VERTICAL OFFSET WATER AND SANITARY SEWER FACILITIES

CITY OF VIRGINIA BEACH • DEPARTMENT OF PUBLIC UTILITIES

REVISED: [Date]
APPROVED: 04/13/01

PU DETAIL NO. 23

GARY L. JONES, P.E.
ENGINEERING MANAGER

BENDS SHALL BE 45° UNLESS OTHERWISE SPECIFIED ON THE PLANS.

MECHANICAL JOINT-SOLID SLEEVE (TYPICAL EACH END)

SPLIT RING RETAINER GLAND

ADD SPLIT RING RETAINER GLANDS TO ALL EXISTING JOINTS WITHIN 'L', TYPICAL EACH END OVER AND UNDER OFFSET.

<table>
<thead>
<tr>
<th>SIZE (DIA.-INCHES)</th>
<th>4'</th>
<th>6'</th>
<th>8'</th>
<th>10'</th>
<th>12'</th>
<th>16'</th>
<th>18'</th>
<th>20'</th>
<th>24'</th>
</tr>
</thead>
<tbody>
<tr>
<td>LENGTH ('L'-FEET)</td>
<td>12'</td>
<td>17'</td>
<td>22'</td>
<td>26'</td>
<td>31'</td>
<td>39'</td>
<td>43'</td>
<td>47'</td>
<td>55'</td>
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</tbody>
</table>

*DESIGN CONDITION
PRESSURE - 150 PSI
SOIL TYPE - SILT
DEPTH OF COVER - 3 FEET

NOTES:
1. RETAINER GLANDS ARE REQUIRED AT EACH FITTING.
2. ALL PIPE AND FITTINGS SHALL BE DUCTILE IRON, MECHANICAL JOINT, CLASS 52 (MIN.). WATER MAIN AND FITTINGS SHALL BE CEMENT MORTAR LINED.
3. FOR 12' AND SMALLER LINES, MECHANICAL JOINT OFFSET FITTINGS MAY BE USED IN LIEU OF THE 45° BENDS SHOWN SUBJECT TO THE APPROVAL OF THE ENGINEER. IF USED, THE OFFSETS MUST RESULT IN THE CLEARANCES SHOWN BEING MET OR EXCEEDED.
4. EXISTING C.I. PIPE SHALL BE REPLACED WITH AN 8' MINIMUM LENGTH OF D.I. PIPE AT BOTH ENDS OF THE OFFSET AND RETAINER GLANDS INSTALLED.
5. THE EXISTING PIPE SHALL HAVE ALL JOINTS WITHIN THE LENGTH 'L' RESTRAINED BY ADDING A SPLIT RING RETAINER GLAND ('MEG-A-LUG' OR EQUAL) WITH BOLTS TO THE M.J. BELL.
6. LENGTH 'L' IN FEET SHALL CONFORM TO THE TABLE ABOVE.
7. SPLIT RING RETAINER GLANDS ARE FOR USE ON DUCTILE IRON MECHANICAL JOINT PIPE ONLY. IF EXISTING PIPE IS ANY OTHER MATERIAL, REMOVE AND REPLACE WITH D.I. MECHANICAL JOINT PIPE FOR THE LENGTH 'L' SPECIFIED*.
8. * REQUIRED RESTRAINING LENGTH (L) APPLIES FOR DESIGN CONDITION SPECIFIED.