

09-20-13 LETTING ITEM 030

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

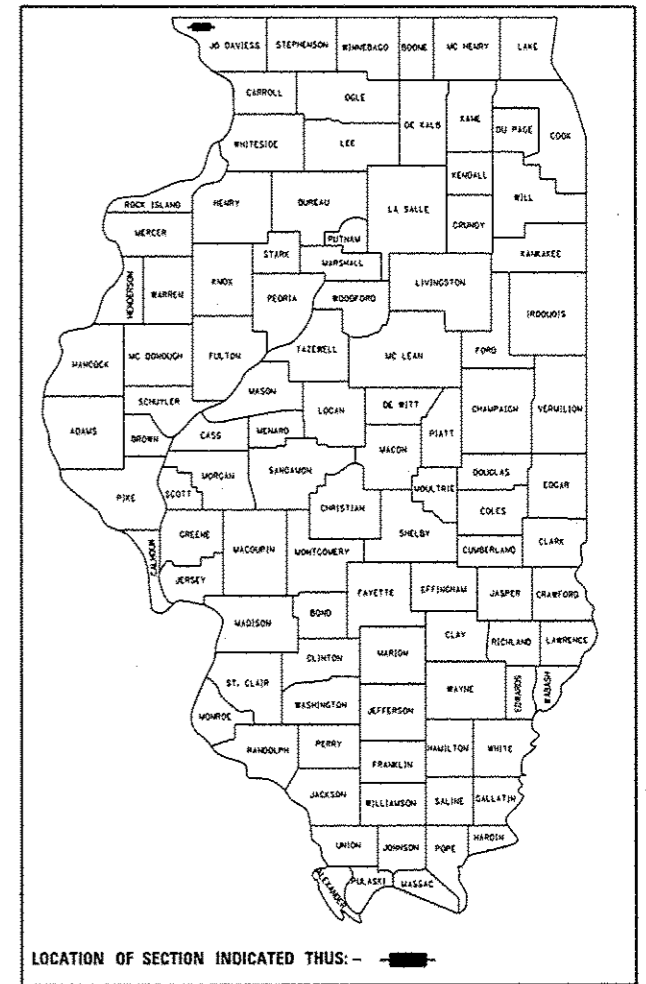
FAP ROUTE 306 (IL 35)  
SECTION 106M-3

**STORM SEWER REPLACEMENT  
JoDAVIESS COUNTY**

C-92-095-12

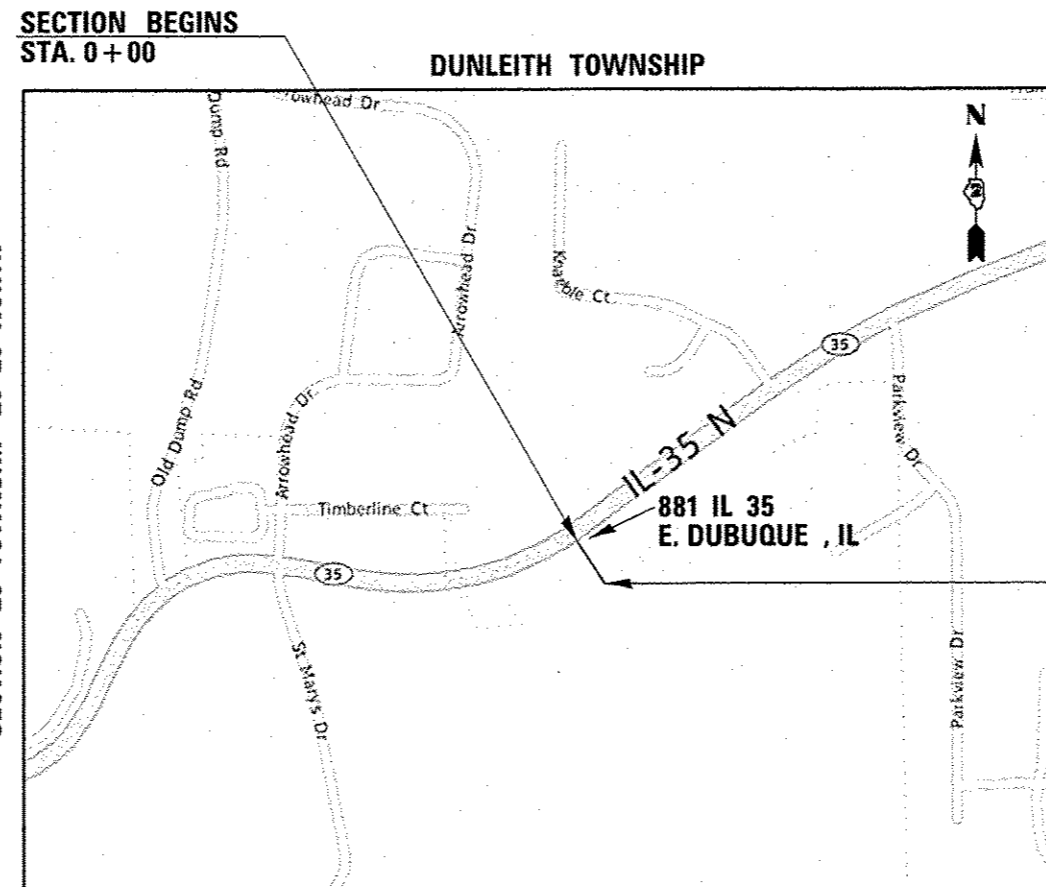
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
306	106M-3	JODAVIESS	12	1
		ILLINOIS	CONTRACT NO. 64H82	

D92-057-12



LOCATION OF SECTION INDICATED THUS: — ■ —

FOR INDEX OF SHEETS, SEE SHEET NO. 2



SECTION 20 TOWNSHIP 28-29 NORTH

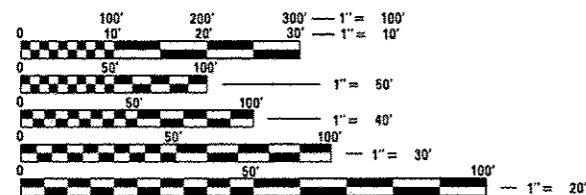
SECTION BEGINS  
STA. 0+00

DUNLEITH TOWNSHIP

SECTION ENDS  
STA. 2+50

RANGE 2 WEST OF THE THIRD PRINCIPAL MERIDIAN

DUNLEITH TOWNSHIP, SECTION 20



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

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

PROJECT ENGINEER: Masood Ahmad  
PROJECT MANAGER: Sam Abdullah 1-815-284-5935

CONTRACT NO. 64H82

GROSS LENGTH = 250 FT.  
NET LENGTH = 250 FT.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED JUNE 21 20 13  
Paul A. Korte  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Aug 16 20 13  
John D. Baranelli, P.E.  
ENGINEER OF DESIGN AND ENVIRONMENT

Aug 16 20 13  
Osman, P.E.  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

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- 729001- 01 Applications of Types A and B Metal Posts (for sign & markers)

FILE NAME :	USER NAME : rumblederr	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS &amp; STATE STANDARDS</b>				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\p\idat\trundlederr\00304926	0205712-ahc-cover.dgn	DRAWN -	REVISED -		306	106M-3	JODAVIESS	12	2				
	PLOT SCALE * 40.0000' / 1" .	CHECKED -	REVISED -		CONTRACT NO. 64H82								
Default	PLOT DATE * Wed Jun 05 08:09:59 2013	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES			0040	URBAN
			100% STATE	TOTAL
CODE NUMBER	ITEM	UNITS	QUANTITY	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	28	28
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	114	114
* 25100630	EROSION CONTROL BLANKET	SQ YD	1388	1388
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	60	60
28000400	PERIMETER EROSION BARRIER	FOOT	500	500
28000510	INLET FILTERS	EACH	1	1
28100109	STONE RIPRAP, CLASS A5	SQ YD	44	44
28200200	FILTER FABRIC	SQ YD	44	44
542C1915	PIPE CULVERTS, CLASS C, TYPE 3 30"	FOOT	250	250
54213675	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	EACH	1	1

10  
\* Specialty Items

**SUMMARY OF QUANTITIES**

			100% STATE 0040	TOTAL URBAN
CODE NUMBER	ITEM	UNITS	QUANTITY	QUANTITY
55101200	STORM SEWER REMOVAL 24"	FOOT	263	263
60221500	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 5 FRAME, CLOSED LID	EACH	3	3
60500040	REMOVING MANHOLES	EACH	1	1
63500105	DELINEATORS	EACH	4	4
67100100	MOBILIZATION	L SUM	1	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1
* A2006514	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	5	5
* A2006914	TREE, QUERCUS PALUSTRIS (PIN OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	5	5

*\*Specialty Items*

Rev.

FILE NAME *	USER NAME * rundbladerr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pvc\work\pvd\dat\rundbladerr\08304926	0205712-ah1-500.dgn	DRAWN -	REVISED -		306	106M-3	JGD/AVI/ESS	12	4				
Default	PLOT SCALE * 40.0000' / in.	CHECKED -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		
	PLOT DATE * Mod Jun 05 09:53:19 2013	DATE -	REVISED -								CONTRACT NO. 64H82		

**GENERAL NOTES**

The final top 4 inches of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils.

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 2A shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1. Class 2A shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches. This work will be included in the contract unit price for EROSION CONTROL BLANKET.

Fertilizer shall be applied to all disturbed areas and incorporated into the seedbed prior to seeding or placement of sod at the rate specified in Sections 250 and 252 of the Standard Specifications. This work shall be included in the cost of EROSION CONTROL BLANKET.

Connecting bands for corrugated metal pipes shall be metal and shall be coated with the same material as the pipe sections. The connecting bands shall be a minimum of 18" wide.

The cost of making sewer connections to existing drainage structures shall be included in the various contract unit prices for PIPE CULVERT.

The new manhole lids on this project shall have the word "STORM", "SANITARY", or "WATER" on the lid. The word to be used is noted on the plans. It will be the Contractor's responsibility to determine the word to be used on other lids not noted on the plans. No additional compensation will be allowed for this work.

All proposed manholes on this project shall be cast in place or precast. This work will be paid for at the contract unit price Each for MANHOLE of the type and size specified.

The Contractor shall determine flowlines of existing sewer lines which are shown on the plans as estimated or unknown. This information is necessary before ordering inlets and manholes.

Final grading and shaping of the ground shall be included in the cost of Pipe Culverts and shall match the lines and grades shown on the plans. Any dirt required to be removed shall be done according to Art. 202.03. Any dirt needed to be brought in shall meet the requirements of the contract general notes.

Delineators shall be installed as shown in Standard 635001, except that the post shall be rotated 180 and only metal-backed delineators shall be permitted. Delineators shall be placed at the ends of approach guardrail terminal sections, and at each headwall or end section of AR Culverts. This work will be paid for at the contract unit price each for DELINEATORS.

Tree planting layout shall be performed by the District Landscape Architect. Mulch shall be placed 4" thick and to the diameter around the tree as shown on District Standard 92.1. The mulch shall be hardwood wood chips placed on weed barrier fabric. This work shall be included in the cost of the tree.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800\_892\_0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

- |                                      |   |
|--------------------------------------|---|
| Jo-Carroll Energy/Gas (815/273-2222) | Jo-Carroll Energy/Electric (815/858-2207) |
| NICOR Gas Co. (630/983-8676)         | Frontier Legacy (815/772-2078)            |
| Windstream (630/925-4751)            | Mediacom (630/365-0045)                   |
| City of E. Dubuque (815/747-3416)    |   |

IDOT is not a member of JULIE. If you are near any overhead lighting, intersection lighting or traffic signals, contact the IDOT Traffic Office at 815/284-5469 at least 48 hours prior to work.

CADD data will be available to Contractors and Consultants working on this project. This information will be provided upon request as MicroStation CADD files and Geopak coordinate geometry files ONLY. If data is required in other formats it will be your responsibility to make these conversions. If any discrepancy or inconsistency arises between the electronic data and the information on the hard copy, the information on the hard copy should be used. Contact the District's Project Engineer to request these files.

If rigid pipe is used, then mechanical joints are required as shown on District Standard 90.2.

The Contractor shall use a trench box or other measures in order to limit the width of the trench to avoid damage to the trees as shown on the plans and to protect the watwermain that lies to the west of the existing storm sewer.

FILE NAME =	USER NAME = rundbladerr	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES</b>				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw_work\p\idot\rundbladerr\d0304926	D205712-sht-gennote.dgn	DRAWN -	REVISED -						306	106M-3	JoDAVIESS	12	5
Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 64H82								
	PLOT DATE = Thu Jun 13 07:57:21 2013	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS FED. AID PROJECT	

**SCHEDULE OF QUANTITIES**

20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)

Station	Offset and Discription	UNIT
1+93	14.5' LT/ Coniferous tree	10
2+03	14.5' LT/Stump	12
2+38	8.3' LT/ Deciduous tree	6
		28

28100109 STONE RIPRAP, CLASS A5

Discription  
(20'W x 20'L) at End of End Section at STA 2+4 44

SQ YD

63500105

DELINEATORS

Station

EACH

0+00
0+75
1+75
2+42
4

1
1
1
1
4

28200200

FILTER FABRIC  
  
FILTER FABRIC TO BE PLACED AT RIP RAP LOCATION DOWN STREAM FROM END SECTION

SQ YD

44

20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)

Station	Offset and Discription	UNIT
1+00	6.5' LT/ Coniferous tree	24
1+04	14.8' LT/ Deciduous tree	48
1+80	14.5' LT/ Coniferous tree	18
2+26	6.8' LT Deciduous tree	24
		114

54213675

PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"

EACH

A2006514

TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED

EACH

Station

2+42

1

5

542C1915

PIPE CULVERTS, CLASS C, TYPE 3 30"

FOOT

A2006914

TREE, QUERCUS PALUSTRIS (PIN OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED

EACH

0+00 to 0+75

75

0+75 to 1+75

100

1+75 to 2+43

68

243

5

25100630 EROSION CONTROL BLANKET

<u>Discription</u>	SQ YD
temporary easement boundry up to IL 35 boc	1388

55101200

STORM SEWER REMOVAL 24"

FOOT

Station

0+00 to 2+63

Discription  
24" corrugated metal pipe

263

28000250 TEMPORARY EROSION CONTROL SEEDING

	POUND
0.2 ACRE x 100 x 3 APPLICATIONS	60

60221500

MANHOLES, TYPE A, 5'-DIAMETER, TYPE 5 FRAME, CLOSED LID

EACH

Station

0+00

1

0+75

1

1+75

1

28000400 PERIMETER EROSION BARRIER

FOOT

3

As needed & Directed by the Resident Engineer 500

28000510 INLET FILTERS

EACH

60500040

REMOVING MANHOLES

EACH

Station

5' North of 0+00

curb inlet on IL 35

1

Station

0+00

REMOVE AND REPLACE STORM MANHOLE

1

HORIZONTAL AND VERTICAL CONTROL POINTS							
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
WES100	2124297.1160	2171804.4250	784.6220	WES-I35	71+62.03	19.1735' RT	GPS CONTROL POINT, PIN
WES101	2124362.2990	2171987.0480	796.3380	WES-I35	69+73.61	29.6557' LT	GPS CONTROL POINT, PIN
WES102	2124208.9430	2171830.7250	778.3210	WES-I35	71+83.12	70.267' LT	SURVEY WORK POINT, NAIL
WES103	2124008.0860	2171963.8260	738.0190	WES-I35	71+70.48	310.7591' LT	SURVEY WORK POINT, NAIL
WES700	2124237.3110	2171838.3090	782.2520	WES-I35	71+63.46	49.5479' LT	R.O.W. MARKER, BACK
WES701	2124192.9690	2171753.2800	776.8130	WES-I35	72+54.97	48.5577' LT	R.O.W. MARKER, BACK
WES702	2124067.4490	2171953.3060	751.6080	WES-I35	71+53.77	254.3753' LT	DISK
WES703	2124036.8200	2171975.0330	738.7660	WES-I35	71+51.69	291.8349' LT	PIN, IRON
WES704	2123969.5740	2171811.1440	730.1370	WES-I35	72+89.71	275.8151' LT	PIN, IRON
WES710	2124236.3550	2171838.2470	781.9560	WES-I35	71+63.98	50.3383' LT	PROPERTY CORNER, PIPE
WES711	2124142.5710	2171604.0320	769.5130	WES-I35	74+05.81	41.271' LT	PROPERTY CORNER, PIPE
WES712	2124144.8190	2171604.5600	769.8440	WES-I35	74+04.69	39.2773' LT	R.O.W. MARKER
WES713	2124473.1120	2172161.6020	802.0810	WES-I35	67+67.08	39.3013' LT	PROPERTY CORNER, PIPE
WES714	2124534.0970	2172253.1380	806.4740	WES-I35	66+57.12	42.007' LT	PROPERTY CORNER, PIPE
WES715	2124551.8580	2172279.6340	808.9630	WES-I35	66+25.23	42.7016' LT	PROPERTY CORNER, CHISELED "X"
WES716	2124564.8800	2172429.9370	803.4820	WES-I35	64+94.75	118.4333' LT	PROPERTY CORNER, PIPE
WES717	2124607.4940	2172358.5330	810.3130	WES-I35	65+28.69	42.5213' LT	PROPERTY CORNER, PIPE
WES718	2124614.4600	2172367.6980	811.5800	WES-I35	65+17.18	42.0885' LT	PROPERTY CORNER, PIN
WES719	2124160.2970	2171890.9110	769.2570	WES-I35	71+58.30	142.6403' LT	PROPERTY CORNER, PIPE
WES720	2124102.7950	2171809.8990	762.9570	WES-I35	72+44.40	154.3974' LT	PROPERTY CORNER, PIPE
WES721	2124293.3640	2172283.2310	773.2620	WES-I35	67+70.86	256.3006' LT	PROPERTY CORNER
WES722	2124265.0330	2172302.3990	760.5180	WES-I35	67+71.46	290.5015' LT	PROPERTY CORNER
WES723	2124333.9700	2172389.1520	764.0430	WES-I35	66+60.84	283.9508' LT	PROPERTY CORNER, PIPE
WES724	2124523.9140	2172520.8200	795.7380	WES-I35	64+43.92	204.1925' LT	PROPERTY CORNER
WES725	2124486.9770	2172581.1270	791.7270	WES-I35	64+15.80	269.0809' LT	PROPERTY CORNER

Chain WES-I35 contains:  
WES1 CUR WES200 CUR WES210 CUR WES220 CUR WES230 CUR WES240 CUR WES250 CUR WES-  
260 CUR WES270 CUR WES280 CUR WES290 CUR WES300 CUR WES310 CUR WES320 WES2

Beginning chain WES-I35 description  
=====

Point WES1 N 2,128,072.5467 E 2,177,287.6811 Sta 1+90.75  
Course from WES1 to PC WES200 S 59° 56' 14.46" W Dist 310.3018'

Curve Data  
\*-----\*

Curve WES240  
P.I. Station 58+56.56 N 2,125,030.6021 E 2,172,886.9597  
Delta = 13° 57' 56.86" (LT)  
Degree = 1° 59' 59.65"  
Tangent = 350.9012'  
Length = 698.3242'  
Radius = 2,864.9300'  
External = 21.4095'  
Long Chord = 696.5967'  
Mid. Ord. = 21.2507'  
P.C. Station 55+05.66 N 2,125,157.0222 E 2,173,214.2969  
P.T. Station 62+03.98 N 2,124,828.9187 E 2,172,599.8093  
C.C. N 2,122,484.4806 E 2,174,246.4526

Course from PT WES240 to PC WES250 S 54° 55' 02.16" W Dist 881.9365'

Curve Data  
\*-----\*

Curve WES250  
P.I. Station 75+05.57 N 2,124,080.8168 E 2,171,534.6858  
Delta = 44° 51' 57.73" (RT)  
Degree = 5° 38' 11.67"  
Tangent = 419.6565'  
Length = 795.9806'  
Radius = 1,016.5000'  
External = 83.2199'  
Long Chord = 775.7991'  
Mid. Ord. = 76.9223'  
P.C. Station 70+85.92 N 2,124,322.0180 E 2,171,878.1004  
P.T. Station 78+81.90 N 2,124,152.1258 E 2,171,121.1322  
C.C. N 2,125,153.8433 E 2,171,293.8582

Course from PT WES250 to PC WES260 N 80° 13' 00.11" W Dist 321.0916'  
Course from PT WES320 to WES2 S 40° 29' 02.59" W Dist 99.4561'

Point WES2 N 2,122,237.0140 E 2,168,160.0830 Sta 116+29.62

Ending chain WES-I35 description  
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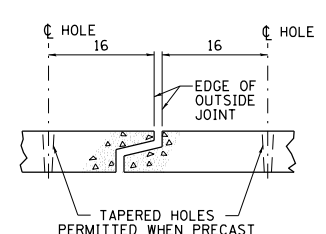
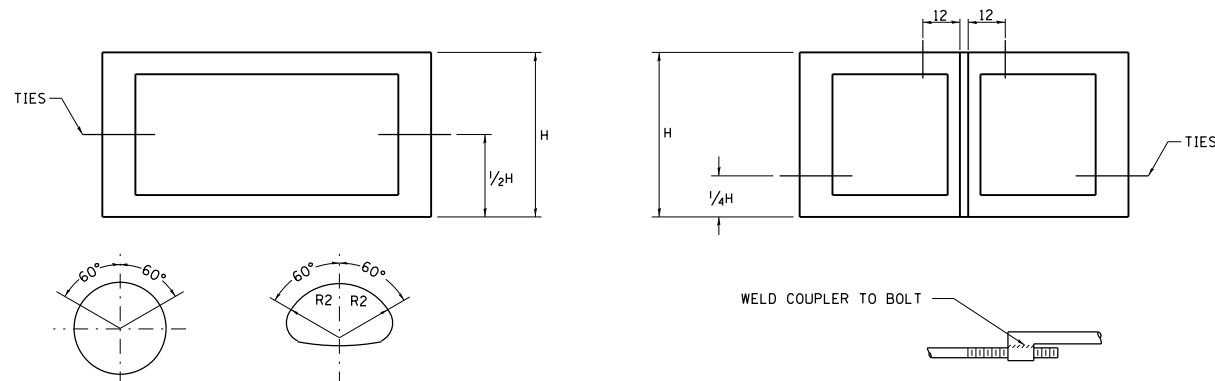






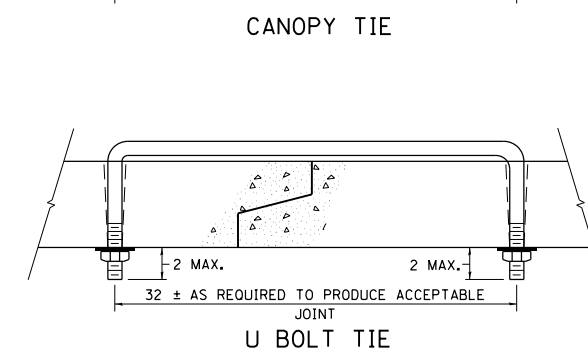
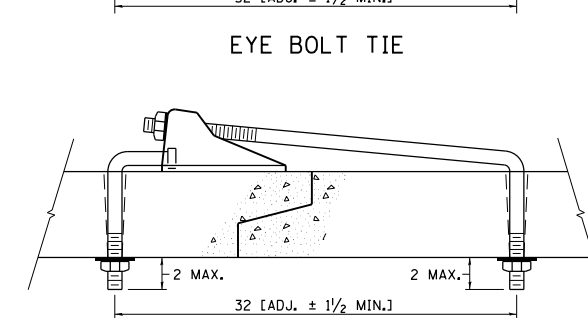
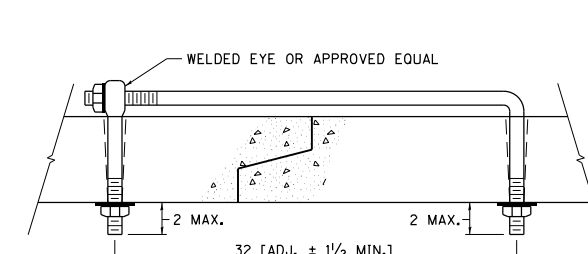
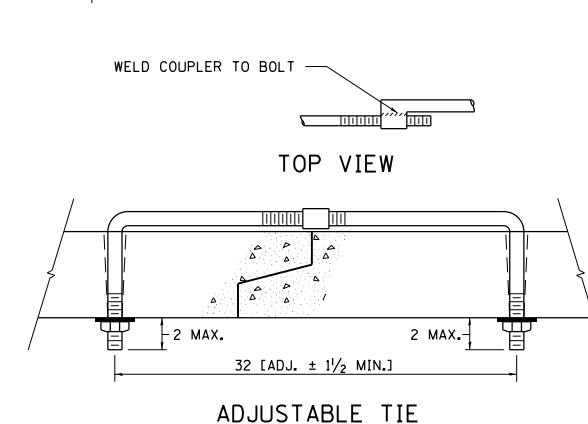
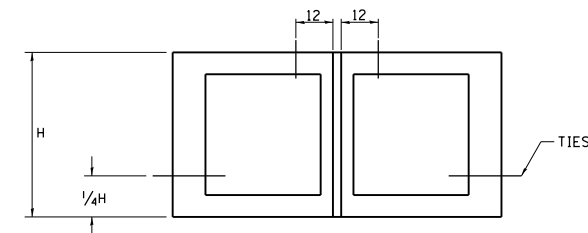
# MECHANICAL JOINTS FOR CONCRETE PIPE AND BOX CULVERTS

THE CULVERT TIES SHALL BE INCLUDED IN THE COST OF THE CONCRETE PIPE CULVERTS OR THE PRECAST CONCRETE BOX CULVERT. THE MECHANICAL TIES SHALL BE ON THE OUTSIDE OF THE CULVERT. THE NUTS AND WASHERS SHALL BE PLACED ON THE INSIDE OF THE CULVERT AND COVERED WITH MASTIC JOINT SEALER CONFORMING TO ARTICLES 1055 OR 1056 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

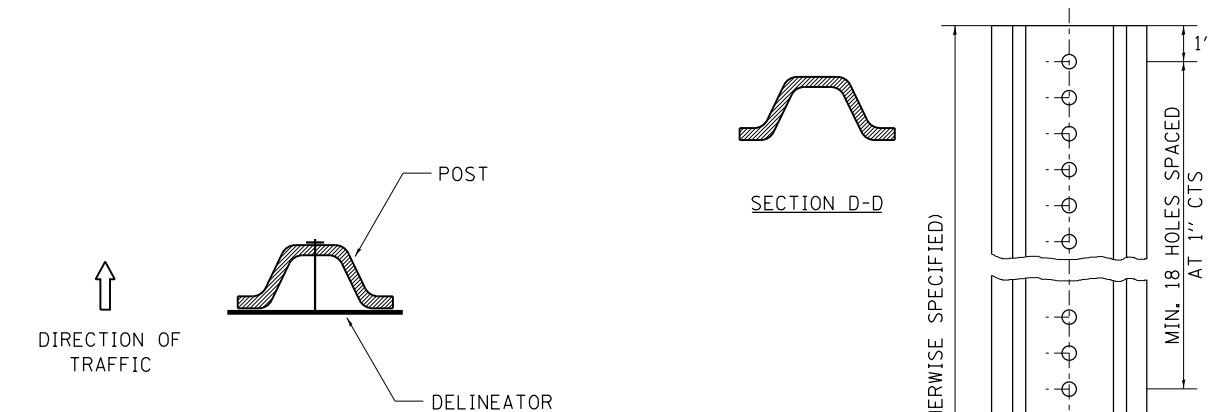


PLACEMENT OF HOLES		
BOX CULVERT FEET	PIPE SIZE INCHES	THREAD DIAMETER
	12	3/8 ROLLED THREADS (SEE NOTE 4)
	15	
	18	
	21	
	24	
	27	
	30	3/4 CUT OR ROLLED
3x2	33	
3x3	36	
4x2	42	
4x3	48	
4x4	54	
5x3	60	1 CUT OR ROLLED
5x4	66	
5x5	72	
6x*	78	
7x*	84	
8x*	90	
9x*	96	1 1/4
10x*	102	
	108	
	120	
11 x * AND GREATER	138 AND GREATER	

- NOTES:**
- HOLES SHALL BE CAST-IN OR DRILLED 16 FROM OUTSIDE EDGE OF JOINT.
  - NUTS AND WASHERS ARE NOT REQUIRED ON INSIDE OF 27 DIAM. PIPE OR LESS.
  - TIES ARE NOT REQUIRED FOR BELL PIPE 24 AND SMALLER. ON OTHER SIZES TIE MAY BE INSERTED FROM INSIDE.
  - CUT THREADS MAY BE USED IF WASHER AND NUT ARE USED.
  - PIPE SIZE LISTED IS INSIDE DIAM. OF ROUND PIPE OR EQUIVALENT DIAM. OF PIPE ARCH OR ELLIPTICAL.
  - GALVANIZING OF TIES IS REQUIRED.
  - ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



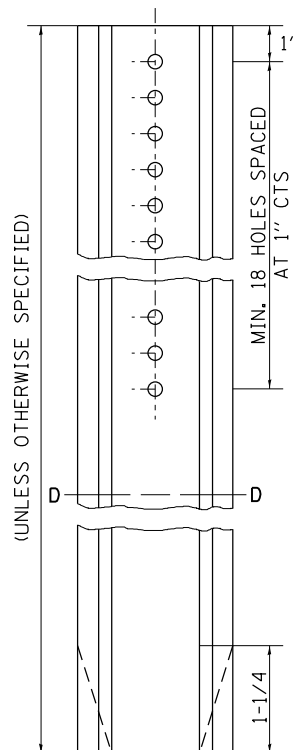
# DELINEATOR AND POST ORIENTATION



DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHED AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 10-03-11



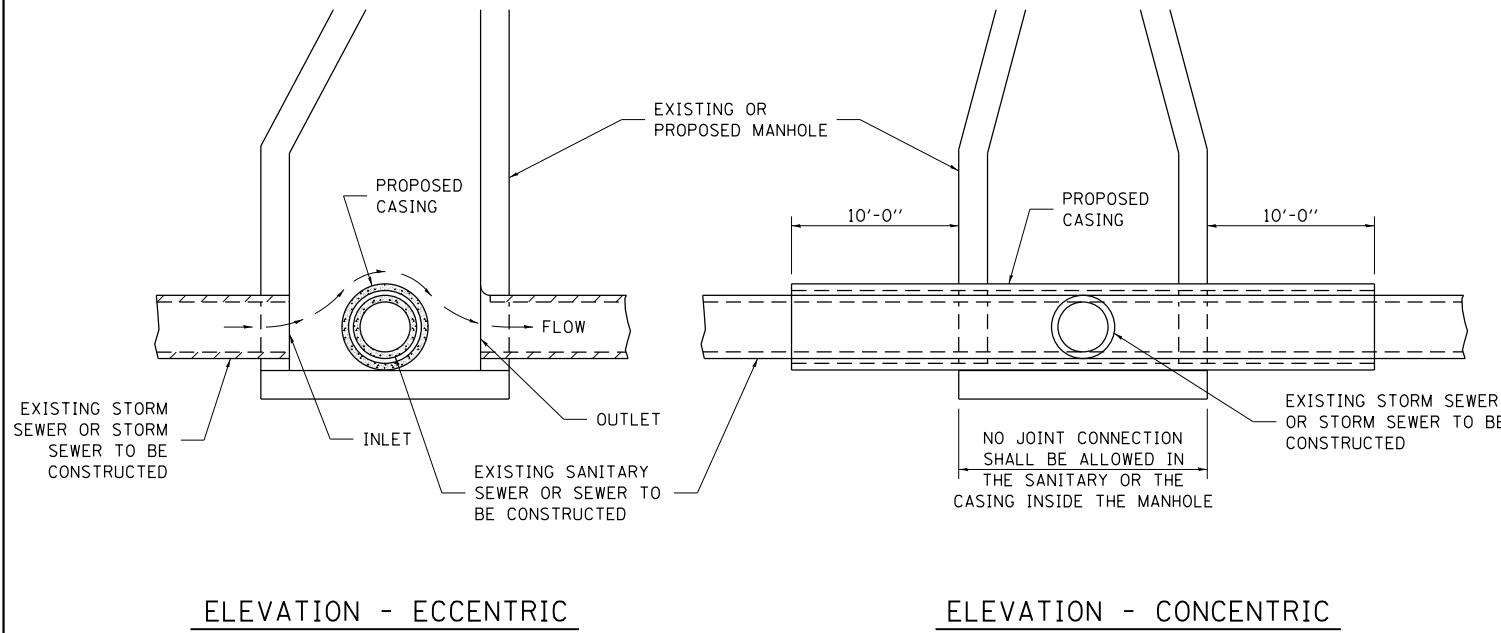
## DELINEATOR AND POST ORIENTATION 37.4

PLOT DATE = Wed Jun 05 08:10:50 2013

REVISED - 10-14-11

REVISED -	REGION 2 / DISTRICT 2 STANDARD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -		306	106M-3	JoDAVISS	12	10
REVISED -		CONTRACT NO. 64H82				
REVISED -		SCALE: 40.0000' / 1"	SHEET NO.	OF SHEETS	STA.	TO STA.

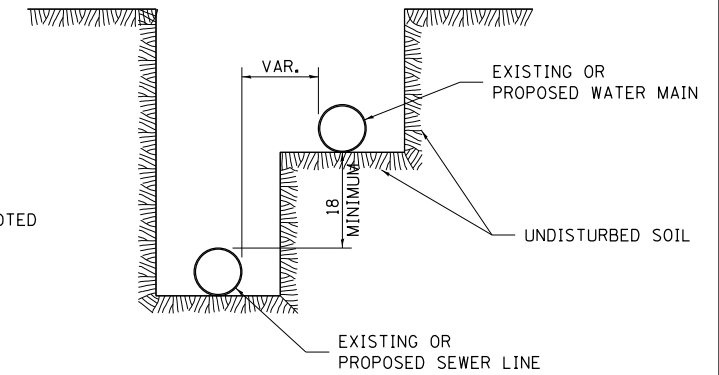
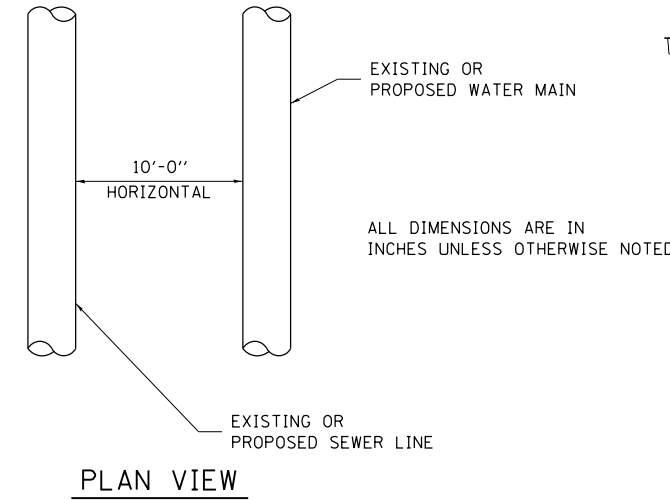
# SEWER AND WATER MAIN CROSSINGS



THIS DETAIL IS FOR UNKNOWN UTILITIES UNLESS QUANTITIES ARE INCLUDED IN THE PLANS THE EXTRA WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10'-0" OR MORE FROM EXISTING WATER (OR SEWER) NO SPECIAL CONSTRUCTION REQUIRED.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10'-0" FROM EXISTING WATER (OR SEWER) DETAILS BELOW SHALL APPLY.

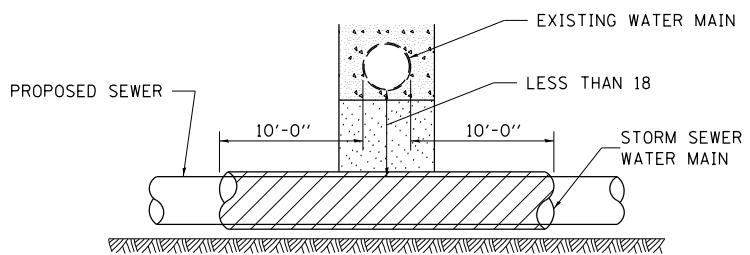


CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

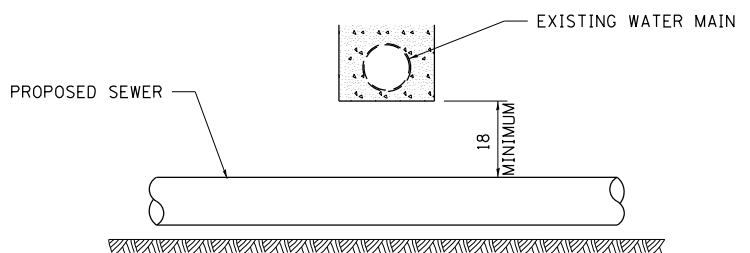
## AT GRADE CROSSING OF SANITARY AND STORM SEWER

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN  
 PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH



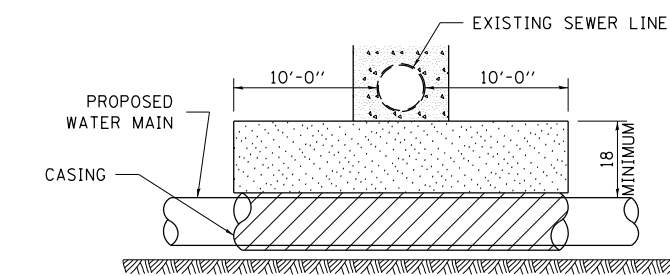
PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH  
 MAINTAIN 18 MINIMUM VERTICAL SEPARATION FOR 10 FT. HORIZONTALLY



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

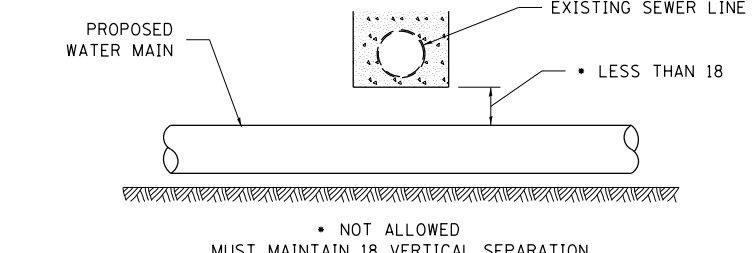
## PROPOSED SEWER LINE BELOW EXISTING WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT  
 PLACE TRENCH BACKFILL FOR 10 FT. ON EITHER SIDE OF SEWER LINE



CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

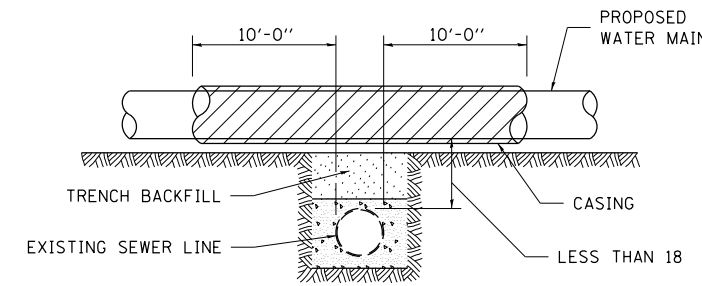
PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH  
 MAINTAIN 18 MINIMUM VERTICAL SEPARATION FOR 10 FT. HORIZONTALLY



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

## PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE

POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN OR WATER MAIN CASING AND SEWER

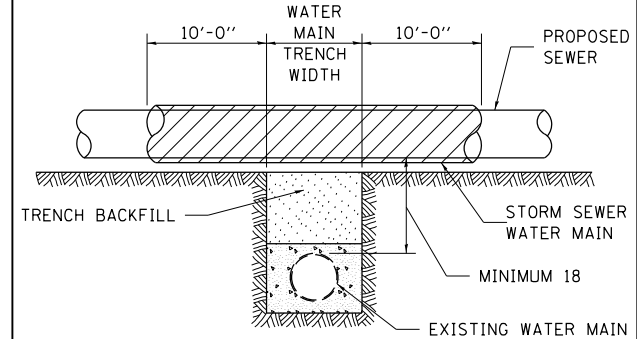


CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

## PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE

PROVIDE ADEQUATE SUPPORT FOR SEWER TO PREVENT SETTLING AND BREAKING THE WATER MAIN.



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## EXISTING WATER MAIN BELOW PROPOSED SEWER LINE WITH MINIMUM 18 VERTICAL SEPARATION

FILE NAME =	USER NAME = rundbladerr	DESIGNED -	REVISED - 10-17-11
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	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = Tue May 28 08:04:00 2013	DATE -	REVISED -

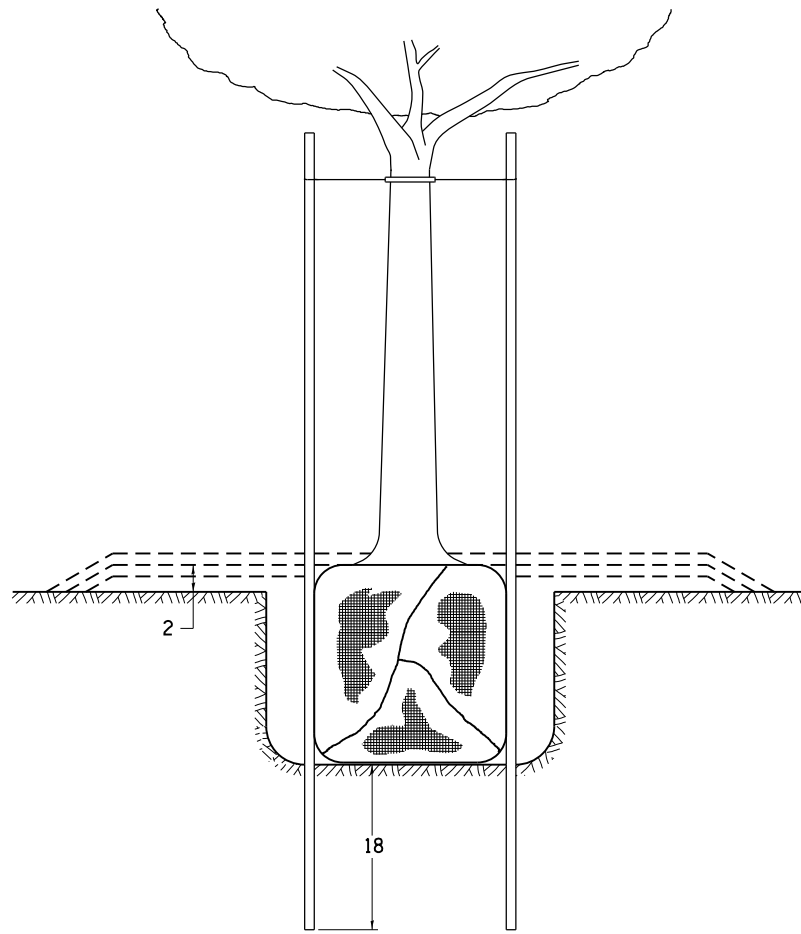
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

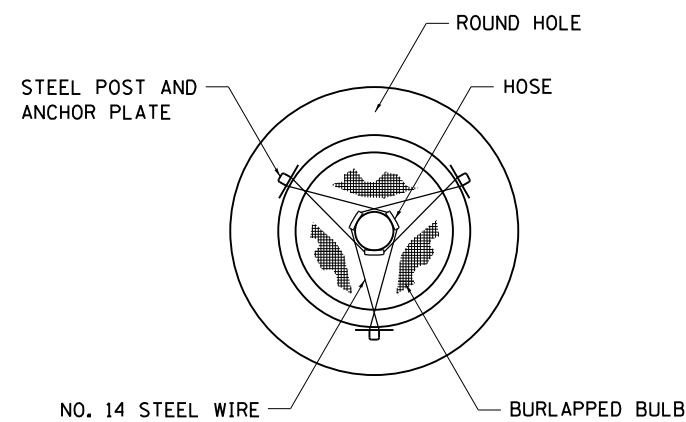
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
306	106M-3	JoDAVISS	12	11
CONTRACT NO. 64H82				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

# DETAILS OF PLANTING AND BRACING TREES

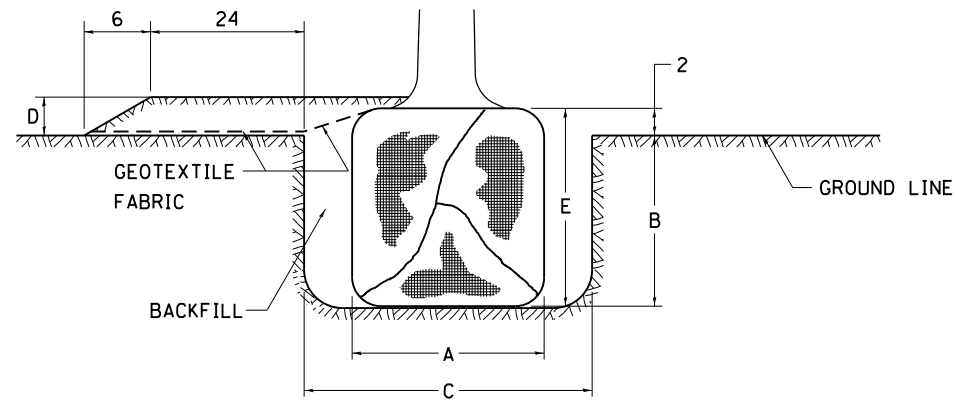


TREES SMALLER THAN 4 1/2 IN DIAMETER

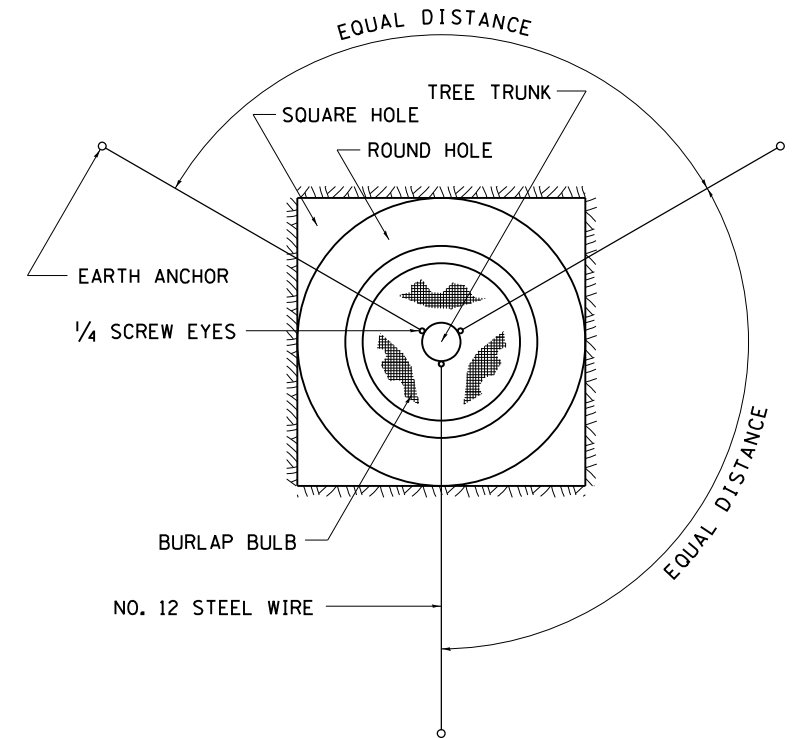


SMALL	A	B	C	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER CU. YDS.
5'-6'	16	10	30	4	12	0.54
5'-6' BB	16	10	30	4	12	0.54
6'-7' BB	18	12	30	4	14	0.54
7'-8' BB	20	11	30	4	13	0.54
8'-10' BB	24	14	36	4	16	0.61
10'-12' BB	26	15	36	4	17	0.61

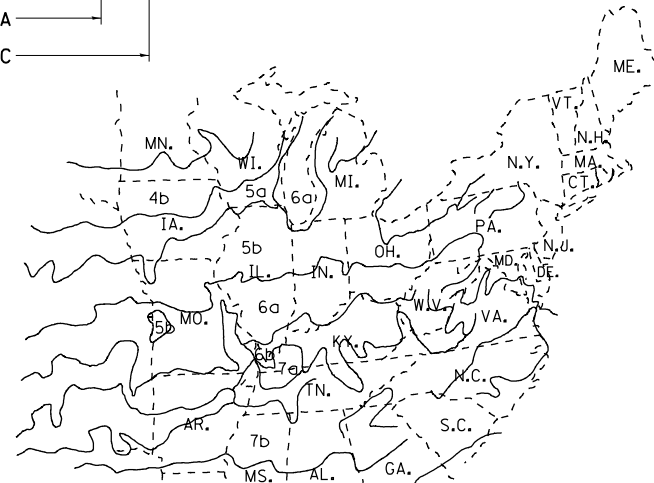
LARGE	A	B	C	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER CU. YDS.
0-2	20	11	36	4	13	0.61
2-2 1/2 BB	24	14	48	4	16	0.78
2 1/2-3 BB	28	17	48	4	19	0.78
3-3 1/2 BB	32	17	60	4	19	0.96
3 1/2-4 BB	36	20	60	4	22	0.96
4-4 1/2 BB	40	22	72	4	24	1.16
4 1/2-5 BB	44	24	72	4	26	1.16
5-5 1/2 BB	48	27	84	4	29	1.38



TREES OVER 4 1/2 IN DIAMETER



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PLANT HARDINESS ZONE MAP

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH SERVICE  
PUBLICATION NO. 814

FILE NAME =	USER NAME = rundbladerr	DESIGNED -	REVISED - 10-18-11
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	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = Tue May 28 08:03:44 2013	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
306	106M-3	JoDAVISS	12	12
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