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<td>Bollard Detail</td>
<td>PH-22</td>
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<tr>
<td>Fire Hydrant Retaining Wall</td>
<td>PH-23</td>
</tr>
<tr>
<td>1&quot; Sampling Station</td>
<td>PH-24</td>
</tr>
</tbody>
</table>
NOTES:
1. See Detail PH-3 for typical meter box locations.
2. Applications for services larger than 1" require hydraulic calculations justification and prior approval from the General Manager.
3. Use Mueller Pack Joint V-15442 (female) or V-15440 (male) when customer’s service is PVC.
4. Hot-tap and new connection shall be a minimum of 4’ away from a bell/joint or as directed by the District.
5. Contractor shall furnish all labor, equipment, and material to connect water service to the customer line per Section 15100.
6. Service saddle shall be a minimum of 18” away from the next service connection.
7. Quarry fines shall be placed 2” below and 6” above the service line. Backfill and compact remaining section per applicable PHWD trench detail.

LEGEND
1 Double band bronze service saddle, Mueller BR2B “CC”.
2 1” insulated corporation stop, Mueller N-35008-N.
3 1” dia. Type K soft copper pipe. Unions or couplings not permitted.
4 1” compression ball angle meter valve, Mueller B-24258-3-N.
5 When 3/4” meter is being installed, two (2) Ford A-34-NL meter adapters shall be installed on the inlet and outlet sides of the meter. When a 3/4”x1” meter is being installed, one (1) Ford A-44-NL meter adapter shall be installed on the outlet side of the meter.
6 3/4” or 1” meter (furnished by District).
7 1” insulated meter coupling, Mueller H-10871-N.
8 Ball valve, Red White 50444AB
9 Meter box, Christy No. B16 with No. B16G cover. Traffic cover shall be provided in traffic areas and where directed by District Engineer.
10 Quarry fines per Section 02221 of the District’s standard specifications compacted to 90%.
11 Encased DIP with 8. mil. linear low-density polyethylene film.

1” SERVICE CONNECTION

Purissima Hills Water District
Santa Clara County, California

Approved by:

Patrick Walter, General Manager

Joublin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH- 1
NOTES:
1. See Detail PH-3 for typical meter box locations.
2. Use Mueller Pack Joint V-15442 (female) or V-15440 (male) when the customer's service is PVC.
3. Hot-tap and new connection shall be a minimum of 4" away from a bell/joint or as directed by the District.
4. Contractor shall furnish all labor, equipment, and material to connect water service to the customer line per Section 15100.
5. Service saddle shall be a minimum of 18" away from the next service connection.
6. Quarry fines shall be placed 2" below and 6" above the service line. Backfill and compact remaining section per applicable PHWD trench detail.

LEGEND

1. Double band bronze service saddle, Mueller BR2B "CC".
2. 2" corporation stop, Mueller B--25008--N.
3. 2" dia. Type K soft copper pipe. Unions or couplings not permitted.
4. 2" compression ball angle meter valve, Mueller B--24276--3--N.
5. 1 1/2" or 2" meter (furnished by District).
6. 1 1/2" or 2" Budco Brass Domestic Meter Flange (low lead).
7. 1/2" or 2" brass nipple (low lead).
8. Ball valve, Red White 5044AB
9. Meter box, Christy No. N3600X with No. B36G cover. Traffic cover shall be provided in traffic areas and where directed by District.
10. Quarry fines per Section 02221 of the District’s standard specifications compacted to 90%.

1 1/2" - 2" SERVICE CONNECTION

Purissima Hills Water District
Santa Clara County, California

Approved by: Patrick Walter, General Manager
Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH-2

07/13
02/10
6/08
3/07
REV. 5/08
NOTES

1. Meter boxes shall be set parallel to the service line following the contour of existing ground.

2. Meter box shall have 6" base of quarry fines per Section 02221 of the District's standard specifications compacted to 90%.

3. After the box is set and aligned with the meter, contractor may use native material or aggregate base to backfill around the box. Soil within a 12-inch perimeter of the box shall be compacted to a relative density of 90% using a pneumatic device such as a "Powder Puff" or other mechanical means approved by the District. Contractor shall use care not to damage the meter box.

4. Meter box shall project 1" above grade when located in non-traffic areas and shall be flush with pavement when located in traffic areas and pathways.

5. Traffic cover shall be used in traffic areas and where directed by the District.

6. After the box has been set and compacted, any debris and dirt inside the box shall be disposed of to the satisfaction of the District.

TYPICAL METER BOX LOCATIONS

Patrick Walter, General Manager
Joubin Pakpour, District Engineer, RCE No. 59155
LEGEND

1. Gate valve, Mueller No. 2362 with Type 316 SS bolts. Valve shall have stem shall be made of ASTM B98--C66100/H02 (Everdur) bar stock material; EPDM rubber; machined release groove below operating nut; and stuffing box aligned with the direction of the pipe. If coating on gate valve is damaged during the installation, it should be repaired using Muller Expoxyl Kit (Red) No. 280089 to the satisfaction of the District.

2. Traffic valve box, Christy Concrete No. G05TBOX. Valve box shall project 2" above grade in non-traffic areas, except in Los Altos Hills Town pathways.

3. Cast iron traffic cover inscribed "WATER", Christy Concrete No. G05CT.

4. SDR 35 PVC pipe riser -- 8" minimum diameter.

5. 2,000 psi concrete collar. Minimum 24 hours cure prior to placement of asphalt.

6. Backfill material, aggregate base per road surface, see Detail PH-7.


GATE VALVE ASSEMBLY

Purissima Hills Water District
Santa Clara County, California

STANDARD NO.
PH - 4

Approved by:
Patrick Walter, General Manager
Joubin Pakpour, District Engineer, RCE No. 59155
NOTES:

1. The marker post shall be constructed of galvanized steel. The post shall be installed so that it is vertical and firmly embedded into the ground as shown.

2. A 4"x4" reflective aluminum "Water Valve" (District Provided) sign shall be bolted to the post.

3. Marker post to be located in the field by the District.

GATE VALVE MARKER POST

Purissima Hills Water District
Santa Clara County, California

Approved by: Patrick Walter, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH-5
**VOLUME OF GRAVITY BLOCK IN CUBIC YARDS**

<table>
<thead>
<tr>
<th>VERTICAL FITTING</th>
<th>DIAMETER OF PIPE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6&quot;</td>
</tr>
<tr>
<td>90°</td>
<td>1.0</td>
</tr>
<tr>
<td>45°</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**VERTICAL BEND**

Size of rod determined by District.

**HORIZONTAL BENDS**

**PLUGGED RUN**

**PLUGGED CROSS**

**STANDARD TEE**

**UNDISTURBED SOIL**

**THRUST BLOCK PROFILE**

**THRUST BLOCK PLAN**

**DIMENSIONS OF THRUST BLOCKS IN FEET**

<table>
<thead>
<tr>
<th>HORIZONTAL FITTING</th>
<th>6&quot;</th>
<th>8&quot;</th>
<th>10&quot;</th>
<th>12&quot;</th>
<th>14&quot;</th>
<th>16&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>H</td>
<td>B</td>
<td>H</td>
<td>B</td>
<td>H</td>
</tr>
<tr>
<td>90°</td>
<td>1'-9&quot;</td>
<td>1'-9&quot;</td>
<td>2'-3&quot;</td>
<td>2'-3&quot;</td>
<td>2'-9&quot;</td>
<td>2'-9&quot;</td>
</tr>
<tr>
<td>45°</td>
<td>1'-0&quot;</td>
<td>1'-0&quot;</td>
<td>1'-6&quot;</td>
<td>1'-6&quot;</td>
<td>2'-0&quot;</td>
<td>2'-0&quot;</td>
</tr>
<tr>
<td>PLUG/TEE</td>
<td>1'-3&quot;</td>
<td>1'-3&quot;</td>
<td>1'-9&quot;</td>
<td>1'-9&quot;</td>
<td>2'-3&quot;</td>
<td>2'-3&quot;</td>
</tr>
</tbody>
</table>

**NOTES:**

1. All thrust blocks and gravity blocks shall bear against undisturbed earth.
2. Encased pipe in 8 mil linear low-density polyethylene film.
3. Maintain a minimum clearance of 2" between the thrust block reinforcing steel and pipe.
4. Concrete not to extend beyond the face of the bell.
5. Thrust block shall encompass at least one-half of the outside diameter of the pipe.
6. Flanges, bolts, and nuts shall be kept clear of concrete.
7. Dimensions above include use of mechanical restraints on pipe.

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**THRUST RESTRAINT - THRUST BLOCK DETAILS**

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**STD. NO.**

**PH - 6**

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**Approved by:**

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**Patrick Walter, General Manager**

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**Joubin Pakpour, District Engineer, RCE No. 59155**

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Purissima Hills Water District
Santa Clara County, California
Saw cut pavement full depth. Maintain edge true for repaving. If edge is damaged it shall be recut immediately before paving. A tack coat shall be applied to all surfaces before paving as specified in section 02600 of the District’s standard specifications. Trench lines shall be sod sealed.

**LEGEND**

1. Quarry fine bedding and backfill material, as specified in section 02221 of the District’s standard specifications, shall be placed in four lifts.

Lift One – The first lift shall consist of placing 4" of compacted quarry fines to the satisfaction of the District prior to the placement of the pipe. The pipe shall be placed prior to the second lift.

Lift Two – The second lift shall consist of placing quarry fines around the pipe to the top of the pipe to the satisfaction of the District. The top of the pipe shall be visible prior to the start of compaction for the second lift. Compaction of the backfill around the pipe shall be performed by a pneumatic means such as a “Powder Puff.” No other means of compaction tool shall be allowed without prior approval by the District. Contractor shall use extreme care to avoid hitting the pipe and polyethylene wrapping while compacting.

Lift Three – The third lift shall consist of placing and compacting 12" of quarry fines.

Lift Four – The fourth lift shall consist of placing and compacting the backfill material to the required compacted depth of 18" above the pipe.

2. Class 2 lime treated aggregate base backfill material, as specified in section 02221 of the District’s standard specifications.

3. Asphalt concrete pavement, as specified in section 02600 of the District’s standard specifications. Paved driveways and road shoulders shall be 3" min. thickness.

4. Marker tape as specified in section 15060 of the District’s standard specifications.

5. Encase DIP with 8 mil. linear low-density polyethylene film.

6. A second saw cut operation is required prior to final paving to achieve the “T” cut section. Saw cutting a wider trench line during initial trench excavation to achieve a “T” cut section will not be allowed.

**TRENCH SECTION – TYPE A**

**PAVED SURFACES**

Purissima Hills Water District  
Santa Clara County, California

Approved by:  
Patrick Walter, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO.  
PH – 7

5/06  07/13  02/10  1/07  11/06  8/02  10/01  7/01  3/96  7/89
LEGEND

1. Quarry fine bedding and backfill material, as specified in section 02221 of the District's standard specifications, shall be placed in four lifts.

   Lift One – The first lift shall consist of placing 4" of compacted quarry fines to the satisfaction of the District prior to the placement of the pipe. The pipe shall be placed prior to the second lift.

   Lift Two – The second lift shall consist of placing quarry fines around the pipe to the top of the pipe to the satisfaction of the District. The top of the pipe shall be visible prior to the start of compaction for the second lift. Compaction of the backfill around the pipe shall be performed by pneumatic means such as a "Powder Puff." No other means of compaction tool shall be allowed without prior approval by the District. Contractor shall use extreme care to avoid hitting the pipe and polyethylene wrapping while compacting.

   Lift Three – The third lift shall consist of placing and compacting 12" of quarry fines.

   Lift Four – The fourth lift shall consist of placing and compacting the backfill material to the required compacted depth of 18" above the pipe.

2. Class 2 lime treated aggregate base backfill material, as specified in section 02221 of the District's standard specifications.

3. Markers tape as specified in section 15060 of the District's standard specifications.

4. Encase DIP with 8 mil. linear low-density polyethylene film.

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TRENCH SECTION – TYPE B
GRAVELED AREAS/ROAD SHOULDERS

Purissima Hills Water District
Santa Clara County, California

Approved by: [Signature]
Patrick Walter, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH-8

7/13
3/08
1/07
5/06
10/01
7/01
3/96
REV. 7/89
LEGEND

1 Quarry fine bedding and backfill material, as specified in section 02221 of the District's standard specifications, shall be placed in four lifts.

Lift One — The first lift shall consist of placing 4" of compacted quarry fines to the satisfaction of the District prior to the placement of the pipe. The pipe shall be placed prior to the second lift.

Lift Two — The second lift shall consist of placing quarry fines around the pipe to the top of the pipe to the satisfaction of the District. The top of the pipe shall be visible prior to the start of compaction for the second lift. Compaction of the backfill around the pipe shall be performed by pneumatic means such as a "Powder Puff." No other means of compaction tool shall be allowed without prior approval by the District. Contractor shall use extreme care to avoid hitting the pipe and polyethylene wrapping while compacting.

Lift Three — The third lift shall consist of placing and compacting 12" of quarry fines.

Lift Four — The fourth lift shall consist of placing and compacting the backfill material to the required compacted depth of 18" above the pipe.

2 Native backfill material, as specified in section 02221 of the District's standard specifications.

3 Marker tape as specified in section 15060 of the District's standard specifications.

4 Encase DIP with 8 mil linear low—density polyethylene film.

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TRENCH SECTION — TYPE C
UNIMPROVED AREAS

Purissima Hills Water District
Santa Clara County, California

Approved by: Patrick Waller, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH—9
NOTES

1. Pathway shall be installed per Town of Los Altos Hills Standards.

2. Header joints shall be lapped on the outside with a 1"x4"x18" redwood plate.

3. 2 - 1"x4" redwood headers, nailed together with staggered joints shall be used on curves.


5. Replace tracer wire for plastic or AC pipe if damaged during trenching operation.

TRENCH SECTION - TYPE D
TOWN OF LOS ALTOS HILLS PATHWAY

Purissima Hills Water District
Santa Clara County, California

Approved by: [Signature]
Patrick Walter, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO.
PH-10
**TRENCH SECTION – TYPE E**

**2 SACK SLURRY**

---

**LEGEND**

1. Quarry fine bedding and backfill material, as specified in section 02221 of the District's standard specifications, shall be placed in four lifts.

Lift One – The first lift shall consist of placing 4" of compacted quarry fines to the satisfaction of the District prior to the placement of the pipe. The pipe shall be placed prior to the second lift.

Lift Two – The second lift shall consist of placing quarry fines around the pipe to the top of the pipe to the satisfaction of the District. The top of the pipe shall be visible prior to the start of compaction for the second lift. Compaction of the backfill around the pipe shall be performed by a pneumatic means such as a "Powder Puff." No other means of compaction tool shall be allowed without prior approval by the District. Contractor shall use extreme care to avoid hitting the pipe and polyethylene wrapping while compacting.

Lift Three – The third lift shall consist of placing and compacting 12" of quarry fines.

Lift Four – The fourth lift shall consist of placing and compacting the backfill material to the required compacted depth of 18" above the pipe.

2. 2 sack slurry, as specified in section 03301 of the District's standard specifications.

3. Asphalt concrete pavement, as specified in section 02600 of the District's standard specifications. Paved driveways and road shoulders shall be 3" min. thickness.

4. Marker tape as specified in section 15060 of the District's standard specifications.

5. Encase DIP with 8 mil. linear low-density polyethylene film.

6. A second saw cut operation is required prior to final paving to achieve the "T" cut section. Saw cutting a wider trench line during initial trench excavation to achieve a "T" cut section will not be allowed.

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**Note:**
Replace tracer wire for plastic or AC pipe if damaged during trenching operation.

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**Purissima Hills Water District**
Santa Clara County, California

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Approved by:  
Patrick Walter, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155

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STD. NO.
PH-11

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REV. 02/10

07/13
**LEGEND**

1. Water main, ductile iron pipe
2. Tee (type determined by District) or tapping sleeve, Mueller H-615 or as directed by the District
3. 6" 90' bend, FLG.
4. 6" ductile iron pipe
5. 6" gate valve, Mueller A-2362, FLG x MJ (restrained)
6. 8" bury, FLG x MJ (restrained)
7. Hydrant, GLOW 960 (wet barrel) with one 4" pumper and two 2-1/2" outlets, all NS threads.
8. 24" dia., 12" thick, 2,000 psi concrete collar
9. Break-off check valve, Long Beach Iron Works Model LB400 (note that length of unit is 20'). Install concrete collar 8 to allow removal of stainless steel bolts securing break-off riser. Native soil shall then placed on top of the collar to within 1" of the bottom of the break-off flange.
10. 6" mechanical joint restraint, EBAA iron, "Megalug" Series 1100.
12. Thrust block (kicker) per PH-6

**NOTES**

1. Contractor shall contact the Santa Clara County Fire Department for exact location of hydrants (408-378-4010).
2. All joints used in the hydrant assembly shall be restrained and shall be of the mechanical joint "Megalug," or field locks.
3. Bottom of break-off flange shall be at least 1" but not more than 4" above finish grade.
4. All bolts and nuts shall be Type 316 stainless steel excluding pre-manufactured break-off check valve.
5. Install a blue, two-way, reflective pavement marker at each hydrant location in accordance with applicable portions of Section 85 of the Caltrans standard specifications.
6. Paint both the top surface of the fire hydrant gate valve box and cover yellow.
7. New fire hydrant assembly shall be pressure tested and disinfected per Section 15000.
8. New fire hydrant shall be factory painted "safety yellow." All metal above the concrete color shall also be painted "safety yellow."

**FIRE HYDRANT ASSEMBLY**

Purissima Hills Water District
Santa Clara County, California

Approved by:

Patrick Walter, General Manager

Joubin Pekpour, District Engineer, RCE No. 59155

STD. NO. PH-12
NOTES:
1. Valve box shall be set adjacent to property line in unimproved streets or behind curb in improved streets.
2. Sizes of pipe, fittings, valves, corporation stops shall match the size of the combination air valve as specified by the District.
3. 2" above finished grade or level with sidewalk/pavement grade.
4. Continuous copper tubing may be used between the water main and combination air valve if clearances allow or as directed by the District.

LEGEND
1 Double bond bronze service saddle Mueller BR2B "CC".
2 Corporation stop, Mueller B-20054 (CC x FIP).
3 90' MIP x Comp Mueller fitting.
4 Type K copper tubing, Maintain upward slope. Unions or couplings not permitted.
5 90' Comp x Comp Mueller fitting.
6 Straight copper pipe
7 Ball angle meter valve, Mueller B-24258-3-N for 1-inch assembly, Mueller B-24276-3-N for 2-inch assembly.
8 Mueller H-10889-N meter bushing for 1", Budco, brass meter flange (MF) domestic (low lead) for 2".
9 Brass pipe (low lead).
10 Galvanized street 90° bend.
11 Combination air valve (functions as both air release and air/vacuum valves, min. operating range of 300 psig) Val-Matic 201C.2-X045 (1-inch), 202C.2-X045 (2-inch).
12 Mueller 110 straight coupling compression connection H-15428-N
13 90° copper sweat
14 Stainless steel mesh vent cap, VC-1 (1") or VC-2 (2") to 1" or 2" adaptor, copper SLP.
15 Enclose BPDG GS-1. Color shall be green.
16 Padlock (furnished by District). Typ. both sides.
17 Threaded SS316 eyebolt & washer w/ 3/8" min. I.D.
18 Concrete base 30" W x 20"L x 4"H w/ steel wire mesh in middle
19 Valve box, Christy N30BOX w/ B30-61D cover.
20 Traffic cover shall be used in traffic areas and where directed by District Engineer. Valve box extension B30x12.
21 Quarry fines per Section 02221 of the District's standard specifications compacted to 90%, up to valve only.

1" OR 2" COMBINATION AIR VALVE

Approved by: Patrick Walter, General Manager
Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH-13

Revised 5/06

07/13
02/10
NOTE:
1. Valve box shall be set adjacent to property line in unimproved streets or behind curb in improved streets.
2. 2" above finished grade or level with sidewalk/pavement grade.

DETAIL A

LEGEND

1 Double band bronze service saddle, Mueller BR2B "CC".
2 1" corporation stop, Mueller B-25008-N.
3 1" type K copper tubing, maintain upward slope. Unions or couplings not permitted.
4 1" ball angle meter valve, Mueller B-24258-3-N.
5 1" meter bushing, Mueller H-10889-N.
6 1" brass pipe (low lead).
7 1" galvanized street 90° bend.
8 Air/vacuum valve, Val-Matic Model 101-X005.
9 1" Mueller 110 straight coupling compression connection H-15428-N.
10 90° comp x comp Mueller fitting
11 Straight copper pipe
12 90° copper sweat
13 Stainless steel mesh vent cap (VC-1) attached to a 1" adapter, copper SLP.
14 Enclosure BPD1 GS-1. Green in color.
15 Padlock (furnished by District). One on each side of enclosure (typ).
16 Threaded SS-316 eyebolt & washer with 2" min. I.D.
17 Concrete base 30"W x 20"L x 4"H w/ steel wire mesh in middle
18 Valve box, Christy No. B30 with B30-61D cover, with steel checker plate cover. Traffic cover shall be used in traffic areas and where directed by District Engineer. Valve box extension B30x12.
19 Quarry fines per Section 02221 of the District's standard specifications compacted to 90%, up to valve only.

1" AIR/VACUUM VALVE
(SHALL NOT BE USED WITHOUT PRIOR APPROVAL FROM THE DISTRICT)

Purissima Hills Water District
Santa Clara County, California

Approved by:

Patrick Walter, General Manager

Joublin Pajour, District Engineer, RCE No. 59155

STD. NO.
PH-14
LEGEND

1. 6" Branch Tee (DIP), FlgxFlg.
2. 6" Gate Valve, Flg, Mueller No. 2362.
3. 6"x4" Reducer, FlgxFlg.
4. 4" (di) FlgxPE.
5. 4" (di) 90' Bend, "Field Lok" Gaskets.
6. 4" (di) FlgxPE.

NOTES

1. 2-inch blow-off shall be installed for mains 6" or smaller.
2. 4-inch blow-off shall be installed for mains 8" or bigger.
3. The top of the box shall be flush with pavement when located in traffic areas.
4. All buried nuts and bolts shall be type 316 stainless steel.
5. Wrap branch tee, bends, nipples, and ductile pipe in 8 mil linear low-density polyethylene film.

2" BLOW-OFF

7. 4" Companion flange with a 2" threaded IP outlet.
8. 2" Brass nipple, minimum of 8-inches in length.
9. 2" Blowoff/flushing Hydrant, Truflo Model TF550 Manufactured by Kupferle Foundry Co.
10. Traffic Valve Box with Cast Iron Cover Inscribed "WATER" per PH-5.
12. Valve Box Extension, Christy B2436X12
13. 3/4" Drain Rock, Up To Valve Only.

4" BLOW-OFF

7. 4" Companion flange with a 4" threaded IP outlet.
8. 4" Brass nipple, minimum of 8-inches in length.
9. 4" Blowoff/flushing Hydrant, Truflo Model TF800 Manufactured by Kupferle Foundry Co.

BLOW-OFF ASSEMBLY

Purissima Hills Water District
Santa Clara County, California

Approved by: Patrick Walter, General Manager
Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH-15

07/13 7/01
2/10 3/00
1/07 11/98
5/06 4/97
8/02 3/96
10/01 7/89
REV. 1/77
MINIMUM REQUIRED HORIZONTAL CLEARANCE FROM WATER MAIN

MINIMUM REQUIRED VERTICAL CLEARANCE FROM WATER MAIN AT CROSSINGS

NOTES
1. Any deviation from these requirements requires written approval from the District.
2. All crossings shall be at 45° to 90°.
LEGEND

1. Water main
2. Solid sleeve, MJ (restrained) Megalug
3. Ductile Iron spool, FL x PE
4. 22-1/2" bend, FL w/ Type 316 stainless steel bolts
5. Ductile iron spool, FL x FL
6. 2 sack slurry
7. Encased pipe with 8 mil. linear low-density polyethylene film.
8. Sanitary sewer or storm drain

NOTES

1. When relocating existing water main, the pipe crossing assembly shall be assembled prior to cutting and removing existing water main section.

2. Backfill between the crossing assembly and drainage culvert shall be 2 sack slurry, in accordance with section 03301 of the District’s standard specifications.

3. Pipe shall be restrained at all locations.

PIPE CROSSING ASSEMBLY

Purissima Hills Water District
Santa Clara County, California

Approved by: [Signature]
Patrick Walter, General Manager
Jcubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH-17

07/13
1/07
5/06
1/03
10/01
7/01
3/96
7/89
REV. 1/77
TRENCH DAM

NOTE:
Trench dams shall be placed on new water main alignments where slopes exceed 10% at 100' intervals or as directed by the District.

PLAN

Paved area, gravel, area and town pathway trench sections, see Details PH-7, PH-8, PH-10, and PH-11.

PROFILE

Aggregate base or 2-sack slurry, see Details PH-7, PH-8, PH-10, and PH-11

Bedding material, see Details PH-7, thru PH-11

Trench Dam

Purissima Hills Water District
Santa Clara County, California

1/07
5/06
10/01
REV. 7/01

STD. NO.
PH-18

Approved by:
Patrick Walter, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155
NOTE:
1. This type of anchor shall be used when required by the District.
2. Type 316 SS hardware shall be used.

END OF LINE ANCHOR

Purissima Hills Water District
Santa Clara County, California

Approved by:

Patrick Walter, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH-19
REQUIREMENTS

1. Reduce pressure backflow assemblies shall be required on all fire service connections.

2. Failure to provide backflow protection will result in shutoff water service per Title 17, Section 7583–7605 of the State of California Code of Regulation. (Title 17, Division 1, Chapter 5, Subchapter 1, Group 4, Articles 1 and 2.)

NOTES

1. The size of the piping, tapping valve, detector check and backflow preventer shall be determined in accordance with fire service flow requirements.

2. Fire service location shall be determined by the Santa Clara County Fire Department (408–378–4010).

3. Bollard required. Exact location to be determined by District. See Detail PH–22.

LEGEND

1. Tee or Tapping sleeve, Mueller H–615, or as directed by the District

2. Gate valve, fig x mj, Mueller T–2360

3. Reduced pressure detector assembly with OS&Y valves, Wilkins 375DA for 2 ½" – 10' or reduced pressure principal assembly, Wilkins 975XL2TCU for 2" and under.

4. 1/2" chain with minimum slock

FIRE SERVICE CONNECTION REQUIREMENTS

Purissima Hills Water District
Santa Clara County, California

Approved by: Patrick Walter, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH–20

REV. 10/01

7/13
2/10
3/08
1/07
5/06
8/02
**LEGEND**

1. Reduced Pressure Backflow Preventer, Wilkins 975XL2TCU or 375XL.
2. Brass 90° bends, Mueller H-15531-N.
3. Copper Pipe, Type K Copper.
4. Mueller 110 compression connection H-15526-N.
5. For 3/4" and 1" services, use Mueller 110 compression connection H-15451-N. For 1/2" and 2" services, use Budco Brass Domestic Meter Flange (low lead) with Mueller 110 compression connection H-15428-N.
6. Mueller 110 compression connection H-15533-N on the customer's side if applicable.

**REQUIREMENTS**

1. Reduced pressure backflow assemblies shall be required on all service connections to properties that have a supplemental source of water, a fire sprinkler system, wells, irrigation system that has an automatic chemical feeding control, pumps or any other instances that may contaminate potable water supply or as directed by the District Engineer.
2. All reduced pressure backflow assemblies shall be adjacent to the meter.
3. Failure to provide reduced pressure backflow protection will result in shutoff of water service per Title 17, Section 7583-7605 of the State of California Code of Regulation (Title 17, Division 1, Chapter 5, Sub-Chapter 1, Group 4, Articles 1 and 2).
4. Contractor shall furnish all labor, equipment, and material to connect water service to the customer line.

**RESIDENTIAL REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY**

Purissima Hills Water District  
Santa Clara County, California

Approved by: [Signature]

Patrick Walter, General Manager

Joublin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH-21
BOLLARD DETAIL

LEGEND

1. Schedule 40 PVC cap
2. 4" dia. galvanized steel pipe. Pipe shall be painted. Color determined by District.
3. Fill with class 2 concrete
4. Class 2 concrete
5. Finished grade

NOTES

1. Bollards to be located in the field by the District.

Purissima Hills Water District
Santa Clara County, California

Approved by: Patrick Waller, General Manager
Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO. PH-22

7/13
5/06
REV. 8/02
FIRE HYDRANT RETAINING WALL

NOTES

1. All lumber shall be pressure treated lumber with a 0.40 lbs/cf retention or greater.

2. Fire hydrant shall be a min. of 2ft from retaining wall.

3. All dimensions shown are for typical retaining wall. Field conditions may require deviation from detail. Contractor shall verify site condition and get approval from the District before making changes.

Purissima Hills Water District
Santa Clara County, California

Approved by:
Patrick Walter, General Manager

Joubin Pakpour, District Engineer, RCE No. 59155

STD. NO.
PH-23
NOTES:
1. See Detail PH-3 for typical meter box locations.
2. Service saddle shall be a minimum of 18" away from the next service connection.
3. The copper line shall rest on quarry fines and backfilled per PH-1.
4. Quarry fines shall be placed 2" below and 6" above copper line. Backfill and compact remaining section per applicable FHWD trench detail.

LEGEND
1 Double band bronze service saddle, Mueller BR2B "CC".
2 1" noninsulated corporation stop, Mueller B-25008-N.
3 1" dia. Type K soft copper pipe. Unions or couplings not permitted.
4 1" compression ball angle meter valve, Mueller B-24258-3-N.
5 Ford A-34--NL meter adaptors.
6 3/4" x 1" meter.
7 Straight meter coupling, Mueller H-10890-N.
8 1" F.I.P. X Compression, Mueller H-15451-N.
9 1"- 90° F.I.P. X Compression, Mueller H-15533-N.
10 1" x φ Bushing (low lead).
11 φ M.I.P. X Compression, H-15428-N.
12 φ Rigid copper pipe.
13 φ - 90° Bress M.I.P X Compression, Mueller H-15533-N.
14 Ball valve – Red White 5044AB
15 M.I.P. X M.H.T. Brass (low lead).
16 Encasement – Steel Source Construction, Model MX5000
17 Bottom of bolts shall be at least 1" Removable from top.
18 24" φ, 6" thick, 2,000 psi concrete collar
19 6" FL X PE (12" Length)
20 Meter box, Christy No. B16 with No. B16G-616 cover. Traffic cover shall be provided in traffic areas and where directed by District Engineer.
21 Quarry fines per Section 02221 of the Dist.
22 Encased DIP with 8. mil. linear

1" SAMPLING STATION

Purissima Hills Water District
Santa Clara County, California

Approved by: [Signature]
Patrick Walter, General Manager

STD. NO. PH-24

Joubin Pakpour, District Engineer, RCE No. 59155

07/13
REV. 3/08