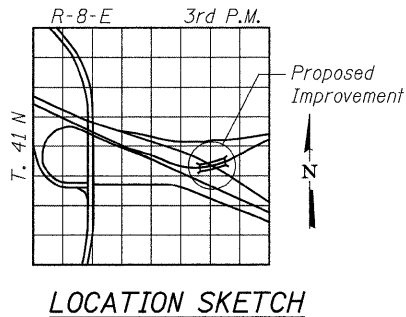
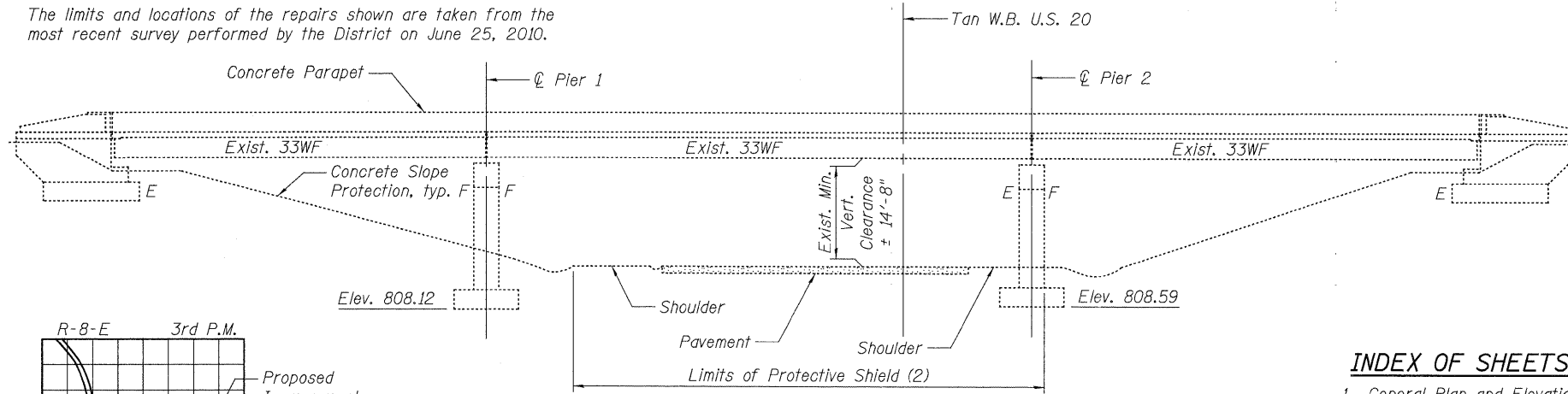


NOTE

The limits and locations of the repairs shown are taken from the most recent survey performed by the District on June 25, 2010.



LOADING HS20-44
(Existing Construction)
DESIGN SPECIFICATIONS
2002 Standard Specifications for Highway Bridges 17th Edition
DESIGN STRESSES

STEEL
f_y = 36,000 psi (A270 Grade 36)
FIELD UNITS
(NEW CONSTRUCTION)
f'_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)

ELEVATION



I hereby certify that these plans were prepared by me or under my direct personal supervision and that I am a duly licensed structural engineer under the laws of the State of Illinois.

Robert J. Loehr DATE: **3-31-11**
Robert J. Loehr S.E. #3992
LICENSE EXP. 11-30-2012

INDEX OF SHEETS

1. General Plan and Elevation
2. Typical Sections
3. Substructure Repairs
4. Expansion Joint Removal
5. Expansion Joint Repair
6. Preformed Joint Strip Seal
7. Bearing Details
8. Bearing & Fabricated Steel Extension Details

GENERAL NOTES

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.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.

Reinforcement bars designated (E) shall be epoxy coated.

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

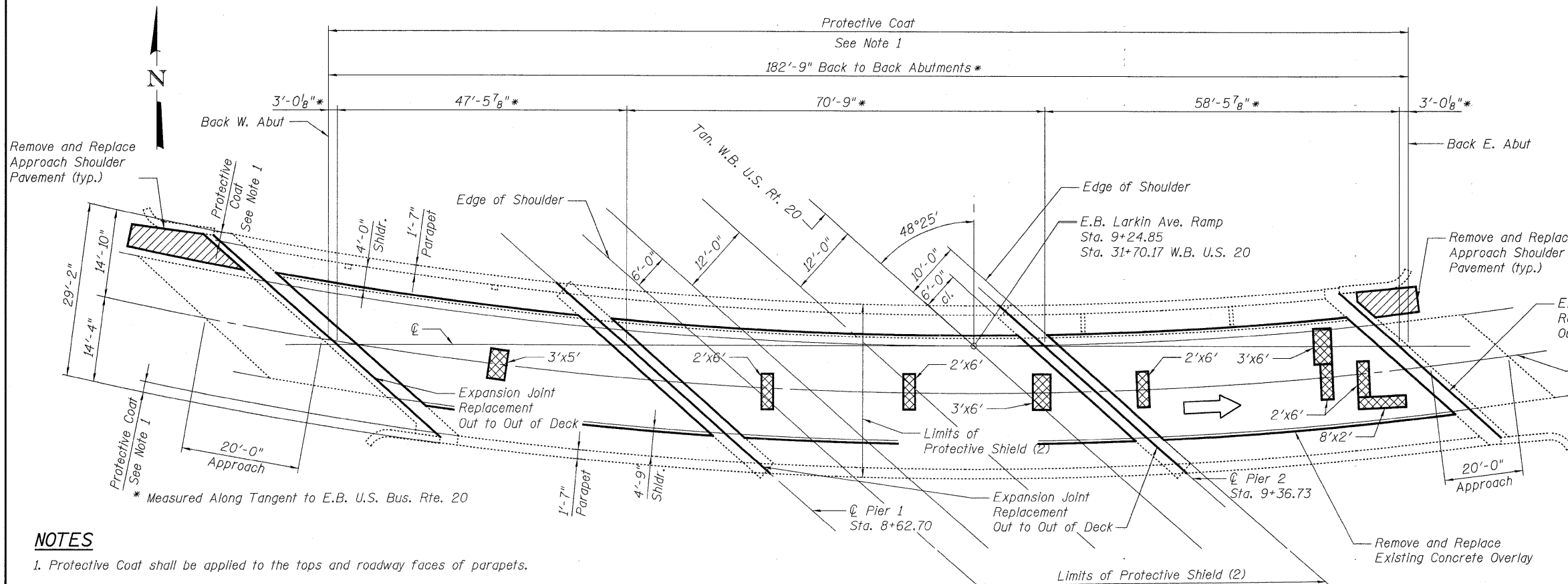
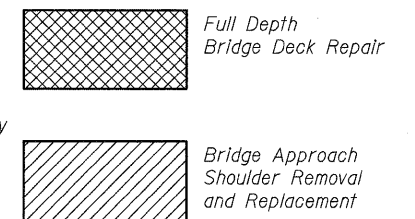
Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

Bridge shall be closed to traffic during repairs.

TOTAL BILL OF MATERIAL

Item	Unit	Total
Protective Coat	Sq. Yd.	150
P.C. Concrete Bridge Approach	Sq. Yd.	20
Shoulder Pavement	Sq. Yd.	20
Concrete Removal	Cu. Yd.	32.0
Protective Shield	Sq. Yd.	196
Concrete Superstructure	Cu. Yd.	32.0
Furnishing and Erecting Structural Steel	Pound	2700
Reinforcement Bars, Epoxy Coated	Pound	4340
Preformed Joint Strip Seal	Foot	189
Elastomeric Bearing Assembly, Type I	Each	15
Anchor Bolts, 1"	Each	30
Bridge Deck Thin Polymer Overlay 3/8"	Sq. Yd.	530
Bridge Deck Fly Ash or GGBF Slag Concrete Overlay, 2 1/4"	Sq. Yd.	362
Cleaning and Painting Bearings	Each	15
Bridge Approach Shoulder Removal	Sq. Yd.	20
Jack and Remove Existing Bearings	Each	15
Concrete Bridge Deck Scarification 3/8"	Sq. Yd.	530
Bridge Deck Scarification 2 1/4"	Sq. Yd.	362
Structural Repair of Concrete (Depth Equal to or Less Than 5 inches)	Sq. Ft.	401
Structural Repair of Concrete (Depth Greater Than 5 inches)	Sq. Ft.	99
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	15
Temporary Shoring and Cribbing	Each	5

LEGEND



PLAN

NOTES

1. Protective Coat shall be applied to the tops and roadway faces of parapets.
2. Protective Shield to be included for payment shall only extend from edge of shoulder to edge of shoulder of roadway below and out to out of bridge. Anything beyond these limits will not be paid for.

GENERAL PLAN AND ELEVATION
E.B. LARKIN AVE. RAMP OVER WB US 20
SEC. 8R-HR-1(82)
KANE COUNTY
STATION 31+70.17
STRUCTURE NO. 045-0008

ABNA
DESIGN FIRM REG. 184.002117
9901 S. Western Ave.
Chicago, IL 60643
Ph. 773-881-4788
F: 773.239.3728

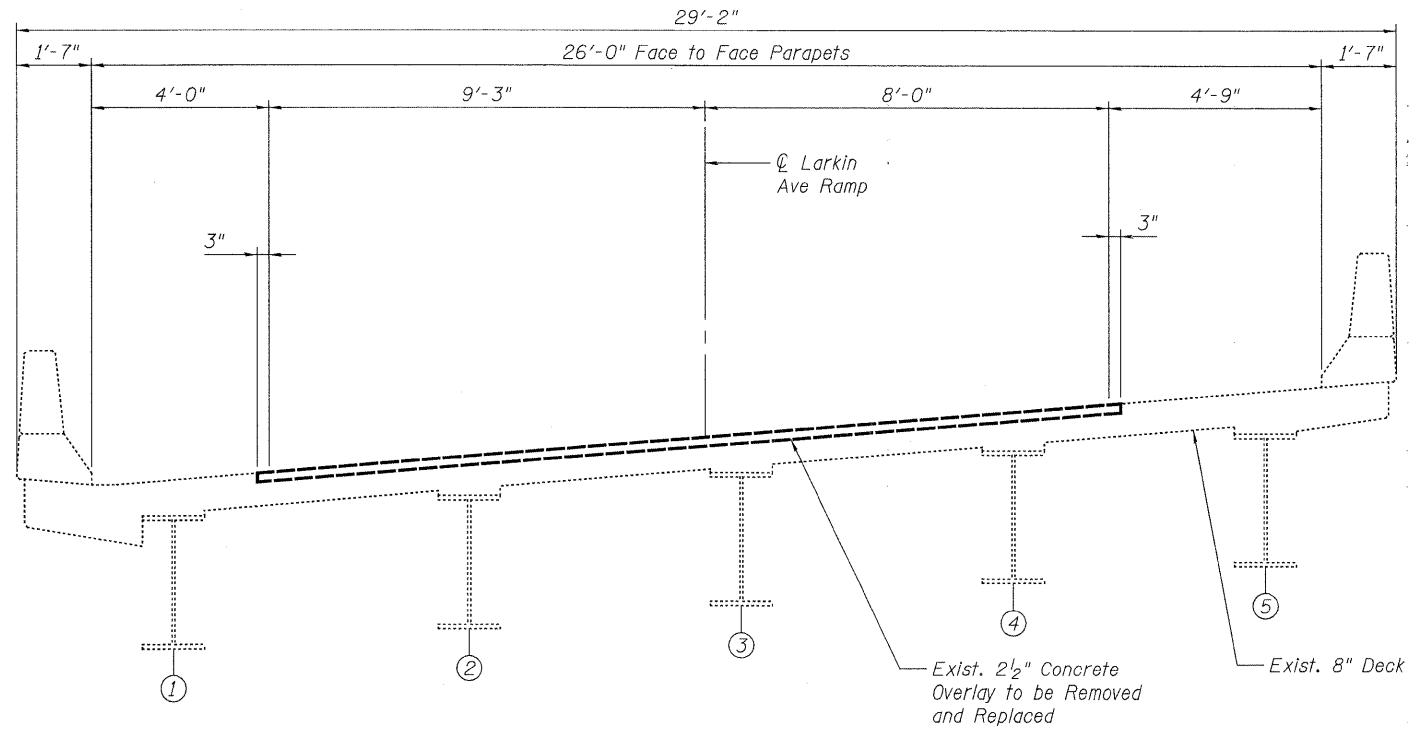
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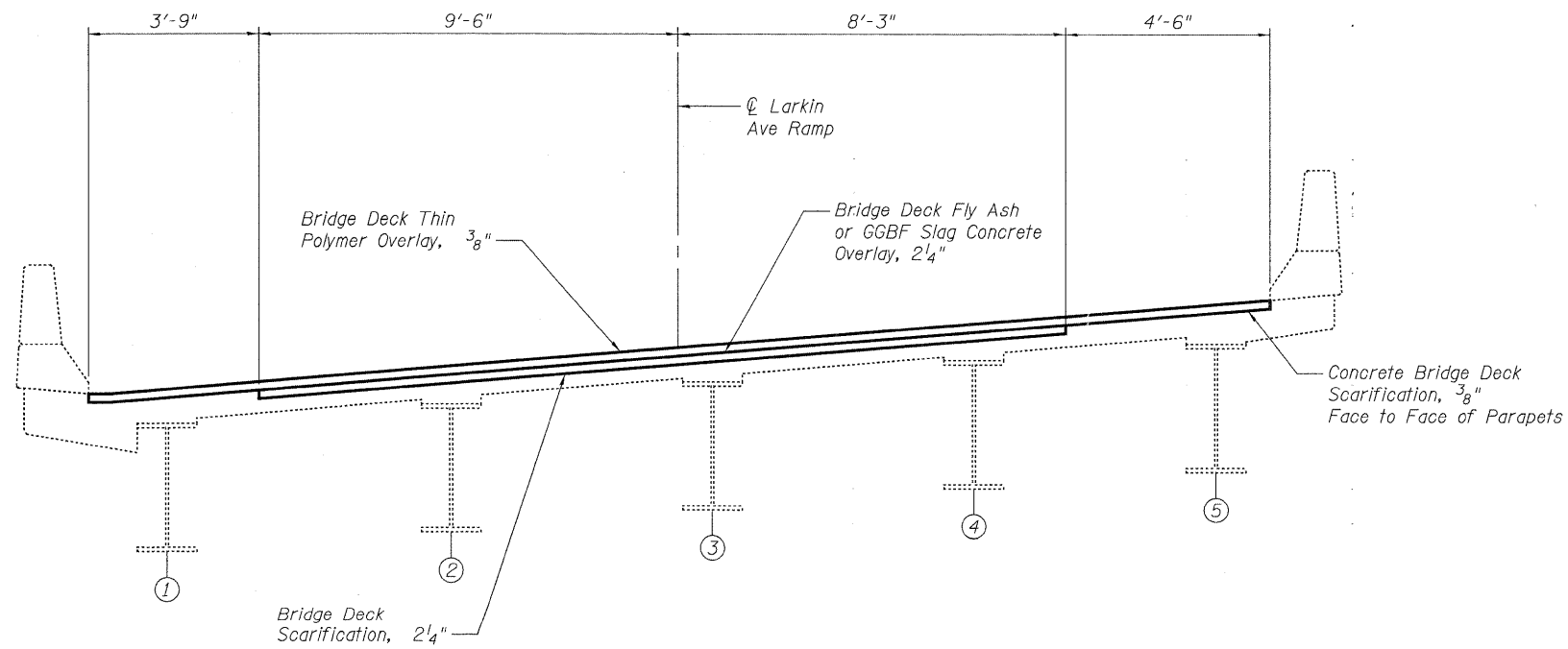
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

E.B. LARKIN AVE. RAMP
OVER W.B. U.S. 20
SHEET NO. 1 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
426	8R-HR-1(82)	KANE	124	101
STA. TO STA.		CONTRACT NO. 60M46		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



EXISTING



PROPOSED

NOTES

1. The complete removal of the existing concrete overlay and surface cleaning and preparation shall be completely covered in the cost of Concrete Bridge Deck Scarification $\frac{3}{8}$ " or Bridge Deck Scarification $2\frac{1}{4}$ "



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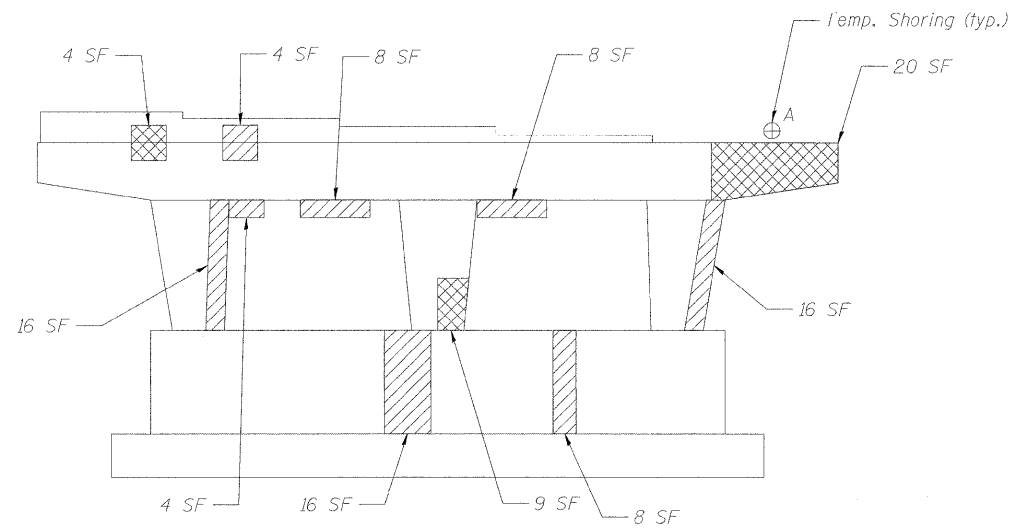
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DEPARTMENT OF TRANSPORTATION**

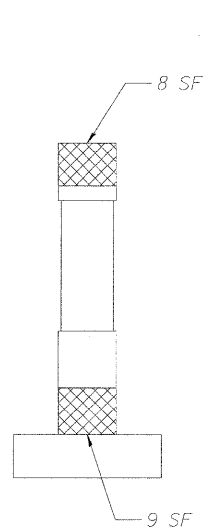
TYPICAL SECTIONS

SHEET NO. 2 OF 8 SHEETS

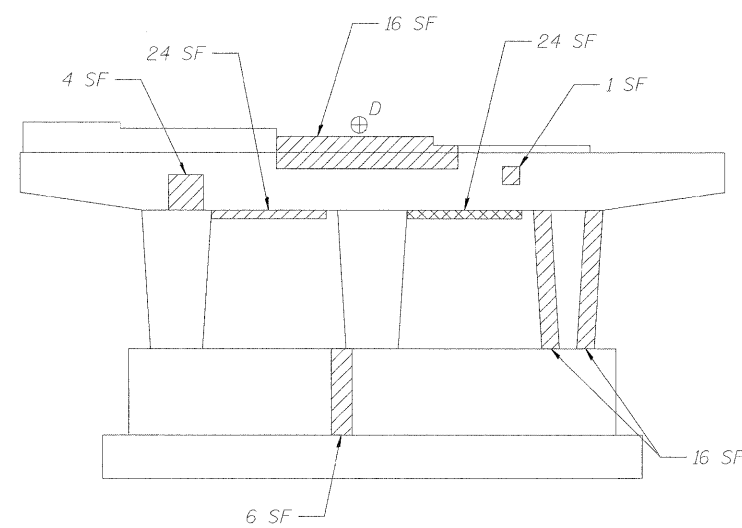
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
426	BR-HR-1(82)	KANE	124	102
STA. TO STA.		CONTRACT NO. 60M46		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



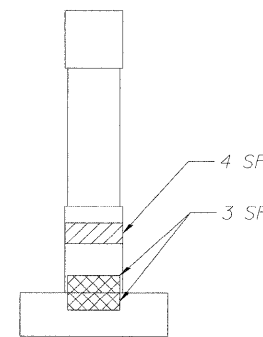
EAST ELEVATION - PIER 1
(Looking Back Station)



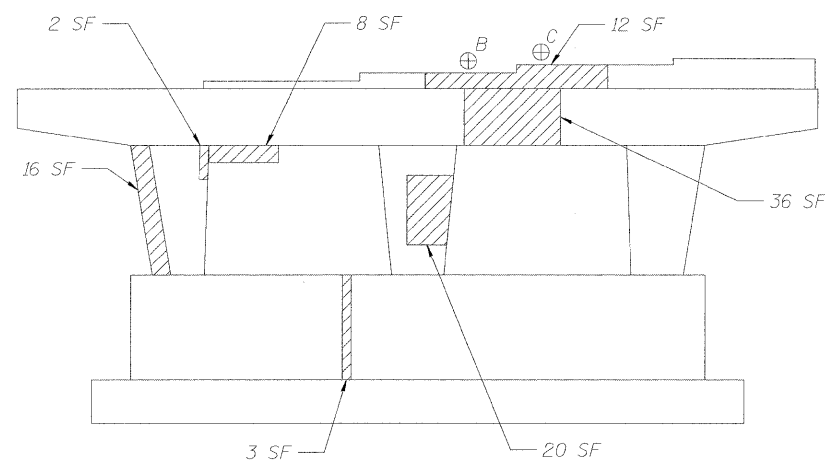
NORTH END - PIER 1



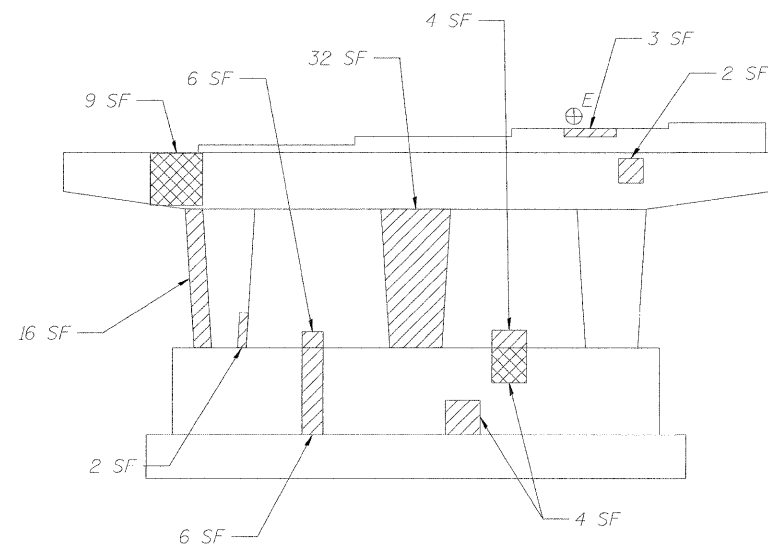
EAST ELEVATION - PIER 2
(Looking Back Station)



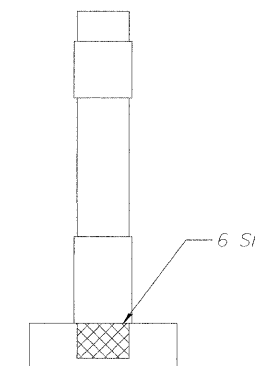
NORTH END - PIER 2



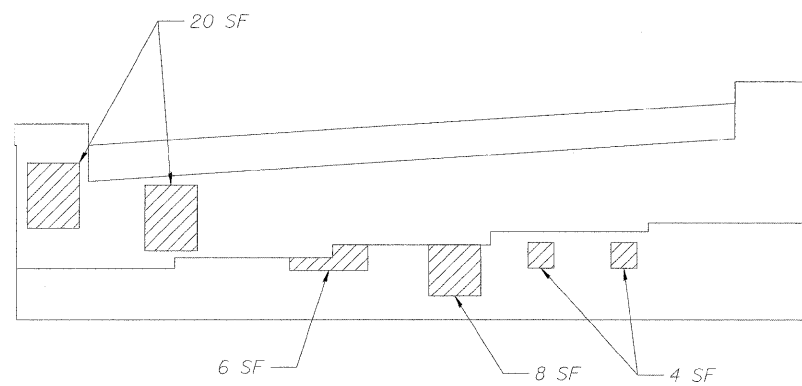
WEST ELEVATION - PIER 1
(Looking Ahead Station)



WEST ELEVATION - PIER 2
(Looking Ahead Station)



SOUTH END - PIER 2



EAST ABUTMENT ELEVATION
(Looking Ahead Station)

REACTION TABLE

Location	Dead Load Reactions (kips)
A- Span 2 Girder 1	62.4
B- Span 1 Girder 3	28.2
C- Span 1 Girder 4	28.2
D- Span 3 Girder 3	35.6
E- Span 2 Girder 4	40.0

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5 inches)	Sq. Ft.	401
Structural Repair of Concrete (Depth Greater Than 5 inches)	Sq. Ft.	99
Temporary Shoring and Cribbing	Each	5

LEGEND

SF = Square Feet



Structural Repair of Concrete (Depth Equal to or less than 5 in.)



Structural Repair of Concrete (Depth greater than 5 in.)

⊕ Temporary Shoring and Cribbing Required

NOTE

1. The Contractor shall take sufficient precautions to prevent damage to the Steel Wide Flange Beams.



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REVISED -

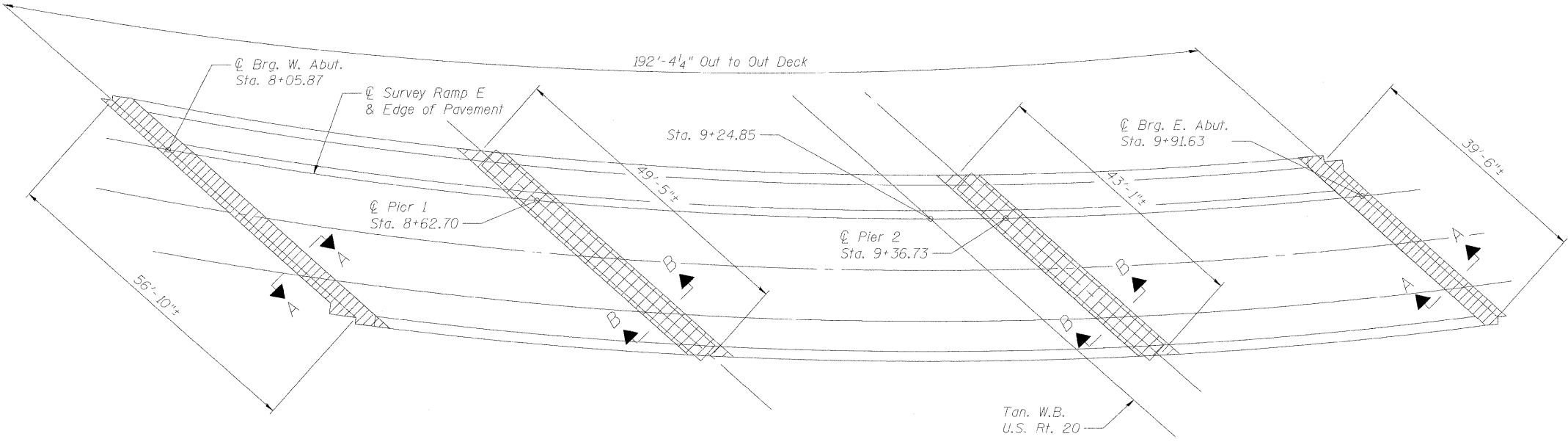
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS

SHEET NO. 3 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
426	BR-HR-1(82)	KANE	124	103
STA. TO STA.		CONTRACT NO. 60M46		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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PLAN

NOTES

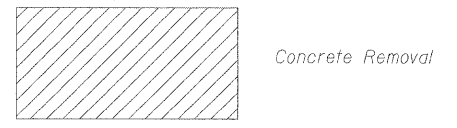
Removal of the existing expansion joints will not be paid for separately but shall be included in the cost for Concrete Removal.

Hatched areas indicate concrete sections to be removed. Care shall be exercised by the contractor during and following concrete removal to ensure the existing reinforcement remaining in place is not damaged. All existing reinforcing to be incorporated into new construction shall be blast-cleaned, straightened and properly positioned prior to concrete placement. Any reinforcement damaged during concrete removal shall be repaired or replaced using an approved Mechanical Bar Splicer System. Cost of removal shall be included with pay item for Concrete Removal. Cost of replacement shall be included with pay item for Concrete Superstructure.

Parapets shall be removed and replaced within the limits of hatched areas shown. All longitudinal parapet reinforcement shall remain in place.

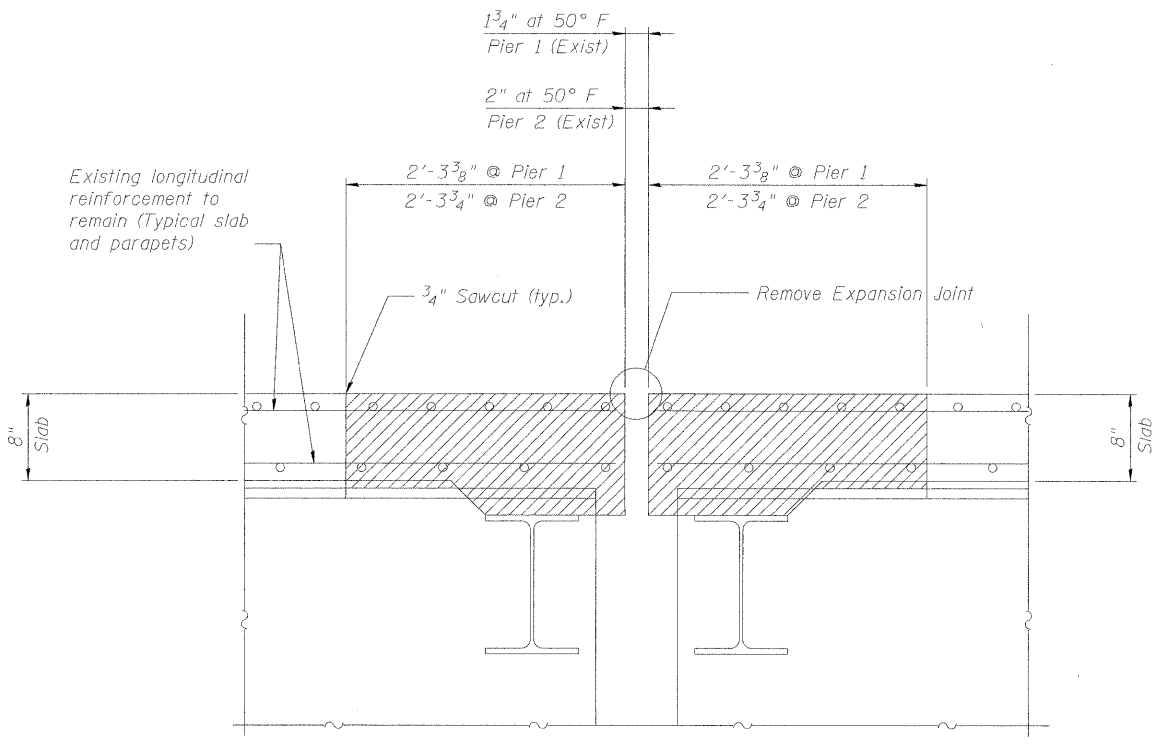
The Contractor shall use extreme care during concrete removal so as not to damage the Steel Wide Flange Beams.

LEGEND

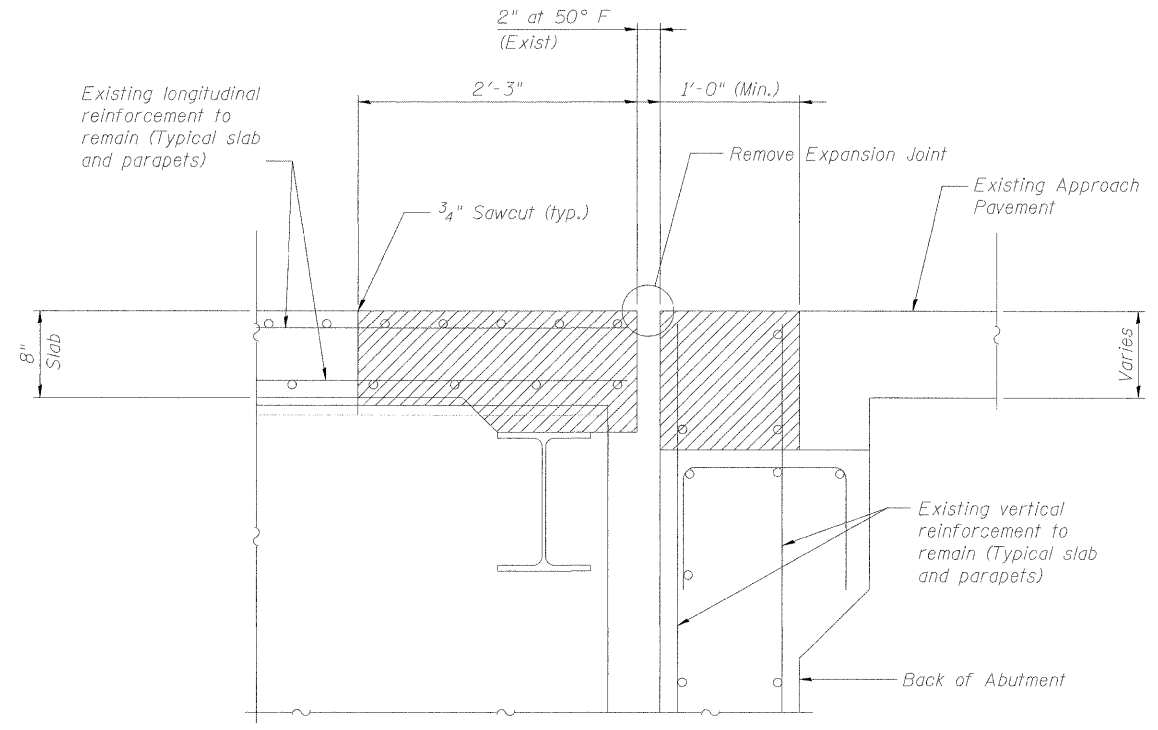


BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	32.0



SECTION B-B



SECTION A-A

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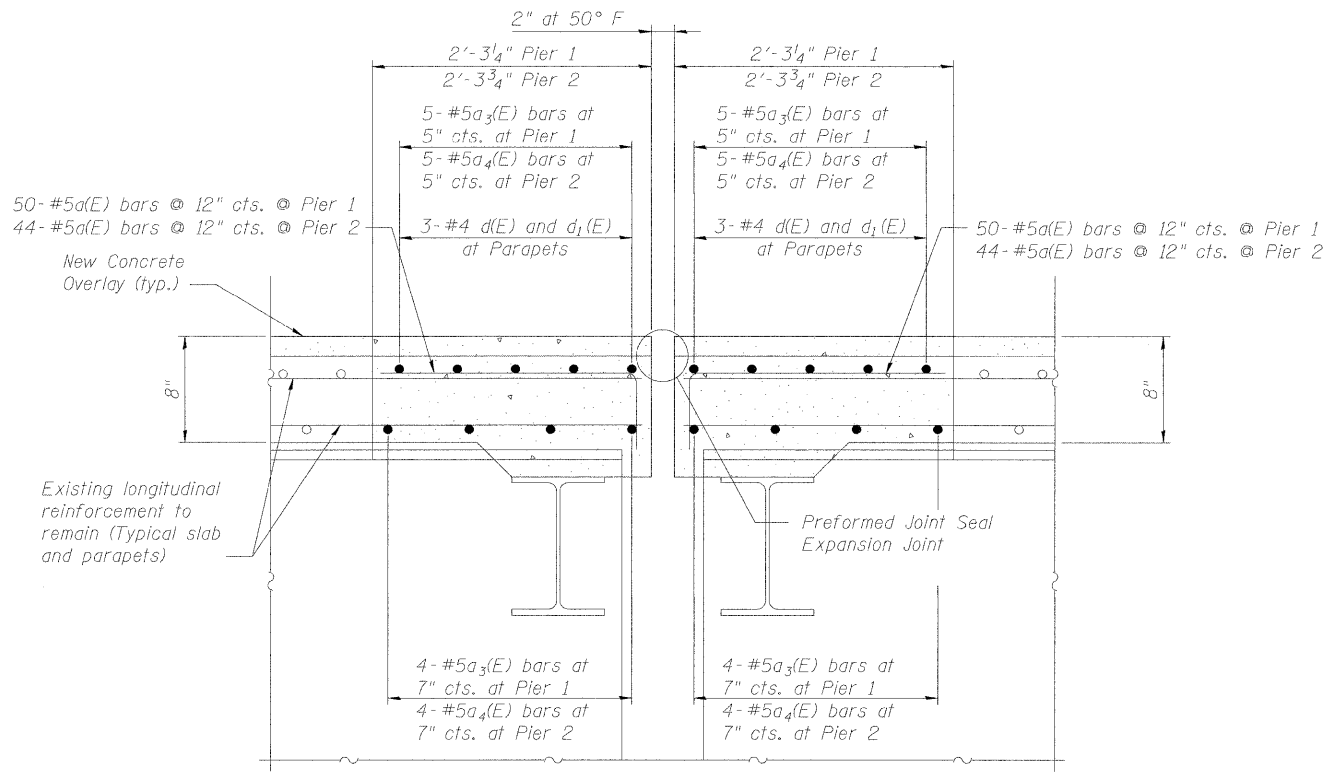
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DRAWN - JJE	REVISED -
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 DEPARTMENT OF TRANSPORTATION**

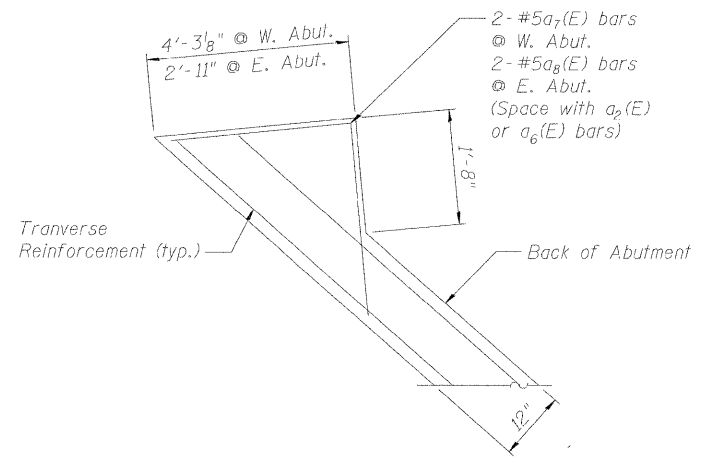
EXPANSION JOINT REMOVAL

SHEET NO. 4 OF 8 SHEETS

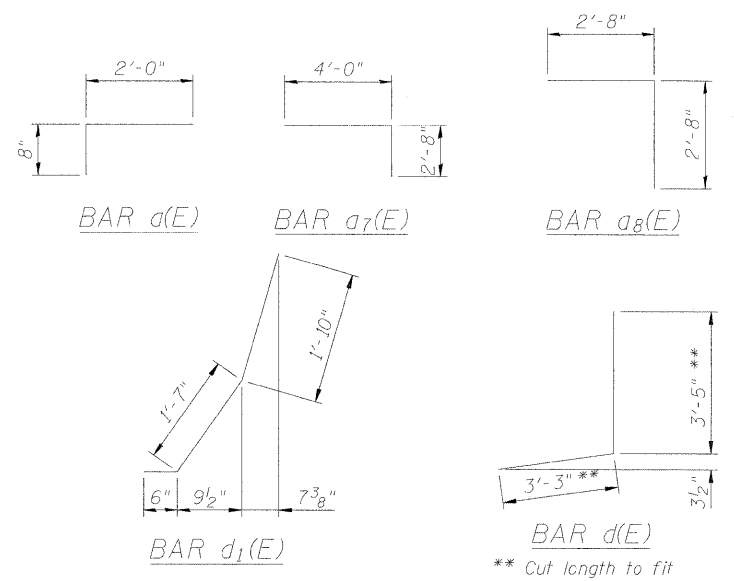
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
426	BR-HR-1182)	KANE	124	104
STA. TO STA.	CONTRACT NO.		60M46	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



TYPICAL SECTION AT PIER



PLAN OF ABUTMENT AT NORTHEAST AND SOUTHWEST WINGWALLS

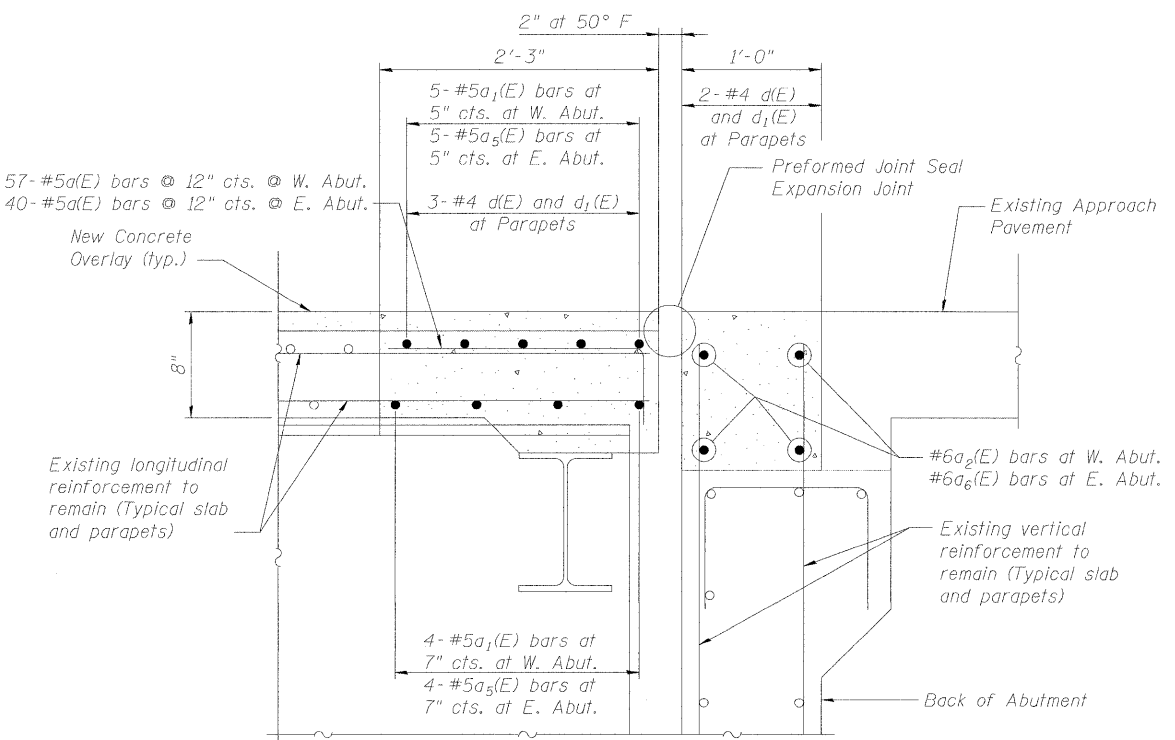


BILL OF MATERIAL

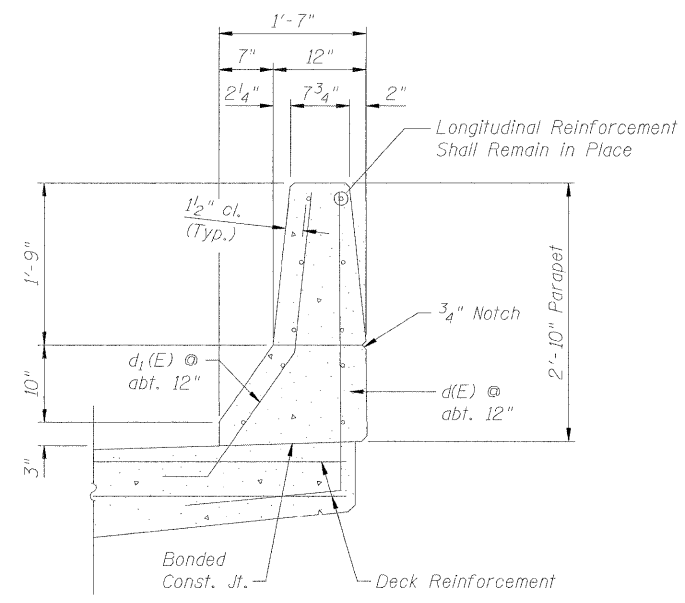
Bar	No.	Size	Length	Shape
a(E)	285	#5	2'-8"	┌
a1(E)	9	#5	56'-7"	—
a2(E)	4	#6	56'-7"	—
a3(E)	18	#5	49'-2"	—
a4(E)	18	#5	42'-10"	—
a5(E)	9	#5	39'-3"	—
a6(E)	4	#6	39'-3"	—
a7(E)	2	#5	6'-8"	┌
a8(E)	2	#5	5'-4"	┌
d(E)	44	#4	6'-8"	└
d1(E)	44	#4	3'-11"	└
Concrete Superstructure			Cu. Yd.	32.0
Reinforcement Bars, Epoxy Coated			Pound	4340

NOTES

- For details of Preformed Joint Seal Expansion Joints, see Sheet No. 6.
- Existing longitudinal parapet reinforcement shall remain in place.
- Placement of longitudinal reinforcement shall be parallel to roadway.
- Placement of traverse reinforcement shall be parallel to Abutment or @ Pier.



TYPICAL SECTION AT ABUTMENT



TYPICAL SECTION THRU PARAPET



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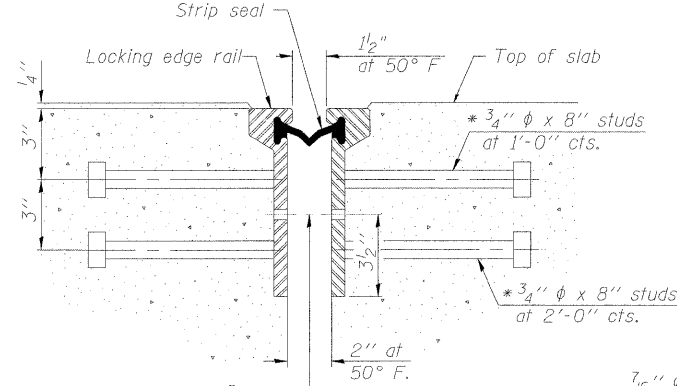
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT REPAIR

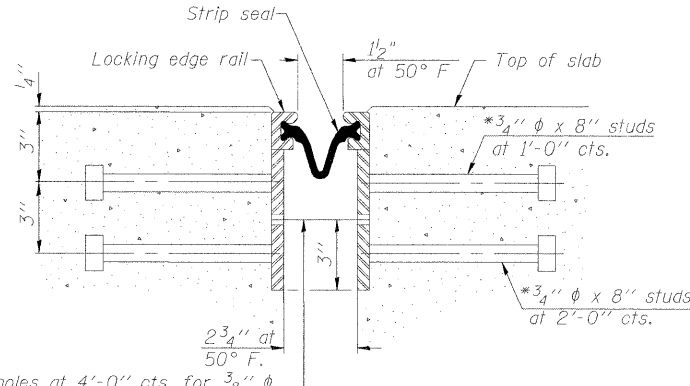
SHEET NO. 5 OF 8 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. TO STA.			CONTRACT NO. 60M46	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

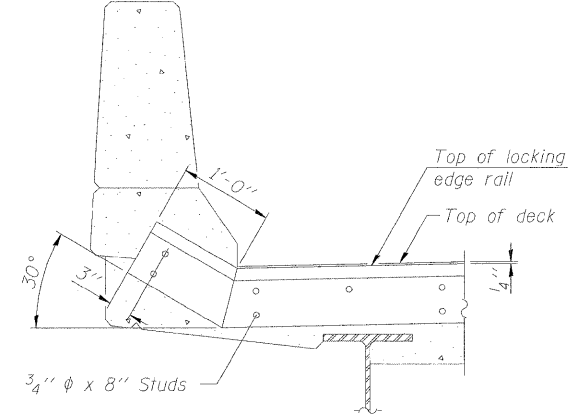
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT

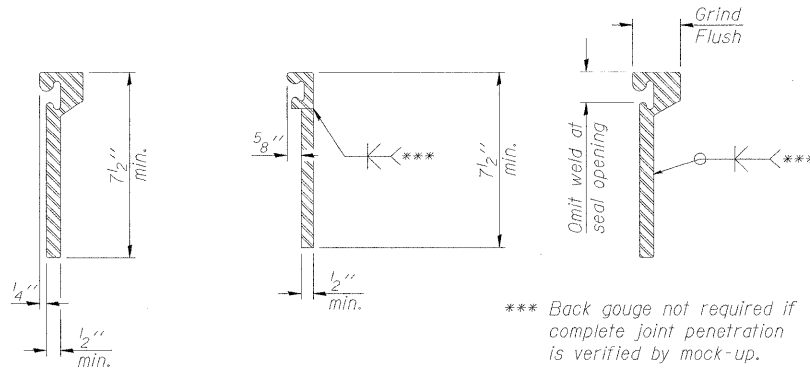


TYPICAL END TREATMENTS AT PARAPET

See Section A-A for end treatment at piers & abutments.

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

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

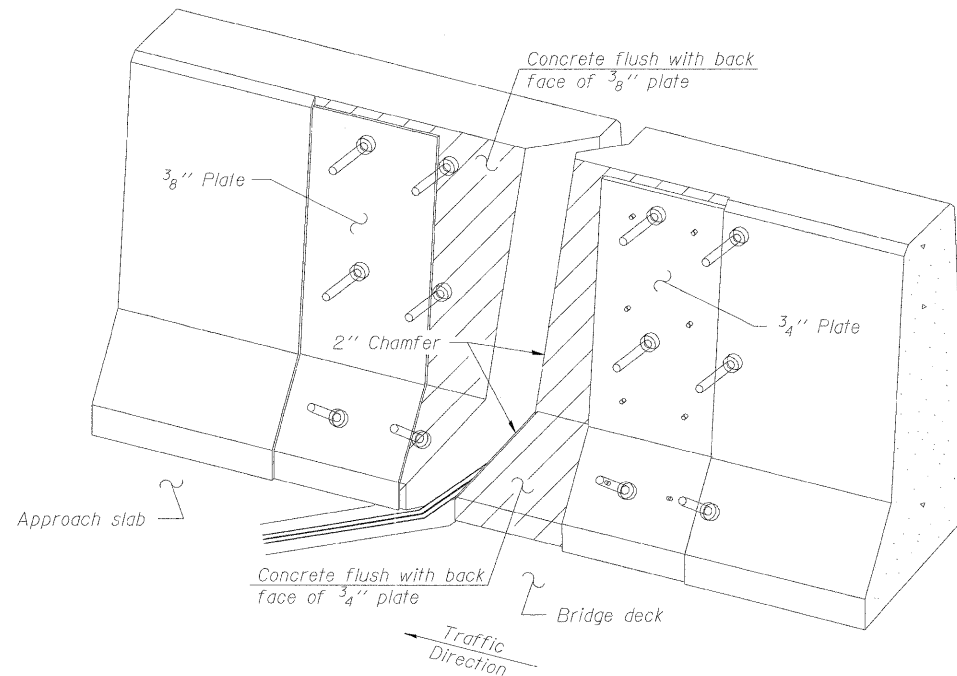


ROLLED EXTRUDED RAIL

WELDED RAIL

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.



TRIMETRIC VIEW (Showing back plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4 inch. 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 Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. 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.

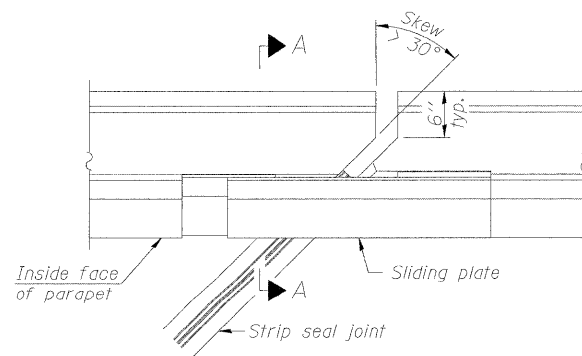
The manufacturer's recommended installation methods shall be followed.

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.

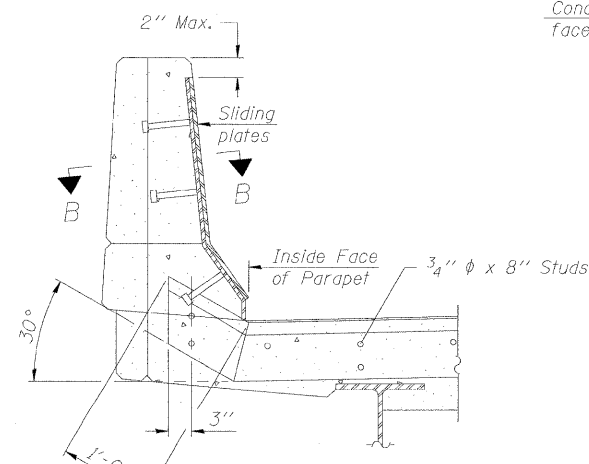
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16 inch, sealed with a suitable sealant.

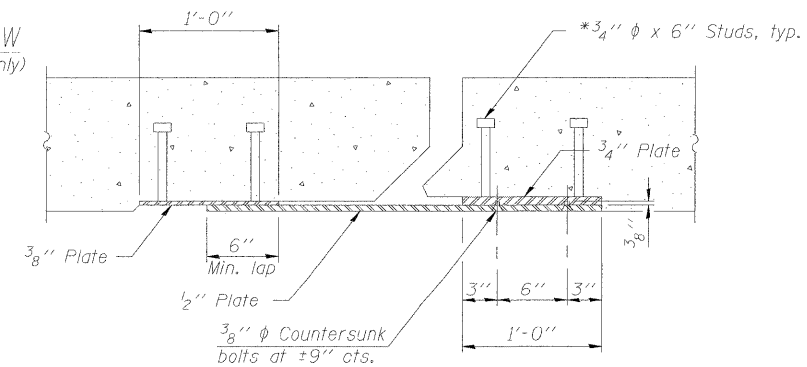
LOCKING EDGE RAILS



PLAN



SECTION A-A POINT BLOCK DETAILS



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	189



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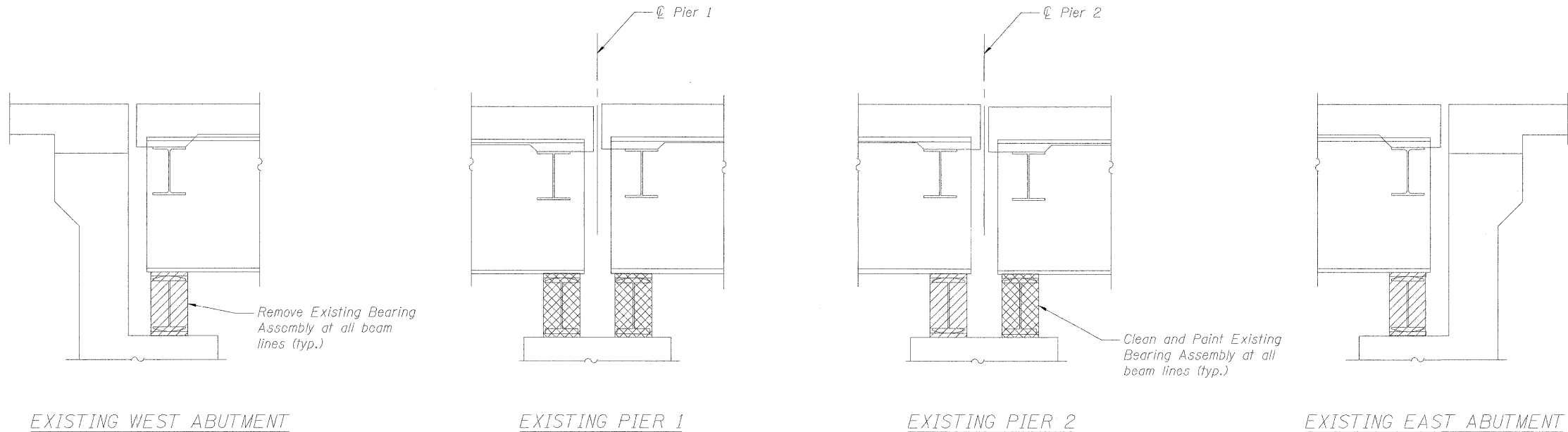
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL

SHEET NO. 6 OF 8 SHEETS

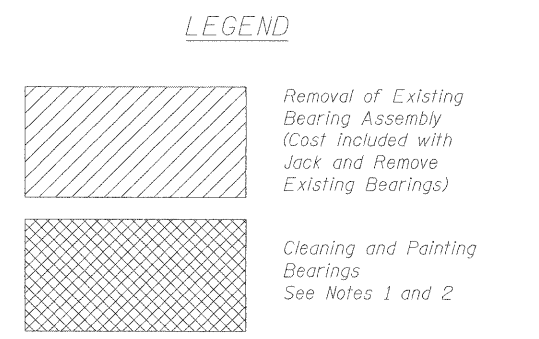
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426	BR-HR-1(82)	KANE	124	106
STA. TO STA.		CONTRACT NO. 60M46		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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BILL OF MATERIAL

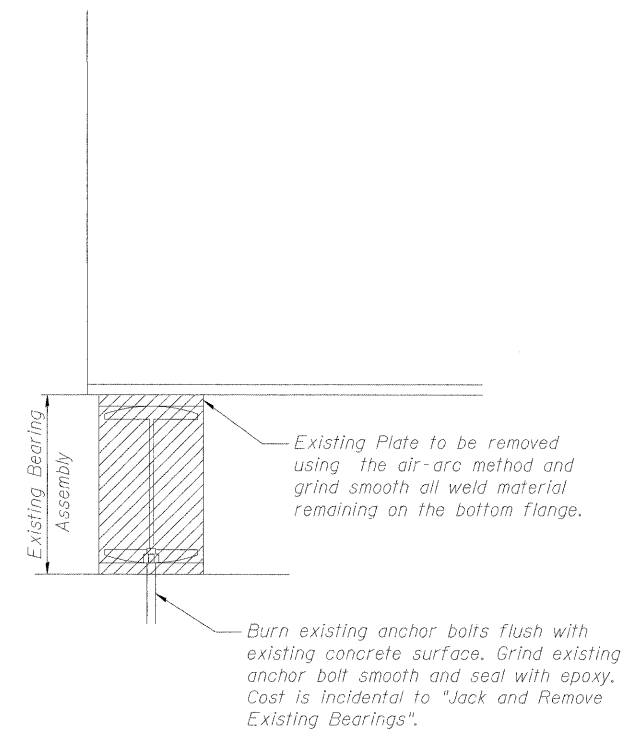
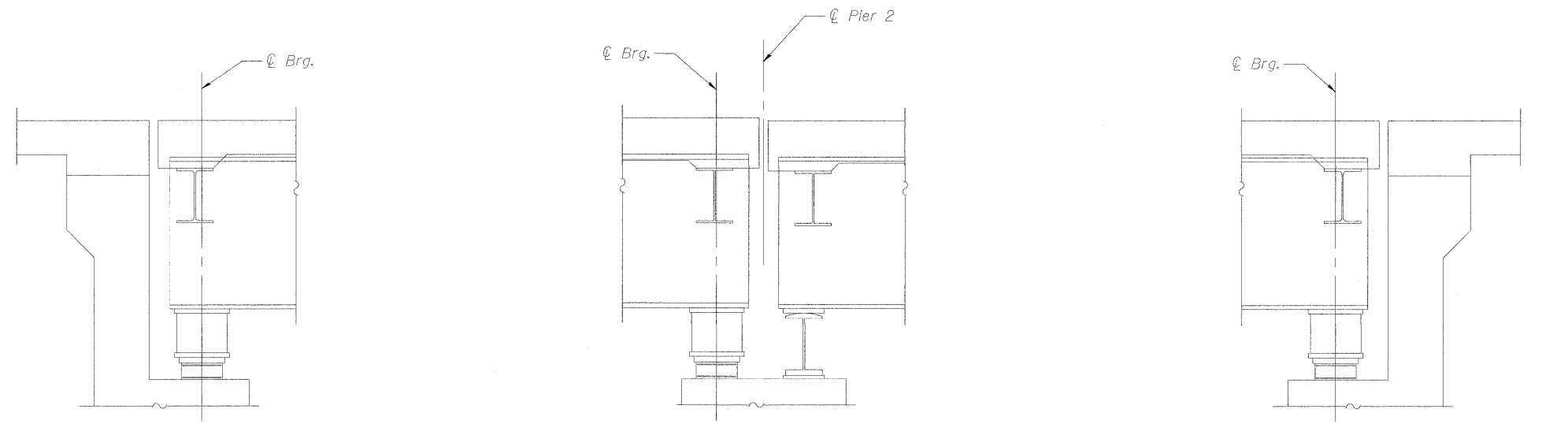
Item	Unit	Total
Cleaning and Painting Bearings	Each	15
Jack and Remove Exist. Bearings	Each	15



Notes:

- Cleaning shall be performed using vacuum power tools per SSPC-SP3 except as modified by the Special Provisions.
- Painting shall utilize System 1-GZ/E/U. Finish coat shall be Interstate Green, Munsell No. 7.5G 4/8.

EXISTING WEST ABUTMENT EXISTING PIER 1 EXISTING PIER 2 EXISTING EAST ABUTMENT
 EXISTING BEARINGS



WEST ABUTMENT PIER 2 EAST ABUTMENT EXISTING BEARING REMOVAL DETAIL
 NEW BEARING REPLACEMENT

For details of elastomeric bearings and fabricated steel extension, see Sheet No. 8.

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 DESIGN FIRM REG. 184.002117

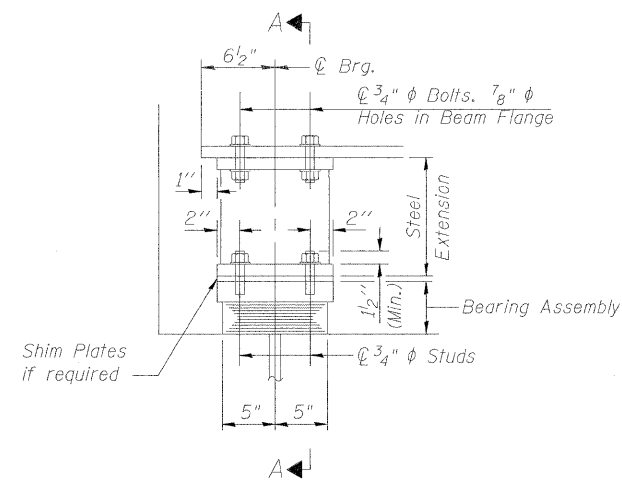
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

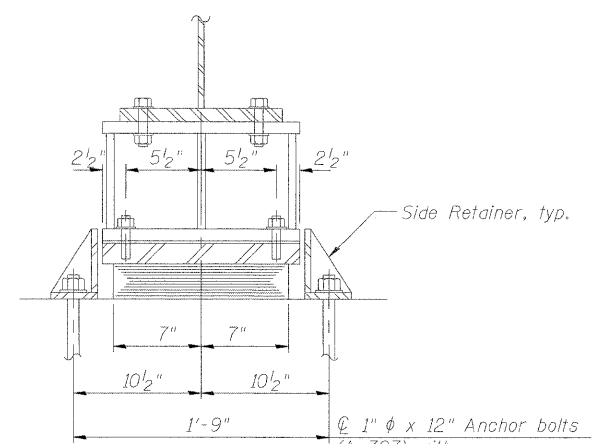
BEARING DETAILS

SHEET NO. 7 OF 8 SHEETS

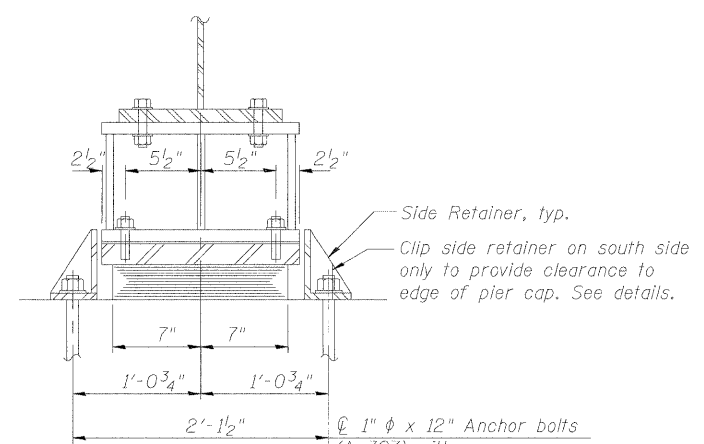
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
426	8R-HR-1(82)	KANE	124	107
STA. TO STA.		CONTRACT NO. 60M46		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



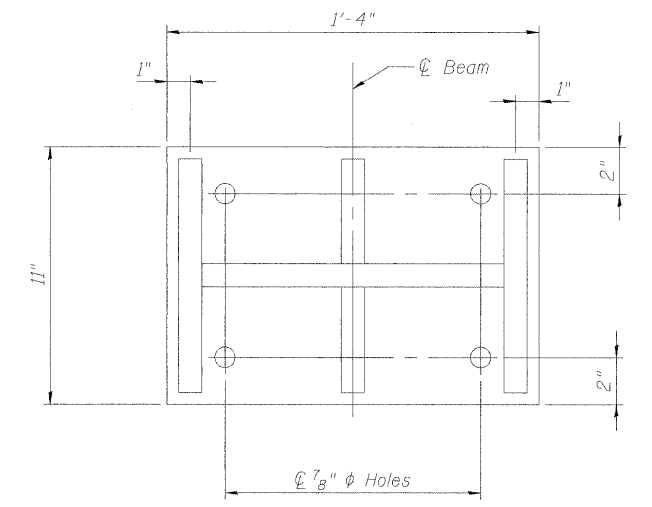
ELEVATION AT ABUT. OR PIER 2



SECTION A-A AT ABUTMENTS

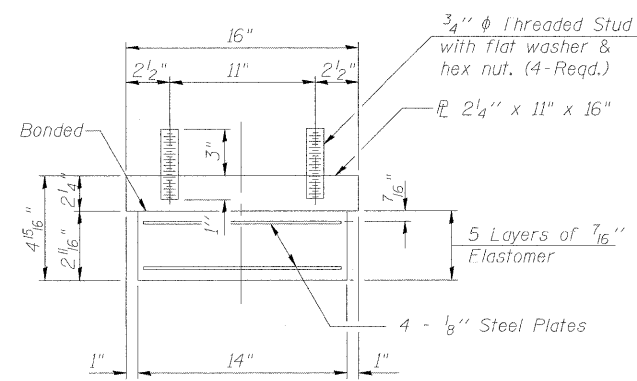


SECTION A-A AT PIER 2



PLAN STEEL EXTENSION

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.

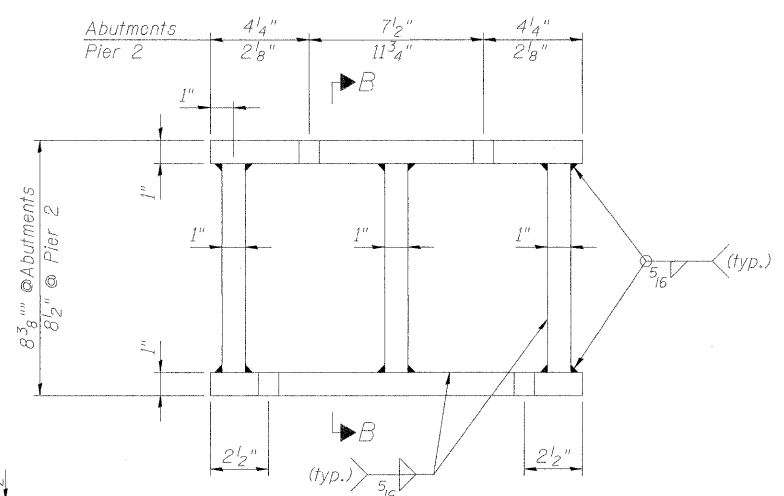
NOTES

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

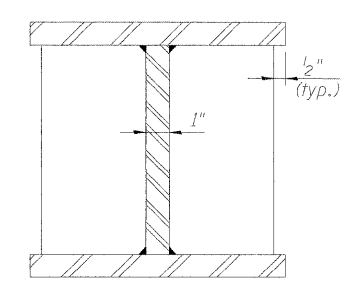
REACTION TABLE (KIPS)

Type	W. Abut.	Pier 2	E. Abut.
R DL	29.6	36.5	25.7
R LL	60.2	62.7	59.7
R Total	89.8	99.2	85.4

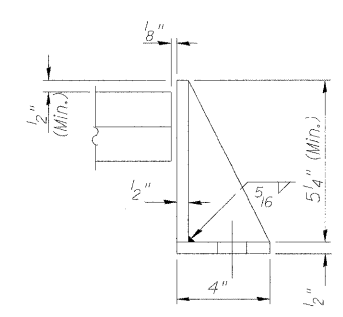
Note: Reactions at Pier 2 are end reactions for replacement bearings on Span 2 side only.



ELEVATION STEEL EXTENSION

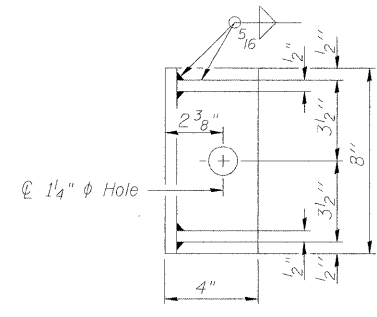


SECTION B-B



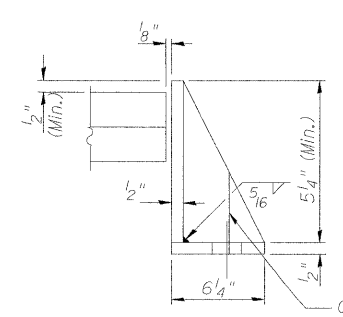
SIDE RETAINER AT ABUTMENTS

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

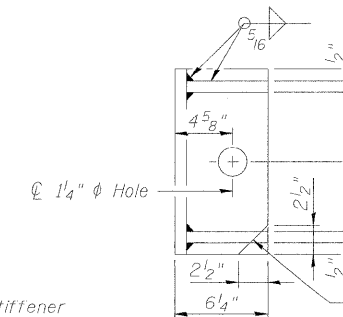


SIDE RETAINER AT PIER 2

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



Clip stiffener where required



Clip side retainer where shown

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	15
Anchor Bolts, 1"	Each	30
Furnishing and Erecting Structural Steel	Pound	2700



9901 S. Western Ave.
Chicago, IL 60643
Ph. 773-881-4788
F: 773.239.3728

DESIGNED - TBS
CHECKED - RJL
DRAWN - JJE
CHECKED - TBS

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING & FABRICATED STEEL EXTENSION DETAILS

SHEET NO. 8 OF 8 SHEETS




F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
426	BR-HR-1(82)	KANE	124	108
STA. TO STA.	CONTRACT NO. 60M46			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

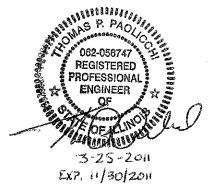
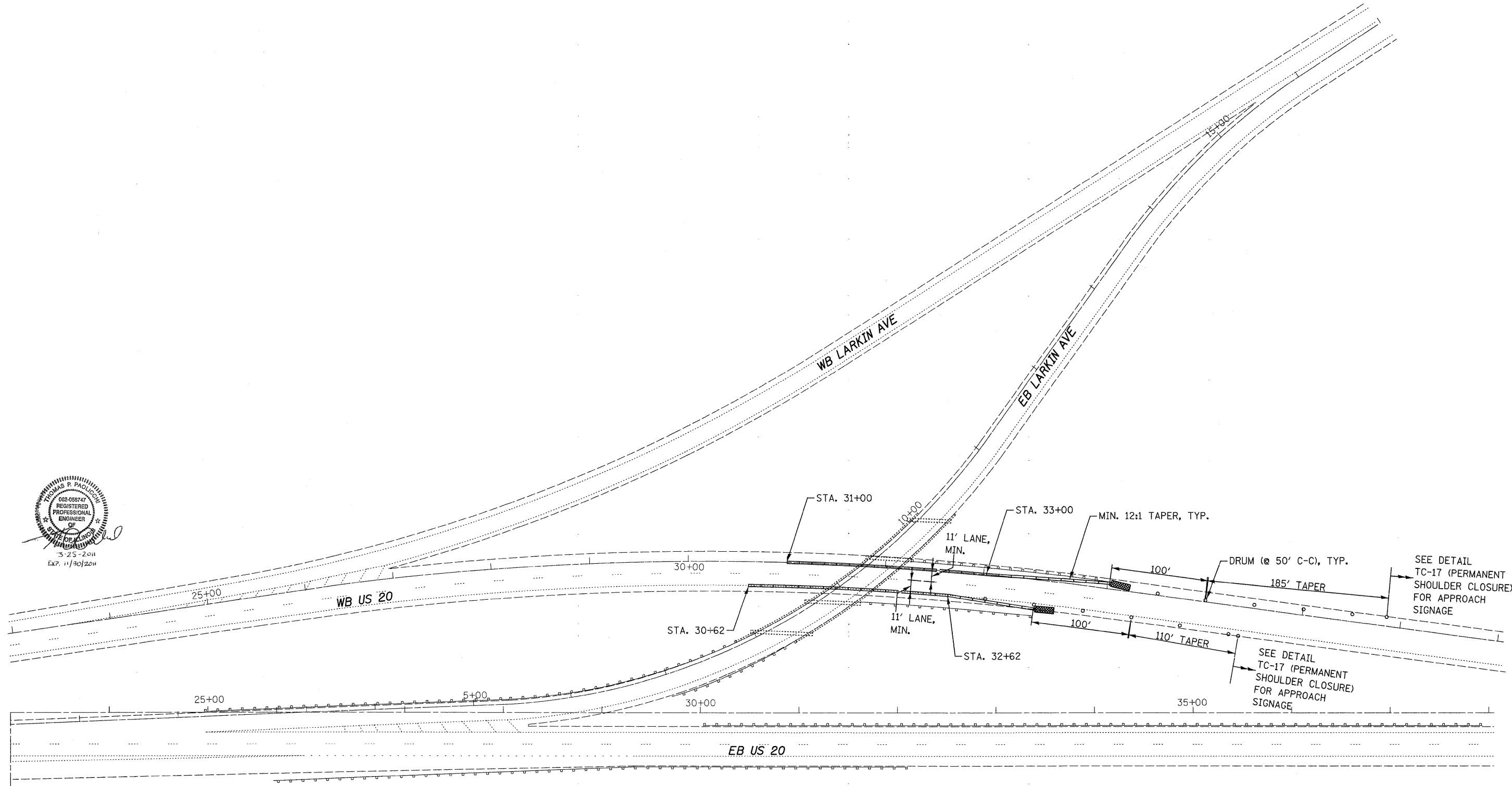
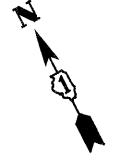
3/24/2011 2:15:11 PM J:\2009\246 IDOT PTB 153 Item 21\Cadd\Design\045-0008\Files from Chicago\Files sent 03-24-11\045-0008 MOT.dgn

NOTES:

1. USE IDOT STANDARDS 701400-06 AND 701401-06 TO PROVIDE LANE CLOSURES FOR INSTALLATION AND REMOVAL OF PROTECTIVE SHIELD UNDERNEATH BRIDGE.
2. ERECT TEMPORARY CONSTRUCTION SIGNS FOR PERMANENT SHOULDER CLOSURES.
3. INSTALL TEMPORARY MOT FOR PERMANENT SHOULDER CLOSURES FOR REMOVAL & REPLACEMENT OF EXISTING BEARINGS. REFER TO DETAIL TC-17 FOR MORE INFORMATION.
4. REFER TO BRIDGE DETOUR PLAN FOR MORE INFORMATION.

LEGEND

-  IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
-  DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT @ SPACING SHOWN
-  TEMPORARY CONCRETE BARRIER



9901 S. Western Ave.
 Chicago, IL 60643
 Ph. 773-881-4788
 F: 773-239-3728

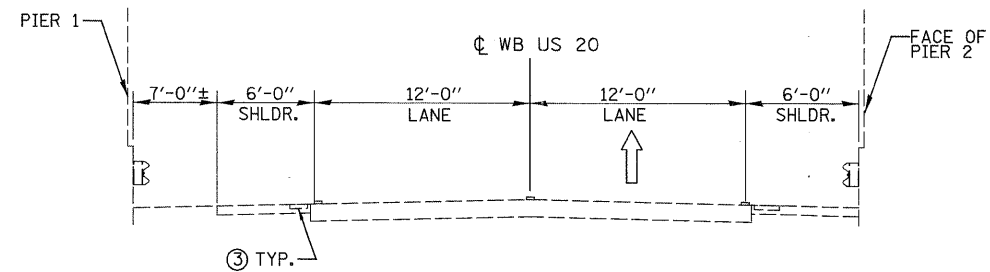
DESIGNED	TPP	REVISED	-
CHECKED	RJL	REVISED	-
DRAWN	JS	REVISED	-
CHECKED	TPP	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

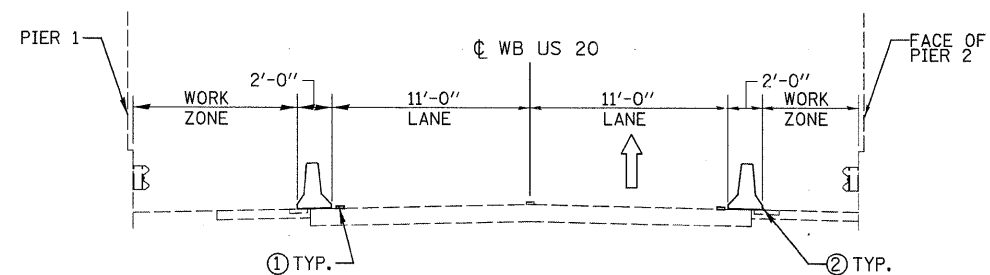
EB LARKIN AVE RAMP OVER WB US 20
SN. 045-0008
 SCALE: 1" = 50' SHEET NO. OF SHEETS

SUGGESTED MAINTENANCE
OF TRAFFIC
 STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2423	BR-HR-1(82)	KANE	124	109
CONTRACT NO. 60M46			ILLINOIS FED. AID PROJECT	



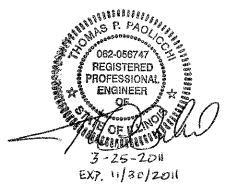
EXISTING TYPICAL SECTION
(LOOKING WESTBOUND AT BRIDGE)



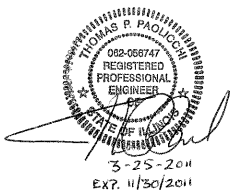
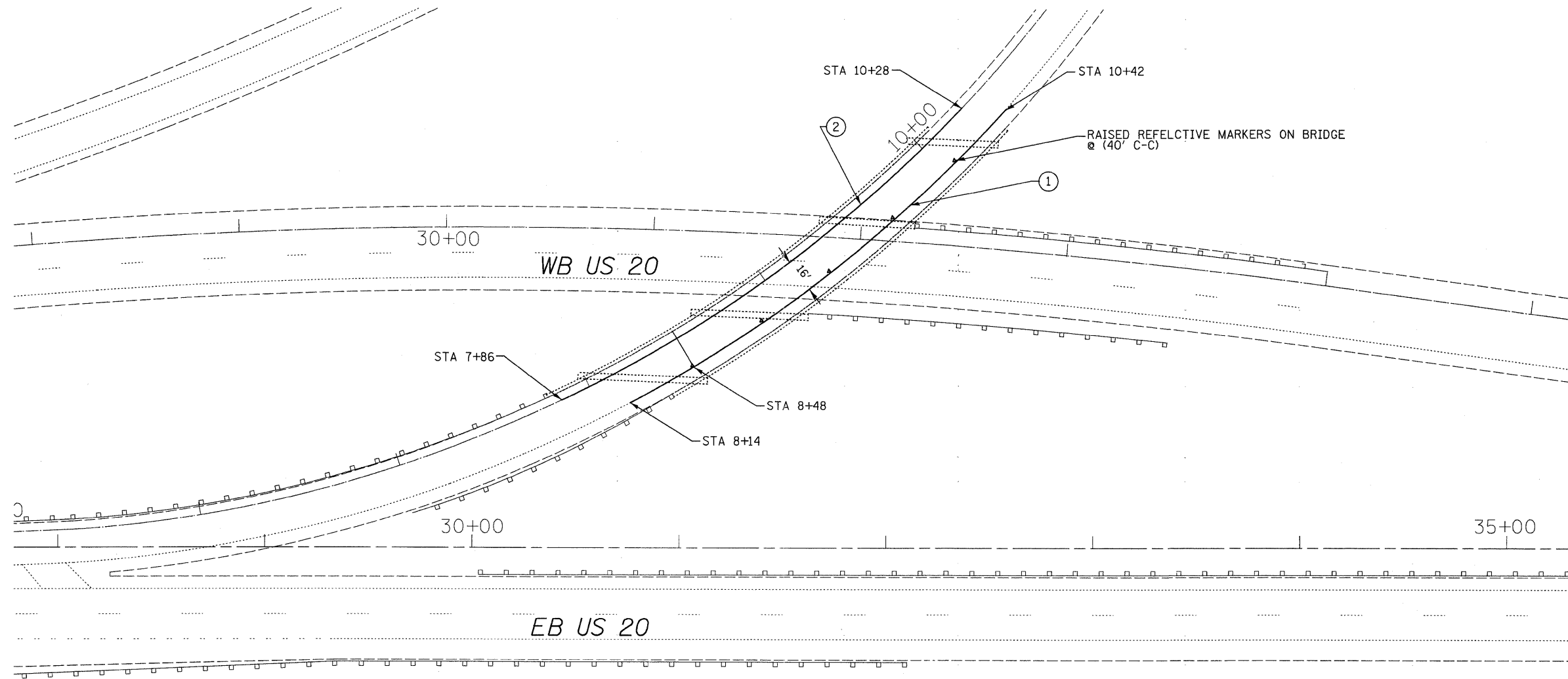
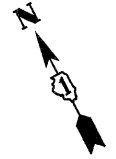
PROPOSED TYPICAL SECTION
(LOOKING WESTBOUND AT BRIDGE)

LEGEND:

- ① TEMPORARY PAVEMENT MARKING - LINE 6"
- ② TEMPORARY CONCRETE BARRIER
- ③ EXISTING RUMBLE STRIP



ABNA DESIGN FIRM REG. 184.002117	9901 S. Western Ave. Chicago, IL 60643 Ph. 773-881-4788 F: 773-239-3728	DESIGNED TPP CHECKED RJL DRAWN TPP CHECKED TPP	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EB LARKIN AVE RAMP OVER WB US 20 SN. 045-0008	MAINTENANCE OF TRAFFIC STAGING SECTIONS	F.A.J. RTE. 2423	SECTION 8R-HR-1(82)	COUNTY KANE	TOTAL SHEETS 124	SHEET NO. 110	CONTRACT NO. 60M46
	SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT									



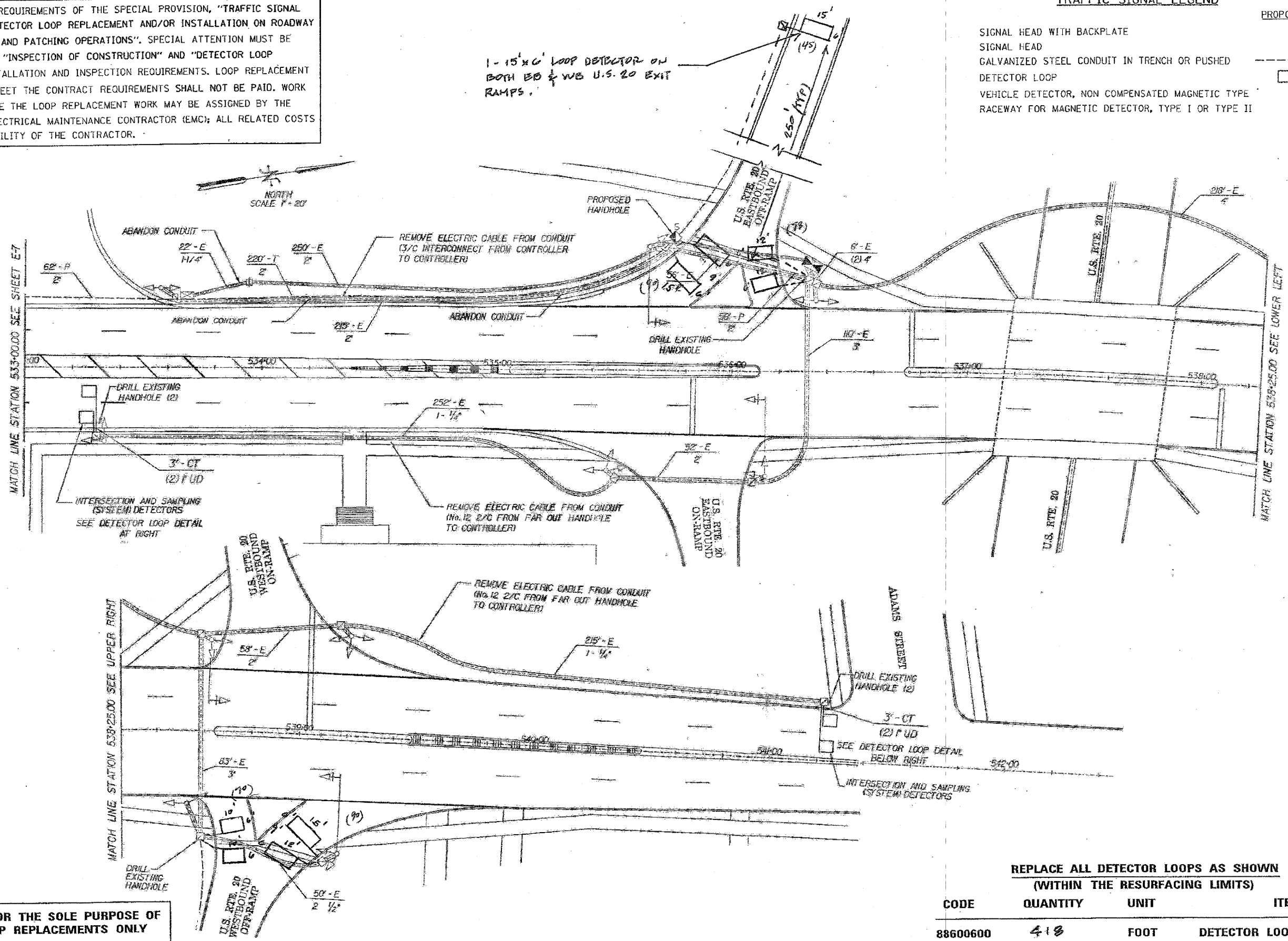
- LEGEND**
- ① POLYUREA PAVEMENT MARKING
TYPE 1 - LINE 4" (WHITE)
 - ② POLYUREA PAVEMENT MARKING
TYPE 1 - LINE 4" (YELLOW)

<p>ABNA DESIGN FIRM REG. 184.002117</p>	9901 S. Western Ave. Chicago, IL 60643 Ph. 773-881-4788 F: 773-239-3728	DESIGNED TPP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EB LARKIN AVE RAMP OVER WB US 20	PROPOSED PAVEMENT MARKINGS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED RJL	REVISED -		2423		8R-HR-1(82)	KANE	124	111	
DRAWN TPP	REVISED -	SCALE: 1" = 30'			SHEET NO. OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			
CHECKED TPP	REVISED -							CONTRACT NO. 60M46			

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

TRAFFIC SIGNAL LEGEND

SIGNAL HEAD WITH BACKPLATE	PROPOSED	EXISTING
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



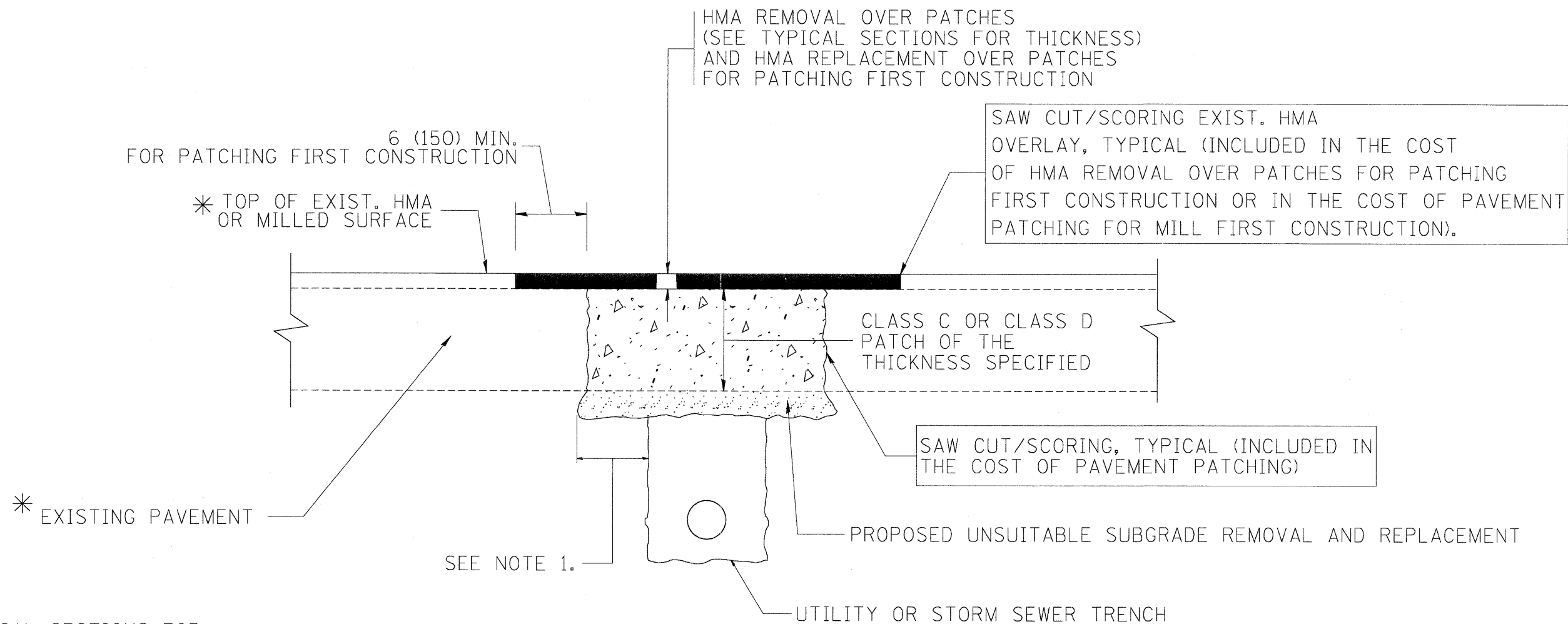
1 - 15' x 6' LOOP DETECTOR ON BOTH EB & WB U.S. 20 EXIT RAMP.

THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
88600600	418	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = nguyenm	DESIGNED =	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE - DETECTOR, LOOP REPLACEMENT DU. ROUTE 31 @ EB & WB U.S. RTE. 20	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\p\work\p\dot\nguyenm\00112618\1.dgn		DRAWN =	REVISED =					KANE	124	112
		CHECKED =	REVISED =			SCALE:	SHEET NO. OF SHEETS	CONTRACT NO.		
		DATE =	REVISED =			STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED - R. BORO 01-01-07			345	BR-1-RS-4	KANE/COOK	124	113	
		PLOT SCALE = 50.000' / IN.	REVISED - R. BORO 09-04-07			BD400-04 (BD-22)		CONTRACT NO. 60M46			
		PLOT DATE = 10/27/2008	REVISED - K. ENG 10-27-08			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

18" (450) MAX.

1/4" (5) **

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.
SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY,

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

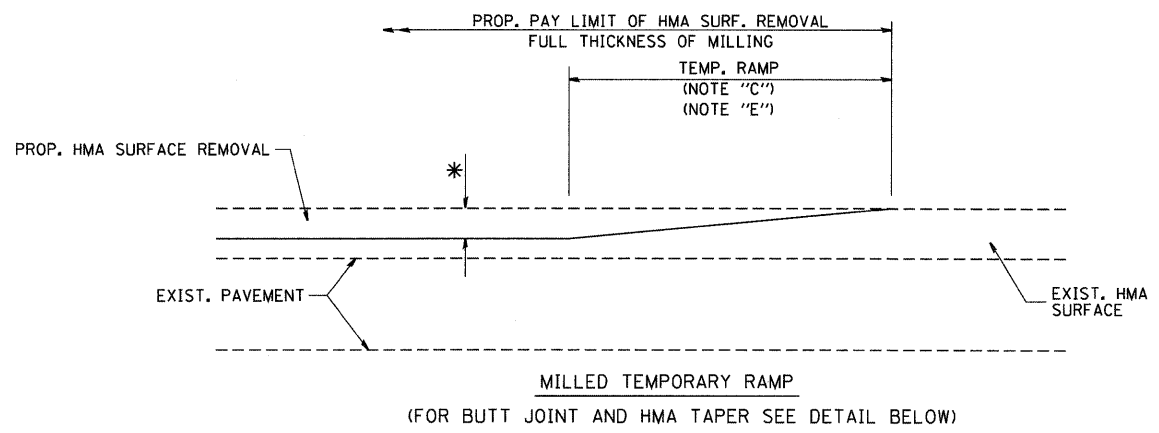
PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

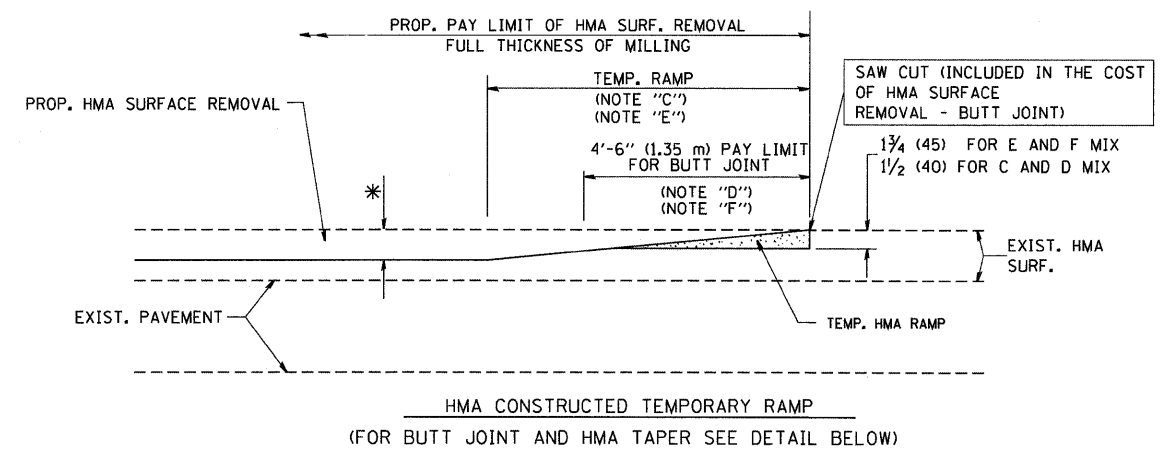
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

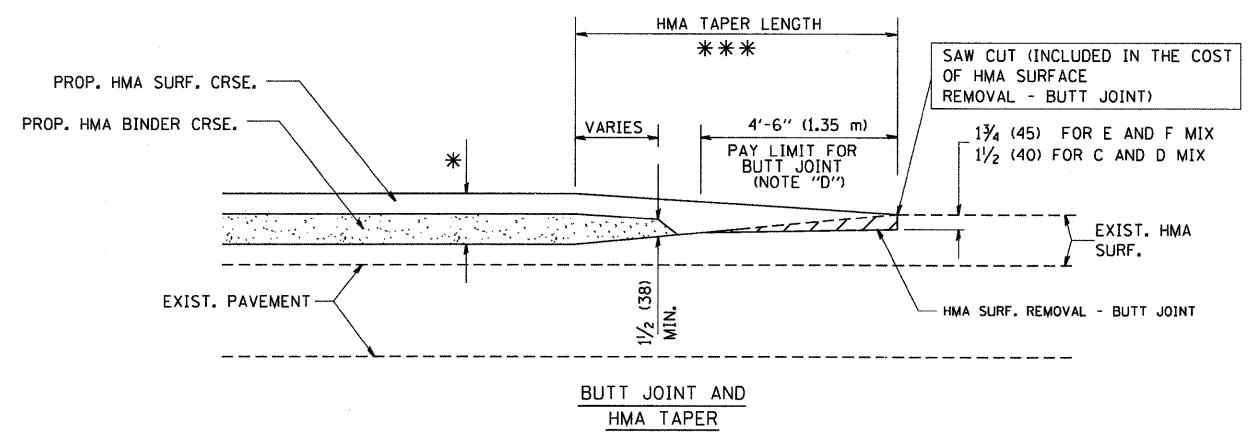
FILE NAME =	USER NAME = drivakosgn	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	F.A.P. RTE. 345	SECTION 8R-1-RS-4	COUNTY KANE/COOK	TOTAL SHEETS 124	SHEET NO. 114		
ct:\pw_work\p\sdot\drivakosgn\0109315\bc24.dgn	DRAWN -	REVISOR - A. ABBAS 03-21-97	REVISOR - M. GOMEZ 01-22-01			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	BD600-06 (BD-24) CONTRACT NO. 60M46			
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISOR - R. BORO 12-15-09									
	PLOT DATE = 12/15/2009	DATE - 03-11-94										



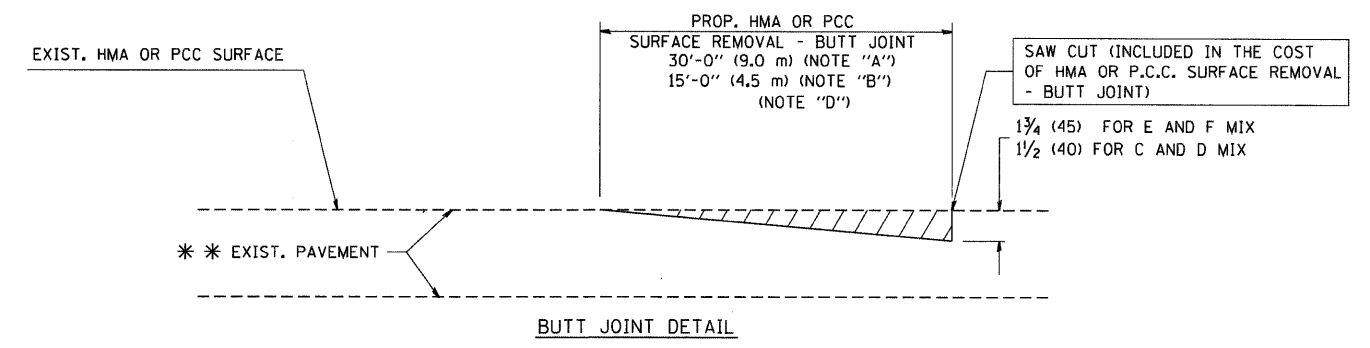
OPTION 1



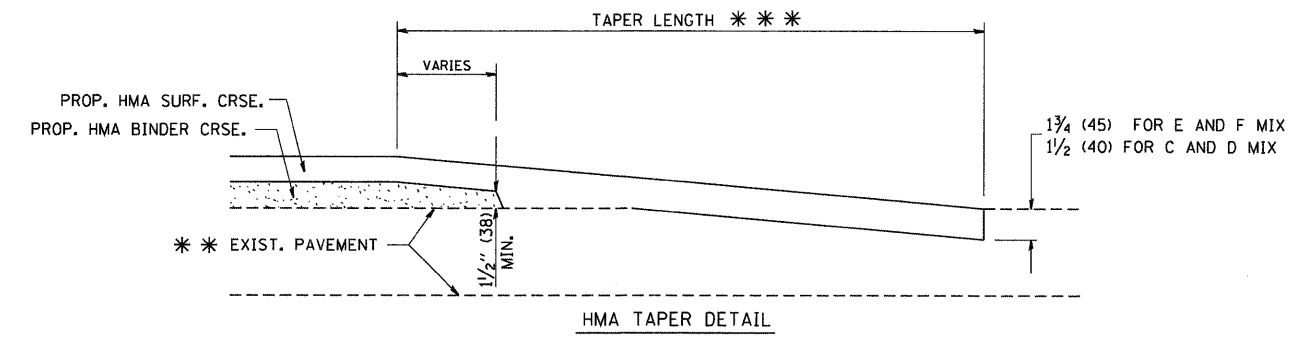
OPTION 2
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

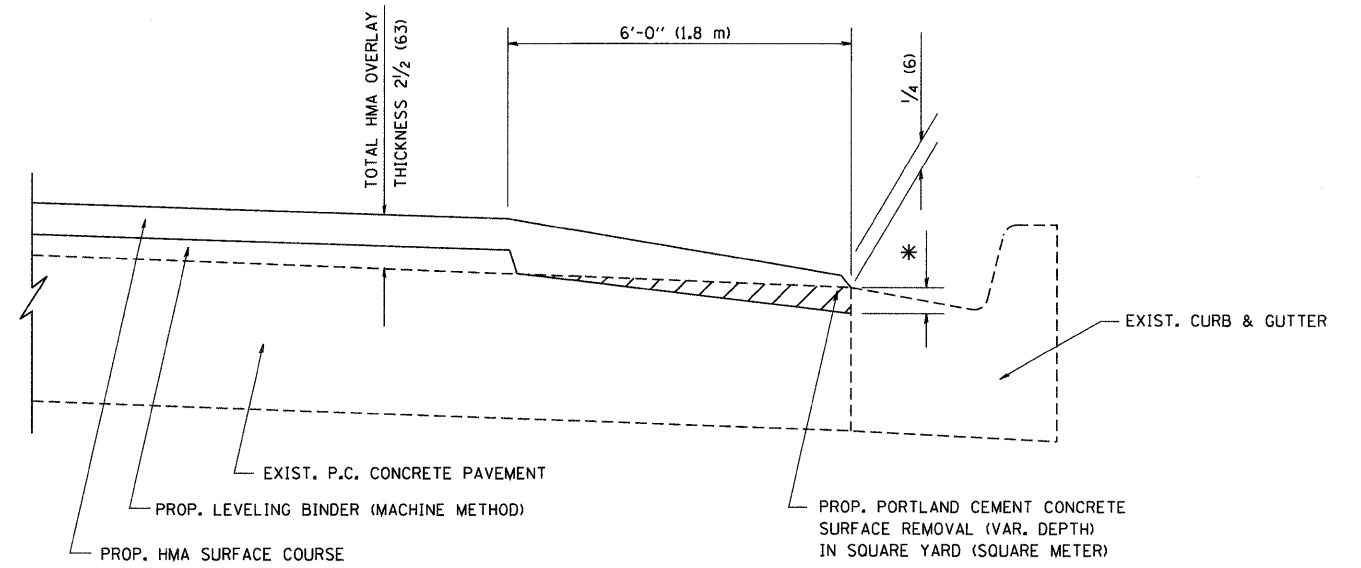
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- ** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglionobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISOR - A. ABBAS 03-21-97	345					8R-1-RS-4	KANE/COOK	124	115	
	PLDT SCALE = 50.0000 "/>											

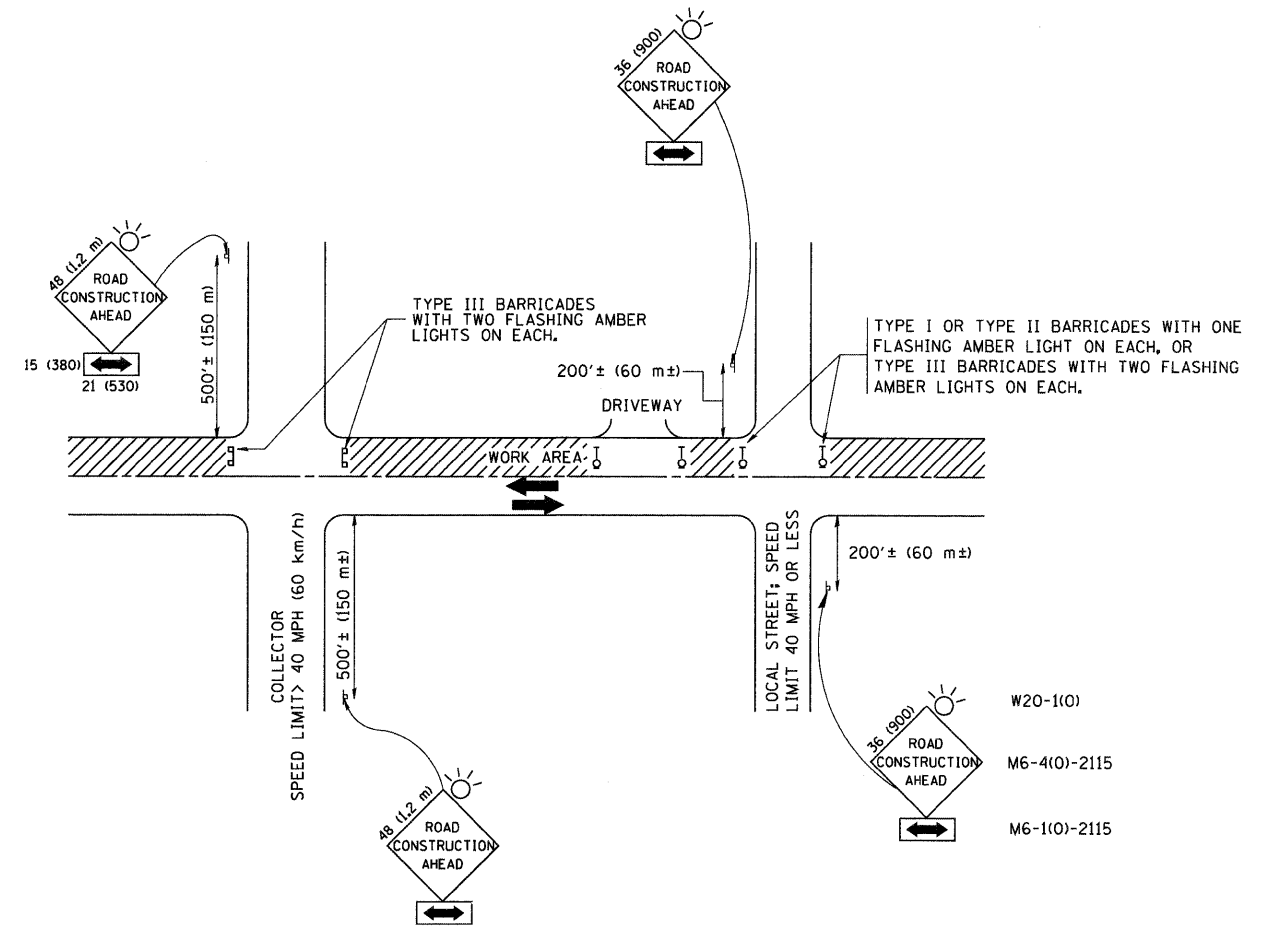


HMA TAPER AT
EDGE OF P.C.C PAVEMENT

HMA SURFACE	THICKNESS	LEVELING BINDER THICKNESS	* MILLING AT GUTTER FLAG
C OR D	1 1/2 (38)	1 (25)	1/4 (33)
F	1 3/4 (44)	3/4 (19)	1/2 (38)

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

FILE NAME = W:\diststd\22x34\bd33.dgn	USER NAME = goglionobt	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HMA TAPER AT EDGE OF P.C.C PAVEMENT			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - JIS	REVISED - A. ABBAS 05-05-99		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	8R-1-RS-4	KANE/COOK	124	116
		CHECKED - A. ABBAS	REVISED - E. GOMEZ 12-21-00						BD400-06 (BD33)	CONTRACT NO.		
		DATE - 09-10-94	REVISED - R. BORO 01-01-07						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



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

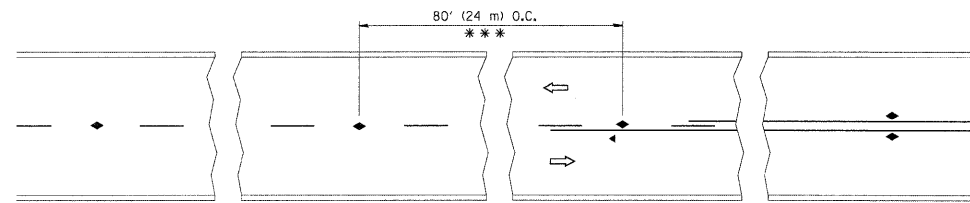
NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 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.

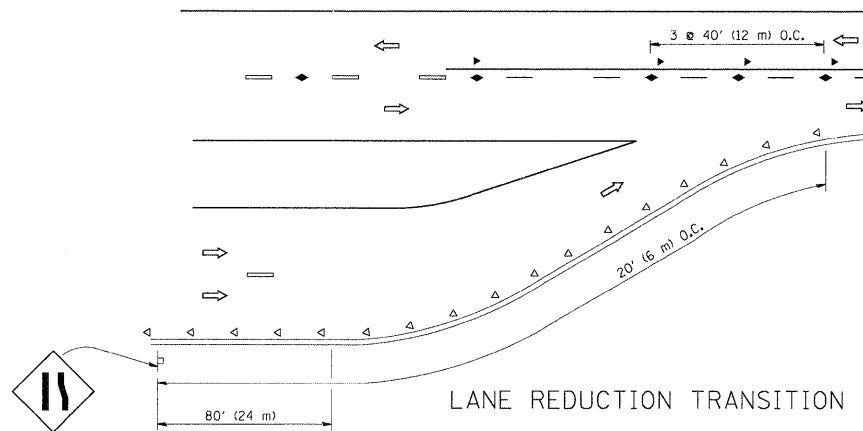
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = M:\diststd\22x34\tc10.dgn	USER NAME = gaglienobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			F.A.R. RTE. 345	SECTION 8R-1-RS-4	COUNTY KANE/COOK	TOTAL SHEETS 124	SHEET NO. 118	
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. HOUSEH 03-06-96		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.			TC-10 CONTRACT NO. 60M46					
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00										
	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT												

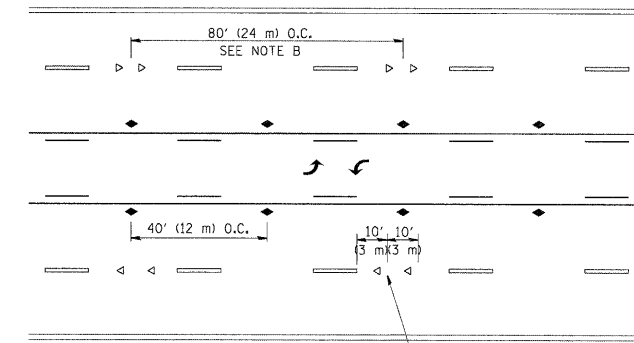


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

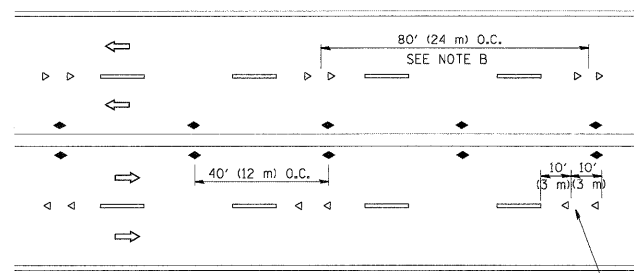
TWO-LANE/TWO-WAY



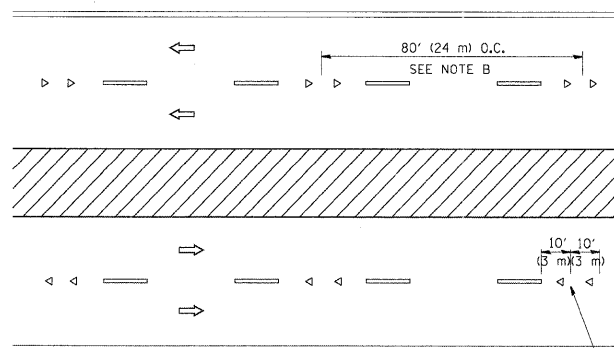
LANE REDUCTION TRANSITION



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

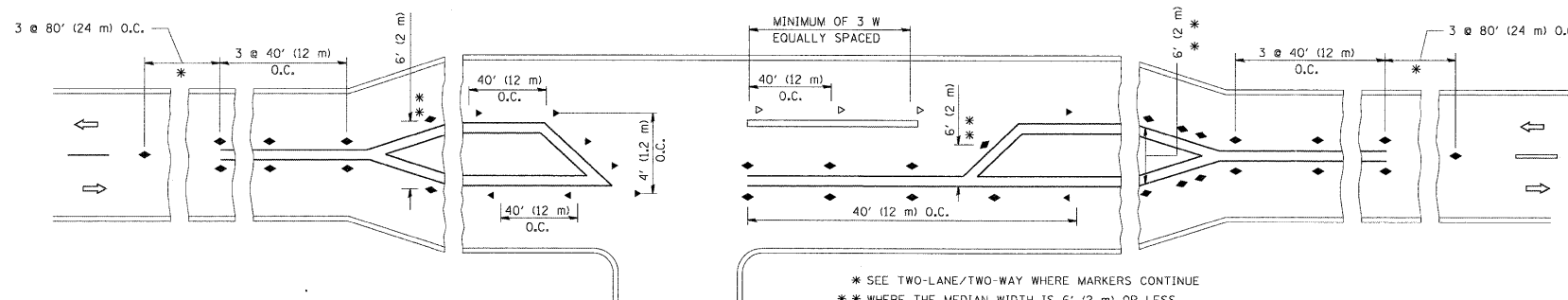
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

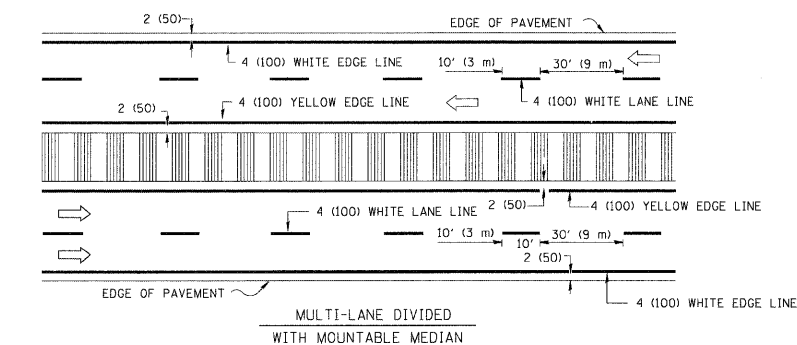
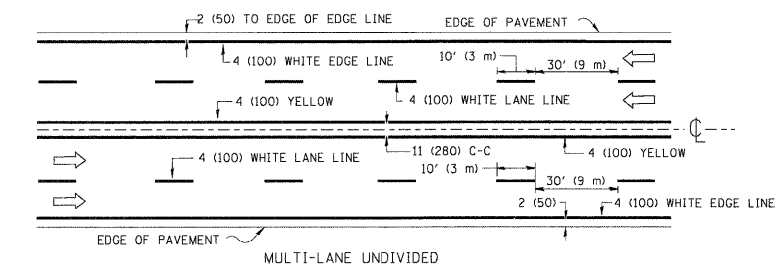
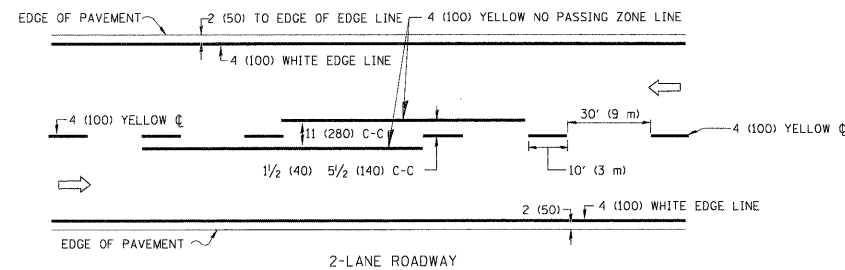
All dimensions are in Inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
ct:\pw_work\pwidot\drivakosgn\0108315\td\l.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99
PLOT SCALE = 50,000' / IN.		CHECKED -	REVISED - T. RAMMACHER 01-06-00
PLOT DATE = 9/9/2009		DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

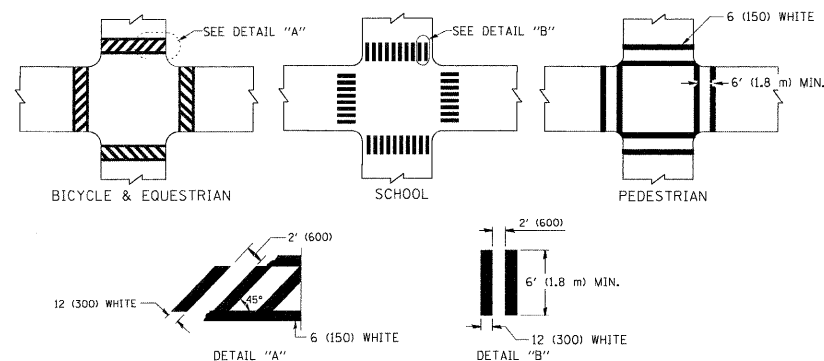
TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8R-1-RS-4	KANE/COOK	124	119
TC-11			CONTRACT NO. 60M46	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

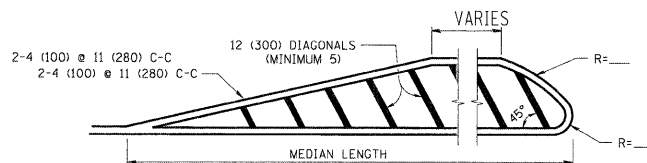
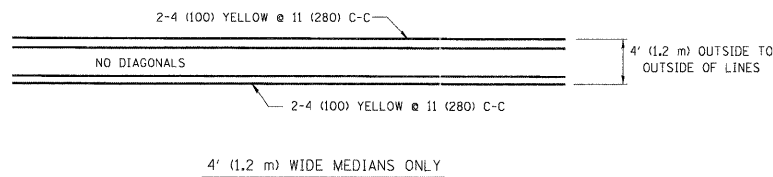


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

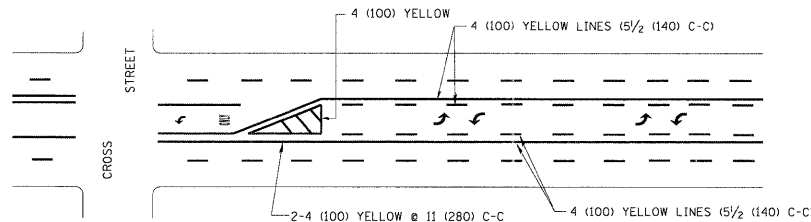


TYPICAL CROSSWALK MARKING

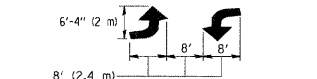


FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

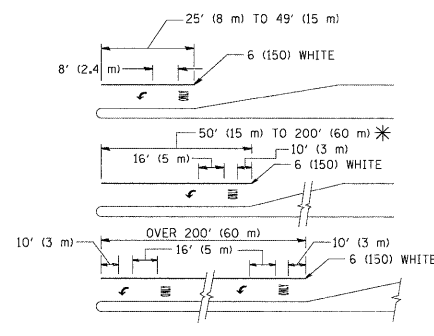


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

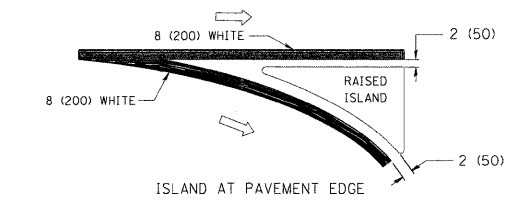
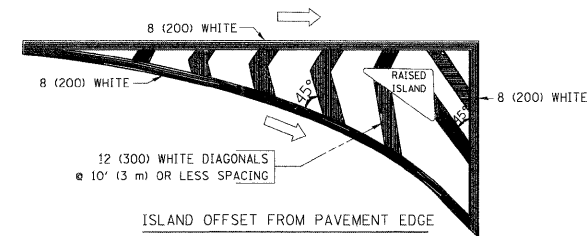


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* 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

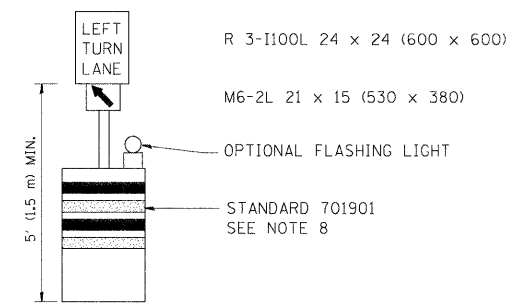
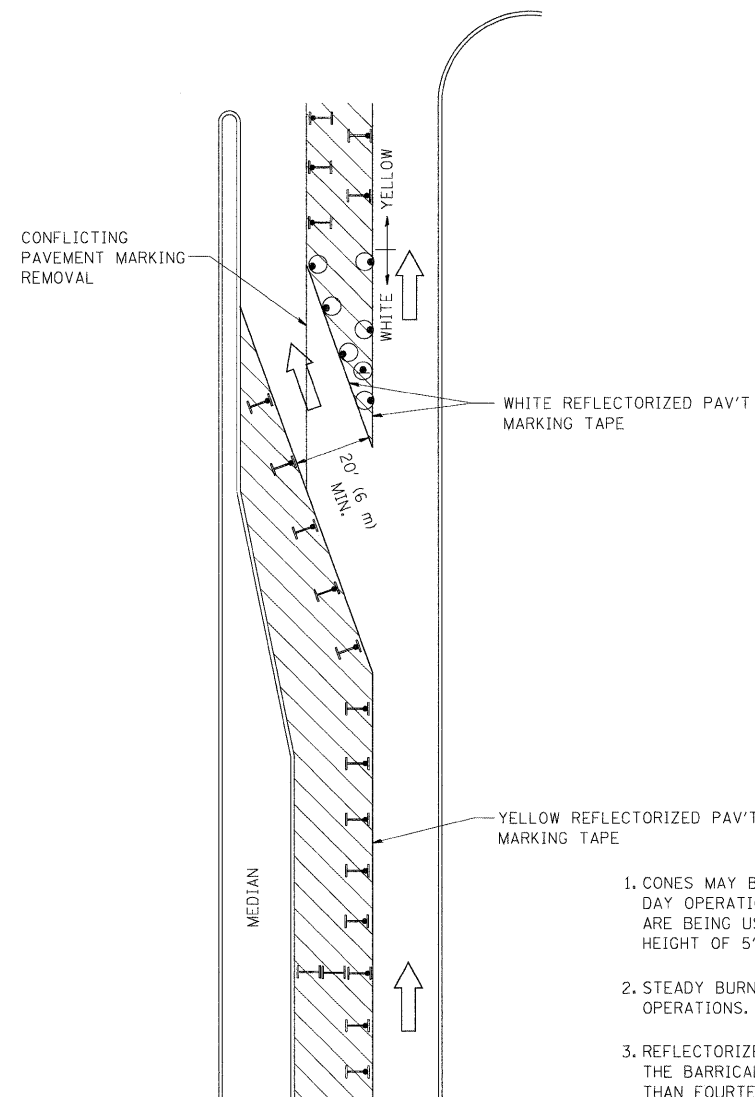


TYPICAL ISLAND MARKING

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 FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 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.

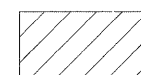







GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

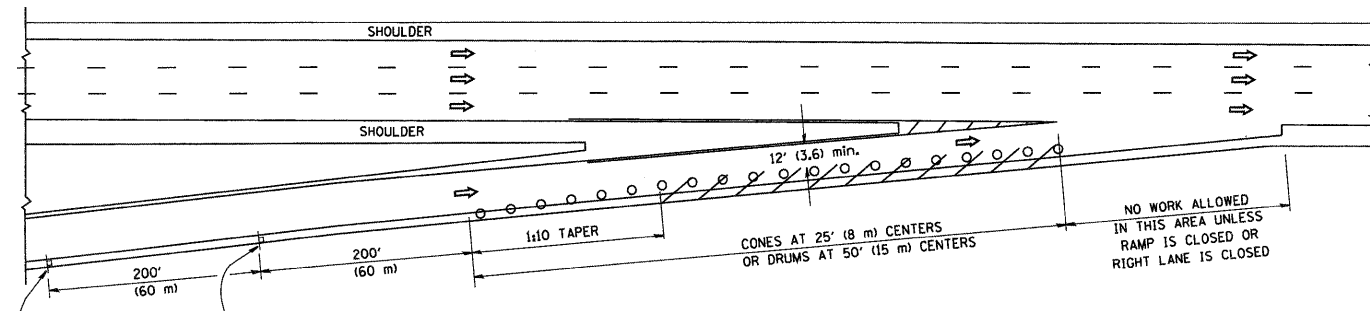
LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

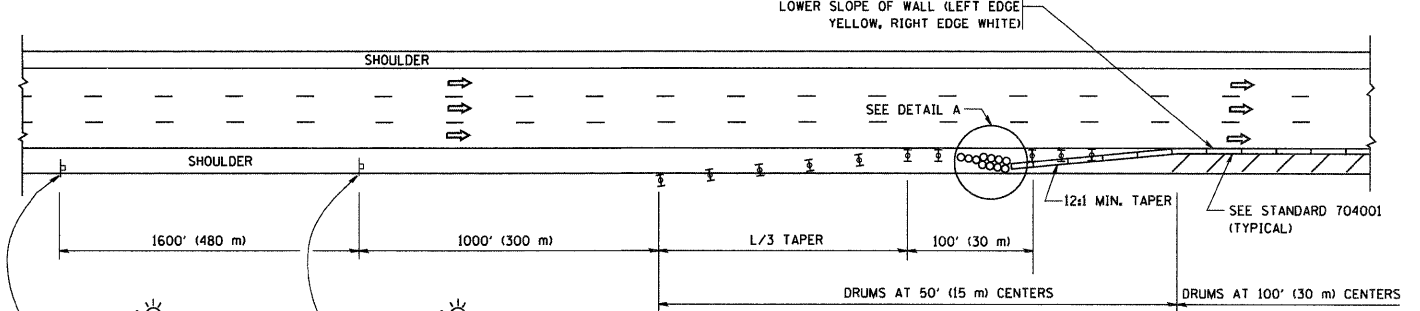
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ct:\pw\work\PWIDOT\DRIVAKOSGN\d0100315\14.dgn	REVISED - A. HOUSEH 11-07-95	REVISED -						345	BR-1-RS-4	KANE/COOK	124	121
PLOT SCALE = 49.9999 1/ IN.	REVISED - A. HOUSEH 10-12-96	REVISED -						TC-14			CONTRACT NO. 60M46	
PLOT DATE = 9/14/2009	REVISED -T. RAMMACHER 01-06-00	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
				SCALE: NONE			SHEET NO. 1 OF 1 SHEETS			STA. TO STA.		

PARTIAL RAMP CLOSURE DETAILS

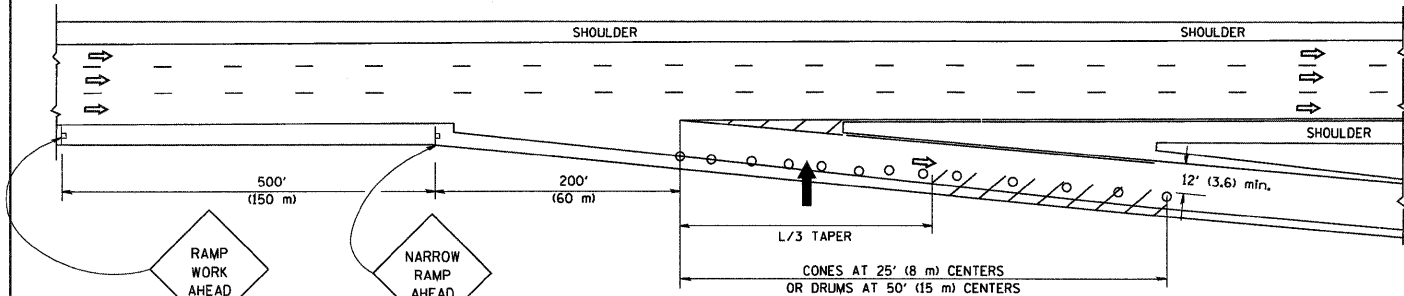
SHOULDER CLOSURE DETAILS



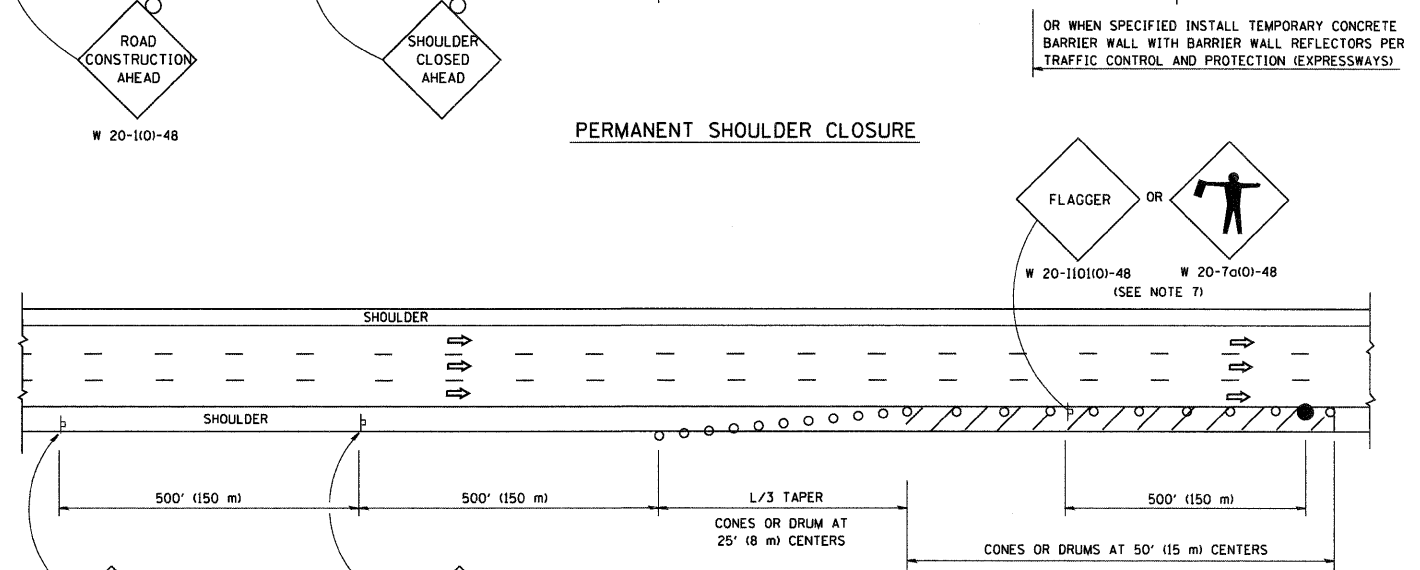
TYPICAL ENTRANCE RAMP



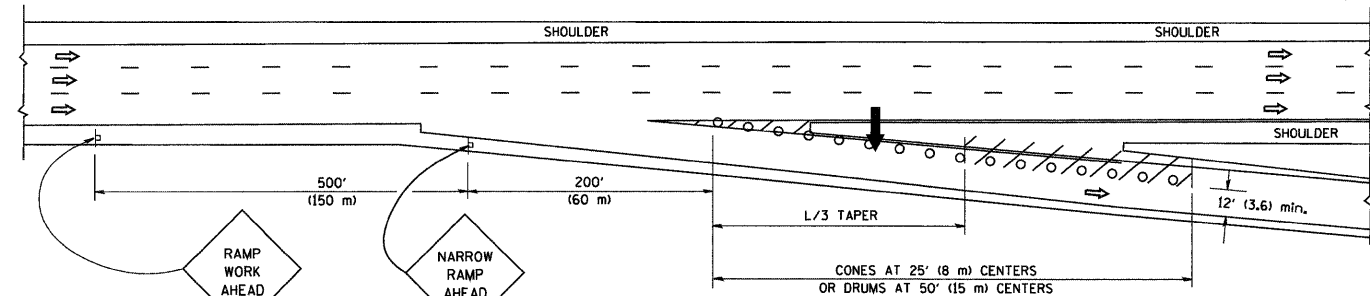
PERMANENT SHOULDER CLOSURE



TYPICAL EXIT RAMP



DAYTIME SHOULDER CLOSURE



TYPICAL EXIT RAMP

SYMBOLS

- ➔ ARROWBOARD
- ▨ WORK AREA
- ┆ SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- ⊠ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

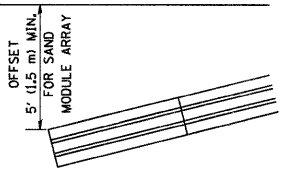
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER	METRIC: $L = 0.65(W)(S)$ ENGLISH: $L = (W)(S)$
	W = WIDTH OF OFFSET IN FEET (METERS) S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP 350 FOR POSTED SPEED.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK ACTIVITY REQUIRES FREQUENT ENCR OACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

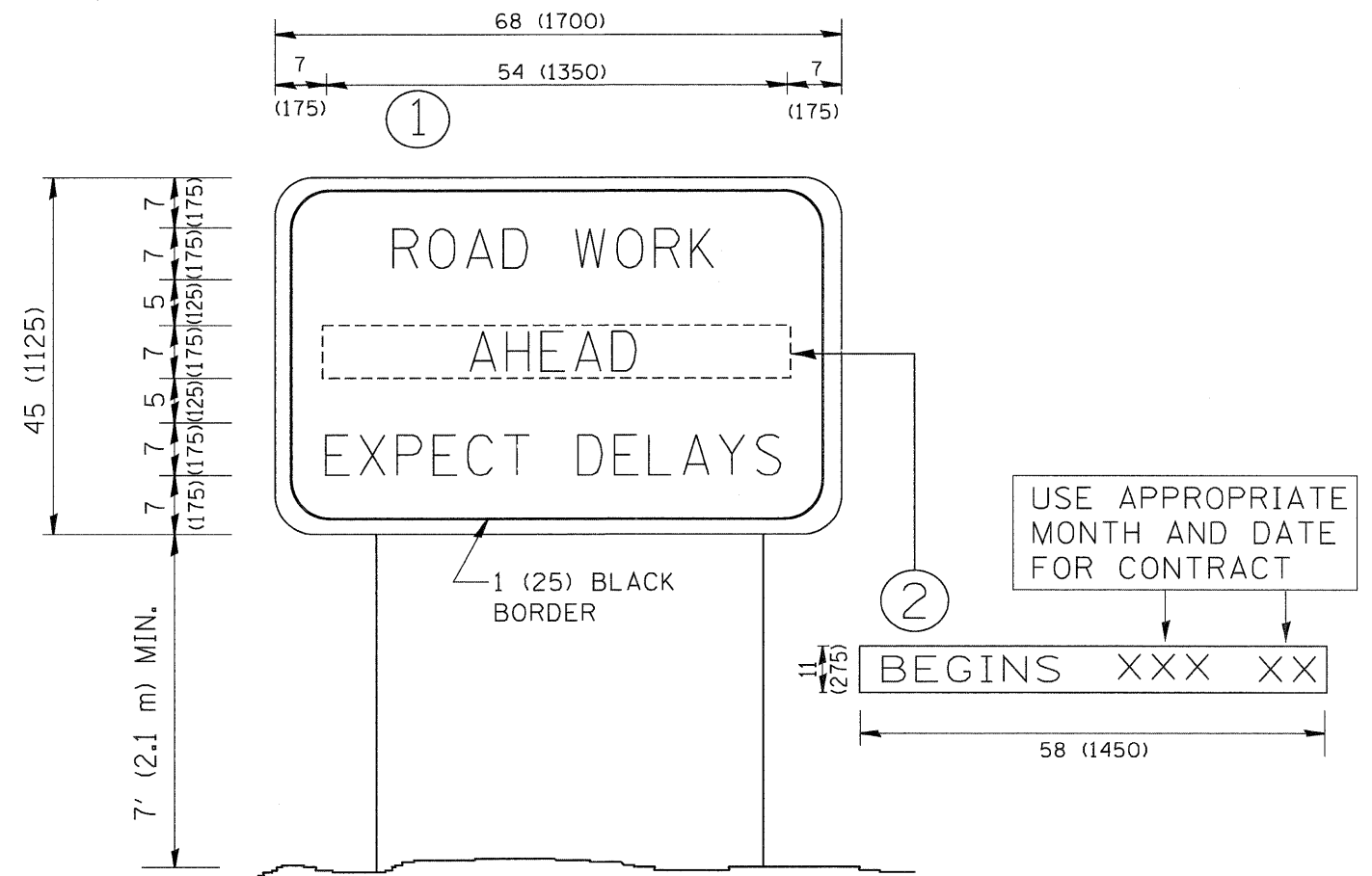
ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT FOR POSTED SPEED.



DETAIL "A" IMPACT ATTENUATOR, TEMPORARY (SEE NOTE 5)

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

FILE NAME = W:\diststd\22x34\tcl7.dgn	USER NAME = geglianobt	DESIGNED -	REVISED - J.A.F. 12-02	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	F.A.P. RTE. = 345	SECTION = BR-1-RS-4	COUNTY = KANE/COOK	TOTAL SHEETS = 124	SHEET NO. = 122		
PLOT SCALE = 5/8" = 1' / IN.	CHECKED -	REVISI O N - J.A.F. 12-06	REVISI O N - S.P.B. 01-07			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT			
PLOT DATE = 1/4/2008	DATE = 11-96								CONTRACT NO. 60M46			
									TC-17			



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 = gaglienobt	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
		DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	345	8R-1-RS-4	KANE/COOK	124	123	
		PLOT SCALE = 50,000' / IN.	CHECKED -		REVISED - T. RAMMACHER 02-02-99				TC-22		CONTRACT NO. 60M46					
		PLOT DATE = 1/4/2008	DATE -		REVISED - C. JUCIUS 01-31-07									FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

