

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)  
SECTION 2011-063-I

LONGITUDINAL JOINT RECONSTRUCTION  
COOK COUNTY  
JOB NO. C-91-619-11

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	2011-063-I	COOK	*18	1
		ILLINOIS	CONTRACT NO. 60P82	

\*18 \* 3 = 21

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENTS LOCATED IN CHICAGO, IL

S.N. 016-0400

ILL 50

ADT = 28600 (2009)  
POSTED SPEED: 30 MPH

I-90

ADT = 164900 (2009)  
POSTED SPEED: 55 MPH

GRAPHIC SCALES:

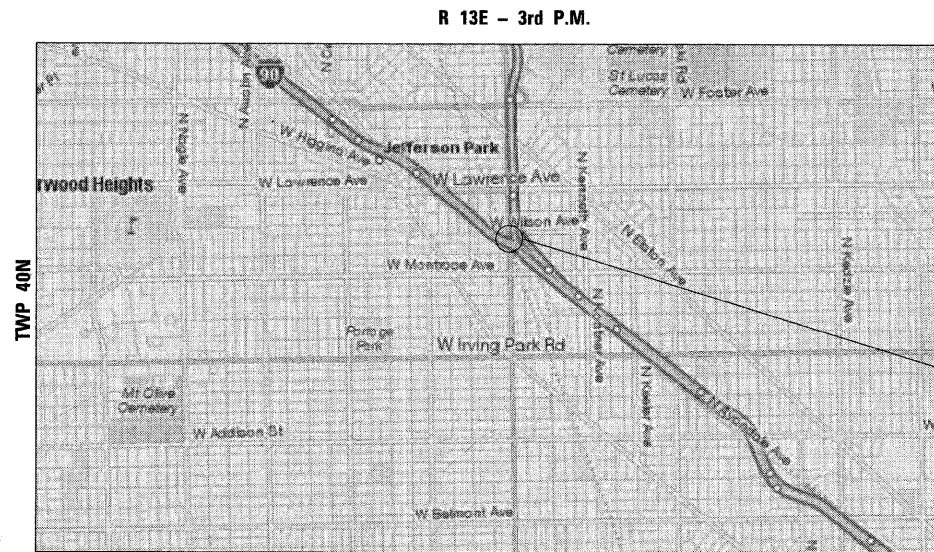


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

C.U.A.N.  
CHICAGO UTILITY ALERT NETWORK  
(312) 744-7000

PROJECT ENGINEER: ROBERT T. BORO, PE (847) 705-4178  
PROJECT MANAGER: ISSAM RAYYAN, PE (847) 705-4237

CONTRACT NO. 60P82



JEFFERSON TOWNSHIP  
LOCATION MAP

NOT TO SCALE

GROSS AND NET LENGTH = 439 FT. = 0.08 MILE



*Fred M. Lin*

FRED M. LIN, P.E.  
ILLINOIS REGISTERED ENGINEER NO. 062-056704  
REGISTRATION EXPIRES NOV. 30, 2013

D-91-619-11



LOCATION OF SECTION INDICATED THUS: -



PREPARED BY:  
LIN ENGINEERING, LTD.  
SPRINGFIELD, ILLINOIS 62711  
(217) 679-2928

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 5, 2012

*Diane M. O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 3 2012  
*John D. Barancelli, P.E.*  
acting ENGINEER OF DESIGN AND ENVIRONMENT

February 3 2012  
*William R. Freeman*  
acting DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, STANDARDS, GENERAL NOTES & COMMITMENTS
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- \* 7-13 STRUCTURAL PLANS
- 14 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
- 15 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
- 16 ARTERIAL ROAD INFORMATION SIGN
- 17-18 CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS

\* Added 10A.

## STATE STANDARDS

701400-05	APPROACH TO LANE CLOSURE, FREEWAY / EXPRESSWAY
701401-06	LANE CLOSURE, FREEWAY / EXPRESSWAY
701427	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS $\leq$ 40 MPH
701601-07	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

## DISTRICT STANDARDS

TC10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC11	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC22	ARTERIAL ROAD INFORMATION SIGN
TC24	CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS

## COMMITMENTS

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

## GENERAL NOTES

1. THESE PLANS HAVE BEEN PREPARED FROM INFORMATION ACQUIRED FROM EXISTING PLANS AND NOTES RECEIVED FROM IDOT FIELD MAINTENANCE ENGINEERS.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO VARIATIONS FOUND IN THE FIELD. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. ANY ADJUSTMENTS PROPOSED BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE.
3. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
4. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
5. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
6. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
7. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
8. THE CONTRACTOR SHALL CONTACT WALTER CZARNY, THE AREA TRAFFIC FIELD <sup>RESIDENT ENGINEER</sup> ~~TECHNICIAN~~, AT (847) 715-8419, <sup>ENGINEER</sup> ~~AT LEAST~~ TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
9. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 13'-6" VERTICAL CLEARANCE TO S.N. 016-0400 AT ALL TIMES THROUGHOUT THE PROJECT. IF THE VERTICAL CLEARANCE IS TEMPORARILY REDUCED TO 14'-6" OR LOWER DUE TO THE CONSTRUCTION OF FALSEWORK FOR REPAIRS, THEN W12-2A SIGNS SHALL BE PLACED ON THE STRUCTURE AND W12-2 SIGNS SHALL BE PLACED PRIOR TO THE PREVIOUS OFF RAMP ALONG I-90. THE COST OF FURNISHING AND INSTALLING THIS SIGNING SHALL BE INCLUDED IN "TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)."
10. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
12. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (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.



USER NAME = #USER#	DESIGNED - SEW	REVISED -
	DRAWN - RK	REVISED -
PLOT SCALE = #SCALE#	CHECKED - SEW	REVISED -
PLOT DATE = #DATE#	DATE - 1/2012	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

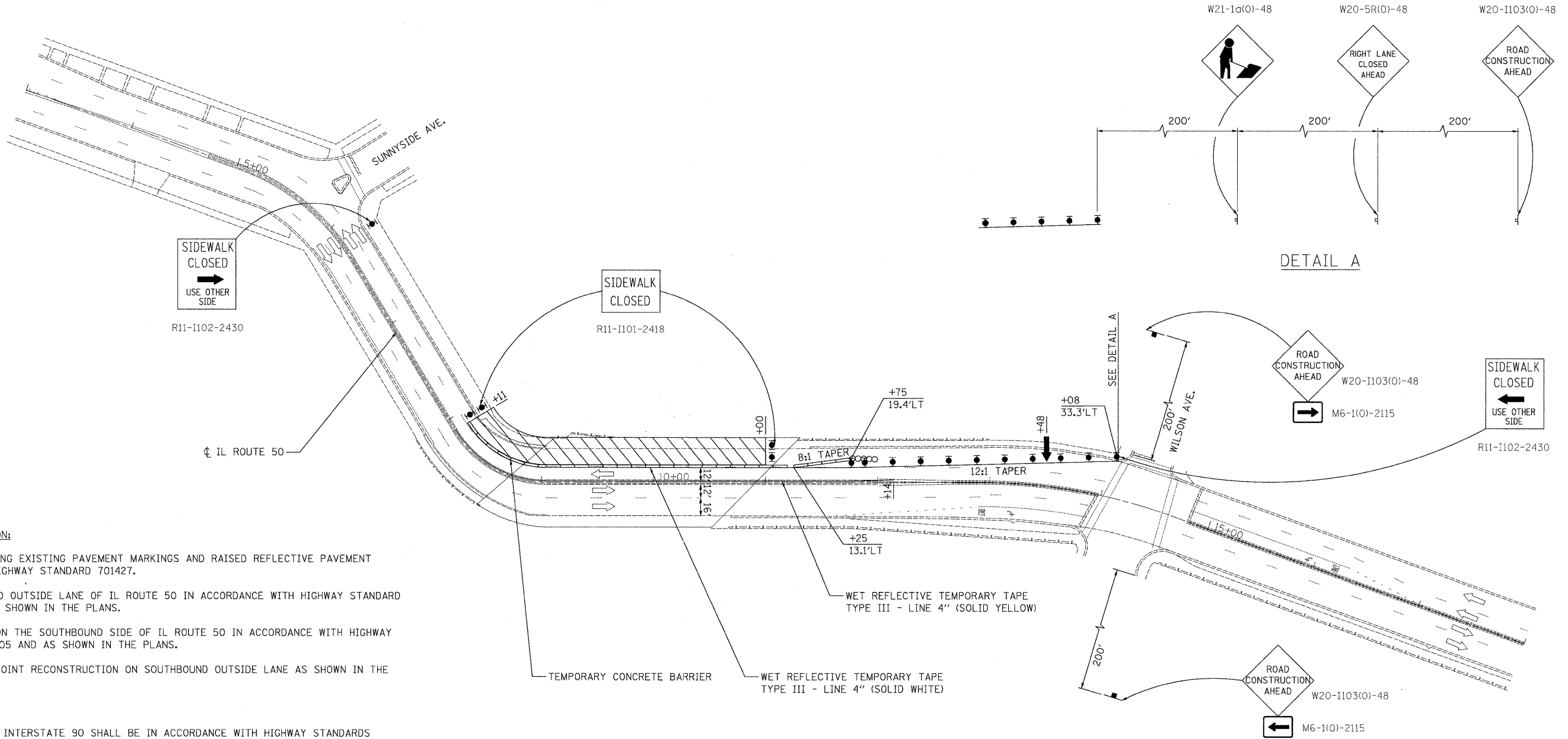
INDEX OF SHEETS, STANDARDS, GENERAL NOTES & COMMITMENTS  
F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)

SCALE: N/A SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-I	COOK	18	2
FED. ROAD DIST. NO. 1			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60P82	

Rev





**STAGE I CONSTRUCTION:**

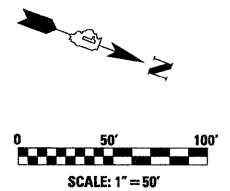
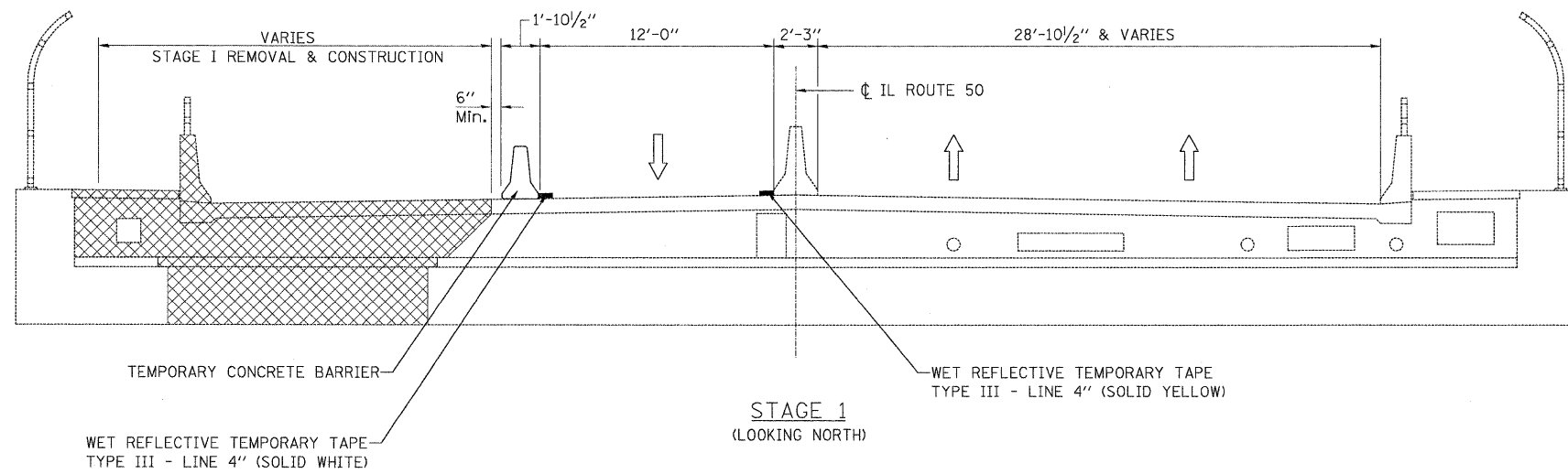
1. REMOVE CONFLICTING EXISTING PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS UNDER HIGHWAY STANDARD 701427.
2. CLOSE SOUTHBOUND OUTSIDE LANE OF IL ROUTE 50 IN ACCORDANCE WITH HIGHWAY STANDARD 701601-07 AND AS SHOWN IN THE PLANS.
3. CLOSE SIDEWALK ON THE SOUTHBOUND SIDE OF IL ROUTE 50 IN ACCORDANCE WITH HIGHWAY STANDARD 701801-05 AND AS SHOWN IN THE PLANS.
4. PERFORM BRIDGE JOINT RECONSTRUCTION ON SOUTHBOUND OUTSIDE LANE AS SHOWN IN THE PLANS.

**NOTES:**

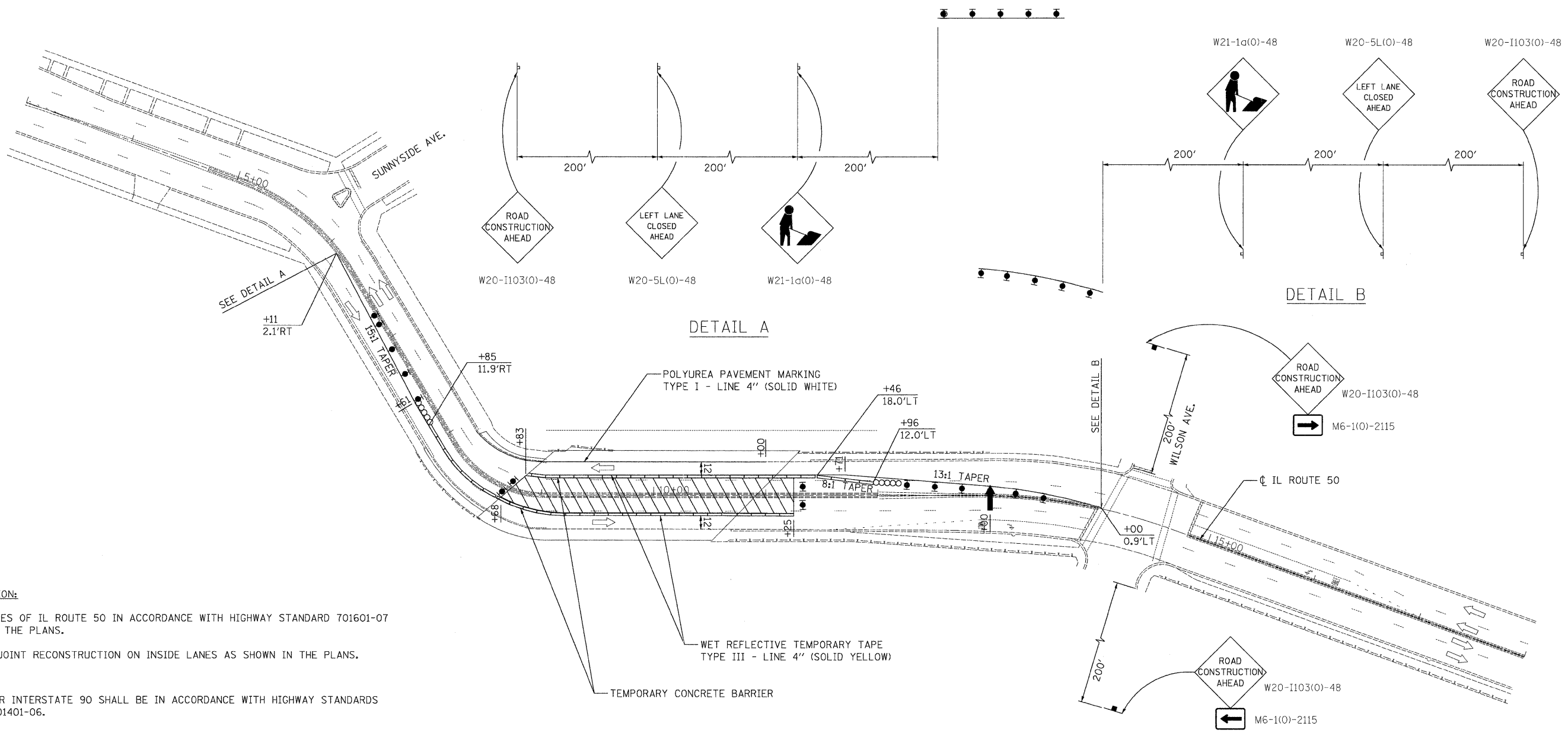
1. ANY CLOSURES TO INTERSTATE 90 SHALL BE IN ACCORDANCE WITH HIGHWAY STANDARDS 701400-05 AND 701401-06.

**LEGEND**

- REMOVAL
- WORK ZONE
- IMPACT ATTENUATOR, TEMPORARY
- TEMPORARY CONCRETE BARRIER
- SIGN
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ARROWBOARD



<b>LIN ENGINEERING, LTD.</b> Consulting Engineers Springfield, Illinois	USER NAME = #USER#	DESIGNED - SEW	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>MAINTENANCE OF TRAFFIC - STAGE 1</b> <b>F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)</b>			F.A.P. RTE. 350	SECTION 2011-063-I	COUNTY COOK	TOTAL SHEETS 18	SHEET NO. 4
	PLOT SCALE = #SCALE#	CHECKED - SEW	REVISED -		SCALE: 1"=50'	SHEET NO. 1 OF 1 SHEETS	STA. 3+00 TO STA. 18+00	CONTRACT NO. 60P82				
	PLOT DATE = #DATE#	DATE - 1/2012	REVISED -		FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT						



**STAGE II CONSTRUCTION:**

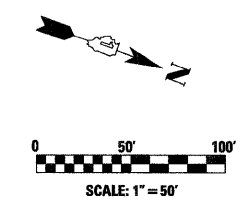
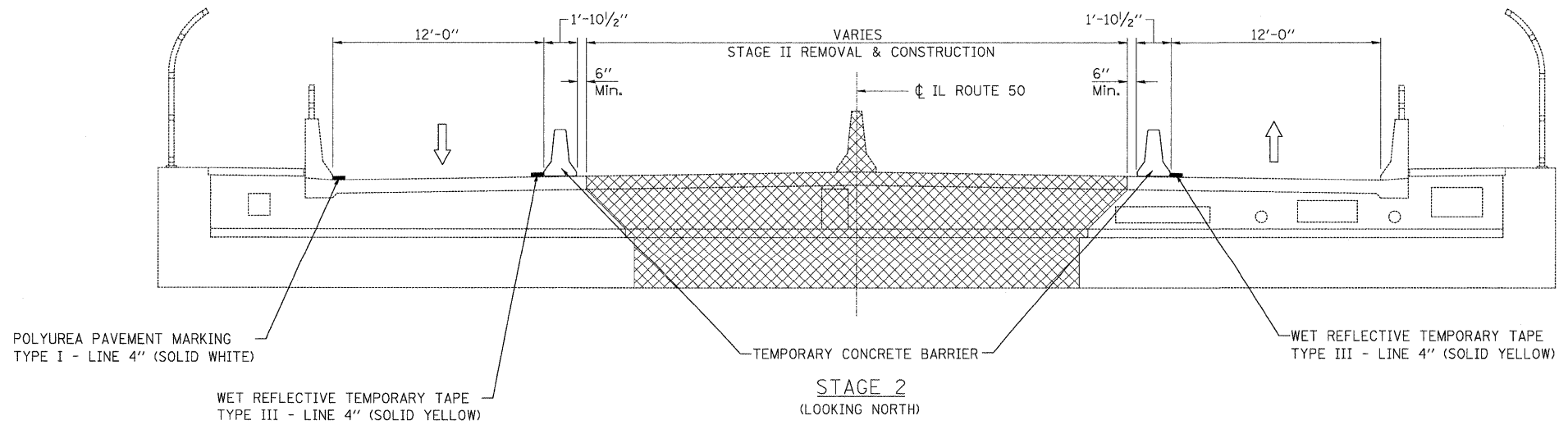
1. CLOSE INSIDE LANES OF IL ROUTE 50 IN ACCORDANCE WITH HIGHWAY STANDARD 701601-07 AND AS SHOWN IN THE PLANS.
2. PERFORM BRIDGE JOINT RECONSTRUCTION ON INSIDE LANES AS SHOWN IN THE PLANS.

**NOTES:**

1. ANY CLOSURES FOR INTERSTATE 90 SHALL BE IN ACCORDANCE WITH HIGHWAY STANDARDS 701400-05 AND 701401-06.

**LEGEND**

- REMOVAL
- WORK ZONE
- IMPACT ATTENUATOR, TEMPORARY
- TEMPORARY CONCRETE BARRIER
- SIGN
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ARROWBOARD









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PLOT SCALE = #SCALE#	DRAWN - RK	REVISED -
PLOT DATE = #DATE#	CHECKED - SEW	REVISED -
	DATE - 1/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>MAINTENANCE OF TRAFFIC - STAGE 2</b>		
<b>F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)</b>		
SCALE: 1"=50'	SHEET NO. 1 OF 1 SHEETS	STA. 3+00 TO STA. 18+00

F.A.P. RTE. 350	SECTION 2011-063-1	COUNTY COOK	TOTAL SHEETS 18	SHEET NO. 5
CONTRACT NO. 60P82				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**LEGEND**

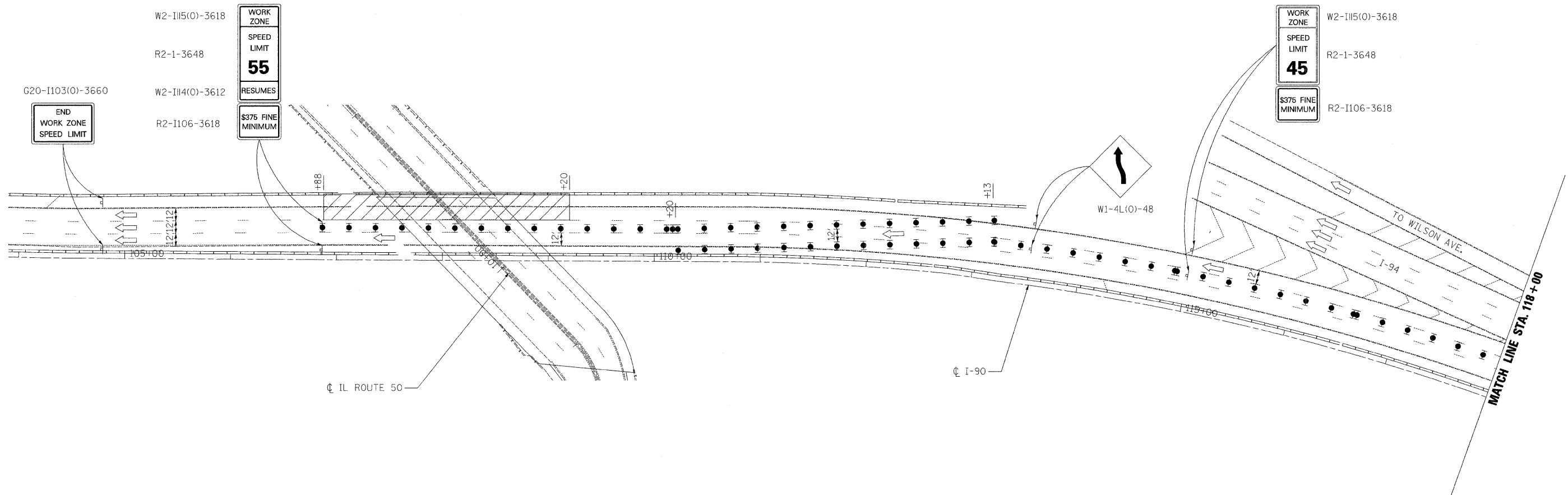
-  WORK ZONE
-  IMPACT ATTENUATOR, TEMPORARY
-  TEMPORARY CONCRETE BARRIER
-  SIGN
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  ARROWBOARD

**STAGE I CONSTRUCTION:**

1. PERFORM OVERNIGHT WESTBOUND I-90 RIGHT LANE CLOSURE IN ACCORDANCE WITH HIGHWAY STANDARD 701400-05 AND AS SHOWN IN THE PLANS.
2. INSTALL PROTECTIVE SHIELD SYSTEM IN ACCORDANCE WITH STRUCTURAL PLANS.

**NOTES:**

1. LEFT AND CENTER LANE ON I-90 SHALL BE IN CLOSED ACCORDANCE WITH HIGHWAY STANDARDS 701400-05, 701401-06 AND 701446-03 AS REQUIRED.



USER NAME = Plotted by Fred 576	DESIGNED - SEW	REVISED -
PLOT SCALE = 50,0000 ' / IN.	DRAWN - RK	REVISED -
PLOT DATE = 2/1/2012	CHECKED - SEW	REVISED -
	DATE - 1/2012	REVISED -







**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

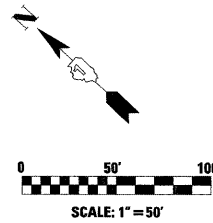
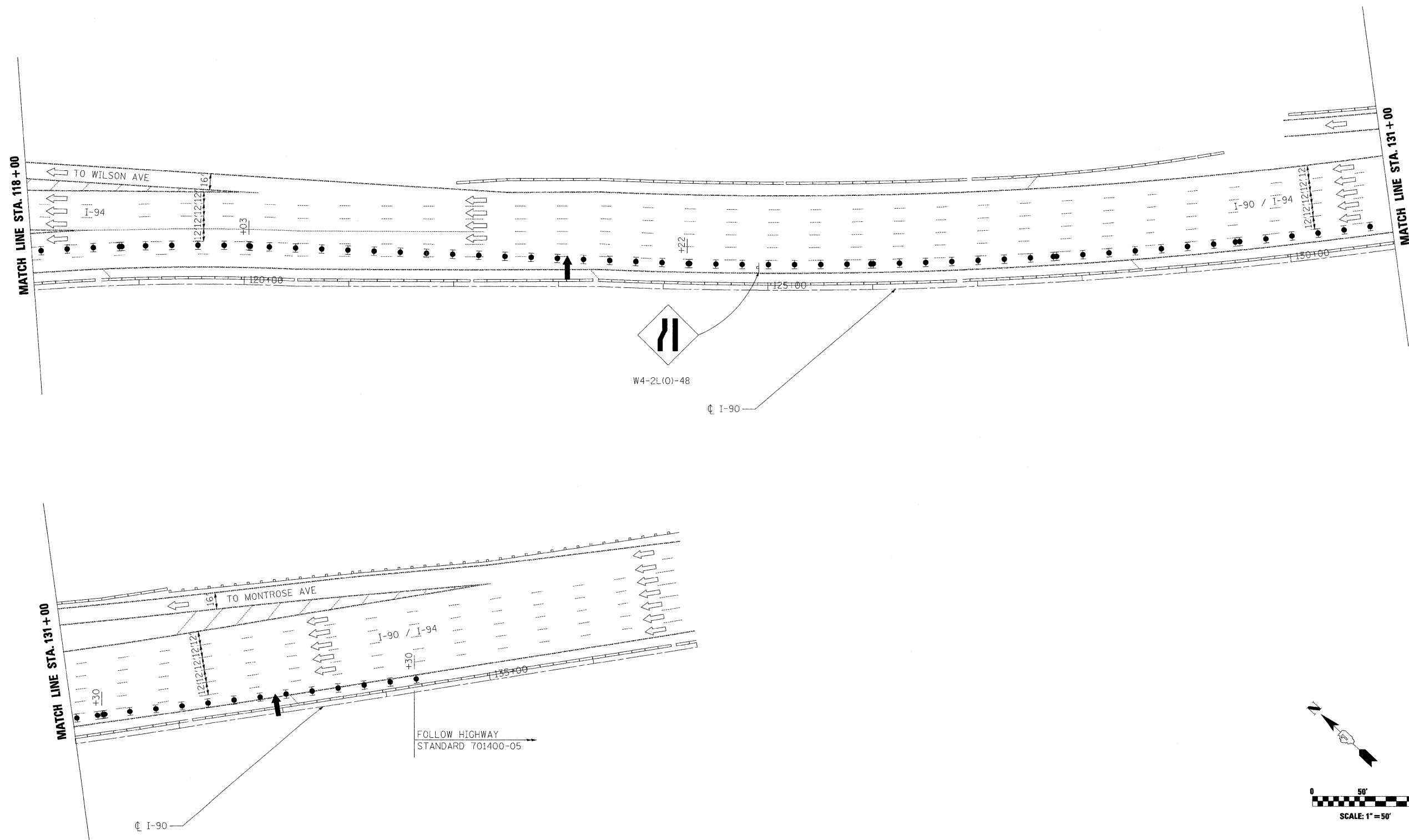
**MAINTENANCE OF TRAFFIC - I-90  
F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)**

SCALE: 1"=50'    SHEET NO. 1 OF 2 SHEETS    STA. 104+00 TO STA. 118+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-I	COOK	18	5A
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60P82	

# LEGEND

-  WORK ZONE
-  IMPACT ATTENUATOR, TEMPORARY
-  TEMPORARY CONCRETE BARRIER
-  SIGN
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  ARROWBOARD



**LIN ENGINEERING, LTD.**  
 Consulting Engineers  
 Springfield, Illinois

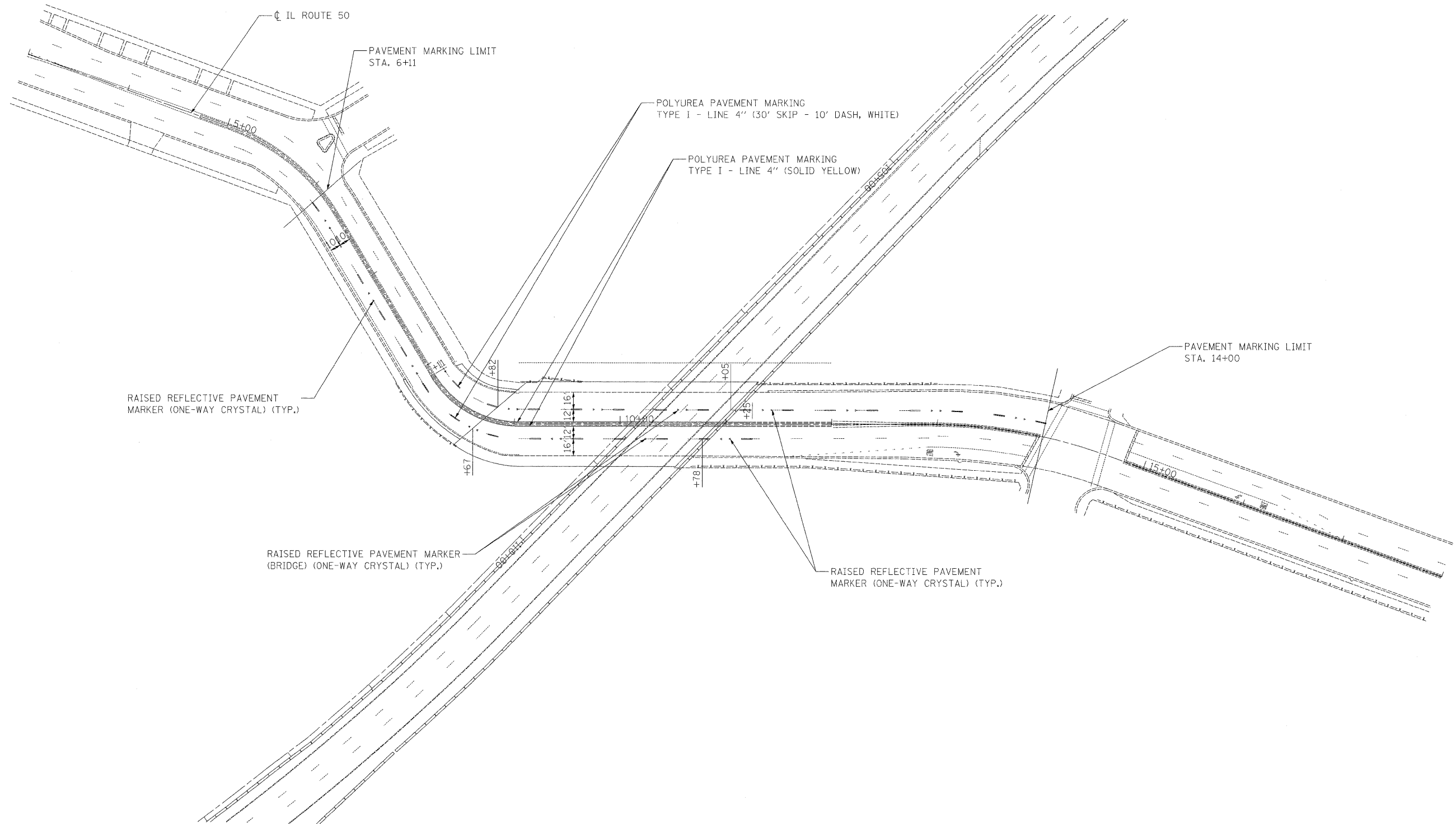
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PLOT DATE = 2/1/2012	CHECKED - SEW	REVISED -
	DATE - 1/2012	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC - I-90  
 F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)**

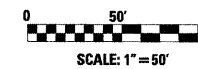
SCALE: 1"=50'      SHEET NO. 2 OF 2 SHEETS      STA. 118+00 TO STA. 137+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-1	COOK	18	5B
				CONTRACT NO. 60P82
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**NOTES:**

PROPOSED PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS ARE TO BE INSTALLED IN ACCORDANCE WITH HIGHWAY STANDARD 780001-03 AND DISTRICT ONE STANDARDS TC-11 AND TC-24.



USER NAME = Plotted by Fred 576  
 PLOT SCALE = 50.0000' / IN.  
 PLOT DATE = 2/1/2012

DESIGNED - SEW  
 DRAWN - RK  
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 DATE - 1/2012

REVISED -  
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 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
 F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)**

SCALE: 1"=50' SHEET NO. 1 OF 1 SHEETS STA. 3+00 TO STA. 18+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-I	COOK	18	6
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60P82	



Existing Structure: SN 016-0400 built in 1958 as FA Route 173, Section 267-111-15D. In 1997, the rigid frame concrete was repaired, the PCC Pavement, embankment, waterproofing membrane and drainage system were replaced along with the railing and barriers. The structure consists of a 3 span reinforced concrete rigid frame supported on concrete piles. The bridge length and width vary due to the curvature at the south end of the structure. The supports are placed at varying left ahead skews. A 9" PCC Pavement supported by ±3 ft of Porous Granular Embankment rest on top of the structure. Stage Construction will be utilized to maintain traffic during construction.

### SCOPE OF WORK

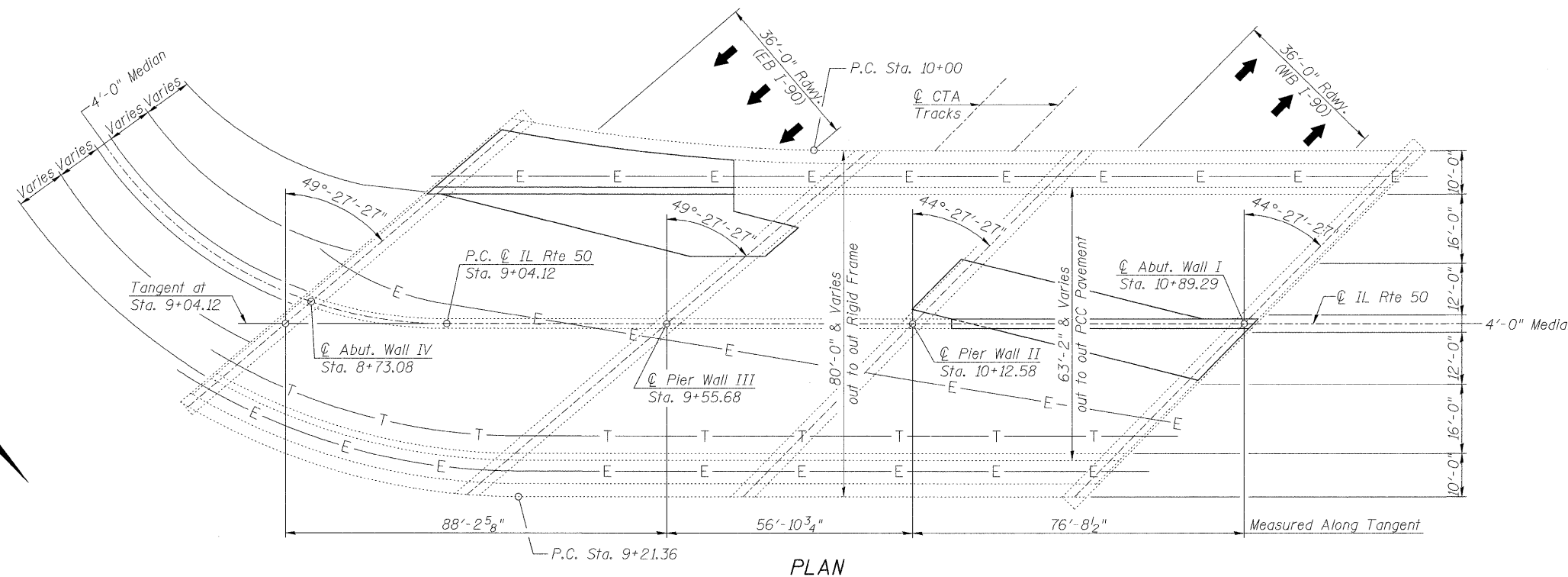
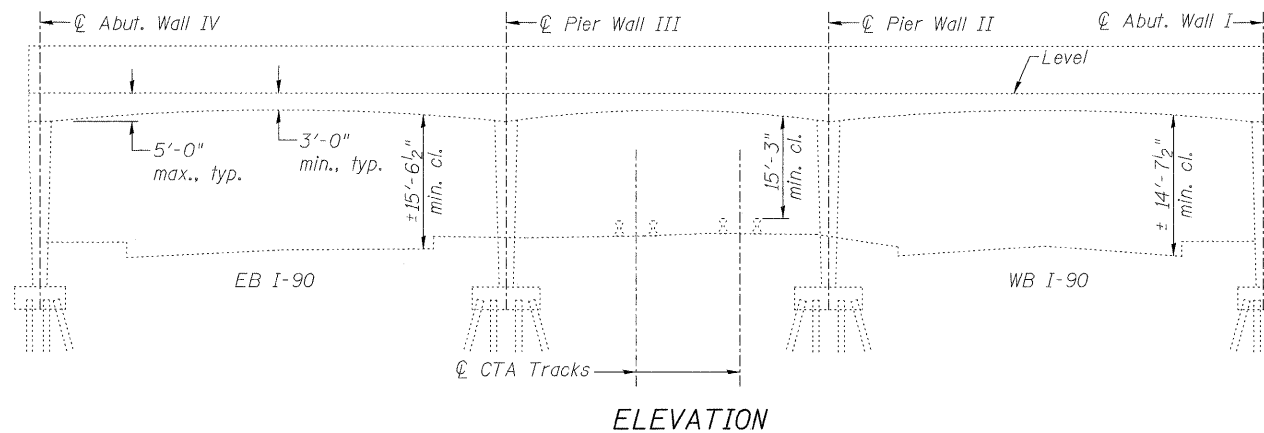
1. Remove PCC Pavement, barrier and sidewalk as indicated and excavate Porous Granular Embankment material to top of Rigid Frame Structure.
2. Provide falsework below end spans to prevent material from falling into traffic and to act as form work for new concrete.
3. Reconstruct top slab of rigid frame full depth as indicated.
4. Provide waterproofing membrane over the new portion of the rigid frame.
5. Replace the Porous Granular Embankment material and rebuild the PCC Pavement and barriers to their original condition.
6. Provide Protective Coat on top of new pavement and top and inside faces of new barriers.

### GENERAL 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 at the unit price bid for the work.

### INDEX OF SHEETS

1. General Plan and Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier for Stage Construction
- 4-4A. Rigid Frame Reconstruction Details
5. PCC Pavement Removal Details
6. PCC Pavement Reconstruction Details
7. Bar Splicer Assembly and Mechanical Splicer Details



### TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.	278	-	278
Continuously Reinforced PCC Pavement, 9"	Sq. Yd.	195	-	195
Pavement Reinforcement	Sq. Yd.	195	-	195
Portland Cement Concrete Sidewalk, 5 Inch	Sq. Ft.	597	-	597
Pavement Removal	Sq. Yd.	195	-	195
Sidewalk Removal	Sq. Ft.	597	-	597
Concrete Removal	Cu. Yd.	144.7	-	144.7
Structure Excavation	Cu. Yd.	266	-	266
Concrete Superstructure	Cu. Yd.	133.1	-	133.1
Protective Coat	Sq. Yd.	329	-	329
Reinforcement Bars, Epoxy Coated	Pound	14970	-	14970
Mechanical Splicers	Each	609	-	609
Waterproofing Membrane System, (Special)	Sq. Yd.	86	-	86

### EXISTING CURVE DATA

Δ = 58° 59' 14" (LT)  
D = 63° 30' 49"  
R = 95.00'  
T = 53.73'  
L = 92.87'  
E = 14.14'  
P.C. = Sta. 8+11.25  
P.T. = Sta. 9+04.12  
P.I. = Sta. 8+64.98

### DESIGN STRESSES

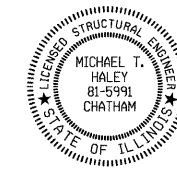
FIELD UNITS  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

### LOADING HS 20-44

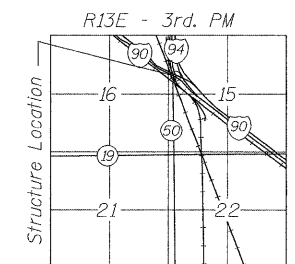
(Original Construction)

### DESIGN SPECIFICATIONS

(New Construction)  
2002 AASHTO "Standard Specifications for Highway Bridges"



Michael J. Haley  
Michael T. Haley  
Licensed Structural Engineer  
State of Illinois No. 81-5991  
Expires 11/30/2012  
2-2-12 Date



### LOCATION SKETCH



USER NAME =  
FILE NAME =  
PLOT SCALE =  
PLOT DATE =

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CHECKED - MTH  
DRAWN - AJF  
CHECKED - MTH

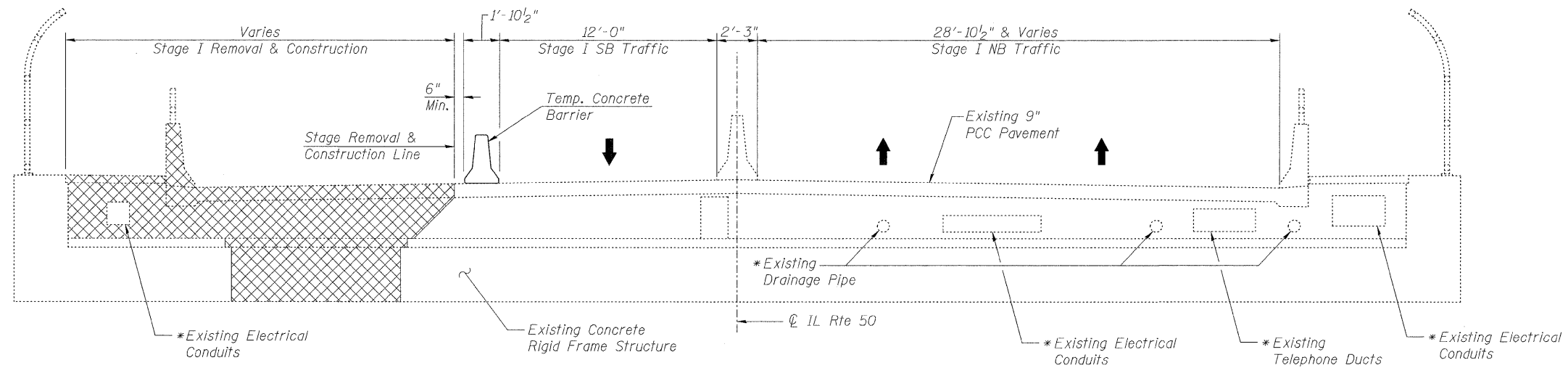
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REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION  
STRUCTURE NO. 016-0400

SHEET NO. 1 OF 7 SHEETS

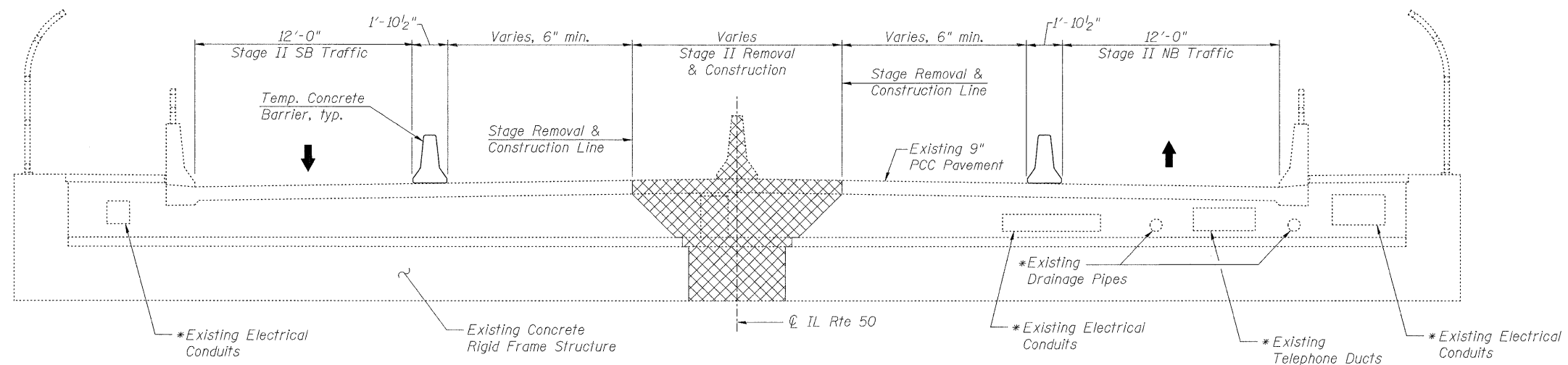
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-1	COOK	18	7
				CONTRACT NO. 60P82
ILLINOIS FED. AID PROJECT				



**STAGE I REMOVAL & CONSTRUCTION**

(Looking North)

\* Contractor shall take precaution so as not to damage the existing utilities during excavation and backfill. Temporary support shall be provided if required cost included with structure excavation.



**STAGE II REMOVAL & CONSTRUCTION**

(Looking North)

**PROTECTIVE SHIELDING/FALSEWORK NOTES**

A protective shield system shall be provided per Article 501.03 of the Standard Specifications prior to the partial removal of the concrete superstructure. The design loading shall be determined by the Contractor's Illinois Licensed Structural Engineer. This system may also be designed and act as falsework for pouring the new concrete per Articles 503.05 and 503.06 of the Standard Specifications.

The system shall extend a minimum of one foot beyond the width of concrete removal areas that have been approved by the Engineer and shall extend full length from face of pier to face of abutment wall. The system shall allow for a minimum vertical clearance of 13'-6" to be maintained during construction. Please refer to other notes in the plans or in the special provisions regarding required signage when reducing the existing clearance on I-90.

A temporary lane closure on I-90 will be allowed for the placement and removal of the system. No permanent lane closures will be allowed on I-90. Refer to the special provisions for the allowable temporary closures on I-90. Protective shielding may be required to protect live traffic during the temporary lane closure. All work on the structure shall be performed from above on IL Route 50. The Contractor has the option of supporting the system from above the rigid frame structure.

The Contractor shall submit detailed plans for the system, prepared and sealed by an Illinois Licensed Structural Engineer, for examination and approval by the Engineer. Cost of all work relating to the Protective Shielding / Falsework shall be included in the pay item Concrete Superstructure.

Notes:

See sheet 3 of 7 for details of Temporary Concrete Barrier.  
See Roadway plans for quantities of Temporary Concrete Barrier.  
Cross hatched area indicates removal of PCC Pavement, Sidewalk or Barrier, and excavation of PGE Material as required to access deteriorated portion of rigid frame structure.



USER NAME =	DESIGNED - TBP	REVISED -
FILE NAME =	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

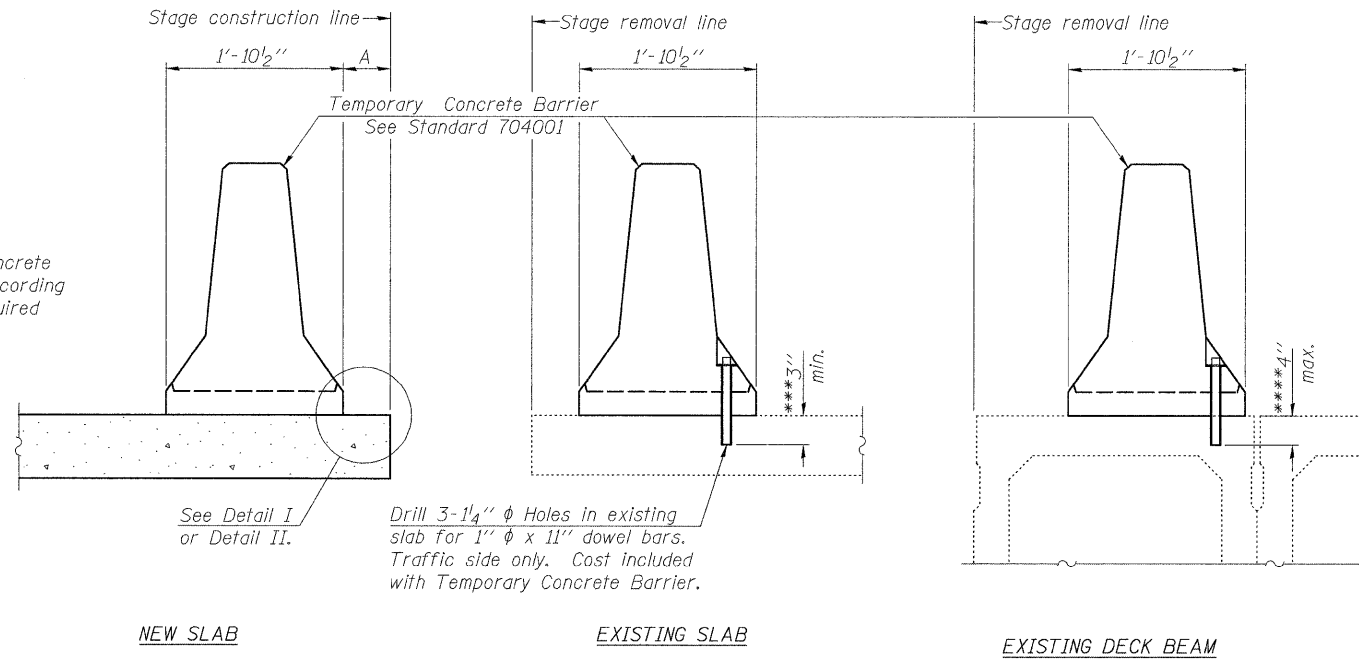
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 016-0400**

SHEET NO. 2 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-1	COOK	18	8
			CONTRACT NO. 60P82	
ILLINOIS FED. AID PROJECT				

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



Drill 3-1/4"  $\phi$  Holes in existing slab for 1"  $\phi$  x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

**NOTES**

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

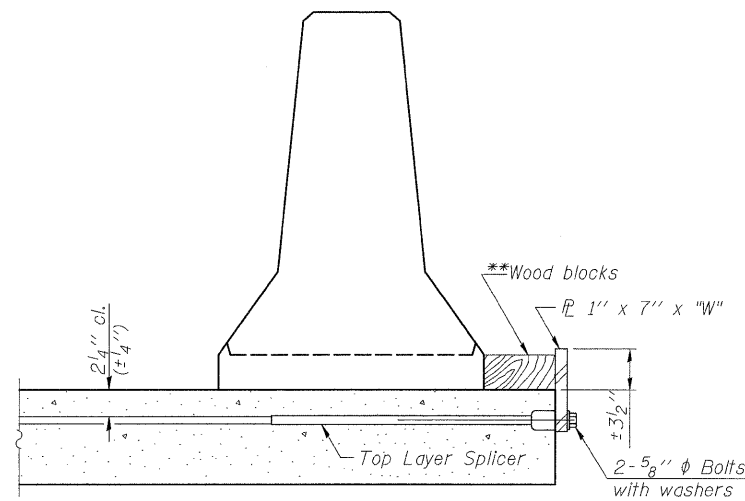
Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x "W" steel  $\bar{L}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

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

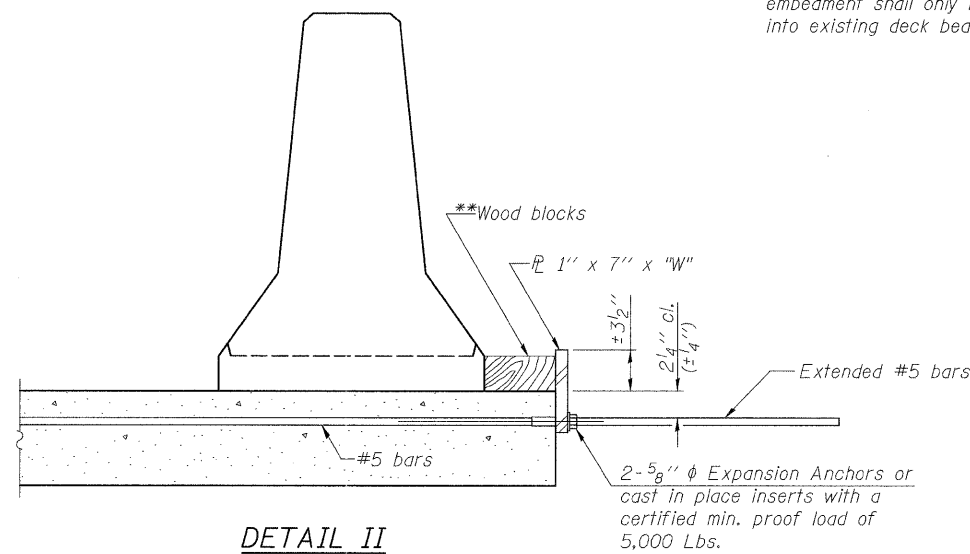
**SECTIONS THRU SLAB OR DECK BEAM**

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

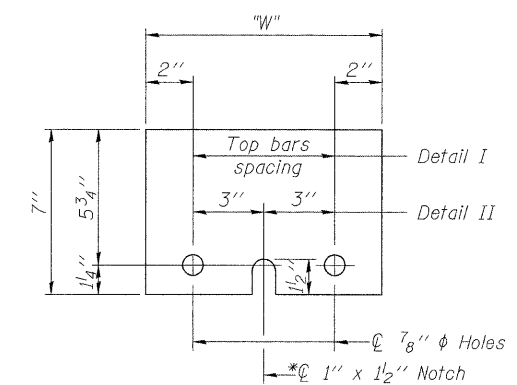
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**DETAIL I**



**DETAIL II**



**STEEL RETAINER  $\bar{L}$  1" x 7" x "W"**

\* Required only with Detail II

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

"W" = Top bars spacing + 4"

R-27 7-1-10



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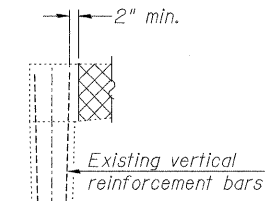
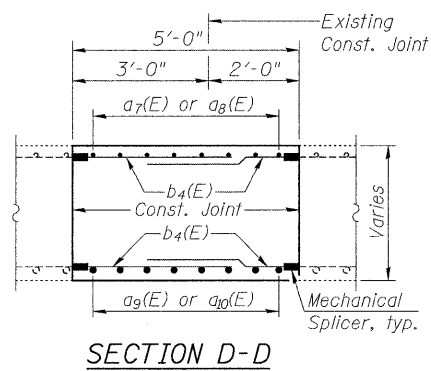
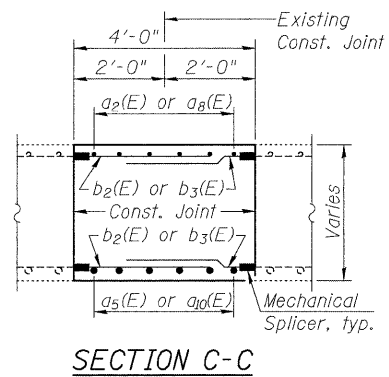
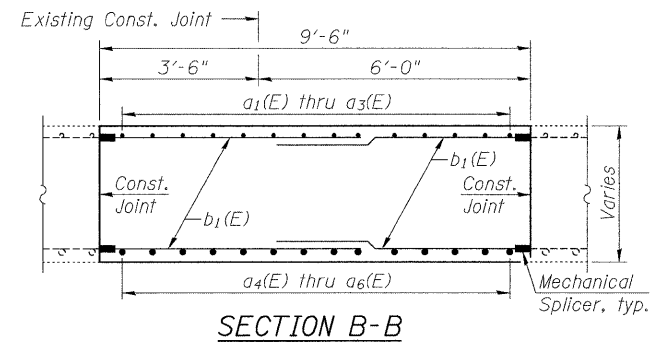
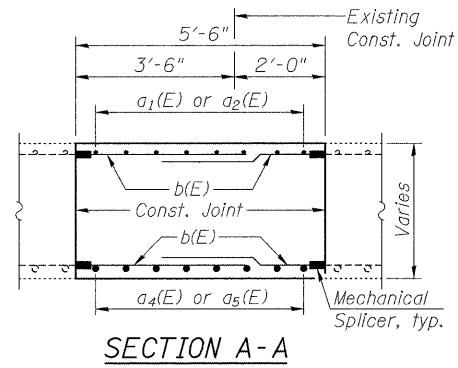
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
STRUCTURE NO. 016-0400**

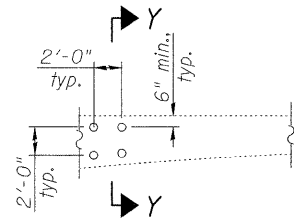
SHEET NO. 3 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-1	COOK	18	9
CONTRACT NO. 60P82			ILLINOIS FED. AID PROJECT	

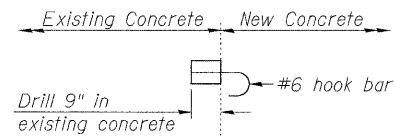




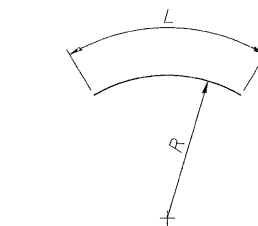
**SECTION E-E**  
(Typical Concrete Removal at Piers and Abutment)



**VIEW X-X**  
(Drill and epoxy grout hook bars in grid. Each face of Concrete Removal except on Piers and Abutment face. Cost included with Reinforcement Bars, Epoxy Coated.)

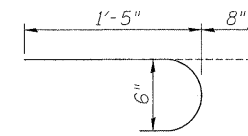


**SECTION Y-Y**



**BARS a4(E), a5(E), a6(E), a9(E) and a10(E)**

Bar	R	L
a4(E)	400'	29'-1"
a5(E)	400'	36'-10"
a6(E)	400'	23'-1"
a9(E)	350'	25'-7"
a10(E)	350'	33'-7"



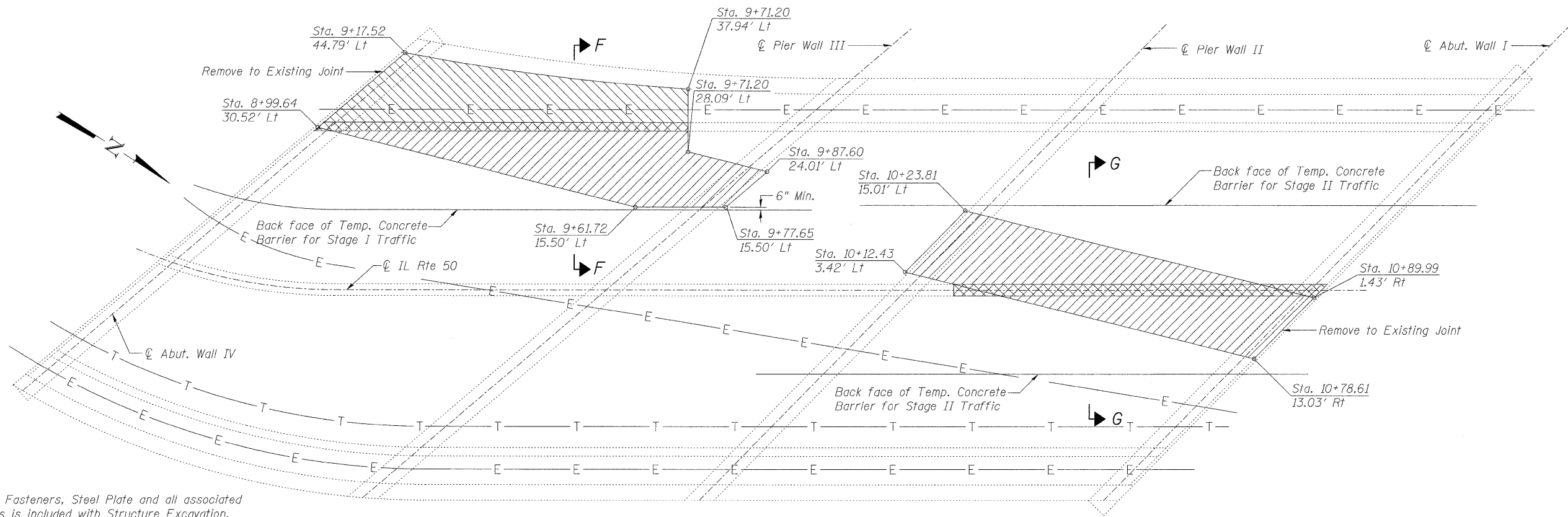
**DETAIL**  
#6 Hook Bar

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1(E)	4	#7	26'-7"	—
a2(E)	12	#7	34'-4"	—
a3(E)	12	#7	20'-7"	—
a4(E)	4	#11	29'-1"	—
a5(E)	12	#11	36'-10"	—
a6(E)	12	#11	23'-1"	—
a7(E)	4	#7	23'-1"	—
a8(E)	12	#7	31'-1"	—
a9(E)	4	#11	25'-7"	—
a10(E)	12	#11	33'-7"	—
b(E)	48	#5	4'-4"	—
b1(E)	152	#5	6'-10"	—
b2(E)	64	#5	3'-6"	—
b3(E)	64	#5	3'-4"	—
b4(E)	172	#5	3'-11"	—
Concrete Removal			Cu. Yd.	113.6
Concrete Superstructure			Cu. Yd.	113.6
Reinforcement Bars, Epoxy Coated			Pound	12100

Note:  
Work this sheet with sheet 4 of 7.

(Sheet 2 of 2)



**Notes:**  
 Cost of Timber, Fasteners, Steel Plate and all associated labor and materials is included with Structure Excavation.  
 Existing reinforcement shall be cleaned and incorporated into the new construction except noted otherwise. Cost included with Concrete Removal.  
 Existing Waterproofing Membrane shall be cut a minimum of 6" from the concrete removal line to leave enough material to lap with new membrane.  
 Existing reinforcement shall be cut from face of concrete removal line or pavement removal line at a distance of the grip length specified by the manufacturer of the Mechanical Splicers for the bars to be spliced.

**PLAN - SHOWING REMOVAL LIMITS  
 FOR PCC PAVEMENT, BARRIERS & SIDEWALK**

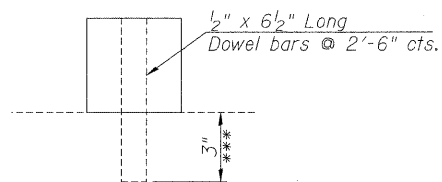
Limits based on field measurements by IDOT District One during August, 2011 inspection.

**BILL OF MATERIAL**

Item	Unit	Total
Pavement Removal	Sq. Yd.	195
Sidewalk Removal	Sq. Ft.	597
Structure Excavation	Cu. Yd.	266

See sheet 4A of 7 for quantity of Concrete Removal.

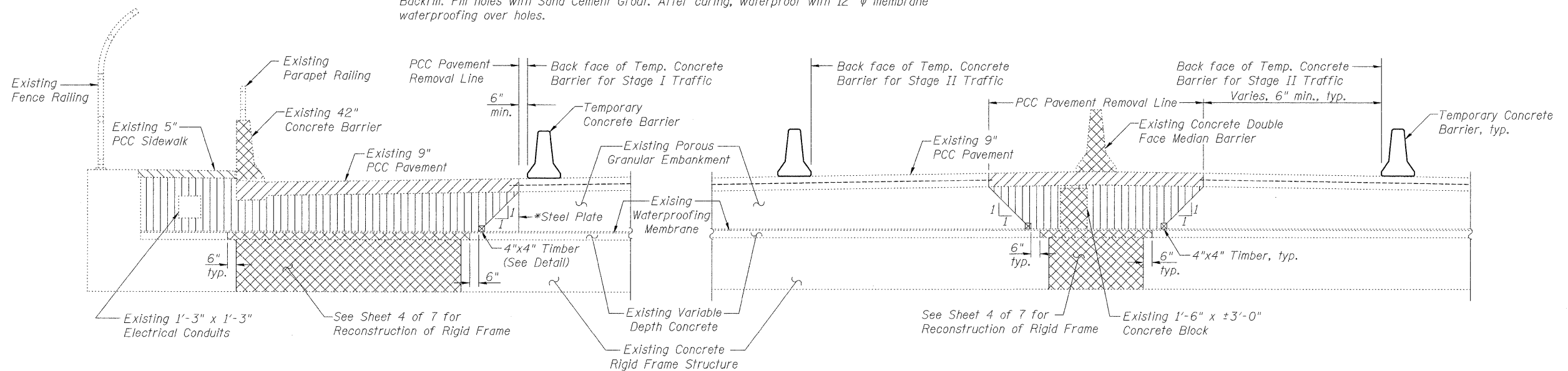
- \* When 1:1 slope is not attainable, a 1/2" thick steel plate shall be vibrated down to top of rigid frame for supporting the existing porous Granular Embankment. Provide minimum 5 feet bearing past the excavation point on each end.
- \*\* It is the Contractor's responsibility to keep a log of reinforcement bars showing numbers, size, shape and lengths which fall off during concrete removal operation.
- \*\*\* Drill 3/4"  $\phi$  x 3" deep holes to miss existing reinforcement bars. Remove Timber & Dowels during Backfill. Fill holes with Sand Cement Grout. After curing, waterproof with 12"  $\phi$  membrane waterproofing over holes.



**4"x4" TIMBER**

**LEGEND**

- Concrete Removal \*\*
- Pavement Removal
- Sidewalk Removal
- Structure Excavation



**SECTION F-F**

**SECTION G-G**



USER NAME =	DESIGNED - TBP	REVISED -
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PLOT DATE =	CHECKED - MTH	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PCC PAVEMENT REMOVAL DETAILS  
 STRUCTURE NO. 016-0400**

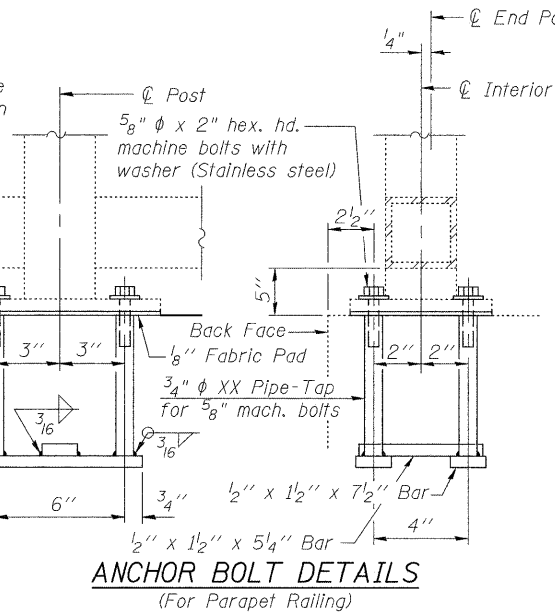
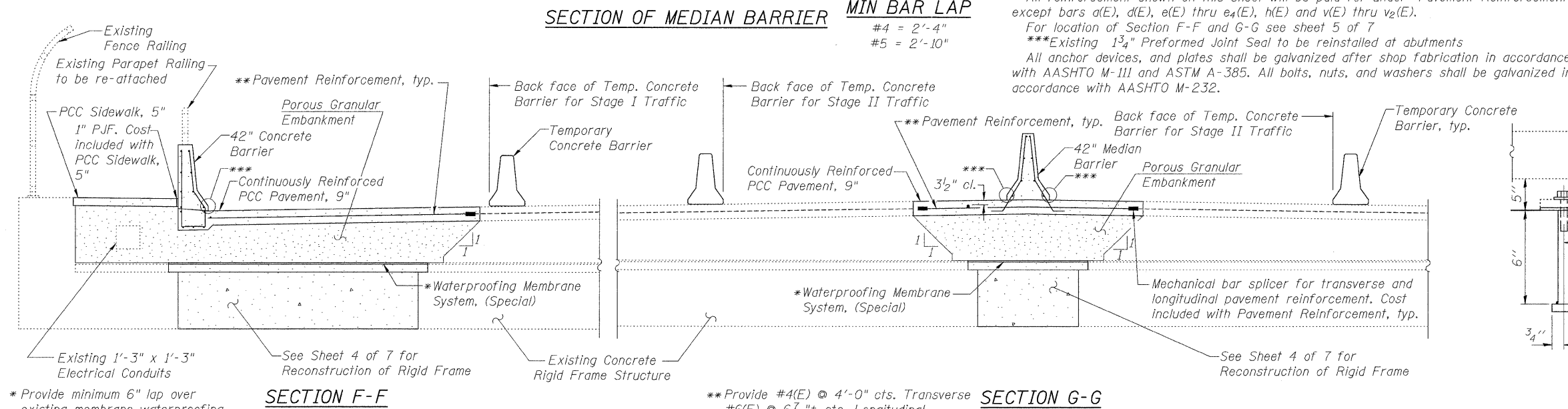
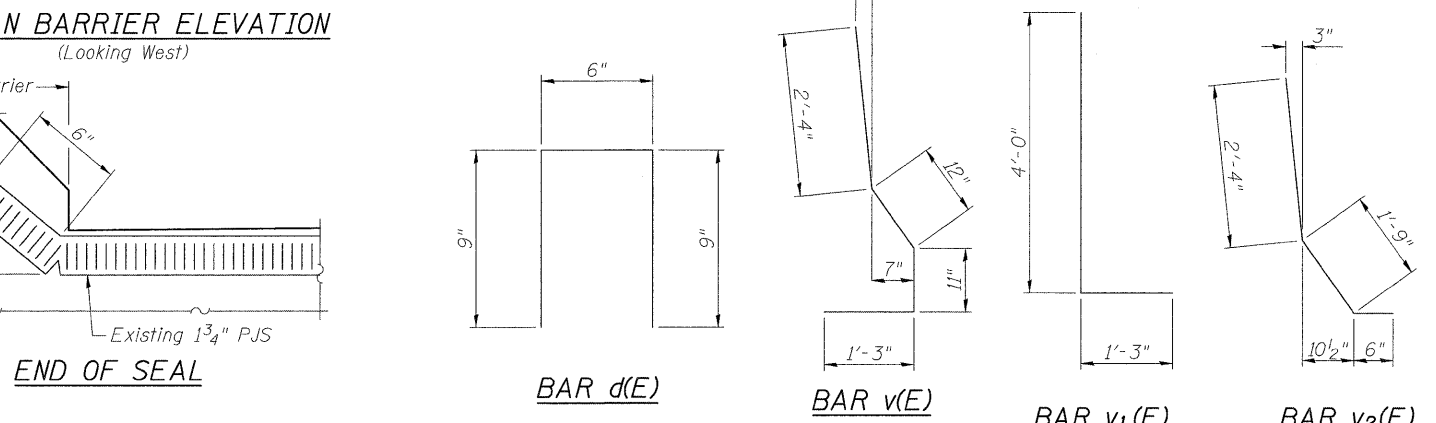
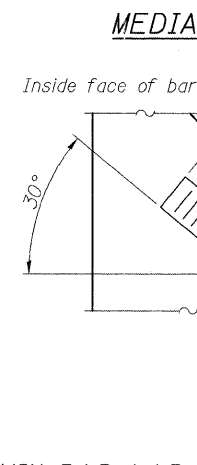
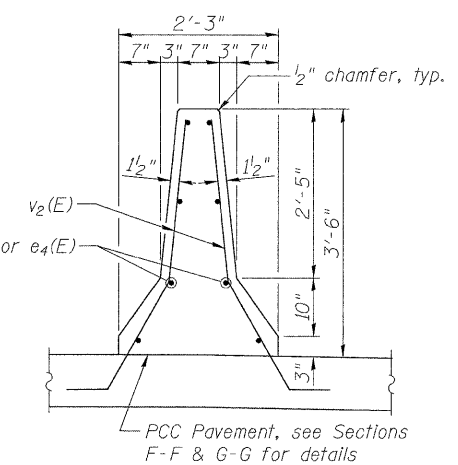
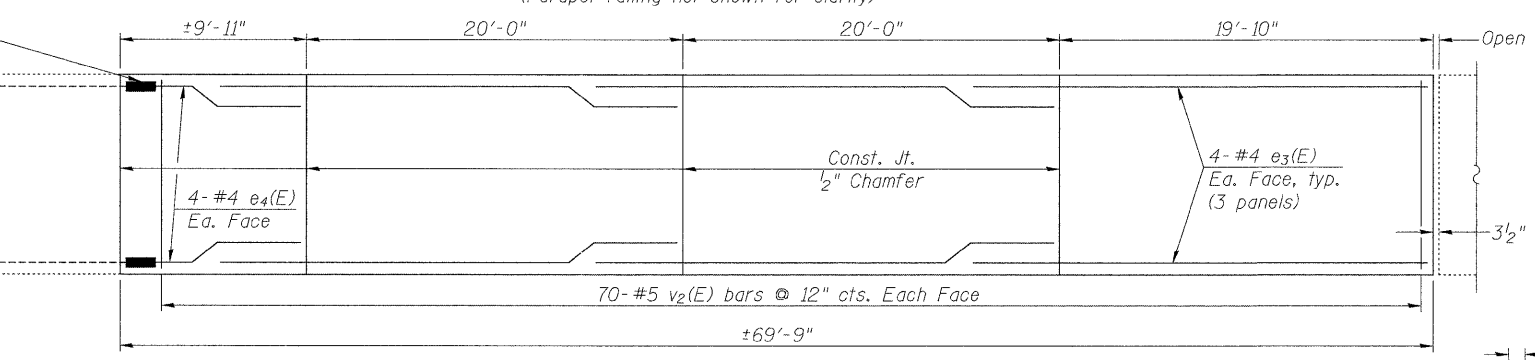
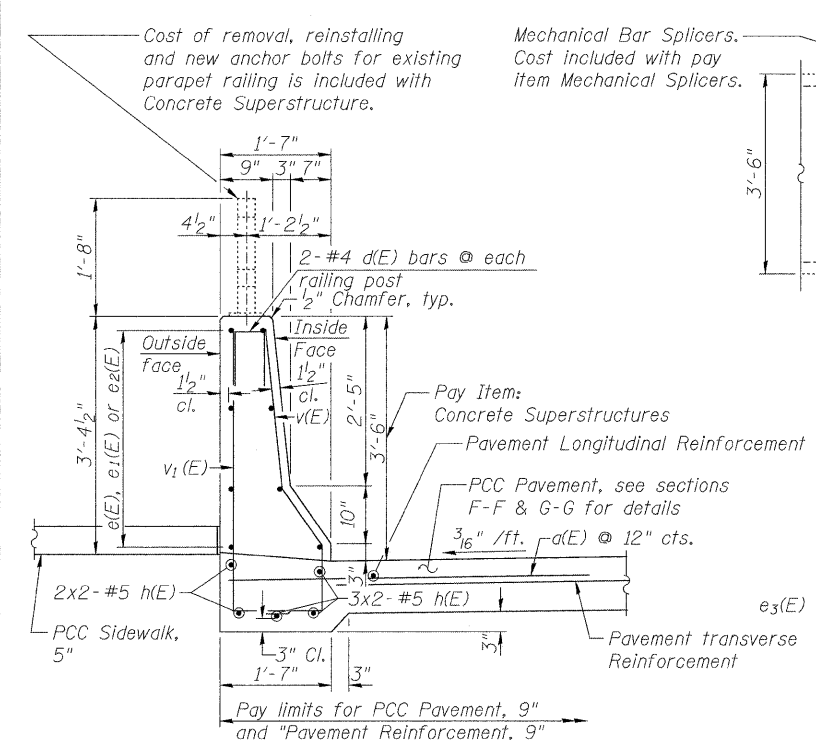
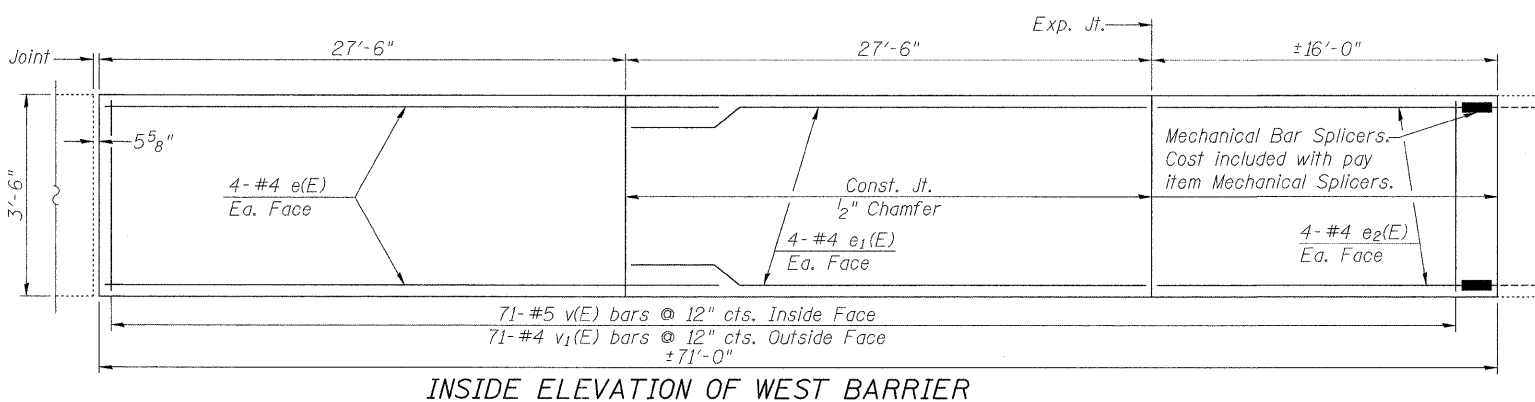
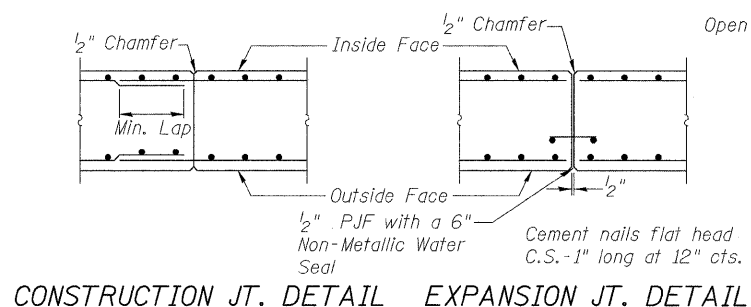
SHEET NO. 5 OF 7 SHEETS

F.A.P. RTE. 350	SECTION 2011-063-I	COUNTY COOK	TOTAL SHEETS 18	SHEET NO. 11
				CONTRACT NO. 60P82
ILLINOIS FED. AID PROJECT				

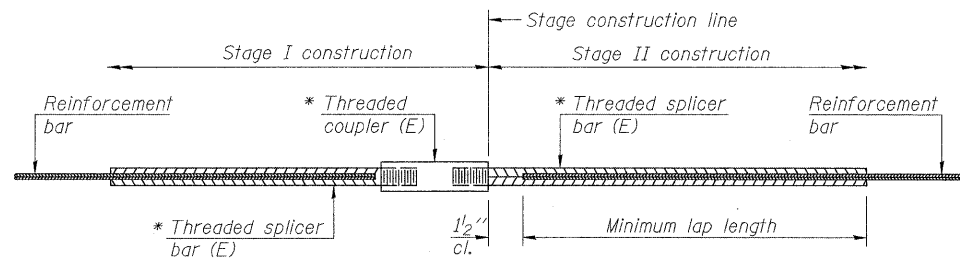
**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
d(E)	63	#5	5'-0"	—	
d(E)	20	#4	2'-0"	□	
e(E)	8	#4	29'-8"	—	
e <sub>1</sub> (E)	8	#4	27'-4"	—	
e <sub>2</sub> (E)	8	#4	15'-10"	—	
e <sub>3</sub> (E)	24	#4	22'-4"	—	
e <sub>4</sub> (E)	8	#4	9'-9"	—	
h(E)	10	#5	36'-11"	—	
v(E)	71	#5	5'-6"	—	
v <sub>1</sub> (E)	71	#4	5'-3"	—	
v <sub>2</sub> (E)	140	#5	4'-7"	—	
Reinforcement Bars, Epoxy Coated				Pound	2870
Concrete Superstructure				Cu. Yd.	19.4
Continuously Reinforced PCC Pavement, 9"				Sq. Yd.	195
Pavement Reinforcement				Sq. Yd.	195
PCC Sidewalk, 5"				Sq. Ft.	597
Waterproofing Membrane System, (Special)				Sq. Yd.	86

Bars indicated thus 4 x 2-#5 etc. indicates 4 line of bars with 2 lengths per line.



**Notes:**  
 All reinforcement shown on this sheet will be paid for under "Pavement Reinforcement" except bars d(E), d(E), e(E) thru e<sub>4</sub>(E), h(E) and v(E) thru v<sub>2</sub>(E).  
 For location of Section F-F and G-G see sheet 5 of 7  
 \*\*\*Existing 1 3/4" Preformed Joint Seal to be reinstalled at abutments  
 All anchor devices, and plates shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. All bolts, nuts, and washers shall be galvanized in accordance with AASHTO M-232.



**STANDARD BAR SPLICER ASSEMBLY**

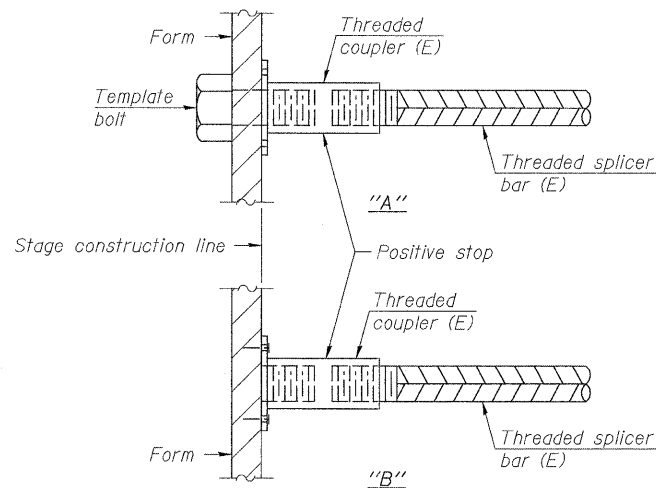
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- 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, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1/2" + thread length

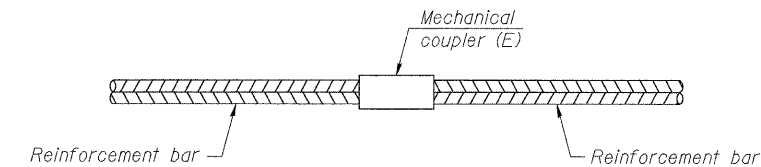
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



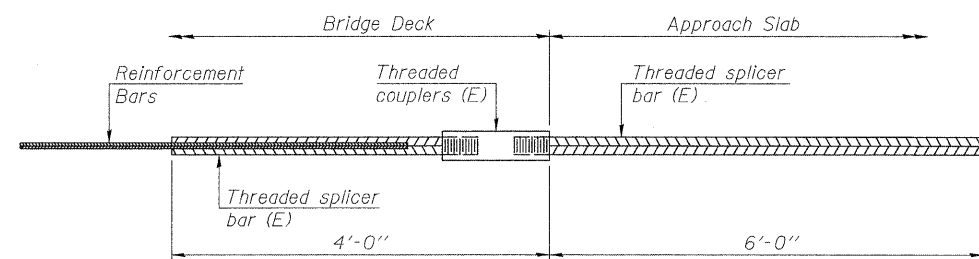
**INSTALLATION AND SETTING METHODS**

"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.



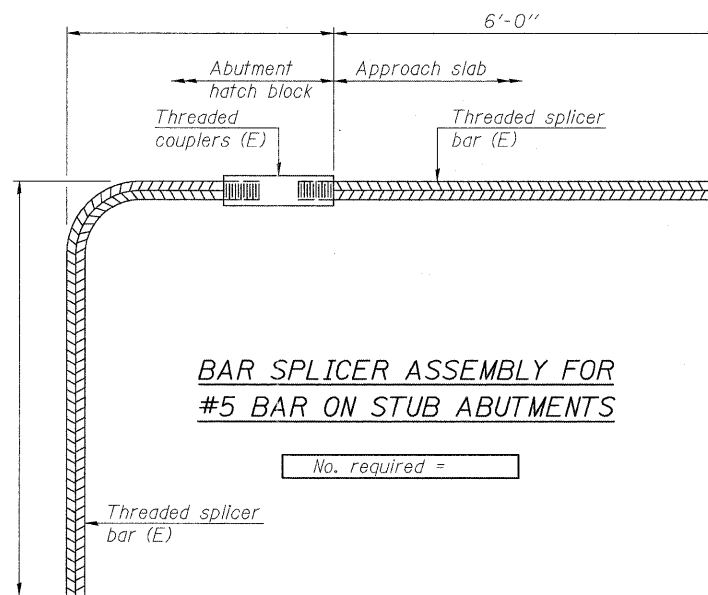
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required
Rigid Frame Top	#7	44
Rigid Frame Bottom	#11	44
Rigid Frame Top	#5	250
Rigid Frame Bottom	#5	250
Barriers	#4	16
Outside Barrier	#5	5



**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 special provision for Mechanical Splicers.  
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

7-1-10



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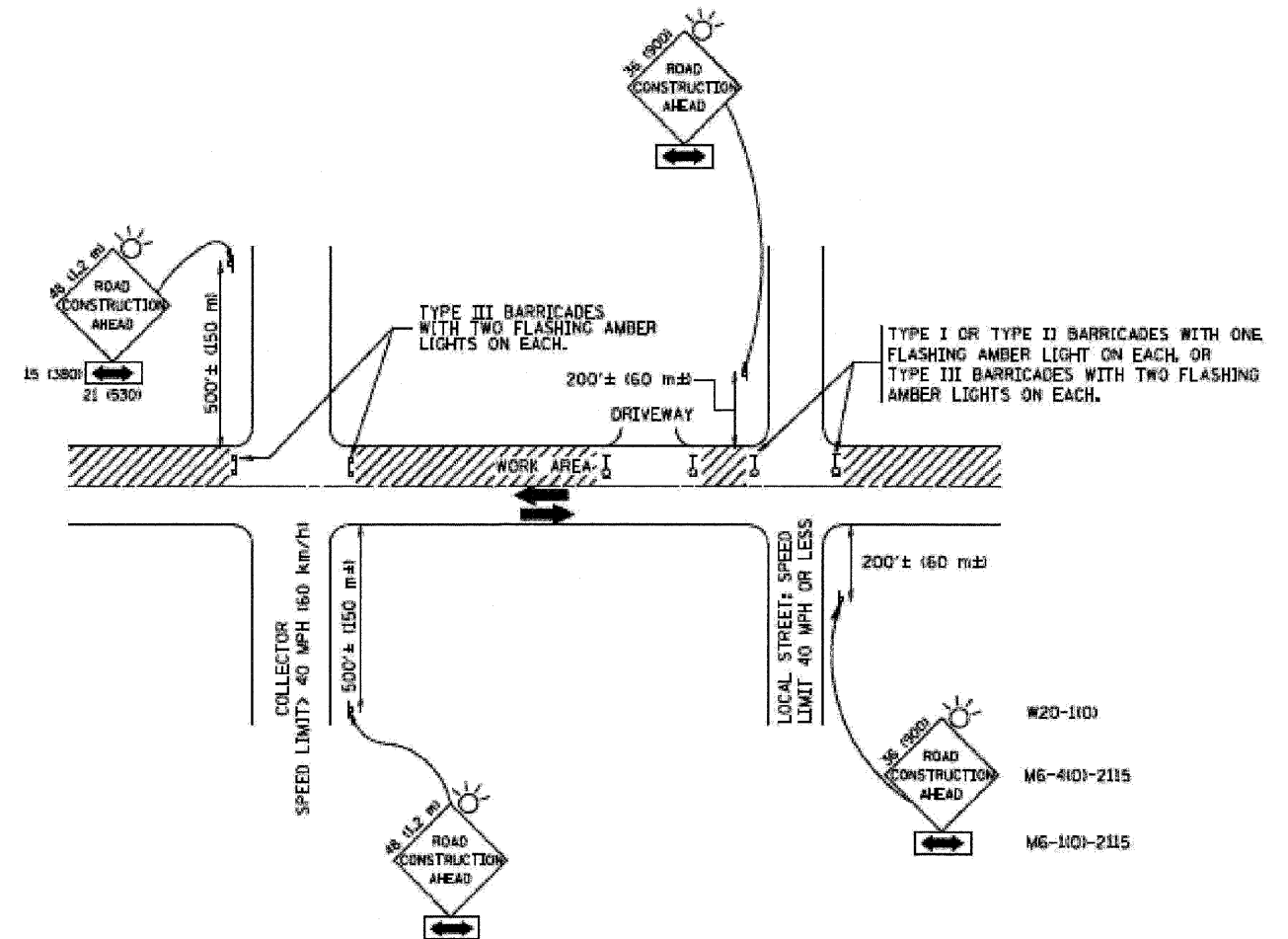
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
 STRUCTURE NO. 016-0400

SHEET NO. 7 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-I	COOK	18	13
CONTRACT NO. 60P82			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
  - 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
    - a) 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.
    - 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
    - a) 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.
    - 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.
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY
  - USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 70150L, STD. 70160L 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.

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

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



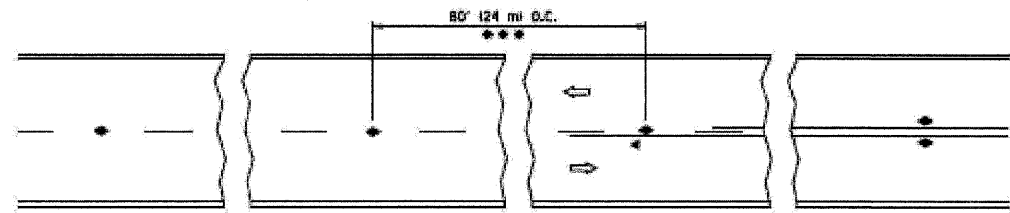
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARDS  
F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)

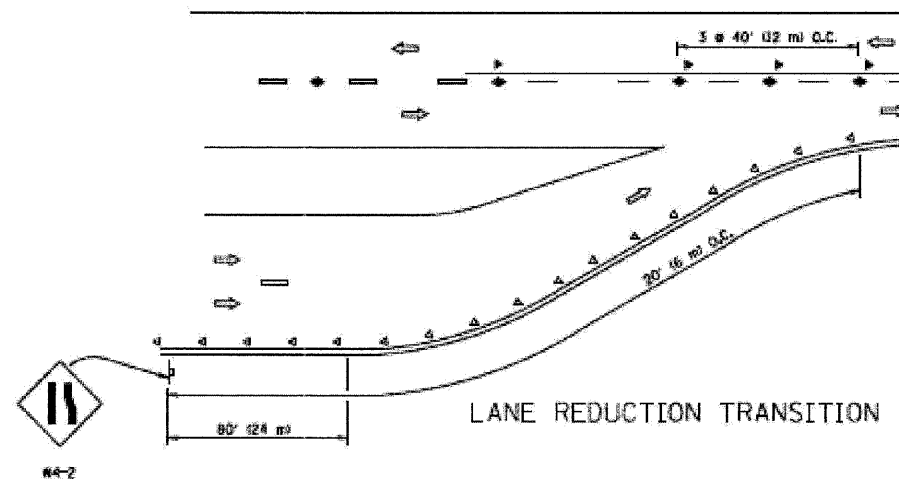
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-I	COOK	18	14
TC-10			CONTRACT NO. 60P82	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

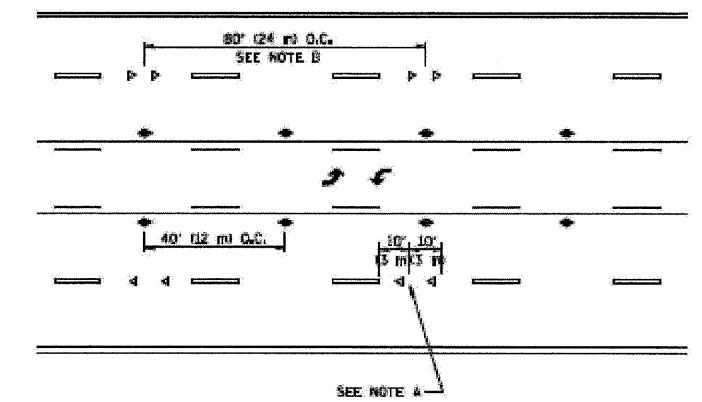


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS 45 M.P.H. (70 km/h) OR LESS.

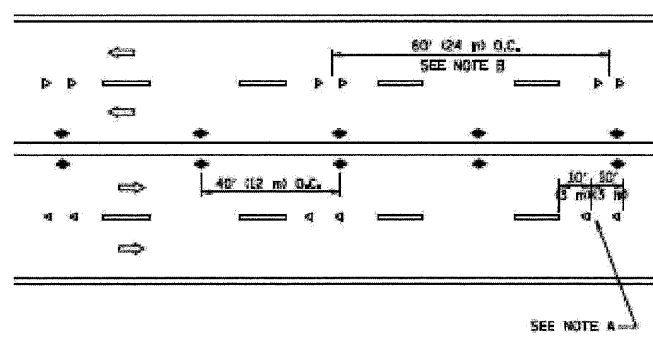
TWO-LANE/TWO-WAY



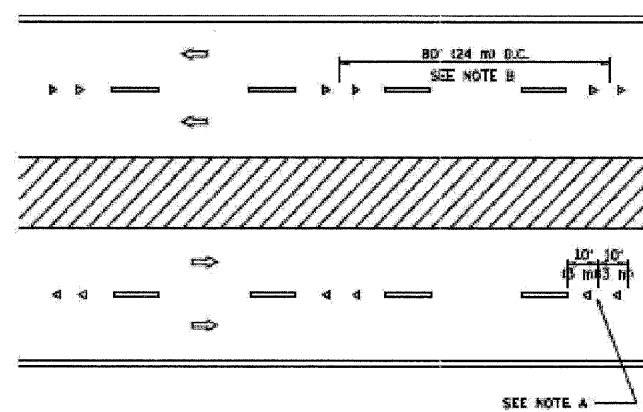
LANE REDUCTION TRANSITION



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

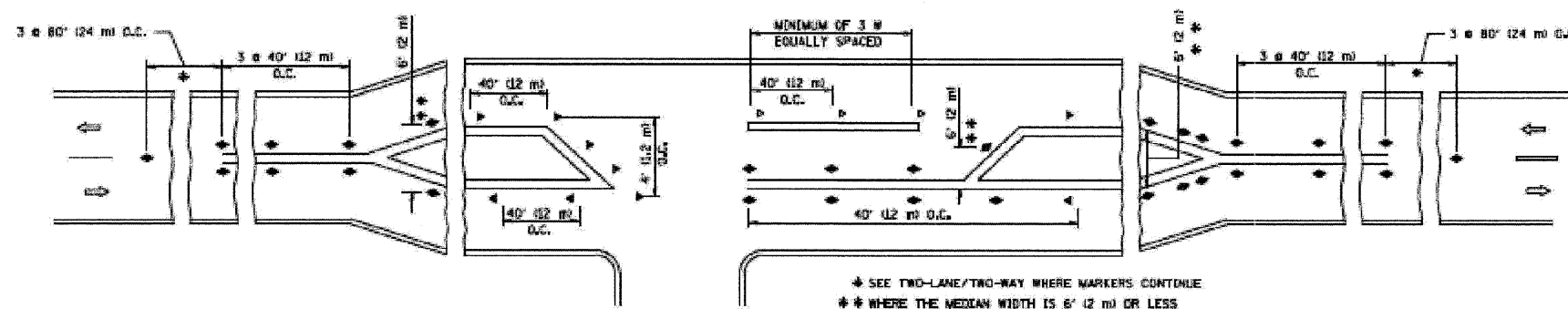
- YELLOW STRIPE
- WHITE STRIPE
- ◄ ONE-WAY AMBER MARKER
- ◄ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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. (16 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 SHOULD BE INCLUDED IN THE PLANS.
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

**RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)**

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



USER NAME = #USER#  
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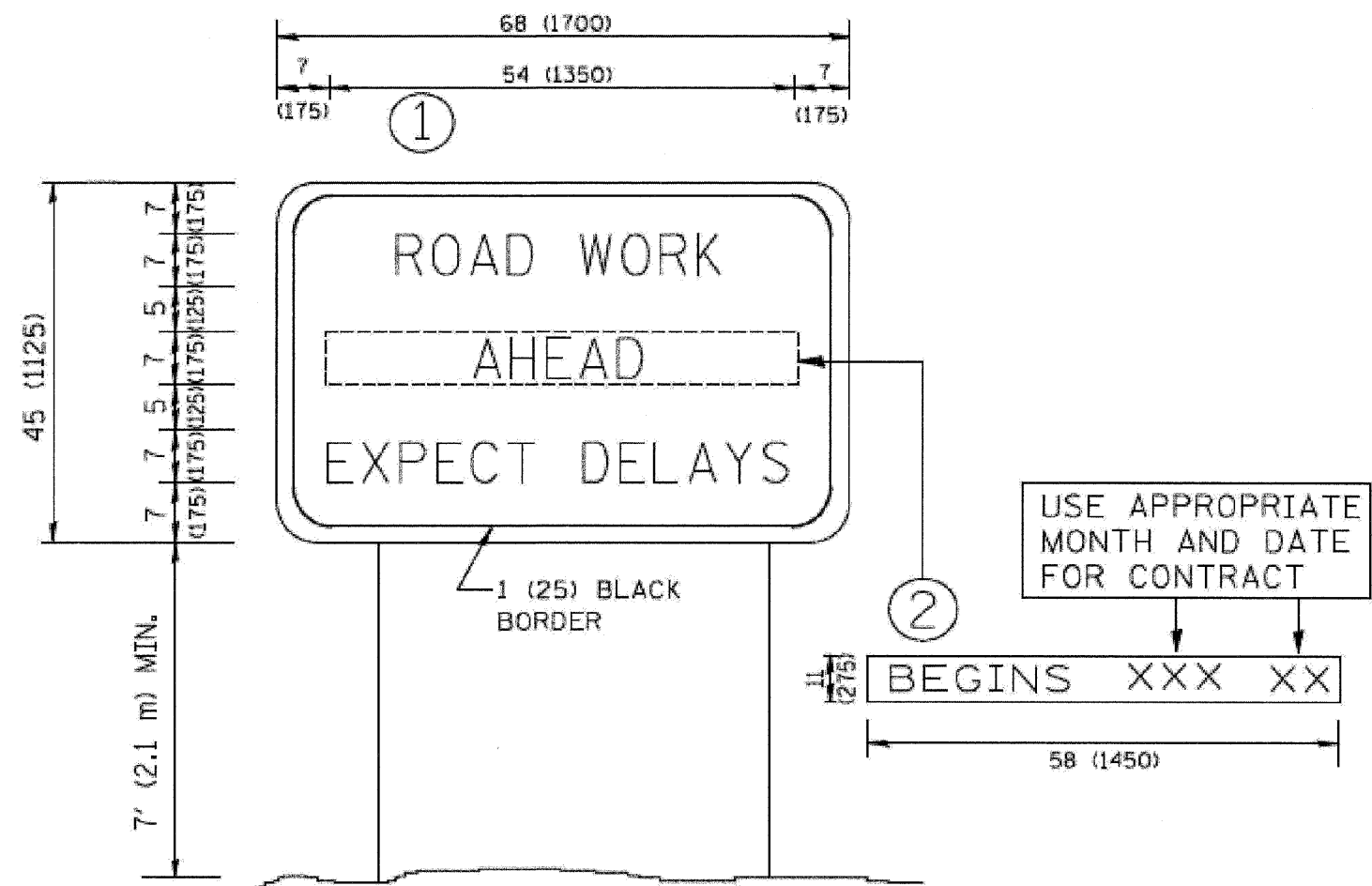
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARDS  
 F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)

SCALE: N.T.S. SHEET NO. 2 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-1	COOK	18	15
TC-11		CONTRACT NO. 60P82		
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.

**ARTERIAL ROAD INFORMATION SIGN**

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



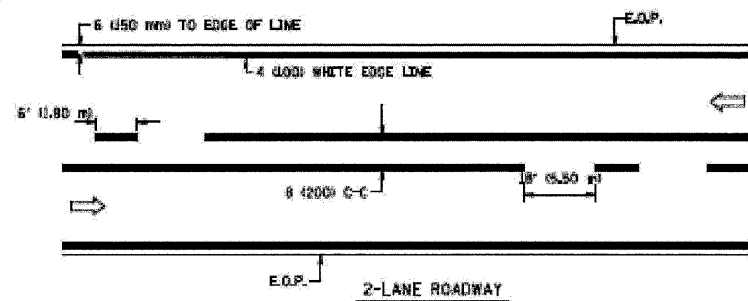
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARDS  
F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)

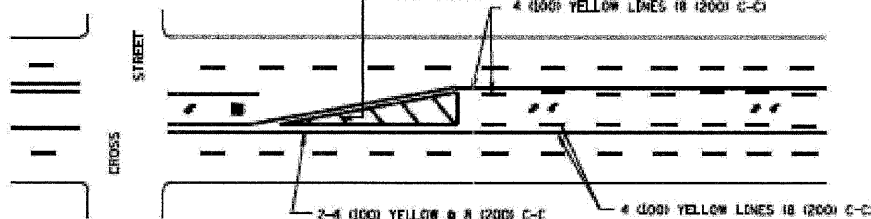
SCALE: N.T.S. SHEET NO. 3 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-1	COOK	18	16
TC-22			CONTRACT NO. 60P82	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

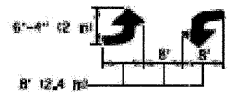


\* FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.  
 \* DIAGONAL LINE SPACING: 20' (6.1 m) C-C

PAINTED MEDIANS

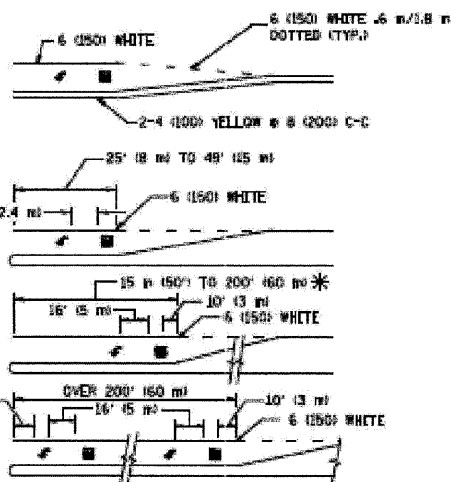


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

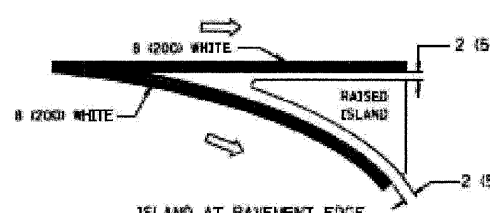
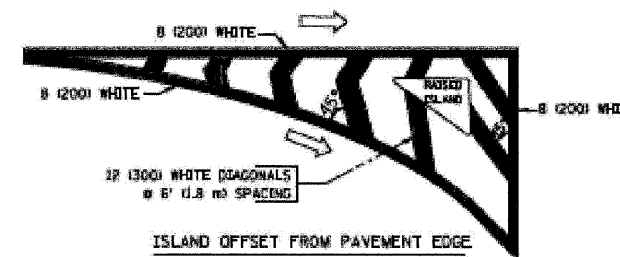


FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED.  
 □ AREA = 15.8 SQ. FT. (1.47 m<sup>2</sup>) ■ AREA = 22.9 SQ. FT. (2.13 m<sup>2</sup>)

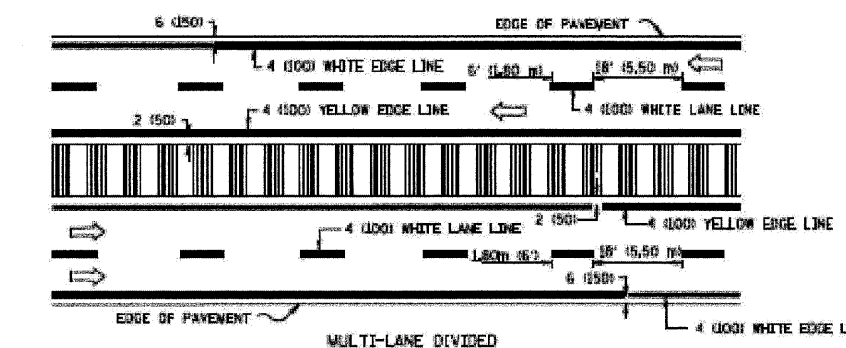
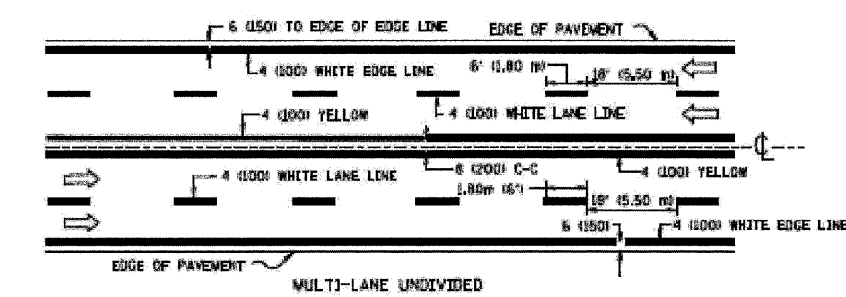
\* TURN LANES ON EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

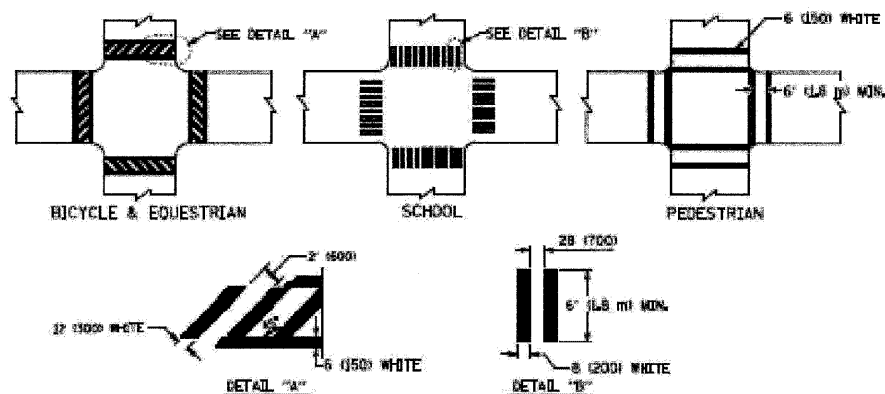


TYPICAL ISLAND MARKING



NOTE: MEDIANS WITH BARRIER CURBS DO NOT REQUIRE AN EDGE LINE.

TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	6' (1.83 m) LINE WITH 18' (5.50 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	8 (200) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	8 (200) C-C
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	6' (1.83 m) LINE WITH 18' (5.50 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' (1.83 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURBS
TURN LANE MARKINGS	6 (150) LINES FULL SIZE LETTERS & SYMBOLS (8" (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4 m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	6' (1.83 m) LINE WITH 18' (5.50 m) SPACE FOR SKIP-DASH; 8 (200) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN & LONGITUDINAL BARS (SCHOOL))	2 @ 6 (150) 12 (300) @ 45° 8 (200) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.83 m) APART 2' (600) APART 2'-4" (100) 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 READER STOPPING POINT, PARALLEL TO CROSSWALK CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	8 (200) 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: 20' (6.1 m) IF LESS THAN 30 MPH (48 km/h)
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS IS 14 (350) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R" IS 6' (1.8 m) LETTERS IS 14 (350) LINE FOR "X" "R"=3.5 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=64.0 SQ. FT. (5.9 m <sup>2</sup> )

**CITY OF CHICAGO**  
**TYPICAL PAVEMENT MARKINGS**

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STREET MARKING STANDARDS PROVIDED BY CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC.

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



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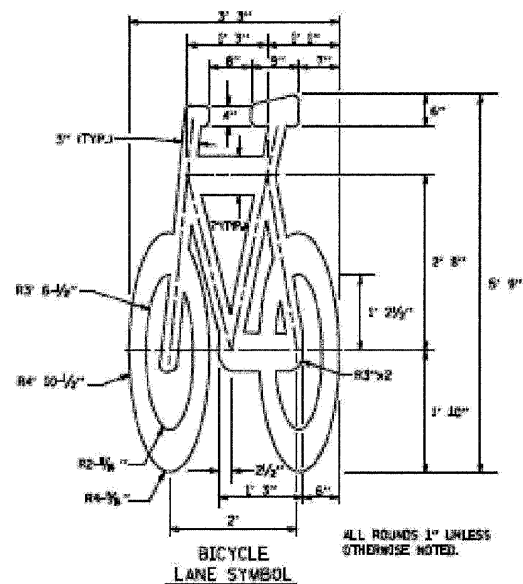
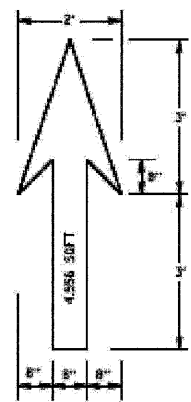
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARDS  
 F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)

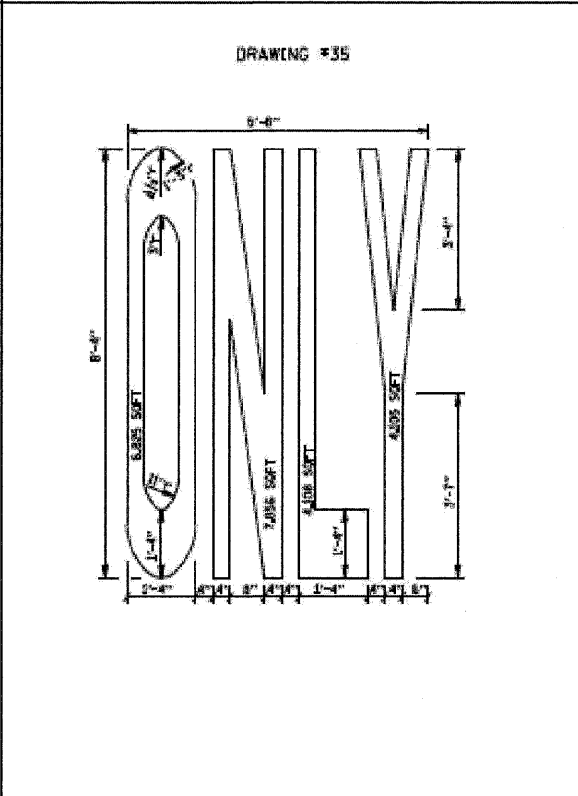
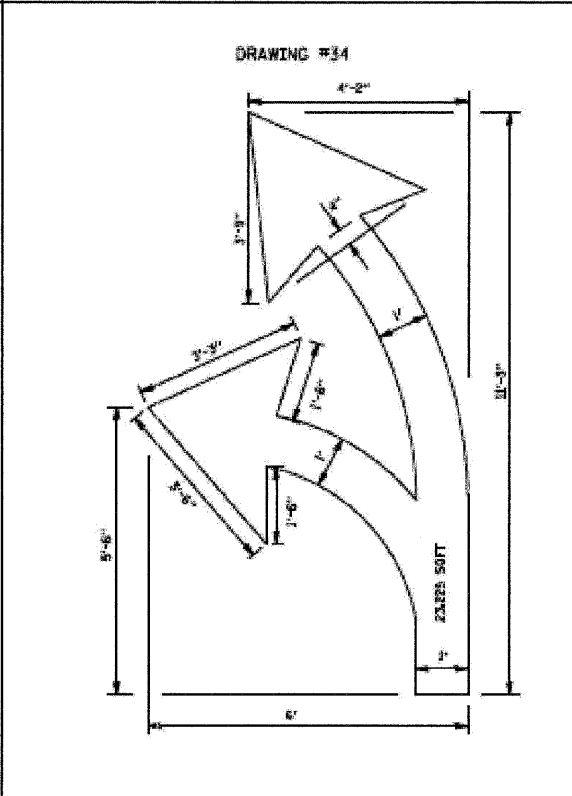
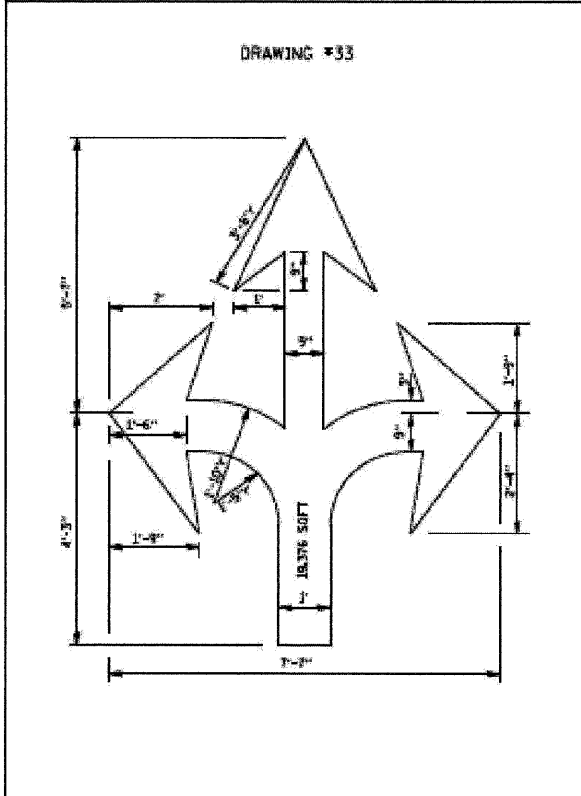
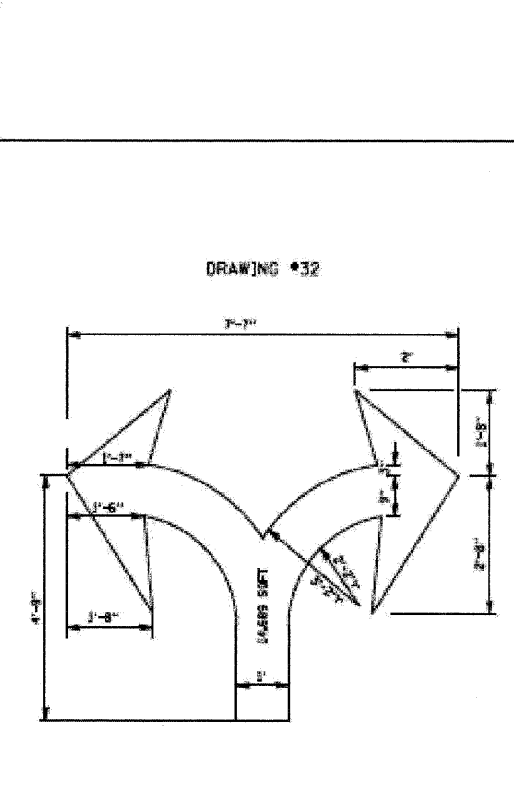
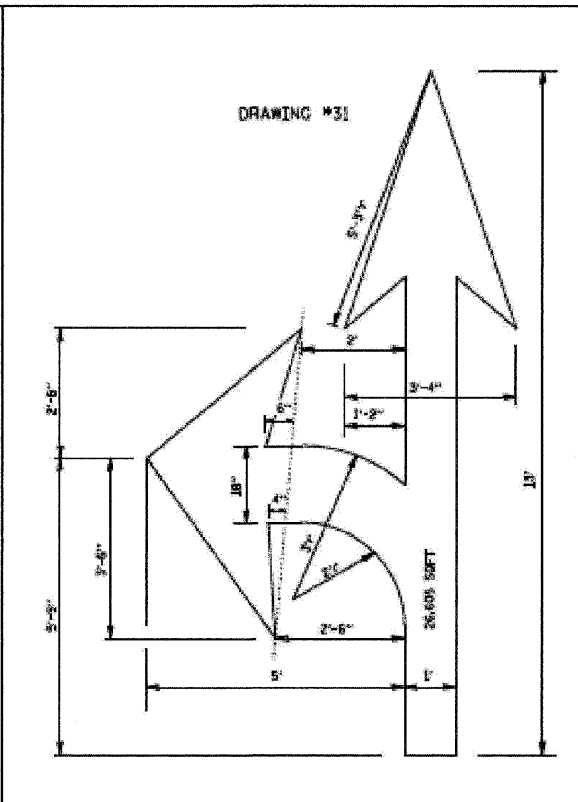
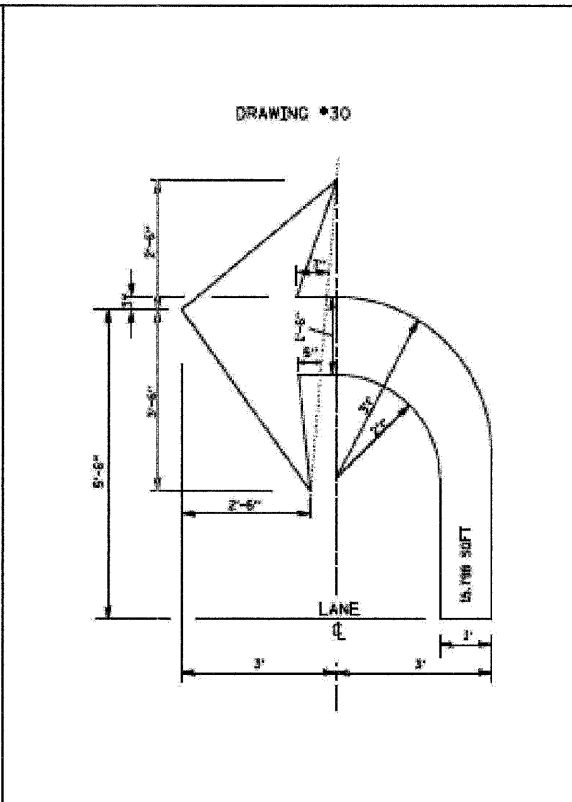
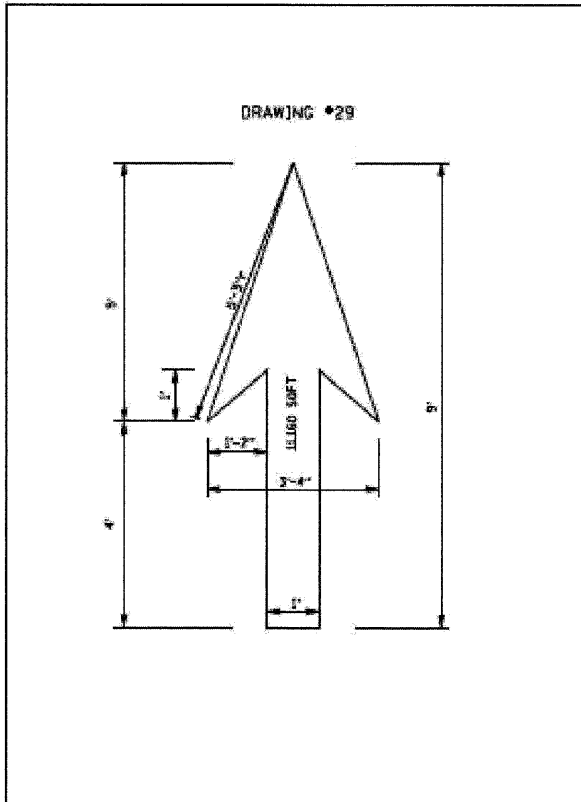
SCALE: N.T.S. SHEET NO. 4 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-1	COOK	18	17
TC-24 (SHEET 1 OF 2)		CONTRACT NO. 60P82		
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



**NOTE:**  
 1.) FOR BIKE LANE SYMBOLS ONLY, USE PRE-FORMED THERMOPLASTIC WITH A MINIMUM THICKNESS OF 90 MILS, MINIMUM SKID RESISTANCE VALUE OF 60 BPN, & A MINIMUM INDEX OF REFRACTION OF 1.50.  
 2.) THE RESIDENT ENGINEER SHALL CONTACT MR. BEN GOMBERG AT 312-744-8093 AT LEAST ONE CALENDAR WEEK PRIOR TO INSTALLING BIKE LANE SYMBOLS.

TYPICAL BIKE LANE SYMBOLS  
DRAWING #28



**NOTE:** ALL MARKINGS SHALL BE SOLID WHITE UNLESS OTHERWISE NOTED IN THE PLANS

**CITY OF CHICAGO  
TYPICAL PAVEMENT MARKINGS**



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARDS  
 F.A.I. 90 (I-90) AT ILL 50 (CICERO AVENUE)  
 SCALE: N.T.S. SHEET NO. 5 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-I	COOK	18	18
TC-24 (SHEET 2 OF 2)			CONTRACT NO. 60P82	
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				