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

Dry Hydrant Adapter
Head Kit ASTM 2466

" x 45° Elbow

Pipe Protection

Marker Post And Sign

2' To 4'

10' Max

Permanent Pool

Design High Water Level

Volume For Fire Protection

Design Low Water Level

Profile of Installation

Pipe Protection

HYDRANT DETAILS

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

" Dia Pipe PVC Hydrant Strainer

Strainer Support Clamp

Stainless Steel Snap Ring

Conical Strainer

45° Elbow

Stainless Steel Wire Rope

Snap On Cap

Dry Hydrant Head

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

Total Required Lift = Head Loss in Hydrant + Head Loss In Intake + Static Lift (H) + Fittings And Guard 

Using 500 Gallons/Min. 

Total Required Lift = 7.6' + L x HL + H = 7.6' + --- + --- = ---

Using 250 Gallons/Min. 

Total Required Lift = 1.9' + L x HL + H = 1.9' + --- + --- = ---

BILL OF MATERIAL

<table>
<thead>
<tr>
<th>Material</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Hydrant Head Kit 45° Elbow</td>
<td>1 Each</td>
</tr>
<tr>
<td>--- Inch PVC Strainer Kit</td>
<td>1 Each</td>
</tr>
<tr>
<td>Strainer Support And Clamp</td>
<td>1 Each</td>
</tr>
<tr>
<td>--- Inch Dia PVC Schedule 40 Pipe</td>
<td>Feet</td>
</tr>
<tr>
<td>--- Inch Dia PVC 45° Elbow</td>
<td>1 Each</td>
</tr>
<tr>
<td>Reflective Sign And Steel Post</td>
<td>1 Each</td>
</tr>
<tr>
<td>Pipe Protection</td>
<td></td>
</tr>
<tr>
<td>Treated Wood Post 6&quot;x 6&quot; x 7' Long</td>
<td>2 Each</td>
</tr>
<tr>
<td>Treated Wood Header 2&quot;x 6&quot; x 7' Long</td>
<td>1 Each</td>
</tr>
<tr>
<td>9&quot; Bolt 8&quot; Lg/W Nuts &amp; Washers</td>
<td>8 Each</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) = ft³
Total Volume (2 feet above dry hydrant inlet centerline) = ft³
Volume (fire protection) = ft³
Minimum Volume (fire protection) 4,000 ft³