03-08-2019 LETTING ITEM 090

FOR INDEX OF SHEETS, SEE SHEET NO. 2 FOR STATE STANDARDS, SEE SHEET NO. 2

0

0

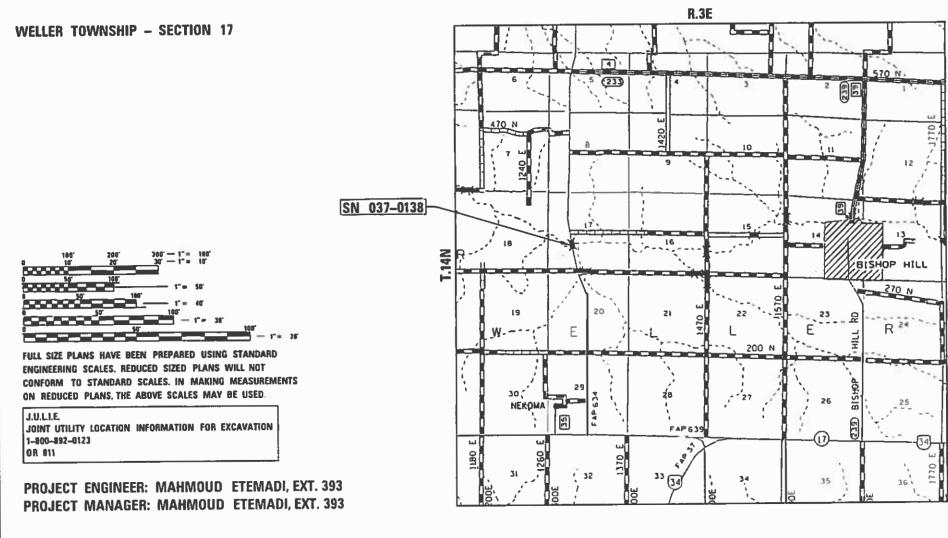
ar

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED **HIGHWAY PLANS**

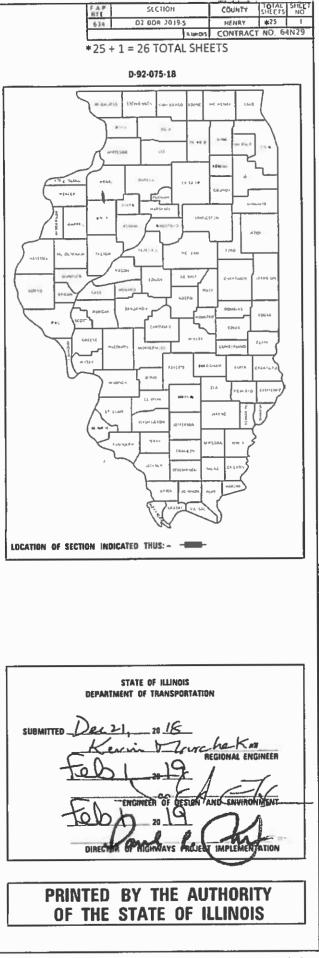
FAP ROUTE 634 (IL 82) SECTION D2 BDR 2019-5 PROJECT **EXPANSION JOINT REPLACEMENT, CONCRETE OVERLAY, REPAIR & PT. BEAM ENDS HENRY COUNTY**

C-92-006-19



0

0



REV. 2/4/19

INDEX OF SHEETS

- 1 Cover Sheet
- 2 Index of Sheets
- 2 District and State Standards
- 3 General Notes
- 4-5 Summary of Quantities
- 6 Typical Sections
- 7 Schedule of Quantities
- 8 Detour Sheet
- 9-17A Structure Plans Bridges (SN 037-0138)
- 18-21 Work Zone Sign Details 34.1
- 22 Traffic Control for Road Closure (DS 40.1)
- 23 25 Typical Pavement Markings (DS 41.1)

STATE STANDARDS

- 000001 07 Standard Symbols, Abbreviations, and Patterns
- 001001 02 Areas of Reinforcement Bars
- 001006 Decimal of an Inch and of a Foot
- 701006 05 Off Road Operations, 2L, 2W, 15' to 24" From Pavement Edge
- 701011 04 Off-Road Moving Operations, 2L, 2W, Day Only
- 701201 05 Lane Closure, 2L, 2W, Day Only, for Speeds > 45MPH
- 701301 04 Lane Closure, 2L, 2W, Short Time Operations
- 701306 04 Lane Closure, 2L, 2W, Slow Moving Operations Day Only, for Speeds \geq 45 MPH
- 701311 03 Lane Closure 2L, 2w Moving Operations Day Only
- 701901 08 Traffic Control Devices
- 720011 01 Metal Posts for Signs, Markers and Delineators
- 728001 01 Telescoping Steel Sign Support
- 729001 01 Applications for Types A and B Metal Posts (For Signs & Markers)
- 780001 05 Typical Pavement Markings
- 701001 02 OFF-ROAD OPERATIONS , 2L , 2W , MORE THAN 15 'AWAY

USER NAME = cushmanbw	DESIGNED -	REVISED -				INDEX	OF SHEE	& 2T		F.A.P.	SECTION	COUNTY	TOTAL SHEET
	DRAWN - JDH	REVISED -	STATE OF ILLINOIS				STAND			634	D2 BDR 2019-3	HENRY	25 2
PLOT SCALE = 6000.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		-	SIAIE	STANDA	4003		ļ,		CONTRACT	NO. 64N29
PLOT DATE = Dec-21-2018 11:13:10 AM	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT	

REV. - MS

REV. 2/4/19

GENERAL NOTES

The final top 4 inches of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils. The cost of this work shall be included in the unit prices bid and no additional compensation will be allowed.

All "Aggregate Subgrade Improvement" (Section 303), shall be completed in accordance with Articles 311.04, 311.05, 311.05(a), 311.06 and 311.07. All aggregate subgrade thicknesses equal to or less than 12 inches shall be constructed of aggregate of CA02 gradation. All aggregate subgrade thicknesses greater than 12 inches shall be constructed of CS02.

This structure will retain the same number 037-0138.

Pavement Marking shall be done according to Standard 780001, except as follows:

- 1. All words, such as ONLY, shall be 8 feet high.
- 2. All non-freeway arrows shall be the large size.
- 3. The distance between yellow no-passing lines shall be 8 inches, not 7 inches, as shown in the detail of Typical Lane and Edge Lines.
- 4. Centerline Skip Dash Pavement Marking on multi-lane divided, multi-lane undivided, and one-way roadway shall be according to District Standard 41.1.

The following Mixture Requirements are applicable for this project:

Location(s):	
Mixture Use(s):	Surface
PG:	PG 64-22
Design Air Voids:	4.0 @N50
Mixture Composition	
(Mixture Gradation):	IL 9.5
Friction Aggregate:	С
Mixture Weight:	112 lbs.
Quality Management Program:	QC/QA
Sublot Size:	N/A
Number of Roller Passes ¹⁾ :	N/A

1) When a number of roller passes is specified, the Contractor may opt to use intelligent compaction in lieu of density testing under the Quality Control for Performance (QCP) program.

L		USER NAME =	DESIGNED - Engineering Systems	REVISED -						
	FILE NAME = 64N29.GN DOCX		DRAWN -	REVISED -	STATE OF ILLINOIS		G	ENER	RAL N	OTES
	FILE NAME - OHN29.GN DOCK	PLOT SCALE =	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		•			0.20
L		PLOT DATE = 12/19/2018 8:18 AM	DATE - 12/3/2018 11:41 AM	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.

ROUTE SECTION COUNTY X/A N/F FAP Roug GALLER 0.02 20R 20195 Herry 2.5 3 TO 51A LUKOS CORRACTION, MALEY CORRACTION, MALEY
л — т. х
л — т. х
л — т. х
л т. т. х

	SUMMARY OF QUANT	ITIES		CONSTRUCTION CODE
CODE				100% STATE BRIDGE 0047
NO .	ITEM	UNIT	TOTAL	RURAL
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	144.4	144.4
40600990	TEMPORARY RAMP	SQ YD	58	58
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	17	17
40800025	BITUMINOUS MATERIALS (PRIME COAT)	POUND	91	91
50300300	PROTECTIVE COAT	SQ YD	775	775
50102400	CONCRETE REMOVAL	CU YD	8.4	8.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	9.3	9.3
50300260	BRIDGE DECK GROOVING	POUND	717	717
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3160	3160
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1220	1220
52000110	PREFORMED JOINT STRIP SEAL	FOOT	69	69
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12	12
52100520	ANCHOR BOLTS, 1"	EACH	24	24

* SPECIALTY ITEM

USER NAME = cushmanbw	DESIGNED -	REVISED -								F.A.P.	SECTION	COUNTY	TOTAL SHEET
	DRAWN - JDH	REVISED -	STATE OF ILLINOIS			UMMAR		ANTITIES		634	D2 BDR 2019-3	HENRY	25 4
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							<u> </u>		CONTRA	ACT NO. 64N29
PLOT DATE = Dec-21-2018 10:57:58 AM	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS F	ED. AID PROJECT	

SUMMARY OF QUANTITIES

CONSTRUCTION CODE

S.N. 037-0138

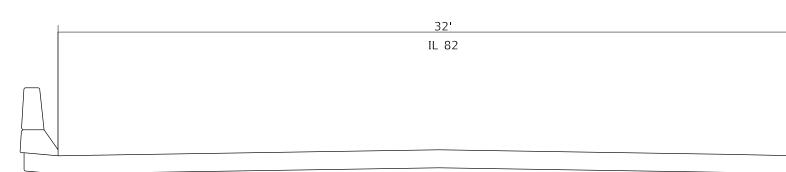
					100% STATE BRIDGE
	CODE			TOTAL	0047
	NO.		UNIT CA MO	TOTAL	RURAL
	67000400	ENGINEER'S FIELD OFFICE, TYPE A		3	3
	67100100	MOBILIZATION	L SUM	1	1
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	24	24
	70300220	TEMPORARY PAVEMENT MARKING LINE, 4"	FOOT	72	72
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1580	1580
	Z0001903	STRUCTURAL STEEL REMOVAL	POUND	2600	2600
*	Z0001905	STRUCTURAL STEEL REPAIR	POUND	4010	4010
	Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	5	5
*	Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	12	12
	Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	6	6
*	Z0006012	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	750	750
	Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1
*	Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	750	750
	X5060601		L SUM	1	1
*	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	12	12
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1

* SPECIALTY ITEM

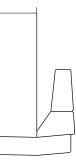
USER NAME = cushmanbw	DESIGNED -	REVISED -			_				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	DRAWN - JDH	REVISED -	STATE OF ILLINOIS				7 of quantities		634	D2 BDR 2019-3	HENRY	25 5
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION								CONTRAC	T NO. 64N29
PLOT DATE = Dec-21-2018 10:58:20 AM	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS FED. A	AID PROJECT	

TYPICALS

SN 037-0138 OVER THE SOUTH BRANCH OF EDWARDS RIVER



USER NAME = cushmanbw	DESIGNED -	REVISED -							F.A.P. RTE	SECTION	COUNTY T	OTAL SHEET HEETS NO.
	DRAWN - JDH	REVISED -	STATE OF ILLINOIS				ING TYPICALS		634	D2 BDR 2019-5	HENRY	25 6
PLOT SCALE = 4.0000 / in	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION								CONTRACT N	√O. 64N29
PLOT DATE = Dec-21-2018 09:18:44 AM	DATE -	REVISED -		SCALE: 1"=40'	SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS FED.	AID PROJECT	

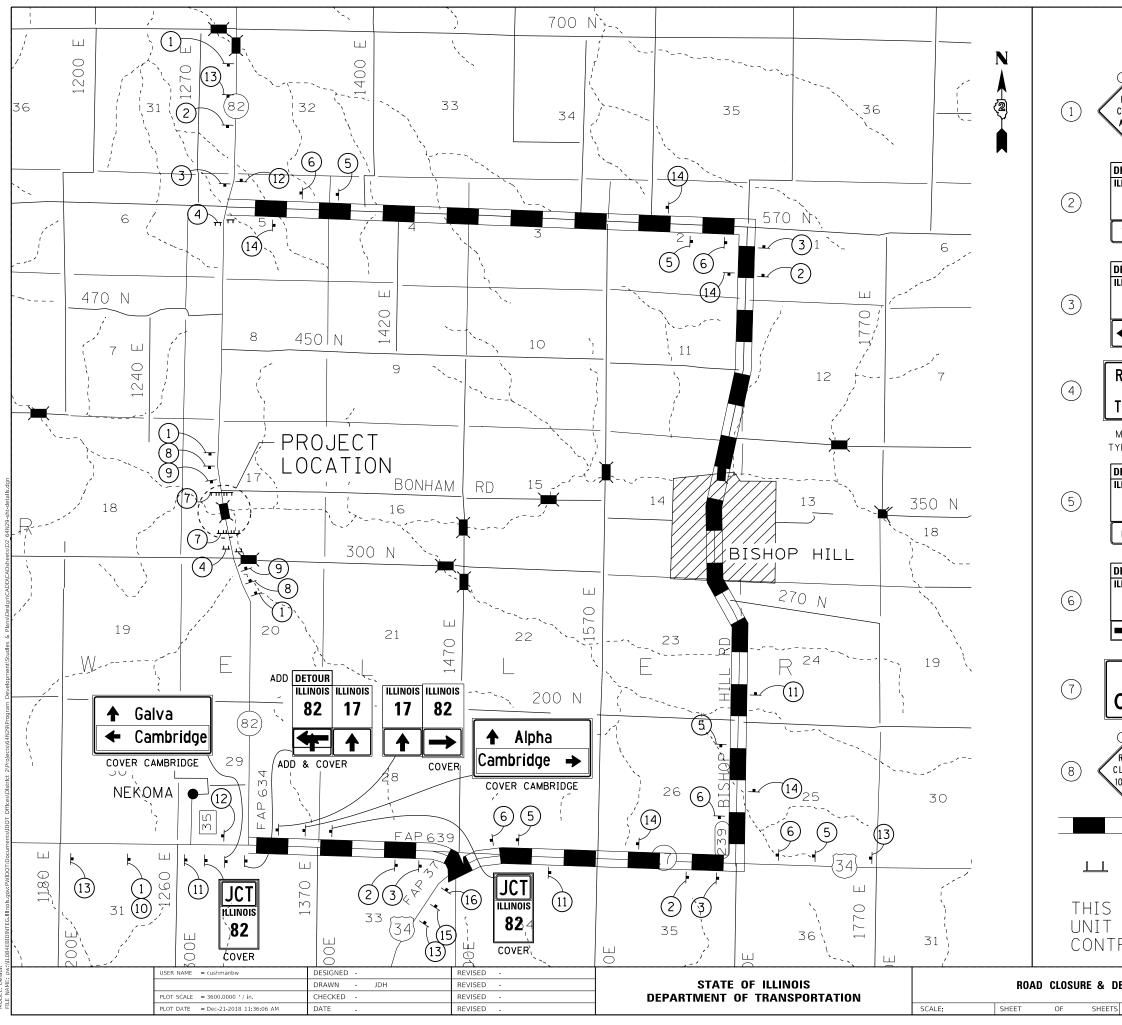


40600982		<u> HOT - M I X</u>	ASPHALT SURFACE REN	10VAL	<u>- BUTT JOINT</u>	78001110		<u>PAINT P</u>	AVEMENT	MARKING -	LINE				
	<u>SQ YD</u>	TOTAL	LOCATION		COMMENTS		_FOOT_	TOTAL	LOCATI	<u>ON</u>				(COMM
	72.2	72.2	125 + 81.00 -	126	+ 6.00 MAINLINE		350	350	125	+ 50.00	- 12	29	+	00 F	RT S
_	72.2	72.2	128 + 6.00 -	128	+ 31.00 MAINLINE		90	90	125	+ 50.00	- 12	29	+	00 0	CENTE
	144.4	144.4	TOTAL				350	350	125	+ 50.00	- 12	29	+	00 L	LT SI
		144.4	GRAND TOTAL				790	790	TOTAL						
40600990		<u>TEMPORA</u>	RY RAMP					1580	GRAND	TOTAL 2 COAT	S				
10000550															
	<u>sq yd</u>	<u>TOTAL</u>	LOCATION												
	28.9	29.0		126											
_	28.9	29.0		128	+ 41 MAINLINE										
	57.8	58.0	TOTAL												
		58	GRAND TOTAL												
40603310		<u> HOT - M I X</u>	ASPHALT SURFACE COL	IRSE,	<u>MIX "C", N50</u>										
	TONS	<u>TOTAL</u>	LOCATION		COMMENTS										
	8.5	8.5	125 + 81.00 -	126	+ 16.00 MAINLINE										
	8.5	8.5	128 + 31.00 -	128	+ 66.00 MAINLINE										
	17.0	17.0	TOTAL												
		17	GRAND TOTAL												
40800025		<u>BITUMIN</u>	OUS MATERIALS (PRIME	COA											
	ILS	<u>TOTAL</u>	LOCATION		<u>COMMENTS</u>										
	45.5	45.5	125 + 81.00 -	126	+ 16.00 MAINLINE										
	45.5	45.5	128 + 31.00 -	128	+ 66.00 MAINLINE										
_	91.0	91.0	TOTAL												
		91	GRAND TOTAL												
70300150		<u>SHORT T</u>	ERM PAVEMENT MARKING	<u> Rem</u> o	DVAL										
	<u>SQ FT</u>	<u>TOTAL</u>	LOCATION		<u>COMMENTS</u>										
	24.0	24	125 + 50.00 -	129	+ 00 CENTER LINE										
—	24.0	24	TOTAL												
		24	GRAND TOTAL												

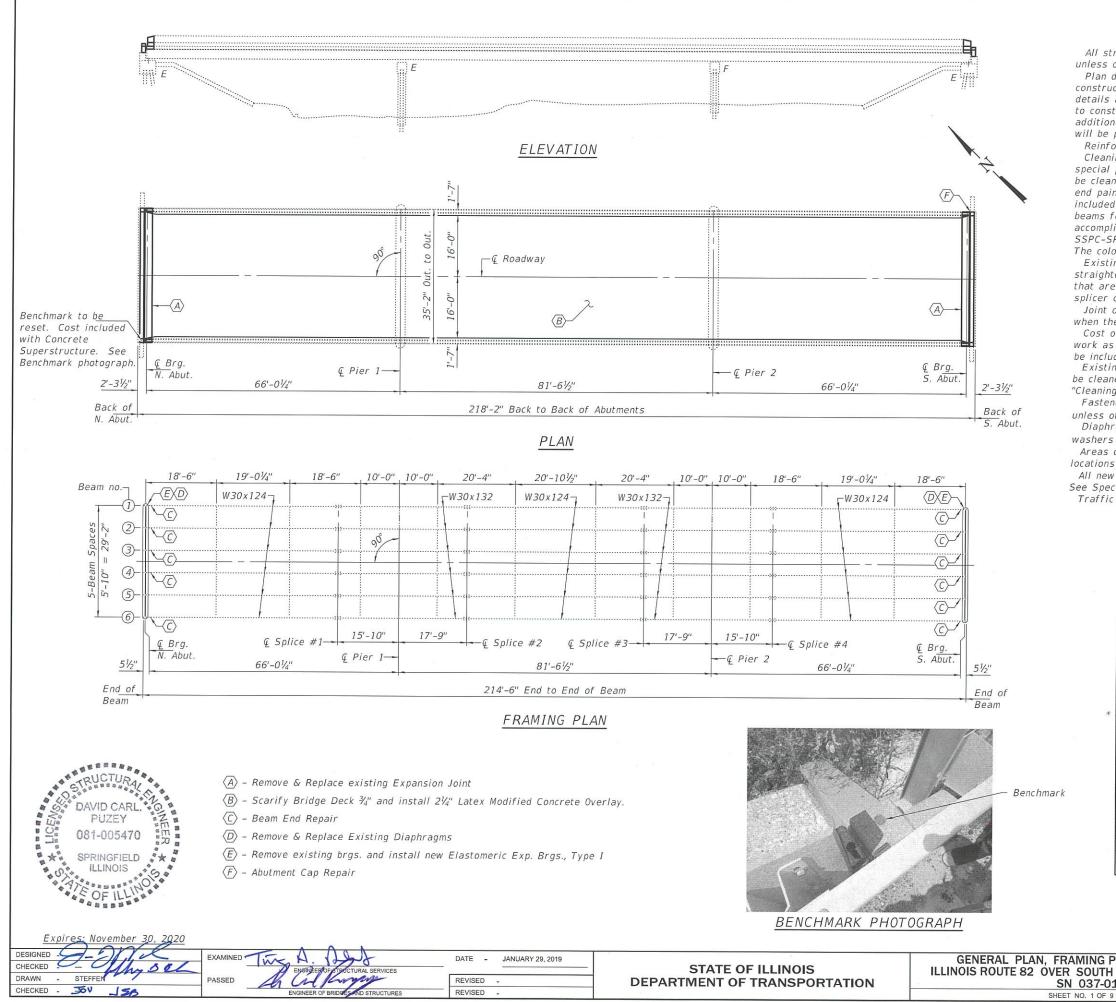
70300220 <u>TEMPORARY PAVEMENT MARKING LINE, 4</u>"

FOOT	TOTAL	LOCATION	<u>COMMENTS</u>
72	72	125 + 50.00 - 129 + 0	0 CENTER LINE
72	72	TOTAL	
	72	GRAND TOTAL	

USER NAME = cushmanbw	DESIGNED -	REVISED -								F.A.P. BTE	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	DRAWN - JDH	REVISED -	STATE OF ILLINOIS			SCHEDUL	E OF QU	ANTITIES		634	D2 BDR 2019-3	HENRY	25 7
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION									CONTRAC [®]	T NO. 64N29
PLOT DATE = Dec-21-2018 11:08:10 AM	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT	



	LE	GEN	D				
ROAD CLOSED AHEAD	₩20-3(F0)-4	8 (9	BARRICAL	1	W20-3	(F0)-48	
DETOUR ILLINOIS 82	M4-8(F0)-2412 M1-I100(24)	(10		M6	-1L(0)-2	2115	
DETOUR	M5-1L(0)-2115 M4-8(F0)-2412	(11	DETOUR ILLINOIS 82	M1	-8 (FO) -I100 (5-3(0)-2	3024)	
82 ←	M1-I100(24) M6-1L(0)-2115	(12)	END		M4-8a	-2418	
THRU MOUNTED	CLOSED TO R11- TRAFFIC ON BOTH BARRICADES	-4	DETOUR AHEAD		W20-2(C		
DETOUR ILLINOIS 82	M4-8(F0)-2412 M1-I100(24) M5-1R(0)-2115	(14	IL 82 Detour Illinois 82	M4	-8 (FO) -8 (FO) -I100 (I	
DETOUR ILLINOIS 82	M4-8(F0)-2412 M1-I100(24) M6-1R(0)-2115	(15	DETOUR ILLINOIS 82	M1	-8 (FO) -I100 (-2R(O)-	3024)	
	R11-2	(16	DETOUR ILLINOIS 82	M1 [.]	-8 (FO) -I100 (-2R(O)-	3024)	
ROAD CLOSED 1000 FT	♥20-3(F0)-4	8					
	E DETOUR E III BARF CED AS SH	RICADE	ES WITH				٥
S SHAI [PRI(TROL		MP SU Ectio	JM FOR	TR	AFFIC		
DETOUR P	LAN	F.A.P. RTE 634	SECTION D2 BJR 2019-	1	COUNTY	SHEETS N	EET 10. 8
ETS STA.	TO STA.			IS FED. All	CONTRAC	T NO. 64N2	
							_



Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". Areas to be cleaned and painted shall consist of all beam ends and end diaphragms. Beam end painting shall extend 5 feet from the ends of the beams longitudinally. Also included shall be the exterior surface and the bottom of the bottom flange of fascia beams for the entire length of the structure. This surface preparation shall be accomplished according to the requirements of Near-White Metal Blast Cleaning SSPC-SP 10. The paint system shall be applied as specified for System 1 OZ/E/U. The color of the final finish coat shall be Interstate Green, Munsell No. 7.5G 4/8. 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. Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel. 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 Contact Surface Areas of Existing Steel Structures". Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ "Ø, open holes $\frac{13}{16}$ "Ø, unless otherwise noted. Diaphragm connection holes shall be ${}^{15}\!/_{16}$ "Ø for $\frac{3}{4}$ "Ø bolts. Two hardened washers shall be required at diaphragm connections.

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 50, 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.

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

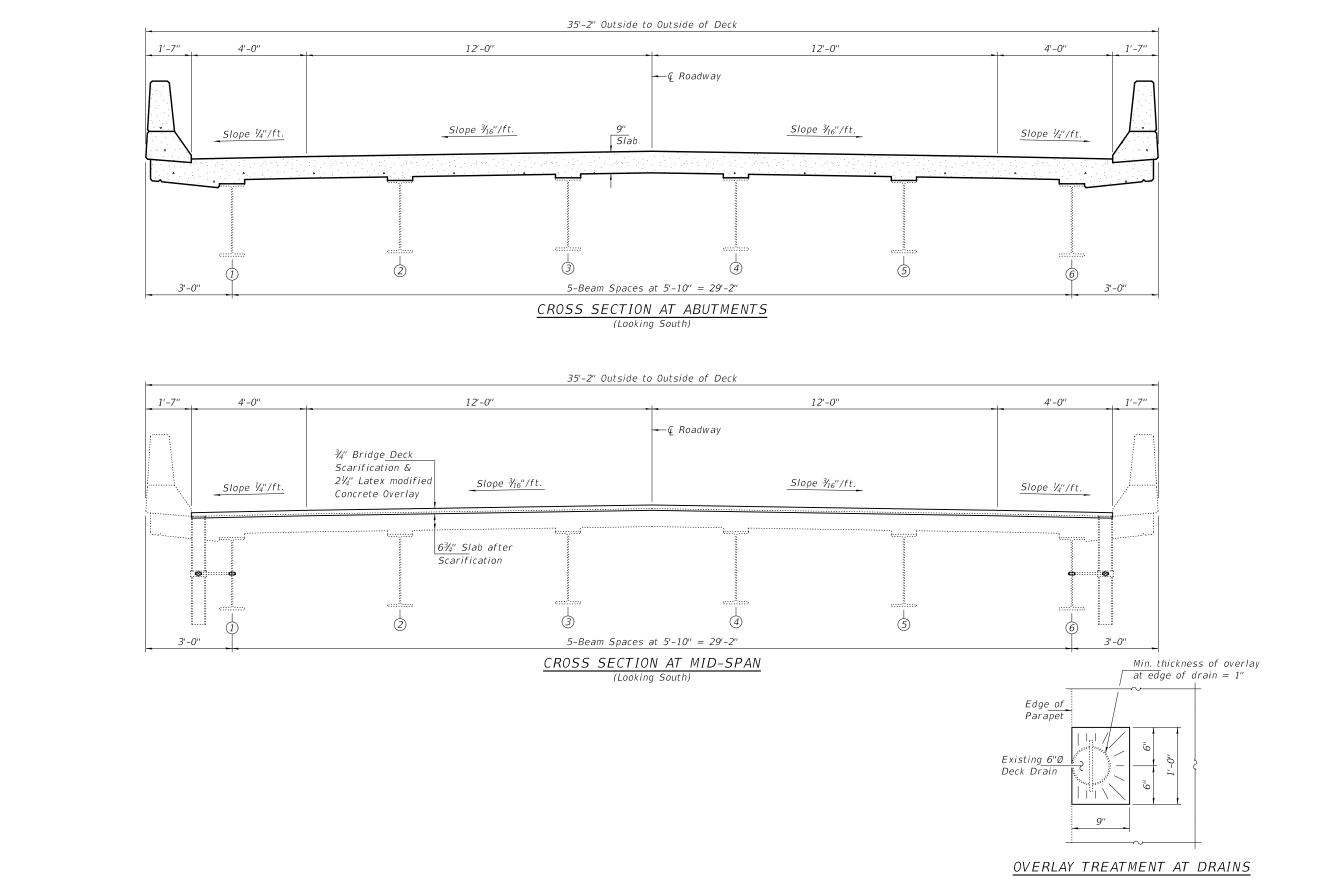
All new structural steel and bearing assemblies shall be hot-dip galvanized. See Special Provisions for "Hot Dip Galvanizing for Structural Steel." Traffic will be detoured.

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	8.4
Concrete Superstructure	Cu. Yd.	9.3
Reinforcement Bars, Epoxy Coated	Pound	1220
Bridge Deck Scarification, 34"	Sq. Yd.	750
Bridge Deck Latex Concrete Overlay, 21/4"	Sq. Yd.	750
Preformed Joint Strip Seal	Foot	69
Protective Coat	Sq. Yd.	775
Structural Steel Repair	Pound	4010
Furnishing & Erecting Structural Steel	Pound	3160
Jack and Remove Existing Bearings	Each	12
Elastomeric Bearing Assembly, Type I	Each	12
Anchor Bolts, 1"Ø	Each	24
Structural Repair of Concrete ≤ 5"	Sq. Ft.	12
Structural Steel Removal	Pound	2600
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	5
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	6
Bridge Deck Grooving	Sq. Yd.	717
Cleaning and Painting Steel Bridge No. 1	L. Sum	1
Containment and Disposal of Non-Lead Paint Cleaning Residues No. 1	L. Sum	1

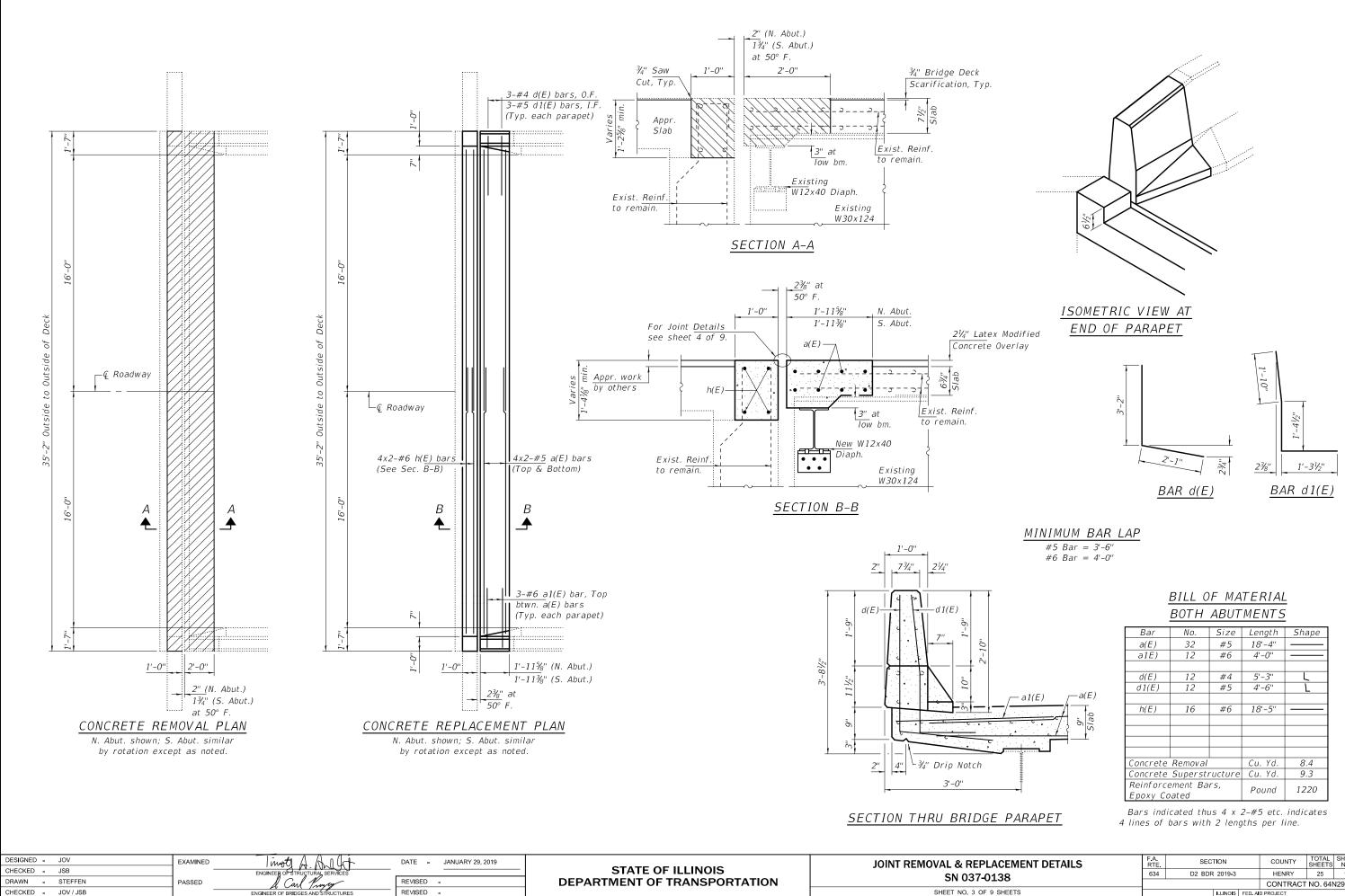
TOTAL BILL OF MATERIAL

* Apply to new concrete and concrete overlay surfaces only.

LAN AND ELEVATION	F.A. RTE.	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
BRANCH EDWARDS RIVER	634	D2 BDF	2019-3		HENRY	25	9
	_				CONTRAC	T NO. 641	129
SHEETS			ILLINOIS	FED. AID	PROJECT		

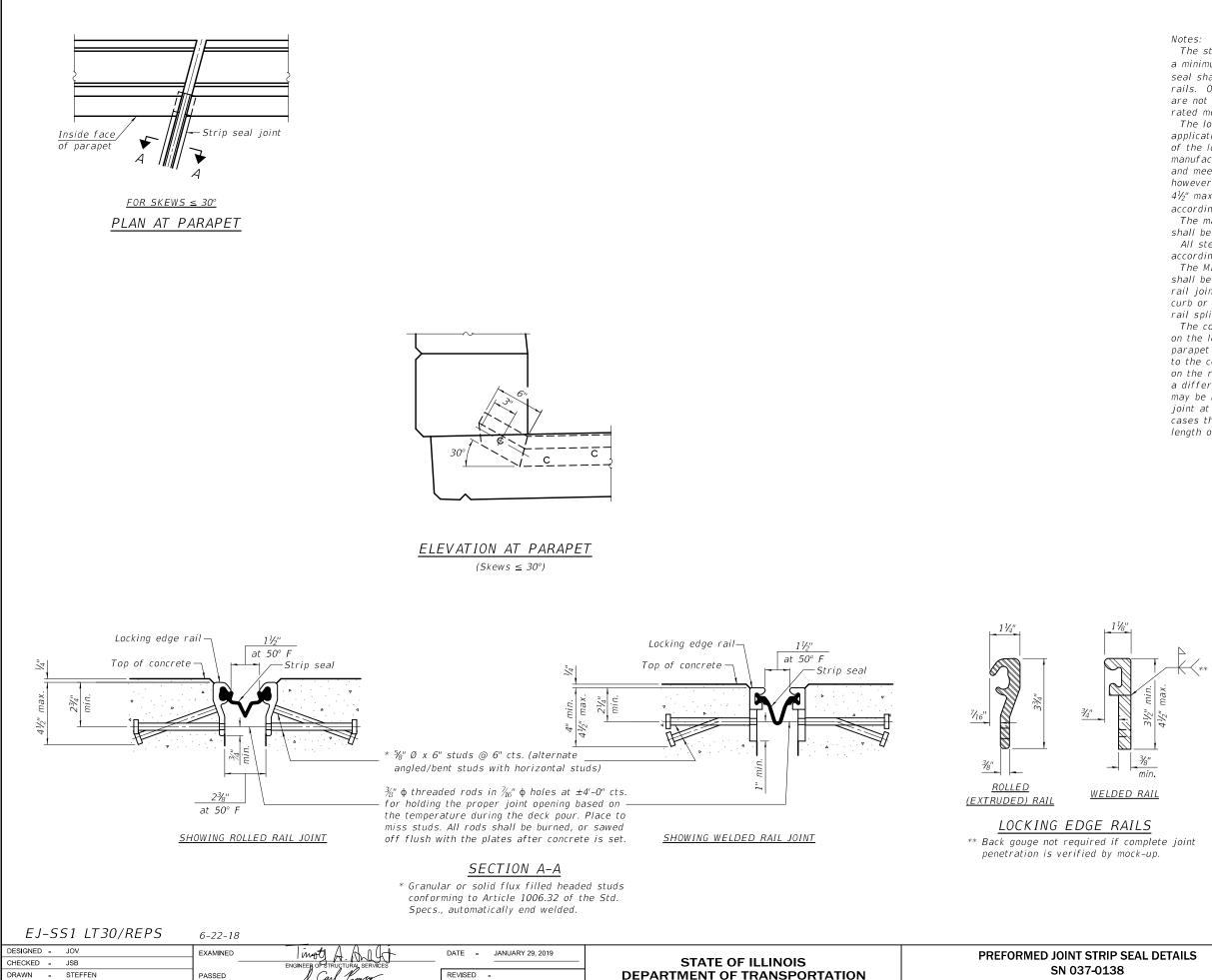


DESIGNED - JOV	EXAMINED	I mot A All At	DATE - JANUARY 29, 2019		CROSS SECTIONS	F.A. RTE	SECTION	COUNTY	TOTAL S SHEETS
CHECKED - JSB		ENGINEER OF STRUCTURAL SERVICES		STATE OF ILLINOIS	SN 037-0138	634	D2 BDR 2019-3	HENRY	25
DRAWN - STEFFEN	PASSED	& Carl Prayey	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRACT N	NO. 64N2
CHECKED - JOV / JSB		ENGINEER OF BRIDGES AND STRUCTURES	REVISED -		SHEET NO. 2 OF 9 SHEETS		ILLINOIS FED. A	AID PROJECT	



				•
Bar	No.	Size	Length	Shape
a(E)	32	#5	18'-4''	
a1E)	12	#6	4'-0''	
d(E)	12	#4	5'-3''	7
d1(E)	12	#5	4'-6''	L
h(E)	16	#6	18'-5''	
Concrete	Removal		Cu.Yd.	8.4
Concrete	Supersti	ructure	Cu.Yd.	9.3
Reinforce Epoxy Co		rs,	Pound	1220

	_						
ACEMENT DETAILS	F.A RTE	SEC.	TION		COUNTY	TOTAL SHEETS	SHEET NO.
138	634	D2 BDR	2019-3		HENRY	25	11
100					CONTRACT	NO. 641	129
9 SHEETS			ILLINOIS	FED. A	D PROJECT		



REVISED

CHECKED - JOV / JSB

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.

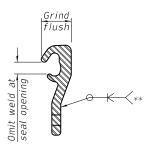
The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4¹/₂" 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.

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.

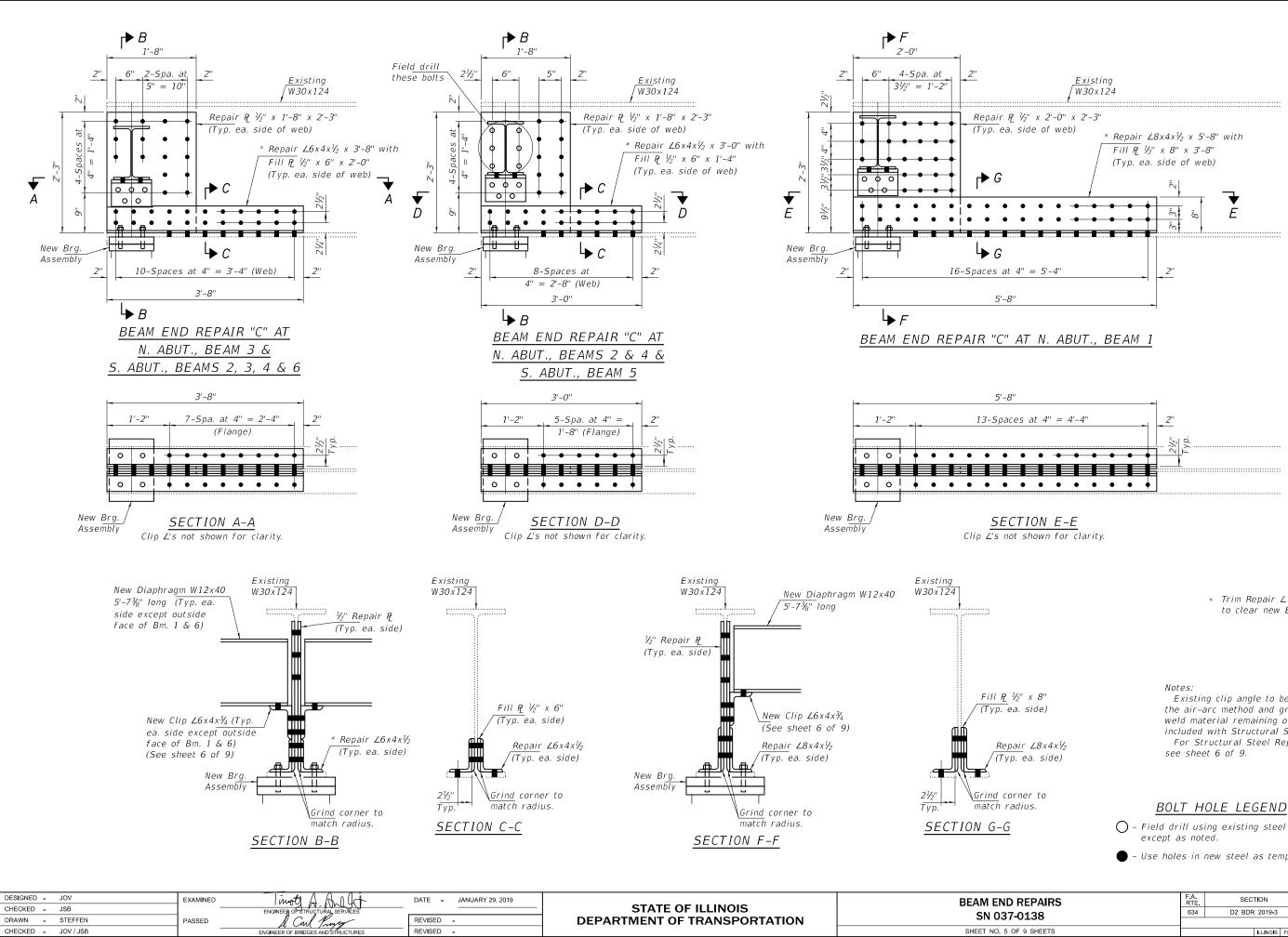


LOCKING EDGE RAIL SPLICE

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

Item	Unit	Total
Preformed Joint Strip Seal	Foot	69

RIP SEAL DETAILS	F.A RTE	SEC.	TION		COUNTY	TOTAL SHEETS	SHEET NO.
138	634	D2 BDR	2019-3		HENRY	25	12
138					CONTRACT	NO. 641	v 29
9 SHEETS			ILLINOIS	FED. A	D PROJECT		



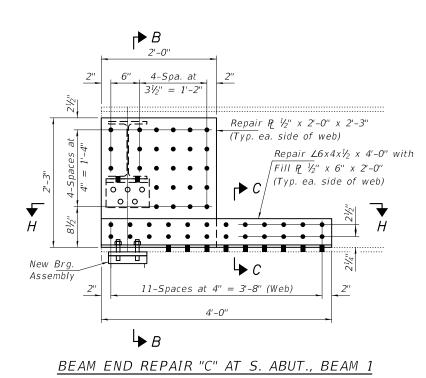
* Trim Repair *L* as required to clear new Bottom Clip L.

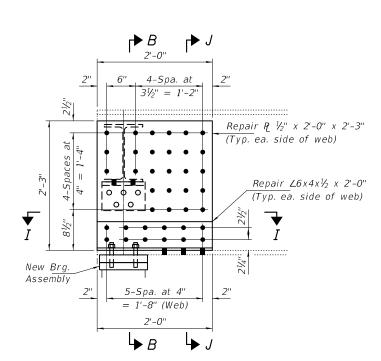
Existing clip angle to be removed using the air-arc method and grind smooth all weld material remaining on the web. Cost included with Structural Steel Removal. For Structural Steel Repair quantities,

O - Field drill using existing steel as template,

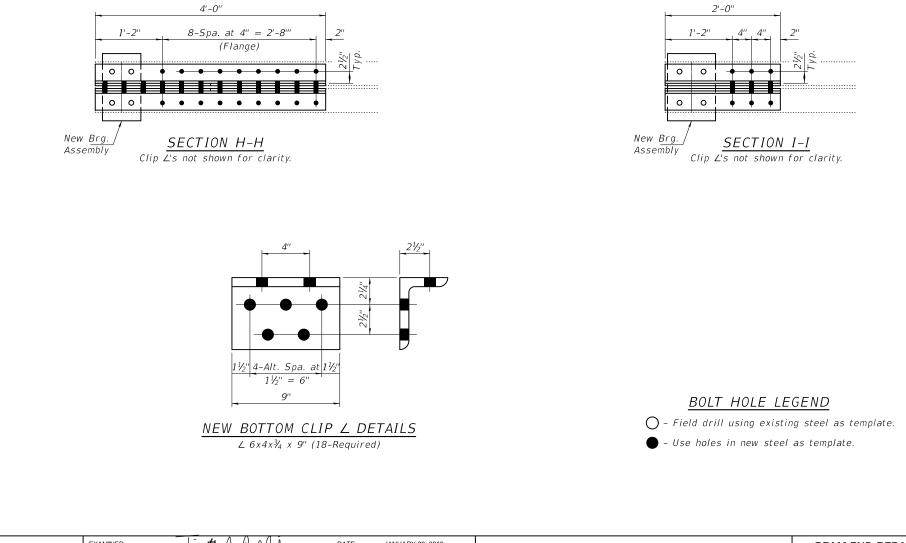
- Use holes in new steel as template.

REPAIRS	F.A RTE	SEC			COUNTY	TOTAL SHEETS	SHEET NO.
0138	634	D2 BDR	2019 - 3		HENRY	25	13
) 130					CONTRACT	NO. 641	129
9 SHEETS			ILLINOIS	FED. A	D PROJECT		

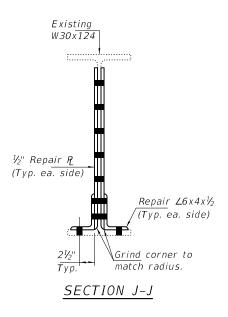




BEAM END REPAIR "C" AT N. ABUT., BEAM 6

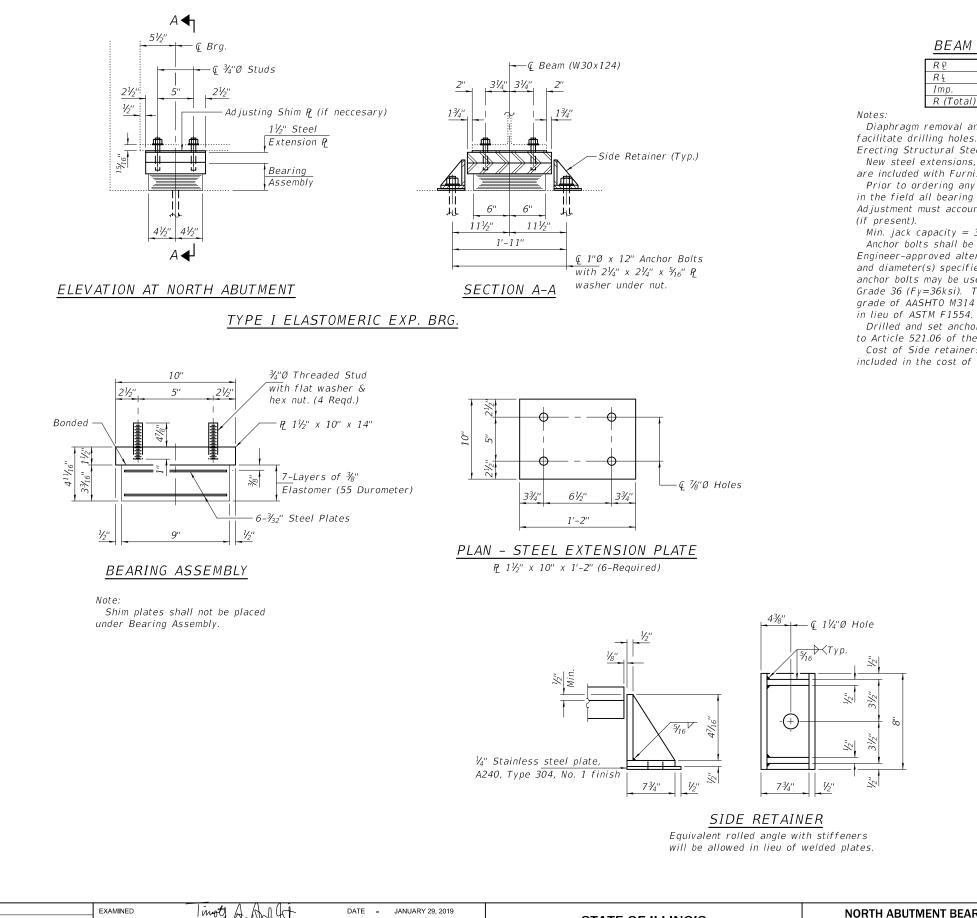


DESIGNED - JOV	EXAMINED	I mot A. And It	DATE – JANUARY 29, 2019		BEAM END REPAIRS & DIAPHRAGM REPLACEMENT DETAILS	F A RTE	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
CHECKED - JSB		ENGINEER OF STRUCTURAL SERVICES		STATE OF ILLINOIS	SN 037-0138	634	D2 BDR 2019-3	HENRY	25 14
	PASSED	& Carl Prayey	REVISED -	DEPARTMENT OF TRANSPORTATION	SHEET NO & OF 9 SHEETS			CONTRA	CT NO. 64N29
CHECKED - JOV / JSB		ENGINEER OF BRIDGES AND STRUCTURES	REVISED -		SHEET NO. 6 OF 9 SHEETS		ILLINOIS FED	. AID PROJECT	



Notes: For Sections B-B & C-C see sheet 5 of 9. New end diaphragms, bottom clip angles, and connection bolts shall be paid for as Furnishing and Erecting Structural Steel. New repair plates, repair angles, fill plates, and repair bolts shall be paid for as Structural Steel Repair.

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	4010
Structural Steel Removal	Pound	2600
Furnishing & Erecting Structural Steel	Pound	2630



DESIGNED - JOV NORTH ABUTMENT BEARING F STATE OF ILLINOIS CHECKED - JSB SN 037-0 Carl Pr **DEPARTMENT OF TRANSPORTATION** DRAWN - STEFFEN PASSED REVISED -CHECKED - JOV / JSB REVISED -SHEET NO. 7 OF 9

BEAM REACTIONS

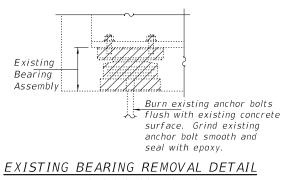
R₽	(K)	22.0
R Ł	(K)	31.2
Imp.	(K)	8.5
R (Total)	(K)	61.7

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust

Min. jack capacity = 32 Tons. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used

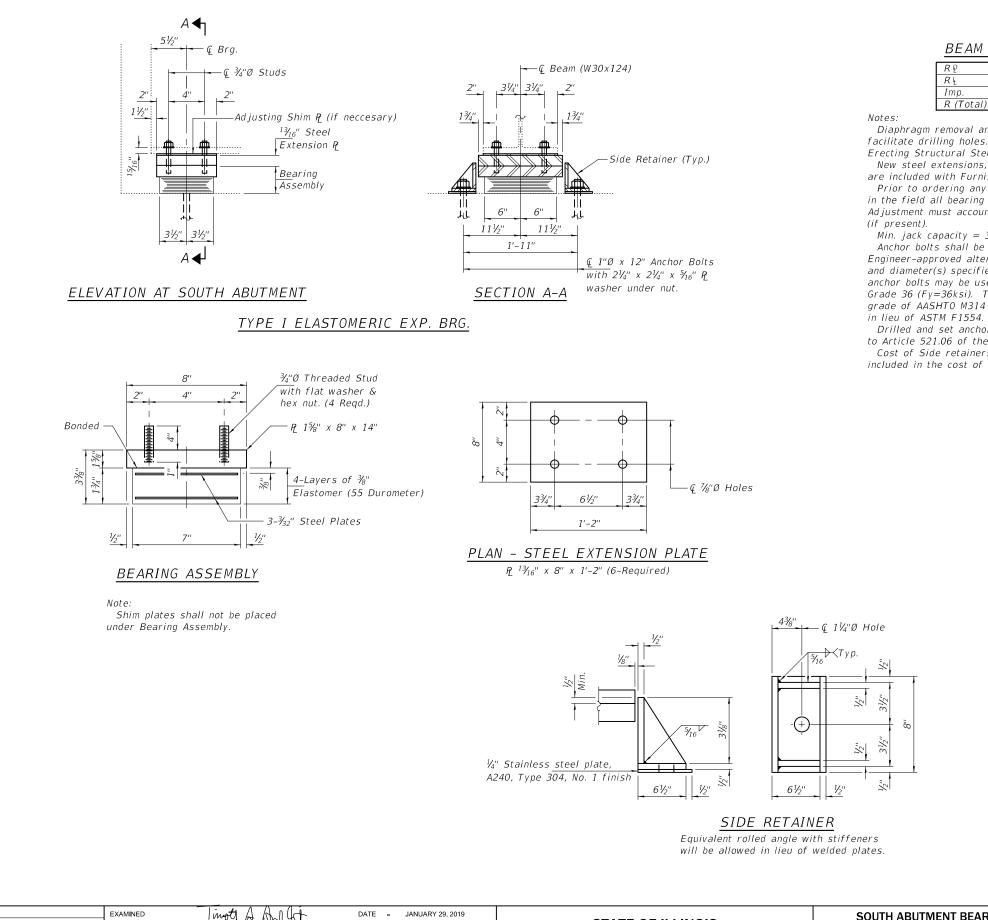
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications. Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



Cost included with Jack and Remove Existing Bearings.

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	6
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	370
Anchor Bolts, 1"Ø	Each	12

REPLACEMENT DETAILS		SEC	CTION COUNTY			TOTAL SHEETS	SHEET NO.
138	634 D2 BDR 2019-3		HENRY	25	15		
1128					CONTRACT	NO. 641	v 29
9 SHEETS			ILLINOIS	FED. AID PROJECT			



DESIGNED - JOV SOUTH ABUTMENT BEARING F STATE OF ILLINOIS CHECKED - JSB Carl Pr **DEPARTMENT OF TRANSPORTATION** DRAWN - STEFFEN PASSED REVISED -CHECKED - JOV / JSB REVISED -SHEET NO. 8 OF 9

BEAM REACTIONS

R₽	(K)	22.0
R 4_	(K)	31.2
Imp.	(K)	8.5
R (Total)	(K)	61.7

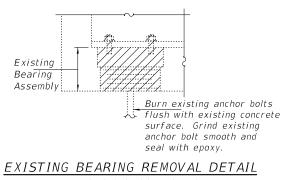
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust

Min. jack capacity = 32 Tons. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used

SN 037-0

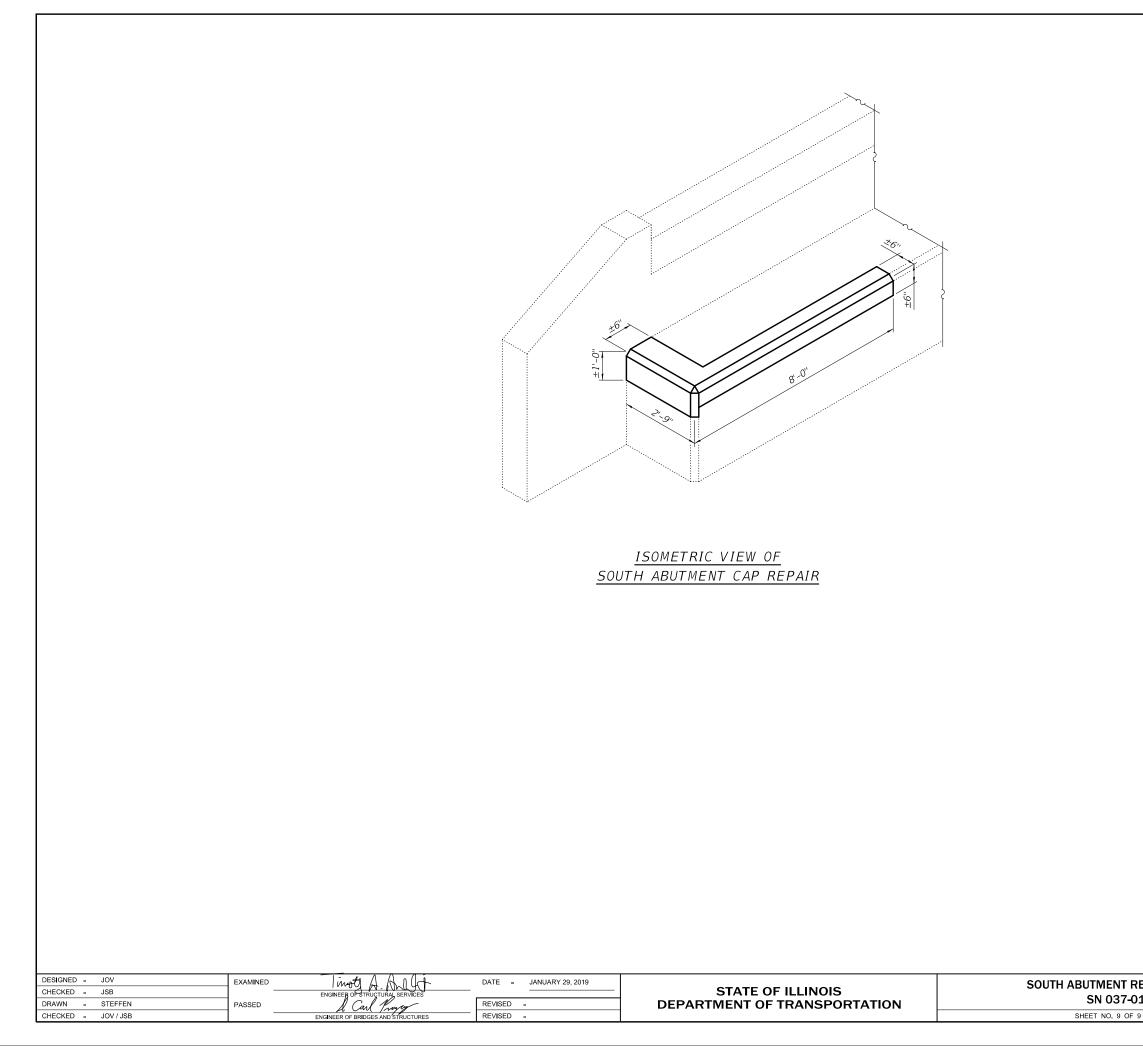
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications. Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



Cost included with Jack and Remove Existing Bearings.

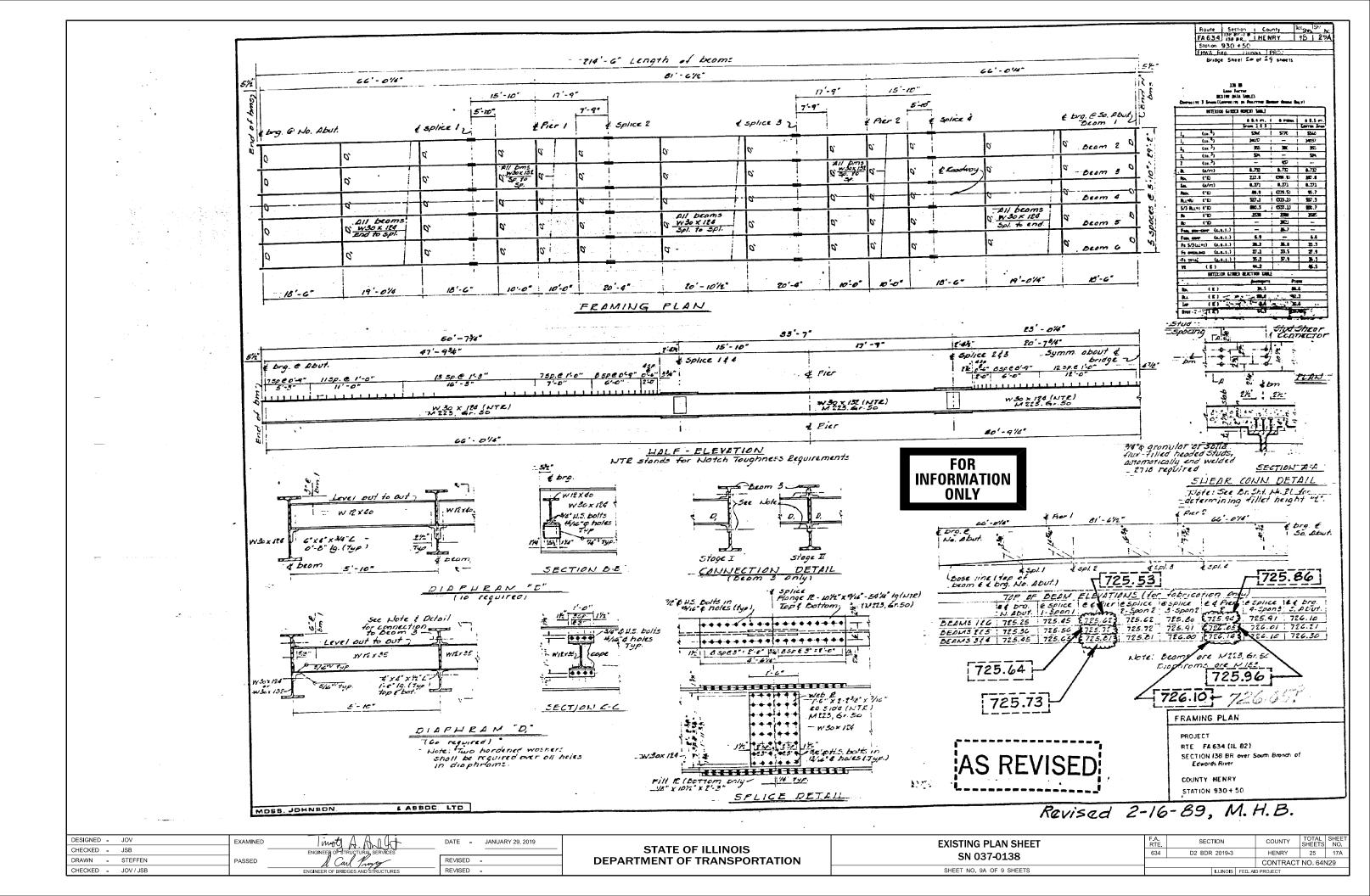
Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	6
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	160
Anchor Bolts, 1"Ø	Each	12

REPLACEMENT DETAILS		SEC	SECTION COUNTY			TOTAL SHEETS	SHEET NO.
138		D2 BDR 2019-3			HENRY	25	16
1138					CONTRACT	NO. 641	v 29
9 SHEETS			ILLINOIS	FED. AID PROJECT			



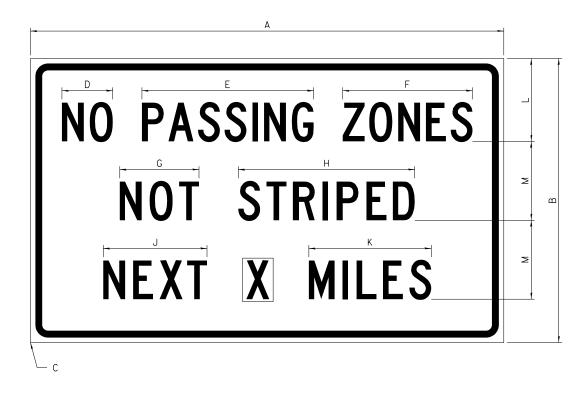
ITEM	UNIT	QUANTITY
Structural Repair of Concrete ≤ 5"	Sq. Ft.	12

	_					
	F.A RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
SN 037-0138		D2 BDR 2019-3		HENRY	25	17
				CONTRACT	NO. 641	129
SHEET NO. 9 OF 9 SHEETS	ILLINOIS FED. AID PROJECT					



WORK ZONE SIGN DETAILS

ILLINOIS STANDARD G20–I100





COLOR BACKGROUND

SIGN SIZE	
SIGN SIZE	А
48 × 48	48.00

SIGN SIZE	SERI	ES BY	LINE	MARGIN	BORDER
SIGN SIZE	1	2	3	MARGIN	DURDER
48 × 48	7C	7C	7C	1.250	0.750

|--|

М

10.00

rk to furnish and install these signs shall be ed in the cost of the specified traffic ol standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

SIGN SIZE MARGIN BORDER 1 2 3 MARGIN BORDER 60 x 36 5C 5C 5C 0.625 0.875
60 x 36 5c 5c 5c 0.625 0.875

Sign not to scale

BLACK

ORANGE

Е

21.80

NON-REFLECTORIZED

Н

22.40

Κ

15.50

L

10.50

J

13.20

REFLECTORIZED

DIMENSIONS

F

16.40

G

10.00

LEGEND AND BORDER

В

36.00

С

2.25

D

6.4

BACKGROUND

А

60.00

COLOR

SIGN SIZE

60 × 36

FILE NAME =

w:\\IL084EBIDINTEG.1111no15.gov:PWIDOT\D

DESIGNED -REVISED - 3-02-16 USER NAME = cushmanbw STATE OF ILLINOIS **REGION 2 / DISTRICT** uments\IDOT Offices\District 2\Projects\64N**29}RAMWN**am Development\Studies & Plans` esRaWLSHDD\CADsheets\D2_64N29-sht-detai PLOT SCALE = 100.0000 '/ in. CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** SCALE: SHEET NO. OF SHEETS PLOT DATE = Dec-21-2018 11:36:34 AM DATE REVISED

ILLINOIS STANDARD W8–1107

LEGEND AND BORDER

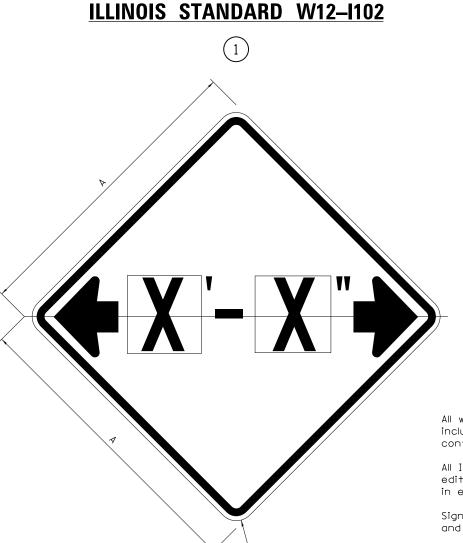
BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

DIMENSIONS В С D Ε F G Н J 34.80 34.20 24.94 9.00 1.00 10.00 3.00 25.00

Sign not to scale

/ DISTRICT 2 STANDARD			F.A.P RTE. 634	SEC D2 BJR	TION 2019-1		COU HEN	IRY	TOTAL SHEETS 25	18		
	SHEETS	STA.	TO STA.		FED. RO	AD DIST. NO.	ILLINOIS	FED. AI			NO. 6	54N29
	WORK	ZONE	SIGN	DETA	LS	SHE	ET	1 (DF	4		34.1

WORK ZONE SIGN DETAILS



D MAX

GE	VER	AL	NC)TES
ULI			140	,,,,,

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

Illinois Standard signs W12-I102 and W12-I103 shall be

1 Illinois Standard signs will not a second in the special provisions.

	LEGEND	AND	BORD
COLOR	BACKGRO	DUND	
	BACKGRO	DUND	(WID

SIGN SIZE			
SIGN SIZE	А	В	
48 × 48	48.00	3.00	38

SIGN SIZE	
5101 5122	1
48 × 48	6C

Sign not to scale

SIGN SIZE	SERIES BY LINE	MARGIN	BORDER
SIGN SIZE	1	MARGIN	DURDER
48 × 48	12C	0.750	1.250

В

3.00

BLACK

FL ORANGE

LEGEND AND BORDER

DIMENSIONS

А

48.00

BACKGROUND

COLOR

SIGN SIZE

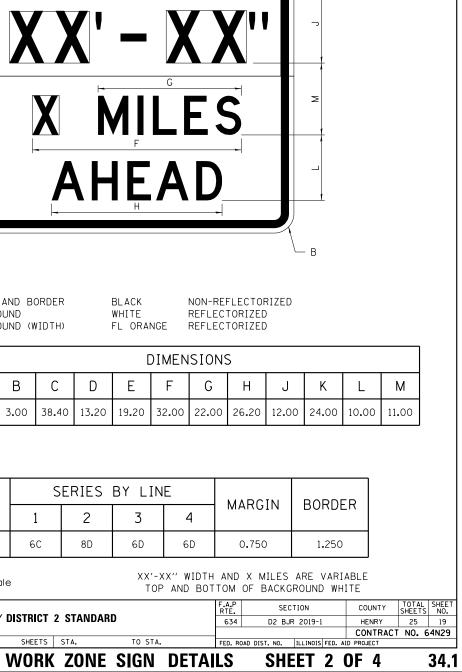
48 x 48

Sign not to scale

FI	LE NAME =	USER NAME = cushmanbw	DESIGNED -	REVISED - 3-02-16		Í		
pw	://IL084EBIDINTEG.111:nois.gov:PWIDOT/Do	cuments\IDOT Offices\District 2\Projects\64N	9 0RAWyN am Development\Studies & Plans\[e RGWISED \CABsheets\D2_64N29-sht-details	dgn STATE OF ILLINOIS	1	REGION 2 /	DI
		PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	1		
		PLOT DATE = Dec-21-2018 11:36:53 AM	DATE -	REVISED -		SCALE:	SHEET NO. OF	

NON-REFLECTORIZED

REFLECTORIZED

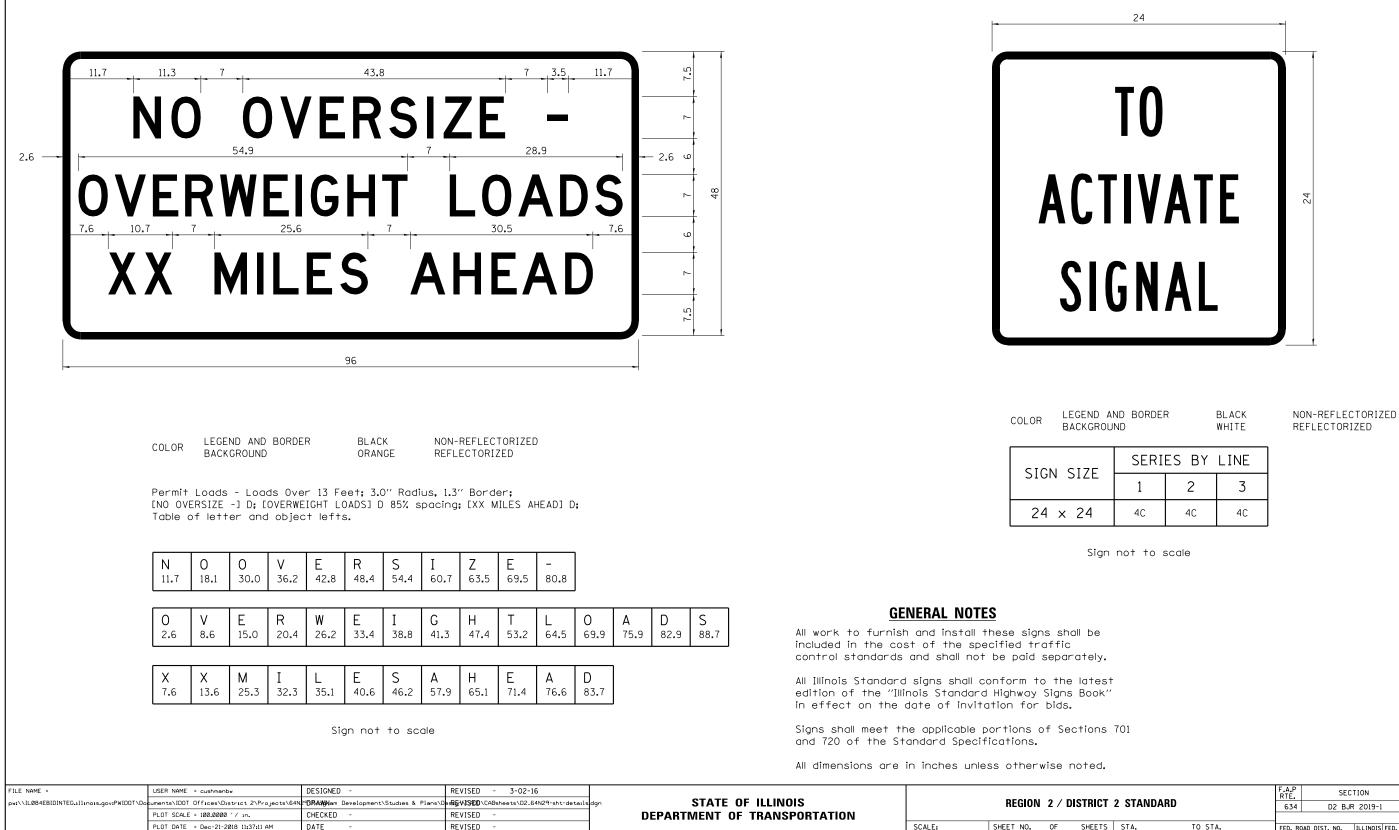


ILLINOIS STANDARD W12–I103

WIDTH

 $\begin{bmatrix} 1 \end{bmatrix}$

WORK ZONE SIGN DETAILS



ROAD CLOSED TO OVERSIZED LOADS

PLOT DATE = Dec-21-2018 11:37:11 AM

DATE

REVISED

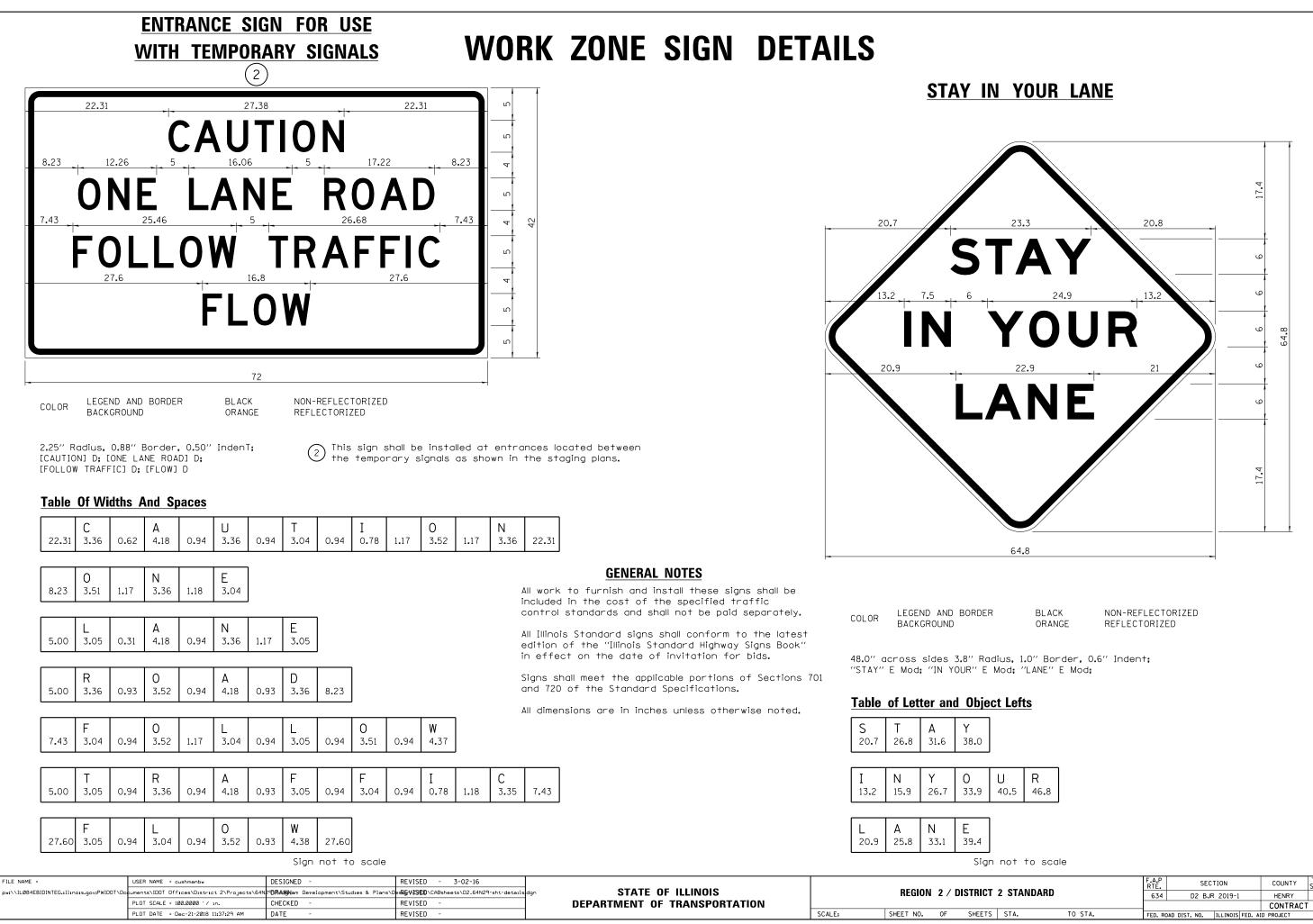
STOP LINE SIGN FOR TEMPORARY SIGNALS

٩ND	BORDER
JND	

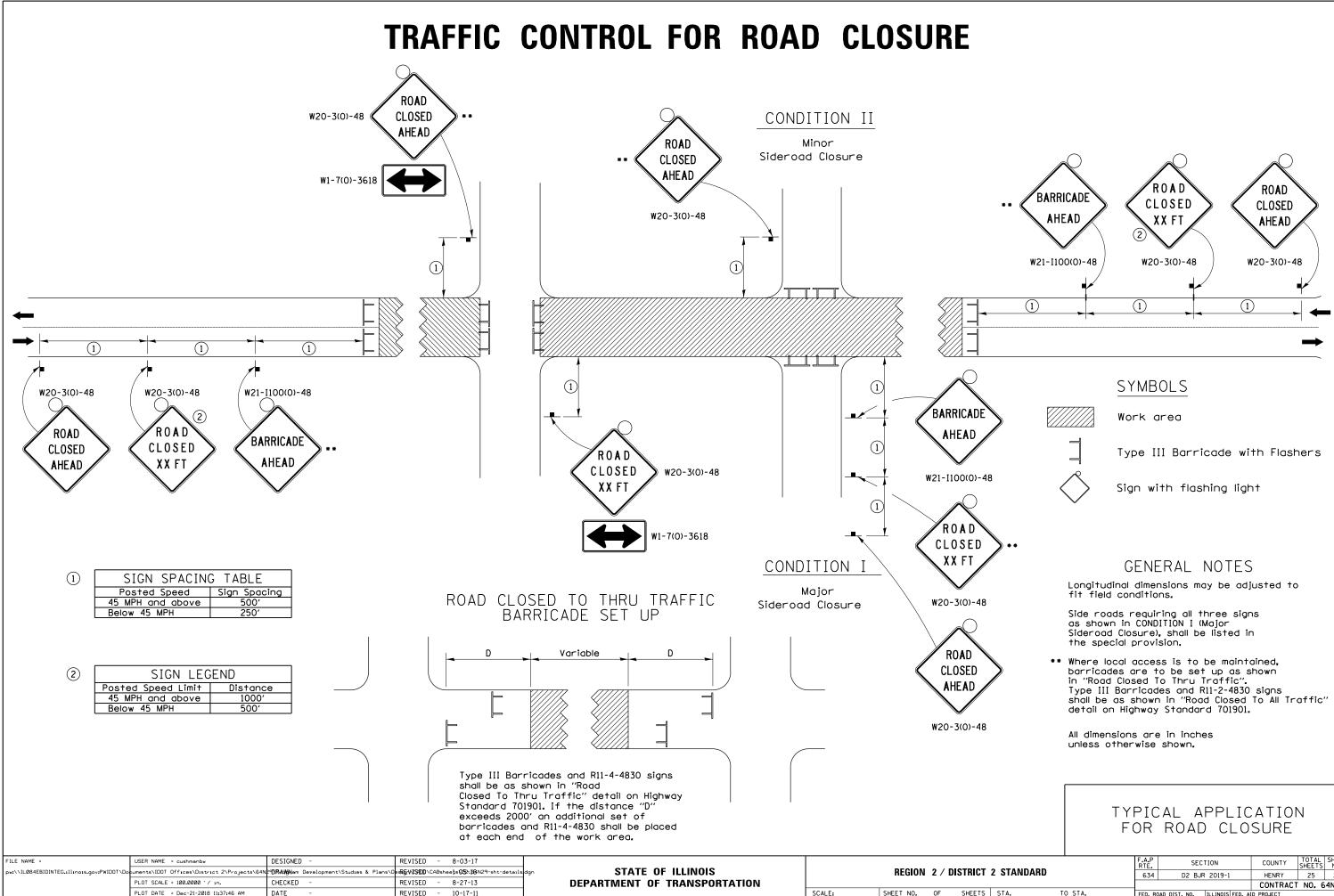
SERI	ES BY	LINE
1	2	3
4C	4C	4C

	/ DISTRICT 2 STANDARD			F.A.P RTE.	SEC	TION		COL	JNTY	TOTAL SHEETS	SHEET NO.	
/	/ DISTRICT 2 STANDARD		634	D2 BJF	2019-1		HE	NRY	25	20		
								CON	ITRACT	NO. (54N29	
F	SHEETS	STA.	TO STA.		FED. RC	AD DIST. NO.	ILLINOIS FE	D. AII) PROJE	ст		
	WORK	ZONE	SIGN	DETAI	LS	SHE	ET 3	()F	4		34.1

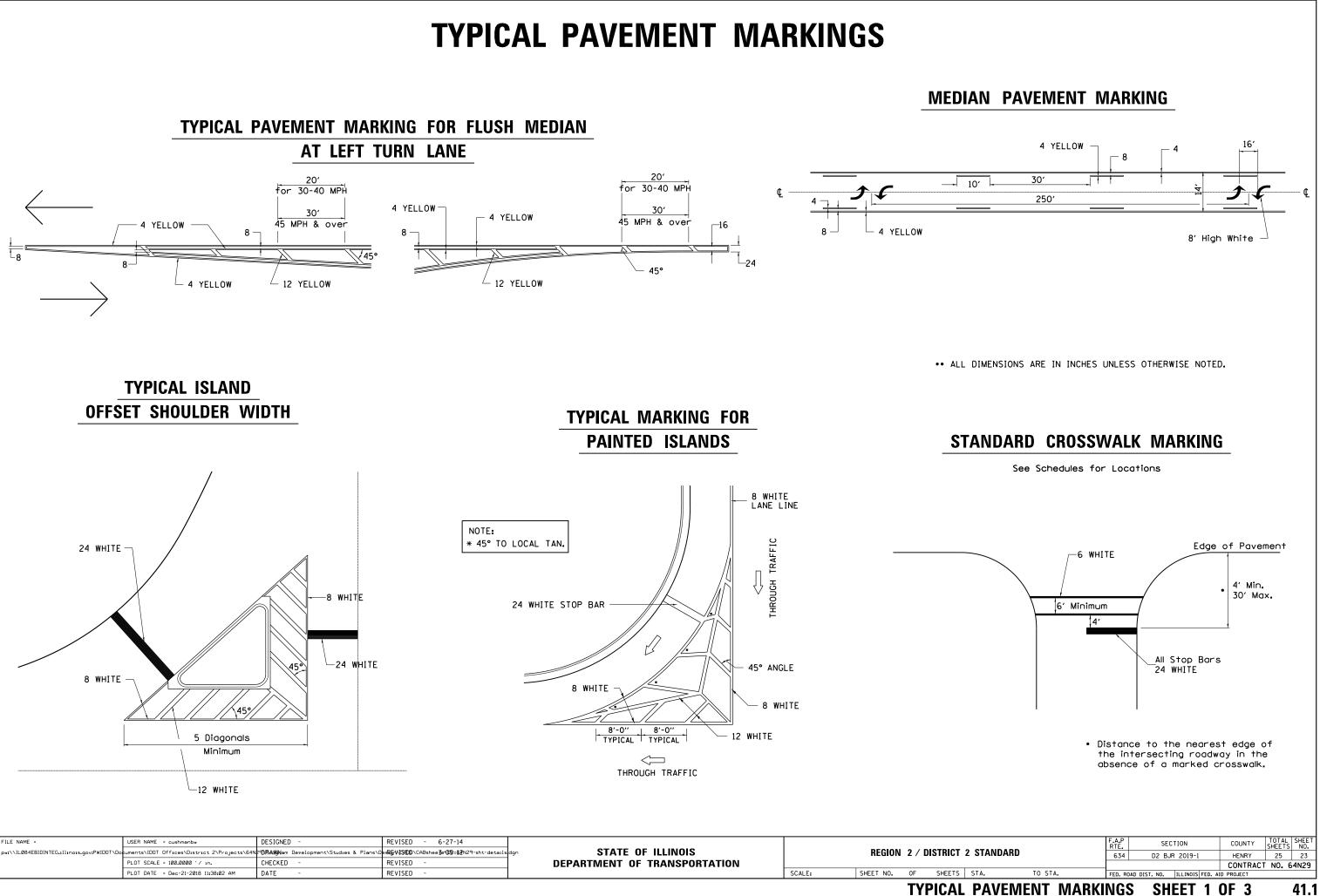
REFLECTORIZED



RIE. CONTR SHEETS NO. / DISTRICT 2 STANDARD 634 D2 BJR 2019-1 HENRY 25 21		SHEETS STA. TO STA.		 ILLINOIS FED. A	 	^{34N29} 34.1
SECTION COUNTY CUPERTS	/ DISTRICT 2 STANDARD		F.A.P RTE. 634	 	 -	



TRAFFIC	CONTROL	FOR	ROAD) CLOS	URE		40.1
STA.	TO STA.	FED. RC	FED. ROAD DIST. NO. ILLINOIS FED. AI		D PROJECT	-	
1		_			CONTRACT	NO. 6	4N29
2 STANDARD		634	D2 BJR	2019-1	HENRY	25	22
		F.A.P RTE	SEC	TION	COUNTY	TOTAL SHEETS	SHEET NO.



FILE NAME =	USER NAME = cushmanbw	DESIGNED -	REVISED - 6-27-14						
pw:\\IL084EBIDINTEG.1111no1s.gov:PWIDOT\Do	cuments\IDOT_Offices\District_2\Projects\64N	2 °DRAWyN am De⊽elopment\Studies & Plans\D	esR⊊WISEDD\CABshee3er0D2=622N29-sht-details	dgn STATE OF ILLINOIS		REGIO	√ 2/	DISTRIC	T 2
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					
	PLOT DATE = Dec-21-2018 11:38:02 AM	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEET	S
							Τν		

