STANDARD PLANS
FOR SANITARY SEWER SYSTEMS

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## SANITARY SEWER DRAWINGS INDEX

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STANDARD MANHOLE

LAYTON CITY
STANDARD MANHOLE COVER
SEE ST-SS-04

2'-6' DIAMETER
STEPS

PREFORMED PLASTIC GASKETS OR CONCRETE MORTER
4', 5', OR 6' DIAMETER

MAXIMUM DEPTH (FROM FINISHED GRADE TO TOP OF PIPE) 20 FEET

MINIMUM DEPTH 5'

MINIMUM FROM BOTTOM OF SECTION TO TOP OF HIGHEST PIPE.

3/8" PLYWOOD
FLOOR LINE SLOPE 16:1

0.8D2 MAX
10" MIN

RUBBER BOOT MANHOLE COUPLING (FACTORY INSTALLED) W/STAINLESS STEEL DOUBLE STRAP

POUR MANHOLE BASE AFTER PIPES ARE IN PLACE. IF PRE-FORMED BASE IS USED AS ALTERNATIVE TO Poured BASE, PROVIDE FOUNDATION OF CLASS I MATERIAL 1.5' DEEP UNDER BASE.

NOTES:
1. FURNISH AND INSTALL 3/4" PLYWOOD FALSE BOTTOM COVER IN ALL NEW OR EXISTING MANHOLES AROUND WHICH GRADING OR SURFACING IS BEING PERFORMED.
2. IF MANHOLE IS TO BE Poured IN PLACE FOLLOW SAME PATTERN AS SHOWN EXCEPT USE 8" MIN. WALL THICKNESS.
3. PROVIDE STUBS WHERE SHOWN ON THE PLAN DRAWINGS.
4. MANHOLES MAY BE 4', 5', OR 6' AS SHOWN ON THE PLAN DRAWINGS.
5. PROVIDE FLEXIBLE JOINTS IN PIPELINES, 18" FROM OUTSIDE FACE OF MANHOLE.
6. AFTER ALL GRADING AROUND MANHOLE HAS BEEN COMPLETED AND FINAL SURFACING IS IN PLACE, REMOVE DEBRIS AND TEMPORARY FALSE BOTTOM COVER.
STANDARD CONNECTION TO EXISTING MANHOLE

NOTES:
1. FURNISH AND INSTALL 3/4" PLYWOOD FALSE BOTTOM COVER IN ALL NEW OR EXISTING MANHOLES AROUND WHICH GRADING OR SURFACING IS BEING PERFORMED.

2. MANHOLES MAY BE 4', 5', OR 6' AS SHOWN ON THE PLAN DRAWING.

3. PROVIDE FLEXIBLE JOINTS IN PIPELINES, 18" FROM OUTSIDE FACE OF MANHOLE.

4. AFTER ALL GrADING AROUND MANHOLE HAS BEEN COMPLETED AND FINAL SURFACING IS IN PLACE, REMOVE DEBRIS AND TEMPORARY FALSE BOTTOM COVER.

DRAWN BY
DHR
SCALE
NONE
DATE
3/96
REVISIONS

STANDARD DRAWING
MH-EX-CONN
ST-SS-02
DROP MANHOLE
WITH MANHOLE ON OUTSIDE
DROP WITH 45° ON DROP

CONSTRUCT NEW 4' Ø MANHOLE
NEXT TO STANDARD MANHOLE AND OVER
NEW OUTSIDE DROP. MANHOLE BOTTOM
TO MATCH FL OF EXISTING PIPE. SEE
STANDARD MANHOLE DRAWING (ST-SS-01).

CUT AWAY TOP OF PIPE
TO ACCESS FOR CLEANING

INSTALL 45° BEND
IN MANHOLE

3.50'

VERTICAL
PIPE

FLOW

MODIFY TROUGH AS NECESSARY.

SEE STANDARD MANHOLE
DRAWINGS ST-SS-01 AND
ST-SS-02 FOR MANHOLE
DIMENSIONS AND DETAILS.
MANHOLE COVER

STANDARD MANHOLE FRAME AND COVER EQUAL TO D & L SUPPLY A-1180 MANHOLE RING & COVER (VENTED).

PLAN RING & COVER

MARK "SEWER"

SECTION

CONCRETE COLLAR

12" MAX. 8" MIN. FINISH GRADE

DETAIL UNIMPROVED AREAS

NOTE: CONTRACTOR SHALL POUR A CONCRETE COLLAR (MIN. 12") AROUND THE CAST IRON RING, EVEN WHEN THE MANHOLE IS LOCATED IN AN UNIMPROVED LOCATION.
MANHOLE & VALVE BOX MARKER

ORANGE TRIANGLE W/ REFLECTIVE TAPE BOTH SIDES OF PIPE

1 1/2" GALV. PIPE

6’ MIN.

CONCRETE FOOTING 2’ MIN. BURY

2’
STEEL CASING FOR SEWER PIPE

For casing length & invert elevation see plan & profile.

Seal each end of casing with neoprene rubber end seal with stainless steel bands CCI pipeline systems model ESC or ESW as applicable or acceptable equal at each end of casing.

Any voids created by boring, jacking, or tunneling shall be filled by pressure grouting.

Casing spacers CCI pipeline system model CSP or CSC or acceptable equal, minimum of three spacers per length of pipe to center the pipe inside the casing. Pipe throughout the length of the casing shall be at a continuous grade as shown in drawings.

Notes:
1. Casing pipes shall be required as indicated on the drawings and/or where required by the city engineer.
2. The casing pipe shall be sized with a diameter equal to the outside bell diameter of the carrier pipe plus a minimum 4 inches.
3. Carrier pipe shall be tested before sealing the ends of the casing.
4. Carrier pipe shall be joint restraint.
5. Spacers shall be securely attached to carrier pipe per manufacturer's requirements.
6. Casing pipe shall be welded steel, ASTM A53, grade B or approved equivalent.

Minimum wall thickness of casings:

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<tr>
<td>12&quot; &amp; under</td>
<td>0.188&quot;</td>
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<tr>
<td>14&quot; - 18&quot;</td>
<td>0.312&quot;</td>
</tr>
<tr>
<td>20&quot; - 22&quot;</td>
<td>0.375&quot;</td>
</tr>
<tr>
<td>24&quot; - 26&quot;</td>
<td>0.458&quot;</td>
</tr>
<tr>
<td>28&quot; - 32&quot;</td>
<td>0.500&quot;</td>
</tr>
<tr>
<td>34&quot; - 42&quot;</td>
<td>0.562&quot;</td>
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