11-08-13 LETTING ITEM 003

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO.2

IMPROVEMENT IS LOCATED IN

THE VILLAGE OF VILLA PARK

 \circ

0

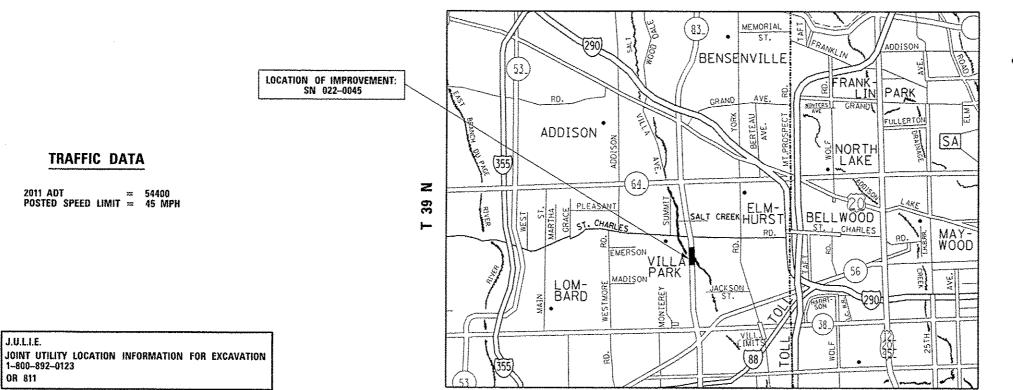
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PROPOSED HIGHWAY PLANS

FAP ROUTE 344: IL 83 (KINGERY HWY)
AT SALT CREEK (0.8 MI S. OF ST CHARLES RD)
SECTION: 543-X-B-I-2
BRIDGE JOINT REPAIR
Dupage County

C-91-430-12

R 11 E



PROJECT ENGINEER: J. ALAIN MIDY (847) 221–3057 PROJECT MANAGER: ISSAM RAYYAN (847) 705–4178

GROSS AND NET LENGTH OF IMPROVEMENT = 128 FT

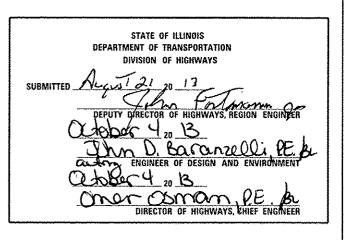
YORK TOWNSHIP

CONTRACT NO. 60T76

X31 41=32

D-91-430-12





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
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17-20	TRAFFIC CONTROL PLANS (STAGE I & II)
21	TRAFFIC STAGING PLAN
22	TRAFFIC STAGING DETAILS
23-24	FINAL PAVEMENT MARKING PLAN
25	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE AND MULTI-LANE WEAVE (TC-09
26	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS. INTERSECTIONS, AND DRIVEWAYS (TC-10)
27	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)
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29	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)
30	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC-16)
31	ARTERIAL ROAD INFORMATION SIGN (TC-22)

STATE STANDARDS

STANDARD NO.	DESCRIPTION
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
643001-01	SAND MODULE IMPACT ATTENUATORS
701101-03	OFF ROAD OPERATIONS, MULTILANE, 15' TO 24" TO PAVEMENT EDGE
701421-05	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS \geq 45 MPH TO 55 MPH
701426-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEEDS \geq 45 MPH
701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE & GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF VILLA PARK.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARMENT.

BEFORE BEGINING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

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 BASED AT THE UNIT PRICE BID FOR THE WORK.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR ARTERIAL OPERATIONS (847)705-4470, A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE ENGINEER SHALL CONTACT DON CHIARUGI AREA TRAFFIC FIELD ENGINEER AT (847) 741-9857 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE BRIDGE INSPECTORS.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLACTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

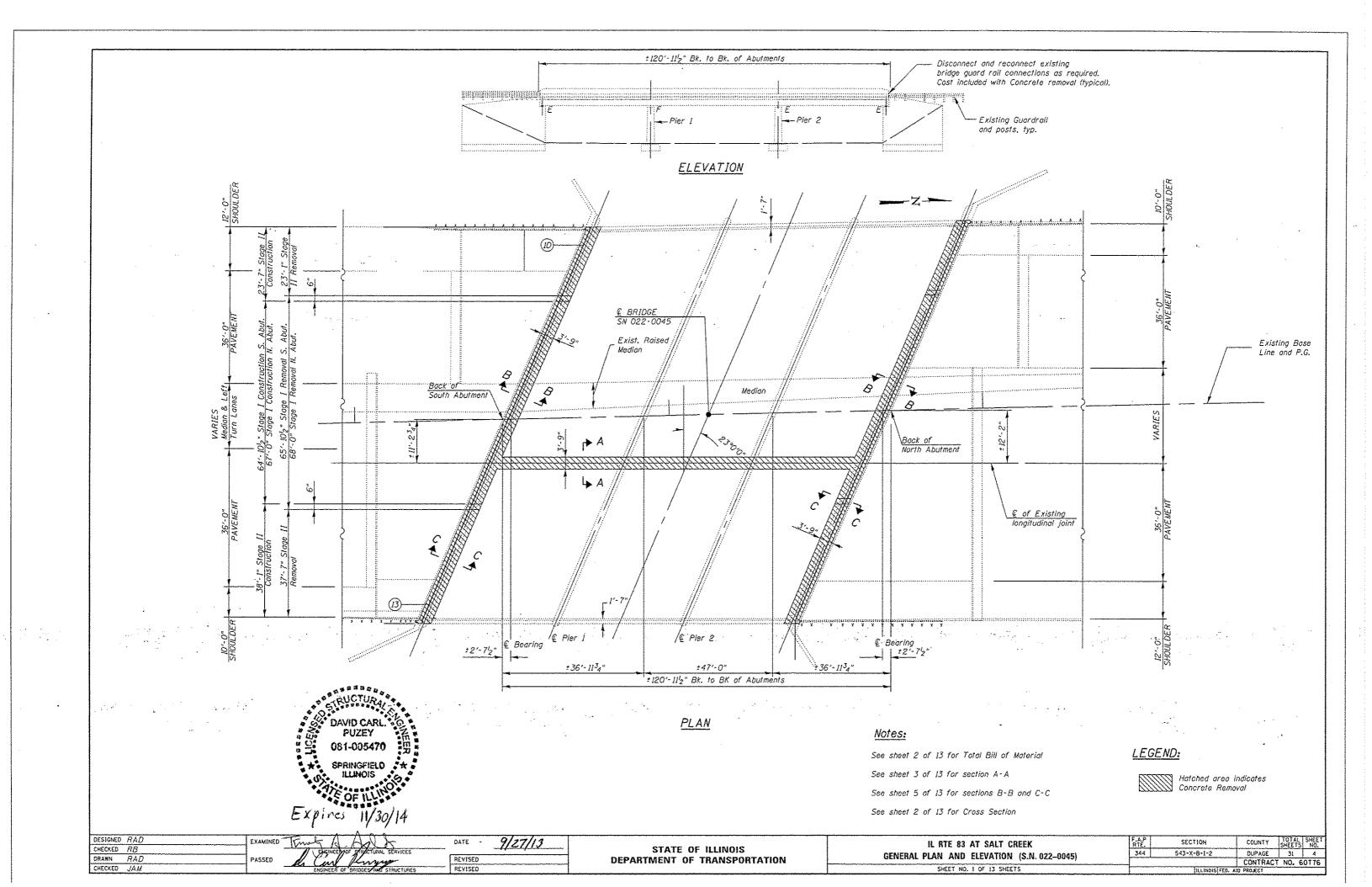
THE DEPARTMENT HAS DETERMINED THAT IN STREAM WORK IS NOT REQUIRED FOR THE WORK SPECIFIED IN THIS CONTRACT. THE DEPARTMENT HAS NOT OBTAINED A 404 PERMIT. IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING AN USAGE 404 PERMIT IT IS THE CONTRACTOR'S RESPONCIBILITY TO SECURE THE PROPER USAGE PERMITS.

THE DEPARTMENT HAS DETERMINED THAT IN STREAM WORK IS NOT REQUIRED FOR THE WORK SPECIFIED IN THIS CONTRACT. THE DEPARTMENT HAS NOT OBTAINED A 404 PERMIT. IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING AN USACE 404 PERMIT IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER USACE PERMITS.

FILE NAME I	USER NAME = dahhanr	DESIGNED -	REVISED -		i	
c:\pv.work\pwidat\dahhanr\dØ328702\0143	DZ-aht-plandgn	DRAWN -	REVISED -	STATE OF ILLINOIS	i	
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	i	
	PLOT DATE = 8/22/2013	DATE -	REVISED -		SCALE: NONE	

		IND	EX OF SHI	EETS			F.A.P. RTE	SECTION	COUNTY	TOTAL	SHEET
	STATE	STANI	DARDS, GE	MFRAI	MOTES		344	543-x-B-1-2	DUPAGE	31	2
							_		CONTRAC	NO.	60176
SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	10	O STA.	1	TLLINDIS FED. A	ID PROJECT		

1		C(124215) OF C(124) F1777		URBAN 100%		CONST	RUCTION TYPE	CODE C	0014		A		URBAN	T	ſ	ONSTRUCT	ION TYPE	CODE O	014
L		SUMMARY OF QUANTITIES	·	STATE		1		T	┪	<u> </u>	SUMMARY OF QUANTITIES		STATE						Ť
	CODE NO	item	UNIT	TOTAL QUANTITIES	0014					CODE NO	ITEM	UNIT	TOTAL OUANTITIES	0014					***************************************
	0102400	CONCRETE REMOVAL	CU YO	47	47					78008230	POLYUREA PAVEMENT MARKING TYPE 1 - LINE 6"	FOOT	585	585					1
-	0300255	CONCRETE SUPERSTRUCTURE	CU YD	90	90					¥ 78008250	POLYUREA PAVEMENT MARKING TYPE 1 - LINE 12'	F001	54	54					
5	0300300	PROTECTIVE COAT	SO YO	178	178					X 78200530	BARRIER WALL MARKERS, TYPE C	EACH	12	12				-	
	50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	450	450					78300100	PAVEMENT MARKING REMOVAL	SO FT	1170	1170					***************************************
	~~~	TOWNSHIP AND ENGINEERS THE STREET		130	1.00					76300100	FATEMENT MARKING NEMOTAL	30 71	1110						-
!	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	19350	19350				·	x7010216	TRAFFIC CONTROL AND PROTECTION. (SPECIAL)	L SUM	1	1					1
	50800515	BAR SPLICERS	EACH	92	92					x7030025	WET REFLECTIVE TEMPORARY TAPE, TYPE []] - LETTERS AND SYMBOLS	SO FT	109	109					+
	67000400	ENGINEER'S FIELD OFFICE. TYPE A	CAL MO	6	6					x7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III. 4 INCH	FOOT	7530	7530					-
																			1
-	57100100	MOBILIZATION	L SUM	1				***************************************		x7030040	WET REFLECTIVE TEMPORARY TAPE TYPE III. 6 INCH	FOOT	1060	1060	· · · · · · · · · · · · · · · · · · ·			·····	1
	70106800	CHANGEABLE WESSAGE SIGN	CAL MO	1	1					x7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	80	80					+
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	3325	33 <i>2</i> 5					Z0001700	APPROACH SLAB REPAIR (FULL DEPTH)	SO YD	56	56					-
***************************************	70400100	TEMPORARY CONCRETE BARRIER	FOOT	375	375					Z0001905	STRUCTURAL STEEL REPAIR	POUND	1950	1950					-
					2.0														
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	375	375					Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SO FT	8	8	***************************************			arrayanda dagaa qayaa daabaa dadaga daga daga dagaa daabaa da	*****
	70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2					Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	102.8	102.8					-
***************************************	70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2					Z0049100	RAISED PAVEMENT MARKER REFLECTOR REPLACEMENT	EACH	80	80					-
											Chat Lette Letters								
*	78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS	SO FT	109	109					Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	1	1					-
* -	78008210	POLYUREA PAVEMENT MARKING TYPE 1 - LINE 4"	FOOT	2150	2150		LI SERVICIO DE LA CONTRACTOR DE LA CONTR			₹0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	/					+
الله الله	ILE NAME :		SIGNED -		REVISED					1	+ Specialty Hems	<u> </u>	<u> </u>		F,A,P RTE,	SEC	CTION	COUNTY	TC SH
[ a	VOM.,warkiyomlaatidash	\$	AWN - ECKED -		REVISED REVISED				STATE OF MENT OF T		SUMMARY	Y OF QUANT	ITIES		344		X-B-I-2	DUPAGE CONTRACT	:



#### GENERAL NOTES

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 based at the unit price bid for the work.

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

If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.

Concrete Superstructure shall have a seven day minimum cure.

No in-stream work allowed.

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

Fasteners shall be high strength bolts. Bolts  $\frac{3}{4}$ ", open holes  $\frac{1}{16}$ ", unless otherwise noted.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

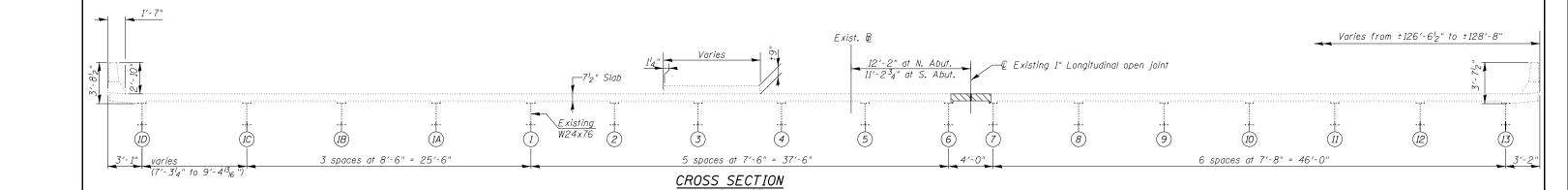
Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

All structural steel shall be galvanized according to AASHTO M111. After galvanizing, contact surfaces for any bolted connections shall be roughened by hand wire brushing or according to SSPC-SP7 (Brush-Off Blast Cleaning). Power wire brushing is not allowed. No field painting required. Cost included with Furnishing and Erecting Structural Steel and Structural Steel Repair.

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.

#### TOTAL BILL OF MATERIAL

Concrete Removal	Cu. Yd.	47
Concrete Superstructure	Cu. Yd.	90
Protective Coat	Sq. Yd.	178
Furnishing and Erecting Structural Steel	Pound	450
Reinforcement Bars, Epoxy Coated	Pound	19,350
Bar Splicers	Each	92
Approach Slab Repair (Full Depth)	Sq. Yd.	56
Structural Steel Repair	Pound	1950
Structural Repair of Concrete (Depth greater than 5 Inches)	Sq. Ft.	8
Temporary Shoring & Cribbing	Each	1
_		

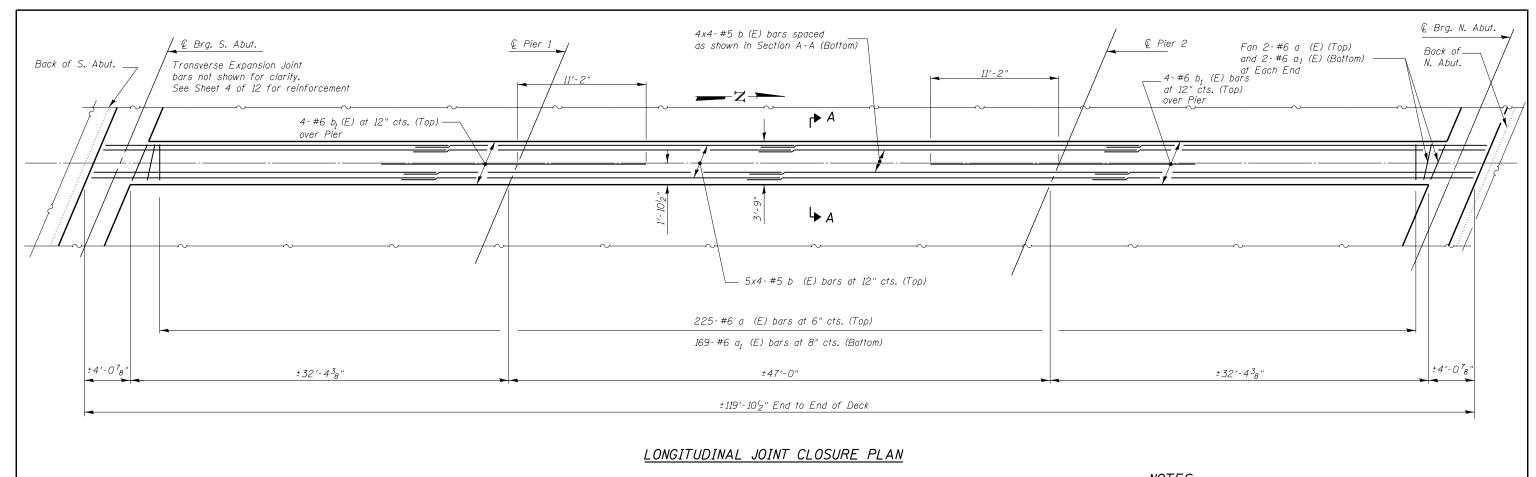


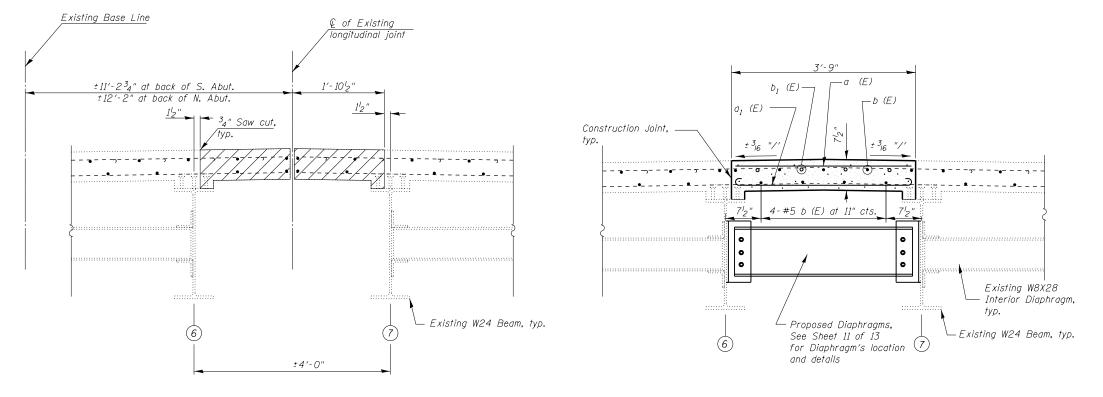
DESIGNED	RAD	EXAMINED		DATE -	
CHECKED	RB		ENGINEER OF STRUCTURAL SERVICES		
DRAWN	RAD	PASSED		REVISED	
CHECKED	JAM		ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, CR

IL RTE 83 AT SALT CREEK	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
AL NOTES, CROSS SECTION, TOTAL BILL OF MATERIALS	344	543-X-B-I-2	DUPAGE	31	5
IAL NOTES, CHOSS SECTION, TOTAL BILL OF MATERIALS			CONTRACT	NO. 6	OT76
SHEET NO. 2 OF 13 SHEETS		ILLINOIS FED. AI	D PROJECT		





## <u>NOTES</u>

Hatched areas indicate concrete sections to be removed. Perimeters of Concrete Removal areas shall be saw cut  34 " prior to the removal of the concrete. Existing transverse reinforcement shall be cleaned straightened and incorporated into the new construction. New reinforcement bars shall be epoxy coated.

Bars indicated thus 4x2 #6 etc. indicates 4 lines of bars with 2 lengths per line

#### MINIMUM BAR LAP

SIZE	BAR LAF
# 4	2'-4"
# -	0 / 11//

#### SECTION A-A (PROPOSED)

(Looking North)

DESIGNED	RAD	EXAMINED		DATE -	
CHECKED	RB		ENGINEER OF STRUCTURAL SERVICES		
DRAWN	RAD	PASSED		REVISED	
CHECKED	JAM		ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

SECTION A-A (EXISTING)

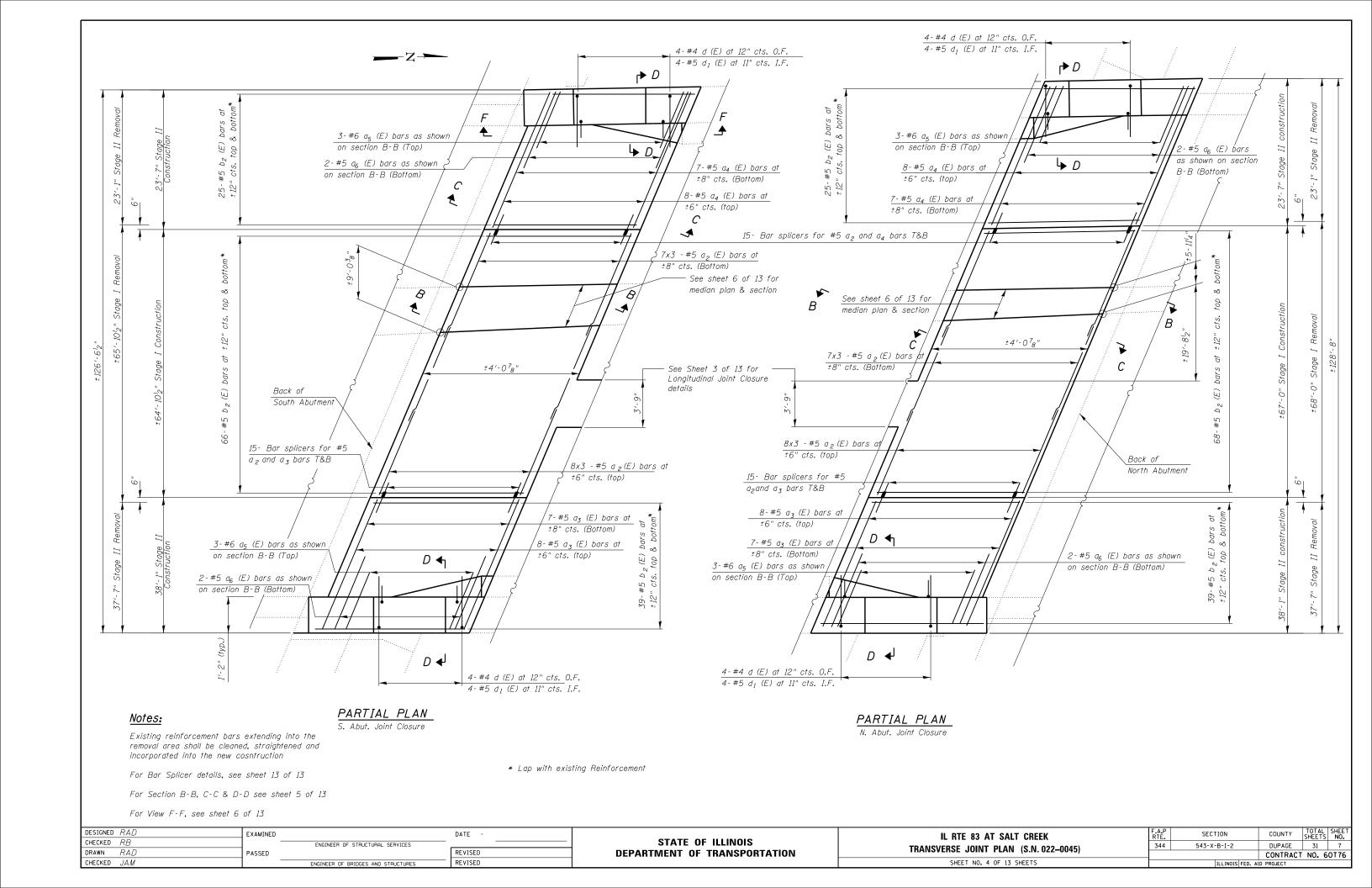
(Looking North)

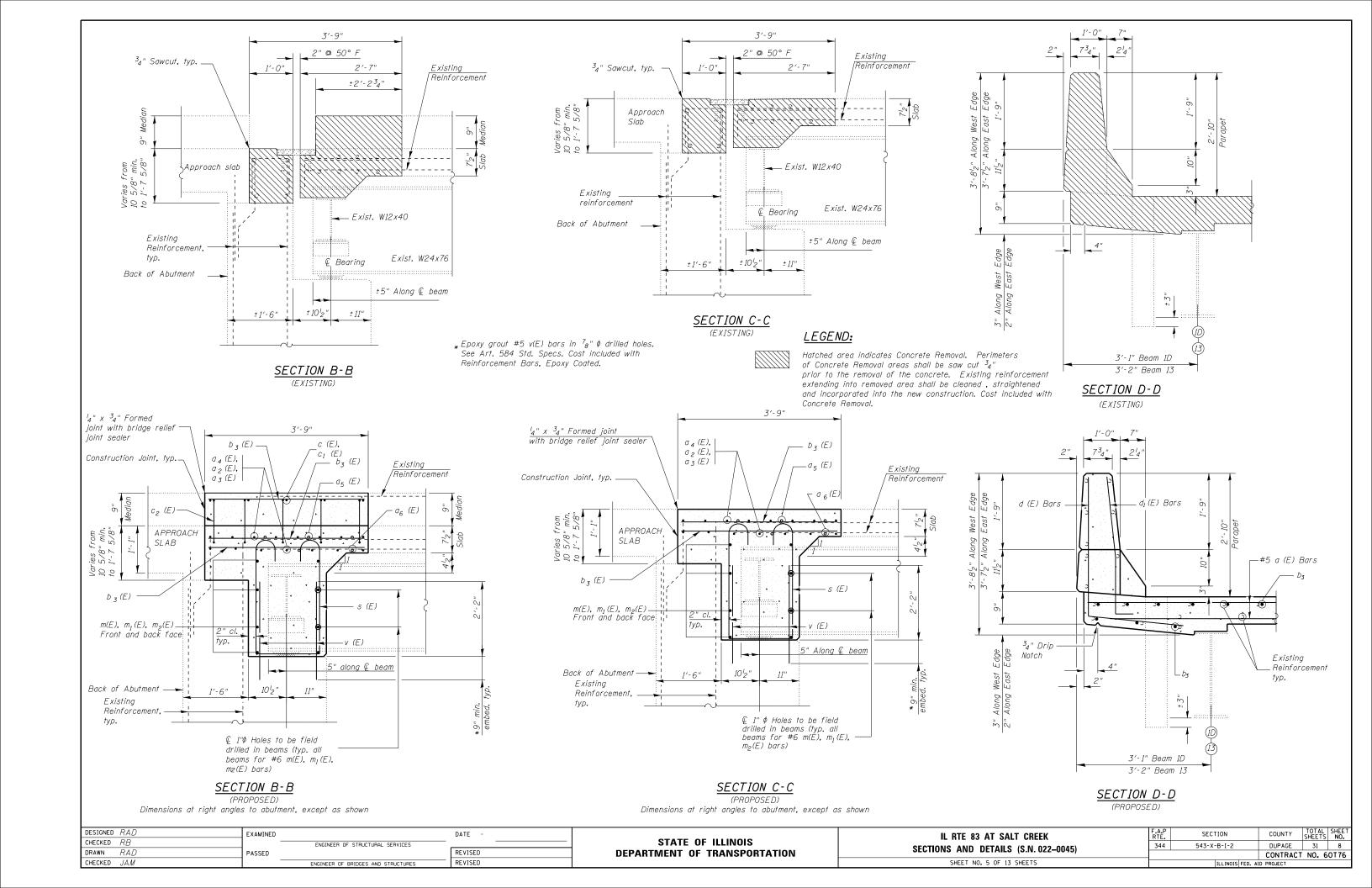
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

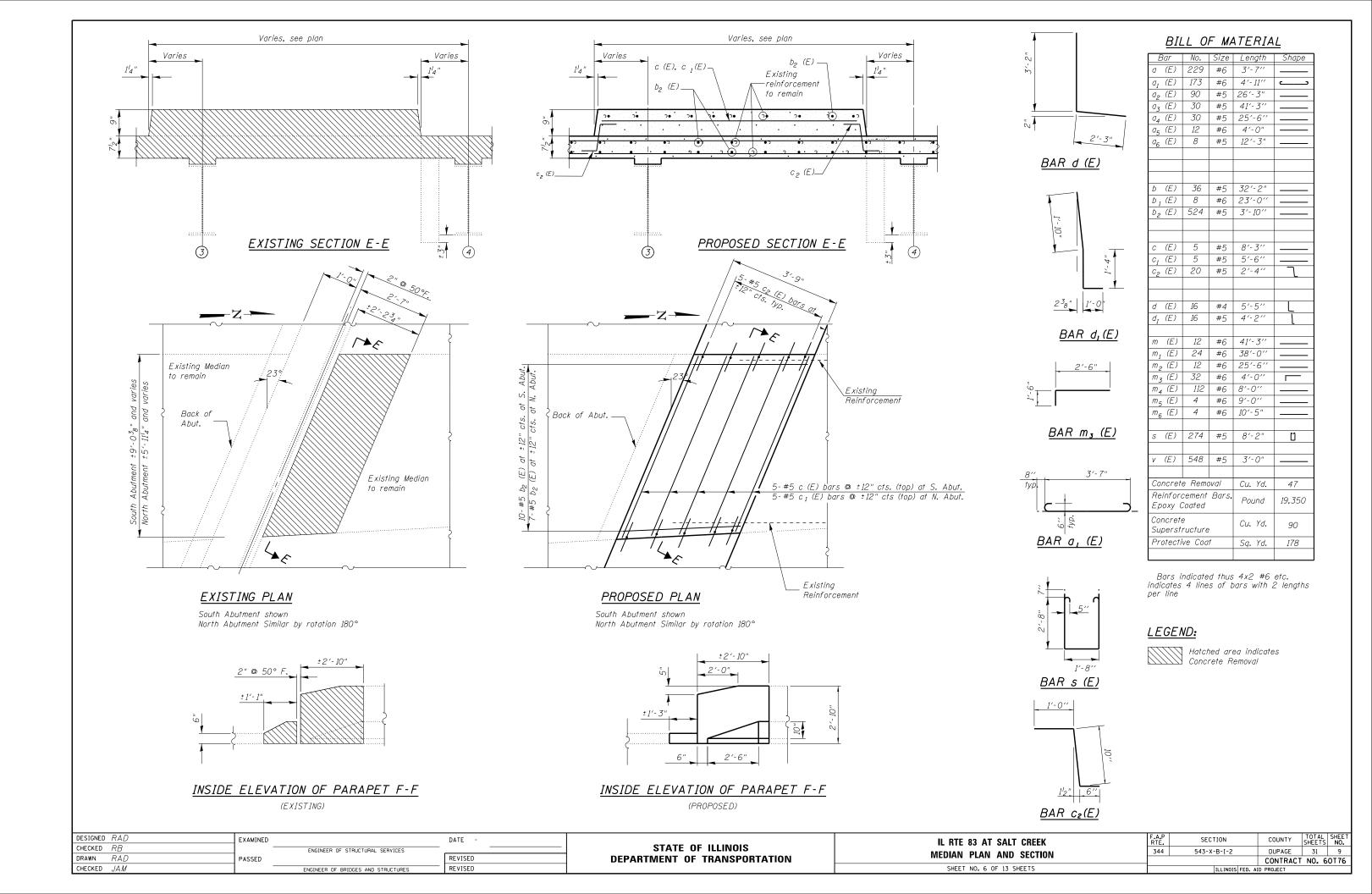
IL RTE 83 AT SALT CREEK

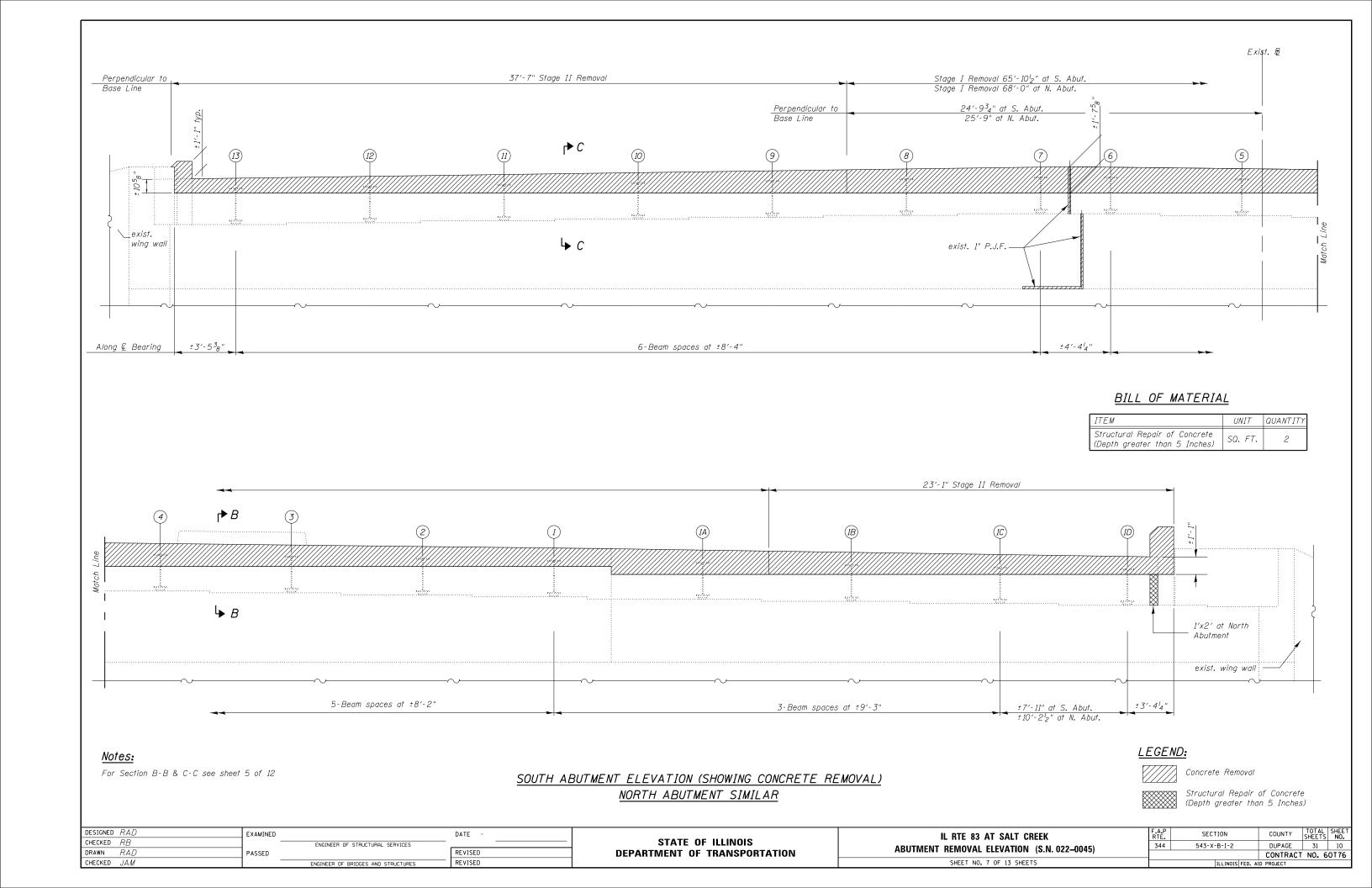
LONGITUDINAL JOINT CLOSURE DETAILS (S.N. 022–0045)

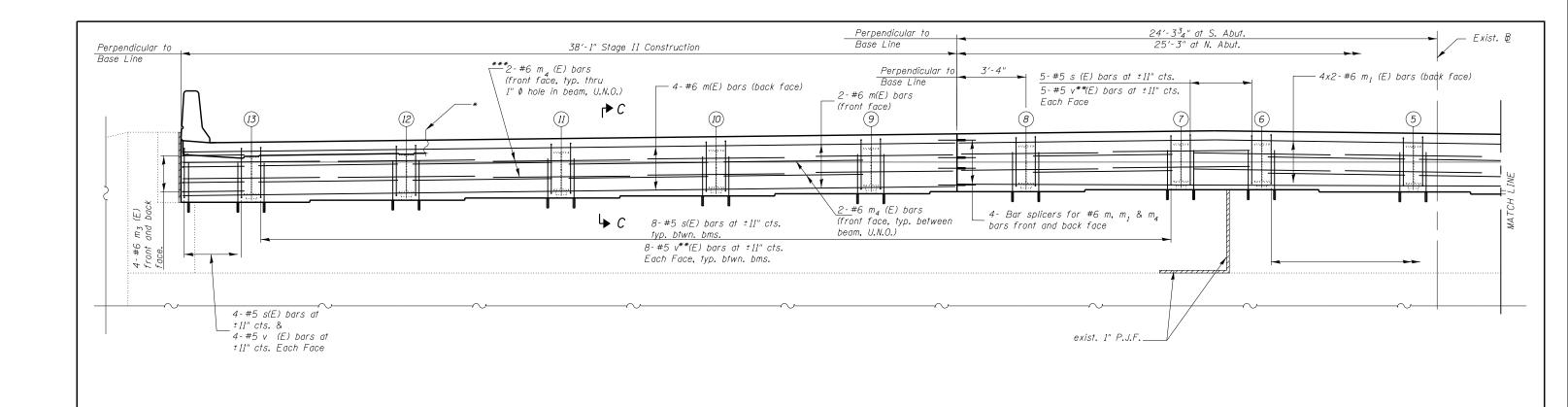
SHEET NO. 3 OF 13 SHEETS

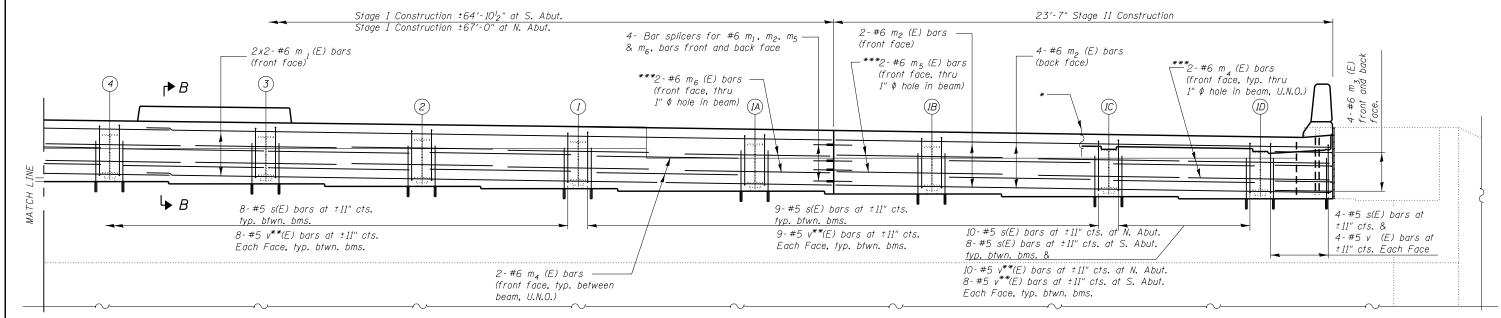












- * Slab information not shown for clarity. See sheet 3 and sheet 4 of 13 for slab information.
- ** Epoxy grout #5 v(E) bars in 7g" \$\phi\$ drilled holes. See Art. 584 Std. Specs. Cost included with Reinforcement Bars, Epoxy Coated.
- *** Secure bars such that they remain centered and level during pouring of the concrete.

## SOUTH ABUTMENT ELEVATION (SHOWING CONCRETE PLACEMENT) NORTH ABUTMENT SIMILAR

MIN. BAR LAP #6 bar = 3'-4''

#### Notes:

Reinforcement bars are billed with superstructure on sheet 6 of 13.

Concrete is included with Concrete Superstructure on sheet 6 of 13.

For details of bars s(E) see sheet 6 of 13.

The s(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

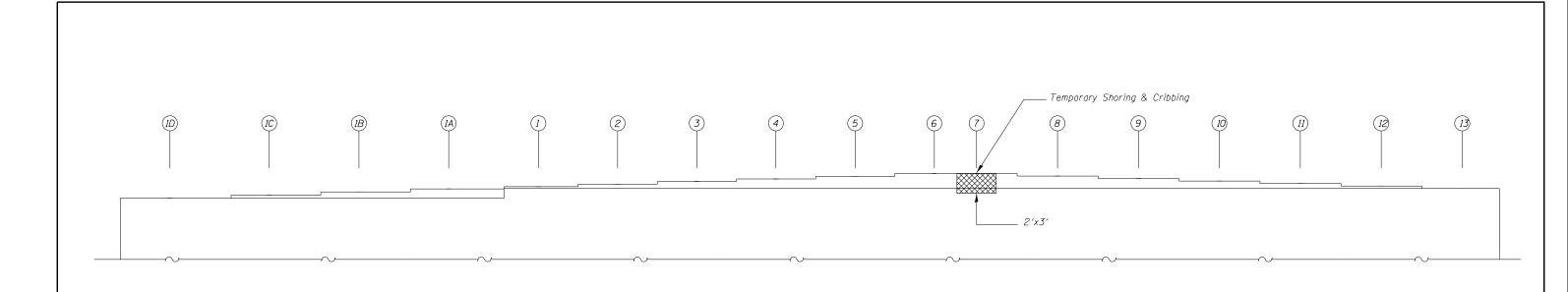
For Bar Splicer Details, See sheet 13 of 13

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction.

Bars indicated thus 4x2 #6 etc. indicate 4 lines of bars with 2 lengths per line.

For Section B-B & C-C see sheet 5 of 13

DESIGNED RAD	EXAMINED		DATE -	OTATE OF HANDIO	IL RTE 83 AT SALT CREEK	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
CHECKED RB	ENGINE	ER OF STRUCTURAL SERVICES		STATE OF ILLINOIS	ABUTMENT PLACEMENT ELEVATION (S.N. 022-0045)	344	543-X-B-I-2	DUPAGE	31 11
DRAWN RAD	PASSED		REVISED	DEPARTMENT OF TRANSPORTATION	ADDITION (3.14. 022-0043)			CONTRACT	T NO. 60T76
CHECKED JAM	ENGINEER	OF BRIDGES AND STRUCTURES	REVISED		SHEET NO. 8 OF 13 SHEETS		ILLINOIS FED	. AID PROJECT	



ELEVATION VIEW <u>PIER 1</u> <u>LOOKING NORTH</u>

INTE	RIOR G	IRDER REACTION TABLE
		Pier 1
R₽	(k)	52.1
R4	(k)	44.8
$R_I$	(k)	13.4
R Total	(k)	110.3

## BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE >5"	SQ. FT.	6
TEMPORARY SHORING & CRIBBING	EACH	1

## <u>LEGEND:</u>

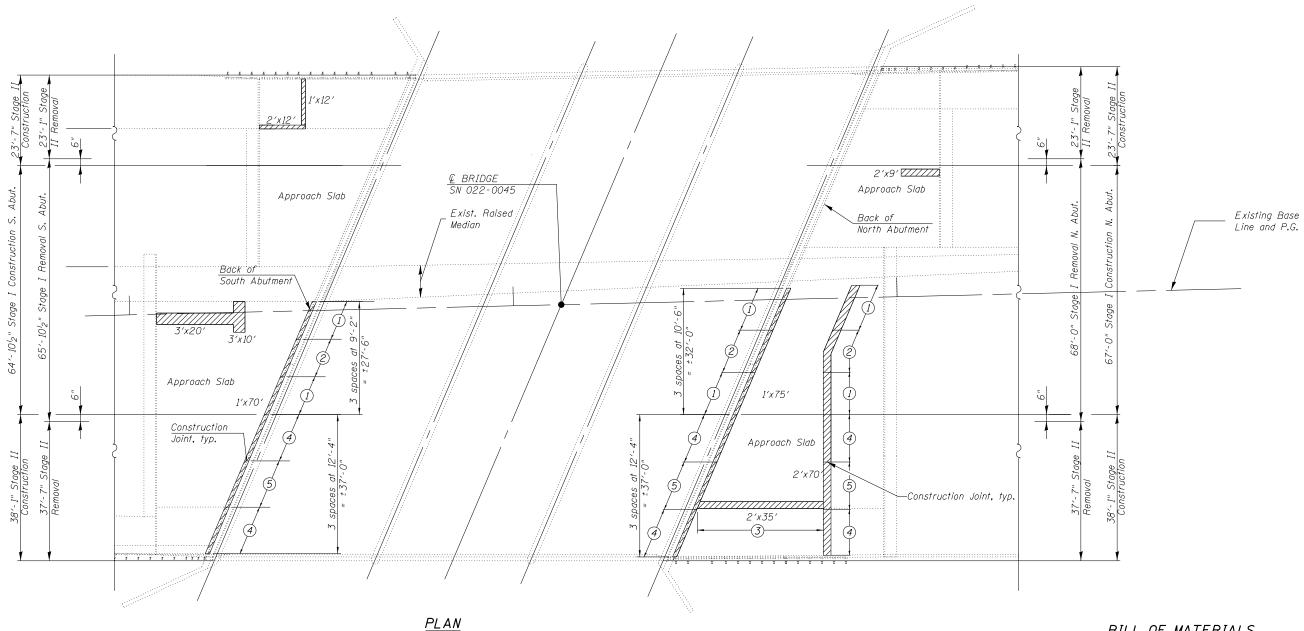


STRUCTURAL REPAIR OF CONCRETE > 5"

DESIGNED	RAD	EXAMINED		DATE -	
CHECKED	RB	] .	ENGINEER OF STRUCTURAL SERVICES		
DRAWN	RAD	PASSED		REVISED	
CHECKED	JAM	1 -	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	ļ

IL RTE 83 AT SALT CREEK		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PIER 1 REPAIR (S.N. 022-0045)	344	543-X-B-I-2	DUPAGE	31	12
FILM 1 NEFAIN (3.14. 022-0043)			CONTRACT	NO. 6	OT76
SHEET NO. 9 OF 13 SHEETS		ILLINOIS FED. AI	D PROJECT		



## Approach Slab Repair (Full depth) Sequence:

When the pour is stopped at the construction joints in the sequence as shown, the next pour shall not be made until both of the following are met:

- 1. At least 72 hours shall have elapsed from the end of the previous pour and 2. The concrete shall have attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3500 psi

## BILL OF MATERIALS

ITEM	UNIT	QUANTITY		
APPROACH SLAB REPAIR (FULL DEPTH)	SQ. YD.	56		

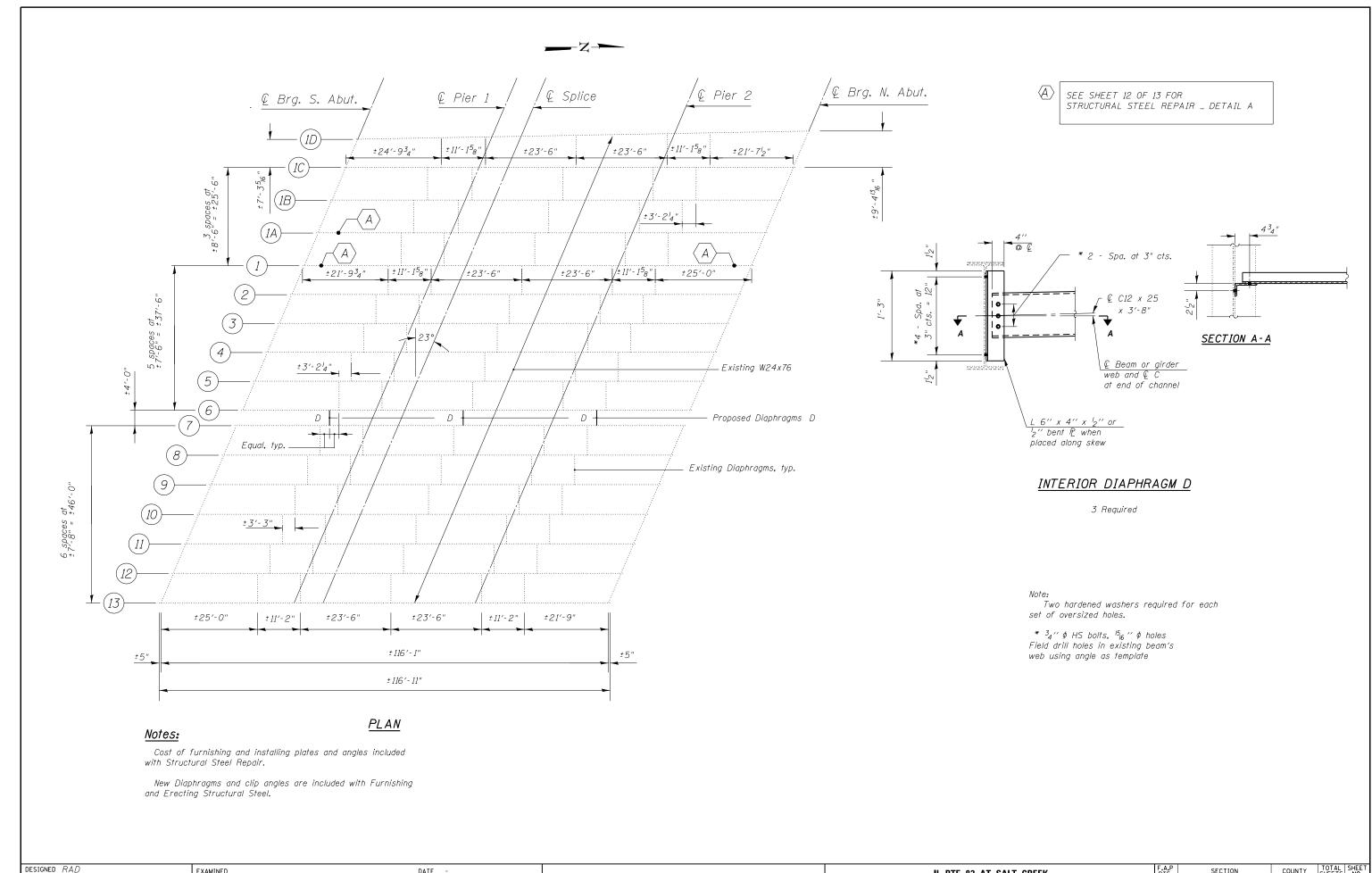
## LEGEND:



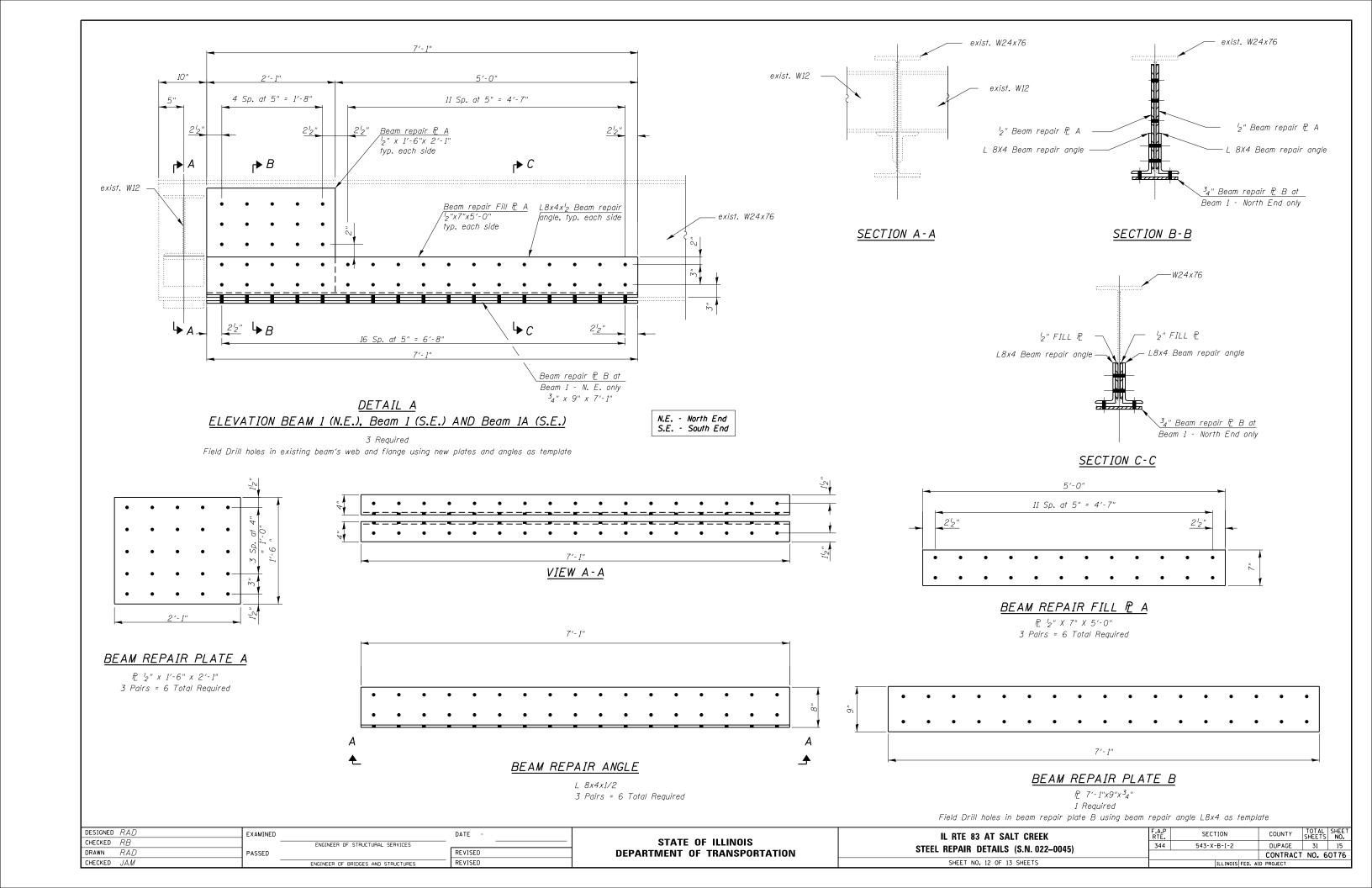
APPROACH SLAB REPAIR (FULL DEPTH)

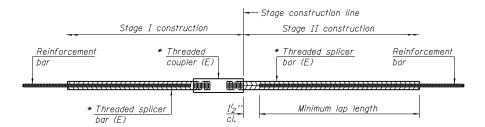
Approach Slab Repair (Full Depth) to be completed in sequence

DESIGNED RAD	EXAMINED	DATE -		IL RTE 83 AT SALT CREEK	F.A.P SECTION	COUNTY TOTAL SHEET SHEETS NO.
CHECKED RB	ENGINEER OF STRUCTURAL SERVICES	DEVICED	STATE OF ILLINOIS	APPROACH SLABS REPAIR (S.N. 022-0045)	344 543-X-B-I-2	DUPAGE 31 13
DRAWN RAD CHECKED JAM	PASSED  FINGINFER OF BRIDGES AND STRUCTURES	REVISED	DEPARTMENT OF TRANSPORTATION	SHEET NO. 10 OF 13 SHEETS	ILLINOIS FED. A	CONTRACT NO. 60T76



DESIGNED RAD	EXAMINED	DATE -	OTATE OF HAMOIO	IL RTE 83 AT SALT CREEK	F.A.P RTE. SECTION	COUNTY TOTAL SHEET NO.
CHECKED RB	ENGINEER OF STRUCTURAL SERVICES	DEVICES	STATE OF ILLINOIS	STEEL REPAIR DETAILS (S.N. 022-0045)	344 543-X-B-I-2	DUPAGE 31 14
DRAWN RAD CHECKED JAM	PASSED	REVISED	DEPARTMENT OF TRANSPORTATION	SHEET NO. 11 OF 13 SHEETS	ILLINOIS FED.	CONTRACT NO. 60T76  AID PROJECT





#### STANDARD BAR SPLICER ASSEMBLY

Minimum Lap Lengths								
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6		
3, 4	1'-5''	1'-11''	2'-1''	2'-4''	2'-7''	2'-11''		
5	1'-9''	2'-5''	2'-7''	2'-11''	3'-3''	3′-8′′		
6	2'-1''	2'-11''	3'-1''	3′-6′′	3′-10′′	4'-5''		
7	2'-9''	3′-10′′	4'-2''	4'-8''	5′-2′′	5′-10′′		
8	3'-8''	5′-1′′	5′-5′′	6'-2''	6′-9′′	7′-8′′		
9	4'-7''	6′-5′′	6′-10′′	7'-9''	8'-7''	9′-8′′		

Table 1: Black bar, 0.8 Class C

Table 2: Black bar, Top bar lap, 0.8 Class C

Table 3: Epoxy bar, 0.8 Class C

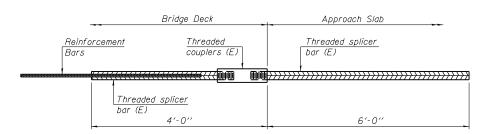
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Table 5: Epoxy bar, Class C Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length +  $1_2^{\prime\prime}$  + thread length

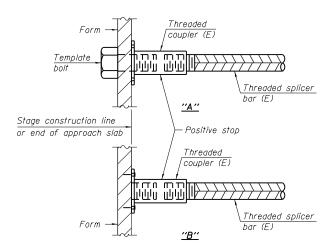
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

I ocation	Bar	No. assemblies	Table for minimum
Location	size	required	lap length
N. & S. SLAB END	5	60	Table 4
N. & S. ABUTMENT	6	32	Table 4



## BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

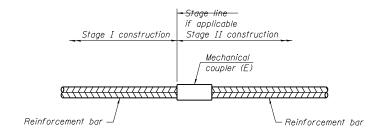
No. required =



#### INSTALLATION AND SETTING METHODS

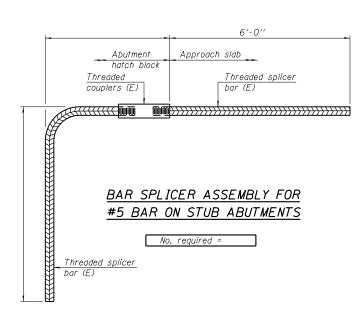
"A": Set bar splicer assembly by means of a template bolt.
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E): Indicates epoxy coating.



#### STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



## <u>NOTES</u>

Splicer bars shall be deformed  $\overline{\text{with thre}}$  and have a minimum 60 ksi yield strength.

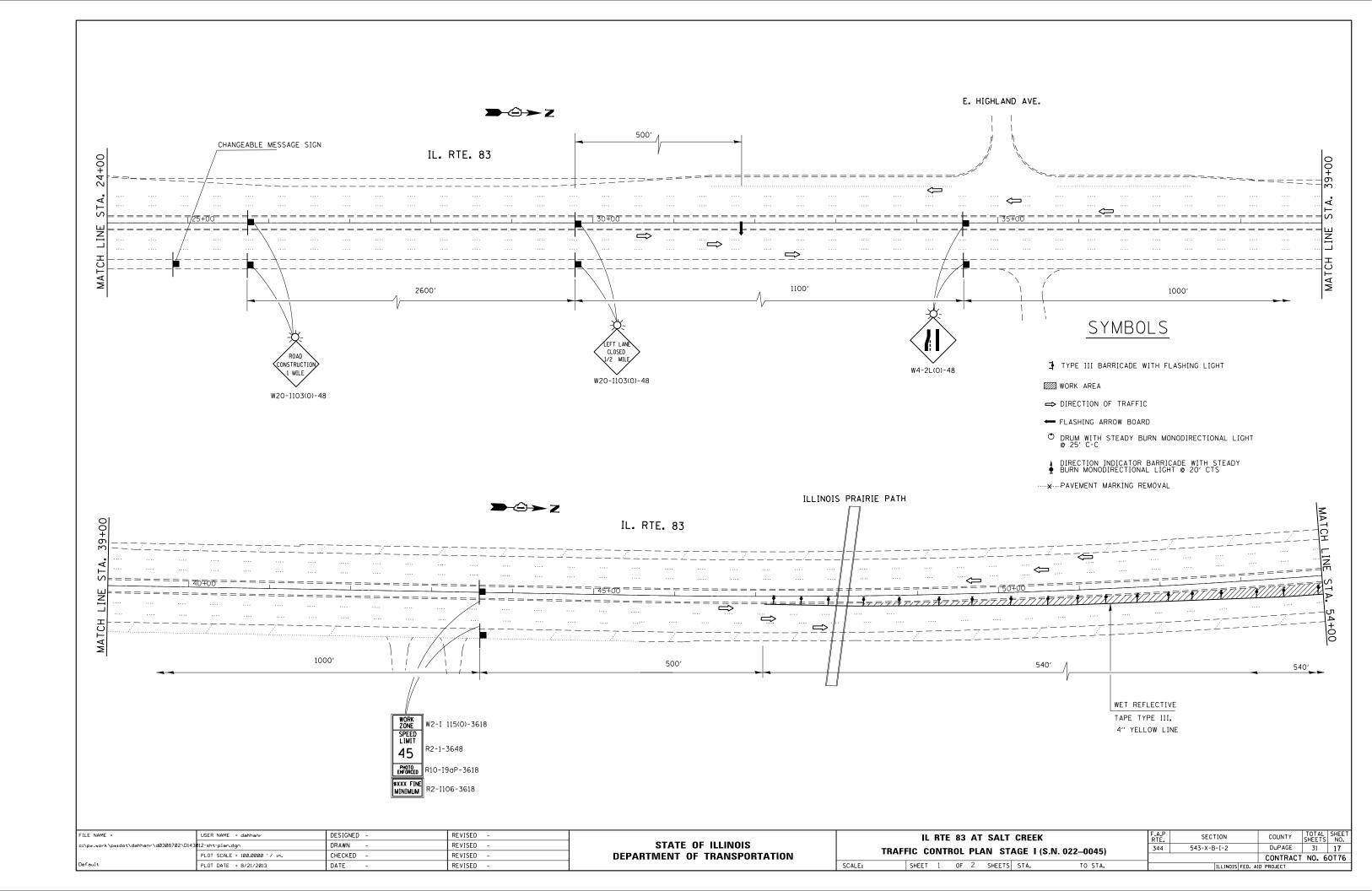
All reinforcement shall be lapped and tied to the splicer bars.

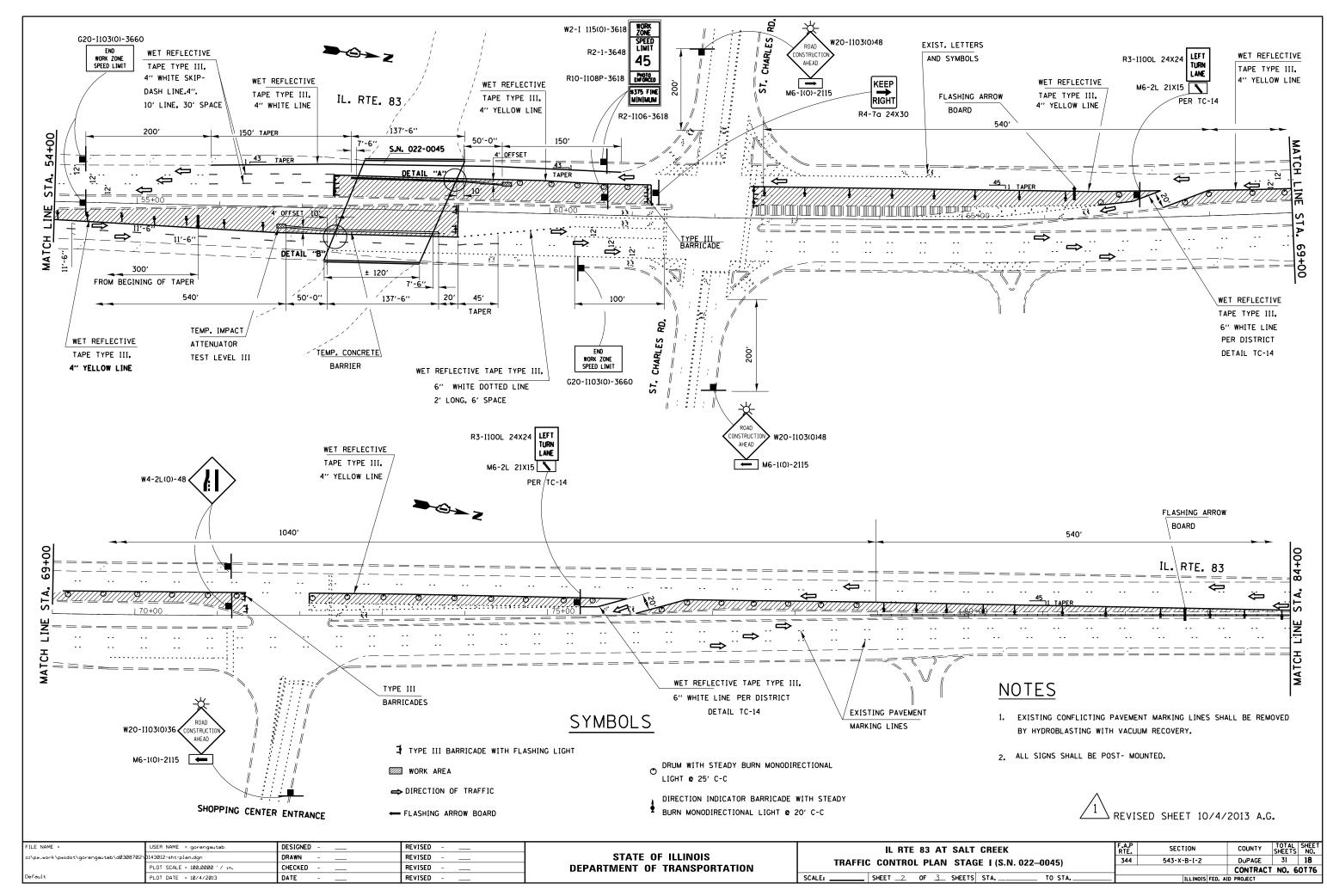
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

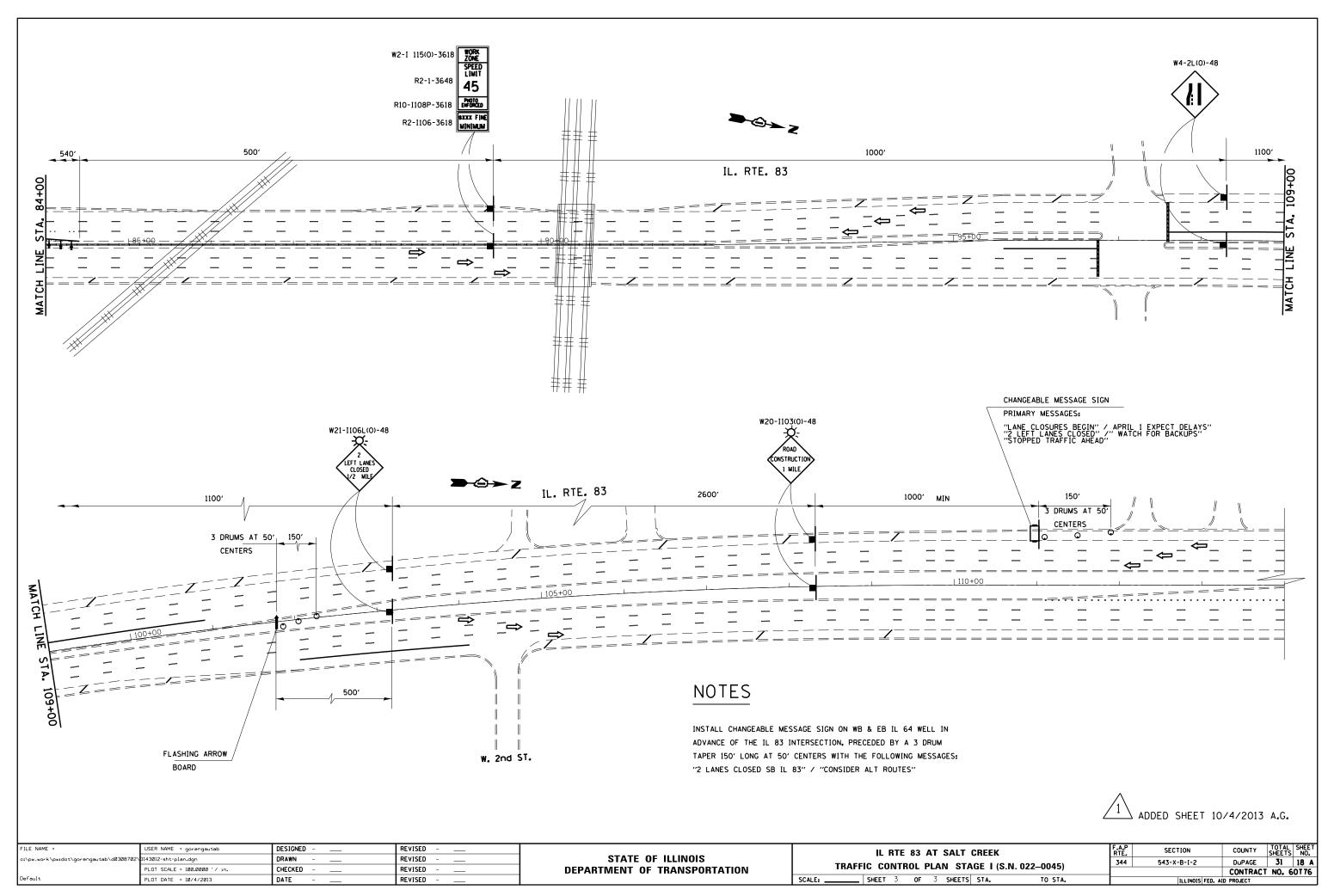
BSD-1

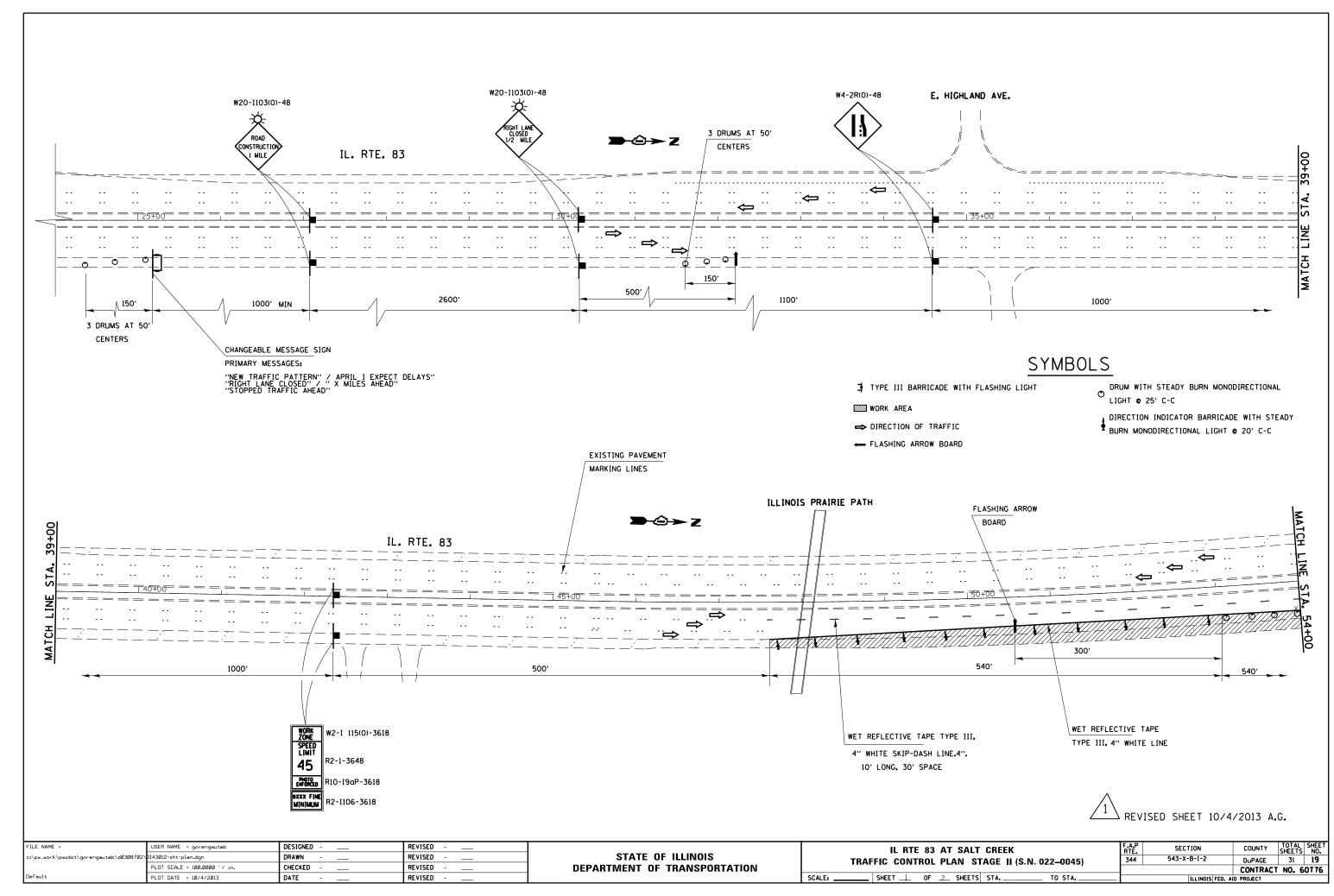
1-27-12

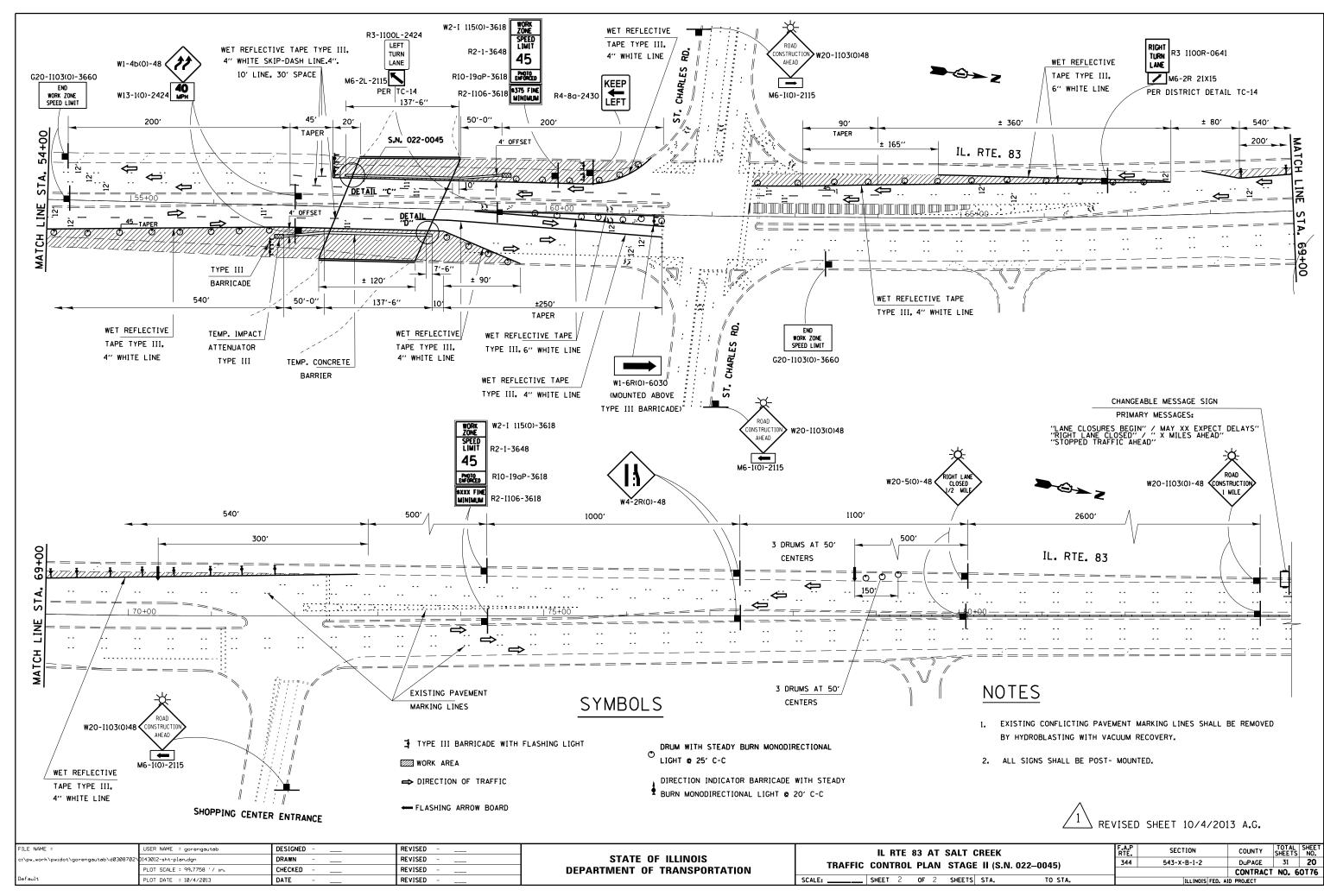
DESIGNED -	EXAMINED	DATE -			BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS	F.A.P RTF	SECTION	COUNTY	TOTAL SHEET
CHECKED -	ENGINEER OF	STRUCTURAL SERVICES	STATE OF ILLI	INOIS	STRUCTURE NO. 022-0045	344	543-X-B-I-2	DUPAGE	31 16
DRAWN -	PASSED	REVISED	DEPARTMENT OF TRAI	NSPORTATION				CONTRACT	T NO. 60T76
CHECKED -	ENGINEER OF E	REVISED REVISED			SHEET NO. 13 OF 13 SHEETS		TI I INOIS FEE	). AID PROJECT	

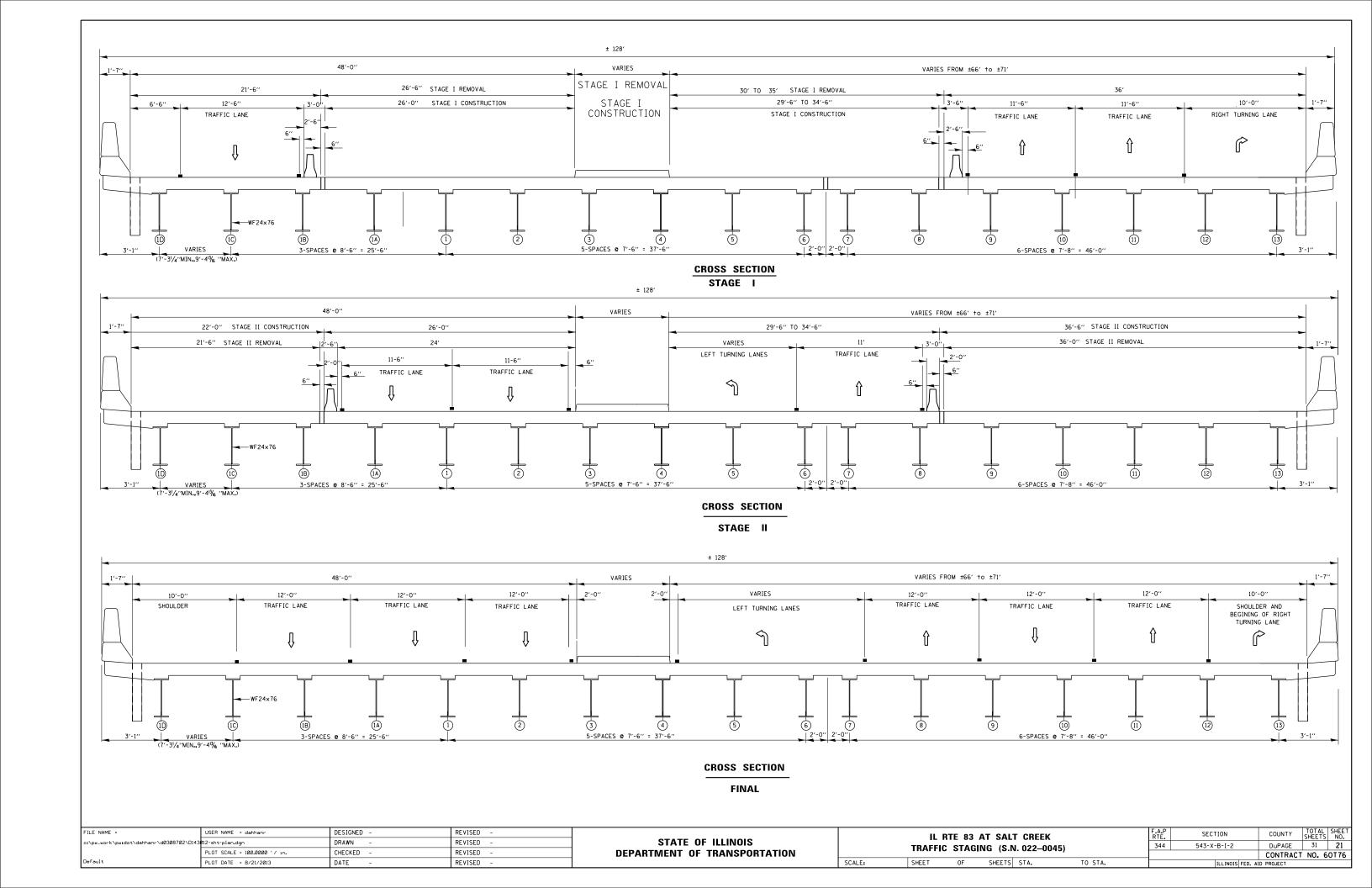


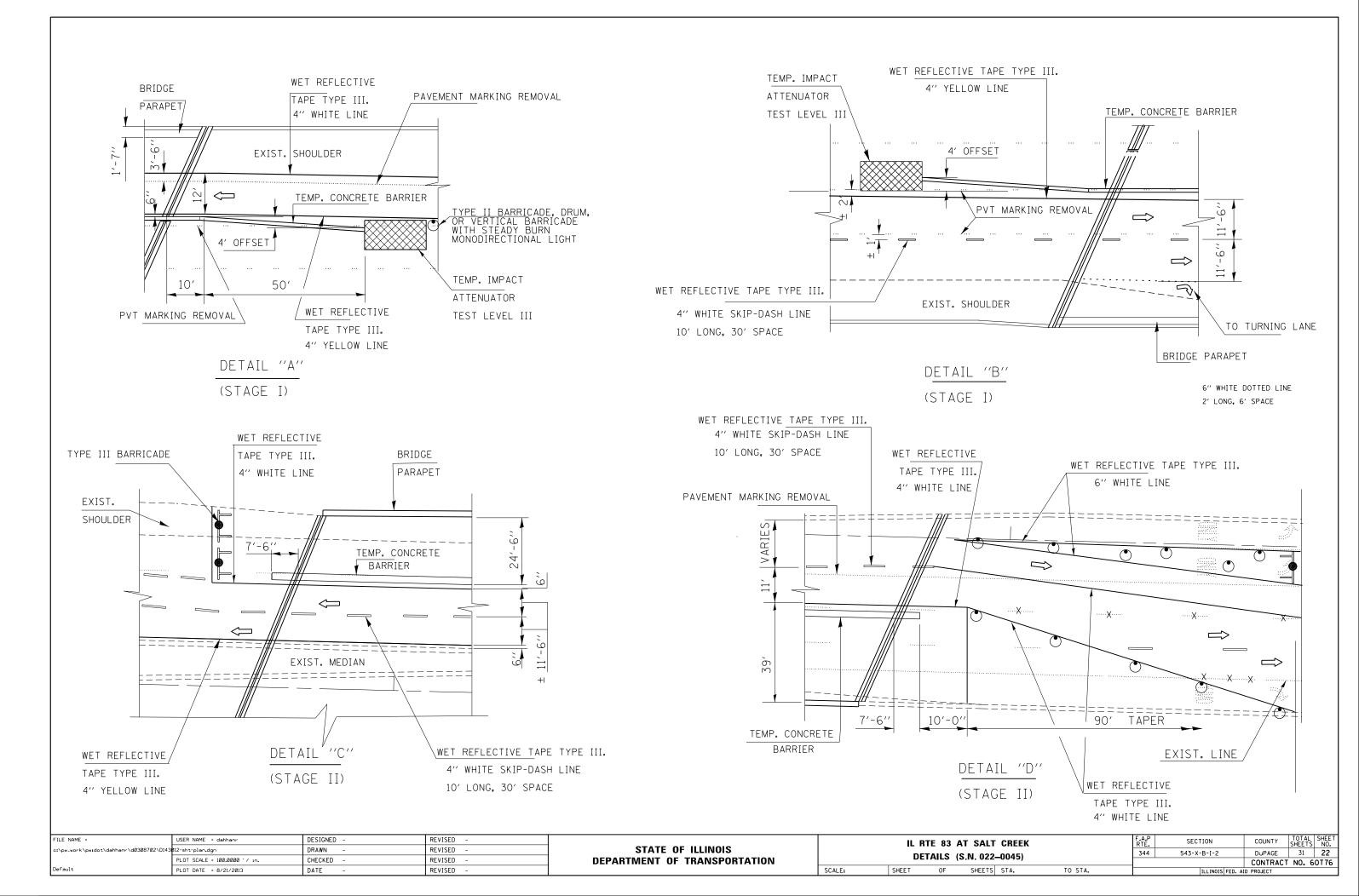


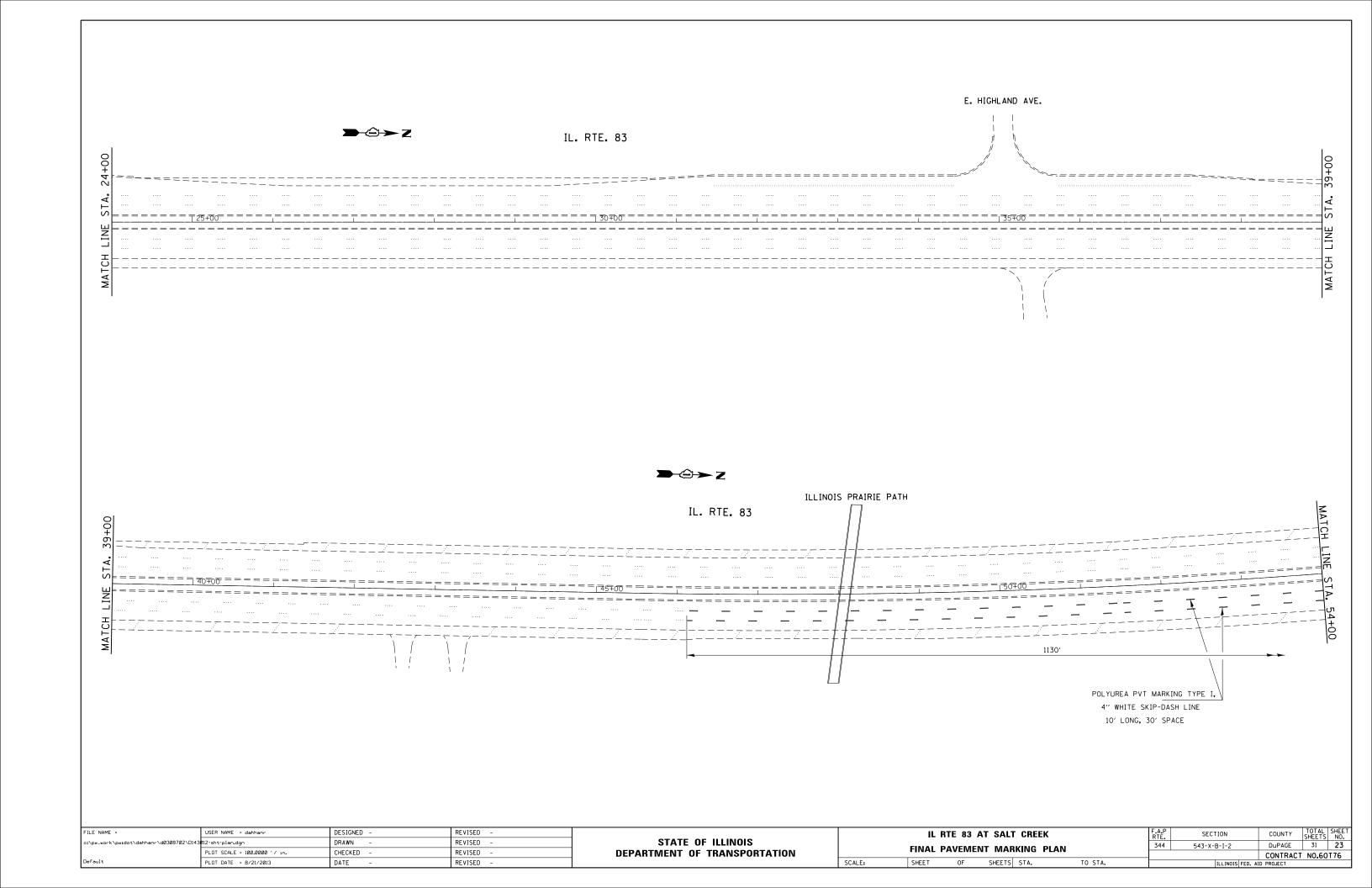


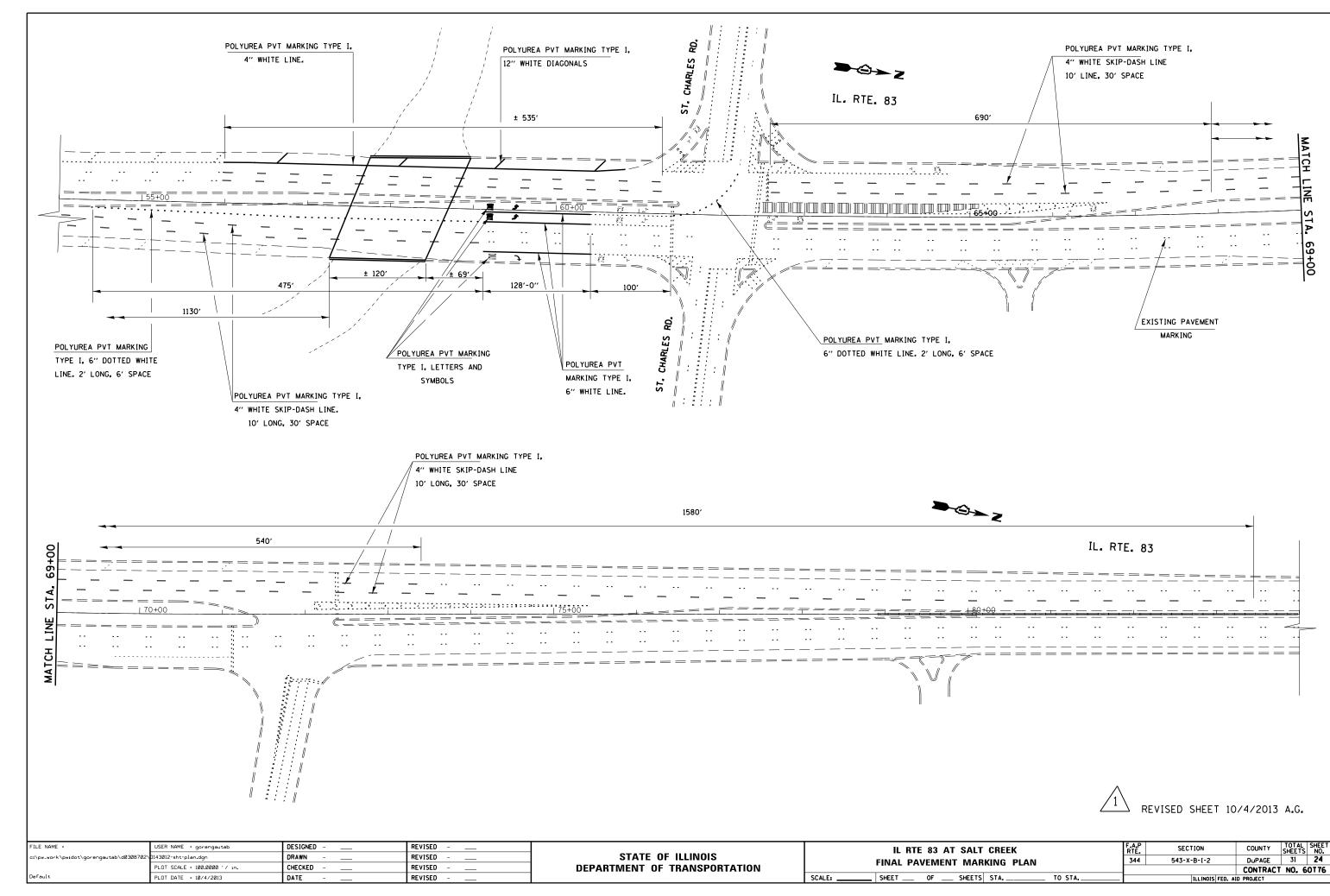


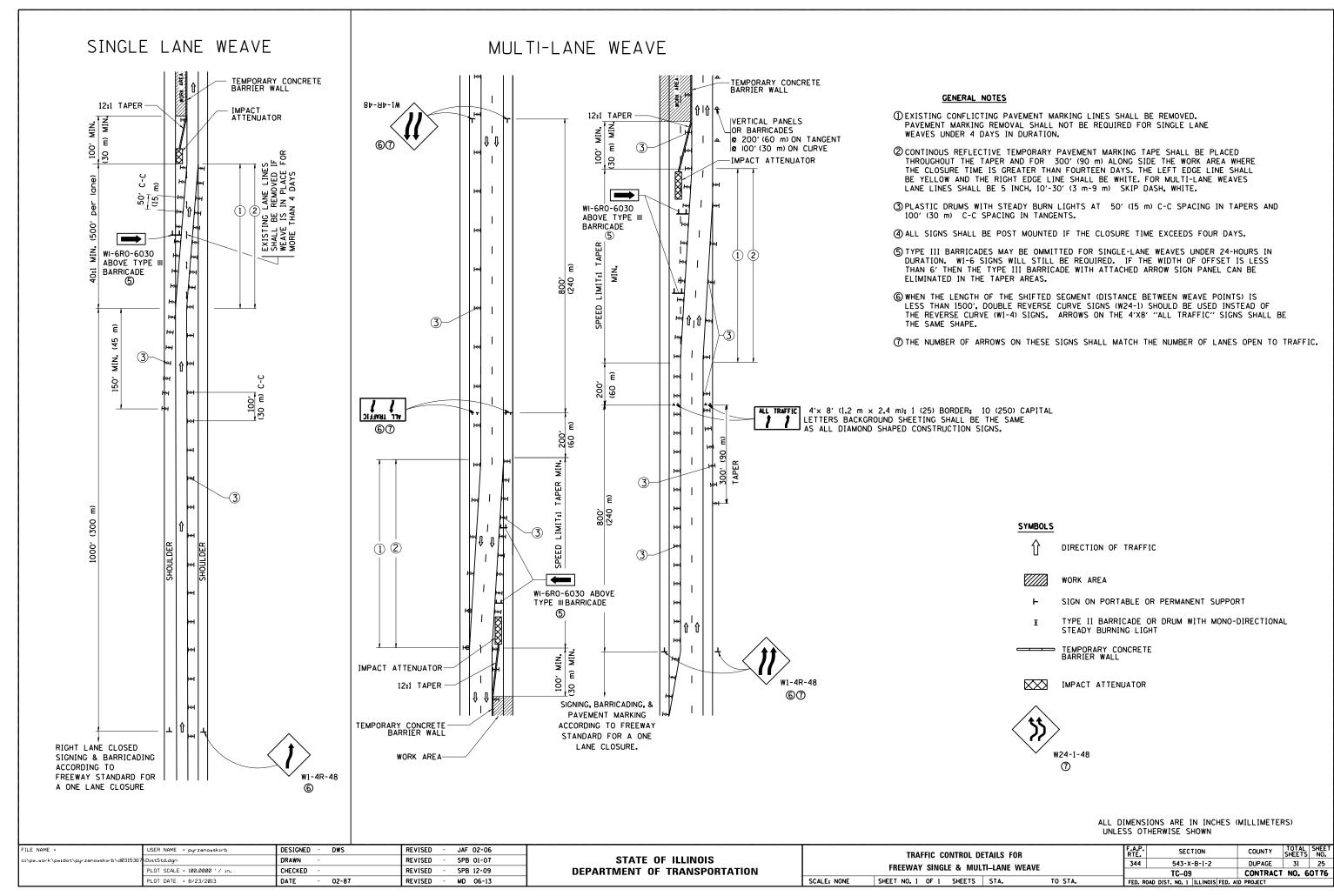


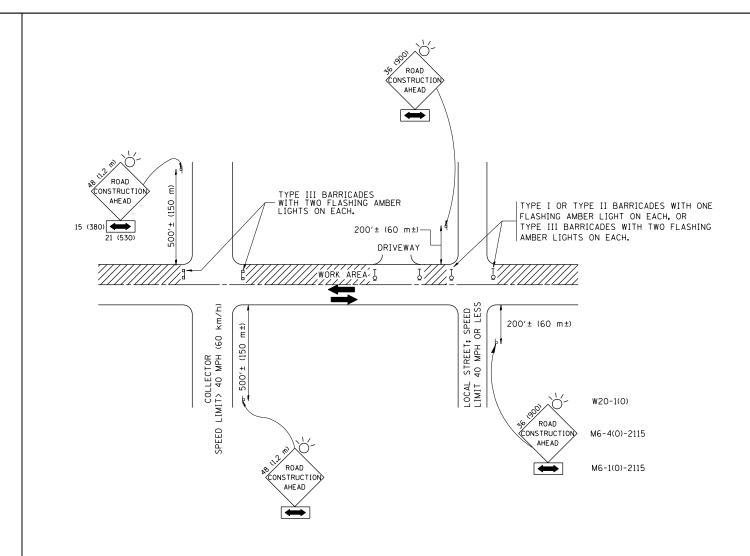












#### TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

#### NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN  $36\times36$  ( $900\times900$ ) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h)
  AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- d) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROLLTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

#### B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

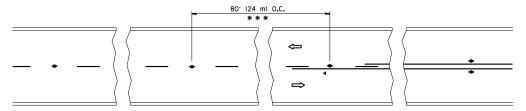
USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

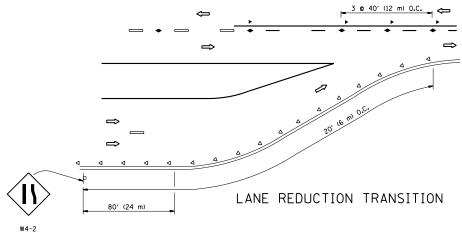
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

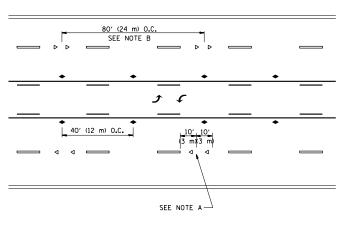
	TRAFFIC SIDE ROADS		OL AND P		
SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.



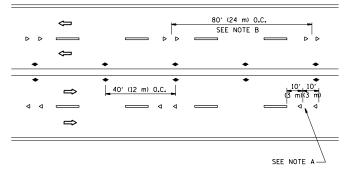
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

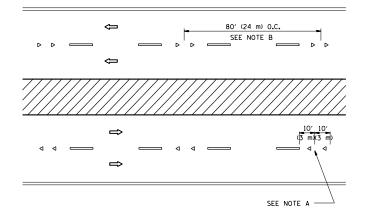




TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

#### GENERAL NOTES

- MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

#### LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

#### SYMBOLS

---- YELLOW STRIPE

---- WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (₩/O)
- ◆ TWO-WAY AMBER MARKER

#### DESIGN NOTES

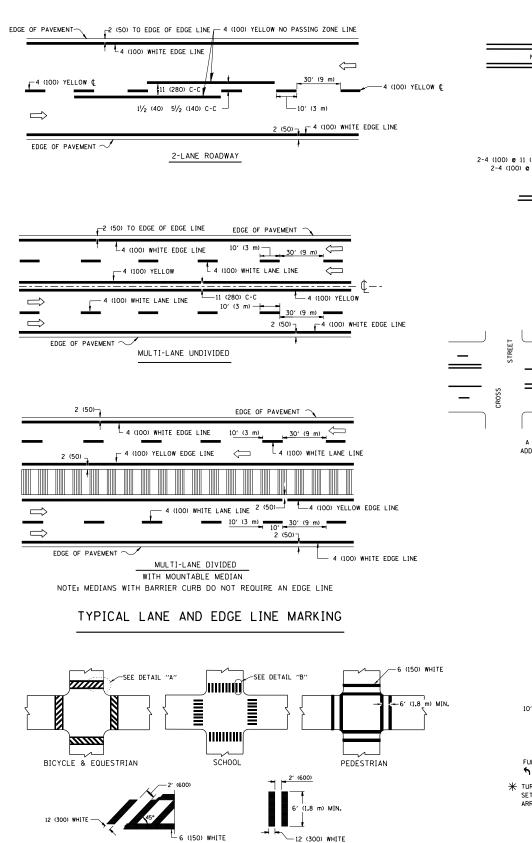
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

#### 

LEFT TURN

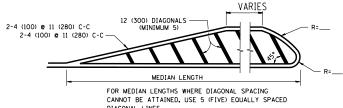
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = dahhanr	DESIGNED -	REVISED - T. RAMMACHER 09-19-94			TYPICAL APPLICATIONS		RTF.	SECTION	COUNTY	SHEETS NO.
c:\pw_work\pwidot\dahhanr\d0308702\Dist	td.dgn	DRAWN -	REVISED -T. RAMMACHER 03-12-99	STATE OF ILLINOIS	DAIOTE		OT 4 1 1 T	344	543-X-B-I-2	DUPAGE	31 27
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	KAISED	REFLECTIVE PAVEMENT MARKERS (SNOW–PLOW RESI	STANT)		TC-11	CONTRACT	T NO. 60176
	PLOT DATE = 8/21/2013	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO S	TA.	FED. ROAL	D DIST. NO. 1   ILLINOIS	FED. AID PROJECT	



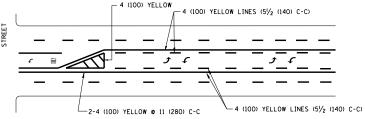
4' (1.2 m) OUTSIDE TO NO DIAGONALS OUTSIDE OF LINES __ 2-4 (100) YELLOW @ 11 (280) C-C

#### 4' (1.2 m) WIDE MEDIANS ONLY

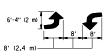


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

#### MEDIANS OVER 4' (1.2 m) WIDE

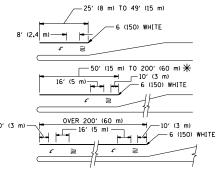


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

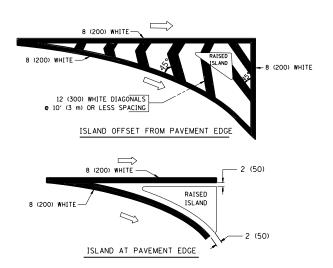


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m² )  $\P$  AREA = 20.8 SO. FT. (1.9 m²)

* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

#### TYPICAL TUPN LAND MARKING



#### TYPICAL ISLAND MARKING

TURE OF MIRWING				DELENIE A DELUBAC
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH: 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (500) APART 2' (500) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1,2 m) N ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIACONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"*3.6 SO. FT. (0.33 m²) EACH "X"*54.0 SO. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) <b>©</b> 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (0VER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

TYPICAL	TURN	LANE	MARKING	

FILE NAME =	USER NAME = dahhanr	DESIGNED - EVERS	REVISED	-T. RAMMACHEF	R 10-27-94
c:\pw_work\pwidot\dahhanr\d0308702\Dist	td.dgn	DRAWN -	REVISED	-C. JUCIUS	09-09-09
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED	-	
	PLOT DATE = 8/21/2013	DATE - 03-19-90	REVISED	-	

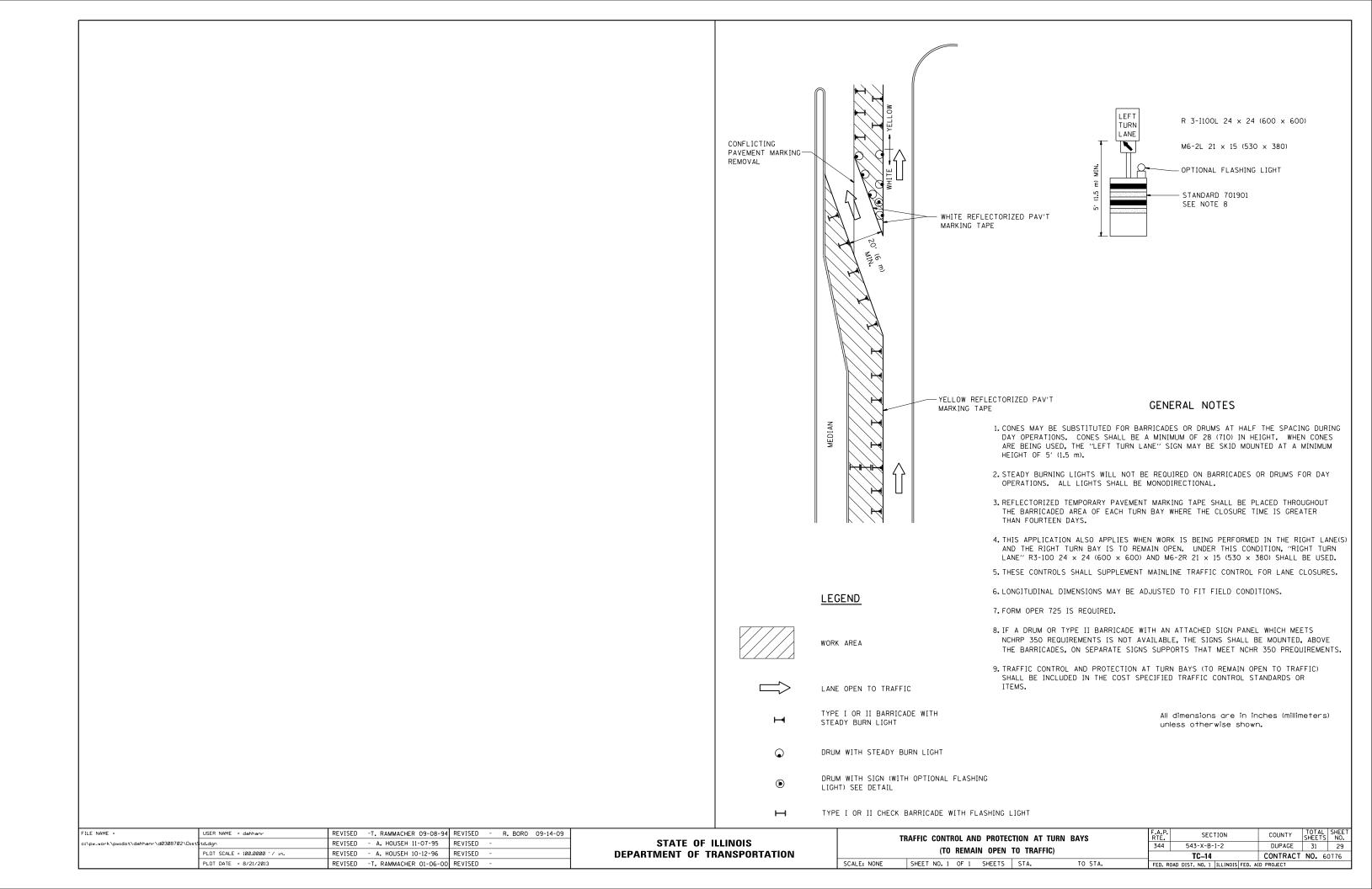
DETAIL "B"

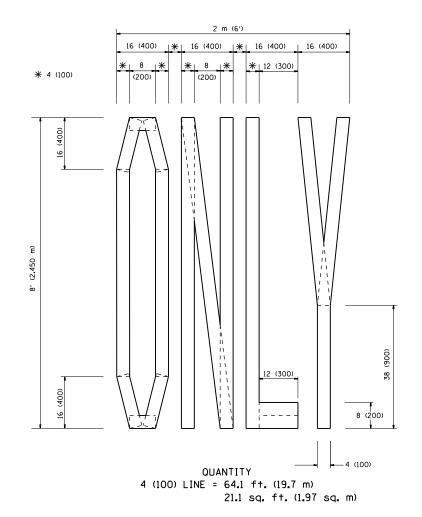
TYPICAL CROSSWALK MARKING

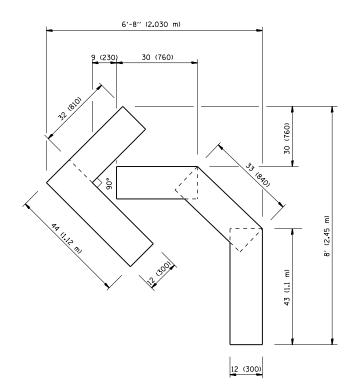
DETAIL "A"

STATE OF ILLINOIS	
<b>DEPARTMENT OF TRANSPORTATION</b>	

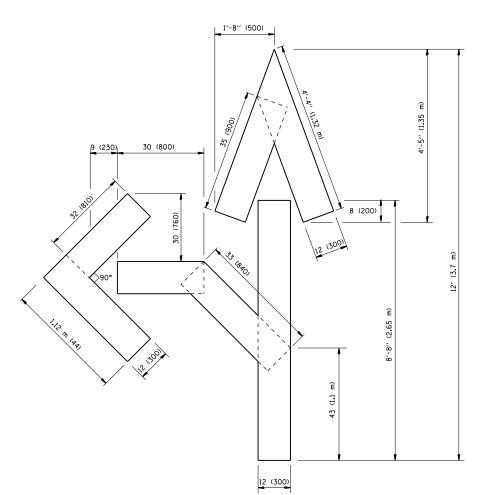
	DISTRICT ONE TYPICAL PAVEMENT MARKINGS						SECTION	COUNTY TOTAL SHEETS		SHEET NO.
							543-X-B-I-2	DUPAGE	31	28
							TC-13	CONTRACT	CONTRACT NO. 60T76	
	SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				







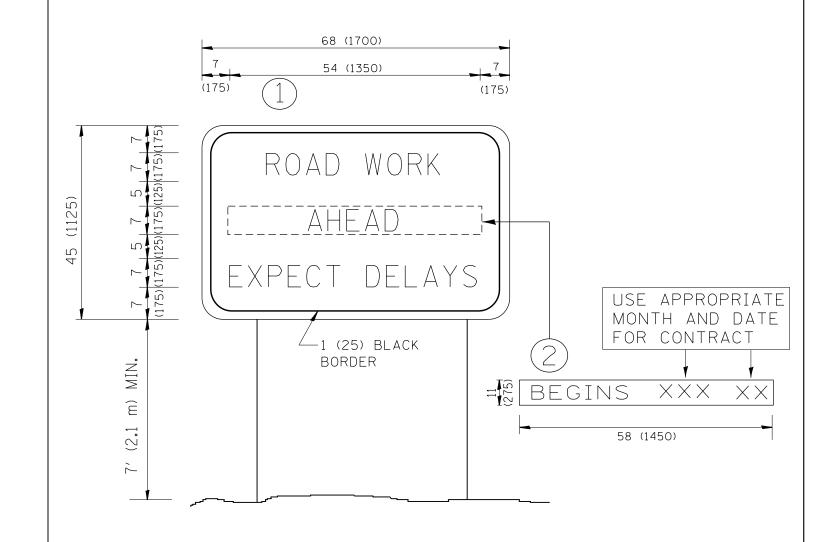
OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = dahhanr	DESIGNED -	REVISED -T. RAMMACHER 06-05-96		PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.P. SECTION	COUNTY TOTAL SHEET
c:\pw_work\pwidot\dahhanr\d0308702\Dist	Std.dgn	DRAWN -	REVISED -T. RAMMACHER 11-04-97	STATE OF ILLINOIS	FOR TRAFFIC STAGING	344 543-X-B-I-2	DUPAGE 31 30
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	DEPARTMENT OF TRANSPORTATION	FUR TRAFFIC STAGING	TC-16	CONTRACT NO. 60176
	PLOT DATE = 8/21/2013	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS F	ED. AID PROJECT



## NOTES:

- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
- 5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
- 6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
- 7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = dahhanr	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD	-	F.A.P.	SECTION	COUNTY TOTAL	
c:\pw_work\pwidot\dahhanr\d0308702\Dist	td.dgn	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS				344	543-X-B-I-2	DUPAGE 31	31
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION	INFORMATION SIGN			TC-22	CONTRACT NO.	60T76	
	PLOT DATE = 8/21/2013	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE SHEE	ET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD [	DIST. NO. 1   ILLINOIS FED. AI		