# Concrete Headwall Installations

- **Pipe Diameter (and Equivalent Diameter) (In.)**
  - **Type**: Single Pipe
  - **Material**: Rigid, Flexible, Circular, ELLIPICAL, ARCH
  - **Pipe Diameter**: 18, 24, 30, 36, 42, 48

## Pipe Outlet Paving (Cubic Yards)

**Note**: Volume occupied by pipe has been deducted.

## Concrete Quantities for One Concrete Headwall (Cubic Yards)

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Material</th>
<th>18</th>
<th>24</th>
<th>30</th>
<th>36</th>
<th>42</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td>4' CONCRETE</td>
<td>0.4</td>
<td>0.8</td>
<td>1.2</td>
<td>1.3</td>
<td>1.4</td>
<td>1.5</td>
<td>1.6</td>
</tr>
<tr>
<td>4' RIPRAP</td>
<td>2.0</td>
<td>2.5</td>
<td>2.8</td>
<td>3.1</td>
<td>3.4</td>
<td>3.7</td>
<td>4.0</td>
</tr>
</tbody>
</table>

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## General Notes

1. For size and location of pipes, see the plans.
2. All concrete shall be Class B.
3. Footings in rock shall be placed out to rock and not formed in accordance with Subsection 601.09(b).
4. Exposed concrete corners shall be chamfered as shown.
5. Headwall shall have reinforcing steel installed in a pattern similar to Standard Plan M-601-10.
6. The cost of reinforcing steel shall be included in the work unless the steel quantities are listed in the plans and are paid for separately.

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**Pipe Outlet Paving May Be Used With Multiple Pipes**