

F.A.P. RTE. 307	SECTION 2013-047BR	COUNTY COOK	TOTAL SHEETS 16*	SHEET NO. 1
ILLINOIS			CONTRACT NO. 60W96	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 307: IL 64 (NORTH AVE.)
OVER DITCH (BETWEEN 20TH & 21ST STS.)
SECTION: 2013-047BR
CULVERT REPAIR
COOK COUNTY

C-91-408-13

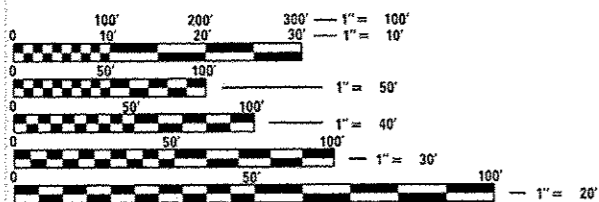
FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED IN
THE VILLAGE OF MELROSE PARK

TRAFFIC DATA

ADT (2011) = 53,600

POSTED SPEED LIMIT = 40 MPH



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

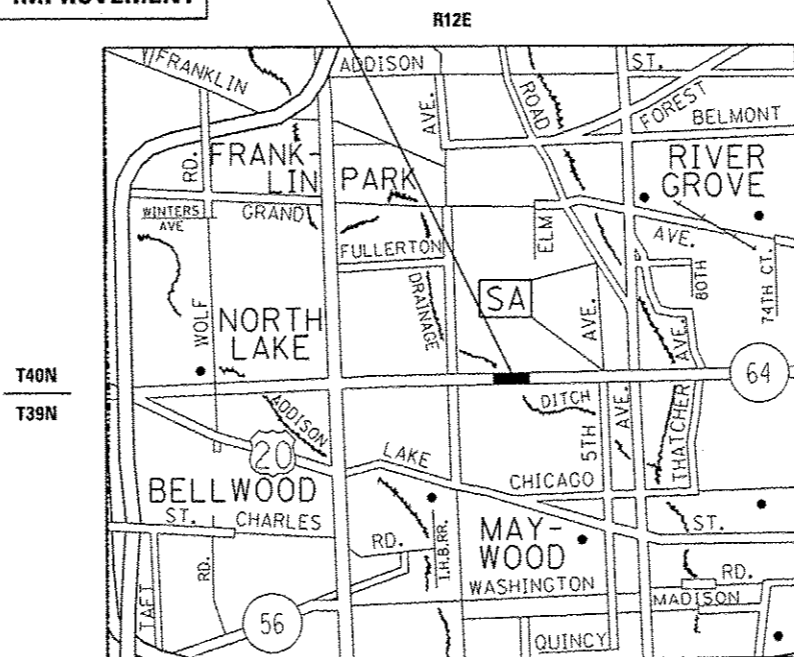
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER J. ALAIN MIDY (847) 221-3056
PROJECT MANAGER ISSAM RAYYAN (847) 705-4178

CONTRACT NO. 60W96

LOCATION OF IMPROVEMENT

SN 016-1259



PROVISO & LEYDEN TOWNSHIPS

GROSS LENGTH = 33.00 FT. = 0.006 MILE
NET LENGTH = 33.00 FT. = 0.006 MILE



LOCATION OF SECTION INDICATED THUS: - [thick black line] -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 14, 2014
John F. ...
DEPUTY DIRECTOR OF HIGHWAYS, REGIONAL ENGINEER

Nov 14, 2014
John D. Baranzoni, PE, for
ENGINEER OF DESIGN AND ENVIRONMENT

Nov 14, 2014
Omer Osman, PE, for
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

GENERAL NOTES

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

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

USE #8 EPOXY COATED TIE BARS, CONFORMING TO ARTICLE 1006.10 OF THE STANDARD SPECS. FOR ALL TIE BARS, USE THE "LONGITUDINAL CONSTRUCTION JOINT (TIE BARS, GROUTED IN PLACE)" DETAIL SHOWN ON HWY STD 420001 FOR ALL LONGITUDINAL JOINTS.

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

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

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

THE CONTRACTOR SHALL DIVERT THE WATER FROM THE WORK AREAS BY A METHOD APPROVED BY THE ENGINEER

THIS PROJECT REQUIRES AN US ARMY CORPS OF ENGINEERS 404 PERMIT. THE PERMIT ISSUED TO THE DEPARTMENT DOES NOT COVER THE INSTREAM WORK BY THE CONTRACTOR. THEREFORE AFTER AWARD, THE CONTRACTOR WILL NEED TO SUBMIT THE WORK PLAN TO THE CORPS. THE CORPS WILL NOT BE PROVIDING AN APPROVAL UNLESS STATED OTHERWISE IN THE PERMIT AND IN STREAM WORK CAN COMMENCE AT THE CONTRACTOR'S DISCRETION. GUIDELINES ON ACCEPTABLE IN STREAM WORK TECHNIQUES CAN BE FOUND ON THE CORPS WEBSITE: [HTTP://WWW.LRC.USACE.ARMY.MIL/](http://www.lrc.usace.army.mil/).

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	TITLE SHEET
2.	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
3.-3A,	SUMMARY OF QUANTITIES
4-6	TRAFFIC CONTROL DETAILS
7-12	CULVERT REPAIR DETAILS
13.	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
14.	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
15.	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)
16.	ARTERIAL ROAD INFORMATION SIGN (TC-22)

HIGHWAY STANDARDS

STANDARD NO	DESCRIPTION
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
643001-02	SAND MODULE IMPACT ATTENUATORS
701101-04	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L 2W, SHORT TIME OPERATIONS
701427-03	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS ≤ 40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701901-04	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER

HMA MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS & Ndes	QUALITY MANAGEMENT PROGRAM (QMP)
FULL DEPTH PAVEMENT		
HMA BINDER COURSE, IL-19, N70 (10 1/2")	4% @ 70 CYR	0c/0a
HMA SURFACE COURSE, MIX "D", N70 (1L 9.5 mm) (2")	4% @ 70 CYR	0c/0a

NOTES:

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112LB/SY/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS

CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

FILE NAME :	USER NAME : guillaumefp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\p\work\p\dot\guillaumefp\d0358493\	148013-ent-plan.dgn	DRAWN -	REVISED -			307	2013-0478R	COOK	16	2
Default	PLOT SCALE = 120.0000 ' / 1" =	CHECKED -	REVISED -			CONTRACT NO. 60W96				
	PLOT DATE = 5/18/2014	DATE -	REVISED -			ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES				URBAN 100% STATE CONSTRUCTION TYPE CODE						SUMMARY OF QUANTITIES				URBAN 100% STATE CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0040						CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0040					
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	28	28						* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE	FOOT	675	675					
											4"								
40701931	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 12 1/2"	SQ YD	70	70						* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	76	76					
44000100	PAVEMENT REMOVAL	SQ YD	70	70						* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	8	8					
50102400	CONCRETE REMOVAL	CU YD	16.5	16.5						78300100	PAVEMENT MARKING REMOVAL	SQ FT	225	225					
50300300	PROTECTIVE COAT	SQ YD	118	118						78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	76	76					
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2520	2520						85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1					
50800515	BAR SPLICERS	EACH	35	35						X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1					
54003000	CONCRETE BOX CULVERTS	CU YD	16.5	16.5						X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	1684	1684					
64300450	IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2						Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	100	100					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6						Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	53	53					
67100100	MOBILIZATION	L SUM	1	1						Z0016002	DECK SLAB REPAIR (FULL-DEPTH, TYPE I-I)	SQ YD	7	7					
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	3	3						Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	34	34					
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	900	900															
70400100	TEMPORARY CONCRETE BARRIER	FOOT	100	100															

* Specialty Items

Rev.

SUMMARY OF QUANTITIES			URBAN 100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	0040						
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	51.4	51.4					
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1					

SUMMARY OF QUANTITIES			URBAN 100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	0040						

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 CHECKED: -
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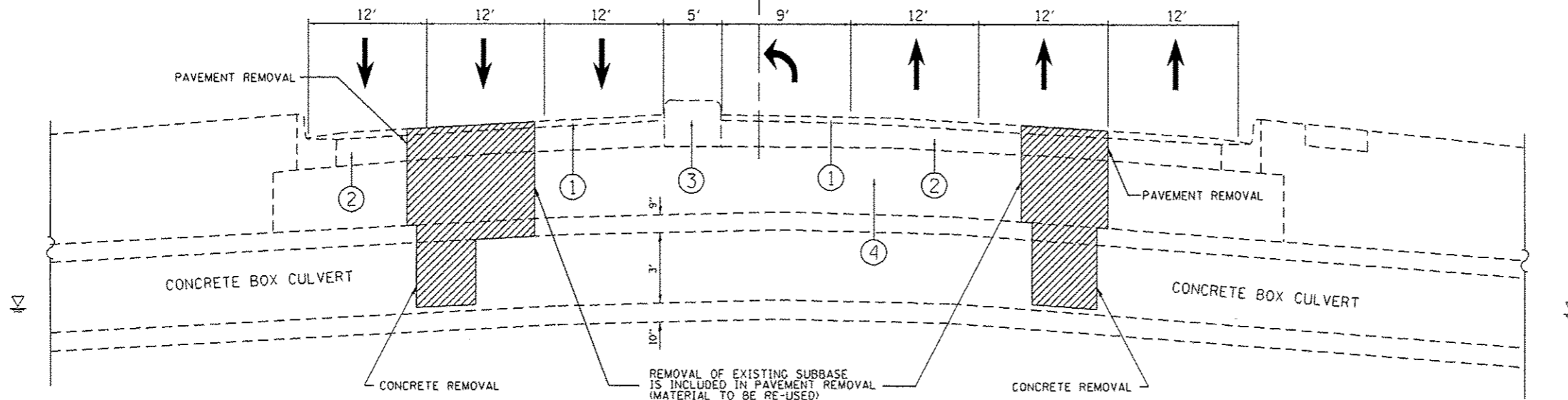
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2013-047BR	COOK	16	3A
CONTRACT NO.				
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

IL 64 (NORTH AVE)

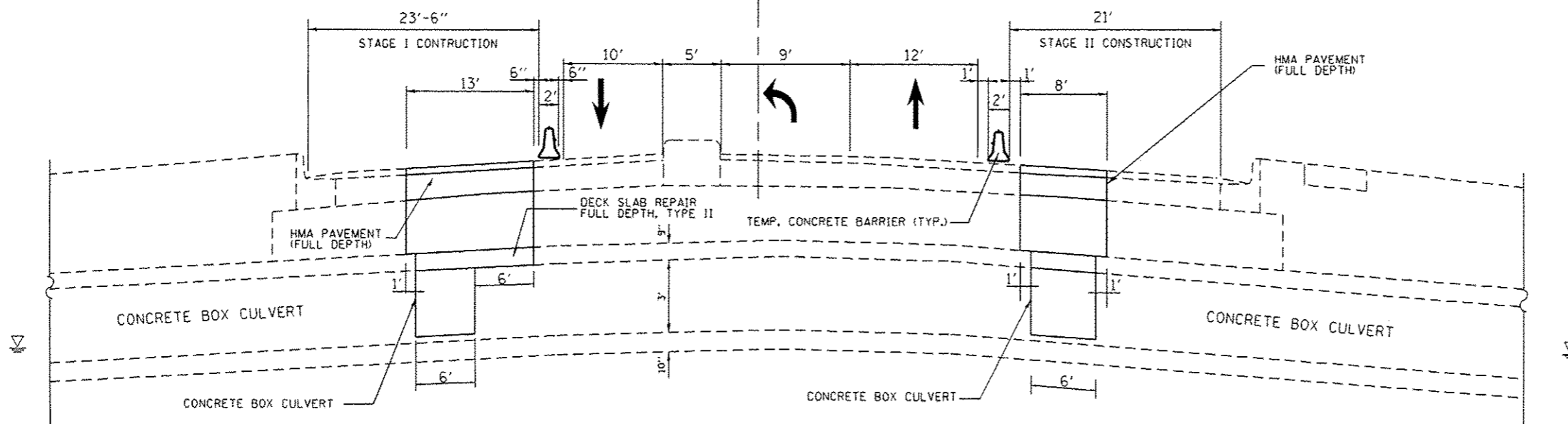


EXISTING CROSS SECTION

LEGEND

- ① EXISTING 2 1/2" HMA OVERLAY
- ② EXISTING 9" PCC PAVEMENT
- ③ EXISTING CONCRETE MEDIAN
- ④ EXISTING SUBBASE GRANULAR MATERIAL, ±9"

IL 64 (NORTH AVE)



CONSTRUCTION STAGE

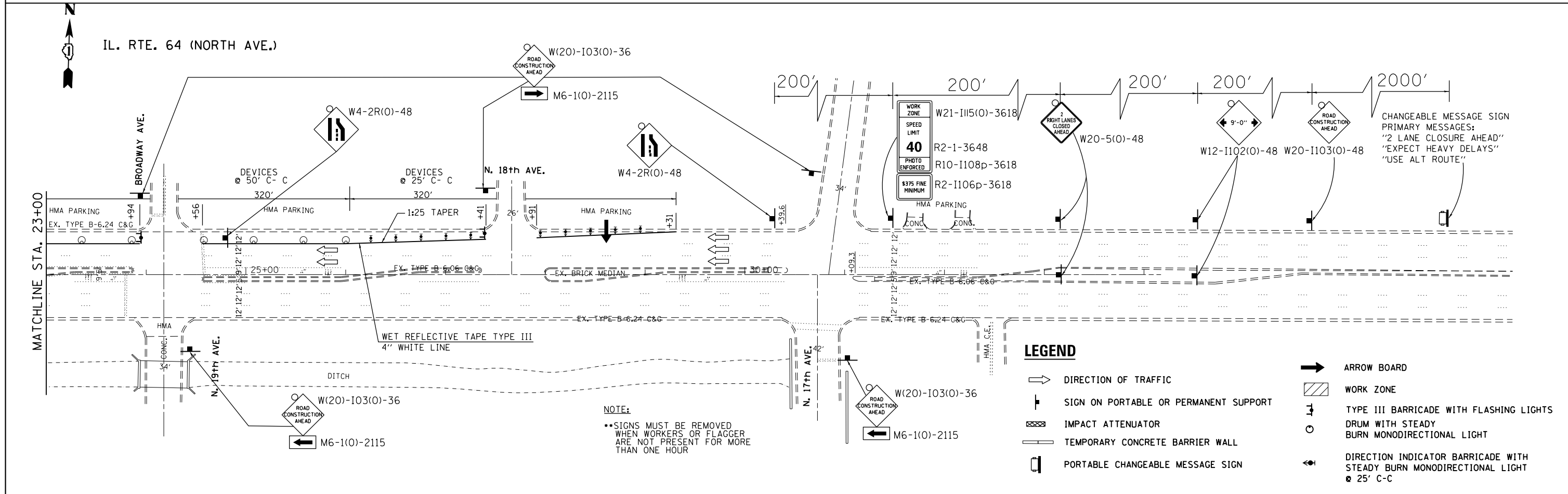
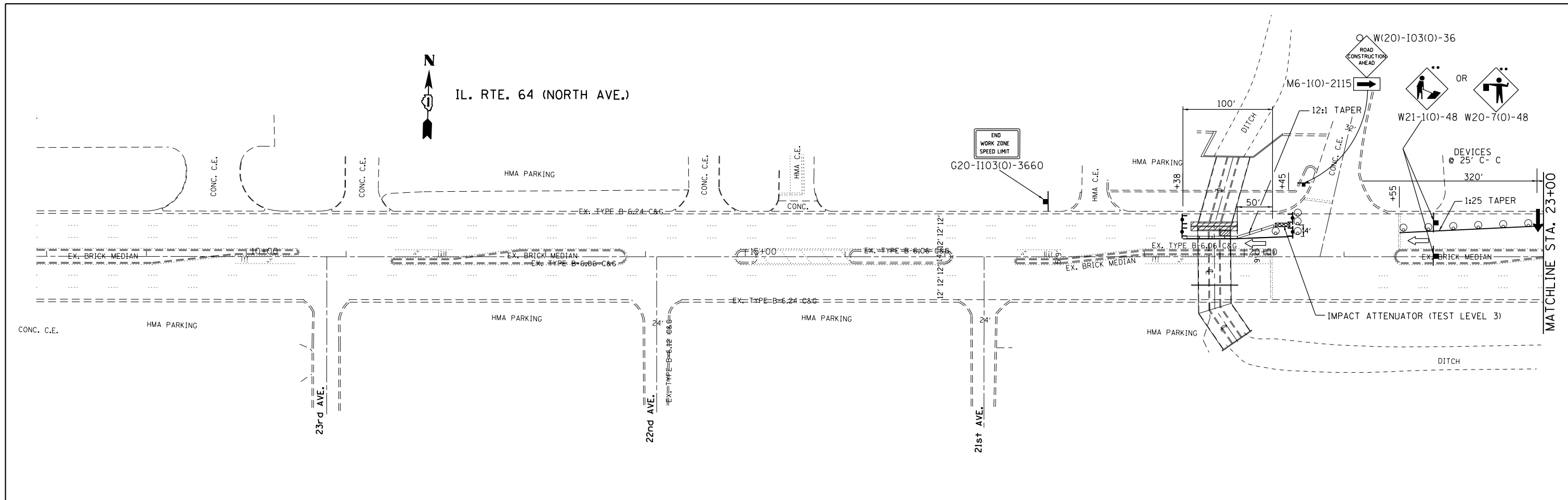
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

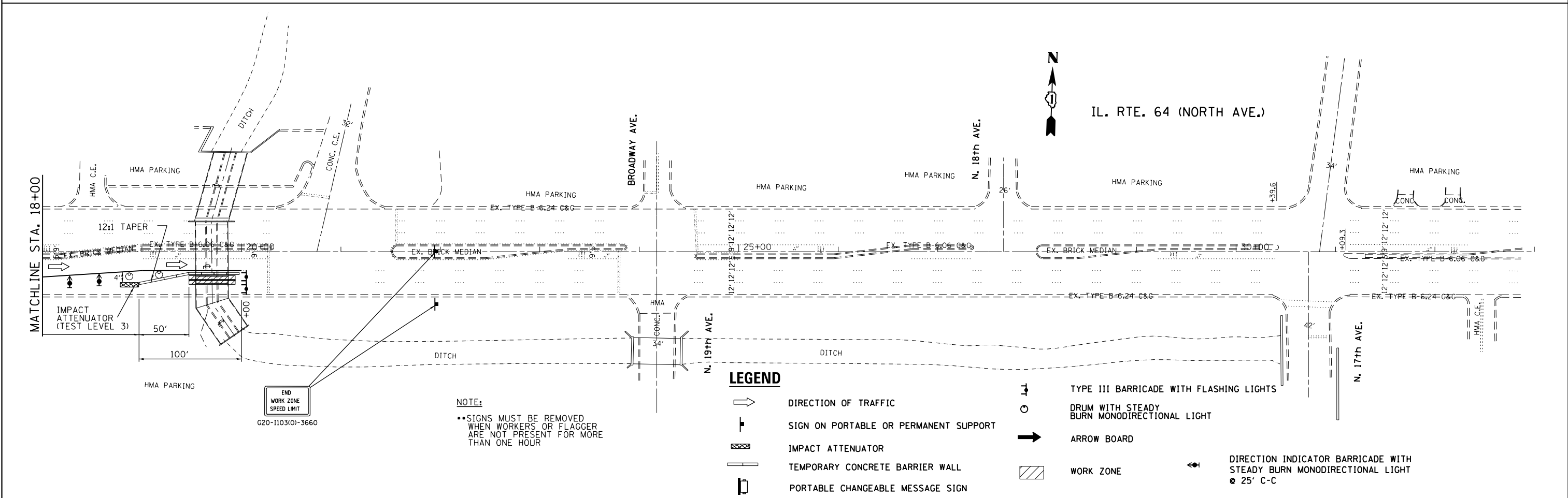
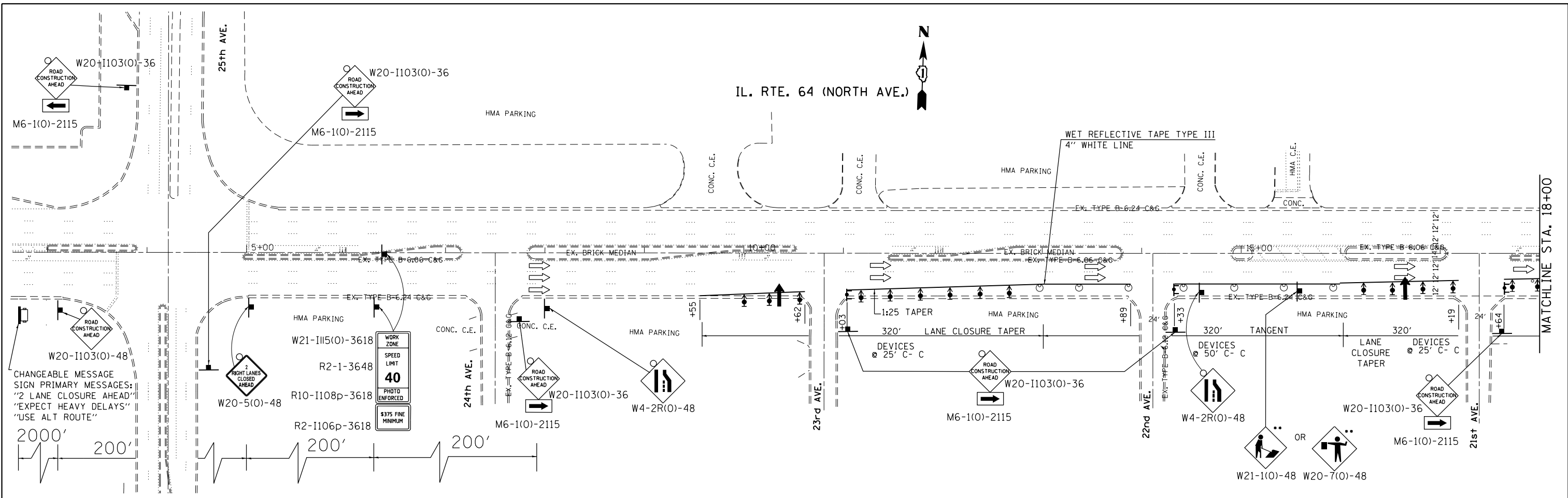
STAGING CROSS SECTION

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2013-04TBR	COOK	16	4
CONTRACT NO. 60W96				
ILLINOIS FED. AID PROJECT				



FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN STAGE 1				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
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	PLOT DATE = 8/26/2014	DATE -	REVISED -												
											CONTRACT NO. 60W96			ILLINOIS FED. AID PROJECT	



LEGEND

- DIRECTION OF TRAFFIC
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- IMPACT ATTENUATOR
- TEMPORARY CONCRETE BARRIER WALL
- PORTABLE CHANGEABLE MESSAGE SIGN
- TYPE III BARRICADE WITH FLASHING LIGHTS
- DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ARROW BOARD
- WORK ZONE
- DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT @ 25' C-C

NOTE:
 ••SIGNS MUST BE REMOVED WHEN WORKERS OR FLAGGER ARE NOT PRESENT FOR MORE THAN ONE HOUR

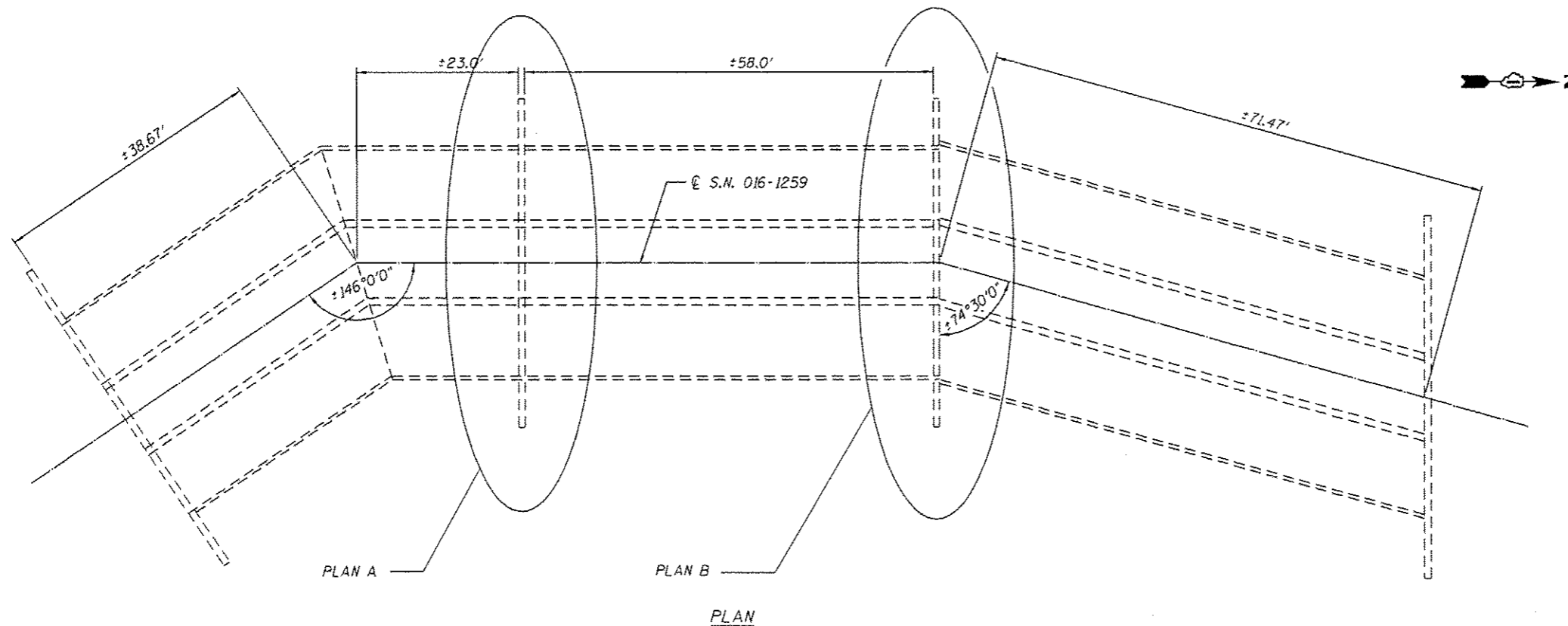
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		DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL PLAN
 STAGE 2**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2013-047BR	COOK	16	6
CONTRACT NO. 60W96			ILLINOIS FED. AID PROJECT	



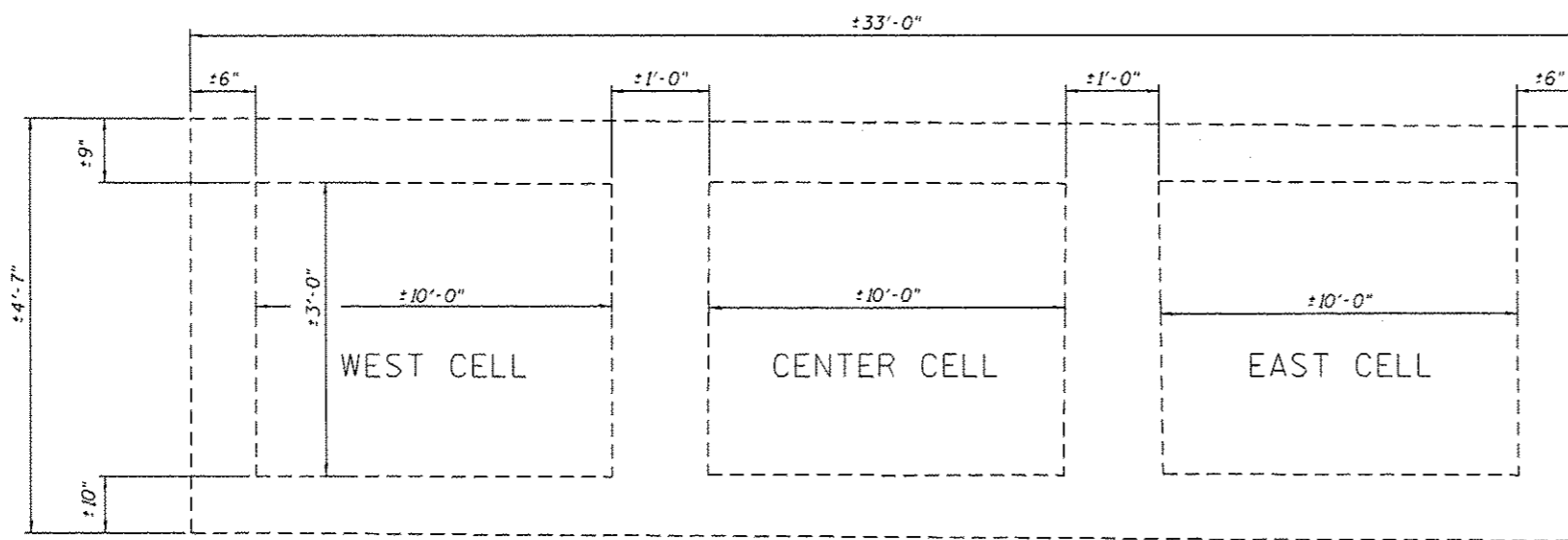
NOTES

Reinforcement bars designated (E) shall be epoxy coated.

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.

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.

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



SECTION THRU BARRELS

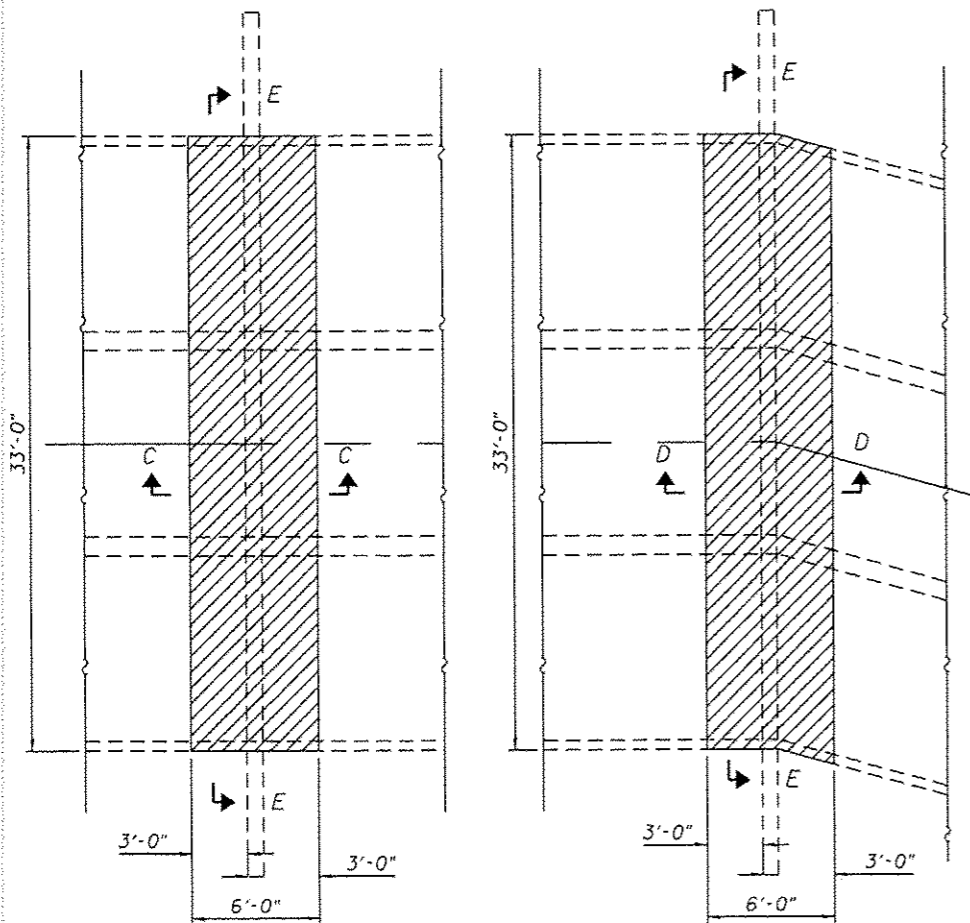
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU. YD.	16.5
PROTECTIVE COAT	SO. YD.	118
REINFORCEMENT BARS, EPOXY COATED	POUND	2,520
BAR SPLICERS	EACH	35
CONCRETE BOX CULVERTS	CU. YD.	16.5
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO. FT.	100
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SO. FT.	53
DECK SLAB REPAIR (PARTIAL)	SO. YD.	34



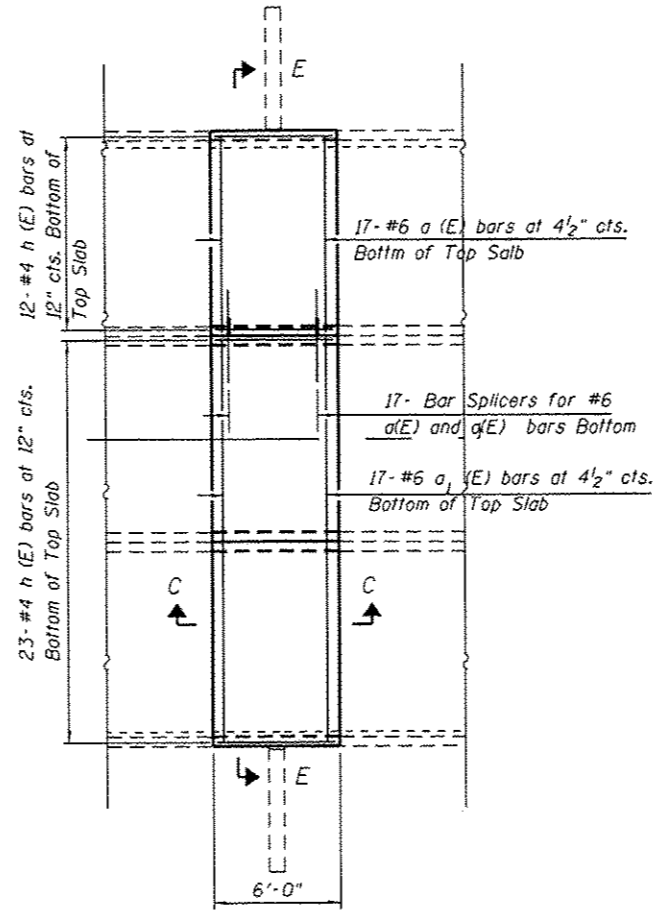
Dr. Carl Puzey 7/30/14
Expires 11/30/14

FILE NAME =	USER NAME = midjja	DESIGNED RAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 64 (NORTH AVE.) BOX CULVERT CULVERT PLAN AND SECTION (S.N. 016-1259)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT DATE = 9/29/2014		REVISED -			ILLINOIS FED. AID PROJECT					

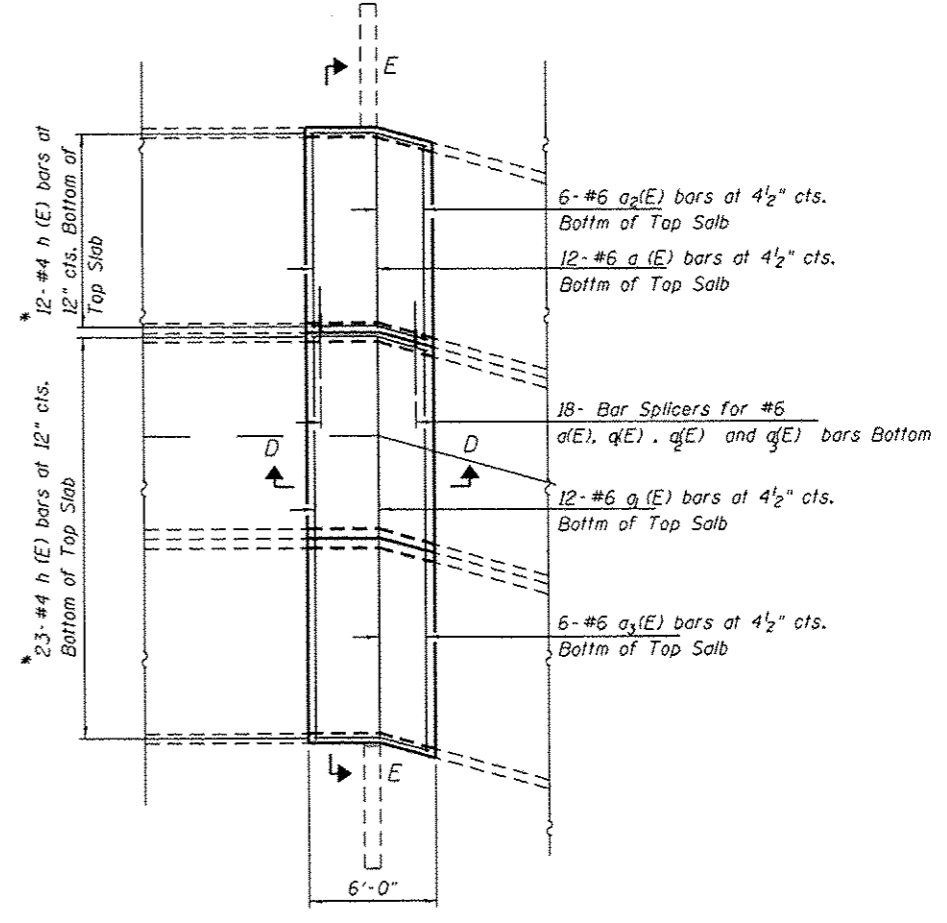


REMOVAL TOP SLAB PLAN A

REMOVAL TOP SLAB PLAN B



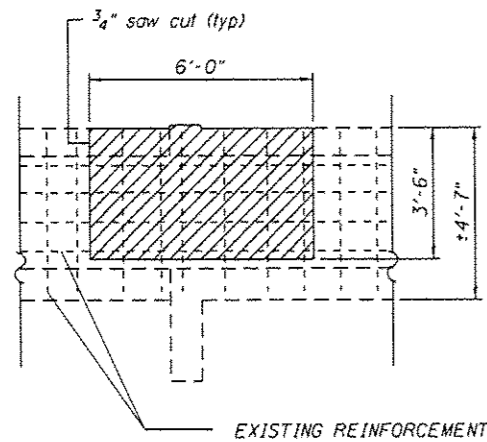
PROPOSED TOP SLAB PLAN A



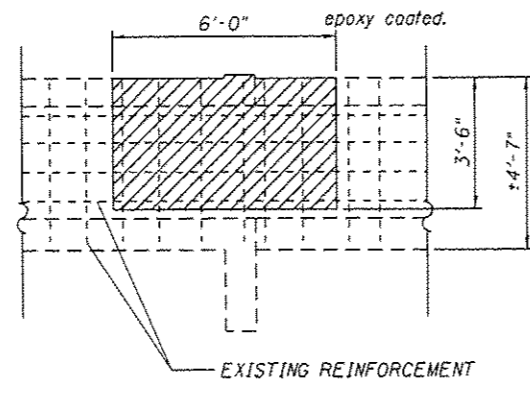
PROPOSED TOP SLAB PLAN B

LEGEND
 Concrete Removal

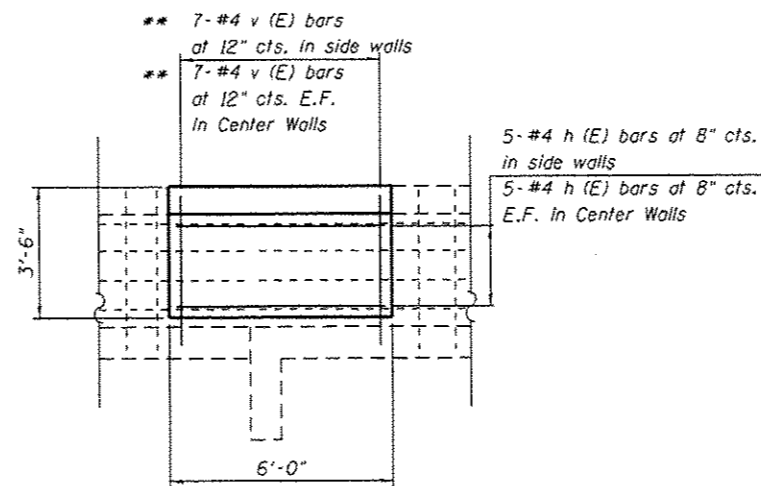
- * Bend bars in the field
- ** Epoxy Grout #4 v (E) bars in 3/4" ϕ drilled holes into existing Bottom Slab in accordance with art. 5B4 of the standard specs. cost included with reinforcement bars epoxy coated.



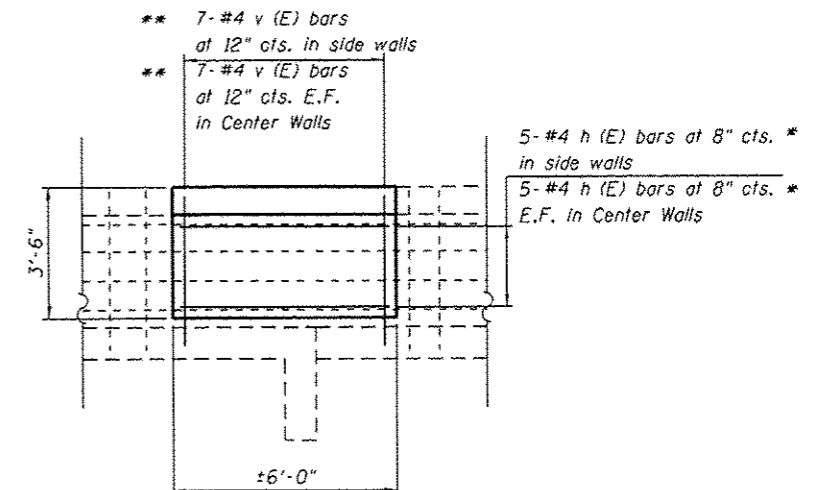
REMOVAL - ELEVATION C



REMOVAL - ELEVATION D

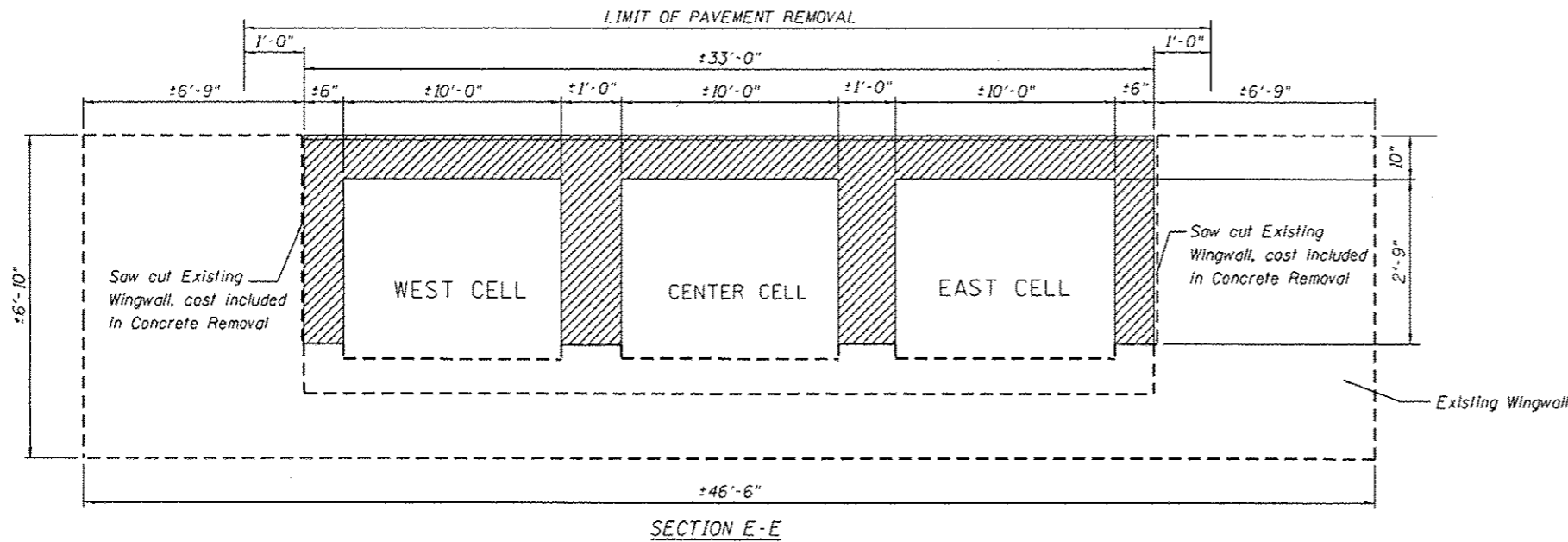


PROPOSED - ELEVATION C

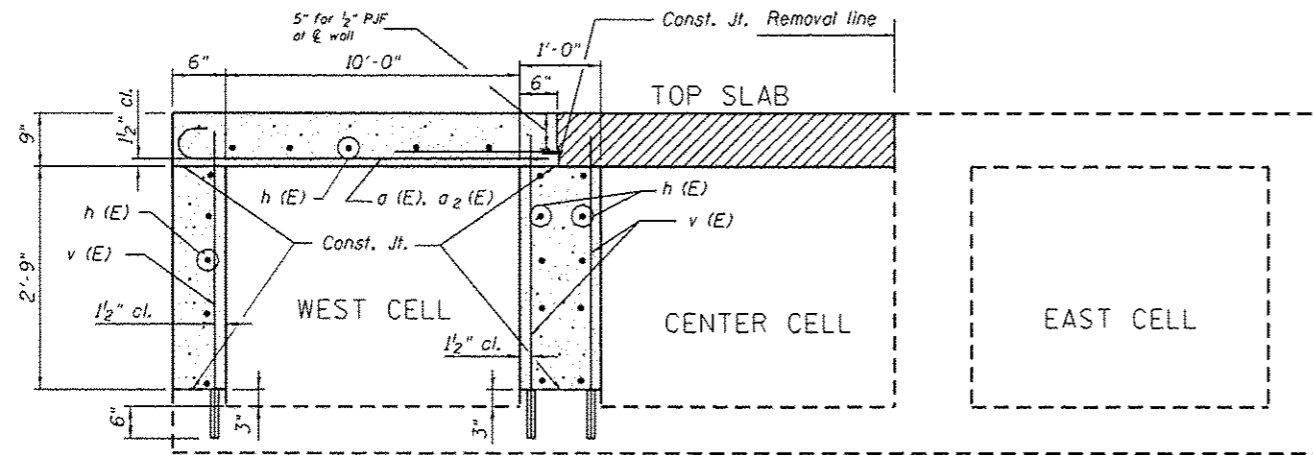


PROPOSED - ELEVATION D

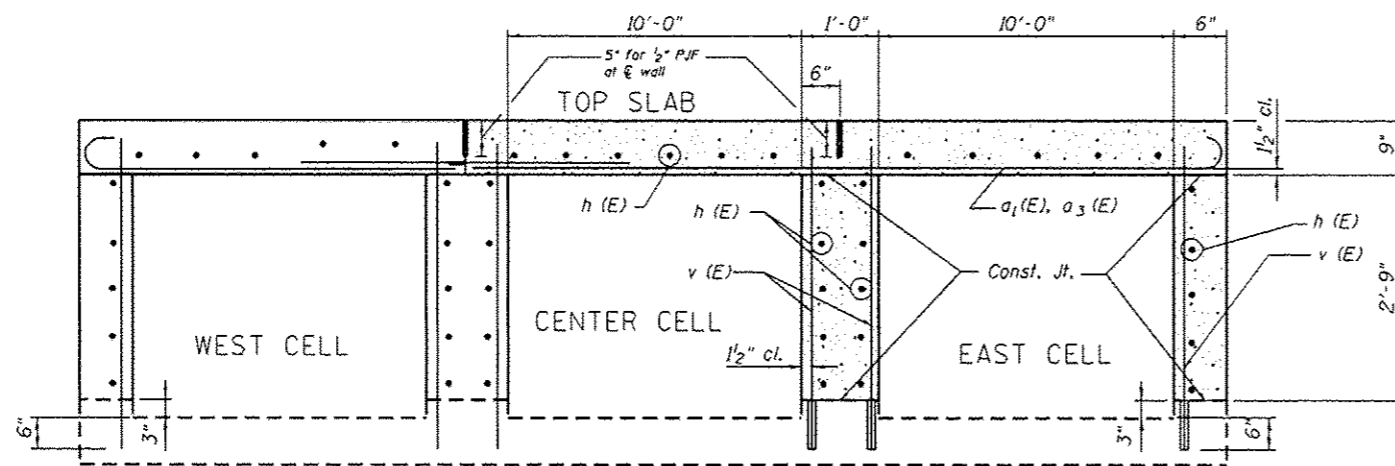
FILE NAME :	USER NAME : guillaumefp	DESIGNED RAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 64 (NORTH AVE.) BOX CULVERT REMOVAL AND PROPOSED PLAN (S.N. 016-1259)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
or:\p\work\p\rd\guillaumefp\0358493\140813-shs-plan.dgn		DRAWN RAD	REVISED -		SCALE:	SHEET 2	OF 6 SHEETS	STA.	TO STA.	307	2013-047-BR	COOK	16	8
Default	PLOT SCALE * 120.0000 / in	CHECKED JAM	REVISED -		CONTRACT NO. 60W96									
	PLOT DATE * 9/26/2014	DATE 12-23-2013	REVISED -		ILLINOIS FED. AID PROJECT									



SECTION E-E



PROPOSED SECTION E-E - SEQUENCE 1

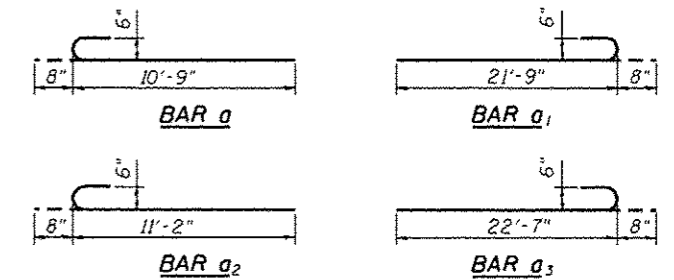


PROPOSED SECTION E-E - SEQUENCE 2

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a (E)	29	#6	11'-5"	
a ₁ (E)	29	#6	22'-5"	
a ₂ (E)	6	#6	11'-10"	
a ₃ (E)	6	#6	23'-3"	
h (E)	130	#4	5'-9"	—
v (E)	84	#4	4'-0"	—
Concrete Removal		Cu. Yd.	14.7	
Concrete Box Culverts		Cu. Yd.	14.7	
Reinforcement Bars, Epoxy Coated		Pound	2,520	
Protective Coat		Sq. Yd.	62	

For details of Bar Splicers, see sheet 6 of 6.



REPAIR SEQUENCE NOTES:

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:

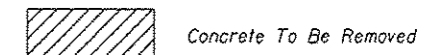
1. AT LEAST 72 HOURS SHALL HAVE ELAPSED FROM THE END OF THE PREVIOUS POUR AND
2. THE CONCRETE SHALL HAVE ATTAINED A MINIMUM MODULUS OF RUPTURE OF 650 PSI OR A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI

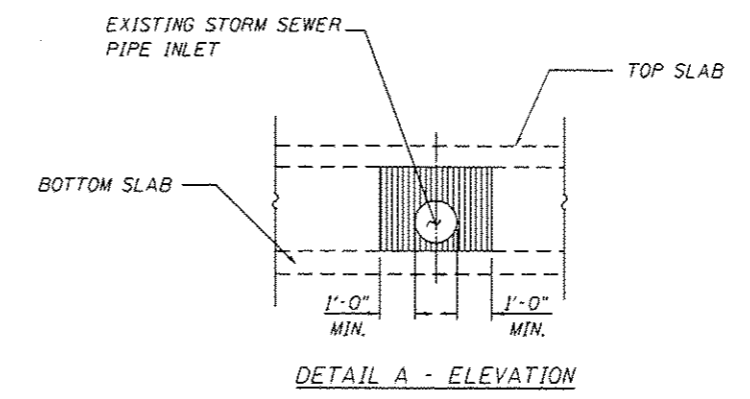
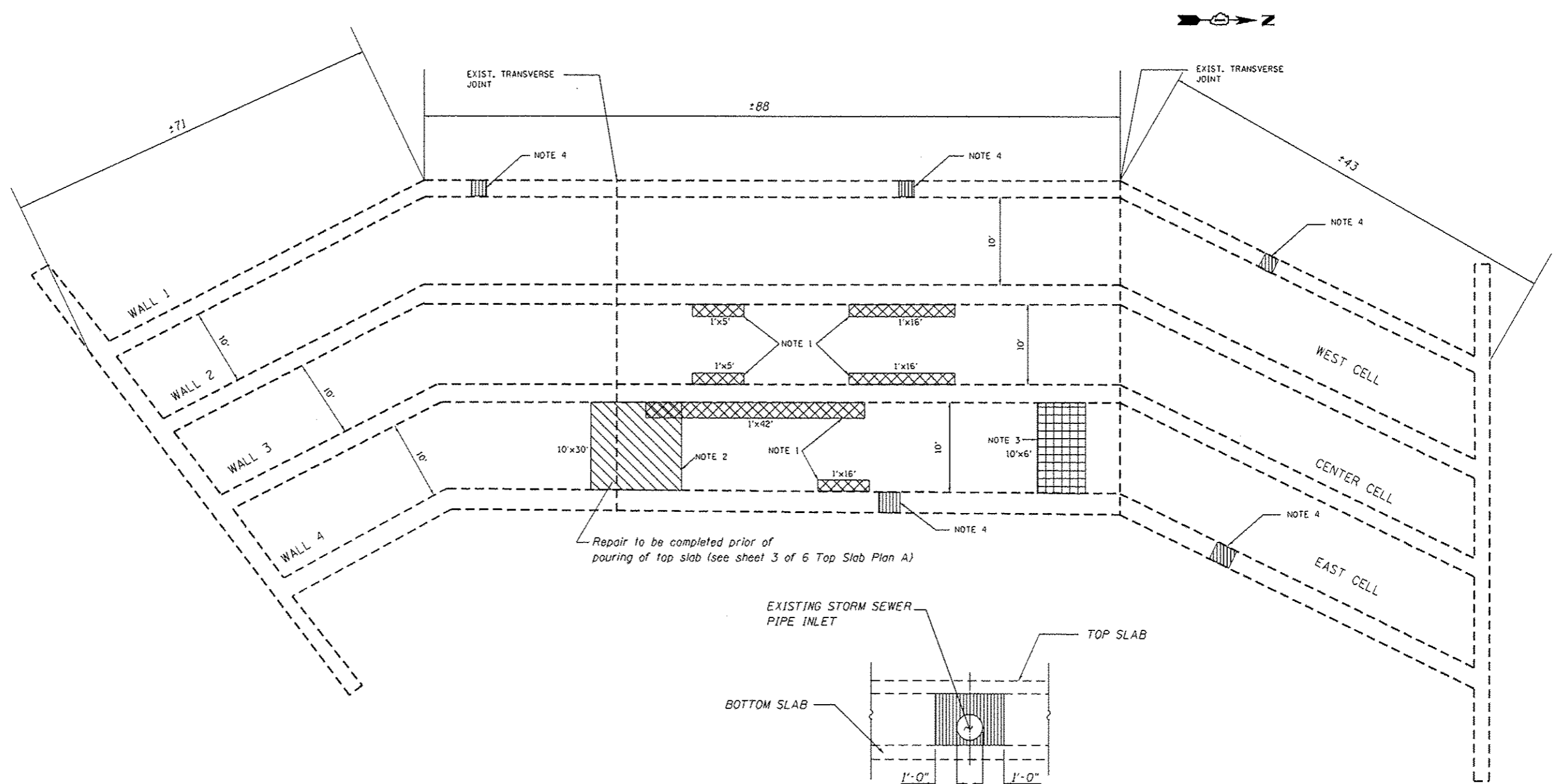
SEQUENCE 1

1. DIVERT WATER INTO EAST CELL
2. REMOVE EXISTING CONCRETE UP TO INDICATED REMOVAL LINE
3. RECONSTRUCT WALLS AND TOP SLAB OF WEST CELL

SEQUENCE 2

1. DIVERT WATER INTO WEST CELL
2. REMOVE EXISTING CONCRETE UP TO INDICATED REMOVAL LINE
3. RECONSTRUCT WALLS AND TOP SLAB OF EAST AND CENTER CELL



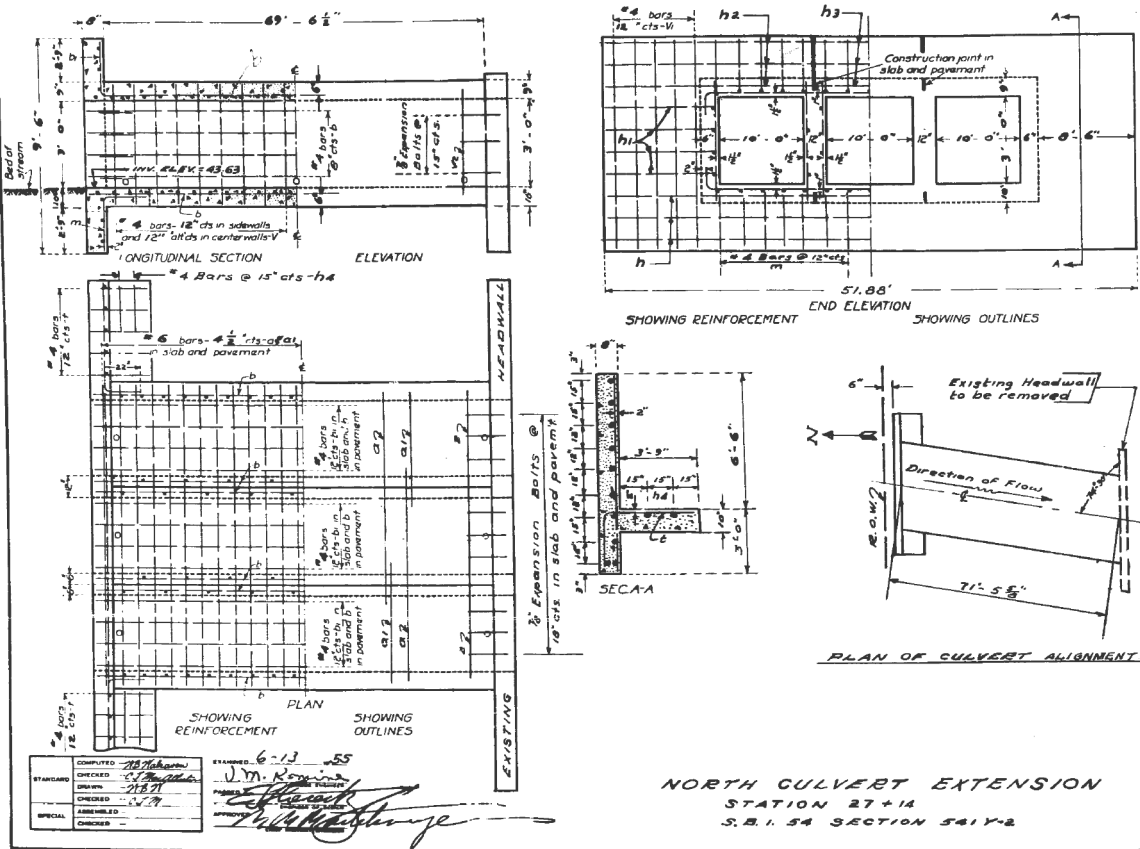


NOTES & LEGEND

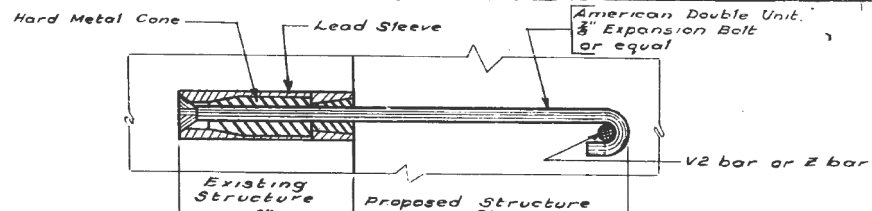
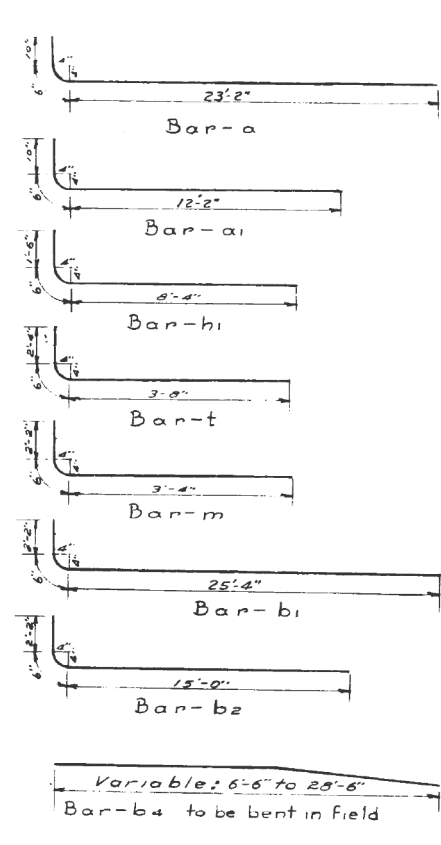
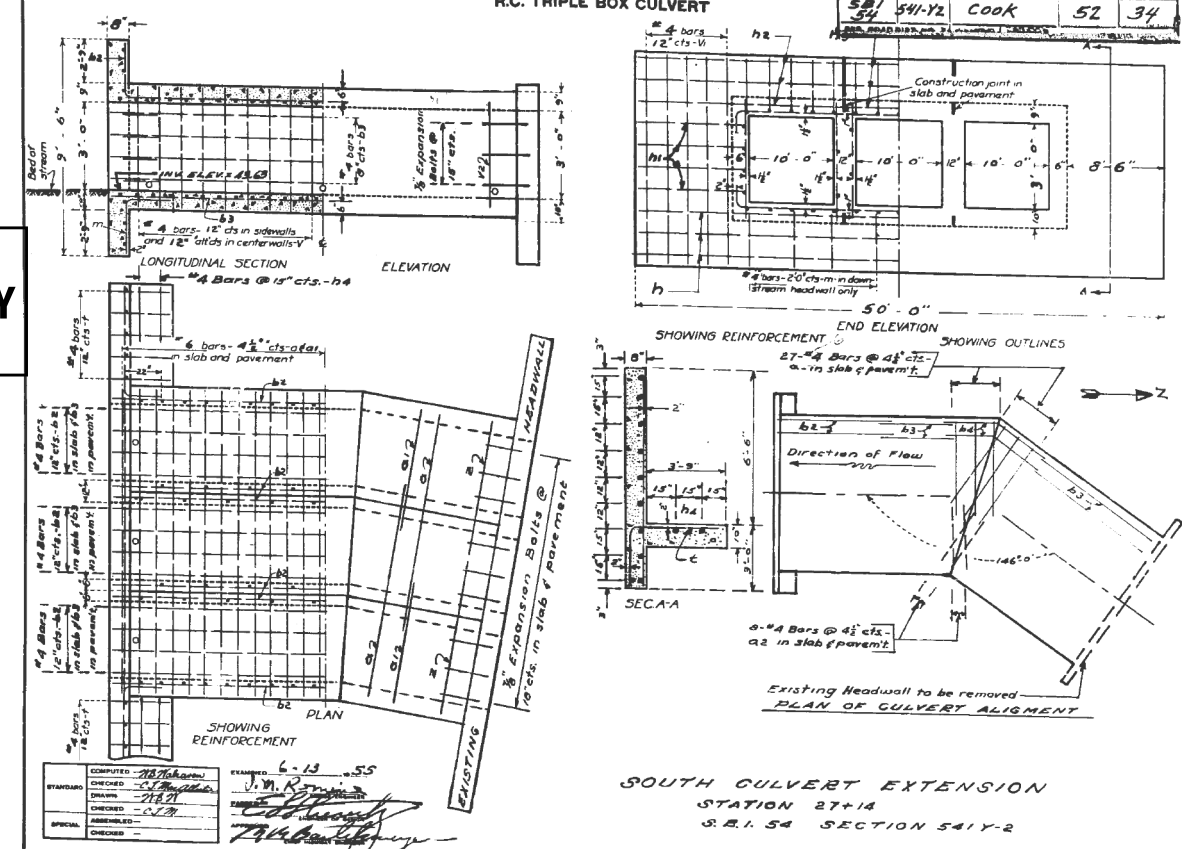
- NOTE 1 - STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) - 1' HIGH AT BASE OF WALL
- NOTE 2 - DECK SLAB REPAIR (PARTIAL) IN BOTTOM SLAB - FULL WIDTH BY 30' LONG
- NOTE 3 - CONCRETE REMOVAL
CONCRETE BOX CULVERT (TO BE CONSTRUCTED WITH TOP SLAB (SEE SHEET 3 OF 6 TOP SLAB PLAN B))
- NOTE 4 - STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES) - PATCH AROUND STORM SEWER PIPE, SEE DETAIL A.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO. FT.	100
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SO. FT.	53
DECK SLAB REPAIR (PARTIAL)	SO. YD.	34
PROTECTIVE COAT	SO. YD.	56

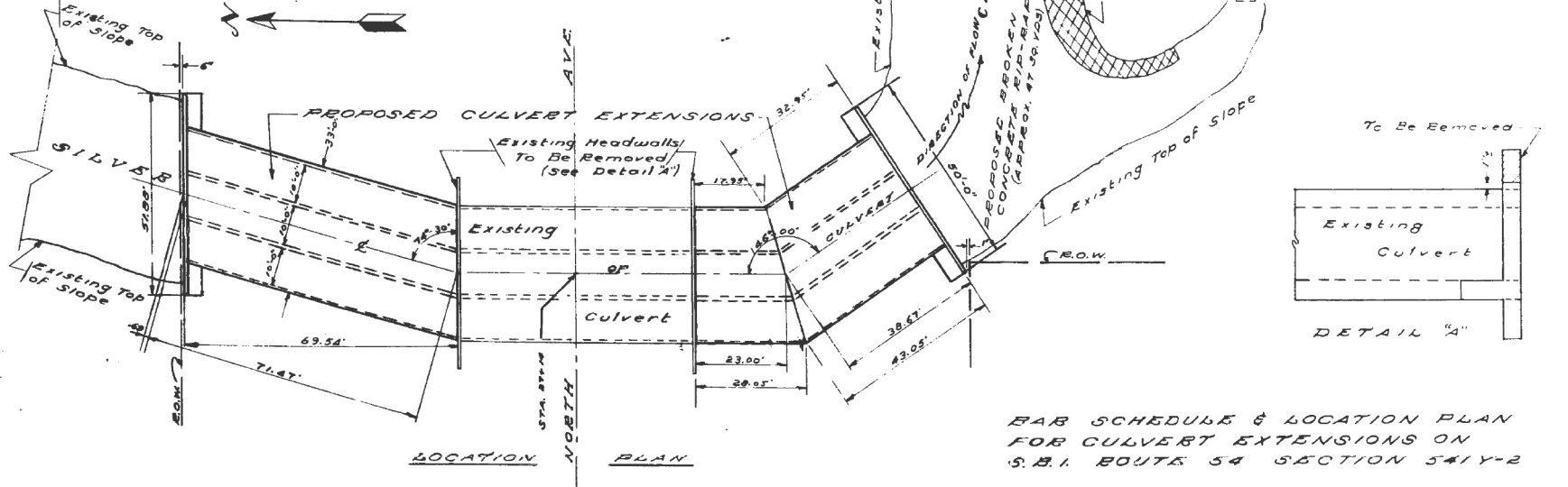


FOR INFORMATION ONLY

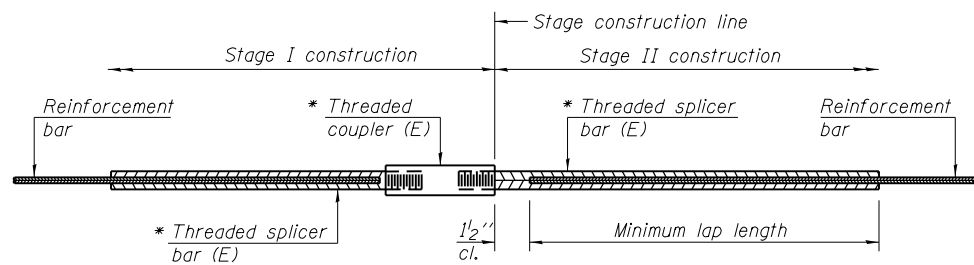


Note: 56 Expansion Bolts shall be installed in both the North & South Culvert Extensions

NOTE: Cost of furnishing and installing expansion bolts will not be paid for separately, but shall be considered as incidental to Class X Concrete.



BAR SCHEDULE & LOCATION PLAN FOR CULVERT EXTENSIONS ON S.B.I. ROUTE 54 SECTION 541Y-2



STANDARD BAR SPLICER ASSEMBLY

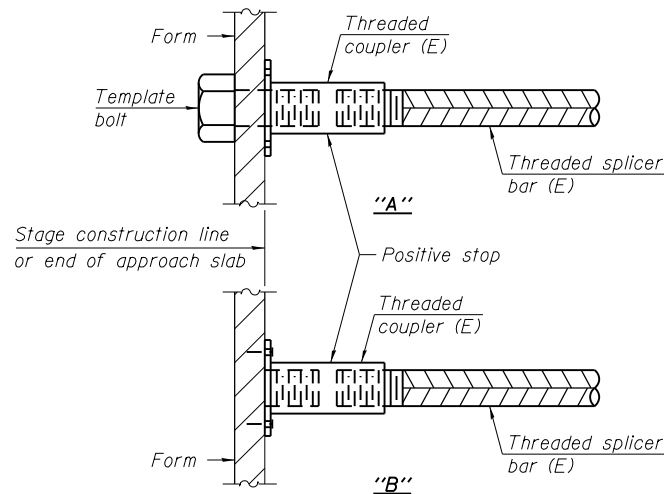
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	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 1/2" + thread length

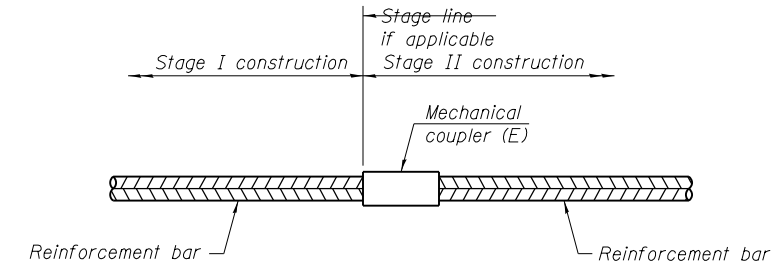
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top Slab-Bott. Bars	#6	35	Table 3



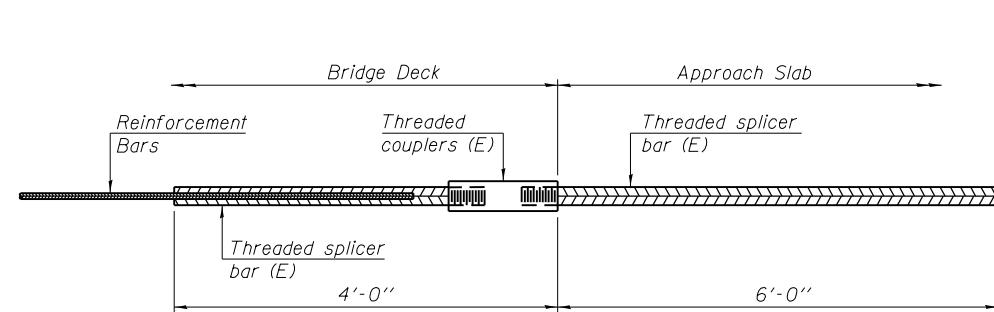
INSTALLATION AND SETTING METHODS

"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.



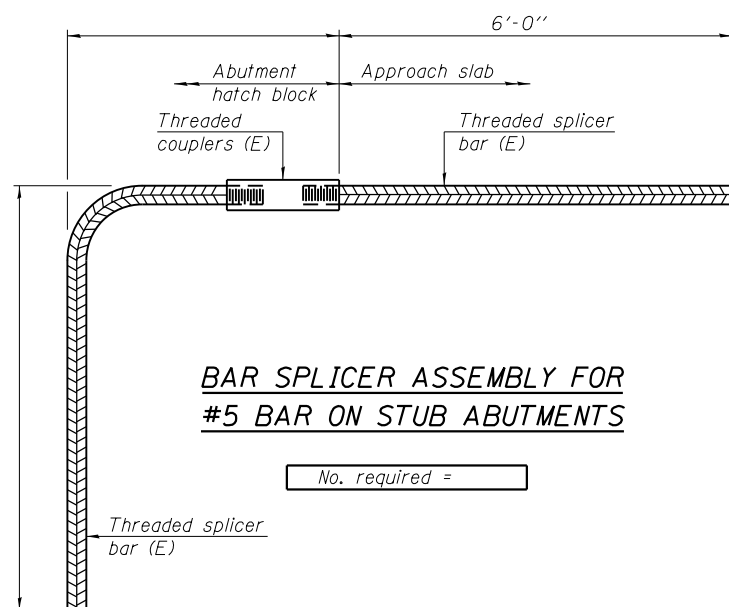
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. 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.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

1-27-12

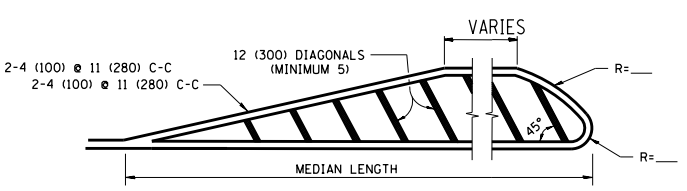
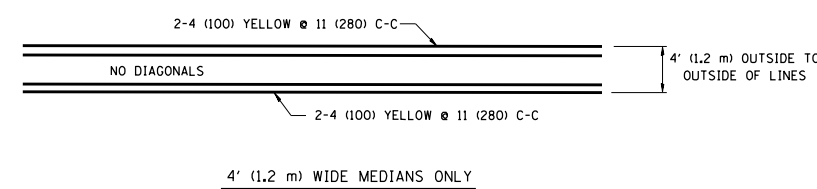
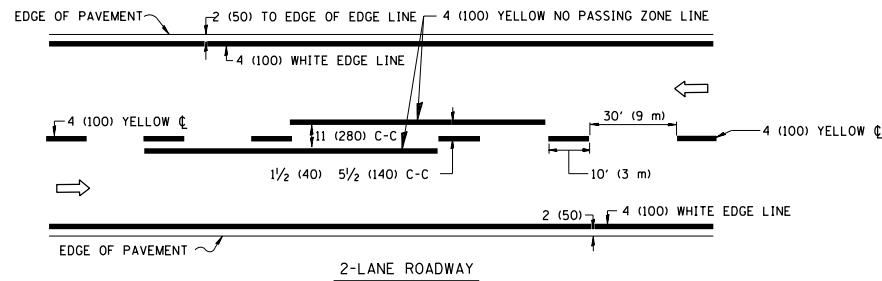
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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 016-1259

SCALE: SHEET 6 OF 6 SHEETS STA. TO STA.

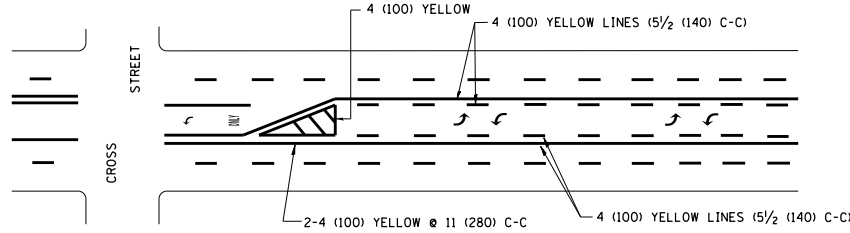
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2013-047-BR	COOK	16	12
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60W96	



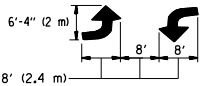
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

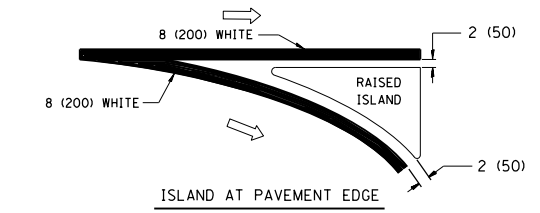
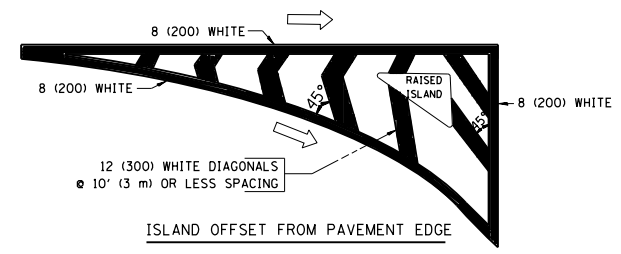


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

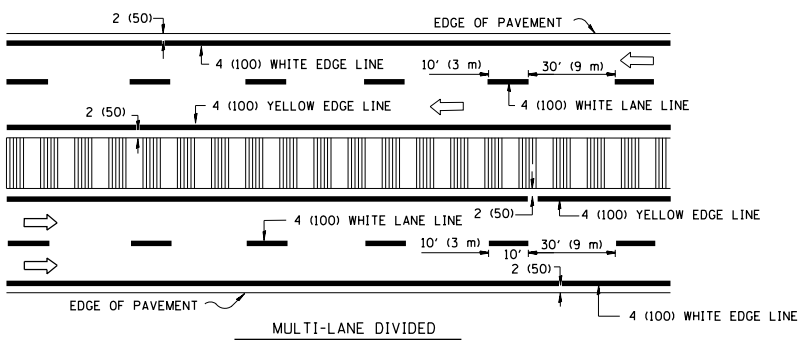
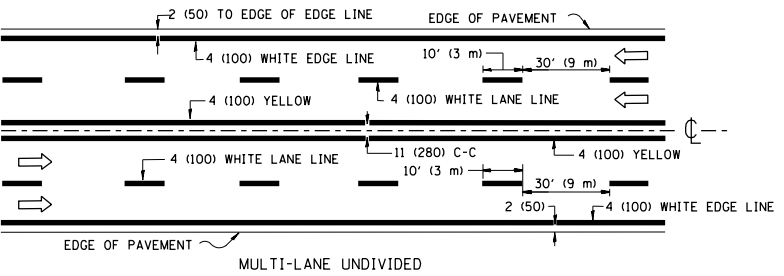


TYPICAL ISLAND MARKING

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	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	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	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (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' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN 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	DIAGONALS: 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" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R": 3.6 SQ. FT. (0.33 m ²) EACH "X": 54.0 SQ. FT. (5.0 m ²) EACH
SHOULDER DIAGONALS	12 (300) @ 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 (OVER 45MPH (70 km/h))

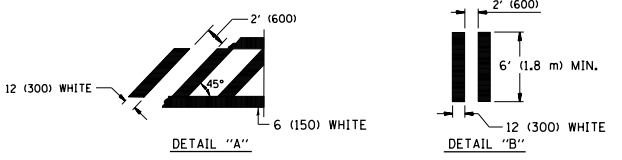
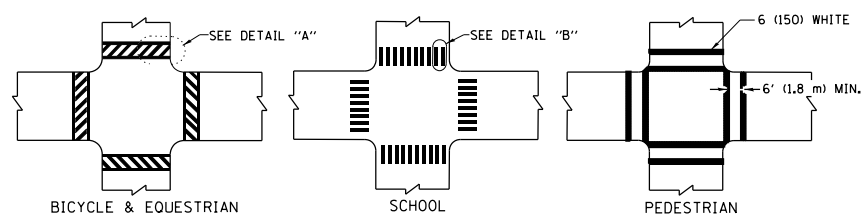
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

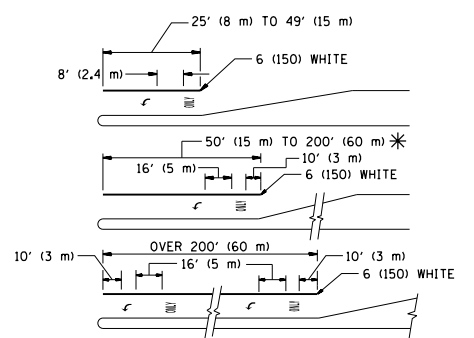


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. 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

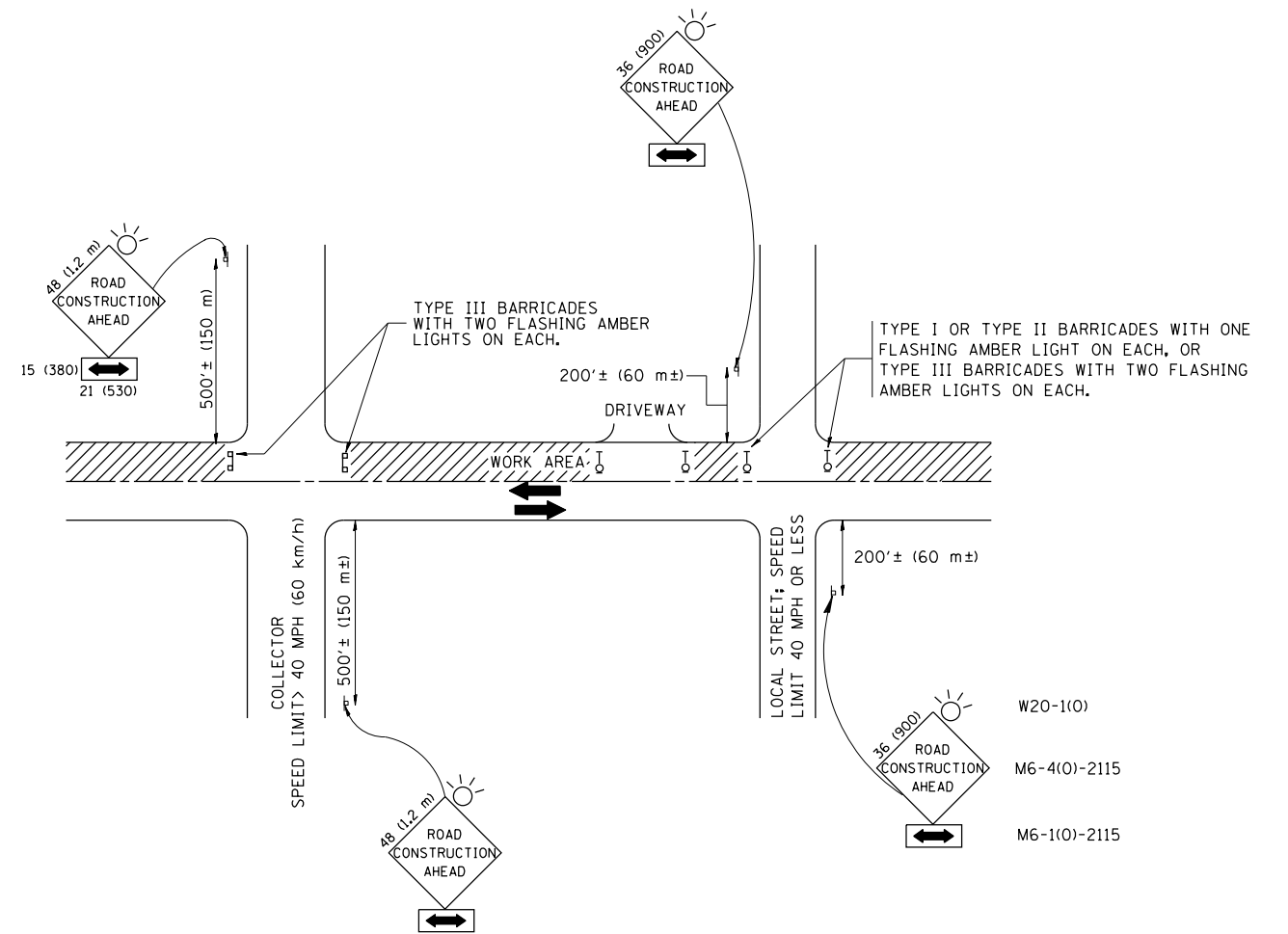
TYPICAL TURN LANE MARKING

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	PLOT DATE = 8/26/2014	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2013-047BR	COOK	16	13
TC-13		CONTRACT NO. 60W96		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 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:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - 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.
 - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - 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 ROUTE.
 - 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 (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- 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.

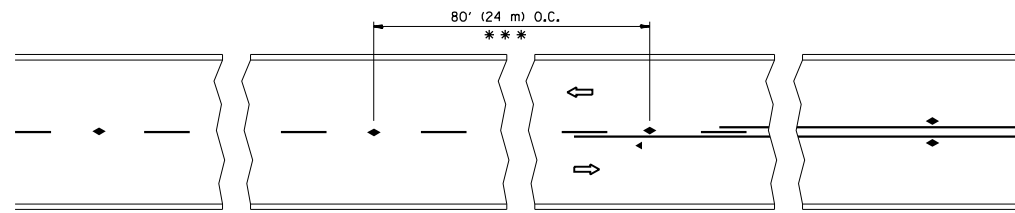
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	PLOT DATE = 8/26/2014	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

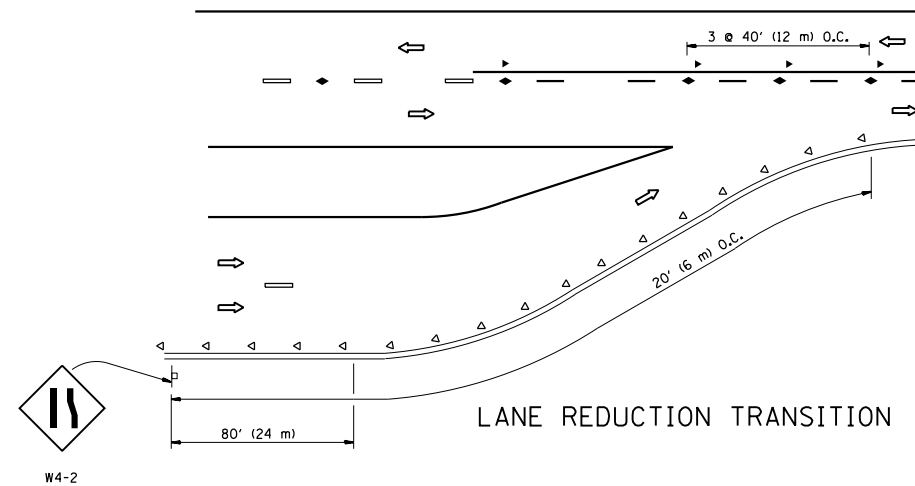
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

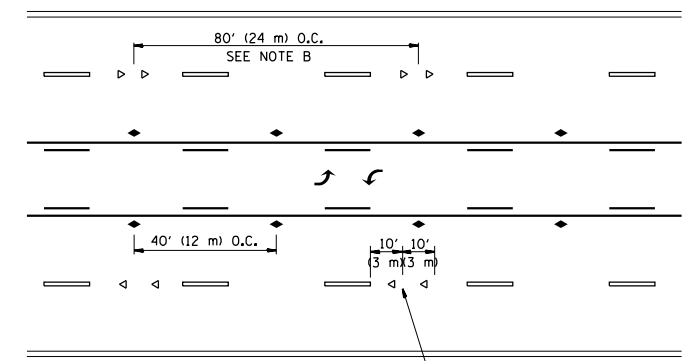


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

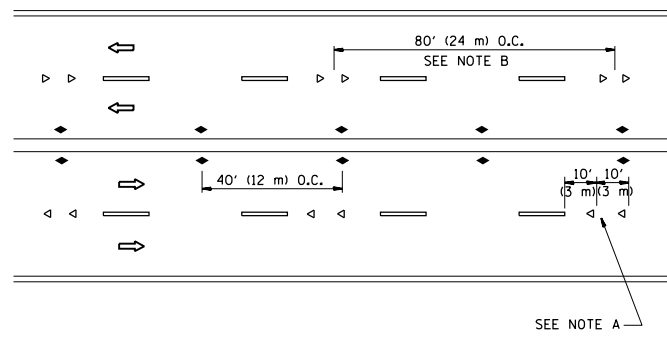
TWO-LANE/TWO-WAY



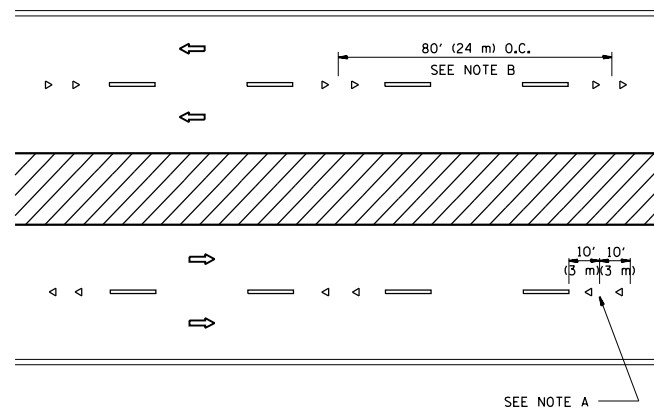
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. 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.

SYMBOLS

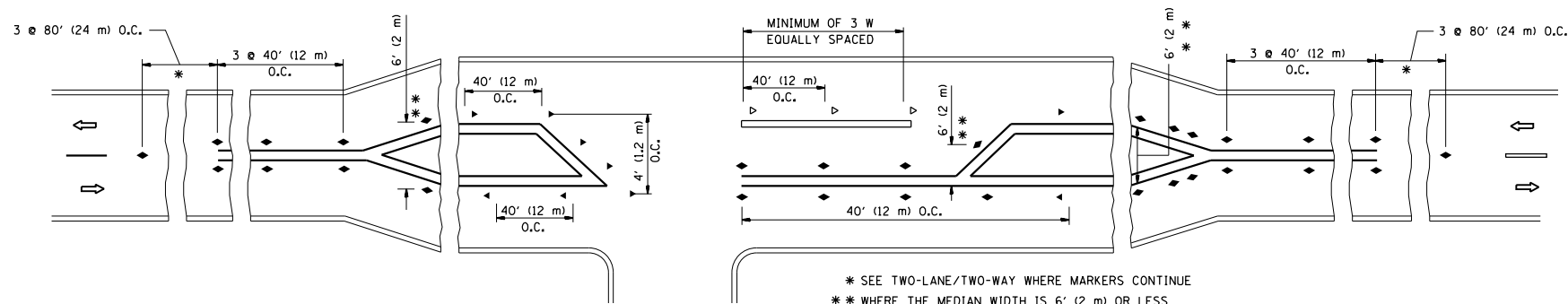
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

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

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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

FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
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	PLOT DATE = 8/26/2014	DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307	2013-047BR	COOK	16	15
TC-11			CONTRACT NO. 60W96	
FED. ROAD DIST. NO. 1 ILLINOIS FED. 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 = guillaumejp	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99			TC-22		CONTRACT NO. 60W96		
	PLOT DATE = 8/26/2014	DATE -	REVISED - C. JUCIUS 01-31-07			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT