

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAU 3730/IL 1 (HALSTED STREET)
SECTION K(B&C)2-BR-1
OVER THE LITTLE CALUMET RIVER
(0.2 MI. S. OF 127TH ST.)
BRIDGE REPAIR
PROJECT NUMBER: M-3730(002)
COOK COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

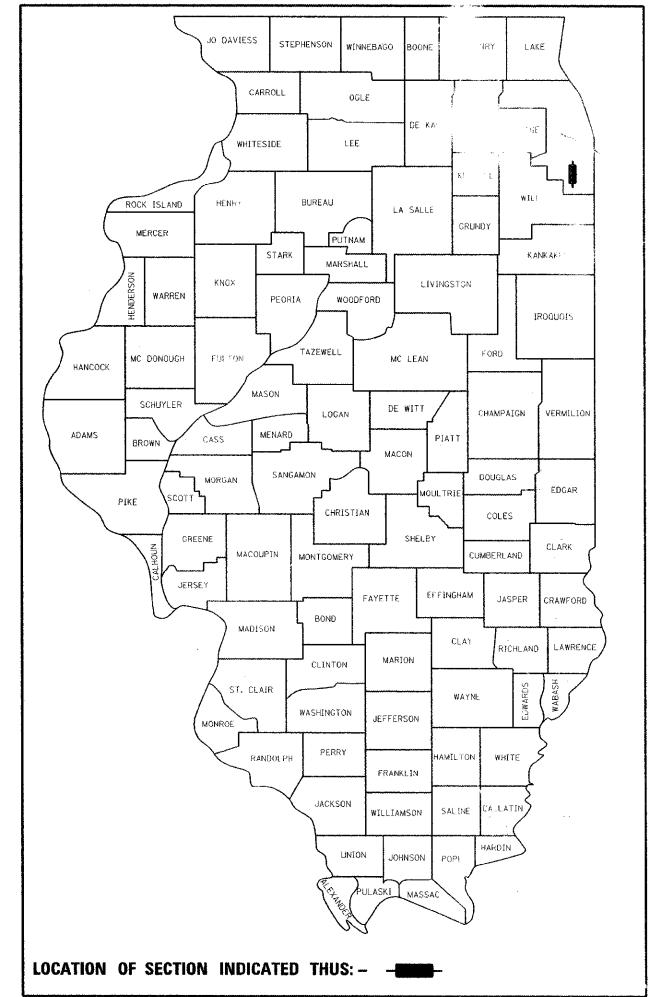
DESIGN DESIGNATION

MINOR ARTERIAL (URBAN)
ADT 17,900 (2009)
SPEED LIMIT 35 MPH

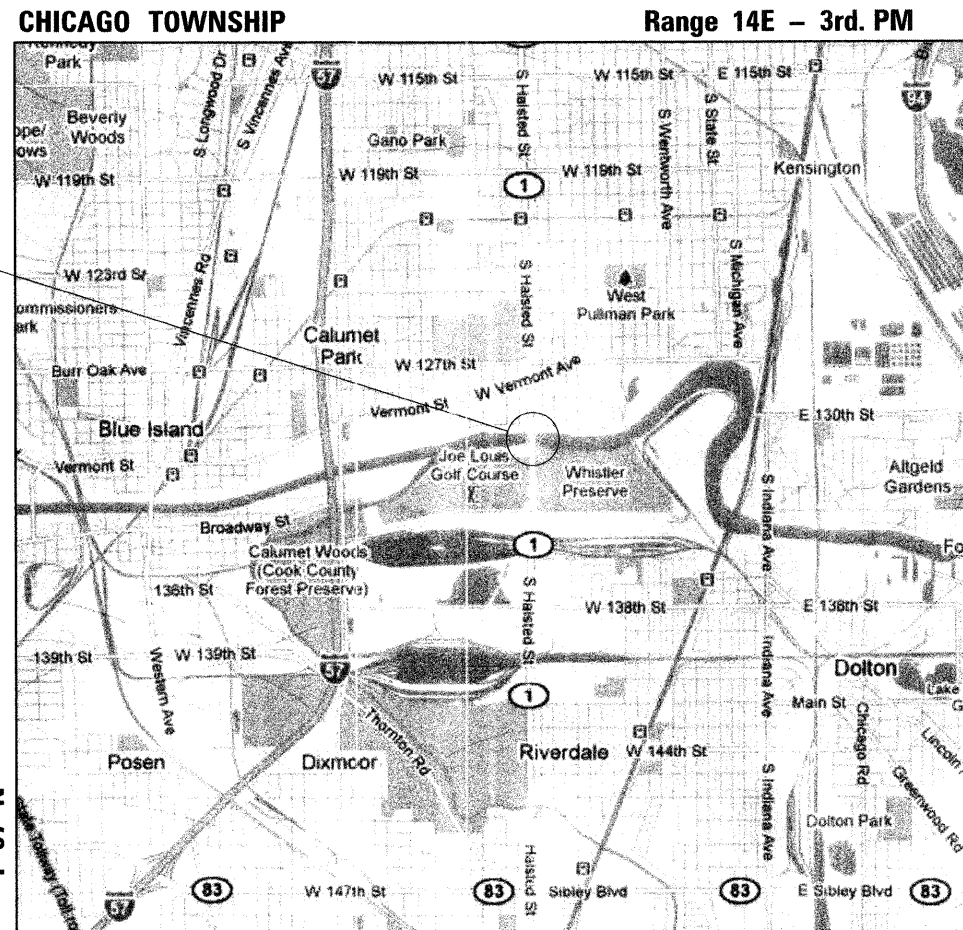
IMPROVEMENT LOCATED
IN THE CITY OF CHICAGO

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3730	K(B&C)2-BR-1	COOK	16	1
		ILLINOIS	CONTRACT NO. 60M84	

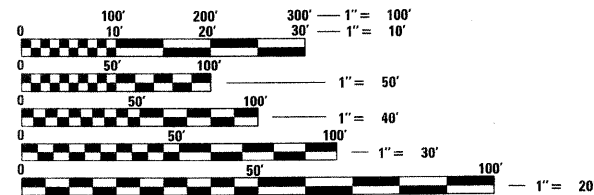
D-91-171-11



C-91-171-11



IMPROVEMENT LOCATION
IL-1 (HALSTED STREET) AT
THE LITTLE CALUMET RIVER
STRUCTURE NO: 016-0193



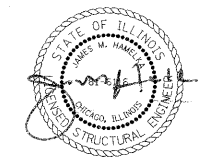
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

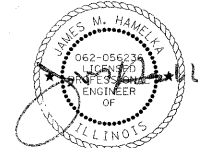
PROJECT MANAGER: MR. ISSAM RAYYAN, P.E. (847) 705-4178
PROJECT ENGINEER: MR. ROBERT T. BORO, P.E. (847) 705-4237

CONTRACT NO. 60M84

GROSS LENGTH = 420.25 FT. = 0.080 MILE
NET LENGTH = 420.25 FT. = 0.080 MILE



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 81-6116
EXPIRES 11-30-2012



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 062-056236
EXPIRES 11-30-2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED APRIL 15, 2011

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

May 13 2011
Scott E. Still, P.E.
Acting ENGINEER OF DESIGN AND ENVIRONMENT

May 13 2011
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

COLLINS ENGINEERS INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

INDEX OF SHEETS

- 1 Title Sheet
- 2 Index of Sheets, General Notes and Highway Standards
- 3 Summary of Quantities
- 4-II Structure Plans S1-S8
- 12 Traffic Control and Protection for Side Roads, Intersections, and Driveways
- 13 Typical Applications Raised Reflective Pavement Marker (Snow-Plow Resistant)
- 14 District One Typical Pavement Markings
- 15 Arterial Road Information Sign
- 16 Driveway Entrance Signing

INDEX OF HIGHWAY STANDARDS

Standard No.	Description
515001-03	Name Plate for Bridge
701606-07	Urban Lane Closure, Multilane, 2W with Mountable Median
701801-04	Lane Closure, Multilane, 1W or 2W Crosswalk or Sidewalk Closure
701901-01	Traffic Control Devices
780001-02	Typical Pavement Markings

GENERAL NOTES

1. These plans have been prepared from notes received from IDOT Field Maintenance Engineers.
2. 10 ft (3 m) transitions shall be used to match proposed items of work to existing items in the field, unless otherwise shown. The transitions shall be paid for at the contract unit price for the proposed item of work specified.
3. 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.
4. The Contractor will not be allowed to set up a yard or field office on State property without written permission from the Department.
5. Do not scale these plans for construction purposes.
6. 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.
7. During construction operations, loose material deposits that obstruct the flow of water in draining the area shall be removed before the end of each work day. At the conclusion of construction operations, all drainage structures (new and existing) shall be free from all dirt and debris. This work will not be paid for separately but shall be considered incidental to the contract.
8. The Contractor shall protect existing utilities and shall brace and support the utilities properly in order to prevent settlement, displacement, or damage to the utilities. The protection of the utilities as specified herein will not be paid for separately, but shall be considered incidental to the contract.
9. Locations of existing utilities shown on the plans are from the available record information and must be verified by the Contractor.
10. Pollution control: The Contractor shall be required to comply with state regulations regarding air, water and noise.
11. The Contractor shall obtain all necessary permits, as required, prior to commencing with construction.
12. The Contractor shall obtain Coast Guard approval to occupy navigable waters for proposed work. A work plan shall be prepared by the Contractor, reviewed and approved by the Engineer and submitted by the Engineer to the Coast Guard for approval.
13. The Contractor shall take all necessary measures to assure that no debris falls in the Little Calumet River. The cost of this work shall be included as part of the applicable pay items.
14. The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc.

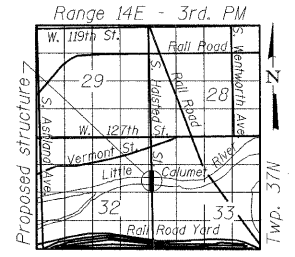
FILE#	FILE NAME =	USER NAME = #USER#	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, GENERAL NOTES, AND HIGHWAY STANDARDS STRUCTURE NO. 016-0193				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN - DR	REVISED -		3730	K1B&C12-BR-1	COOK	16	2				
	PLOT SCALE = #SCALE#		CHECKED - AMS	REVISED -		CONTRACT NO. 60M84								
	PLOT DATE = #DATE#		DATE - MARCH, 2011	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES				URBAN CONSTR. TYPE CODE STRUCTURE 0014
CODE	ITEM DESCRIPTION	UNIT	QUANTITY	FEDERAL 80% STATE 20%
42001300	Protective Coat	Sq. Yd.	3134	3134
50104000	Bridge Rail Removal	Foot	44	44
50901750	Parapet Railing	Foot	44	44
59000200	Epoxy Crack Injection	Foot	62	62
59200101	Bridge Washing No. 1	Each	1	1
67000400	Engineer's Field Office, Type A	Cal. Mo.	6	6
67100100	Mobilization	L. Sum	1	1
70102625	Traffic Control and Protection, Standard 701606	L. Sum	1	1
70102640	Traffic Control and Protection, Standard 701801	L. Sum	1	1
Z0001905	Structural Steel Repair	Pound	4280	4280
Z0012754	Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches)	Sq. Ft.	115	115
Z0012755	Structural Repair of Concrete (Depth greater than 5")	Sq. Ft.	26	26
Z0030850	Temporary Information Signing	Sq. Ft.	155.4	155.4
Z0076600	Trainees	Hour		
X0327207	Rubber Absorbers	L. Sum	1	1
X0326232	Fender System	L. Sum	1	1

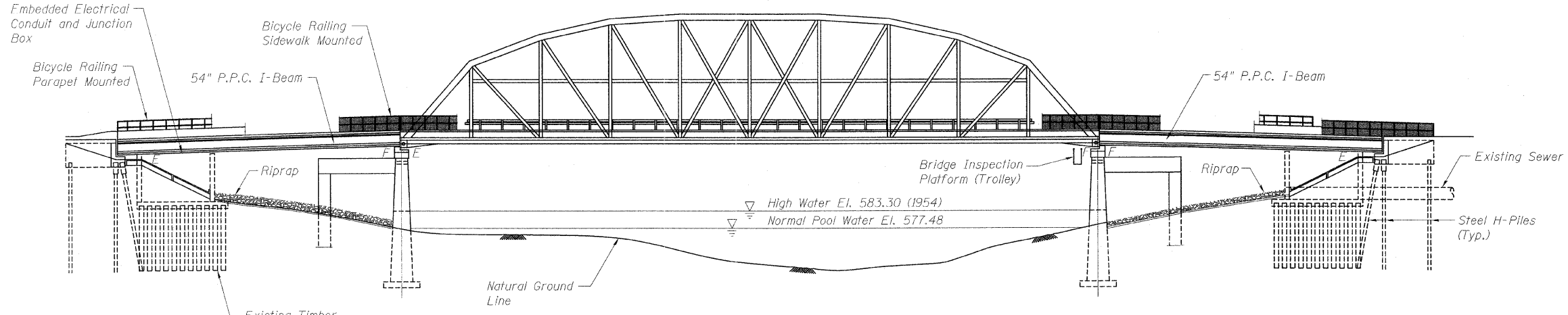
Bench Mark: "X" cut on west bolt on fire hydrant, northwest corner of Halsted Street and 129th Pl., Elevation 601.53.

Existing Structure: The existing Structure consists of a main channel through truss span and a PPC I-Beam approach span at each end of the truss span. The original Structure was built in 1931 as Section Number K-B-2 and reconstructed in 1996. Staged construction shall be utilized to maintain traffic during construction.

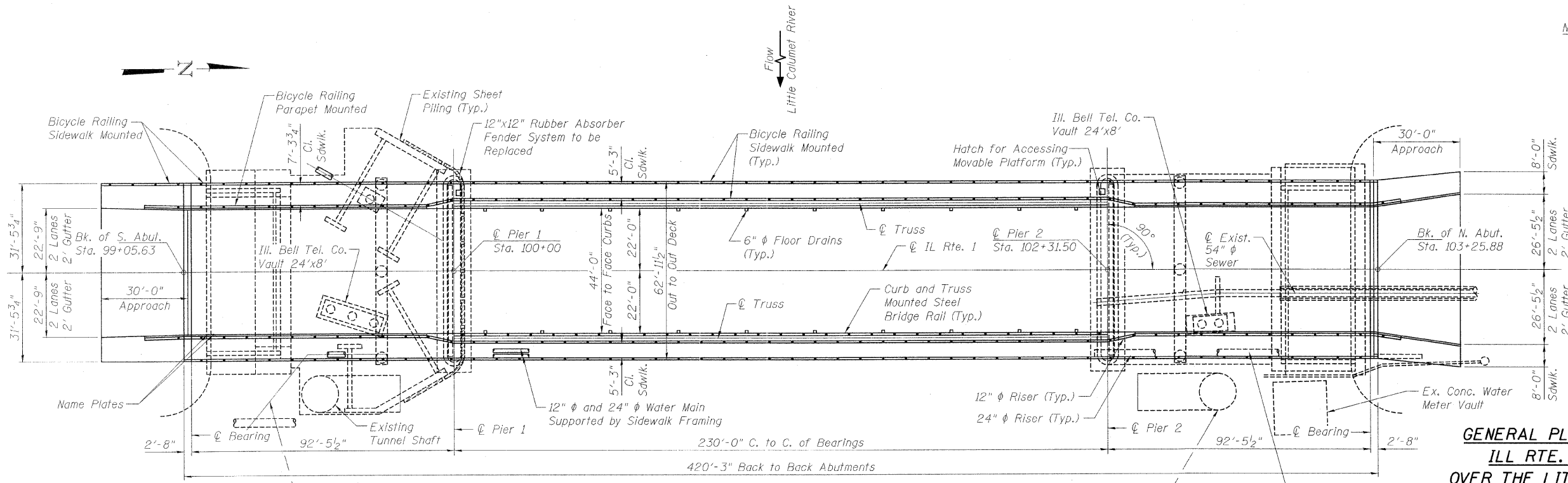
No Salvage.



LOCATION SKETCH



ELEVATION



PLAN

Note:
Main truss span of bridge shall be washed from the lower chord to 15 feet above the deck (i.e. splash zone) according to Section 592 of the Standard Specifications. Bridge Washing shall be paid for as Bridge Washing No. 1.



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 81-6116
EXPIRES 11-30-2012

**GENERAL PLAN AND ELEVATION
ILL. RTE. 1 (HALSTED ST.)
OVER THE LITTLE CALUMET RIVER
F.A.U. RT. 3730 - SEC. K(B&C)2-BR-1
COOK COUNTY
STATION 101+15.80
STRUCTURE NO. 016-0193**

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NO. 016-0193	F.A.U. RTE. 3730	SECTION K(B&C)2-BR-1	COUNTY COOK	TOTAL SHEETS 16	SHEET NO. 4	
PLOT SCALE =	DRAWN - DR	CHECKED - JMH	REVISD -			CONTRACT NO. 60M84					
PLOT DATE =	CHECKED - JMH	REVISD -	REVISD -			ILLINOIS FED. AID PROJECT					
SHEET NO. 01 OF 08 SHEETS											

INDEX OF SHEETS

- S1. General Plan and Elevation
- S2. General Notes, Bill of Materials, and Index of Sheets
- S3. Superstructure Repair Plan
- S4. Parapet Railing
- S5. Deck Framing Rehabilitation
- S6. Pier 1 Repairs
- S7. Pier 2 Repairs
- S8. Fender System Details

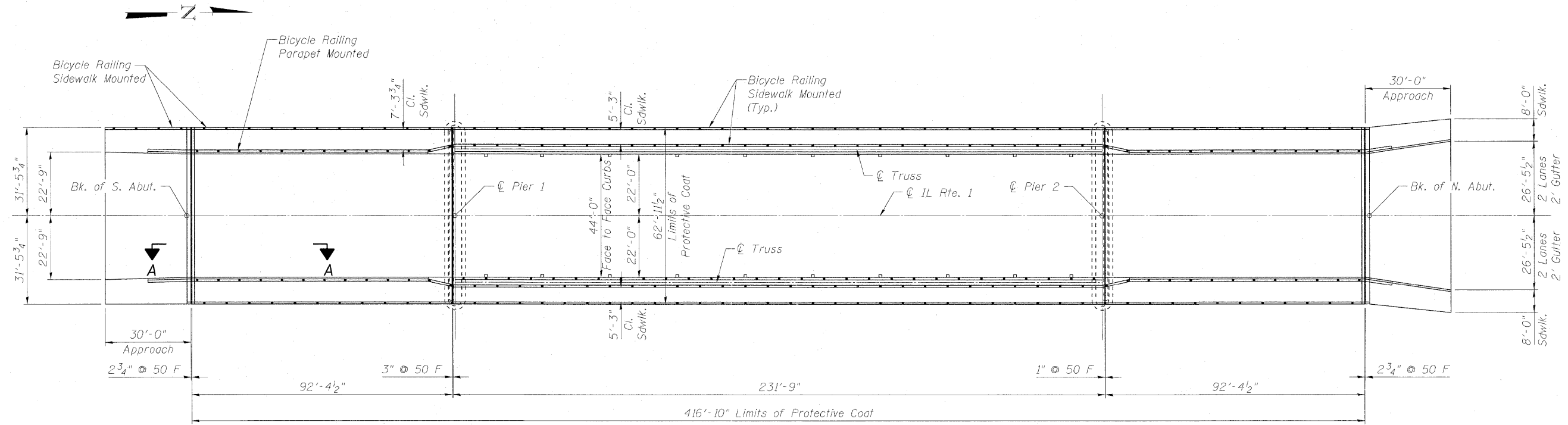
GENERAL NOTES:

1. 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.
2. The removal and reattachment of the guardrail, hand rail, steel railings, traffic barrier terminal, etc. required for repair work (e.g. Structural Repair of Concrete) shall be included in the contract unit price of the work item being performed.
3. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
4. Fasteners shall be high strength bolts. Bolts $7/8"$ ϕ , open holes $15/16"$ ϕ , unless otherwise noted.
5. Existing structural steel shall only be cleaned and painted as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
6. The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Gray, Munsell No. 5B-7/1. See Special Provision for "Cleaning and Painting New Metal Structures."
7. All new structural steel shall conform to AASHTO Classification M-270 Gr. 36.
8. Removal and disposal of all structural steel necessary to complete the work as detailed on the plans shall be performed in accordance with Section 501 of the Standard Specifications and included in the cost of the associated work.

TOTAL BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	QUANTITY
Structural Repair of Concrete (Depth equal or less than 5")	Sq. Ft.	115
Structural Repair of Concrete (Depth greater than 5")	Sq. Ft.	26
Bridge Rail Removal	Foot	44
Parapet Railing	Foot	44
Bridge Washing No. 1	Each	1
Epoxy Crack Injection	Foot	62
Protective Coat	Sq. Yd.	3,134
Structural Steel Repair	Pound	4280
Fender System	L Sum	1

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, BILL OF MATERIALS AND INDEX OF SHEETS STRUCTURE NO. 016-0193	F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - AMS	REVISED -			3730	K(B&C)2-BR-1	COOK	16	5
		DRAWN - DR	REVISED -			CONTRACT NO. 60M84				
		CHECKED - AMS	REVISED -			ILLINOIS FED. AID PROJECT				
	PLOT SCALE =			SHEET NO. S2 OF S8 SHEETS						
	PLOT DATE =									



PLAN

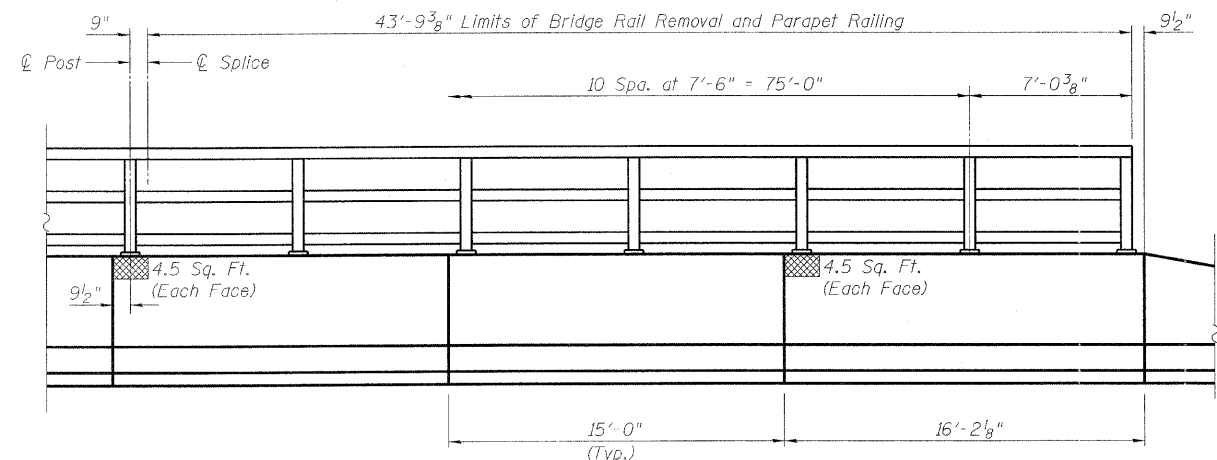
Notes:

1. The Protective Coat shall be applied to the bridge deck, sidewalk, and front and top faces of parapets.
2. Refer to Parapet Railing Sheet for Section A-A.
3. Existing Pavement Markings shall be temporarily covered prior to the application of Protective Coat to prevent the material from being applied to the markings. The temporary covering shall be removed after the application of the Protective Coat and prior to opening to traffic. Cost is included with Protective Coat.

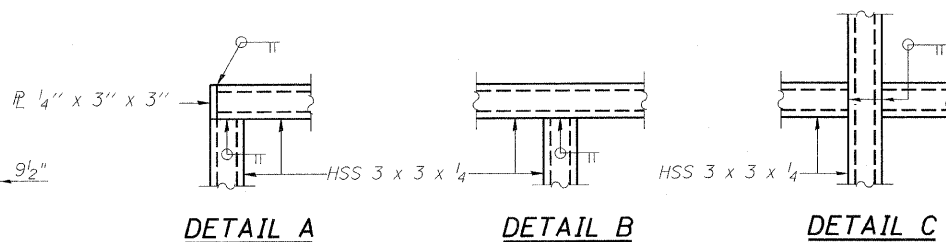
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Protective Coat	Sq. Yd.	3134

FILE NAME *	USER NAME *	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE REPAIR PLAN STRUCTURE NO. 016-0193	F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE *	CHECKED - JMH	REVISED -			3730	KIB&C12-BR-1	COOK	16	6	
	PLOT DATE *	DRAWN - DR	REVISED -			CONTRACT NO. 60M84					
		CHECKED - JMH	REVISED -			ILLINOIS FED. AID PROJECT					
SHEET NO. 53 OF 58 SHEETS											



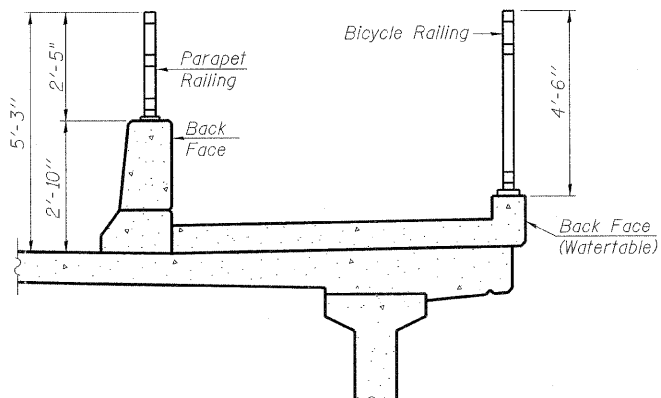
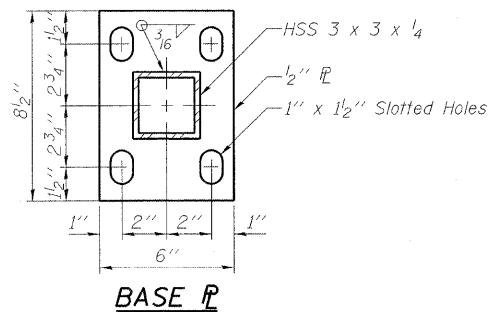
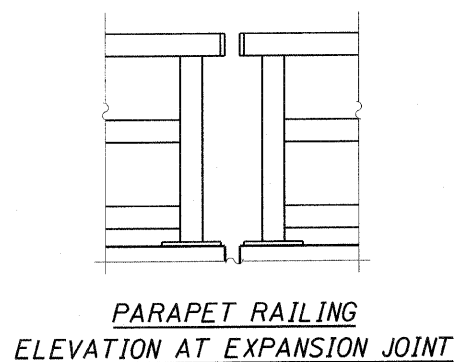
SECTION A-A



All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

BILL OF MATERIAL

Symbol	Item	Unit	Quantity
▨	Structural Repair of Concrete, (Depth Greater Than 5")	Sq. Ft.	18
	Parapet Railing	Foot	44
	Bridge Railing Removal	Foot	44

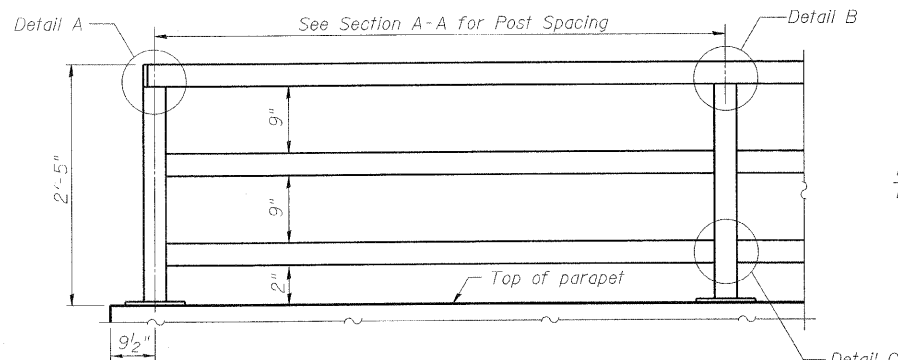


SECTION THRU SIDEWALK AT APPROACH SPAN

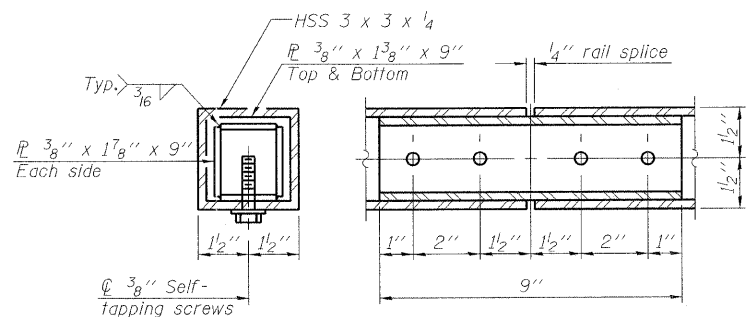
Notes:

Contractor shall field verify rail and post spacing prior to fabrication of new parapet railing. The proposed Parapet Railing shall match the existing parapet railing.

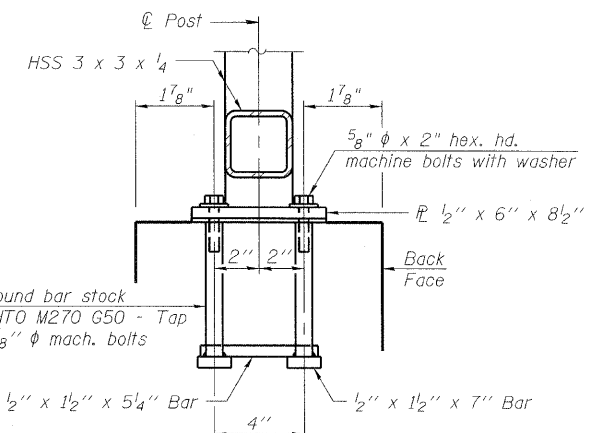
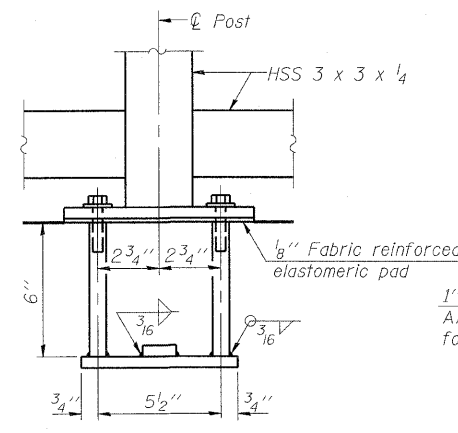
Contractor shall remove the rail in the manner that does not damage existing connections. Anchor bolts determined to be unsuitable for reuse by the Engineer during rail removal shall be replaced according to the details below. Cost is included with Parapet Railing.



(Inside Face of Three Element Rail)



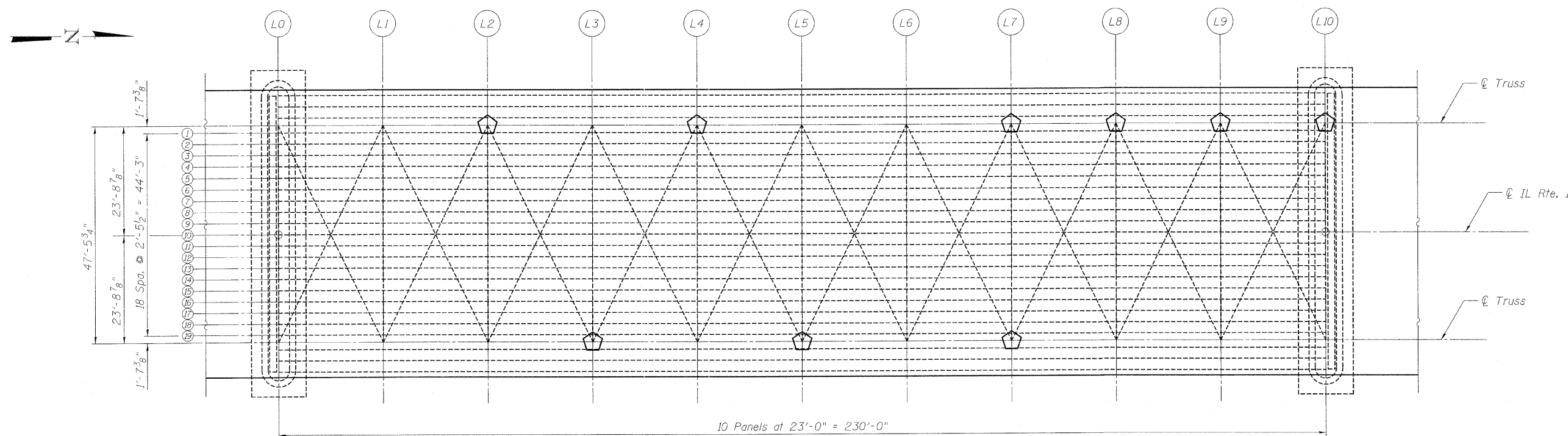
RAIL SPLICE



ANCHOR BOLT DETAILS

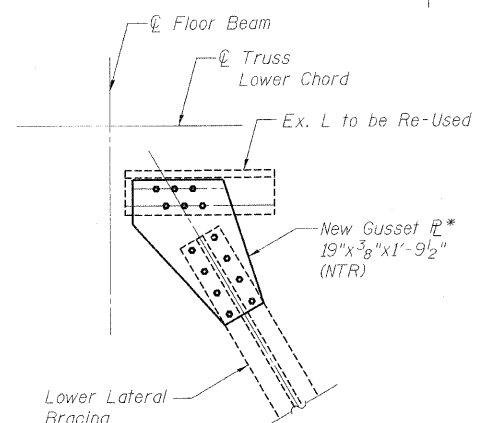
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PARAPET RAILING STRUCTURE NO. 016-0193	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - AMS	REVISED -			3730	KIB&C2-BR-1	COOK	16	7	
		DRAWN - DR	REVISED -			CONTRACT NO. 60M84					
		CHECKED - AMS	REVISED -			ILLINOIS FED. AID PROJECT					



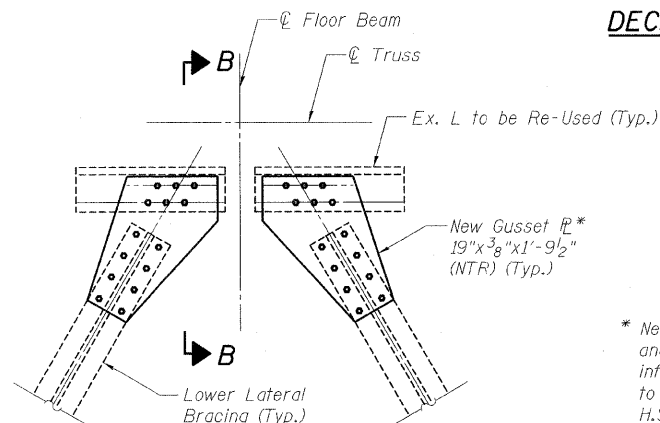
10 Panels at 23'-0" = 230'-0"

DECK FRAMING PLAN



TOP GUSSET PLATE DETAIL

(At End Panel Point)
(1 Required)



TOP GUSSET PLATE DETAIL

(At Intermediate Panel Point)
(8 Required)

* New 3/8" gusset plates to match existing plates in shape, size and hole locations. Existing plate dimensions are shown for information only. Contractor must verify dimensions in field prior to ordering materials. Number and spacing for proposed 7/8" H.S. bolts shall match existing holes. Contractor shall use existing plates for a template. See Table of Bottom Lateral Bracing Gusset Plate Replacement.

Legend:

◻ Denotes Gusset Plate Replacement

Notes:

Conduits located throughout underside of deck. Contractor shall exercise extreme care with existing conduits to protect and support the conduits. Broken clips shall be replaced. Cost is included in Structural Steel Repair. The Contractor will be required to repair any damage done to the conduit to the satisfaction of the Engineer. No splicing will be allowed to any cable damage resulting from this work. Instead the Contractor will be required to repair the entire span of any damaged cable at no additional cost to the Department.

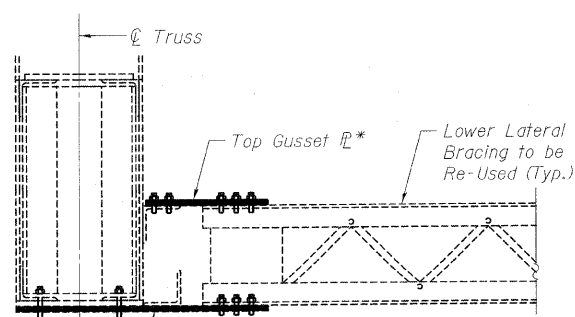
All work on this sheet, including removal of all welds, drilling of holes and furnishing and erecting bolts and washers is included with Structural Steel Repair.

The Resident Engineer may add gusset plate removal and replacement quantity in the field if necessary.

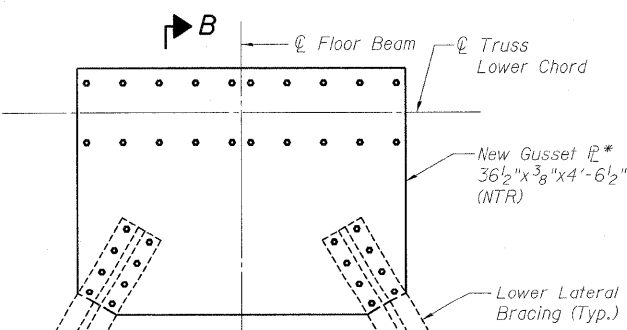
Temporary Support of the existing lateral bracing members during replacement of bottom lateral gusset plate is required. Cost included with Structural Steel Repair.

Gusset plate replacements shall be performed in only one location at a time.

"NTR" denotes members to which Supplemental Requirements for Notch Toughness, Zone 2 are applicable.



SECTION B-B



BOTTOM GUSSET PLATE DETAIL

(At Intermediate Panel Point)
(8 Required)

LOWER LATERAL BRACING - GUSSET PLATE DETAILS

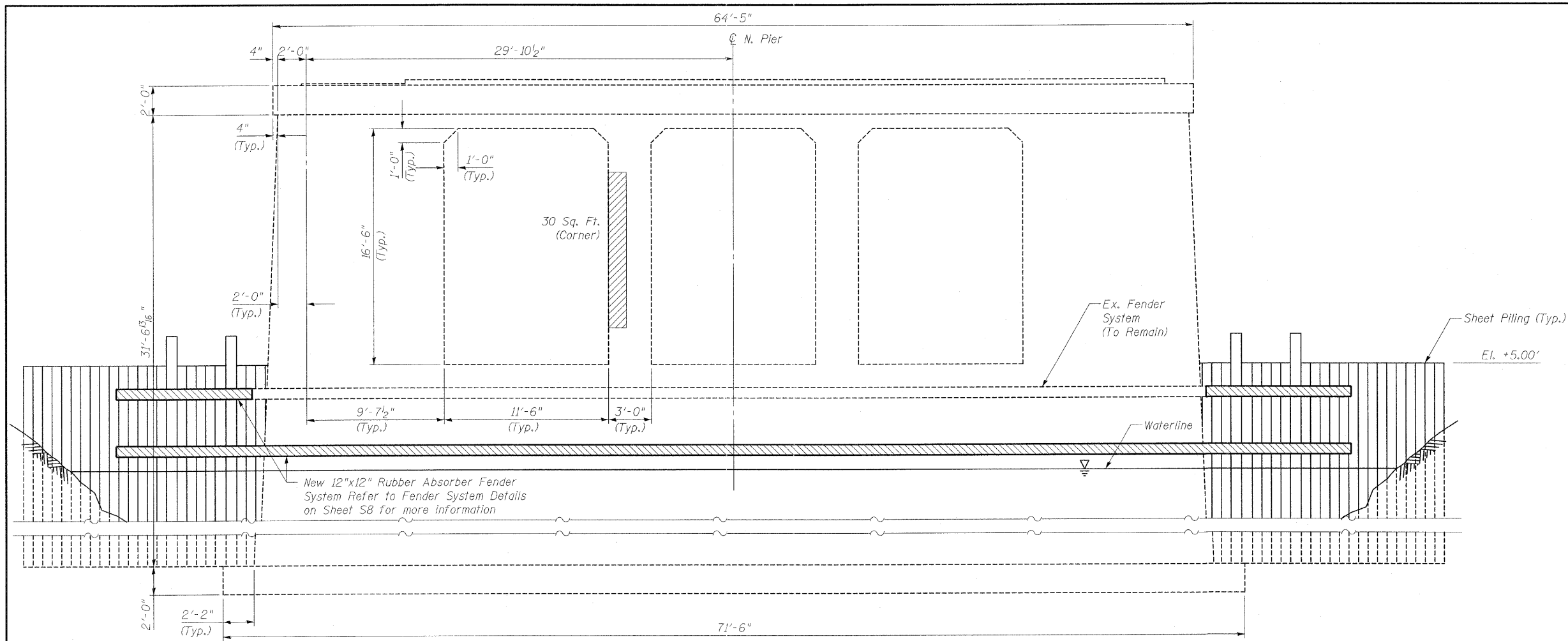
TABLE OF BOTTOM LATERAL BRACING GUSSET PLATE REPLACEMENT

PANEL/LOCATION	GUSSET PL TOP	GUSSET PL BOTTOM
L2/West		X
L3/East	X (North)	
L4/West	X (South)	
L5/East		X
L7/East	X (North)	
L7/West		X
L8/West		X
L9/West	X (North)	X
L10/West	X (South)	X

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	4280

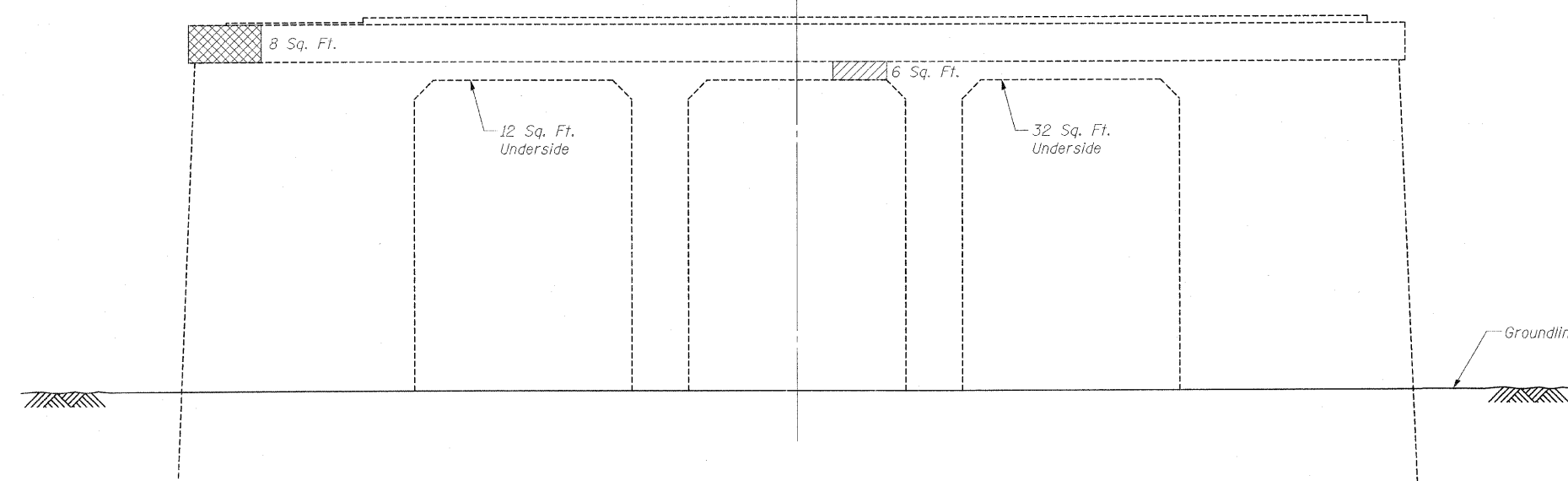
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PLOT SCALE =	CHECKED - JMH	REVISIONS -	CONTRACT NO. 60M84							
PLOT DATE =	DRAWN - DR	REVISIONS -	ILLINOIS FED. AID PROJECT							
	CHECKED - JMH	REVISIONS -								



NORTH FACE ELEVATION

Looking South

© N. Pier



SOUTH FACE ELEVATION

Looking North

Notes:
 Reuse existing fasteners if determined acceptable by the Engineer. New fasteners shall be AASHTO M164 Type I, mechanically galvanized. Cost of new fasteners is included with Fender System. See Special Provisions.

 Removal and disposal of existing rubber fenders and hardware shall be included in the cost of Fender System.

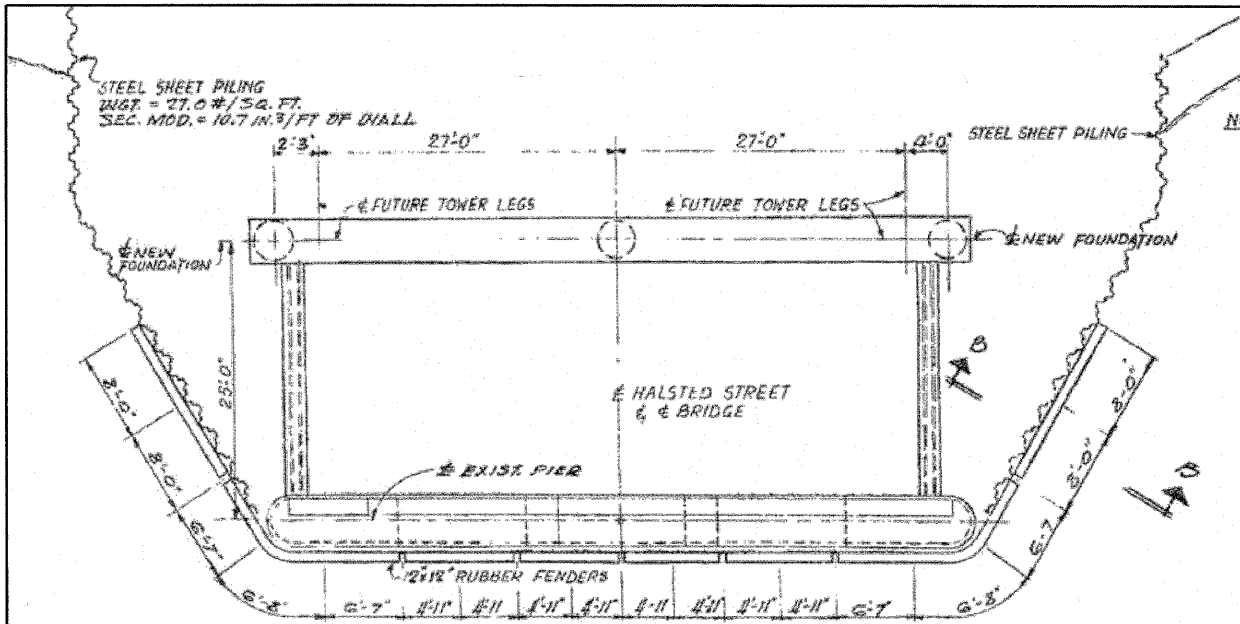
BILL OF MATERIAL

SYMBOL	ITEM	UNIT	QUANTITY
	Structural Repair of Concrete, (Depth equal or less than 5")	Sq. Ft.	80
	Structural Repair of Concrete, (Depth Greater than 5")	Sq. Ft.	8
	Fender System	L. Sum	1

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 1 REPAIRS STRUCTURE NO. 016-0193	F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - AMS	REVISD -			3730	KIB&C2-BR-1	COOK	16	9	
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		CHECKED - AMS	REVISD -			ILLINOIS FED. AID PROJECT					

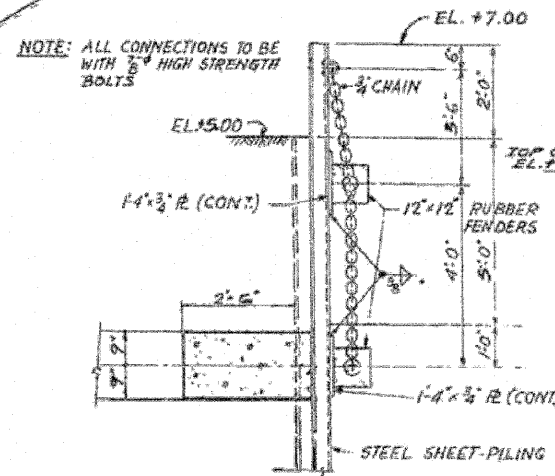
BILL OF MATERIAL

BAR MARK	No.	SIZE	LENGTH	SHAPE
d1	66	#6	2'-0"	—
d2	6	#6	3'-0"	—
h10	24	#9	11'-9"	—
U5	33	#5	7'-6"	—
U6	3	#5	10'-0"	—
V5	5	#5	2'-6"	—
CLASS 'X' CONCRETE CU.YDS.				16.4
REINFORCEMENT BARS LBS.				810
POROUS GRANULAR EMBANKMENT CU.YDS.				150
RUBBER FENDERS (PIER PROTECTION) L.S.				1

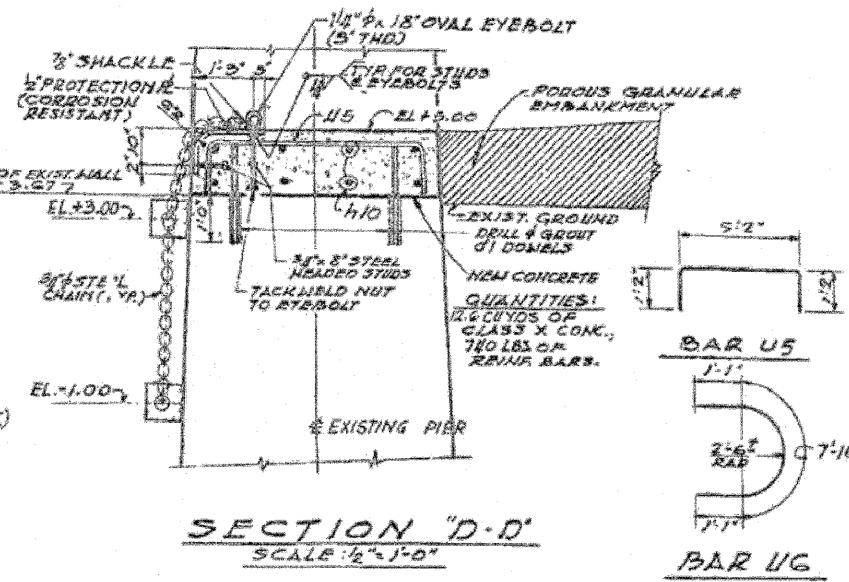


PLAN

NOTE!
FOR DIMENSIONS OF STEEL SHEET PILING AND DETAILS SEE PLAN SHG.6



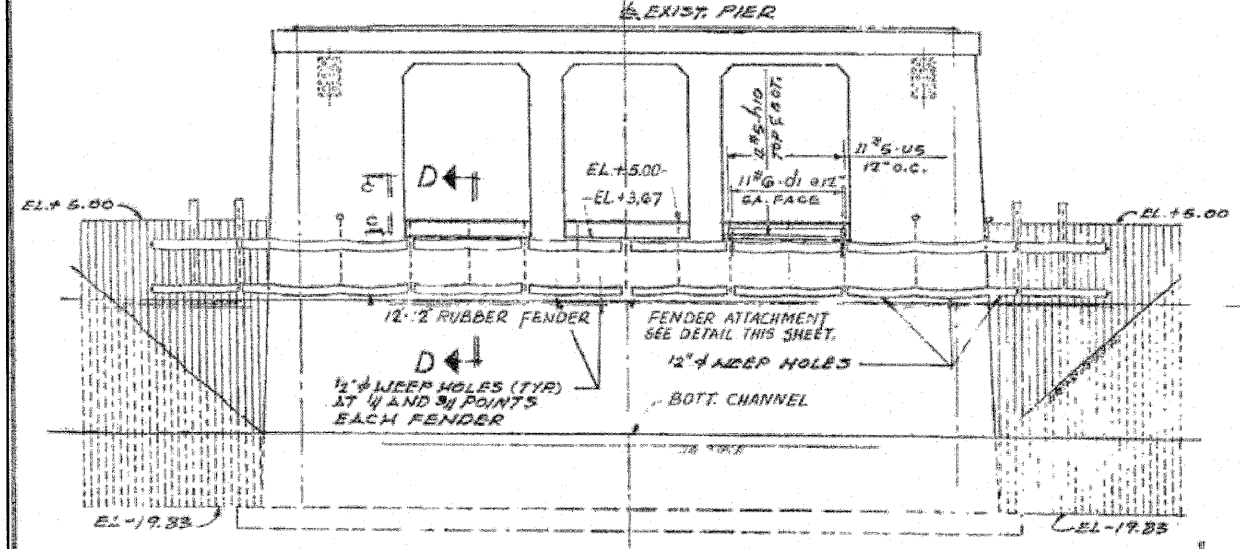
SECTION B-B
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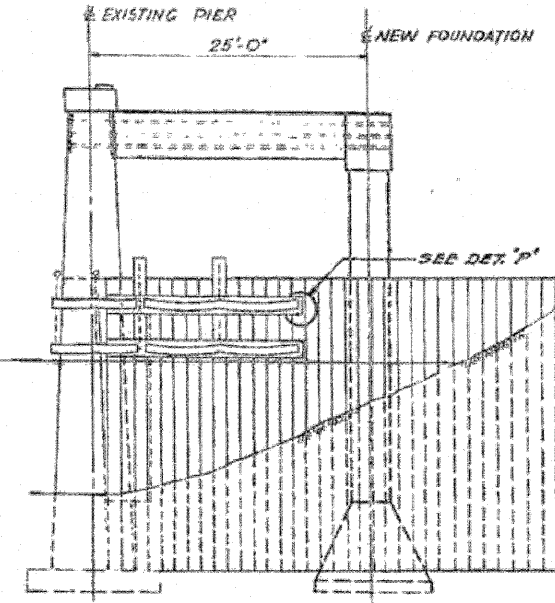
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NOTE:

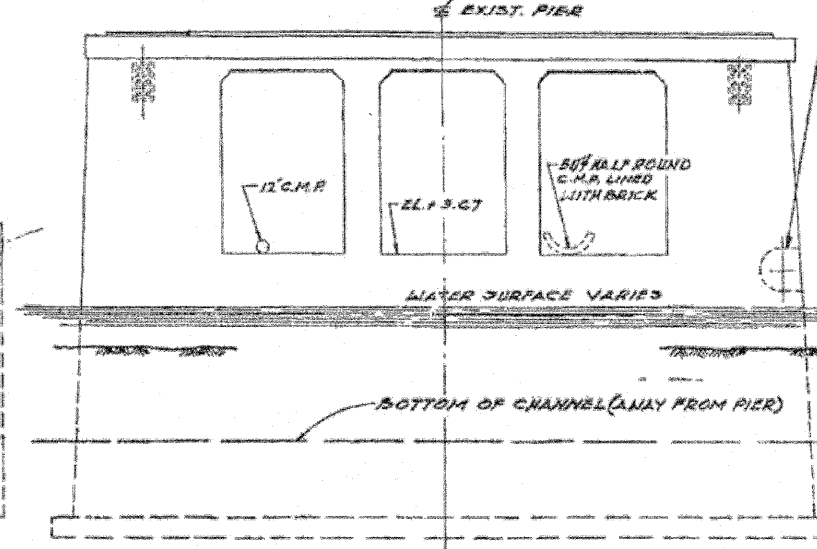
AFTER THE INSTALLATION OF THE RUBBER FENDERS HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER THE NUTS OF ALL SHACKLE BOLTS AND "U" BOLTS SHALL BE WELDED TO THE BOLTS AS DIRECTED BY THE ENGINEER.



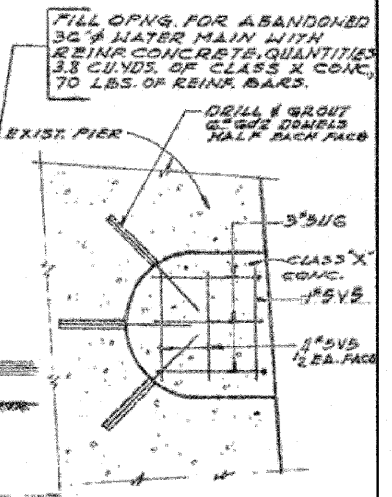
ELEVATION SOUTH PIER
LOOKING SOUTH
SCALE: 1/4" = 1'-0"



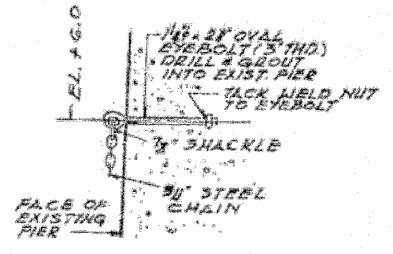
END ELEVATION A-A
SCALE: 1/4" = 1'-0"



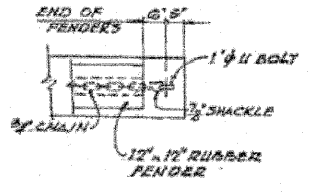
ELEVATION NORTH PIER
LOOKING NORTH
SCALE: 1/4" = 1'-0"



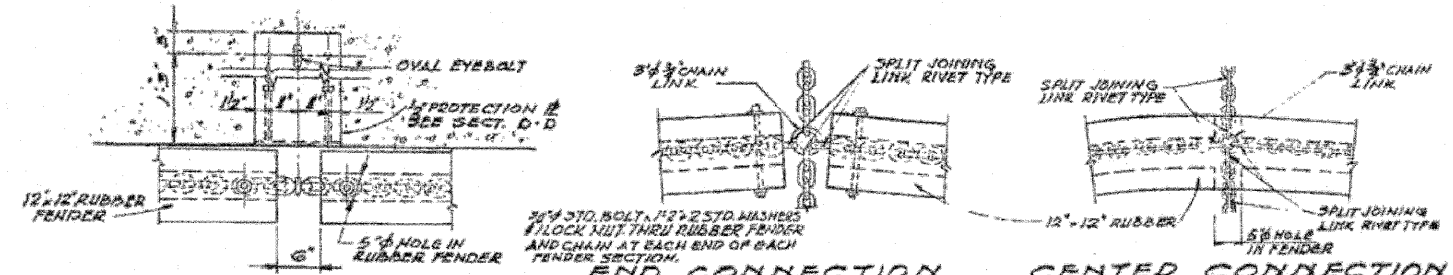
DETAIL "M"
SCALE: 1/2" = 1'-0"



SECTION "C-C"



DETAIL "P"
SCALE: 1/2" = 1'-0"



DETAIL OF RUBBER FENDER ATTACHMENT

NOTE:
JOIN SHORTER CHAINS TO LONG CHAIN PRIOR TO INSERTION OF LONG CHAIN INTO FENDER - PULL SHORT CHAINS THROUGH HOLES IN FENDER WITH HOOP DURING ASSEMBLY.

ALFRED BENESCH & COMPANY CONSULTING ENGINEERS
10 SOUTH WABASH AVE CHICAGO, ILLINOIS

REVISED - JAN. 5, 1966

ILLINOIS DIVISION OF HIGHWAYS
CALUMET-SAG NAVIGATION PROJECT
HALSTED STREET BRIDGE CONVERSION
PIER PROTECTION DETAILS

SCALE: AS NOTED DATE: NOV. 22, 1965

FOR INFORMATION ONLY

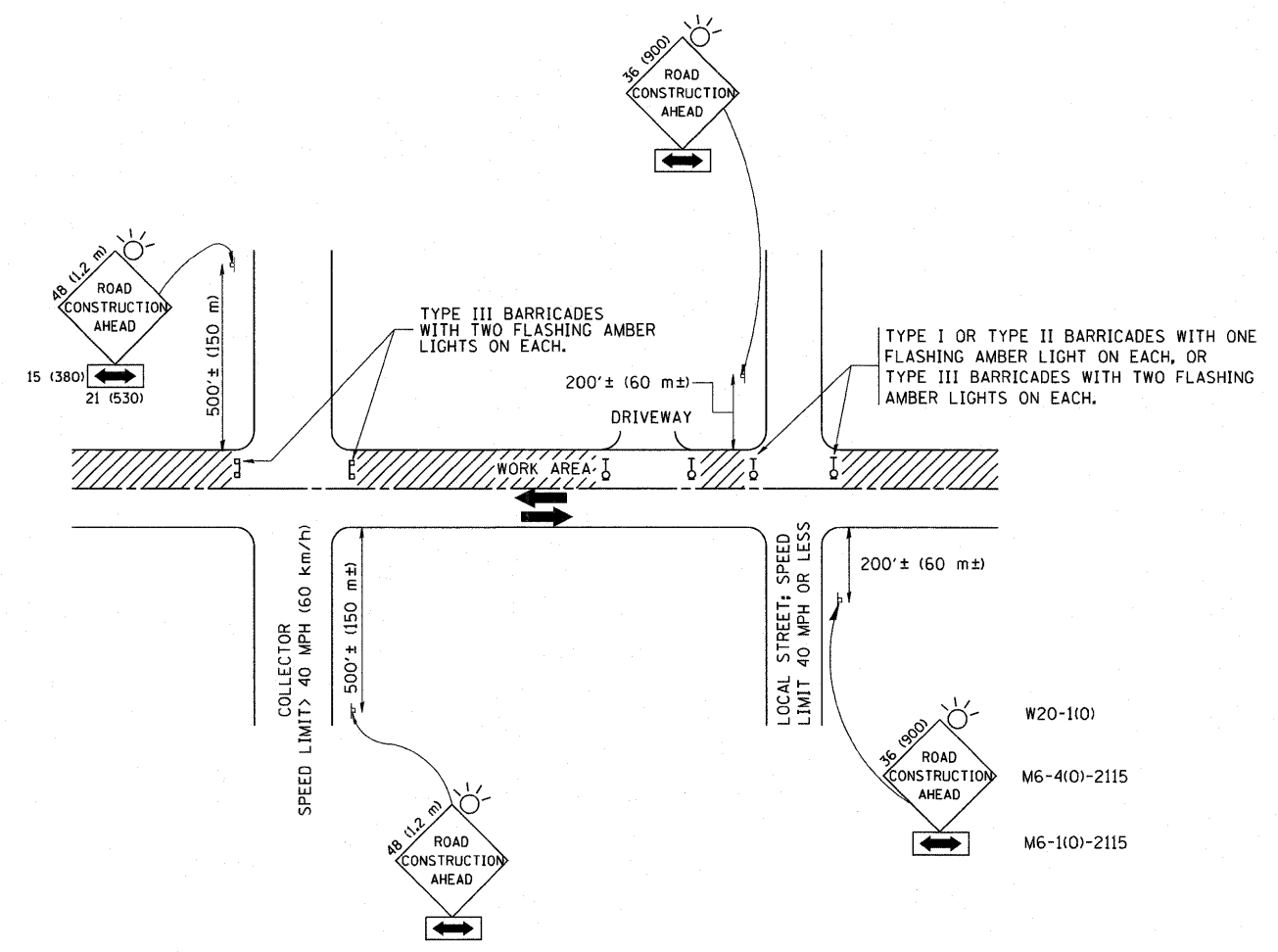
FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -
		CHECKED - AMS	REVISED -
		DRAWN - DR	REVISED -
		CHECKED - AMS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FENDER SYSTEM DETAILS
STRUCTURE NO. 016-0193

SHEET NO. 58 OF 58 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3730	KIB&C2-BR-1	COOK	14	11
				CONTRACT NO. 60M84
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.
 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.

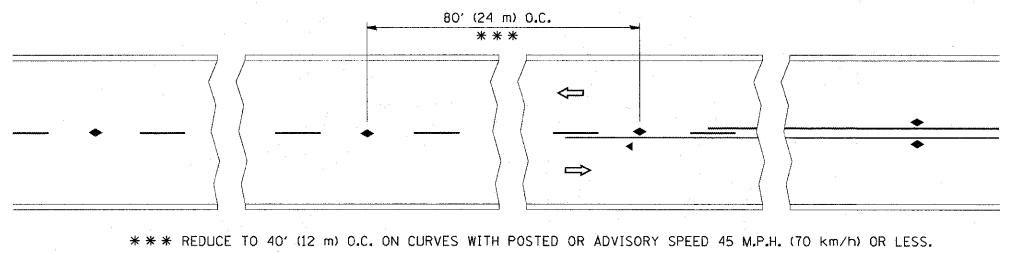
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		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

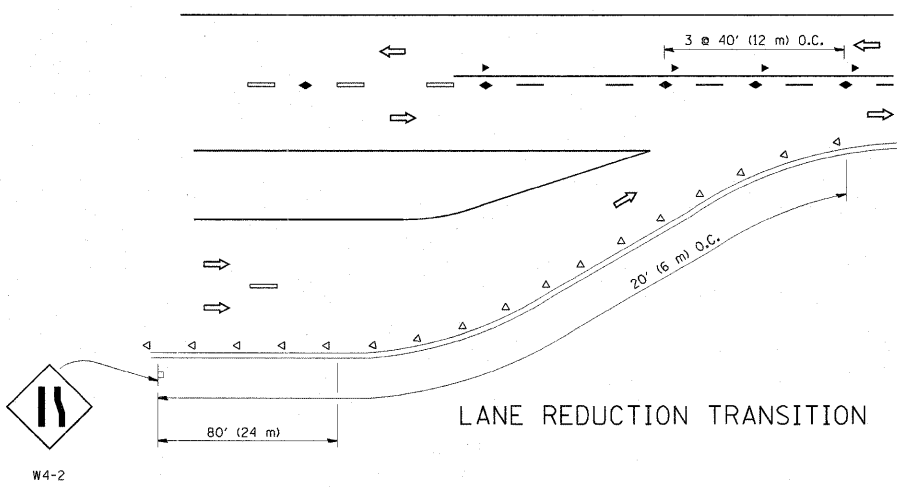
TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

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

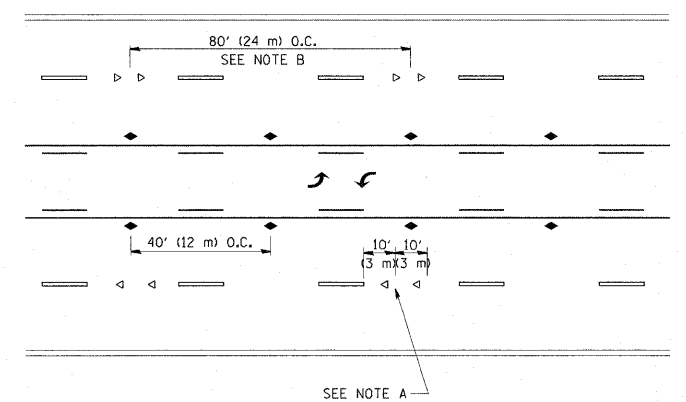
F.A.U. RTE. 3730	SECTION K (B&C) 2-BR-1	COUNTY Cook	TOTAL SHEETS 16	SHEET NO. 12
TC-10		CONTRACT NO. 60M84		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



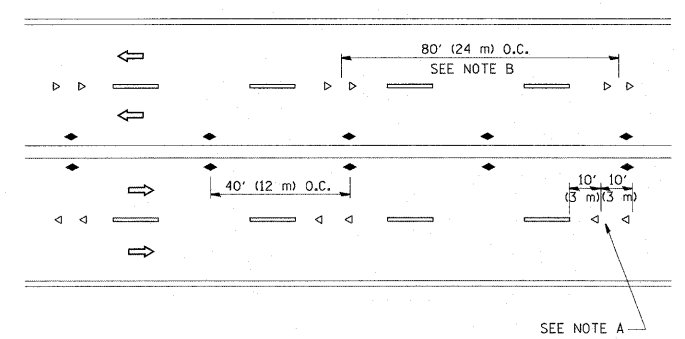
TWO-LANE/TWO-WAY



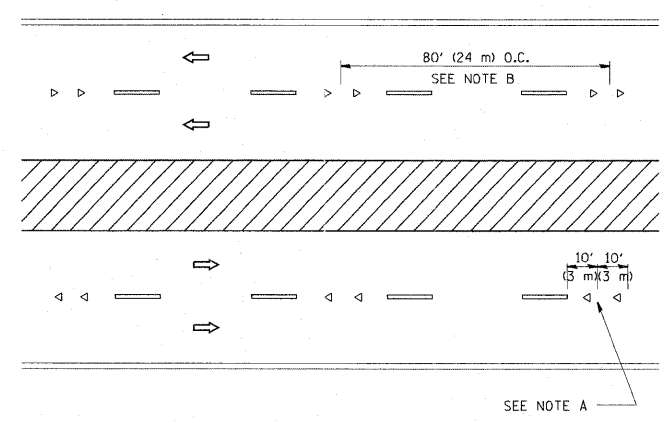
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

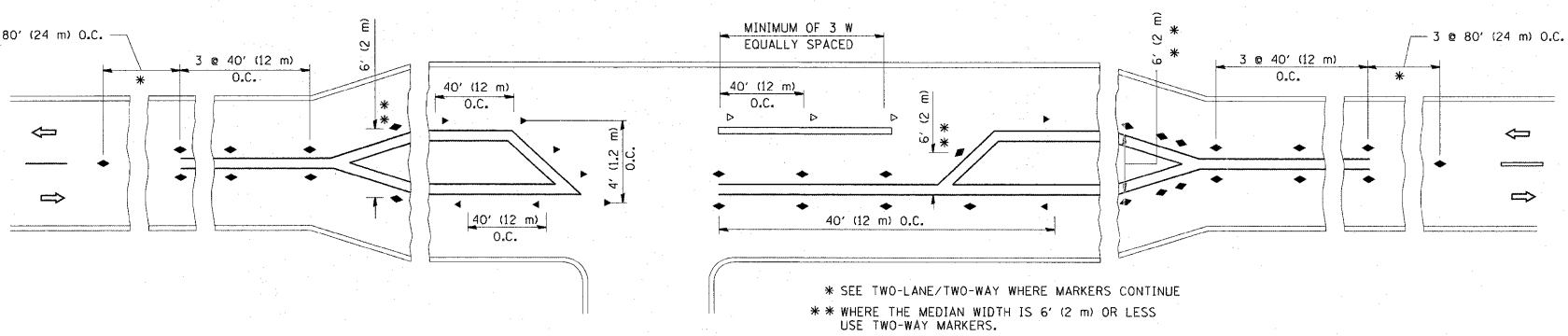
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

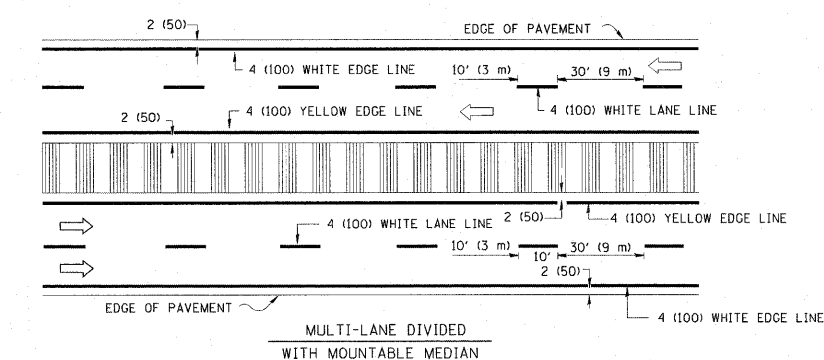
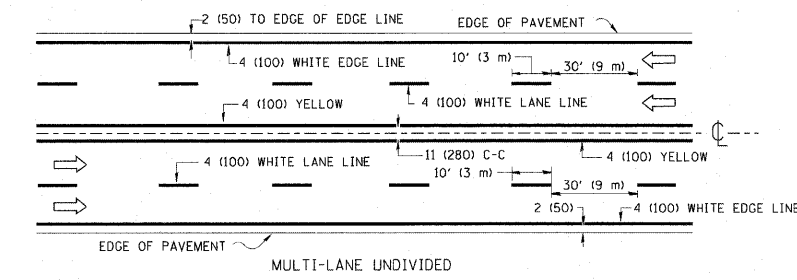
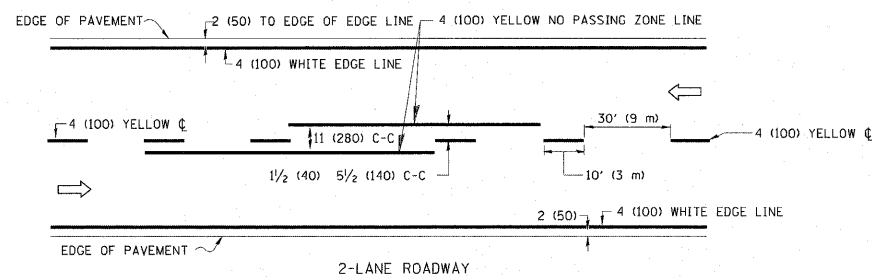
1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS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



LEFT TURN

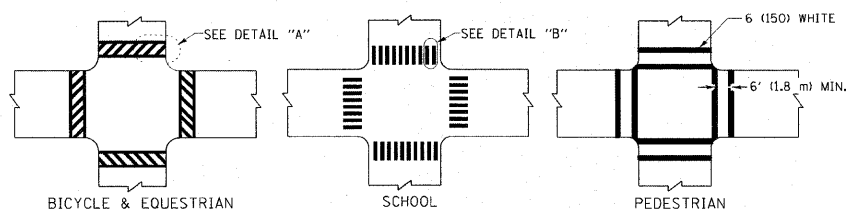
All dimensions are in inches (millimeters) unless otherwise shown.

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		DRAWN -	REVISED - T. RAMMACHER 03-12-99		3730	K (B&C) 2-BR-1	COOK	16	13			
		CHECKED -	REVISED - T. RAMMACHER 01-06-00		TC-11			CONTRACT NO. 60M84				
		DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

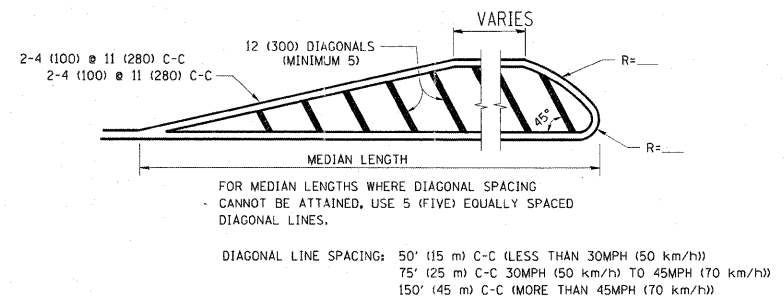
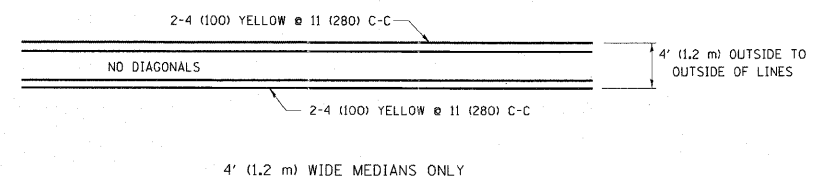


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

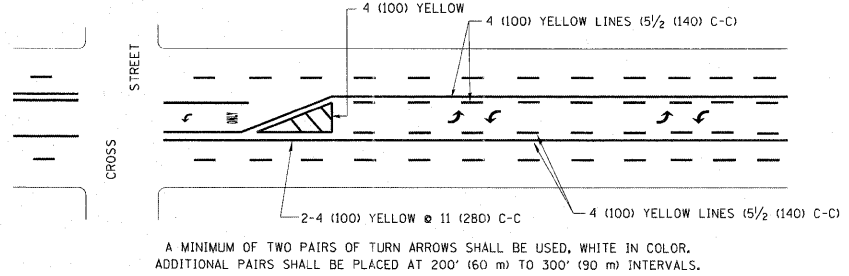
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

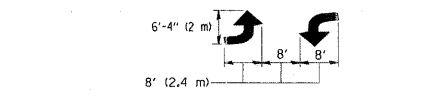


MEDIANS OVER 4' (1.2 m) WIDE

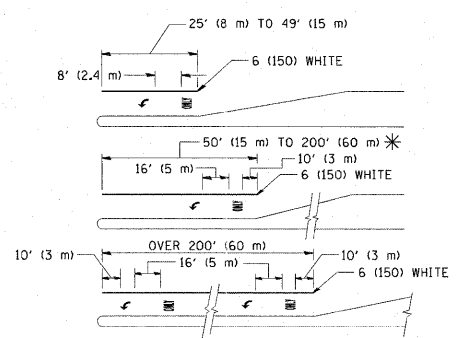


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.

TYPICAL PAINTED MEDIAN MARKING



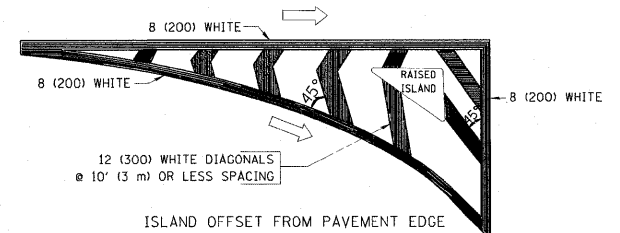
TYPICAL TURN LANE MARKING



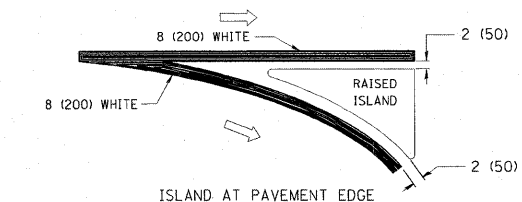
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED, AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
LANE LINES	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
TWO WAY LEFT TURN MARKING	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN)	2 @ 6 (150)	SOLID	WHITE	NOT LESS THAN 6' (1.8 m) APART
CROSSWALK LINES (PEDESTRIAN)	12 (300) @ 45°	SOLID	WHITE	2' (600) APART
CROSSWALK LINES (PEDESTRIAN)	12 (300) @ 90°	SOLID	WHITE	2' (600) APART
CROSSWALK LINES (BIKE & EQUESTRIAN)	2 @ 6 (150)	SOLID	WHITE	SEE TYPICAL CROSSWALK MARKING DETAILS.
CROSSWALK LINES (BIKE & EQUESTRIAN)	12 (300) @ 45°	SOLID	WHITE	SEE TYPICAL CROSSWALK MARKING DETAILS.
CROSSWALK LINES (BIKE & EQUESTRIAN)	12 (300) @ 90°	SOLID	WHITE	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°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS				
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' (22.5 m) C-C 130 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (OVER 45MPH (70 km/h))

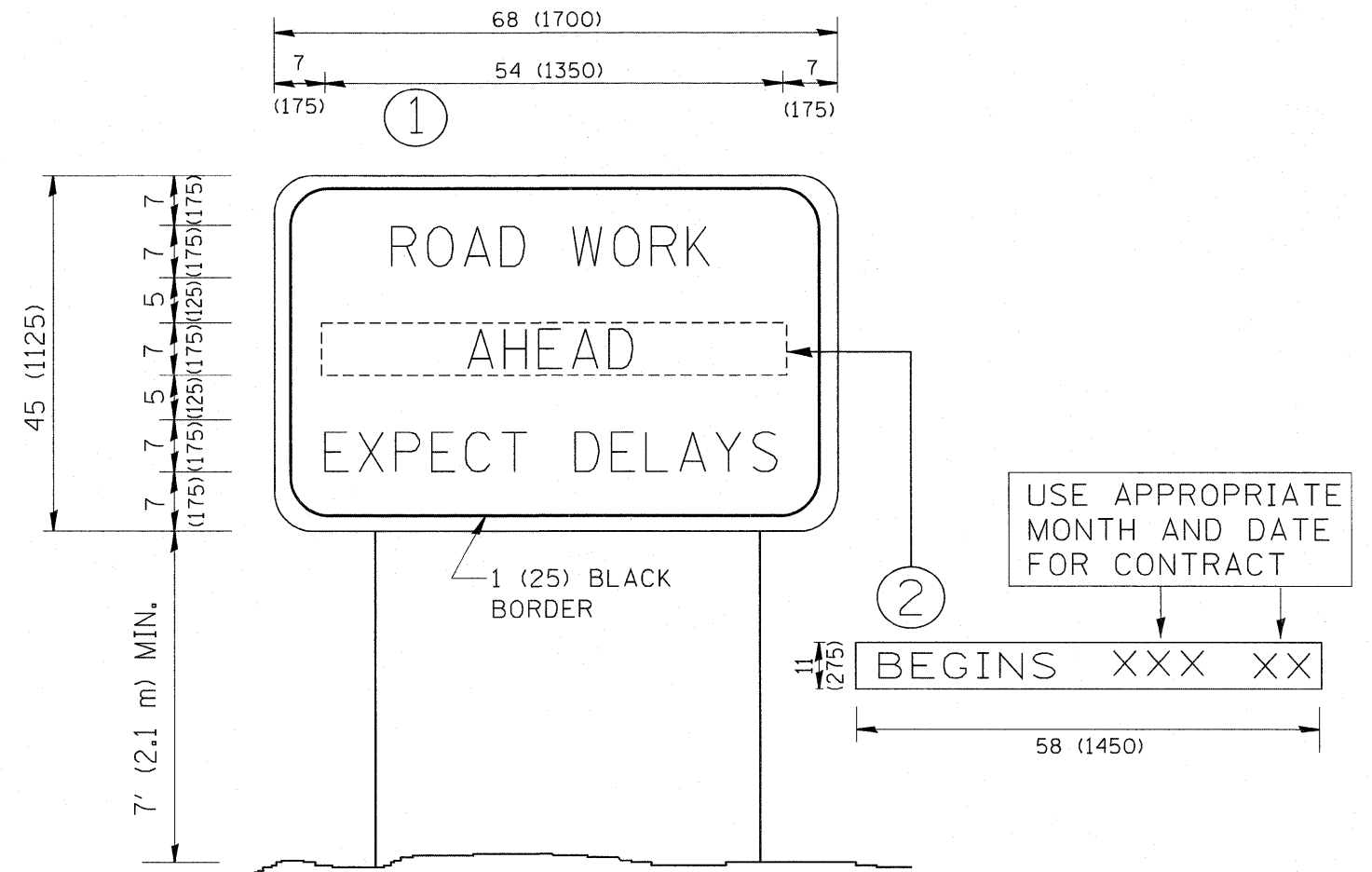
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME =	USER NAME = drivakosgn	DESIGNED - EVERS	REVISED - T. RAMMACH 10-27-94
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	PLOT SCALE = 50,000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		3730	K (B&C) 2-BR-1	Cook	16	14
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.	CONTRACT NO. 60M84	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

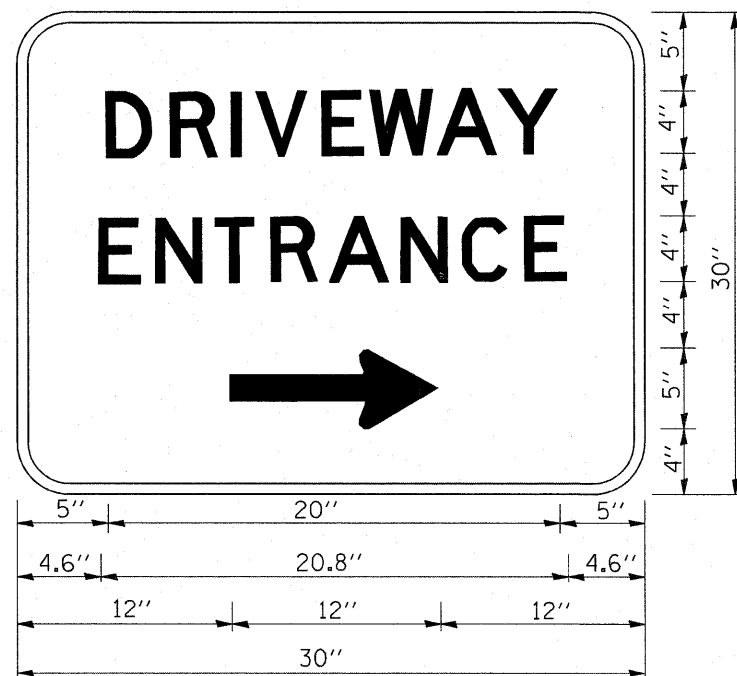


NOTES:

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 = geg:ienobt	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN		F.A.J. RTE. 3730	SECTION K (B&C) 2-BR-1	COUNTY Cook	TOTAL SHEETS 16	SHEET NO. 15	
	PLOT SCALE = 50,000 / IN.	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		TC-22		CONTRACT NO. 60M84			
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 02-02-99				FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT	
		DATE -	REVISED - C. JUCIUS 01-31-07									



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE NAME = W:\diststd\22x34\to26.dgn	USER NAME = gaglionobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRIVEWAY ENTRANCE SIGNING			F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.000' / IN.	DRAWN -	REVISED -					3730	K(B&C) 2-BR-1	Cook	16	16
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -					TC-26		CONTRACT NO. 60M84		
				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		