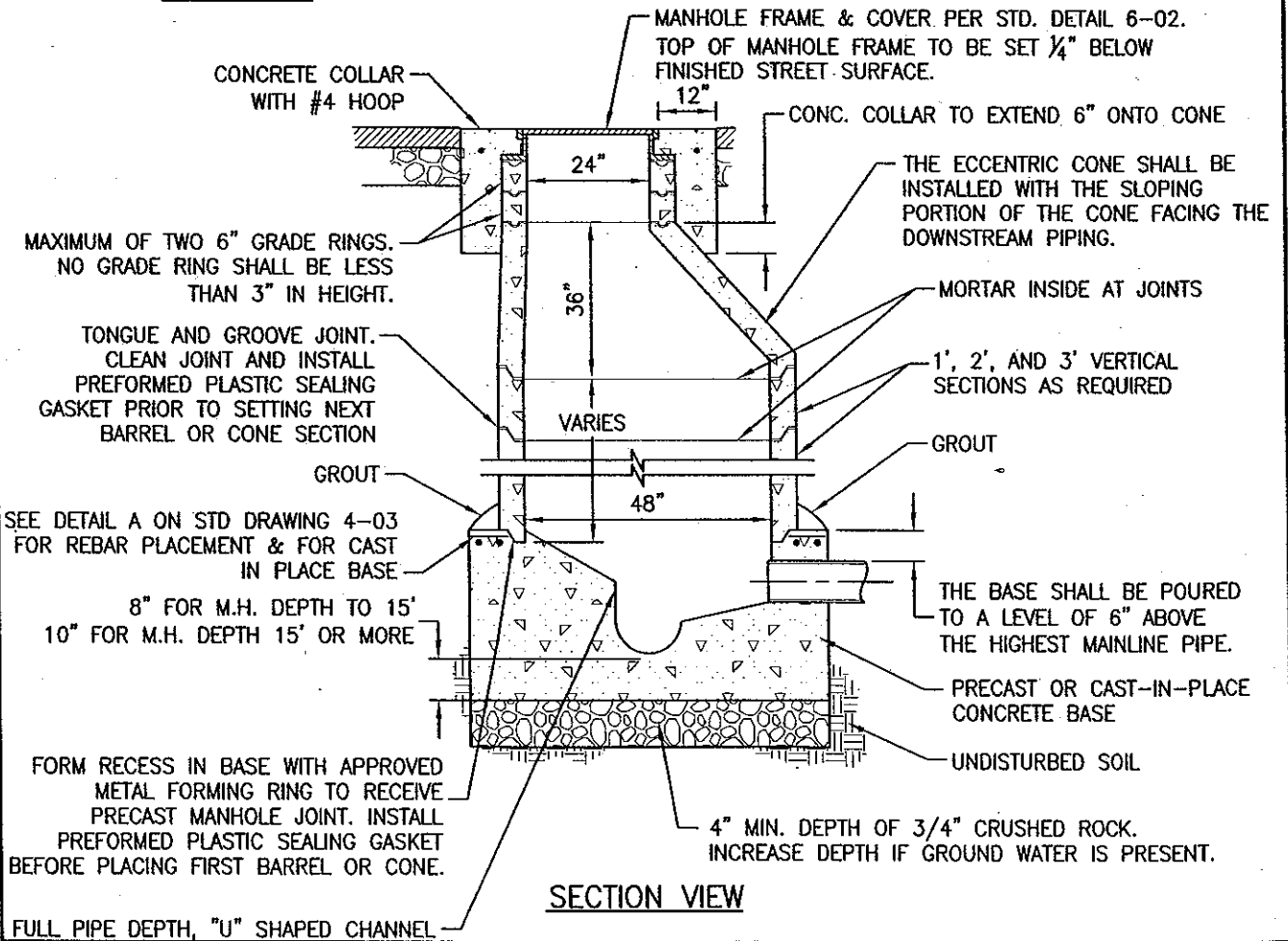


NOTES:

1. THE GRADE RING, ECCENTRIC CONE, VERTICAL WALL SECTION, AND BASE SHALL HAVE A MINIMUM WALL THICKNESS OF 5" AND SHALL BE PRECAST CONCRETE CONFORMING TO ASTM SPECIFICATION C478. THE BASE MAY BE CAST IN PLACE IN LIEU OF PRECAST.
2. ALL CAST-IN-PLACE CONCRETE SHALL CONSIST OF A MINIMUM OF 564 POUNDS OF PORTLAND CEMENT PER CUBIC YARD AND HAVE A MINIMUM STRENGTH OF 3000 PSI.
3. EXCAVATIONS FOR MANHOLES SHALL BE BACKFILLED AS FOLLOWS:
 - A. CLASS II AGGREGATE BASE ROCK COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION WITHIN EXISTING PAVED AREAS.
 - B. CLEAN NATIVE MATERIAL COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION, BETWEEN 2% TO 4% OF OPTIMUM MOISTURE CONTENT, WITHIN UNPAVED AND NEW PAVED AREAS.

PLAN VIEW



SECTION VIEW

DWG File: C:\CIP\600\std653 - Standard Drawings\AutoCad - All Current - Standard Drawings - 6-01.DWG

MAXIMUM OF TWO 6" GRADE RINGS. NO GRADE RING SHALL BE LESS THAN 3" IN HEIGHT.

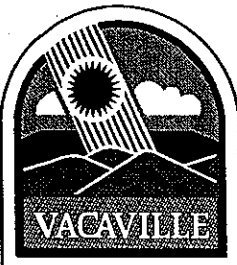
TONGUE AND GROOVE JOINT. CLEAN JOINT AND INSTALL PREFORMED PLASTIC SEALING GASKET PRIOR TO SETTING NEXT BARREL OR CONE SECTION

SEE DETAIL A ON STD DRAWING 4-03 FOR REBAR PLACEMENT & FOR CAST IN PLACE BASE

8" FOR M.H. DEPTH TO 15'
10" FOR M.H. DEPTH 15' OR MORE

FORM RECESS IN BASE WITH APPROVED METAL FORMING RING TO RECEIVE PRECAST MANHOLE JOINT. INSTALL PREFORMED PLASTIC SEALING GASKET BEFORE PLACING FIRST BARREL OR CONE.

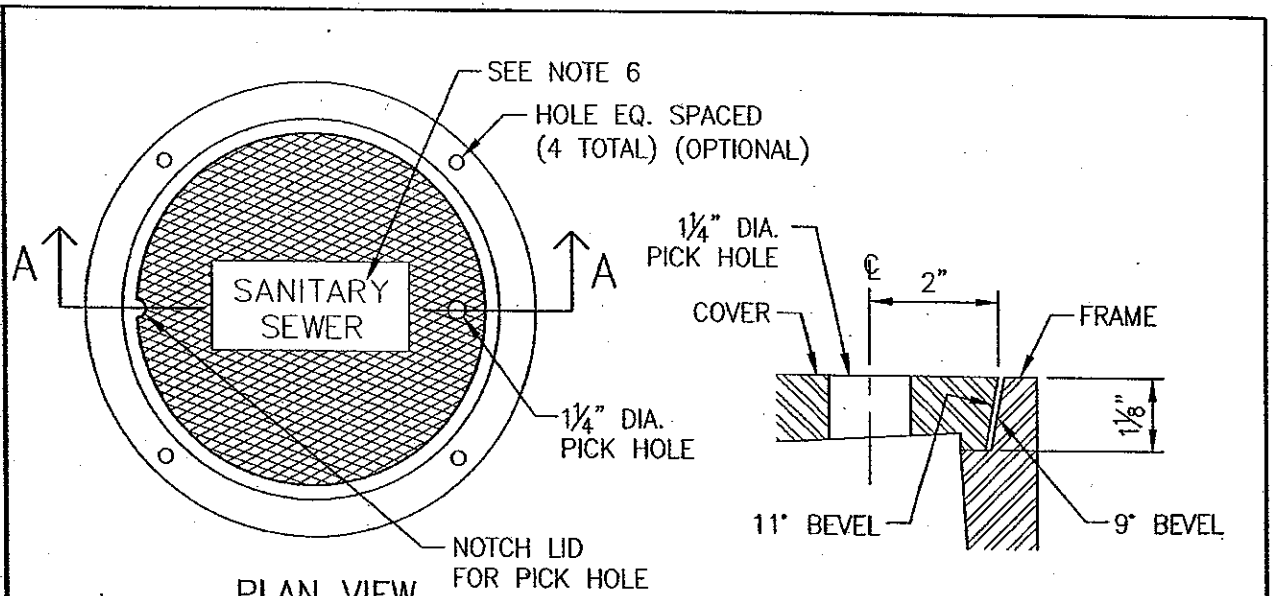
FULL PIPE DEPTH, "U" SHAPED CHANNEL



DRAWING NO.:	6-01
DATE:	01/05/07
SCALE:	NONE
APPROVED BY:	
DIRECTOR OF PUBLIC WORKS	R.C.E. C24974

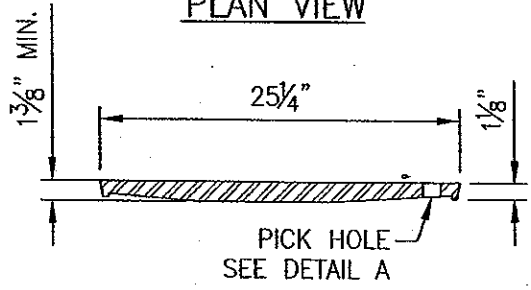
**CITY OF VACAVILLE
STANDARD DRAWING**

**STANDARD SANITARY SEWER
ECCENTRIC MANHOLE
(MAXIMUM SEWER SIZE OF 24" DIAMETER)**

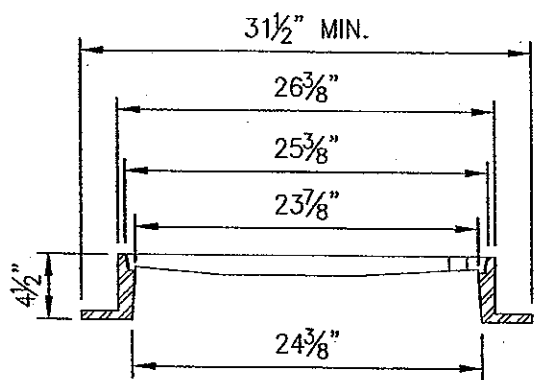


PLAN VIEW

DETAIL A



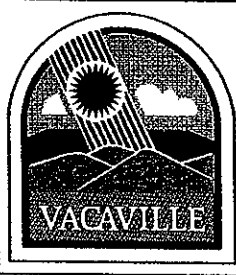
SECTION A-A
COVER



SECTION A-A
FRAME

NOTES:

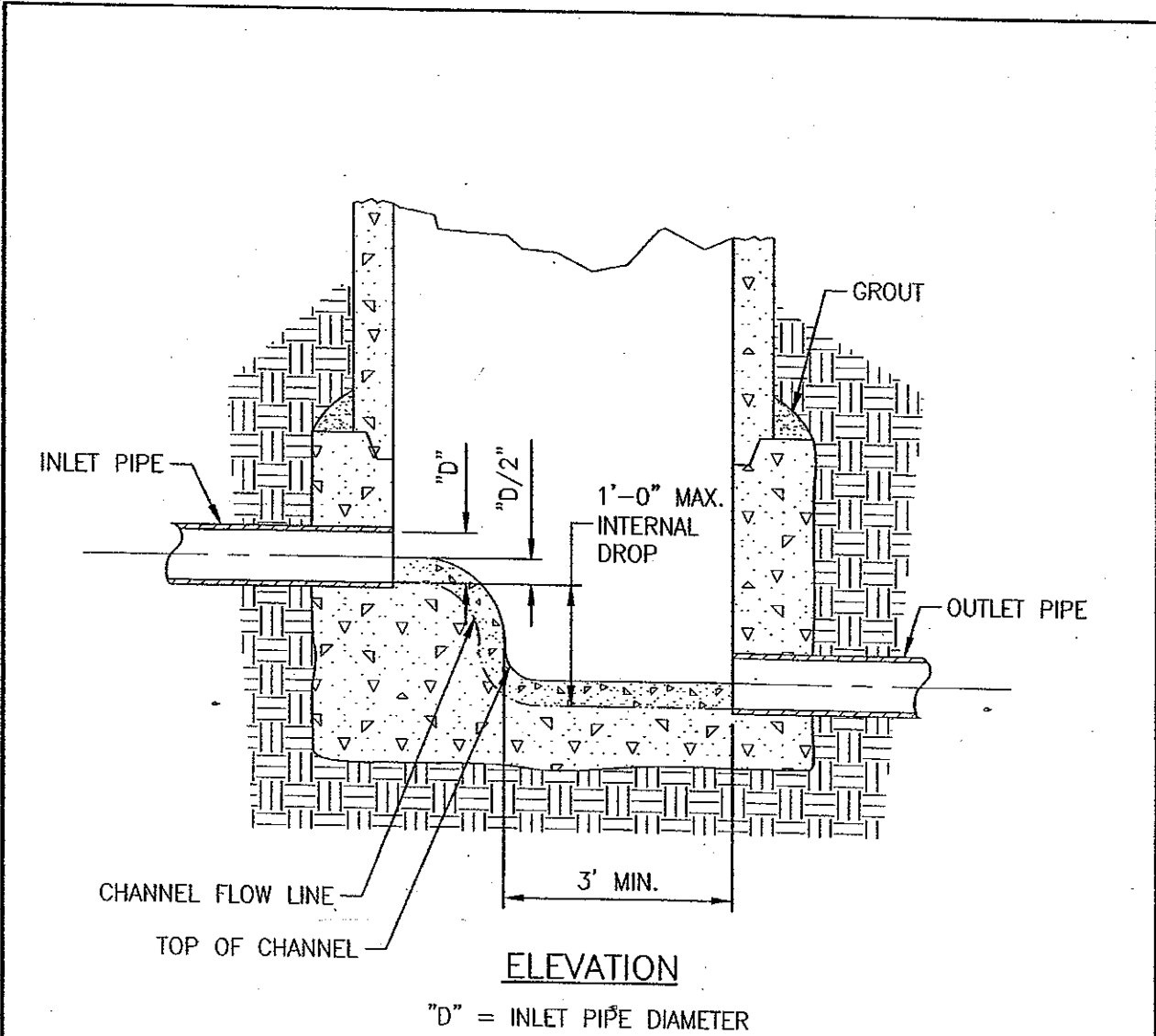
1. ALL CASTINGS TO CONFORM TO ASTM A48, CLASS 30
2. FRAME AND COVER TO MEET H-20 LOAD AND SPECIFICATIONS.
3. MACHINE HORIZONTAL AND VERTICAL BEARING SURFACES NOT TO EXCEED 1/16" TOLERANCE.
4. FRAME AND COVER SHALL HAVE A COATING OF BITUMINOUS MATERIAL.
5. EQUIVALENT DUCTILE IRON FRAME AND COVER MAY BE USED.
6. COVERS SHALL BE LABELLED "SANITARY SEWER" OR "STORM DRAIN" DEPENDING ON ITS USE.



DRAWING NO.: 6-02
DATE: 04/12/05
SCALE: NONE
APPROVED BY: *Paul J. How* R.C.E. C59003
DEPUTY DIRECTOR OF PUBLIC WORKS
ENGINEERING SERVICES

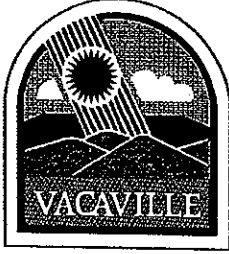
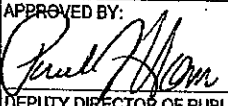
CITY OF VACAVILLE
STANDARD DRAWING

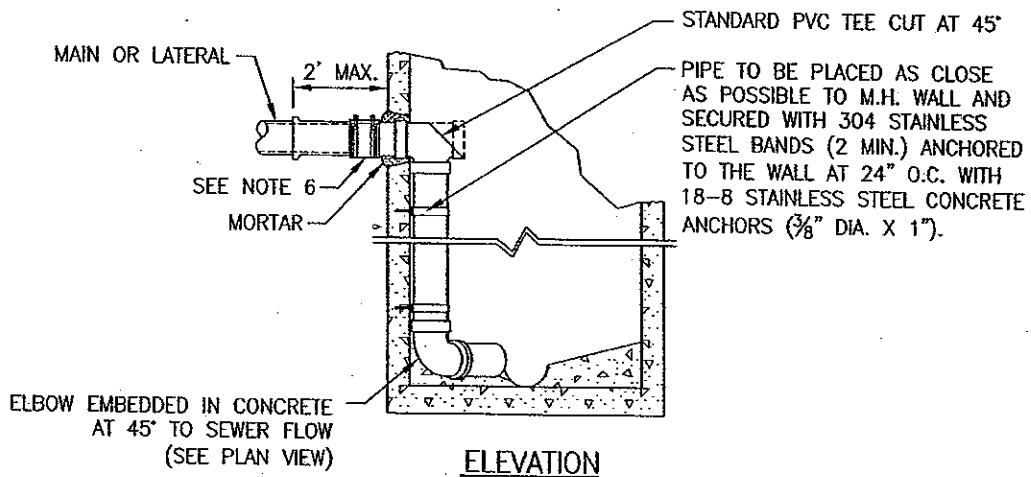
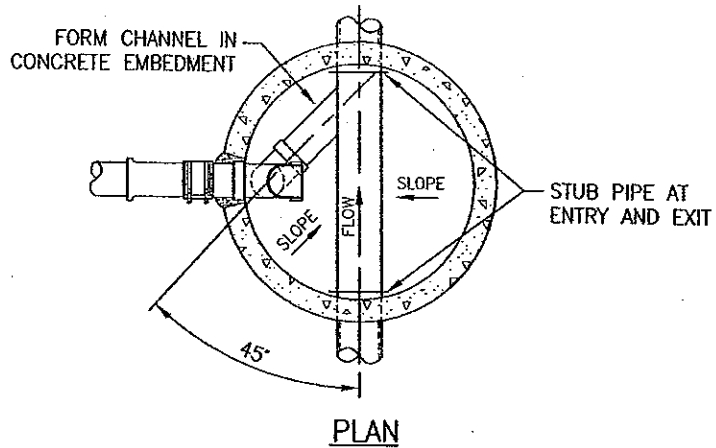
MANHOLE
FRAME AND COVER



NOTES:

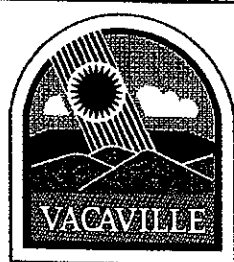
1. THIS DETAIL IS TO BE USED IN CONJUNCTION WITH STANDARD DETAIL NO. 6-01 FOR SPECIFIC CONSTRUCTION REQUIREMENTS.
2. INTERNAL DROPS IN EXCESS OF 1' SHALL BE MADE IN ACCORDANCE WITH STANDARD DETAIL NO. 6-04 UNLESS OTHERWISE APPROVED BY THE DIRECTOR OF PUBLIC WORKS.

	DRAWING NO.: 6-03	<h2 style="margin: 0;">CITY OF VACAVILLE</h2> <h3 style="margin: 0;">STANDARD DRAWING</h3>
	DATE: 04/12/05	
	SCALE: NONE	
APPROVED BY:	 <small>R.C.E. C59003</small> DEPUTY DIRECTOR OF PUBLIC WORKS ENGINEERING SERVICES	<h2 style="margin: 0;">ALLOWABLE DROP IN SANITARY SEWER MANHOLE</h2>



NOTES:

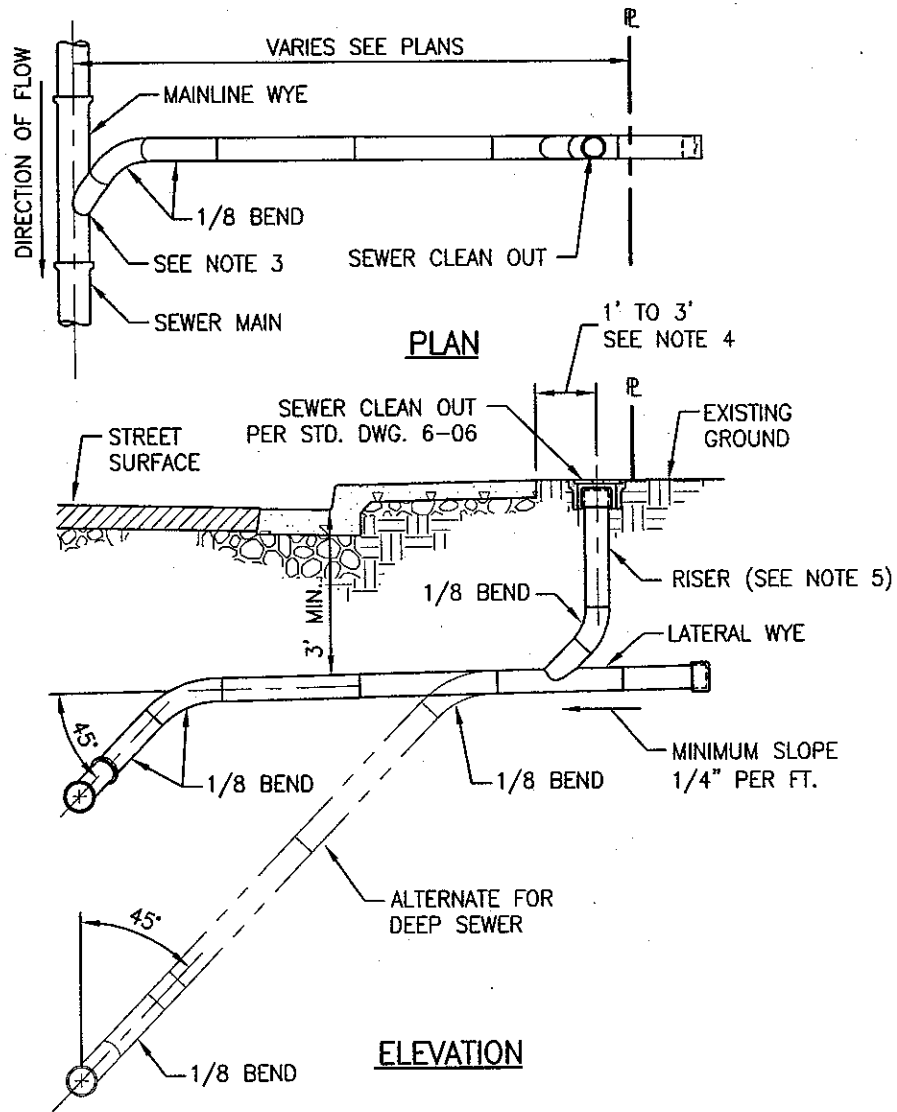
1. DETAIL TO BE USED ONLY WHEN APPROVED BY THE DIRECTOR OF PUBLIC WORKS.
2. ALL DROP PIPING TO BE PVC (SDR26). REMOVE BELL.
3. TEE AND ELBOW TO BE PVC (MINIMUM SDR35) WITH SOLVENT WELD JOINTS.
4. GLUE ALL JOINTS.
4. DROP CONNECTION PIPE AND FITTINGS TO BE SAME SIZE AS LATERAL.
5. MAXIMUM SIZE FOR MAIN OR LATERAL DROPPING INTO MANHOLE IS 10" DIAMETER.
6. MISSION, FERNCO, OR EQUAL FLEXIBLE RUBBER COUPLING WITH STAINLESS STEEL SHEAR BAND REQUIRED IF MAIN OR LATERAL IS NOT PVC MATERIAL.



DRAWING NO.: 6-04
 DATE: 04/12/05
 SCALE: NONE
 APPROVED BY: *Paul J. Horn*
 R.C.E. C59003
 DEPUTY DIRECTOR OF PUBLIC WORKS
 ENGINEERING SERVICES

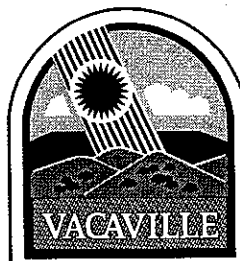
**CITY OF VACAVILLE
 STANDARD DRAWING**


**INSIDE DROP CONNECTION
 FOR SANITARY SEWER MANHOLE**



NOTES:

1. LATERAL WYE, 1/8 BEND AND FITTINGS SHALL BE EITHER PVC (MINIMUM SDR26) OR VCP (EXTRA STRENGTH).
2. WHEN DIRECTED BY THE DIRECTOR OF PUBLIC WORKS OR AS SHOWN ON THE PLANS, THE LATERAL SHALL BE LOWER WHERE NECESSARY TO SERVE EXISTING PLUMBING OR LOW LOTS.
3. IF MAIN AND LATERAL ARE DISSIMILAR MATERIAL CUT OFF BELL ON BRANCH SIDE OF MAINLINE WYE AND INSTALL A MISSION, FERNCO, OR EQUAL FLEXIBLE RUBBER COUPLING WITH STAINLESS STEEL SHEAR BAND.
4. THE CENTER OF CLEANOUT SHALL BE LOCATED 1' TO 3' BEHIND FACE OF CURB WHERE THE SIDEWALK IS NOT ATTACHED TO THE CURB.
5. THE RISER SHALL BE THE SAME MATERIAL AS THE SERVICE LATERAL. SEE SEWER CLEAN OUT STANDARD DRAWING 6-06.



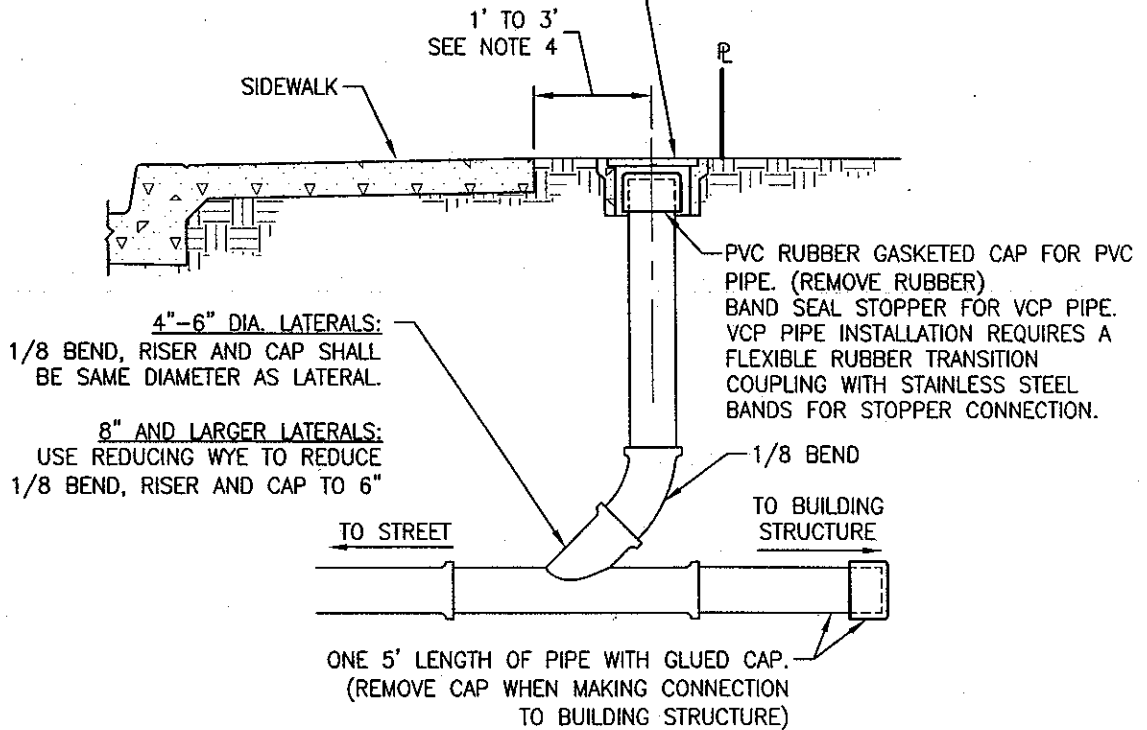
DRAWING NO.: 6-05
 DATE: 02/13/06
 SCALE: NONE
 APPROVED BY:

 R.C.E. C51420
 DEPUTY DIRECTOR OF PUBLIC WORKS
 ENGINEERING SERVICES

CITY OF VACAVILLE
STANDARD DRAWING

STANDARD
SANITARY SEWER LATERAL

4" DIA. CLEAN OUT: USE CHRISTY F8 BOX WITH F8C (CAST IRON) LID MARKED "SEWER". (SEE NOTE 1)

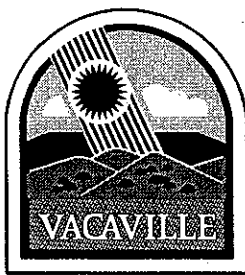
6" DIA. CLEAN OUT: USE G12 BOX AND G12C LID MARKED "SEWER". (SEE NOTE 1)



ELEVATION

NOTES:

1. CLEAN OUTS LOCATED IN SIDEWALK OR DRIVEWAY AREA MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND SHALL INCLUDE A TRAFFIC RATED BOX AND LID.
2. NEW CLEAN OUT INSTALLED WITH NEW LATERAL SHALL BE OF THE SAME MATERIAL AS THE SERVICE LATERAL, EITHER VCP (EXTRA STRENGTH) OR PVC (SDR 26) PIPING AND FITTINGS.
3. NEW CLEAN OUT ON EXISTING LATERAL SHALL BE PVC RUBBER GASKETED PUSH ON JOINTS OR VCP WITH BELL AND SPIGOT COMPRESSION JOINTS.
4. INSTALL A FERNCO, MISSION OR EQUAL FLEXIBLE RUBBER TRANSITION COUPLING WITH BUSHING AND STAINLESS STEEL SHEAR BAND WHEREVER PIPE CONNECTIONS ARE MADE WITH DISSIMILAR PIPE MATERIAL.
5. THE CENTER OF CLEAN OUT SHALL BE LOCATED 1' TO 3' BEHIND FACE OF CURB WHERE SIDEWALK IS NOT ATTACHED TO THE CURB.



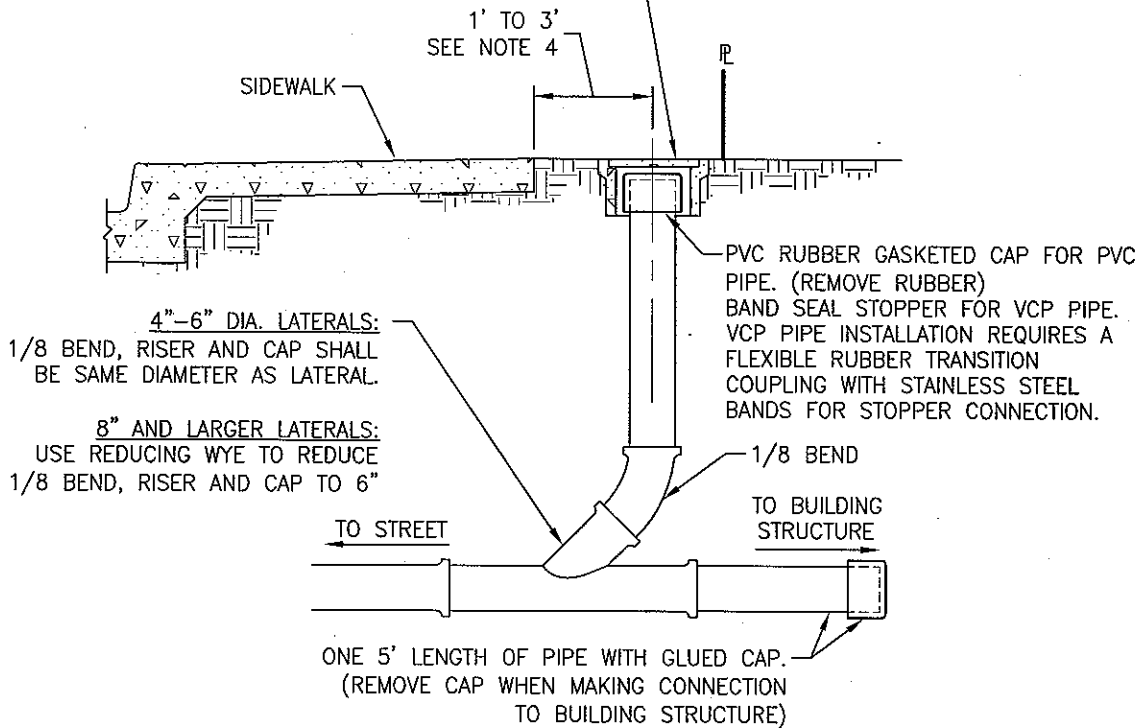
DRAWING NO.:	6-06
DATE:	06/13/06
SCALE:	NONE
APPROVED BY:	<i>[Signature]</i> R.C.E. C51420 DEPUTY DIRECTOR OF PUBLIC WORKS ENGINEERING SERVICES

**CITY OF VACAVILLE
STANDARD DRAWING**

**STANDARD SANITARY
LATERAL CLEAN OUT**

4" DIA. CLEAN OUT: USE CHRISTY F8 BOX WITH F8C (CAST IRON) LID MARKED "SEWER". (SEE NOTE 1)

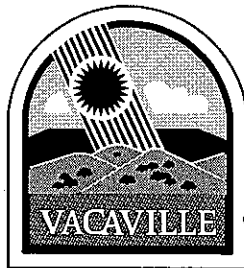
6" DIA. CLEAN OUT: USE G12 BOX AND G12C LID MARKED "SEWER". (SEE NOTE 1)



ELEVATION

NOTES:

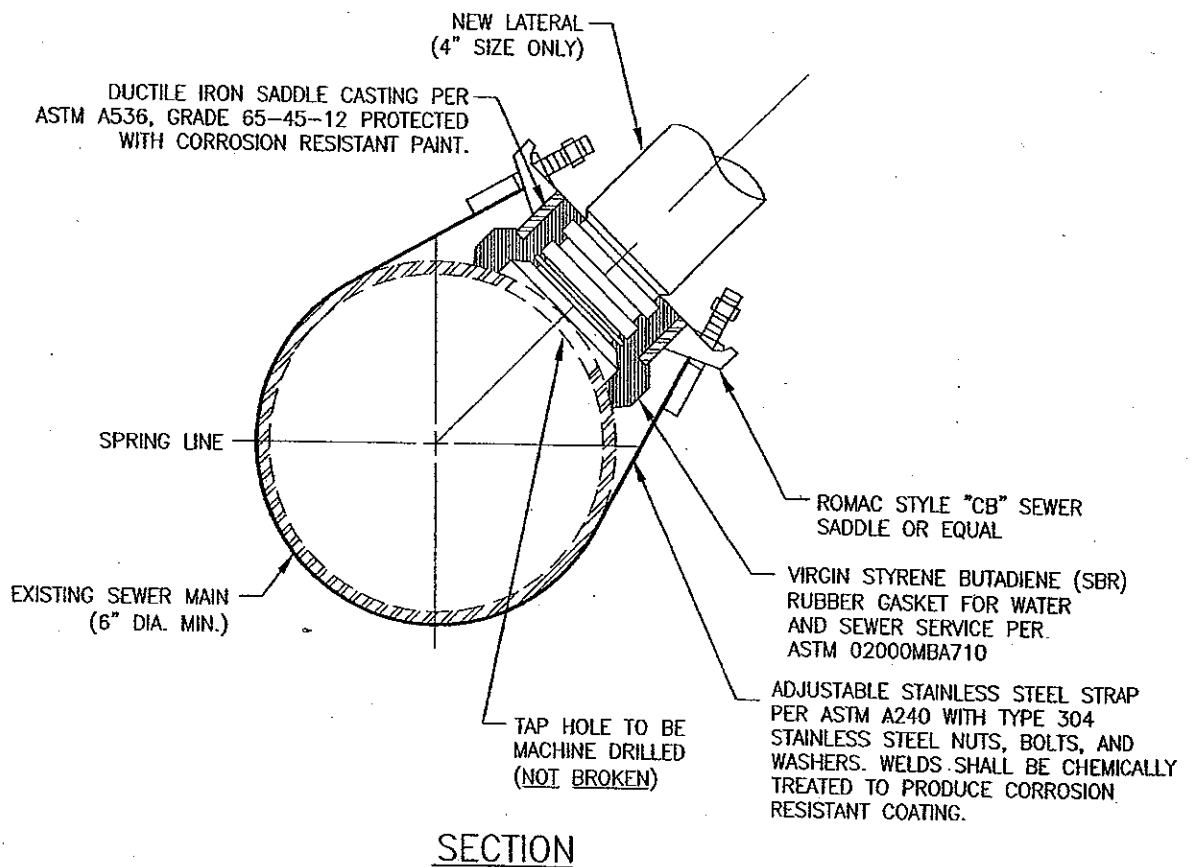
1. CLEAN OUTS LOCATED IN SIDEWALK OR DRIVEWAY AREA MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND SHALL INCLUDE A TRAFFIC RATED BOX AND LID.
2. NEW CLEAN OUT INSTALLED WITH NEW LATERAL SHALL BE OF THE SAME MATERIAL AS THE SERVICE LATERAL, EITHER VCP (EXTRA STRENGTH) OR PVC (SDR 26) PIPING AND FITTINGS.
3. NEW CLEAN OUT ON EXISTING LATERAL SHALL BE PVC RUBBER GASKETED PUSH ON JOINTS OR VCP WITH BELL AND SPIGOT COMPRESSION JOINTS.
4. INSTALL A FERNCO, MISSION OR EQUAL FLEXIBLE RUBBER TRANSITION COUPLING WITH BUSHING AND STAINLESS STEEL SHEAR BAND WHEREVER PIPE CONNECTIONS ARE MADE WITH DISSIMILAR PIPE MATERIAL.
5. THE CENTER OF CLEAN OUT SHALL BE LOCATED 1' TO 3' BEHIND FACE OF CURB WHERE SIDEWALK IS NOT ATTACHED TO THE CURB.



DRAWING NO.: 6-06
 DATE: 02/13/06
 SCALE: NONE
 APPROVED BY: *[Signature]* R.C.E. C51420
 DEPUTY DIRECTOR OF PUBLIC WORKS
 ENGINEERING SERVICES

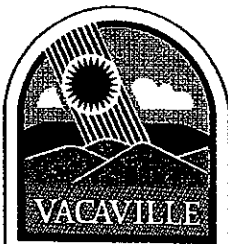
CITY OF VACAVILLE
STANDARD DRAWING

STANDARD SANITARY
LATERAL CLEAN OUT



NOTES:

1. FOR USE ON EXISTING SEWER MAINS ONLY. IN NEW CONSTRUCTION, WYES ARE TO BE USED FOR ALL CONNECTIONS TO THE MAIN.
2. USE OF PREFABRICATED WYES & TEES MUST BE APPROVED BY DIRECTOR OF PUBLIC WORKS..
3. INVERT OF TAP SHALL BE ABOVE SPRING LINE OF MAIN.
4. SEE STANDARD DETAIL 6-05 FOR SEWER SERVICE LATERAL.



DRAWING NO.:	6-07
DATE:	04/12/05
SCALE:	NONE
APPROVED BY:	<i>Paul J. Am</i> R.C.E. C59003
DEPUTY DIRECTOR OF PUBLIC WORKS ENGINEERING SERVICES	

CITY OF VACAVILLE
STANDARD DRAWING

SANITARY SEWER MAIN TAPS