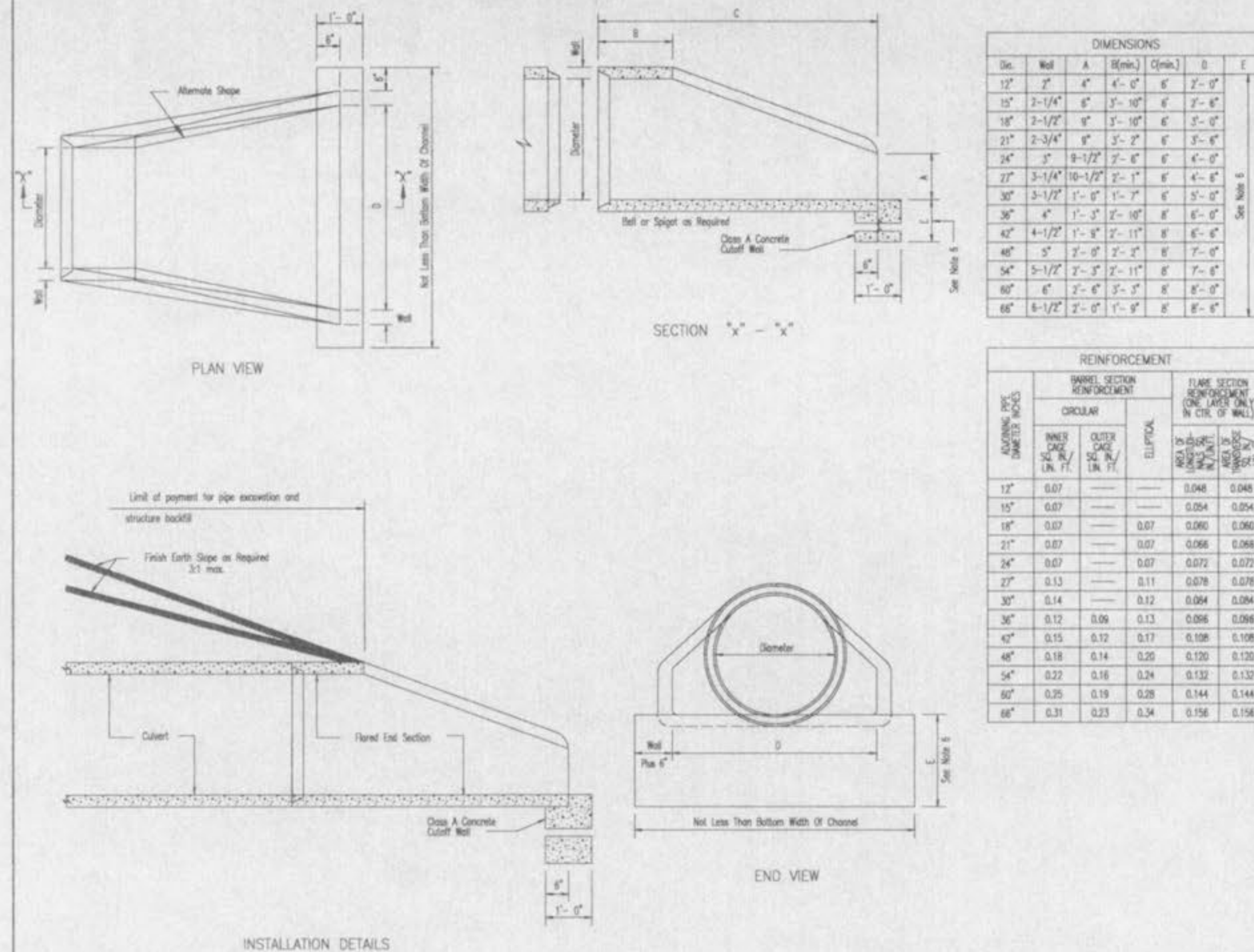


SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI
SEWER CONSTRUCTION DETAILS
FLARED END SECTION
(INLET/OUTLET PROTECTION)
DATE: September, 2002 DRAWING
C604.43



DIMENSIONS

Size	Well	A	B (min.)	C (min.)	D	E
12"	2'	4"	4'-0"	6'	2'-0"	
15"	2-1/4"	6"	5'-0"	6'	2'-6"	
18"	2-1/2"	8"	5'-10"	6'	3'-0"	
21"	2-3/4"	8"	5'-2"	6'	3'-6"	
24"	3"	9-1/2"	5'-6"	6'	4'-0"	
27"	3-1/4"	10-1/2"	5'-1"	6'	4'-6"	
30"	3-1/2"	1'-0"	5'-2"	6'	5'-0"	
36"	4"	1'-3"	5'-10"	6'	6'-0"	
42"	4-1/2"	1'-8"	5'-11"	6'	6'-6"	
48"	5"	2'-0"	5'-2"	6'	7'-0"	
54"	5-1/2"	2'-3"	5'-11"	6'	7'-6"	
60"	6"	2'-6"	5'-3"	6'	8'-0"	
66"	6-1/2"	2'-0"	1'-6"	6'	8'-6"	

REINFORCEMENT

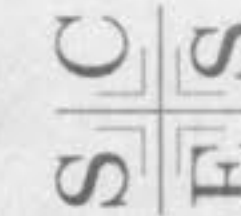
AWARNING, INVERT, DRAINAGE PIPES	CIRCULAR		FLARE SECTION REINFORCEMENT (SEE LATEST EDITION IN CTR. OF WELL)	
	INNER CIRC. DIA. IN. FT.	OUTER CIRC. DIA. IN. FT.	IN. DIA. REINFORCING BARS	SPACING
12"	0.07		0.048	0.048
15"	0.07		0.054	0.054
18"	0.07		0.060	0.060
21"	0.07		0.066	0.066
24"	0.07		0.072	0.072
27"	0.13		0.11	0.078
30"	0.14		0.12	0.084
36"	0.12	0.06	0.13	0.086
42"	0.15	0.12	0.17	0.108
48"	0.18	0.14	0.20	0.120
54"	0.22	0.16	0.24	0.132
60"	0.25	0.19	0.28	0.144
66"	0.31	0.23	0.34	0.156

- GENERAL NOTES
- Do not scale drawing. Follow dimensions.
 - Slight variations in hole shape and dimensions from those shown may be accepted if approved by the Engineer.
 - Not more than three (3) holes may be drilled or cast in the End Section for handling and laying.
 - All types of bars will be permitted in precast Cutoff Walls.
 - Cutoff Wall may be cast-in-place or precast.
 - Cutoff Wall to be constructed a minimum of 2' at intake and 2' at outlet end or to rock.
 - For construction details refer to the Sewer Construction Details for Storm, Culverts and Large Sewer Connections, 'Std. Draw. C504.41.
 - The details shown are adopted from the Missouri Department of Transportation, Standard Drawings.

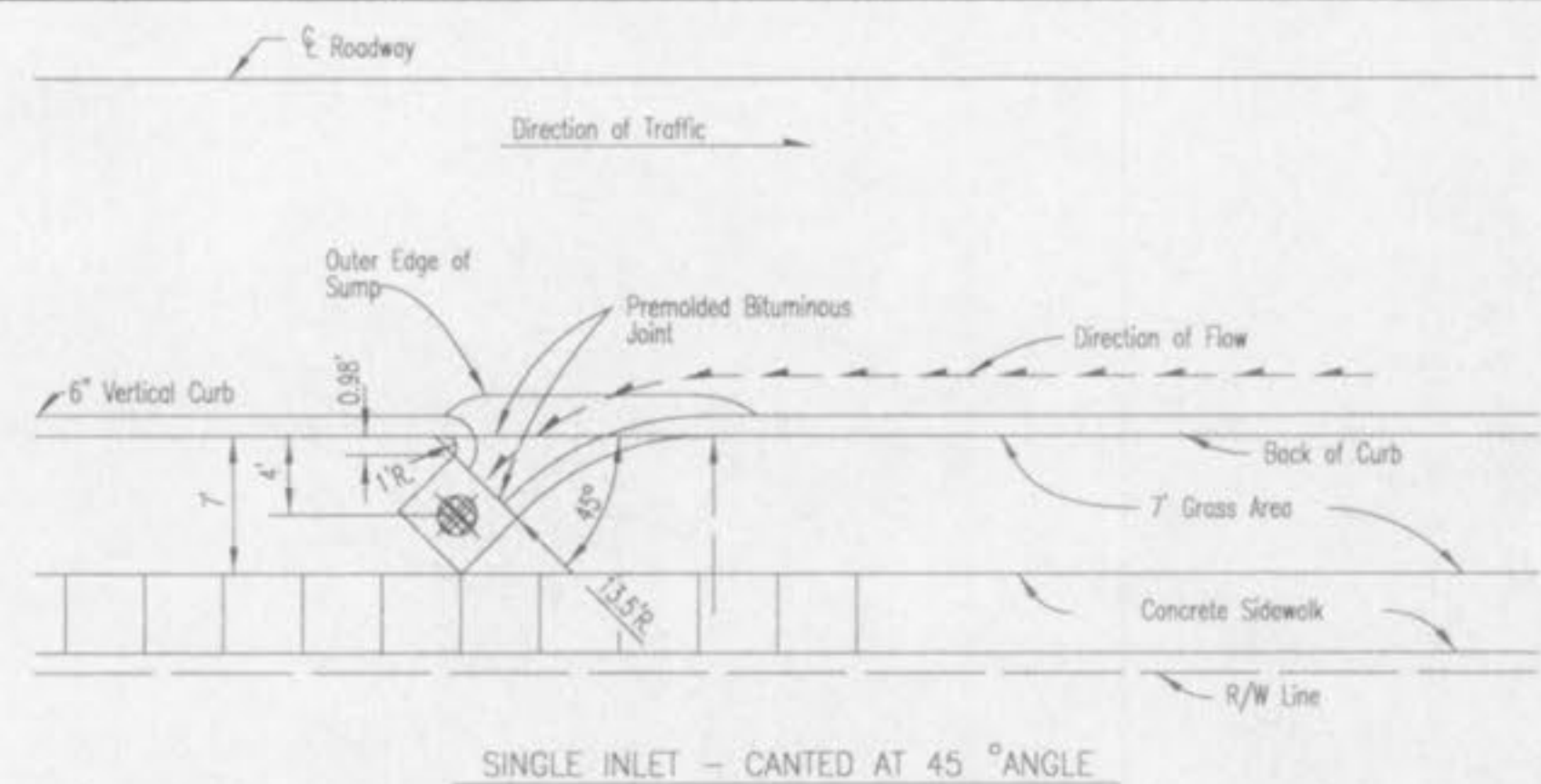
SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI
SEWER CONSTRUCTION DETAILS
FLARED END SECTION
(PRECAST CONCRETE)
DATE: June, 2002 DRAWING
C604.40

IMPROVEMENT PLANS
PEACEFUL VALLEY
STORM DETAILS 3

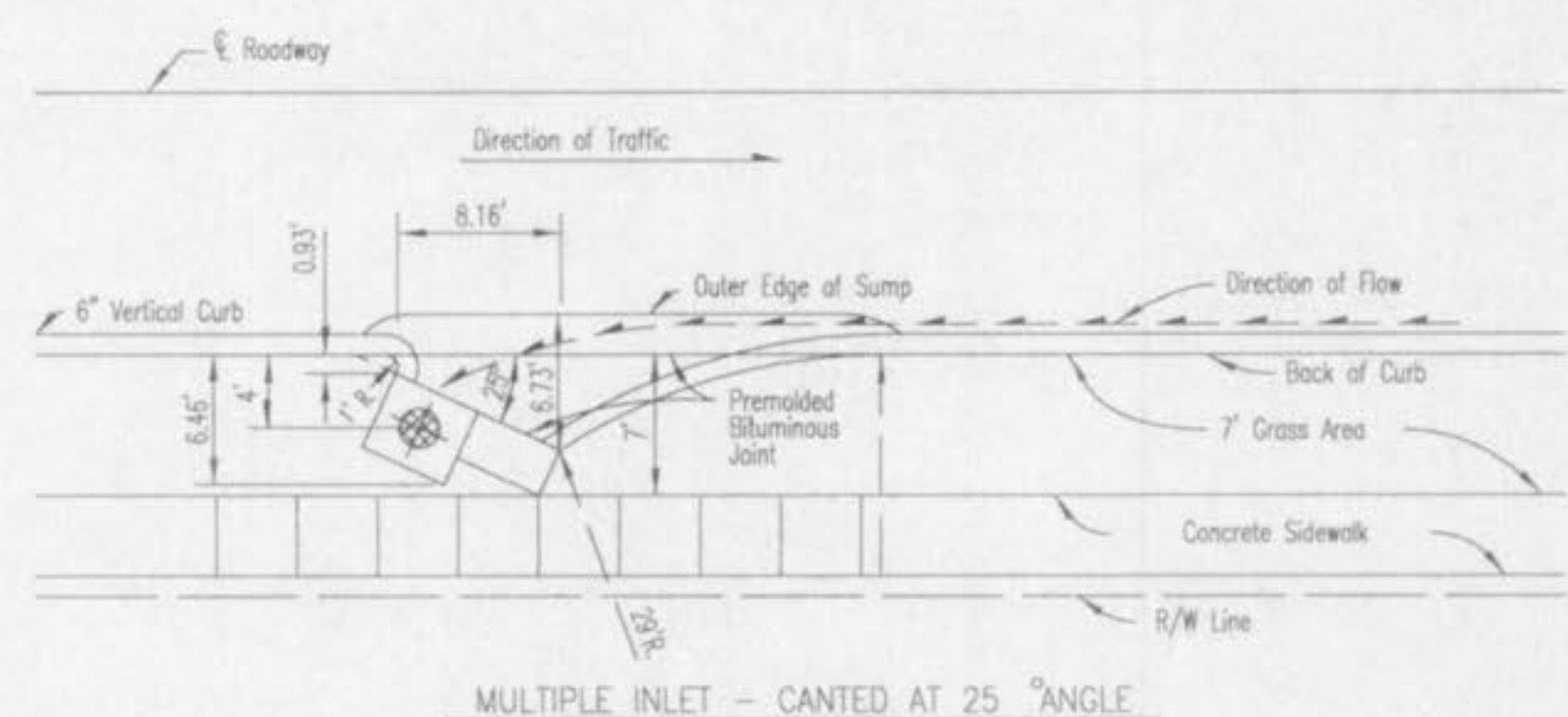
ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO.
02-0890
DATE
07/25/08
16



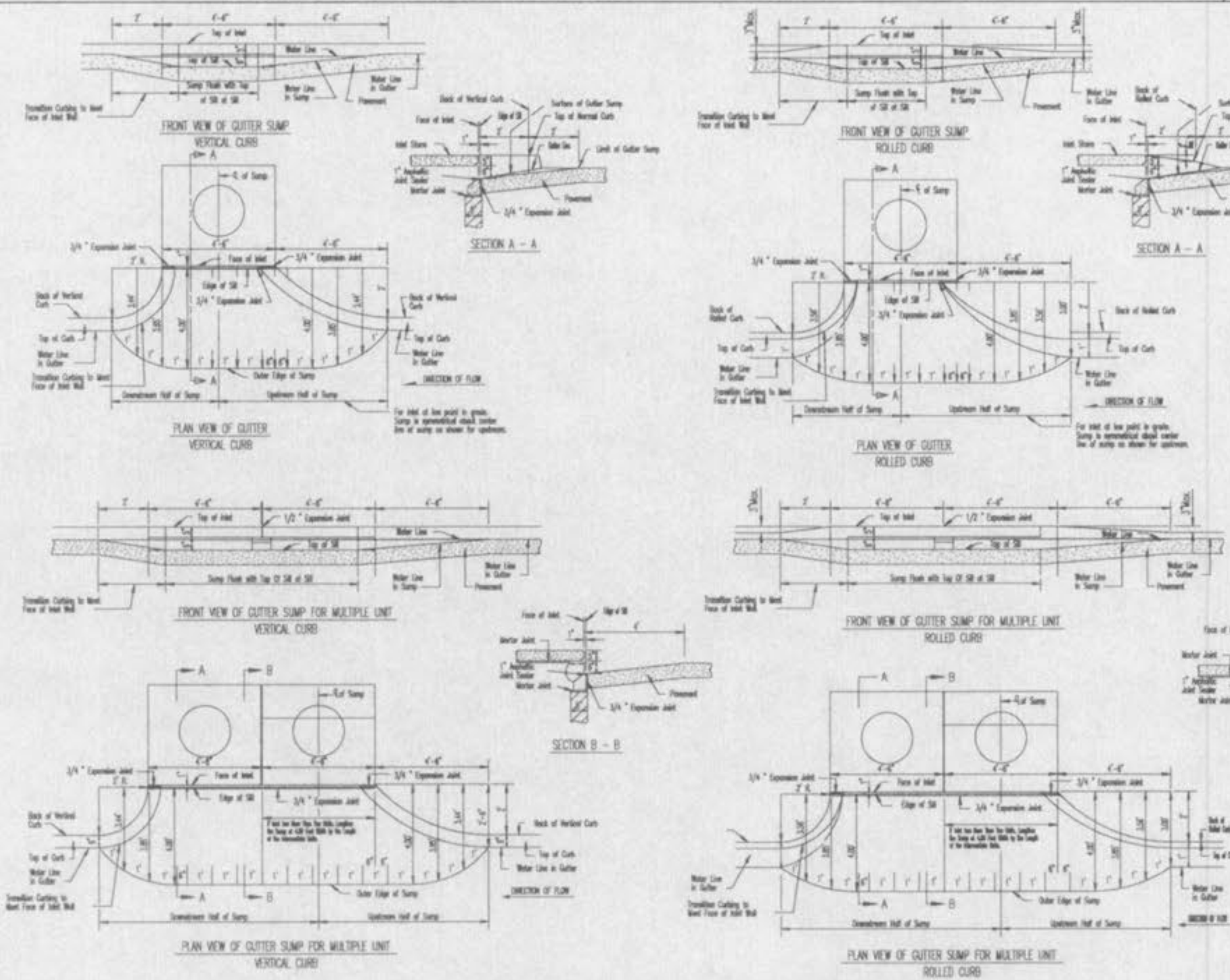
SINGLE INLET - CANTED AT 45 °ANGLE



MULTIPLE INLET - CANTED AT 25 °ANGLE

- GENERAL NOTES
- Do not scale drawing. Follow dimensions.
 - For sump details refer to the Sewer Construction Details for Street Inlet Sumps, 'Standard Drawing C604.36.
 - When required the nearest two (2) sections of sidewalk on each side of the inlet shall be warped to meet the top of the inlet stone elevation.
 - Cont'd inlet to be used only when there is a 7ft. grass area or when sidewalk is not required.
 - Cont'd inlets allowed only when opposite the direction of traffic.
 - Transition curbs to meet face of inlet wall.

SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI
SEWER CONSTRUCTION DETAILS
CANTED INLETS
DATE: June, 2002 DRAWING
C604.34



- GENERAL NOTES
- Do not scale drawing. Follow dimensions.
 - The details shown are adopted from Revised Standard Construction Details for Sewers and Drainage Facilities dated 1982.
 - The standard specification sections noted refer to the Standard Construction Specifications for Sewers and Drainage Facilities of the Metropolitan St. Louis Sewer District dated 1982.
 - Inlets may be located 2.5 feet from the back of inlet curb. Add 2.5 feet to all curb dimensions for all inlets that are 2.5 feet offset.
 - For canted inlets, the gutter shall extend 2.5 feet from the projection of the back of the curb.

SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI
SEWER CONSTRUCTION DETAILS
STREET INLET SUMPS
DATE: June, 2002 DRAWING
C604.36