

## GENERAL NOTES

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND PRESERVE THE EXISTING BRIDGE LIGHTING AT ANY LOCATIONS THAT LIGHTING IS ENCOUNTERED ADJACENT TO AN AREA TO BE CLEANED AND PAINTED

TREE CLEARING FOR PAINTING ACCESS SHALL BE DONE ACCORDING TO ARTICLE 201.10

## GENERAL PAINT NOTES

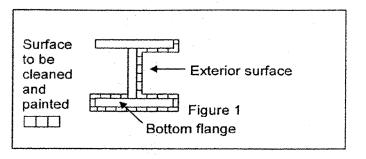
CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES".

A MINIMUM OF ONE (1) AIR MONITOR WILL BE REQUIRED TO MONITOR ABRASIVE BLASTING OPERATIONS. SEE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUE."

THE AREAS DESIGNATED TO BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/11. THE COLOR OF THE FINAL FINISH COAT FOR THE EXTERIOR AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE REDDISH BROWN, MUNSELL NO 2.5YR 3/4.

ALL ITEMS (SUCH AS, BUT NOT LIMITED TO" CONDUITS, BRACKETS AND DECK DRAINS) ATTACHED TO THE OUTSIDE OF THE FASCIA BEAMS SHOULD BE CLEANED AND PAINTED.

ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL WITHIN FIVE (5) FT., (MEASURED ALONG THE BEAM) OF EITHER SIDE OF ALL DECK JOINTS, SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10. THE EXTERIOR SURFACES AND TOP AND BOTTOM OF THE BOTTOM FLANGE OF THE FASCIA BEAMS (SEE FIGURE 1) SHALL BE CLEANED PER NEAR WHITE BLASK CLEANING SSPC-SP10.

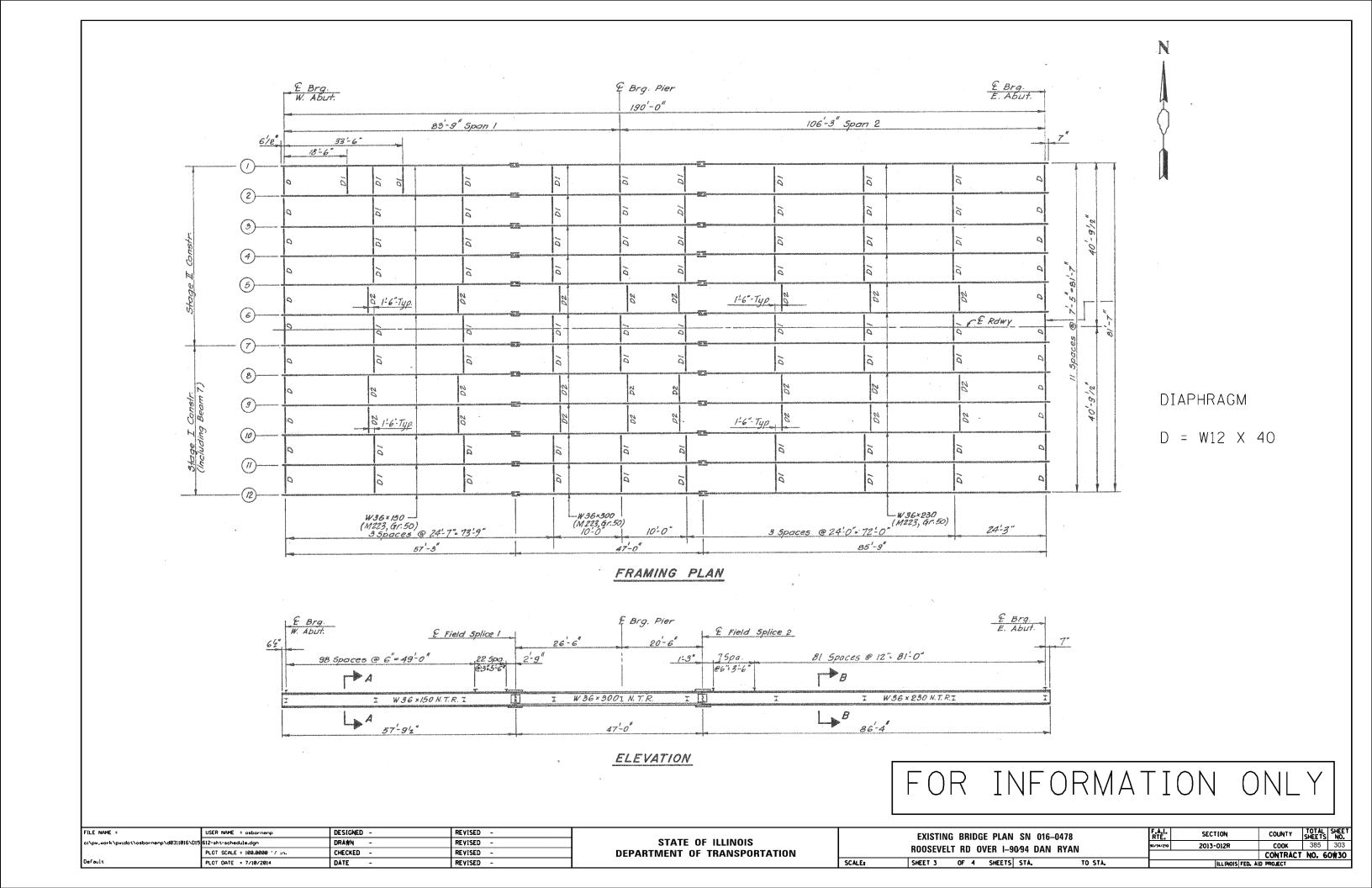


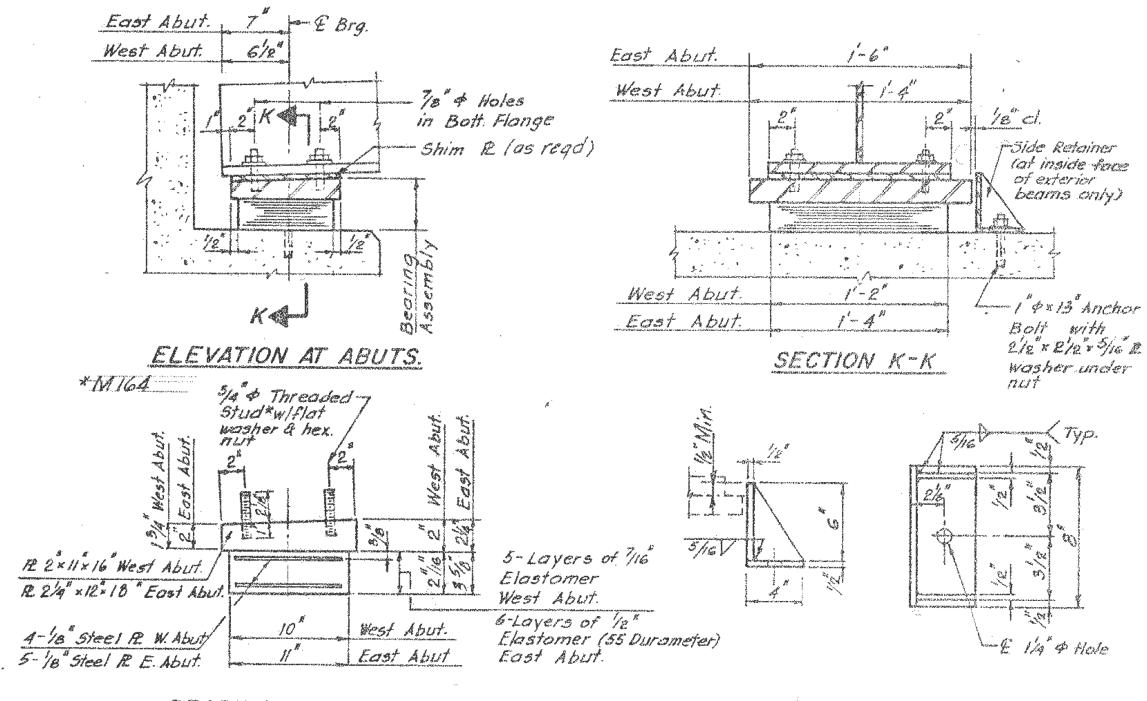
## FASCIA BEAM PAINTING DETAIL FIGURE 1

TOTAL BILL OF MATERIAL		
ITEM	UNIT	TOTAL
CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	LSUM	0.5
CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1

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\\distlntfs3\users\osbornenp\Desktop\60	/30.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS
	PLOT SCALE = 100.0000 ' / 10.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION
Default	PLOT DATE = 9/29/2014	DATE -	REVISED -	

	GENERAL	NOTES,	GENERAL	PAINT	NOTES,	BILL OF MATERIAL
SCALE:		SHEET 2	OF 4	SHEETS	STA.	TO STA.





BEARING ASSEMBLY
AASHTO M 222, Grade 50

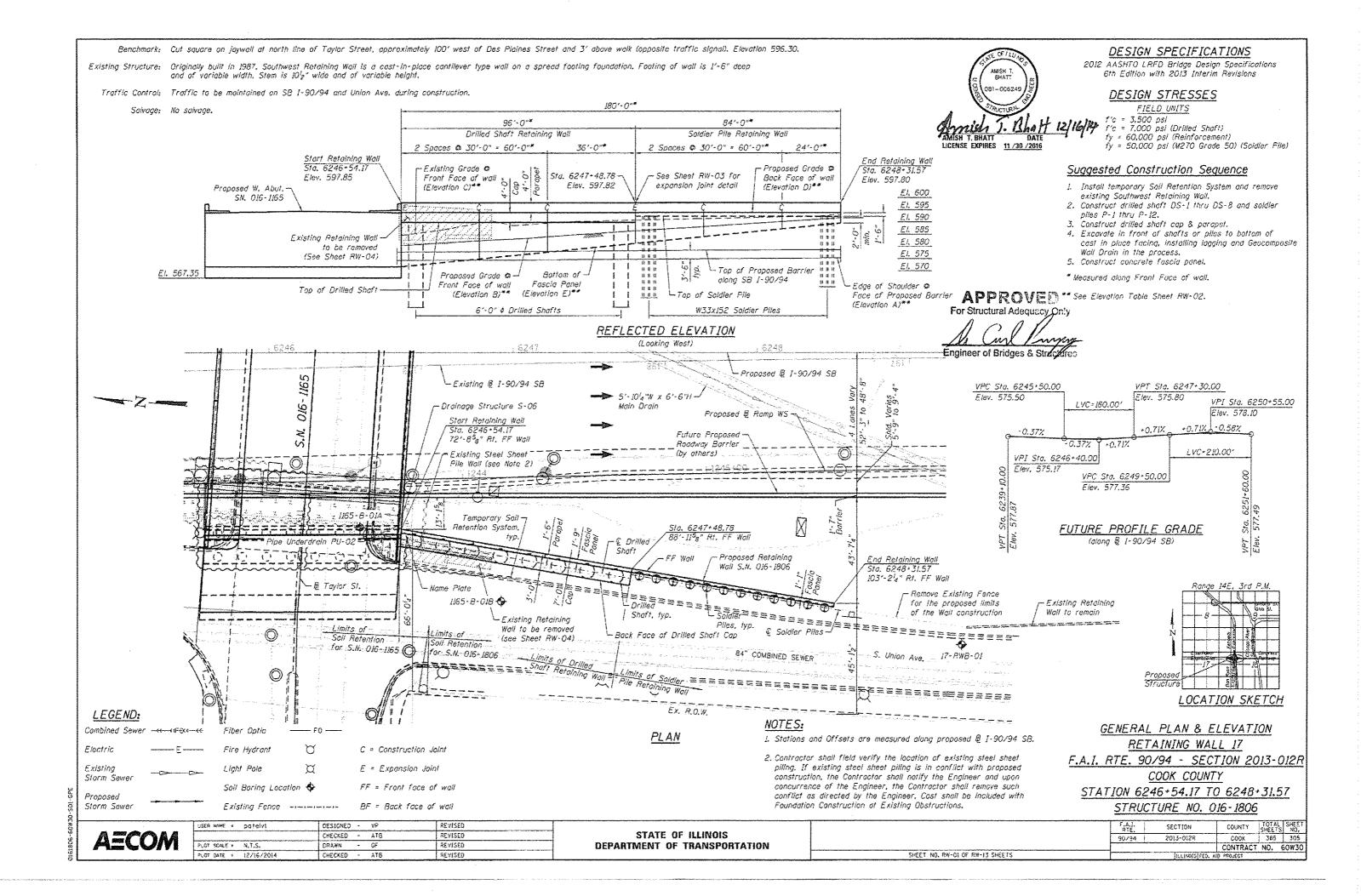
SIDE RETAINER

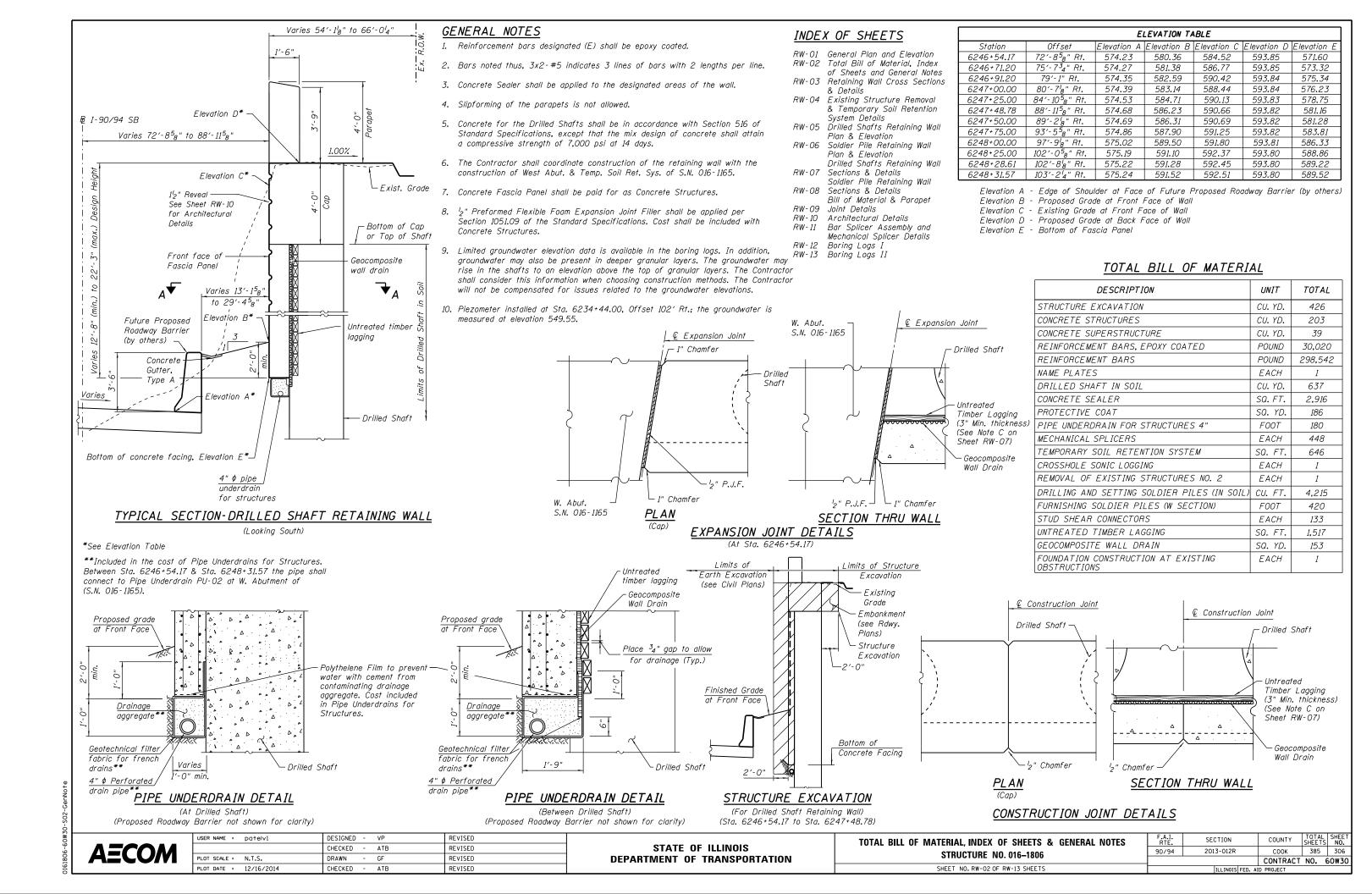
Rolled L with stiffeners may be used in lieu of welded Ps.

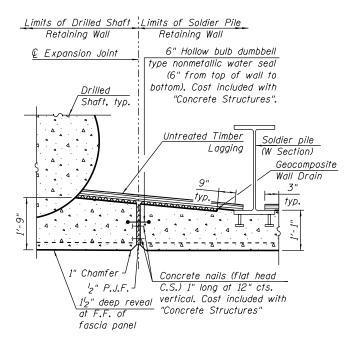
TYPE I ELASTOMERIC EXP. BRG.

## FOR INFORMATION ONLY

L																
	FILE NAME :	USER NAME = osbornenp	DESIGNED -	REVISED -		EXISTING BRIDGE PLAN SN 016-0478				F.A.I.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.			
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		PLOT SCALE = 100.0000 ' / 104	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	ROOSEVELT RD OVER I-90/94 DAN RYAN						CONTRACT	T NO. 60#30			
L	Default	PLOT DATE = 7/10/2014	DATE -	REVISED -		SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.				TO STA.		ILLINOIS FED. A	ID PROJECT			







## EXPANSION JOINT DETAILS

(At Sta. 6247+48.78)

\*\*Included in the cost of Pipe Underdrains for Structures. Between Sta. 6246+54.17 & Sta. 6248+31.57 the pipe shall connect to Pipe Underdrain PU-02 at W. Abutment of (S.N. 016-1165). STATION 6246+54.17
BUILT BY
STATE OF ILLINOIS
F.A.I. RTE. 90/94-SEC. 2013-012R
LOADING HL-93
STRUCTURE NO. 016-1806

1<sup>l</sup><sub>2</sub>" Architectural reveals

front face of Fascia Panel

Soldier Pile,

typ.

-½" Chamfer

typ.

Untreated

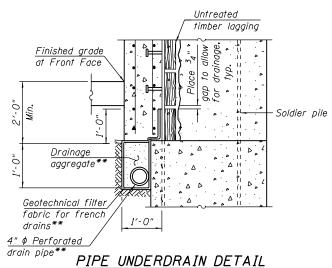
timber lagging

Geocomposite

CONSTRUCTION JOINT DETAILS

## NAME PLATE

See Std. 515001 (For location of Name Plate, see Sheet RW-01)



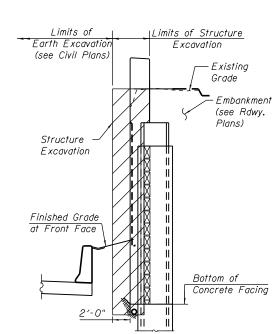
(At Soldier Pile)

(Proposed Roadway Barrier not shown for clarity)

# PIPE UND

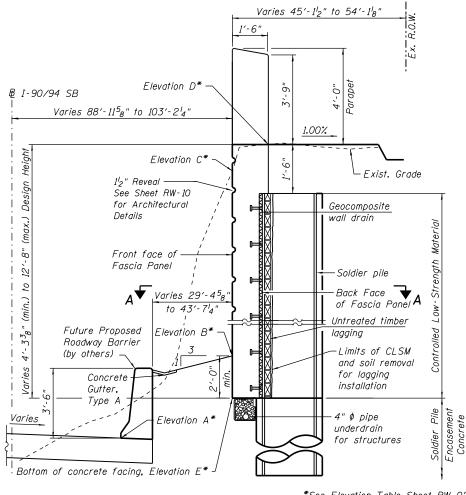
## PIPE UNDERDRAIN DETAIL

(Between Soldier Piles) (Proposed Roadway Barrier not shown for clarity)



## STRUCTURE EXCAVATION

(For Soldier Pile Retaining Wall) (Sta. 6247+48.78 to 6248+31.57)



\*See Elevation Table Sheet RW-02.

## TYPICAL SECTION-SOLDER PILE RETAINING WALL

(Looking South)

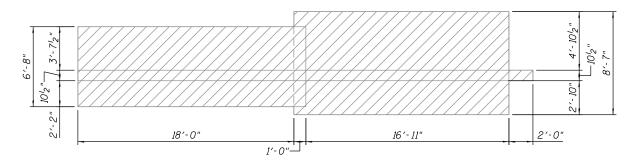
## <u>NOTES:</u>

 Cost of Controlled Low-Strength Material (CLSM) is included in Drilling and Setting Soldier Piles (in Soil) pay item.

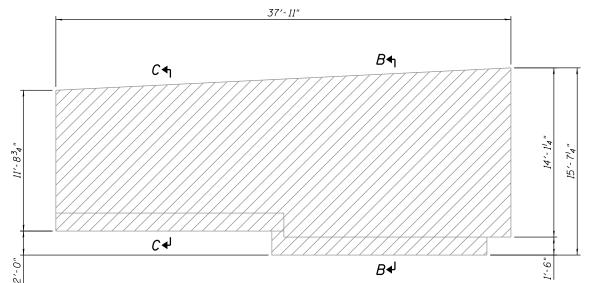


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN - EXISTING SOUTHWEST RETAINING WALL



## NOTES:

- 1. Removal of existing southwest retaining wall shall be as per special provisions for Removal of Existing Structures No. 2.
- 2. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptace by the engineer.
- 3. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

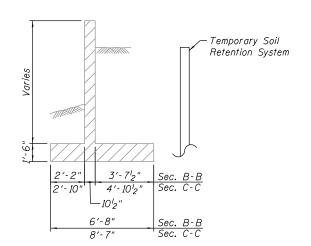


Removal of Existing Southwest Retaining Wall

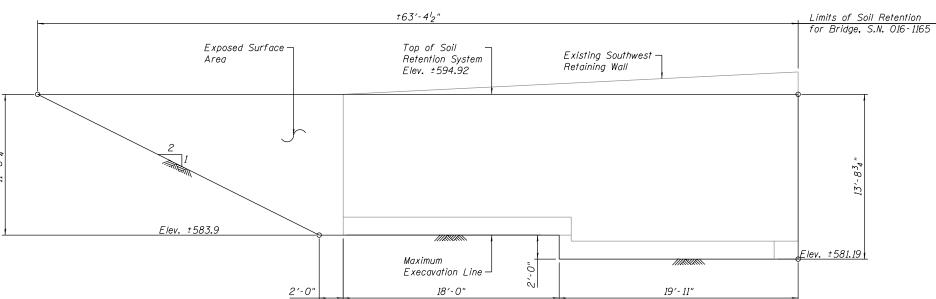
## BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Structures No. 2	Each	1
Temporary Soil Retention System	Sq. Ft.	646

## **ELEVATION - EXISTING SOUTHWEST** RETAINING WALL REMOVAL



SECTION B-B & C-C



## TEMPORARY SOIL RETENTION SYSTEM

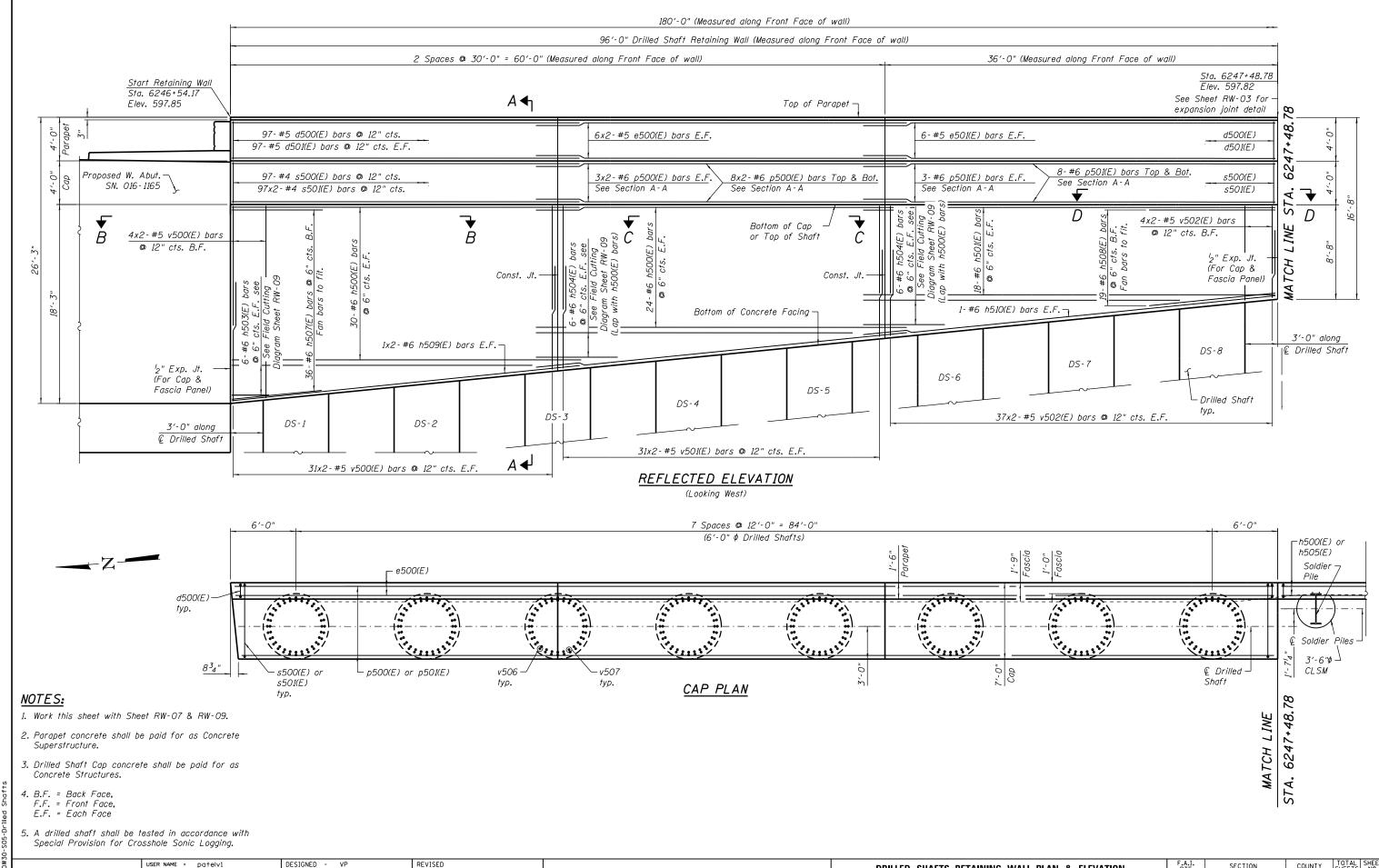
(Looking West)

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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **EXISTING STRUCTURE REMOVAL & TEMP. SOIL RETENTION DETAILS STRUCTURE NO. 016-1806** SHEET NO. RW-04 OF RW-13 SHEETS

F.A.I. RTE. COUNTY 2013-012R COOK 385 308 90/94 CONTRACT NO. 60W30



STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

F.A.I. RTE.

90/94

DRILLED SHAFTS RETAINING WALL PLAN & ELEVATION

STRUCTURE NO. 016-1806

SHEET NO. RW-05 OF RW-13 SHEETS

SECTION

2013-012R

COUNTY

COOK 385 309

CONTRACT NO. 60W30

**AECOM** 

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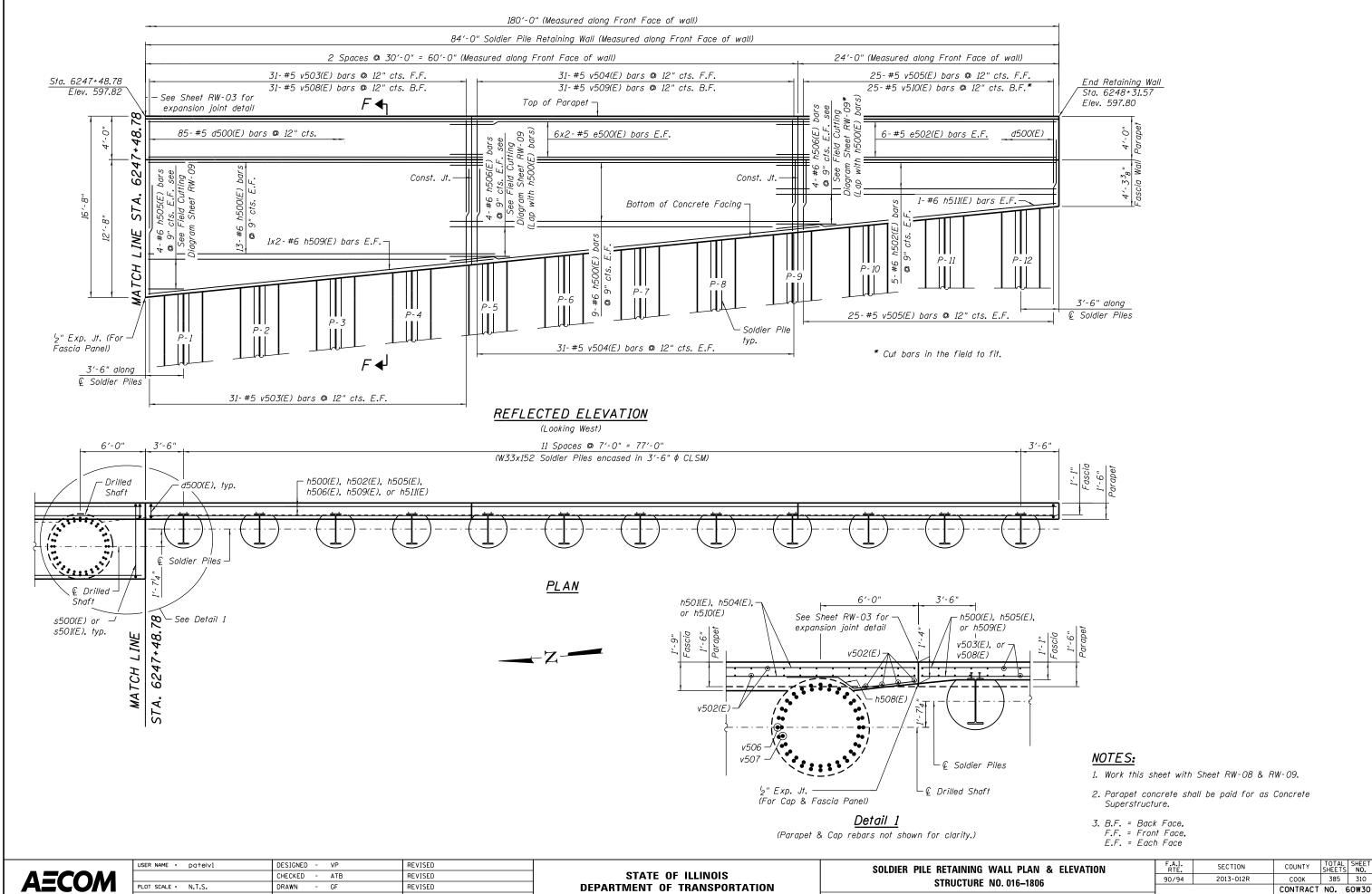
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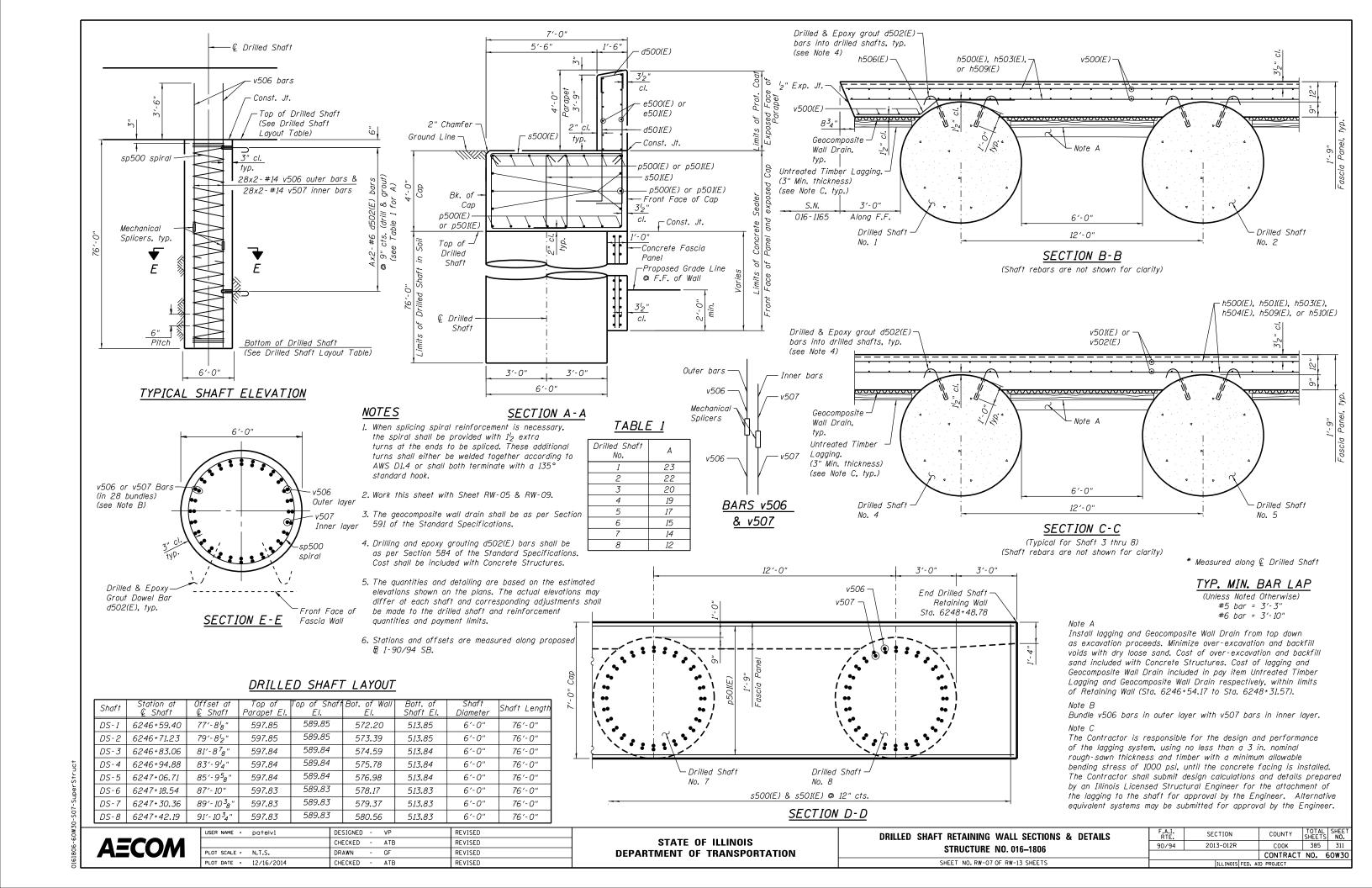
SHEET NO. RW-06 OF RW-13 SHEETS

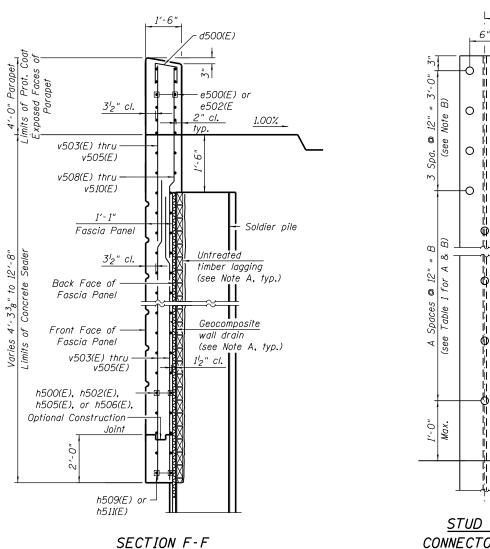
0161806-60W30-S06-Solo

PLOT DATE = 12/16/2014

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Bottom of Fascia Panel

STUD SHEAR

CONNECTOR DETAIL

(see Table 1 for total number of studs per pile)

— € Soldier Pile

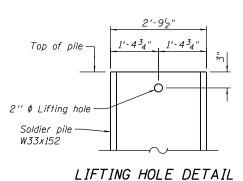
- <sup>3</sup>₄" ¢ x 6" Stud Shear

Connector, typ.

0

0

0



## TYP. MIN. BAR LAP

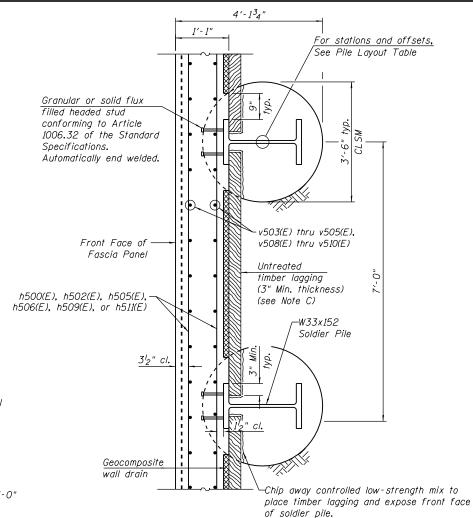
(Unless Noted Otherwise) #5 bar = 3'-3" #6 bar = 3'-10"

Note A
Install lagging and Geocomposite Wall Drain from top down
as excavation proceeds. Minimize over-excavation and backfill
voids with dry loose sand. Cost of over-excavation and backfill
sand included with Concrete Structures. Cost of lagging and
Geocomposite Wall Drain included in pay item Untreated Timber
Lagging and Geocomposite Wall Drain respectively, within limits
of Retaining Wall (Sta. 6246+54.17 to Sta. 6248+31.57).

Note B
Provide number of spaces as shown for piles P-1 thru P-11.
For pile P-12 provide 2 stud group spaces at 12" equal to 2'-0" (with total of 6 studs on pile P-12 only).

#### Note C

The Contractor is responsible for the design and performance of the lagging system, using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi. The Contractor shall submit design calculations and details prepared by an Illinois Licensed Structural Engineer for the attachment of the lagging to the concrete encasement for approval by the Engineer. Alternative equivalent systems may be submitted for approval by the Engineer.



SECTION THRU DRILLED SOLDIER PILE WALL

## PILE LAYOUT

Pile	Station at & Pile	Offset at © Pile	Top of Parapet EI.	Top of Pile El.	Bot. of Wall El.	Bott. of Pile EI.	Pile Section	Pile Length
P-1	6247+51.82	91′-11 <sup>l</sup> 8"	597.82	592.32	<i>581.51</i>	532.32	W33x152	60′-0"
P-2	6247+58.72	93′-1′4″	597.82	592 <b>.</b> 32	582.20	532.32	W33x152	60′-0"
P-3	6247+65.62	94'-3 <sup>1</sup> 2"	597.82	592.32	582.90	532.32	W33x152	60′-0"
P-4	6247+72.52	95′-5 <sup>3</sup> 4"	597.82	592 <b>.</b> 32	58 <b>3.</b> 60	557 <b>.</b> 32	W33x152	35′-0"
P-5	6247+79.42	96′-7 <sup>7</sup> 8"	597.81	592 <b>.</b> 31	584.29	557 <b>.</b> 31	W33x152	35′-0"
P-6	6247+86.32	97′-10 <sup>1</sup> 8"	597.81	592 <b>.</b> 31	584.99	557 <b>.</b> 31	W33x152	35′-0"
P-7	6247+93.22	99′-0 <sup>3</sup> 8″	597.81	592 <b>.</b> 31	585.69	567.31	W33x152	25′-0"
P-8	6248+00.12	100′-2 <sup>5</sup> 8″	597.81	592 <b>.</b> 31	586.38	567.31	W33x152	25′-0"
P-9	6248+07.02	101′-4 <sup>3</sup> 4″	597.81	592 <b>.</b> 31	587.08	567.31	W33x152	25′-0"
P-10	6248+13.92	102′-7"	597.80	592.30	587.78	5 <i>72.3</i> 0	W33x152	20'-0"
P-11	6248+20.81	103′-9¼"	597.80	592.30	588.47	572 <b>.3</b> 0	W33x152	20'-0"
P-12	6248+27.71	104′-11½″	597.80	592.30	589.17	<i>572.30</i>	W33x152	20'-0"

## TABLE 1

Drilled Shaft No.	А	В	Total Number of Studs
1	7	7′-0"	<i>1</i> 5
2	6	6′-0"	14
3	6	6′-0"	14
4	5	5′-0"	13
5	4	4'-0"	12
6	4	4'-0"	12
7	3	3′-0"	11
8	2	2'-0"	10
9	1	1'-0"	9
10	1	1'-0"	9
11	-	-	8
12	-	_	6

## NOTES:

- 1. The Contractor shall provide a method to assure the soldier piles achieve at least the plan tip elevations. Piles ending in the soft clay layer or extending below it may need special measures. The soldier pile locations and elevations shall meet the tolerances provided in the Special Provisions. Any additional measures required to satisfy the construction tolerances will not be paid for separately but shall be included in Drilling and Setting Soldier Piles (in Soil).
- 2. CLSM extends from bottom of fascia panel (Elevation E) to 1'-6" below existing grade at back face of fascia panel. Soldier pile encasement concrete extends from bottom of fascia panel (Elevation E) to bottom of pile.
- 3. The thickness of geocomposite wall drain shall not exceed  $1^9_{16}$ ". The geocomposite wall drain shall be constructed according to Section 591 of the Standard Specifications.
- 4. Stud shear connectors shall be  ${}^3_4$ " $\phi$  x 6" granular or solid flux filled headed studs, automatically end welded to the front flange of the soldier piles.
- 5. See sheet RW-03 for Pipe Underdrain details.
- 6. See sheet RW-10 for Architectural Reveals pattern and details. Reveals pattern and details are included in the cost of pay item Concrete Structures.
- 7. For Elevations, see Elevation Table on sheet RW-02.
- 8. Stations and offsets are measured along proposed & I-90/94 SB.



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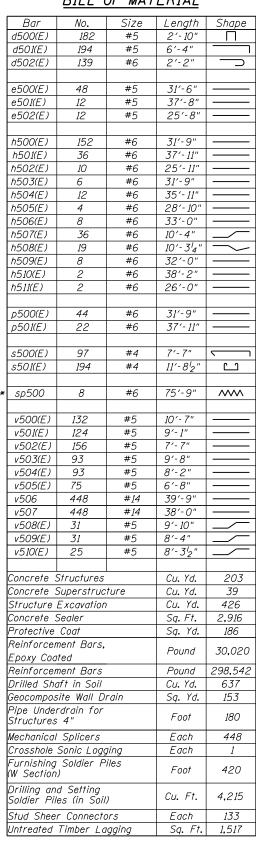
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

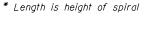
SOLDIEF	R PILE	RETAINING	WALL	<b>SECTIONS</b>	&	DETAILS	
		STRUCTURE	E NO. 0	16–1806			
		CHEET NO DW-C	O OE DW.	13 CHEETC			_

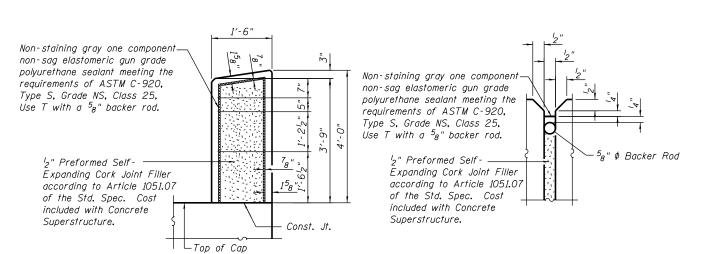
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	ILLINOIS FED. A	ID PROJECT		

6-60W30-S08-SuperStruct

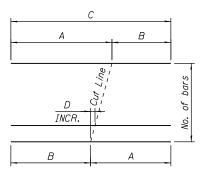
## BILL OF MATERIAL







## PARAPET EXPANSION JOINT DETAILS

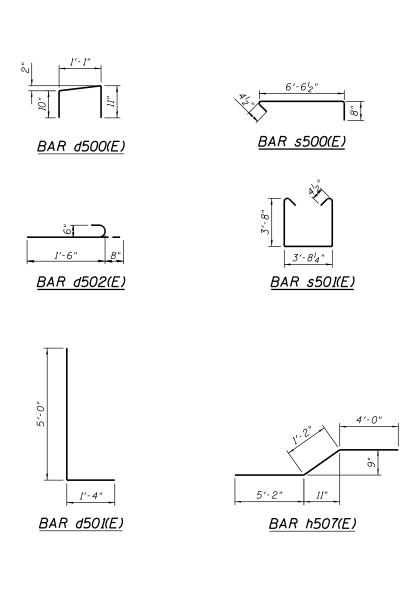


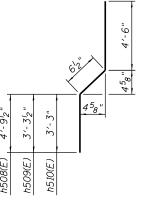
## FIELD CUTTING DIAGRAM

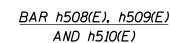
Order bars Full Length. Cut as shown and use remainder of bars on opposite face.
See table for dimensions.

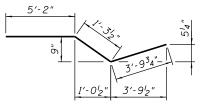
## BAR TABLE SCHEDULE

Bar	No. of Sets Reg'd	Bar No.	No. of Bars Per Set	А	В	С	D
h503(E)	1	#6	6	28′-9"	3'-0"	31'-9"	5'-1 <sup>7</sup> 8"
h504(E)	2	#6	6	30′-10"	5′-1"	35′-11"	5'-1 <sup>7</sup> 8"
h505(E)	1	#6	4	25′-8"	3'-2"	28′-10"	7′-6′ <sub>8</sub> "
h506(E)	2	#6	4	27′-9"	5′-3"	33'-0"	7'-6 <sup>l</sup> 8"





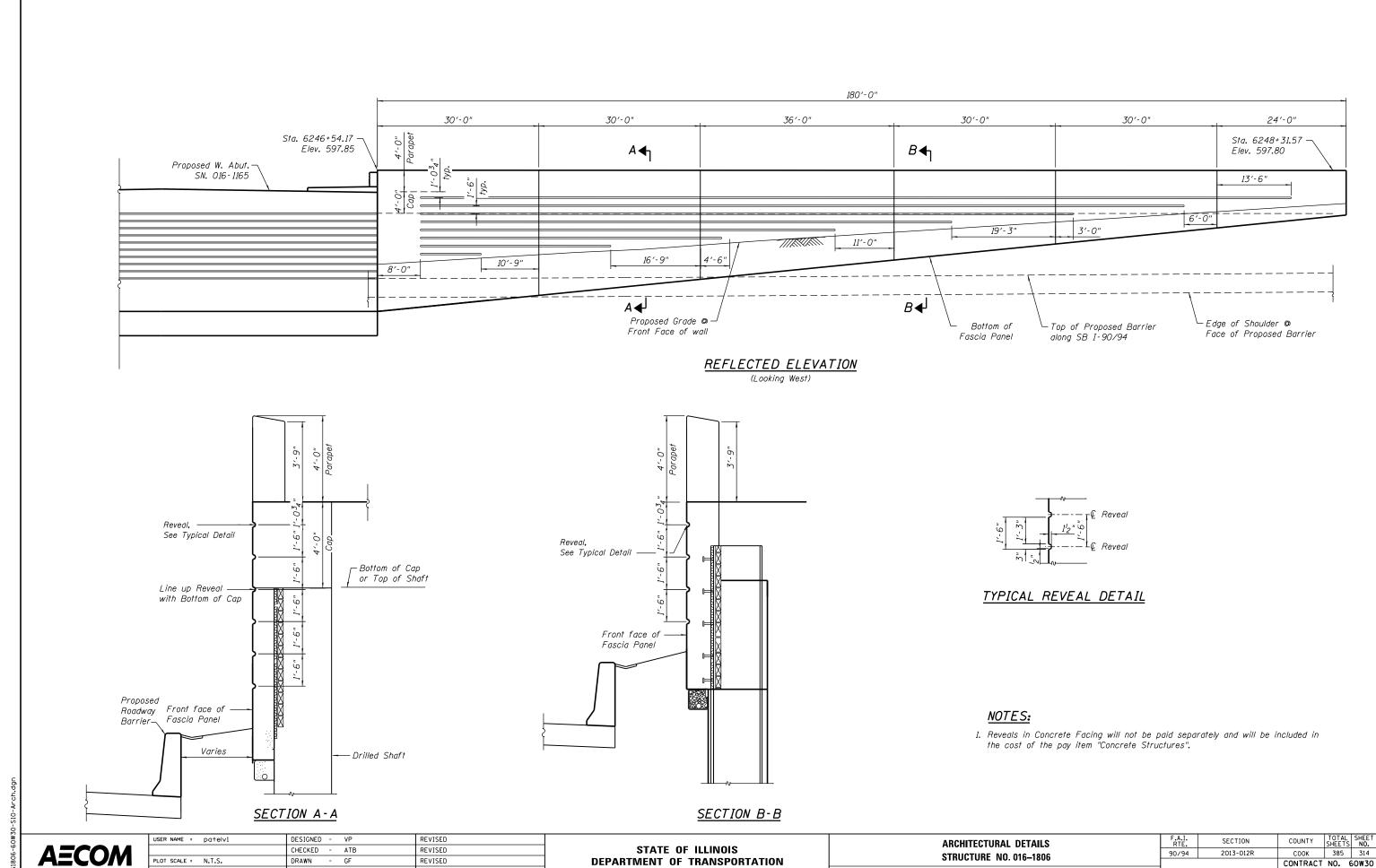




BAR h508(E)

<b>AECO</b>	1
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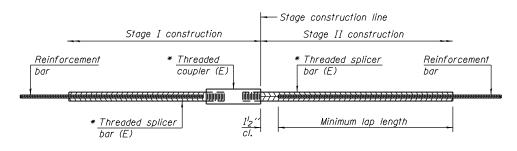
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**DEPARTMENT OF TRANSPORTATION** 

STRUCTURE NO. 016-1806 SHEET NO. RW-10 OF RW-13 SHEETS 90/94 2013-012R CONTRACT NO. 60W30



## STANDARD BAR SPLICER ASSEMBLY

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

Table 1: Black bar, 0.8 Class C

Table 2: Black bar, Top bar lap, 0.8 Class C

Table 3: Epoxy bar, 0.8 Class C

Table 4: Epoxy bar, Top bar lap, 0.8 Class C

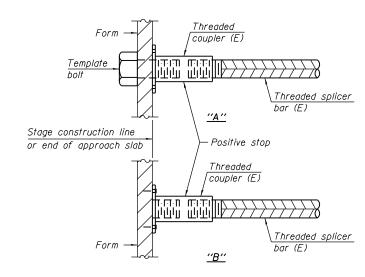
Table 5: Epoxy bar, Class C

Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length +  $1\frac{1}{2}$ " + thread length

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

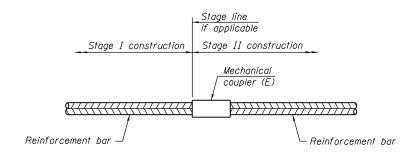
Location	Bar		Table for minimum				
	size	required	lap length				



## INSTALLATION AND SETTING METHODS

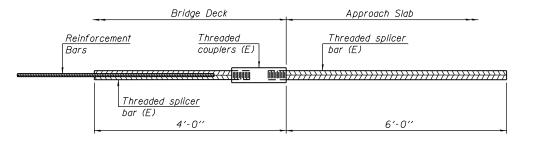
"A": Set bar splicer assembly by means of a template bolt. "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E): Indicates epoxy coating.



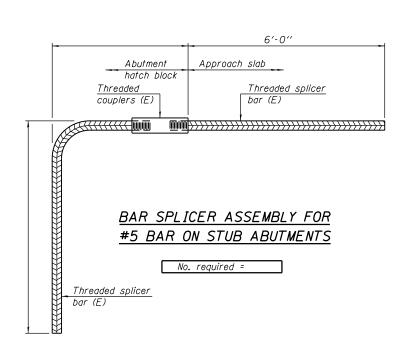
## STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Drilled Shaft, DS-1	#14	56
Drilled Shaft, DS-2	#14	56
Drilled Shaft, DS-3	#14	56
Drilled Shaft, DS-4	#14	56
Drilled Shaft, DS-5	#14	56
Drilled Shaft, DS-6	#14	56
Drilled Shaft, DS-7	#14	56
Drilled Shaft, DS-8	#14	56



## BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No, required =



## <u>NOTES</u>

alternatives.

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for

COUNTY

COOK 385 314A

CONTRACT NO. 60W30

1-27-12

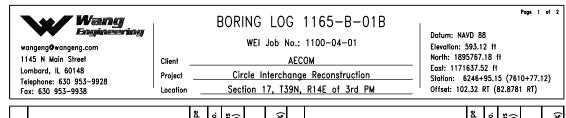
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PLOT DATE = 12/16/2014	CHECKED -	ATB	REVISED	

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS	F.A.I. RTE.	SECTION
STRUCTURE NO. 016-1806	90/94	2013-012R
STHOOTONE NO. 010-1000		
CHEET NO DW-11 OF DW-13 CHEETS		

BSD-1



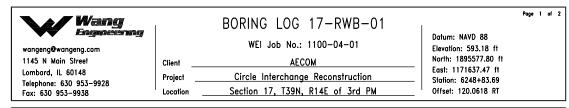
Profile	SOIL AND ROCK DESCRIPTION	Sample Type	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile	Eleyafion (ff)	SOIL AND ROCK DESCRIPTION	Depth (#)	Sample Type recovery	SPT Values	plw/6 in)	Qu (tsf)	Moisture Content (%)
11.1 \(\frac{1}{2}\)	592.6 6-inch thick, ASPHALT PAVEMENT 591.8 10-inch thick, CONCRETE PAVEMENT 590.1 Loose, brown GRAVELLY SAND FILL		7 3 2	NR	11			-Situ Vane Shear, 25.5 fe Su undis = 1502.2 p Su remold = 1087.8 p Sensitivity = 1.38 In-Situ Vane Shear, 28 fe	sf sf     et		3	0 1 2	0.49 B	23
	Loose to medium dense, brown, fine SANDFILL-	52	3 5 5	NP	5		In	Su undis = 1292.5 p Su remold = 775.5 p Sensitivity = 1.67 Situ Vane Shear, 30.5 fe	sf ' 30_	$\sqrt{7}$		0 1 2	0.33 B	25
		3	4 4 2	NP	7			Su undis = 1292.5 p Su remold = 827.2 p Sensitivity = 1.56 LL(%)=35, PL(%)=1	sf 		5			
	Stiff to very stiff, gray SILTY CLAY, trace gravelFILL	10 4	2 3 4	2.13 B	25				.8 .8 .1 .335_	$/\setminus$	13	0 1 2	0.16 B	25
	580.1 Very soft to medium stiff, gray	5	3 3 4	1.50 P	22		In	-Situ Vane Shear, 35.5 fe Su undis = 802.9 p	sf					
	SILTY CLAY, trace gravel	15 6	2 2 3	0.66 B	19			Su remold = 543.9 p Sensitivity = 1.48			14	0 0 2	0.25 B	24
		7	1 2 2	0.57 B	20				- - - -					
	In-Situ Vane Shear, 20.5 feet Su undis = 878.9 psf	20 8	2	0.49 B	24				45		15	0 2 2	0.74 B	26
1	Su remold = 465.3 psf Sensitivity = 1.89 In-Situ Vane Shear, 23.0 feet	9	0 1 2	0.33 B	25		546.4 Der	ise, gray SILT	- - - -					
ANGENG.GDT 12/9,	Su undis = 1243.2 psf Su remold = 958.3 psf Sensitivity = 1.30	252	1	0.41 B	23				50 <u></u>			6 6 5	NP	21
¥	GENERAL	NOTES						WATER	LEVEL	. DAT	Α			]
Beq	in Drilling <u>05–23–2013</u> (	Complete Dr	illing	0	5-29	-201	3	While Drilling	Δ	Ro	ary	was	h	
1000401.G	lling Contractor <u>Wang Testing Se</u>	rvices	Drill Rig		CME-	55 T	MR	At Completion of Drilling	<u>¥</u>	ınable	to	med	sure	
일 Dri	Driller P&N Logger F. Bozga Checked by C. Marin Time After Drilling NA													
S Dri	Drilling Method 2.25" SSA to 16', mud_rotary thereafter, boring  Depth to Water   NA  The stratification lines represent the approximate boundary													
≨L	backfilled upon completion between soil types; the actual transition may be gradual.													

<b>Wan</b> g		ROF	ZING	LOG	116	5-B-01B		Page 2 o	f 2		
Wang Enggineers ing wangeng@wangeng.com		БОТ	WEI		Datum: NAVD 88 Elevation: 593.12 ft						
1145 N Main Street Lombard, IL 60148 Telephone: 630 953–9928 Fax: 630 953–9938	Client _ Project Location			AEC nterchang 17, T39N,		North: 1895767.18 ft East: 1171637.52 ft Station: 6246+95.15 (7610+77.12) Offset: 102.32 RT (82.8781 RT)					
# € SOIL AND ROCK	<b>€</b> ⊕	le No.	) = (±	ture nt (%) file	t)	SOIL AND	ROCK	pth 1) e Type wery le No. dalues 6 in)	e %		

Profile	Elevation (ft)	SOIL AND DESCRIF		Depth (ff)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile	Elevation (ff)	SOIL AND DESCRIP		Depth (#)	Sample Type	Sample No.	SPT Values (blw/6 in)	Ou (tsf)	Moisture
		gray CLAY t gravel	o SILTY CLAY,		$\bigvee$		8					d, gray SILTY C e gravel	LAY LOAM,	- - - - -	V		28	40.01	4.7
				55	X	17	10 12	6.48 B	18		511.4 Very	-HARD DRILLING Pos dense, gray S e gravel	82.5' sible cobbles		Δ	22	28 27 50 <u>/</u> 4"	10.25 B	13
				60	X	18	15 22 29	7.05 S	14					85_ -	X	23	48 50 <u>/</u> 3*	NP	12
		` -	40, PL(%)=16- %Gravel=1.2- %Sand=5.3- %Silt=49.0- %Clay=44.5- A-6 (23)-	65_ 65_	X	19	7 14 <u>21</u>	6.07 B	20					90_ - - - - -	X	24	32 -50 <u>/</u> 5**	6.64 S	13
	<b>50.</b> .			70	X	20	7 11 16	6.64 B	13		-	-HARD DRILLING	G from 93.5' 98.5' sible cobbles	[	×	25	*50 <u>/</u> 5**	NP	14
	<u>521.4</u> Dense grave	e, gray SILTY I		75	X	21	16 17 18	NP	15		493.1 Bori		100' sible cobbles GER REFUSAL at 100.00 ft	  100	×I		38 <u>√</u> 3″	NP	14
			GENERA										WATER L						
-	in Drilling		-2013		plete		•		5-29			While Drilling	, , , , , , , , , , , , , , , , , , ,				y was		
Dril Dril	ling Contra	ctor <u>W</u> P&N	ang Testing S Logger	Servic F. B					<u> </u>		Marin_	At Completion of	•	<u>ν</u> ΝΑ	ınab	ie t	o me	asure	!
	ier ling Method		_ Logger SSA to 16', r								MUTIII_	Time After Drilli Depth to Water	nd ——	NA NA					
0.11	-	ed upon co		iiuu i	Jiul	<del>, '</del>	isi cul	اباتد	- ALIIII	_	— h	The stratification between soil types	lines represent t	he appr	oximat	e bo	undary		

**AECOM** 

USER NAME = patelv1	DESIGNED - VP	REVISED
	CHECKED - ATB	REVISED
PLOT SCALE = N.T.S.	DRAWN - GF	REVISED
PLOT DATE = 12/16/2014	CHECKED - ATB	REVISED



	Profile	SOIL AND ROCK DESCRIPTION	Uepin (ft) Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile	Eleyation (ff)	SOIL AND DESCRIF		Depth (#)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tst)	Moisture Content (%)
	4.4	592.9 3-inch thick ASPHALT  9-inch thick CONCRETE PAVEMENT  Loose, brown SANDY LOAM to  SAND, little gravel	/-	1	1 3 2	NP	10		CLA	ry soft to medic AY to SILTY CLA Ivel		<u>)</u> /_		2	PUSH	0.25 P	20
	°°°°	Seg. 5 FILL  Medium dense, brown GRAVELLY SAND  587.7 FILL	5	2	6 9 6	NP	9					30 <u> </u>	X	10	0 0 2	0.25 B	26
•		Medium stiff to stiff, brown SILTY CLAY LOAM, trace gravelFILL		3	4 3 4	0.50 P	21					- - - -					
		9-inch thick SAND	10	4	2 3 4	1.56 B	25					35_		3	PUSH	0.45 B	24
		Very soft to soft, gray CLAY to SILTY CLAY, trace gravel		5	3 4 3	c 0.25 P	22					- - - -					
		1	15	6	1 2 2	0.41 B	32					- - 40_ -		4	P U S H	< 0.25 P	24
		575.2	<u> </u>	7	0 0 0	0.08 B	35					- - -					
		Medium stiff, gray SILTY CLAY LOAM, trace gravel	20	1	P U S H	0.69 S	20					45 <u>-</u>		5	P U S H	0.75 P	25
2/12/14		LL(%)=30, PL(%)=17 %Gravel=4.5		8	1 4 5	0.57 B	15					- - -					
WANGENG.GDT 1:		%Sand=15.7 %Silt=58.4	25	9	1 2 3	0.67 B	23		543.7	Shelby	tube refus				PUSH	0.25 P	26
		GENERAL					0 00				WATER						$\dashv$
5.5		_	Complet		•		6-22			While Drilling		<u>~</u>			y was		—
11000401.GPJ	Drill Drill	ling Contractor <u>Wang Testing Ser</u> Ier P&J Logger S.			Orill Rig Che		D-5			At Completion		<u>▼                                     </u>	nab	ie f	o me	usure	-
		ler <u>P&amp;J</u> Logger <u>S</u> ling Method <u>2.25" SSA to 10', mu</u>								Time After Drill Depth to Water		NA NA					
WANGENGING	וווזט	backfilled_upon_completion	u 1010	ary I	nereul	151,	oor III (			The stratification	lines represent	the appr	oximat	e bou	indary		
≆l		MANATING MANATOCOMPRESSOR								between soil type	s; tne actual tr	ansition r	nay be	e gra	auai.		

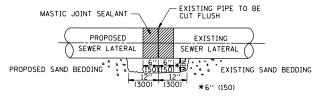
<b>Wang</b>	ſ	BORING LOG 17-RWB-01	1	Page 2 of
wangeng@wangeng.com		WEI Job No.: 1100-04-01	Datum: NAVD 88 Elevation: 593.18 ft	
1145 N Main Street	Client _	AECOM	North: 1895577.80 ft	
Lombard, IL 60148	Project _	Circle Interchange Reconstruction	East: 1171637.47 ft Station: 6248+83.69	
Telephone: 630 953-9928 Fax: 630 953-9938	Location	Section 17, T39N, R14E of 3rd PM	Offset: 120.0618 RT	

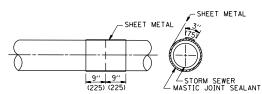
BES DES	AND ROCK SCRIPTION	Depth (ff)	Sample No.	SPT Values (blw/6 in)	Ou (tst)	Moisture Content (%)	Profile	Elevation (ft)	SOIL AND ROC DESCRIPTION	K ta	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture
541.4	e, gray SILTY	LTYAY													
		55	11	10 13 13	NP	11									
Dense, gray,	fine SAND Damp														
533.2		60	12	11 17 17	NP	14									
Boring termin	nated at 60.00 ft	-													
		65													
		- - -													
		70													
		-													
	25115-	75													
	GENER/									TER LEVE					
Begin Drilling 0  Drilling Contractor  Driller P&J	6-22-2014 Wang Testing Logger			Drill Rig	_	06-22 D-5 by _	0 TM	<u>IR</u>	While Drilling At Completion of Drilli Time After Drilling				y was o me		
	25" SSA to 10',							_		NA present the app	roximal may be	e bo	undary dual.		

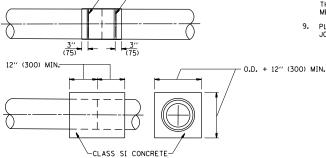
USER NAME = patelv1	DESIGNED - VP	REVISED
	CHECKED - ATB	REVISED
PLOT SCALE = N.T.S.	DRAWN - GF	REVISED
PLOT DATE = 12/16/2014	CHECKED - ATB	REVISED

#### DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER
OF 27" (675) OR SMALLER







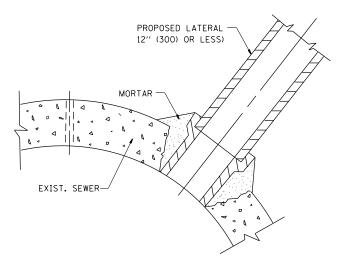
METAL BINDING

<u>DETAIL "B"</u> CLASS SI CONCRETE COLLAR

## CONSTRUCTION SEQUENCE

- CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
- 2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST  $6^{\prime\prime}$  (150) OF EACH PIPE.
- 3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12'  $\times$  6' (300  $\times$  150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
- 4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERANCE OF THE PIPE PLUS 3" (75) LONG.
- 5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
- 6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
- 7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
- 8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
- 9. PLACE CLASS SI CONCRETE AROUND THE JOINT.

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



#### DETAIL "C"

PROPOSED LATERAL
CONNECTION TO EXISTING SEWER
OF 30" (750) OR LARGER

#### NOTES

#### MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

#### CONSTRUCTION METHODS

- 1. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
  A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
  - B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

## GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

#### BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REOUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

SCALE: NONE

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER
WILL NOT BE PAID PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED
STORM SEWEP

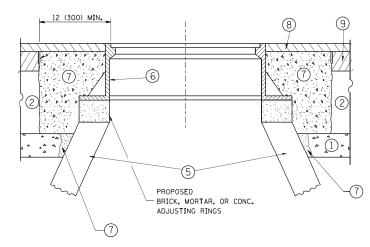
SHEET



D160W30-SHT-D1-Detail-02-[BD-7].dgn	DESIGNED - M. DE YONG	REVISED-M. DE YONG 05-08-92
USER NAME = dishevaz	DRAWN -	REVISED-R. SHAH 09-09-94
PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED-R. SHAH 10-25-94
PLOT DATE = 10/23/2014	DATE - Q7-25-90	REVISED-R. SHAH 06-12-96

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF STORM	F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.			
CONNECTION TO EXISTING SEWER			90/94	2013-012R			COOK	385	317
COMMECTION TO EXIS	BD500-01 (BD-7)				CONTRACT	NO. 6	OW30		
T OF SHEETS	STA.	TO STA.	FED. ROAD DI	ST. NO. 1	ILLINOIS	FED. AI	D PROJECT		



#### NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109,04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

#### CONSTRUCTION PROCEDURES

#### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.

  D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40)
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40 THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\*
  CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING
  BASE COURSE OR THE BINDER COURSE.
- \*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

#### LEGEND

- 1 SUB-BASE GRANULAR MATERIAL
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT

(5) EXISTING STRUCTURE

- (7) CLASS PP-1\* CONCRETE
- 3 36 (900) DIAMETER METAL PLATE
- 8) PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 9) PROPOSED HMA BINDER COURSE

#### LOCATION OF STRUCTURE

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

#### BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

## DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

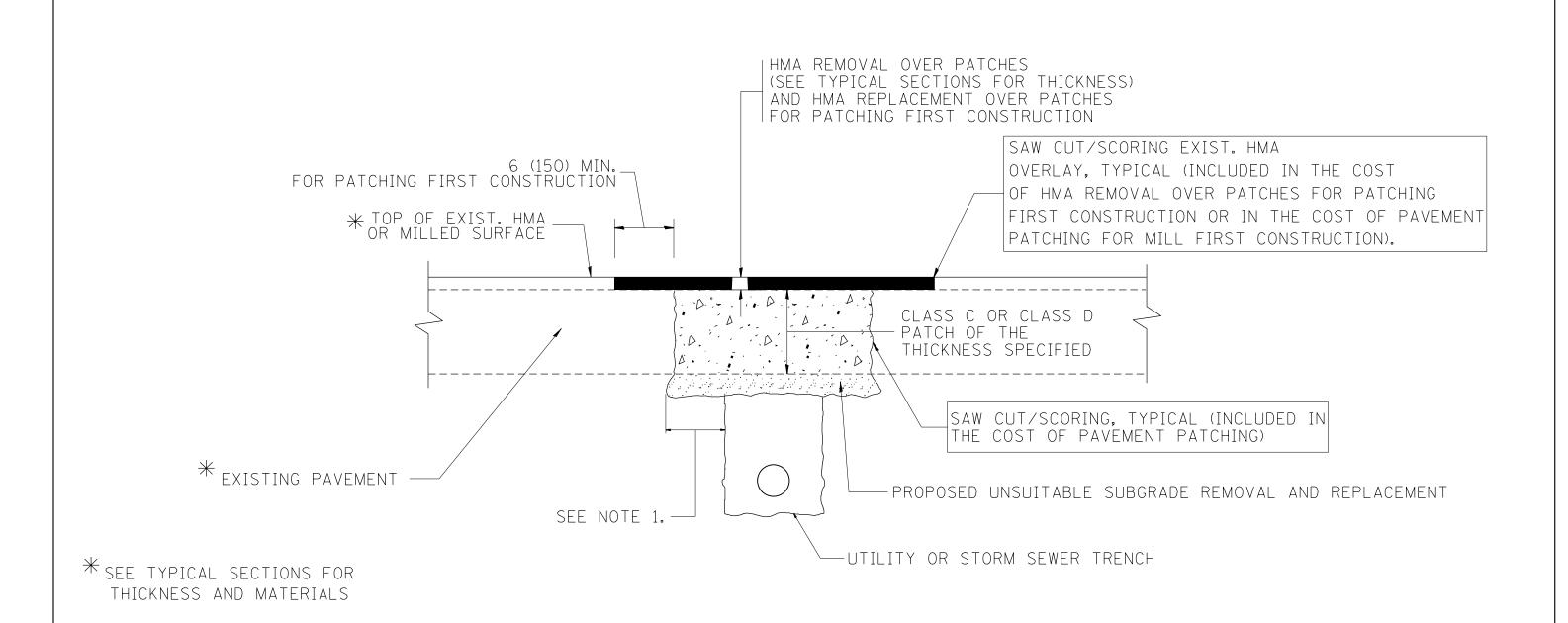
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMES AND LIDS ADJUSTMENT WITH MILLING

SCALE: NONE SHEET 1 OF 1 SHEETS STA.



## NOTES:

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

## SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

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

## SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

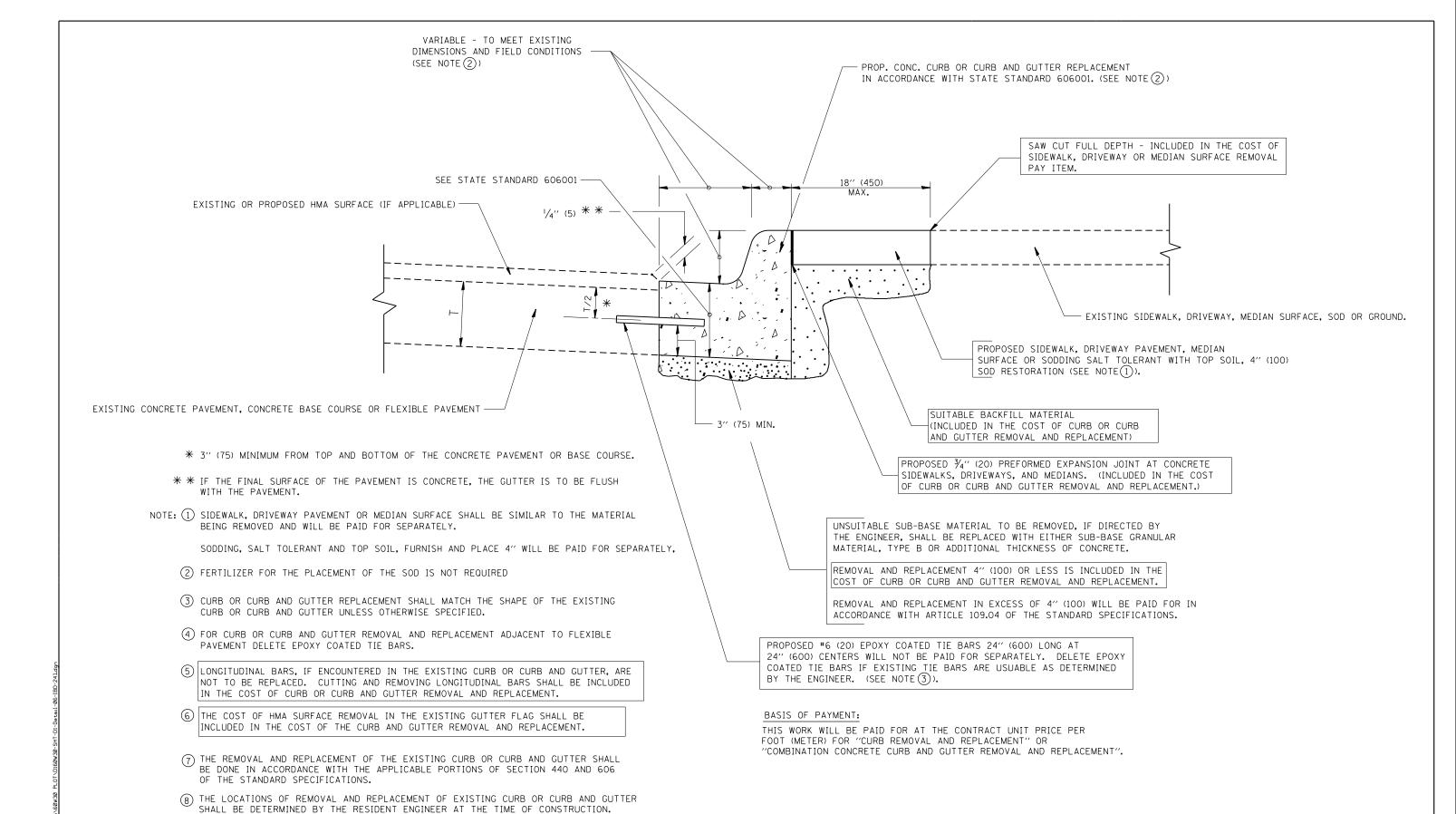
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



D160W30-SHT-D1-Detail-05-[BD-22].dgn	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98
USER NAME = dishevaz	DRAWN -	REVISED - R. BORO 01-01-07
PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED - R. BORO 09-04-07
PLOT DATE = 10/23/2014	DATE - 10/24/2014	REVISED - K. ENG 10-27-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

		PAVEME	NT PATCHII	NG FOR		F.A.I. RTE.	SECTION	COUNTY
		HMA SIII	RFACED PA	VEMENT		90/94	2013-012R	COOK
		IIIVIA 301	NIACED FA	VLIVILIVI				CONTRACT
SCALE: NONE	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT



## CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: NONE

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



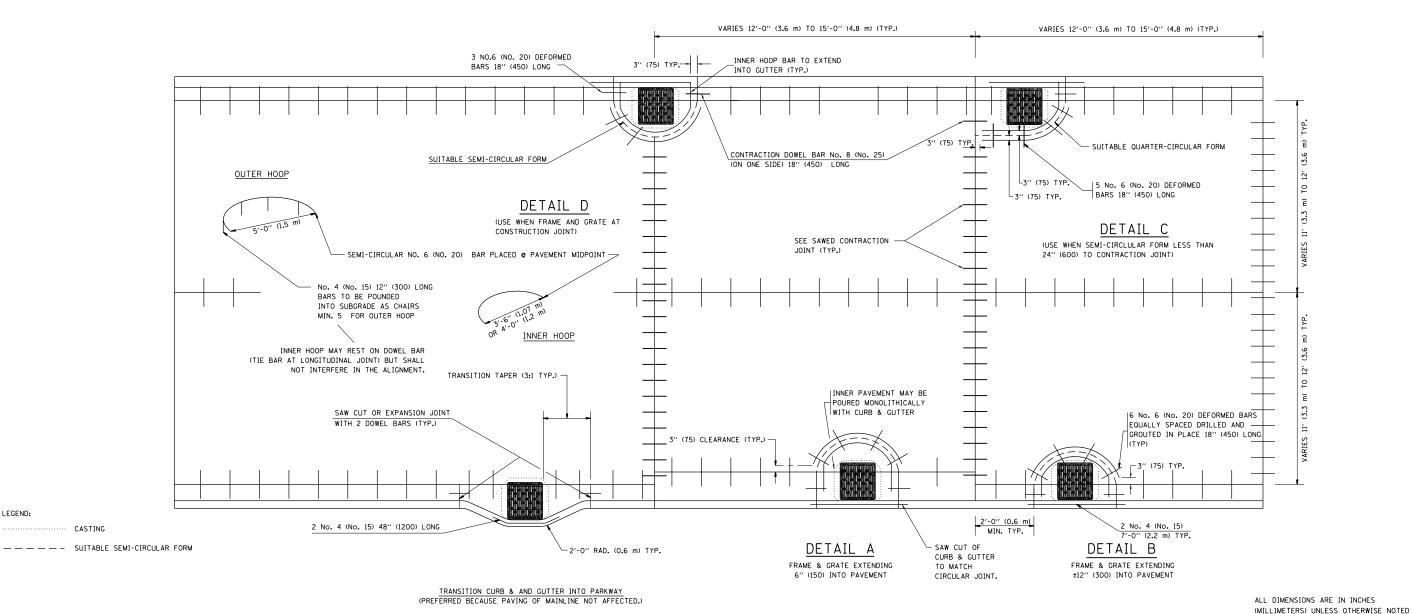
D160W30-SHT-D1-Detail-06-[BD-24].dgn	DESIGNED - A. HOUSEH	REVISED-R. SHAH 10-03-96
USER NAME = dishevaz	DRAWN -	REVISED- A. ABBAS 03-21-97
PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED- M. GOMEZ 01-22-01
PLOT DATE = 10/23/2014	DATE - Q3-11-94	REVISED- R. BORO 12-15-09

FRAME EXTENSION INTO PAVEMENT	INNER HOOP REINFORCEMENT DIAMETER	SEMI CIRCULAR FORM DIAMETER	OUTER HOOP REINFORCEMENT DIAMETER
UP TO 8" (200)	3′-6′′ (1.1 m)	4'-0" (1.2 m)	5′-0′′ (1.5 m)
> 8" (200) T0 14" (360)	4'-0'' (1.2 m)	4'-6" (1.4 m)	5′-0′′ (1.5 m)

DESIGNER NOTE: THIS DETAIL IS TO BE USED WHEN THE GUTTER FLAG IS LESS THAN 24"

#### NOTES :

- 1. THE ROUNDOUT AND ADDED REINFORCEMENT WILL NOT BE PAID SEPARATELY. BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PAVEMENT.
- TRANSVERSE JOINTS MAY BE MOVED TO ACCOMMODATE ROUNDOUT, EDGE OF CIRCULAR JOINT SHALL BE MINIMUM 12" (300) FROM TRANSVERSE JOINT. RELOCATED TRANSVERSE JOINT SHALL BE CONTINUOUS FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT.
- 3. SEMI-CIRCULAR FORM SHALL BE REMOVED PRIOR TO DRILL AND GROUT OF TIE BARS.
- 4. ALL REINFORCED BARS SHALL BE EPOXY COATED.
- 5. DRILL AND GROUT IS PREFERRED, HOWEVER TIE BARS CAN BE POURED IN PLACE IF CLEARANCE IS PROVIDED TO OUTER EDGE OF FRAME. MINIMUM 2" (50) CLEARANCE.
- 6. WOOD SHIMS SHALL BE USED TO ADJUST ALL FRAMES. AFTER ADJUSTING MORTAR HAS CURED, THE WOOD SHIMS SHALL BE REMOVED AND THE VOIDS UNDER THE FRAMES FILLED WITH NON SHRINK GROUT.
- 7. HOOP REINFORCEMENT SHALL BE ONE PIECE CONSTRUCTION.
- 8. CIRCULAR FRAMES AND GRATES MAY BE SUBSTITUTED.
- 9. CURB DOWELS MUST BE PLACED LEVEL & TRUE TO ALLOW CONTRACTION MOVEMENT.



LEGEND:

160W30-SHT-D1-Detail-07-[BD-48].dgn DESIGNED - A. ABBAS REVISED-T. MATOUSEK 08-28-0 JSER NAME = dishevaz DRAWN - TOM MATOUSEK REVISED-T, MATOUSEK 10-02-0 LOT SCALE = 50.0000 '/ in. CHECKED - A. ABBAS REVISED-T. MATOUSEK 04-25-0 PLOT DATE = 10/23/2014 - 01-04-99 REVISED-P. LAFLEUR 08-27-0 DATE

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

PCC PAVEMENT ROUNDOUTS AT **CURB AND GUTTER** SHEET SHEETS STA. TO STA. OF

SCALE: NONE

SECTION COUNTY 90/94 2013-012R COOK 385 321 BD-48 CONTRACT NO. 60W30

# TYPICAL BENCHING DETAIL FOR EMBANKMENT

## NOTES:

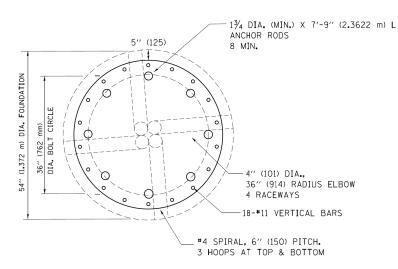
- CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03
   OF THE STANDARD SPECIFICATIONS.
- (3) BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- (4) TRIM TO FINAL SLOPE.
- EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

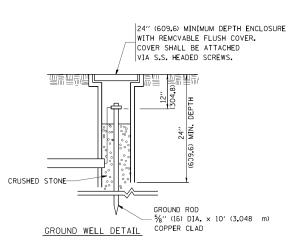


D160W30-SHT-D1-Detail-08-[BD-51].dgn	DESIGNED -	REVISED -
USER NAME = dishevaz	DRAWN - CADD	REVISED -
PLOT SCALE = 50.0000 ' / in.	CHECKED - S.E.B.	REVISED -
PLOT DATE = 10/23/2014	DATE - 1 06-16-04	REVISED -

		SHAFT LENGTH (D)	TABLE		
		AVERAGE STRENGTH	LIGHT	TOWER MOUNTING HE	EIGHT
SOIL CO	ONSISTENCY	Qu In tsf (Qu In kPa)	120 FT. (37 m)	130 FT. (40 m)	140 FT. (43 m)
	SOFT	<0.5 (<50)	25'-0'' (7 <b>.</b> 6 m)	26'-6'' (8 <b>.</b> 0 m)	27'-6'' (8.3 m)
	MEDIUM	0.5 TO 1 (50 to 100)	20'-6'' (6.2 m)	21'-6'' (6.4 m)	22'-0'' (6.7 m)
COHESIVE	STIFF	1 TO 2 (100 TO 200)	17'-6'' (5.2 m)	18'-0'' (5 <b>.</b> 4 m)	18'-6'' (5.5 m)
	VERY STIFF	2 TO 4 (200 TO 400)	15'-0'' (4.5 m)	15′-6′′ (4 <b>.</b> 6 m)	16'-0'' (4.7 m)
	HARD	>4 (>400)	13'-6'' (4.0 m)	13'-6'' (4 <b>.</b> 1 m)	14'-0'' (4.2 m)
		N in BLOWS/FT. (N in BLOWS/0.3m)			
	VERY LOOSE	<5 (<5)	19'-0'' (6.3 m)	20'-0'' (6.0 m)	20'-6" (6.2 m)
	LOOSE	5 TO 10 (5 TO 10)	17'-6'' (5.7 m)	18'-0'' (5 <b>.</b> 5 m)	18'-6'' (5.6 m)
GRANULAR	MEDIUM	10 TO 25 (10 TO 25)	16'-6'' (5.5 m)	17'-0'' (5 <b>.</b> 2 m)	17'-6'' (5.3 m)
	DENSE	25 TO 50 (25 TO 50)	15′-6′′ (5.2 m)	16'-6'' (4 <b>.</b> 9 m)	16'-6'' (5.0 m)
	VERY DENSE	>50 (>50)	15′-0′′ (4 <b>.</b> 5 m)	15'-6'' (4.7 m)	16'-0'' (4.8 m)

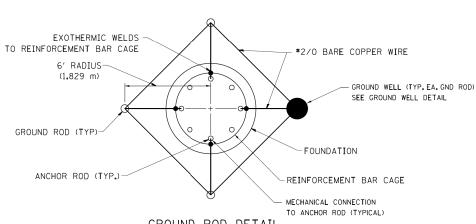


#### SECTION-B-B



## DESIGN NOTES

- (1) ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
- (2) THE ANCHOR RODS SHALL BE VERTICAL NO ADJUSTMENT SHALL BE ALLOWED AFTER THE FOUNDATION IS PLACED.
- (3) THE GAP BETWEEN THE FOUNDATION AND THE BASE PLATE SHALL BE ENCLOSED WITH A STAINLESS STEEL SCREEN FASTENED WITH A STAINLESS STEEL BAND.
- (4) THE TOP OF THE FOUNDATION TO 18" (450) BELOW GRADE
- (5) SURFACE WATER WILL NOT BE PERMITTED TO ENTER THE HOLE AND ALL WATER WHICH MAY HAVE INFILTRATED INTO THE HOLE SHALL BE REMOVED BEFORE PLACING CONCRETE.
- (6) THE LIGHT TOWER SHALL NOT BE ERECTED UNTIL AFTER THE CONCRETE HAS BEEN CURED ACCORDING TO ARTICLE 1020.13.
- (7) ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725(GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.9.
- (8) ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED FOR APPROVAL WITH TOWER MANUFACTURER REQUIREMENTS.
- (9) REINFORCEMENT BARS SHALL BE ACCORDING TO ARTICLE 1006.10
- (10) TWO ANCHOR RODS OPPOSITE EACH OTHER SHALL HAVE THE ANCHOR ROD THREADS PEENED AFTER NUTS ARE INSTALLED.
- (11) A MINIMUM OF THREE FULL THREADS SHALL REMAIN EXPOSED AFTER LIGHT TOWER IN INSTALLED.
- (12) ALL GROUNDING INDICATED IN THE PLANS SHALL BE INCLUDED IN THE COST OF THE LIGHT TOWER FOUNDATION AND SHALL NOT BE PAID FOR SEPARATELY.
- (13) CUT NUTS, OR JAM NUTS, ARE NOT ALLOWED
- (14) ANCHOR ROD QUANTITY, DIAMETER, AND LENGTH SHALL BE DETERMINED BY THE TOWER MANUFACTURER AND APPROVED BY THE ENGINEER. EACH FOUNDATION SHALL HAVE A MINIMUM OF 8 ANCHOR RODS.
- (15) COORDINATE THE ROD CIRCLE DIAMETER OF THE TOWER WITH THE DIAMETER OF THE ANCHOR ROD CAGE.
- (16) THE FOUNDATION SHALL BE POURED MONOLITHICALLY AND SHALL HAVE NO CONSTRUCTION JOINTS.



GROUND ROD DETAIL

<b>-</b> 6014	D
=COM	υ
T WACKER DRIVE. SUITE 1400	Ρ
IL 60601-5276 312) 373-7700 FAX: (312) 373-6800	Р

D160W30-SHT-D1-Detail-09-[BE-506a].dgn	DESIGNED - R. TOMSONS	REVISED - R. TOMSONS 09-02-10
USER NAME = dishevaz	DRAWN -	REVISED - R. TOMSONS 02-27-13
PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED -
PLOT DATE = 10/23/2014	DATE - M3-12-10	REVISED -

BASE PLATE -

SEE NOTE 11

В

MECHANICAL CONNECTION TO ANCHOR RODS

EXOTHERMIC WELD CONNECTION — TO REINFORCING STEEL

#2/0 BARE COPPER WIRE

CONNECTION

4-5%" (16) DIA. X 10" (3.048 m)
LONG GROUND RODS EQUALLY
SPACED IN A 12" (3.658 m)
DIAMETER CIRCLE EXOTHERMICALY
CONNECTED TOGETHER WITH A
#2/0 BARE COPPER WIRE
(SEE GROUND ROD DETAIL)

12" (304.8)

FOUNDATION

ELEVATION

SCALE: NONE

5" (125)

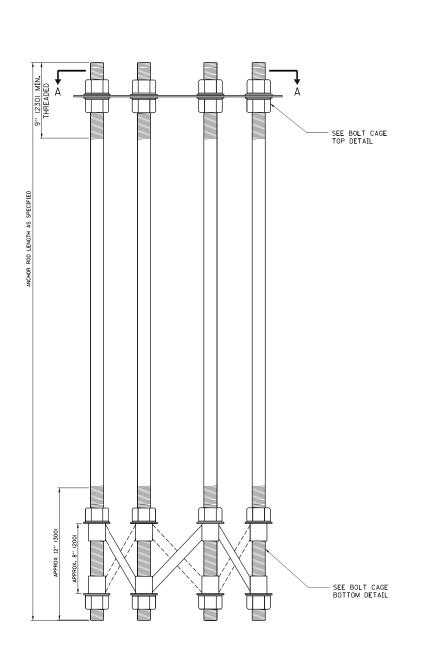
ВОТТОМ

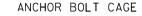
RACEWAY PROJECTION

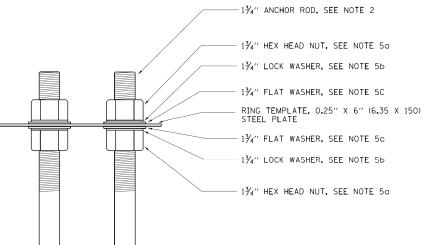
18" (457)

SEE ANCHOR BOLT CAGE WELDMENT DETAIL SHEET 2

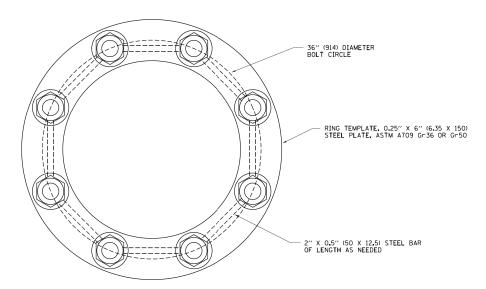
HIGH MAST LIGHT TOWER		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					
,	120 FT TO 140 FT FOUNDATION DETAIL				90/94	2013-012R	COOK	385	323		
	120 11 10	140 11		OUNDATIO	W DEIAIL			BE-506	CONTRACT	NO. 6	OW30
	SHEET 1	OF	2	SHEETS	STA.	TO STA.	FFD, ROAD DI	IST. NO. 1 THE INOIS FED. AT	D PROJECT		



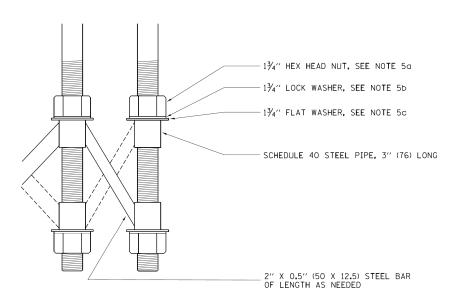




## BOLT CAGE TOP



## SECTION A-A



BOLT CAGE BOTTOM

SCALE: NONE

#### NOTES

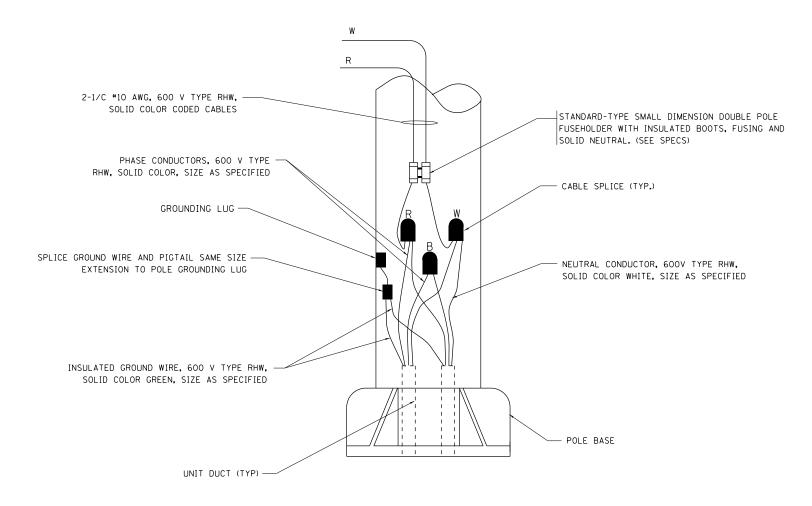
- 1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
- 2. ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725 (GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.09.
- 3. ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED WITH TOWER MANUFACTURERS REQUIREMENTS.
- 4. CUT NUTS, OR JAM NUTS, ARE NOT ALLOWED
- 5. ANCHOR ROD CAGE HARDWARE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
  - a) 1¾" HEX HEAD NUTS AASHTO M291, GRADE C, C3, D ,DH OR DH3 HOT DIPPED GALVANIZED AASHTO M 232
  - b) 1¾" HELICAL LOCK WASHERS
    ANSI/ASME B18.21.1
    I.D. 1.758 1.778
    O.D. 2.596 MAX.
    WIDTH 0.383 MIN.
    THICKNESS 0.469 MIN.
    HARDNESS 26-45 ROCKWELL C
    HOT DIPED GALVANIZED AASHTO M232
  - c) 1¾" FLAT WASHERS
    AASHTO M293
    O.D. 3.25
    I.D. 1.875
    THICKNESS 0.16 0.25
    HARDNESS 26-45 ROCKWELL C.
    HOT DIPED GALVANIZED AASHTO M232
- 6. THE SHAFT LENGTHS SHALL BE BASED ON SOIL BORINGS IN THE PLANS AND OR A DETERMINATION OF SOIL CONDITIONS BY THE ENGINEER.
- 7. ALL FOUNDATION REINFORCEMENT STEEL SHALL BE EPOXY COATED.
- 8. THE FOUNDATION SHALL BE POURED MONOLITHICALLY AND SHALL HAVE NO CONSTRUCTION JOINTS.
- 9. ANCHOR RODS AND ALL ASSOCIATED HARDWARE ARE SHOWN
  AS MINIMUMS. SIZING SHALL BE DETERMINED BY THE TOWER
  MANUFACTURER AND APPROVED BY THE ENGINEER. EACH
  FOUNDATION SHALL HAVE A MINIMUM OF 8 ANCHOR RODS.

BOLI CAGE BO

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

## TYPICAL SPLICE DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.

30" (762) MINIMUM COVER 12" (305) MAXIMUM WIDTH EXCEPT AS APPROVED BY THE ENGINEER

12" (305)

WARNING TAPE AS SPECIFIED

UNIT DUCT OR OTHER RACEWAY
AND WIRING AS PER PLANS. COMPLETE

WITH INTERNAL INSULATED EQUIPMENT GROUND WIRE.

POLE WIRING DETAIL

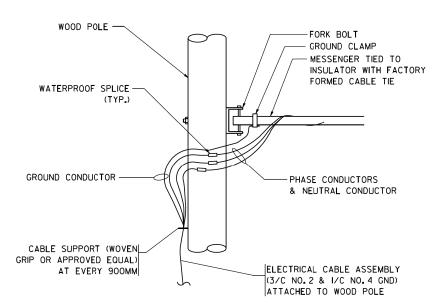
N.T.S.

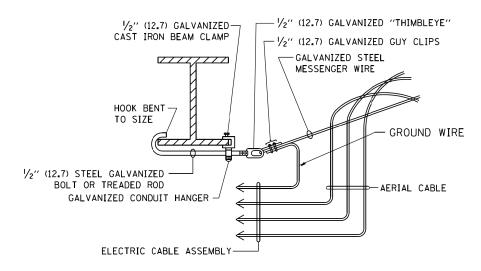
<b>AECOM</b>
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160W30-SHT-D1-Detail-09-[BE-702].dgn	DESIGNED -	REVISED - 08-08-03
USER NAME = dishevaz	DRAWN -	REVISED -
PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED -
PLOT DATE = 10/23/2014	DATE - 10/24/2014	REVISED -

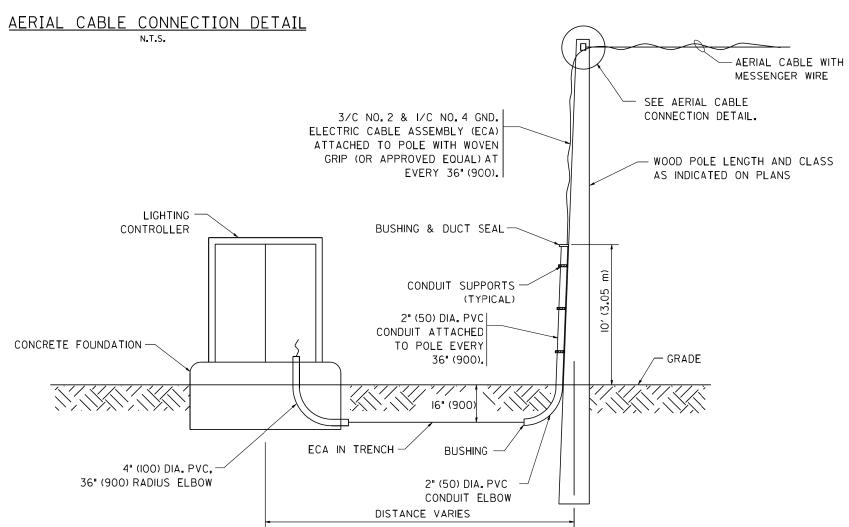
SCALE:

MISC. ELECTRICAL DETAILS					F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
SHEET A				90/94	2013-012R	COOK	385	325		
	SHEEL A						BE-702	CONTRACT	NO. 6	OW30
	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				





# AERIAL CABLE ATTACHED TO STRUCTURE NOT TO SCALE



## NOTES:

- 1. ALL DIMENSIONS IN INCHES (MILLIMETERS)
  UNLESS OTHERWISE INDICATED.
- 2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
- 3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
- 4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.

# WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL

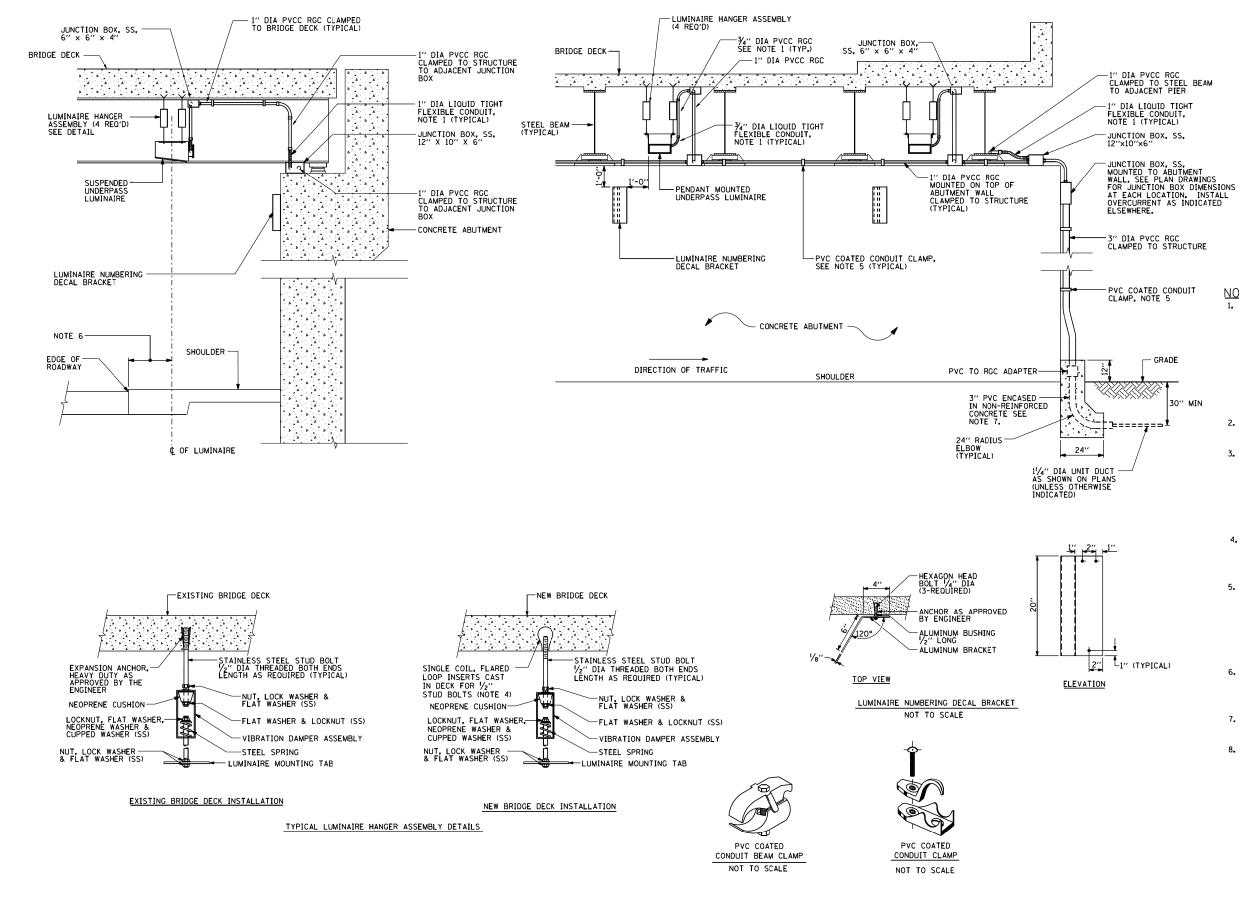
N.T.S.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276

D160W30-SHT-D1-Detail-09-[BE-801].dgn	DESIGNED -	REVISED - 08-08-03
USER NAME = dishevaz	DRAWN -	REVISED -
PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED -
PLOT DATE = 10/23/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	TEMPORARY AERIAL CABLE INSTALLATION					F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ı						90/94	2013-012R	соок	385	326	
								BE-801	CONTRACT	NO. 6	OW30
	SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				



NOTES:

- NOTES:

  1. LIQUID TIGHT FLEXIBLE METAL
  CONDUIT, MAXIMUM LENGTH 6'-O", TYPICAL
  FOR EACH INSTANCE AS SHOWN, PROVIDE PVC
  COATED RIGID GALVANIZED STEEL CONDUIT AS
  REQUIRED NOT TO EXCEED 6'-O" OF FLEXIBLE
  LIQUID TIGHT METAL CONDUIT, LIQUID TIGHT
  FLEXIBLE METAL CONDUIT WILL BE INCLUDED
  IN THE COST OF THE CONDUIT ATTACHED TO
  STRUCTURE, OF THE CONTRESPONDING DIA.,
  GALVANIZED STEEL, PVC COATED PAY JIEM
  EXCEPT THAT "A" DIA. CONDUIT AND "A" DIA.
  FLEXIBLE CONDUIT SHALL BE INCLUDED
  IN THE COST OF UNDERPASS LUMINAIRE
  INSTALLATION. INSTALLATION.
- 2. SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
- 3. THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDED MOUNTING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR. SEE DETAIL.
- 4.THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
- 5. SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA, GALVANIZED STEEL, PVC COATED" PAY ITEM.
- 6. ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS
- 7. THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
- 8. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.

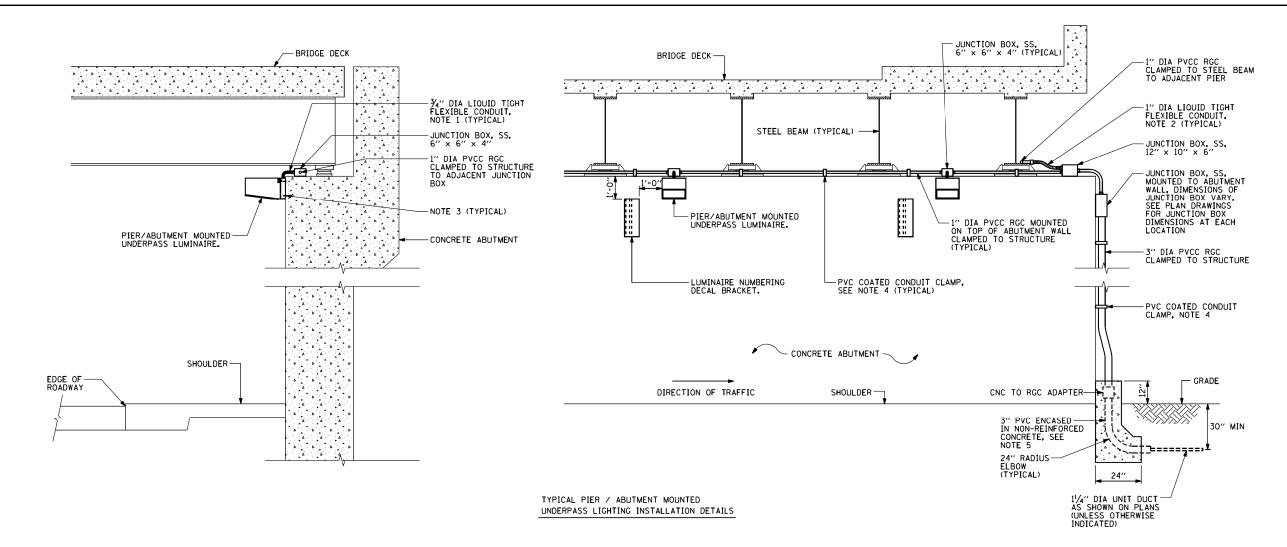
**AECOM** 

REVISED - 12-12-05 160W30-SHT-D1-Detail-09-[BE-900].dgn DESIGNED -ISER NAME = dishevaz DRAWN REVISED CHECKED REVISED PLOT DATE = 10/23/2014 DATE REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

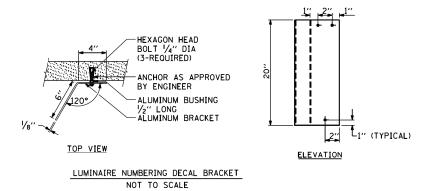
SCALE: NONE

TOTAL SHEE SHEETS NO. SECTION COUNTY RTE. SUSPENDED MOUNT UNDERPASS 90/94 2013-012R COOK 385 327 **LUMINAIRE INSTALLATION DETAILS** BE-900 CONTRACT NO. 60W30 SHEET 1 OF 1 SHEETS STA. TO STA.



## NOTES:

- 1. LIQUID TIGHT FLEXIBLE METAL
  CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL
  FOR EACH INSTANCE AS SHOWN, PROVIDE PVC
  COATED RIGID GALVANIZED STEEL CONDUIT AS
  REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE
  LIQUID TIGHT METAL CONDUIT, LIQUID TIGHT
  FLEXIBLE METAL CONDUIT WILL BE INCLUDED
  IN THE COST OF THE CONDUIT ATTACHED TO
  STRUCTURE, OF THE CONDUIT ATTACHED TO
  STRUCTURE, OF THE CORRESPONDING DIA.,
  GALVANIZED STEEL, PVC COATED PAY ITEM
  EXCEPT THAT THE COST OF THE \$4" DIA.
  RIGID STEEL CONDUIT AND \$4" DIA. FLEXIBLE
  CONDUIT SHALL BE INCLUDED IN THE LUMINAIRE
  INSTALLATION.
- 2. UNDERPASS LUMINAIRE MOUNTED TO FACE OF PIER OR ABUTMENT WALL. MOUNTING HEIGHT OF 1" BELOW THE TOP OF PIER OR ABUTMENT WALL TYPICAL FOR ALL PIER/ABUTMENT MOUNTED UNDERPASS LUMINAIRES UNLESS OTHERWISE NOTED.
- 3. EXPANSION ANCHOR, POWDER ACTUATED FASTENERS WILL NOT BE ALLOWED. EXPANSION ANCHOR MUST BE SIZED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
- 4. SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-O" INTERVALS FOR LATERALS AND WITHIN 2'-O" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
- 5. THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
- 6. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.







SCALE: NONE

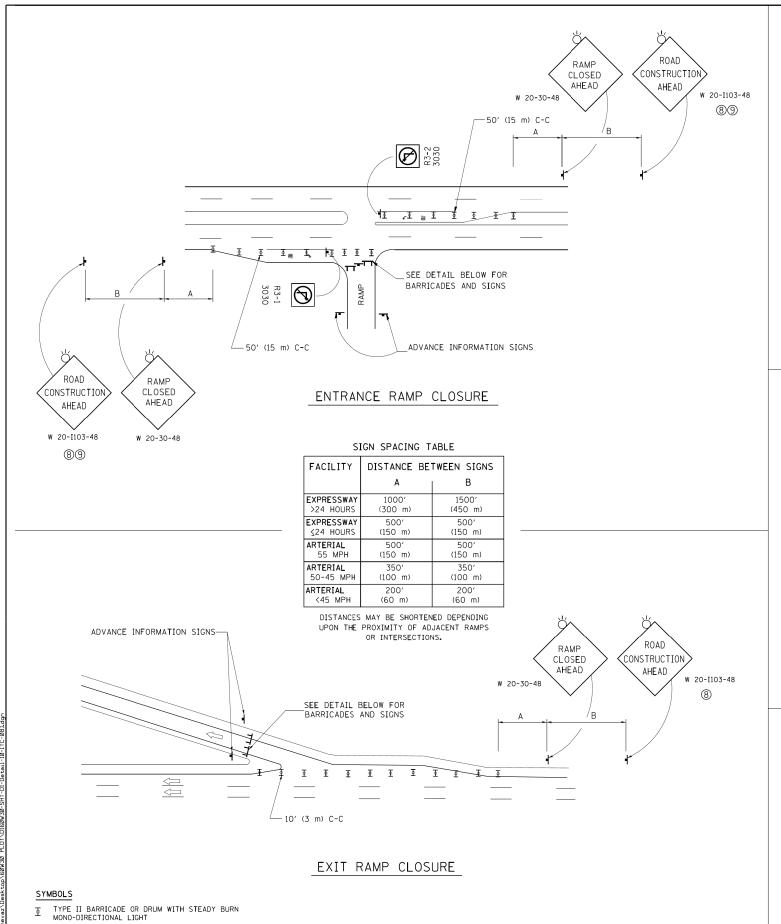
NOT TO SCALE NOT TO SCALE

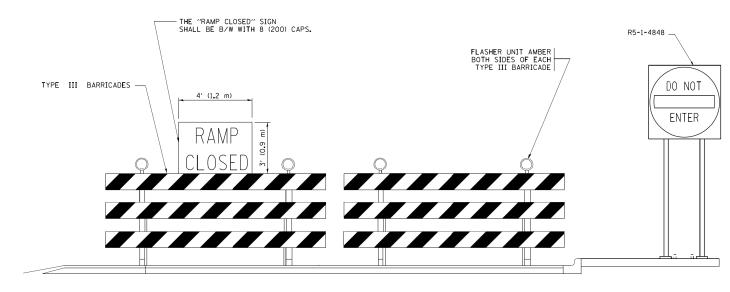
AECO	MC
303 EAST WACKER DRIVE, SU CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX:	

D160W30-SHT-D1-Detail-09-[BE-902].dgn	DESIGNED -	REVISED - 01-25-05
USER NAME = dishevaz	DRAWN -	REVISED -
PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED -
PLOT DATE = 10/23/2014	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

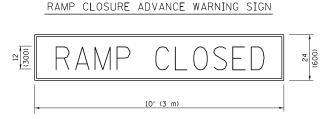
PEIR /ABUTMENT MOUNTED UNDERPASS				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	LUMINAIRE INSTALLATION DETAILS					90/94	2013-012R	соок	385	328
							BE-902	CONTRACT	NO. 6	OW30
	SHEET 1	OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				





DETAIL FOR REQUIRED BARRICADES & SIGNS

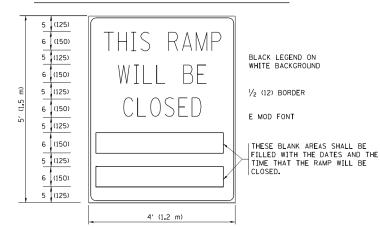
#### RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON ORANGE

BACKGROUND MOUNTED DIAGONALLY E MOD FONT 1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.



THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

#### GENERAL NOTES:

- CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II ONES MAT BE SUBSTITUTED TO STATE OF SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEEDED BY A W20-7 FLAGGER WARNING SIGN.
- (4) ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.

SHEET 1

5 THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).

SCALE: NONE

- THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL
- INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED

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



TYPE III BARRICADE WITH 2 FLASHING LIGHTS

0160W30-SHT-D1-Detail-10-[TC-08].dgn	DESIGNED - DWS	REVISED - JAF 02-06
JSER NAME = dishevaz	DRAWN -	REVISED - SPB 01-07
PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED - SPB 12-09
PLOT DATE = 10/23/2014	DATE - 1(02-83	REVISED - MD 06-13

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

ENTRANCE AND EXIT RAMP CLOSURE DETAILS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			90/94	2013-012R	соок	385	329
OLOGOTIL D	LIAILO			TC-08	CONTRACT	NO. 6	OW30
OF 1 SHEE	TS STA.	TO STA.	FED ROAD DI	IST NO 1 TILINOIS FED	ATD PROJECT		

6 AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.

ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH

ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY

ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

#### SINGLE LANE WEAVE MULTI-LANE WEAVE TEMPORARY CONCRETE BARRIER WALL TEMPORARY CONCRETE BARRIER WALL GENERAL NOTES 12:1 TAPER -81-4F-48 IMPACT ATTENUATOR ① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE 12:1 TAPER IVERTICAL PANELS OR BARRICADES WEAVES UNDER 4 DAYS IN DURATION. @ 200'(60 m)ON TANGENT 67 3 @ 100'(30 m)ON CURVE ② CONTINOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE -IMPACT ATTENUATOR THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE. $\rightarrow$ (3) PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND WI-6R0-6030 100' (30 m) C-C SPACING IN TANGENTS. ABOVE TYPE III BARRICADE (4) ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS. (5) TYPE III BARRICADES MAY BE OMMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN WI-6R0-6030 ABOVE TYPE I DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS BARRICADE THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE LIMIT:1 ELIMINATED IN THE TAPER AREAS. 6 WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE. (7) THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC. 09 4'x 8' (1.2 m x 2.4 m); 1 (25) BORDER; 10 (250) CAPITAL ALL TRAFFIC LETTERS BACKGROUND SHEETING SHALL BE THE SAME AS ALL DIAMOND SHAPED CONSTRUCTION SIGNS. 67 SYMBOLS DIRECTION OF TRAFFIC (1) (2)(3)-WORK AREA WI-6RO-6030 ABOVE SIGN ON PORTABLE OR PERMANENT SUPPORT TYPE III BARRICADE (5) TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT TEMPORARY CONCRETE BARRIER WALL IMPACT ATTENUATOR W1-4R-48 IMPACT ATTENUATOR 12:1 TAPER 60 SIGNING, BARRICADING, & PAVEMENT MARKING TEMPORARY CONCRETE BARRIER WALL ACCORDING TO FREEWAY STANDARD FOR A ONE

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN



RIGHT LANE CLOSED SIGNING & BARRICADING

FREEWAY STANDARD FOR A ONE LANE CLOSURE

ACCORDING TO

D160W30-SHT-D1-Detail-11-[TC-09].dgn	DESIGNED - DWS	REVISED - JAF 02-06
USER NAME = dishevaz	DRAWN -	REVISED - SPB 01-07
PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED - SPB 12-09
PLOT DATE = 10/23/2014	DATE - 1(02-87	REVISED - MD 06-13

W1-4R-48

WORK AREA-

SCALE: NONE

LANE CLOSURE.

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

#### NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- Q) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- g) ONE ROAD CONSTRUCTION AHEAD SIGN 48  $\times$  48 (1,2 m  $\times$  1,2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

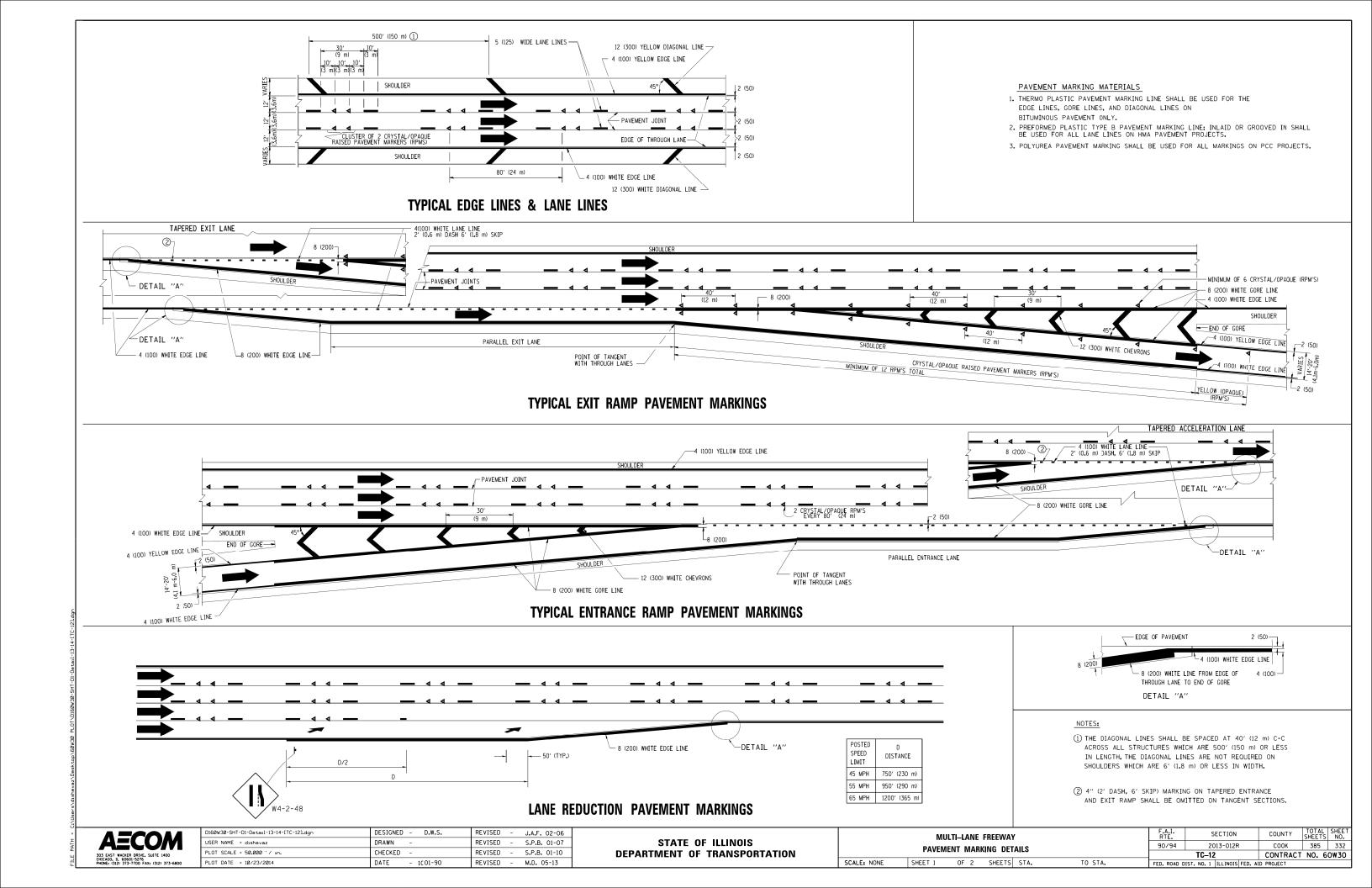
SCALE: NONE

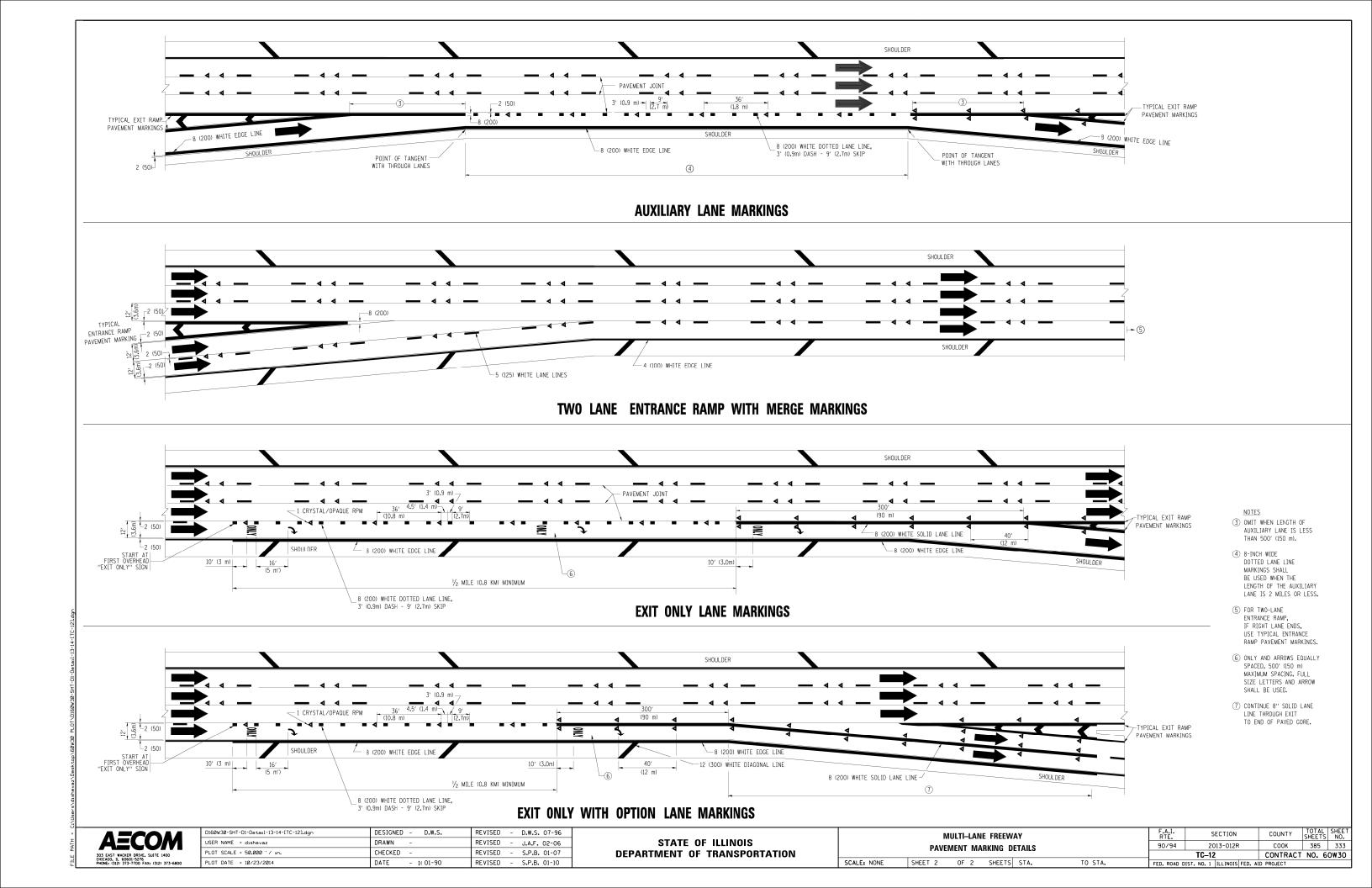
### B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

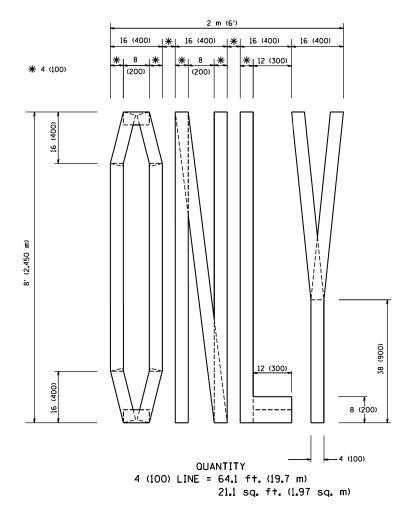
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

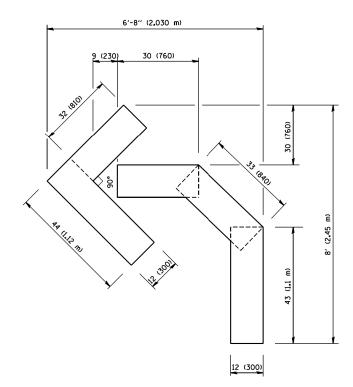
All dimensions are in millimeters (inches) unless otherwise shown.

60W30-SHT-D1-Detail-12-[TC-10].dgn	DESIGNED - LHA	REVISED-J. OBERLE 10-18-95	Ī
SER NAME = dishevaz	DRAWN -	REVISED-A. HOUSEH 03-06-96	
OT SCALE = 50.000 '/ in.	CHECKED -	REVISED-A. HOUSEH 10-15-96	
OT DATE = 10/23/2014	DATE - 106-89	REVISED-T. RAMMACHER 01-06-D	C

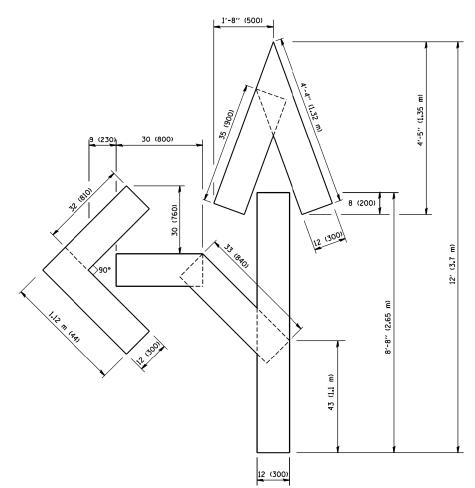








OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

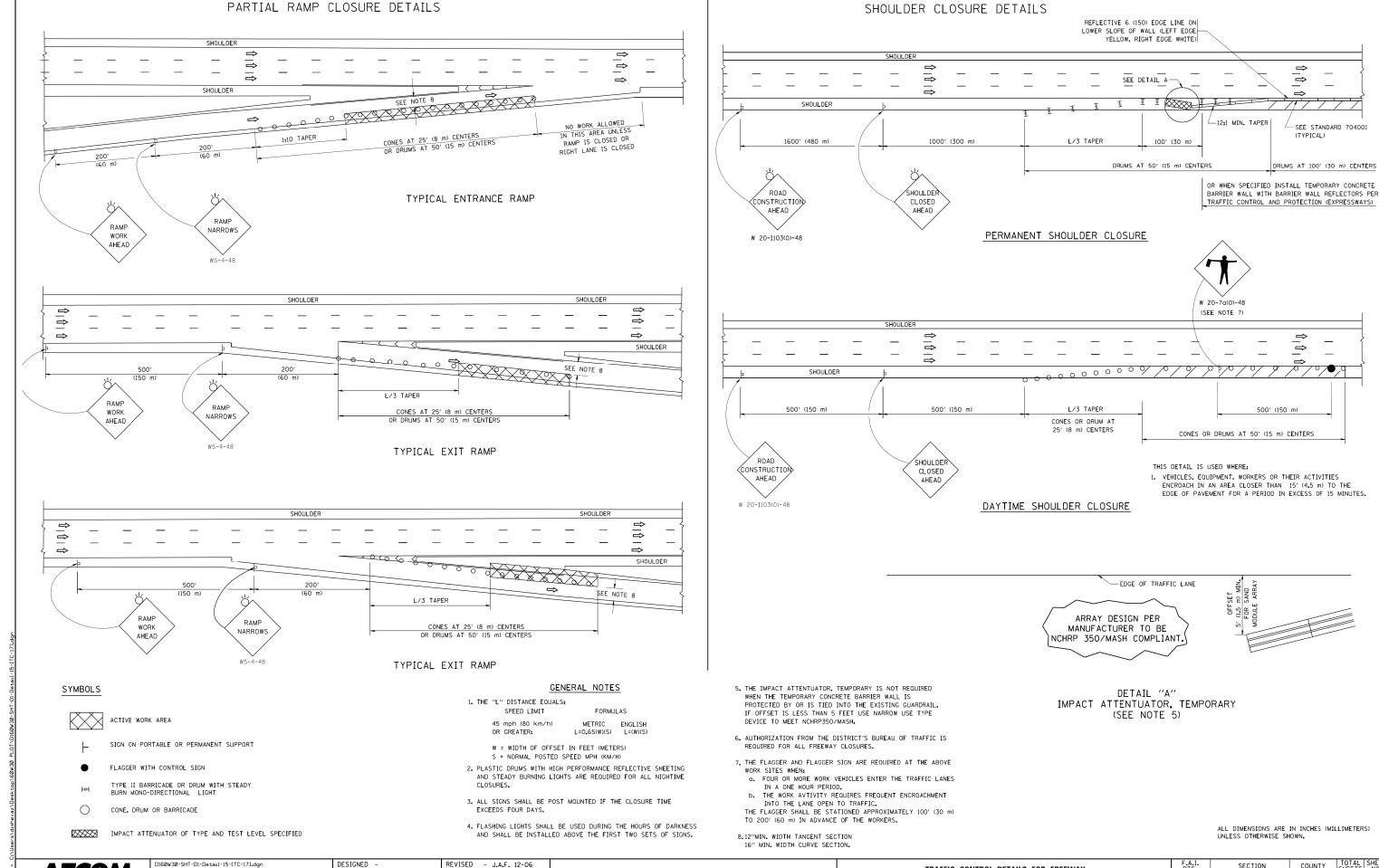
All dimensions are in inches (millimeters) unless otherwise shown.



D160W30-SHT-D1-Detail-14-[TC-16].dgn	DESIGNED -	REVISED - T.RAMMACHER 06-05-96
USER NAME = dishevaz	DRAWN -	REVISED - T.RAMMACHER 11-04-97
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - T.RAMMACHER 03-02-98
PLOT DATE = 10/23/2014	DATE - D9-18-94	REVISED - E.GOMEZ 08-28-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
FOR TRAFFIC CONTROL			90/94	2013-012R	COOK	385	334		
FUN INAFFIC CONTROL				TC-16		CONTRACT NO. 60W30			
SCALE: NONE	SHEET 1	0F 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT			

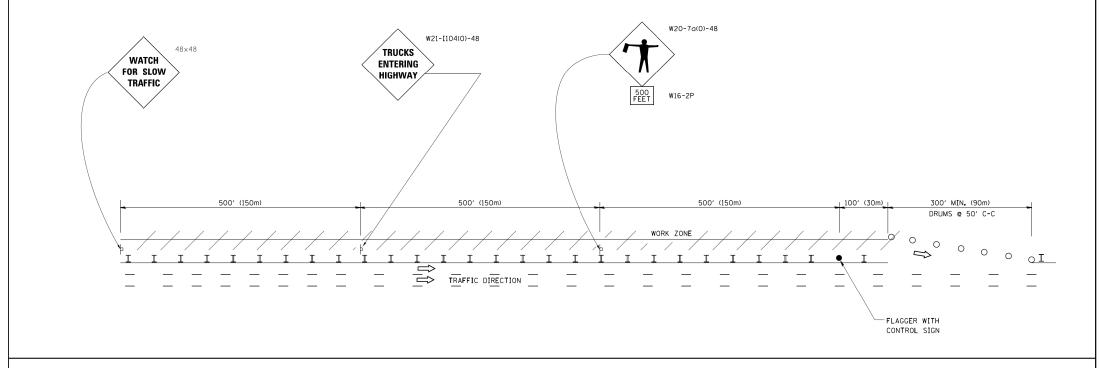


AECON
33 EAST WACKER DRIVE, SUITE 1400
CHICACO, 160601-5276
PHONE: (3)2) 373-7700 FAX: (3)2) 373-

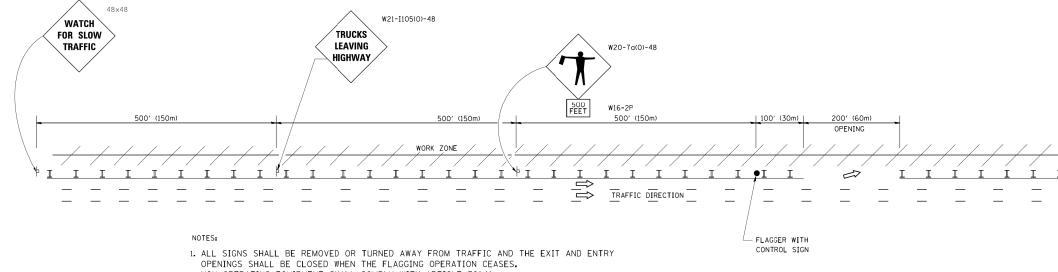
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE

#### WORK ZONE EXIT OPENING



#### WORK ZONE ENTRY OPENING



## NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11

- 2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMPS.
- 3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL
- 4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS
- 5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

COUNTY

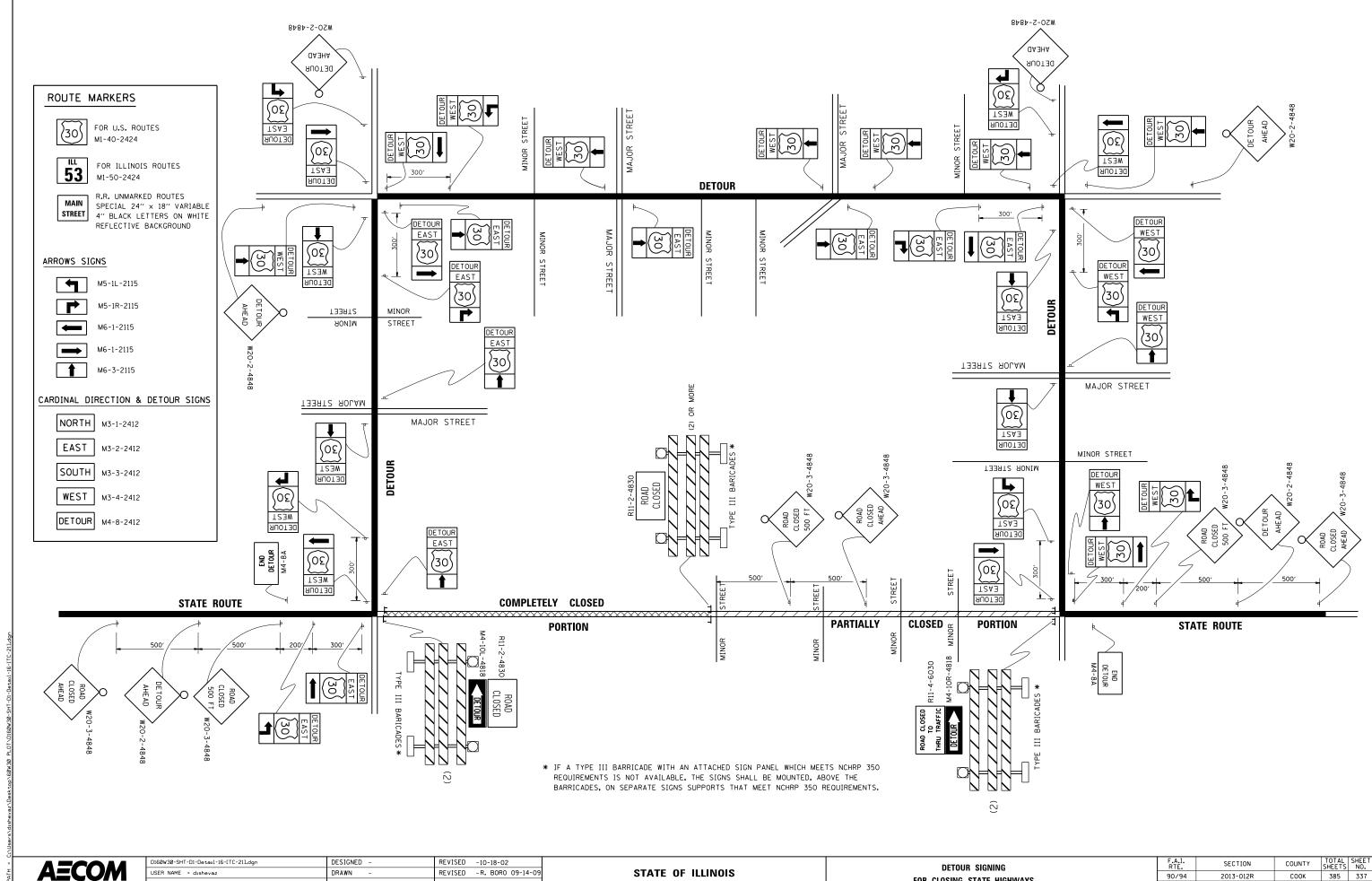
COOK

385 336

CONTRACT NO. 60W30

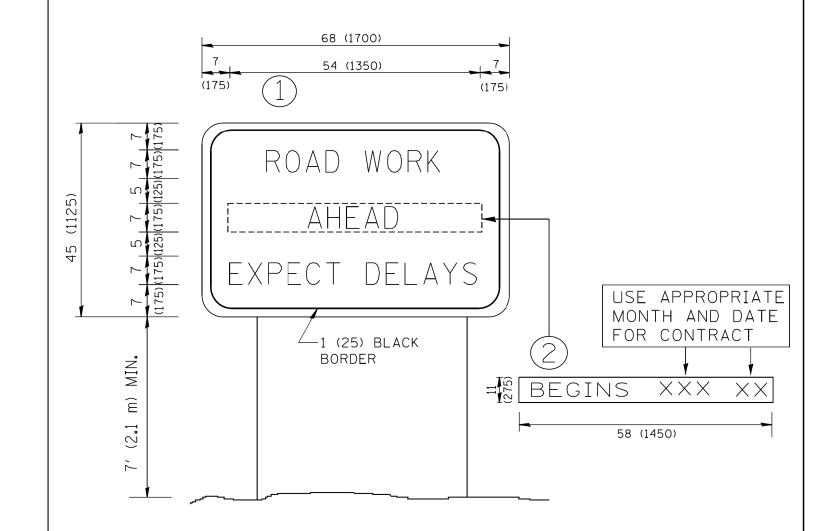


0160W30-SHT-D1-Detail-15-[TC-18].dgn	DESIGNED -	REVISED - J.A.F. 02-06
JSER NAME = dishevaz	DRAWN -	REVISED - S.P.B. 01-07
PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED - S.P.B. 12-09
PLOT DATE = 10/23/2014	DATE - 1	REVISED - M.D. 06-13



303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PMONE: 1312) 373-700 FAX: (312) 373-680

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



#### NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.

SCALE: NONE

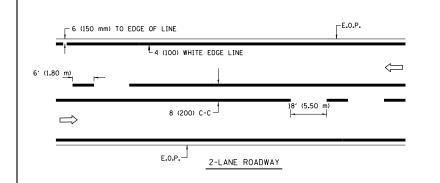
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
- 5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
- 6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
- 7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

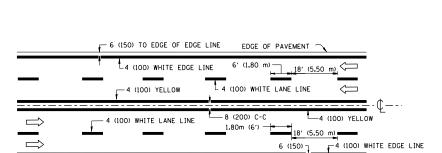
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



D160W30-SHT-D1-Detail-17-[TC-22].dgn	DESIGNED -	REVISED-R. MIRS 9-15-97
USER NAME = dishevaz	DRAWN -	REVISED-R. MIRS 12-11-97
PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED-R. RAMMACHER 02-02-9
PLOT DATE = 10/23/2014	DATE - 10	REVISED-C. JUCIUS 01-31-07

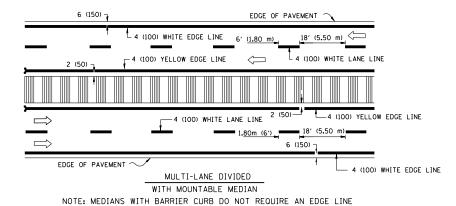
	ARTE	RIAL RO	AD.		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	INFORM	/IATION	SIGN		90/94	2013-012R	COOK	385	338
	IIII OIII	MATION	oldiv			TC-22	CONTRACT	NO. 6	OW30
SHEET 1	OF 1	SHEETS	STA.	TO STA.	FED. ROAD DI	ST. NO. 1   ILLINOIS FED. AI	D PROJECT		



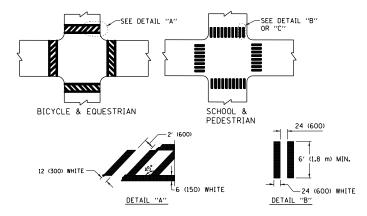


MULTI-LANE UNDIVIDED

EDGE OF PAVEMENT  $\sim$ 



#### TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

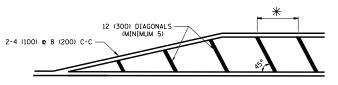
24 (600)

8' (2.1 m)

24 (600) WHITE

DETAIL "C"

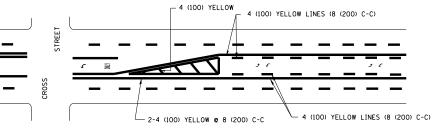
CENTRAL DOWNTOWN
BUSINESS DISTRICT



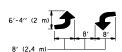
\*FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

\* DIAGONAL LINE SPACING: 20' (6.1 m) C-C

#### PAINTED MEDIANS

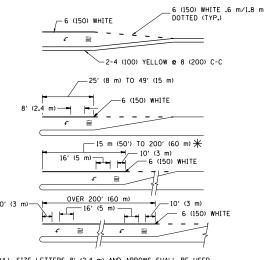


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

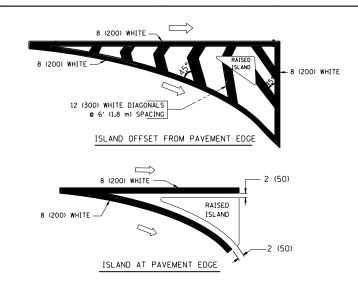


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.8 SO. FT. (1.47 m<sup>2</sup>)  $\P$  AREA = 22.9 SO. FT. (2.13 m<sup>2</sup>)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

#### TYPICAL TURN LANE MARKING



#### TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	6' (1.80 m) LINE WITH 18' (5.50 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	8 (200) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>@</b> 4 (100)	SOLID SOLID	YELLOW YELLOW	8 (200) C-C
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	6' (1.80 m) LINE WITH 18' (5.50 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	6' (1.8 m) LINE WITH 18' (5.50 m) SPACE FOR SKIP-DASH; 8 (200) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4 m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES A. DIAGONALS (BIKE & EOUESTRIAN) B. LONGITUDINAL BARS (SCHOOL & PEDESTRIAN)	12 (300) <b>e</b> 45° 24 (600) <b>e</b> 90°	SOLID SOLID	WHITE WHITE	2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	8 (200) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 20' (6.1 m) (LESS THAN 30 MPH (50 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SO. FT. (0.33m <sup>2</sup> ) EACH "X"=54.0 SO. FT. (5.0 m <sup>2</sup> )

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

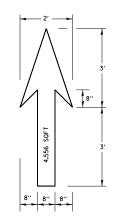
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

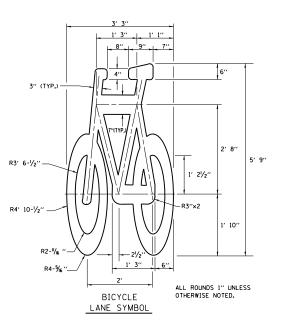
AECOM

303 EAST WACKER ORIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHODE: 13120 373-7700 FAX: (3)2: 373-6800

D160W30-SHT-D1-Detail-18-20-[TC-24].dgn	DESIGNED -	REVISED-T. RAMMACHER 12-07-0
USER NAME = dishevaz	DRAWN -	REVISED-K. ENG 02-28-12
PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED-
PLOT DATE = 10/23/2014	DATE - 1	REVISED-

TC-24 CONTRACT NO. 60V			CITY O	F CHICAGO	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
TC-24 CONTRACT NO. 60V		TVDI	CAL DAVE	ENJERIT RAAI	DVINGS		90/94	2013-012R	СООК	385	339
SCALE: NONE SHEET OF SHEETS STA. TO STA. FED BOAD DIST NO 1 ILLINOIS FED AID PROJECT	TYPICAL PAVEMENT MAKKINGS						TC-24	CONTRACT	NO. 6	OW30	
TED NOND BIST NOT 1 ILLEINOIS LED ALD THOOLES	SCALE: NONE	SHEET	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



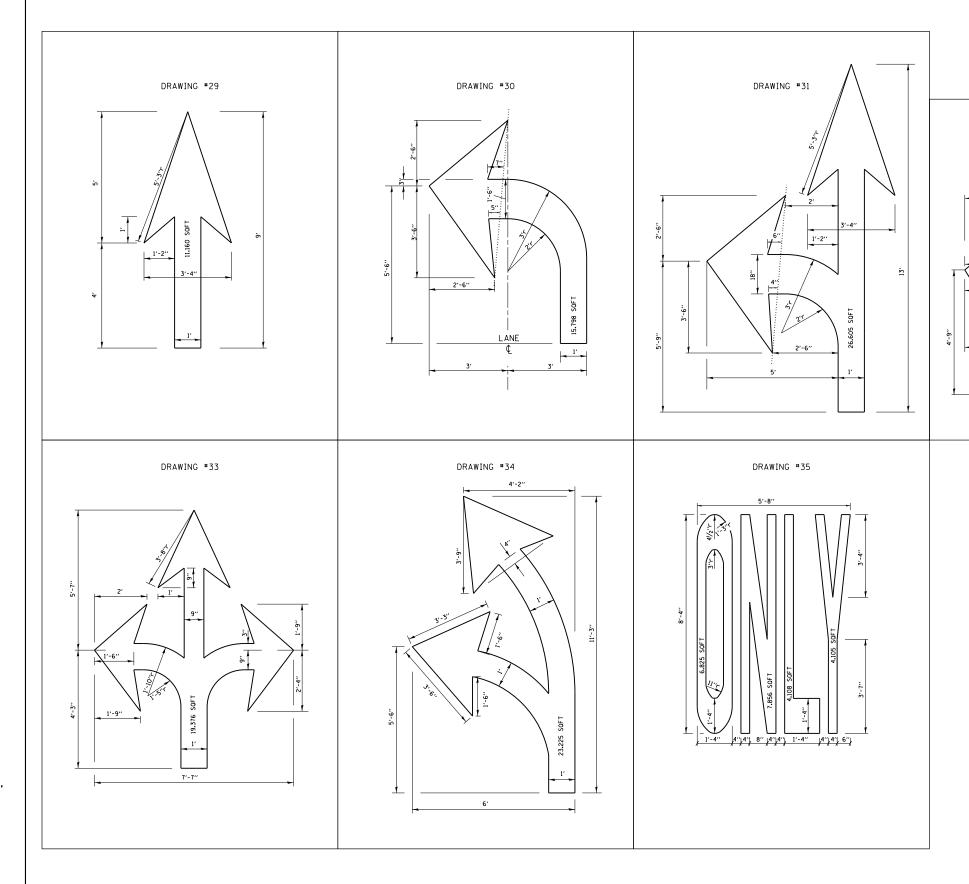


- NOTE:

  1.) FOR BIKE LANE SYMBOLS ONLY,

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

TYPICAL BIKE LANE SYMBOLS DRAWING #28



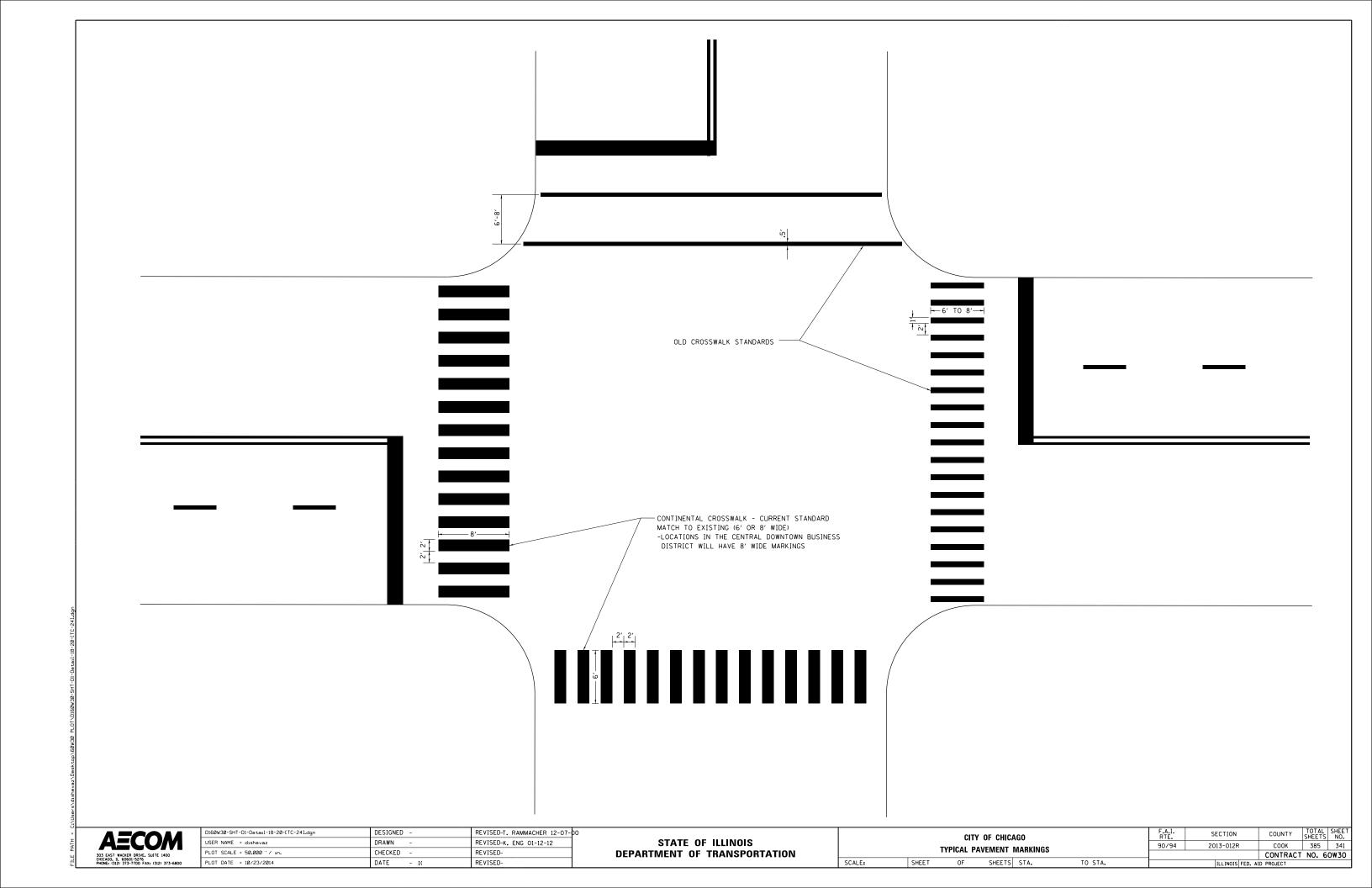
0W30-SHT-D1-Detail-18-20-[TC-24].dgn	DESIGNED -	REVISED-T. RAMMACHER 12-07-
ER NAME = dishevaz	DRAWN -	REVISED-K. ENG 01-12-12
OT SCALE = 50.000 '/ in.	CHECKED -	REVISED-
DT DATE = 10/23/2014	DATE - 1	REVISED-

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

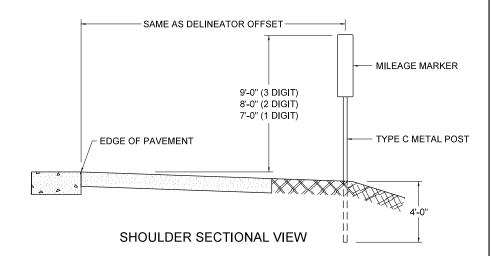
		CITY O	F CHICAGO			F.A.I. RTE.	S	ECTION		COUNTY	TOTAL SHEETS	SHEET NO.
	TYPICAL PAVEMENT MARKINGS							13-012R		COOK	385	340
ITFICAL FAVEWENT WARKINGS						TC-24			CONTRACT	NO. 6	OW30	
SCALE: NONE	SHEET	OF	SHEETS	STA.	TO STA.	FED. ROAD D	IST. NO. 1	ILLINOIS	FED. AI	D PROJECT		

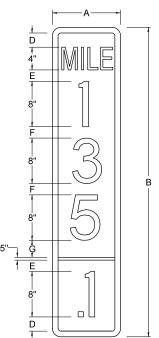
ALL MARKINGS SHALL BE SOLID WHITE UNLESS OTHERWISE NOTED IN THE PLANS

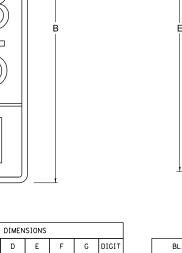
DRAWING #32



#### STANDARD DESIGN FOR MILE POST







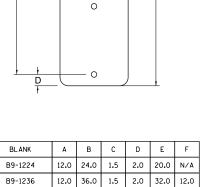
B9-1236

12 X 24	12.0	24.0	1.5	1.5	1.5	N/A	1.5	1				
12 × 36	12.0	36.0	1.5	2.0	2.0	2.0	1.5	2				
12 × 48	12.0	48.0	1.5	2.5	2.0	2.0	2.5	3				
	SERIES					œ						
SIGN SIZE			LINES			BORDER	BL/ ST	D.				
	1	2	3	4	5	B						
12 × 24	4C	8D	4C	N/A	N/A	0.5	B9-1	1224				

4C 8D 8D

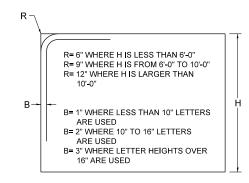
4C N/A 0.5

8D

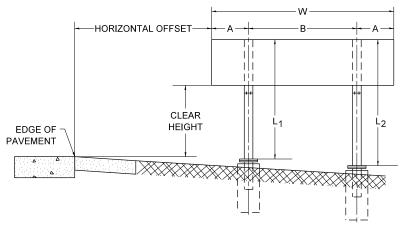


12.0 48.0 1.5 2.0 44.0 12.0

#### **BORDER AND RADIUS LAYOUT**



#### MAJOR GUIDE SIGN LAYOUT



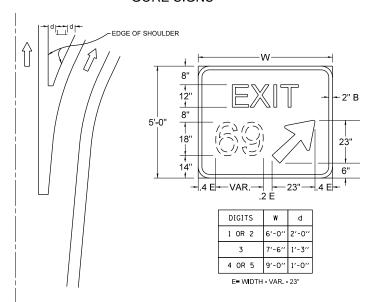
NUMBER OF STEEL SUPPORTS	Α	В		
2	.2 W	.6 W		
3	.15 W	.35 W		
4	.125 W	.25 W		
5	.1 W	.2 W		

"L<sub>1</sub>IS THE LENGTH OF SUPPORT, NOT INCLUDING THE STUB PROJECTION, CLOSEST TO THE EDGE OF THE PAVEMENT.

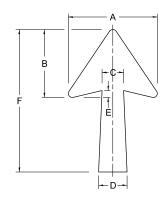
"A" IS THE DISTANCE FROM THE SIGN EDGE TO THE CENTERLINE OF THE NEAREST SUPPORT. "B" IS THE DISTANCE BETWEEN CENTERLINES OF SUPPORTS.

SCALE: NONE

#### **GORE SIGNS**

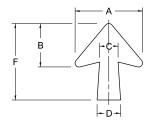


#### STANDARD ARROWS FOR INTERSTATE GUIDE SIGNS



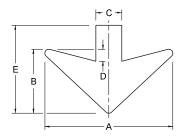
ARROW SYMBOL	Α	В	С	D	E	F	R
24 <sup>1</sup> / <sub>4</sub> × 15 <sup>1</sup> / <sub>8</sub>	151/8	11%	33/4	5	15/16	241/4	13/16
29 <sup>1</sup> / <sub>4</sub> × 18 <sup>1</sup> / <sub>4</sub>	181/4	14	41/2	6	11/2	291/4	3∕4
35 1/8 × 22 1/4	221/4	17	53/8	71/8	1¾	35%	1
18 <sup>1</sup> / <sub>4</sub> × 11 <sup>1</sup> / <sub>4</sub>	111/4	8¾	31/8	31/8		181/4	

NOTE: D & F ARE RECOMMENDED DIMENSIONS. TAPER SHOULD BE HELD CONSTANT FOR LONGER OR SHORTER SHAFT LENGTHS



4	ARROW SYMBOL	А	В	С	D	E	F	R
	17 <sup>1</sup> / <sub>4</sub> × 14 <sup>1</sup> / <sub>4</sub>	141/4	913//6	33/8	41/2	15/16	171/4	3/4
	20 <sup>1</sup> / <sub>4</sub> × 17 <sup>1</sup> / <sub>4</sub>	171/4	11¾	43/8	55/8	11/2	201/4	
	25 × 21 1/8	21 1/8	141/4	5	6¾	13/4	25	1
	9%6 × 8%6	81/16	5½	25/16	215//6		9%	1/2

#### **DOWN ARROWS**



ARROW SYMBOL	Α	В	С	D	E	R
161/2 × 24	24	12	5	11/2	161/2	3/4
22 × 32	32	16	61/2	3	22	1



SIZE

D160W30-SHT-D1-Detail-21-[TC-27].dgn	DESIGNED -	REVISED - 02-04-2009
USER NAME = dishevaz	DRAWN -	REVISED -
PLOT SCALE = 50.0000 '/ in.	CHECKED -	REVISED -
PLOT DATE = 10/23/2014	DATE - 1CO3-08-1984	REVISED -

B9-1248

MILE	POST MAR	KERS – G	ORE SIGNS		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
MAIOD	CHINE SIC	N LAVOII	T – ARROWS		90/94	2013-012R	COOK	385	342	
WAJOH	GOIDE 310	IN LAIGO	i – Ailliows		TC-	TC-27 (TS-2341-1)		CONTRACT NO. 60W30		
SHEET	OF	SHEETS	STA.	TO STA.	FED ROAD D	IST NO 1 THE INDIS FED AT	D PROJECT			

OF CABINET FLANGE WIDTH MINIMUM 3" ALL AROUND SCREENED VENT UNDERSIDE OF TOP - I" DIA. MOUNTING HOLES 4 TYP. BOTTOM VIEW MOUNTING PATTERN

FRAME

É

ESP 3 CABINET

MOUNTING

PLATES

TYPE D FOUNDATION

NOTE: MOUNTING PLATES TO BE MOUNTED TO

- I. CABINETS, CABINET POSTS AND CABINET PEDESTALS SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH SECTION T637 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS". THE FINAL COAT SHALL BE (X) IN COLOR. THE INTERIOR SHALL BE PAINTED WHITE. SIGNAL POSTS AND HEADS TO BE FEDERAL YELLOW 89-19(MAUTZ).
- 2. CABINETS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION T400 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS".
- 3. ALL CABINETS WHICH ARE SERVICED BY 117 VOLTS A.C. POWER SHALL BE EQUIPPED WITH A 10 AMP CIRCUIT BREAKER, A.C. R.F.I. LINE FILTERING SURGE PROTECTOR, VARISTOR, DATA SURGE AND LOOP SURGE PROTECTORS AS INCIDENTAL TO THE COST OF THE CABINET. CMS CABINETS TYPE IV SHALL HAVE A 60 AMP. CIRCUIT BREAKER MINIMUM.
- 4. ESP 2/3/4 CABINETS SHALL BE FITTED WITH A THERMOSTATICALLY CONTROLLED FAN. IT SHALL BE MOUNTED AT THE TOP OF THE CABINET. THE FAN SHALL BE CAPABLE OF OPERATING AT 130 CPM AT 160' (48.8 m) OF STATIC WATER PRESSURE, A PORCLAIN BASED PULL CHAIN FIXTURE WITH 3 PRONG OUTLET SHALL ALSO BE PROVIDED.
- 5. RAMP METERING ESP 3 TYPE CABINETS SHALL ALSO BE EQUIPPED WITH A LOAD RELAY AND 2 CIRCUIT FLASHER. LAMPS, FAN, LOAD RELAY, AND 2 CIRCUIT FLASHER SHALL BE INCIDENTAL TO THE COST OF THE CABINET
- 6. INCIDENTAL TO THE COST OF EACH CABINET THE CONTRACTOR SHALL CONSTRUCT A 5 INCH (130mm) PCC SIDEWALK OF A RECTANGULAR AREA 3 FEET (915 mm) BY 4 FEET (1.25 m) IMMEDIATELY ADJACENT TO THE CABINET FOUNDATION ON THE SAME SIDE OF THE FOUNDATION AS THE CABINET DOOR TO PROVIDE FOOTING DURING INSTALLATION AND MAINTENANCE.
- 7. ANCHOR BOLTS FOR PEDESTAL AND BASE MOUNTED CABINETS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
- 8. ALL CABINETS SHALL HAVE TERMINAL BLOCKS AND SHELVES AS SHOWN. THESE ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
- 9. THE CABINET DOOR SHALL BE HINGED ON THE RIGHT SIDE WHEN FACING THE CABINET. THE DOOR SHALL BE FURNISHED WITH A GASKET THAT SHALL FORM A WEATHER TIGHT SEAL BETWEEN THE CABINET AND DOOR. THE HINGES SHALL BE CONTINUOUS AND BOLTED TO THE CABINET AND DOOR UTILIZING 1/4-20 STAINLESS STEEL CARRIAGE BOLTS AND NY-LOCK NUTS. THE HINGES WILL BE MADE OF STAINLESS STEEL WITH A 0.25 INCH (6.35 mm) DIAMETER STAINLESS STEEL HINGE PIN. THE HINGE PIN SHALL BE CAPPED TOP AND BOTTOM BY WELD TO RENDER IT TAMPER PROOF.
- IO. THE LATCHING MECHANISM SHALL BE A 3 POINT DRAW ROLLER TYPE. THE CENTER CATCH AND PUSHRODS SHALL BE EITHER CADMIUM OR ZINC PLATED, TYPE II CLASS I. PUSHRODS WILL BE TURNED EDGEWISE AT THE OUTWARD SUPPORTS AND SHALL BE 0.25 INCH (6.35 mm) BY 0.75 INCH (19.05 mm), MINIMUM, ROLLERS SHALL HAVE A MINIMUM DIAMETER OF 0.875 INCH (22.22 mm) AND WILL BE MADE OF NYLON, THE CENTER CATCH SHALL BE FABRICATED FROM 0.14 INCH (3.55 mm) STEEL, MIMIMUM, WHEN THE DOOR IS CLOSED AND LATCHED, IT WILL BE LOCKED. THE LATCHING HANDLE SHALL HAVE A PROVISION FOR PADLOCKING IN THE CLOSED POSITION, AN OPERATING HANDLE SHALL BE FURNISHED WITH EACH LOCK. THE HANDLE WILL BE STAINLESS STEEL WITH A 0.75 INCH (19.05 mm) DIAMETER SHANK.
- THE ENCLOSURE SHALL BE EQUIPPED WITH TWO ADJUSTABLE "C" MOUNTING CHANNELS WELDED ON BOTH SIDE WALLS AND BACK WALL OF THE ENCLOSURE, ALLOWING VERSATILE POSITIONING OF SHELVES OR PANELS, MOUNTING CHANNELS SHALL BE FACTORY PAINTED SAME COLOR AS INTERIOR OF CABINET.
- 12. CABINET DOOR SHALL NOT HAVE COMPARTMENT DOORS OR LOUVERS.
- 13. ALL FIELD CABINETS SHALL BE FITTED WITH BRASS LOCKS.
- 14. ESP TYPE 2 & 3 CABINETS FITTED WITH TWO SHELVES AS SHOWN.
- IS. POST TOP MOUNTED CABINETS, SHALL HAVE A 0.25 INCH (6.3 mm) BOTTOM OF CABINET WELDED.
- IG. THE CONTROL CABINET SHALL BE SET PLUMB ON THE FOUNDATION AND FASTENED TO THE ANCHOR BOLTS WITH NUTS AND WASHERS, FLAT WASHERS SHALL BE INSTALLED BELOW AND ABOVE THE BASE PLATE OF THE CONTROL CABINET. LOCKWASHERS SHALL BE INSTALLED ON TOP OF THE TOP FLAT WASHER.

160W30-SHT-D1-Detail-ITSC-400-4.dgn DESIGNED - R.L. REVISED- 12/94 JSER NAME = dishevaz DRAWN - G.M. REVISED-09/96 LOT SCALE = 50.000 '/ in. CHECKED - R.L. REVISED-02/98 PLOT DATE = 10/23/2014 REVISED-03/99 DATE - 06/21/94

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

49.5" (l.26 m) 30" (762.0mm) 17" (431.8mm)

ESP4

CABINET 90/94 DETAIL SHEET OF 1 SHEETS STA. TO STA. SHEET 1

WALNUT \*

**EDENS** KENNEDY BLUE STREAK \*\* FISENHOWER CARIBBEAN BLUE \* I-290/IL53/I-355 POST OFFICE BLUE \*\* RYAN YELLOW STONE II \*\* 1-55 MEDIUM BRONZE \* RED BARON \*\* CAL-KING BLUE STREAK \*\* LAKE SHORE DR. GREEN \* I-80

(X)

THERMOSTATICALLY CONTROLLED FAN

OUTLET

PLATES,

SHELF

**ESP 2 CABINET** 

MATERIAL

3/16 "(4.76mm) FABRICATED ALUMINUM

44" (I,I2 m) 26" (660,4mm) 3/I6" (4.76mm) FABRICATED ALUMINUM

SCALE: NONE

PULLED CHAIN LAME

-WITH 3 PRONG

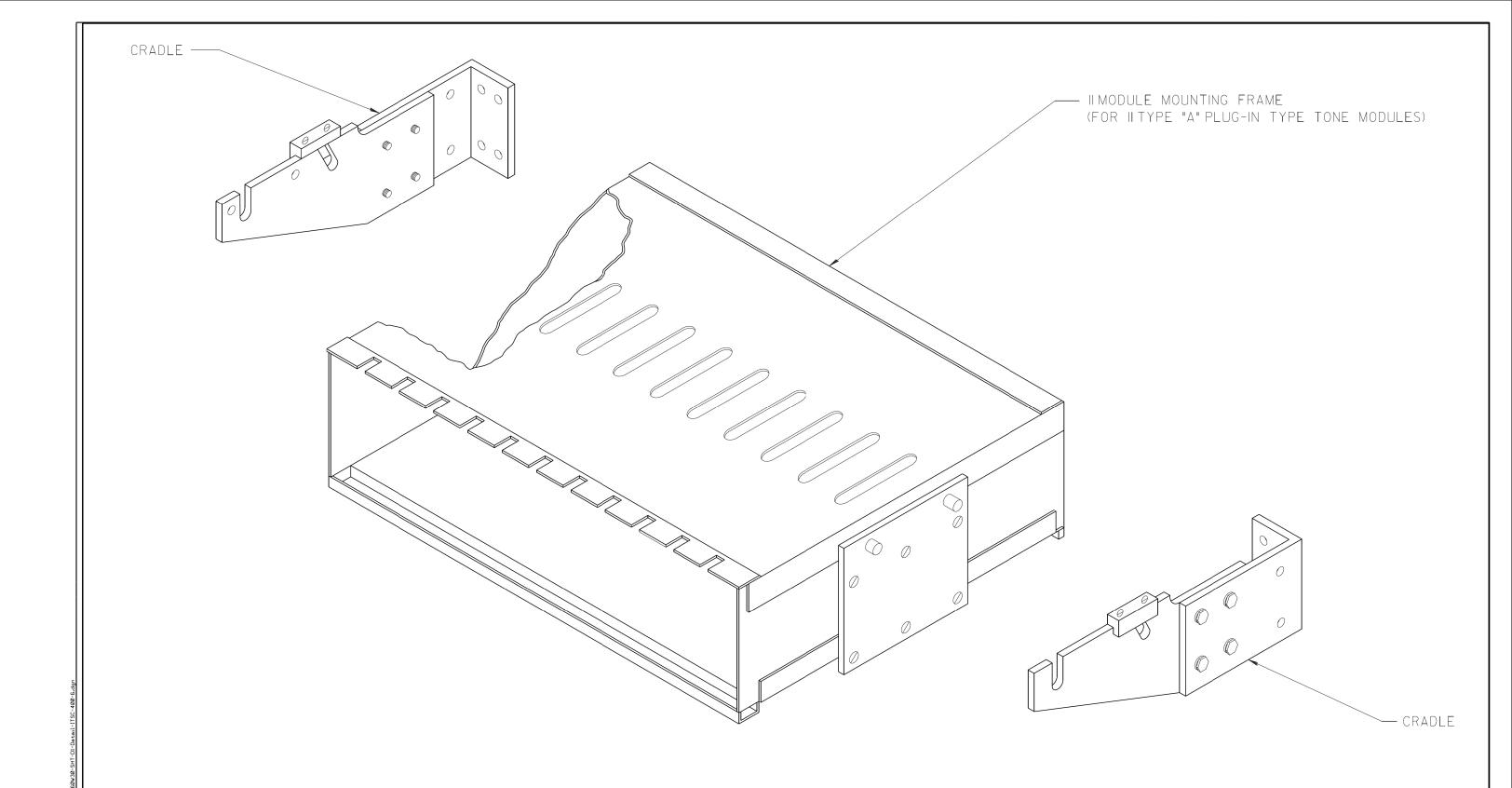
PROFILE VIEWS

STATUARY BRONZE \*\* ALL RAMP METERING CABINETS LIME GREEN \*\*\*. ALL POSTS. T.S. HEADS AND SERVICES WILL BE PAINTED FEDERAL YELLOW.

- \* MORTON POWDER PAINT COLOR OR EQUIVALENT.
- \*\* O'BRIEN POWDER PAINT COLOR OR EQUIVALENT.
  \*\*\* BENJAMIN MOORE ENAMEL COLOR OR EQUIVALENT.

NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR CONFORMING TO COLOR REQUIREMENTS

COUNTY SECTION 2013-012R COOK 385 343 TY-ITSC-400#4 CONTRACT NO. 60W30



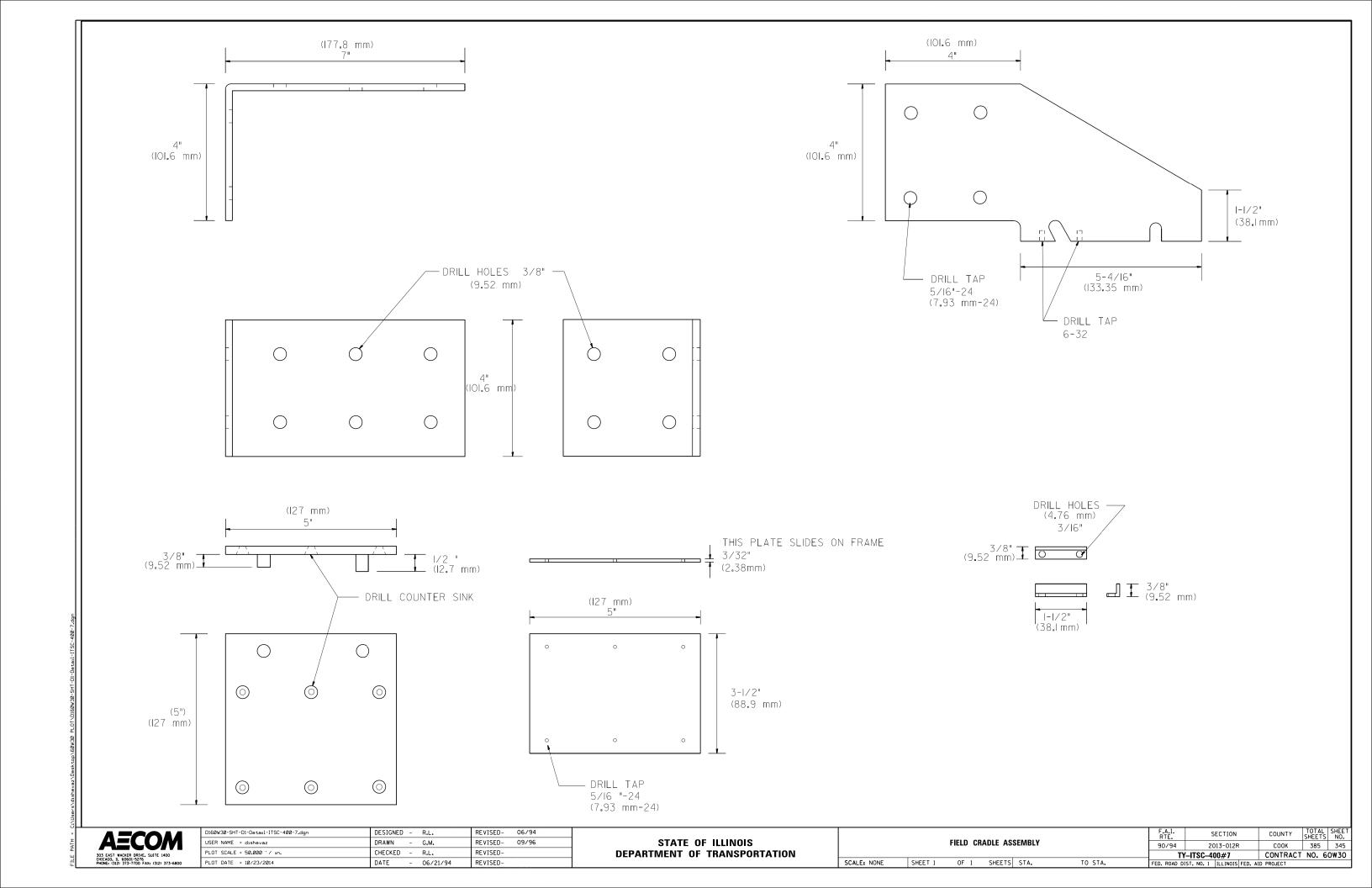
NOTE:

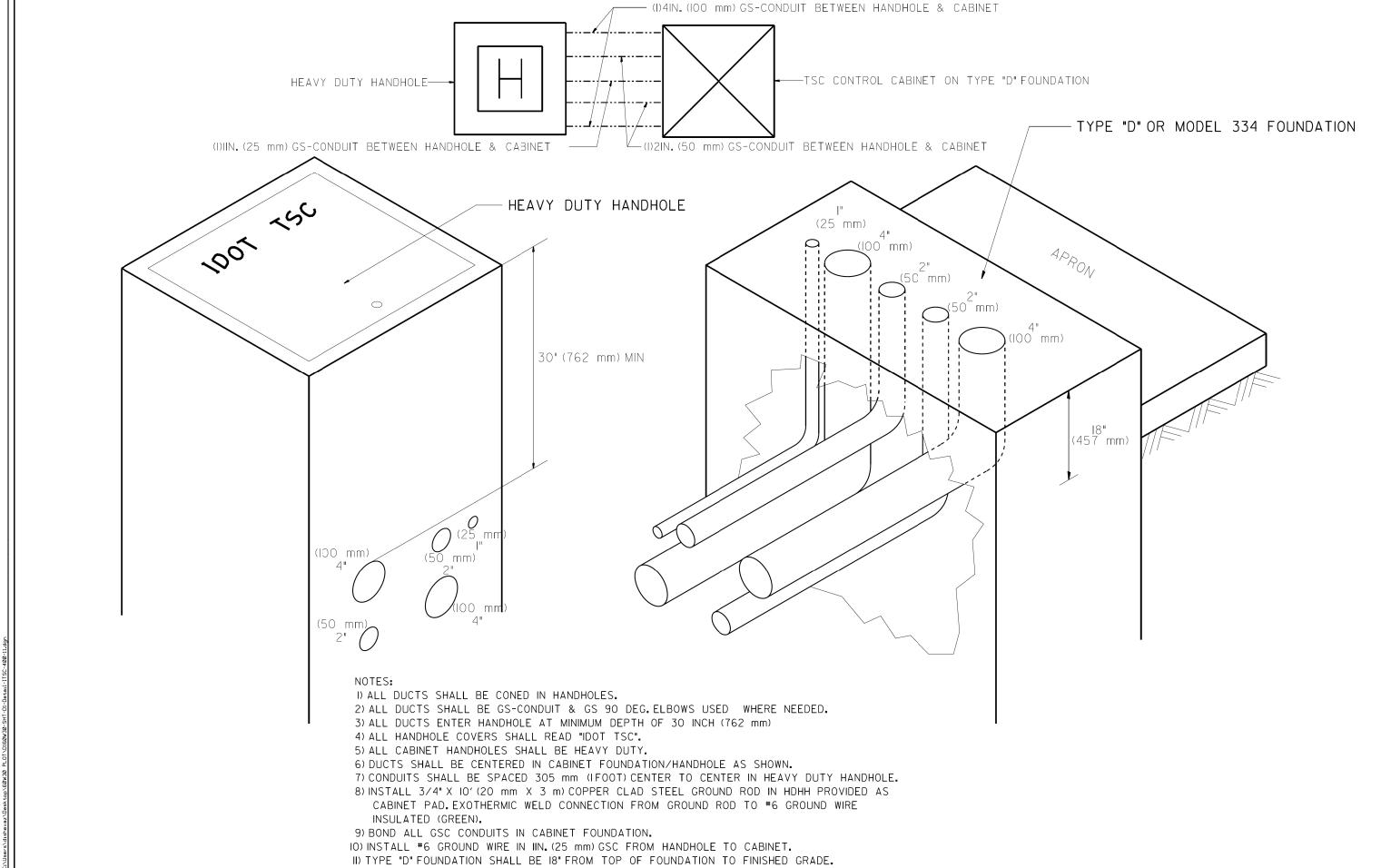
TYPE "A" TONE MODULES ARE PLUG
IN UNIT MEASURING 5-7/32" (132.55 mm) X 1.5" (38.1mm) X 13-3/4" (349.25 mm)

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276

D160W30-SHT-D1-Detail-ITSC-400-6.dgn	DESIGNED	-	R.L.	REVISED-	06/94
USER NAME = dishevaz	DRAWN	-	G.M.	REVISED-	09/96
PLOT SCALE = 50.000 '/ in.	CHECKED	-	R.L.	REVISED-	
PLOT DATE = 10/23/2014	DATE	-	06/21/94	REVISED-	

WITH CRADLE ASSEMBLY			FIELD N	MOUNTING	F.A.I. RTE.	SECTION	COUNTY	SHEETS	SHEET NO.	
TY-ITSC-400#6 CONTRACT NO. 60W30			WITH C	RADIF AS	90/94	2013-012R	COOK	385	344	
			**********	MADEL AU	TY-ITSC-400#6 CONTRACT NO. 60V			OW30		
	SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.		D PROJECT		



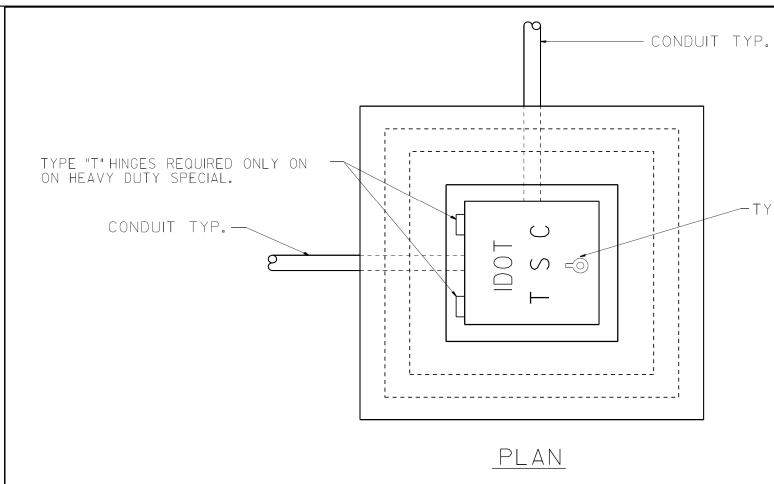


AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, II. 60601-5276
PHONE: (3)2 373-7700 FAX: (3)23 373-6800

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 6060-15276
PHONE; (3)20 373-7700 FAX; (3)21 373-6800

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



-TYPE "G" HANDLE FOR BOTH HDHH AND HDHH SPECIAL

#### HEAVY DUTY HANDHOLE MINIMUM DIMENSIONS (UNHINGED)

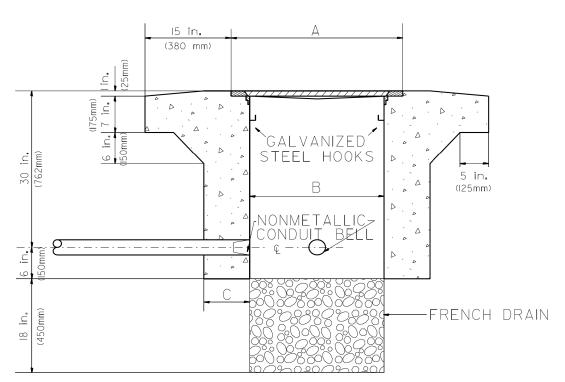
Д	28" (7II mm)
В	22" (559 mm)
С	8" (200 mm)

(FRAME AND COVER 260 LBS. (II8 Kg.) MIN.)

### HEAVY DUTY HANDHOLE SPECIAL MINIMUM DIMENSIONS

А	31.5" (800 mm)
В	30.0" (762 mm)
С	10.0"(250 mm)

(FRAME AND COVER 405 LBS.(184 Kg.(405))



ELEVATION

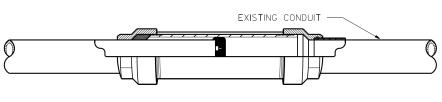
## PC CONCRETE - HEAVY DUTY HAND HOLE



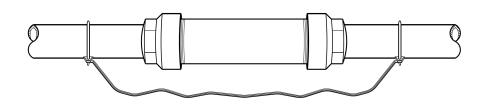
D160W30-SHT-D1-Detail-ITSC-400-15.dgn	DESIGNED	-	R.L.	REVISED- 04/97	
USER NAME = dishevaz	DRAWN	-	G.M.	REVISED-	Ì
PLOT SCALE = 50.000 '/ in.	CHECKED	-	R.L.	REVISED-	Ì
PLOT DATE = 10/23/2014	DATE	-	09/11/96	REVISED-	

HAND HOLE   90/94   2013-012R   COOK   385   348		P	с со	NCR	ETE – HE/	AVY DUTY	,	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TY-ITSC-400#15 CONTRACT NO. 60W30				н	AND HOLL	90/94	2013-012R	COOK	385	348		
					AND HOLI	TY-ITSC-400#15 CONTRACT NO. 601			OW30			
STALE TO THE TENTH OF THE TENTH	SCALE, NONE	SHEET 1	OF	1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

GROUNDING & BONDING JUMPERS FOR RIGID STEEL, IMC & EMT



CROSS SECTION

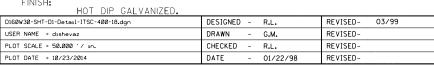


BONDING EXPANSION FITTINGS

MATERIALS:

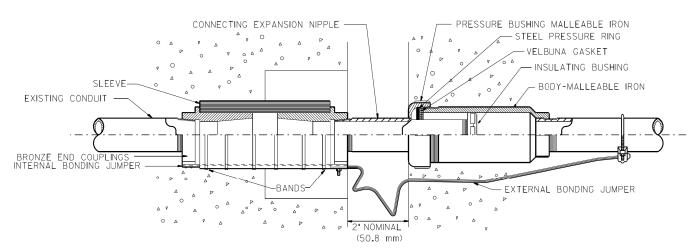
HEAD: MALLEABLE OR DUCTILE IRON. SLEEVE: STEEL.
INSULATING BUSHING: PHENOLIC.

FINISH:



4"(IO2 mm) PVC SHED, 40 EXPANSION COUPLING 4" SCHED. 40 PVC SURVEILLANCE DUCT √4"(IO2 mm) SHED.40 PVC SURVEILLANCE DUCT CONCRETE CAVITY -2" NOMINAL (50.8 mm) EXPANSION/DEFLECTION FITTING

STAINLESS STEEL "C" CLAMPS (BANDS)



## COMBINATION DEFLECTION/EXPANSION FITTINGS FOR RIGID METAL CONDUIT & IMC

FITTING CAN BE USED EXPOSED OR EMBEDDED IN CONCRETE.

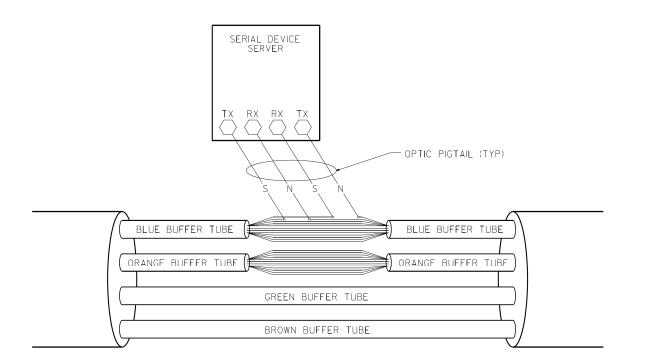
SLEEVE: NEOPRENE. END COUPLINGS: BRONZE.
BONDING JUMPER: TINNED COPPER BRAIDS.
BANDS: STAINLESS STEEL.

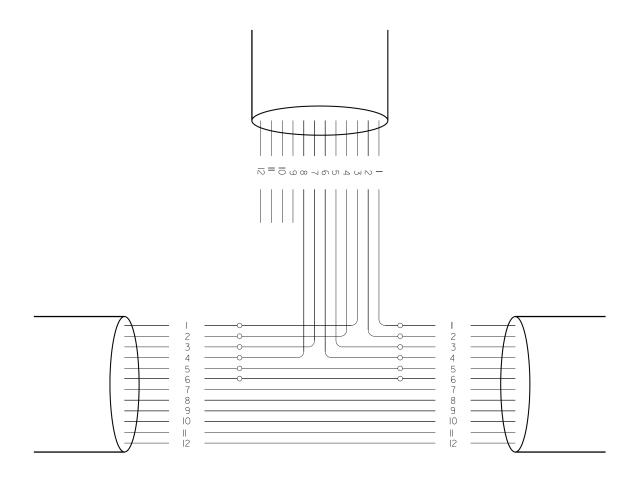
6" (152 mm) PVC SHED, 40 SLEEVE COVERING RUBBER BOOT.

PACK WITH DUCT SEAL TO HOLD IN PLACE AROUND RUBBER BOOT.

ALL MALLEABLE, DUCTILE IRON OR STEEL PARTS ARE HOT DIP GALVANIZED.

COUNTY EXPANSION FITTING STATE OF ILLINOIS 90/94 2013-012R COOK 385 349 DETAIL SHEET **DEPARTMENT OF TRANSPORTATION** TY-ITSC-400#18 CONTRACT NO. 60W30 SCALE: NONE SHEET 1 OF 1 SHEETS STA.





PHYSICAL SPLICE DETAILS (TYP)

(NOT TO SCALE)

	FIE	BERS			APPLICATION			
FIBER N	١٥.	COLOR	CODE	FUNCTION	DESCRIPTION			
-	BL	UE	IN T	(				
2		ORAN	GE	IN RX	DATA CIRCUIT			
3		GREEI	N	OUT RX	DATA CIRCUIT			
4		BROW	N	OUT TX				
5		SLATI	E	IN TX				
6		WHIT	E	IN RX	Divic			
7		RED		OUT RX	DMS			
8		BLACI	K	OUT TX				
9		YELLO	W	IN TX				
10		VIOLE	Т	IN TX	CCTV			
II	RO	SE	OUT	RX	CCTV			
12		AQUA		OUT TX				

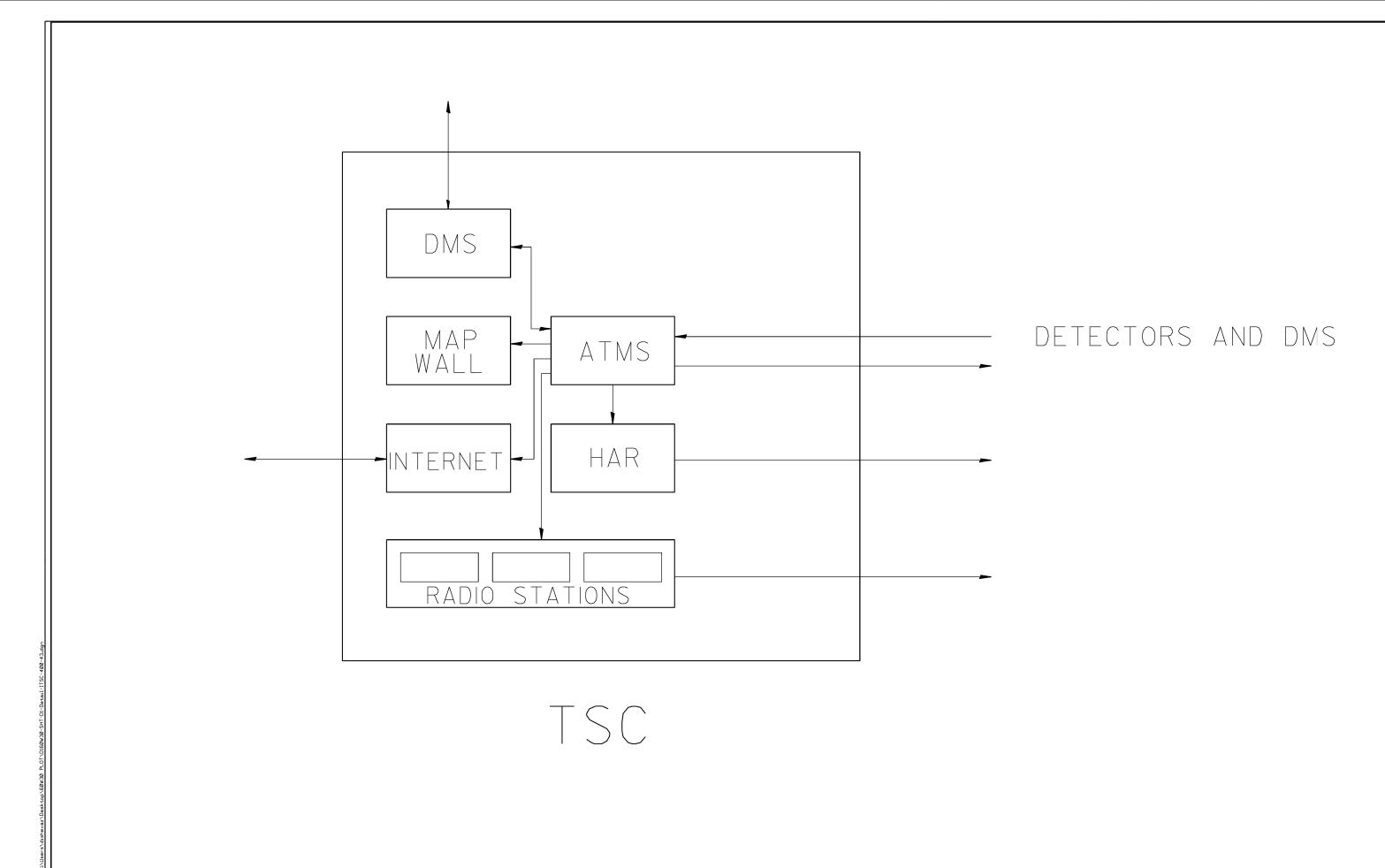
NOTE:

I.- THIS DIAGRAM IS PROVIDED FOR ILLUSTRATION PURPOSES ONLY AND DEPICTS A TYPICAL FIBER OPTIC SPLICE.



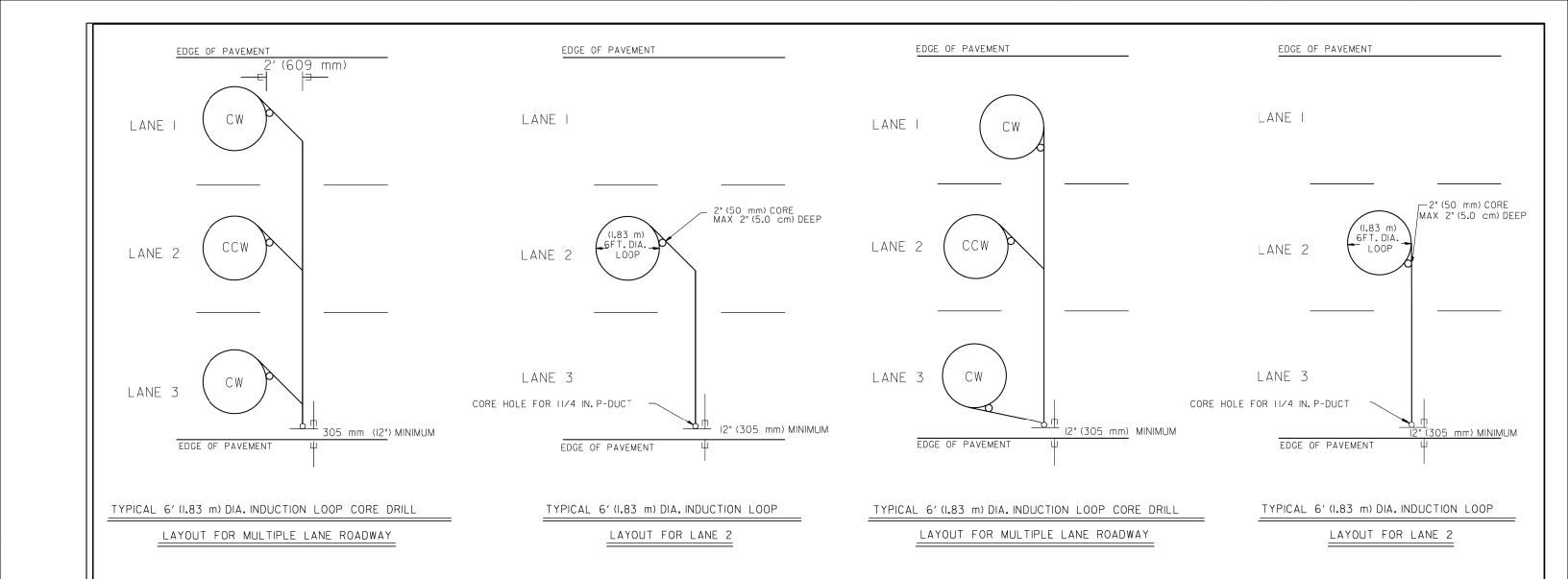
D160W30-SHT-D1-Detail-ITSC-400-41.dgn	DESIGNED	-	J.G.	REVISED-	03/04/2010
USER NAME = dishevaz	DRAWN	-	G.M.	REVISED-	
PLOT SCALE = 50.000 '/ in.	CHECKED	-	J.G.	REVISED-	
PLOT DATE = 10/23/2014	DATE	-	12/29/09	REVISED-	

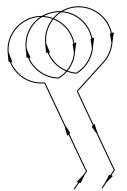
		FIE	BER OPTI	C		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		SPLIC	ING TYPI	90/94	2013-012R	COOK	385	350		
		01 110		TY-ITSC-400#41 CONTRACT NO. 60W3				OW30		
SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.	FED. ROAD D	IST. NO. 1   ILLINOIS FED. AI	D PROJECT		



AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
WORE: 1312 373-7700 FAX; (312) 373-6800

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION





#### WIRING DETAILS

#### NOTES

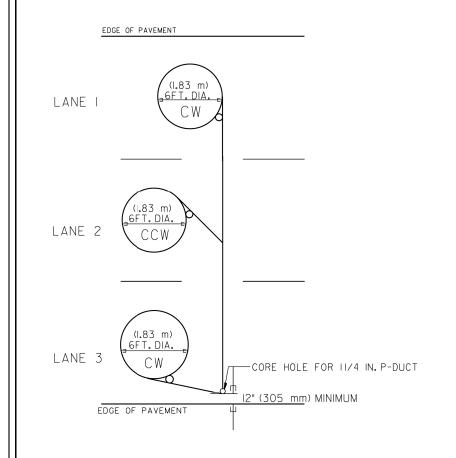
- I.EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150' (45 m) OR MORE FROM CABINET.
- 2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
- 3. LOOPS SHALL NOT BE SPLICED IN SERIES.
- 4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL, 60601-5276

D160W30-SHT-D1-Detail-ITSC-418-1.dgn	DESIGNED	-	R.L.	REVISED-	06/94
USER NAME = dishevaz	DRAWN	-	G.M.	REVISED-	9/96
PLOT SCALE = 50.000 '/ in.	CHECKED	-	R.L.	REVISED-	R.L. 03/2011
PLOT DATE = 10/23/2014	DATE	-	06/22/94	REVISED-	

STATE OF ILLINOIS					
DEPARTMENT	OF T	RANSPORTATION			

EXISTING ROUND LOOP							SI	ECTION	COUNTY	TOTAL SHEETS	SHEET NO.
INSTALLATION						90/94	20	13-012R	COOK	385	352
			DIALLATIO	'''		T	/-ITSC-41	18#1	CONTRACT	NO. 6	OW30
SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.	FED. ROAD DI	IST. NO. 1	ILLINOIS FED. AI	D PROJECT		



2′ (609 mm) LANE I LANE 2 LANE 3 CORE HOLE FOR 11/4 IN. P-DUCT 12" (305 mm) MINIMUM EDGE OF PAVEMENT

EDGE OF PAVEMENT

CONCRETE CURB AND GUTTER PAVEMENT 12" (305 mm) MIN. -LOOP SAWCUT CONCRETE CURB TRAFFIC PAVEMENT AND GUTTER -II/4"(32.0 mm)P-DUCT CURB AND GUTTER LOOP LEAD-IN TRANSITION DETAIL

TYPICAL 6FT. (1.83 m) DIA. INDUCTION LOOP CORE DRILL

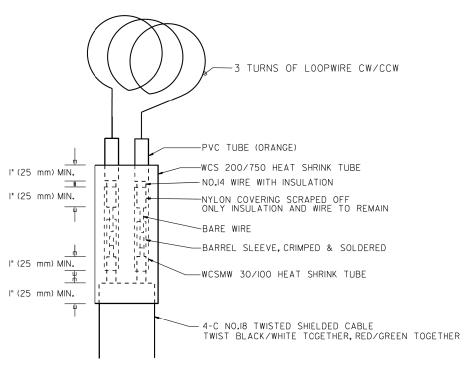
LAYOUT FOR MULTIPLE LANE ROADWAY

TYPICAL 6FT. (1.83 m) DIA. INDUCTION LOOP CORE DRILL

LAYOUT FOR MULTIPLE LANE ROADWAY

#### NOTES

- I. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150FT. (45 m) OR MORE FROM CABINET.
- 2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
- 3. LOOPS SHALL NOT BE SPLICED IN SERIES.
- 4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.



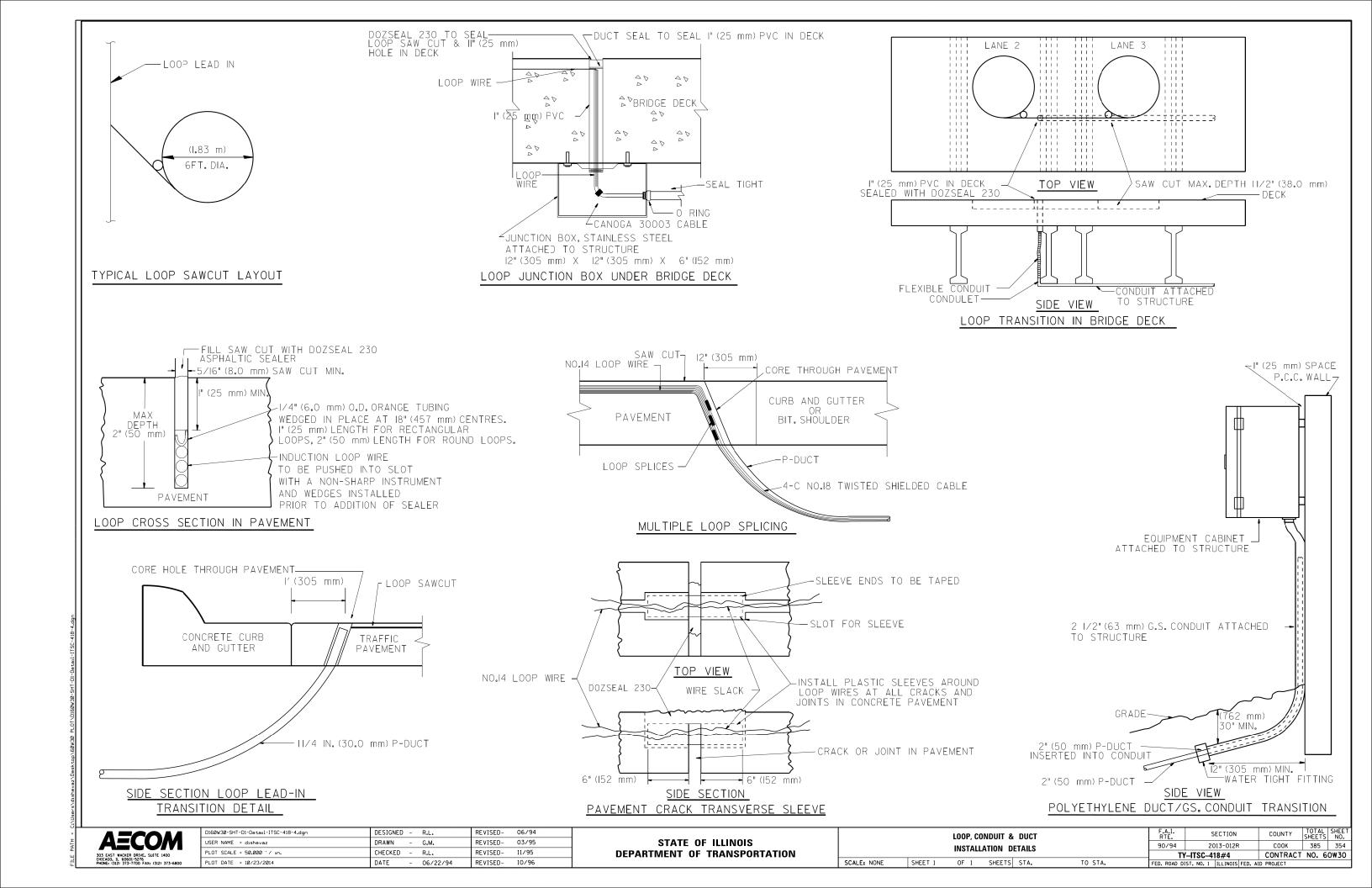
MINIMUM I" (25 mm) HEAT SHRINK TUBING OVERLAP ON WIRE, PVC & SHIELDED CABLE TO FORM WATER TIGHT SEAL

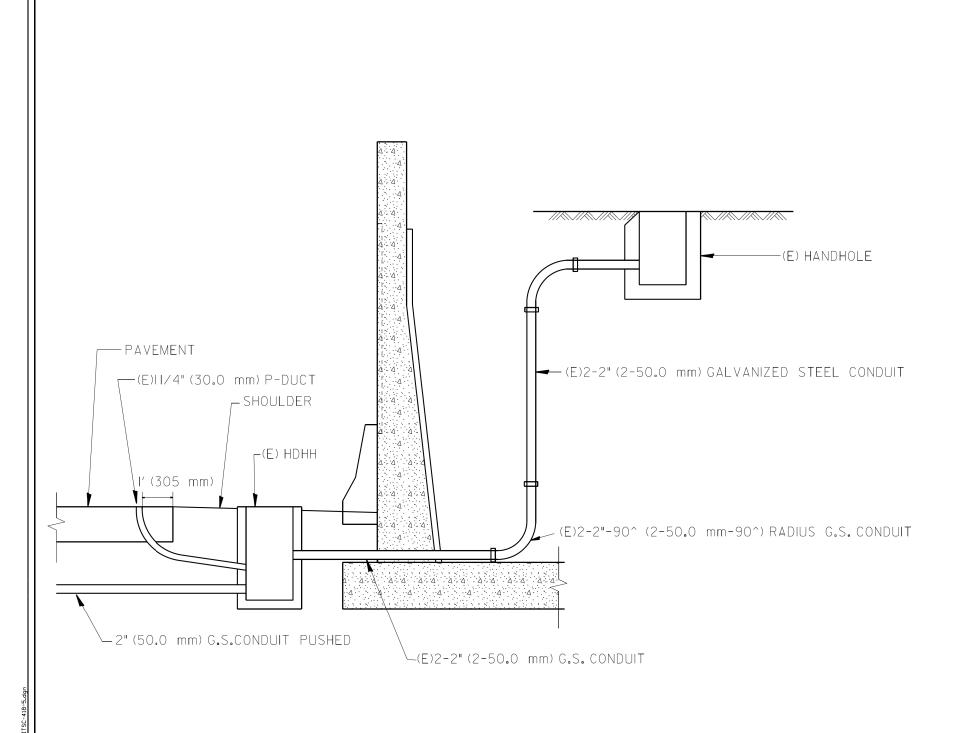
#### LOOP SPLICING REQUIREMENTS

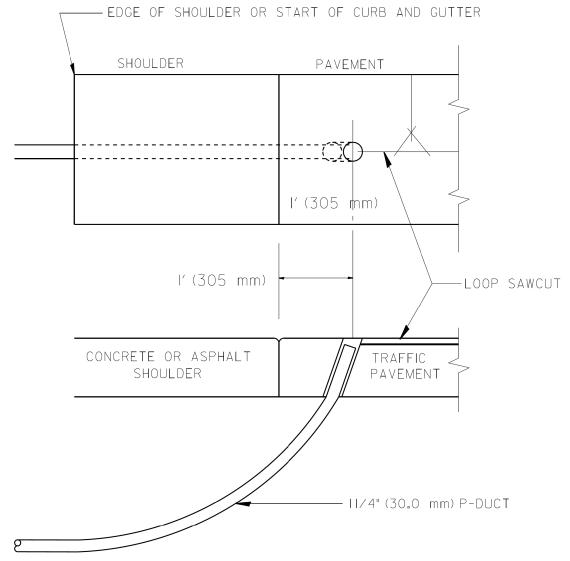


D160W30-SHT-D1-Detail-ITSC-418-2.dgn	DESIGNED	-	R.L.	REVISED-	06/94
USER NAME = dishevaz	DRAWN	-	G.M.	REVISED-	10/96
PLOT SCALE = 50.000 '/ in.	CHECKED	-	R.L.	REVISED-	R.L. 03/2011
PLOT DATE = 10/23/2014	DATE	-	06/22/94	REVISED-	

	EXIST	ING ROL	ND INDU	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
TYPICALS						90/94	2013-012R	соок	385	353
TITIONES						TY	/-ITSC-418#2	CONTRACT	NO. 6	OW30
SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.	FED. ROAD DI	IST. NO. 1   ILLINOIS FED. A	D PROJECT		





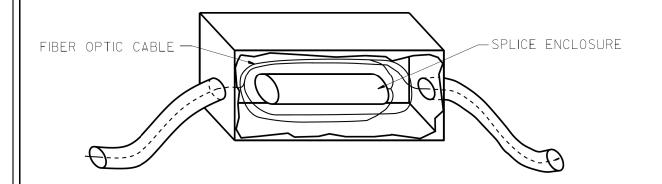


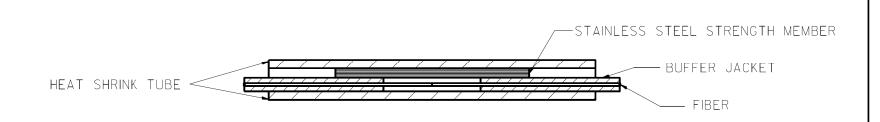
SHOULDER LOOP LEAD-IN TRANSITION DETAIL

AECOM

303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (12) 2137-1700 FAX: (312) 313-6800

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





JUNCTION BOX DETAIL

FIBER SPLICE DETAIL

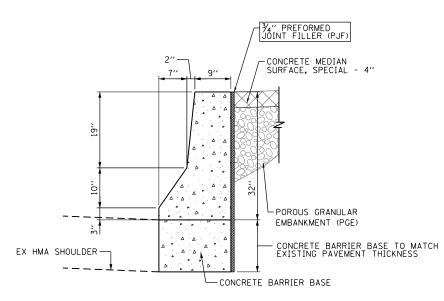
AECOM
303 EAST WACKER DRIVE. SUITE 1400
CHICAGO. II. 60601-5276
PHONE: 032-373-7700 FAX: 13122 373-6800

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| FIBER OPTIC | F.A.I. | SECTION | COUNTY | STALE | SECTION | STALE | STALE | STALE | STALE | STALE | STALE | SECTION | COUNTY | STALE | STALE | SECTION | SECTION | COUNTY | STALE | STALE | SECTION | SECTIO

#### DETAILS OF CONCRETE BARRIER, SINGLE FACE, 42 INCH HEIGHT

SCALE: NONE



## DETAILS OF CONCRETE BARRIER, SINGLE FACE, 32 INCH HEIGHT (SPECIAL) \*\*

SCALE: NONE

\*\* ALL DIMENSIONS OF THIS TYPE OF BARRIER
SHALL MATCH EXISTING CONCRETE BARRIER WALL,
FIELD VERIFY DIMENSIONS PRIOR TO COMMENCING
THE WORK.

#### NOTE

1. EXPANSION JOINTS SHOWN ON THIS DRAWING SHALL BE PREFORMED JOINT MATERIAL (BITUMINOUS TYPE) FILLER AND SHALL MEET AASHTO DESIGNATION M-33.

2. ALL WORK AND MATERIALS DETAILED HEREIN SHALL BE INCLUDED IN THE COST OF THE VARIOUS CONCRETE BARRIER PAY ITEMS UNLESS OTHERWISE NOTED.

3. PREFORMED JOINT FILLER SHALL BE INCLUDED IN THE COST OF OF CONCRETE BARRIER OR CONCRETE BARRIER TRANSITION.

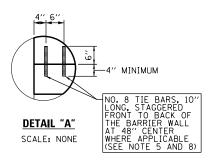
4. JOINTS SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH ARTICLE 637.08 OF THE STANDARD SPECIFICATIONS

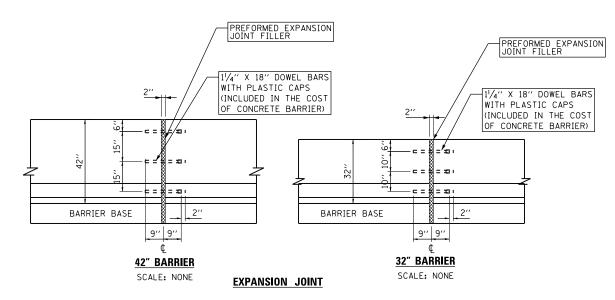
5. TWO VERTICAL EPOXY COATED, NO. 8 TIE BARS, 10" LONG, SHALL BE PLACED STAGGERED FRONT TO BACK OF THE BARRIER WALL AT 48" CENTERS ALONG THE CONCRETE BARRIER TRANSITION. TIE BARS SHALL BE INCLUDED IN THE COST OF CONCRETE BARRIER TRANSITION.

6. HORIZONTAL TIE BARS SHALL BE NO. 6 EPOXY COATED, 24" LONG, 24" C-C AND SHALL BE INCLUDED IN THE COST OF THE BARRIER BASE. HORIZONTAL TIE BARS ARE REQUIRED WHEN PAVEMENT IS PCC.

7. EXPANSION JOINTS SHALL BE CONSTRUCTED IN BARRIER WALL AT MAXIMUM JOINT SPACING OF 90 FEET.

8. VERTICAL TIE BARS ARE REQUIRED WHEN CONCRETE BARRIER AND CONCRETE BARRIER BASE ARE NOT POURED MONOLITHICALLY.





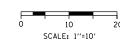
AECOM
JOS EAST WACKER DRIVE, SUITE 1400
CHICAGO, II. 60601-5276
PHONE 13/2 173-7700 FAX: (3)2 373-6800

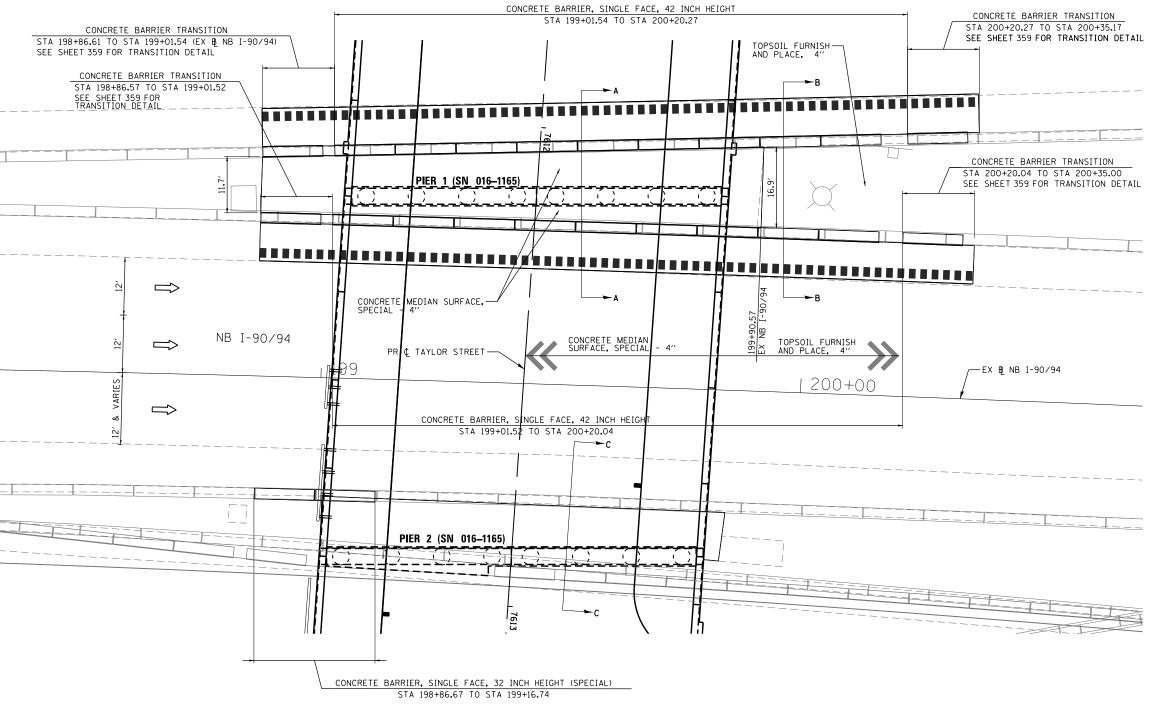
D160W30-sht-Detail-01.dgn	DESIGNED - OPS	REVISED -
USER NAME = dishevaz	DRAWN - OPS	REVISED -
PLOT SCALE = 10.00000 '/ in.	CHECKED - NJH	REVISED -
PLOT DATE = 10/23/2014	DATE - 10/24/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE

							F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
ROADWAY DETAILS – CONCRETE BARRIERS				90/94	2013-012R	соок	385	357			
									CONTRACT	NO. 6	OW30
	SHEET 1	OF	1	SHEETS	STA.	TO STA.		ILLINOIS FED.	. AID PROJECT		





#### <u>PLAN VIEW</u>

## CONCRETE BARRIER AT PIER 1 AND PIER 2

SCALE: NONE

#### NOTES:

- 1. SEE SHEETS 357 FOR CONCRETE BARRIER, SINGLE FACE, 42 INCH HEIGHT AND CONCRETE BARRIER, SINGLE FACE, 32 INCH HEIGHT (SPECIAL).
- 2. SEE SHEETS 359 FOR SECTIONS A-A, B-B AND C-C AND ELEVATION VIEW.

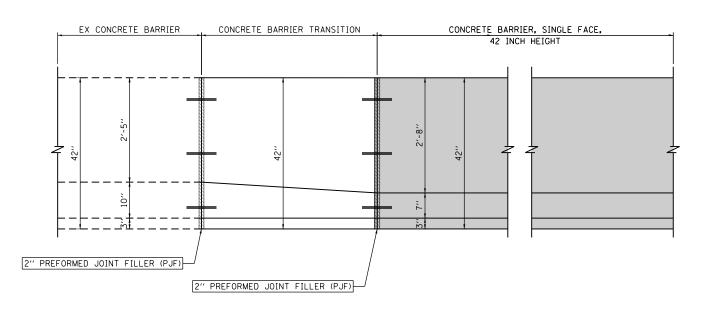
AECOM

303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL GOBGI-5276
PHOSE (122) 373-7700 EAK (122) 373-6800

D160W30-sht-Detail-02.dgn	DESIGNED - OPS	REVISED -
USER NAME = dishevaz	DRAWN - OPS	REVISED -
PLOT SCALE = 10.00000 '/ in.	CHECKED - NJH	REVISED -
PLOT DATE = 10/23/2014	DATE - 10/24/2014	REVISED -

ROADWAY	DETAILS -	CONC	RETI	E BARRIEF	AT PIER	1 AND	PIER 2	?
CALE: NONE	SHEET 1	OF	2	SHEETS STA	١.	TO ST	Δ.	

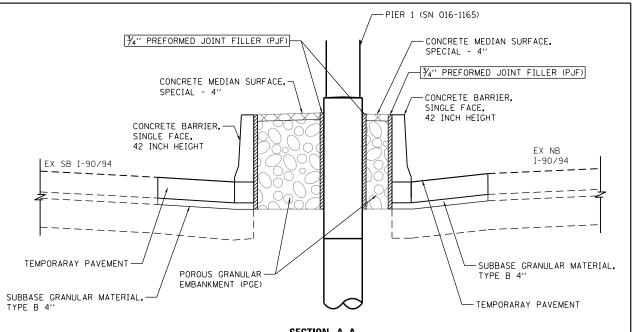
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2013-012R	COOK	385	358
		CONTRACT	NO. 6	OW30
	ILLINOIS FED. AI	D PROJECT		



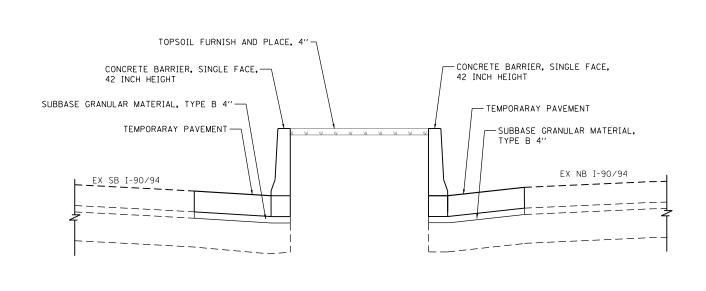
#### **ELEVATION VIEW**

## CONCRETE BARRIER TRANSITION AT EXISTING BARRIER AT PIER 1 (SN 016-1165)

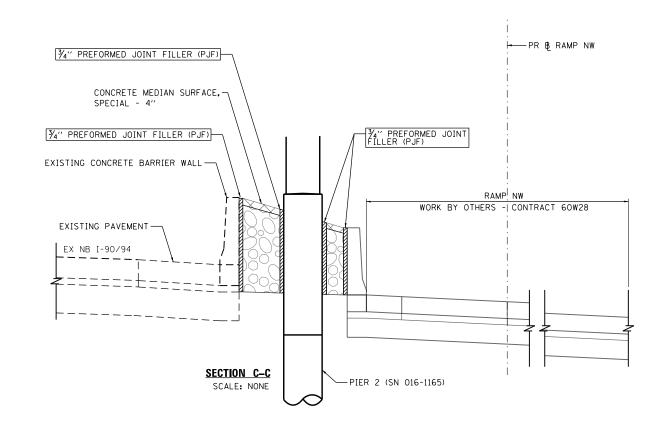
SCALE: NONE



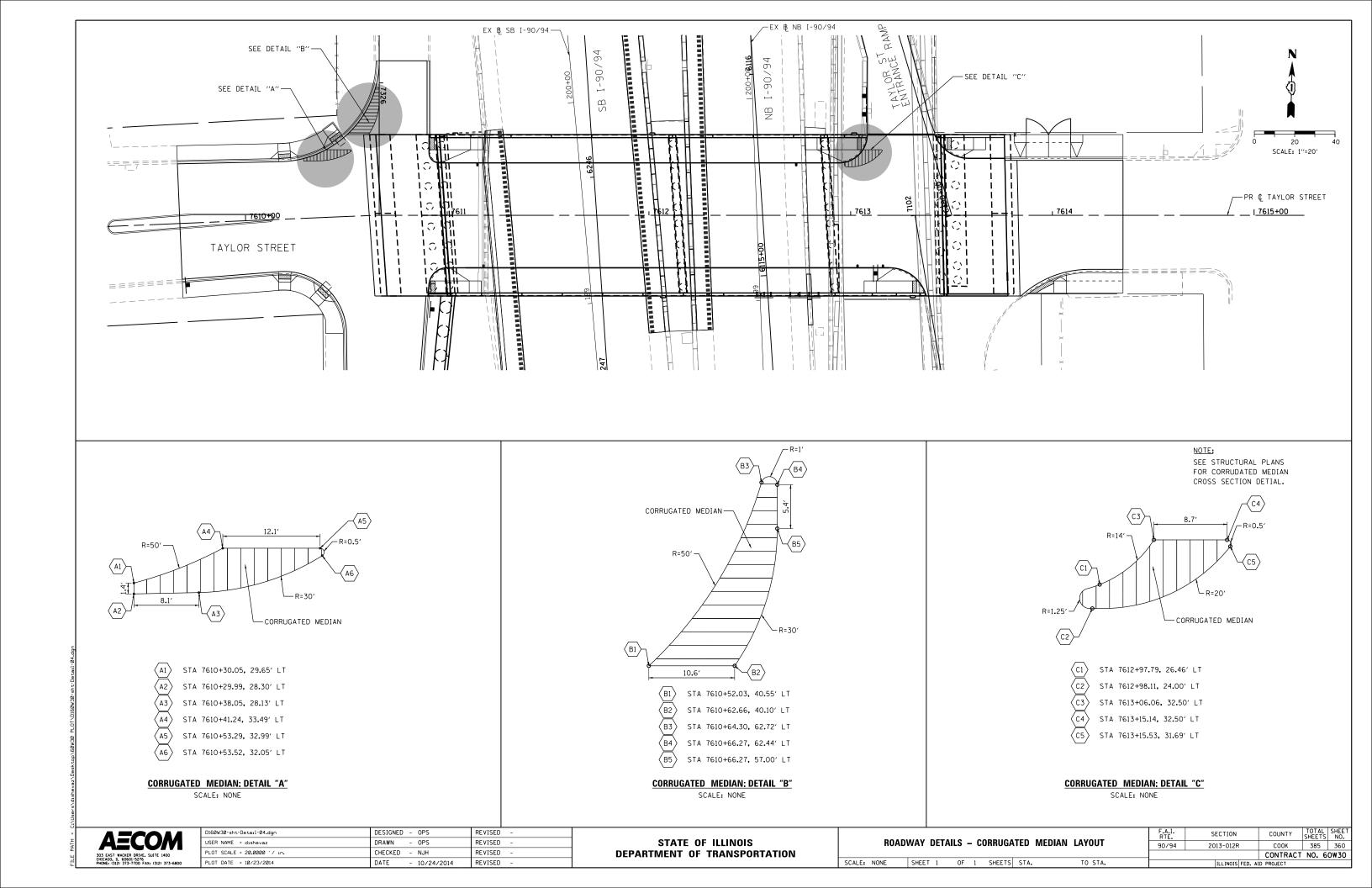
SECTION A-A SCALE: NONE STA 198+86.57 TO STA 200+20.27

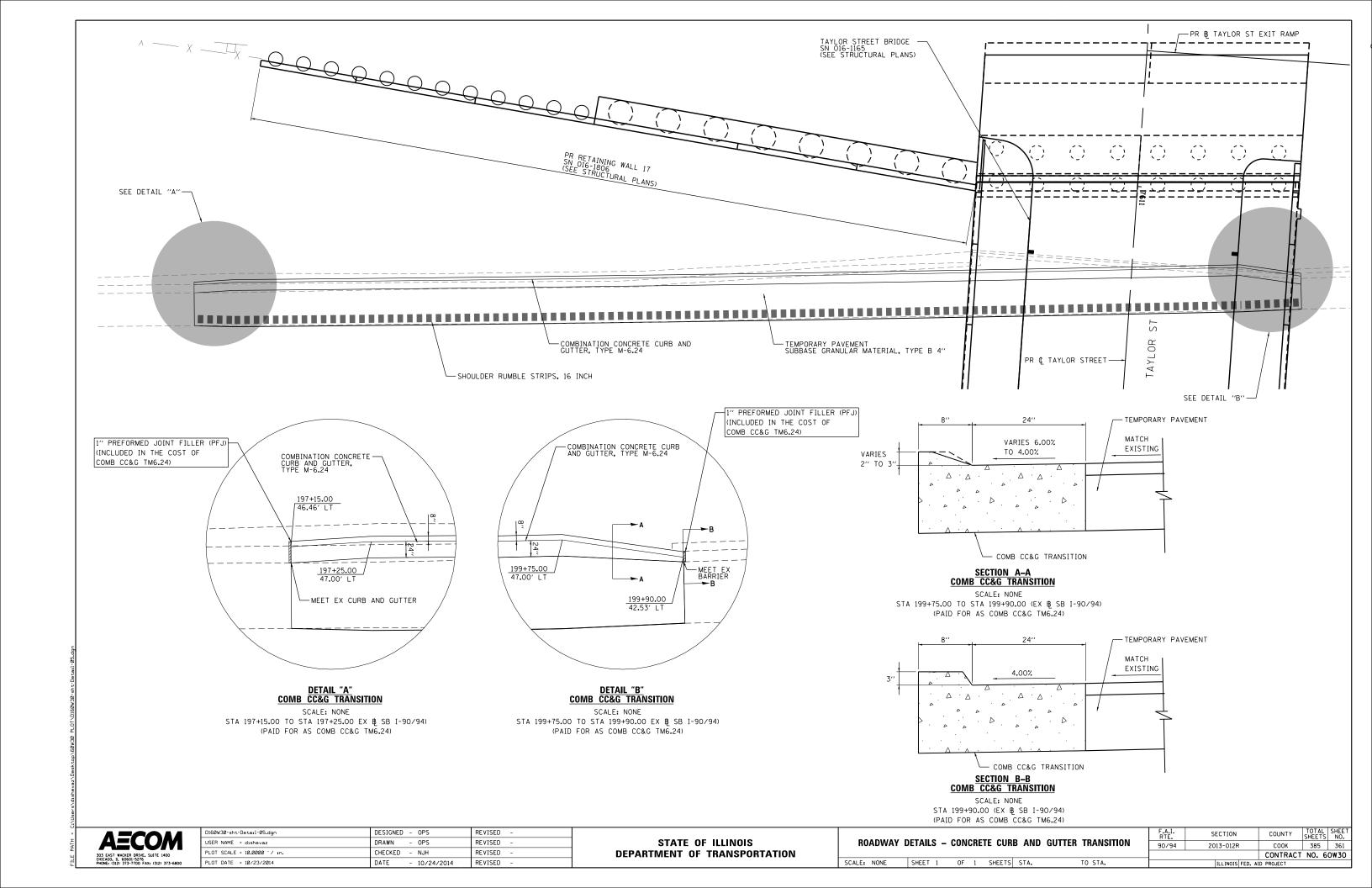


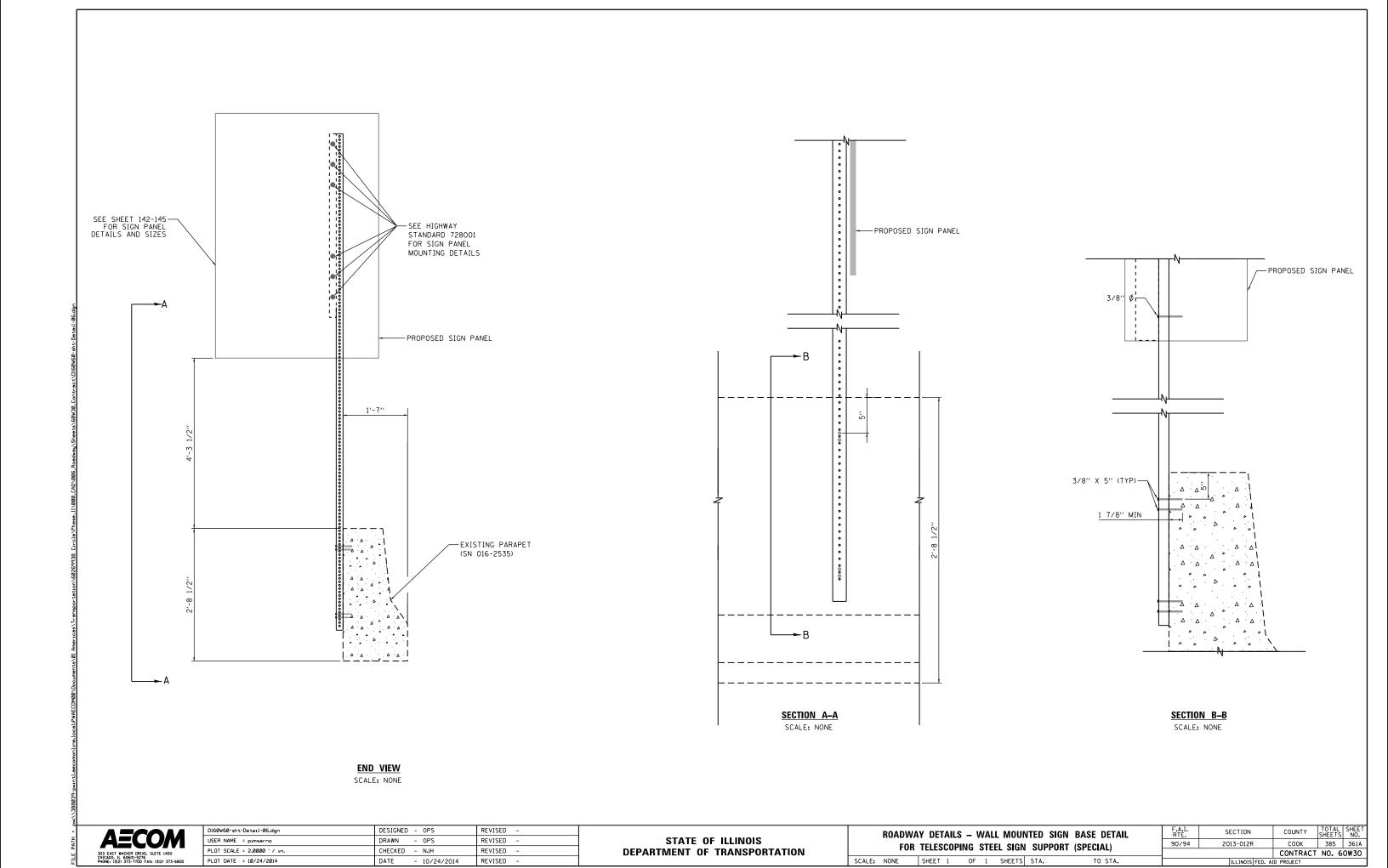
SECTION B-B SCALE: NONE STA 200+20.27 TO STA 200+35.00

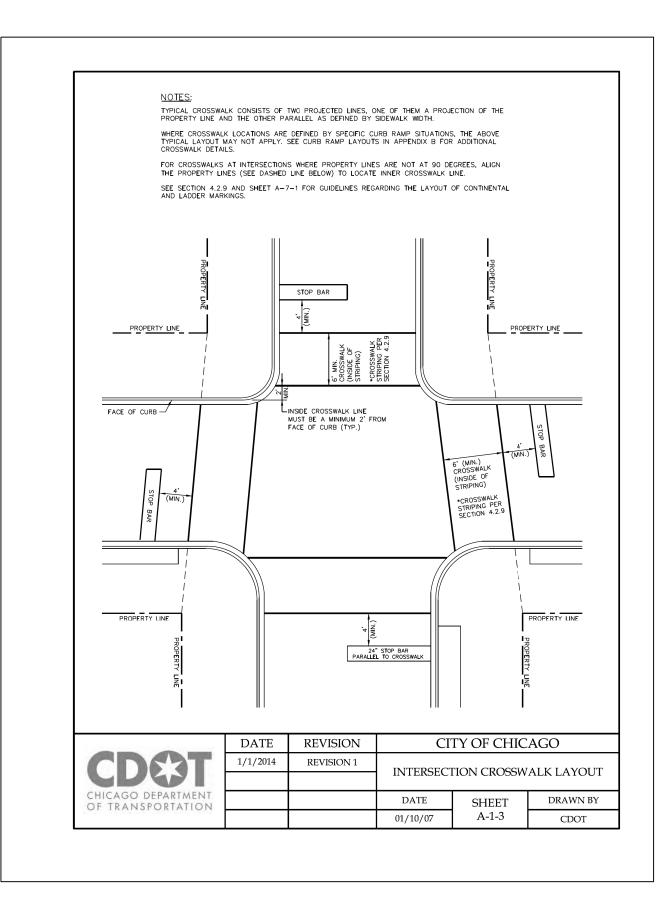


DESIGNED - OPS REVISED -160W30-sht-Detail-03.dgn SECTION COUNTY ROADWAY DETAILS - CONCRETE BARRIER AT PIER 1 AND PIER 2 JSER NAME = dishevaz DRAWN - OPS REVISED STATE OF ILLINOIS 90/94 2013-012R COOK 385 359 CHECKED - NJH REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 60W30 SCALE: NONE SHEET 2 OF 2 SHEETS STA. PLOT DATE = 10/23/2014 REVISED DATE - 10/24/2014









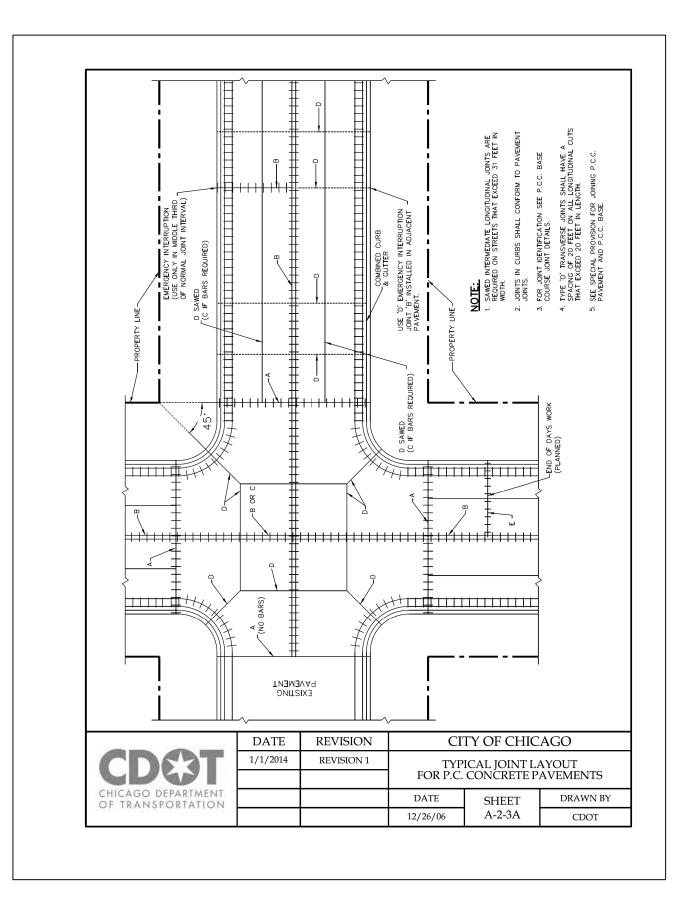
<b>AECOM</b>	
303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	

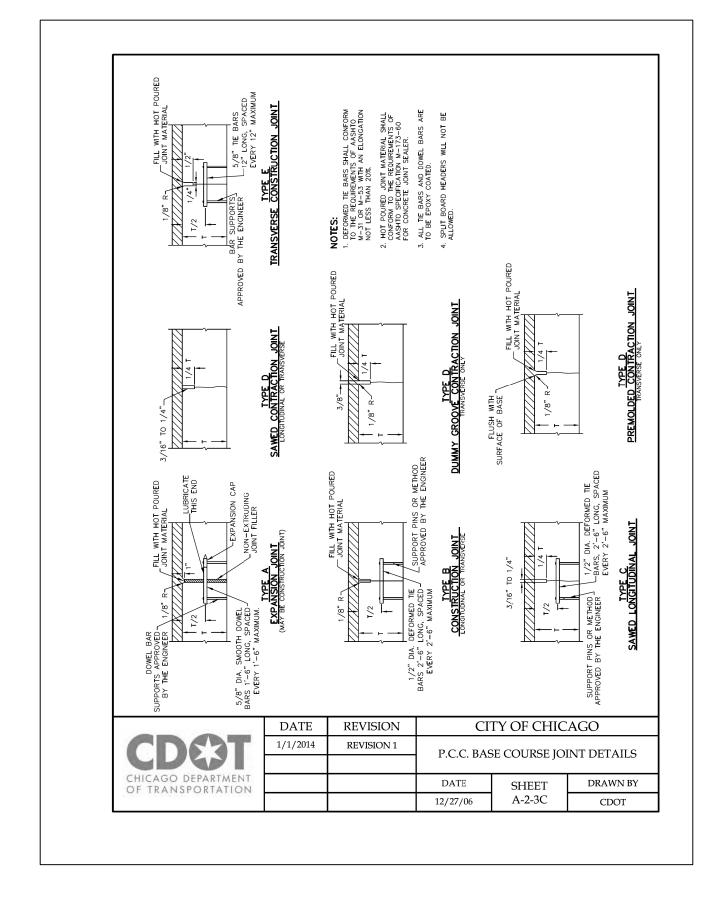
D160W30-Sht-CDOT-DETAIL-01.dgn	DESIGNED - CDOT	REVISED -
USER NAME = dishevaz	DRAWN - CDOT	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - CDOT	REVISED -
PLOT DATE = 10/23/2014	DATE - 10/24/2014	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SCALE: N.T.S.

CHICAGO DEPARTMENT OF TRANSPORTATION	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STANDARDS	90/94	2013-012R	COOK	385	362
SIAMDAIIDS			CONTRACT	NO. 6	OW30
SHEET 1 OF 5 SHEETS STA. TO STA.		TILINOIS FED AT	D PROJECT		





AECOM

303 EAST WACKER DRIVE, SUITE 1400
CHICACO, II. 60601-5276
PHONE: 1312: 373-7709 FAX: (3)2: 373-6800

D160W30-Sht-CDOT-DETAIL-02.dgn	DESIGNED - CDOT	REVISED -
USER NAME = dishevaz	DRAWN - CDOT	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - CDOT	REVISED -
PLOT DATE = 10/23/2014	DATE - 10/24/2014	REVISED -

С	HICAGO	) DE	PAR	TMI	ENT OF	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
				CT/	ANDARD	90/94	2013-012R	соок	385	363		
				317	NINDAILD	J				CONTRACT	NO. 6	OW30
SCALE: N.T.S.   SHEET 2 OF 5 SHEETS STA. TO STA.   ILLINOIS FED. AID PROJECT												

JOINTS IN CURB, COMBINED CURB & GUTTER

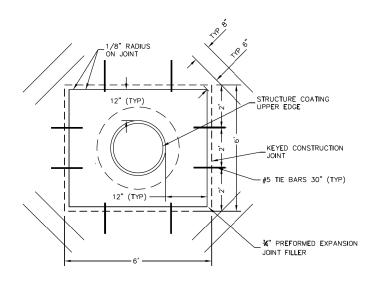
TRANSVERSE JOINTS OF A TYPE SIMILAR TO THAT USED IN THE ADJACENT PAVEMENT SHALL BE INSTALLED IN THE CURB, GUTTER AND COMBINED CURB & GUTTER IN PROLONGATION WITH THE JOINTS IN THE PAVEMENT. THE DETAILS OF THE TRANSVERSE JOINTS IN THE CURB, GUTTER AND COMBINED CURB & GUTTER SHALL BE APPROVED BY THE COMMISSIONER. CURB, GUTTER OR COMBINED CURB & GUTTER IS CONSTRUCTED ADJACENT TO A FLEXIBLE BASE PAVEMENT, 1" THICK EXPANSION JOINTS COMPOSED OF BITUMINOUS PERFORMED JOINT FILLER SHALL BE INSTALLED IN THE CURB AND/OR GUTTER AT POINTS OF CURVATURE AND AT CONSTRUCTION JOINTS. CONTRACTION JOINTS SHALL ALSO BE PLACED BETWEEN THESE EXPANSION JOINTS AT DISTANCES NOT EXCEEDING 20 FEET. ALL TIE BARS SHALL BE DEFORMED—ALL DOWEL BARS SHALL BE SMOOTH.

NOTE: ALL TIE BARS AND DOWEL BARS TO BE EPOXY COATED.

\*AT LOCATIONS REQUIRING DEPRESSED CURBS SEE THE ADA STANDARDS FOR CONSTRUCTION DETAILS

	DATE	REVISION	CI	TY OF CHIC	AGO		
CDCT	1/1/2014	REVISION 1	CONCRETE CURB & GUTTER				
CDOI			DETAIL				
CHICAGO DEPARTMENT OF TRANSPORTATION			DATE	SHEET	DRAWN BY		
			12/12/06	A-2-6	CDOT		

2-#4 DEFORMED TIE BARS 30" LONG AT A MID DEPTH (TYPICAL) SEE SPECIAL CONDITION BELOW.



#### SPECIAL CONDITIONS:

TIE BARS SHALL NOT BE INSTALLED AT ISOLATION BOX CORNERS WHERE EITHER SIDE OF THE BOX FORMING SAID CORNER IS A LONGITUDINAL OR TRAVERSE JOINT. MOREOVER, AT NO TIME SHALL A TIE BAR CROSS A JOINT (ALREADY FORMED OR PROPOSED) IN THE VICINITY OF THE ISOLATION BOX. IF THIS STUATION OCCURS, THE TIE BAR SHALL BE ADJUSTED PARALLEL TO THE AXIS OF THE BAR SO THAT THE END OF THE BAR IS NO CLOSER THAN 1 1/2" TO THE JOINT.

ONLY BY THE DIRECTION OR APPROVAL OF THE COMMISSIONER SHALL THE DISTANCE BETWEEN THE UPPER EXTERNAL CASTING EDGE AND THE EDGE OF STANDARD ISOLATION BOX, SHOWN AS 12", BE INCREASED SO THAT AN IMMOVABLE LONGITUDINAL JOINT AND (OR) TRAVERSE JOINT WILL THEN THENCE FORM (O) SIDE (S) OF THE BOX. THIS ADJUSTMENT WILL BE ALLOWED ONLY WHEN THE DISTANCE BETWEEN THE SIDE OF THE STANDARD ISOLATION BOX AND IMMOVABLE JOINT IS 18" OR LESS.

BACKFILL MATERIAL AROUND STRUCTURE WILL BE COMPACTED TO 95% MODIFIED PROCTOR PRIOR TO THE PLACEMENT OF CONCRETE WITHIN THE ISOLATION BOX.



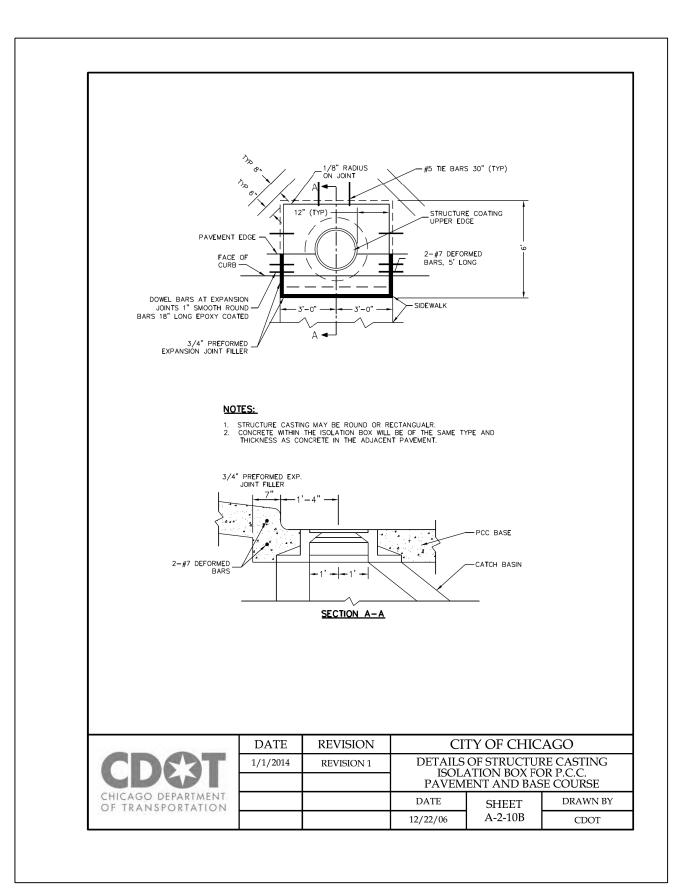
SCALE: N.T.S.

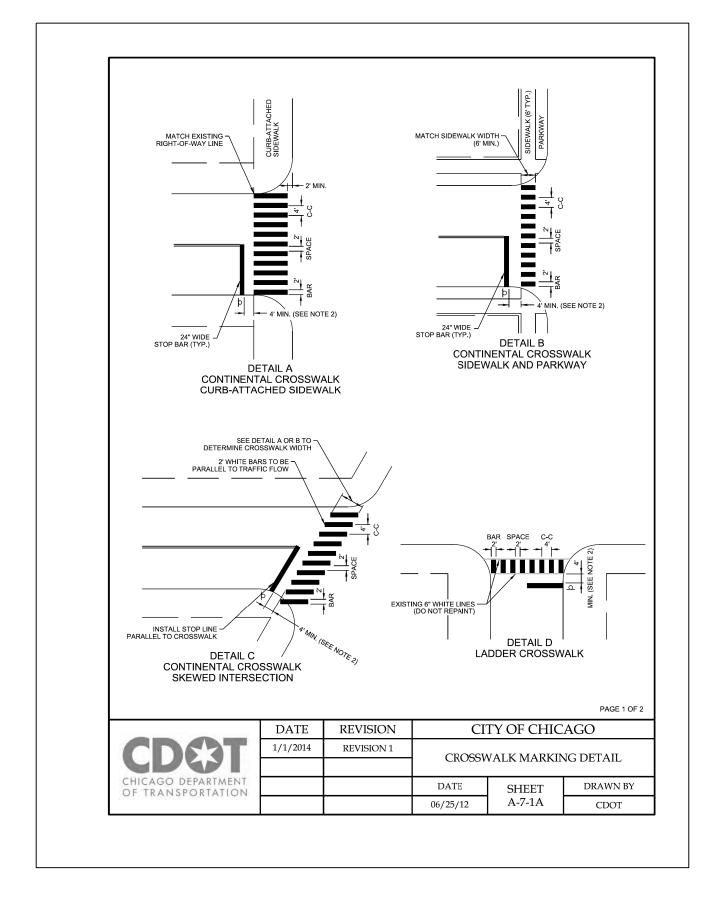
DATE	REVISION	CI	TY OF CHIC	AGO						
1/1/2014	REVISION 1	DETAILS OF STRUCTURE CASTING								
		ISOLATION BOX								
		DATE	SHEET	DRAWN BY						
		12/21/06	A-2-10A	CDOT						

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, II. 60601-5276
PHONE: 5123 373-7700 FAX: (3)23 373-6800

D160W30-Sht-CDOT-DETAIL-03.dgn	DESIGNED - CDOT	REVISED -
USER NAME = dishevaz	DRAWN - CDOT	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - CDOT	REVISED -
PLOT DATE = 10/23/2014	DATE - 10/24/2014	REVISED -

С	HICAGO	) DE	PAR	TM	ENT OF	TRANSP	ORTATION	F.A.I. RTE.	COUNTY	TOTAL SHEETS	SHEET NO.			
				CT/	ANDARD	c		90/94	2013-012R	COOK	385	364		
				317	חווטאווט	<u> </u>				CONTRACT	NO. 6	OW30		
	SHEET	3	OF	5	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT						

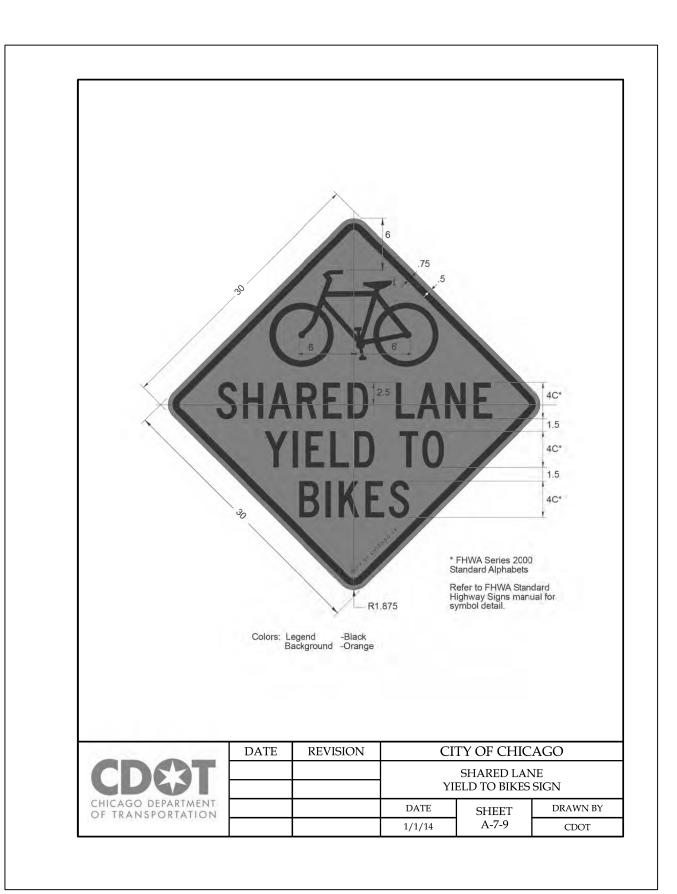


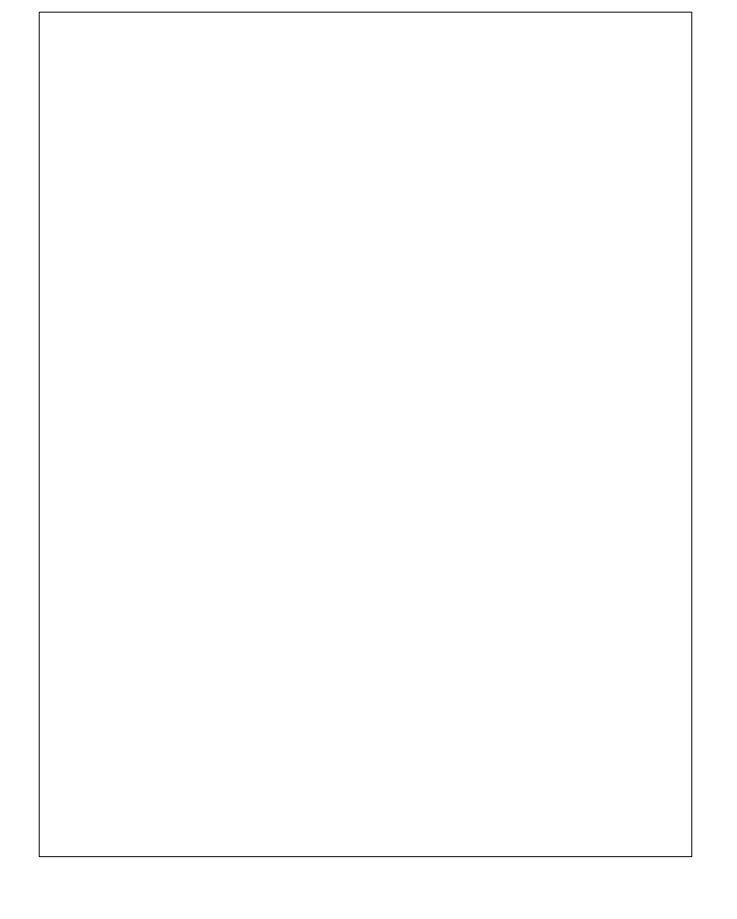




D160W30-Sht-CDOT-DETAIL-04.dgn	DESIGNED - CDOT	REVISED -
USER NAME = dishevaz	DRAWN - CDOT	REVISED -
PLOT SCALE = 1.0000 '/ in.	CHECKED - CDOT	REVISED -
PLOT DATE = 10/23/2014	DATE - 10/24/2014	REVISED -

Ī	С	HICAGO	) DE	PAR	TME	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
I					QTA	NDARD	90/94	2013-012R	соок	385	365		
ļ					SIA			CONTRACT	NO. 6	OW30			
l	SCALE: N.T.S.	SHEET	4	OF	5	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				



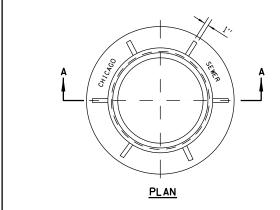


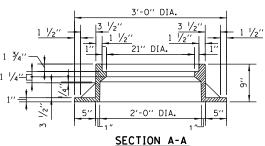


N - CDOT REVISED -
KED - CDOT REVISED -
- 10/24/2014 REVISED -
Ė

SCALE: N.T.S.

С	HICAGO	) DE	PAR	TMI	ENT OF	TRANSP	ORTATION	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
STANDARDS									2013-012R	COOK	385	366		
										CONTRACT	NO. 6	OW30		
	SHEET	5	OF	5	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT						

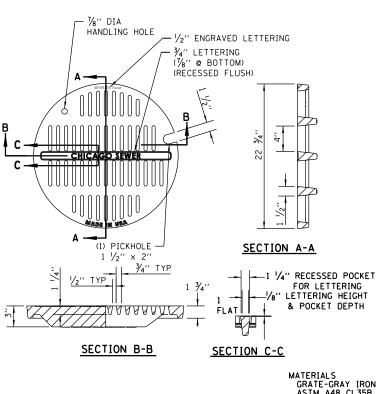




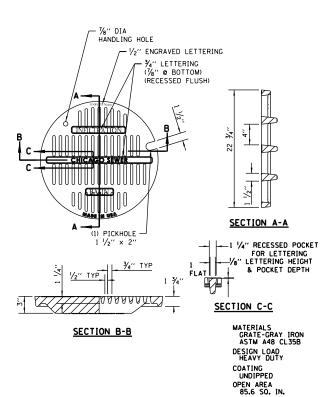
NOTE: METAL PLATES MUST BE FURNISHED FOR PERFORATED LIDS ON MANHOLES.

#### HEAVYWEIGHT MANHOLE FRAME

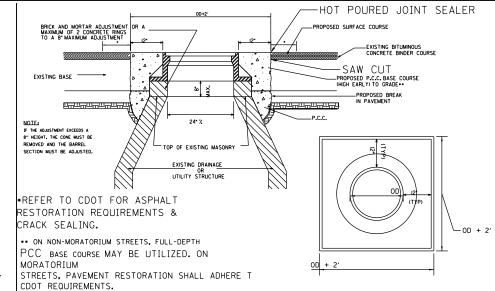
MATERIAL: CAST IRON



MATERIALS GRATE-GRAY IRON ASTM A48 CL35B COATING UNDIPPED OPEN AREA 85.6 SQ. IN.



#### STANDARD LID FOR INFILTRATION SYSTEMS



PLAN VIEW (BASE TO GRADE)

IF THE ADJUSTMENT EXCEEDS AN 8" HEIGHT, THE CONE MUST BE REMOVED AND THE BARREL SECTION MUST BE ADJUSTED.

THE CONTRACTOR IS REQUIRED TO REPLACE ANY BROKEN FRAMES AND LIDS OF SEWER STRUCTURES WITH STANDARD FRAMES AND LIDS OF THE DWM. IN ADJUSTMENT OR RECONSTRUCTION OF SEWER STRUCTURES, ANY NON-STANDARD FRAMES AND LIDS MUST BE REPLACED WITH STANDARD FRAMES AND LIDS. IN ADJUSTMENT OR RECONSTRUCTION OF INLETS, ANY NON-STANDARD INLETS (GUTTER BOXES) MUST BE REPLACED WITH DWM STANDARD INLETS.

THE FRAMES AND LIDS OF SEWER STRUCTURES TO BE ABANDONED, REMOVED, OR FILLED MUST BE SALVAGED AND THE DWM NOTIFIED FOR PICK UP.

NOTES:

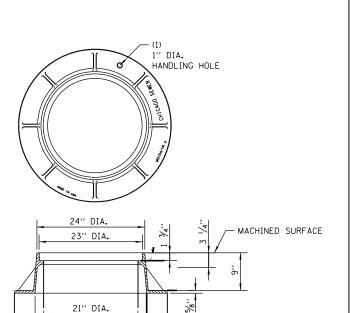
MANHOLES, CATCH BASINS AND INLETS MUST BE PROTECTED FROM THE ENTRY OF ASPHALT/DEBRIS INTO THE SEWER SYSTEM DURING CONSTRUCTION, THE CONTRACTOR MUST MARK LOCATIONS OF ALL SEWER STRUCTURES ON THE SIDEWALK BEFORE STARTING PAVEMENT REMOVAL/REPLACEMENT. ADJUSTMENT OF FRAMES AND LIDS OF SEWER STRUCTURES MUST BE COMPLETED PRIOR TO STREET RESURFACING.

DETAIL OF FRAME ADJUSTMENT

PLAN

edira M

### STANDARD CB/MH LID



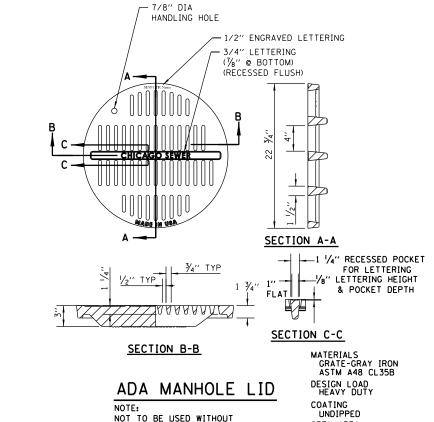
MANHOLE FRAME CAST

CLASS 35B NO PAINT

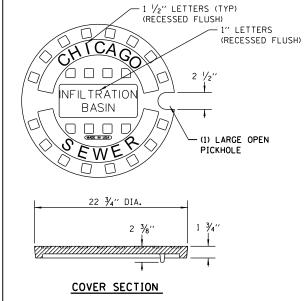
177 LBS.

IRON GRAY, ASTM A-48

LIGHTWEIGHT MANHOLE FRAME



PRIOR APPROVAL OF CDWM



#### INFILTRATION SOLID LID FOR CATCH BASIN

STAN DATE 1/22/14

SHEET 1

STANDARD DETAILS

OF 1 SHEETS STA.

CHI

SCALE: NTS

# SOLID LID FOR MANHOLES

CONTRACT NO. 60W30

			1				_			
NDARD	REVISIONS		PERCENT COMPLETE	DATE	CITY OF CHICAGO					J
	DESCRIPTION		30			WATER MANAGEMENT NEERING SERVICES		CHECKED: GD. GC. SO	A.	. ک
4	Approved		60				REVIEWED:			
			75			NHOLE		OF		
			90		LIDS AN					
			100				PN			
			BULLETIN					1 14		
ICAGO	DEPARTMENT	DF	WATER MANAGEME	NT (CDWM)	F.A.I. RTE.	SECTION	(	COUNTY	TOTAL SHEETS	SHEET NO.
	STAN	ΠΔ	RD DETAILS	•	90/94	2013-012R		СООК	385	367

TO STA.

24 13/16 " DIA.

DESIGNED -REVISED 160W30-sht-CDWM-Detail-01.dgn USER NAME = pimsarno DRAWN REVISED PLOT SCALE = 2.0000 ' / in. CHECKED -REVISED PLOT DATE = 10/24/2014 DATE - 10/24/2014 REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

85.6 SQ. IN.

SECTION

