SECTION 2000

SEWER
CONSTRUCTION STANDARDS

SECTION 2000 – SEWER

2000 Standard Manhole Frame and Cover and Reinforced Concrete Collar

2001 (2 Sheets) Standard Cast in Place Manhole for Sewer – Revised 12/03/07

2002 Standard Drop Manhole for 6” to 36” Pipe

2003 Typical Sewer Manhole Bases – Revised 5/12/16

2004 Sewer Terminal Cleanout

2005 Sewer Lateral House Cleanout – Revised 12/15/14

2006 Concrete Sewer Cleanout Box

2007 Plastic Sewer Cleanout Box

2008 (2 Sheets) Sewer Saddle
PLAN

MANHOLE FRAME & COVER
ALHAMBRA FOUNDRY CO. LTD.
NO. A-1170 OR EQUAL

TO SURFACE

INNER PAN
ALHAMBRA FOUNDRY CO. LTD.
NO. A-1172 OR EQUAL

NOTE:
NOT TO BE FURNISHED UNLESS CALLED FOR IN SPECIFICATIONS.

SECTION A-A

NOTES:

A) SAME AS EXISTING - 1" MIN.

B) NO MORE THAN 12" OF GRADE RINGS ALLOWED FOR A MAXIMUM OF 18" FROM TOP OF MANHOLE BARREL.
CONCRETE SHALL BE PLACED FROM 2" BELOW GRADE RING TO 2" BELOW MANHOLE BARRELL AND SHALL ENCAPSULATE ALL GRADE RINGS.

CITY OF FONTANA
STD. MANHOLE FRAME & COVER AND REINFORCED CONCRETE COLLAR

CITY ENGINEER
RICARDO SANDOVAL
REVIEWED BY: 
REVOLUTION NUMBER:

APPROVED BY:

07/10/06
STD. PLAN NO. 2000  SHT 1 OF 1
ALL MANHOLE BOTTOMS ARE POUR IN PLACE USING 560-C-3250 CONCRETE

SECTION OF TOP RINGS (PRE-CAST R.C.)
NOTES:

1. SEE STANDARD DETAILS NOS. 2002 & 2003 FOR DROP & TYPICAL SEWER MANHOLE BASES DETAILS.

2. ECCENTRIC CONE MAY BE USED IN LIEU OF CONCENTRIC CONES.

3. THE LOWEST MANHOLE STEP SHALL BE PLACED NOT LESS THAN 16" NOT MORE THAN 24" ABOVE SHELF.

4. THE UPPER MANHOLE STEP SHALL BE PLACED BETWEEN THE TOP OF THE MANHOLE AND THE MANHOLE COVER FRAME AND SHALL PROJECT NOT MORE THAN 3" INSIDE MANHOLE.

4. ALL JOINTS SHALL BE MORTARED.

5. 3/4" DIAMETER GALVANIZED IRON STEP OR PLASTIC STEPS PER ASTM A-82, ASTM C-478, ASTM TYPE II GRADE 43758.
NOTE:
MANHOLE STEPS TO BE INSTALLED ON THE UPSTREAM SIDE ONLY

SCALE: 1" = 2'

CITY OF FONTANA
TYPICAL SEWER MANHOLE BASES

APPROVED BY: RICARDO SANDOVAL
CITY ENGINEER
No. 51152
CIVIL

REVIEWED BY:

REVISION NUMBER: 05/12/16

STD. PLAN NO. 2003 SHT 1 OF 1
STREET SURFACE

COMPACTED EARTH

1/8" BEND

USE MANUFACTURERS APPROVED CAP.

SECTIONAL ELEVATION

NOTES:

1. CLEANOUT FRAME & COVER, ALHAMBRA FOUNDRY NO. A-1240 OR EQUAL.

2. 3250 PSI P.C.C. TO BE USED IN ALL SEWER CONSTRUCTION.

3. THE MAXIMUM DISTANCE TO MANHOLE DOWNSTREAM SHALL BE 150'.

SECTION A-A

CITY OF FONTANA

SEWER TERMINAL CLEANOUT

APPROVED BY: RICARDO SANDOVAL
CITY ENGINEER
DATE 10-18-06
REVIEWS BY: 07-06
DATE OF LAST REVISION: 07-06

STANDARD PLAN NO. 2004 SHT 1 OF 1
NOTE:
1. SEE PLAN FOR STATION AND INVERT ELEVATION.

CONSTRUCTION NOTES:

1. RESIDENTIAL SEWER SHALL BE 4" MINIMUM, ABS OR APPROVED EQUAL.
2. ALL APARTMENT, COMMERCIAL SEWER CONNECTIONS SHALL BE 6" V.C.P. SEWER LATERAL WITH ABS RISER.
3. BACKFILL SHOULD BE UNIFORMLTY GRADED AND FREE OF ROCKS, STONES, ETC. GREATER THAN TWO (2) INCHES IN DIAMETER.
4. CONCRETE BOX SHALL BE INSTALLED WHENEVER LATERAL RISER WILL BE IN A CONCRETE AREA, ie, DRIVEWAY. SEE STANDARD 2006.
6. JIM CAP BAND AND SEAL CAP. NO SCREW CAPS.
7. AFTER SEWER CONNECTION IS MADE VIDEO INSPECTION WILL BE REQUIRED FOR SUBMITTAL AND APPROVAL. VIDEO FOOTAGE SHALL PROVIDE CLEAR VIEW OF INSIDE DIAMETER OF PIPE, WITH THE ABILITY TO IDENTIFY CRACKS, OFFSETS, SAGS, OR IMPERFECTIONS.
8. BACKFILL WITH STD 1908.

CITY OF FONTANA
SEWER LATERAL CLEANOUT

APPROVED BY: RICARDO SANDOVAL
CITY ENGINEER

REVIEWS BY: J.W.

REVISION NUMBER: 2

12/6/2014

STD. PLAN NO. 2005 SHT 1 OF 1
1. THE CLEANOUT BOX TO BE A BROOKS NO. 37 WITH CAST IRON COVER OR EQUAL.

2. BOX TO BE INSTALLED TO ALLOW MAXIMUM ACCESS TO PROPERTY LINE CLEANOUT.

3. THIS CONCRETE BOX IS TO BE INSTALLED WHENEVER THE V.C.P. LATERAL RISER WILL BE IN A CONCRETE AREA, ie. DRIVEWAY, SIDEWALK.

CITY OF FONTANA

CONCRETE SEWER CLEANOUT BOX
1419 OR 1419T SERIES COVER

1419 SERIES BODY

1. THE CLEANOUT BOX TO BE A BROOKS NO. 1419 SERIES WITH PLASTIC COVER OR EQUAL.
2. BOX TO BE INSTALLED TO ALLOW MAXIMUM ACCESS TO PROPERTY LINE CLEANOUT.
3. THIS PLASTIC BOX IS TO BE INSTALLED WHENEVER THE V.C.P. LATERAL RISER WILL BE IN A LANDSCAPE AREA.

NOT TO SCALE
PLAN VIEW

1/8 BEND

WHERE AN 1/8 BEND IS NOT USED A ONE FOOT PIECE IS REQUIRED OUT OF TEE

MACHINE TAPPED HOLE

EXIST. V.C.P. SEWER MAIN

STD V.C.P. COLLAR TEE SADDLE OR APPROVED EQUAL EPOXYED IN PLACE PRIOR TO ENCASEMENT

CLASS "B" CONCRETE ENCASEMENT 12" MIN. EACH SIDE OF SADDLE

V.C.P. SADDLE CONNECTION

NOT TO SCALE
NOTES:

1. A WYE OR TEE SADDLE SHALL BE INSTALLED BY CUTTING A NEAT HOLE CONFORMING TO THE INSIDE DIAMETER OF THE SADDLE WHEN USING A SADDLE WITHOUT COLLAR AS SHOWN IN EPOXY RESIN JOINT DETAIL. WHEN USING A SADDLE WITH COLLAR THE DIAMETER OF THE HOLE SHALL BE OUTSIDE DIAMETER PLUS 1/8" AS SHOWN IN CEMENT COLLAR JOINT DETAIL.

2. BROKEN PIECES FROM CUTTING OF THE MAIN LINE SEWER MUST BE EXTRACTED CAREFULLY PRIOR TO PLACEMENT OF THE SADDLE.

3. THE SADDLE SHALL BE CEMENTED INTO PLACE USING CLASS "D" CEMENT MORTAR OR OTHER CEMENTING AGENT APPROVED BY THE DEPARTMENT. THE SADDLE SHALL BE HELD SECURELY IN PLACE WHILE THE CEMENT OR OTHER APPROVED CEMENTING AGENT SETS. THE INSIDE OF THE JOINT BETWEEN PIPE AND SADDLE SHALL BE FILLED WITH CEMENTING MATERIAL AND NEATLY ROUNDED.