

03-08-2019 LETTING ITEM 007

FOR INDEX OF SHEETS, SEE SHEET NO. 2

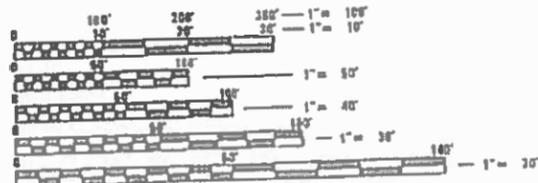
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PROPOSED
 HIGHWAY PLANS**
 F.A.U. 2706: IL ROUTE 43 (WAUKEGAN RD)
 OVER IL ROUTE 120 (BELVIDERE ROAD)
 SECTION: 12R-1HB-1-BR
 PROJECT NO.: STP-5109(325)
 BRIDGE JOINT REPAIR AND
 BRIDGE DECK OVERLAY
 LAKE COUNTY
 C-91-201-12

IMPROVEMENT LOCATED WITHIN
 THE CITY OF WAUKEGAN
 AND PARK CITY

TRAFFIC DATA

IL ROUTE 43
 2017 ADT=20,600
 POSTED SPEED=45 MPH
 DESIGN SPEED=50 MPH
 DESIGN CLASSIFICATION - MINOR ARTERIAL

IL ROUTE 120
 2017 ADT=20,300
 POSTED SPEED=45 MPH
 DESIGN SPEED=50 MPH
 DESIGN CLASSIFICATION - OTHER PRINCIPAL ARTERIAL



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

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

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

CONTRACT NO. 60R68



WARREN TOWNSHIP
 GROSS LENGTH OF PROJECT = 287 FT = 0.054 MILE
 NET LENGTH OF PROJECT = 287 FT = 0.054 MILE



IMPROVEMENT LOCATION
 IL 43 OVER IL 120
 STA. 53 + 03.92 TO
 STA. 55 + 91.24
 STRUCTURE NO: 049-0111

MILLENNIA PROFESSIONAL SERVICES
 THOMAS V. INGO, P.E.
 IL. L.I.C. NO. 062-058319
 EXPIRES 11/30/2019
 SIGNED: *Thomas V. Ingo*
 DATE: 11/30/2018
 SIGNATURE AND SEAL APPLIES TO
 SHEETS: 5-10



HEW ENGINEERING GROUP, LLC.
 JOSEPH M. GLENNON, P.E.
 IL. L.I.C. NO. 062-046610
 EXPIRES 11/30/2019

SIGNED: *Joseph M. Glennon*
 DATE: 11/30/2018
 SIGNATURE AND SEAL APPLIES TO
 SHEETS: 1-4



HEW ENGINEERING GROUP, LLC.
 DR. MOUSSA A. ISSA, S.E.
 IL. L.I.C. NO. 081-005738
 EXPIRES 11/30/2020

SIGNED: *Moussa A. Issa*
 DATE: 11/30/2018
 SIGNATURE AND SEAL APPLIES TO
 SHEETS: 11-35



F.A.U. RTE. 2706	SECTION 12R-1HB-1-BR	COUNTY LAKE	TOTAL SHEETS #45	SHEET NO. 1
FED. ROAD DIST. NO. J	ILLINOIS	CONTRACT NO. 60R68		

*45 + 1 = 46 TOTAL SHEETS



LOCATION OF SECTION INDICATED THIS: - [red box] -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED *December 6, 2018*
Anthony J. D'Amico / *1/14/19*
 PROFESSIONAL ENGINEER

Feb 1 2019
 ENGINEER OF DESIGN AND ENVIRONMENT

Feb 1 2019
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
2. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE UTILITY COMPANIES, AND THE CITY OF WAUKEGAN.
3. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
4. ALL DAMAGE TO EXISTING PAVEMENT MARKING OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE. NO ADDITIONAL COST TO THE DEPARTMENT.
5. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCES, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL STRIPING SHALL BE AS DIRECTED BY THE ENGINEER.
6. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
8. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
9. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
10. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
11. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN ON THE PLANS.
12. FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
13. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL LOGS, SHRUBS, BUSHES, SAPLINGS, UNDERBRUSH OR DEBRIS ACCORDING TO SECTION 201 OF THE STANDARD SPECIFICATIONS AT LOCATIONS REQUIRING ACCESS TO THE SUBSTRUCTURE. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT THE COST SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
14. THE REMOVAL OF GUARDRAIL TERMINAL SECTIONS SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT FOR "GUARDRAIL REMOVAL."
15. THE CONTRACTOR SHALL VERIFY THE EXISTING TYPE/HEIGHT OF EXISTING GUARDRAIL BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION SHALL MATCH THE HEIGHT OF THE EXISTING GUARDRAIL.
16. THE RESIDENT ENGINEER SHALL CONTACT WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER VIA EMAIL AT WALTER.CZARNY@ILLINOIS.GOV AT LEAST (2) WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS
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LIST OF ILLINOIS DOT HIGHWAY STANDARDS

- 000001-07 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 606001-07 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 631031-15 TRAFFIC BARRIER TERMINAL, TYPE 6
- 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH
- 701426-09 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS >= 45 MPH
- 701427-05 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS <= 40 MPH
- 701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701701-10 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701901-08 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 781001-04 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
- 782006 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

FILE NAME = P:\111-532 IDOT PTB161 Item 8 (Various-Variou)\Work Order #1 - SN 049-0111 IL43\Civil Sheets\02-D160R68-sht-gennotes.dgn
 USER = JASPERNAME

HBM
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 4415 WEST HARRISON ST.
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 PHONE: (708) 236-0900
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DESIGNED -	KJD	REVISED -	
DRAWN -	KJD	REVISED -	
CHECKED -	RTB	REVISED -	
DATE -	12/07/2018	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 43 (WAUKEGAN RD)
OVER BELVIDERE RD (SN 049-0111)**

**INDEX OF SHEETS, LIST OF IDOT
HIGHWAY STANDARD, GENERAL NOTES,
AND COMMITMENTS**

SCALE: N/A	SHEET NO.	OF	SHEETS	STA.	TO STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	2
CONTRACT NO.			60R68	

SUMMARY OF QUANTITIES

80% FED
20% STATE

CONSTRUCTION TYPE CODE

IL RTE 43 OVER
BELVIDERE RD
SN 049-0111

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
					IL RTE 43 OVER BELVIDERE RD SN 049-0111
				0047	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	128		128
21101615	TOPSOIL FURNISH AND PLACE, 4'	SQ YD	75		75
25000210	SEEDING, CLASS 2A	ACRE	0.1		0.1
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	1		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	1		1
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	57		1
28000510	INLET FILTERS	EACH	20		
50102400	CONCRETE REMOVAL	CU YD	56.1		56.1
50104000	BRIDGE RAIL REMOVAL	FOOT	608		608
50157300	PROTECTIVE SHIELD	SQ YD	1731		1731
50300255	CONCRETE SUPERSTRUCTURE	CU YD	72.9		72.9
50300260	BRIDGE DECK GROOVING	SQ YD	2050		2050
50300300	PROTECTIVE COAT	SQ YD	856		856
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	5230		5230
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	23170		23170
50800515	BAR SPLICERS	EACH	68		68
52000110	PREFORMED JOINT STRIP SEAL	FOOT	177.2		177.2
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	24		24
52100520	ANCHOR BOLTS, 1"	EACH	96		96
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2		2
63200310	GUARDRAIL REMOVAL	FOOT	75		75
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12		12
67100100	MOBILIZATION	L SUM	1		1
70300904	PAVEMENT MARKING TAPE, TYPE IV 4'	FOOT	11099		11,099
70300906	PAVEMENT MARKING TAPE, TYPE IV 6'	FOOT	220		220
70300908	PAVEMENT MARKING TAPE, TYPE IV 8'	FOOT	32		32
70300912	PAVEMENT MARKING TAPE, TYPE IV 12'	FOOT	304		304
70400100	TEMPORARY CONCRETE BARRIER	FOOT	954		954
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	917		917
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2		2

▪ SPECIALTY ITEM

FILE NAME : P:\111-532 IDOT PTB161 Item 8 (Various-Various)\Work Order #1 - SN 049-0111 IL43\Civil Sheets\03-D16R68-sht-500.dgn
 USER : NAME :
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HBM
 ENGINEERING GROUP, LLC
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 4415 WEST HARRISON ST.
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DESIGNED - KJD	REVISED -
DRAWN - KJD	REVISED -
CHECKED - RTB	REVISED -
DATE - 12/07/2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 43 (WAUKEGAN RD)
OVER BELVIDERE RD (SN 049-0111)**

SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.U. RTE. 2706	SECTION 12R-1HB-1-BR	COUNTY LAKE	TOTAL SHEETS 45	SHEET NO. 3
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT			CONTRACT NO. 60R68	

SUMMARY OF QUANTITIES

80% FED
20% STATE

CONSTRUCTION TYPE CODE

IL RTE 43 OVER
BELVIDERE RD
SN 049-0111

CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE
				0047
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4'	FOOT	1942	1942
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8'	FOOT	867	867
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12'	FOOT	57	57
* 78003110	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4'	FOOT	510	510
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	72	72
* 78100300	REPLACEMENT REFLECTOR	EACH	20	20
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	75	75
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	20	20
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1551	1551
* X2700003	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	128	128
* X2700004	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 7"	FOOT	128	128
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	4135	4135
* X8040150	REMOVAL ELECTRICAL CONNECTION TO SIGN STRUCTURE	EACH	2	2
X2600027	REMOVE, STORE AND RE-ERECT OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	EACH	2	2
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	21	21
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	2123	2123
Z0006016	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 3/4 INCHES	SQ YD	2123	2123
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	2123	2123
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	1196	1196
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	79	79
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	51	51
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	68	68
** Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	10	10
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	202	202
Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	4	4
Z0041895	POLYMER CONCRETE	CU FT	9	9
Z0043900	PREFORMED JOINT FILLER	FOOT	90	90
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	3	3

* NON-PARTICIPATING

* SPECIALTY ITEM

FILE NAME = P:\1111-532 IDOT PTB161 Item 8 (Various-Various)\Work Order #1 - SN 049-0111 IL43\Civil Sheets\04-D160R68-sht-500.dgn
USER = JESSE
DATE = 12/07/2018

HBM
ENGINEERING GROUP, LLC
4415 WEST HARRISON ST.
SUITE 231
HILLSIDE, IL 60162
PHONE: (708) 236-0900
FAX: (708) 236-0901

DESIGNED - KJD
DRAWN - KJD
CHECKED - RTB
DATE - 12/07/2018

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 43 (WAUKEGAN RD)
OVER BELVIDERE RD (SN 049-0111)**

SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	4
CONTRACT NO.			60R68	

FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT

GUARDRAIL NOTE:

THE TRAF BAR TERM T6 SHALL BE CONNECTED TO EXISTING GUARDRAIL. THE COST TO CONNECT THE TRAF BAR TERM T6 TO THE EXISTING GUARDRAIL SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT BID PRICE OF TRAF BAR TERM T6.

SEEDING, CLASS 2A HEAVY-DUTY EROSION CONTROL BLANKET

GUARDRAIL REMOVE (37.5 FT)
TRAF BAR TERM T6 (1 EA)
SEE GUARDRAIL NOTE

CONTRAST PREFORMED PLASTIC SHALL BE USED ON BRIDGE DECK FOR LANE LINES.

THERMOPLASTIC PAVEMENT MARKINGS SHALL BE USED ON ALL HMA SURFACES

GUARDRAIL REMOVE (37.5 FT)
TRAF BAR TERM T6 (1 EA)
SEE GUARDRAIL NOTE

END 8" WHITE LINE
BEGIN 4" WHITE LINE

PAVEMENT MARKING LEGEND (SEE NOTE 2)

- ① 4" WHITE LANE LINE (30' SKIP 10' DASH)
- ② 4" WHITE SOLID LINE
- ③ 8" WHITE LANE LINE (9' SKIP 3' DASH)
- ④ 8" WHITE LINE
- ⑤ 12" WHITE SOLID LINE
- ⑥ RAISED REFLECTIVE PAVEMENT MARKER (SEE NOTE 4)
REPLACEMENT REFLECTOR

NOTES

1. ALL DRAINAGE STRUCTURES WITHIN PROJECT LIMITS SHALL BE CLEANED.
2. THERMOPLASTIC PAVEMENT MARKINGS ARE FOR HMA PAVEMENT.
3. THE CONSTRUCTOR SHALL PLACE PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH DISTRICT 1 TYPICAL PAVEMENT MARKINGS DETAIL (TC-13).
4. THE CONSTRUCTOR SHALL PLACE PROPOSED RAISED REFLECTIVE PAVEMENT MARKERS ON HMA SURFACES ONLY IN ACCORDANCE WITH DISTRICT 1 RAISED REFLECTIVE PAVEMENT MARKERS (TC-11).

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 USER = JAC
 PLOT DATE = 12/10/2018 10:00:00 AM
 PLOT SCALE = 1"=50'
 PLOT SHEET NO. = 5
 PLOT SHEETS = 5



2600 Warrenville Rd, Suite 203, Downers Grove, IL 60515
 630.705.0110 voice, 630.839.2566 fax
 www.mps-il.com
MILLENNIA PROFESSIONAL SERVICES

DESIGNED - JP	REVISED -
DRAWN - JP	REVISED -
CHECKED - TVN	REVISED -
DATE - 12/10/2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 43 (WAUKEGAN RD)
OVER BELVIDERE RD (SN 049-0111)**

**ROADWAY PLAN
AND PAVEMENT MARKING PLAN**

F.A.U. RTE. 2706	SECTION 12R-1HB-1-BR	COUNTY LAKE	TOTAL SHEETS 45	SHEET NO. 5
CONTRACT NO. 60R68				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

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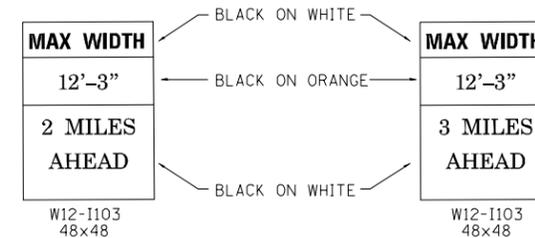
MAINTENANCE OF TRAFFIC GENERAL NOTES

1. THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY IMPROVE OR MODIFY THE TRAFFIC CONTROL PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE THROUGH LANE IN EACH DIRECTION THROUGH OUT THE PROJECT AREA AT ALL TIMES.
4. DRUMS SHALL BE PROVIDED AS SHOWN IN THE PLANS AND SPACED 50 FEET CENTER TO CENTER ON TANGENT, AND 20 FEET CENTER TO CENTER ON TAPERS AND CURVES.
5. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY DRAINAGE DURING ALL PHASES OF CONSTRUCTION.
6. THE CONTRACTOR SHALL FOLLOW THE SP 'LIGHTS ON BARRICADES'.
7. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
8. THE CONTRACTOR SHALL PROVIDE, INSTALL, MAINTAIN AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR TRAFFIC CONTROL AND PROTECTION.
9. TAPER LENGTH FOR TRAFFIC CONTROL DEVICES IS DEFINED BY:

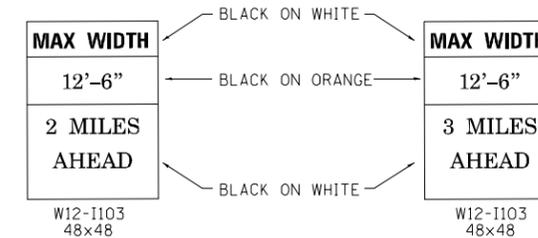
$$L = (W) \times (S)$$

L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED IN MPH.
10. TYPE III BARRICADES SHALL BE PROVIDED AT LOCATIONS SHOWN IN THE PLANS.
11. ONE MONO-DIRECTIONAL FLASHING AMBER BEACON SHALL BE MOUNTED TO THE FIRST TWO WARNING SIGNS ON EACH APPROACH. THE FLASHING AMBER BEACON SHALL BE OPERATIONAL DURING HOURS OF DARKNESS.
12. ALL TEMPORARY CONCRETE BARRIER WALL AND TEMPORARY IMPACT ATTENUATORS MUST BE SEATED ON BARE, CLEAN PAVEMENT OR PAVED SHOULDER.
13. TEMPORARY INFORMATION SIGNING SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL TC-22 AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT AS "TEMPORARY INFORMATION SIGNING".
14. ADVANCE WIDTH RESTRICTION SIGNS, W12-I103, SHALL BE INSTALLED. ONE SIGN SHALL BE INSTALLED APPROXIMATELY 2 MILES NORTH OF THE PROJECT AT THE INTERSECTION OF IL ROUTE 43 AND IL ROUTE 132. ONE SIGN SHALL BE INSTALLED APPROXIMATELY 3 MILES SOUTH OF THE PROJECT AT THE INTERSECTION OF IL ROUTE 43 AND IL ROUTE 137.

STAGE I



STAGE II



FILE NAME = P:\2011\ME11007_VerVar_Phi\CADD\W001_IL43.st_IL120\Shets\06-D160R68-sht-stage00.tpd-notes.dgn
 USER NAME = Millennium Professional Services



2600 Warrenville Rd, Suite 203, Downers Grove, IL 60515
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 www.mps-il.com
MILLENNIA PROFESSIONAL SERVICES

DESIGNED	- JP	REVISED	-
DRAWN	- JP	REVISED	-
CHECKED	- TVN	REVISED	-
DATE	- 1/3/2019	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 43 (WAUKEGAN RD)
OVER BELVIDERE RD (SN 049-0111)

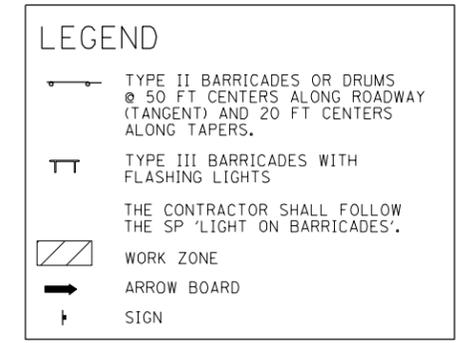
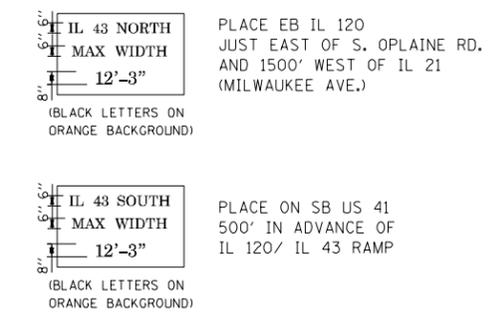
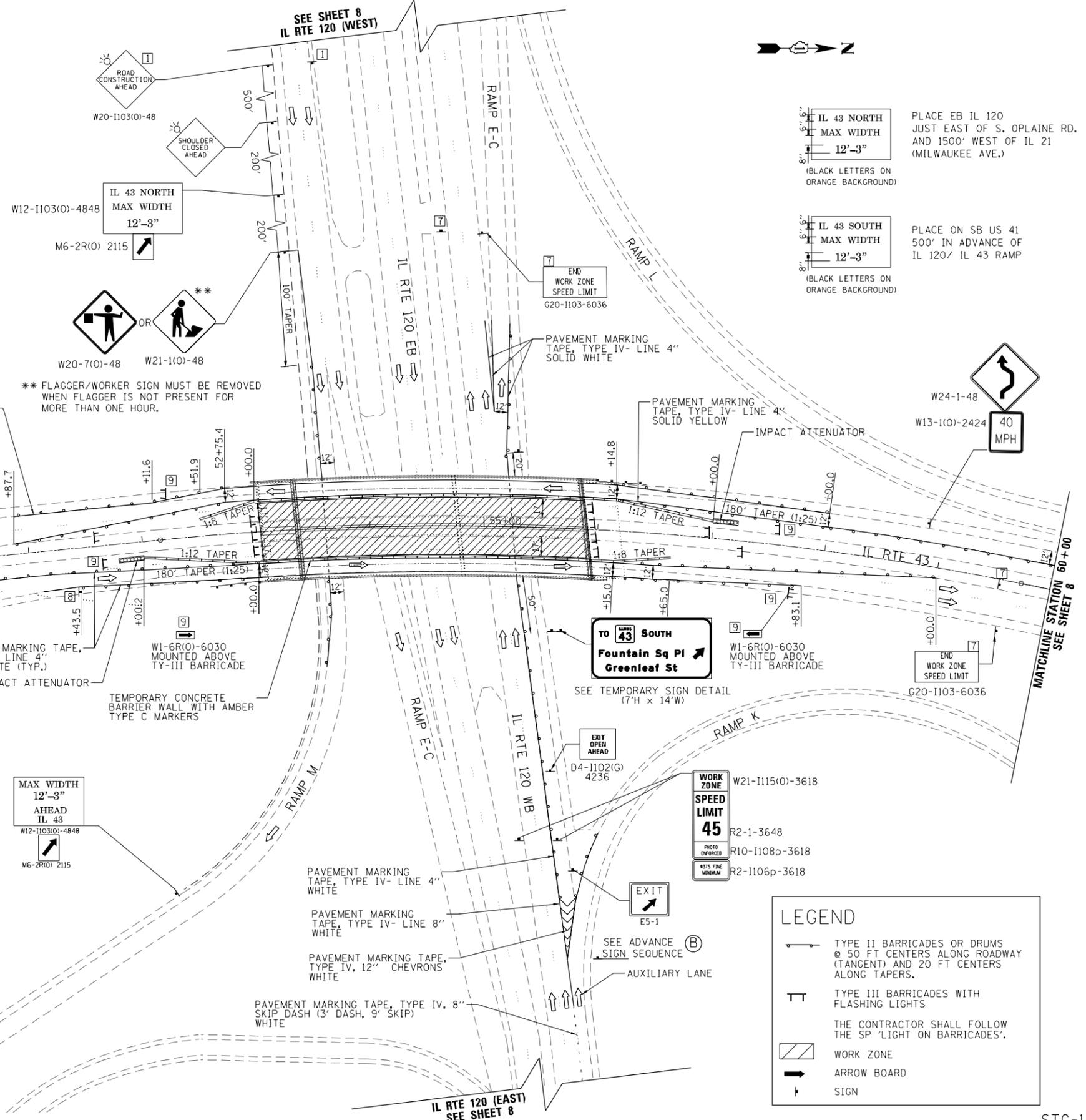
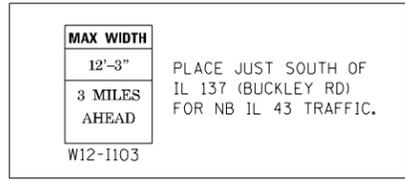
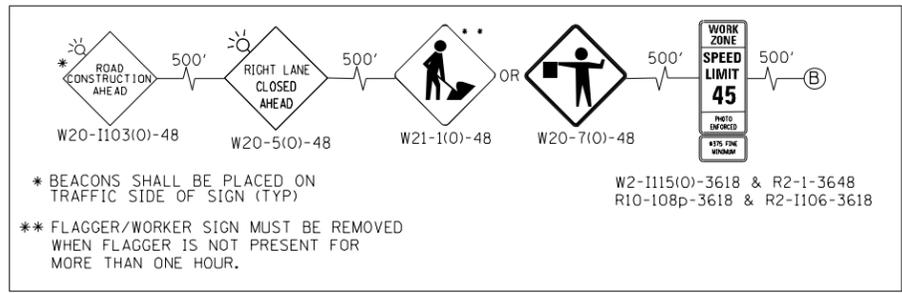
STAGING NOTES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-IHB-1-BR	LAKE	45	6
CONTRACT NO.			60R68	

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

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 1/15/2019 10:00:00 AM
 USER: NAME
 MILLENNIA PROFESSIONAL SERVICES

2600 Warrenville Rd, Suite 203, Downers Grove, IL 60515
 630.705.0110 voice, 630.839.2566 fax
 www.mps-il.com
MILLENNIA PROFESSIONAL SERVICES

DESIGNED - JP	REVISED -
DRAWN - JP	REVISED -
CHECKED - TVN	REVISED -
DATE - 1/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

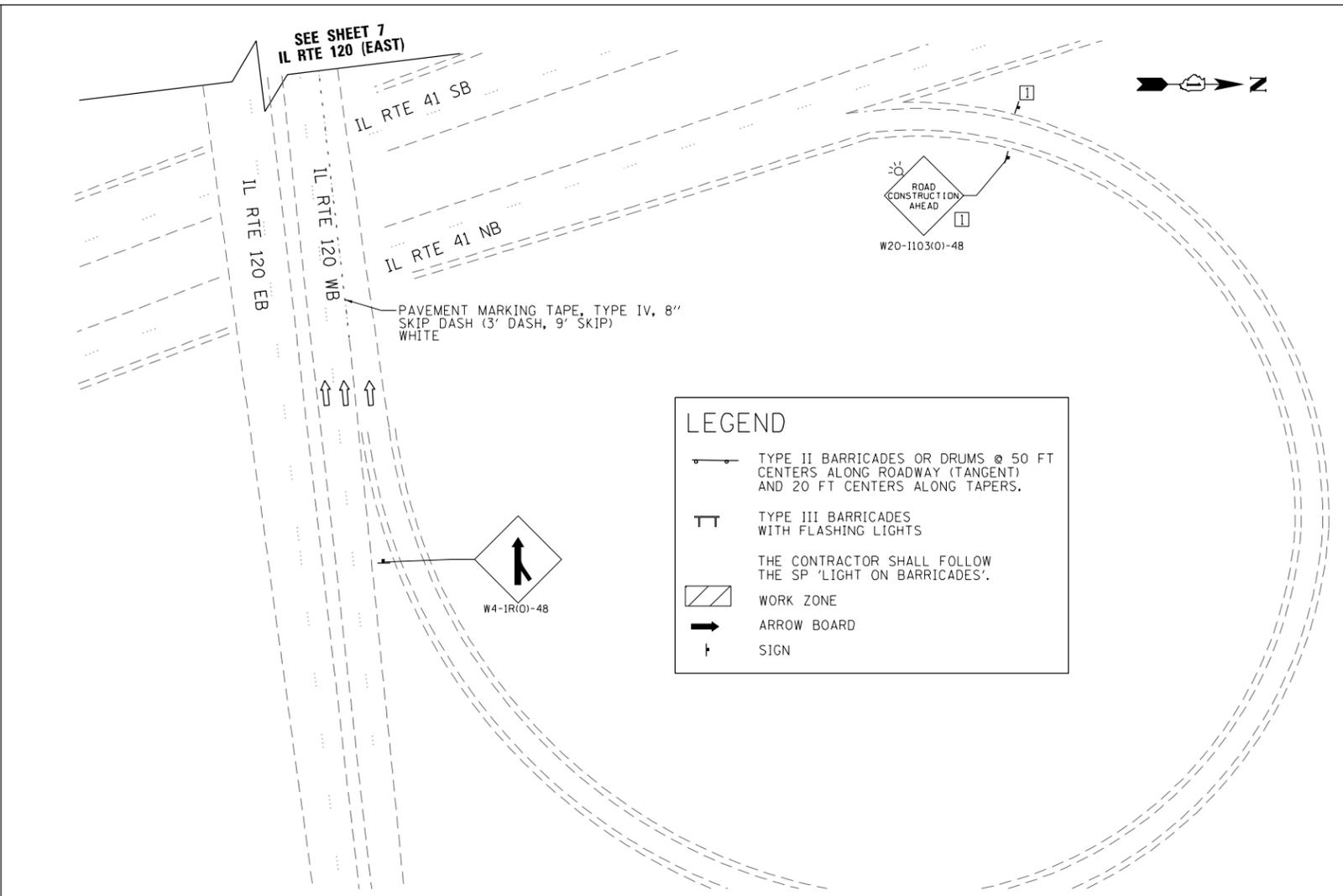
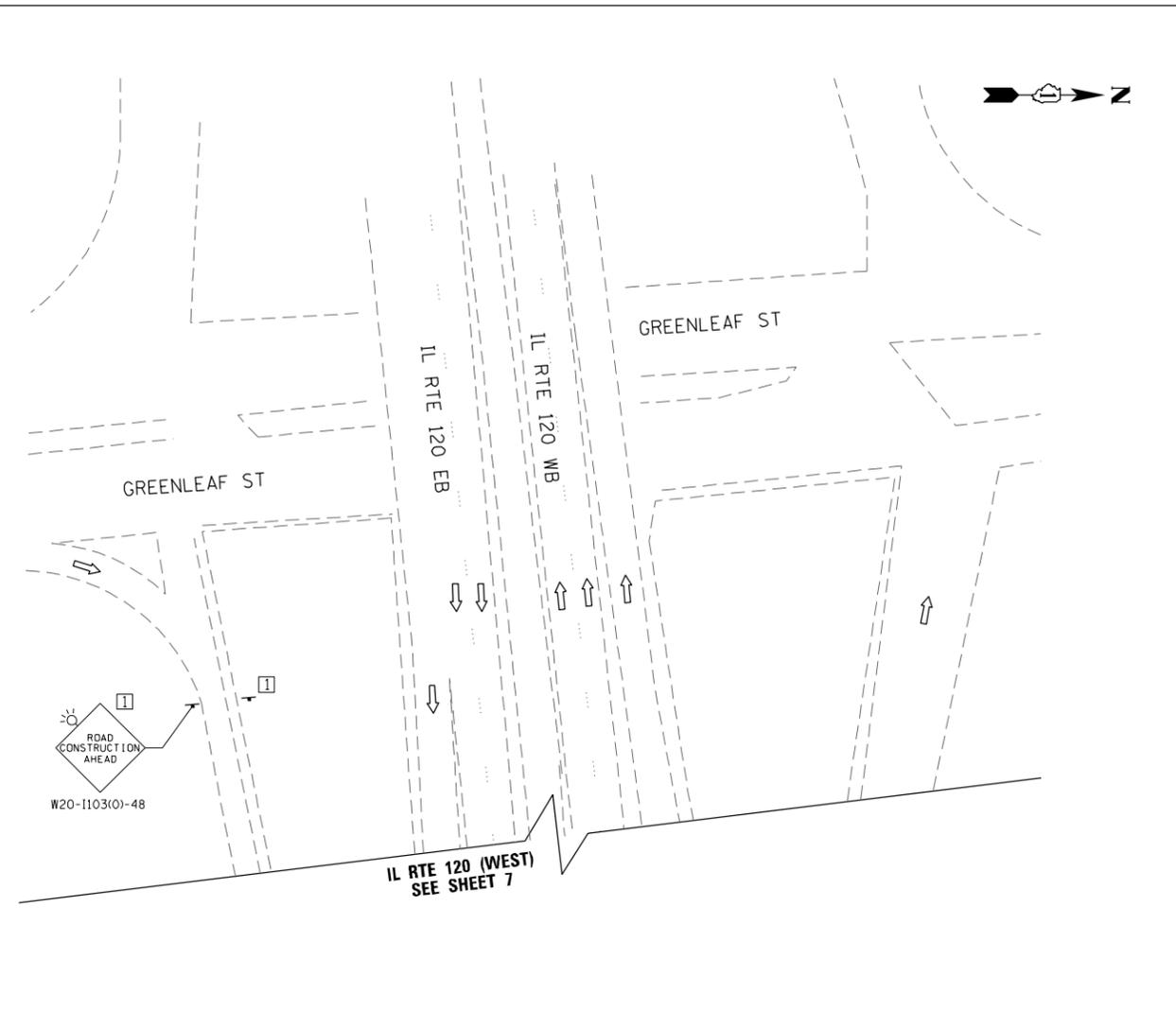
**IL 43 (WAUKEGAN RD)
OVER BELVIDERE RD (SN 049-0111)**

**SUGGESTED STAGES OF CONSTRUCTION
AND TRAFFIC CONTROL
STAGE I**

SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

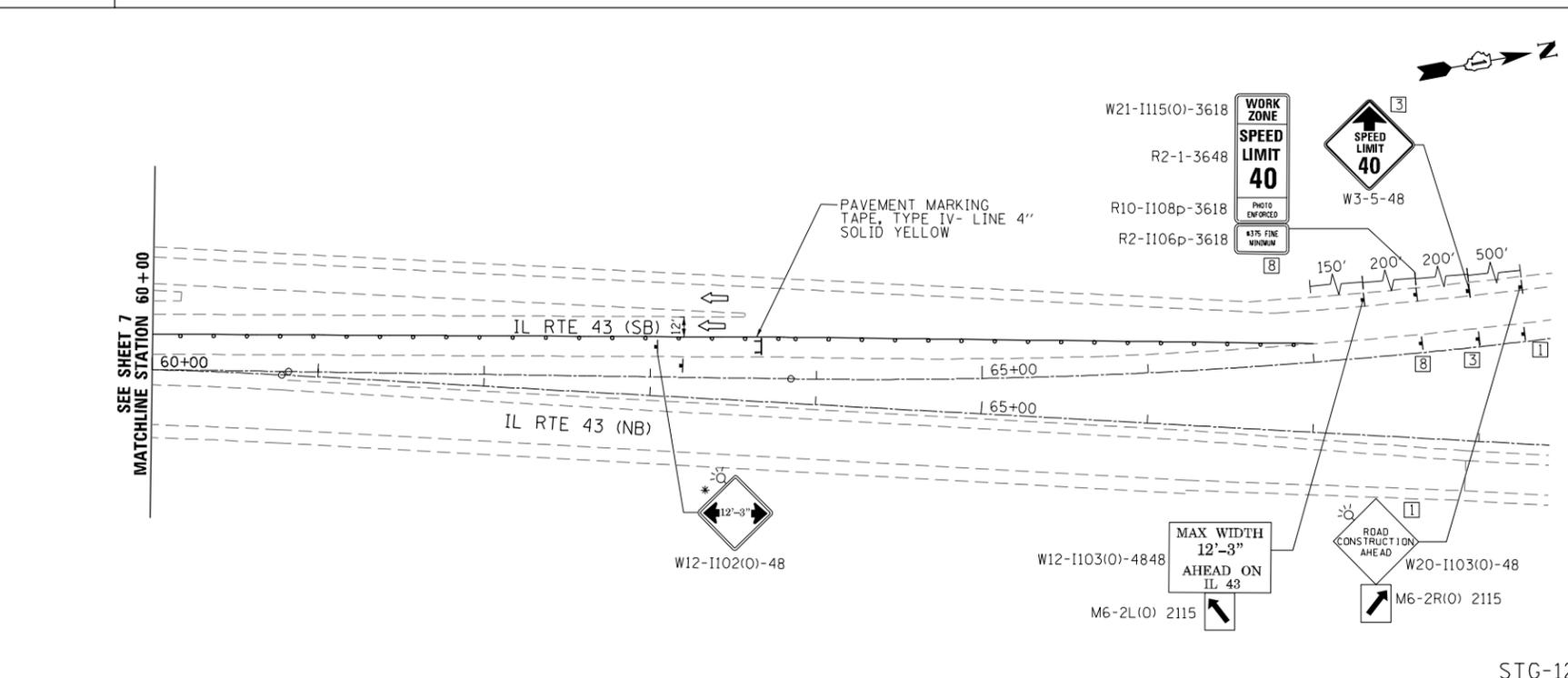
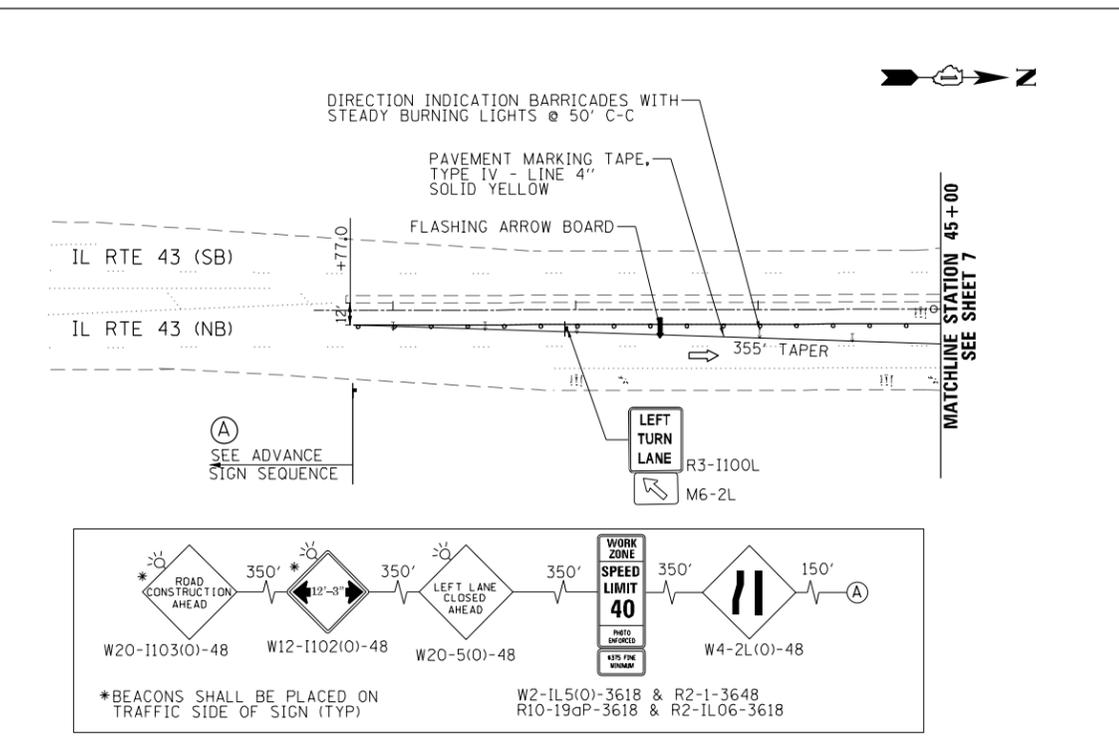
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	7
CONTRACT NO. 60R68				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

STG-11



LEGEND

- TYPE II BARRICADES OR DRUMS @ 50 FT CENTERS ALONG ROADWAY (TANGENT) AND 20 FT CENTERS ALONG TAPERS.
- TYPE III BARRICADES WITH FLASHING LIGHTS
- THE CONTRACTOR SHALL FOLLOW THE SP 'LIGHT ON BARRICADES'.
- WORK ZONE
- ARROW BOARD
- SIGN



SEE ADVANCE SIGN SEQUENCE

W20-1103(O)-48 W12-1102(O)-48 W20-5(O)-48 W2-1L5(O)-3618 & R2-1-3648 W4-2L(O)-48 R10-19aP-3618 & R2-1L06-3618

*BEACONS SHALL BE PLACED ON TRAFFIC SIDE OF SIGN (TYP)

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 1/15/2019 10:00:00 AM
 User: JPM
 Millennium Professional Services

2600 Warrenville Rd, Suite 203, Downers Grove, IL 60515
 630.705.0110 voice, 630.839.2566 fax
 www.mps-il.com

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CHECKED - TVN	REVISED -
DATE - 1/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 43 (WAUKEGAN RD)
OVER BELVIDERE RD (SN 049-0111)**

**SUGGESTED STAGES OF CONSTRUCTION
AND TRAFFIC CONTROL
STAGE I**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	8
CONTRACT NO. 60R68				

SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

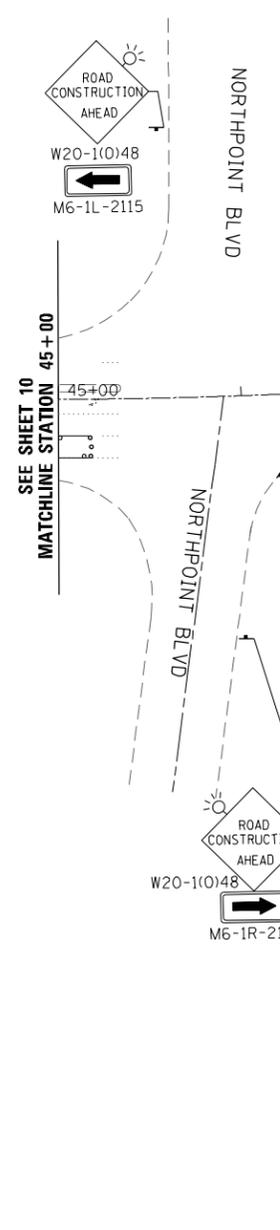
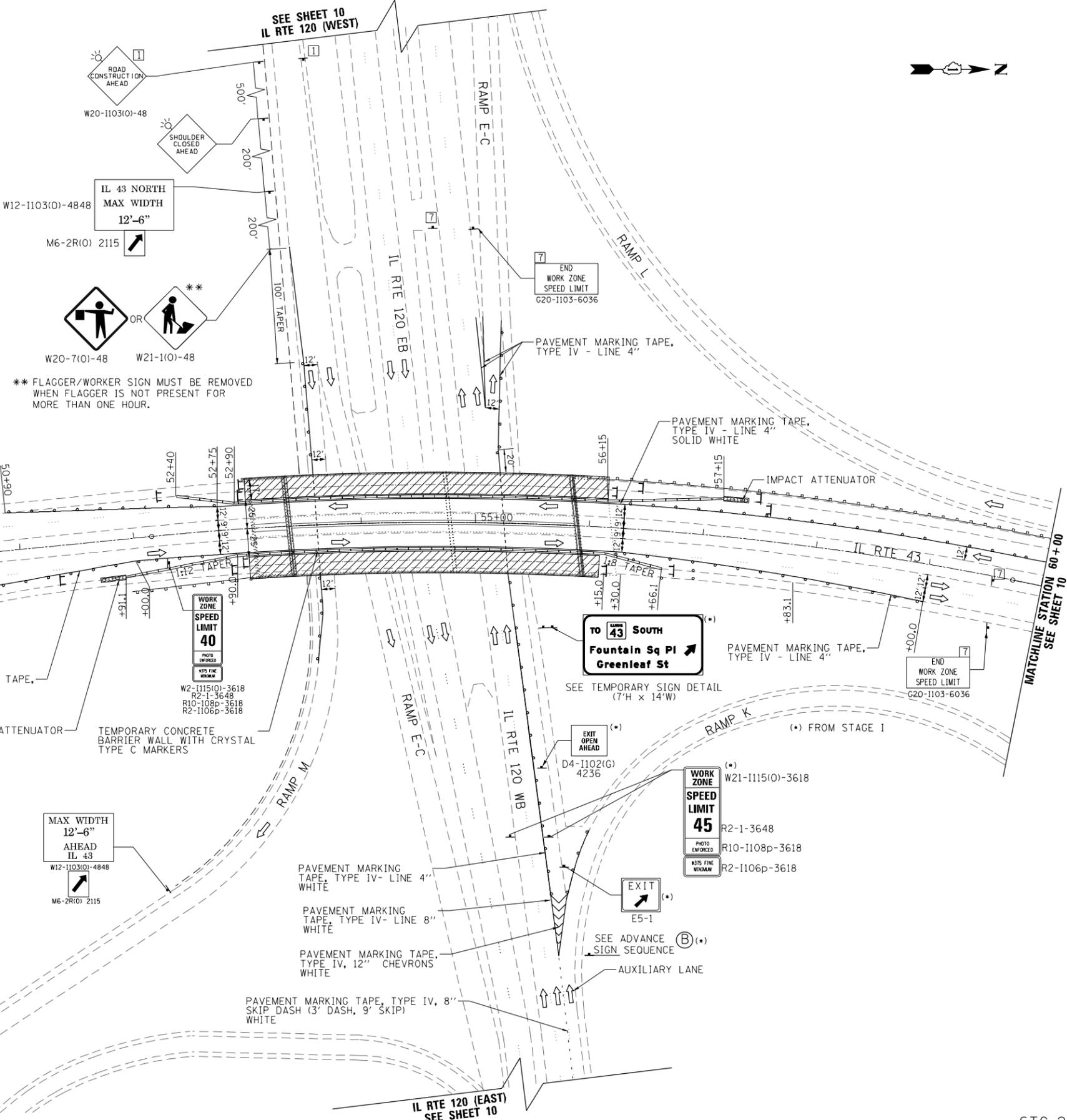
FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT

STG-12

LEGEND

- TYPE II BARRICADES OR DRUMS @ 50 FT CENTERS ALONG ROADWAY (TANGENT) AND 20 FT CENTERS ALONG TAPERS.
- TYPE III BARRICADES WITH FLASHING LIGHTS
- THE CONTRACTOR SHALL FOLLOW THE SP 'LIGHT ON BARRICADES'.
- WORK ZONE
- ARROW BOARD
- SIGN

*BEACONS SHALL BE PLACED ON TRAFFIC SIDE OF SIGN (TYP)



SEE SHEET 10
MATCHLINE STATION 45+00

MATCHLINE STATION 60+00
SEE SHEET 10

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 1/20/2020 10:00 AM
 User: NAME Millennium Professional Services



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DRAWN - JP	REVISED -
CHECKED - TVN	REVISED -
DATE - 1/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 43 (WAUKEGAN RD)
OVER BELVIDERE RD (SN 049-0111)**

**SUGGESTED STAGES OF CONSTRUCTION
AND TRAFFIC CONTROL
STAGE II**

SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	9
CONTRACT NO. 60R68				

STG-21

Existing Structure: This bridge was built in 1974. The current structure is a 2-span steel plate girder bridge which measures 88'-0" Out-to-Out Deck (radially) and 287'-3 7/8" Bk.-to-Bk. Abutments (along \varnothing Rt. 43). The substructure consists of a reinforced concrete abutment on concrete piles, a vaulted abutment supported by PPC I-beams on concrete piles and a reinforced concrete wall pier on creosoted timber piles.

Traffic is to be maintained utilizing stage construction.

Salvage: Parapet aluminum railing.

LOADING

HS20-44 & ALTERNATE ORIGINAL CONSTRUCTION (1974)
Allow 25 #/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS

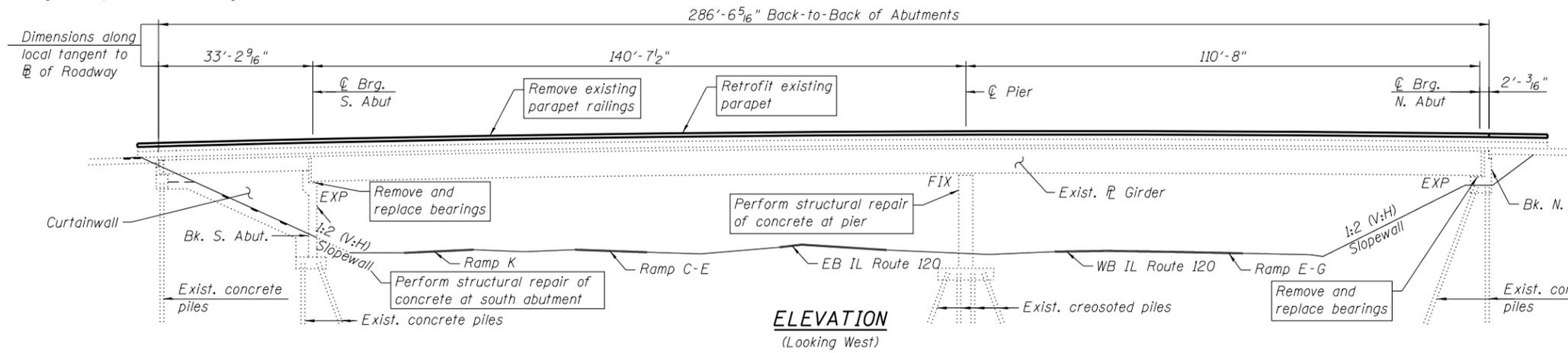
2002 AASHTO Standard Specifications for Highway Bridges
ORIGINAL CONSTRUCTION (1974)
1969 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

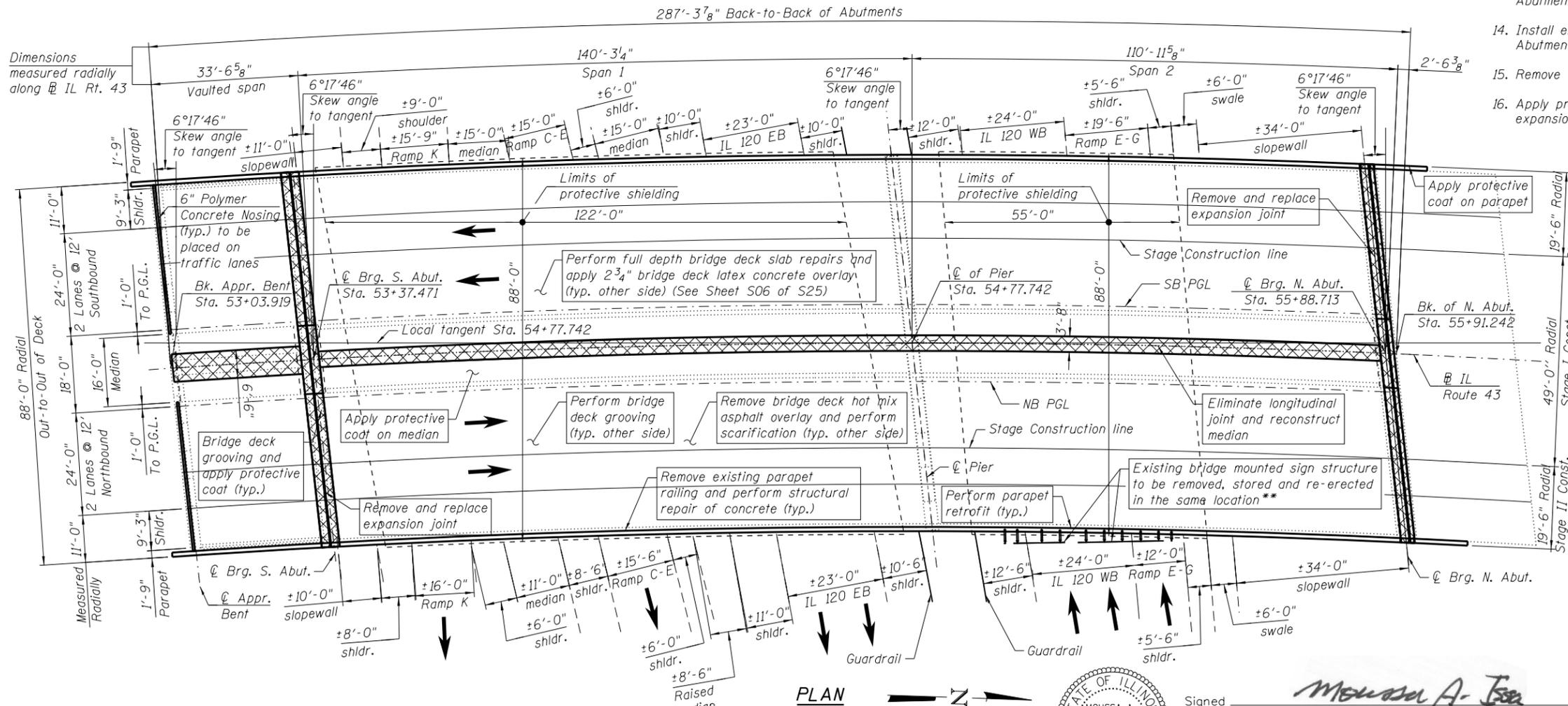
ORIGINAL CONSTRUCTION (1974)
 $f'_c = 3,500$ psi (Concrete)
 $f_y = 20,000$ psi (Reinforcement)
 $f_y = 20,000$ psi (Structural Steel)

SCOPE OF WORK

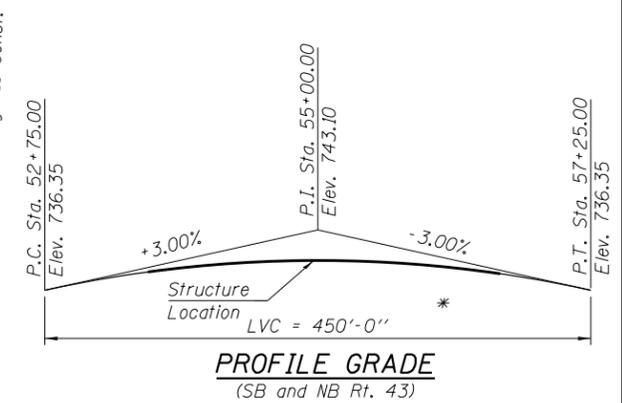
1. Provide protective shielding within limits as indicated on the plans.
2. Remove the existing hot mix asphalt overlay.
3. Scarify 3/4" from the bridge deck slab.
4. Perform full-depth deck slab repairs.
5. Remove/eliminate the longitudinal expansion joint and reconstruct the removed portion of the median.
6. Remove and replace transverse expansion joints at the south and north abutments with preformed joint strip seals.
7. Apply a 2 3/4" bridge deck latex concrete overlay to the bridge deck slab.
8. Apply bridge deck grooving for the 2 3/4" bridge deck latex concrete overlay and reconstructed transverse expansion joint areas.
9. Remove the existing parapet railings, perform structural concrete repairs and retrofit the east and west parapets.
10. Remove, store and re-erect at the same location the existing two (2) bridge mounted sign structures attached to the east parapet and fascia beam.
11. Install temporary shoring for Beams 3 through 5 at the South Abutment.
12. Perform structural concrete repairs for the abutments, wingwalls and pier.
13. Jack and remove existing rocker bearings (total 21) at North and South Abutments. Remove existing rocker bearings (total 3) at the South Abutment.
14. Install elastomeric bearings with steel extensions at North and South Abutments (total 24).
15. Remove temporary shoring for Beams 3 through 5 at the South Abutment.
16. Apply protective coat for the parapets, median and reconstructed transverse expansion joint areas.



ELEVATION
(Looking West)



PLAN



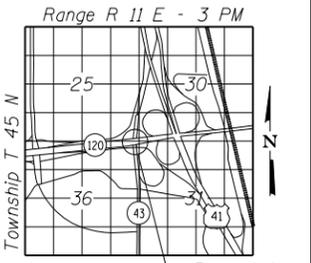
PROFILE GRADE
(SB and NB Rt. 43)

LEGEND

- Limits of protective shielding
- Traffic direction
- ▣ Concrete removal

CURVE DATA*

$\Delta = 19^\circ-48'-30''$ RT.
 $D = 2^\circ-15'-00''$
 $R = 2546.48'$
 $T = 444.62'$
 $L = 880.37'$
 $E = 38.52'$
 $S.E. = 0.03''$
P.C. Sta. = 52+75.00
P.T. Sta. = 57+25.00
P.I. Sta. = 55+00.00



LOCATION SKETCH

* Information taken from 1973 plans.

** The Contractor on Contract 60X39 will remove the existing conduits, catwalk, sign panels and lighting from the sign structure and will mount new sign panels prior to reinstallation of the sign structure onto the bridge



Signed *Moussa A. Issa*
Dr. Moussa A. Issa, S.E. Il. Lic. No. 081-005738
Expires 11-30-2020

Date 12/07/2018 For Sheets S01 Thru S25

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DESIGNED - LAB, MAA
CHECKED - MI
DRAWN - LAB, MAA
DATE - 12/07/2018

REVISIED -
REVISIED -
REVISIED -
REVISIED -

DESIGNED - LAB, MAA
CHECKED - MAI, MI
REVISIED -
REVISIED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

SHEET NO. S01 OF S25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	12
CONTRACT NO. 60R68				
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 existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars noted thus, 3 x 2-#5 indicates 3 lines of bars with 2 lengths of bars per line.
4. All structural steel shall conform to AASHTO Classification M-270 Gr 36, unless otherwise noted.
5. All exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise.
6. If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.
7. The contractor shall take all necessary precautions for the protection of passing vehicles from falling objects and/or materials until completion of the work.
8. 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 method that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
9. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
10. Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contract Surface Areas of Existing Steel Structures".
11. All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Furnishing and Erecting Structural Steel.
12. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
13. The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.
14. Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on As-built Plans.
15. Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50 °F.
16. The Contractor shall salvage and return the existing bridge railing to:

District Bridge Office
1101 Biesterfield Rd.
Elk Grove Village, IL 60007

Contact Jacek Ejmont or Vito Mazzara at (847) 956-1444. This work shall include removing, transporting and unloading the existing bridge railing to the above yard which cost is included in the cost of "Bridge Rail Removal".

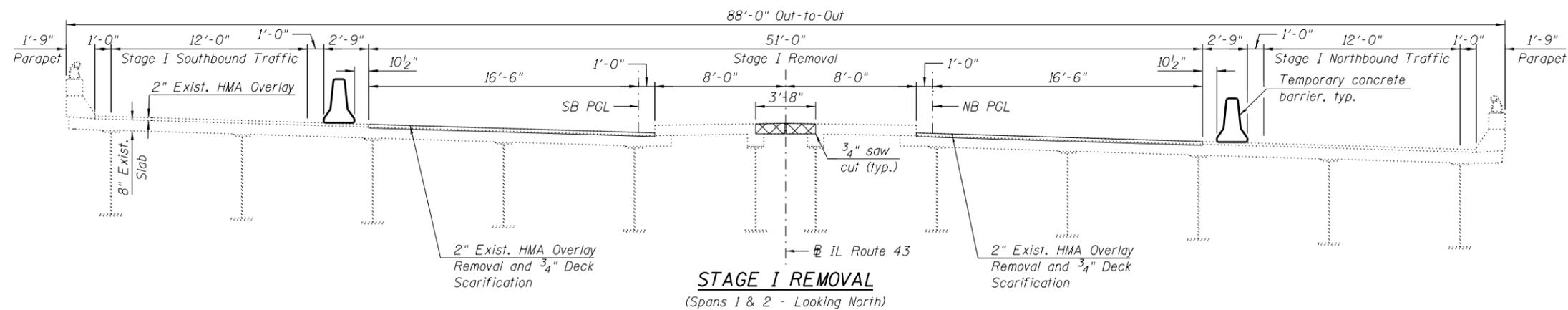
INDEX OF SHEETS

- S01. General Plan and Elevation
- S02. General Notes, Index of Sheets & Total Bill of Material
- S03. Stage I Construction
- S04. Stage II Construction
- S05. Temporary Concrete Barrier
- S06. Bridge Deck Repair Plan
- S07. Bridge Deck Final Cross Sections
- S08. Parapet Structural Concrete Repairs
- S09. South Abutment Joint Removal and Replacement
- S10. South Abutment Joint Details
- S11. North Abutment Joint Removal and Replacement
- S12. North Abutment Joint Details
- S13. Preformed Joint Strip Seal
- S14. Long. Joint Removal and Deck Reconst. Plans
- S15. Long. Joint Removal and Deck Reconst. Sections and Details
- S16. East Parapet Retrofit
- S17. West Parapet Retrofit
- S18. Framing Plan
- S19. South Abutment, Type I Elastomeric Bearings Details
- S20. North Abutment, Type I Elastomeric Bearings Details
- S21. South Abutment Repairs
- S22. South Abutment Curtain Wall Ventilation and Grading
- S23. North Abutment Repairs
- S24. Pier Repairs
- S25. Bar Splicer Assembly Details

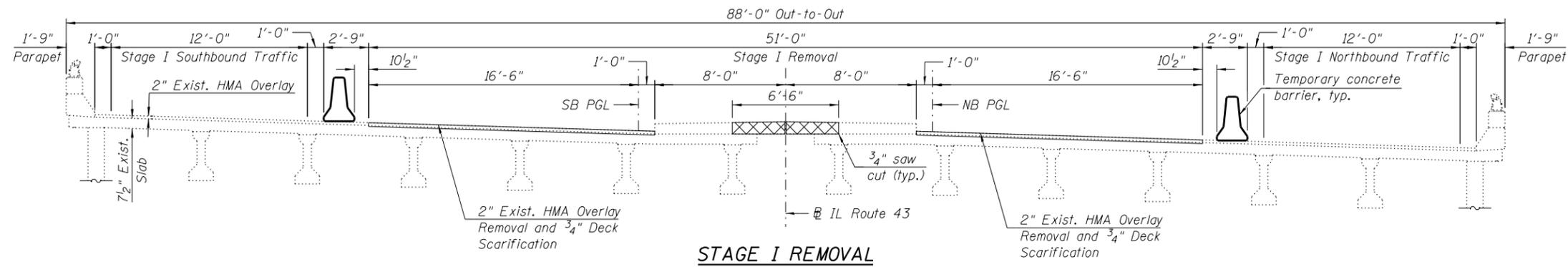
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.	-	128	128
Concrete Removal	Cu. Yd.	56.1	-	56.1
Bridge Rail Removal	Foot	608	-	608
Protective Shield	Sq. Yd.	1,731	-	1,731
Concrete Superstructure	Cu. Yd.	72.9	-	72.9
Bridge Deck Grooving	Sq. Yd.	2,050	-	2,050
Protective Coat	Sq. Yd.	856	-	856
Furnishing and Erecting Structural Steel	Pound	5,230	-	5,230
Reinforcement Bars, Epoxy Coated	Pound	23,170	-	23,170
Bar Splicers	Each	68	-	68
Preformed Joint Strip Seal	Foot	177	-	177
Elastomeric Bearing Assembly, Type I	Each	-	24	24
Anchor Bolts, 1"	Each	-	96	96
Remove, Store and Re-Erect Overhead Sign Structure - Bridge Mounted	Each	2	-	2
Jack and Remove Existing Bearings	Each	-	21	21
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	2,123	-	2,123
Bridge Deck Latex Concrete Overlay, 2-3/4 Inches	Sq. Yd.	2,123	-	2,123
Bridge Deck Scarification, 3/4"	Sq. Yd.	2,123	-	2,123
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	-	1,196	1,196
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	79	-	79
* Deck Slab Repair (Partial)	Sq. Yd.	68	-	68
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	51	-	51
Polymer Concrete	Cu. Ft.	9	-	9
Preformed Joint Filler	Foot	-	90	90
Temporary Shoring and Cribbing	Each	-	3	3

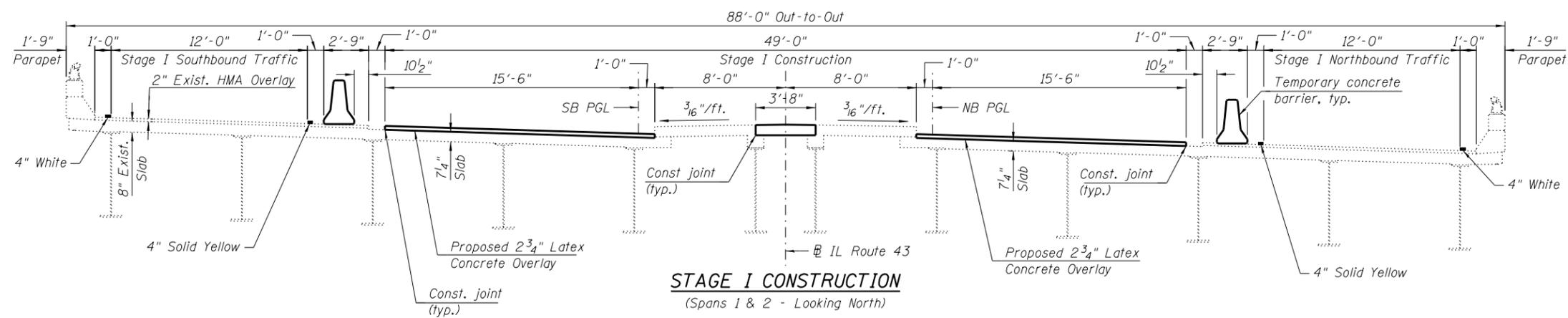
* Median only



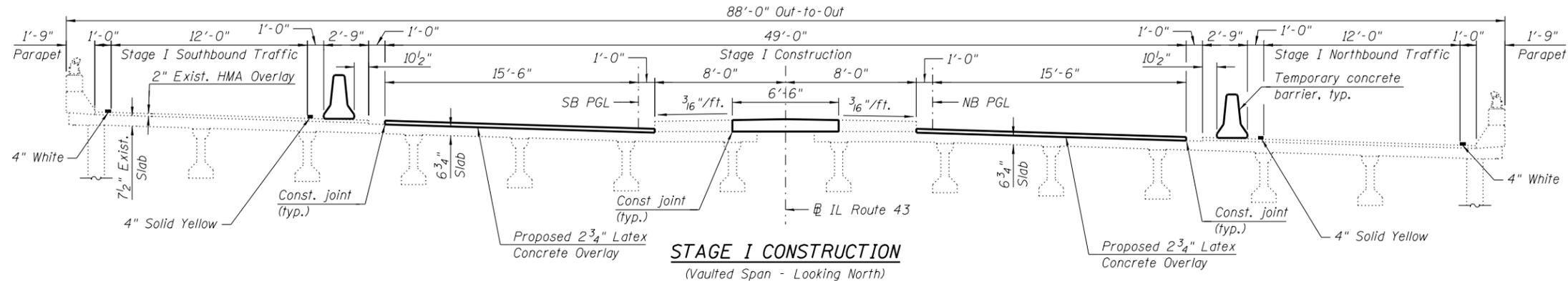
STAGE I REMOVAL
(Spans 1 & 2 - Looking North)



STAGE I REMOVAL
(Vaulted Span - Looking North)



STAGE I CONSTRUCTION
(Spans 1 & 2 - Looking North)



STAGE I CONSTRUCTION
(Vaulted Span - Looking North)

STAGE I REMOVAL

1. Install temporary concrete barrier as shown to locate traffic lane on the east and west sides of the existing structure.
2. Remove the existing 2" hot-mix asphalt overlay.
3. Remove 3/4" from the deck slab using scarification.
4. Remove areas of existing deck for full depth deck slab repairs.
5. Remove/eliminate longitudinal joint in the median.
6. Remove concrete deck adjacent to expansion joints at the North and South Abutments.

STAGE I CONSTRUCTION

- The following construction items will be performed within the limits of Stage I Construction:
1. Perform full depth deck slab repairs.
 2. Reconstruct median within the limits of the longitudinal joint removal.
 3. Replace concrete deck adjacent to expansion joints at North and South Abutments and install new preformed joint strip seal expansion joints.
 4. Jack and remove existing rocker bearings at North and South Abutments and replace with Type I Elastomeric Bearings.
 5. Perform structural concrete repairs for the abutments.
 6. Apply 2 3/4" bridge deck latex concrete overlay to bridge deck slab.
 7. Perform bridge deck grooving for the 2 3/4" bridge deck latex concrete overlay area and reconstructed transverse expansion joint areas.
 8. Apply protective coat for the median, top and inside faces of reconstructed parapets, and reconstructed transverse expansion joint areas.

LEGEND



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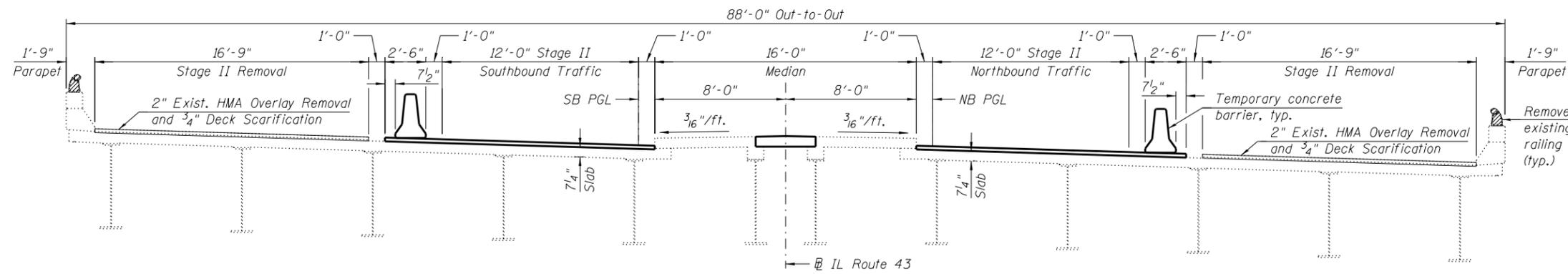
STAGE I CONSTRUCTION
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	14
CONTRACT NO. 60R68				

DATE - 12/07/2018

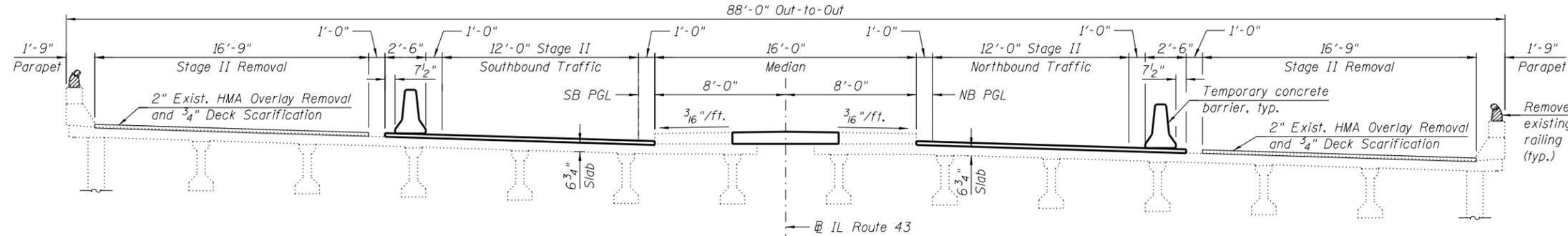
SHEET NO. S03 OF S25 SHEETS

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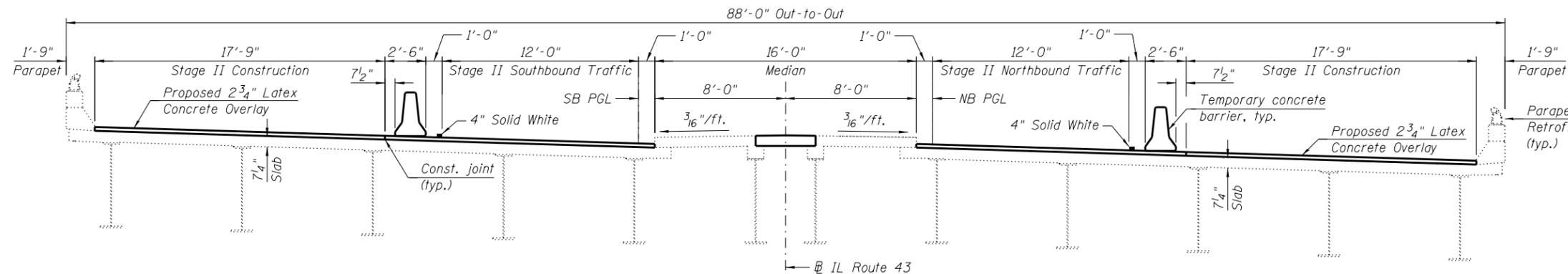
STAGE II REMOVAL

(Spans 1 & 2 - Looking North)



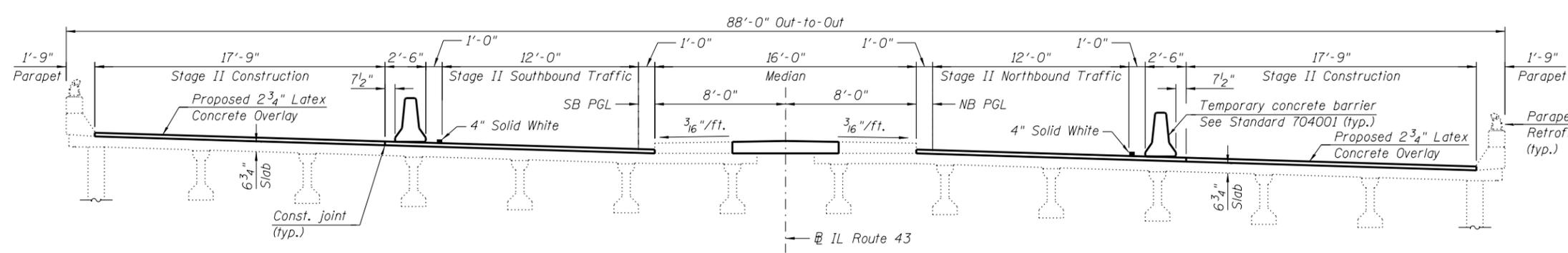
STAGE II REMOVAL

(Vaulted Span - Looking North)



STAGE II CONSTRUCTION

(Spans 1 & 2 - Looking North)



STAGE II CONSTRUCTION

(Vaulted Span - Looking North)

STAGE II REMOVAL

1. Install temporary concrete barrier as shown to locate traffic lane on the east and west sides of the existing structure.
2. Remove the existing 2" hot-mix asphalt overlay.
3. Remove 3/4" from the deck slab using scarification.
4. Remove areas of existing deck for full depth deck slab repairs.
5. Remove concrete deck and parapets adjacent to expansion joints at the North and South Abutments.
6. Remove the existing east and west parapet railings.
7. Remove and store the existing two (2) bridge mounted sign structures to be re-erected after retrofitting the east parapet.

STAGE II CONSTRUCTION

The following construction items will be performed within the limits of Stage II Construction:

1. Perform full depth deck slab repairs.
2. Replace concrete deck and parapets adjacent to expansion joints at North and South Abutments and install new preformed joint strip seal expansion joints.
3. Jack and remove existing rocker bearings at North and South Abutments and replace with Type I Elastomeric Bearings.
4. Perform structural concrete repairs for the abutments, wingwalls and pier.
5. Apply 2 3/4" bridge deck latex concrete overlay to bridge deck slab.
6. Re-erect the removed and stored two (2) bridge mounted sign structures at the same locations.
7. Perform bridge deck grooving for the 2 3/4" bridge deck latex concrete overlay areas and reconstructed transverse expansion joint areas.
8. Perform structural concrete repairs and retrofit the east and west parapets.
9. Apply protective coat for the parapets, top and inside faces of reconstructed parapets, and reconstructed transverse expansion joint areas.

LEGEND

Concrete Removal

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CHECKED - MAI, MI

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REVISED -
REVISED -

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DEPARTMENT OF TRANSPORTATION**

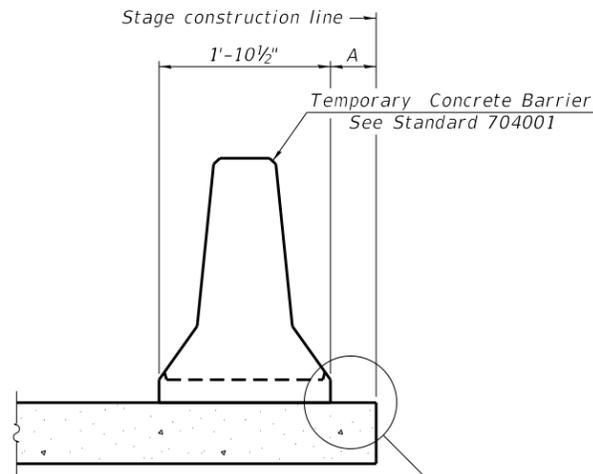
**STAGE II CONSTRUCTION
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111**

SHEET NO. S04 OF S25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	15
CONTRACT NO. 60R68				

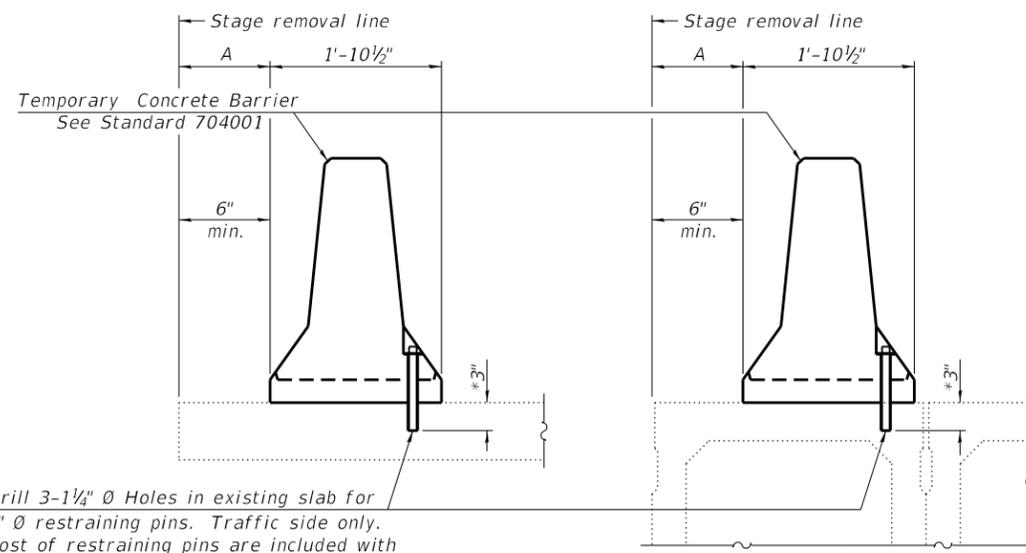
ILLINOIS FED. AID PROJECT

DATE - 12/07/2018



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

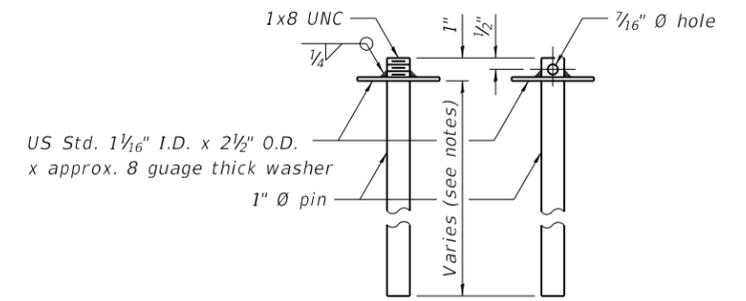


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

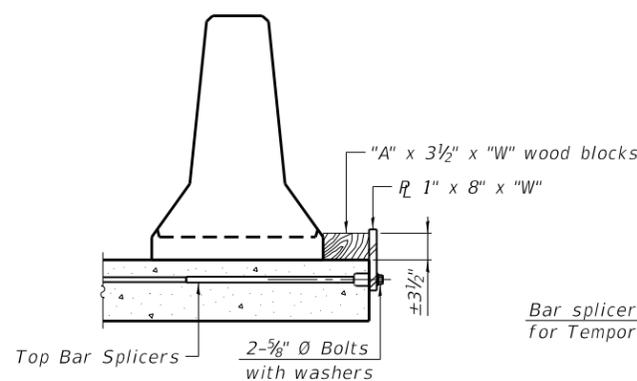
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM



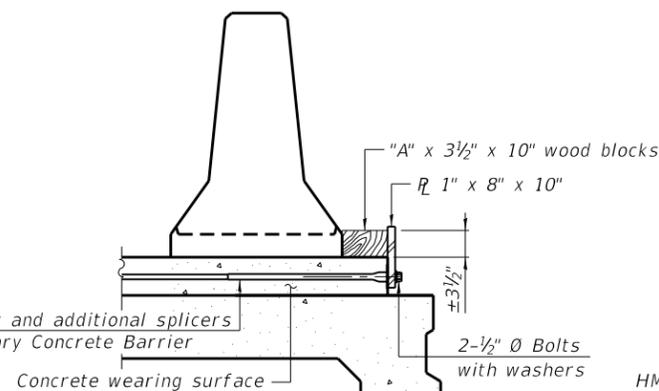
RESTRAINING PIN

SECTIONS THRU SLAB OR DECK BEAM

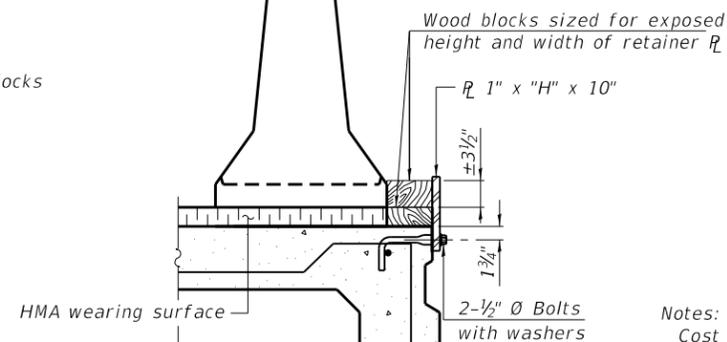


DETAIL I

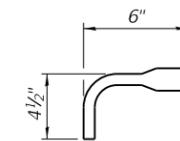
Bar splicers and additional splicers for Temporary Concrete Barrier



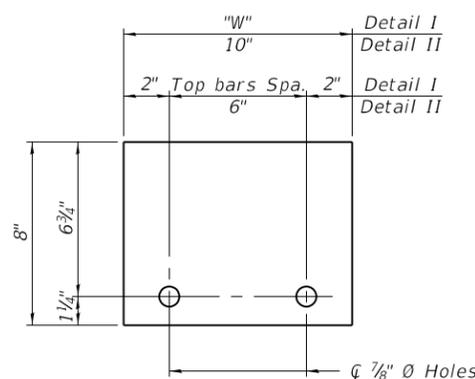
DETAIL II



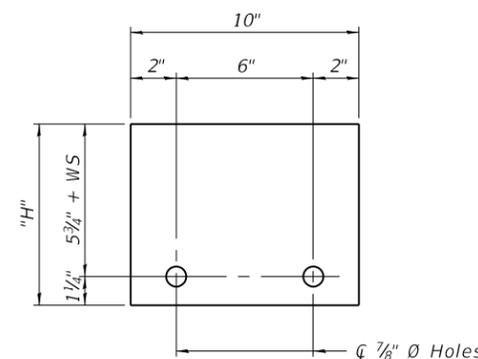
DETAIL III



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.

R-27 8-11-2017

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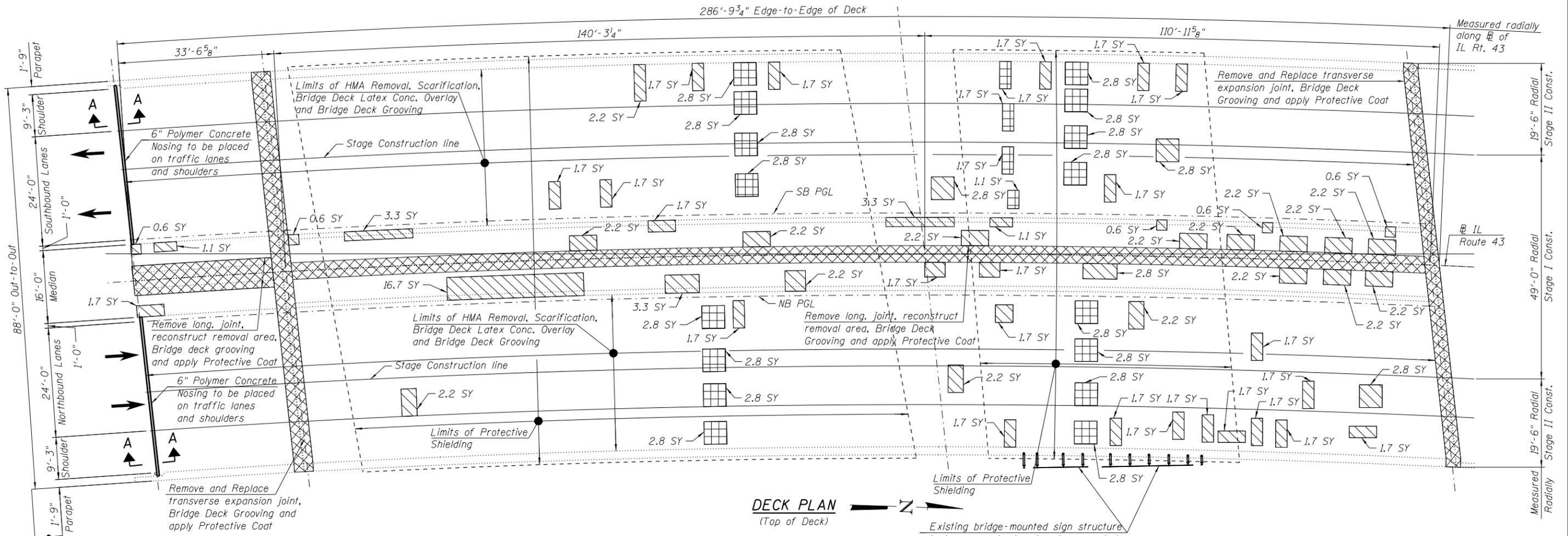
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

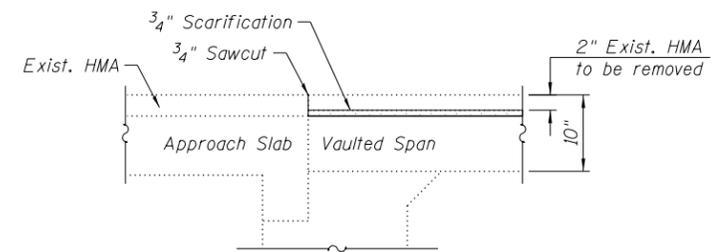
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	16
CONTRACT NO. 60R68				

SHEET NO. S05 OF S25 SHEETS

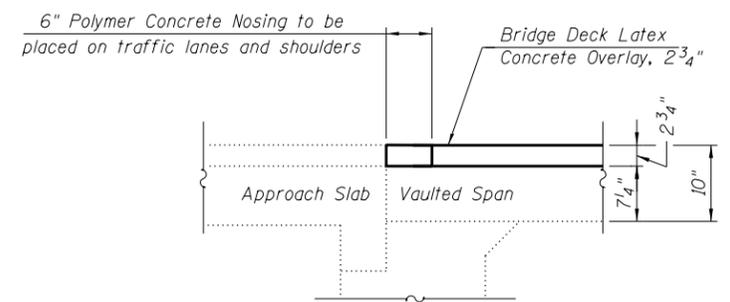
ILLINOIS FED. AID PROJECT



DECK PLAN
(Top of Deck)



SECTION A-A
(Existing)



SECTION A-A
(Proposed)

NOTES

1. Areas of deck repair shown are estimated. The Engineer shall show actual locations of deck repairs at the time of construction.
2. For General Notes and Total Bill of Material, see Sheet S02.
3. For limits of protective shielding, see Sheet S01.
4. For longitudinal joint removal and deck reconstruction, see Sheets S14 and S15.
5. For transverse joints at South and North abutments removal and reconstruction, see Sheets S09 thru S13.
6. For bridge deck final cross sections, see Sheet S07.
7. Perform bridge deck grooving for the bridge deck latex concrete and the roadway portion of the reconstructed transverse expansion joints.
8. Protective coat shall be applied to top and inside face of reconstructed parapets, median and the transverse joints reconstructed areas.
9. The minimum thickness of the bridge deck latex concrete overlay shall be 2 3/4" and varies as required to adjust for the existing profile grade and beam camber.
10. For parapet Structural Repair of Concrete, see Sheet S08.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Protective Shield	Sq. Yd.	1731
Bridge Deck Grooving	Sq. Yd.	1999
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	2123
Bridge Deck Latex Concrete Overlay, 2 3/4 Inches	Sq. Yd.	2123
Bridge Deck Scarification, 3/4"	Sq. Yd.	2123
Deck Slab Repair (Partial)	Sq. Yd.	68
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	51
Polymer Concrete	Cu. Ft.	9

LEGEND

- Concrete Removal
- Deck Slab Repair (Partial) **
- Deck Slab Repair (Full Depth, Type II)
- Limits of protective shielding
- Traffic direction
- * Median area only
- ** Approximately an additional 52 Sq. Yd. in roadway area for information purposes only to assist the Contractor in bidding. See Special Provision for "Bridge Deck Latex Concrete Overlay".

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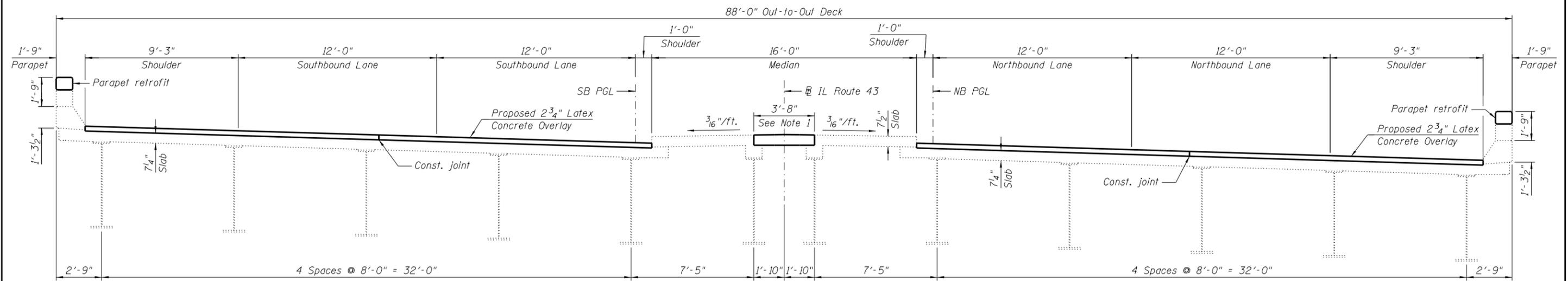
BRIDGE DECK REPAIR PLAN
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

SHEET NO. S06 OF S25 SHEETS

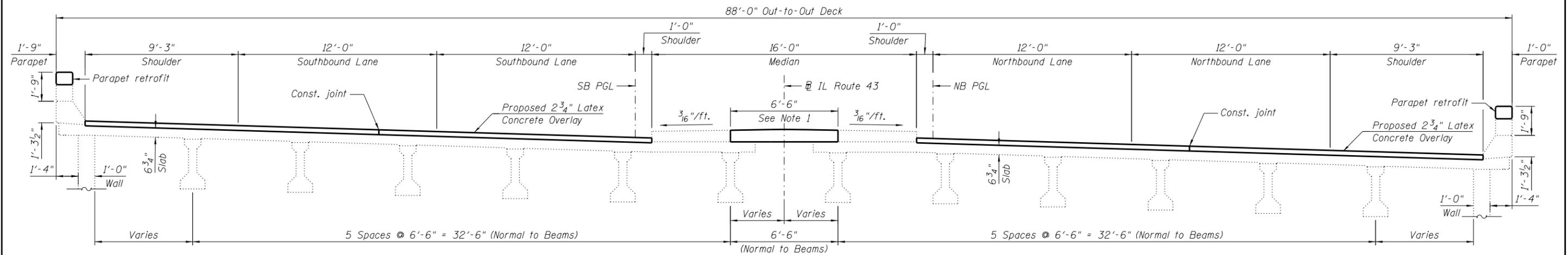
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	17
CONTRACT NO. 60R68				

ILLINOIS FED. AID PROJECT

DATE - 12/07/2018



DECK CROSS SECTION (RADIALLY)
(Looking North)



CROSS SECTION - VAULTED SPAN
(Looking North)

NOTES

1. Limits of existing longitudinal joint removal and median reconstruction.
2. For Notes, see Sheet S06.
3. For Parapet Retrofit details see Sheets S16 and S17.

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BRIDGE DECK FINAL CROSS SECTIONS
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

SHEET NO. S07 OF S25 SHEETS

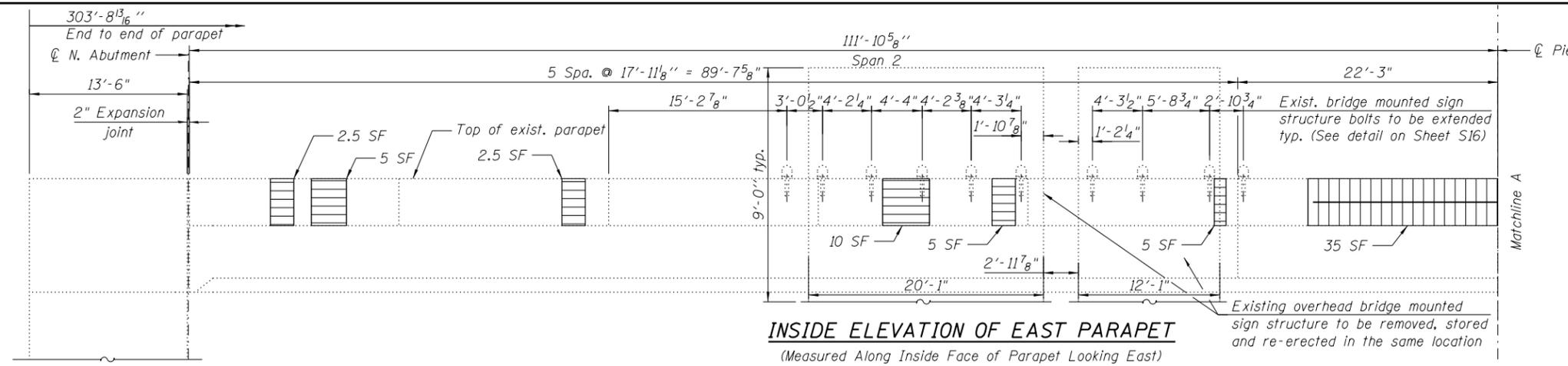
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	18
CONTRACT NO. 60R68				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

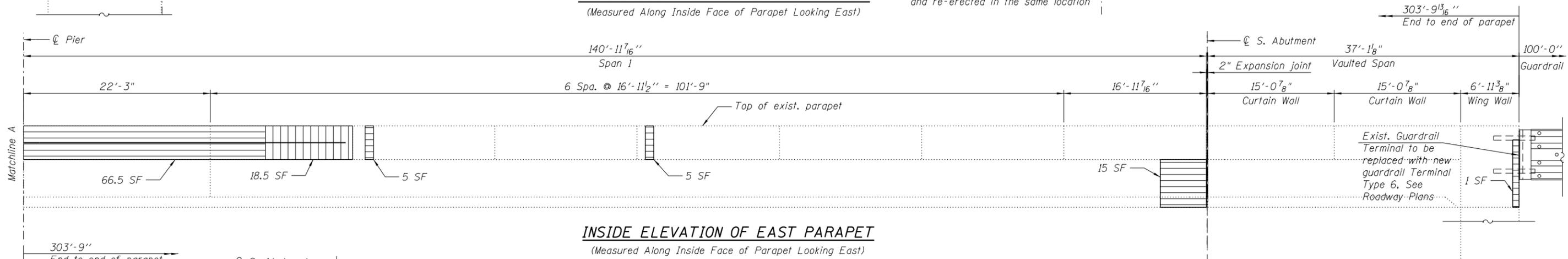
ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	198
Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.	54

LEGEND

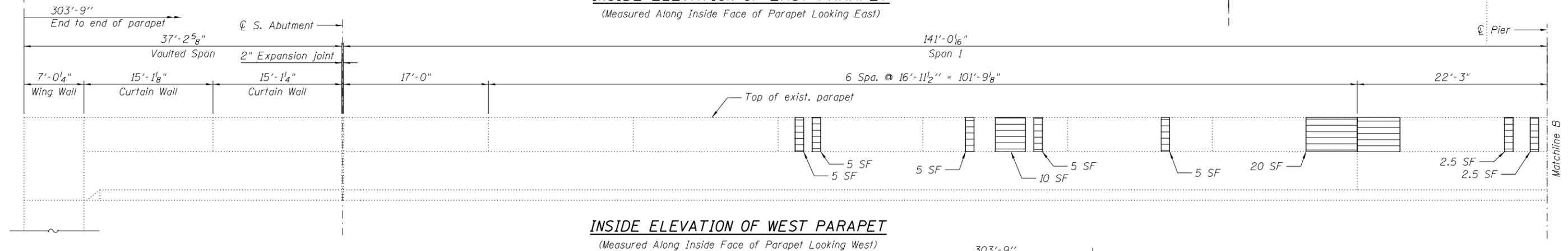
-  Structural Repair of Concrete (Depth Equal to or Less Than 5")
-  Structural Repair of Concrete (Depth Greater than 5")



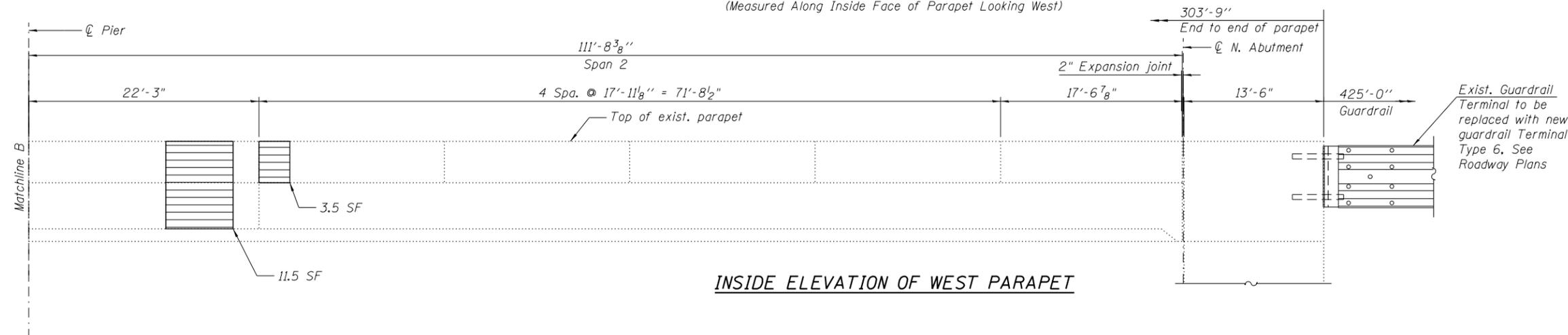
INSIDE ELEVATION OF EAST PARAPET
(Measured Along Inside Face of Parapet Looking East)



INSIDE ELEVATION OF EAST PARAPET
(Measured Along Inside Face of Parapet Looking East)



INSIDE ELEVATION OF WEST PARAPET
(Measured Along Inside Face of Parapet Looking West)



INSIDE ELEVATION OF WEST PARAPET
(Measured Along Inside Face of Parapet Looking West)

NOTES:

1. Quantities and limits shown are estimated for bidding purposes only. The actual areas to be repaired and the type(s) of repairs to be used will be determined by the Engineer in the field at the time of construction.

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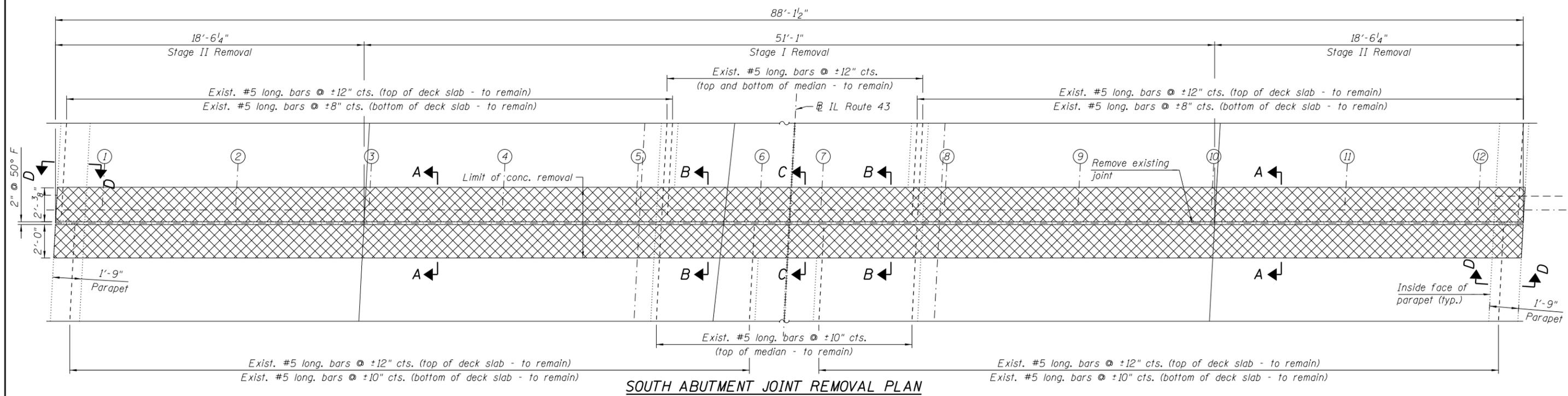
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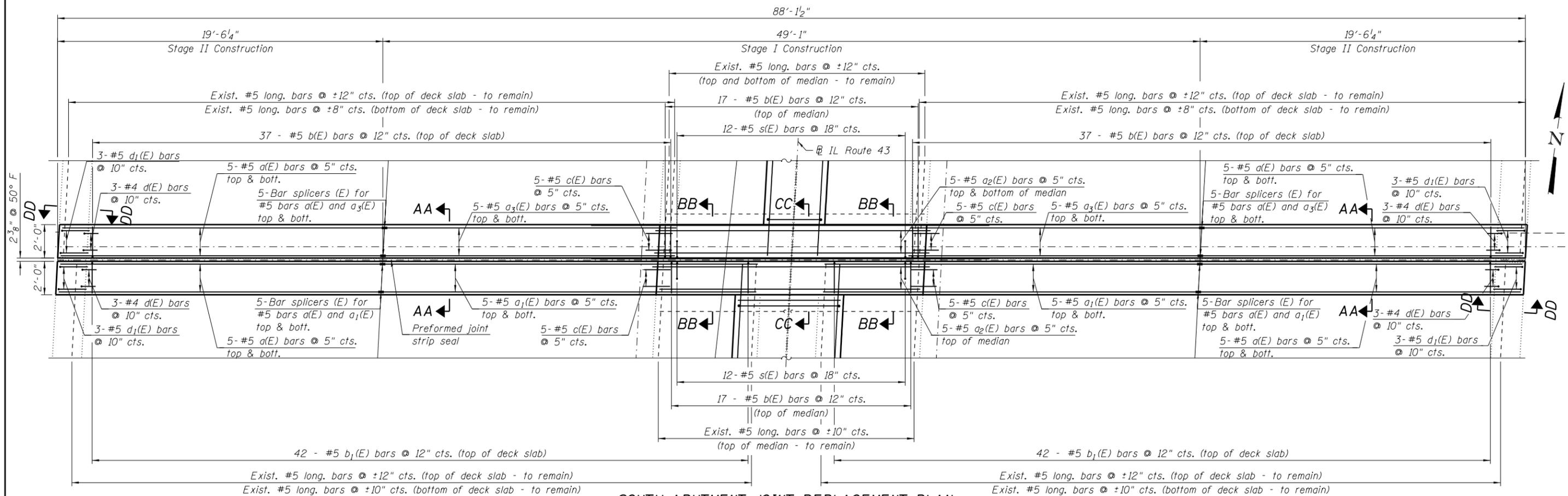
PARAPET STRUCTURAL CONCRETE REPAIR
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

SHEET NO. S08 OF S25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	19
CONTRACT NO. 60R68				
ILLINOIS FED. AID PROJECT				



SOUTH ABUTMENT JOINT REMOVAL PLAN



SOUTH ABUTMENT JOINT REPLACEMENT PLAN

NOTES:

1. For Bill of Material, minimum bar lap and Sections A-A, B-B, C-C, D-D, AA-AA, BB-BB, CC-CC and DD-DD see Sheet S10.
2. For preformed joint strip seal details, see Sheet S13.
3. For bar splicer details, see Sheet S25.
4. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
5. Contractor shall exercise extreme caution during Concrete Removal at the South Approach as not to damage any PPC I-Beam. Any damage to the existing PPC I-Beams shall be repaired at the Contractor's expense.

LEGEND

 Concrete Removal

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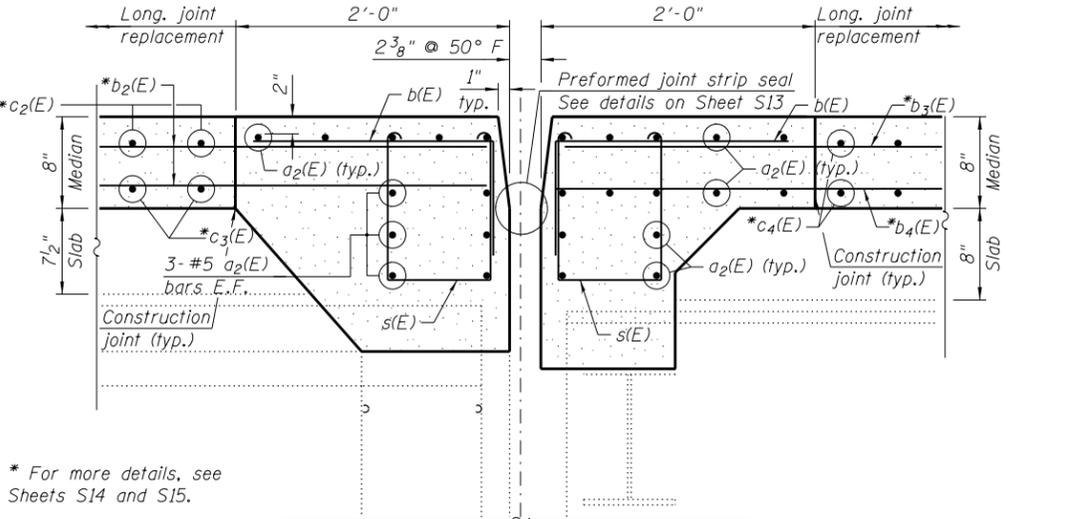
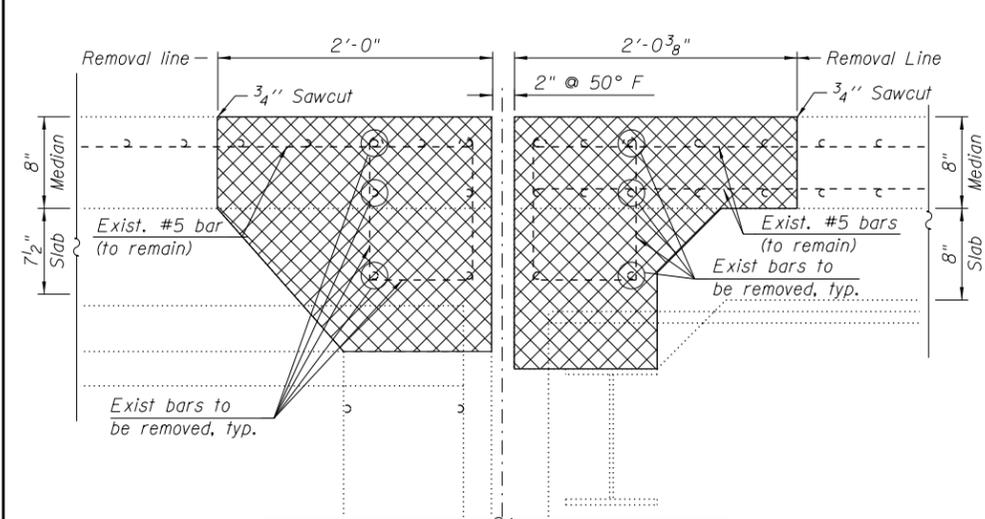
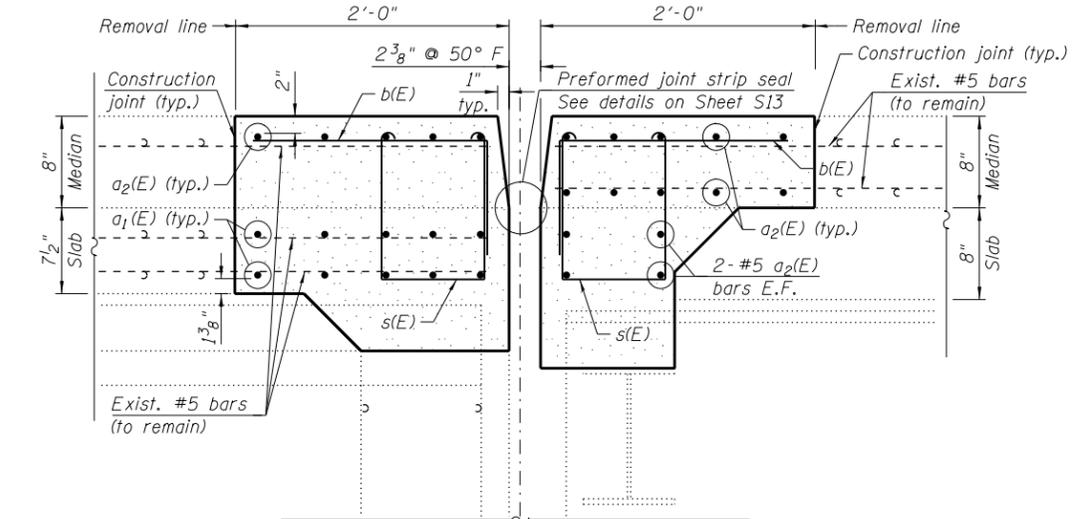
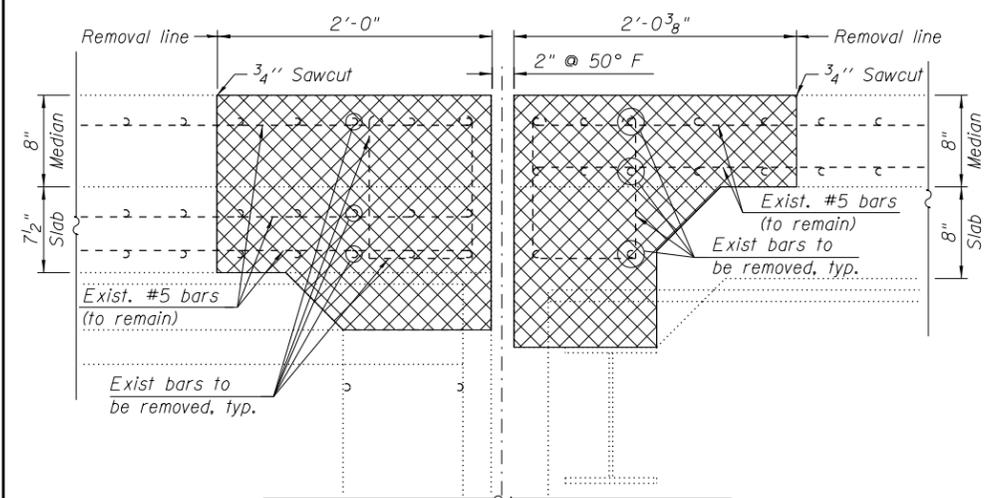
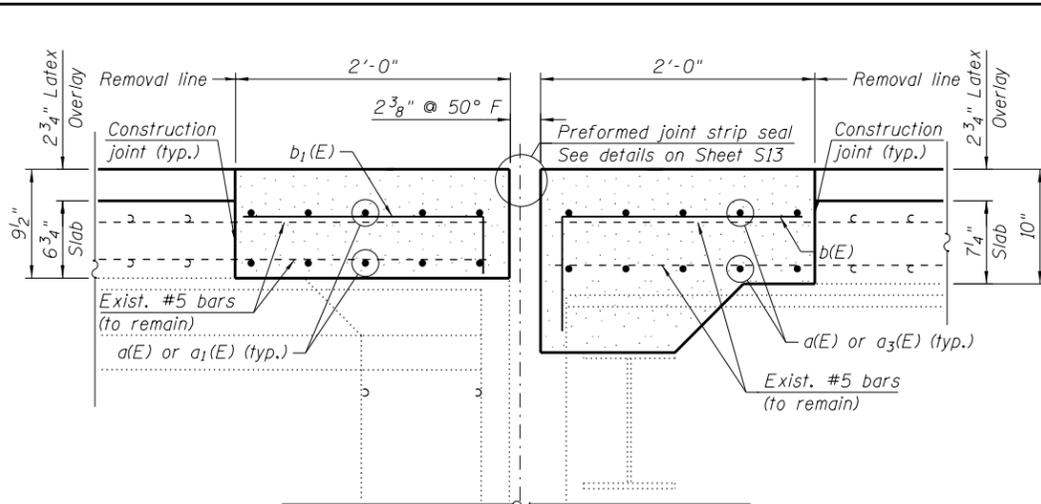
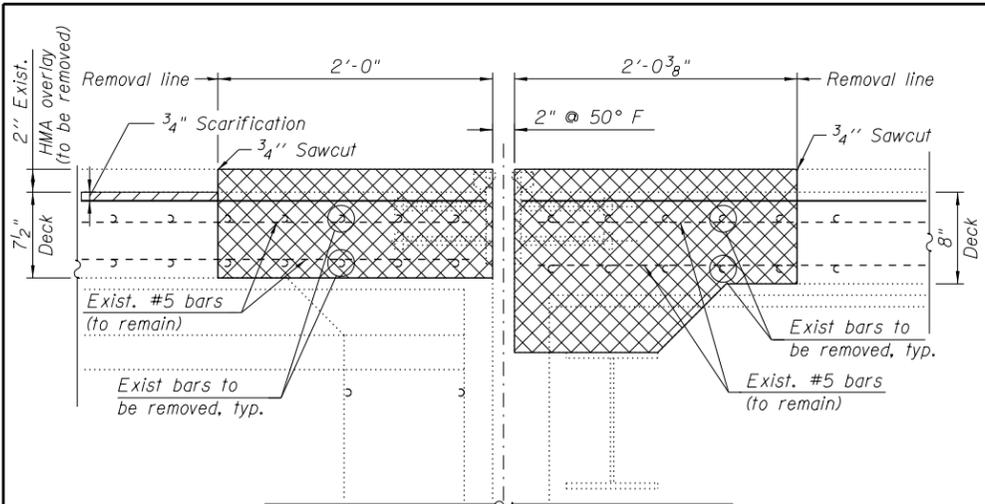
SOUTH ABUTMENT JOINT REMOVAL AND REPLACEMENT
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

F.A.U. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	20
CONTRACT NO. 60R68				

SHEET NO. S09 OF S25 SHEETS

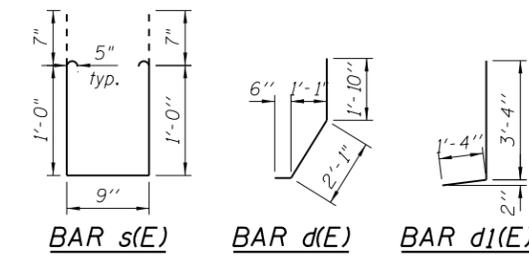
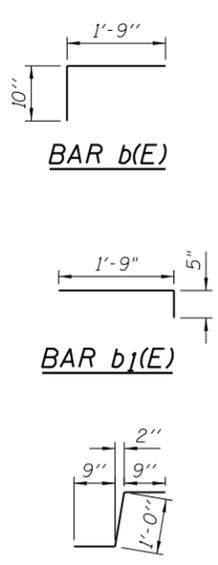
ILLINOIS FED. AID PROJECT

DATE - 12/07/2018



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	40	#5	19'-4"	—
a ₁ (E)	20	#5	23'-5"	—
a ₂ (E)	25	#5	15'-6"	—
a ₃ (E)	20	#5	17'-3"	—
b(E)	108	#5	2'-7"	┌
b ₁ (E)	84	#5	2'-2"	┌
c(E)	20	#5	2'-6"	┌
d(E)	12	#4	4'-5"	┌
d ₁ (E)	12	#5	4'-8"	┌
s(E)	24	#5	3'-11"	┌
Concrete Removal		Cu. Yd.	14.9	
Concrete Superstructure		Cu. Yd.	14.9	
Bridge Deck Grooving		Sq. Yd.	29	
Protective Coat		Sq. Yd.	31	
Reinforcement Bars, Epoxy Coated		Pound	2790	



NOTES
1. For Notes, See Sheet S09.

* For more details, see Sheets S14 and S15.

LEGEND
Concrete Removal

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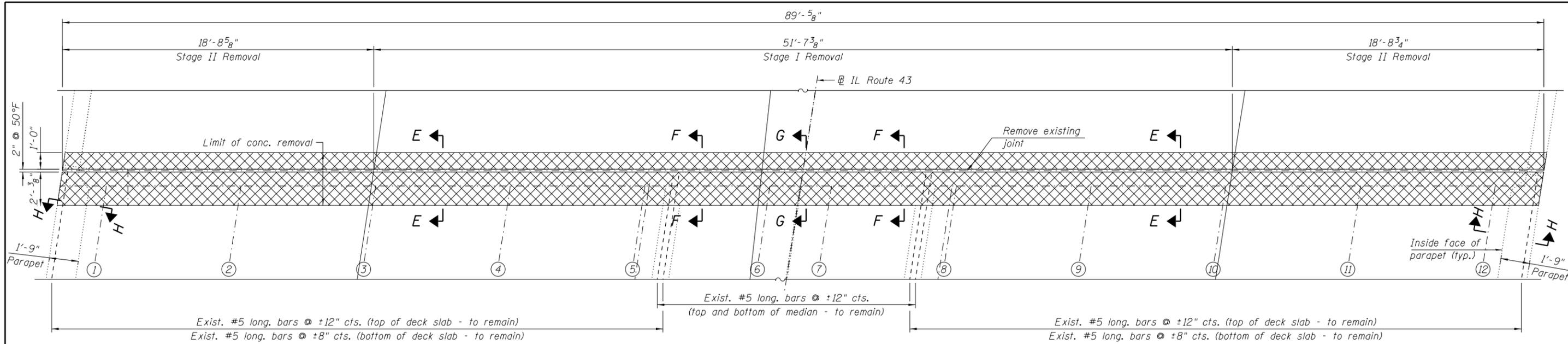
SOUTH ABUTMENT JOINT DETAILS
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

SHEET NO. S10 OF S25 SHEETS

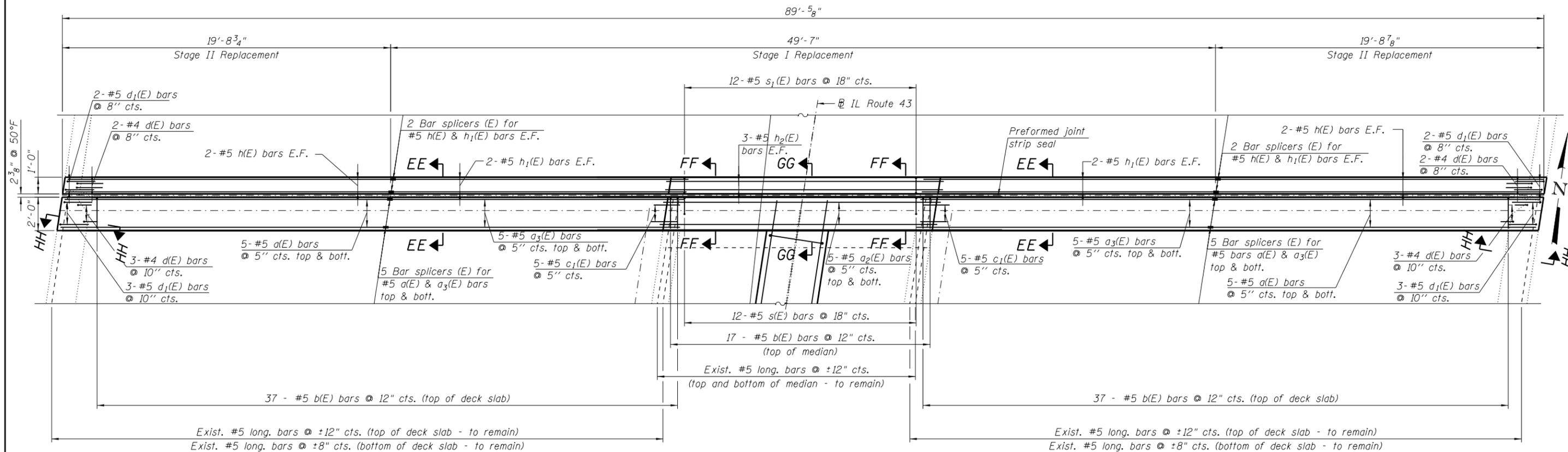
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	21

CONTRACT NO. 60R68
ILLINOIS FED. AID PROJECT

DATE - 12/07/2018



NORTH ABUTMENT JOINT REMOVAL PLAN



NORTH ABUTMENT JOINT REPLACEMENT PLAN

NOTES:

1. For Bill of Material, minimum bar lap and Sections E-E, F-F, G-G, H-H, EE-EE, FF-FF, GG-GG and HH-HH, see Sheet S12.
2. For preformed joint strip seal details, see Sheet S13.
3. For bar splicer details, see Sheet S25.
4. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

LEGEND

Concrete Removal

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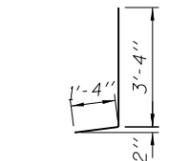
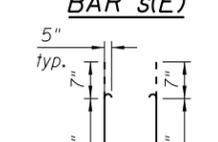
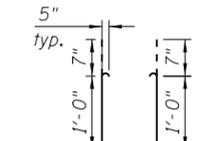
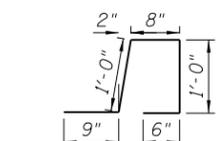
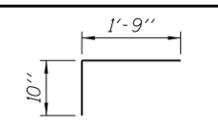
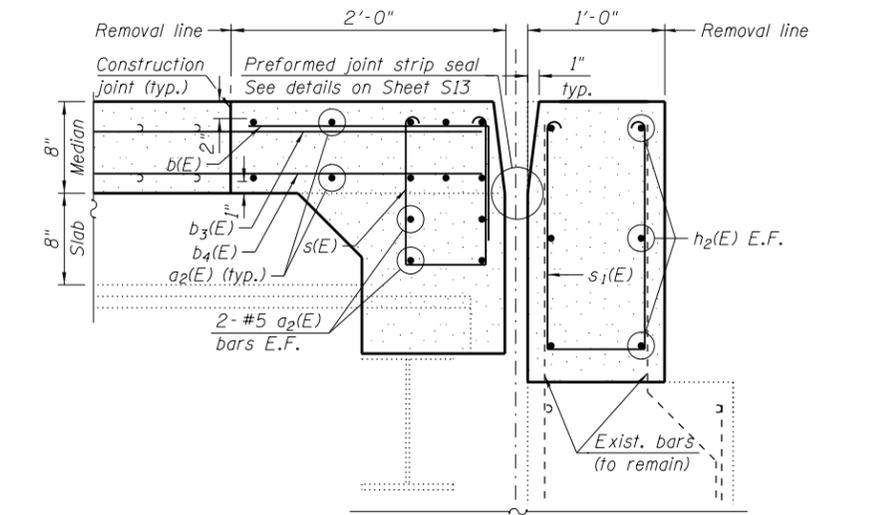
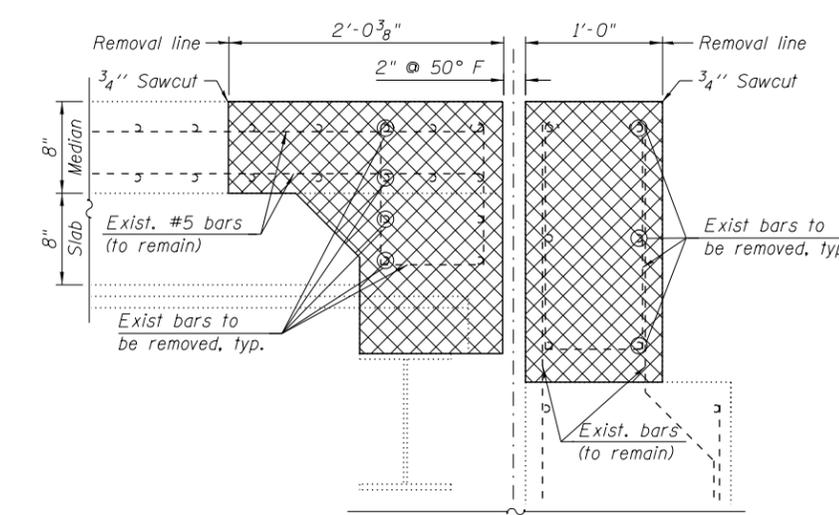
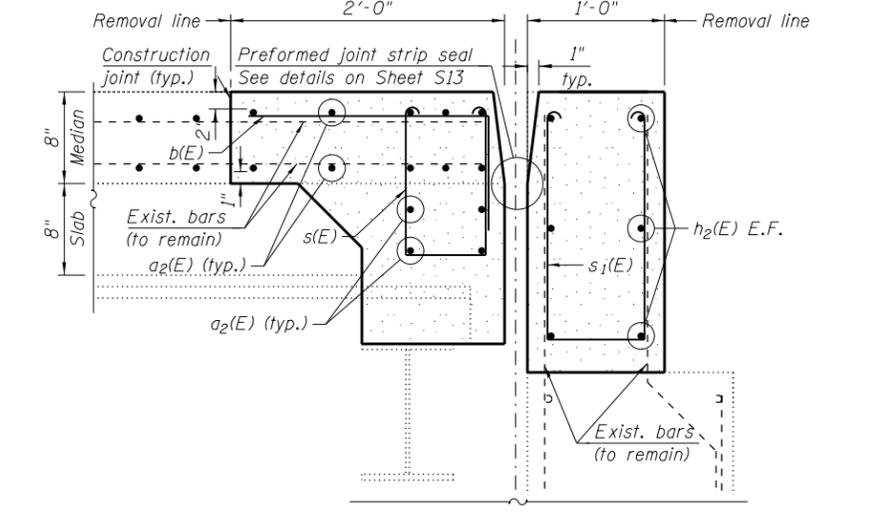
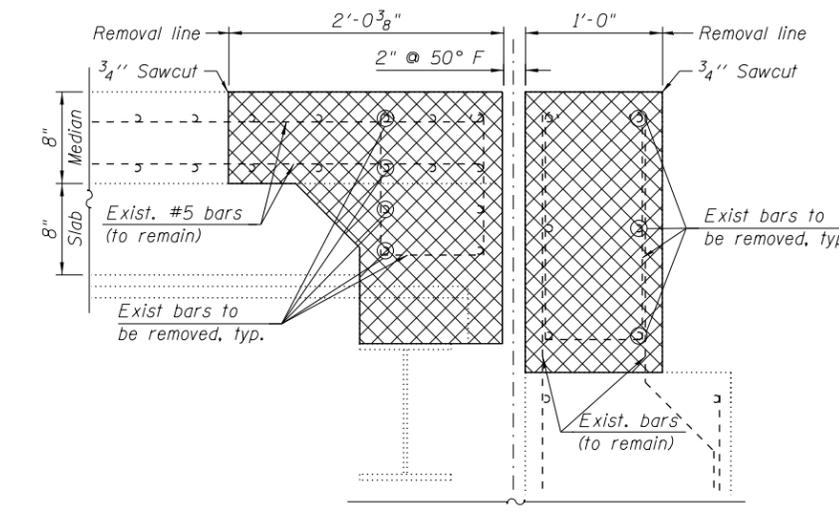
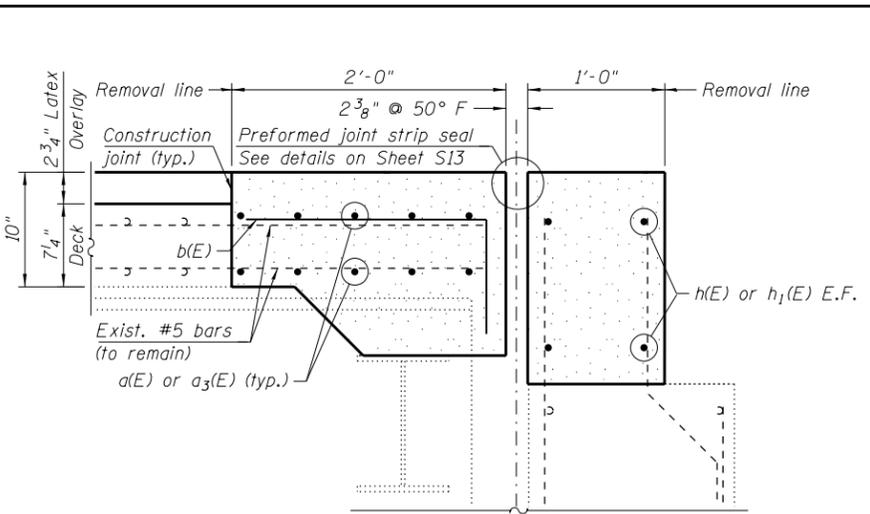
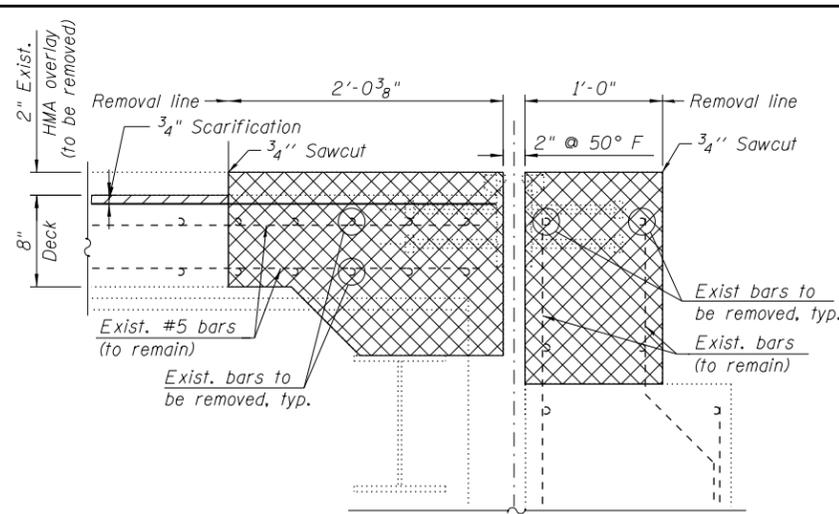
**NORTH ABUTMENT JOINT REMOVAL AND REPLACEMENT
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111**

F.A.U. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	22
CONTRACT NO. 60R68				

SHEET NO. S11 OF S25 SHEETS

ILLINOIS FED. AID PROJECT

DATE - 12/07/2018



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	20	#5	19'-4"	—
a ₂ (E)	14	#5	15'-6"	—
a ₃ (E)	20	#5	17'-3"	—
b(E)	91	#5	2'-7"	└
c ₁ (E)	10	#5	3'-11"	└
d(E)	10	#4	4'-5"	└
d ₁ (E)	10	#5	4'-8"	└
h(E)	8	#5	19'-4"	—
h ₁ (E)	8	#5	19'-9"	—
h ₂ (E)	6	#5	15'-8"	—
s(E)	12	#5	3'-11"	└
s ₁ (E)	12	#5	5'-1"	└
Concrete Removal		Cu. Yd.	14.4	
Concrete Superstructure		Cu. Yd.	14.4	
Bridge Deck Grooving		Sq. Yd.	22	
Protective Coat		Sq. Yd.	24	
Reinforcement Bars, Epoxy Coated		Pound	1900	

NOTES

1. For Notes, see Sheet S11.

LEGEND:
 Concrete Removal

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 DRAWN - LAB
 CHECKED - MAI, MI
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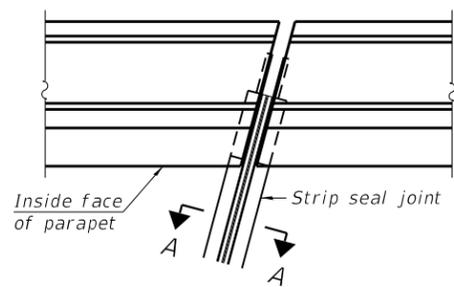
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NORTH ABUTMENT JOINT DETAILS
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111
 SHEET NO. S12 OF S25 SHEETS

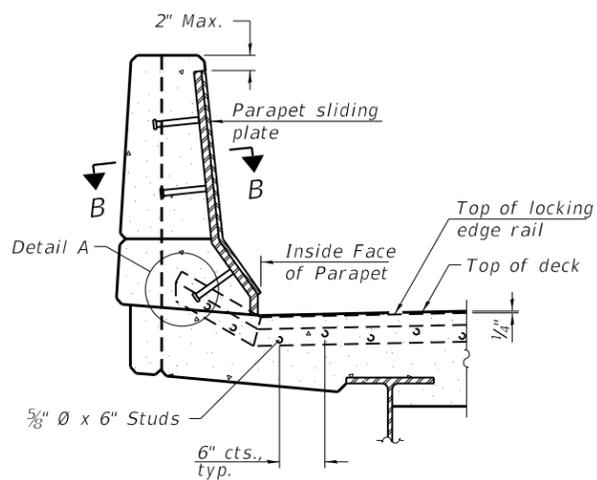
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	23
CONTRACT NO. 60R68				

ILLINOIS FED. AID PROJECT



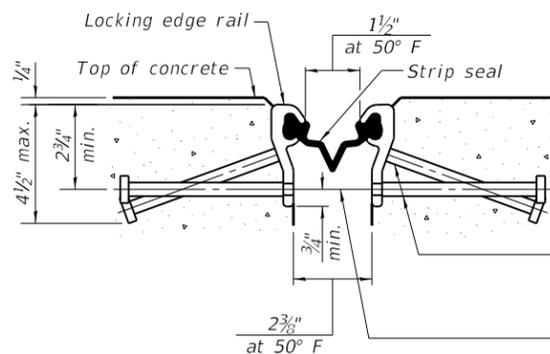
FOR SKEWS $\leq 30^\circ$

PLAN AT PARAPET



ELEVATION AT PARAPET

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



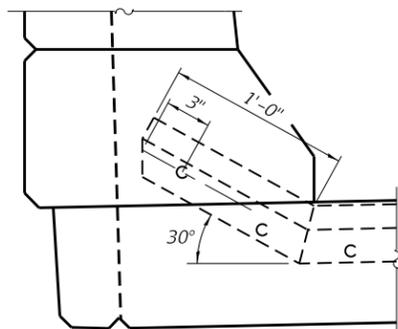
SHOWING ROLLED RAIL JOINT

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

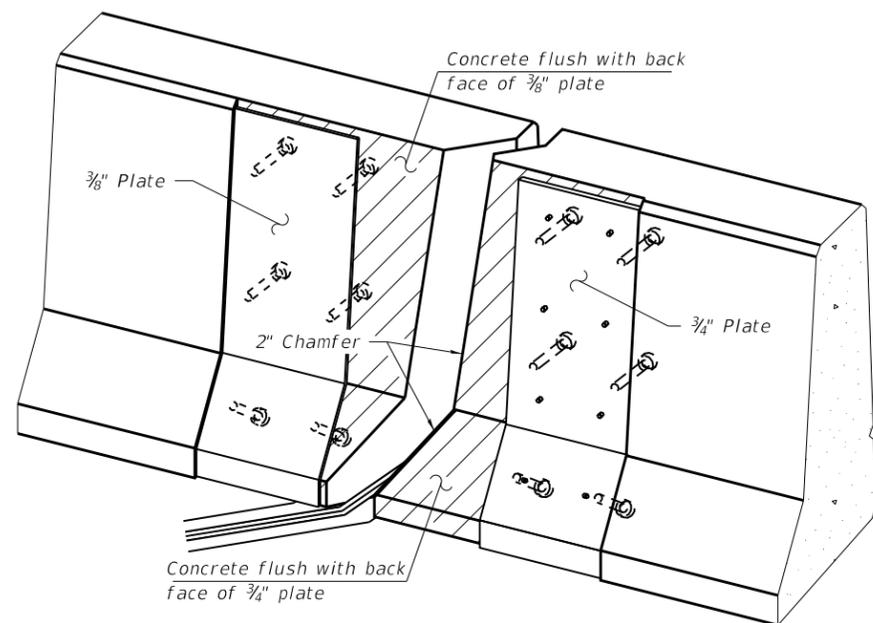
$\frac{3}{8}$ " ϕ threaded rods in $\frac{7}{16}$ " ϕ holes at ± 4 "-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

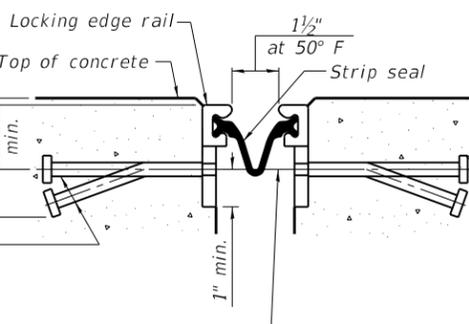
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



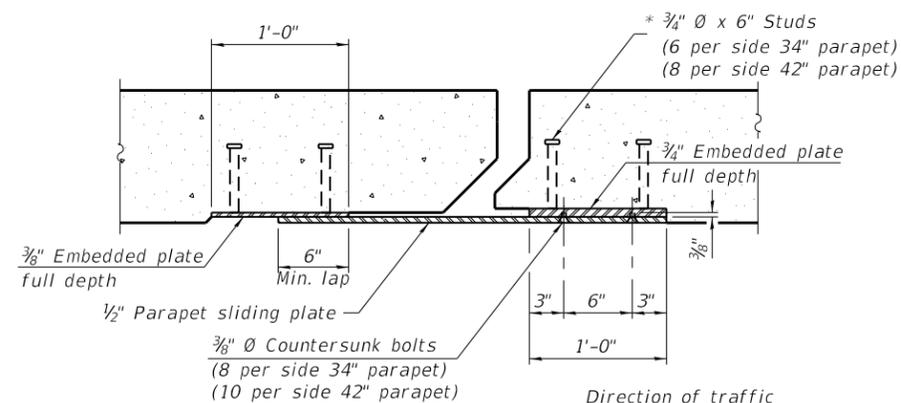
DETAIL A



TRIMETRIC VIEW
(Showing embedded plates only)



SHOWING WELDED RAIL JOINT



SECTION B-B

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". 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 $4\frac{1}{2}$ " maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

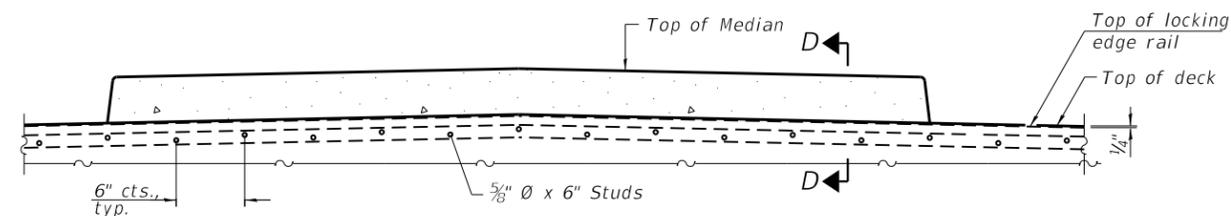
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be $\frac{3}{16}$ " 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.

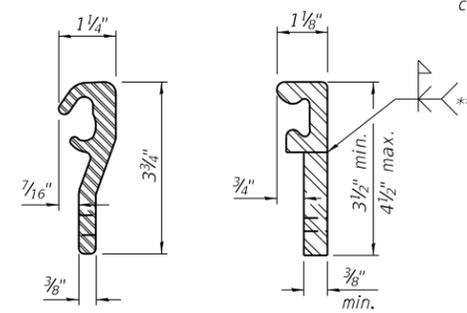
34" F-shape barrier shown, 42" F-shape similar as noted.

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.



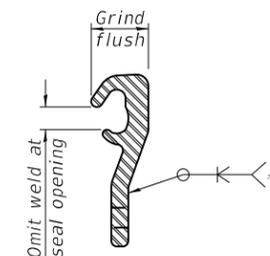
ELEVATION AT MEDIAN

For skews $> 30^\circ$, chamfer acute corners 2" similar to sidewalk.



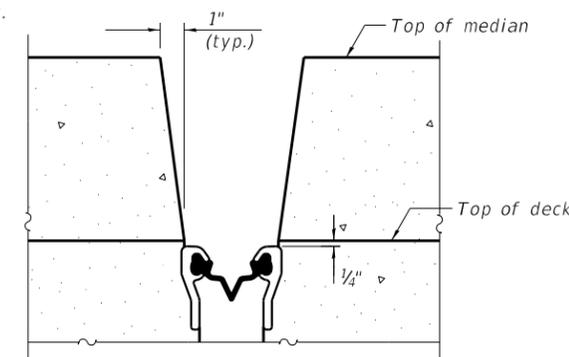
LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

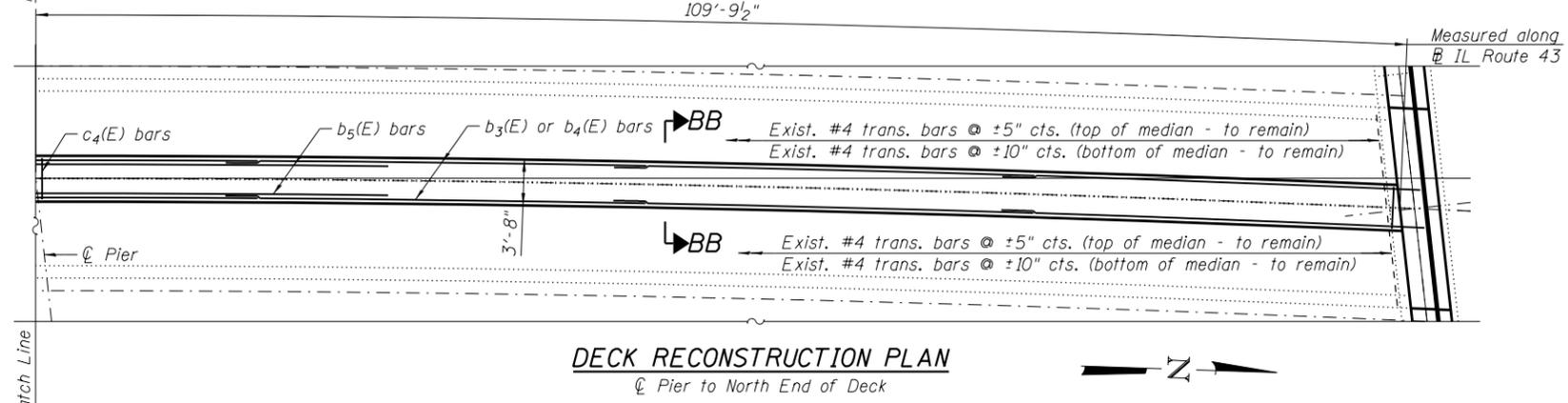
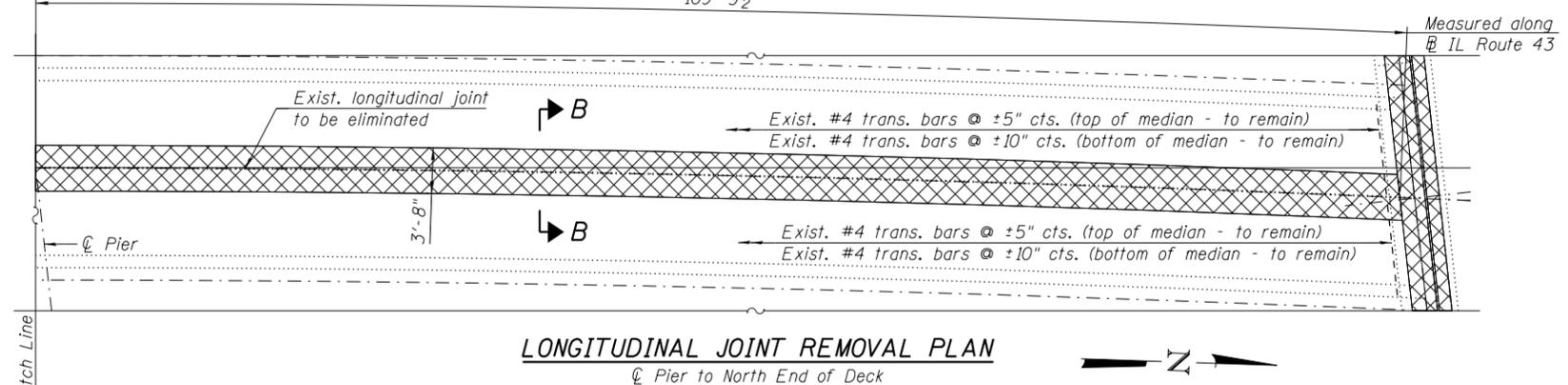
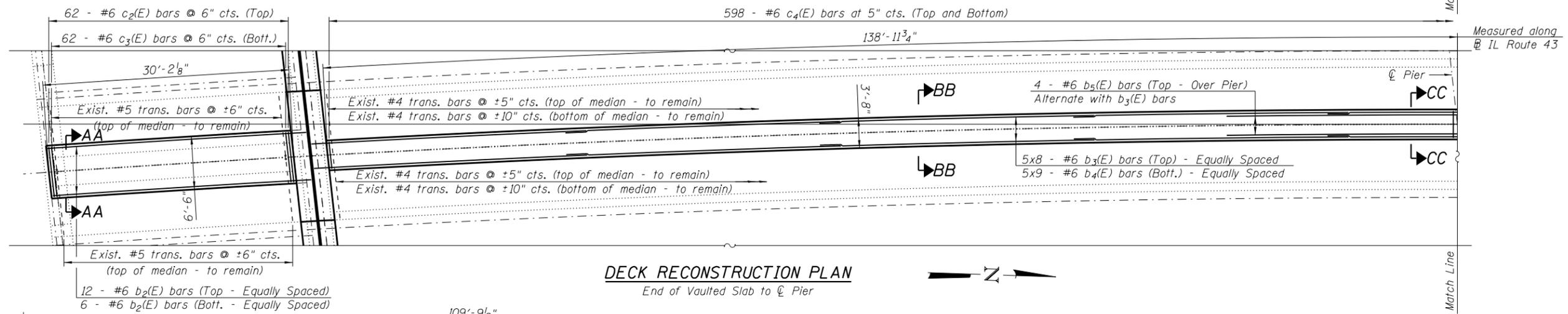
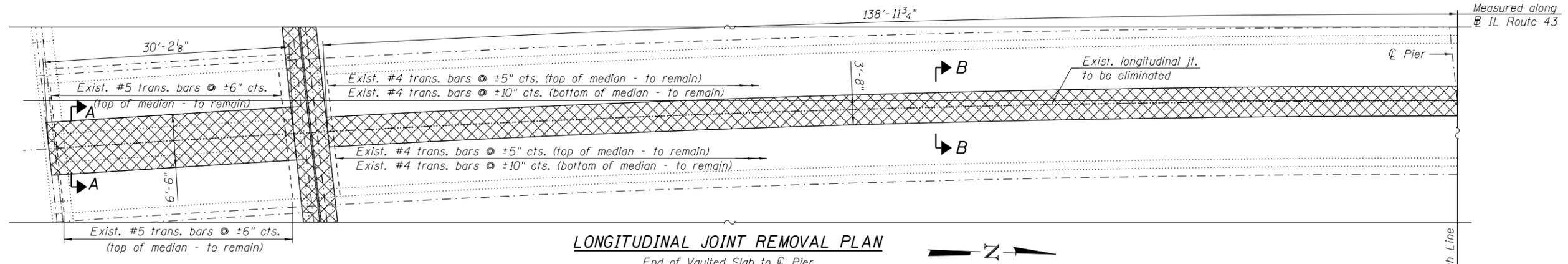
The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.



SECTION D-D
(at Rt. L's)

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	177



NOTES:

- For Bill of Material, see Sheet S15.
- For Sections A-A, B-B, AA-AA, BB-BB and CC-CC, see Sheet S15.
- Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

LEGEND



LAP SPLICES

Bar	Lap
#6	3'-10"

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DRAWN - JJS
DATE - 12/07/2018

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REVISED -
REVISED -
REVISED -

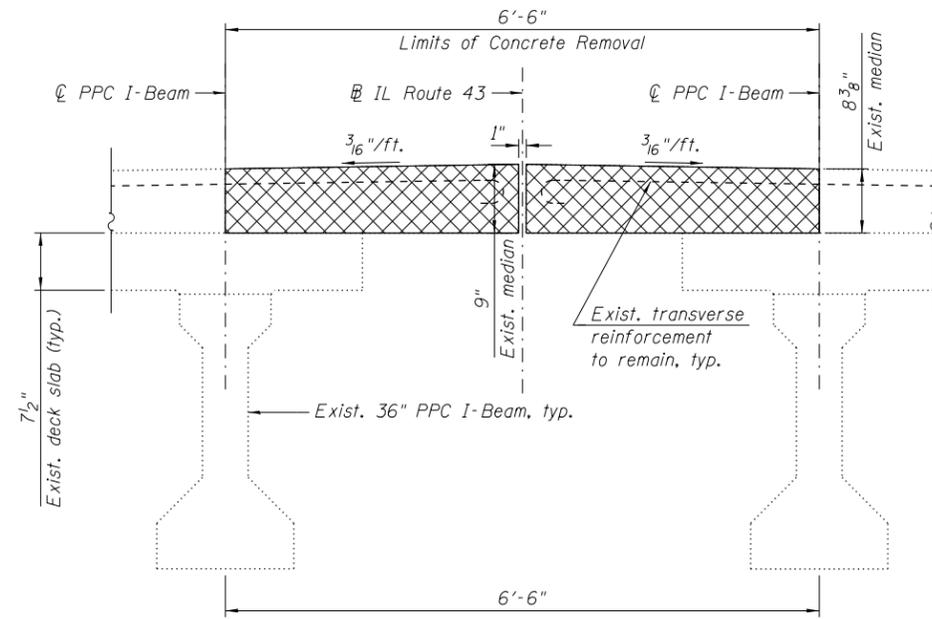
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LONG JOINT REMOVAL AND DECK RECONST. PLANS
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

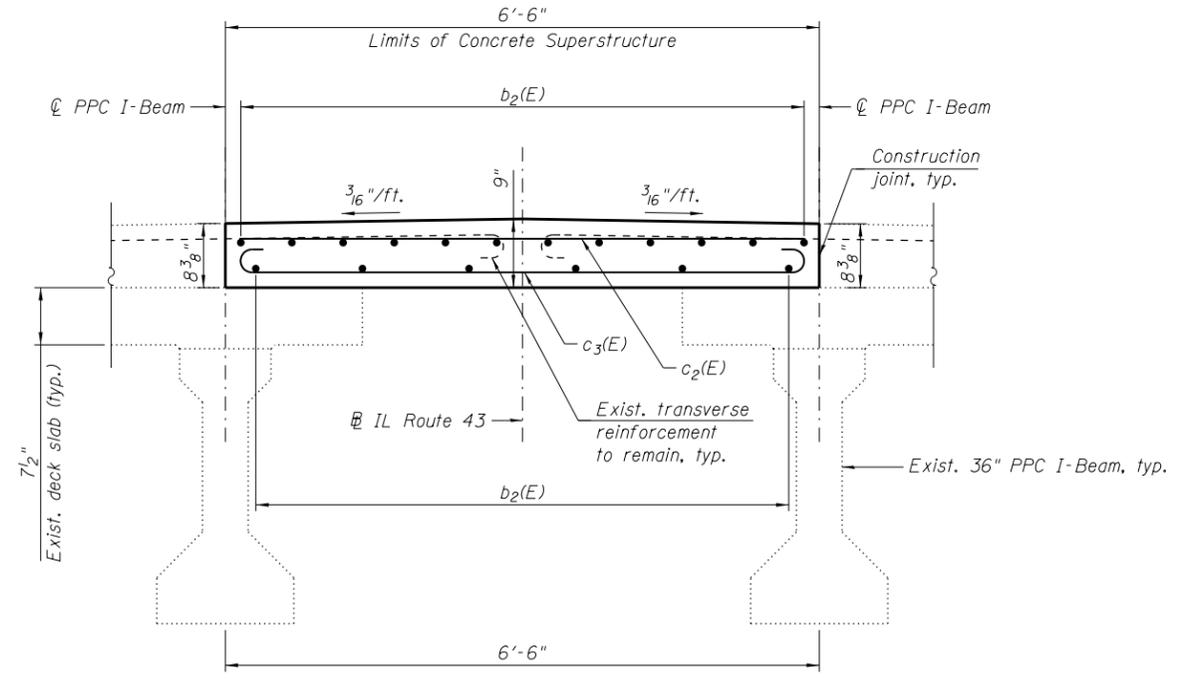
SHEET NO. S14 OF S25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	25

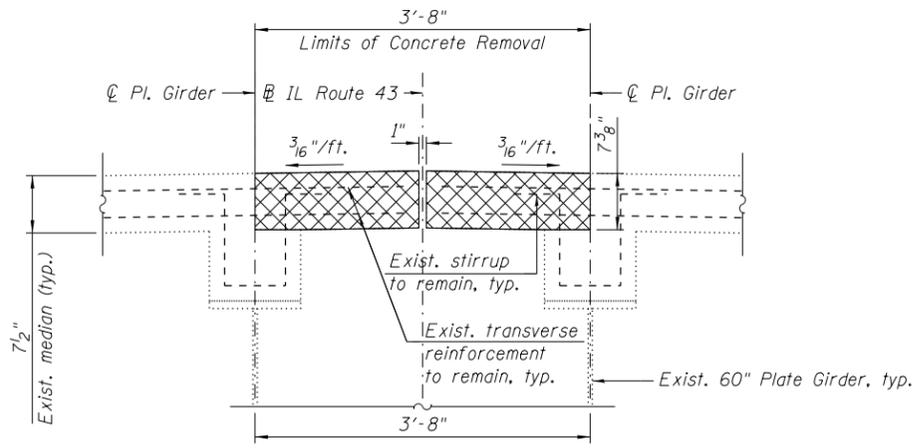
CONTRACT NO. 60R68
ILLINOIS FED. AID PROJECT



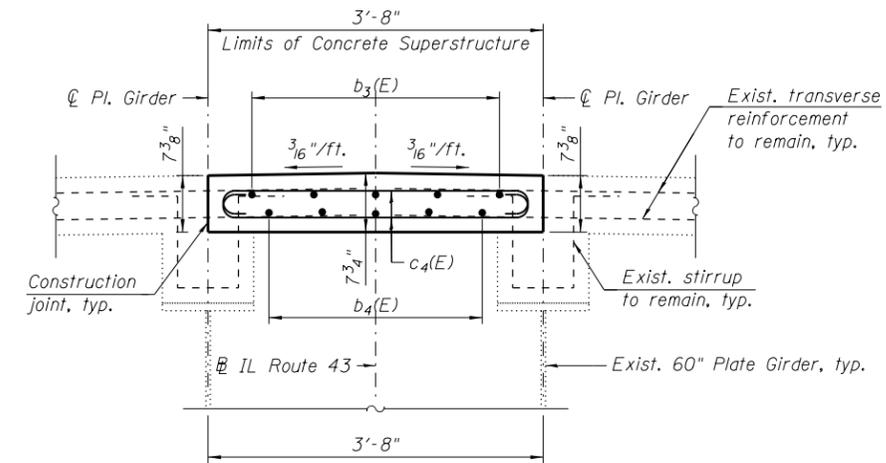
SECTION A-A
(Horizontal Dimensions at Right Angles)



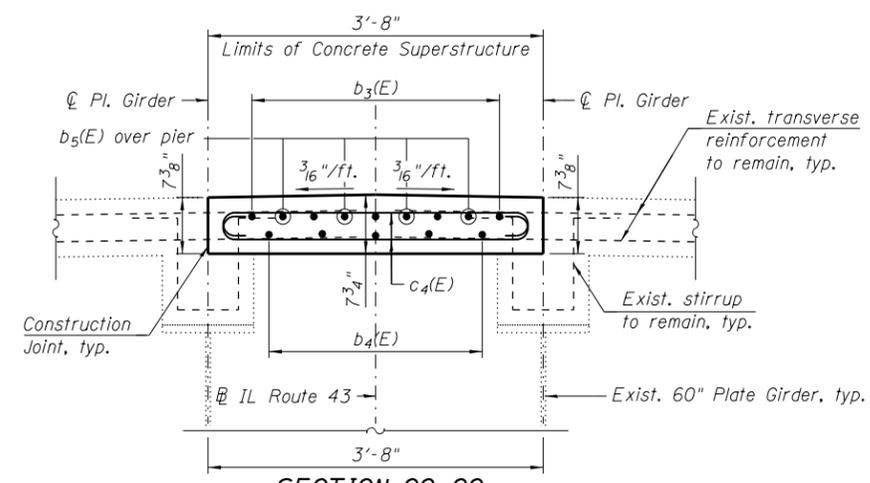
SECTION AA-AA
(Horizontal Dimensions at Right Angles)



SECTION B-B
(Horizontal Dimensions at Right Angles)



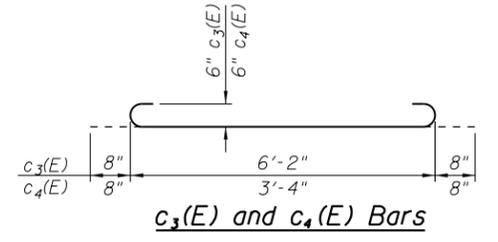
SECTION BB-BB
(Horizontal Dimensions at Right Angles)



SECTION CC-CC
(Horizontal Dimensions at Right Angles)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b ₂ (E)	18	#6	31'-10"	—
b ₃ (E)	40	#6	34'-11"	—
b ₄ (E)	45	#6	31'-6"	—
b ₅ (E)	4	#6	56'-9"	—
c ₂ (E)	62	#6	6'-2"	—
c ₃ (E)	62	#6	7'-6"	—
c ₄ (E)	1,196	#6	4'-8"	—
Concrete Removal			Cu. Yd.	26.6
Concrete Superstructure			Cu. Yd.	26.6
Protective Coat			Sq. Yd.	517
Reinforcement Bars, Epoxy Coated			Pound	15,090



LEGEND

	Concrete Removal
--	------------------

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DEPARTMENT OF TRANSPORTATION

LONG JOINT REMOVAL AND DECK RECONST. SECTIONS AND DETAILS
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

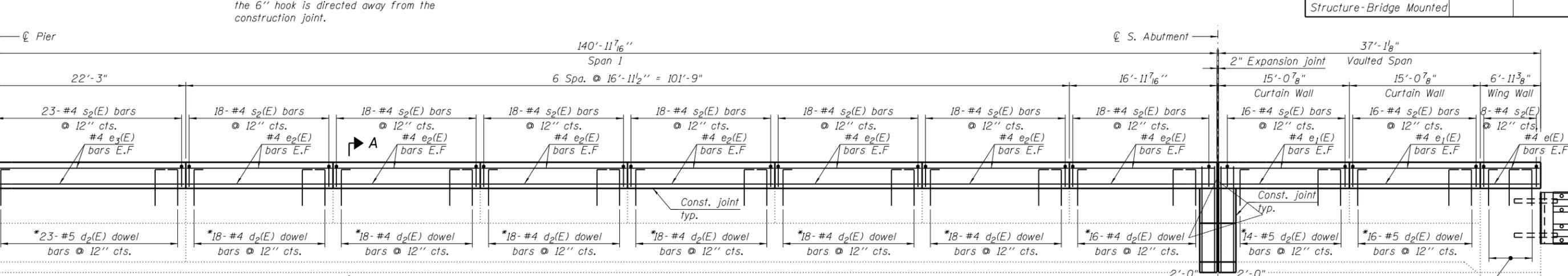
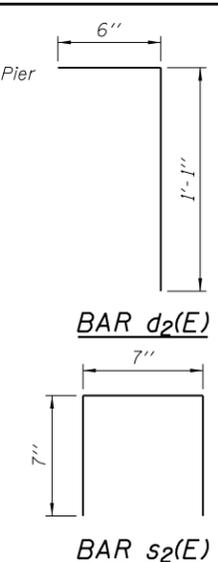
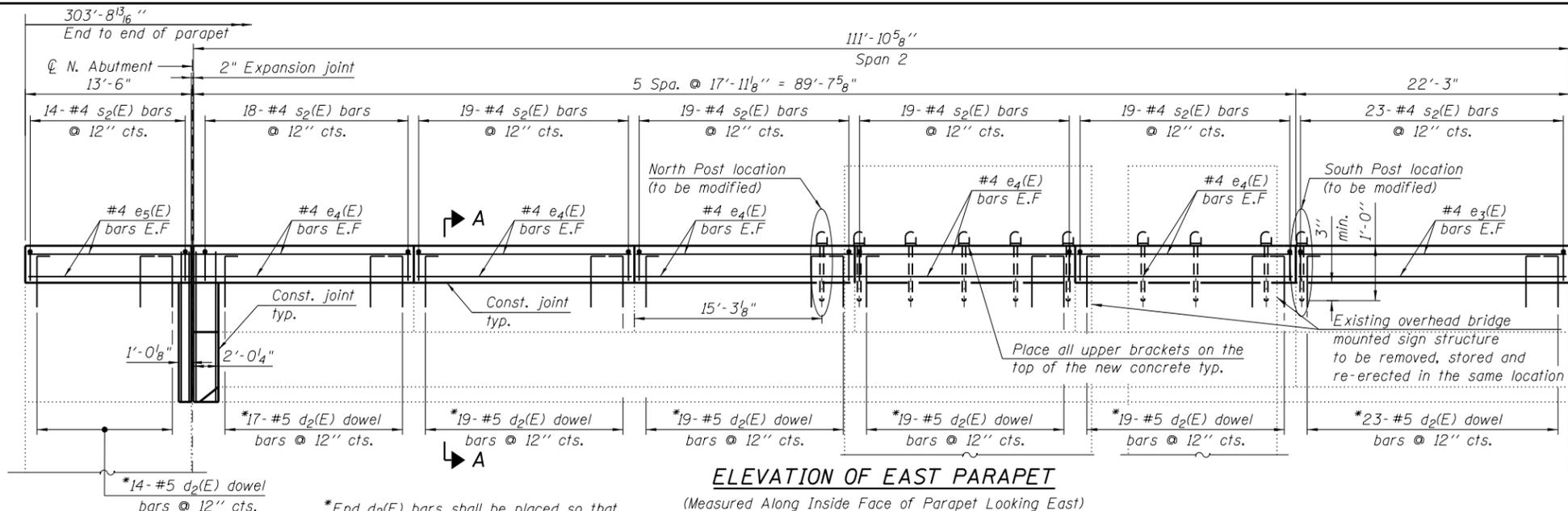
SHEET NO. S15 OF S25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60R68				
ILLINOIS FED. AID PROJECT				

DATE - 12/07/2018

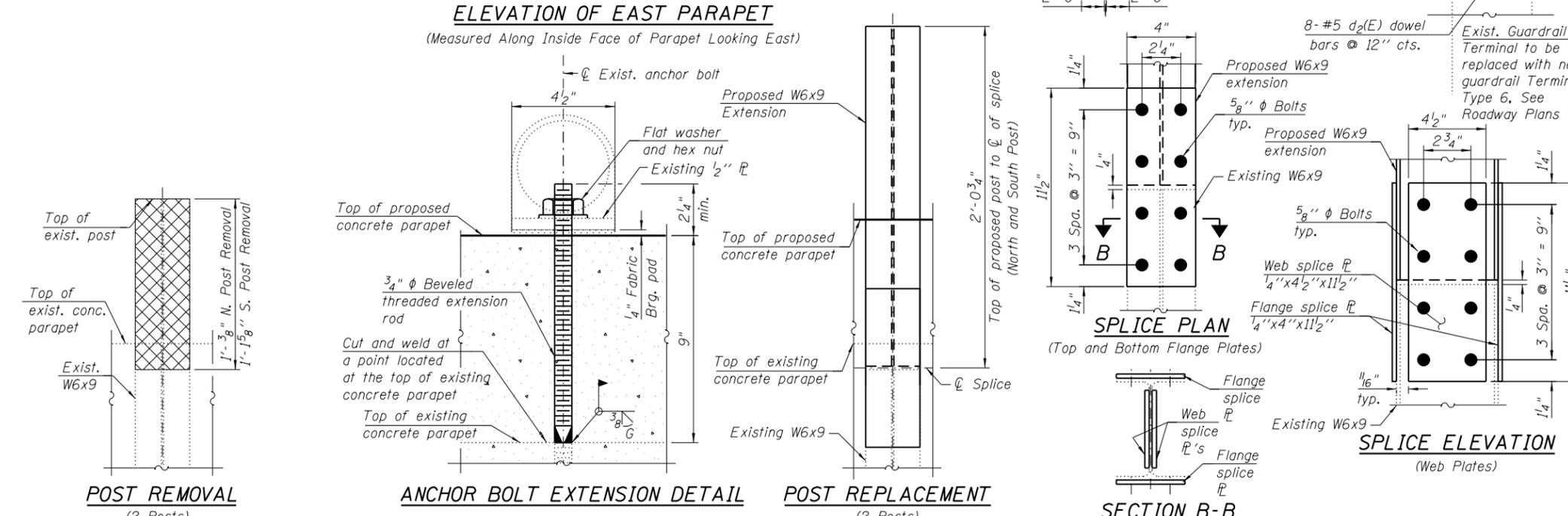
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d ₂ (E)	315	#5	1'-7"	└
e(E)	4	#4	6'-9"	—
e ₁ (E)	8	#4	14'-10"	—
e ₂ (E)	28	#4	16'-8"	—
e ₃ (E)	8	#4	22'-0"	—
e ₄ (E)	20	#4	17'-8"	—
e ₅ (E)	4	#4	13'-3"	—
s ₂ (E)	320	#4	1'-9"	┘
Bridge Rail Removal	Foot		304	
Concrete Superstructure	Cu. Yd.		8.5	
Protective Coat	Sq. Yd.		142	
Reinforcement Bars, Epoxy Coated	Pound		1700	
Remove, Store and Re-erect Overhead Sign Structure - Bridge Mounted	Each		2	



NOTES:

- For General Notes and Total Bill of Material, see Sheet S02.
- For parapet details at bridge expansion joints see Sheets S09 thru S13.
- All exposed edges shall be chamfered 3/4".
- Epoxy grout d₂(E) bars in 7/8" φ x 6" (min.) holes. The grout and the method of application shall be approved by the Department. (See Section 584 of the Standard Specifications). Cost included with "Concrete Superstructures".
- Retrofit Concrete Parapet shall be used on both sides of the bridge the full length of the bridge including portions of reconstructed transverse expansion joints.
- Precast concrete parapet extension is not allowed.
- The upper brackets for the overhead bridge mounted sign structure shall be attached to the top of the new retrofitted concrete parapet.
- For Section A-A and Parapet Joint Details, see Sheet S17.
- Cost of overhead signpost modifications is included with "Remove, Store and Re-erect Overhead Sign Structure - Bridge Mounted."



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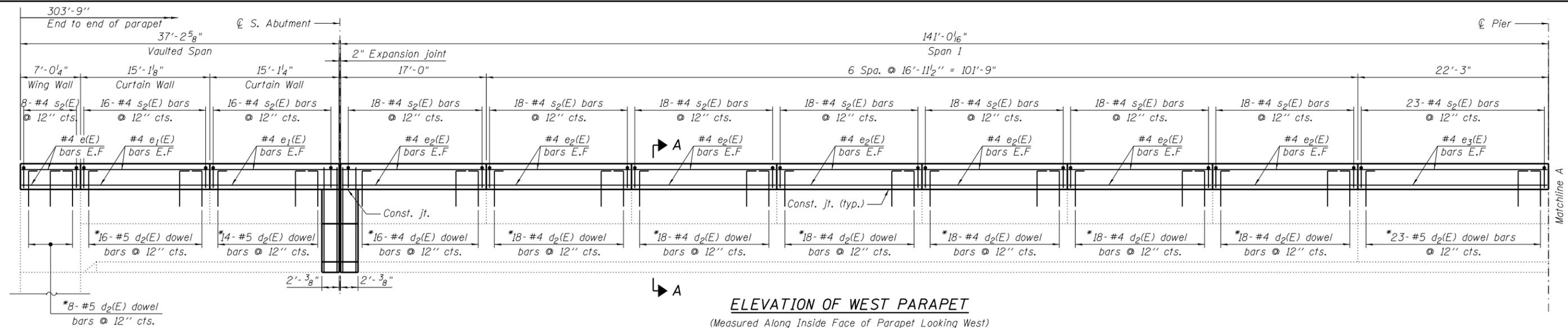
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DEPARTMENT OF TRANSPORTATION

EAST PARAPET RETROFIT
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

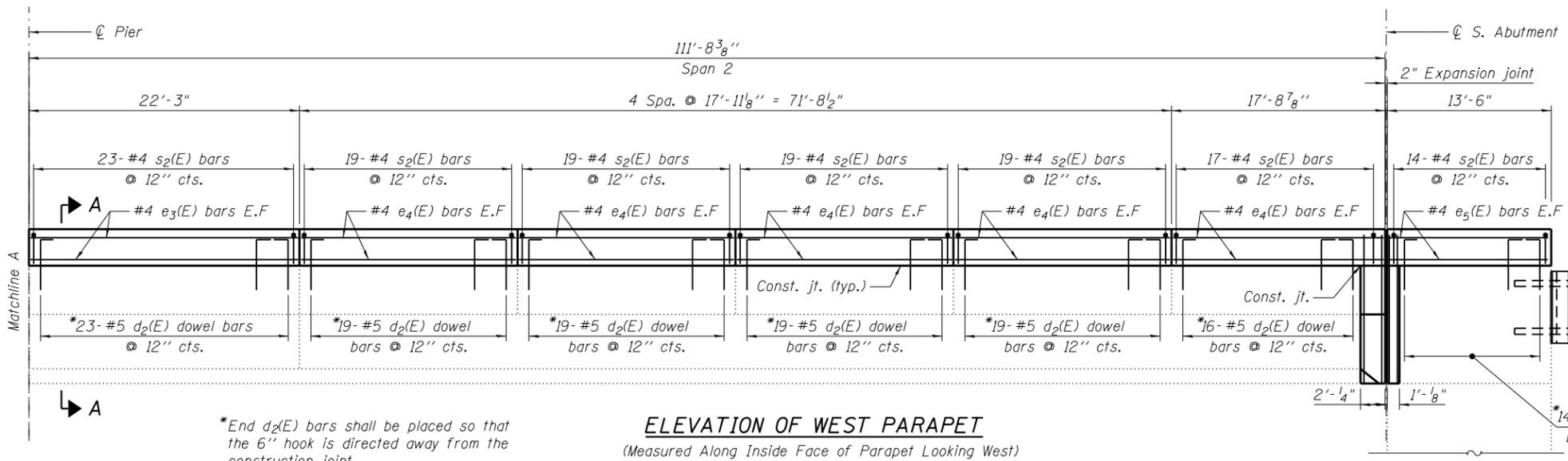
F.A.U. RT. 2706	SECTION 12R-1HB-1-BR	COUNTY LAKE	TOTAL SHEETS 45	SHEET NO. 27
DATE - 12/07/2018			CONTRACT NO. 60R68	

SHEET NO. S16 OF S25 SHEETS

ILLINOIS FED. AID PROJECT



ELEVATION OF WEST PARAPET
(Measured Along Inside Face of Parapet Looking West)



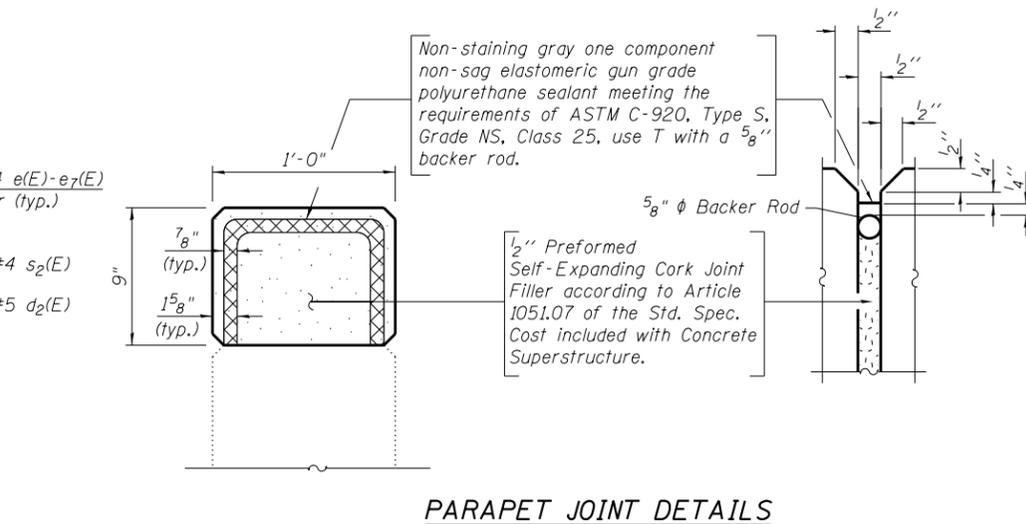
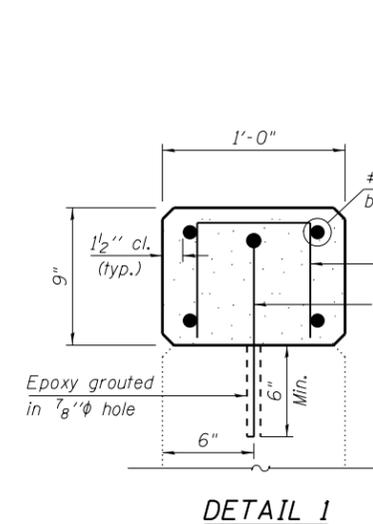
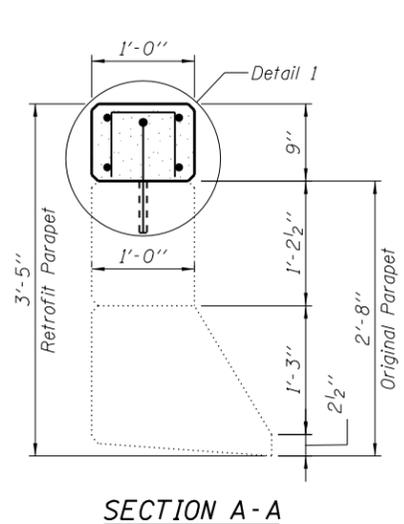
ELEVATION OF WEST PARAPET
(Measured Along Inside Face of Parapet Looking West)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d ₂ (E)	314	#5	1'-7"	┌
e(E)	4	#4	6'-9"	—
e ₁ (E)	8	#4	14'-10"	—
e ₂ (E)	28	#4	16'-8"	—
e ₃ (E)	8	#4	22'-0"	—
e ₄ (E)	20	#4	17'-7"	—
e ₅ (E)	4	#4	13'-3"	—
s ₂ (E)	319	#4	1'-9"	┐
Bridge Rail Removal		Foot		304
Concrete Superstructure		Cu. Yd.		8.5
Protective Coat		Sq. Yd.		142
Reinforcement Bars, Epoxy Coated		Pound		1690

NOTES:

- For General Notes and Total Bill of Material, see Sheet S02.
- For parapet details at bridge expansion joints see Sheets S09 thru S13.
- All exposed edges shall be chamfered 3/4".
- Epoxy grout d₂(E) bars in 7/8" φ x 6" (min.) holes. The grout and the method of application shall be approved by the Department. (see Section 584 of the Standard Specifications). Cost included with "Concrete Superstructures".
- Retrofit Concrete Parapet shall be used on both sides of the bridge the full length of the bridge including portions of reconstructed transverse expansion joints.
- Precast concrete parapet extension is not allowed.



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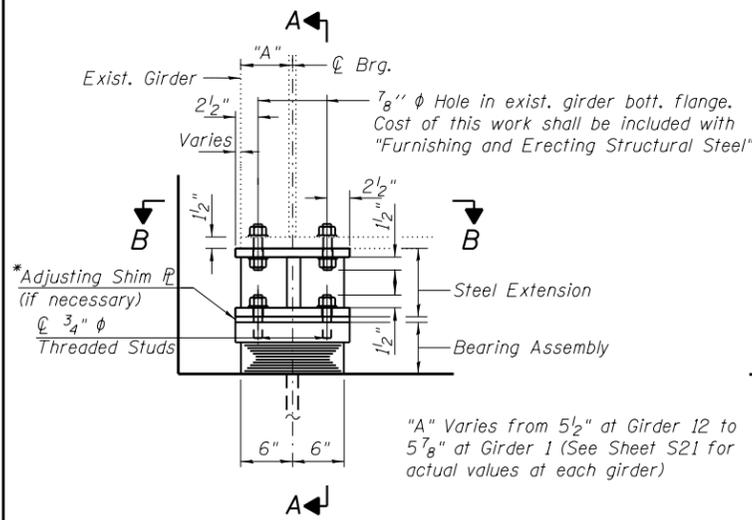
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST PARAPET RETROFIT
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

F.A.U. RT.E. SECTION COUNTY TOTAL SHEETS SHEET NO.
2706 12R-1HB-1-BR LAKE 45 28
CONTRACT NO. 60R68
ILLINOIS FED. AID PROJECT

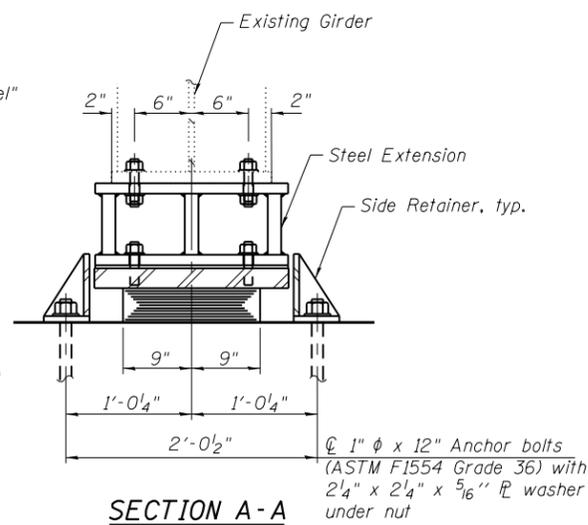
SHEET NO. S17 OF S25 SHEETS

DATE - 12/07/2018

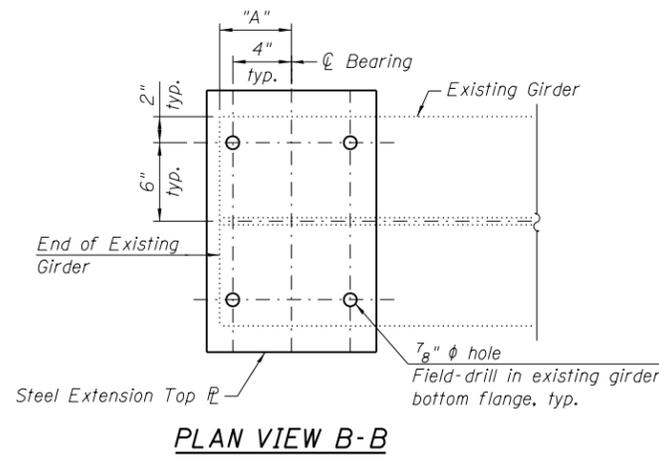


ELEVATION AT S. ABUT.

* $\frac{1}{8}$ " Shim \bar{P} required at Girder 8

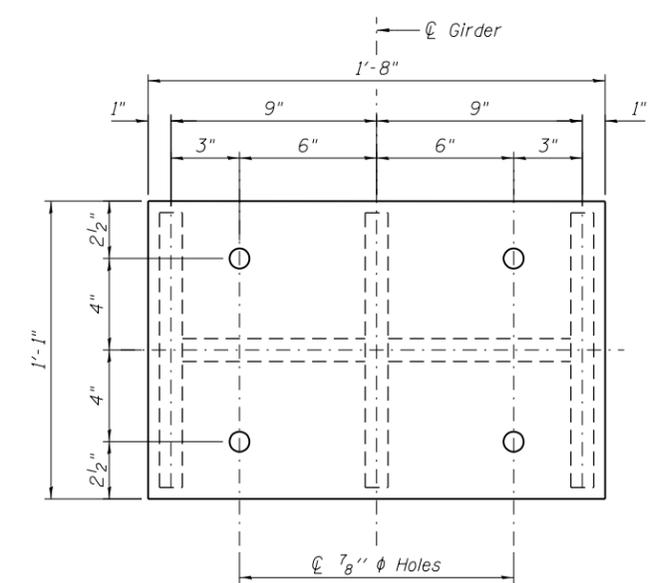


SECTION A-A



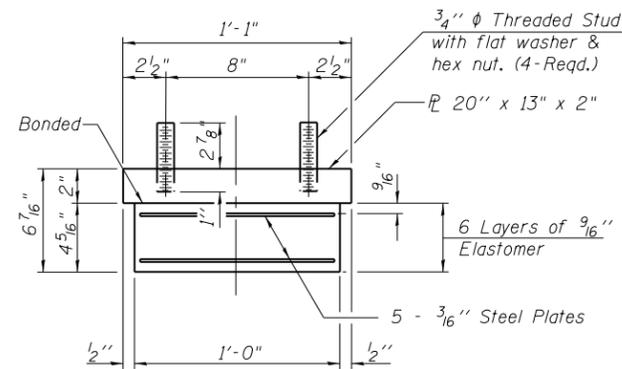
PLAN VIEW B-B

"A" Varies from $5\frac{1}{2}$ " at Girder 12 to $5\frac{7}{8}$ " at Girder 1 (See Sheet S21 for actual values at each girder)



PLAN STEEL EXTENSION

TYPE I ELASTOMERIC EXP. BRG. AT SOUTH ABUTMENT



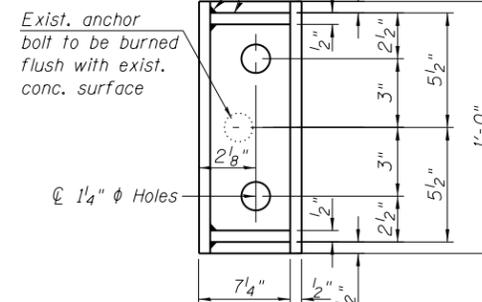
BEARING ASSEMBLY AT SOUTH ABUTMENT

NOTE

Shim plates shall not be placed under Bearing Assembly.

NOTES:

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.
- All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

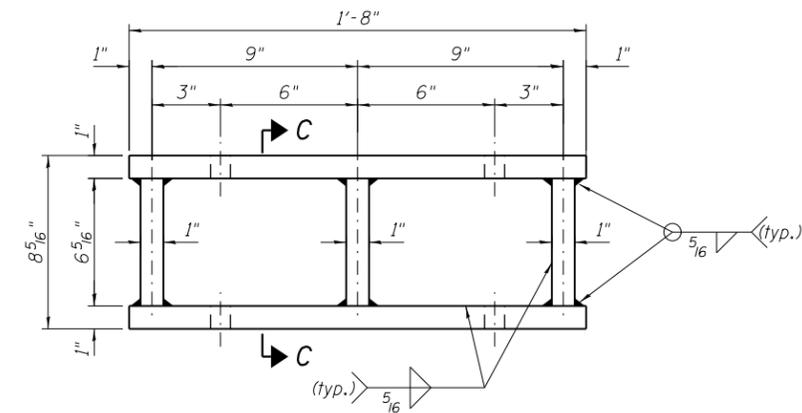


SIDE RETAINER

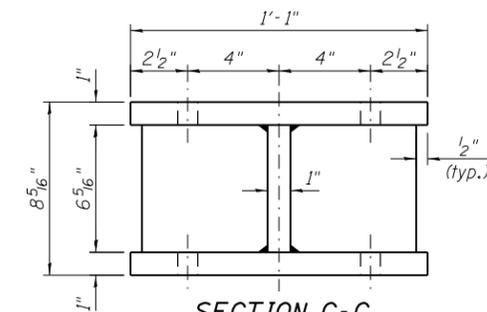
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

REACTION TABLE

DL (kip)	87.6
LL (kip)	52.8
IMP (kip)	9.9
TOTAL (kip)	150.3



ELEVATION STEEL EXTENSION



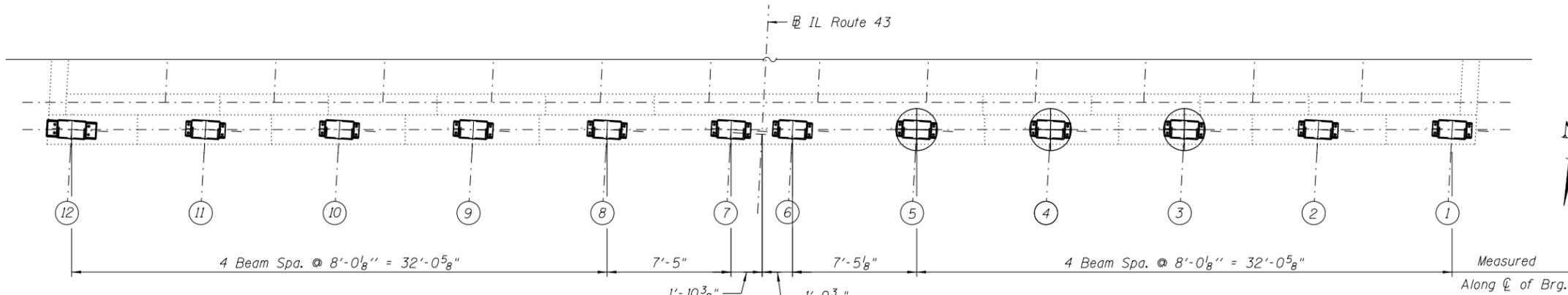
SECTION C-C STEEL EXTENSION

BILL OF MATERIAL

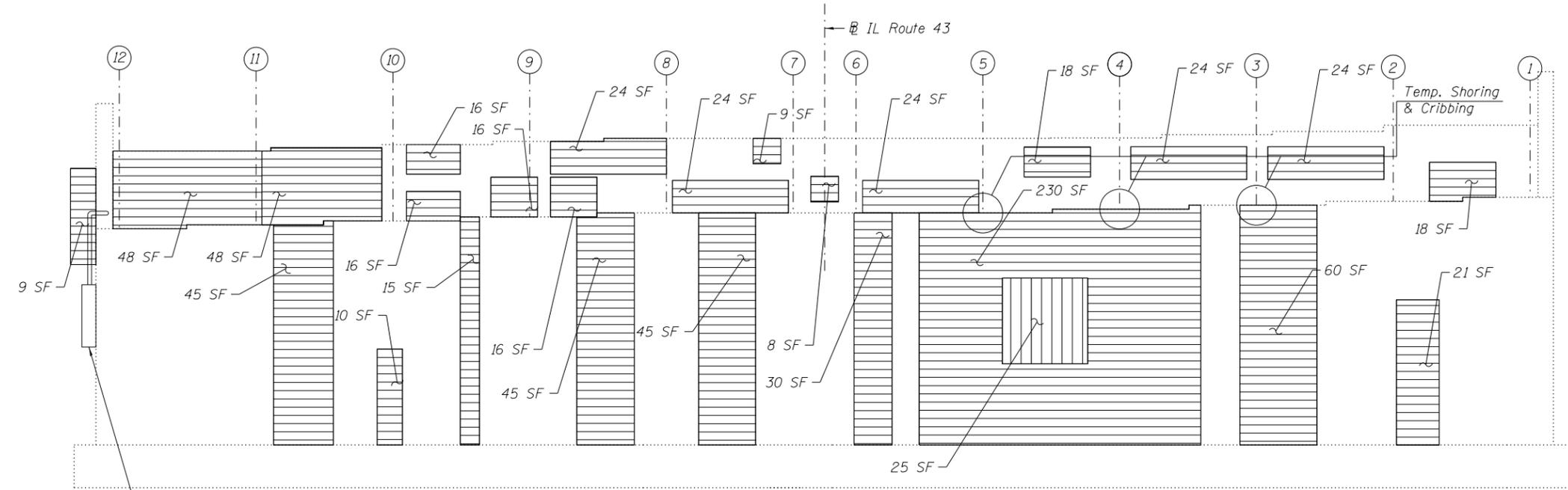
Item	Unit	Total
Furnishing and Erecting Structural Steel	Pounds	2,890
Elastomeric Bearing Assembly Type I	Each	12
Anchor Bolts, 1"	Each	48

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	843
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	25



SOUTH ABUTMENT PLAN

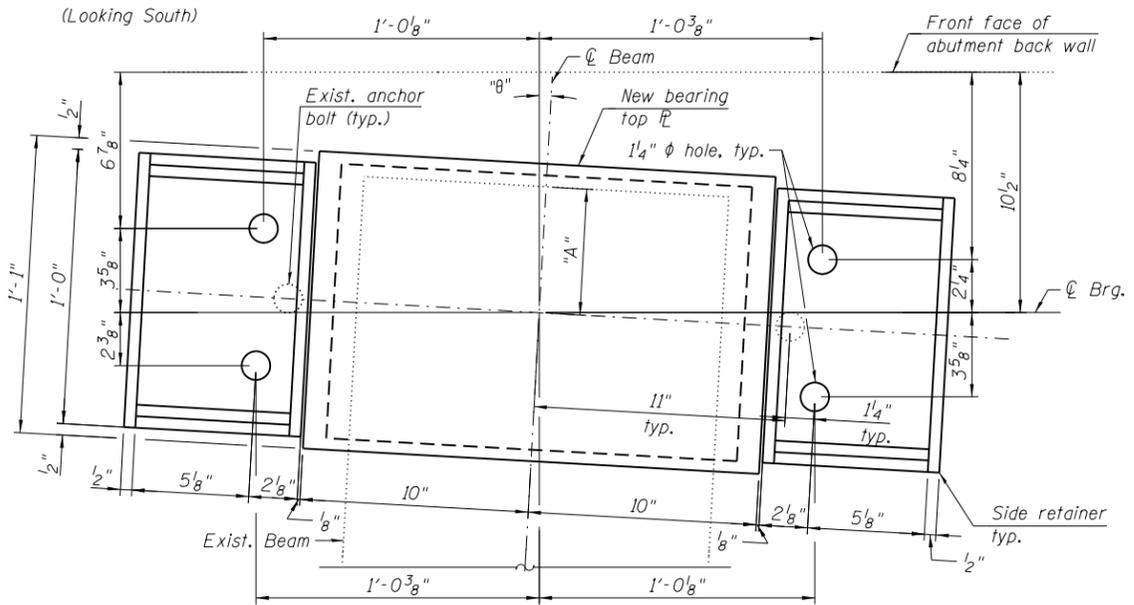


SOUTH ABUTMENT ELEVATION
(Looking South)

Any Temp relocation of the conduit or junction box in order to perform substructure repairs will be paid for as "Maintenance of Lighting Systems"

SOUTH ABUTMENT BEARING ANGLES

Beam	Angle "θ"	Distance "A"
1	3°5'34"	5 7/8"
2	3°6'8"	5 13/16"
3	3°6'43"	5 13/16"
4	3°7'18"	5 3/4"
5	3°7'53"	5 3/4"
6	3°8'26"	5 1/2"
7	3°8'42"	5 1/2"
8	3°9'15"	5 5/8"
9	3°9'51"	5 5/8"
10	3°10'27"	5 9/16"
11	3°11'4"	5 1/2"
12	3°11'41"	5 1/2"



SOUTH ABUTMENT ANCHOR BOLT LAYOUT

NOTES:

- For General Notes and Total Bill of Material, see Sheet S02.
- Quantities and limits shown are estimated for bidding purposes only. The actual areas to be repaired and the type(s) of repairs to be used will be determined by the Engineer in the field at the time of construction.
- The Contractor is responsible to remove, support and reinstall all existing electrical conduits interfering with the work. See special provision "Protection and Maintenance of Existing Underpass Luminaires".
- Existing bearing removal for Girders 3, 4 and 5 at the South Abutment will be paid under Temporary Shoring and Cribbing and will not be paid separately.

LEGEND

- Structural Repair of Concrete (depth greater than 5")
- Structural Repair of Concrete (depth equal to or less than 5")
- Existing bearing removal and replacement with elastomeric bearing
- Temporary Shoring and Cribbing and Existing bearing removal and replacement with elastomeric bearing

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CHECKED - MAI, MI	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT REPAIRS
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	32
CONTRACT NO. 60R68				

SHEET NO. S21 OF S25 SHEETS

ILLINOIS FED. AID PROJECT

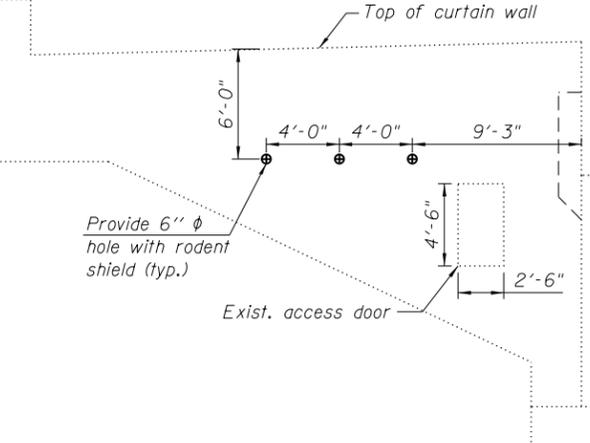
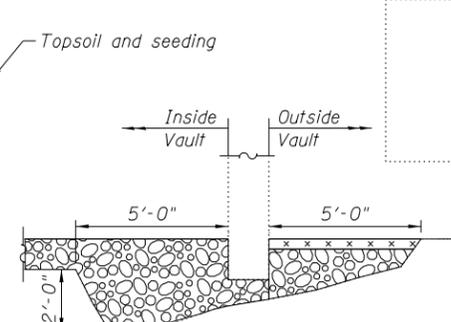
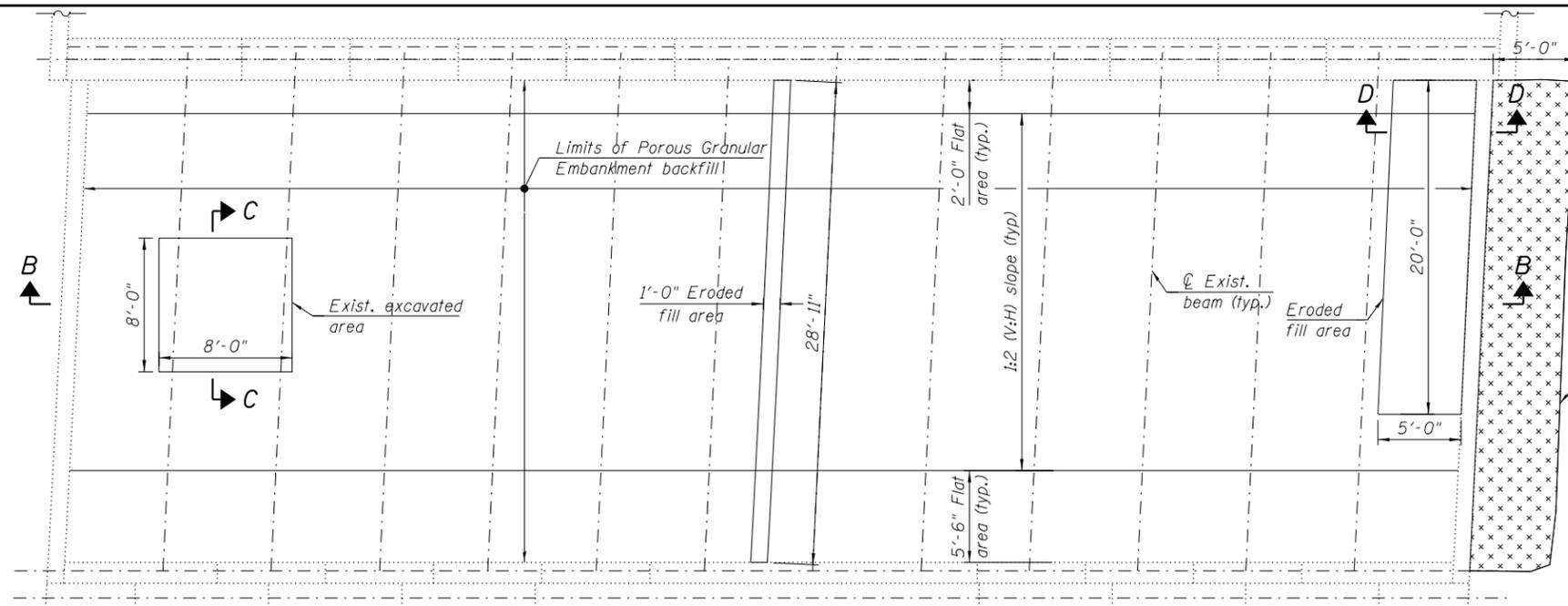
DATE - 12/07/2018

LEGEND

-  Porous Granular Embankment
-  Existing soil to be removed and placed below PGE
-  18 Sq Yd of Topsoil 4" and Seeding, Class 2A (Quantities included in roadway items)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Porous Granular Embankment	Cu. Yd.	128
Concrete Removal	Cu. Yd.	0.2

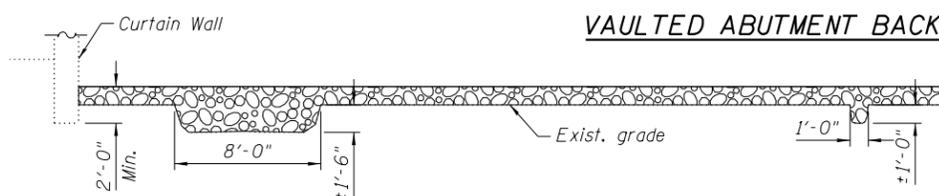


VAULTED ABUTMENT BACKFILL PLAN

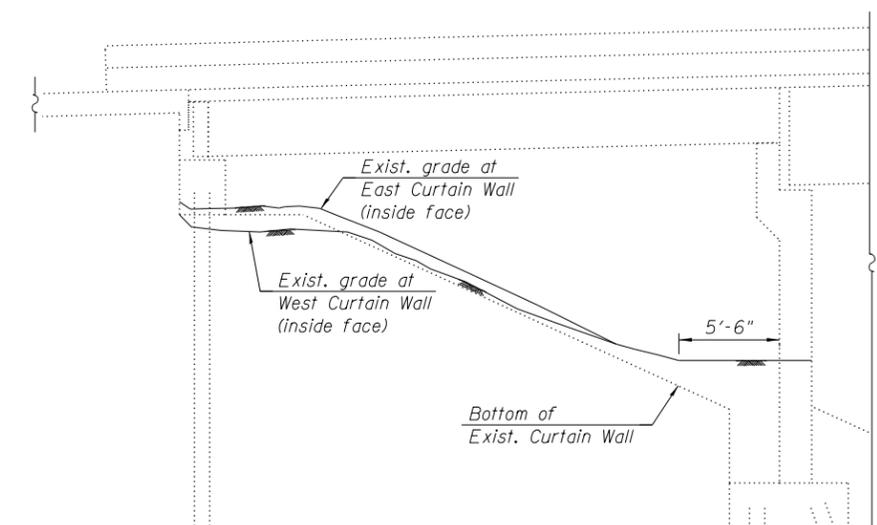
SECTION D-D

EAST CURTAIN WALL ELEVATION

(Looking West)

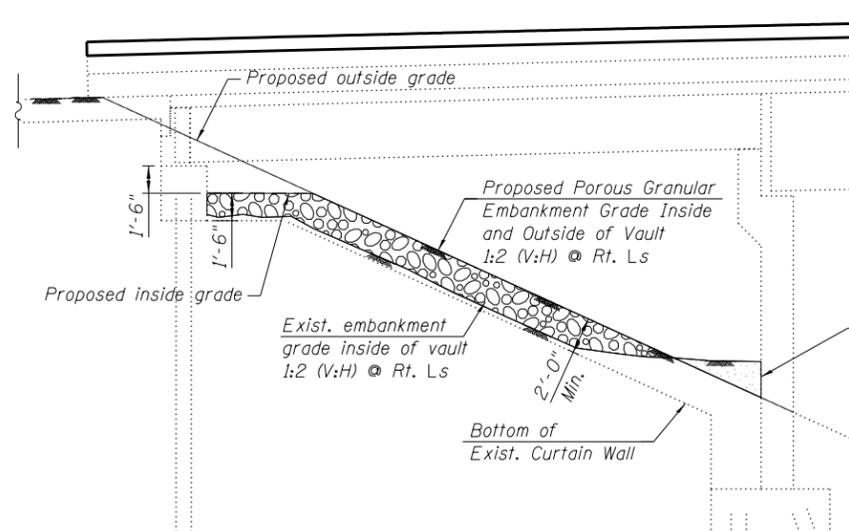


SECTION B-B



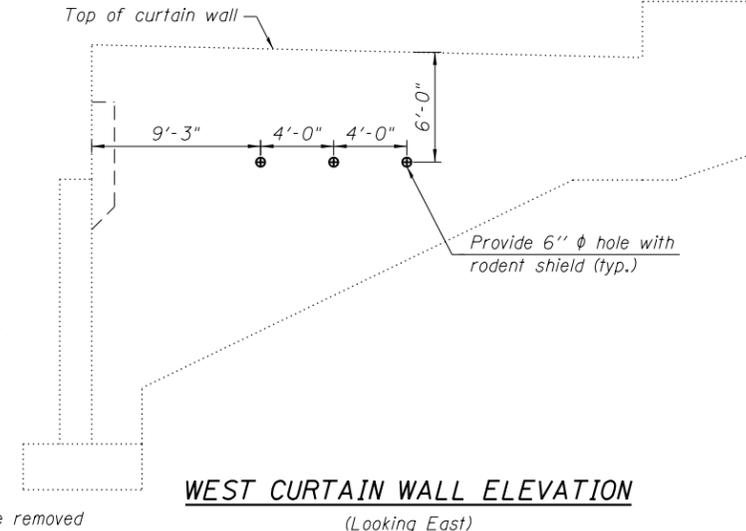
EXISTING VAULTED ABUTMENT GRADING

(Looking West)



PROPOSED VAULTED ABUTMENT GRADING

(Looking West)



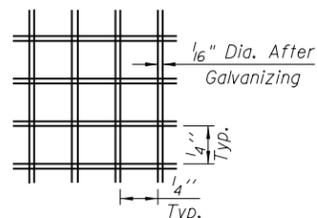
WEST CURTAIN WALL ELEVATION

(Looking East)

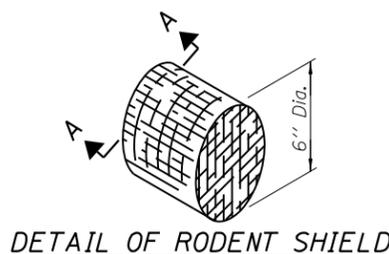
*Cost of Exist. Soil to be removed and placed below granular backfill shall be included with Porous Granular Embankment

NOTES:

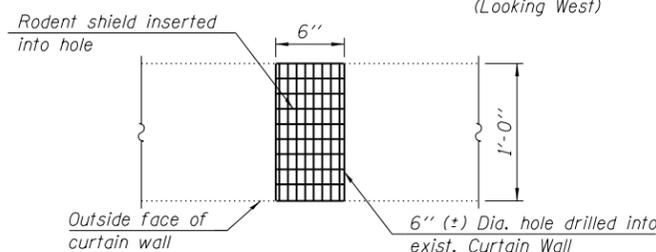
1. For General Notes and Total Bill of Material, see Sheet S02.
2. Cost of drilling holes and rodent shield included with Concrete Removal.
3. Backfill inside vault to the proposed embankment grade shown on the Proposed Vaulted Abutment Grading view.
4. Backfill and grade the embankment outside the vault along the curtain walls to the proposed embankment grade shown on the Proposed Vaulted Abutment Grading view including 4" topsoil (see Roadway Plans for details and quantities).



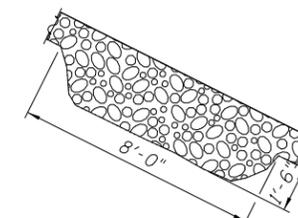
SECTION A-A



DETAIL OF RODENT SHIELD



RODENT SHIELD PLACEMENT



SECTION C-C

HBM
ENGINEERING GROUP, LLC
CONSULTING & DESIGN
INSPECTION & TESTING
RESEARCH & TESTING

4415 WEST HARRISON ST.
SUITE 231
HILLSIDE, IL 60162
PHONE: (708) 236-0900
FAX: (708) 236-0901
DATE - 12/07/2018

DESIGNED - WM
CHECKED - MI
DRAWN - WM
CHECKED - MAI, MI

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT CURTAIN WALL VENTILATION AND GRADING
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

SHEET NO. S22 OF S25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	33
CONTRACT NO. 60R68				

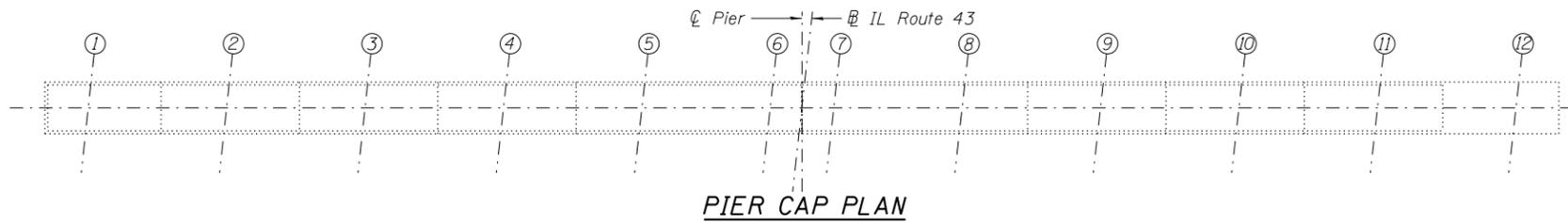
ILLINOIS FED. AID PROJECT

BILL OF MATERIAL

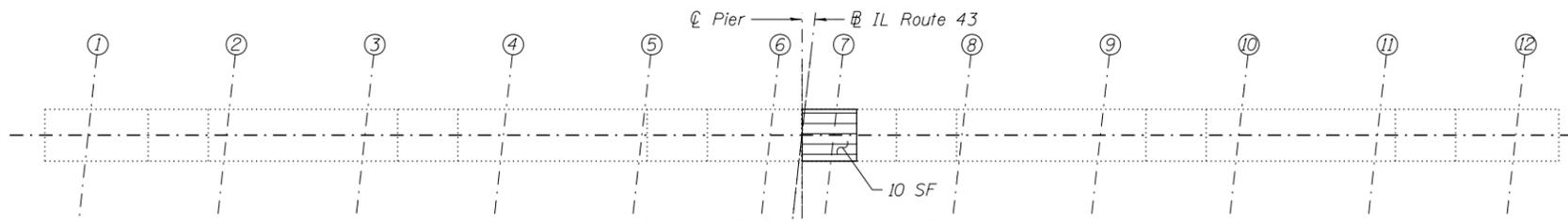
ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	10

NOTES:

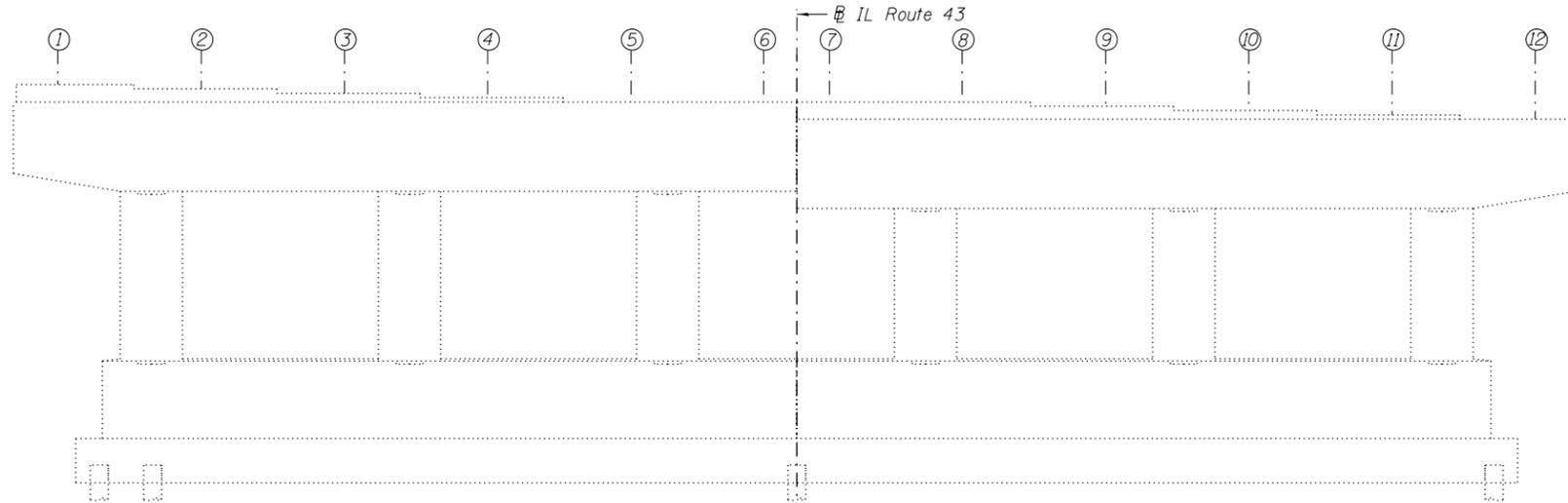
- For General Notes and Total Bill of Material, see Sheet S02.
- Quantities and limits shown are estimated for bidding purposes only. The actual areas to be repaired and the type(s) of repairs to be used will be determined by the engineer in the field at the time of construction.
- The contractor is responsible to remove, support and reinstall all existing electrical conduits interfering with the work. See special provision "Protection and Maintenance of Existing Underpass Luminaires".



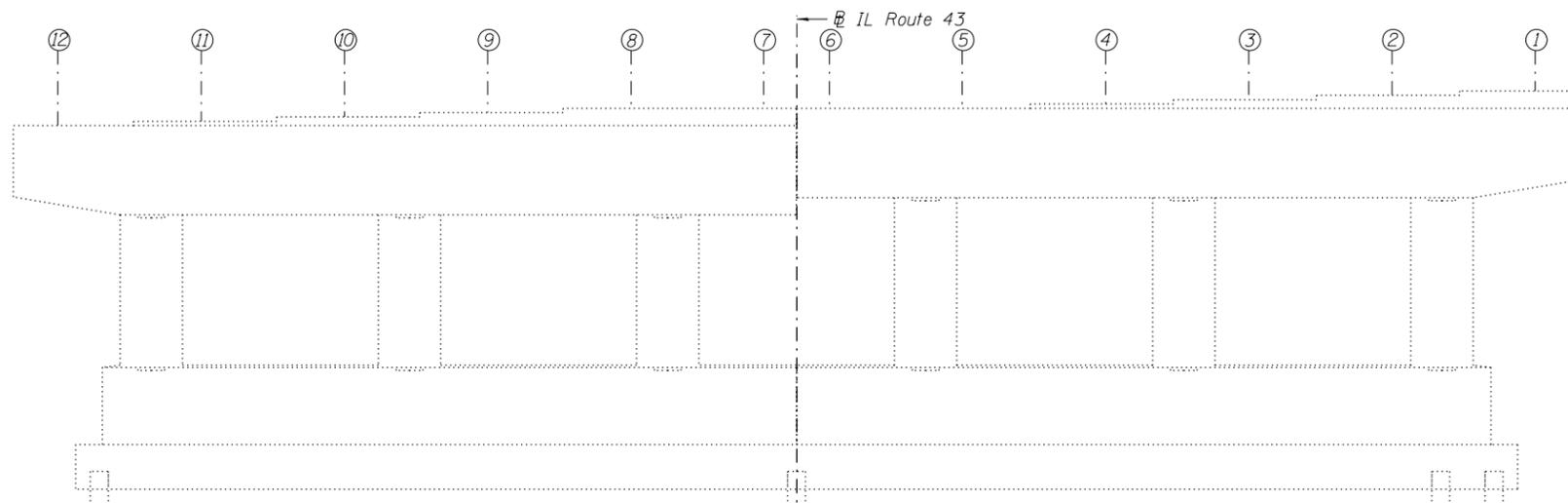
PIER CAP PLAN



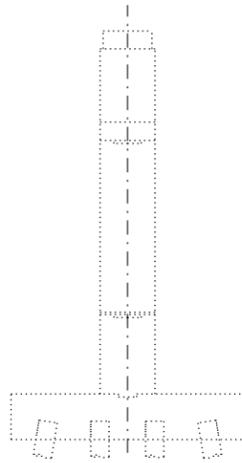
PIER CAP REFLECTED PLAN
(Underside of Pier Cap)



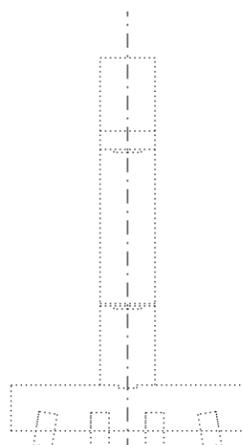
PIER ELEVATION
(Looking North)



PIER ELEVATION
(Looking South)



WEST END
(Looking East)



EAST END
(Looking West)

LEGEND

Structural Repair of Concrete (depth equal to or less than 5")

HBM
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DATE - 12/07/2018

DESIGNED - WM
CHECKED - MI
DRAWN - WM
CHECKED - MAI, MI

REVISED -
REVISED -
REVISED -
REVISED -

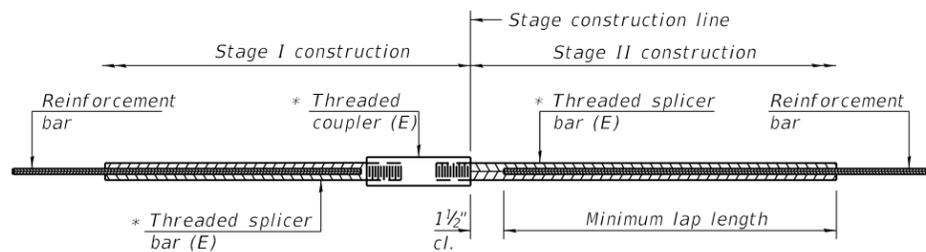
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REPAIRS
IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111

SHEET NO. S24 OF S25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	35
CONTRACT NO. 60R68				

ILLINOIS FED. AID PROJECT

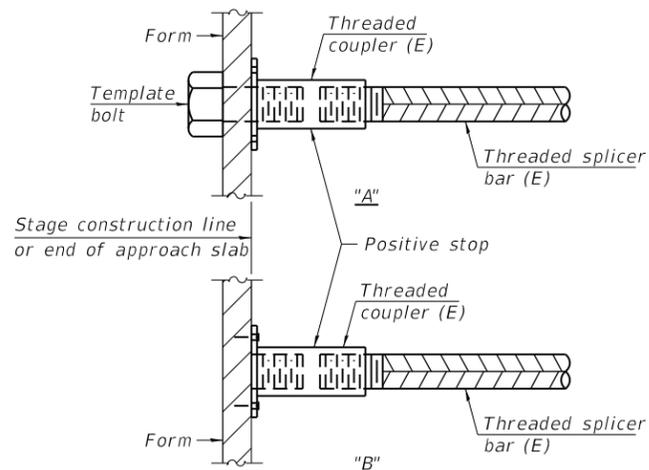


STANDARD BAR SPLICER ASSEMBLY

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

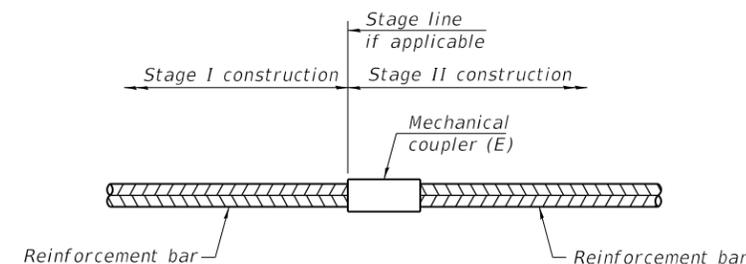
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Exp. Jt. - S. Abut.	#5	40	3'-6"
Exp. Jt. - N. Abut.	#5	28	3'-6"



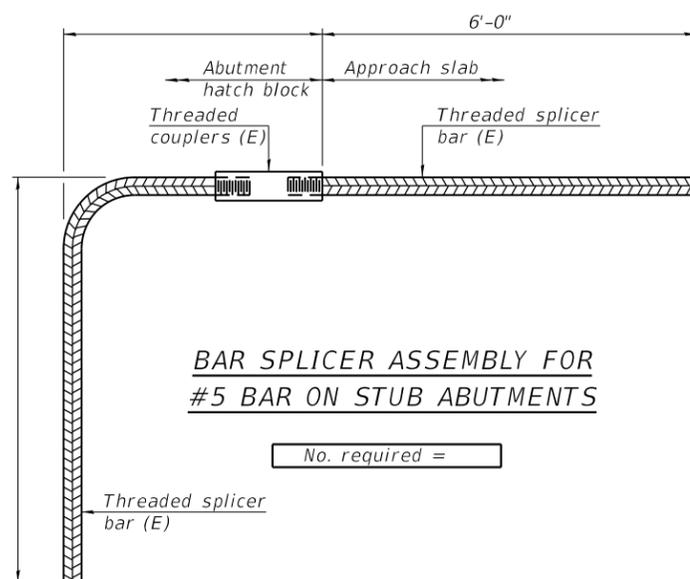
INSTALLATION AND SETTING METHODS

"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.

BSD-1 2-17-2017

HBM
 ENGINEERING GROUP, LLC
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 HILLSIDE, IL 60162
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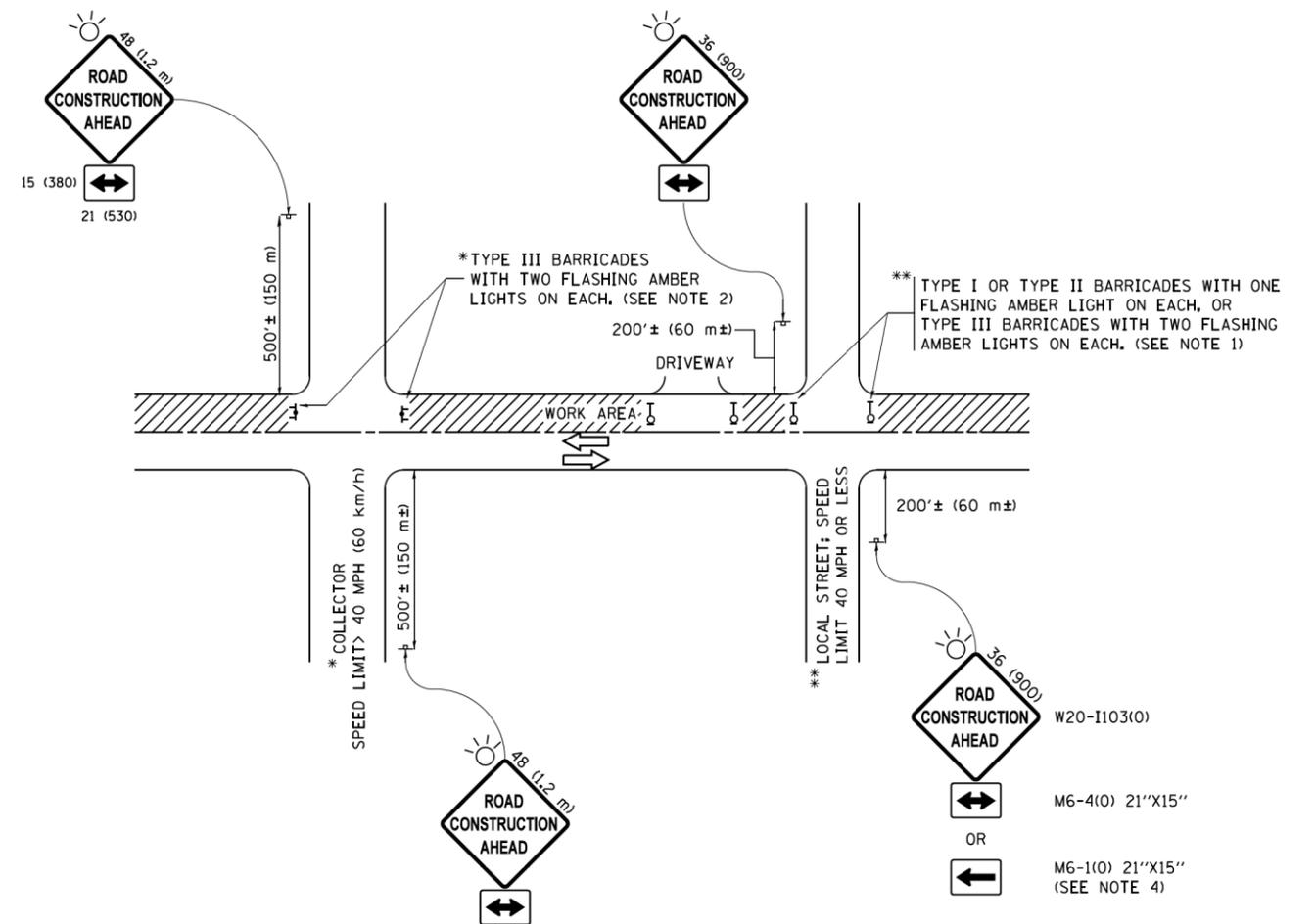
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CHECKED - MI	REVISED -
DRAWN - JJS	REVISED -
DATE - 12/07/2018	REVISED -
CHECKED - MAI, MI	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY DETAILS
 IL ROUTE 43 OVER IL ROUTE 120 - STRUCTURE NO. 049-0111**

SHEET NO. S25 OF S25 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	36
CONTRACT NO. 60R68				
ILLINOIS FED. AID PROJECT				



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

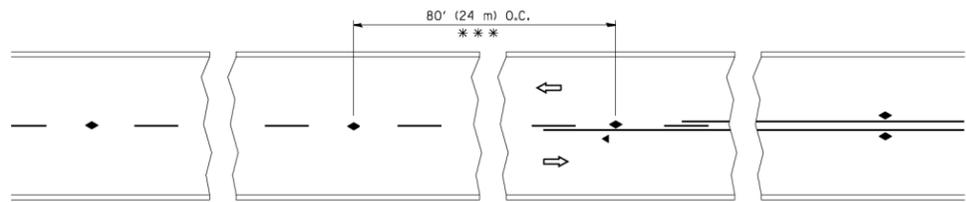
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	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

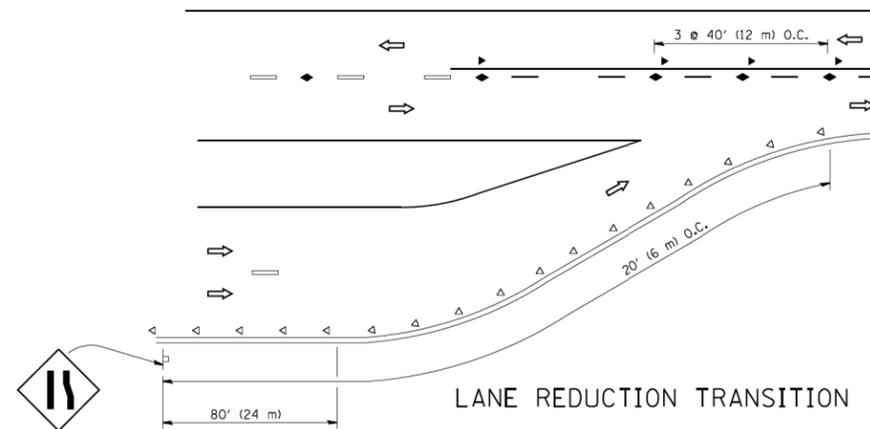
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-10			CONTRACT NO. 60R68	
ILLINOIS FED. AID PROJECT				

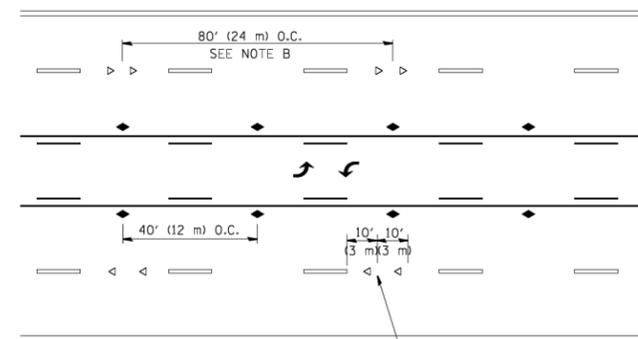


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

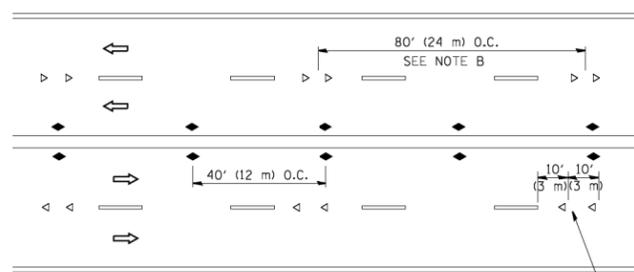
TWO-LANE/TWO-WAY



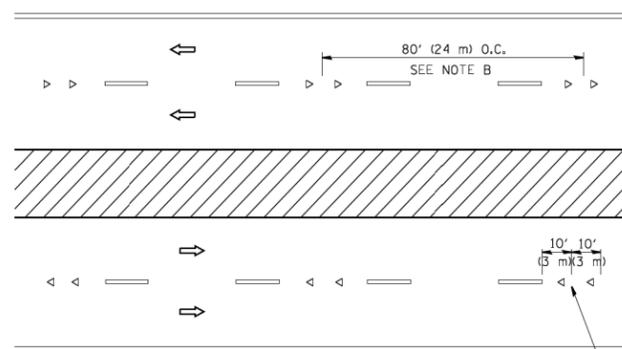
LANE REDUCTION TRANSITION



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

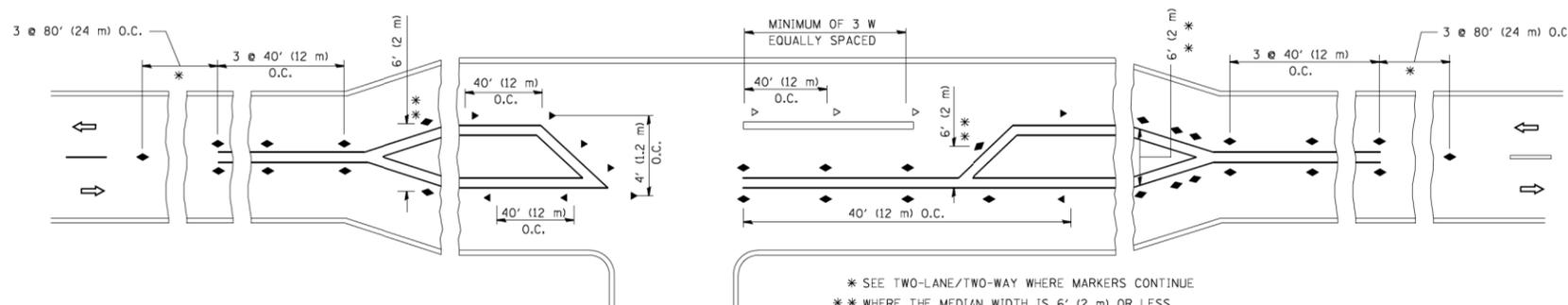
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.



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

LEFT TURN

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

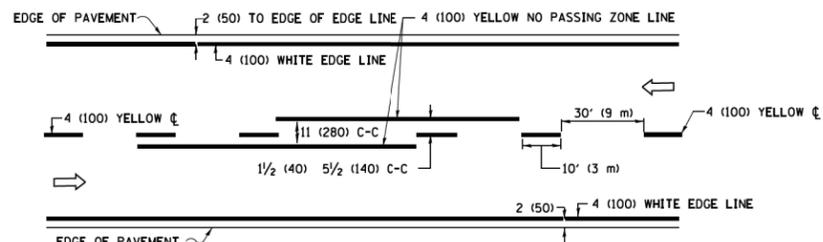
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

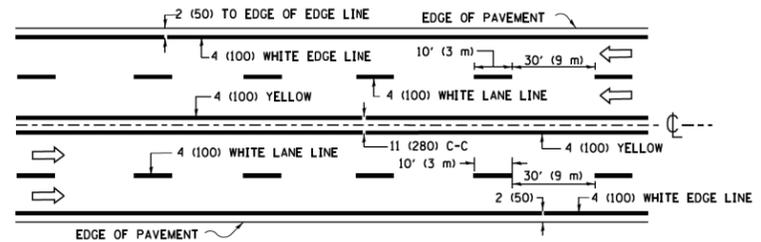
TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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

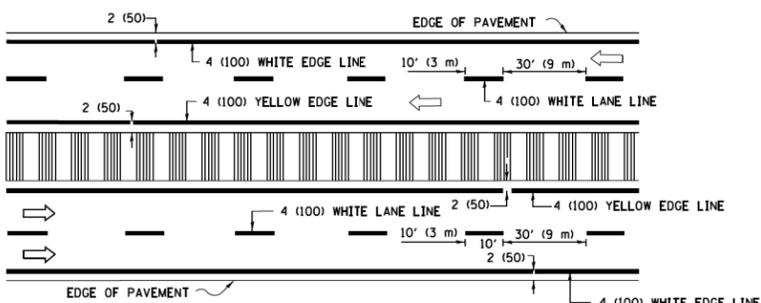
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	38
TC-11		CONTRACT NO. 60R68		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



2-LANE ROADWAY

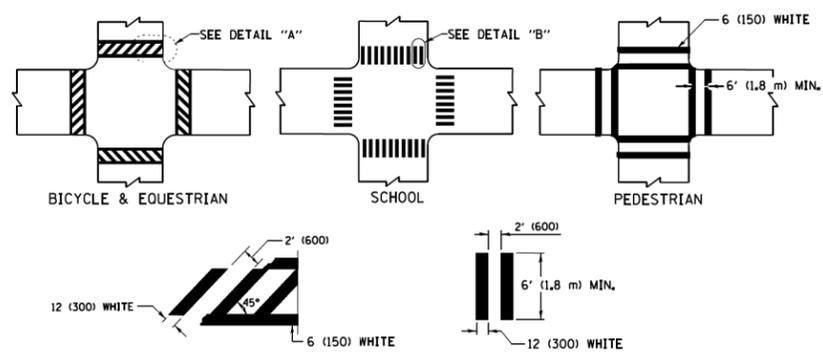


MULTI-LANE UNDIVIDED



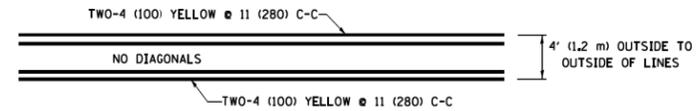
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

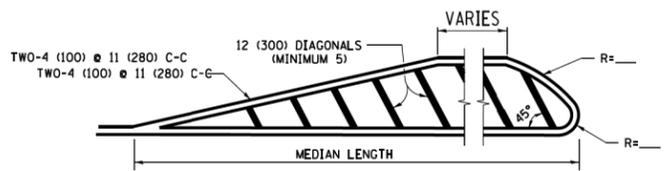


TYPICAL CROSSWALK MARKING

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

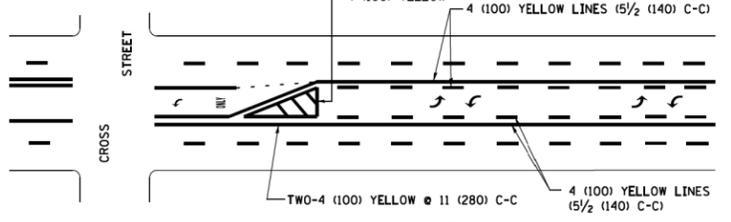


4' (1.2 m) WIDE MEDIANS ONLY



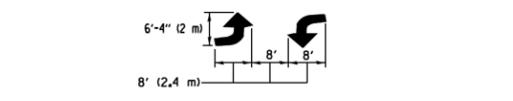
MEDIANS OVER 4' (1.2 m) WIDE

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))



MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING

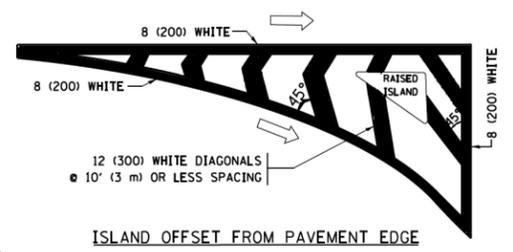
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



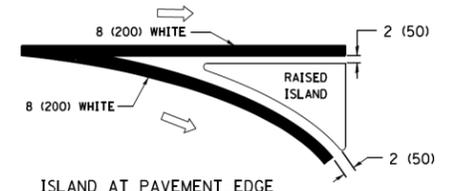
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE 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".

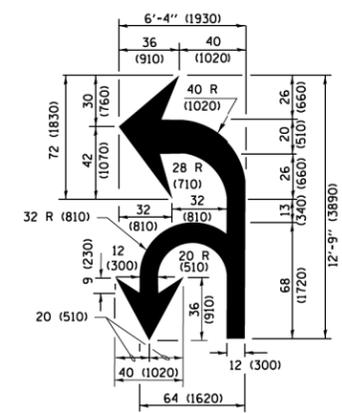


ISLAND OFFSET FROM PAVEMENT EDGE

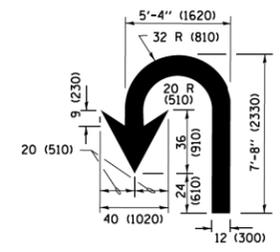


ISLAND AT PAVEMENT EDGE

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.
CORE 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 "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"
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.

FILE NAME =	USER NAME = lrygg	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
W:\dststd\22x34\1013.dgn		DRAWN -	REVISED - C. JUCIUS 07-01-13
Default	PLOT SCALE = 50,000 1" = 100'	CHECKED -	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 6/23/2017	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	41
TC-13		CONTRACT NO. 60R68	ILLINOIS/FED. AID PROJECT	

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

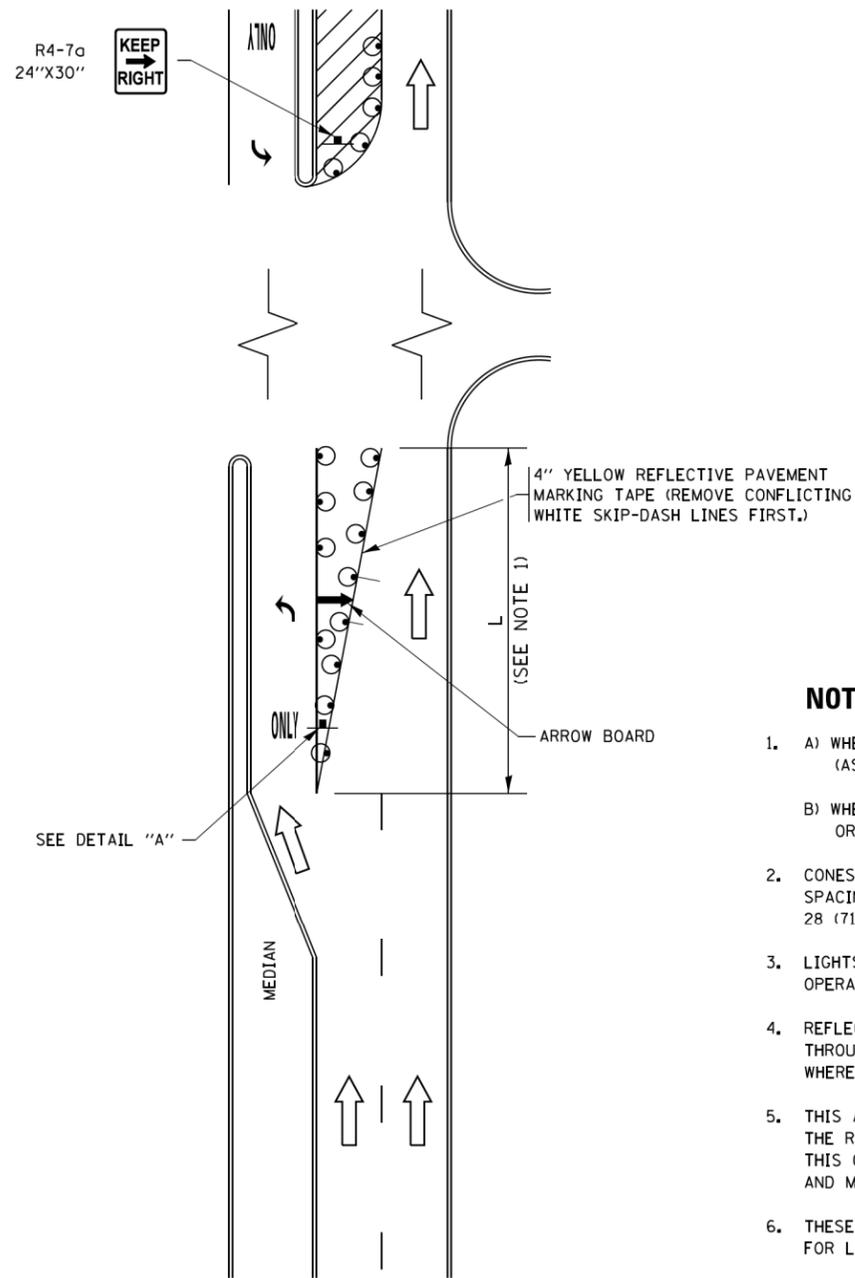


FIGURE 1

TURN BAY ENTRANCE WITHIN A LANE CLOSURE

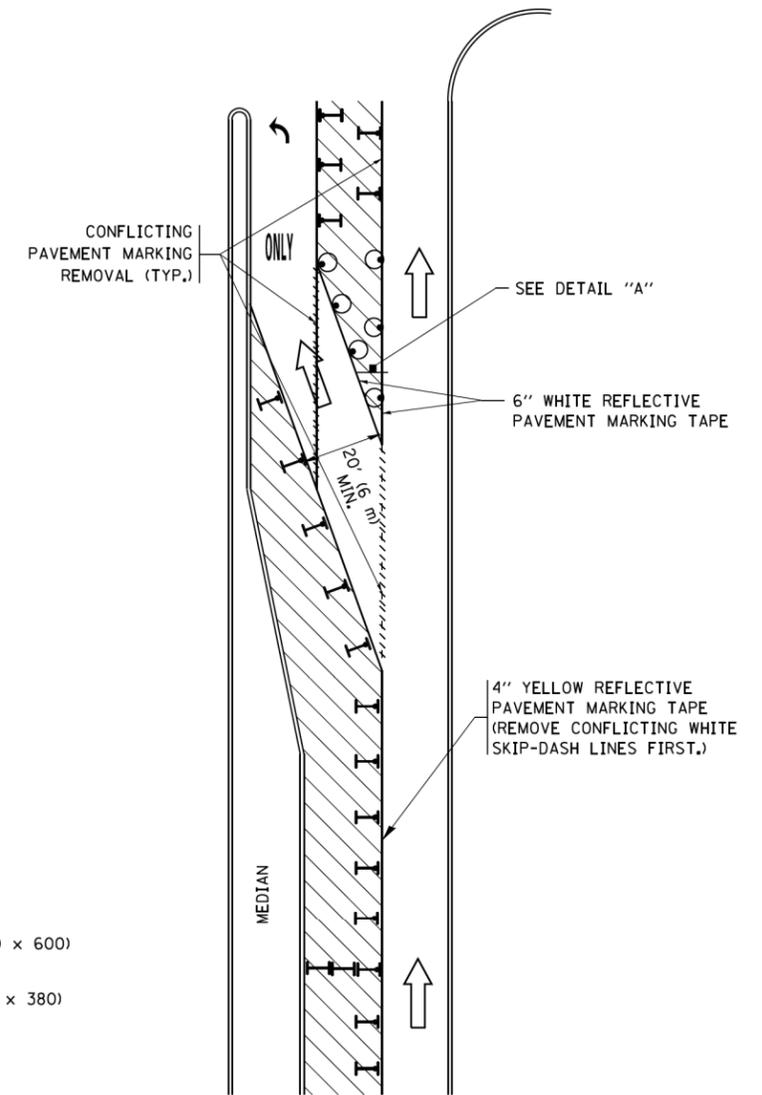


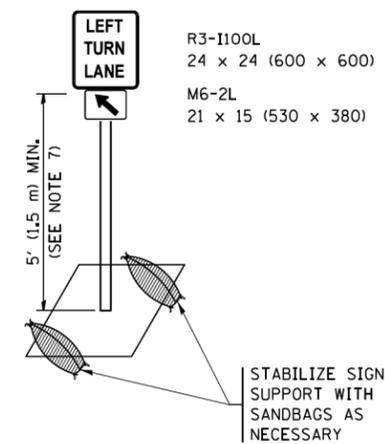
FIGURE 2

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- ARROW BOARD
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- SIGN ASSEMBLY
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

NOTES:

1. A) WHEN "L" IS \leq THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
B) WHEN "L" IS $>$ THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-1100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

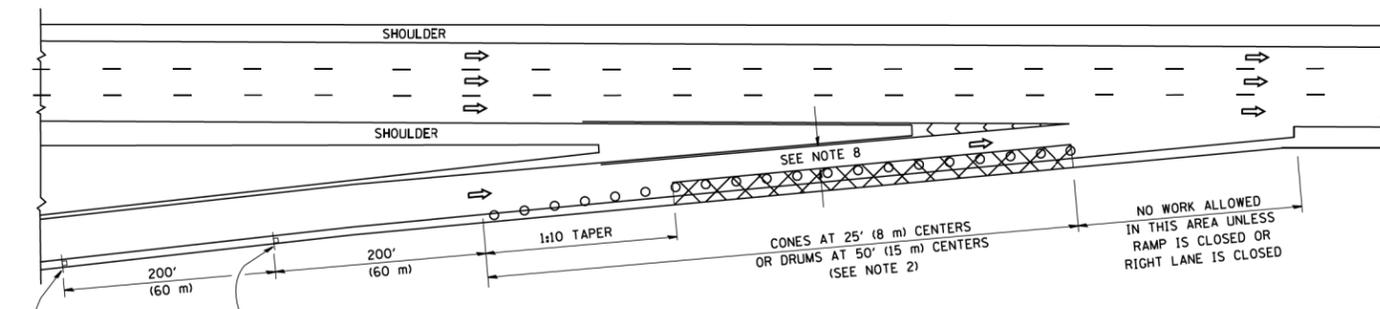


DETAIL A

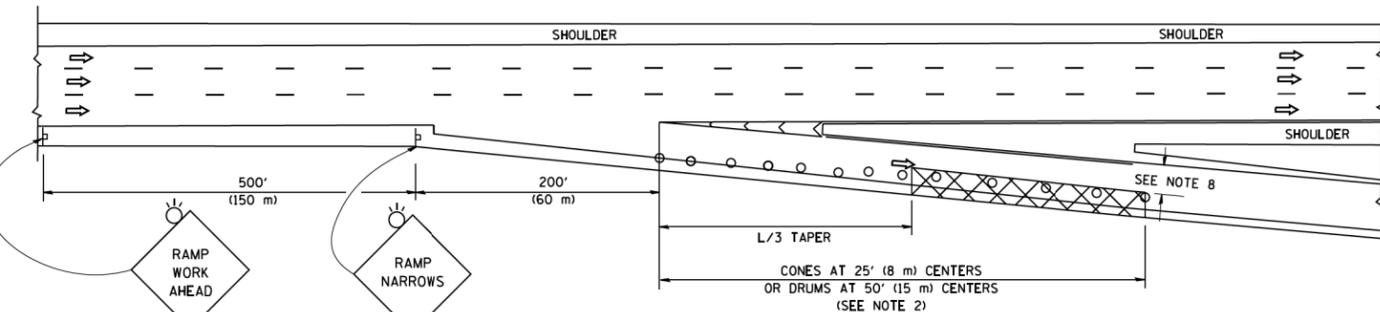
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Default	REVISED - A. HOUSEH 10-07-95	REVISED - A. SCHUETZE 07-01-13		2706	12R-1HB-1-BR	LAKE	45	42				
		REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16		TC-14		CONTRACT NO. 60R68		ILLINOIS FED. AID PROJECT				
	PLOT DATE = 9/15/2016	REVISED - T. RAMMACHER 01-06-00	REVISED -	SCALE: NONE	SHEET 1	OF 1 SHEETS	STA.	TO STA.					

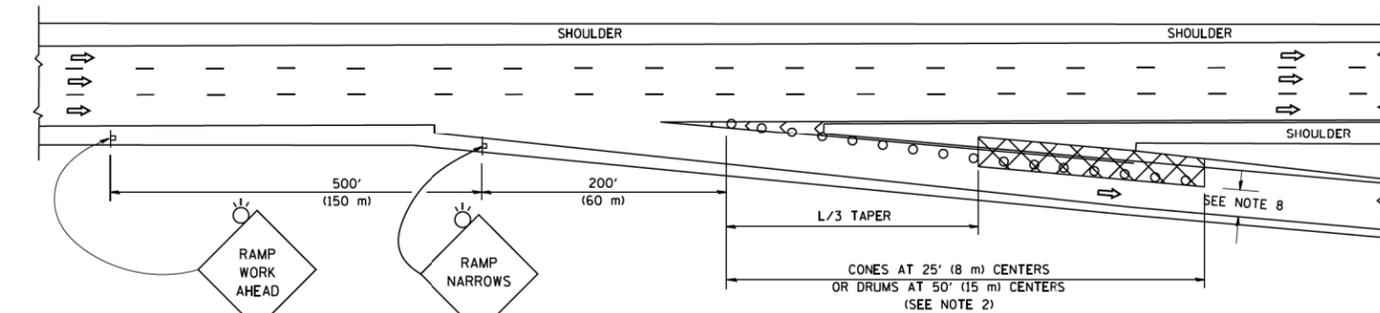
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

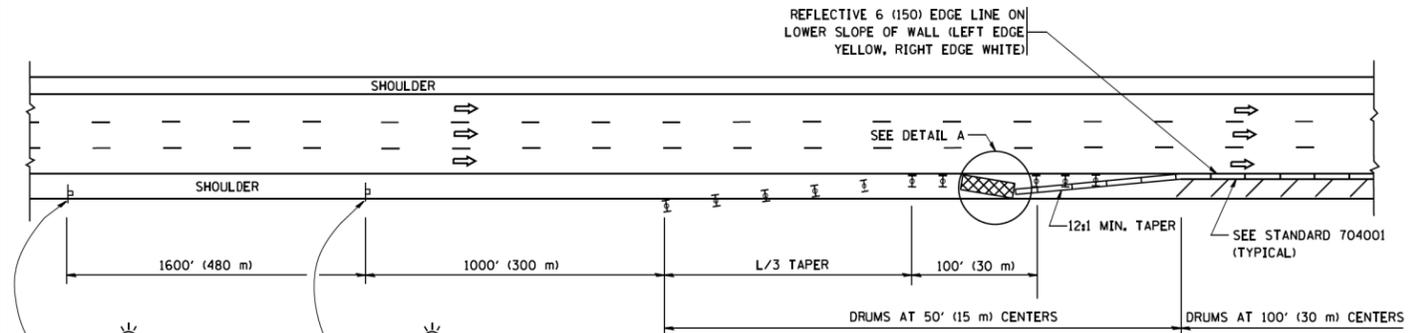
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES

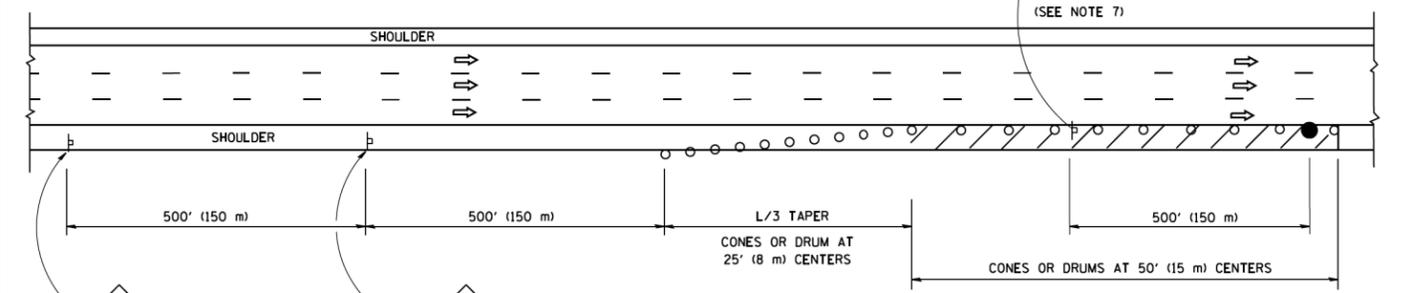
1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER	METRIC ENGLISH 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.

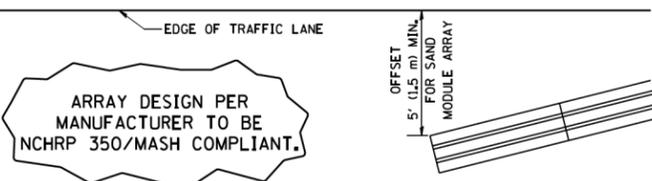
SHOULDER CLOSURE DETAILS



PERMANENT SHOULDER CLOSURE

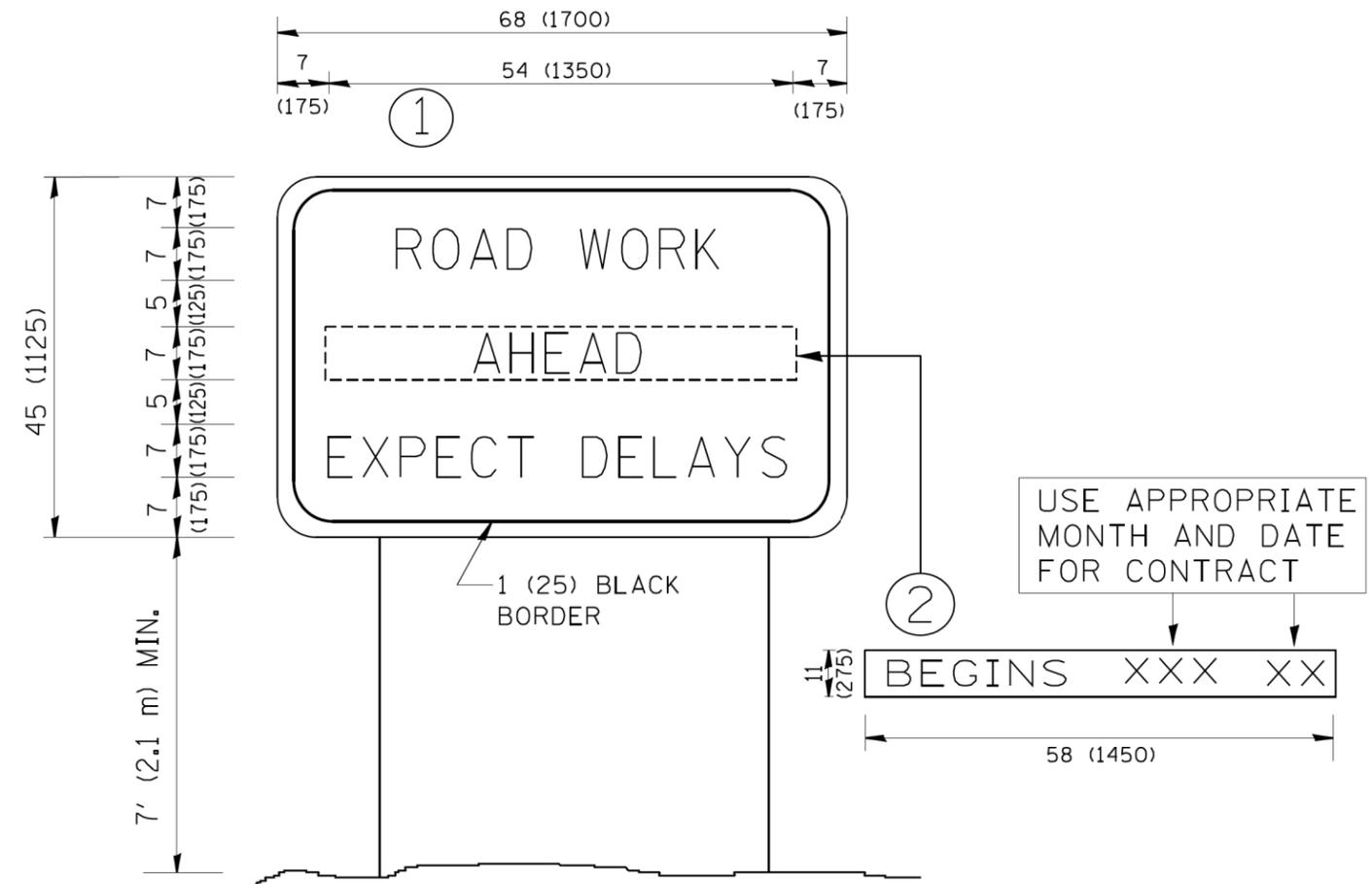


DAYTIME SHOULDER CLOSURE



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

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - S.P.B. 01-07	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw\1\084EBID\INTEG\illinois.gov\PI\DOT\Documents\DOT Offices\District 1\Projects\Dist 1\Projects\to17.dgn	DRAWN - CADData\01\01\01\to17.dgn	CHECKED -	REVISED - S.P.B. 12-09			2706	12R-1HB-1-BR	LAKE	45	44	
Default	PLOT SCALE = 50,0000' / in.	DATE - 11-96	REVISED - M.D. 06-13			TC-17		CONTRACT NO. 60R68		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 11/27/2017		REVISED - M.D. 01-18			SCALE: NONE	SHEET 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.

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gegl1enobt	DESIGNED - DRAWN -	REVISED - R. MIRS 09-15-97
	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.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2706	12R-1HB-1-BR	LAKE	45	45
TC-22		CONTRACT NO. 60R68		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				