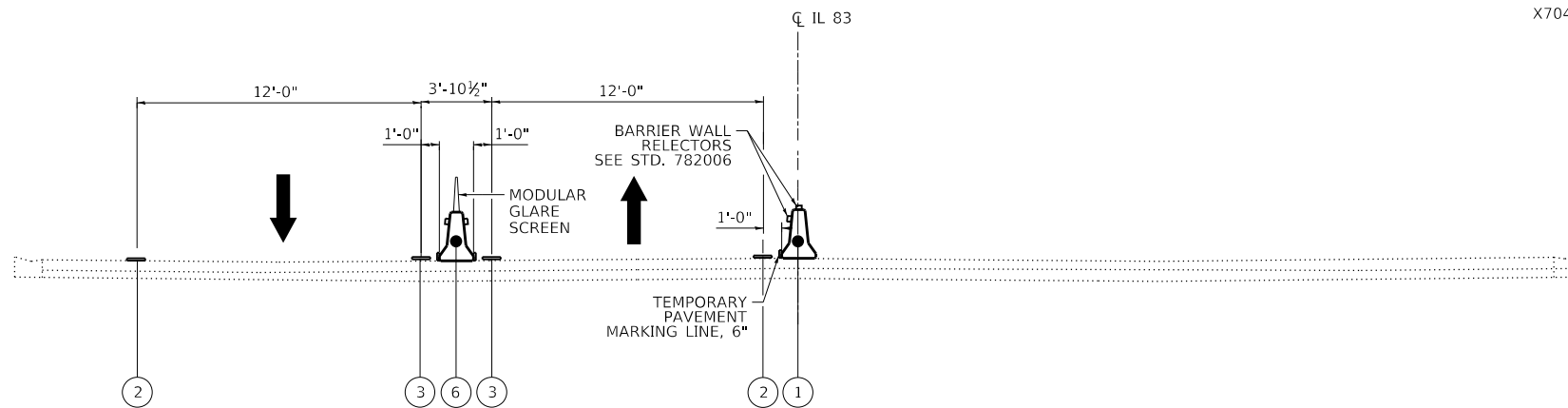
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BDS&BJR	DuPAGE	51	9
CONTRACT NO. 62H01				
ILLINOIS FED. AID PROJECT				

ADVANCED SIGNAGE AT INTERSECTIONS



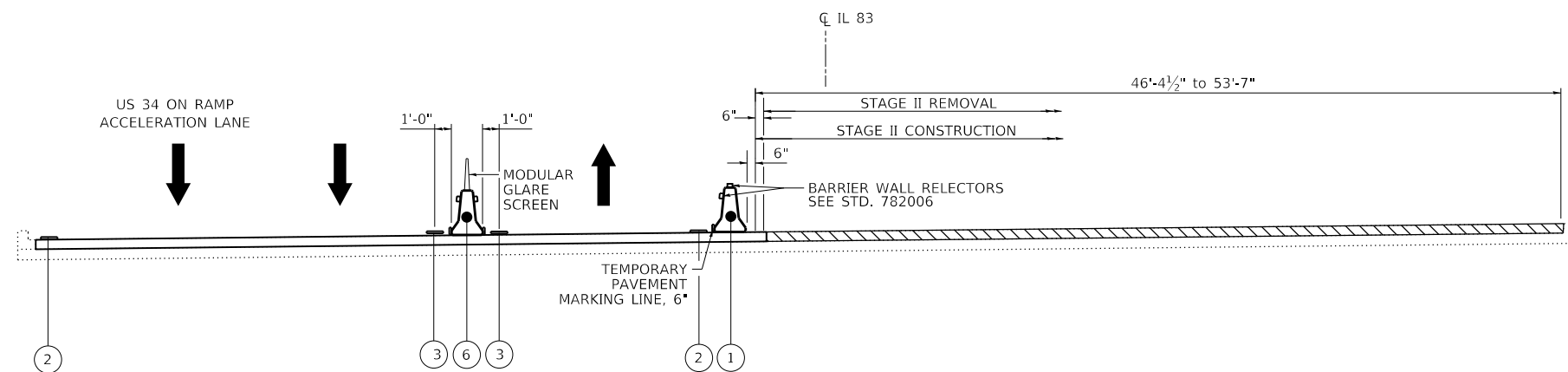
MAINTENANCE OF TRAFFIC ROADWAY TYPICAL SECTION STAGE II

STRUCTURE 022-0155 (OVER BNSF)  
LOOKING NORTH



MAINTENANCE OF TRAFFIC ROADWAY TYPICAL SECTION STAGE II

IL 83 STA. 363+68 TO STA 384+15  
LOOKING NORTH



MAINTENANCE OF TRAFFIC ROADWAY TYPICAL SECTION STAGE II

STRUCTURE 022-0157 (OVER US 34)  
LOOKING NORTH

70400100 - TEMPORARY CONCRETE BARRIER

STAGE	STA	TO	STA	LENGTH (FT)
STAGE I	341+62.5		399+25	5,762.5
TOTAL				5,762.5

70400200 - RELOCATE TEMPORARY CONCRETE BARRIER

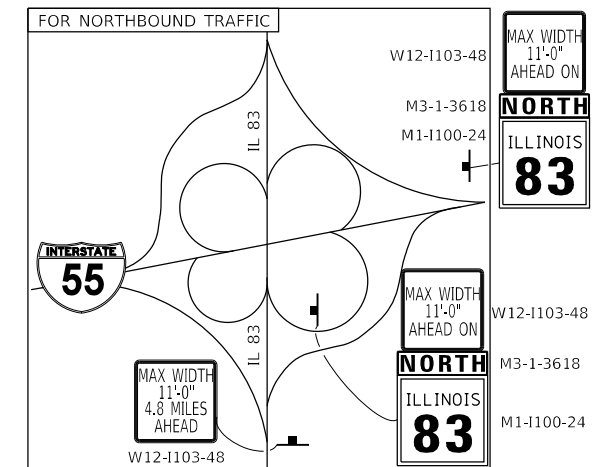
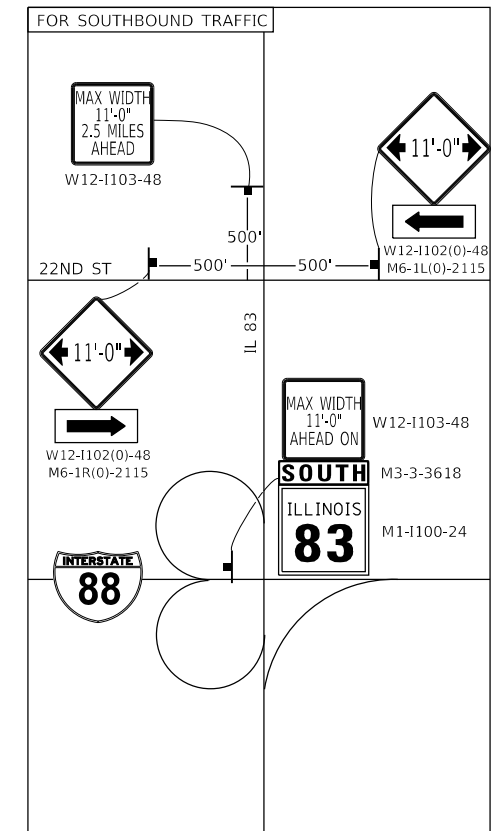
STAGE	STA	TO	STA	LENGTH (FT)
STAGE II	341+62.5		399+25	5,762.5
TOTAL				5,762.5

70400600 - RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED

STAGE	STA	TO	STA	LENGTH (FT)
STAGE I	348+12.5		356+00	787.5
STAGE I	387+85		397+35	950.0
STAGE II	348+29		356+16.5	787.5
STAGE II	393+21		397+71	450.0
TOTAL				2,975

X7040210 - RELOCATE TEMPORARY CONCRETE BARRIER, SPECIAL

STAGE	STA	TO	STA	LENGTH (FT)
STAGE I	341+62.5		348+12.5	650.0
STAGE I	397+35		399+35	200.0
STAGE II	397+71		402+71	500.0
POST STAGE	341+62.5		356+00	1,437.5
POST STAGE	387+85		399+35	1,150.0
TOTAL				2,787.5



MAINTENANCE OF TRAFFIC LEGEND

- ① RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED
- ② PAVEMENT MARKING TAPE, TYPE IV - LINE 4" (WHITE)
- ③ PAVEMENT MARKING TAPE, TYPE IV - LINE 4" (YELLOW)
- ④ PAVEMENT MARKING TAPE, TYPE IV - LINE 4" (WHITE SKIP DASH - 2' DASH, 6' SKIP )
- ⑤ TEMPORARY CONCRETE BARRIER
- ⑥ RELOCATE TEMPORARY CONCRETE BARRIER

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CONSULTING ENGINEERS  
184-001397

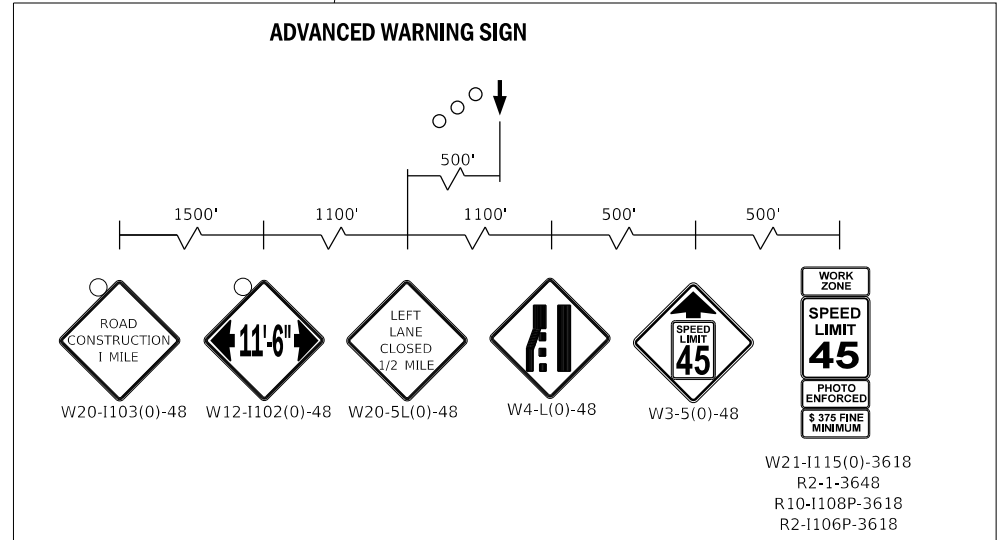
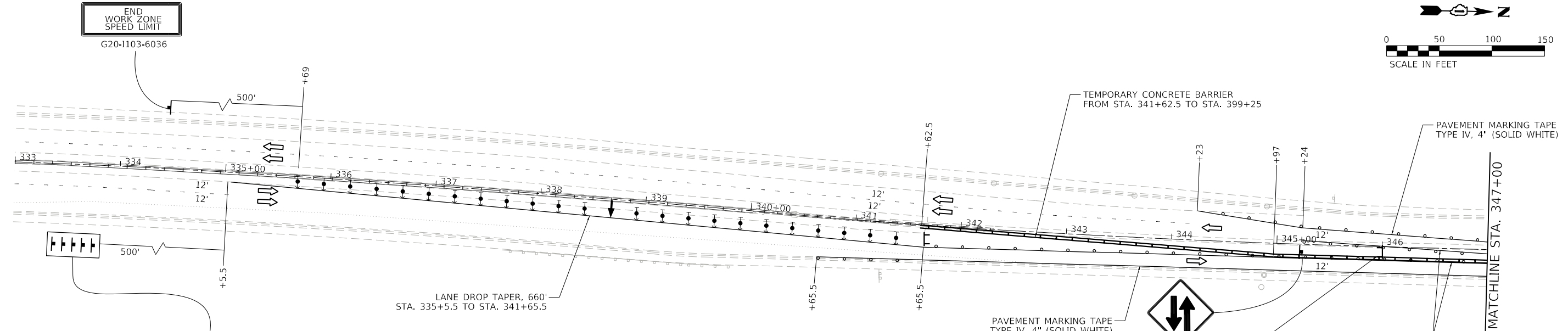
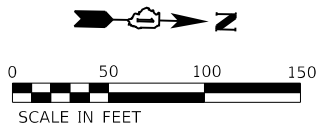
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL 83 OVER BNSF AND US 34 (OGDEN AVE.)  
BRIDGE DECK OVERLAY AND BRIDGE JOINT REPAIR  
MAINTENANCE OF TRAFFIC - STAGE II TYPICAL SECTIONS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62H01				
ILLINOIS FED. AID PROJECT				

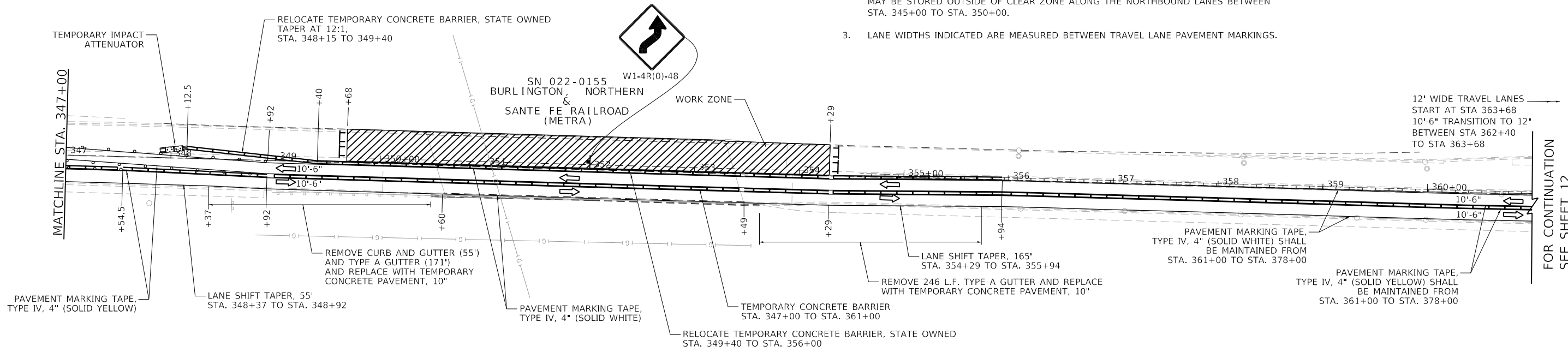
SCALE: SHEET 2 OF 6 SHEETS STA. TO STA.



**LEGEND**

	WORK ZONE		ARROW BOARD
	RELOCATE TEMPORARY CONCRETE BARRIER		TYPE III BARRICADE
	SIGN ON PERMANENT OR PORTABLE SUPPORT		TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
	DIRECTION OF TRAFFIC		DRUM OR TYPE II BARRICADE AT 100' C-C SPACING IN TANGENT, 50' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
	DIRECTION INDICATOR BARRICADE WITH STEADY BURN LIGHT @ 50' CENTERS		

- NOTES**
- TEMPORARY CONCRETE BARRIER TO BE USED AT WORK ZONE SHALL BE RELOCATED FROM EXISTING MEDIAN TEMPORARY CONCRETE BARRIER WALL. IT SHALL BE PAID FOR AS "RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED."
  - RELOCATION OF TEMPORARY CONCRETE BARRIER, SPECIAL FOR STORAGE UNTIL NEEDED MAY BE STORED OUTSIDE OF CLEAR ZONE ALONG THE NORTHBOUND LANES BETWEEN STA. 345+00 TO STA. 350+00.
  - LANE WIDTHS INDICATED ARE MEASURED BETWEEN TRAVEL LANE PAVEMENT MARKINGS.



MODEL: 1400BELNAMES  
 FILE: 1400BELN.DWG  
 PLOT DATE: 11/9/2019

**CHASTAIN & ASSOCIATES LLC**  
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 184-001397

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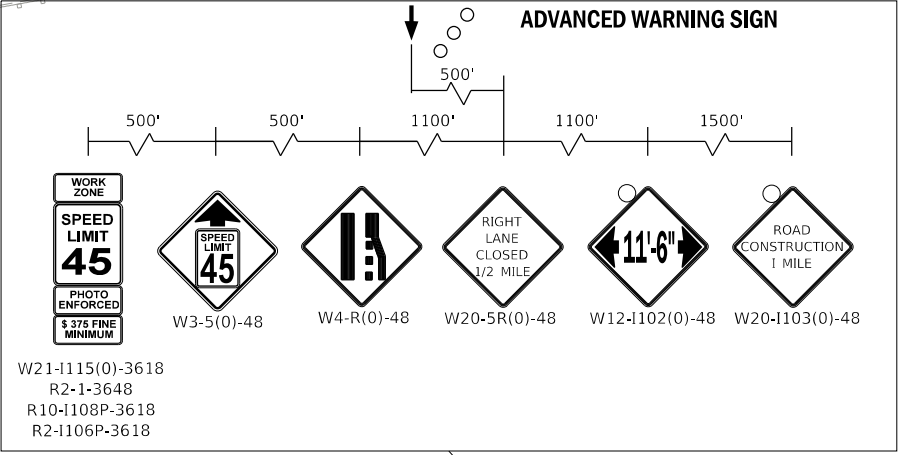
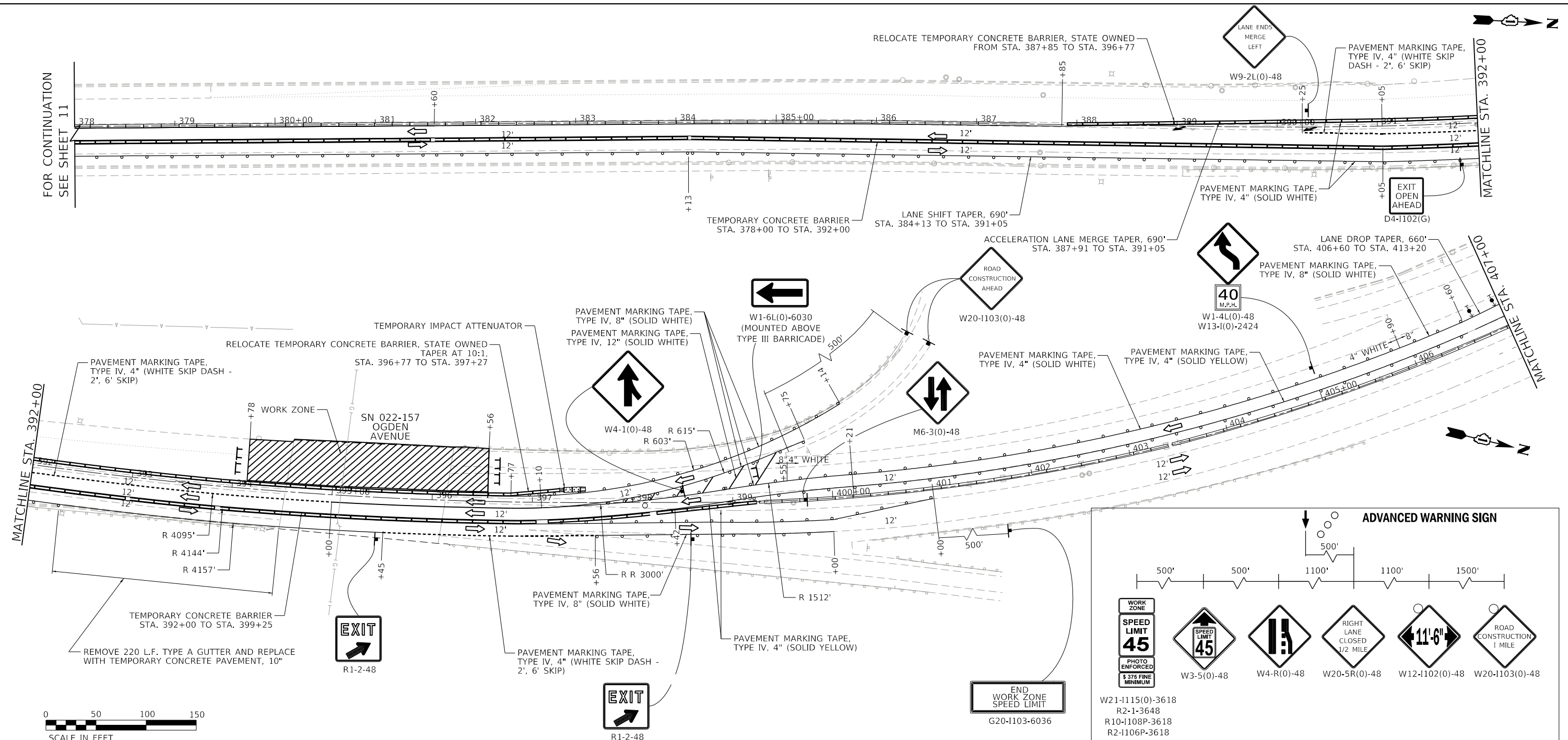
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR**  
**MAINTENANCE OF TRAFFIC - STAGE I**

SCALE: 1"=50'    SHEET 3 OF 6 SHEETS    STA. 333+00 TO STA. 361+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	11
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				

FOR CONTINUATION SEE SHEET 12

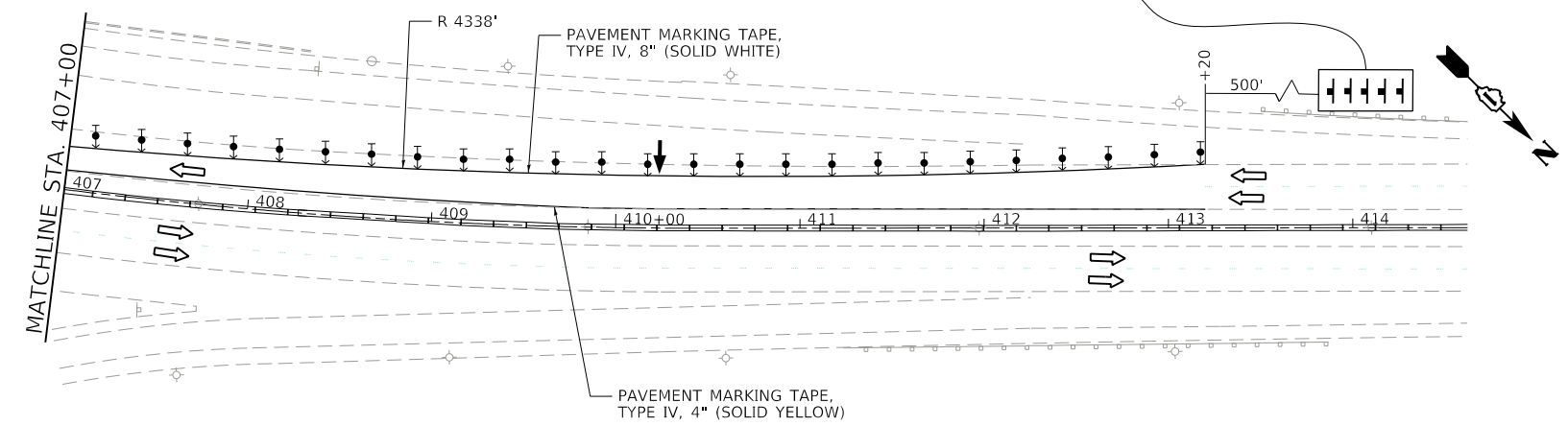


**LEGEND**

- WORK ZONE
- RELOCATE TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- DIRECTION OF TRAFFIC
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN LIGHT @ 50' CENTERS
- ARROW BOARD
- TYPE III BARRICADE
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- DRUM OR TYPE II BARRICADE AT 100' C-C SPACING IN TANGENT, 50' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII

**NOTES**

1. TEMPORARY CONCRETE BARRIER TO BE USED AT WORK ZONE SHALL BE RELOCATED FROM EXISTING MEDIAN TEMPORARY CONCRETE BARRIER WALL. IT SHALL BE PAID FOR AS "RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED."
2. RELOCATION OF TEMPORARY CONCRETE BARRIER, SPECIAL FOR STORAGE UNTIL NEEDED MAY BE STORED OUTSIDE OF CLEAR ZONE ALONG THE NORTHBOUND LANES BETWEEN STA. 345+00 TO STA. 350+00.
3. LANE WIDTHS INDICATED ARE MEASURED BETWEEN TRAVEL LANE PAVEMENT MARKINGS.



MODEL: 140821.MXD  
FILE: 140821.DWG  
DATE: 11/02/2018

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CONSULTING ENGINEERS  
184-001397

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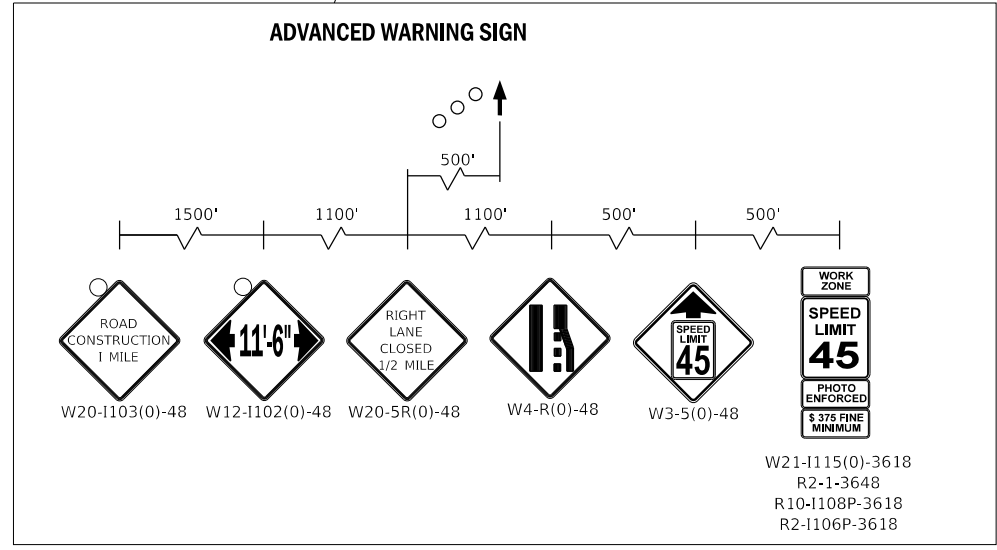
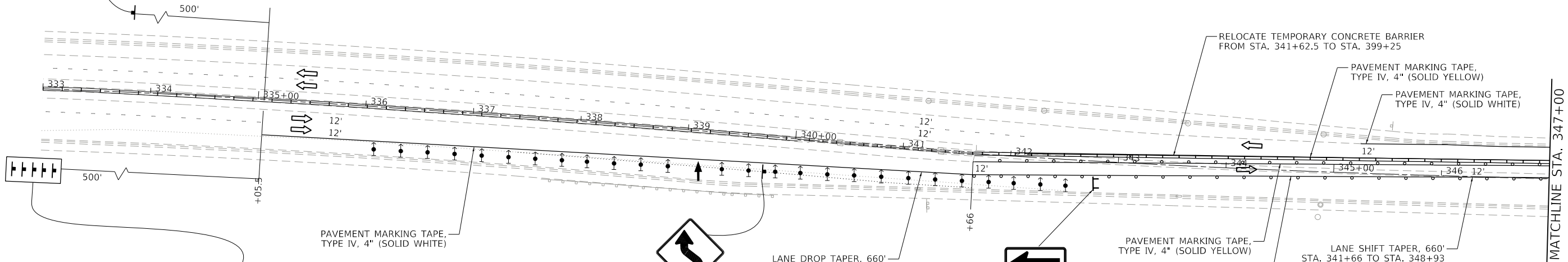
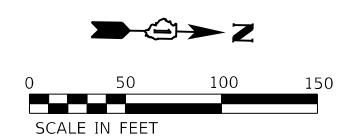
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR  
MAINTENANCE OF TRAFFIC - STAGE I**

SCALE: 1"=50'    SHEET 4 OF 6 SHEETS    STA. 378+00 TO STA. 414+00

F.A.P. RTE. 344	SECTION 2018-041-BD&BJR	COUNTY DuPAGE	TOTAL SHEETS 51	SHEET NO. 12
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				

END WORK ZONE SPEED LIMIT  
G20-1103-6036

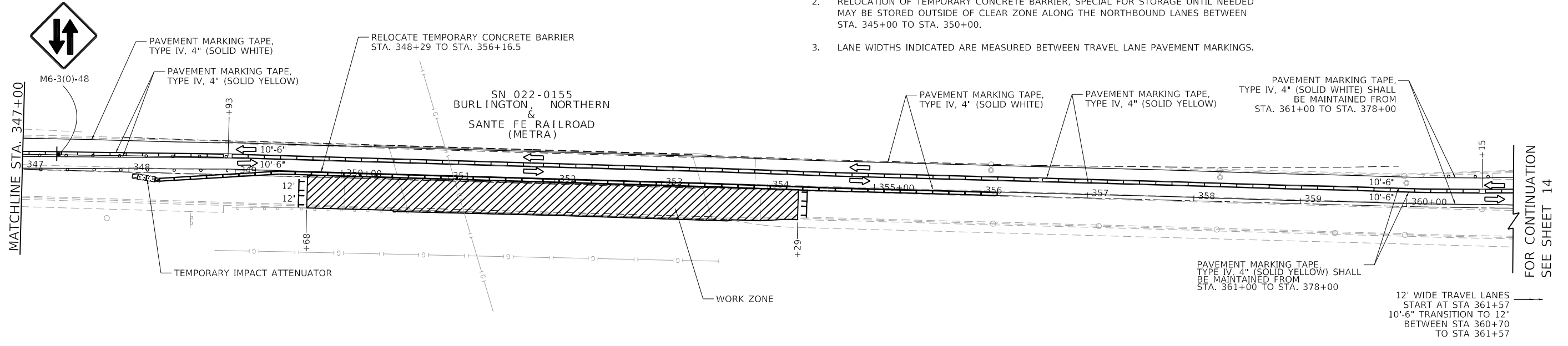


**LEGEND**

- WORK ZONE
- RELOCATE TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- DIRECTION OF TRAFFIC
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN LIGHT @ 50' CENTERS
- ARROW BOARD
- TYPE III BARRICADE
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- DRUM OR TYPE II BARRICADE AT 100' C-C SPACING IN TANGENT, 50' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII

**NOTES**

1. TEMPORARY CONCRETE BARRIER TO BE USED AT WORK ZONE SHALL BE RELOCATED FROM EXISTING MEDIAN TEMPORARY CONCRETE BARRIER WALL. IT SHALL BE PAID FOR AS "RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED."
2. RELOCATION OF TEMPORARY CONCRETE BARRIER, SPECIAL FOR STORAGE UNTIL NEEDED MAY BE STORED OUTSIDE OF CLEAR ZONE ALONG THE NORTHBOUND LANES BETWEEN STA. 345+00 TO STA. 350+00.
3. LANE WIDTHS INDICATED ARE MEASURED BETWEEN TRAVEL LANE PAVEMENT MARKINGS.



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**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS  
184-001397

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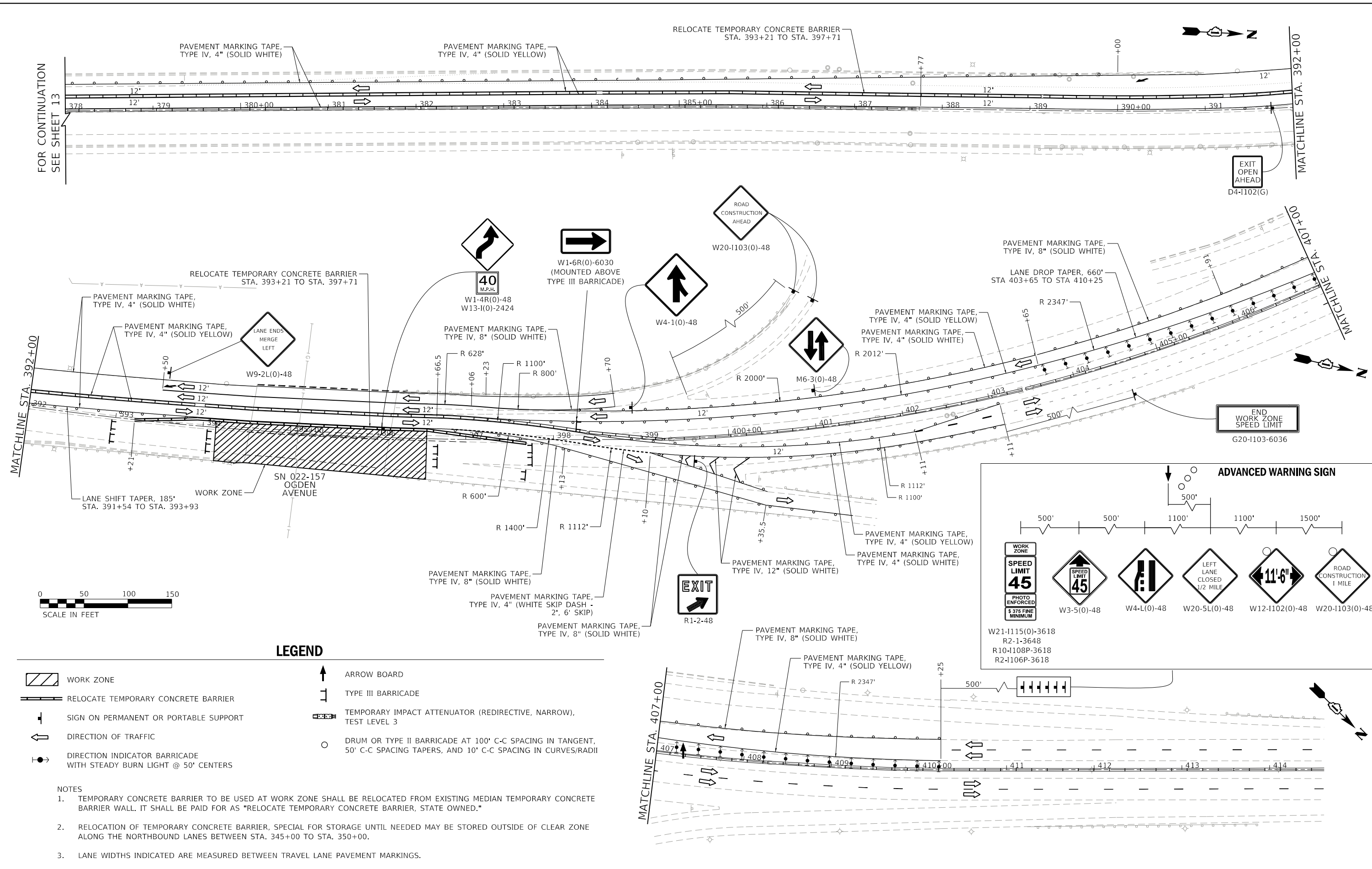
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR  
MAINTENANCE OF TRAFFIC - STAGE II**

SCALE: 1"=50' SHEET 5 OF 6 SHEETS STA. 333+00 TO STA. 361+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	13
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				

FOR CONTINUATION  
SEE SHEET 14

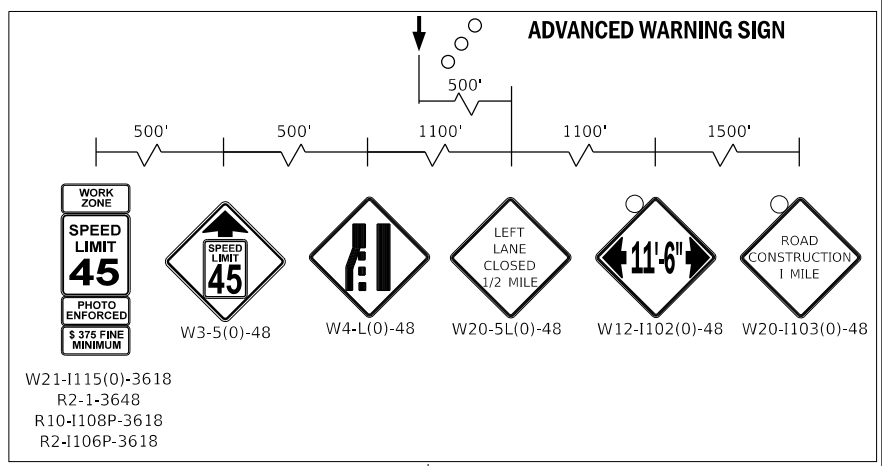


**LEGEND**

- WORK ZONE
- RELOCATE TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- DIRECTION OF TRAFFIC
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN LIGHT @ 50' CENTERS
- ARROW BOARD
- TYPE III BARRICADE
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- DRUM OR TYPE II BARRICADE AT 100' C-C SPACING IN TANGENT, 50' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADI

**NOTES**

1. TEMPORARY CONCRETE BARRIER TO BE USED AT WORK ZONE SHALL BE RELOCATED FROM EXISTING MEDIAN TEMPORARY CONCRETE BARRIER WALL. IT SHALL BE PAID FOR AS "RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED."
2. RELOCATION OF TEMPORARY CONCRETE BARRIER, SPECIAL FOR STORAGE UNTIL NEEDED MAY BE STORED OUTSIDE OF CLEAR ZONE ALONG THE NORTHBOUND LANES BETWEEN STA. 345+00 TO STA. 350+00.
3. LANE WIDTHS INDICATED ARE MEASURED BETWEEN TRAVEL LANE PAVEMENT MARKINGS.



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DATE: 11/9/2019

**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS  
184-001397

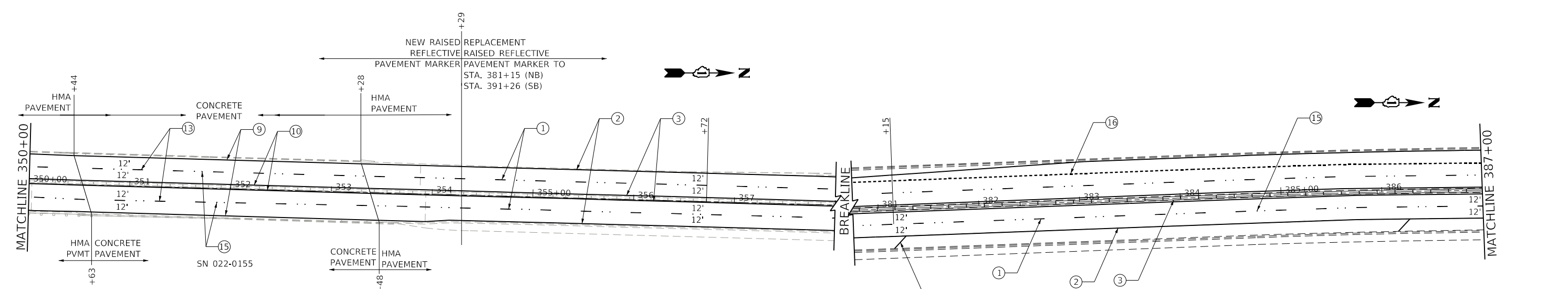
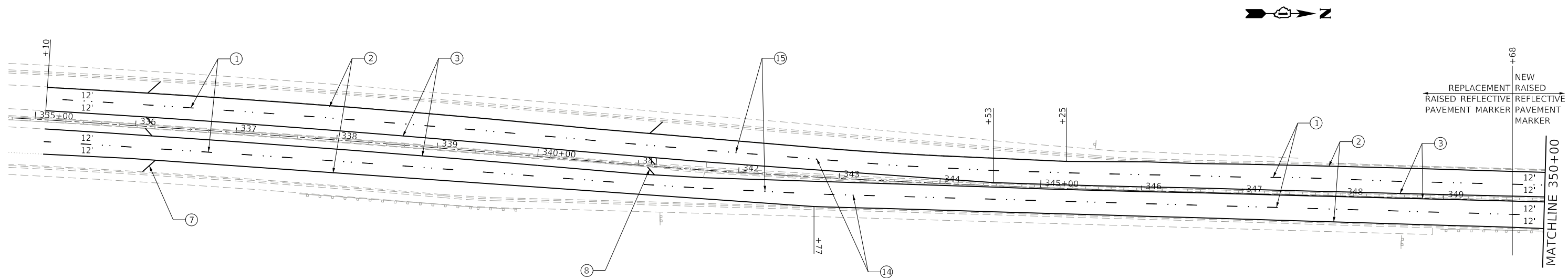
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR**  
**MAINTENANCE OF TRAFFIC - STAGE II**

SCALE: 1"=50' SHEET 6 OF 6 SHEETS STA. 333+00 TO STA. 361+00

F.A.P. RTE. 344	SECTION 2018-041-BD&BJR	COUNTY DuPAGE	TOTAL SHEETS 51	SHEET NO. 14
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		



NOTE:  
 RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALL ACCORDING TO IDOT'S D1 DETAIL TC-11.  
 PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED ACCORDING TO IDOT'S D1 DETAIL TC-12 & TC-13.



PAVEMENT MARKING LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SKIP DASH - 10', 30' SKIP)  
 STA. 335+10 TO STA. 350+58 (NB)  
 STA. 353+43 TO STA. 387+00 (NB)  
 STA. 335+10 TO STA. 350+48 (SB)  
 STA. 353+33 TO STA. 387+00 (SB)
- ② THERMOPLASTIC PAVEMENT MARKING - LINE 4" (SOLID WHITE)  
 STA. 335+10 TO STA. 350+63 (NB)  
 STA. 353+48 TO STA. 387+00 (NB)  
 STA. 335+10 TO STA. 350+44 (SB)  
 STA. 353+28 TO STA. 379+36 (SB)
- ③ THERMOPLASTIC PAVEMENT MARKING - LINE 4" (SOLID YELLOW)  
 STA. 335+10 TO STA. 350+53 (NB)  
 STA. 353+39 TO STA. 356+72 (NB)  
 STA. 381+15 TO STA. 387+00 (NB)  
 STA. 335+10 TO STA. 350+52 (SB)  
 STA. 353+37 TO STA. 387+00 (SB)
- ④ THERMOPLASTIC PAVEMENT MARKING - LINE 8" (SOLID WHITE)  
 STA. 379+36 TO STA. 387+00 (SB1)
- ⑤ THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE CHEVRONS) SPACED AT 30' C-C
- ⑥ THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE DIAGONAL) SPACED AT 30' C-C
- ⑦ THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE DIAGONAL) SPACED AT 500' C-C  
 STA. 335+10 TO STA. 341+54 (NB)  
 STA. 381+15 TO STA. 387+00 (NB)  
 STA. 335+10 TO STA. 346+03 (SB)
- ⑧ THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW DIAGONAL) SPACED AT 500' C-C  
 STA. 335+10 TO STA. 344+53 (NB)  
 STA. 335+10 TO STA. 344+53 (SB)
- ⑨ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 4" (SOLID WHITE)(PCC PAVEMENT ONLY)  
 STA. 350+63 TO STA. 353+48 (NB)  
 STA. 350+44 TO STA. 353+28 (SB)
- ⑩ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 4" (SOLID YELLOW)(PCC PAVEMENT ONLY)  
 STA. 350+53 TO STA. 353+39 (NB)  
 STA. 350+52 TO STA. 353+37 (SB)
- ⑪ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 8" (SOLID WHITE)(PCC PAVEMENT ONLY)
- ⑫ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 12" (WHITE DIAGONAL)(PCC PAVEMENT ONLY) SPACED AT 30' C-C
- ⑬ PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - CONTRAST - LINE 7" WITH 8" GROOVING (WHITE SKIP DASH - 10', 30' SKIP) (PCC PAVEMENT ONLY)  
 STA. 350+58 TO STA. 353+43 (NB)  
 STA. 350+48 TO STA. 353+33 (SB)
- ⑭ REPLACEMENT REFLECTOR  
 STA. 335+10 TO STA. 349+68 (NB)  
 STA. 335+10 TO STA. 349+68 (SB)
- ⑮ RAISED REFLECTIVE PAVEMENT MARKER  
 STA. 349+68 TO STA. 387+00 (NB/SB)
- ⑯ THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SKIP DASH - 2', 6' SKIP)  
 STA. 379+36 TO STA. 387+00 (SB)

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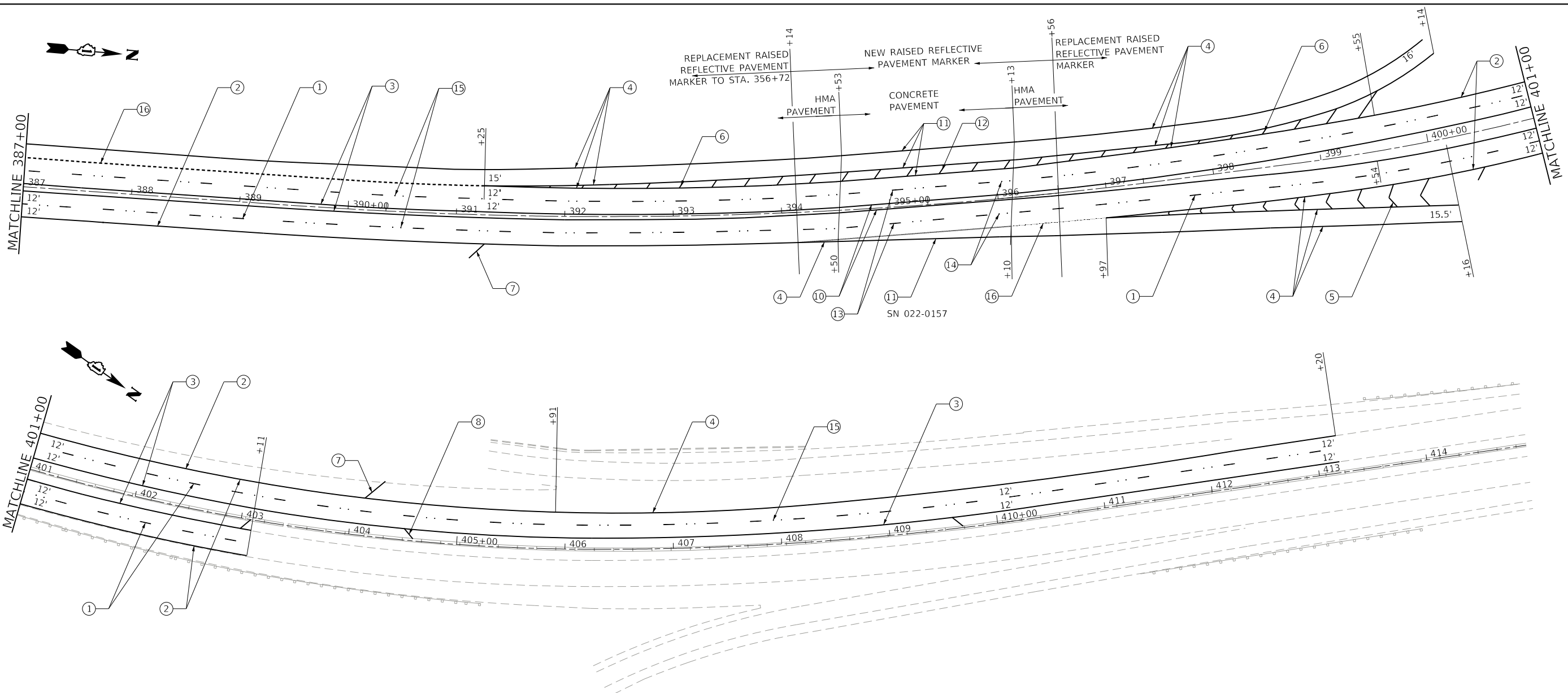
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

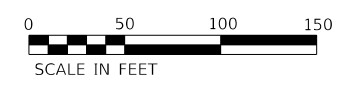
IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR  
 PROPOSED PAVEMENT MARKING  
 SCALE: 1"=50' SHEET 1 OF 2 SHEETS STA. 316+10 TO STA. 387+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	15
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				





NOTE:  
 RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALL ACCORDING TO IDOT'S D1 DETAIL TC-11.  
 PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED ACCORDING TO IDOT'S D1 DETAIL TC-12 & TC-13.



PAVEMENT MARKING LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SKIP DASH - 10', 30' SKIP)  
 STA. 387+00 TO STA. 394+52 (NB)  
 STA. 396+11 TO STA. 403+11 (NB)  
 STA. 387+00 TO STA. 394+55 (SB)  
 STA. 396+11 TO STA. 413+20 (SB)
- ② THERMOPLASTIC PAVEMENT MARKING - LINE 4" (SOLID WHITE)  
 STA. 387+00 TO STA. 394+50 (NB)  
 STA. 400+16 TO STA. 403+11 (NB)  
 STA. 399+55 TO STA. 405+91 (SB)
- ③ THERMOPLASTIC PAVEMENT MARKING - LINE 4" (SOLID YELLOW)  
 STA. 387+00 TO STA. 394+52 (NB)  
 STA. 396+11 TO STA. 403+11 (NB)  
 STA. 387+00 TO STA. 394+52 (SB)  
 STA. 396+12 TO STA. 413+20 (SB)
- ④ THERMOPLASTIC PAVEMENT MARKING - LINE 8" (SOLID WHITE)  
 STA. 396+10 TO STA. 400+16 (NB)  
 STA. 394+14 TO STA. 394+50 (NB)  
 STA. 391+25 TO STA. 394+53 (SB)  
 STA. 396+13 TO STA. 400+14 (SB)  
 STA. 405+91 TO STA. 413+20 (SB)
- ⑤ THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE CHEVRONS) SPACED AT 30' C-C  
 STA. 396+97 TO STA. 400+16 (NB)
- ⑥ THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE DIAGONAL) SPACED AT 30' C-C  
 STA. 391+25 TO STA. 394+52 (SB)  
 STA. 396+12 TO STA. 399+60 (SB)
- ⑦ THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE DIAGONAL) SPACED AT 500' C-C  
 STA. 387+00 TO STA. 394+50 (NB)  
 STA. 400+16 TO STA. 403+11 (NB)  
 STA. 399+55 TO STA. 405+91 (SB)
- ⑧ THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW DIAGONAL) SPACED AT 500' C-C  
 STA. 398+54 TO STA. 403+11 (NB)  
 STA. 398+54 TO STA. 413+20 (SB)
- ⑨ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 4" (SOLID WHITE)(PCC PAVEMENT ONLY)
- ⑩ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 4" (SOLID YELLOW)(PCC PAVEMENT ONLY)  
 STA. 394+53 TO STA. 396+13 (NB)  
 STA. 394+54 TO STA. 396+14 (SB)
- ⑪ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 8" (SOLID WHITE)(PCC PAVEMENT ONLY)  
 STA. 394+50 TO STA. 396+10 (NB)  
 STA. 394+54 TO STA. 396+14 (SB)
- ⑫ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 12" (WHITE DIAGONAL)(PCC PAVEMENT ONLY) SPACED AT 30' C-C  
 STA. 394+52 TO STA. 396+12 (SB)
- ⑬ PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - CONTRAST - LINE 7" WITH 8" GROOVING (WHITE SKIP DASH - 10', 30' SKIP) (PCC PAVEMENT ONLY)  
 STA. 394+51 TO STA. 396+11 (NB)  
 STA. 394+53 TO STA. 396+13 (SB)
- ⑭ REPLACEMENT REFLECTOR  
 STA. 387+00 TO STA. 394+14 (NB)  
 STA. 396+56 TO STA. 403+11 (NB)  
 STA. 387+00 TO STA. 394+14 (SB)  
 STA. 396+56 TO STA. 413+20 (SB)
- ⑮ RAISED REFLECTIVE PAVEMENT MARKER  
 STA. 394+14 TO STA. 396+56 (NB/SB)
- ⑯ THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SKIP DASH - 2', 6' SKIP)  
 STA. 396+10 TO STA. 396+97 (NB)  
 STA. 387+00 TO STA. 391+25 (SB)

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	DATE - 11-02-2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

IL 83 OVER US 34 & BNSF - BRIDGE DECK OVERLAY AND JOINT REPAIR  
 PROPOSED PAVEMENT MARKING  
 SCALE: 1"=50'  
 SHEET 2 OF 2 SHEETS  
 STA. 387+00 TO STA. 413+20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	16
SN 022-0155 & SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		

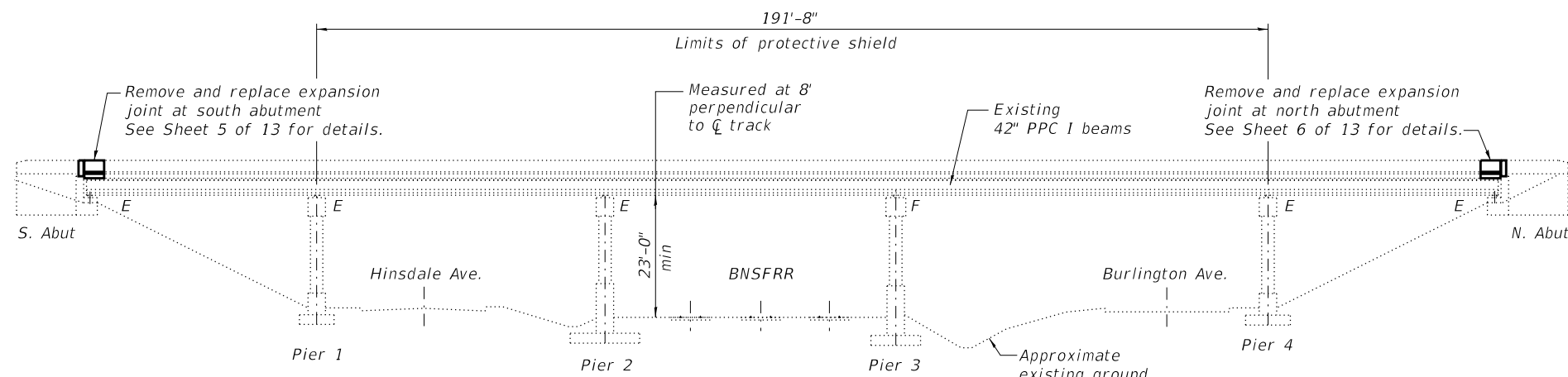
The existing F.A. Rte 29 (IL Route 83) over BNSFRR was built in 1986 as a 5 span precast prestressed concrete I-beam superstructure on stub abutments and piers on spread footings. The back to back abutment length is 288'-11" and the width is 62'-9" out to out deck.

The bridge repairs shall be done under Staged Construction.

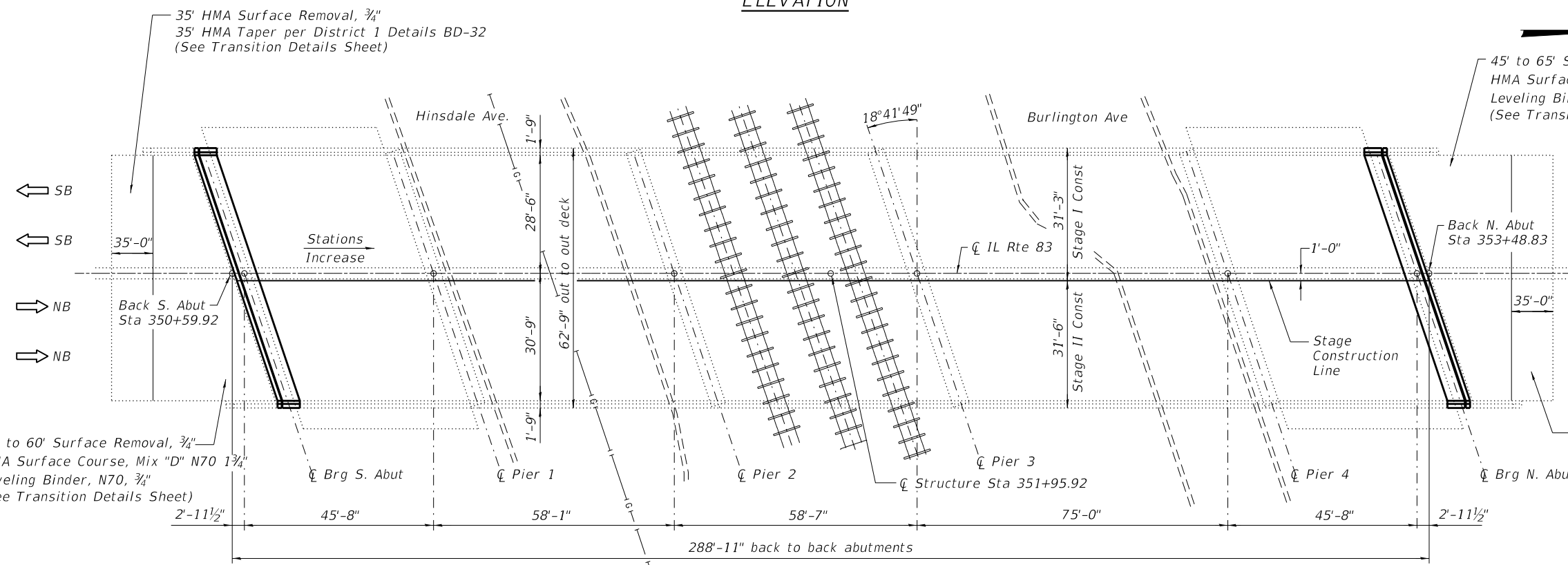
No Salvage.

**INDEX OF SHEETS**

1. General Plan and Elevation
2. General Structural Data
3. Stage Construction Details
4. Bridge Deck Repairs
5. South Abutment Expansion Joint Details
6. North Abutment Expansion Joint Details
7. Preformed Joint Strip Seal
8. Framing Plan
9. PPC I-Beam Repair
10. Abutment Repairs
11. Bar Splicer Assembly and Mechanical Splicer Details



**ELEVATION**



**PLAN**

**SCOPE OF WORK:**

1. Remove and replace abutment expansion joints with preformed joint strip seal.
2. Repair bridge deck slab.
3. Bridge deck scarification 3/4".
4. Place bridge deck latex concrete overlay, 2 1/2".
5. Apply protective coat to parapet and new concrete (excludes overlay).
6. PPC I-Beam Repairs.
7. Repair substructure.
8. Blast and paint expansion bearings

**DESIGN STRESSES**

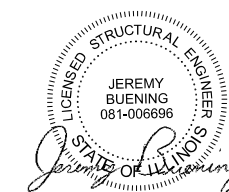
**EXISTING STRUCTURE**  
 $f'_c = 3,500$  psi (Reinforced Concrete)  
 $f'_c = 6,000$  psi (Prestressed Concrete)  
 $f_y = 60,000$  psi (Reinforcement)

**DESIGN SPECIFICATIONS**

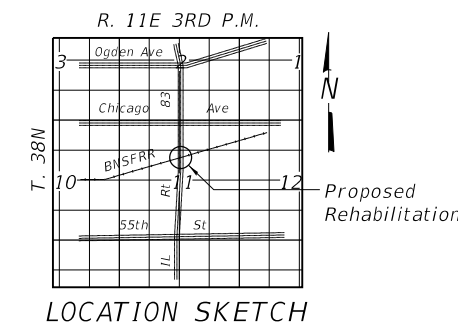
(New Construction)  
 2002 AASHTO Standard Specifications, 17th Ed.

**LOADING HS 20-44**

Original Construction



Jeremy Buening, P.E., S.E. Date 11/2/18  
 License Expires 11/30/20



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
**IL ROUTE 83 OVER BNSFRR**  
**FAP RTE 344 SEC 2005-0171**  
**DUPAGE COUNTY**  
**STATION 351+95.92**  
**STRUCTURE NO. 022-0155**

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

SCALE:	SHEET 1 OF 13 SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	17
SN 022-0155		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		

**GENERAL NOTES**

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The CONTRACTOR shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however the CONTRACTOR will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars designated (E) shall be epoxy coated.

Joint openings shall be adjusted according to Art. 520.04, in the Standard Specs. when the deck is poured at an ambient temperature other than 50°F.

Expansion joints shall be fabricated and installed according to the Manufacturer's recommendations and as approved by the Engineer.

Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.

The steel components of all expansion bearings shall be blasted and painted according to the special provision "Cleaning and Painting Existing Steel Structures".

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 operations shall be replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Synthetic fibers shall be added to the bridge deck Latex Concrete Overlay, see special provisions.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	34.8	-	34.8
Protective Shield	Sq. Yd.	1337	-	1337
Concrete Superstructure	Cu. Yd.	38.6	-	38.6
Bridge Deck Grooving	Sq. Yd.	1828	-	1828
Protective Coat	Sq. Yd.	305	-	305
Reinforcement Bars, Epoxy Coated	Pound	6520	-	6520
Bar Splicers	Each	26	-	26
Prefomed Joint Strip Seal	Foot	130	-	130
Bridge Deck Latex Concrete Overlay, 2½"	Sq. Yd.	1823	-	1823
Bridge Deck Scarification ¾"	Sq. Yd.	1823	-	1823
Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches)	Sq. Ft.	-	49	49
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	-	62	62
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	6	-	6
Acrylic Coating	Sq. Yd.	24	-	24
Cleaning and Painting Bearings	Each	72	-	72
Fiber Wrap	Sq. Ft.	119	-	119
Stone Riprap, Class B3	Sq. Yd.	-	10	10
Filter Fabric	Sq. Yd.	-	10	10

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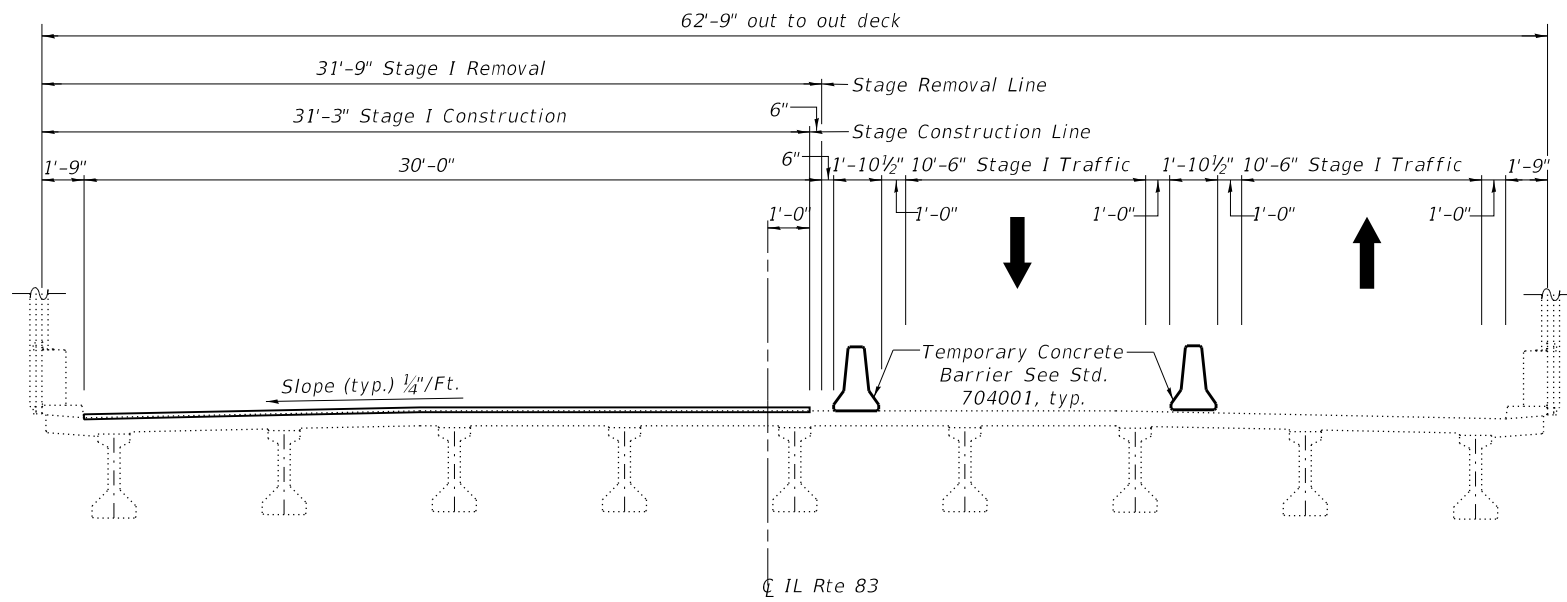
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

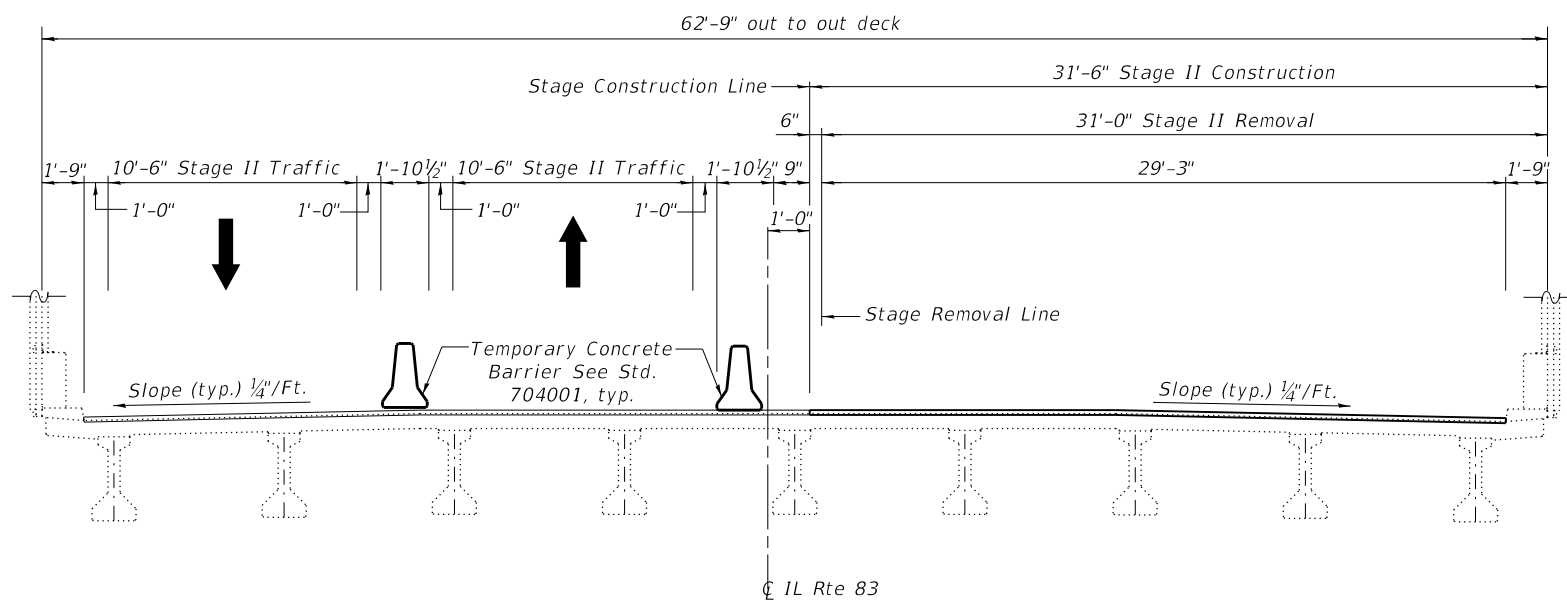
**IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS  
GENERAL STRUCTURAL DATA**

SCALE: SHEET 2 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	18
SN 022-0155		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				



**STAGE I REMOVAL & CONSTRUCTION - LOOKING NORTH**  
 (All dimensions are perpendicular to CL IL Rte 83)



**STAGE II REMOVAL & CONSTRUCTION - LOOKING NORTH**  
 (All dimensions are perpendicular to CL IL Rte 83)

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**CHASTAIN & ASSOCIATES LLC**  
 CONSULTING ENGINEERS  
 184-001397

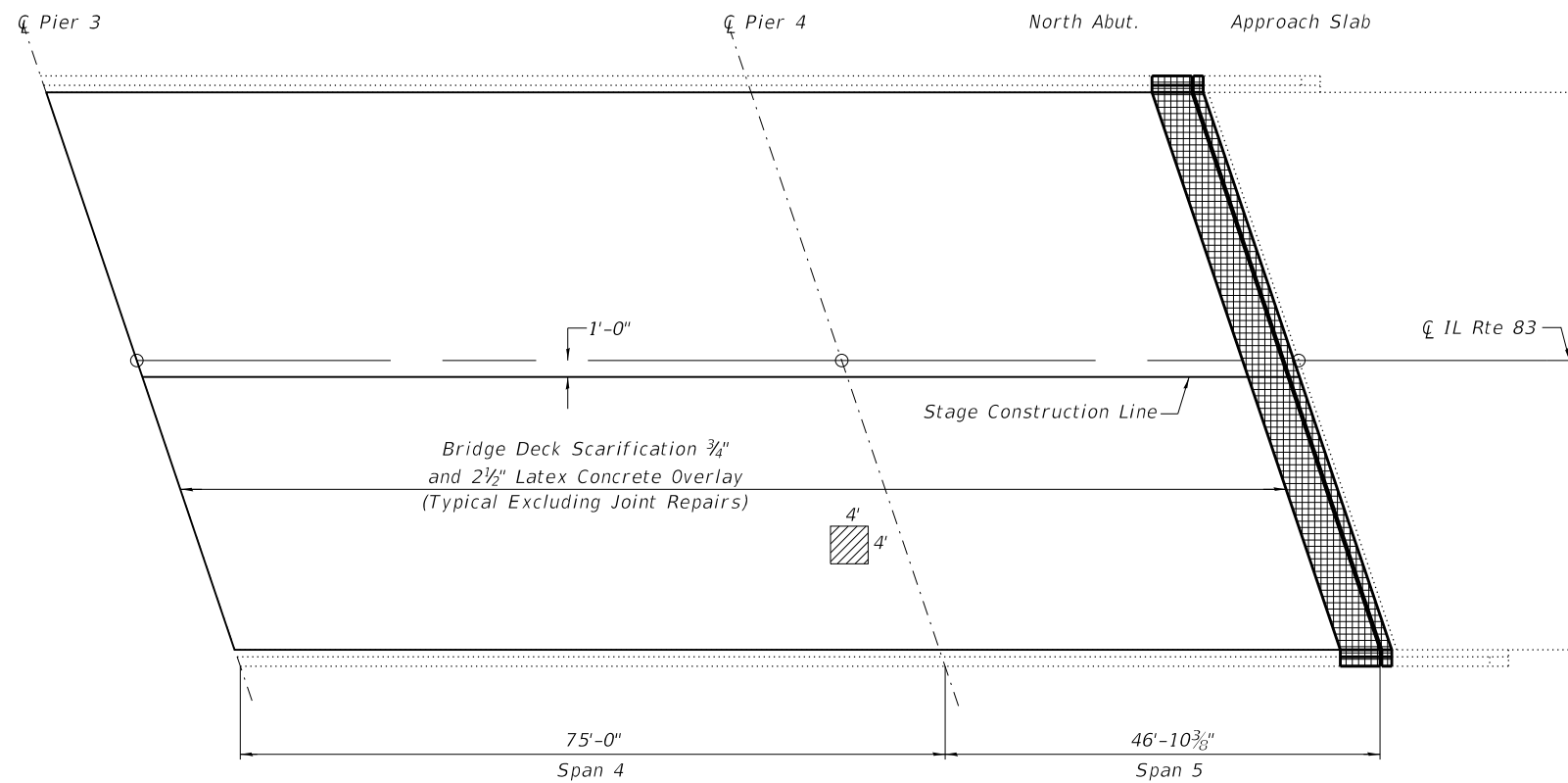
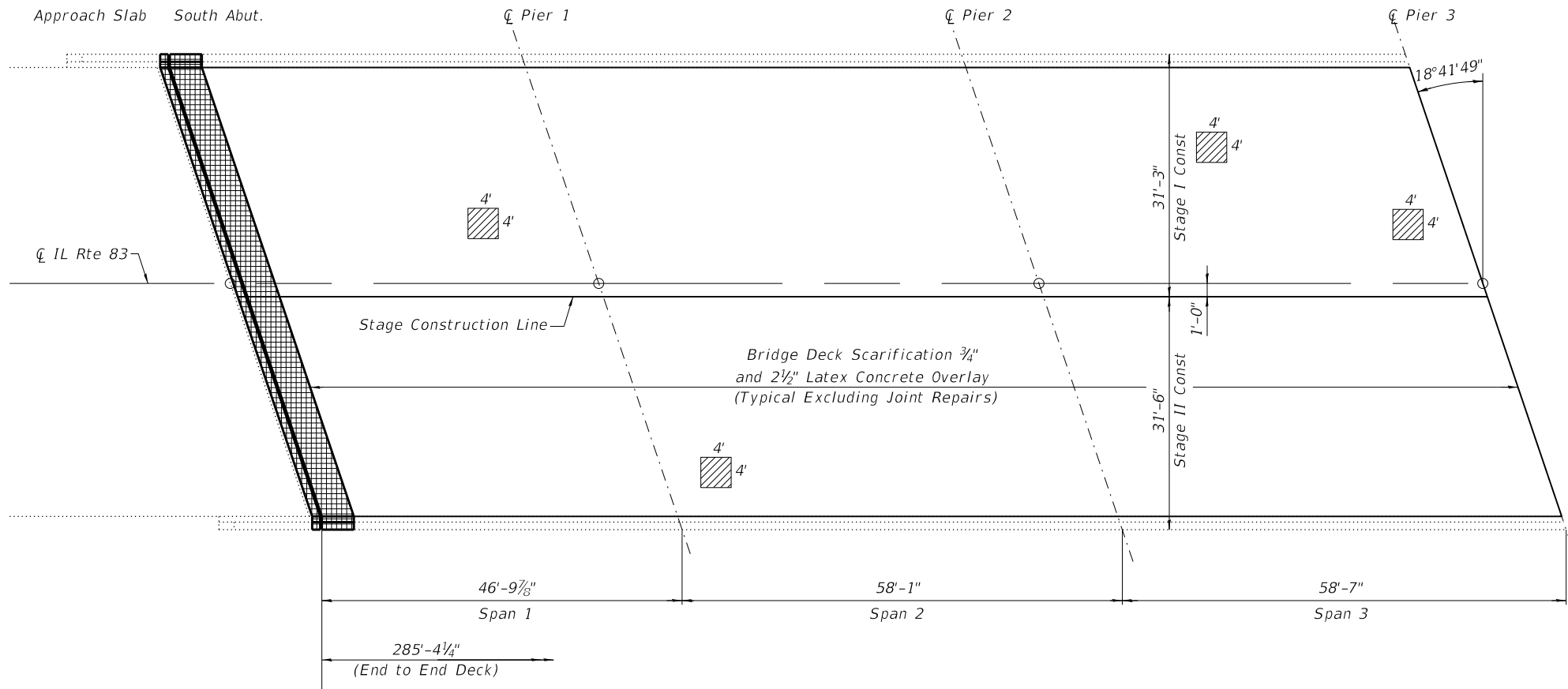
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS**  
**STAGE CONSTRUCTION DETAILS**

SCALE: SHEET 3 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	19
SN 022-0155		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				



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**CHASTAIN & ASSOCIATES LLC**  
 CONSULTING ENGINEERS  
 184-001397

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

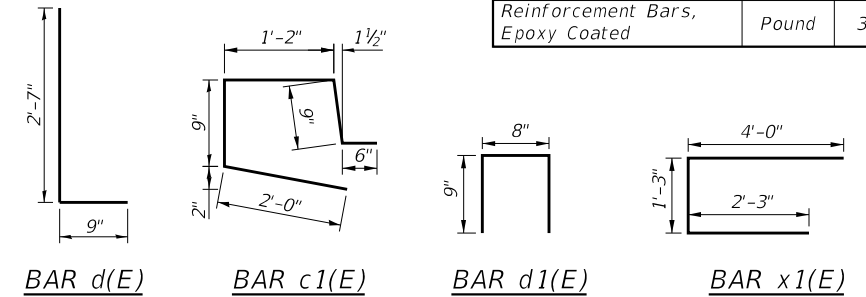
IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS  
 BRIDGE DECK REPAIRS

SCALE: SHEET 4 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	20
SN 022-0155		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		

**BILL OF MATERIAL**

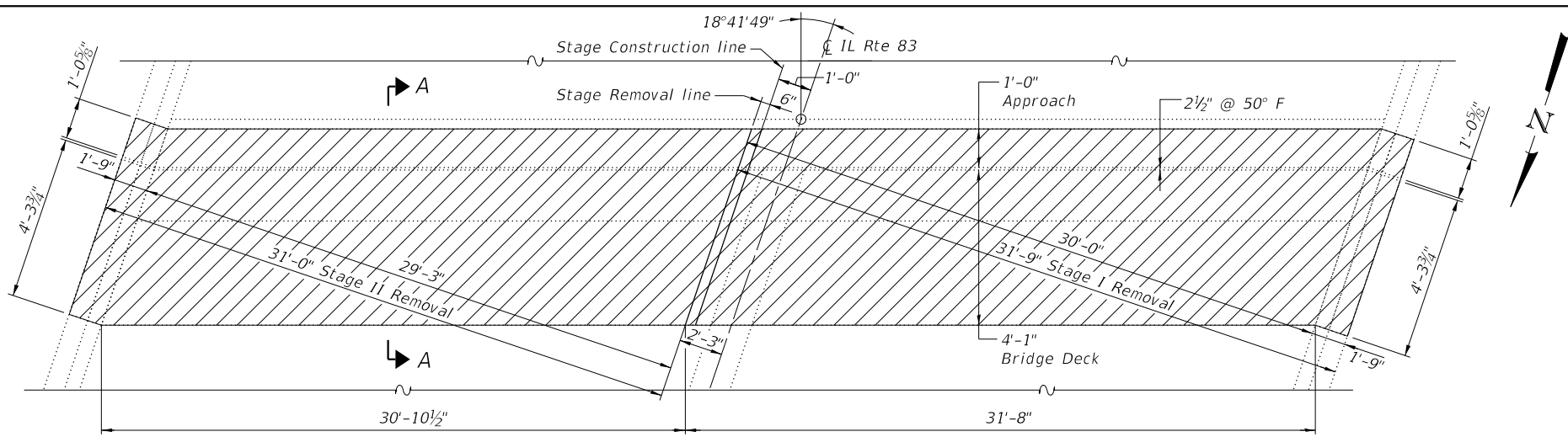
Bar	No.	Size	Length	Shape
a1(E)	4	#6	32'-0"	—
a2(E)	4	#6	32'-2"	—
a3(E)	9	#7	32'-0"	—
a4(E)	9	#7	32'-2"	—
a5(E)	8	#6	4'-0"	—
a6(E)	40	#6	6'-3"	—
c1(E)	10	#4	5'-2"	┌
d(E)	20	#4	3'-4"	L
d1(E)	12	#4	2'-2"	┐
x1(E)	104	#6	7'-6"	┌
Concrete Removal			Cu. Yd.	17.4
Concrete Superstructure			Cu. Yd.	19.3
Reinforcement Bars, Epoxy Coated			Pound	3260



Notes:  
The CONTRACTOR shall remove enough of the existing sound barrier wall to allow for removal and installation of the expansion joint. After the new concrete has cured 7 days, the sound barrier wall may be re-installed. Anchor bolts of the size indicated shall be used where needed. See Special Provisions Removing And Re-Erect Existing Sound Barrier Wall.

Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction. Existing horizontal and vertical bars in approach slab parapet shall be reused.

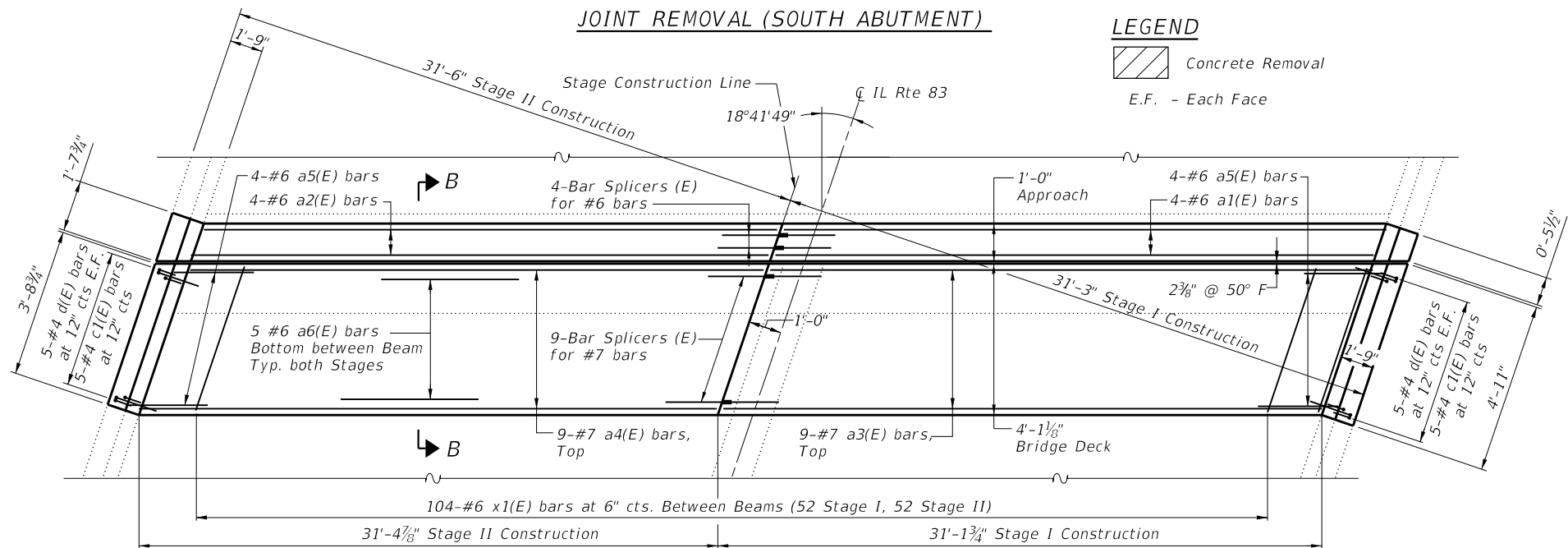
Hatched area indicates concrete removal. The CONTRACTOR shall use extreme care during concrete removal so as not to damage the PPC I-Beams. Any damage to PCC I-Beam should be repaired with no additional cost to the Department.



**JOINT REMOVAL (SOUTH ABUTMENT)**

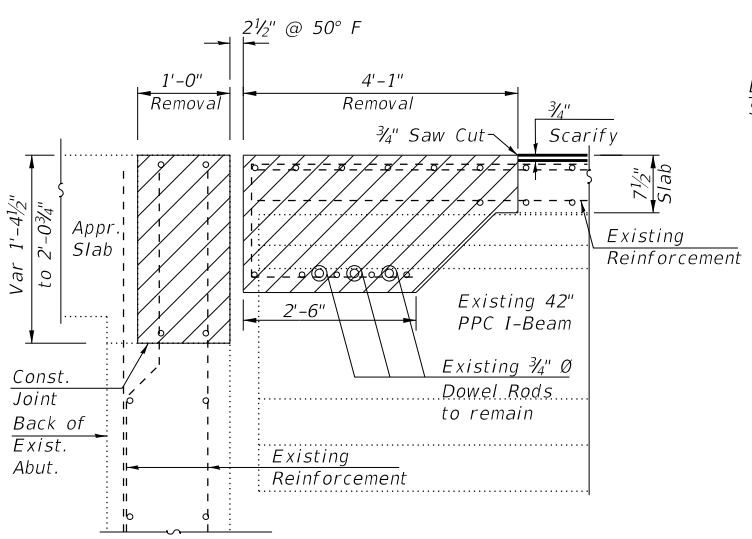
**LEGEND**

Concrete Removal  
E.F. - Each Face

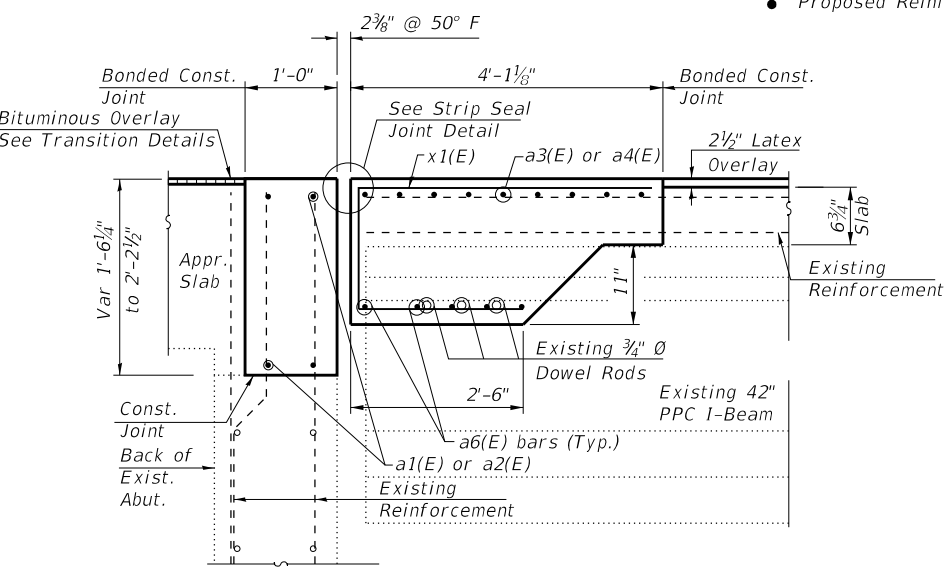


**PROPOSED JOINT (SOUTH ABUTMENT)**

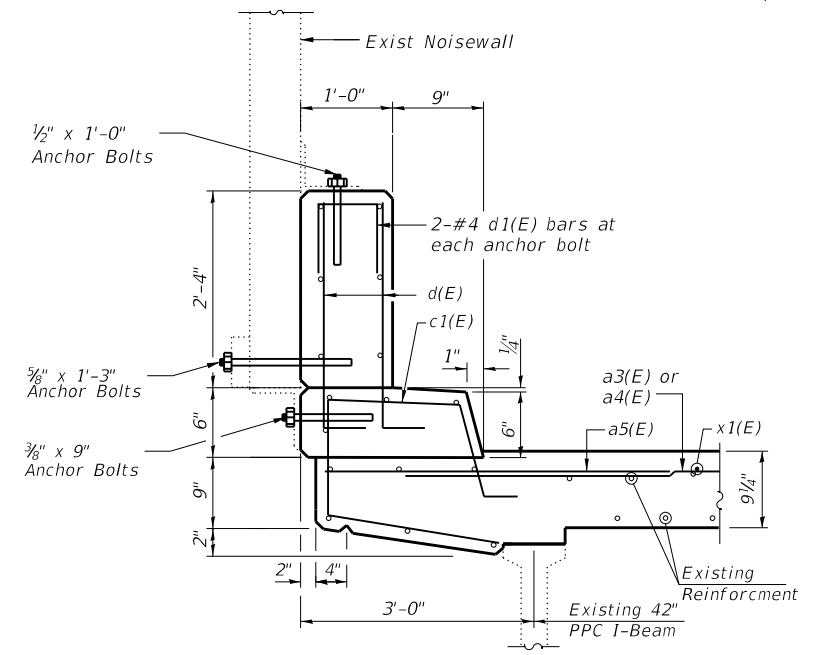
Existing Reinforcement  
Proposed Reinforcement



**SECTION A-A**



**SECTION B-B**



**SECTION THRU PARAPET AT JOINT**

MODEL: 14001001.DWG  
FILE NAME: 022015-021001-001-ITSABUT.dwg

**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS  
184-001397

USER NAME = _USER_	DESIGNED - BCG	REVISED -
PLOT SCALE = 8:4 1/4" / in.	DRAWN - DMW	REVISED -
PLOT DATE = 12/13/2018	CHECKED - JMB	REVISED -
	DATE - 11-02-2018	REVISED -

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

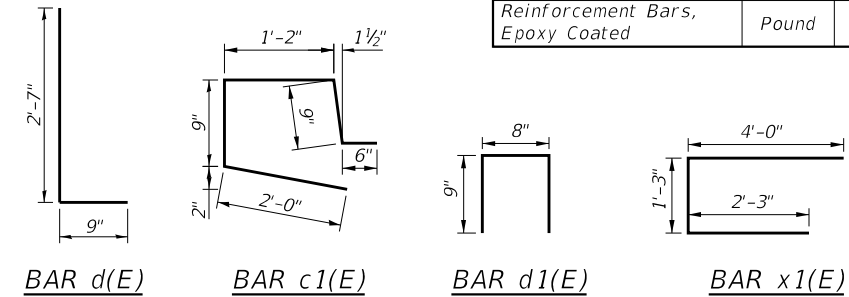
**IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS**  
**SOUTH ABUTMENT EXPANSION JOINT DETAILS**

SCALE: SHEET 5 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	21
SN 022-0155		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		

**BILL OF MATERIAL**

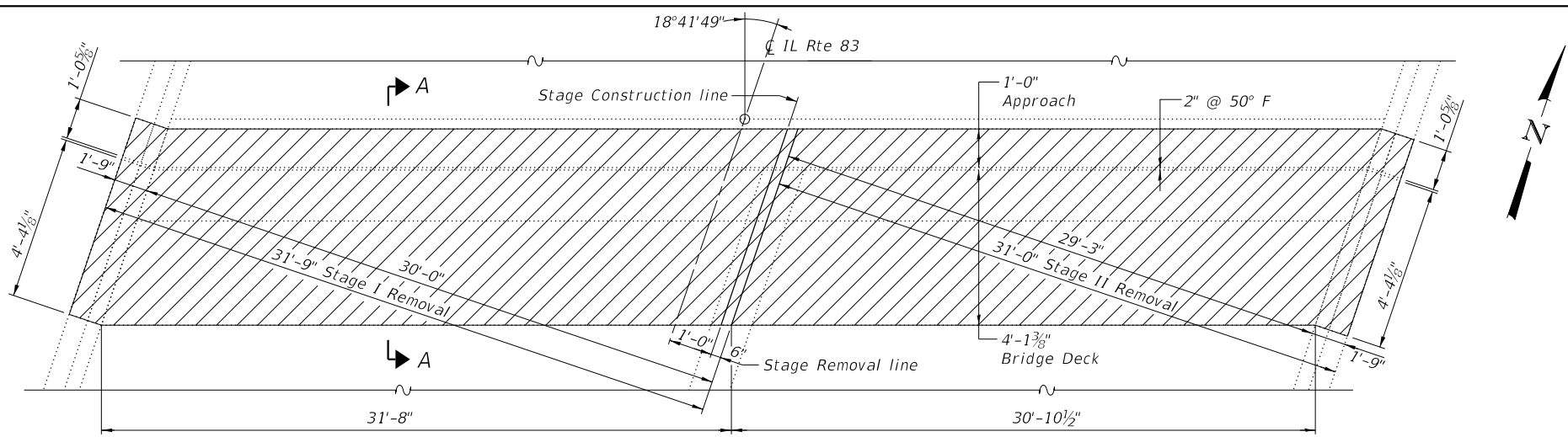
Bar	No.	Size	Length	Shape
a1(E)	4	#6	32'-0"	—
a2(E)	4	#6	32'-2"	—
a3(E)	9	#7	32'-0"	—
a4(E)	9	#7	32'-2"	—
a5(E)	8	#6	4'-0"	—
a6(E)	40	#6	6'-3"	—
c1(E)	10	#4	5'-2"	┌
d(E)	20	#4	3'-4"	└
d1(E)	12	#4	2'-2"	┐
x1(E)	104	#6	7'-6"	└
Concrete Removal			Cu. Yd.	17.4
Concrete Superstructure			Cu. Yd.	19.3
Reinforcement Bars, Epoxy Coated			Pound	3260



**Notes:**  
The CONTRACTOR shall remove enough of the existing sound barrier wall to allow for removal and installation of the expansion joint. After the new concrete has cured 7 days, the sound barrier wall may be re-installed. Anchor bolts of the size indicated shall be used where needed. See Special Provisions Removing And Re-Erect Existing Sound Barrier Wall.

Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction. Existing horizontal and vertical bars in approach slab parapet shall be reused.

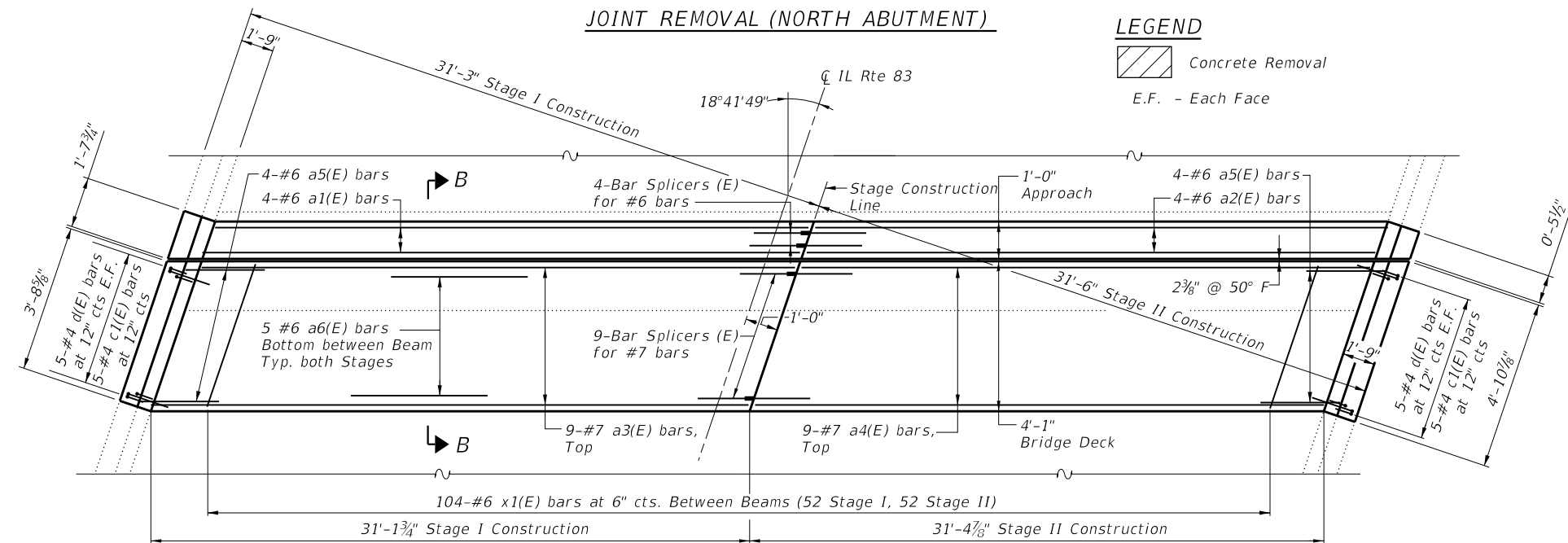
Hatched area indicates concrete removal. The CONTRACTOR shall use extreme care during concrete removal so as not to damage the PPC I-Beams. Any damage to PCC I-Beam should be repaired with no additional cost to the Department.



**JOINT REMOVAL (NORTH ABUTMENT)**

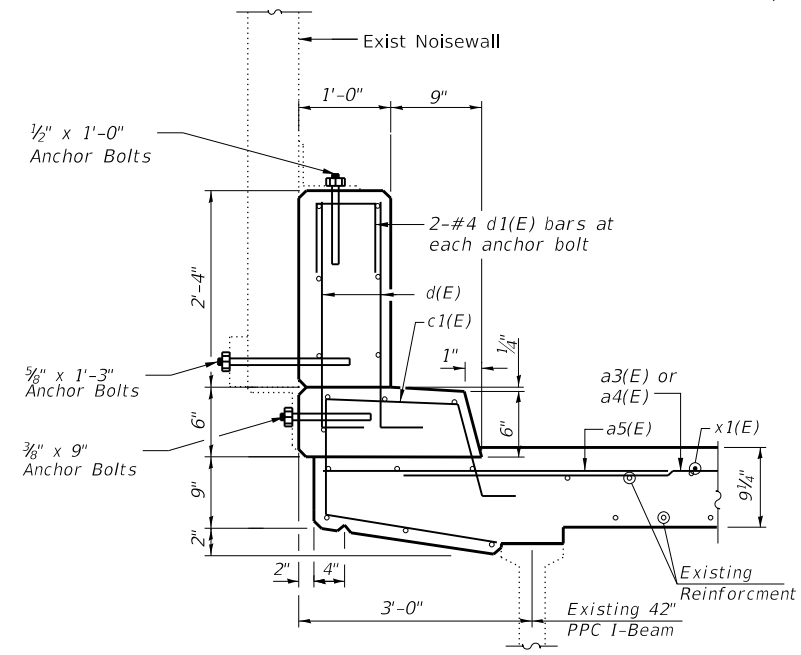
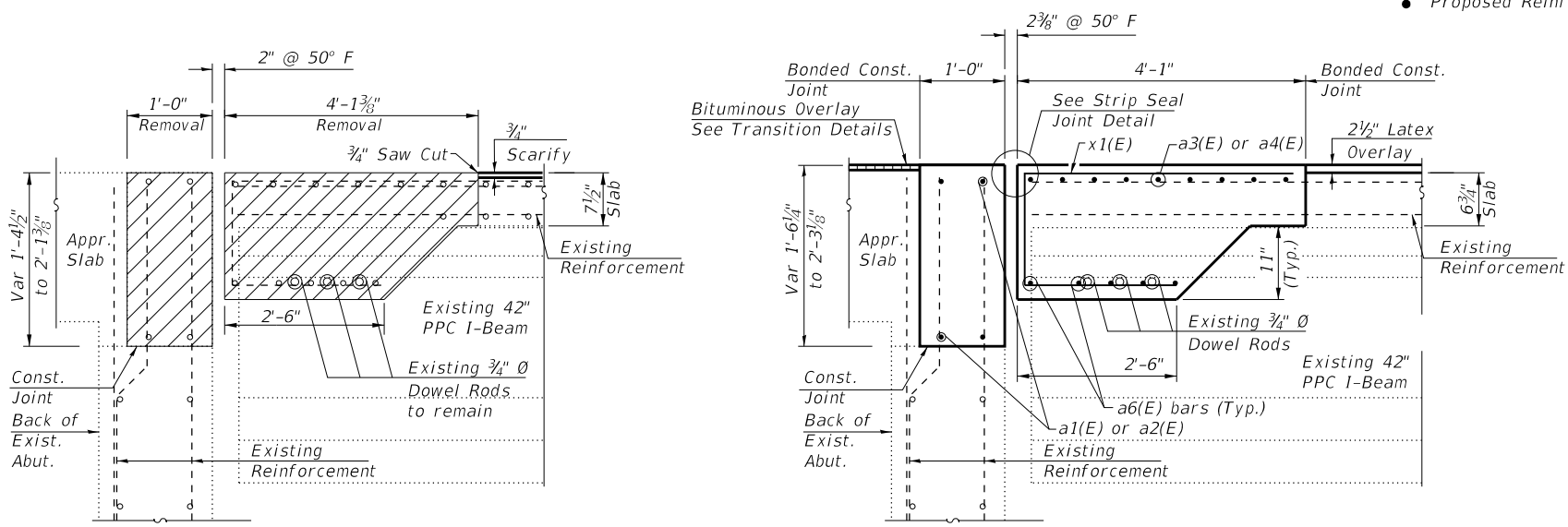
**LEGEND**

Concrete Removal  
E.F. - Each Face



**PROPOSED JOINT (NORTH ABUTMENT)**

Existing Reinforcement  
Proposed Reinforcement



**SECTION A-A**

**SECTION B-B**

**SECTION THRU PARAPET AT JOINT**

MODEL: 14001.DWG  
FILE NAME: 022015-021001-000-11TABUT.dwg

**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS  
184-001397

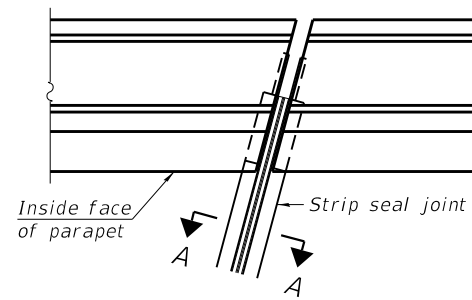
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PLOT SCALE = 8:4 1/4" = 1"	DRAWN - DMW	REVISED -
PLOT DATE = 12/13/2018	CHECKED - JMB	REVISED -
	DATE - 11-02-2018	REVISED -

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

**IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS**  
**NORTH ABUTMENT EXPANSION JOINT DETAILS**

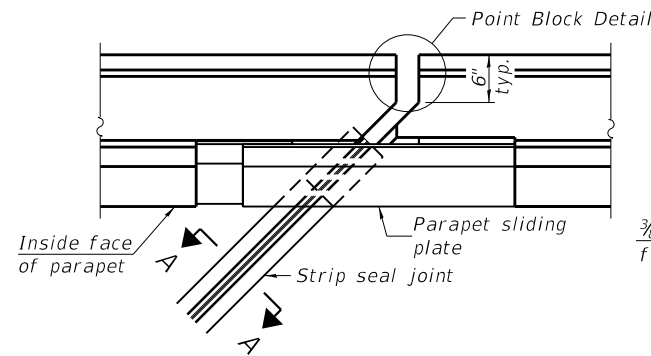
SCALE: SHEET 6 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BDGBJR	DuPAGE	51	22
SN 022-0155		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		

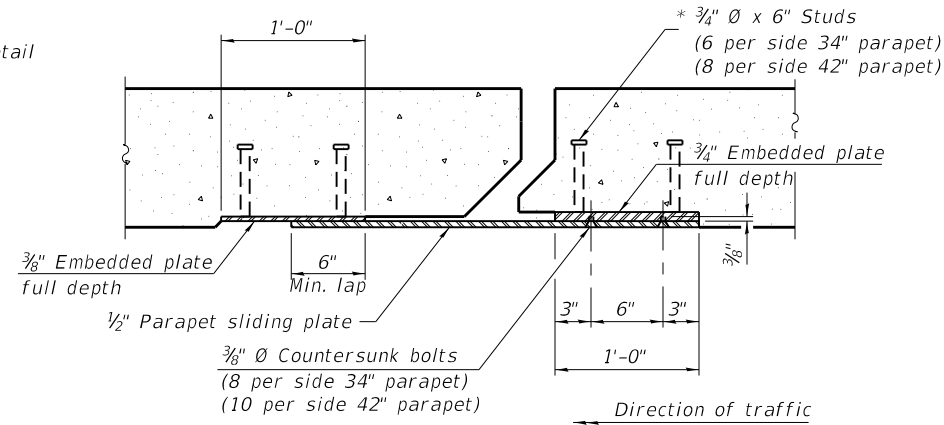


FOR SKEWS  $\leq 30^\circ$

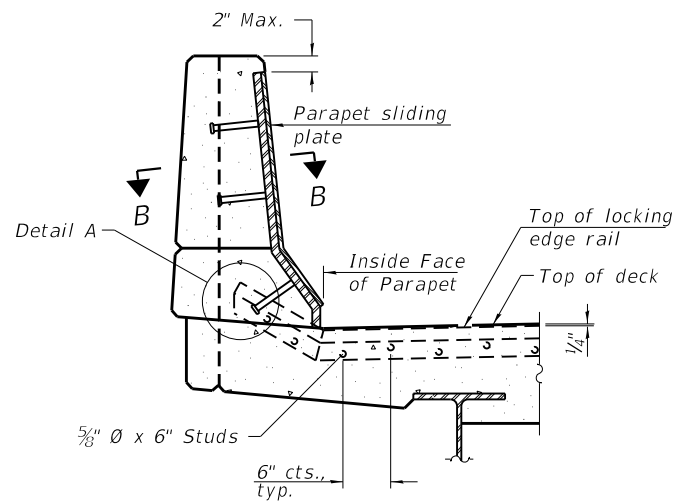
PLAN AT PARAPET



FOR SKEWS  $> 30^\circ$

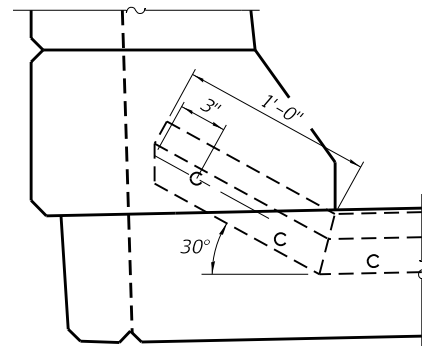


SECTION B-B

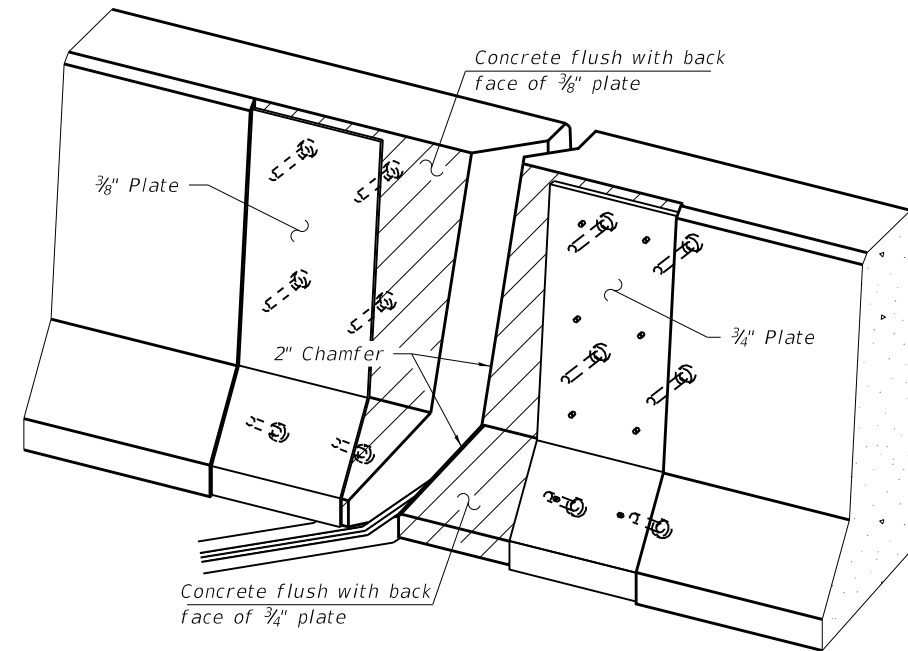


ELEVATION AT PARAPET

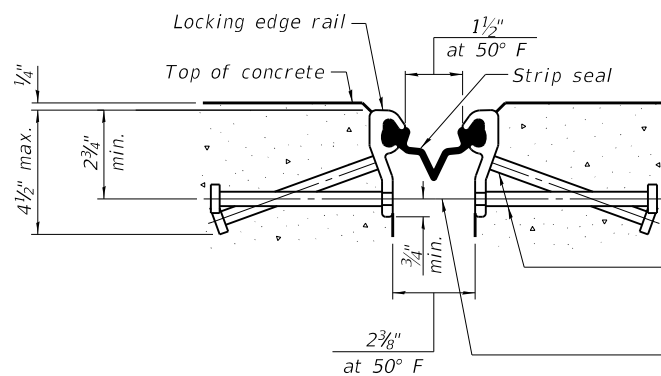
(Skews  $> 30^\circ$  shown. Skews  $\leq 30^\circ$  similar except as shown in plan view.)



DETAIL A



TRIMETRIC VIEW  
(Showing embedded plates only)



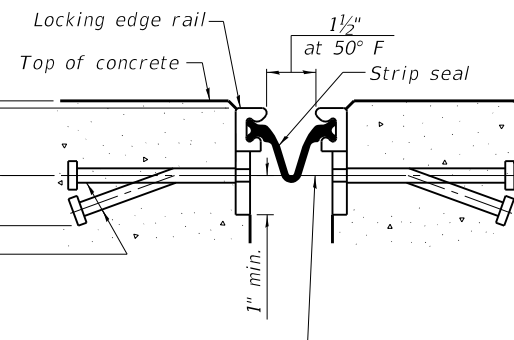
SHOWING ROLLED RAIL JOINT

\*  $5/8"$   $\phi$  x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

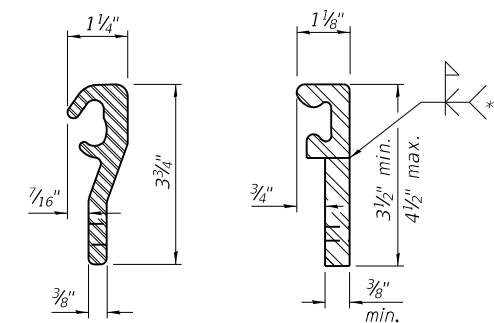
$3/8"$   $\phi$  threaded rods in  $7/16"$   $\phi$  holes at  $\pm 4"$  - 0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

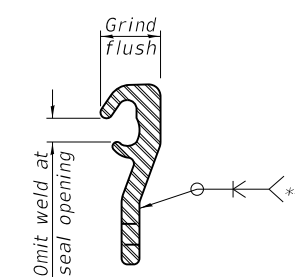


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	130

(Sheet 1 of 3)

MODEL: 14008LNAME; FILE NAME: 022015-02101-008-STRIPSEAL.dgn

EJ-SS-S

8-11-17

**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS  
184-001397

USER NAME = \_USER\_  
PLOT SCALE = 0.1667' / in.  
PLOT DATE = 12/27/2018

DESIGNED - BCG  
DRAWN - DMW  
CHECKED - JMB  
DATE - 11-02-2018

REVISED -  
REVISED -  
REVISED -  
REVISED -

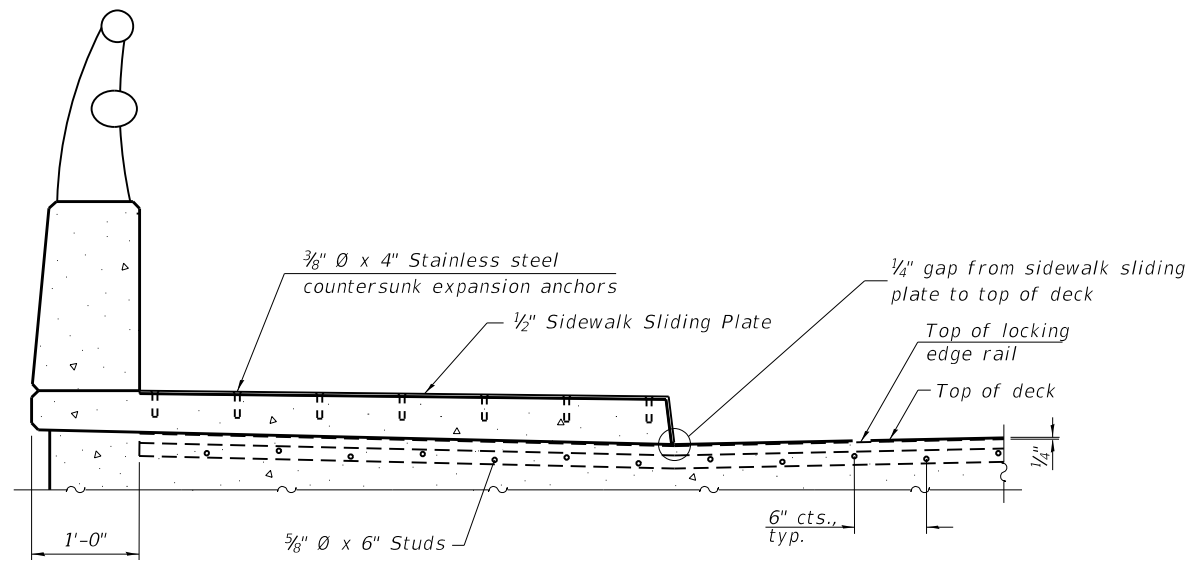
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS  
PREFORMED JOINT STRIP SEAL - SIDEWALK

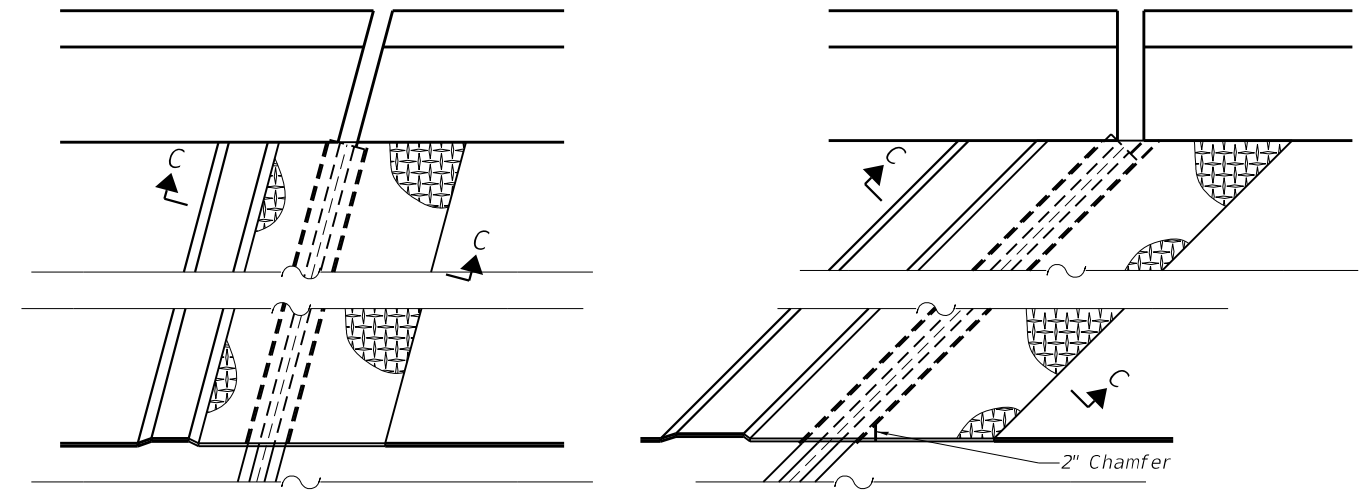
SCALE: SHEET 7 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	SN 022-0155		CONTRACT NO. 62H01	
		ILLINOIS	FED. AID PROJECT	

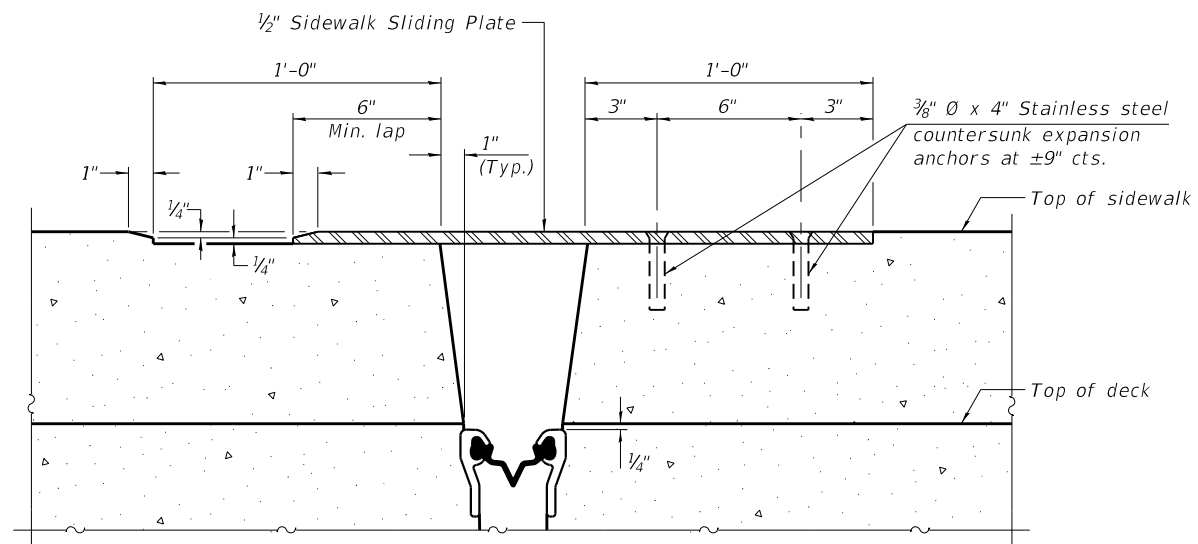




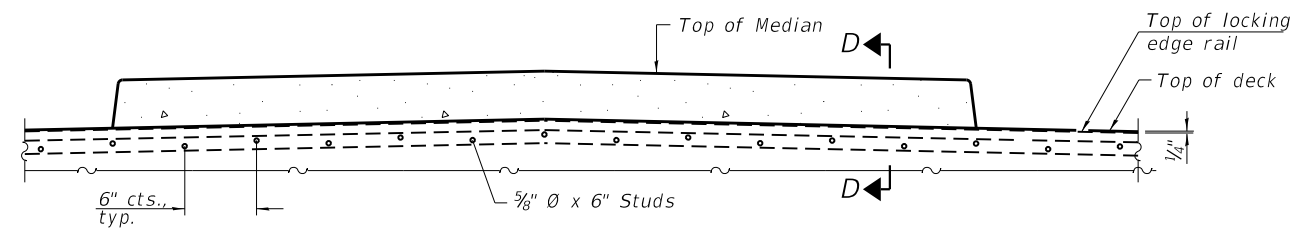
**ELEVATION AT RAISED SIDEWALK**



**PLAN AT RAISED SIDEWALK**

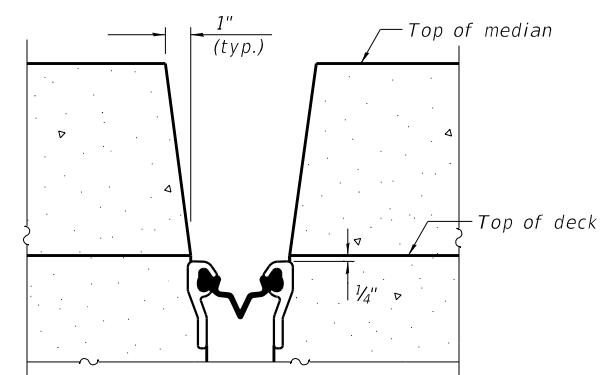


**SECTION C-C**

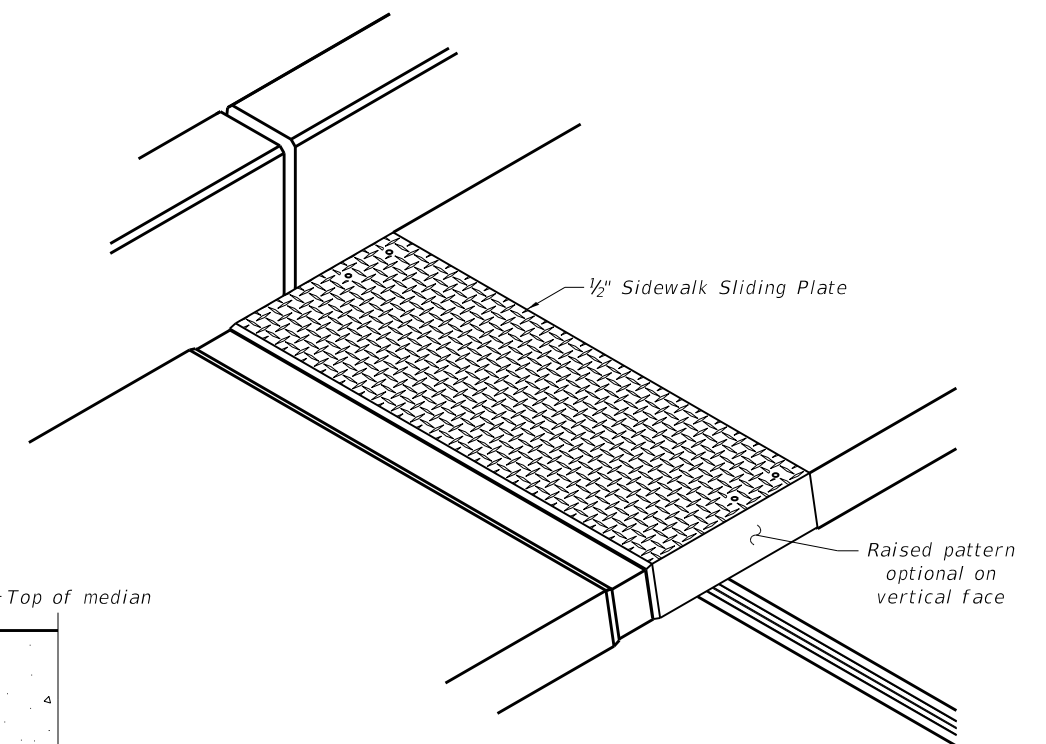


**ELEVATION AT MEDIAN**

For skews > 30°, chamfer acute corners 2" similar to sidewalk.



**SECTION D-D**  
(at Rt.  $\angle$ 's)



**TRIMETRIC VIEW**

(Sheet 2 of 3)

MODEL: 140081.NAMES  
 FILE NAME: 022015-02101-008-STRIPSEAL.dgn

EJ-SS-S

8-11-17

**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS  
184-001397

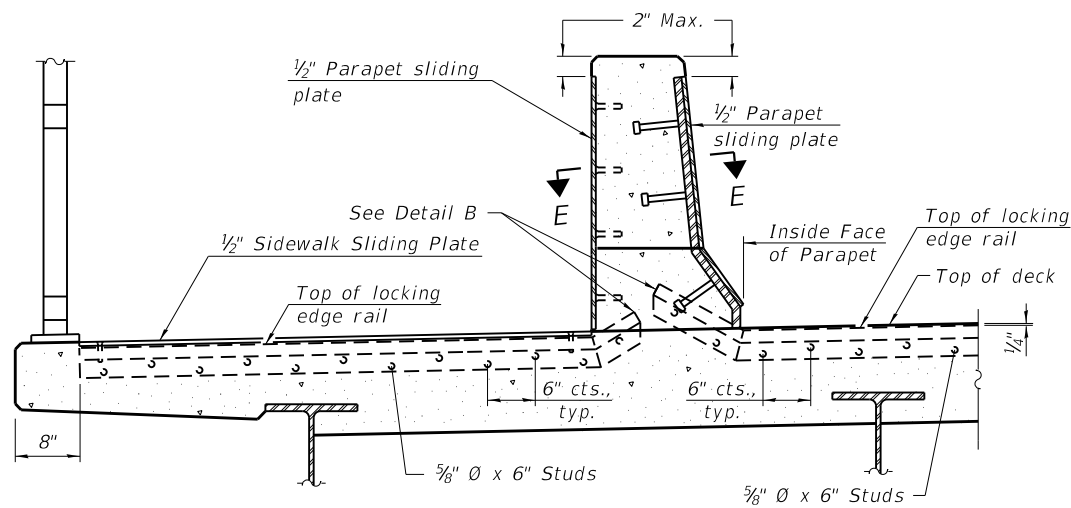
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PLOT DATE = 12/13/2018	CHECKED - JMB	REVISED -
	DATE - 11-02-2018	REVISED -

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

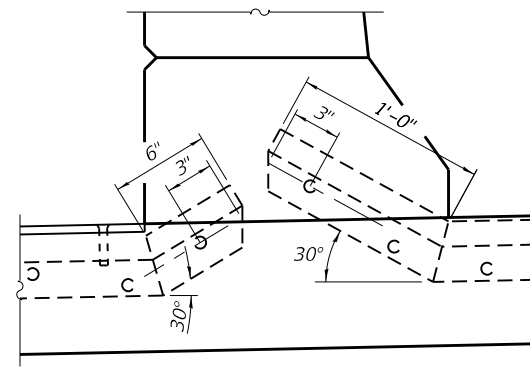
**IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS**  
**PREFORMED JOINT STRIP SEAL - SIDEWALK - II**

SCALE: SHEET 8 OF 13 SHEETS STA. TO STA.

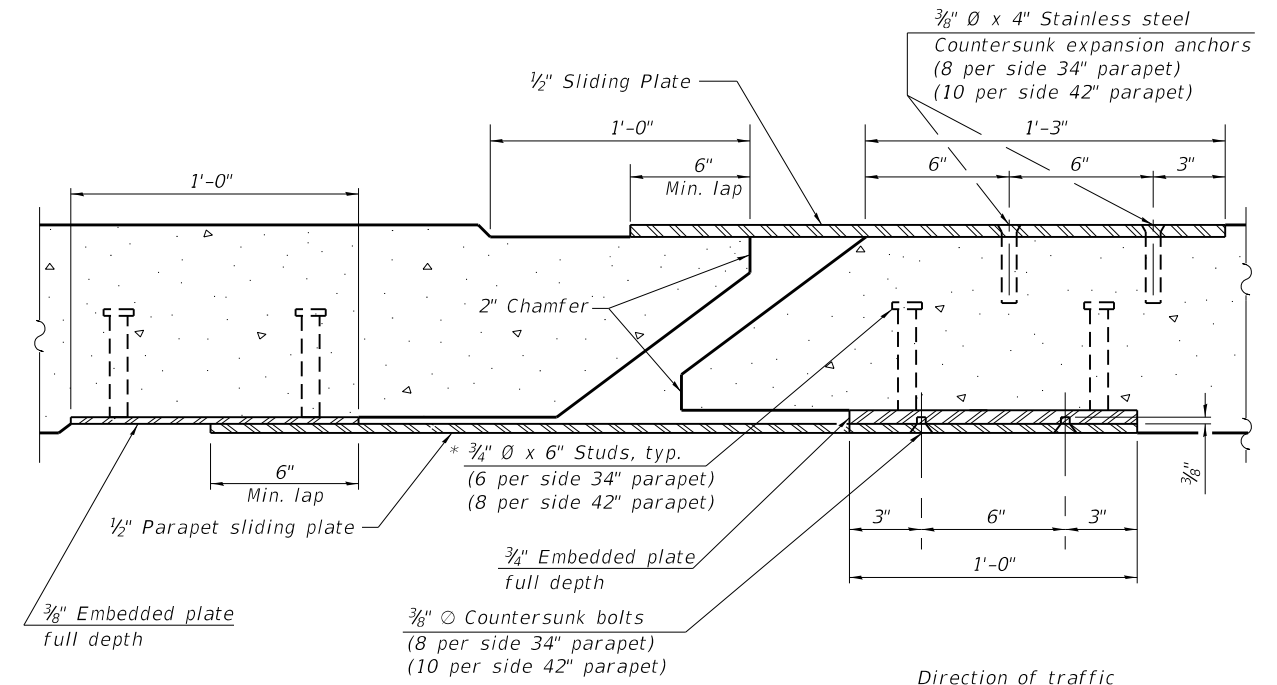
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	24
	SN 022-0155			CONTRACT NO. 62H01
		ILLINOIS	FED. AID PROJECT	



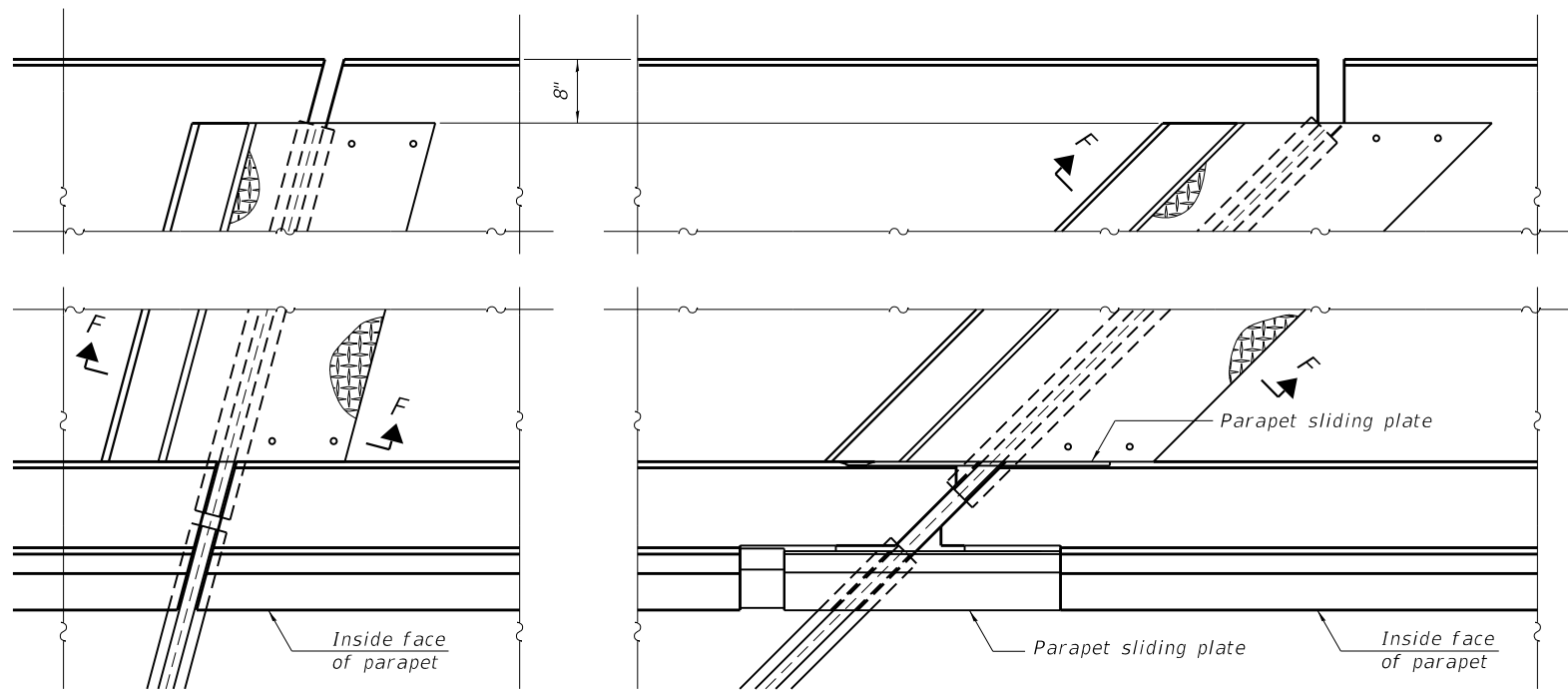
**ELEVATION AT DECK LEVEL SIDEWALK**  
 (Skews > 30° shown. Skews = 30° similar except as shown in plan view.)



**DETAIL B**



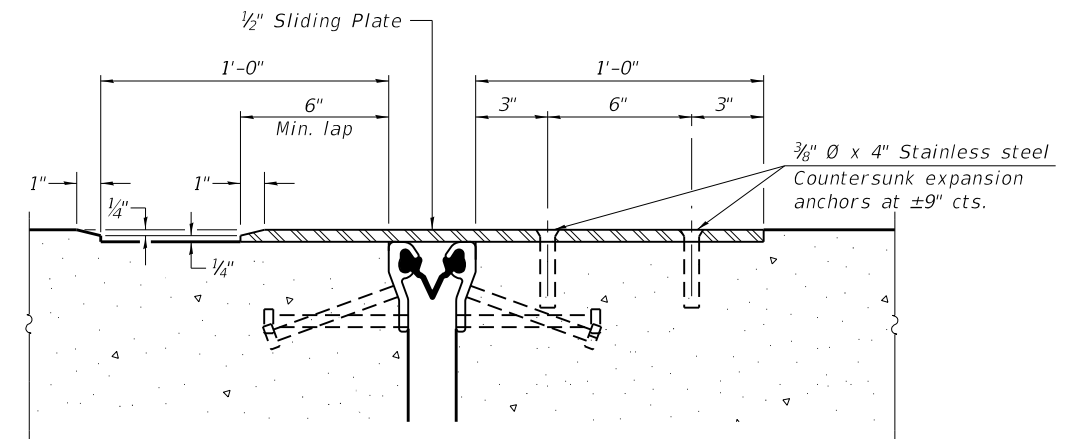
**SECTION E-E**



(FOR SKEWS = 30°)

(FOR SKEWS > 30°)

**PLAN AT DECK LEVEL SIDEWALK**



**SECTION F-F**

(Sheet 3 of 3)

MODEL: 140081.NAMES  
FILE NAME: 0220155-02101-008-STRIPSEAL.dgn

EJ-SS-S

8-11-17

**CHASTAIN & ASSOCIATES LLC**  
 CONSULTING ENGINEERS  
 184-001397

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 PLOT SCALE = 0.1667' / in.  
 PLOT DATE = 12/13/2018

DESIGNED - BCG  
 DRAWN - DMW  
 CHECKED - JMB  
 DATE - 11-02-2018

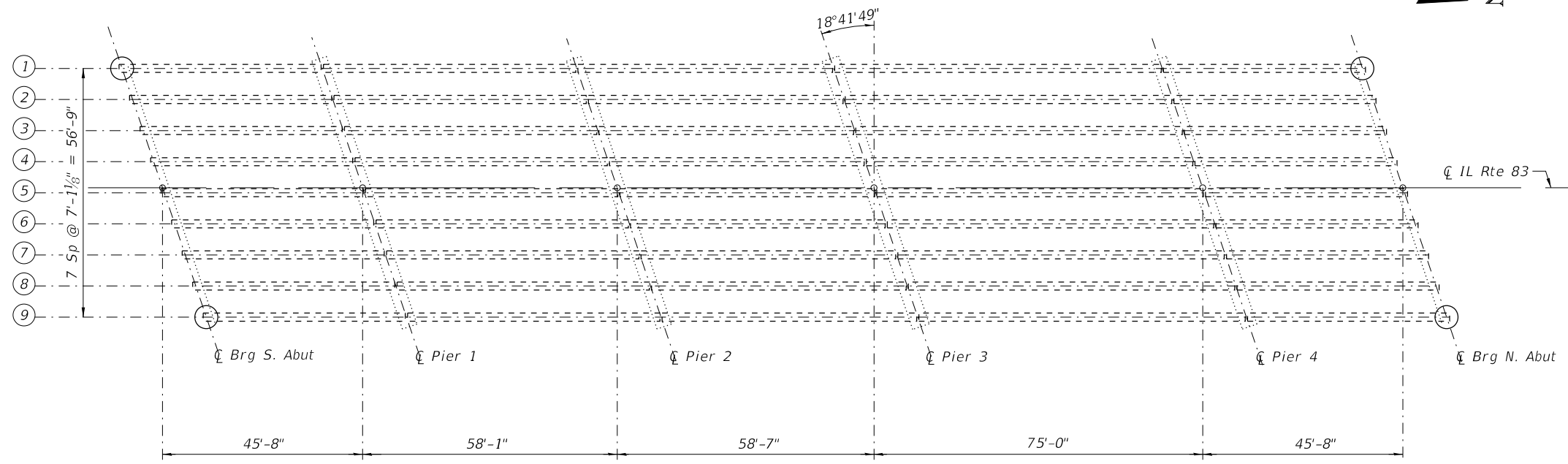
REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

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

**IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS**  
**PREFORMED JOINT STRIP SEAL - SIDEWALK - III**

SCALE: SHEET 9 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	25
SN 022-0155			CONTRACT NO. 62H01	
ILLINOIS		FED. AID PROJECT		



**FRAMING PLAN**

○ PCC I-Beam Repair (End of Beam)

Note:  
Follow Special Provision "FRP Strengthening for PCC I-Beam Repairs", "Precast Prestressed Concrete I-Beam Repair", and details on Sheet 11 of 13 for end of beam repairs.

MODEL: 14001.MXD  
FILE NAME: 022015-02101-013-FRAMING.dgn



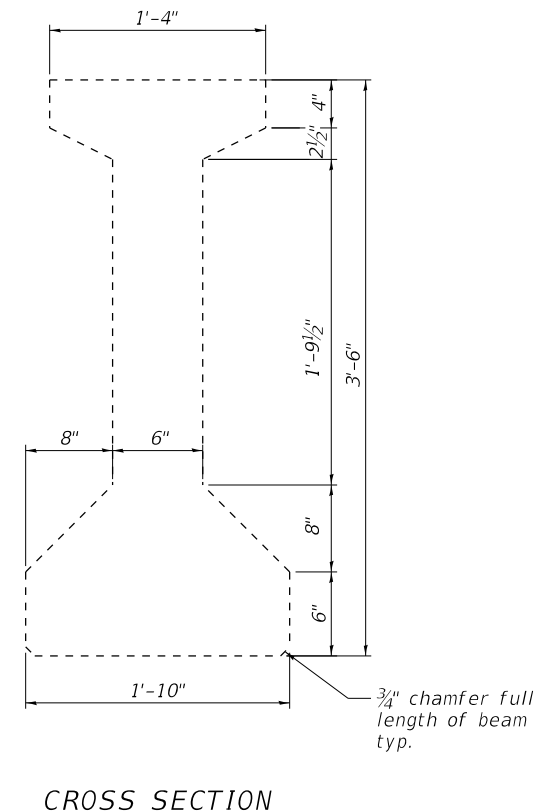
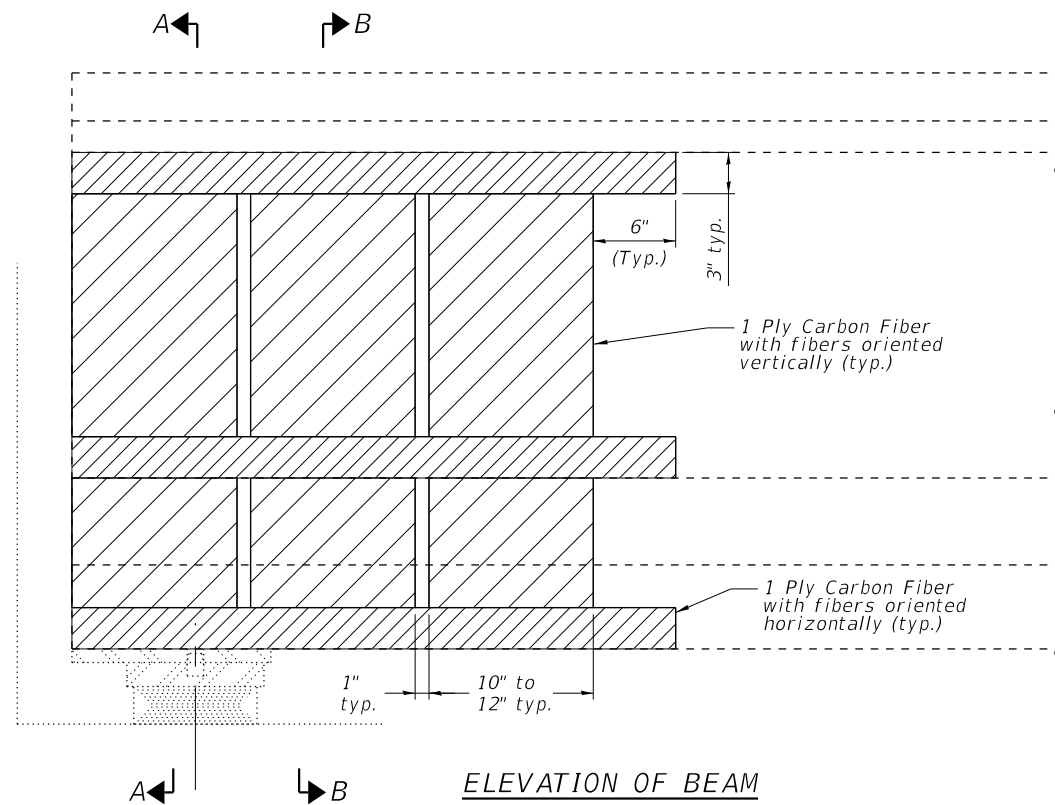
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PLOT DATE = 12/13/2018	DATE - 11-02-2018	REVISED -

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

**IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS**  
**FRAMING PLAN**

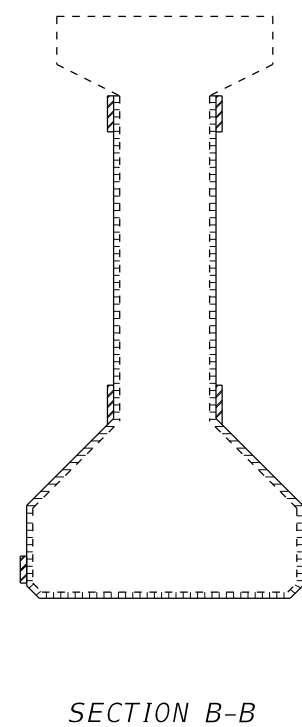
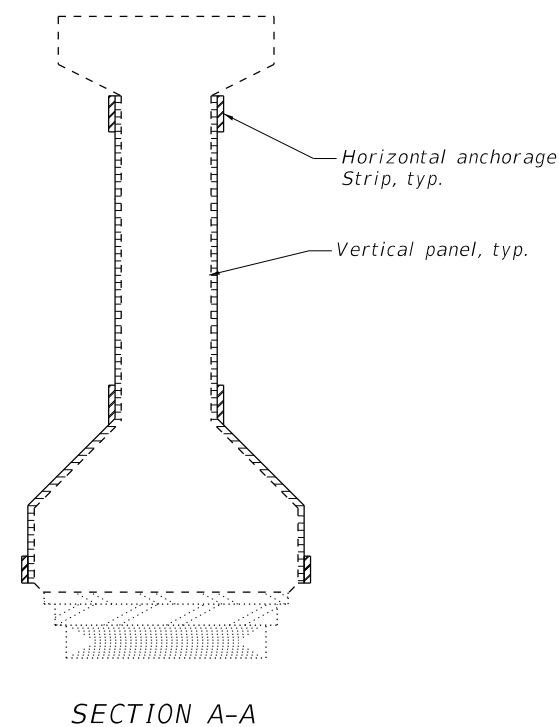
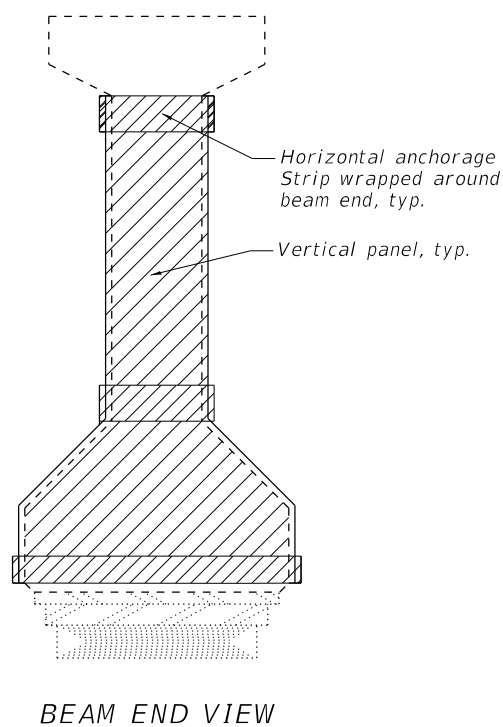
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	26
SN 022-0155		CONTRACT NO. 62H01		
SCALE:		ILLINOIS FED. AID PROJECT		

SHEET 10 OF 13 SHEETS STA. TO STA.



**PPC I-BEAM REPAIR**

Location	Sq Ft
Beam 1 - N. Abut	2.0
Beam 9 - N. Abut	2.5
Beam 1 - S. Abut	0.0
Beam 9 - S. Abut	1.3



**Notes:**

Vertical panels must be between 10" and 12". The space between each vertical panel shall be 1". Vertical panels shall extend beyond the repair zone by a minimum of 3". Vertical panels located above the bearing location shall be placed in two pieces as shown in Section A-A. At locations in front of the bearing, the vertical panels shall be one continuous strip wrapping beneath the bottom flange as shown in Section B-B.

Horizontal anchorage strips shall be 3" wide and extend a minimum of 6" beyond the vertical panels. The horizontal anchorage strips shall be placed on top of the vertical panels. In areas where deterioration occurs in the ends of beams, the anchorage strip shall wrap around the beam end in one continuous strip.

Spalled concrete and exposed reinforcement shall be repaired according to the special provision "PRECAST PRESTRESSED CONCRETE I-BEAM REPAIRS".

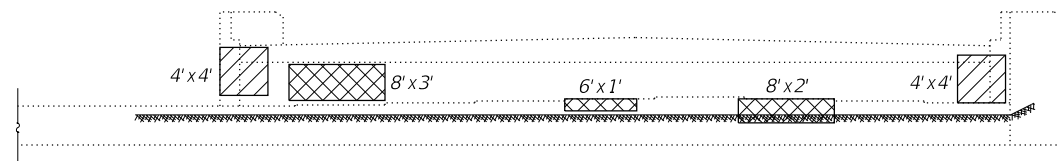
Acrylic coating shall be placed over fiber wrap repairs.

See special provisions for "FRP STRENGTHENING FOR PPC I-BEAM REPAIRS."

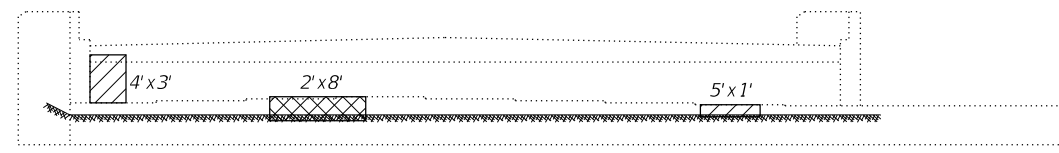
**BILL OF MATERIAL**

Item	Unit	Total
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	6
Fiber Wrap	Sq. Ft.	114
Acrylic Coating	Sq. Yd.	24

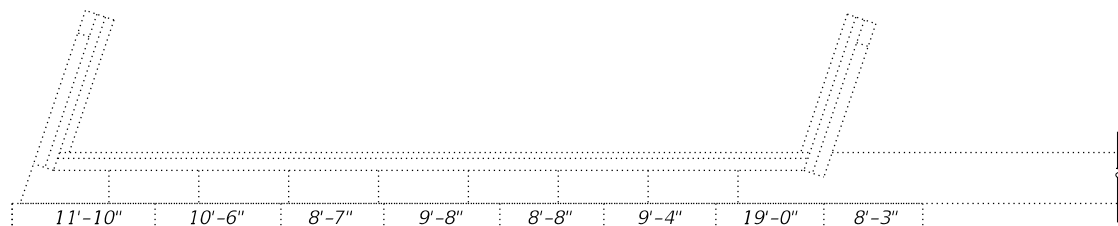
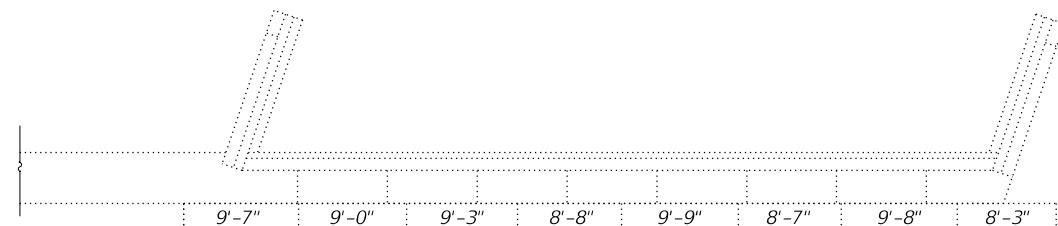
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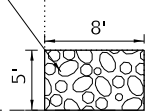
SOUTH ABUTMENT - ELEVATION



NORTH ABUTMENT - ELEVATION



Stone Riprap,  
Class A3 with  
Filter Fabric  
12" depth



Existing Curb Line  
Lions Park Access Road

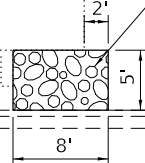
SLOPE WALL

SOUTH ABUTMENT REPAIRS

(Looking South)



Stone Riprap,  
Class A3 with  
Filter Fabric  
12" depth



SLOPE WALL

NORTH ABUTMENT REPAIRS

(Looking North)



Notes:  
Repair details shown on this sheet were taken from the District's inspection sheets and field inspections completed by Chastain and Associates. Actual locations, size, and depth shall be verified in the field.

BILL OF MATERIAL

SYMBOL	ITEM	UNIT	QUANTITY
	Structural Repair of Concrete (Depth Equal To or Less Than 5")	Sq. Ft.	49
	Structural Repair of Concrete (Depth Equal To or Greater Than 5")	Sq. Ft.	62
	Stone Riprap, Class A3 with Fabric	Sq.Yd.	10

MODEL: 140261.NM1E  
FILE NAME: 022015-02101-015-ABUTREP.dgn

**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS  
184-001397

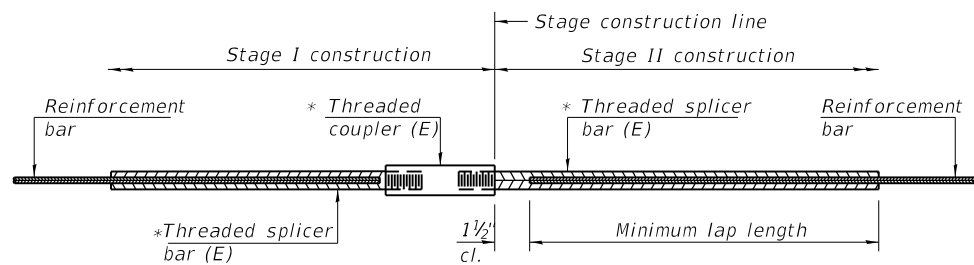
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

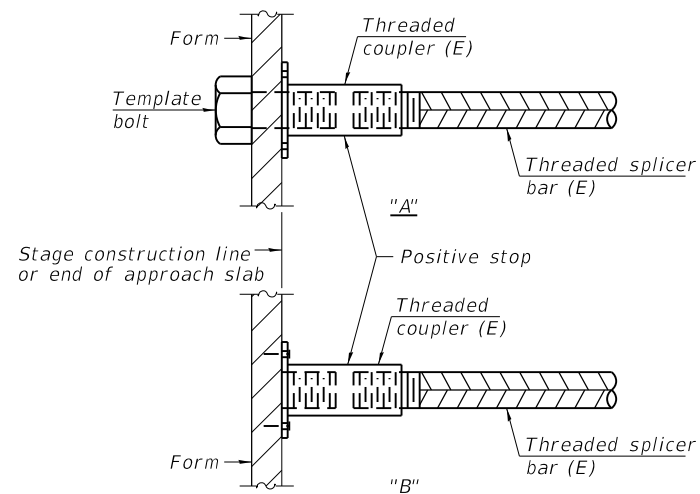
IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS  
ABUTMENT AND SLOPE WALL REPAIRS

SCALE: SHEET 12 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	28
SN 022-0155		CONTRACT NO. 62H01		
		ILLINOIS	FED. AID PROJECT	

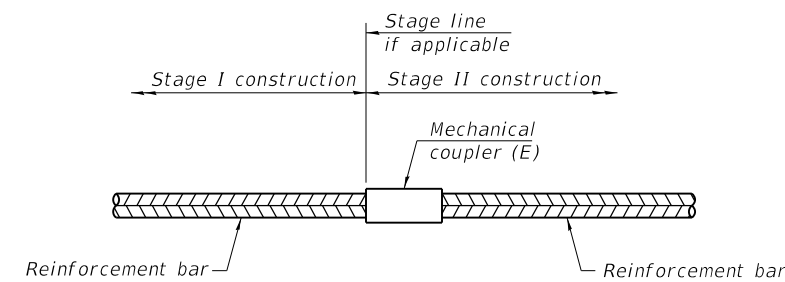


**STANDARD BAR SPLICER ASSEMBLY**



**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.



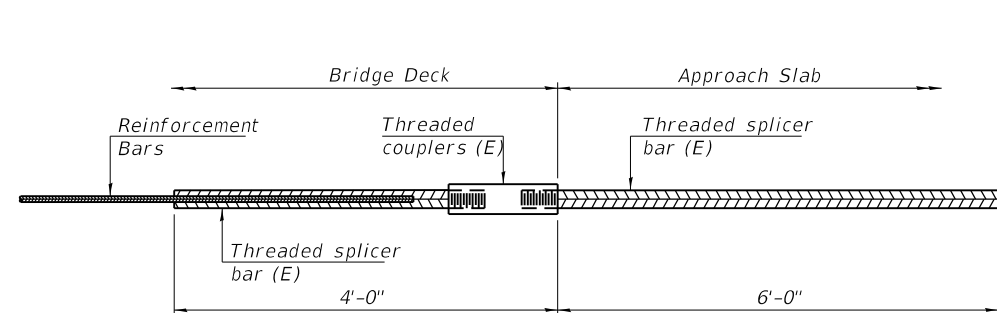
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required

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

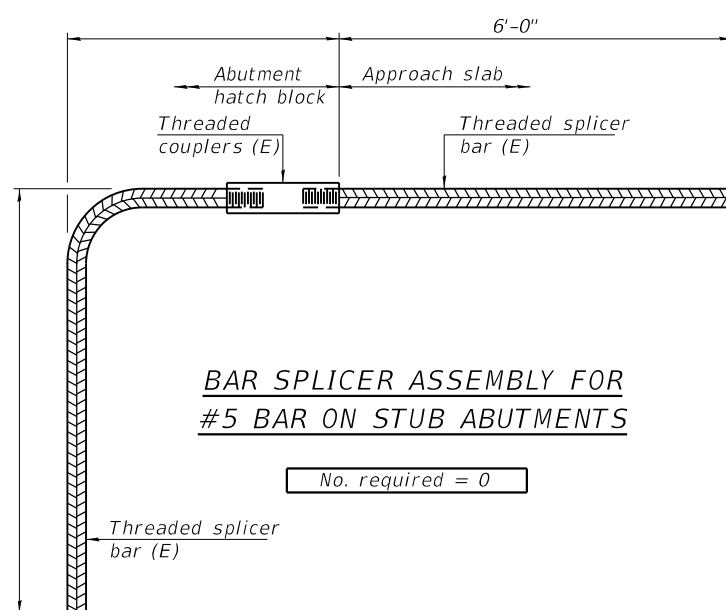
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
S. Abut. Joint	#6	4	3'-7"
S. Abut. Joint	#7	9	4'-8"
N. Abut. Joint	#6	4	3'-7"
N. Abut. Joint	#7	9	4'-8"



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

No. required = 0



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required = 0

**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.

MODEL NAME: BSD-1  
 FILE NAME: 022015-02101-015-BARSPLICER.dgn

BSD-1

2-17-2017



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PLOT DATE = 12/13/2018	DATE - 11-02-2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 83 OVER BNSF R.R. - OVERLAY AND BRIDGE REPAIRS  
 BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS

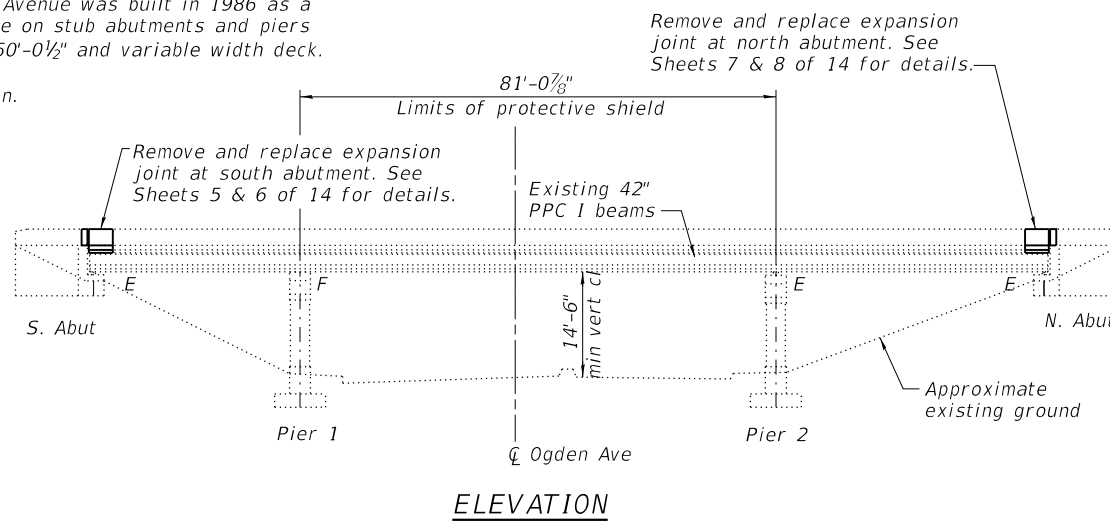
SCALE: SHEET 13 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SN 022-0155		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		

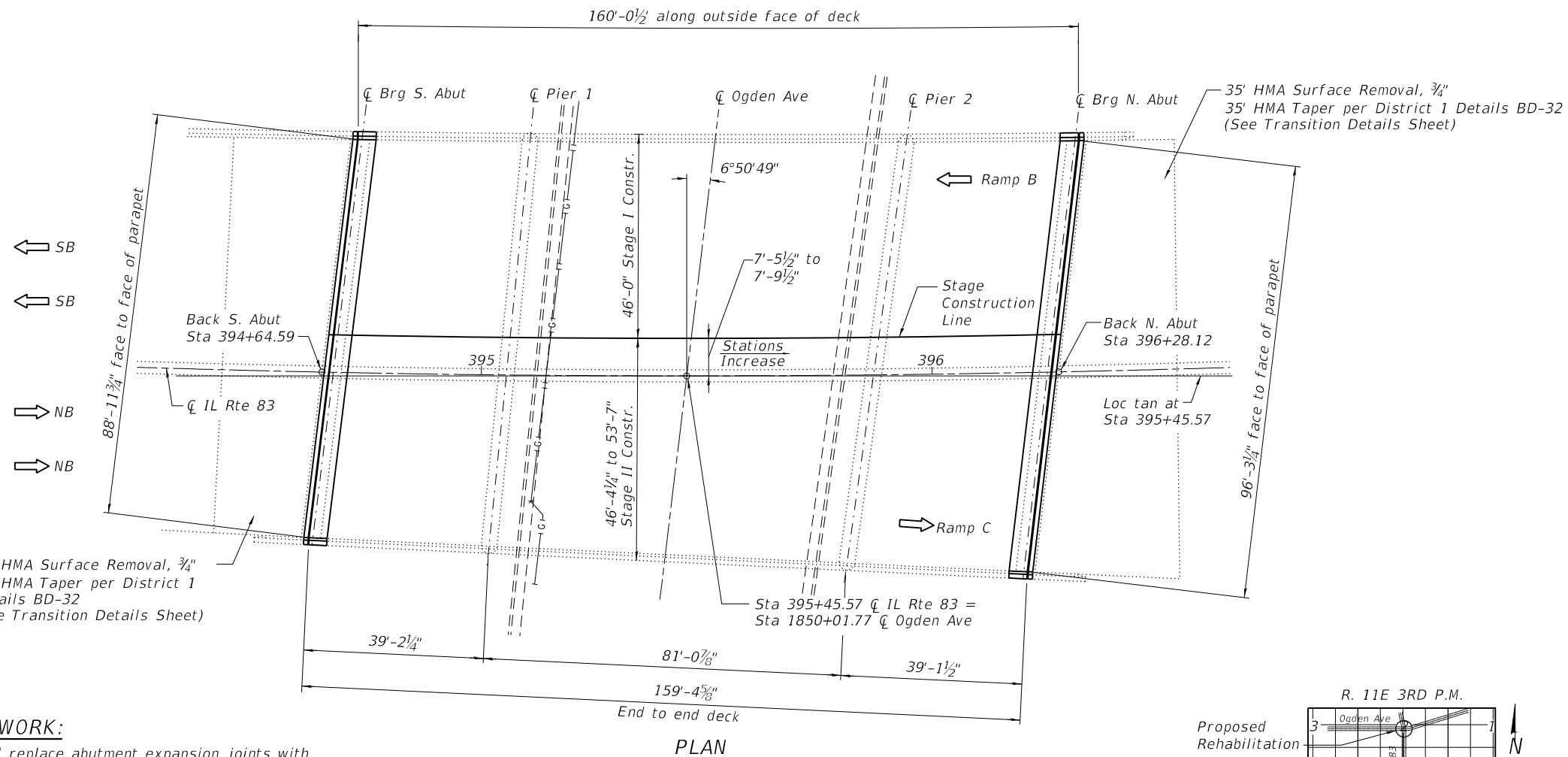
The existing F.A.P. Rte 872 & 29 (IL Route 83) over Ogden Avenue was built in 1986 as a 3 span precast prestressed concrete I-beam superstructure on stub abutments and piers on spread footings. The back to back abutment length is 160'-0 1/2" and variable width deck.

The bridge repairs shall be done under Staged Construction.

No Salvage.



ELEVATION



**SCOPE OF WORK:**

1. Remove and replace abutment expansion joints with preformed joint strip seal.
2. Repair bridge deck slab.
3. Bridge deck scarification 3/4".
4. Place bridge deck latex concrete overlay, 2 1/2".
5. Apply protective coat to parapet and new concrete (excludes overlay).
6. PPC I-Beam Repairs.
7. Replace abutments expansion bearings.
8. Repair substructure.

**INDEX OF SHEETS**

1. General Plan and Elevation
2. General Structural Data
3. Stage Construction Details
4. Bridge Deck Repairs
5. South Abutment Expansion Joint Details
6. South Abutment Expansion Joint Details
7. North Abutment Expansion Joint Details
8. North Abutment Expansion Joint Details
9. Preformed Joint Strip Seal
10. PPC I-Beam Repair
11. Bearing Details - Abutments
12. Abutment Repairs
13. Pier Repairs
14. Bar Splicer Assembly and Mechanical Splicer Details

**DESIGN STRESSES**

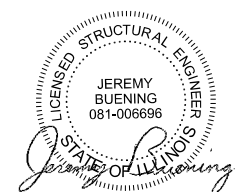
EXISTING STRUCTURE  
 f'c = 3,500 psi (Reinforced Concrete)  
 f'c = 6,000 psi (Prestressed Concrete)  
 fy = 60,000 psi (Reinforcement)

**DESIGN SPECIFICATIONS**

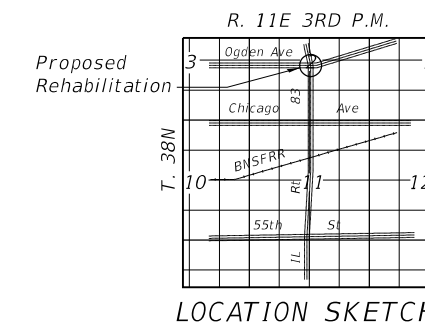
(New Construction)  
 2002 AASHTO Standard Specifications, 17th Ed.

**LOADING HS 20-44**

Original Construction



Jeremy Buening, P.E., S.E. Date 11/2/18  
 License Expires 11/30/20



LOCATION SKETCH

**GENERAL PLAN AND ELEVATION**  
**IL ROUTE 83 OVER OGDEN AVENUE**  
**FAP RTE 872 & 29 SEC 2005-0171**  
**DUPAGE COUNTY**  
**STATION 395+45.57**  
**STRUCTURE NO. 022-0157**

MODEL: 14002ELNAMES  
FILE NAME: 0220157-02101-001-GPE.dgn



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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCALE: SHEET 1 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	30
SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		

**GENERAL NOTES**

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The CONTRACTOR shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however the CONTRACTOR will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars designated (E) shall be epoxy coated.

Joint openings shall be adjusted according to Art. 520.04, in the Standard Specs. when the deck is poured at an ambient temperature other than 50°F.

Expansion joints shall be fabricated and installed according to the Manufacturer's recommendations and as approved by the Engineer.

Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.

The steel components of all expansion bearings not being replaced shall be blasted and painted according to the special provision "Cleaning and Painting Existing Steel Structures".

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 operations shall be replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing underpass lighting system at the US 34 bridge shall be maintained and protected. The Contractor will not be required to assume maintenance of this system unless its modification is required for the completion of the specified bridge work or it is damaged during the course of the work. Such damage shall be repaired at no additional cost to the State.

Synthetic fibers shall be added to the bridge deck Latex Concrete Overlay, See special provisions.

All structural steel shall conform to AASHTO classification M-270 Gr. 50, unless otherwise noted.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	47.2	-	47.2
Protective Shield	Sq. Yd.	861	-	861
Concrete Superstructure	Cu. Yd.	52.6	-	52.6
Bridge Deck Grooving	Sq. Yd.	1618	-	1618
Protective Coat	Sq. Yd.	254	-	254
Reinforcement Bars, Epoxy Coated	Pound	10210	-	10210
Bar Splicers	Each	26	-	26
Preformed Joint Strip Seal	Foot	191	-	191
Elastomeric Bearing Assembly, Type II	Each	28	-	28
Anchor Bolts, 3/4"	Each	112	-	112
Bridge Deck Latex Concrete Overlay, 2 1/2"	Sq. Yd.	1548	-	1548
Bridge Deck Scarification 3/4"	Sq. Yd.	1548	-	1548
Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches)	Sq. Ft.	-	490	490
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	-	45	45
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	7	-	7
Jack and Remove Existing Bearings	Each	28	-	28
Acrylic Coating	Sq. Yd.	26	248	274
Cleaning and Painting Bearings	Each	28	-	28
Fiber Wrap	Sq. Ft.	114	1115	1229
Controlled Low Strength Material	Cu. Yd.	-	5	5
Slope Wall Crack Sealing	Foot	-	461	461

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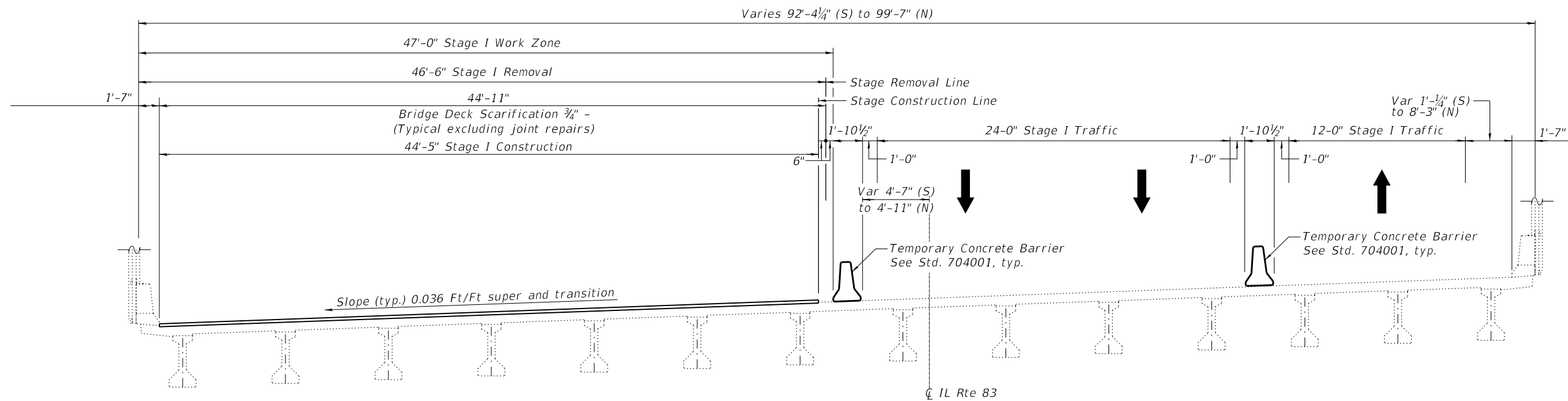
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 83 OVER OGDEN AVENUE - OVERLAY AND BRIDGE REPAIRS  
GENERAL STRUCTURAL DATA**

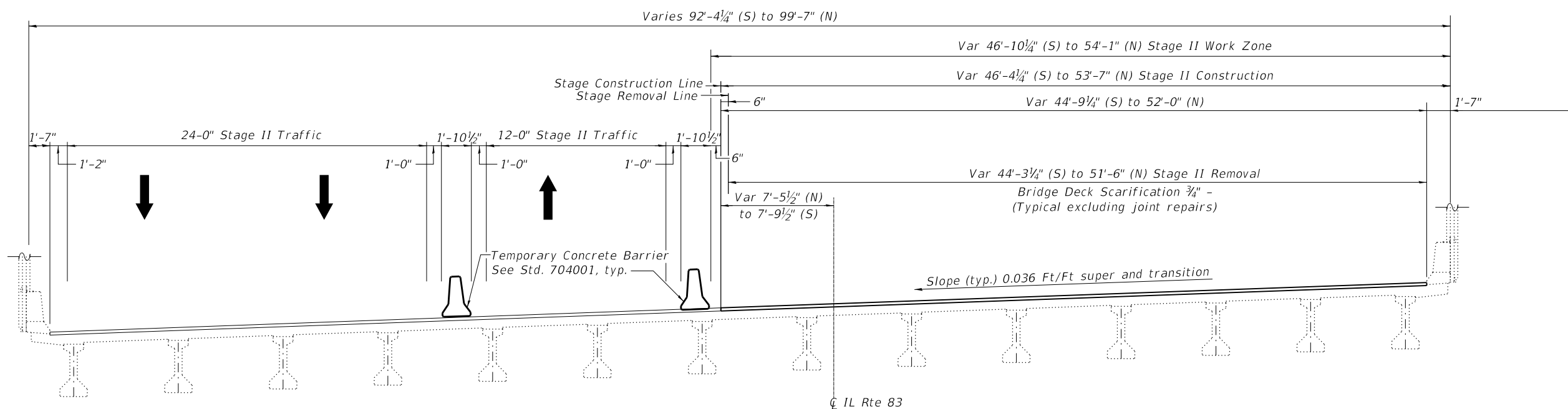
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	31
SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		





**STAGE I REMOVAL & CONSTRUCTION - LOOKING NORTH**  
 (All dimensions are perpendicular to  $\bar{C}$  IL Rte 83)



**STAGE II REMOVAL & CONSTRUCTION - LOOKING NORTH**  
 (All dimensions are perpendicular to  $\bar{C}$  IL Rte 83)

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**CHASTAIN & ASSOCIATES LLC**  
 CONSULTING ENGINEERS  
 184-001397

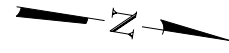
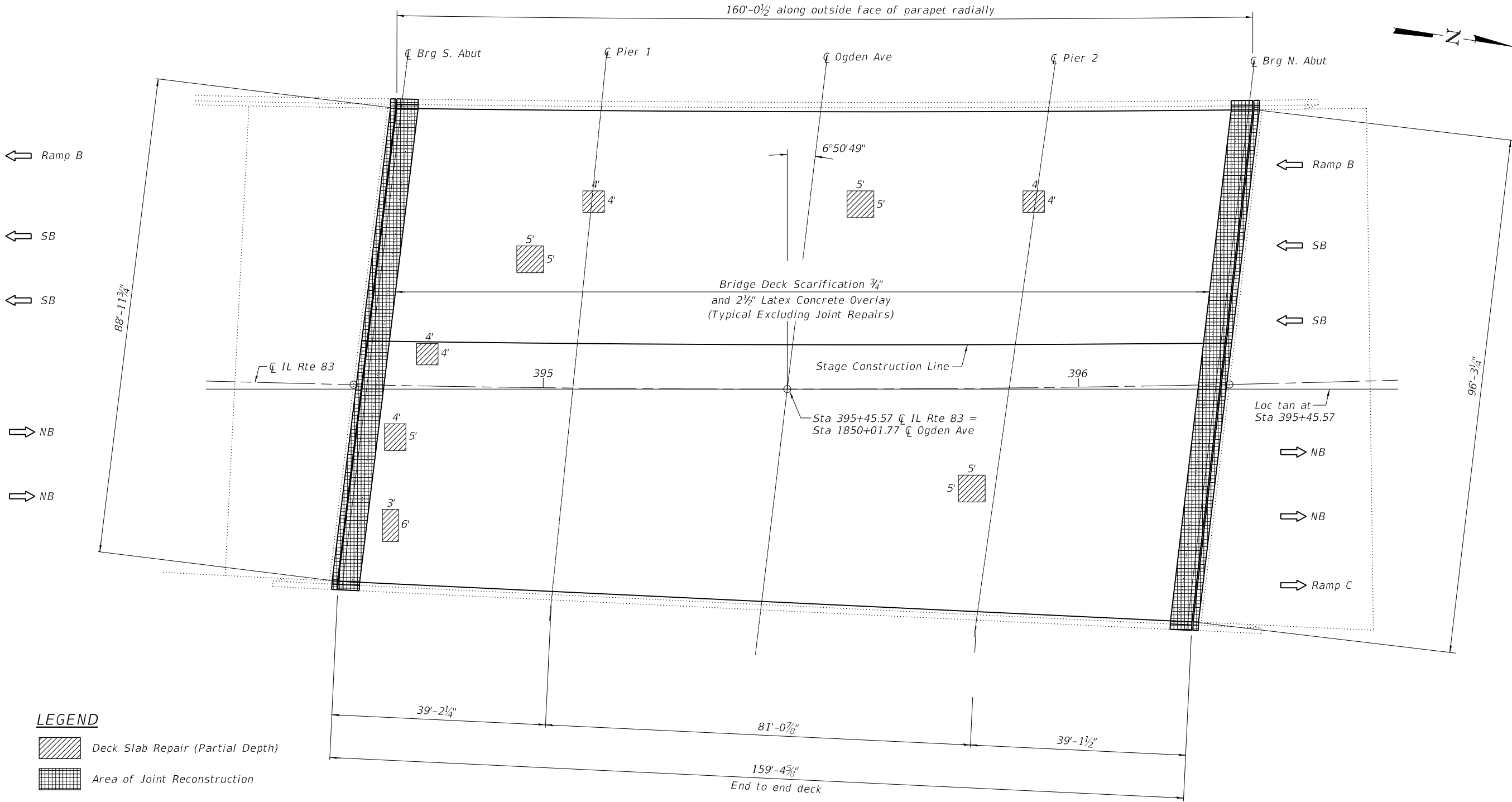
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 83 OVER OGDEN AVENUE - OVERLAY AND BRIDGE REPAIRS**  
**STAGE CONSTRUCTION DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	32
SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				



**LEGEND**

- Deck Slab Repair (Partial Depth)
- Area of Joint Reconstruction

**NOTES:**

Areas of deck repairs are estimated and will be paid for as specified in the Special Provisions for latex overlay.

Actual type, location, and dimensions of deck repairs are to be determined and documented by the ENGINEER during construction. ENGINEER shall sound deck after deck scarification.

Protective Coat shall be applied to the top and inside face of all parapets as well as new concrete areas adjacent to joints..

**PLAN**

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Protective Coat	Sq. Yd.	254
Bridge Deck Grooving	Sq. Yd.	1618
Bridge Deck Latex Concrete Overlay 2 1/2"	Sq. Yd.	1548
Bridge Deck Scarification 3/4"	Sq. Yd.	1548

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**CHASTAIN & ASSOCIATES LLC**  
 CONSULTING ENGINEERS  
 184-001397

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

**IL ROUTE 83 OVER OGDEN AVENUE - OVERLAY AND BRIDGE REPAIRS**  
**BRIDGE DECK REPAIRS**

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

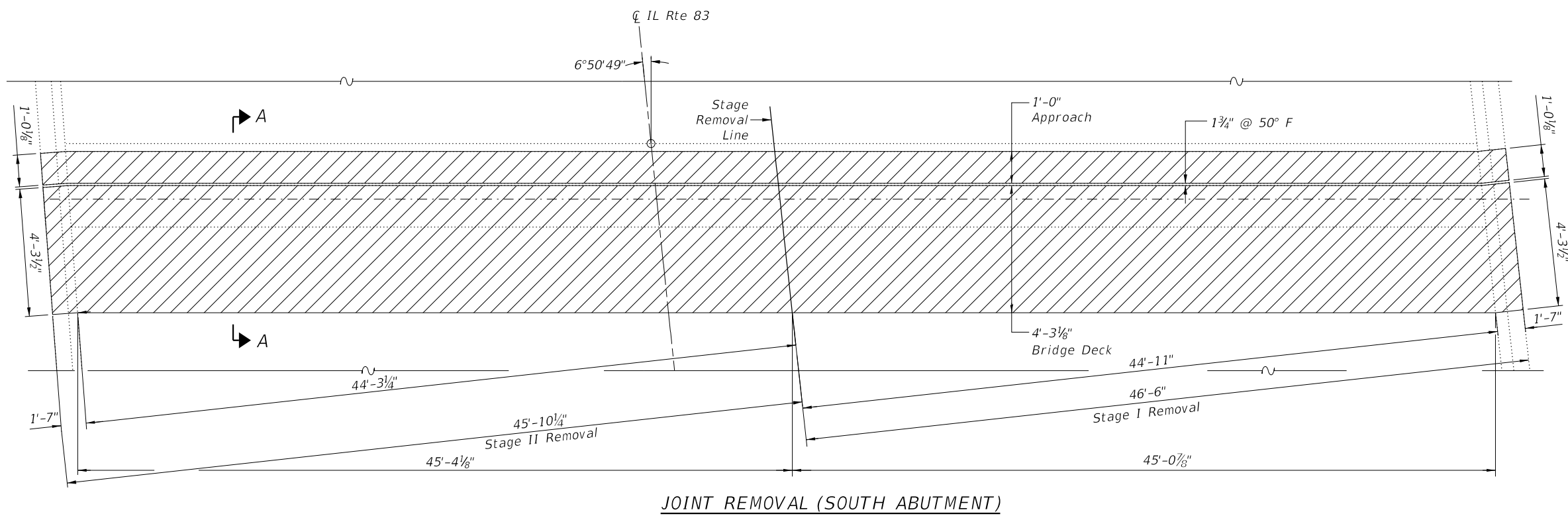
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344	2018-041-BD&BJR	DuPAGE	51	33
SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				



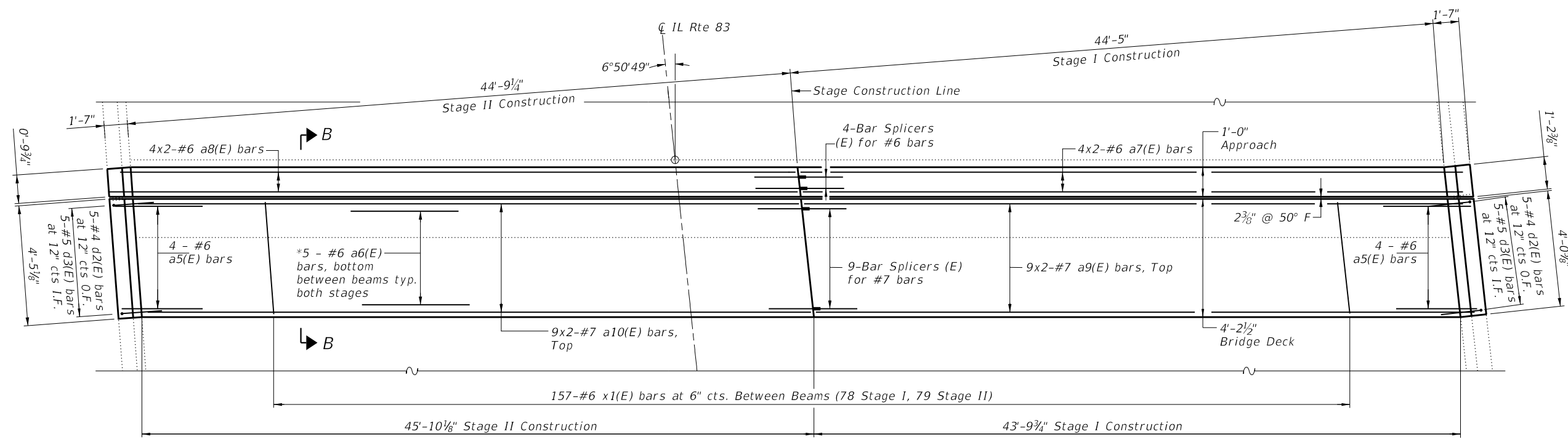
**LEGEND**

Concrete Removal

E.F. - Each Face  
I.F. - Inside Face  
O.F. - Outside Face



**JOINT REMOVAL (SOUTH ABUTMENT)**



**PROPOSED JOINT (SOUTH ABUTMENT)**

Note:  
The CONTRACTOR shall use extreme care during concrete removal so as not to damage the PPC I-beam. Damage should be repaired with no additional cost to the Department.

Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction. Existing vertical bars in approach slab parapet shall be reused.

**Min Bar Lap**  
#6 = 4'-0"  
#7 = 4'-8"

\* Cut to Fit at Stage Line and narrow beam spacings

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**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS  
184-001397

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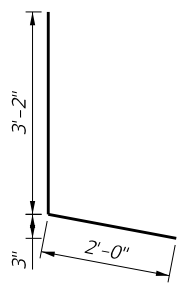
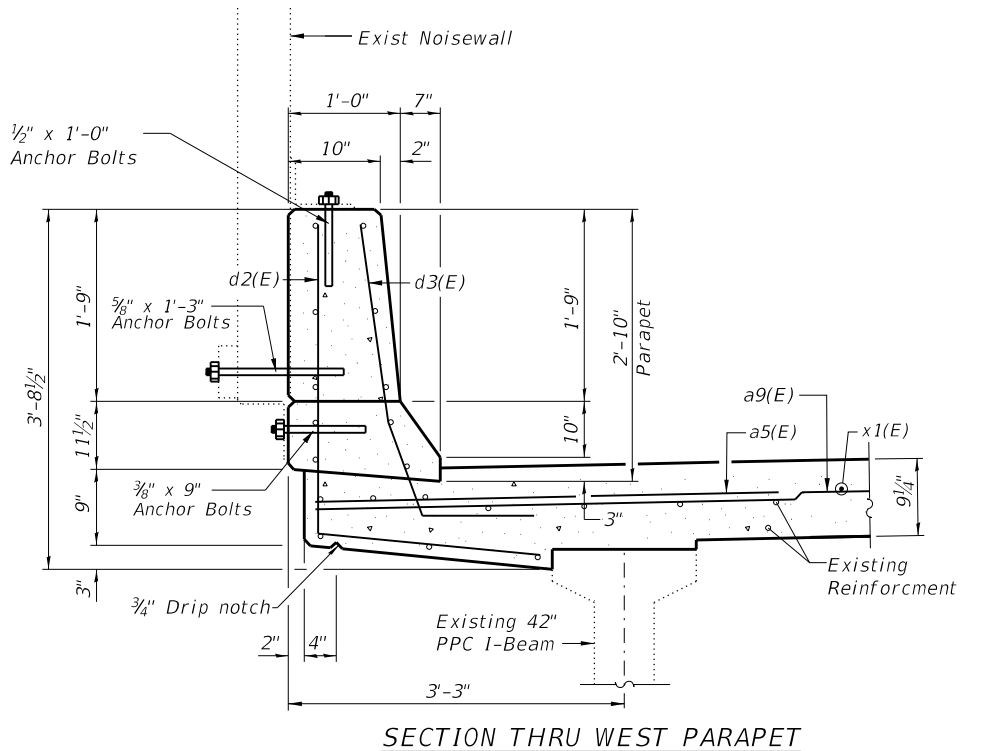
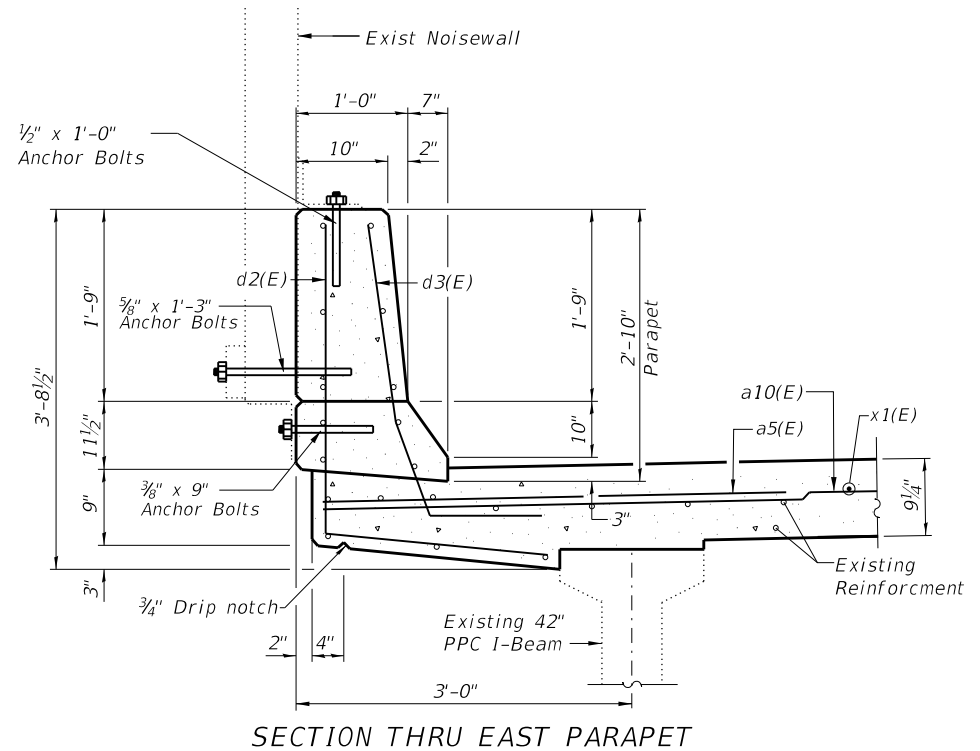
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

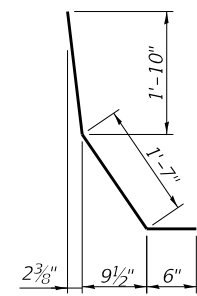
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**SOUTH ABUTMENT EXPANSION JOINT DETAILS**

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

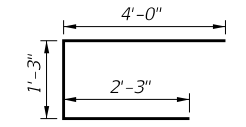
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344	2018-041-BD&BJR	DuPAGE	51	34
SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		



BAR d2(E)



BAR d3(E)

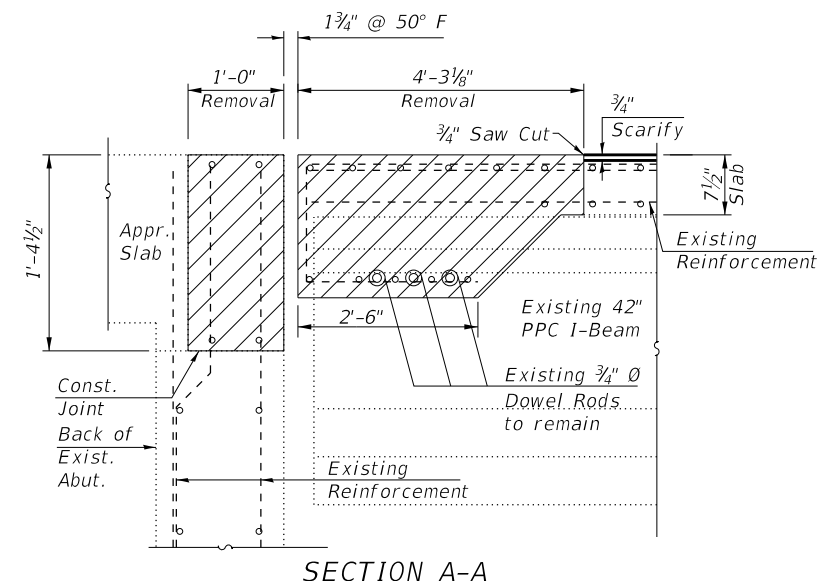


BAR x1(E)

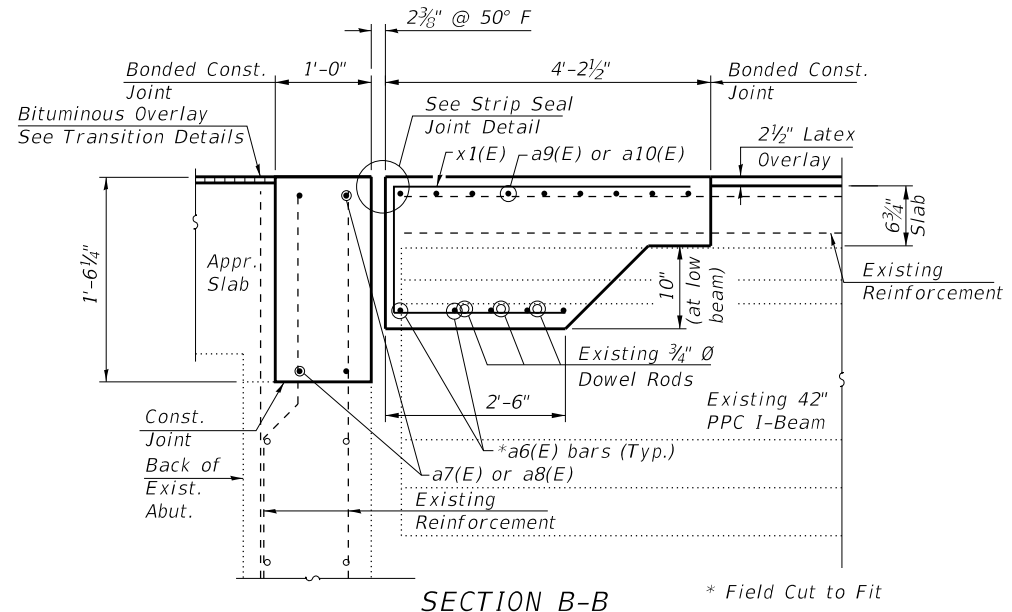
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a5(E)	8	#6	4'-0"	—
a6(E)	65	#6	6'-3"	—
a7(E)	8	#6	24'-7"	—
a8(E)	8	#6	24'-9"	—
a9(E)	18	#7	24'-11"	—
a10(E)	18	#7	25'-1"	—
d2(E)	10	#4	5'-2"	L
d3(E)	10	#5	3'-11"	L
x1(E)	157	#6	7'-6"	C
Concrete Removal			Cu. Yd.	22.6
Concrete Superstructure			Cu. Yd.	25.2
Reinforcement Bars, Epoxy Coated			Pound	4930

- Existing Reinforcement
- Proposed Reinforcement



SECTION A-A



SECTION B-B

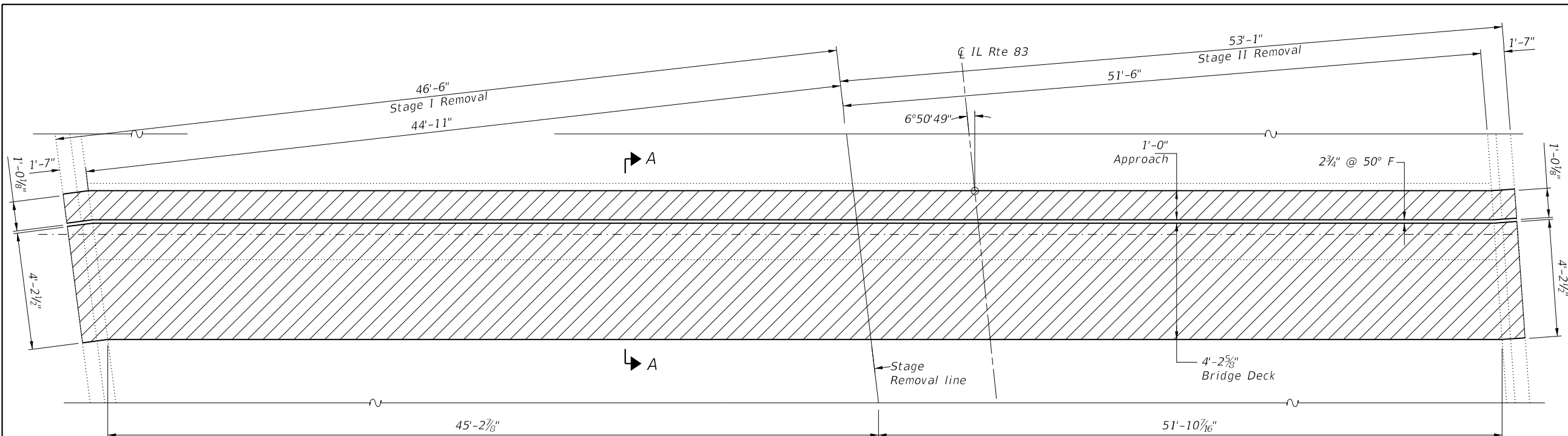
\* Field Cut to Fit

Notes:  
The CONTRACTOR shall remove enough of the existing sound barrier wall to allow for removal and installation of the expansion joint. After the new concrete has cured 7 days, the sound barrier wall may be re-installed. This work shall be paid for as Remove and Re-erect Existing Sound Barrier Wall. Anchor bolts of the size indicated shall be used where needed. See Special Provisions.

Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction. Existing vertical bars in approach slab parapet shall be reused.

Hatched area indicates concrete removal. The CONTRACTOR shall use extreme care during concrete removal so as not to damage the PPC-I beams.

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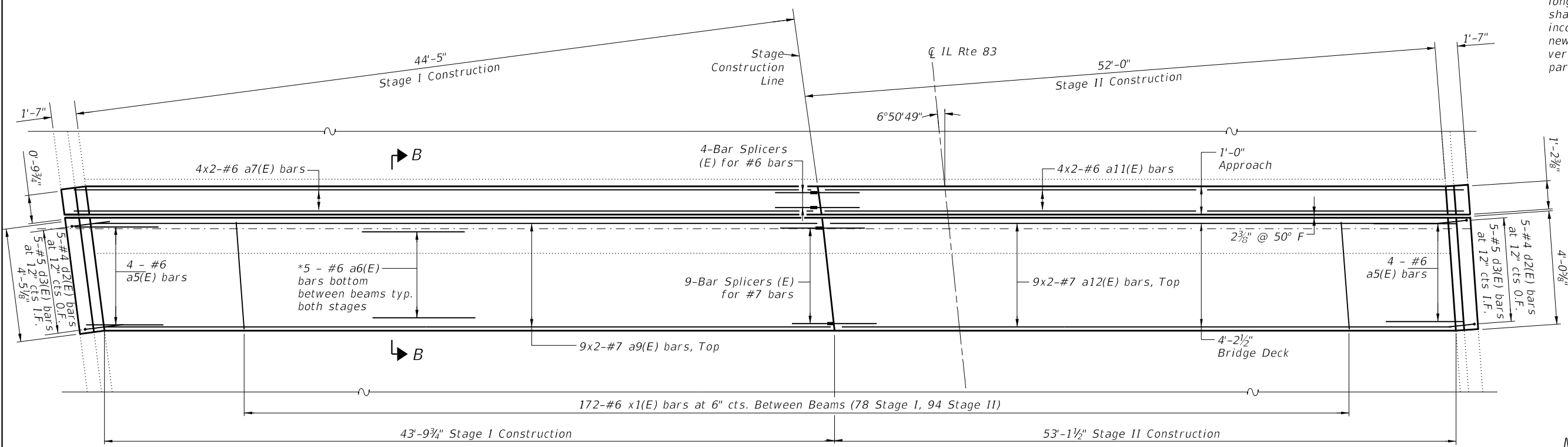


**JOINT REMOVAL (NORTH ABUTMENT)**

**LEGEND**  
 Concrete Removal  
 E.F. - Each Face  
 I.F. - Inside Face  
 O.F. - Outside Face

Note:  
 The CONTRACTOR shall use extreme care during concrete removal so as not to damage the PPC I-beam.

Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction. Existing vertical bars in approach slab parapet shall be reused.



**PROPOSED JOINT (NORTH ABUTMENT)**

\* Cut to Fit at Stage Line and narrow beam spacings

**Min Bar Lap**  
 #6 = 4'-0"  
 #7 = 4'-8"

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**CHASTAIN & ASSOCIATES LLC**  
 CONSULTING ENGINEERS  
 184-001397

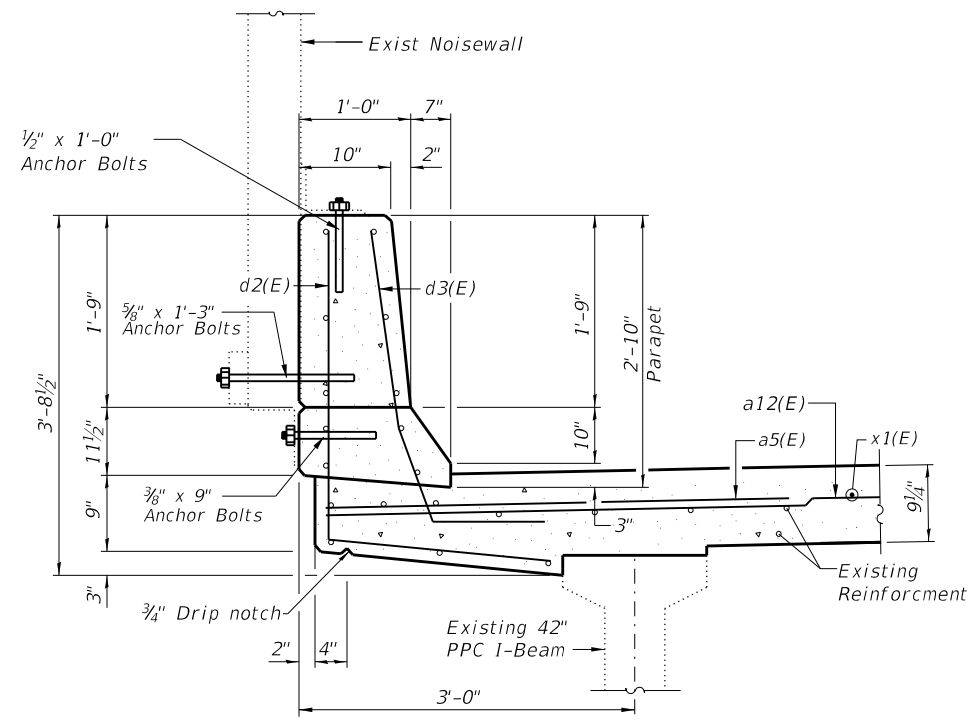
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	DATE - 11-02-2018	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

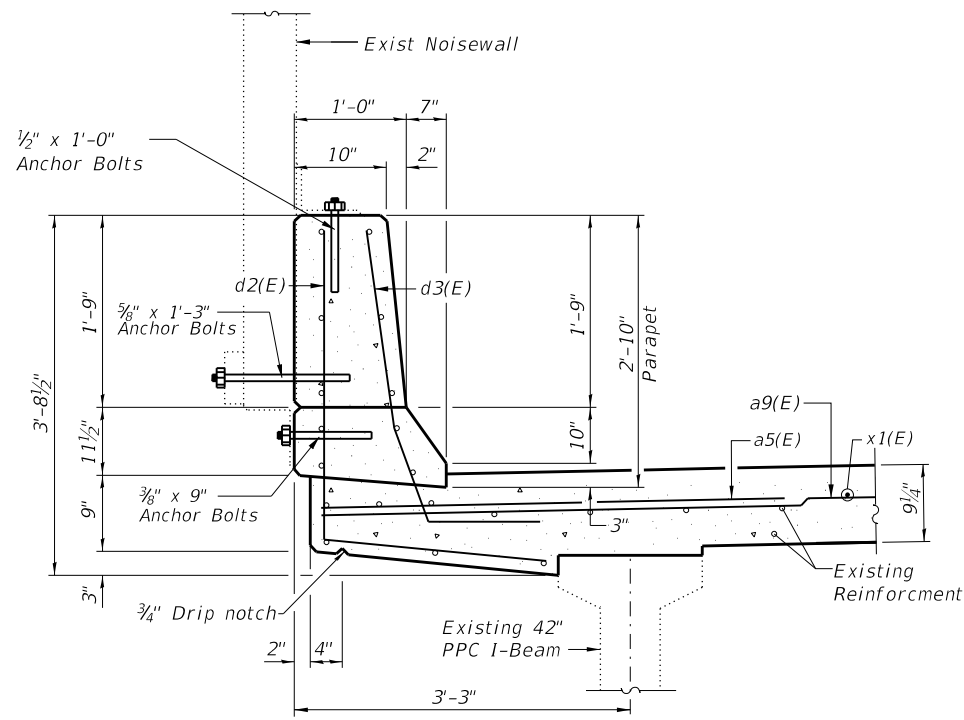
IL ROUTE 83 OVER OGDEN AVENUE - OVERLAY AND BRIDGE REPAIRS
NORTH ABUTMENT EXPANSION JOINT DETAILS
SCALE: SHEET 7 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		

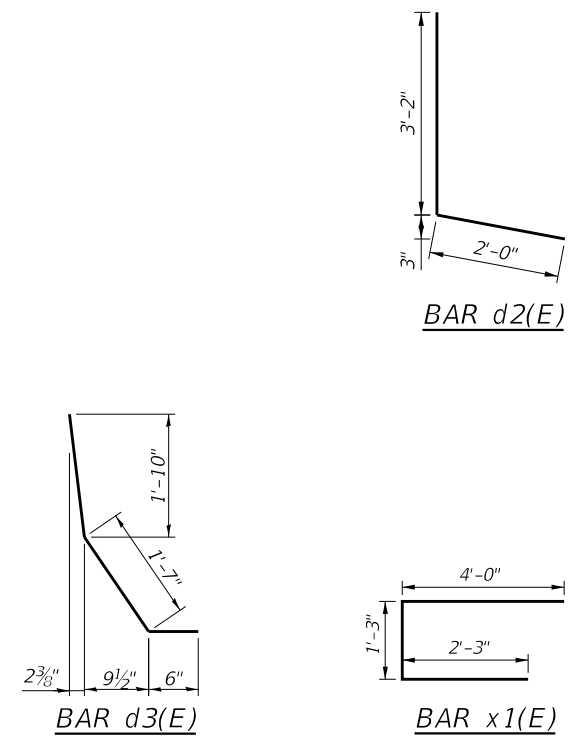
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ILLINOIS		FED. AID PROJECT		



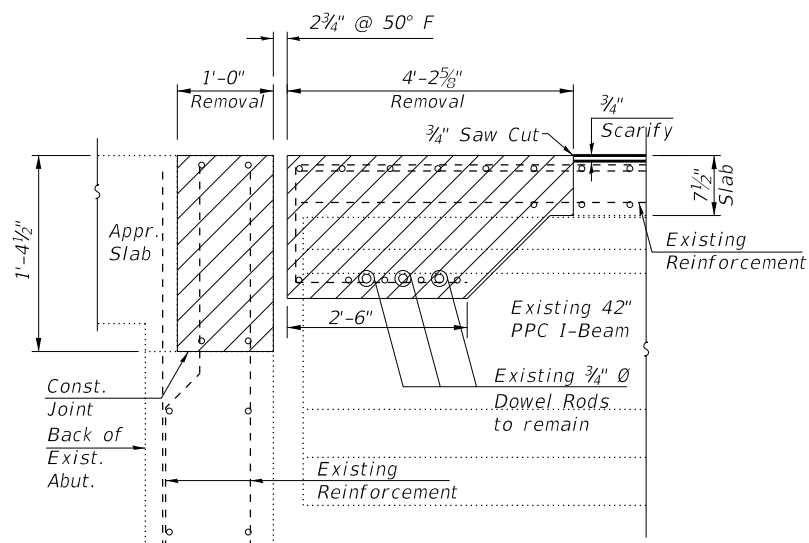
SECTION THRU EAST PARAPET



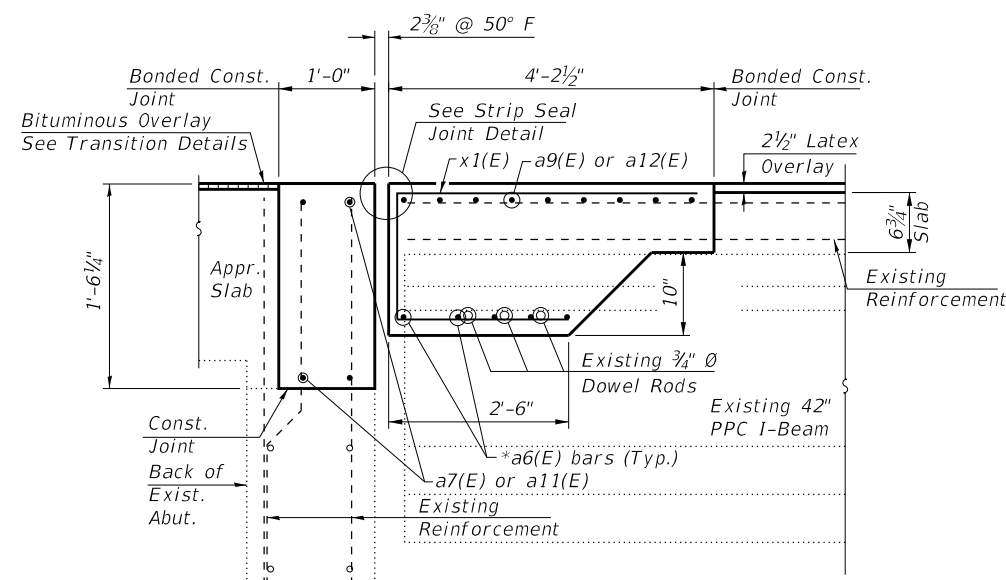
SECTION THRU WEST PARAPET



- Existing Reinforcement
- Proposed Reinforcement



SECTION A-A



SECTION B-B

**BILL OF MATERIAL**

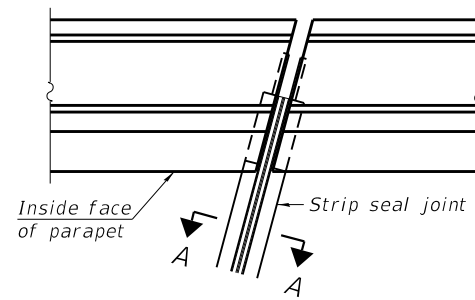
Bar	No.	Size	Length	Shape
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a6(E)	65	#6	6'-3"	—
a7(E)	8	#6	24'-7"	—
a9(E)	18	#7	24'-11"	—
a11(E)	8	#6	28'-5"	—
a12(E)	18	#7	28'-9"	—
d2(E)	10	#4	5'-2"	L
d3(E)	10	#5	3'-11"	L
x1(E)	172	#6	7'-6"	C
Concrete Removal			Cu. Yd.	24.6
Concrete Superstructure			Cu. Yd.	27.4
Reinforcement Bars, Epoxy Coated			Pound	5280

Notes:  
 The CONTRACTOR shall remove enough of the existing sound barrier wall to allow for removal and installation of the expansion joint. After the new concrete has cured 7 days, the sound barrier wall may be re-installed. Anchor bolts of the size indicated shall be used where needed. See Special Provisions.

Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction. Existing vertical bars in approach slab parapet shall be reused.

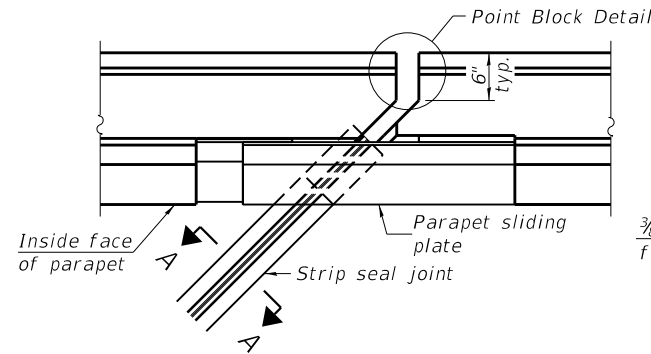
Hatched area indicates concrete removal. The CONTRACTOR shall use extreme care during concrete removal so as not to damage the PPC-I beams.

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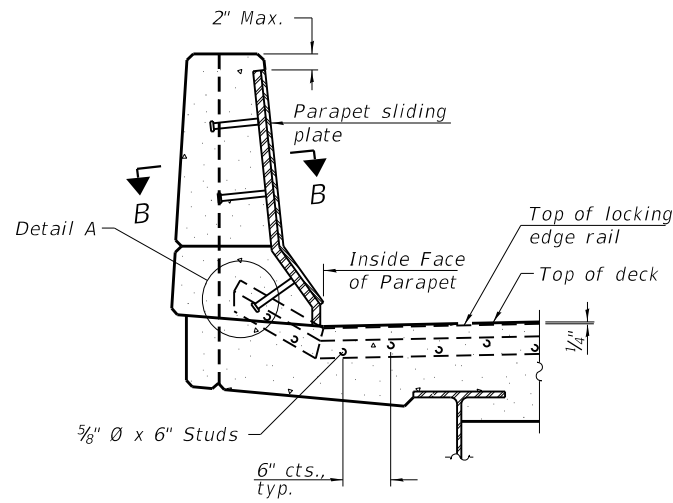


FOR SKEWS = 30°

PLAN AT PARAPET

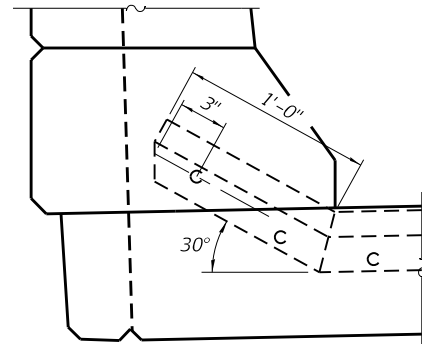


FOR SKEWS > 30°

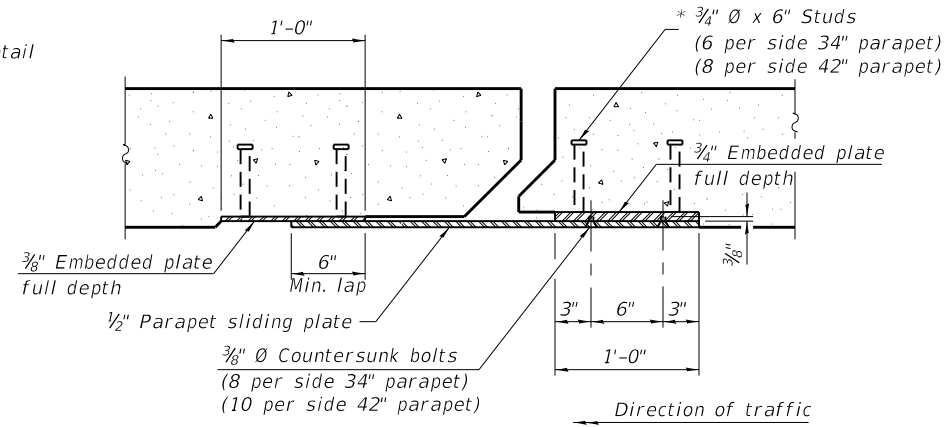


ELEVATION AT PARAPET

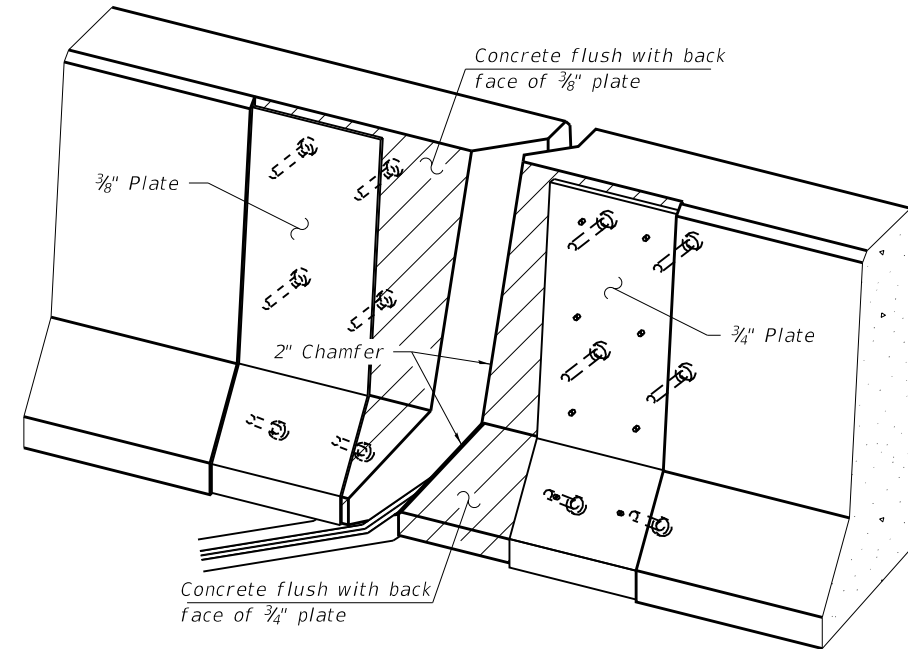
(Skews > 30° shown. Skews = 30° similar except as shown in plan view.)



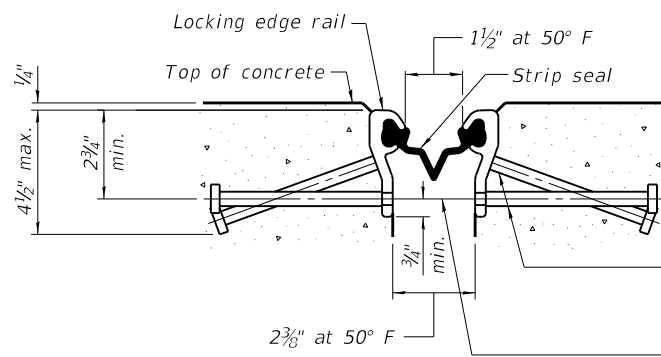
DETAIL A



SECTION B-B



TRIMETRIC VIEW  
(Showing embedded plates only)

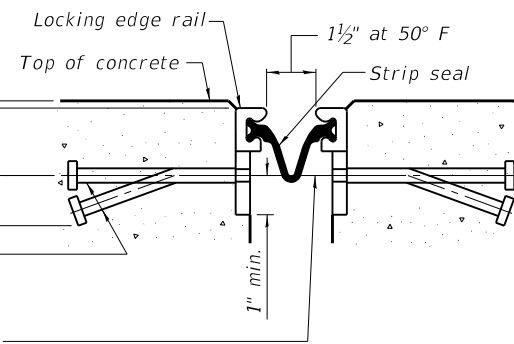


SHOWING ROLLED RAIL JOINT

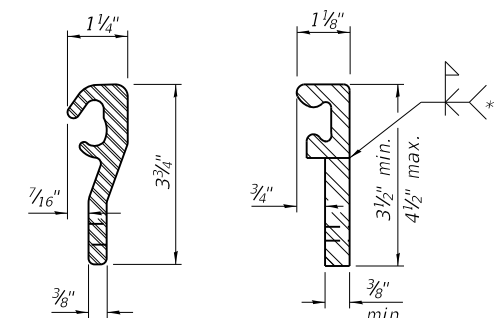
\* 5/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)  
 3/8" Ø threaded rods in 7/16" Ø holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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



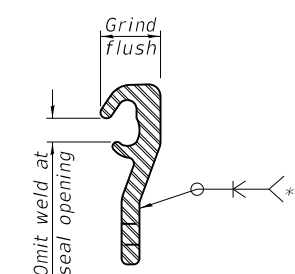
SHOWING WELDED RAIL JOINT



ROLLED (EXTRUDED) RAIL  
 WELDED RAIL

LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	191

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 configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

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

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The top surface of sidewalk sliding plates shall have a raised pattern according to ASTM A786.

Cost of parapet sliding plates, sidewalk sliding plates, embedded plates, anchorage studs, and expansion anchors included with Preformed Joint Strip Seal.

34" F-shape barrier shown, 42" F-shape similar as noted. The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

MODEL: 1400BELNAMES  
 FILE NAME: 0220157-02101-0008-STRIPSEAL.dgn

EJ-SS

8-11-17

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 184-001397

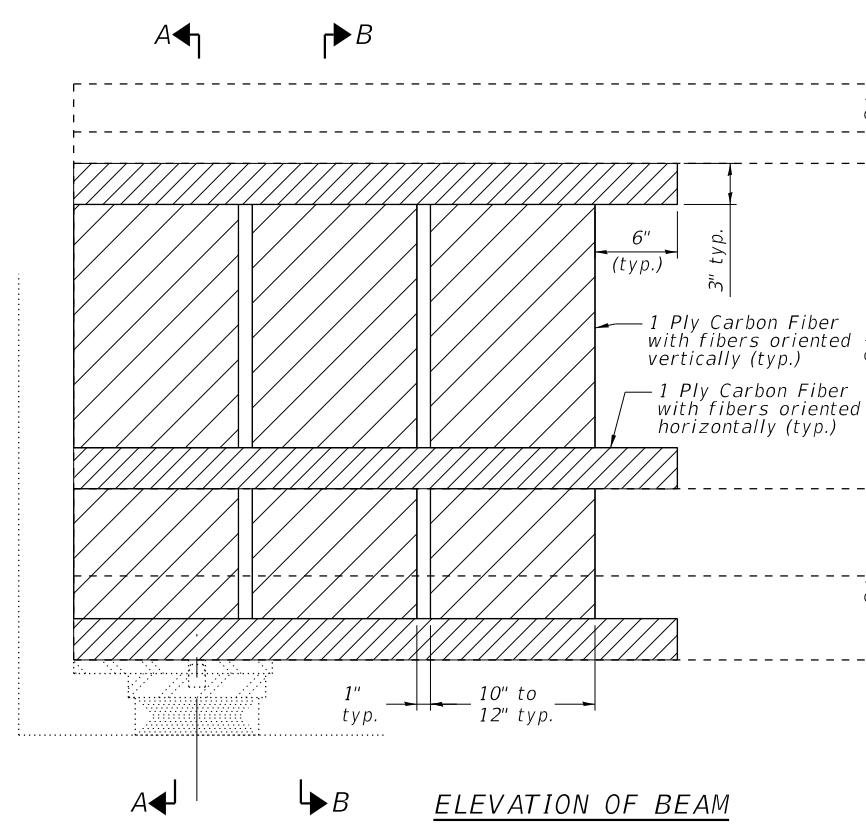
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	DATE - 11-02-2018	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

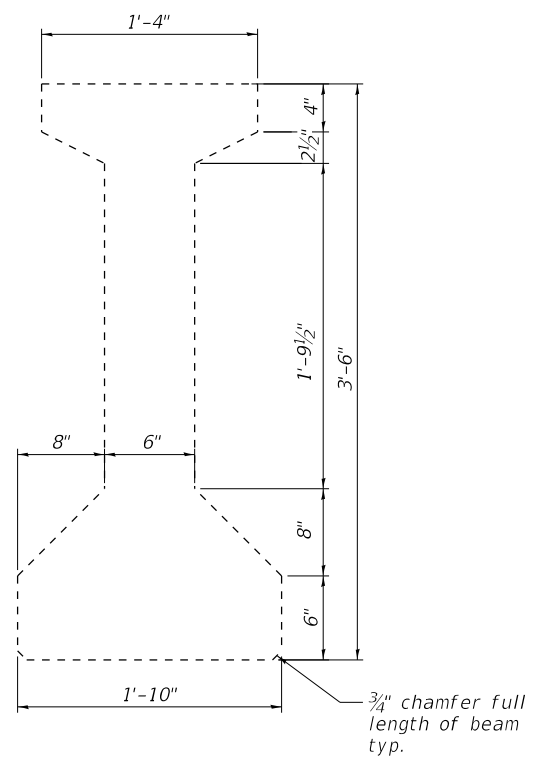
IL ROUTE 83 OVER OGDEN AVENUE - OVERLAY AND BRIDGE REPAIRS  
 PREFORMED JOINT STRIP SEAL

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

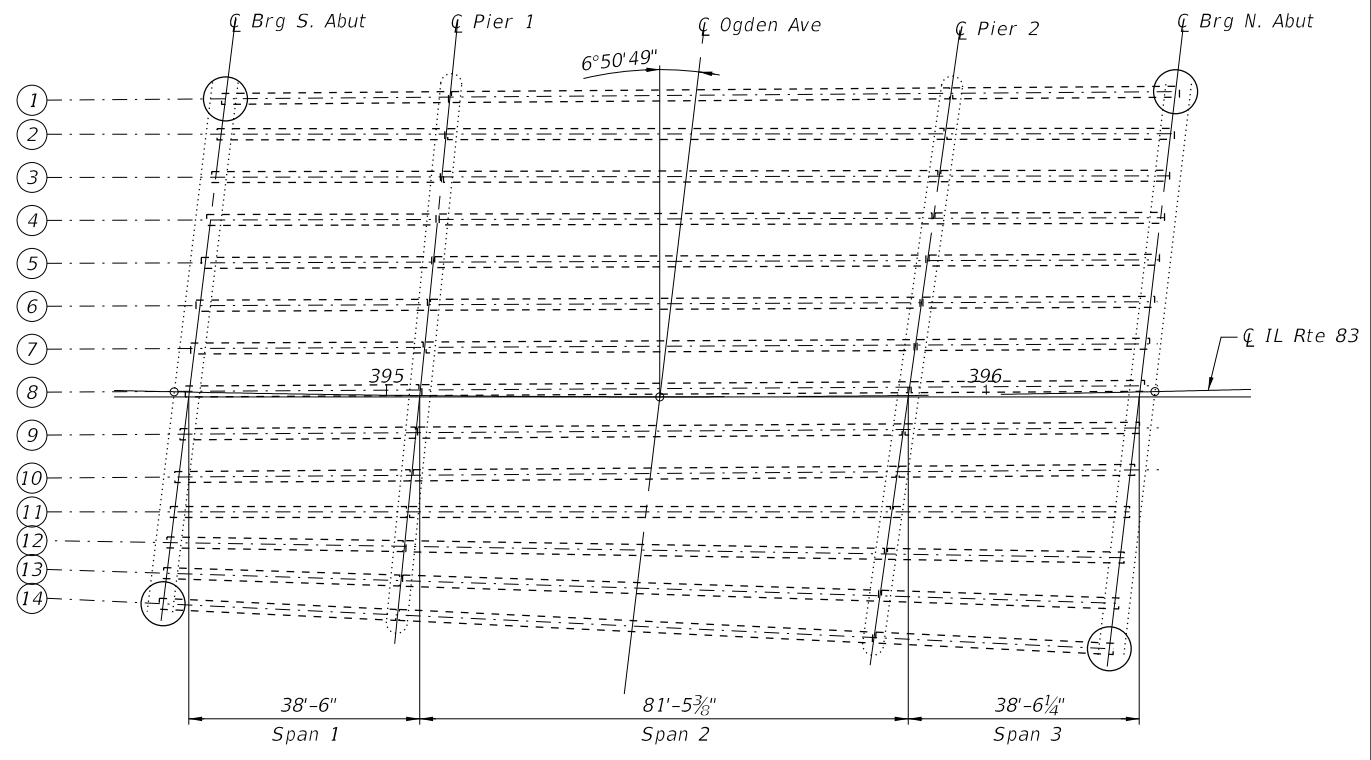
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	38
	SN 022-0157		CONTRACT NO. 62H01	
		ILLINOIS	FED. AID PROJECT	



**ELEVATION OF BEAM**



**CROSS SECTION**



**FRAMING PLAN**

○ PCC I-Beam Repair and Fiber Wrap (End of Beam)

**Notes:**

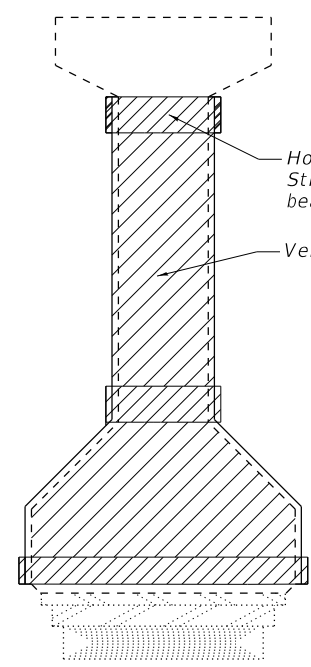
Vertical panels must be between 10" and 12". The space between each vertical panel shall be 1". Vertical panels shall extend beyond the repair zone by a minimum of 3". Vertical panels located above the bearing location shall be placed in two pieces as shown in Section A-A. At locations in front of the bearing, the vertical panels shall be one continuous strip wrapping beneath the bottom flange as shown in Section B-B.

Horizontal anchorage strips shall be 3" wide and extend a minimum of 6" beyond the vertical panels. The horizontal anchorage strips shall be placed on top of the vertical panels. In areas where deterioration occurs in the ends of beams, the anchorage strip shall wrap around the beam end in one continuous strip.

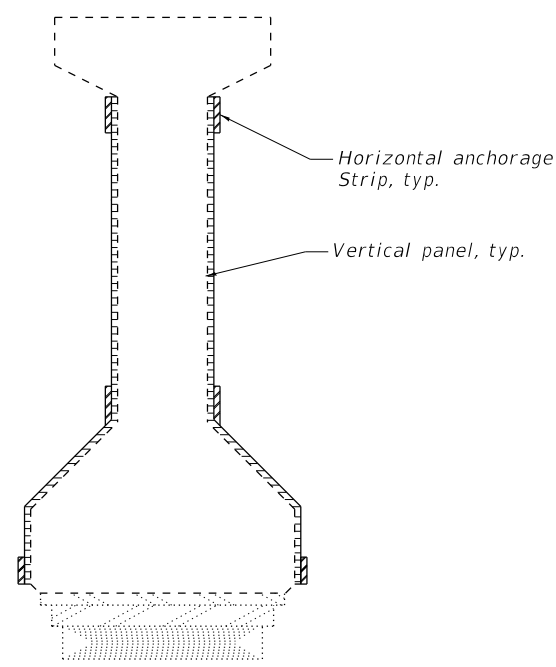
Spalled concrete and exposed reinforcement shall be repaired according to the special provision "PRECAST PRESTRESSED CONCRETE I-BEAM REPAIRS".

Acrylic coating shall be placed over fiber wrap repairs.

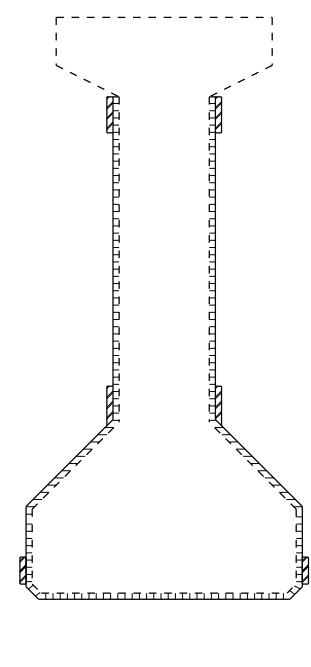
See special provisions for "FRP STRENGTHENING FOR PPC I-BEAM REPAIRS."



**BEAM END VIEW**



**SECTION A-A**



**SECTION B-B**

**PPC I-BEAM REPAIR**

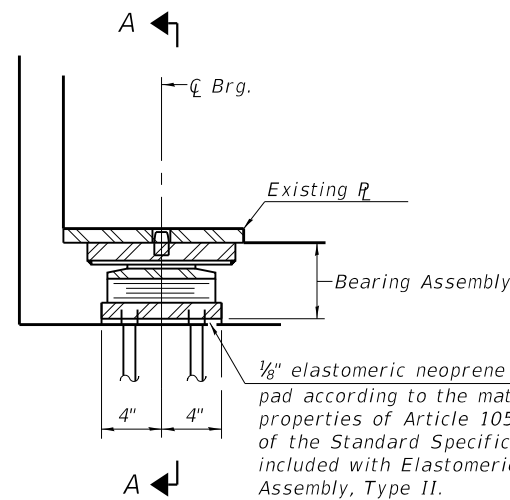
Location	Sq Ft
Beam 1 - N. Abut	4.0
Beam 14 - N. Abut	1.0
Beam 1 - S. Abut	1.0
Beam 14 - S. Abut	1.0

**BILL OF MATERIAL**

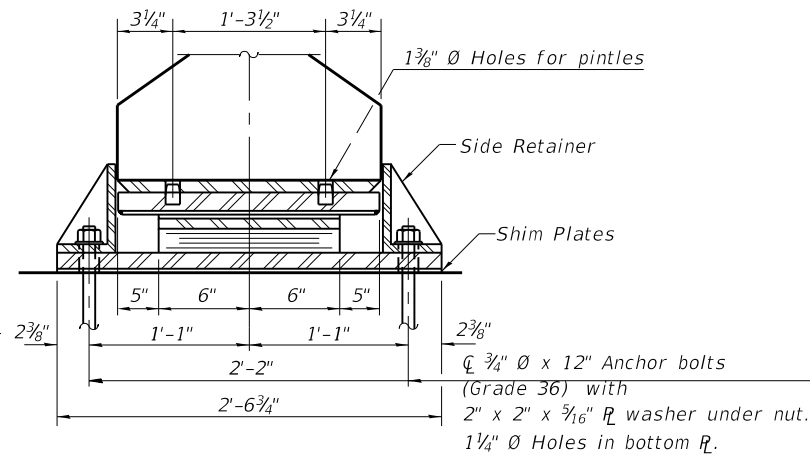
Item	Unit	Total
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	7
Fiber Wrap	Sq. Ft.	115
Acrylic Coating	Sq. Yd.	26

MODEL: 184001397.DWG  
FILE NAME: 0220157-02101-013-FRAMEPLAN.dwg



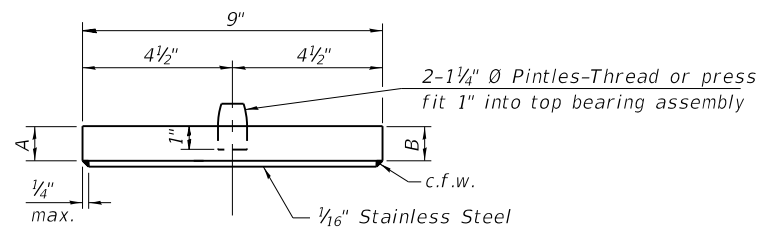


SECTION AT ABUT.

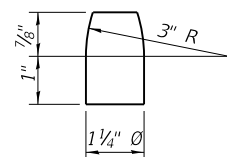


SECTION A-A

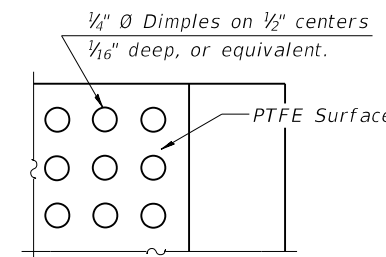
TYPE II ELASTOMERIC EXP. BRG.



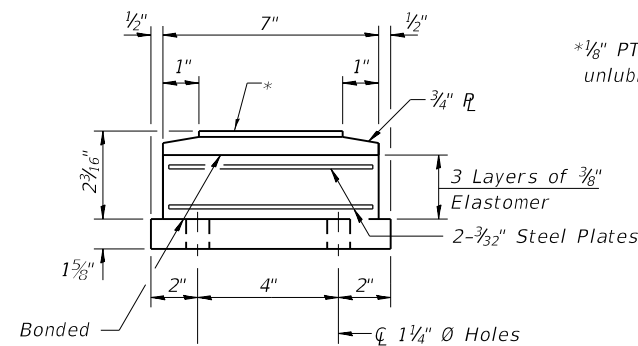
TOP BEARING ASSEMBLY



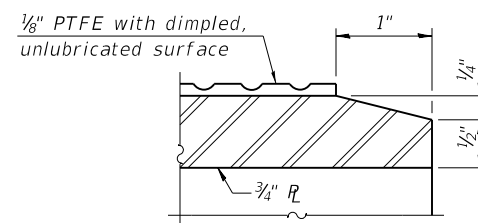
PINTLE



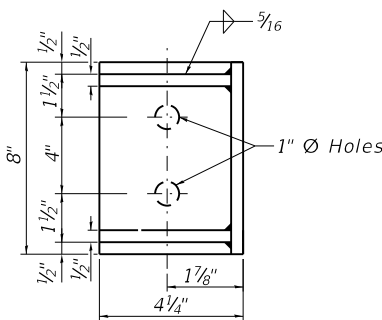
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY

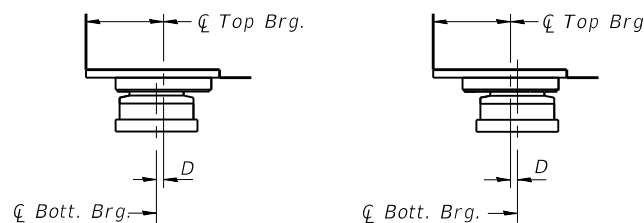


SECTION THRU PTFE



SIDE RETAINER

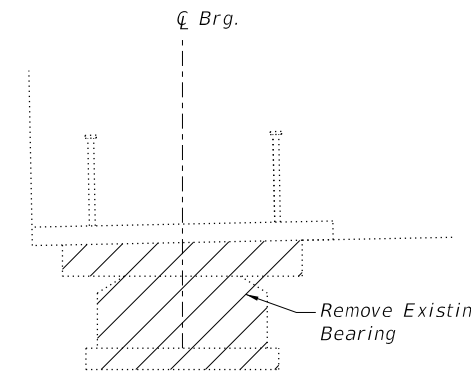
Equivalent rolled angle with stiffness will be allowed in lieu of welded plates.



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

EXPANSION BEARING ORIENTATION

The above diagrams are for informational purposes only to show the amount of expected offset "D" for the current temperature in the field.



EXISTING BEARING REMOVAL DETAIL

Burn existing side retainer bolts flush with existing concrete surface. Grind existing bolt smooth and seal with epoxy. Cost included with Jack and Remove Existing Bearings

Notes:

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

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

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.

Top and bottom bearing assembly steel shall have fy = 50 ksi.

JACK AND REMOVE EXISTING BEARING PROCEDURE

- The Contractor shall submit for approval by the Engineer, plans for jacking existing beams and installing new bearings prior to commencing any related work. Minimum jack capacity is 75 tons.
- Prior to ordering any material, the Contractor shall verify fill plate thickness required at each bearing.
- Jacking and removing existing bearings shall be done after the existing joint is removed and prior to placing the new joint concrete.
- Jacking lifts shall be limited in accordance with the special provision "Jack and Remove Existing Bearings."
- The new bearings, plates, and side retainers shall be in place and the jack shall be lowered before the new concrete deck at the joints is poured.

BEARING DIMENSIONS

Bearing	Top Plate Dimensions		Shim Plates Height
	A	B	
S. Abut	1 1/2"	1 1/2"	1 11/16"
N. Abut	1 1/2"	1 3/4"	1 9/16"

BEAM REACTIONS

	S. Abut	N. Abut
R <sub>v</sub>	(k)	27.6
R <sub>h</sub>	(k)	33.4
Impact	(k)	10.0
RTotal	(k)	71.0

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	28
Anchor Bolts, 3/4"	Each	112
Jack and Remove Existing Bearings	Each	28

MODEL: 1400ELNMMF  
FILE NAME: 0220157-02101-01-14BRGS.dwg

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184-001397

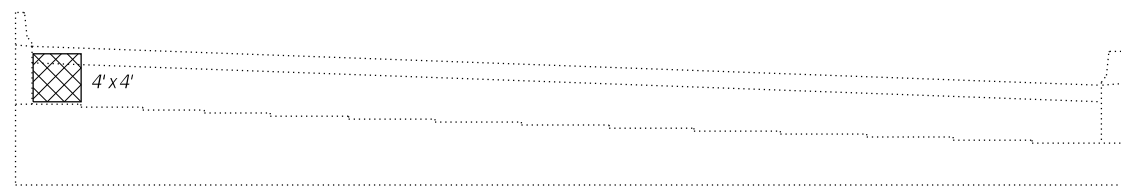
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

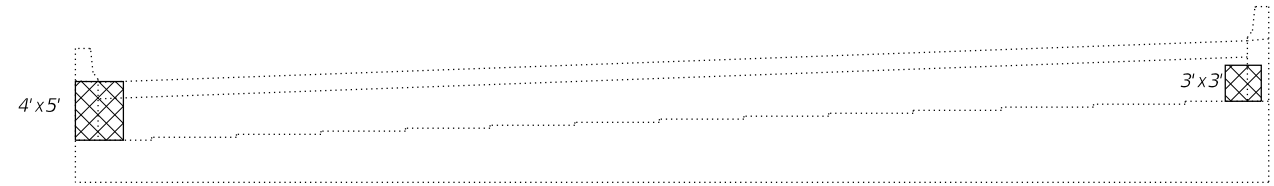
IL ROUTE 83 OVER OGDEN AVENUE - OVERLAY AND BRIDGE REPAIRS  
BEARING DETAILS - ABUTMENTS

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

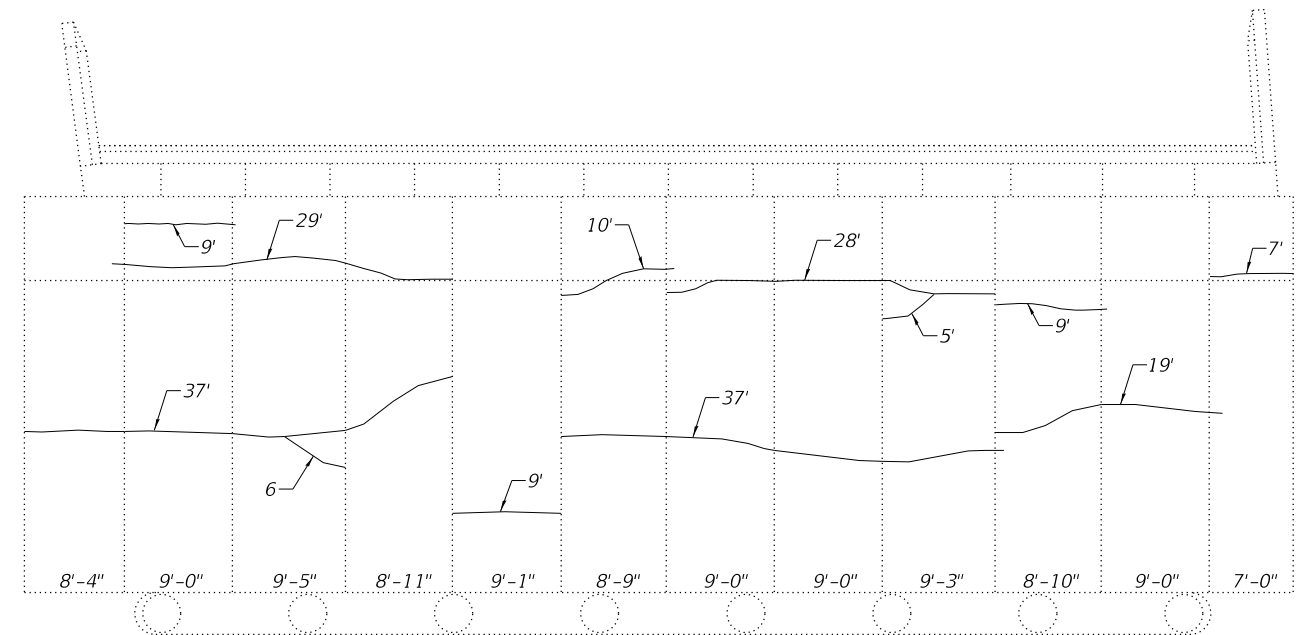
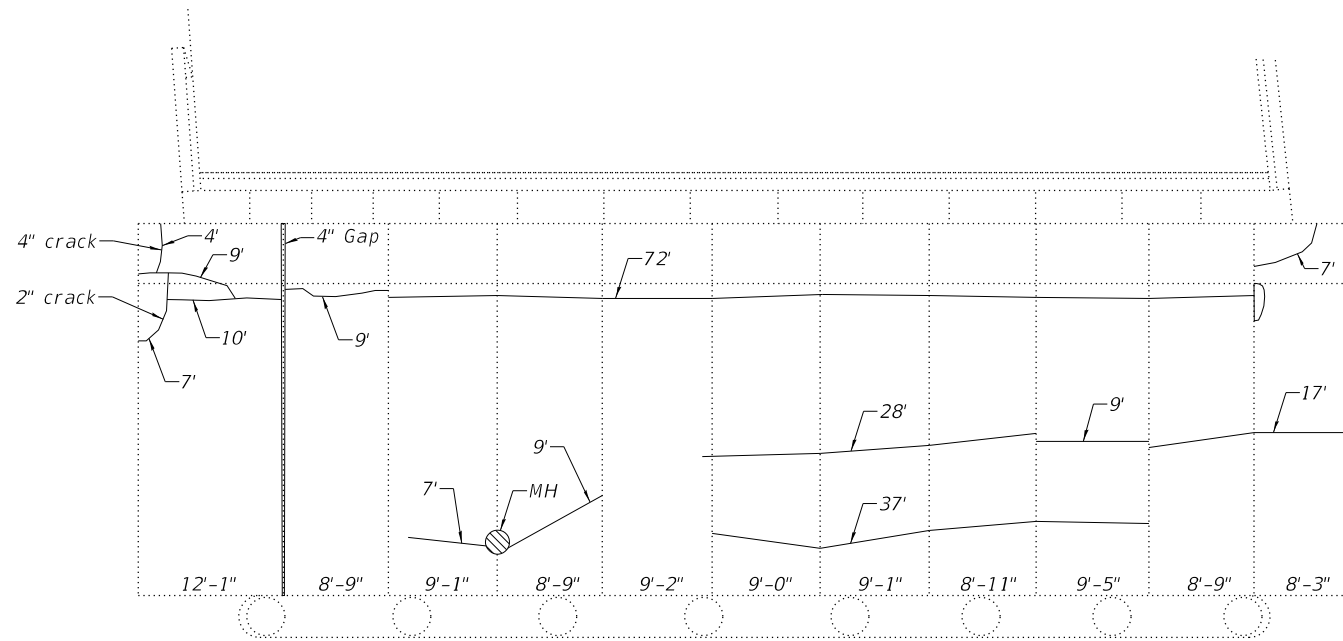
F.A.P. RTE. 344	SECTION 2018-041-BD&BJR	COUNTY DuPAGE	TOTAL SHEETS 51	SHEET NO. 40
SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS FED. AID PROJECT				



SOUTH ABUTMENT - ELEVATION



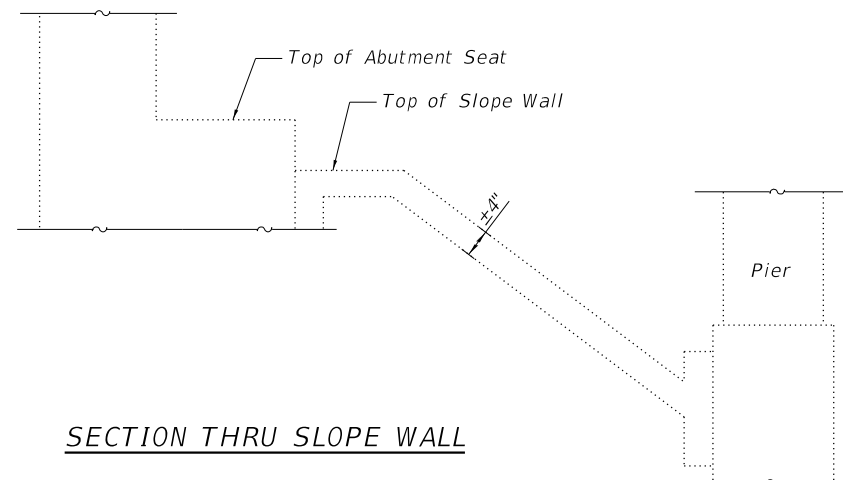
NORTH ABUTMENT - ELEVATION



SLOPE WALL  
SOUTH ABUTMENT REPAIRS  
(Looking South)



SLOPE WALL  
NORTH ABUTMENT REPAIRS  
(Looking North)



SECTION THRU SLOPE WALL

Notes:  
Repair details shown on this sheet were taken from the District's inspection sheets and field inspections completed by Chastain and Associates. Actual locations, size, and depth shall be verified in the field.

Pump Controlled Low-Strength Material in locations where slope wall undermining has occurred. Quantity shown is the estimated quantity, exact quantity to be determined in field.

BILL OF MATERIAL

SYMBOL	ITEM	UNIT	QUANTITY
	Structural Repair of Concrete (Depth Equal To or Less Than 5")	Sq. Ft.	45
	Structural Repair of Concrete (Depth Equal To or Greater Than 5")	Sq. Ft.	62
	Controlled Low-Strength Material	Cu. Yd.	5
	Slope Wall Crack Sealing	Feet	461

MODEL: 140261.MXD  
FILE NAME: 0220157-02101-015-ABUTREP.dgn

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CONSULTING ENGINEERS  
184-001397

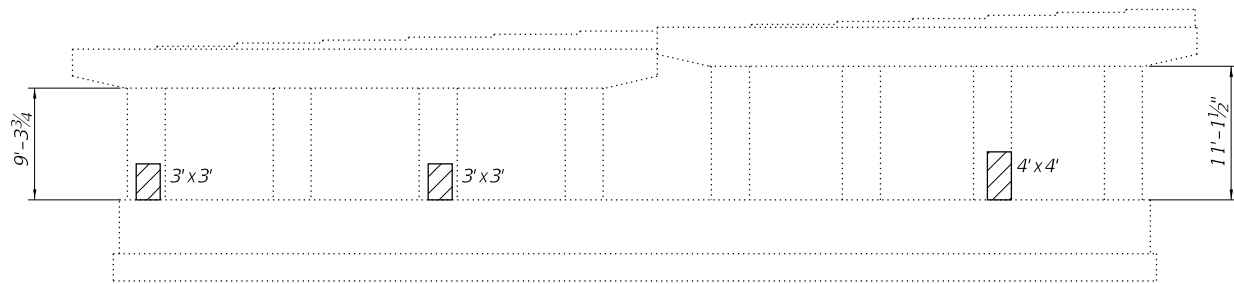
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

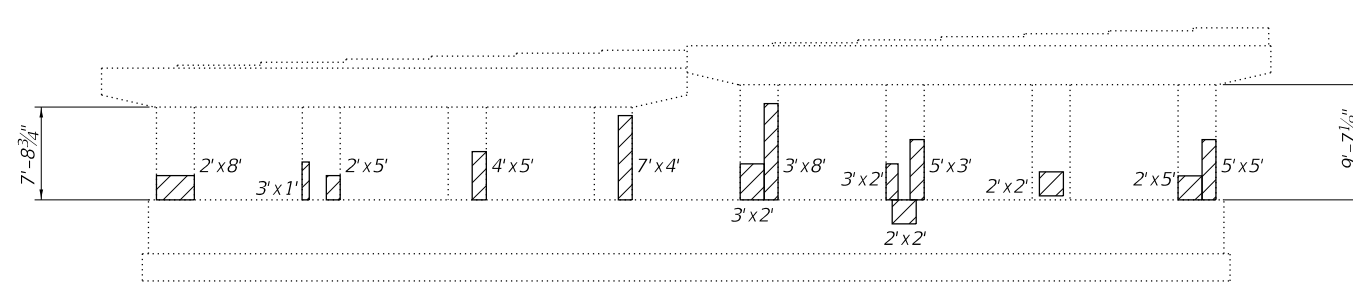
IL ROUTE 83 OVER OGDEN AVENUE - OVERLAY AND BRIDGE REPAIRS  
ABUTMENT AND SLOPE WALL REPAIRS

SCALE: SHEET 12 OF 14 SHEETS STA. TO STA.

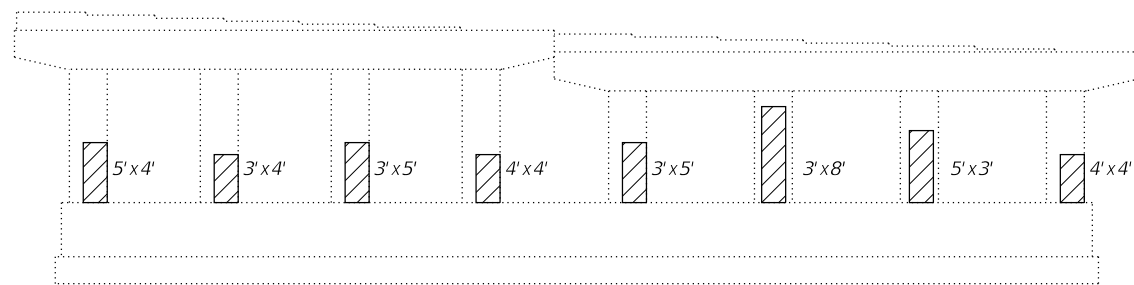
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ILLINOIS FED. AID PROJECT				



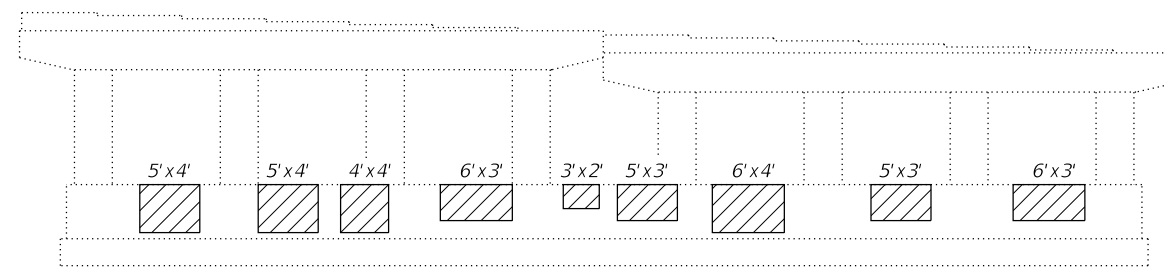
**ELEVATION - PIER 1**  
(Looking North)



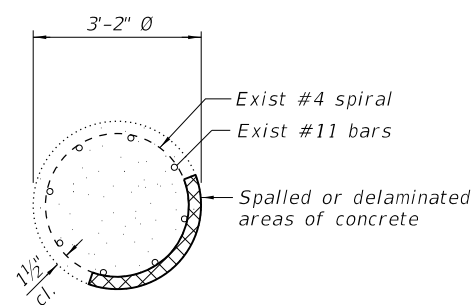
**ELEVATION - PIER 2**  
(Looking North)



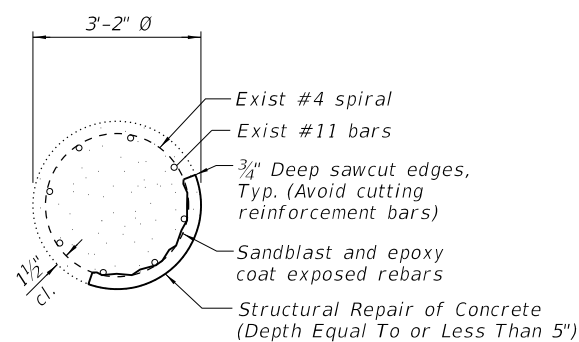
**ELEVATION - PIER 1**  
(Looking South)



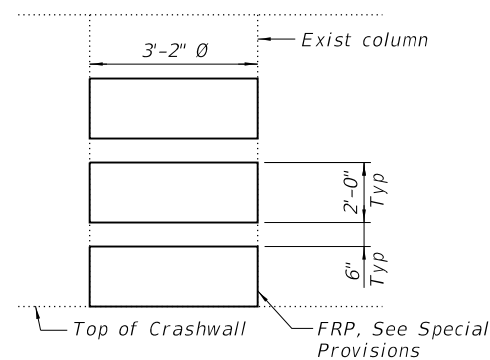
**ELEVATION - PIER 2**  
(Looking South)



**TYPICAL SECTION THRU EXISTING PIER COLUMN**



**TYPICAL SECTION THRU PIER COLUMN REPAIR**



**FIBER WRAP DETAIL**

SB Columns to receive 3 FRP bands  
NB Columns to receive 4 FRP bands

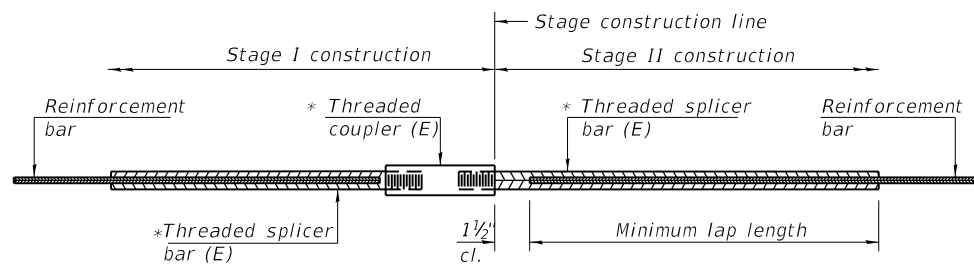
**BILL OF MATERIAL**

SYMBOL	ITEM	UNIT	QUANTITY
	Structural Repair of Concrete (Depth Equal To or Less Than 5")	Sq. Ft.	490
	Fiber Wrap	Sq. Ft.	1115
	Acrylic Coating	Sq. Yd.	248

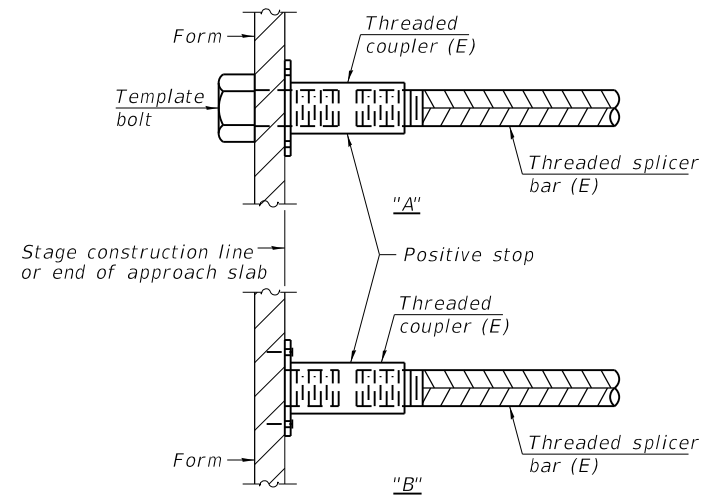
Note:  
Repair details shown on this sheet were taken from the District's inspection sheets. Actual locations, size, and depth shall be verified in the field.

Fiber wrap shall be according to the Special Provision "FRP Strengthening".

MODEL: I:\MODEL\NAME  
FILE NAME: 0220157-02101-015-PIERREP.dwg

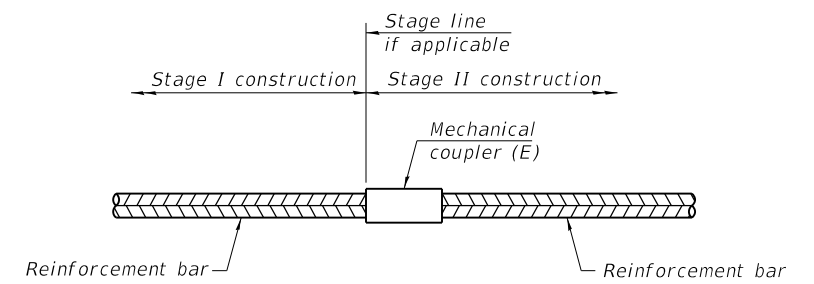


**STANDARD BAR SPLICER ASSEMBLY**



**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.



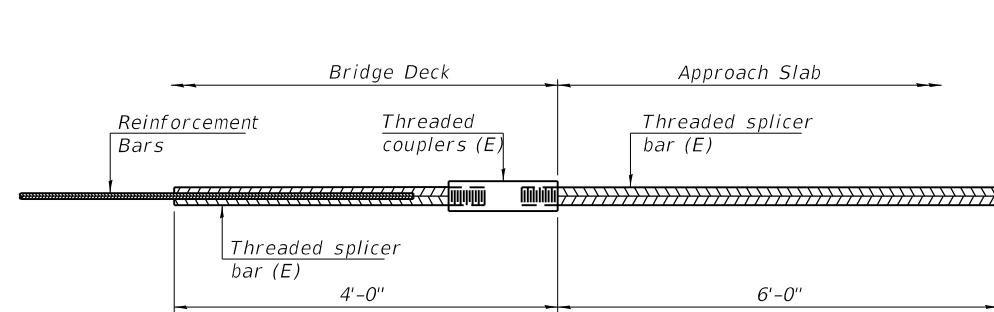
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required

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

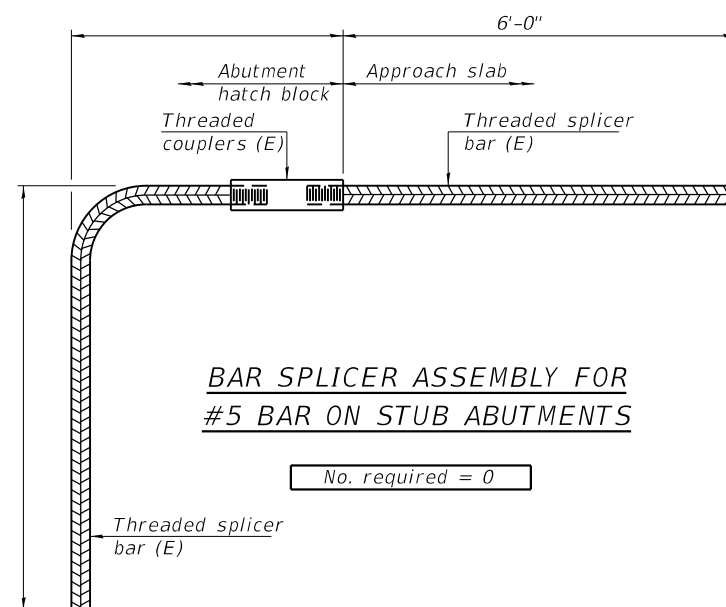
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
S. Abut. Joint	#6	4	3'-7"
S. Abut. Joint	#7	9	4'-8"
N. Abut. Joint	#6	4	3'-7"
N. Abut. Joint	#7	9	4'-8"



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

No. required = 0



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required = 0

**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.

MODEL NAME: BSD-1  
FILE NAME: 0220157-02101-015-BARSPLICE.dgn

BSD-1

2-17-2017



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DRAWN - DMW	REVISED -	
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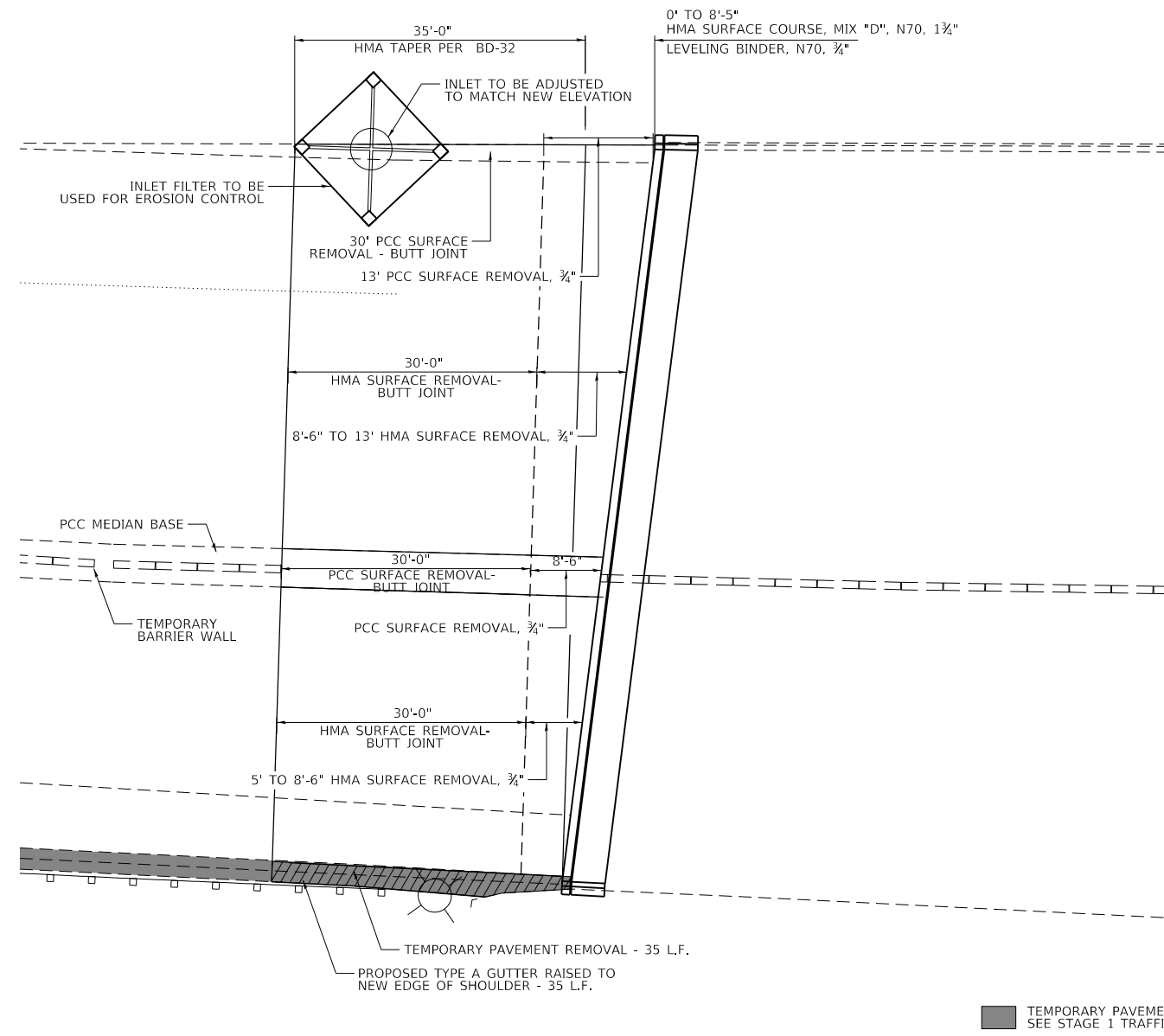
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 83 OVER OGDEN AVENUE - OVERLAY AND BRIDGE REPAIRS  
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS

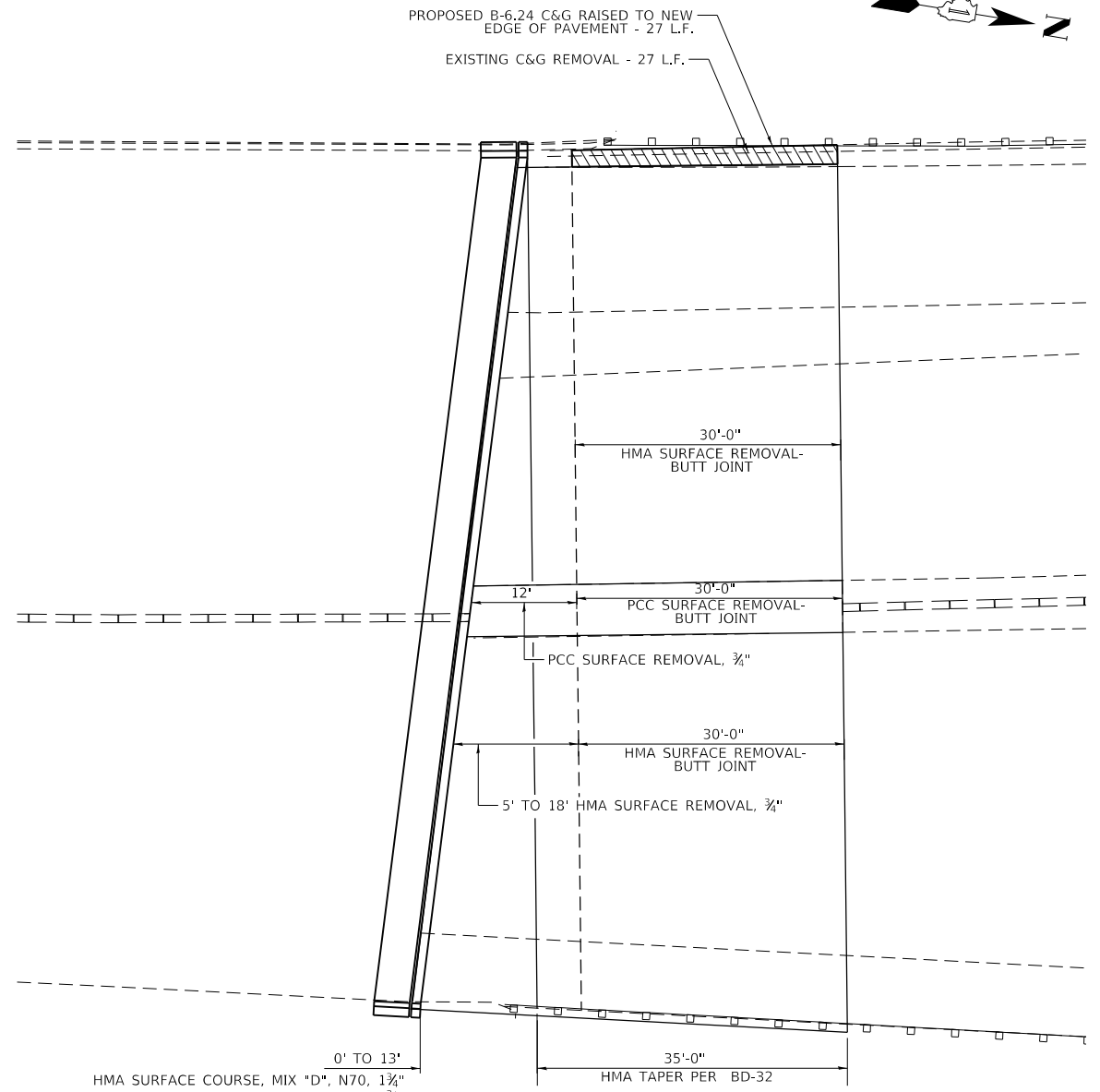
SCALE: SHEET 14 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SN 022-0157		CONTRACT NO. 62H01		
ILLINOIS		FED. AID PROJECT		



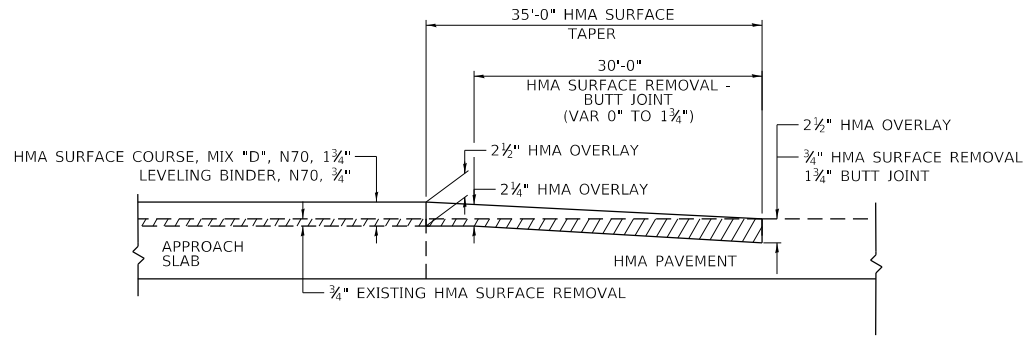


OGDEN AVENUE (US 34) BRIDGE  
PLAN VIEW  
SOUTH APPROACH SLAB



OGDEN AVENUE (US 34) BRIDGE  
PLAN VIEW  
NORTH APPROACH SLAB

TEMPORARY PAVEMENT  
SEE STAGE 1 TRAFFIC PLANS



OGDEN AVENUE (US 34) BRIDGE  
HMA TAPER DETAIL

MODEL: SMOBELNAMES  
FILE: MODEL.DWG/2018/12/13/184-001397.dwg

**CHASTAIN & ASSOCIATES LLC**  
CONSULTING ENGINEERS  
184-001397

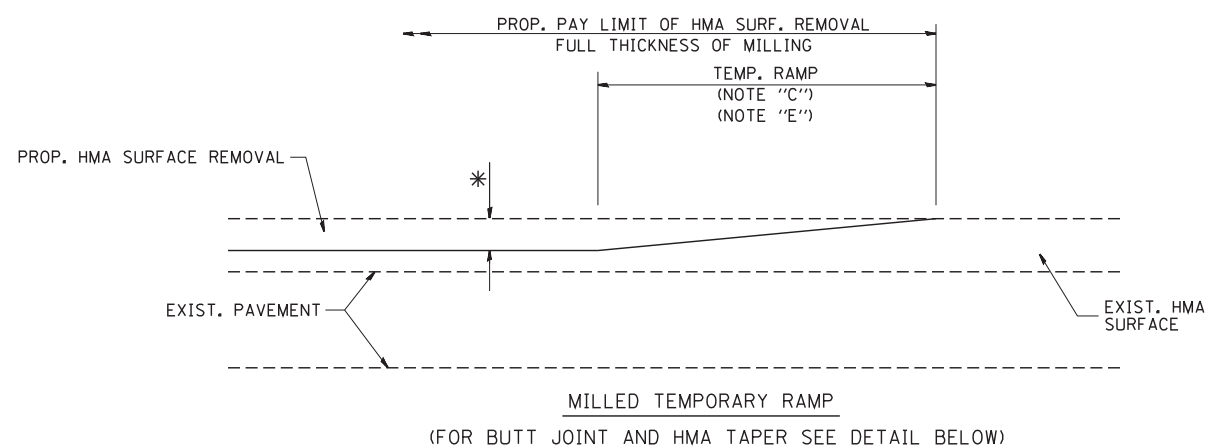
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

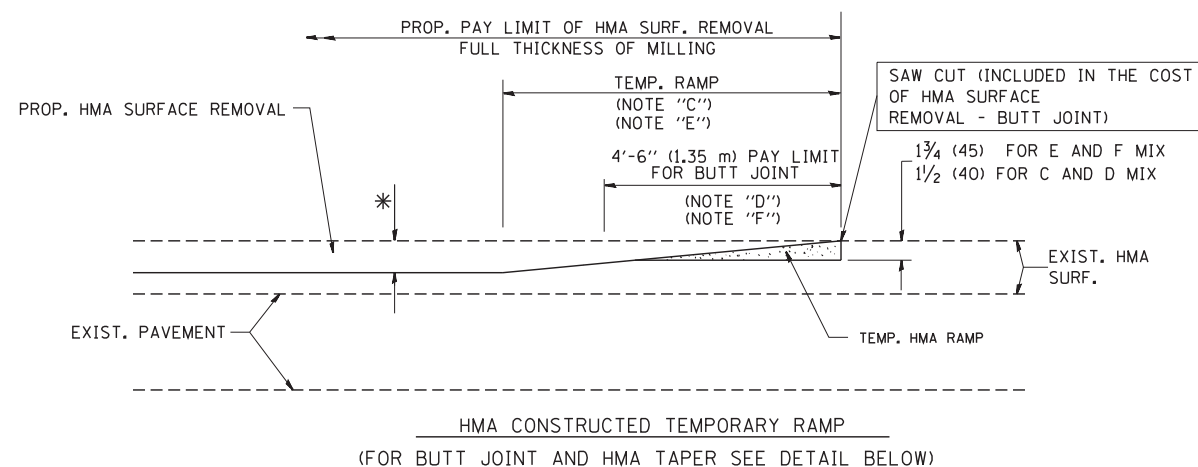
**IL 83 OVER US 34 - BRIDGE DECK OVERLAY AND BRIDGE JOINT REPAIR  
TRANSITION DETAILS**

SCALE: 1" = 20' SHEET 2 OF 2 SHEETS STA. TO STA.

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

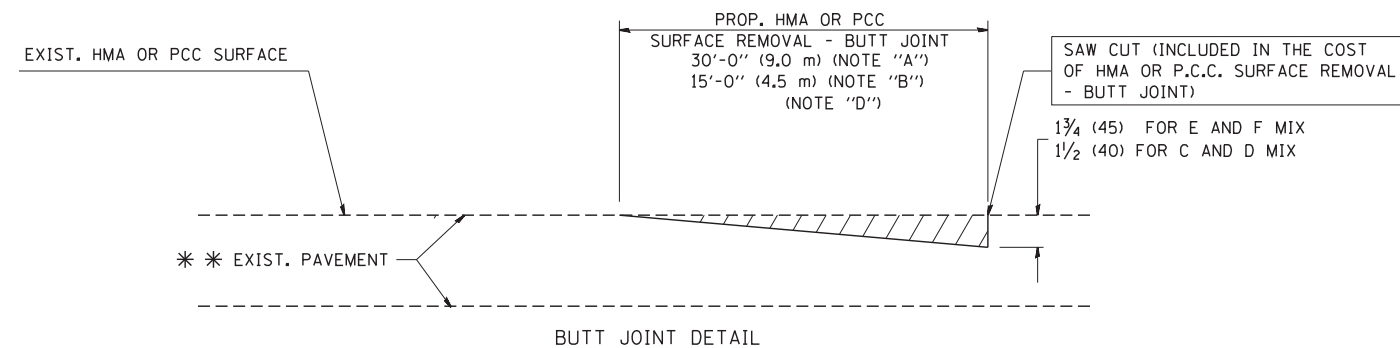


**OPTION 1**

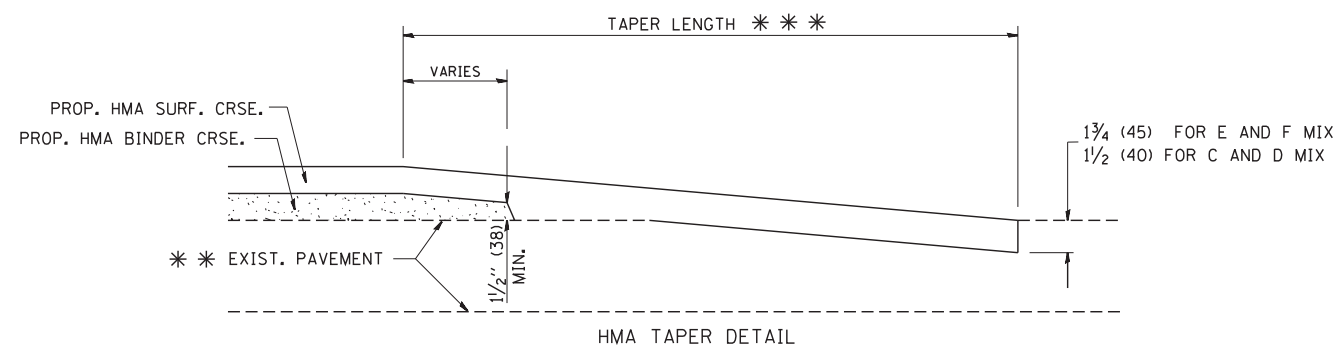


**OPTION 2**

**TYPICAL TEMPORARY RAMP**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\* \* \* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

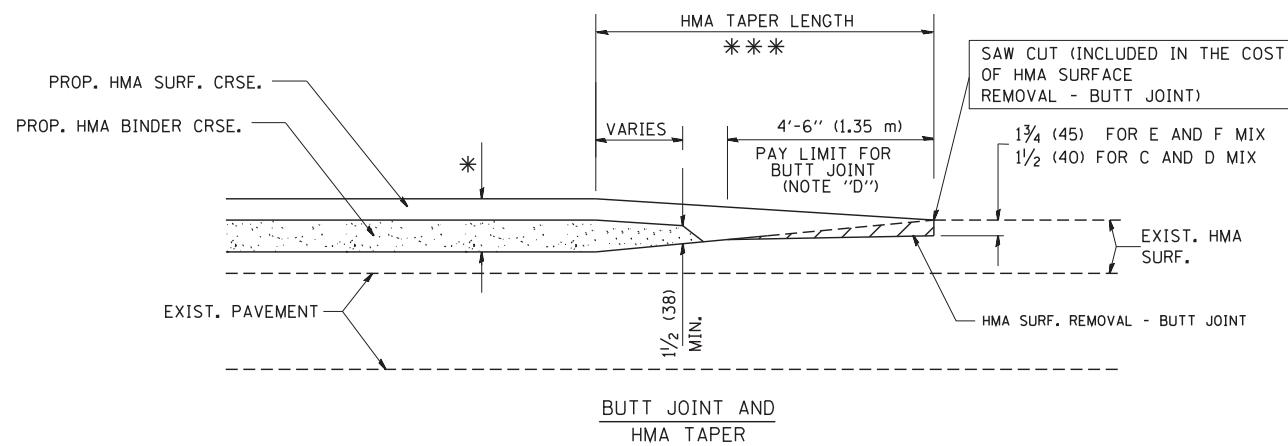
\* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

\* \* \* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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



**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**

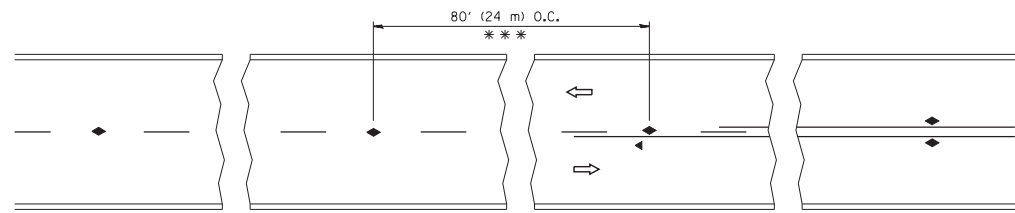
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	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

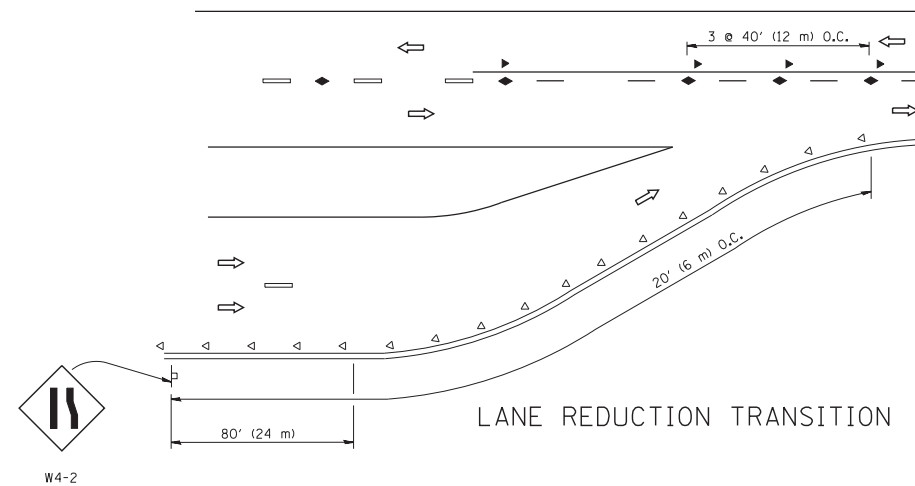
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	46
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

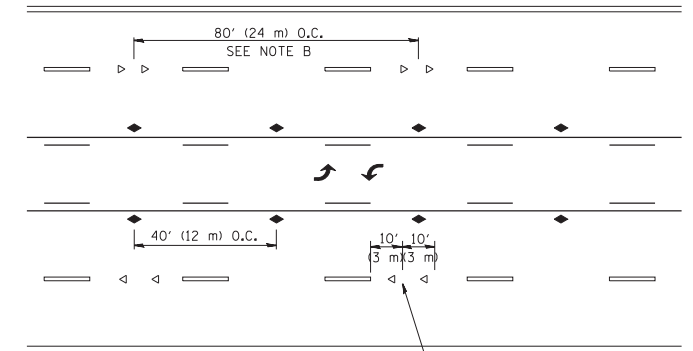


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

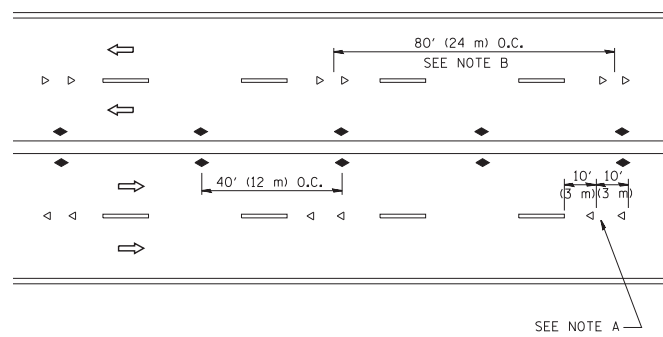
TWO-LANE/TWO-WAY



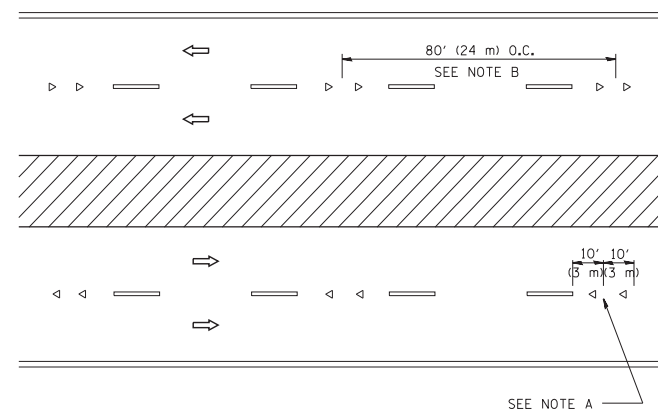
LANE REDUCTION TRANSITION



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

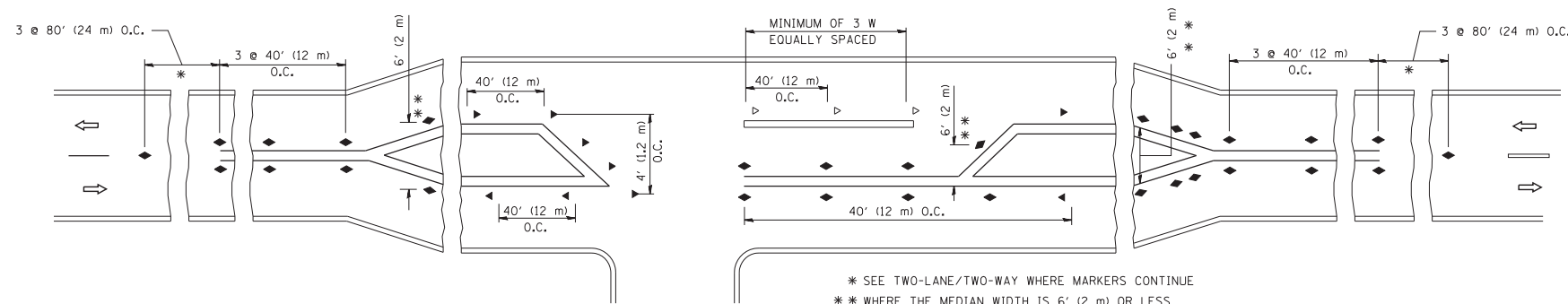
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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 SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
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

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

FILE NAME =	USER NAME = lryso	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

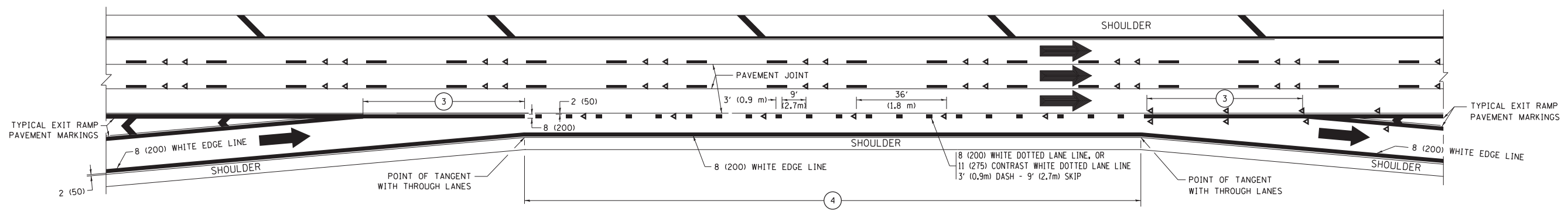
TYPICAL APPLICATIONS  
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

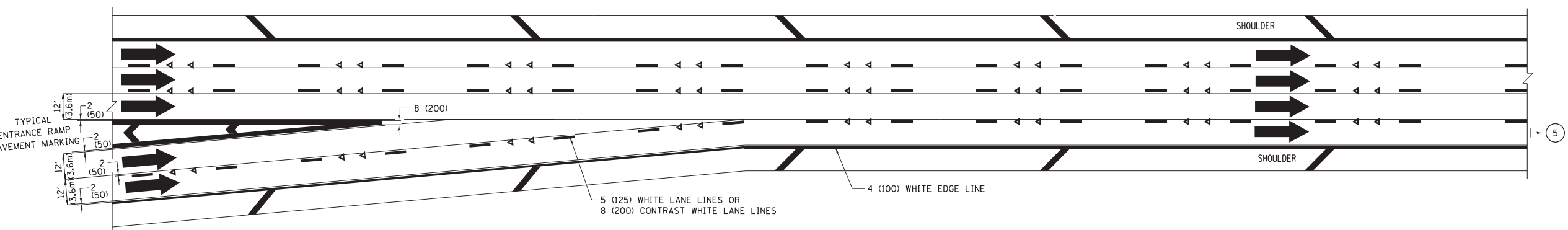
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-11		CONTRACT NO. 62H01		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



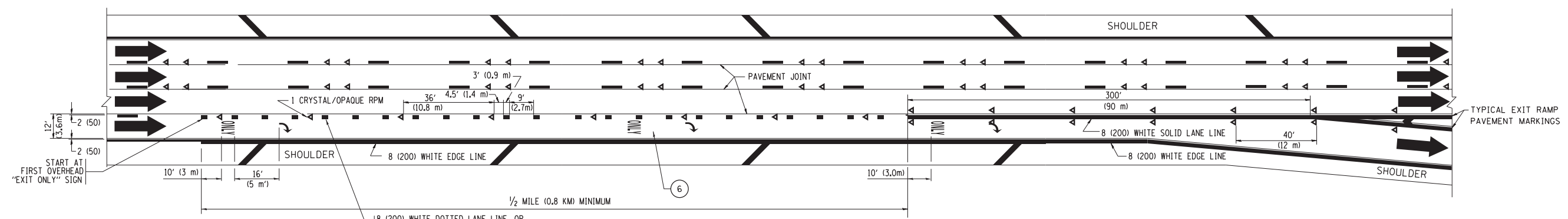




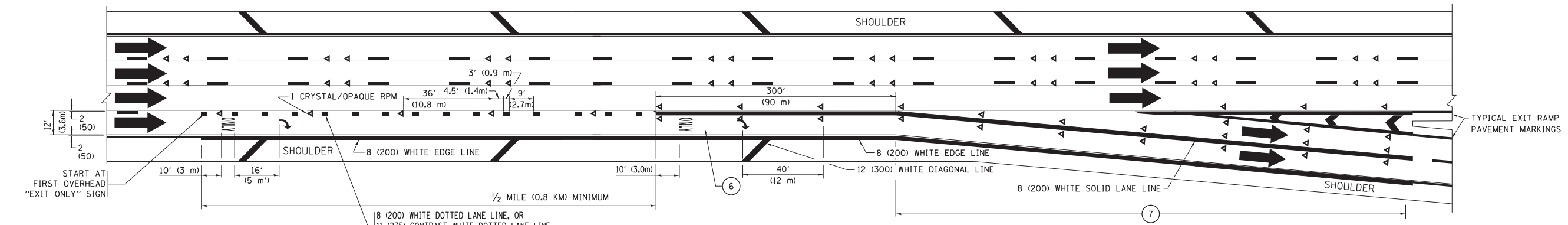
**AUXILIARY LANE MARKINGS**



**TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS**



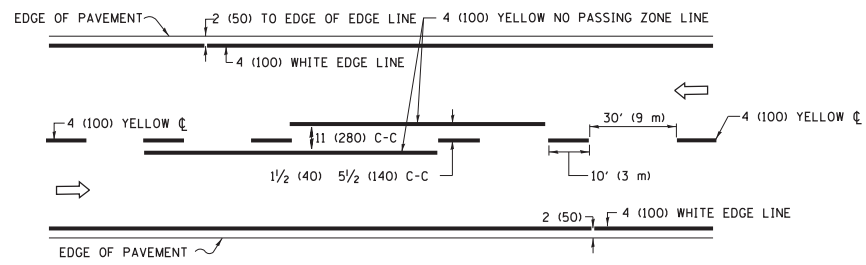
**EXIT ONLY LANE MARKINGS**



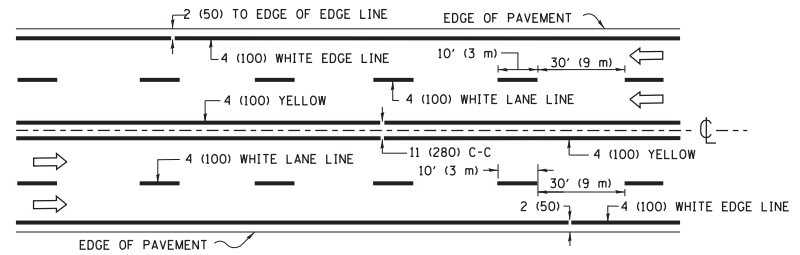
**EXIT ONLY WITH OPTION LANE MARKINGS**

- 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.

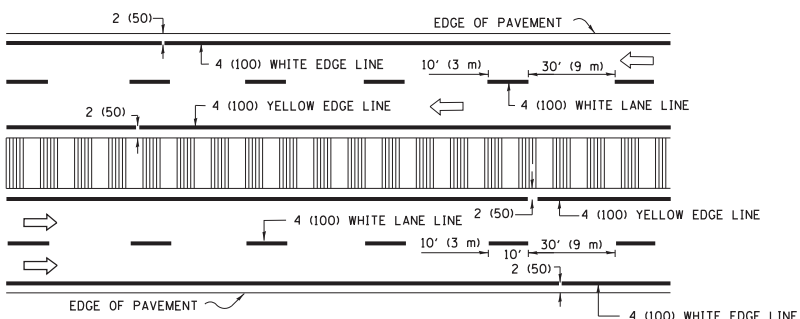
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		PLOT DATE = 9/6/2017	DATE - 01-90		REVISED - M.D. 09-17	SCALE: NONE	SHEET 2	OF 2 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	



**2-LANE ROADWAY**

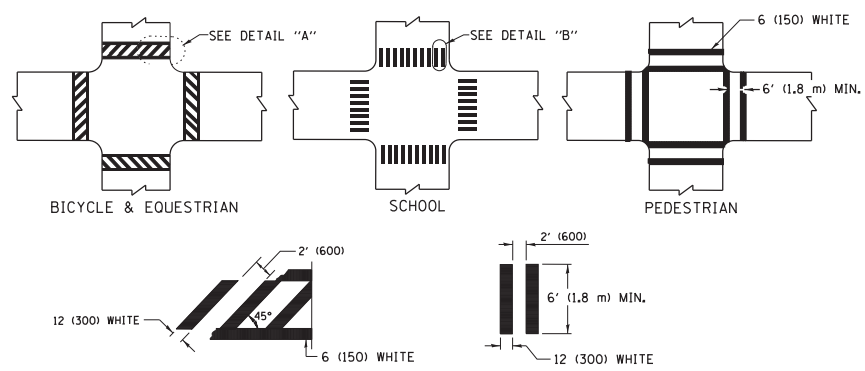


**MULTI-LANE UNDIVIDED**



**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

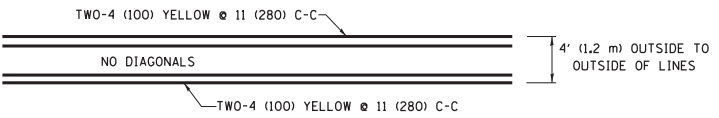


**DETAIL "A"**

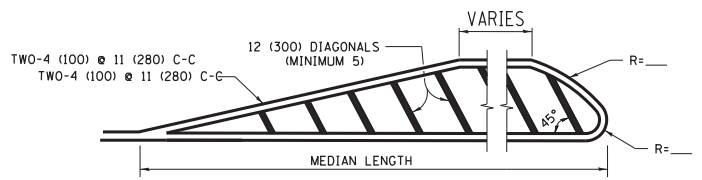
**DETAIL "B"**

**TYPICAL CROSSWALK MARKING**

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

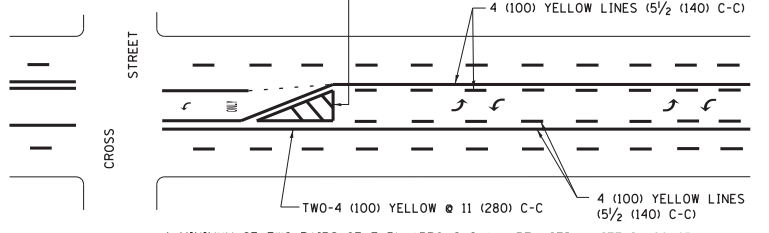


**4' (1.2 m) WIDE MEDIANS ONLY**



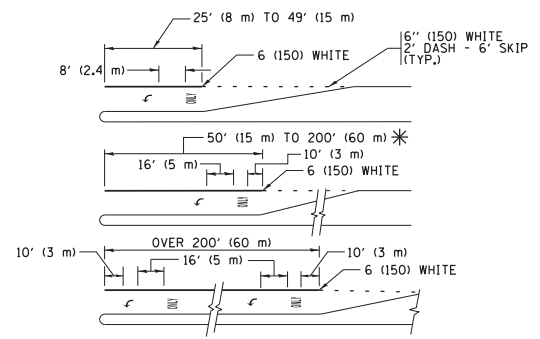
DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

**MEDIANS OVER 4' (1.2 m) WIDE**



**MEDIAN WITH TWO-WAY LEFT TURN LANE**

**TYPICAL PAINTED MEDIAN MARKING**

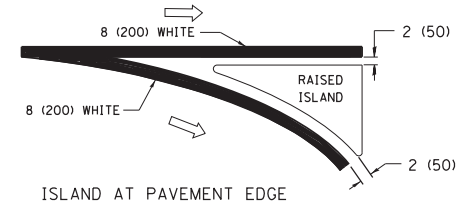
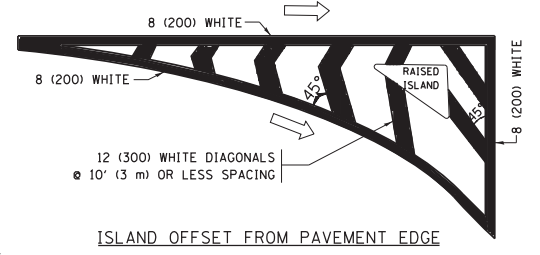


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

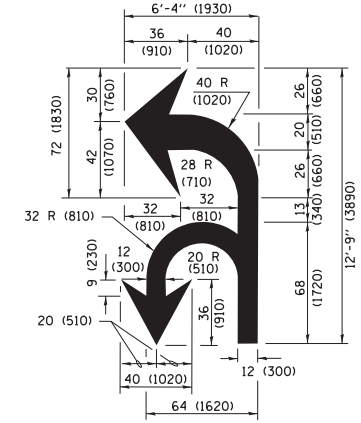
\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

**TYPICAL LEFT (OR RIGHT) TURN LANE**

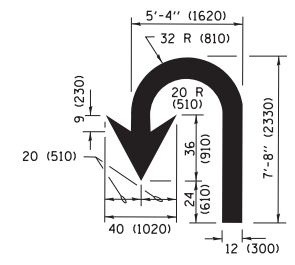
**TYPICAL TURN LANE MARKING**



**TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

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	5/2 (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 MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (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; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & 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 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" IS 6' (1.8 m) LETTERS; 16 (400) 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 (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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.

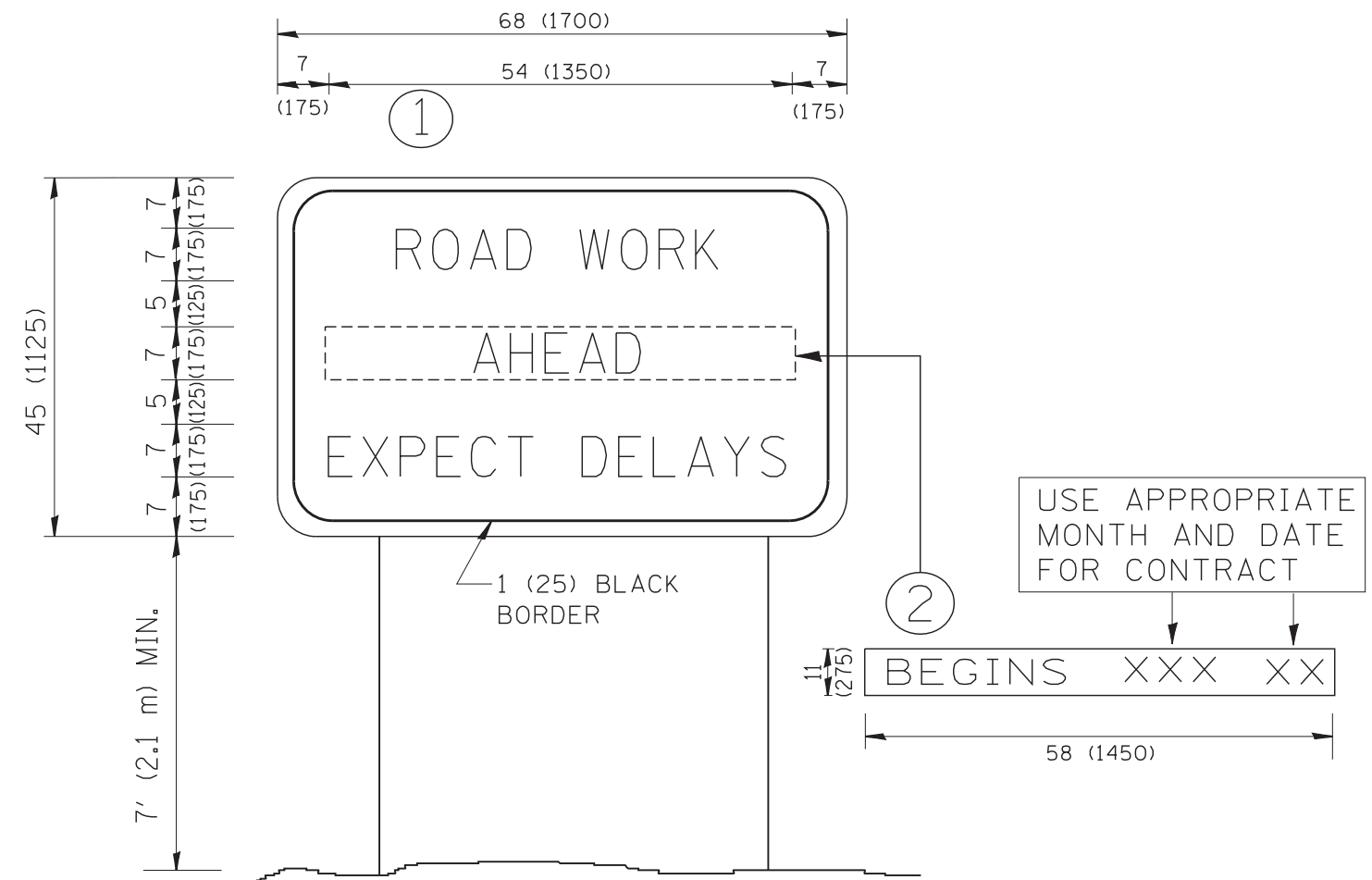
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		DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	50
<b>TC-13</b>		<b>CONTRACT NO. 62H01</b>		
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.

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

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gegltonbt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
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	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	2018-041-BD&BJR	DuPAGE	51	51
<b>TC-22</b>			<b>CONTRACT NO. 62H01</b>	
<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</small>				