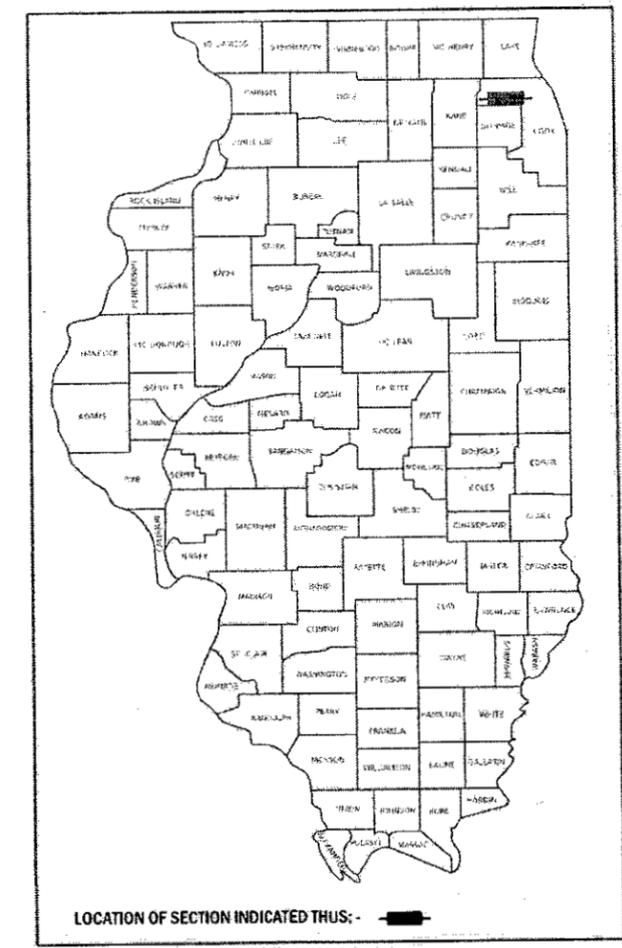


F.A.P. RTE.	SECTION	COUNTY	INVEST. SHEETS	SHEET NO.
342	2017-065BR	COOK	72	1
			CONTRACT NO.	62G08

79+12=91 TOTAL SHEETS
D-91-246-18



CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEER
SERVICE | SOLUTIONS | COMMITMENT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 15, 2018

Anthony J. Quinlan REGIONAL ENGINEER

May 10, 2018
EA, ETC
ENGINEER OF DESIGN AND ENVIRONMENT

Paul P. Ch... DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

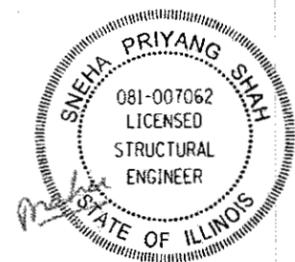
PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

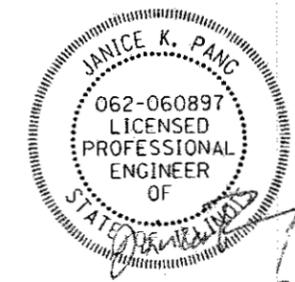
**PROPOSED
HIGHWAY PLANS**

FAI ROUTE 290/FAP 342: I-290/IL 53
SOUTHBOUND OVER:
LOCATION NO. 1: IL 72 (016-0982)
LOCATION NO. 2: WOODFIELD DRIVE(016-0978)
LOCATION NO. 3: IL 58 (016-0980)
LOCATION NO. 4: I-90 (016-0977)
SECTION 2017-065BR
PROJECT NHPP-ZV7C(839)
BRIDGE JOINT REPAIRS
COOK COUNTY

C-91-116-18



DATE SIGNED: 03/13/18
EXP. DATE: 11/30/18
THIS SEAL IS FOR THE STRUCTURAL WORK



Date Signed: 3/13/18
Expires: 11-30-19
THIS SEAL IS FOR THE CIVIL WORK

06-15-2018 LETTING ITEM 023

FOR INDEX OF SHEETS, SEE SHEET NO. 2
THIS PROJECT IS LOCATED WITHIN
VILLAGE OF SCHAUMBURG AND
CITY OF ROLLING MEADOWS

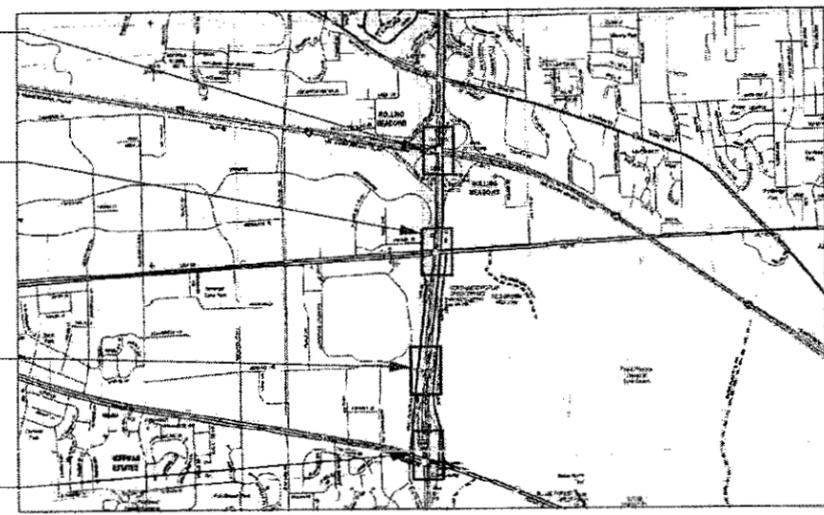
TRAFFIC DATA
IL 53:
FUNCTIONAL CLASSIFICATION
INTERSTATE
ADT (2017) = 82,707
P.V. = 89.9% S.U. = 3.4% M.U. = 6.7%
POSTED SPEED LIMIT = 55 MPH

PROJECT LOCATION NO. 4
IL 53 (SB) OVER I-90
STRUCTURE NO. 016-0977

PROJECT LOCATION NO. 3
IL 53 (SB) OVER IL 58
STRUCTURE NO. 016-0980

PROJECT LOCATION NO. 2
IL 53 (SB) OVER WOODFIELD DRIVE
STRUCTURE NO. 016-0978

PROJECT LOCATION NO. 1
IL 53 (SB) OVER IL 72
STRUCTURE NO. 016-0982

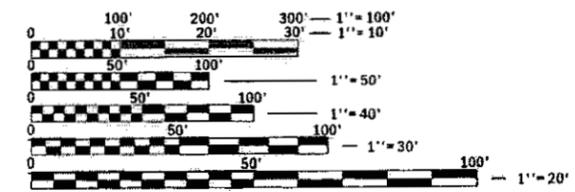


GROSS LENGTH = 1,356 FT. = 0.257 MILE
NET LENGTH = 1,356 FT. = 0.257 MILE

ELK GROVE
TOWNSHIP



LOCATION MAP
NOT TO SCALE



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

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

PROJECT ENGINEER: J. ALAIN MIDY, P.E. (847) 221-3056
PROJECT MANAGER: FAWAD AQUEEL, P.E., P.T.O.E. (847) 705-4247

CONTRACT NO. 62G08

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				NHPP FUNDS					
				90% FED 10% STATE					
				ROADWAY	STRUCTURE	STRUCTURE	STRUCTURE	STRUCTURE	
				0047	0047	0047	0047	0047	0047
X0323491	SLOPE WALL CRACK SEALING	FOOT	190			190			
X0325201	SHOULDER RUMBLE STRIP REMOVAL	SQ YD	12445	12445					
X0327186	PORTABLE VIDEO TOWER STATIONS	CAL MO	6	6					
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	24400	24400					
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1					
X7013820	TRAFFIC CONTROL SURVEILLANCE, EXPRESSWAYS	CAL DA	180	180					
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	2400	2400					
* X7830072	GROOVING FOR RECESSED PAVEMENT MARKING 6"	FOOT	7721	7721					
* X7830076	GROOVING FOR RECESSED PAVEMENT MARKING 9"	FOOT	1455	1455					
X8570000	SMART TRAFFIC MONITORING SYSTEM	L SUM	1	1					
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	172			29			143
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	20			3			17
Z0021903	SILICONE JOINT SEALER, 3/4"	FOOT	478					478	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	128.5	128.5					

* = SPECIALTY ITEMS

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 PLOT SCALE = 40.0000 / 1 in.
 PLOT DATE = 5/1/2018

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 DRAWN - DMW
 CHECKED - SPF
 DATE - 03-15-2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

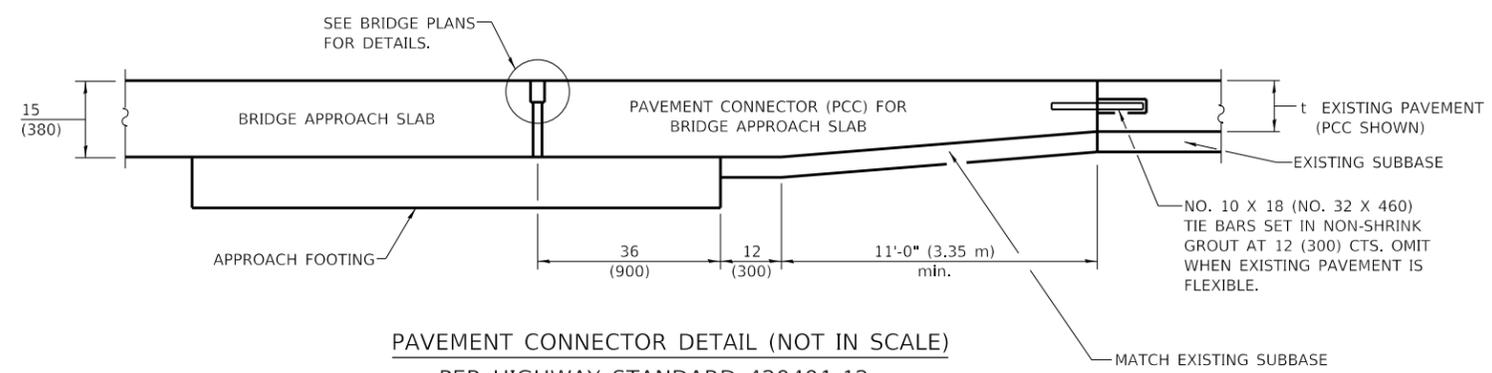
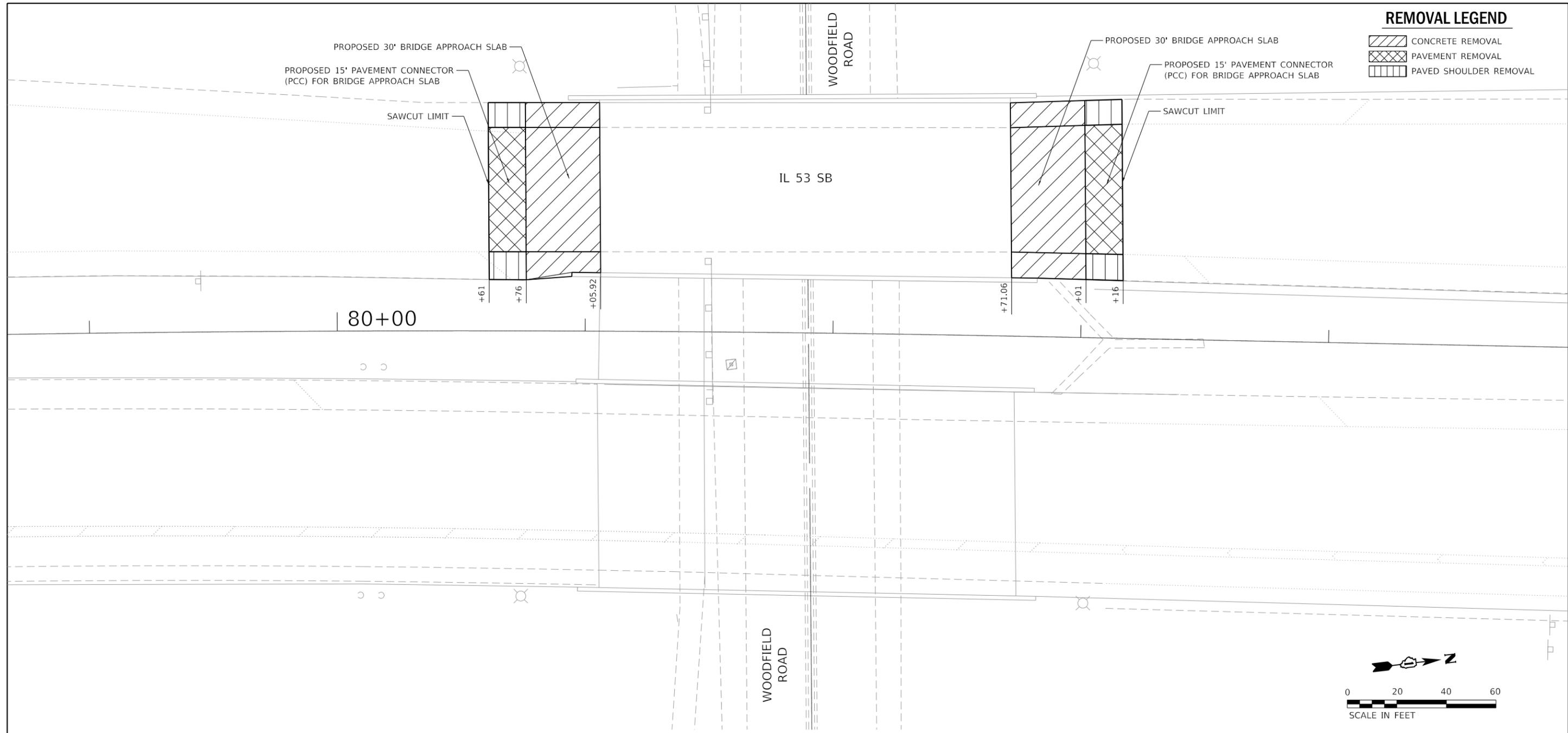
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
 SUMMARY OF QUANTITIES
 SCALE: N/A SHEET 4 OF 5 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-0658R	COOK	79	6
CONTRACT NO. 62G08			ILLINOIS FED. AID PROJECT	

REMOVAL LEGEND

-  CONCRETE REMOVAL
-  PAVEMENT REMOVAL
-  PAVED SHOULDER REMOVAL



PAVEMENT CONNECTOR DETAIL (NOT IN SCALE)
PER HIGHWAY STANDARD 420401-12

MODEL: 14001.MXD
FILE: 14001.DWG
D:\EG\2018\14001.dwg

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

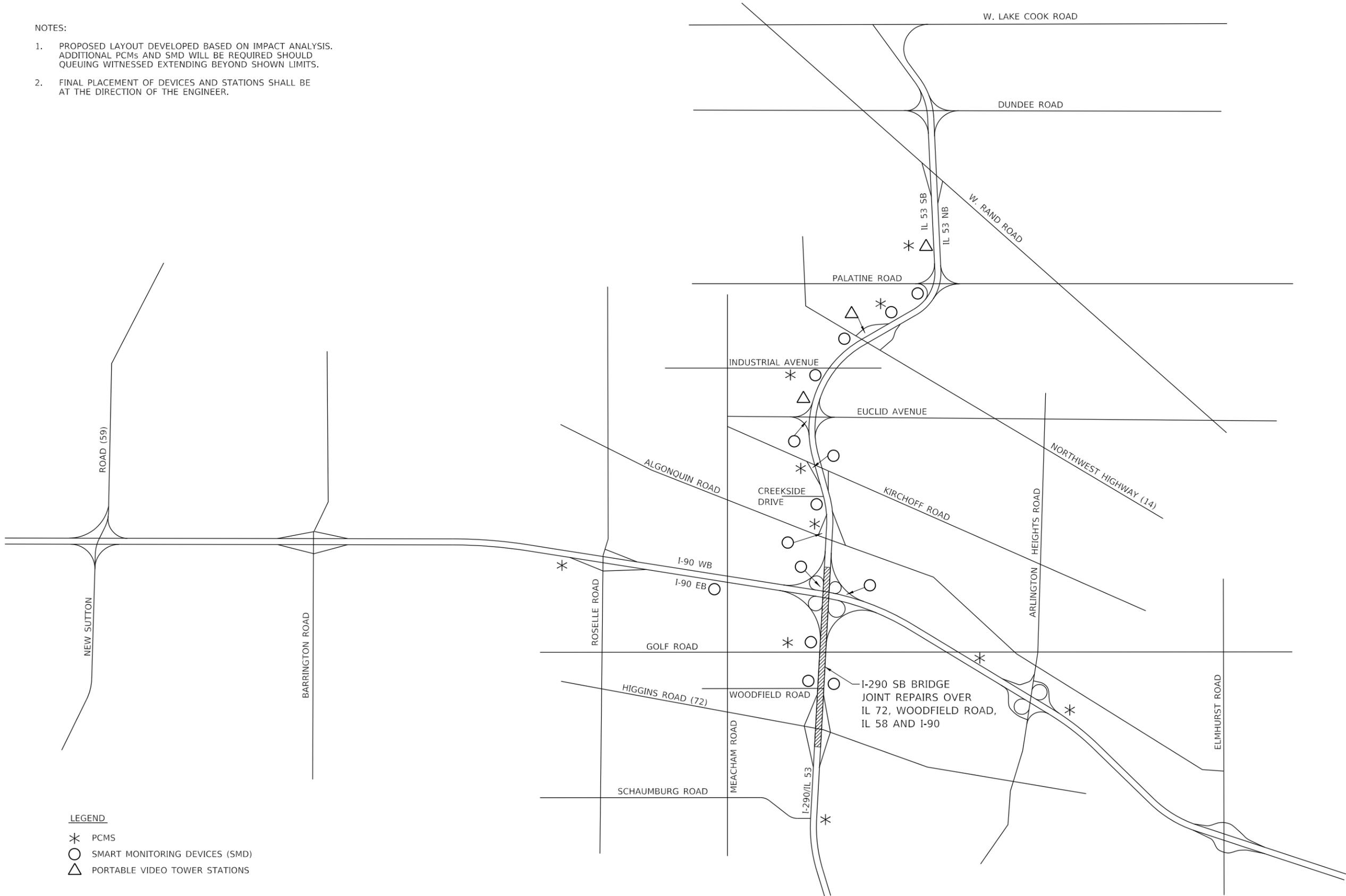
IL 53 BRIDGE JOINT REPAIRS
CONNECTOR PAVEMENT PLAN - WOODFIELD ROAD

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	7
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

NOTES:

1. PROPOSED LAYOUT DEVELOPED BASED ON IMPACT ANALYSIS. ADDITIONAL PCMS AND SMD WILL BE REQUIRED SHOULD QUEUING WITNESSED EXTENDING BEYOND SHOWN LIMITS.
2. FINAL PLACEMENT OF DEVICES AND STATIONS SHALL BE AT THE DIRECTION OF THE ENGINEER.



LEGEND

- * PCMS
- SMART MONITORING DEVICES (SMD)
- △ PORTABLE VIDEO TOWER STATIONS

MODEL: Default
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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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	DRAWN - DMW	REVISED -
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

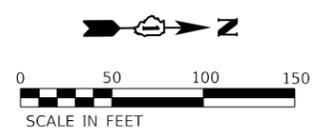
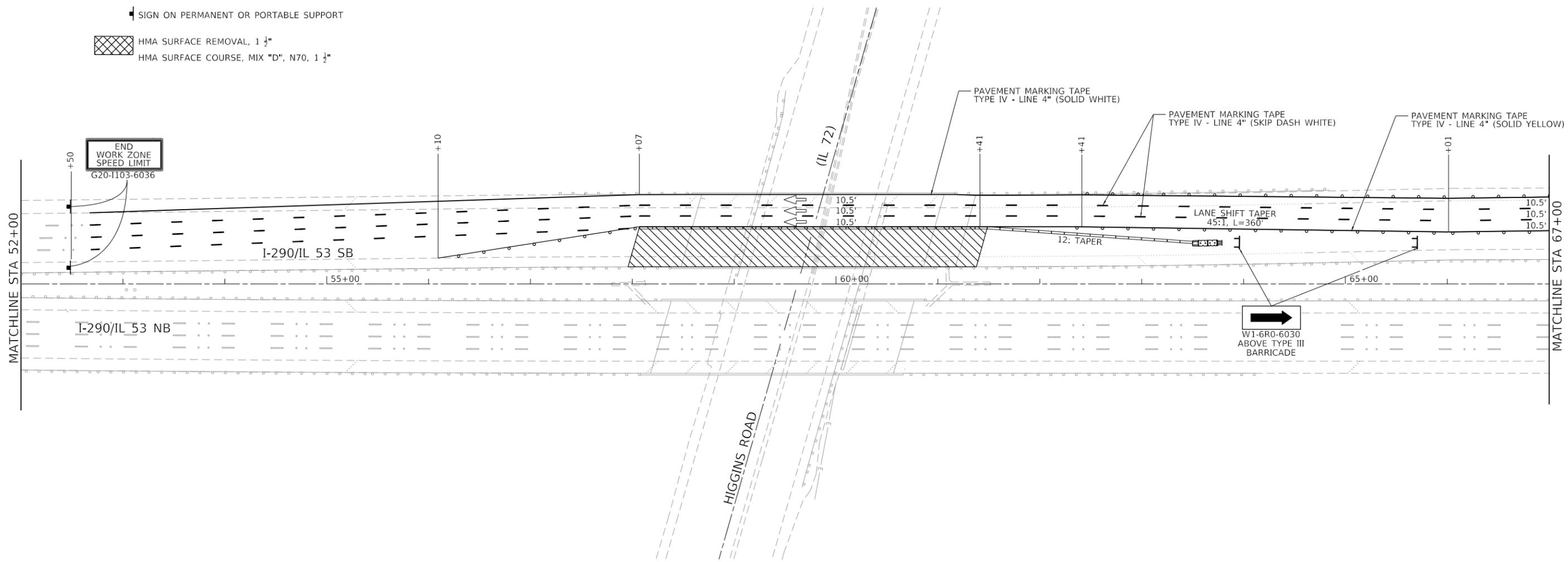
I-290/IL 53 BRIDGE JOINT REPAIRS
 SMART TRAFFIC MONITORING SYSTEM LOCATIONS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	8A
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC LEGEND

-  WORK ZONE
-  DIRECTION OF TRAFFIC
-  TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
-  SIGN ON PERMANENT OR PORTABLE SUPPORT
-  HMA SURFACE REMOVAL, 1 1/2"
-  HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

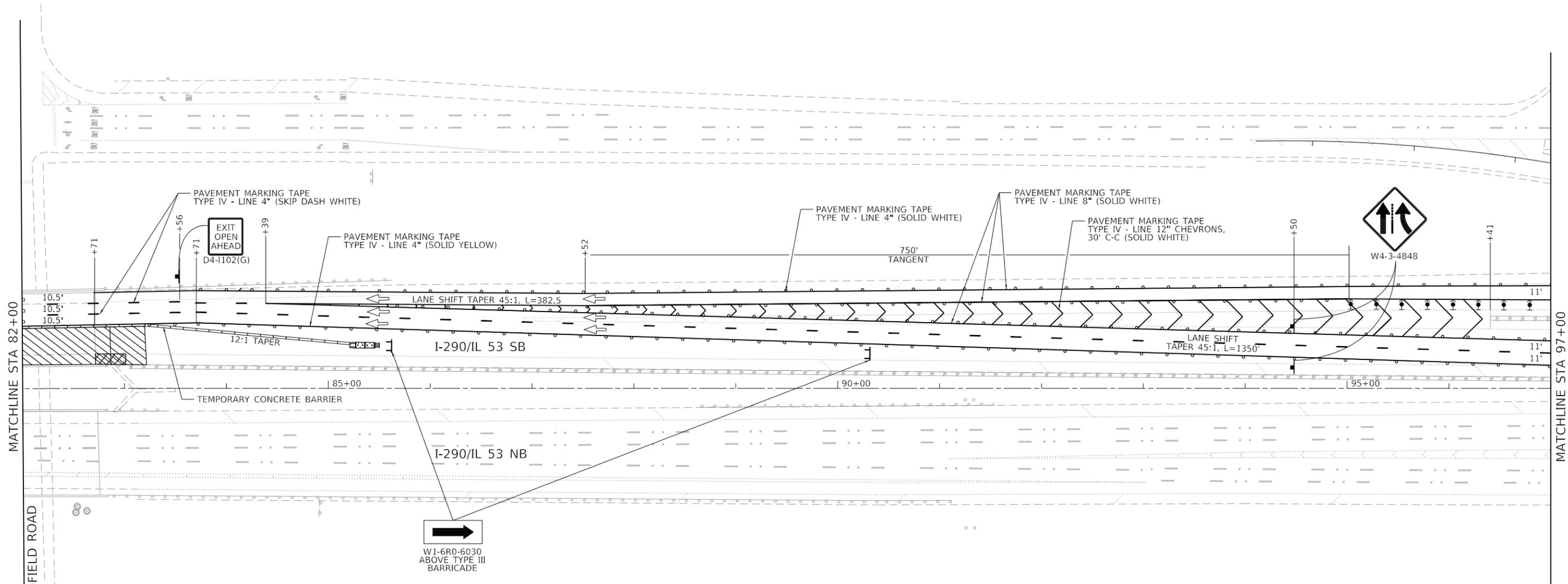
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	DATE - 03-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 1**

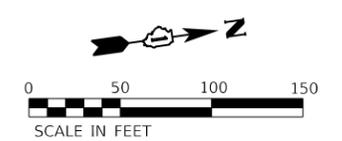
SCALE: 1"=50' SHEET 1 OF 18 SHEETS STA. 52+00 TO STA. 67+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	9
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



MAINTENANCE OF TRAFFIC LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2"
- HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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 3/24/18

CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

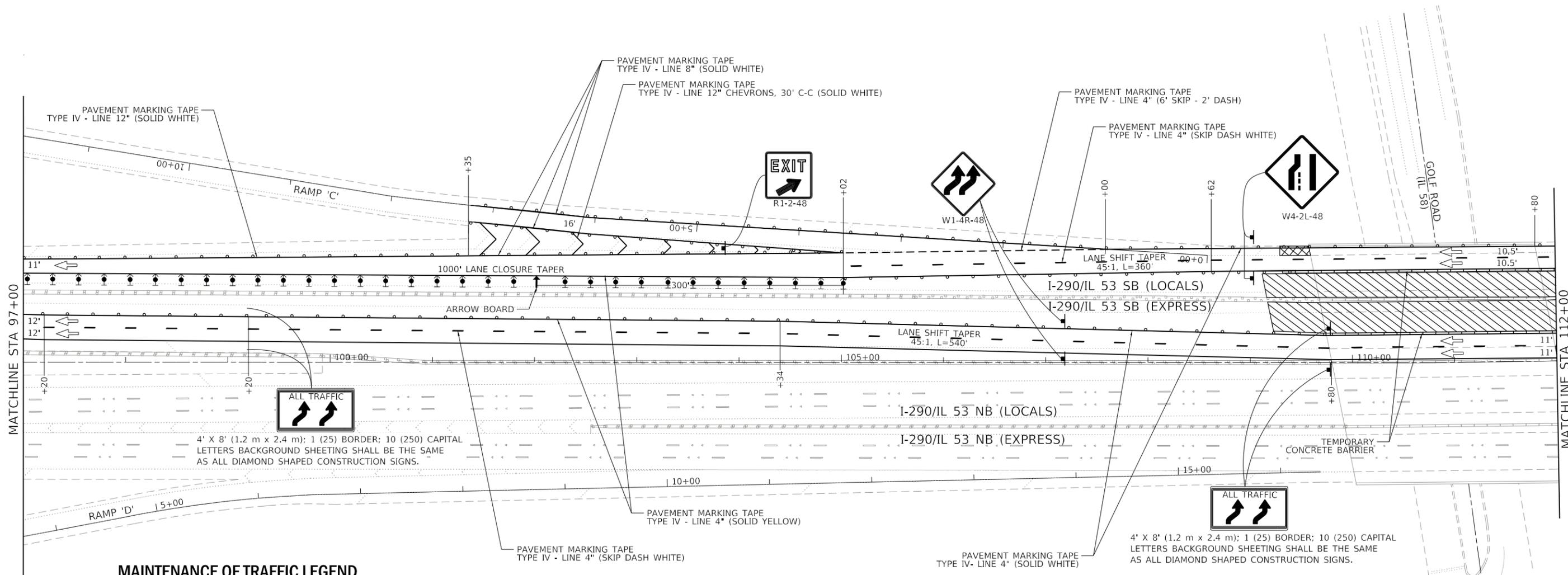
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PLOT DATE = 5/1/2018	CHECKED - SPF	REVISED -
	DATE - 03-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 1

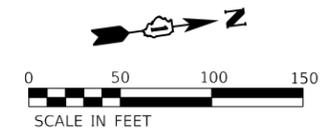
SCALE: 1"=50' SHEET 3 OF 18 SHEETS STA. 82+00 TO STA. 97+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	11
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



MAINTENANCE OF TRAFFIC LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2"
- HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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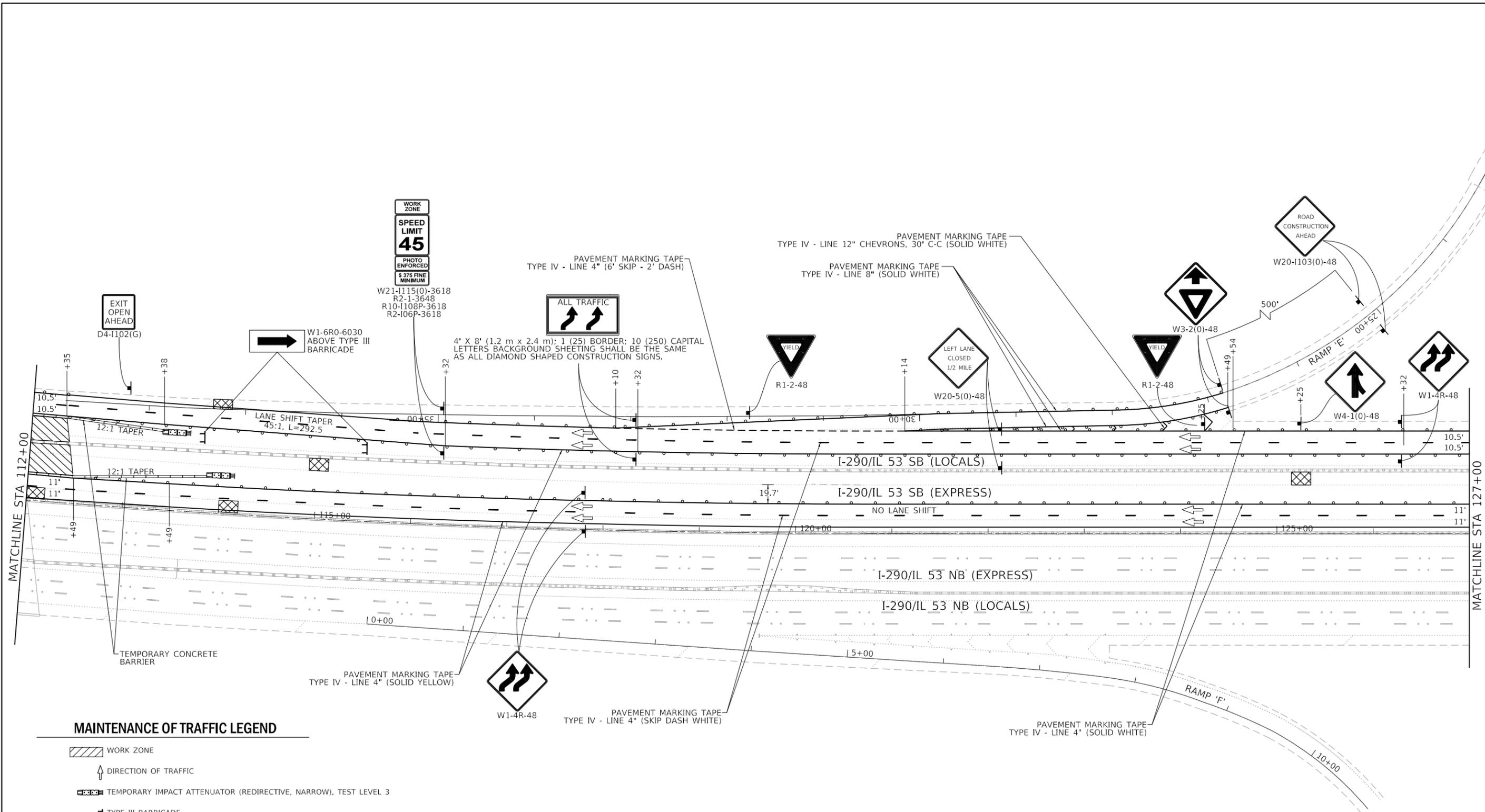
CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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	DATE - 03-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

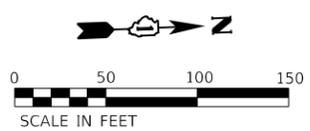
I-290/IL 53 BRIDGE JOINT REPAIRS MAINTENANCE OF TRAFFIC PLAN - STAGE 1	
SCALE: 1"=50'	SHEET 4 OF 18 SHEETS
STA. 97+00	TO STA. 112+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	12
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



MAINTENANCE OF TRAFFIC LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2"
- HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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PLOT DATE = 5/1/2018	CHECKED - SPF	REVISED -
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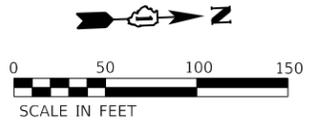
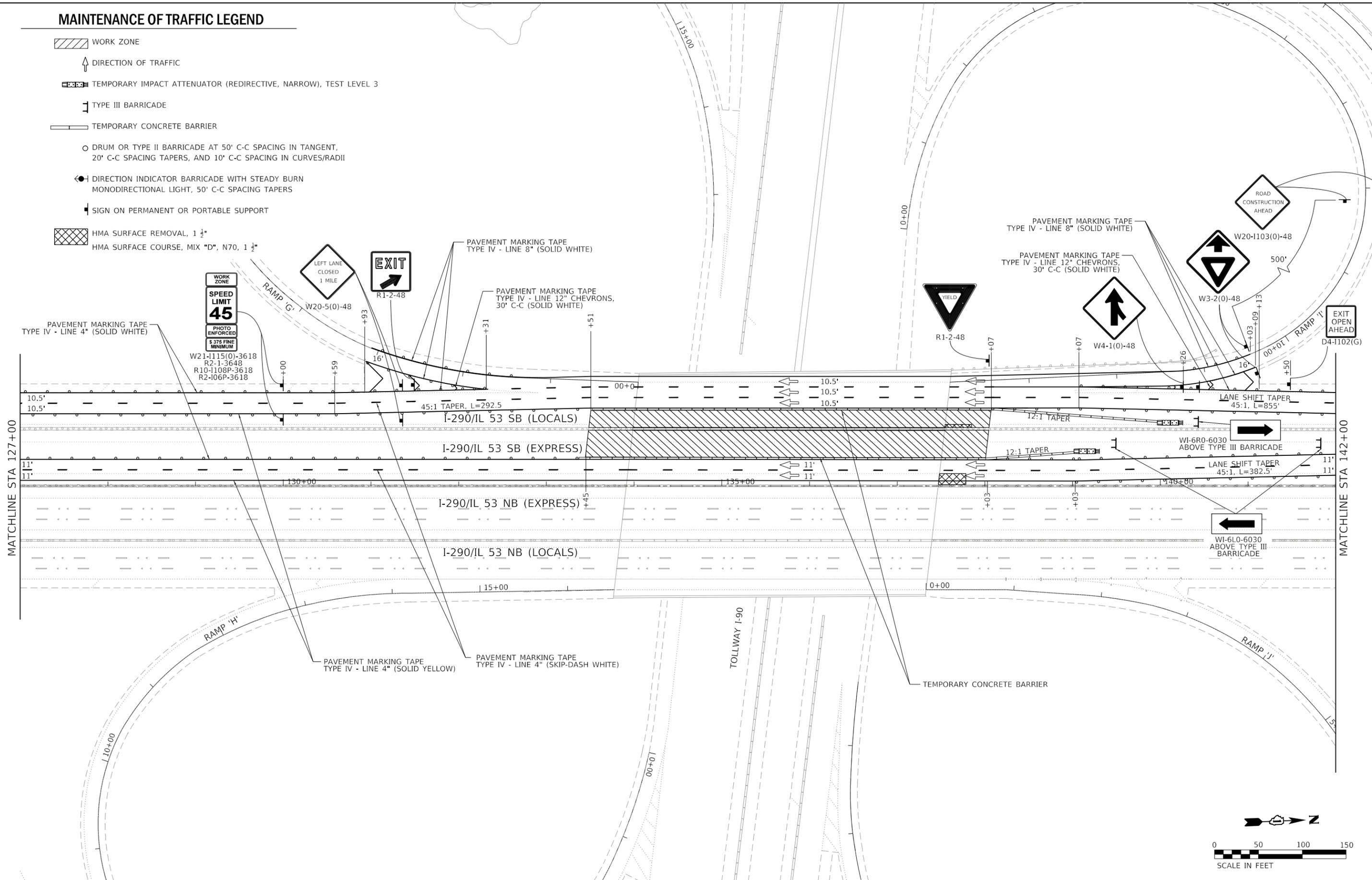
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS	
MAINTENANCE OF TRAFFIC PLAN - STAGE 1	
SCALE: 1"=50'	SHEET 5 OF 16 SHEETS
STA. 112+00	TO STA. 127+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	13
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC LEGEND

-  WORK ZONE
-  DIRECTION OF TRAFFIC
-  TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
-  SIGN ON PERMANENT OR PORTABLE SUPPORT
-  HMA SURFACE REMOVAL, 1 1/2"
-  HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



MODEL: STAGE1.MXD
FILE NAME: D:\EG08\stg1\eg08.dwg

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = _USER_	DESIGNED - JKP	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN - DMW	REVISED -
PLOT DATE = 5/1/2018	CHECKED - SPF	REVISED -
	DATE - 03-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

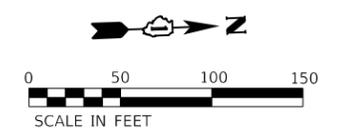
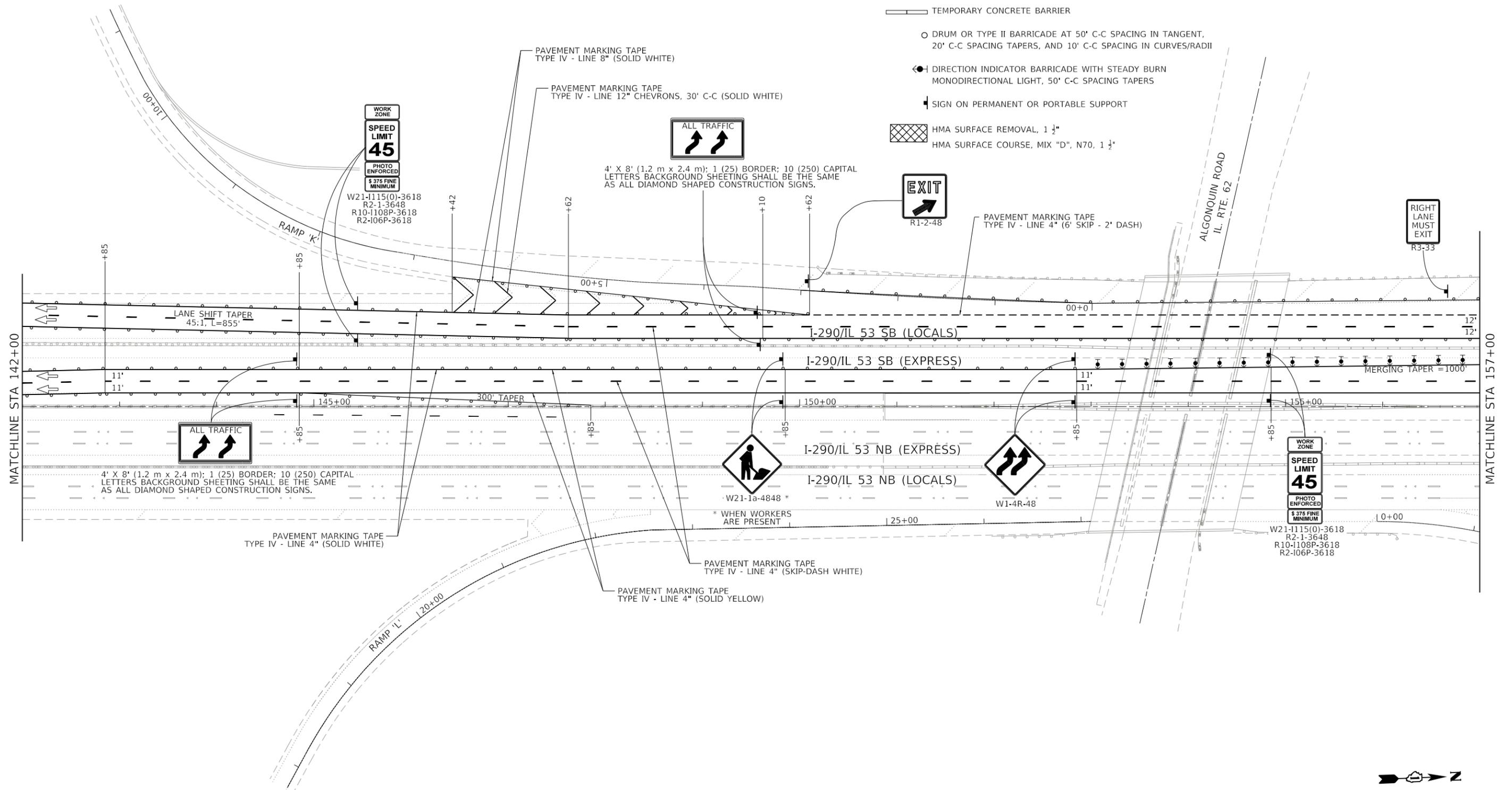
**I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 1**

SCALE: 1"=50' SHEET 6 OF 18 SHEETS STA. 127+00 TO STA. 142+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	14
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2"
- HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

USER NAME = _USER_	DESIGNED - JKP	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN - DMW	REVISED -
PLOT DATE = 5/1/2018	CHECKED - SPF	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

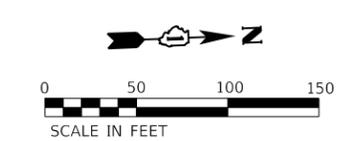
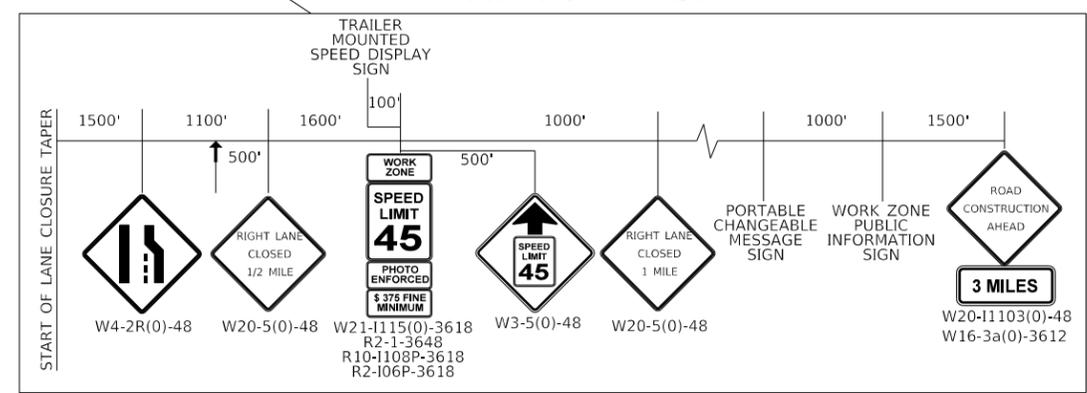
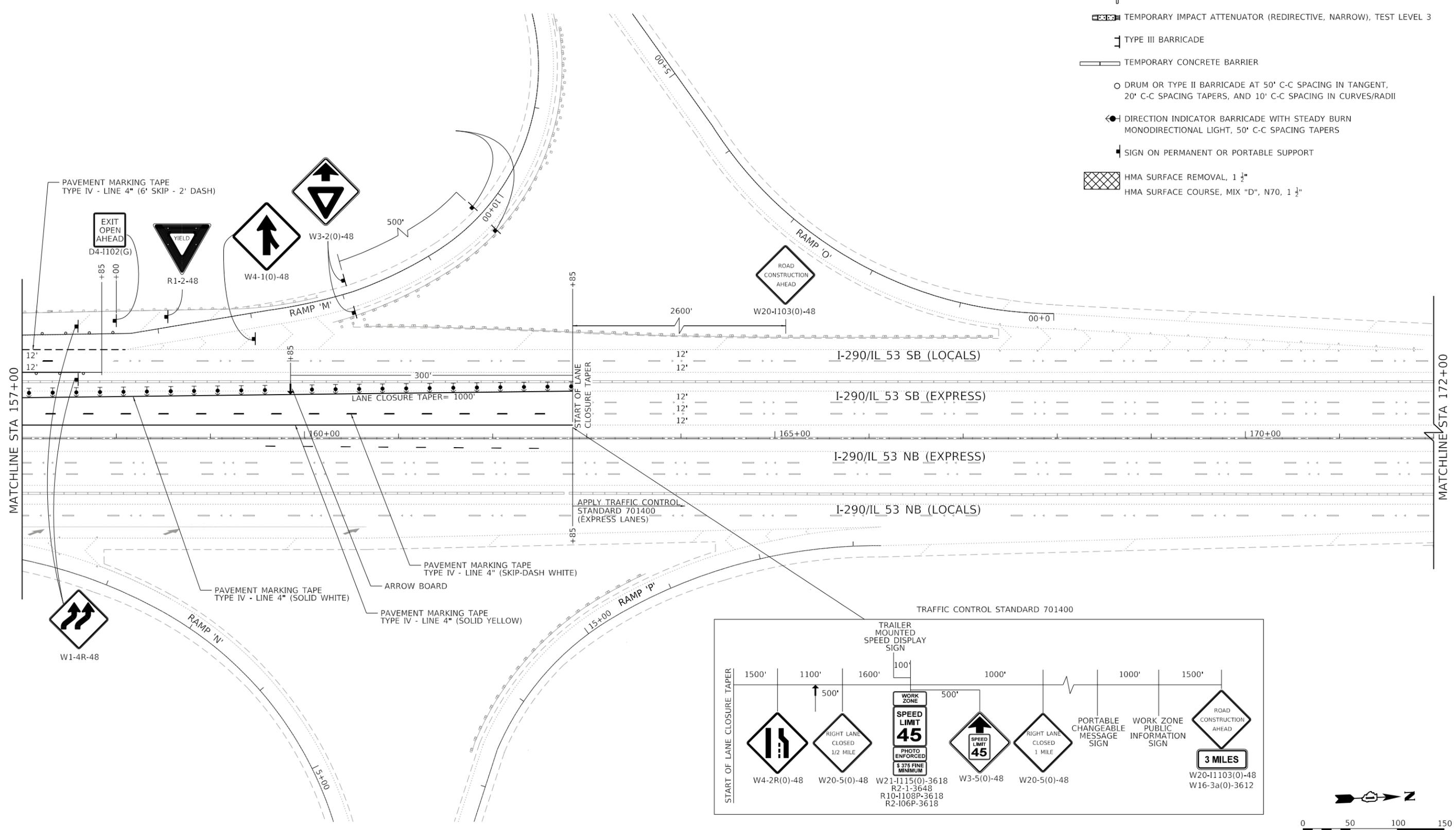
I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 1

SCALE: 1"=50' SHEET 7 OF 18 SHEETS STA. 142+00 TO STA. 157+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	15
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC LEGEND

-  WORK ZONE
-  DIRECTION OF TRAFFIC
-  TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
-  SIGN ON PERMANENT OR PORTABLE SUPPORT
-  HMA SURFACE REMOVAL, 1 1/2"
HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



MODEL: ST40BELNAMES
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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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PLOT DATE = 5/1/2018	CHECKED - SPF	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

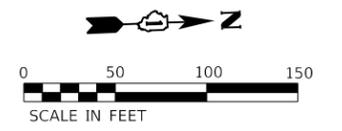
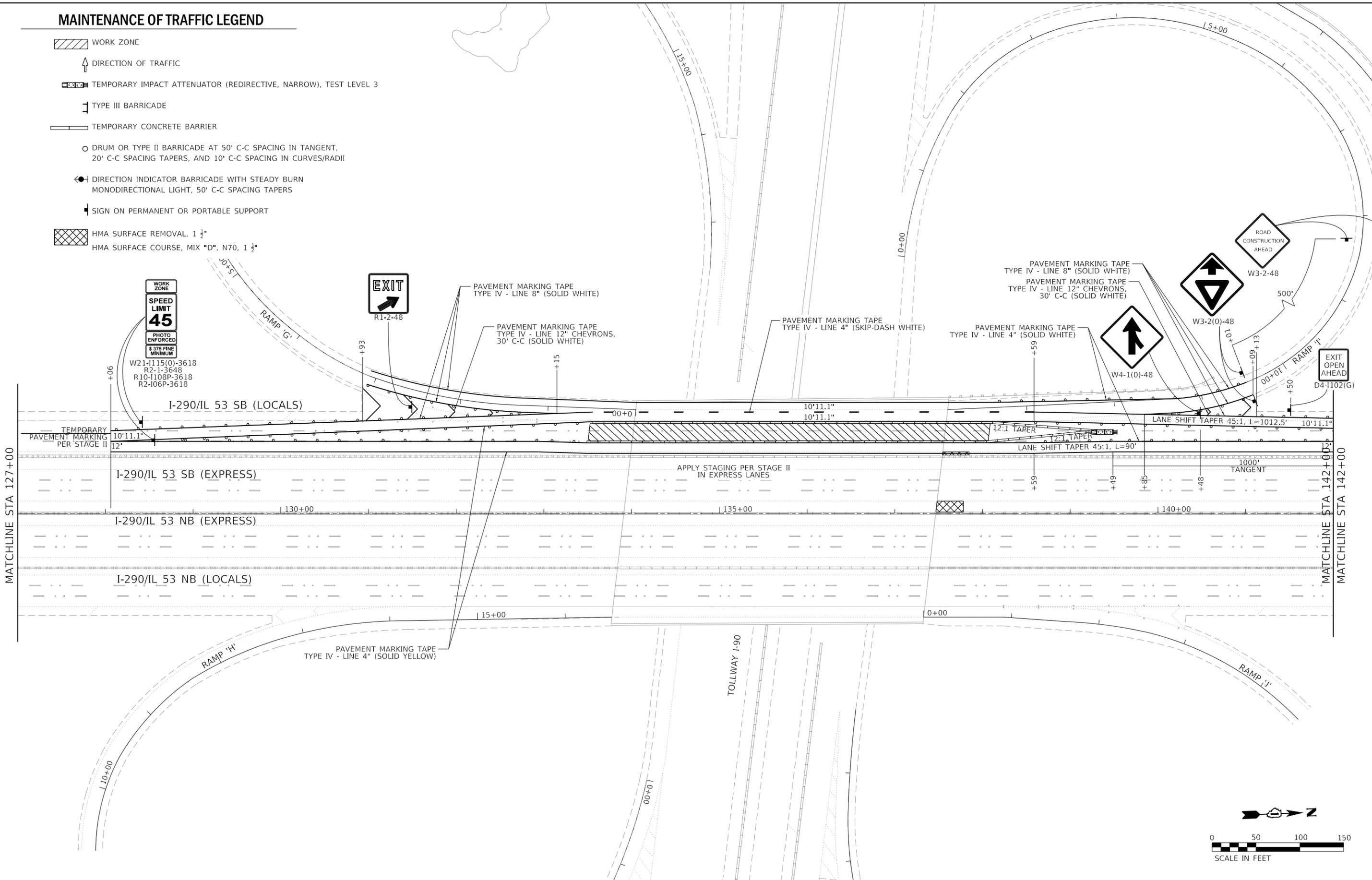
I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 1

SCALE: 1"=50' SHEET 8 OF 18 SHEETS STA. 142+00 TO STA. 157+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	16
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC LEGEND

-  WORK ZONE
-  DIRECTION OF TRAFFIC
-  TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
-  SIGN ON PERMANENT OR PORTABLE SUPPORT
-  HMA SURFACE REMOVAL, 1 1/2"
-  HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
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 184-001397

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

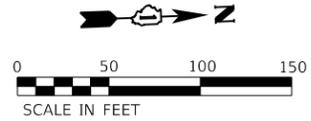
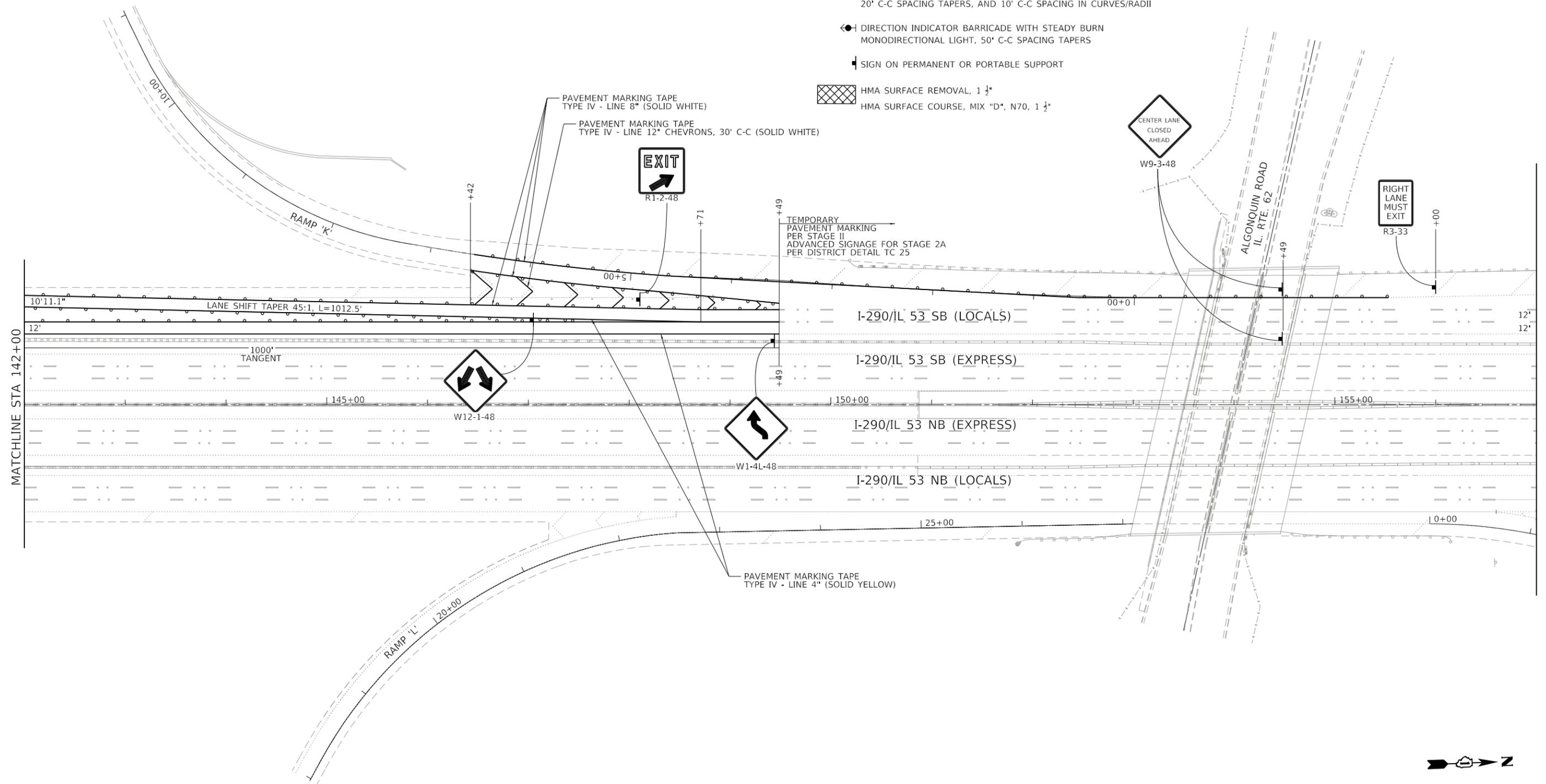
I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 2A

SCALE: 1"=50' SHEET 9 OF 18 SHEETS STA. 127+00 TO STA. 142+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	17
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC LEGEND

-  WORK ZONE
-  DIRECTION OF TRAFFIC
-  TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
-  SIGN ON PERMANENT OR PORTABLE SUPPORT
-  HMA SURFACE REMOVAL, 1 1/2"
HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

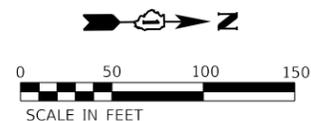
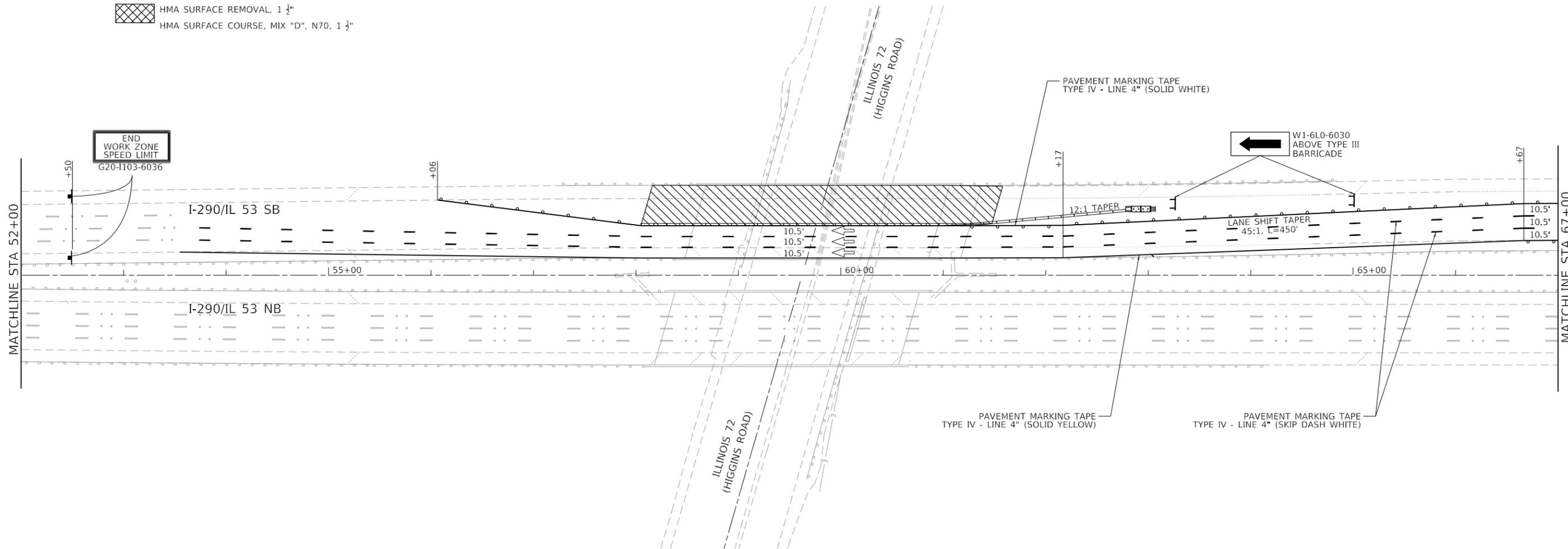
I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 2A

SCALE: 1"=50' SHEET 10 OF 16 SHEETS STA. 142+00 TO STA. 157+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	18
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC LEGEND

-  WORK ZONE
-  DIRECTION OF TRAFFIC
-  TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
-  SIGN ON PERMANENT OR PORTABLE SUPPORT
-  HMA SURFACE REMOVAL, 1 1/2"
-  HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

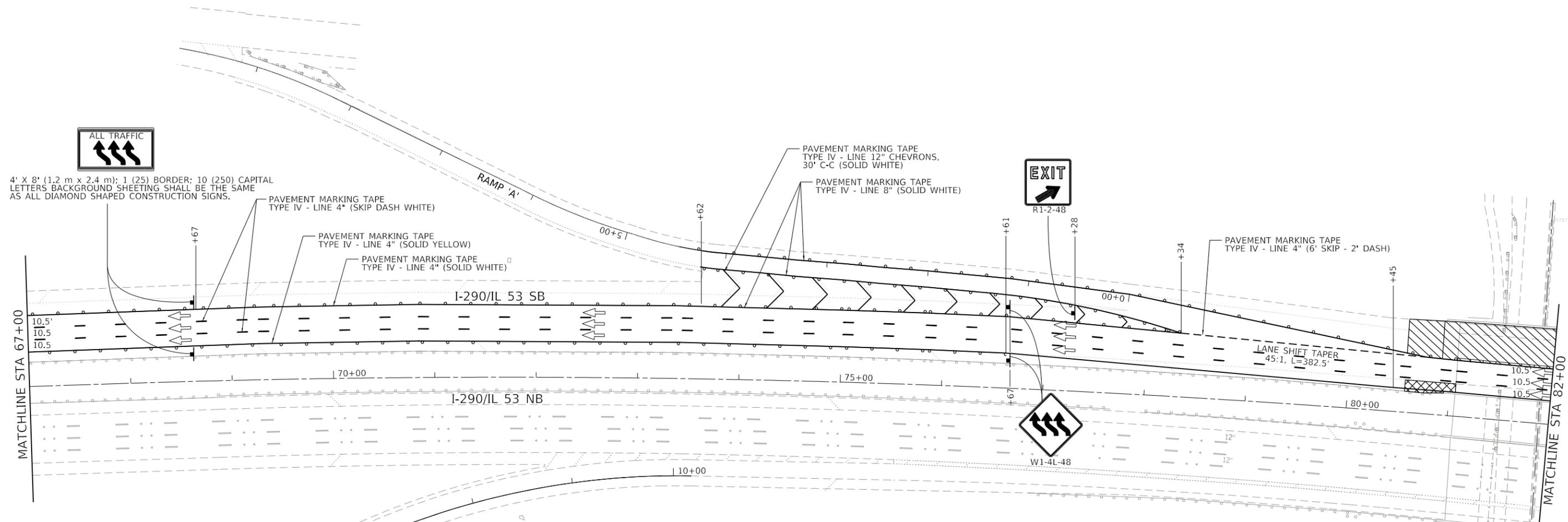
I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 2
 SCALE: 1"=50' SHEET 11 OF 18 SHEETS STA. 52+00 TO STA. 67+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	19
ILLINOIS			FED. AID PROJECT	

CONTRACT NO. 62G08

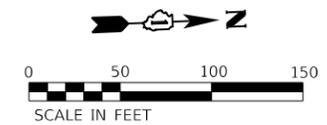


4' X 8' (1.2 m x 2.4 m); 1 (25) CAPITAL LETTERS BACKGROUND SHEETING SHALL BE THE SAME AS ALL DIAMOND SHAPED CONSTRUCTION SIGNS.



MAINTENANCE OF TRAFFIC LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2"
- HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

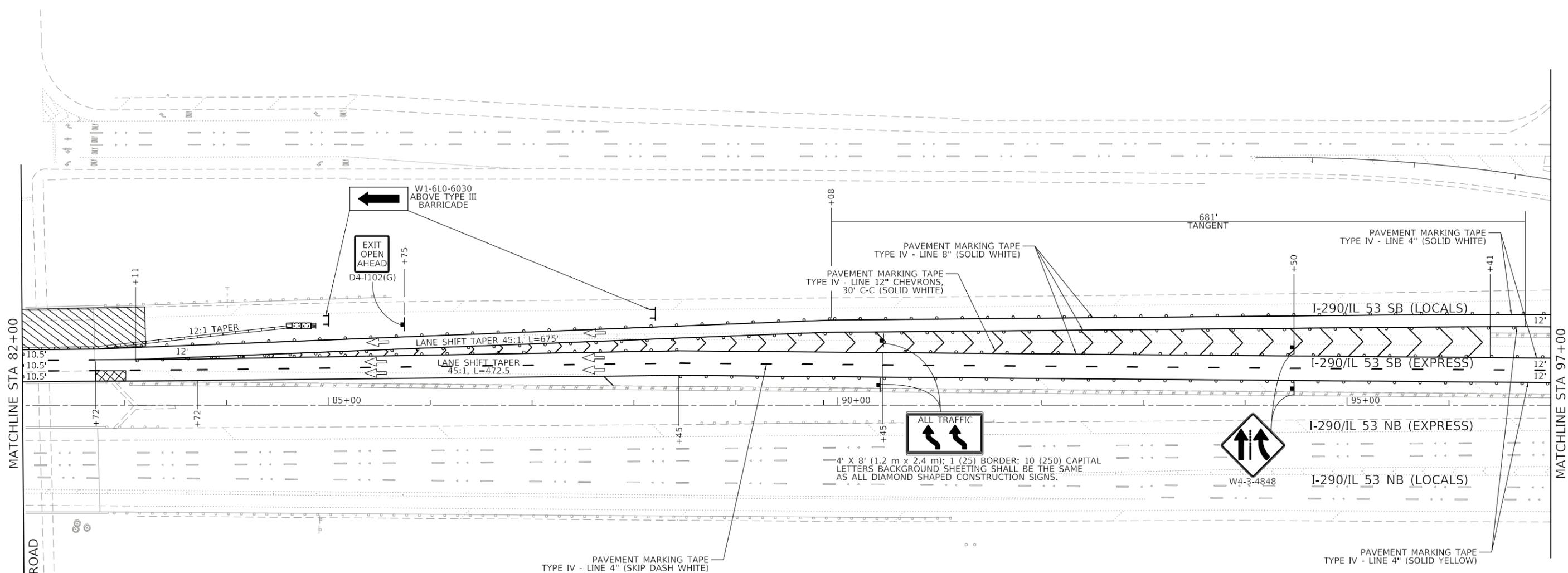
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PLOT DATE = 5/1/2018	DATE - 03-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 2

SCALE: 1"=50' SHEET 12 OF 18 SHEETS STA. 67+00 TO STA. 82+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	20
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



MATCHLINE STA 82+00

MATCHLINE STA 97+00

WOODFIELD ROAD

MAINTENANCE OF TRAFFIC LEGEND

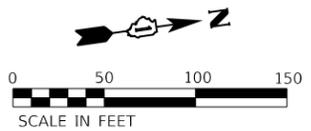
- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2" HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



4' X 8' (1.2 m x 2.4 m); 1 (25) BORDER; 10 (250) CAPITAL LETTERS BACKGROUND SHEETING SHALL BE THE SAME AS ALL DIAMOND SHAPED CONSTRUCTION SIGNS.



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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
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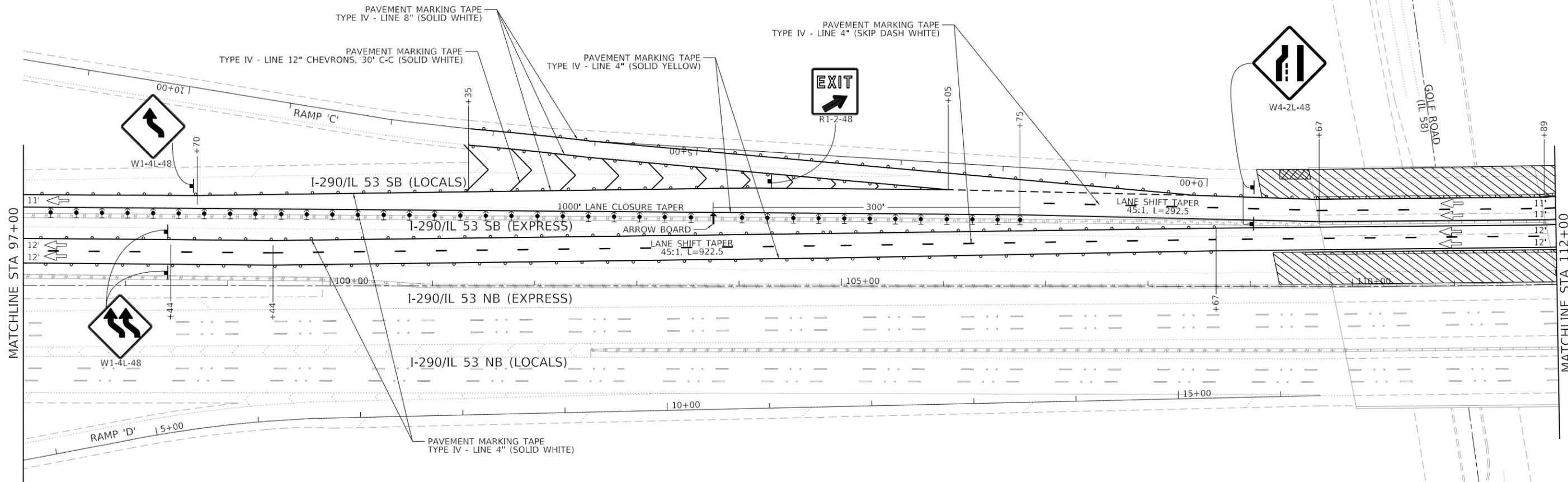
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 2

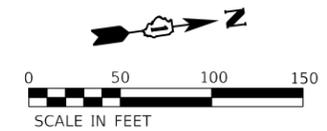
SCALE: 1"=50' SHEET 13 OF 18 SHEETS STA. 82+00 TO STA. 97+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	21
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



MAINTENANCE OF TRAFFIC LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2"
- HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
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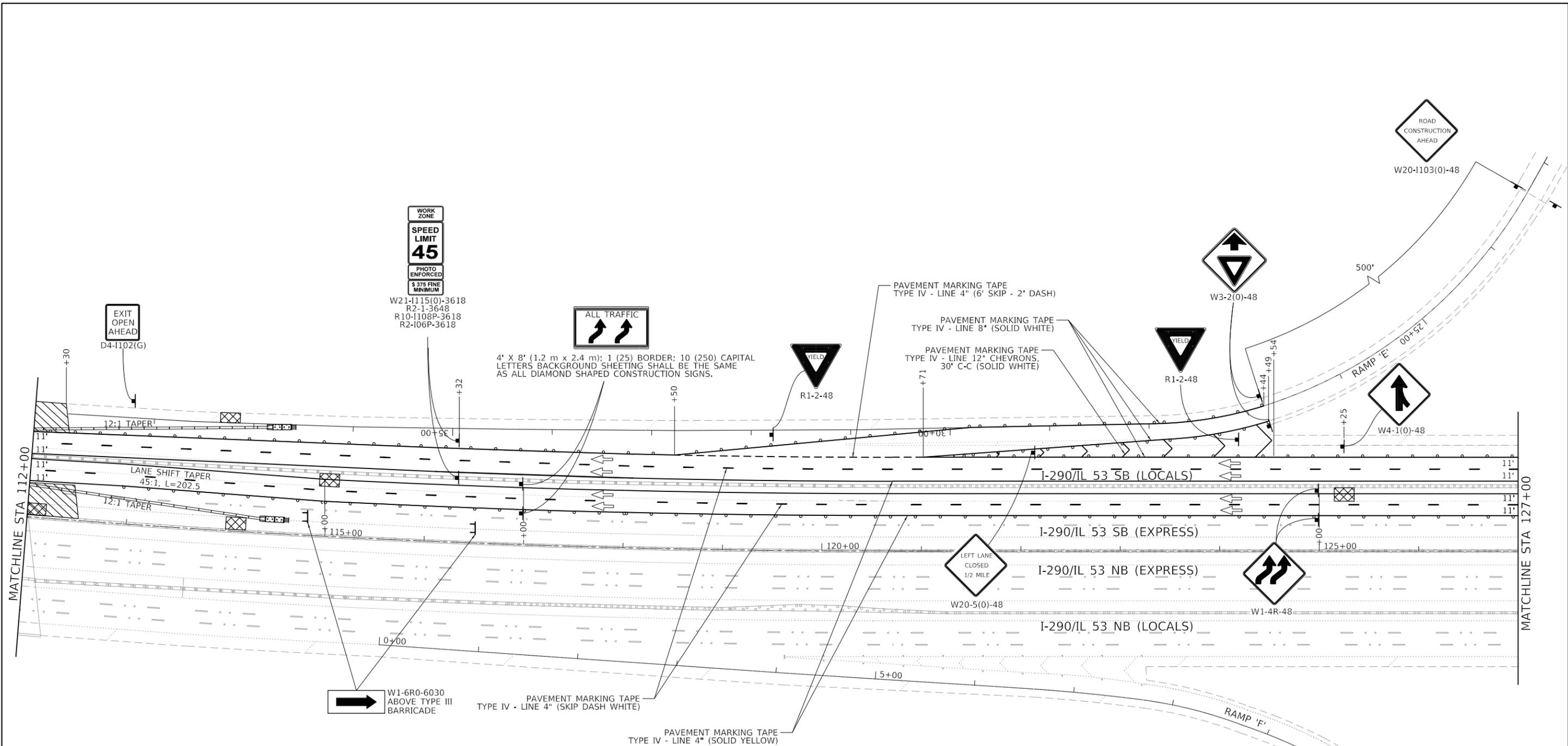
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	DATE - 03-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 2

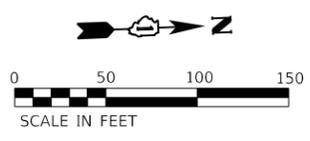
SCALE: 1"=50' SHEET 14 OF 18 SHEETS STA. 97+00 TO STA. 112+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	22
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



MAINTENANCE OF TRAFFIC LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2"
- HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

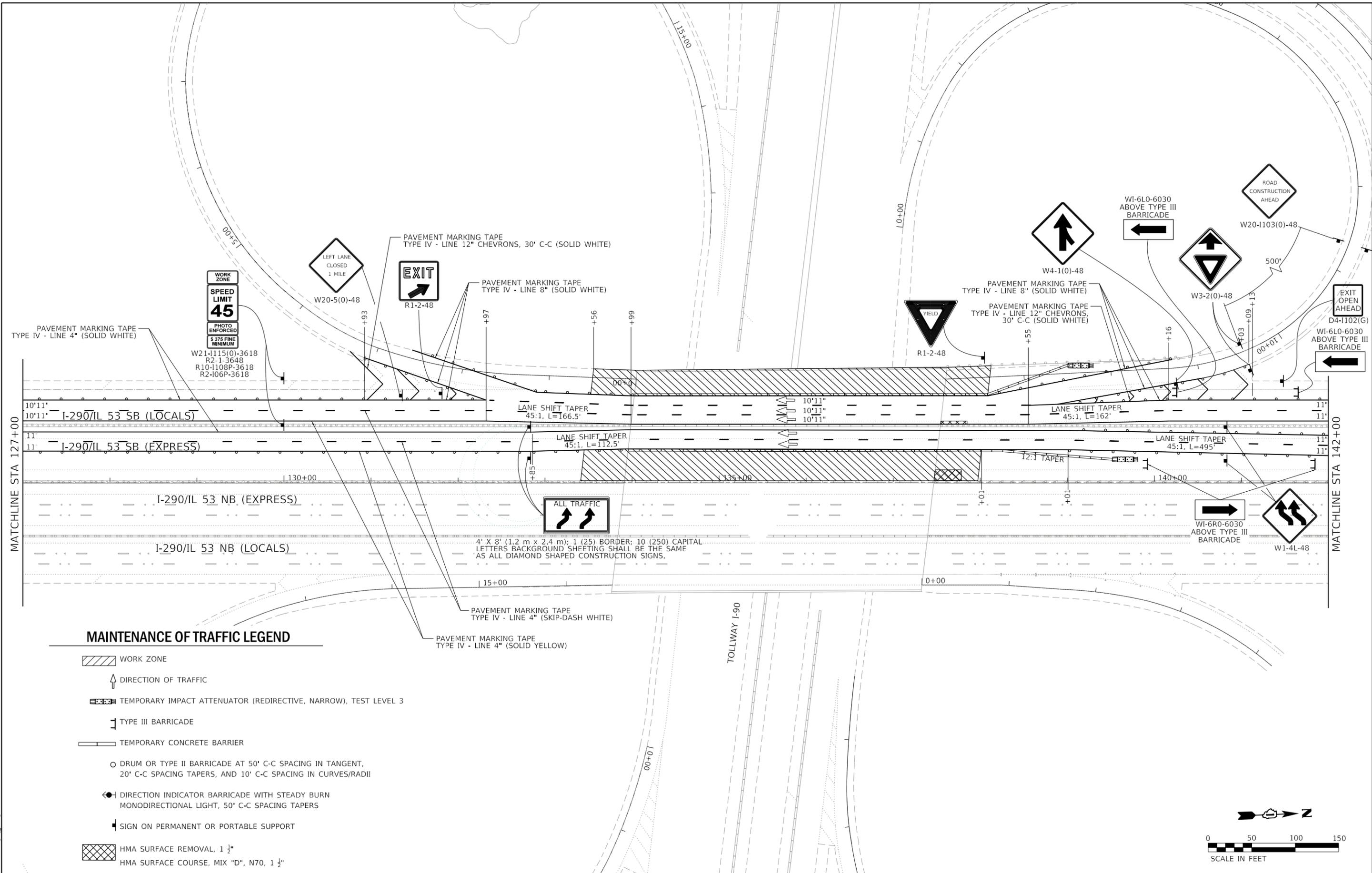
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 2

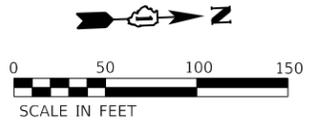
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F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	23
CONTRACT NO. 62G08				
		ILLINOIS	FED. AID PROJECT	



MAINTENANCE OF TRAFFIC LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2"
- HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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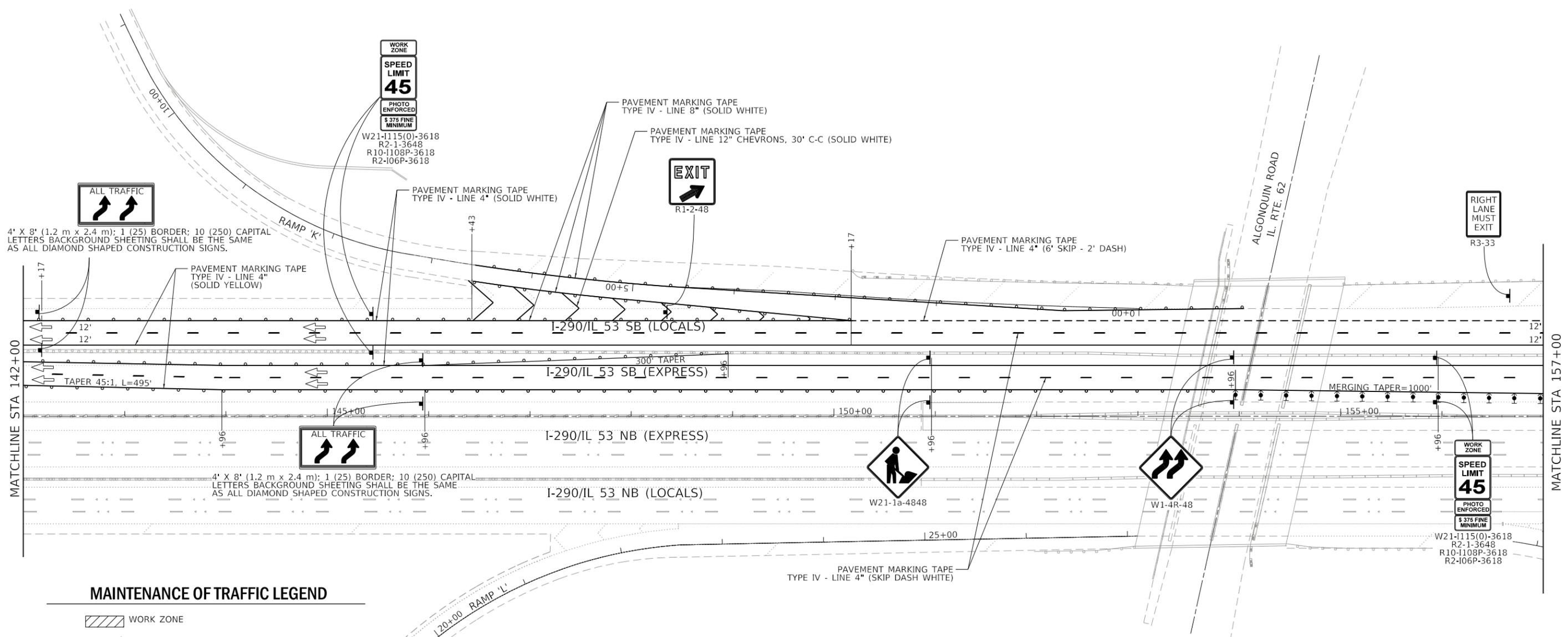
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**I-290/IL 53 BRIDGE JOINT REPAIRS
 MAINTENANCE OF TRAFFIC PLAN - STAGE 2**

SCALE: 1"=50'

SHEET 16 OF 18 SHEETS STA. 127+00 TO STA. 142+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	24
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



MAINTENANCE OF TRAFFIC LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- HMA SURFACE REMOVAL, 1 1/2"
- HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



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CHASTAIN & ASSOCIATES LLC
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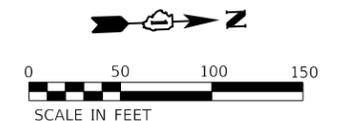
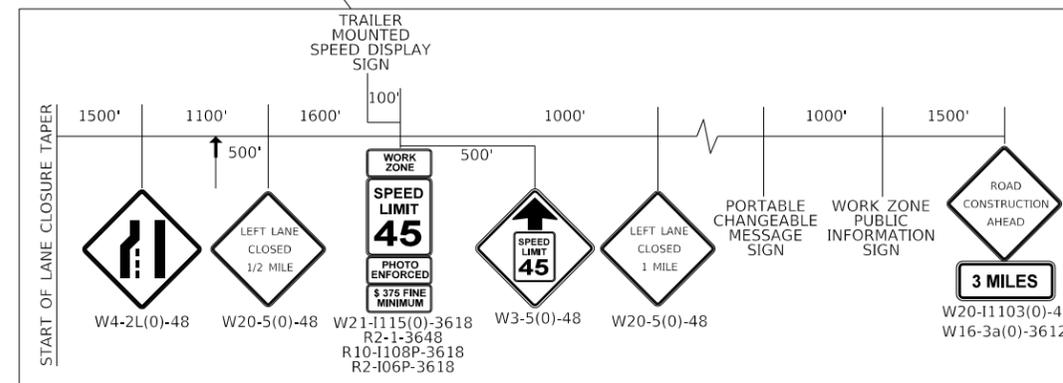
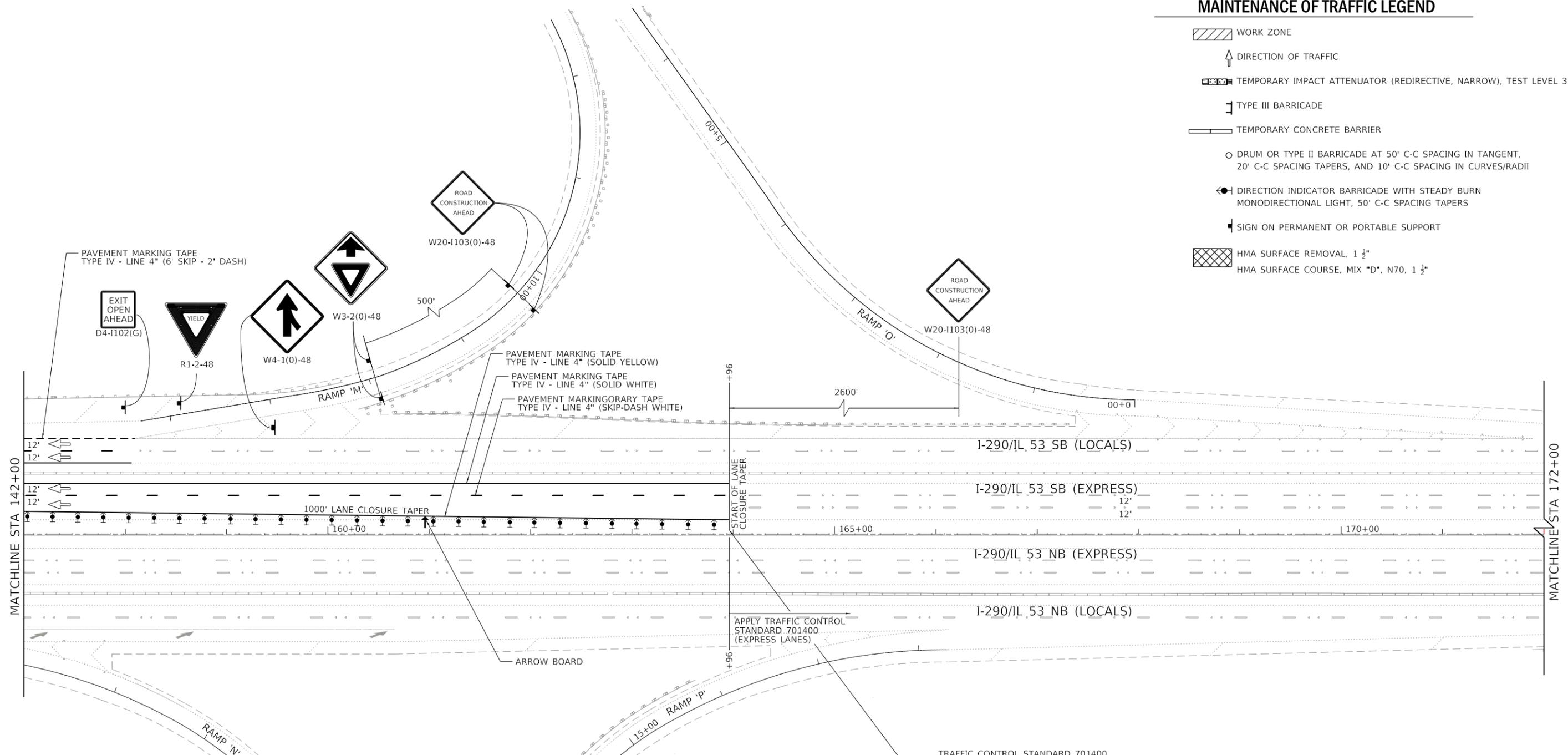
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
MAINTENANCE OF TRAFFIC PLAN - STAGE 2
 SCALE: 1"=50'
 SHEET 17 OF 18 SHEETS
 STA. 142+00 TO STA. 157+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	25
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC LEGEND

-  WORK ZONE
-  DIRECTION OF TRAFFIC
-  TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADI
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT, 50' C-C SPACING TAPERS
-  SIGN ON PERMANENT OR PORTABLE SUPPORT
-  HMA SURFACE REMOVAL, 1 1/2"
HMA SURFACE COURSE, MIX "D", N70, 1 1/2"



MODEL: 140001.DWG
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 DATE: 03-15-2018

CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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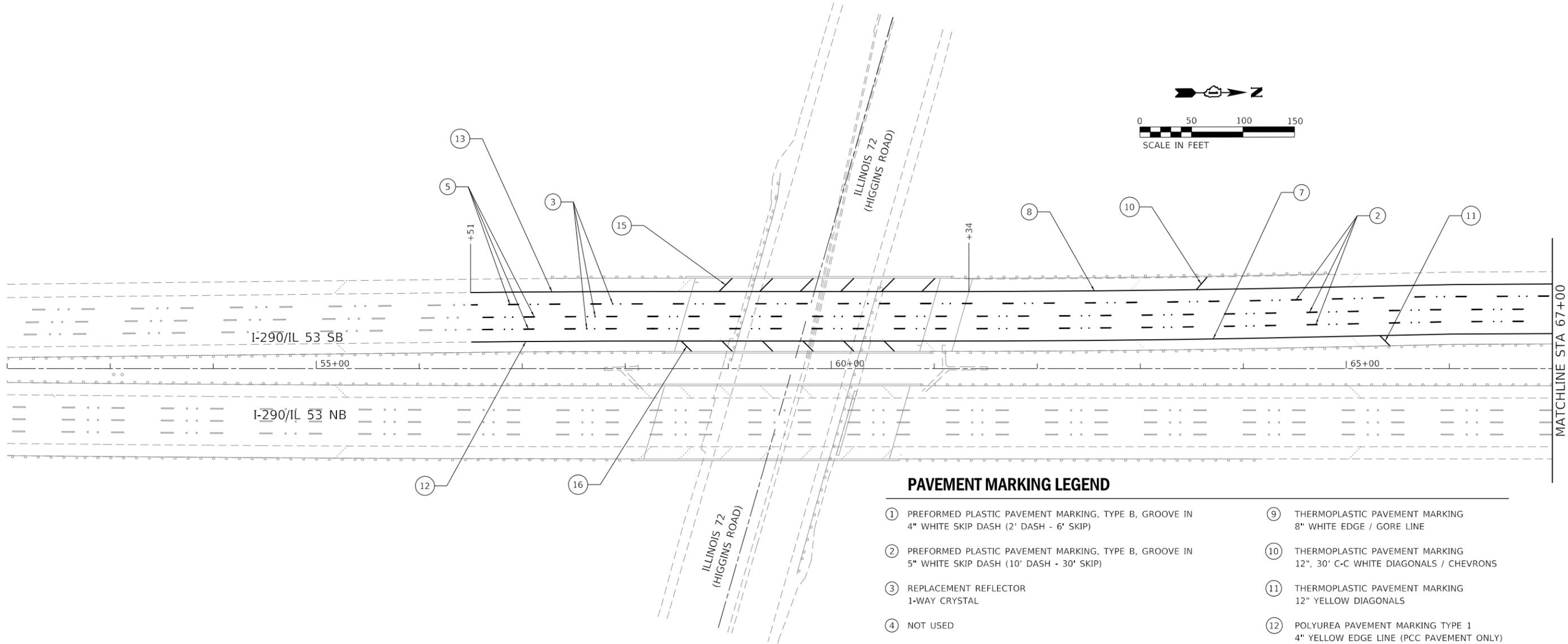
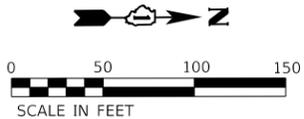
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
 MAINTENANCE OF TRAFFIC PLAN - STAGE 2

SCALE: 1"=50' SHEET 18 OF 18 SHEETS STA. 142+00 TO STA. 157+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	26
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

NOTE: ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING IDOT DISTRICT 1 DETAILS: TC-11, TC-12 AND TC-13.



PAVEMENT MARKING LEGEND

- | | |
|--|---|
| ① PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 4" WHITE SKIP DASH (2' DASH - 6' SKIP) | ⑨ THERMOPLASTIC PAVEMENT MARKING 8" WHITE EDGE / GORE LINE |
| ② PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 5" WHITE SKIP DASH (10' DASH - 30' SKIP) | ⑩ THERMOPLASTIC PAVEMENT MARKING 12", 30' C-C WHITE DIAGONALS / CHEVRONS |
| ③ REPLACEMENT REFLECTOR 1-WAY CRYSTAL | ⑪ THERMOPLASTIC PAVEMENT MARKING 12" YELLOW DIAGONALS |
| ④ NOT USED | ⑫ POLYUREA PAVEMENT MARKING TYPE 1 4" YELLOW EDGE LINE (PCC PAVEMENT ONLY) |
| ⑤ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 8" WHITE SKIP DASH (10' DASH - 30' SKIP) (PCC PAVEMENT ONLY) | ⑬ POLYUREA PAVEMENT MARKING TYPE 1 4" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ⑥ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 11" WHITE DOTTED LINE (3' DASH - 9' SKIP) (PCC PAVEMENT ONLY) | ⑭ POLYUREA PAVEMENT MARKING TYPE 1 8" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ⑦ THERMOPLASTIC PAVEMENT MARKING 4" YELLOW EDGE LINE | ⑮ POLYUREA PAVEMENT MARKING TYPE 1 12" WHITE DIAGONALS (PCC PAVEMENT ONLY) |
| ⑧ THERMOPLASTIC PAVEMENT MARKING 4" WHITE EDGE LINE | ⑯ POLYUREA PAVEMENT MARKING TYPE 1 12" YELLOW DIAGONALS (PCC PAVEMENT ONLY) |

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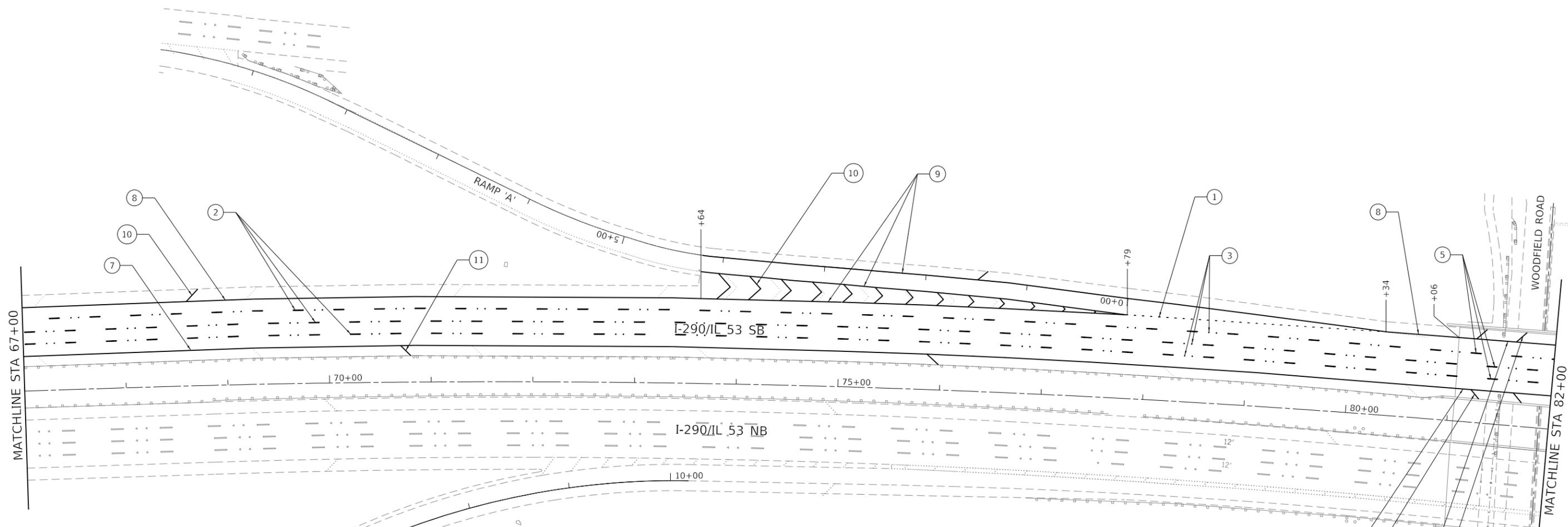
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
PAVEMENT MARKING PLAN

SCALE: 1"=50' SHEET 1 OF 8 SHEETS STA. 52+00 TO STA. 67+00

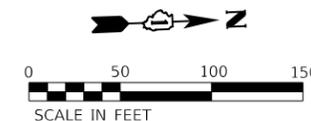
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	27
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62G08	



PAVEMENT MARKING LEGEND

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> ① PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 4" WHITE SKIP DASH (2' DASH - 6' SKIP) ② PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 5" WHITE SKIP DASH (10' DASH - 30' SKIP) ③ REPLACEMENT REFLECTOR 1-WAY CRYSTAL ④ NOT USED ⑤ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 8" WHITE SKIP DASH (10' DASH - 30' SKIP) (PCC PAVEMENT ONLY) ⑥ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 11" WHITE DOTTED LINE (3' DASH - 9' SKIP) (PCC PAVEMENT ONLY) | <ul style="list-style-type: none"> ⑦ THERMOPLASTIC PAVEMENT MARKING 4" YELLOW EDGE LINE ⑧ THERMOPLASTIC PAVEMENT MARKING 4" WHITE EDGE LINE ⑨ THERMOPLASTIC PAVEMENT MARKING 8" WHITE EDGE / GORE LINE ⑩ THERMOPLASTIC PAVEMENT MARKING 12", 30' C-C WHITE DIAGONALS / CHEVRONS ⑪ THERMOPLASTIC PAVEMENT MARKING 12" YELLOW DIAGONALS | <ul style="list-style-type: none"> ⑫ POLYUREA PAVEMENT MARKING TYPE 1 4" YELLOW EDGE LINE (PCC PAVEMENT ONLY) ⑬ POLYUREA PAVEMENT MARKING TYPE 1 4" WHITE EDGE LINE (PCC PAVEMENT ONLY) ⑭ POLYUREA PAVEMENT MARKING TYPE 1 8" WHITE EDGE LINE (PCC PAVEMENT ONLY) ⑮ POLYUREA PAVEMENT MARKING TYPE 1 12" WHITE DIAGONALS (PCC PAVEMENT ONLY) ⑯ POLYUREA PAVEMENT MARKING TYPE 1 12" YELLOW DIAGONALS (PCC PAVEMENT ONLY) |
|--|--|---|

NOTE: ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING IDOT DISTRICT 1 DETAILS: TC-11, TC-12 AND TC-13.



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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

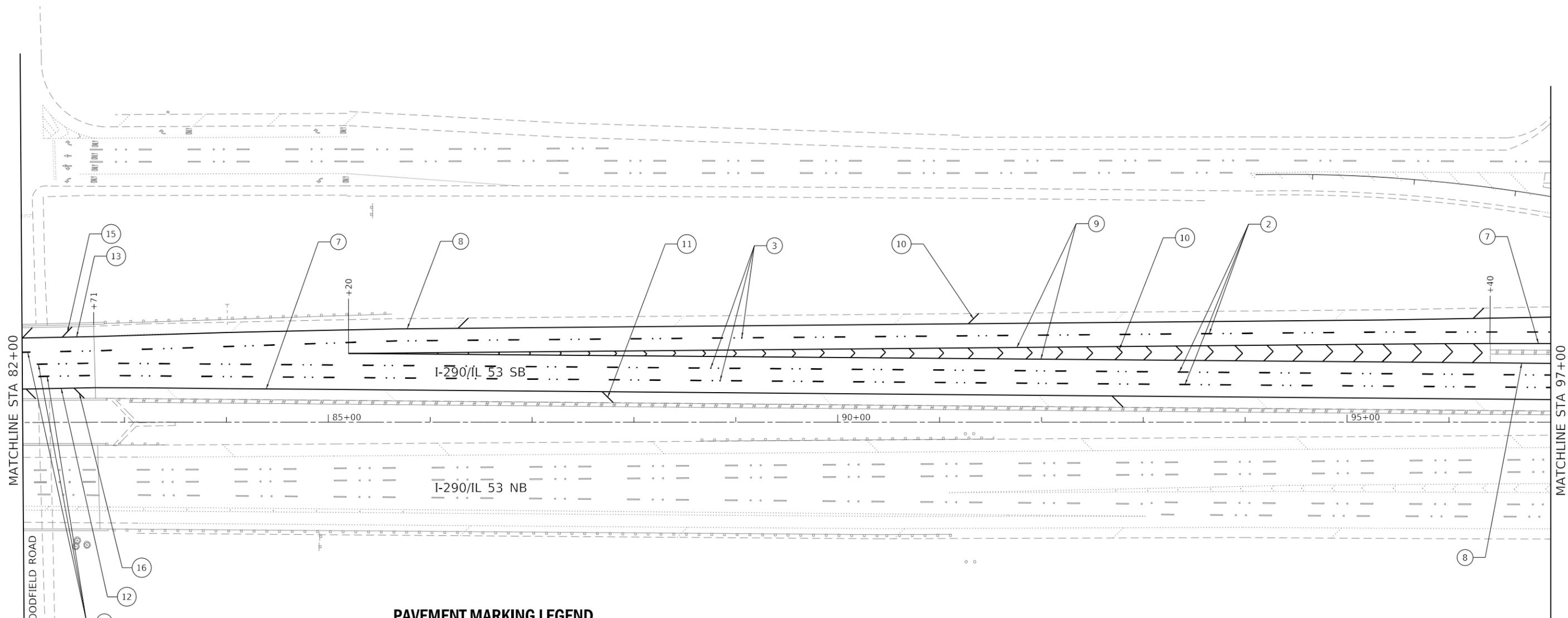
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	DATE - 03-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
PAVEMENT MARKING PLAN

SCALE: 1"=50' SHEET 2 OF 8 SHEETS STA. 67+00 TO STA. 82+00

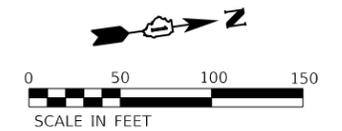
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	28
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



PAVEMENT MARKING LEGEND

- | | | |
|--|--|---|
| ① PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 4" WHITE SKIP DASH (2' DASH - 6' SKIP) | ⑦ THERMOPLASTIC PAVEMENT MARKING 4" YELLOW EDGE LINE | ⑫ POLYUREA PAVEMENT MARKING TYPE 1 4" YELLOW EDGE LINE (PCC PAVEMENT ONLY) |
| ② PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 5" WHITE SKIP DASH (10' DASH - 30' SKIP) | ⑧ THERMOPLASTIC PAVEMENT MARKING 4" WHITE EDGE LINE | ⑬ POLYUREA PAVEMENT MARKING TYPE 1 4" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ③ REPLACEMENT REFLECTOR 1-WAY CRYSTAL | ⑨ THERMOPLASTIC PAVEMENT MARKING 8" WHITE EDGE / GORE LINE | ⑭ POLYUREA PAVEMENT MARKING TYPE 1 8" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ④ NOT USED | ⑩ THERMOPLASTIC PAVEMENT MARKING 12", 30" C-C WHITE DIAGONALS / CHEVRONS | ⑮ POLYUREA PAVEMENT MARKING TYPE 1 12" WHITE DIAGONALS (PCC PAVEMENT ONLY) |
| ⑤ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 8" WHITE SKIP DASH (10' DASH - 30' SKIP) (PCC PAVEMENT ONLY) | ⑪ THERMOPLASTIC PAVEMENT MARKING 12" YELLOW DIAGONALS | ⑯ POLYUREA PAVEMENT MARKING TYPE 1 12" YELLOW DIAGONALS (PCC PAVEMENT ONLY) |
| ⑥ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 11" WHITE DOTTED LINE (3' DASH - 9' SKIP) (PCC PAVEMENT ONLY) | | |

NOTE: ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING IDOT DISTRICT 1 DETAILS: TC-11, TC-12 AND TC-13.



MODEL: 1400BELNAMES
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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

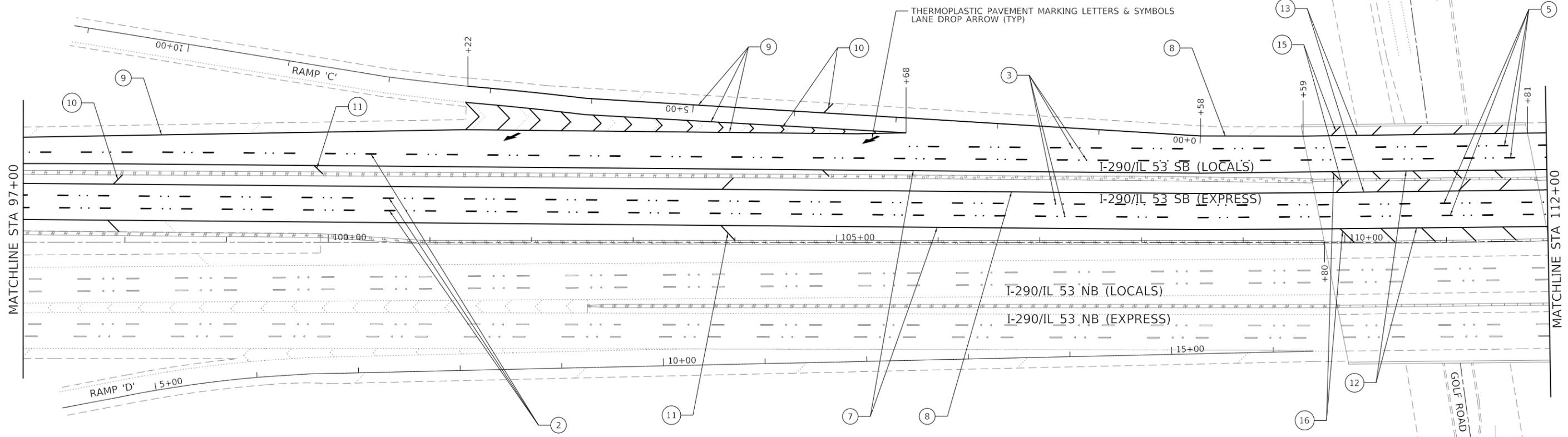
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PLOT DATE = 5/1/2018	DATE - 03-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290/IL 53 BRIDGE JOINT REPAIRS
PAVEMENT MARKING PLAN**

SCALE: 1"=50' SHEET 3 OF 8 SHEETS STA. 82+00 TO STA. 97+00

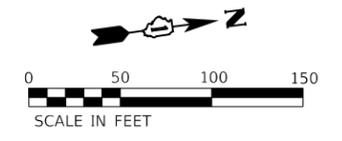
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	29
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



PAVEMENT MARKING LEGEND

- | | | |
|--|--|---|
| ① PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 4" WHITE SKIP DASH (2' DASH - 6' SKIP) | ⑦ THERMOPLASTIC PAVEMENT MARKING 4" YELLOW EDGE LINE | ⑫ POLYUREA PAVEMENT MARKING TYPE 1 4" YELLOW EDGE LINE (PCC PAVEMENT ONLY) |
| ② PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 5" WHITE SKIP DASH (10' DASH - 30' SKIP) | ⑧ THERMOPLASTIC PAVEMENT MARKING 4" WHITE EDGE LINE | ⑬ POLYUREA PAVEMENT MARKING TYPE 1 4" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ③ REPLACEMENT REFLECTOR 1-WAY CRYSTAL | ⑨ THERMOPLASTIC PAVEMENT MARKING 8" WHITE EDGE / GORE LINE | ⑭ POLYUREA PAVEMENT MARKING TYPE 1 8" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ④ NOT USED | ⑩ THERMOPLASTIC PAVEMENT MARKING 12", 30' C-C WHITE DIAGONALS / CHEVRONS | ⑮ POLYUREA PAVEMENT MARKING TYPE 1 12" WHITE DIAGONALS (PCC PAVEMENT ONLY) |
| ⑤ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 8" WHITE SKIP DASH (10' DASH - 30' SKIP) (PCC PAVEMENT ONLY) | ⑪ THERMOPLASTIC PAVEMENT MARKING 12" YELLOW DIAGONALS | ⑯ POLYUREA PAVEMENT MARKING TYPE 1 12" YELLOW DIAGONALS (PCC PAVEMENT ONLY) |
| ⑥ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 11" WHITE DOTTED LINE (3' DASH - 9' SKIP) (PCC PAVEMENT ONLY) | | |

NOTE: ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING IDOT DISTRICT 1 DETAILS: TC-11, TC-12 AND TC-13.



MODEL: 1408161.DWG
FILE: 1408161.DWG
DATE: 03/15/2018



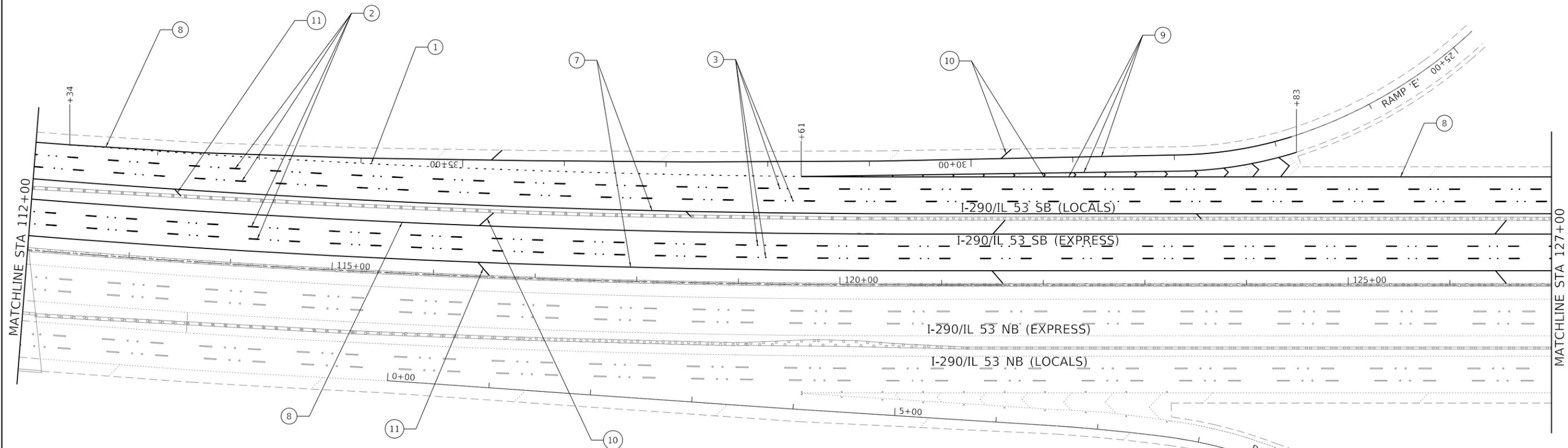
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PLOT DATE = 5/1/2018	CHECKED - SPF	REVISED -
	DATE - 03-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290/IL 53 BRIDGE JOINT REPAIRS
PAVEMENT MARKING PLAN**

SCALE: 1"=50' SHEET 4 OF 8 SHEETS STA. 97+00 TO STA. 112+00

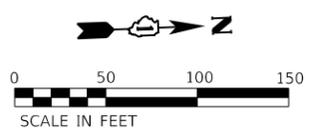
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	30
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



PAVEMENT MARKING LEGEND

- | | | |
|--|--|---|
| ① PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 4" WHITE SKIP DASH (2' DASH - 6' SKIP) | ⑦ THERMOPLASTIC PAVEMENT MARKING 4" YELLOW EDGE LINE | ⑫ POLYUREA PAVEMENT MARKING TYPE 1 4" YELLOW EDGE LINE (PCC PAVEMENT ONLY) |
| ② PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 5" WHITE SKIP DASH (10' DASH - 30' SKIP) | ⑧ THERMOPLASTIC PAVEMENT MARKING 4" WHITE EDGE LINE | ⑬ POLYUREA PAVEMENT MARKING TYPE 1 4" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ③ REPLACEMENT REFLECTOR 1-WAY CRYSTAL | ⑨ THERMOPLASTIC PAVEMENT MARKING 8" WHITE EDGE / GORE LINE | ⑭ POLYUREA PAVEMENT MARKING TYPE 1 8" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ④ NOT USED | ⑩ THERMOPLASTIC PAVEMENT MARKING 12", 30' C-C WHITE DIAGONALS / CHEVRONS | ⑮ POLYUREA PAVEMENT MARKING TYPE 1 12" WHITE DIAGONALS (PCC PAVEMENT ONLY) |
| ⑤ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 8" WHITE SKIP DASH (10' DASH - 30' SKIP) (PCC PAVEMENT ONLY) | ⑪ THERMOPLASTIC PAVEMENT MARKING 12" YELLOW DIAGONALS | ⑯ POLYUREA PAVEMENT MARKING TYPE 1 12" YELLOW DIAGONALS (PCC PAVEMENT ONLY) |
| ⑥ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 11" WHITE DOTTED LINE (3' DASH - 9' SKIP) (PCC PAVEMENT ONLY) | | |

NOTE: ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING IDOT DISTRICT 1 DETAILS: TC-11, TC-12 AND TC-13.



MODEL: 140001.DWG
FILE: 140001.DWG
DATE: 5/1/2018

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

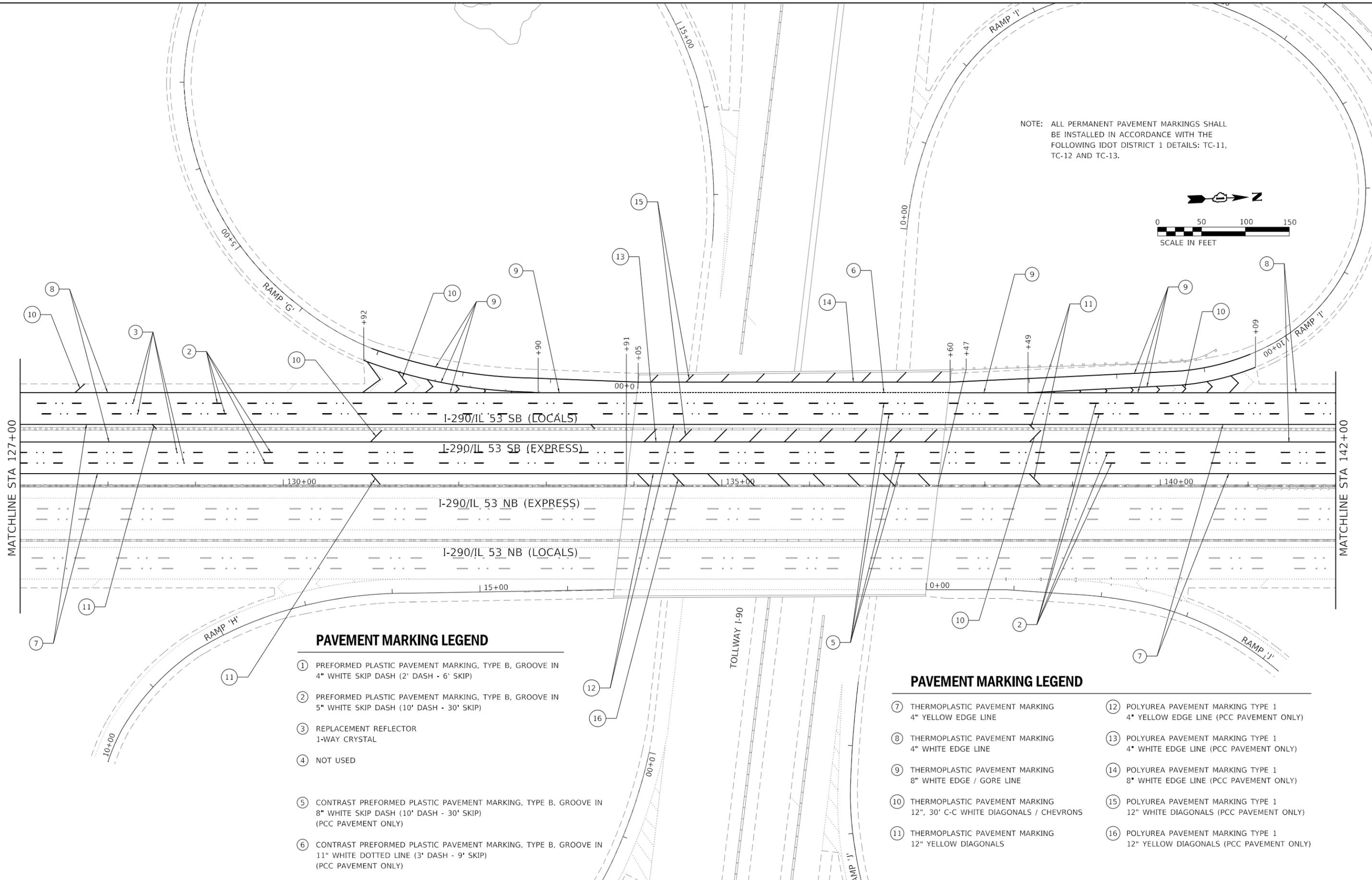
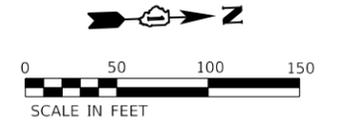
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	DATE - 03-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS	
PAVEMENT MARKING PLAN	
SCALE: 1"=50'	SHEET 5 OF 8 SHEETS
STA. 112+00	TO STA. 127+00

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	31
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

NOTE: ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING IDOT DISTRICT 1 DETAILS: TC-11, TC-12 AND TC-13.



PAVEMENT MARKING LEGEND

- ① PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 4" WHITE SKIP DASH (2' DASH - 6' SKIP)
- ② PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 5" WHITE SKIP DASH (10' DASH - 30' SKIP)
- ③ REPLACEMENT REFLECTOR 1-WAY CRYSTAL
- ④ NOT USED
- ⑤ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 8" WHITE SKIP DASH (10' DASH - 30' SKIP) (PCC PAVEMENT ONLY)
- ⑥ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 11" WHITE DOTTED LINE (3' DASH - 9' SKIP) (PCC PAVEMENT ONLY)

PAVEMENT MARKING LEGEND

- ⑦ THERMOPLASTIC PAVEMENT MARKING 4" YELLOW EDGE LINE
- ⑧ THERMOPLASTIC PAVEMENT MARKING 4" WHITE EDGE LINE
- ⑨ THERMOPLASTIC PAVEMENT MARKING 8" WHITE EDGE / GORE LINE
- ⑩ THERMOPLASTIC PAVEMENT MARKING 12", 30" C-C WHITE DIAGONALS / CHEVRONS
- ⑪ THERMOPLASTIC PAVEMENT MARKING 12" YELLOW DIAGONALS
- ⑫ POLYUREA PAVEMENT MARKING TYPE 1 4" YELLOW EDGE LINE (PCC PAVEMENT ONLY)
- ⑬ POLYUREA PAVEMENT MARKING TYPE 1 4" WHITE EDGE LINE (PCC PAVEMENT ONLY)
- ⑭ POLYUREA PAVEMENT MARKING TYPE 1 8" WHITE EDGE LINE (PCC PAVEMENT ONLY)
- ⑮ POLYUREA PAVEMENT MARKING TYPE 1 12" WHITE DIAGONALS (PCC PAVEMENT ONLY)
- ⑯ POLYUREA PAVEMENT MARKING TYPE 1 12" YELLOW DIAGONALS (PCC PAVEMENT ONLY)

MODEL: 140001.DWG
FILE: 140001.DWG

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

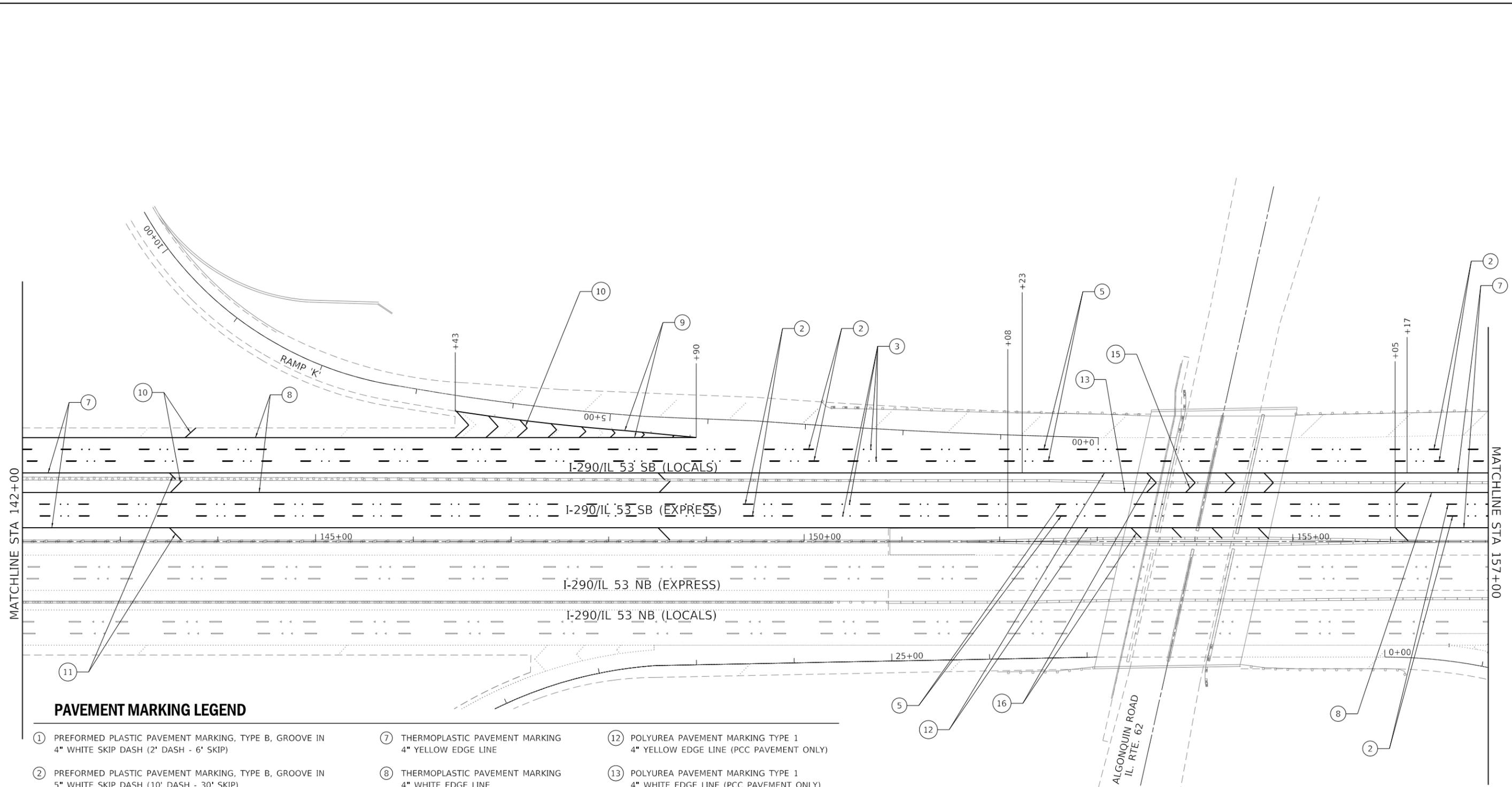
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	DATE - 03-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290/IL 53 BRIDGE JOINT REPAIRS
PAVEMENT MARKING PLAN**

SCALE: 1"=50' SHEET 6 OF 8 SHEETS STA. 127+00 TO STA. 142+00

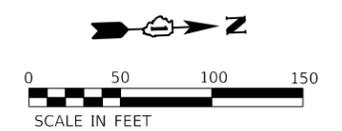
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	32
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



PAVEMENT MARKING LEGEND

- | | | |
|--|--|---|
| ① PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 4" WHITE SKIP DASH (2' DASH - 6' SKIP) | ⑦ THERMOPLASTIC PAVEMENT MARKING 4" YELLOW EDGE LINE | ⑫ POLYUREA PAVEMENT MARKING TYPE 1 4" YELLOW EDGE LINE (PCC PAVEMENT ONLY) |
| ② PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 5" WHITE SKIP DASH (10' DASH - 30' SKIP) | ⑧ THERMOPLASTIC PAVEMENT MARKING 4" WHITE EDGE LINE | ⑬ POLYUREA PAVEMENT MARKING TYPE 1 4" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ③ REPLACEMENT REFLECTOR 1-WAY CRYSTAL | ⑨ THERMOPLASTIC PAVEMENT MARKING 8" WHITE EDGE / GORE LINE | ⑭ POLYUREA PAVEMENT MARKING TYPE 1 8" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ④ NOT USED | ⑩ THERMOPLASTIC PAVEMENT MARKING 12", 30' C-C WHITE DIAGONALS / CHEVRONS | ⑮ POLYUREA PAVEMENT MARKING TYPE 1 12" WHITE DIAGONALS (PCC PAVEMENT ONLY) |
| ⑤ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 8" WHITE SKIP DASH (10' DASH - 30' SKIP) (PCC PAVEMENT ONLY) | ⑪ THERMOPLASTIC PAVEMENT MARKING 12" YELLOW DIAGONALS | ⑯ POLYUREA PAVEMENT MARKING TYPE 1 12" YELLOW DIAGONALS (PCC PAVEMENT ONLY) |
| ⑥ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 11" WHITE DOTTED LINE (3' DASH - 9' SKIP) (PCC PAVEMENT ONLY) | | |

NOTE: ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING IDOT DISTRICT 1 DETAILS: TC-11, TC-12 AND TC-13.



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DATE: 5/1/2018

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = _USER_	DESIGNED - JKP	REVISED -
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	DATE - 03-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

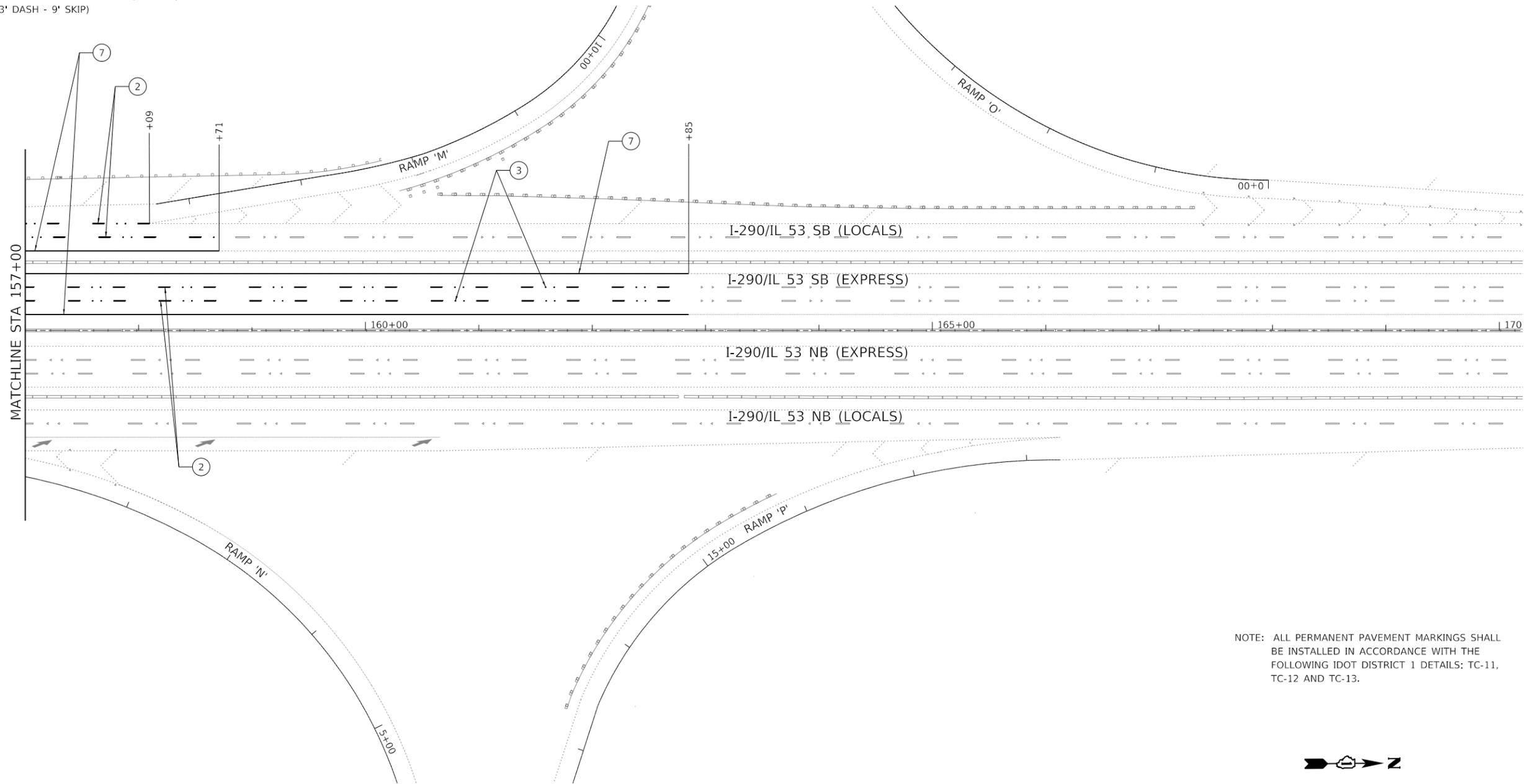
**I-290/IL 53 BRIDGE JOINT REPAIRS
PAVEMENT MARKING PLAN**

SCALE: 1"=50' SHEET 7 OF 8 SHEETS STA. 142+00 TO STA. 157+00

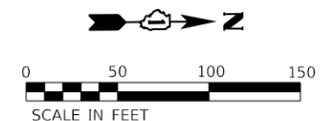
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	33
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

PAVEMENT MARKING LEGEND

- | | | |
|--|--|---|
| ① PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 4" WHITE SKIP DASH (2' DASH - 6' SKIP) | ⑦ THERMOPLASTIC PAVEMENT MARKING 4" YELLOW EDGE LINE | ⑫ POLYUREA PAVEMENT MARKING TYPE 1 4" YELLOW EDGE LINE (PCC PAVEMENT ONLY) |
| ② PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 5" WHITE SKIP DASH (10' DASH - 30' SKIP) | ⑧ THERMOPLASTIC PAVEMENT MARKING 4" WHITE EDGE LINE | ⑬ POLYUREA PAVEMENT MARKING TYPE 1 4" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ③ REPLACEMENT REFLECTOR 1-WAY CRYSTAL | ⑨ THERMOPLASTIC PAVEMENT MARKING 8" WHITE EDGE / GORE LINE | ⑭ POLYUREA PAVEMENT MARKING TYPE 1 8" WHITE EDGE LINE (PCC PAVEMENT ONLY) |
| ④ NOT USED | ⑩ THERMOPLASTIC PAVEMENT MARKING 12", 30' C-C WHITE DIAGONALS / CHEVRONS | ⑮ POLYUREA PAVEMENT MARKING TYPE 1 12" WHITE DIAGONALS (PCC PAVEMENT ONLY) |
| ⑤ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 8" WHITE SKIP DASH (10' DASH - 30' SKIP) (PCC PAVEMENT ONLY) | ⑪ THERMOPLASTIC PAVEMENT MARKING 12" YELLOW DIAGONALS | ⑯ POLYUREA PAVEMENT MARKING TYPE 1 12" YELLOW DIAGONALS (PCC PAVEMENT ONLY) |
| ⑥ CONTRAST PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, GROOVE IN 11" WHITE DOTTED LINE (3' DASH - 9' SKIP) (PCC PAVEMENT ONLY) | | |



NOTE: ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING IDOT DISTRICT 1 DETAILS: TC-11, TC-12 AND TC-13.



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FILE: 140821.DWG
DATE: 03/15/2018

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = _USER_	DESIGNED - JKP	REVISED -
	DRAWN - DMW	REVISED -
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PLOT DATE = 5/1/2018	DATE - 03-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290/IL 53 BRIDGE JOINT REPAIRS
PAVEMENT MARKING PLAN

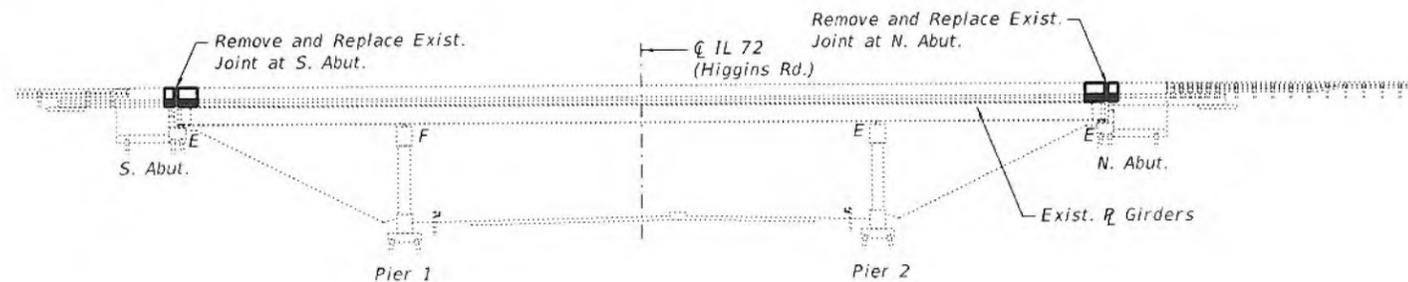
SCALE: 1"=50' SHEET 8 OF 8 SHEETS STA. 157+00 TO STA. 170+21

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2017-065BR	COOK	79	34
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

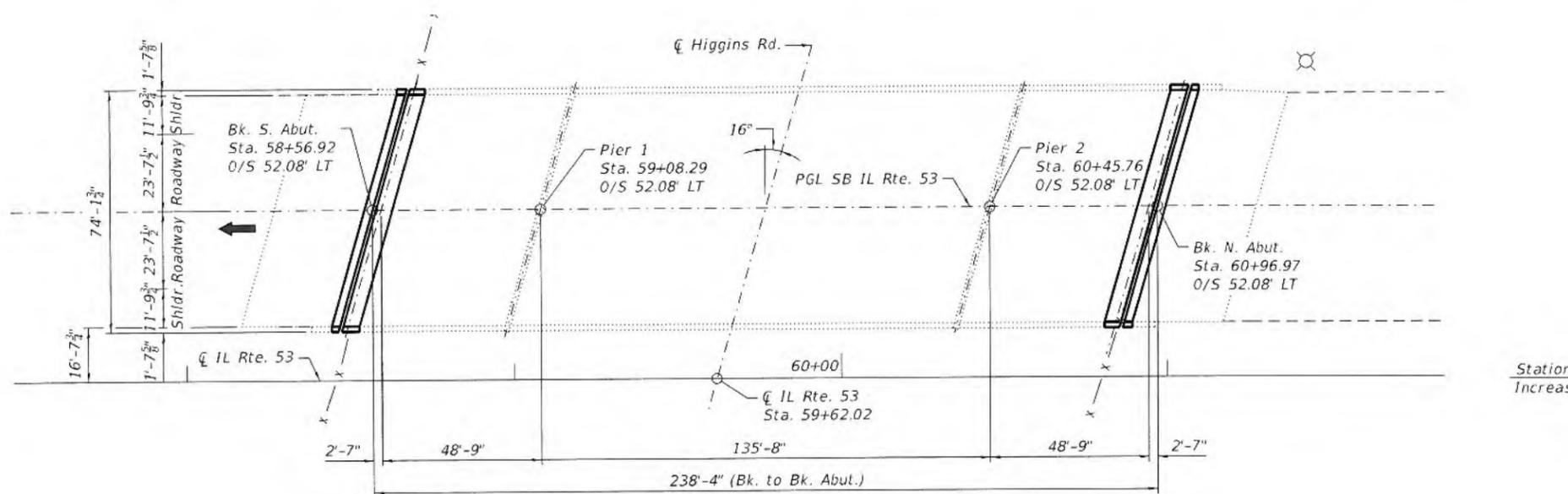
Existing Structure:
 SN 016-0982 built in 1969, Section S-0404-313-HB as FAI Rte. 290. Structure consists of a R.C. deck supported on three span steel plate girder bridge with 238'-4" back-to-back abutments, 74'-1 3/4" out-to-out deck with stub type abutments on concrete piles and multi-column piers on creosoted piles. In 1989, expansion joints replaced, backwall repairs, and approaches rebuilt. In 1995, overlay replacement, expansion joints replaced, deck slab repairs, pin and connection replacement, and substructure repairs. In 2002, expansion joints replaced, pin and connection replacement, superstructure and substructure widening. In 2003, expansion joints replaced, substructure replacement, substructure widening, slopewall replacement, and substructure repairs. In 2010, expansion joints replaced.

Traffic will be maintained utilizing staged construction.

No Salvage.



ELEVATION



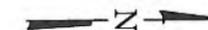
PLAN

SCOPE OF WORK

1. Remove and reconstruct existing expansion joints at both the abutments to Preformed Strip Seal Joint.

LOADING HS 20-44
 No future wearing surface allowed

DESIGN SPECIFICATIONS
 2002 AASHTO Standard Specifications, 17th, Edition



LOCATION SKETCH



DATE SIGNED: 04/23/18
 EXP. DATE: 11/30/18

GENERAL PLAN AND ELEVATION
 IL RTE. 53 OVER
 IL 72 (HIGGINS RD.)
 SECTION 2017-065BR
 COOK COUNTY
 STATION 59+62.02
 STRUCTURE NO. 016-0982

MODEL: Default
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	PLOT SCALE =	CHECKED - JMT	REVISED -			342	2017-065BR	COOK	79	35	
	PLOT DATE =	DRAWN - SAT	REVISED -			CONTRACT NO. 62G08					
		CHECKED - SPS	REVISED -			ILLINOIS FED. AID PROJECT					

GENERAL NOTES

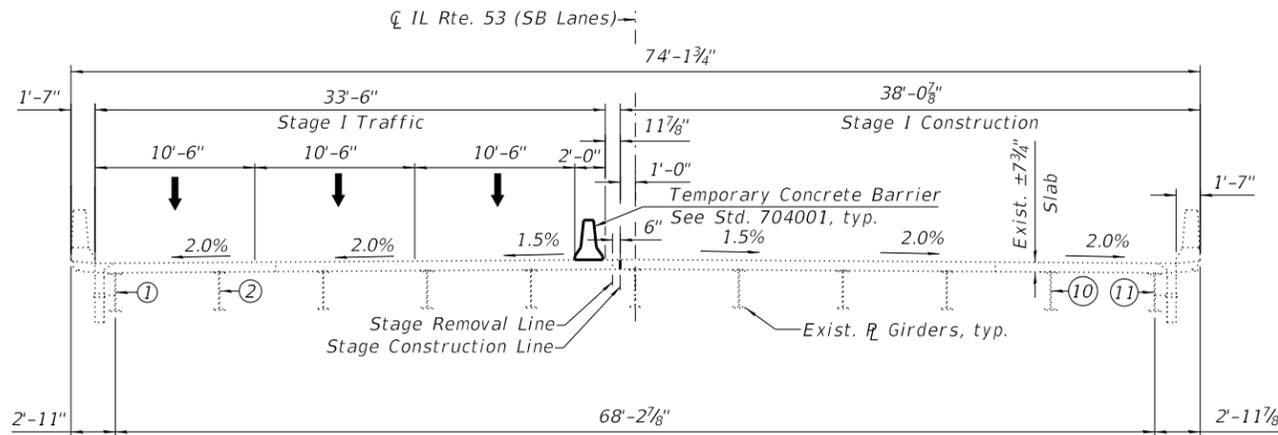
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not 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.
- Expansion joints shall be fabricated to confirm to the existing cross slopes of the bridge.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
- Existing reinforcement extended 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.
- Joint openings shall be adjusted according to Article 520.04 of the Standard Specification when the deck is poured at an ambient temperature other than 50° F.
- No field welding is permitted except as specified in the contract documents.
- Protective Coat shall be applied to the new concrete for approach slab, deck, front face and top face of the parapets.
- The deck surface shall have its final finish tined according to Article 420.09 (e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

INDEX OF SHEETS

- General Plan and Elevation
- Index, General Notes, Bill of Materials & Staging
- Temporary Concrete Barrier for Stage Construction
- Expansion Joint Details - I
- Expansion Joint Details - II
- Preformed Joint Strip Seal
- Bar Splicer Assembly and Mechanical Splicer Details

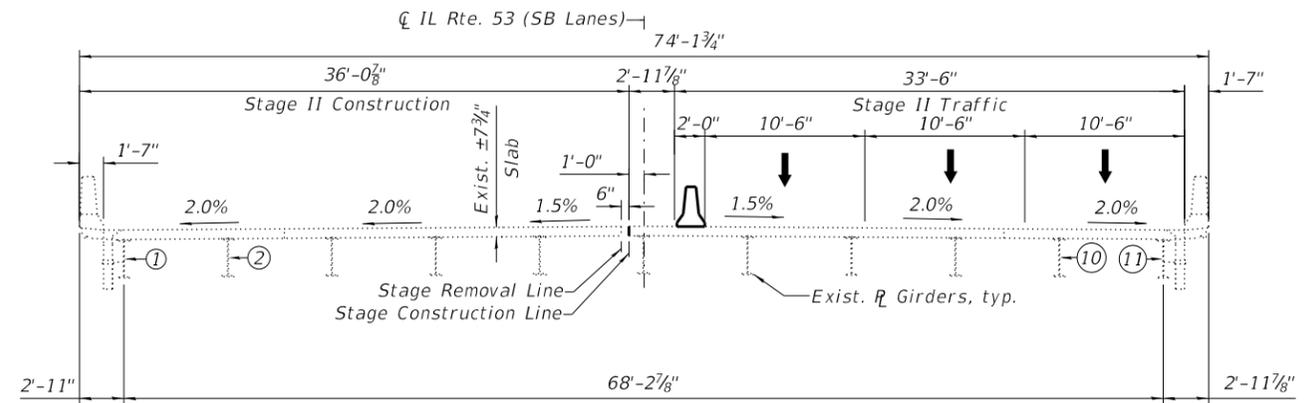
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	20.3		20.3
Concrete Superstructure	Cu. Yd.	20.3		20.3
Protective Coat	Sq. Yd.	57		57
Reinforcement Bars, Epoxy Coated	Pound	3950		3950
Bar Splicers	Each	32		32
Preformed Joint Strip Seal	Foot	155		155



STAGE I CONSTRUCTION

(Looking North)
(At Rt L's to CL IL Rte. 53)



STAGE II CONSTRUCTION

(Looking North)
(At Rt L's to CL IL Rte. 53)

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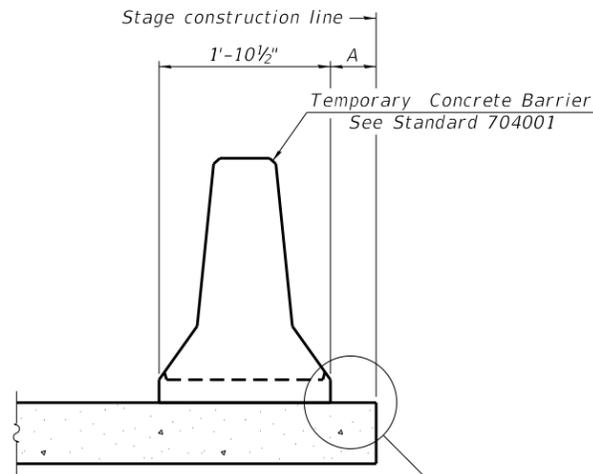
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INDEX, GENERAL NOTES, TOTAL BILL OF MATERIAL & STAGING
STRUCTURE NO. 016-0982**

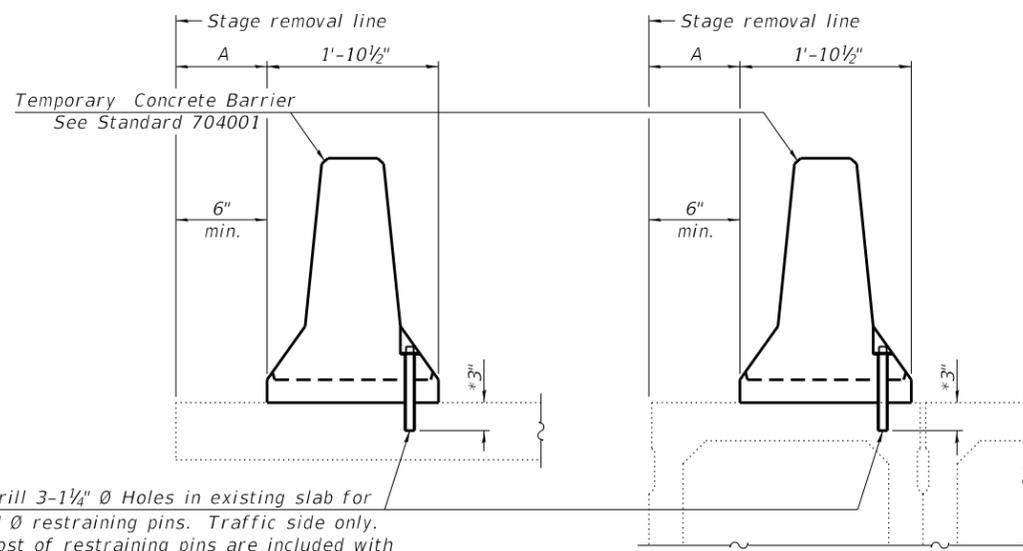
SHEET 2 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	36
CONTRACT NO. 62G08				
ILLINOIS		FED. AID PROJECT		



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

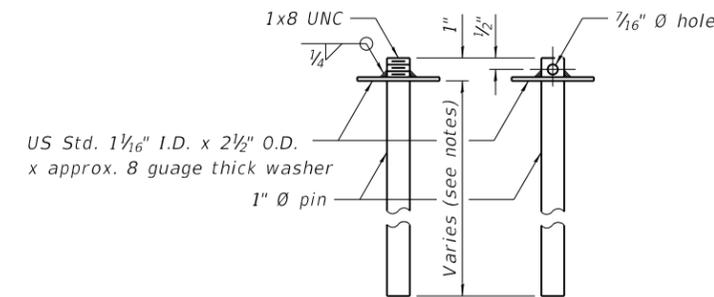


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

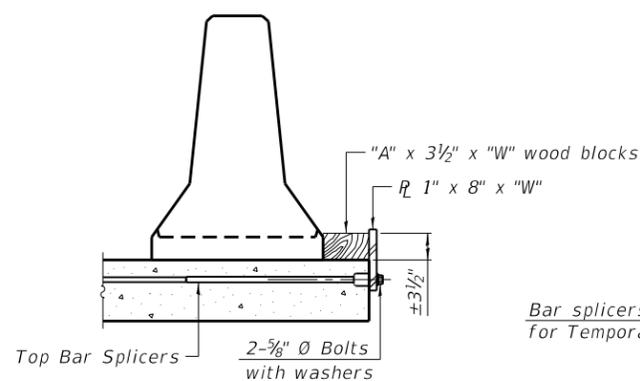
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

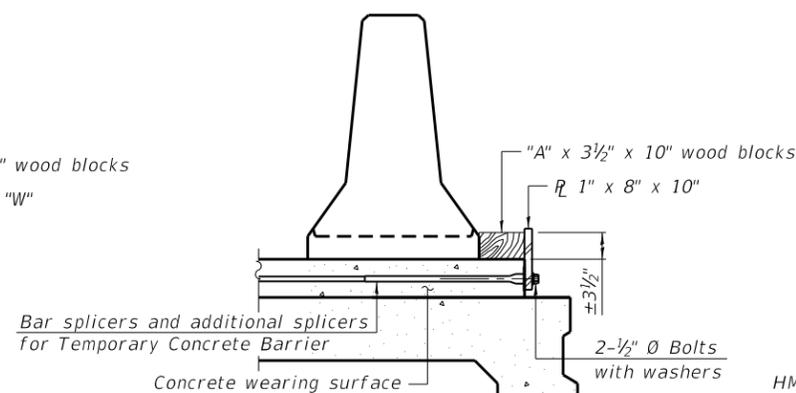


RESTRAINING PIN

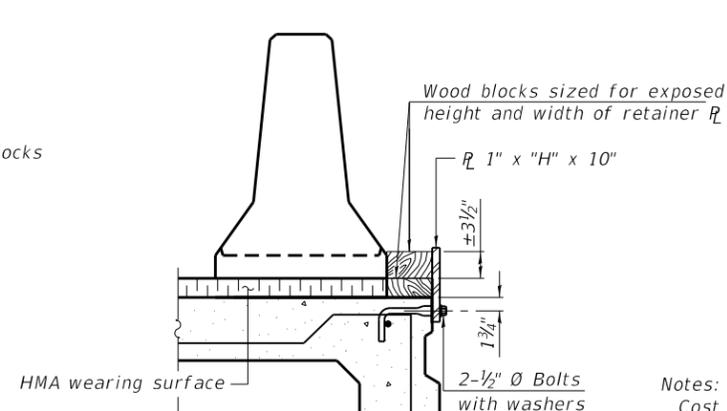
SECTIONS THRU SLAB OR DECK BEAM



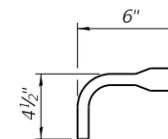
DETAIL I



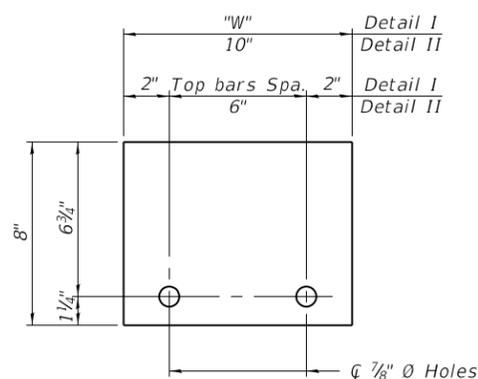
DETAIL II



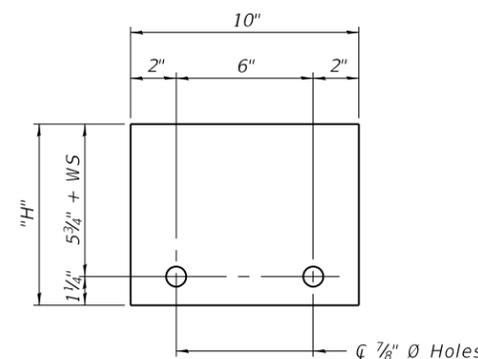
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER R 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER R 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate center of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.
 Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
 Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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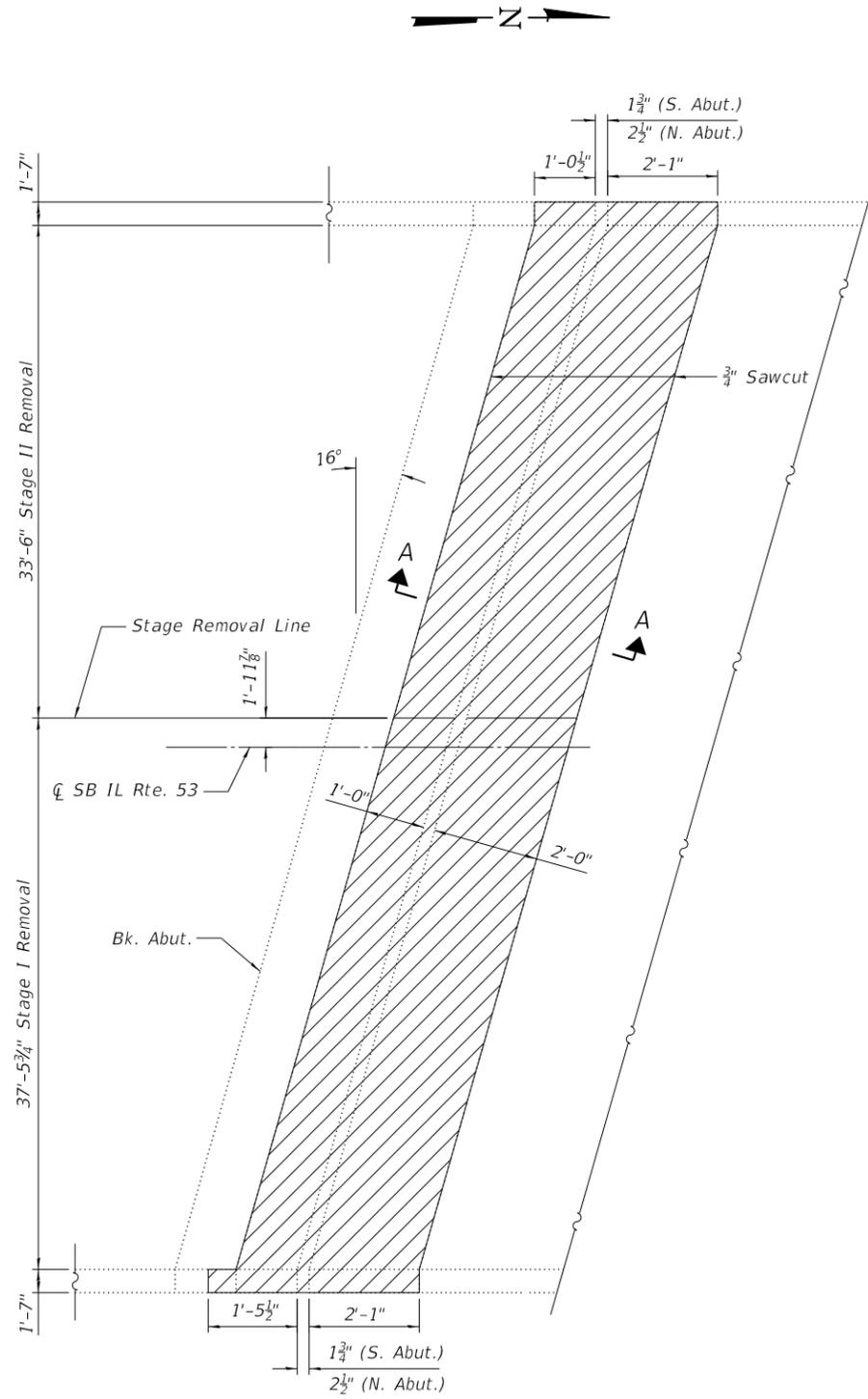
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STATE OF ILLINOIS
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TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
 STRUCTURE NO. 016-0982

SHEET 3 OF 7 SHEETS

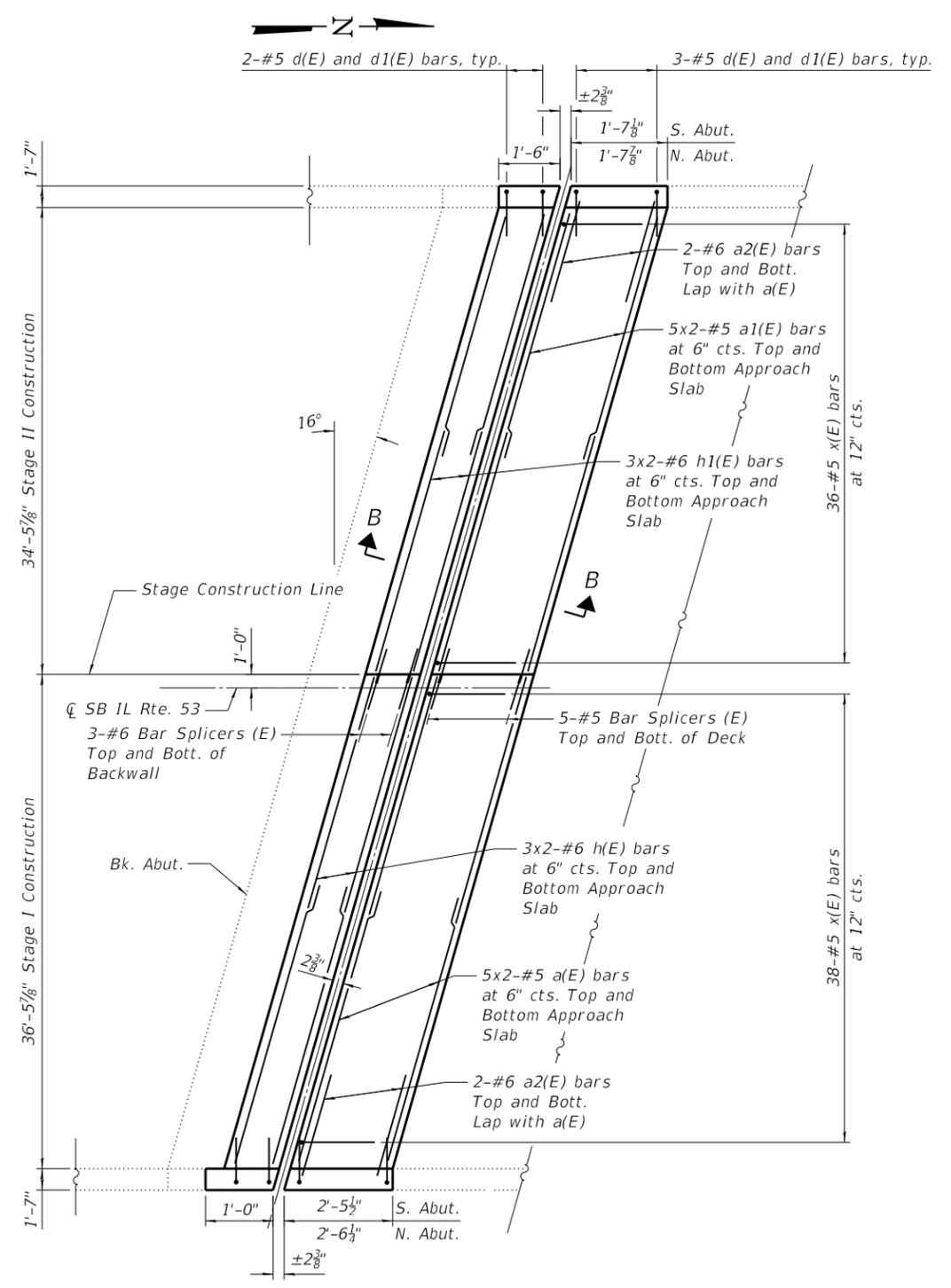
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	37
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



JOINT REMOVAL PLAN

NOTES:

1. South Abutment Shown, North Abutment similar.
2. Horizontal bars in approach parapets shall be cleaned, straightened, and reused in new construction.
3. Hatched areas indicate Concrete Removal.



JOINT REPLACEMENT PLAN

MIN. BAR LAP
 #6 bar = 4'-0" (Backwall)
 #5 bar = 3'-6" (Deck)

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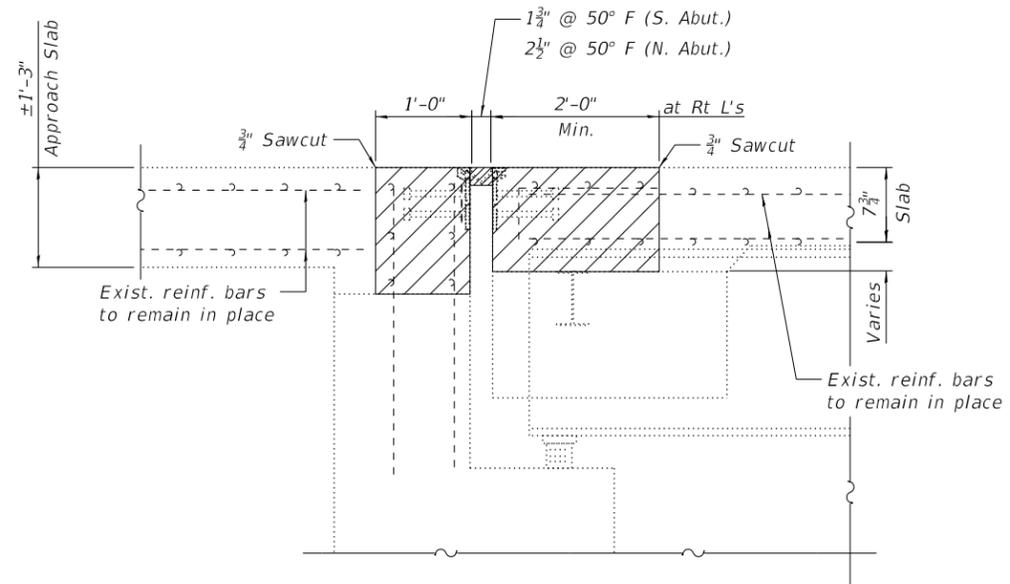
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT DETAILS - I
 STRUCTURE NO. 016-0982**

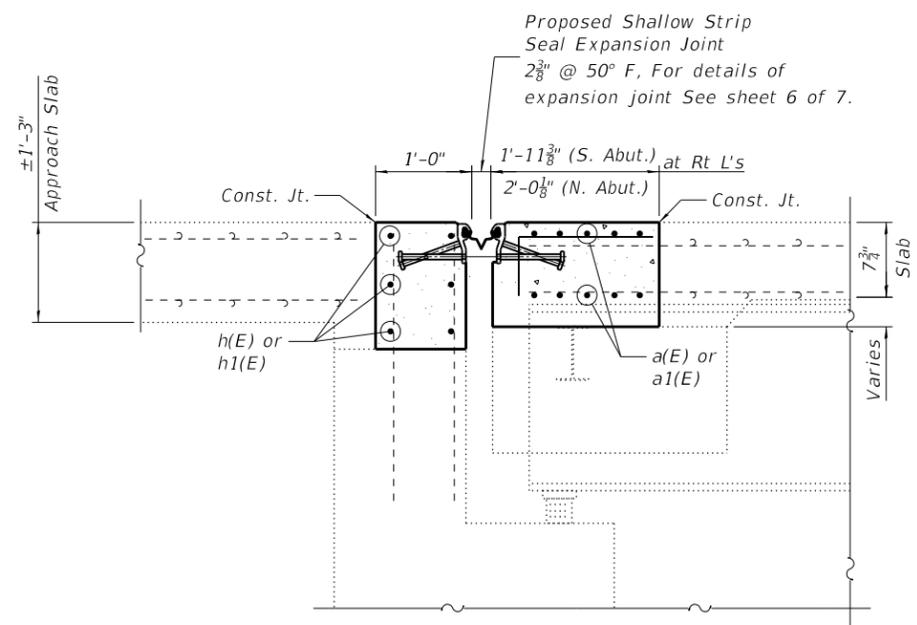
SHEET 4 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	38
CONTRACT NO. 62G08				

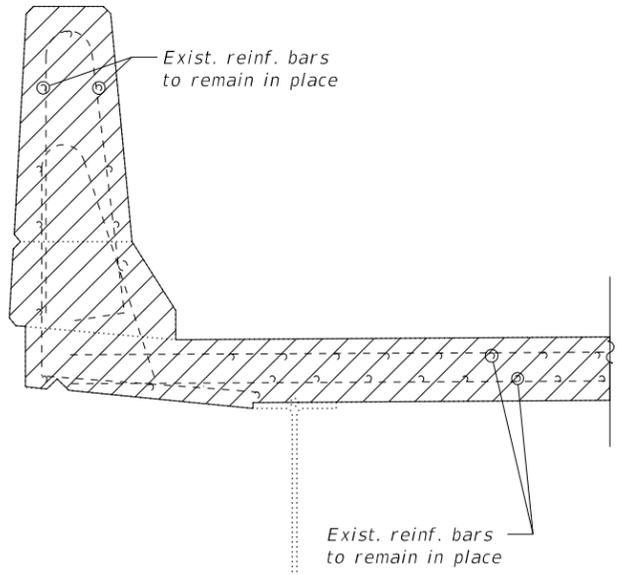
ILLINOIS FED. AID PROJECT



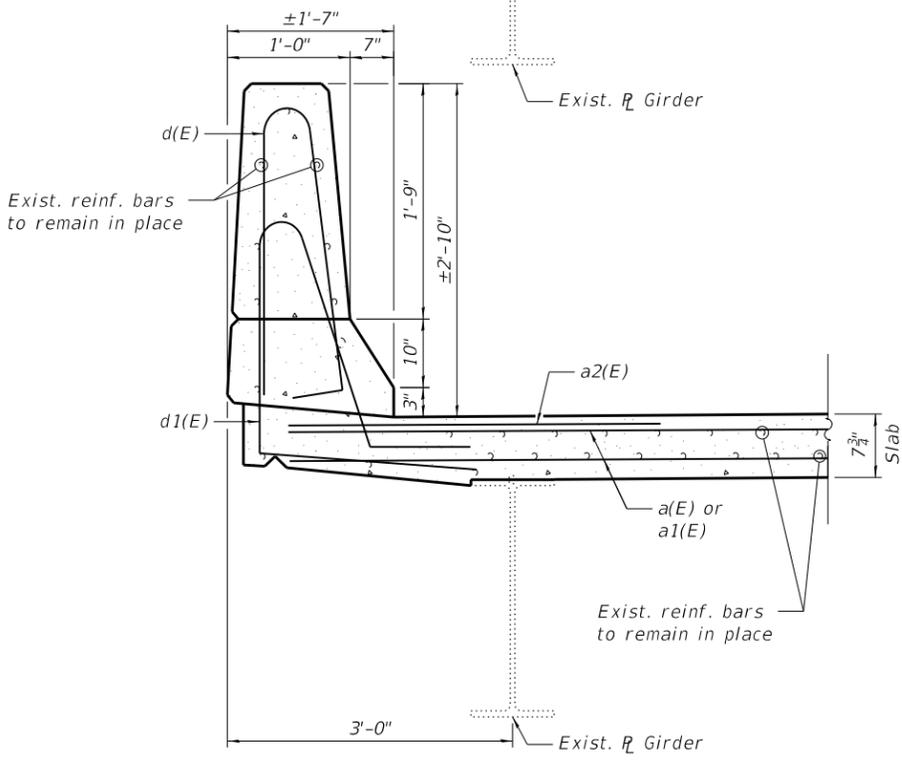
SECTION A-A



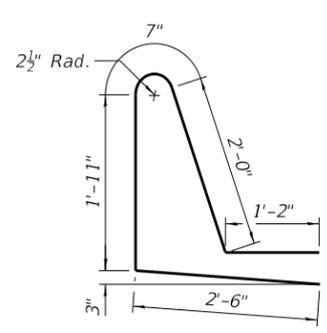
SECTION B-B



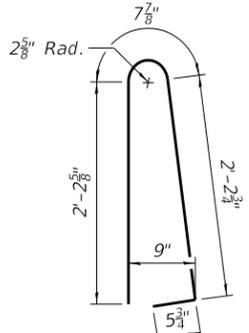
SECTION THRU PARAPET



BAR x(E)



BAR d1(E)



BAR d(E)

NOTES:

1. Hatched areas indicate Concrete Removal.
2. Existing reinforcement to remain in place shall be cleaned, straightened and reused. Cost included with Concrete Removal.
3. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved Bar Splicer or Anchorage System. Cost included with Concrete Removal.
4. Removal of exist. expansion joint will not be paid for separately. Cost included with Concrete Removal.
5. See Sheet 7 of 7 for Bar Splicers Details.
6. Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

BILL OF MATERIAL
BOTH ABUTMENTS

Bar	No.	Size	Length	Shape
a(E)	40	#5	21'-5"	—
a1(E)	40	#5	20'-4"	—
a2(E)	8	#6	4'-0"	—
d(E)	20	#5	5'-7"	⌒
d1(E)	20	#5	8'-2"	⌒
h(E)	24	#6	21'-8"	—
h1(E)	24	#6	20'-7"	—
x(E)	148	#5	2'-3"	⌒
Concrete Removal			Cu. Yd.	20.3
Reinforcement Bars, Epoxy Coated			Pound	3950
Concrete Superstructure			Cu. Yd.	20.3

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DEPARTMENT OF TRANSPORTATION

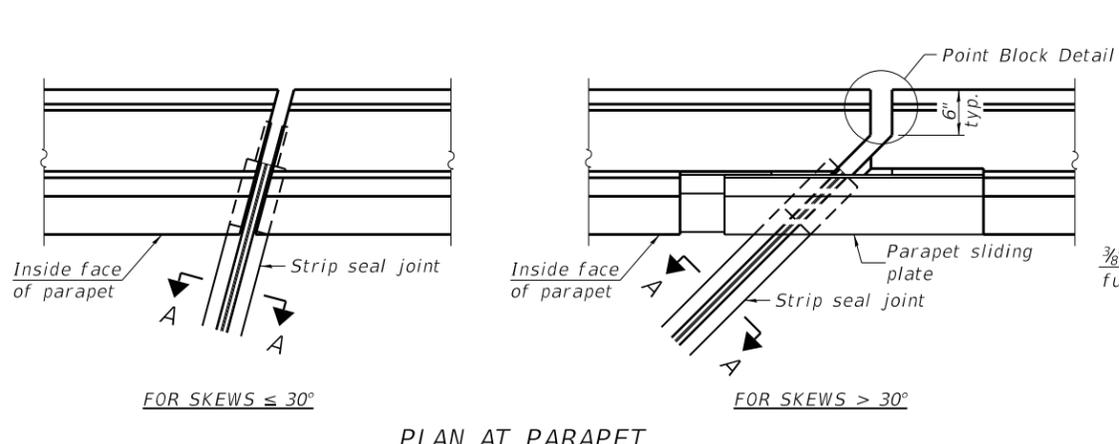
EXPANSION JOINT DETAILS - II
STRUCTURE NO. 016-0982

SHEET 5 OF 7 SHEETS

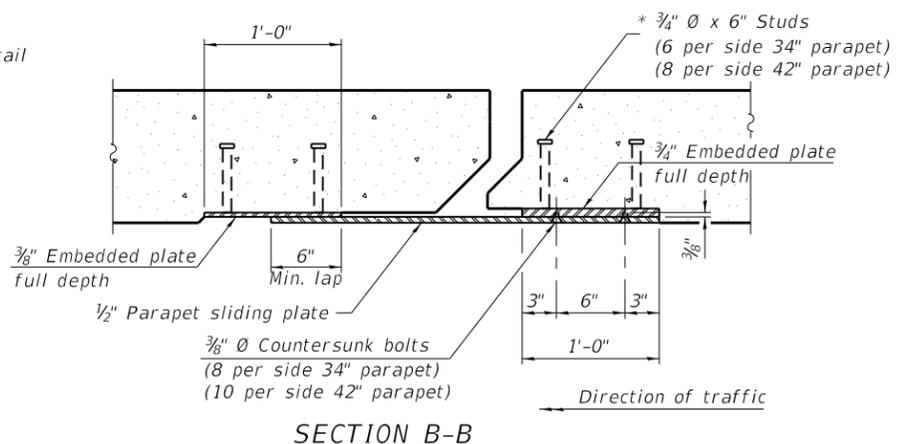
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CONTRACT NO. 62G08				

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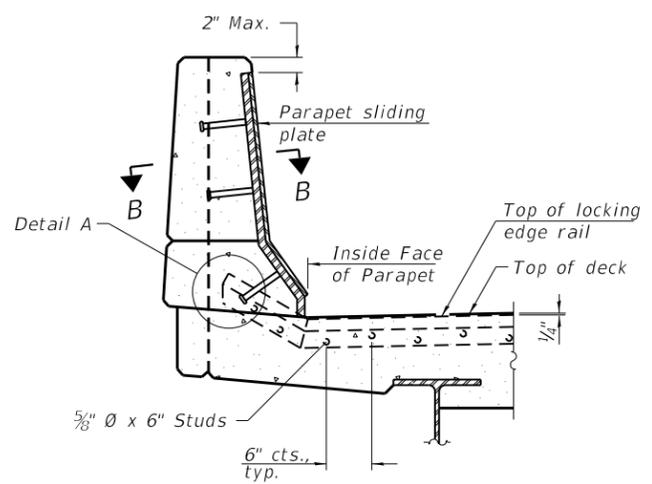


PLAN AT PARAPET



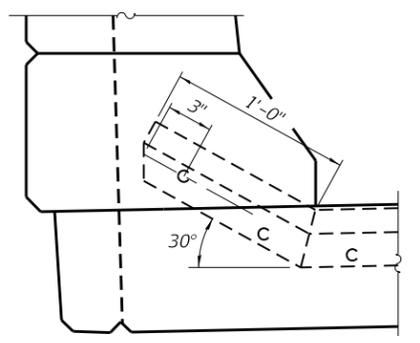
SECTION B-B

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.

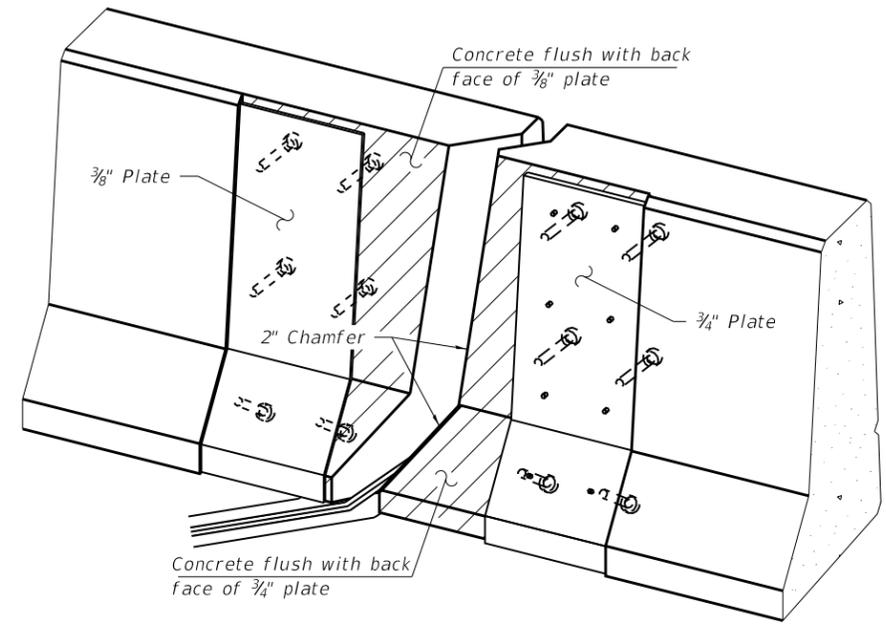


ELEVATION AT PARAPET

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

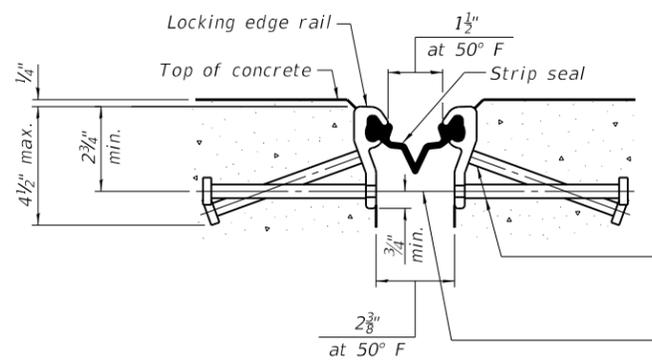


DETAIL A



TRIMETRIC VIEW
(Showing embedded plates only)

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.
 Cost of parapet sliding plates, embedded plates, and anchorage studs 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.

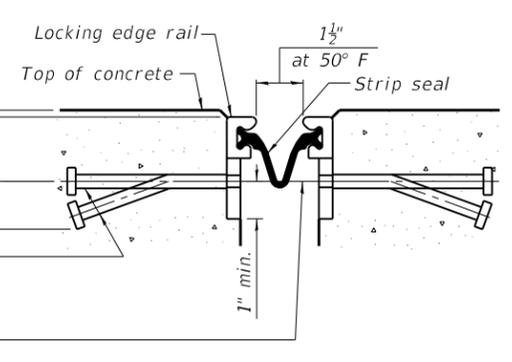


SHOWING ROLLED RAIL JOINT

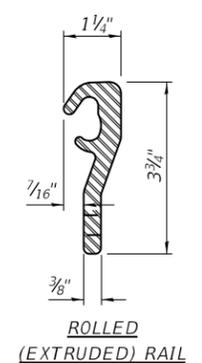
* 3/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
 3/8" Ø threaded rods in 7/16" Ø holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates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

SECTION A-A

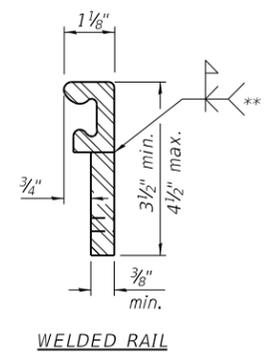
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



SHOWING WELDED RAIL JOINT



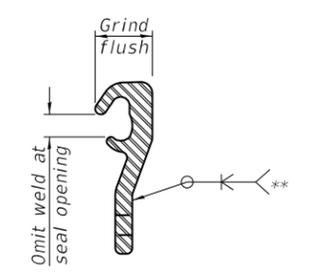
ROLLED (EXTRUDED) RAIL



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	155

EJ-SS

8-11-17



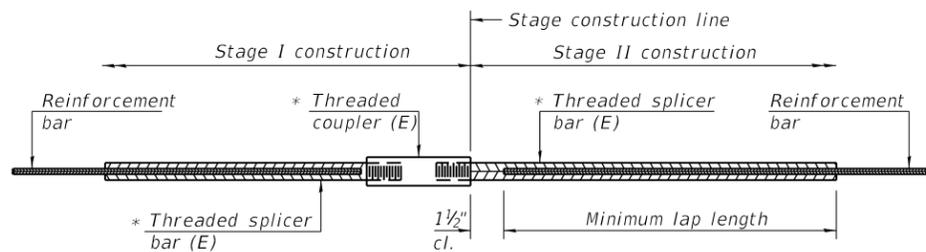
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 016-0982**

SHEET 6 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	40
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

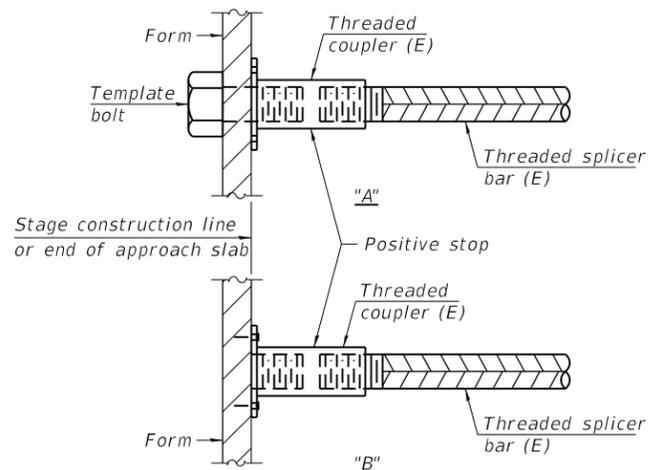


STANDARD BAR SPLICER ASSEMBLY

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

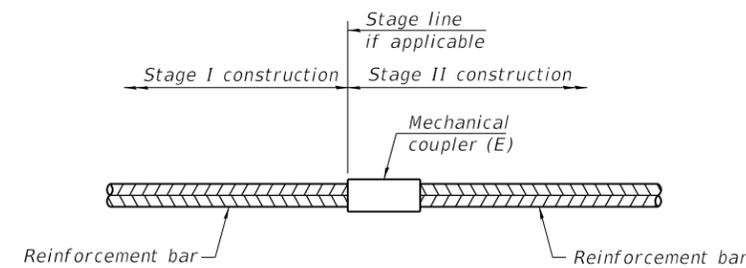
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	20	3'-6"
Backwall	#6	12	4'-0"



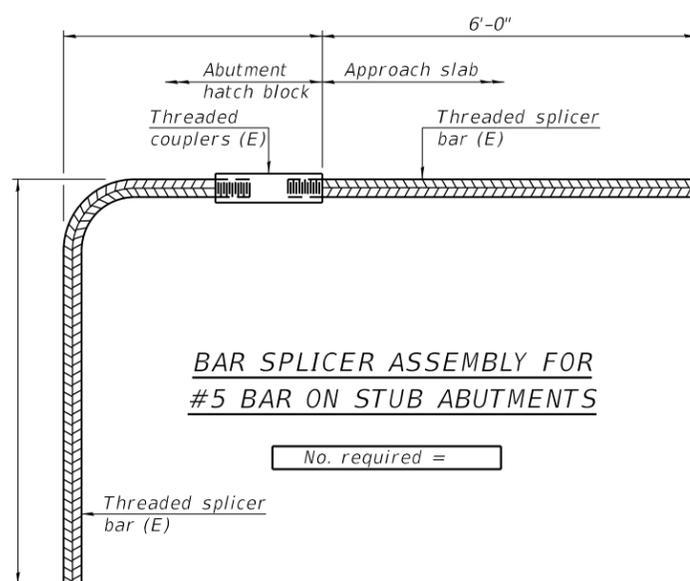
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with Threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 016-0982

SHEET 7 OF 7 SHEETS

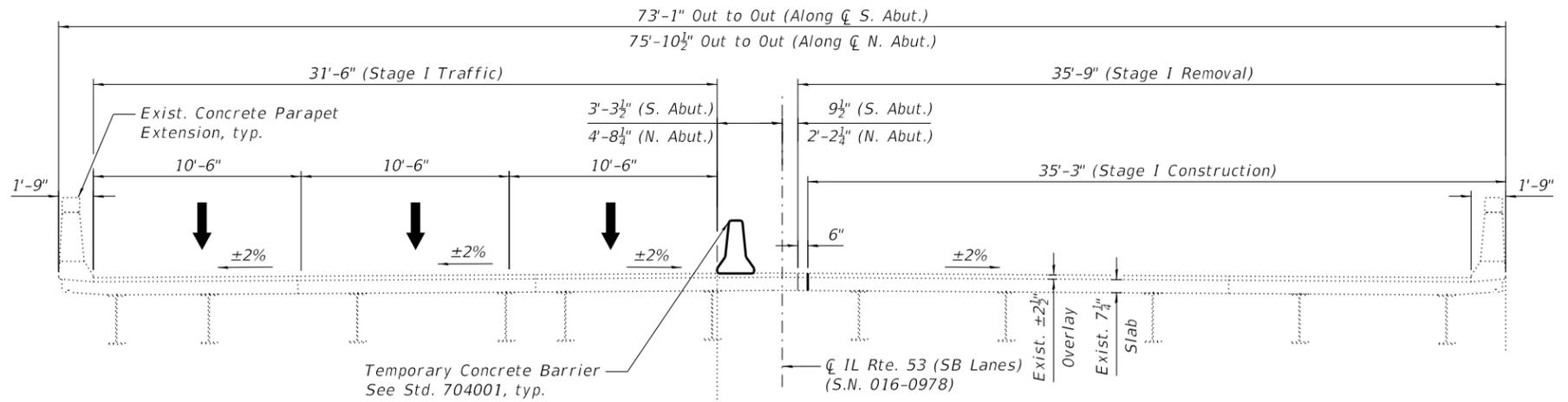
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342	2017-065BR	COOK	79	41
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify 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.
- Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
- Existing reinforcement extended 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.
- Joint openings shall be adjusted according to Article 520.04 of the Standard Specification when the deck is poured at an ambient temperature other than 50° F.
- No field welding is permitted except as specified in the contract documents.
- Protective Coat shall be applied to the new concrete for approach slab, deck, Backwall, front face and top face of the parapets.
- Removal and re-installation of the existing name plate on the structure will be necessary for the construction of the approach slab parapet. This work and all materials shall be included in the contract unit price for "Relocating Name Plates".
- The deck surface shall have its final finish tined according to Article 420.09 (e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

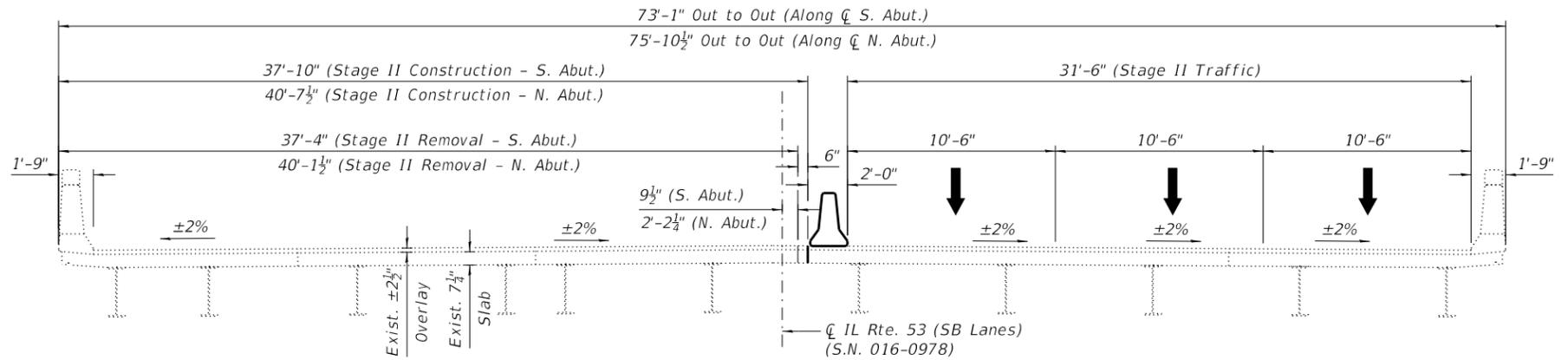
INDEX OF SHEETS

- General Plan and Elevation
- General Notes, Bill of Materials and Stage Construction Details
- Temporary Concrete Barrier for Stage Construction
- South Approach Slab
- South Approach Slab Details
- North Approach Slab
- North Approach Slab Details
- Expansion Joint Details - I
- Expansion Joint Details - II
- Backwall and Wingwall Parapet Removal Details
- South Abutment Backwall Reconstruction
- North Abutment Backwall Reconstruction
- Substructure Repairs - I
- Substructure Repairs - II
- Preformed Joint Strip Seal
- Bar Splicer Assembly and Mechanical Splicer Details



STAGE I CONSTRUCTION

(Looking North)
(At Rt L's to CL IL Rte. 53 unless noted)



STAGE II CONSTRUCTION

(Looking North)
(At Rt L's to CL IL Rte. 53 unless noted)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Backfill	Cu. Yd.		115	115
Concrete Removal	Cu. Yd.	268.5	76.2	344.7
Structure Excavation	Cu. Yd.		115	115
Concrete Structures	Cu. Yd.		76.2	76.2
Concrete Superstructure	Cu. Yd.	29.0		29.0
Bridge Deck Grooving	Sq. Yd.	477		477
Protective Coat	Sq. Yd.	556	63	619
Concrete Superstructure (Approach Slab)	Cu. Yd.	240		240
Reinforcement Bars, Epoxy Coated	Pound	79,070	11,820	90,890
Bar Splicers	Each	236	96	332
Preformed Joint Strip Seal	Foot	149		149
Temporary Soil Retention System	Sq. Ft.		84	84
Controlled Low-Strength Material	Cu. Yd.		19	19
Slope Wall Crack Sealing	Foot		190	190
Structural Repair of Concrete (Depth Equal to or less than 5")	Sq. Ft.		29	29
Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.		3	3
Relocating Name Plates	Each	1		1
Slope wall Repair	Sq. Yd.		54	54

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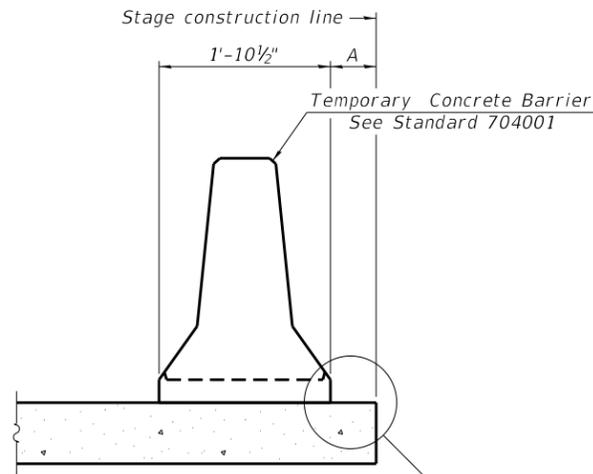
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, BILL OF MATERIAL AND STAGE CONST. DETAILS
STRUCTURE NO. 016-0978**

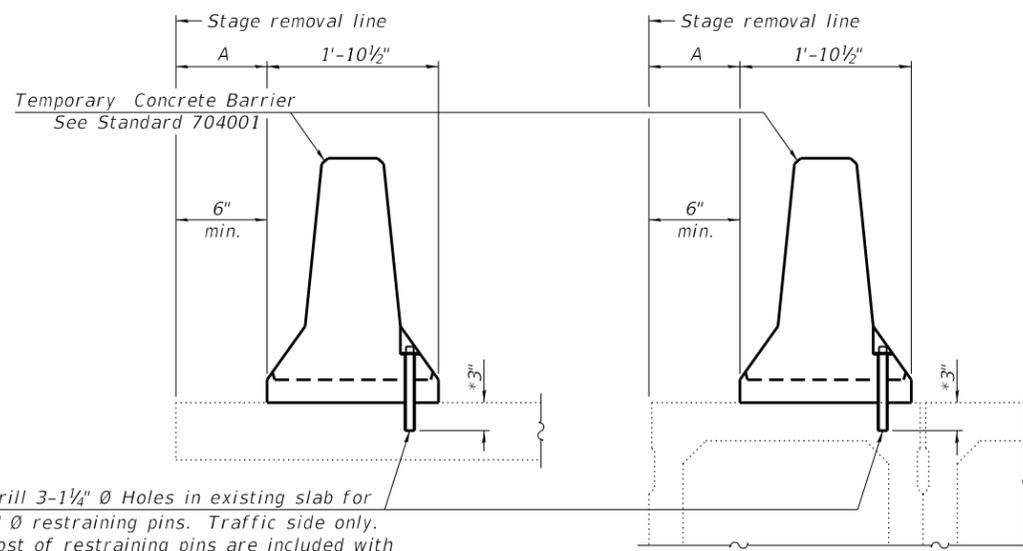
SHEET 2 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	43
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

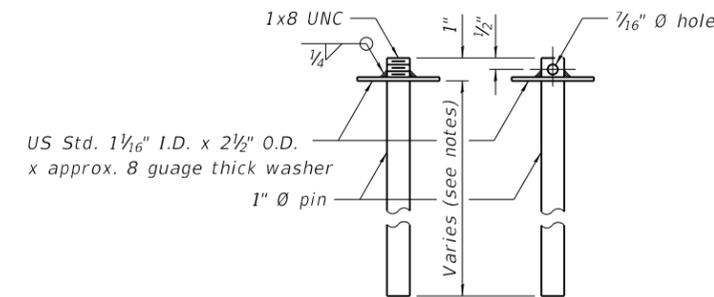


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

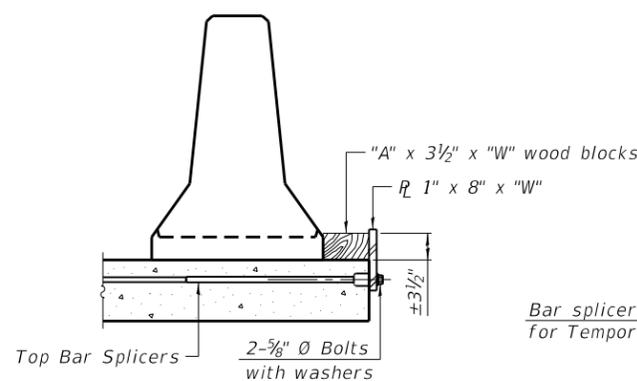
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

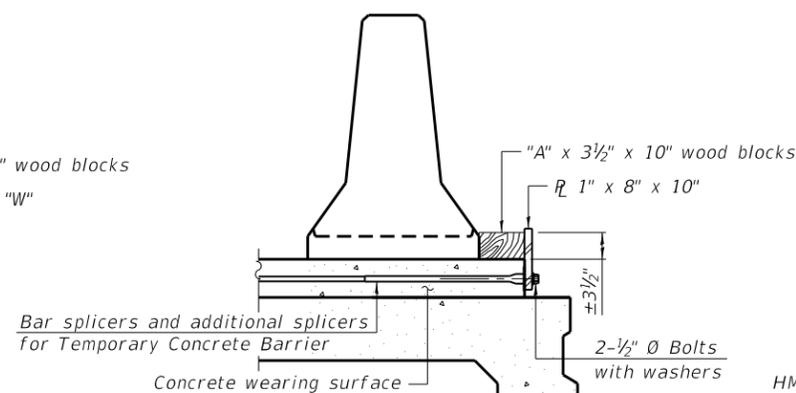


RESTRAINING PIN

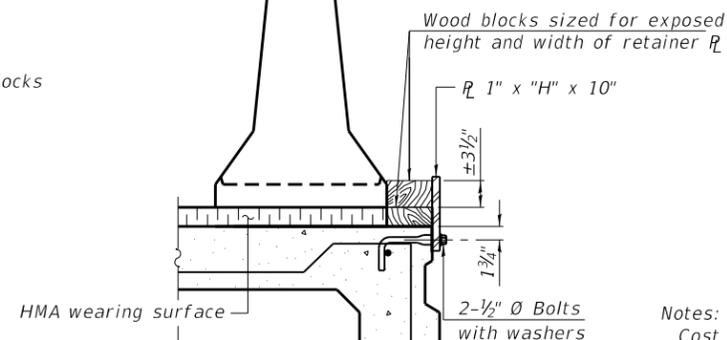
SECTIONS THRU SLAB OR DECK BEAM



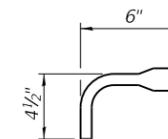
DETAIL I



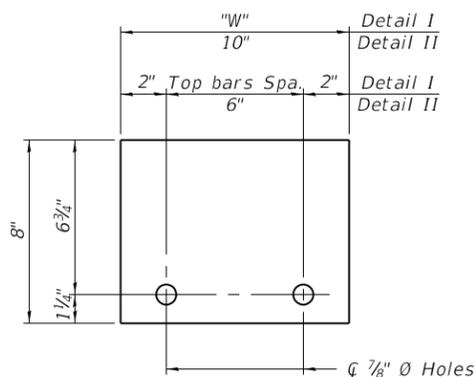
DETAIL II



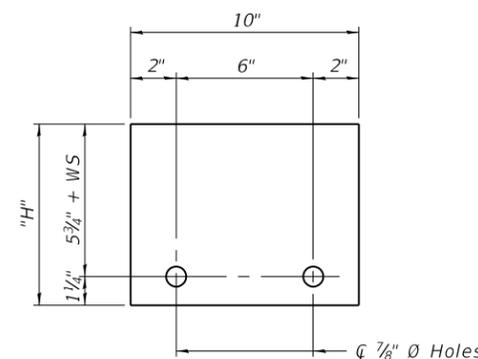
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate center of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate.
 For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.
 Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
 Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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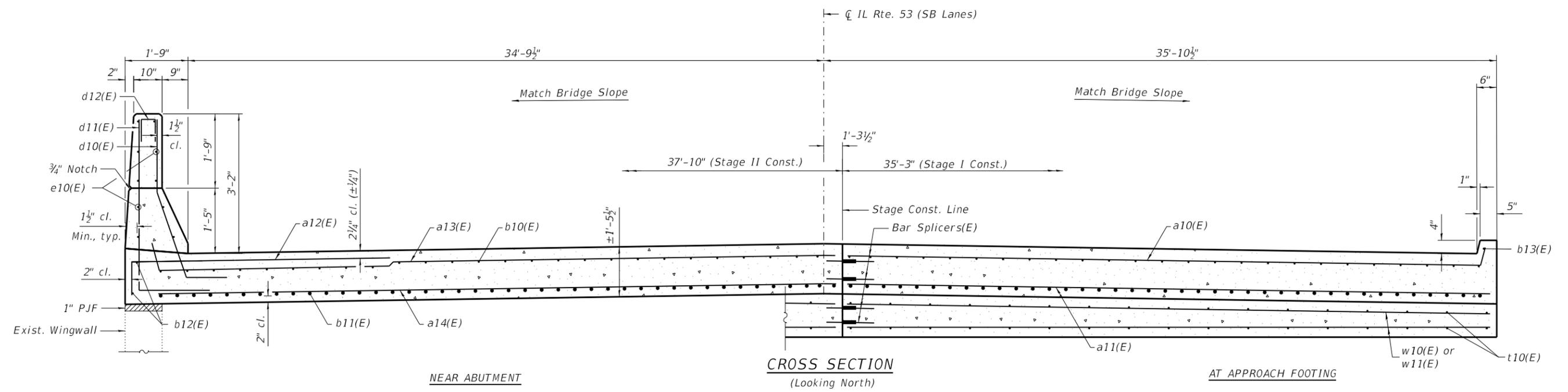
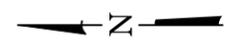
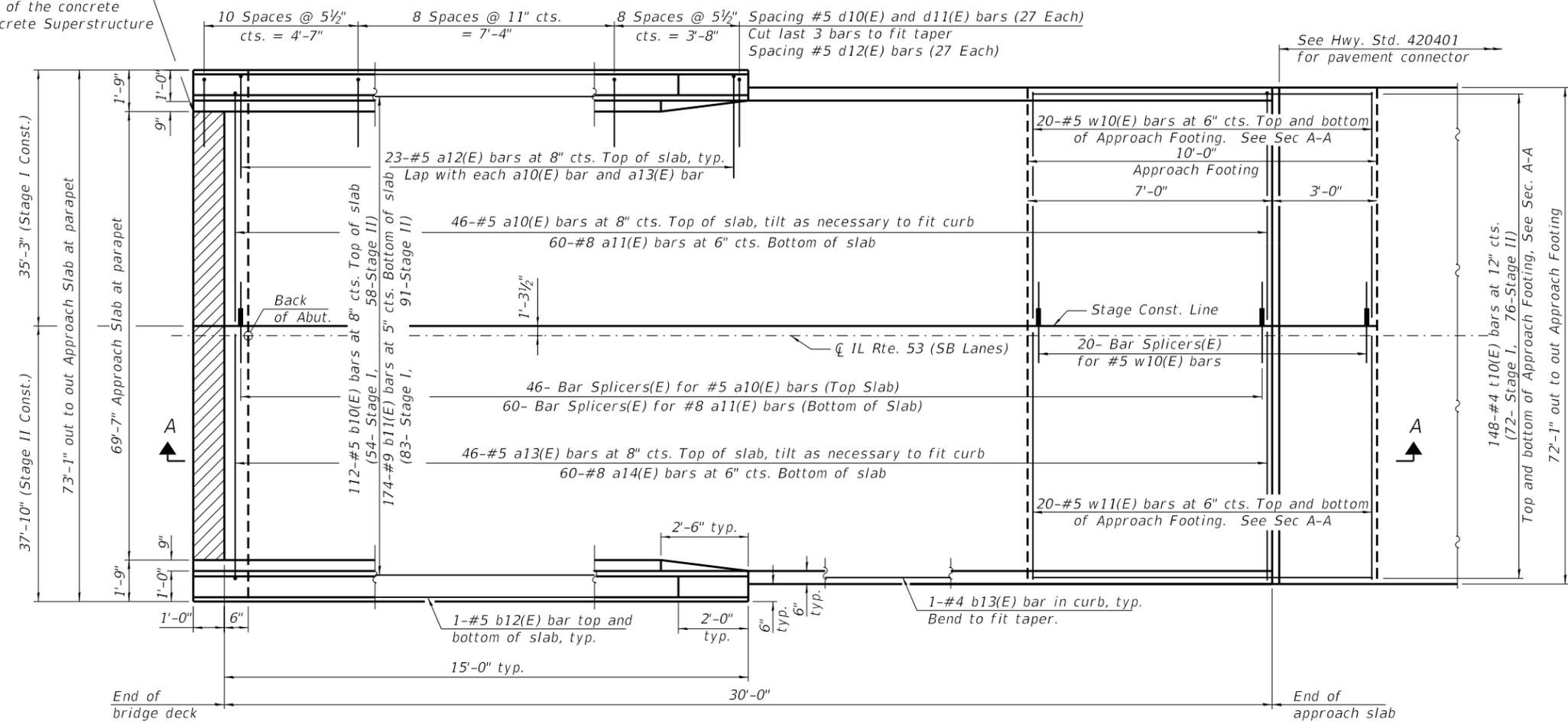
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
 STRUCTURE NO. 016-0978

SHEET 3 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	44
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

Hatched area to be poured after superstructure falsework is removed. Quantity of the concrete included with Concrete Superstructure



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

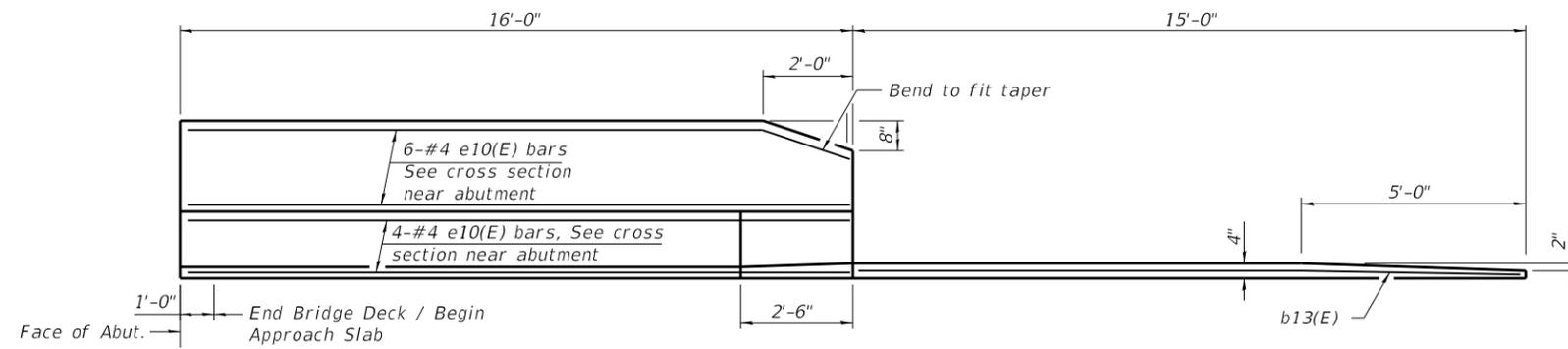
**SOUTH BRIDGE APPROACH SLAB
STRUCTURE NO. 016-0978**

SHEET 4 OF 11 SHEETS

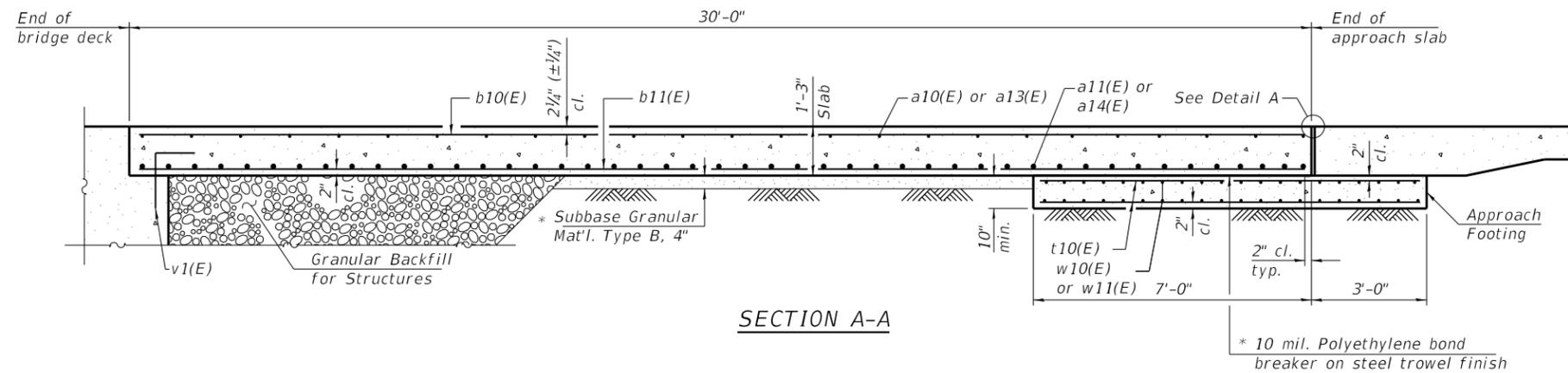
F.A.P. RTE. 342	SECTION 2017-065BR	COUNTY COOK	TOTAL SHEETS 79	SHEET NO. 45
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

NOTES:

1. The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications.
2. Parapet concrete shall be paid for as Concrete Superstructure.
3. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
4. Approach footing concrete shall be paid for as Concrete Structures.
5. The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
6. Cost of excavation for approach footing included with Concrete Structures.
7. Removal of existing approach slab, approach parapet and approach footing shall be paid for as Concrete Removal.
8. The anchorage section of the guardrail in conflict with the removal and replacement of the parapet portion shall be removed during concrete removal and reattached after the concrete has cured. Cost included with the cost of Concrete Removal.



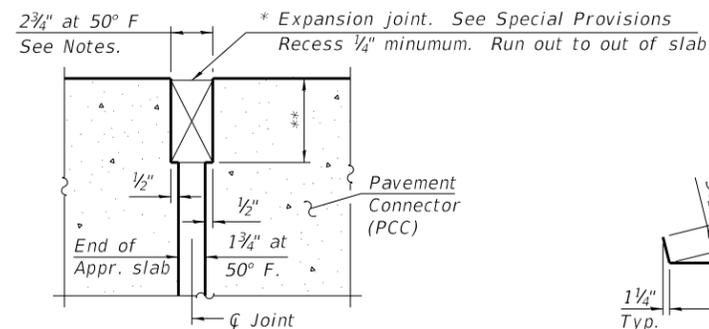
INSIDE ELEVATION OF PARAPET



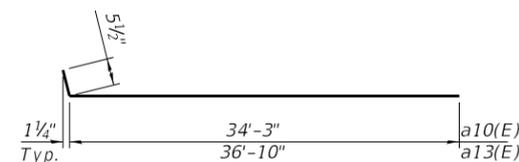
SECTION A-A

**SOUTH APPROACH SLAB
BILL OF MATERIAL**

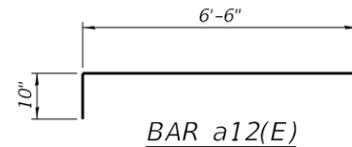
Bar	No.	Size	Length	Shape
a10(E)	46	#5	34'-9"	└─┘
a11(E)	60	#8	34'-3"	└─┘
a12(E)	46	#5	7'-4"	└─┘
a13(E)	46	#5	37'-4"	└─┘
a14(E)	60	#8	36'-10"	└─┘
b10(E)	112	#5	29'-8"	└─┘
b11(E)	174	#9	29'-8"	└─┘
b12(E)	4	#5	14'-8"	└─┘
b13(E)	2	#4	14'-8"	└─┘
d10(E)	54	#5	4'-10"	└─┘
d11(E)	54	#5	5'-11"	└─┘
d12(E)	54	#5	2'-0"	└─┘
e10(E)	20	#4	15'-8"	└─┘
t10(E)	148	#4	9'-8"	└─┘
w10(E)	40	#5	34'-5"	└─┘
w11(E)	40	#5	37'-0"	└─┘
Concrete Removal		Cu. Yd.	139.4	
Concrete Superstructure		Cu. Yd.	4.1	
Concrete Superstructure (Approach Slab)		Cu. Yd.	117.7	
Concrete Structures		Cu. Yd.	22.2	
Reinforcement Bars, Epoxy Coated		Pound	41,170	



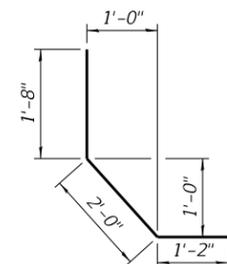
DETAIL A



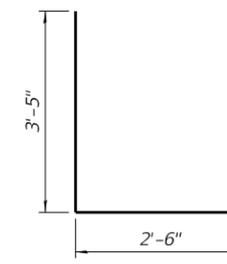
BAR a10(E) & a13(E)



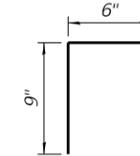
BAR a12(E)



BAR d10(E)



BAR d11(E)



BAR d12(E)

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

(Sheet 2 of 2)

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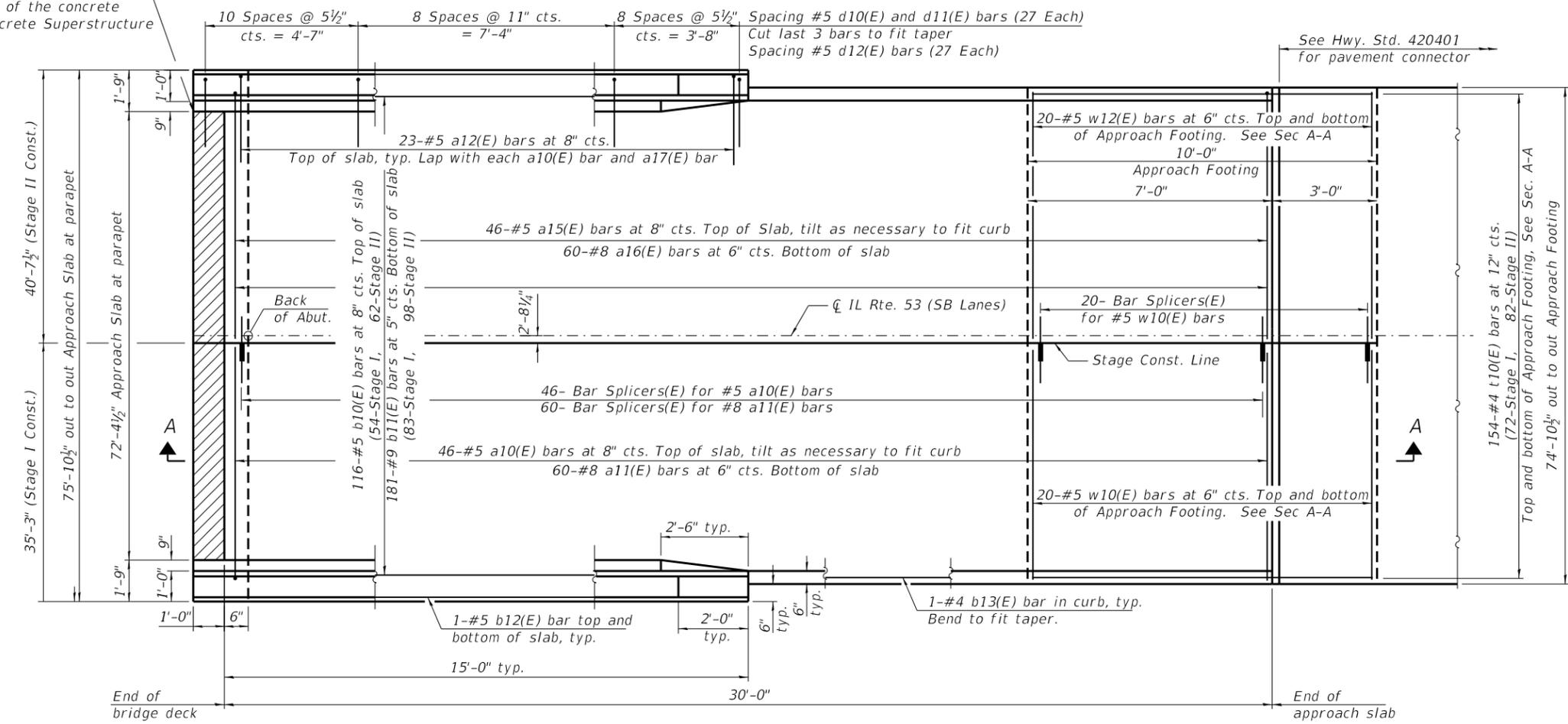
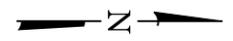
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOUTH BRIDGE APPROACH SLAB DETAILS - I
STRUCTURE NO. 016-0978**

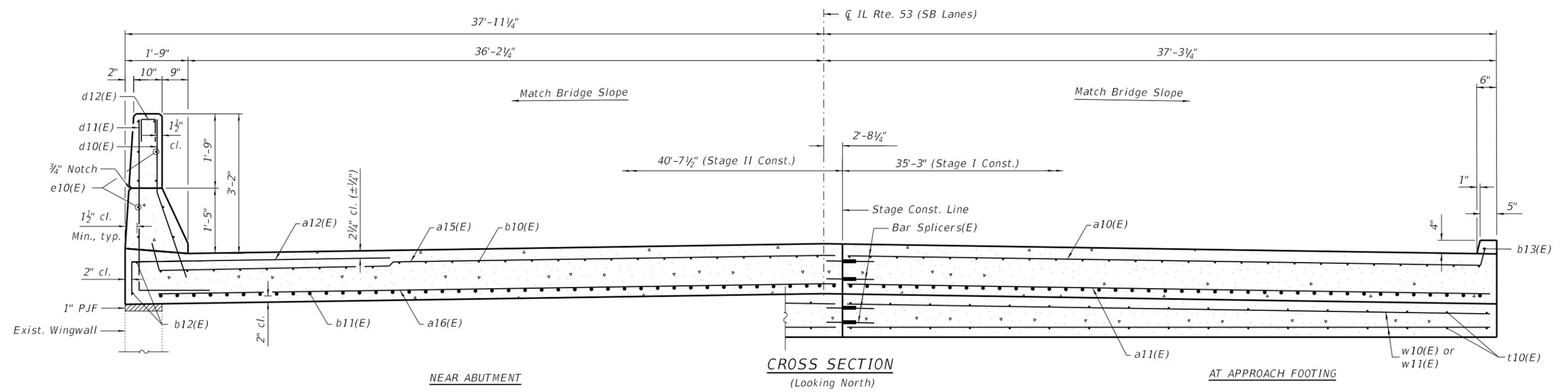
SHEET 5 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	46
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

Hatched area to be poured after superstructure falsework is removed. Quantity of the concrete included with Concrete Superstructure



PLAN



CROSS SECTION (Looking North)

(Sheet 1 of 2)

MODEL: Default
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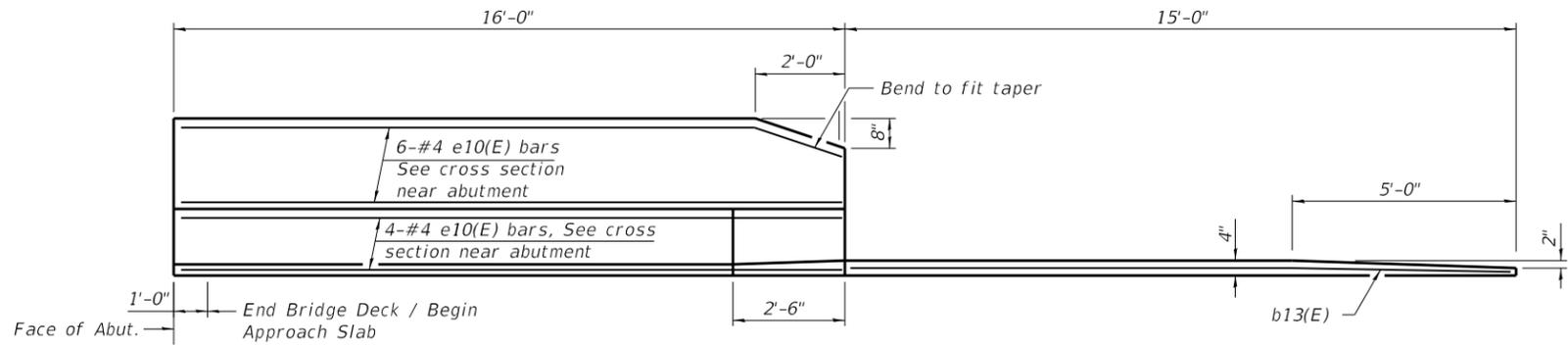
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STATE OF ILLINOIS
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NORTH APPROACH SLAB
STRUCTURE NO. 016-0978

SHEET 6 OF 11 SHEETS

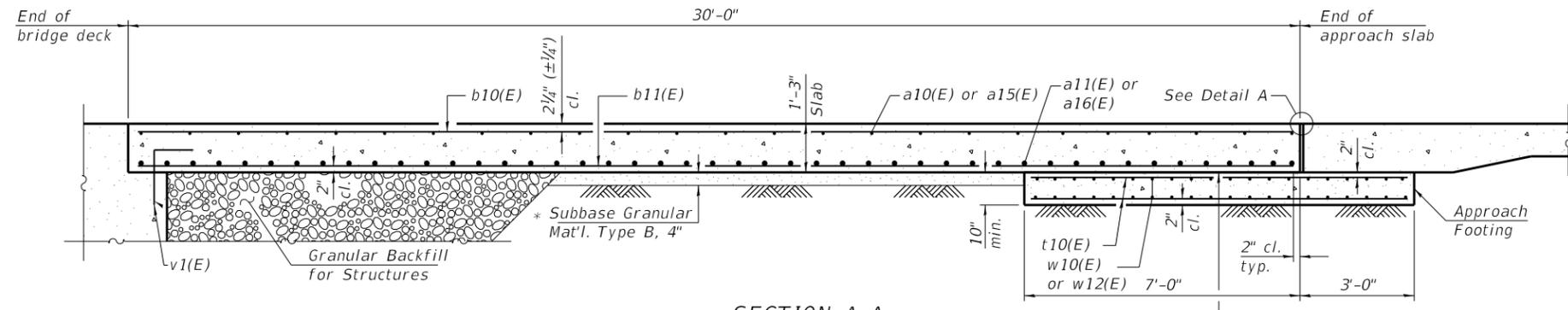
F.A.P. RTE. 342	SECTION 2017-065BR	COUNTY COOK	TOTAL SHEETS 79	SHEET NO. 47
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



INSIDE ELEVATION OF PARAPET

NOTES:

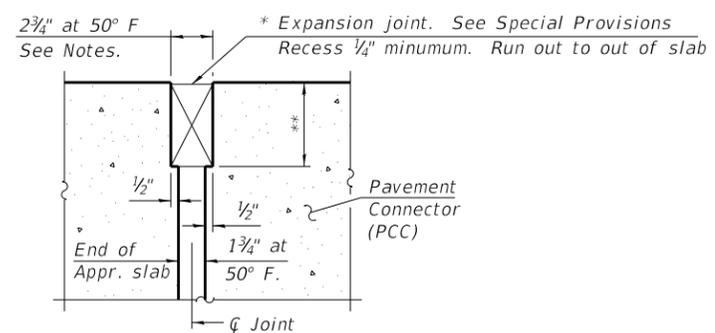
1. The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications.
2. Parapet concrete shall be paid for as Concrete Superstructure.
3. Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
4. Approach footing concrete shall be paid for as Concrete Structures.
5. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
6. Cost of excavation for approach footing included with Concrete Structures.
7. Removal of existing approach slab, approach parapet and approach footing shall be paid for as Concrete Removal.
8. The anchorage section of the guardrail in conflict with the removal and replacement of the parapet portion shall be removed during concrete removal and reattached after the concrete has cured. Cost included with the cost of Concrete Removal.



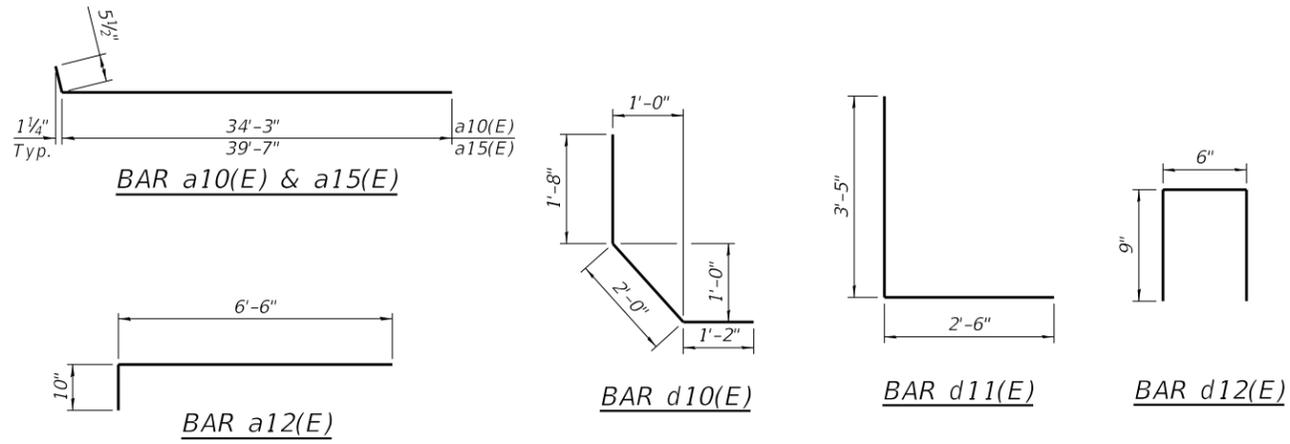
SECTION A-A

**NORTH APPROACH SLAB
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a10(E)	46	#5	34'-9"	┌
a11(E)	60	#8	34'-3"	┌
a12(E)	46	#5	7'-4"	┌
a15(E)	46	#5	40'-1"	┌
a16(E)	60	#8	39'-7"	┌
b10(E)	116	#5	29'-8"	┌
b11(E)	181	#9	29'-8"	┌
b12(E)	4	#5	14'-8"	┌
b13(E)	2	#4	14'-8"	┌
d10(E)	54	#5	4'-10"	└
d11(E)	54	#5	5'-11"	└
d12(E)	54	#5	2'-0"	└
e10(E)	20	#4	15'-8"	┌
t10(E)	154	#4	9'-8"	┌
w10(E)	40	#5	34'-5"	┌
w12(E)	40	#5	39'-9"	┌
Concrete Removal		Cu. Yd.	144.9	
Concrete Superstructure		Cu. Yd.	4.1	
Concrete Superstructure (Approach Slab)		Cu. Yd.	122.3	
Concrete Structures		Cu. Yd.	23.0	
Reinforcement Bars, Epoxy Coated		Pound	42,720	



DETAIL A



* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

(Sheet 2 of 2)

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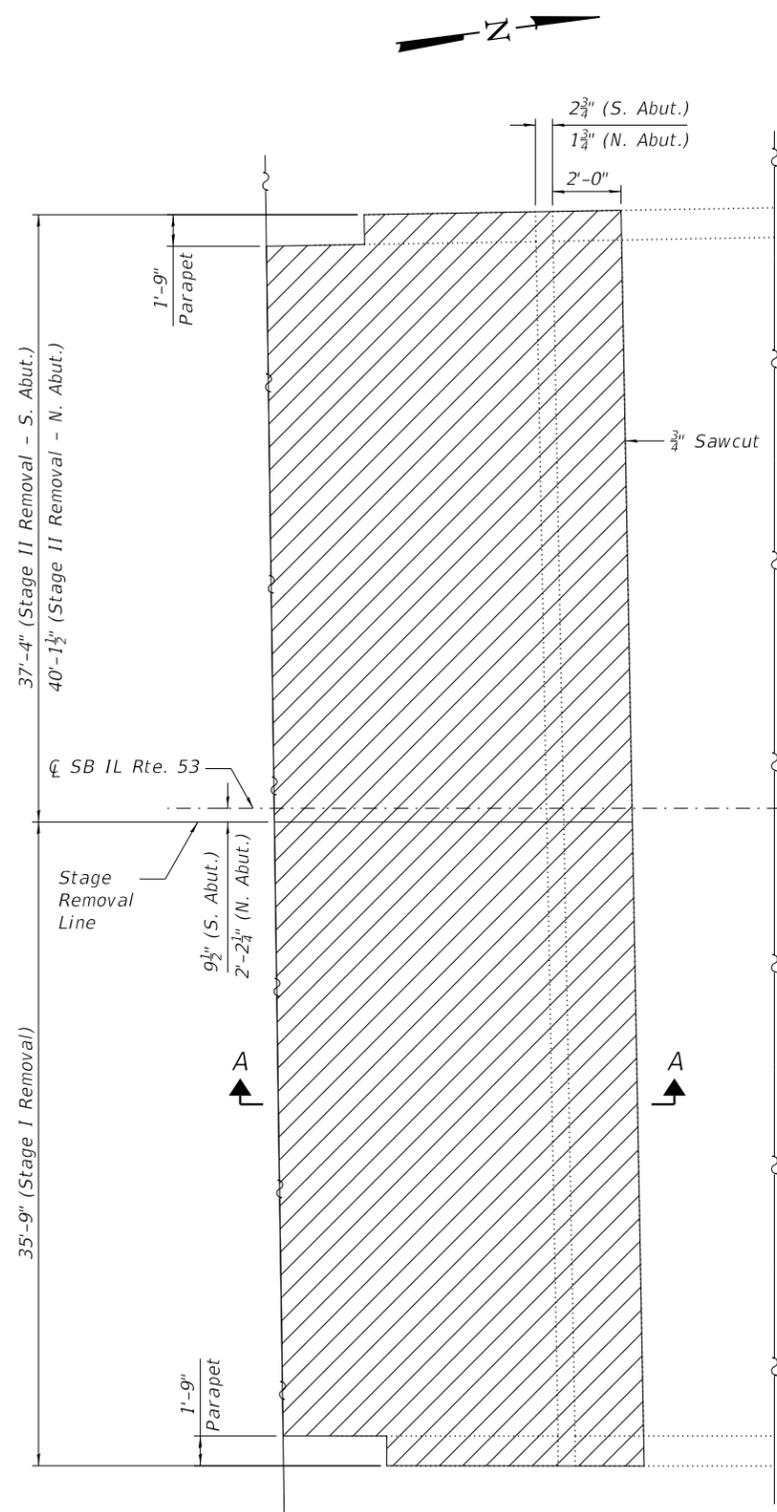
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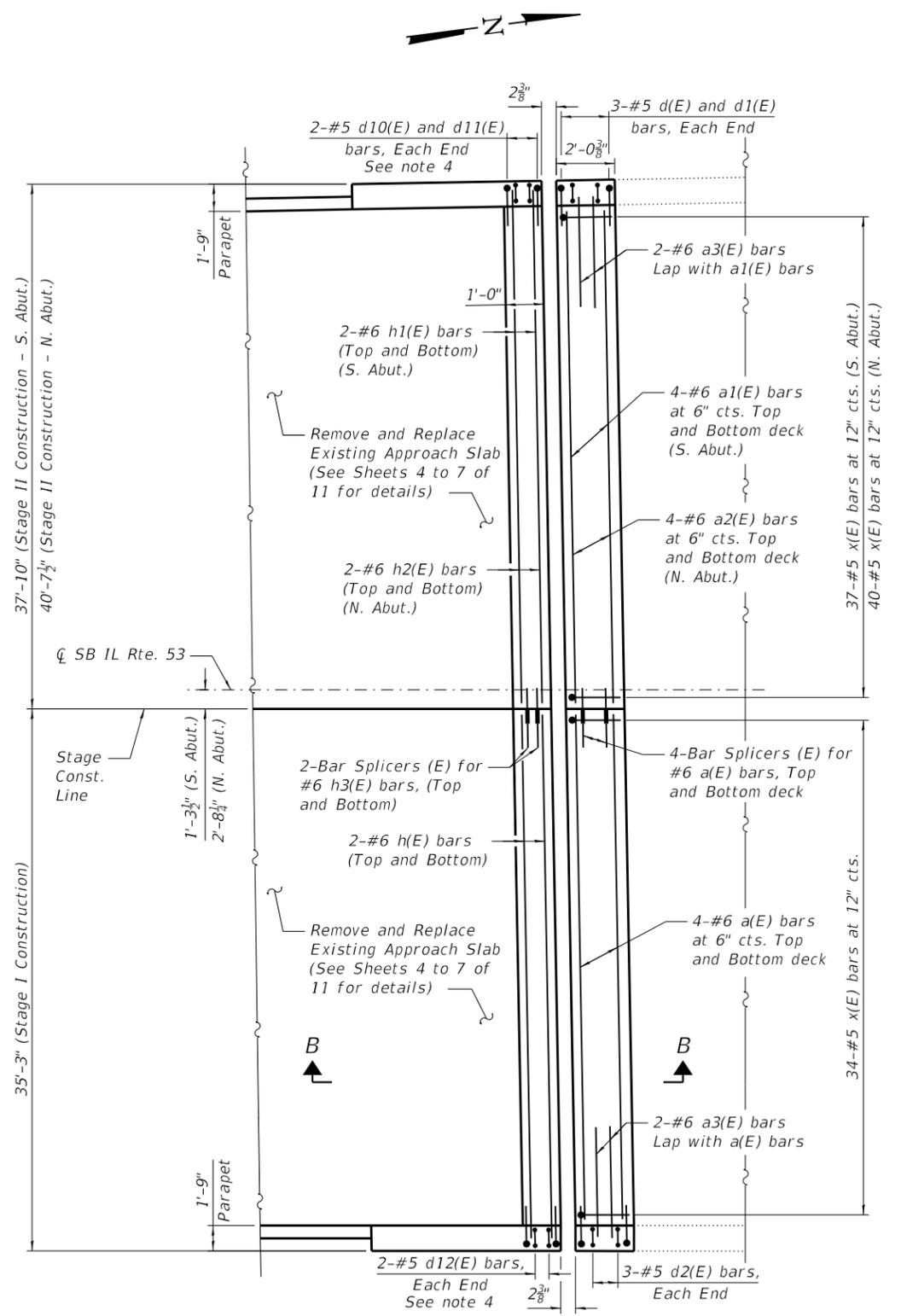
NORTH BRIDGE APPROACH SLAB DETAILS - I
STRUCTURE NO. 016-0978

SHEET 7 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	48
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



JOINT REMOVAL PLAN



JOINT REPLACEMENT PLAN

- NOTES:**
1. South Abutment Shown, North Abutment similar.
 2. Hatched areas indicate Concrete Removal.
 3. See Sheets 4 to 7 of 11 for Approach Slab and Approach Parapet reinforcement details.
 4. See Sheets 5 and 7 of 11 for details of bars d10(E), d11(E) and d12(E). Quantity is included with the Approach Slab Bill of Materials.

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

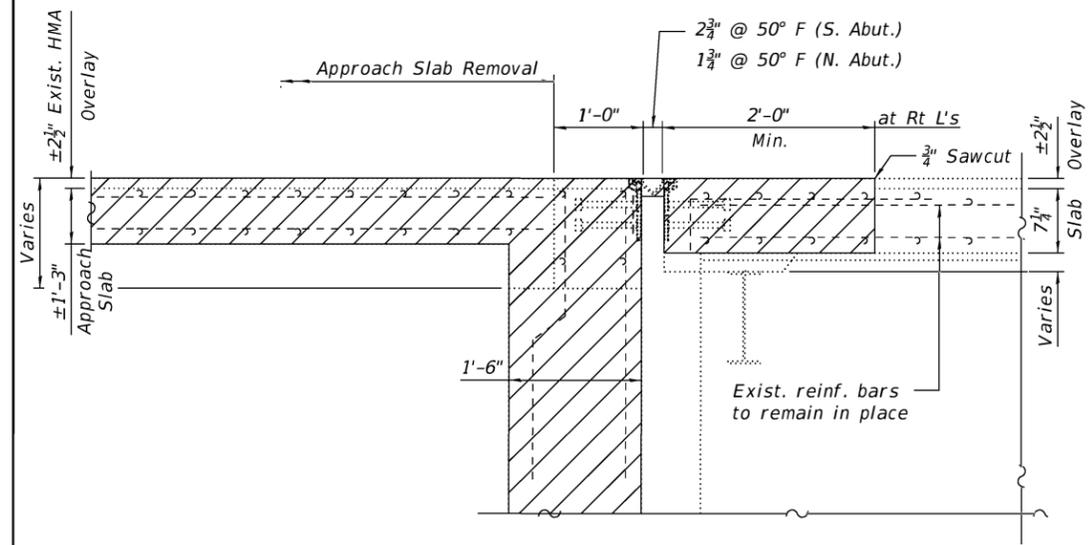
**EXPANSION JOINT DETAILS - I
 STRUCTURE NO. 016-0978**

SHEET 8 OF 11 SHEETS

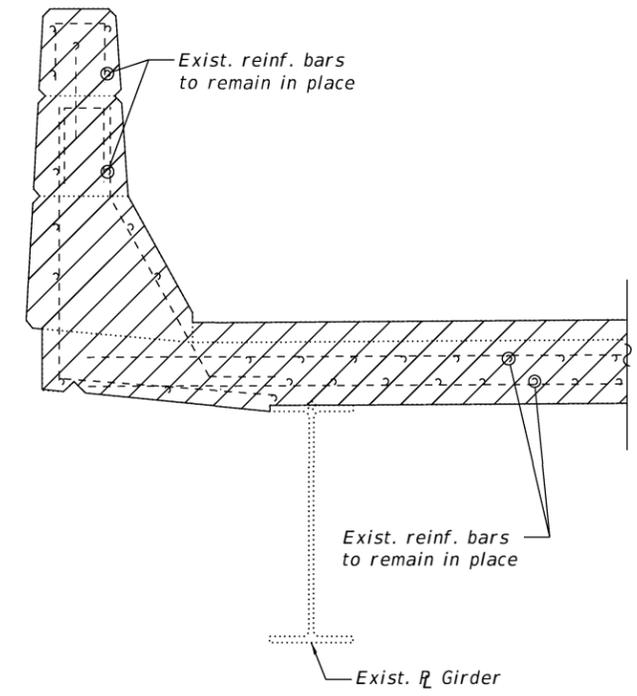
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	49
CONTRACT NO. 62G08				

ILLINOIS FED. AID PROJECT

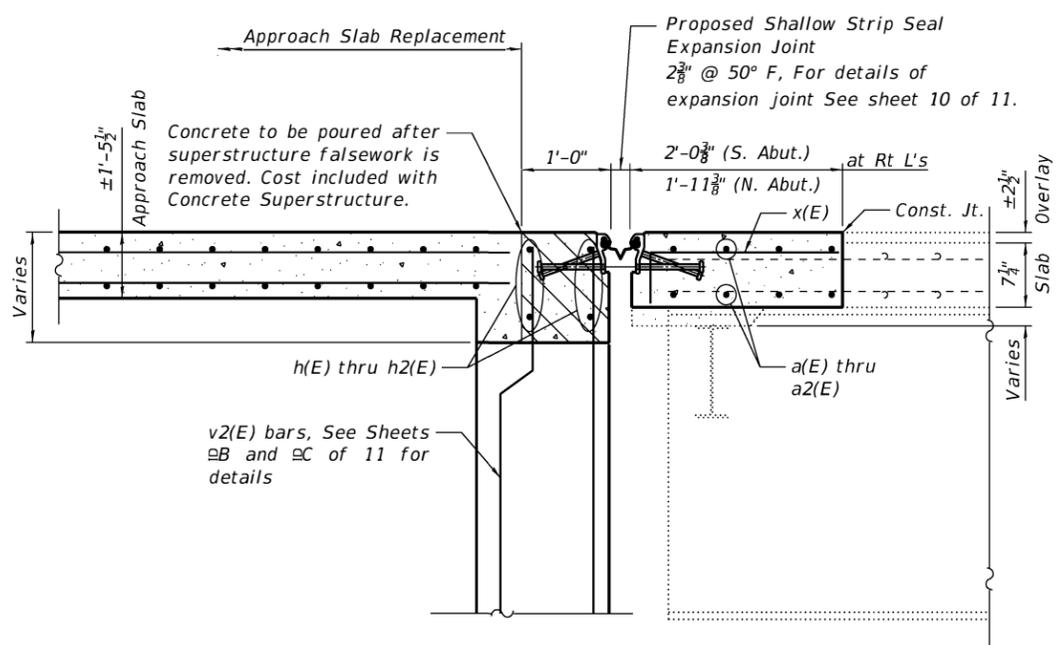
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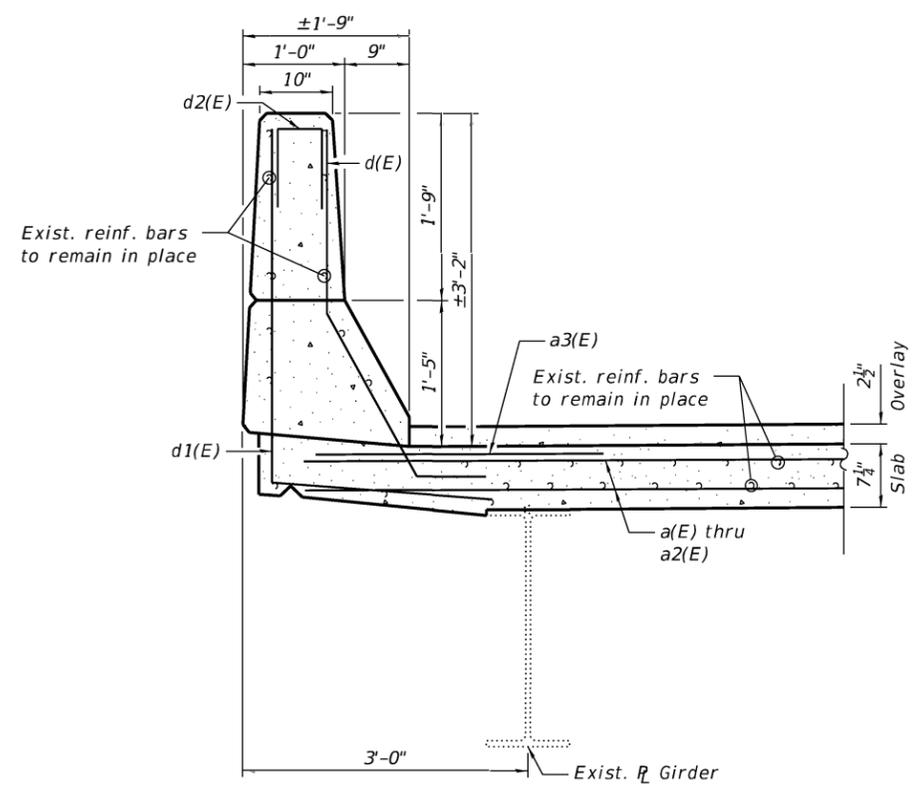
SECTION A-A



SECTION THRU BRIDGE DECK PARAPET
(Showing Removal)



SECTION B-B



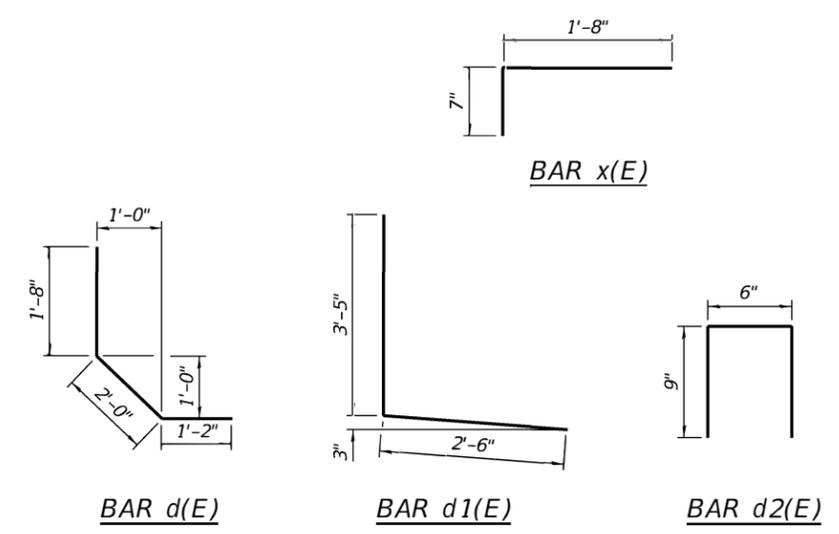
SECTION THRU BRIDGE DECK PARAPET

NOTES:

1. Hatched areas indicate Concrete Removal.
2. Existing reinforcement to remain in place shall be cleaned, straightened and reused. Cost included with Concrete Removal.
3. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
4. Removal of exist. expansion joint will not be paid for separately. Cost included with Concrete Removal.
5. See Sheet 11 of 11 for Bar Splicers Details.
6. Reinforcement details for Approach Slab and Approach Parapet are shown on Approach Slab Sheets.
7. See Sheets 4 of 11 to 7 of 11 for Approach Slab Details.

**BILL OF MATERIAL
BOTH ABUTMENTS**

Bar	No.	Size	Length	Shape	
a(E)	16	#6	34'-11"	—	
a1(E)	8	#6	37'-6"	—	
a2(E)	8	#6	40'-3"	—	
a3(E)	8	#6	4'-0"	—	
d(E)	12	#5	4'-10"	┌	
d1(E)	12	#5	5'-11"	┌	
d2(E)	12	#5	2'-0"	└	
h(E)	8	#6	34'-11"	—	
h1(E)	4	#6	37'-6"	—	
h2(E)	4	#6	40'-3"	—	
x(E)	145	#5	2'-3"	└	
Concrete Removal				Cu. Yd.	20.8
Reinforcement Bars, Epoxy Coated				Pound	3210
Concrete Superstructure				Cu. Yd.	20.8



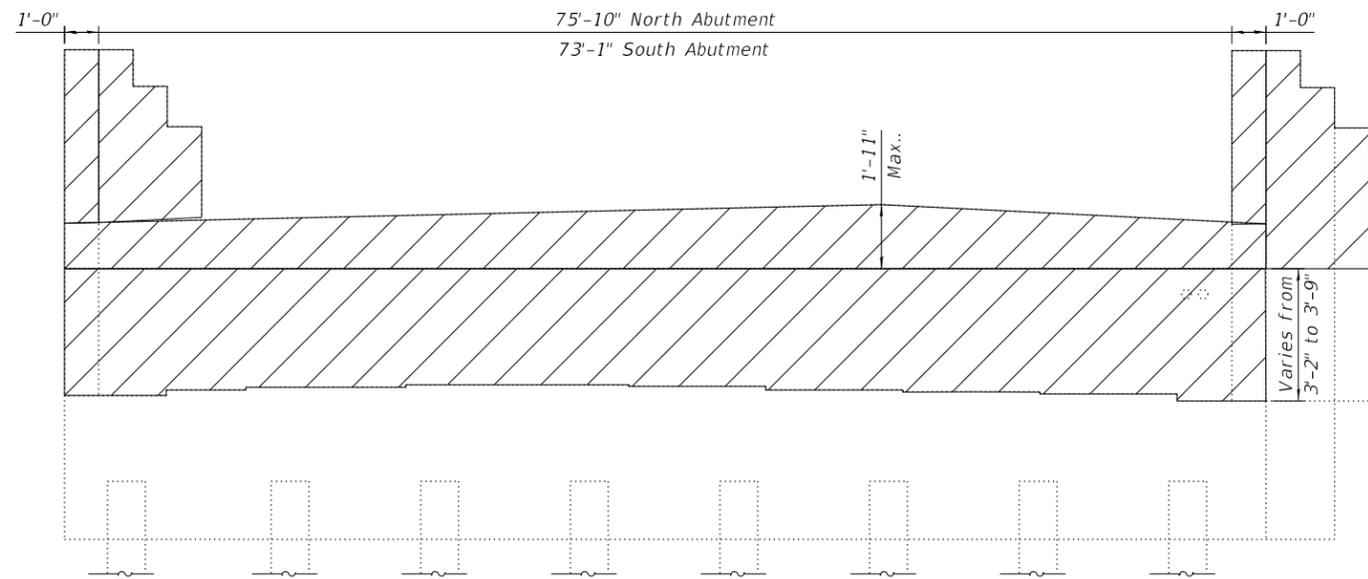
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STATE OF ILLINOIS
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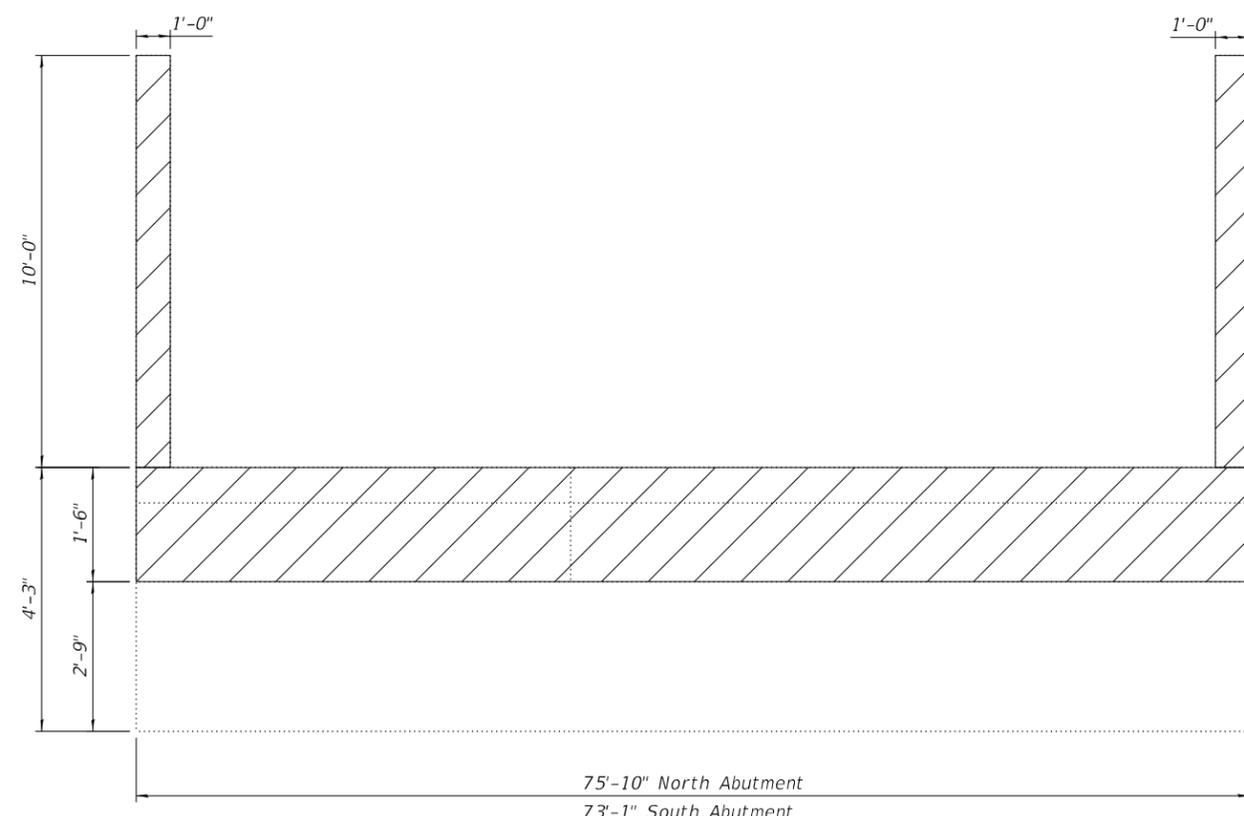
EXPANSION JOINT DETAILS - II
STRUCTURE NO. 016-0978

SHEET 9 OF 11 SHEETS

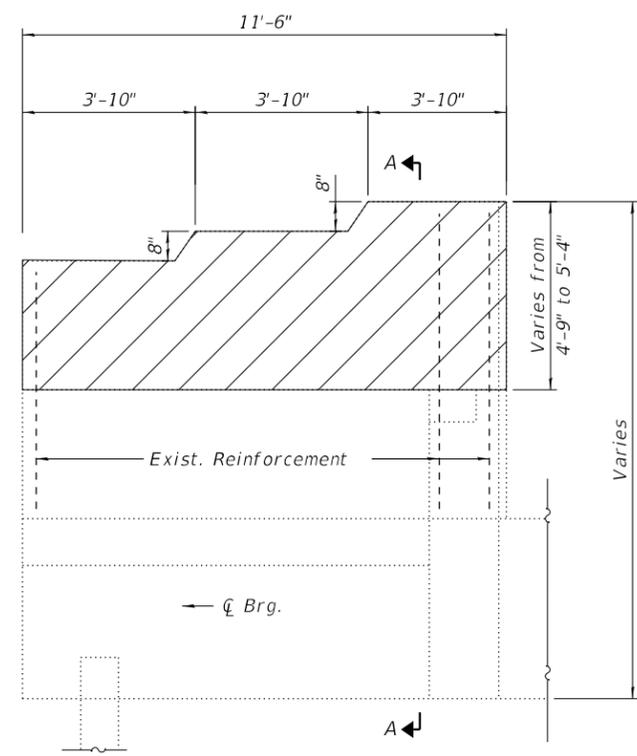
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	50
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



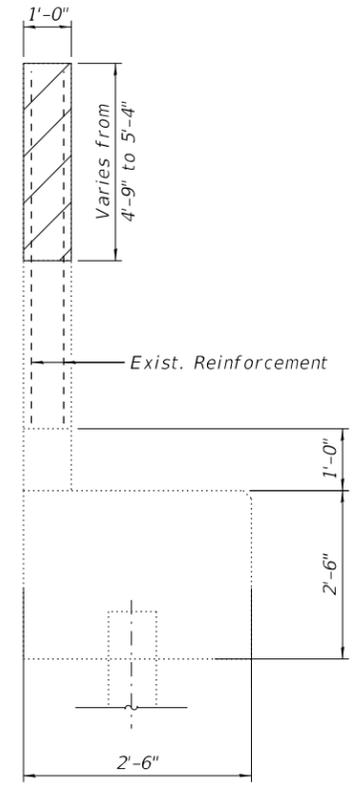
ELEVATION



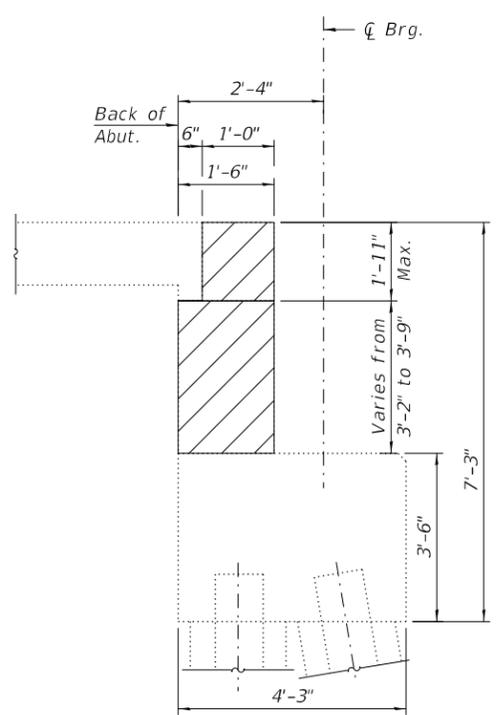
PLAN



WING WALL ELEVATION



SECTION A-A



SECTION THRU ABUTMENT

NOTES:

- Hatched area indicated Concrete Removal.
- Existing reinforcement extending into the wingwall parapet shall be cut 1'-0" above the removal line, cleaned and incorporated in new construction. Cost included with Concrete Removal.
- Quantity shown for Concrete Removal includes the backwall removal and parapet wingwall removal for both the abutments.

LEGEND



**BOTH ABUTMENTS
BILL OF MATERIAL**

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	39.6

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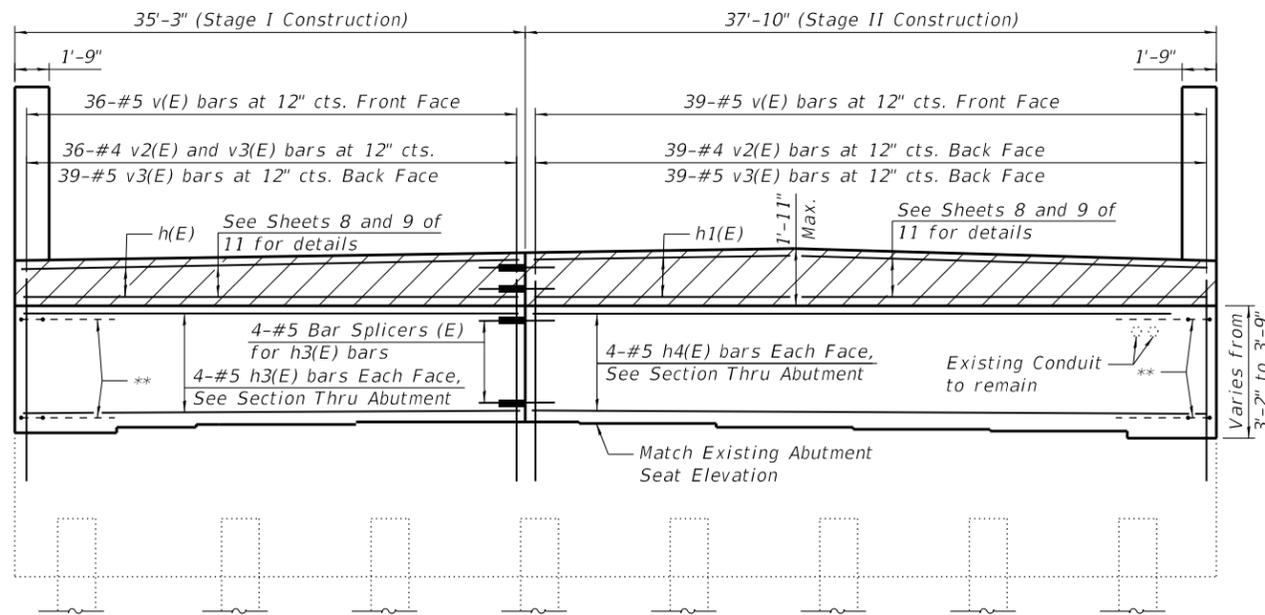
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BACKWALL AND WINGWALL PARAPET REMOVAL DETAILS
STRUCTURE NO. 016-0978**

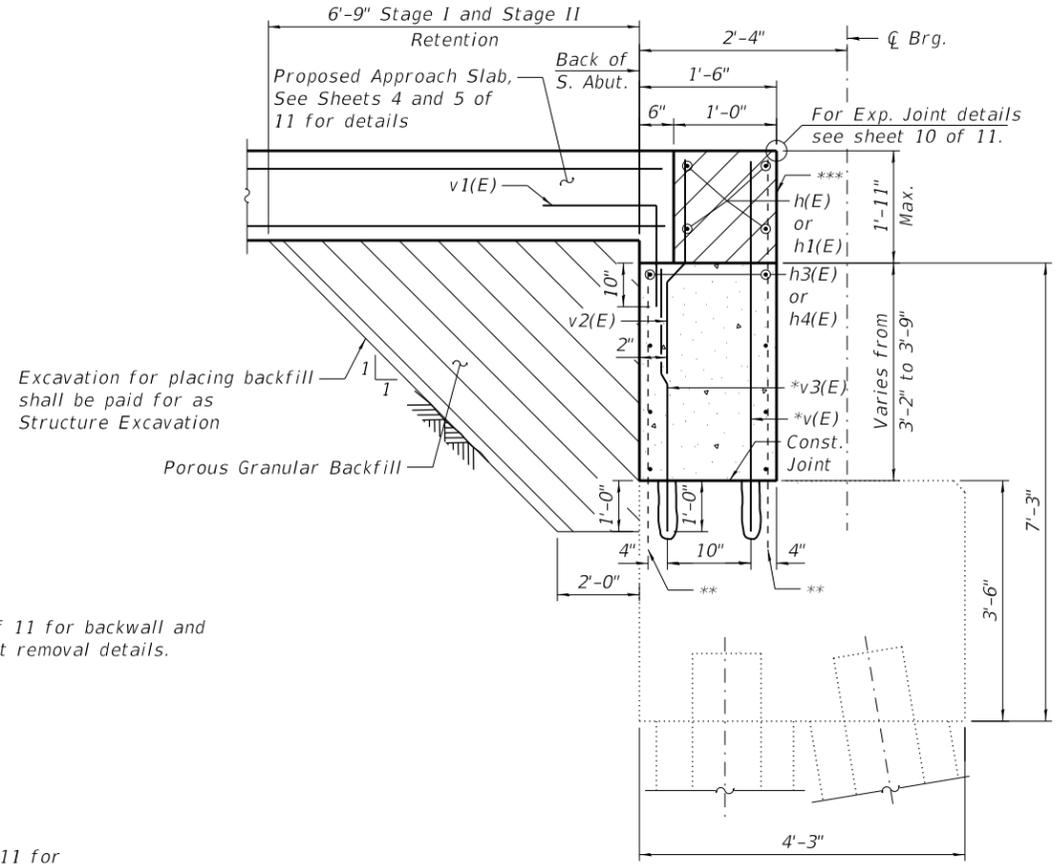
SHEET 9A OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	50A
CONTRACT NO. 62G08				

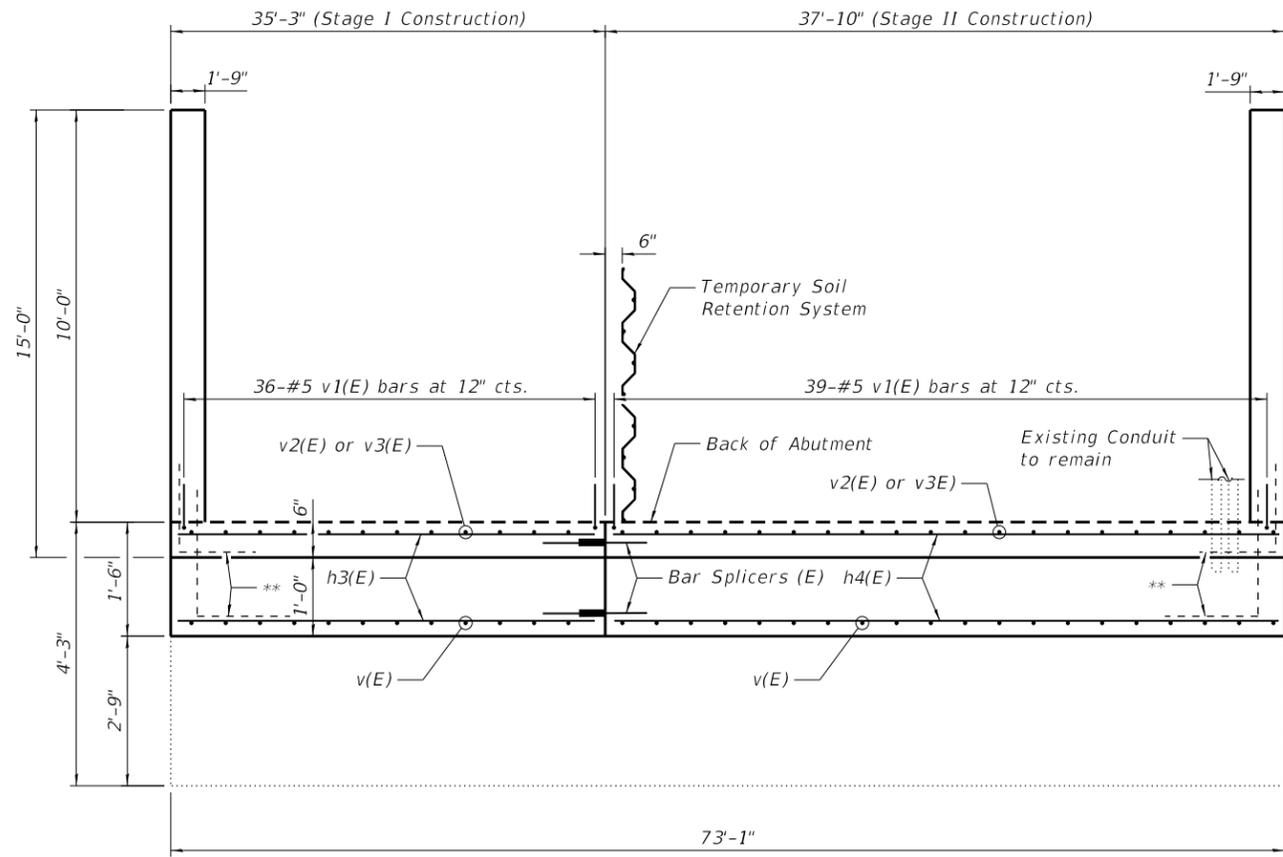
ILLINOIS FED. AID PROJECT



ELEVATION
(Looking South)



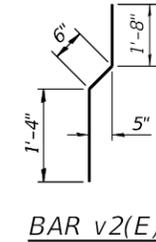
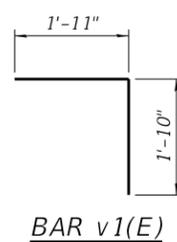
SECTION THRU ABUTMENT



PLAN

See Sheet 9A of 11 for backwall and wingwall parapet removal details.

See Sheet 9A of 11 for limits of removal



* Epoxy grout #5 v(E) and v3(E) bars into 7/8" Ø x 12" drilled holes located as shown in Section Thru Abutment. See Section 584 of the Standard Specifications.

** Existing exposed reinforcement shall be cleaned and reused in new construction. Cost included with Concrete Removal.

*** Concrete to be poured after superstructure falsework is removed. Quantity of the concrete included with Concrete Superstructure on Sheet 9 of 11.

**SOUTH ABUTMENT BACKWALL
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h3(E)	8	#5	34'-11"	—
h4(E)	8	#5	37'-6"	—
v(E)	75	#5	6'-0"	—
v1(E)	75	#5	3'-9"	└
v2(E)	75	#4	3'-6"	└
v3(E)	75	#5	4'-0"	—
Porous Granular Backfill			Cu. Yd.	56.2
Structure Excavation			Cu. Yd.	56.2
Temporary Soil Retention System			Sq. Ft.	42
Concrete Structures			Cu. Yd.	15.2
Reinforcement Bars, Epoxy Coated			Pound	1860

For details of Bar Splicers, see sheet 11 of 11.

MODEL: Default
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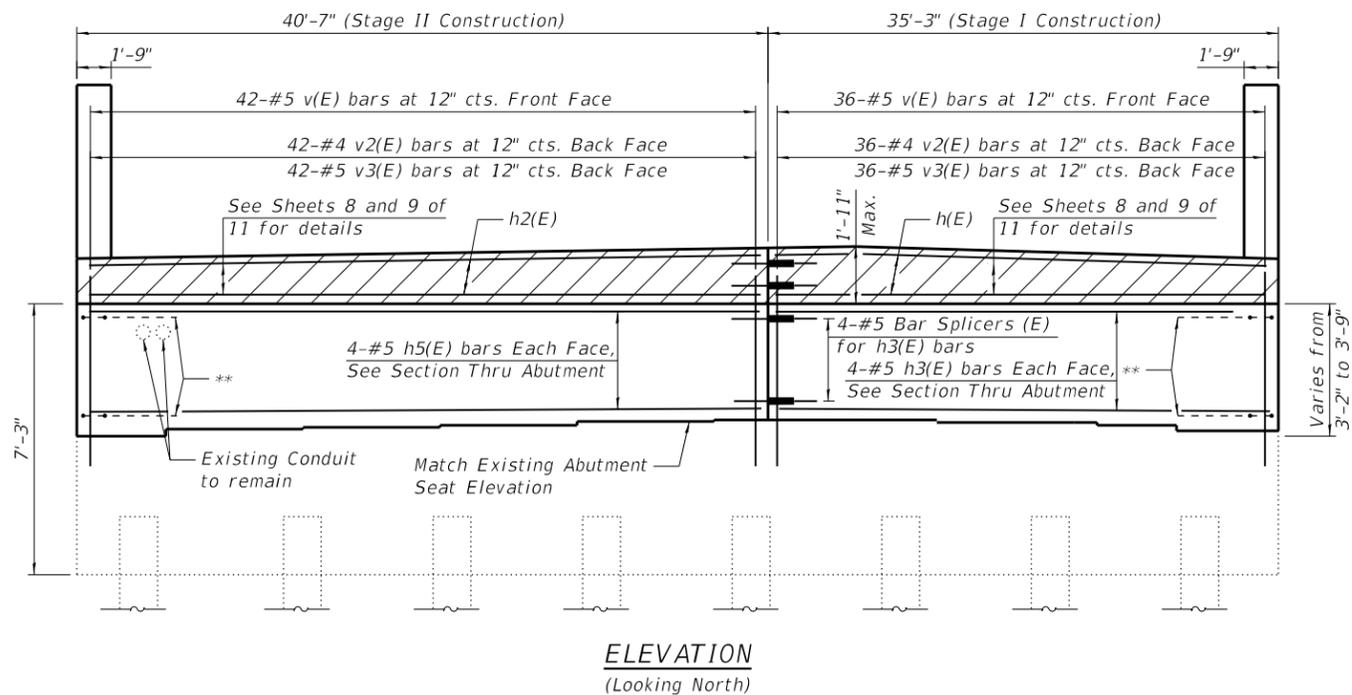
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	CHECKED - SPS	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOUTH ABUTMENT BACKWALL RECONSTRUCTION
STRUCTURE NO. 016-0978**

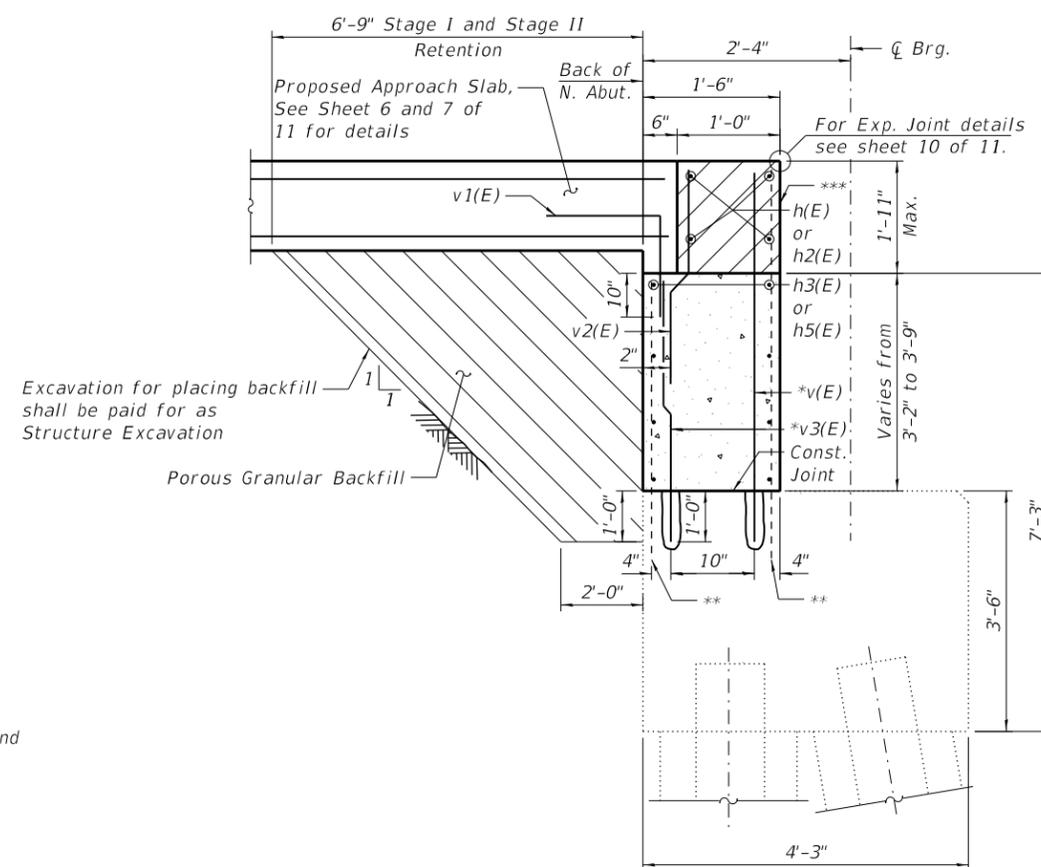
SHEET 9B OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	50B
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

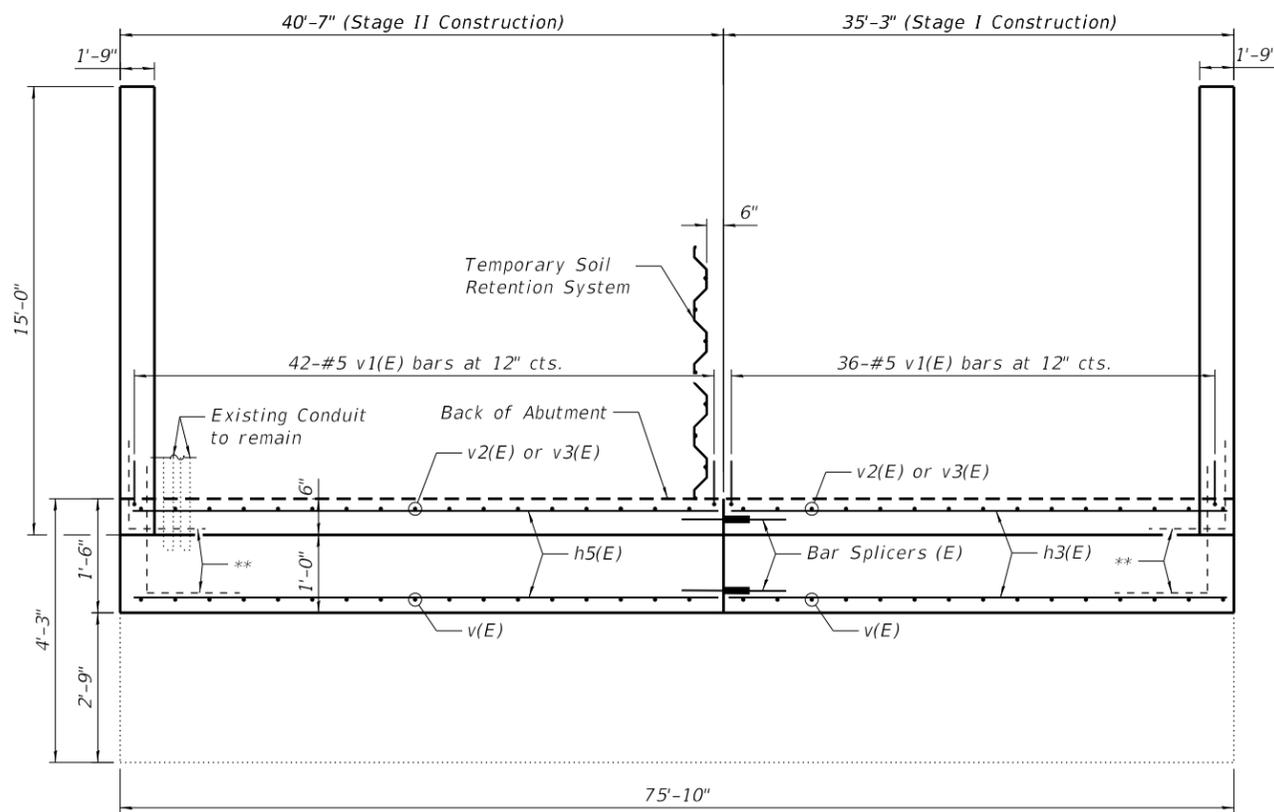


ELEVATION
(Looking North)

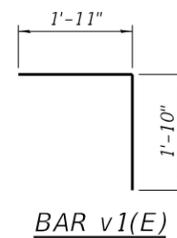
See Sheet 9A of 11 for backwall and wingwall parapet removal details.



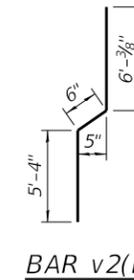
SECTION THRU ABUTMENT



PLAN



BAR v1(E)



BAR v2(E)

**NORTH ABUTMENT BACKWALL
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h3(E)	8	#5	34'-11"	—
h5(E)	8	#5	40'-3"	—
v(E)	78	#5	6'-0"	—
v1(E)	78	#5	3'-9"	┌
v2(E)	78	#4	3'-6"	┌
v3(E)	78	#5	4'-0"	—
Porous Granular Backfill			Cu. Yd.	58.4
Structure Excavation			Cu. Yd.	58.4
Temporary Soil Retention System			Sq. Ft.	42
Concrete Structures Reinforcement Bars, Epoxy Coated			Pound	1930

For details of Bar Splicers, see sheet 11 of 11.

* Epoxy grout #5 v(E) and v3(E) bars into 7/8" Ø x 12" drilled holes located as shown in Section Thru Abutment. See Section 584 of the Standard Specifications.

** Existing exposed reinforcement shall be cleaned and resued in new construction. Cost included with Concrete Removal.

*** Concrete to be poured after superstructure falsework is removed. Quantity of the concrete included with Concrete Superstructure on Sheet 9 of 11.

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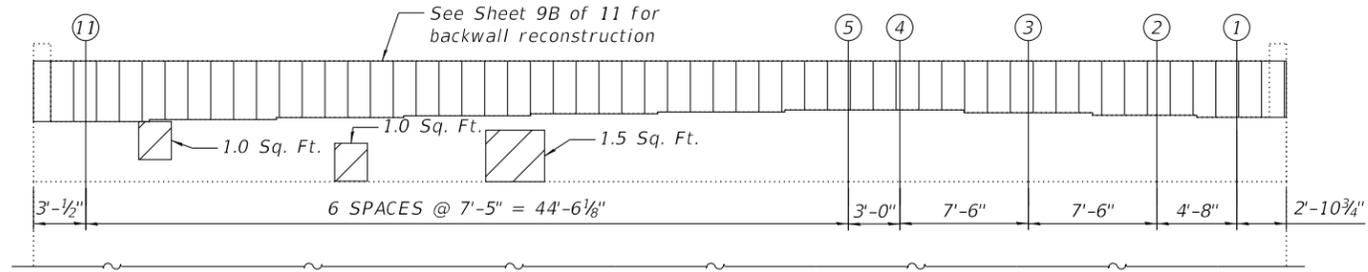
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

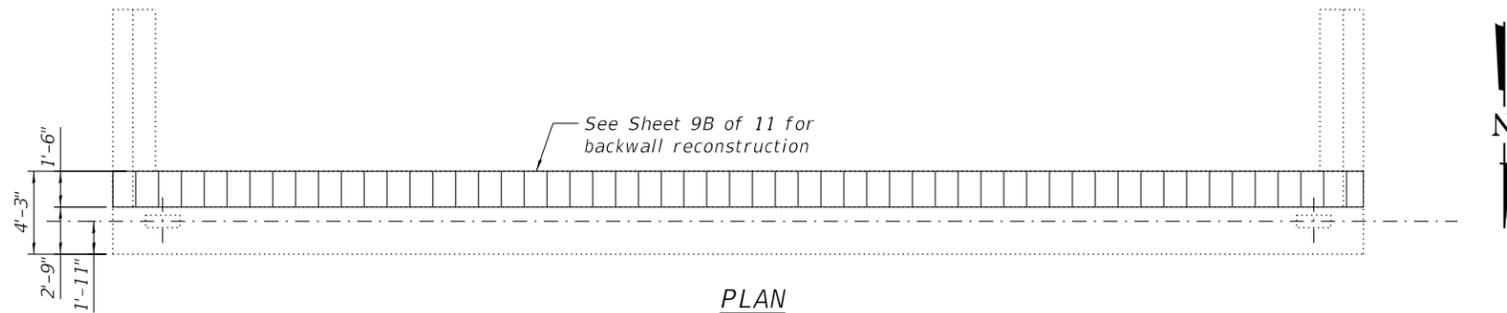
**NORTH ABUTMENT BACKWALL RECONSTRUCTION
STRUCTURE NO. 016-0978**

SHEET 9C OF 11 SHEETS

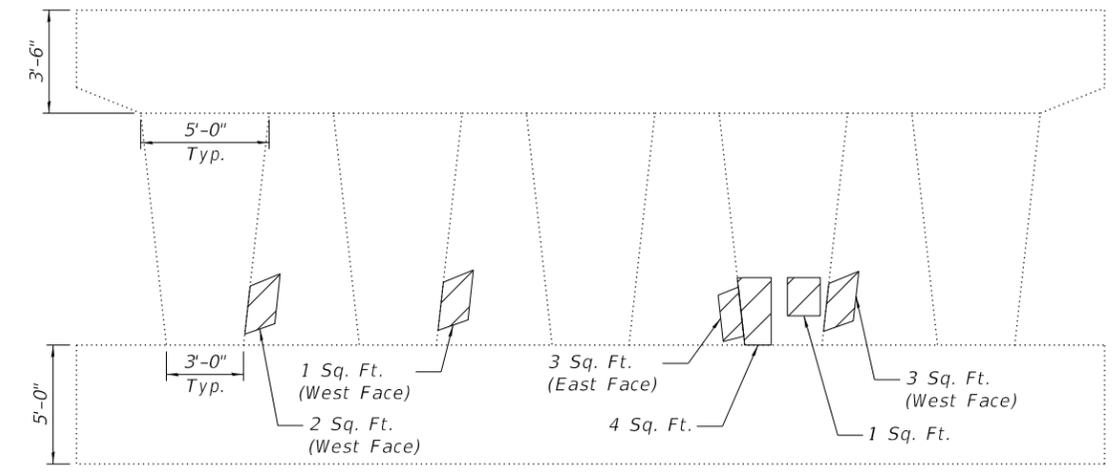
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	50C
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



ELEVATION
(Looking South)



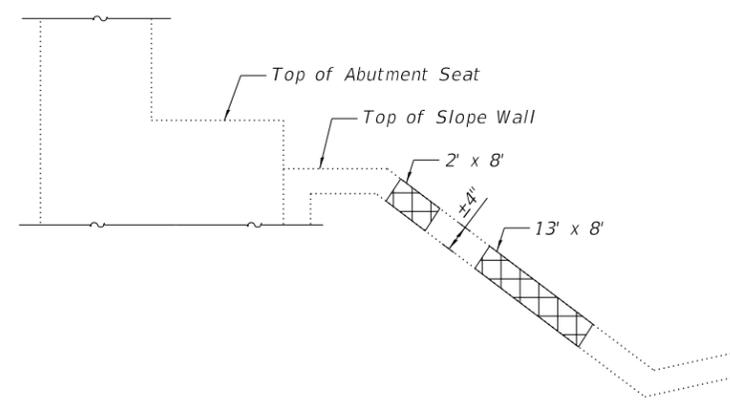
PLAN



SOUTH PIER
(Looking South)



SLOPE WALL
SOUTH ABUTMENT REPAIRS



SECTION THRU SLOPE WALL

LEGEND

- Structural Repair of Concrete (Depth equal to or less than 5")
- Slope Wall Repair
- Slope wall Crack Sealing

Notes:

1. 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. Slope wall shall be reinforced with welded wire fabric, 6"x6" - W4.0xW4.0, weighing 58 lbs per 100 sq. ft.
2. Areas shown for Structural Repair of Concrete are estimated. Actual area should be determined by the Engineer at the time of repair.

SOUTH ABUTMENT & SOUTH PIER
BILL OF MATERIAL

Item	Unit	Quantity
Controlled Low-Strength Material	Cu. Yd.	5
Slope Wall Crack Sealing	Foot	60
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	18
Slope Wall Repair	Sq. Yd.	14

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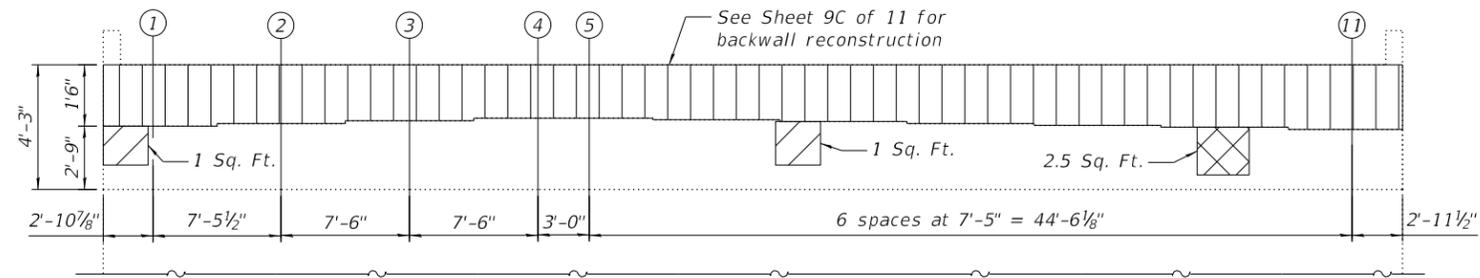
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

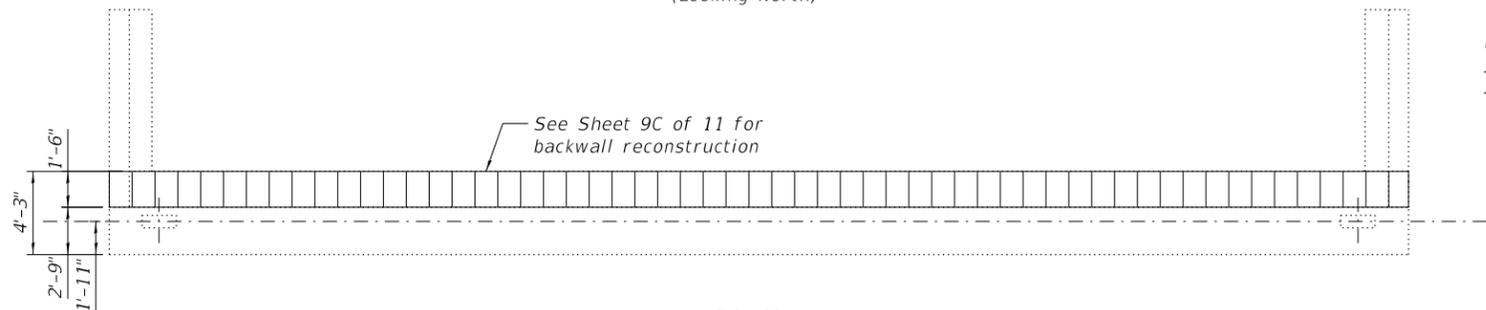
SUBSTRUCTURE REPAIRS - I
STRUCTURE NO. 016-0978

SHEET 9D OF 11 SHEETS

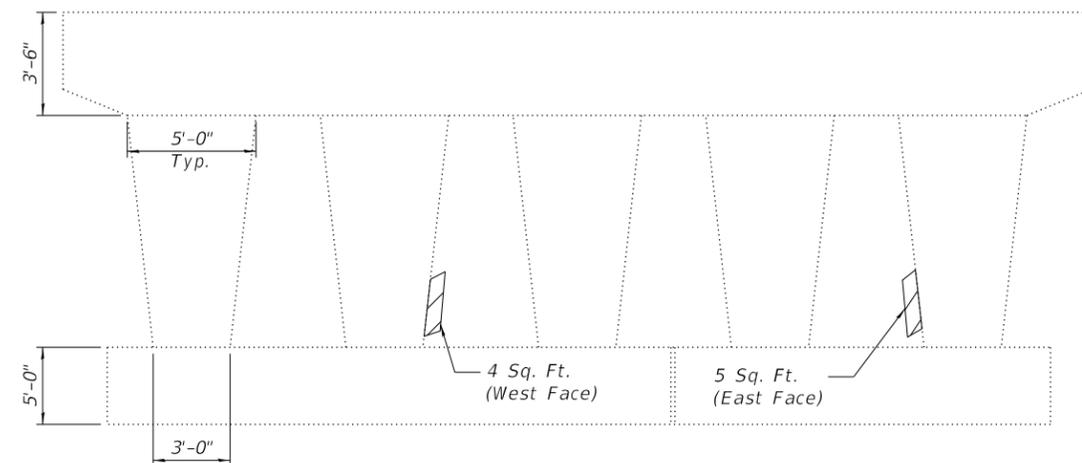
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	50D
CONTRACT NO. 62G08				
ILLINOIS		FED. AID PROJECT		



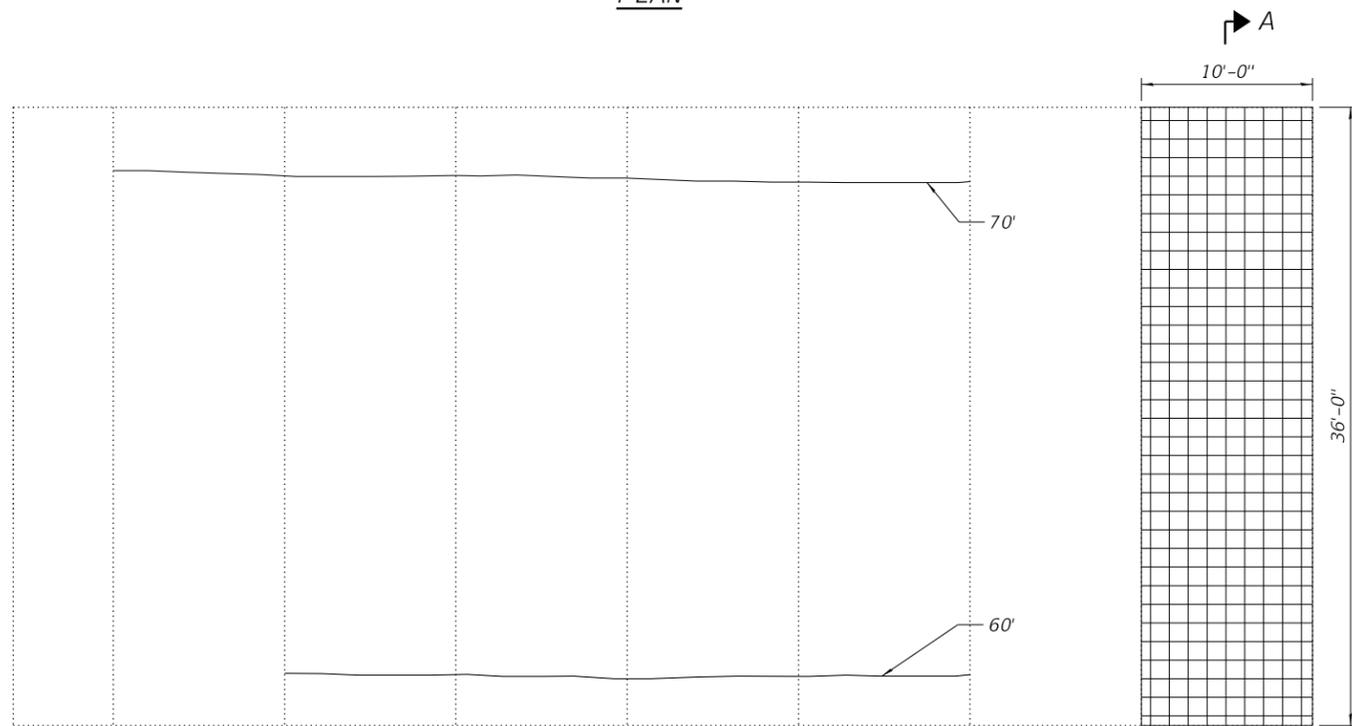
ELEVATION
(Looking North)



PLAN

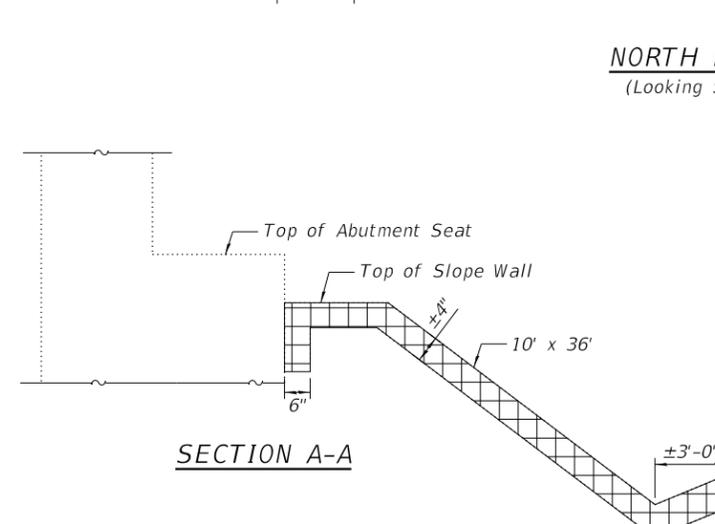


NORTH PIER
(Looking South)



SLOPE WALL

NORTH ABUTMENT REPAIRS



SECTION A-A

NORTH ABUTMENT & NORTH PIER
BILL OF MATERIAL

Item	Unit	Quantity
Controlled Low-Strength Material	Cu. Yd.	14
Slope Wall Crack Sealing	Foot	130
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	11
Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.	3
Slope Wall Repair	Sq. Yd.	40

LEGEND

-  Structural Repair of Concrete (Depth equal to or less than 5")
-  Structural Repair of Concrete (Depth Greater than 5")
-  Slope Wall Repair
-  Slope wall Crack Sealing

Notes:

- 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. Slope wall shall be reinforced with welded wire fabric, 6"x6" - W4.0xW4.0, weighing 58 lbs per 100 sq. ft.
- Areas shown for Structural Repair of Concrete are estimated. Actual area should be determined by the Engineer at the time of repair.

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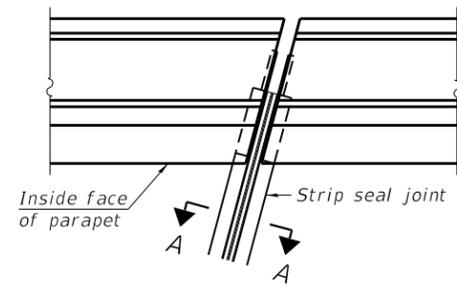
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS - II
STRUCTURE NO. 016-0978

SHEET 9E OF 11 SHEETS

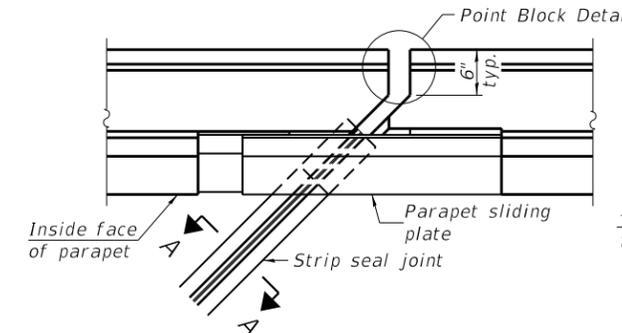
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	50E
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

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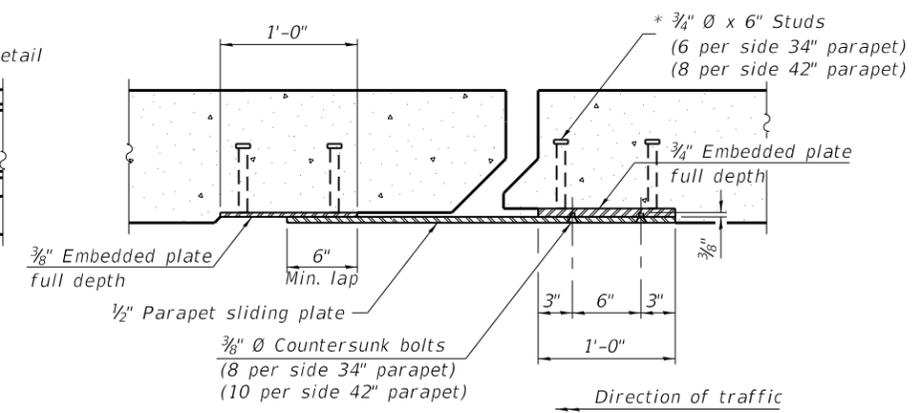


FOR SKEWS $\leq 30^\circ$

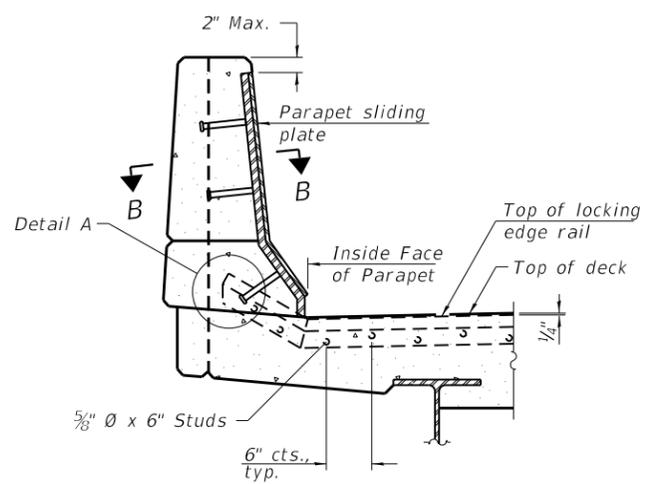
PLAN AT PARAPET



FOR SKEWS $> 30^\circ$

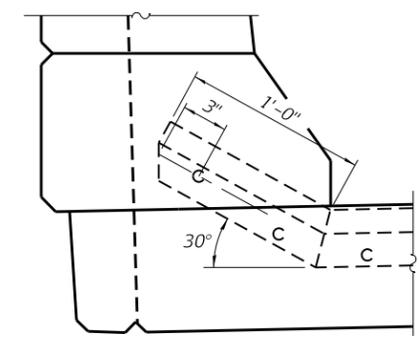


SECTION B-B

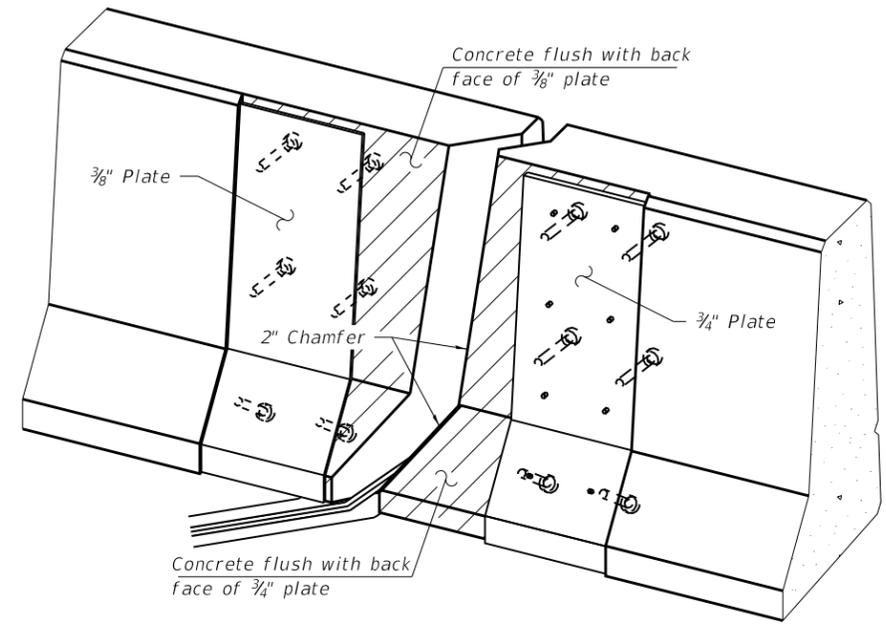


ELEVATION AT PARAPET

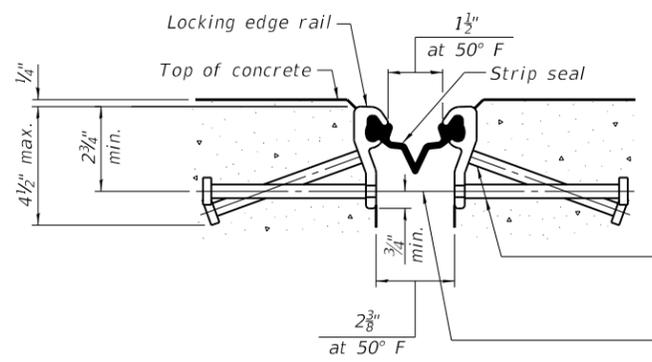
(Skews $> 30^\circ$ shown. Skews $\leq 30^\circ$ similar except as shown in plan view.)



DETAIL A



TRIMETRIC VIEW
 (Showing embedded plates only)

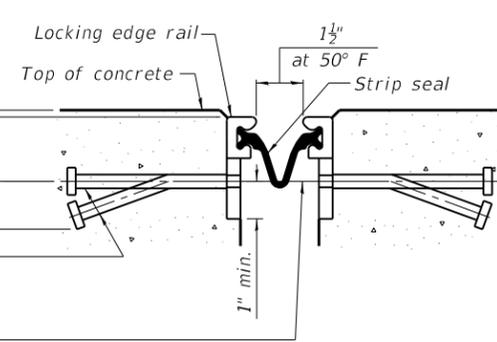


SHOWING ROLLED RAIL JOINT

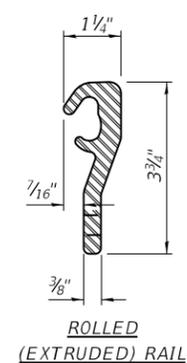
* $5/8"$ ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
 $3/8"$ ϕ threaded rods in $7/16"$ ϕ holes at $\pm 4"-0"$ cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with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

SECTION A-A

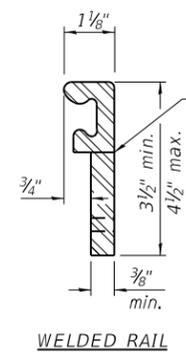
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



SHOWING WELDED RAIL JOINT



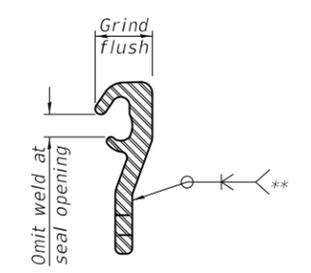
ROLLED (EXTRUDED) RAIL



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	149

EJ-SS

8-11-17



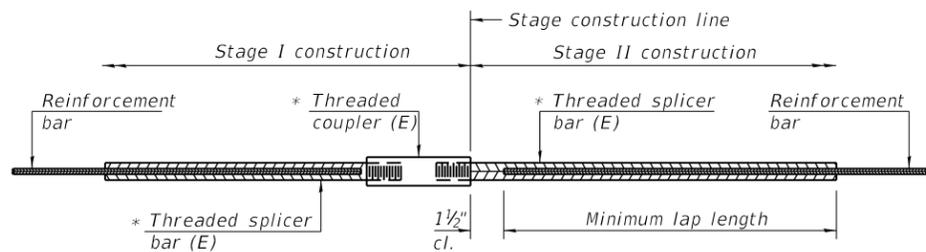
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 016-0978

SHEET 10 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	51
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

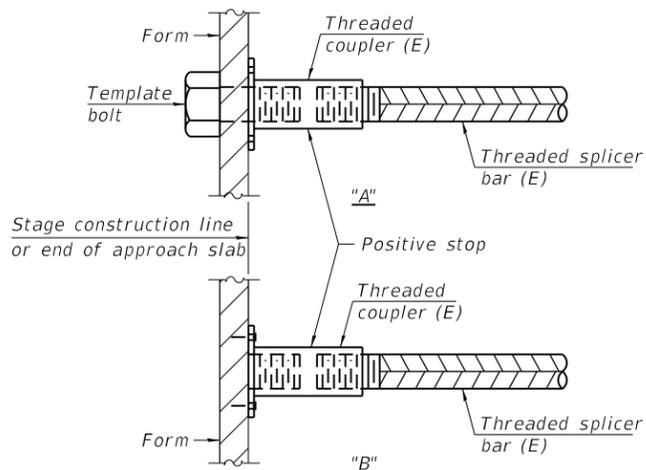


STANDARD BAR SPLICER ASSEMBLY

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

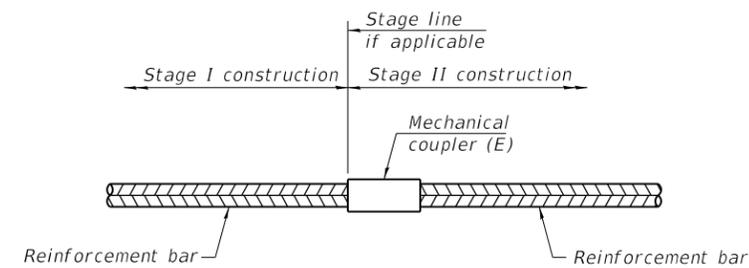
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
S. Approach Slab (Top Bars)	#5	46	3'-4"
S. Approach Slab (Bottom Bars)	#8	60	4'-9"
N. Approach Slab (Top Bars)	#5	46	3'-4"
N. Approach Slab (Bottom Bars)	#8	60	4'-9"
S. Abut. for a(E) bars (Top & Bott.)	#6	8	4'-10"
N. Abut. for a(E) bars (Top & Bott.)	#6	8	4'-10"
Hatch Block for h(E) Bars (S. Abut.)	#6	4	4'-10"
Hatch Block for h(E) Bars (N. Abut.)	#6	4	4'-10"
S. Appr. Footing (Top Bars)	#5	20	3'-0"
S. Appr. Footing (Bottom Bars)	#5	20	3'-0"
N. Appr. Footing (Top Bars)	#5	20	3'-0"
N. Appr. Footing (Bottom Bars)	#5	20	3'-0"
N. Abut. Backwall (Top & Bott.)	#5	8	3'-4"
S. Abut. Backwall (Top & Bott.)	#5	8	3'-4"



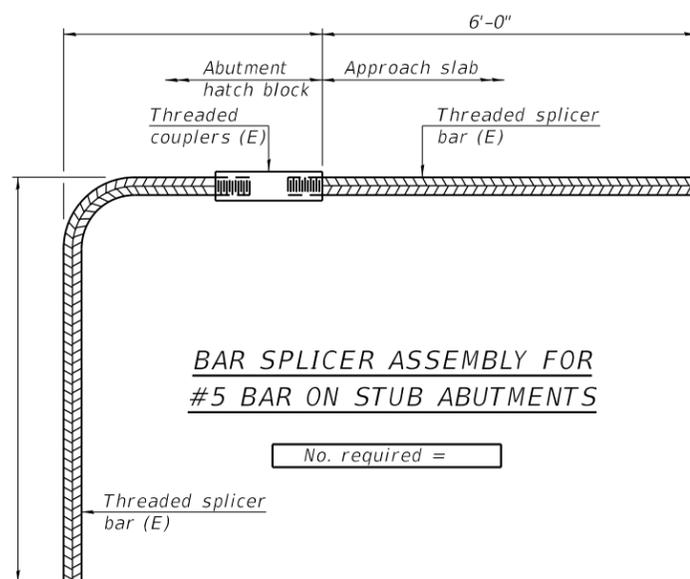
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with Threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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2-17-2017



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 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 016-0978

SHEET 11 OF 11 SHEETS

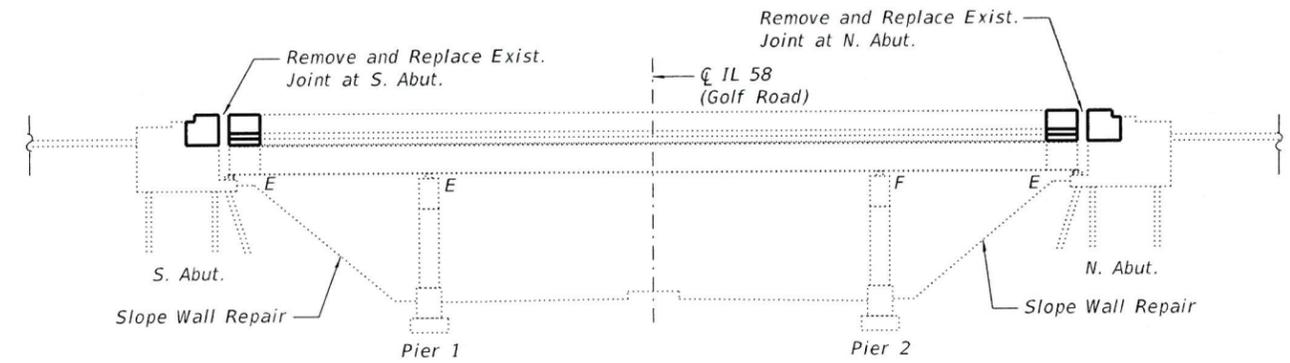
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	52
CONTRACT NO. 62G08				

ILLINOIS FED. AID PROJECT

Existing Structure: S.N. 016-0980 was built in 1970 as a three span structure consisting of 56" web welded plate girder spans carrying F.A.I. Route 290 over Golf Road / IL Rte. 58. Length of the bridge is 227'-4 1/2" End to End Deck. Out to Out width of the bridge is 234'-0".

Traffic will be maintained utilizing staged construction.

No Salvage.



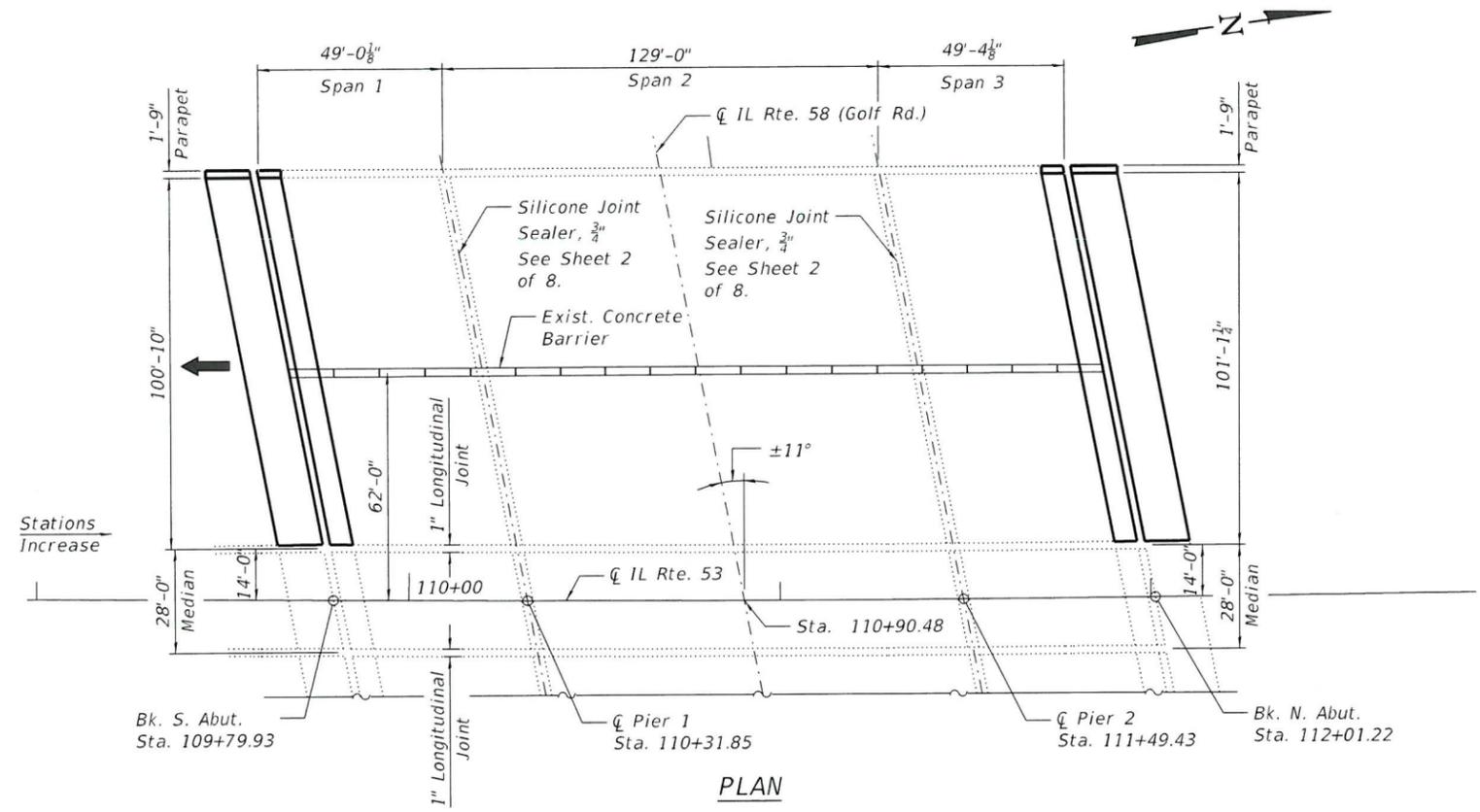
ELEVATION

SCOPE OF WORK

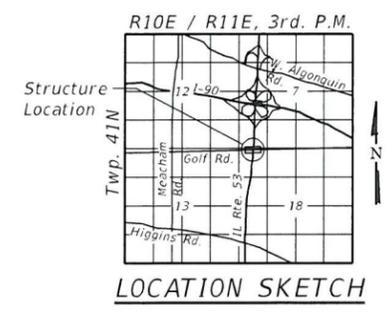
1. Remove and reconstruct existing expansion joints at both the abutments to Preformed Strip Seal Joint.
2. Reconstruct 5'-0" Approach Slab at both North and South Approach Slab.
3. Perform Polymer Concrete Repairs as needed at the hinge joint at both the piers.
4. Clean and Seal the joints at both the piers using Silicone Joint Sealer.
5. Perform Slope Wall repair at North and South Slope Wall.

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications, 17th Edition

LOADING HS 20-44
No future wearing surface allowed



PLAN



DATE SIGNED: 05/10/2018
EXP. DATE: 11/30/2018

GENERAL PLAN AND ELEVATION
IL RTE. 53 OVER
IL RTE. 58 (GOLF RD.)
SECTION 2017-065BR
COOK COUNTY
STA. 110+90.48
STRUCTURE NO. 016-0980

MODEL: Default
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	53
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

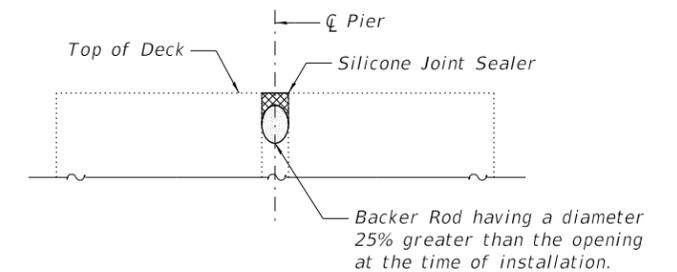
1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not 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.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.
4. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
5. Existing reinforcement extended 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.
6. Joint openings shall be adjusted according to Article 520.04 of the Standard Specification when the deck is poured at an ambient temperature other than 50° F.
7. No field welding is permitted except as specified in the contract documents.
8. Protective Coat shall be applied to the new concrete for approach slab, deck, front face and top face of the parapets.
9. The deck surface shall have its final finish tined according to Article 420.09 (e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.
10. Quantity shown for Polymer Concrete Repair is estimated. The Contractor shall verify the locations and the areas before ordering the material and The Engineer shall show actual locations of the repairs on as-built plans.

INDEX OF SHEETS

1. General Plan and Elevation
2. General Notes, Index of Sheets and Bill of Materials
3. Construction Staging Details
4. Temporary Concrete Barrier for Stage Construction
5. Expansion Joint Details - I
6. Expansion Joint Details - II
7. Preformed Joint Strip Seal
8. Bar Splicer Assembly and Mechanical Splicer Details
- 8A. Slope Wall Repair

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	89.7		89.7
Concrete Superstructure	Cu. Yd.	89.7		89.7
Protective Coat	Sq. Yd.	167		167
Reinforcement Bars, Epoxy Coated	Pound	11,530		11,530
Bar Splicers	Each	136		136
Preformed Joint Strip Seal	Foot	210		210
Controlled Low-Strength Material	Cu. Yd.		18	18
Silicone Joint Sealer, 3/4"	Foot	478		478
Polymer Concrete	Cu. Ft.	4.6		4.6
Slope Wall Repair	Sq. Yd.		54	54



SILICONE JOINT SEALER DETAIL

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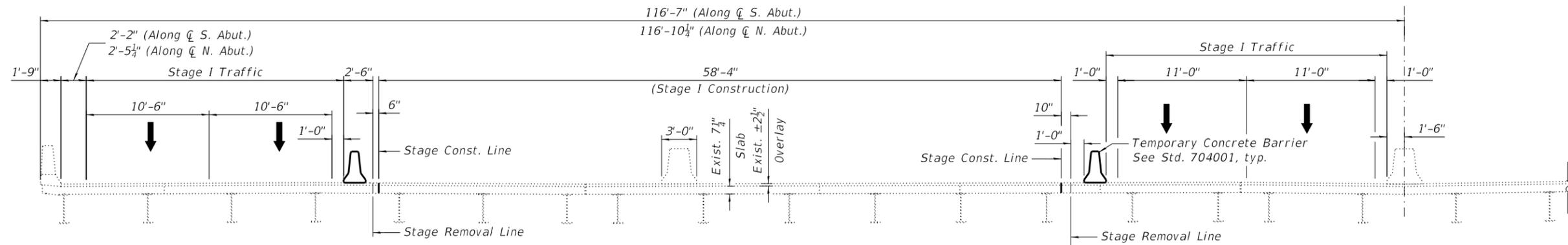
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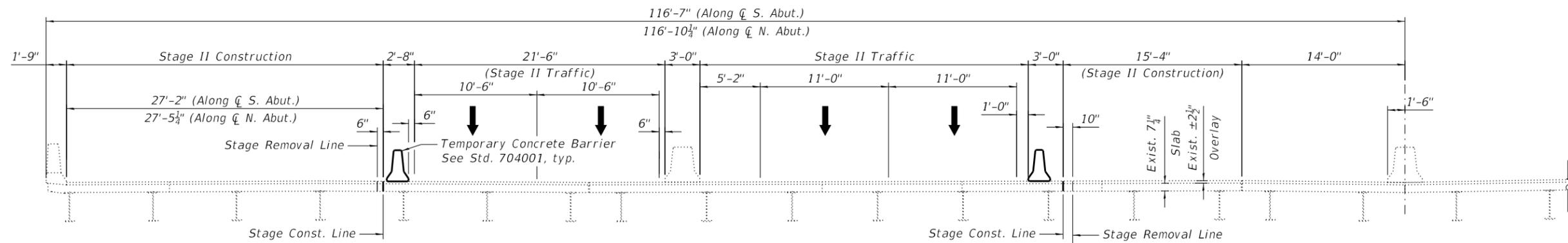
**GENERAL NOTES, INDEX OF SHEETS AND BILL OF MATERIALS
STRUCTURE NO. 016-0980**

SHEET 2 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	54
CONTRACT NO. 62G08				
		ILLINOIS	FED. AID PROJECT	



STAGE I CONSTRUCTION
(Looking North)
(At Rt L's to \bar{C} IL Rte. 53 unless noted)



STAGE II CONSTRUCTION
(Looking North)
(At Rt L's to \bar{C} IL Rte. 53 unless noted)

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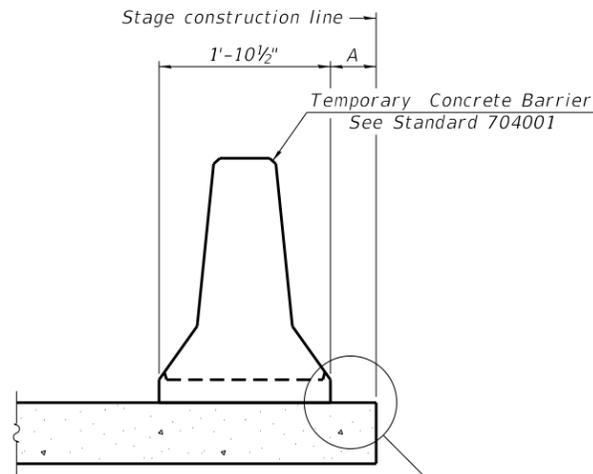
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CONSTRUCTION STAGING DETAILS
STRUCTURE NO. 016-0980

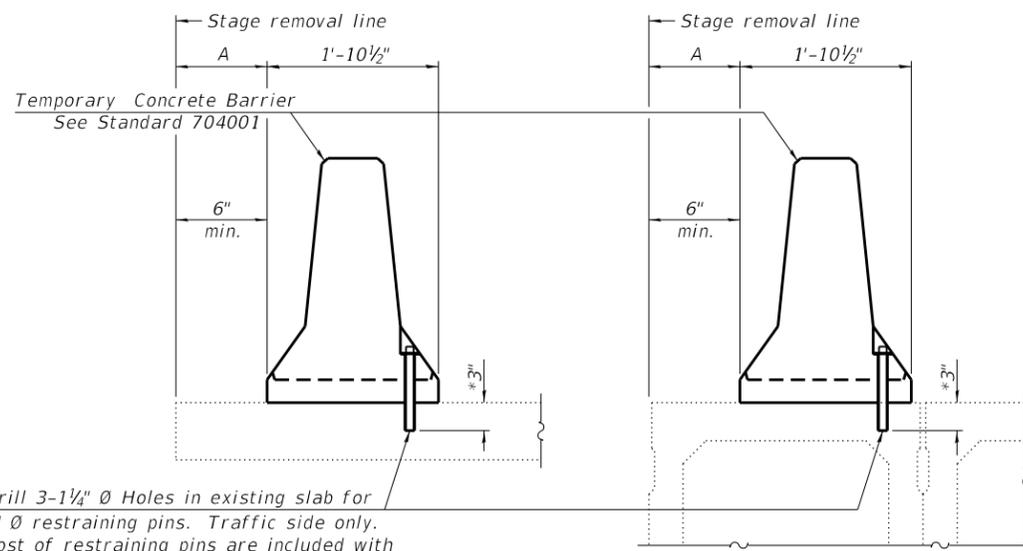
SHEET 3 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	55
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

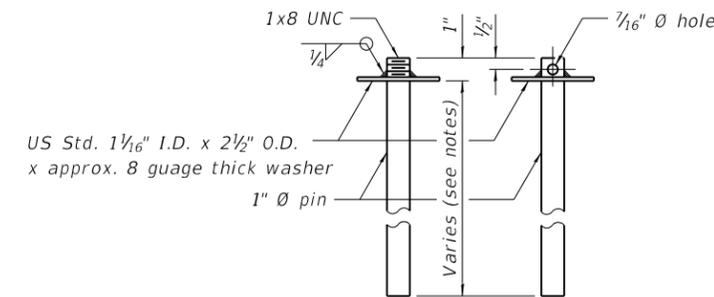


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

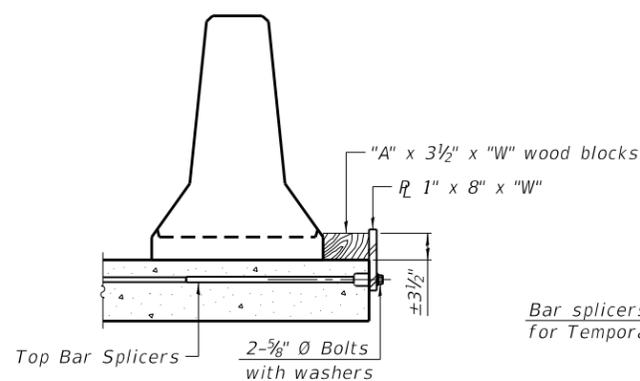
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

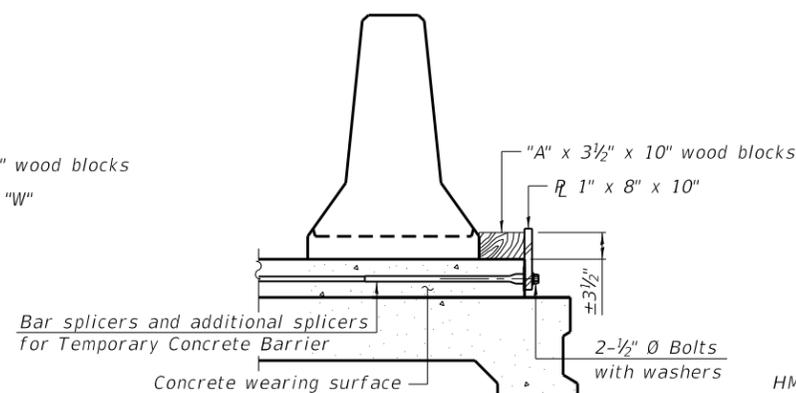


RESTRAINING PIN

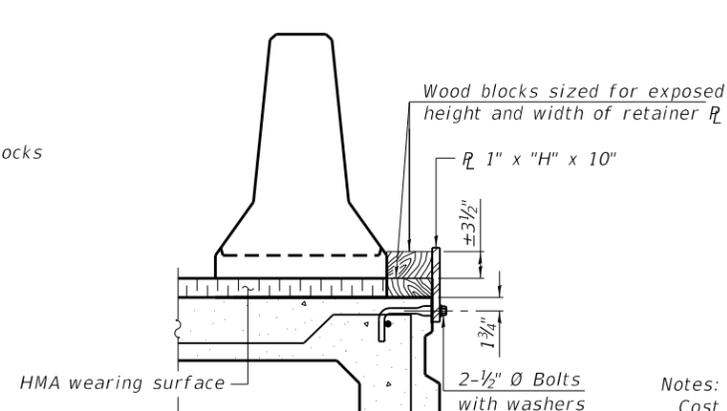
SECTIONS THRU SLAB OR DECK BEAM



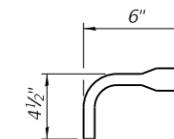
DETAIL I



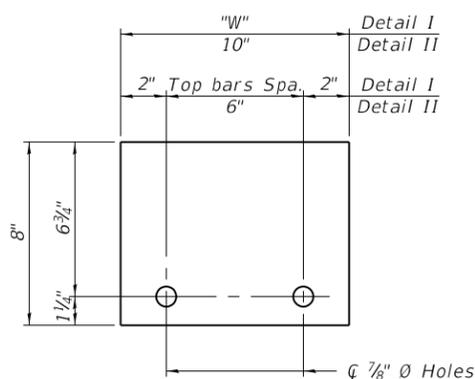
DETAIL II



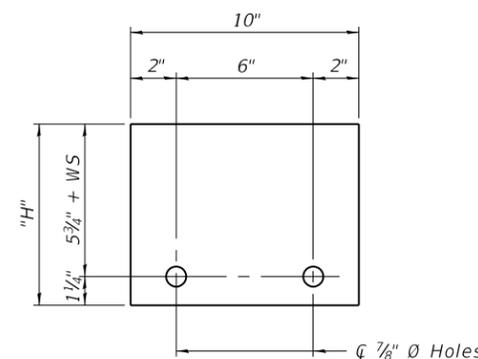
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER R 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER R 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate \bar{C} of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.
 Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
 Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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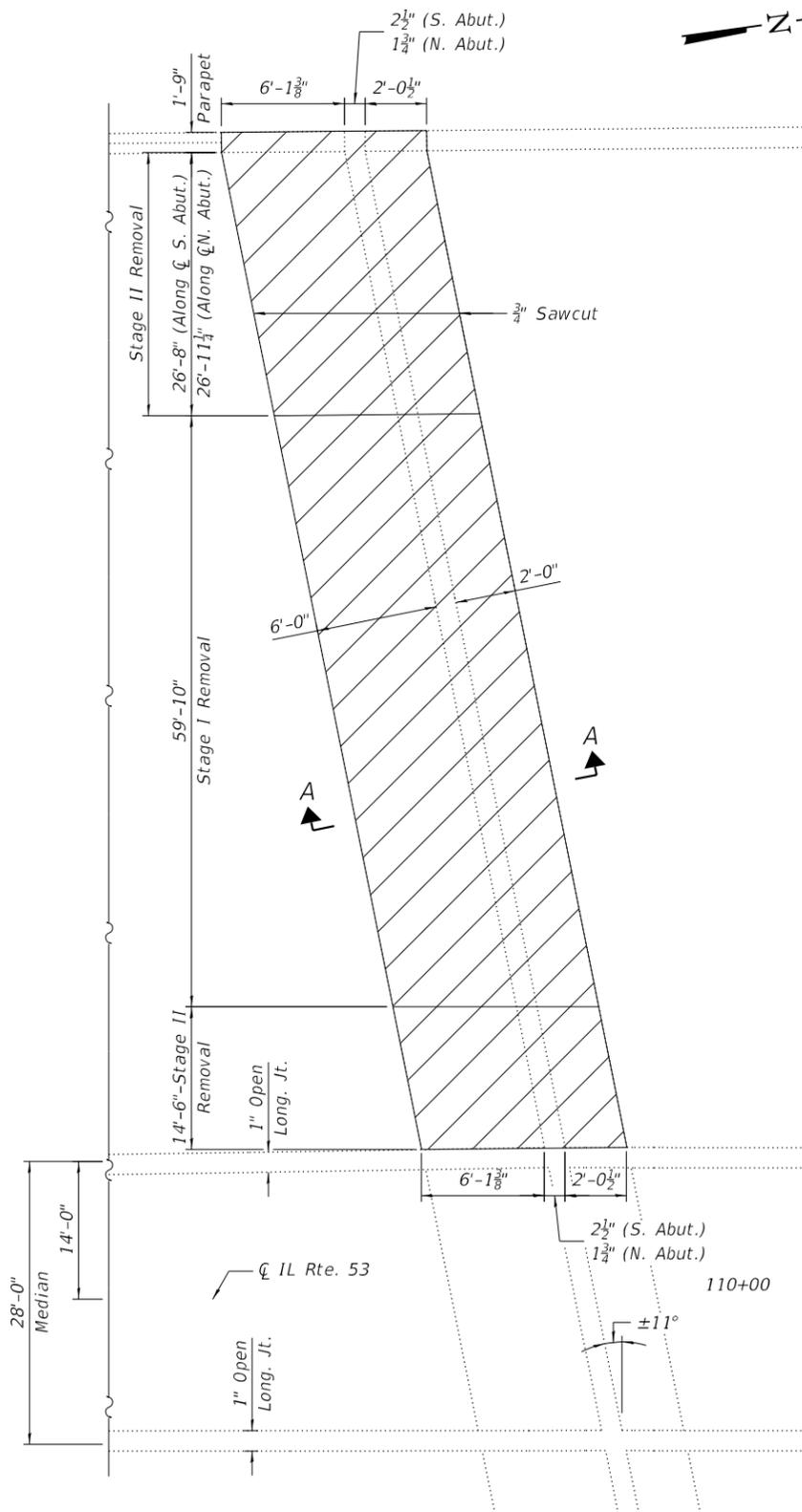
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
 STRUCTURE NO. 016-0980

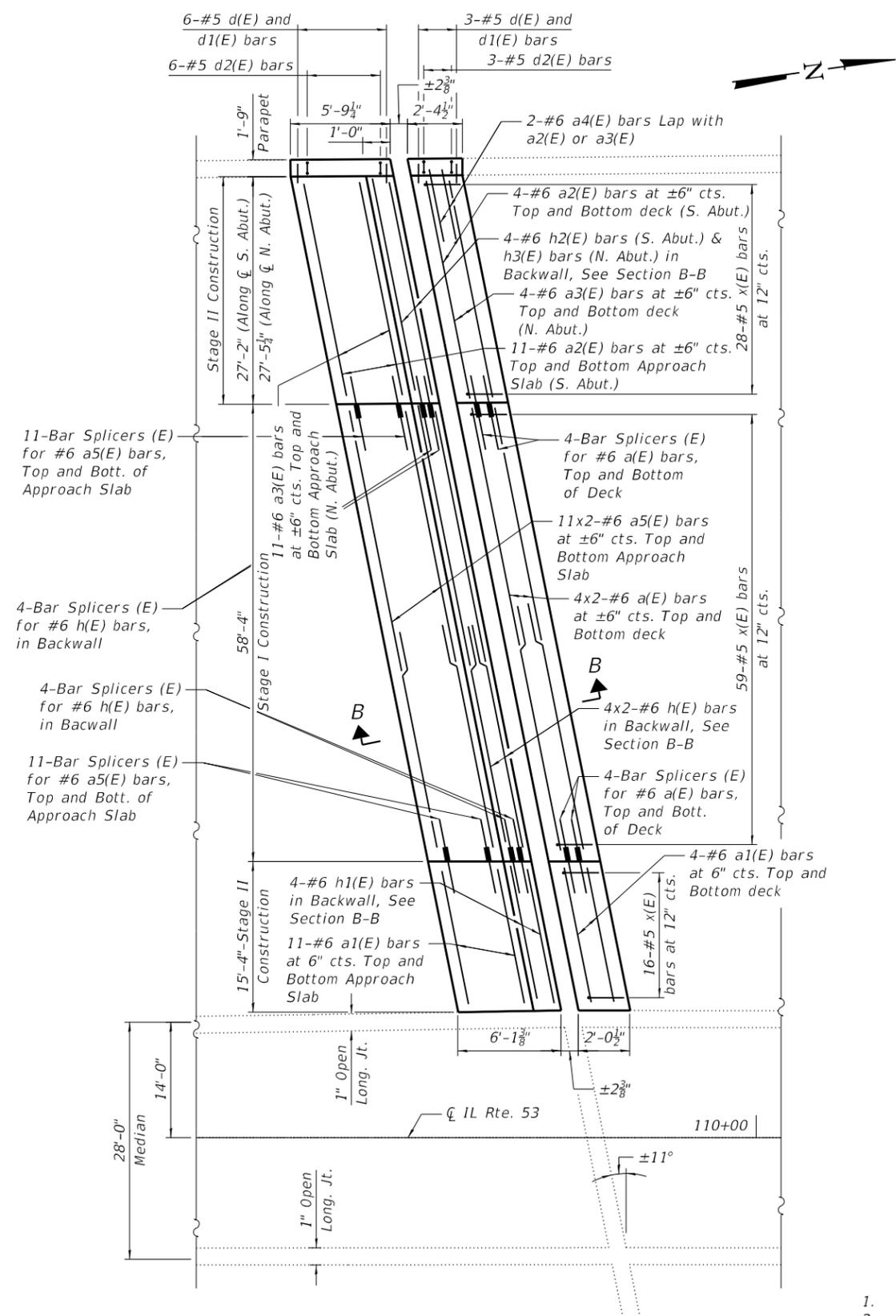
SHEET 4 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	56
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

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ABUTMENT JOINT REMOVAL PLAN



ABUTMENT JOINT REPLACEMENT PLAN

MIN. BAR LAP
 #6 bar = 4'-0" BackWall/Approach Slab
 #6 bar = 4'-10" Deck

- NOTES:**
1. North Abutment Shown, South Abutment similar.
 2. Horizontal bars in approach parapets shall be cleaned, straightened, and reused in new construction.
 3. Hatched areas indicate Concrete Removal.



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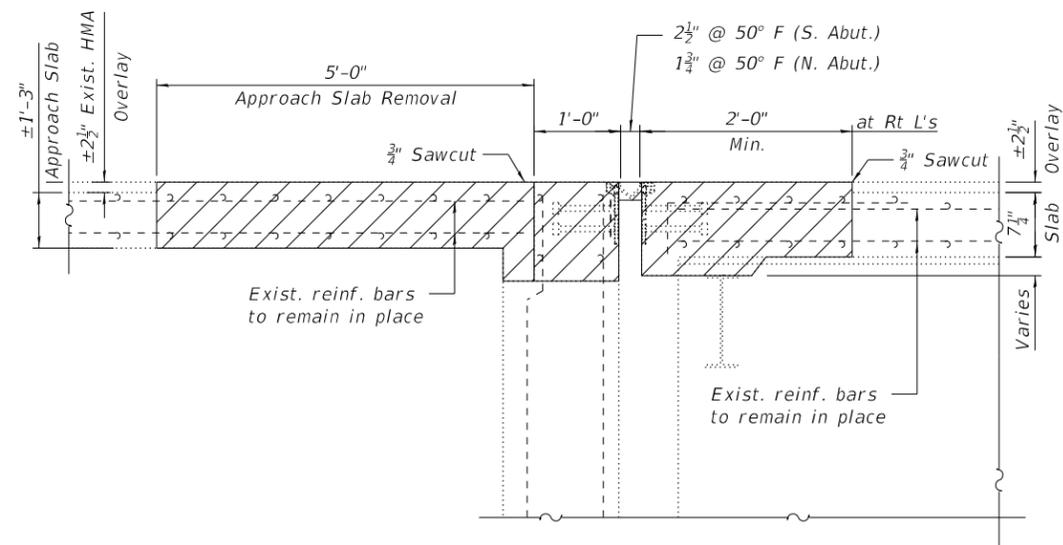
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT DETAILS - I
 STRUCTURE NO. 016-0980**

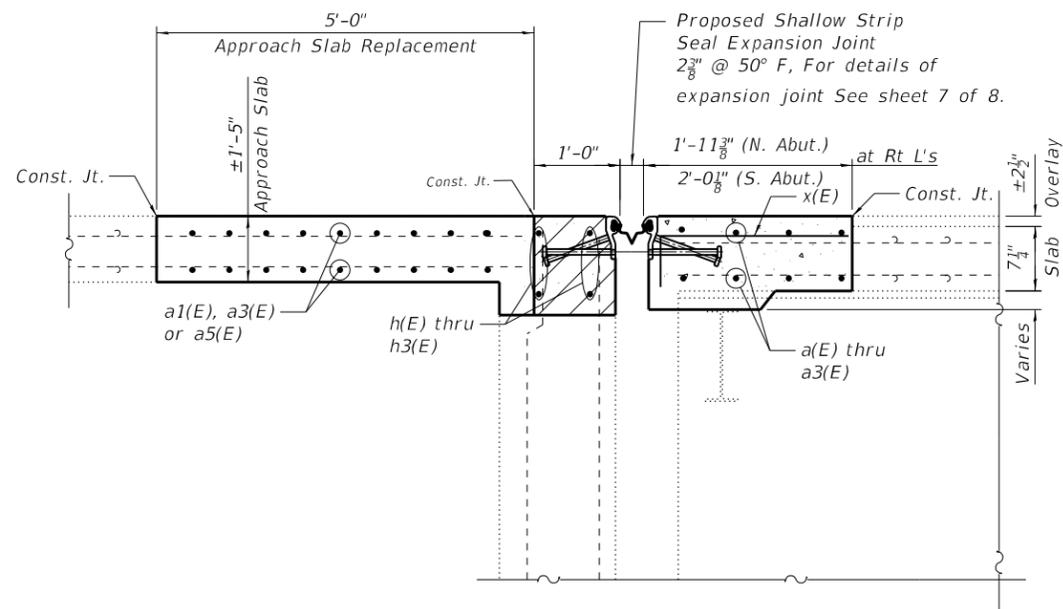
SHEET 5 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	57
CONTRACT NO. 62G08				

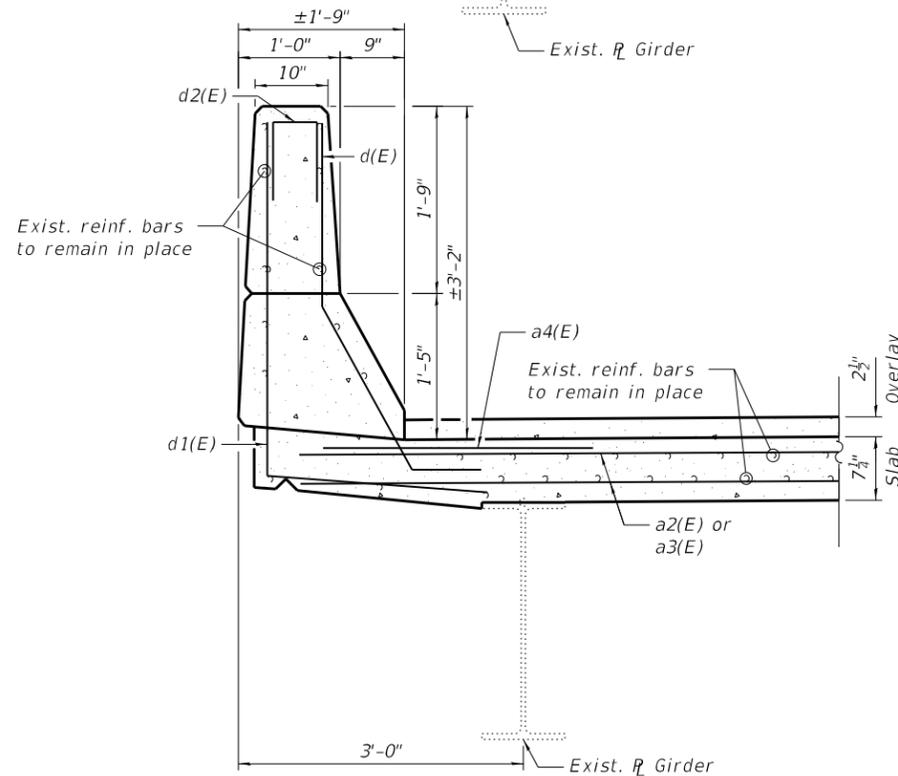
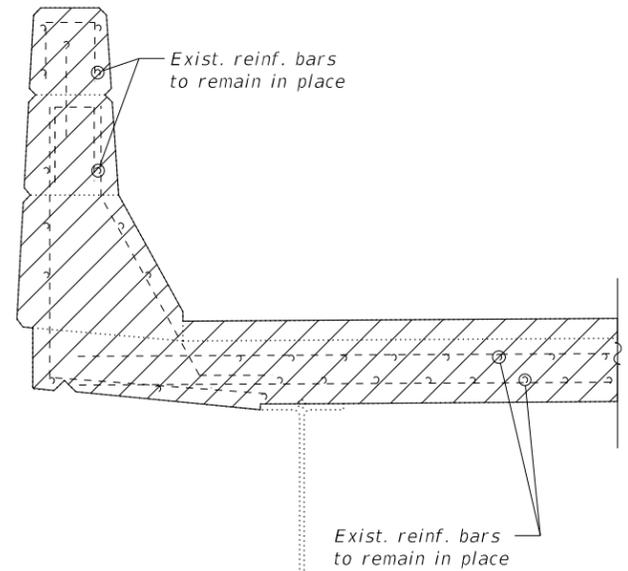
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SECTION A-A



SECTION B-B



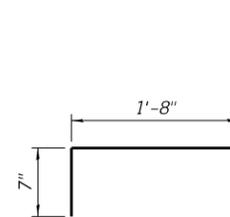
SECTION THRU PARAPET

NOTES:

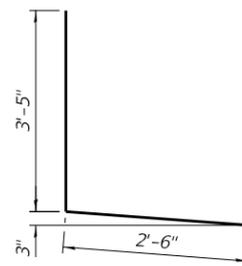
1. Hatched areas indicate Concrete Removal.
2. Existing reinforcement to remain in place shall be cleaned, straightened and reused. Cost included with Concrete Removal.
3. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
4. Removal of exist. expansion joint will not be paid for separately. Cost included with Concrete Removal.
5. See Sheet 8 of 8 for Bar Splicers Details.
6. Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

**BILL OF MATERIAL
BOTH ABUTMENTS**

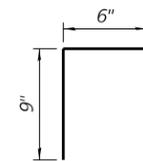
Bar	No.	Size	Length	Shape
a(E)	32	#6	31'-11"	—
a1(E)	60	#6	15'-3"	—
a2(E)	30	#6	26'-10"	—
a3(E)	30	#6	27'-1"	—
a4(E)	4	#6	4'-0"	—
a5(E)	88	#6	31'-7"	—
d(E)	18	#5	4'-10"	┌
d1(E)	18	#5	5'-11"	┌
d2(E)	18	#5	2'-0"	┌
h(E)	16	#6	31'-7"	—
h1(E)	8	#6	15'-3"	—
h2(E)	4	#6	26'-10"	—
h3(E)	4	#6	27'-1"	—
x(E)	206	#5	2'-3"	┌
Concrete Removal			Cu. Yd.	89.7
Reinforcement Bars, Epoxy Coated			Pound	11,530
Concrete Superstructure			Cu. Yd.	89.7



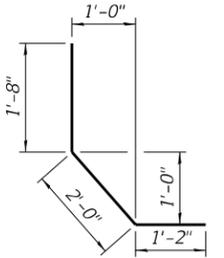
BAR x(E)



BAR d1(E)



BAR d2(E)



BAR d(E)

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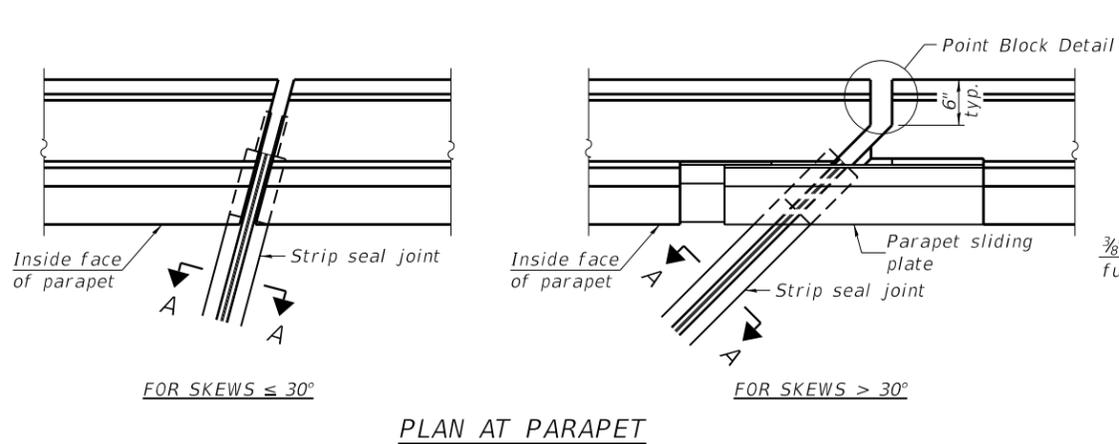
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT DETAILS - II
STRUCTURE NO. 016-0980

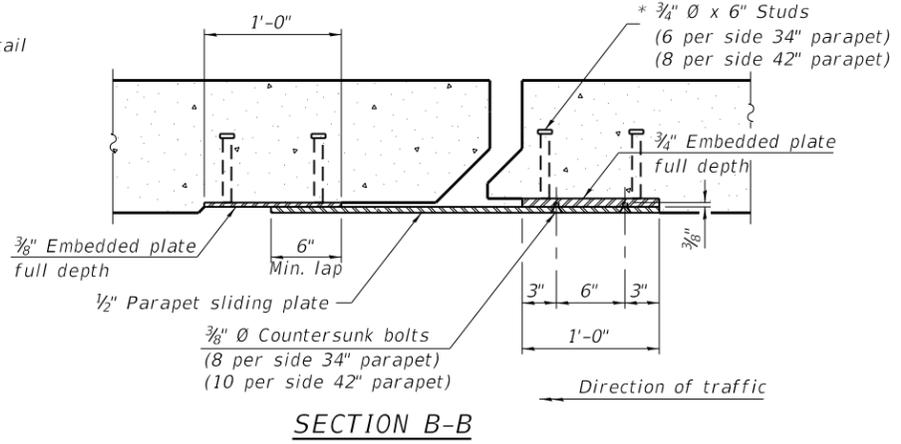
SHEET 6 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	58
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

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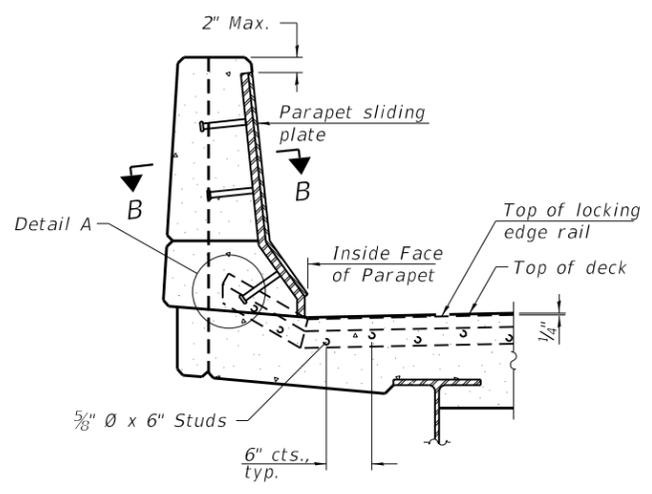


PLAN AT PARAPET



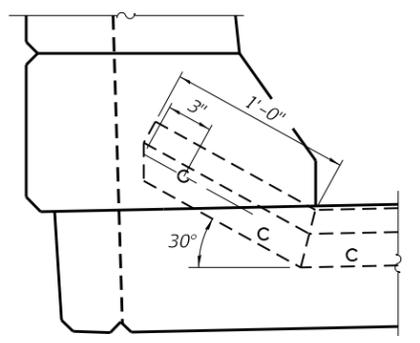
SECTION B-B

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.

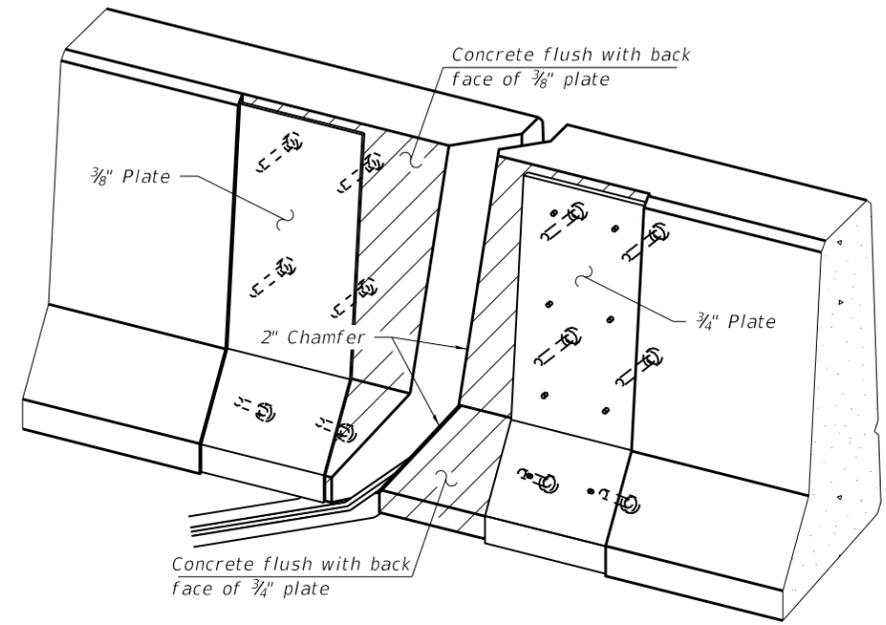


ELEVATION AT PARAPET

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

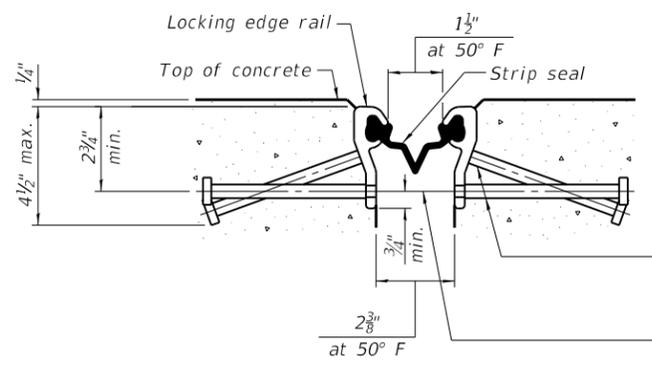


DETAIL A



TRIMETRIC VIEW
 (Showing embedded plates only)

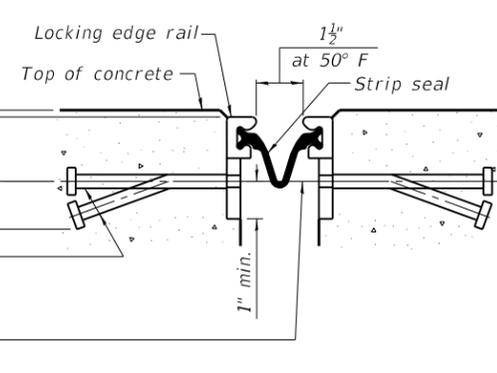
Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.
 34" F-shape barrier shown, 42" F-shape similar as noted.
 The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths 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.



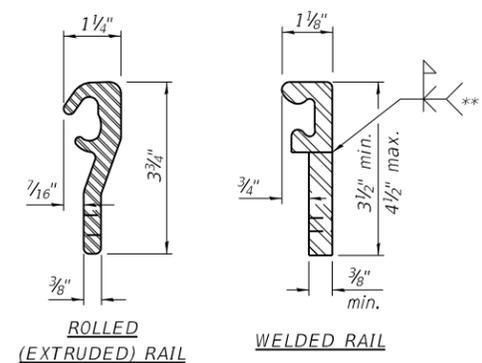
SHOWING ROLLED RAIL JOINT

* 3/8" 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.

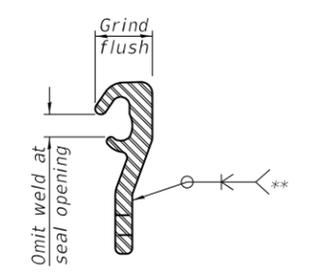


SHOWING WELDED RAIL JOINT



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	210

EJ-SS

8-11-17



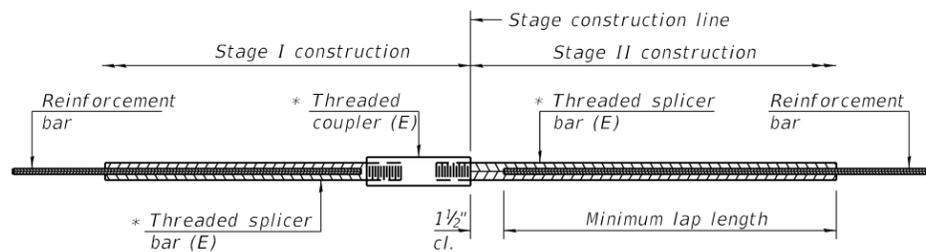
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PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 016-0980

SHEET 7 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	59
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

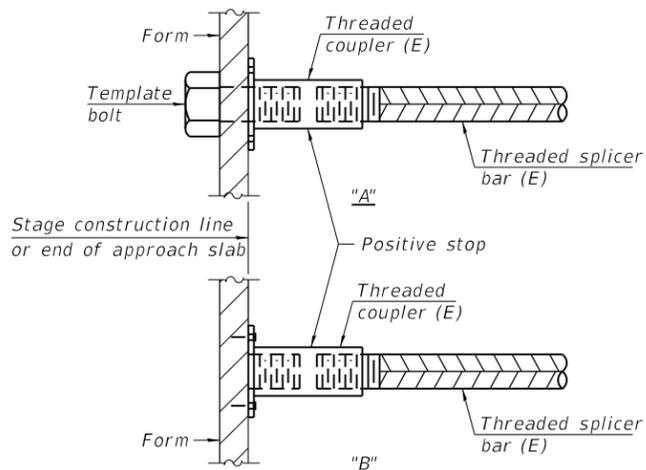


STANDARD BAR SPLICER ASSEMBLY

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

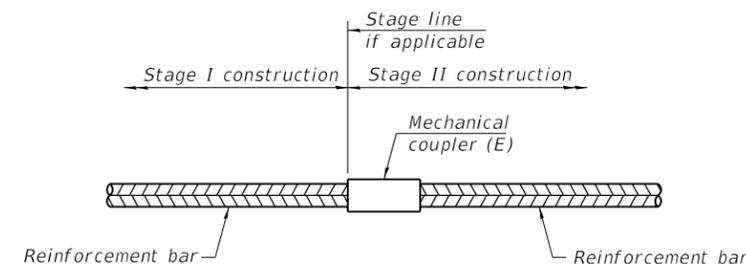
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#6	32	4'-10"
Backwall/Approach Slab	#6	88	4'-0"



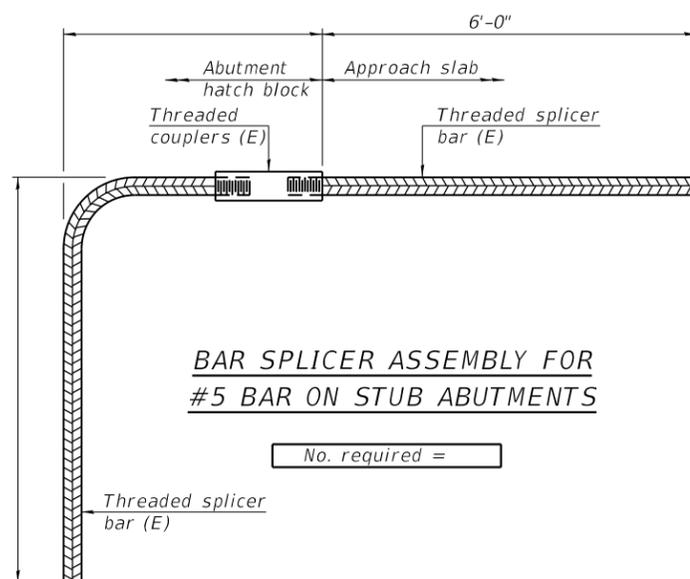
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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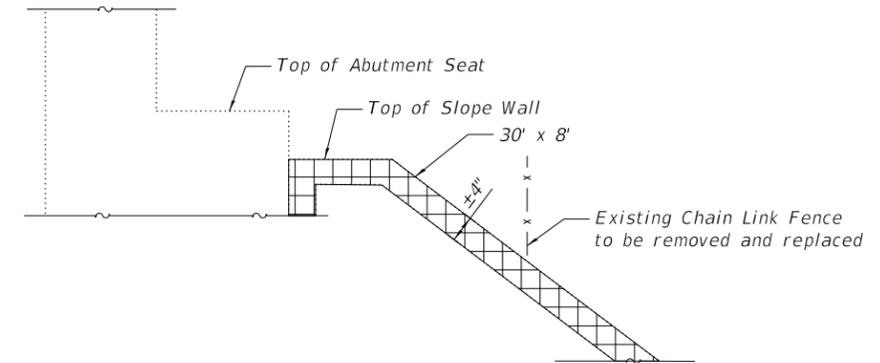
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 016-0980

SHEET 8 OF 8 SHEETS

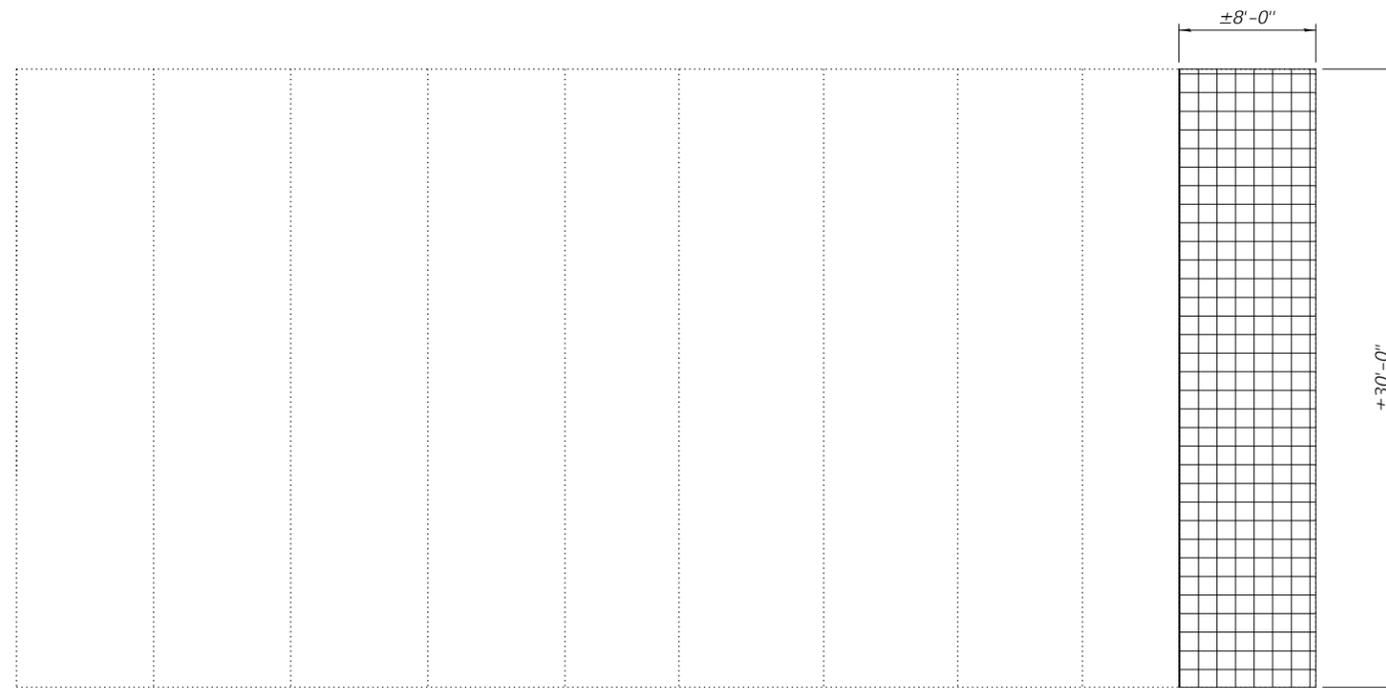
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	60
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



NORTH ABUTMENT - SLOPE WALL REPAIR



SECTION THRU SLOPE WALL



SOUTH ABUTMENT - SLOPE WALL REPAIR

- Notes:
1. 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. Slope wall shall be reinforced with welded wire fabric, 6"x6" - W4.0xW4.0, weighing 58 lbs per 100 sq. ft.
 2. Areas shown for Structural Repair of Concrete are estimated. Actual area should be determined by the Engineer at the time of repair.
 3. Existing Chain Link Fence shall be removed and replaced in order to perform Slope Wall Repair. Cost Included with the cost of Slope Wall Repair.

LEGEND



NORTH AND SOUTH ABUTMENT - SLOPE WALL REPAIR
BILL OF MATERIAL

Item	Unit	Quantity
Controlled Low-Strength Material	Cu. Yd.	18
Slope Wall Repair	Sq. Yd.	54

MODEL: Default
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DEPARTMENT OF TRANSPORTATION

SLOPE WALL REPAIR
STRUCTURE NO. 016-0980

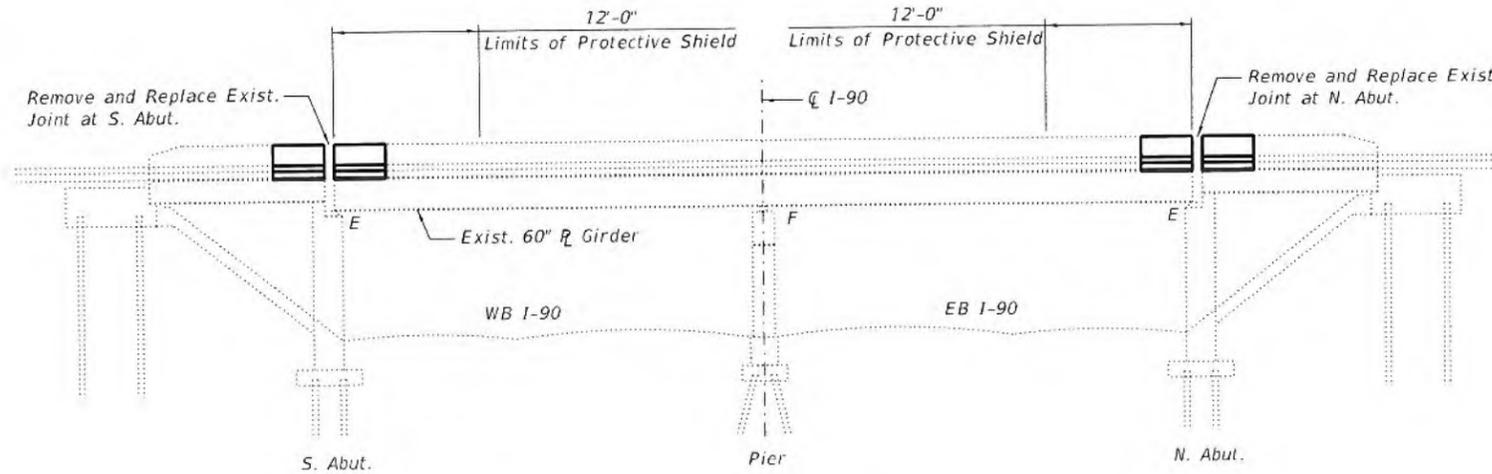
SHEET 8A OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	60A
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

Existing Structure: S.N. 016-0977 was built in 1970 as a four span structure consisting of two 60" web welded plate girder spans and two P.P.C. concrete Beam approach spans carrying F.A.I. Route 290 over the Northwest Highway/I-90. Length of the bridge is 257'-9 $\frac{1}{4}$ " End to End Deck and 49'-5" North and South Approach Span. Out to Out width of the bridge is 256'-0 $\frac{1}{4}$ " at S. Abutment and 256'-2 $\frac{3}{8}$ " at N. Abutment.

Traffic will be maintained utilizing staged construction.

No Salvage.



ELEVATION

SCOPE OF WORK

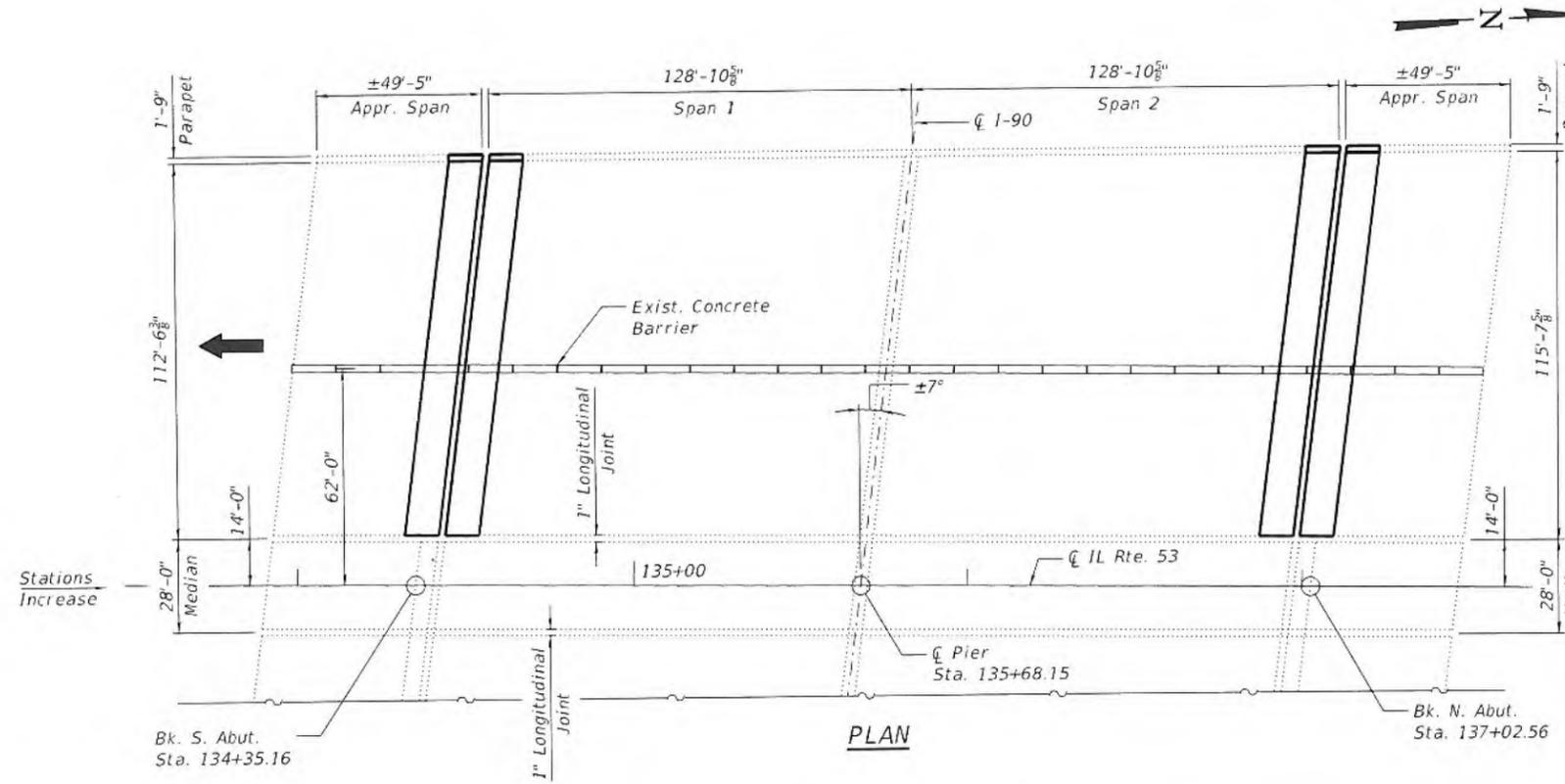
1. Remove and reconstruct existing expansion joints at both the abutments to Preformed Strip Seal Joint.
2. Perform Epoxy Crack Injection and Structural Repair of Concrete at Both the Abutments.

DESIGN SPECIFICATIONS

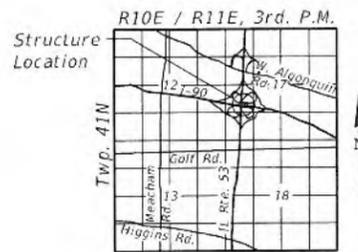
2002 AASHTO Standard Specifications, 17th Edition

LOADING HS 20-44

No future wearing surface allowed



PLAN



LOCATION SKETCH



DATE SIGNED: 04/23/18
EXP. DATE: 11/30/18

GENERAL PLAN AND ELEVATION
IL RTE. 53 OVER I-90
SECTION 2017-065BR
COOK COUNTY
STA. 135+68.15
STRUCTURE NO. 016-0977

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	61
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify 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.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.
4. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
5. Existing reinforcement extended 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.
6. Joint openings shall be adjusted according to Article 520.04 of the Standard Specification when the deck is poured at an ambient temperature other than 50° F.
7. No field welding is permitted except as specified in the contract documents.
8. Protective Coat shall be applied to the new concrete for approach slab, deck, front face and top face of the parapets.
9. The deck surface shall have its final finish tined according to Article 420.09 (e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.
10. The Contractor will be required to contact the Illinois Tollway Roadway Electric Manager prior to the start of work to schedule a joint inspection of the existing underpass lighting system. 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 contract. If the contractor does not arrange for the performance of an inspection prior to the start of work, Illinois Tollway lighting facilities shall be restored to a "like new" condition up completion of the associated bridge work.

INDEX OF SHEETS

1. General Plan and Elevation
2. General Notes, Index of Sheets and Bill of Materials
3. Construction Staging Details
4. Temporary Concrete Barrier for Stage Construction
5. Expansion Joint Details - I
6. Expansion Joint Details - II
7. Preformed Joint Strip Seal
8. Abutment Repair
8. Bar Splicer Assembly and Mechanical Splicer Details

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	21.8		21.8
Protective Shield	Sq. Yd.	328		328
Concrete Superstructure	Cu. Yd.	21.8		21.8
Protective Coat	Sq. Yd.	106		106
Reinforcement Bars, Epoxy Coated	Pound	4190		4190
Bar Splicers	Each	60		60
Preformed Joint Strip Seal	Foot	233		233
Epoxy Crack Injection	Foot		23	23
Structural Repair of Concrete (Depth Equal to or less than 5")	Sq. Ft.		143	143
Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.		17	17

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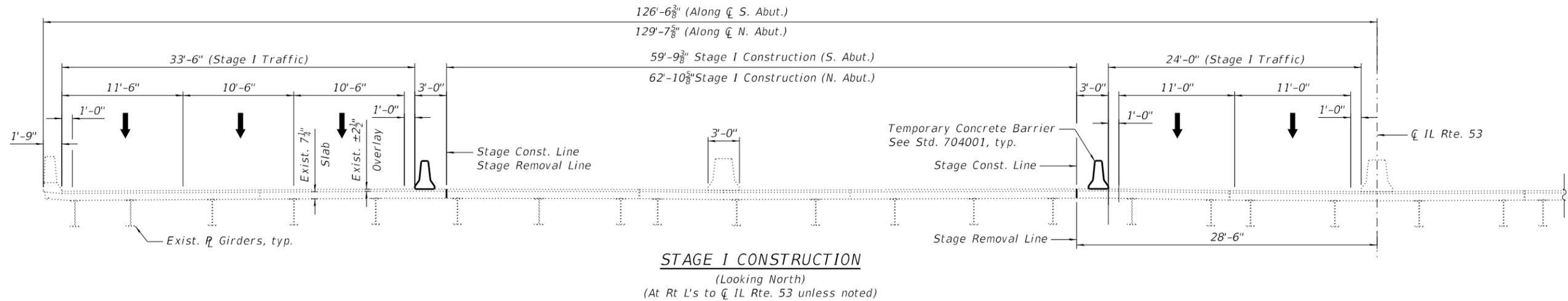


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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

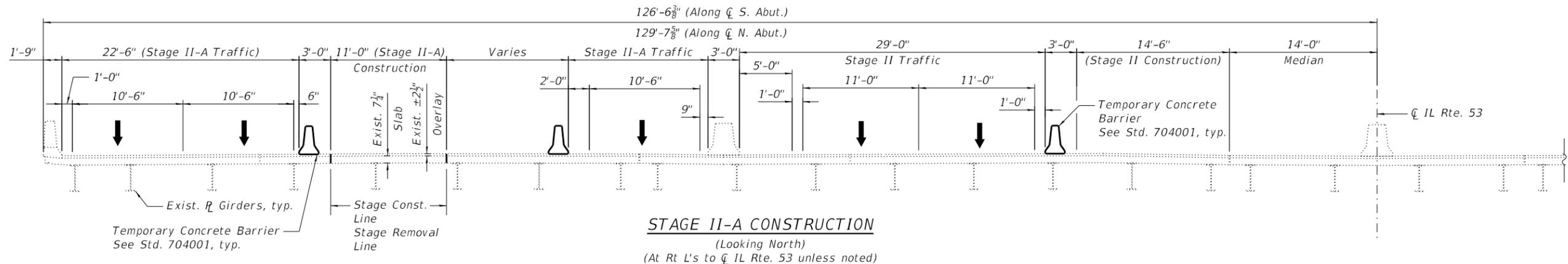
**GENERAL NOTES, INDEX OF SHEETS AND BILL OF MATERIAL
STRUCTURE NO. 016-0977**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	62
CONTRACT NO. 62G08				
		ILLINOIS	FED. AID PROJECT	



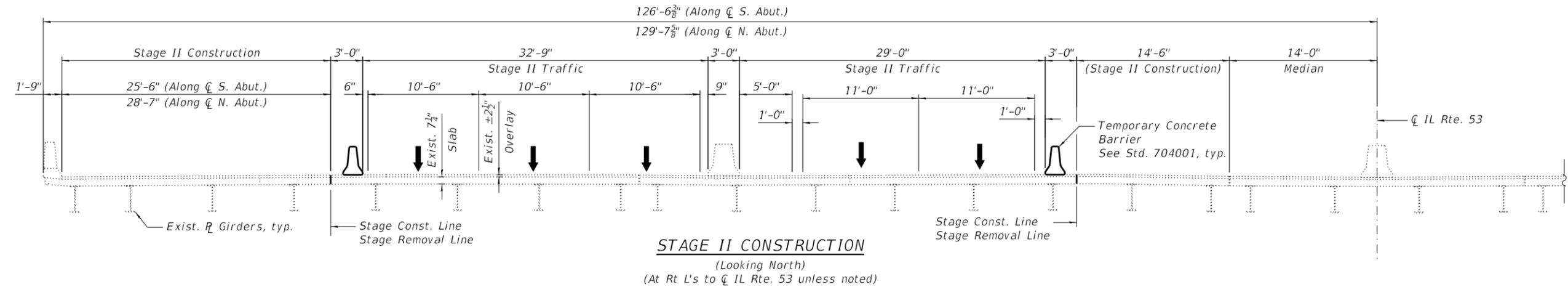
STAGE I CONSTRUCTION

(Looking North)
(At Rt L's to CL IL Rte. 53 unless noted)



STAGE II-A CONSTRUCTION

(Looking North)
(At Rt L's to CL IL Rte. 53 unless noted)



STAGE II CONSTRUCTION

(Looking North)
(At Rt L's to CL IL Rte. 53 unless noted)

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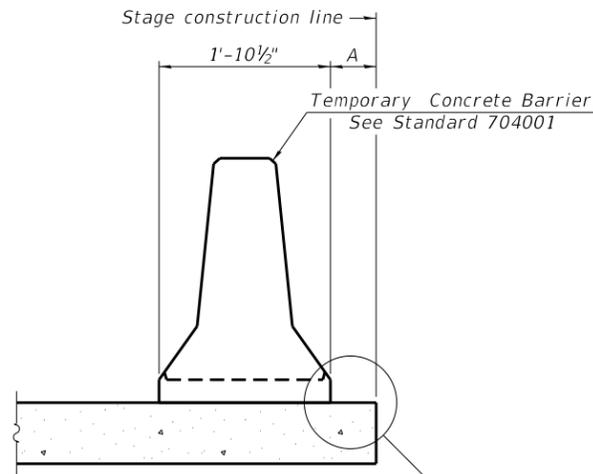
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING DETAILS
STRUCTURE NO. 016-0977**

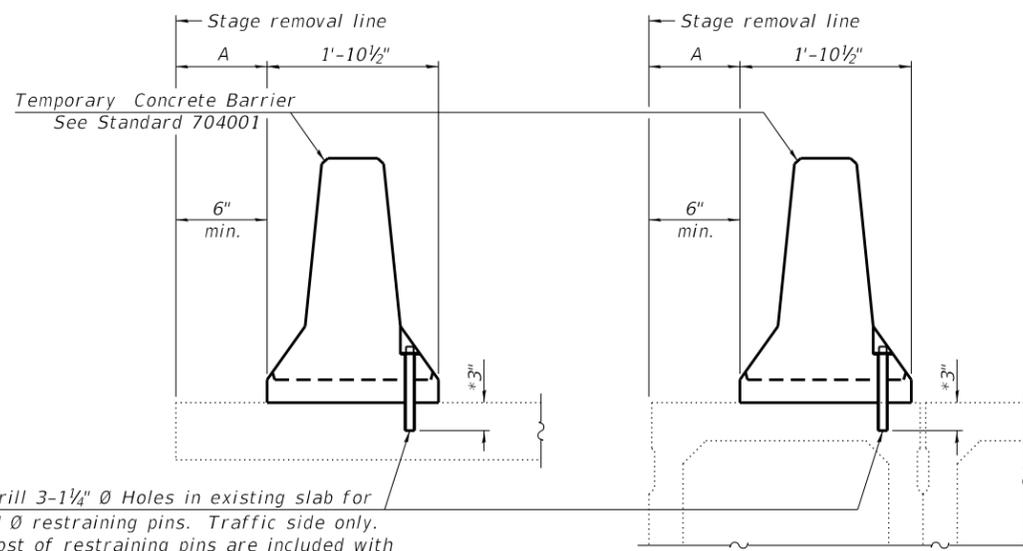
SHEET 3 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	63
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

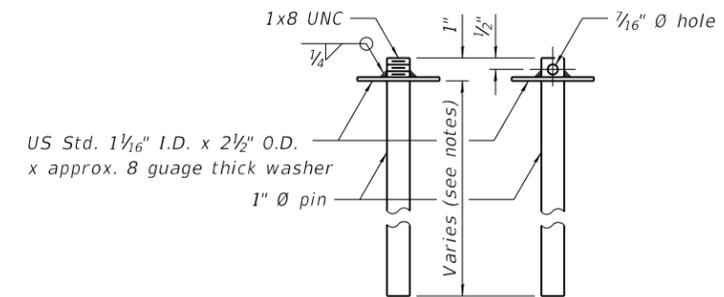


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

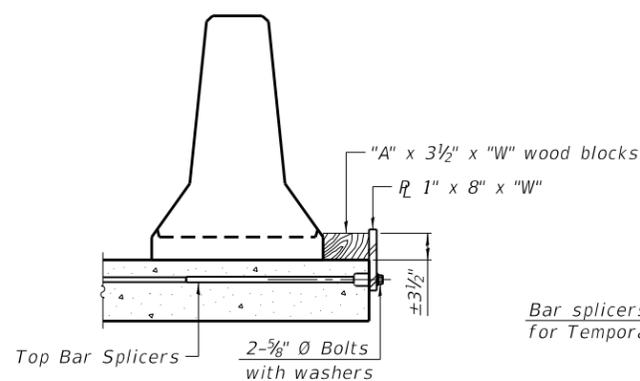
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

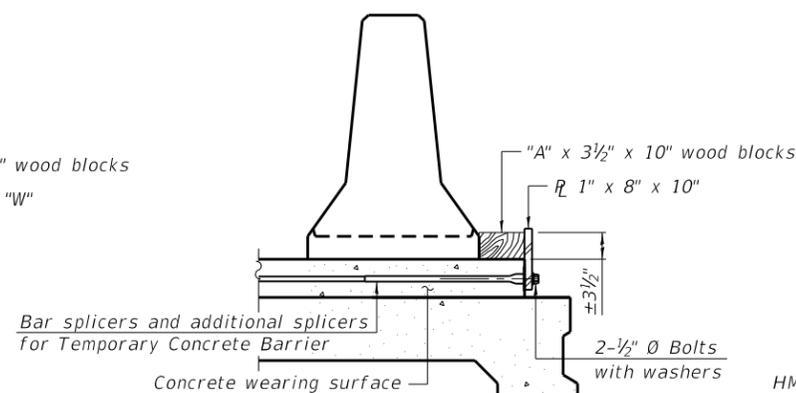


RESTRAINING PIN

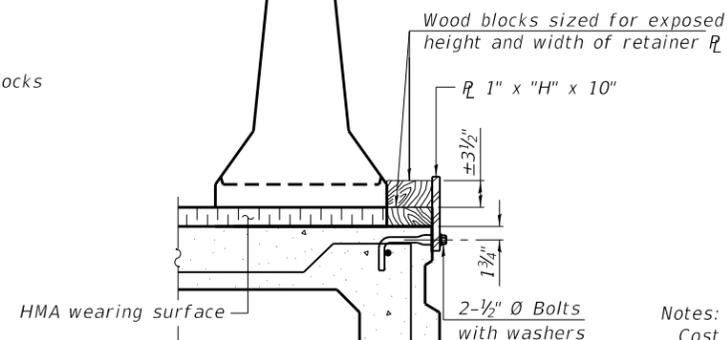
SECTIONS THRU SLAB OR DECK BEAM



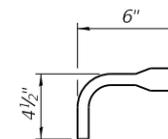
DETAIL I



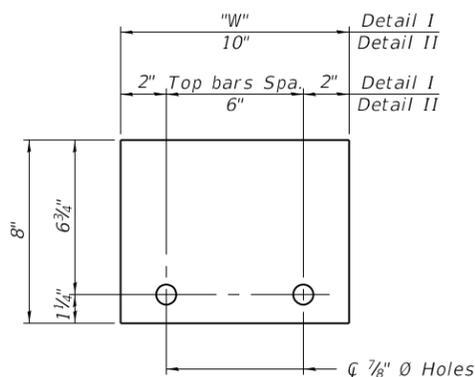
DETAIL II



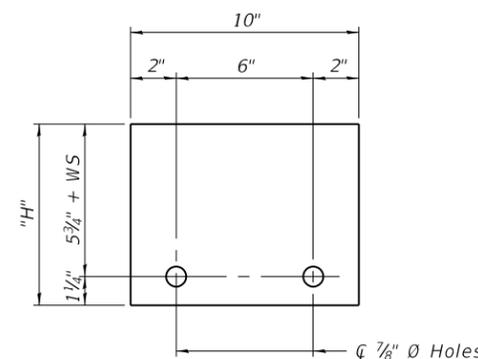
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER R 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER R 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate \bar{C} of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.
 Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
 Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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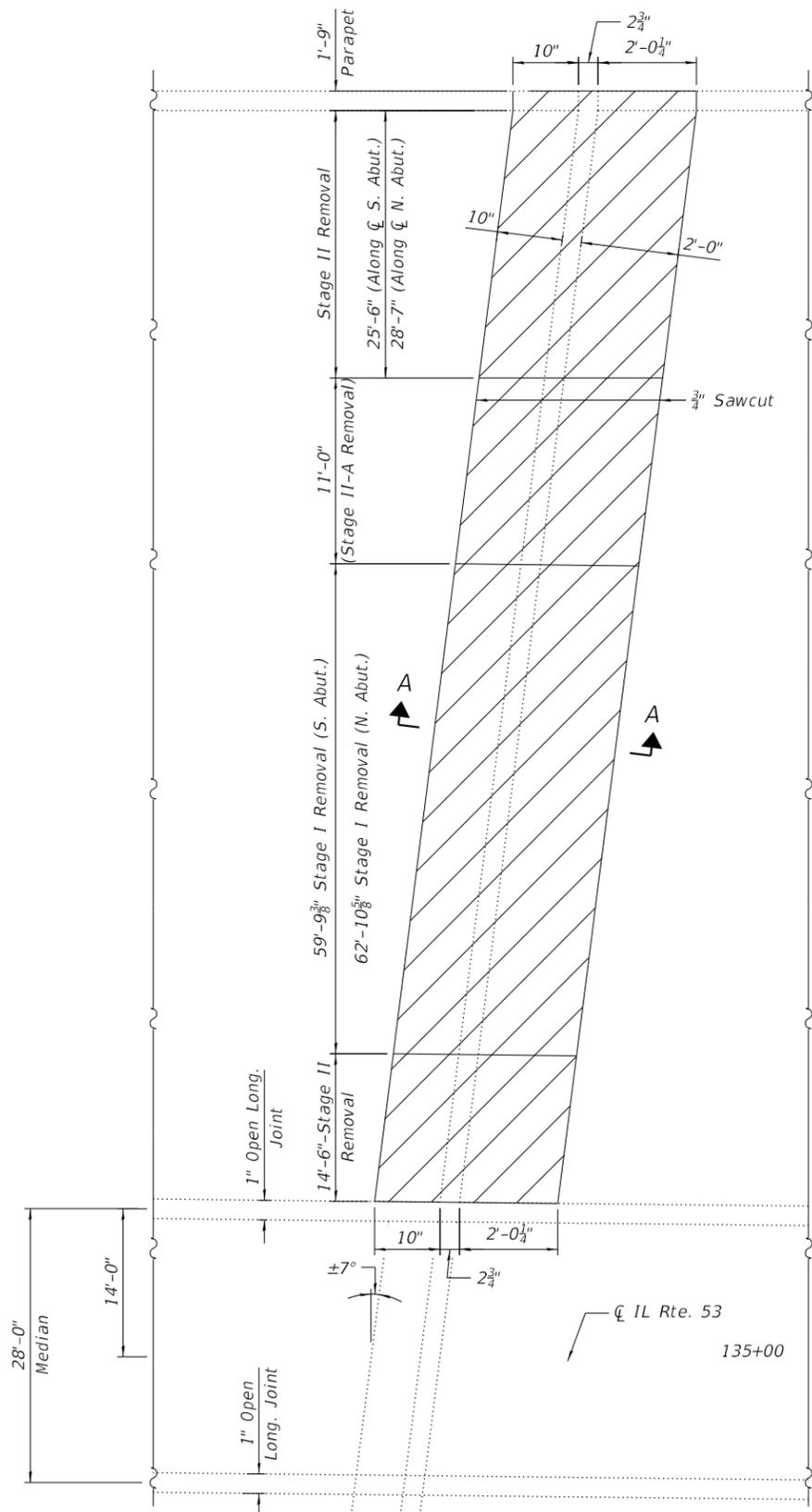
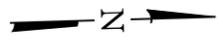
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
 STRUCTURE NO. 016-0977

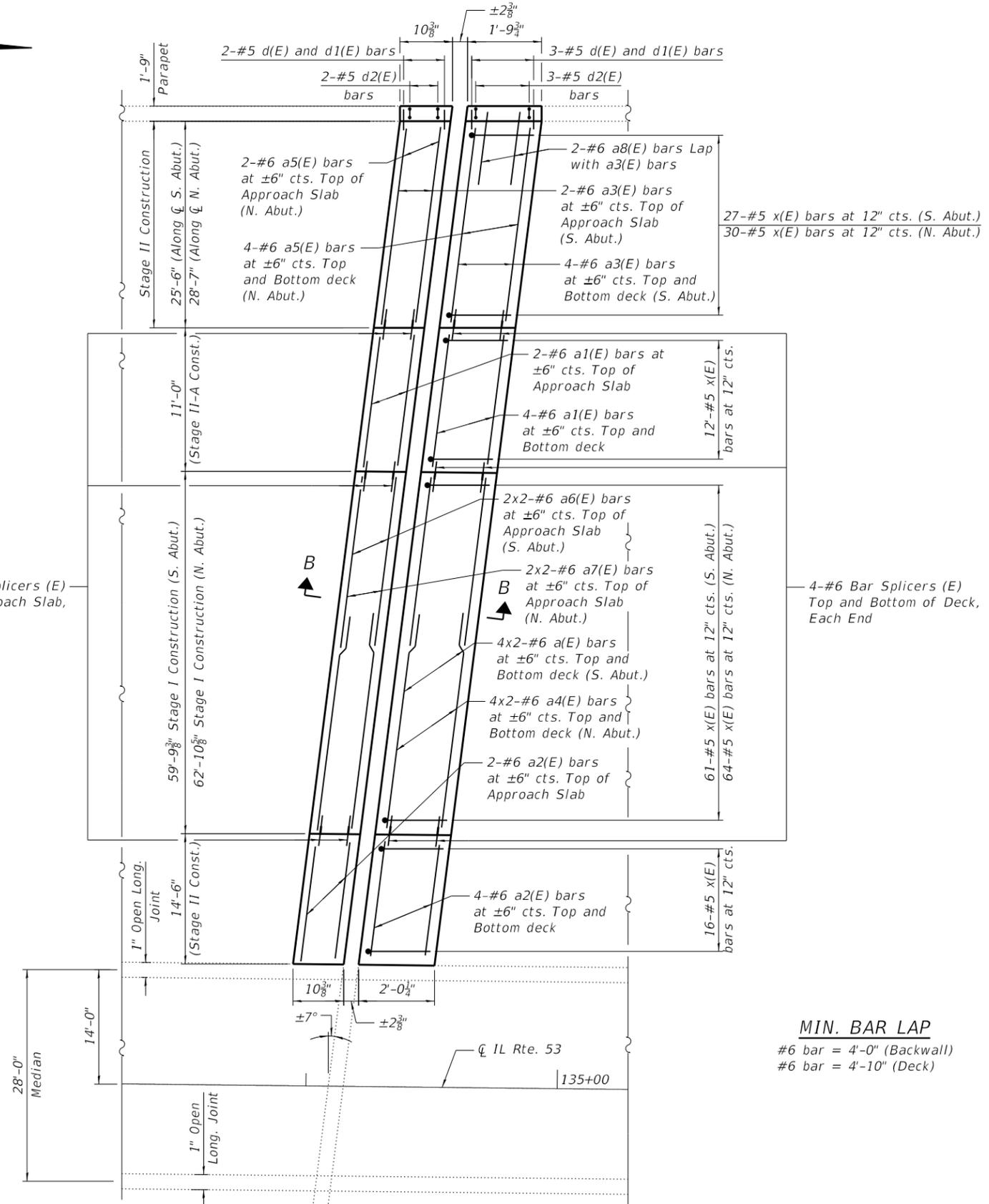
SHEET 4 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	64
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



ABUTMENT JOINT REMOVAL PLAN

2-#6 Bar Splicers (E)
Top of Approach Slab,
Each End



ABUTMENT JOINT REPLACEMENT PLAN

MIN. BAR LAP
#6 bar = 4'-0" (Backwall)
#6 bar = 4'-10" (Deck)

- NOTES:**
1. North Abutment Shown, South Abutment similar.
 2. Horizontal bars in approach parapets shall be cleaned, straightened, and reused in new construction.
 3. Hatched areas indicate Concrete Removal.

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DEPARTMENT OF TRANSPORTATION**

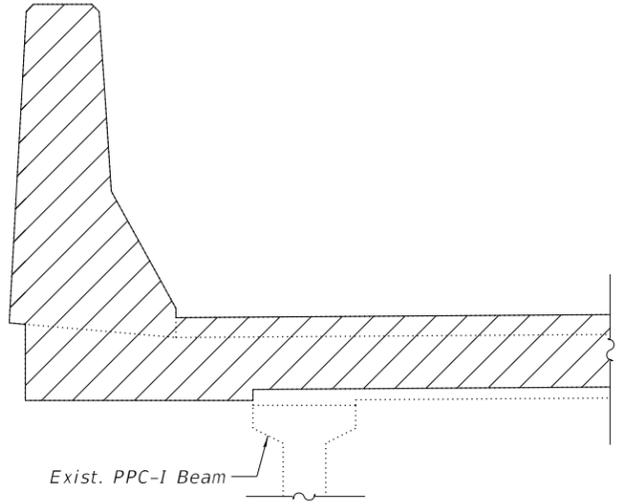
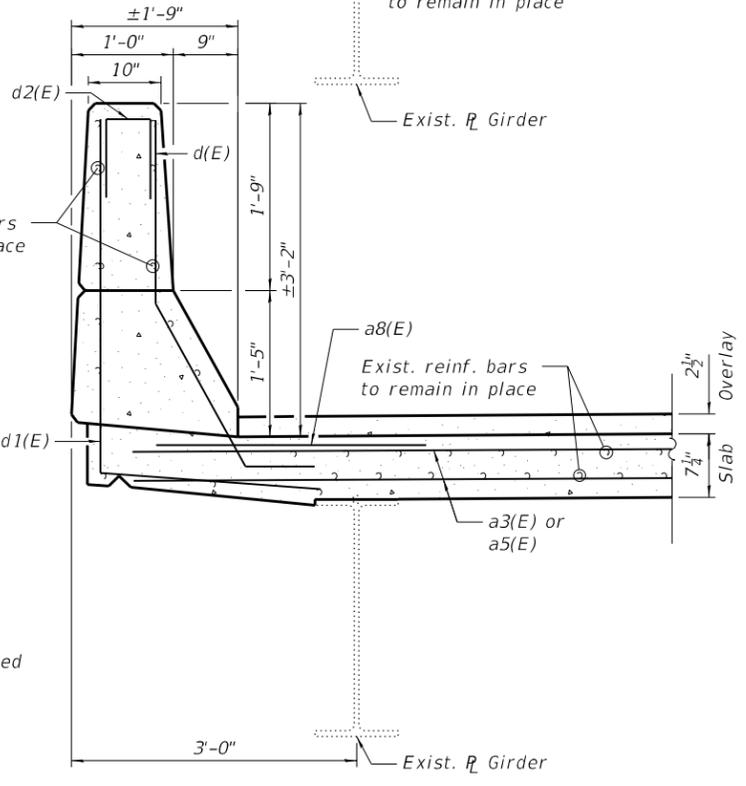
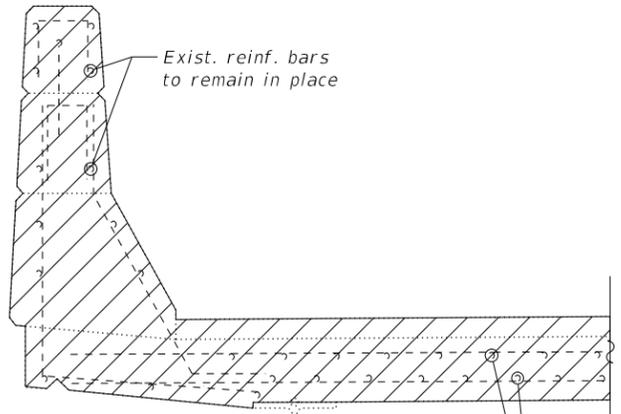
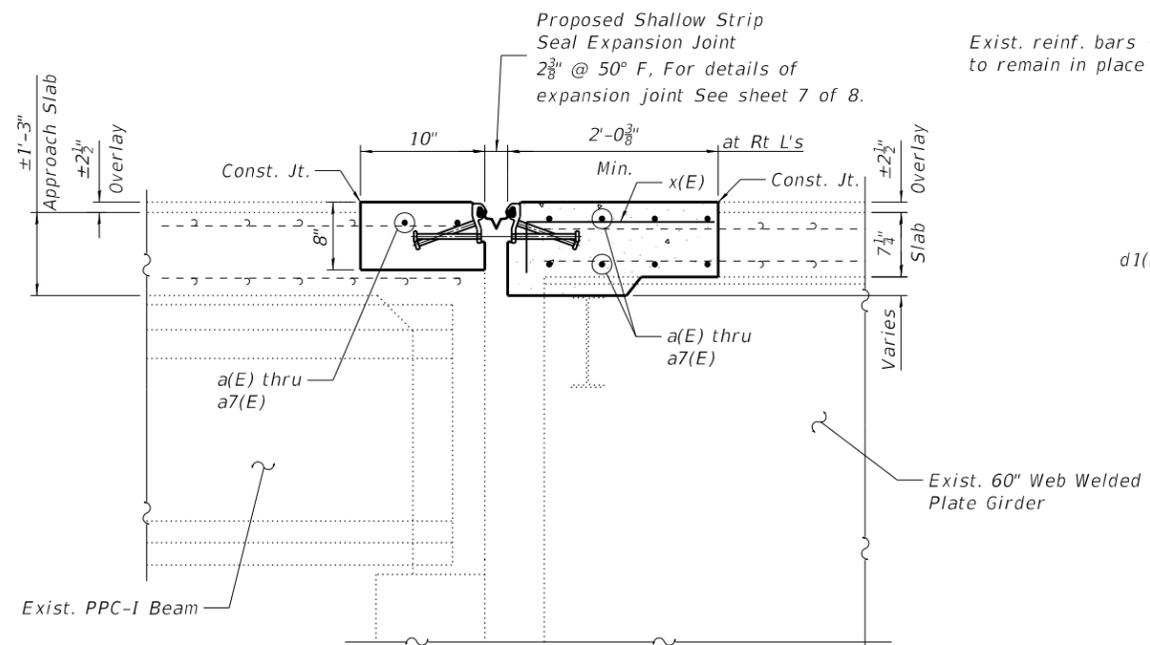
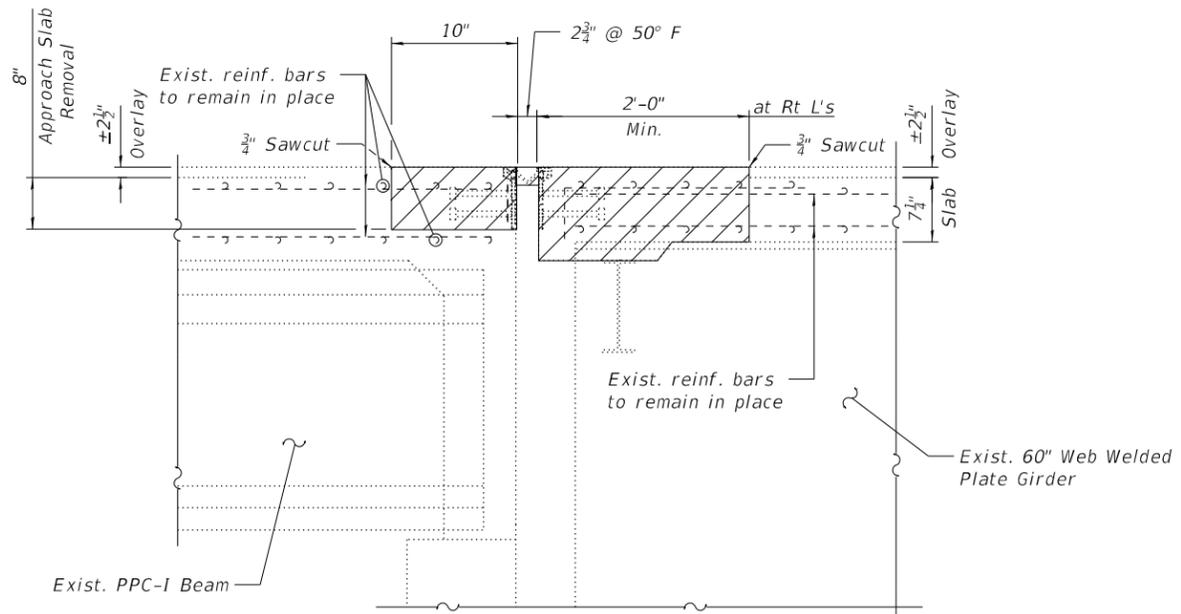
**EEXPANSION JOINT DETAILS - I
STRUCTURE NO. 016-0977**

SHEET 5 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	65
CONTRACT NO. 62G08				

ILLINOIS FED. AID PROJECT

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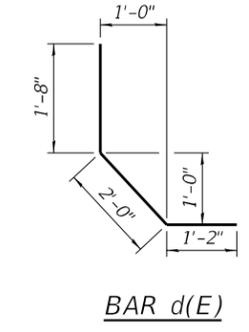
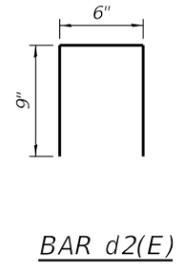
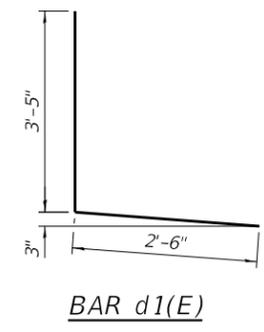
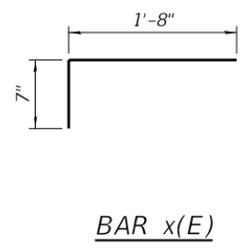


NOTES:

- Hatched areas indicate Concrete Removal.
- Existing reinforcement to remain in place shall be cleaned, straightened and reused. Cost included with Concrete Removal.
- Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- Removal of exist. expansion joint will not be paid separately. Cost included with Concrete Removal.
- See Sheet 8 of 8 for Bar Splicers Details.
- Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

**BILL OF MATERIAL
 BOTH ABUTMENTS**

Bar	No.	Size	Length	Shape
a(E)	16	#6	32'-5"	—
a1(E)	20	#6	10'-8"	—
a2(E)	20	#6	14'-2"	—
a3(E)	10	#6	25'-2"	—
a4(E)	16	#6	34'-0"	—
a5(E)	10	#6	28'-3"	—
a6(E)	4	#6	32'-0"	—
a7(E)	4	#6	33'-7"	—
a8(E)	4	#6	4'-0"	—
d(E)	10	#5	4'-10"	┌
d1(E)	10	#5	5'-11"	└
d2(E)	10	#5	2'-0"	└
x(E)	210	#5	2'-3"	└
Concrete Removal			Cu. Yd.	21.8
Reinforcement Bars, Epoxy Coated			Pound	4190
Concrete Superstructure			Cu. Yd.	21.8



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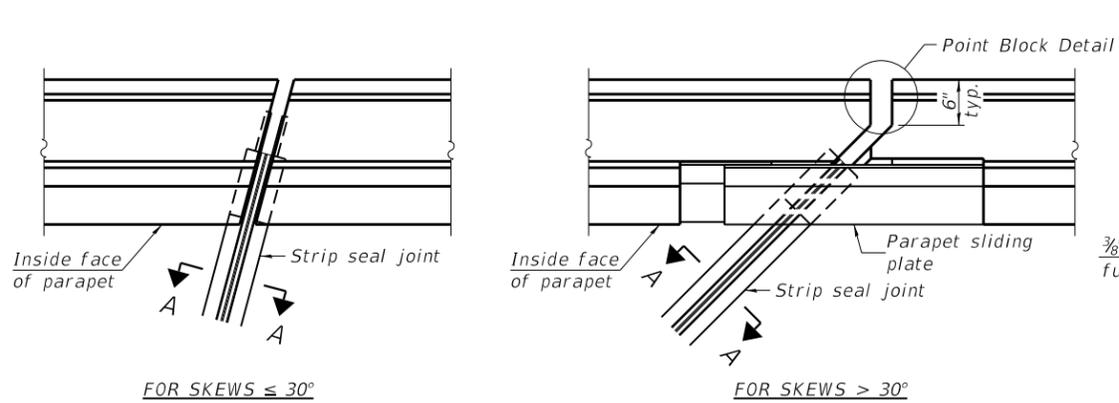
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT DETAILS - II
 STRUCTURE NO. 016-0977

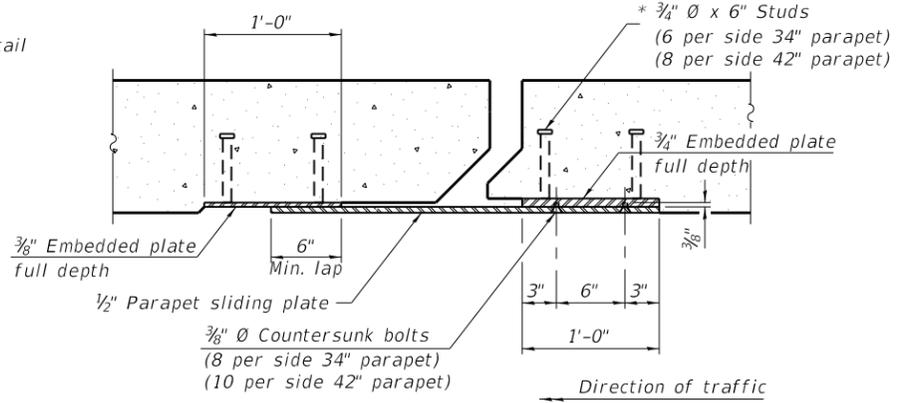
SHEET 6 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	66
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

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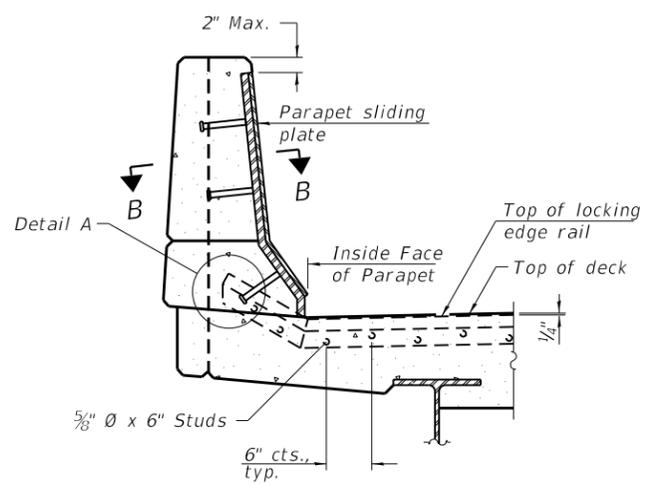


PLAN AT PARAPET



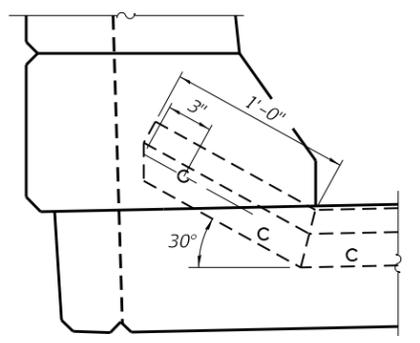
SECTION B-B

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.

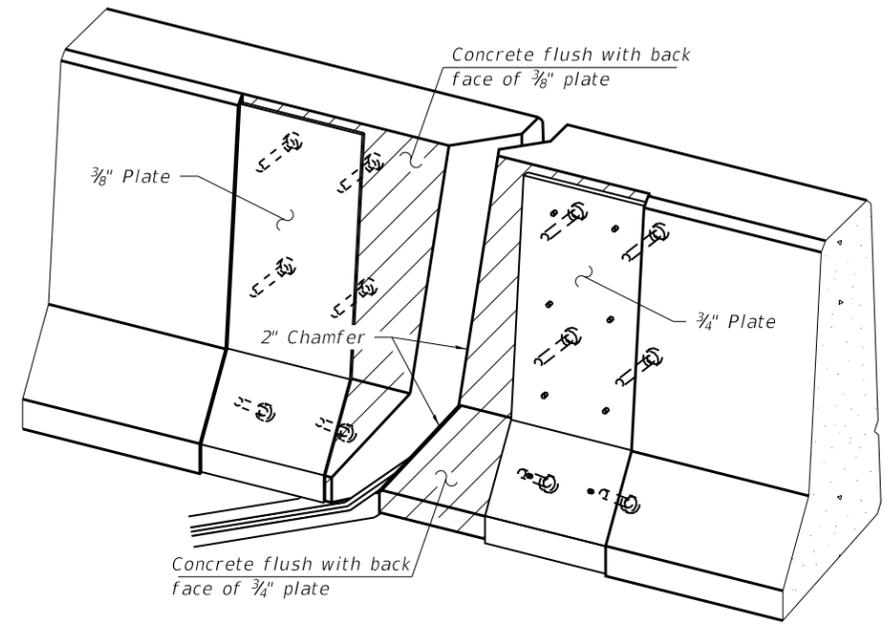


ELEVATION AT PARAPET

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

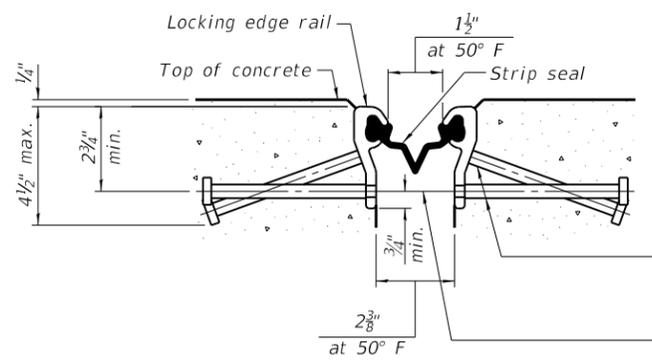


DETAIL A



TRIMETRIC VIEW
 (Showing embedded plates only)

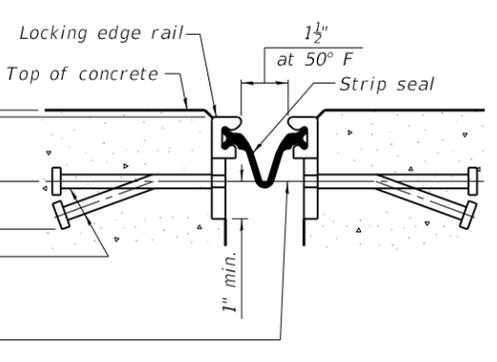
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.
 Cost of parapet sliding plates, embedded plates, and anchorage studs 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.



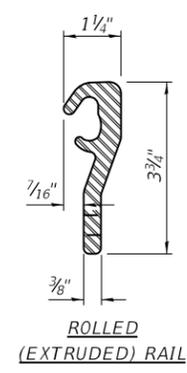
SHOWING ROLLED RAIL JOINT

* 3/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

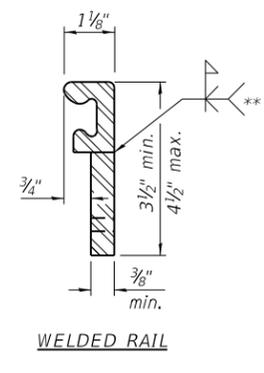
3/8" Ø threaded rods in 7/16" Ø holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.



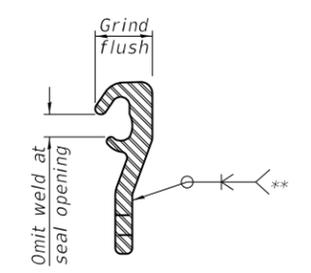
SHOWING WELDED RAIL JOINT



ROLLED (EXTRUDED) RAIL



WELDED RAIL



LOCKING EDGE RAIL SPLICE

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

LOCKING EDGE RAILS

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

SECTION A-A

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	233

EJ-SS 8-11-17



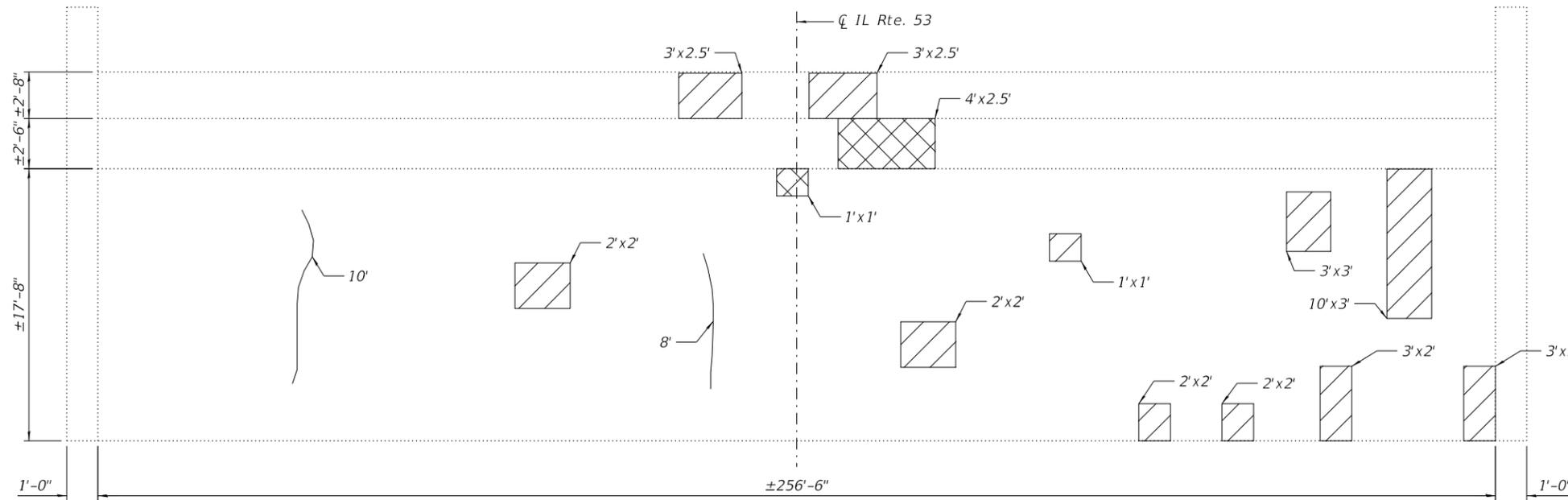
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STATE OF ILLINOIS
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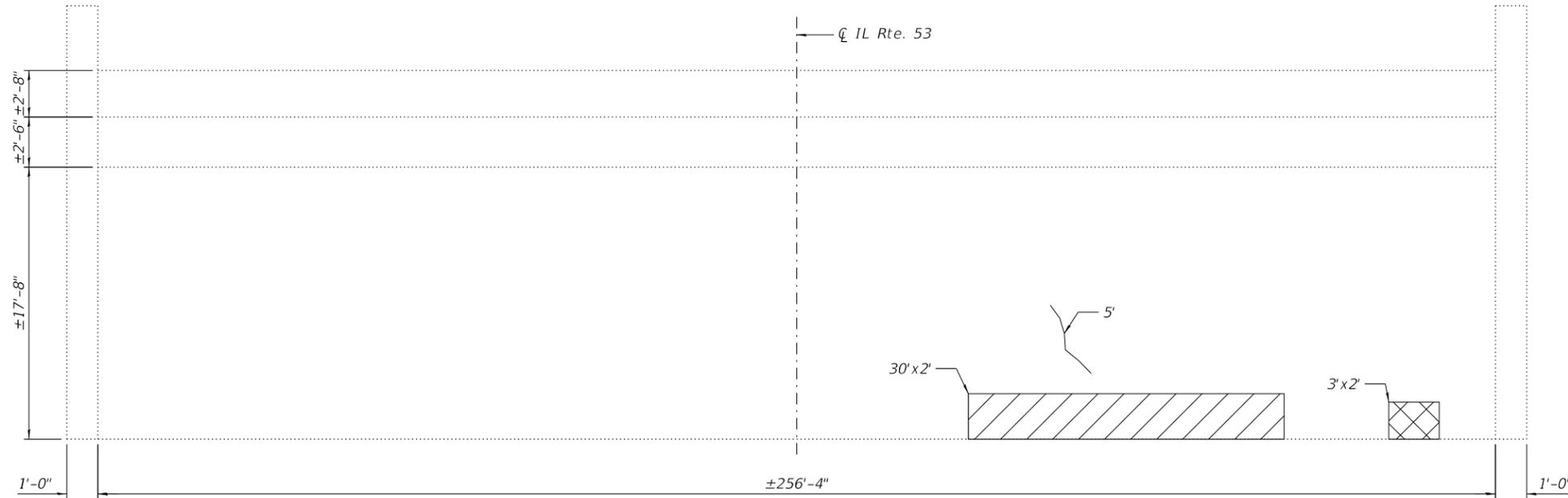
PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 016-0977

SHEET 7 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	67
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				



NORTH ABUTMENT
(Looking North)



SOUTH ABUTMENT
(Looking South)

LEGEND

-  Structural Repair of Concrete (Depth equal to or less than 5")
-  Structural Repair of Concrete (Greater than 5")
-  Epoxy Crack Injection

BOTH ABUTMENTS
BILL OF MATERIAL

Item	Unit	Quantity
Epoxy Crack Injection	Foot	23
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	143
Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.	17

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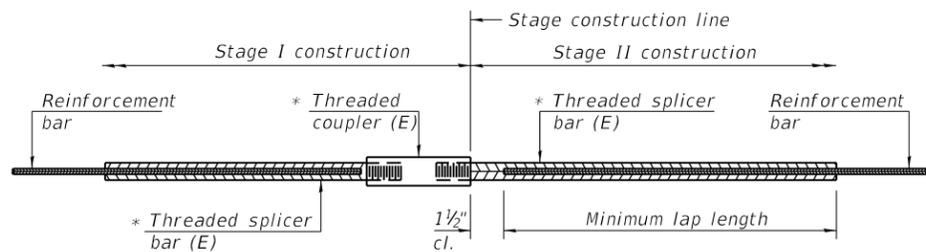
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BACKWALL REPAIR
STRUCTURE NO. 016-0977

SHEET 8 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	68
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

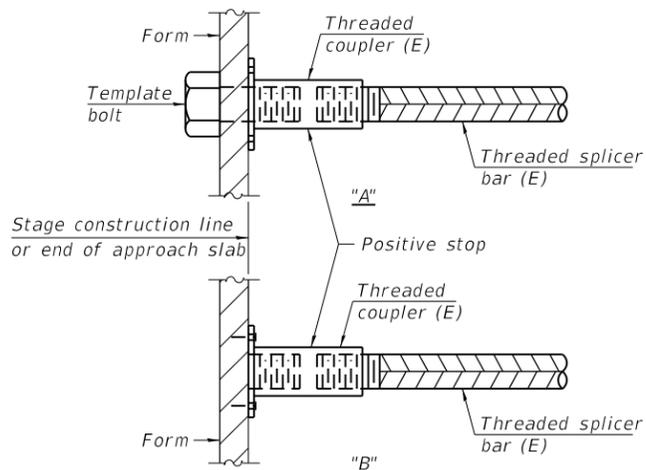


STANDARD BAR SPLICER ASSEMBLY

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

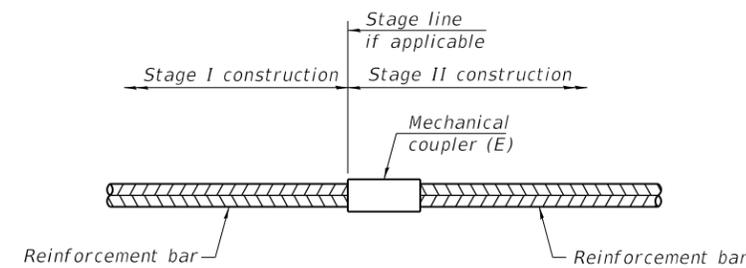
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Backwall/Approach Slab	#6	12	4'-0"
Deck	#6	48	4'-10"



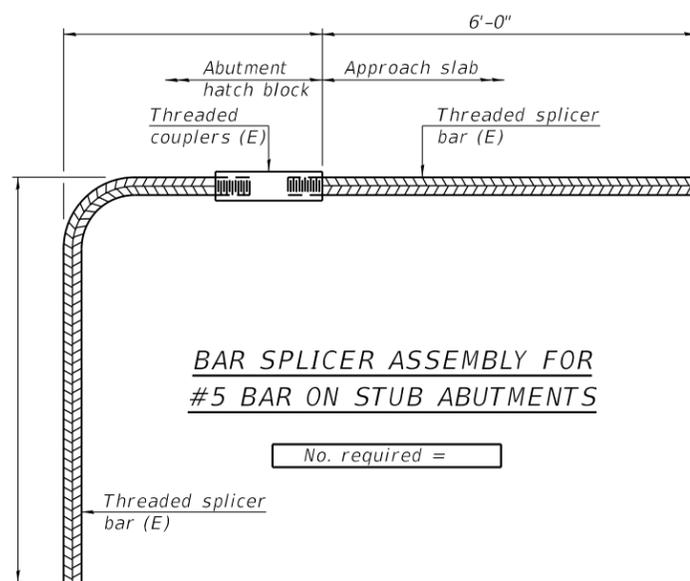
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with Threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

MODEL: Default
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BSD-1

2-17-2017



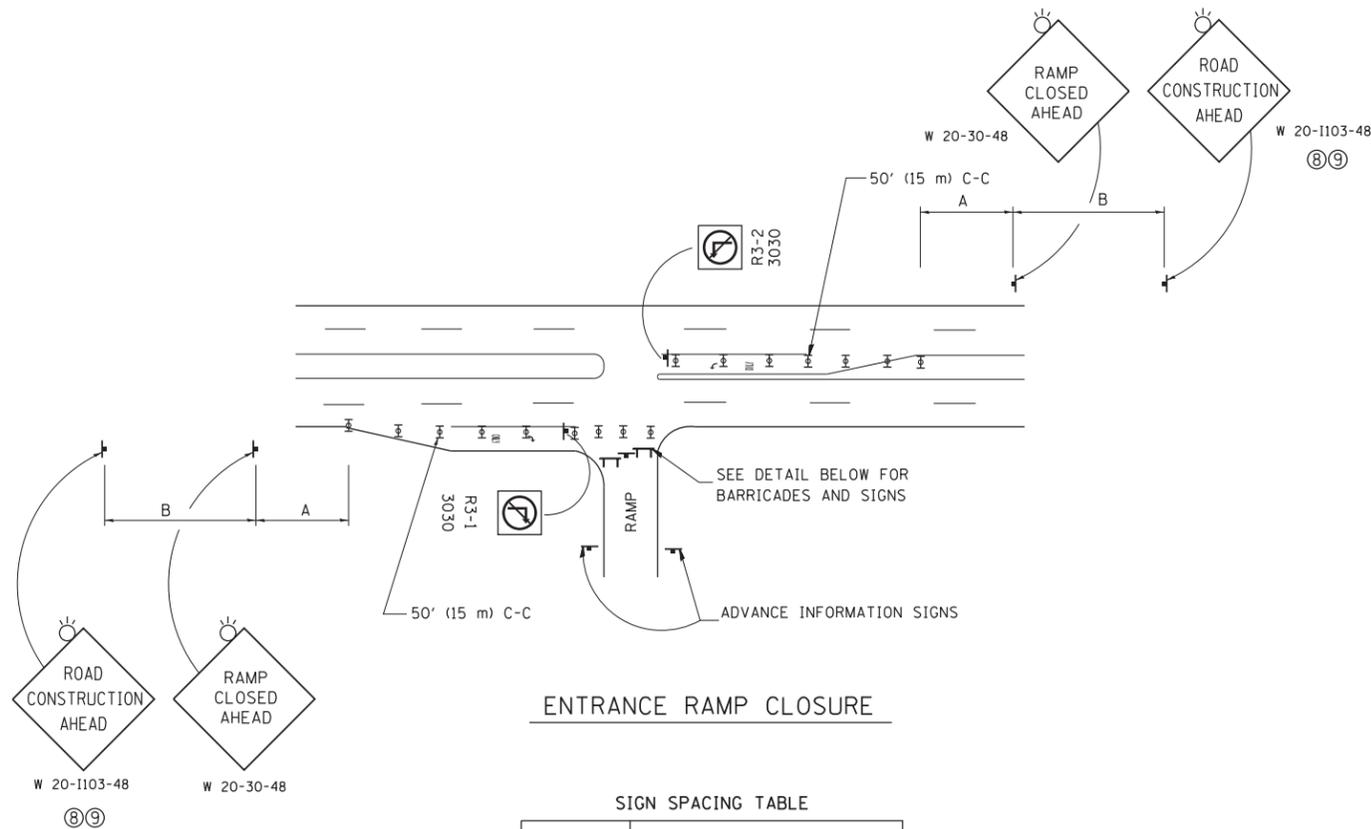
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 016-0977

SHEET 9 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	69
CONTRACT NO. 62G08				
ILLINOIS FED. AID PROJECT				

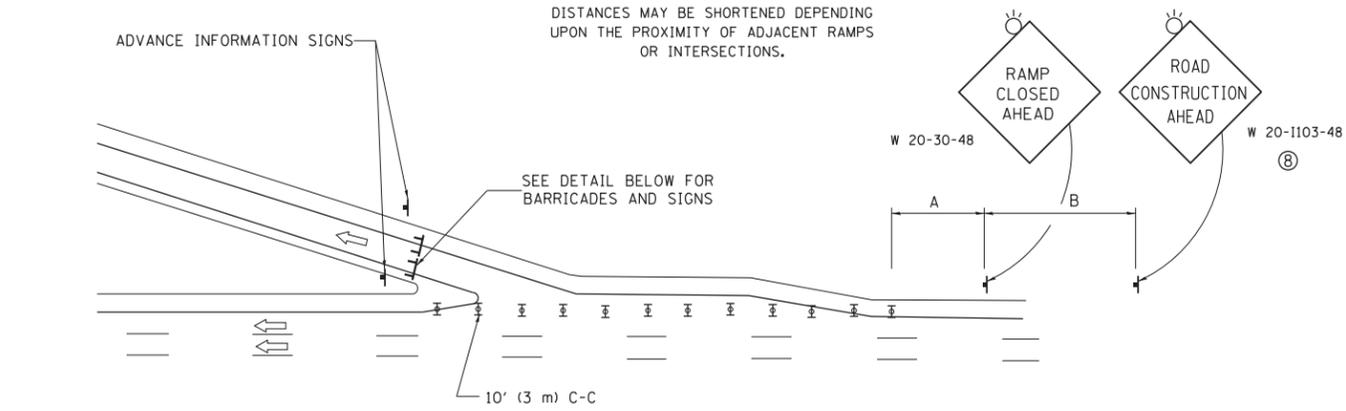


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY <24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

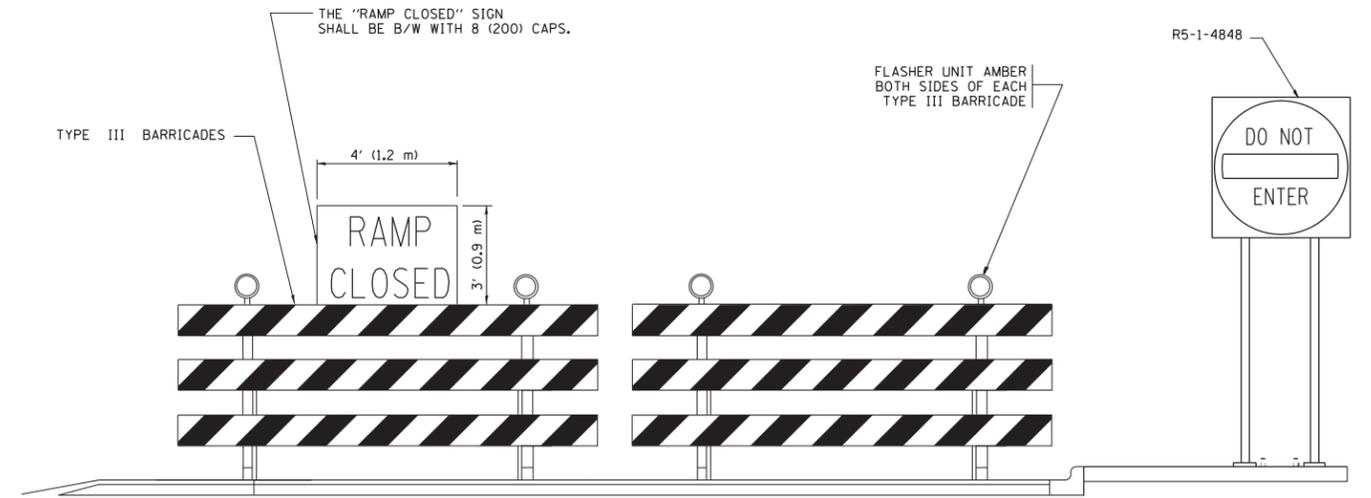
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



EXIT RAMP CLOSURE

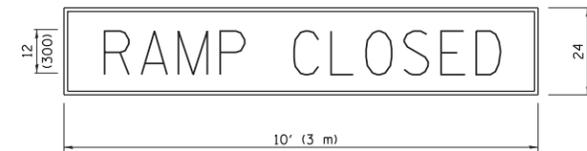
SYMBOLS

- ⊥ TYPE II BARRICADE OR DRUM
- ⊥ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



DETAIL FOR REQUIRED BARRICADES & SIGNS

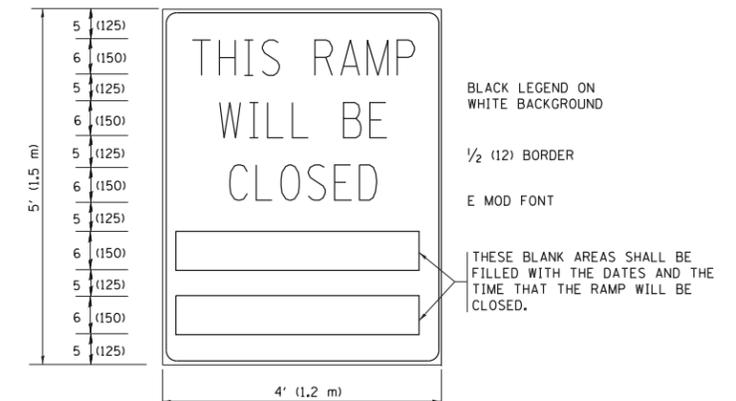
RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY
E MOD FONT
1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE BACKGROUND
1/2 (12) BORDER
E MOD FONT

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

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

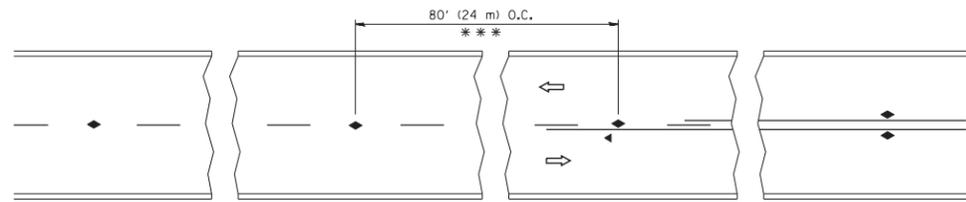
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	PLOT DATE = 11/27/2017		REVISED - M.D. 01-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ENTRANCE AND EXIT RAMP
CLOSURE DETAILS

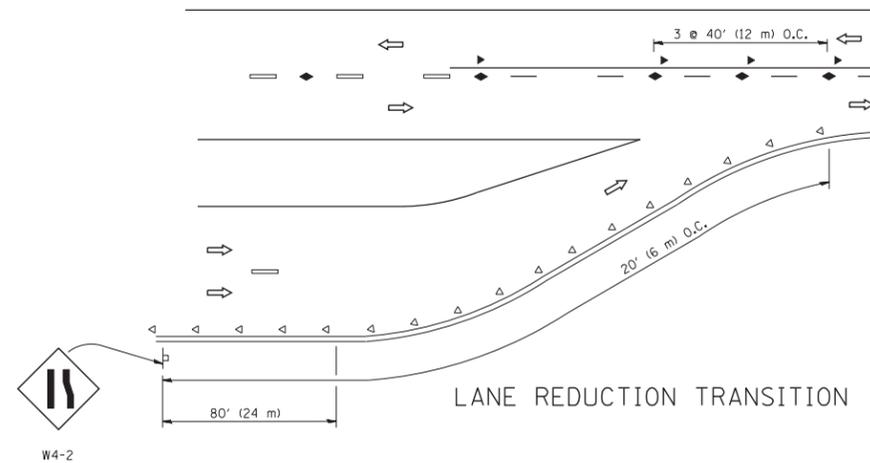
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	70
TC-08			CONTRACT NO. 62G08	
ILLINOIS FED. AID PROJECT				

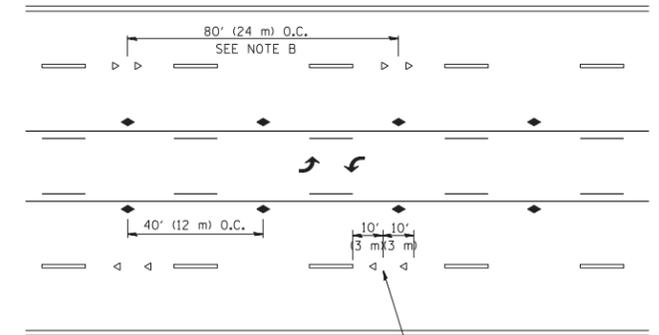


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

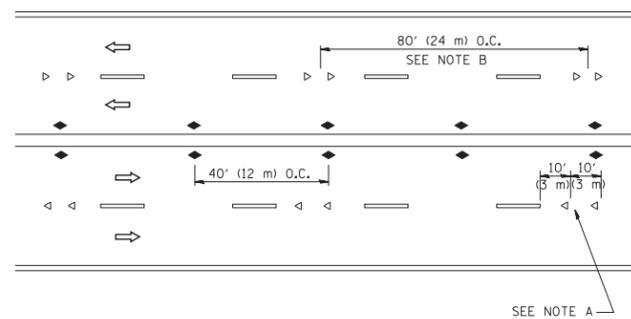
TWO-LANE/TWO-WAY



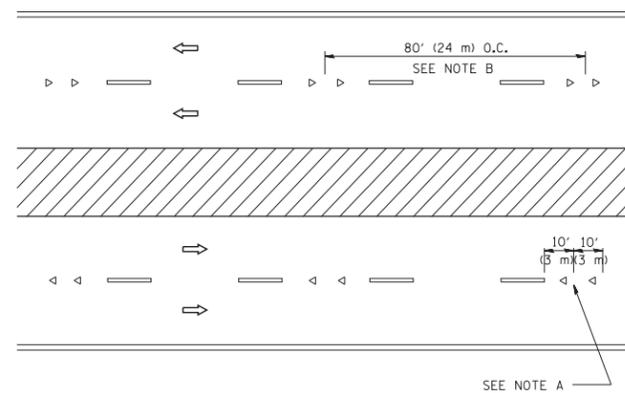
LANE REDUCTION TRANSITION



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

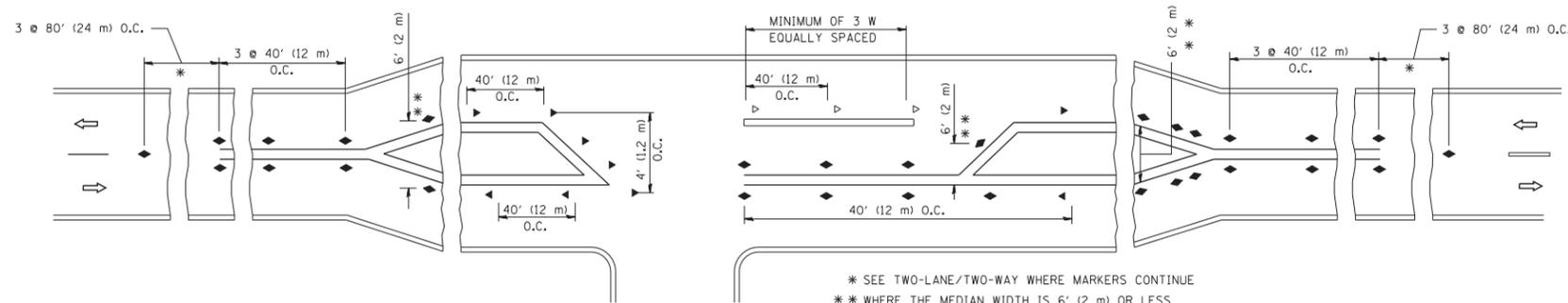
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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

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

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

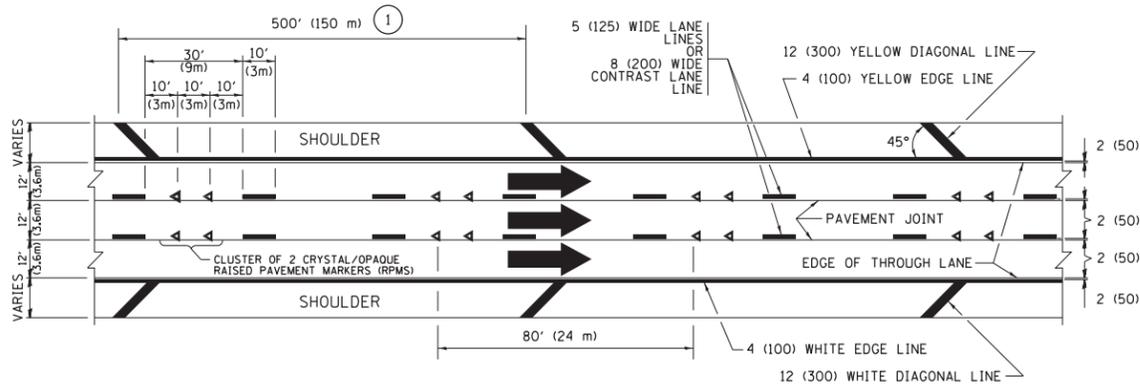
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

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

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

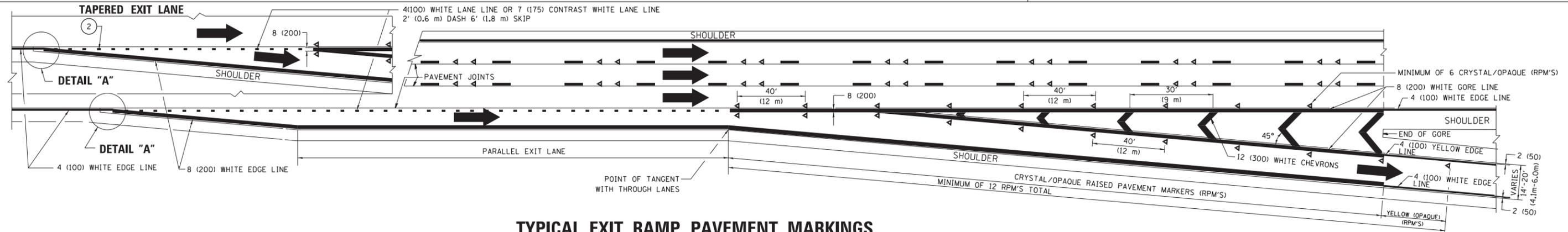
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	71
TC-11		CONTRACT NO. 62G08		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



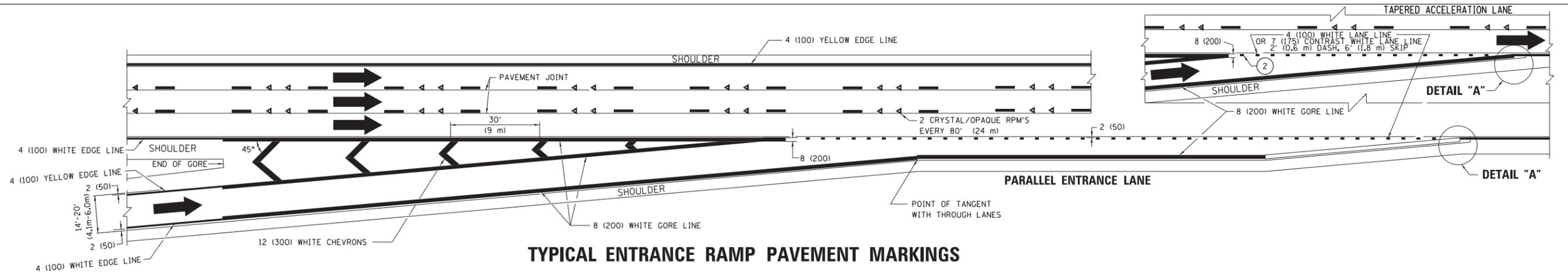
TYPICAL EDGE LINES & LANE LINES

PAVEMENT MARKING MATERIALS

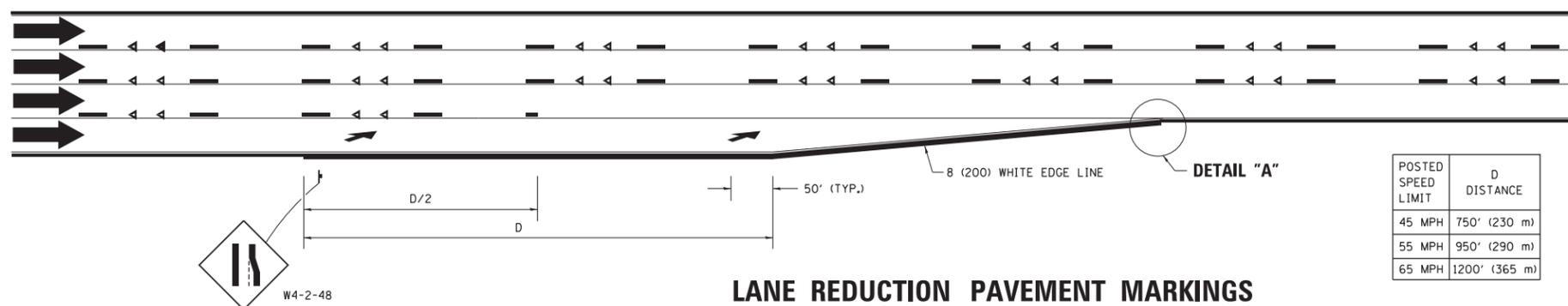
1. THERMOPLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON HMA PAVEMENTS.
2. POLYUREA OR MODIFIED URETHANE PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON PCC PAVEMENTS.
3. PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE B, INLAID OR GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON HMA PAVEMENTS.
4. CONTRAST PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE B, GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON PCC PAVEMENT.



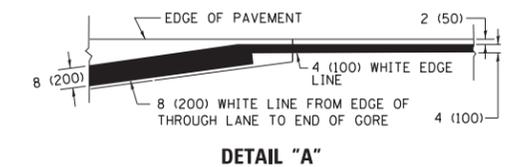
TYPICAL EXIT RAMP PAVEMENT MARKINGS



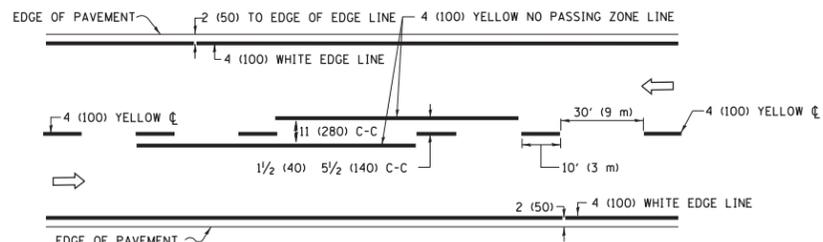
TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS



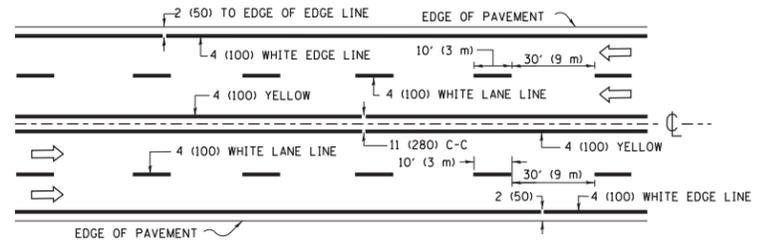
LANE REDUCTION PAVEMENT MARKINGS



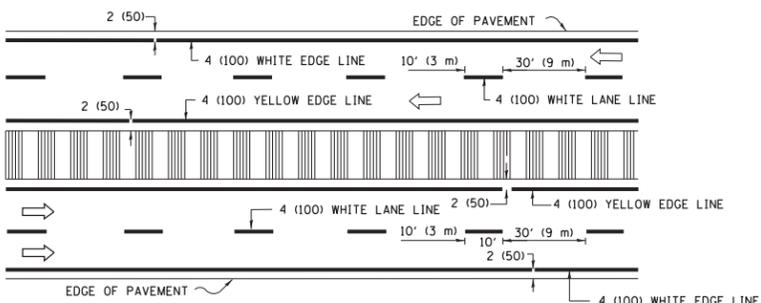
- NOTES:**
- ① THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.
 - ② 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED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



2-LANE ROADWAY

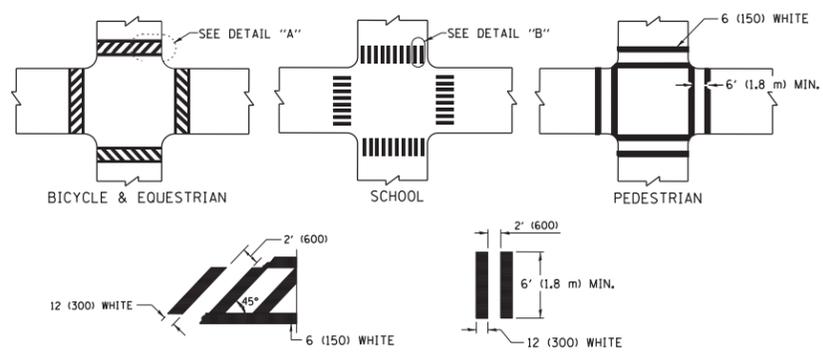


MULTI-LANE UNDIVIDED



MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

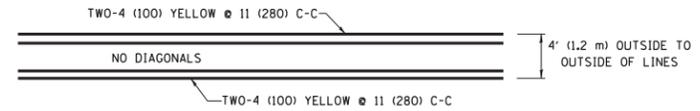


DETAIL "A"

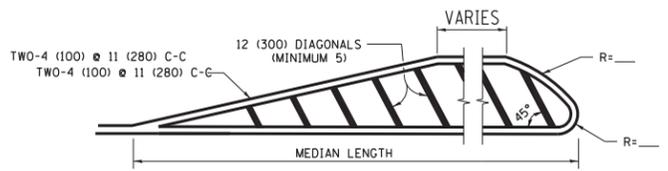
DETAIL "B"

TYPICAL CROSSWALK MARKING

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

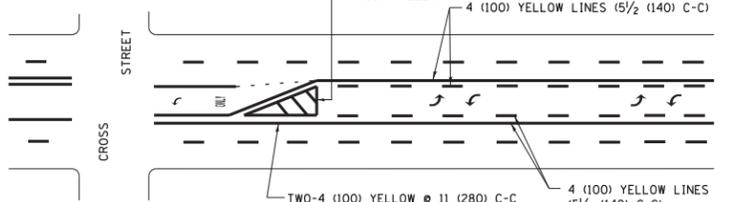


4' (1.2 m) WIDE MEDIANS ONLY

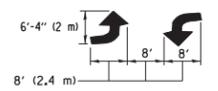


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

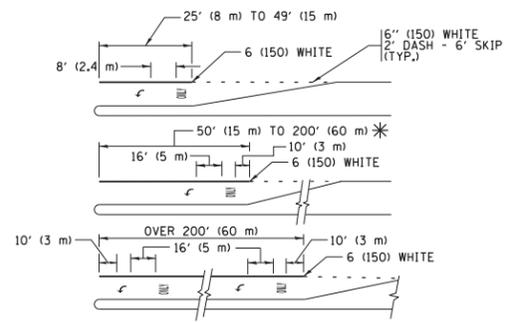


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

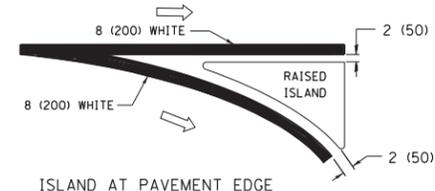
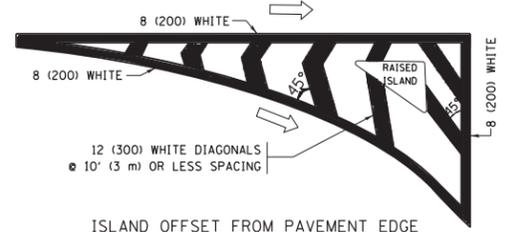


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

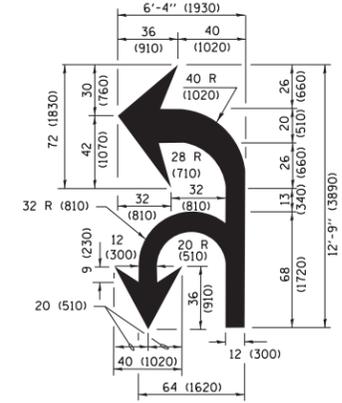
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

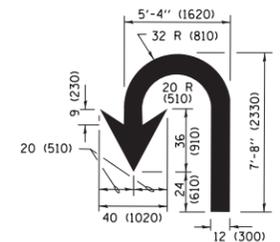
TYPICAL TURN LANE MARKING



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 ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
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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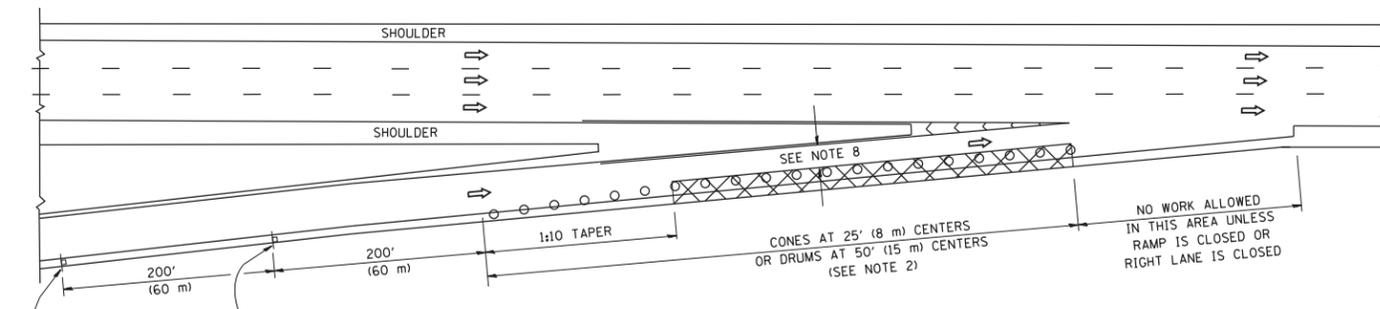
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

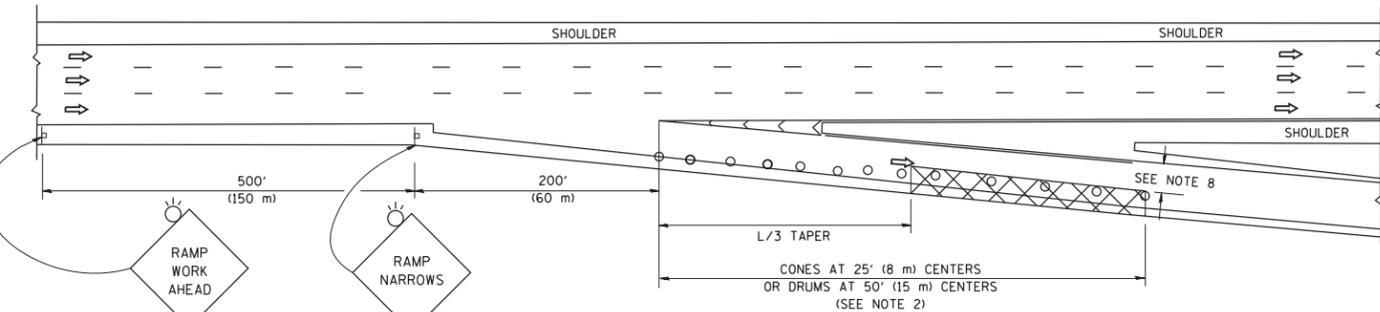
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F.A.P. RTE. 342	SECTION 2017-065BR	COUNTY COOK	TOTAL SHEETS 79	SHEET NO. 74
TC-13		CONTRACT NO. 62G08		
ILLINOIS FED. AID PROJECT				

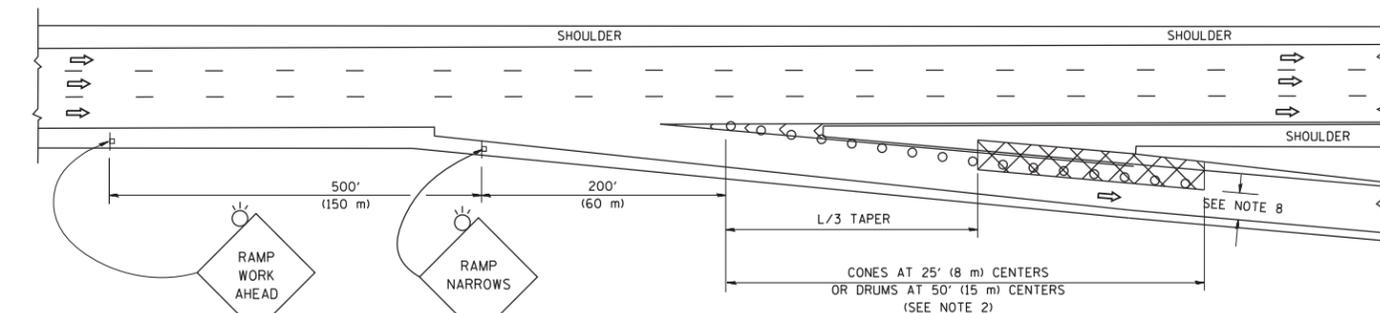
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

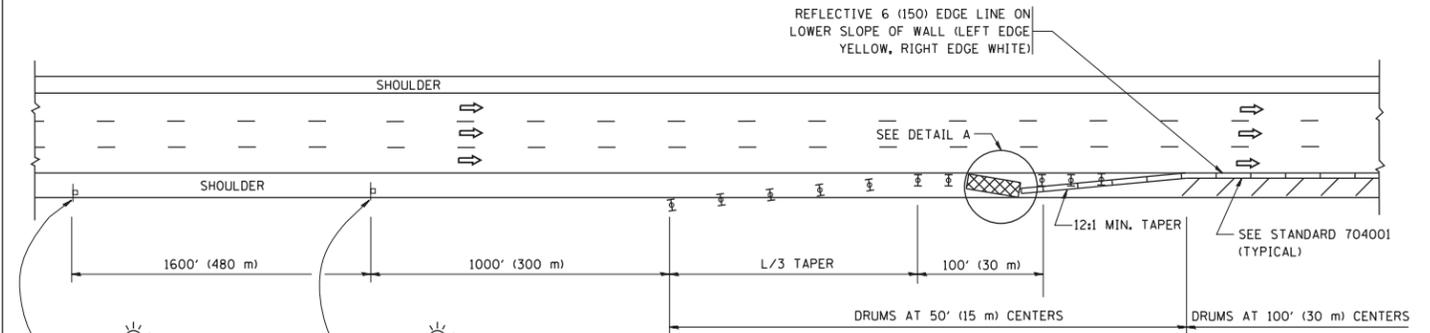
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

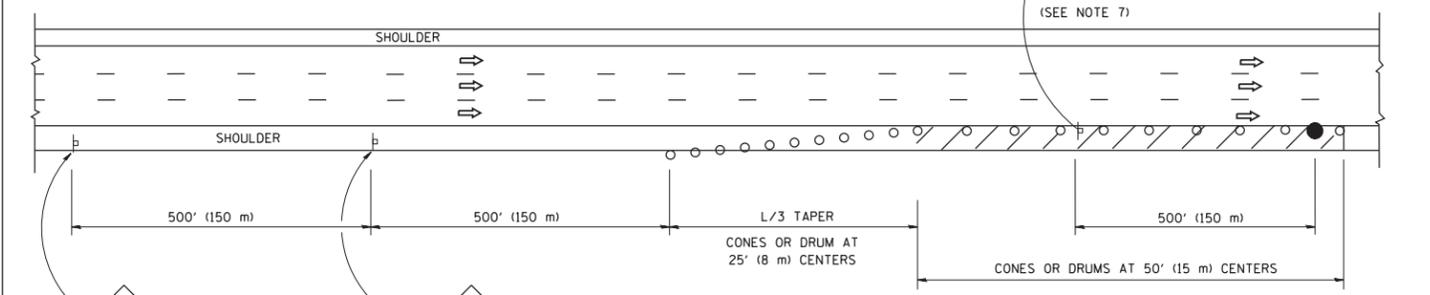
SPEED LIMIT	FORMULAS
45 mph (80 km/h)	METRIC ENGLISH
OR GREATER:	$L=0.65(W)(S)$ $L=(W)(S)$

W = WIDTH OF OFFSET IN FEET (METERS)
 S = NORMAL POSTED SPEED MPH (KM/H)
2. TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTACLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK ACTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12' MIN. WIDTH TANGENT SECTION
 16' MIN. WIDTH CURVE SECTION.

SHOULDER CLOSURE DETAILS

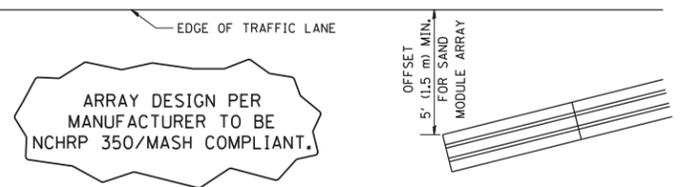


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350/MASH COMPLIANT.

DETAIL "A"
 IMPACT ATTENUATOR, TEMPORARY
 (SEE NOTE 5)

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

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - S.P.B. 01-07
pw:\IL084EBID\INTEG\illinois.gov\PI\DOT\Documents\DOT Offices\District 1\Projects\Dist 1\Projects\CAD\Drawings\17.dgn		CHECKED -	REVISED - S.P.B. 12-09
Default	PLOT SCALE = 50.0000' / in.	DATE - 11-96	REVISED - M.D. 06-13
	PLOT DATE = 11/27/2017		REVISED - M.D. 01-18

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

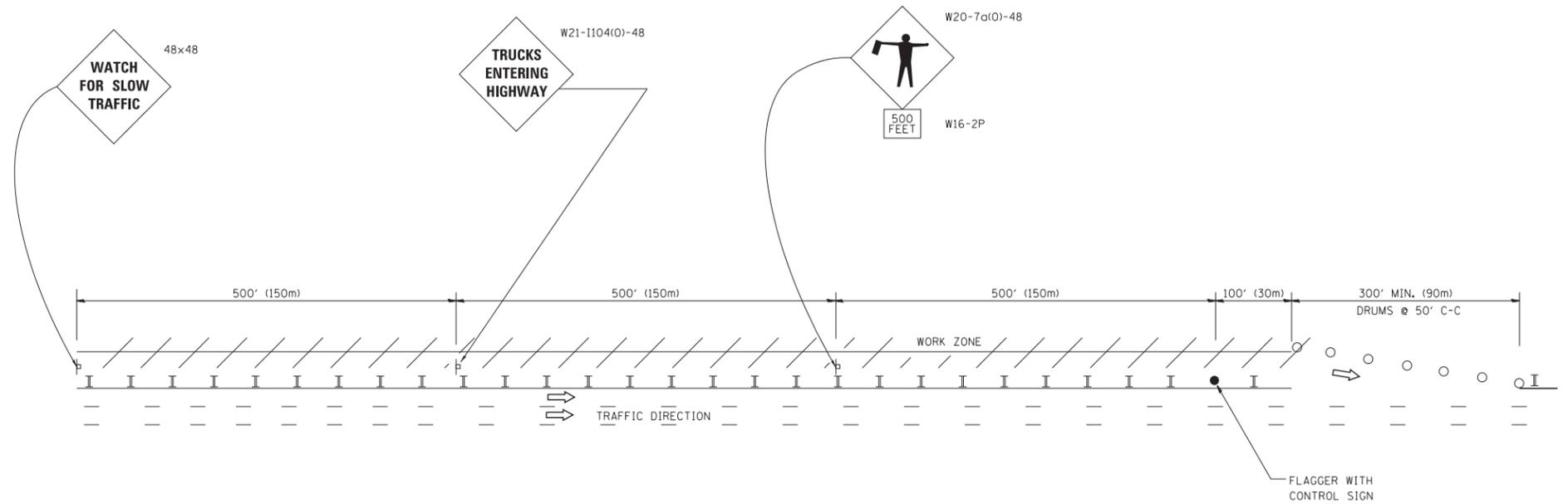
TRAFFIC CONTROL DETAILS FOR FREEWAY
 SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

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

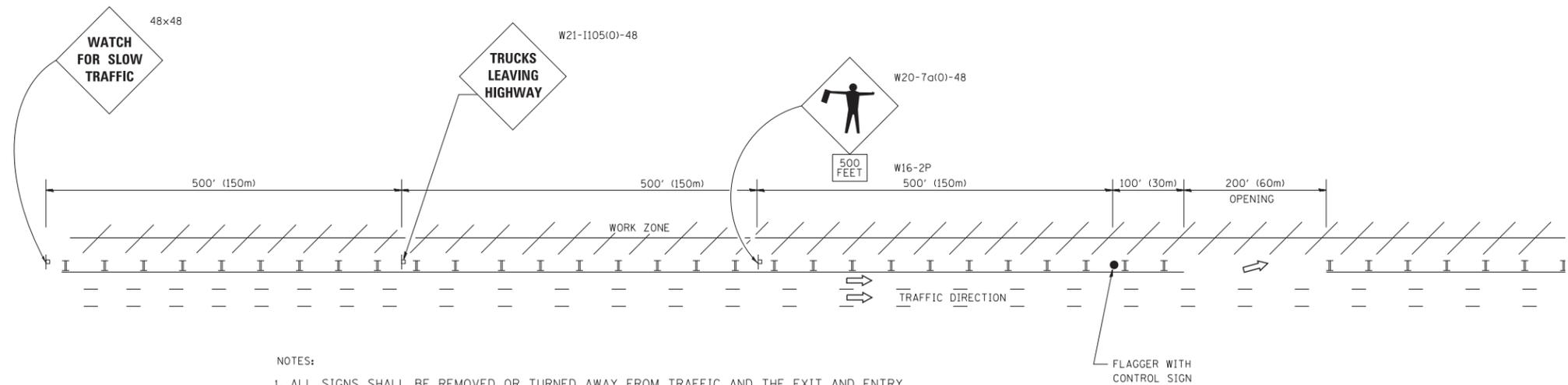
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	2017-065BR	COOK	79	76
TC-17		CONTRACT NO. 62G08		
ILLINOIS FED. AID PROJECT				

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING

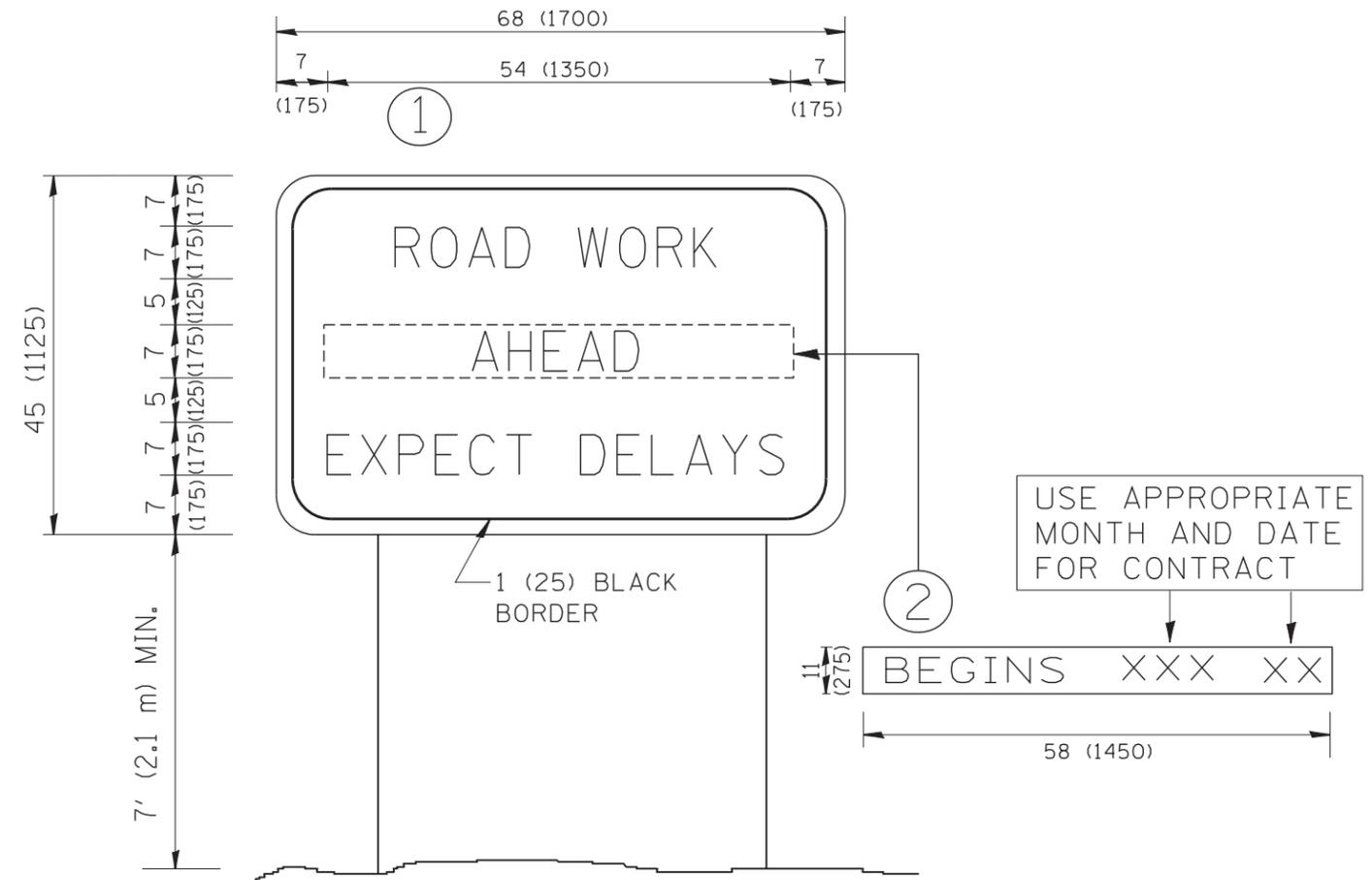


NOTES:

1. ALL SIGNS SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMP.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS
5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - J.A.F. 02-06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FREEWAY/EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS ON FREEWAYS/EXPRESSWAYS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwork\pwork\footemj\d0108315\tc18.dgn	DRAWN -	REVISED - S.P.B. 01-07	342			2017-065BR	COOK	79	77	
PLOT SCALE = 50.000' / in.	CHECKED -	REVISED - S.P.B. 12-09	TC-18			CONTRACT NO. 62G08				
PLOT DATE = 7/8/2013	DATE -	REVISED - M.D. 06-13	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		



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.

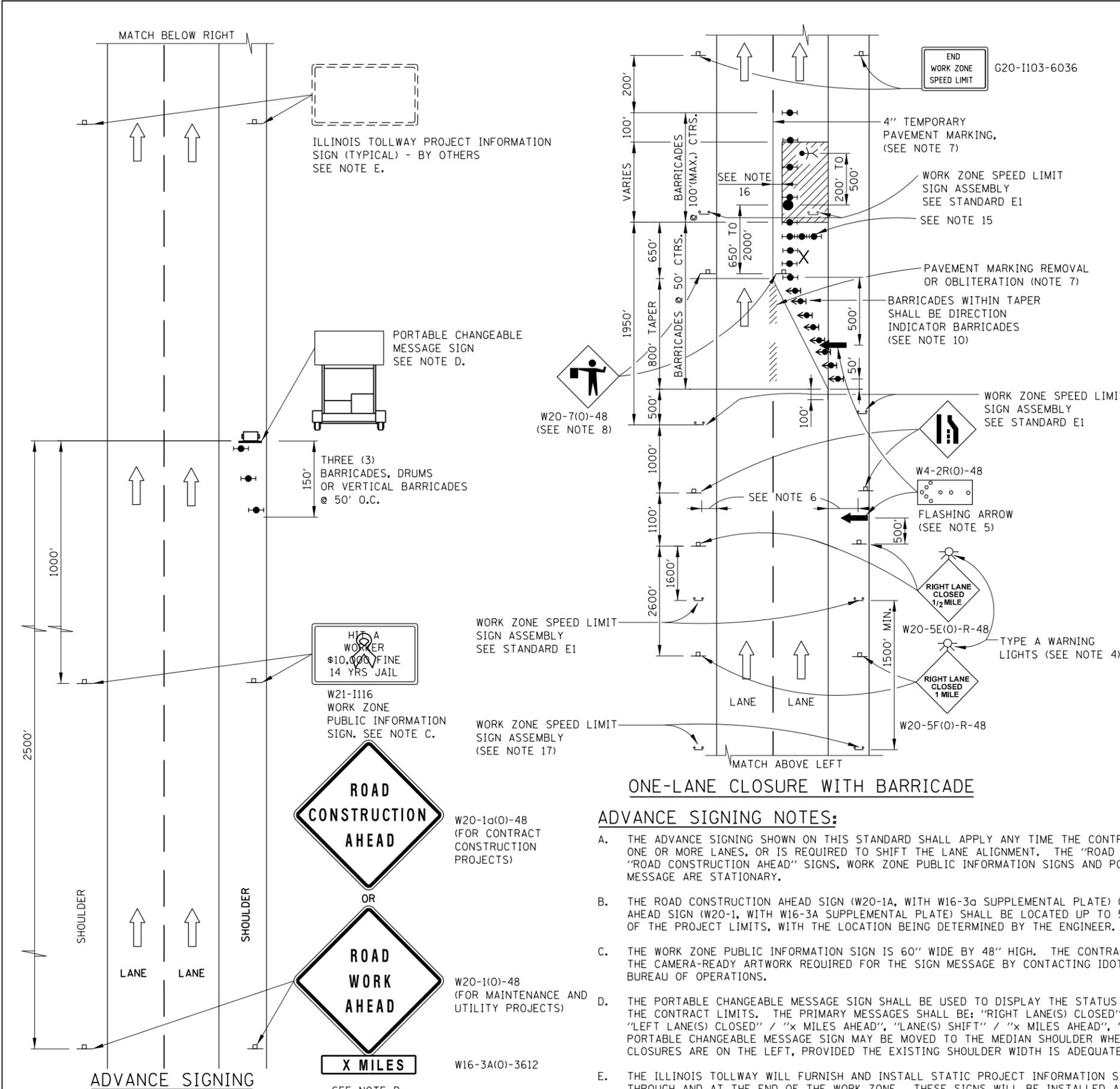
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		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**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. 342	SECTION 2017-065BR	COUNTY COOK	TOTAL SHEETS 79	SHEET NO. 78
TC-22		CONTRACT NO. 62G08		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



LANE CLOSURE NOTES:

- IF CLOSURES ARE EXPECTED TO PRODUCE TRAFFIC BACKUPS EXTENDING BEYOND THE FIRST WARNING SIGN SHOWN ON THE DETAILS, ADDITIONAL UPSTREAM SIGNS SHALL BE PLACED SO THAT THE TRAFFIC CONTROL ZONE ENCOMPASSES THE ANTICIPATED BACKUP ZONE.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- THESE DETAILS ALSO APPLY TO OPPOSITE HAND LANE CLOSURES BY CHANGING SIGN LEGENDS AND ARROW DIRECTIONS TO INDICATE THE APPROPRIATE CLOSURE.
- FOR NIGHT TIME CLOSURES, ONE TYPE A WARNING LIGHT SHALL BE INSTALLED ABOVE EACH OF THE 1 MILE AND 1/2 MILE ADVANCE WARNING SIGNS. FOR DAYLIGHT-ONLY CLOSURES, THE LIGHTS MAY BE OMITTED.
- FOR ANY LANE CLOSURE, FLASHING ARROW BOARDS SHALL BE REQUIRED AND IN OPERATION AT ALL TIMES. THE FLASHING ARROW BOARD IN ADVANCE OF THE TAPER SHALL BE PROTECTED WITH THREE TYPE II BARRICADES AT 50' O.C.
- CONSTRUCTION SIGNS SHALL GENERALLY BE POST-MOUNTED OR ATTACHED TO PORTABLE SUPPORTS AND SHALL BE INSTALLED 8' TO 12' FROM ADJACENT TRAVEL LANE WHEREVER POSSIBLE. IN NO CASE SHALL SIGNS BE LOCATED TO PROVIDE LESS THAN 2' CLEARANCE BETWEEN EDGE OF SIGN AND ADJACENT TRAVEL LANE.
- PAVEMENT MARKING TAPE AND REMOVAL OR OBLITERATION OF EXISTING MARKINGS SHALL BE REQUIRED WHEN THE CLOSURE TIME EXCEEDS FOUR DAYS. THIS WORK SHALL BE MEASURED AND PAID FOR SEPARATELY.
- WHEN A FLAGGER IS NOT ON STATION, THE FLAGGER SIGN SHALL BE PROMPTLY REMOVED, COVERED OR TURNED TO FACE AWAY FROM TRAFFIC. FLAGGER SIGNS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED SPACING BETWEEN THE SIGNS AND THE WORKERS IN EACH SEPARATE WORK ACTIVITY, PER THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS.
- WORK ZONE SPEED LIMIT SIGN ASSEMBLIES, SHALL BE PLACED ADJACENT TO THE OPEN TRAFFIC LANE(S). WORK ZONE SPEED SIGNS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED SPACING BETWEEN SIGNS AND THE WORKERS IN EACH SEPARATE WORK ACTIVITY PER THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS.
- DIRECTION INDICATOR BARRICADES SHALL BE USED IN LANE TAPERS.
- FOR CLOSURES OTHER THAN SHORT TERM (SUNRISE TO ONE HOUR BEFORE SUNSET), THE MINIMUM HEIGHT OF THE SIGN FROM SHOULDER ELEVATION SHALL BE 7'-0".
- CONES MAY BE USED IN LIEU OF BARRICADES IN THE BUFFER AND WORK AREAS, WHEN THE CLOSURE IS FOR MAINTENANCE OPERATIONS.
- BARRICADES ARE TO BE LOCATED AT JOINT LINE WHEN WORK AREA EXTENDS UP TO JOINT UNLESS OTHERWISE SHOWN ON THE PLANS.
- CHECK BARRICADES SHALL BE PLACED IN THE MIDDLE OF THE CLOSED LANE AND AT THE SHOULDER AT 1000 FOOT CENTERS.
- A 1'-0" MINIMUM/2'-0" DESIRABLE SHY DISTANCE SHALL BE PROVIDED, MEASURED BETWEEN EDGE OF PAVEMENT LANE MARKING TO THE EDGE OF THE TRAFFIC CONTROL DEVICE.
- ADDITIONAL WORK ZONE SPEED LIMIT SIGNS SHALL BE PLACED WHEN DIFFERENCE BETWEEN POSTED TO WORK ZONE SPEED LIMIT IS > 20 M.P.H.

ONE-LANE CLOSURE WITH BARRICADE

ADVANCE SIGNING NOTES:

- THE ADVANCE SIGNING SHOWN ON THIS STANDARD SHALL APPLY ANY TIME THE CONTRACTOR CLOSES ONE OR MORE LANES, OR IS REQUIRED TO SHIFT THE LANE ALIGNMENT. THE "ROAD WORK AHEAD" OR "ROAD CONSTRUCTION AHEAD" SIGNS, WORK ZONE PUBLIC INFORMATION SIGNS AND PORTABLE CHANGEABLE MESSAGE ARE STATIONARY.
- THE ROAD CONSTRUCTION AHEAD SIGN (W20-1A, WITH W16-3a SUPPLEMENTAL PLATE) OR ROAD WORK AHEAD SIGN (W20-1, WITH W16-3A SUPPLEMENTAL PLATE) SHALL BE LOCATED UP TO 5 MILES IN ADVANCE OF THE PROJECT LIMITS, WITH THE LOCATION BEING DETERMINED BY THE ENGINEER.
- THE WORK ZONE PUBLIC INFORMATION SIGN IS 60" WIDE BY 48" HIGH. THE CONTRACTOR SHALL OBTAIN THE CAMERA-READY ARTWORK REQUIRED FOR THE SIGN MESSAGE BY CONTACTING IDOT'S CENTRAL BUREAU OF OPERATIONS.
- THE PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE USED TO DISPLAY THE STATUS OF LANE WITHIN THE CONTRACT LIMITS. THE PRIMARY MESSAGES SHALL BE: "RIGHT LANE(S) CLOSED" / "X MILES AHEAD", "LEFT LANE(S) CLOSED" / "X MILES AHEAD", "LANE(S) SHIFT" / "X MILES AHEAD", "ALL LANES OPEN". THE PORTABLE CHANGEABLE MESSAGE SIGN MAY BE MOVED TO THE MEDIAN SHOULDER WHEN THE LANE CLOSURES ARE ON THE LEFT, PROVIDED THE EXISTING SHOULDER WIDTH IS ADEQUATE.
- THE ILLINOIS TOLLWAY WILL FURNISH AND INSTALL STATIC PROJECT INFORMATION SIGNS IN ADVANCE, THROUGH AND AT THE END OF THE WORK ZONE. THESE SIGNS WILL BE INSTALLED ALONG THE OUTSIDE SHOULDER WITH THE ADVANCE SIGNS LOCATED BEYOND THE PORTABLE CHANGEABLE MESSAGE SIGN. THE ENGINEER AND CONTRACTOR SHALL COORDINATE WITH THE ILLINOIS TOLLWAY REGARDING THE LOCATION OF THESE SIGNS AND NOTIFY THE ILLINOIS TOLLWAY OF ANY DAMAGE TO THE SIGNS OR SUPPORTS.

LEGEND

- ARROW BOARD
- WORK AREA
- SIGN
- DIRECTION INDICATOR BARRICADE WITH SEQUENTIAL FLASHING WARNING LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- FLAGGER WITH TRAFFIC CONTROL SIGN
- WORKER
- LANE CLOSED



DATE	REVISIONS
11-01-12	ADDED THREE LANE CLOSURE
03-31-14	REVISED BUFFER SPACE, TAPER DIMENSIONS AND REVISED NOTES.
3-11-2015	REVISED NOTES.
3-31-2016	ADDED LANE CLOSURE WITH BARRIER AND ADDED SEQUENTIAL FLASHING WARNING LIGHT.
3-31-2017	ADDED TAPER RATE TABLE

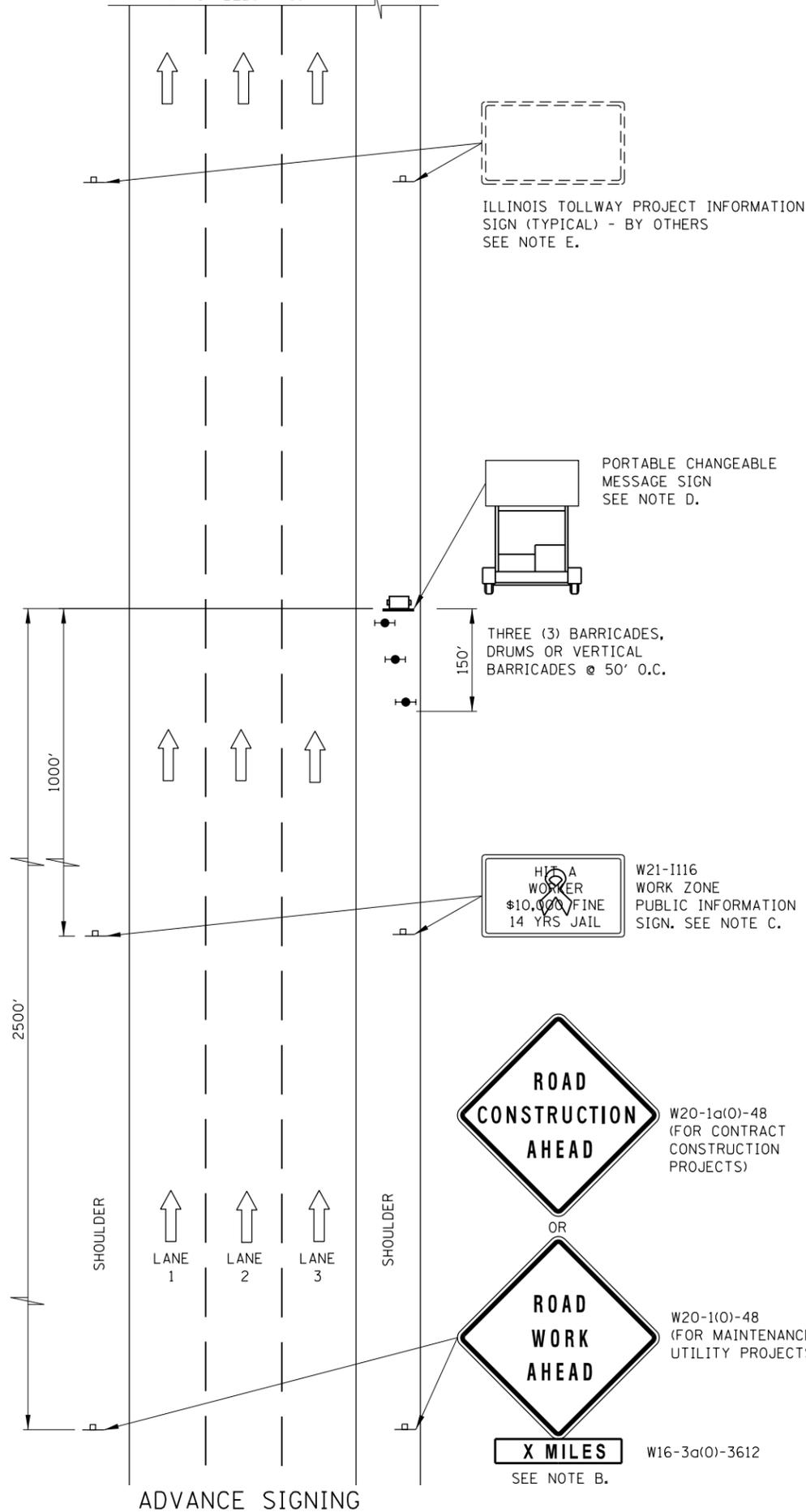
LANE CLOSURE DETAILS

STANDARD E2-07

APPROVED *Paul Kovacs* CHIEF ENGINEER DATE 5-1-2009

SEE NOTE B.

MATCH BELOW RIGHT

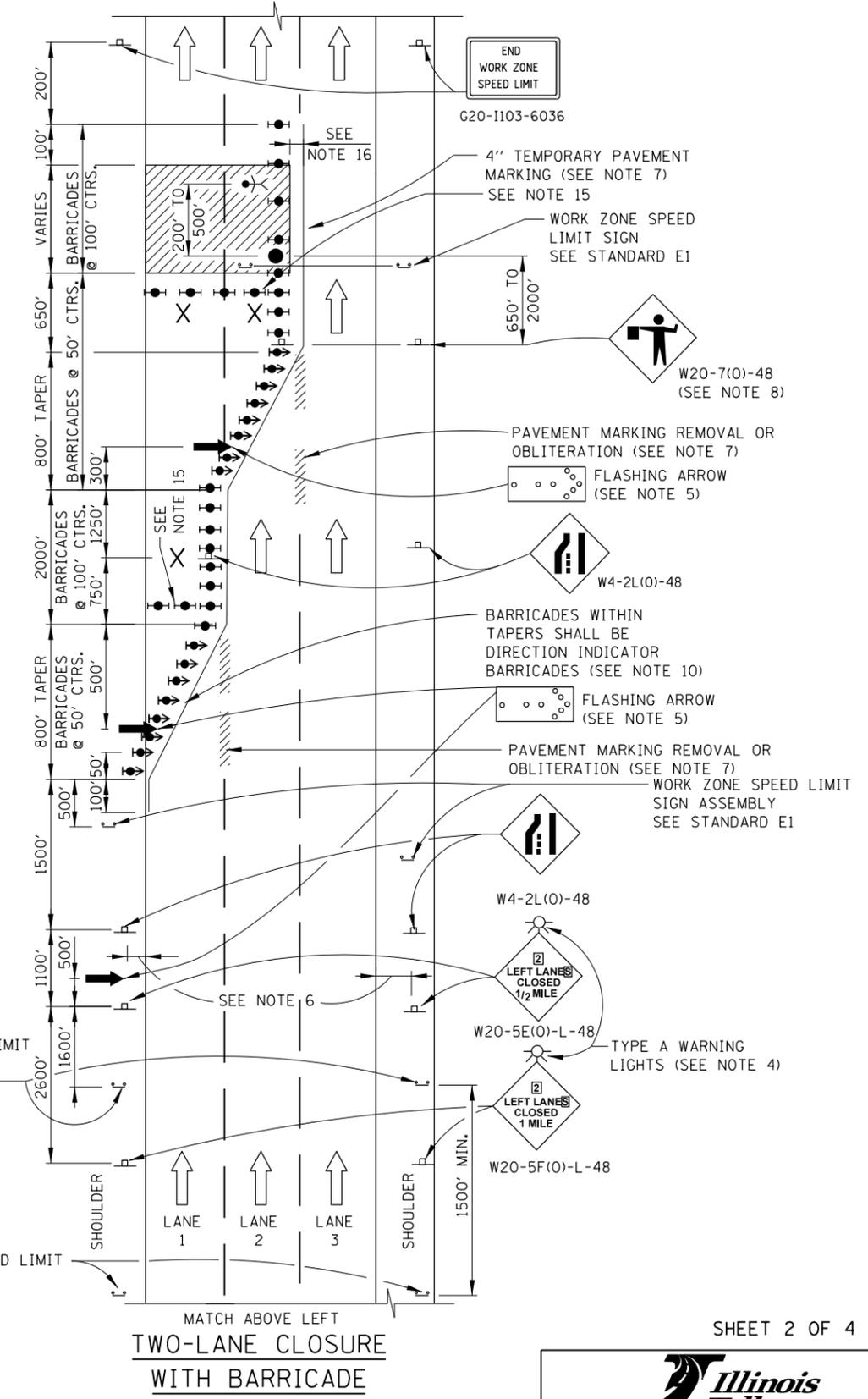


LEGEND

- ARROW BOARD
- WORK AREA
- SIGN
- DIRECTION INDICATOR BARRICADE WITH SEQUENTIAL FLASHING WARNING LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- FLAGGER WITH TRAFFIC CONTROL SIGN
- WORKER
- LANE CLOSED

Paul Kovacs
 APPROVED CHIEF ENGINEER DATE 5-1-2009

ADVANCE SIGNING



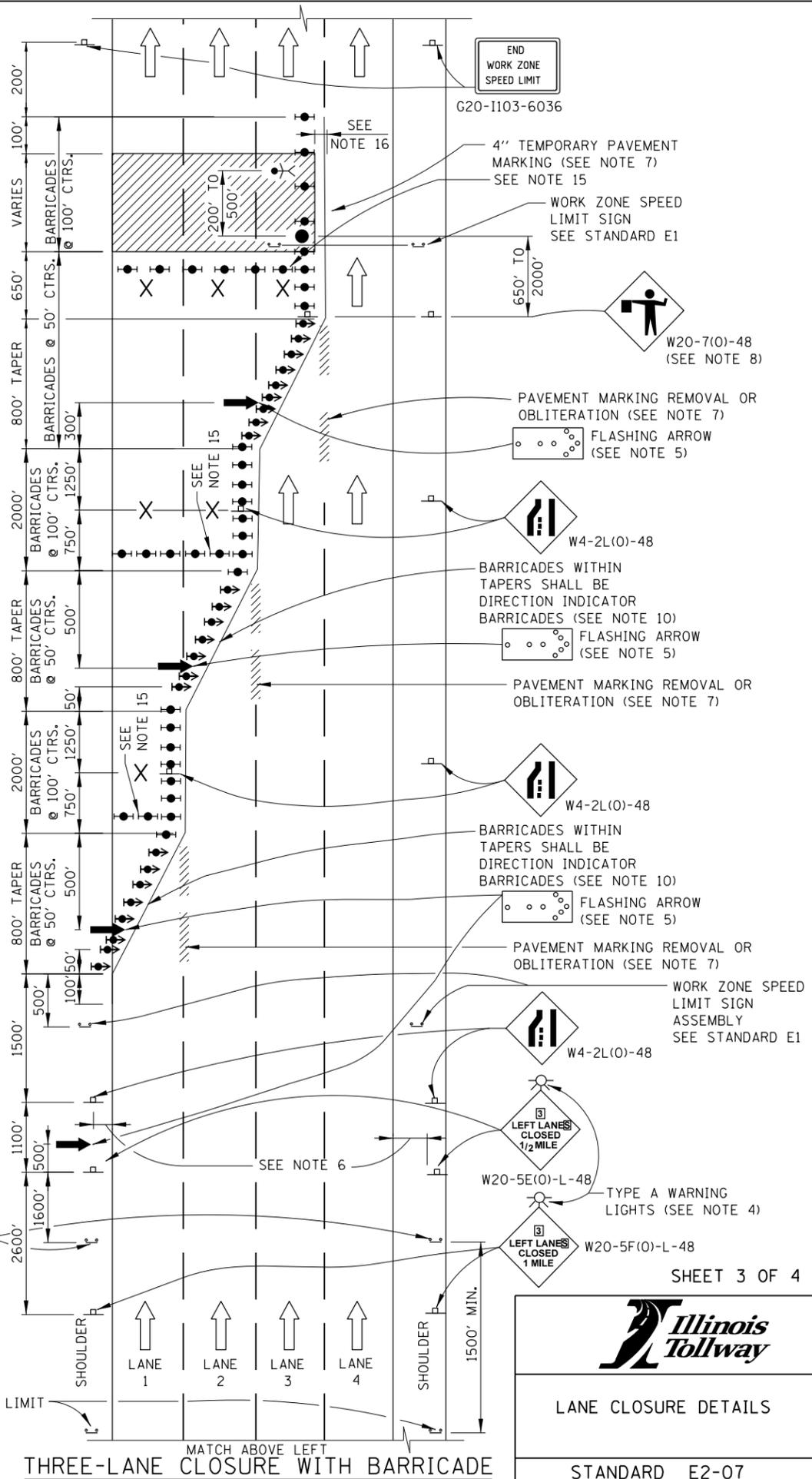
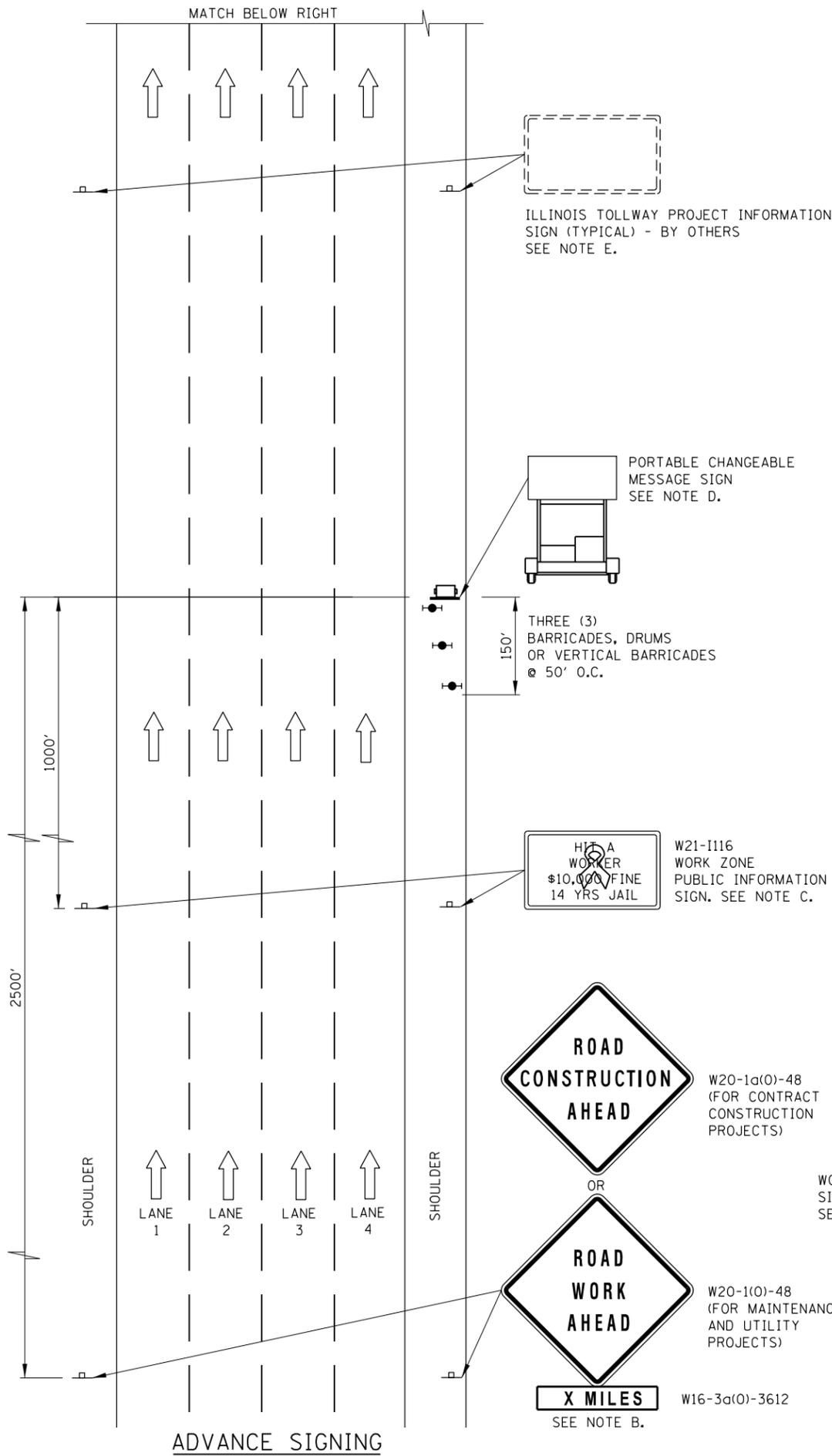
SHEET 2 OF 4



LANE CLOSURE DETAILS

STANDARD E2-07

SEE SHEET 1 IN THIS SERIES FOR NOTES



- LEGEND**
- ARROW BOARD
 - WORK AREA
 - SIGN
 - DIRECTION INDICATOR BARRICADE WITH SEQUENTIAL FLASHING WARNING LIGHT
 - TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
 - FLAGGER WITH TRAFFIC CONTROL SIGN
 - WORKER
 - LANE CLOSED

APPROVED *Paul Kovacs* CHIEF ENGINEER DATE 5-1-2009

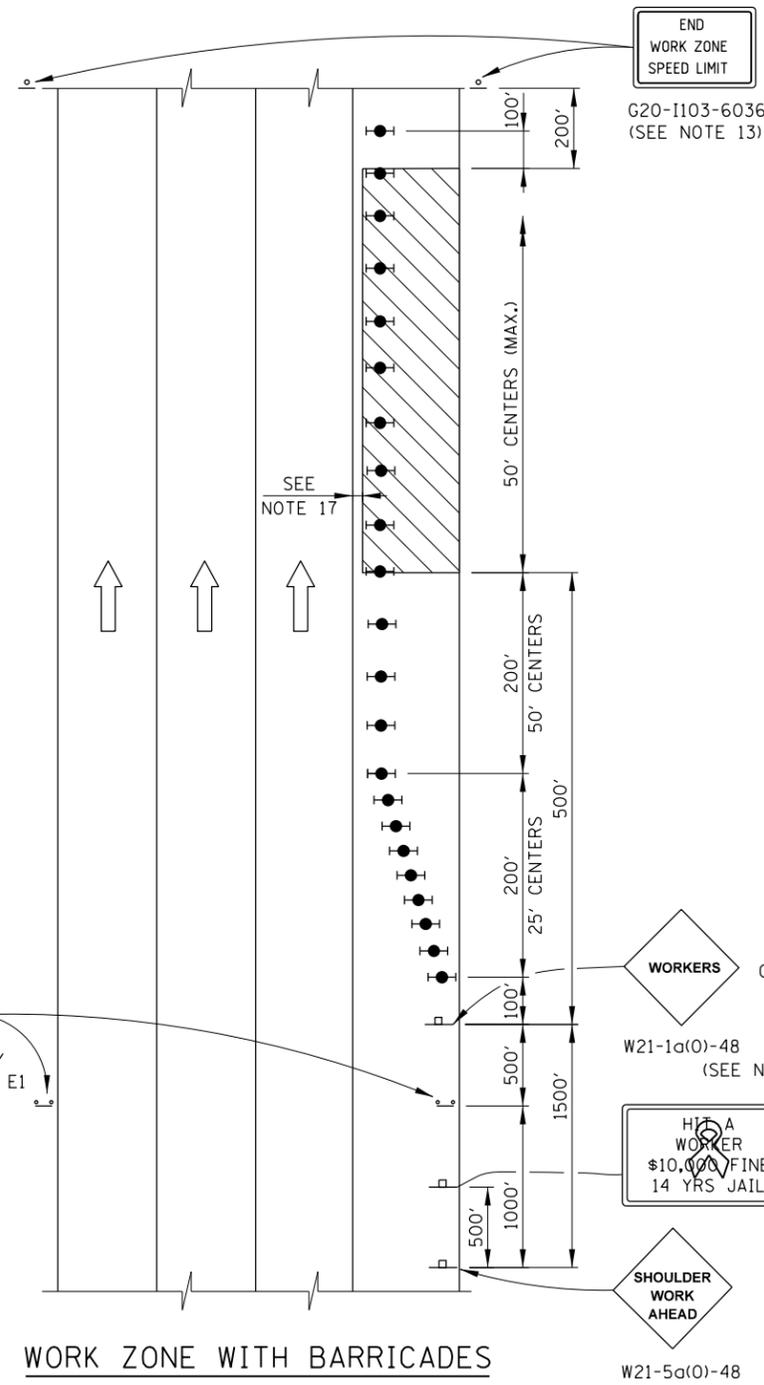
SHEET 3 OF 4

LANE CLOSURE DETAILS

STANDARD E2-07

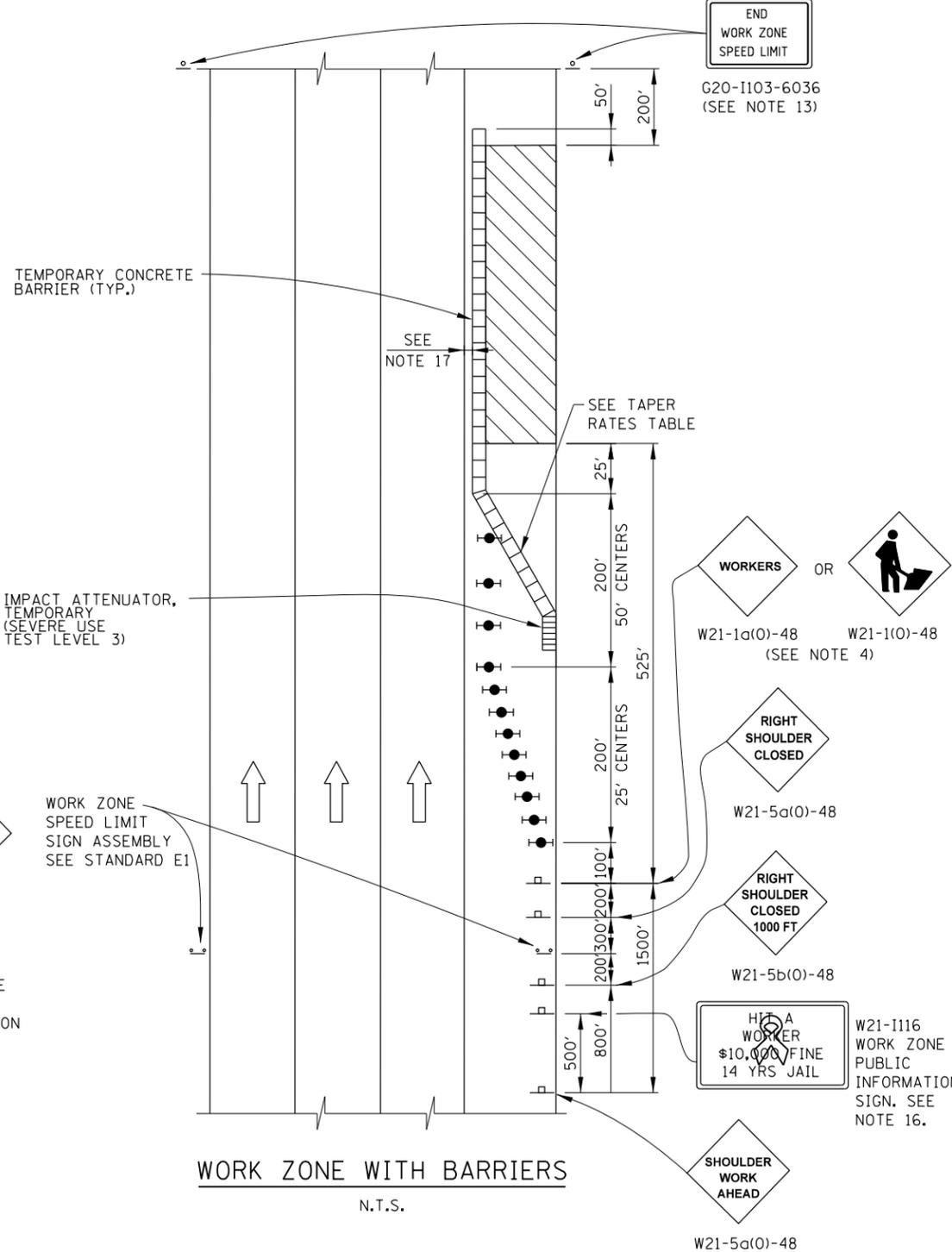
GENERAL NOTES:

1. THE SHOULDER SHALL BE CLOSED WHEN A WORK ACTIVITY REQUIRING 15 OR MORE MINUTES IS PERFORMED AT A DISTANCE WHICH IS LESS THAN 15 FEET BUT NO CLOSER THAN 2 FEET FROM THE EDGE OF PAVEMENT.
2. THE ADJACENT EXTERIOR LANE SHALL BE CLOSED WHEN WORK IS PERFORMED WITHIN 2 FEET FROM THE EDGE OF PAVEMENT.
3. THE CHANNELIZING DEVICES WHICH SEPARATE THE WORK SPACE FROM THE ADJACENT TRAVEL LANE SHALL BE SPACED AT 25' FOR (200 FEET) AND AT A MAXIMUM OF 50' FOR ALL ADDITIONAL DEVICES.
4. WHEN THE WORKSITE IS UNATTENDED, SUBSTITUTE - "SHOULDER WORK AHEAD" SIGN.
5. WORKER SIGNS OR SHOULDER WORK SIGNS AND CHANNELIZATION DEVICES ARE PLACED ONLY ON THE SIDE OF THE ROADWAY ON WHICH THE ACTIVITY IS PERFORMED.
6. FOR SHOULDER CLOSURE EXTENDING OVERNIGHT, BARRICADE TYPE II WITH STEADY BURNING LIGHT, TYPE C SHALL BE USED.
7. FOR SHORT TERM CLOSURE (SUNRISE TO ONE HOUR BEFORE SUNSET) NOT EXTENDING INTO DARKNESS, CONES MAY BE USED.
8. ONE WORK ZONE SPEED LIMIT SIGN ASSEMBLY SHALL BE PLACED AT A DISTANCE OF 500' TO 2,500' MAXIMUM IN ADVANCE OF WORKERS THROUGHOUT THE SHOULDER CLOSURE. MOVING OPERATIONS MAY REQUIRE CONTINUOUS ADJUSTMENT OF THE SIGN ASSEMBLY LOCATION TO MAINTAIN THE ABOVE INTERVAL.
9. AN ADDITIONAL SIGN ASSEMBLY SHALL BE PLACED 500' BEYOND THE LAST ENTRANCE RAMP FOR EACH INTERCHANGE THAT FALLS WITHIN THE 2,500'.
10. THE SIGN ASSEMBLY SHALL BE PLACED NO CLOSER THAN 500' TO ANY OTHER SIGN.
11. THE WORK ZONE SPEED LIMIT SIGNS AND SIGN ASSEMBLY SHALL BE PROMPTLY REMOVED OR COVERED WHEN SHOULDER CLOSURE IS NOT IN USE.
12. ALL CONFLICTING SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED.
13. "END WORK ZONE SPEED LIMIT" SIGNS SHALL BE IN PLACE ONLY WHEN THE EXISTING POSTED SPEED > 55MPH.
14. FOR SHOULDER REPAIRS OR REPLACEMENT THE CHANNELIZING DEVICES SHALL BE PLACED AT THE EDGE OF PAVEMENT WHENEVER THE WORK ACTIVITIES RESULT IN A DROPOFF AT THE EDGE OF PAVEMENT.
15. ANY UNATTENDED OBSTACLE OR EXCAVATION LEFT ON THE SHOULDER OVERNIGHT SHALL BE IN COMPLIANCE WITH THE ROADWAY TRAFFIC CONTROL AND COMMUNICATIONS MANUAL.
16. THE WORK ZONE PUBLIC INFORMATION SIGN IS 60" WIDE BY 48" HIGH. THE CONTRACTOR SHALL OBTAIN THE CAMERA-READY ARTWORK REQUIRED FOR THE SIGN MESSAGE BY CONTACTING IDOT'S CENTRAL BUREAU OF OPERATIONS.
17. A 1'-0" MINIMUM/2'-0" DESIRABLE SHY DISTANCE SHALL BE PROVIDED, MEASURED BETWEEN EDGE OF PAVEMENT LANE MARKING TO THE EDGE OF THE TRAFFIC CONTROL DEVICE.



WORK ZONE WITH BARRICADES

N.T.S.



WORK ZONE WITH BARRIERS

N.T.S.

TAPER RATES

WORK ZONE SPEED (mph)	SHY LINE (ft.)	BARRIER INSIDE SHY LINE	BARRIER AT OR BEYOND SHY LINE
65	8.5	28:1	19:1
60	8	26:1	18:1
55	7	24:1	16:1
50	6.5	21:1	14:1
45	6	18:1	12:1
40	5	16:1	10:1
35	4.5	15:1	9:1
30	4	13:1	8:1

LEGEND

- WORK AREA
- SIGN
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT

WORK ZONE SPEED LIMIT SIGN ASSEMBLY SEE STANDARD E1

HIT A WORKER \$10,000 FINE 14 YRS JAIL

HIT A WORKER \$10,000 FINE 14 YRS JAIL

APPROVED *Paul Kovacs* CHIEF ENGINEER DATE 5-1-2009

DATE	REVISIONS
1-01-11	CHANGED SYMBOL DESIGNATION
	REVISED NOTES
3-31-14	REVISED WORKER SIGN NUMBERS PER "MUTCD" AND REVISED NOTES.
3-11-2015	REVISED NOTES
3-31-2016	ADD WORK ZONE WITH BARRIERS.
3-31-2017	ADDED TAPER RATE TABLE.

SHOULDER CLOSURE DETAILS

STANDARD E3-06