

CODE NO.	ITEM	UNIT	90% FED 10% STATE	
			TOTAL QUANTITY	URBAN
				MINOR STRUCTURES
				0047
				082-0319
X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	70701	70701
X7010208	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)	EACH	1	1
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	1479	1479
X8570000	SMART TRAFFIC MONITORING SYSTEM	L SUM	1	1
Z0034809	MODULAR EXPANSION JOINT SWIVEL 9"	FOOT	55	55
Z0034393	MODULAR EXPANSION JOINT 9"	FOOT	55	55
Z0034824	MODULAR EXPANSION JOINT SWIVEL 24"	FOOT	43	43
Z0034700	MODULAR EXPANSION JOINT 24"	FOOT	43	43
∅ Z0076600	TRAINEES	HOUR	500	500
∅ Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500



∅ 0042

△ REVISED 4-13-2021

REV. - MS

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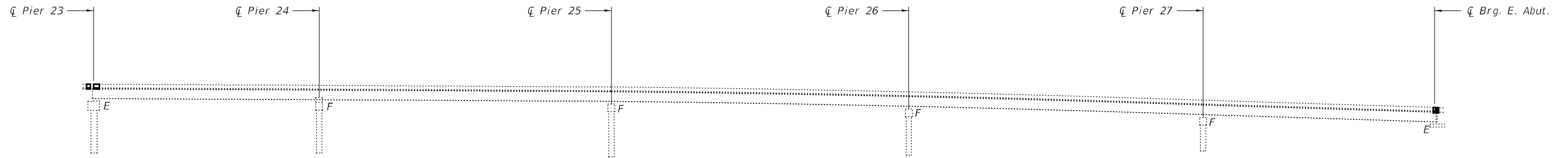
USER NAME = chailandeske	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 2/11/2021	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

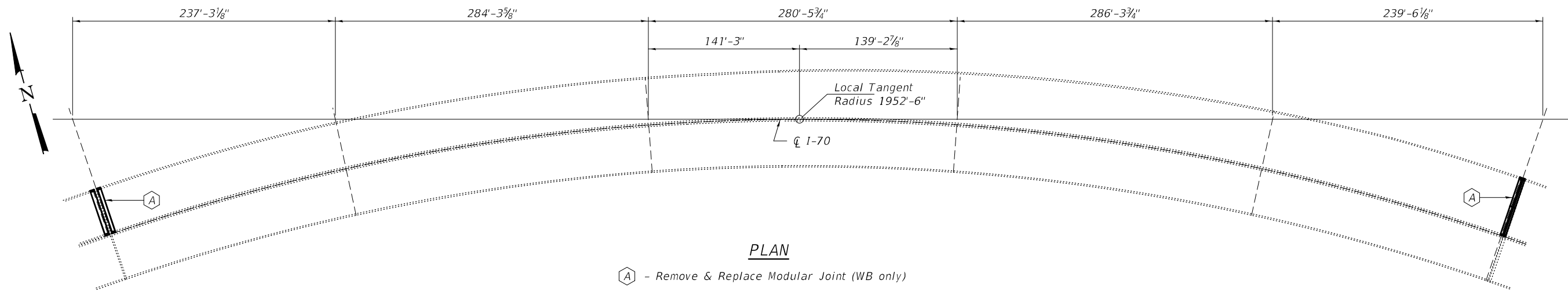
SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HVB-BJR-2	ST. CLAIR	16	4
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76P44	



ELEVATION
(Looking North)



PLAN

A - Remove & Replace Modular Joint (WB only)

GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

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.

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.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

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.

The steel components for the Modular Expansion Joints shall be hot-dip galvanized according to Special Provision "Hot Dip Galvanizing for Structural Steel".

Existing structure plans will be made available upon request.

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	32.4
Concrete Superstructure	Cu. Yd.	32.4
Reinforcement Bars, Epoxy Coated	Pound	2120
Protective Coat	Sq. Yd.	64
Bar Splicers	Each	35
Modular Expansion Joint 9"	Foot	55
Modular Expansion Joint 24"	Foot	43



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EXPIRES 11-30-2022

DESIGNED - Chi-Cheung Chau
CHECKED - Jeffrey S. Burke
DRAWN - daburdell
CHECKED - CCC JSB

EXAMINED - *Tony A. Beck*
ENGINEER OF STRUCTURAL SERVICES
PASSED - *Sh. Carl Puzey*
ENGINEER OF BRIDGES AND STRUCTURES

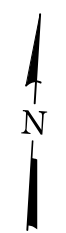
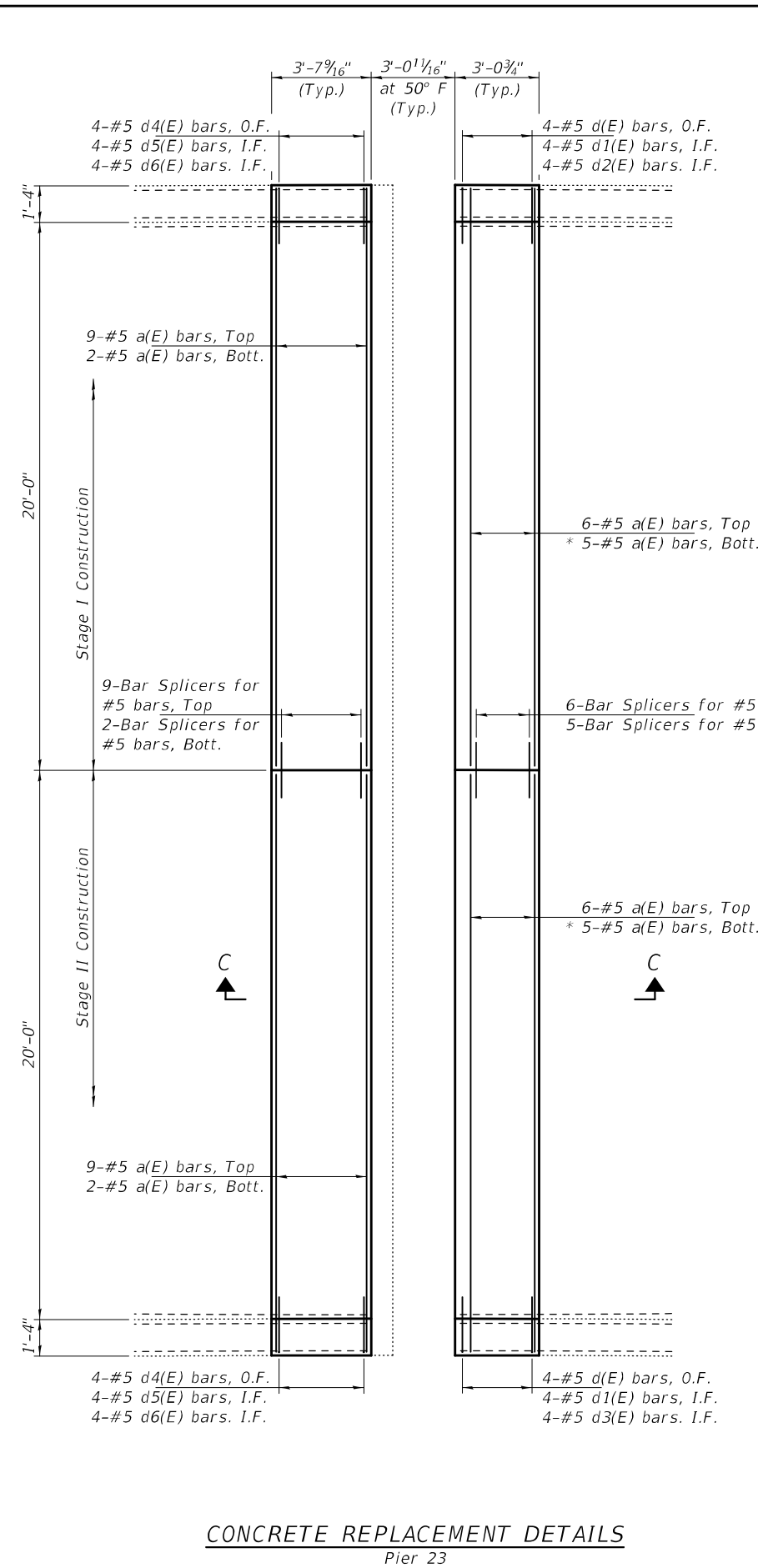
DATE - MARCH 16, 2021
REVISED 04/12/2020 VHV
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

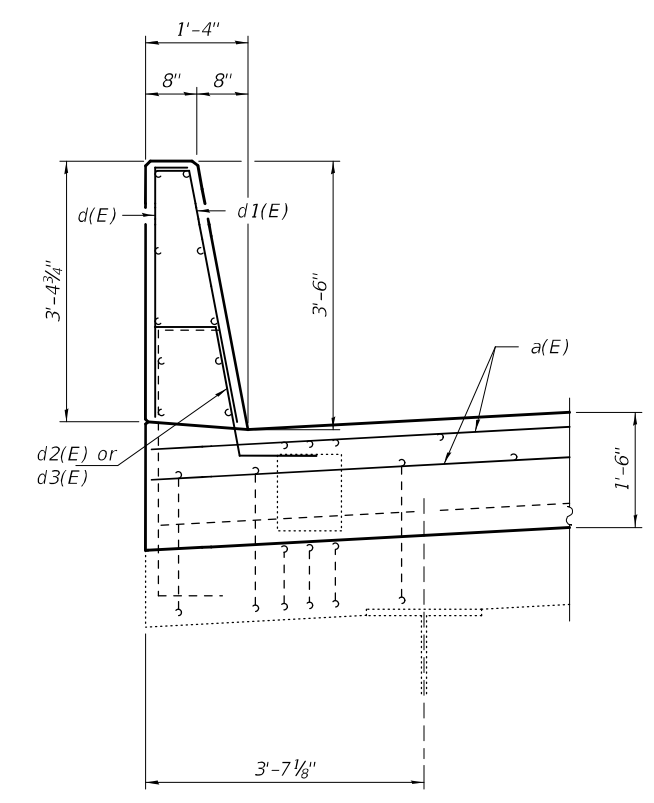
GENERAL PLAN AND ELEVATION
FAI 70 OVER MISSISSIPPI RIVER
SN 082-0319 (WB)

SHEET NO. 1 OF 8 SHEETS

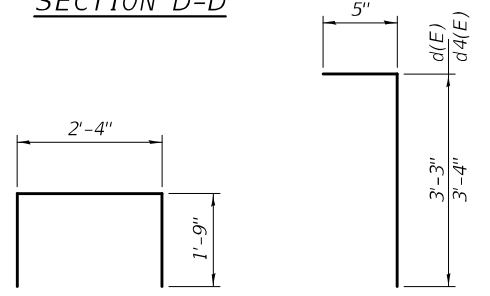
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ILLINOIS			CONTRACT NO. 76P44	
FED. AID PROJECT				



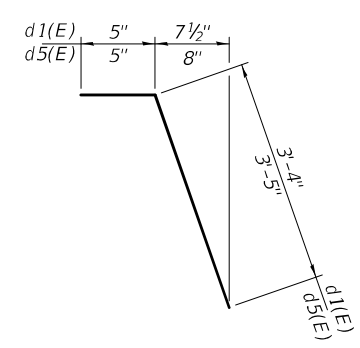
* a(E) bars cut to fit between boxes.



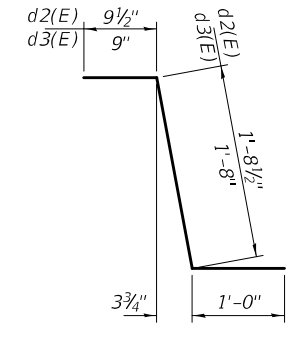
SECTION D-D



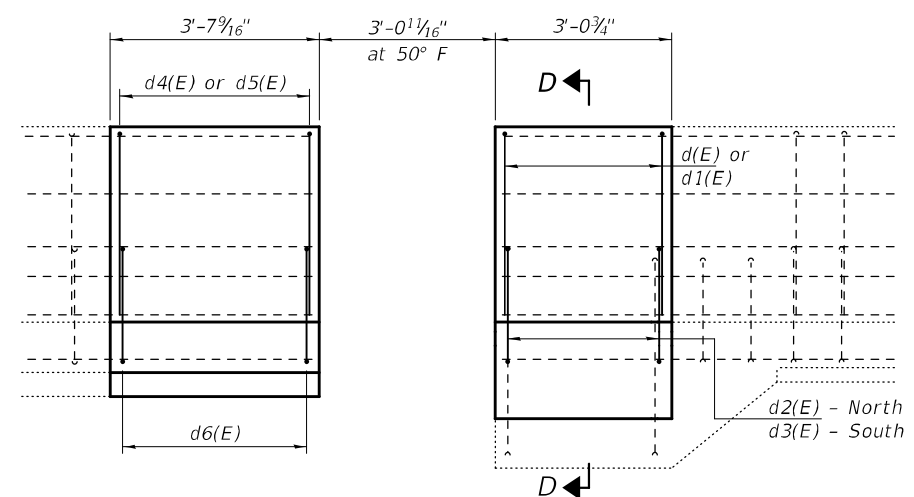
BAR u(E) BARS d(E) & d4(E)



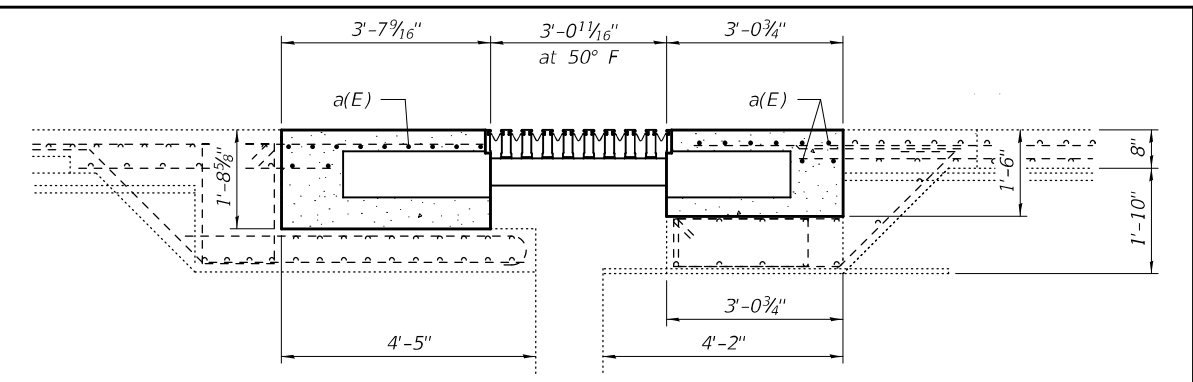
BARS d1(E) & d5(E)



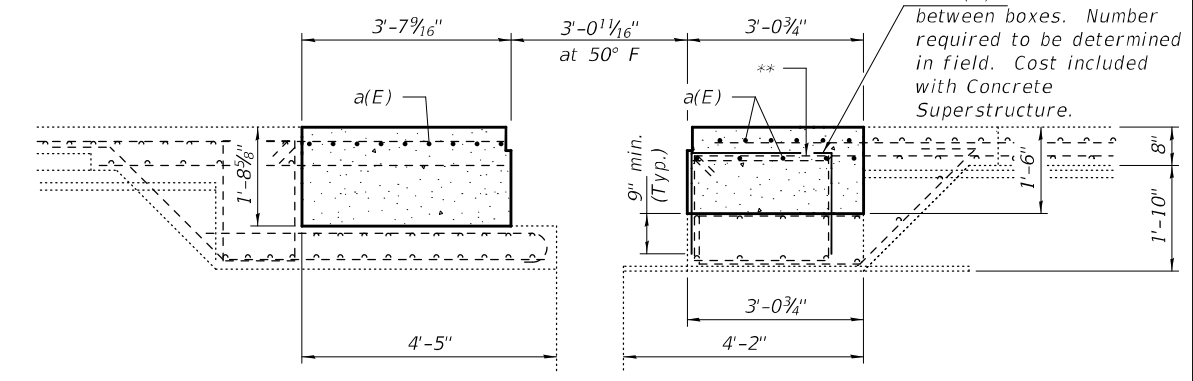
BARS d2(E) & d3(E)



OUTSIDE VIEW AT SOUTH PARAPET
(North Parapet similar, except as noted.)



SECTION C-C
(At Support Box)



SECTION C-C
(Between Support Boxes)

** As required, cut existing stirrup flush only if it interferes with proposed support boxes. Number required to be determined in field. Cost included with Concrete Superstructure.
*** Epoxy grout u(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

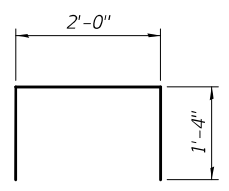
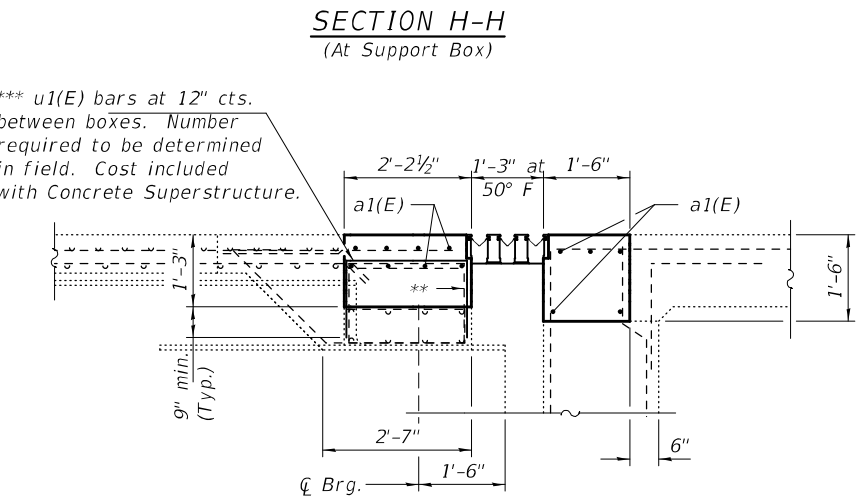
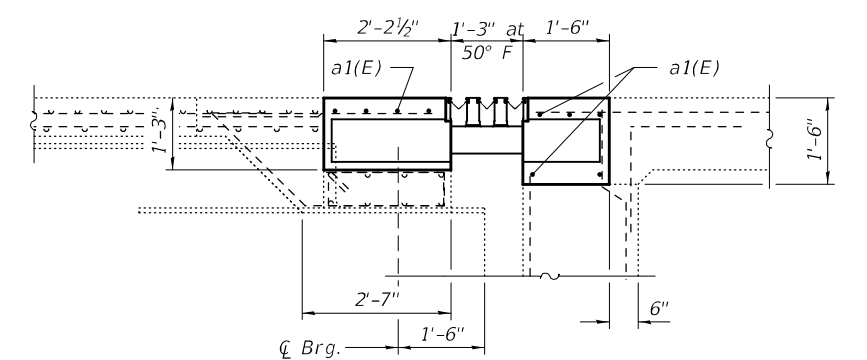
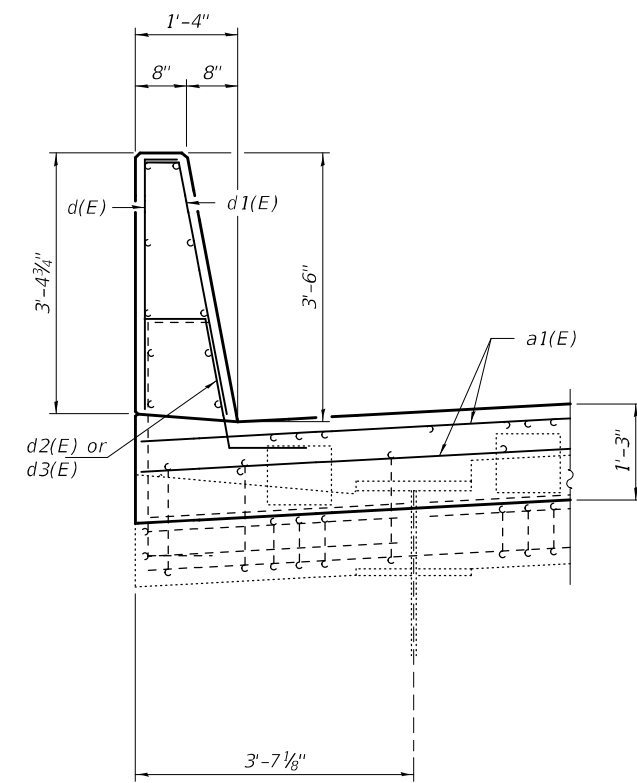
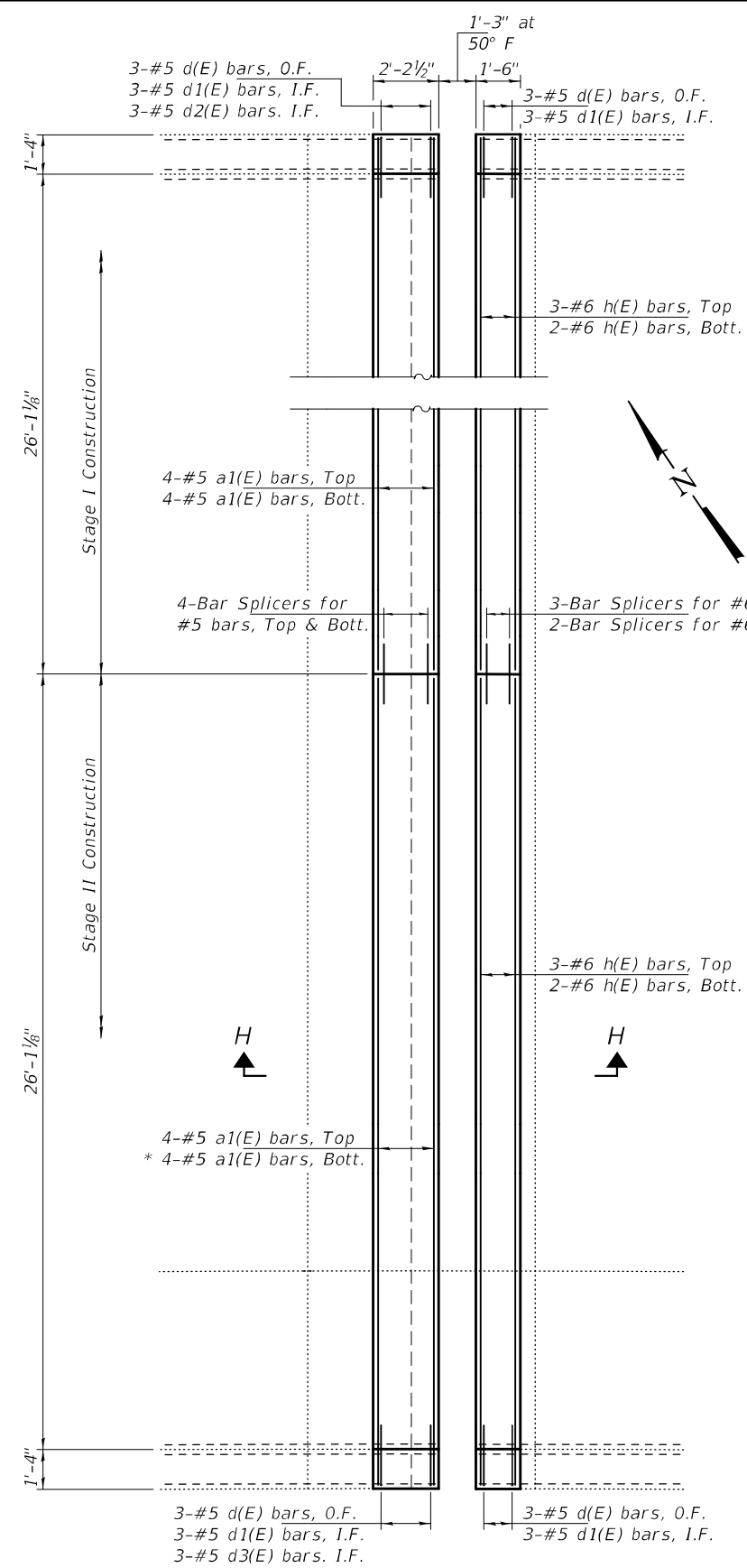
**** Expected lateral movement = 1/2".

BILL OF MATERIAL

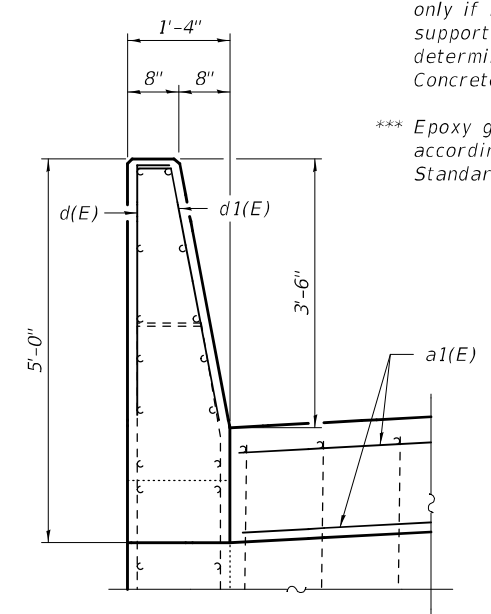
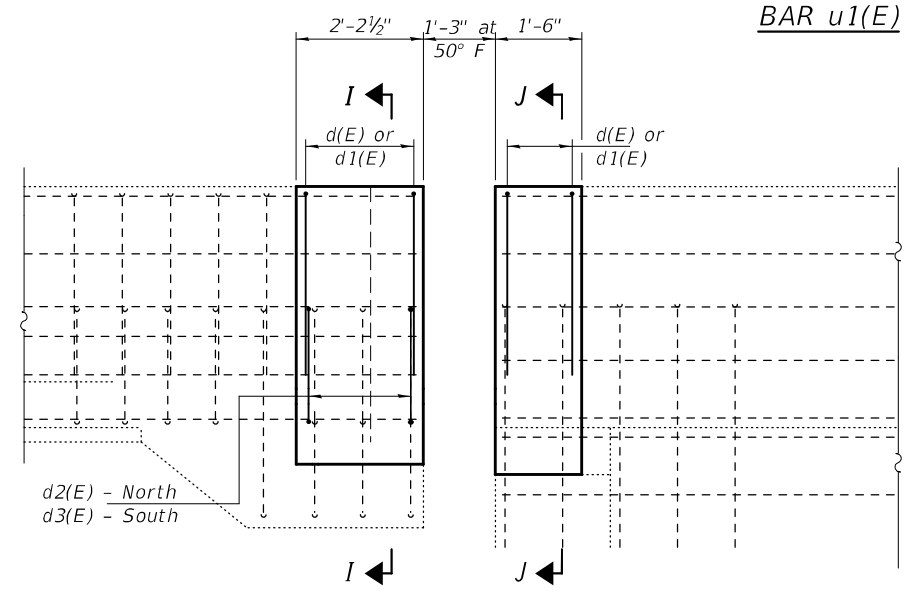
Bar	No.	Size	Length	Shape
a(E)	44	#5	21'-0"	—
d(E)	8	#5	3'-8"	┌
d1(E)	8	#5	3'-9"	└
d2(E)	4	#5	3'-6"	┘
d3(E)	4	#5	3'-5"	└
d4(E)	8	#5	3'-9"	┌
d5(E)	8	#5	3'-10"	└
d6(E)	8	#5	3'-8"	┘
Concrete Removal			Cu. Yd.	19.2
Concrete Superstructure			Cu. Yd.	19.2
Bar Splicers			Each	22
Protective Coat			Sq. Yd.	38
Reinforcement Bars, Epoxy Coated			Pound	1150
Modular Expansion Joint 24"			Foot	43

Placement of reinforcement within the joint block needs to be coordinated with the joint manufacturer.

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* a1(E) and h(E) bars cut to fit between boxes.



Note: See sheet 4 of 8 for bar bending diagrams.

*** u1(E) bars at 12" cts. between boxes. Number required to be determined in field. Cost included with Concrete Superstructure.

** As required, cut existing stirrup flush only if it interferes with proposed support boxes. Number required to be determined in field. Cost included with Concrete Superstructure.

*** Epoxy grout u1(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

**** Expected lateral movement = 1/2".

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	16	#5	27'-1"	—
d(E)	12	#5	3'-8"	Γ
d1(E)	12	#5	3'-9"	∟
d2(E)	3	#5	3'-6"	∩
d3(E)	3	#5	3'-5"	∩
h(E)	10	#6	27'-1"	—
Concrete Removal		Cu. Yd.	13.2	
Concrete Superstructure		Cu. Yd.	13.2	
Bar Splicers		Each	13	
Protective Coat		Sq. Yd.	26	
Reinforcement Bars, Epoxy Coated		Pound	970	
Modular Expansion Joint 9"		Foot	55	

Placement of reinforcement within the joint block out needs to be coordinated with the joint manufacturer.

REVISION 4-13-2021