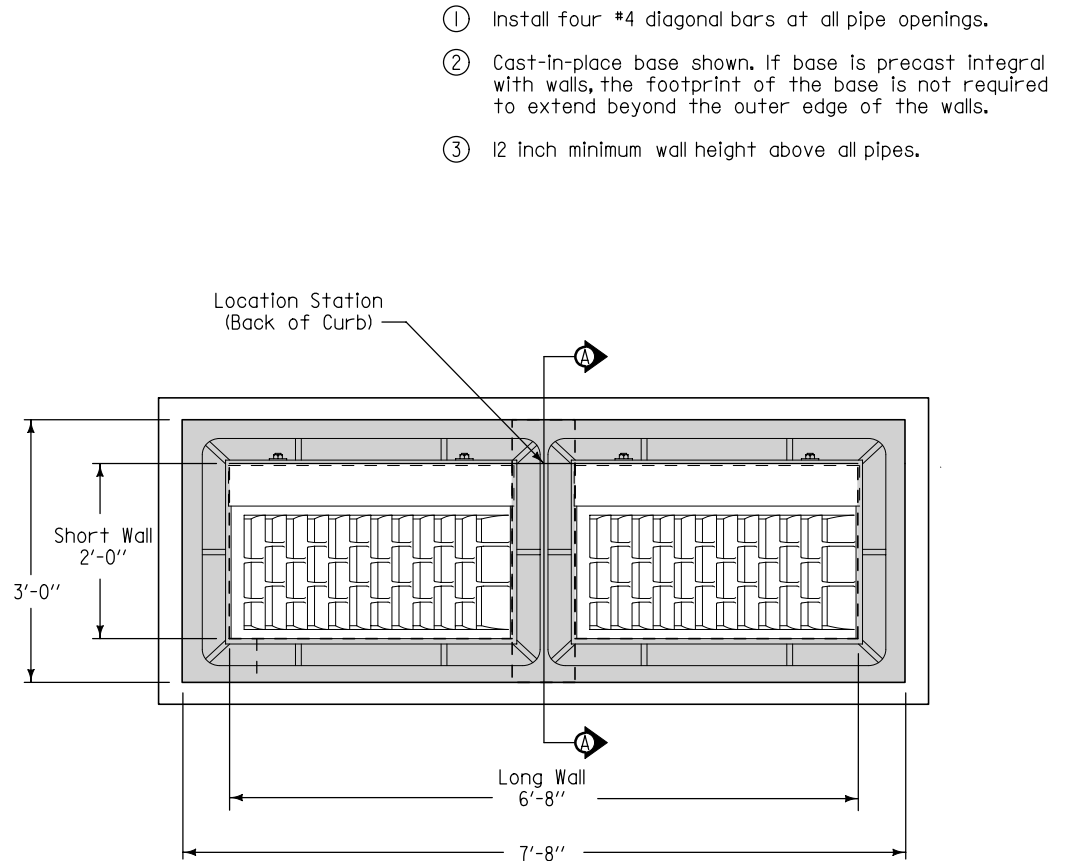


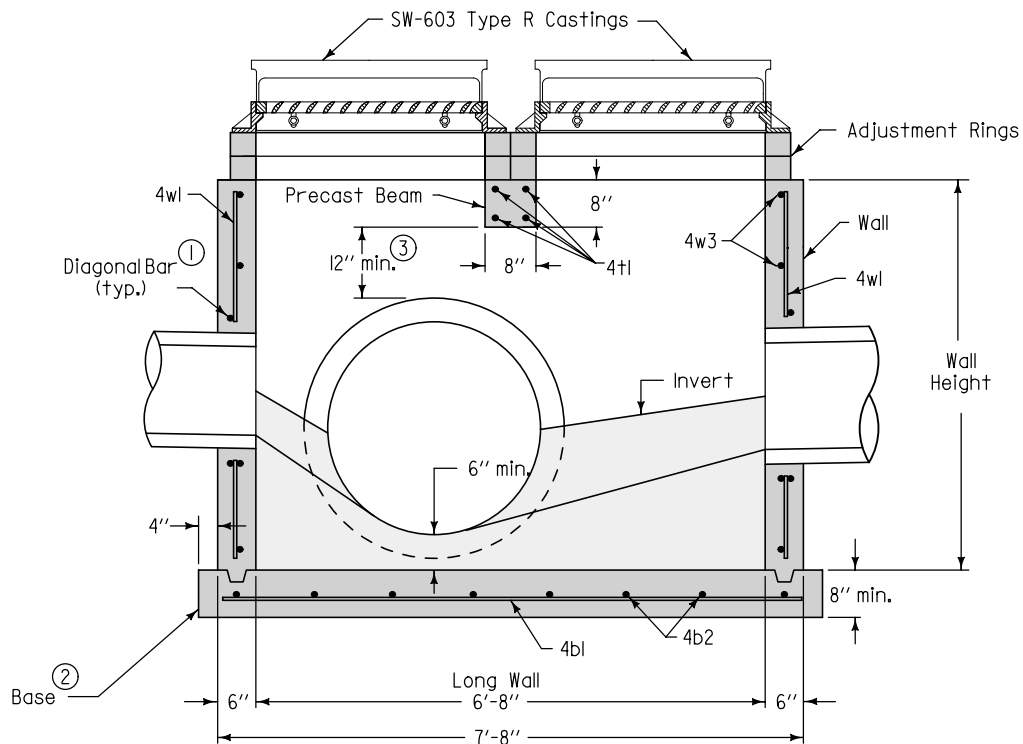
SECTION A-A



PLAN

- ① Install four #4 diagonal bars at all pipe openings.
- ② Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.
- ③ 12 inch minimum wall height above all pipes.

		REVISION
		NEW 04-21-09
FIGURE 6010.505	STANDARD ROAD PLAN	SW-505
		SHEET 1 of 2
REVISIONS: New. Replaces SUDAS Figure 6030.5.		
SUDAS DIRECTOR		DESIGN METHODS ENGINEER
DOUBLE GRATE INTAKE		



TYPICAL SECTION

- ① Install four #4 diagonal bars at all pipe openings.
- ② Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.
- ③ 12 inch minimum wall height above all pipes.

REINFORCING BAR LIST

Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Beam	—	4	2'-8"	4"
4b1	4	Base	—	4	7'-10"	10"
4b2	4	Base	—	8	3'-2"	12"
4w1	4	Walls	—	20	Wall Height minus 4"	12"
4w2	4	Long Walls	—	Varies	7'-4"	12"
4w3	4	Short Walls	—	Varies	2'-8"	12"

MAXIMUM PIPE DIAMETERS

Pipe Location	Precast Structure	Cast-in-place Structure
Short Wall	15"	18"
Long Wall	60"	66"

SUDAS	Iowa Department of Transportation	REVISION
		NEW 04-21-09
		SW-505
		SHEET 2 of 2
FIGURE 6010.505	STANDARD ROAD PLAN	
REVISIONS: New. Replaces SUDAS Figure 6030.5.		
SUDAS DIRECTOR		DESIGN METHODS ENGINEER
DOUBLE GRATE INTAKE		

FIGURE 6010.505 SHEET 2 OF 2