STANDARD DETAILS

D6STDS : District 6 Standard Detail Sheet Files September 2005

THIS BOOK CONTAINS SPECIAL DISTRICT DETAILS USED FOR THE PURPOSE OF ASSISTING THE DESIGNER IN PREPARATION OF STUDIES AND PLANS CONTRACTS.

THE DETAILS ARE LISTED BY ALPHABETICAL ORDER IN CONJUNCTION WITH THE SECTIONS OF THE CURRENT "HIGHWAY STANDARDS" MANUAL FOR EASY REFERENCE.

Copy of this index located in ProjectWise:
\District 6\Standards\Standard Details\index.doc

All standard drawings are for 20 scale English sheets, with dual unit labeling, unless otherwise noted.

Note: * DENOTES REPLACED BY HIGHWAY STANDARD

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\100-85x11coversheet.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -						
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -						CONTRACT NO.
	PLOT DATE = 5/10/2016	DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS	FED. AID PROJECT

INDEX

FILENAME	DETAIL DESCRIPTION
Section 100 - MISCELLANEOUS DISTRICT 6 CADD DATA	
85x11CoverSheet.dgn	8 1/2 x 11 Cover Sheet
aggregate.dgn	AGGREGATE GRADATION CHART & DISTRICT PLANT
super.dgn	Superelevation Transition Detail for 2-Lane Highway
tkdata.dgn	Truck Turning Templates for Geometrics
Section 200 - EARTHWORK & EROSION CONTROL	
curtain.dgn	Temporary Erosion Control
granular backfill detail.dgn	Top or Bottom of Culvert
retwall.dgn	Modular Retaining Wall System
seeding.dgn	Class 2 and 4 Seeding Detail
slopestep.dgn	Slope Steps Detail (from D4)
swpplan.dgn	Storm Water Pollution Prevention Legend & Information
Section 300 - SUBGRADES SUBBASES & BASE COURSES	
Section 400 - PAVEMENT, REHABILITAION and SHOULDERS	
3rentcg.dgn	3R entrance & mailbox turnout in curb and gutter section (JCN)
3rentgm.dgn	3R entrance & mailbox turnout in modified gutter section (JCN)
3rmrural.dgn	3R entrance & mailbox turnout in rural section (JCN)
452001.dgn	crack and joint sealing (from D4)
coldmill.dgn	Cold milling Detail for check sheet #15 01jan99
ent_3r.dgn	3R rural/urban entrance and mailbox detail w/o conc gutter (JCN)
ent_3r_c&g.dgn	Entrance & mailbox in curb & gutter section – 3R Projects (JCN)
ent_3r_tag.dgn	Entrance & mailbox in std Type A gutter – 3R Projects (JCN)
ent_3r_tag_m.dgn	Entrance & mailbox in Type A gutter mod – 3R Projects (JCN)
ent_ppp.dgn	PPP rural/urban entrance & mailbox detail w/o conc gutter (JCN)
patchbit.dgn	Bituminous Patching - check sheet #23 1jan99
ppp96.dgn	3P Entrance and Side road Detail without Milling (WJR)
rumble.dgn	Rumble Strip Detail (on shoulder)
rumble_strip.dgn	Rumble Strip Detail (on pavement)
siderd.dgn	Rural Side road Detail (DJK)
smart96.dgn	SMART Entrance and Side road Detail with Milling (WJR)
smartppp.dgn	Entrance, Mailbox Turnout and Side Road for SMART & PPP (JCN)
type_A_gutter_modified	Type A gutter modified – inlet, outlet & entrance (JCN)

FILENAME	DETAIL DESCRIPTION
Section 500 - BRIDGES & CULVERTS	
barpre.dgn	Cast-in-Place End Section for Pre-cast Concrete Box Culvert
barsplice.dgn	Bridge Deck Bar Splice for Stage Construction
bondedjt.dgn	Bonded Joint Seal for Bridge Repair - Operations
brdrain.dgn	Bridge Deck Drain Extension Detail
brgdetails.dgn	Type I and Type II Elastomeric Exp. Bearing
drains.dgn	Drain Extension Details
drains1.dgn	Drain Extension Details
drains2.dgn	Drain Extension Details
JointDetails.dgn	Repairs
retrofit.dgn	Parapet Retrofit for Aluminum Handrail
siljoint.dgn	Silicone Joint Seal for Concrete or Steel Bridge Joints
Section 600 - DRAINAGE	
1913mod.dgn	Concrete Gutter, Type A (Modified) - 2 sheets
cad2218.dgn	Frame and Grate Special for Modified Gutter Type A
cbasin.dgn	Combined Sewer Catch Basin Detail
collar.dgn	Concrete Collar & Culvert Extension Detail
engdis.dgn	Culvert Energy Dissipating Basin Detail
excelsior.dgn	Excelsior Blanket Detail
ftile.dgn	Field Tile Replacement Detail
hwl.dgn	Concrete Headwall for Pipe Drain 16"
mhlarge.dgn	Manhole Type A - 2100 mm (84")
pdrain.dgn	Transverse Pipe Underdrain
precstext.dgn	Pre-cast Box Culvert Extension Detail
revmat.dgn	Fabric Formed Concrete Revetment Mat
riprap.dgn	Ditch Riprap Detail
splash.dgn	Culvert Splash Mat Detail
still.dgn	Temporary Still Basin Details
subsurf.dgn	Standard 601001 - Pipe Underdrain Detail
type_E.dgn	Inlet Special Type E
Section 630 - SAFETY	
bikerail.dgn	Detail for Wood Guard Rail for Bike Paths
Guardrail_Short_Radius.dgn	Short Radius Guardrail BDE Procedure Memo 36-03
Section 660 - FENCING - MARKERS & MISCELLANEOUS	
Section 700 - WORK ZONE TRAFFIC CONTROL	
2309s.dgn	Standard 701316 Special - Bridge Stage Construction
2315s.dgn	Standard 701406 Special - Multilane Closure Daytime Only
2316s.dgn	Standard 701401 Special - Multilane Closure Overnight
2409s.dgn	Standard 701321 Special - with Side Road(s) - 2 sheets
701501s.dgn	Urban Lane Closure with Bi-directional Turn Lane
701606s.dgn	Urban Multi-lane Closure with Bi-directional Turn Lane
jlgt017.dgn	Night Time Lighting Inspection < 15 Minutes per Luminare
rrdetour.dgn	Railroad Crossing Run-Around

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

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Section 720 - SIGNING

breaksgn.dgn	Break Away Steel Sign Posts and Foundations
nomowsign.dgn	No Mowing or Spraying Sign
wildflower-prairieplant.dgn	Wildflower and Prairie Plant Signs

Section 780 - PAVEMENT MARKING

780001a.dgn	District 6 Pavement Marking Guide - incomplete
782001a.dgn	Prismatic Curb Reflectors – applies to concrete median special
prism.dgn	Prismatic Curb Reflectors – applies to curbed median
tempmk.dgn	Short Term Pavement Marking for Interstates

Section 800 - ELECTRICAL

al_mastarm.dgn	Aluminum Mast Arm Assembly and Pole
Bridge_Temp_Signal.dgn	Temporary Bridge Traffic Signal Loop Placement Detail
combalum.dgn	Combination Aluminum Mast Arm
count93.dgn	Traffic Counter Terminal Facility
detloop.dgn	Detector Loop Detail & Traffic Signal Legend
jlgt001.dgn	Bridge Crossing Detail
jlgt002.dgn	Conduit in Bridge Parapet Details
jlgt003.dgn	Control installation Service Pole Mounted
jlgt004.dgn	Control installation Dual
jlgt005.dgn	Control installation Type CB-RCS-100
jlgt006.dgn	Control Installation Type CB-RCS-60
jlgt007.dgn	Light Pole Foundation
jlgt008.dgn	Pole Standards
jlgt011.dgn	Navigation Lighting
jlgt013.dgn	Sign Lighting Details
jlgt014.dgn	Temporary Roadway Lighting
lgt836.dgn	Light Pole Foundation
servta.dgn	Service Installation Type A (Modified)
servtb.dgn	Service Installation Type B (Modified)
servtc.dgn	Service Installation Type C (Modified)
solar94.dgn	Four Week Traffic Count Station
vcamera.dgn	Video Detection System Installation Detail

Section 000 - MISCELLANEOUS TABLES

INDEX.doc – March 2003

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				1
	ILLINOIS	CONTRACT NO.		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

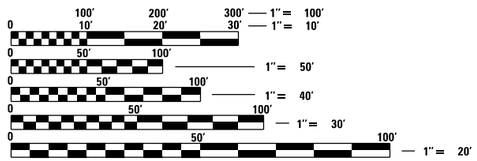
PROPOSED
HIGHWAY PLANS

ROUTE
SECTION
PROJECT
TYPE of IMPROVEMENT
COUNTY

C–9x–xxx–xx

FOR INDEX OF SHEETS, SEE SHEET NO.

LOCATION OF SECTION INDICATED THUS: – –■–



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

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

PROJECT ENGINEER
PROJECT MANAGER

CONTRACT NO.

LOCATION OF IMPROVEMENT
BEGIN STA. XXXX
TO END STA. XXXX

GROSS LENGTH = x.xx FT. = x.xxx MILE
NET LENGTH = x.xx FT. = x.xxx MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED _____ 20 _____

_____
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

_____ 20 _____

_____
ENGINEER OF DESIGN AND ENVIRONMENT

_____ 20 _____

_____
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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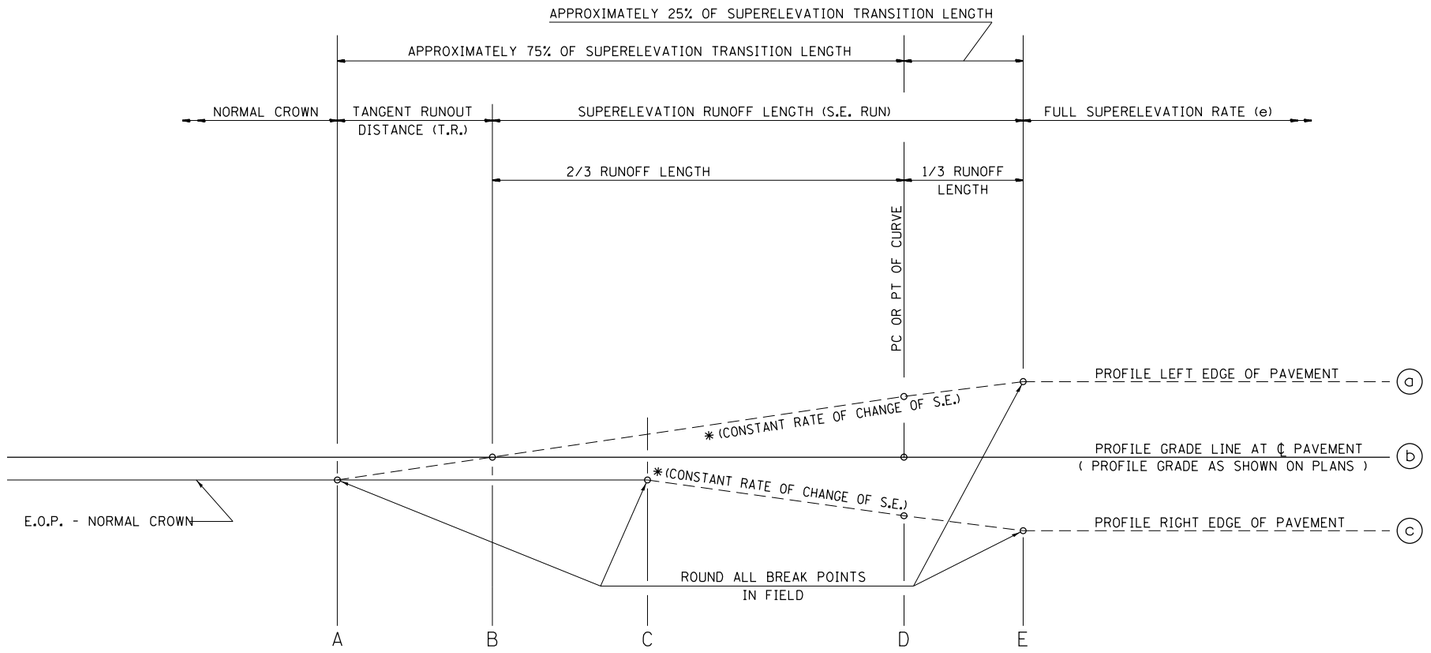
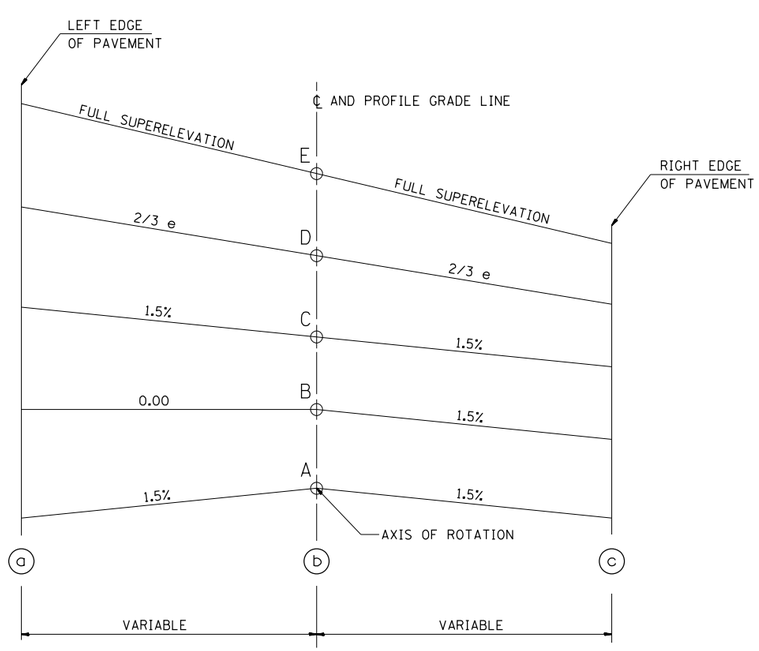


TYPICAL PROFILE - S.E. TRANSITION

SEE PLANS FOR CURVE DATA INFORMATION

CURVE DATA
P.I. STA=
Δ=
R=
T=
L=
E=
e= SUPERELEVATION RATE IN PERCENT
T.R.= TANGENT RUNOUT DISTANCE
S.E. RUN= SUPERELEVATION RUNOFF LENGTH
P.C. STA=
P.T. STA=



TYPICAL CROSS SECTION - S.E. TRANSITION

TABLE OF SUPERELEVATION BREAK POINT LOCATIONS

CURVE NO.	e	A	B	C	D	E	TRANSITION
12	8%	0+412.588	0+423.638	0+434.688	0+462.938	0+482.588	Trans. In
		0+659.220	0+648.170	0+637.120	0+608.870	0+589.220	Trans. Out
122	8%	3+782.663	3+793.713	3+804.763	3+833.013	3+852.663	Trans. In
		4+171.010	4+159.960	4+171.010	4+120.660	4+101.010	Trans. Out

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERELEVATION TRANSITION
DETAIL FOR TWO LANE HIGHWAY

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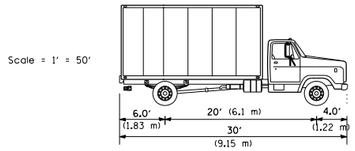
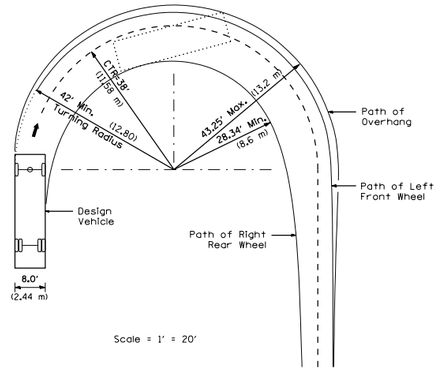
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



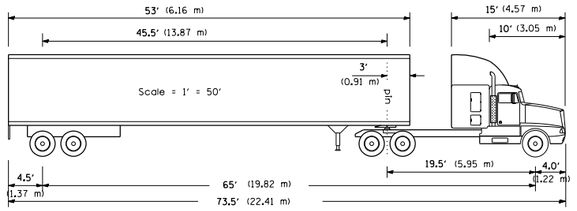


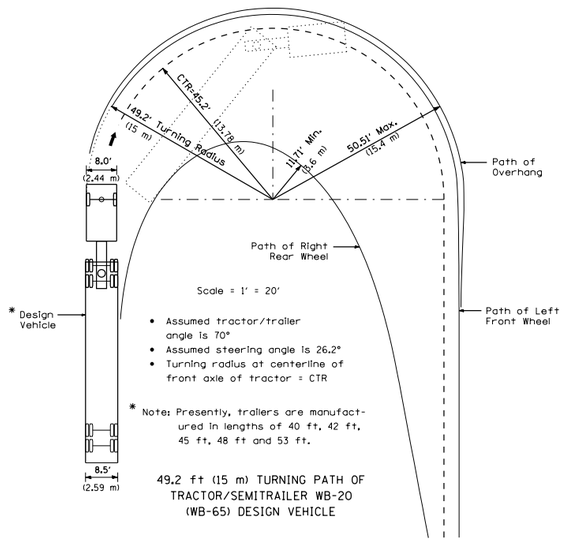
- Assumed steering angle is 31.9°
- Turning radius at centerline of front axle = CTR

MINIMUM TURNING PATH OF TRUCK
(SU) DESIGN VEHICLE

Figure 3-221 (c)

Revised Dec. 1995





- Assumed tractor/trailer angle is 70°
- Assumed steering angle is 26.2°
- Turning radius at centerline of front axle of tractor = CTR

* Note: Presently, trailers are manufactured in lengths of 40 ft, 42 ft, 45 ft, 48 ft and 53 ft.

49.2 ft (15 m) TURNING PATH OF
TRACTOR/SEMITRAILER WB-20
(WB-65) DESIGN VEHICLE

Figure 3-221 (g)

Revised Dec. 1995

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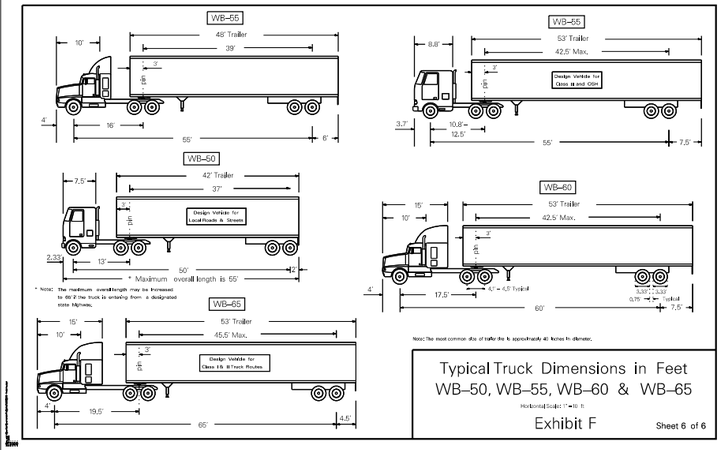
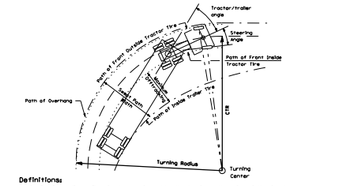




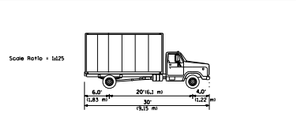
Definitions:

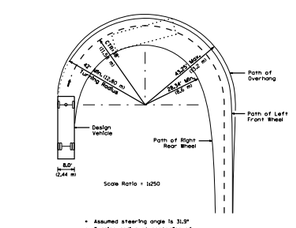
1. **Turning radius** - The circular arc formed by the turning path radius of the front outside tire of a vehicle. This radius is also described by vehicle manufacturers as the "turning curb radius".
2. **CTR** - The turning radius assumed by a designer when investigating possible turning paths and is set at the centerline of the front axle of a vehicle.
3. **Offtracking** - The difference in the paths of the front and rear wheels of a tractor/semitrailer as it negotiates a turn. The path of each rear-yard tire of a turning truck does not coincide with that of the corresponding forward tire, and this phenomena is shown in the drawing above.
4. **Swept path width** - The amount of roadway width that a truck covers in negotiating a turn and is equal to the amount of offtracking plus the width of the tractor unit. The most significant dimension affecting the swept path width of a tractor/semitrailer is the distance from the kingpin to the rear trailer axle or axles. The greater this distance is the greater the swept path width.
5. **Steering angle** - The maximum angle of turn built into the steering mechanism of the front wheels of a vehicle, and this maximum angle controls the minimum turning turning radius of the vehicle.
6. **Tractor/trailer angle** - The angle between adjoining units of a tractor/semitrailer when the combination unit is placed into a turn, and this angle is measured between the longitudinal axes of the tractor and trailer as the vehicle turns. The maximum tractor/trailer angle occurs when a vehicle makes a 180° turn at the minimum turning radius, and this angle is reached slightly beyond the point where maximum swept path width is achieved.

TURNING CHARACTERISTICS OF A TYPICAL TRACTOR/SEMITRAILER VEHICLE

Figure 3-221 (d)

Revised April 1996

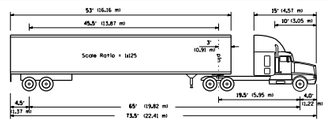


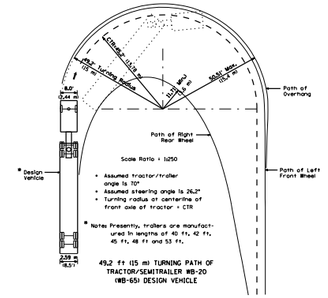


MINIMUM TURNING PATH OF TRUCK (SU) DESIGN VEHICLE

Figure 3-221 (c)

Revised Dec. 1995

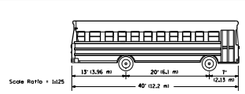


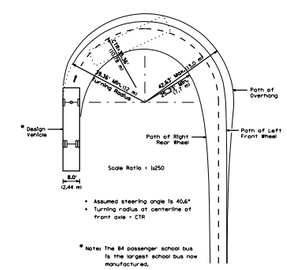


49.2 ft (15 m) TURNING PATH OF TRACTOR/SEMITRAILER WB-20 (WB-65) DESIGN VEHICLE

Figure 3-221 (g)

Revised Dec. 1995

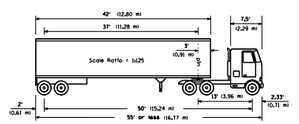


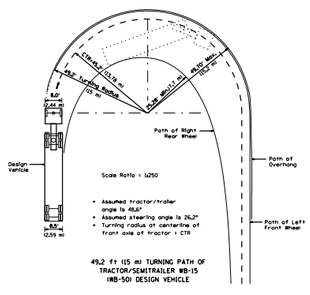


MINIMUM TURNING PATH OF 84 PASSENGER SCHOOL BUS (SU) DESIGN VEHICLE

Figure 3-221 (b)

Revised Dec. 1995

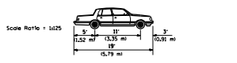


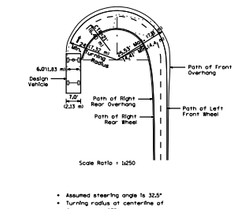


49.2 ft (15 m) TURNING PATH OF TRACTOR/SEMITRAILER WB-15 (WB-50) DESIGN VEHICLE

Figure 3-221 (e)

Revised Dec. 1995

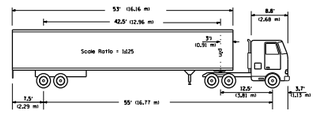


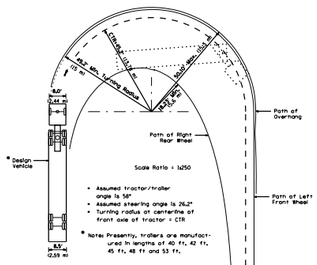


MINIMUM TURNING PATH OF PASSENGER CAR (P) DESIGN VEHICLE

Figure 3-221 (a)

Revised Dec. 1995





49.2 ft (15 m) TURNING PATH OF TRACTOR/SEMITRAILER WB-17 (WB-55) DESIGN VEHICLE

Figure 3-221 (f)

Revised Dec. 1995

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Default	PLOT DATE = 5/10/2016	CHECKED -	REVISED -					CONTRACT NO.		
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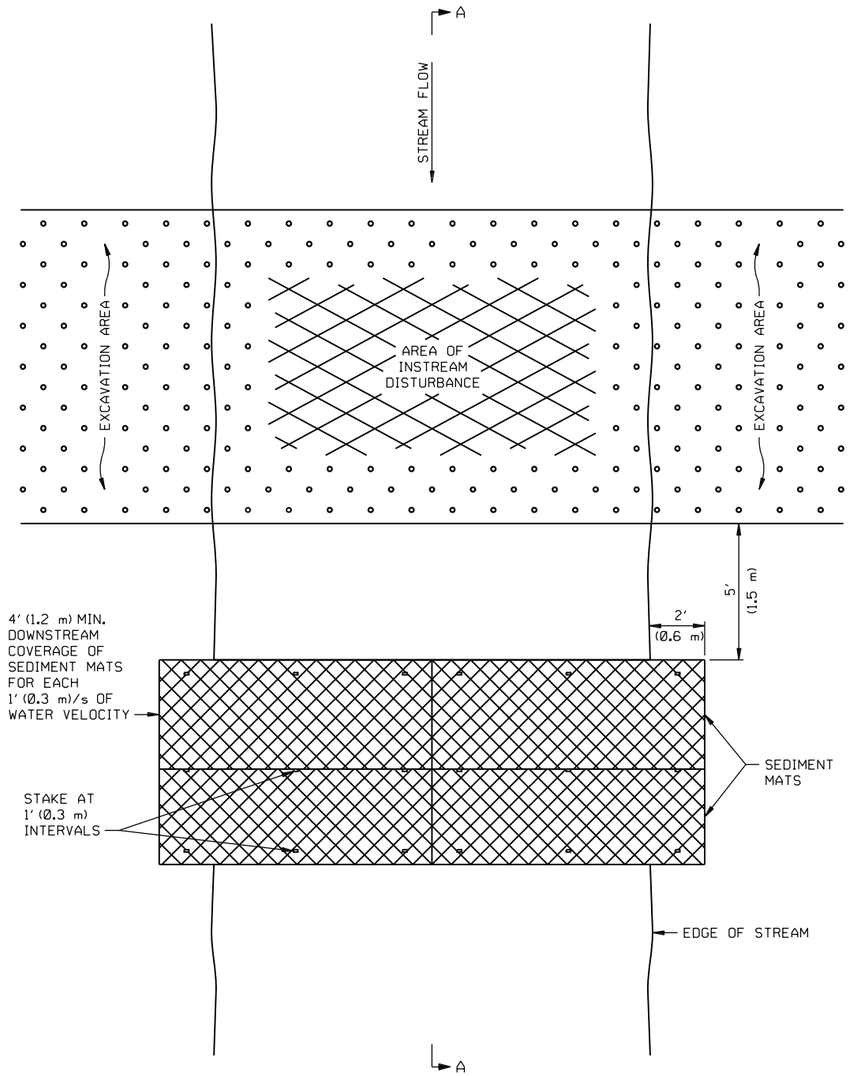
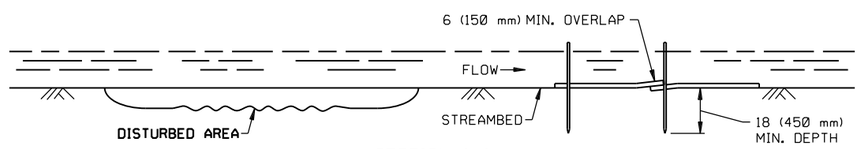


PLAN VIEW



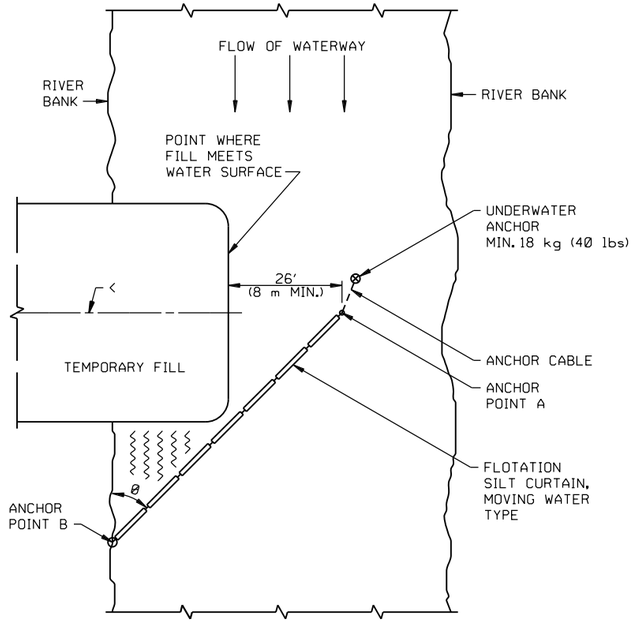
SECTION A-A

SEDIMENT MAT

TYPICAL STREAMBED INSTALLATION

DESIGN CRITERIA:

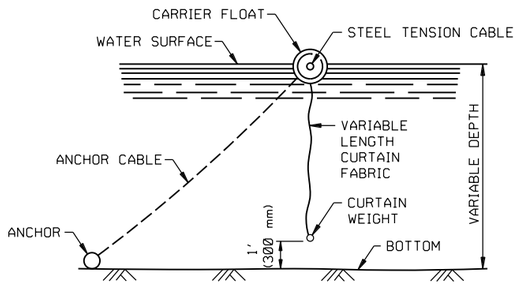
MAXIMUM FLOW VELOCITY: 5' (1.5 m)/s
MAXIMUM FLOW DEPTH: 2' (0.6 m)



∠ θ	RIVER VELOCITY
45°	SLOW, LESS THAN 5' (1.5 m)/s
35°	MODERATE, 5' (1.5 m) - 6'-7" (2 m)/s

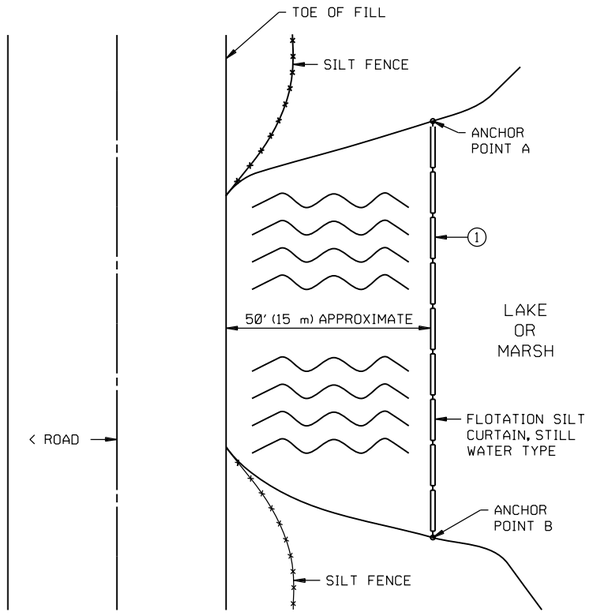
PLAN VIEW OF SILT CURTAIN - MOVING WATER

DESIGN CRITERIA:
MAXIMUM WATER DEPTH: 12' (3.6 m)
MAXIMUM WATER VELOCITY: 7' (2.1 m)/s



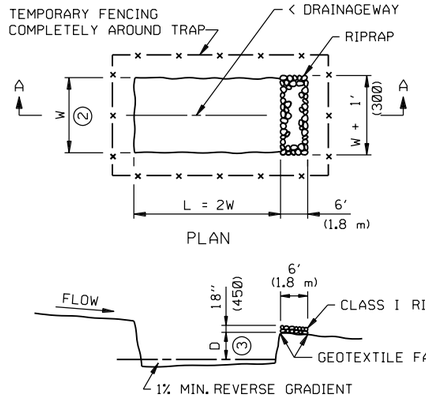
FLOTATION SILT CURTAIN DETAIL

(SEE SPEC. 3887)



PLAN VIEW OF SILT CURTAIN - STILL WATER

DESIGN CRITERIA:
MAXIMUM WATER DEPTH: 3.6 m (12')



SECTION A-A

TEMPORARY SEDIMENT TRAP DETAIL

NOTES:

1. CURTAIN 1' (300 mm) FROM BOTTOM
2. W = 10' (3 m) MIN., 20' (6 m) MAX.
3. D = 3' (1 m) MIN., 6' (1.8 m) MAX.

NOTE: ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)

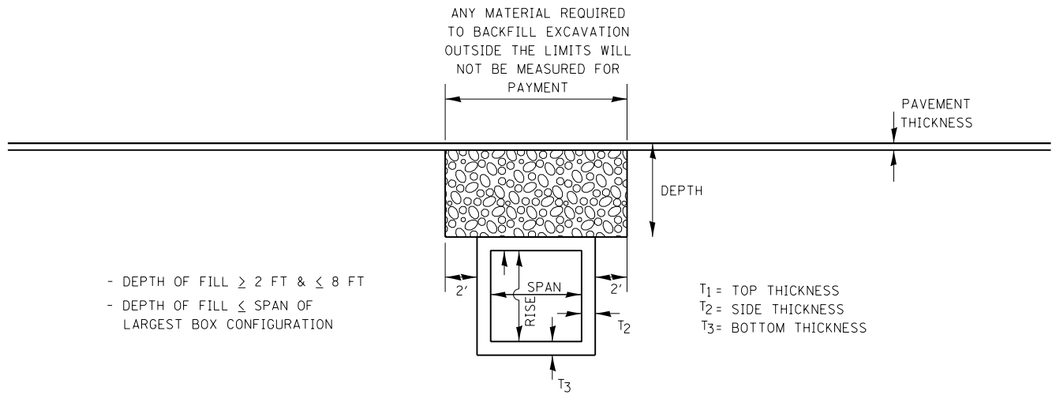
STANDARD SHEET NO.	TITLE:
5-297.405M (1 OF 3)	
STANDARD APPROVED: MAY 1, 1995	

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\200-curtain.dgn Default CURTAIN.DGN	USER NAME = Verenskfa	DESIGNED -	REVISED - 5-19-97
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

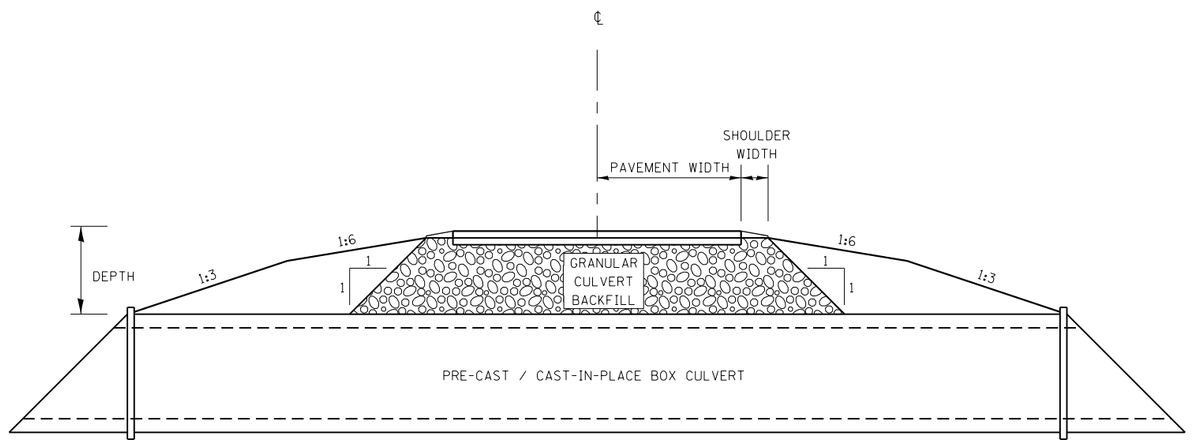
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



* NOTE: WILL NEED MODIFICATION FOR MULIT-CELL BOX CULVERTS

PROFILE GRANULAR BACKFILL DETAIL FOR NEW ALIGNMENTS & CONSTRUCTION



- DEPTH OF FILL ≥ 2 FT & ≤ 8 FT
- DEPTH OF FILL ≤ SPAN OF LARGEST BOX CONFIGURATION

CROSS SECTION GRANULAR BACKFILL DETAIL FOR NEW ALIGNMENTS & CONSTRUCTION

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\200-Granular Backfill Details.dgn	USER NAME = Verenskifa	DESIGNED - BKL	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/5/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

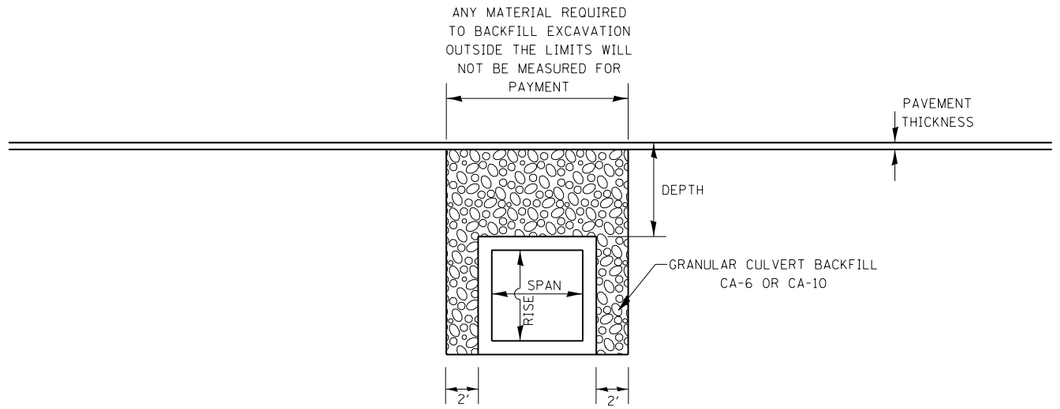
GRANULAR BACKFILL DETAIL TO TOP OF BOX CULVERT

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

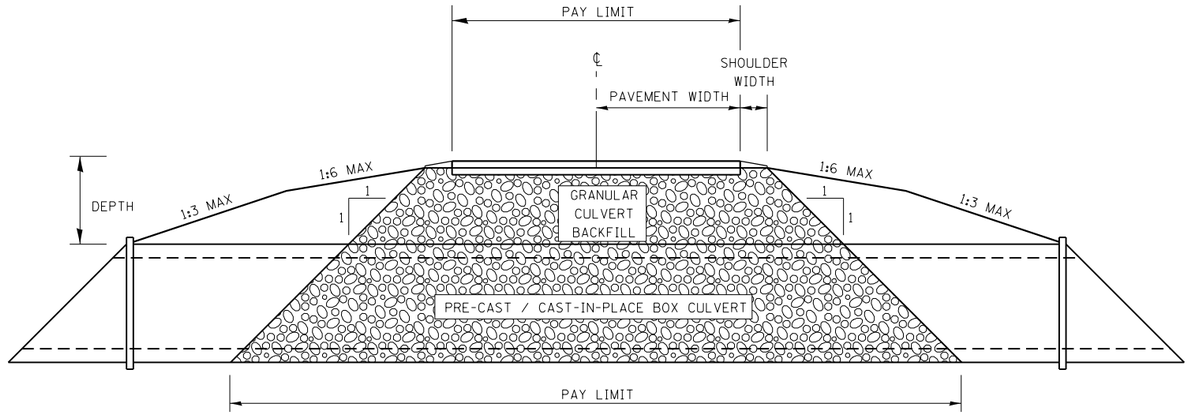
CONTRACT NO.

ILLINOIS FED. AID PROJECT



- DEPTH OF FILL ≥ 2 FT & ≤ 8 FT
- DEPTH OF FILL ≤ SPAN OF LARGEST BOX CONFIGURATION

PROFILE GRANULAR BACKFILL DETAIL
FOR EXISTING ALIGNMENTS & CONSTRUCTION



CROSS SECTION GRANULAR BACKFILL DETAIL
FOR EXISTING ALIGNMENTS & CONSTRUCTION

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		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Granular Backfill Details.dgn	PLOT DATE = 7/5/2016	DATE -	REVISED -

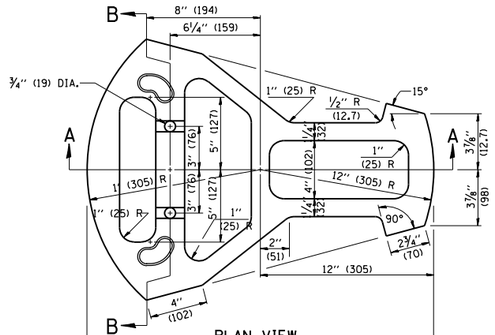
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

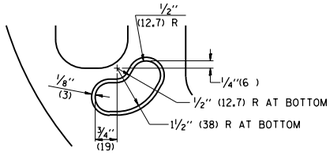
GRANULAR BACKFILL DETAIL
TO BOTTOM OF BOX CULVERT

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

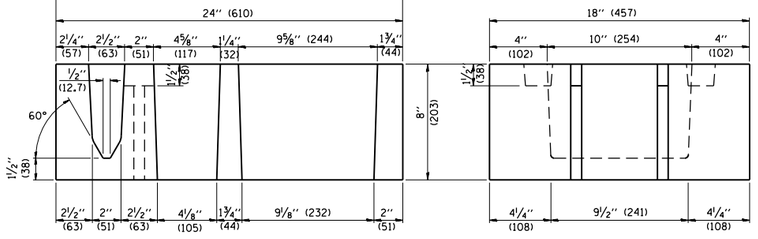
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

MODULAR RETAINING WALL SYSTEM



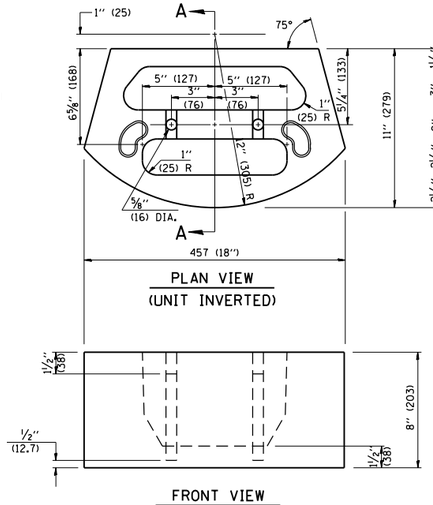


DETAIL OF RECEIVING HOLE



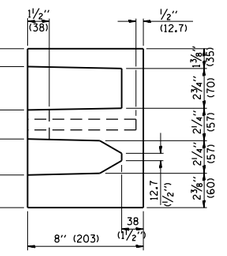
SECTION AA

SECTION BB

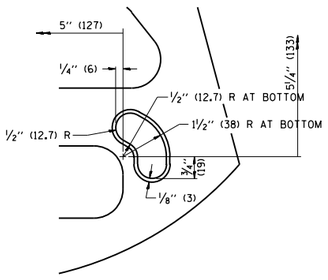


PLAN VIEW
(UNIT INVERTED)

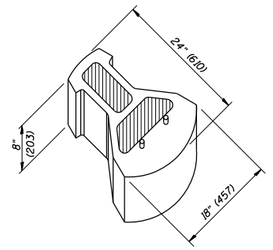
FRONT VIEW
(UNIT INVERTED)



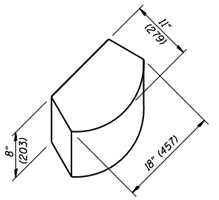
SECTION AA



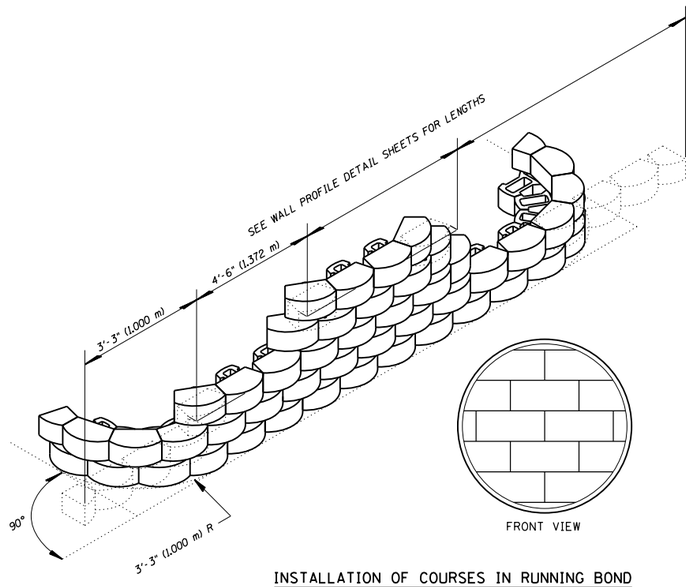
DETAIL OF RECEIVING HOLE



STANDARD UNIT



CAP UNIT



INSTALLATION OF COURSES IN RUNNING BOND

NOTES

THE WALL SHALL HAVE A STRIATED FACE.

BILL OF MATERIALS

	LEFT WALL	RIGHT WALL	TOTAL
MODULAR WALL	yd^2	yd^2	yd^2
GEOGRIDS	yd^2	yd^2	yd^2
CLASS SI CONCRETE	yd^3	yd^3	yd^3

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

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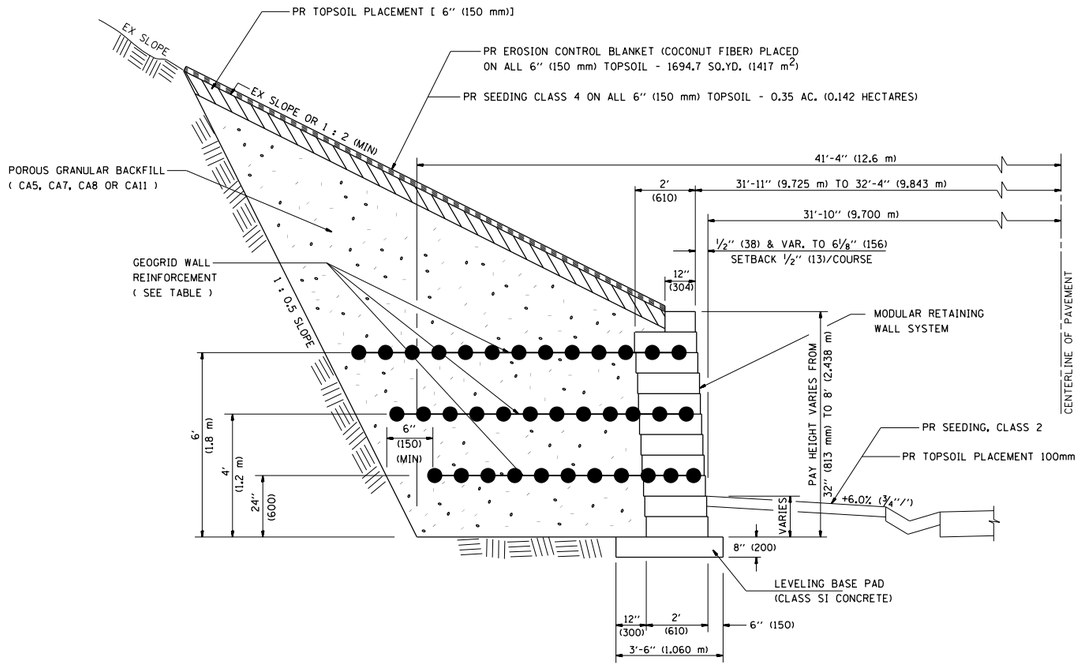
		DRAWN -	REVISED -
Default RETWALL.DGN	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE - 6/12/96	REVISED -

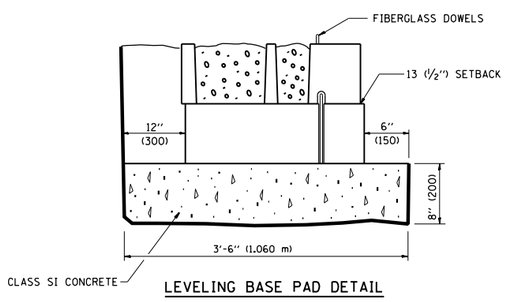
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR RETAINING WALL SYSTEM

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		





MODULAR RETAINING WALL SYSTEM
TYPICAL SECTION

NOTES:

1. THE GEOGRIDS SHALL EXTEND NOT LESS THAN 3 m (10') BACK FROM THE FACE OF THE WALL.
2. THE GEOGRIDS SHALL BE UX1500SB (SR-2) OR EQUIVALENT.
3. THE SI CONCRETE LEVELING BASE PAD SHALL BE EXCAVATED INTO UNDISTURBED EARTH AND THE SIDES AND STEPS SHALL BE FORMED WITH SUITABLE FORMING MATERIAL.
4. THE COST OF CONSTRUCTING THE SI CONCRETE LEVELING BASE PAD AND FURNISHING AND INSTALLING THE GEOGRID WALL REINFORCEMENT WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE PER SQUARE METER (SQUARE YARD) FOR MODULAR RETAINING WALL SYSTEM.
5. THE EARTH EXCAVATION TO CONSTRUCT THE WALL INCLUDING THE LEVELING BASE PAD AND THE POROUS GRANULAR EMBANKMENT WILL BE MEASURED AND PAID FOR SEPARATELY.
6. IF THE EXISTING EMBANKMENT IN THE BACKSLOPE FAILS AND SLOUGHING OCCURS, THE AREA BEHIND THE PROPOSED POROUS GRANULAR BACKFILL MAY BE BACKFILLED WITH LOCAL MATERIAL AND COMPACTED IN 200 mm (8'') LIFTS TO THE SATISFACTION OF THE ENGINEER.
7. BRACING OF THE 1 TO 0.5 BACKSLOPE MAY BE REQUIRED.
8. TOPSOIL PLACEMENT, EROSION CONTROL BLANKET AND SEEDING WILL BE MEASURED AND PAID FOR SEPARATELY.

STATION LIMITS	POSITION OF GEOGRIDS ABOVE LEVELING PAD

TYPICAL GEOGRID OVERLAP DETAIL
AT ''STEP'' IN LEVELING PAD

LEVELING BASE PAD DETAIL

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

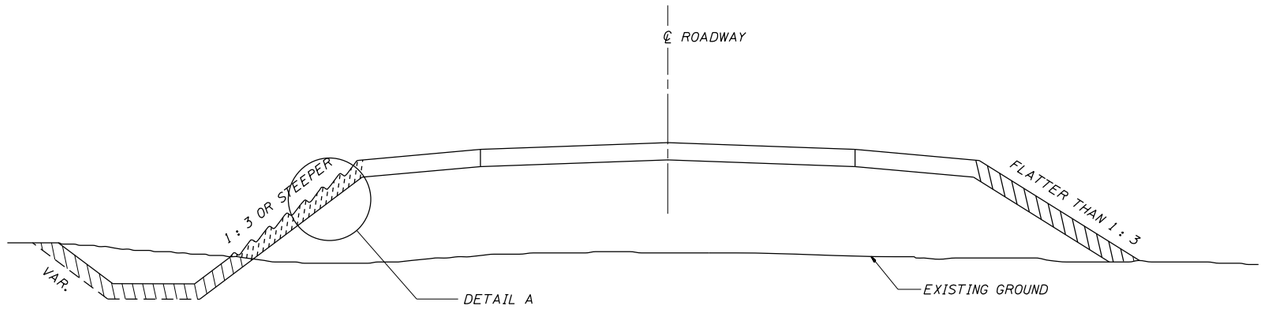
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\200-CAD\retwall.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
Default RETWALL.DGN	PLOT DATE = 5/10/2016	DATE - 6/12/96	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

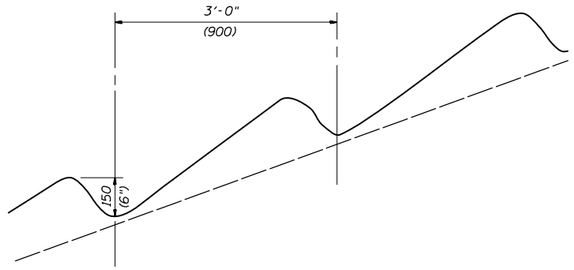
MODULAR RETAINING WALL SYSTEM

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



SEEDING DETAIL



DETAIL A

NOTES:

AREAS WHERE THE SLOPE HEIGHTS EXCEED 5' (1.5 m) IN DEPTH AND THE SLOPES ARE 1 : 3 OR STEEPER, THE SLOPES SHALL BE PLOWED WITH 6" (150 mm) DEEP TRENCHES APPROXIMATELY 3' (900 mm) ON CENTER PARALLEL TO THE CONTOUR LINES OF THE CUT OR FILL AND SEEDED WITH CLASS 2 AND 4 MIXTURE. MULCH IN THESE AREAS SHALL BE DONE IN ACCORDANCE WITH METHOD 1.

ALL OTHER AREAS DISTURBED WITHIN THE RIGHT-OF-WAY OR CONSTRUCTION LIMITS SHALL BE SEEDED WITH CLASS 2 AND 4 SEEDING AND MULCH IN ACCORDANCE WITH METHOD 2, PROCEDURE 2 AS SPECIFIED IN ARTICLE 251.03(b) OF THE STANDARD SPECIFICATIONS.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

LEGEND

CLASS 2 AND 4 SEEDING
MULCH METHOD 2 (SEE NOTES)

CLASS 2 AND 4 SEEDING
MULCH METHOD 1 (SEE NOTES)

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Default SEEDING.DGN	PLOT DATE = 5/10/2016	DATE - 6/21/96	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

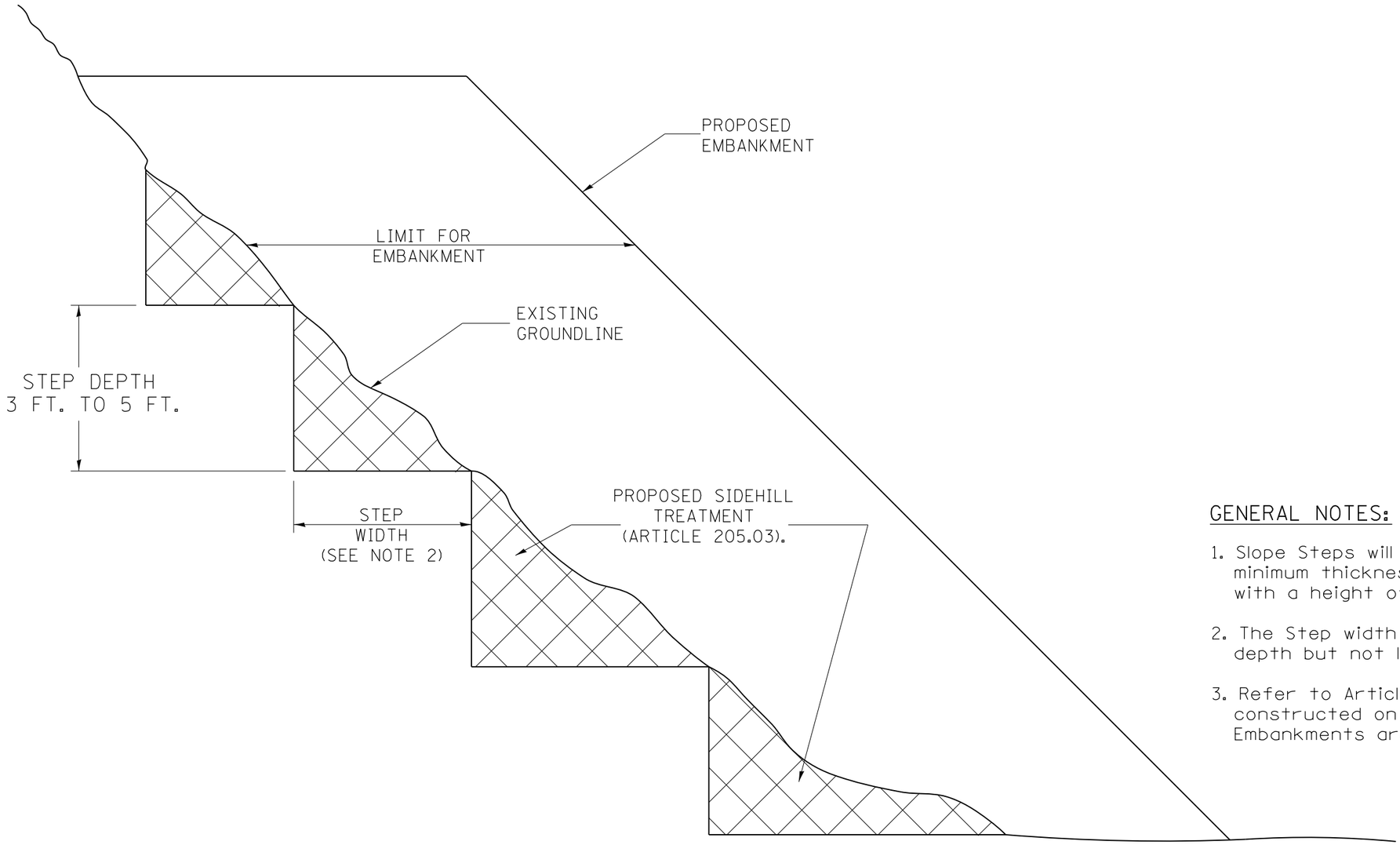
SEEDING DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SLOPE STEPS DETAIL

TYPICAL CROSS-SECTION EMBANKMENT
CONSTRUCTION ON SIDEHILL



GENERAL NOTES:

1. Slope Steps will be required for all 12 (300) minimum thickness "silver fills" and on a fills with a height of 10' (3.0 m).

2. The Step width shall be twice the Step depth but not less than 6 feet.

3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

REPLACEMENT MATERIAL:

STANDARD EMBANKMENT
(IN ACCORDANCE WITH
205 OF THE STANDARD SPECIFACATION).

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\202-slopestep.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
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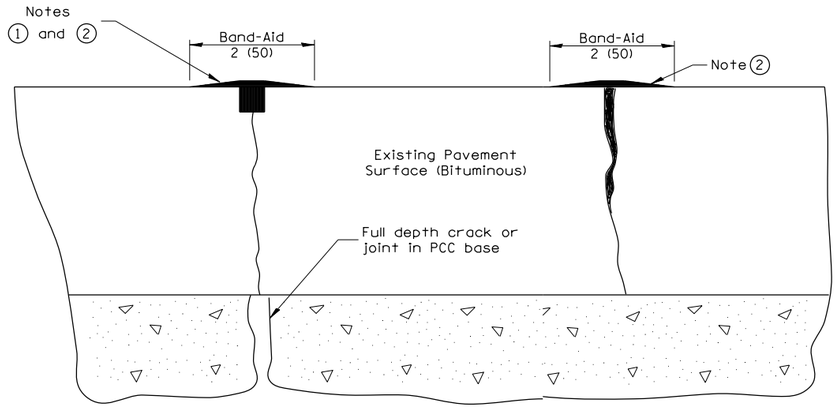
Default SLOPESTEP.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE STEPS DETAIL

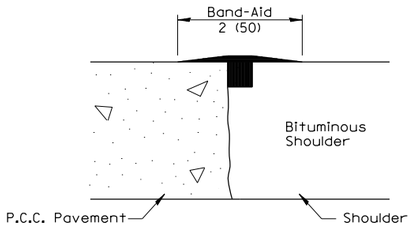
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

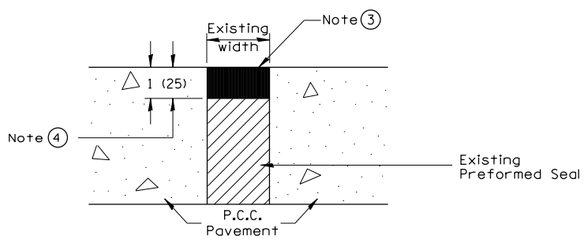


PRIMARY TRANSVERSE, LONGITUDINAL CRACK & P.C.C. CENTERLINE JOINT

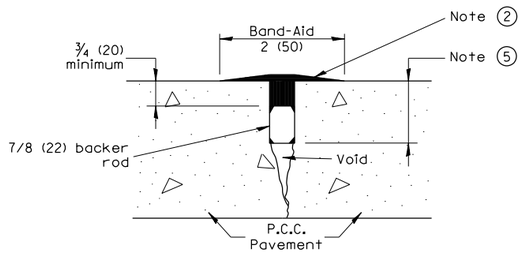
SECONDARY ADJACENT CRACK



SHOULDER JOINT (Notes ① & ②) AND LONGITUDINAL RANDOM CRACK (Notes ① & ③)



TRANVERSE EXPANSION JOINT



SPECIAL TREATMENT - BACKER ROD

FOR JOINTS AND/OR CRACKS GREATER THAN ¾ (20) DEEP
(DOES NOT APPLY TO TRANSVERSE RANDOM CRACKS IN CONTINUOUSLY REINFORCED PAVEMENTS)

NOTES

① Route or saw to ¾ (20) wide by ¾ (20) deep; (1:1 ratio).

② Overfill with sealant; squeege to provide 2 (50) wide flush "band-aid" effect; feather edges flush.

③ Seal flush without "band-aid" effect.

④ Route to 1 (25) depth; clean and reface walls.

⑤ Route or saw ¾ (20) wide by variable depth. Depth based upon crack or joint depth and ¾ (20) minimum sealer over backer rod.

GENERAL NOTES

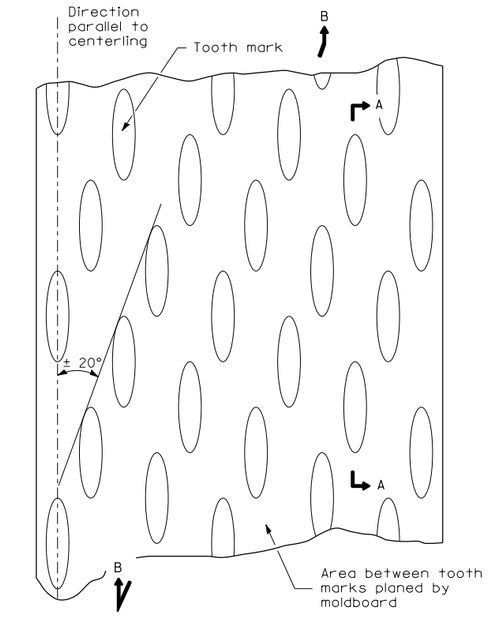
1. Crack and Joint Sealing shall conform to Section 451 and 452.

2. The "Band Aid" width shall be reduced or eliminated in areas adjacent to existing pavement markings.

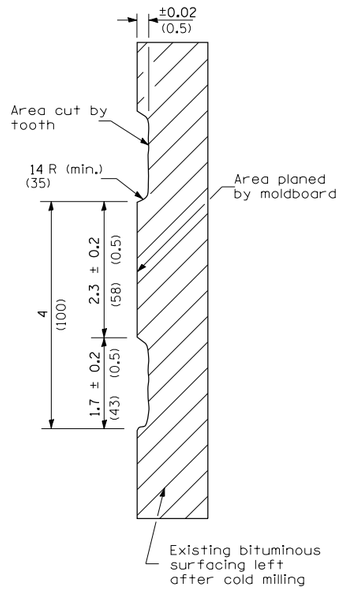
All dimensions are in INCHES (millimeters) unless otherwise noted.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400001.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - 1/01/97 T.P.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CRACK AND JOINT SEALING	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - 5/01/97 E.T.							
Default 452001.DGN	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -					CONTRACT NO.		
	PLOT DATE = 5/10/2016	DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

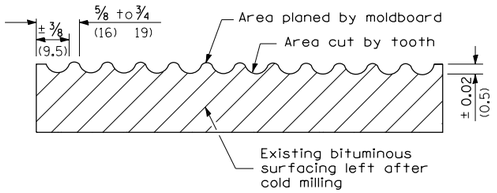
REQUIRED COLD MILLED SURFACE TEXTURE



PLAN



SECTION A-A



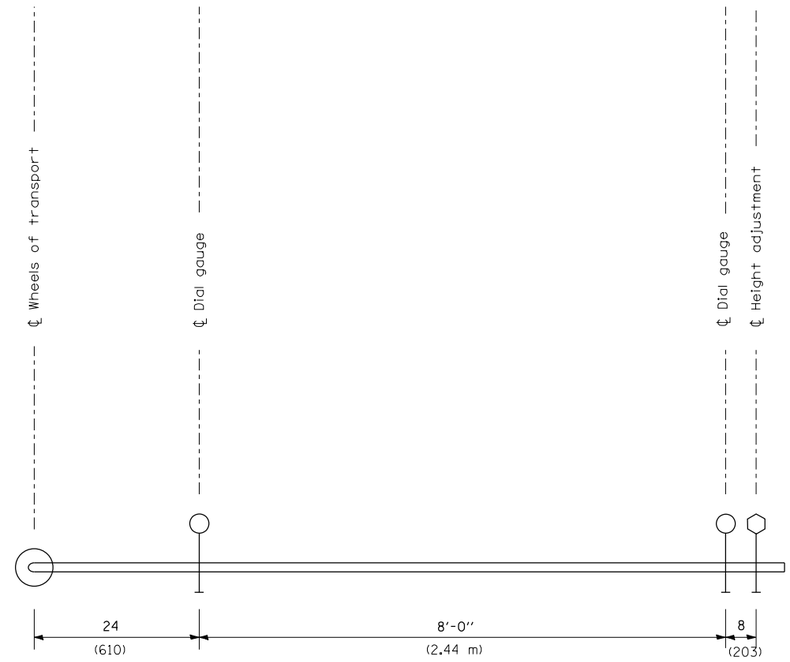
SECTION B-B PROJECTED PERPENDICULAR TO CENTERLINE

NOTES

1. Cold Milling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.

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

SLAB MOVEMENT DETECTION DEVICE



ELEVATION

NOTES

Dial gauges shall be spring loaded in order to measure both extension and compression.

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

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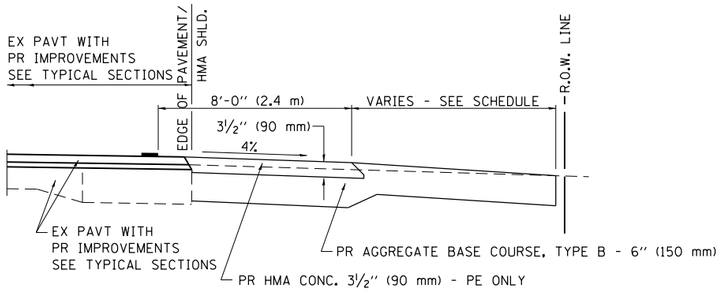
Default GOLDMILL.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

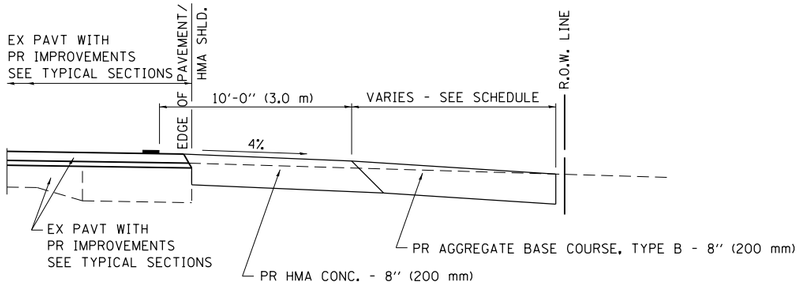
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

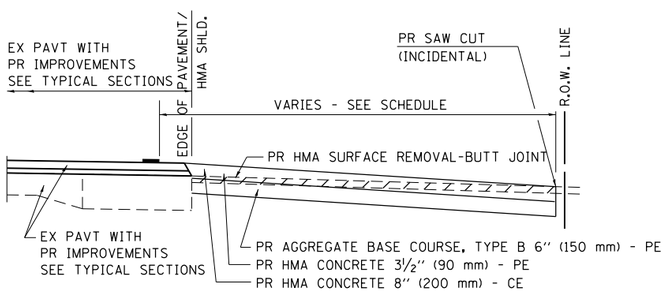
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



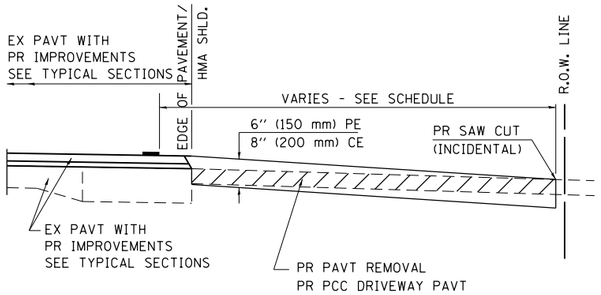
SECTION A-A FOR EX EARTH/AGGREGATE FE & PE



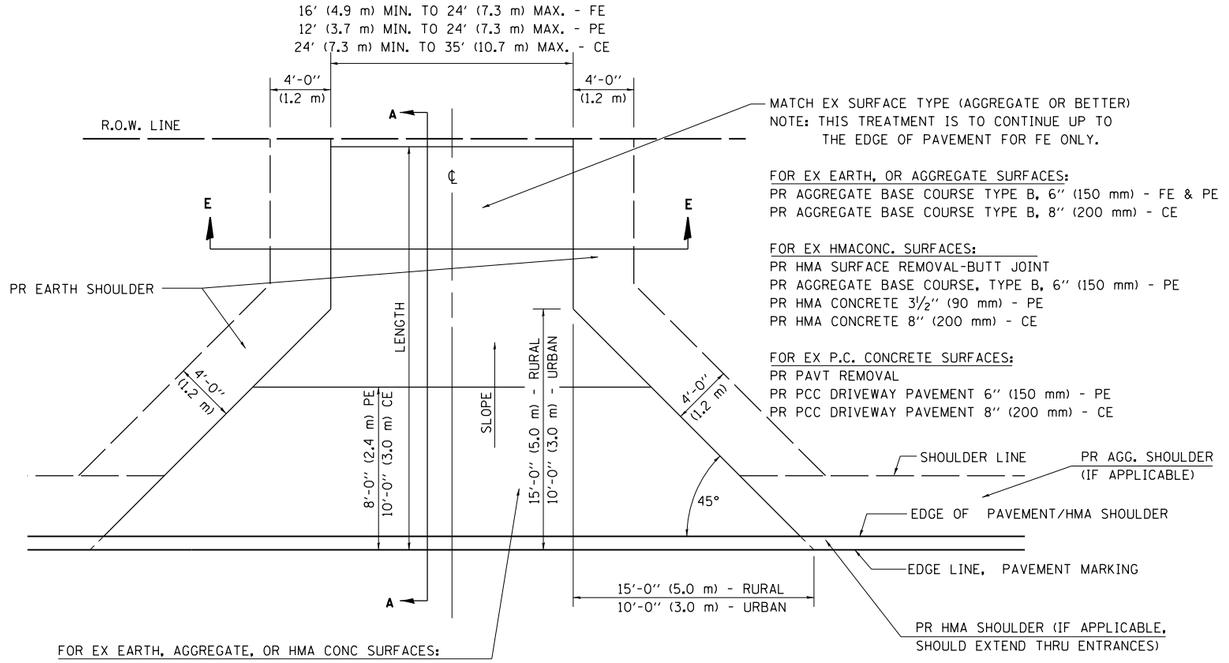
SECTION A-A FOR EX EARTH/AGGREGATE CE



SECTION A-A FOR EX HMA PE & CE



SECTION A-A FOR EX P.C. CONC. PE & CE



MATCH EX SURFACE TYPE (AGGREGATE OR BETTER)
NOTE: THIS TREATMENT IS TO CONTINUE UP TO THE EDGE OF PAVEMENT FOR FE ONLY.

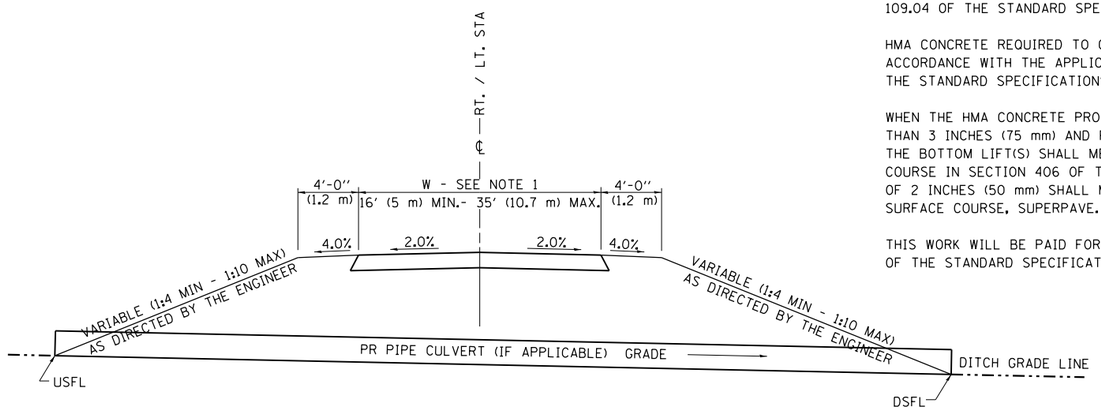
FOR EX EARTH, OR AGGREGATE SURFACES:
PR AGGREGATE BASE COURSE TYPE B, 6" (150 mm) - FE & PE
PR AGGREGATE BASE COURSE TYPE B, 8" (200 mm) - CE

FOR EX HMACONC. SURFACES:
PR HMA SURFACE REMOVAL-BUTT JOINT
PR AGGREGATE BASE COURSE, TYPE B, 6" (150 mm) - PE
PR HMA CONCRETE 3½" (90 mm) - PE
PR HMA CONCRETE 8" (200 mm) - CE

FOR EX P.C. CONCRETE SURFACES:
PR PAVT REMOVAL
PR PCC DRIVEWAY PAVEMENT 6" (150 mm) - PE
PR PCC DRIVEWAY PAVEMENT 8" (200 mm) - CE

FOR EX EARTH, AGGREGATE, OR HMA CONC SURFACES:
PR HMA SURFACE REMOVAL-BUTT JOINT (IF APPLICABLE)
PR AGGREGATE BASE COURSE TYPE B 6" (150 mm) - FE
PR AGGREGATE BASE COURSE TYPE B, 6" (150 mm) &
PR HMA CONCRETE 3½" (90 mm) - PE
PR HMA CONCRETE 8" (200 mm) - CE

FOR P.C. CONCRETE SURFACES:
PR PAVT REMOVAL
PR PCC DRIVEWAY PAVT 6" (150 mm) - PE
PR PCC DRIVEWAY PAVT 8" (200 mm) - CE



SECTION E - E ENTRANCE TYPICAL SECTION

NOTE 1: WIDTH OF ENTRANCE MAY BE INCREASED AT THE PIPE CULVERT DUE TO THE DITCHLINE BEING LOCATED IN THE ENTRANCE FLARE AREA.

GENERAL NOTES:

THE RESIDENT ENGINEER WILL DETERMINE THE EXACT TYPE OF IMPROVEMENT TO BE COMPLETED FOR ALL ENTRANCES, SIDEROADS AND MAILBOX TURNOUTS ON THIS PROJECT.

THE PLAN DETAILS AND SCHEDULES SHOULD BE USED AS A GUIDE FOR THE ENGINEER TO IMPLEMENT THE FINAL DESIGN. THE ENGINEER MAY DECIDE TO SALVAGE PORTIONS OF THE EXISTING ENTRANCE PAVEMENT STRUCTURE; THEREFORE, REDUCING PAY ITEM QUANTITIES. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THIS REDUCTION IN QUANTITIES.

ANY WORK THE ENGINEER REQUIRES WHICH IS NOT COVERED BY A PAY ITEM CONTAINED IN THE PLANS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

HMA CONCRETE REQUIRED TO CONSTRUCT THE ENTRANCES SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 406 AND 408 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

WHEN THE HMA CONCRETE PROPOSED FOR THE IMPROVEMENT IS THICKER THAN 3 INCHES (75 mm) AND REQUIRE PLACEMENT IN MORE THAN ONE LIFT, THE BOTTOM LIFT(S) SHALL MEET THE REQUIREMENTS OF HMA BASE COURSE IN SECTION 406 OF THE STANDARD SPECIFICATIONS AND THE TOP LIFT OF 2 INCHES (50 mm) SHALL MEET THE REQUIREMENTS OF HMA CONCRETE SURFACE COURSE, SUPERPAVE.

THIS WORK WILL BE PAID FOR IN ACCORDANCE WITH SECTIONS 351, 358, 408, 423 AND 440 OF THE STANDARD SPECIFICATIONS.

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400GADDr.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED - 2/19/03 (JCN)
		DRAWN -	REVISED - 4/01/04 (JCN)
	PLOT SCALE = 40.000 ' / in.	CHECKED - JCN	REVISED - 8/01/07 (JCN)
Default ENT 3R.DGN	PLOT DATE = 5/10/2016	DATE - FEBRUARY 23, 1999	REVISED - 01/2013

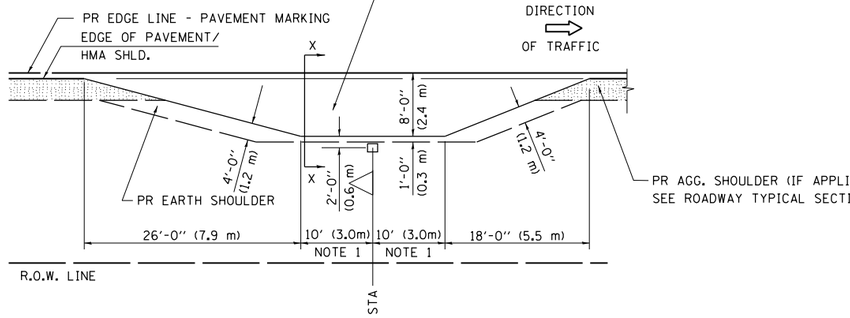
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

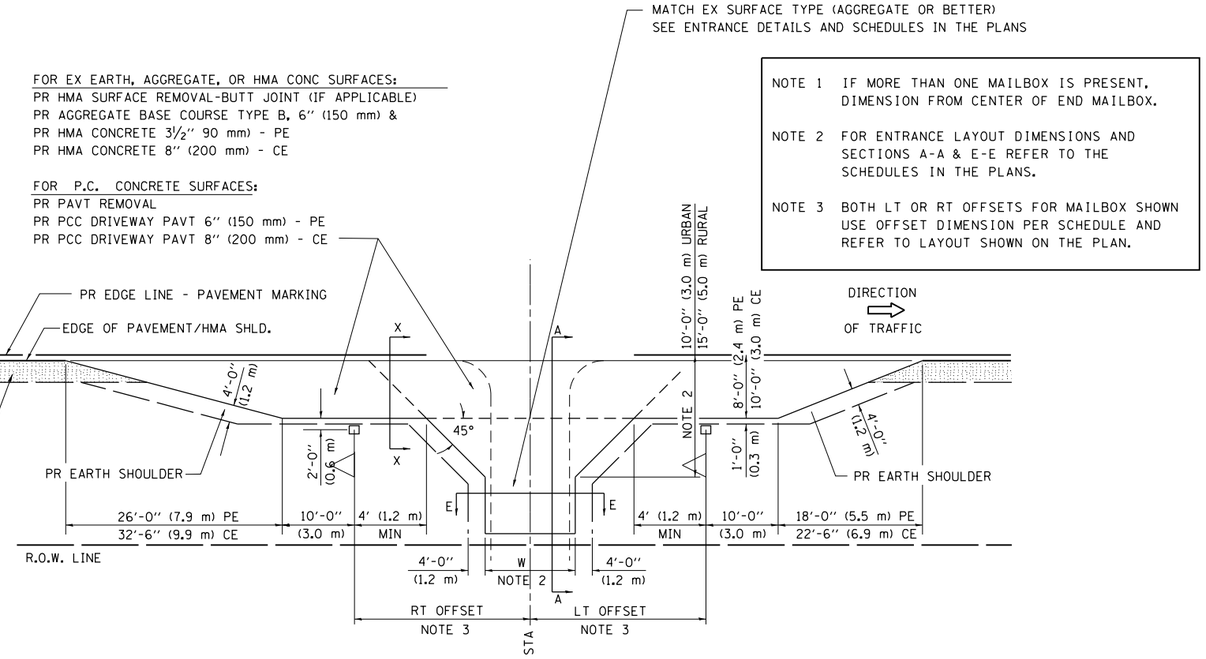
DISTRICT 6 DETAILS FOR RURAL /URBAN ENTRANCE & MAILBOX TURNOUT W/O CONC GUTTER (3R – PROJECTS)

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

DETAILS OF MAILBOX TURNOUTS





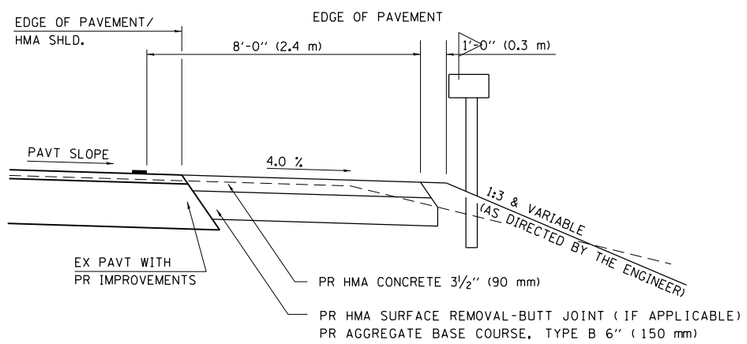
NOTE 1 IF MORE THAN ONE MAILBOX IS PRESENT, DIMENSION FROM CENTER OF END MAILBOX.

NOTE 2 FOR ENTRANCE LAYOUT DIMENSIONS AND SECTIONS A-A & E-E REFER TO THE SCHEDULES IN THE PLANS.

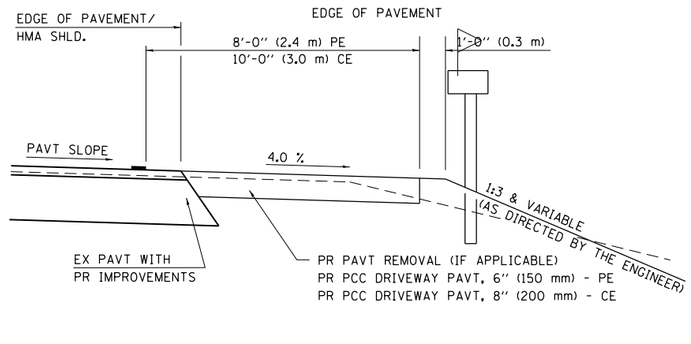
NOTE 3 BOTH LT OR RT OFFSETS FOR MAILBOX SHOWN USE OFFSET DIMENSION PER SCHEDULE AND REFER TO LAYOUT SHOWN ON THE PLAN.

PLAN - MAILBOX TURNOUTS

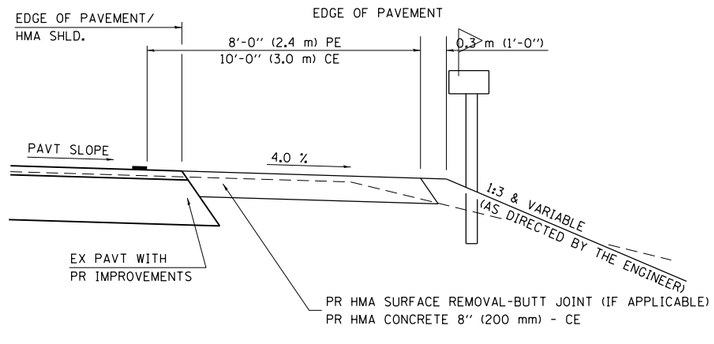
PLAN - COMBINED MAILBOX TURNOUT WITH TRAILING OR LEADING ENTRANCE



SECTION X-X THRU MAILBOX TURNOUT
ALSO APPLIES TO MAILBOX TURNOUTS COMBINED WITH EX EARTH, AGGREGATE, OR HMA PE & FE



SECTION X-X THRU MAILBOX TURNOUT
COMBINED WITH EX CONC PE OR CE



SECTION X-X THRU MAILBOX TURNOUT
COMBINED WITH EX EARTH, AGGREGATE, OR HMA CE

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	PLOT SCALE = 40.000 ' / in.	CHECKED - JCN	REVISED - 4/01/04 (JCN)		
Default ENT 3R.DGN	PLOT DATE = 5/10/2016	DATE - FEBRUARY 23, 1999	REVISED - 8/01/07 (JCN)		SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

ENTRANCE IMPROVEMENT SCHEDULE FOR RURAL / URBAN "3R" PROJECTS

LOCATION	TYPE OF ENTRANCE	EX MATERIAL TYPE	WIDTH	RT OFFSET	LT OFFSET	LENGTH (FROM EDGE OF PVT/ HMA SHLD TO LIMITS OF IMPROVEMENT)	PR HMA CONC. THICKNESS	HMA SURF. REM. - BUTT JOINT	PAVEMENT REMOVAL	PREP OF BASE	AGG. BASE REPAIR	AGGREGATE BASE COURSE TY - B	HMA (P.C.)	AGG (P.C.	INCIDENTAL HMA SURF.	P.C.C. DRIVEWAY PAVEMENT 6"	P.C.C. DRIVEWAY PAVEMENT 8"
(LT / RT) (STA) (+)	(FE / PE / CE / MB) (RURAL / URBAN)	(EARTH / AGG. / HMA / P.C.C.)	FOOT	FOOT	FOOT	FOOT	INCH	SQ. YD.	SQ. YD.	SQ. YD.	TON	TON	TON	TON	TON	SQ. YD.	SQ. YD.
TOTAL =																	

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-ent 3r.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - 2/19/03 (JCN)
		DRAWN - CADD	REVISED - 8/01/07 (JCN)
	PLOT SCALE = 40.000 ' / in.	CHECKED - JCN	REVISED -
Default ENT 3R.DGN	PLOT DATE = 5/10/2016	DATE - FEBRUARY 23, 1999	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

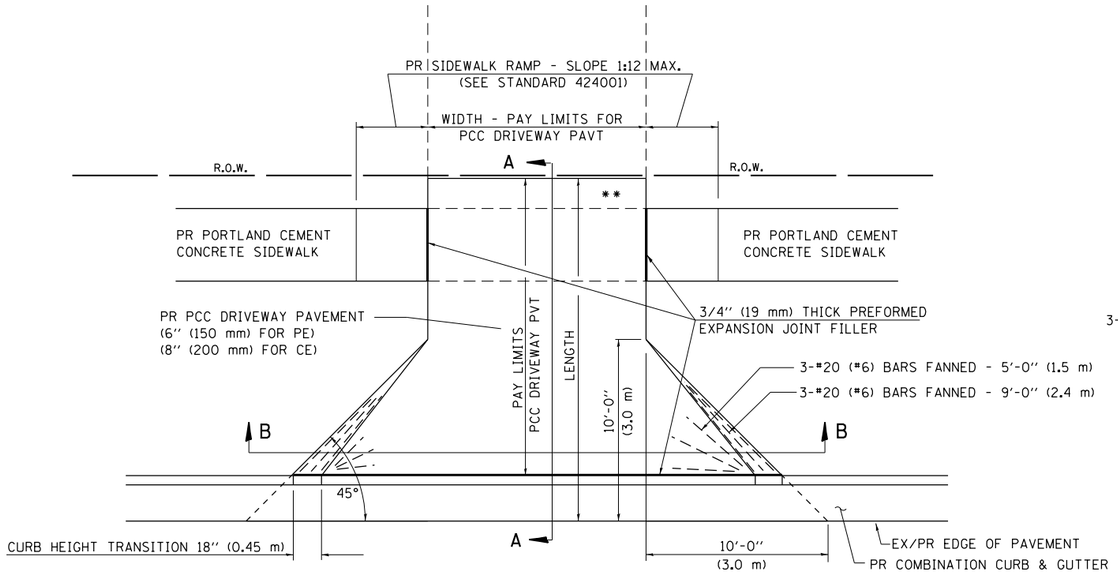
DISTRICT 6 DETAILS FOR RURAL / URBAN ENTRANCE &
MAILBOX TURNOUT W/O CONC GUTTER (3R – PROJECTS)

SCALE: | SHEET 3 OF 3 SHEETS | STA. TO STA.

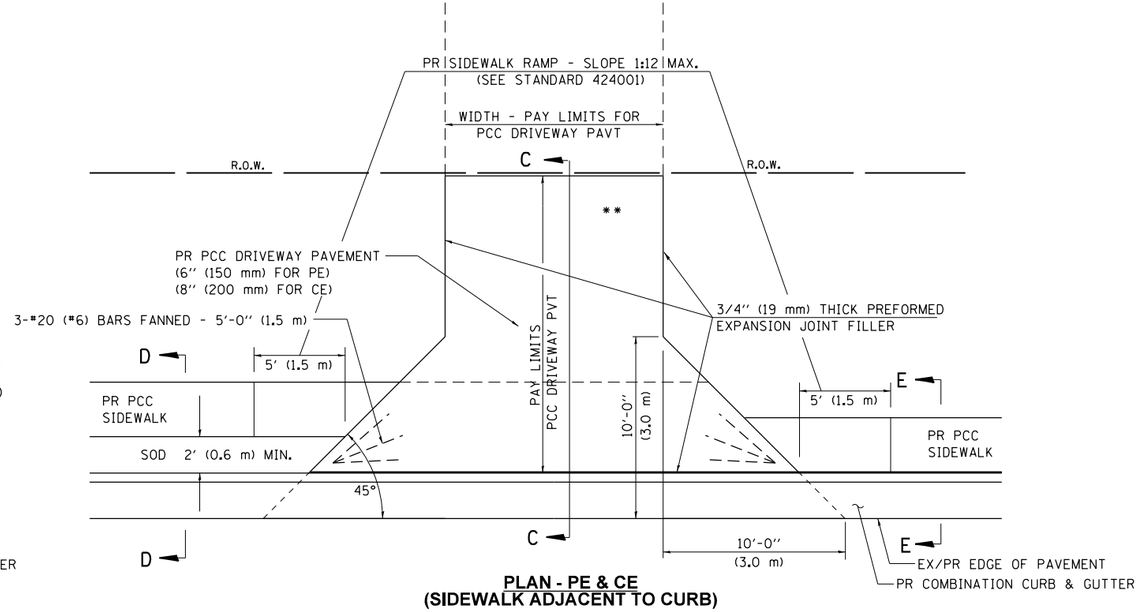
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

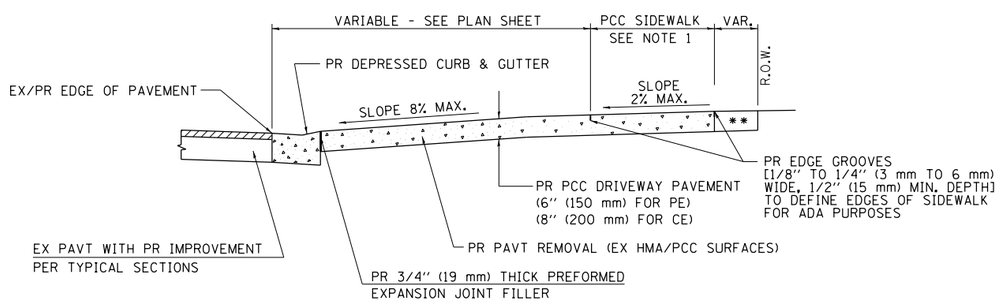
ILLINOIS | FED. AID PROJECT



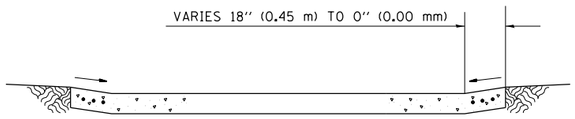
PLAN - PE & CE



PLAN - PE & CE
(SIDEWALK ADJACENT TO CURB)



SECTION A - A



SECTION B - B

NOTES:

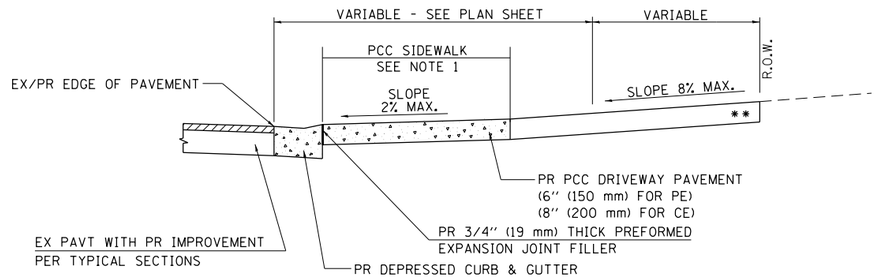
1. SEE PLAN SHEET / ENTRANCE PROFILE FOR LOCATION OF SIDEWALK.
2. THE COST OF FURNISHING AND INSTALLING THE 3/4" (19 mm) PREFORMED EXPANSION JOINT FILLER AND REINFORCEMENT BARS SHALL BE INCLUDED IN THE COST OF P.C.C. DRIVEWAY PAVEMENT.

** MATCH IN KIND BEHIND SIDEWALK
FOR EX EARTH OR AGGREGATE SURFACES :
PR AGGREGATE BASE COURSE, TYPE B 6" (150 mm) - PE/FE
PR PCC DRIVEWAY PAVT. 8" (200 mm) - CE

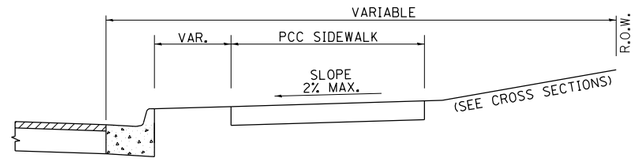
FOR EX HMA CONC. SURFACES :
PR HMA CONCRETE 6" (150 mm) - PE
PR HMA CONCRETE 8" (200 mm) - CE

FOR EX PCC SURFACES :
PR PCC DRIVEWAY PAVT. 6" (150 mm) - PE
PR PCC DRIVEWAY PAVT. 8" (200 mm) - CE

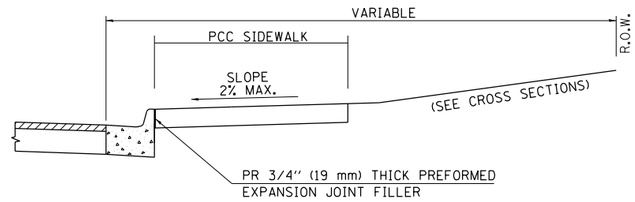
• NOTE : IN AREAS WITH NO SIDEWALK, MATCH IN KIND BEHIND 10'-0" (3.0 m) FLARE



SECTION C - C



SECTION D - D



SECTION E - E

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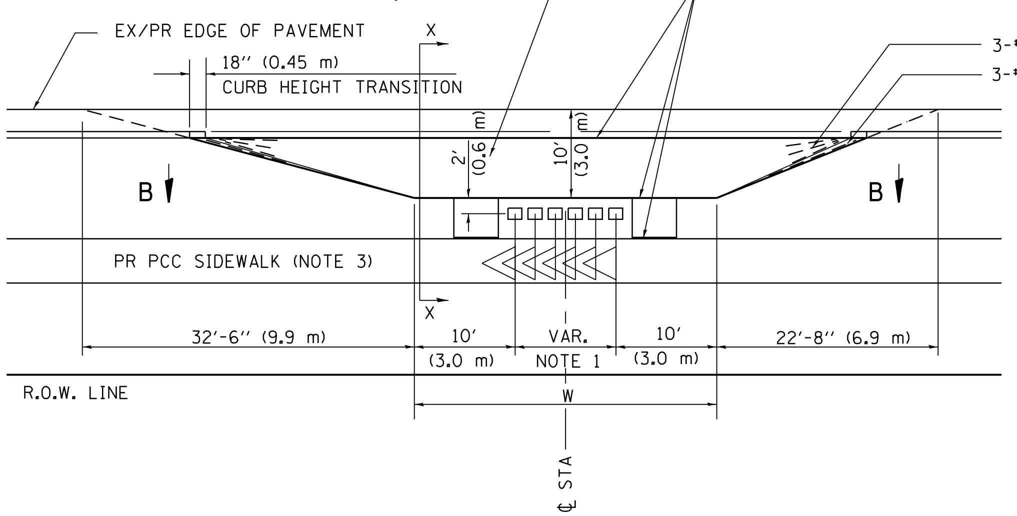
Default ENT 3R C&G.DGN	PLOT SCALE = 40.000 ' / in.	DRAWN -	REVISED - 4/01/04 (JCN)		
	PLOT DATE = 5/10/2016	CHECKED - JCN	REVISED -		SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.
		DATE - MARCH 17, 2000	REVISED -		

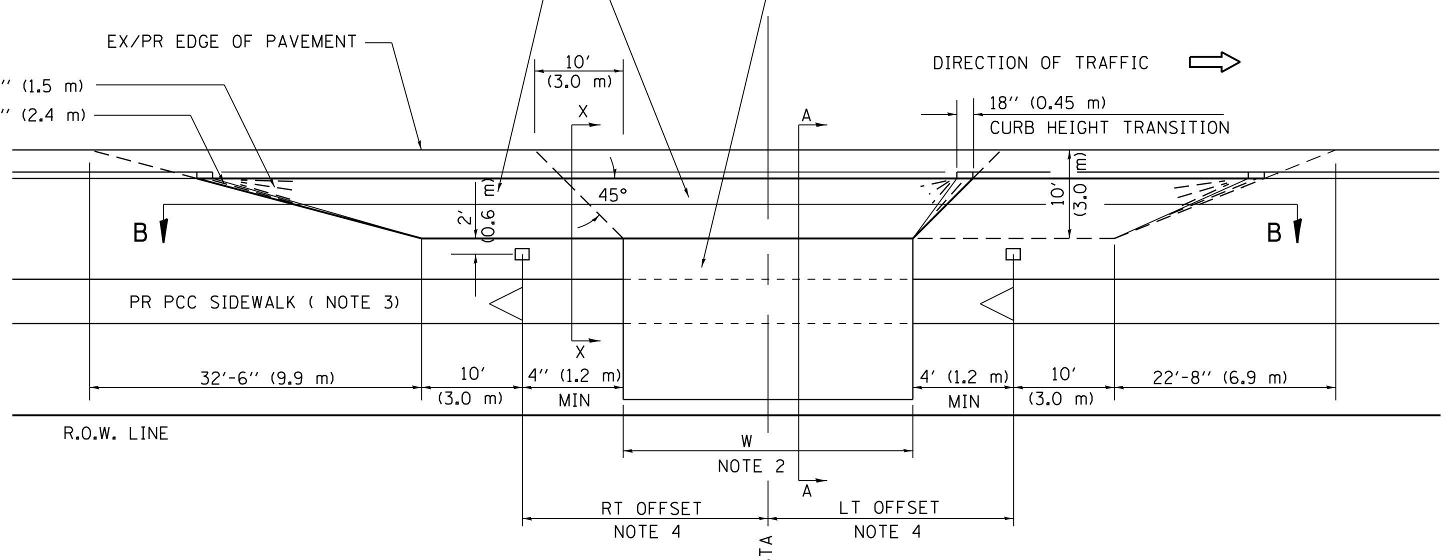
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

DETAILS OF MAILBOX TURNOUTS

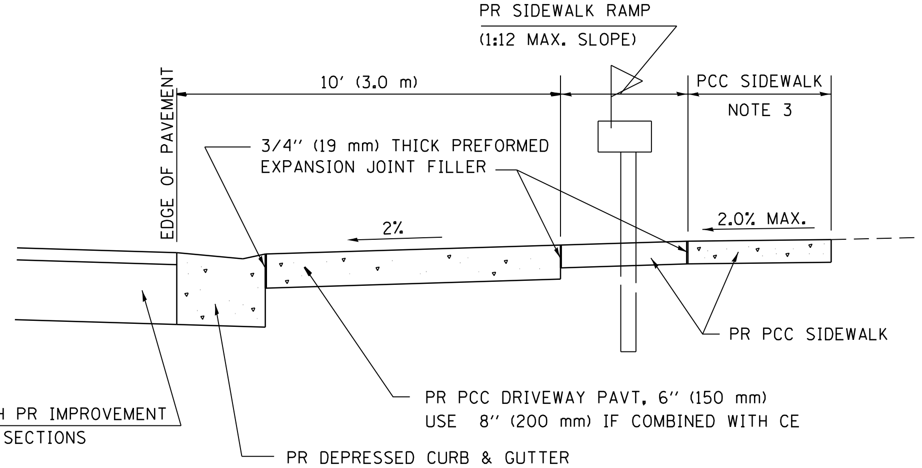
NOTE : ONLY REQUIRED FOR TWO-LANE AND THREE LANE SECTIONS OF ROADWAYS



PLAN - URBAN MULTIPLE MAILBOX TURNOUT



PLAN - COMBINED MAILBOX TURNOUT WITH TRAILING OR LEADING ENTRANCE



SECTION X-X THRU MAILBOX TURNOUT

NOTE 1 DIMENSION = (NUMBER OF MAILBOX - 1) TIMES 2′ (0.6 m)

NOTE 2 FOR ENTRANCE LAYOUT DIMENSIONS AND SECTIONS A-A & E-E REFER TO THE SCHEDULES IN THE PLANS.

NOTE 3 SEE PLAN LAYOUT SHEET FOR SIDEWALK LOCATION.

NOTE 4 BOTH LT OR RT OFFSETS FOR MAILBOX SHOWN USE OFFSET DIMENSION PER SCHEDULE AND REFER TO LAYOUT SHOWN ON THE PLAN.

FILE NAME = ENT 3R C&G.DGN	USER NAME = Verenskifa	DESIGNED -	REVISED - 2/19/03 (JCN)
	PLOT SCALE = 40.000 ′ / in.	CHECKED - JCN	REVISED -
	PLOT DATE = 5/10/2016	DATE - FEBRUARY 23, 1999	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 6 DETAILS FOR ENTRANCE & MAILBOX TURNOUT IN CURB & GUTTER SECTION (3R – PROJECTS)

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

ENTRANCE IMPROVEMENT SCHEDULE FOR URBAN (STANDARD CURB & GUTTER) "3R" PROJECTS

LOCATION	TYPE OF ENTRANCE	EX MATERIAL TYPE	WIDTH	RT OFFSET	LT OFFSET	LENGTH (FROM FRONT EDGE OF GUTTER TO LIMITS OF IMPROVEMENT)	PAVEMENT REMOVAL	PREP OF BASE	AGG. BASE REPAIR	P.C.C. DRIVEWAY PAVEMENT 6"	P.C.C. DRIVEWAY PAVEMENT 8"	AGGREGATE BASE COURSE TY - B	HMA (P.C.)	AGG (P.C.)	INCIDENTAL HMA SURF.
(LT / RT) (STA) (+)	(FE / PE / CE / MB)	(EARTH / AGG. / HMA / P.C.C.)	FOOT	FOOT	FOOT	FOOT	SQ. YD.	SQ. YD.	TON	SQ. YD.	SQ. YD.	TON	TON	TON	TON
TOTAL =															

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-ent 3r_c&g.dgn Default ENT 3R C&G.DGN	USER NAME = Verenskifa	DESIGNED -	REVISED - 2/19/03 (JCN)
		DRAWN - CADD	REVISED -
	PLOT SCALE = 40.000 ' / in.	CHECKED - JCN	REVISED -
	PLOT DATE = 5/10/2016	DATE - FEBRUARY 15, 1999	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

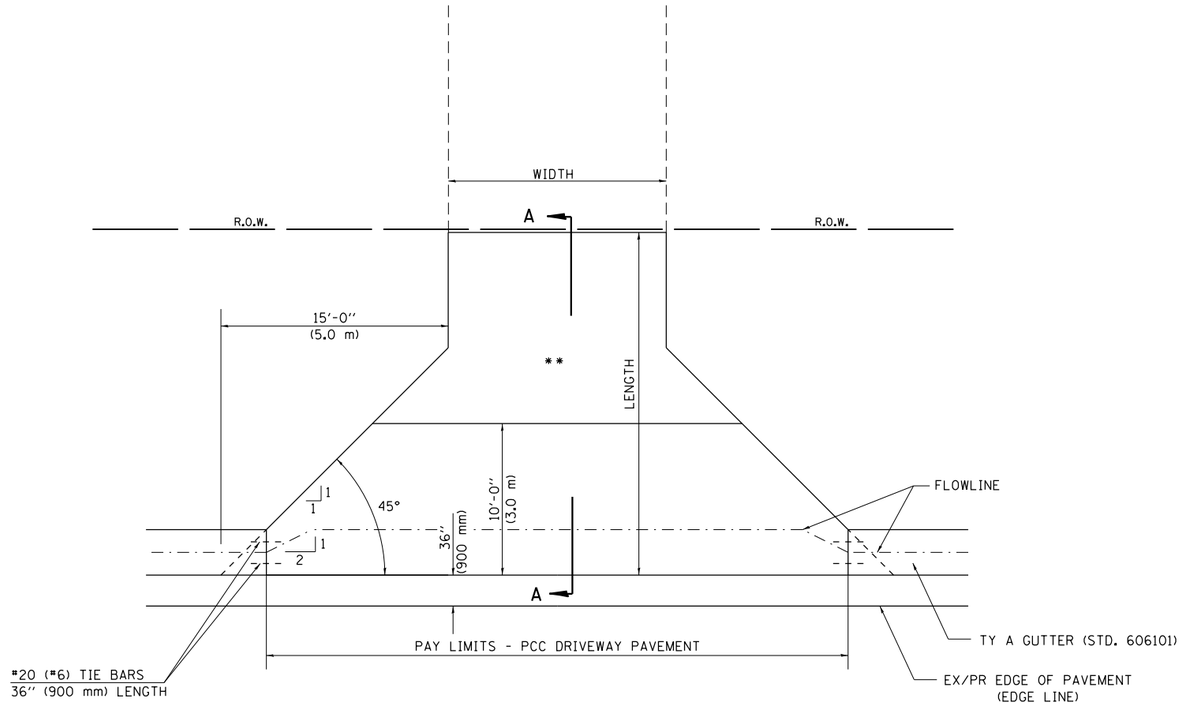
DISTRICT 6 DETAILS FOR ENTRANCE & MAILBOX TURNOUT IN CURB & GUTTER SECTION (3R - PROJECTS)

SCALE: | SHEET 2 OF 3 SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

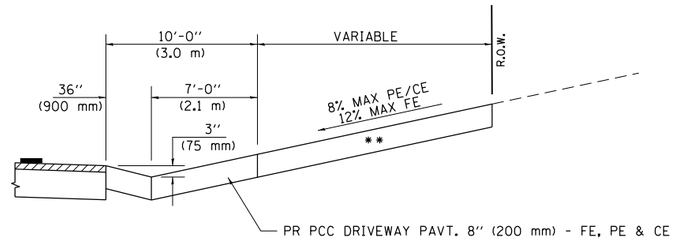
CONTRACT NO.

ILLINOIS | FED. AID PROJECT

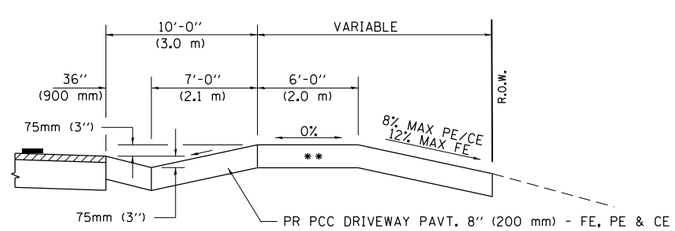


PLAN - RURAL FE, PE & CE

NOTE : THIS DETAIL OVERULES THE ENTRANCE DETAIL INCLUDED IN STD. 606101 ELSEWHERE HEREIN.



SECTION A - A
(CUT - SECTION)



SECTION A - A
(FILL SECTION)

** MATCH IN KIND BEHIND SIDEWALK
FOR EX EARTH OR AGGREGATE SURFACES :
PR AGGREGATE BASE COURSE, TYPE B 6" (150 mm) - PE/FE
PR PCC DRIVEWAY PAVT. 8" (200 mm) - CE

FOR EX HMA CONC. SURFACES :
PR HMA CONCRETE 6" (150 mm) - PE
PR HMA CONCRETE 8" (200 mm) - CE

FOR EX PCC SURFACES :
PR PCC DRIVEWAY PAVT. 6" (150 mm) - PE
PR PCC DRIVEWAY PAVT. 8" (200 mm) - CE

NOTES:

1. SEE PLAN SHEET / ENTRANCE PROFILE FOR LOCATION OF SIDEWALK.
2. THE COST OF FURNISHING AND INSTALLING THE 19 mm PREFORMED EXPANSION JOINT FILLER AND REINFORCEMENT BARS SHALL BE INCLUDED IN THE COST OF P.C.C. DRIVEWAY PAVEMENT.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400\606ENT 3R TAG.DGN	USER NAME = Verenskifa	DESIGNED -	REVISED - JCN 2/19/03
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	PLOT SCALE = 40.000 ' / in.	CHECKED - JCN	REVISED -
Default	PLOT DATE = 5/10/2016	DATE - FEBRUARY 15, 1999	REVISED -

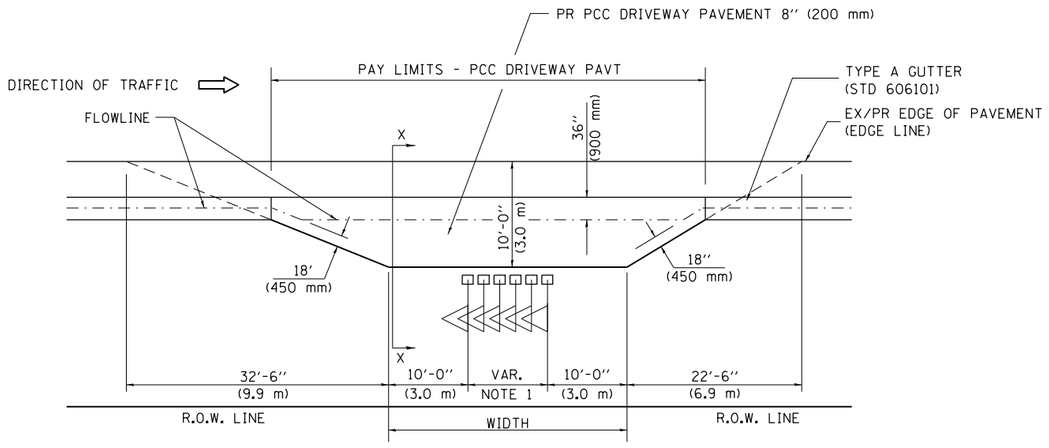
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIST. 6 DETAILS FOR RURAL ENTRANCE & MAILBOX TURNOUT IN STD. TYPE A GUTTER SECT. (3R – PROJ.)

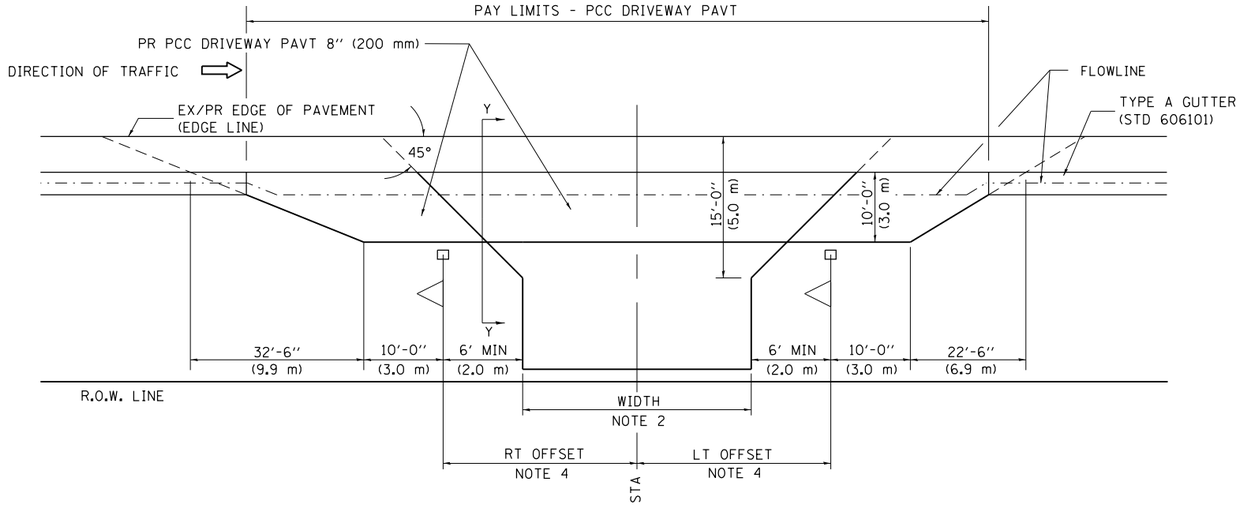
SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

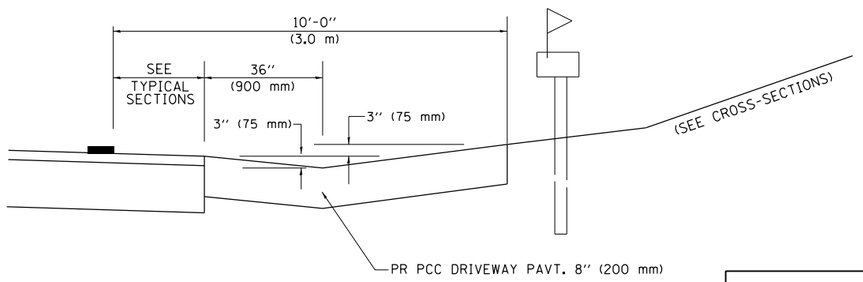
DETAILS OF MAILBOX TURNOUTS



PLAN - RURAL MULTIPLE MAILBOX TURNOUT



PLAN - COMBINED MAILBOX TURNOUT WITH TRAILING OR LEADING ENTRANCE

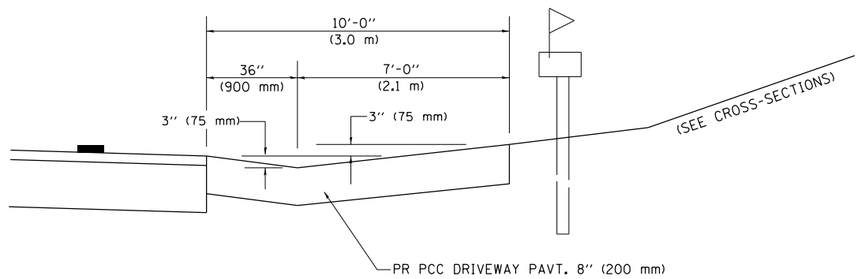


SECTION X-X THRU MAILBOX TURNOUT

NOTE 1 DIMENSION = (NUMBER OF MAILBOX - 1) TIMES 2'-0'' (0.6 m)

NOTE 2 FOR ENTRANCE LAYOUT DIMENSIONS AND SECTIONS A-A & E-E REFER TO THE SCHEDULES IN THE PLANS.

NOTE 4 BOTH LT OR RT OFFSETS FOR MAILBOX SHOWN USE OFFSET DIMENSION PER SCHEDULE AND REFER TO LAYOUT SHOWN ON THE PLAN.



SECTION Y-Y THRU MAILBOX TURNOUT

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\402GADD_tag.dgn Default ENT 3R TAG.DGN	USER NAME = Verenskfa	DESIGNED -	REVISED - JCN 2/19/03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DIST. 6 DETAILS FOR RURAL ENTRANCE & MAILBOX TURNOUT IN STD. TYPE A GUTTER SECT. (3R – PROJ.)
		DRAWN -	REVISED - 01/2013		
	PLOT SCALE = 40.000 '/ in.	CHECKED - JCN	REVISED -		SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.
	PLOT DATE = 5/10/2016	DATE - FEBRUARY 23, 1999	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

ENTRANCE IMPROVEMENT SCHEDULE FOR RURAL (TYPE A STANDARD GUTTER) "3R" PROJECTS

LOCATION	TYPE OF ENTRANCE	EX MATERIAL TYPE	WIDTH	RT OFFSET	LT OFFSET	LENGTH (FROM EDGE OF GUTTER TO LIMITS OF IMPROVEMENT)	PAVEMENT REMOVAL	PREP OF BASE	AGG. BASE REPAIR	P.C.C. DRIVEWAY PAVEMENT 6"	P.C.C. DRIVEWAY PAVEMENT 8"	AGGREGATE SURFACE COURSE TY - B	HMA (P.C.)	AGG (P.C.)	INCIDENTAL HMA SURF.
(LT / RT) (STA) (+)	(FE / PE / CE / MB)	(EARTH / AGG. / HMA / P.C.C.)	FOOT	FOOT	FOOT	FOOT	SQ. YD.	SQ. YD.	TON	SQ. YD.	SQ. YD.	TON	TON	TON	TON
TOTAL =															

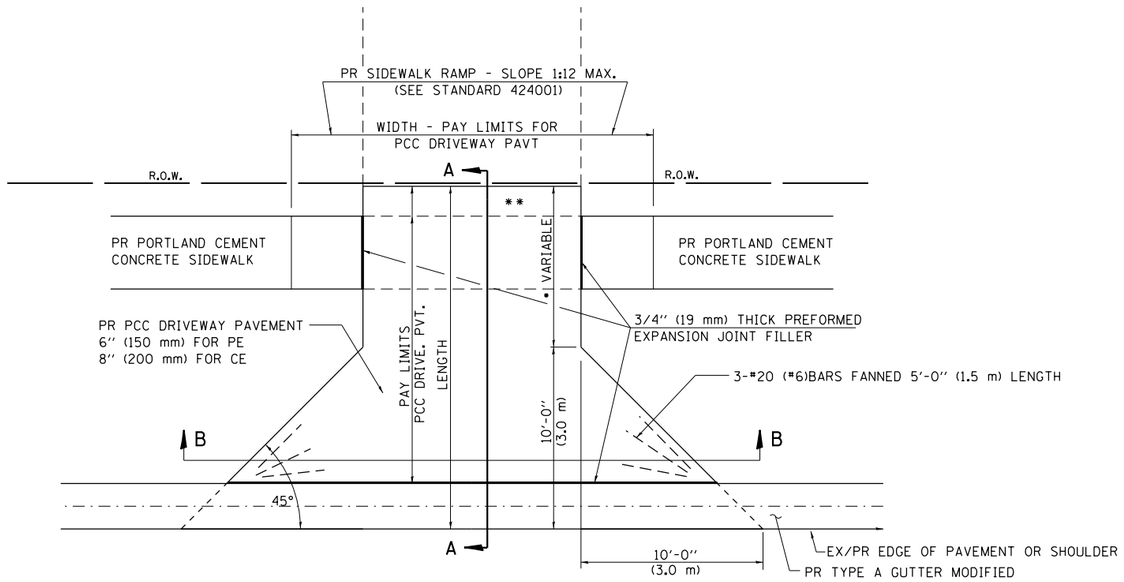
FILE NAME =	USER NAME = Verenskifa	DESIGNED -	REVISED - JCN 2/19/03
pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-ent_3r_tag.dgn		DRAWN - CADD	REVISED - JCN 4/01/04
	PLOT SCALE = 40.000 ' / in.	CHECKED - JCN	REVISED -
Default ENT 3R TAG.DGN	PLOT DATE = 5/10/2016	DATE - FEBRUARY 15, 1999	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIST. 6 DETAILS FOR RURAL ENTRANCE & MAILBOX TURNOUT IN STD. TYPE A GUTTER SECT. (3R - PROJ.)

SCALE: | SHEET 3 OF 3 SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



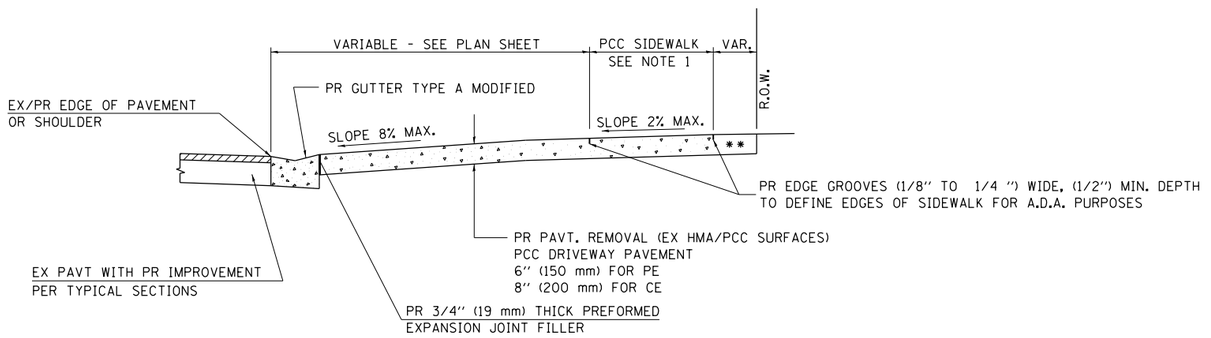
PLAN - URBAN PE & CE

** MATCH IN KIND BEHIND SIDEWALK
FOR EX EARTH OR AGGREGATE SURFACES :
PR AGGREGATE BASE COURSE, TYPE B 6'' (150 mm) - PE/FE
PR PCC DRIVEWAY PAVT. 8'' (200 mm) - CE

FOR EX HMA CONC. SURFACES :
PR HMA CONCRETE 6'' (150 mm) - PE
PR HMA CONCRETE 8'' (200 mm) - CE

FOR EX PCC SURFACES :
PR PCC DRIVEWAY PAVT. 6'' (150 mm) - PE
PR PCC DRIVEWAY PAVT. 8'' (200 mm) - CE

• NOTE : IN AREAS WITH NO SIDEWALK, MATCH IN KIND BEHIND 10' (3.0 m) FLARE



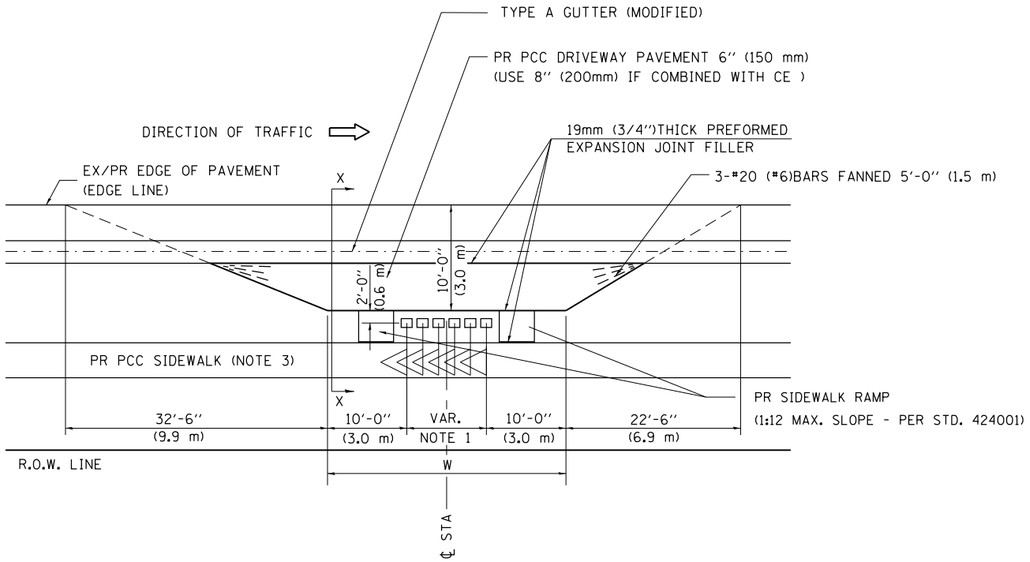
SECTION A - A

NOTES:

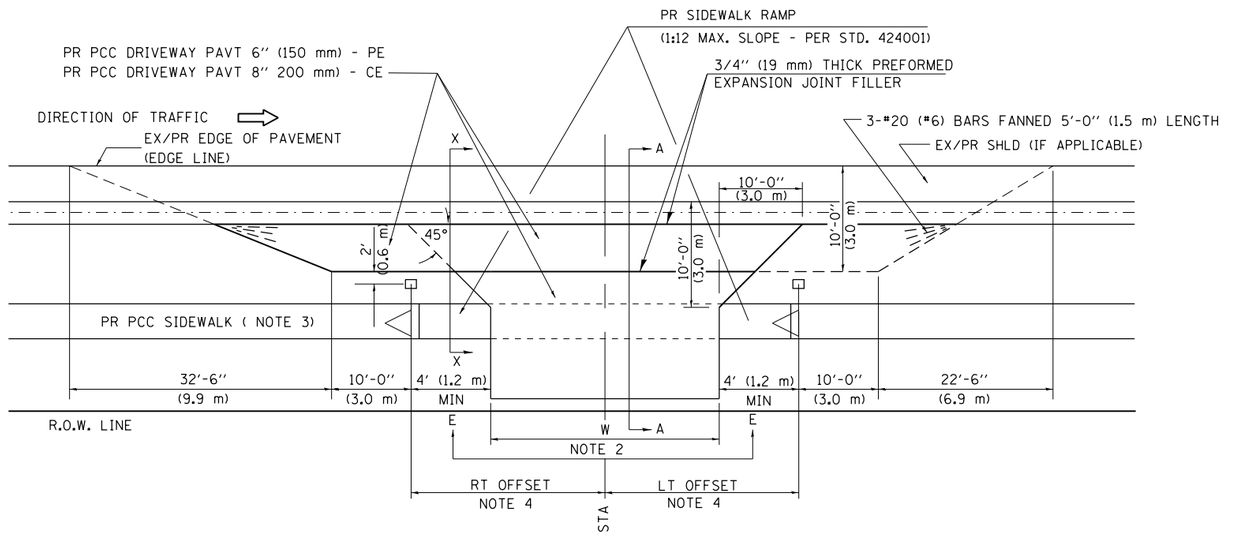
1. SEE PLAN SHEET / ENTRANCE PROFILE FOR LOCATION OF SIDEWALK.
2. THE COST OF FURNISHING AND INSTALLING THE 3/4'' (19 mm) PREFORMED EXPANSION JOINT FILLER AND REINFORCEMENT BARS SHALL BE INCLUDED IN THE COST OF P.C.C. DRIVEWAY PAVEMENT.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400 GADD_r_tag_m.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - JCN 10/20/03	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**DIST. 6 DETAILS FOR ENTRANCE & MAILBOX TURNOUT IN TYPE A GUTTER MODIFIED SECT. (3R PROJ.)**	F.A. RTE.	SECTION / COUNTY / TOTAL SHEETS / SHEET NO.
	PLOT SCALE = 40.000 '/ in.	DRAWN -	REVISED -				
Default ENT 3R TAG M.DGN	PLOT DATE = 5/10/2016	CHECKED - JCN	REVISED -				CONTRACT NO.
		DATE - FEBRUARY 23, 1999	REVISED -		SCALE: / SHEET 1 OF 3 SHEETS / STA. / TO STA.		ILLINOIS FED. AID PROJECT

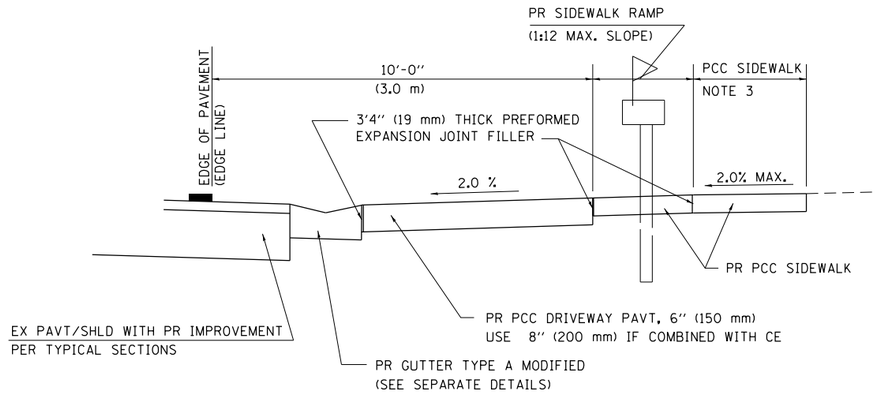
DETAILS OF MAILBOX TURNOUTS



PLAN - URBAN MULTIPLE MAILBOX TURNOUT



PLAN - COMBINED MAILBOX TURNOUT WITH TRAILING OR LEADING ENTRANCE



SECTION X-X THRU MAILBOX TURNOUT

NOTE 1 DIMENSION = (NUMBER OF MAILBOX - 1) TIMES 2' (0.6 m)

NOTE 2 FOR ENTRANCE LAYOUT DIMENSIONS AND SECTIONS A-A & E-E REFER TO THE SCHEDULES IN THE PLANS.

NOTE 3 SEE PLAN LAYOUT SHEET FOR SIDEWALK LOCATION.

NOTE 4 BOTH LT OR RT OFFSETS FOR MAILBOX SHOWN USE OFFSET DIMENSION PER SCHEDULE AND REFER TO LAYOUT SHOWN ON THE PLAN.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400 GADD\ent_3r_tag_m.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - JCN 10/20/03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DIST. 6 DETAILS FOR ENTRANCE & MAILBOX TURNOUT IN TYPE A GUTTER MODIFIED SECT. (3R PROJ.)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.000 ' / in.	CHECKED - JCN	REVISED -							
DGN: ENT 3R TAG M.DGN	PLOT DATE = 5/10/2016	DATE - FEBRUARY 23, 1999	REVISED -		SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.			CONTRACT NO.		
							ILLINOIS	FED. AID PROJECT		

ENTRANCE IMPROVEMENT SCHEDULE FOR URBAN (TYPE A MODIFIED GUTTER) "3R" PROJECTS

LOCATION	TYPE OF ENTRANCE	EX MATERIAL TYPE	WIDTH	RT OFFSET	LT OFFSET	LENGTH (FROM EDGE OF GUTTER TO LIMITS OF IMPROVEMENT)	PAVEMENT REMOVAL	PREP OF BASE	AGG. BASE REPAIR	P.C.C. DRIVEWAY PAVEMENT 6"	P.C.C. DRIVEWAY PAVEMENT 8"	AGGREGATE BASE COURSE TY - B	HMA (P.C.)	AGG (P.C.)	INCIDENTAL HMA SURF.
(LT / RT) (STA) (+)	(FE / PE / CE / MB)	(EARTH / AGG. / HMA / P.C.C.)	FOOT	FOOT	FOOT	FOOT	SQ. YD.	SQ. YD.	TON	SQ. YD.	SQ. YD.	TON	TON	TON	TON
TOTAL =															

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PLOT DATE = 5/10/2016

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CHECKED - JCN
DATE - FEBRUARY 23, 1999

REVISED - JCN 10/20/03
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

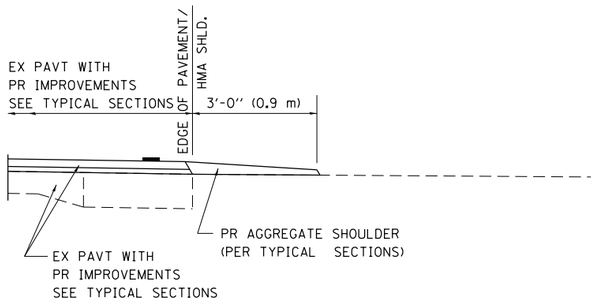
DIST. 6 DETAILS FOR ENTRANCE & MAILBOX TURNOUT
IN TYPE A GUTTER MODIFIED SECT. (3R PROJ.)

SCALE: | SHEET 3 OF 3 SHEETS | STA. TO STA.

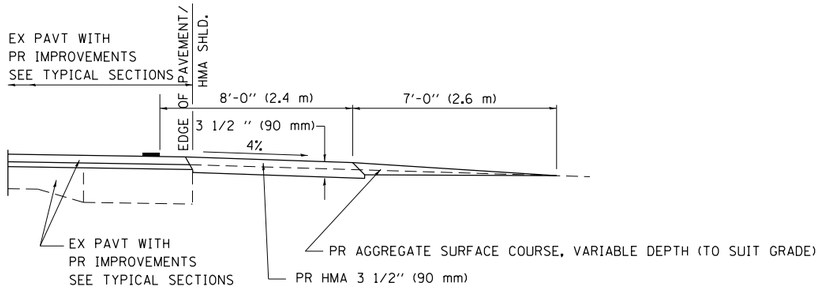
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

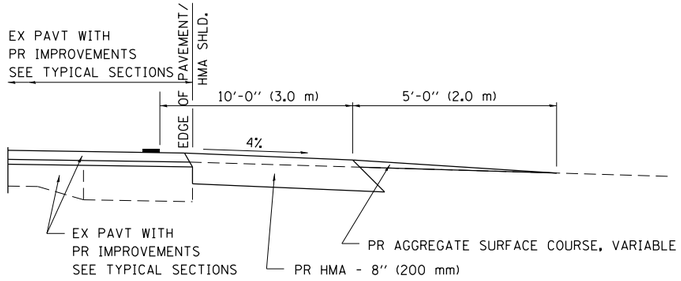
ILLINOIS | FED. AID PROJECT



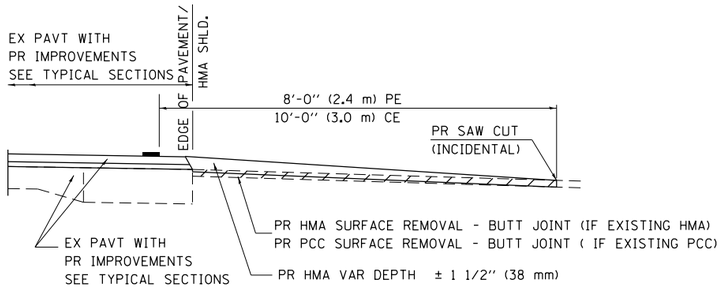
SECTION A-A FOR EX EARTH/ AGGREGATE FE



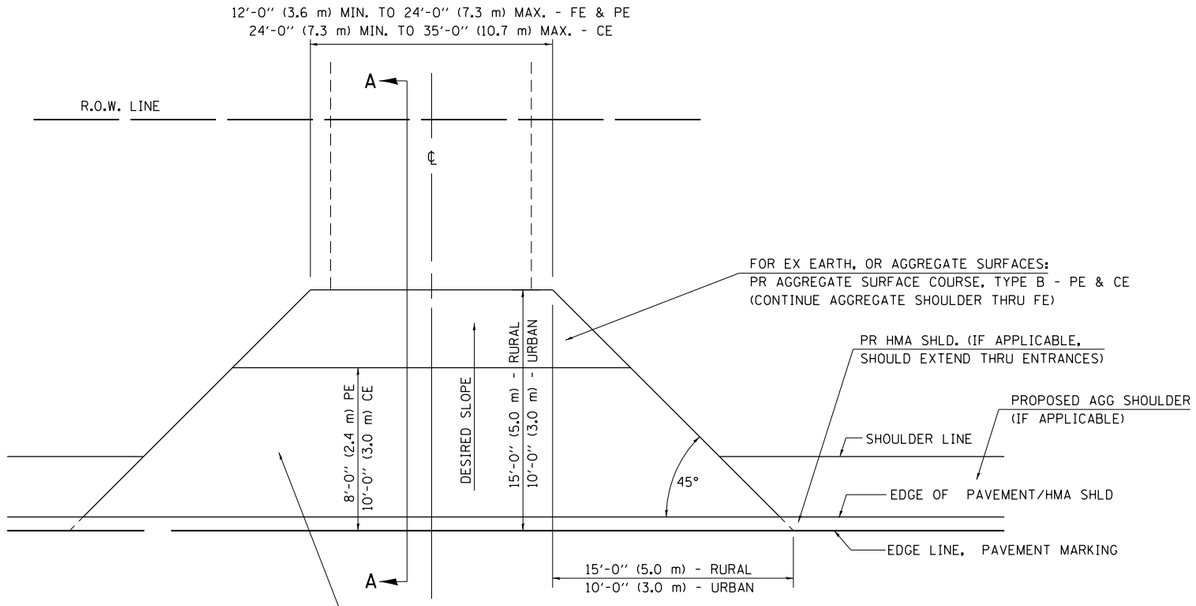
SECTION A-A FOR EX EARTH/AGGREGATE PE



SECTION A-A FOR EX EARTH/AGGREGATE CE & SIDE ROAD



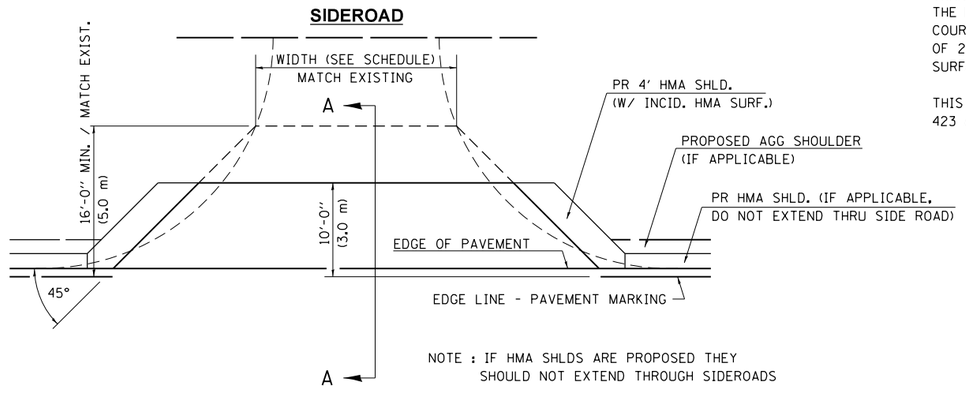
SECTION A-A FOR EX HMA/ PC CONCRETE PE, CE & SIDE ROAD



FOR EX EARTH OR AGGREGATE SURFACES:
PR HMA SURFACE REMOVAL (IF APPLICABLE)
PR AGGREGATE SHOULDER THRU - FE
PR HMA CONCRETE 3 1/2 '' (90 mm) - PE
PR HMA CONCRETE 8'' (200 mm) - CE

FOR EX HMA CONCRETE SURFACES:
PR HMA SURFACE REMOVAL-BUTT JOINT

FOR EX PCC SURFACES:
PR PCC SURFACE REMOVAL-BUTT JOINT



GENERAL NOTES:

THE RESIDENT ENGINEER WILL DETERMINE THE EXACT TYPE OF IMPROVEMENT TO BE COMPLETED FOR ALL ENTRANCES, SIDEROADS AND MAILBOX TURNOUTS ON THIS PROJECT.

THE PLAN DETAILS AND SCHEDULES SHOULD BE USED AS A GUIDE FOR THE ENGINEER TO IMPLEMENT THE FINAL DESIGN. THE ENGINEER MAY DECIDE TO SALVAGE PORTIONS OF THE EXISTING ENTRANCE PAVEMENT STRUCTURE; THEREFORE, REDUCING PAY ITEM QUANTITIES. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THIS REDUCTION IN QUANTITIES.

ANY WORK THE ENGINEER REQUIRES WHICH IS NOT COVERED BY A PAY ITEM CONTAINED IN THE PLANS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

HMA CONCRETE REQUIRED TO CONSTRUCT THE ENTRANCES SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 406 AND 408 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

WHEN THE HMA CONCRETE PROPOSED FOR THE IMPROVEMENT IS THICKER THAN 3 INCHES (75 mm) AND REQUIRE PLACEMENT IN MORE THAN ONE LIFT. THE BOTTOM LIFT(S) SHALL MEET THE REQUIREMENTS OF HMA BASE COURSE IN SECTION 406 OF THE STANDARD SPECIFICATIONS AND THE TOP LIFT OF 2 INCHES (50 mm) SHALL MEET THE REQUIREMENTS OF HMA CONCRETE SURFACE COURSE, SUPERPAVE.

THIS WORK WILL BE PAID FOR IN ACCORDANCE WITH SECTIONS 351, 358, 408, 423 AND 440 OF THE STANDARD SPECIFICATIONS.

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

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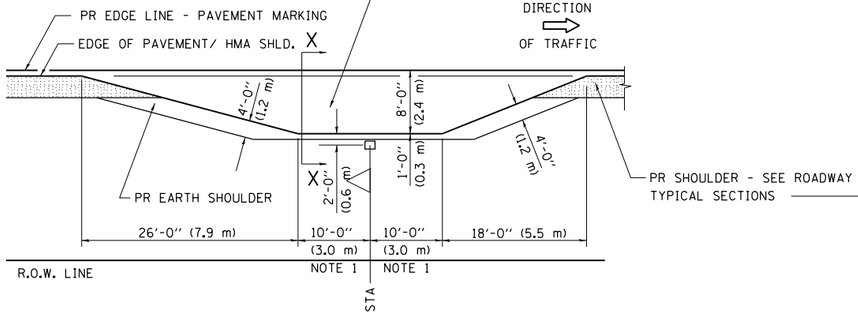
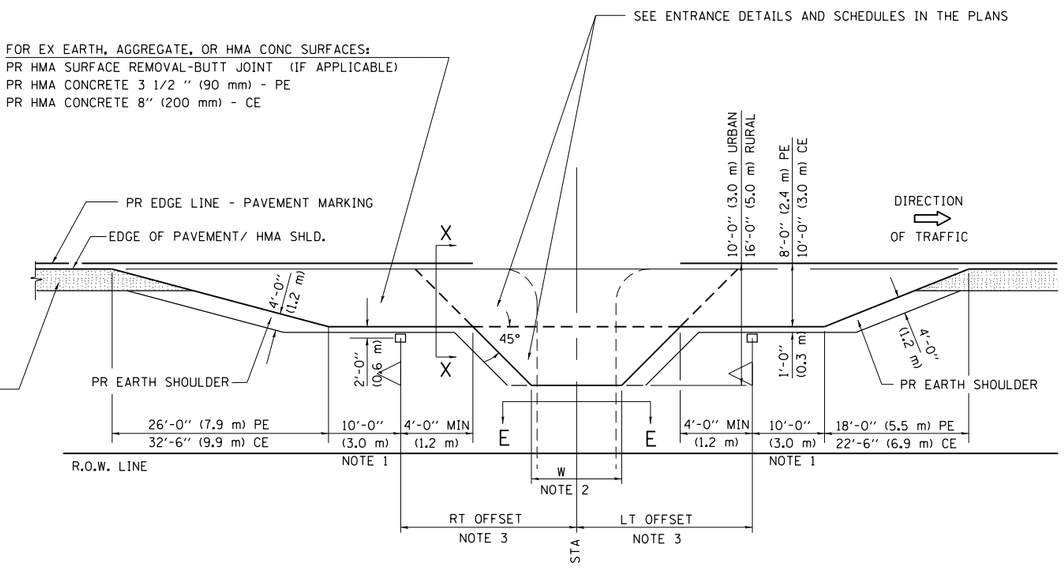
	PLOT SCALE = 40.000 '/ in.	CHECKED - JCN	REVISED -		SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.
	PLOT DATE = 5/10/2016	DATE - FEBRUARY 23, 1999	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

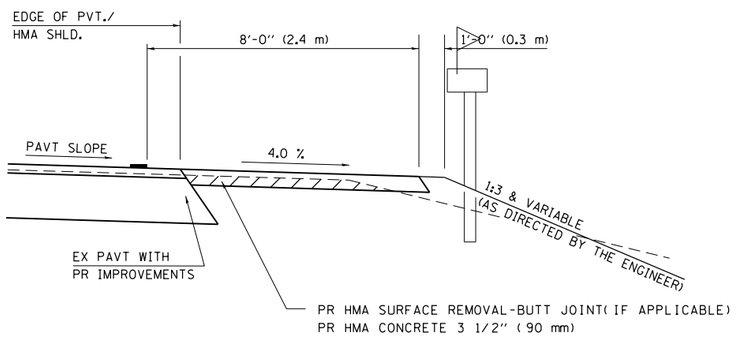
DETAILS OF MAILBOX TURNOUTS



PLAN - MAILBOX TURNOUTS

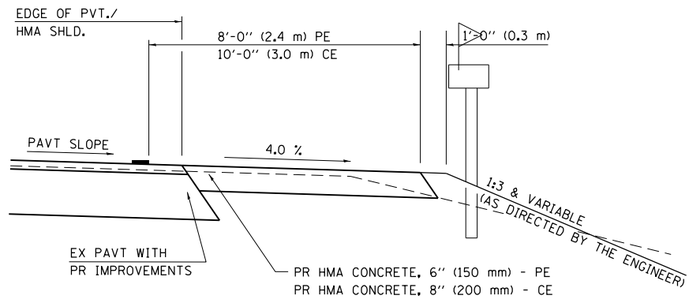


PLAN - COMBINED MAILBOX TURNOUT WITH TRAILING OR LEADING ENTRANCE



SECTION X-X THRU MAILBOX TURNOUT
ALSO APPLIES TO MAILBOX TURNOUTS COMBINED WITH EX EARTH, AGGREGATE, OR HMA PE & FE

(DETAIL APPLIES WHEN M.B. TURNOUT DOES NOT EXIST. IF EXISTING, TREAT SAME AS ENTRANCE.)



SECTION X-X THRU MAILBOX TURNOUT
COMBINED WITH EX HMA CONC & PC CONC PE & CE

(DETAIL APPLIES WHEN M.B. TURNOUT DOES NOT EXIST. IF EXISTING, TREAT SAME AS ENTRANCE.)

NOTE 1 IF MORE THAN ONE MAILBOX IS PRESENT, DIMENSION FROM CENTER OF END MAILBOX.

NOTE 2 FOR ENTRANCE LAYOUT DIMENSIONS AND SECTIONS A-A & E-E REFER TO THE SCHEDULES IN THE PLANS.

NOTE 3 BOTH LT OR RT OFFSETS FOR MAILBOX SHOWN USE OFFSET DIMENSION PER SCHEDULE AND REFER TO LAYOUT SHOWN ON THE PLAN.

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

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Default ENT PPP.DGN	PLOT SCALE = 40.000 ' / in.	DRAWN -	REVISED - 4/01/04	JCN	
	PLOT DATE = 5/10/2016	CHECKED - JCN	REVISED -		
		DATE - FEBRUARY 23, 1999	REVISED -		

DIST. 6 DETAILS FOR RURAL/URBAN ENT., MAILBOX TURNOUT & SIDEROADS W/O CONC. GUTTER (3P–PROJ.)

SCALE: | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

ENTRANCE IMPROVEMENT SCHEDULE FOR RURAL / URBAN "PPP" PROJECTS

LOCATION	TYPE OF ENTRANCE	EX MATERIAL TYPE	WIDTH	RT OFFSET	LT OFFSET	LENGTH (FROM EDGE OF PVT/ HMA SHLD TO LIMITS OF IMPROVEMENT)	PR HMA CONC. THICKNESS	HMA SURF. REM. - BUTT JOINT	P.C.C. SURF. REM. - BUTT JOINT	PREP OF BASE	AGG. BASE REPAIR	AGGREGATE SURFACE COURSE TY - B	HMA (P.C.)	AGG (P.C.	INCIDENTAL HMA SURF.
(LT / RT) (STA) (+)	(FE / PE / CE / MB) (RURAL / URBAN)	(EARTH / AGG. / HMA / P.C.C.)	FOOT	FOOT	FOOT	FOOT	INCH	SQ. YD.	SQ. YD.	SQ. YD.	TON	TON	TON	TON	TON
TOTAL =															

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CHECKED - JCN
DATE - FEBRUARY 23, 1999

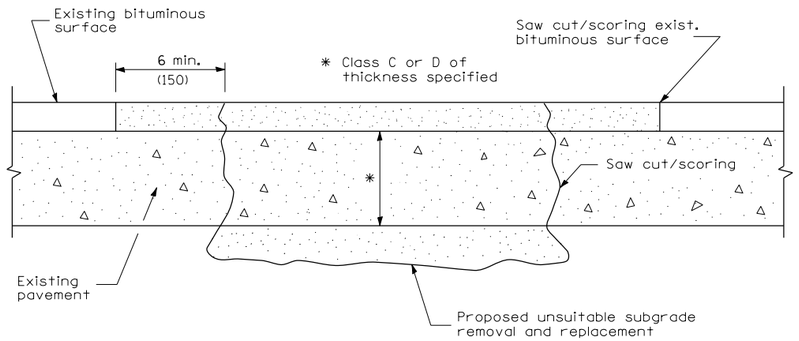
REVISED - 2/19/03 JCN
REVISED - 4/01/04 JCN
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIST. 6 DETAILS FOR RURAL/URBAN ENT., MAILBOX TURNOUT & SIDEROADS W/O CONC. GUTTER (3P–PROJ.)

SCALE: SHEET 3 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



SEQUENCE OF CONSTRUCTION

1. Remove the existing bituminous surface.
2. Remove and replace full depth patches.
3. Replace bituminous surface.

PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT

GENERAL 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 basis of payment see Special Provision "Bituminous Surface Removal over Patches".

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-patchbit.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.000 ' / in.	DRAWN -	REVISED -							
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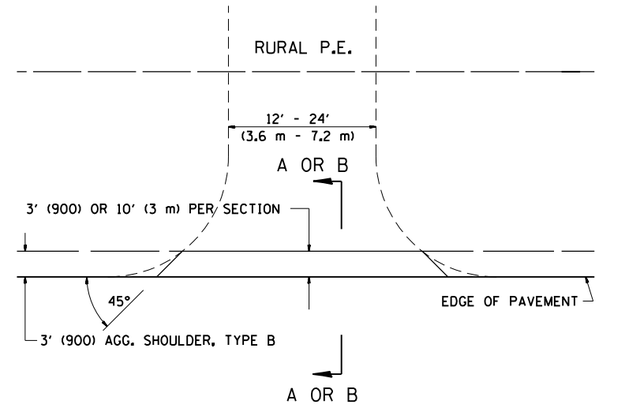
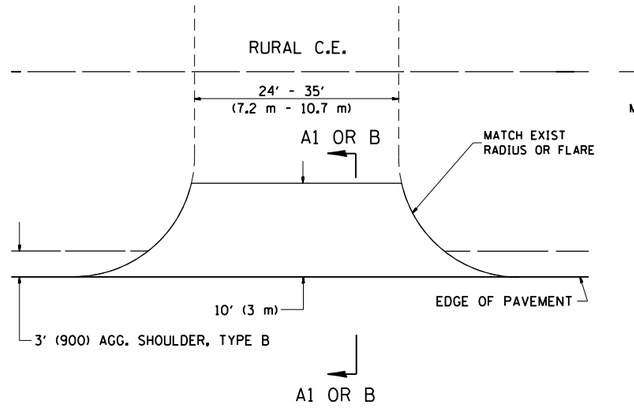
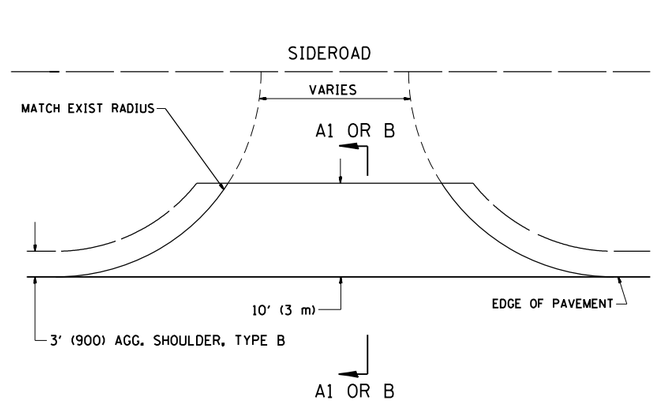


SECTION A-A FOR AGGREGATE P.E.



SECTION B-B FOR BITUMINOUS P.E., C.E. & SIDEROAD



SECTION A1-A1 FOR AGGREGATE C.E. & SIDEROAD

NOTE:
SEE SIDEROAD & ENTRANCE SCHEDULE, SHEET NO.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

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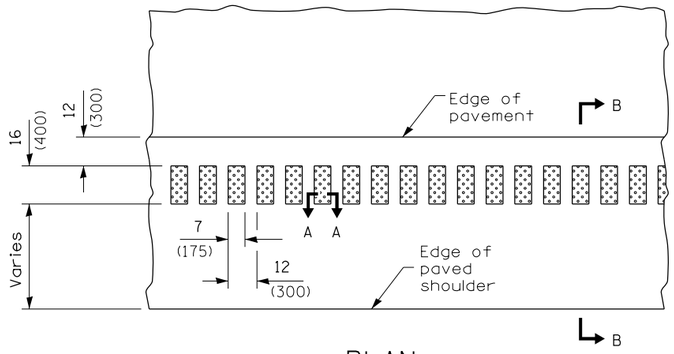
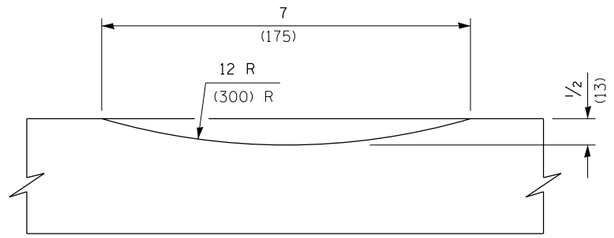
Default PPP96.DGN	PLOT SCALE = 40.000 ' / in.	CHECKED - WJR	REVISED - OPS 05DEC02		SCALE: SHEET OF SHEETS STA. TO STA.
	PLOT DATE = 5/10/2016	DATE - 10/01/96	REVISED -		

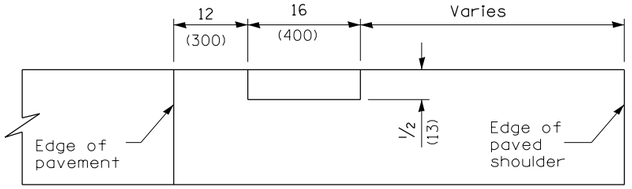
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



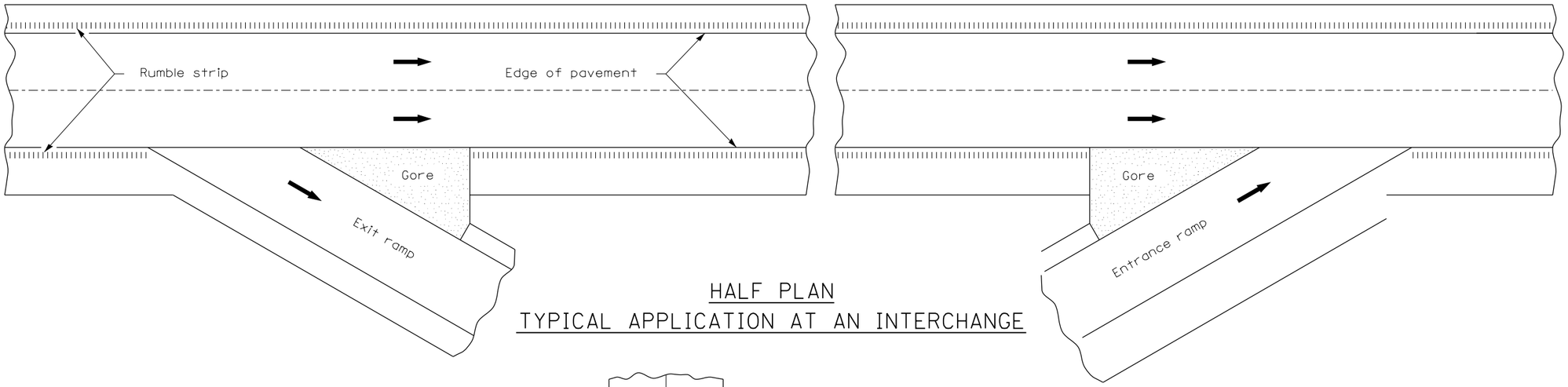
PLAN



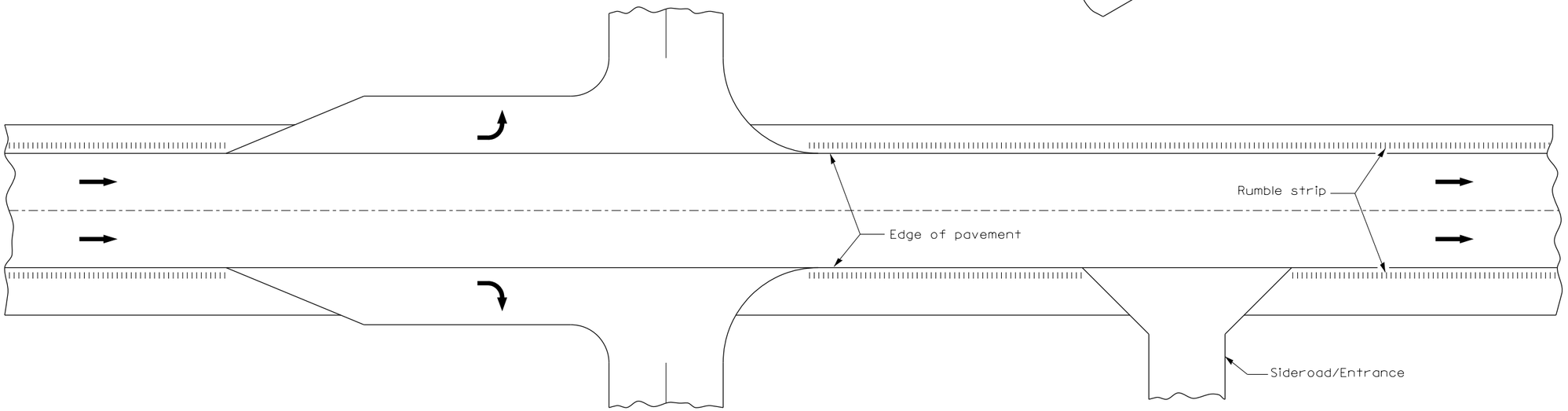
SECTION A-A



SECTION B-B



HALF PLAN
TYPICAL APPLICATION AT AN INTERCHANGE



HALF PLAN
TYPICAL APPLICATION EXPRESSWAY INTERSECTION

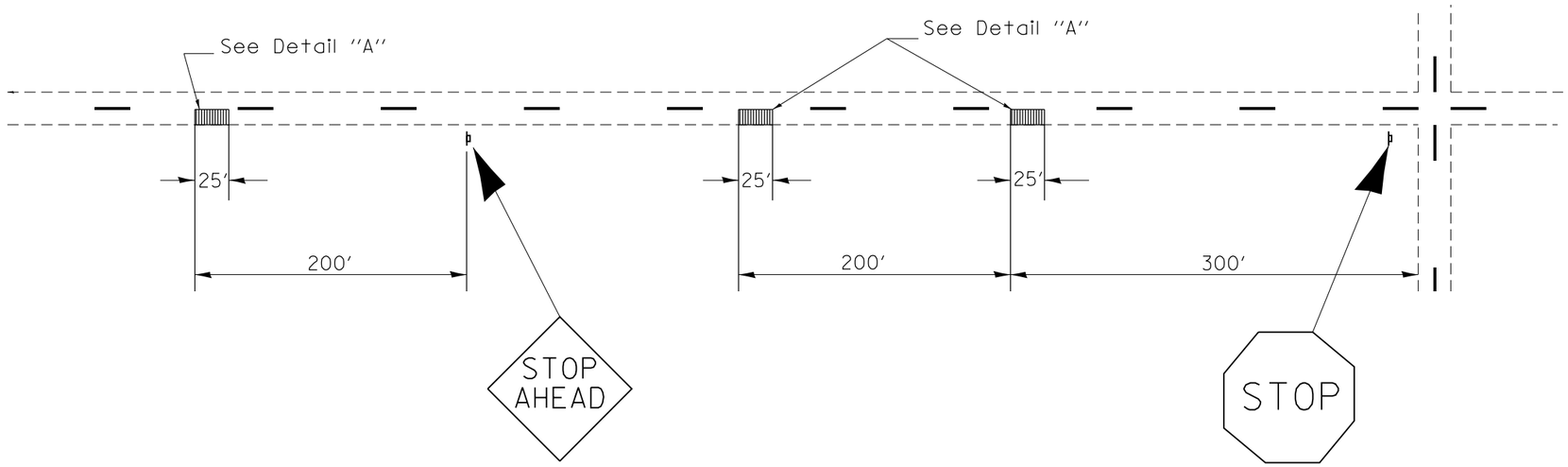
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-rumble.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default RUMBLE.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

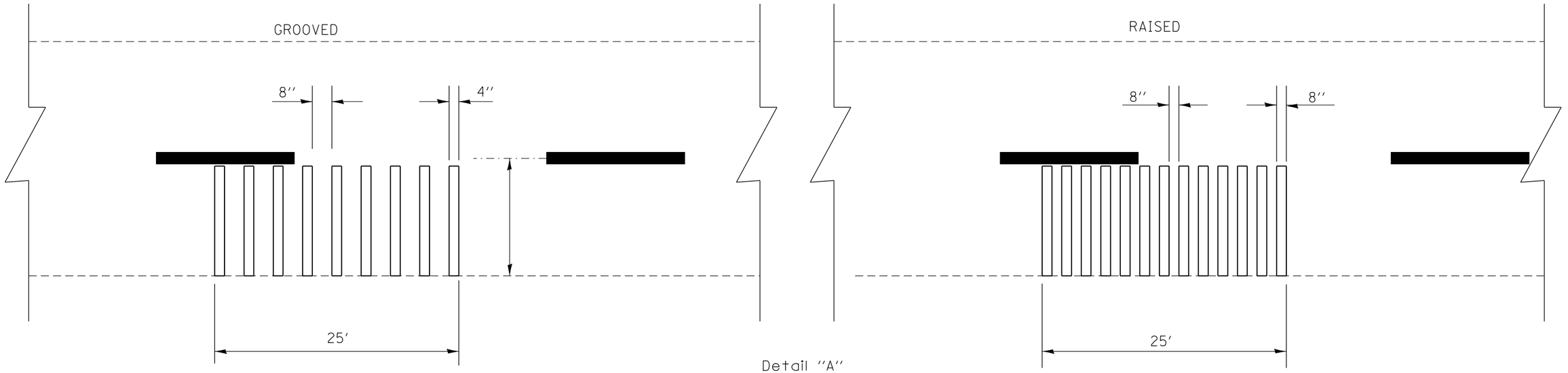
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RUMBLE STRIPS DETAIL

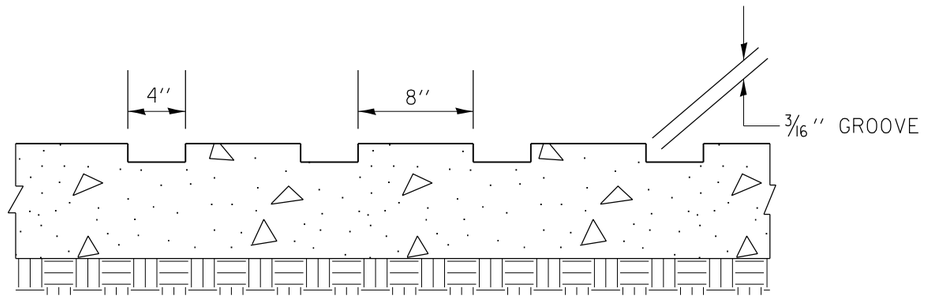
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			





Detail "A"



Detail "A"

NOTE: The 25-foot rumble area has 8-inch lengths of treated surface stretched across the width of approach lane, each separated by 8 inches of existing pavement.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-CWS\rumble_strip.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
DGN: RUMBLE STRIP.DGN	PLOT DATE = 5/10/2016	DATE - 10/08/00	REVISED -

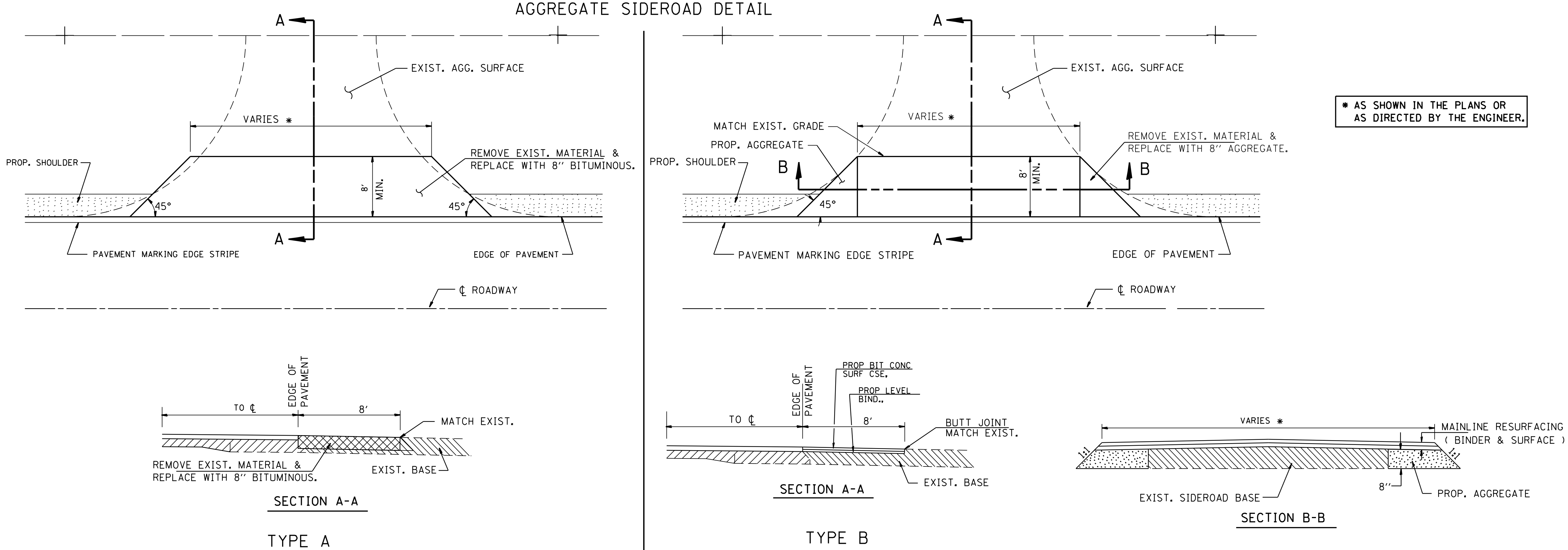
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PERMENANT RUMBLE STRIP APPLICATION (TYPICAL)

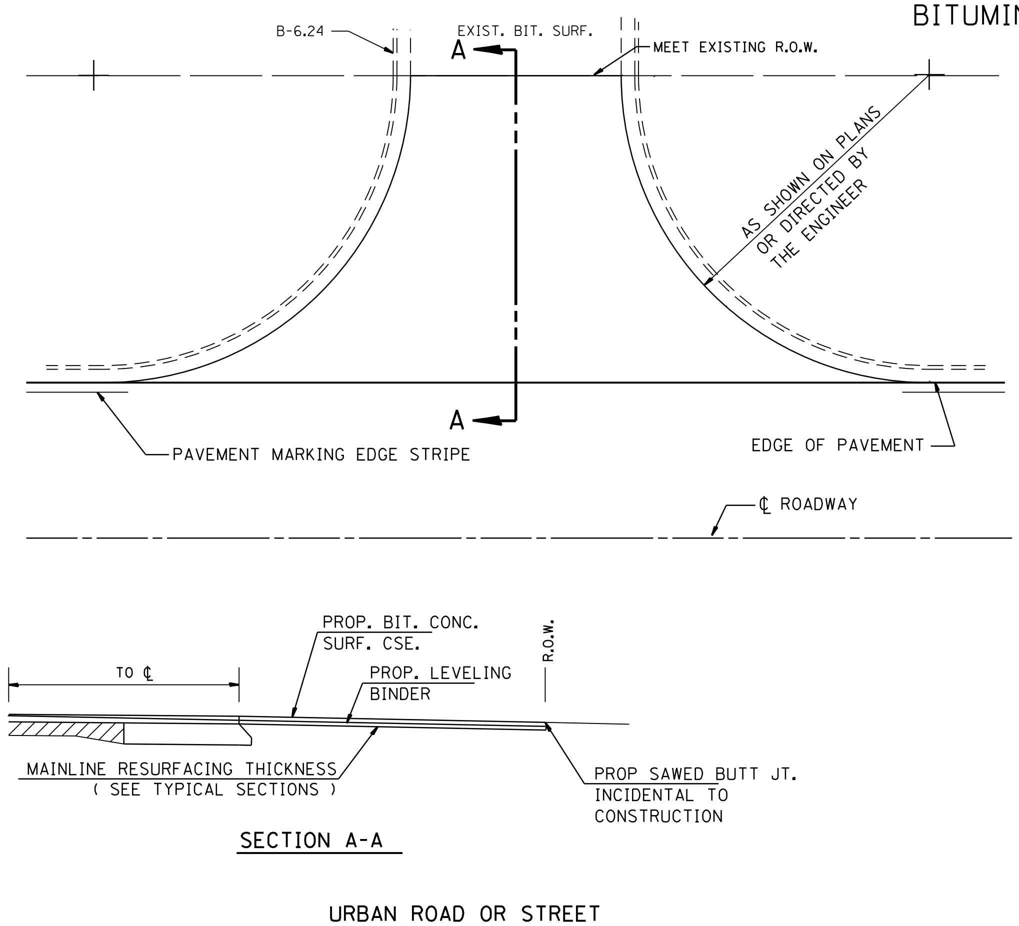
SCALE: | SHEET OF SHEETS | STA. | TO STA.

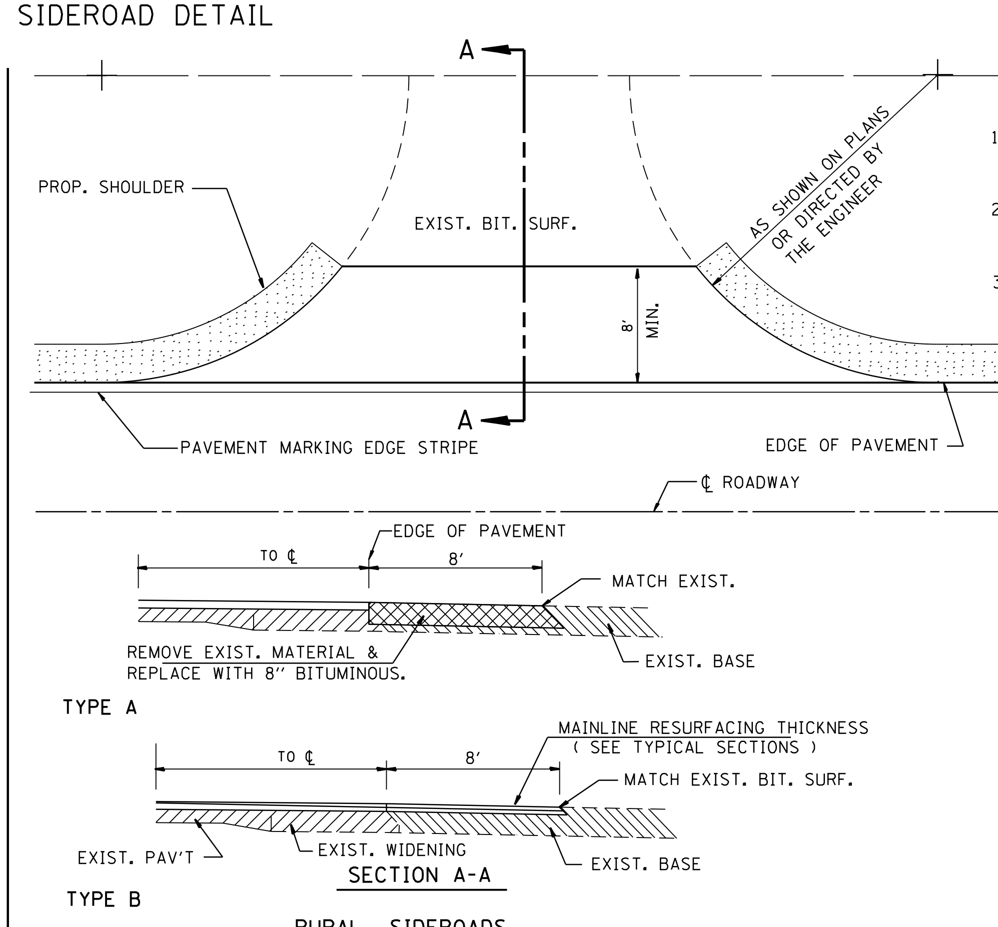
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			CONTRACT NO.	
		ILLINOIS	FED. AID PROJECT	

AGGREGATE SIDEROAD DETAIL



BITUMINOUS SIDEROAD DETAIL





NOTES

1. THE SIDEROAD TREATMENT FOR RURAL BITUMINOUS SIDEROADS SHALL BE CONTINUED TO THE END OF THE RADIUS RETURN IF RADIUS IMPROVEMENT IS SHOWN ON THE PLANS.
2. IF VERTICAL GRADE CHANGE IS OCCURING, THEN THE SIDEROAD TREATMENT SHALL CONTINUE UNTIL THE PROPOSED CHANGE MEETS THE EXISTING SIDEROAD.
3. THE ROADWAY PLANS AND SCHEDULE WILL LIST THE QUANTITIES AND LOCATIONS FOR ALL SIDEROADS.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-CAD\sided.dgn	USER NAME = Verenskifa	DESIGNED - DJK	REVISED - CGC 09APR93
		DRAWN - CAD	REVISED -
Default SIDERD.DGN	PLOT SCALE = 40.000 ' / in.	CHECKED - DJK	REVISED -
	PLOT DATE = 5/10/2016	DATE - 10/21/92	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

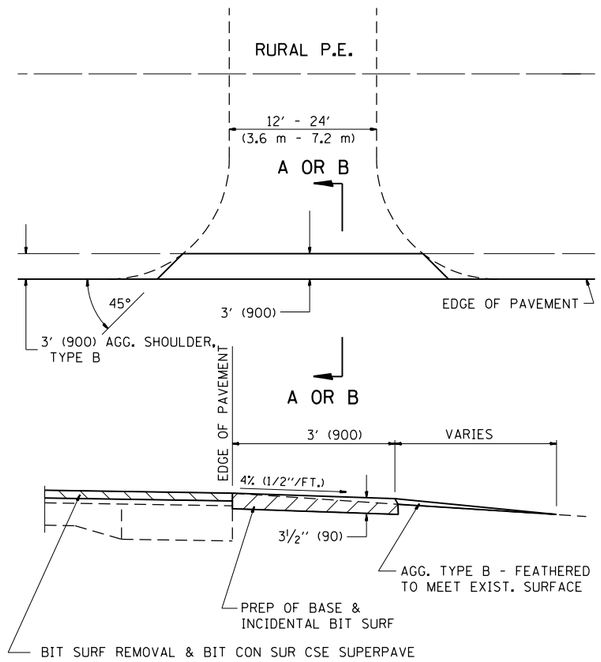
SIDEROAD DETAILS

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

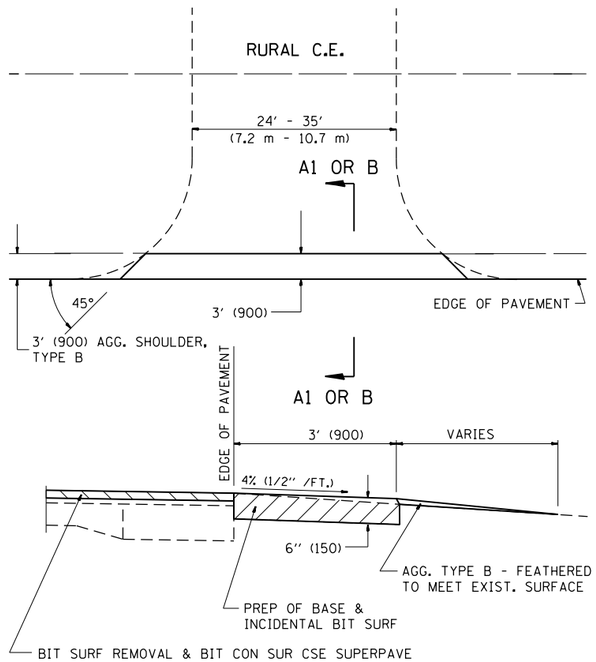
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

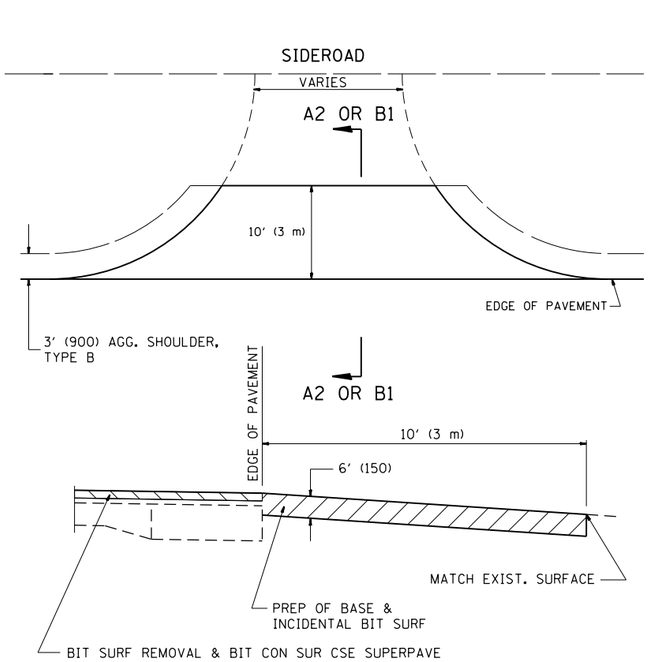
ILLINOIS FED. AID PROJECT



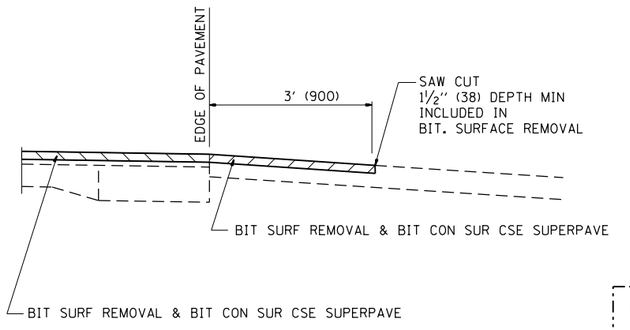
SECTION A-A FOR AGGREGATE P.E.



SECTION A1-A1 FOR AGGREGATE C.E.



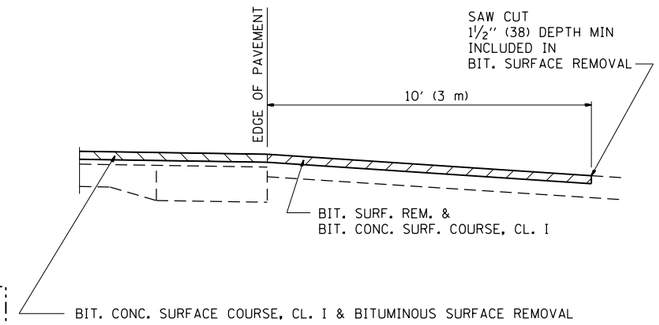
SECTION A2-A2 FOR AGGREGATE SIDEROAD



SECTION B-B FOR BITUMINOUS P.E. & C.E.

NOTE:

SEE SIDEROAD & ENTRANCE SCHEDULE, SHEET NO.



SECTION B1-B1 FOR BITUMINOUS SIDEROAD

DESIGNER NOTES:

1 THIS IS A BASE SHEET WHICH CAN BE MODIFIED TO SHOW FINAL ENTRANCE TREATMENT DETAIL TO BE INCLUDED IN THE PLANS. SHOW ONLY THE PLAN AND SECTION VIEWS APPLICABLE TO THE PROJECT.

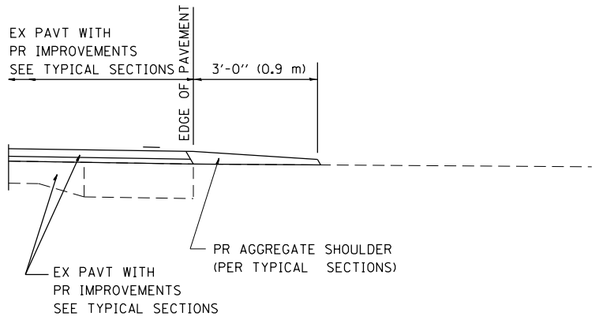
2 BITUMINOUS CONCRETE THICKNESS ON AGGREGATE SIDEROADS AND COMMERCIAL ENTRANCES MAY BE INCREASED WHEN WARRANTED.

3 IF EXISTING BITUMINOUS SURFACE IS NEW AND/OR IN VERY GOOD CONDITION - RESURFACING MAY BE OMITTED. IF EXISTING SURFACE IS SIGNIFICANTLY DEGRADED - CORE OUT AND REPLACE AS SHOWN IN SECTION A1-A1 OR A2-A2 (WHICHEVER IS APPLICABLE).

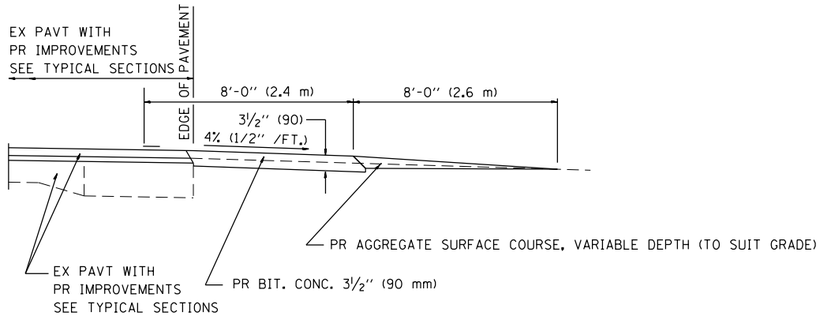
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-CAD t96.dgn	USER NAME = Verenskifa	DESIGNED - WJR	REVISED - OPS 28AUG97	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**ENTRANCE AND SIDEROAD DETAILS FOR PROJECTS WITH MILLING**
		DRAWN -	REVISED - OPS 5MAR00		
SMART96.DGN	PLOT SCALE = 40.000 ′ / in.	CHECKED - WJR	REVISED - OPS 5DEC02		SCALE: SHEET OF SHEETS STA. TO STA.
Default	PLOT DATE = 5/10/2016	DATE - 10/1/96	REVISED -		

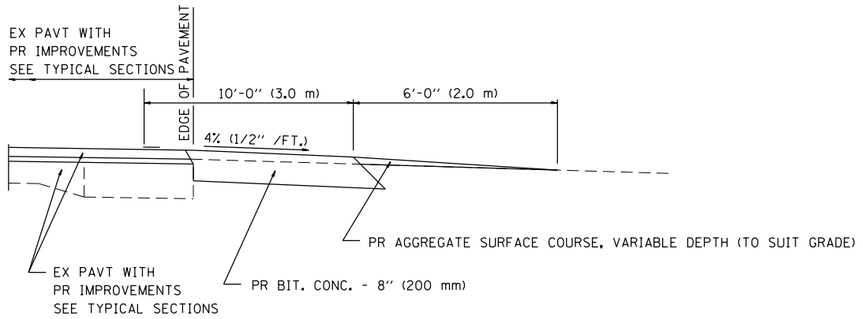
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



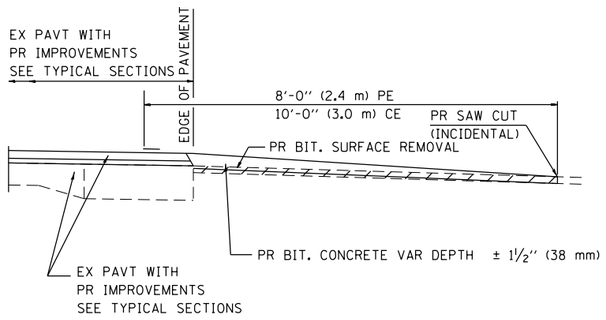
SECTION A-A FOR EX EARTH/ AGGREGATE FE



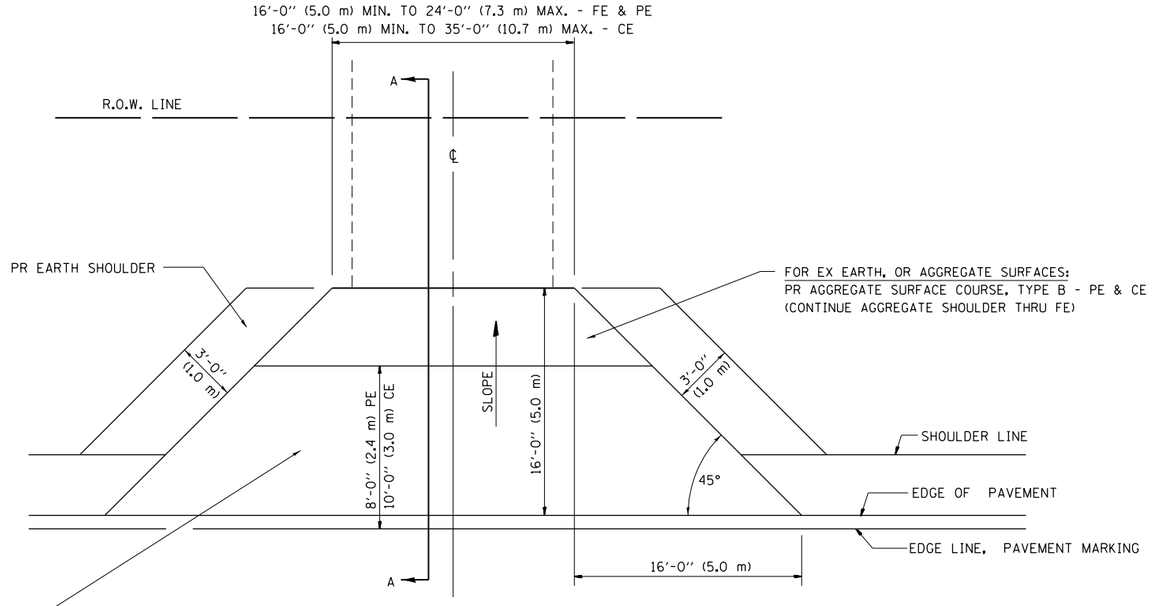
SECTION A-A FOR EX EARTH/AGGREGATE PE



SECTION A-A FOR EX EARTH/AGGREGATE CE & SIDE ROAD

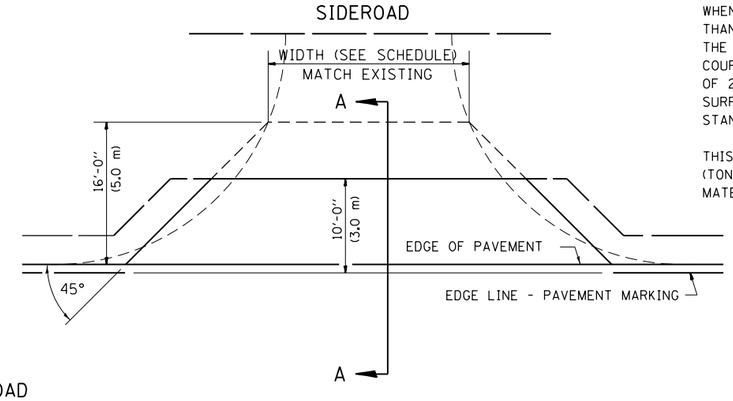


SECTION A-A FOR EX BITUMINOUS/ PC CONCRETE PE, CE & SIDE ROAD



FOR EX EARTH OR AGGREGATE SURFACES:
PR BIT SURFACE REMOVAL (IF APPLICABLE)
PR AGGREGATE SHOULDER THRU - FE
PR BITUMINOUS CONCRETE 3½" (90 mm) - PE
PR BITUMINOUS CONCRETE 8" (200 mm) - CE

FOR BITUMINOUS OR P.C. CONCRETE SURFACES:
PR BITUMINOUS SURFACE REMOVAL, VARIABLE DEPTH



GENERAL NOTES:

THE RESIDENT ENGINEER WILL DETERMINE THE EXACT TYPE OF IMPROVEMENT TO BE COMPLETED FOR ALL ENTRANCES, SIDEROADS AND MAILBOX TURNOUTS ON THIS PROJECT.

THE PLAN DETAILS AND SCHEDULES SHOULD BE USED AS A GUIDE FOR THE ENGINEER TO IMPLEMENT THE FINAL DESIGN. THE ENGINEER MAY DECIDE TO SALVAGE PORTIONS OF THE EXISTING ENTRANCE PAVEMENT STRUCTURE; THEREFORE, REDUCING PAY ITEM QUANTITIES. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THIS REDUCTION IN QUANTITIES.

ANY WORK THE ENGINEER REQUIRES WHICH IS NOT COVERED BY A PAY ITEM CONTAINED IN THE PLANS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

BITUMINOUS CONCRETE REQUIRED TO CONSTRUCT THE ENTRANCES SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 406 AND 408 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

WHEN THE BITUMINOUS CONCRETE PROPOSED FOR THE IMPROVEMENT IS THICKER THAN 3 INCHES (75 mm) AND REQUIRE PLACEMENT IN MORE THAN ONE LIFT. THE BOTTOM LIFT(S) SHALL MEET THE REQUIREMENTS OF BITUMINOUS BASE COURSE IN SECTION 406 OF THE STANDARD SPECIFICATIONS AND THE TOP LIFT OF 2 INCHES (50 mm) SHALL MEET THE REQUIREMENTS OF BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE C, CLASS I, TYPE 2 OF SECTION 406 OF THE STANDARD SPECIFICATIONS.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER METRIC TON (TON) FOR "INCIDENTAL BITUMINOUS SURFACING" WHICH SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR INVOLVED.

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

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		DRAWN -	REVISED -
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Default SMARTPPP.DGN	PLOT DATE = 5/10/2016	DATE - 2/23/99	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR RURAL ENTRANCE, MAILBOX TURNOUT & SIDE ROAD

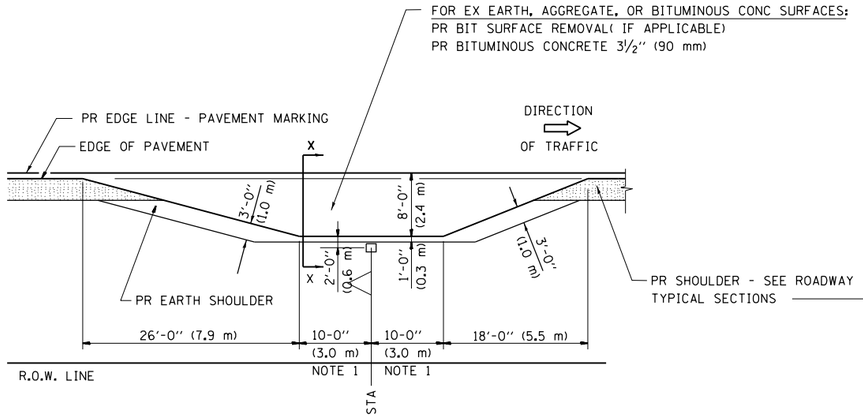
SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

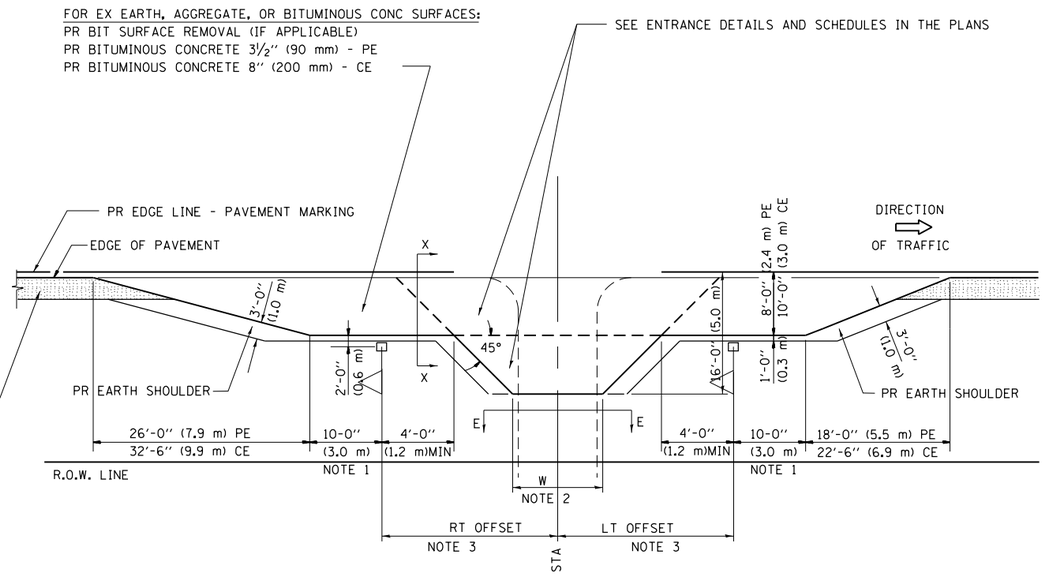
CONTRACT NO.

ILLINOIS FED. AID PROJECT

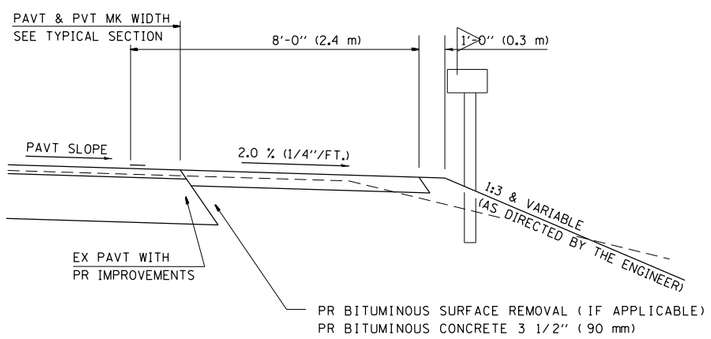
DETAILS OF MAILBOX TURNOUTS



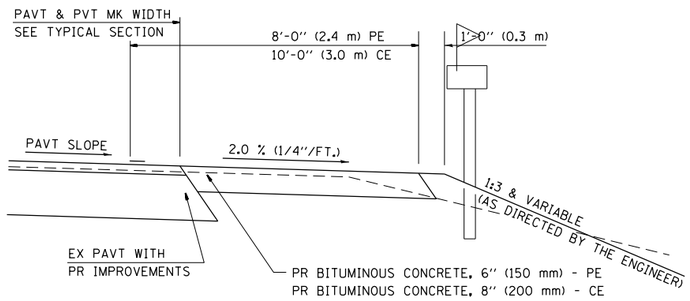
PLAN - MAILBOX TURNOUTS



PLAN - COMBINED MAILBOX TURNOUT WITH TRAILING OR LEADING ENTRANCE



SECTION X-X THRU MAILBOX TURNOUT
ALSO APPLIES TO MAILBOX TURNOUTS COMBINED WITH
EX EARTH, AGGREGATE, OR BITUMINOUS PE & FE



SECTION X-X THRU MAILBOX TURNOUT
COMBINED WITH EX BITUMINOUS CONC & PC CONC PE & CE

NOTE 1 IF MORE THAN ONE MAILBOX IS PRESENT, DIMENSION FROM CENTER OF END MAILBOX.

NOTE 2 FOR ENTRANCE LAYOUT DIMENSIONS AND SECTIONS A-A & E-E REFER TO THE SCHEDULES IN THE PLANS.

NOTE 3 BOTH LT OR RT OFFSETS FOR MAILBOX SHOWN USE OFFSET DIMENSION PER SCHEDULE AND REFER TO LAYOUT SHOWN ON THE PLAN.

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

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		DRAWN -	REVISED -
	PLOT SCALE = 40.000 ' / in.	CHECKED - JCN	REVISED -
Default SMARTPPP.DGN	PLOT DATE = 5/10/2016	DATE - 2/23/99	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR RURAL ENTRANCE, MAILBOX TURNOUT & SIDE ROAD

SCALE: | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

ENTRANCE IMPROVEMENT SCHEDULE FOR PPP AND SMART PROJECTS

LOCATION	TYPE OF ENTRANCE	EX MATERIAL TYPE	WIDTH	RT OFFSET	LT OFFSET	PR BIT. CONC. THICKNESS	BIT. SURF. REM. (V.D.)	INCIDENTAL BIT. SURF.	AGGREGATE SURF. CSE., TY-B
(LT/(STA)(+) RT)	(FE/PE/ CE/MB/RD)	(EARTH/AGG./ BIT./PCC)	FT (m)	FT (m)	FT (m)	INCH (mm)	YD (sq m)	TON (m ton)	TON (m ton)
TOTAL =									

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

FILE NAME =
pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-smartppp.dgn
Default SMARTPPP.DGN

USER NAME = Verenskifa
PLOT SCALE = 40.000 ' / in.
PLOT DATE = 5/10/2016

DESIGNED - JCN
DRAWN - CAD
CHECKED - JCN
DATE - 2/23/99

REVISED -
REVISED -
REVISED -
REVISED -

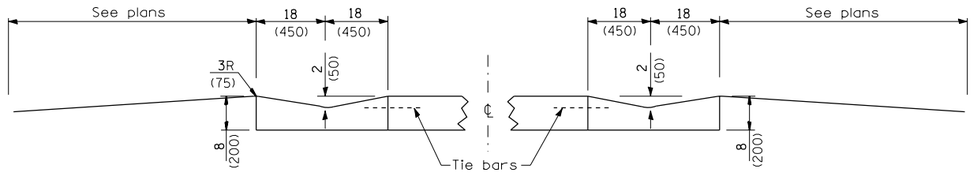
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS FOR RURAL ENTRANCE,
MAILBOX TURNOUT & SIDE ROAD

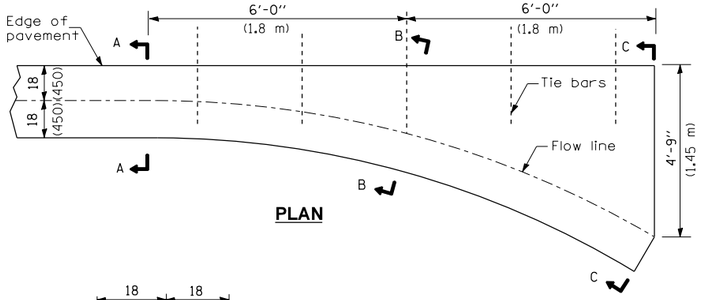
SCALE: | SHEET 3 OF 3 SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

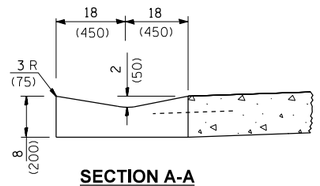
CONTRACT NO.
ILLINOIS FED. AID PROJECT



CONCRETE GUTTER, TYPE A (MODIFIED)

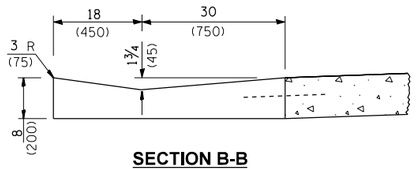


PLAN

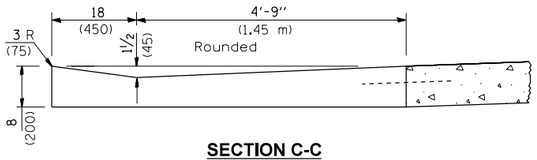


SECTION A-A

QUANTITY
Section C-C to A-A
1.18 cu. yd. (0.90 m^3) concrete.

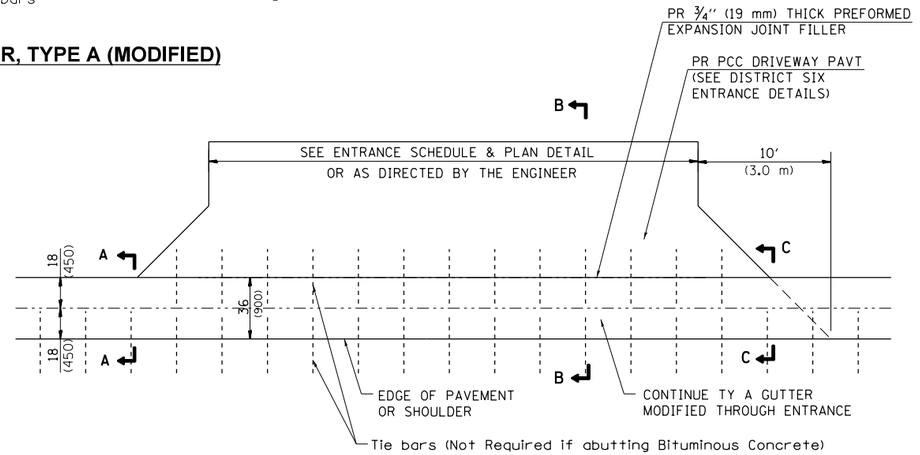


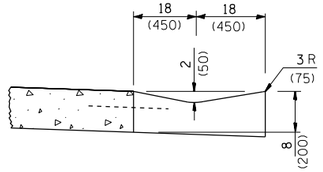
SECTION B-B



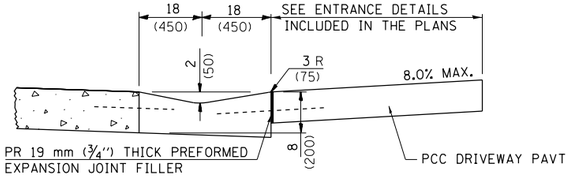
SECTION C-C

INLET





SECTION A-A & C-C



SECTION B-B

ENTRANCE

GENERAL NOTES

Tie bars shall be No. 20 (No. 6) at 24" (600 mm) centers unless otherwise shown.

Gutter, gutter inlet, gutter outlet and gutter entrance shall be tied to the pavement in accordance with details for longitudinal construction joint shown on Standard 420001.

Two 1-1/4" x 18" (32 mm x 450 mm) dowel bars shall be installed in all joints when the gutter is constructed adjacent to flexible pavement.

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\400-CAD\...a_gutter_modified.dgn	USER NAME = Verenskfa	DESIGNED - JCN	REVISED - JCN 2/19/03
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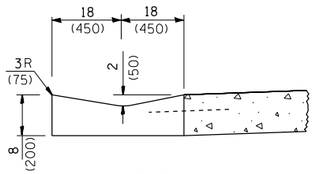
TYPE_A_GUTTER_MODIFIED.DGN	PLOT DATE = 5/10/2016	DATE - 3/11/98	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

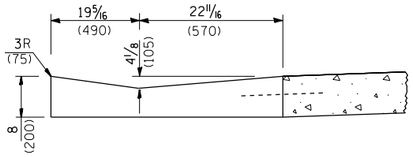
DISTRICT SIX DETAILS FOR GUTTER, TYPE A (MODIFIED) (INLET, OUTLET & ENTRANCE)

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

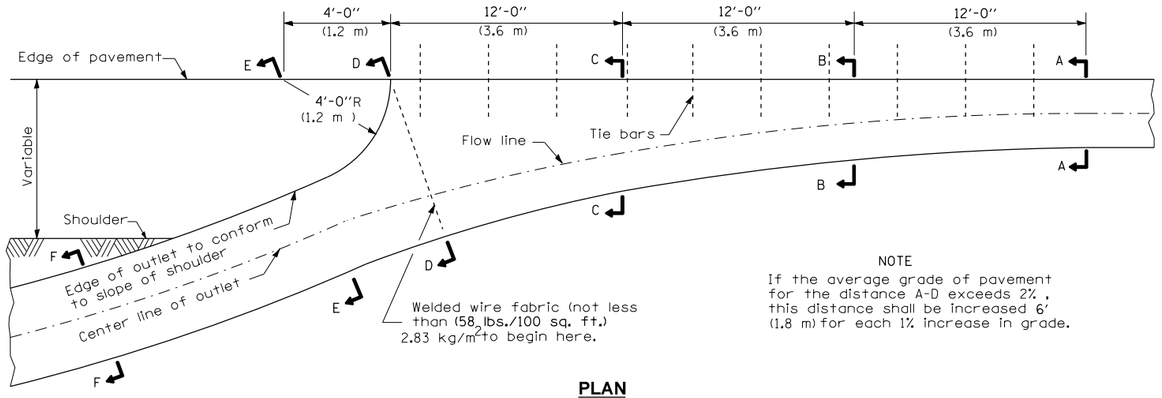
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



SECTION A-A



SECTION B-B

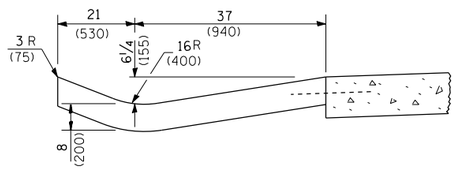


PLAN

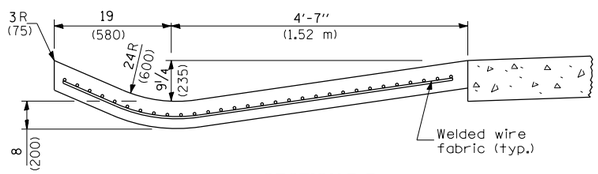
NOTE
If the average grade of pavement for the distance A-D exceeds 2% , this distance shall be increased 6' (1.8 m) for each 1% increase in grade.

QUANTITY

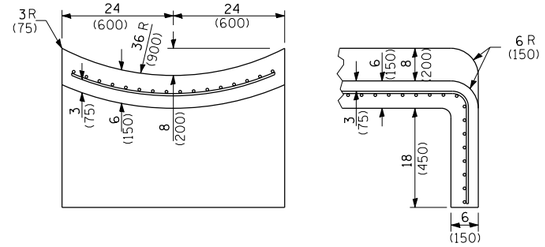
Section A-A to E-E and curtain wall
4.71 cu. yd. (3.60 m^3) concrete.
Section F-F = 0.079 cu. yd./ft.
(0.2 m^3/m)



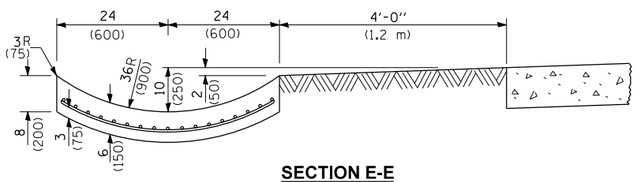
SECTION C-C



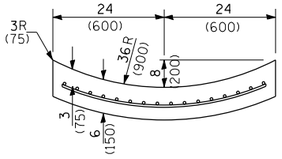
SECTION D-D



SECTIONS AT END OF OUTLET



SECTION E-E

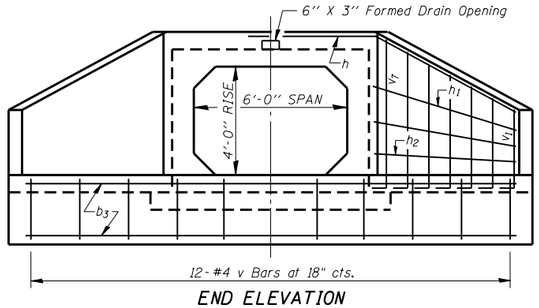


SECTION F-F

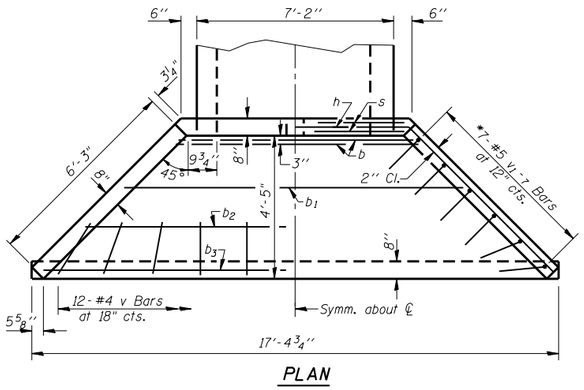
OUTLET

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

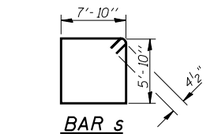
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Storm\Details\400-CAD\type_a_gutter_modified.dgn	USER NAME = Verenskifa	DESIGNED - JCN	REVISED - JCN 2/19/03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT SIX DETAILS FOR GUTTER, TYPE A (MODIFIED) (INLET, OUTLET & ENTRANCE)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -							
	PLOT SCALE = 40.000 ' / in.	CHECKED - JCN	REVISED -					CONTRACT NO.		
TYPE_A_GUTTER_MODIFIED.DGN	PLOT DATE = 5/10/2016	DATE - 3/11/98	REVISED -		SCALE:	SHEET 2 OF 2 SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT



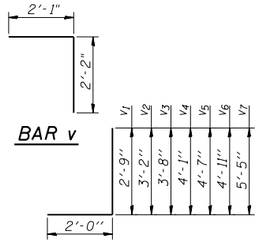
END ELEVATION



PLAN



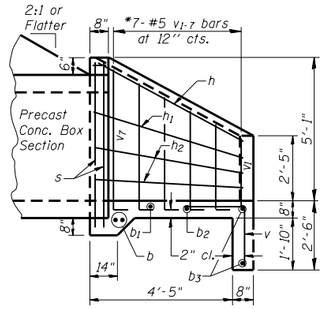
BAR s



BAR v

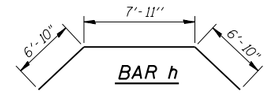
*BARS v1-7

* v_1 thru v_7 bars shall be epoxy coated for rise of more than 5'-0".



HALF SIDE ELEVATION

** The quantities shown are for information only and are not paid for separately



BAR h

GENERAL NOTES

Exposed edges shall be beveled 3/4".
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b	2	#5	9'-0"	—
b_1	1	#4	11'-0"	—
b_2	1	#4	13'-0"	—
b_3	2	#4	17'-0"	—
h	1	#5	21'-7"	⌒
h_1	2	#4	6'-9"	—
h_2	4	#4	6'-7"	—
s	2	#4	28'-1"	▭
v	12	#4	4'-3"	⌐
v_1	2	#5	4'-9"	└
v_2	2	#5	5'-2"	└
v_3	2	#5	5'-8"	└
v_4	2	#5	6'-1"	└
v_5	2	#5	6'-7"	└
v_6	2	#5	6'-11"	└
v_7	2	#5	7'-5"	└
Concrete Box Culverts		Cu. Yds.	3.9	
Reinf. Bars		Lbs.	270	

**Table for one (1) headwall.

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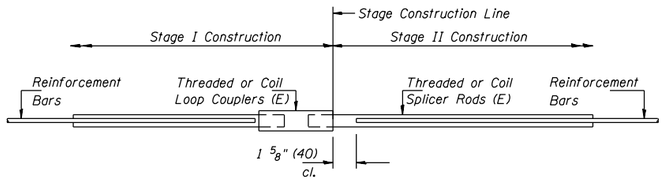
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default BARPRE.DGN	PLOT DATE = 5/10/2016	DATE - MARCH 19, 1997	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CAST-IN-PLACE END SECTION FOR PRECAST CONCRETE BOX CULVERT

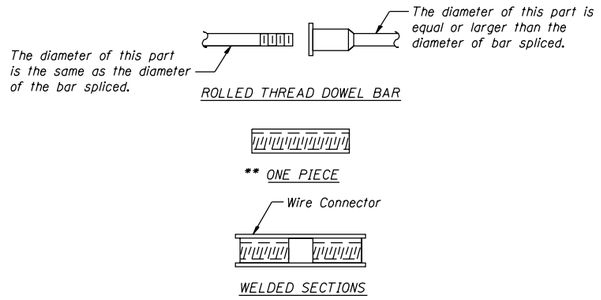
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



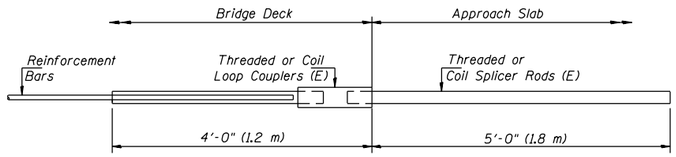
BAR SPLICER ASSEMBLY DETAIL

Bar Size	No. Assemblies Required	Location



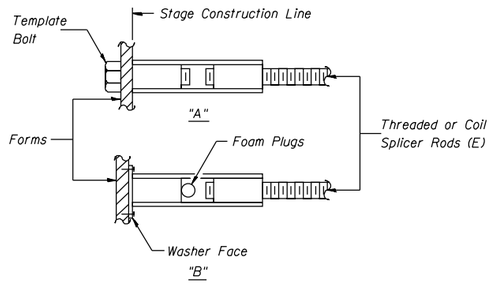
BAR SPLICER ASSEMBLY ALTERNATIVES

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



INTEGRAL ABUTMENT BAR SPLICER ASSEMBLY DETAIL FOR #15 BAR

Min. Capacity = 22,667 lbs (100 kN) - tension
Min. Pull-out Strength = 9,067 lbs (40 kN) - tension
No. Required =



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 400 MPa yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kN) $= 1.25 \times 10^{-3} \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kN) $= 1.25 \times 10^{-3} \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in MPa.

fs_{allow} = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)

A_t = Tensile stress area of lapped reinforcement bars (mm^2).

* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity lb - tension	Min. Pull-Out Strength lb - tension
#15	24"	25	9
#20	30"	36	14
#25	36"	55	24
#30	40"	80	32

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN - tension	Min. Pull-Out Strength kN - tension
#15	610 mm	100	40
#20	790 mm	150	60
#25	1.04 m	250	100
#30	1.37 m	350	140

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

All dimensions are in millimeters (mm) except as noted.

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		DRAWN -	REVISED -
	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
Default BARSPLICE.DGN	PLOT DATE = 5/10/2016	DATE - APRIL 1, 1998	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

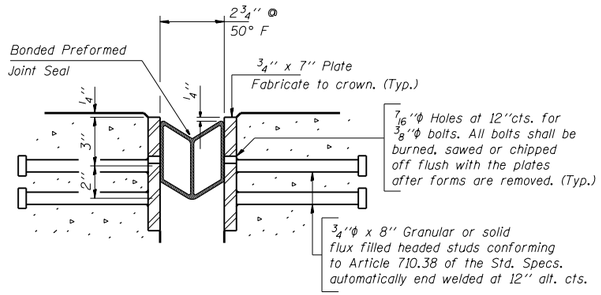
BAR SPLICER ASSEMBLY DETAILS

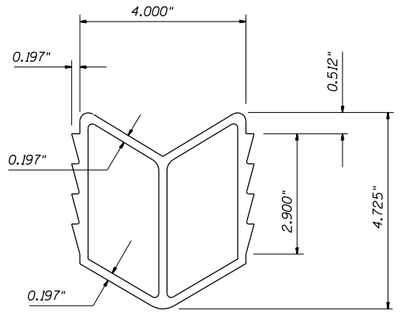
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT





Bonded Preformed Joint Seal

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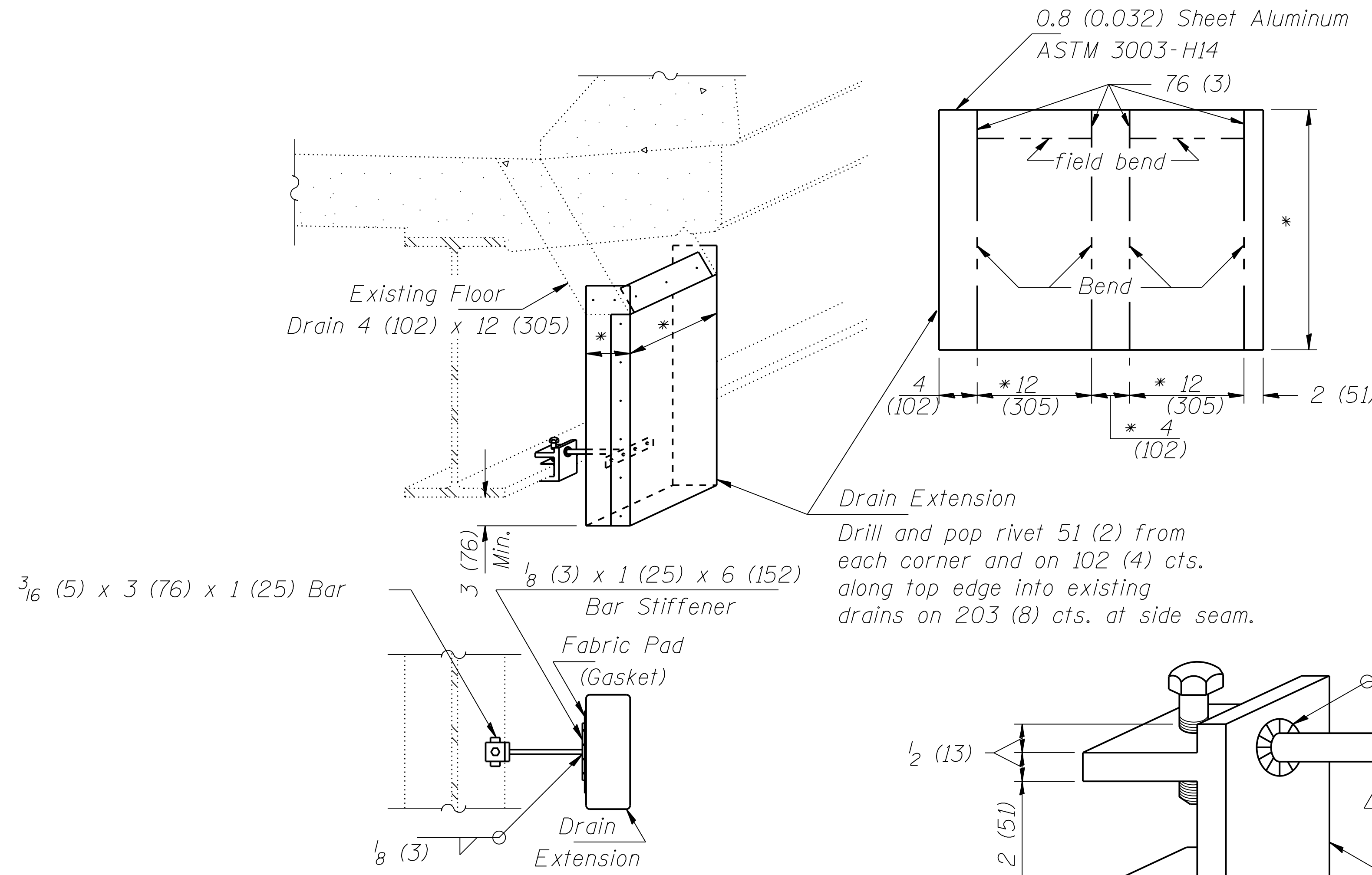
	PLOT DATE = 5/10/2016	DATE -	REVISED -

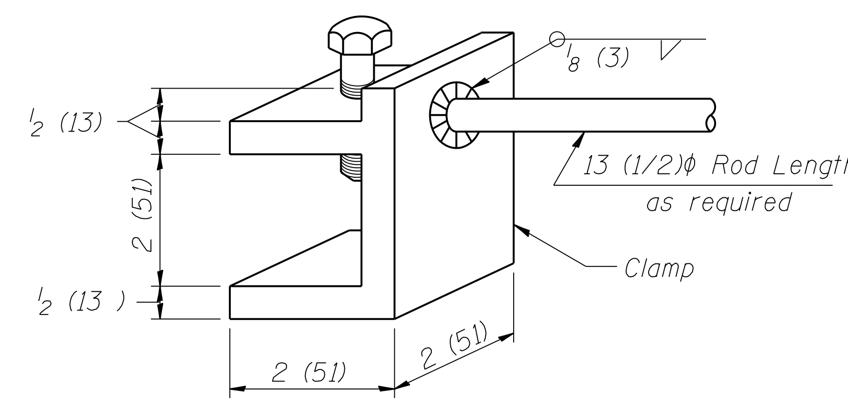
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BONDED JOINTS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		





Notes: Pop rivet the 1/8 (3) x 1 (25) bar to Drain Extension. Weld or securely attach rod to both the clamp and bar stiffener. Use 3/16 (5) stainless steel pop rivets of sufficient length.

Clamp shown in approximate dimensions. Similar commerically available may be substituted.

* Field measure cut to fit existing drain.

An aluminum extrusion drain extension of similar dimensions may be substituted.

STEEL CLAMP

DECK DRAIN EXTENSION DETAIL

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

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Default BRDRAIN.DGN	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -					CONTRACT NO.		
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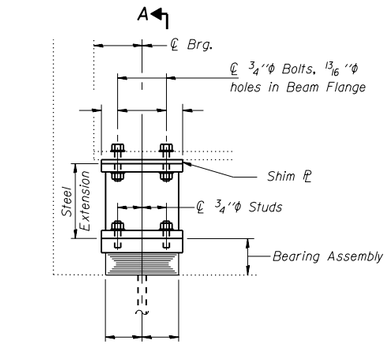
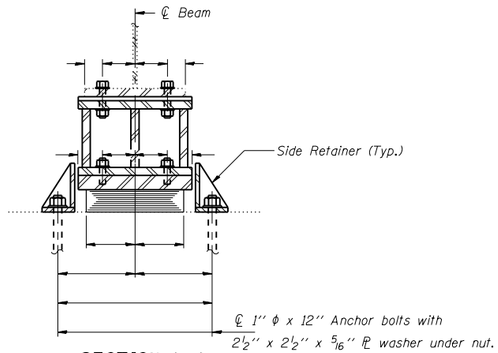
		DATE - MARCH 17, 1997	REVISED -							

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

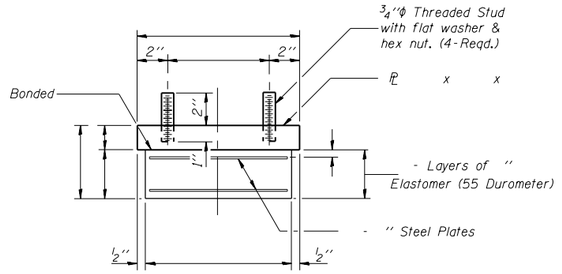


ELEVATION AT ABUTMENT



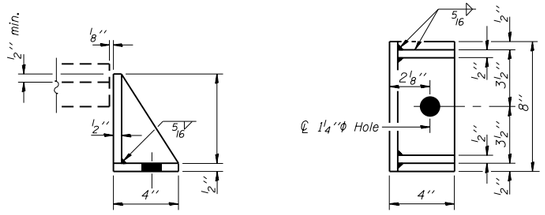
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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



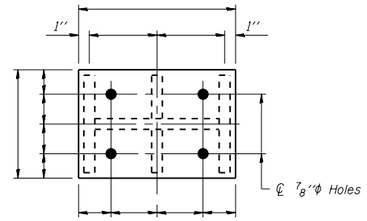
SIDE RETAINER

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

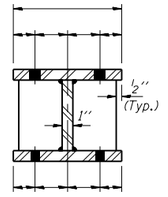
GIRDER REACTIONS

RP	(K)	
RA	(K)	
Imp.	(K)	
R (Total)	(K)	

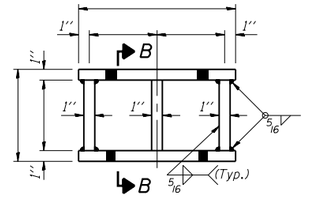
Notes: Diaphragm removal and replacement may be required to facilitate drilling holes. Cost shall be included with Furnishing and Erecting Structural Steel.
New steel extensions, side retainers, shim PL's, connection bolts, and anchor bolts are included with Furnishing and Erecting Structural Steel.
See Sheet of for Anchor Bolt installation.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
Min. jack capacity = Tons.



PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

20

EXAMINED
ENGINEER OF STRUCTURAL SERVICES

PASSED
ENGINEER OF BRIDGES AND STRUCTURES

TYI/REPS 01-27-2000

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\500-brgdetails.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default BRGDETAILS.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

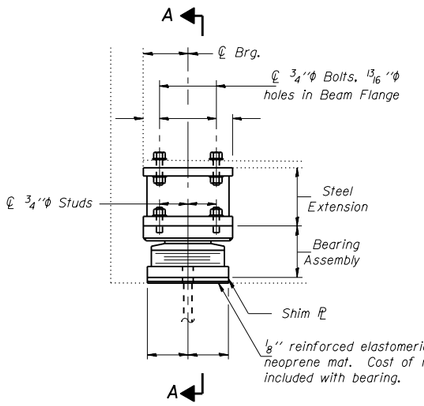
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

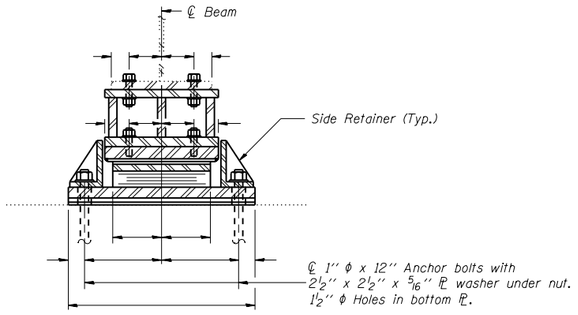
CONTRACT NO.

ILLINOIS | FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUTMENT



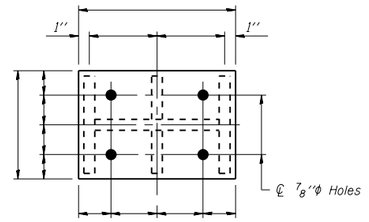
SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG.

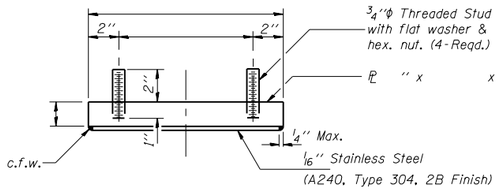
GIRDER REACTIONS

RP	(K)	
RL	(K)	
Imp.	(K)	
R (Total)	(K)	

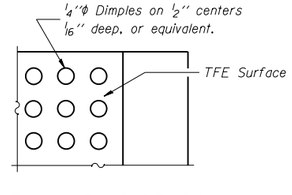
Notes: Diaphragm removal and replacement may be required to facilitate drilling holes. Cost shall be included with Furnishing and Erecting Structural Steel.
New steel extensions, side retainers, shim PL's, connection bolts, and anchor bolts are included with Furnishing and Erecting Structural Steel.
See Sheet of for Anchor Bolt installation.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
Min. jack capacity = Tons.



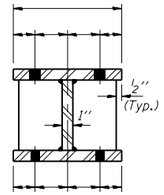
PLAN TOP AND BOTTOM PLATE



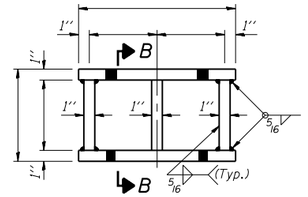
TOP BEARING ASSEMBLY



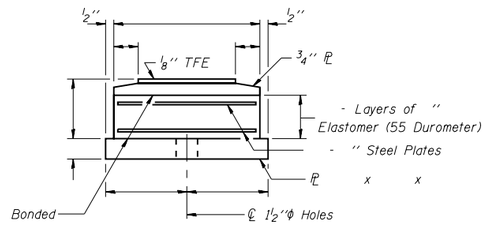
PLAN-TFE SURFACE



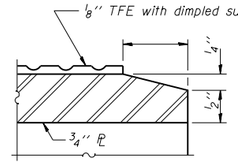
SECTION B-B



STEEL EXTENSION DETAIL



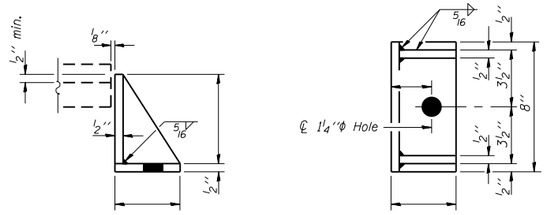
BOTTOM BEARING ASSEMBLY



Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

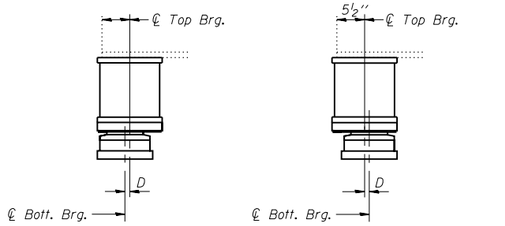
Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

SECTION THRU TFE



SIDE RETAINER

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



BELOW 50°F. (Move bott. brg. away from fixed brg.)

ABOVE 50°F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

20
EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

TYII/REPS 01-27-2000

BRGDETAILS

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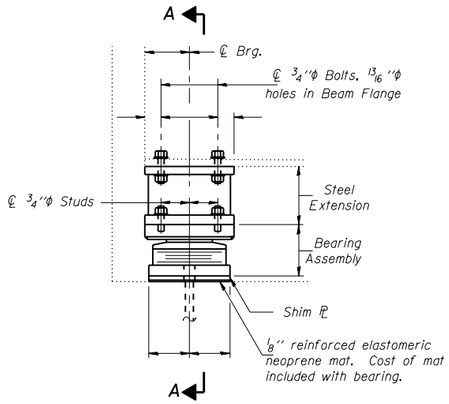
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default BRGDETAILS.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

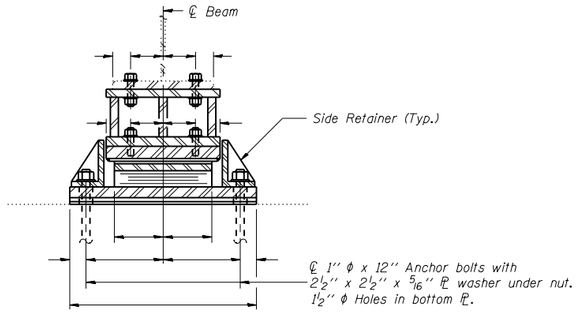
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUTMENT



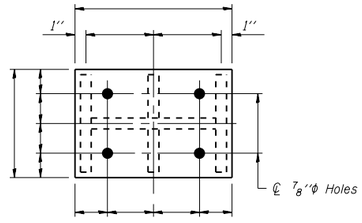
SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG.

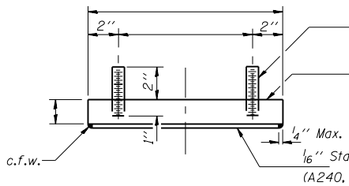
GIRDER REACTIONS

R℄	(K)	
R℄	(K)	
Imp.	(K)	
R (Total)	(K)	

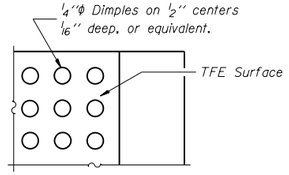
Notes: Diaphragm removal and replacement may be required to facilitate drilling holes. Cost shall be included with Furnishing and Erecting Structural Steel.
New steel extensions, side retainers, shim PL's, connection bolts, and anchor bolts are included with Furnishing and Erecting Structural Steel.
See Sheet of for Anchor Bolt installation.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
Min. jack capacity = Tons.



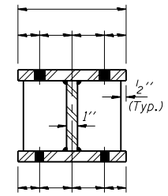
PLAN TOP AND BOTTOM PLATE



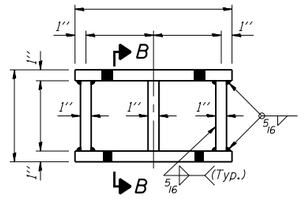
TOP BEARING ASSEMBLY



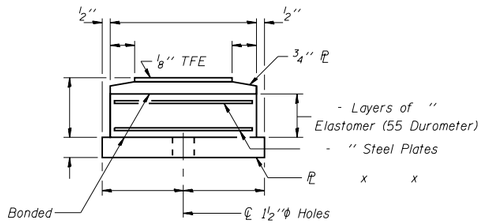
PLAN-TFE SURFACE



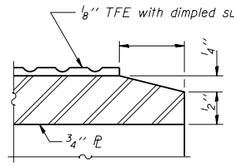
SECTION B-B



STEEL EXTENSION DETAIL



BOTTOM BEARING ASSEMBLY



Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

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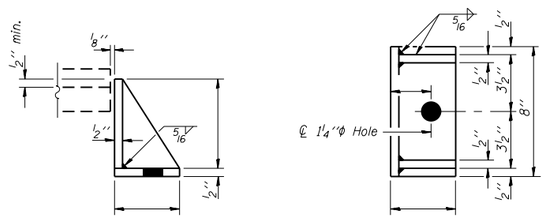
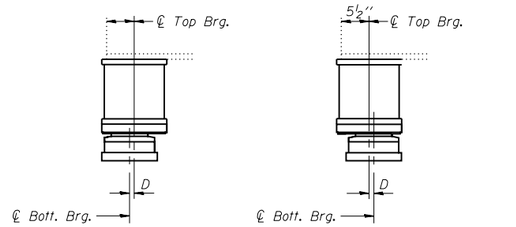
SECTION THRU TFE



SIDE RETAINER

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



BELOW 50°F. (Move bott. brg. away from fixed brg.)

ABOVE 50°F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

20

EXAMINED

ENGINEER OF STRUCTURAL SERVICES

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

TYII/REPS 01-27-2000

BRGDETAILS

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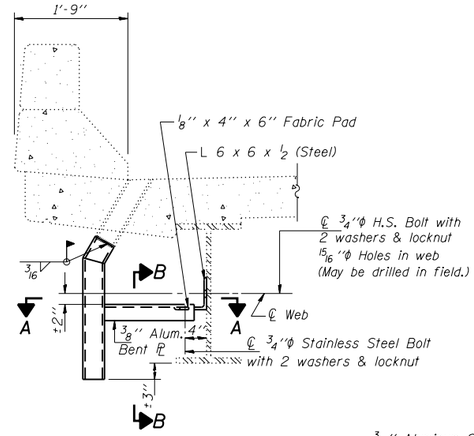
		DRAWN -	REVISED -
Default BRGDETAILS.DGN	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



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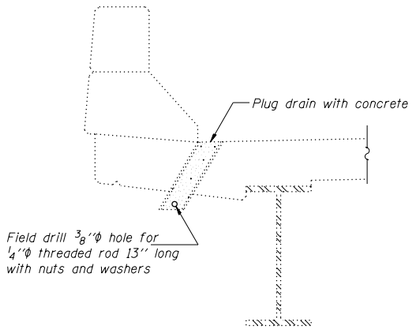

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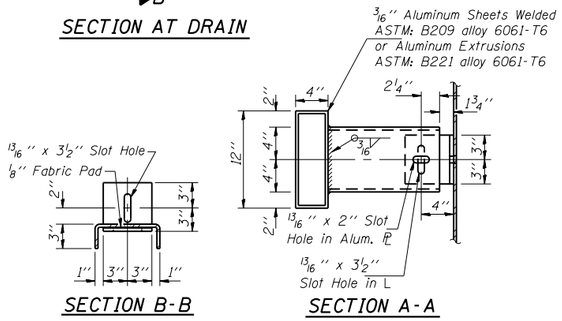

SECTION B-B

SECTION A-A

DRAIN EXTENSION DETAIL

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		DRAWN -	REVISED -						
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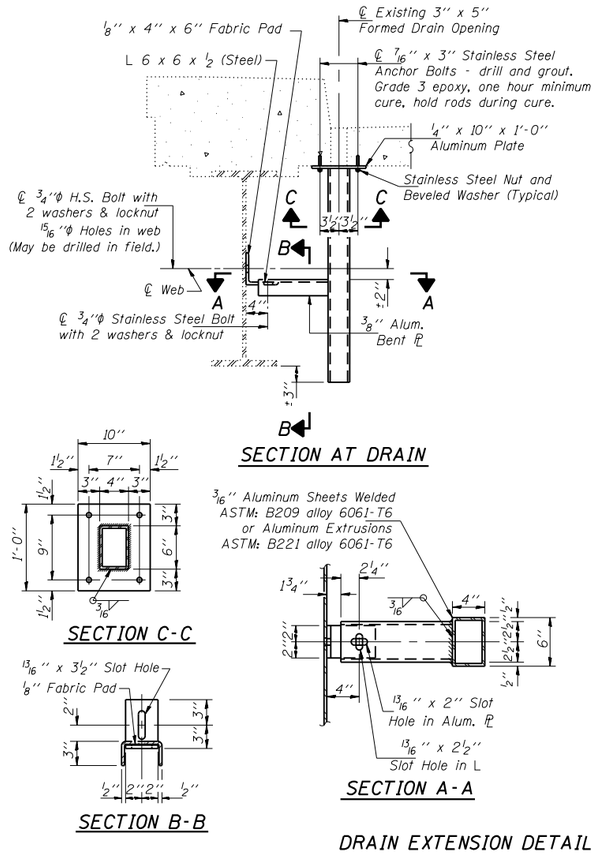
		DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT	



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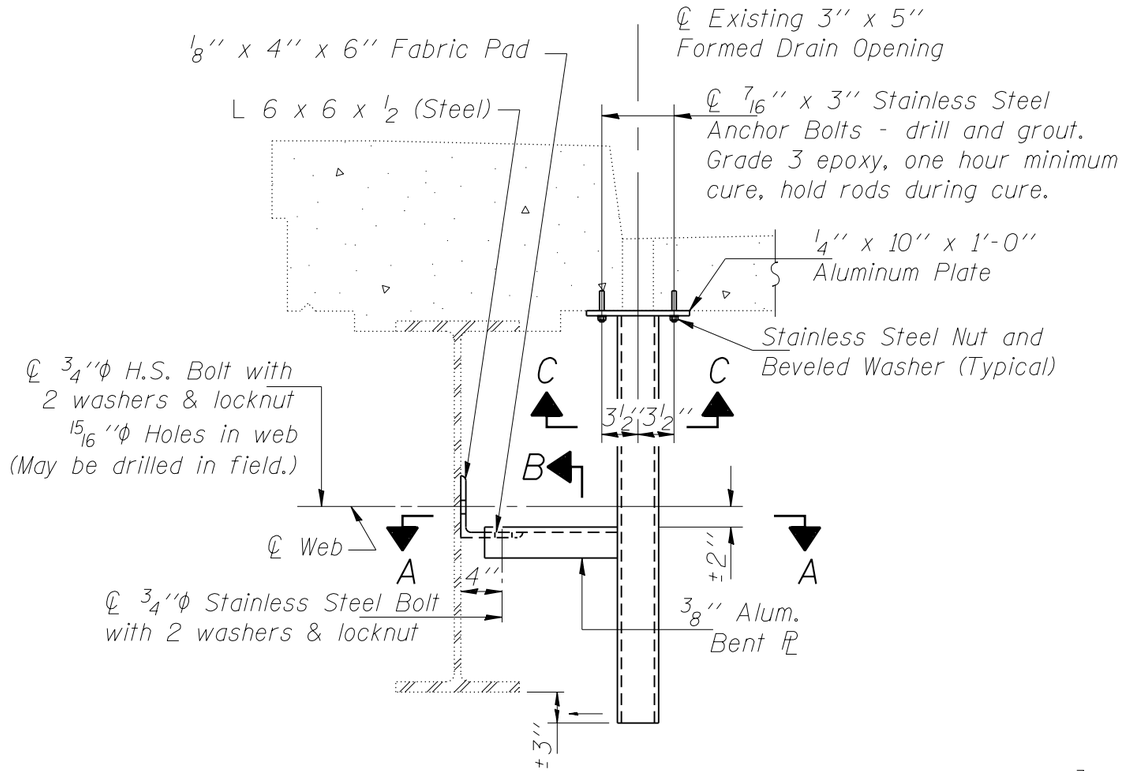
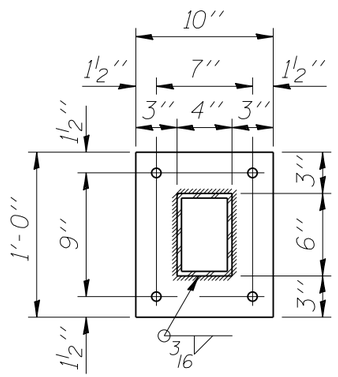
Default DRAINS1.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

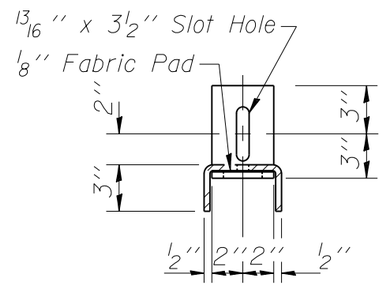
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

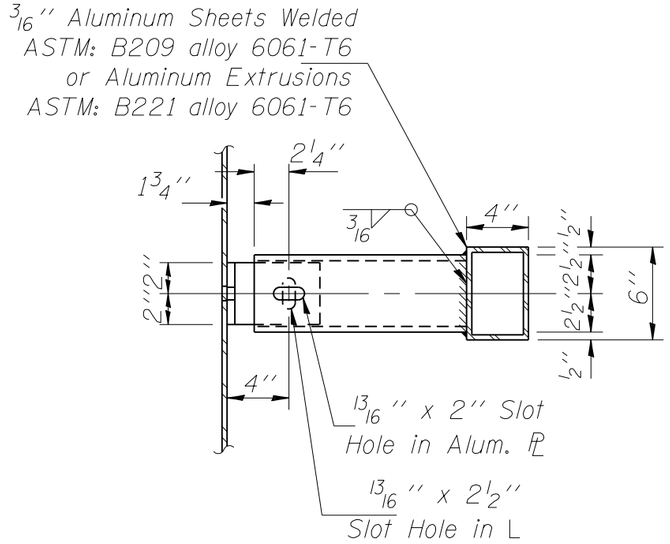




SECTION C-C



SECTION B-B



SECTION A-A

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAIN EXTENSION DETAIL

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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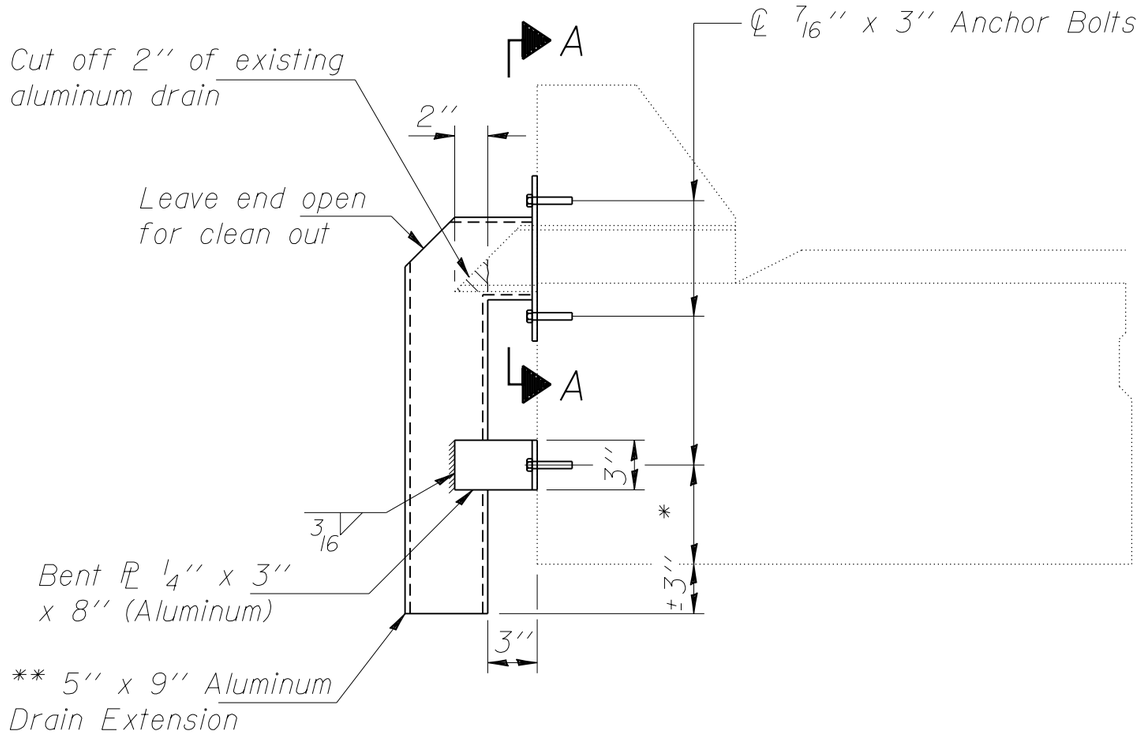
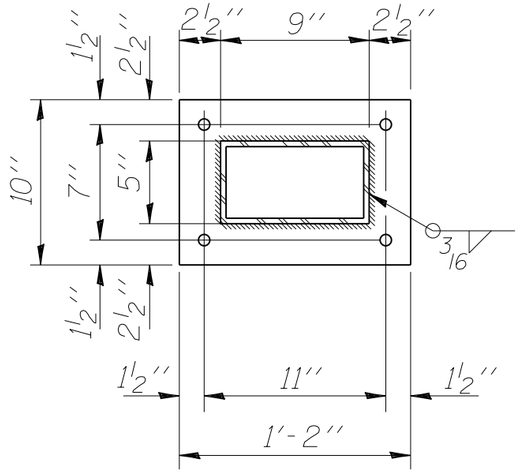
	ILLINOIS FED. AID PROJECT			



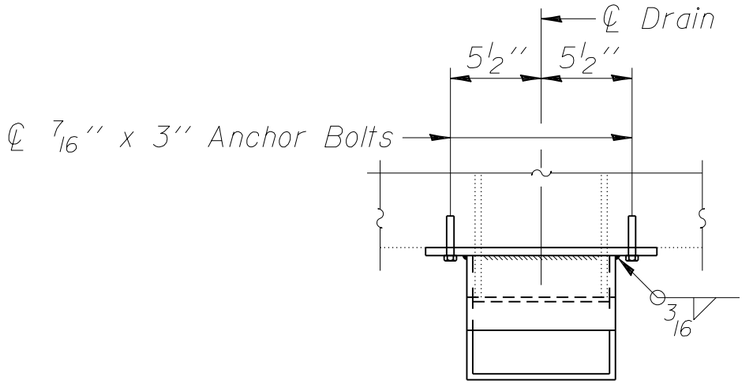
SECTION AT DRAIN

* Designer locate to miss existing prestressing strands.
** 3/16'' Aluminum Sheets (Welded) ASTM: B209 alloy 6061-T6.



SECTION A-A

PL 1/4'' x 10'' x 1'-2'' (Aluminum)



TOP PLAN

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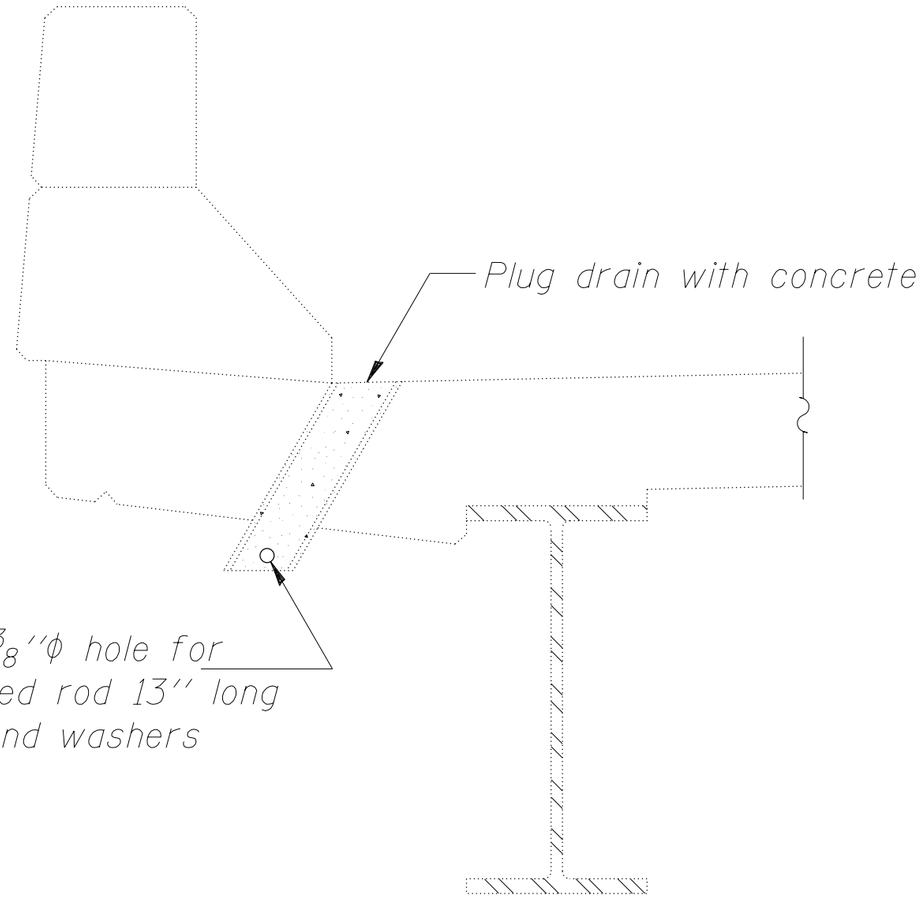

SECTION AT DRAIN

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

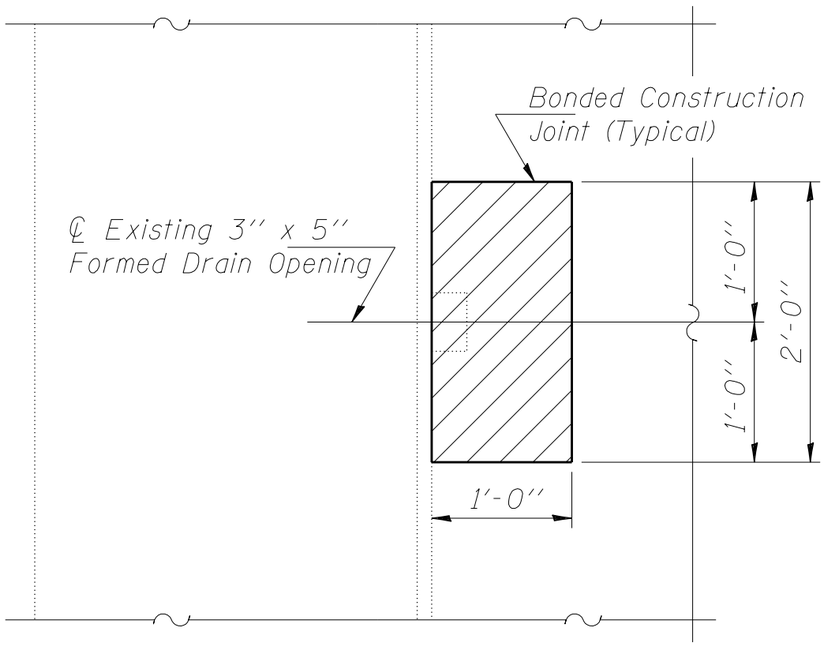
DRAIN ELIMINATION DETAIL

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

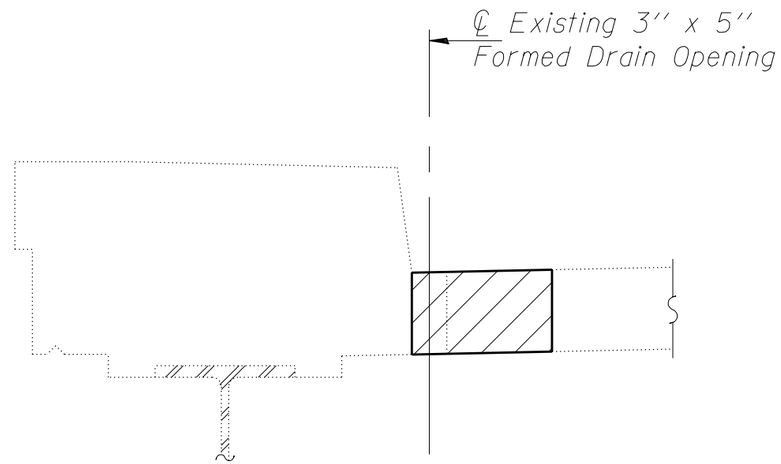
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT



PARTIAL PLAN



SECTION AT DRAIN

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut $\frac{3}{4}$'' prior to the removal of concrete.

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	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAIN EXTENSION DETAIL

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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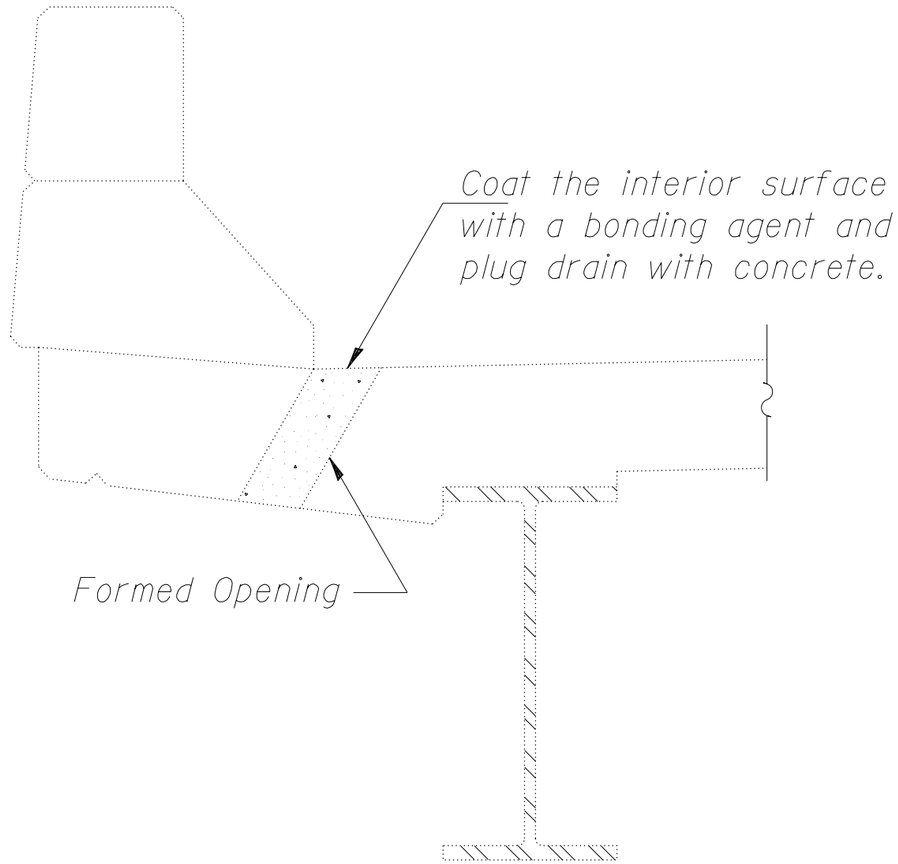
	ILLINOIS	FED. AID PROJECT		



SECTION AT DRAIN

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		DRAWN -	REVISED -									
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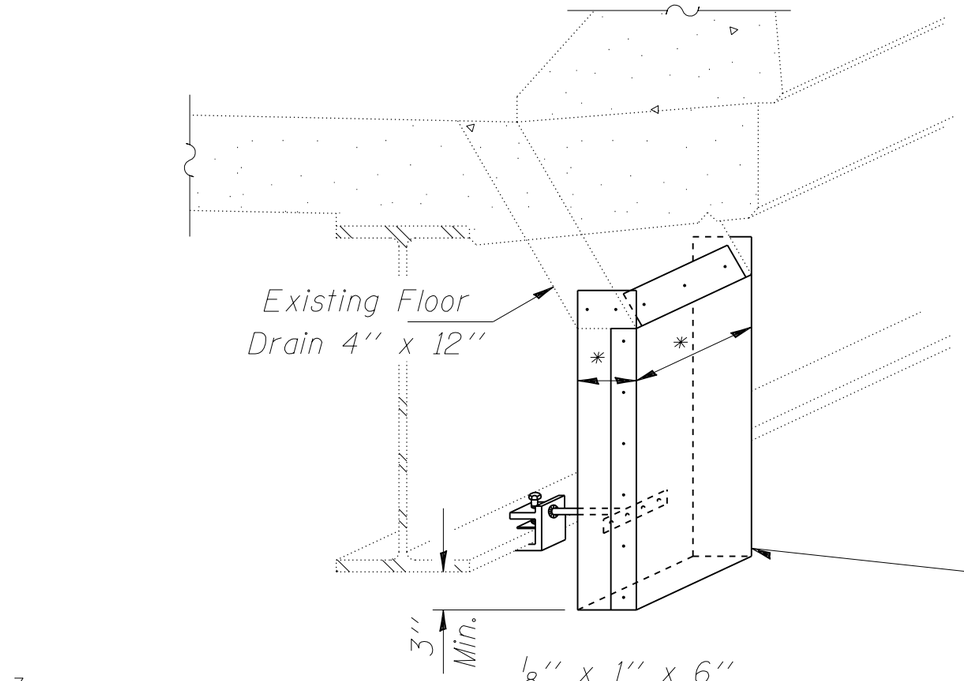
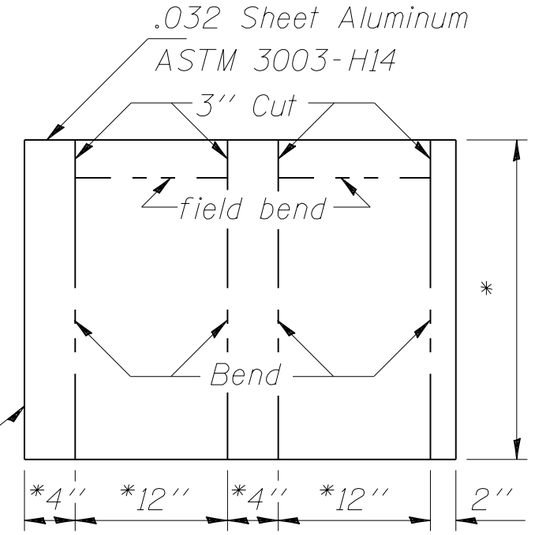
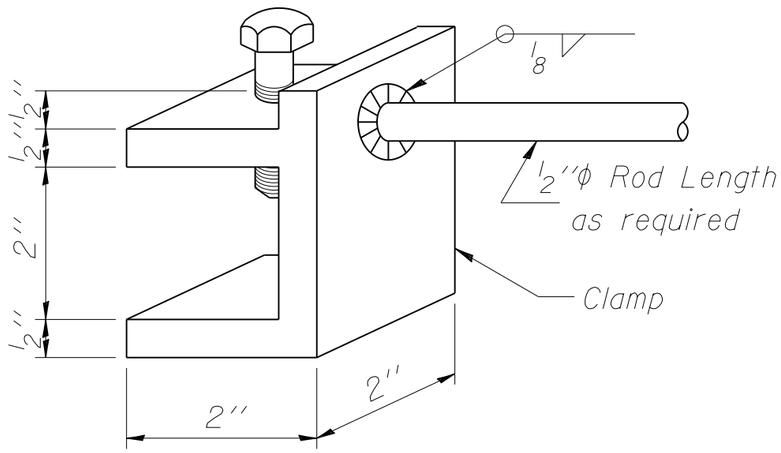




Drain Extension

Drill and pop rivet 2'' from each corner and on 4'' cts. along top edge into existing drains on 8'' cts. at side seam.



STEEL CLAMP

Notes:

Pop rivet the 1/8'' x 1'' bar to Drain Extension. Weld or securely attach rod to both the clamp and bar stiffener. Use 3/16'' stainless steel pop rivets of sufficient length.

Clamp shown in approximate dimensions. Similar commerically available may be substituted.

* Field measure cut to fit existing drain.

An aluminum extrusion drain extension of similar dimensions may be substituted.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\500-drains2.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

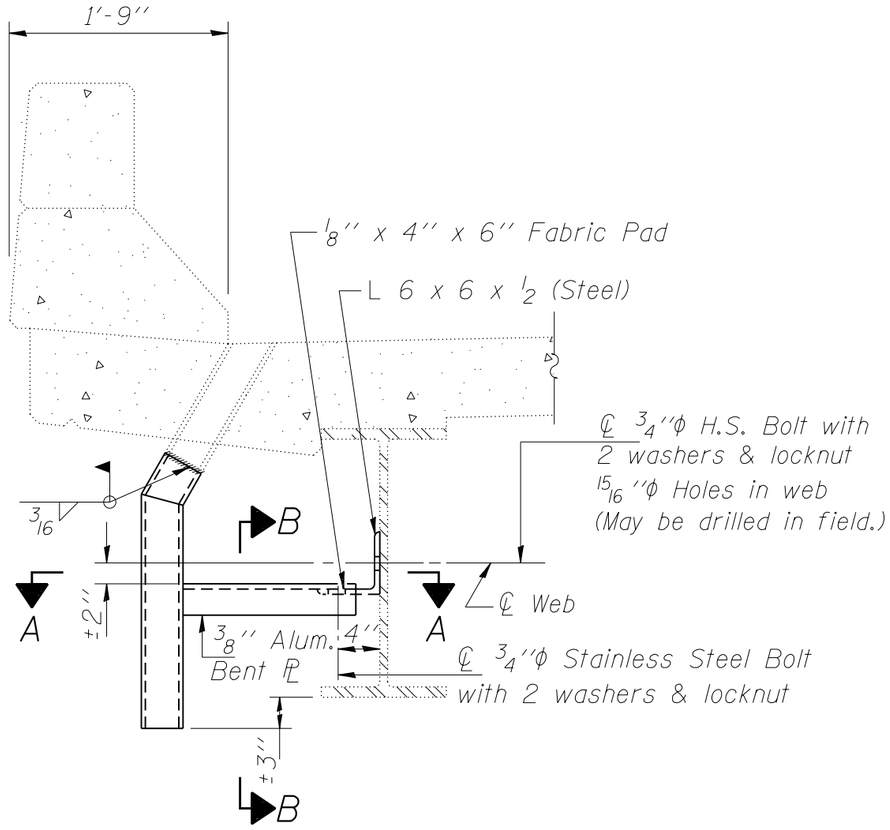
DRAIN EXTENSION DETAIL

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

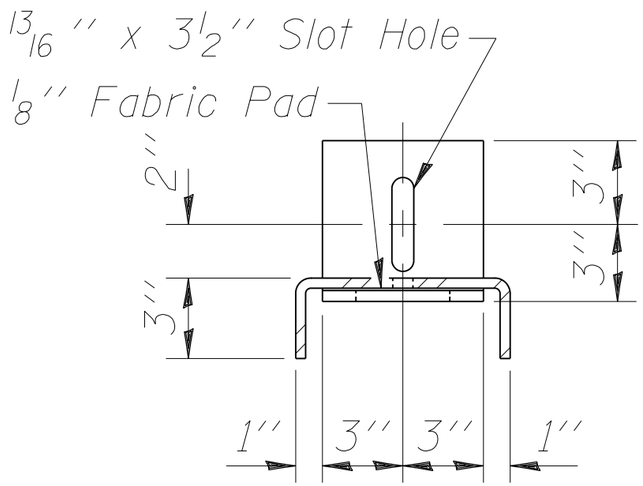
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

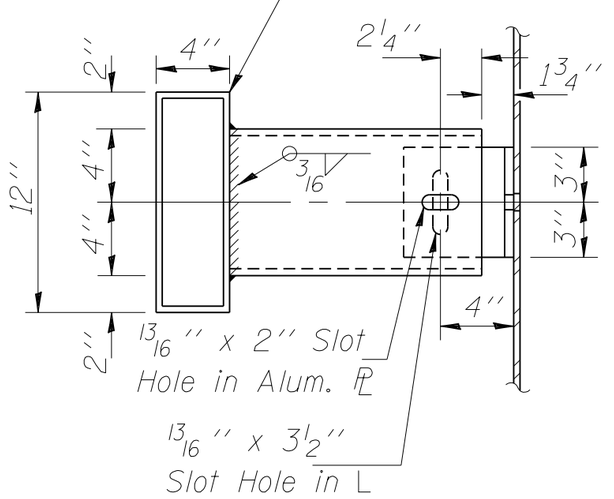


SECTION AT DRAIN



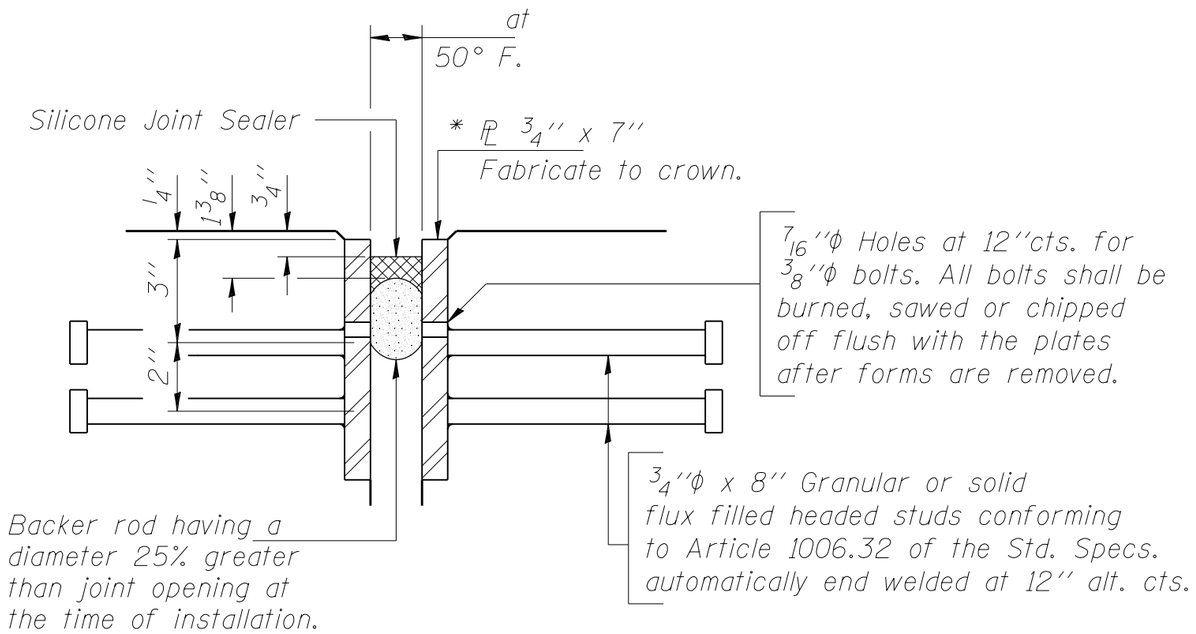
SECTION B-B

3/16'' Aluminum Sheets Welded
ASTM: B209 alloy 6061-T6
or Aluminum Extrusions
ASTM: B221 alloy 6061-T6



SECTION A-A

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard details\500-drains2.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAIN EXTENSION DETAIL	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000 '/ in.	DRAWN -	REVISED -							
	PLOT DATE = 5/10/2016	CHECKED -	REVISED -					CONTRACT NO.		
		DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		



* Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16''. Seal space with Silicone Sealant suitable for Structural Steel.

Note: After fabrication all surfaces of the steel plates shall be given one shop coat of paint specified for Structural Steel. No field painting required.

SILICONE JOINT SEALER DETAIL

DESIGN CHART

Length Contributing to Expansion	0'-40'	40'-80'	80'-120'	120'-160'	160'-200'
Joint Opening at 50° F	1''	1 1/2''	2''	2 1/2''	3''

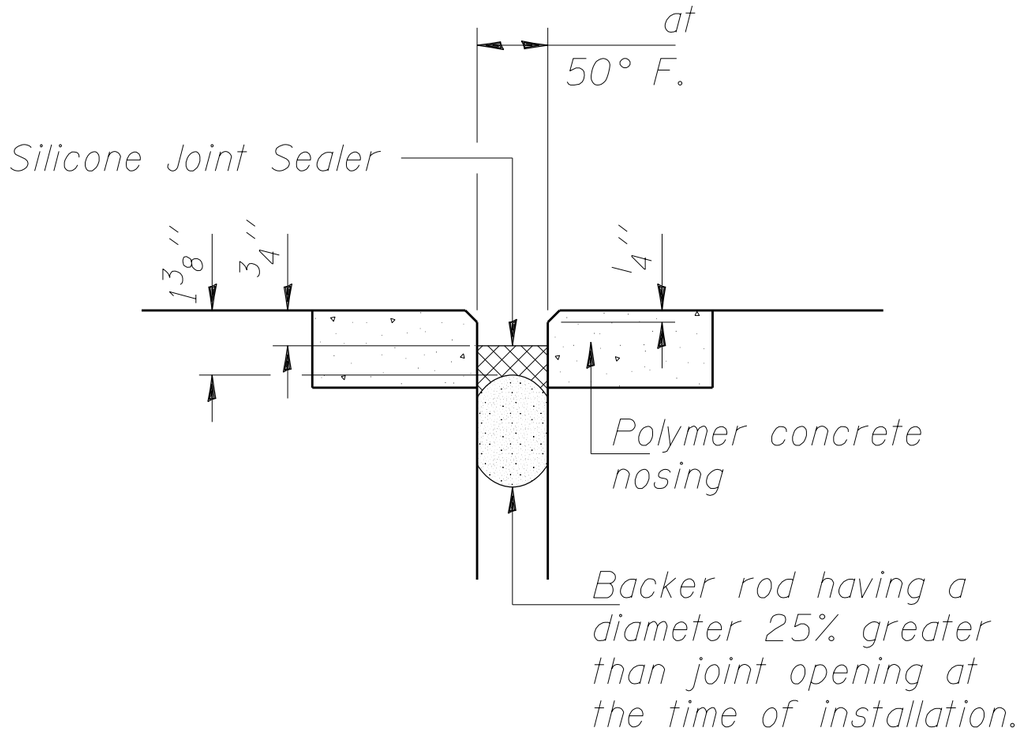
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\500-jointdetails.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SILICONE JOINT SEALER WITH STEEL PLATES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



SILICONE JOINT SEALER DETAIL

DESIGN CHART

Length Contributing to Expansion	0'-40'	40'-80'	80'-120'	120'-160'	160'-200'
Joint Opening at 50° F	1''	1 1/2''	2''	2 1/2''	3''

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\500-jointdetails.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

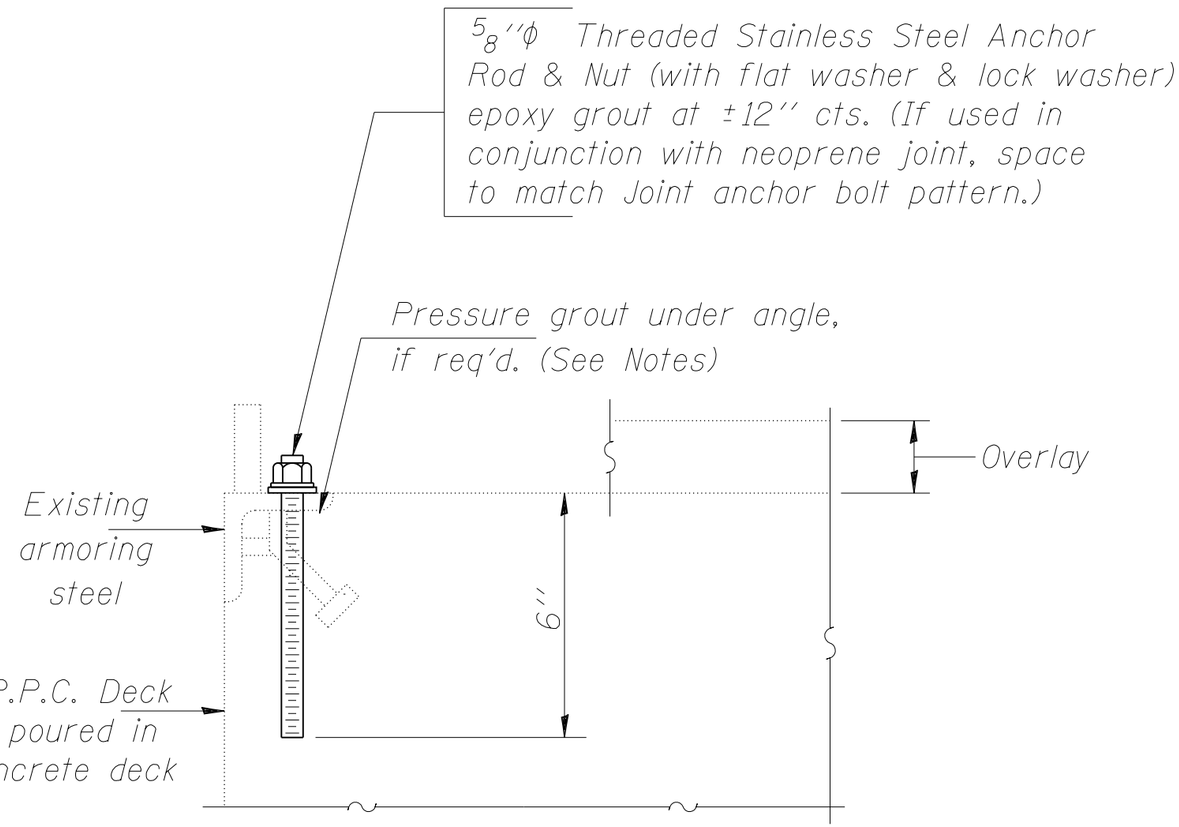
SILICONE JOINT SEALER WITH POLYMER CONCRETE NOSING

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT



Notes: Loose angles will be bolted to the end of the deck or P.P.C. deck beams by field drilling holes through the existing angles and epoxy grouting threaded rods into the deck.

If the existing angles sound loose after the epoxy grouted rods are in place, holes will be drilled through the angles and epoxy injected under the angles.

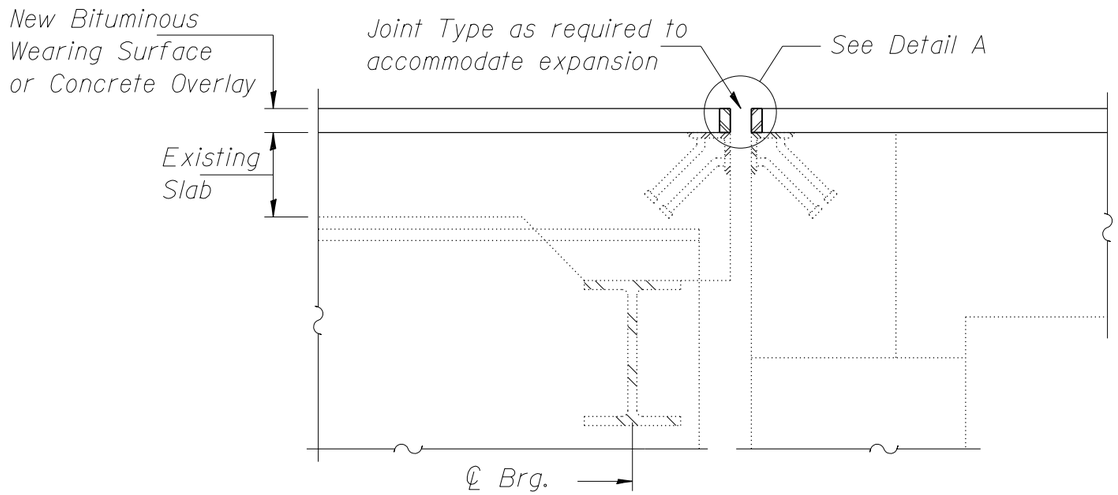
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\500-jointdetails.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

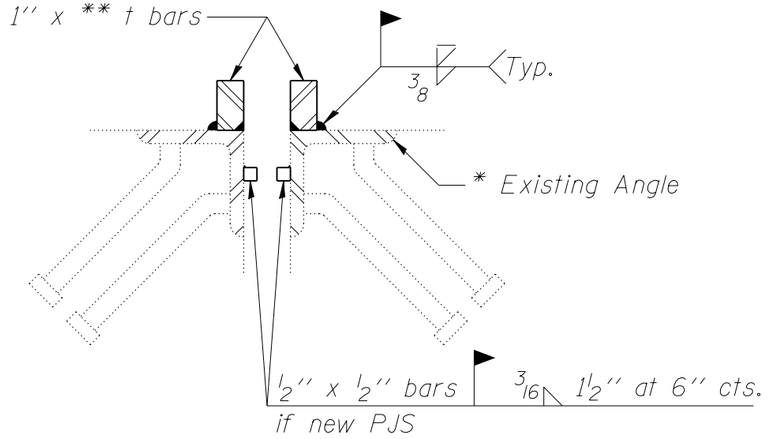
RE-ANCHORING EXISTING LOOSE EXPANSION ANGLES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



SECTION AT ABUTMENT



DETAIL A

* Re-anchoring of existing angles may be required. See Figure 1.5.3-1

** t = Thickness of Bituminous Surface or Concrete Overlay.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard details\500-jointdetails.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

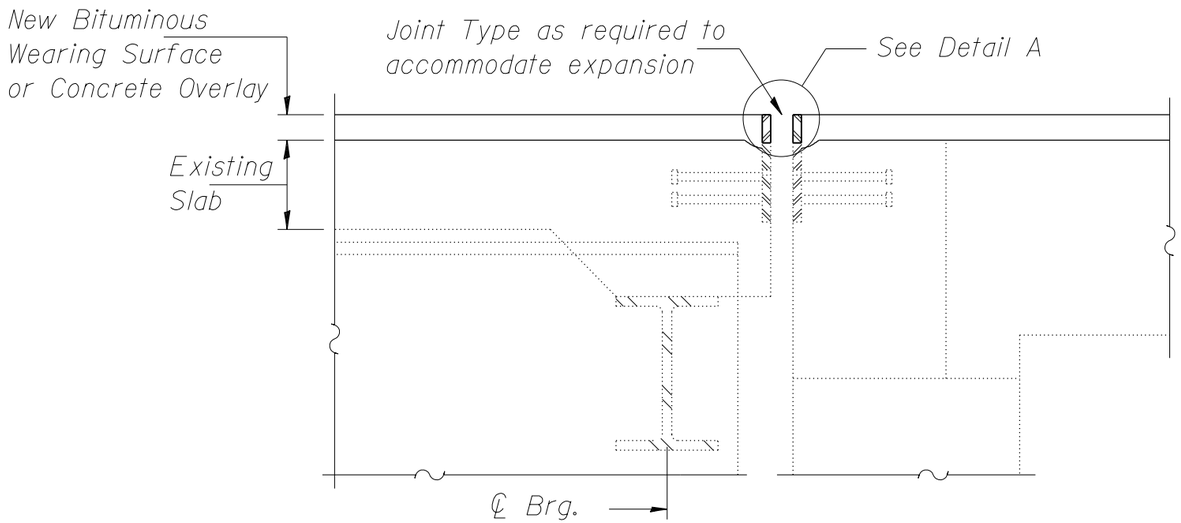
EXPANSION JOINT TREATMENT WITH GRADE RAISE AND EXISTING ANGLES

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

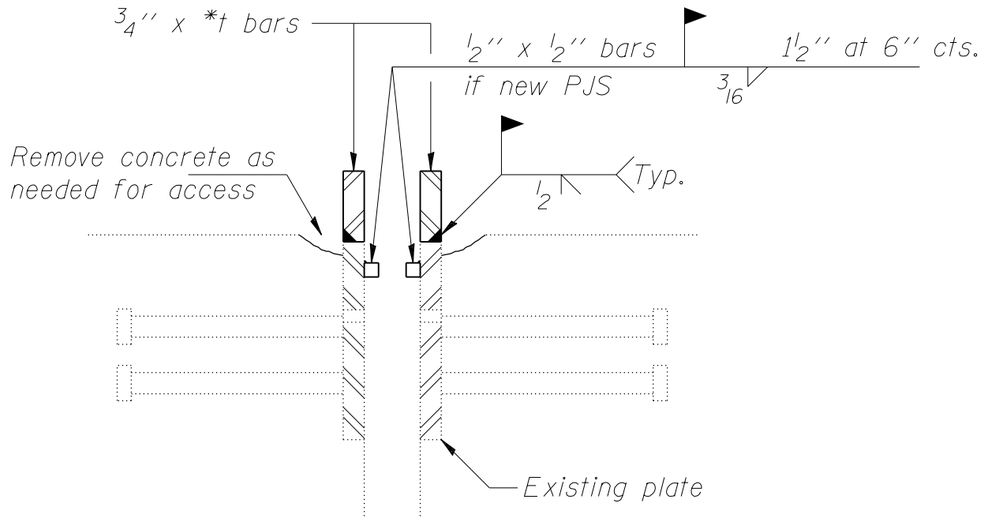
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT



SECTION AT ABUTMENT



DETAIL A

* t = Thickness of Bituminous Surface or Concrete Overlay.

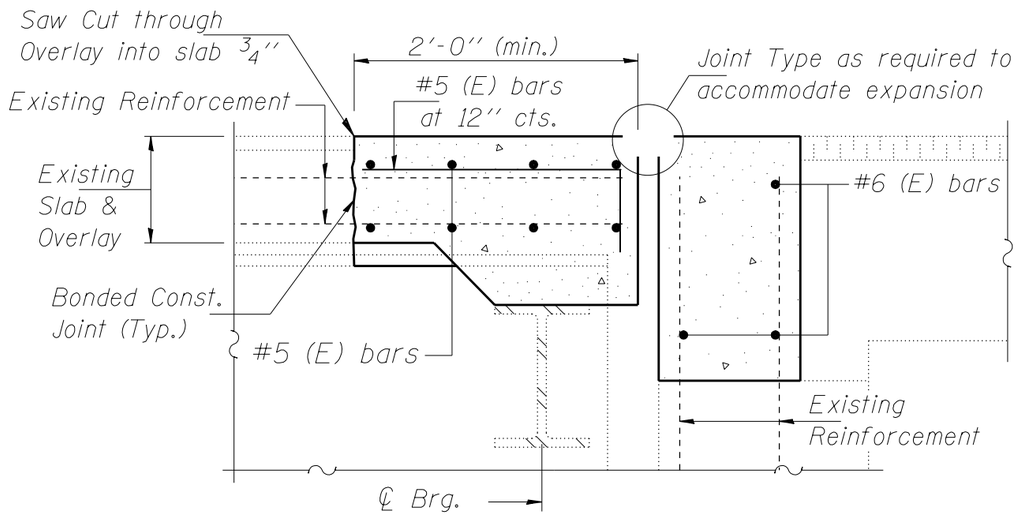
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard details\500-jointdetails.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

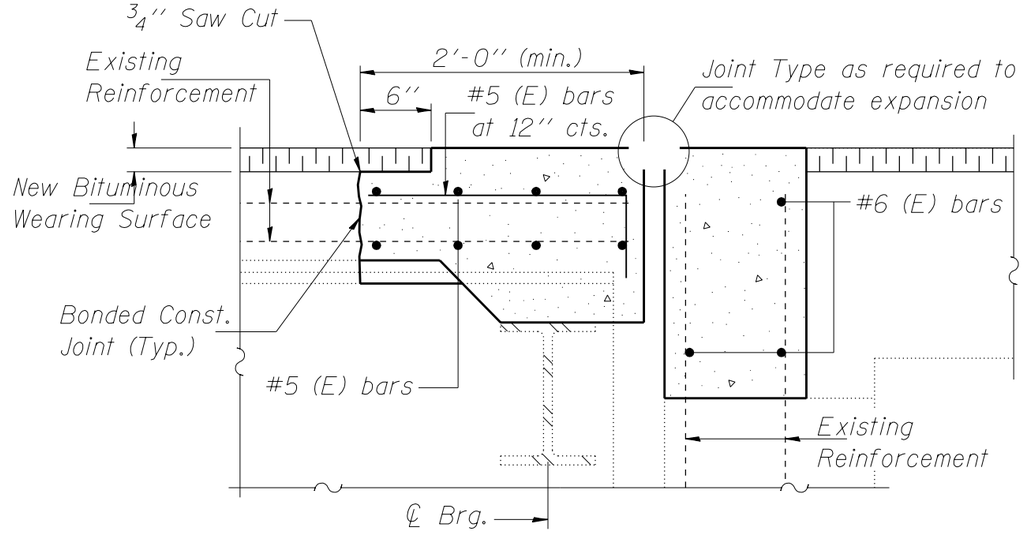
EXPANSION JOINT TREATMENT WITH GRADE RAISE AND EXISTING PLATES

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

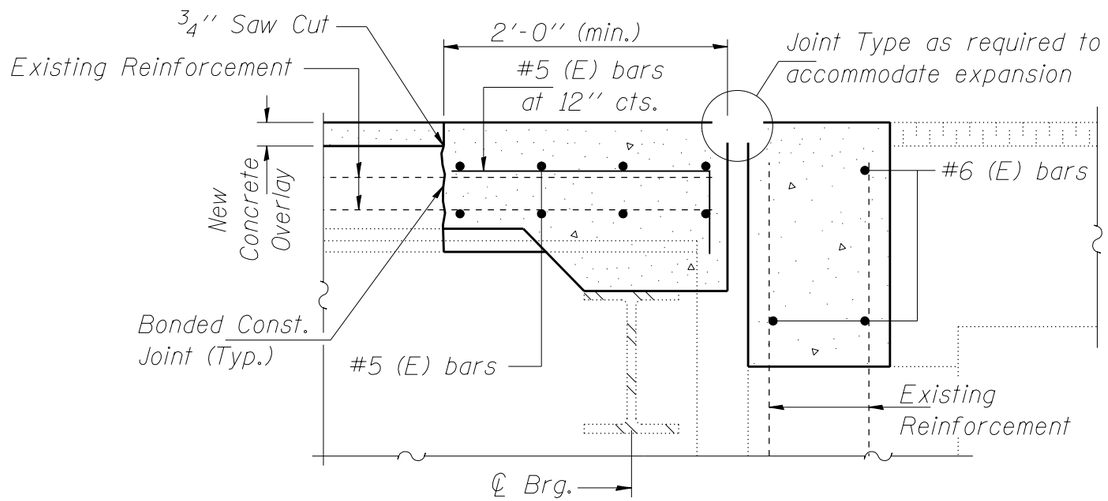
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



WITHOUT NEW OVERLAY



WITH BITUMINOUS WEARING SURFACE



WITH CONCRETE OVERLAY

Note: Existing Reinforcement Bars shown are to be cleaned and incorporated into new construction.

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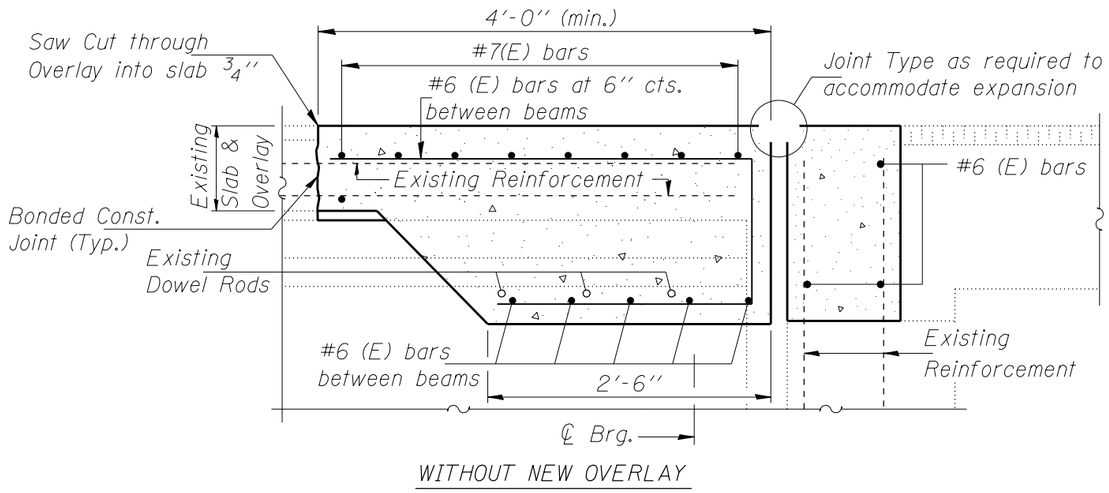
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

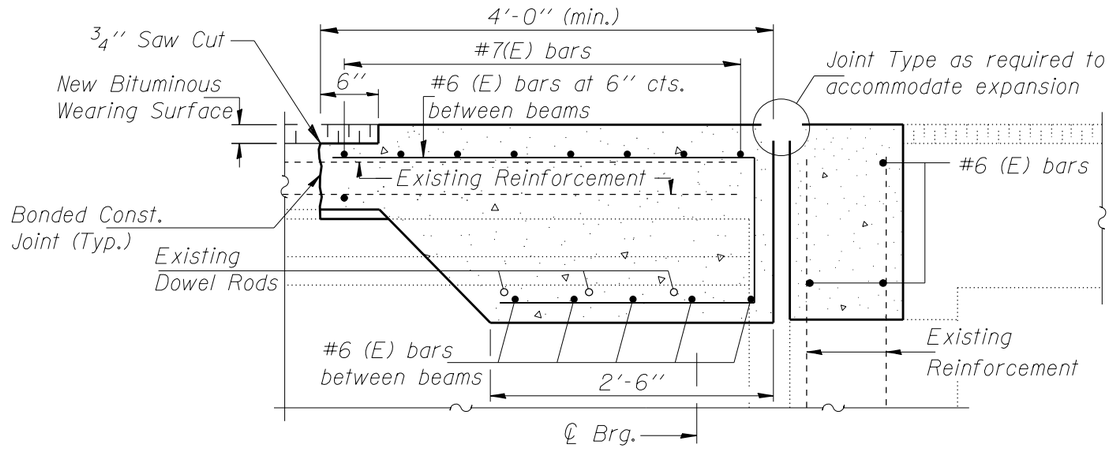
JOINT RECONSTRUCTION FOR STEEL BEAMS

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

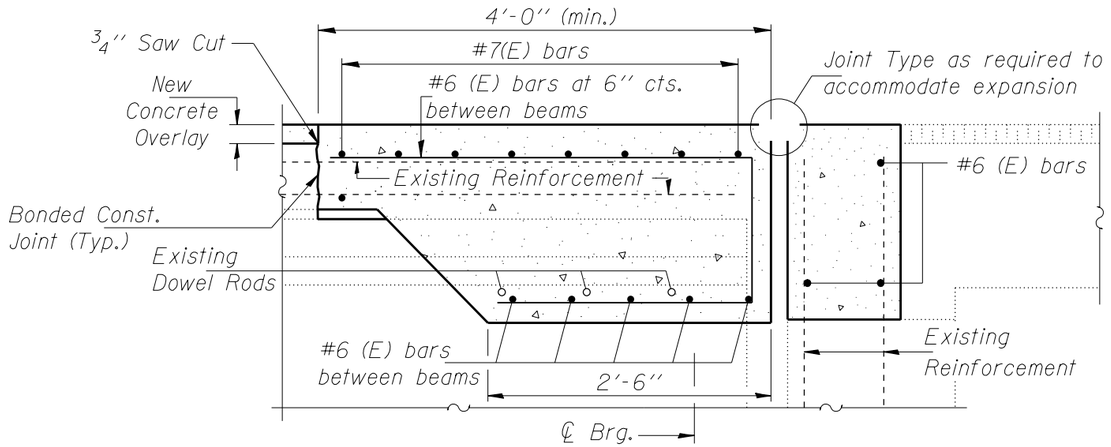
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



WITHOUT NEW OVERLAY



WITH BITUMINOUS WEARING SURFACE



WITH CONCRETE OVERLAY

Note: Existing Reinforcement Bars and Dowell Rods shown are to be cleaned and incorporated into new construction.

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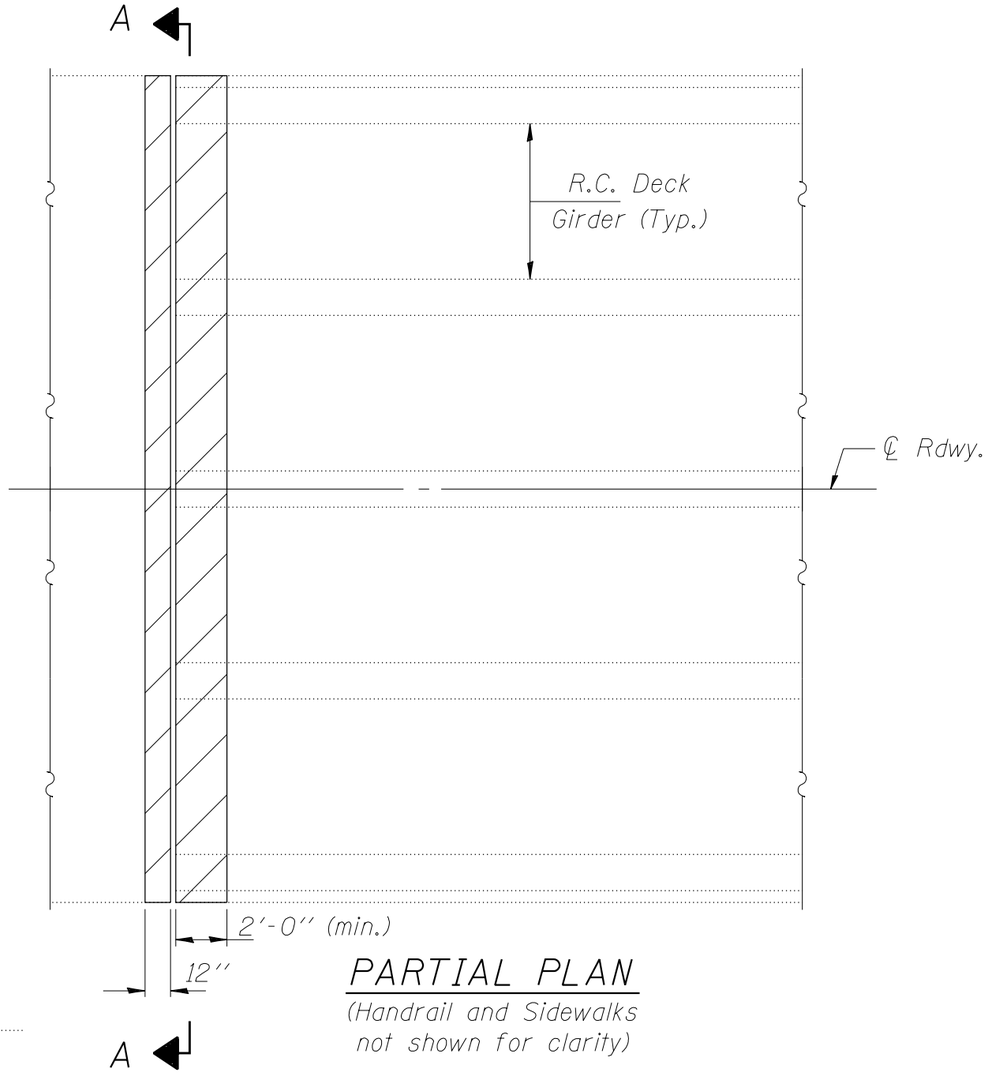
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOINT RECONSTRUCTION FOR PCC I BEAMS

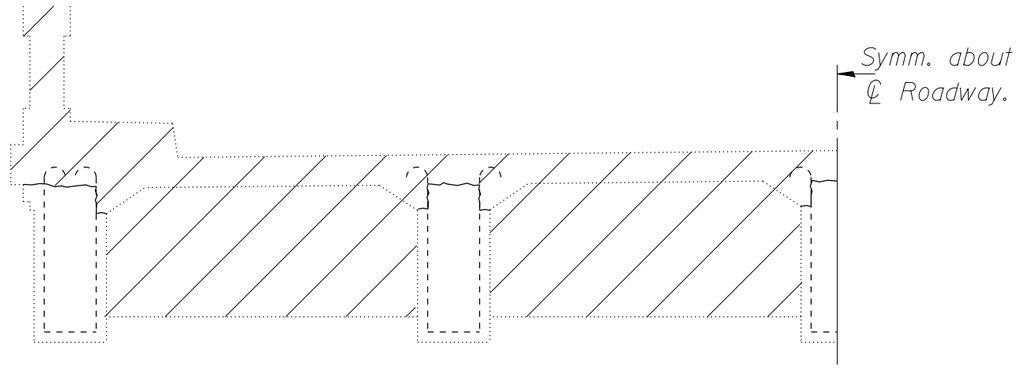
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



PARTIAL PLAN

(Handrail and Sidewalks not shown for clarity)



SECTION A-A

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	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

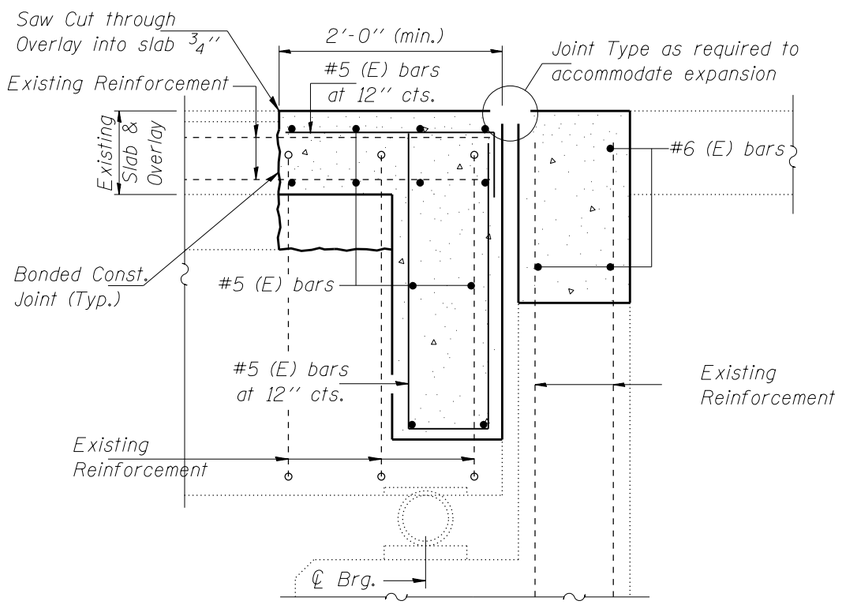
R.C. DECK GIRDER CONCRETE REMOVAL

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

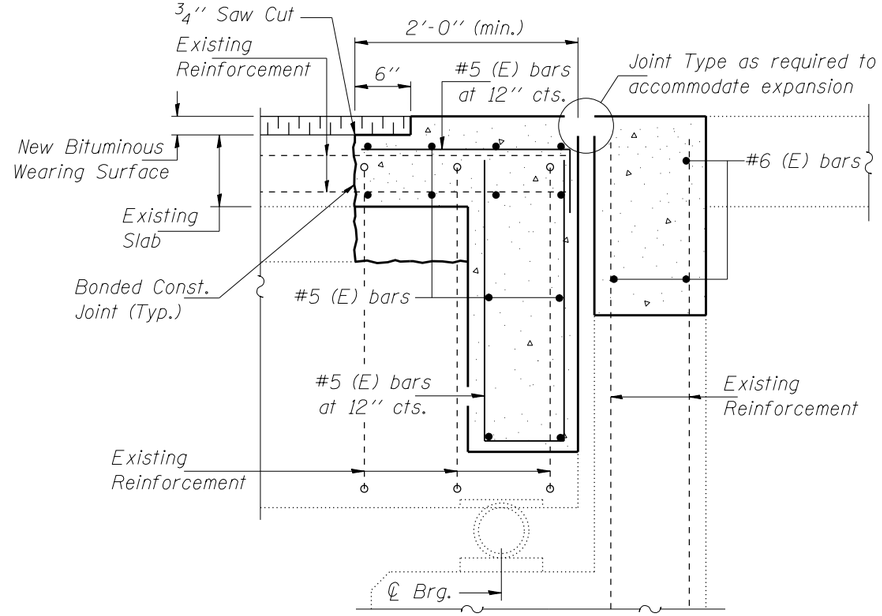
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT



WITHOUT NEW OVERLAY



WITH BITUMINOUS WEARING SURFACE

Note: Existing Reinforcement Bars shown are to be cleaned and incorporated into new construction.

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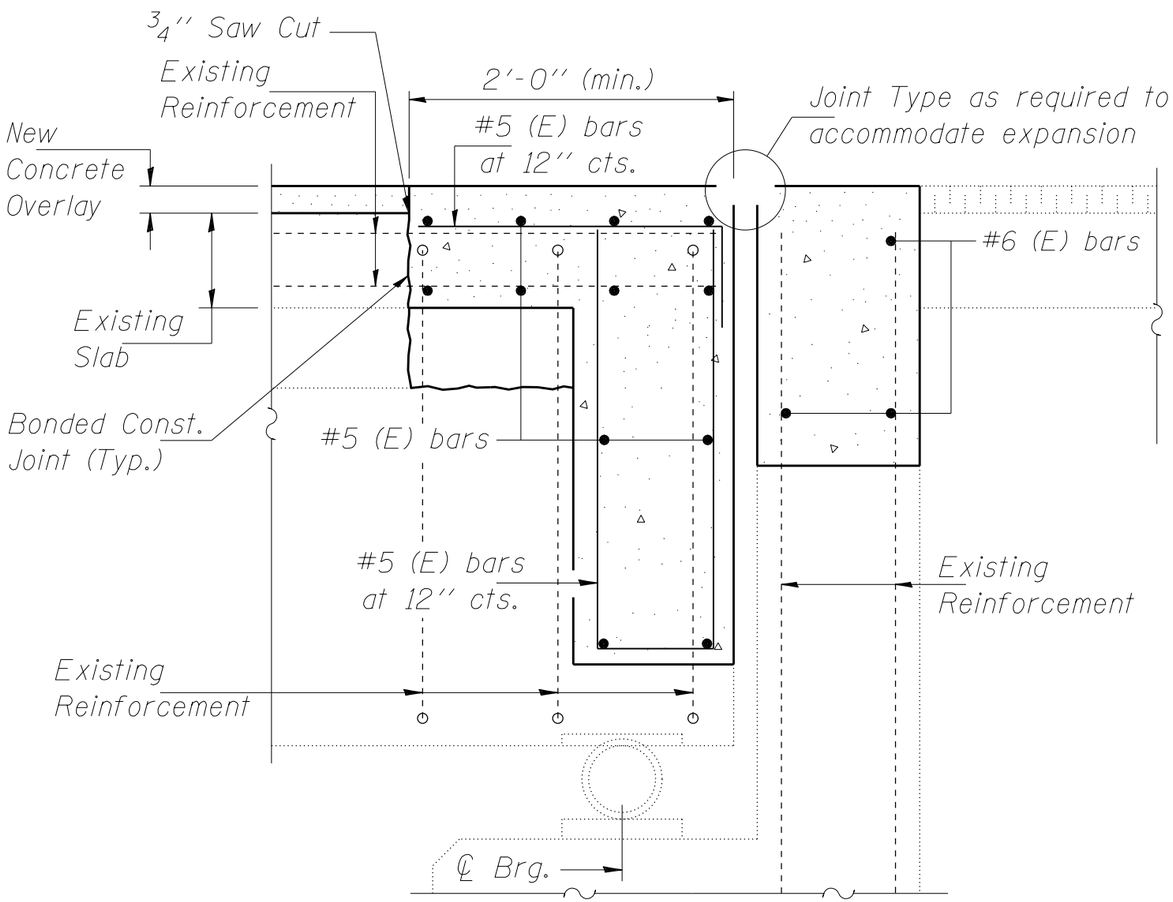
	PLOT DATE = 5/10/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

R.C. DECK GIRDER JOINT
RECONSTRUCTION (FULL REMOVAL)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



WITH CONCRETE OVERLAY

Note: Existing Reinforcement Bars shown are to be cleaned and incorporated into new construction.

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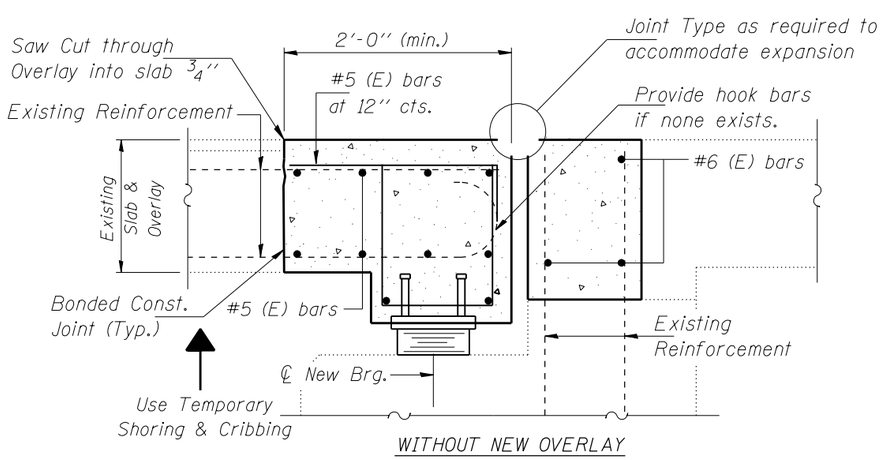
	PLOT SCALE = 40.0000 '/ in.	DRAWN -	REVISED -
	PLOT DATE = 5/10/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

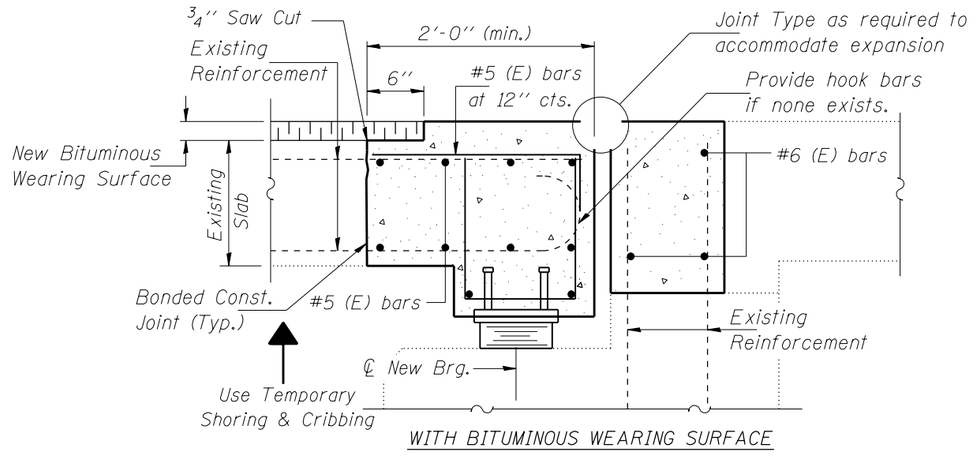
R.C. DECK GIRDER JOINT RECONSTRUCTION (FULL REMOVAL)

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

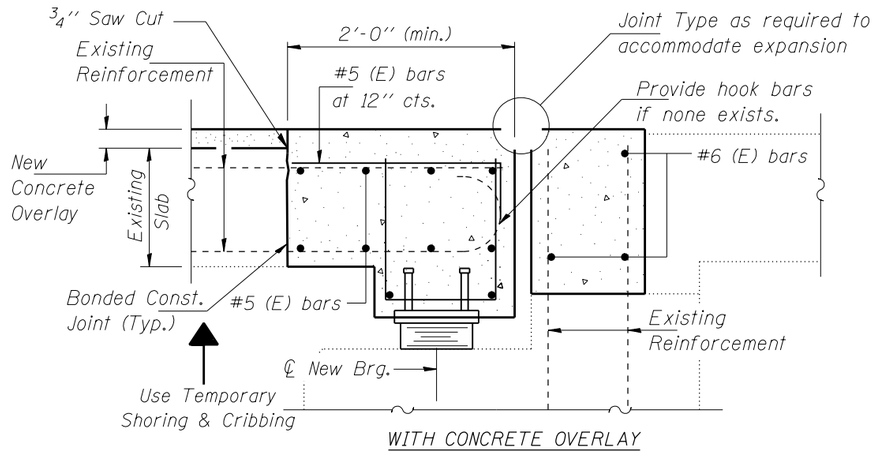
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



WITHOUT NEW OVERLAY



WITH BITUMINOUS WEARING SURFACE



WITH CONCRETE OVERLAY

Note: Existing Reinforcement Bars shown are to be cleaned and incorporated into new construction.

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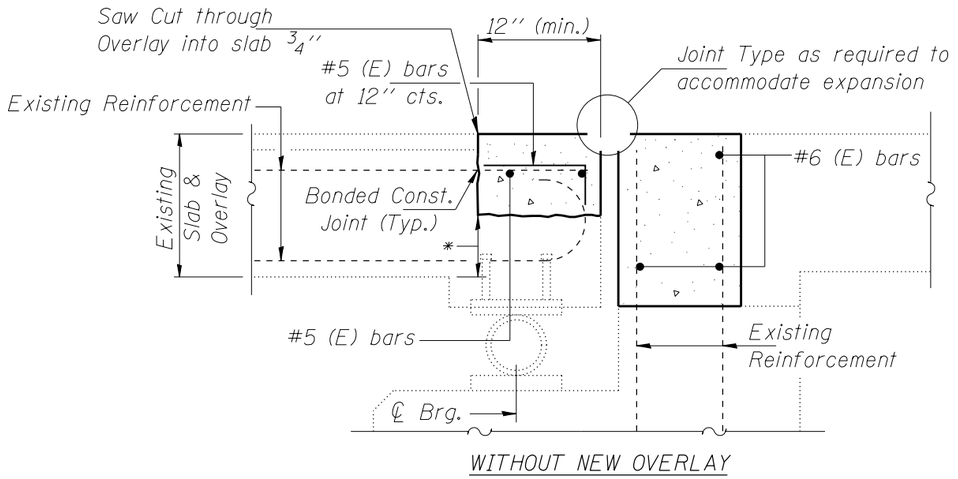
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

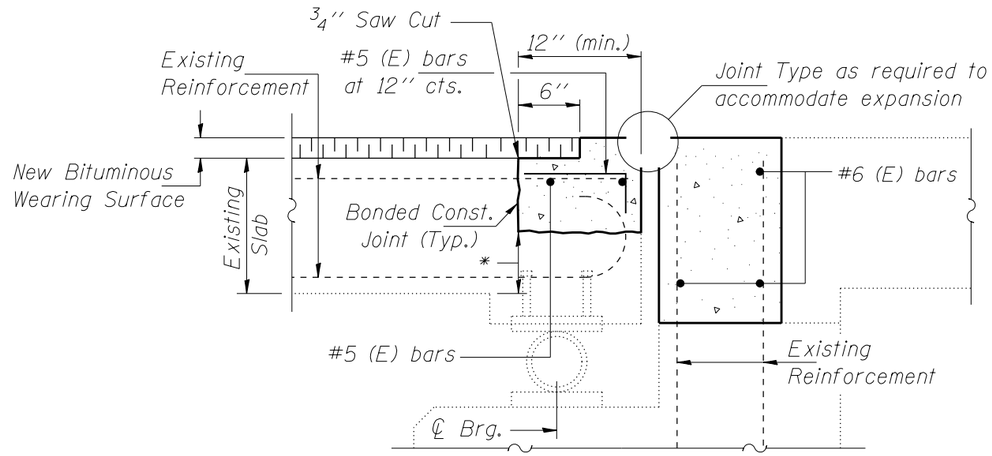
JOINT RECONSTRUCTION
FOR R.C. SLAB (FULL REMOVAL)

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

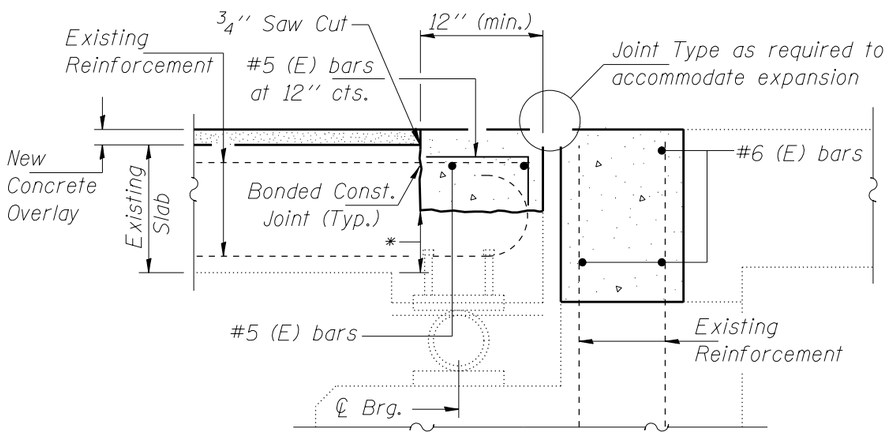
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



WITHOUT NEW OVERLAY



WITH BITUMINOUS WEARING SURFACE



WITH CONCRETE OVERLAY

* The complete replacement of the end of the slab and Temporary Shoring and Cribbing are required when the existing concrete is found to be unsound or analysis shows that remaining depth of slab is not adequate to carry loads during the joint replacement. See Figure 1.5.6-1.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\500-jointdetails.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED -
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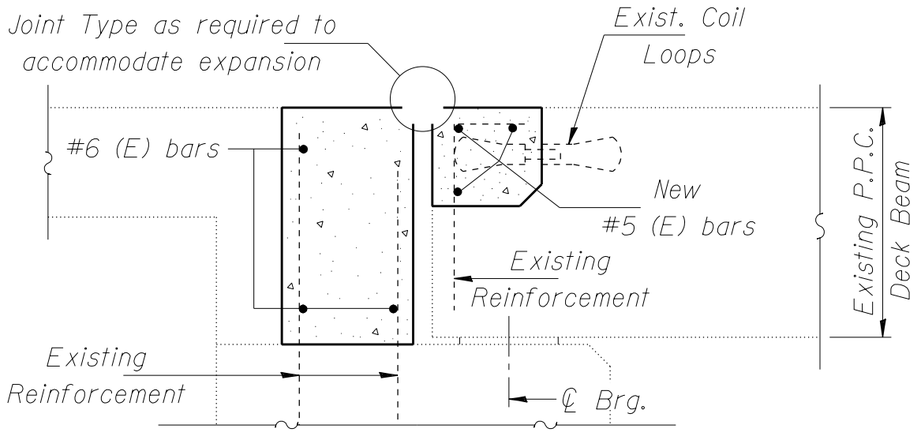
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

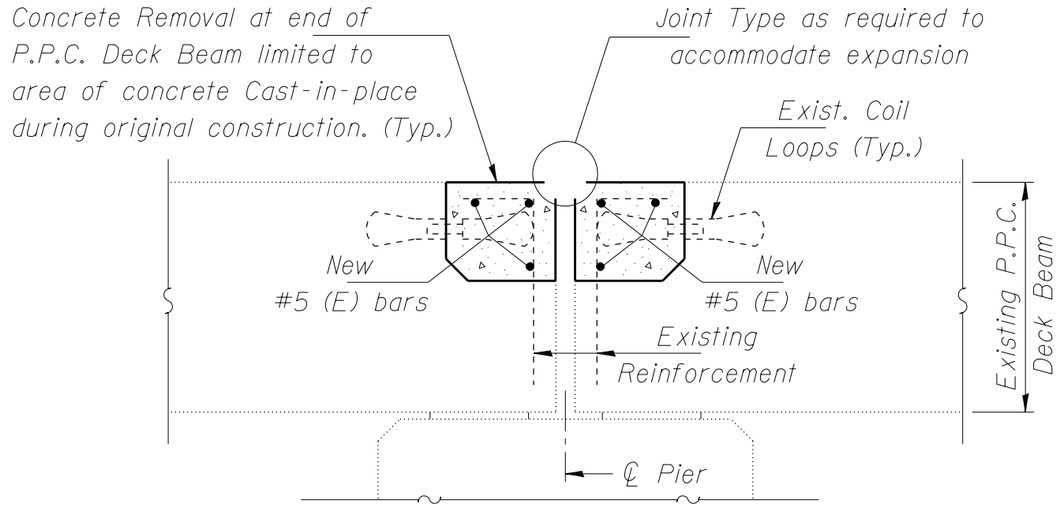
JOINT RECONSTRUCTION
FOR R.C. SLAB (PARTIAL REMOVAL)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



AT ABUTMENTS



AT PIERS

REMOVAL & REPLACEMENT

Note: Existing Reinforcement Bars and Coil Loops shown are to be cleaned and incorporated into new construction except as noted.

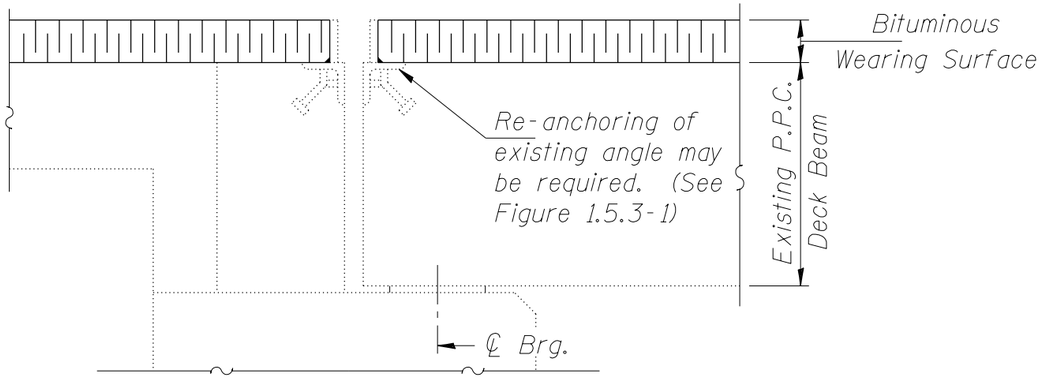
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\500-jointdetails.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

P.P.C. DECK BEAM
JOINT RECONSTRUCTION (BLOCKOUT REMOVAL)

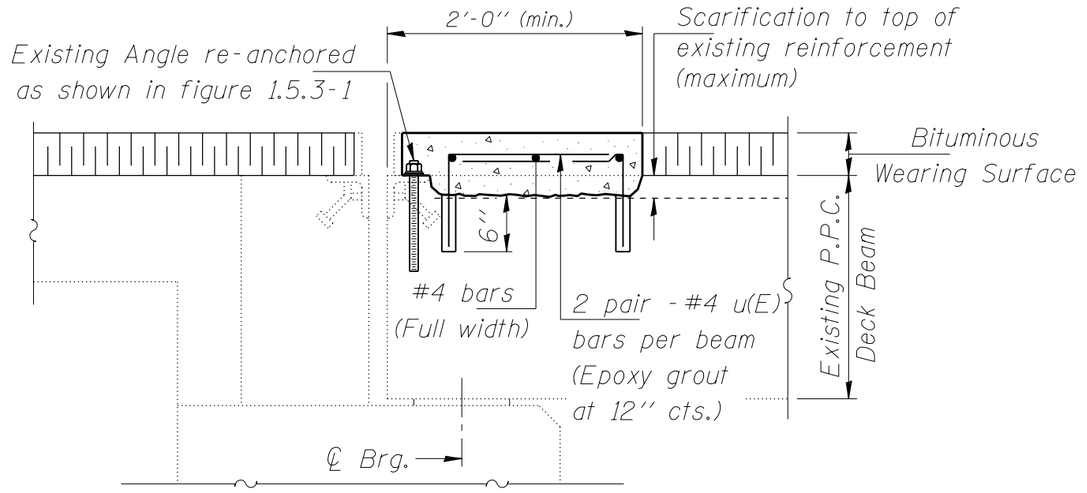
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



AT ABUTMENTS

(When re-anchoring is not required)



AT ABUTMENTS

(When re-anchoring is required)

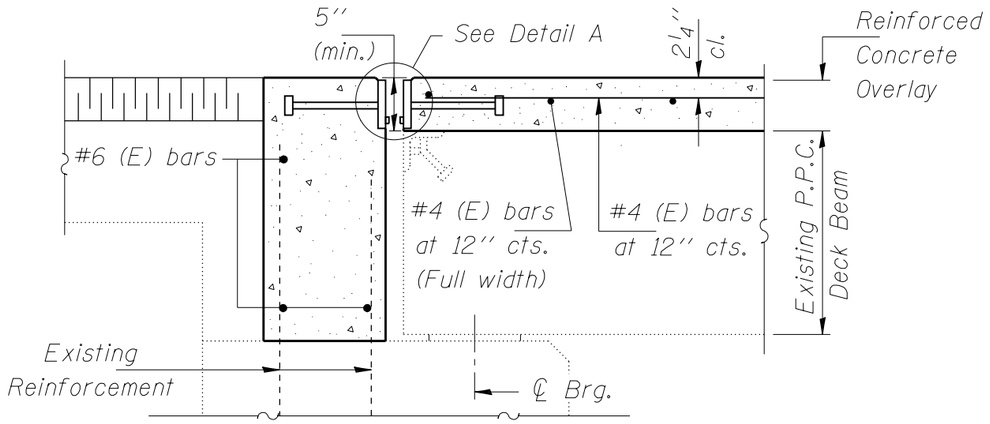
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard details\500-jointdetails.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

P.P.C. DECK BEAM
JOINT RECONSTRUCTION

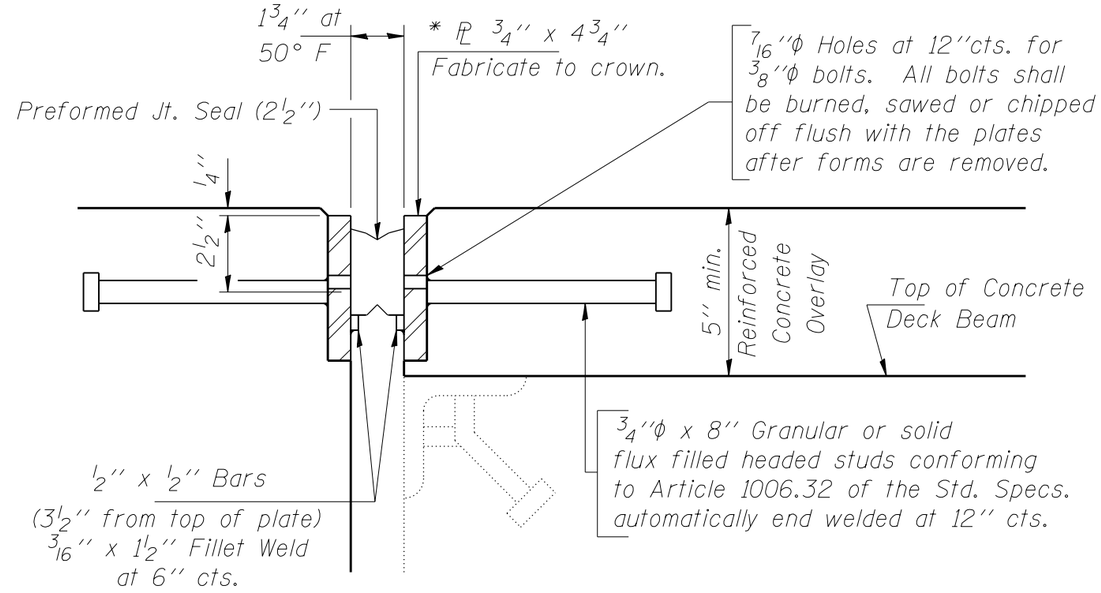
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



SECTION AT ABUTMENT

Minimum bar lap for #4 bars = 1'-4''



DETAIL A

* Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16''. Seal space with Silicone Sealant suitable for Structural Steel.

Note: After fabrication all surfaces of the steel plates shall be given one shop coat of paint specified for Structural Steel. No field painting required.

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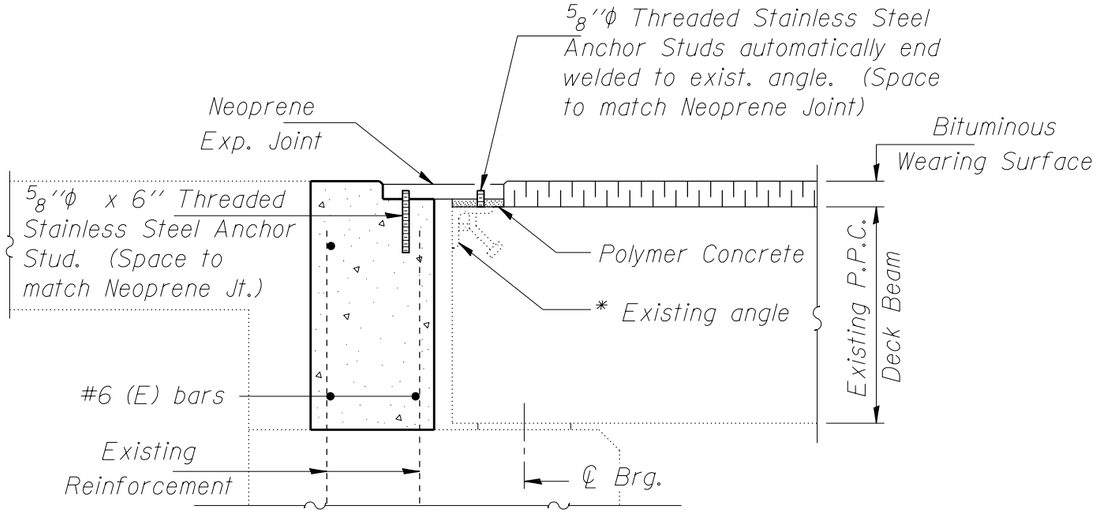
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

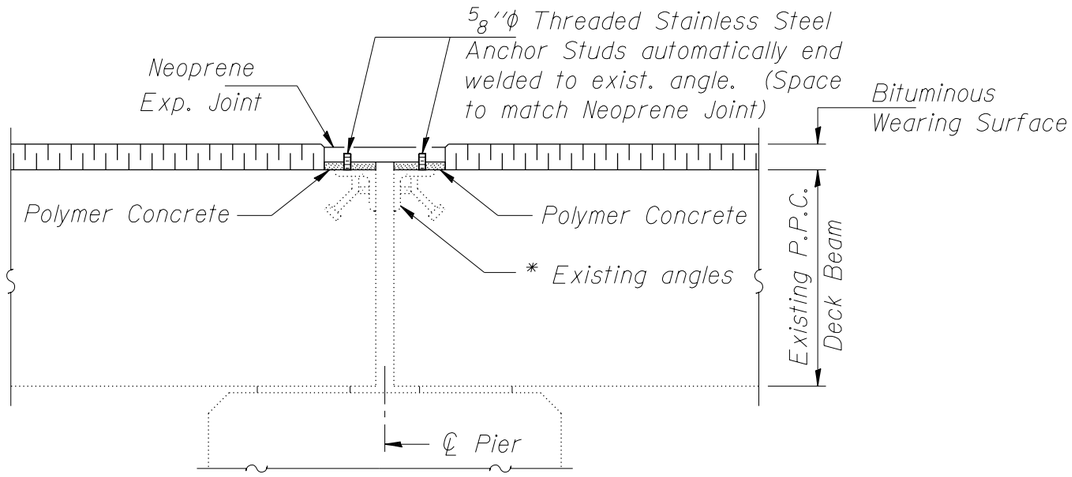
P.P.C. DECK BEAM JOINT RECONSTRUCTION WITH REINFORCED CONCRETE OVERLAY

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



AT ABUTMENTS



AT PIERS

* Re-anchoring of existing expansion angles may be required. See Figure 1.5.3-1, and space $\frac{5}{8}$"ϕ Threaded Stainless Steel Anchor Rods to match the neoprene joint.

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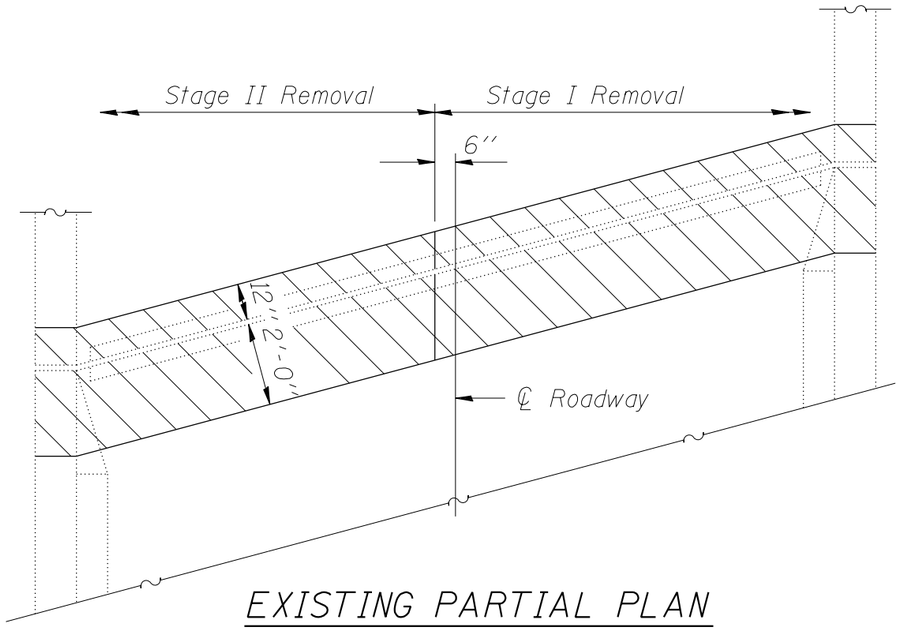
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

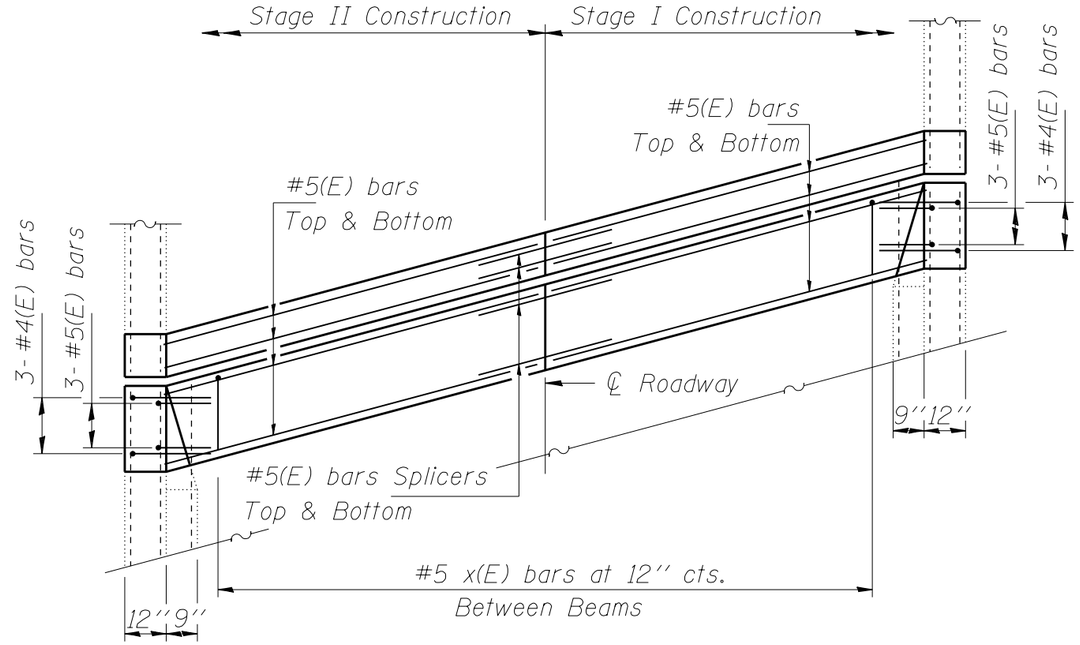
P.P.C. DECK BEAM JOINT
RECONSTRUCTION (NEOPRENE)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



EXISTING PARTIAL PLAN



PROPOSED PARTIAL PLAN

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	PLOT DATE = 5/10/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN OF JOINT RECONSTRUCTION

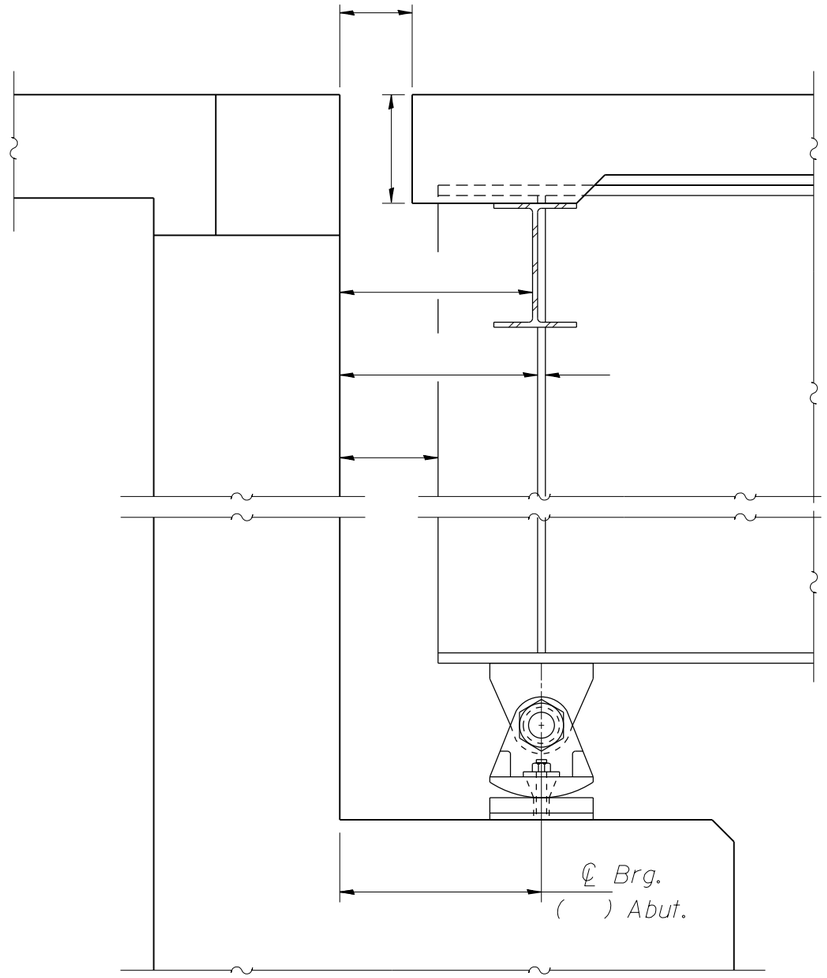
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			CONTRACT NO.	
	ILLINOIS	FED. AID PROJECT		

Structure No. _ _ _ _ _ _ _ _

Temperature _ _ _ _ _ _ _ _

Date _ _ _ _ _ _ _ _ _ _ _ _ _



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		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FINGER JOINT
FIELD DIMENSIONS (AT ABUTMENT)

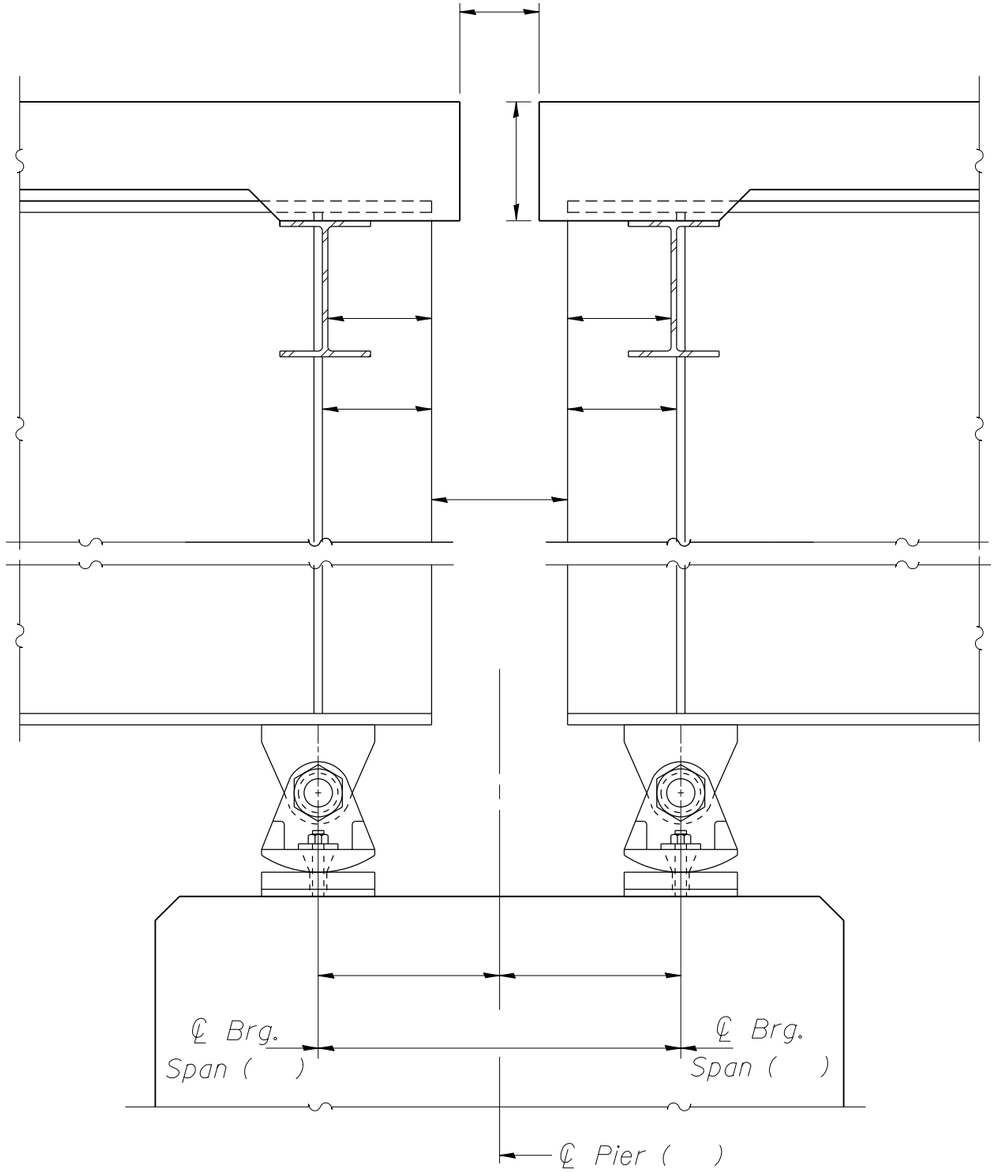
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

Structure No. _ _ _ _ _ _ _ _

Temperature _ _ _ _ _ _ _ _

Date _ _ _ _ _ _ _ _ _ _ _ _



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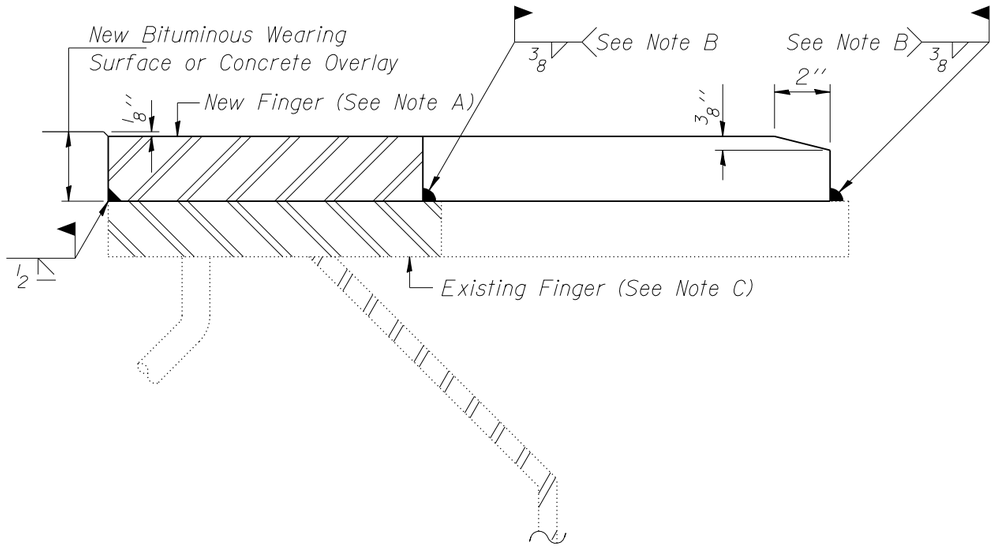
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

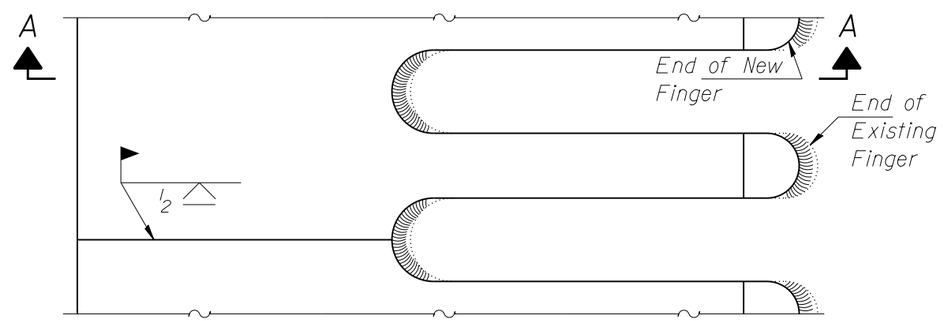
FINGER JOINT
FIELD DIMENSIONS (AT PIER)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



SECTION A-A



Note A:
New Finger shall be blast cleaned to SSPC SP 10 and shop painted with the inorganic zinc rich primer.

Note B:
Fillet weld sizes at ends (tips) and crotches of fingers shall vary from 3/8" near centers to 3/16" minimum near edges as new and existing plates converge.

Note C:
Existing Finger widths and exact locations must be field verified. A template shall be made to insure alignment. Remove foreign material that would prevent uniform contact between new and existing plates by method approved by the Engineer.

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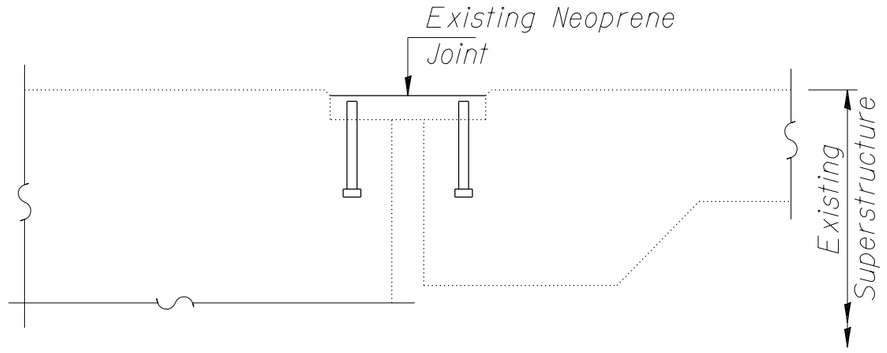
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT TREATMENT WITH GRADE RAISE AND EXISTING FINGER PLATES

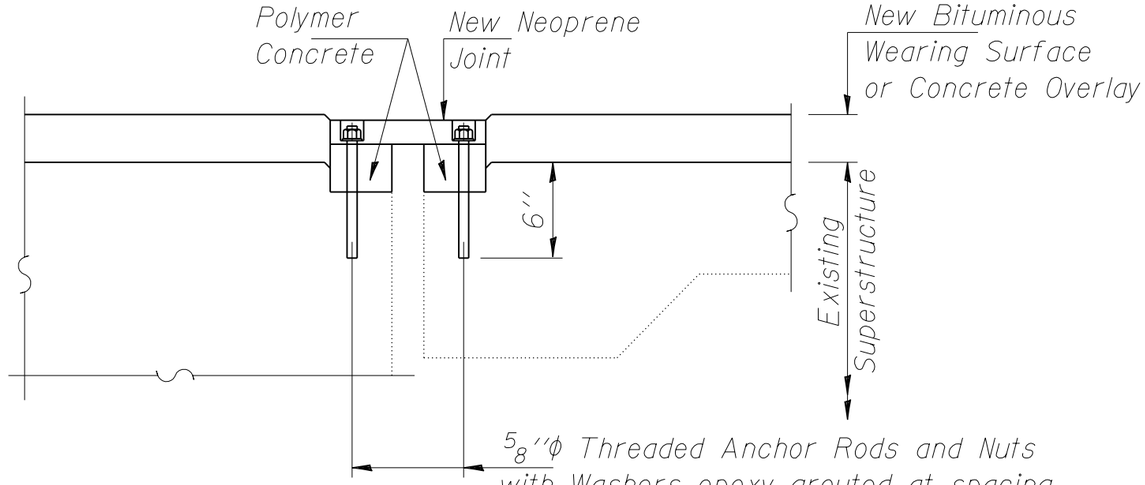
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



SECTION AT EXPANSION JOINT

(Showing existing neoprene joint)



SECTION AT EXPANSION JOINT

(Showing new neoprene joint)

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	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

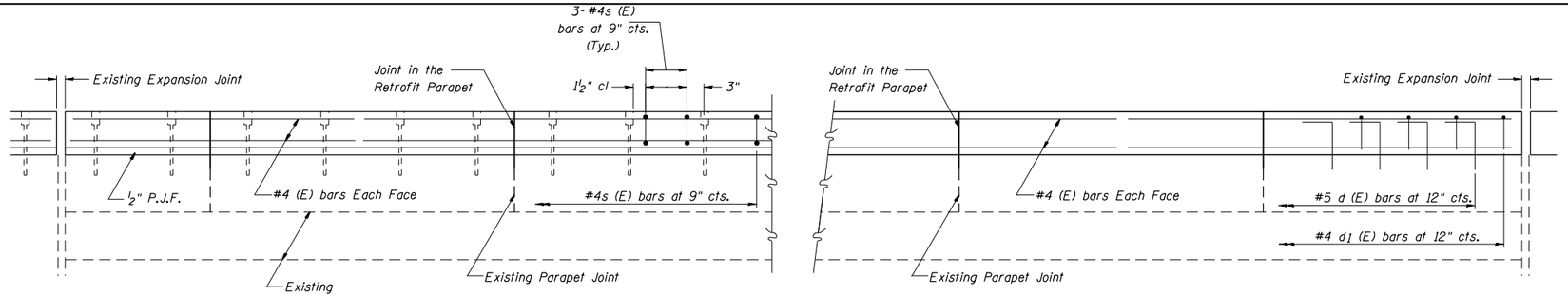
EXPANSION JOINT TREATMENT WITH GRADE RAISE AND EXISTING NEOPRENE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

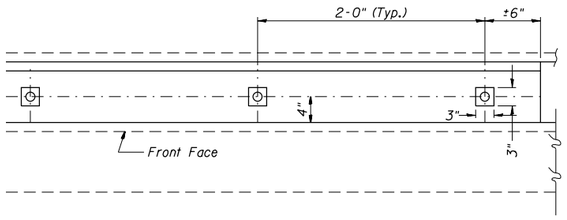
CONTRACT NO.

ILLINOIS | FED. AID PROJECT



INSIDE ELEVATION OF PARAPET

PRECAST ALTERNATE



TOP VIEW

(Showing spacing of ¾" ϕ H.S. Threaded Rods)

PRECAST

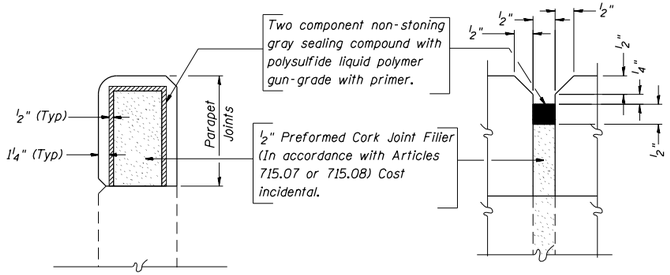
(Showing Attachment)

PRECAST

(Showing Reinforcement)

INSIDE ELEVATION OF PARAPET

CAST-IN-PLACE ALTERNATE



PARAPET JOINT DETAIL

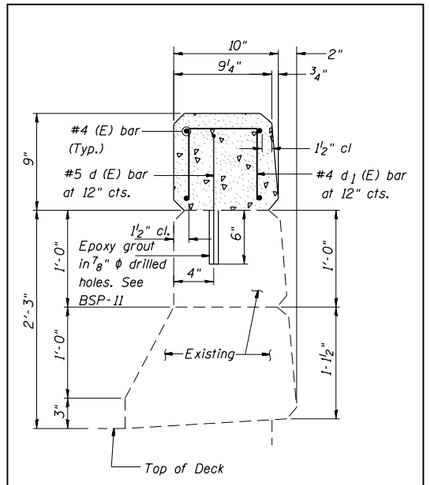
BAR d (E) BAR d_1 (E) BAR s (E)

PRECAST

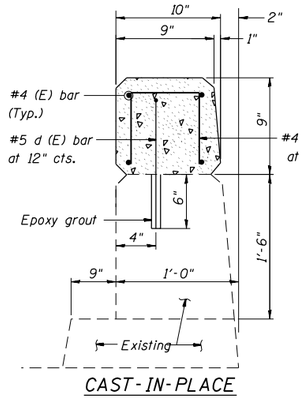
(Showing Attachment)

PRECAST

(Showing Reinforcement)



CAST-IN-PLACE



CAST-IN-PLACE

GENERAL NOTES

Class X Concrete shall be used throughout.

All exposed edges shall be chamfered ¾"

Class X Concrete, Reinforcement Bars (E), Threaded Anchor Rods, ½" P.J.F. and all other accessories needed for installation and erection will be paid for at the unit price per lineal foot for Retrofit Concrete Parapet.

The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge shall be a sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amount of adhesive chemical. The threaded rod stud with nut & washers shall conform to ASTM A-307.

The existing ¾" ϕ and 1" ϕ welded studs shall be burned, sawed or chipped off flush with the top of the existing parapet.

Holes for the dowel rods shall miss existing parapet joints.

The precast sections may be cast in units of 3', 5', 7' ....etc. length as desired. Where they overlap the joints in the parapet, the precast units shall be saw cut to line up with the joints in the parapet. The sawcut faces of the units shall be given a coat of boiled linseed oil mixture (Protective Coat).

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Retrofit Concrete Parapet	Lin. Ft.	

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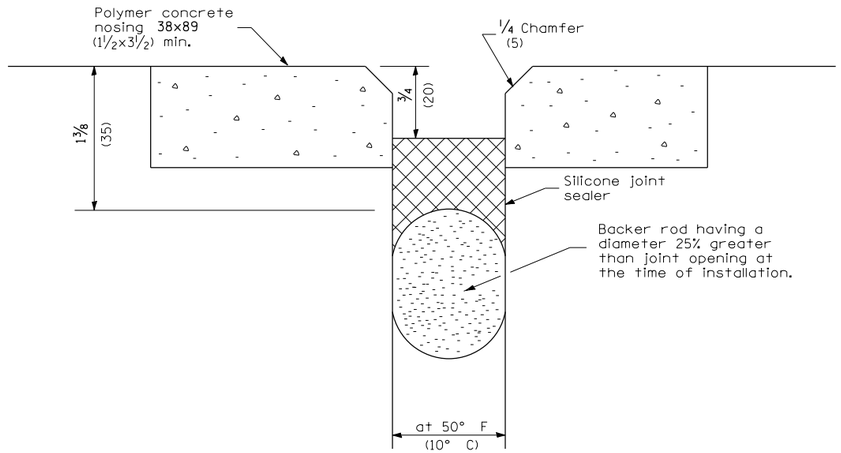
Default RETROFIT.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET RETROFIT FOR ALUM. HANDRAIL

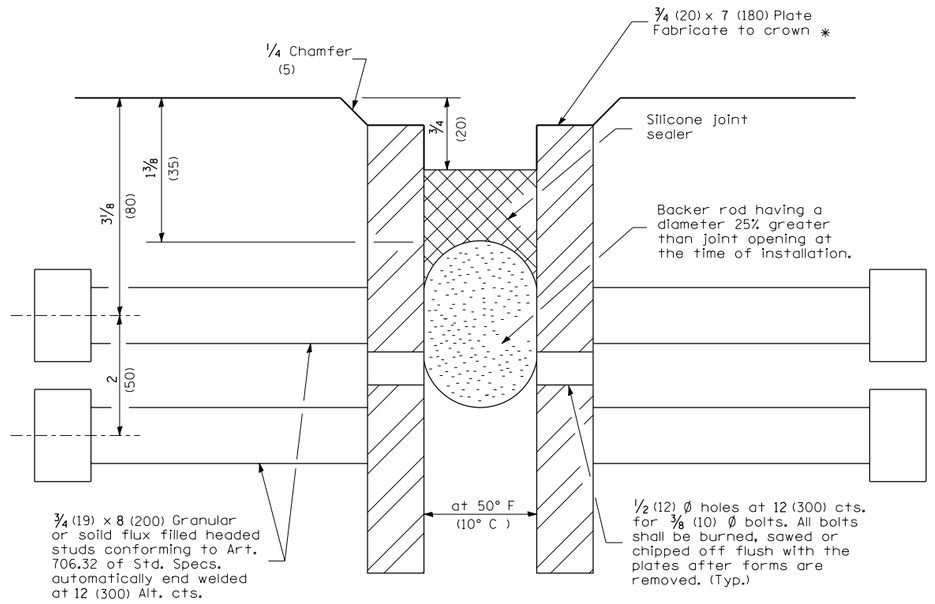
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



SILICONE JOINT SEAL
(CONCRETE DETAILS)

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



✳ Furnish in segments of 20 ft. (6 m) maximum length. Maximum space between installed segments shall be ¼ (5). Seal space with Silicone Sealant suitable for Structural Steel.

SILICONE JOINT SEAL
(STEEL DETAILS)

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

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		DRAWN -	REVISED -							
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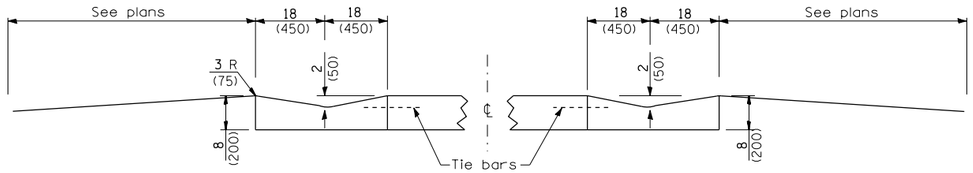
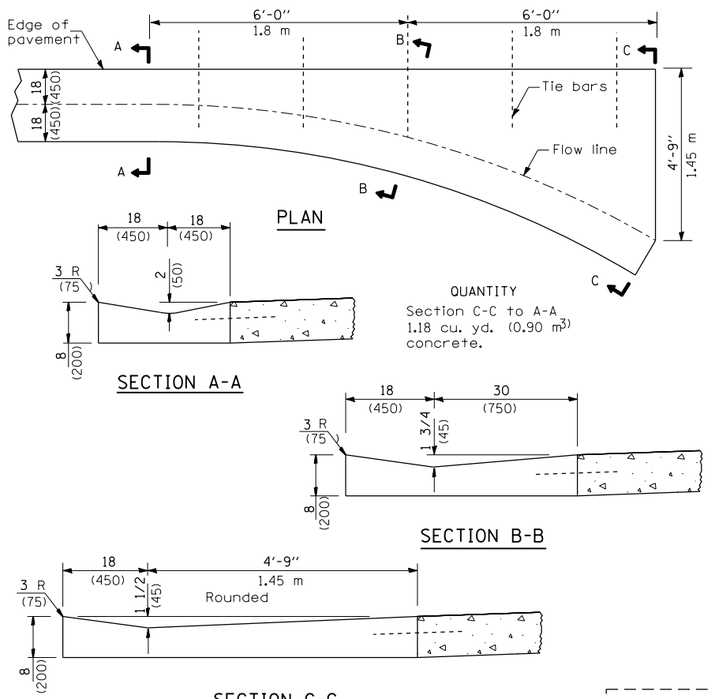


CONCRETE GUTTER, TYPE A (MODIFIED)



PLAN

QUANTITY

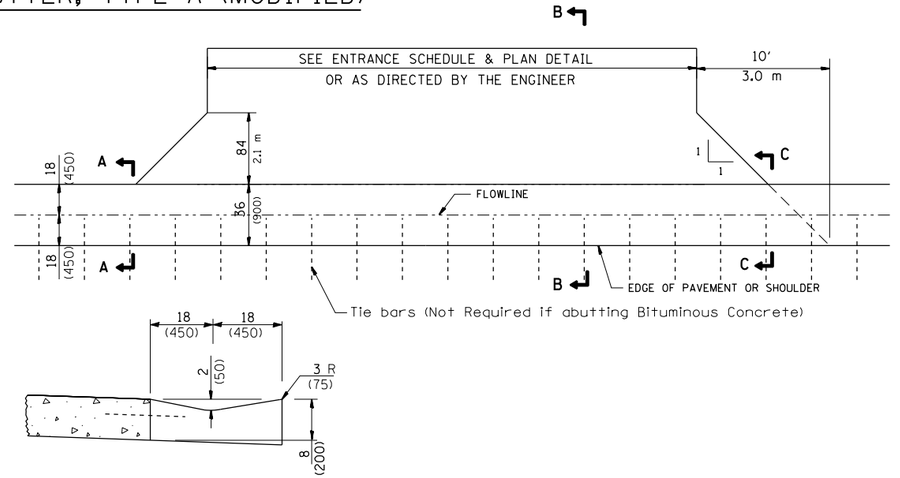
Section C-C to A-A
1.18 cu. yd. (0.90 m^3) concrete.

SECTION A-A

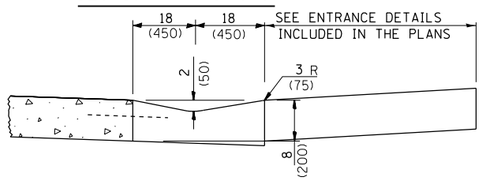
SECTION B-B

SECTION C-C

INLET



SECTION A-A & C-C



SECTION B-B

ENTRANCE

DESIGNER NOTE:

FOR FRAME AND GRATE TO BE USED WITH CONC. GUTTER TYPE A MODIFIED SEE CADD FILE : CAD2218.DGN

GENERAL NOTES

Tie bars shall be No. 20 (No. 6) at 600 mm (24") centers unless otherwise shown.

Gutter, gutter inlet, gutter outlet and gutter entrance shall be tied to the pavement in accordance with details for longitudinal construction joint shown on Standard 420001.

Two 1-1/4" x 18" (32 mm x 450 mm) dowel bars shall be installed in all joints when the gutter is constructed adjacent to flexible pavement.

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

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		DRAWN -	REVISED -
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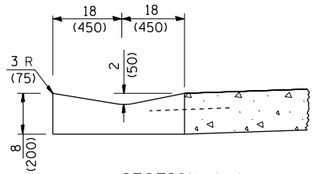
Default 1913MOD.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

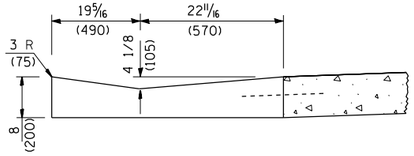
GUTTER, TYPE A (MODIFIED)
(INLET, OUTLET & ENTRANCE)

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

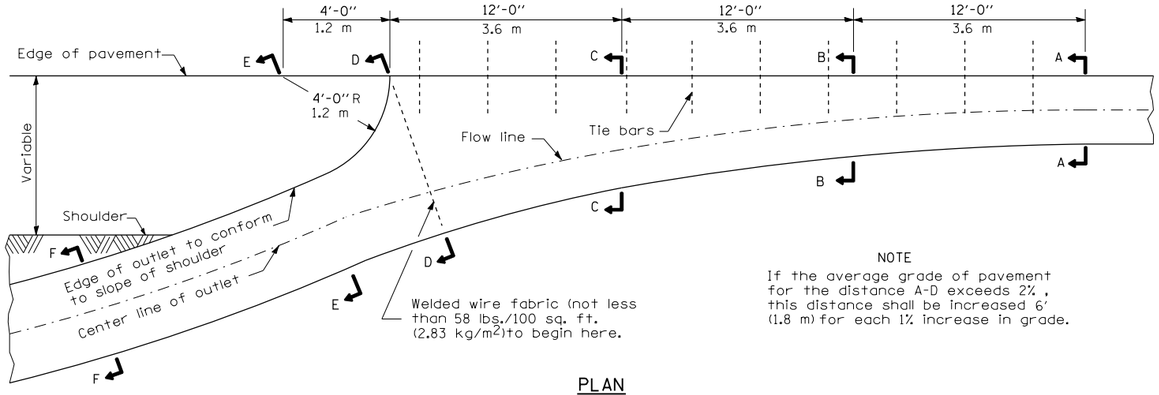
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



SECTION A-A



SECTION B-B

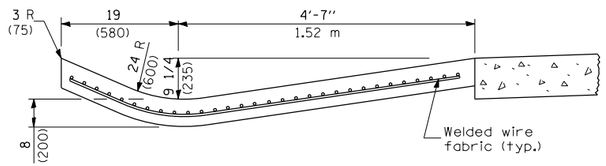


NOTE
If the average grade of pavement for the distance A-D exceeds 2%, this distance shall be increased 6' (1.8 m) for each 1% increase in grade.

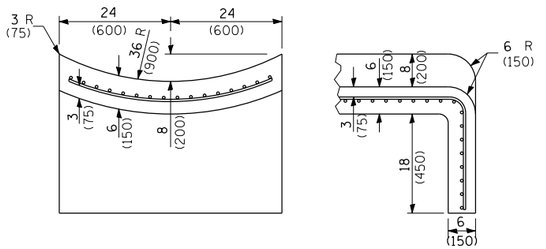
PLAN

QUANTITY

Section A-A to E-E and curtain wall 4.71 cu. yd. (3.60 m 3) concrete.
Section F-F = 0.079 cu. yd./ft. (0.2 m3/m)

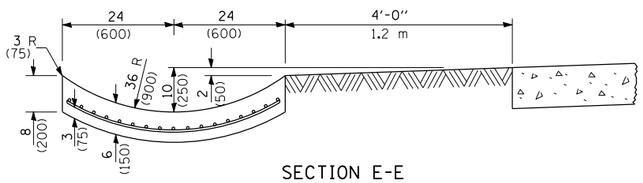


SECTION D-D

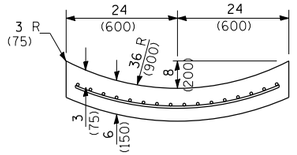


SECTIONS AT END OF OUTLET

SECTION C-C



SECTION E-E



SECTION F-F

OUTLET

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

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		DRAWN -	REVISED -
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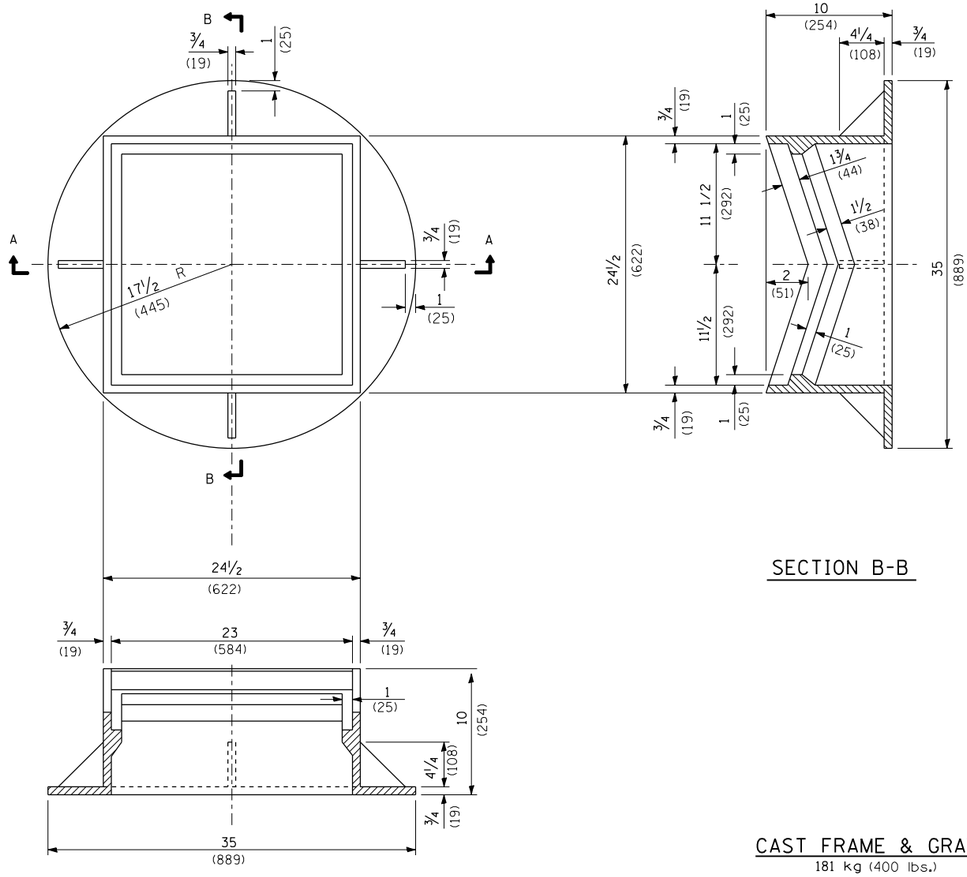
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUTTER, TYPE A (MODIFIED)
(INLET, OUTLET & ENTRANCE)

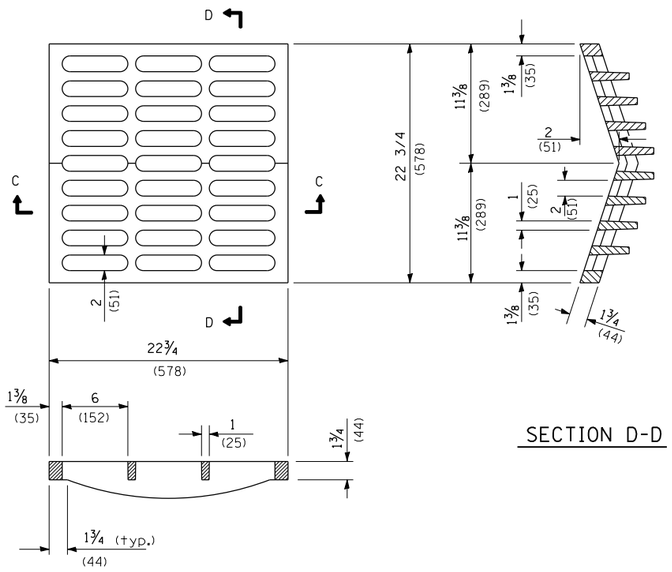
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



SECTION A-A

SECTION B-B



SECTION C-C

SECTION D-D

CAST FRAME & GRATE

181 kg (400 lbs.)

NOTE: THE SPECIAL FRAME AND GRATE TO BE USED SHALL BE NEENAH R-3508B OR EQUIVALENT.

DESIGNER NOTE:
TO BE USED WITH CONC. GUTTER TYPE A MODIFIED
CADD FILE M1913MOD.DGN

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

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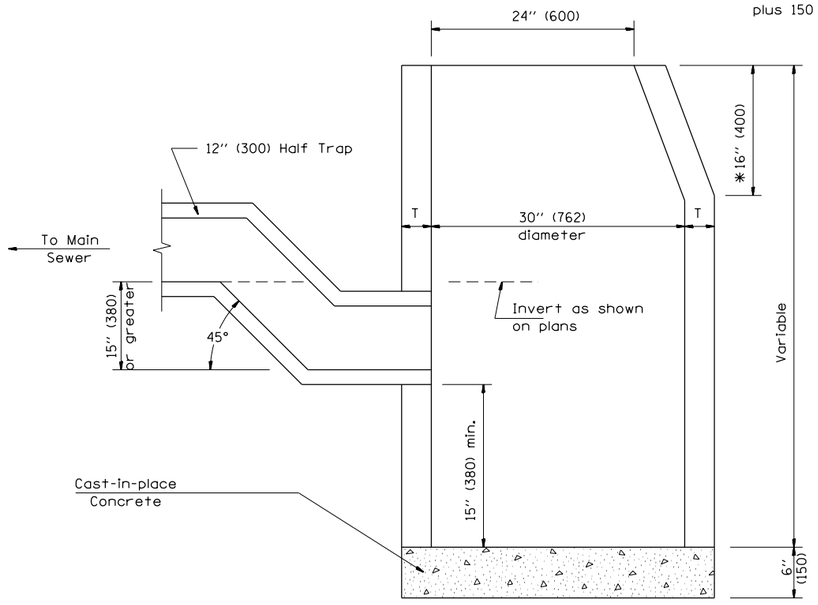
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

✳ The dimension for precast reinforced concrete section may vary from the dimension given to plus 150 mm (6″).



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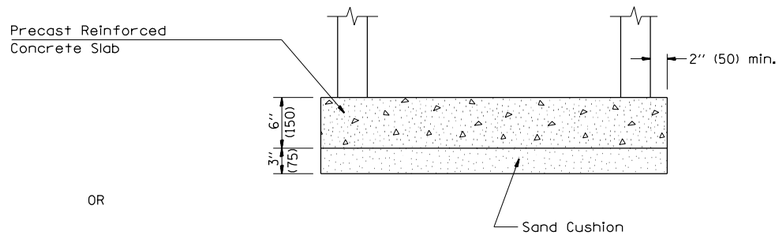

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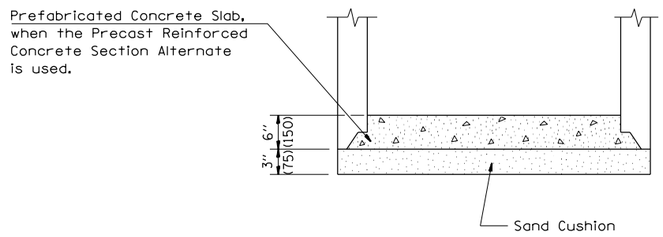


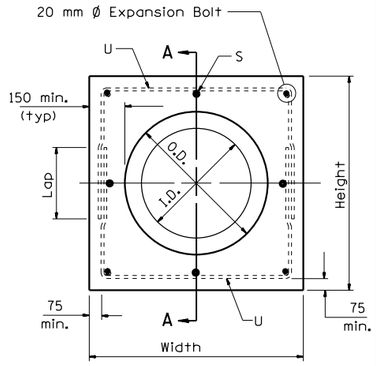
ALTERNATE MATERIALS FOR WALLS	T (in) (min.)	T (mm) (min.)
Concrete Masonry Unit	5″	125
Brick Masonry	8″	200
Precast Reinforced Concrete Section	3 9/16″	89
Cast-in-place Concrete	6″	150

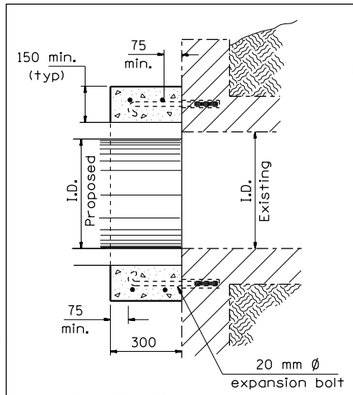
In addition to the requirements of Article 602.15 of the Standard Specifications, the contract unit price for Catch Basin, Special, shall include the sand cushion when required and furnishing and compacting the specified backfill material.

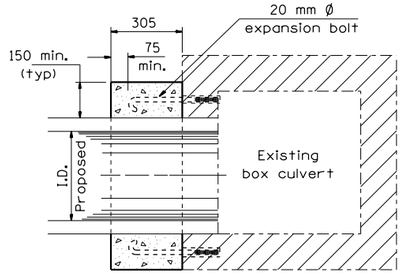
CATCH BASIN SPECIAL

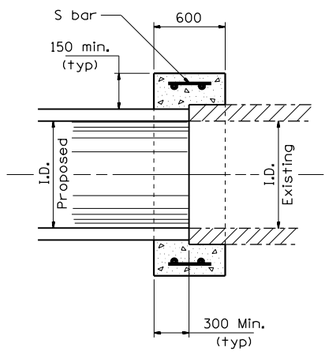
DO NOT SCALE

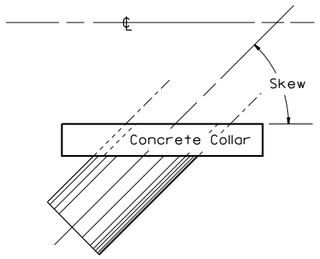
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\600-CAGbasin.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -						
Default CBASIN.DGN	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -						CONTRACT NO.
	PLOT DATE = 5/10/2016	DATE - 5/3/96	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				ILLINOIS FED. AID PROJECT

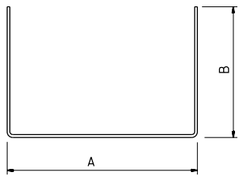


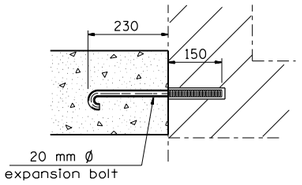


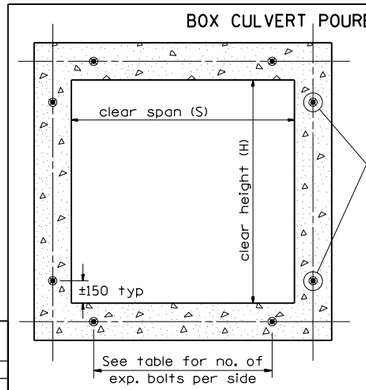












PIPE CULVERT EXTENSION COLLAR

Section Type A
(Box end extension)

Section Type B
(Pipe in side extension)

Section Type C
(Pipe end to pipe end extension
No expansion bolts required)

Section A - A

#15 U - bar

Expansion Bolt Detail

Notes:

1. Expansion bolts shall consist of self drilling expansion shields and 20 mm Ø hooked bolts. Hooked bolts shall extend a minimum of 230 mm into new concrete. Minimum Certified Proof Load - 18 kN
2. Use minimum of 1 (one) expansion bolt at each corner.

BOX CULVERT POURED IN PLACE EXTENSION

Section Thru Barrel

EXPANSION BOLTS REQUIRED
FOR CULVERT EXTENSIONS

H or S	No. Expansion Bolts Req'd. Per Side			
	Extension ≦ 5 m		Extension > 5 m	
	No.	Spacing	No.	Spacing
600	✱	✱	✱	✱
750	2	460	2	460
900	2	610	2	610
1,200	3	460	3	460
1,500	4	405	3	610
1,800	5	380	4	510
2,100	5	460	4	610
2,400	6	430	5	535
2,700	6	480	5	610
3,000	7	460	6	535
3,300	8	430	6	610
3,600	8	480	7	560

Note: Number of expansion bolts in table based on non-skewed culverts.

✱ Use minimum 1 (one) expansion bolt in each corner.

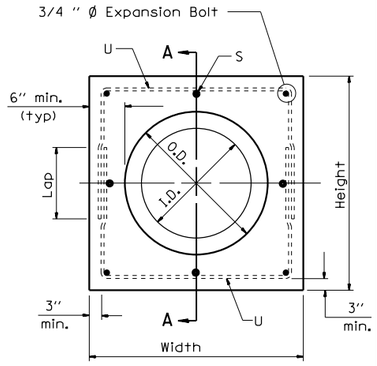
Station	Section Type	Skew	Existing Culvert	Proposed Culvert		Collar		Reinforcement Bars										Expansion Bolts 20 mm	Class SI Concrete Collar
								S bar			U bar						kg		
			Size	I.D.	O.D.	Height	Width	No.	Size	Length	No.	Size	A	B	Lap	Length		Each	m^3
Total																			

Note:

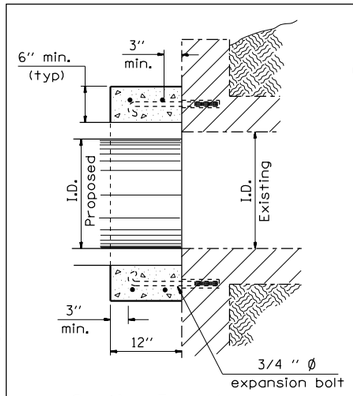
All Dimensions are in millimeters unless otherwise shown.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\600-Collar.dgn Default COLLAR.DGN	USER NAME = Verenskifa	DESIGNED - RLD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE COLLAR AND CULVERT EXTENSION DETAILS	F.A. RTE.	SECTION
		DRAWN - CAD	REVISED -				
	PLOT SCALE = 40.000 '/ in.	CHECKED - RLD	REVISED -				
	PLOT DATE = 5/10/2016	DATE - 10/06/99	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.		

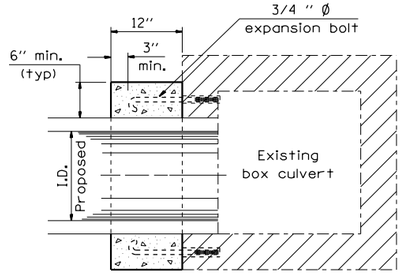
COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.		
ILLINOIS FED. AID PROJECT		



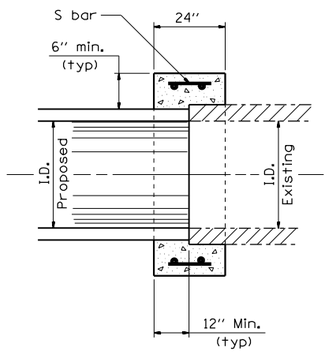
PIPE CULVERT EXTENSION COLLAR



Section Type A
(Box end extension)

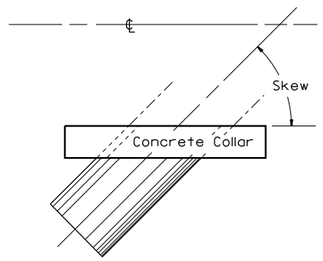


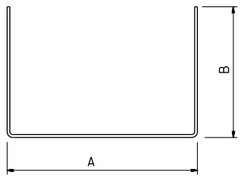
Section Type B
(Pipe in side extension)



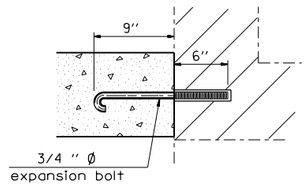
Section Type C
(Pipe end to pipe end extension
No expansion bolts required)

Section A - A





#4 U - bar



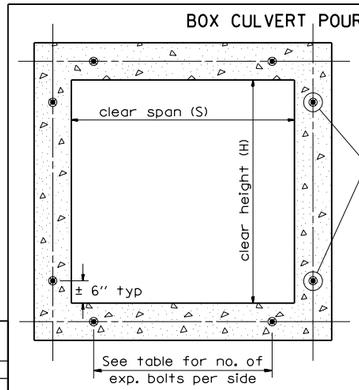
Expansion Bolt Detail

Notes:

1. Expansion bolts shall consist of self drilling expansion shields and ¾" Ø hooked bolts. Hooked bolts shall extend a minimum of 9" into new concrete. Minimum Certified Proof Load - 4,080 lbs.

2. Use minimum of 1 (one) expansion bolt at each corner.

BOX CULVERT POURED IN PLACE EXTENSION



Section Thru Barrel

EXPANSION BOLTS REQUIRED
FOR CULVERT EXTENSIONS

H or S	No. Expansion Bolts Req'd. Per Side			
	Extension ≤ 15ft		Extension > 15ft	
	No.	Spacing	No.	Spacing
24"	*	*	*	*
30"	2	18"	2	18"
36"	2	24"	2	24"
48"	3	18"	3	18"
60"	4	16"	3	24"
72"	5	15"	4	20"
84"	5	18"	4	24"
96"	6	17"	5	21"
108"	6	19"	5	24"
120"	7	18"	6	21"
132"	8	17"	6	24"
144"	8	19"	7	22"

Note: Number of expansion bolts in table based on non-skewed culverts.

* Use minimum 1 (one) expansion bolt in each corner.

Station	Section Type	Skew	Existing Culvert	Proposed Culvert		Collar		Reinforcement Bars								lb	Expansion Bolts 3/4 "	Class SI Concrete Collar
								S bar			U bar							
			Size	I.D.	O.D.	Height	Width	No.	Size	Length	No.	Size	A	B	Lap	Length		Each	yd^3
Total																		

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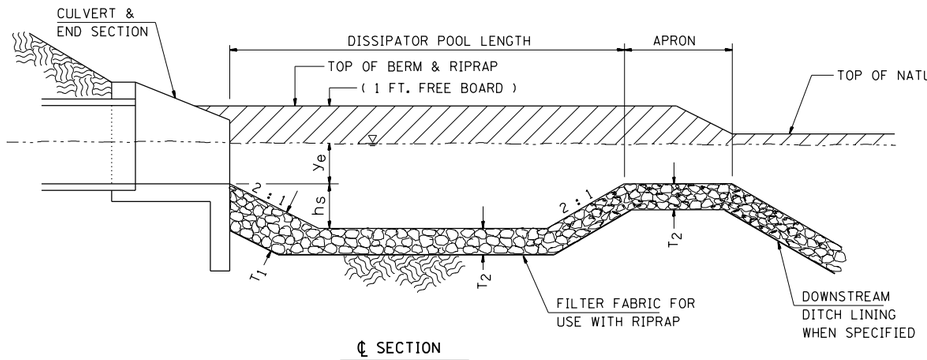
Default		DRAWN -	REVISED -		
	PLOT SCALE = 40.000 ' / in.	CHECKED - RLD	REVISED -		
	PLOT DATE = 5/10/2016	DATE - 10/06/99	REVISED -		

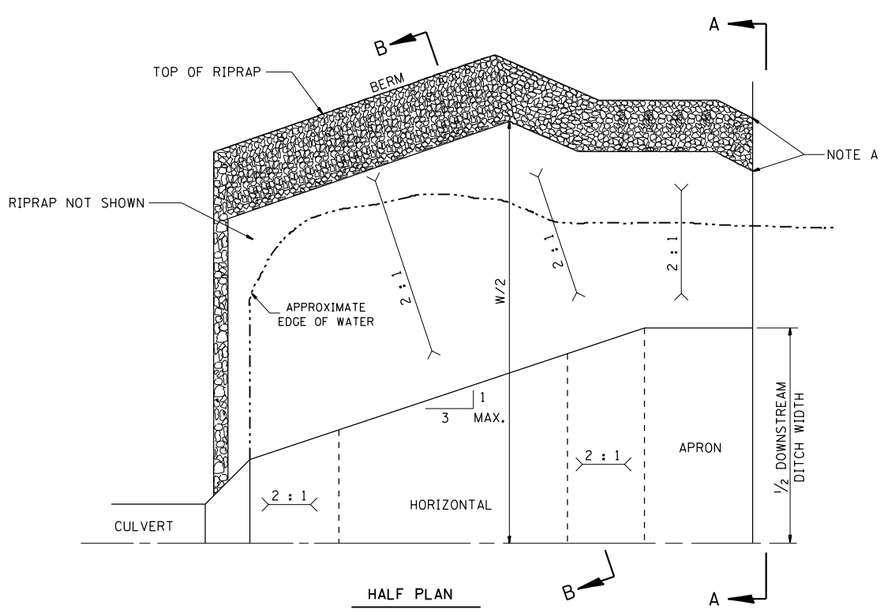
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

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

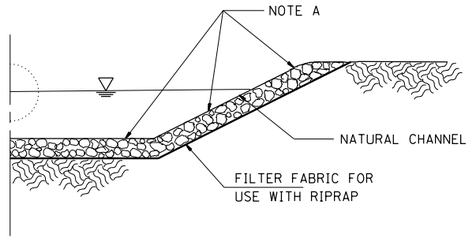


℄ SECTION

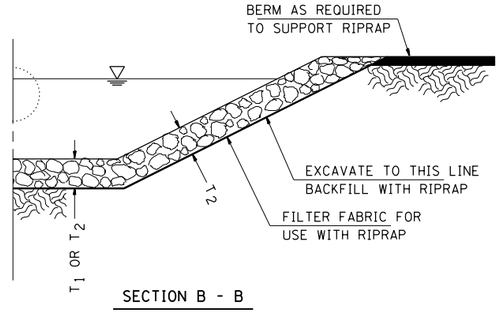
STATION	DISSIPATOR POOL LENGTH	APRON LENGTH	W WIDTH	h_s	TOP OF BERM $h_s + ye + 1$ FT.	RIPRAP THICKNESS		RIPRAP CLASS	EXCAV.	STONE DUMPED RIPRAP	FILTER FABRIC FOR USE WITH RIPRAP
	m	m	m	m	FT.	T_1	T_2		m^3	TON	SQ YD
								TOTALS			



HALF PLAN



SECTION A - A



SECTION B - B

NOTE A - TRANSITION BASIN TO CONFORM TO THE NATURAL STREAM CHANNEL. TOP OF RIPRAP IN THE FLOOR OF THE BASIN SHOULD BE AT THE SAME ELEVATION OR LOWER THAN THE NATURAL CHANNEL BOTTOM AT SECTION " ℄ SECTION ".

EARTH EXCAVATION FOR ENERGY DISSIPATING BASINS

THIS WORK INVOLVES THE EXCAVATION OF EARTH AS SHOWN IN THE DETAIL TO THE LENGTH, WIDTH, AND DEPTH DETERMINED BY THE ENGINEER. THE EARTH EXCAVATION WILL BE UTILIZED IN THE ROADWAY EMBANKMENT OR WASTED AS DIRECTED BY THE ENGINEER.

THE EARTHWORK WILL BE MEASURED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR " EARTH EXCAVATION FOR STILLING BASINS ".

ENERGY DISSIPATING BASINS SHALL BE CONSTRUCTED AT THE SAME TIME AS THE CULVERT OR DITCH.

ENERGY DISSIPATING BASINS ARE TO BE CONSTRUCTED AT LOCATIONS INDICATED WITH THE FOLLOWING SYMBOL EDB

RIPRAP FOR ENERGY DISSIPATING BASINS

RIPRAP FOR ENERGY DISSIPATING BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 601 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISION FOR STONE DUMPED RIPRAP.

THE LENGTH, WIDTH, AND DEPTH FOR RIPRAP PLACEMENT WILL BE DETERMINED BY THE ENGINEER.

THE RIPRAP MATERIAL SHALL CONFORM TO CLASS A QUALITY.

BEDDING MATERIAL WILL NOT BE REQUIRED.

FILTER FABRIC WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR FILTER FABRIC FOR USE WITH RIPRAP.

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	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
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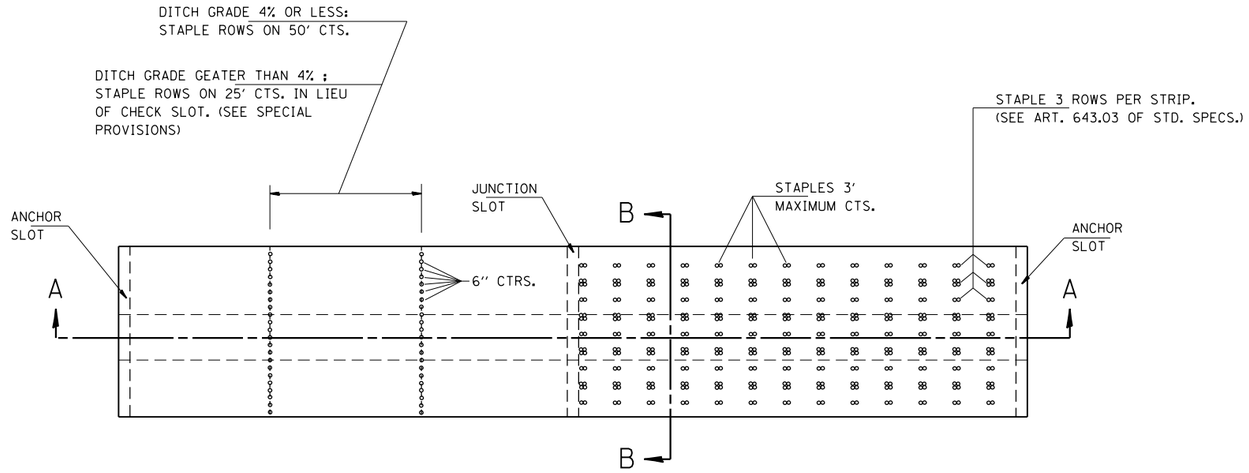
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

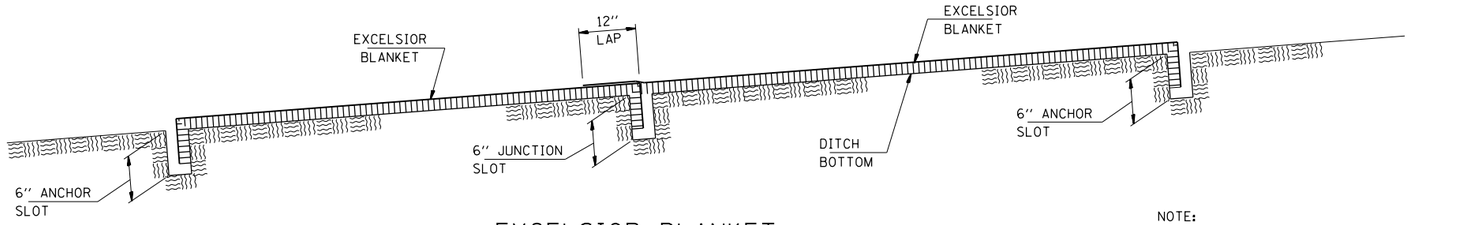
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

EXCELSIOR BLANKET

LOCATION	LENGTH	WIDTH	DEPTH	SQ. YDS.
TOTAL				

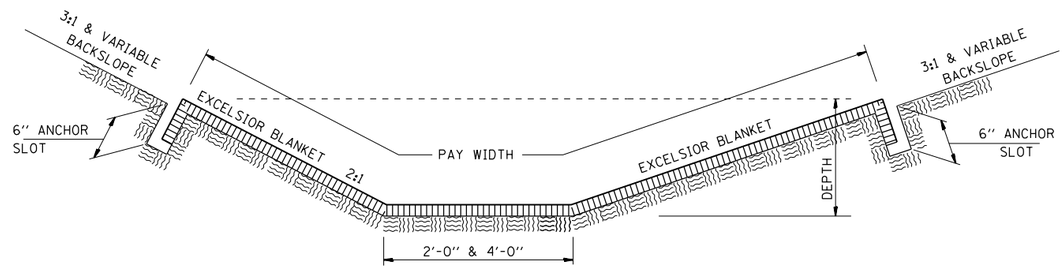


PLAN VIEW & STAPLING LAYOUT FOR
EXCELSIOR BLANKET PLACEMENT IN DITCH



EXCELSIOR BLANKET
SECTION A - A

NOTE:
FOR ADDITIONAL INFORMATION SEE
SPECIAL PROVISIONS - EXCELSIOR BLANKET



EXCELSIOR BLANKET
SECTION B - B

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	PLOT DATE = 5/10/2016	DATE - JULY 14, 1989	REVISED -

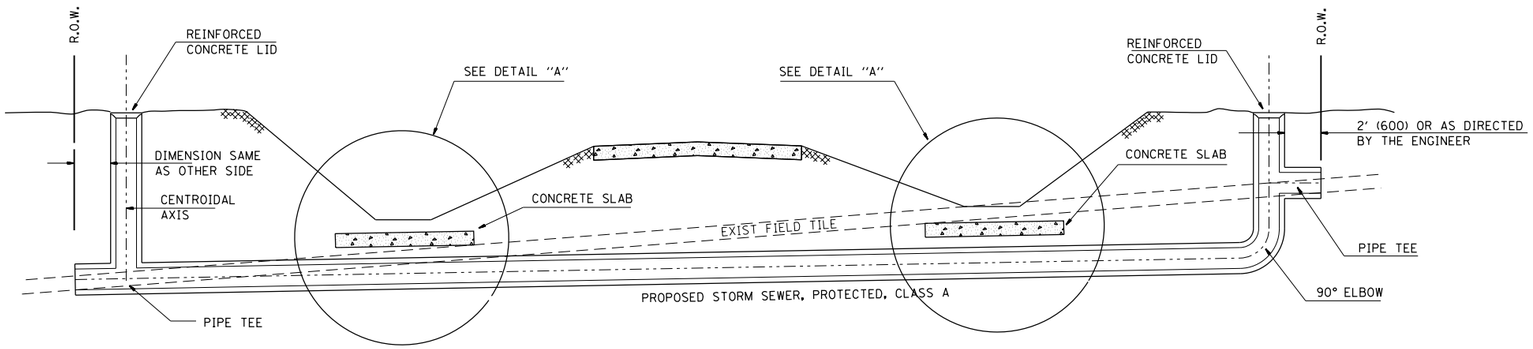
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

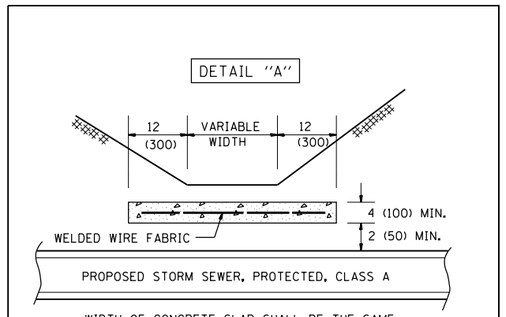
EXCELSIOR BLANKET DETAIL

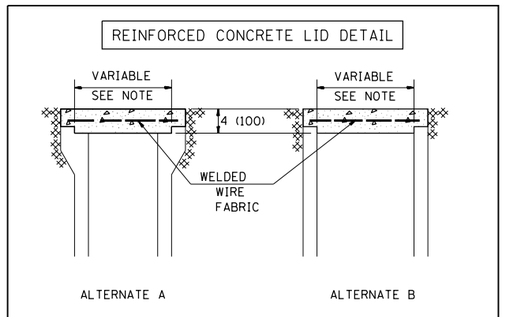
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

EXCELSIOR.DGN

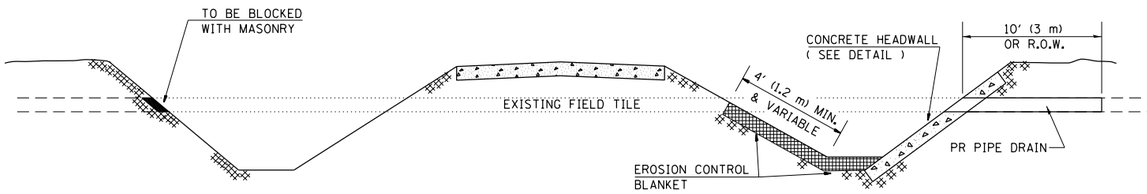






GENERAL NOTES

1. FIELD TILE SHALL BE REPLACED IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS. THE COST PER CONTRACT UNIT PRICE OF ITEMS INCLUDED IN THIS CONTRACT SHALL BE PAID FOR AS STATED IN SECTION 611 OF THE STANDARD SPECIFICATIONS. IF THE CONTRACT UNIT PRICE IS NOT INCLUDED IN THIS CONTRACT, PAYMENT FOR THIS WORK WILL BE IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
2. THE DIAMETER OF THE PROPOSED STORM SEWER SHALL BE EQUAL TO OR GREATER THAN THE EXISTING FIELD TILE.
3. ALL EXISTING FIELD TILE SHALL BE REPLACED WITH STORM SEWER OF THE TYPE REQUIRED FOR BY THE DEPTH OF COVER. THE LINEAL METER MEASUREMENT WILL BE ALONG THE CENTRODIAL AXIS AND INCLUDE ALL BENDS, ELBOWS, OR PIPE TEE'S WHICH ARE REQUIRED.
4. THE REINFORCED CONCRETE LID SHALL BE CLASS SI CONCRETE (MISCELLANEOUS) OR PRECAST REINFORCED CONCRETE.
5. ALL HARDWARE, WELDED WIRE FABRIC, RODENT SCREENS AND OTHER REINFORCEMENT AND ANCHORS AS SHOWN OR AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE COST FOR MISCELLANEOUS CONCRETE.

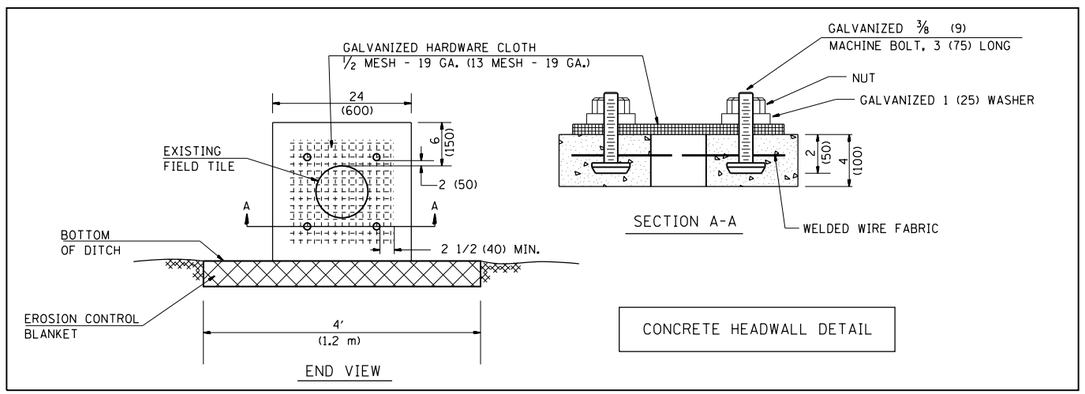


DESIGNER NOTE:

THE DESIGNER SHOULD INCLUDE IN THE PLANS THE APPROPRIATE QUANTITIES ITEMS AS STATED IN STANDARD SPECIFICATIONS.

FOR FIELD TILE QUANTITIES REFER TO THE FARMER DRAINAGE MEETING NOTES AND OTHER PROJECT CORRESPONDENCE.

ASSUMED QUANTITY ITEMS SHOULD NOT BE INCLUDED IN THE PLANS IF EVIDENCE OF FIELD TILE IS NOT CLEAR.



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

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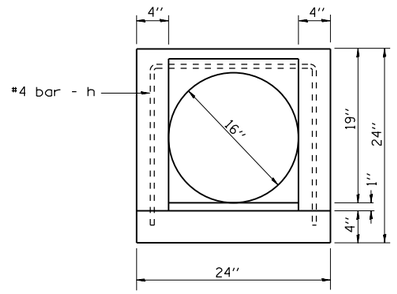
	PLOT DATE = 5/10/2016	DATE - FEBRUARY 15, 2000	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

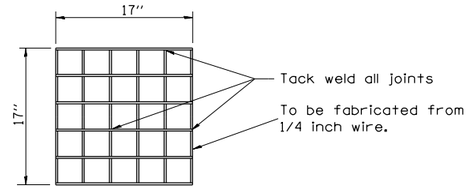
FIELD TILE REPLACEMENT

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

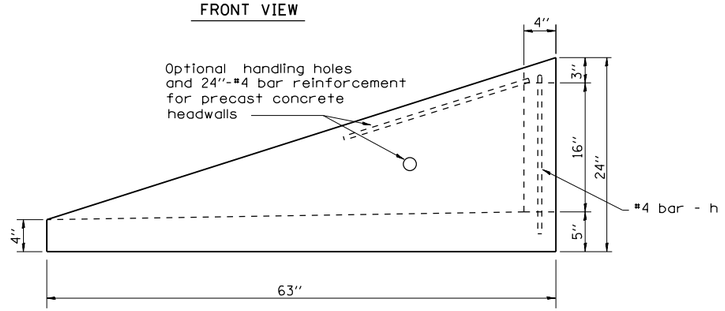


FRONT VIEW

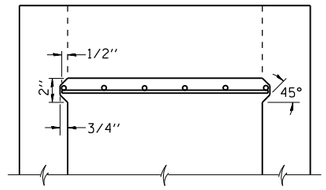


FRONT VIEW

To install, slip into 3/4 inch deep slots cast into the headwall.

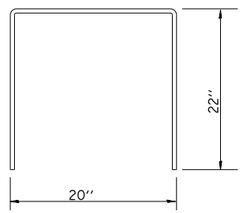


SIDE VIEW



TOP VIEW
SLOTTED HEADWALL
DETAIL

RODENT SHIELD DETAIL



BAR - h

GENERAL NOTES

The concrete headwall can be either precast or cast-in-place Class X Concrete, with the exception of aggregate gradation.

An alternate paved invert meeting the approval of the Engineer may be substituted for that shown.

Precast concrete shall be in accordance with Sections 505.01 thru 505.05 of the Standard Specifications except that the concrete strength shall be 4000 p.s.i. after 28 days.

If a precast concrete headwall is used, the pipe shall be grouted and sealed to the headwall opening with a cement mortar. Total volume of concrete per headwall = 0.26 Cubic Yards.

The uppermost point of the headwall shall be placed flush with the roadway slope. The earthen side slopes adjacent to the headwall shall then be shaped to conform to the sides and toe of the headwall.

The removable rodent shield shall be furnished and installed in accordance with one of the configurations shown. The shield shall be fabricated from steel wire, or expanded metal, as detailed above and shall be galvanized after fabrication in accordance AASHTO M-111. Other submitted designs for a removable rodent shield will be allowed with the approval of the Engineer.

The contract unit price each for CONCRETE HEADWALL shall include all materials, including rodent shield, and labor necessary to install the headwall.

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		DRAWN -	REVISED -
	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE - JUNE 20, 1996	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE HEADWALL FOR STORM SEWER INLET

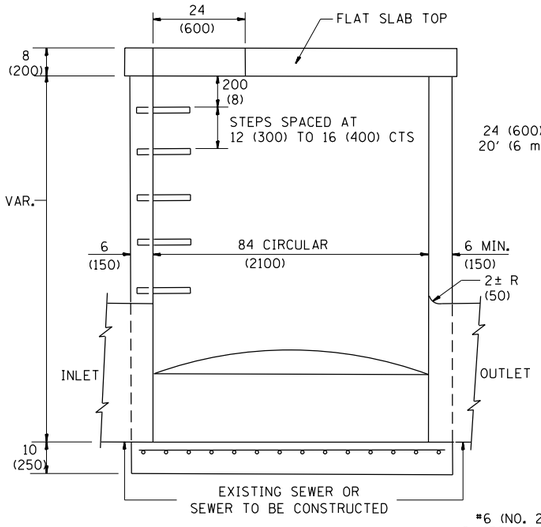
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

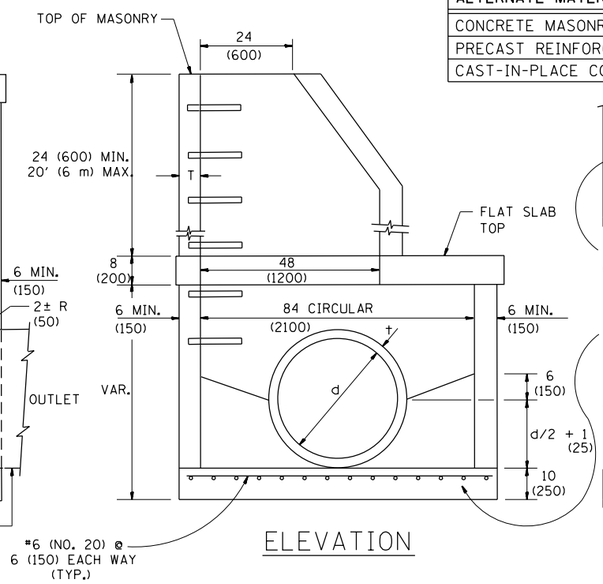
CONTRACT NO.

ILLINOIS | FED. AID PROJECT

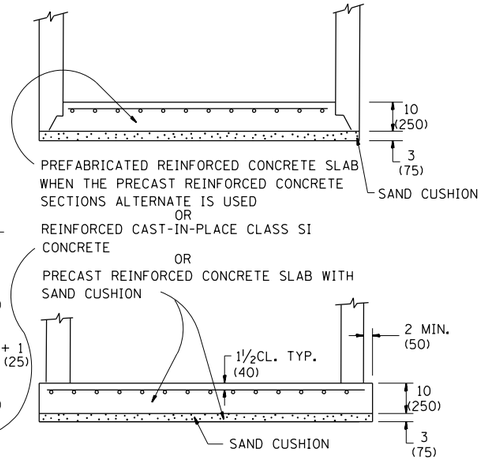
ALTERNATE MATERIALS FOR RISERS	T (MIN.)
CONCRETE MASONRY UNITS	5 (125)
PRECAST REINFORCED CONCRETE SECTIONS	4 (100)
CAST-IN-PLACE CONCRETE	6 (150)

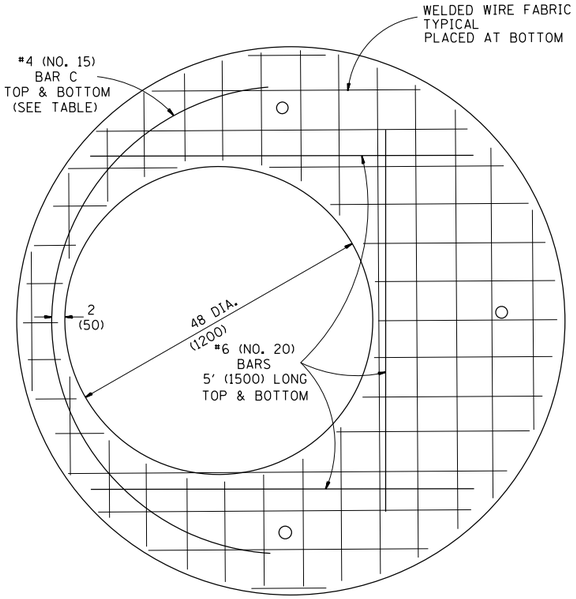


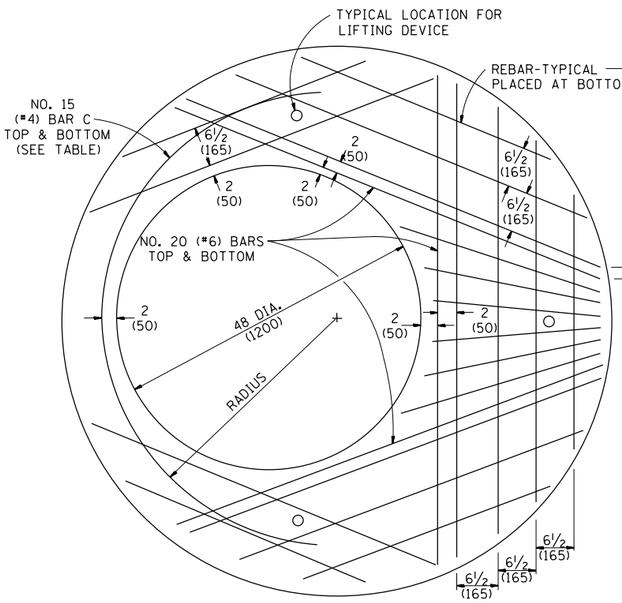
ELEVATION

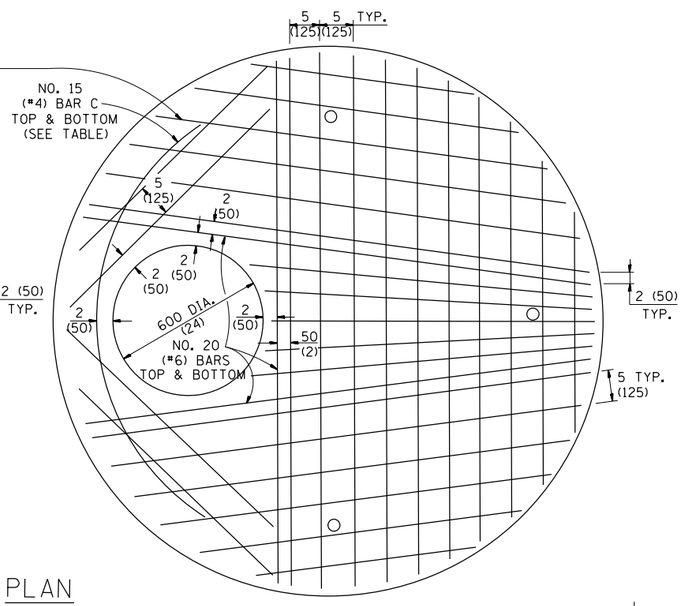


ELEVATION



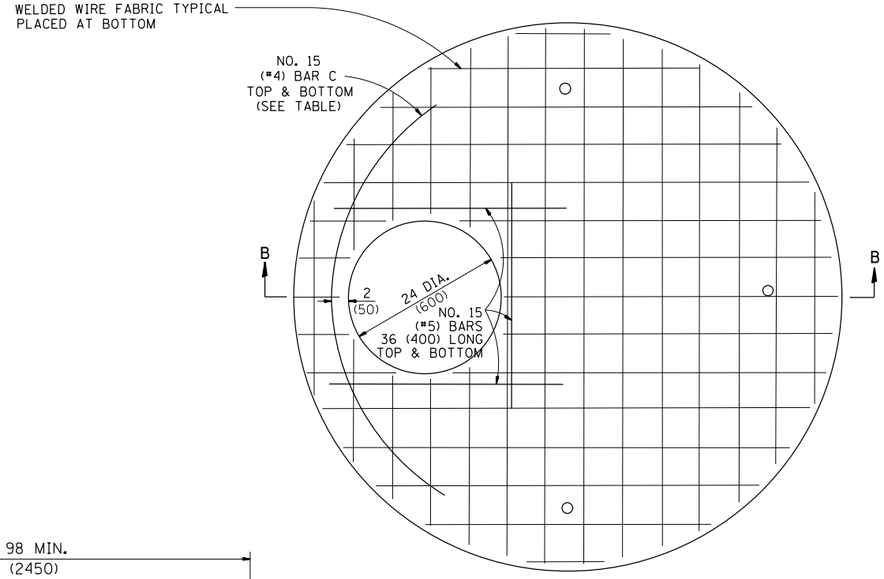






PLAN

SHOWING REBAR REINFORCEMENT



PLAN

SHOWING WELDED WIRE FABRIC REINFORCEMENT

TABLE

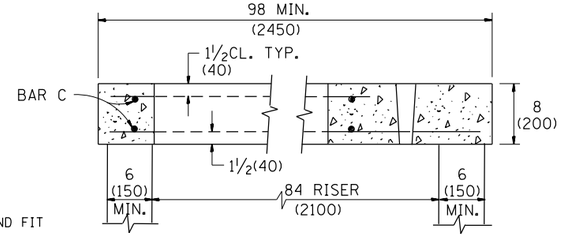
DIAMETER OF OPENING	REINFORCEMENT "AS" WWF EACH DIRECTION	OR BAR SIZE	BAR C SIZE	BAR C LENGTH	BAR C RADIUS
24 (600)	1.06 SQ.IN./LIN.FT. (2244 SQ.mm/m)	#6 (NO.20)	#4 (NO.15)	72 (1800)	38 (950)
48 (1200)	1736 SQ.mm/m (0.82 SQ.IN./LIN.FT.)	#6 (NO.20)	#4 (NO.15)	108 (2700)	38 (950)

GENERAL NOTES

SEE STANDARD 2447 FOR DETAILS OF CAST IRON STEPS.

JOINT CONFIGURATION AND DIMENSIONS OF FLAT SLAB TOP SHALL MATCH AND FIT THE RISER JOINT DETAIL.

LIFTING DEVICES SHALL BE APPROVED BY THE ENGINEER.



SECTION B-B

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

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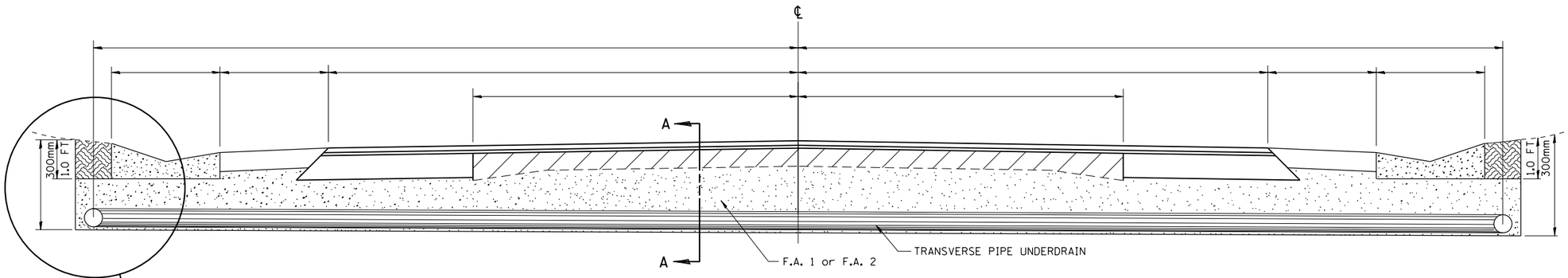
			REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default MHLARGE.DGN	PLOT DATE = 5/10/2016	DATE - JUNE 24, 1996	REVISED -

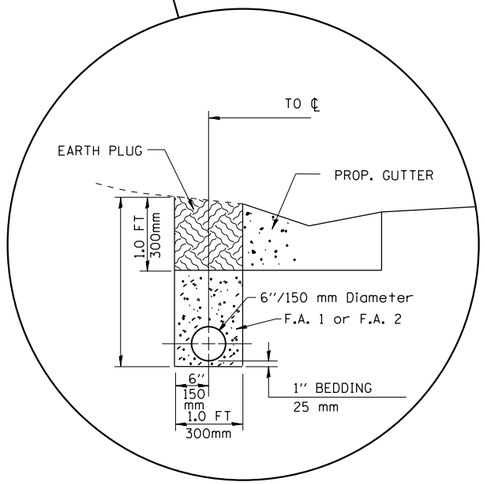
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MANHOLE TYPE A
2100 mm (84") DIAMETER

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

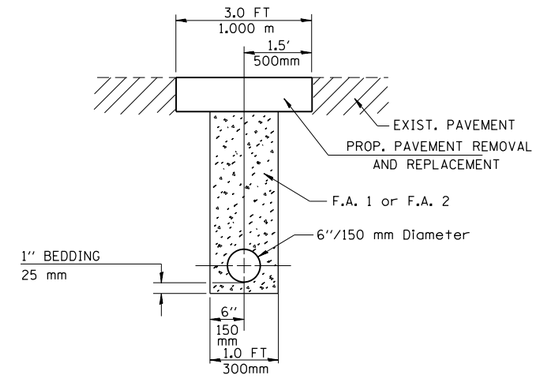




6"/150 mm PIPE UNDERDRAIN OR BACKSLOPE DRAIN

LT. STA. TO
RT. STA. TO
LT. STA. TO
RT. STA. TO

STATION TO STATION	PIPE UNDERDRAINS feet/meter	CONCRETE HEADWALLS FOR PIPE DRAINS STANDARD 2362 EACH
GRAND TOTAL		



STA.
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TRANSVERSE PIPE UNDERDRAIN

SECTION A - A

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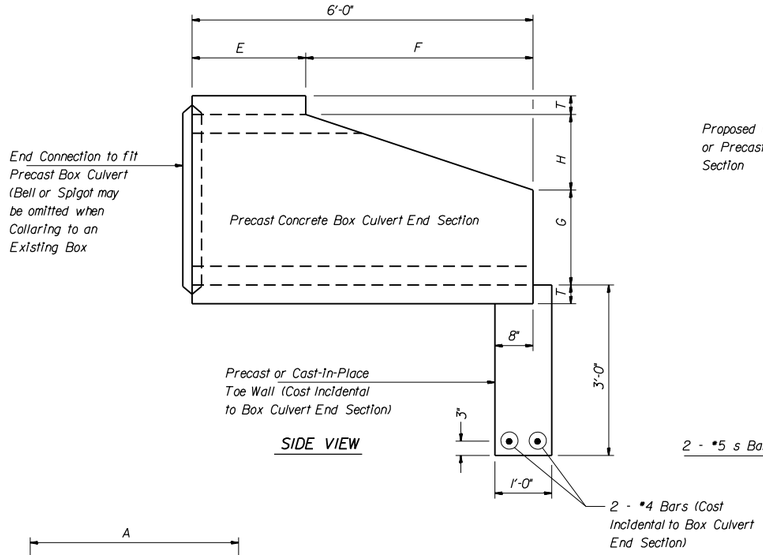
DEPARTMENT OF TRANSPORTATION

TRANSVERSE PIPE UNDERDRAIN DETAIL

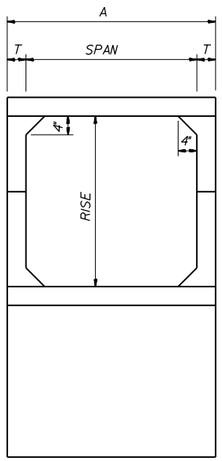
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

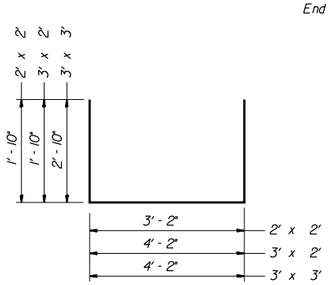
NOTE:
Expansion Bolts shall consist of self drilling expansion shields and ¾" diameter hooked bolts. Hooked bolts shall extend a minimum distance as specified, 9" or 18" into the new concrete. Minimum certified proof load = 4080 lbs.



SIDE VIEW



END VIEW



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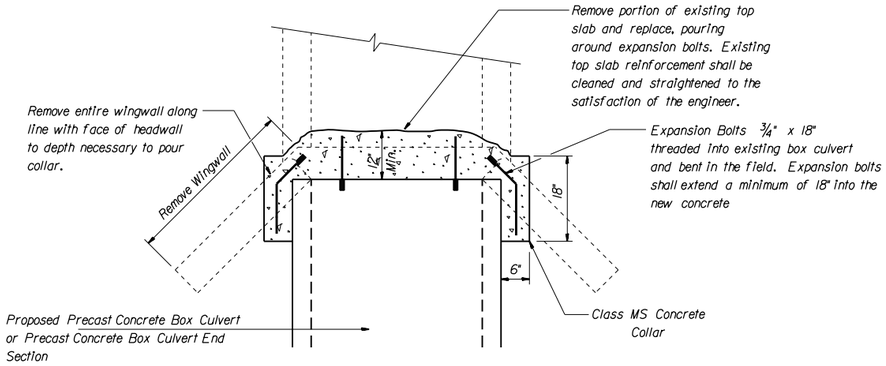
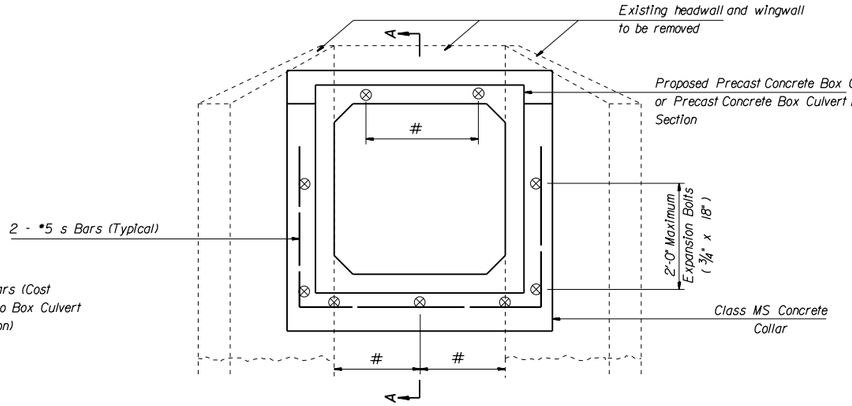
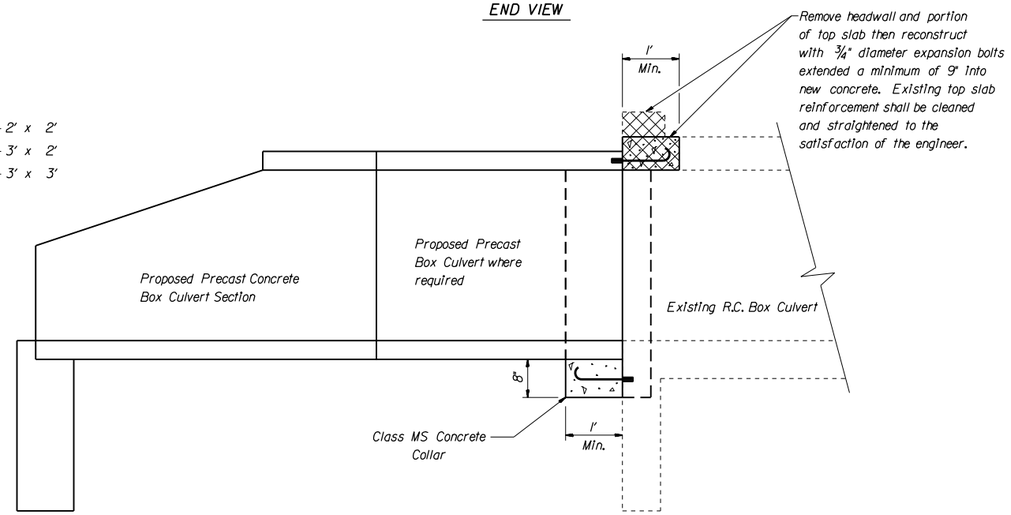


PLAN VIEW



END VIEW



SECTION A - A

Number of expansion bolts and spacing

Span x Rise	Top Slab ¾" x 9" *	Bottom Slab ¾" x 9" *	Each Wing ¾" x 18" *
2' x 2'	2 at 12"	2 at 12"	2 at 24"
3' x 2'	2 at 24"	3 at 18"	2 at 24"
3' x 3'	2 at 24"	3 at 18"	2 at 24"

* The dimensions shown are the minimum extensions of the expansion bolts into the new concrete.

SCHEDULE OF ESTIMATED QUANTITIES

STATION	SIZE	CONCRETE REMOVAL	CONC.	EXPANSION BOLTS	REINFORCEMENT BARS
	(FT)	(C.Y.)	(C.Y.)	(EA.)	(LBS)

Span x Rise	T	A	E	F	G	H
2' x 2'	4"	2'-8"	3'-0"	3'-0"	1'-0"	1'-0"
3' x 2'	4"	3'-8"	3'-0"	3'-0"	1'-0"	1'-0"
3' x 3'	4"	3'-8"	2'-0"	4'-0"	1'-8"	1'-4"

NOTE:
Removal of existing headwalls, portions of existing top slabs shall be paid for at the contract unit price for Concrete Headwall Removal.

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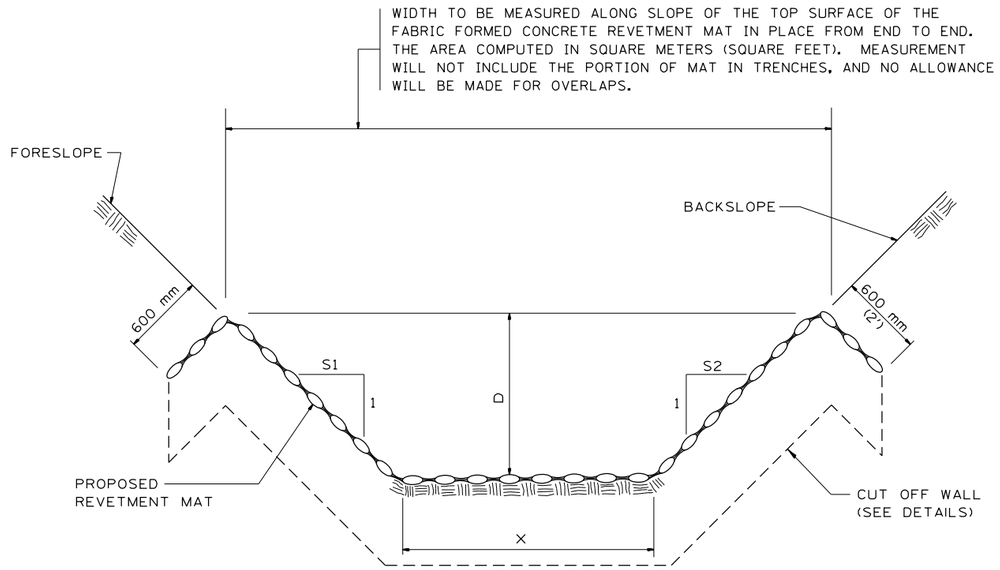
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CULVERT EXTENSION DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

FABRIC FORMED CONCRETE REVETMENT MAT DETAILS



TYPICAL FABRIC FORMED CONCRETE REVETMENT MAT LINE DITCH

LOCATION	D	X	S-1	S-2	TOTAL WIDTH	LENGTH	AREA
STA. to STA.	''(mm)	''(mm)			' (m)	' (m)	S.F.(m^2)
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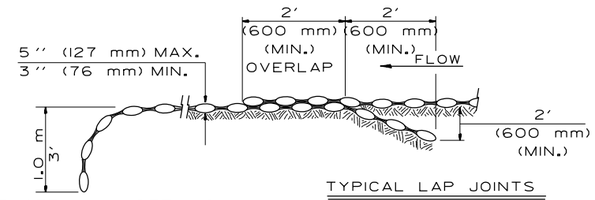
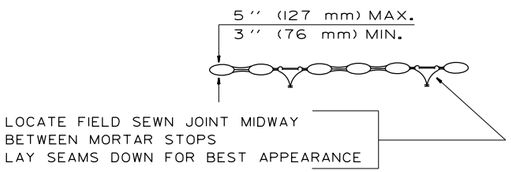
					TOTAL QUANTITY		-----

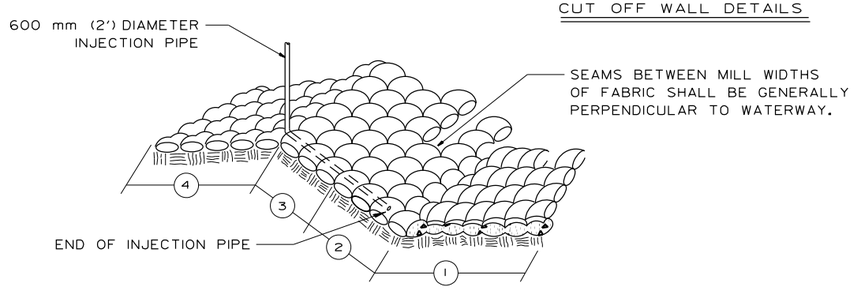


CUT OFF WALL DETAILS

TYPICAL LAP JOINTS



TYPICAL SECTION THRU FILTER POINT MAT



INSTALLATION DETAILS

GENERAL NOTES

PRIOR TO GROUT INJECTION, THE FABRIC SHALL BE POSITIONED AT ITS DESIGN LOCATION. EACH PANEL SHALL BE A CONTINUOUS OR MONOLITHIC UNIT FOR ITS FULL WIDTH, INCLUDING THE TRENCH PORTION.

AFTER GROUTING HAS BEEN COMPLETED, THE VOID BETWEEN TRENCH WALL AND FILLED FABRIC SHALL BE BACKFILLED.

HOLES IN THE FABRIC LEFT BY THE REMOVAL OF THE GROUT HOSE OR INSERTS SHALL BE TEMPORARILY CLOSED BY INSERTING A PIECE OF BURLAP OR SIMILAR MATERIAL. THE BURLAP SHALL BE REMOVED WHEN THE MORTAR IS NO LONGER FLUID AND THE SURFACE IS FIRM TO HAND PRESSURE.

1. IN PLACING INSERT POINTS THROUGH FABRIC USE CARE TO AVOID BREAKING DROP STITCHES.

2. CUT OFF WALLS SHALL BE INSTALLED AT THE UPSTREAM AND DOWNSTREAM ENDS.

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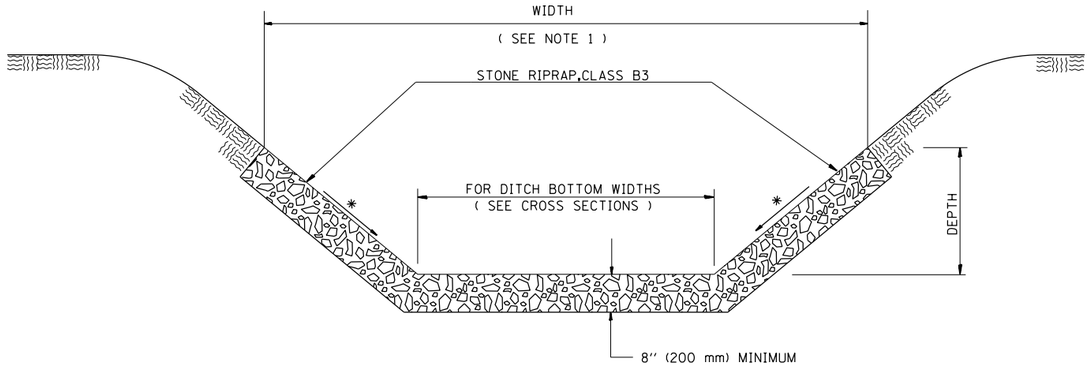
	PLOT DATE = 5/10/2016	DATE - 9/23/91	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FABRIC FORMED CONCRETE REVETMENT MAT DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

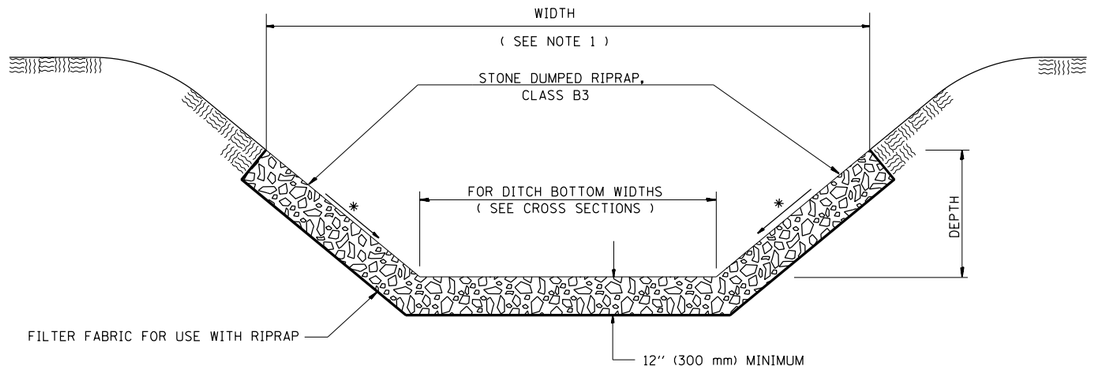


* FOR SLOPE SEE CROSS SECTIONS

STONE RIPRAP DITCH DETAIL

LOCATION	LENGTH	WIDTH (SEE NOTE 1)	DEPTH	STONE RIPRAP, CLASS B3
	ft. (meter)	ft. (meter)	ft. (meter)	sq. ft. (sq. m)
TOTALS				

NOTE 1: THE WIDTH SHOWN IS THE OUT TO OUT HORIZONTAL DIMENSION OF THE PROPOSED RIPRAP PLACEMENT. THE QUANTITY FOR THE STONE RIPRAP IS CALCULATED USING THE SUM OF THE DITCH BOTTOM WIDTH AND THE SLOPE DIMENSIONS OF THE FORESLOPE AND THE BACKSLOPE.



* FOR SLOPE SEE CROSS SECTIONS

STONE DUMPED RIPRAP DITCH DETAIL

LOCATION	LENGTH	WIDTH (SEE NOTE 1)	DEPTH	STONE DUMPED RIPRAP, CLASS B3	FILTER FABRIC FOR USE WITH RIPRAP
	ft. (meter)	ft. (meter)	ft. (meter)	sq. ft. (sq. m)	sq. ft. (sq. m)
TOTALS					

NOTE 1: THE WIDTH SHOWN IS THE OUT TO OUT HORIZONTAL DIMENSION OF THE PROPOSED RIPRAP PLACEMENT. THE QUANTITY FOR THE STONE DUMPED RIPRAPOND FILTER FABRIC IS CALCULATED USING THE SUM OF THE DITCH BOTTOM WIDTH AND THE SLOPE DIMENSIONS OF THE FORESLOPE AND THE BACKSLOPE.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\600-CAD.dgn	USER NAME = Verenskifa	DESIGNED - KMS	REVISED -
Default RIPRAP.DGN		DRAWN -	REVISED -
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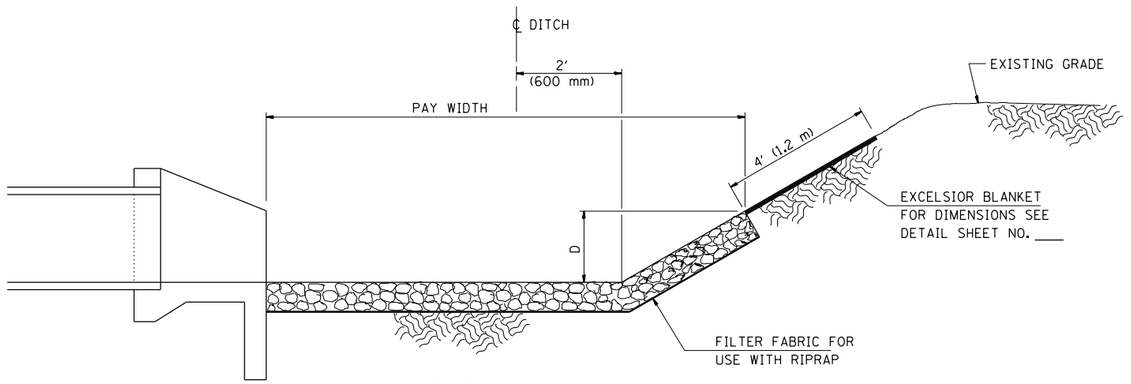
	PLOT DATE = 5/10/2016	DATE - 5/10/96	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

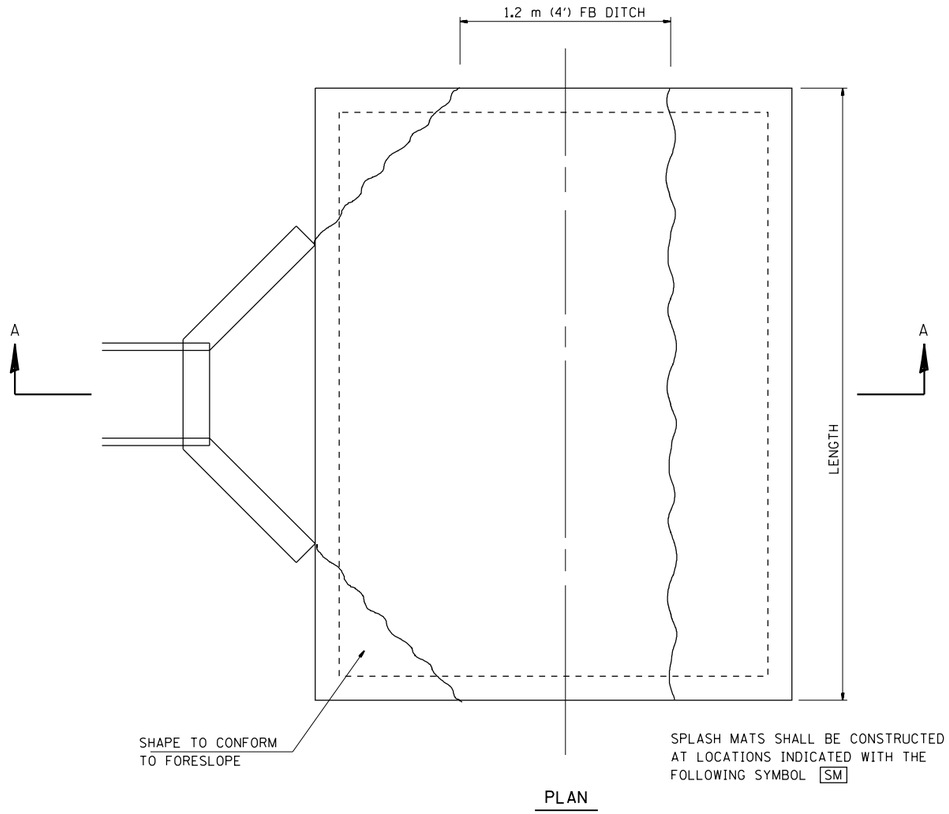
DITCH RIPRAP DETAIL

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



SECTION A - A



PLAN

STONE DUMPED RIPRAP SPLASH MATS

STATION LOCATION	MAT LENGTH ' (m)	MAT WIDTH ' (m)	RIPRAP CLASS	RIPRAP s.f. (m^2)	THICKNESS '' (mm)	FILTER FABRIC FOR USE WITH RIPRAP s.f. (m^2)
			TOTAL			

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Default SPLASH.DGN	PLOT DATE = 5/10/2016	DATE - 4/08/96	REVISED -

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DEPARTMENT OF TRANSPORTATION

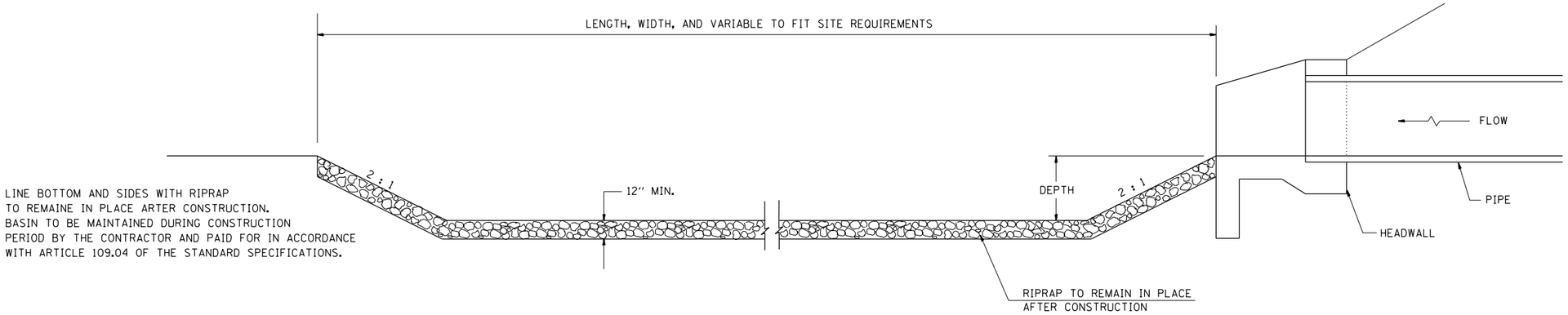
SPLASH MAT DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT



EARTH EXCAVATION FOR STILLING BASINS

THIS WORK INVOLVES THE EXCAVATION OF EARTH AS SHOWN IN THE SKETCH ABOVE TO THE LENGTH, WIDTH, AND DEPTH DETERMINED BY THE ENGINEER. THE EARTH EXCAVATED WILL BE UTILIZED IN THE ROADWAY EMBANKMENT OR WASTED AS DIRECTED BY THE ENGINEER.

THE EARTHWORK WILL BE MEASURED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR '' EARTH EXCAVATION FOR STILLING BASINS. ''

STILLING BASINS SHALL BE CONSTRUCTED AT THE SAME TIME AS THE CULVERT OR DITCH.

STILLING BASINS ARE TO BE CONSTRUCTED AT LOCATIONS INDICATED WITH THE FOLLOWING SYMBOL [SB]

RIPRAP FOR STILLING BASINS

RIPRAP FOR STILLING BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 601 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISION FOR STONE DUMPED RIPRAP THE LENGTH, WIDTH, AND DEPTH FOR RIPRAP PLACEMENT WILL BE DETERMINED BY THE ENGINEER

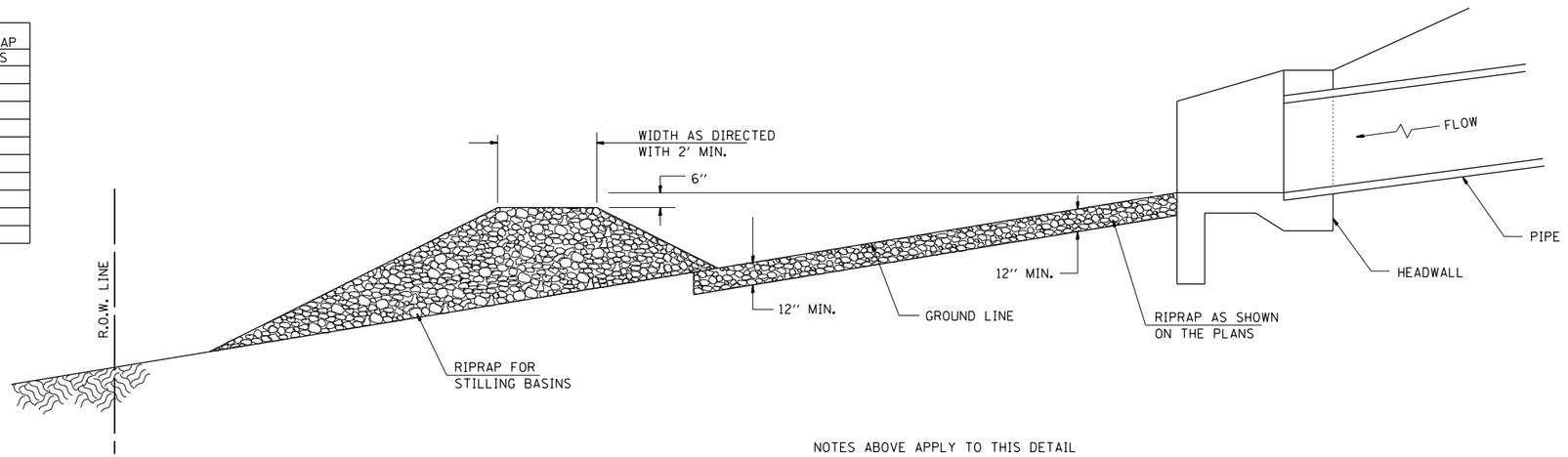
THE MATERIAL SHALL CONFORM TO CLASS C QUALITY AND GRADATION NO. 4

STILLING BASINS [SB]

STATION	LENGTH	WIDTH	DEPTH	THICKNESS	EXCAV.	A4 RIPRAP
	FEET	FEET	FEET	INCHES	C.Y.	TONS
TOTAL						

STILLING BASINS DAMS [SBD]

STATION	LENGTH	WIDTH	DEPTH	THICKNESS	A4 RIPRAP
	FEET	FEET	FEET	INCHES	TONS
TOTAL					



NOTES ABOVE APPLY TO THIS DETAIL

PLAN LOCATIONS INDICATED BY THE SYMBOL [SBD]

STILLING BASIN DAM

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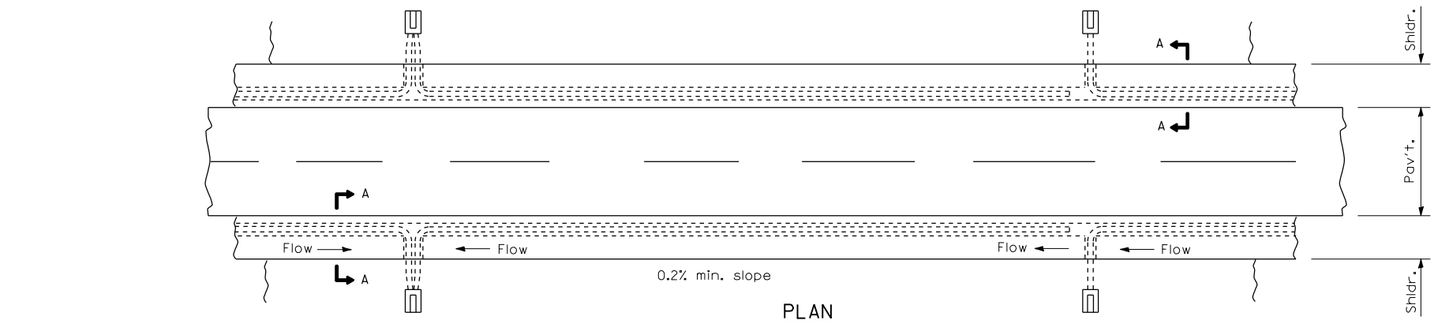
	PLOT DATE = 5/10/2016	DATE - 11/19/90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

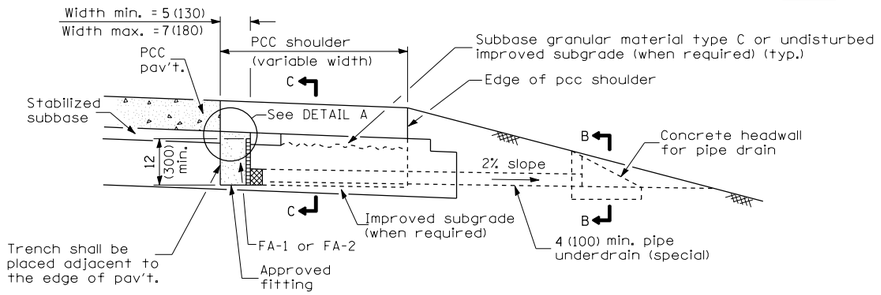
TEMPORARY
STILLING BASIN DETAILS

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

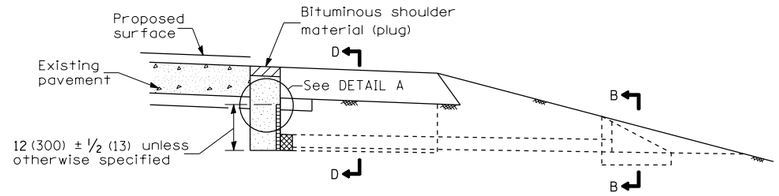
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



PLAN



SECTION A-A

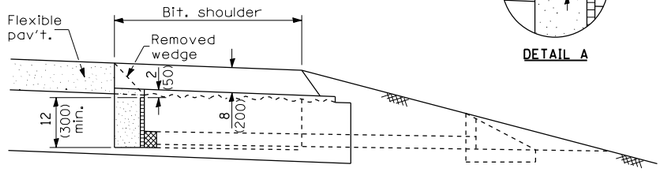


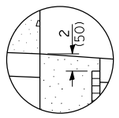
SECTION A-A

EXISTING CONSTRUCTION
(TRENCH FOR DRAINAGE MAT UNDERDRAIN OPTION)

(Except as noted or shown, dimensions and notes specified for Existing Construction are the same as those of New Construction)

SECTION A-A
(PCC Shoulder)



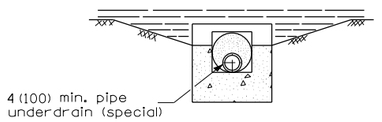


DETAIL A

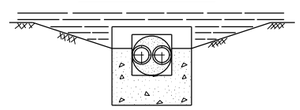
SECTION A-A
(Bit. Shoulder)

(Dimensions and notes not shown shall be as shown in the above Section A-A)

NEW CONSTRUCTION
(TRENCH FOR DRAINAGE MAT UNDERDRAIN OPTION)



SECTION B-B



SECTION B-B
(Sag locations)

GENERAL NOTES

See Standard 2362 for details of concrete headwall.

See Standards 2237, 2429 and 2430 for details of shoulders not shown.

The 24" (600 mm) radius on the drainage fitting is only a minimum. Larger radii meeting the approval of the Engineer maybe substitued.

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

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		DRAWN -	REVISED -
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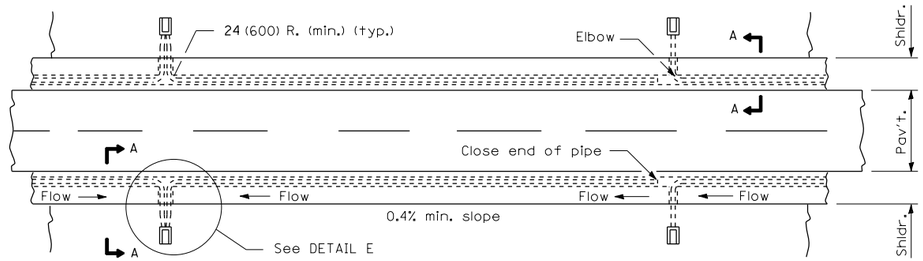
Default SUBSURF.DGN	PLOT DATE = 5/10/2016	DATE - 7/17/96	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

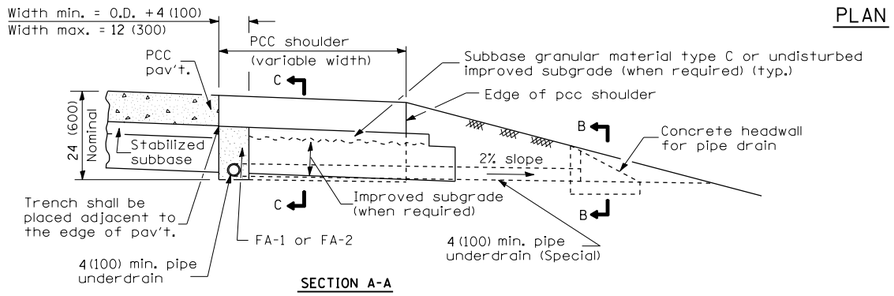
SUB-SURFACE DRAINS

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

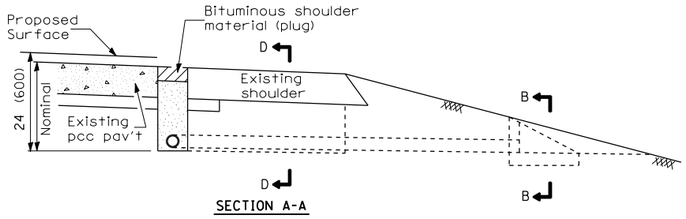
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



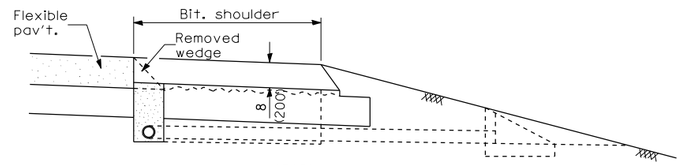
PLAN



SECTION A-A

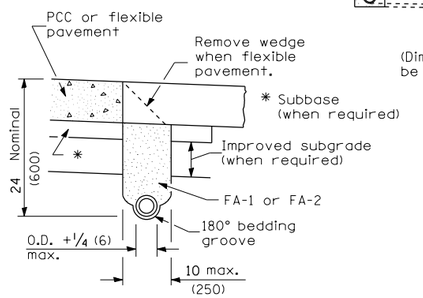


SECTION A-A

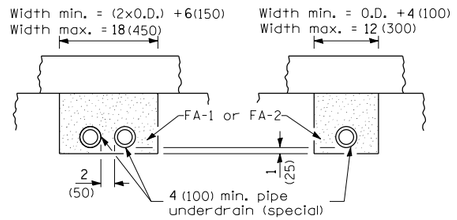


SECTION A-A

(Dimensions and notes not shown shall be as shown in the above Section A-A)



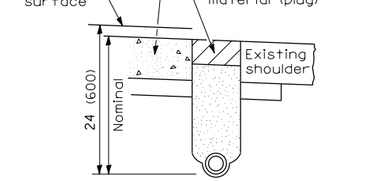
TRENCH FOR CORRUGATED POLYETHYLENE TUBING ALTERNATE



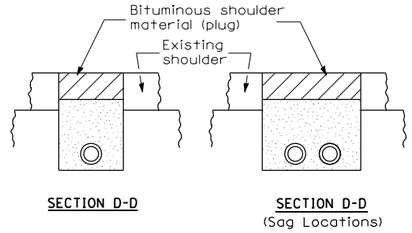
SECTION C-C (Sag locations)

SECTION C-C

NEW CONSTRUCTION



TRENCH FOR CORRUGATED POLYETHYLENE TUBING ALTERNATE

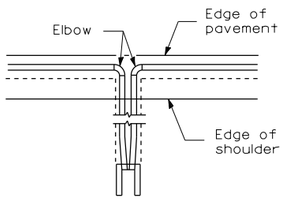


SECTION D-D

SECTION D-D (Sag Locations)

EXISTING CONSTRUCTION

(Except as noted or shown, dimensions nd notes specified for Existing Construction are the same as those of New Construction)



DETAIL E

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

SUB-SURFACE DRAINS

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		DRAWN -	REVISED -
	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
Default SUBSURF.DGN	PLOT DATE = 5/10/2016	DATE - 7/17/96	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUB-SURFACE DRAINS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

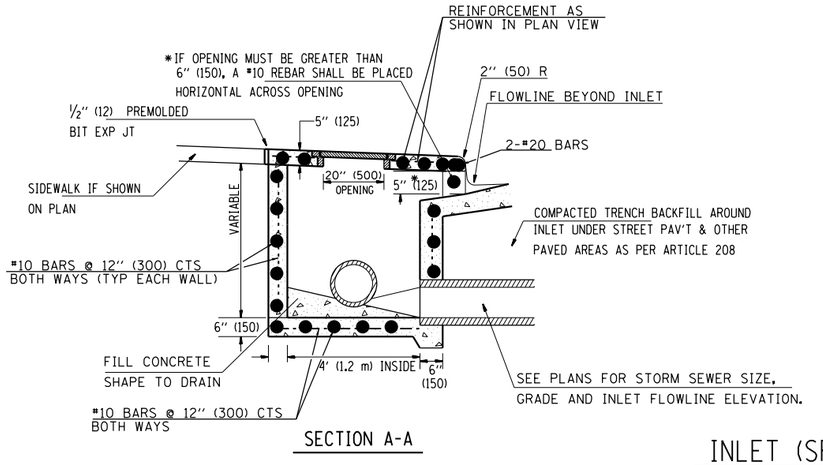
: JULY 17, 1996

NOTES:

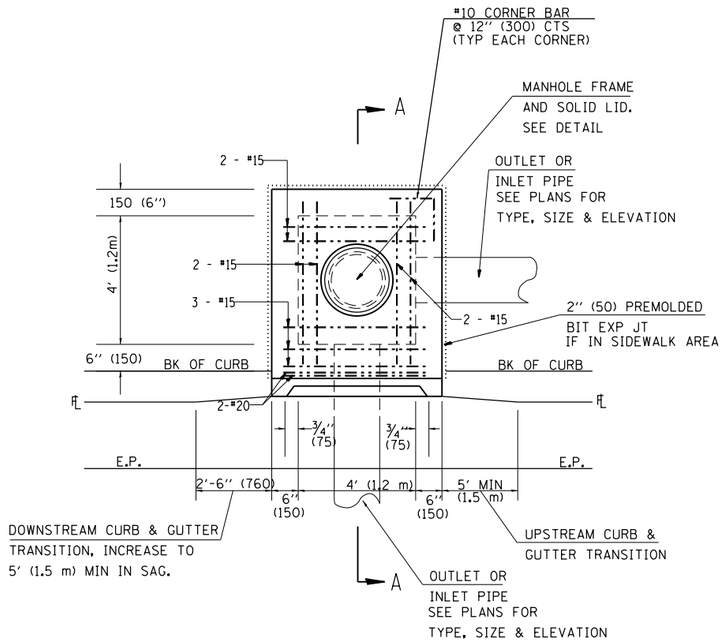
1. THE CONTRACT UNIT PRICE OF EACH FOR INLET, (SPECIAL) TYPE E SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO CONSTRUCT THE INLET IN ACCORDANCE WITH ARTICLE 602 OF THE STANDARD SPECIFICATIONS AND AND AS SHOWN HEREIN.

2. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

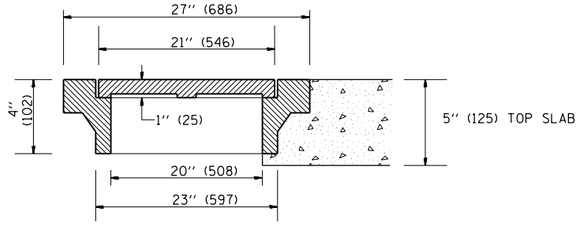
3. THE FRONT EDGE OF THE TOP SLAB SHALL BE EITHER STRAIGHT OR RADIUSED AS NEEDED TO CONFORM WITH THE SHAPE OF THE ADJACENT CURB AND GUTTER.



SECTION A-A

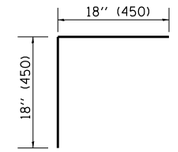


PLAN



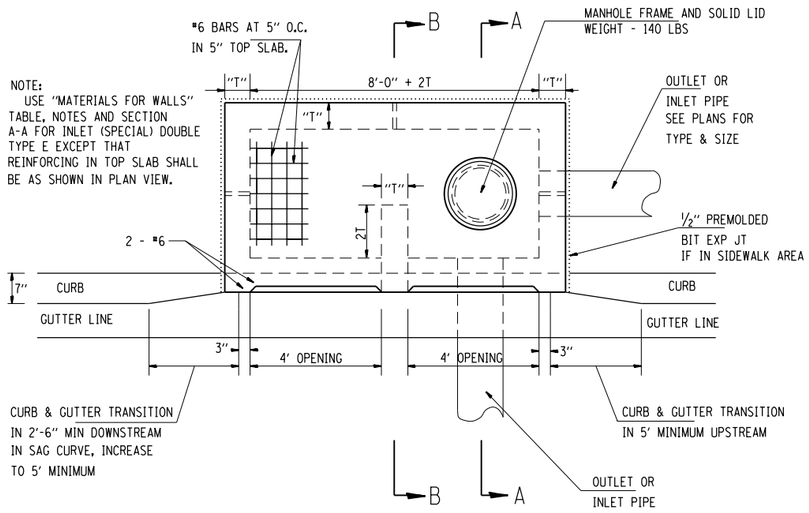
TYPICAL DETAIL OF MANHOLE FRAME AND SOLID LID

NEENAH R-6020 OR APPROVED EQUAL

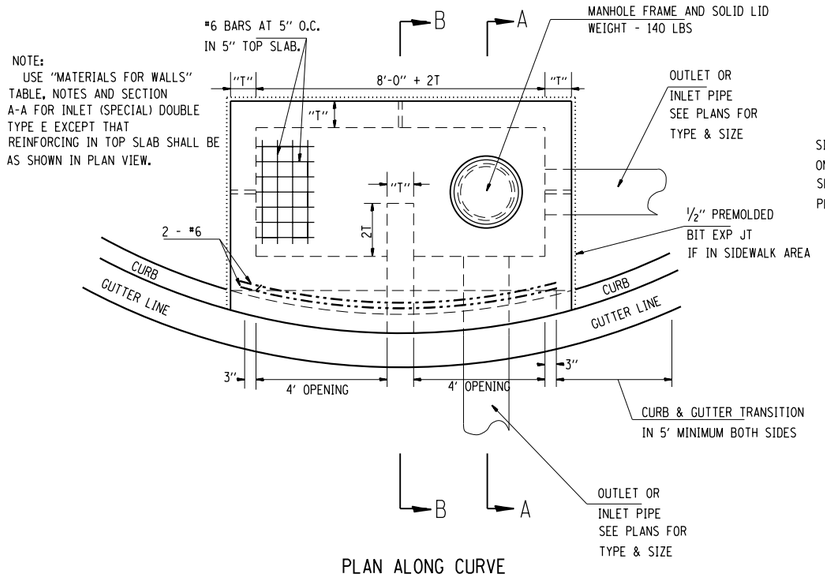


CORNER BAR

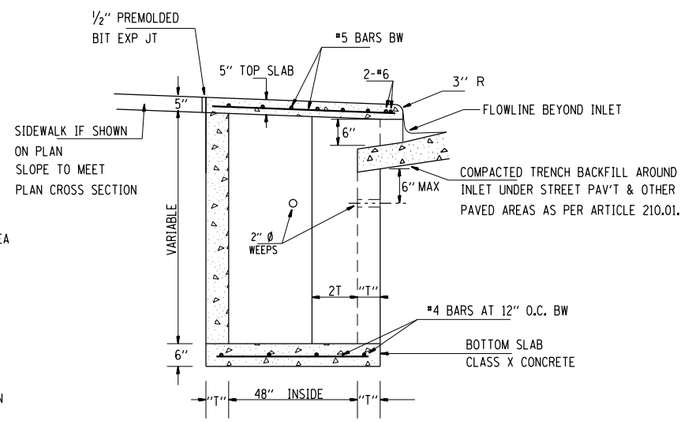
INLET (SPECIAL) TYPE E



PLAN ALONG TANGENT



PLAN ALONG CURVE



SECTION B-B

FOR 1, 2 & 3, SEE ABOVE

4. BRICKS, CONCRETE BLOCKS AND REINFORCED CONCRETE BLOCKS TO BE LAID IN FULL MORTAR BEDS WITH FLUSH JOINTS.

5. WHEN CONSTRUCTED OF MONOLITHIC CONCRETE, USE #4 REINFORCING BARS SPACED AT 12" CENTERS BOTH WAYS IN FLOOR SLAB AND WALLS.

6. FOR SECTION A-A, SEE ABOVE

INLET (SPECIAL) DOUBLE TYPE E

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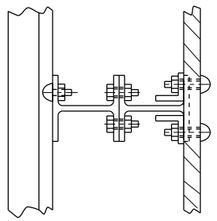
	PLOT DATE = 5/10/2016	DATE - 4/18/91	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



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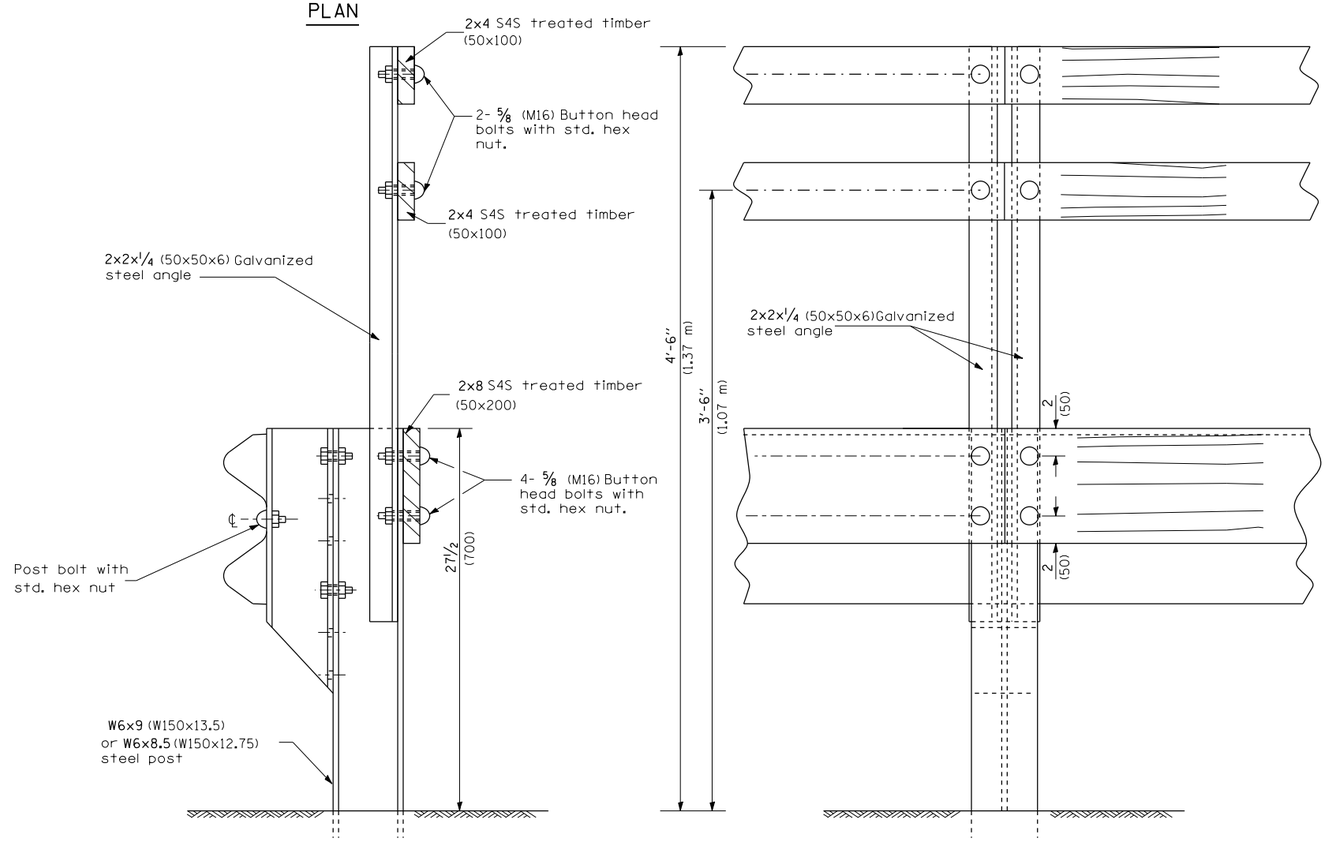

SIDE ELEVATION

FRONT ELEVATION

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		DRAWN -	REVISED -
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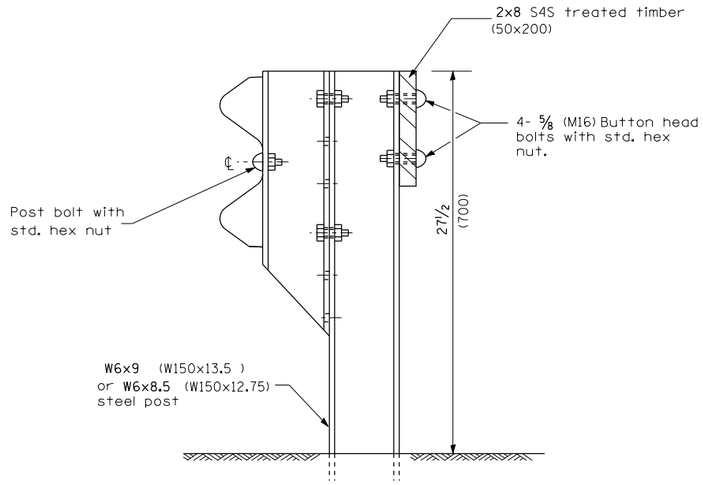
Default BIKERAIL.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

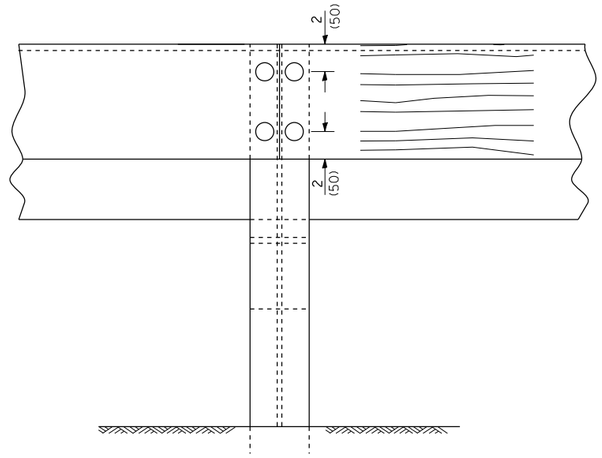
BIKE RAILS – WOOD

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



SIDE ELEVATION



FRONT ELEVATION

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

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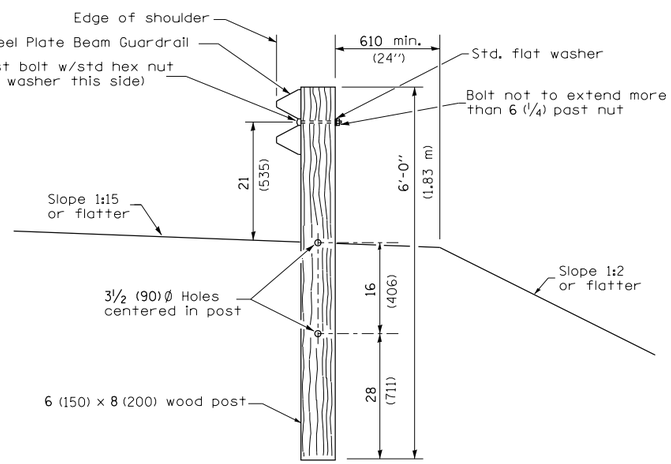
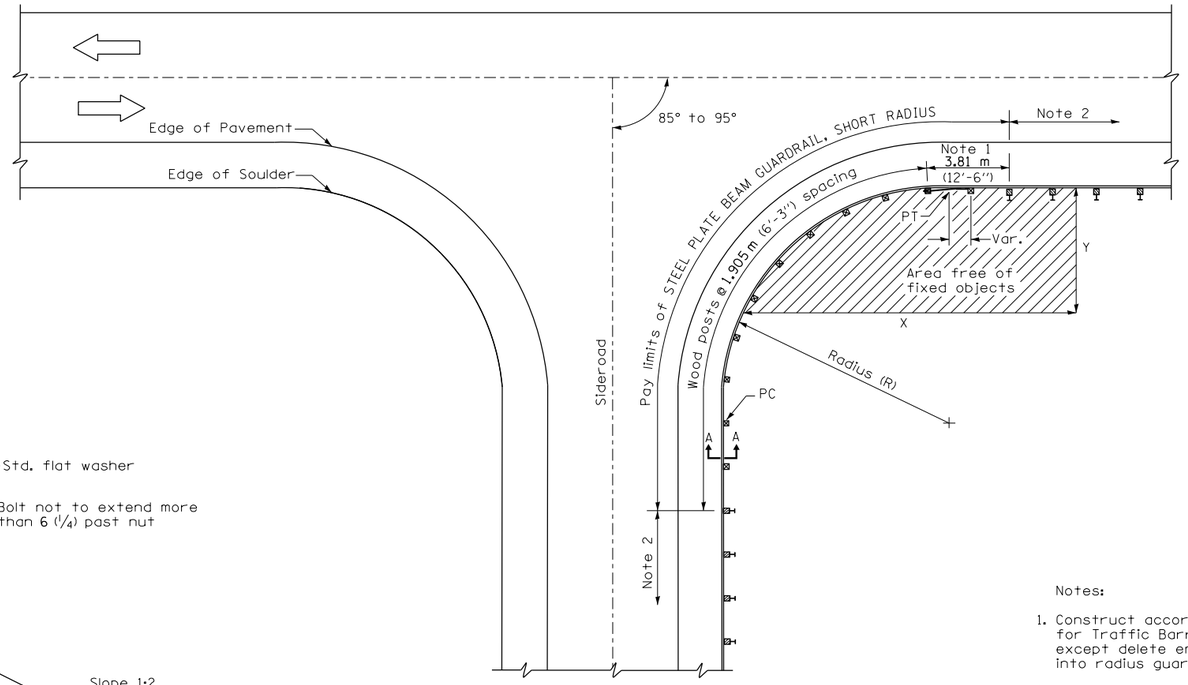
	PLOT DATE = 5/10/2016	CHECKED -	REVISED -					CONTRACT NO.		
		DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		



SECTION A-A



PLAN

INSTALLATION CHARACTERISTICS PER DESIGN RADIUS (R)			
R	NO. OF WOOD POSTS	X	Y
8'-6" (2.59)	5 (Note 3)	25' (7.6 m)	15' (4.6)
17'-0" (5.18)	6	30' (9.1 m)	15' (4.6)
25'-6" (7.77)	8	40' (12.2 m)	20' (6.1)
35'-0" (10.67)	11	50' (15.2 m)	20' (6.1)

Notes:

1. Construct according to Standard 631011 for Traffic Barrier Terminal Type 2, except delete end section and splice into radius guardrail.
2. Steel Plate Beam Guardrail Type A, Type B, or Traffic Barrier Terminal as specified.
3. For the 8'-6" (2.59 m) radius, the rail is not bolted to the post located at the midpoint of the curve.

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

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

GUARDRAIL SHORT RADIUS.DGN

BDE Memo 36-03 Attachment A

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\630-guardrail_short_radius.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 '' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL PLATE BEAM GUARDRAIL, SHORT RADIUS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SPECIAL DETAIL FOR TRAFFIC CONTROL
BRIDGE DECK STAGE CONSTRUCTION
UTILIZING TRAFFIC ACTUATED SIGNALS AND BARRICADES
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

INDUCTIVE VEHICLE DETECTION LOOP TABLE

Posted advisory speed limit (MPH)	D1 and D4 Dist. from stop bar to loop detector location
30	220 ft/67 m
35	260 ft/79 m
40	300 ft/91 m
45	328 ft/100 m
50	375 ft/114 m
55	420 ft/128 m

Distance from controller to loop	Number of loop turns
0 ft to 567 ft 0 m to 173 m	4
567 ft to 870 ft 173 m to 265 m	5
870 ft to 1240 ft 265 m to 378 m	6
1240 ft (Maximum) 378 m (Maximum)	6

NOTE: D2 and D3 shall call on red interval only

SEQUENCE OF OPERATION

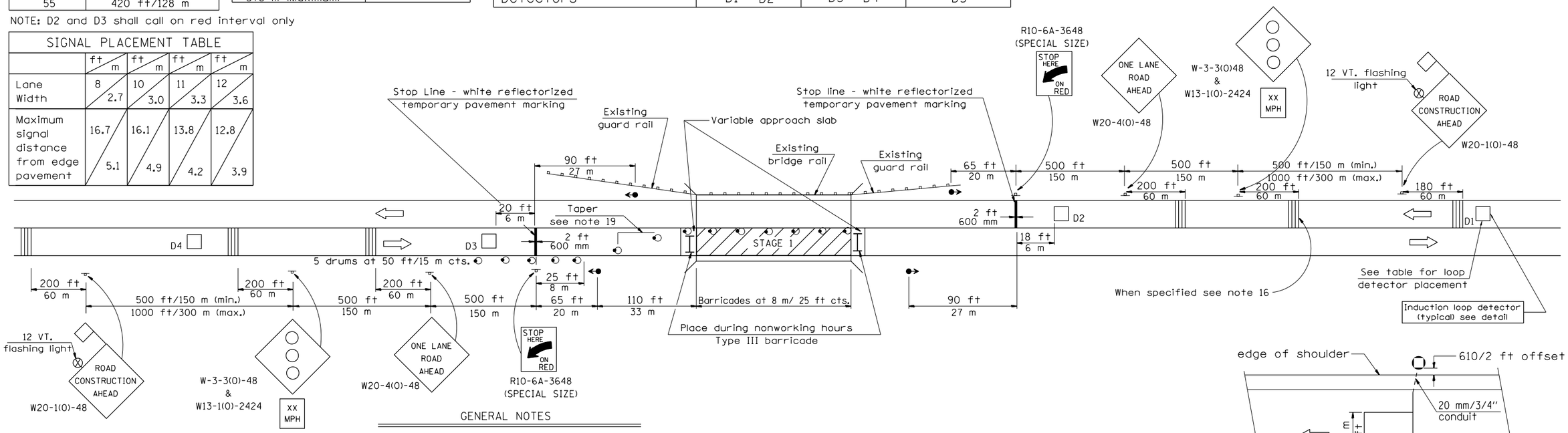
Movement \ Interval	1	2	3	4	5	6	7	8	9
Eastbound	G	Y	R	R	R	R	R	R	R
Westbound	R	R	R	G	Y	R	R	R	R
Southbound	R	R	R	R	R	R	G	Y	R
Detectors	D1 D2			D3 D4			D5		

SIGNAL PLACEMENT TABLE

	ft / m	ft / m	ft / m	ft / m
Lane Width	8 / 2.7	10 / 3.0	11 / 3.3	12 / 3.6
Maximum signal distance from edge pavement	16.7 / 5.1	16.1 / 4.9	13.8 / 4.2	12.8 / 3.9

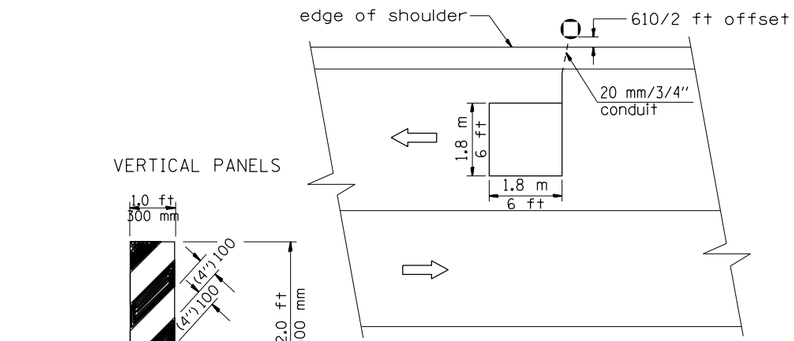
SYMBOLS

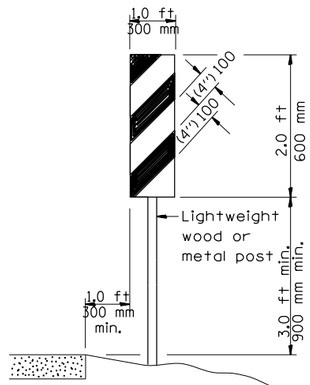
- work area
- 18"x18" (450 x 450) (min.) orange flag
- sign on permanent support
- drum or type II barricade w/steady burning light
- temporary rumble strip
- 6'x6' (1.8 m x 1.8 m) detector loop centered in lane
- traffic signals



GENERAL NOTES

1. The district trafffic department shall be notified at least 72 hours prior to placing the temporary signals in operation so that arrangements can be made to inspect the installation and set the timing of the signals.
2. The signals, controller cabinet and service pole shall be placed behind guardrail (existing or proposed) or shoulder break when applicable. See table for maximum signal placement.
3. See table for loop detector locations and number of loop turns.
4. At any time that the signals are not operating the signal heads shall be hooded and the SIGNAL AHEAD sign covered or removed.
5. The left signal shall normally be mounted at a height of 10 ft/3.0 m above the road surface measured to the bottom of the signal head. The right signal shall normally be mounted at a height of 12.5 ft/4.2 m above the road surface and measured to the bottom of the signal head. Backplates will be required on all signals.
6. All lenses shall be 1 ft/300 mm nominal diameter. The right signal head shall be aimed so the centers of the light beams of the indications are directed toward a point in the center of the approach lane 150 m/500 ft in advance of the signal. The left indication shall be aimed at a point in the center of the approach lane 30 m/100 ft in advance of the stop line.
7. ALL STAGES OF CONSTRUCTION
   The edge of existing open traffic lane on each approach to the bridge shall be delineated with double vertical panels (Detail B) and white bi-directional temporary pavement markers. These devices shall be placed at 25 ft/8 m centers between the stop line and the bridge.
8. Double vertical panels (no lights required) shall be placed at 25 ft/8 m centers on the existing parapet wall or bridge rail (Detail A) adjacent to the open traffic lane. Temporary white bi-directional pavement markers (25 ft/8 m centers) shall be placed on top of the hubguard when a sidewalk exists within 1 ft/300 mm of the edge of the existing open traffic lane.
9. All existing pavement markings in the open lane are to be removed from stop line to stop line and shall be paid for as part of STANDARD 2309 (SPECIAL).
10. All signs shall be post mounted if the closure time exceeds four days.
11. Longitudinal dimensions may be adjusted slightly to fit field conditions.
12. All vehicles, equipment, men and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the engineer.
13. Advisory speed plates shall be installed where the normal posted speed is greater than 40 MPH. The speed shall be determined at the site by the engineer.
14. District Traffic (Operation and Permit) engineers shall be notified one week prior to a traffic lane width restriction of less than 12.5 ft/4.2 m to allow the Department to install width restriction and wide load detour signing.
15. Flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series.
16. When specified, temporary rumble strips shall be installed where shown. (STANDARD 2298)
17. On both approaches, existing center line pavement markings located between the stop bars and the work area shall be removed as soon as the barricades are in place and replaced with temporary or permanent pavement marking as soon as the barricades are removed.
18. See SPECIAL PROVISIONS for the traffic signal controller and detector loop requirements.
19. The taper shall be formed by placing one barricade for each 600 mm/2 ft of lane width.
20. Bi-directional lights shall be used at night along the center line whether the work area is separated from the travelled lane using barricades or by using other devices. Mono-directional lights shall be used at night on all other barricades.
21. Form BT 725 is required.





All dimensions are in feet & inches unless otherwise shown.

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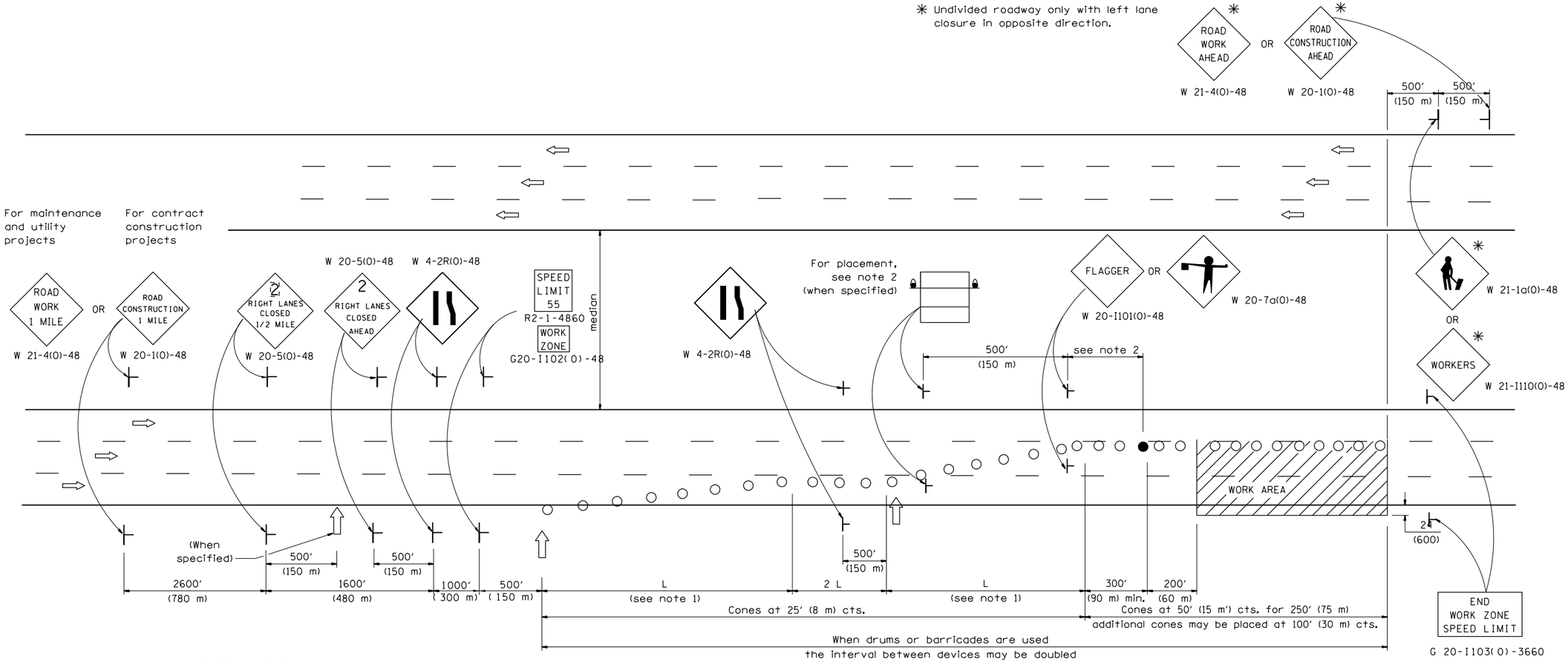
2309S.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION STANDARD 2309 (SPECIAL)
TWO-LANE, TWO WAY TRAFFIC ONE LANE CLOSURE
ON A BRIDGE DECK DAY OR NIGHT OPERATIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



GENERAL NOTES

1. The "L" distance equals lane width times the taper ratio.

Normal Posted Speed		Taper Ratio (Length to pavement width)	
mph	km/h	ft/ft	m/mm
65	100	65/1	20/300
60	100	60/1	18/300
55	90	55/1	17/300
45 or less	80	45/1	14/300

2. The CONSTRUCTION SPEED LIMIT signs and the FLAGGER signs shall be moved as necessary to maintain a spacing of 500′ (1500 mm) to 2500′ (750 m) between the flagger and FLAGGER signs.

3. This standard also applies when work is being performed in the left and center lanes. Under these conditions, LEFT LANE CLOSED signs shall be substituted for RIGHT LANE CLOSED signs. On undivided highways, signs shall be added in the opposite direction as shown and cones shall be placed along the centerline throughout the taper and work area. On left lane closures with narrow medians, the arrow board at the beginning of the lane closure shall be relocated behind the taper as necessary so that a clearance of at least 1.2 m (4′) can be maintained from the opposing traffic.

4. Median signs may be omitted when the median is less than 10′ (3 m).

5. Cones may be substituted for barricades or drums at half spacing during day operations. On fully access controlled facilities, cones shall be a minimum of 28″ (700 mm) in height.

6. Reflectorized temporary pavement marking tape shall be placed throughout the taper and for 300′ (90 m) alongside the work area where the closure time is greater than fourteen days. The edge line shall be yellow for left lane closures. Raised reflective pavement markers at 8 m (25′) centers may be used to supplement the pavement marking tape (cost incidental).

7. The Flaggers shall be stationed approximately 200′ (60 m) in advance of the work party.

8. Traffic Control and Protection Standard 701401(Special) shall conform to the applicable portions of Section 701 of the Standard Specifications.

9. Traffic control devices shall conform to the requirements of Section 702 of the Standard Specifications.

10. All signs, cones, barricades, and drums are to be removed at completion of the day's operations and the work area opened to traffic.

SYMBOLS

- Construction speed limit sign
- Arrowboard
- Work area
- Sign on portable or permanent support
- Flagger with traffic control sign
- Cone, drum or barricade

MULTILANE, DIVIDED AND UNDIVIDED, RURAL DAY OPERATIONS ONLY

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES WILL ENCROACH ON THE CENTER LANE AND LANE ADJACENT TO THE SHOULDER

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

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	PLOT SCALE = 40.0000 ′ / in.	CHECKED - NAK	REVISED -
Dec 2016	PLOT DATE = 5/10/2016	DATE - 4/14/98	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

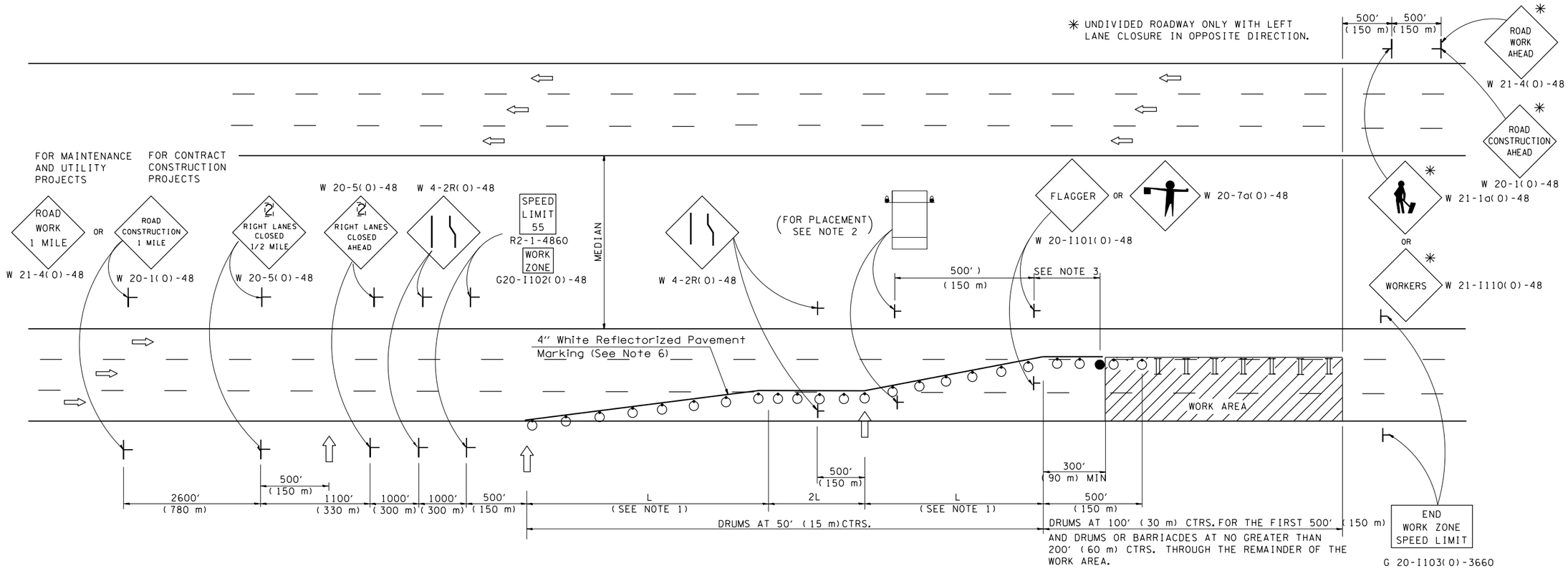
TRAFFIC CONTROL AND PROTECTION STANDARD 701406 (SPECIAL)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT



GENERAL NOTES

1. The "L" distance equals lane width times the taper ratio.

Normal Posted Speed		Taper Ratio (Length to pavement width)	
mph	km/h	ft/ft	m/mm
65	100	65/1	20/300
60	100	60/1	18/300
55	90	55/1	17/300
45 or less	80	45/1	14/300

2. The CONSTRUCTION SPEED LIMIT signs and the FLAGGER signs shall be moved as necessary to maintain a spacing of 500′ (150 m) to 2500′ (750 m) between the flagger and FLAGGER signs.

3. This standard also applies when work is being performed in the left and center lanes. Under these conditions, LEFT LANE CLOSED signs shall be substituted for RIGHT LANE CLOSED signs. On undivided highways, signs shall be added in the opposite direction as shown and cones shall be placed along the centerline throughout the taper and work area. On left lane closures with narrow medians, the arrow board at the beginning of the lane closure shall be relocated behind the taper as necessary so that a clearance of at least 4′ (1.2 m) can be maintained from the opposing traffic.

4. Median signs may be omitted when the median is less than 10′ (3 m).

5. Cones may be substituted for barricades or drums at half spacing during day operations. On fully access controlled facilities, cones shall be a minimum of 700(28) in height.

6. Reflectorized temporary pavement marking tape shall be placed throughout the taper and for 300′ (90 m) alongside the work area where the closure time is greater than fourteen days. The edge line shall be yellow for left lane closures. Raised reflective pavement markers at 25′ (8 m) centers may be used to supplement the pavement marking tape (cost incidental).

7. The Flaggers shall be stationed approximately 60 m (200′) in advance of the work party.

8. Traffic Control and Protection Standard 701401(Special) shall conform to the applicable portions of Section 701 of the Standard Specifications.

9. Traffic control devices shall conform to the requirements of Section 702 of the Standard Specifications.

SYMBOLS

- CONSTRUCTION SPEED LIMIT SIGNS
- ARROWBOARD
- WORK AREA
- BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH TRAFFIC CONTROL SIGN
- DRUM WITH STEADY BURNING LIGHT

MULTILANE, DIVIDED AND UNDIVIDED, RURAL DAYLIGHT OPERATIONS EXCEEDING ONE DAY

WHERE ANY VEHICLE, EQUIPEMENT, WORKERS OR THEIR ACTIVITIES WILL ENCROACH ON CENTER LANE AND LANE ADJACENT TO THE SHOULDER

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

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	PLOT SCALE = 40.0000 ′ / in.	DRAWN - CAD	REVISED - CAD 06/16/97		
	PLOT DATE = 5/10/2016	CHECKED - JCN	REVISED - NAK 14APR98		SCALE: SHEET OF SHEETS STA. TO STA.
DGN: 2346S.DGN		DATE - 6/28/94	REVISED - CHD 23APR98		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SPECIAL DETAIL FOR TRAFFIC CONTROL
BRIDGE DECK STAGE CONSTRUCTION
UTILIZING TRAFFIC ACTUATED SIGNALS AND TEMPORARY BARRIERS
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

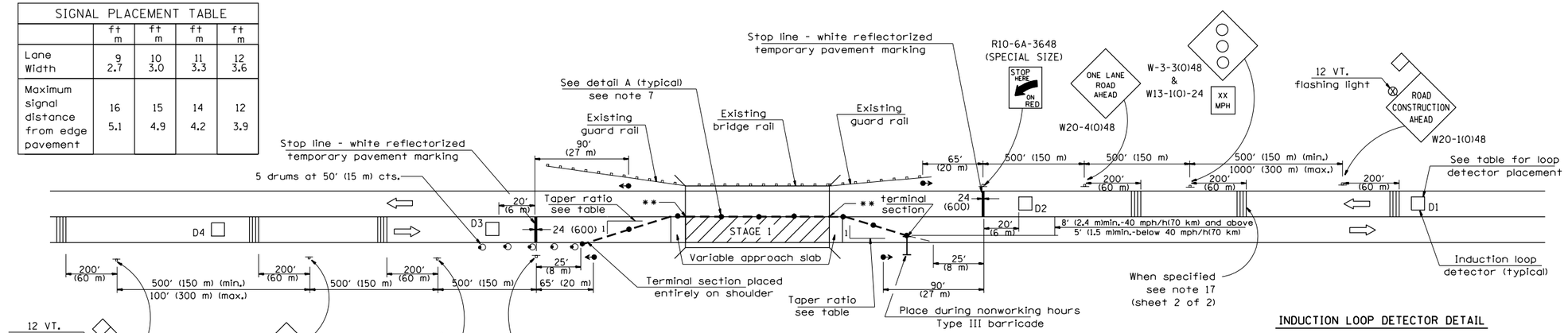
INDUCTIVE VEHICLE DETECTION LOOP TABLE			
Posted advisory speed limit (MPH)	D1 and D4 Dist. from stop bar to loop detector location	Distance from controller to loop	Number of loop turns
30	220′ (67 m)	0′ to 570′ 0 m to 173 m	4 5
35	260′ (79 m)	570′ to 870′ 173 m to 265 m	6 6
40	300′ (91 m)	870′ to 1240′ 265 m to 378 m	4 5
45	330′ (100 m)	1240′ (Maximum) 378 m (Maximum)	6 6
50	375′ (114 m)		
55	420′ (128 m)		

NOTE: D2 and D3 shall call on red interval only

SEQUENCE OF OPERATION						
Movement \ Interval	1	2	3	4	5	6
Northbound or Eastbound	G	Y	R	R	R	R
Southbound or Westbound	R	R	R	G	Y	R
Detectors	D1 D2			D3 D4		

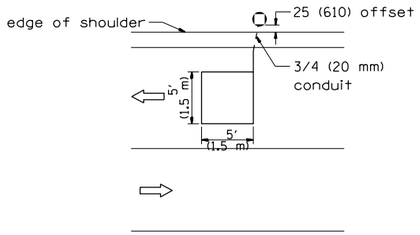
CONCRETE BARRIER WALL TABLE	
Posted speed	Taper rate
40 mph (70 km/h) and above	1:12
Below 40 mph (70 km/h)	1:8

SIGNAL PLACEMENT TABLE				
	ft m	ft m	ft m	ft m
Lane Width	9 2.7	10 3.0	11 3.3	12 3.6
Maximum signal distance from edge pavement	16 5.1	15 4.9	14 4.2	12 3.9

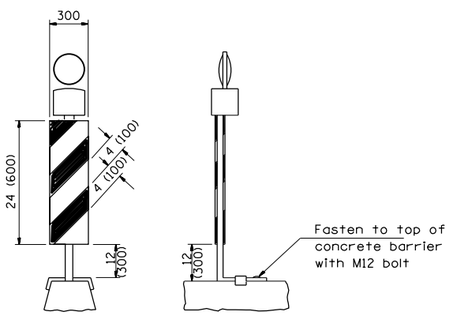


** Where temporary bridge rail is specified it shall be connected to the temporary concrete barrier using a Traffic Barrier Terminal Type II

INDUCTION LOOP DETECTOR DETAIL

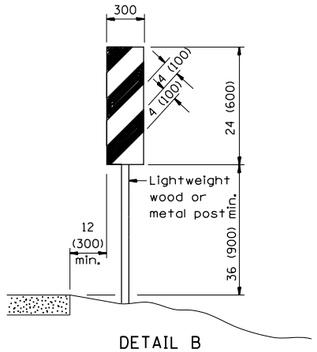


NOTE: Loop centered in approach lane (see table for number of loop turns)



DETAIL A
(Suggested mounting detail)

VERTICAL PANELS



DETAIL B
(See general note no. 7)
(Sheet 2 of 2)

LEGEND

- Work area
- 18 x 18 (450 x 450) (minimum) orange flag
- Sign on permanent support
- Drum or Type II barricade w/steady burning light
- Temporary concrete barrier
- Steady burning lights and double vertical panels
- Temporary rumble strip
- 6′ x 6′ (1.8 m x 1.8 m) detector loop centered in lane
- Traffic signal

TWO-LANE, TWO WAY TRAFFIC
ONE LANE CLOSURE ON A BRIDGE
DECK DAY OR NIGHT OPERATIONS

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

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		DRAWN -	REVISED -		
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Default 2409S.DGN	PLOT DATE = 5/10/2016	DATE - 5/03/96	REVISED -		ILLINOIS FED. AID PROJECT

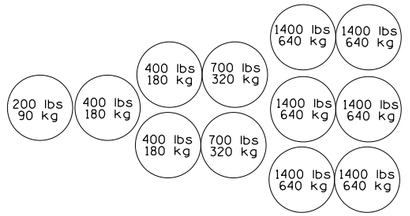
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		

SPECIAL DETAIL FOR TRAFFIC CONTROL
BRIDGE DECK STAGE CONSTRUCTION
UTILIZING TRAFFIC ACTUATED SIGNALS AND
TEMPORARY BARRIERS
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

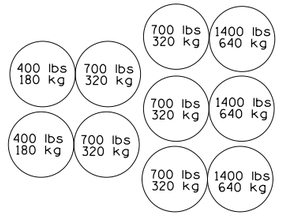
GENERAL NOTES

1. The district trafffic department shall be notified at least 72 hours prior to placing the temporary signals in operation so that arrangements can be made to inspect the installation and set the timing of the signals.
2. The signals, controller cabinet and service pole shall be placed behind guardrail (existing or proposed) or shoulder break when applicable. See table on sheet 1 of 2 for maximum signal placement.
3. See tables on sheet 1 of 2 for loop detector locations and number of loop turns.
4. At any time that the signals are not operating the signal heads shall be hooded and the SIGNAL AHEAD sign covered or removed.
5. The left signal shall normally be mounted at a height of 10′ (3.0 m) above the road surface measured to the bottom of the signal head. The right signal shall normally be mounted at a height of 14′ (4.2 m) above the road surface and measured to the bottom of the signal head. Backplates will be required on all signals.
6. All lenses shall be 12 (300 mm) nominal diameter. The right signal head shall be aimed so the centers of the light beams of the indications are directed toward a point in the center of the approach lane 500′ (150 m) in advance of the signal. The left indication shall be aimed at a point in the center of the approach lane 100′ (30 m) in advance of the stop line.
7. ALL STAGES OF CONSTRUCTION
   The edge of existing open traffic lane on each approach to the bridge shall be delineated with double vertical panels (Detail B) and white bi-directional temporary pavement markers. These devices shall be placed at 25′ (8 m) centers between the stop line and the bridge. Bi-directional steady burning lights attached to double vertical panels (Detail A) shall be placed at 25′ (8 m) centers on the tapered portion of the concrete barrier and at 50′ (15 m) centers on the temporary bridge rail or portion of the barrier on the bridge (3 minimum).
8. Double vertical panels (no lights required) shall be placed at 25′ (8 m) centers on the existing parapet wall or bridge rail (Detail A) adjacent to the open traffic lane. Temporary white bi-directional pavement markers (25′ (8 m) centers) shall be placed on top of the hubguard when a sidewalk exists within 12 (300 mm) of the edge of the existing open traffic lane.
9. All existing pavement markings in the open lane are to be removed from stop line to stop line and shall be paid for as part of STANDARD 701321 (SPECIAL).
10. All signs shall be post mounted if the closure time exceeds four days.
11. Longitudinal dimensions may be adjusted slightly to fit field conditions.
12. All vehicles, equipment, men and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the engineer.
13. Temporary bridge rail shall be used across the bridge when specified in the plans.
14. Advisory speed plates shall be installed where the normal posted speed is greater than 40 MPH (70 km/h). The speed shall be determined at the site by the engineer.
15. District Traffic (Operation and Permit) engineers shall be notified one week prior to a traffic lane width restriction of less than 14′ (4.2 m) to allow the Department to install width restriction and wide load detour signing.
16. Flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series.
17. When specified, temporary rumble strips shall be installed where shown. (STANDARD 702001)
18. On both approaches, existing center line pavement markings located between the stop bars and the temporary concrete barrier or bridge rail shall be removed as soon as the barrier or rails is in place and replaced with temporary or permanent pavement marking as soon as the barrier or rail is removed.
19. See SPECIAL PROVISIONS for the traffic signal controller and detector loop requirements.
20. Form BT 725 is required.

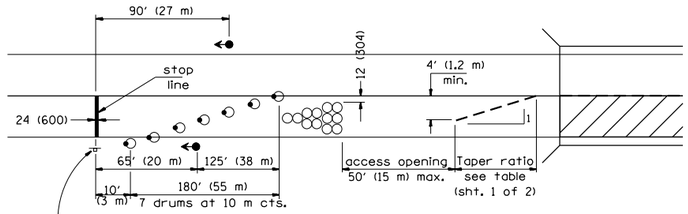
SAND MODULE IMPACT ATTENUATOR CONFIGURATION



POSTED SPEED 40 mph (70 km/h) OR MORE



POSTED SPEED LESS THAN 40 mph (70 km/h)



R10-6A-3648
(SPECIAL SIZE)

NOTES

1. The contractor may use this detail where greater access to the work area is required. No additional compensation will be allowed if the contractor elects to use this detail.
2. The sand modules may be placed directly on the pavement or on pallets or skids (maximum height 2′-6″ (60 mm)).
3. The impact attentuators shall be striped in conformance with the requirements for drums in STANDARD 2298 and shall meet the requirements of the RECURRING SPECIAL PROVISIONS for sand module impact attenuators.
4. Barricades or drums with bi-directional steady burning lights delineating the closed lane shall be placed in the access opening during nonworking hours (3 minimum).

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

TWO-LANE, TWO WAY TRAFFIC
ONE LANE CLOSURE ON A BRIDGE
DECK DAY OR NIGHT OPERATIONS

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\700-2409s.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - VTY 11-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL)
	PLOT SCALE = 40.000 ′ / in.	CHECKED -	REVISED -		
Default 2409S.DGN	PLOT DATE = 5/10/2016	DATE - 5/03/96	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SPECIAL DETAIL FOR TRAFFIC CONTROL
BRIDGE DECK STAGE CONSTRUCTION
UTILIZING TRAFFIC ACTUATED SIGNALS AND TEMPORARY BARRIERS
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

INDUCTIVE VEHICLE DETECTION LOOP TABLE

Posted advisory speed limit (MPH)	D1 and D4 Dist. from stop bar to loop detector location
30	67 m
35	79 m
40	91 m
45	100 m
50	114 m
55	128 m

Distance from controller to loop	Number of loop turns
0 m to 173 m	4
173 m to 265 m	5
265 m to 378 m	6
378 m (Maximum)	6

NOTE: D2 and D3 shall call on red interval only

SEQUENCE OF OPERATION

Movement \ Interval	1	2	3	4	5	6	7	8	9
Northbound or eastbound	G	Y	R	R	R	R	R	R	R
Southbound or westbound	R	R	R	G	Y	R	R	R	R
Sideroad	R	R	R	R	R	R	G	Y	R
Detectors	D1 D2			D3 D4			D5 *		

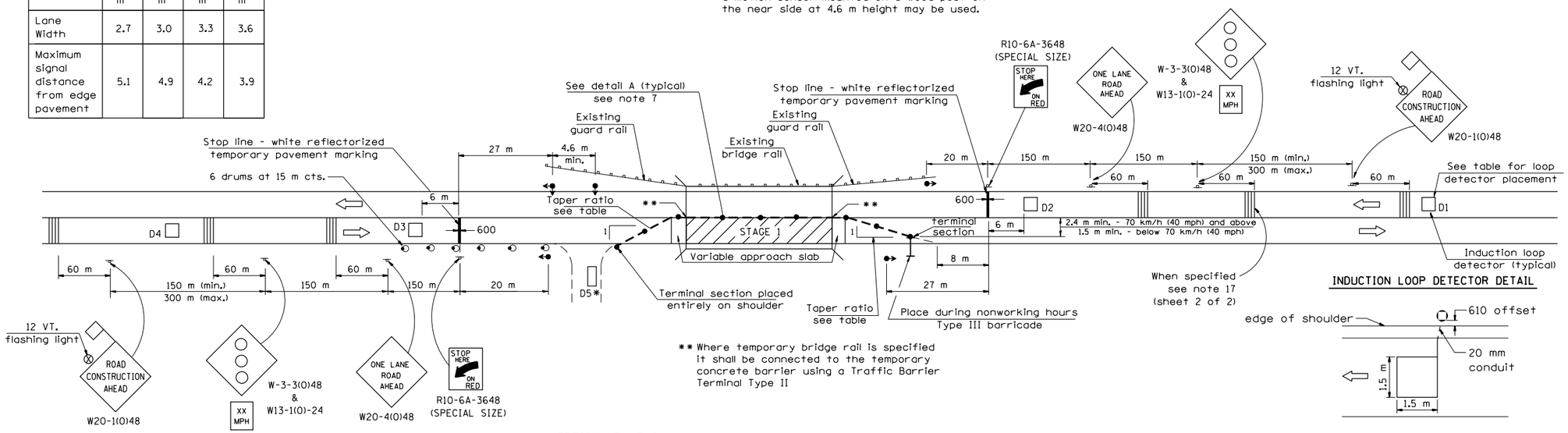
* In lieu of a 1.8 m x 6 m loop on the sideroad a motion sensor mounted on a wood post on the near side at 4.6 m height may be used.

CONCRETE BARRIER WALL TABLE

Posted speed	Taper rate
40 mph (70 km/h) and above	1:12
Below 40 mph (70 km/h)	1:8

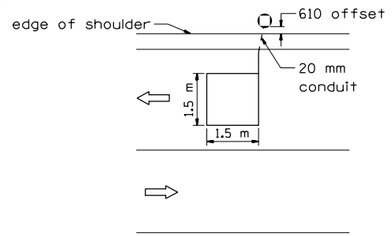
SIGNAL PLACEMENT TABLE

	m	m	m	m
Lane Width	2.7	3.0	3.3	3.6
Maximum signal distance from edge pavement	5.1	4.9	4.2	3.9



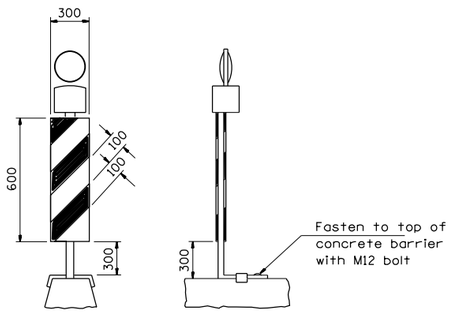
** Where temporary bridge rail is specified it shall be connected to the temporary concrete barrier using a Traffic Barrier Terminal Type II

INDUCTION LOOP DETECTOR DETAIL

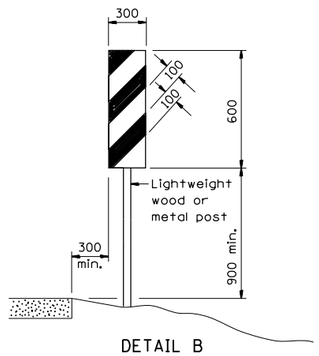


NOTE: Loop centered in approach lane (see table for number of loop turns)

VERTICAL PANELS



DETAIL A
(Suggested mounting detail)



DETAIL B
(See general note no. 7)
(Sheet 2 of 2)

LEGEND

- Work area
- 450 x 450 (minimum) orange flag
- Sign on permanent support
- Drum or Type II barricade w/steady burning light
- Temporary concrete barrier
- Steady burning lights and double vertical panels
- Temporary rumble strip
- 1.8 m x 1.8 m detector loop centered in lane
- Traffic signal

All dimensions are in millimeters unless otherwise shown.

TWO-LANE, TWO WAY TRAFFIC
ONE LANE CLOSURE ON A BRIDGE
DECK DAY OR NIGHT OPERATIONS

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\700-2409s.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - VTY 11-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL & PROTECTION STANDARD 701321 (SPECIAL) WITH SIDE ROAD
	PLOT SCALE = 40.000 ' / in.	DRAWN -	REVISED -		
Default 2409S.DGN	PLOT DATE = 5/10/2016	CHECKED -	REVISED -		
		DATE - 5/03/96	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.

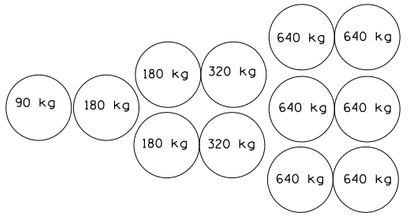
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SPECIAL DETAIL FOR TRAFFIC CONTROL
BRIDGE DECK STAGE CONSTRUCTION
UTILIZING TRAFFIC ACTUATED SIGNALS AND
TEMPORARY BARRIERS
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

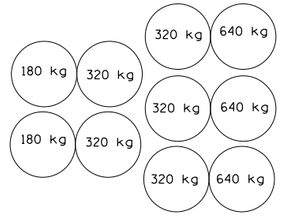
GENERAL NOTES

1. The district trafffic department shall be notified at least 72 hours prior to placing the temporary signals in operation so that arrangements can be made to inspect the installation and set the timing of the signals.
2. The signals, controller cabinet and service pole shall be placed behind guardrail (existing or proposed) or shoulder break when applicable. See table on sheet 1 of 2 for maximum signal placement.
3. See tables on sheet 1 of 2 for loop detector locations and number of loop turns.
4. At any time that the signals are not operating the signal heads shall be hooded and the SIGNAL AHEAD sign covered or removed.
5. The left signal shall normally be mounted at a height of 3.0 m above the road surface measured to the bottom of the signal head. The right signal shall normally be mounted at a height of 4.2 m above the road surface and measured to the bottom of the signal head. Backplates will be required on all signals.
6. All lenses shall be 300 mm nominal diameter. The right signal head shall be aimed so the centers of the light beams of the indications are directed toward a point in the center of the approach lane 150 m in advance of the signal. The left indication shall be aimed at a point in the center of the approach lane 30 m in advance of the stop line.
7. ALL STAGES OF CONSTRUCTION
   The edge of existing open traffic lane on each approach to the bridge shall be delineated with double vertical panels (Detail B) and white bi-directional temporary pavement markers. These devices shall be placed at 8 m centers between the stop line and the bridge. Bi-directional steady burning lights attached to double vertical panels (Detail A) shall be placed at 8 m centers on the tapered portion of the concrete barrier and at 15 m centers on the temporary bridge rail or portion of the barrier on the bridge (3 minimum).
8. Double vertical panels (no lights required) shall be placed at 8 m centers on the existing parapet wall or bridge rail (Detail A) adjacent to the open traffic lane. Temporary white bi-directional pavement markers (8 m centers) shall be placed on top of the hubguard when a sidewalk exists within 300 mm of the edge of the existing open traffic lane.
9. All existing pavement markings in the open lane are to be removed from stop line to stop line and shall be paid for as part of STANDARD 701321 (SPECIAL).
10. All signs shall be post mounted if the closure time exceeds four days.
11. Longitudinal dimensions may be adjusted slightly to fit field conditions.
12. All vehicles, equipment, men and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the engineer.
13. Temporary bridge rail shall be used across the bridge when specified in the plans.
14. Advisory speed plates shall be installed where the normal posted speed is greater than 40 MPH (70 km/h). The speed shall be determined at the site by the engineer.
15. District Traffic (Operation and Permit) engineers shall be notified one week prior to a traffic lane width restriction of less than 4.2 m to allow the Department to install width restriction and wide load detour signing.
16. Flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series.
17. When specified, temporary rumble strips shall be installed where shown. (STANDARD 702001)
18. On both approaches, existing center line pavement markings located between the stop bars and the temporary concrete barrier or bridge rail shall be removed as soon as the barrier or rails is in place and replaced with temporary or permanent pavement marking as soon as the barrier or rail is removed.
19. See SPECIAL PROVISIONS for the traffic signal controller and detector loop requirements.
20. Form BT 725 is required.

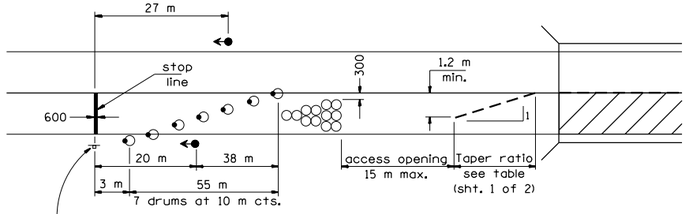
SAND MODULE IMPACT ATTENUATOR CONFIGURATION



POSTED SPEED 40 mph (70 km/h) OR MORE



POSTED SPEED LESS THAN 40 mph (70 km/h)



R10-6A-3648
(SPECIAL SIZE)

NOTES

1. The contractor may use this detail where greater access to the work area is required. No additional compensation will be allowed if the contractor elects to use this detail.
2. The sand modules may be placed directly on the pavement or on pallets or skids (maximum height 60 mm).
3. The impact attentuators shall be striped in conformance with the requirements for drums in STANDARD 702001 and shall meet the requirements of the RECURRING SPECIAL PROVISIONS for sand module impact attenuators.
4. Barricades or drums with bi-directional steady burning lights delineating the closed lane shall be placed in the access opening during nonworking hours (3 minimum).

All dimensions are in millimeters unless otherwise shown.

TWO-LANE, TWO WAY TRAFFIC
ONE LANE CLOSURE ON A BRIDGE
DECK DAY OR NIGHT OPERATIONS

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\700-2409s.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - VTY 11-96	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**TRAFFIC CONTROL & PROTECTION STANDARD 701321 (SPECIAL) WITH SIDE ROAD**
	PLOT SCALE = 40.000 ' / in.	DRAWN -	REVISED -		
Default 2409S.DGN	PLOT DATE = 5/10/2016	CHECKED -	REVISED -		
		DATE - 5/03/96	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SPECIAL DETAIL FOR TRAFFIC CONTROL BRIDGE DECK STAGE CONSTRUCTION UTILIZING TRAFFIC ACTUATED SIGNALS AND TEMPORARY BARRIERS
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

INDUCTIVE VEHICLE DETECTION LOOP TABLE	
Posted advisory speed limit (MPH)	D1 and D4 Dist. from stop bar to loop detector location
30	67 m
35	79 m
40	91 m
45	100 m
50	114 m
55	128 m

Distance from controller to loop	Number of loop turns
0 m to 173 m	4
173 m to 265 m	5
265 m to 378 m	6
378 m (Maximum)	6

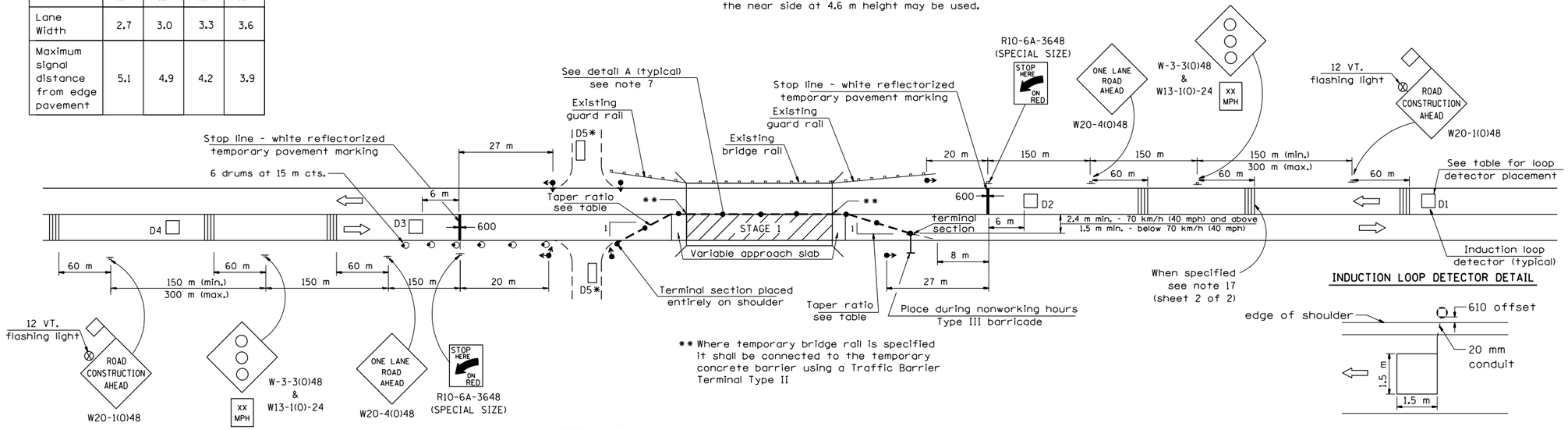
NOTE: D2 and D3 shall call on red interval only

SIGNAL PLACEMENT TABLE				
	m	m	m	m
Lane Width	2.7	3.0	3.3	3.6
Maximum signal distance from edge pavement	5.1	4.9	4.2	3.9

SEQUENCE OF OPERATION									
Movement \ Interval	1	2	3	4	5	6	7	8	9
Northbound or eastbound	G	Y	R	R	R	R	R	R	R
Southbound or westbound	R	R	R	G	Y	R	R	R	R
Sideroad	R	R	R	R	R	R	G	Y	R
Detectors	D1 D2			D3 D4			D5 *		

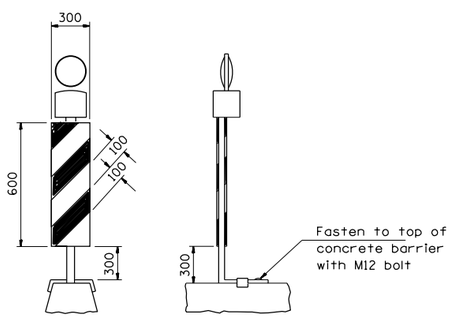
* In lieu of a 1.8 m x 6 m loop on the sideroad a motion sensor mounted on a wood post on the near side at 4.6 m height may be used.

CONCRETE BARRIER WALL TABLE	
Posted speed	Taper rate
40 mph (70 km/h) and above	1:12
Below 40 mph (70 km/h)	1:8



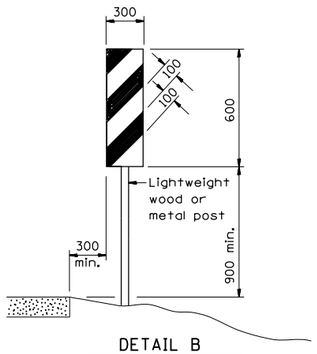
** Where temporary bridge rail is specified it shall be connected to the temporary concrete barrier using a Traffic Barrier Terminal Type II

NOTE: Loop centered in approach lane (see table for number of loop turns)



DETAIL A
(Suggested mounting detail)

VERTICAL PANELS



DETAIL B
(See general note no. 7)
(Sheet 2 of 2)

LEGEND

- Work area
- 450 x 450 (minimum) orange flag
- Sign on permanent support
- Drum or Type II barricade w/steady burning light
- Temporary concrete barrier
- Steady burning lights and double vertical panels
- Temporary rumble strip
- 1.8 m x 1.8 m detector loop centered in lane
- Traffic signal

All dimensions are in millimeters unless otherwise shown.

TWO-LANE, TWO WAY TRAFFIC ONE LANE CLOSURE ON A BRIDGE DECK DAY OR NIGHT OPERATIONS

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\701-2409s.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - VTY 11-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL & PROTECTION STANDARD 701321 (SPECIAL) WITH CROSS ROAD
	PLOT SCALE = 40.000 ' / in.	DRAWN -	REVISED -		
Def 2409S.DGN	PLOT DATE = 5/10/2016	CHECKED -	REVISED -		
		DATE - 5/03/96	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.

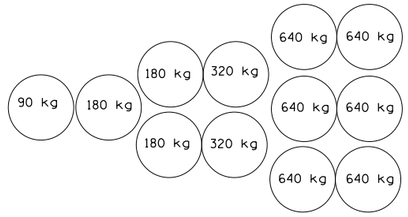
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SPECIAL DETAIL FOR TRAFFIC CONTROL
BRIDGE DECK STAGE CONSTRUCTION
UTILIZING TRAFFIC ACTUATED SIGNALS AND
TEMPORARY BARRIERS
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

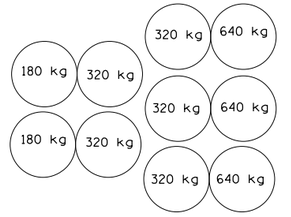
GENERAL NOTES

1. The district trafffic department shall be notified at least 72 hours prior to placing the temporary signals in operation so that arrangements can be made to inspect the installation and set the timing of the signals.
2. The signals, controller cabinet and service pole shall be placed behind guardrail (existing or proposed) or shoulder break when applicable. See table on sheet 1 of 2 for maximum signal placement.
3. See tables on sheet 1 of 2 for loop detector locations and number of loop turns.
4. At any time that the signals are not operating the signal heads shall be hooded and the SIGNAL AHEAD sign covered or removed.
5. The left signal shall normally be mounted at a height of 3.0 m above the road surface measured to the bottom of the signal head. The right signal shall normally be mounted at a height of 4.2 m above the road surface and measured to the bottom of the signal head. Backplates will be required on all signals.
6. All lenses shall be 300 mm nominal diameter. The right signal head shall be aimed so the centers of the light beams of the indications are directed toward a point in the center of the approach lane 150 m in advance of the signal. The left indication shall be aimed at a point in the center of the approach lane 30 m in advance of the stop line.
7. ALL STAGES OF CONSTRUCTION
   The edge of existing open traffic lane on each approach to the bridge shall be delineated with double vertical panels (Detail B) and white bi-directional temporary pavement markers. These devices shall be placed at 8 m centers between the stop line and the bridge. Bi-directional steady burning lights attached to double vertical panels (Detail A) shall be placed at 8 m centers on the tapered portion of the concrete barrier and at 15 m centers on the temporary bridge rail or portion of the barrier on the bridge (3 minimum).
8. Double vertical panels (no lights required) shall be placed at 8 m centers on the existing parapet wall or bridge rail (Detail A) adjacent to the open traffic lane. Temporary white bi-directional pavement markers (8 m centers) shall be placed on top of the hubguard when a sidewalk exists within 300 mm of the edge of the existing open traffic lane.
9. All existing pavement markings in the open lane are to be removed from stop line to stop line and shall be paid for as part of STANDARD 701321 (SPECIAL).
10. All signs shall be post mounted if the closure time exceeds four days.
11. Longitudinal dimensions may be adjusted slightly to fit field conditions.
12. All vehicles, equipment, men and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the engineer.
13. Temporary bridge rail shall be used across the bridge when specified in the plans.
14. Advisory speed plates shall be installed where the normal posted speed is greater than 40 MPH (70 km/h). The speed shall be determined at the site by the engineer.
15. District Traffic (Operation and Permit) engineers shall be notified one week prior to a traffic lane width restriction of less than 4.2 m to allow the Department to install width restriction and wide load detour signing.
16. Flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series.
17. When specified, temporary rumble strips shall be installed where shown. (STANDARD 702001)
18. On both approaches, existing center line pavement markings located between the stop bars and the temporary concrete barrier or bridge rail shall be removed as soon as the barrier or rails is in place and replaced with temporary or permanent pavement marking as soon as the barrier or rail is removed.
19. See SPECIAL PROVISIONS for the traffic signal controller and detector loop requirements.
20. Form BT 725 is required.

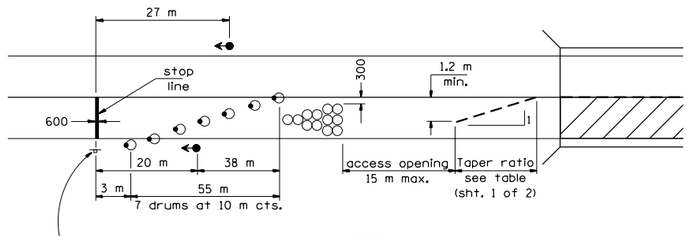
SAND MODULE IMPACT ATTENUATOR CONFIGURATION



POSTED SPEED 40 mph (70 km/h) OR MORE



POSTED SPEED LESS THAN 40 mph (70 km/h)



R10-6A-3648
(SPECIAL SIZE)

NOTES

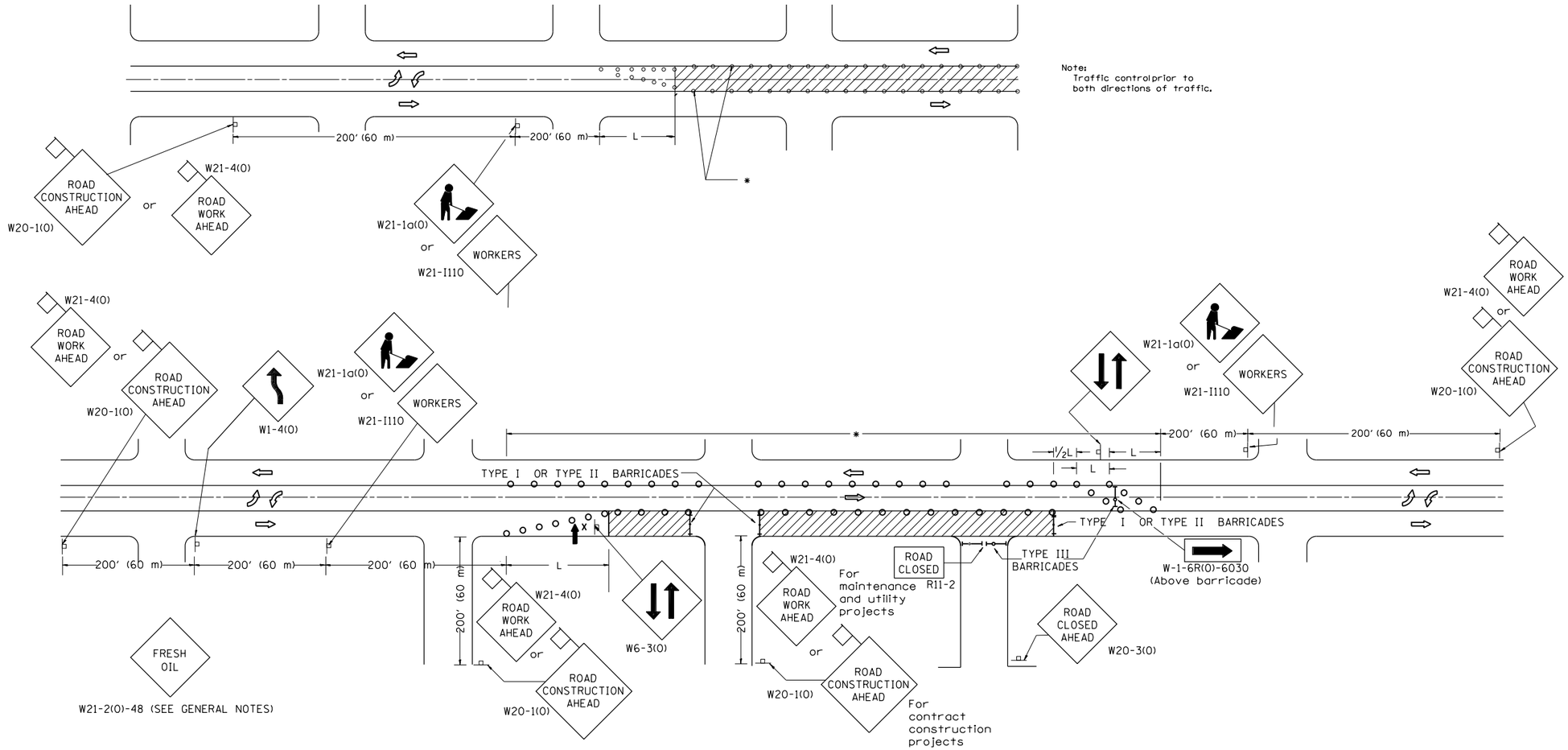
1. The contractor may use this detail where greater access to the work area is required. No additional compensation will be allowed if the contractor elects to use this detail.
2. The sand modules may be placed directly on the pavement or on pallets or skids (maximum height 60 mm).
3. The impact attentuators shall be striped in conformance with the requirements for drums in STANDARD 2298 and shall meet the requirements of the RECURRING SPECIAL PROVISIONS for sand module impact attenuators.
4. Barricades or drums with bi-directional steady burning lights delineating the closed lane shall be placed in the access opening during nonworking hours (3 minimum).

All dimensions are in millimeters unless otherwise shown.

TWO-LANE, TWO WAY TRAFFIC
ONE LANE CLOSURE ON A BRIDGE
DECK DAY OR NIGHT OPERATIONS

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\702-2409s.dgn Default 2409S.DGN	USER NAME = Verenskfa	DESIGNED -	REVISED - VTY 11-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL & PROTECTION STANDARD 701321 (SPECIAL) WITH CROSS ROAD
	PLOT SCALE = 40.000 ' / in.	DRAWN -	REVISED -		
	PLOT DATE = 5/10/2016	CHECKED -	REVISED -		
		DATE - 5/03/96	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



SYMBOLS

- Sign on portable or pemanent support
- Cone, drum or barricade
- Work area
- Arrow board (When specified)
- 18x18 (450x450) (Minimum) orange flag
- Drum or barricade with flashing light
- X — High level warning device

DESIGNER NOTE:
1. This drawing based upon State Std. 701501
2. FRESH OIL sign requirement added
3. Include District Special Provision
   This Spl. Prov. States.....
   "ADD THE FOLLOWING TO ARTICLE 701.08(c) Basis of Payment:
   Traffic Control & Protection Standard 701501 Special."

GENERAL NOTES

*Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or type I or II barricades are used, the interval between devices may be doubled.

Where, at anytime, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an area where the posted speed limit is 70km/h(40 mph) or less.

The L distance shall be defined as:

METRIC	ENGLISH
$L = WS^2/150$	$L = WS^2/60$

Where: W = Width of closure in feet (meters).
S = Normal posted speed limit in mph (km/h).

If the work operation is performed between 9:00 a.m. and 3:00 p.m. and does not exceed 15 min Traffic protection shall be as shown for Std. 701301. Signs, when required, shall be installed at 200' (60 m) spacing.

Form "BT 725" is required.

The fresh oil sign shall be used when prime is applied to pavement and shall remain until no tracking. Install a minimum of 500' (150 m) proceeding start of prime, probably at nearest cross road.

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

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		DRAWN -	REVISED -
	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
Default 701501S.DGN	PLOT DATE = 5/10/2016	DATE - MARCH 17, 1997	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

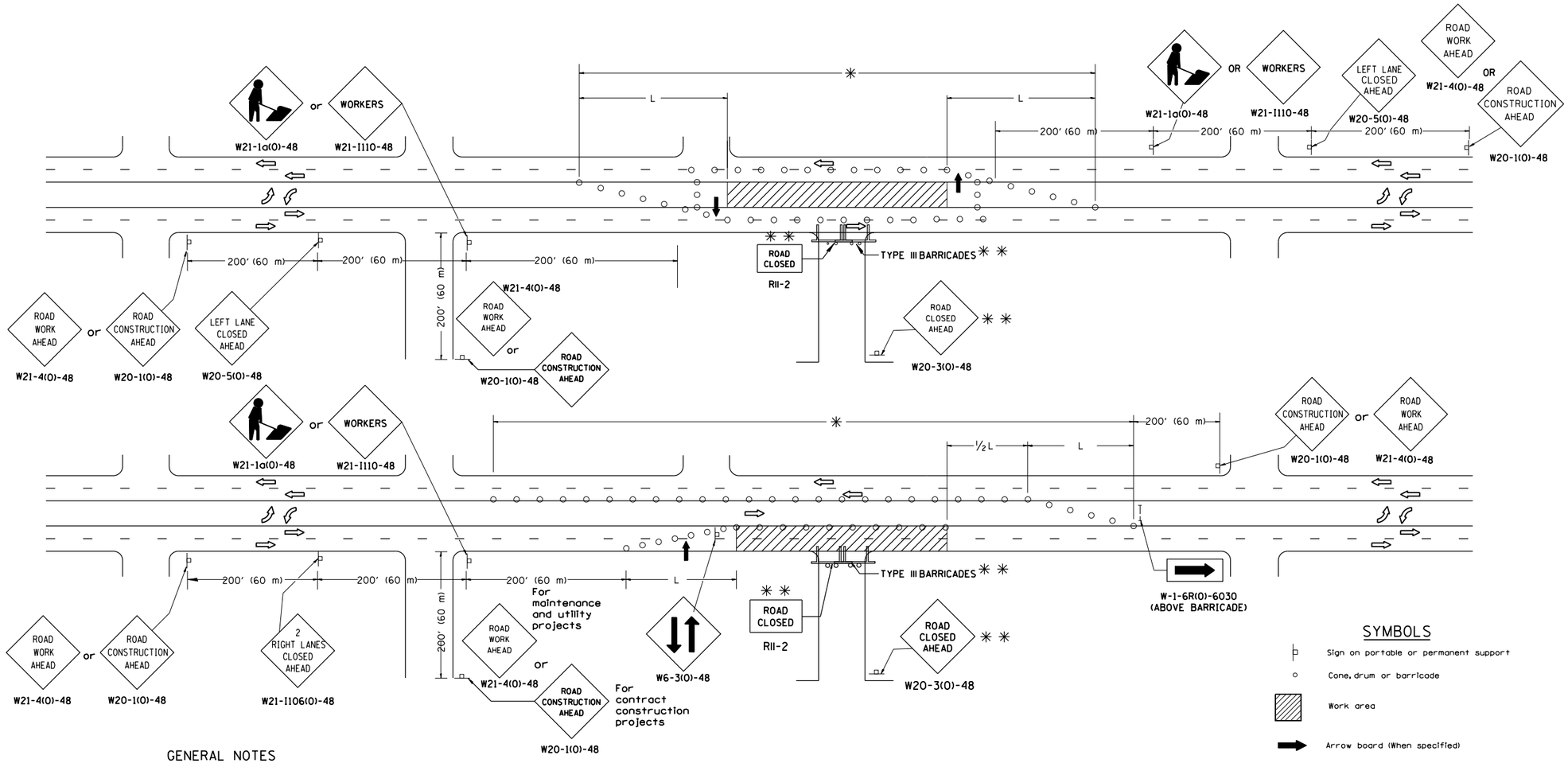
LANE CLOSURE, 2L, 2W WITH 2W LEFT TURN LANE FOR SPEEDS < 45 MPH (STANDARD 701501 SPECIAL)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT



GENERAL NOTES

✳ Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or type I or II barricades are used, the interval between devices may be doubled.

✳ ✳ For approved sideroad closures.

Where, at anytime, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one or more traffic lanes in an area where the posted speed limit is 40 mph (70km/h) or less.

The L distance shall be defined as:

METRIC	ENGLISH
$L = WS^2/150$	$L = WS^2/60$

Where: W = Width of closure in meters(feet).
S = Normal posted speed limit in km/h(mph).

SYMBOLS

- Sign on portable or permanent support
- Cone, drum or barricade
- Work area
- Arrow board (When specified)
- 450x450(18x18) (Minimum) orange flag
- Drum or barricade with flashing light
- Type III Barricade with flashing lights

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

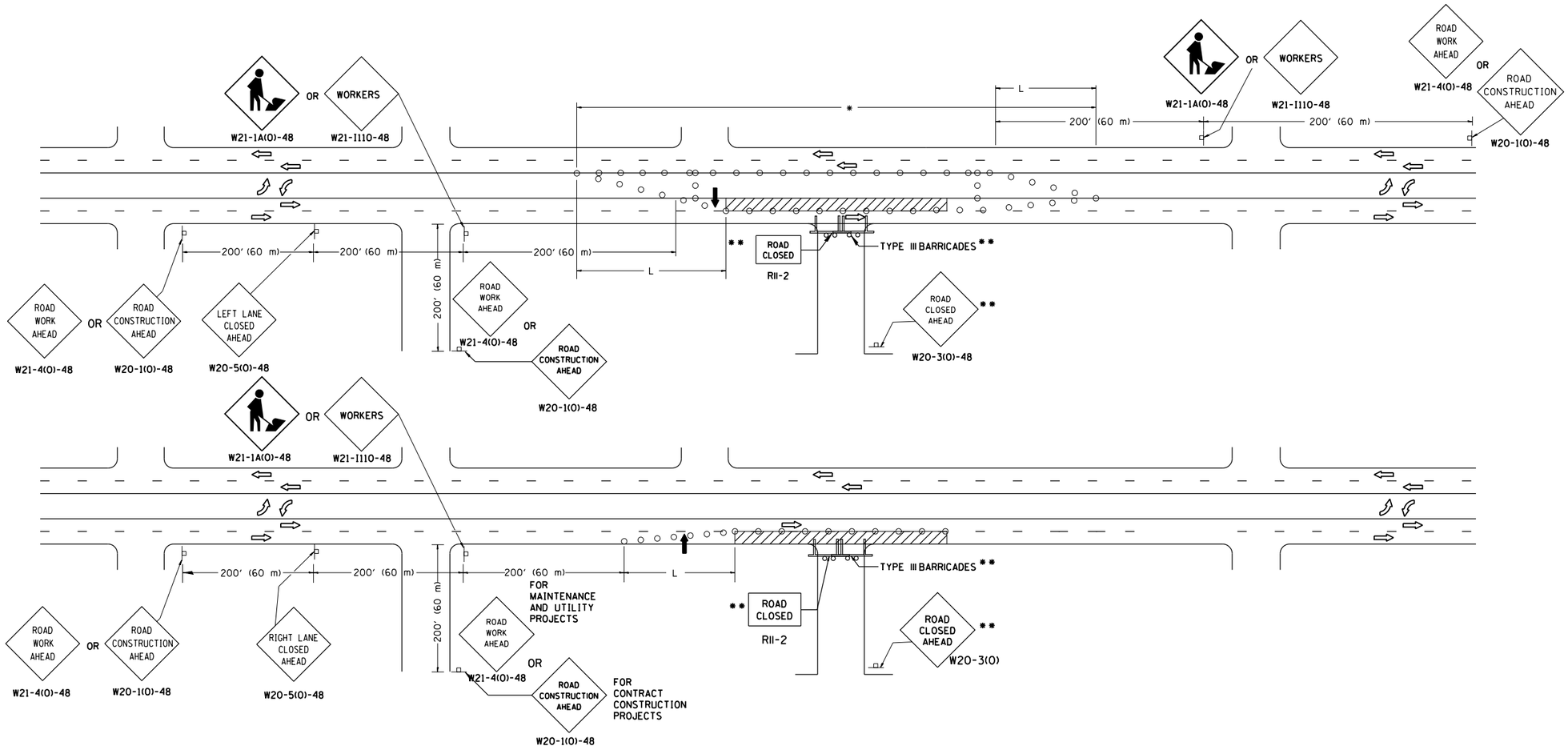
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\701606S.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
Default 701606S.DGN	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE - DECEMBER 7, 1999	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STANDARD 701606 (SPECIAL) URBAN LANE CLOSURE MULTILANE, 2-WAY WITH BIDIRECTIONAL LEFT TURN LANE FOR SPEEDS < 45 MPH

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



DESIGNER NOTE:
1. THIS DRAWING BASED UPON STATE STD. 701606
2. FRESH OIL SIGN REQUIREMENT ADDED
3. INCLUDE DISTRICT SPECIAL PROVISION

SYMBOLS

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- CONE, DRUM OR BARRICADE
- WORK AREA
- ARROW BOARD
- DRUM OR BARRICADE WITH FLASHING LIGHT
- Type III Barricade with flashing lights

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\701606S.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
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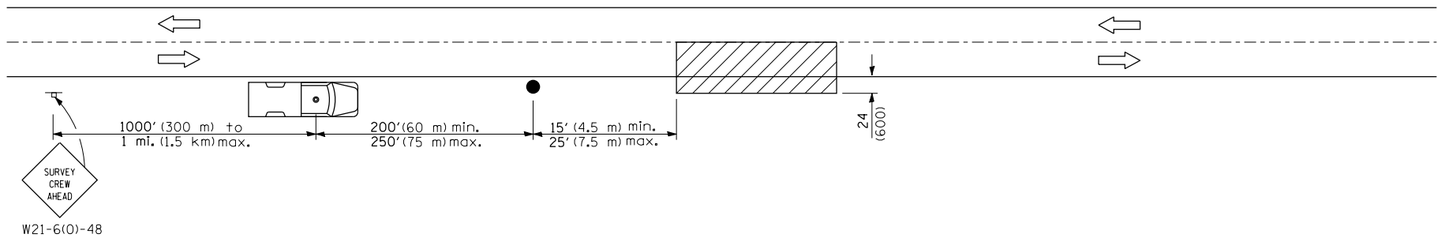
	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
Default 701606S.DGN	PLOT DATE = 5/10/2016	DATE - DECEMBER 7, 1999	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STANDARD 701606 (SPECIAL) URBAN LANE CLOSURE MULTILANE, 2-WAY WITH BIDIRECTIONAL LEFT TURN LANE FOR SPEEDS < 45 MPH

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



FLAGGER SHALL BE EQUIPPED WITH AND REQUIRED TO USE A HIGH INTENSITY, OR HIGH PERFORMANCE " STOP - SLOW " TRAFFIC CONTROL PADDLE. FLAGGER AND LIGHTING INSPECTOR SHALL BE REQUIRED TO WEAR A HIGH VISIBILITY, REFLECTIVE ORANGE VEST AND EITHER A HARD HAT OR AN ORANGE CAP.

SYMBOLS

Work area

Sign on portable or permanent support

Truck with flashing amber light and dual emergency flashers

Flagger with traffic control sign

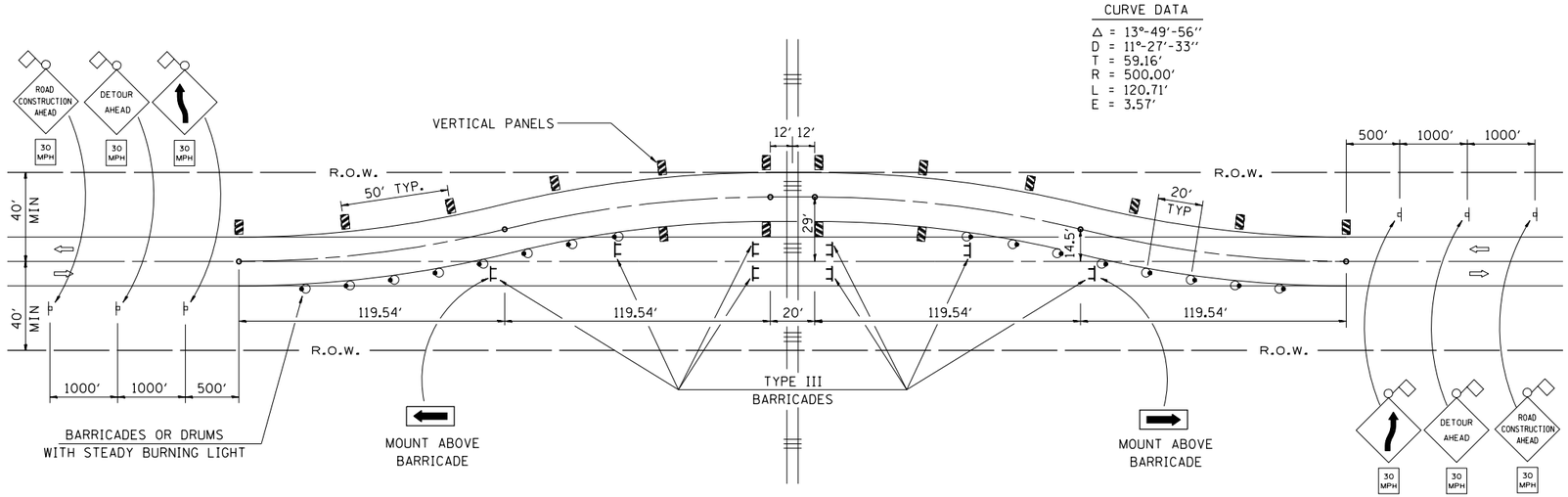
TYPICAL APPLICATIONS

Utility operations

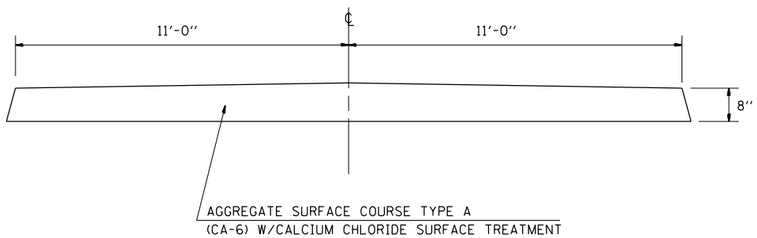
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\700-DAD017.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - JLP 26OCT93	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**TRAFFIC CONTROL NIGHT TIME LIGHTING INSPECTION LESS THAN 15 MINUTES PER LUMINAIRE**
Default JLGT017.DGN	PLOT SCALE = 40.000 ' / in.	DRAWN -	REVISED - CO 8MAR96		
	PLOT DATE = 5/10/2016	CHECKED -	REVISED -		
		DATE - 8/28/93	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



TYPICAL SECTION



BILL OF MATERIALS
395 TON -- CA-6 (PUGGED)
8 EA ----- CL III BARRICADES
20 EA ---- CL I BARRICADES W/STEADY BURNING LIGHTS
17 EA ---- VERTICAL PANELS
26 L.F. --- TEMP. CROSSING (TIMBER/BIT. CONC.)
2 TON ---- CALCIUM CHLORIDE

GENERAL NOTES

1. BARRICADES AND VERTICAL PANELS SHALL BE PLACED 2' (FEET) FROM EDGE OF RUNAROUND.
2. FLASHING LIGHTS SHALL BE MOUNTED ON ADVANCE WARNING SIGNS.
3. ALL BARRICADE LIGHTS SHALL BE BI-DIRECTIONAL.
4. CALCIUM CHLORIDE SHALL BE APPLIED AS PER ARTICLE 636.03 OF THE STANDARD SPECIFICATIONS.
5. MAXIMUM CLOSURE SHALL BE 14 CALENDAR DAYS.

OPTION I - 80' OR GREATER R.O.W.

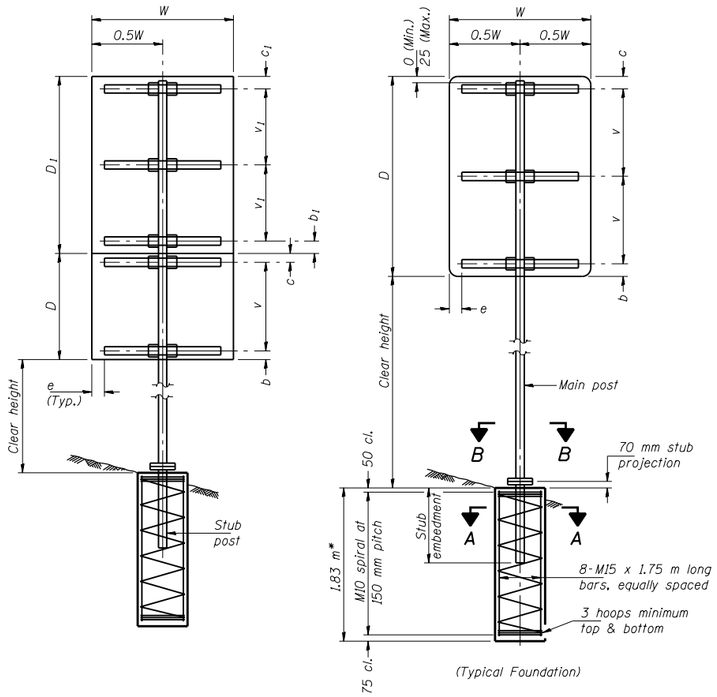
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\700-rrdetour.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
Default RRDETOUR.DGN	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

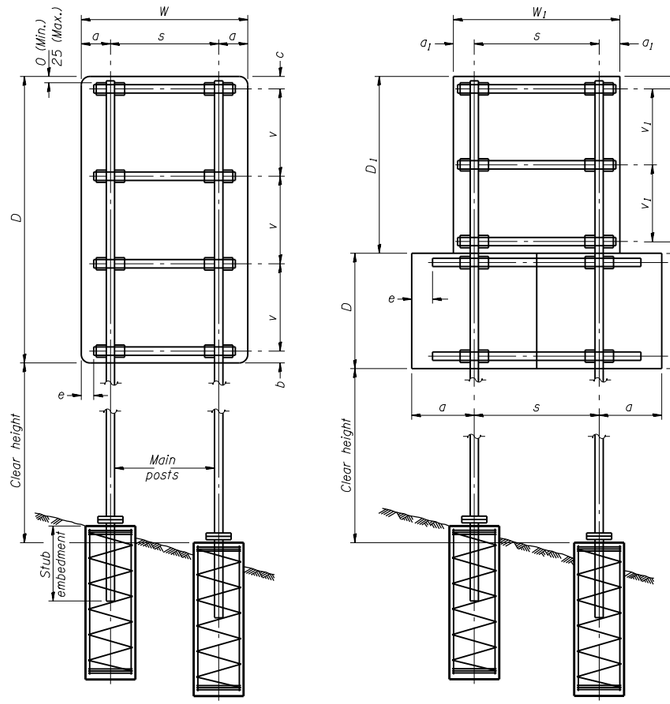
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



(Typical Foundation)

SINGLE POST ASSEMBLY EXAMPLES

*Dimensional changes required for varying site conditions shall be approved by the Engineer.



DUAL POST ASSEMBLY EXAMPLES

a or a_1 = 150 mm Min. to 600 mm Max. (Approximately 0.2W or 0.2W_1)
b or b_1 = 75 mm Min. to 100 mm Max.
c or c_1 = 75 mm Min. to 100 mm Max.
e = 0 Min. to 150 mm Max.
s = 900 mm Min. to 1.83 m Max. (Approximately 0.6W or 0.6W_1)
v or v_1 = 600 mm Min. to 900 mm Max.

MAIN POST STEEL TUBING	STUB POST TABLE		MAIN POST TABLE				
	Stub Embedment	Stub Post Length	Bolt Size	A	t	R	Bolt Circle
76 x 51 x 6.4	620	690	M12 x 70	210	16	7	165
102 x 51 x 6.4	620	690	M12 x 70	210	16	7	165
102 x 76 x 6.4	690	760	M16 x 85	260	20	9	205
127 x 76 x 6.4	690	760	M16 x 85	260	20	9	205
152 x 76 x 6.4	690	760	M16 x 85	290	20	9	240
152 x 102 x 6.4	690	760	M20 x 90	290	20	10	240
152 x 102 x 7.9	690	760	M20 x 90	290	20	10	240
178 x 127 x 6.4	770	840	M20 x 90	360	20	10	305
203 x 102 x 6.4	770	840	M20 x 90	360	20	10	305
203 x 152 x 6.4	770	840	M22 x 90	360	20	12	305

GENERAL NOTES

MEASUREMENTS: All dimensions are in millimeters (mm) except as noted.

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 505.04(f)(3), and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

One foundation requires 0.54 m^3 of concrete and 44 kg of reinforcement bars and spiral hooping.

LOADING: 130 km/h wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
Structural steel - 138 MPa
Reinforcing steel - 138 MPa
Concrete - 10 MPa
Footing soil pressure - 95 kPa

After fabrication, the post, fuse plate, base plate and upper 150 mm (Minimum) of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

For Sections A-A and B-B, see Base Sheet BAT-A-2(M).

NUMBER	REVISION	DATE

DESIGNED
CHECKED
AMC
DRAWN
CHECKED

20
EXAMINED
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

BAT-A-1(M) 1/1/97

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\720-breaksgn.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
Default BREAKSGN.DGN	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

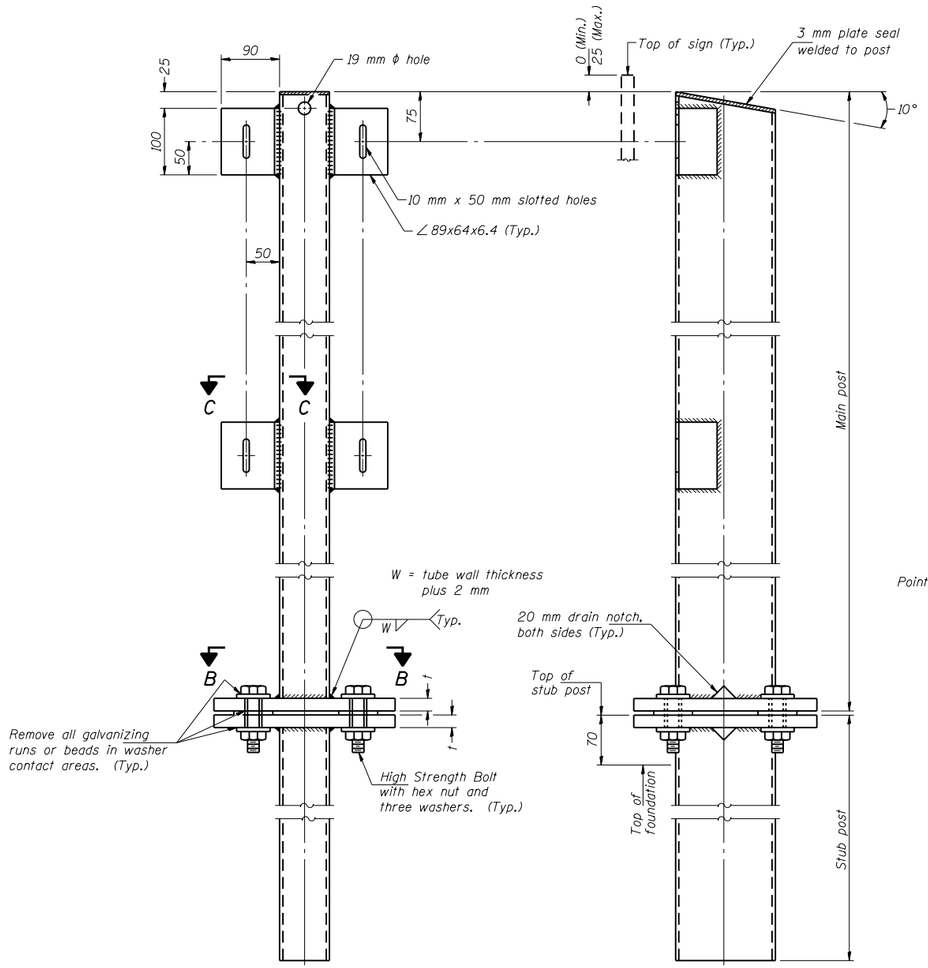
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY TUBULAR STEEL SIGN POSTS AND FOUNDATIONS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

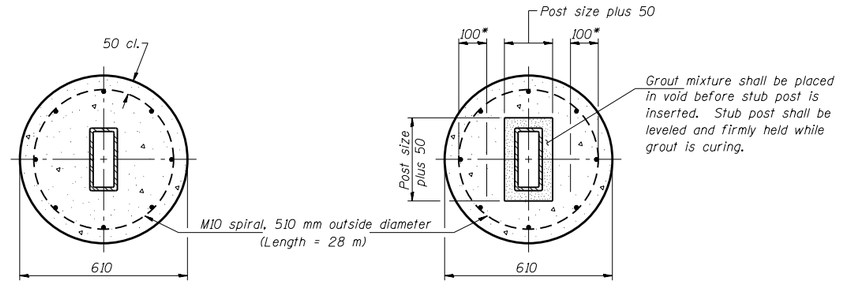
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRONT ELEVATION

SIDE ELEVATION

MAIN POST & STUB POST

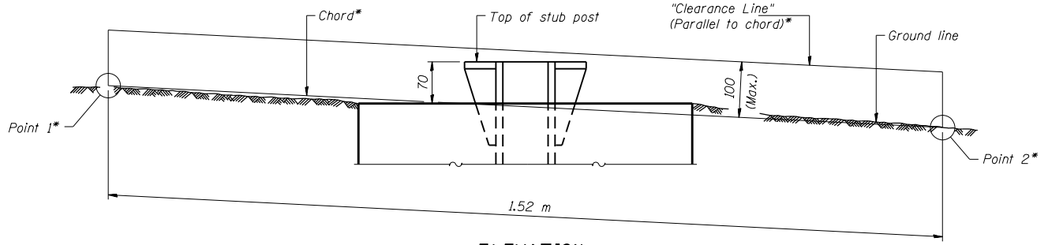


SECTION A-A
(CAST-IN-PLACE)

OR

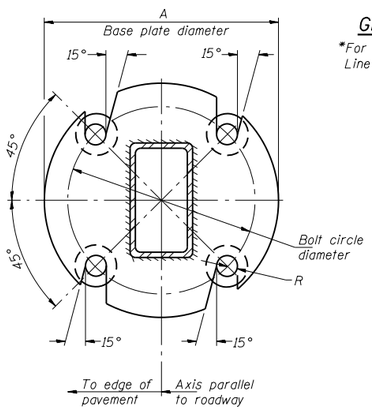
SECTION A-A
(PRECAST)

*Hot dip galvanized lifting loops or inserts may be placed in precast foundation inside the spiral reinforcement but not within 150 mm of the long axis of the post. Inserts must be adequate for safely lifting a total of 1360 kg and must not interfere with installation of the stub post or proper functioning of the slip base.

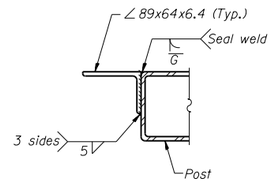


ELEVATION
GROUND LINE & STUB POST

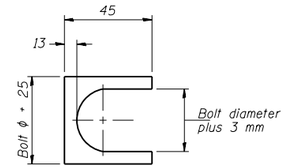
*For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.



SECTION B-B



SECTION C-C
Weld continuously around corners.



SHIM DETAIL
Furnish two 0.3 mm thick and two 0.8 mm thick stainless steel shims per post.

DESIGNED	
CHECKED	
DRAWN	AMC
CHECKED	

EXAMINED 20

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

BAT-A-2(M) 1/1/97

NUMBER	REVISION	DATE

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	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -
	PLOT DATE = 5/10/2016	CHECKED -	REVISED -
		DATE -	REVISED -

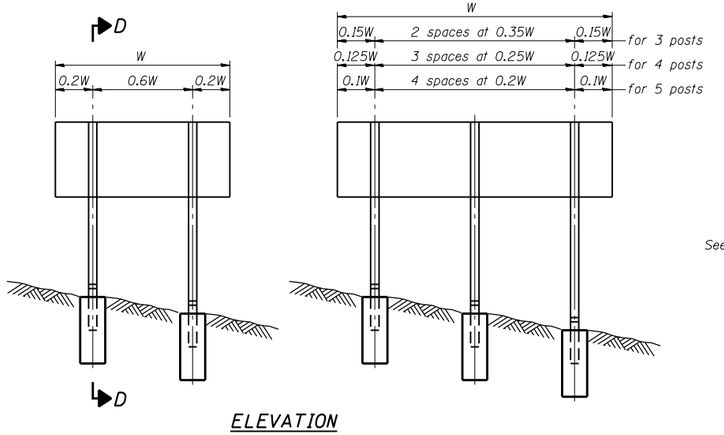
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY TUBULAR STEEL
SIGN POSTS AND DETAILS

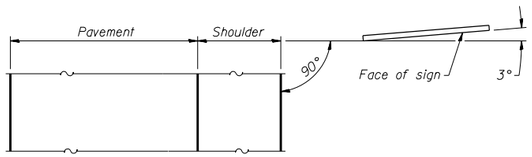
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

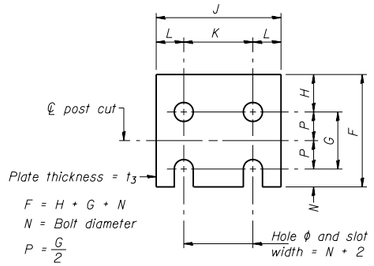
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION

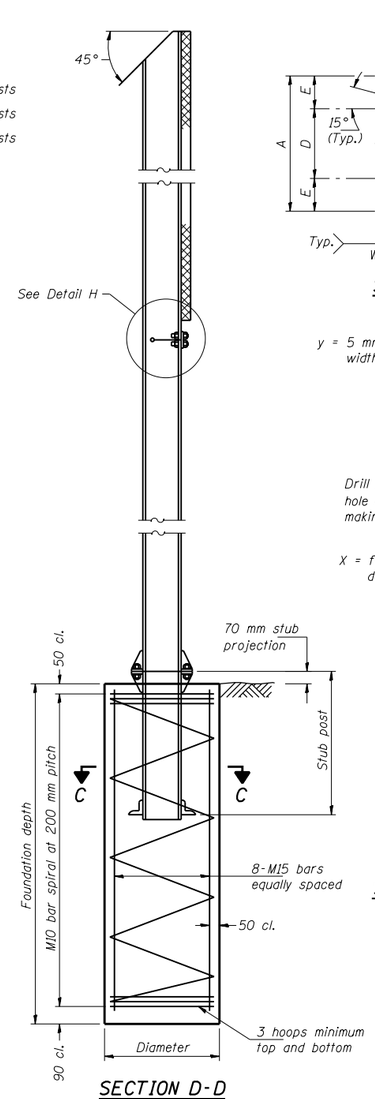


LOCATION SKETCH

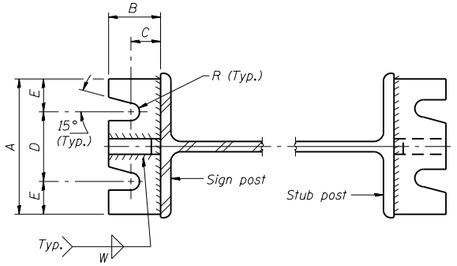


FUSE PLATE DETAIL
(Install with notches down.)

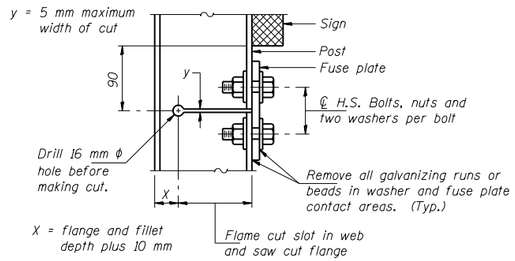
FUSE PLATE DATA		
N = Bolt Diameter	G	H
M12	50	30
M16	60	30
M20	65	35
M22	70	40
M24	75	40
M27	85	45



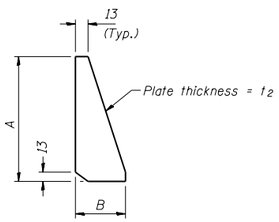
SECTION D-D



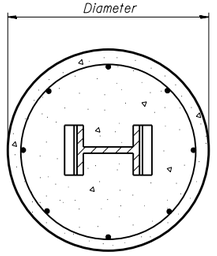
SECTION A-A SECTION B-B



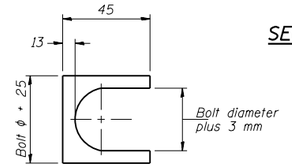
DETAIL H



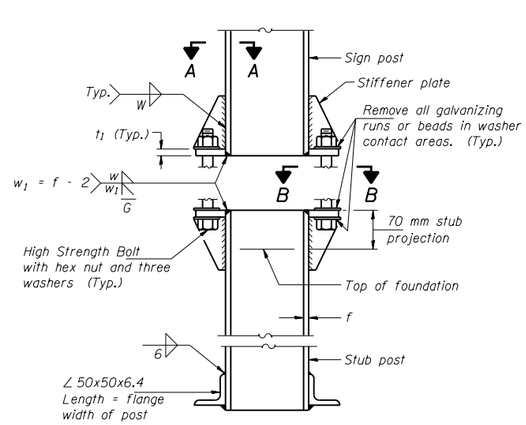
STIFFENER PLATE DETAIL
(See table for dimensions.)



SECTION C-C



SHIM DETAIL
Furnish two 0.3 mm thick and two 0.8 mm thick stainless steel shims per post.



ELEVATION
SIGN POST & STUB POST

GENERAL NOTES

MEASUREMENTS: All dimensions are in millimeters (mm) except as noted.

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 505.04(f)(3), and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 130 km/h wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
Structural steel - 138 MPa
Reinforcing steel - 138 MPa
Concrete - 10 MPa
Footing soil pressure - 95 kPa

After fabrication, the post, fuse plate, base plate and upper 150 mm (Minimum) of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

Work this sheet with Base Sheet BAW-A-2(M).

DESIGNED
CHECKED
AMC
DRAWN
CHECKED

EXAMINED
20
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

BAW-A-1(M) 1/1/97

NUMBER	REVISION	DATE

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	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY WIDE FLANGE
STEEL SIGN POST DETAILS

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

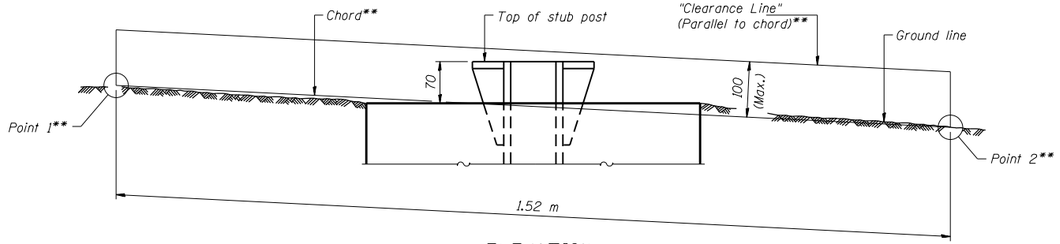
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

POST	CONCRETE FOUNDATION TABLE								POST TO STUB POST CONNECTION DATA										FUSE PLATE DATA			
	Foundation			Reinforcement				Stub Post	Bolt Size	A	B	C	D	E	t_1	t_2	R	W	J	K	L	t_3
	Diameter	*Minimum Depth (m)	Concrete (m³) (1)	Vertical Bars Length (m)	Bar Spirals Diameter	Bar Spirals Length (m)	kg (2)	Length														
W150x14	610	1.8	0.53	1.72	520	24.1	41	690	M16x85	150	57	32	90	30	20	14	9	6	100	56	22	6
W150x22	610	1.8	0.53	1.72	520	24.1	41	760	M16x85	150	57	32	90	30	20	14	9	6	150	90	30	10
W200x27	610	1.8	0.53	1.72	520	24.1	41	760	M20x95	150	64	35	82	34	25	14	10	8	130	70	30	10
W250x33	760	2.0	0.91	1.92	675	32.0	49	910	M20x95	150	64	35	82	34	25	14	10	8	145	70	38	14
W250x39	760	2.1	0.95	2.02	675	34.1	52	910	M22x105	180	70	38	102	39	25	20	12	10	145	70	38	16
W310x39	760	2.4	1.09	2.32	675	36.3	58	910	M22x105	180	70	38	102	39	25	20	12	10	165	90	38	16
W360x45	910	2.2	1.43	2.12	825	44.2	61	910	M22x105	180	70	38	102	39	25	20	12	10	170	90	40	14
W360x57	910	2.4	1.56	2.32	825	46.6	66	1.07 m	M24x115	190	76	44	102	44	32	20	13	10	170	90	40	14
W410x67	910	2.6	1.69	2.52	825	49.4	70	1.07 m	M24x115	190	76	44	102	44	32	20	13	10	180	90	45	14

*Dimensional changes required for varying site conditions shall be approved by the Engineer.

POST	FUSE PLATE BOLT SIZE Sign Depth (m)												
	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.5	4.8
W150x14	M12x40	M12x40	M12x40	M16x45	M16x45	M16x45	——	——	——	——	——	——	——
W150x22	M12x45	M12x45	M16x50	M16x50	M20x50	M20x50	M20x50	M20x50	M22x50	M22x50	——	——	——
W200x27	M12x45	M12x45	M12x45	M16x50	M16x50	M20x50	M20x50	M22x60	M22x60	M22x60	M22x60	M22x60	M22x60
W250x33	M12x50	M12x50	M12x50	M16x50	M16x50	M20x60	M20x60	M22x60	M22x60	M22x65	M24x65	M24x70	M24x70
W250x39	M12x50	M12x50	M12x50	M16x60	M16x60	M20x65	M20x65	M22x65	M22x65	M24x70	M24x70	M24x70	M27x80
W310x39	——	——	——	——	——	M16x60	——	——	M22x65	M22x65	M24x65	M24x70	M24x70
W360x45	M12x50	M12x50	M12x50	M12x50	M12x50	M16x50	M20x60	M20x60	M20x60	M22x65	M24x65	M24x70	M24x70
W360x57	——	M12x50	M12x50	M12x50	M12x50	M16x60	M20x60	M20x65	M20x65	M22x65	M22x65	M24x65	M24x70
W410x67	——	——	——	M12x50	M12x50	M16x60	M16x60	M20x60	M20x65	M20x65	M22x65	M22x65	M24x70



ELEVATION
GROUND LINE & STUB POST

**For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

(1) Quantity includes all concrete necessary for one foundation.

(2) Includes reinforcement bars and spiral hooping for one foundation.

DESIGNED
CHECKED
AMC
DRAWN
CHECKED

20
EXAMINED
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

BAW-A-2(M) 1/1/97

NUMBER	REVISION	DATE

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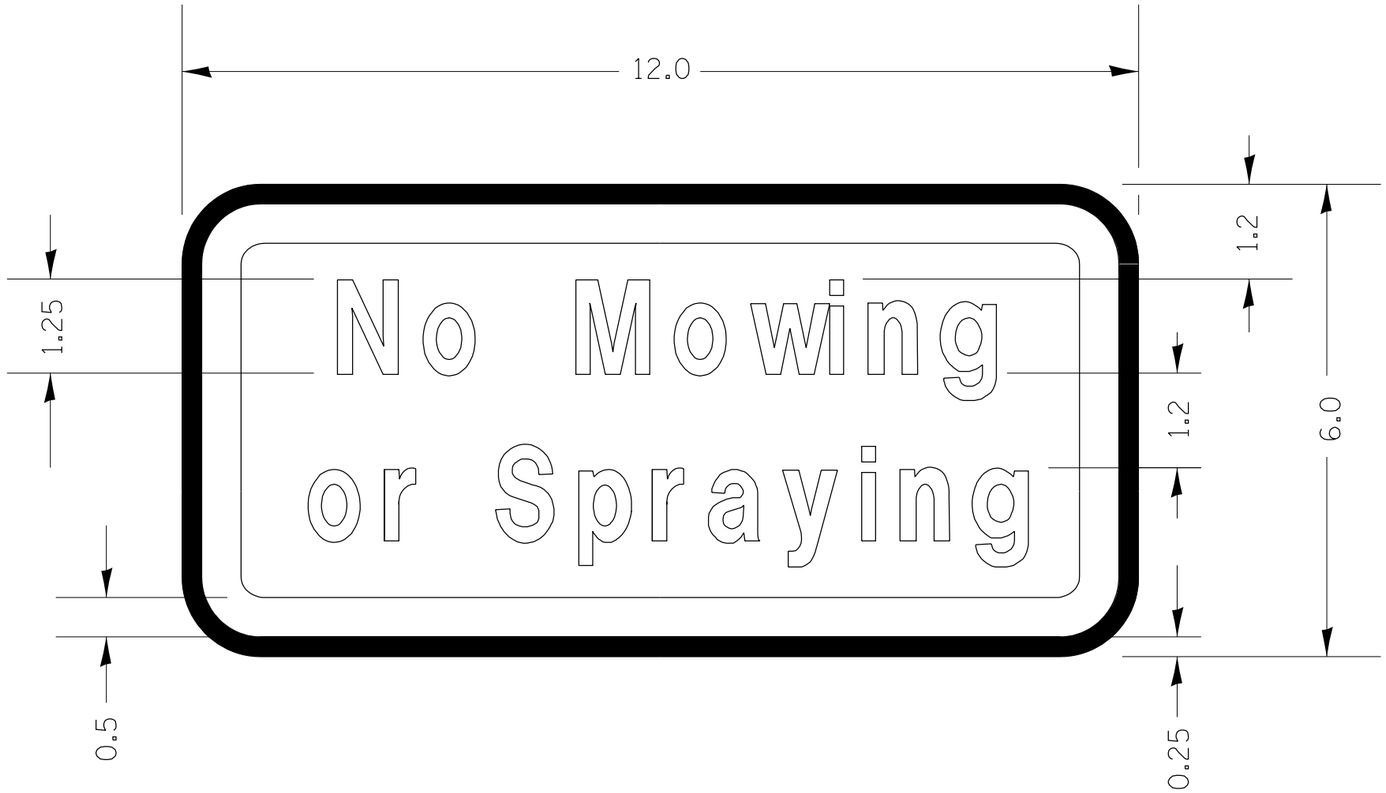
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BREAK-AWAY WIDE FLANGE
STEEL SIGN POST TABLES

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



CELL LIBRARY: GUIDE4.CEL

CELL: NOMOW

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	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -						
Default	PLOT DATE = 5/10/2016	CHECKED -	REVISED -					CONTRACT NO.	
		DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS	FED. AID PROJECT

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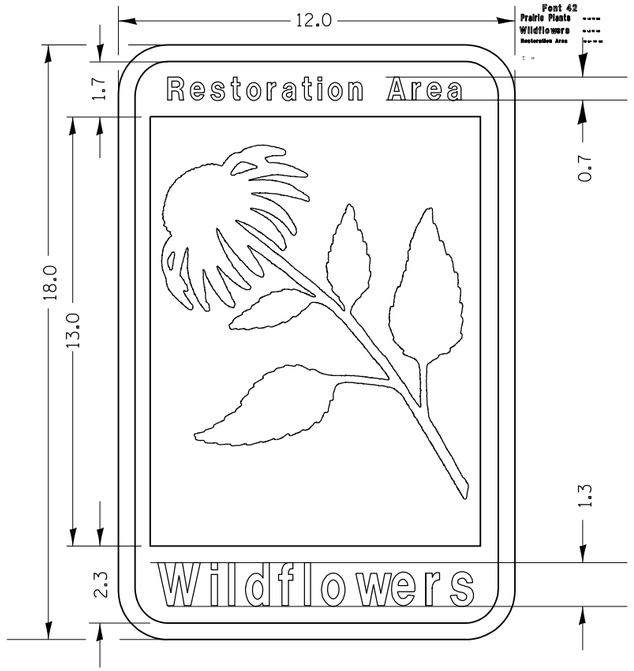

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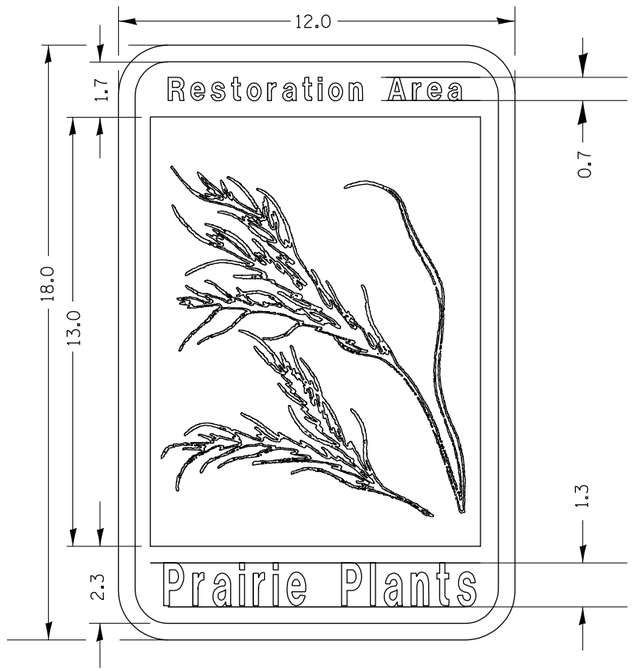

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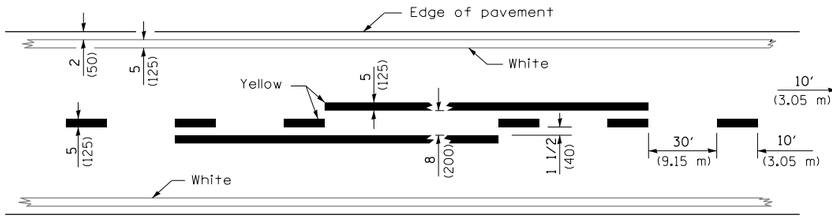
Default	PLOT DATE = 5/10/2016	DATE -	REVISED -

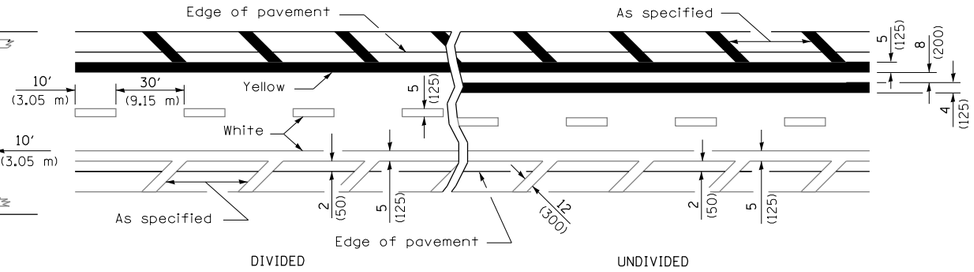
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET OF SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

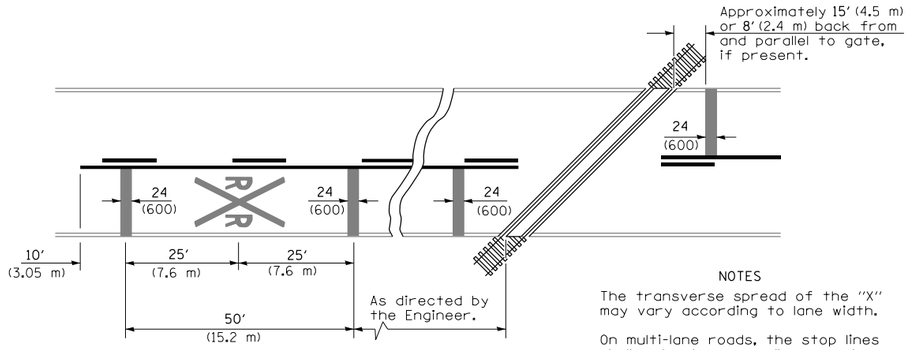


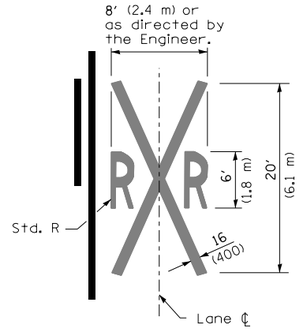
2 LANE



MULTI LANE

LANE AND EDGE LINES





NOTES

The transverse spread of the "X" may vary according to lane width.

On multi-lane roads, the stop lines shall extend across all approach lanes and separate RXR symbols shall be placed adjacent to each other in each lane.

When the pavement marking symbol is used, a portion of the symbol should be located directly adjacent to the Advance Warning Sign (W10-1) as placed by Table II-1, condition B of the MUTCD.

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

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

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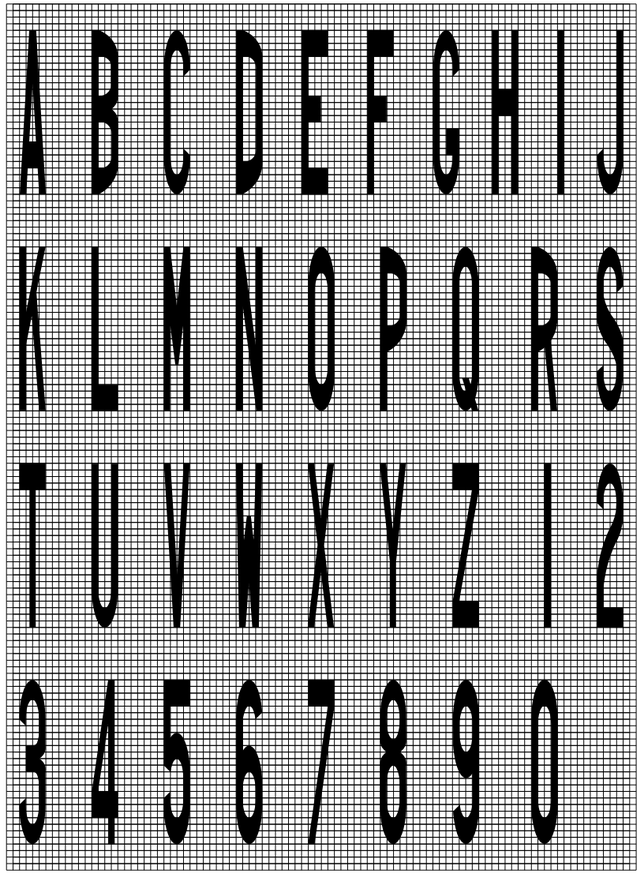
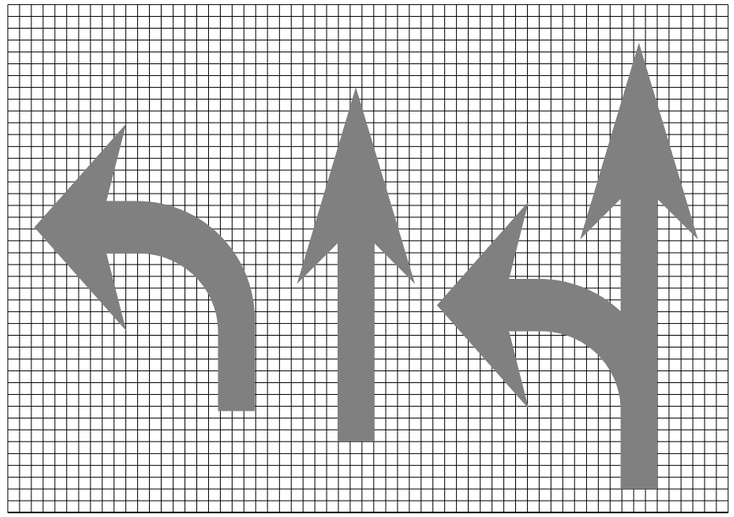
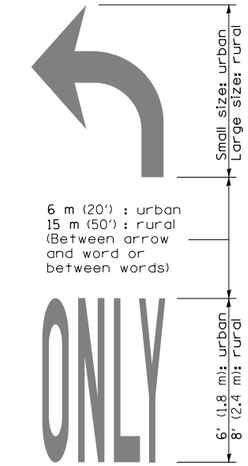
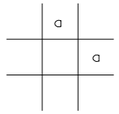
	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -						
	PLOT DATE = 5/10/2016	CHECKED -	REVISED -						CONTRACT NO.
		DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS	FED. AID PROJECT







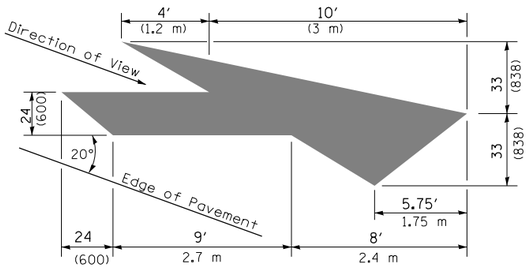
WORD AND ARROW LAYOUT



Legend Height	Arrow Size	a
1.8 m (6')	Small	74 (2.9)
2.4 m (8')	Large	96 (3.8)

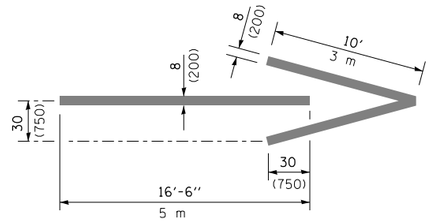
The space between adjacent letters or numerals should be approximately 75 (3) for 1.8 m (6') legend and 100 (4") for 2.4 m (8') legend.

LETTER AND ARROW GRID SCALE



LANE DROP ARROW

Right lane drop arrow shown.
Use mirrow image for left lane.



WRONG WAY ARROW

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\780 Addenda\780001a.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default 780001A.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

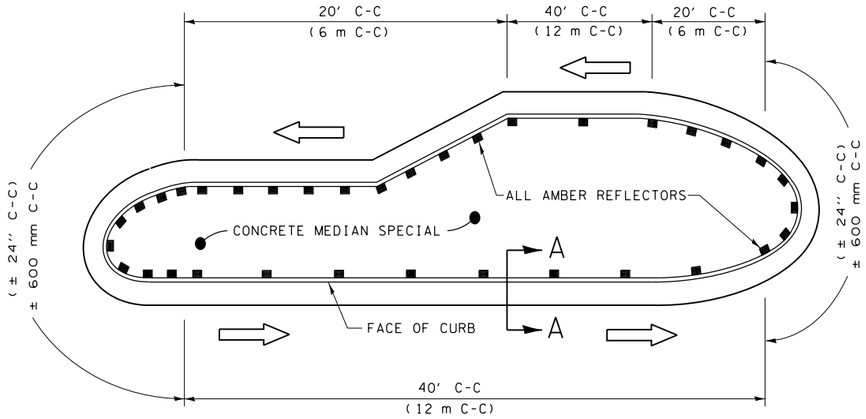
TYPICAL PAVEMENT MARKINGS

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

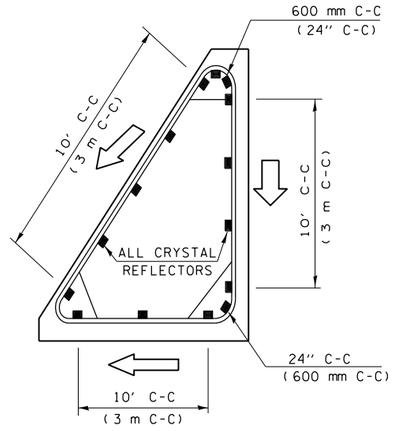
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

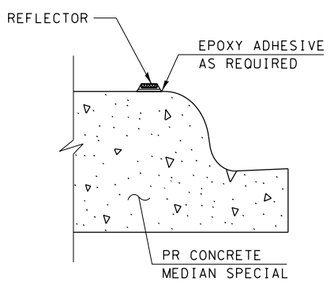
ILLINOIS | FED. AID PROJECT



TYPICAL PLACEMENT OF PRISMATIC REFLECTORS
ON RAISED MEDIAN



TYPICAL PLACEMENT OF PRISMATIC REFLECTORS
ON CURBED CORNER ISLAND



SECTION A-A

GENERAL NOTES

PRISMATIC REFLECTORS SHALL BE MONO-DIRECTIONAL UNITS AND THE REFLECTOR FACE SHALL BE POSITIONED TO FACE THE APPROACHING TRAFFIC.

PRISMATIC REFLECTORS SHALL BE SECURED IN PLACE WITH AN EPOXY ADHESIVE.

PRISMATIC REFLECTOR FACE SHALL BE EITHER AMBER OR CRYSTAL IN COLOR.

REFER TO SCHEDULES FOR PRISMATIC REFLECTOR QUANTITIES.

LEGEND

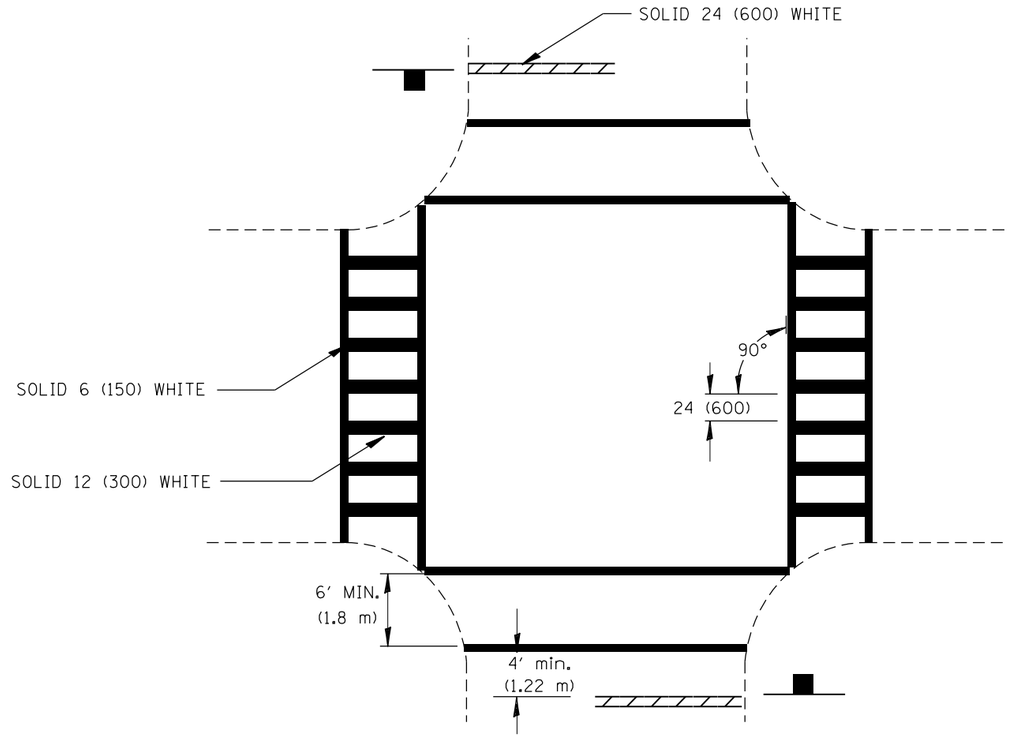
DIRECTION OF TRAFFIC

PRISMATIC REFLECTOR

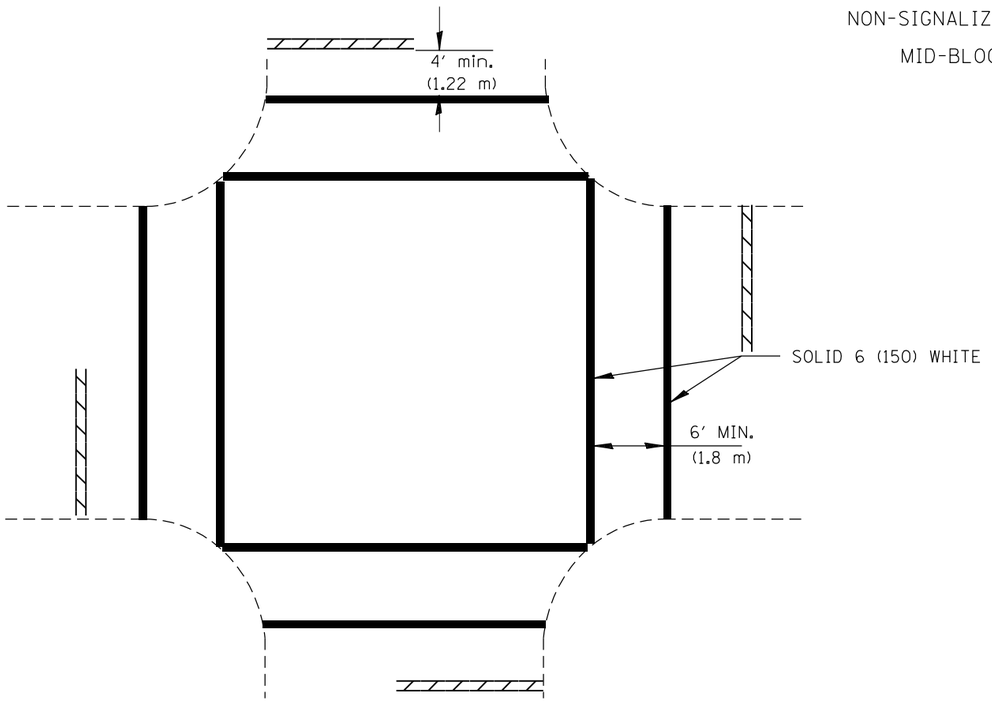
NOT TO SCALE

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\782CAD2001a.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED - 10/20/00 MWG	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**PRISMATIC REFLECTOR DETAILS (PLACED ON CURB)**
		DRAWN -	REVISED -		
Default 782001A.DGN	PLOT SCALE = 40.0000 ' / in.	CHECKED - CMS	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.
	PLOT DATE = 5/10/2016	DATE - MARCH 2, 1999	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



NON-SIGNALIZED INTERSECTION
OR
MID-BLOCK CROSSING



ALL WAY STOP CONTROLLED
OR
SIGNALIZED INTERSECTION

CROSSWALK MARKINGS SHOULD NOT BE USED INDISCRIMINATELY. AN ENGINEERING STUDY IS REQUIRED BEFORE THEY ARE INSTALLED AT LOCATIONS AWAY FROM TRAFFIC SIGNALS OR STOP SIGNS.

CROSSWALK SHALL CONNECT TO CURB CUTS OR SIDEWALKS. CROSSWALKS MAY BE INSTALLED AT A SKEW TO PERMIT THIS CONNECTION.

HMA SURFACES USE: URBAN THERMOPLASTIC
RURAL - CALL OPERATIONS

CONCRETE SURFACES USE: EPOXY

CROSSWALKS

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

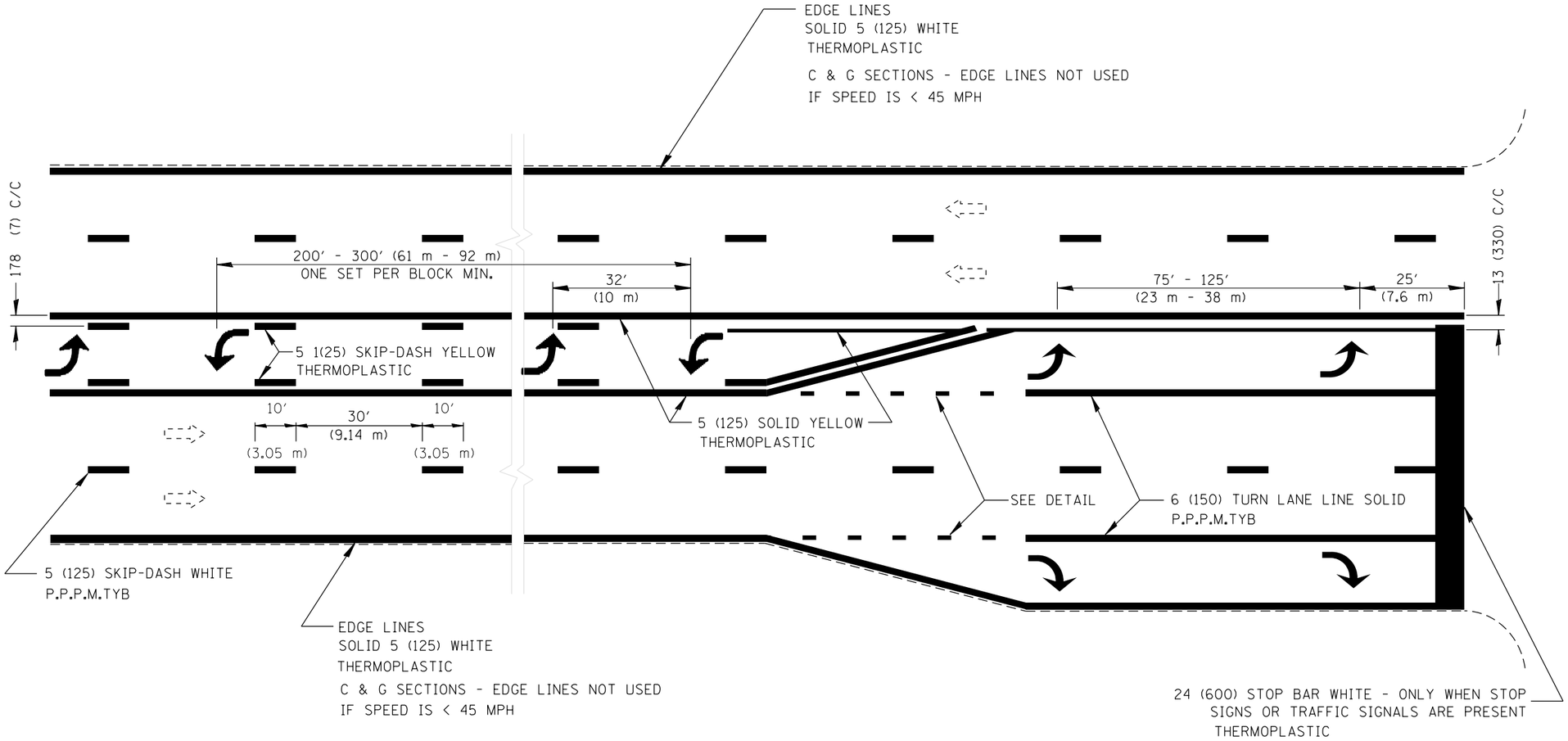
DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•

6" 2' 6' 2' 6' 2' 6' 2' 6' 2'

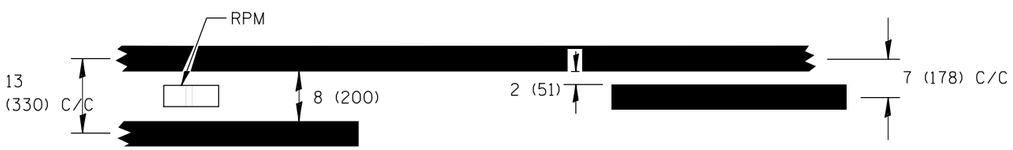
DETAIL
THERMOPLASTIC

MARKING TYPES ARE FOR HMA
(FOR PCC, SEE GUIDELINES)



ALL TURN ARROWS 8' (2.4 m)
CENTER TURN ARROWS IN PAIRS
USE LARGER ARROWS: 15.6 SQ FT (1.47 SQ m)
ALL ARROWS ARE THERMOPLASTIC

DETAIL



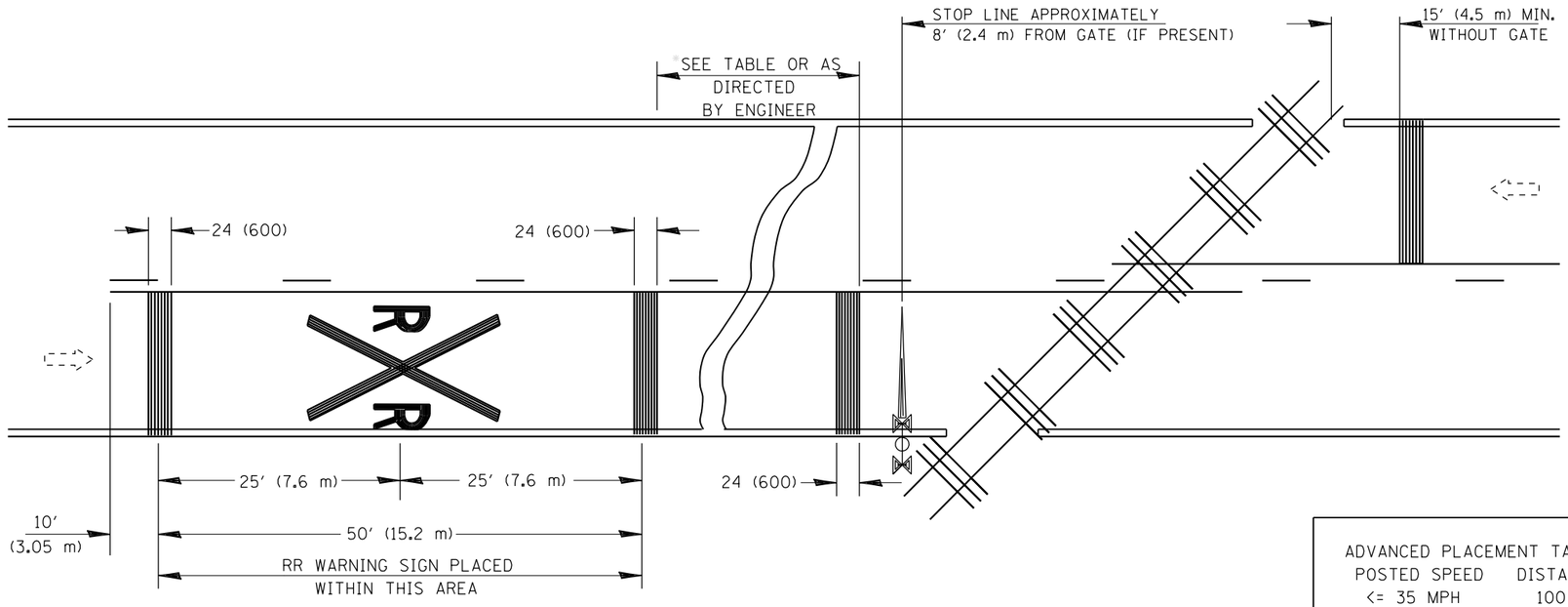
SINGLE TURN LANE
AND
LEFT TURN LANE CHANNELIZATION

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

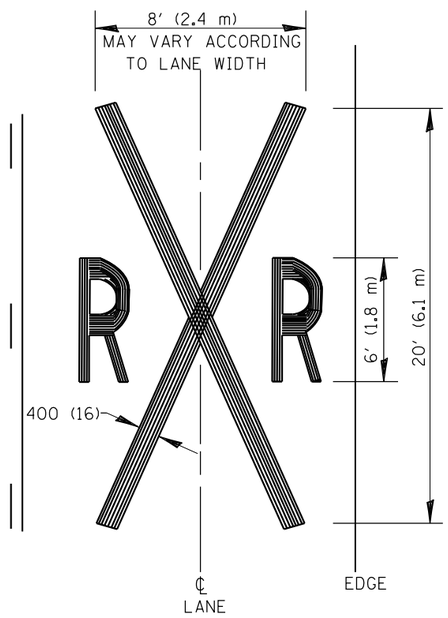
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•



ADVANCED PLACEMENT TABLE	
POSTED SPEED	DISTANCE
<= 35 MPH	100 FT
40 MPH	125 FT
45 MPH	175 FT
50 MPH	250 FT
55 MPH	325 FT
60 MPH	400 FT
65 MPH	475 FT



THE DISTANCE FROM THE RAILROAD CROSSING MARKING TO THE NEAREST TRACK WILL VARY ACCORDING THE APPROACH SPEED AND THE SIGHT DISTANCE OF THE VEHICULAR TRAFFIC APPROACHING, BUT SHOULD NOT BE LESS THAN 50′ (15.2 m)

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL RXR SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

REFER TO STANDARD ALPHABET FOR HIGHWAY SIGNS AND MARKINGS FOR RXR SYMBOLS DETAILS.

R = 3.6 SQ. FT.
X = 54.0 SQ. FT.

PAVEMENT MARKING TYPE: HMA - THERMOPLASTIC
PCC - EPOXY

TYPICAL PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSINGS

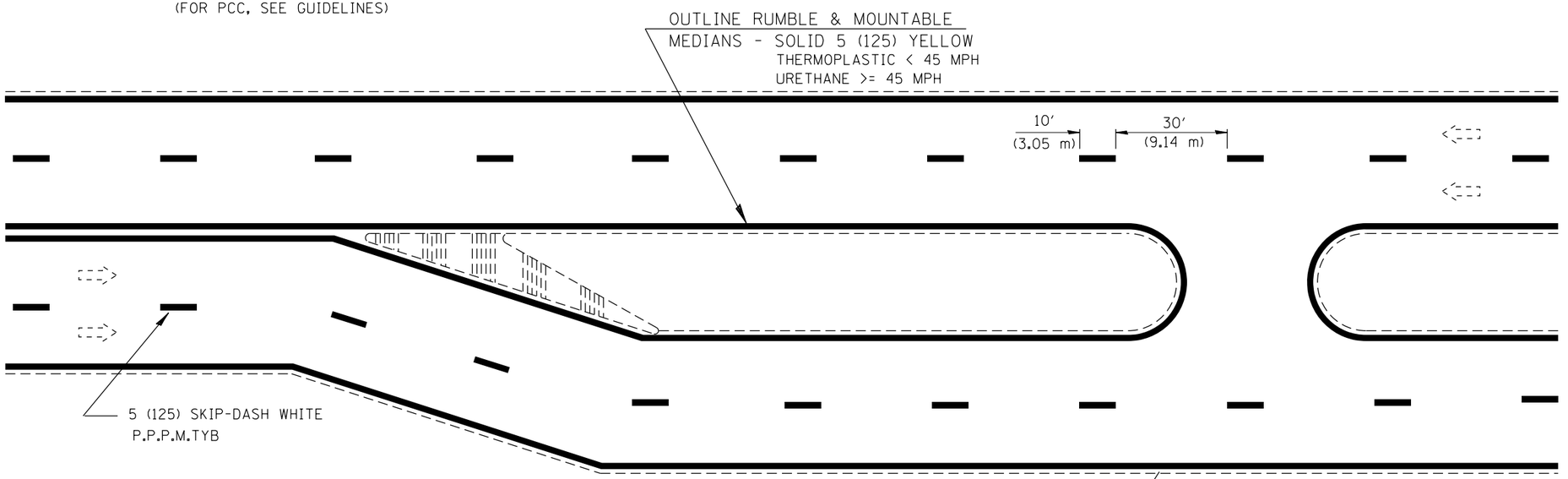
All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

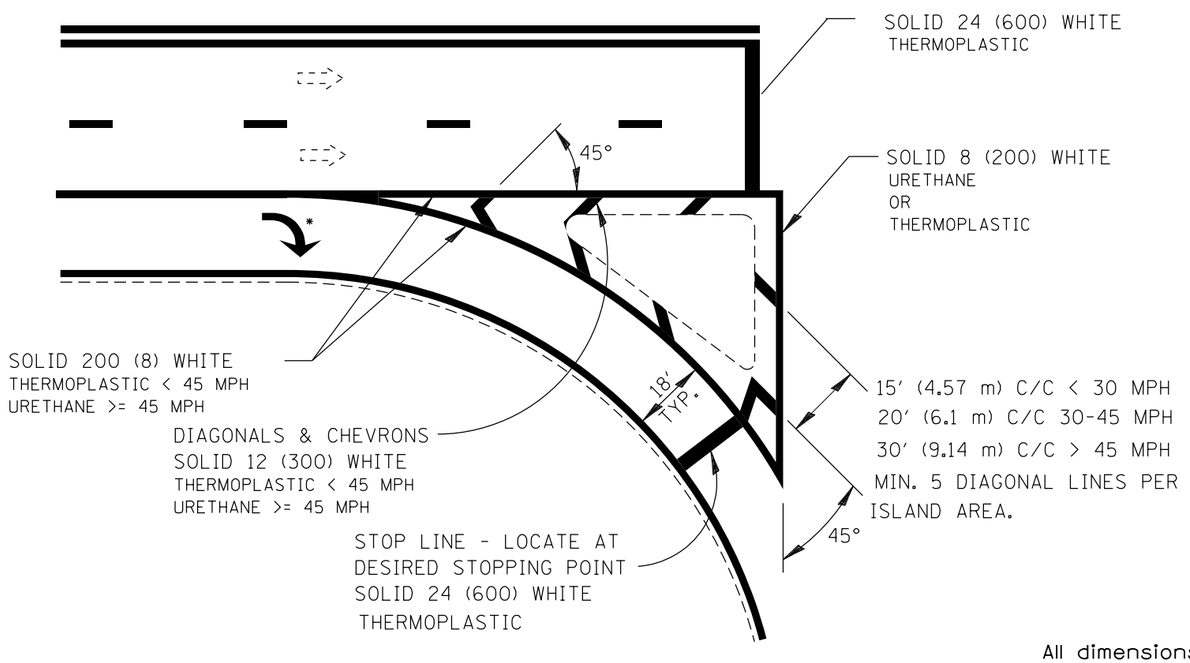
DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•

MARKING TYPES ARE FOR HMA
(FOR PCC, SEE GUIDELINES)



RUMBLE & MOUNTABLE MEDIANS



HMA SURFACES USE:
THE MATERIAL SHOWN

CONCRETE SURFACES USE:
CALL OPERATIONS FOR MATERIAL USE

* NOTE: WHEN ISLAND IS PRESENT
LOCATE LAST ARROW AT GORE POINT

RIGHT TURN ISLAND MARKING AND CHANNELIZATION

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

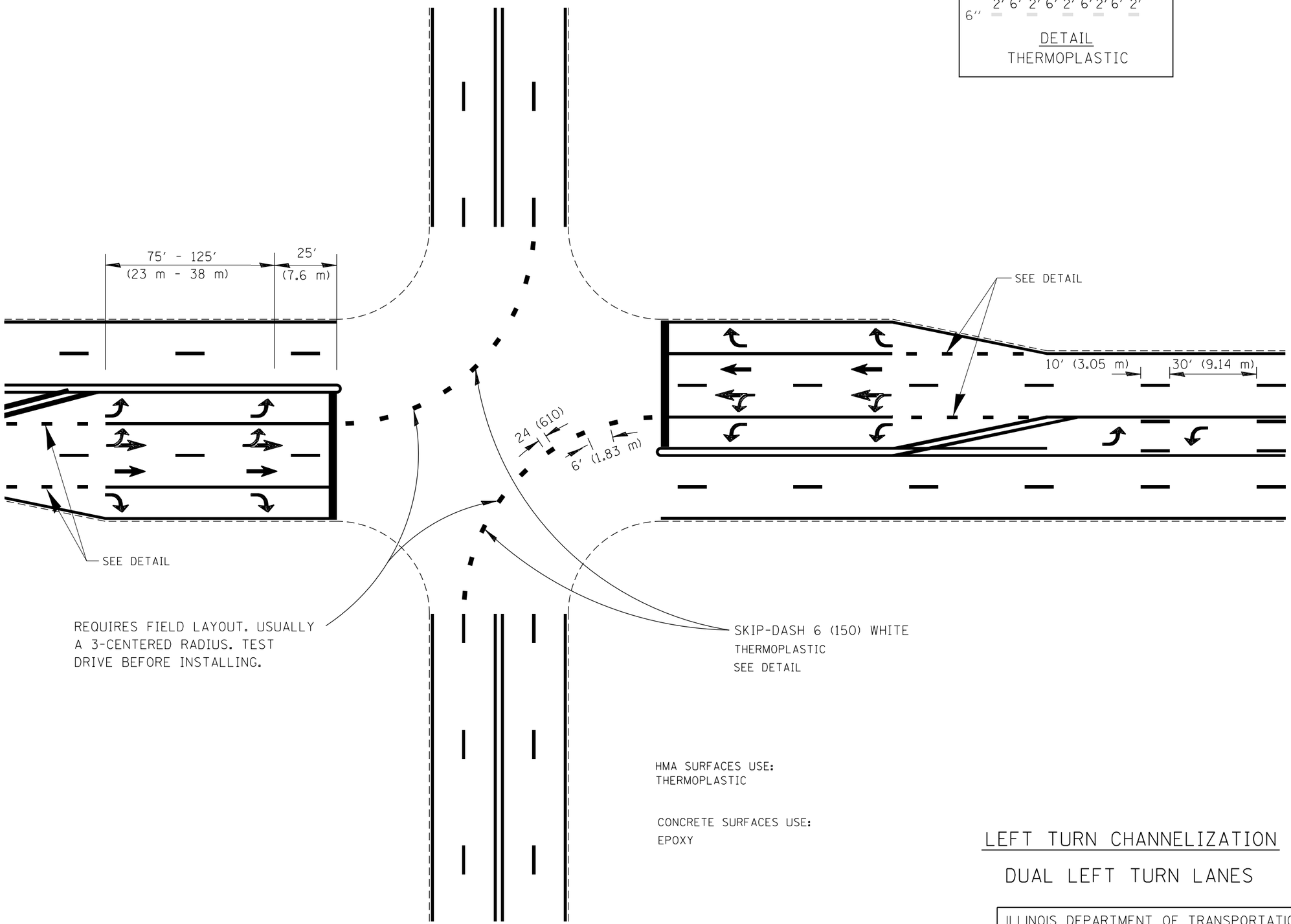
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•

6'' 2' 6' 2' 6' 2' 6' 2' 6' 2'

DETAIL
THERMOPLASTIC



HMA SURFACES USE:
THERMOPLASTIC

CONCRETE SURFACES USE:
EPOXY

LEFT TURN CHANNELIZATION

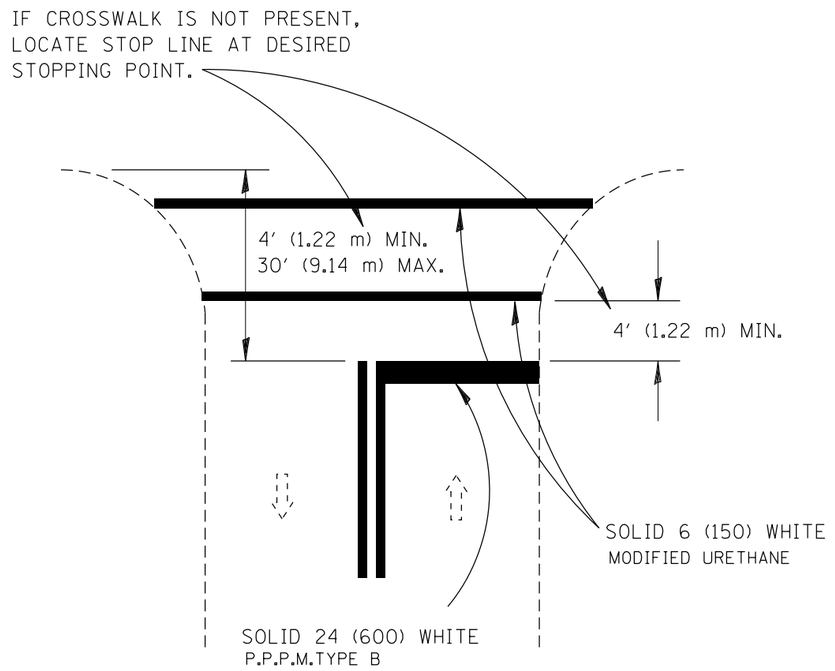
DUAL LEFT TURN LANES

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•



RURAL

RELEASE NO PASSING ZONE
100 FT AFTER STOP BAR
WHERE APPROPRIATE

500' FT PASSING
ZONE APPROACHING STOP BAR

STOP LINES

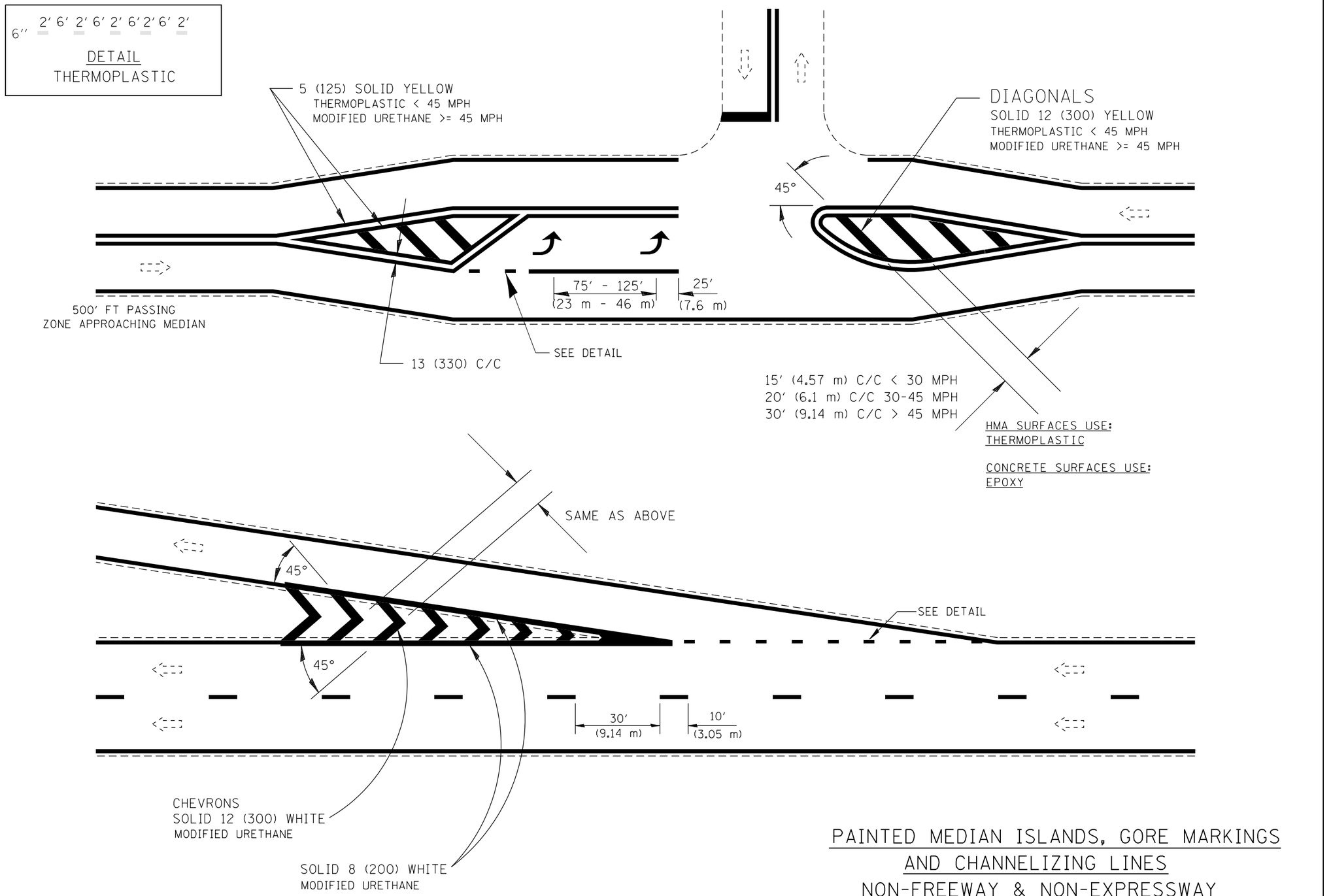
All dimensions are in inches
(millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05

NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•



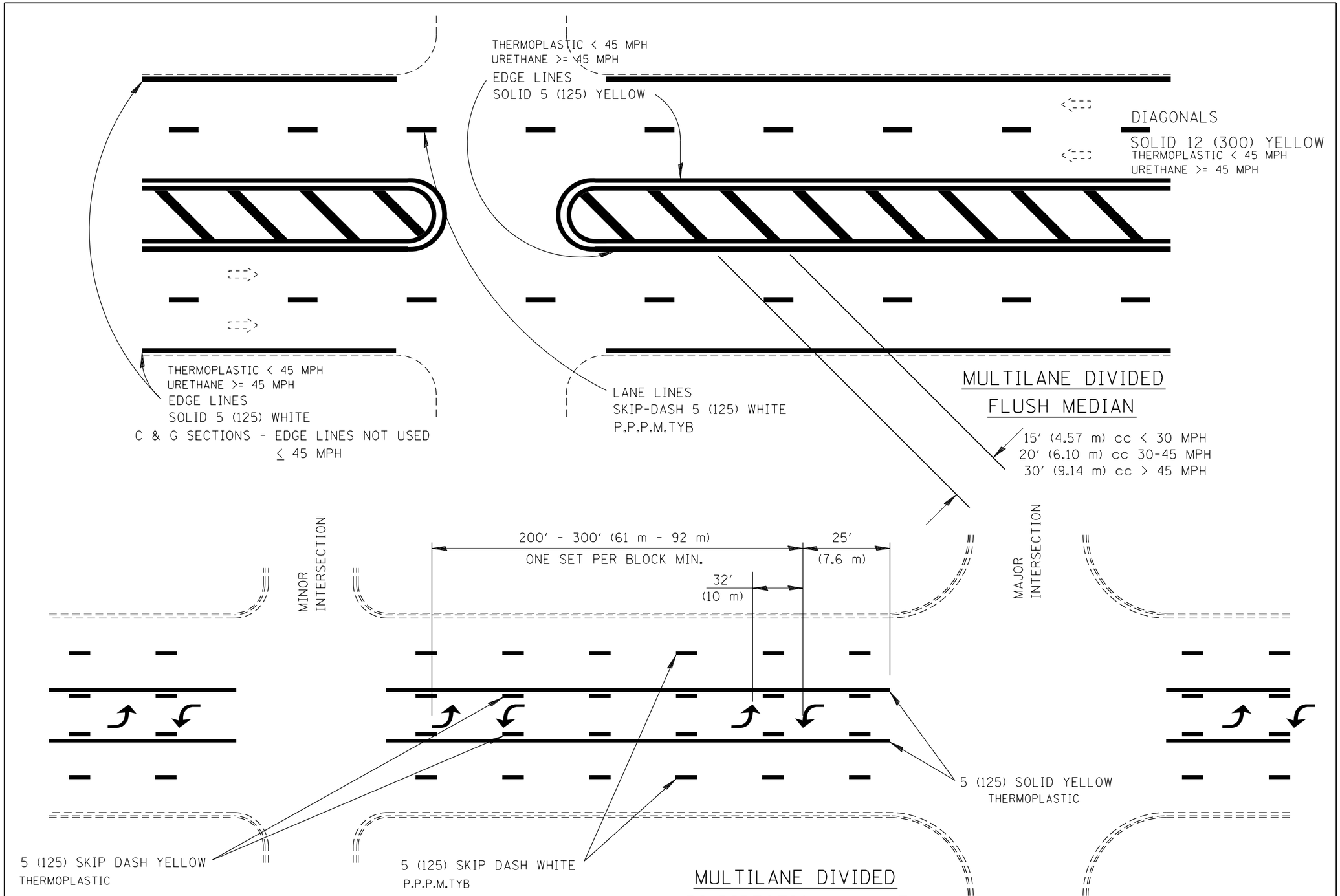
PAINTED MEDIAN ISLANDS, GORE MARKINGS AND CHANNELIZING LINES NON-FREEWAY & NON-EXPRESSWAY

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•

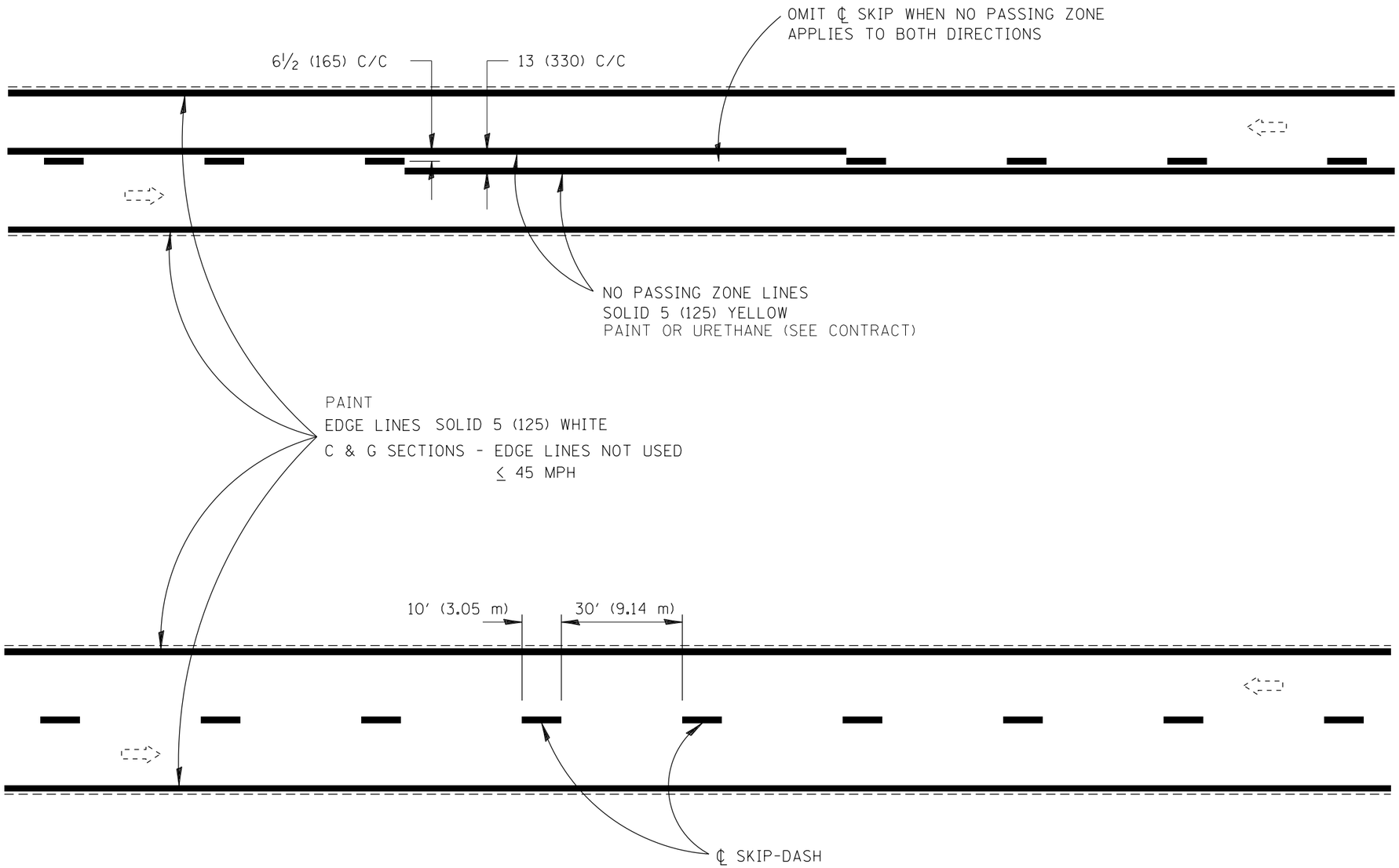


All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•



IF VERTICAL PROFILE OF ROADWAY IS CHANGED DURING CONSTRUCTION, "NO PASSING ZONES" ARE TO BE FIELD VERIFIED BY THE BUREAU OF OPERATIONS. THE RESIDENT ENGINEER SHALL NOTIFY THE BUREAU OF OPERATIONS 14 DAYS PRIOR TO PERMANENT PAVEMENT MARKINGS.

2 LANE PAVEMENT

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

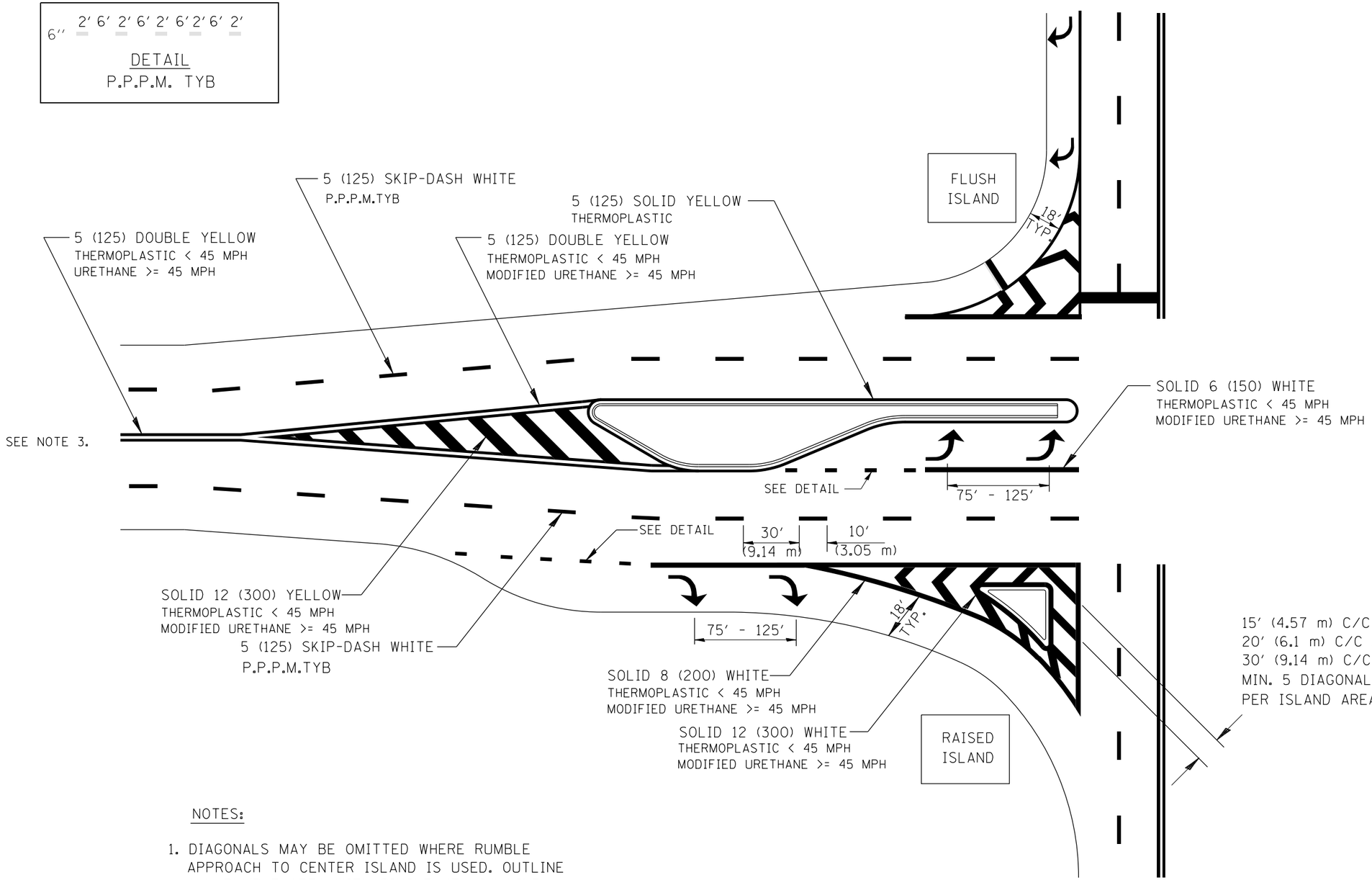
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•

6'' 2' 6' 2' 6' 2' 6' 2' 6' 2'

DETAIL
P.P.P.M. TYB



NOTES:

1. DIAGONALS MAY BE OMITTED WHERE RUMBLE APPROACH TO CENTER ISLAND IS USED. OUTLINE ALL RUMBLE AREA WITH SINGLE YELLOW LINE.

2. SEE FIGURE 3-13 OF THE MUTCD FOR RECOMMENDED TAPER LENGTHS.

3. BEGIN NO PASSING ZONE 500FT BEFORE PAINTED MEDIAN. RELEASE NO PASSING ZONE 100 FT AFTER PAINTED MEDIAN WHERE APPROPRIATE.

OFF-SET ISLANDS AND ISLAND APPROACH MARKINGS

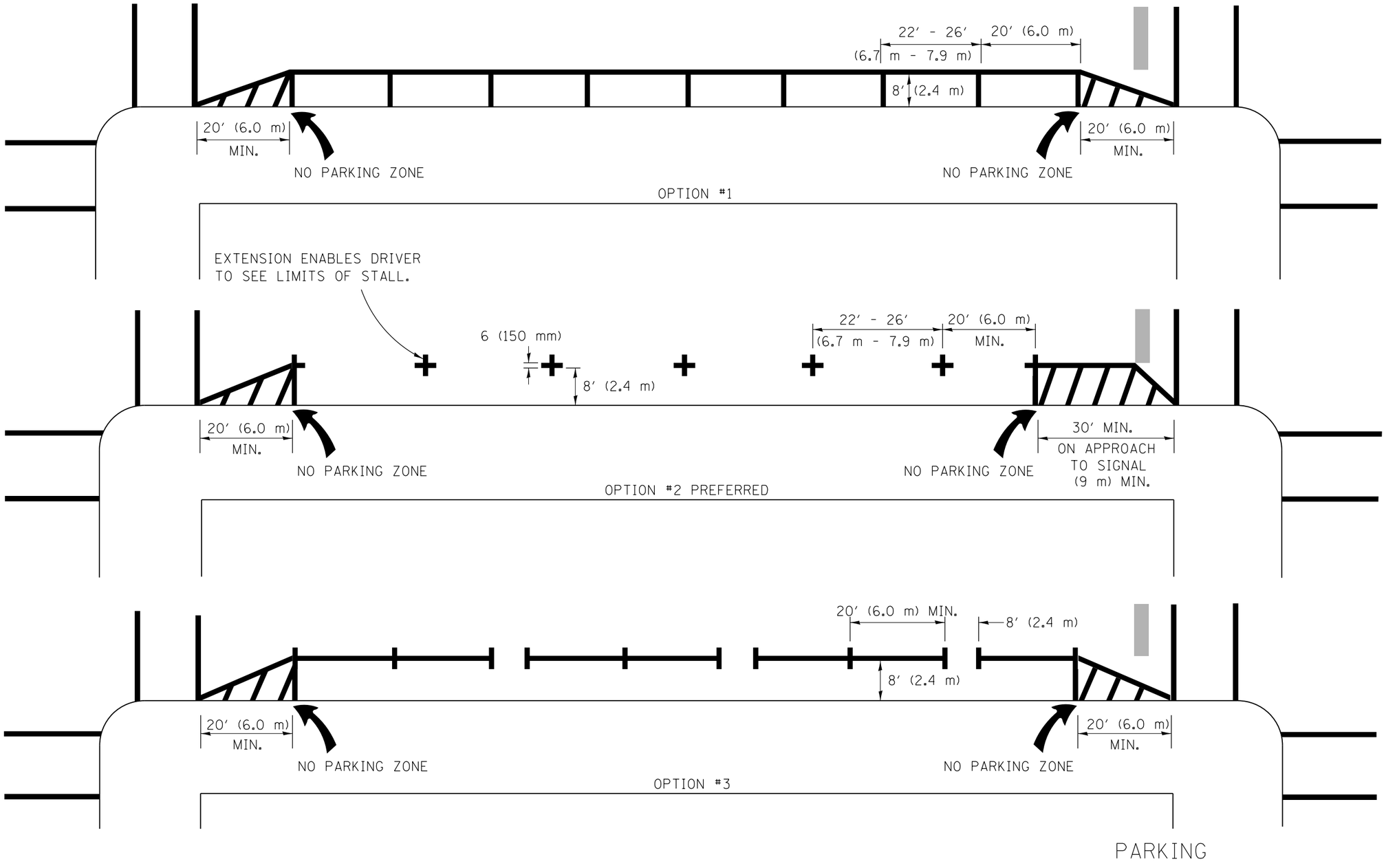
All dimensions are in inches (millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•

PAVEMENT MARKING TYPE: HMA - THERMOPLASTIC
PCC - EPOXY



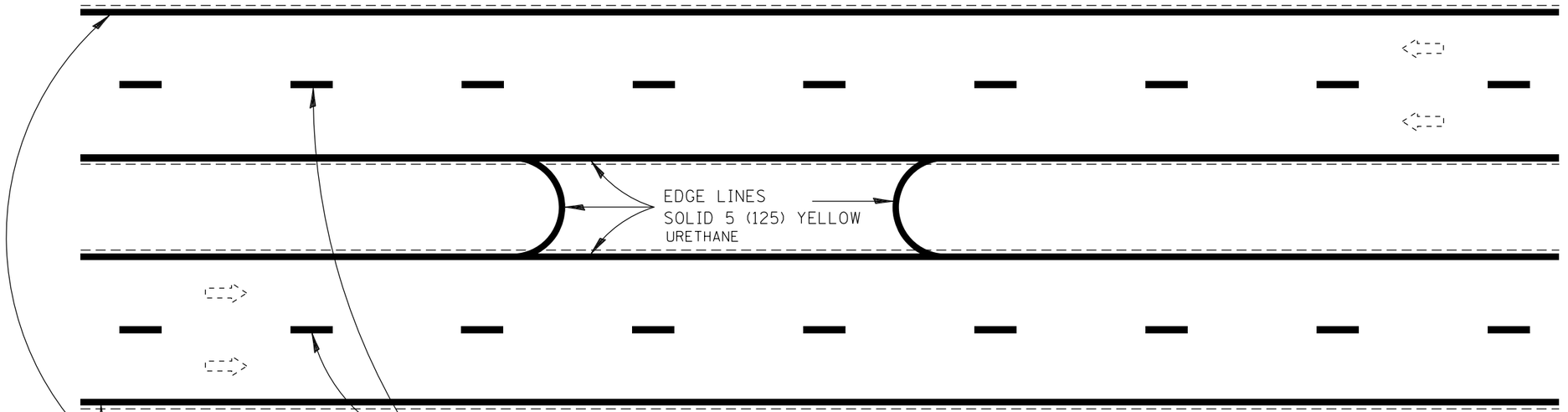
PARKING SPACE LIMIT MARKINGS

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

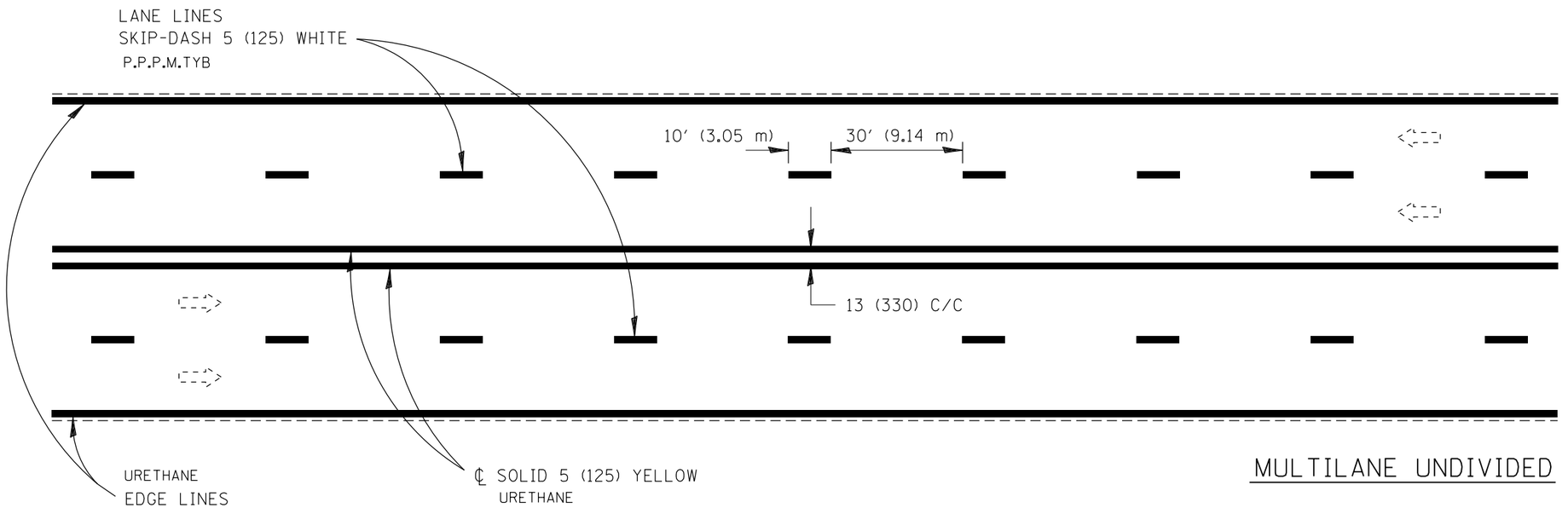
DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•



2 LANE PAVEMENT

MULTILANE DIVIDED



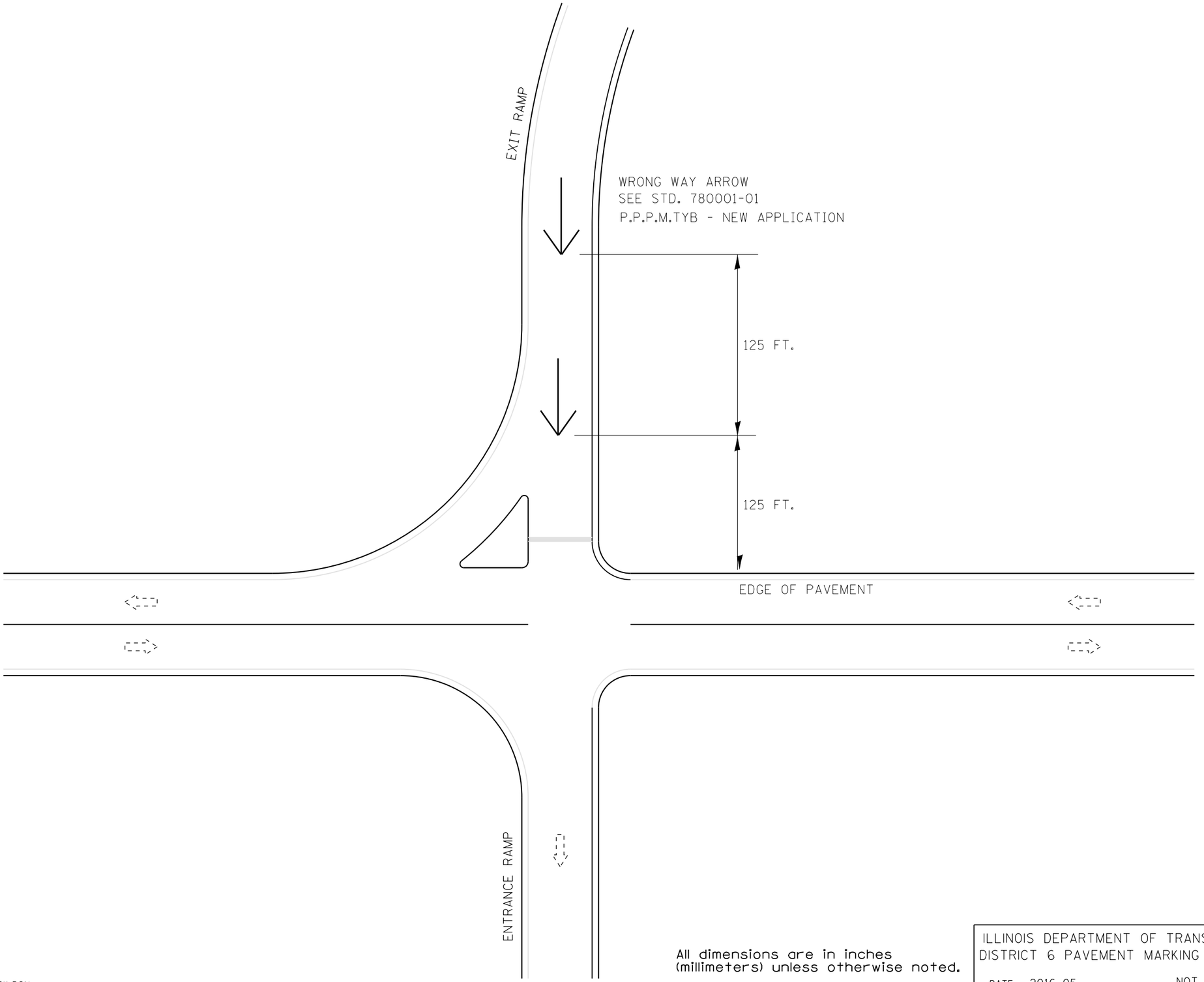
MULTILANE UNDIVIDED

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•



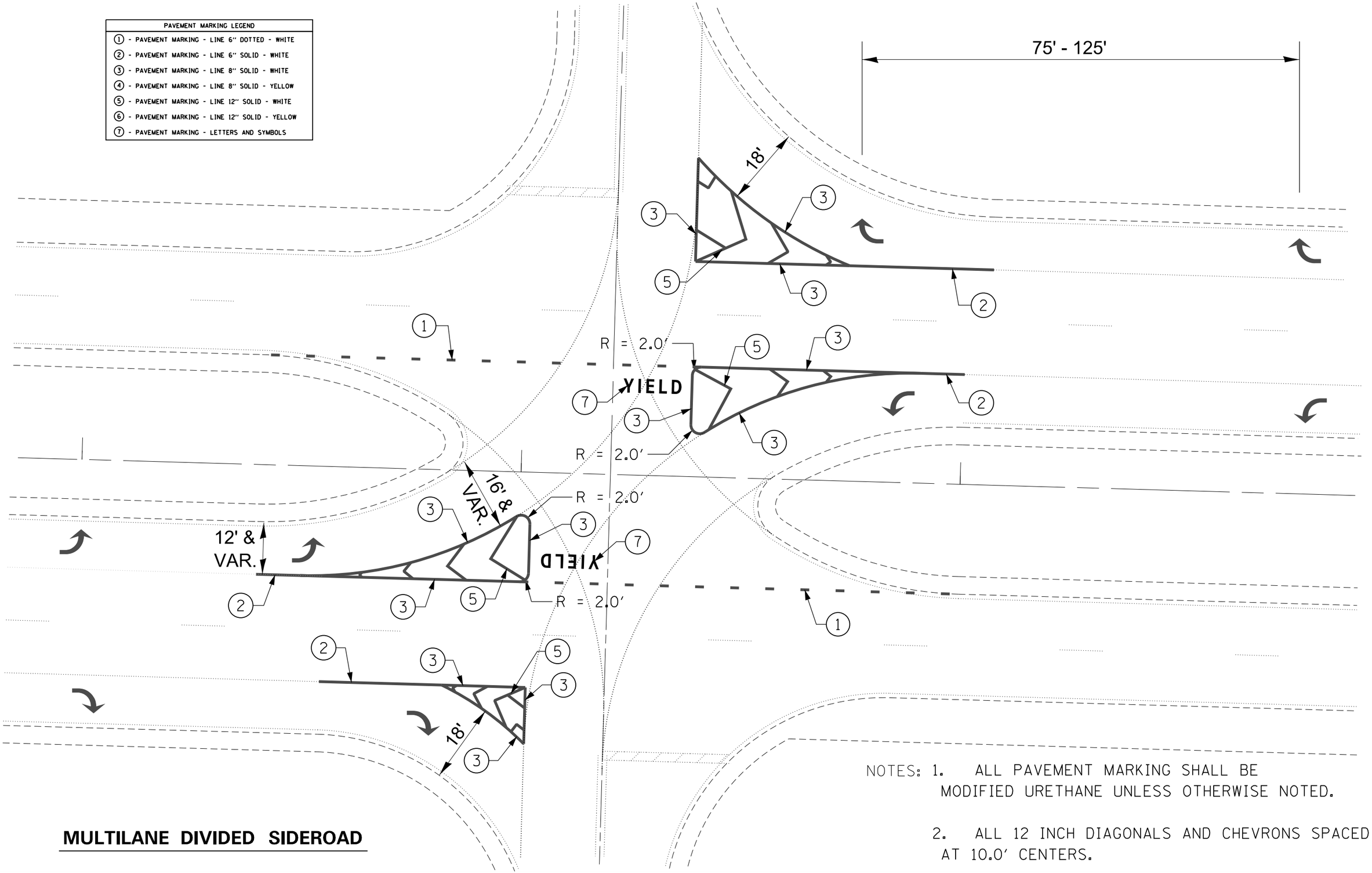
All dimensions are in inches
(millimeters) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 6 PAVEMENT MARKING STANDARDS

DATE 2016-05 NOT TO SCALE

D6PAVMRK.DGN
•DGN-ONLY•

PAVEMENT MARKING LEGEND
① - PAVEMENT MARKING - LINE 6" DOTTED - WHITE
② - PAVEMENT MARKING - LINE 6" SOLID - WHITE
③ - PAVEMENT MARKING - LINE 8" SOLID - WHITE
④ - PAVEMENT MARKING - LINE 8" SOLID - YELLOW
⑤ - PAVEMENT MARKING - LINE 12" SOLID - WHITE
⑥ - PAVEMENT MARKING - LINE 12" SOLID - YELLOW
⑦ - PAVEMENT MARKING - LETTERS AND SYMBOLS



MULTILANE DIVIDED SIDEROAD

NOTES:
1. ALL PAVEMENT MARKING SHALL BE MODIFIED URETHANE UNLESS OTHERWISE NOTED.
2. ALL 12 INCH DIAGONALS AND CHEVRONS SPACED AT 10.0' CENTERS.

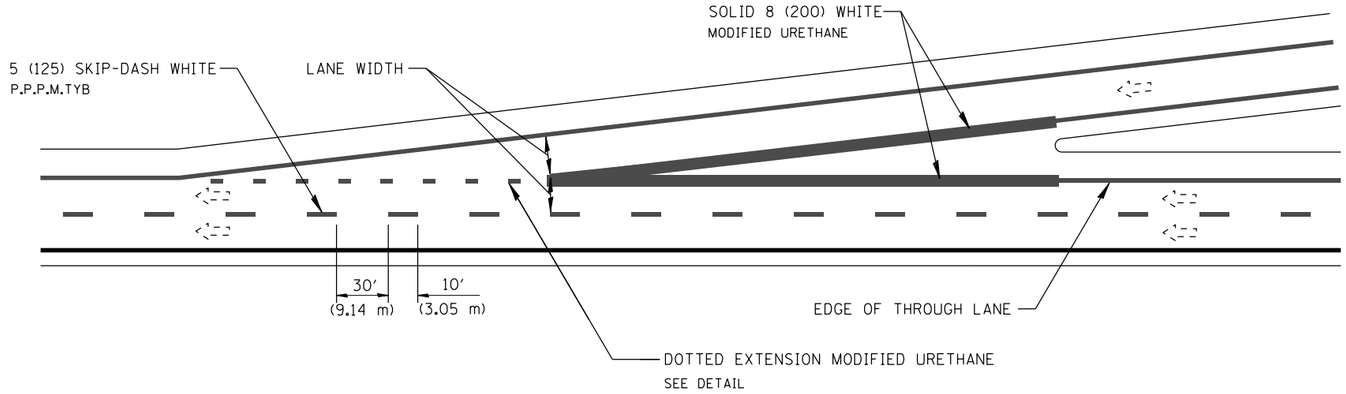
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\780-D6_PAVEMENT_MARKINGS.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
DEFAULT	PLOT DATE = 5/10/2016	DATE -	REVISED -

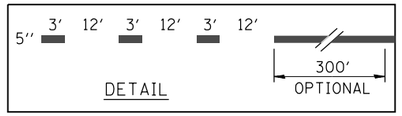
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

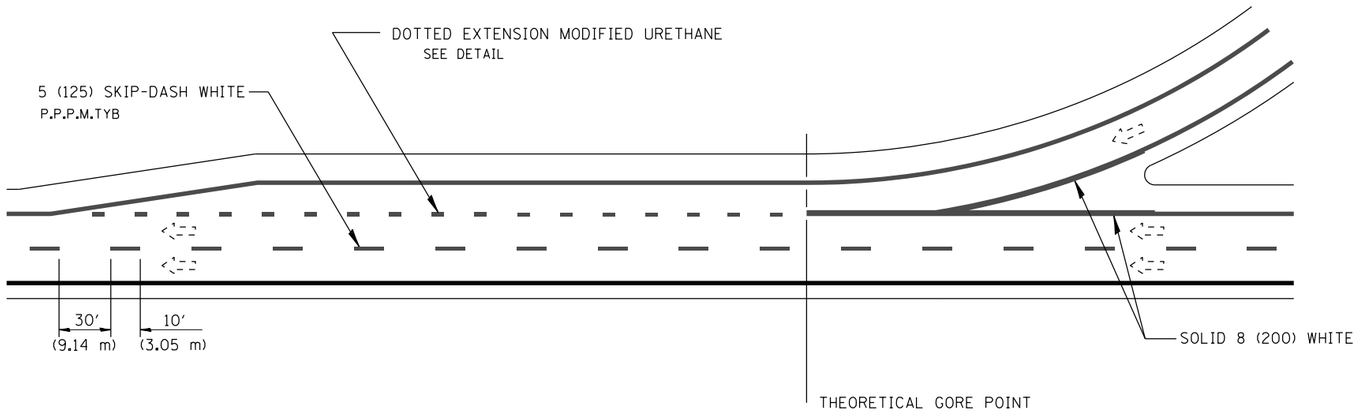
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

A - TAPERED ACCELERATION LANE





B - PARALLEL ACCELERATION LANE



ENTRANCE RAMP MARKINGS

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

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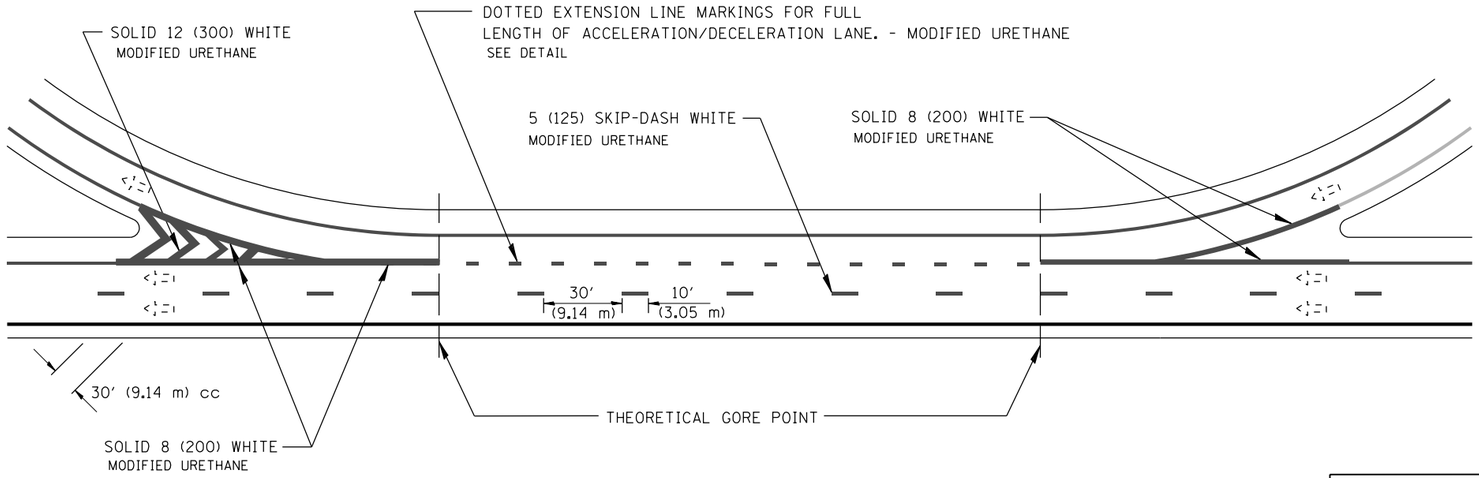
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ′ / in.	CHECKED -	REVISED -
DEFAULT	PLOT DATE = 5/10/2016	DATE - 2013-01	REVISED -

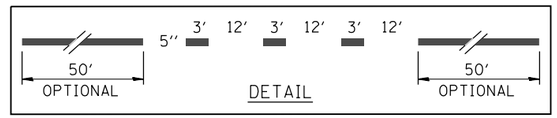
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

D6 PAVEMENT MARKING STANDARD
ENTRANCE RAMP MARKINGS - FREEWAY & EXPRESSWAY

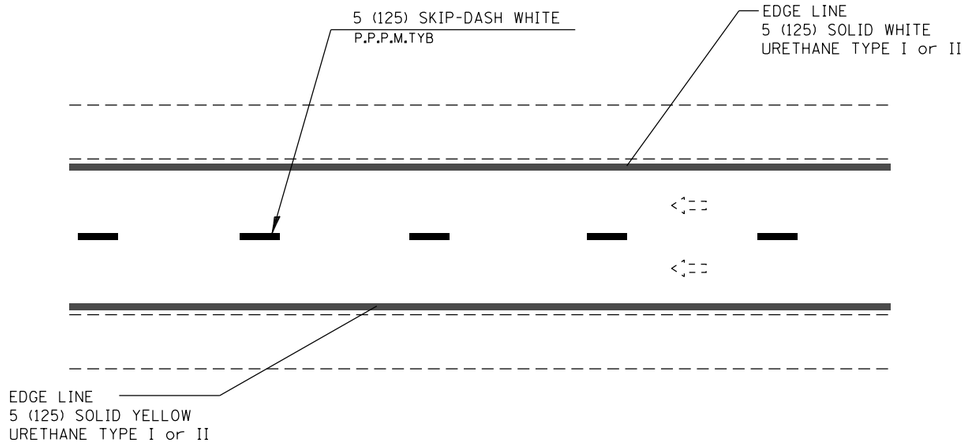
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			





DETAIL



CLOVERLEAF RAMP MARKINGS

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

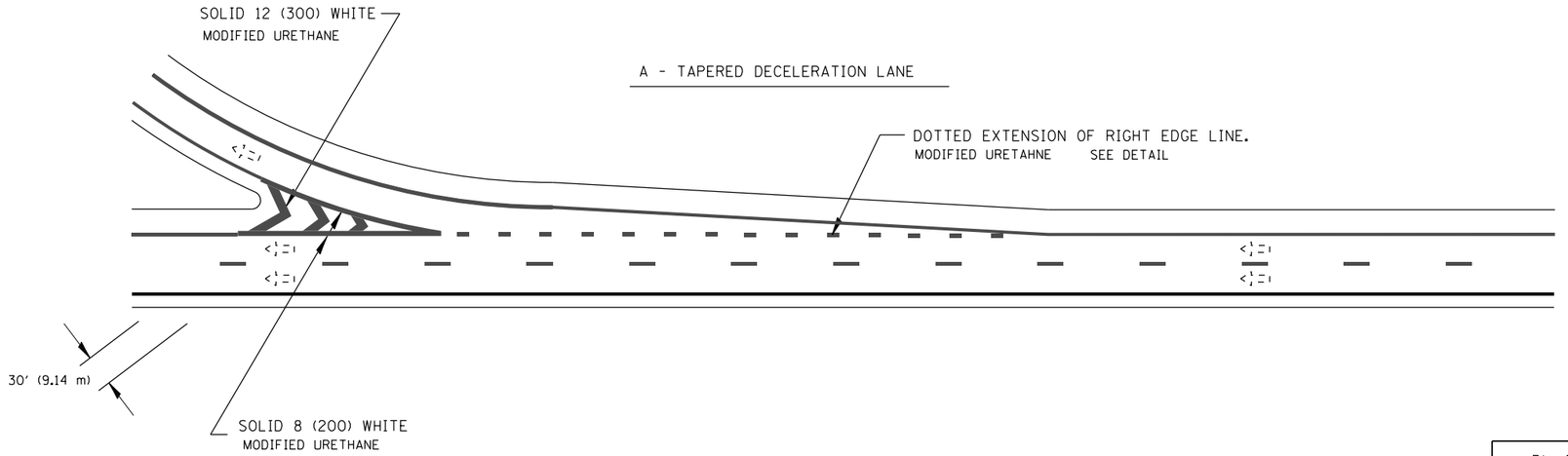
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\780-CWS_PAVEMENT_MARKINGS.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ′ / in.	CHECKED -	REVISED -
DEFAULT	PLOT DATE = 5/10/2016	DATE - 2013-01	REVISED -

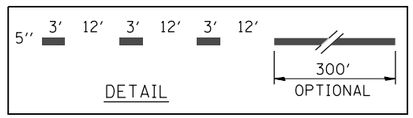
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

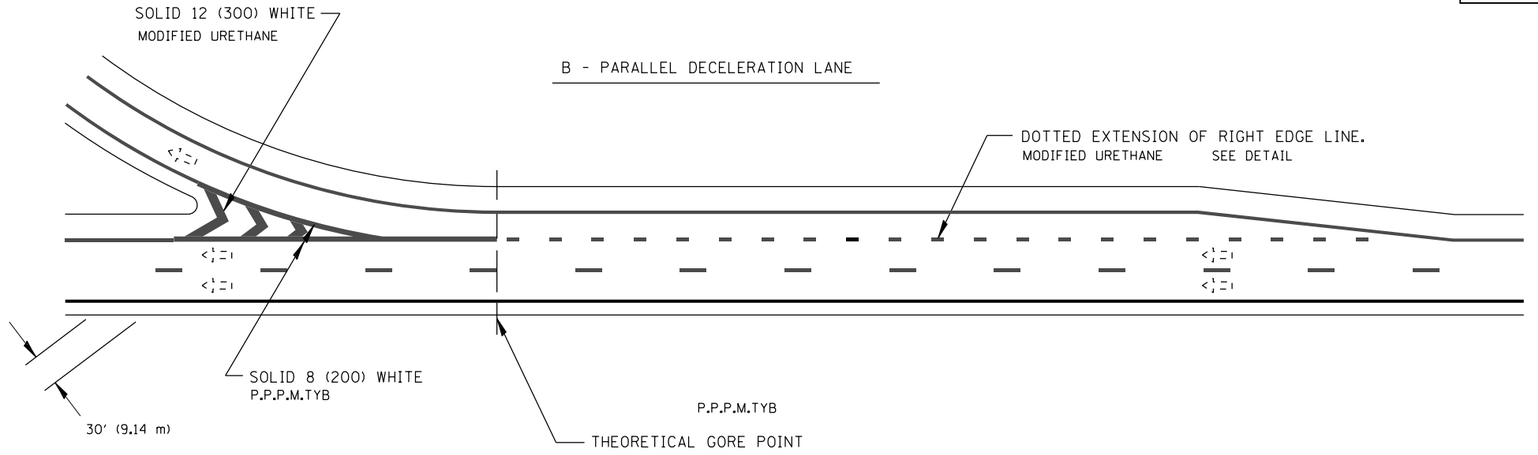
D6 PAVEMENT MARKING STANDARD
ENTRANCE RAMP MARKINGS - FREEWAY & EXPRESSWAY

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			







EXIT RAMP MARKINGS

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

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DEFAULT	PLOT DATE = 5/10/2016	DATE - 2013-01	REVISED -

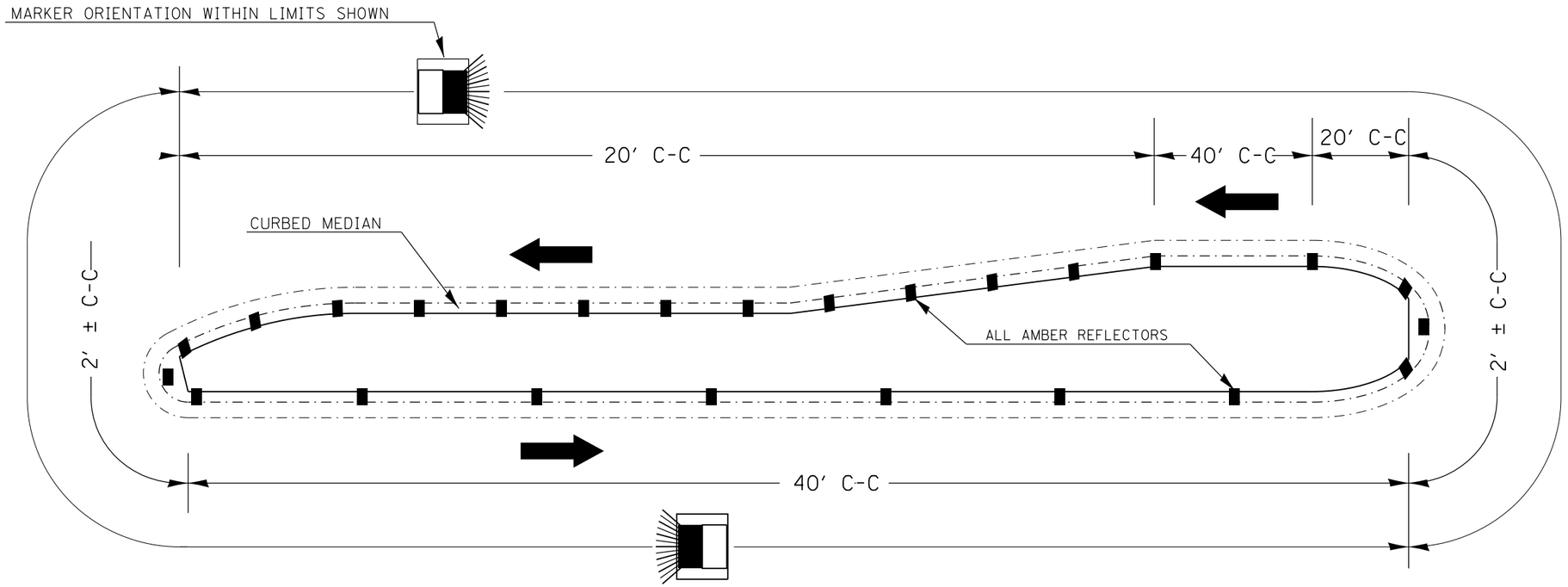
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

D6 PAVEMENT MARKING STANDARD
ENTRANCE RAMP MARKINGS – FREEWAY & EXPRESSWAY

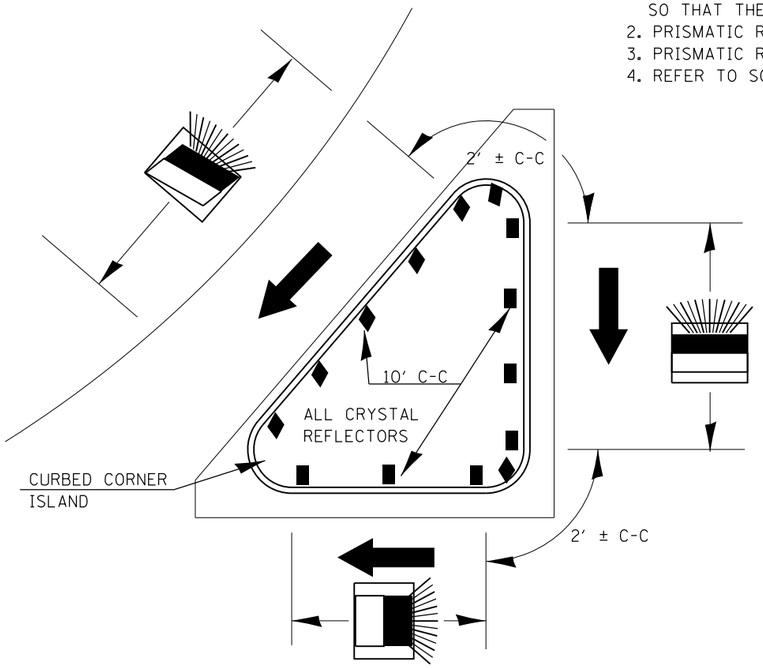
SCALE: | SHEET OF SHEETS | STA. | TO STA.

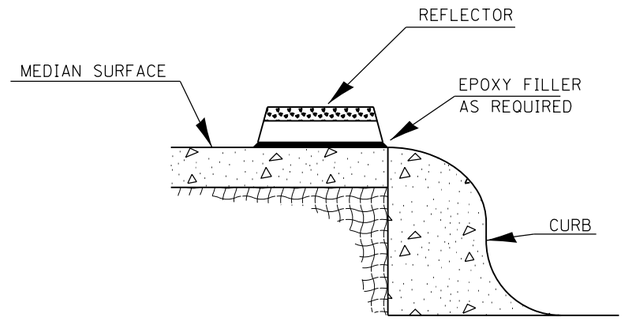
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

TYPICAL PLACEMENT OF PRISMATIC REFLECTORS ON CURBS



1. PRISMATIC REFLECTORS SHALL BE MONO-DIRECTIONAL AND POSITIONED SO THAT THE REFLECTIVE FACE IS FACING THE APPROACHING TRAFFIC.
2. PRISMATIC REFLECTORS SHALL BE SECURED IN PLACE WITH AN EPOXY ADHESIVE.
3. PRISMATIC REFLECTORS SHALL BE EITHER AMBER OR CRYSTAL IN COLOR.
4. REFER TO SCHEDULES FOR PRISMATIC REFLECTOR QUANTITIES.





SECTION VIEW

LEGEND

DIRECTION OF TRAFFIC

PRISMATIC REFLECTOR

NOT TO SCALE

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Default PRISM.DGN	PLOT DATE = 5/10/2016	DATE - 1/24/02	REVISED -

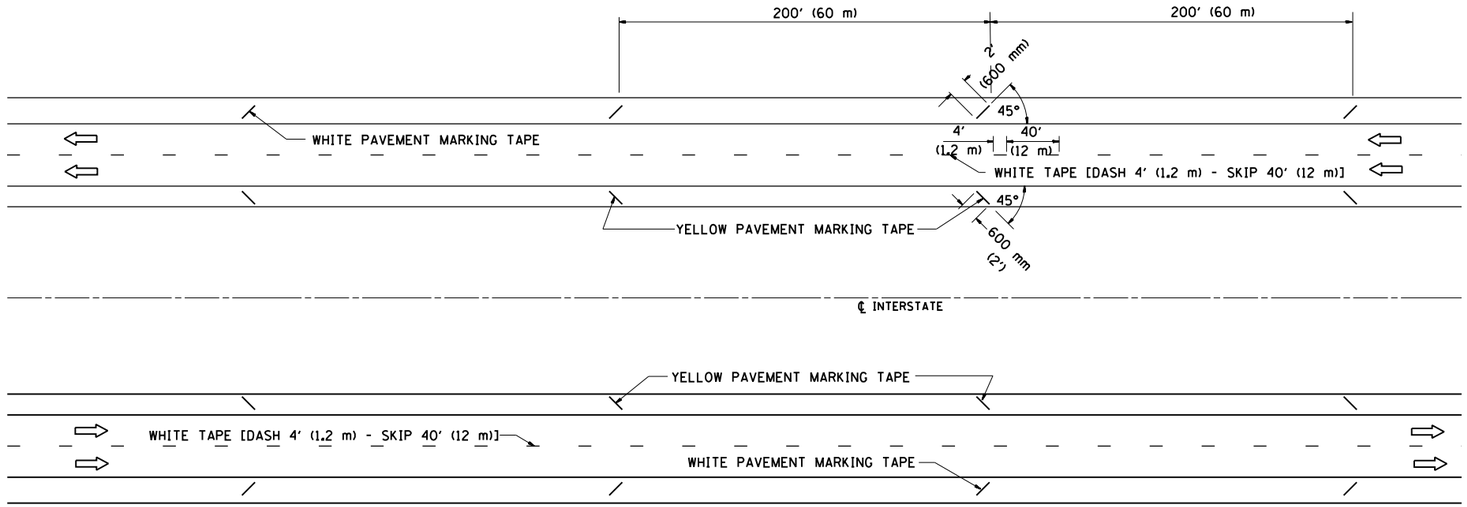
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

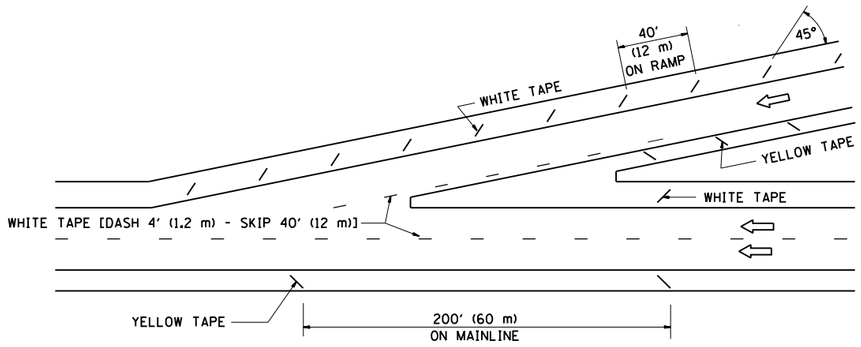
PRISMATIC REFLECTOR DETAILS
(PLACED ON CURB)

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

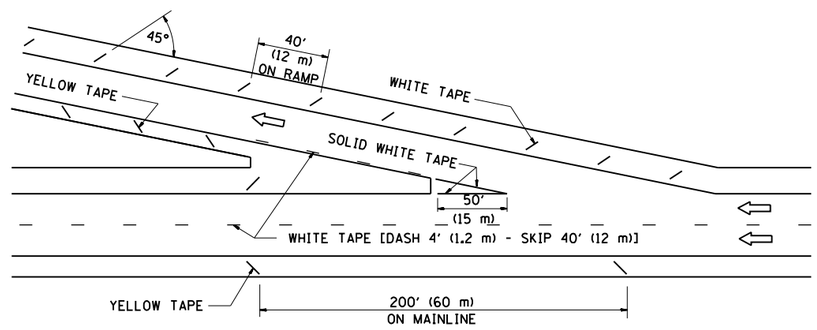
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

TYPICAL SHORT TERM PAVEMENT MARKING FOR INTERSTATE ROUTES





TYPICAL ENTRANCE TERMINAL



TYPICAL EXIT TERMINAL

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	PLOT DATE = 5/10/2016	DATE - 3/26/96	REVISED -

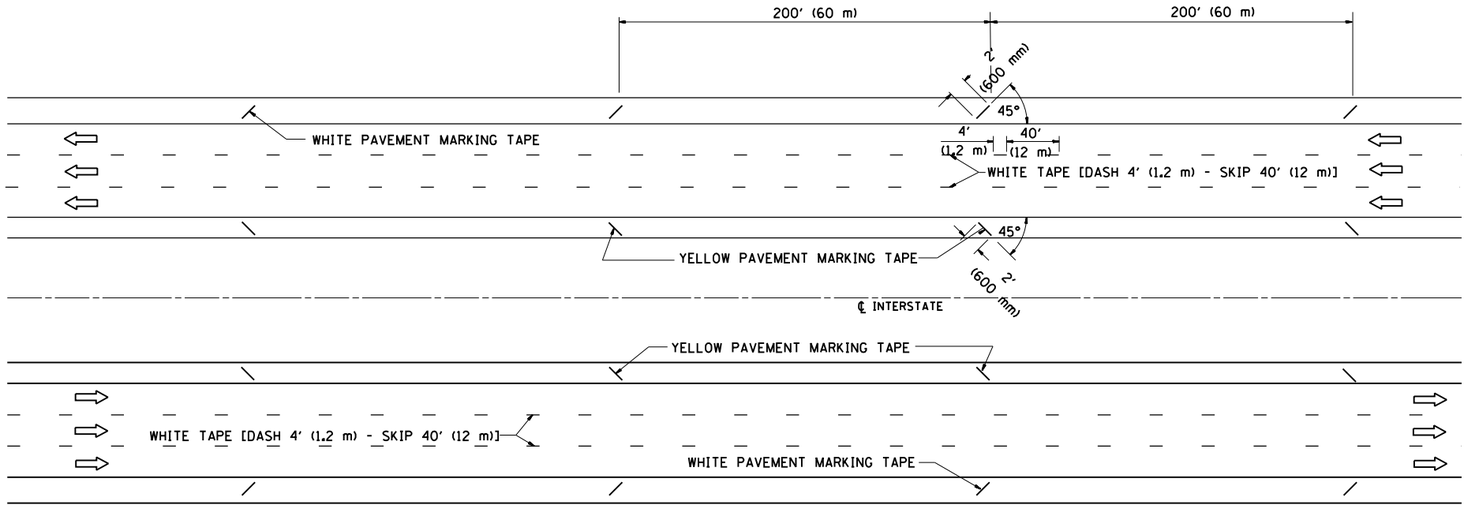
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

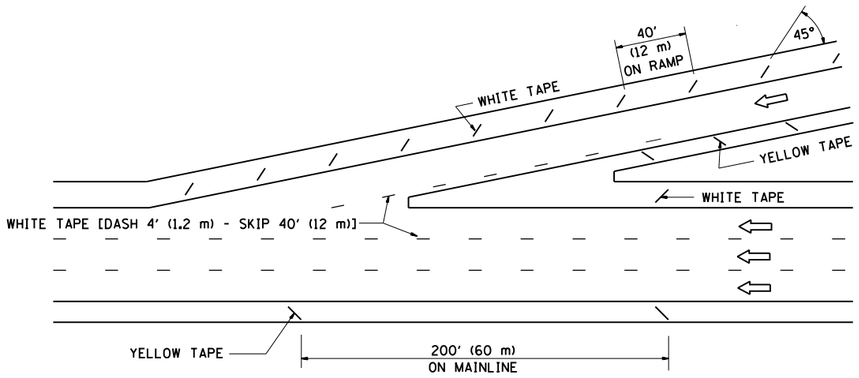
SHORT TERM PAVEMENT MARKING FOR INTERSTATE ROUTES

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

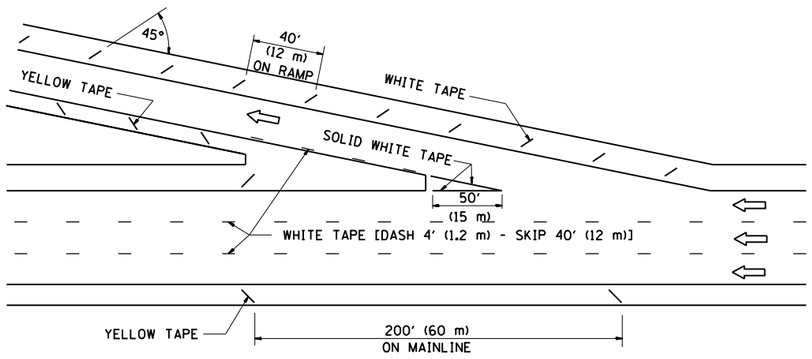
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

TYPICAL SHORT TERM PAVEMENT MARKING FOR INTERSTATE ROUTES





TYPICAL ENTRANCE TERMINAL



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	PLOT DATE = 5/10/2016	DATE - 6/16/97	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

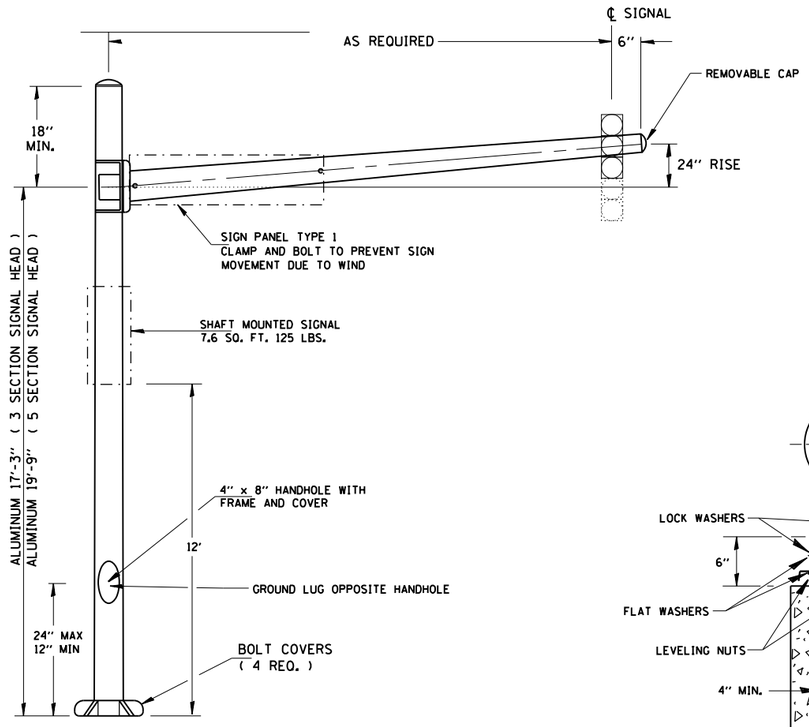
SHORT TERM PAVEMENT MARKING FOR INTERSTATE ROUTES

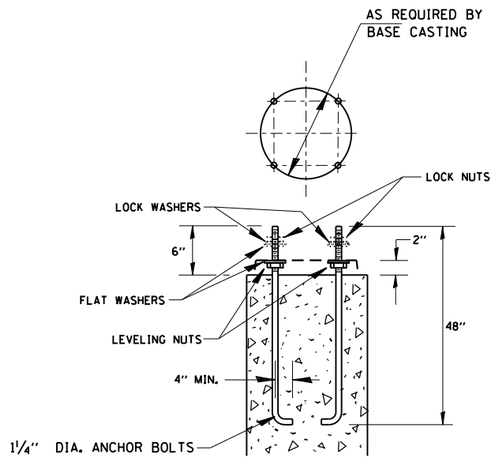
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

SCHEDULE FOR MAST ARM MOUNTED STREET NAME SIGNS

QUANTITY EACH	FORMAT	LETTER SIZE	LOCATION	SIGN SIZE			SIGN PANEL	
							TYPE 1	TYPE 2
				WIDTH	HEIGTH	SQ FT	SQ FT	SQ FT





NUTS, LOCKWASHERS AND FLATWASHERS SHALL BE GALVANIZED STEEL. 4 EACH REQUIRED. (REFER TO ARTICLE 710.12 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION)

1. THIS STANDARD SHALL BE DESIGNED TO SUPPORT ONE 80 LB. SIGNAL HEAD OF 14.7 SQ. FT. PROJECTED AREA AT THE FREE END OF THE MAST ARM AND ONE 125 LB. SIGNAL HEAD OF 7.6 SQ. FT. PROJECTED AREA MOUNTED 12 FT. UP ON THE SHAFT OR THE SIGNAL LOADINGS SHOWN ON THE PLANS, WHICHEVER IS GREATER. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.

2. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF THE MAST ARM ASSEMBLY TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION. THESE DRAWINGS SHALL BE AT LEAST 17 IN. BY 22 IN. IN SIZE AND OF ADEQUATE QUALITY FOR MICROFILMING.

3. HOLES IN THE SHAFT FOR WIRE INLET AND BACK CLAMP BOSSES SHALL BE DRILLED IN THE FIELD.

4. OTHER ALLOYS, ACCEPTABLE BY AASHTO, WHICH SATISFY OR EXCEED THE DESIGN REQUIREMENTS MAY BE USED IF APPROVED BY THE ENGINEER.

5. HIGH STRENGTH ANCHOR BOLTS, WHEN USED, SHALL BE SPECIFIED WITH ASTM SPECIFICATIONS INDICATING MINIMUM YIELD AND TENSILE STRENGTH.

6. THE SIGNAL HEAD (INCLUDING BACKPLATE WHEN USED) SHALL BE NOT LESS THAN 16'-0" OR MORE THAN 18'-0" ABOVE THE ROADWAY.

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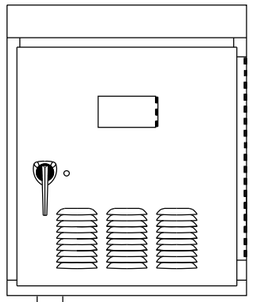
Default: AL_MASTARM.DGN	PLOT DATE = 5/10/2016	DATE - JUNE 20,1996	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALUMINUM 25 FT. & 30 FT. MONOTUBE MAST ARM ASSEMBLY AND POLE

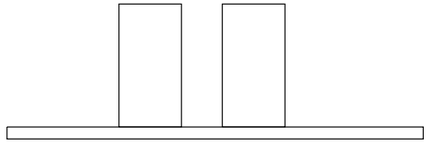
SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



Temporary Controller Cabinet

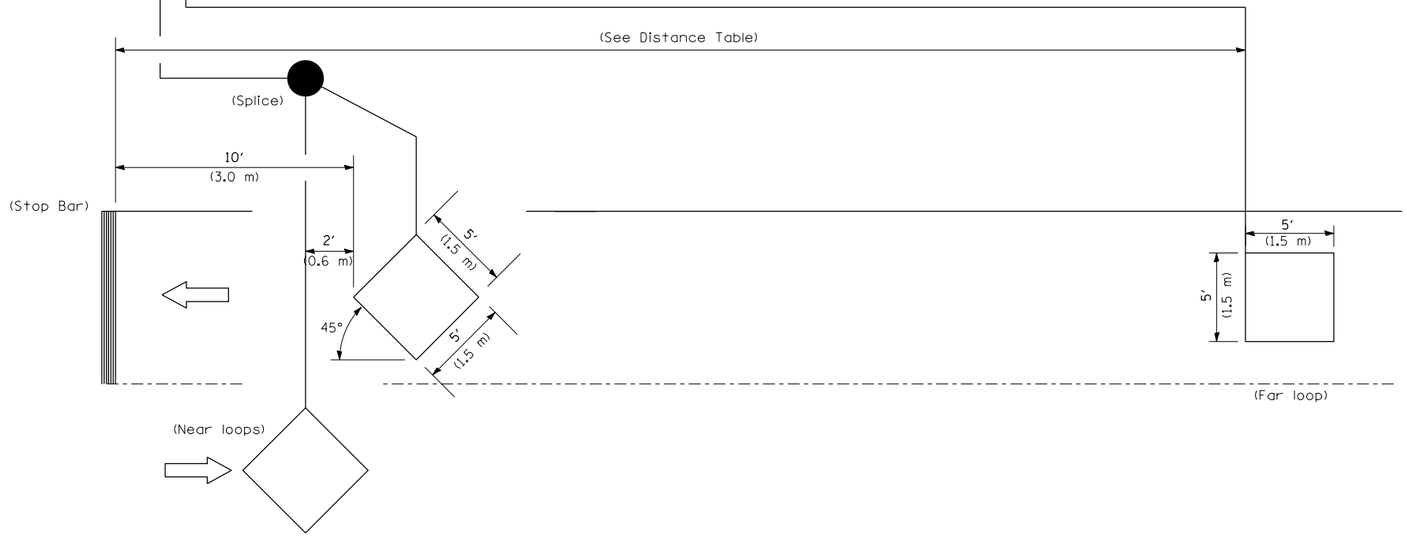
DETECTOR AMPLIFIER NOTES



AMP 1: DELAY = 8 SECONDS
DELAY SHALL BE INHIBITED DURING GREEN

AMP 2: NO DELAY

FAR LOOP DISTANCE TABLE	
ADVISORY SPEED (MPH)	DISTANCE FROM STOP BAR (FT.)
30 OR LESS	220
35	260
40	300
45	330
50	370
55	400



NOTE: All loops centered in lane.

INDUCTION LOOP DETECTOR

BRIDGE TEMP SIGNAL.DGN

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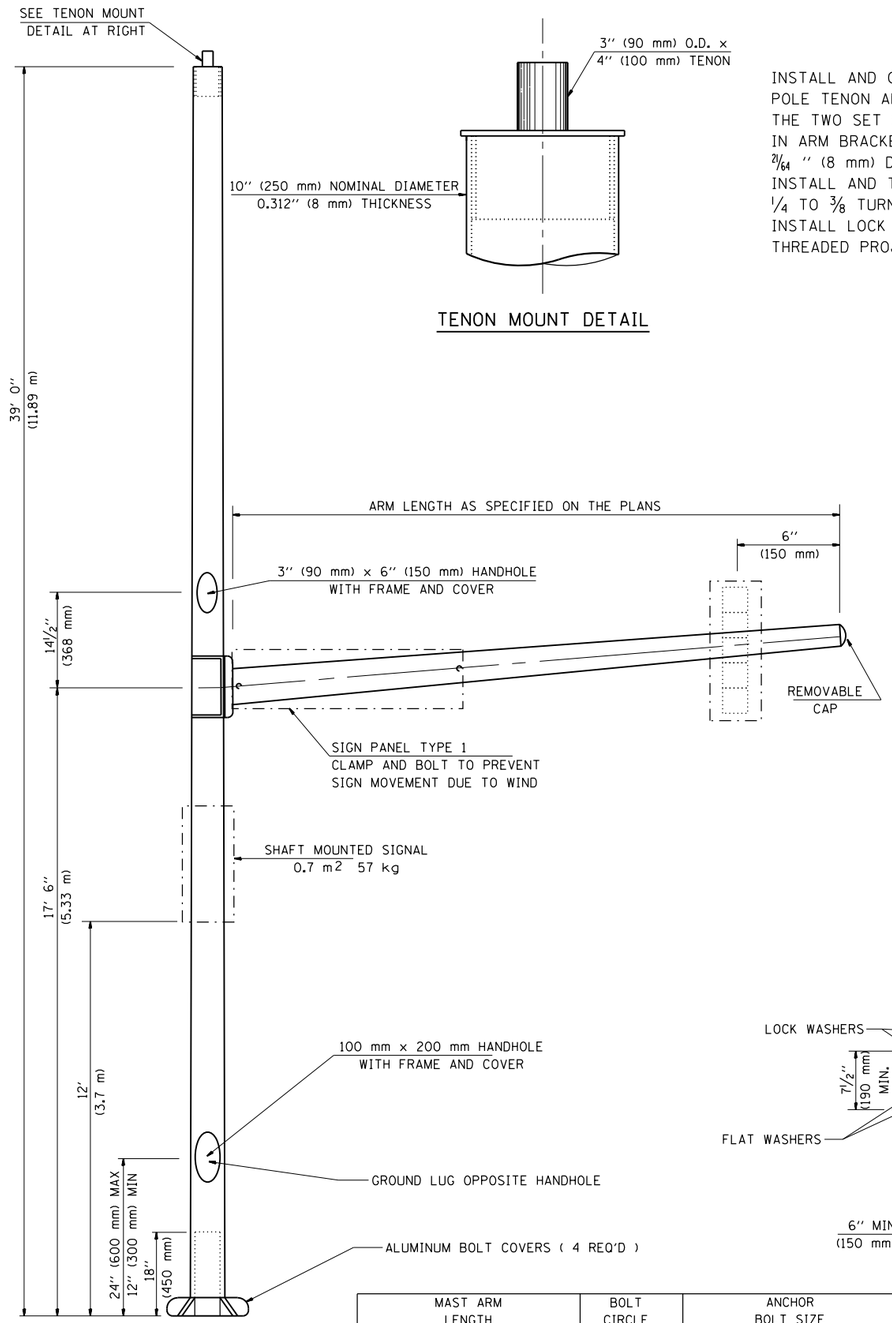
Default	PLOT DATE = 5/10/2016	DATE - 6/16/04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY BRIDGE TRAFFIC SIGNAL
LOOP PLACEMENT DETAIL SHEET

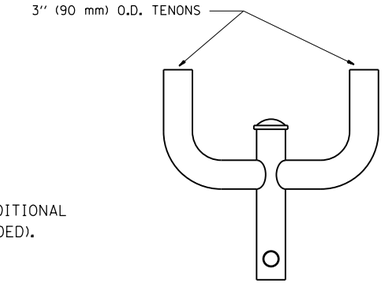
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

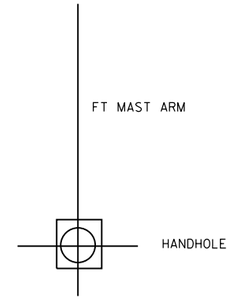


TENON MOUNT DETAIL

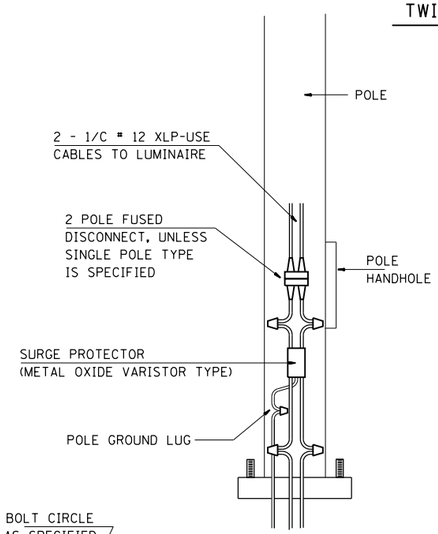
INSTALL AND ORIENT ARM BRACKET OVER POLE TENON AND FIRMLY HAND TIGHTEN THE TWO SET SCREWS. USE THIRD HOLE IN ARM BRACKET AS A GUIDE TO DRILL A 2/64 " (8 mm) DIA. HOLE THROUGH TENON. INSTALL AND TIGHTEN SET SCREWS AN ADDITIONAL 1/4 TO 3/8 TURN WITH HEX KEY (NOT INCLUDED). INSTALL LOCK NUTS ON SET SCREWS IF THREADED PROJECTION ALLOWS.

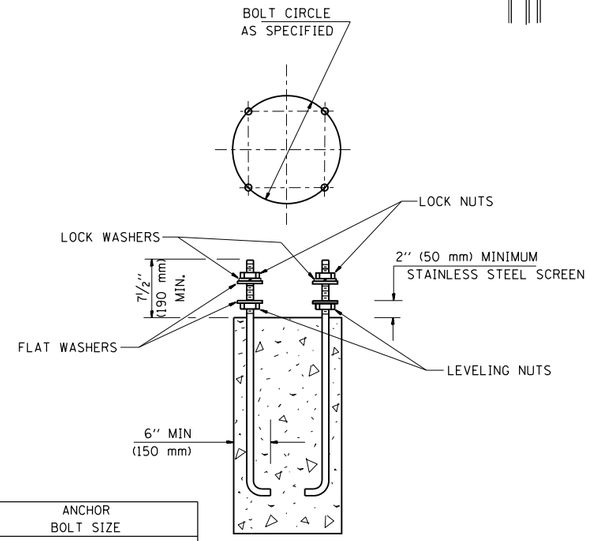


TWIN TENON



ORIENTATION OF ARM





MAST ARM LENGTH	BOLT CIRCLE	ANCHOR BOLT SIZE
16' (4.87 m) THRU 28' (8.53 m)	15' (380 mm)	1½" (38 mm) x 60" (1.5 m)
30' (9.14 m) THRU 24' (12.8 m)	18" (450 mm)	1½" (38 mm) x 60" (1.5 m)
44' (13.41 m)	18" (450 mm)	1¾" (44 mm) x 60" (1.5 m)

GENERAL NOTES

1. The combination mast arm assembly and pole shall be constructed with one piece mast arms and pole or other equivalent sectional design.
2. The standard shall be designed to support one 80 lbs (36 kg) signal head with a projected area of 14.7 square feet (1.37 m^2) at the free end of the mast arm, one 50 lbs (22.7 kg) signal head with a projected area of 8.7 square feet (0.8 m^2) mounted 12 feet (3.7 m) inward on the mast arm, one 125 lbs (57 kg) signal head with a projected area of 7.6 square feet (0.7 m^2) mounted 12 feet(3.7 m) high on the shaft, one 55 lbs (24.9 kg) luminaire with a projected area of 3 square feet (0.3 m^2), and a sign panel 2'-6" (0.7 m) by 6'-0" (1.83 m) mounted as shown on Standard 2380 or the loadings shown on the plans, whichever is greater. The design shall be in accordance with the requirements of the current "Standard Specifications for Structural Supports for Highway Signs, Luminares, and Traffic Signals" as published by the American Association of State Highway and Transportation Officials for 80 mph (129 km/h) wind velocity.
3. The contractor shall submit detailed drawings showing design materials, thickness of sections, weld sizes, and anchor bolts to the Engineer for approval prior to fabrication. These drawings shall be at least 17 inches (432 mm) by 22 inches (559 mm) in size and of adequate quality for microfilming.
4. The type of signal head mounting bracket to be used shall be approved by the Engineer.
5. The signal head (including backplate when used) shall be not less than 16' (4.8 m) or more than 18' (5.5 m) above the crown of the pavement.
6. The manufacturer will be allowed to slot the base plate in which other bolt circles may fit providing that these slots do not offset the integrity of the pole.
7. Combination mast arm assemblies and poles shall not be installed without the luminaire.
8. The anchor bolts shall conform to the requirements of Article 706.09 of the Standard Specifications for Road and Bridge Construction.
9. Luminaire shall comply with Section 962 of the Standard Specifications for Road and Bridge Construction. It includes luminaire, lamp and surge protector.
10. Cable for luminaire shall conform to Section 952 and 785.03 of the Standard Specifications for Road and Bridge Construction. It includes cable and fused quick disconnect.
11. Luminaire mast arms shall comply with Article 785.10 of the Standard Specifications for Road and Bridge Construction and may be either "clamp on" type or davit type.
12. Fused disconnect or circuit breaker shall conform to Article 785.05 of the Standard Specifications for Road and Bridge Construction.
13. Cable shall be installed in traffic signal conduit unless otherwise noted.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-CAD\combalum.dgn	USER NAME = Verenskifa	DESIGNED - WCD	REVISED -
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Default COMBALUM.DGN	PLOT DATE = 5/10/2016	DATE - 5/02/96	REVISED -

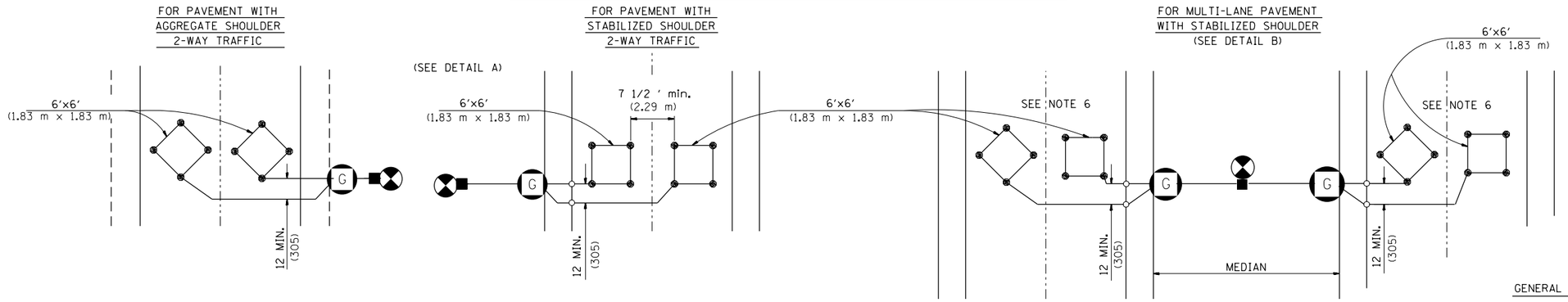
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS OF ALUMINUM COMBINATION MAST ARM ASSEMBLY AND POLE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

TYPICAL APPLICATIONS FOR TRAFFIC COUNTER USING TERMINAL FACILITY



SCHEDULE OF QUANTITIES			
ITEM	QUANTITY	UNIT	CODE NO.
DETECTOR LOOP, SPECIAL	25	FOOT	M8470400
CONDUIT IN TRENCH, 1 1/4 (32 mm) DIA., PVC	9	FOOT	M8100240
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.18 3 PAIR	9	FOOT	M8241510
TRENCH AND BACKFILL FOR ELECTRICAL WORK	8	FOOT	M8680100
TRENCH AND BACKFILL FOR ELECTRICAL WORK (SPECIAL)	-	FOOT	M8680105
GULFBOX JUNCTION	1	EACH	81500100
TERMINAL FACILITY	1	EACH	86301000
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.18 6 PAIR	-	FOOT	M8241520

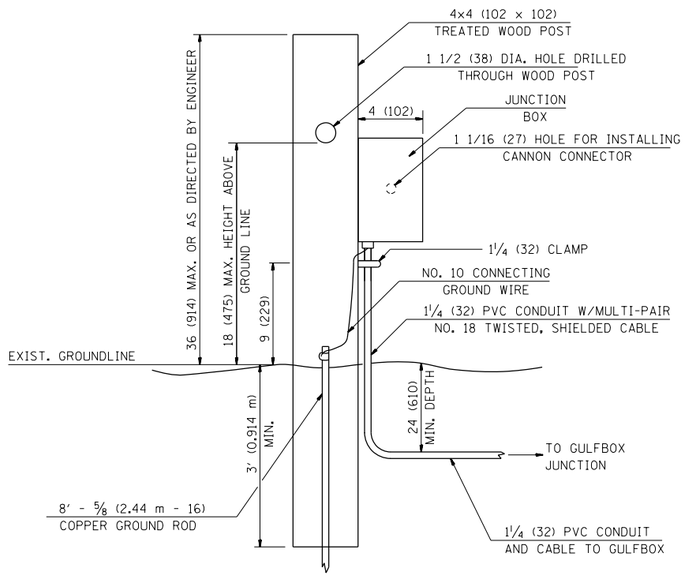
LEGEND

- 4 x 4 (102 x 102) Treated Wood Post
- Terminal Facility
- G — Gulfbox Junction
- Indicates 4 (102) Hole Drilled at Pavement Joint
- Indicates 1 1/4 (32) Hole Drilled at Detector Loop Corner

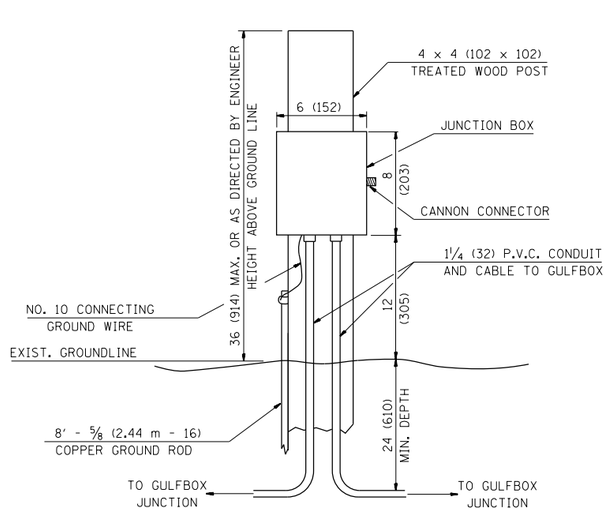
GENERAL NOTES

1. Each detector loop used shall be wired independently at the gulfbox.
2. A single multiple pair cable shall be wired from the gulfbox to the terminal facility. The number of pairs in the cable shall be equal to the number of detector loops plus a minimum of one pair to be used as a spare.
3. Diamond shaped loops shall be centered in the pavement lanes.
4. Square shaped loops shall have a minimum separartion of 7.5' (2.29 m) between inside edges of the detector loops.
5. Each 6'x6' (1.83 m x 1.83 m) detector loop shall have a minimum of 4 turns of cable or as directed by the engineer.
6. Detector loops may be located as squares or diamonds in the pavement as directed by the engineer. All loops shall be oriented in the same direction.
7. Gulf junctions shall be located outside the aggregate or stabilized shoulder limits with the top of gulfbox junctions level with groundline as directed by the engineer.

DETAIL A
TERMINAL FACILITY DETAIL



DETAIL B
TERMINAL FACILITY DETAIL



NOTES FOR TERMINAL FACILITY

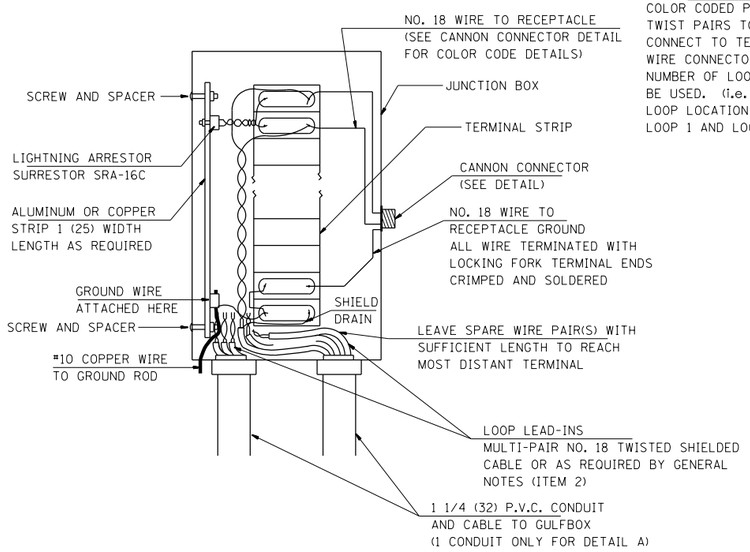
1. Ground rod shall be connected to the junction box with No. 10 AWG copper wire as shown in the junction box detail.
2. The location of the terminal facility shall be determined by the Engineer in the field.

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

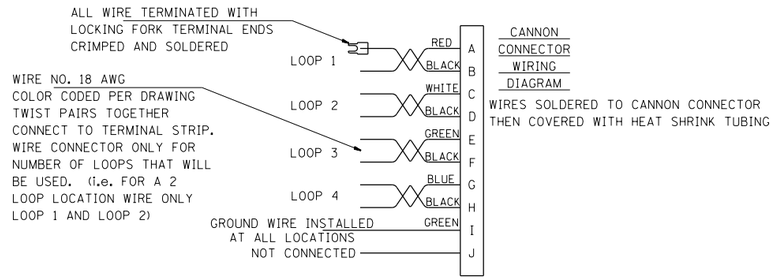
NOTE: DO NOT SCALE

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-BT_cnt93.dgn	USER NAME = Verenskfa	DESIGNED - RT	REVISED - RT	22MAR93	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL FOR TRAFFIC COUNTERS USING TERMINAL FACILITY	F.A. RTE. / SECTION / COUNTY / TOTAL SHEETS / SHEET NO.
		DRAWN	REVISED - RT	05APR93			
	PLOT SCALE = 40.000 ' / in.	CHECKED - CAD	REVISED - CAD	21APR95			
Default COUNT93.DGN	PLOT DATE = 5/10/2016	DATE - 8/19/92	REVISED - CAD	10MAR97		SCALE: / SHEET 1 OF 2 SHEETS / STA. / TO STA.	CONTRACT NO. / ILLINOIS FED. AID PROJECT
			REVISED - CAD	05NOV98			

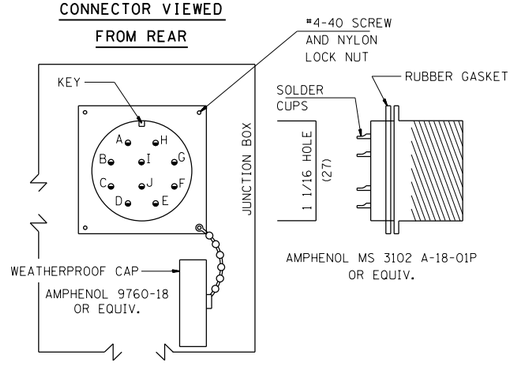
JUNCTION BOX DETAIL
FOR DETAIL A AND B



CANNON CONNECTOR DETAIL



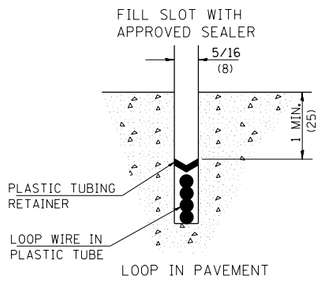
CONNECTOR VIEWED
FROM REAR



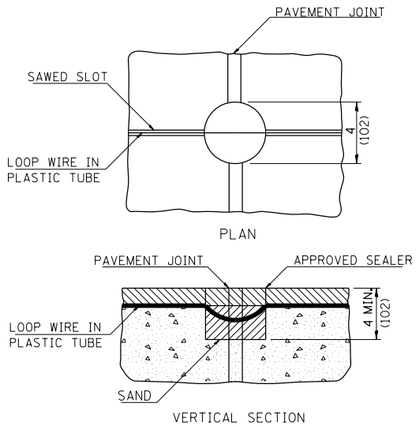
NOTES FOR JUNCTION BOX

1. One lightning arrestor for each loop.
2. Number of terminals on terminal strip to be determined by number of loops. Terminal strip shall be Cinch Barrier Type 140 or equivalent.
3. Junction box shall be weather proof with size determined by number of components. Junction box shall be 4 X 6 X 8 (102 x 152 x 203) Hoffman Box or equivalent.
4. Terminal with more than 4 loops will require the use of 2 cannon connectors with loops grouped by direction or as directed by the Engineer.
5. The cost of installing the terminal facility includes all vertical wiring, boxes, connectors, vertical conduit, post, ground rod, surrestors, and labor, and shall be paid for at the contract unit price for TERMINAL FACILITY - 1 Each.

DETECTOR LOOP DETAILS; GULFBOX JUNCTION DETAIL

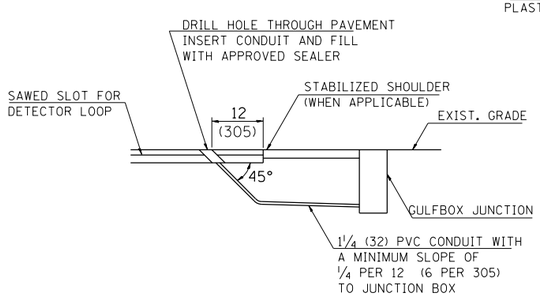


DETECTOR LOOP INSTALLATION

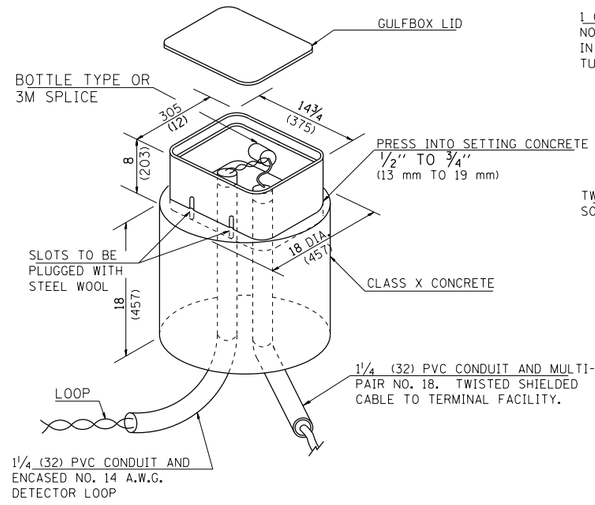


NOTE: LOOP WIRE MUST FOLLOW SAW CUT TO BOTTOM, FORMING SLACK SECTION AT JOINT.

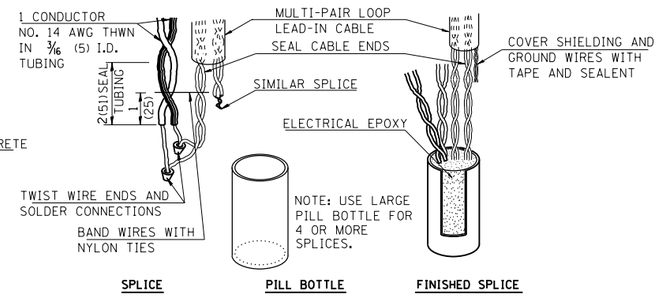
DETECTOR LOOP DETAIL AT PAVEMENT JOINT OR PAVEMENT CRACK



DETECTOR LOOP LEAD-IN DETAIL



GULFBOX JUNCTION DETAIL



BOTTLE SPLICE DETAIL

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

NOTE: DO NOT SCALE

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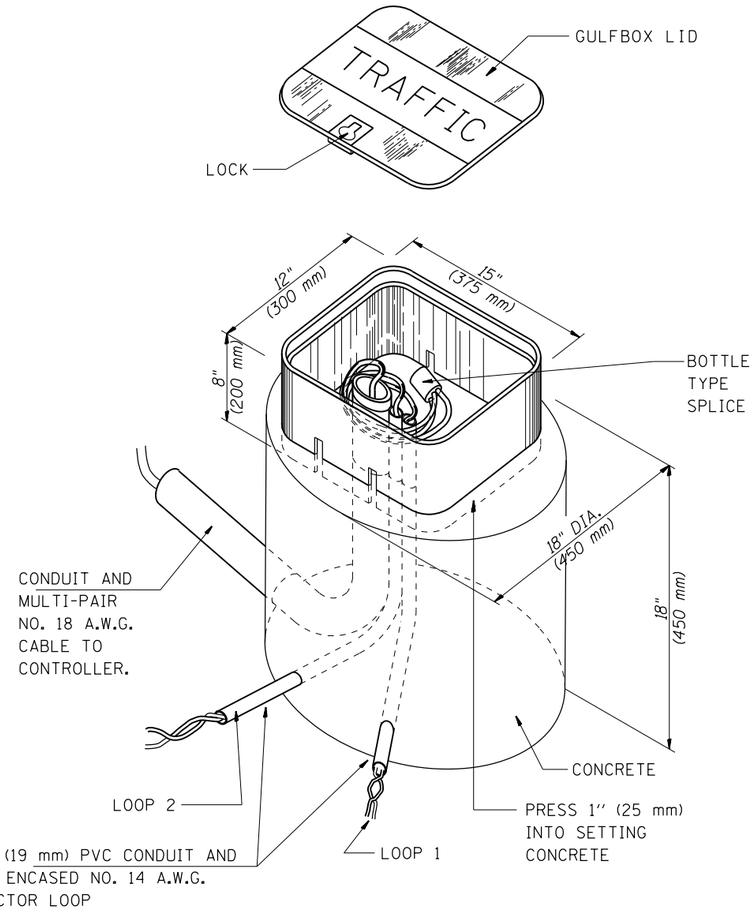
	PLOT SCALE = 40.000 ' / in.	DRAWN - RT	REVISED - RT	05APR93	
Default COUNT93.DGN	PLOT DATE = 5/10/2016	CHECKED - CAD	REVISED - CAD	27APR93	
		DATE - 8/19/92	REVISED - CAD	21APR95	

DETAIL FOR TRAFFIC COUNTERS USING TERMINAL FACILITY

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

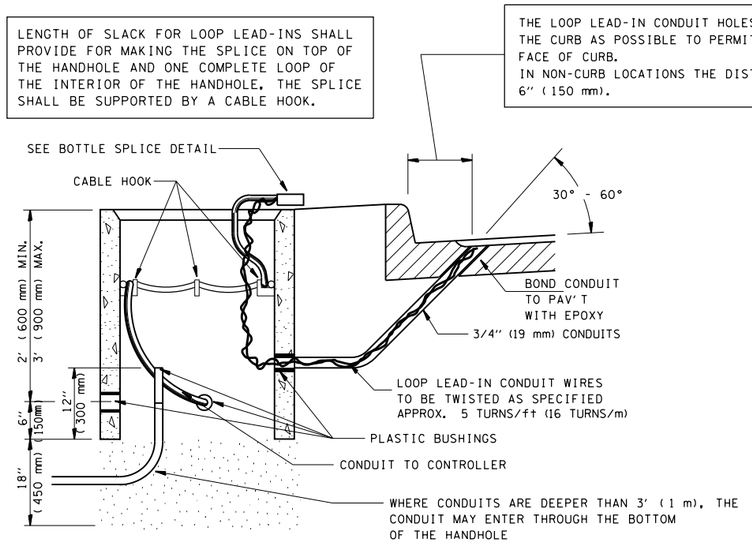
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	



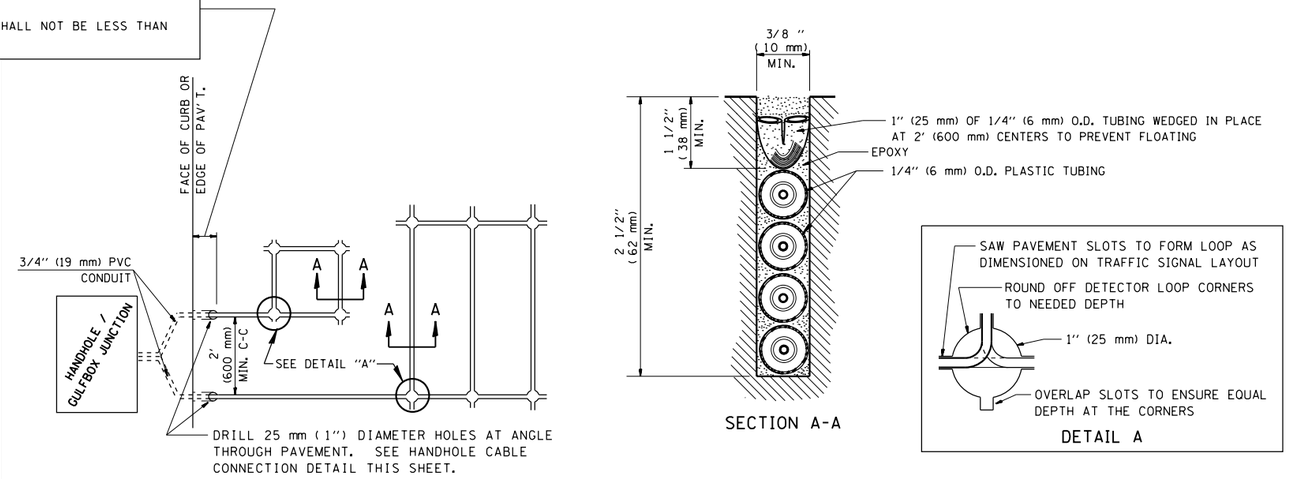
GULFBOX JUNCTION DETAIL

(SHOWING CONNECTION OF TUBE-ENCASED DETECTOR LOOP TO MULTI-PAIR LEAD-IN CABLE)

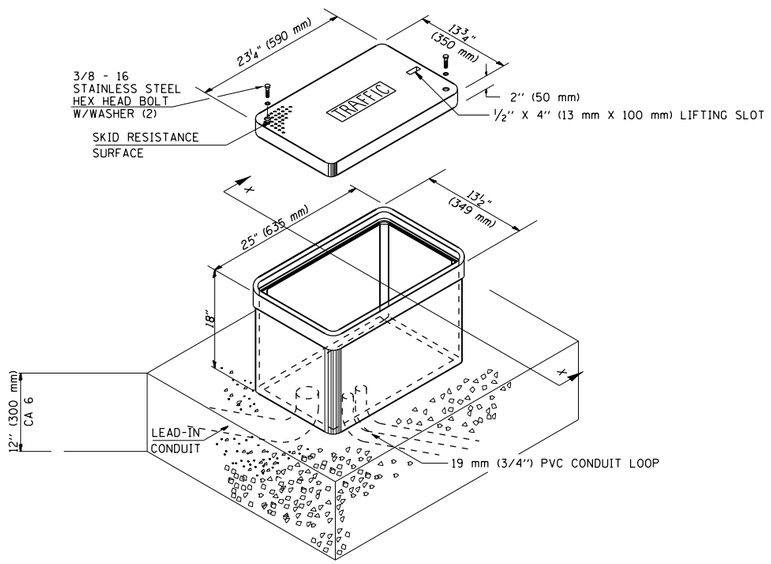
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\802-detloop.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -							
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO.		
Default	PLOT DATE = 5/10/2016	DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS	FED. AID PROJECT	



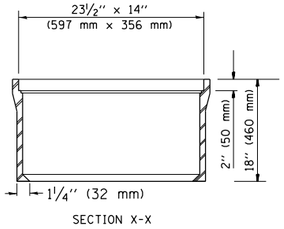
HANDHOLE CABLE CONNECTIONS



PAVEMENT SAWING DETAIL FOR TUBE ENCASED DETECTOR LOOP WIRE

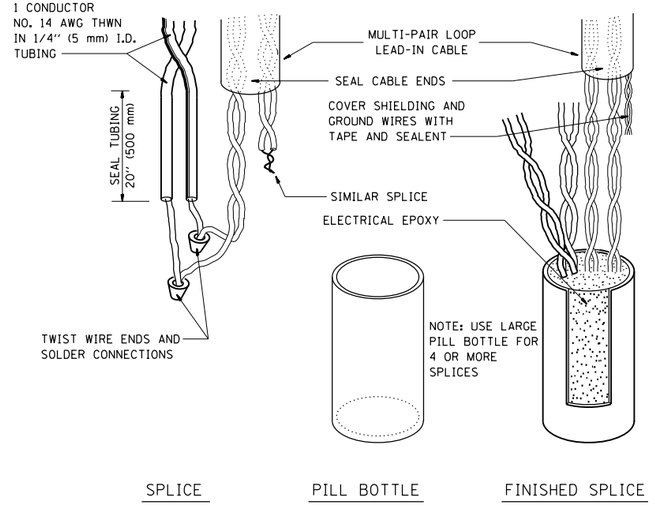


MINIMUM DIMENSIONS



SECTION X-X

GULFBOX JUNCTION (SPECIAL)

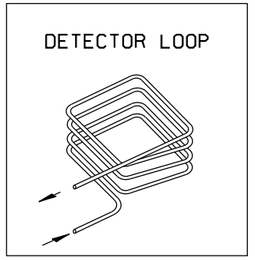


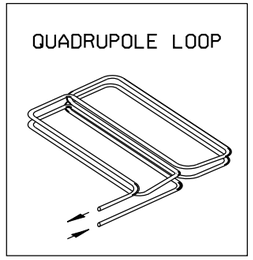
BOTTLE SPLICE DETAIL

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-GAloop.dgn	USER NAME = Verenskfa	DESIGNED - WDC	REVISED - 12/02/10	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	F.A. RTE. / SECTION / COUNTY / TOTAL SHEETS / SHEET NO.
Default DETLOOP.DGN	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -		
	PLOT DATE = 5/10/2016	CHECKED - WDC	REVISED -		CONTRACT NO.
		DATE - 5/02/96	REVISED -	SCALE: / SHEET 2 OF 2 SHEETS / STA. / TO STA.	ILLINOIS FED. AID PROJECT

LOOP DESIGNATION	NUMBER OF TURNS	READING @ HANDHOLE OR JUNCTION BOX				READING @ CONTROLLER			
		CALCULATED		METERED		CALCULATED		METERED	
		μη	Ω	μη	Ω	μη	Ω	μη	Ω

LOOP DESIGNATION	NUMBER OF TURNS	READING @ HANDHOLE OR JUNCTION BOX				READING @ CONTROLLER			
		CALCULATED		METERED		CALCULATED		METERED	
		μη	Ω	μη	Ω	μη	Ω	μη	Ω





INSTALLING THE LOOP WIRE:
THE NEGATIVE LEAD SHALL BE CONNECTED TO THE BLACK CONDUCTOR OF A PAIR OF CONDUCTORS IN THE LEAD-IN CABLE AND THE POSITIVE LEAD SHALL BE CONNECTED TO THE COLOR-CODED CONDUCTOR OF THE CABLE PAIR.

DETECTOR LOOP WIRE INSTALLATION

DETECTOR NOTES:

1. THE DETECTOR LOOP SHALL BE CENTERED IN THE LANE IN WHICH IT IS SHOWN. ANY ADJUSTMENTS ARE TO BE MADE ONLY AT THE DIRECTION OF THE ENGINEER.
2. THE DETECTOR LOOPS SHALL CONSIST OF THE NUMBER OF TURNS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. ACCEPTANCE OF THE LOOPS AS METERED SHALL BE DETERMINED BY THE ENGINEER.
4. ALL DETECTOR WIRES SHALL BE MARKED WITH WATERPROOF LABELS USING THE WIRING IDENTIFICATION SHOWN ON THE PLANS. THE + AND - OF EACH LOOP MUST BE USED TO IDENTIFY CURRENT FLOW. ALWAYS CONNECT THE BLACK WIRE OF EACH PAIR TO THE NEGATIVE (-) LOOP WIRE.
5. ALL QUADRAPOLE LOOPS SHALL BE 2-4-2 DESIGN.

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		DRAWN -	REVISED -
Default DETLOOP.DGN	PLOT SCALE = 40.0000 ' / in.	CHECKED - WDC	REVISED -
	PLOT DATE = 5/10/2016	DATE - 3/12/99	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL DETECTOR LOOP DETAILS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		SIGNAL HEAD
		SIGNAL HEAD WITH BACKPLATE
		TEMPORARY SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD
		PEDESTRIAN PUSHBUTTON DETECTOR
		DETECTOR LOOP
		QUADRAPOLE DETECTOR LOOP
		SIGNAL POST
		ALUMINUM MAST ARM ASSEMBLY AND POLE
		STEEL MAST ARM ASSEMBLY AND POLE
		WOOD POLE
		WOOD POLE WITH GUY
		SERVICE INSTALLATION
		CONTROLLER
		HANDHOLE
H	H	HEAVY DUTY HANDHOLE
		DOUBLE HANDHOLE
		JUNCTION BOX
		GULFBOX JUNCTION
E		AERIAL CABLE
23 m - E 50 mm - S	45 m - T 50 mm - P	CONDUIT LENGTH - CONSTRUCTION (T=TRENCH P=PUSHED A=AUGERED E=EXISTING) SIZE - TYPE (S=STEEL P=PVC F=FIBER DUCT U=UNI-DUCT)
		CONDUIT SPLICE
		SPAN WIRE / TETHER WIRE
21		SIDEWALK REMOVAL IN SQ M (SQ FT)
9		PC CONC SDWLK 100 mm IN SQ M (SQ YD)
12		PC CONC SDWLK 100 mm SPECIAL IN SQ M (SQ YD)

TRAFFIC SIGNAL WIRING DIAGRAM LEGEND

EXISTING	PROPOSED	DESCRIPTION
R	R	200 mm (8") SIGNAL SECTION
G	G	300 mm (12") SIGNAL SECTION
G>	G>	DIRECTIONAL SIGNAL SECTION
DW W	DW W	225 mm (9") PEDESTRIAN SIGNAL FACE
DW W	DW W	300 mm (12") PEDESTRIAN SIGNAL FACE
R Y G	R Y G	SIGNAL FACE WITH BACKPLATE
R *	R *	PROGRAMMED SIGNAL SECTION
G	G	SIGNAL SECTION WITH LOUVRE
Y> G>	Y> G>	DUAL-INDICATION SIGNAL SECTION
		INDUCTION DETECTOR LOOP
		QUADRAPOLE DETECTOR LOOP
		DIRECT-CONNECTED LOOP LEAD-IN (TWISTED)
2	2	ELECTRIC CABLE DENOTING NUMBER OF CONDUCTORS
	7	ELECTRIC CABLE TO BE REMOVED
R W	B G	ELECTRIC CABLE IDENTIFIER TAPE CODES (R= RED W= WHITE Y= YELLOW G= GREEN B= BLUE O= ORANGE)
		PEDESTRIAN PUSHBUTTON DETECTOR
		VIDEO DETECTION CAMERA
		EMERGENCY VEHICLE PREEMPTOR

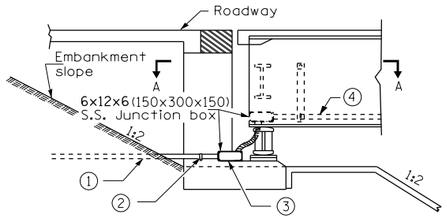
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-GAQloop.dgn Default DETLOOP.DGN	USER NAME = Verenskfa	DESIGNED - WCD	REVISED - 12/02/10
	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -
	PLOT DATE = 5/10/2016	CHECKED - WCD	REVISED -
		DATE - 12/3/99	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

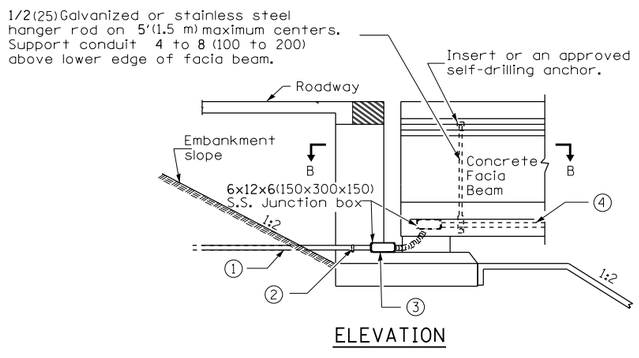
LEGEND FOR TRAFFIC SIGNAL DETAILS

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

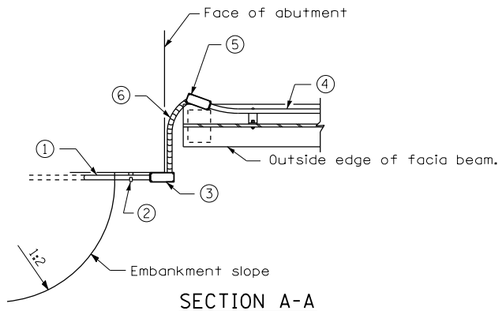
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



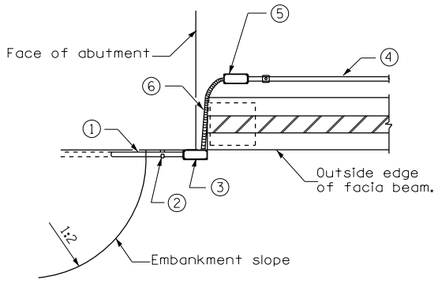
ELEVATION



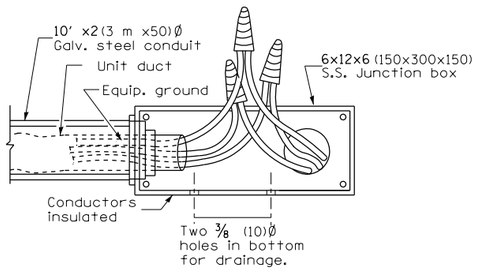
ELEVATION



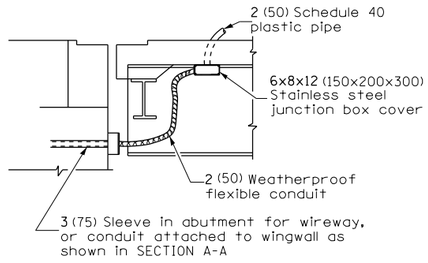
SECTION A-A



SECTION B-B



DETAIL A



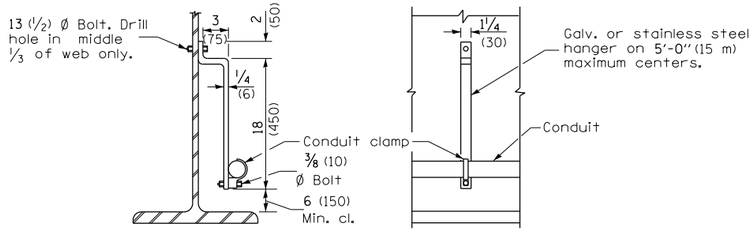
SECTION AT ABUTMENTS

GENERAL NOTES

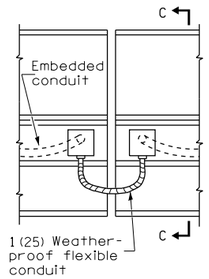
1. 10'X2 (3 m x 50) Ø Galv. steel conduit.
2. Galv. steel or stainless steel conduit clamp.
3. Drill two 3/8 (10) Ø holes in bottom side of junction box for drainage. Extended unit duct into junction box 2 to 3 (50 to 75). (See DETAIL A).
4. 2 (50) Galv. steel conduit.
5. Do not extend junction box beyond end of facia beam.
6. Liquid tight flexible conduit.

All dimensions are in inches unless otherwise shown.

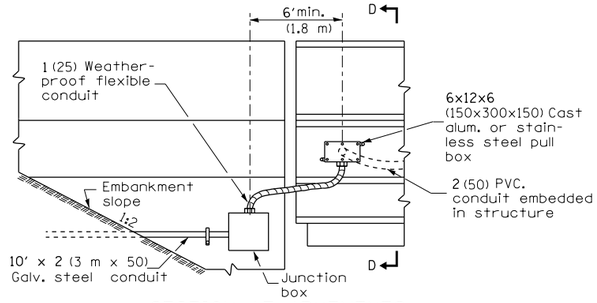
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-jlgt001.dgn Default JLGT001.DGN	USER NAME = Verenskifa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -						
	PLOT DATE = 5/10/2016	CHECKED -	REVISED -					CONTRACT NO.	
		DATE -	REVISED -		SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT	



CONDUIT SUPPORT BRACKET

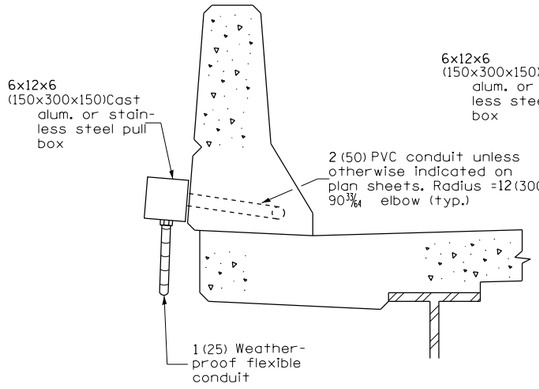


ELEVATION AT EXPANSION JOINT

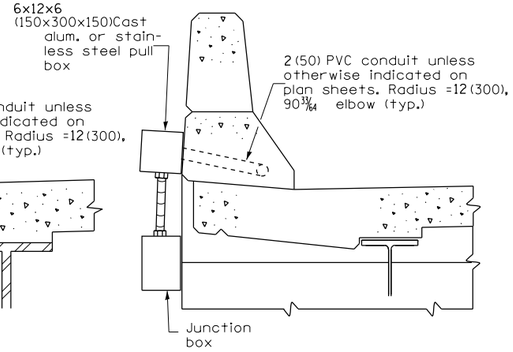


SECTION AT ABUTMENTS

(External conduit)



SECTION C-C



SECTION D-D

All dimensions are in inches unless otherwise shown.

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Default JLGT001.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

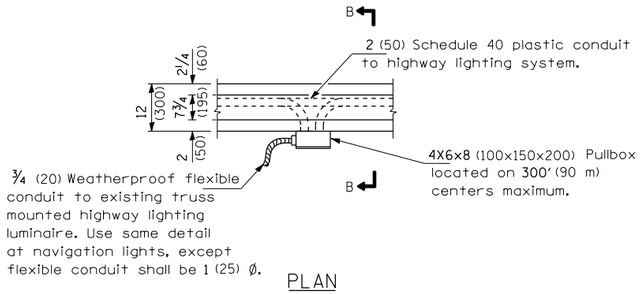
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

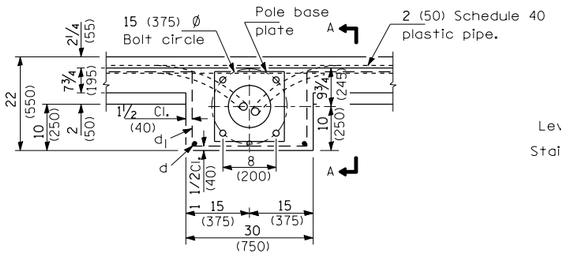
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

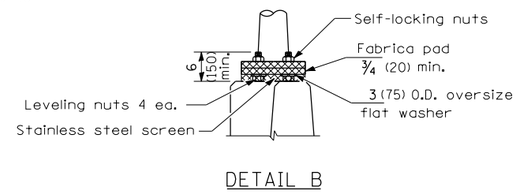
ILLINOIS FED. AID PROJECT



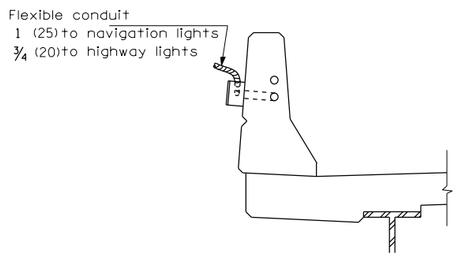
PLAN



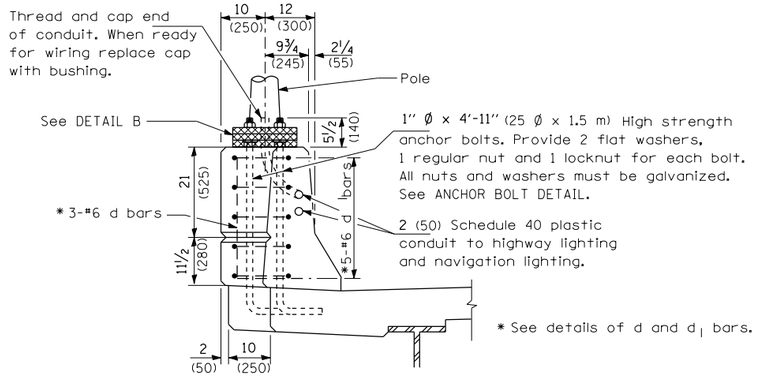
PLAN



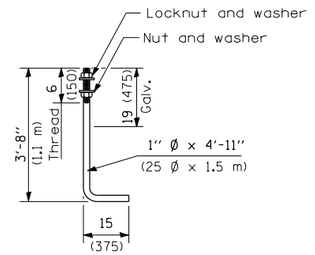
DETAIL B



SECTION B-B



SECTION A-A



ANCHOR BOLT DETAIL

All dimensions are in inches (millimeters) unless noted.

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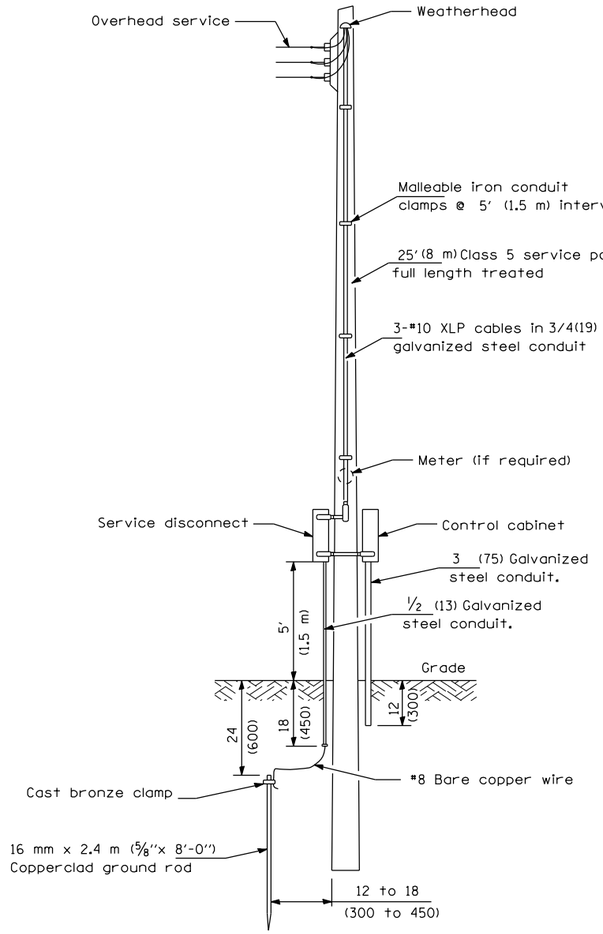
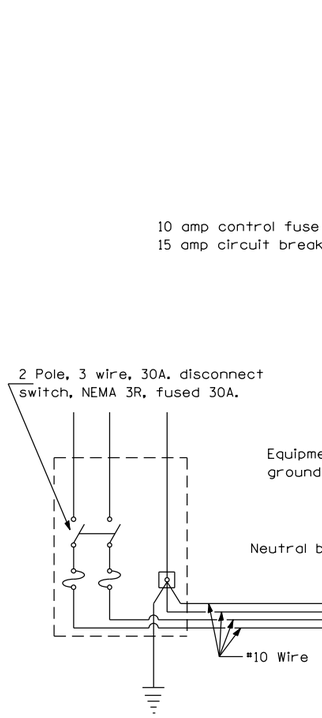
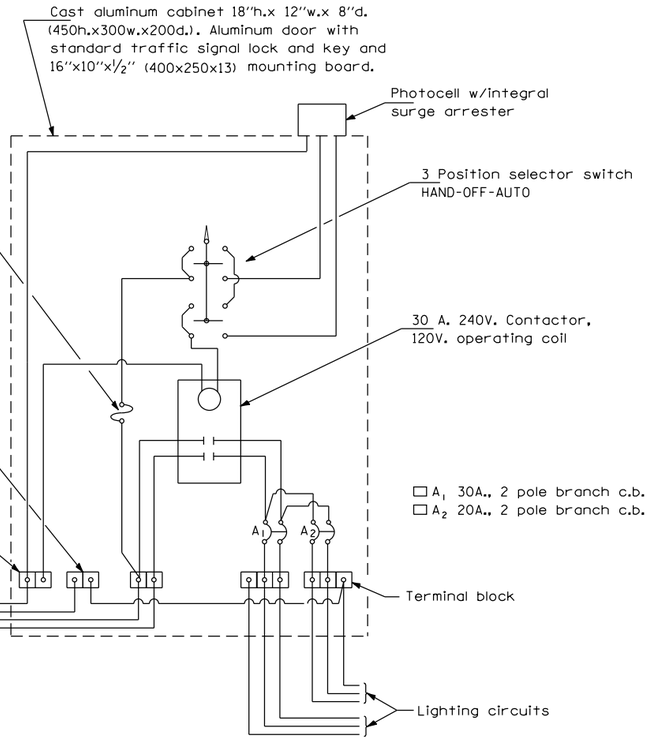
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -							
	PLOT DATE = 5/10/2016	DATE - 6/19/98	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			CONTRACT NO.		
							ILLINOIS	FED. AID PROJECT		



SERVICE POLE



DISCONNECT SWITCH



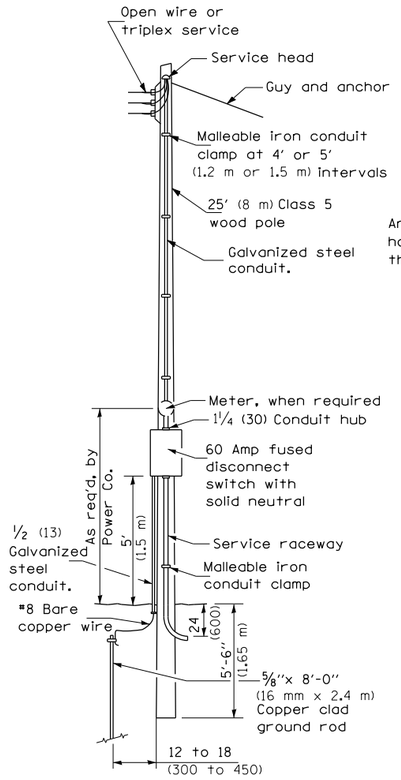
PHOTOCELL RELAY

GENERAL NOTES

All equipment shall be U.L. Listed.

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-D&E003.dgn	USER NAME = Verenskfa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONTROL INSTALLATION SERVICE POLE MOUNTED 120/240V., 1 PHASE, 3 WIRE SERVICE	F.A. RTE.	SECTION / COUNTY / TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -				
Default JLGT003.DGN	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -				CONTRACT NO.
	PLOT DATE = 5/10/2016	DATE - 3/11/96	REVISED -		SCALE: / SHEET OF SHEETS / STA. / TO STA.		ILLINOIS / FED. AID PROJECT



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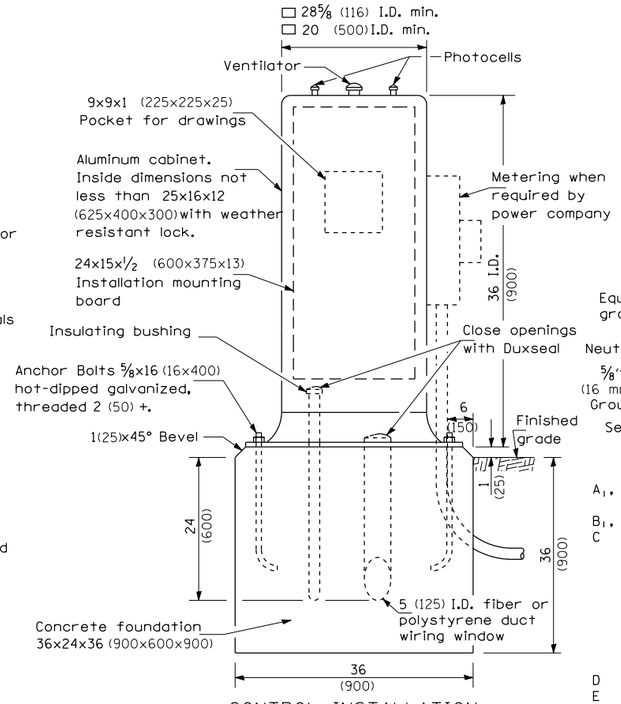
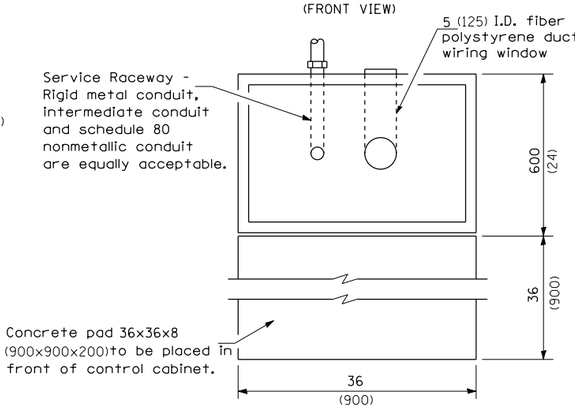
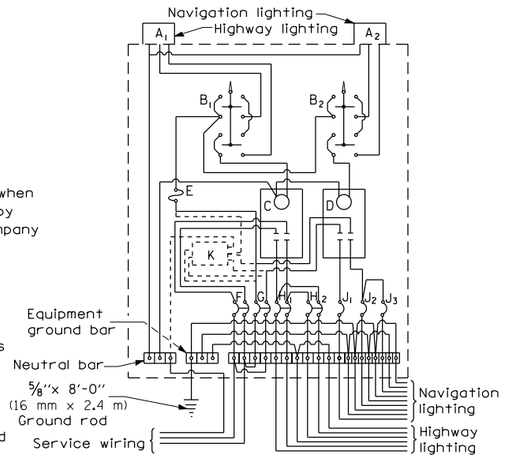


CONTROL INSTALLATION
(FRONT VIEW)



FOUNDATION
(TOP VIEW)



WIRING DIAGRAM

A_1, A_2 Photocells w/integral surge arrestors

B_1, B_2 Selector switch

C Contactor
- ☐ 60A., 2 pole, 240V.
- ☐ 60A., 2 pole, 480V.
- ☐ 100A., 2 pole, 240V.
- ☐ 100A., 2 pole, 480V.
- ☐ 150A., 2 pole, 240V.
- ☐ 150A., 2 pole, 480V.
- ☐ 200A., 2 pole, 240V.
- ☐ 200A., 2 pole, 480V.

D Contactor, 30A., 2 pole, 240V.

E 10A., Control fuse or 15A. ckt. breaker

F
- ☐ 60A., 2 pole, main breaker
- ☐ 100A., 2 pole, main breaker
- ☐ 150A., 2 pole, main breaker
- ☐ 200A., 2 pole, main breaker

G 30A., 2 pole, main breaker

H_1, H_2
- ☐ 20A., 2 pole, branch c.b's. ( ) required
- ☐ 30A., 2 pole, branch c.b's. ( ) required
- ☐ 40A., 2 pole, branch c.b's. ( ) required
- ☐ 50A., 2 pole, branch c.b's. ( ) required

J_1, J_2, J_3 20A., 1 pole, branch c.b's.

K Transformer, single phase, ( )KVA, 480V. primary, 120/240V., 1Ø, 3W. secondary, required w/480V. service wiring to be revised as shown dotted.

☐ 240 V. SERVICE

☐ 480 V. SERVICE

GENERAL NOTES

Wiring shall be panel board fashion. All bends shall be right angles. All runs shall vertical or parallel to panel board. Wires shall be grouped or laced.

All control installation components shall be U.L. listed.

Label equipment ground and neutral.

Locate service pole and control installation adjacent to R.O.W. line with a minimum distance of 30' (9 m) from the edge of pavement. Exact location shall be established by the Engineer.

The underground service entrance wiring shall not exceed 150' (46 m). Total aerial and underground service between the control installation and primary transformer shall not exceed 250' (76 m).

Raceways shall terminate 3 (75) above top of concrete foundation.

For 480 V. systems, a 480/120 V. control transformer will be required.

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

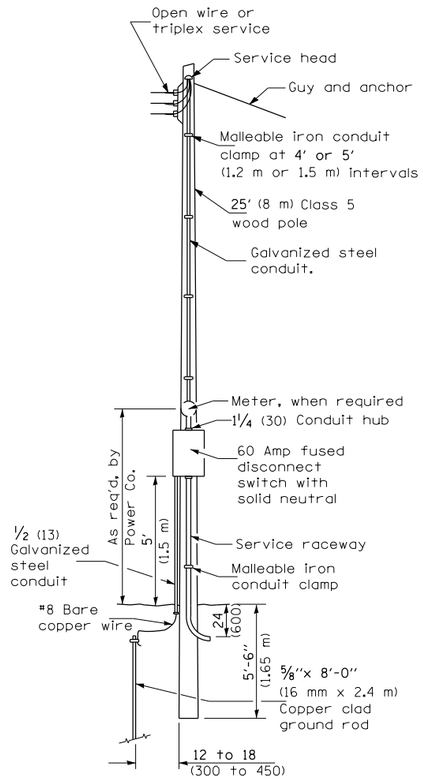
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-jlgt004.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default JLGT004.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

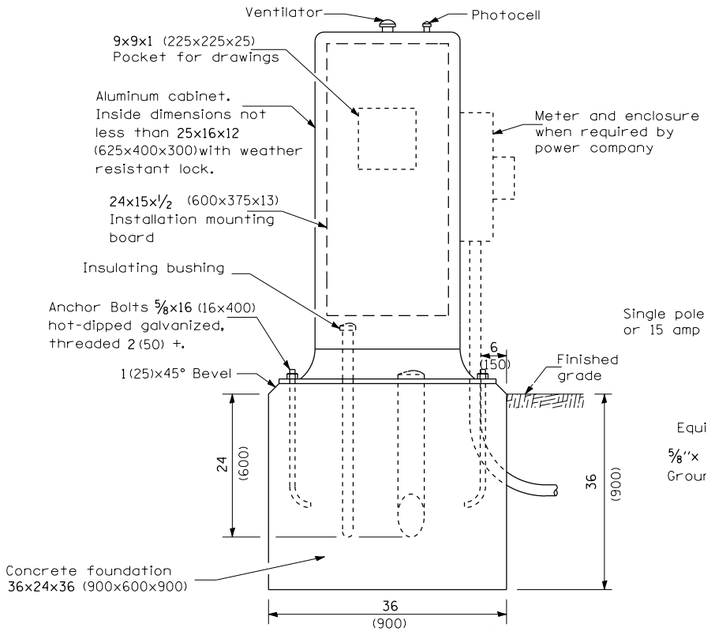
CONTROL INSTALLATION DUAL

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

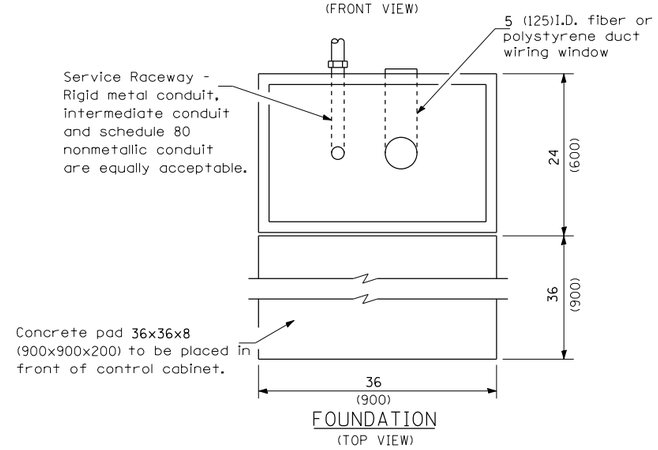


SERVICE POLE



CONTROL INSTALLATION

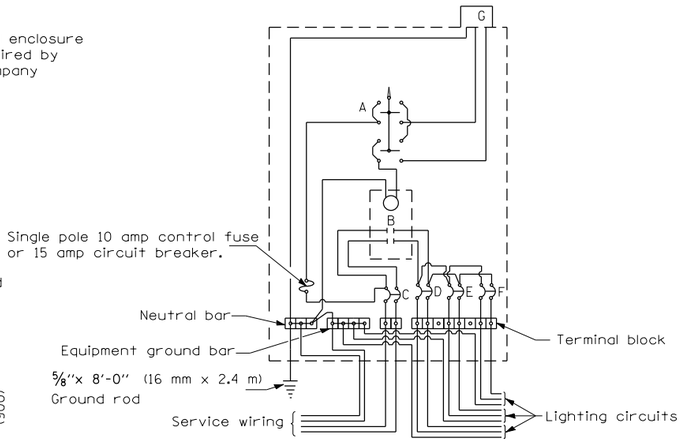
(FRONT VIEW)



FOUNDATION

(TOP VIEW)

A Selector switch
B 2 Pole 100 amp contactor
C 2 Pole 60 amp service disconnect
D.E.F 2 Pole 30 amp breakers
G Photocell w/integral surge arrester



WIRING DIAGRAM

☐ 240 V. SERVICE

☐ 480 V. SERVICE

GENERAL NOTES

Locate service pole and control installation adjacent to R.O.W. line with a minimum distance of 30' (9 m) from the edge of pavement. Exact location shall be established by the Engineer.

The underground service entrance wiring shall not exceed 150' (46 m). Total aerial and underground service between the control installation and primary transformer shall not exceed 250' (76 m).

Raceways shall terminate 3 (75) above top of concrete foundation.

For 480 V. systems, a 480/120 V. control transformer will be required.

All dimensions are in millimeters unless otherwise shown.

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		DRAWN -	REVISED -
Default JLGT005.DGN	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

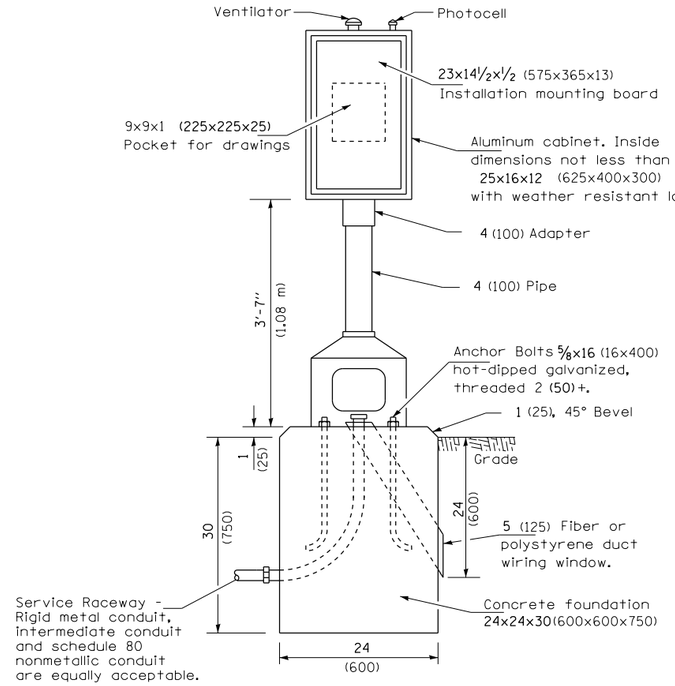
CONTROL INSTALLATION
TYPE CB-RCS-100

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

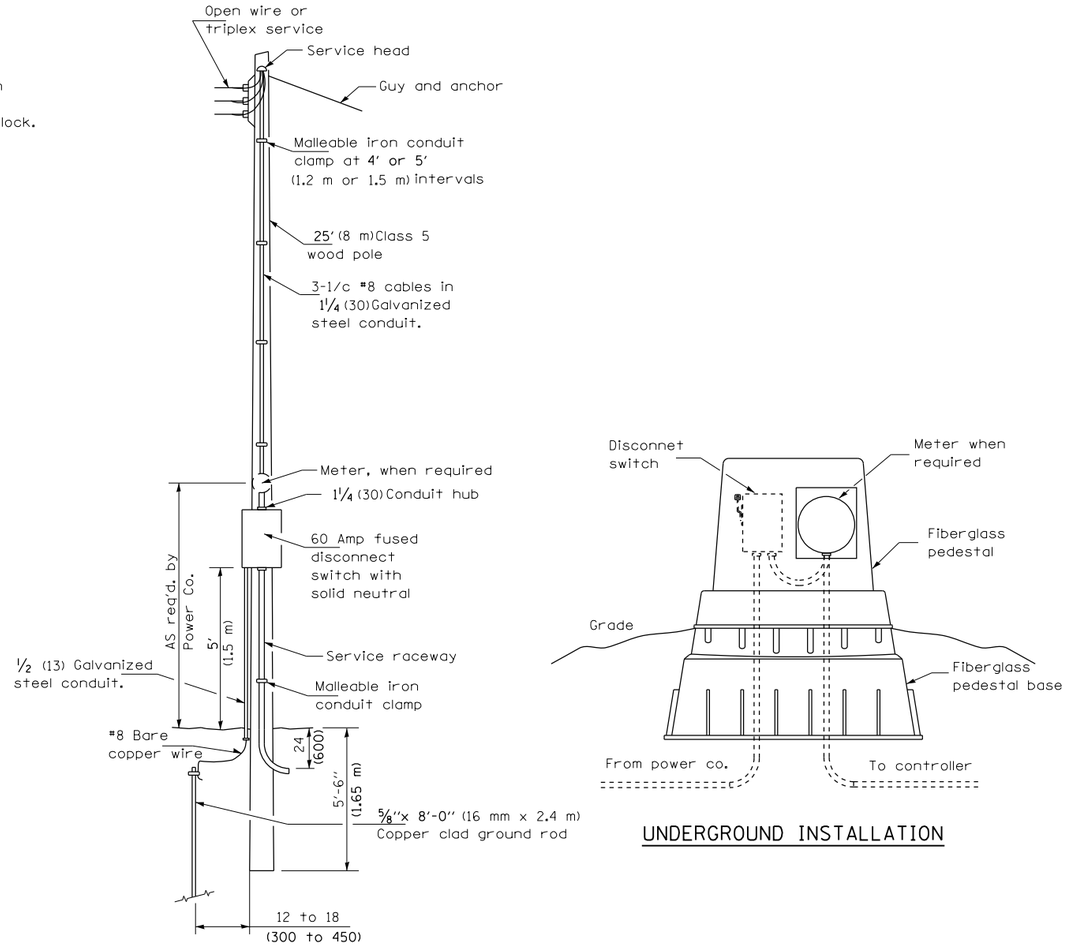
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT



CONTROLLER INSTALLATION



SERVICE POLE

UNDERGROUND INSTALLATION

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-jlgt006.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default JLGT006.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTROL INSTALLATION
TYPE CB-RCS-60

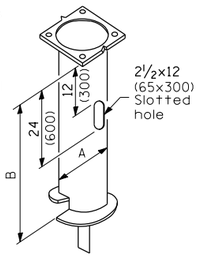
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

DATA, STEEL ** FOUNDATION TABLE			
BOLT CIRCLE	A	B	MOUNTING HEIGHT
15″ (381 mm)	10″ (254 mm)	6′ (1.8 m)	45′ 50′ * (13.7 m or 16.0 m)
15″ (381 mm)	8″ (203 mm)	6′ (1.8 m)	45′ (13.7 m)
11″ (292 mm)	8″ (203 mm)	6′ (1.8 m)	40′ (12.0 m or less)

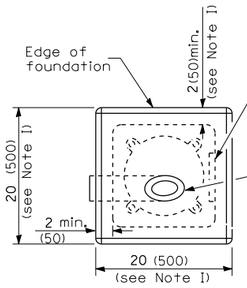
* For use on poles w/twin tenon

** Minimum torque req'd to install foundations shall be **5,000 lbs.** 2268 kg



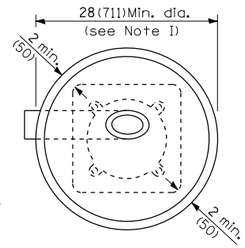
STEEL POLE FOUNDATION

LOW MOUNTING FOUNDATION TABLE		
HEIGHT	DEPTH	BOLT CIRCLE
30′ (9 m)	5′-0″ (1.5 m)	11″ (292 mm)
31′-35′ 99.4 m - 10.7 m)	6′-0″ (1.8 m)	11″ (292 mm)
36′-40′ (11.9 m - 12.0 m)	7′-0″ (2.1 m)	15″ (381 mm)
41′-45′ (12.5 m - 13.7 m)	7′-6″ (2.3 m)	15″ (381 mm)
46′-50′ (14.0 m - 16.0 m)	8′-0″ (2.4m)	15″ (381 mm)

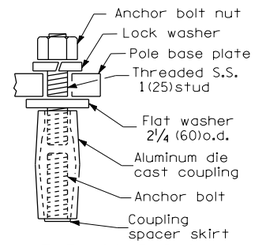


Place door on wireway side. Wireway may be on front, back, or side of foundation as required by the trenching which should permit unit duct to have as few bends as are practical.

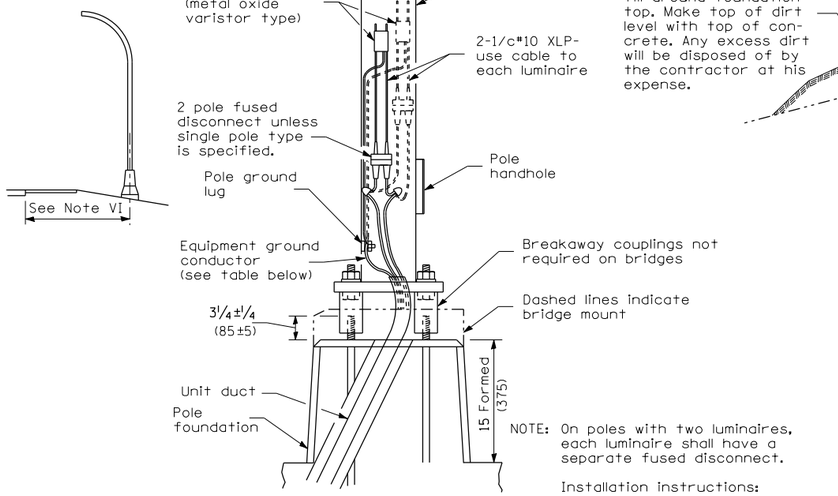
Top of fiber duct shall be flush with the tip of foundation for drainage. 5″ (125 mm) I.D. typeI fiber or polystyrene duct wiring window.



ALT. FOUNDATION



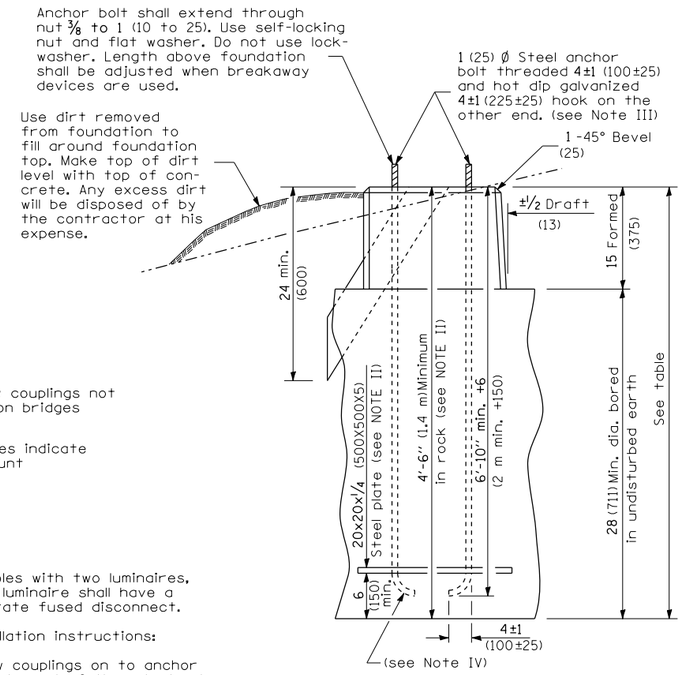
TYP. COUPLING



NOTE: On poles with two luminaires, each luminaire shall have a separate fused disconnect.

Installation instructions:

Screw couplings on to anchor bolts to end of threads, level couplings, very important, as couplings will become over-stressed and either crack or strip threads inside coupling.



POLE BASE MOUNTING & WIRING

GENERAL NOTES

After pouring concrete, the form shall remain undisturbed overnight.

The top 15″ (375 mm) only shall be formed. Concrete bounded by undisturbed earth only shall fill the remainder of the hole.

I Minimum clearance from the outside edge of foundation to any part of the pole baseplate shall be 2″ (50 mm).

II The depth of the foundation may be reduced 6″ (150 mm) for every 12″ (300 mm) of rock encountered with a minimum depth of 4′-6″ (1.4 m). When the depth of the foundation is decreased to less than 6′ (1.8 m) the anchor bolts shall be cut, threaded, and a steel plate 20″ x 20″ x¼″ (500 mm x 500 mm x 5 mm) shall be installed on the anchor bolts 6″ (150 mm) above the bottom of the excavation. The cost shall be incidental the foundation.

III On parapet walls use 1¼(30 mm) Ø anchor bolts. Use self-locking nut and flat washer. Do not use lockwasher. (For details see Standard III/2.35 of Bridge Design Manual.

IV Bend radius shall be four times bolt diameter.

V Connect ground wires to pole base ground lug, not anchor bolts or transformer base.

VI Low mount pole foundation setback:

For horizontal mounted luminaires, setback shall be a minimum of 20′ (6.1 m) from edge of pavement.

For vertical mount luminaires, setback shall be a minimum of 30′ (9 m′) from edge of pavement. Poles shall be located 5′ (1.5 m) behind guardrail or other protective barriers, or as directed by the Engineer.

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

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-jlgt007.dgn	USER NAME = Verenskifa	DESIGNED - D&E	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.000 ′ / in.	CHECKED -	REVISED -
Default JLGT007.DGN	PLOT DATE = 5/10/2016	DATE - 3/11/96	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

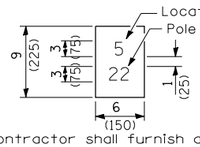
LIGHT POLE FOUNDATION

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

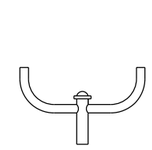
"Install and orient arm bracket over pole tenon and firmly hand tighten the two set screws. Use third hole in arm bracket as a guide to drill a 7/64 (8.3) diameter hole through tenon. Install and tighten self-tapping screw. Tighten set screws an additional (1/4 to 3/8) turn with hex key (not provided). Install locknuts on set screws if threaded projection allows."

Pole shall meet AASHTO Standard Specifications for 80 mph (128.72 km) wind loading and 90 lbs (40.82 kg), 4.0 sq ft (.37 m²) E.P.A. luminaire.

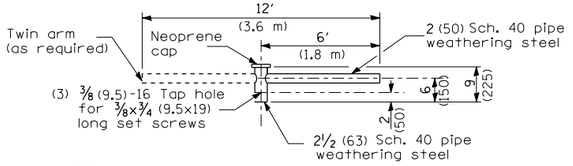


The contractor shall furnish and install a light pole identification of each new light pole, as shown above, incidental to the respective light pole pay item. The numerals shall be 3 (75) series "D", black, screened on silver-white type B pressure sensitive reflective sheeting conforming to the requirements of section T602.01 of the Standard Specifications for Traffic Control Items. The numerals shall conform to the FHWA "Standard Alphabets for Highway Signs".

The light pole identification shall be applied to sign base material as specified in section 1085.05 of the Standard Specifications, approximatey 7 (180) above the adjacent pavement grade visible to approaching traffic in accordance with Highway Standard 2319.

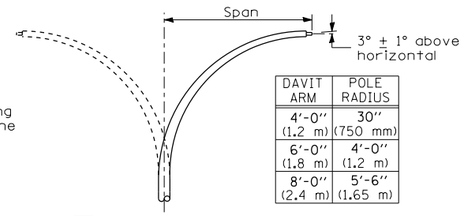


☐ TWIN TENON



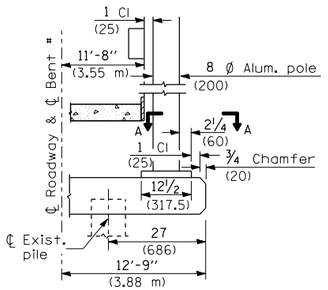
☐ TENON MOUNT BRACKET ARM

NOTE: Single or twin arm assembly shall be tilted 3° above horizontal.



DAVIT ARM	POLE RADIUS
4'-0" (1.2 m)	30" (750 mm)
6'-0" (1.8 m)	4'-0" (1.2 m)
8'-0" (2.4 m)	5'-6" (1.65 m)

☐ DAVIT ARM (and or)
☐ DAVIT ARM-TWIN



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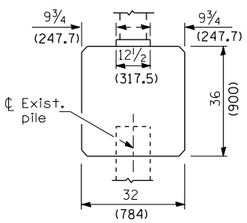
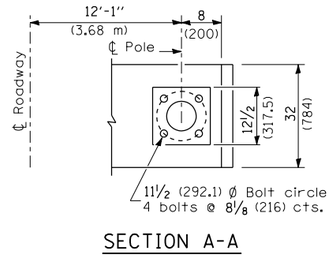
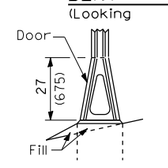


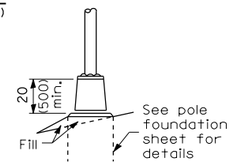
☐ BRIDGE PIER MOUNT



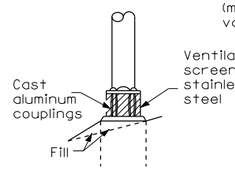
SECTION A-A



☐ STAINLESS STEEL FLAIR BASE

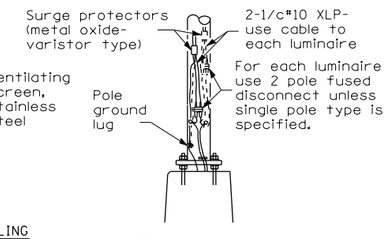


☐ TRANSFORMER BASE



☐ BREAKAWAY COUPLING

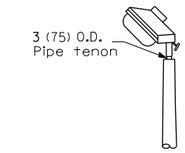
☐ FRANGIBLE



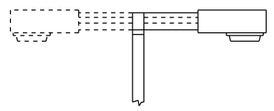
☐ ANCHOR

☐ METAL OR ☐ CONCRETE

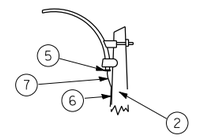
Details for underground distribution if required



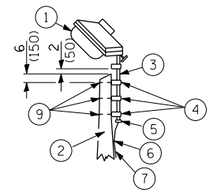
☐ TENON



☐ SHORT BRACKET
☐ SHORT BRACKET - TWIN

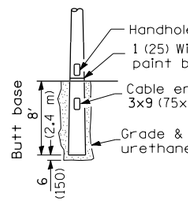


☐ MAST ARM

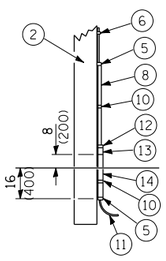


☐ TENON

1. Luminaire
2. Wood pole, class 3 or better
3. 2½ (63) Galv. steel conduit
4. Single offset pole band
5. Conduit bushing
6. Cable clamps on 24 (600) centers
7. 2/c #12 Type use cable
8. 1 (25) Galv. steel conduit 10' (3.0 m) in length
9. ⅝ (16) Ø hot dipped galvanized bolt with flat washer & locknut (3 req'd)
10. Conduit clamps on 36 (900) centers
11. Unit duct
12. Threaded reducer
13. "C" Condulet, threaded
14. 1½ (40) Galv. steel conduit for 1 unit duct or 3 (75) galv. steel conduit for 2 or 3 unit ducts.



☐ BUTT BASE



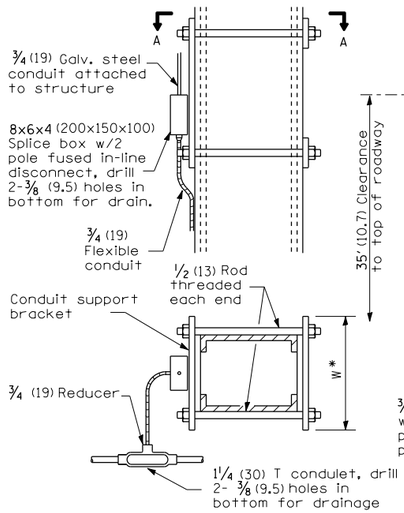
☐ POLE, WOOD

POLE LENGTH	DEPTH IN GROUND
65' (19.8 m)	12' (3.6 m)
60' (18.0 m)	10' (3.0 m)
55' (16.8 m)	9' (2.7 m)
50' (16.0 m)	8' (2.4 m)
45' (13.7 m)	7' (2.1 m)
40' (12.0 m)	6.5' (2.0 m)
35' (10.7 m)	6' (1.8 m)
30' (9.0 m)	5.5' (1.7 m)

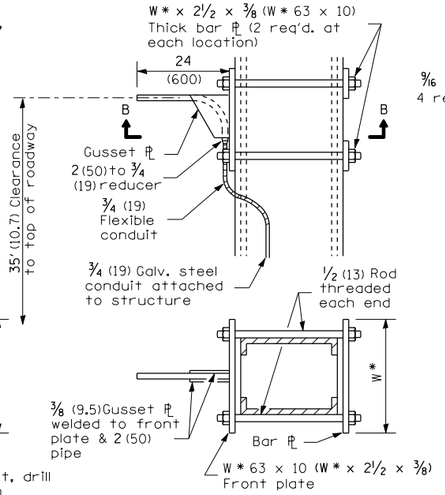
added short bracket - twin
and edited to section 1085.05
10/30/97 hec

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

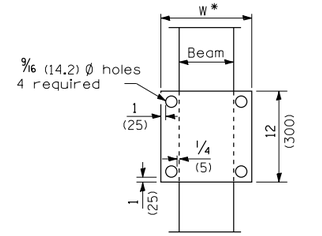
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-jlgt008.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POLE STANDARDS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.000 ' / in.	DRAWN -	REVISED -							
Default JLGT008.DGN	PLOT DATE = 5/10/2016	CHECKED -	REVISED -					CONTRACT NO.		
		DATE -	REVISED -		SCALE:	SHEET OF SHEETS	STA. TO STA.	ILLINOIS	FED. AID PROJECT	



SECTION A-A

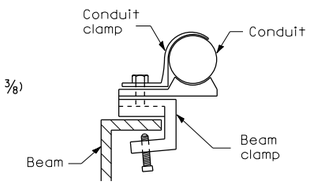


SECTION B-B

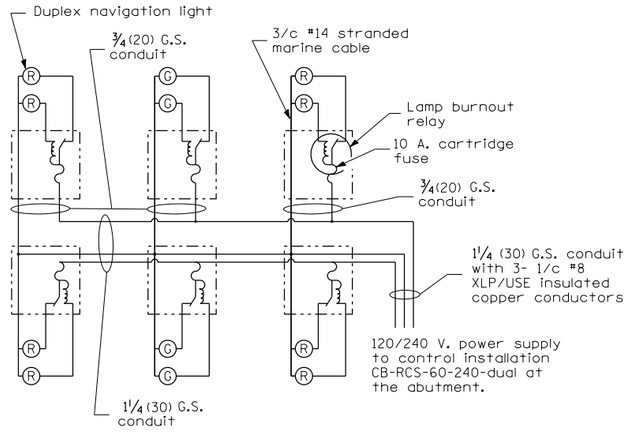


* Dimension W = width of beam + 3 5/8 (92)

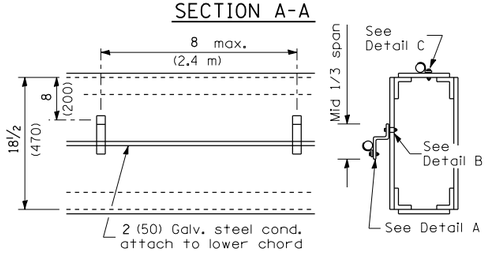
FRONT PLATE DETAIL



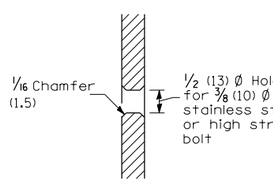
DETAIL C



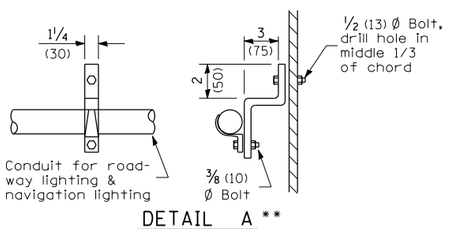
WIRING DIAGRAM FOR NAVIGATION LIGHTING



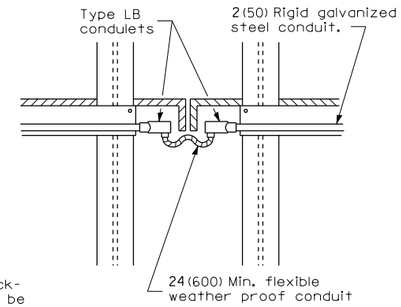
MAST ARM MOUNTING DETAILS



DETAIL B

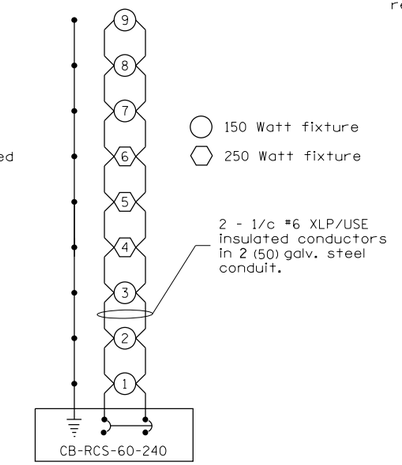


DETAIL A **

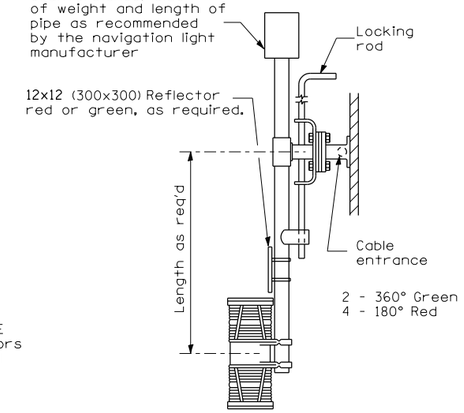


EXPANSION JOINT DETAIL

(Use same method to bypass other obstructions.)



ROADWAY LIGHTING



NAVIGATION LUMINAIRE

** Conduit clamps shall be malleable iron. Bolts, locknuts and washers shall be stainless steel. 1/4 (5) steel bracket shall be hot dipped galvanized after fabrication. Location on 6' (1.8 m) cts.

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

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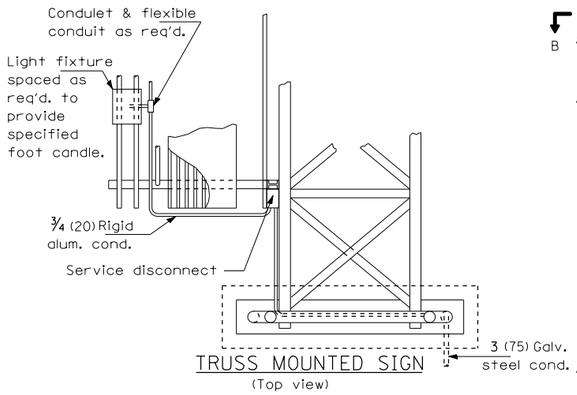
		DRAWN -	REVISED -
Default JLGT011.DGN	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

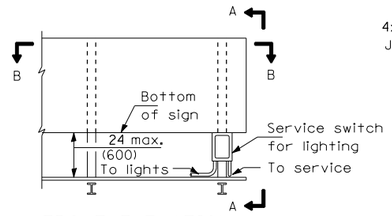
NAVIGATION LIGHTING w/COUNTERBALANCE

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

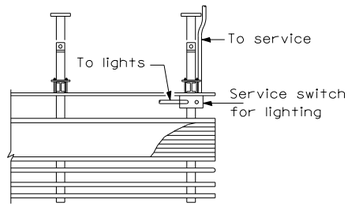
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



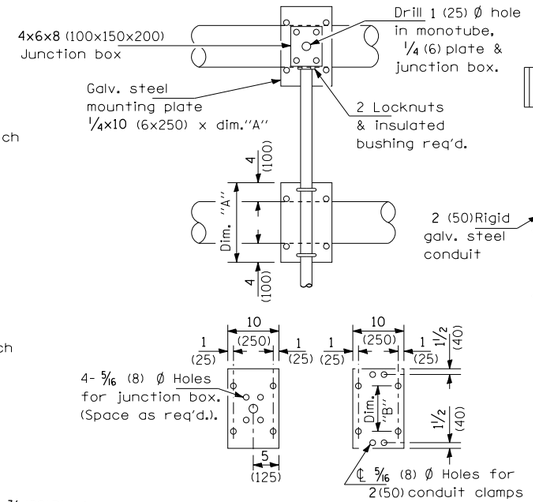
TRUSS MOUNTED SIGN
(Top view)



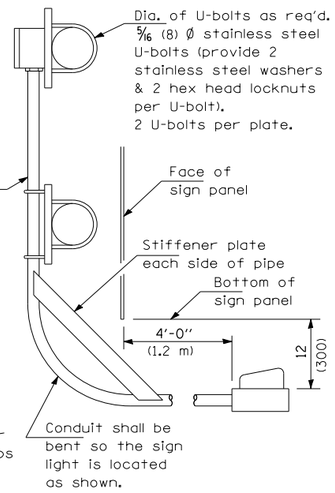
FRONT ELEVATION



SECTION B-B

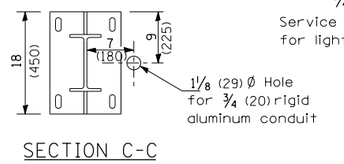


Dimension "A" = monotube dia. + 8 (200)
Dimension "B" = monotube dia. + 3/8 (10)

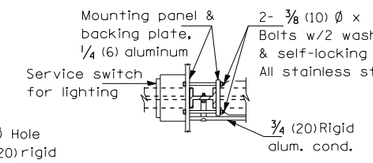


TWIN MONOTUBE

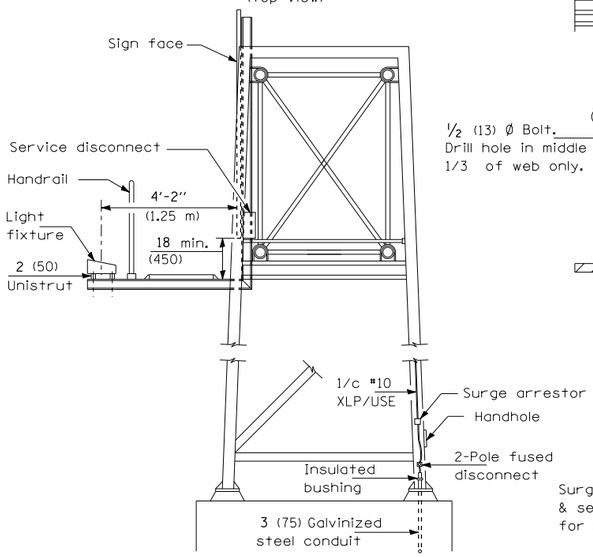
MOUNTING PLATES



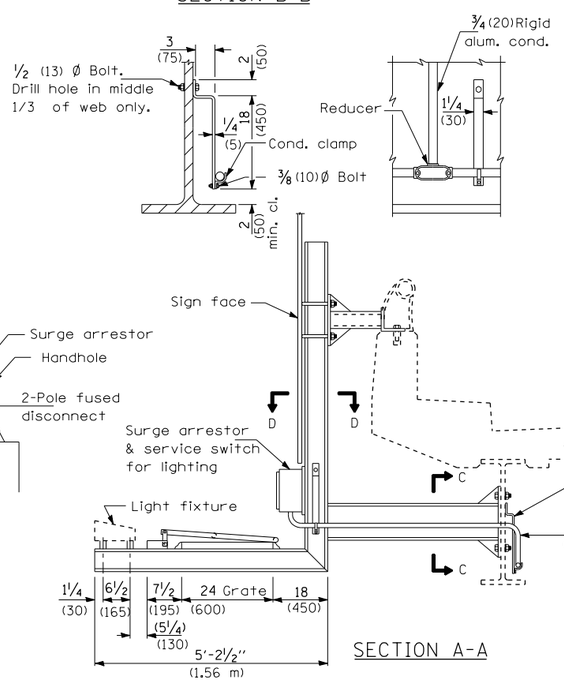
SECTION C-C



SECTION D-D



TRUSS MOUNTED SIGN
(Side elevation)



SECTION A-A

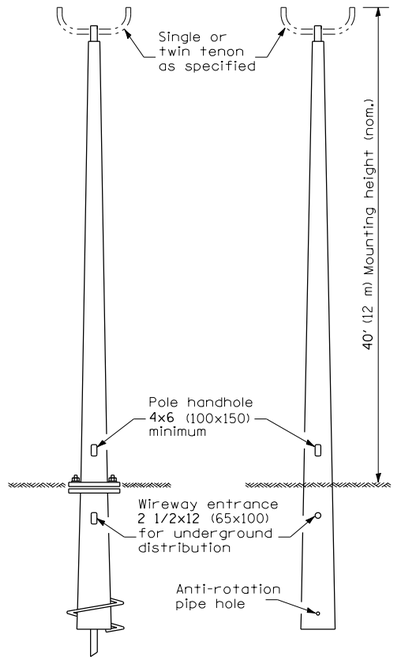
GENERAL NOTES

All sign lighting fixtures shall have a minimum of 3 mounting points.

All mounting hardware shall be stainless steel.

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

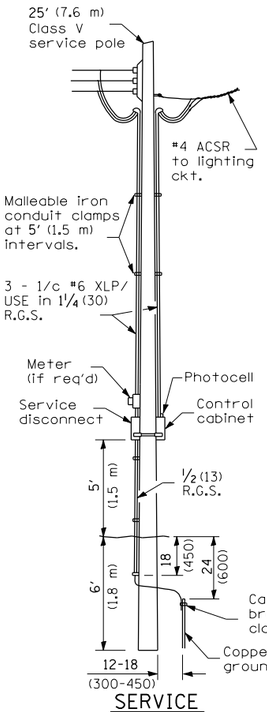
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-jlgt013.dgn	USER NAME = Verenskifa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SIGN LIGHTING DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -							
	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -					CONTRACT NO.		
Default JLGT013.DGN	PLOT DATE = 5/10/2016	DATE -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		



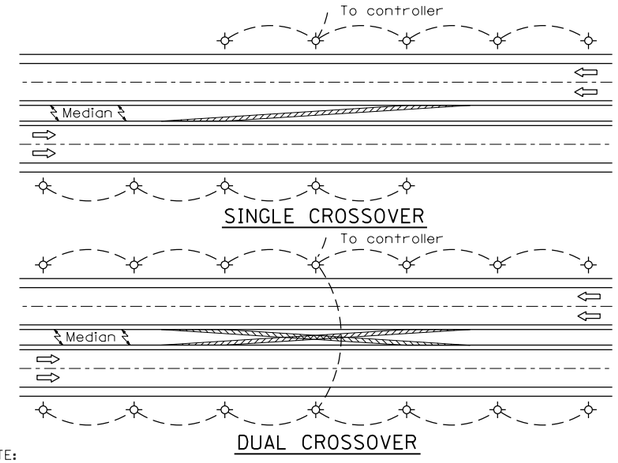
ANCHOR BASE W/ METAL FOUNDATION

BUTT BASE

POLE, FIBERGLASS BREAKAWAY TYPE



SERVICE INSTALLATION



NOTE:

Min. Pole spacing 200' (60 m)
Max. Pole spacing 250' (75 m)

Setback shall be min. (30') 9 m or 5' (1.5 m) back of ditch, unless breakaway type pole is used.

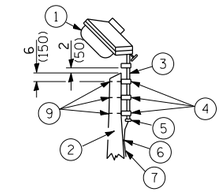
1. Luminaire
2. Wood pole, class 3 or better
3. 2½ (63) Galv. steel conduit
4. Single offset pole band
5. Conduit bushing
6. Cable clamps on 24 (600) centers
7. 2/c #12 Type USE cable
8. 1 (25) Galv. steel conduit 10' (3.0 m) in length

NOTE:

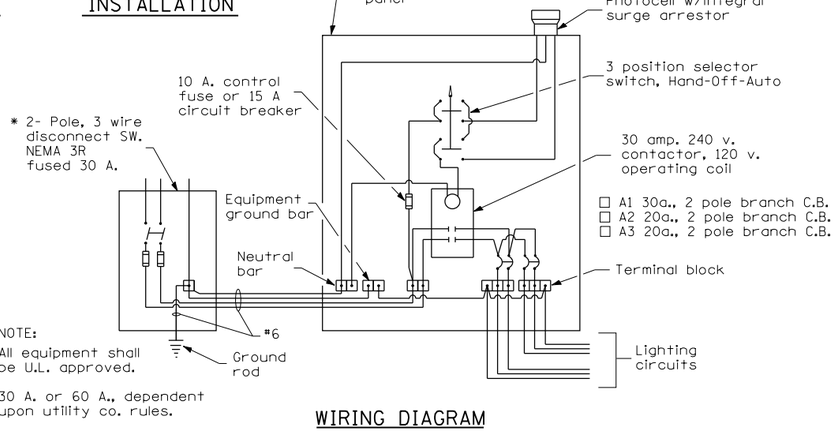
Luminaire(s) shall have a 2-pole inline weatherproof quick disconnect fuse holder.

Luminaire(s) shall be oriented and the mounting angle adjusted as recommended by the Engineer.

Connect luminaire equipment ground to ACSR messenger.



9. ⅝ (16) Ø hot dipped galvanized bolt with flat washer & locknut (3 req'd)
10. Conduit clamps on 36 (900) centers
11. Unit duct
12. Threaded reducer
13. "C" Condulet, threaded
14. 1½ (40) Galv. steel conduit for 1 unit duct or 3 (75) galv. steel conduit for 2 or 3 unit ducts.

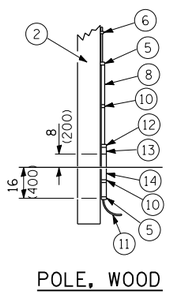


NOTE:

All equipment shall be U.L. approved.

* 30 A. or 60 A., dependent upon utility co. rules.

WIRING DIAGRAM



POLE, WOOD

POLE LENGTH	DEPTH IN GROUND
65' (19.8 m)	12' (3.6 m)
60' (18.0 m)	10' (3.0 m)
55' (16.8 m)	9' (2.7 m)
50' (16.0 m)	8' (2.4 m)
45' (13.7 m)	7' (2.1 m)
40' (12.0 m)	6.5' (2.0 m)
35' (10.7 m)	6' (1.8 m)
30' (9.0 m)	5.5' (1.7 m)

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

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		DRAWN -	REVISED -
	PLOT SCALE = 40.000 ' / in.	CHECKED -	REVISED -
Default JLGT014.DGN	PLOT DATE = 5/10/2016	DATE - 7/10/00	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY ROADWAY LIGHTING

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

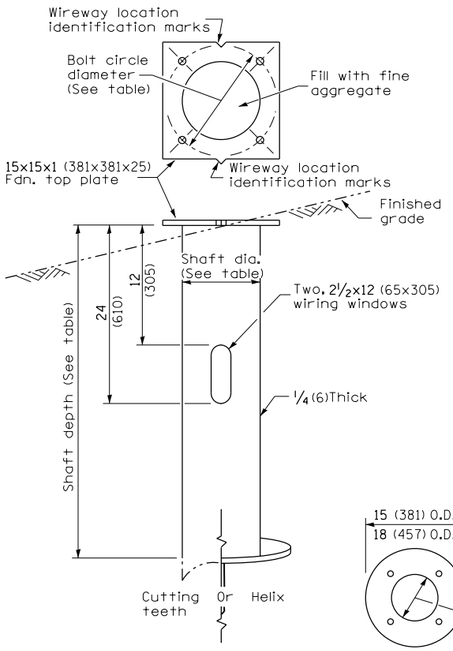
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

LIGHT POLE MOUNTING HEIGHT	BOLT CIRCLE DIAMETER	STEEL FOUNDATION		CONCRETE FOUNDATION		
		SHAFT DIAMETER	SHAFT DEPTH	SHAFT DIAMETER	SHAFT DEPTH	ANCHOR ROD LENGTH *
30′ ≤ (9.1 m)	11½″ (292 mm)	8⅝″ (220 mm)	6′-0″ (1.83 m)	24″ (610 mm)	5′-0″ (1.52 m)	4′-9″ (1.45 m)
31′-35′ (9.4 m - 10.7 m)	11½″ (292 mm)	8⅝″ (220 mm)	6′-0″ (1.83 m)	24″ (610 mm)	5′-6″ (1.67 m)	5′-3″ (1.60 m)
36′-40′ (10.9 m - 12.2 m)	15″ (381 mm)	8⅝″ (220 mm)	6′-0″ ** (1.83 m)	24″ (610 mm)	6′-0″ (1.83 m)	5′-9″ (1.75 m)
41′-45′ (12.5 m - 13.7 m)	15″ (381 mm)	8⅝″ (220 mm)	6′-0″ ** (1.83 m)	24″ (610 mm)	6′-6″ (1.98 m)	6′-3″ (1.90 m)
46′-50′ (14.0 m - 15.2 m)	15″ (381 mm)	8⅝″ (220 mm)	8′-0″ (2.44 m)	24″ (610 mm)	7′-0″ (2.13 m)	6′-9″ (2.00 m)

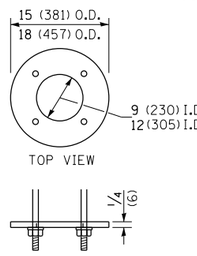
* Length does not include 4(100) hook
** 8⅝″x 8′-0″ (220 mm x 2.44 m) for Twin luminaires

Notes:

All foundations are designed to be located on slopes not exceeding 2:1 where soils have an unconfined compressive strength of at least 1.0 TSF. The contractor shall verify the soil strength during drilling for concrete foundations or by monitoring installation resistance on steel foundations and notify the engineer if other conditions are encountered.



STEEL FOUNDATION



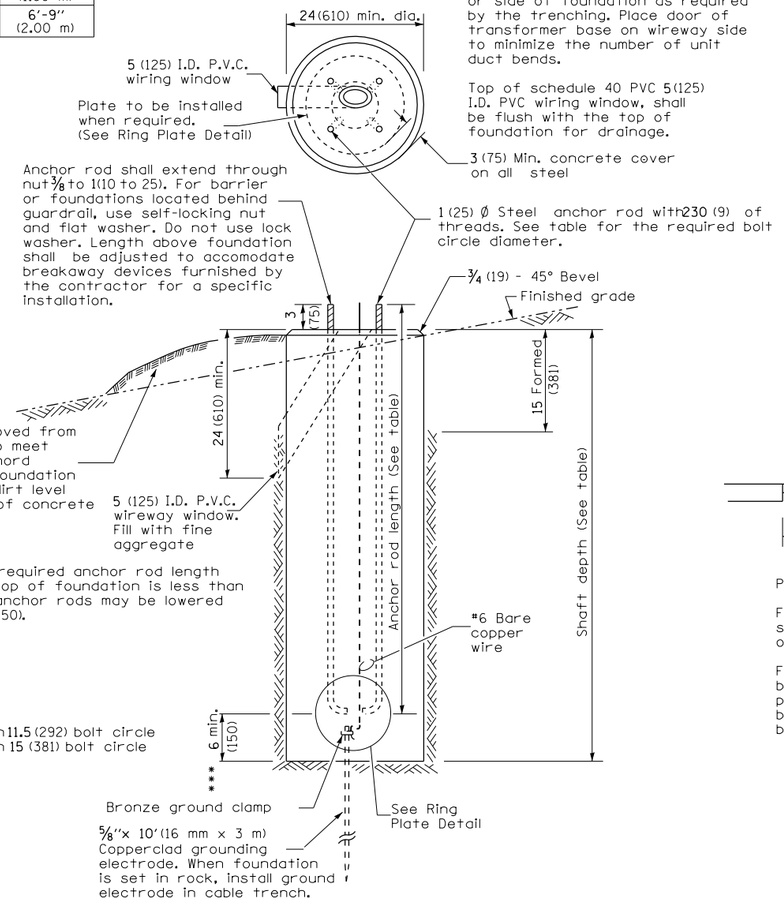
RING PLATE DETAIL

(When rock is encountered and foundation is shallower)

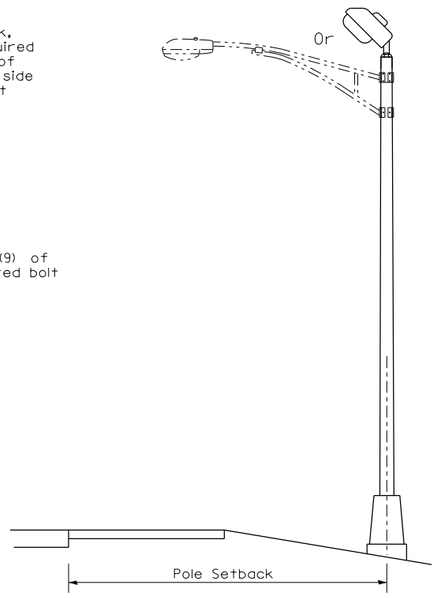
Notes:

Wireway may be on front, back, or side of foundation as required by the trenching. Place door of transformer base on wireway side to minimize the number of unit duct bends.

Top of schedule 40 PVC 5(125) I.D. PVC wiring window, shall be flush with the top of foundation for drainage.



CONCRETE FOUNDATION



Pole Foundation Setback:

For horizontal mounted luminaires, setback shall be a minimum of 20′(6.1 m) from edge of pavement.

For vertical mount luminaires, setback shall be a minimum of 30′(9 m) from edge of pavement. Poles shall be located 5′(1.5 m) behind guardrail or other protective barriers, or as directed by the Engineer.

10/7/02 Bridge Office depth calc.

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

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		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ′ / in.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY ROADWAY LIGHTING

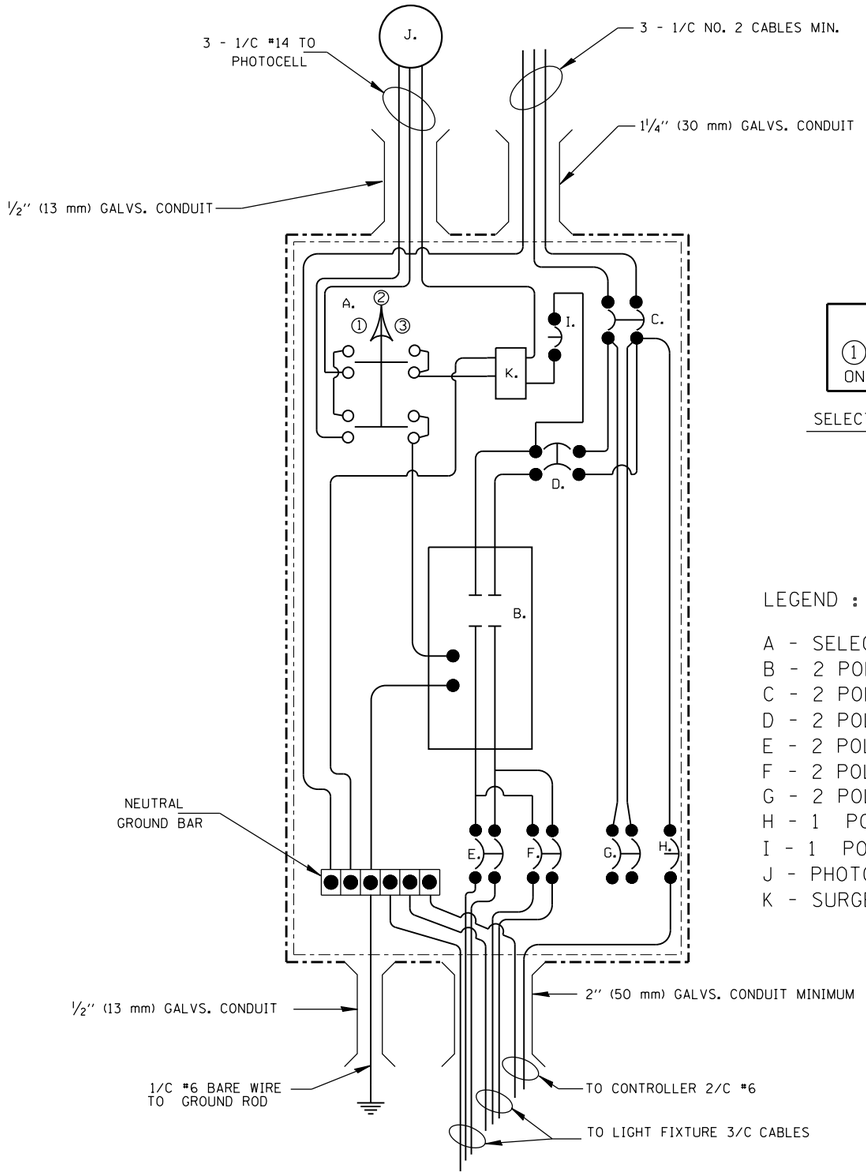
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

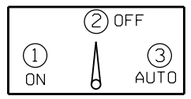
CONTRACT NO.

ILLINOIS FED. AID PROJECT

SERVICE INSTALLATION TYPE A, MODIFIED



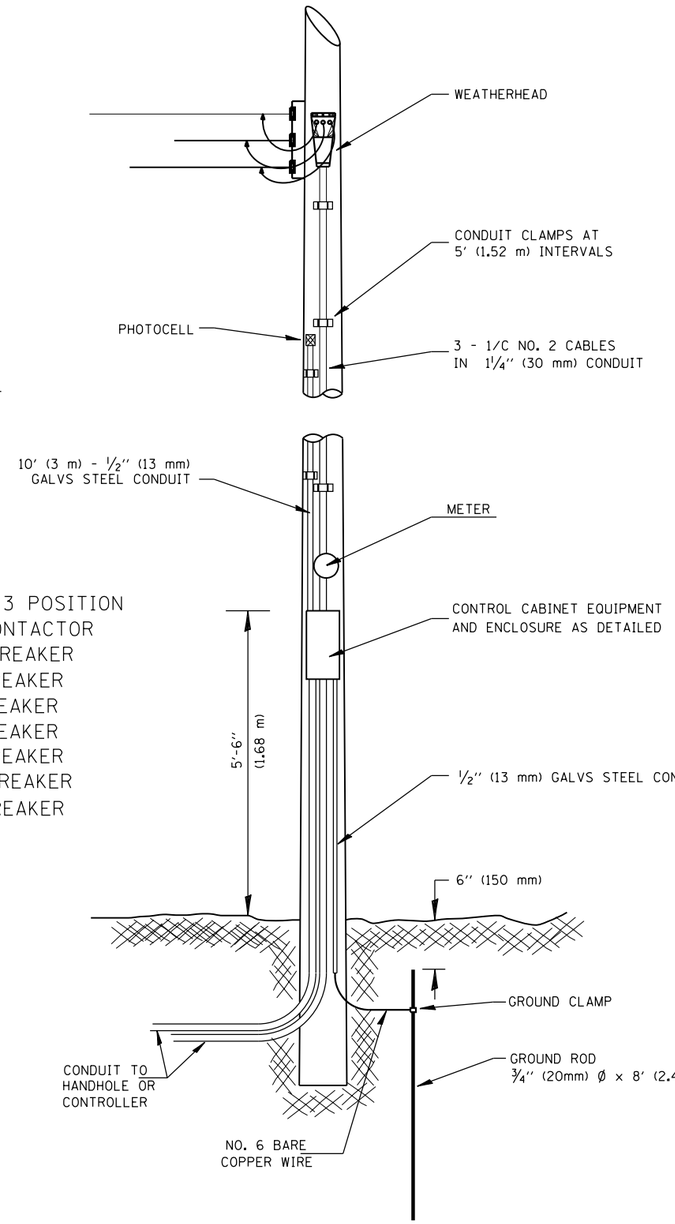
CONTACTOR AND SWITCHING ENCLOSURE



SELECTOR SWITCH PANEL
(NOTE 4)

LEGEND :

A - SELECTOR SWITCH - 3 POSITION
B - 2 POLE , 30 AMP CONTACTOR
C - 2 POLE , 100 AMP BREAKER
D - 2 POLE , 30 AMP BREAKER
E - 2 POLE , 15 AMP BREAKER
F - 2 POLE , 15 AMP BREAKER
G - 2 POLE , 20 AMP BREAKER
H - 1 POLE , 50 AMP BREAKER
I - 1 POLE , 15 AMP BREAKER
J - PHOTOCELL
K - SURGE PROTECTOR



NOTES :

1. ALL ENCLOSURES SHALL BE NEMA TYPE 4 ALUMINUM ALLOY WEATHER PROOF BOX WITH LOCKING PROVISIONS.
2. CONTROL CABINET SHALL HAVE MINIMUM INSIDE DIMENSIONS OF 18" (450 mm) x 12" (300 mm) x 6" (150 mm) .
3. THE CONTRACTOR MAY USE MATERIALS SALVAGED FROM THE EXISTING SERVICE IF APPROVED BY THE ENGINEER.
4. SELECTOR SWITCH SHALL HAVE MARKED POSITIONS WITH METAL OR ENGRAVED PLASTIC NAME PLATE AS SHOWN.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 6\Standards\Standard Details\800-CAD ta.dgn	USER NAME = Verenskfa	DESIGNED - WCD	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.000 ' / in.	CHECKED - WCD	REVISED -
Default SERVTA.DGN	PLOT DATE = 5/10/2016	DATE - 1/08/91	REVISED -

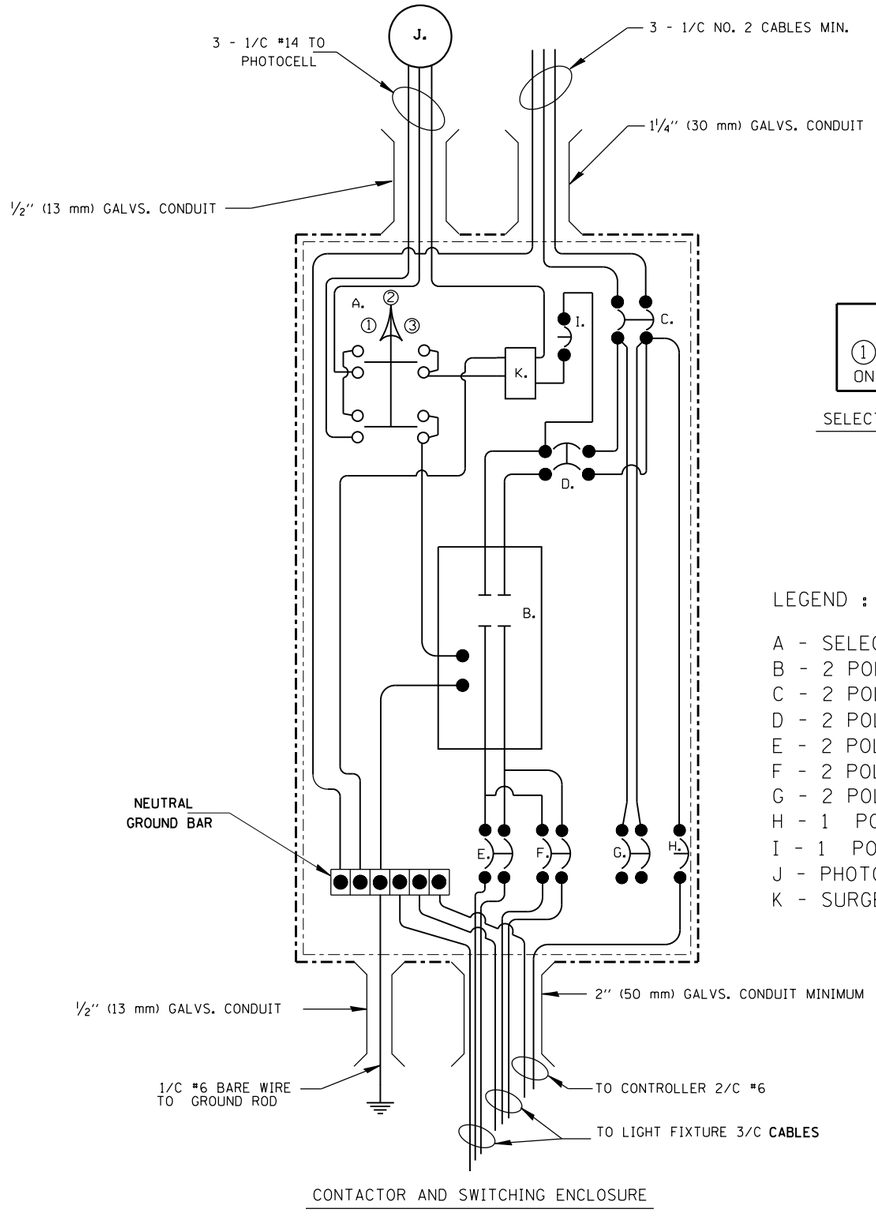
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SERVICE INSTALLATION, TYPE A (MODIFIED)

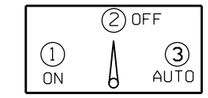
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SERVICE INSTALLATION TYPE B, MODIFIED



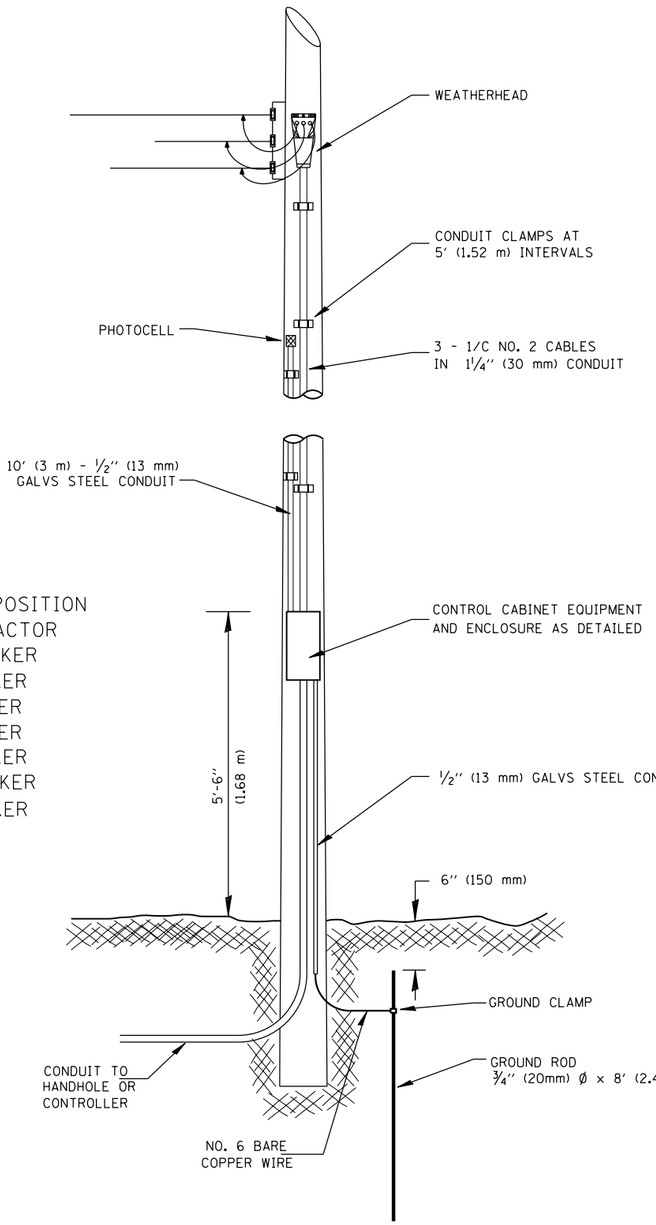
CONTACTOR AND SWITCHING ENCLOSURE



SELECTOR SWITCH PANEL
(NOTE 4)

LEGEND :

A - SELECTOR SWITCH - 3 POSITION
B - 2 POLE , 30 AMP CONTACTOR
C - 2 POLE , 100 AMP BREAKER
D - 2 POLE , 30 AMP BREAKER
E - 2 POLE , 15 AMP BREAKER
F - 2 POLE , 15 AMP BREAKER
G - 2 POLE , 20 AMP BREAKER
H - 1 POLE , 50 AMP BREAKER
I - 1 POLE , 15 AMP BREAKER
J - PHOTOCELL
K - SURGE PROTECTOR



NOTES :

1. ALL ENCLOSURES SHALL BE NEMA TYPE 4 ALUMINUM ALLOY WEATHER PROOF BOX WITH LOCKING PROVISIONS.
2. CONTROL CABINET SHALL HAVE MINIMUM INSIDE DIMENSIONS OF 18" (13 mm) x 12" (300 mm) x 6" (150 mm).
3. THE CONTRACTOR MAY USE MATERIALS SALVAGED FROM THE EXISTING SERVICE IF APPROVED BY THE ENGINEER.
4. SELECTOR SWITCH SHALL HAVE MARKED POSITIONS WITH METAL OR ENGRAVED PLASTIC NAME PLATE AS SHOWN.

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		DRAWN -	REVISED -							
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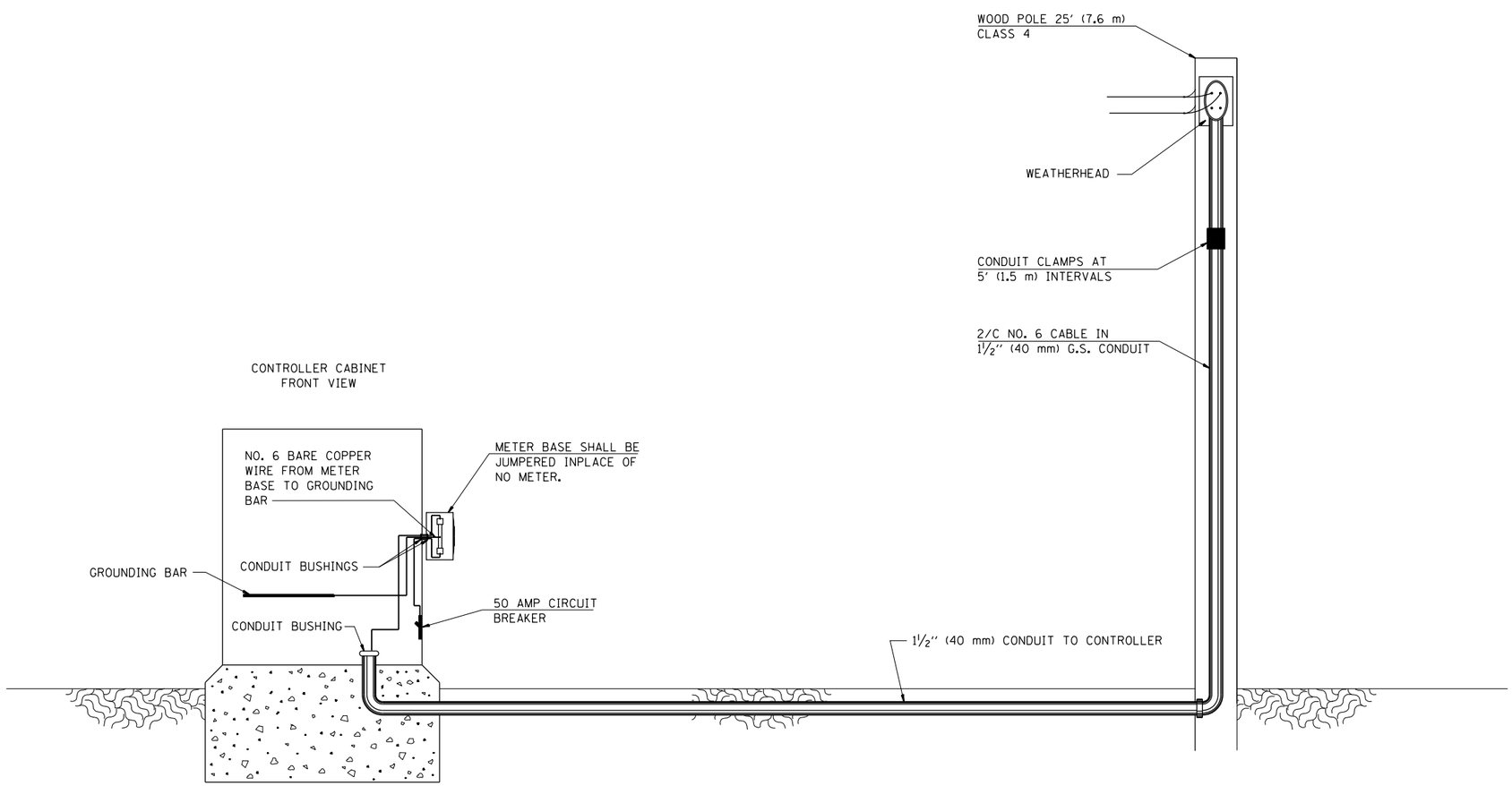

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SERVICE INSTALLATION
TYPE C (MODIFIED)

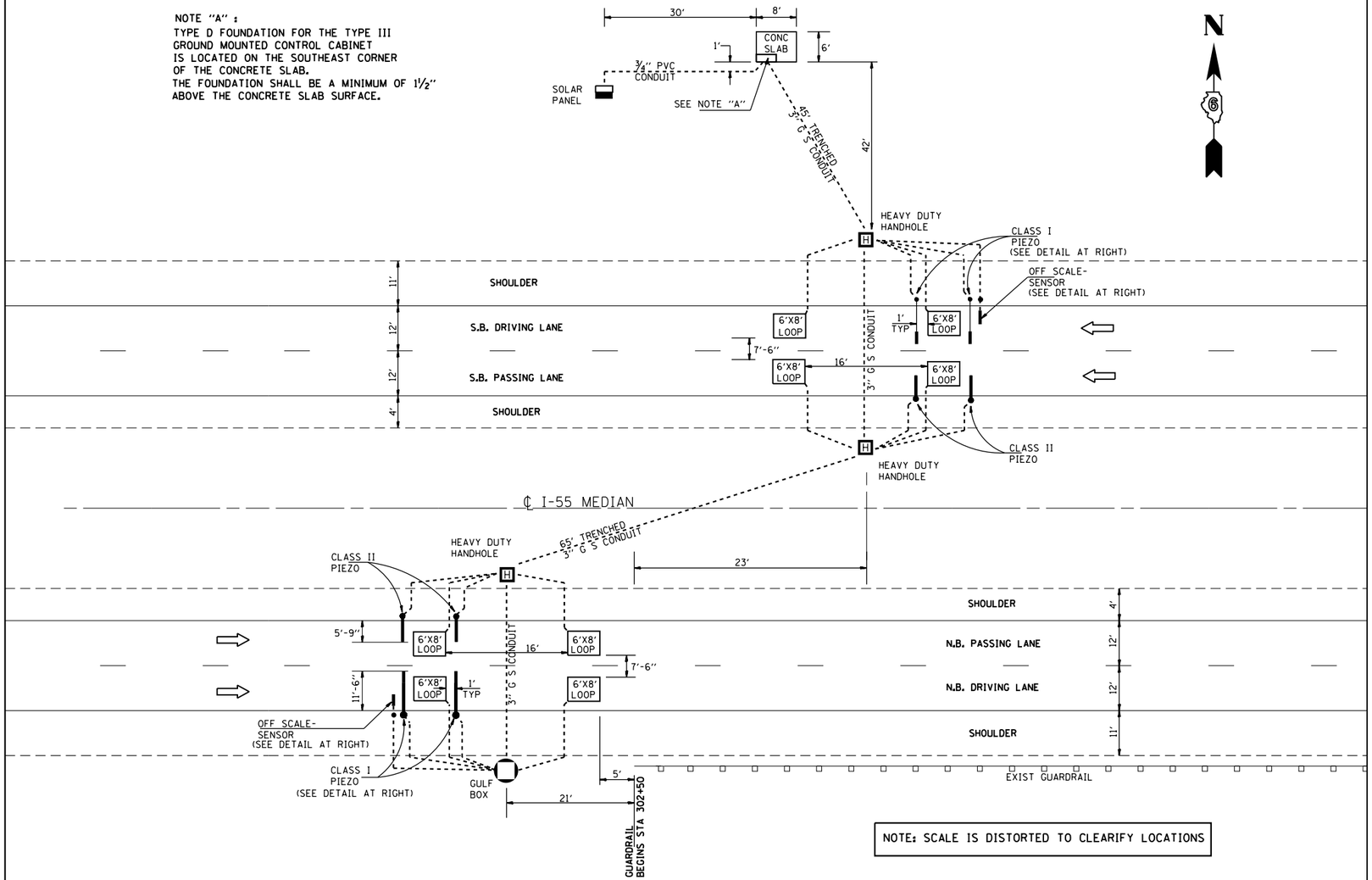
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

EQUIPMENT TEST / FOUR-WEEK COUNT STATION

FAI 55 - SANGAMON CO CONSTRUCTION STA 302+50

NOTE "A" :
TYPE D FOUNDATION FOR THE TYPE III GROUND MOUNTED CONTROL CABINET IS LOCATED ON THE SOUTHEAST CORNER OF THE CONCRETE SLAB.
THE FOUNDATION SHALL BE A MINIMUM OF 1½" ABOVE THE CONCRETE SLAB SURFACE.



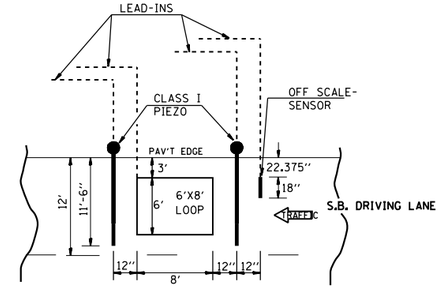
NOTE: SCALE IS DISTORTED TO CLEARIFY LOCATIONS

GENERAL NOTES

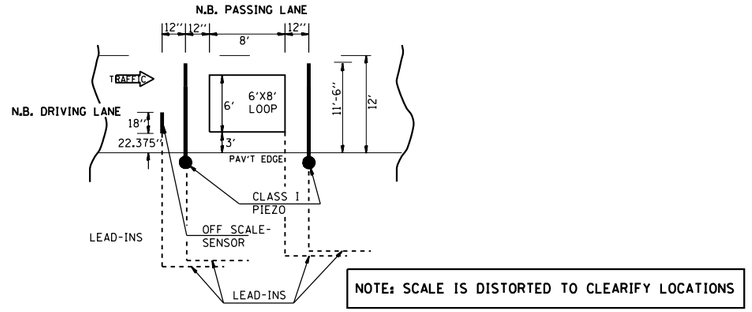
1. EACH DETECTOR LOOP USED SHALL BE WIRED INDEPENDENTLY AT THE GULFBOX.
2. A SINGLE MULTIPLE PAIR CABLE SHALL BE WIRED FROM THE GULFBOX TO THE CONTROL CABINET. THE NUMBER OF PAIRS IN THE CABLE SHALL BE EQUAL TO THE NUMBER OF DETECTOR LOOPS PLUS A MINIMUM OF ONE PAIR TO BE USED AS A SPARE.
3. RECTANGULAR SHAPED LOOPS SHALL HAVE A MINIMUM SEPARATION 7½' BETWEEN INSIDE EDGES OF THE DETECTOR LOOPS.
4. EACH 6' X 8' DETECTOR LOOP SHALL HAVE A MINIMUM OF 4 TURNS OF CABLE OR AS DIRECTED BY THE ENGINEER.
5. DETECTOR LOOPS SHALL BE LOCATED AS IN THE PAVEMENT AS DIRECTED BY THE ENGINEER. ALL LOOPS SHALL BE ORIENTED THE SAME DIRECTION.
6. GULFBOX JUNCTIONS / HANDHOLES SHALL BE LOCATED OUTSIDE THE AGGREGATE OR STABILIZED SHOULDER LIMITS WITH THE TOP OF GULFBOX JUNCTIONS / HANDHOLES LEVEL WITH GROUNDLINE, AS DIRECTED BY THE ENGINEER.

QUANTITIES

8 - LOOPS (6'x8')
4 - CLASS I PIEZOS: (11'-6") IN DRIVING LANE
4 - CLASS II PIEZOS: (5'-9") IN PASSING LANE
2 - OFF SCALE DETECTOR
1 - SOLAR PANEL - 18 WATT MINIMUM
1 - TYPE III CABINET - GROUND MOUNT (HENNESY NO. HP503017 OR APPROVED EQUAL)
3 - HEAVY-DUTY HANDHOLES



℄ I-55 MEDIAN



NOTE: SCALE IS DISTORTED TO CLEARIFY LOCATIONS

INSTALLATION NOTES:

A. CUT SLOTS 1½" WIDE AND 1¼" DEEP THE FULL WIDTH OF THE TRAFFIC LANE.
B. CUT A SLOT 1½" WIDE X 1¼" DEEP X 20" LONG, 1'-8⅜" IN FROM THE EDGE OF PAVEMENT, TO ALLOW FOR POSITIONING OF THE ON(OFF)-SCALE SENSOR TO ± ⅜" OF THE DIMENSIONS SHOWN ON THE DRAWING.
C. CUT LOOP SLOTS TO THE DIMENSIONS SHOWN, 1¼" TO 1½" DEEP. LOOPS SHAL BE POSITIONED AS SHOWN.
D. LOOP LEAD-IN AND PIEZO LEAD-IN SLOTS TO BE CUT ⅜" WIDE. 1" TO 1¼" DEEP. CONDUIT TO BE USED FOR LEAD-IN CABLE OUTSIDE OF ROADWAY.
E. ALL DIMENSIONS IN DIRECTION OF TRAFFIC ARE FROM THE LEADING EDGE OF THE PIEZO SLOTS.
F. LOOPS TO BE A MINIMUM OF 4 TURNS OF #14 AWG. THWN OR THNN WIRE.
G. LOOP LEAD-IN WIRE TO BE TWISTED 3 TO 5 TURNS PER FOOT.
H. MARK LOOP AND PIEZO LEAD-IN CABLES WITH COLORED TAPE OR WIRE MARKERS FOR IDENTIFICATION PURPOSES.
I. LOOP SLOTS AND LEAD-IN/HOME-RUN SLOTS TO BE FILLED WITH SEALER PROVIDE BY OTHERS.

LOCATION DETAIL FOR CLASS I PIEZO AND ON(OFF)-SCALE SENSORS

NOTE: NOT TO SCALE

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	PLOT DATE = 5/10/2016	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EQUIPMENT TEST / FOUR-WEEK COUNT STATION

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

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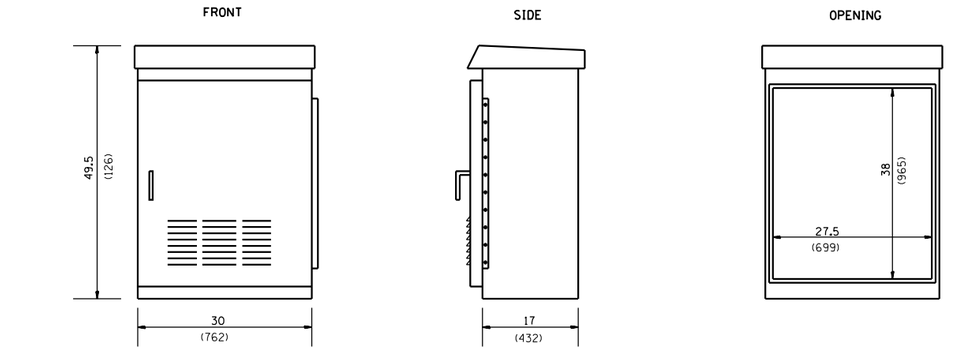
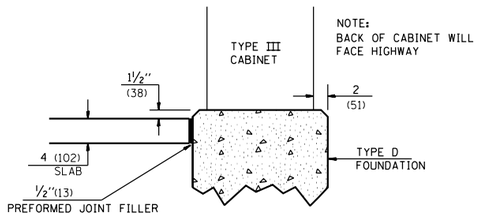
SINGLE DOOR CABINET

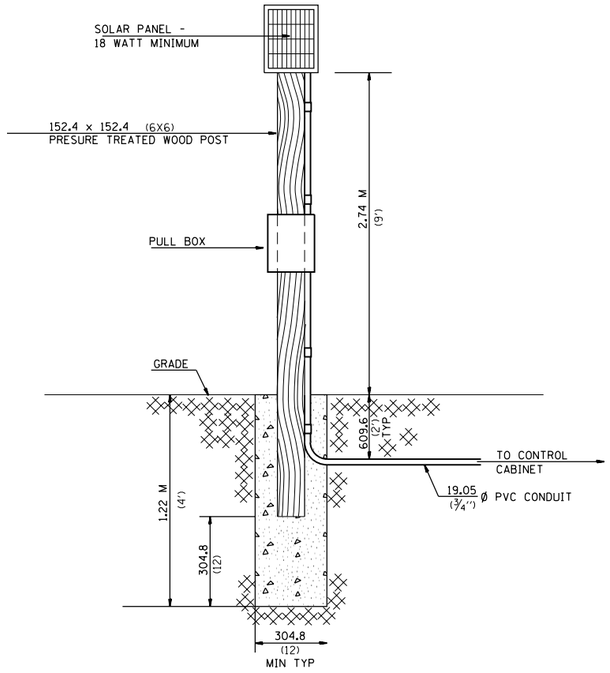




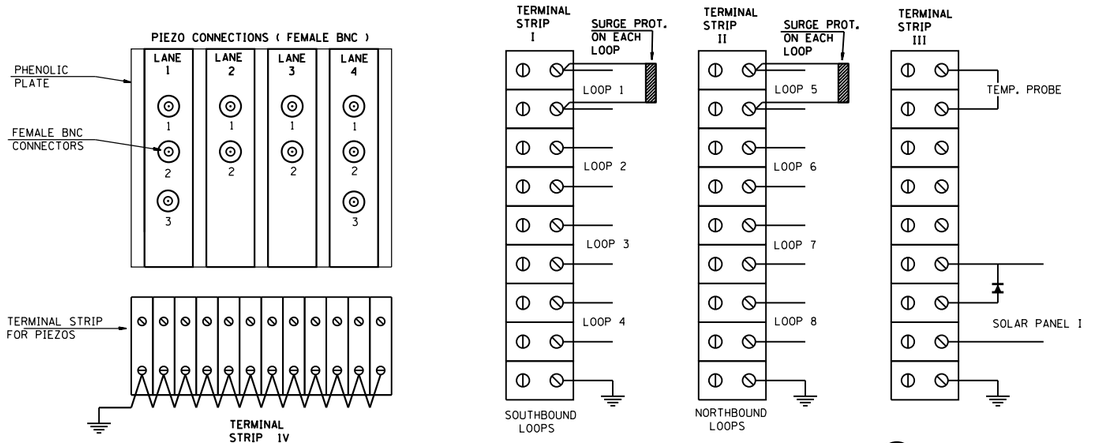
NOTE: THIS UNIT SHALL HAVE THREE ADJUSTABLE SHELVES. ALL TERMINAL STRIPS AND PIEZO CONNECTIONS WILL BE MOUNTED ON BACK INSIDE WALL.

TRAFFIC DATA COLLECTION CONTROL CABINET
SOURCE: HENNESSY PRODUCTS INC. OR APPROVED EQUAL
MODEL: HP 503017
MATERIAL: ALUMINUM ALLOY - TYPE NO. 5052-H32
NEMA TYPE: 3R-12-4-4X
CABINET FINISH: NATURAL ALUMINUM

SOLAR POWER ROST DETAIL



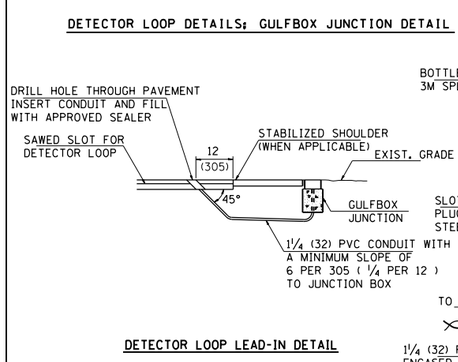
PHENOLIC PLATE, TERMINAL STRIPS & BNC CONNECTORS IN CABINET



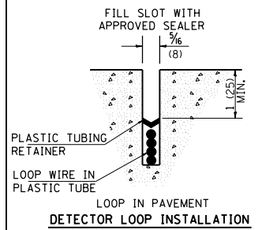
NOTES:
1) ONE SURGE PROTECTOR FOR EACH PIEZO AT CONTROLLER
SOURCE: BLACK BOX CORP. - PART NO. JL-SP350A-R2 / 10 REQUIRED
2) PHENOLIC PLATE IS MOUNTING SURFACE FOR FEMALE BNC CONNECTORS
3) ONE SURGE PROTECTOR FOR EACH LOOP
SOURCE: SURRESTOR - PART NO. SRA-16 / 8 REQUIRED
4) TERMINAL STRIPS SHALL BE MOUNTED ON ALUMINUM PLATE
5) ALL PIEZO LEADS SHALL BE TERMINATED AT BULKHEAD MOUNTED FEMALE BNC CONNECTORS
6) ALL CONNECTIONS MUST BE INSULATED FROM EACH OTHER
7) PIEZO CONNECTIONS AND TERMINAL STRIPS SHALL BE LABELED AS SHOWN

PIEZO CONNECTIONS AND TERMINAL STRIPS IN TRAFFIC CONTROL CABINET
MOUNT IN HENNESY CABINET NO. HP503017 OR APPROVED EQUAL - ALUMINUM ALLOY

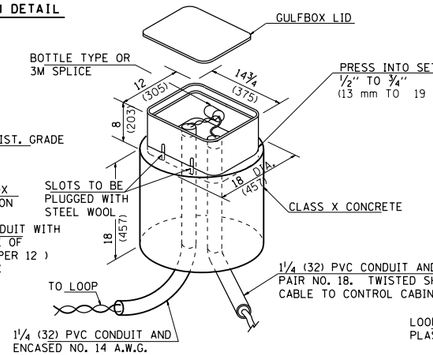
DETECTOR LOOP DETAILS: GULFBOX JUNCTION DETAIL



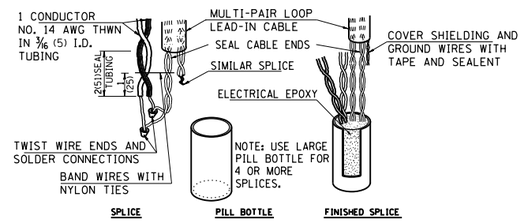
DETECTOR LOOP LEAD-IN DETAIL



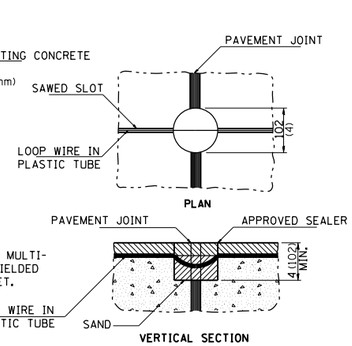
DETECTOR LOOP INSTALLATION



GULFBOX JUNCTION DETAIL



BOTTLE SPLICE DETAIL



NOTE: LOOP WIRE MUST FOLLOW SAW CUT TO BOTTOM, FORMING SLACK SECTION AT JOINT.

DETECTOR LOOP DETAIL AT PAVEMENT JOINT OR PAVEMENT CRACK

NOTE: NOT TO SCALE

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

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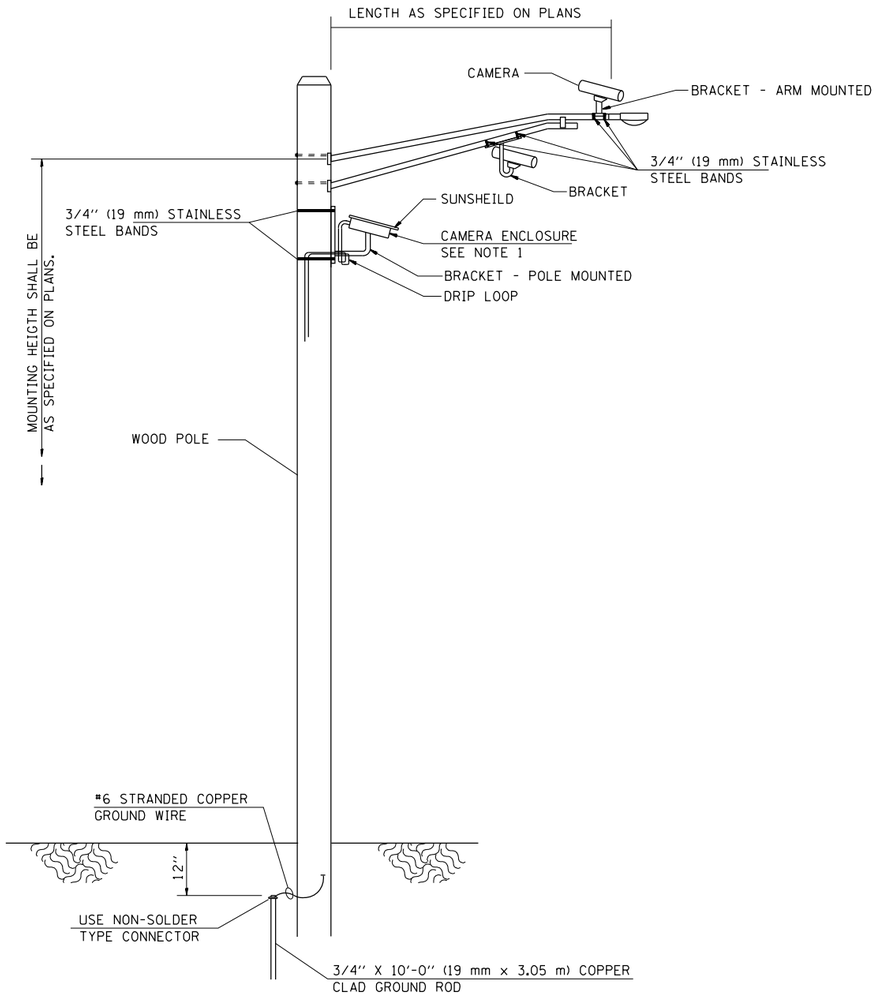
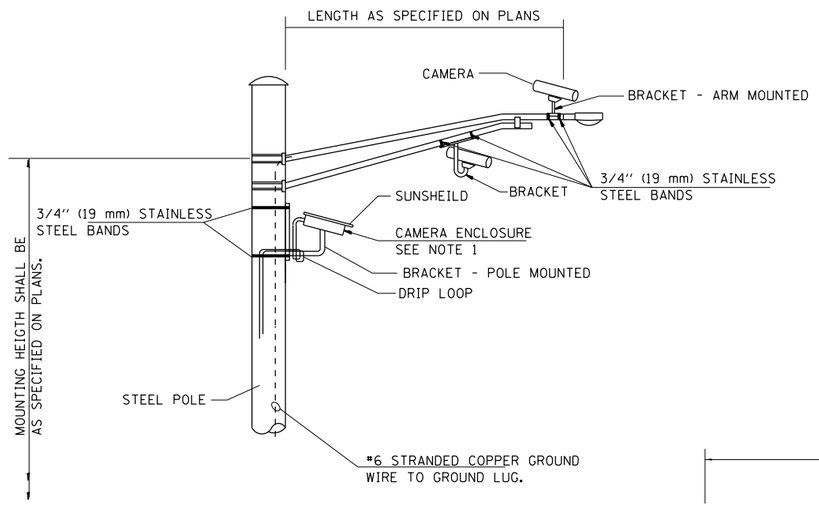
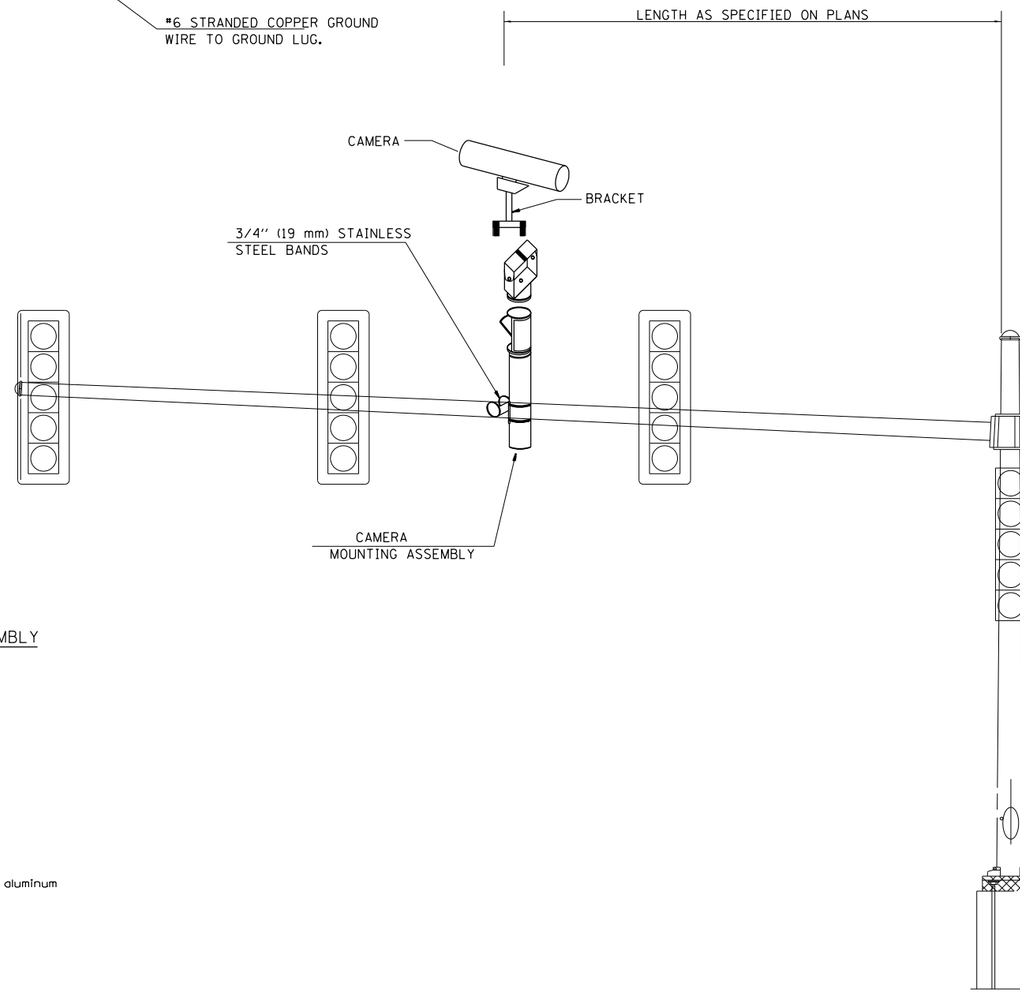


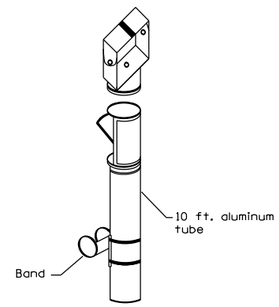




VIDEO DETECTION SYSTEM INSTALLATION ARM MOUNTED OR POLE MOUNTED CAMERA

NOTE 1: CAMERA CAN BE ROTATED INSIDE THE ENCLOSURE AFTER INSTALLATION, TO ALIGN HORIZON AT HORIZONTAL PLANE.

CAMERA MOUNTING ASSEMBLY



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VIDEO DETECTION SYSTEM INSTALLATION DETAIL

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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