

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	13 B-I-1	WILL	16	1
STA. _____ TO STA. _____		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 60C89
D-91-274-07



LOCATION OF SECTION INDICATED THUS: - [rectangle] -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. 607 / U.S. 30
SECTION: 13 B-I-1
OVER HICKORY CREEK
BRIDGE DECK REPAIRS & OVERLAY
PROJECT: ESP-0607(079)
WILL COUNTY
C-91-274-07

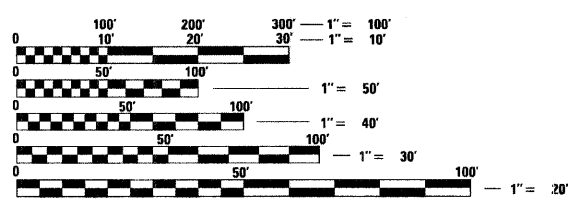
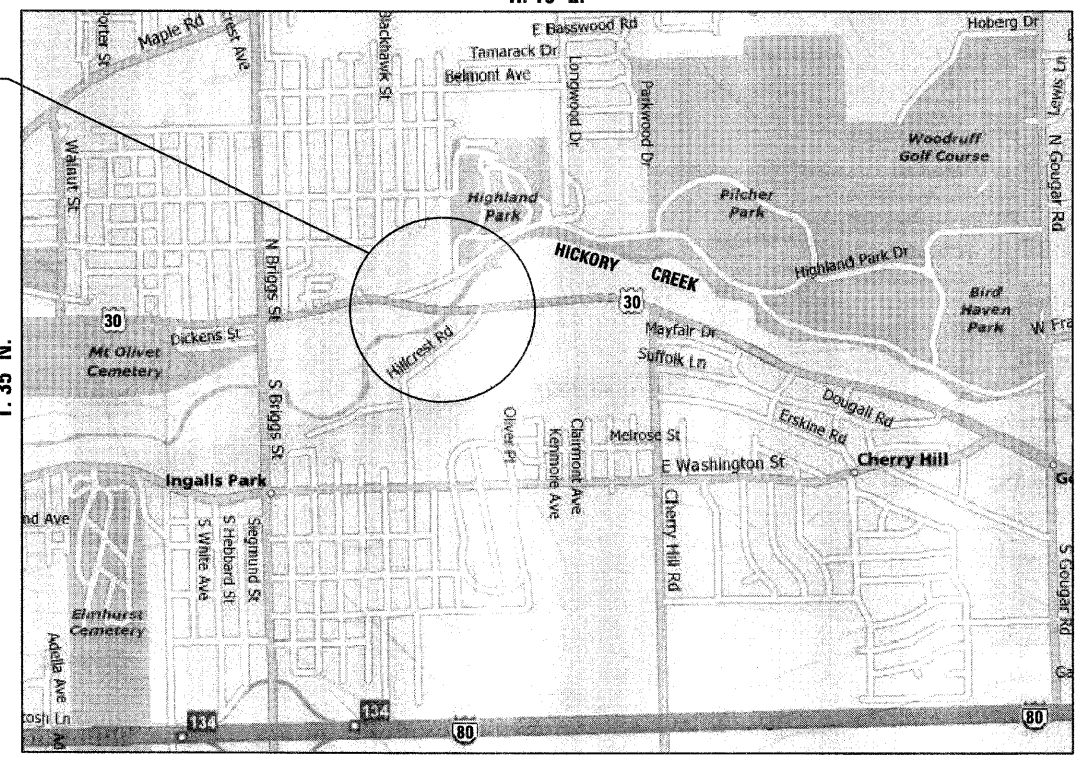
JOLIET TOWNSHIP
R. 10 E.

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL
ADT: 9,800 (2005), 20,655 (2021)
DESIGN SPEED LIMIT: 45 MPH
POSTED SPEED LIMIT: 45 MPH

PROJECT LOCATED IN THE CITY OF JOLIET

PROJECT LOCATION:
U.S. 30
OVER HICKORY CREEK
S.N. 099-0105



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 LOCATING INFORMATION FOR EXCAVATORS
1-800-892-0123 OR 811

GROSS LENGTH OF PROJECT = 190 FEET = 0.036 MILES
NET LENGTH OF PROJECT = 190 FEET = 0.036 MILES



CHRISTIAN-ROGE & ASSOCIATES, INC.
ENGINEERS - PLANNERS - SURVEYORS
211 W. WACKER DRIVE CHICAGO, IL 60606
TELEPHONE: 312-372-2023



Bhadresh N. Shah JAN. 06, 2009
BHADRESH N. SHAH
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS LIC. No. 081-004476
EXPIRES: 11-30-10

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

DISTRICT ONE - DESIGN PROJECT MANAGER: ISAAC KWARTENG (847) 705-4230

CONTRACT NO. 60C89

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	13 B-I-1	WILL	16	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C89

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, LIST OF STATE STANDARDS AND GENERAL NOTES U.S. RTE. 30
3	SUMMARY OF QUANTITIES U.S. RTE. 30
4	CONSTRUCTION STAGING NOTES, TEMPORARY PAVEMENT MARKING SCHEDULE & PERMANENT PAVEMENT MARKING SCHEDULE U.S. RTE. 30
5	CONSTRUCTION STAGING TYPICAL SECTIONS U.S. RTE. 30
6	SUGGESTED TRAFFIC CONTROL AND PROTECTION STAGES I, II AND III U.S. RTE. 30

S.N. 099-0105

7	GENERAL PLAN & ELEVATION
8	DECK CROSS SECTION
9	DECK CONCRETE PATCHING
10	EXPANSION JOINT DETAILS
11	PREFORMED JOINT STRIP SEAL
12	BAR SPLICER ASSEMBLY DETAILS
13	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
14	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
15	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
16	ARTERIAL ROAD INFORMATION SIGNING

LIST OF STATE STANDARDS

STANDARD NO.	DESCRIPTION
701201-03	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701901-01	TRAFFIC CONTROL DEVICES

GENERAL NOTES:

1. THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM I.D.O.T. FIELD MAINTENANCE ENGINEERS.
2. THE RESIDENT ENGINEER MUST CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 AT LEAST 72 HOURS PRIOR TO INSTALLATION OF THE TEMPORARY CONTROL DEVICES.
3. THE RESIDENT ENGINEER SHALL CONTACT CORA MATHIS THE AREA TRAFFIC FIELD ENGINEER AT (815)485-6475 TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
4. ALL PAVEMENT MARKINGS AND RAISED REFLECTORS AFFECTED BY THE BRIDGE REPAIRS SHALL BE REPLACED. NOMINAL QUANTITIES HAVE BEEN INCLUDED IN THE CONTRACT FOR THIS WORK.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
6. DO NOT SCALE THESE PLANS FOR CONSTRUCTION PURPOSES.
7. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR MUST EXERCISE THE UTMOST PRECAUTIONS IN PREVENTIVE ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND TO THE ADJOINING RESIDENTIAL AREAS.
8. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE 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 UPON THE UNIT PRICE BID FOR THE WORK.
9. ALL RAISED REFLECTIVE PAVEMENT MARKERS (BRIDGE) SHALL BE LOW PROFILE.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION	
INDEX OF SHEETS, LIST OF STATE STANDARDS AND GENERAL NOTES U.S. RTE. 30	
SCALE: NONE DATE: JANUARY 08, 2009	DRAWN BY: D.L./F.M. CHECKED BY: B.N.S./S.J.P.
CHRISTIAN-ROGE & ASSOC., INC. CHICAGO ILLINOIS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	13 B-I-1	WILL	16	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60C89

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			URBAN 100% FED.	CONSTRUCTION TYPE CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	S.N. 099-0105 FUNDS
				SFTY-2A
44000086	HOT-MIX ASPHALT SURFACE REMOVAL COMPLETE	SQ. YD.	793	793
50102400	CONCRETE REMOVAL	CU. YD.	12.8	12.8
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	12.8	12.8
50300260	BRIDGE DECK GROOVING	SQ. YD.	750	750
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2,810	2,810
50800515	BAR SPLICERS	EACH	48	48
52000110	PREFORMED JOINT STRIP SEAL	FOOT	107	107
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6
67100100	MOBILIZATION	L. SUM	1	1
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L. SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL-DA	20	20
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3,712	3,712
* 78008210	POLYUREA PAVEMENT MARKING, TYPE I - LINE 4"	FOOT	760	760
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	10	10
78100200	TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER	EACH	24	24
78300100	PAVEMENT MARKING REMOVAL	SQ. FT.	1,118	1,118
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10
X0322185	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ. YD.	793	793
X0322256	TEMPORARY INFORMATION SIGNING	SQ. FT.	51.4	51.4
X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	6,708	6,708
Z0006202	BRIDGE DECK HYDRO-SCARIFICATION 3/4"	SQ. YD.	793	793
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ. YD.	5	5
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ. YD.	54	54

* SPECIALTY ITEMS

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
U.S. RTE. 30

REVISIONS	
NAME	DATE

SCALE: NONE
DATE: JANUARY 08, 2009
DRAWN BY: D.L./F.M.
CHECKED BY: B.N.S./S.J.P.
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	13 B-I-1	WILL	16	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C89

TEMPORARY PAVEMENT MARKING SCHEDULE

ITEM	UNIT	STAGE I	STAGE II	STAGE III	TOTAL QUANTITIES
WET REFLECTIVE TEMP. MARKING TAPE, TYPE III 4"	FOOT	2,236	2,236	2,236	6,708
TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER	EACH	12	-	12	24
PAVEMENT MARKING REMOVAL	SQ. FT.	1,118	-	-	1,118

CONSTRUCTION STAGING NOTES:

STAGE I

WORK ACTIVITIES SHALL CONSIST OF REMOVING THE EXISTING OVERLAY, PATCHING, RECONSTRUCT ABUTMENT JOINTS AND OVERLAYING THE SOUTH RIGHT 1/3 OF THE BRIDGE.

TRAFFIC CONTROL FOR THIS STAGE SHALL CONSIST OF THE SHIFTING OF BOTH LANES OF TRAFFIC ONTO THE WESTBOUND LANE AND SHOULDER ACROSS THE BRIDGE AS SHOWN ON THE TRAFFIC CONTROL PLANS. THE ADJACENT SIDEROADS SHALL BE SIGNED IN ACCORDANCE WITH DETAIL TC-10.

STAGE II

WORK ACTIVITIES SHALL CONSIST OF REMOVING THE EXISTING OVERLAY, PATCHING, RECONSTRUCT ABUTMENT JOINTS AND OVERLAYING THE CENTER PORTION OF THE BRIDGE.

TRAFFIC CONTROL - WESTBOUND TRAFFIC SHALL REMAIN IN THE STAGE I CONFIGURATION. EASTBOUND TRAFFIC SHALL BE SHIFTED ONTO THE NEWLY OVERLAYED PART OF THE BRIDGE.

STAGE III

WORK ACTIVITIES SHALL CONSIST OF REMOVING THE EXISTING OVERLAY, PATCHING, RECONSTRUCT ABUTMENT JOINTS AND OVERLAYING THE REMAINING PORTION OF THE BRIDGE. THE FINAL PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS WILL BE PLACED AT THE END OF STAGE III.

TRAFFIC CONTROL - WESTBOUND TRAFFIC SHALL BE MOVED ONTO THE NEWLY OVERLAYED CENTER PORTION OF THE BRIDGE. A TEMPORARY DOUBLE YELLOW CENTERLINE AND TEMPORARY RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED TO SEPARATE THE TWO LANES OF TRAFFIC.

OTHER TRAFFIC CONTROL NOTES:

1. ALL TEMP. PAVEMENT MARKINGS SHALL BE WET REFLECTIVE TEMP. MRK TAPE , TYPE III 4".
2. ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED DURING STAGE I.
3. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE IN CONSTRUCTION STAGING.

PERMANENT PAVEMENT MARKING SCHEDULE

ITEM	UNIT	LOCATION	QUANTITIES	TOTAL QUANTITIES
		STA. 86+92.00 TO STA. 98+10.00		
POLYUREA, TYPE I -LINE 4" WHITE EDGE LINE	FOOT	STA. 91+57.00 TO STA. 93+47.00	2 LINES AT 190 FT.	380
DOUBLE YELLOW LINES	FOOT	STA. 91+57.00 TO STA. 93+46.00	2 LINES AT 190 FT.	380
THERMOPLASTIC -LINE 4" WHITE EDGE LINE	FOOT	STA. 86+92 TO STA. 91+57 STA. 93+47 TO STA. 98+10	2 LINES AT 928 FT.	1856
DOUBLE YELLOW LINES	FOOT	STA. 86+92 TO STA. 91+57 STA. 93+47 TO STA. 98+10	2 LINES AT 928 FT.	1856
* RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	STA. 91+57.00 TO STA. 93+46.00	10	10

* RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)
ARE 2-2 WAY AMBER, SPACED AT 40' C-C

ILLINOIS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING NOTES,
TEMPORARY PAVEMENT MARKING SCHEDULE &
PERMANENT PAVEMENT MARKING SCHEDULE
U.S. RTE. 30

REVISIONS	
NAME	DATE

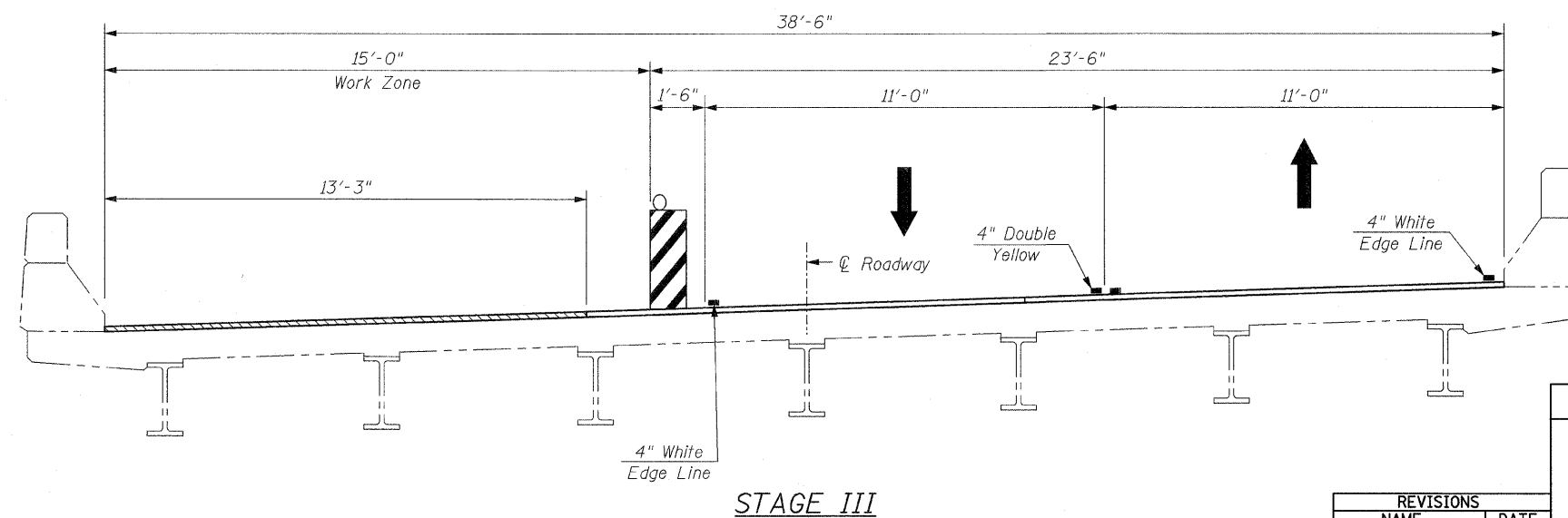
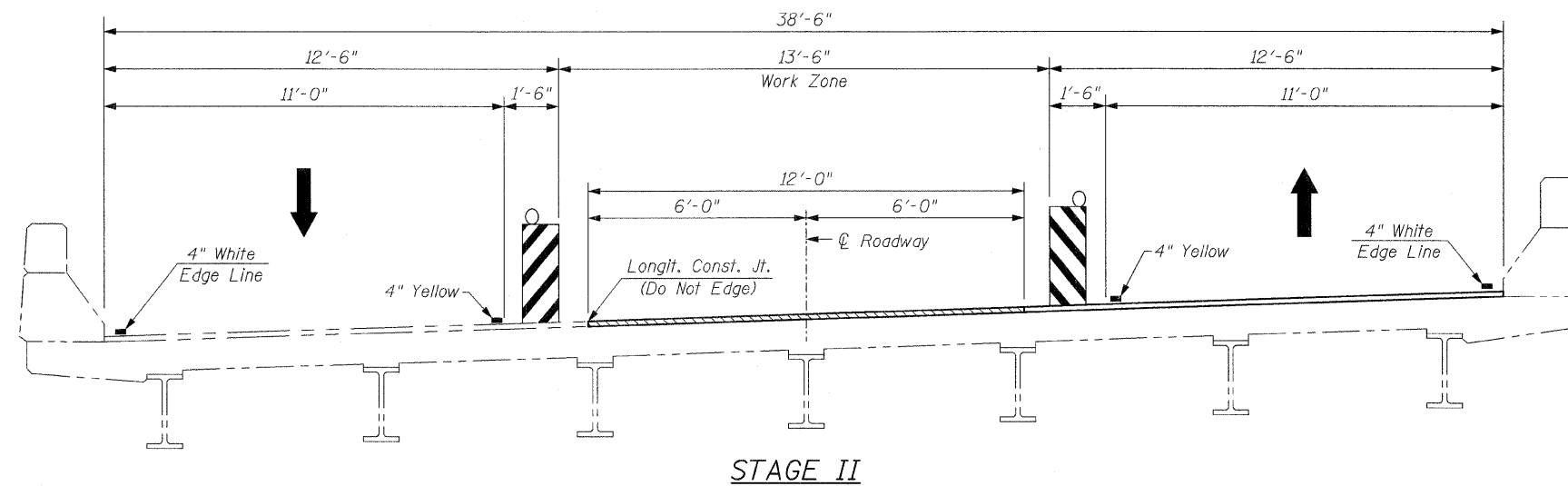
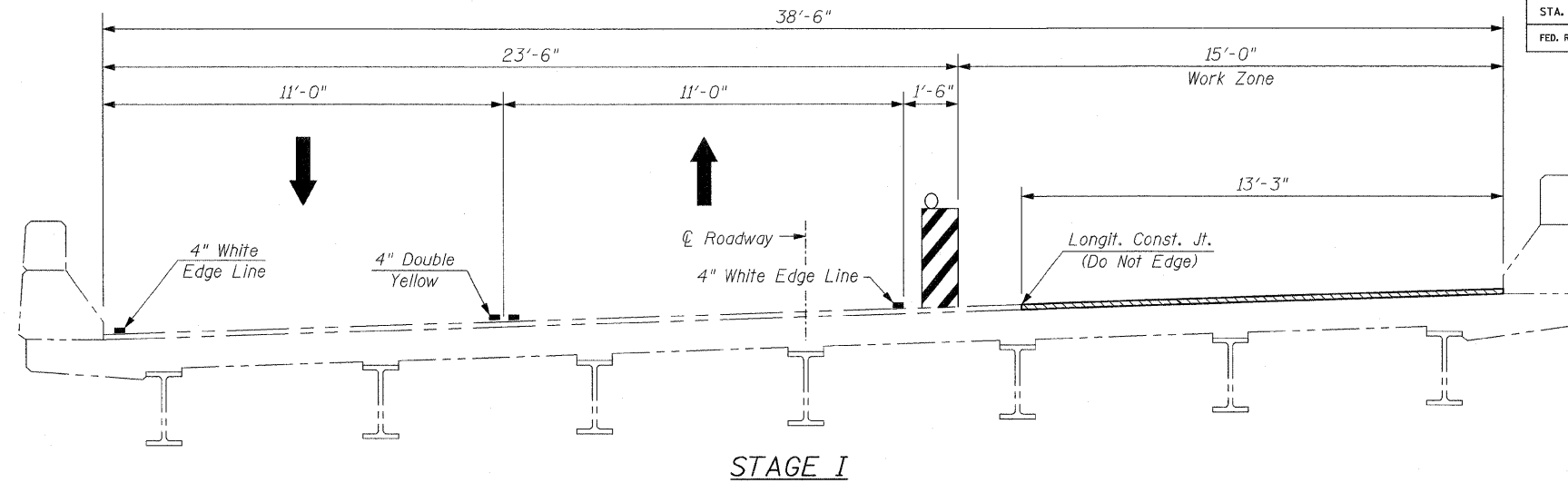
SCALE: NONE
DATE: JANUARY 08, 2009

DRAWN BY: D.L./F.M.
CHECKED BY: B.N.S./S.J.P.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	13 B-1-1	WILL	16	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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NOTE: ALL PAVEMENT MARKINGS ARE WET REFLECTIVE TEMPORARY MARKINGS, TYPE I.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION STAGING
TYPICAL SECTIONS
U.S. RTE. 30**

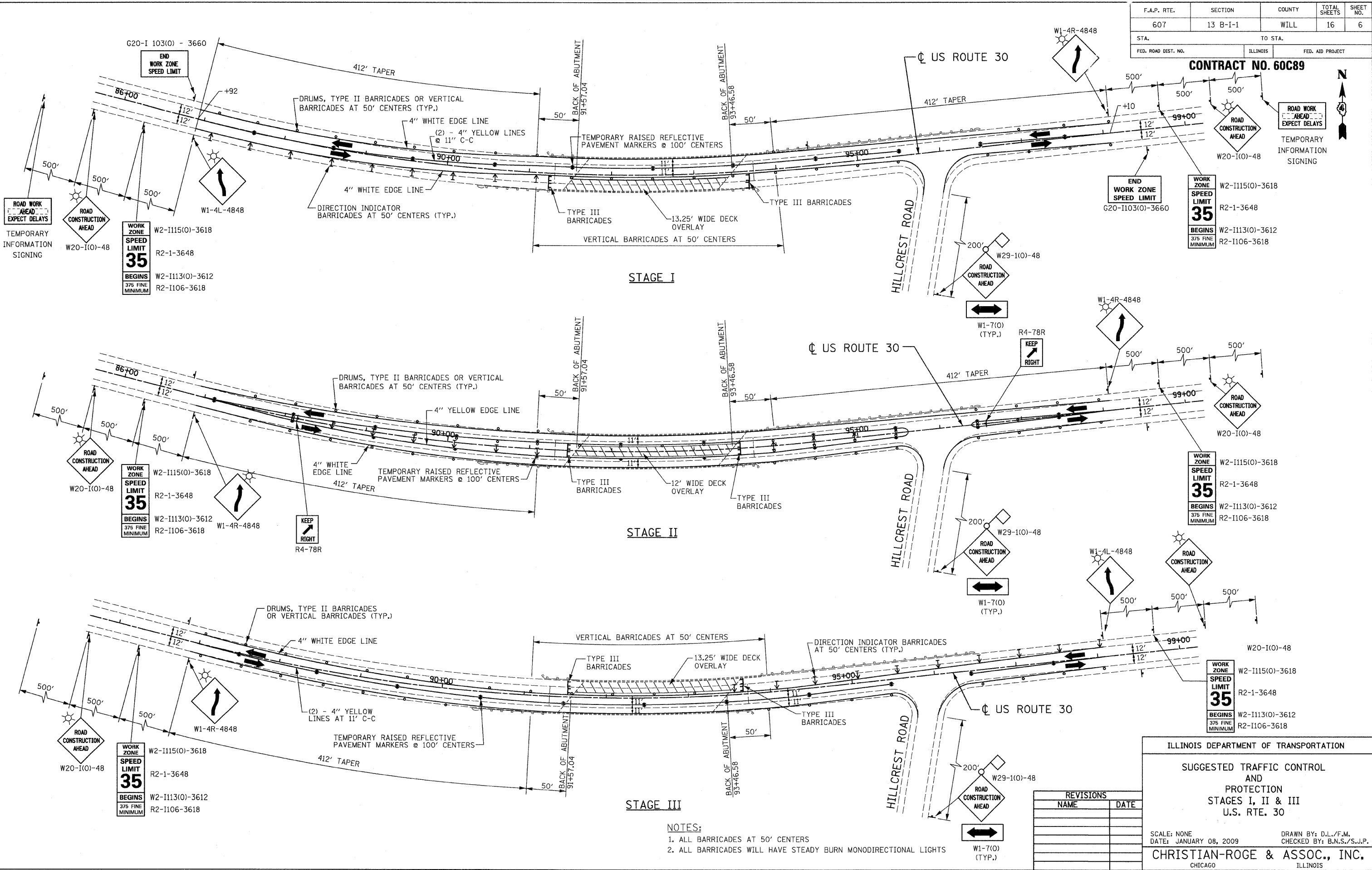
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DATE: JANUARY 08, 2009

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CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	13 B-1-1	WILL	16	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C89



STAGE I

STAGE II

STAGE III

- NOTES:**
1. ALL BARRICADES AT 50' CENTERS
 2. ALL BARRICADES WILL HAVE STEADY BURN MONODIRECTIONAL LIGHTS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

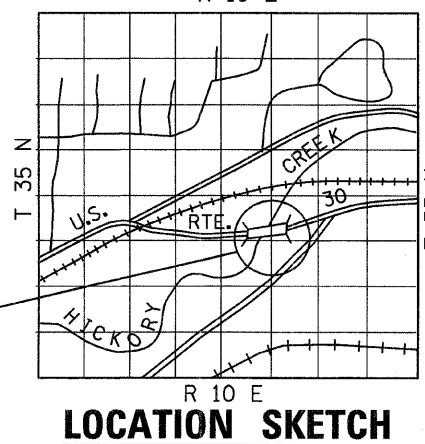
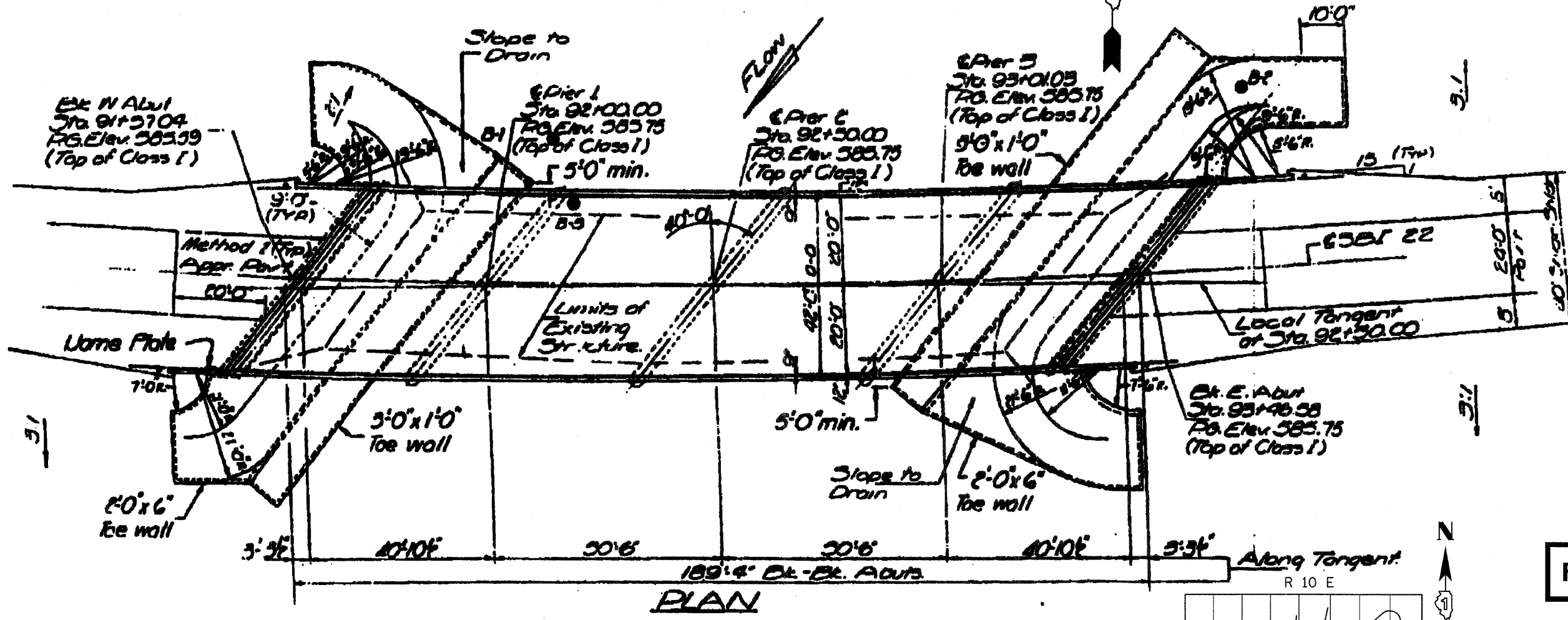
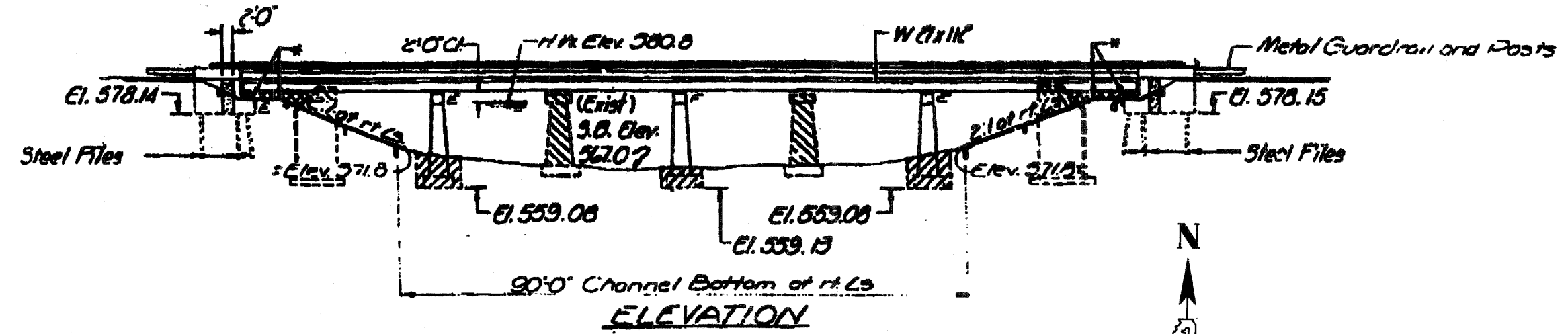
SUGGESTED TRAFFIC CONTROL AND PROTECTION STAGES I, II & III U.S. RTE. 30

SCALE: NONE
DATE: JANUARY 08, 2009
DRAWN BY: D.L./F.M.
CHECKED BY: B.N.S./S.J.P.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	13 B-I-1	WILL	16	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C89



FOR INFORMATION ONLY

LOCATION OF STRUCTURE

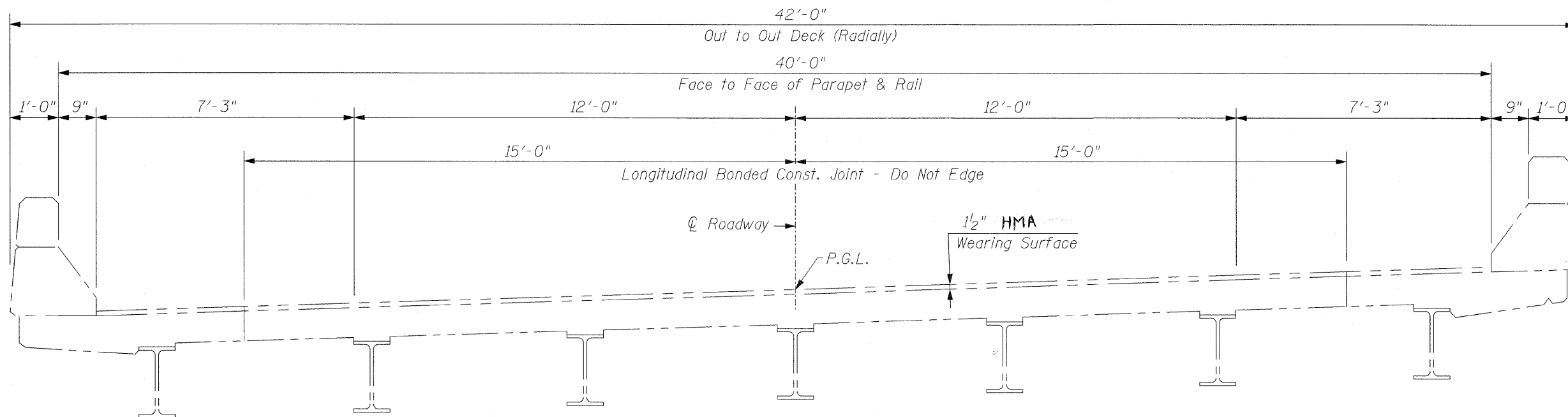
LOCATION SKETCH

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 GENERAL PLAN & ELEVATION
 U.S. RTE. 30
 OVER
 HICKORY CREEK
 F.A.P. RTE. 607 SECTION: 13 B-I-1
 WILL COUNTY
 STRUCTURE NO. 099-0105
 SCALE: NONE DRAWN BY: D.L./F.M.
 DATE: JANUARY 08, 2009 CHECKED BY: B.N.S./S.J.P.
 CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	13 B-I-1	WILL	16	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C89



EXISTING DECK CROSS SECTION
(Looking East)


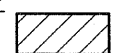
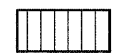
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DECK CROSS SECTION
 U.S. RTE. 30
 OVER
 HICKORY CREEK
 F.A.P. RTE. 607 SECTION: 13 B-I-1
 WILL COUNTY
 STRUCTURE NO. 099-0105
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 CHICAGO ILLINOIS

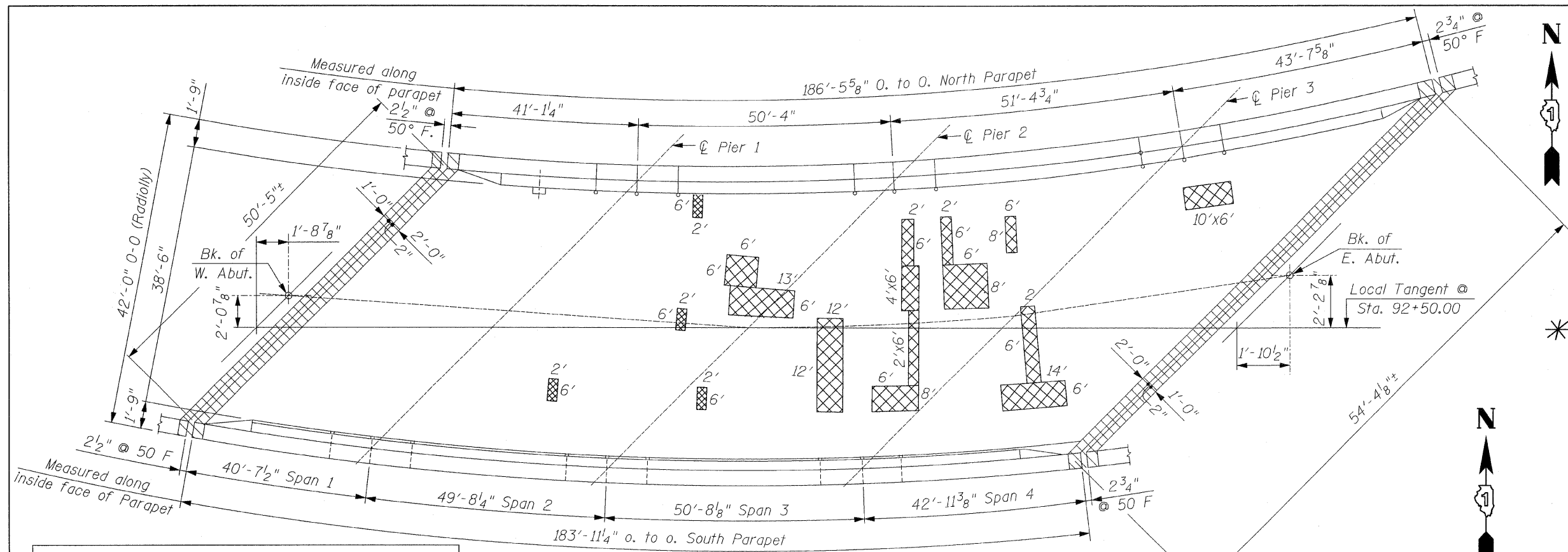
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
607	13 B-1-1	WILL	16	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60C89

LEGEND:

-  **F.D. = FULL DEPTH**
-  **P.D. = PARTIAL DEPTH**
-  **EXPANSION JOINT RECONSTRUCTION (CONCRETE REMOVAL)**

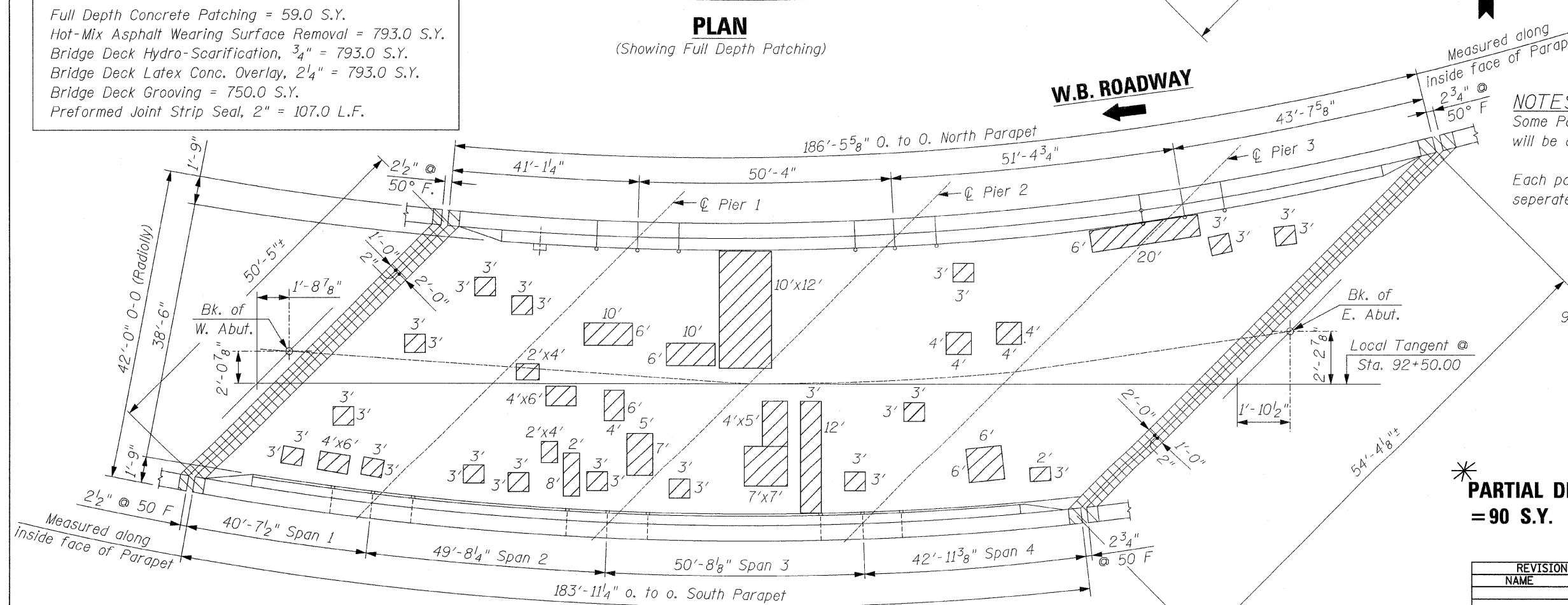
* Deck Slab Partial Depth repairs Patches are shown for Information Only



PLAN

(Showing Full Depth Patching)

Full Depth Concrete Patching = 59.0 S.Y.
 Hot-Mix Asphalt Wearing Surface Removal = 793.0 S.Y.
 Bridge Deck Hydro-Scarification, 3/4" = 793.0 S.Y.
 Bridge Deck Latex Conc. Overlay, 2 1/4" = 793.0 S.Y.
 Bridge Deck Grooving = 750.0 S.Y.
 Preformed Joint Strip Seal, 2" = 107.0 L.F.



PLAN

(Showing Partial Depth Patching)

E.B. ROADWAY



W.B. ROADWAY



NOTES:
 Some Patches (As Determined in the Field by the Engineer) will be done in two (2) parts due to the Proposed Staging.

Each part of the Patches will be measured and paid for separately.

W.B. ROADWAY
 9+9+9+60+60+120+16+9+24+120+9+5 = 454 S.F.

E.B. ROADWAY
 9+9+24+5+8+24+9+9+8+
 11+9+24+21+9+45+20+36+9+9+36+6 = 353 S.F.

Total = 807 S.F.

807 S.F./9 = 89.67 S.Y. Use 90 S.Y.

* **PARTIAL DEPTH = 90 S.Y.**

REVISIONS	
NAME	DATE

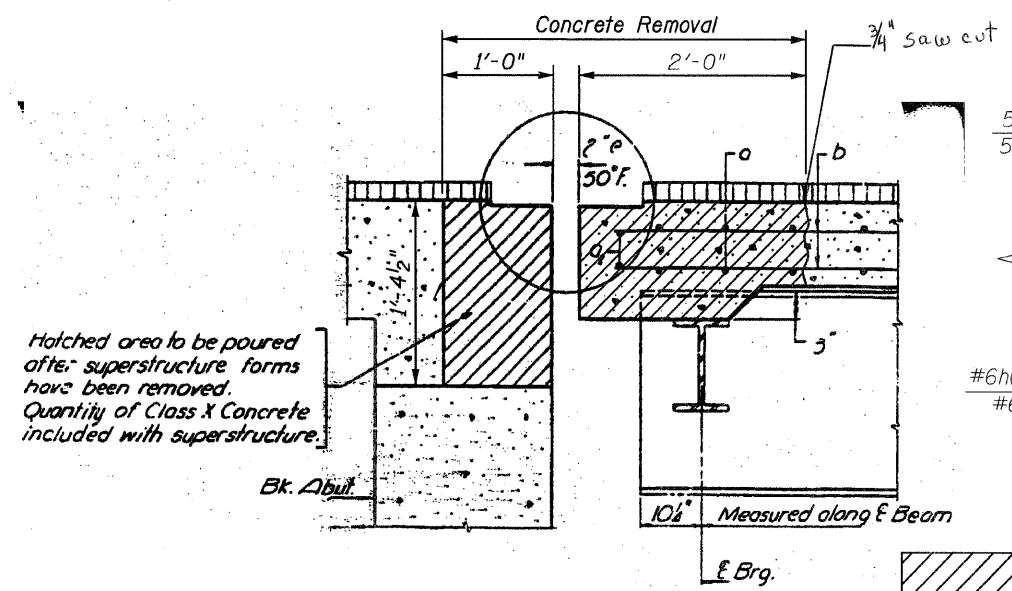
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DECK CONCRETE PATCHING
 U.S. RTE. 30
 OVER
 HICKORY CREEK
 F.A.P. RTE. 607 SECTION: 13 B-1-1
 WILL COUNTY
 STRUCTURE NO. 099-0105
 SCALE: NONE DRAWN BY: D.L./F.M.
 DATE: JANUARY 08, 2009 CHECKED BY: B.N.S./S.J.P.
CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS

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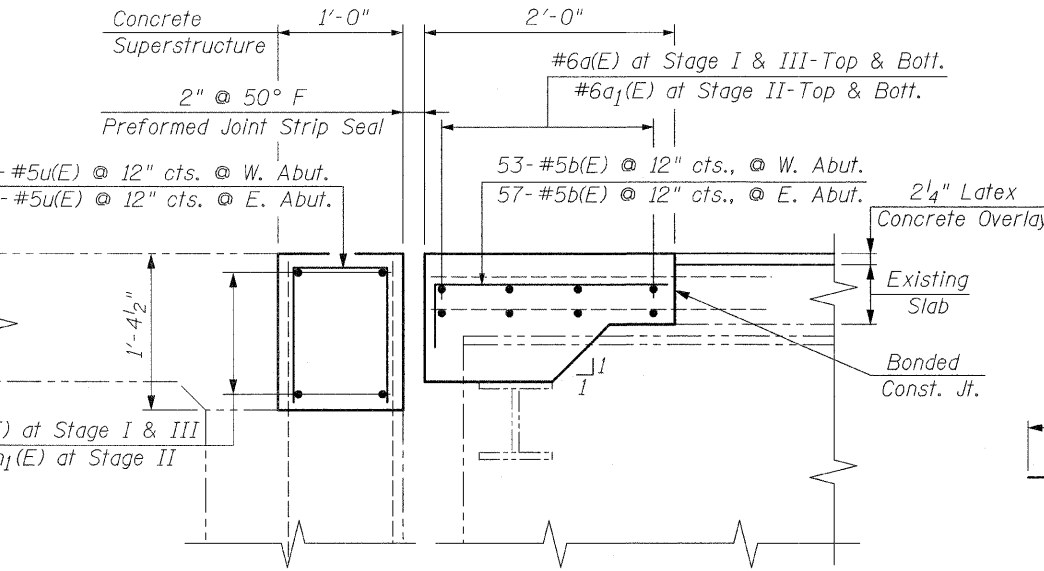
CONTRACT NO. 60C89

**BILL OF MATERIAL
(FOR W. & E. ABUTMENTS)**

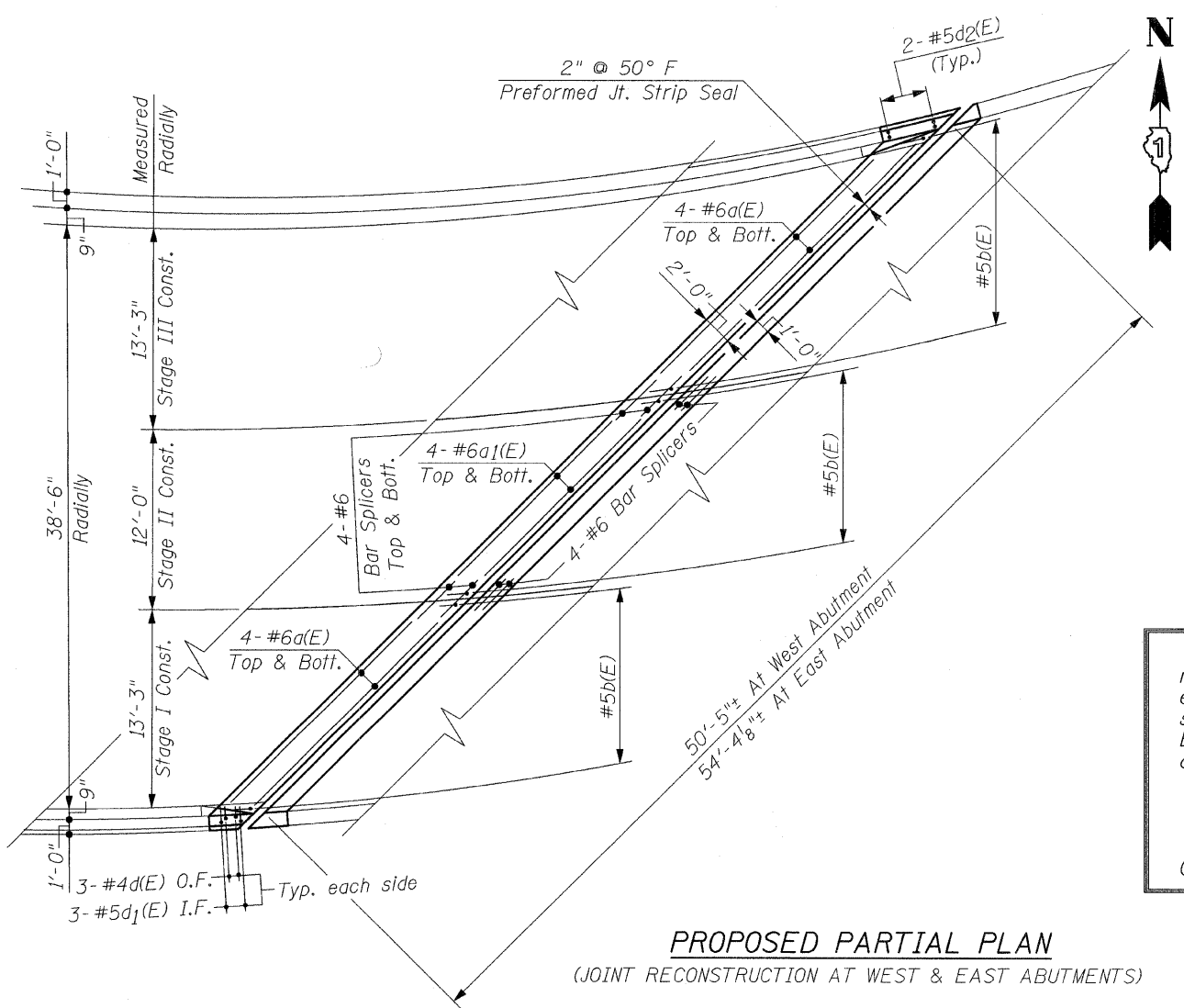
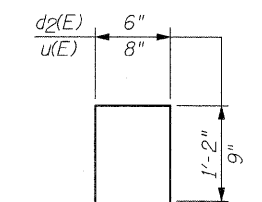
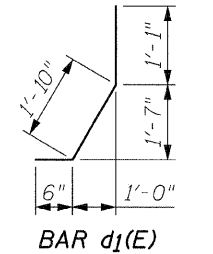
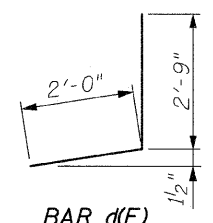
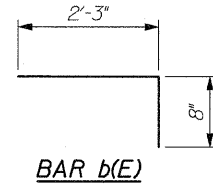
Bar	No.	Size	Length	Shape
a(E)	32	#6	20'-10"	—
a ₁ (E)	16	#6	15'-5"	—
b(E)	110	#5	2'-11"	└
d(E)	12	#4	4'-3"	└
d ₁ (E)	12	#5	3'-5"	└
d ₂ (E)	8	#5	2'-0"	└
h(E)	16	#6	20'-4"	—
h ₁ (E)	8	#6	15'-5"	—
u(E)	106	#5	3'-0"	└
Reinforcement Bars, Epoxy Coated		Lb.	2,810	
Concrete Removal		Cu. Yd.	12.8	
Concrete Superstructure		Cu. Yd.	12.8	
Bar Splicers		Each	48	
Preformed Joint Strip Seal		Foot	107	



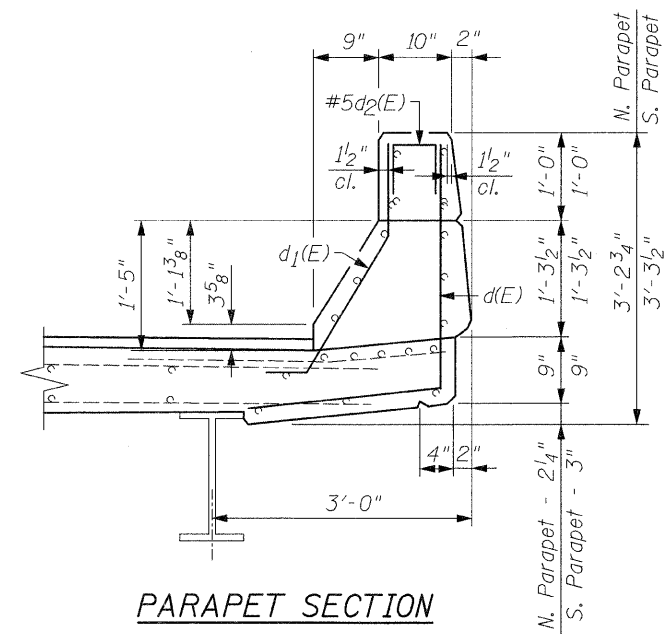
**SECTION AT W. & E. ABUTMENTS
(EXISTING)**



**SECTION THRU ABUTMENTS (at right angles)
(PROPOSED)**



**PROPOSED PARTIAL PLAN
(JOINT RECONSTRUCTION AT WEST & EAST ABUTMENTS)**



PARAPET SECTION

The Contractor must use extreme caution during concrete removal and must not nick, cut or damage in any way, any of the steel beams. The 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 is included with Concrete Removal. Reinforcement Bars shall conform to the requirements of ASTM A-706, Gr. 60 See Special Provisions. Reinforcement Bars designated (E) shall be Epoxy Coated. Cost for removal of existing Neoprene Exp. Joints is included in the cost of Concrete Removal.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXPANSION JOINT DETAILS
U.S. RTE. 30
OVER
HICKORY CREEK
F.A.P. RTE. 607 SECTION: 13 B-I-1
WILL COUNTY
STRUCTURE NO. 099-0105
SCALE: NONE DRAWN BY: D.L./F.M.
DATE: JANUARY 08, 2009 CHECKED BY: B.N.S./S.J.P.
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

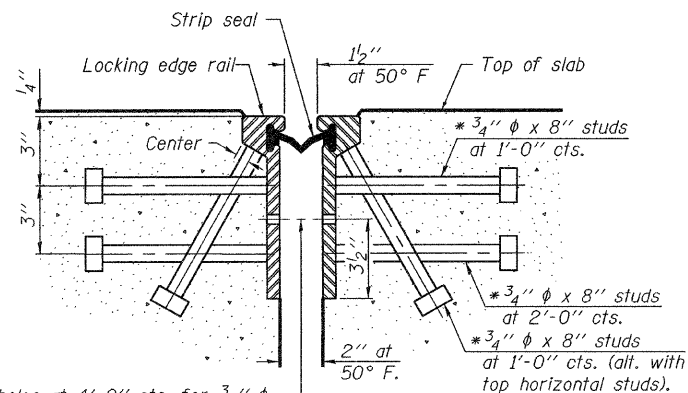
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 607	13 B-1-1	WILL	16	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 11
16 SHEETS

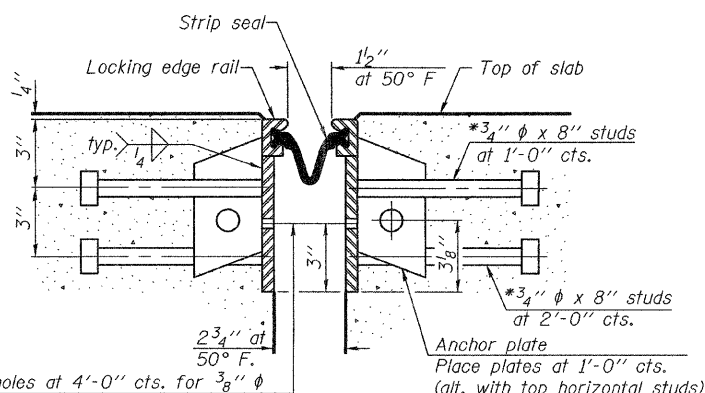
Contract No. 60C89

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



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
ROLLED RAIL JOINT



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
WELDED RAIL JOINT

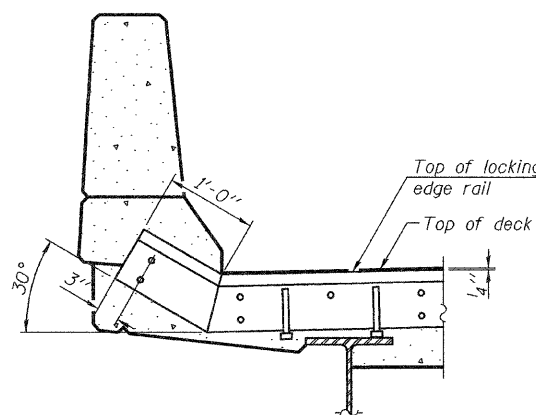
Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

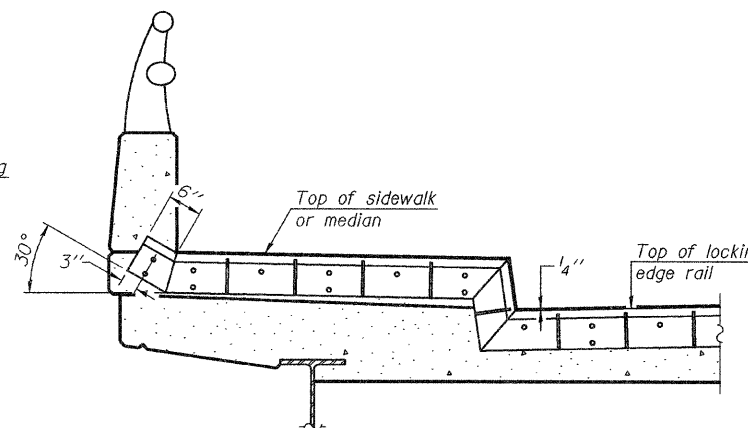
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

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

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

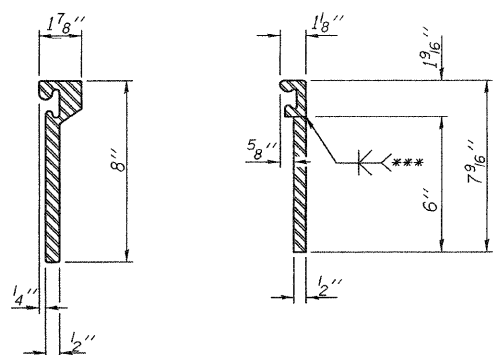


AT PARAPET

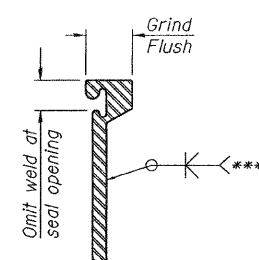


AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



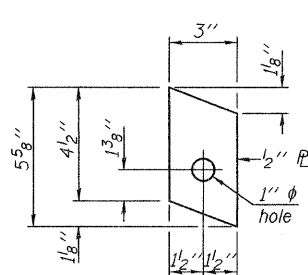
ROLLED
EXTRUDED RAIL WELDED RAIL



***Back gouge not required if complete joint penetration is verified by mock-up.

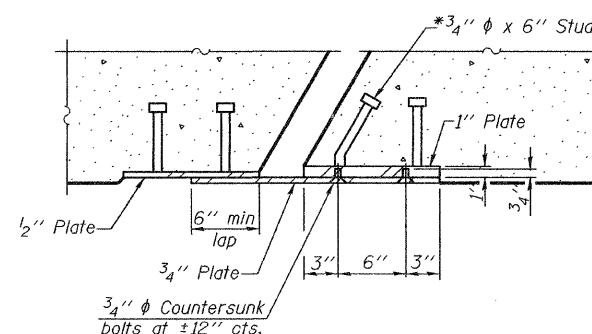
LOCKING EDGE
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.



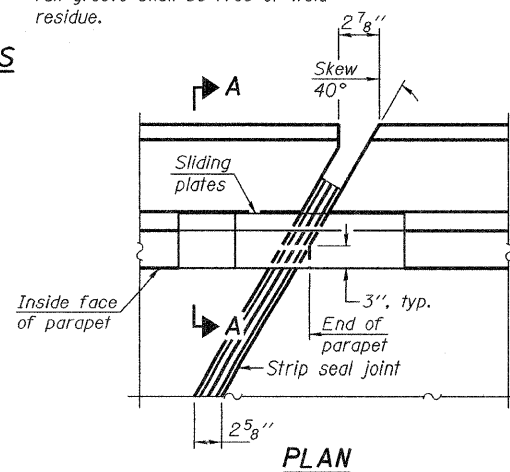
ANCHOR PLATE
(for welded rail)

TYPICAL END TREATMENTS

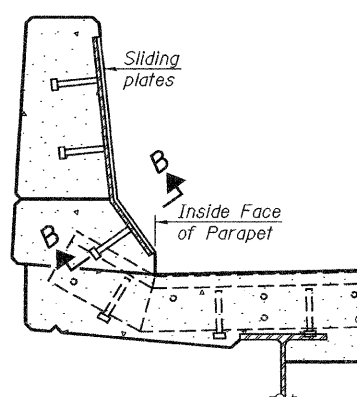


SECTION B-B

LOCKING EDGE RAILS



PLAN



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	107

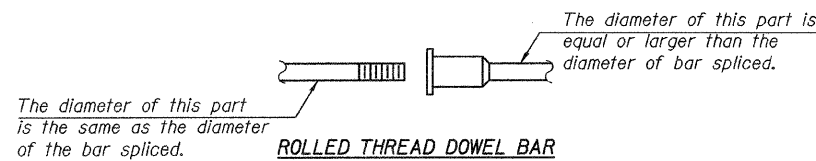
PREFORMED JOINT STRIP SEAL
US 30 OVER HICKORY CREEK
FAP 607 SECTION 13 B-1-1
WILL COUNTY
SN 099-0105

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

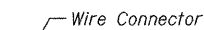
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



ROLLED THREAD DOWEL BAR



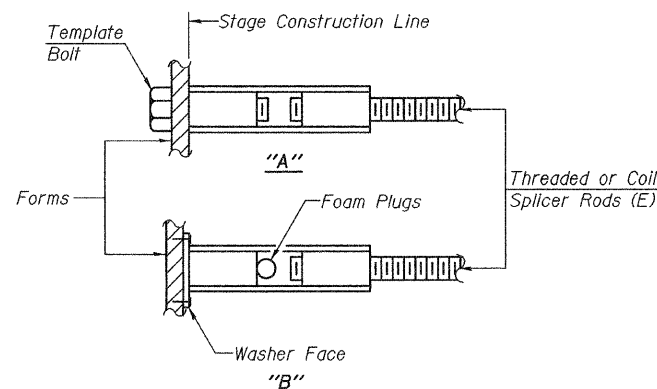
**** ONE PIECE**



WELDED SECTIONS

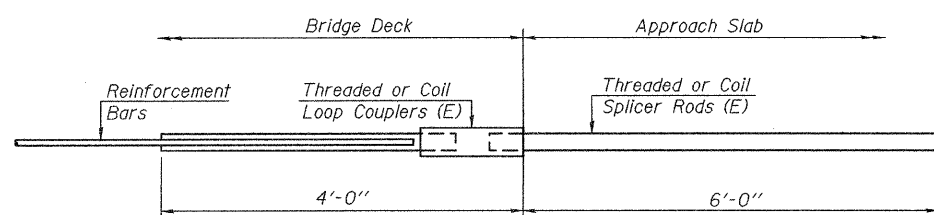
BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



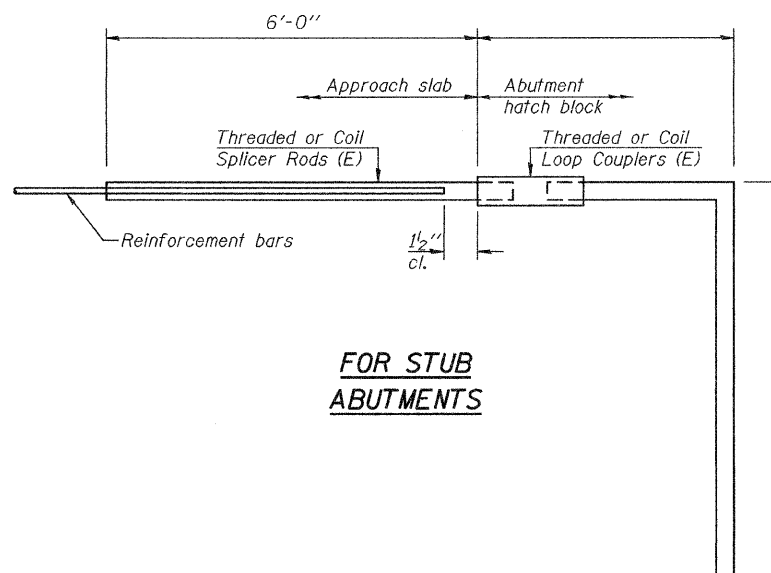
INSTALLATION AND SETTING METHODS

"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.



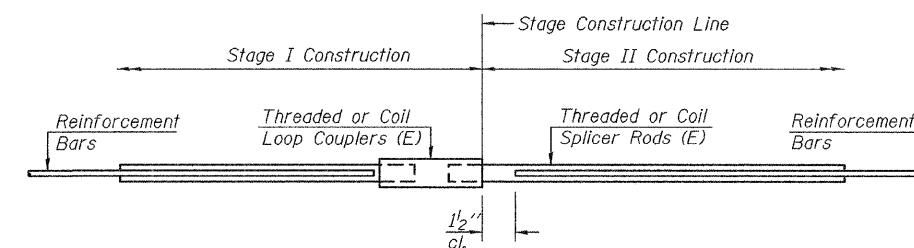
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =

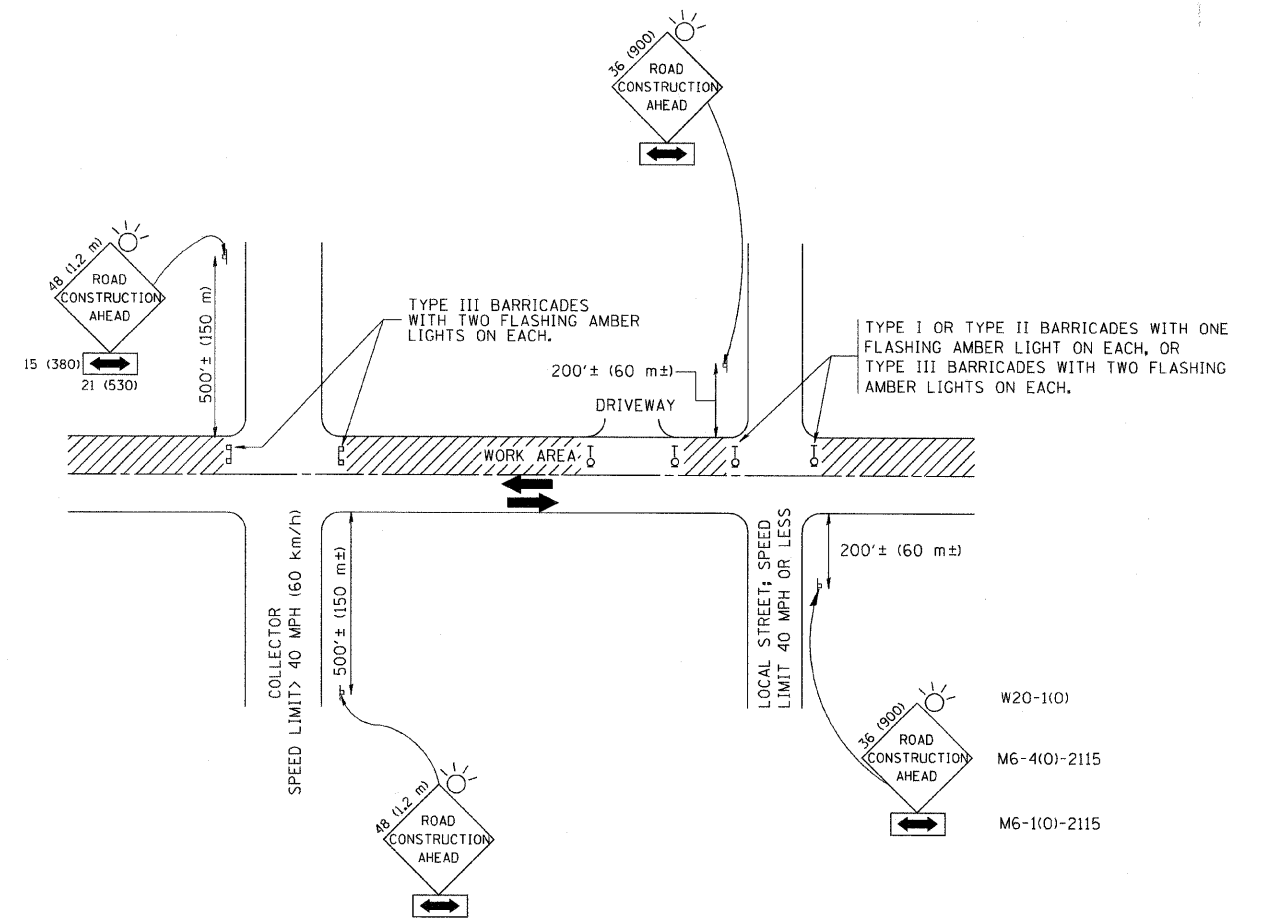


STANDARD

Bar Size	No. Assemblies Required	Location
#6	48	Joint reconstruction at West & East Abutments

BAR SPLICER ASSEMBLY DETAILS

US 30 OVER HICKORY CREEK
FAP 607 SECTION 13 B-1-1
WILL COUNTY
SN 099-0105



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.
3. 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.

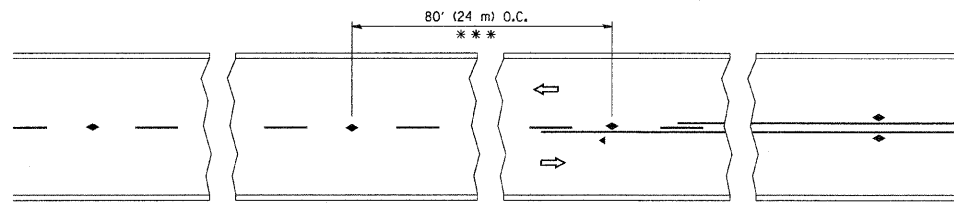
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	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

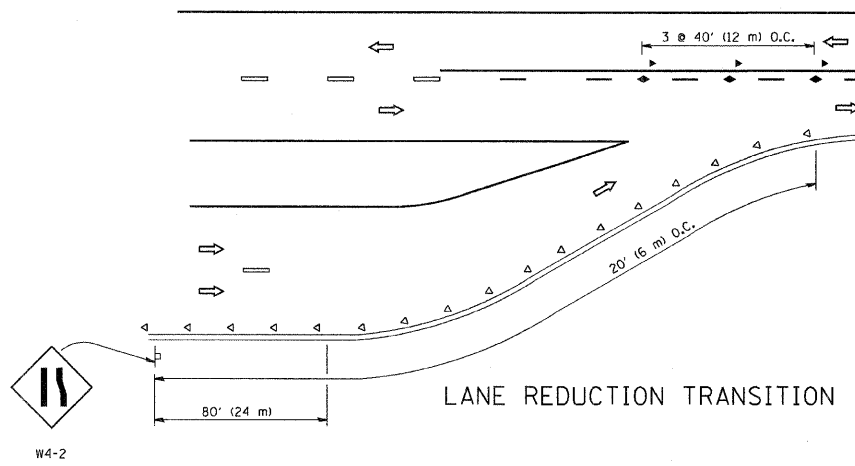
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. VARIOUS TO STA. VARIOUS

F.A.P. RTE. 607	SECTION 13B-1	COUNTY WILL	TOTAL SHEETS 16	SHEET NO. 13
TC-10			CONTRACT NO. 60C89	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

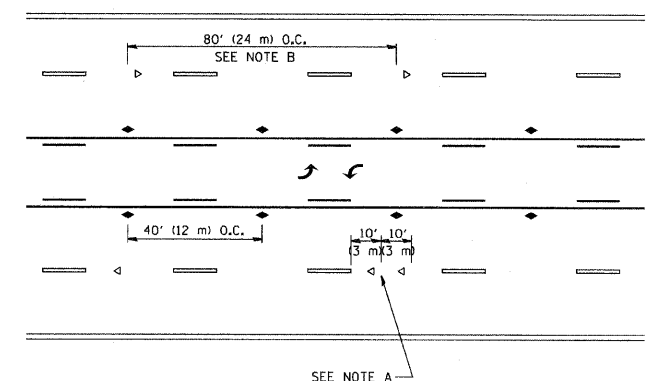


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

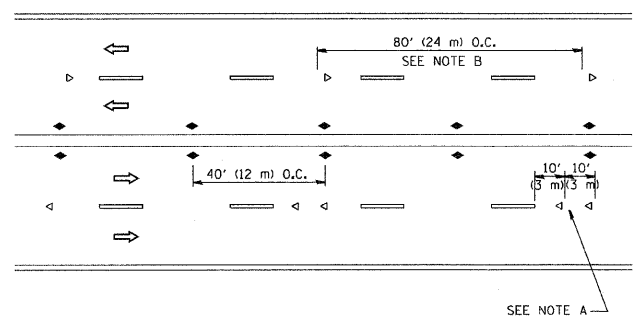
TWO-LANE/TWO-WAY



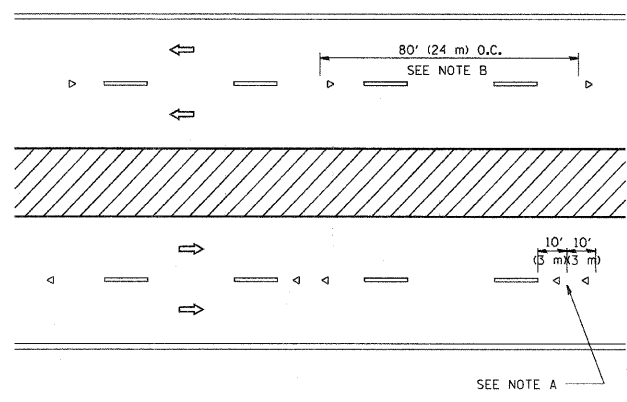
LANE REDUCTION TRANSITION



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

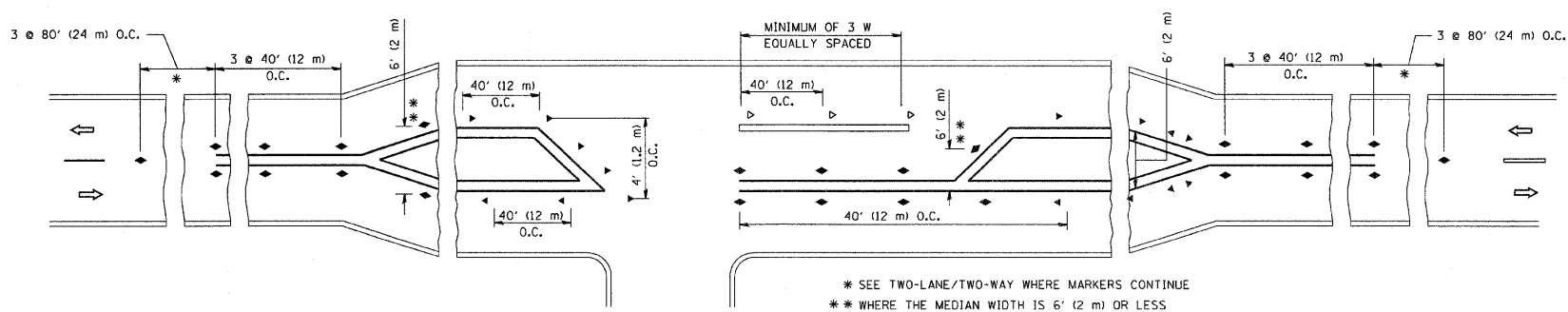
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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 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.

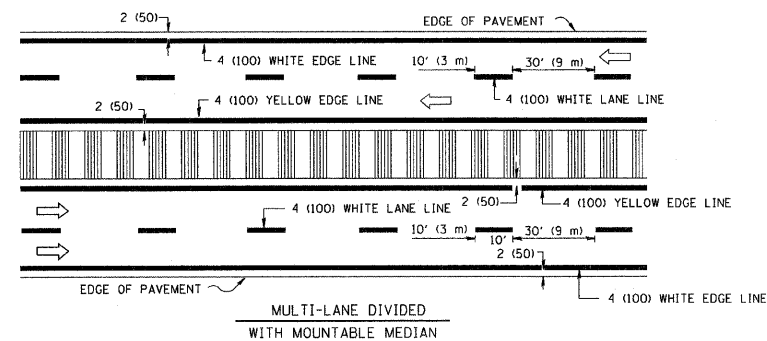
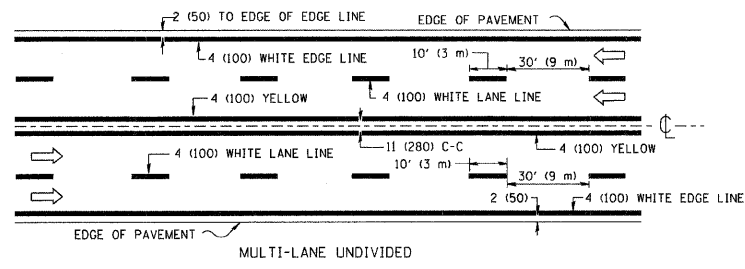
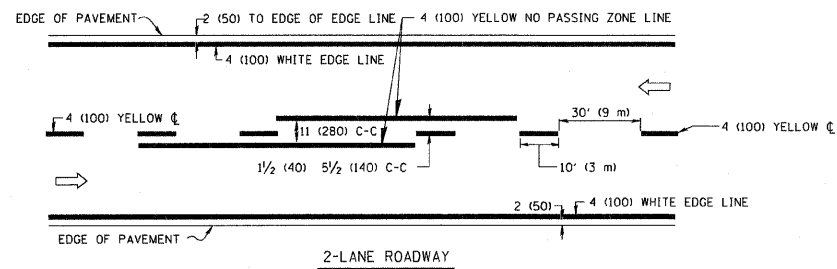


LEFT TURN

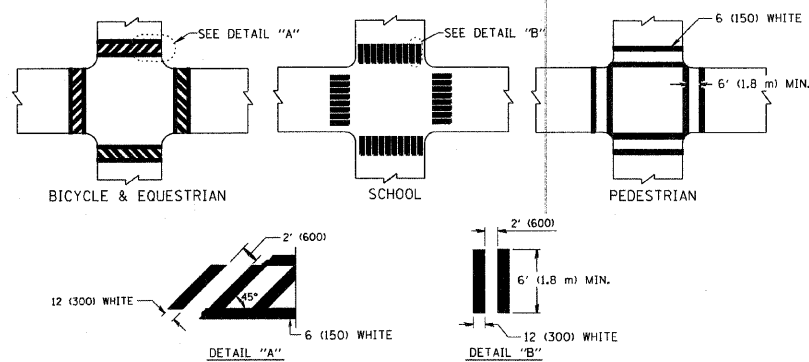
* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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

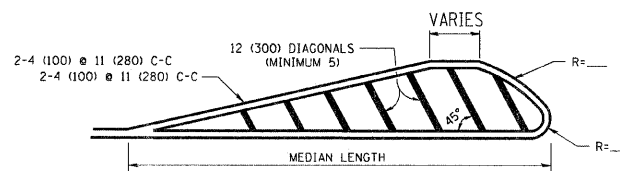
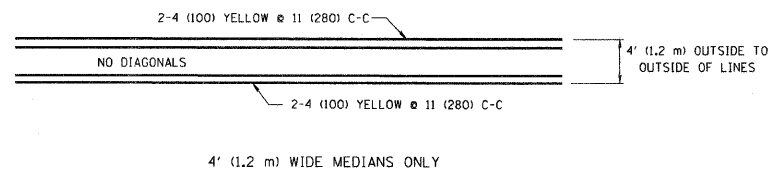
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		DATE -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
					CONTRACT NO. 60C89							



NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE
TYPICAL LANE AND EDGE LINE MARKING

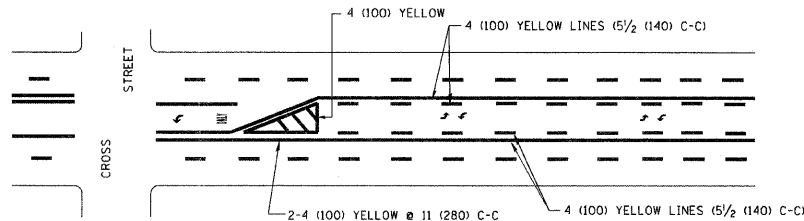


TYPICAL CROSSWALK MARKING

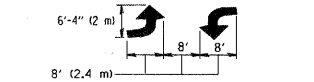


FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h))
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

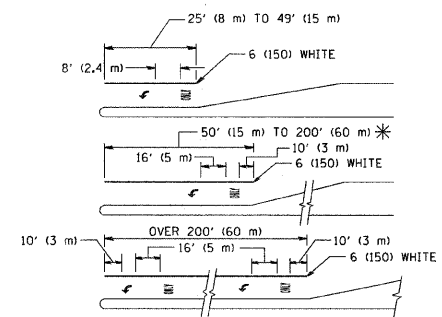


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

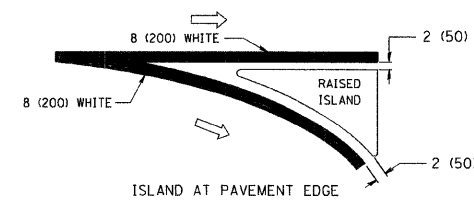
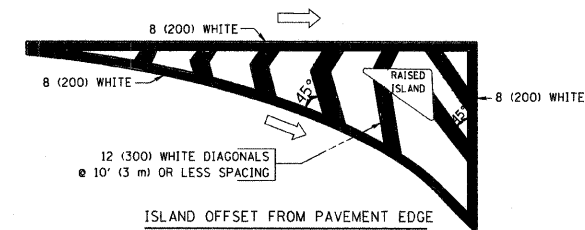


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* 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



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
FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
	5 (125) ON FREEWAYS	SKIP-DASH	WHITE	
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	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	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" IS 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)
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))

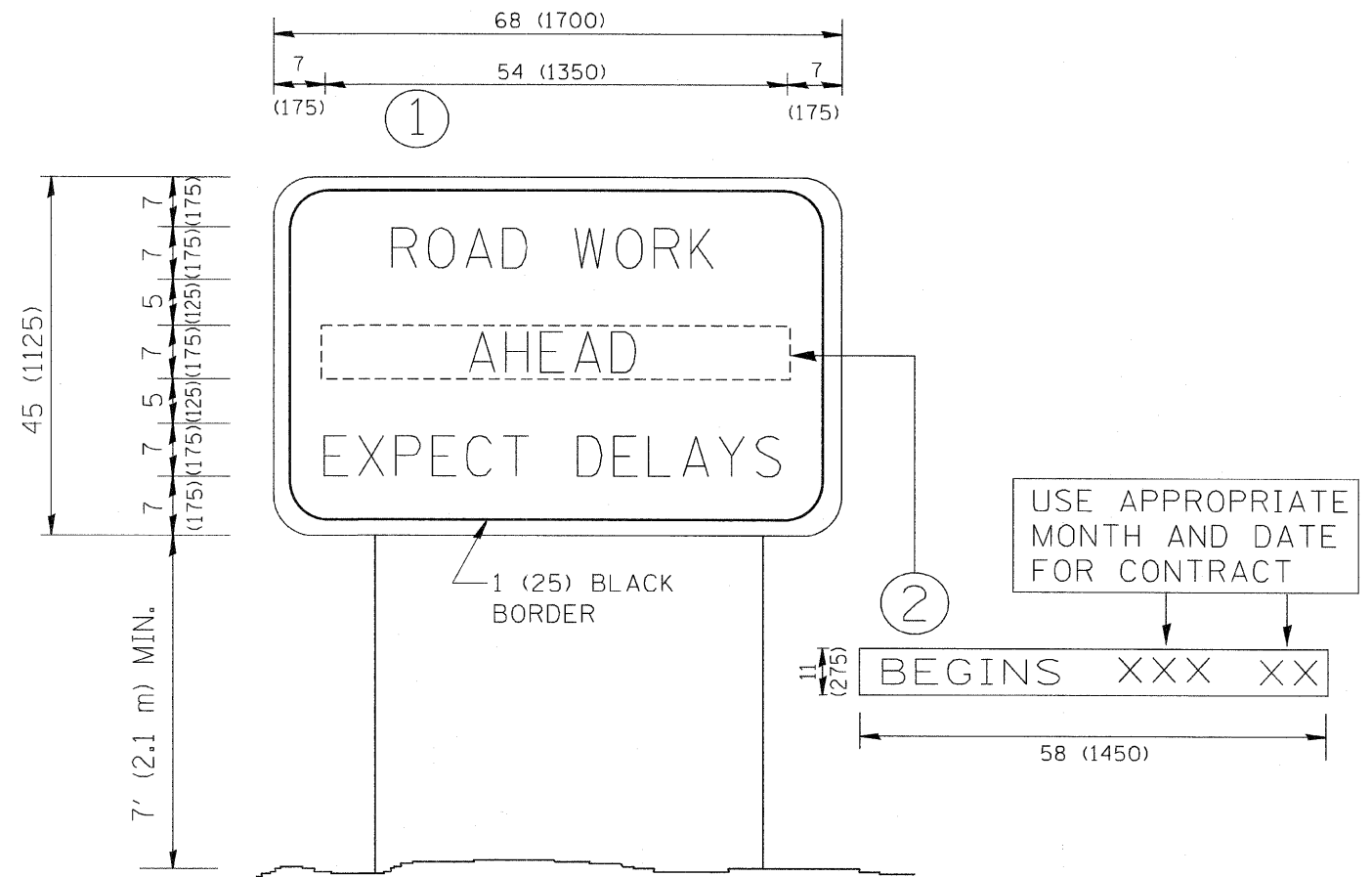
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME = W:\diststd\22x34\tcl3.dgn	USER NAME = gaglianobt	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
		DRAWN -	REVISED - A. HOUSEH 10-09-96
PLOT SCALE = 50,000 / IN.		CHECKED -	REVISED - A. HOUSEH 10-17-96
PLOT DATE = 1/4/2008		DATE - 03-19-90	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		F.A.P. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		607	13B-1-1	WILL	16	15
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. VARIOUS TO STA. VARIOUS		CONTRACT NO. 60C89
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 = W:\diststd\22x34\to22.dgn	USER NAME = geglent	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN			F.A.P. RTE 607	SECTION 13B-1	COUNTY WILL	TOTAL SHEETS 16	SHEET NO. 16
PLOT SCALE = 50,000 / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99	REVISED - R. MIRS 12-11-97		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. VARIOUS TO STA. VARIOUS			TC-22		CONTRACT NO. 60C89		
PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07	REVISED - T. RAMMACHER 02-02-99		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
			REVISED - C. JUCIUS 01-31-07									