

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)I-9	ALEXANDER	9	1
		ILLINOIS	CONTRACT NO. 78877	

FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4

PROPOSED HIGHWAY PLANS

FAS ROUTE 944 (US 60 & 62) OVER MISSISSIPPI RIVER
SECTION (138D-BR)I-9
PROJECT STP-YICT(525)
JOINT REPLACEMENTS
ALEXANDER COUNTY IL /MISSISSIPPI COUNTY MO

TRAFFIC DATA

FAS 944 (US 60 & 62)
2020 ADT = 2780
26.1% TRUCKS

TOWNSHIPS

CAIRO

POSTED SPEED : 55 MPH

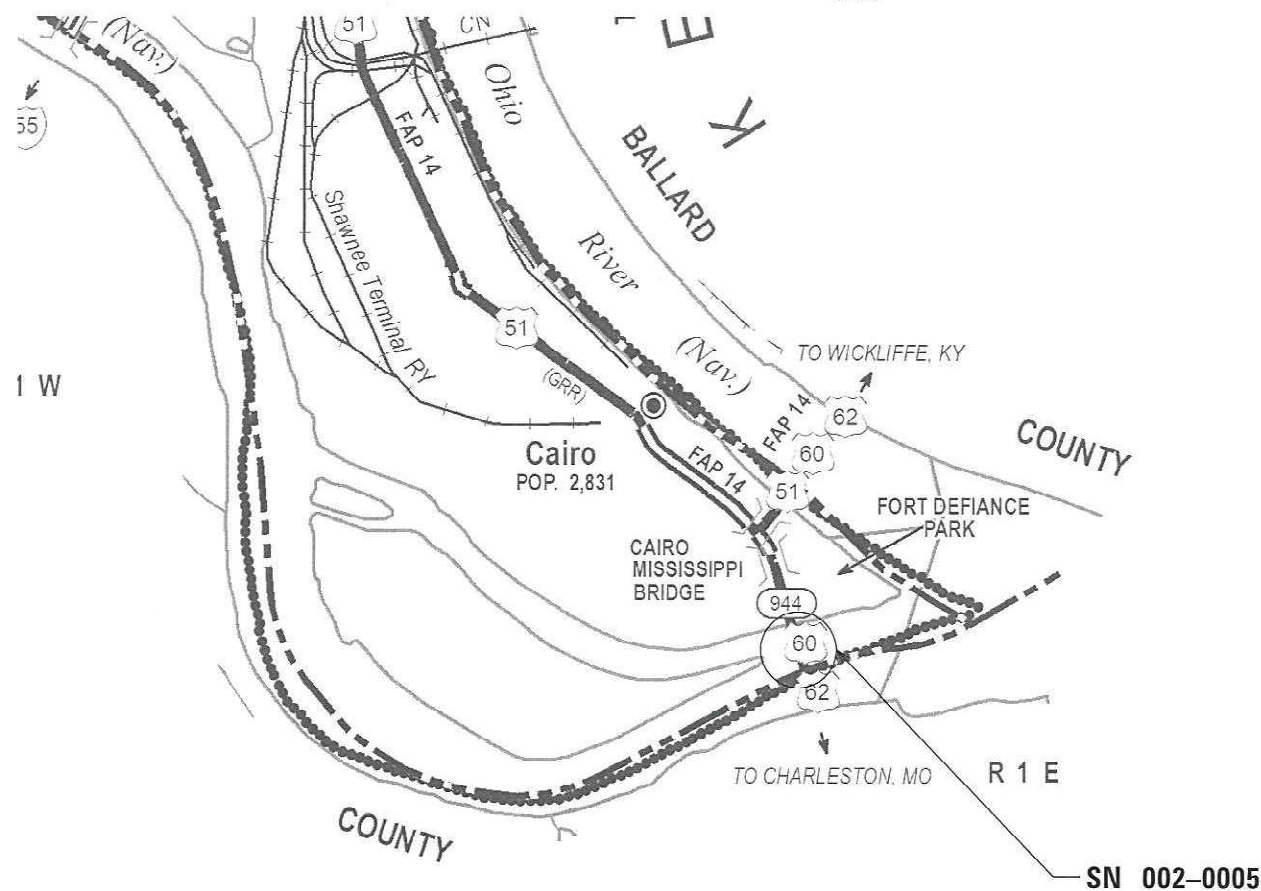
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: MIKE STEPHENSON
PROJECT DESIGNER: DAVID WILSON

CONTRACT NO. 78877

C-99-074-21

R.1E.



GROSS LENGTH = 5181.4 FT.

D-99-055-21



LOCATION OF SECTION INDICATED THUS: - [thick black line] -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 03-15-2021

[Signature] REGION FIVE ENGINEER

May 7, 2021 [Signature] ENGINEER OF DESIGN AND ENVIRONMENT

May 7, 2021 [Signature] DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

	<u>DESCRIPTION</u>
1	COVER SHEET
2	SIGNATURE SHEET
3	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES
4	SUMMARY OF QUANTITIES
5	TRAFFIC CONTROL PLAN-MESSAGE BOARD PLACEMENT
6-9	BRIDGE REPAIR PLANS

GENERAL NOTES

COMMITMENTS: MODOT AND KYTC CONTACT REQUIREMENTS;
SEE SPECIAL PROVISIONS

STANDARDS

- 701001-02 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600mm) FROM PAVEMENT EDGE
- 701006-05 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
- 701901-08 TRAFFIC CONTROL DEVICES
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- 000001-08 STANDARDS, SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT

REV. - MS

MCP:_Default\... \p\planning\dot.illinois.gov\MIDOT\Documents\DOT Offices\District 9\Projects\78877\CAD\Drawings\0978877-Design.dgn

USER NAME = porterc	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, HIGHWAY STANDARDS, INDEX OF SHEETS SN 002-0005	F.A.S. RTE. 944	SECTION (138D-BR)-9	COUNTY ALEXANDER	TOTAL SHEETS 9	SHEET NO. 3	
PLOT SCALE = 100.0000' / in.	DRAWN - _____	REVISED - _____			SCALE: _____	SHEET _____ OF _____ SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 78877		ILLINOIS FED. AID PROJECT
PLOT DATE = 3/16/2021	CHECKED - _____	REVISED - _____								
	DATE - _____	REVISED - _____								

SUMMARY OF QUANTITIES

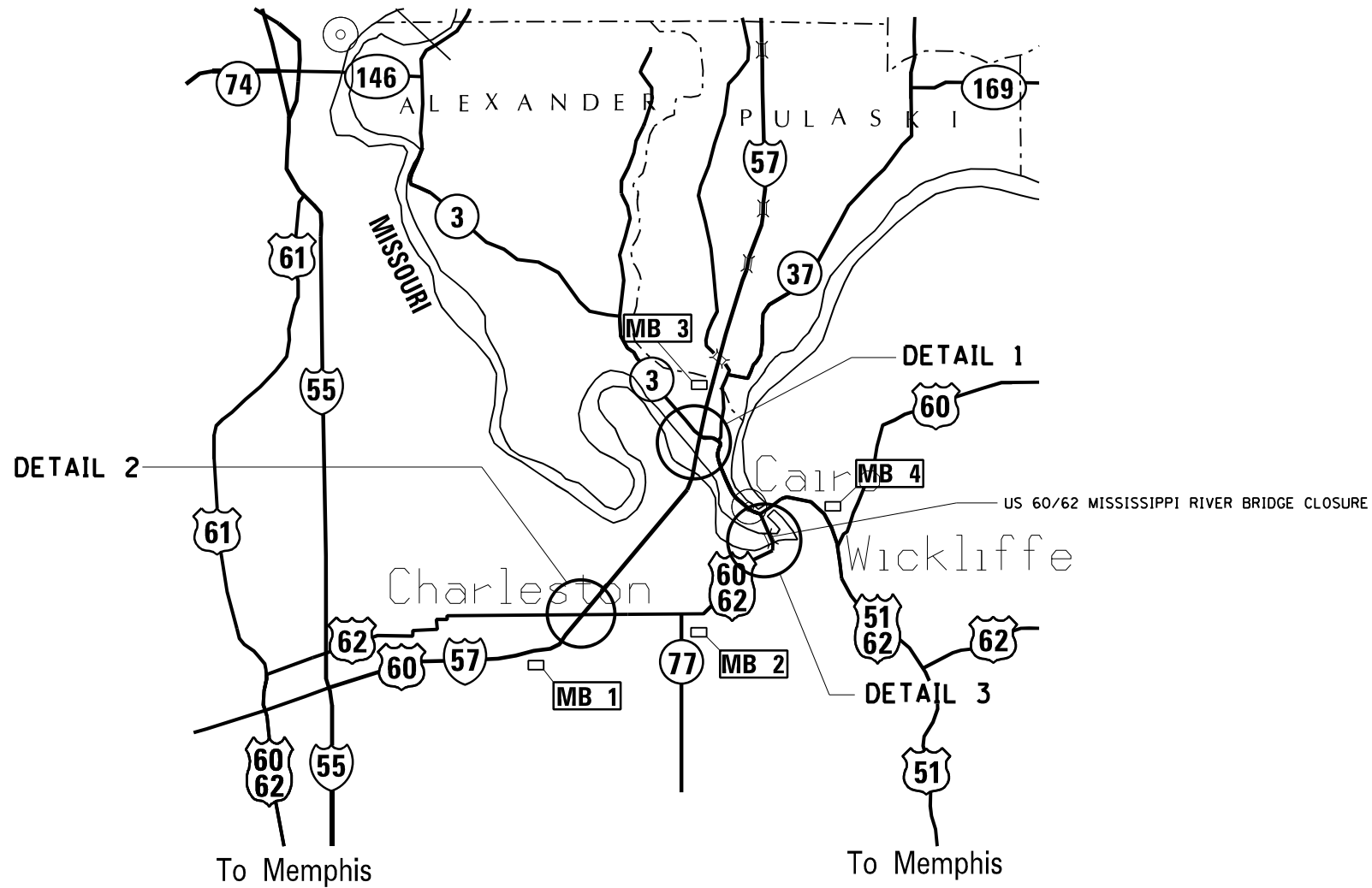
COUNTY:	ALEXANDER	MISSISSIPPI
ROUTE:	US 60/62	US 60/62
FUNDING:	80% FEDERAL 20% STATE	100% MISSOURI
LOCATION:	RURAL	RURAL
TOTAL QUANTITY	SN 002-0005 0013	SN 002-0005 0013

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ALEXANDER	MISSISSIPPI
50102400	CONCRETE REMOVAL	CU YD	344.5	172.25	172.25
50300255	CONCRETE SUPERSTRUCTURE	CU YD	344.5	172.25	172.25
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	168580	84290	84290
50500505	STUD SHEAR CONNECTORS	EACH	3800	1900	1900
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	51570	25785	25785
52000365	NEOPRENE EXPANSION JOINT 6 1/2"	FOOT	44	22	22
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	4.5	4.5
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	282	141	141
X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	0.5	0.5
Z0021907	SILICONE JOINT SEALER, 1.75"	FOOT	748	374	374
Z0041895	POLYMER CONCRETE	CU FT	49.6	24.8	24.8

REV. - MS

MODEL: Default
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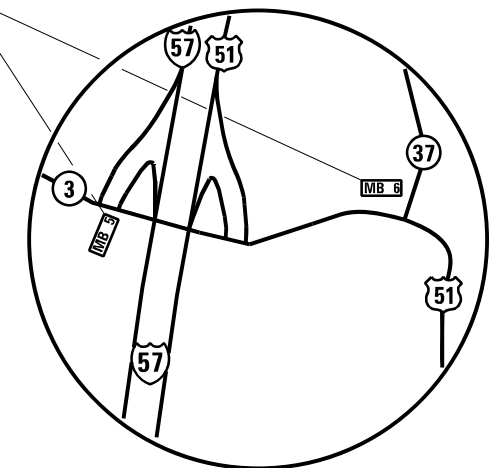
USER NAME = porterc PLOT SCALE = 100.0000' / in. PLOT DATE = 3/16/2021	DESIGNED - _____ DRAWN - _____ CHECKED - _____ DATE - _____	REVISED - _____ REVISED - _____ REVISED - _____ REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES SN 002-0005	SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____	F.A.S. RTE. 944 SECTION (138D-BR)I-9 COUNTY ALEXANDER TOTAL SHEETS 9 SHEET NO. 4 CONTRACT NO. 78877 ILLINOIS FED. AID PROJECT
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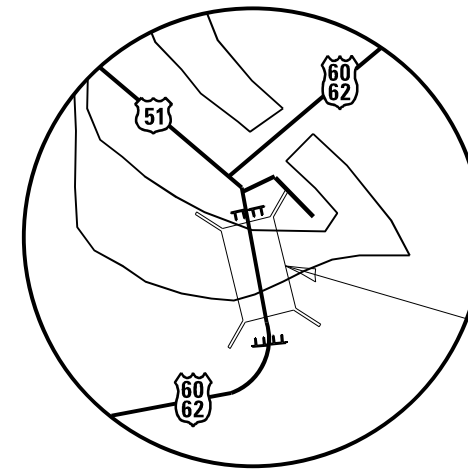
60/62 BRIDGE
TO MISSOURI
CLOSED AHEAD

USE
OTHER
ROUTES

Message Typical all signs (Illinois)
Actual message subject
to approval of the Engineer.



DETAIL 1
(SHARED COST)



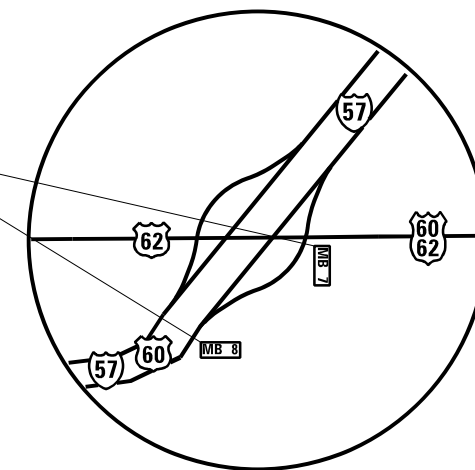
DETAIL 3
(SHARED COST)

SEE HIGHWAY STANDARD B.L.R. 21-9 FOR DETAILS
AND SIGNS, COST INCLUDED WITH TRAFFIC CONTROL AND
PROTECTION, BLR 21.

60/62 BRIDGE
TO ILLINOIS
CLOSED AHEAD

USE
OTHER
ROUTES

Message Typical all signs (Missouri/Kentucky)
Actual message subject
to approval of the Engineer.



DETAIL 2
(SHARED COST)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

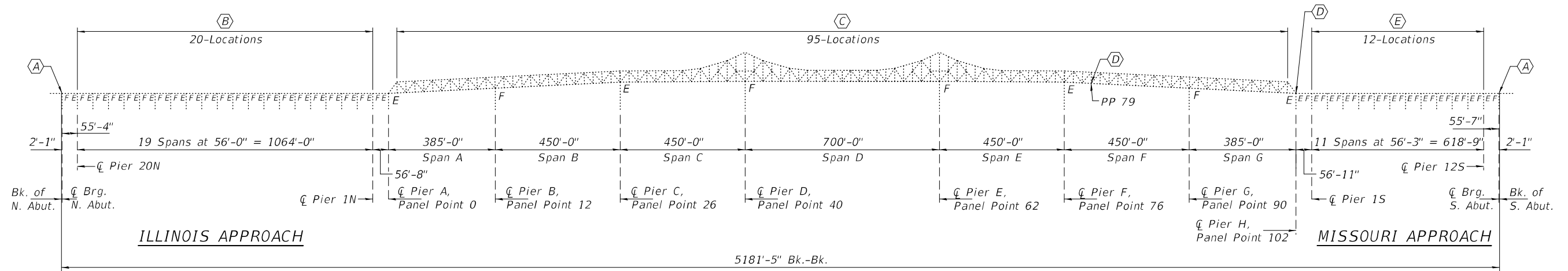
TRAFFIC CONTROL PLAN & MESSAGE BOARD PLACEMENT
SN 002-0005

USER NAME = porterc	DESIGNED - _____	REVISED - _____
DRAWN - _____	REVISOR - _____	REVISOR - _____
PLOT SCALE = 100,0000' / in.	CHECKED - _____	REVISOR - _____
PLOT DATE = 3/16/2021	DATE - _____	REVISOR - _____

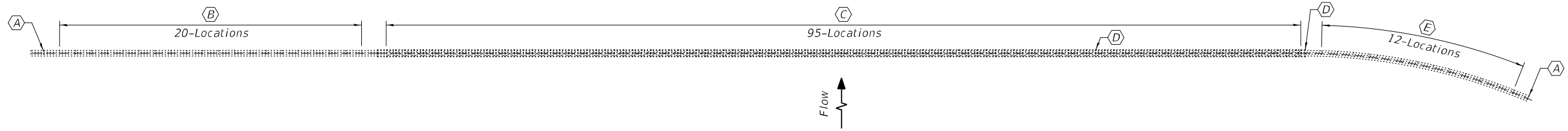
SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)-9	ALEXANDER	9	5
CONTRACT NO. 78877				
ILLINOIS FED. AID PROJECT				

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ELEVATION



PLAN

SCOPE OF WORK

- (A) - Remove existing joints and replace with Polymer Concrete and Silicone Joint Sealer at North and South Abutments. (2-Locations). See sheet 2 of 4 for Details.
- (B) - Remove existing joints and replace with Polymer Concrete and Silicone Joint Sealer at Pier 20N thru Pier 1N, Illinois Approach. (20-Locations). See sheet 2 of 4 for Details.
- (C) - Remove & Replace existing Plate Joint at PP 1 thru PP 101 except at PP 15, 23, 47, 55, 79, and 87. (95-Locations). See sheet 3 & 4 of 4 for Details.
- (D) - Retrofit existing 6½" Neoprene Joint at PP 79 & Pier H. See sheet 3 of 4 for Details.
- (E) - Remove existing joints and replace with Polymer Concrete and Silicone Joint Sealer at Pier 15 thru Pier 12S, Missouri Approach. (12-Locations). See sheet 2 of 4 for Details.

GENERAL NOTES

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

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

Reinforcement bars designated (E) shall be epoxy coated.

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.

All new structural steel shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel".

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	344.5
Concrete Superstructure	Cu. Yd.	344.5
Furnishing & Erecting Structural Steel	Pound	168580
Silicone Joint Sealer, 1¾"	Foot	748
Polymer Concrete	Cu. Ft.	49.6
Reinforcement Bars, Epoxy Coated	Pound	51570
Shear Stud Connectors	Each	3800
Neoprene Expansion Joint, 6½"	Foot	44



Expires: November 30, 2022

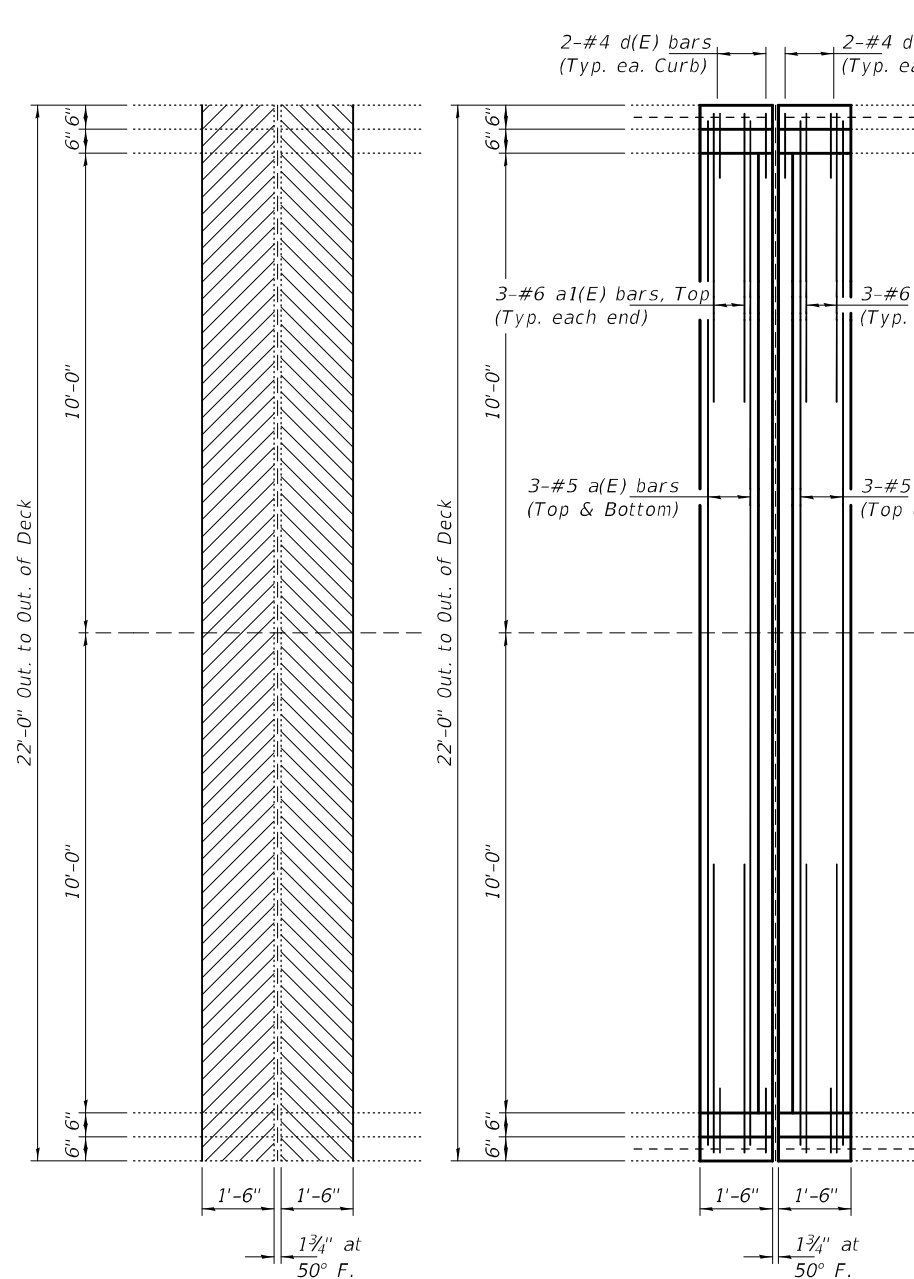
DESIGNED - VICTOR H. VELIZ	EXAMINED - <i>Ting A. Rest</i>	DATE - APRIL 27, 2021
CHECKED - ADRIAN T. HALLOWAY	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>David Puze</i>	REVISED -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION
U.S. 60 & 62 (OLD CAIRO BRIDGE) OVER MISSISSIPPI RIVER
SN 002-0005**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)-9	ALEXANDER	9	6
ILLINOIS			CONTRACT NO. 78877	
FED. AID PROJECT				

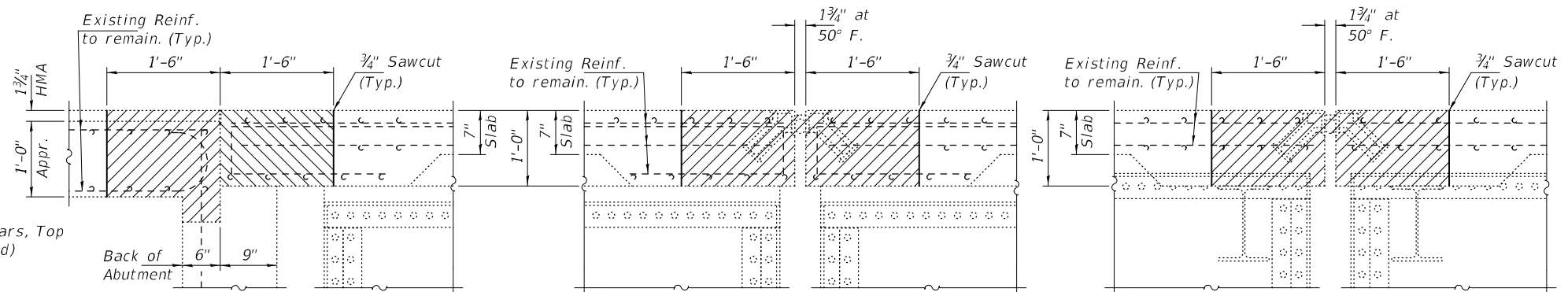
SHEET NO. 1 OF 4 SHEETS



JOINT REMOVAL PLAN
(34-Locations)

JOINT REPLACEMENT PLAN
(34-Locations)

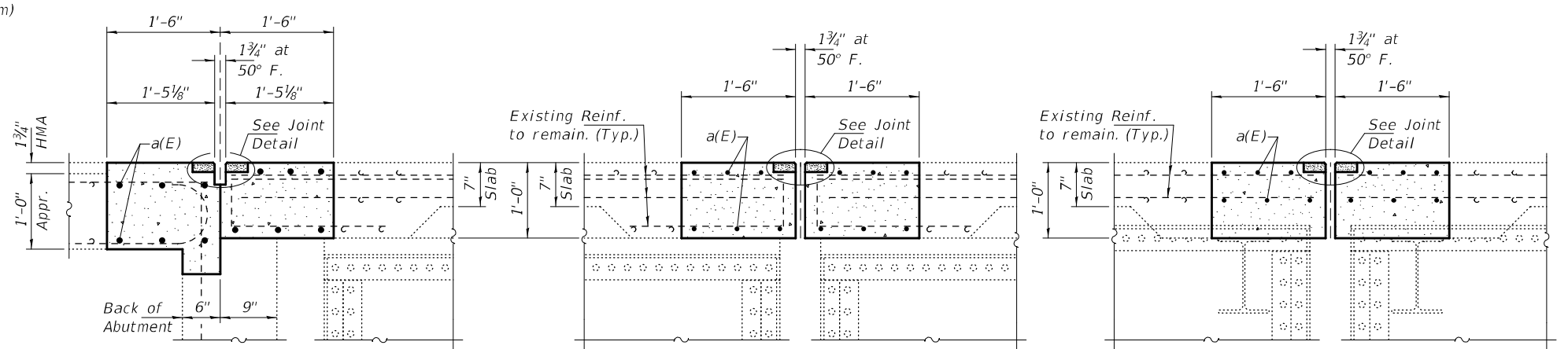
Note:
Hatched areas indicate
Concrete Removal.



REMOVAL SECTION AT ABUTMENTS

REMOVAL SECTION AT PIERS 1S THRU 12S, 19N & 20N

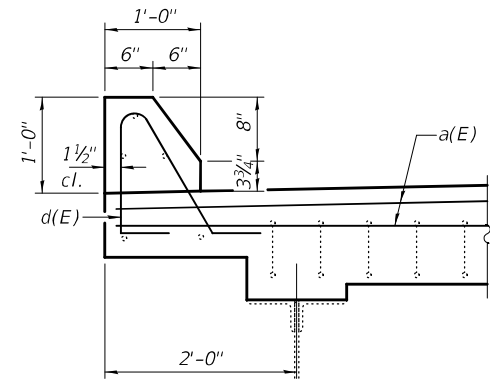
REMOVAL SECTION AT PIERS 1N THRU 18N



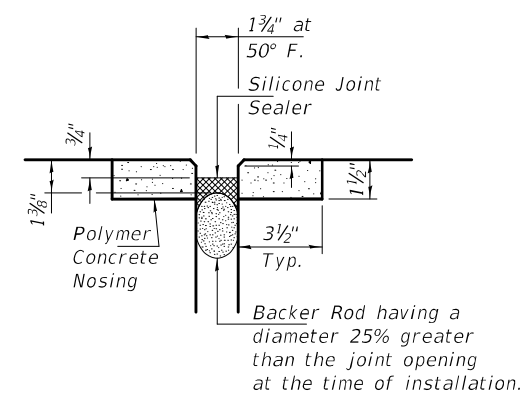
REPLACEMENT SECTION AT ABUTMENTS

REPLACEMENT SECTION AT PIERS 1S THRU 12S, 19N & 20N

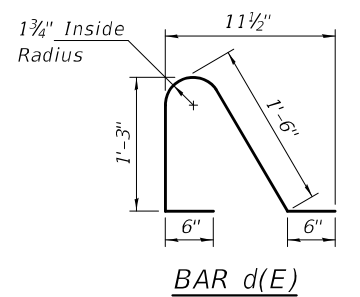
REPLACEMENT SECTION AT PIERS 1N THRU 18N



CURB DETAIL



SILICONE JOINT SEALER DETAIL



BAR d(E)

BILL OF MATERIAL
(34-Locations)

Bar	No.	Size	Length	Shape
a(E)	408	#5	21'-8"	—
a1(E)	408	#6	6'-0"	—
d(E)	272	#4	3'-10"	⌒
Concrete Removal			Cu. Yd.	89.2
Concrete Superstructure			Cu. Yd.	89.2
Polymer Concrete			Cu. Ft.	49.6
Silicone Joint Sealer, 1 3/4"			Foot	748
Reinforcement Bars, Epoxy Coated			Pound	13590

DESIGNED - VHV
 CHECKED - ATH
 DRAWN - STEFFEN
 CHECKED - VHV ATH

EXAMINED - *Timothy A. Doolittle*
 ENGINEER OF STRUCTURAL SERVICES

PASSED - *Carl Ruyter*
 ENGINEER OF BRIDGES AND STRUCTURES

DATE - APRIL 27, 2021

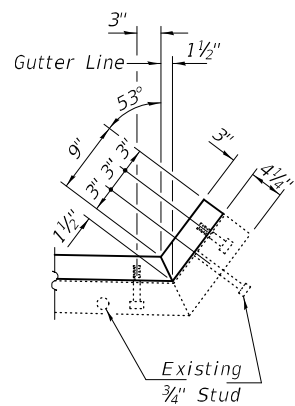
REVISED -
 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

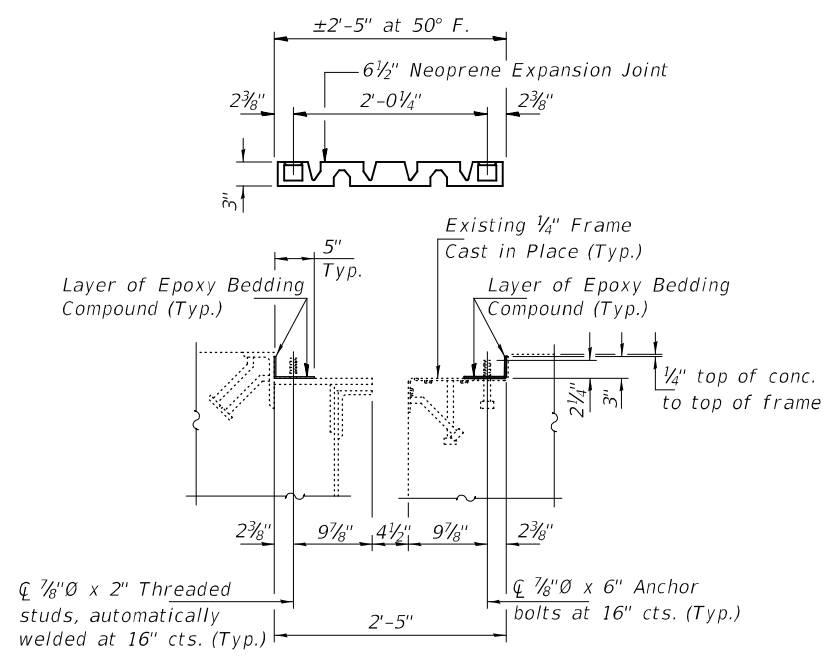
JOINT REPLACEMENT - ABUTS. & PIERS 1N-20N & 1S-12S
SN 002-0005

SHEET NO. 2 OF 4 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)-9	ALEXANDER	9	7
CONTRACT NO. 78877				
ILLINOIS FED. AID PROJECT				

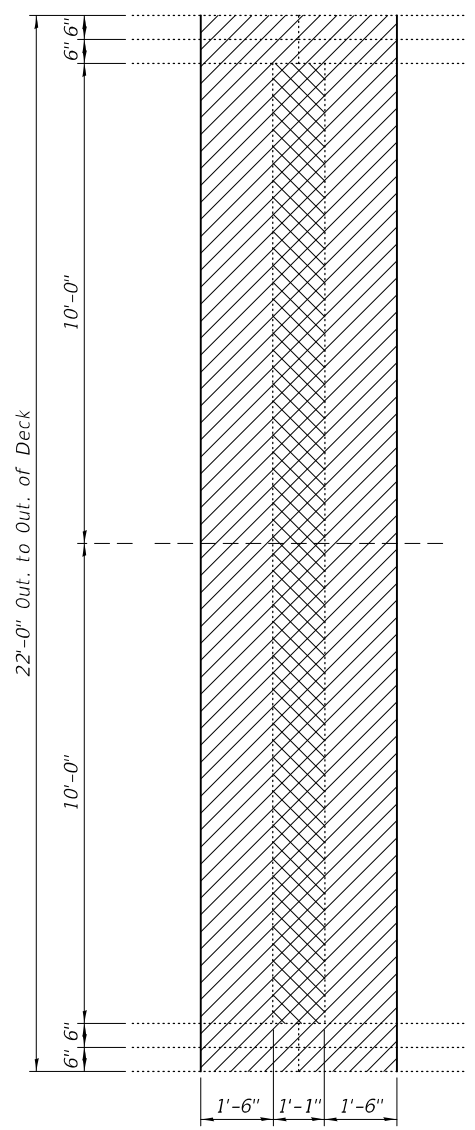


END FRAME TREATMENT

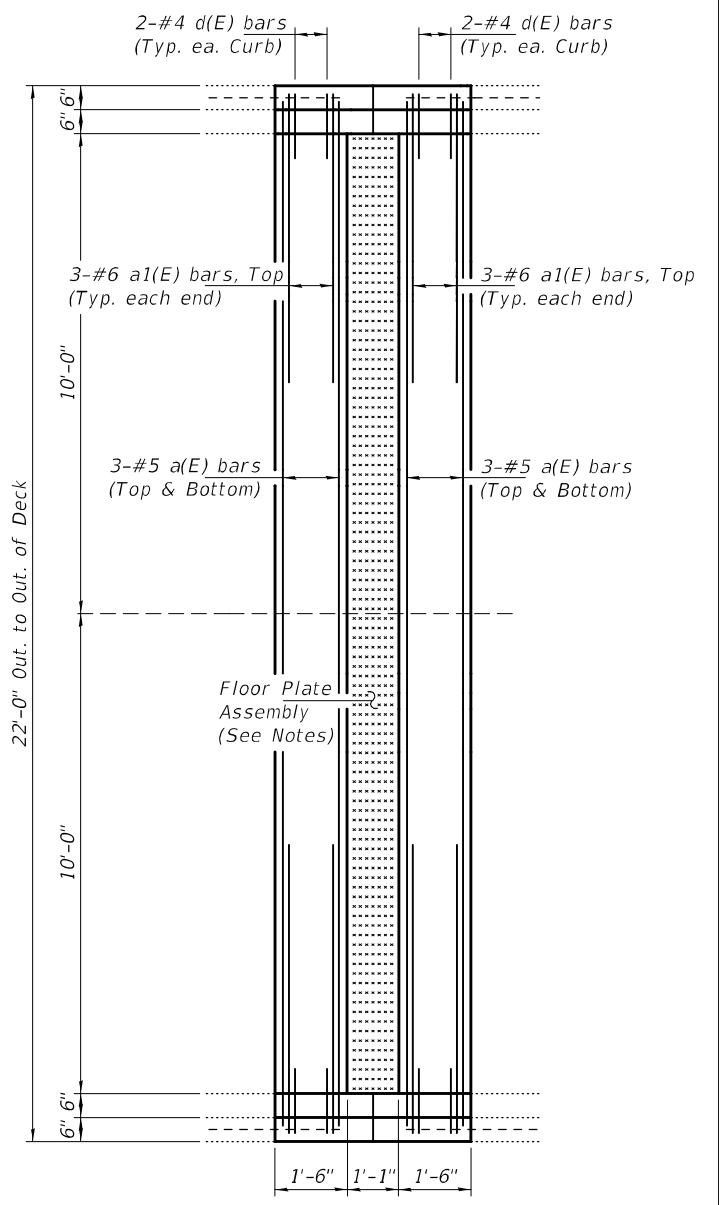


FLOORBEAM SIDE SIDE OPPOSITE FLOORBEAM

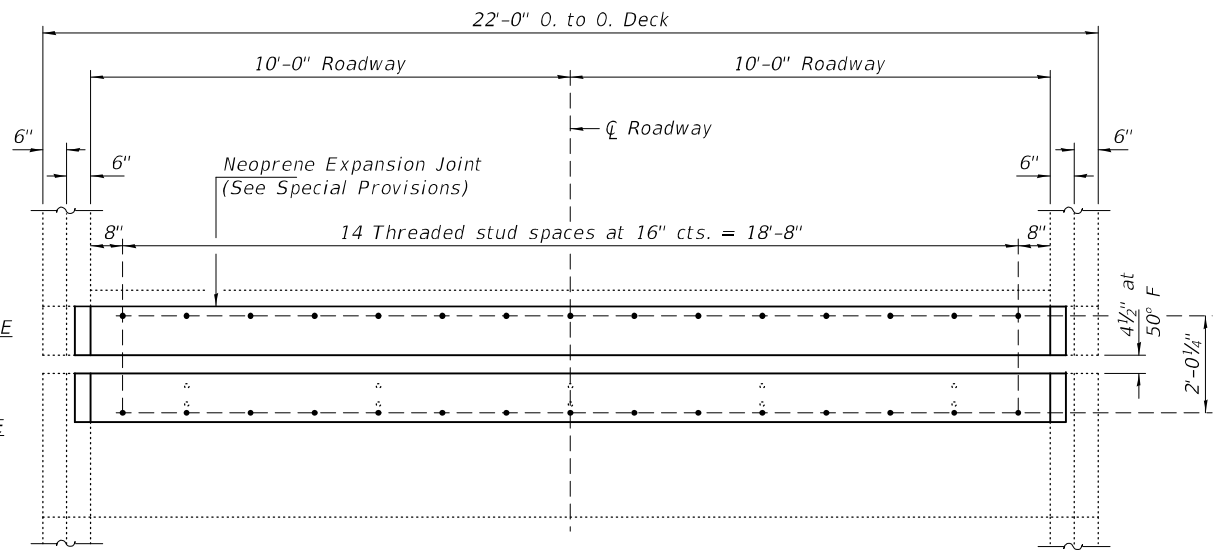
SECTION THRU NEOPRENE EXPANSION JOINT, 6 1/2" (TRANSFLEX MODEL 650)



FLOOR PLATE REMOVAL PLAN (95-Locations)

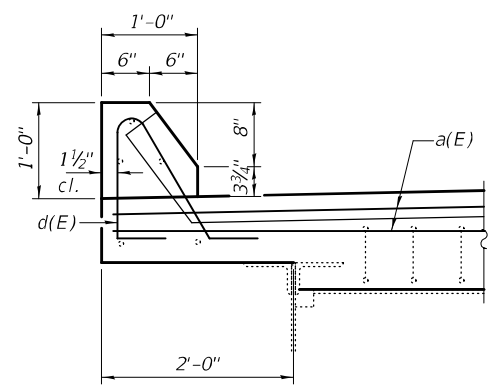


FLOOR PLATE REPLACEMENT PLAN (95-Locations)



PLAN NEOPRENE EXPANSION JOINT (2-Locations)

Existing threaded studs and anchor bolts to be cut flush. New welded stud anchors to be placed offset from existing one. New anchors should be epoxy grouted offset from existing one.



CURB DETAIL

Notes:
 Hatched areas indicate Concrete Removal.
 Cross Hatched areas indicated Floor R Removal.
 Cost included with Concrete Removal.
 Floor Plate shall have skid resistant surface with diamond or checker pattern.
 For Floor Plate Assembly Details see sheet 4 of 4.

REPAIR "C" BILL OF MATERIAL (95-Locations)

Bar	No.	Size	Length	Shape
a(E)	1140	#5	21'-8"	—
a1(E)	1140	#6	6'-0"	—
d(E)	760	#4	3'-10"	∩
Concrete Removal		Cu. Yd.	255.3	
Concrete Superstructure		Cu. Yd.	255.3	
Shear Stud Connectors		Each	3800	
F & E Structural Steel		Pound	168580	
Reinforcement Bars, Epoxy Coated		Pound	37980	

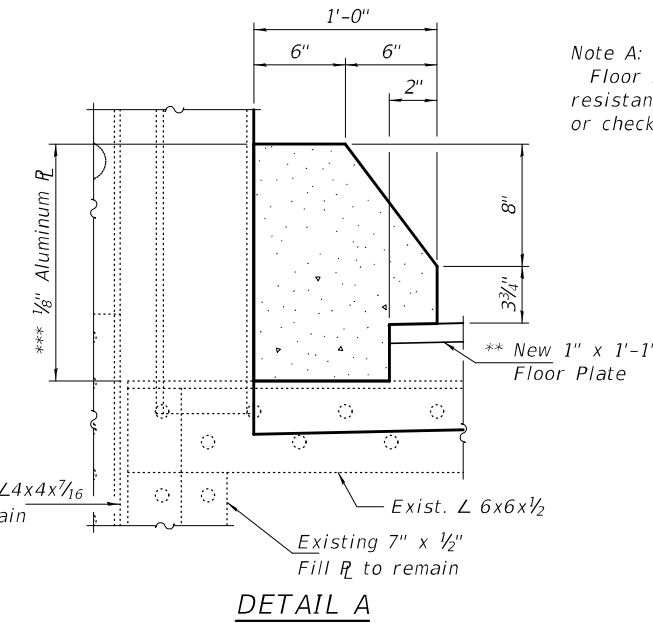
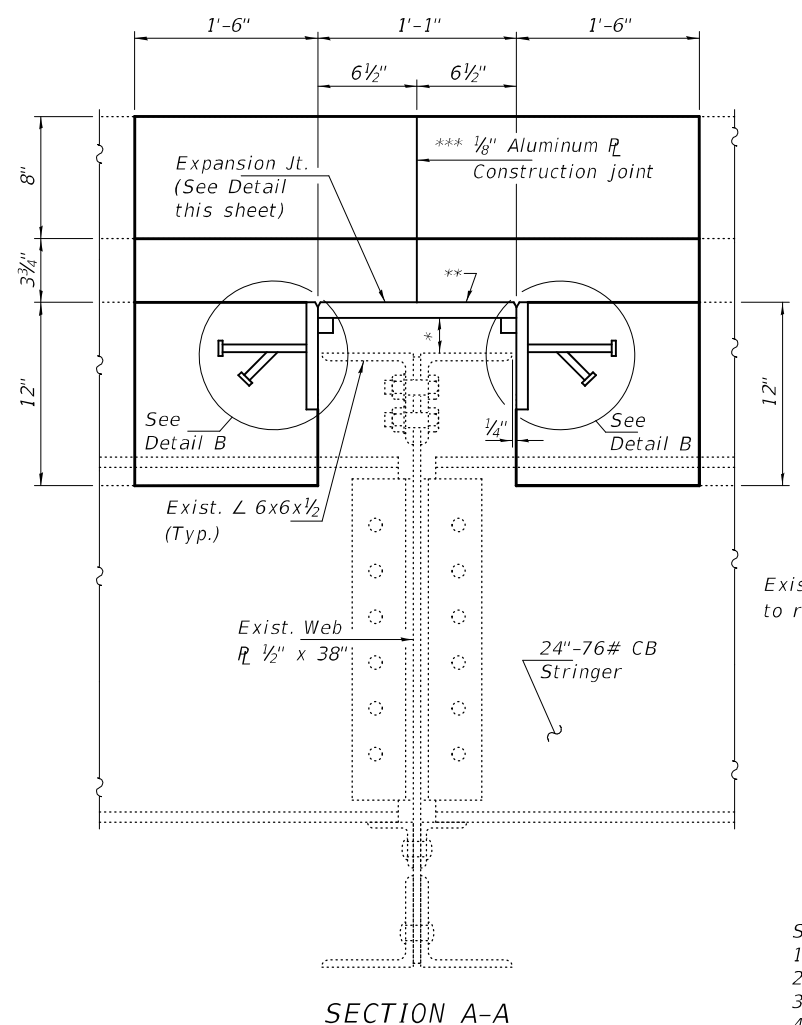
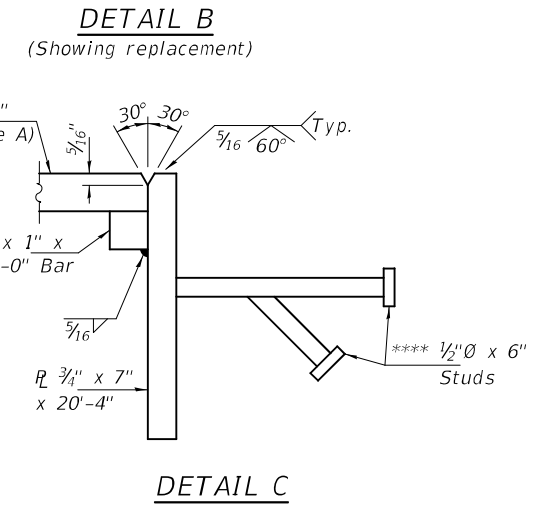
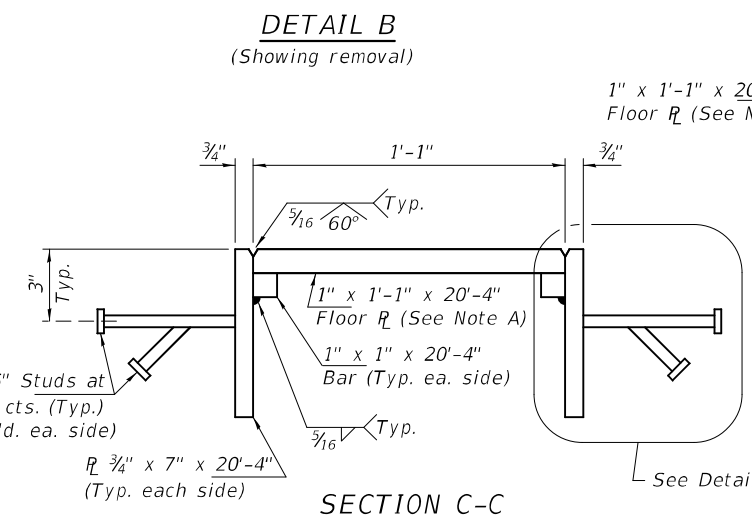
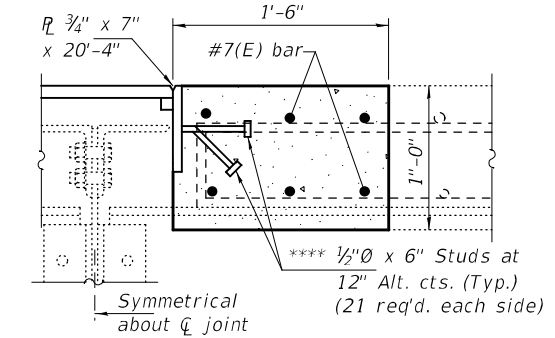
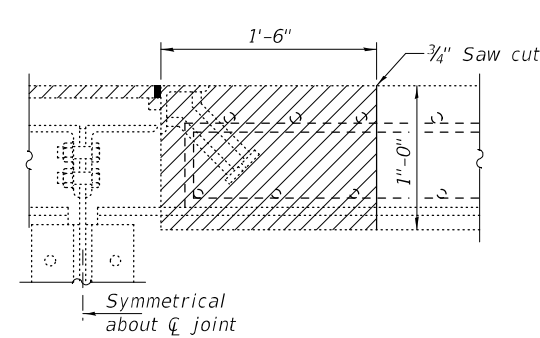
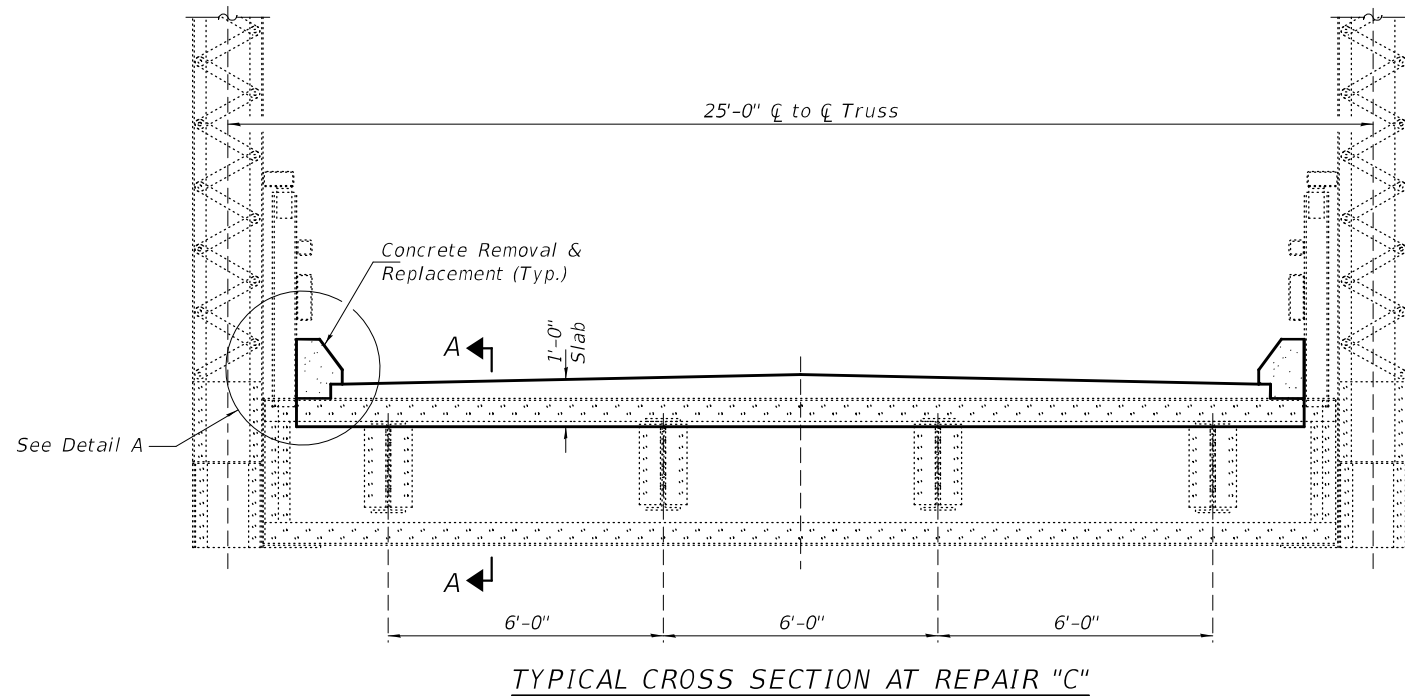
DESIGNED - VHV	EXAMINED - <i>Timothy A. Daulton</i>	DATE - APRIL 27, 2021
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - STEFFEN	PASSED - <i>Carl Ruyter</i>	REVISED -
CHECKED - VHV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

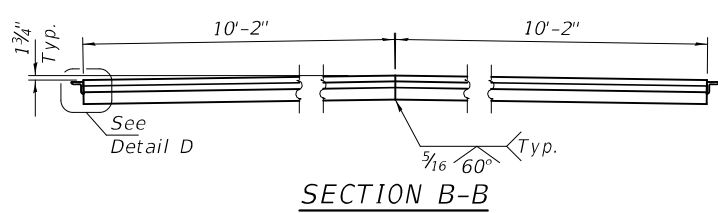
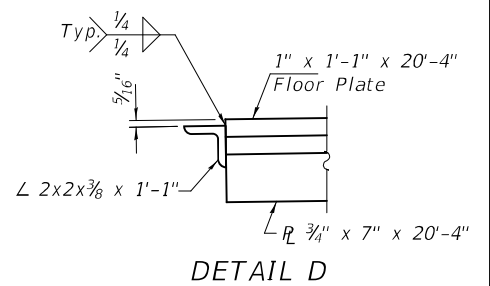
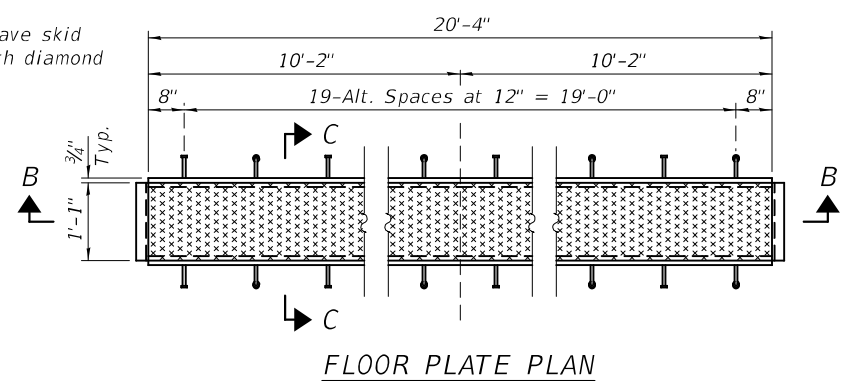
REPAIR DETAILS SN 002-0005

SHEET NO. 3 OF 4 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
944	(138D-BR)-9	ALEXANDER	9	8
CONTRACT NO. 78877				
ILLINOIS		FED. AID PROJECT		



Note A:
Floor Plate shall have skid resistant surface with diamond or checker pattern.



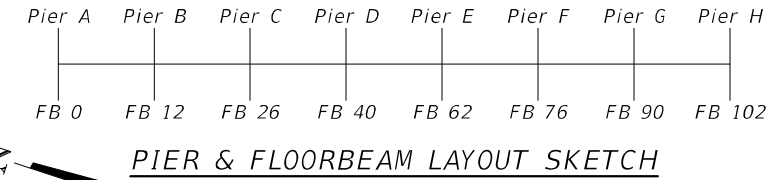
* Varies from $\pm 1 1/2"$ to $\pm 5"$

** To be removed and replaced. Removal cost included with Concrete Removal. Replacement cost included with Furnishing & Erecting Structural Steel.

*** Cost of Aluminum \bar{P} is included with Concrete Superstructure.

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

- SUGGESTED METHOD OF FLOOR PLATE REPLACEMENT
1. Remove concrete curb at ends of 1" x 1'-1" floor \bar{P} . To be paid for as Concrete Removal.
 2. Remove 1" x 1'-1" floor \bar{P} welded to embedded L's. Cost included with Concrete Removal.
 3. Remove and replace portion of concrete deck. To be paid for as Concrete Superstructures.
 4. Install new Floor \bar{P} full length. Cost included with Furnishing & Erecting Structural Steel.
 5. Pour new concrete curbs. Cost included with Concrete Superstructures.



DESIGNED - VHV	EXAMINED - <i>Timothy A. Daulton</i>	DATE - APRIL 27, 2021	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FLOOR PLATE REPLACEMENT DETAILS SN 002-0005	F.A.S. RTE. 944	SECTION (138D-BR)-9	COUNTY ALEXANDER	TOTAL SHEETS 9	SHEET NO. 9	
CHECKED - ATH	PASSED - <i>Carl Ruyter</i>	REVISED -			SHEET NO. 4 OF 4 SHEETS	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 78877		
DRAWN - STEFFEN	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -								
CHECKED - VHV ATH	ENGINEER OF STRUCTURAL SERVICES	REVISED -								