

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
730	62Z-3B/BRR	MCLEAN	22	1
ILLINOIS			CONTRACT NO. 70D10	

04-27-2018 LETTING ITEM 098

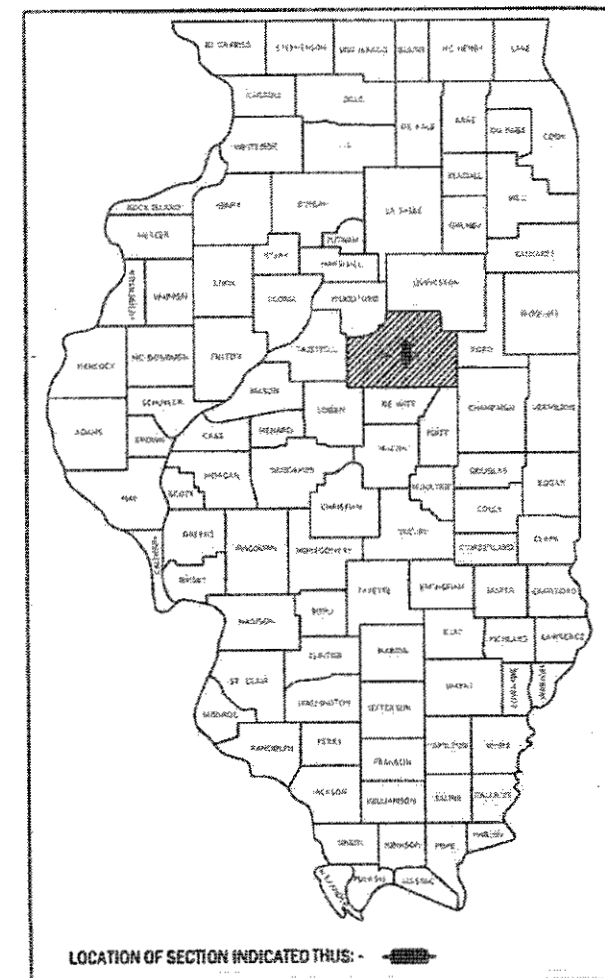
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 730 (US-51 SB)
SECTION (62Z-3B)BRR
PROJECT
BRIDGE DECK REPAIRS
MCLEAN COUNTY

C-95-012-18

D-95-003-18



FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3-4

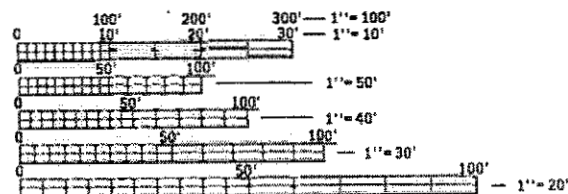
CURRENT TRAFFIC DATA

US 51 BUSINESS SB

2017	ADT	9,300
2027	ADT	9,800
2037	ADT	10,200
2037	DHV	745
	PU/PC%	94.0
	SU %	3.8
	MU %	2.2

DESIGN DESIGNATION

OTHER PRINCIPAL ARTERIAL



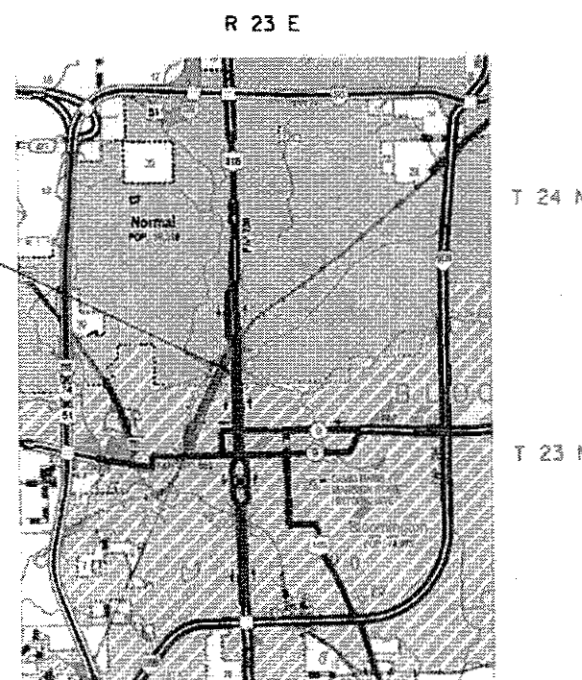
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: TIM BRANDENBURG
SQUAD LEADER: JEFF M. SHERER

CONTRACT NO. 70D10

S.N. 057-0108 STA. 199+53.50 (US 51 BUS SB)
THIN CONCRETE OVERLAY



GROSS LENGTH = 194.76 FT. = 0.037 MILE
NET LENGTH = 194.76 FT. = 0.037 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED: *January 22, 2018*
Paul A. Thomas
REGIONAL ENGINEER

March 23, 2018
David P. Chaffin
ENGINEER OF DESIGN AND ENVIRONMENT

March 23, 2018
David P. Chaffin
DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS/ HIGHWAY STANDARDS/ GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5	EXISTING TYPICAL CORSS-SECTION
6-12	S.N. 057-0188 REPAIR PLANS
13	WEARING SURFACE PLAN (ROADWAY)
14	DETAIL OF TEMPORARY CONCRETE BARRIER
15	DETAIL OF STAGED CONSTRUCTION
16	DETAIL OF BARREL ARRAY/ WIDTH RESTRICTION SIGNING DETAIL
17-21	AS-BUILT PLANS
22	DETAIL OF WIDTH RESTRICTION SIGNS

LIST OF STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701601-09	URBAN LANE CLOSURES, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-07	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH

GENERAL NOTES

G.N.-100

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-406

THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G.N. -406H

MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

Location	US 51 BUSINESS SB
Mixture Use	Polymerized Surface & Incidental
AC/PG	SBS PG 70-22
Design Air Voids	4.0% @ Ndes=90
Mix Comp(Gradation)	IL 9.5
Friction Aggregate	Mix D
Mixture Weight	112
Quality Management Program	QC/QA
Sublot Size	N.A.

G.N.-1004.01

COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

THERE ARE NO COMMITMENTS ASSOCIATED WITH THIS PROJECT

AREA OF DECK SLAB REPAIR HAVE BEEN ESTIMATED FROM JULY, 2017 DECK SURVEY. THE ACTUAL QUANTITY AND LOCATIONS SHALL BE DETERMINED BY ENGINEER. THE ENGINEER SHALL SHOW THE ACTUAL LOCATIONS OF THE DECK REPAIRS ON DECK PATCHING DETAIL SHEETS.

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	DRAWN -	REVISED -
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PLOT DATE = 1/18/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS/ HIGHWAY STANDARDS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
730	(622-3B)	MCLEAN	22	2
			CONTRACT NO. 70D10	
ILLINOIS FED. AID PROJECT				

MCLEAN COUNTY
US 51 SOUTH
URBAN TWO-LANE
BRIDGE DECK REPAIRS
S.N. 057-0188
100% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0059
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	90.0	90.0
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	200.0	200.0
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	18.0	18.0
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	94.0	94.0
44000600	SIDEWALK REMOVAL	SQ FT	94.0	94.0
50102400	CONCRETE REMOVAL	CU YD	10.4	10.4
50300100	FLOOR DRAINS	EACH	8.0	8.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	19.0	19.0
50300300	PROTECTIVE COAT	SQ YD	472.4	473.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,250.0	1,250.0
50800515	BAR SPLICERS	EACH	12.0	12.0
67100100	MOBILIZATION	L SUM	1.0	1.0
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1.0	1.0
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1.0	1.0
70400100	TEMPORARY CONCRETE BARRIER	FOOT	337.5	337.5

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	DRAWN -	REVISED -
PLOT SCALE = 40.0000' / 1"	CHECKED -	REVISED -
PLOT DATE = 1/22/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE: NONE	SHEET 1	OF 2 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
730	(622-3B)	MCLEAN	22	3
CONTRACT NO. 70D10				
ILLINOIS FED. AID PROJECT				

MCLEAN COUNTY
 US 51 SOUTH
 URBAN TWO-LANE
 BRIDGE DECK REPAIRS
 S.N. 057-0188
 100% STATE

0059

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	337.5	337.5
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1.0	1.0
70600352	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE,NARROW), TEST LEVEL 3	EACH	1.0	1.0
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	399.0	399.0
X7200201	WIDTH RESTRICTION SIGNING	LSUM	1.0	1.0
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	448.0	448.0
Z0006012	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	445.0	445.0
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	445.0	445.0
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	135.3	135.3
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	4.3	4.3
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	439.0	439.0

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PLOT DATE = 1/22/2018	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

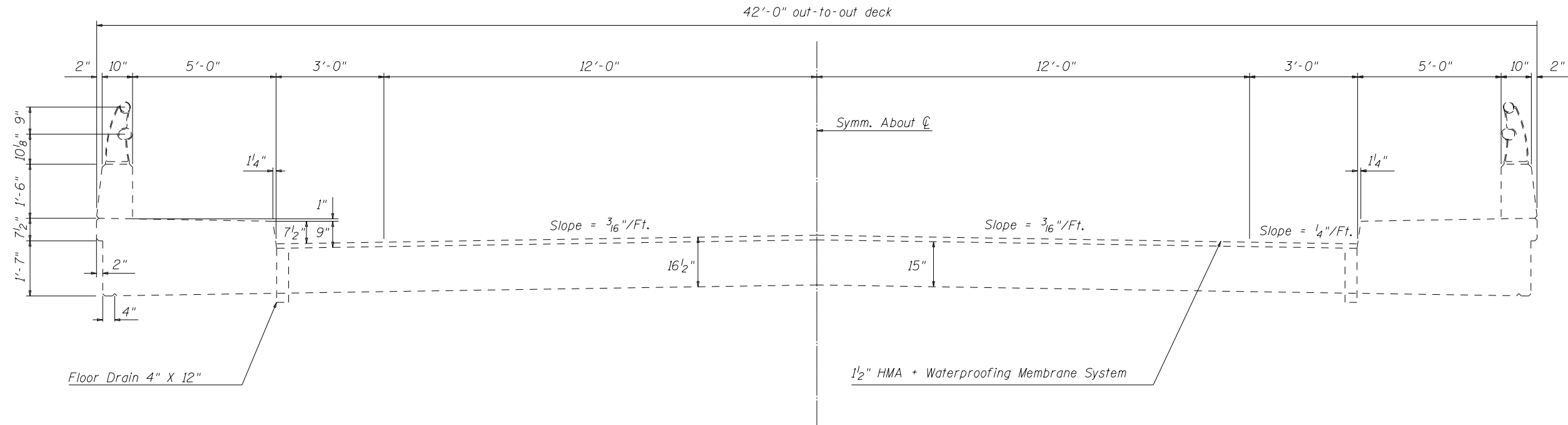
SUMMARY OF QUANTITIES

SCALE: NONE SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 730	SECTION (62Z-3B)	COUNTY MCLEAN	TOTAL SHEETS 22	SHEET NO. 4
CONTRACT NO. 70D10			ILLINOIS FED. AID PROJECT	

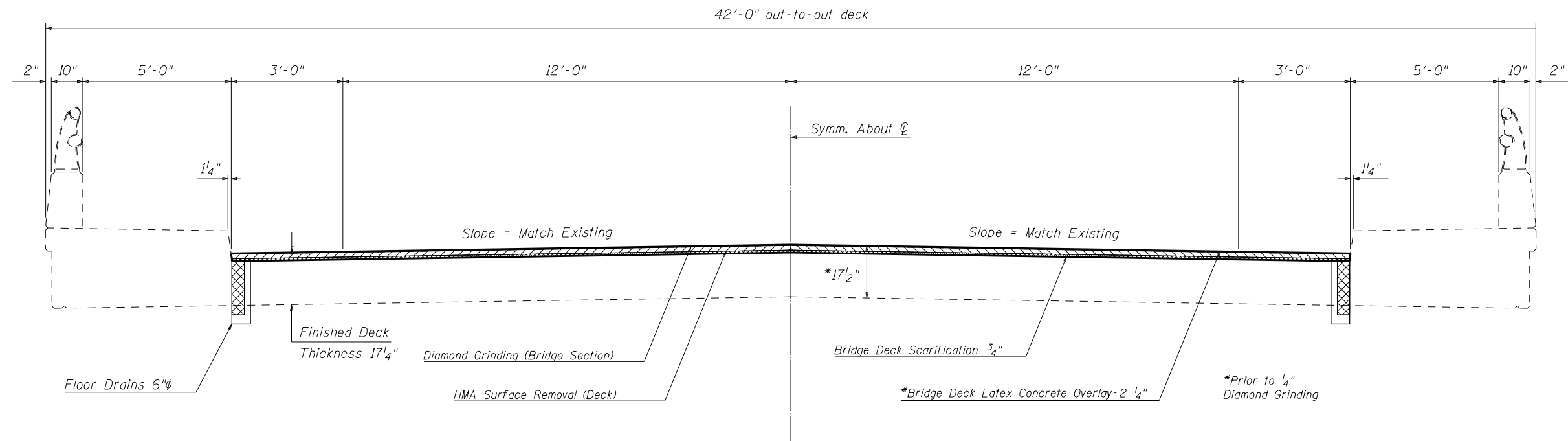
EXISTING DECK CROSS SECTION

S.N. 057-0188



PROPOSED DECK CROSS SECTION

S.N. 057-0188



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	DRAWN -	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 1/18/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL DECK CROSS-SECTION
S.N. 057-0188

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
730	(62Z-3B)BRR	MCLEAN	22	5
CONTRACT NO. 70D10				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify 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.

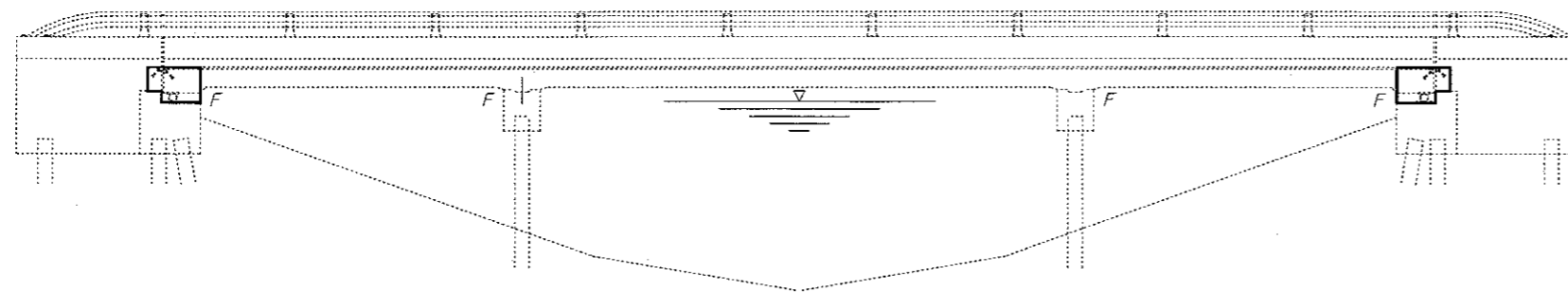
Reinforcement bars designated (E) shall be epoxy coated.

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.

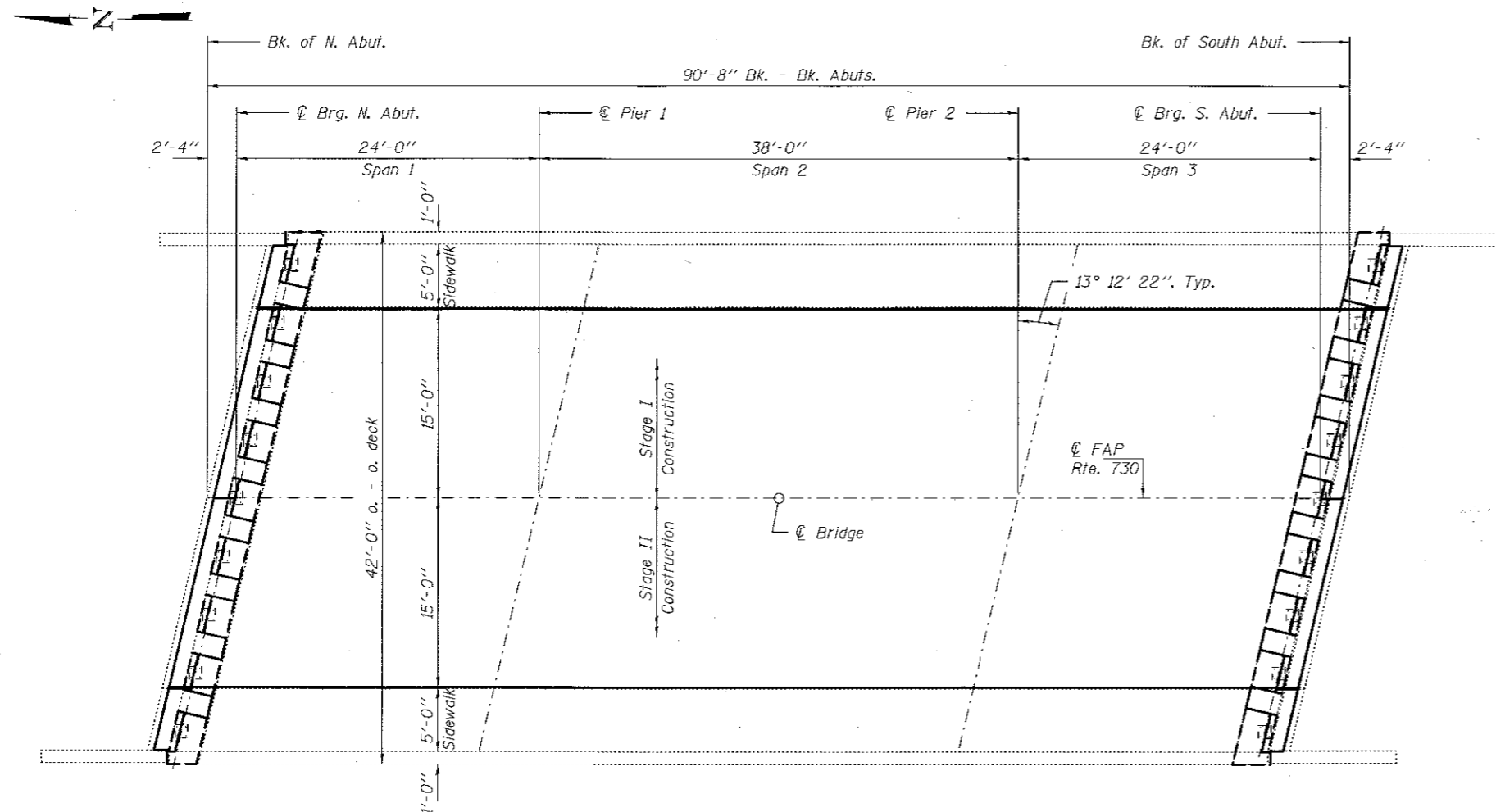
Existing bearings shall be sand blasted and cleaned of all rust and existing caps shall be cleaned of all debris prior to the placement of new concrete.

Synthetic fibers shall be added to the Bridge Deck Latex Concrete Overlay.

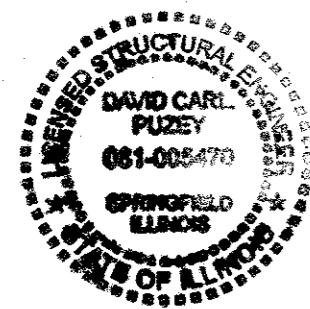
Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on As-built Plans.



ELEVATION



PLAN



TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	10.4
Concrete Superstructure	Cu. Yd.	19.0
Reinforcement Bars, Epoxy Coated	Pound	1250
Bar Splicers	Each	12
HMA Surface Removal (Deck)	Sq. Yd.	291
Bridge Deck Scarification 3/4"	Sq. Yd.	287.5
Bridge Deck Latex Concrete Overlay 2 1/2"	Sq. Yd.	287.5
Diamond Grinding (Bridge Section)	Sq. Yd.	302.2
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	241.8
* Protective Coat	Sq. Yd.	315.4
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	135.3
Deck Slab Repair (Full Depth) Type 1	Sq. Yd.	4.3
Floor Drains	Each	8

* New concrete areas only.

DESIGNED: *Michael L. Dollins*
 CHECKED: *Stephen M. Ryan*
 DRAWN: *daburdell*
 CHECKED: *MLD* *SMR*

EXAMINED: *Ty A. D...
 ENGINEER OF STRUCTURAL SERVICES*
 PASSED: *...
 ENGINEER OF BRIDGE AND STRUCTURES*

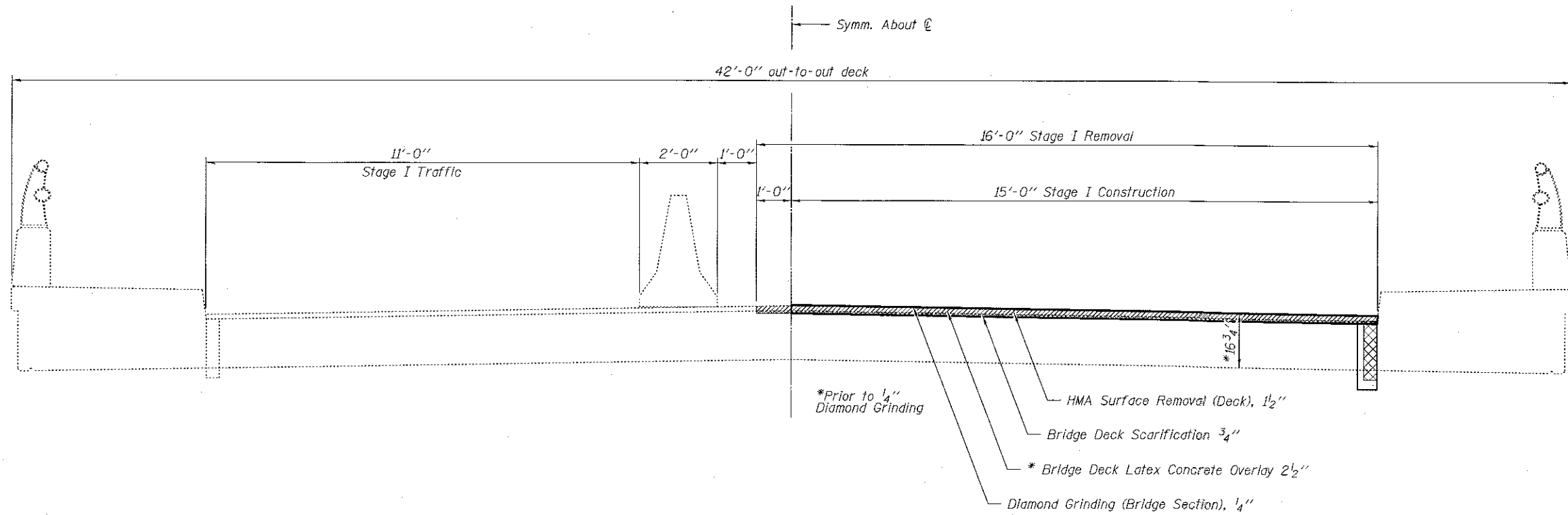
DATE: MARCH 19, 2018

REVISIONS:

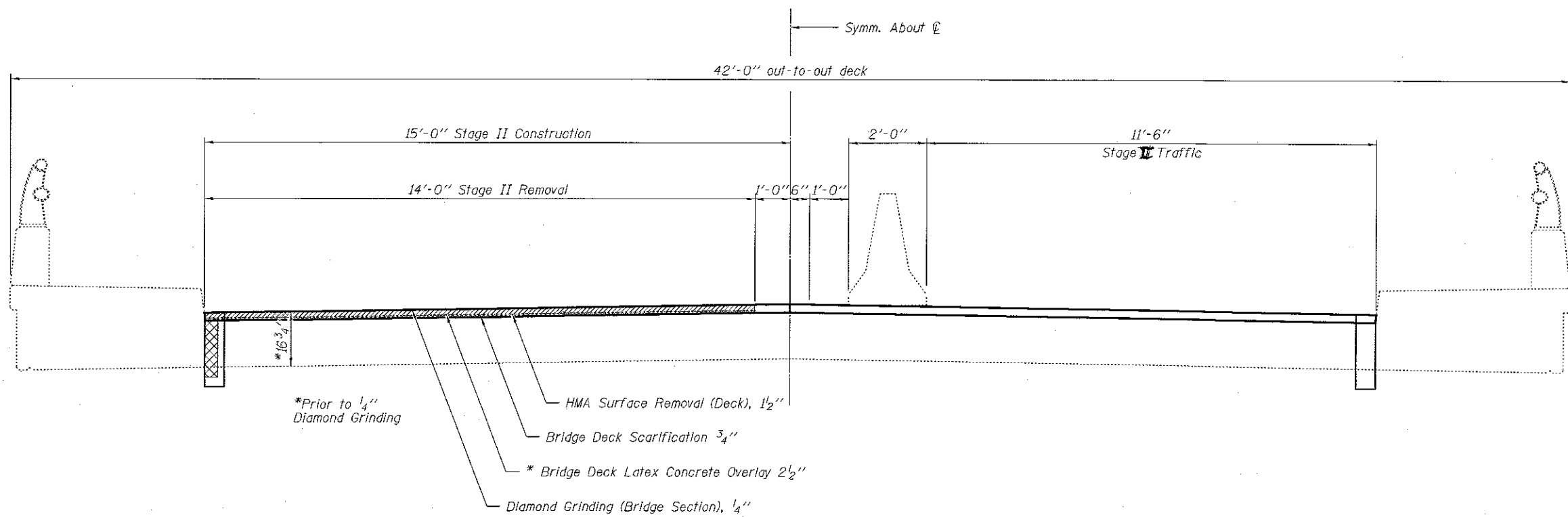
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION
FAP 730 (US 51 SB) OVER SUGAR CREEK
SN 057-0188
 SHEET NO. 1 OF 7 SHEETS

F.A.P. RTE. 730	SECTION 1622-3B18RR	COUNTY Mc LEAN	TOTAL SHEETS 22	SHEET NO. 6
CONTRACT NO. 70D10			ILLINOIS FED. AID PROJECT	



STAGE I CONSTRUCTION DETAIL
(Looking North)



STAGE II CONSTRUCTION DETAIL
(Looking North)

DESIGNED - MLD
 CHECKED - SMR
 DRAWN - daburdell
 CHECKED -

EXAMINED
 PASSED
 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES

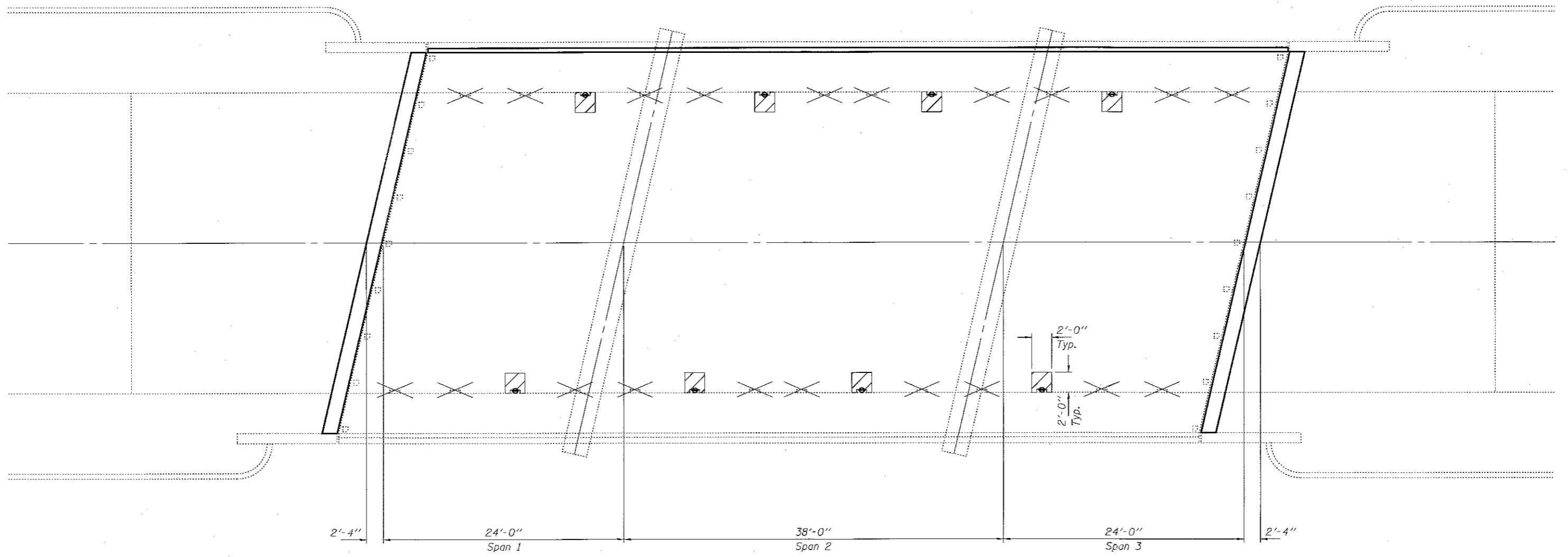
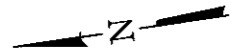
DATE MARCH 19, 2018
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STAGING DETAILS
 SN 057-0188

SHEET NO. 2 OF 7 SHEETS

F.A.P. RTE. 730	SECTION 622-3B18RR	COUNTY Mc LEAN	TOTAL SHEETS 22	SHEET NO. 7
CONTRACT NO. 70D10				ILLINOIS FED. AID PROJECT



PLAN

Note:
For drain details, see sheet 4 of 7.

LEGEND

- Drain Removal
- New Drain

DESIGNED - MLD
CHECKED - SMR
DRAWN - daburdell
CHECKED -

EXAMINED	
PASSED	

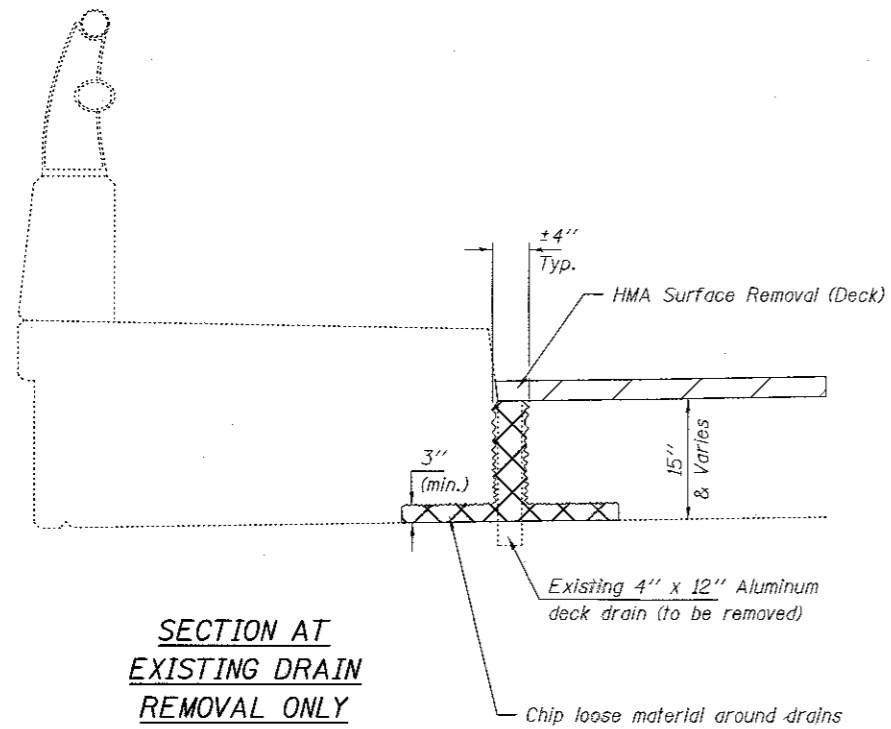
DATE	MARCH 19, 2018
REVISED	
REVISED	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

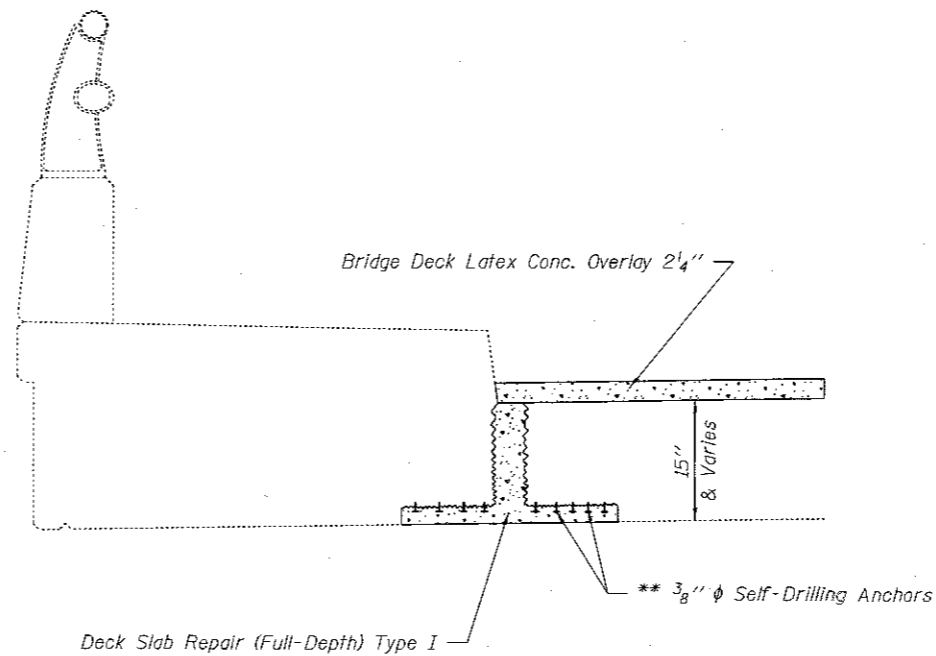
**DRAIN LAYOUT
SN 057-0188**

SHEET NO. 3 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. T0D10				
ILLINOIS FED. AID PROJECT				

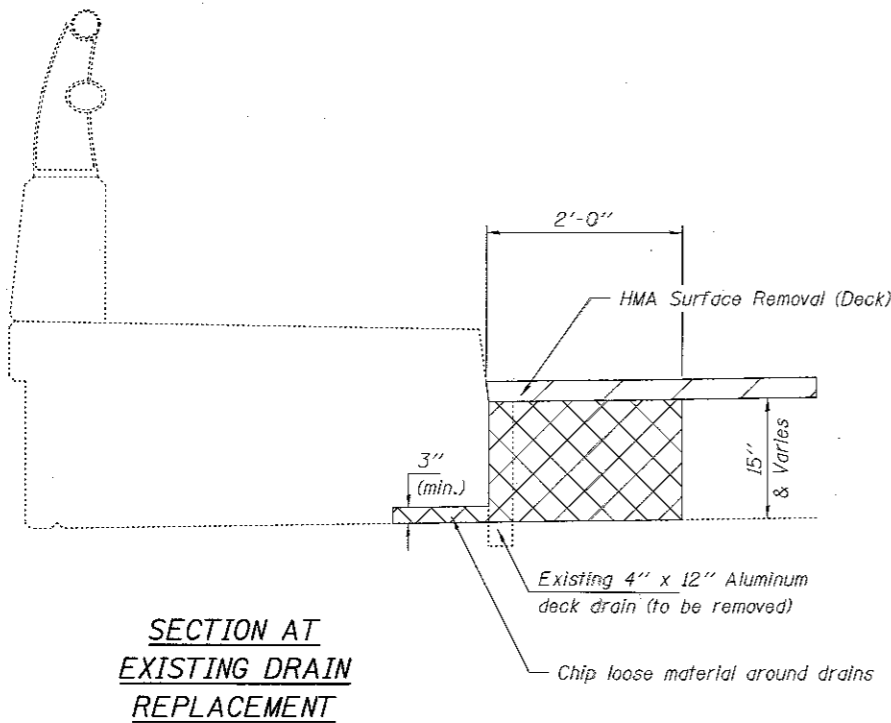
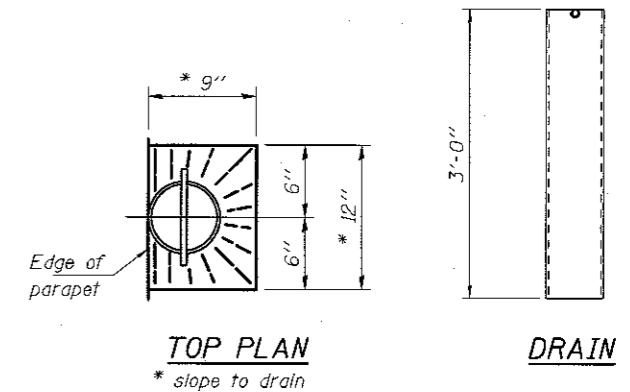


SECTION AT EXISTING DRAIN REMOVAL ONLY

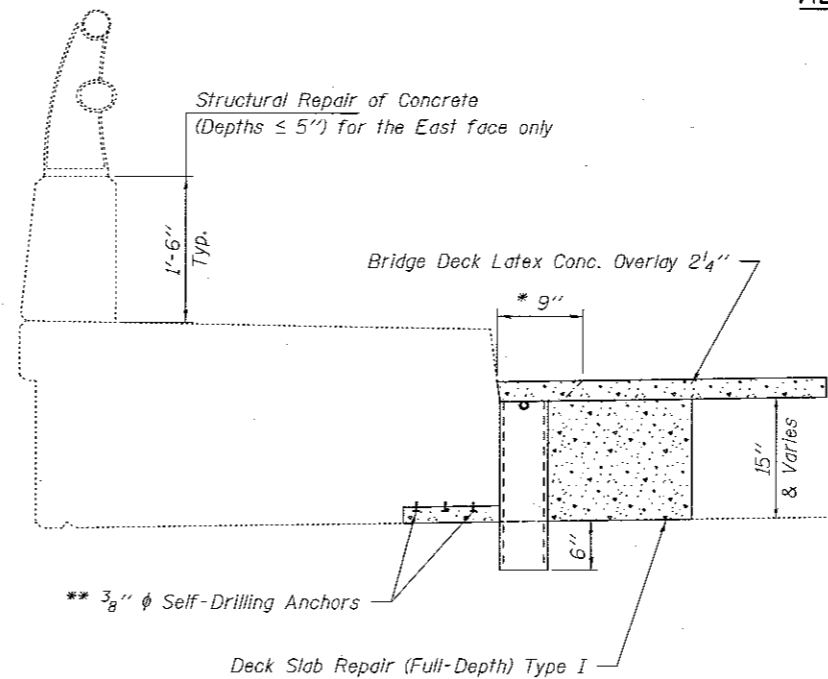


SECTION AT PROPOSED DRAIN FULL-DEPTH PATCH

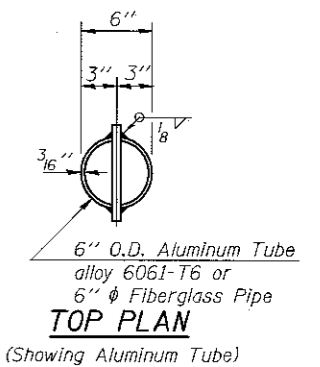
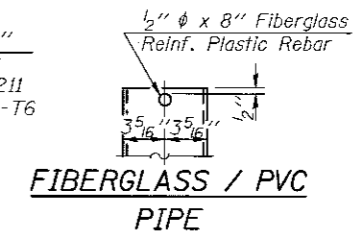
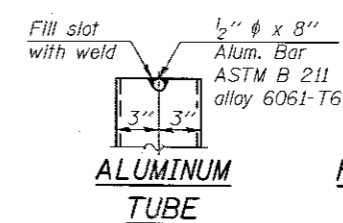
Concrete Removal included with Deck Slab Repair (Full Depth), Type I.



SECTION AT EXISTING DRAIN REPLACEMENT



SECTION AT PROPOSED DRAIN



Notes:
 Floor drains need not be painted.
 Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 All dimensions shall be field verified by the Contractor prior to ordering of materials.
 Cost of removal of existing drains is included in Deck Slab Repair.

** 3/8" diameter self-drilling anchors to be used at locations determined by Engineer. Cost included with Deck Slab Repair of the type specified.

BILL OF MATERIAL

Item	Unit	Quantity
Floor Drains	Each	8
Deck Slab Repair (Full Depth), Type 1	Sq. Yd.	4.3
Structural Repair of Concrete (Depth ≤ 5')	Sq. Ft.	135.3

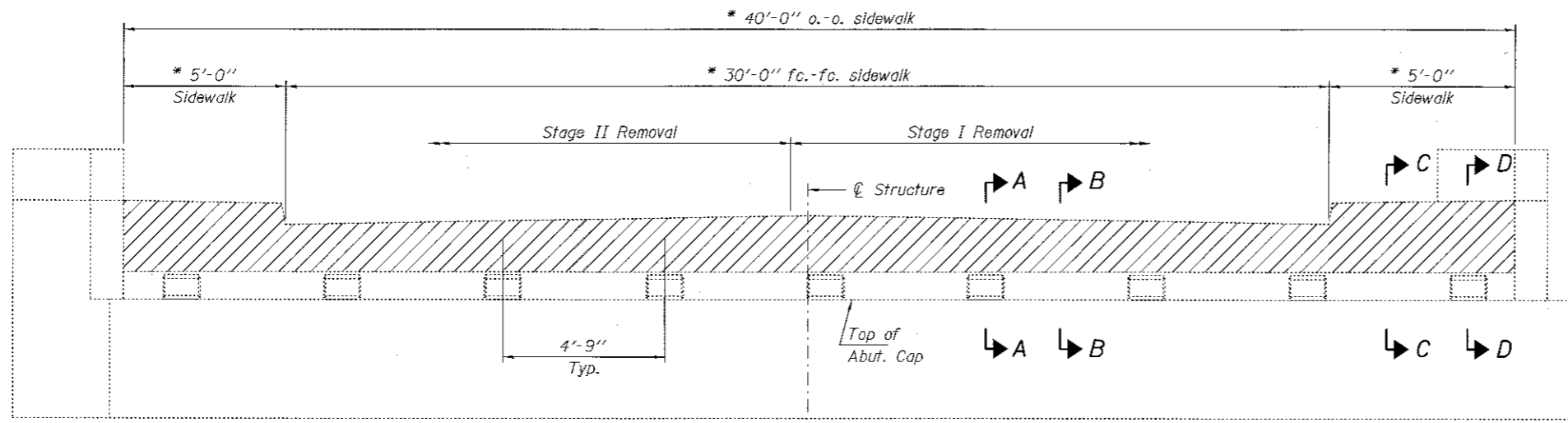
DESIGNED - MLD	EXAMINED - <i>Timothy A. Daburdell</i>	DATE - MARCH 19, 2018
CHECKED - SMR	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - daburdell	PASSED - <i>Carl H. ...</i>	REVISOR
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISION

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DRAIN DETAILS
 SN 057-0188

SHEET NO. 4 OF 7 SHEETS

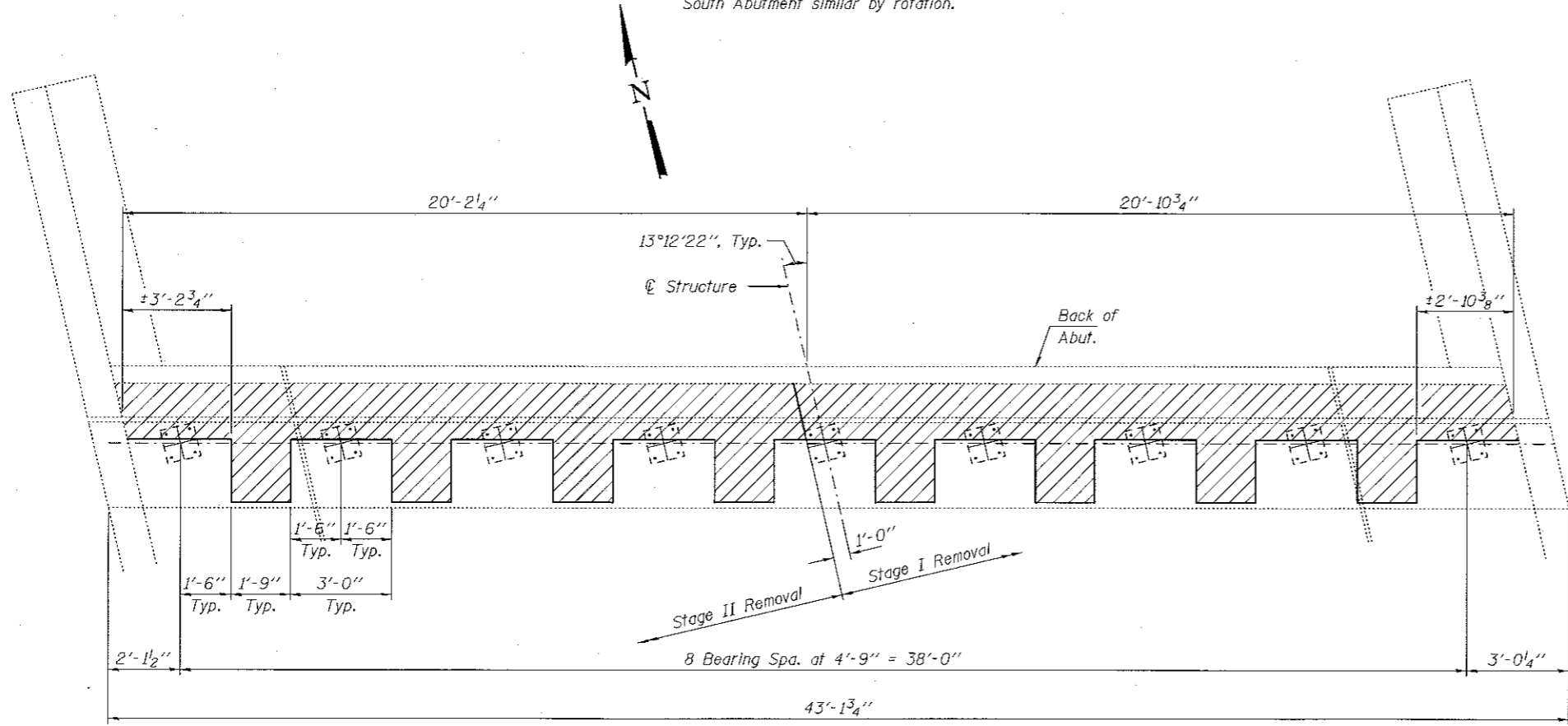
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CONTRACT NO. 70D10				ILLINOIS FED. AID PROJECT



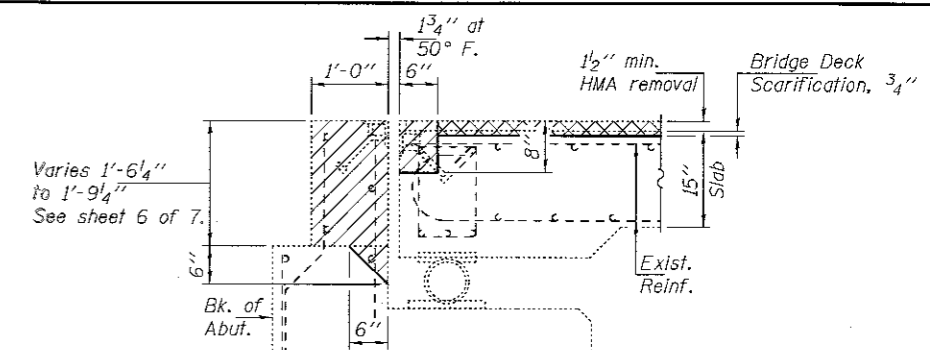
EXISTING CROSS SECTION

(Looking North at North Abutment)
South Abutment similar by rotation.

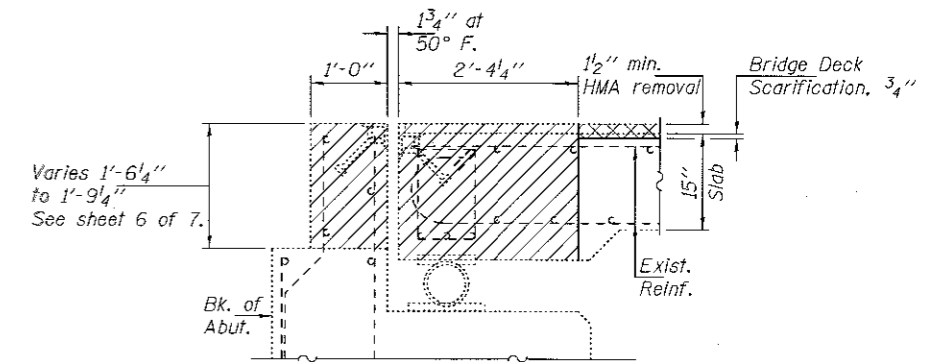
* Dimensions at Rt. L's to \varnothing Structure.



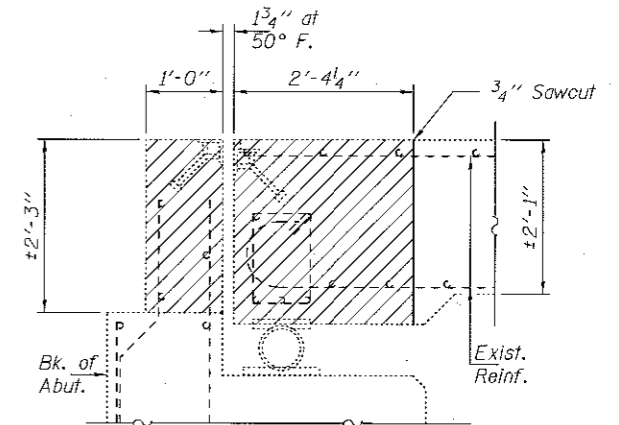
EXISTING PLAN



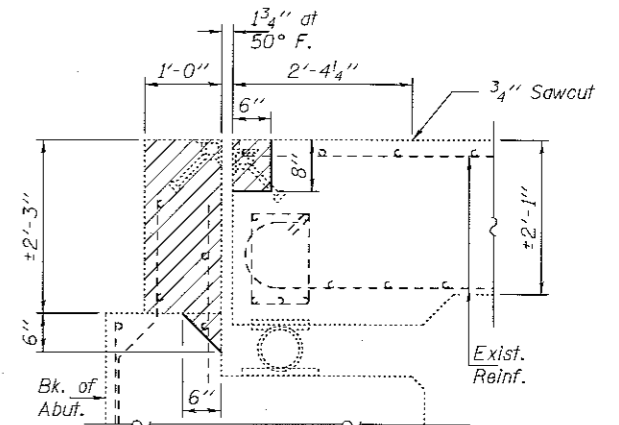
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

Note:
Hatched areas indicate Concrete Removal.
Cross-hatched areas indicate HMA Removal and Scarification.

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	10.4

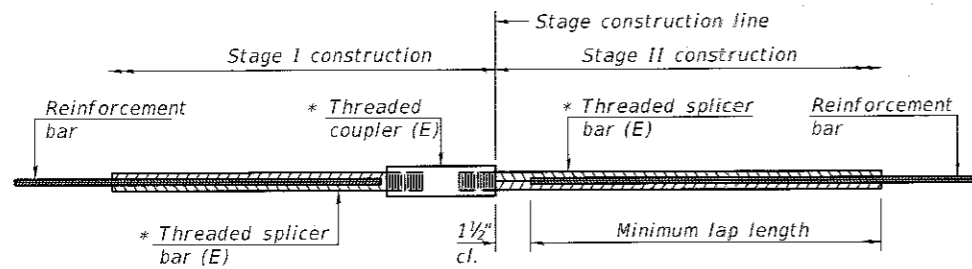
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CHECKED - SMR	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - daburdell	PASSED - <i>Carl Perry</i>	REVISOR
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS AT ABUTMENTS
SN 057-0188

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
730	(622-3B)BR	Mc LEAN	22	10
				CONTRACT NO. 70D10
ILLINOIS FED. AID PROJECT				

SHEET NO. 5 OF 7 SHEETS

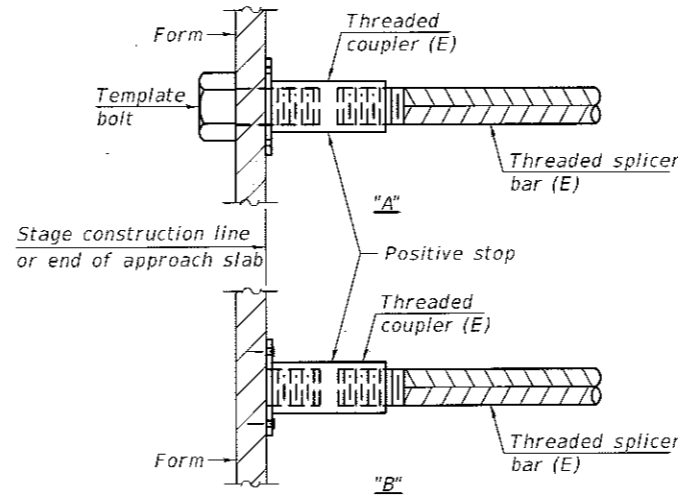


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 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
N. Abut. HB	#6	4	4'-0"
N. Abut. Slab	#5	2	3'-6"
S. Abut. HB	#6	4	4'-0"
S. Abut. Slab	#5	2	3'-6"

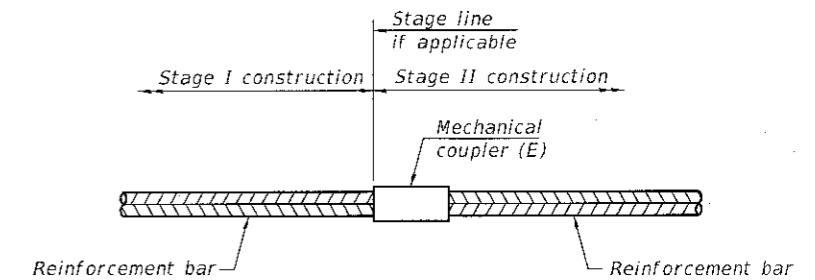


INSTALLATION AND SETTING METHODS

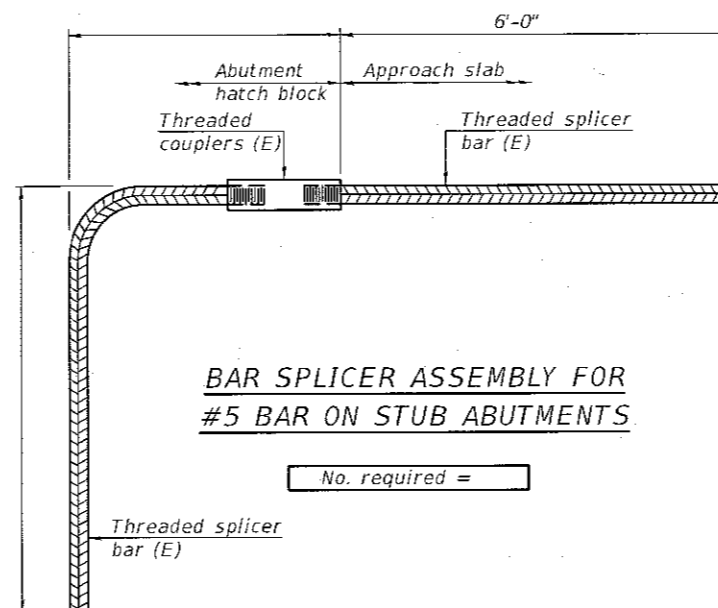
"A" : Set bar splicer assembly by means of a template bolt.

"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

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

DESIGNED - MLD
 CHECKED - SMR
 DRAWN - daburdell
 CHECKED -

EXAMINED
 PASSED
 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES




DATE MARCH 19, 2018
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

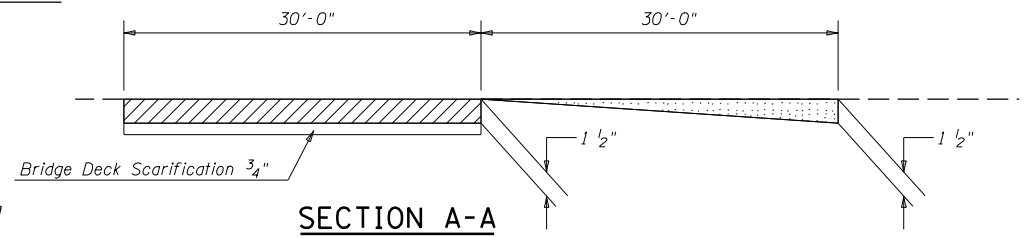
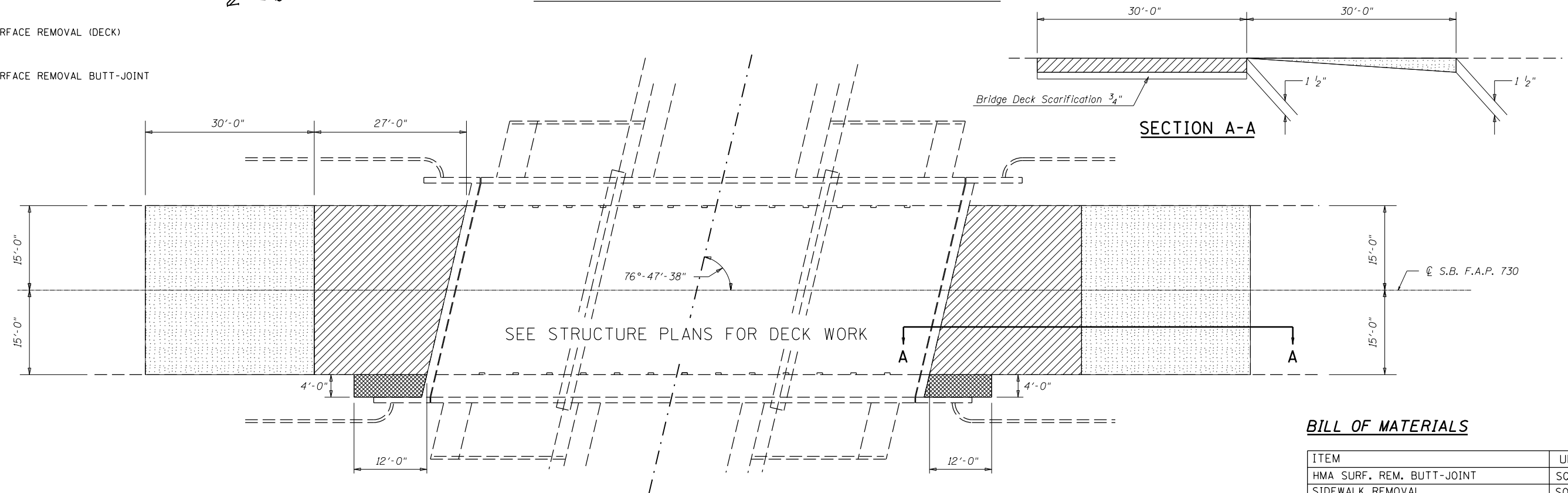
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 SN 057-0188

SHEET NO. 7 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
730	622-3BIBRR	Mc LEAN	22	12
CONTRACT NO. 70010			ILLINOIS FED. AID PROJECT	




-  SIDEWALK REMOVAL
-  HMA SURFACE REMOVAL (DECK)
-  HMA SURFACE REMOVAL BUTT-JOINT

WEARING SURFACE REMOVAL PLAN

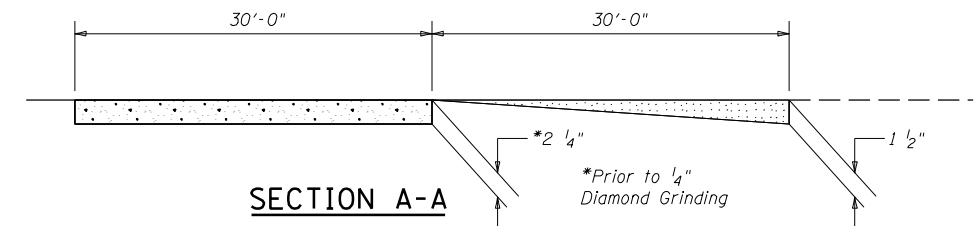
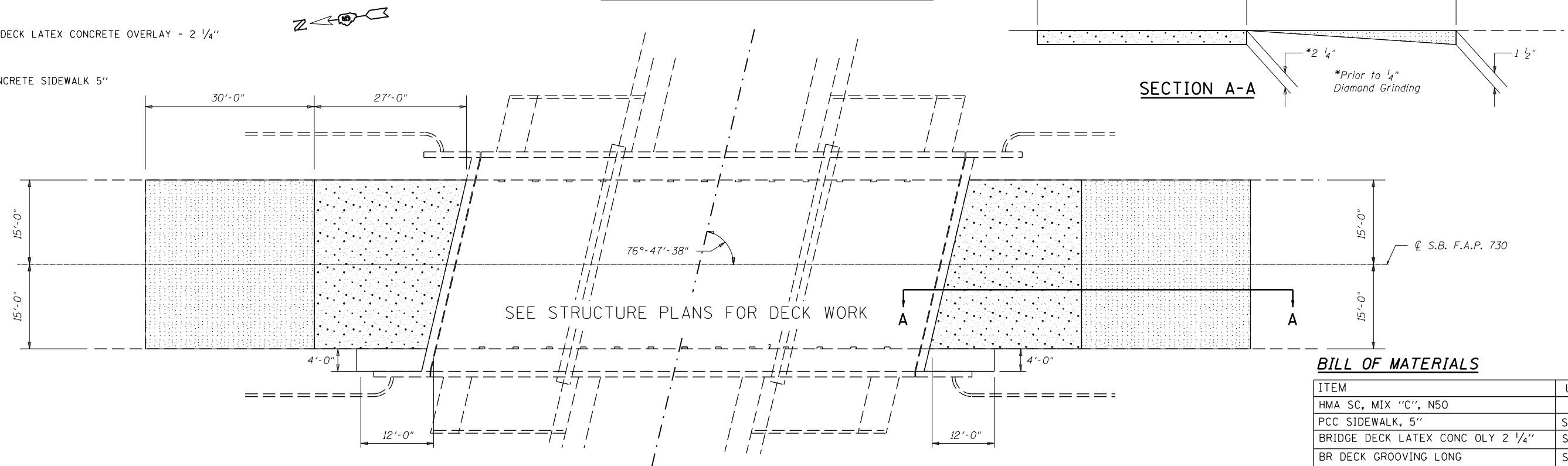


BILL OF MATERIALS

ITEM	UNIT	TOTAL
HMA SURF. REM. BUTT-JOINT	SQ YD	200.0
SIDEWALK REMOVAL	SQ FT	94.0
HMA SURFACE REMOVAL (DECK)	SQ YD	157.0
BRIDGE DECK SCARIFICATION 3/4"	SQ YD	157.0

-  HOT-MIX ASPHALT SURFACE COURSE, MIX "C" N50 (1 1/2")
-  BRIDGE DECK LATEX CONCRETE OVERLAY - 2 1/4"
-  PCC CONCRETE SIDEWALK 5"

WEARING SURFACE PLAN



BILL OF MATERIALS

ITEM	UNIT	TOTAL
HMA SC, MIX "C", N50	TON	18.0
PCC SIDEWALK, 5"	SQ FT	94.0
BRIDGE DECK LATEX CONC OLY 2 1/4"	SQ YD	157.0
BR DECK GROOVING LONG	SQ YD	157.0
DIAMOND GRIND BR SEC	SQ YD	137.0

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PLOT DATE = 1/18/2018	CHECKED -	REVISED -
	DATE -	REVISED -

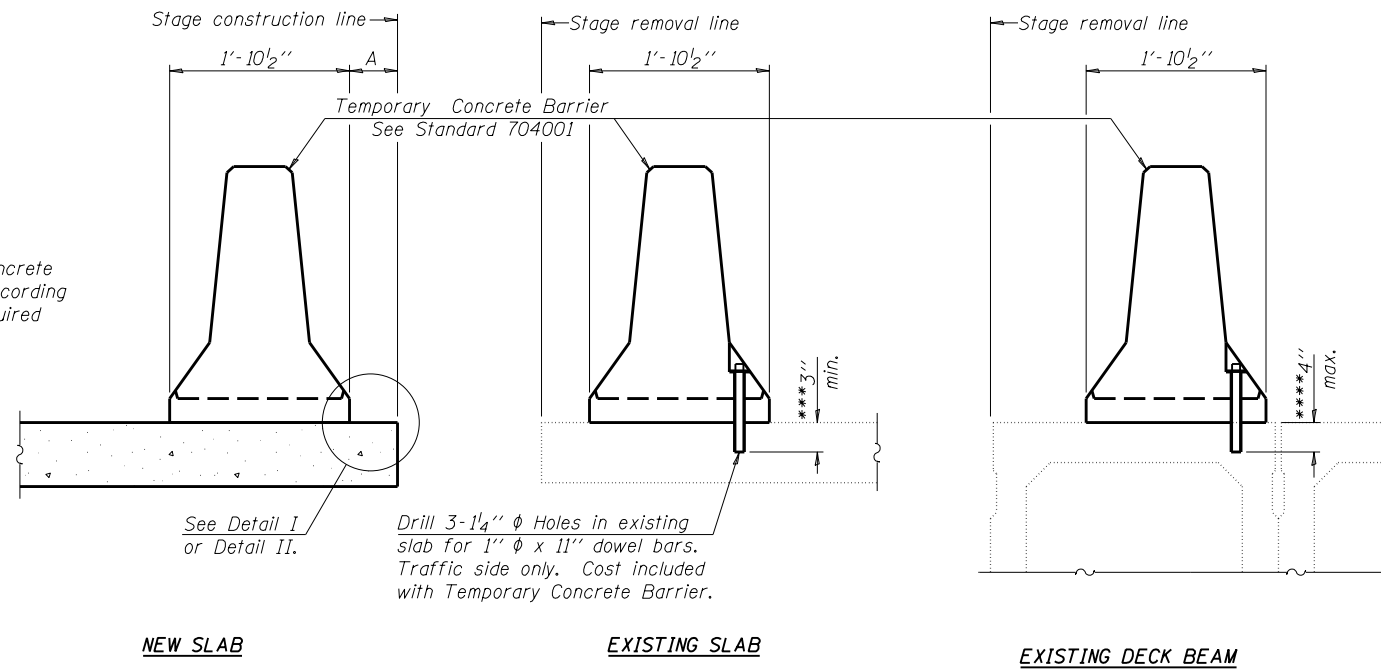
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEARING SURFACE PLANS (ROADWAY)
S.N. 057-0188**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
730	(62Z-3B)BR	MCLEAN	22	13
CONTRACT NO. 70D10				
ILLINOIS FED. AID PROJECT				

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

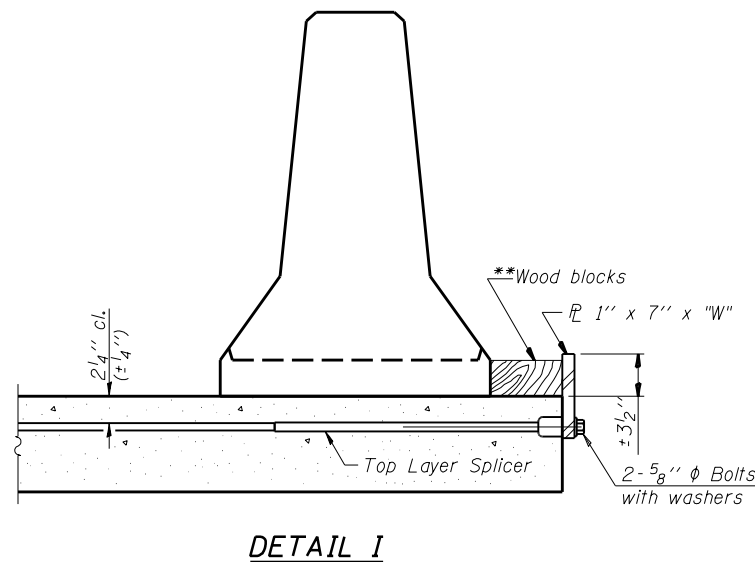
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

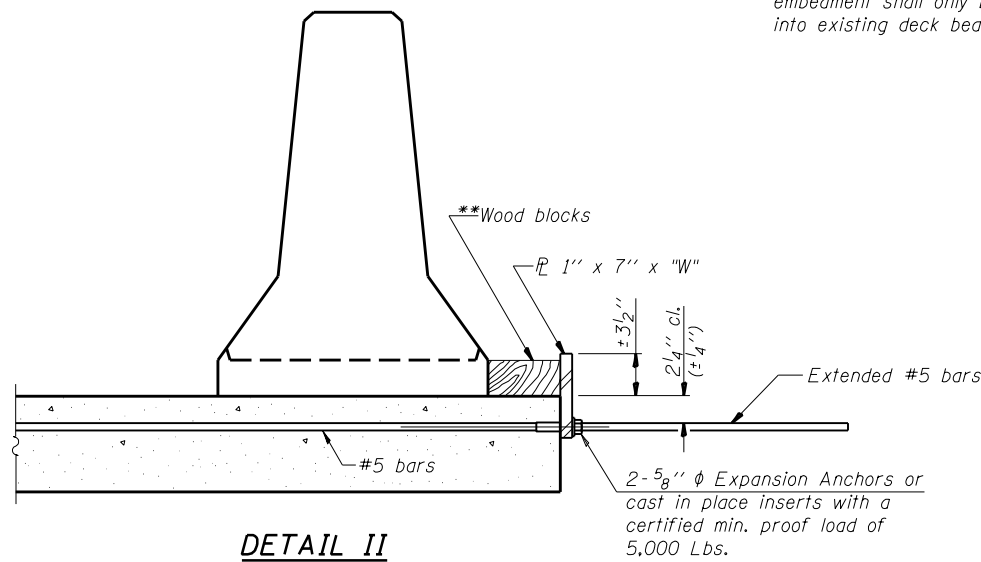
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

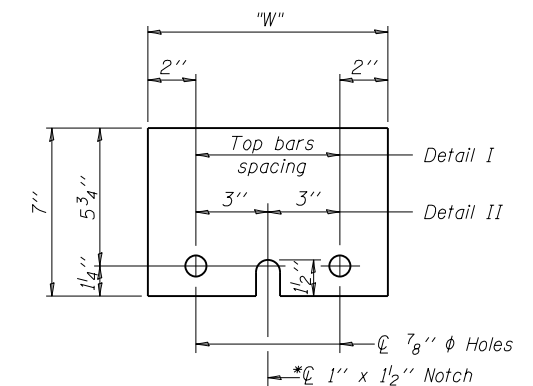
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

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	DRAWN -	REVISED -
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PLOT DATE = 1/18/2018	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

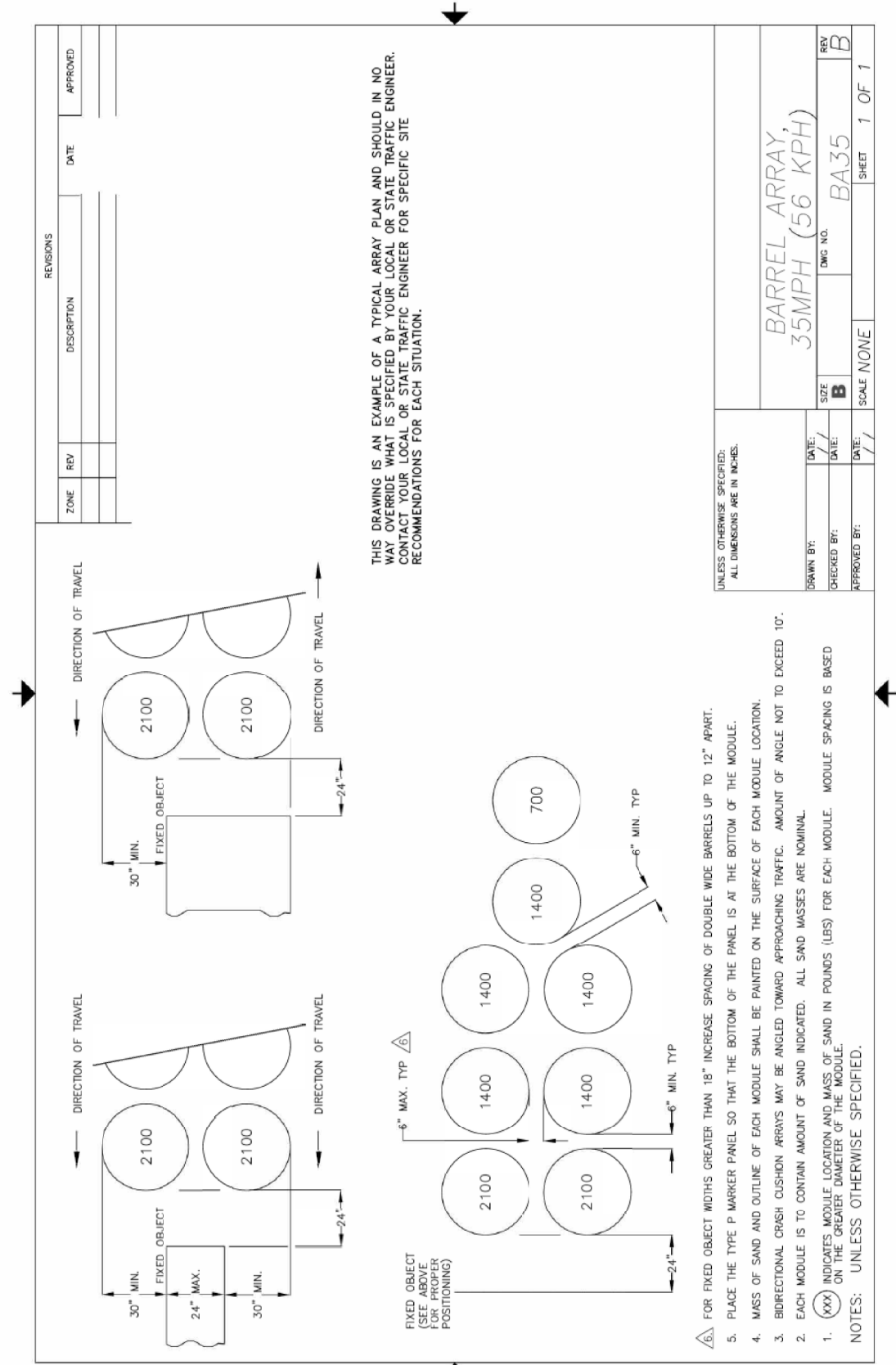
**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
S.N. 057-0188**

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

F.A.P. RTE. 730	SECTION (62Z-3B)BRR	COUNTY MCLEAN	TOTAL SHEETS 22	SHEET NO. 14
			CONTRACT NO. 70D10	
ILLINOIS FED. AID PROJECT				

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BARREL ARRAY DETAIL (35 MPH)



THIS DRAWING IS AN EXAMPLE OF A TYPICAL ARRAY PLAN AND SHOULD IN NO WAY OVERRIDE WHAT IS SPECIFIED BY YOUR LOCAL OR STATE TRAFFIC ENGINEER. CONTACT YOUR LOCAL OR STATE TRAFFIC ENGINEER FOR SPECIFIC SITE RECOMMENDATIONS FOR EACH SITUATION.

UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES.		DRAWN BY: / /		DATE: / /	SIZE: B	DWG NO: BA35	REV: B
		CHECKED BY: / /		DATE: / /	SCALE: NONE		SHEET 1 OF 1
		APPROVED BY: / /		DATE: / /			

BARREL ARRAY,
35MPH (56 KPH)

ZONE	REV	DESCRIPTION	DATE	APPROVED

ZONE	REV	DESCRIPTION	DATE	APPROVED

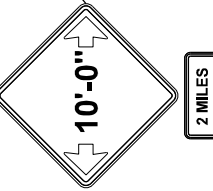
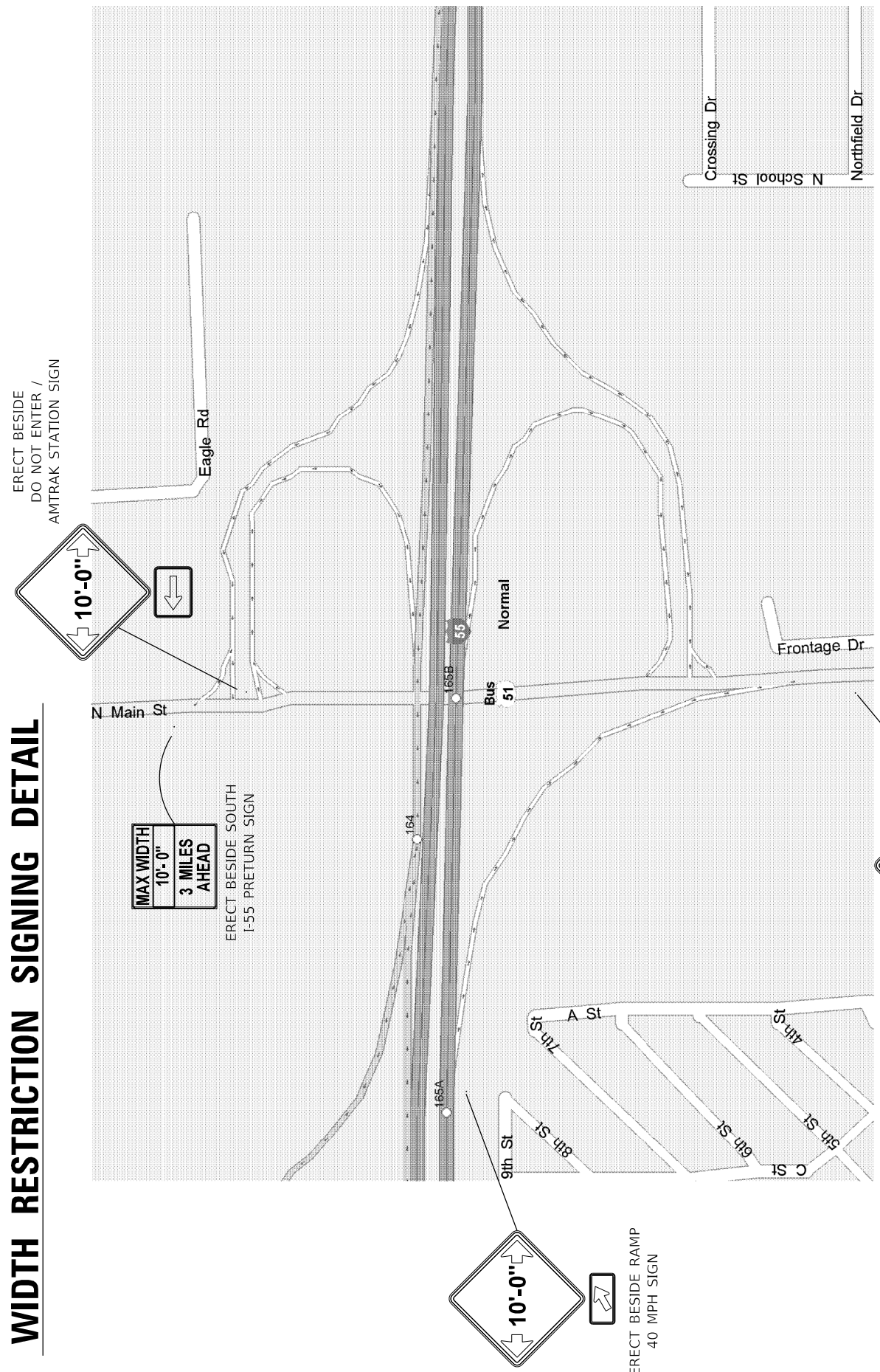
REVISIONS	DESCRIPTION	DATE	APPROVED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)

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

WIDTH RESTRICTION SIGNING DETAIL

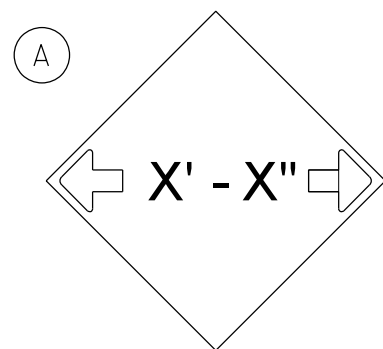


2 MILES

ERECT BESIDE SOUTH
BUSN 51 SIGN

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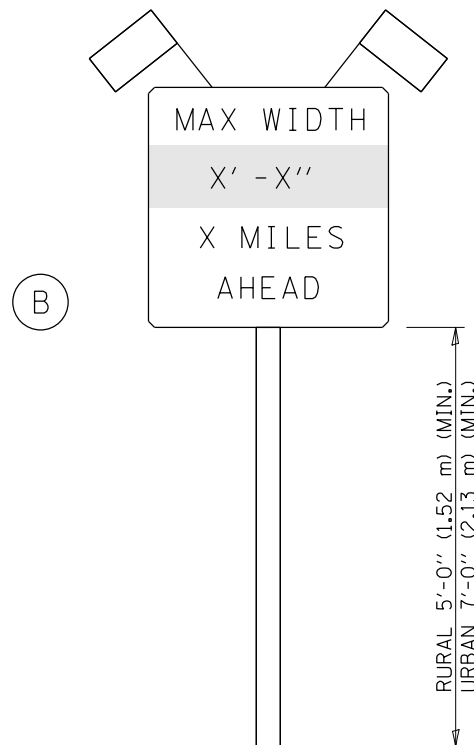
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ILLINOIS FED. AID PROJECT			CONTRACT NO. 70D10	



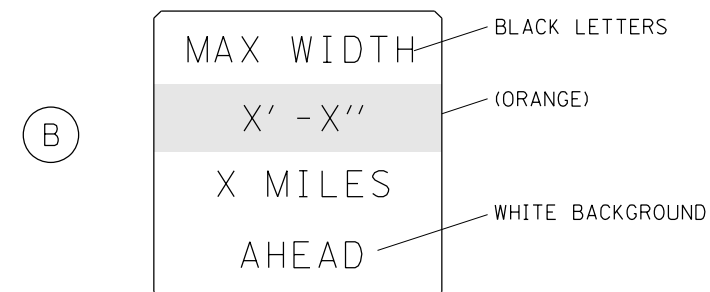
W12-2(0) - 48"x48" (1200x1200)

SIGN (A) 2 SIGNS - W12-2(0) - 48"x48" (1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.



SIGN PANEL, TYPE II



W12-I103(0) - 48"x48" (1200x1200)
"D" LETTERS/NUMBERS

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.
7. ALL SIGNS SHOWN SHALL CONSIST OF THE CURRENT RETROREFLECTIVE SHEETING REQUIREMENTS AS OUTLINED IN SECTION 1106.01 OF THE STANDARD SPECIFICATIONS BOOK.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION DETAIL

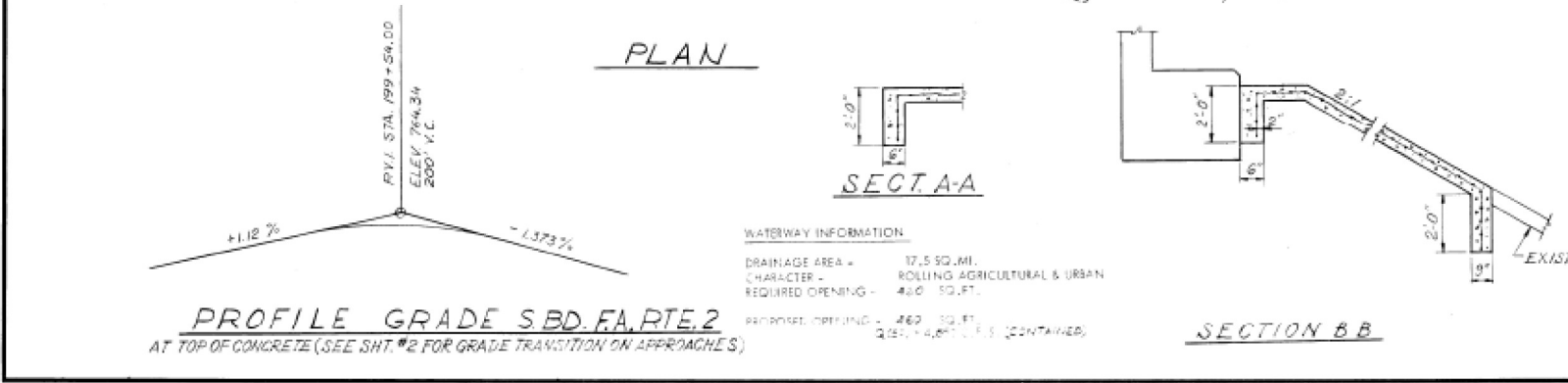
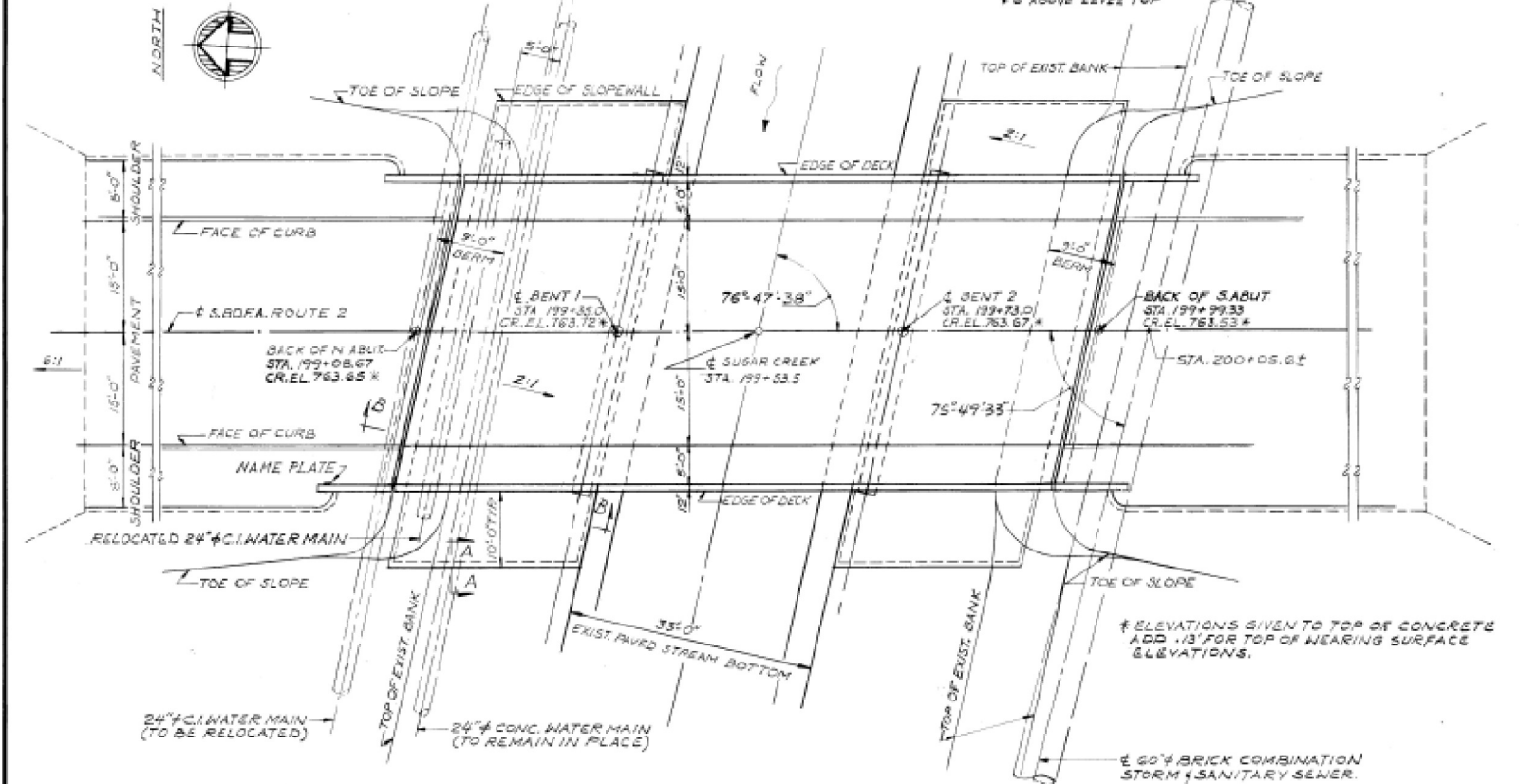
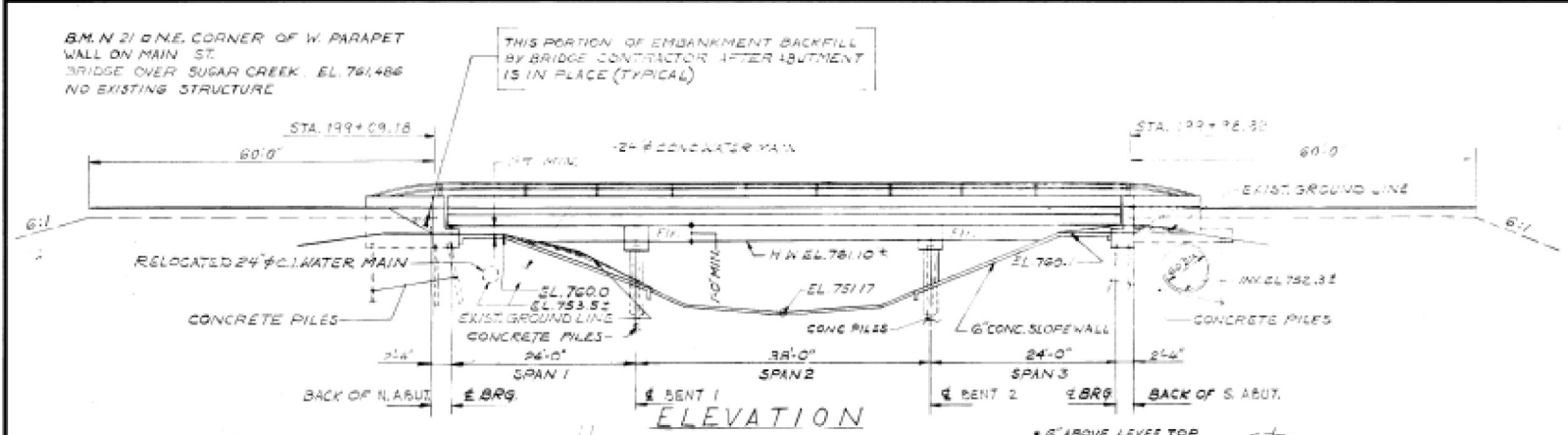
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. X7200201

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
730	(62Z-3B)BRR	MCLEAN	22	17
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 70B77	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 2	62Z-38	MCLEAN	109	67
STA.	TO STA.			
F.H.R. A REG. NO. 4	ILLINOIS	PROJECT		

SHEET 1 OF 9



BILL OF MATERIAL					
TOTAL	SUPER	SUB	UNIT	ITEM	
116	-	116	CU. YD.	STRUCTURE EXCAVATION	
249.0	205.6	93.9	CU. YD.	CLASS X CONCRETE	
11.2	-	11.2	CU. YD.	CLASS X CONCRETE ENCASUREMENT	
6,330	6,330	-	LBS.	FURNISHING AND ERECTING STRUCTURAL STEEL	
214	214	-	LIN. FT.	ALUMINUM RAILING Type 2	
63,830	55,620	8,230	LB.	REINFORCEMENT BARS	
1,024	-	1,024	LIN. FT.	FURNISHING CONCRETE PILES	
1,024	-	1,024	LIN. FT.	DRIVING CONCRETE PILES	
2	-	2	EACH	TEST PILES, CONCRETE	
440	-	440	SQ. YD.	SLOPE WALL - 6 INCH	
1	-	1	EACH	NAME PLATE	
155	155	-	SQ. YD.	PROTECTIVE COAT *	
85	85	-	LIN. FT.	PREFORMED JOINT SEALER (2")	
294	294	-	SQ. YD.	WATERPROOFING MEMBRANE SYSTEM *	
25	25	-	TONS	BIT, CONC., SURFACE COURSE, MIX "D", CL. I. *	

GENERAL NOTES

ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN.

THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC AT 4" X 4" MESH, WRIGHING 50# PER 100 SQ. FT.

LAYOUT OF SLOPE WALLS MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE IN A PERMANENT LOCATION AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.

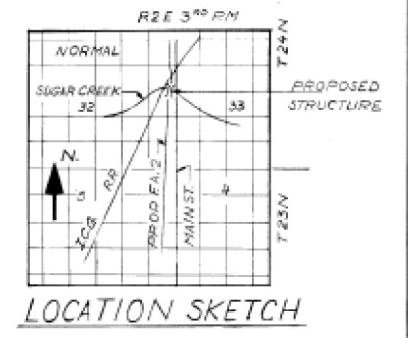
PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS APPLIED.

THE CONTRACTOR SHALL MAKE ALLOWANCE FOR THE DEFLECTION OF FORMS, SHRINKAGE AND SETTLEMENT OF FALSEWORK. IN ADDITION TO ALLOWANCE FOR DEAD LOAD DEFLECTION.

THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.

THE CONCRETE RAIL SECTION ABOVE THE MANDATORY CONSTRUCTION JOINT AT THE TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF HANDRAIL CONCRETE.

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	GENERAL PLAN AND ELEVATION
2	BORINGS
3	DECK REINFORCEMENT PLAN
4	ALUMINUM RAILING DETAILS
5	STEEL RAILING DETAILS
6	NORTH ABUTMENT
7	SOUTH ABUTMENT
8	BENTS 1 AND 2
9	CONCRETE PILE DETAILS



DESIGN LOAD
L.L. = HS20-44

DESIGN STRESSES
CONCRETE (CAST-IN-PLACE)
f_c = 3,500 P.S.I.
f_c = 1,400 P.S.I. (DECK SLAB)
f_c = 1,400 P.S.I. (SUBSTRUCTURE, CURB & PARAPET)
f_c = 1,000 P.S.I. (WITH EARTH PRESSURE)
v = 75 P.S.I. (FOOTINGS)
n = 10

REINFORCING STEEL
f_s = 20,000 P.S.I.
STRUCTURAL STEEL
f_s = 20,000 P.S.I. (AASHTO)
DESIGN SPECIFICATIONS - 1999 AASHTO AS APPLICABLE

GENERAL PLAN AND ELEVATION

S. BOUND F.A. ROUTE 2

OVER SUGAR CREEK

PROJECT

SECTION 62Z-38

MCLEAN COUNTY

STATION 199+53.50

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
108 WABASH AVE. CHICAGO, ILLINOIS

MODEL: MOD01.MAK; FILE: NAME: P:\ILLINOIS\BENTON\TECH\lib\proj\p\100\DOT\Documents\100DOT\Office\District 5\Projects\62Z-38\62Z-38\Structure\70D10\04-File\BentPlan.dwg

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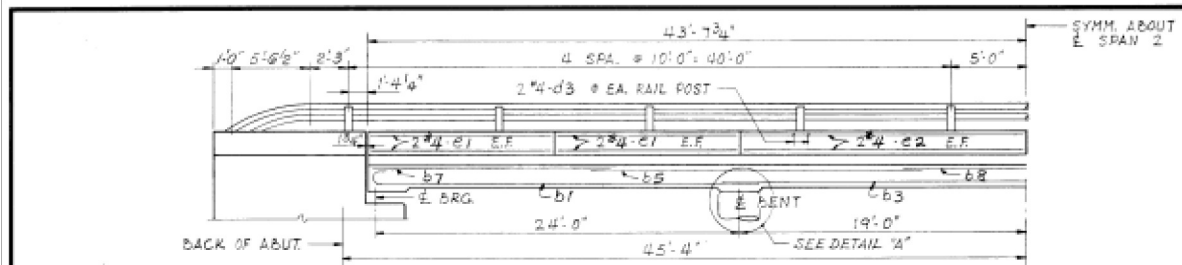
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS (INFORMATION ONLY)

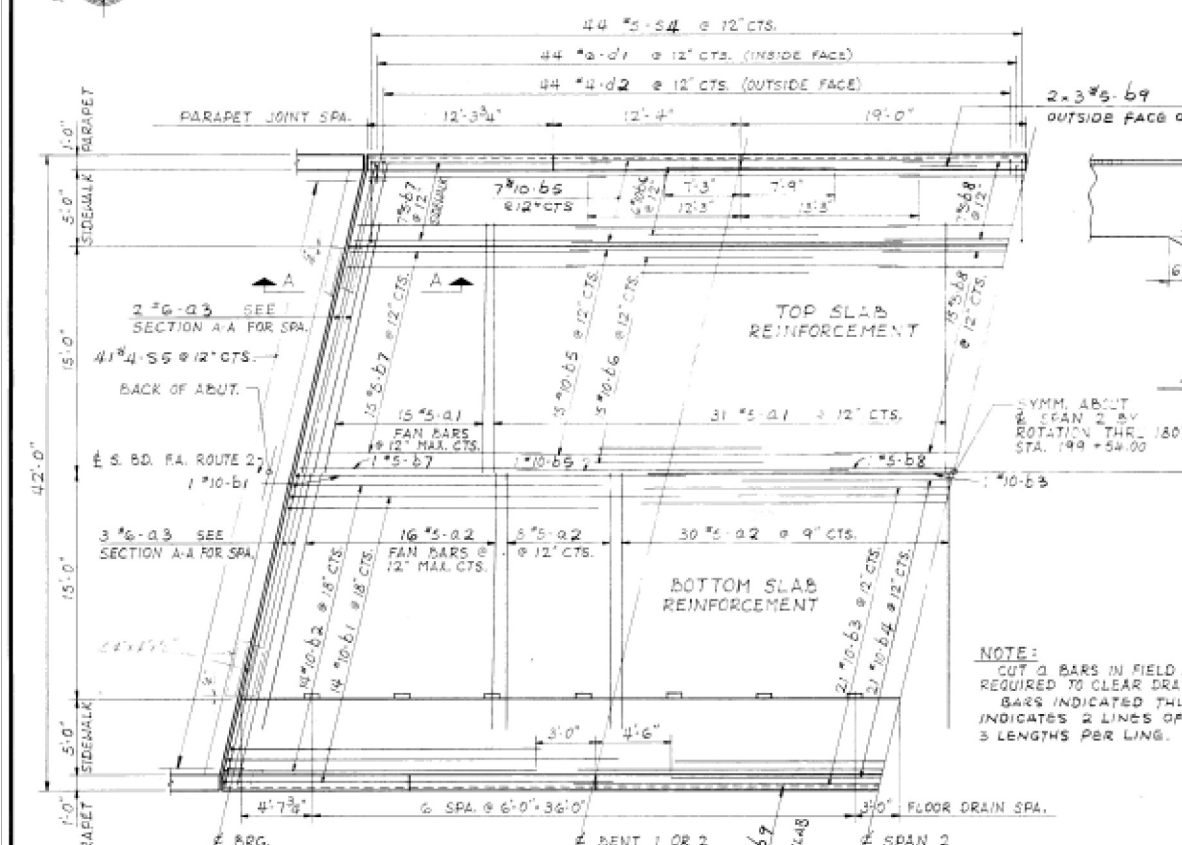
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS			FED. AID PROJECT	

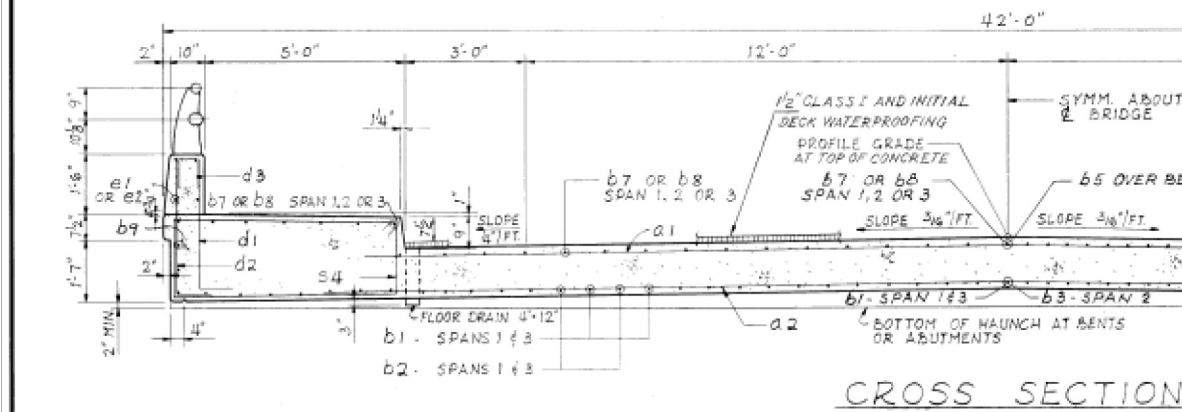
CONTRACT NO. 70D10



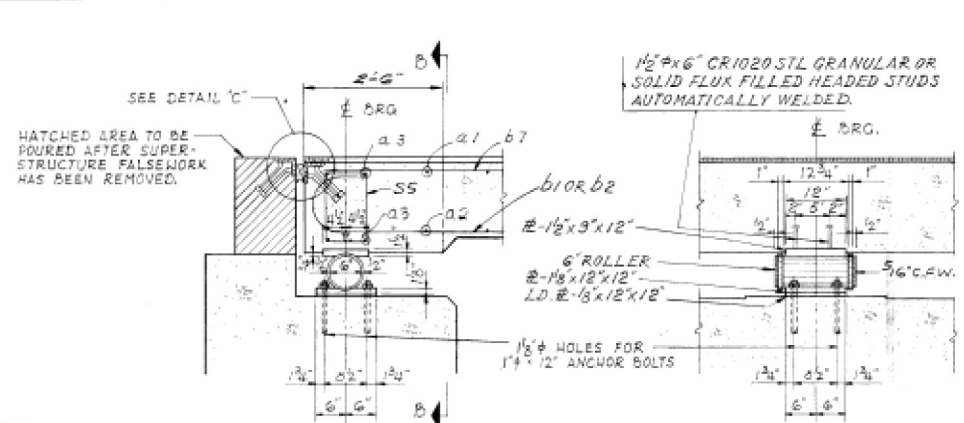
HALF ELEVATION



HALF PLAN

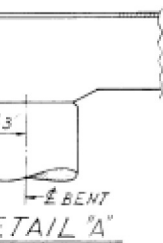


CROSS SECTION

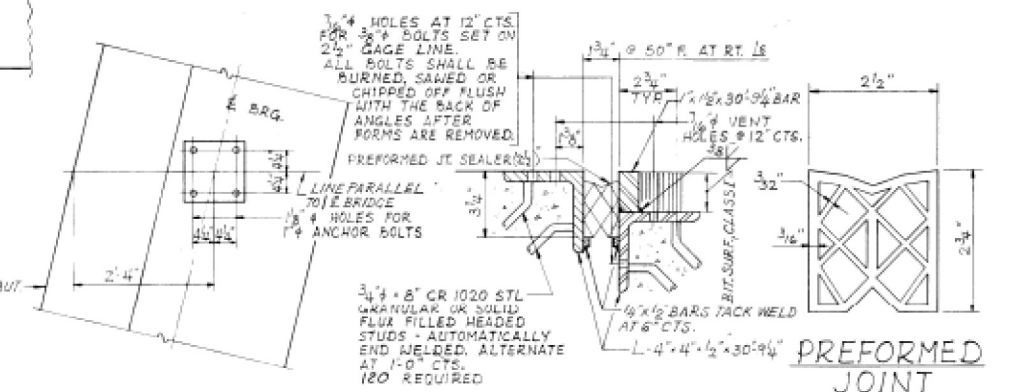


SECTION A-A

ELEVATION B-B

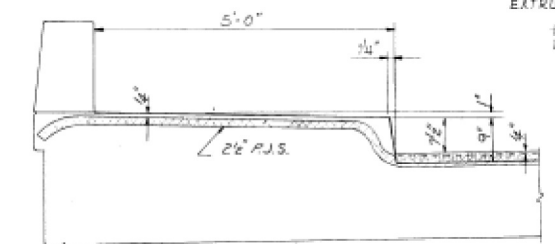


DETAIL A

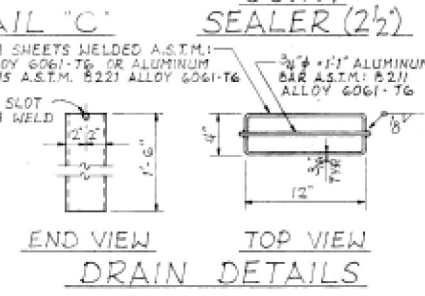


PLAN AT BOT. BRG. #

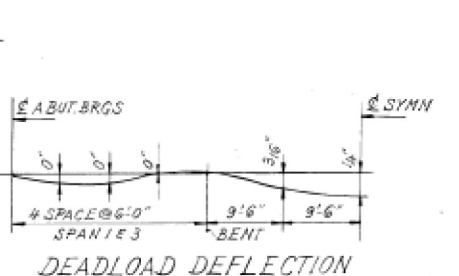
DETAIL C



JOINT SEALER AT CURB & SIDEWALK



END VIEW TOP VIEW DRAIN DETAILS



DEADLOAD DEFLECTION

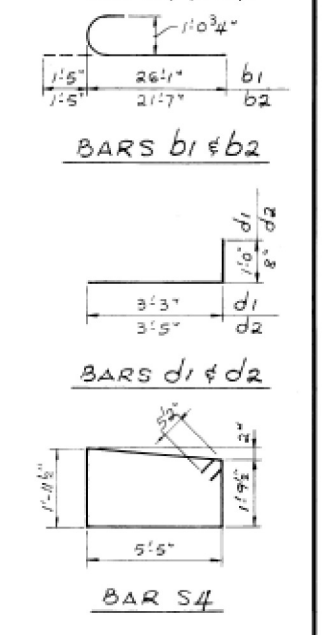
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 2	62Z-3B	MCLEAN	109	69
STA.		TO STA.		
P.W.R. & RES. NO. 4		ILLINOIS PROJECT		

SHEET 3 OF 9

BILL OF MATERIAL

BAR	N ^o	SIZE	LENGTH	SHAPE
d1	92	#5	33-0	—
d2	108	#5	35-0	—
d3	10	#6	42-6	—
b1	58	#10	27-6	C
b2	56	#10	23-0	C
b3	43	#10	40-0	—
b4	42	#10	29-0	—
b5	90	#10	25-6	—
b6	84	#10	15-0	—
b7	70	#5	13-9	—
b8	45	#5	14-0	—
b9	12	#5	30-0	—
d1	176	#6	4-3	—
d2	176	#4	4-1	—
d3	40	#4	2-1	—
e1	32	#4	12-0	—
e2	16	#4	18-9	—
s4	176	#5	15-6	—
s5	82	#4	4-7	—
ITEM		UNIT	TOTAL	
CLASS X CONCRETE		CU YDS.	205.6	
REINFORCEMENT BAR		LBS.	55,620	

NOTE: ALL BAR DIMENSIONS ARE OUT TO OUT.



DECK REINFORCEMENT PLAN

**S. BOUND F.A. ROUTE 2
OVER SUGAR CREEK
PROJECT**

**SECTION 62Z-3B
MCLEAN COUNTY
STATION 199+53.50**

ALFRED BENESCH & COMPANY
CONSULTING ENGINEERS
10 S WABASH AVE. CHICAGO, ILLINOIS

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PLOT SCALE = 40.0000 1/ in.	CHECKED -	REVISED -
PLOT DATE = 1/18/2018	DATE - 011018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS (INFORMATION ONLY)

SCALE: NONE SHEET 2 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
730	(62Z-3B)BR	MCLEAN	22	19
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70D10	

