

PLAN

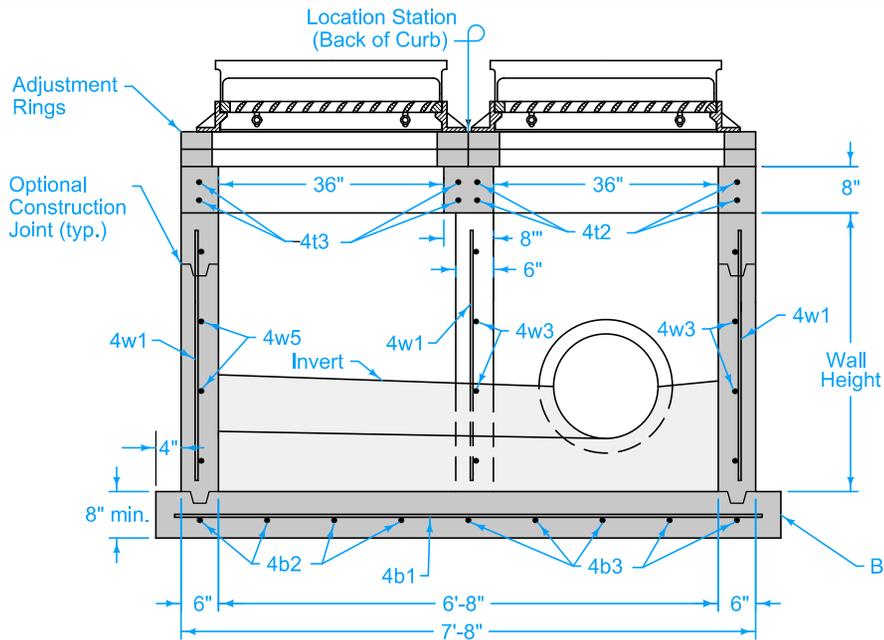
Maximum pipe diameters are set based on maximum structure depth of 6 feet-6 inches and the objective of placement of the centerline of the pipe on the centerline of the manhole opening for maintenance purposes.

Refer to SW-514 for boxout details.

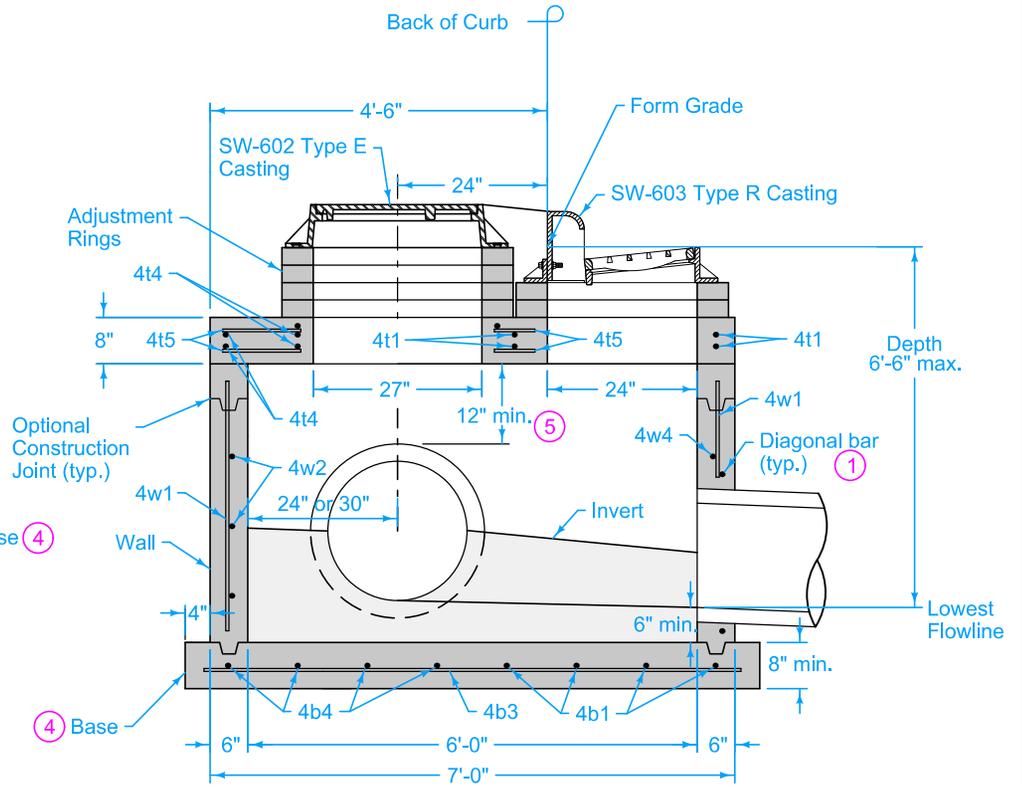
- ① Install four #4 diagonal bars at manhole opening and at all pipe openings.
- ② If Wall 1 is widened to 4 feet, the maximum pipe diameter can be increased to 36 inches.
- ③ If Wall 1 is widened to 4 feet, the maximum pipe diameter in Wall 3 can be increased to 42 inches.

MAXIMUM PIPE DIAMETERS	
Wall	Max. Dia.
1	30" ②
2	24"
3	36" ③
4	42"

SUDAS	IOWADOT	REVISION
		2 04-18-17
FIGURE 6010.506	STANDARD ROAD PLAN	SW-506
		SHEET 1 of 2
<small>REVISIONS: Clarified structure and pipe dimensions adjusted to allow for larger pipe.</small>		
<i>Paul D. Wigand</i> SUDAS DIRECTOR		<i>Brian Smith</i> DESIGN METHODS ENGINEER
DOUBLE GRATE INTAKE WITH MANHOLE		



SECTION A-A



SECTION B-B

REINFORCING BAR LIST

Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Top	—	4	7'-4"	See Detail
4t2	4	Top	—	4	6'-8"	See Detail
4t3	4	Top	—	4	2'-8"	See Detail
4t4	4	Top	—	8	3'-8"	12"
4t5	4	Top	—	6	4'-2"	12"
4b1	4	Base	—	4	7'-10"	12"
4b2	4	Base	—	4	3'-2"	12"
4b3	4	Base	—	5	7'-2"	12"
4b4	4	Base	—	4	4'-2"	12"
4w1	4	Walls	—	29	Wall Height minus 4"	12"
4w2	4	Wall 2	—	Varies	3'-8"	12"
4w3	4	Walls 1 and 3	—	Varies	6'-8"	12"
4w4	4	Wall 4	—	Varies	7'-4"	12"
4w5	4	Wall 5	—	Varies	2'-8"	12"
4w6	4	Wall 6	—	Varies	3'-10"	12"

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

SUDAS IOWADOT	REVISION 2 04-18-17
	FIGURE 6010.506 STANDARD ROAD PLAN SW-506 SHEET 2 of 2
REVISIONS: Clarified structure and pipe dimensions adjusted to allow for larger pipe.	
<i>Paul D. Wigand</i> SUDAS DIRECTOR	
<i>Brian Smith</i> DESIGN METHODS ENGINEER	
DOUBLE GRATE INTAKE WITH MANHOLE	