FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

ST CLAIR 12 1 BLINOIS CONTRACT NO 76N21

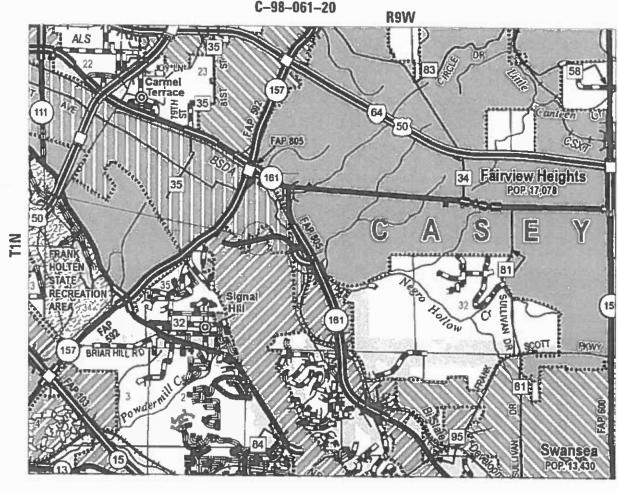
D-98-047-20



LOCATION OF SECTION INDICATED THUS: - -

PROPOSED HIGHWAY PLANS

FAU ROUTE 9162 (LEBONON RD) SECTION 147-BR-3 PROJECT STP-CVIV(515) **BRIDGE REPAIR, JOINT REPAIR & DECK OVERLAY** ST CLAIR COUNTY

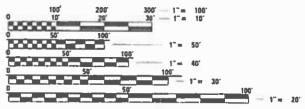


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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

PROJECT_LOCATION:

LEBANON RD OVER SCHOENBERGER CREEK 0.1 MILE WEST OF IL 161 SN-082-0258



ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS 1-800-892-0123

PROJECT ENGINEER: HERVE GELIN 618-346-3179 PROJECT MANAGER: ALONZO WASHINGTON 618-346-3445

CONTRACT NO. 76N21

C-98-061-20

GROSS LENGTH = 140 FT. = 0.02 MILE NET LENGTH = 140 FT. = 0.02 MILE

INDEX OF SHEETS

- 1. COVER SHEET
- 2. INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS
- 3-4. SUMMARY OF QUANTITIES
- 5-10. BRIDGE PLANS
- 11. REMOVAL & REPLACEMENT DETAILS
- 12. TRAFFIC CONTROL PLAN

HIGHWAY STANDARDS

000001-07

001006

701321-18 701501-06

701901-08

704001-08

780001-05 781001-04

GENERAL NOTES

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

* AMEREN ILLINOIS - GAS & ELECTRIC

(AFRIAL & BURIED)

* AT&T ILLINOIS - COMMUNICATIONS

(AERIAL & BURIED)

* CHARTER COMMUNICATIONS - CABLE TV

(AERIAL & BURIED)

* CITY OF FAIRVIEW HEIGHTS - SANITARY SEWER

(BURIED)

* ILLINOIS AMERICAN WATER COMPANY -

(BURTED)

SANITARY SEWER

MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY *. NON- J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

- 2. THE CONTRACTOR AND THE ENGINEER SHALL BE AWARE THAT NO SURVEY WAS PERFORMED FOR THIS PROJECT. THE STATIONING SHOWN IN THE PLAN SHEETS WAS CREATED USING MICROFILM. IT SHALL BE ASSUMED TO BE APPROXIMATE. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 3. THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING. AS DIRECTED BY THE ENGINEER.
- 4. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
- 5. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

MIXTURE USE	POLY SURFACE
AC/PG	SBS PG 76-22
RAP % (MAX)	SEE SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=70
MIX COMPOSITION	IL 9.5
(Gradation)	IL 9.5
FRICTION AGG	MIXTURE "D"
QUALITY MGMT PROGRAM	QC/QA

PLAN QUANTITIES FOR HOT-MIX ASPHALT ITEMS ARE CALCULATED USING A UNIT WEIGHT OF

- 6. WHERE PERMANENT RRPM ARE PRESENT AND CONFLICT WITH THE REVISED TRAFFIC PATTERNS ONLY THE REFLECTORS SHALL BE REMOVED AND PAID FOR AS RAISED REFLECTIVE PAVEMENT MARKER REMOVAL (7 TOTAL).
- 7. THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER SHALL BE PAINTED WITH TEMPORARY PAVEMENT MARKING CONSISTENT WITH TRAFFIC CONTROL. THIS WILL BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF TEMPORARY CONCRETE BARRIER AND NO OTHER COMPENSATION SHALL BE ALLOWED.

SCALE:

DESIGNED REVISED USER NAME = washingtonaq DRAWN REVISED CHECKED REVISED PLOT DATE = 1/27/2020 REVISED DATE

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** INDEX OF SHEETS, HIGHWAY STANDARDS, **GENERAL NOTES & COMMITMENTS** OF SHEETS STA. TO STA.

SECTION COUNTY ST. CLAIR 12 2 9162 147-BR-3 CONTRACT NO. 76N21

URBAN
CONSTR. CODE
80% FED
20% STATE

1	i e		BRIDGE		
ITEM	UNIT	TOTAL	0059		
I I CIVI		QUANTITY	S.N.		
CHANNEL EXCAVATION	CU YD	185	185		
STONE RIPRAP, CLASS A4	SQ YD	80	80		
HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	375	375		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	42	42		
BITUMINOUS MATERIALS (TACK COAT)	POUND	126	126		
PROTECTIVE COAT	SQ YD	634	634		
HMA SURFACE REMOVAL 1 1/2"	SQ YD	587	587		
CONCRETE REMOVAL	CU YD	13.2	13.2		
FLOOR DRAINS	EACH	10	10		
CONCRETE SUPERSTRUCTURE	CU YD	22.1	22.1		
BRIDGE DECK GROOVING	SQ YD	561	561		
REINFORCEMENT BARS, EPOXY COATED	POUND	15420	15420		
BAR SPLICERS	EACH	163	163		
PREFORMED JOINT STRIP SEAL	FOOT	92	92		
REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE1	EACH	2	2		
MOBILIZATION	L SUM	1	1		
	STONE RIPRAP, CLASS A4 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50 BITUMINOUS MATERIALS (TACK COAT) PROTECTIVE COAT HMA SURFACE REMOVAL 1 1/2" CONCRETE REMOVAL FLOOR DRAINS CONCRETE SUPERSTRUCTURE BRIDGE DECK GROOVING REINFORCEMENT BARS, EPOXY COATED BAR SPLICERS PREFORMED JOINT STRIP SEAL REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE1	STONE RIPRAP, CLASS A4 SQ YD HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT SQ YD POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50 BITUMINOUS MATERIALS (TACK COAT) PROTECTIVE COAT HMA SURFACE REMOVAL 1 1/2" CONCRETE REMOVAL CU YD FLOOR DRAINS EACH CONCRETE SUPERSTRUCTURE CU YD BRIDGE DECK GROOVING SQ YD REINFORCEMENT BARS, EPOXY COATED POUND BAR SPLICERS EACH PREFORMED JOINT STRIP SEAL FOOT REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE1 EACH	STONE RIPRAP, CLASS A4 SQ YD 80 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT SQ YD 375 POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", TON 42 BITUMINOUS MATERIALS (TACK COAT) PROTECTIVE COAT HMA SURFACE REMOVAL 1 1/2" SQ YD 587 CONCRETE REMOVAL CU YD 13.2 FLOOR DRAINS CONCRETE SUPERSTRUCTURE CU YD 22.1 BRIDGE DECK GROOVING SQ YD 561 REINFORCEMENT BARS, EPOXY COATED PREFORMED JOINT STRIP SEAL FOOT 92 REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE1 EACH 2		

URBAN
CONSTR. CODE
80% FED
20% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 S.N.
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	4	4
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	480	480
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	60	60
70300100	0100 SHORT TERM PAVEMENT MARKING		220	220
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	73	73
70400100	TEMPORARY CONCRETE BARRIER	FOOT	100	100
70400200	0 RELOCATE TEMPORARY CONCRETE BARRIER		100	100
70600250	10250 IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3		2	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
78000200	000200 THERMOPLASTIC PAVEMENT MARKING - LINE4"		810	810
78100100	100100 RAISED REFLECTIVE PAVEMENT MARKER		10	10
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10

* SPECIALTY ITEM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

URBAN CONSTR. CODE

80% FED 20% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE 0059 S.N.
X5030304	CONCRETE WEARING SURFACE,4"	SQ YD	587	587
X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1
Z0012132	BRIDGE DECK SCARIFICATION1"	SQ YD	587	587
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	2	2

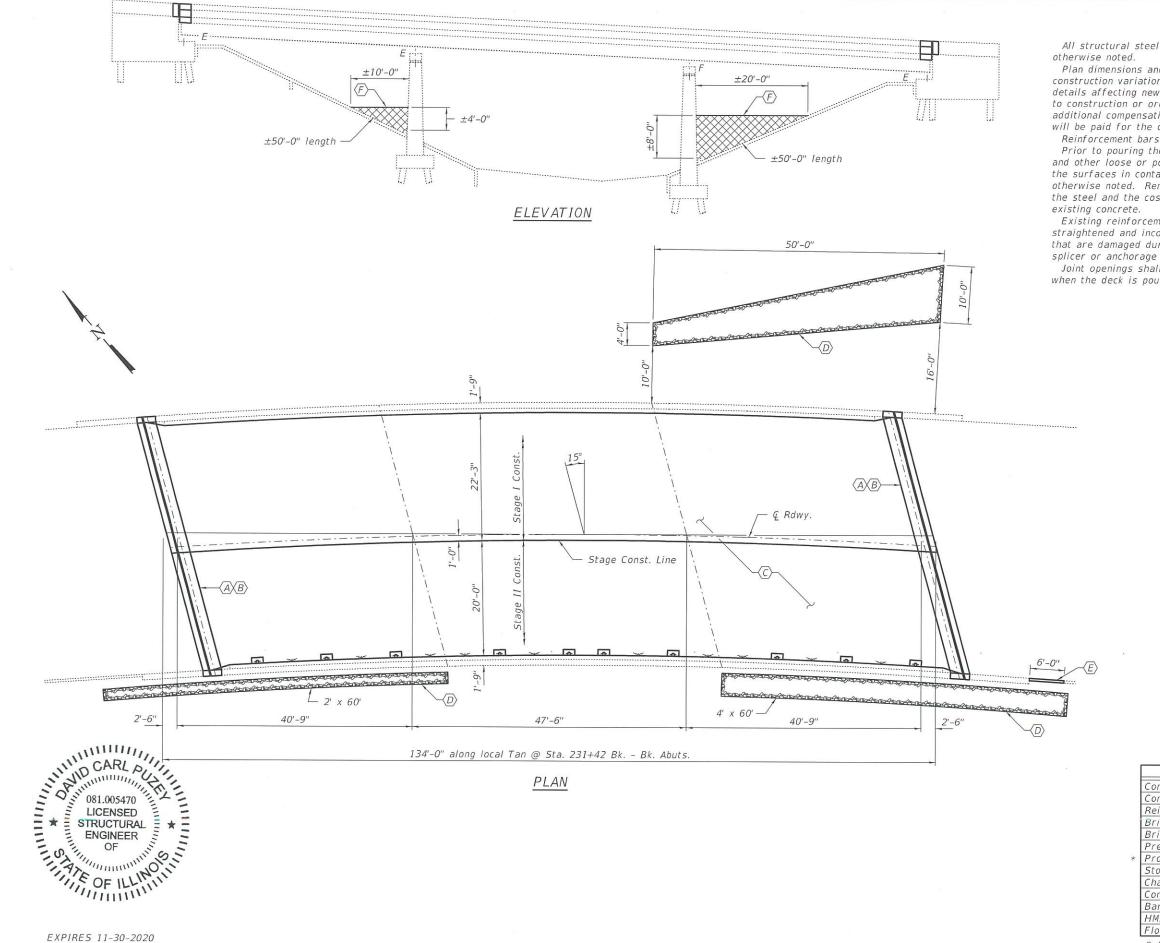
REV-SEP

USER NAME = washingtonaq	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/27/2020	DATE -	REVISED -

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

SCALE:

OURSEARDY OF OURSETTIFO					F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SUMMARY OF QUANTITIES		9162	147-BR-3	ST CLAIR	12	4			
							CONTRACT	Γ NO. 76	5N21
SHEET 2	OF 2	SHEETS	STA	TO STA		ILLINOIS FED. 4	ID DROIECT		



GENERAL NOTES

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

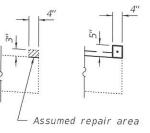
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall 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.

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

Existing reinforcement 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.

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.



SECTION THRU CURB

SCOPE OF WORK

- (A) Remove & Replace existing Expansion Joint
- (B) Encase Beam Ends with Concrete
- C Remove Exist. HMA (1½"), Scarify Bridge Deck 1" and install 4½" Reinforced Concrete Overlay.
- (D) New Stone Riprap
- (E) Approach Curb Repair
- $\langle F \rangle$ Remove unbalanced fill behind piers.
- Eliminate Drains
- :0: Replace Drains

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	13.2
Concrete Superstructure	Cu. Yd.	22.1
Reinforcement Bars, Epoxy Coated	Pound	15420
Bridge Deck Scarification, 1"	Sq. Yd.	587
Bridge Deck Grooving	Sq. Yd.	561
Preformed Joint Strip Seal	Foot	92
Protective Coat	Sq. Yd.	634
Stone Riprap, Class A4	Sq. Yd.	80
Channel Excavation	Cu. Yd.	185
Concrete Wearing Surface, 4½"	Sq. Yd.	587
Bar Splicers	Each	163
HMA Surface Removal, 11/2"	Sq. Yd.	587
Floor Drains	Each	10

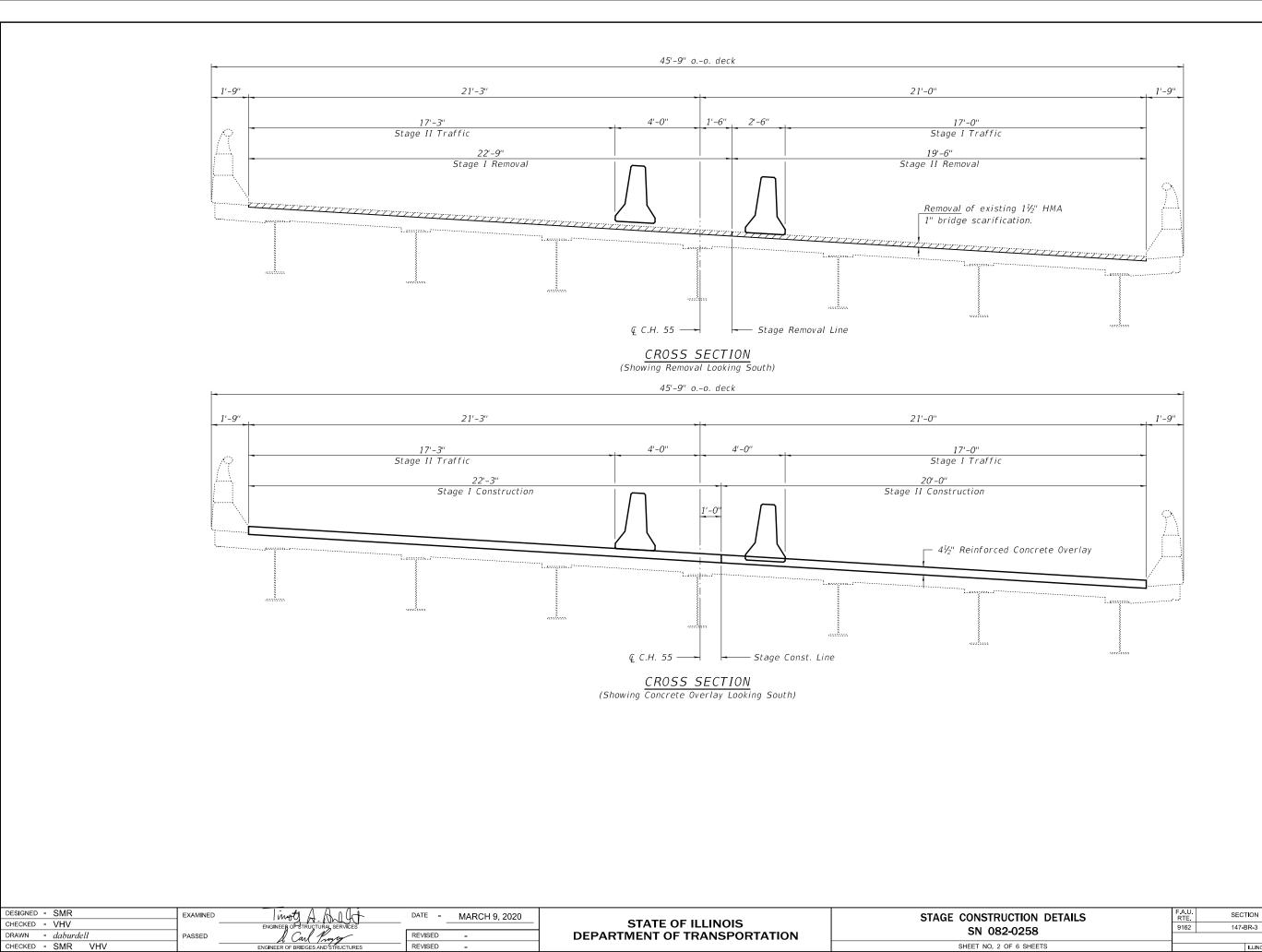
* Apply to new concrete and concrete overlay surfaces only.

DESIGNED - STANDARD EXAMINED DATE - MARCH 9, 2020

CHECKED - 1. CO # VE(; 2 DRAWN - daburdell PASSED PASSED PASSED REVISED - REVISED - REVISED -

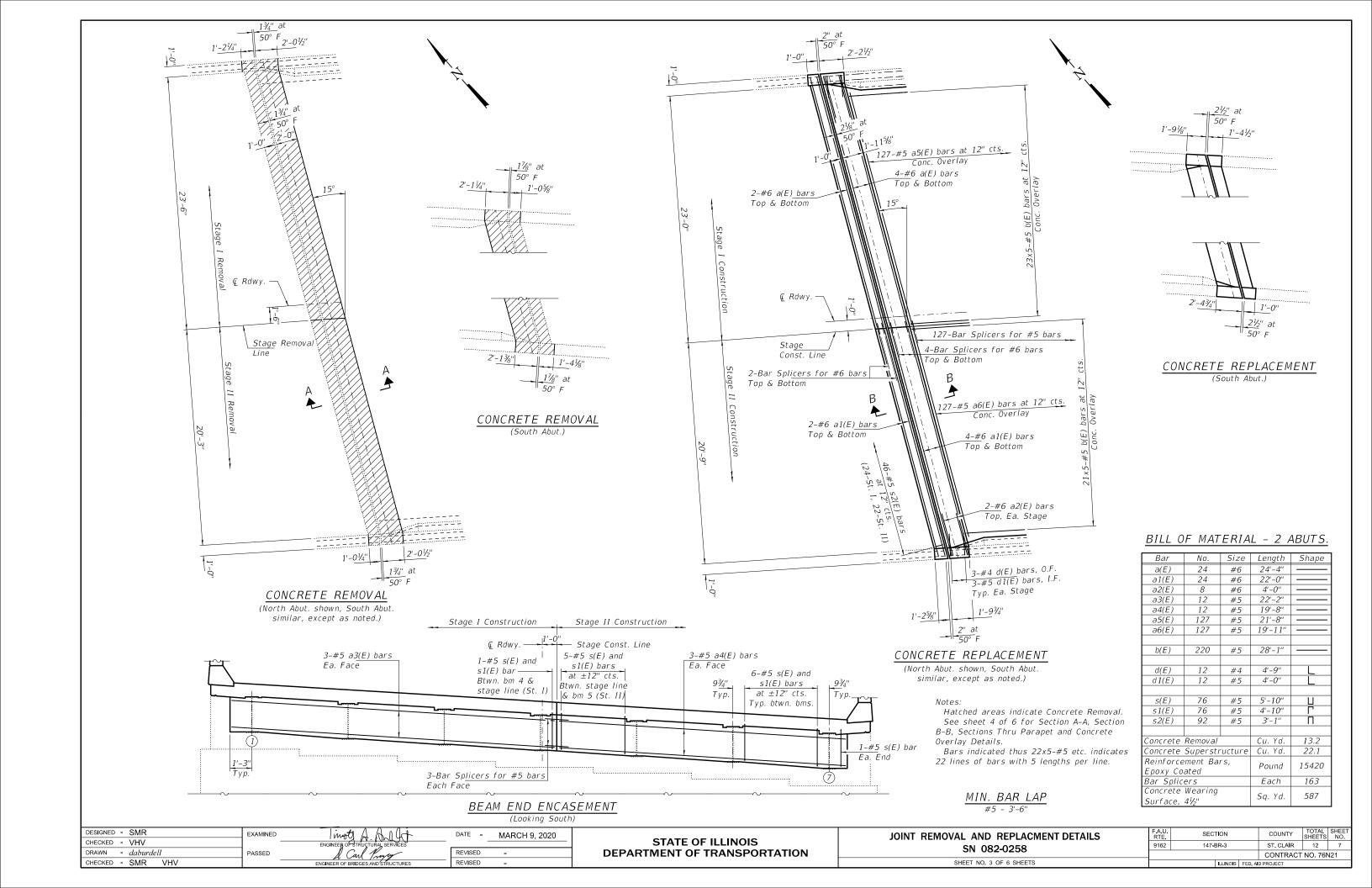
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

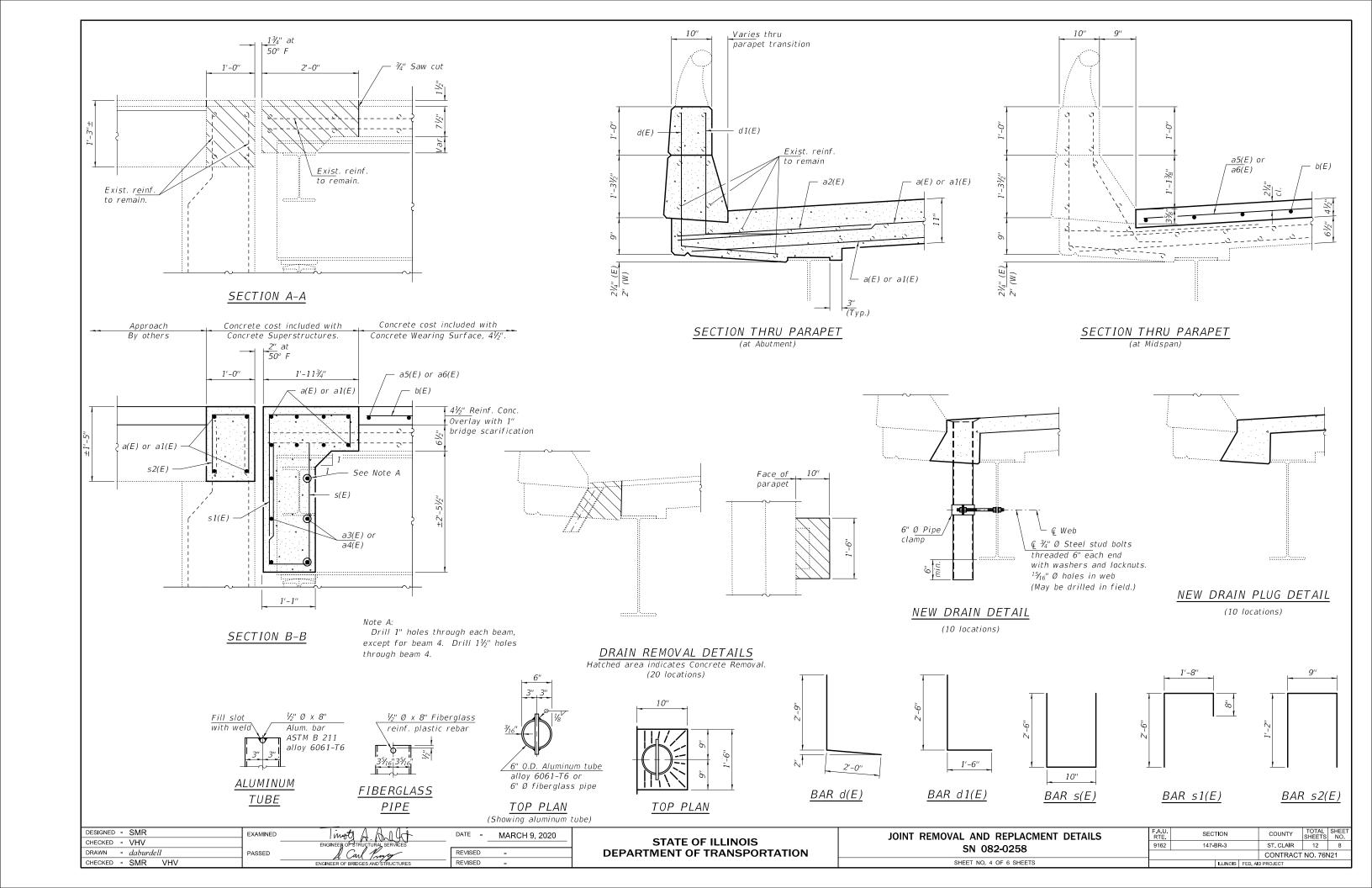
GENERAL PLAN AND ELEVATION
FAU 9162 (LEBANON RD) OVER SCHOENBERGER CREEK
SN 082-0258
SHEET NO 1 06 6 SHEETS

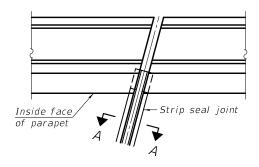


COUNTY TOTAL SHEETS NO.
ST. CLAIR 12 6

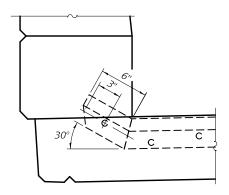
CONTRACT NO. 76N21





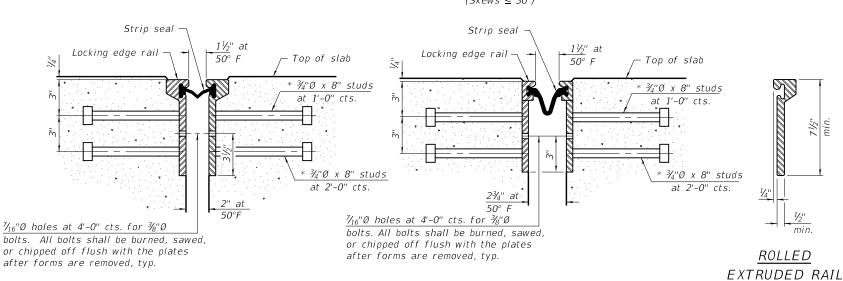


FOR SKEWS ≤ 30° PLAN AT PARAPET



ELEVATION AT PARAPET

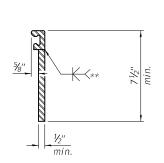
 $(Skews \leq 30^{\circ})$

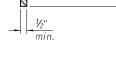


SECTION THRU ROLLED RAIL JOINT

SECTION THRU WELDED RAIL JOINT

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







Grind flush Omit seal

** 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.

LOCKING EDGE RAILS

BILL OF MATERIAL

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

The Locking Edge Rails depicted are conceptual only,

configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be

The manufacturer's recommended installation methods

The joint opening and deck dimensions detailed on the

superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments at stage lines

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

shall be $\frac{3}{16}$ ", sealed with a suitable sealant.

except for the minimum dimensions shown. The actual

rated movement of 4 inches.

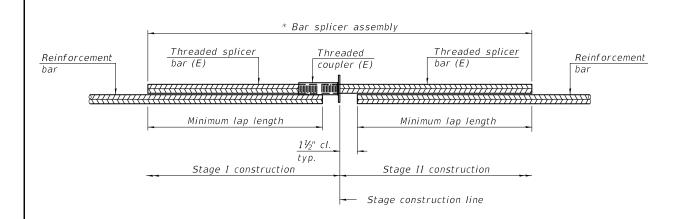
spliced at slope discontinuities.

shall be followed.

to the State.

Item	Unit	Total
Preformed Joint Strip Seal	Foot	92

DESIGNED - SMR	EXAMINED	mot A Mill	DATE - MARCH 9, 2020		PREFORMED JOINT STRIP SEAL	RTE	SECTION	COUNTY	SHEETS	NO.
CHECKED - VHV		ENGINEER OF STRUCTURAL SERVICES		STATE OF ILLINOIS	SN 082-0258	9162	147-BR-3	ST, CLAIR	12	9
DRAWN - daburdell	PASSED	S. Carl Prover	REVISED -	DEPARTMENT OF TRANSPORTATION	3N V62-0236			CONTRAC	T NO. 76N	21
CHECKED - SMR VHV		ENGINEER OF BRIDGES AND STRUCTURES	REVISED -		SHEET NO. 5 OF 6 SHEETS		ILLINOIS FED. A	AID PROJECT		



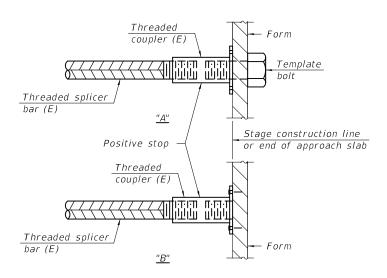
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

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

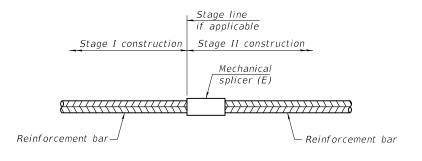
Location	Bar	No. assemblies	Minimum
Location	size	required	lap length
N. Abut. (Backwall)	#6	4	4'-0''
S. Abut. (Backwall)	#6	4	4'-0''
Deck	#5	127	3'-6"
N. Abut. (Bm Enc.)	#5	6	3'-6"
S. Abut. (Bm Enc.)	#5	6	3'-6"
N. Abut. (Deck)	#6	8	4'-10''
S. Abut. (Deck)	#6	8	4'-10''



INSTALLATION AND SETTING METHODS

"A": Set bar splicer assembly by means of a template bolt "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E): Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

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.

SECTION

147-BR-3

COUNTY

ST, CLAIR

CONTRACT NO. 76N21

12 10

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

1-1-2020

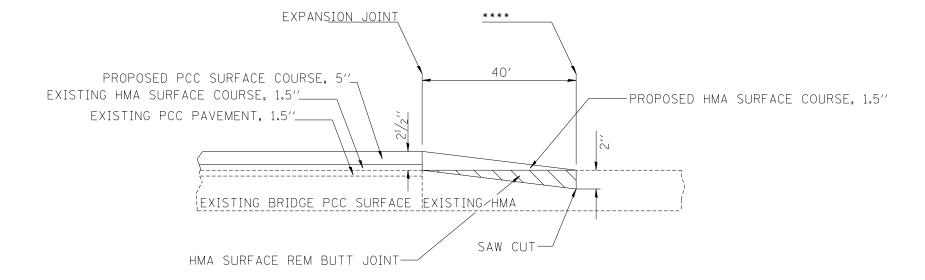
DESIGNED - SMR	EXAMINED	I mot A Mal at	DATE -	MARCH 9, 2020
CHECKED - VHV		ENGINEER OF STRUCTURAL SERVICES		
DRAWN - daburdell	PASSED	A. Carl Prayey	REVISED	-
CHECKED - SMR VHV		ENGINEER OF BRIDGES AND STRUCTURES	REVISED	_

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 082-0258

SHEET NO. 6 OF 6 SHEETS

PROPOSED HMA BUTT JOINT



TO BE PLACED AT EAST AND WEST ENDS OF STRUCTURE

NOT TO SCALE

USER NAME = washingtonaq	DESIGNED -	REVISED -		
	DRAWN -	REVISED -		
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -		
PLOT DATE = 1/27/2020	DATE -	REVISED -		

STATE OF	ILLINOIS
DEPARTMENT OF	TRANSPORTATION

SURFACE TRANSITION DETAIL				F.A.U. RTE. SECTION		COUNTY	TOTAL SHEETS	SHEET NO.		
				9162	147-BR-3	ST CLAIR	12	11		
				CONTRACT NO. 76N21				5N21		
	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT			

