NOTE:
Check with local Fire Department for approved type of connection.

Dry Hydrant Adapter Head Kit ASTM 2466
2" x 90° Elbow

45° Elbow

2" Dia. Intake Plastic Pipe
(Min. Schedule 40)

6" x 6" x 7' Long Treated Wood Post

1' O.D. Pipe

Strainer Support Clamp

Dry Hydrant Head

NOTE:
4. If pump elevation is higher than steamer fitting, (truck pump inlet) measure H from pump level.

Permanent Pool
Design High Water Level

Design Low Water Level

Volume For Fire Protection

Profile

Pipe Protection

2" x 6" x 3' Long Treated Wood Header

Ensure Pipe Slopes Towards Strainer

Strainer Support Clamp

Stainless Steel Wire Rope

Conical Strainer

Snap On Cap

90° Elbow

Stainless Steel Snap Ring

HYDRANT DETAILS

Landowner
Location

Not To Scale
**Calculating Required Lift**

Total Required Lift = Head Loss in Hydrant + Head Loss in Intake + Static Lift (H) + Fittings and Guard - Pipe (HL)

- **Using 500 Gallons/Min.**
  - Total Required Lift = \( 7.6' + \frac{L \times HL}{100} + H = 7.6' + \frac{L}{100} + H = \) __________ = __________

- **Using 250 Gallons/Min.**
  - Total Required Lift = \( 1.9' + \frac{L \times HL}{100} + H = 1.9' + \frac{L}{100} + H = \) __________ = __________

**BILL OF MATERIAL**

<table>
<thead>
<tr>
<th>Material</th>
<th>Qty</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Hydrant Head Kit</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>____ Inch Dia PVC 45° Elbow</td>
<td>2 Each</td>
<td></td>
</tr>
<tr>
<td>____ Inch PVC Strainer Kit</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Strainer Support And Clamp</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>____ Inch Dia PVC Schedule 40 Pipe</td>
<td>Feet</td>
<td></td>
</tr>
<tr>
<td>Reflective Sign And Steel Post</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>Pipe Protection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated Wood Post 6&quot;x 6&quot; x 7&quot; Long</td>
<td>2 Each</td>
<td></td>
</tr>
<tr>
<td>Treated Wood Header 2&quot;x 6&quot; x 3&quot; Long</td>
<td>1 Each</td>
<td></td>
</tr>
<tr>
<td>9/16&quot; Bolt 8&quot; Lug/W Nuts &amp; Washers</td>
<td>8 Each</td>
<td></td>
</tr>
</tbody>
</table>

**HEAD LOSS IN FEET (HL)**

<table>
<thead>
<tr>
<th>Gallons Per Minute</th>
<th>Plastic Pipe</th>
<th>Smooth Steel Pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>2.3</td>
<td>5.3</td>
</tr>
<tr>
<td>250</td>
<td>0.6</td>
<td>1.3</td>
</tr>
</tbody>
</table>

**NOTES:**
1. Total required lift value not to exceed 20 feet.
2. Static lift (H) from design low water level to top of fire truck pumping connection or centerline of pump (which ever is higher) not to exceed 15 feet.
3. \( L = \) total length of PVC pipe
4. Minimum water volume of 4,000 cubic feet represents a flow of 250 gallons per minute for 2 hours. This volume should be available after 50-year frequency, 12-month duration drought.

Assumptions for Volume computation:
a. Runoff during drought: None.
b. Pond Surface Evaporation During Drought: 3 feet.
c. Top Water Surface Elevation For Volume Computation: 3 feet below the permanent pool elevation (generally the crest of the principal spillway) due to evaporation during the drought.
d. Bottom Water Surface Elevation For Volume Computation: 2 feet above the dry hydrant inlet centerline in the pond to prevent vortex during pumping.

**Disclaimer:**
This drawing documents volume of water available. It assumes 4,000 cubic feet of water is adequate to provide fire protection for one event. The Natural Resources Conservation Service does not warrant the conditions which represent a 50-year frequency drought nor any local capabilities to deliver water to fire scene.

**TOTAL VOLUME (3 FEET BELOW PERMANENT POOL)***

\[
\text{Total Volume (3 feet below permanent pool)} = \frac{V}{3} \text{ ft}^3
\]

**TOTAL VOLUME (2 FEET ABOVE DRY HYDRANT INLET CENTERLINE)***

\[
\text{Total Volume (2 feet above dry hydrant inlet centerline)} = \frac{V}{3} \text{ ft}^3
\]

**VOLUME (FIRE PROTECTION)***

\[
\text{Volume (fire protection)} = \frac{V}{3} \text{ ft}^3
\]

Minimum Volume (fire protection) 4,000 ft³

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**STRAINER SUPPORT CLAMP**

**PVC DRY HYDRANT STRAINER**

**DETAIL A**