

INDEX OF SHEETS

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19-33	STRUCTURE REPAIR PLANS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 33:

STD. NO.	DESCRIPTION
000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420406	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
642001-02	SHOULDER RUMBLE STRIPS, 16 IN.
701101-05	OFF-ROAD OPERATIONS, MULTI-LANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTI-LANE, MORE THAN 15' AWAY
701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-12	LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-12	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701426-09	LANE CLOSURE, MULTI-LANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS >= 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

THIS PROJECT IS LOCATED ON FAI 70 IN CUMBERLAND COUNTY, APPROXIMATELY 4.6 MILES EAST OF THE EFFINGHAM COUNTY LINE AT STRUCTURE NUMBERS 018-0042 AND 018-0043. THE WORK INCLUDED IN SECTION D-7 BRIDGE REPAIRS 2020-6 CONSISTS OF PCC BASE COURSE, TRAFFIC CONTROL, BRIDGE DECK REPAIRS, PAVEMENT MARKING, AND ANY OTHER WORK NECESSARY TO COMPLETE THE SECTION.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE TOTAL QUANTITY OF PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-INLAID-LINE 6" CONSISTS OF 576 FEET OF WHITE AND 576 FEET OF YELLOW.

THE SAW CUT REQUIRED FOR THE PAVED SHOULDER REMOVAL SHALL BE INCLUDED IN THE COST OF PAVED SHOULDER REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. ANY EXCAVATION NECESSARY FOR CONSTRUCTION OF THE PCC BASE COURSE, 10" SHALL BE INCLUDED IN THE COST OF THE PCC BASE COURSE, 10" AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

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

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

APPLICATION	AC/PG	DESIGN AIR VOIDS	MIXTURE COMPOSITION	FRICTION AGGREGATE	QUALITY MANAGEMENT
POLYMERIZED HMA SURFACE COURSE, IL-9.5, MIX "D", N90 (2")	SBS PG 70-22	4.0% @ N=90	IL - 9.5	MIXTURE D	QC/QA
HMA BINDER COURSE, IL-19.0, N90 (FLEXIBLE CONNECTOR)	SBS PG 70-22	4.0% @ N=90	IL - 19.0	N/A	QC/QA

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

HOT-MIX ASPHALT 112 LBS/SQ YD/ INCH

90% FED
10% STATE

90% FED
10% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0047 SN 018-0042	0047 SN 018-0043	
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	188	94	94	
35300500	PORTLAND CEMENT CONCRETE BASE COURSE 10"	SQ YD	1613	807	806	
40604114	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "D", N90	TON	1067	533.5	533.5	
42000060	WELDED WIRE REINFORCEMENT	SQ YD	1613	807	806	
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	178	89	89	
44000100	PAVEMENT REMOVAL	SQ YD	178	89	89	
44004250	PAVED SHOULDER REMOVAL	SQ YD	1613	807	806	
50102400	CONCRETE REMOVAL	CU YD	14.4	7.2	7.2	
50300225	CONCRETE STRUCTURES	CU YD	54.8	27.4	27.4	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	16	8	8	
50300300	PROTECTIVE COAT	SQ YD	2266	1133	1133	
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	233.2	116.6	116.6	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	91920	45960	45960	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0047 SN 018-0042	0047 SN 018-0043	
50800515	BAR SPLICERS	EACH	616	308	308	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	168	84	84	
64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	1764	883	881	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	3	3	
67100100	MOBILIZATION	L SUM	1	0.5	0.5	
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2	1	1	
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	0.5	0.5	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6	3	3	
70107007	PAVEMENT MARKING BLACKOUT TAPE, 7"	FOOT	1393	697	696	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	14	14	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	152	76	76	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	864	432	432	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1152	576	576	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N/A SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74972	

90% FED
10% STATE

90% FED
10% STATE

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0047 SN 018-0042	0047 SN 018-0043
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1000	500	500
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	800	400	400
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	1	1
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	1	1
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	540	270	270
* 78004230	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 6"	FOOT	1152	576	576
X0326440	SURFACE REMOVAL, VARIABLE DEPTH (SPECIAL)	SQ YD	1067	533.5	533.5
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	1364	682	682
* X7830074	GROOVING FOR RECESSED PAVEMENT MARKING 7"	FOOT	1422	711	711
Z0004552	APPROACH SLAB REMOVAL	SQ YD	534	267	267
Z0005010	HOT-MIX ASPHALT FOR PATCHING POTHOLES (COLD MIX)	TON	2	1	1

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		0047 SN 018-0042	0047 SN 018-0043
Z0012111	BRIDGE DECK FLY ASH OR GGBF SLAG CONCRETE OVERLAY, 2 1/2"	SQ YD	1678	839	839
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1678	839	839
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	24	10	14
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	43	16	27
Z0018051	DRAINAGE SCUPPERS TO BE ADJUSTED	EACH	4	2	2
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	2018	1009	1009

* SPECIALTY ITEM

WIDENING SCHEDULE

STATION TO STATION	PORTLAND CEMENT CONCRETE BASE COURSE, 10"	WELDED WIRE REINFORCEMENT	PAVED SHOULDER REMOVAL	SHOULDER RUMBLE STRIPS, 16"
	SQ YD	SQ YD	SQ YD	FOOT
EB				
256+44 TO 259+59	350.0	350.0	350.0	315.0
262+15 TO 263+92	196.7	196.7	196.7	177.0
257+45 TO 259+59	142.7	142.7	142.7	214.0
262+15 TO 263+92	118.0	118.0	118.0	177.0
EAST BOUND TOTALS	807.3	807.3	807.3	883.0
WB				
257+83 TO 259+59	195.6	195.6	195.6	176.0
262+15 TO 265+30	350.0	350.0	350.0	315.0
257+83 TO 259+59	117.3	117.3	117.3	176.0
262+15 TO 264+29	142.7	142.7	142.7	214.0
WEST BOUND TOTALS	805.6	805.6	805.6	881.0
TOTAL	1613	1613	1613	1764

PAVING SCHEDULE

LOCATION	SURFACE REMOVAL, VARIABLE DEPTH (SPECIAL)	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX, N80	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	PAVEMENT REMOVAL	APPROACH SLAB REMOVAL
	SQ YD	SQ YD	SQ YD	SQ YD	SQ YD
EASTBOUND					
WEST END	266.7	266.7	44.4	44.4	133.3
EAST END	266.7	266.7	44.4	44.4	133.3
EASTBOUND TOTALS	533.3	533.3	88.9	88.9	266.7
WESTBOUND					
WEST END	266.7	266.7	44.4	44.4	133.3
EAST END	266.7	266.7	44.4	44.4	133.3
WESTBOUND TOTALS	533.3	533.3	88.9	88.9	266.7
TOTAL	1067	1067	178	178	534

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D-7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	6
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				

PAVEMENT MARKING SCHEDULE

STATION TO STATION	PAVEMENT MARKING BLACKOUT TAPE, 7"	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	GROOVING FOR RECESSED PAVEMENT MARKING 7"	PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 6"	THERMOPLASTIC PAVEMENT MARKING, 6"
	FOOT	FOOT	SO FT	FOOT	FOOT	FOOT
EB						
241+94 TO 256+44	362.5	-	211.5	-	-	-
256+44 TO 259+59	78.8	28.0	55.3	-	-	-
258+99 TO 259+59		12.0	4.0	67.5		135.0
259+59 TO 259+89	7.5	4.0	5.7	67.5	67.5	-
259+89 TO 261+85	196.0	-	114.3	441.0	441.0	-
261+85 TO 262+15	7.5	4.0	5.7	67.5	67.5	-
262+15 TO 262+75		12.0	4.0	67.5		135.0
262+15 TO 263+92	44.3	16.0	31.2	-	-	-
EAST BOUND TOTALS	696.5	76.0	431.7	711.0	576.0	270.0
WB						
257+83 TO 259+59	44.0	16.0	31.0	-	-	-
258+99 TO 259+59		12.0	4.0	67.5		135.0
259+59 TO 259+89	7.5	4.0	5.7	67.5	67.5	-
259+89 TO 261+85	196.0	-	114.3	441.0	441.0	-
261+85 TO 262+15	7.5	4.0	5.7	67.5	67.5	-
262+15 TO 262+75		12.0	4.0	67.5		135.0
262+15 TO 265+30	78.8	28.0	55.3	-	-	-
265+30 TO 279+80	362.5	-	211.5	-	-	-
WEST BOUND TOTALS	696.3	76.0	431.5	711.0	576.0	270.0
TOTAL	1393	152	864	1422	1152	540

TRAFFIC CONTROL DEVICES

STATION TO STATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
	FOOT	FOOT	EACH	EACH
STAGE I				
EB				
EB 257+11 TO 259+63	250.0	-	1	-
EB 259+63 TO 262+17	250.0	-	-	-
WB				
WB 259+58 TO 262+11	250.0	-	-	-
WB 262+11 TO 264+63	250.0	-	1	-
STAGE II				
EB				
EB 258+12 TO 259+64	-	150.0	-	1
EB 259+64 TO 262+17	-	250.0	-	-
WB				
WB 259+58 TO 262+11	-	250.0	-	-
WB 262+11 TO 263+63	-	150.0	-	1
TOTALS	1000	800	2	2

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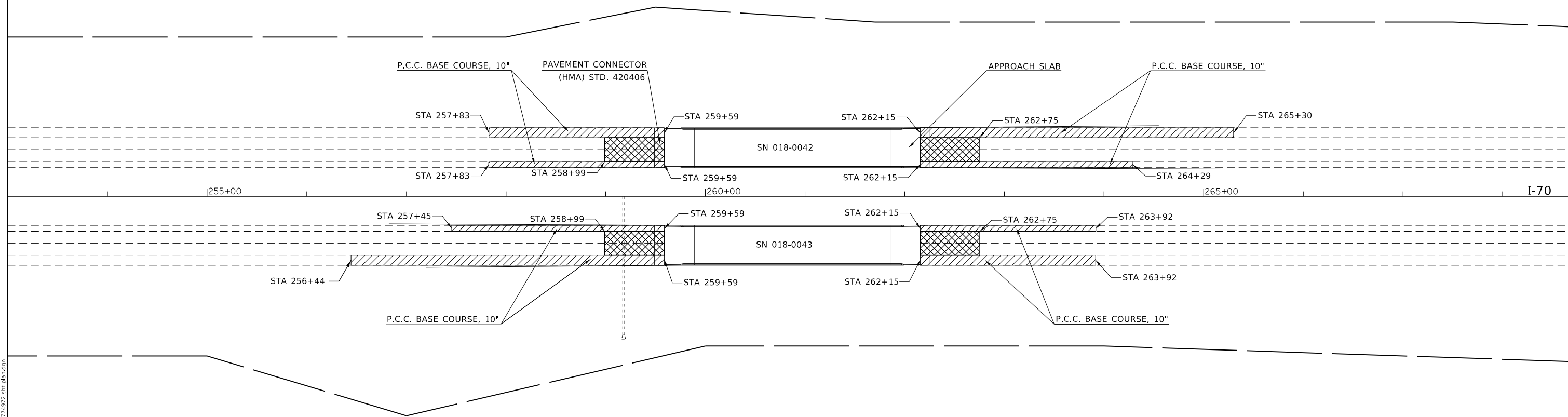
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION


SCHEDULE OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D-7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	7
CONTRACT NO. 74972				
ILLINOIS		FED. AID PROJECT		



PAVED SHOULDER REMOVAL 

SURFACE REMOVAL, VARIABLE DEPTH (SPECIAL) & POLYMERIZED HMA SURFACE COURSE, STONE MATRIX ASPHALT 

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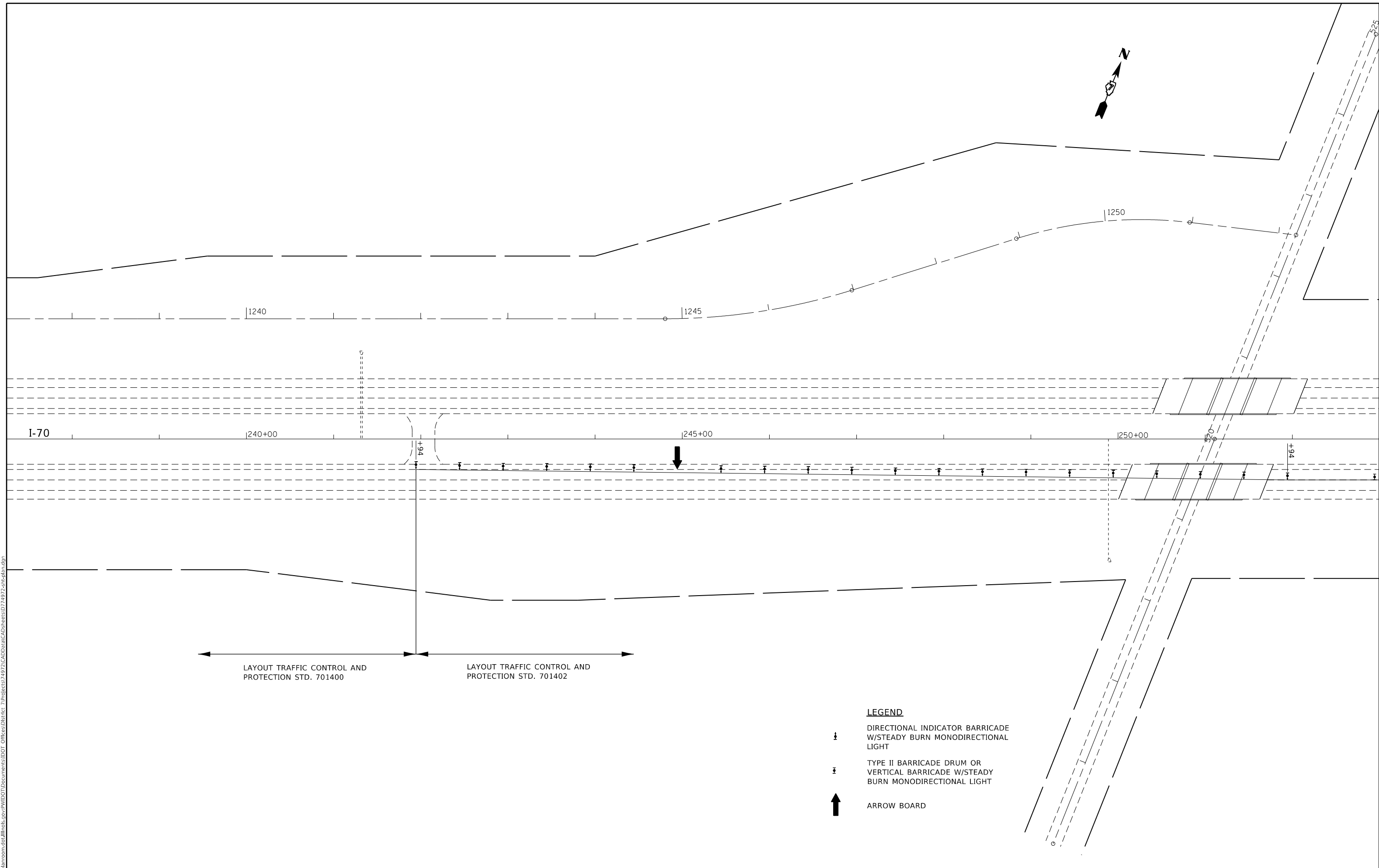
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74972	

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- LEGEND**
-  DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
 -  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
 -  ARROW BOARD

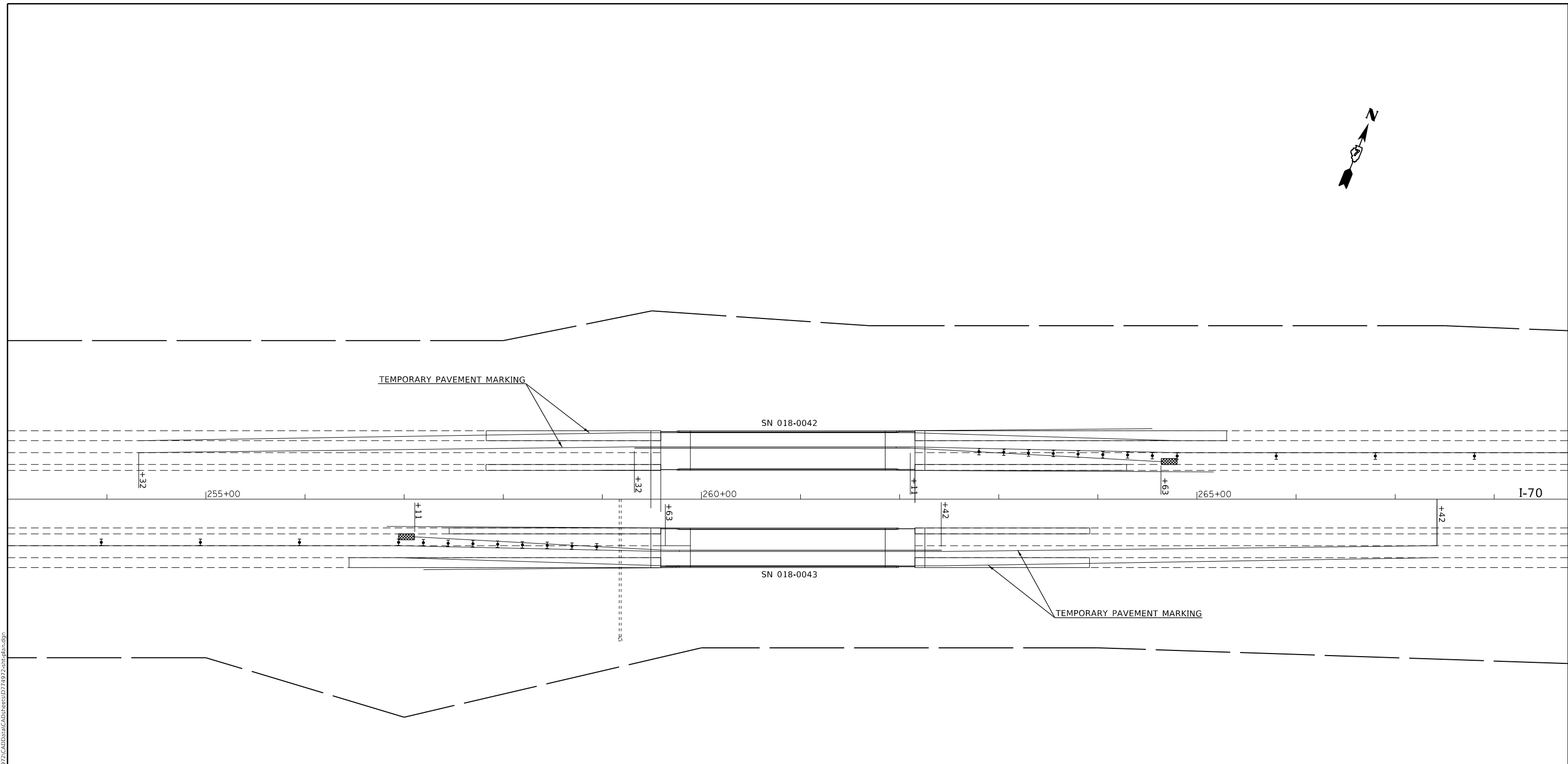
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 DEPARTMENT OF TRANSPORTATION**





SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.

STAGE I TRAFFIC CONTROL

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	10
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				



LEGEND

-  DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
-  TEMPORARY CONCRETE BARRIER

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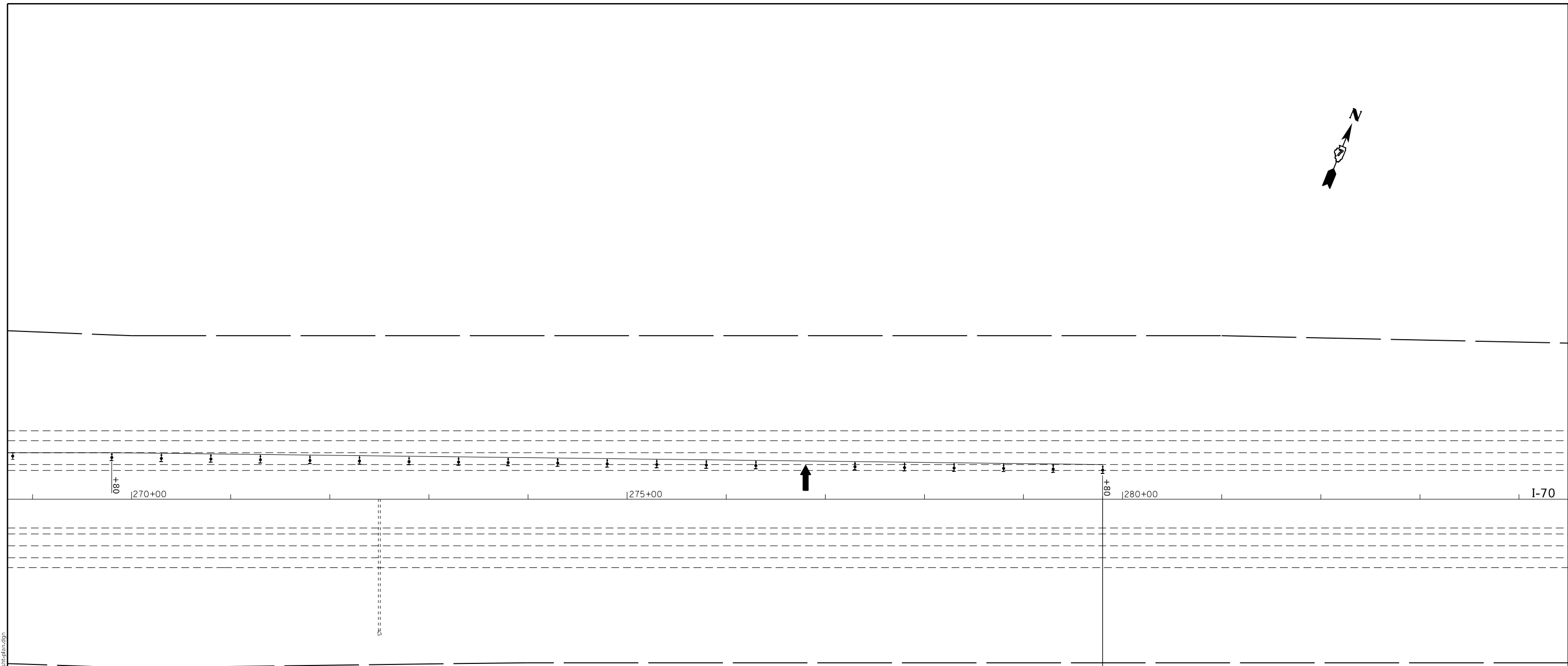
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**




STAGE I TRAFFIC CONTROL

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
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F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	11
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				



LEGEND

-  DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  ARROW BOARD

← LAYOUT TRAFFIC CONTROL AND PROTECTION STD. 701402 LAYOUT TRAFFIC CONTROL AND PROTECTION STD. 701400 →

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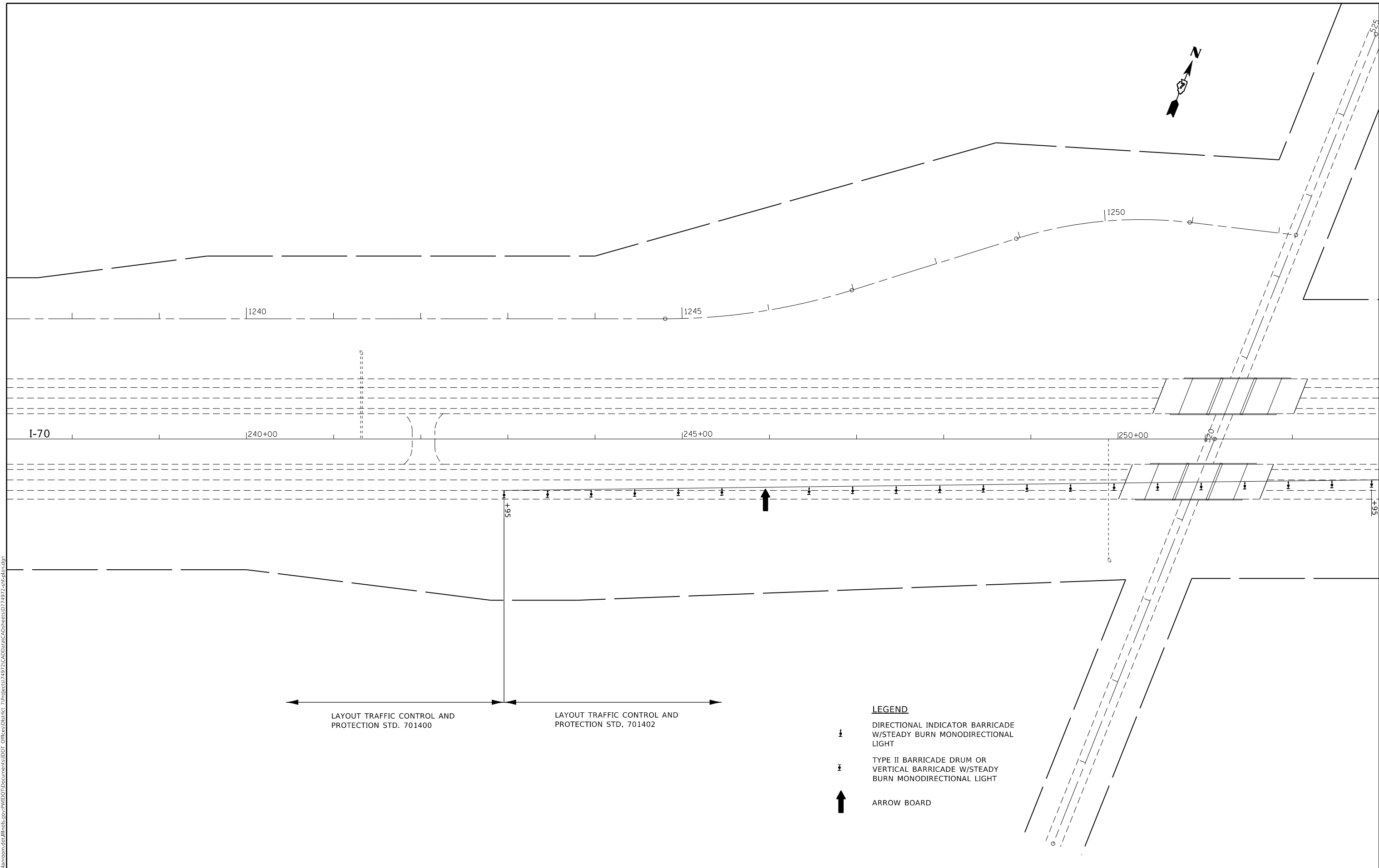
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE I TRAFFIC CONTROL




SCALE: SHEET OF SHEETS STA. TO STA.

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ILLINOIS FED. AID PROJECT				

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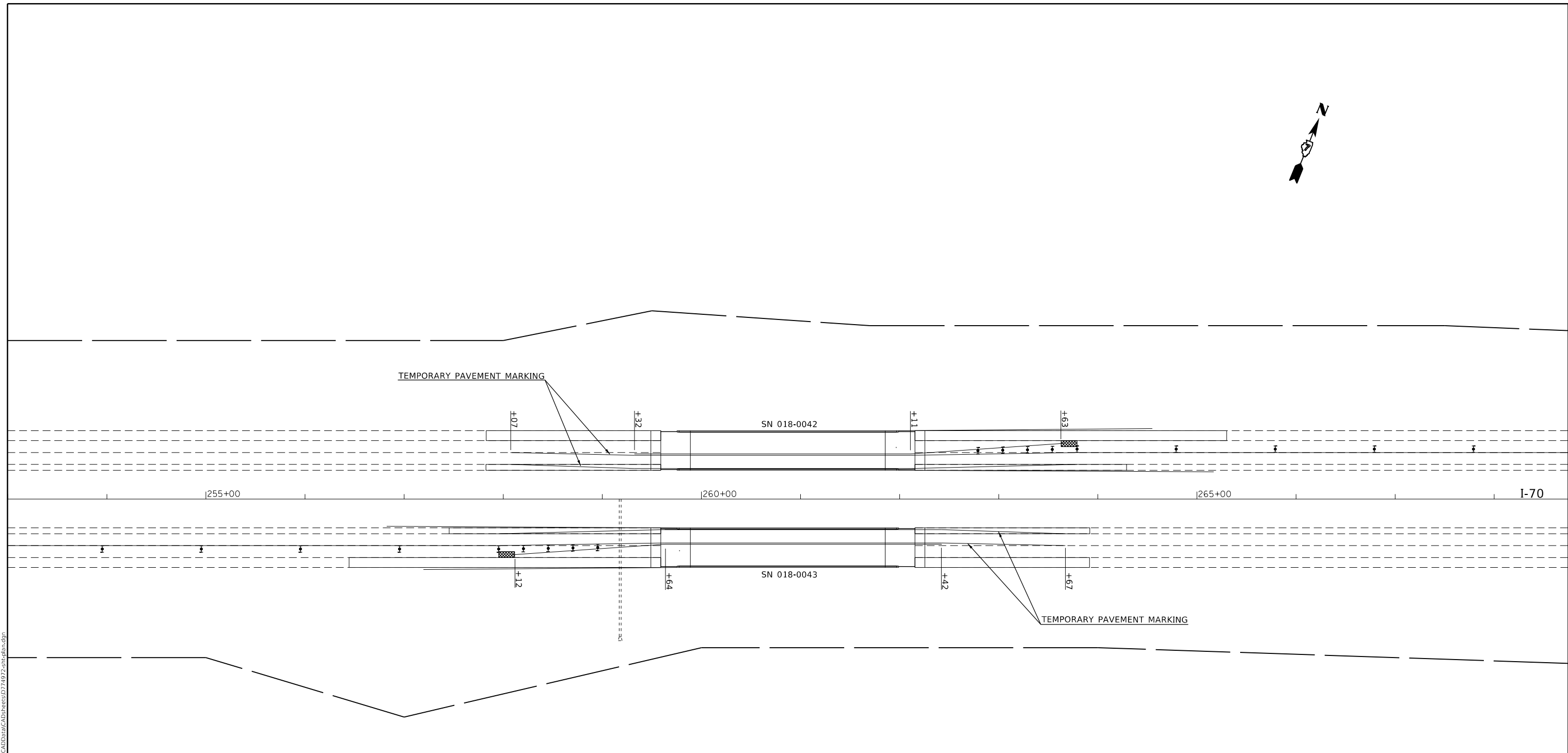
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-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  ARROW BOARD

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

STAGE II TRAFFIC CONTROL			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	13
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				



LEGEND

- DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
- TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
- IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
- TEMPORARY CONCRETE BARRIER

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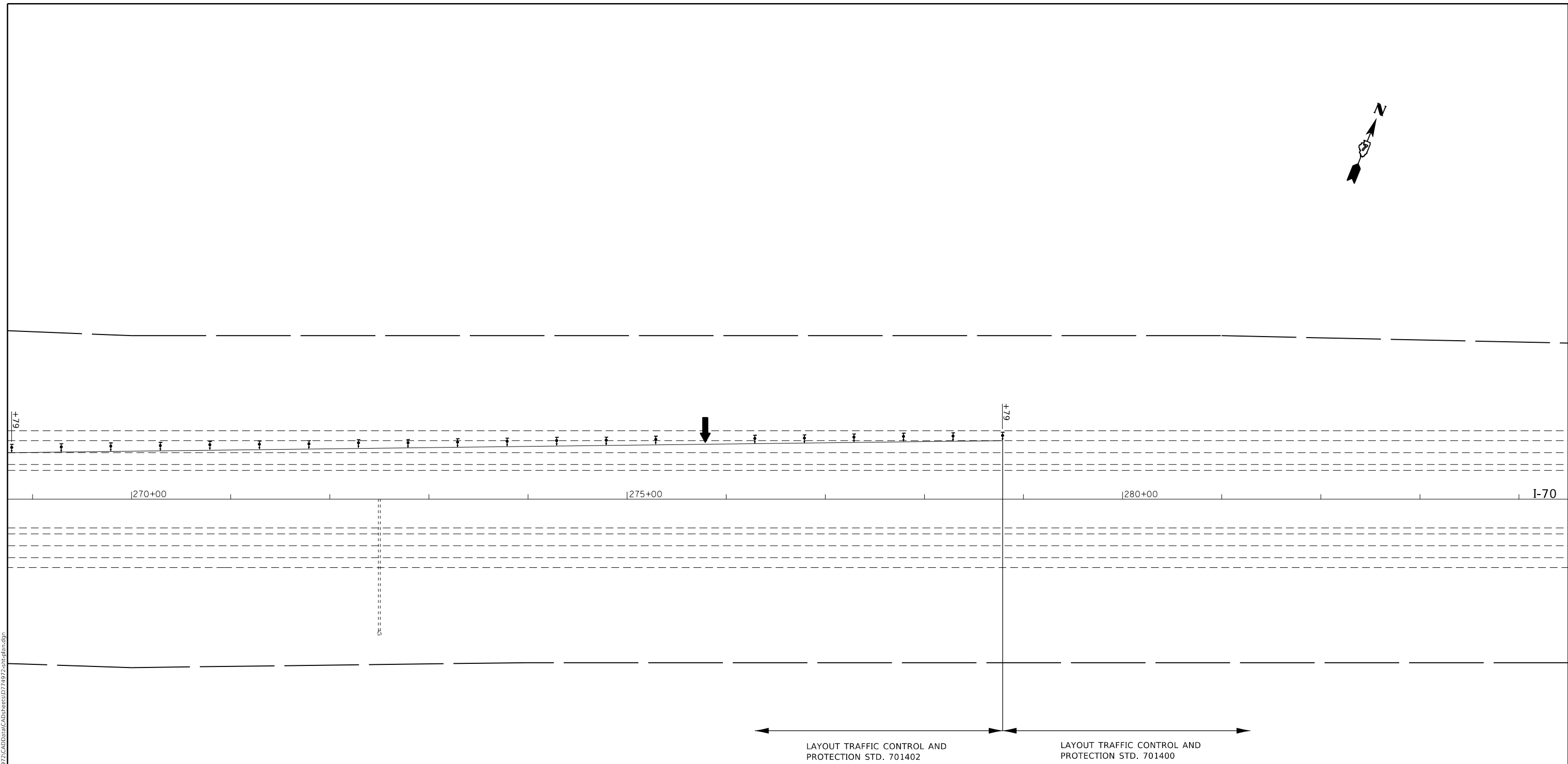
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**




STAGE II TRAFFIC CONTROL

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	14
				CONTRACT NO. 74972
ILLINOIS FED. AID PROJECT				



LEGEND

-  DIRECTIONAL INDICATOR BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE DRUM OR VERTICAL BARRICADE W/STEADY BURN MONODIRECTIONAL LIGHT
-  ARROW BOARD

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PLOT DATE = 4/7/2020	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE II TRAFFIC CONTROL

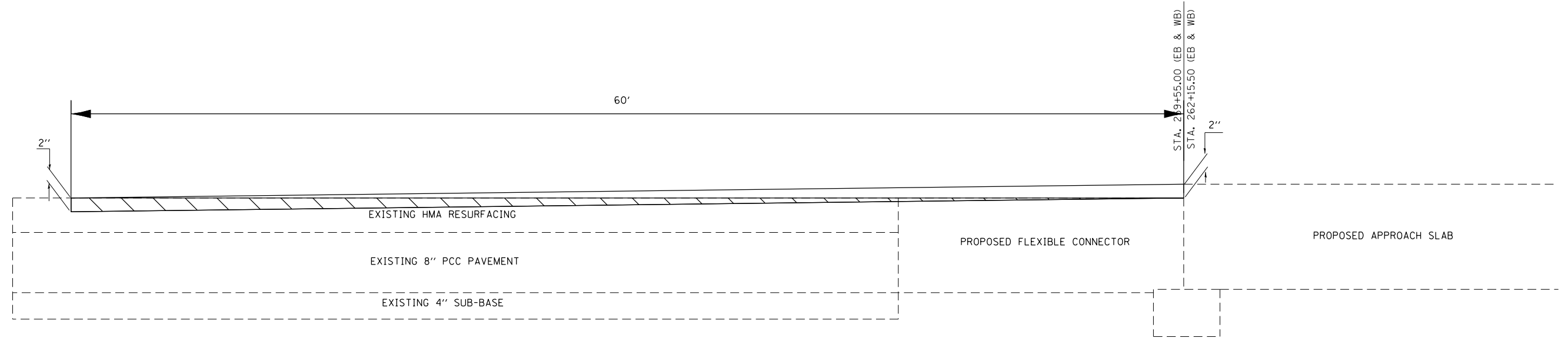
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	15
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				

PROPOSED MILLING DETAIL S.N. 018-0042 & S.N. 018-0043 APPROACHES

NOTE: NOT DRAWN TO SPECIFIC SCALE

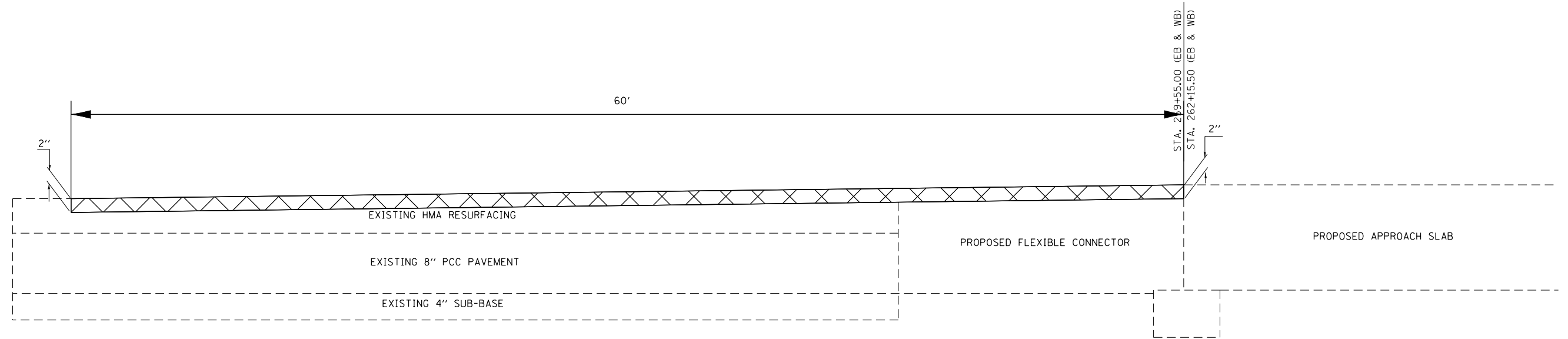
HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH



PROPOSED PAVING DETAIL S.N. 018-0042 & S.N. 018-0043 APPROACHES

NOTE: NOT DRAWN TO SPECIFIC SCALE

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80 (2")



MODEL: Default
FILE: \\nas101.pw.state.il.us\pub\lansom.d\at\illinois.gov\PW\DOT\Documents\DOT_Offices\Illin\det_7\Projects\174972\CADD\Drawings\174972-sht-dets\ill.dgn

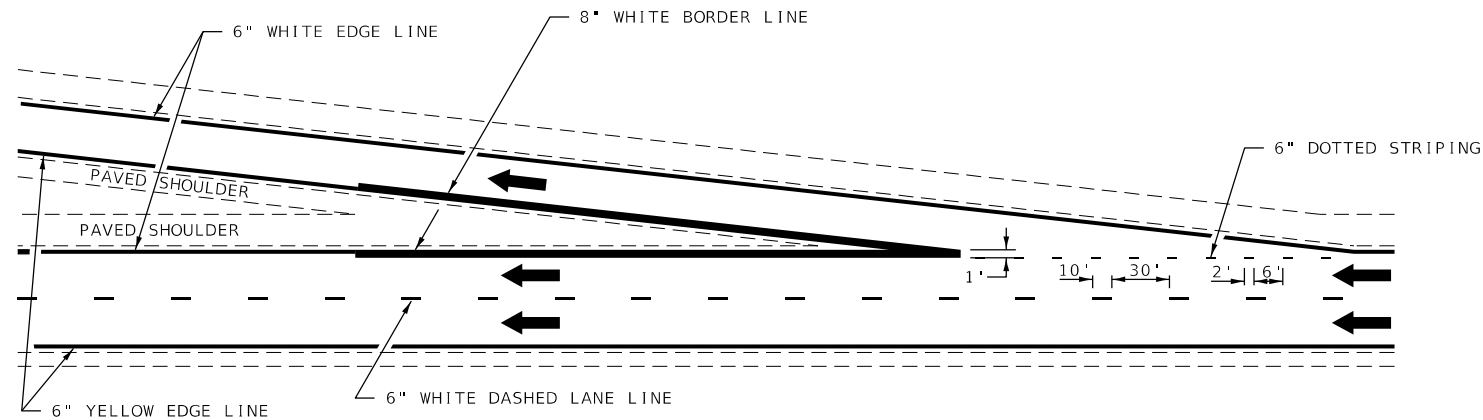
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

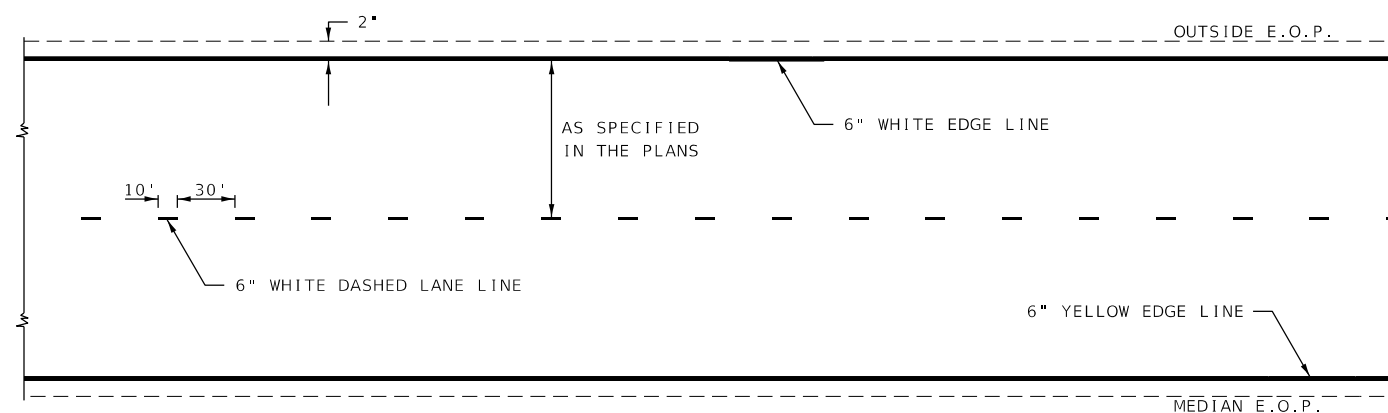
PROPOSED PAVING DETAIL

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

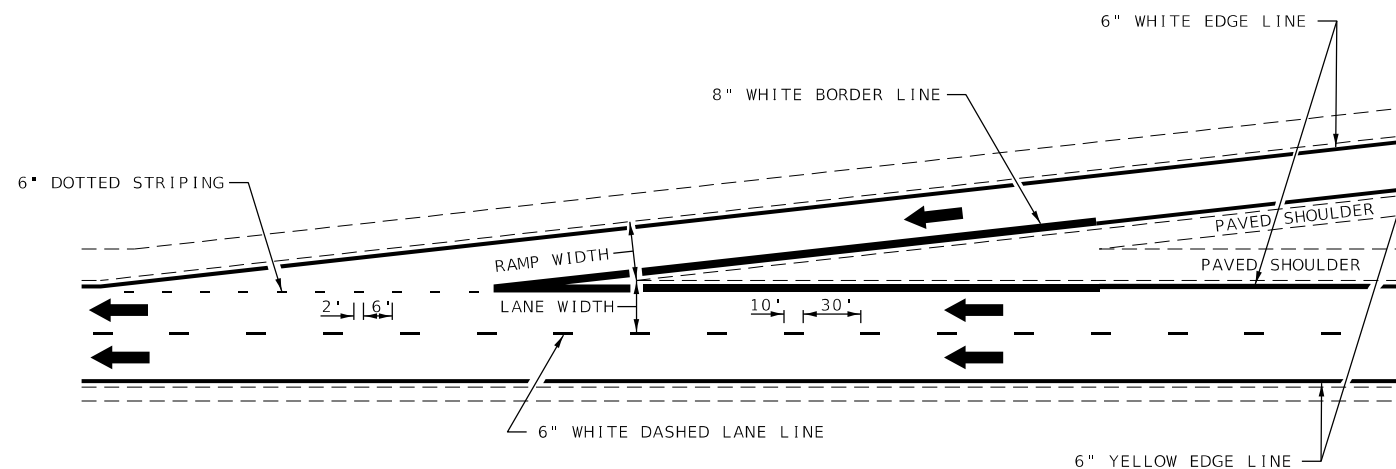
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70	D-7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	16
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				



TYPICAL EXIT RAMP MARKING



TYPICAL CENTERLING & EDGELINE MARKINGS



TYPICAL ENTRANCE RAMP MARKING

NOT TO SCALE

DISTRICT 7 DETAIL NO. 7800002

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

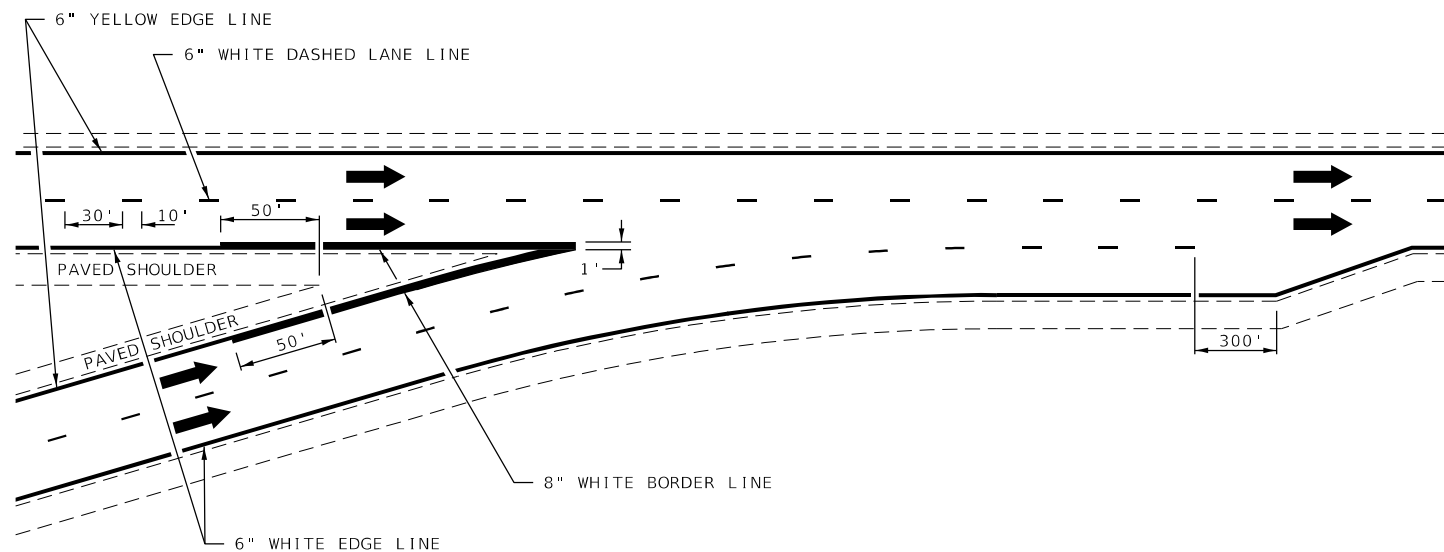
**TYPICAL APPLICATIONS OF FREEWAY/EXPRESSWAY
PAVEMENT MARKING**

F.A. 1 RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D-7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	17
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				

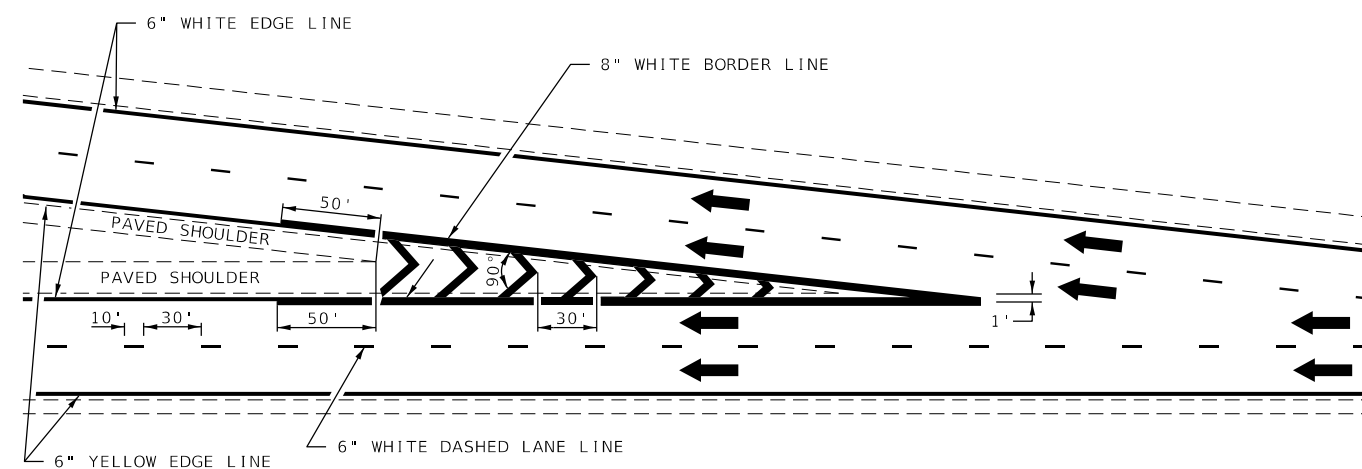
SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

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CADD: harronm.dwg
DATE: 4/7/2020

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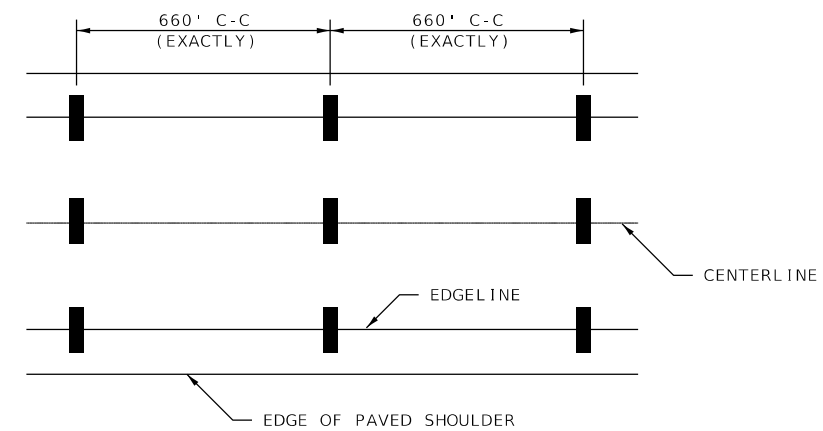


TYPICAL CONVERGENCE MARKING

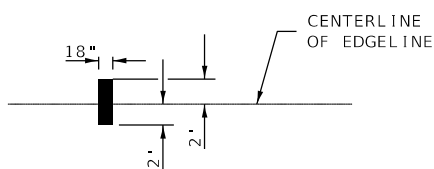


TYPICAL DIVERGENCE MARKING

AERIAL SPEED CHECK ZONES



IT WILL BE NECESSARY TO HAVE A REPRESENTATIVE OF THE STATE POLICE PRESENT SO THAT THE ACCURACY OF MEASUREMENT CAN BE ATTESTED TO IN COURT.



NOT TO SCALE

DISTRICT 7 DETAIL NO. 7800002

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PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED - MKS 04-08
PLOT DATE = 4/7/2020	DATE -	REVISED - DRM 01-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS OF FREEWAY/EXPRESSWAY
PAVEMENT MARKING

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

F.A. 1 RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D-7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	18
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				

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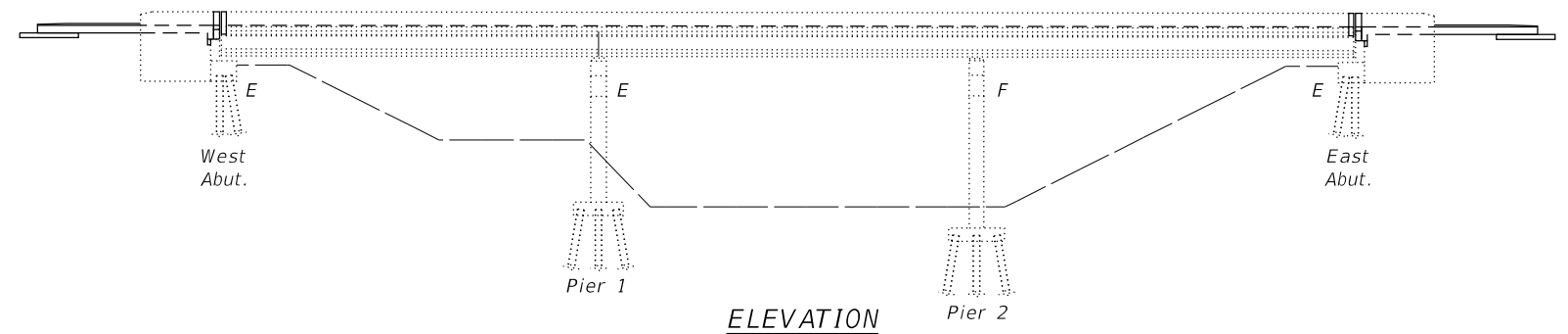
The existing three-span continuous steel multi-beam structures were constructed in 1966 as FAI 70 Section 18-45B at station 261+00. SN 018-0042 carries FAI 70 Westbound over Muddy Creek. SN 018-0043 carries FAI 70 Eastbound over Muddy Creek. The proposed project consists of new expansion joints, new concrete overlay, bridge deck repair, and new concrete approaches.

GENERAL NOTES

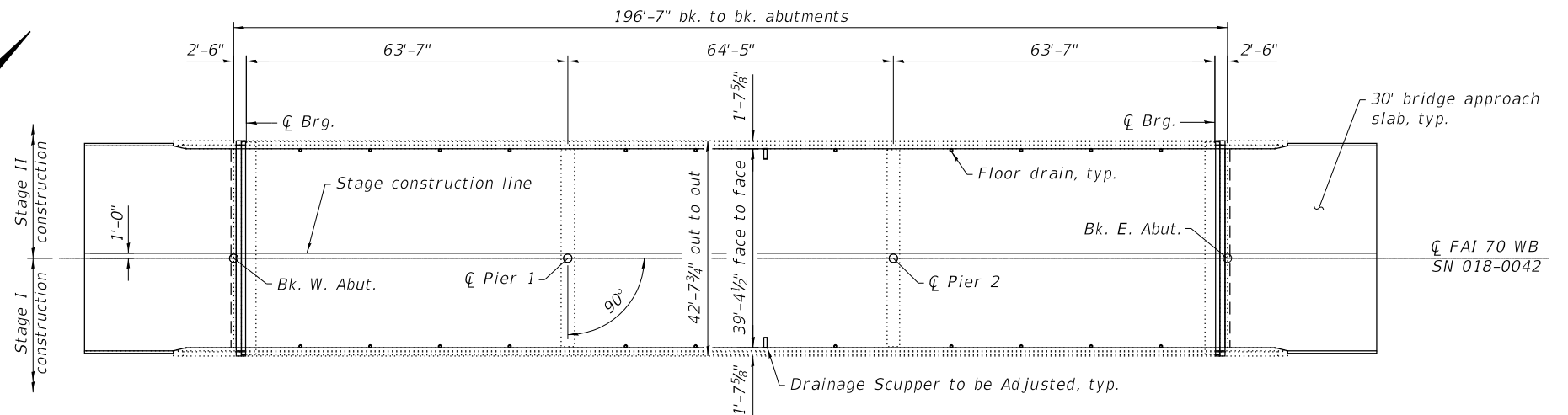
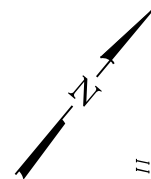
1. Reinforcement bars designated (E) shall be epoxy coated.
2. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
3. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced using an approved bar splicer or anchorage system. Cost included in Concrete Removal.
4. Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on as-built plans.
5. Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.
6. Bridge Deck Grooving (Longitudinal) shall be completed only after Diamond Grinding (Bridge Section) is complete.
7. Protective Coat shall be applied to areas of Concrete Superstructure consisting of the front faces and tops of the parapets and wingwalls and the top surfaces of the expansion joint blockouts. Protective Coat shall also be applied to the top of the new concrete overlay and to areas of Concrete Superstructure (Approach Slab) including the front faces and tops of the curbs.
8. Synthetic fibers should be added to the Bridge Deck Fly Ash or GGBF Slag Concrete Overlay. See Special Provisions.

STRUCTURE INDEX OF SHEETS

General Plan & Elevation and General Notes	Sheet No. 1 of 15
Bill of Material and Stage Construction	Sheet No. 2 of 15
Adjusting Existing Scupper	Sheet No. 3 of 15
Bridge Deck Patching	Sheet No. 4-5 of 15
Expansion Joint Replacement Details	Sheet No. 6-8 of 15
Preformed Joint Strip Seal	Sheet No. 9 of 15
Bridge Approach Slab Details	Sheet No. 10-12 of 15
Abutment Repairs	Sheet No. 13 of 15
Bar Splicer Assembly Details	Sheet No. 14 of 15
Existing Scupper Plan Sheet	Sheet No. 15 of 15

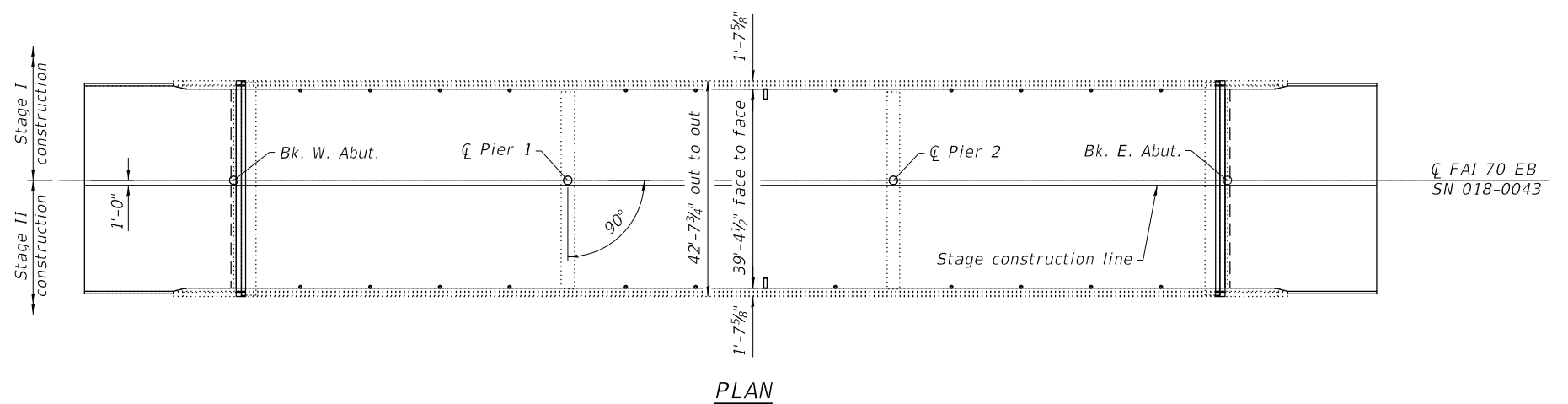


ELEVATION



CL FAI 70 WB
SN 018-0042

CL FAI 70



CL FAI 70 EB
SN 018-0043

PLAN

STATE OF ILLINOIS
No. 081-006159
EXPIRES 11-30-20
SIGNATURE
04-02-20
DATE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

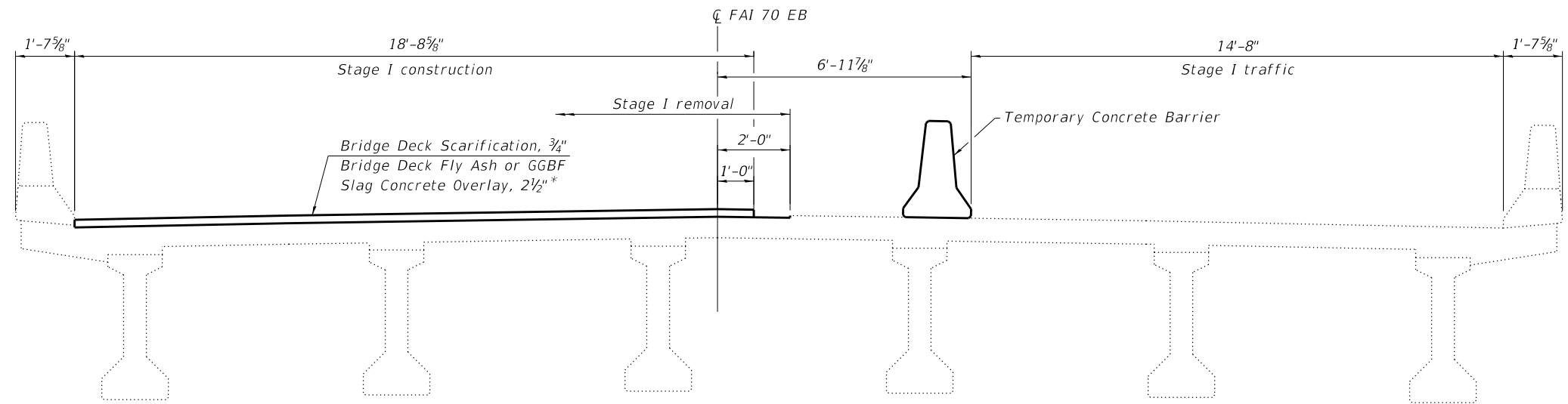
GENERAL PLAN & ELEVATION AND GENERAL NOTES
SN 018-0042 (WB) & SN 018-0043 (EB)

SHEET 1 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	19
CONTRACT NO. 74972				
ILLINOIS		FED. AID PROJECT		

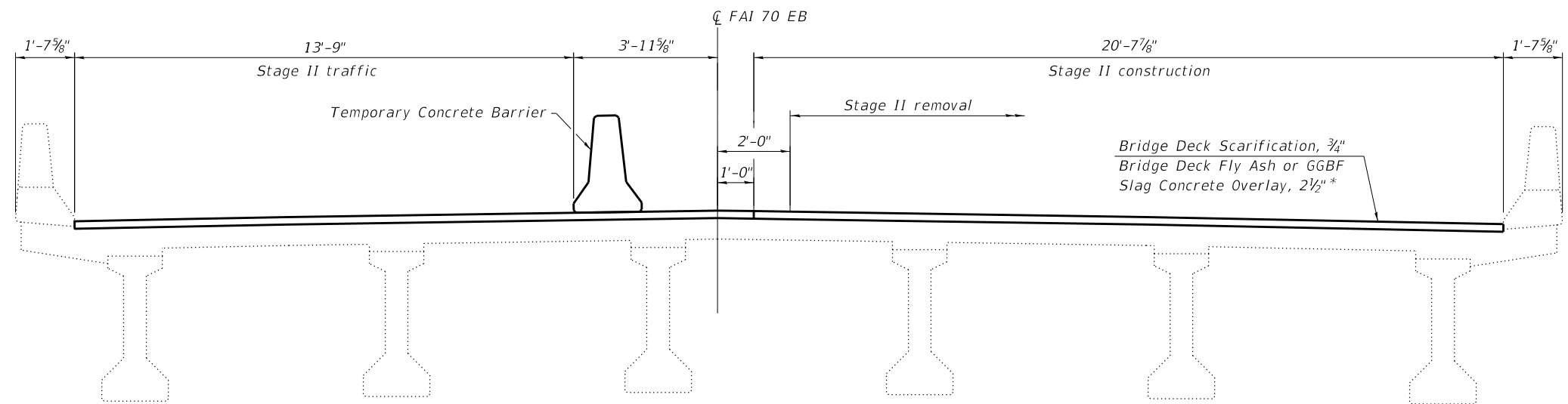
TOTAL BILL OF MATERIAL

ITEM	UNIT	SN 018-0042	SN 018-0043	TOTAL
Concrete Removal	Cu. Yd.	7.2	7.2	14.4
Concrete Structures	Cu. Yd.	27.4	27.4	54.8
Concrete Superstructure	Cu. Yd.	8.0	8.0	16.0
Protective Coat	Sq. Yd.	1133	1133	2266
Concrete Superstructure (Approach Slab)	Cu. Yd.	116.6	116.6	233.2
Reinforcement Bars, Epoxy Coated	Pound	45960	45960	91920
Bar Splicers	Each	308	308	616
Preformed Joint Strip Seal	Foot	84	84	168
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	682	682	1364
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 2 1/2"	Sq. Yd.	839	839	1678
Bridge Deck Scarification, 3/4"	Sq. Yd.	839	839	1678
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	10	14	24
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	16	27	43
Diamond Grinding (Bridge Section)	Sq. Yd.	1009	1009	2018
Drainage Scuppers to be Adjusted	Each	2	2	4



STAGE I - EASTBOUND LOOKING EAST
(STAGE I - WESTBOUND LOOKING WEST SIMILAR)

*Overlay thickness prior to grinding



STAGE II - EASTBOUND LOOKING EAST
(STAGE II - WESTBOUND LOOKING WEST SIMILAR)

MODEL: PLOT
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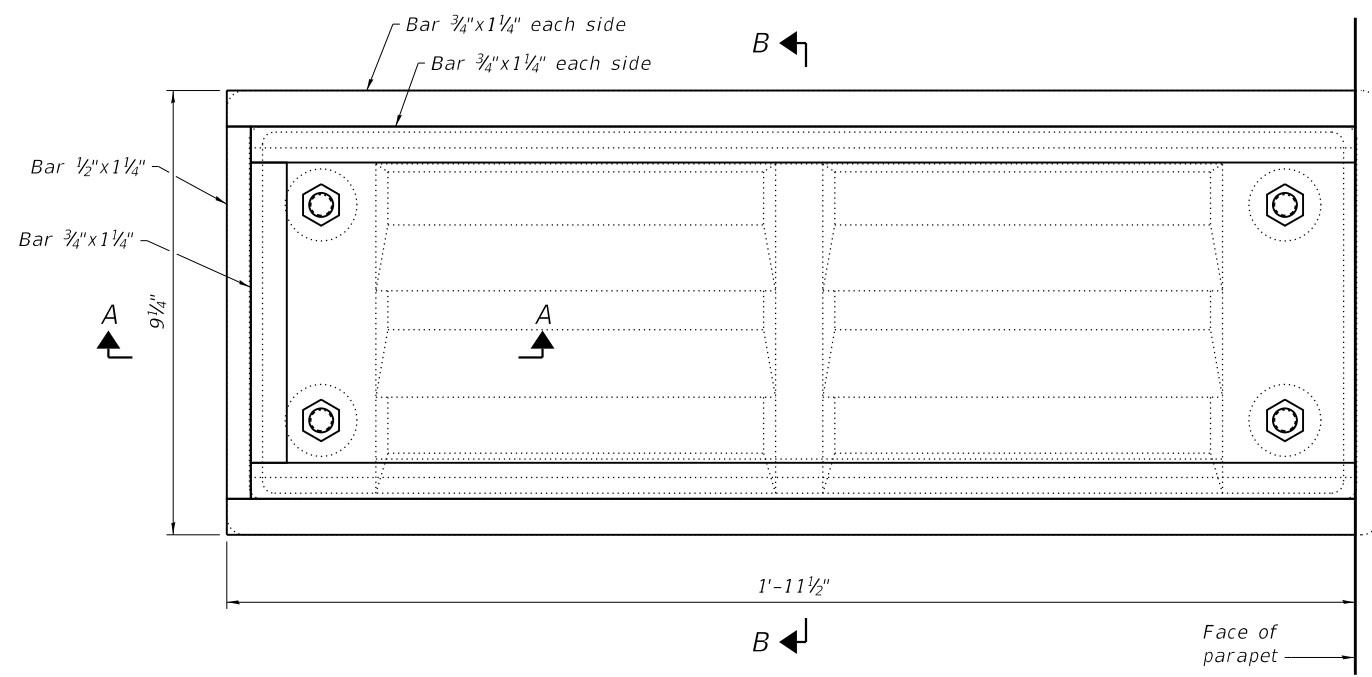
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BILL OF MATERIAL AND STAGE CONSTRUCTION
SN 018-0042 (WB) & SN 018-0043 (EB)**

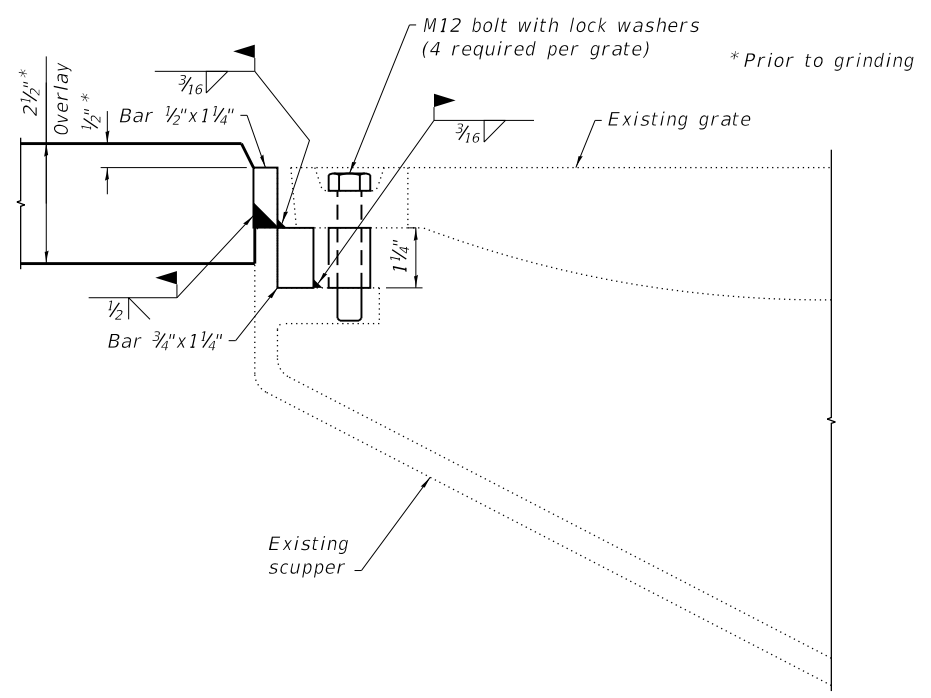
SHEET 2 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	20
			CONTRACT NO. 74972	
		ILLINOIS	FED. AID PROJECT	

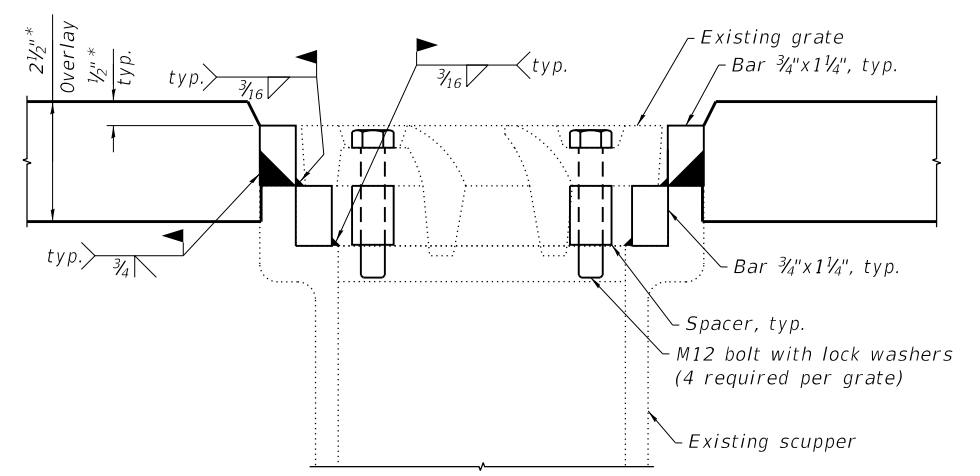
Notes:
 The Contractor shall field verify existing dimensions and details of the existing scupper and make necessary adjustments prior to construction of new adjusting ring or ordering material for adjusting drainage scupper.
 All structural steel shall conform to AASHTO M-270, Grade 36. The adjusting bars shall be galvanized according to AASHTO M111 and ASTM A385.
 All cast iron parts shall be grey iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers, and nuts shall conform to the requirements of ASTM A307 and shall be galvanized according to the requirements of AASHTO M 232.
 Cast iron parts shall be unfinished.
 Adjusting ring shall be from Neenah or approved equal.
 Structural steel weldments or equal sections of the same configuration may be submitted for cast iron. Fillet or full penetration welds may be used for weldments. Details shall be submitted to the Engineer for approval.
 All labor and materials necessary to remove the existing grate, clean the existing scupper, install the adjusting bars, and reinstall the existing grate are included in the cost of Drainage Scuppers to be Adjusted.



PLAN



SECTION A-A



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Drainage Scuppers to be Adjusted	Each	4

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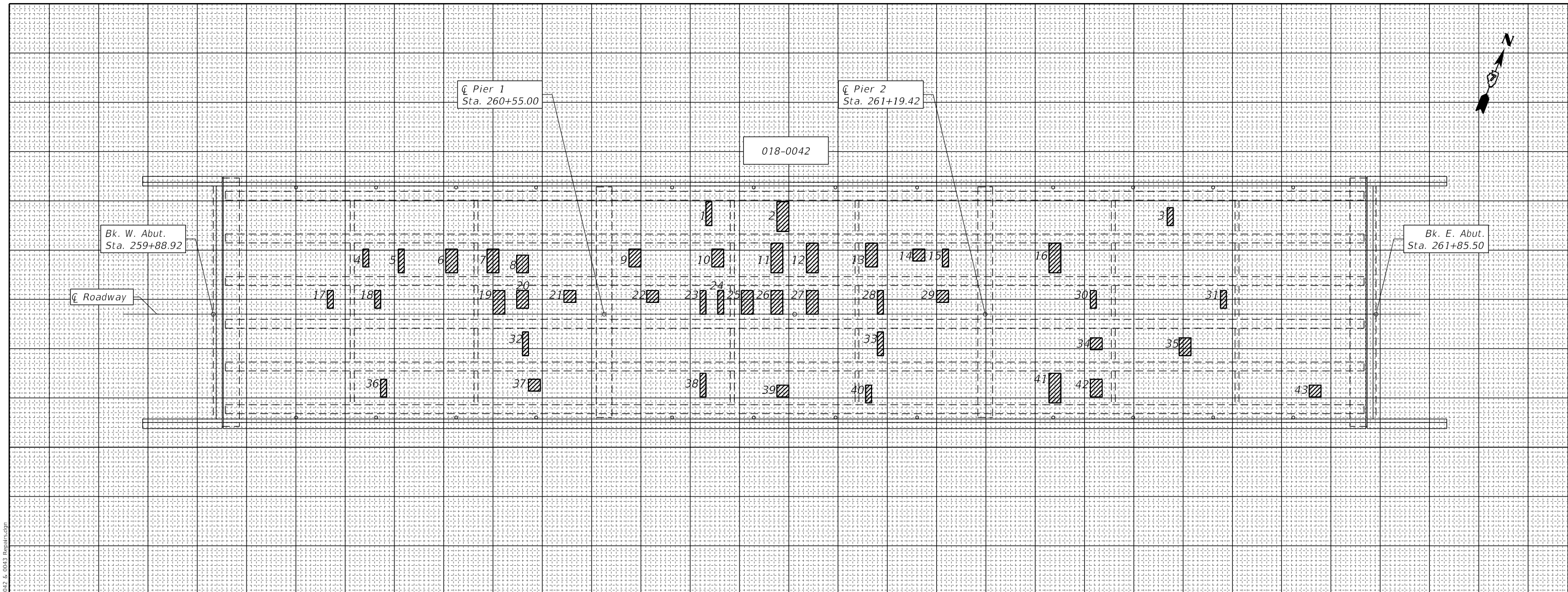
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ADJUSTING EXISTING SCUPPER
 SN 018-0042 (WB) & SN 018-0043 (EB)

SHEET 3 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	21
			CONTRACT NO. 74972	
		ILLINOIS	FED. AID PROJECT	

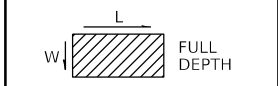


PATCH NO.	SIZE		DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
	LENGTH	WIDTH	SQ YD	SQ YD
1	1.0	4.0	0.44	
2	2.0	5.0		1.1
3	1.0	3.0	0.33	
4	1.0	3.0	0.33	
5	1.0	4.0	0.44	
6	2.0	4.0		0.9
7	2.0	4.0		0.9
8	2.0	3.0		0.7
9	2.0	3.0		0.7
10	2.0	3.0		0.7
11	2.0	5.0		1.1
12	2.0	5.0		1.1
13	2.0	4.0		0.9
14	2.0	2.0	0.44	
15	1.0	3.0	0.33	
16	2.0	5.0		1.1
17	1.0	3.0	0.33	

PATCH NO.	SIZE		DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
	LENGTH	WIDTH	SQ YD	SQ YD
18	1.0	3.0	0.33	
19	2.0	4.0		0.9
20	2.0	3.0		0.7
21	2.0	2.0	0.44	
22	2.0	2.0	0.44	
23	1.0	4.0	0.44	
24	1.0	4.0	0.44	
25	2.0	4.0		0.9
26	2.0	4.0		0.9
27	2.0	4.0		0.9
28	1.0	4.0	0.44	
29	2.0	2.0	0.44	
30	1.0	3.0	0.33	
31	1.0	3.0	0.33	
32	1.0	4.0	0.44	
33	1.0	4.0	0.44	
34	2.0	2.0	0.44	

PATCH NO.	SIZE		DECK SLAB REPAIR (FD TY I)	DECK SLAB REPAIR (FD TY II)
	LENGTH	WIDTH	SQ YD	SQ YD
35	2.0	3.0		0.7
36	1.0	3.0	0.33	
37	2.0	2.0	0.44	
38	1.0	4.0	0.44	
39	2.0	2.0	0.44	
40	1.0	3.0	0.33	
41	2.0	5.0		1.1
42	2.0	3.0		0.7
43	2.0	2.0	0.44	
TOTALS			10.1	15.8
ROUND TO:			10	16

THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.



DATE OF SURVEY: 11-15-2019
 SURVEY BY: DPM & RAW
 METHOD OF SURVEY: VISUAL

ESTIMATED PAY QUANTITIES:

DECK SLAB REPAIR (FULL DEPTH TYPE I)
 10 SQ YD

DECK SLAB REPAIR (FULL DEPTH TYPE II)
 16 SQ YD

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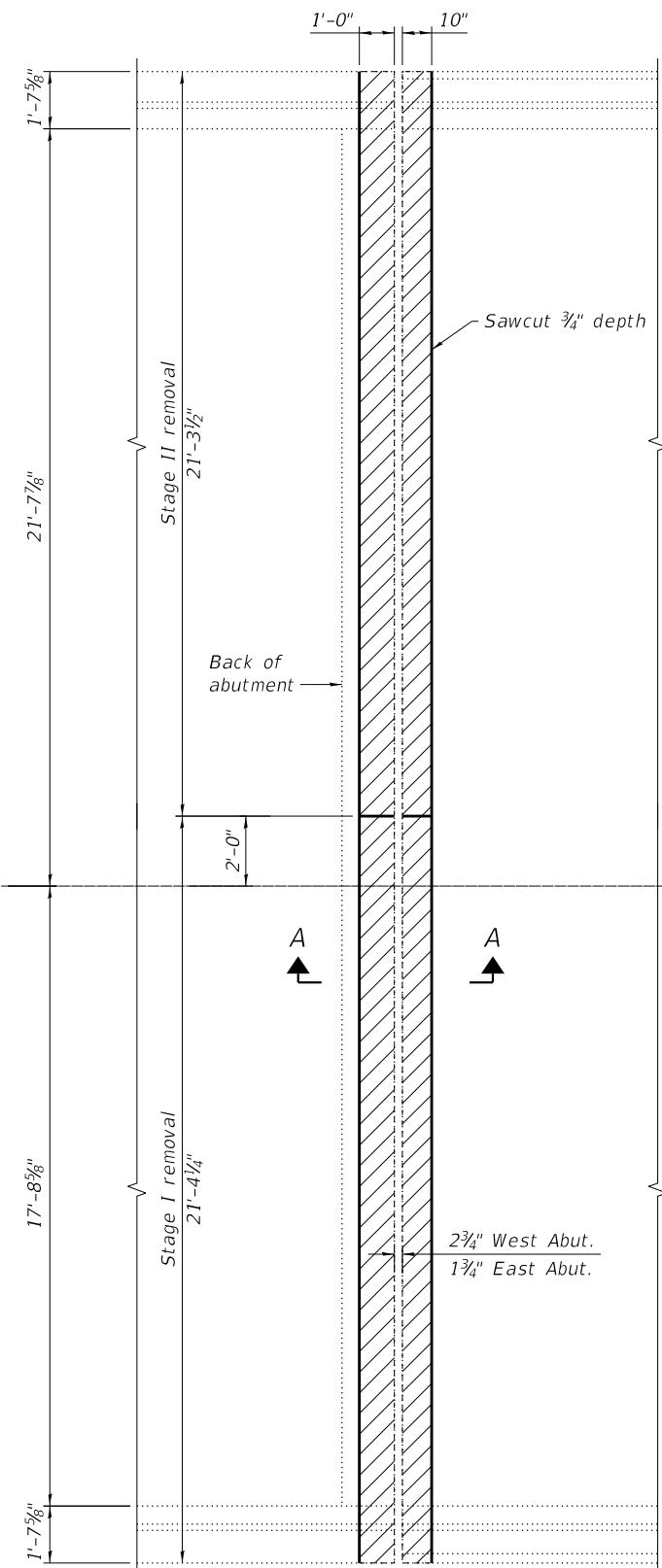
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PLOT DATE = 12/17/2019	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BRIDGE DECK PATCHING
 SN 018-0042 (WB)**

SCALE: _____ SHEET 4 OF 15 SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	22
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				

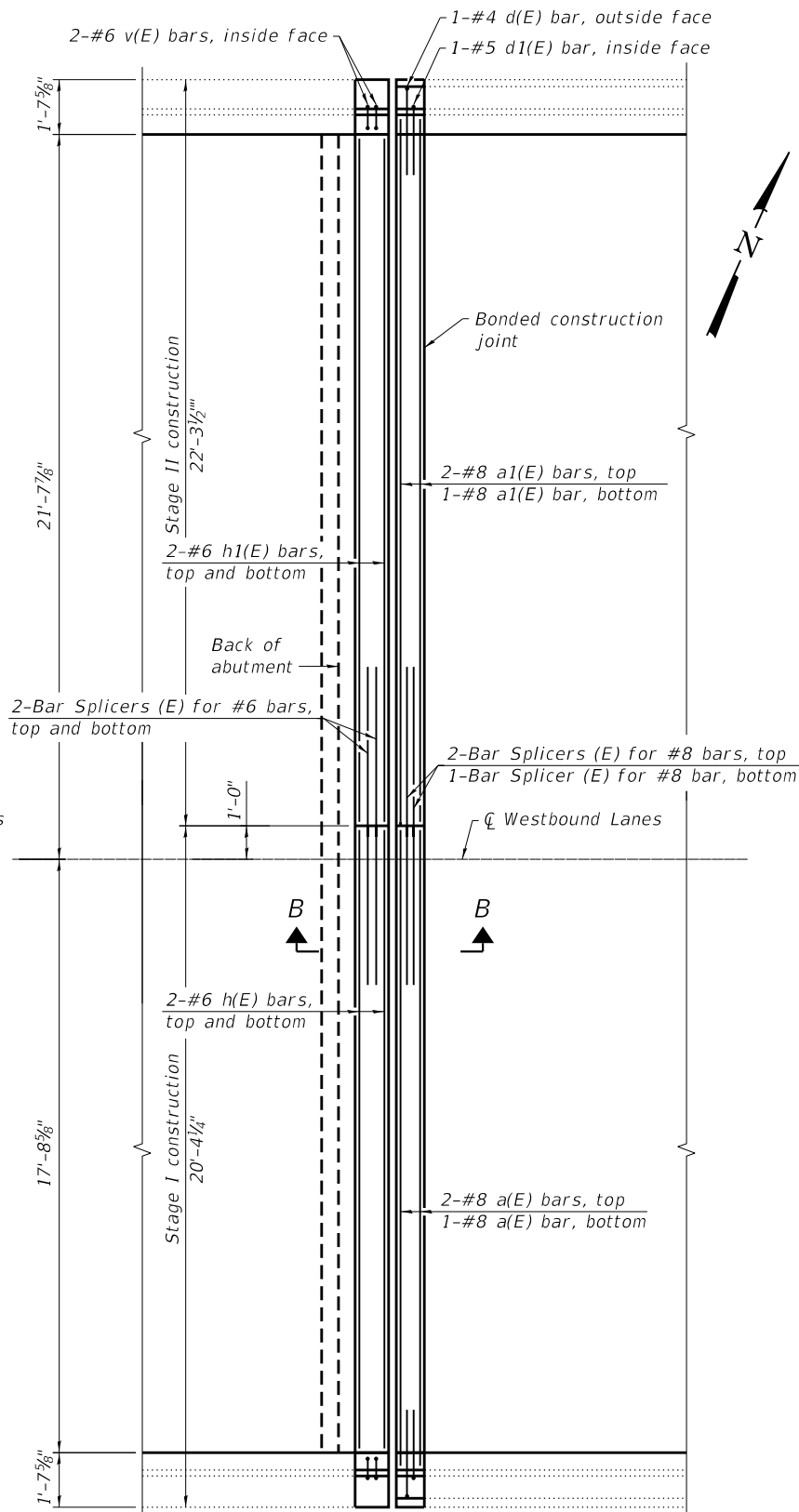


EXISTING PARTIAL PLAN

Westbound West Abutment shown;
Eastbound East Abutment similar

Hatching indicates
Concrete Removal

For Section A-A
and Section B-B
see Sheet 7 of 15

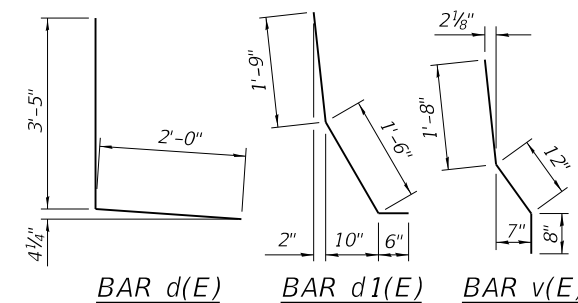


PROPOSED PARTIAL PLAN

Westbound West Abutment shown;
Eastbound East Abutment similar

BILL OF MATERIAL
Per Abutment

Bar	Number		Total	Size	Length	Shape
	Stage I	Stage II				
a(E)	3	-	3	#8	19'-2"	—
a1(E)	-	3	3	#8	21'-1"	—
d(E)	1	1	2	#4	5'-5"	L
d1(E)	1	1	2	#5	3'-9"	└
h(E)	4	-	4	#6	18'-5"	—
h1(E)	-	4	4	#6	20'-4"	—
v(E)	2	2	4	#6	3'-4"	┘
Reinforcement Bars, Epoxy Coated					Pound	600
Concrete Removal					Cu. Yd.	3.6
Concrete Superstructure					Cu. Yd.	4.0
Bar Splicers					Each	7



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PLOT DATE = 4/1/2020

DESIGNED - ELH 02/20
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REVISED -
REVISED -
REVISED -
REVISED -

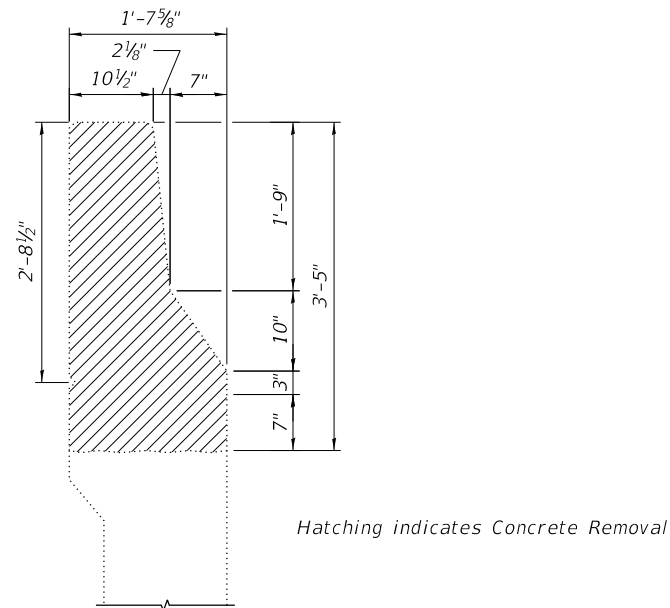
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT REPLACEMENT DETAILS
SN 018-0042 (WB) & SN 018-0043 (EB)**

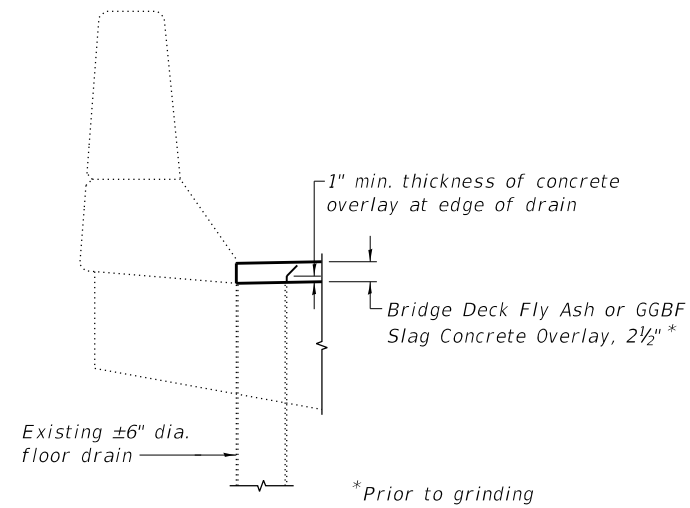
SHEET 6 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	24
CONTRACT NO. 74972				

ILLINOIS FED. AID PROJECT

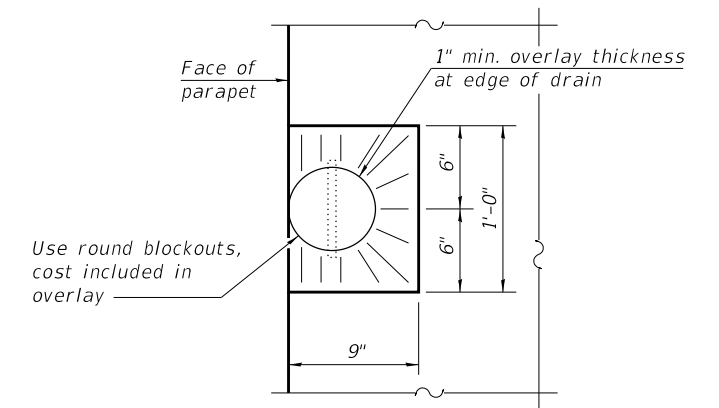


EXISTING WINGWALL DETAIL

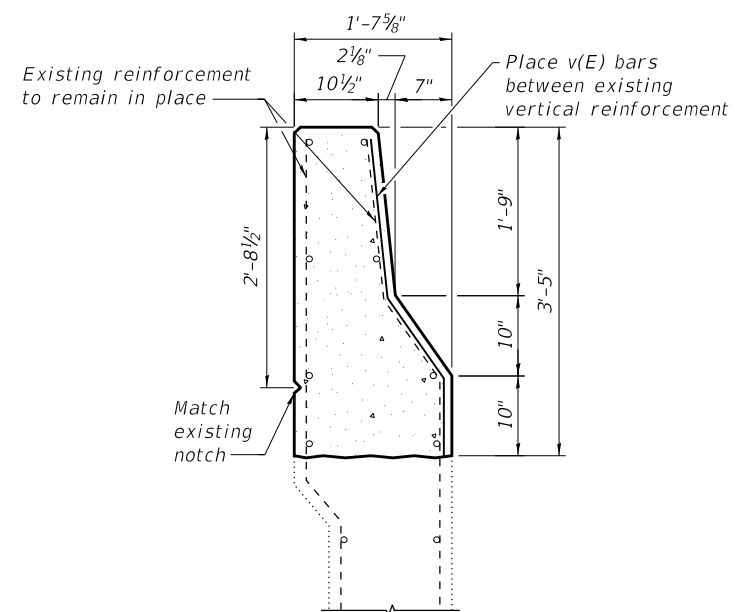


SECTION AT FLOOR DRAINS

Section at scupper similar



OVERLAY TREATMENT AT FLOOR DRAINS



PROPOSED WINGWALL DETAIL

MODEL: PLOT
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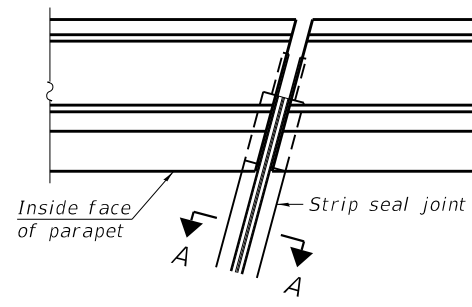
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PLOT DATE = 4/1/2020	CHECKED - ELH 02/20	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT REPLACEMENT DETAILS
SN 018-0042 (WB) & SN 018-0043 (EB)**

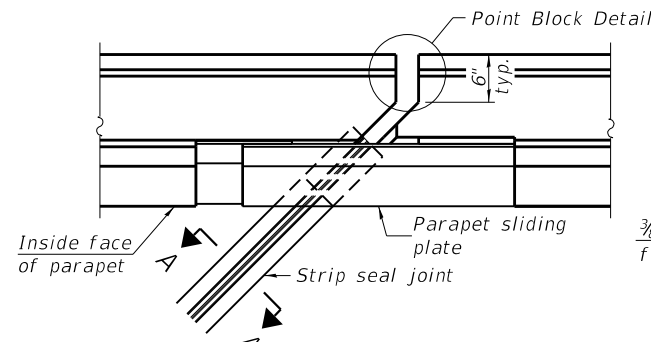
SHEET 8 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	26
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				

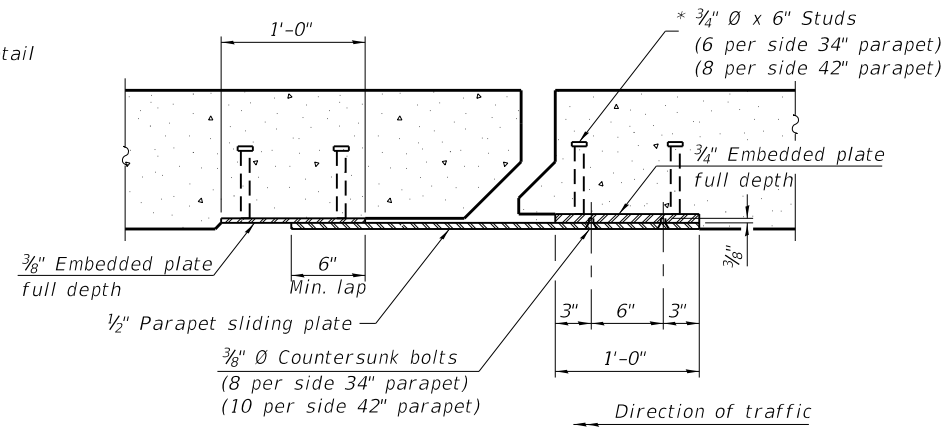


FOR SKEWS $\leq 30^\circ$

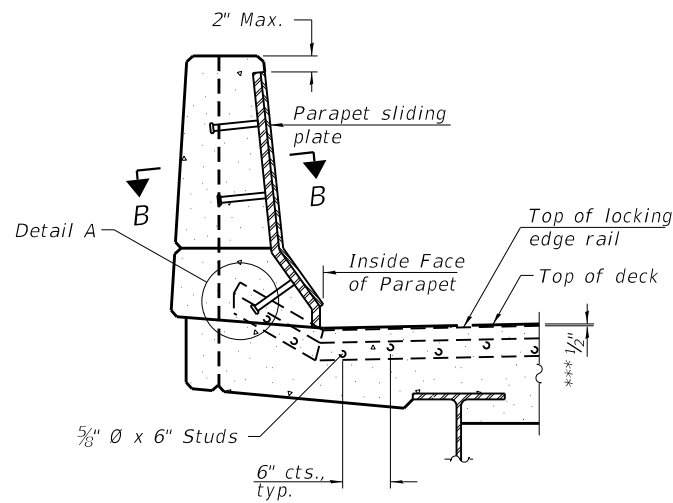
PLAN AT PARAPET



FOR SKEWS $> 30^\circ$

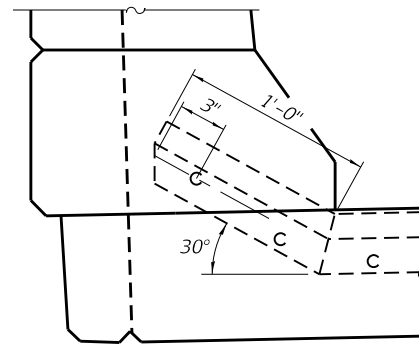


SECTION B-B



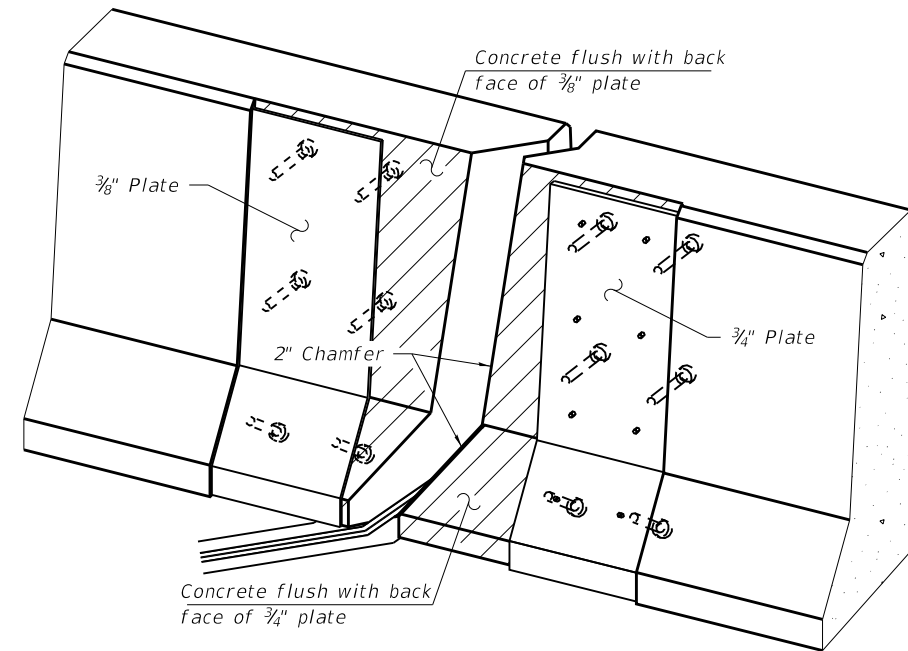
ELEVATION AT PARAPET

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

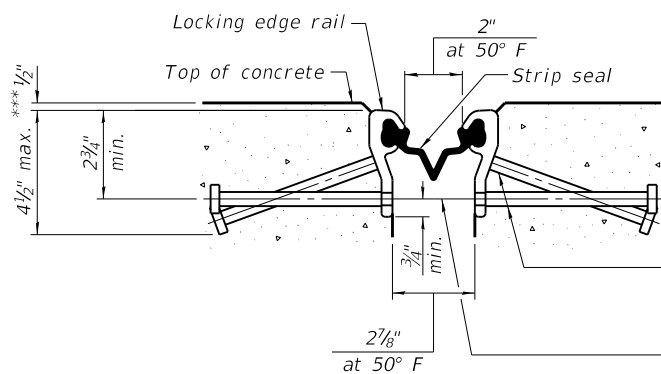


DETAIL A

*** Prior to grinding



TRIMETRIC VIEW
(Showing embedded plates only)



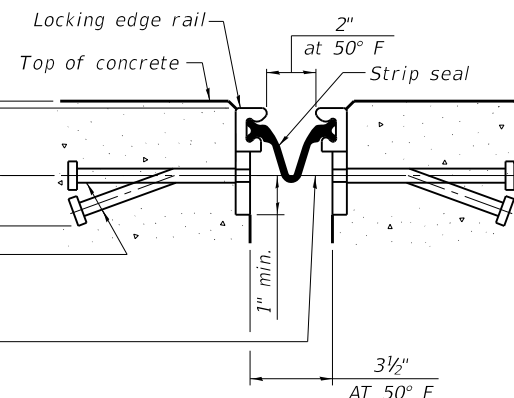
SHOWING ROLLED RAIL JOINT

* $5/8$ inch diameter x 6 inch studs @ 6 inch cts. (alternate angled/bent studs with horizontal studs)

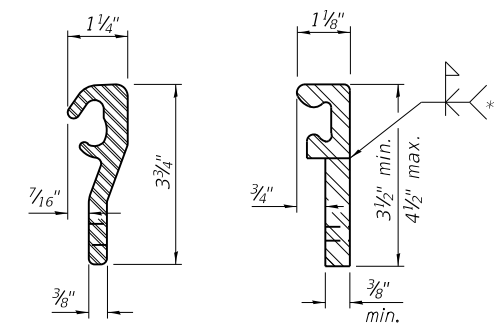
$3/8$ inch diameter threaded rods in $7/16$ inch diameter holes at ± 4 -0 inch cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

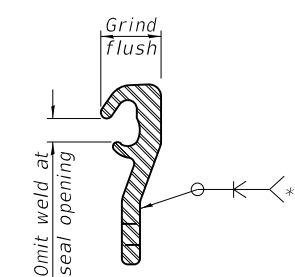


SHOWING WELDED RAIL JOINT



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	168

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $1/4$ inch. 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 $4 1/2$ inch 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 $3/16$ inch and sealed with a suitable sealant; however, any rail joint within 10 feet measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

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

34 inch F-shape barrier shown, 42 inch 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: PLOT
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EJ-SS

8-11-17



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ESCA PROJECT NO. 1343.01
PLOT SCALE = 0.1667' / in.
PLOT DATE = 4/1/2020

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CHECKED - ELH 02/20
DRAWN - KAH 02/20
CHECKED - ELH 02/20

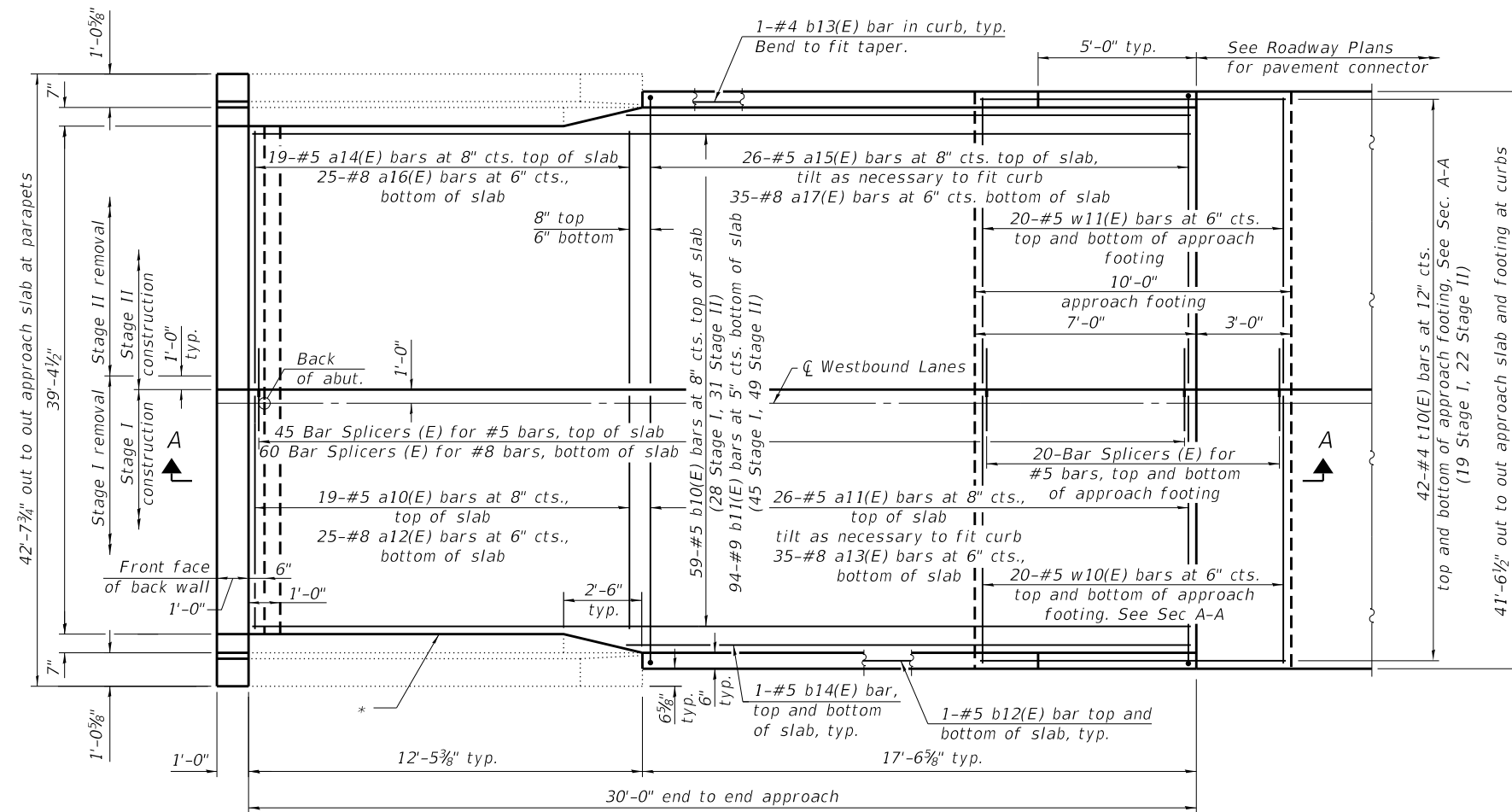
REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
SN 018-0042 (WB) & SN 018-0043 (EB)

SHEET 9 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	27
			CONTRACT NO. 74972	
ILLINOIS FED. AID PROJECT				



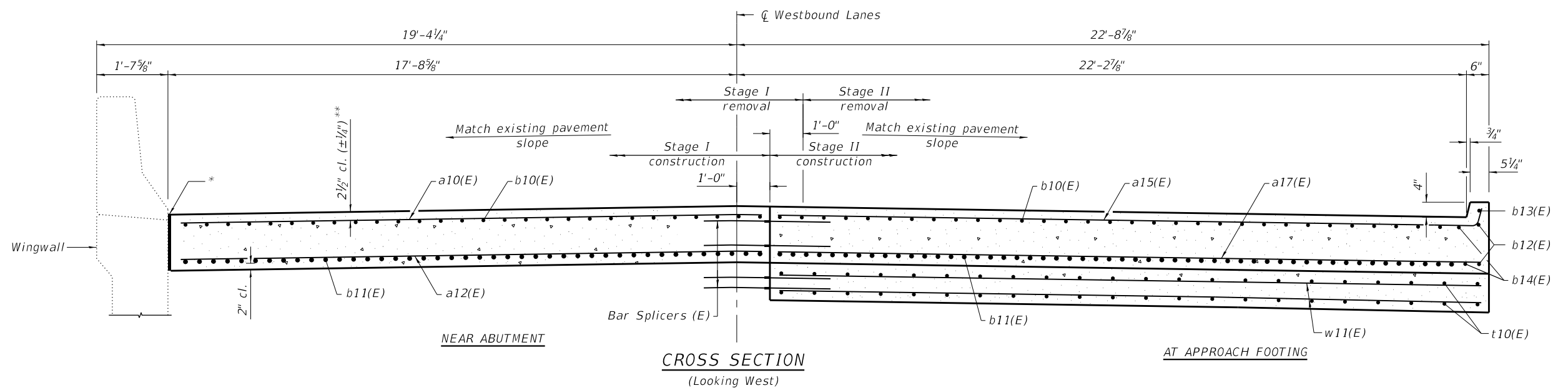
PLAN

(East Approach shown; West Approach similar to mirror image about joint)

See Sheet 12 of 15 for Section A-A

* 1/2" Preformed expansion joint filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Typ. each parapet.

** Prior to grinding



CROSS SECTION

(Looking West)

(Sheet 1 of 3)

MODEL: PLOT
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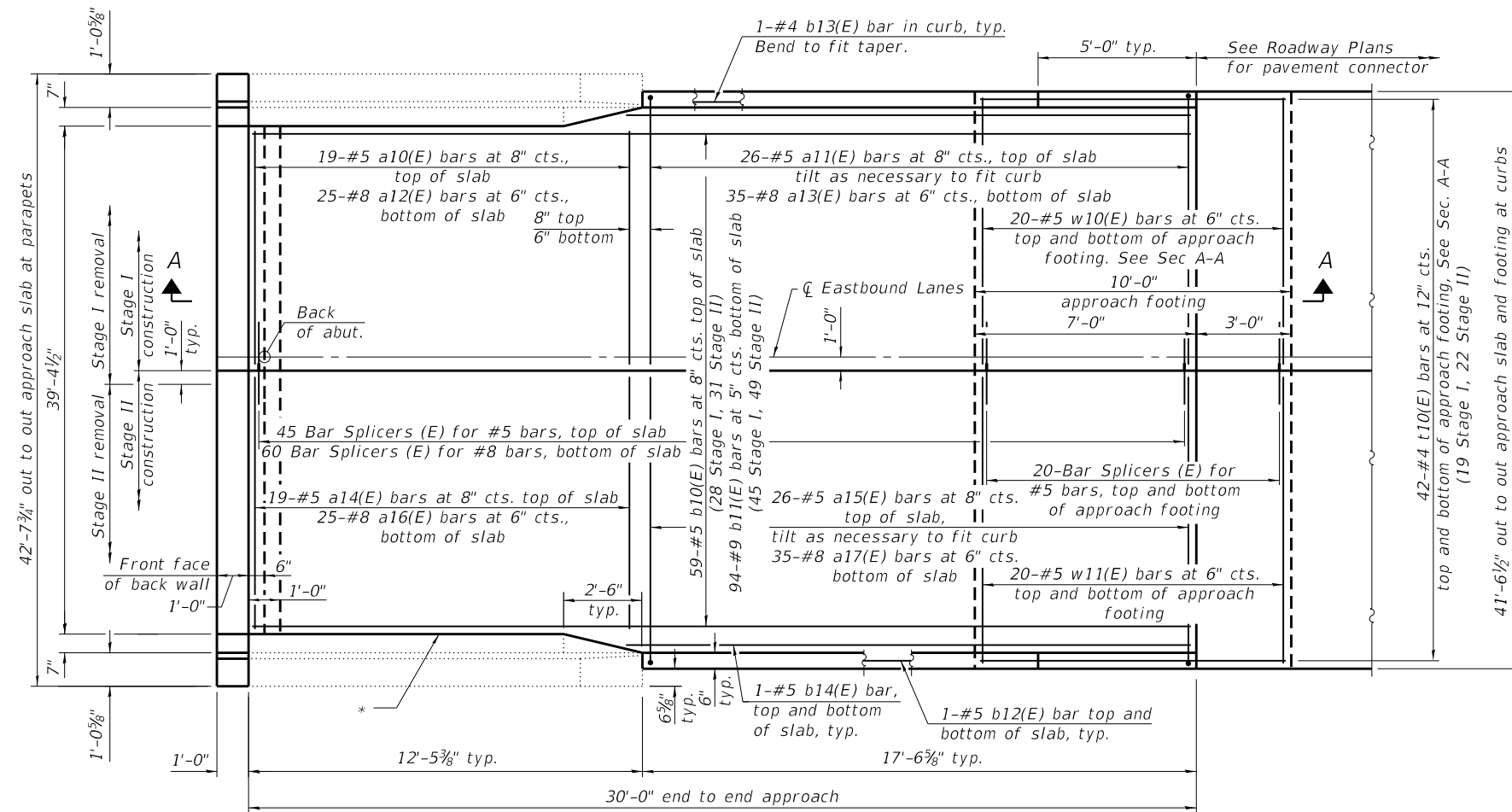
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PLOT DATE = 4/1/2020	CHECKED - ELH 02/20	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS
SN 018-0042 (WB)**

SHEET 10 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	28
			CONTRACT NO. 74972	
		ILLINOIS FED. AID PROJECT		



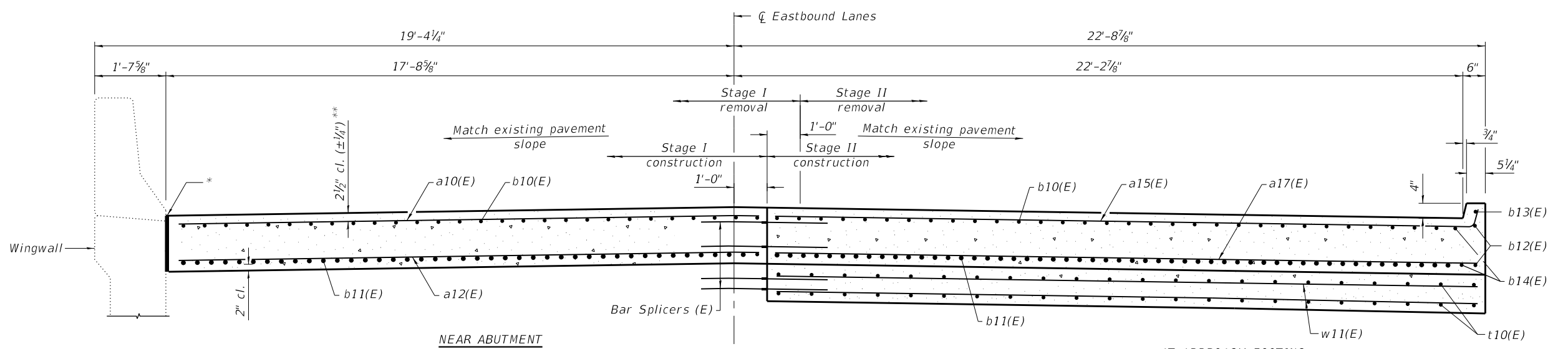
PLAN

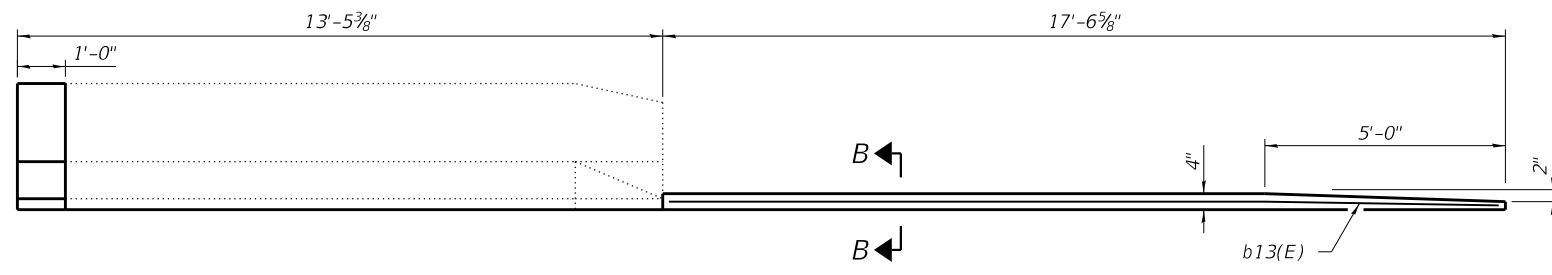
(East Approach shown; West Approach similar to mirror image about joint)

See Sheet 12 of 15 for Section A-A

* 1/2" Preformed expansion joint filler according to Article 1051.09 of the Standard Specifications; full depth of slab, full length of parapet. Typ. each parapet.

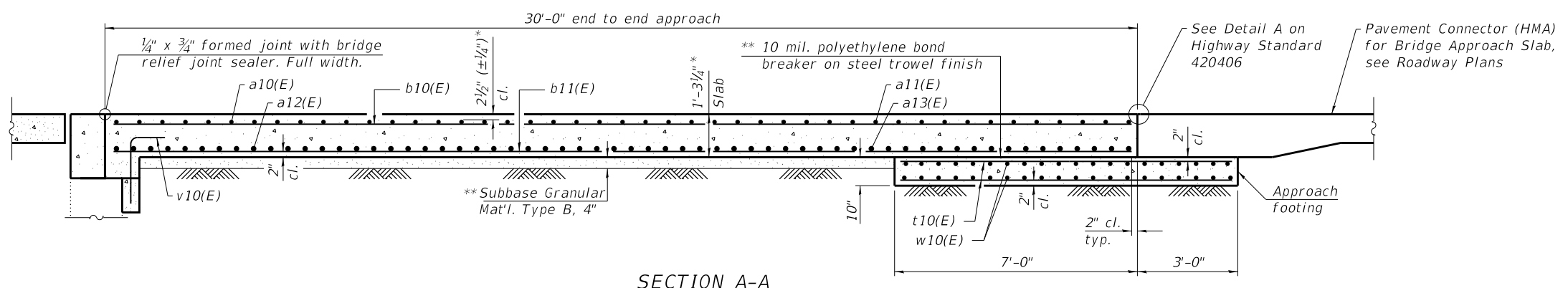
** Prior to grinding



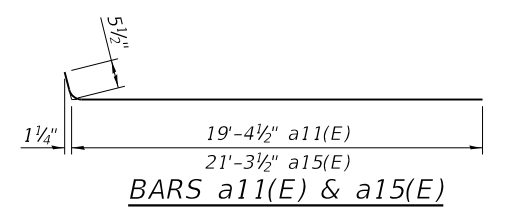


INSIDE ELEVATION OF PARAPET AND CURB

Notes:
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.

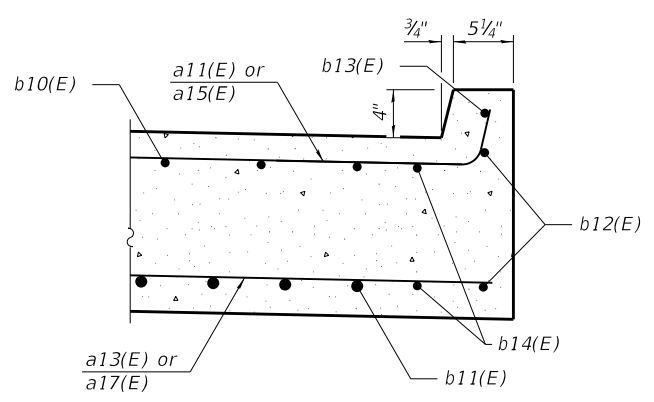


SECTION A-A



FOUR APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	76	#5	18'-4"	—
a11(E)	104	#5	19'-10"	—
a12(E)	100	#8	18'-4"	—
a13(E)	140	#8	19'-5"	—
a14(E)	76	#5	20'-3"	—
a15(E)	104	#5	21'-9"	—
a16(E)	100	#8	20'-3"	—
a17(E)	140	#8	21'-4"	—
b10(E)	236	#5	29'-8"	—
b11(E)	376	#9	29'-8"	—
b12(E)	16	#5	17'-2"	—
b13(E)	8	#4	17'-2"	—
b14(E)	16	#5	18'-5"	—
t10(E)	336	#4	9'-8"	—
w10(E)	160	#5	19'-5"	—
w11(E)	160	#5	21'-4"	—
Concrete Superstructure (Approach Slab)				Cu. Yd. 233.2
Concrete Structures				Cu. Yd. 51.6
Reinforcement Bars, Epoxy Coated				Pound 88000
Bar Splicers				Each 580



SECTION B-B

* Prior to grinding
 ** Cost included with Concrete Superstructure (Approach Slab).

(Sheet 3 of 3)

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PLOT DATE = 4/1/2020	CHECKED - ELH 02/20	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
 SN 018-0042 (WB) & SN 018-0043 (EB)

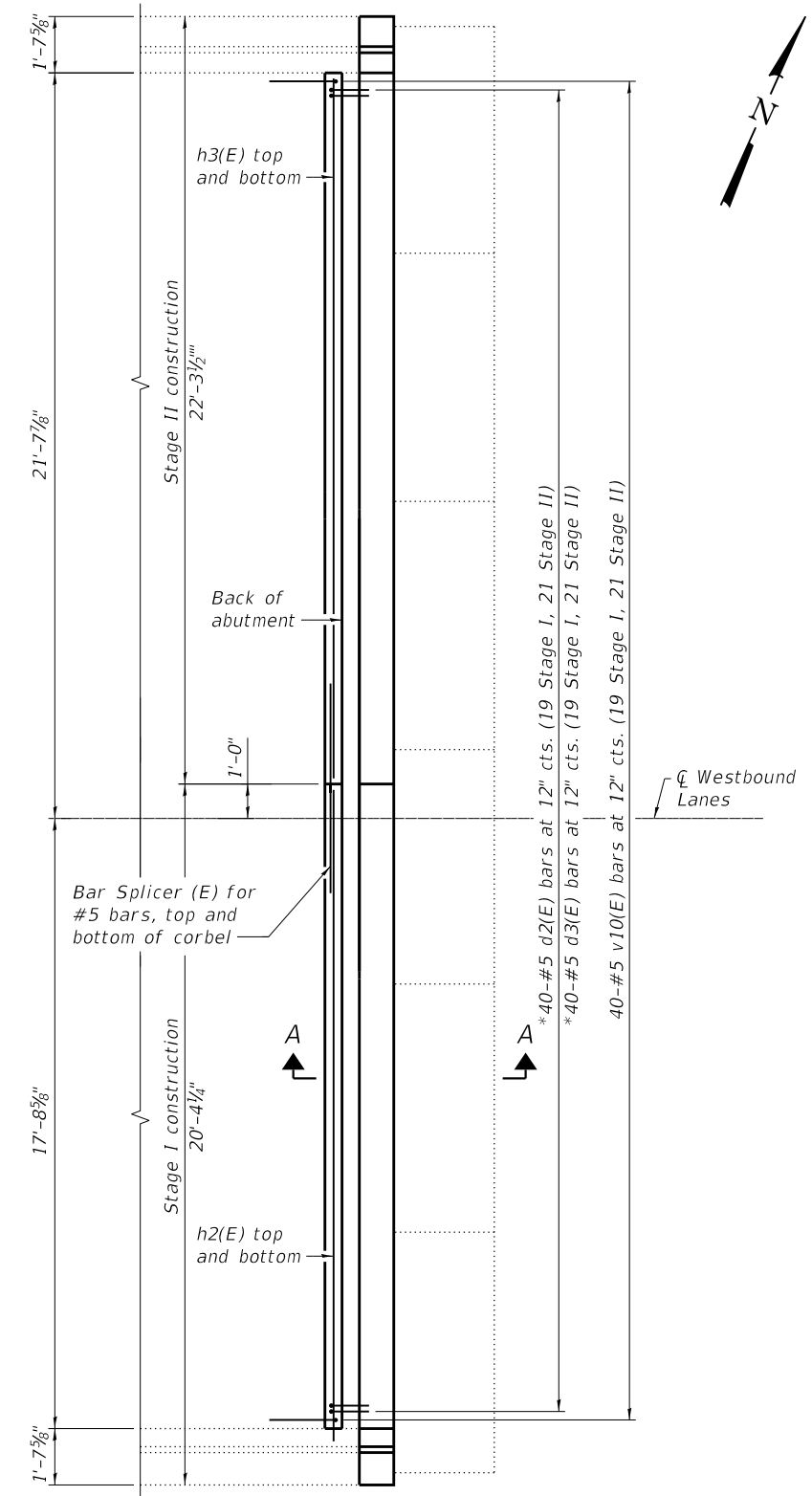
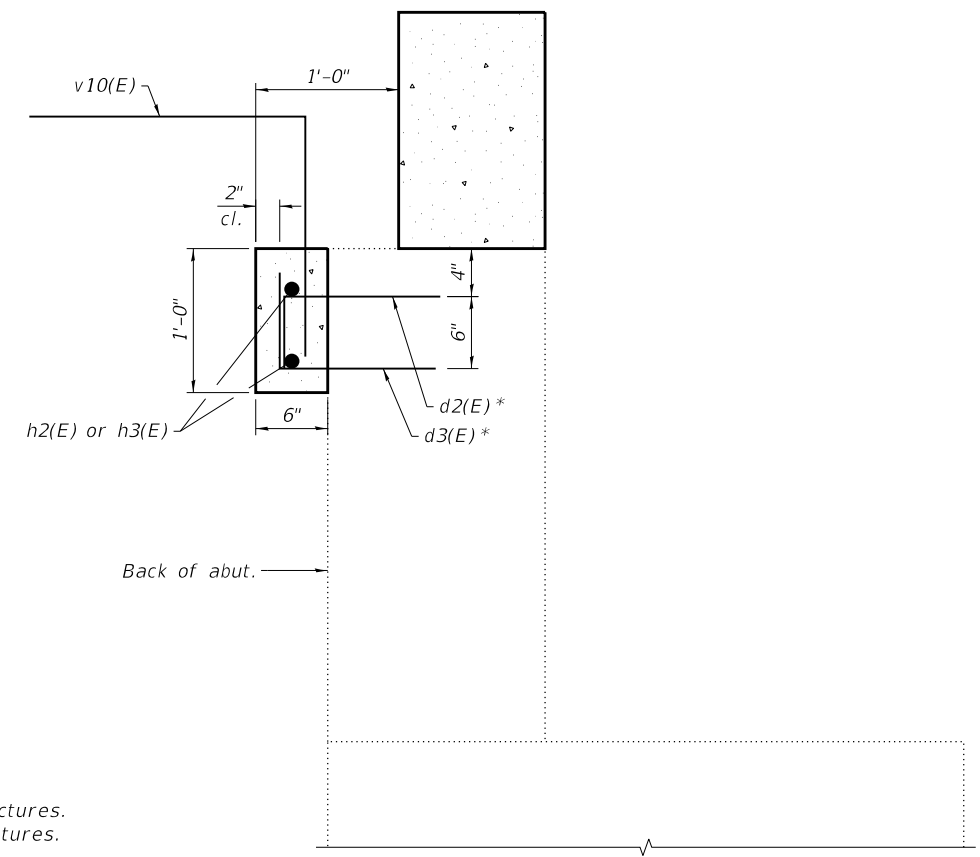
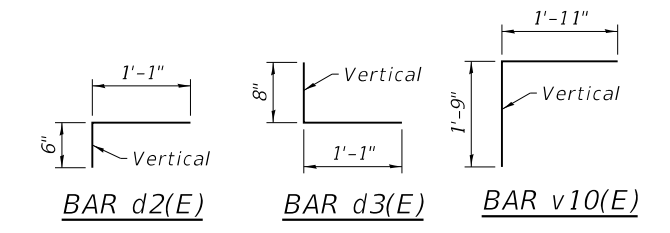
SHEET 12 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	30
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

Per Abutment

Bar	Number		Total	Size	Length	Shape
	Stage I	Stage II				
d2(E)	19	21	40	#5	1'-7"	┌
d3(E)	19	21	40	#5	1'-9"	┌
h2(E)	2	-	2	#5	18'-5"	—
h3(E)	-	2	2	#5	20'-4"	—
v10(E)	19	21	40	#5	3'-8"	┌
Reinforcement Bars, Epoxy Coated					Pound	380
Concrete Structures					Cu. Yd.	0.8
Bar Splicers					Each	2



PROPOSED PARTIAL PLAN
Westbound West Abutment shown;
Eastbound East Abutment similar by rotation

*Use epoxy adhesive in 9" holes for d2(E) and d3(E) bars according to Section 584 of the Standard Specifications.

Notes:
Abutment corbel concrete shall be paid for as Concrete Structures.
Cost of excavation and backfill is included in Concrete Structures.

MODEL: PLOT
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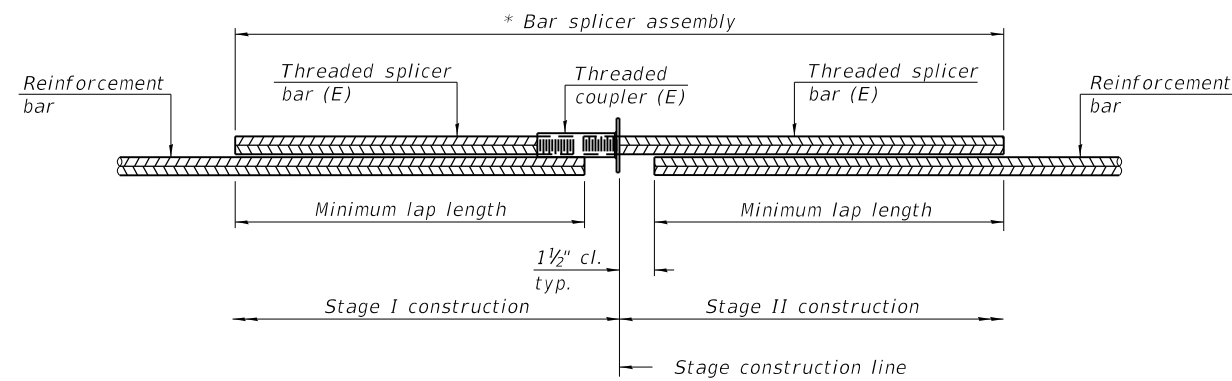
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT REPAIRS
SN 018-0042 (WB) & SN 018-0043 (EB)**

SHEET 13 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	31
ILLINOIS			FED. AID PROJECT	

CONTRACT NO. 74972



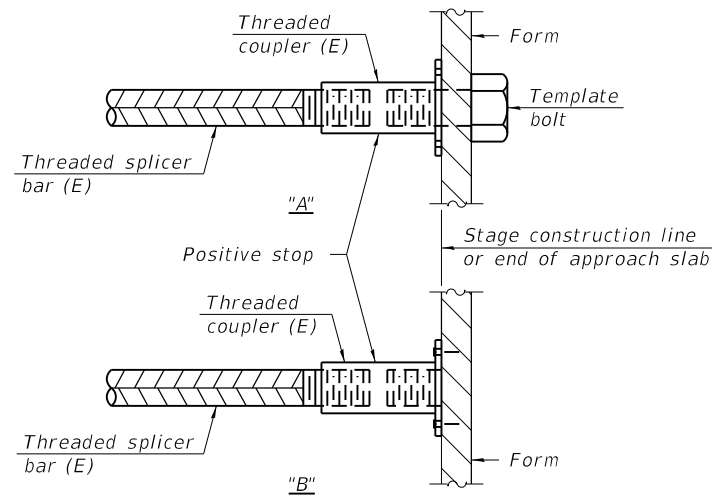
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

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
018-0042 Approach Slabs	#5	90	3'-4"
018-0042 Approach Slabs	#8	120	4'-9"
018-0043 Approach Slabs	#5	90	3'-4"
018-0043 Approach Slabs	#8	120	4'-9"
018-0042 Approach Footings	#5	80	3'-2"
018-0043 Approach Footings	#5	80	3'-2"
018-0042 Deck	#8	6	4'-9"
018-0042 Hatch Block	#6	8	4'-0"
018-0043 Deck	#8	6	4'-9"
018-0043 Hatch Block	#6	8	4'-0"
018-0042 Corbel	#5	4	3'-2"
018-0043 Corbel	#5	4	3'-2"

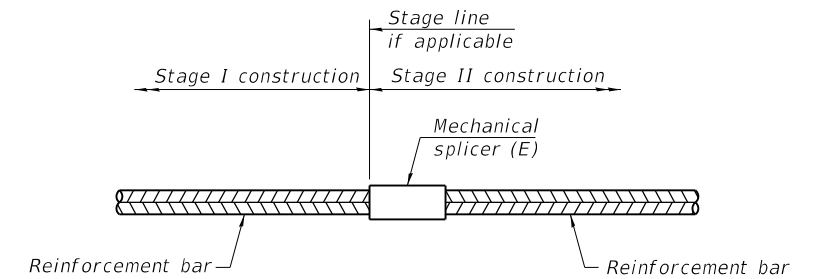


INSTALLATION AND SETTING METHODS

"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
NA		

Notes:

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

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

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

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

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BSD-1

1-1-2020



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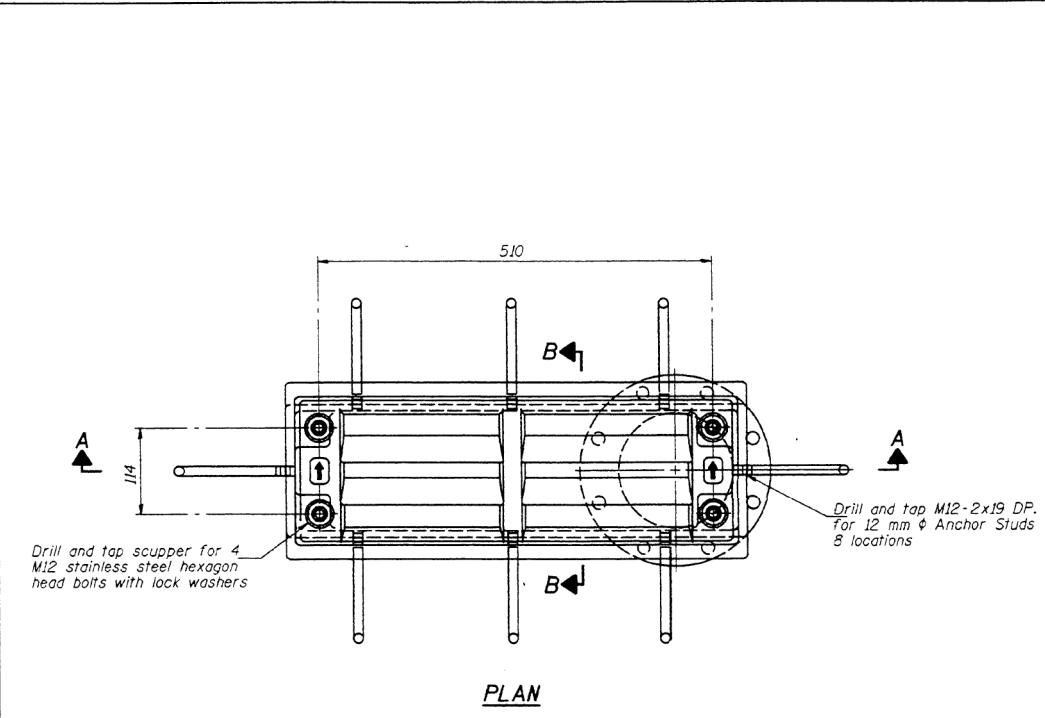
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY DETAILS
SN 018-0042 (WB) & SN 018-0043 (EB)**

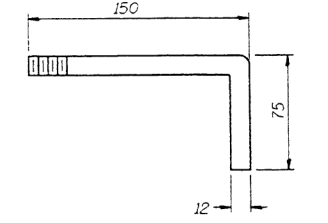
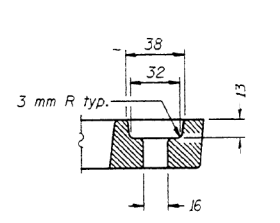
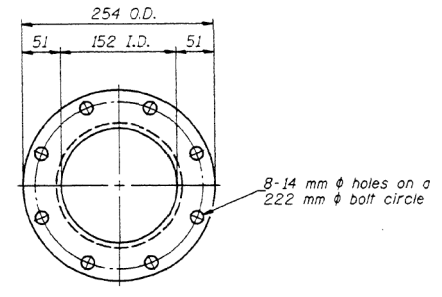
SHEET 14 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	32
			CONTRACT NO. 74972	
		ILLINOIS FED. AID PROJECT		

FA.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	33
SHEET 16 OF 18 SHEETS				

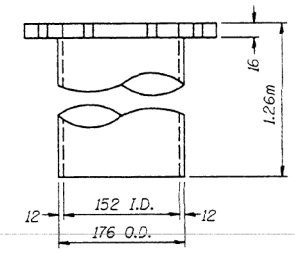


PLAN

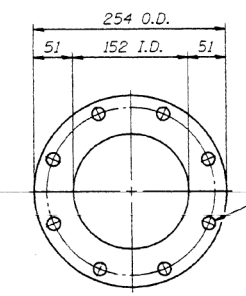


BOLT HOLE DETAIL

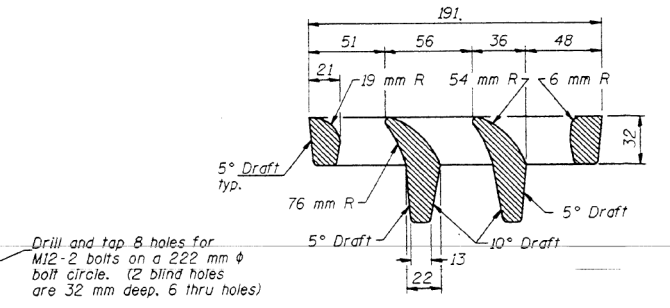
ANCHOR STUD DETAIL



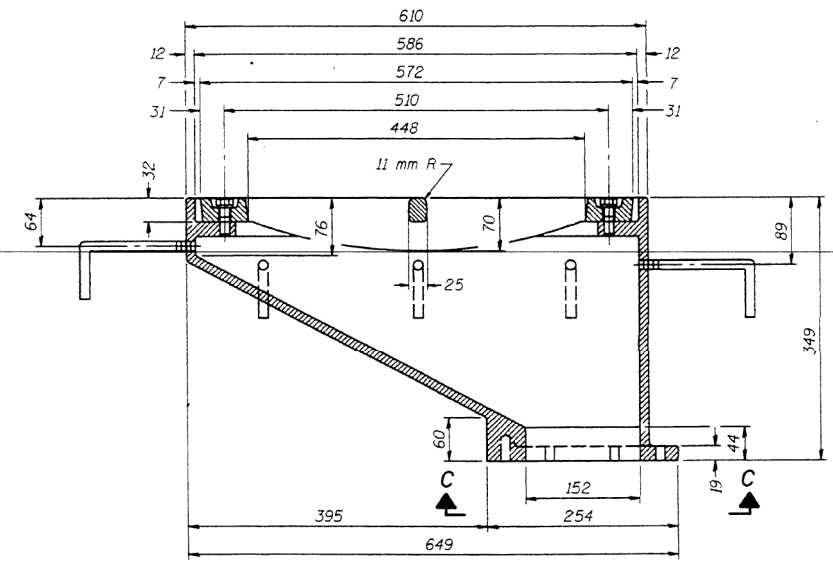
DOWNSPOUT



VIEW C-C

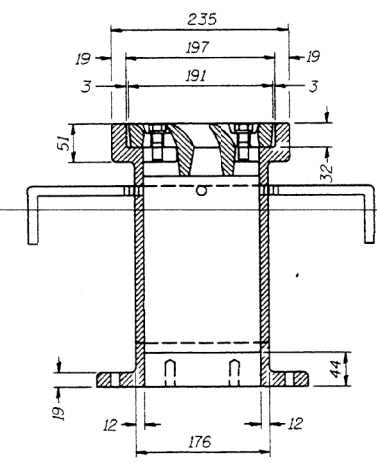


VANE GRATE DETAIL



SECTION A-A

See sheet 10 of 18 for scupper location relative to parapet.



SECTION B-B

Notes: All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B. Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232M. The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam. As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications. Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper. Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12. All dimensions are in millimeters (mm) except as noted.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	4

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DRAINAGE SCUPPER DS-12
 F.A.I. RTE. 70 OVER MUDDY CREEK
 SECTION 18-45BR STA. 185+350.028
 CUMBERLAND COUNTY
 S.N. 018-0042 (W.B.) & S.N. 018-0043 (E.B.)
 SCALE: AS NOTED DRAWN BY LP
 DATE JULY 2000 CHECKED BY MJS



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PLOT DATE = 4/1/2020	CHECKED - ELH 02/20	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING SCUPPER PLAN SHEET
 SN 018-0042 (WB) & SN 018-0043 (EB)

SHEET 15 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	D7 BRIDGE REPAIRS 2020-6	CUMBERLAND	33	33
CONTRACT NO. 74972				
ILLINOIS FED. AID PROJECT				