**NOTES**

**LOCATION AND ELEVATION:** When given on the plans, the location and the elevation are at the top center of the grate. Place the office notes at the elevations as shown on the plans.

**WATER QUALITY BASIN**

**WQ-1.1**

**7-20-12**

**1-18-13**

**STANDARD HYDRAULIC CONSTRUCTION DRAWING**

**I:\ODOT\cad\Standards\ODOT\Sheets\SCD\Hydraulics\WQ-1.1_2013-01-18.dgn Sheet 1/27/2017 10:20:38 AM**

**J Young6**

**REVISIONS**

**ENGINEERING**

**HYDRAULIC OFFICE OF ENGINEERING**

**JEFFREY E. SYAR**

**TRANSPORTATION HYDRAULIC ENGINEER**

**STATE OF OHIO DEPARTMENT OF TRANSPORTATION**

**DIAMETER**

- Reinf. Steel [Optional]
- Precast Joint [Optional]
- Grate [Typ]

**COLUMNS**

- 4" (in.)
- 4" (in.)
- 3:1

**PERFORATED RISER**

**NOT TO SCALE**

**RETENTION RISER PIPE**

**NOT TO SCALE**

**RETENTION BASIN MATERIALS**

- Meet CMS 203.02 H, NATURAL, GRAVEL, MATERIALS and specified gradations for all aggregate shown.

**RISER PIPE**

- Use schedule 40 Polyvinyl Chloride Conduit with perforations only as detailed in the plans.

**TRASH SKIMMER**

- Use trash skimmer screens to protect the perforated riser. It must extend from the top of the riser to 2' below the permanent pool level and be open at the top and bottom. The radius of the trash skimmer is 3 times the diameter of the riser pipe or as shown on the plans. Provide stainless steel or galvanized steel trash skimmer per CMS 70.02. Maximum perforation size is 2 inches. Securely fasten trash skimmer to the basin using hardware galvanized per CMS 71.02.

**STABILIZER AND ANCHOR STRAP**

- Securely fasten the riser pipe to the basin in the vertical position using a stabilizer strap and a block. Use only galvanized or stainless steel for metal components. All other materials must be rot resistant.

**PAYMENT**

- All materials and labor, including excavation and backfill, are paid for at the contract price for Water Quality Basin, Retention (Detention).

**MAXIMUM NUMBER OF PERFORATED COLUMNS**

<table>
<thead>
<tr>
<th>RISER DIAMETER</th>
<th>HOLE DIAMETER, INCHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;</td>
<td>8</td>
</tr>
<tr>
<td>6&quot;</td>
<td>12</td>
</tr>
<tr>
<td>8&quot;</td>
<td>16</td>
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<tr>
<td>10&quot;</td>
<td>20</td>
</tr>
<tr>
<td>12&quot;</td>
<td>24</td>
</tr>
</tbody>
</table>

**Peak E. Syar**

**WQ-11**

**PLAN VIEW DETENTION SHOWN**

**NOT TO SCALE**

**SECTION A-A DETENTION SHOWN**

**NOT TO SCALE**

**Max. Steel**

**Perforated inlet holes**

**No. 2 aggregate per CMS 70.03**

**Perforated riser**

**Trusted block consists of 6" 4000 psi compressive strength concrete**

**THRUST BLOCK consists of 6" 4000 psi compressive strength concrete**

**For M. Block (typ)**

**For retention structures, provide a 6" dia. steel threaded plug at the bottom of each elevation. See plans for this elevation.**

**For retention structures, provide a 6" dia. steel threaded plug at the bottom of each elevation. See plans for this elevation.**

**Secured grout riser pipe into the basin.**

**See Plans for elevation of grate.**

**Location and Elevation**

When given on the plans, the location and the elevation are at the top center of the grate. Place the office notes at the elevations as shown on the plans.
**ANAT-SEEP COLLAR**

Provide an anti-seep collar as shown in the plans. The collar is at the contract price for Item 602, CONCRETE MASONRY.

**OBSERVATION WELL**

Construct the observation well to a depth and location as shown in the plans. All materials and labor, including excavation and backfill, are paid for at the contract price for Item 601, OBSERVATION WELL.

**INFILTRATION TRENCH**

Construct the infiltration trench to the dimensions shown on the plans. The top 6 inch covering is paid for at the contract price for Item 601 SPECIAL, INFILTRATION TRENCH.

All other materials and labor, including excavation, geotextile fabric, and backfill, are paid for at the contract price for Item 601 SPECIAL, INFILTRATION TRENCH.

---

**DIMENSION OF COLLAR**

<table>
<thead>
<tr>
<th>Diameter (G.D.)</th>
<th>Dimension of Collar (W x W)</th>
<th>Concretes (C.Y.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 in.</td>
<td>4 X 4</td>
<td>0.85</td>
</tr>
<tr>
<td>18 in.</td>
<td>5 X 5</td>
<td>1.00</td>
</tr>
<tr>
<td>20 in.</td>
<td>6 X 6</td>
<td>1.40</td>
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</tbody>
</table>

**NOTES**

- **Concrete**
  - **Composite**
  - Strength: Compressive strength 4000 psi

**AGGREGATE**

- **Basin Aggregate (CY)**
  - **Item 601 - Infiltration Basin Aggregate**
  - **No. 2 aggregate**
  - **No. 57 aggregate**

**Backfill**

- **No. 2 aggregate**
  - **CMS 703.20**
- **Bedding Aggregate**
  - **CMS 703.20**
- **Geotextile Fabric**
  - **As per CMS 703.20 Type A**