City of Pacific

Water Main
Depth Requirements

<table>
<thead>
<tr>
<th>PIPE SIZE</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>6”–10”</td>
<td>36”</td>
<td>24”</td>
</tr>
<tr>
<td>12”–18”</td>
<td>36”</td>
<td>30”</td>
</tr>
<tr>
<td>20” &amp; OVER</td>
<td>42”</td>
<td>36”</td>
</tr>
</tbody>
</table>

© OF ROADWAY

PIPE

PIPE

PIPE

PIPE

A

B

VARIES

VARIES

UNLESS SPECIFIED OTHERWISE

PIPE

PIPE

PIPE

PIPE

A

A

A

A

PIPE SIZE

A

B

WATER MAIN DEPTH REQUIREMENTS

DRAWING NO.

Main—Depth

APPROVED: 

DATE: 8/96

DRAWN: JH

CHECKED: TJO

SCALE: None
Distance "may" be greater than 3'-0" to accommodate min. cover and vertical clearance.

Existing utility lines.

Proposed water main—space joints equal distance from crossing.

Finished ground elevation.

Contractor shall verify location and depth of existing and/or proposed utilities.

City of Pacific
Typical Utility Crossing

<table>
<thead>
<tr>
<th>APPROVED:</th>
<th>DATE:</th>
<th>DRAWN:</th>
<th>CHECKED:</th>
<th>SCALE:</th>
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<tbody>
<tr>
<td></td>
<td>8/96</td>
<td>JH</td>
<td>TJO</td>
<td>None</td>
</tr>
<tr>
<td>PIPE SIZE</td>
<td>90° BEND</td>
<td>45° BEND</td>
<td>22 1/2° BEND</td>
<td>11 1/4° BEND</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
<td>----------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>4&quot;</td>
<td>40</td>
<td>17</td>
<td>8</td>
<td>4</td>
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<td>6&quot;</td>
<td>55</td>
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<td>6</td>
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<tr>
<td>8&quot;</td>
<td>73</td>
<td>31</td>
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<td>8</td>
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<tr>
<td>10&quot;</td>
<td>88</td>
<td>37</td>
<td>18</td>
<td>9</td>
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<tr>
<td>12&quot;</td>
<td>103</td>
<td>43</td>
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<td>10</td>
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<tr>
<td>16&quot;</td>
<td>133</td>
<td>55</td>
<td>27</td>
<td>13</td>
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<tr>
<td>18&quot;</td>
<td>145</td>
<td>60</td>
<td>29</td>
<td>15</td>
</tr>
</tbody>
</table>

RESTRAINED LENGTHS SHOWN ARE MINIMUM AND FOR LINEAL FEET REQUIRED ON EACH SIDE OF FITTING INDICATED.

FOOTAGES ARE BASED ON 250 PSI PRESSURE AND 42 INCHES COVER. IF PRESSURE IS GREATER OR COVER IS LESS, THE RESTRAINED LENGTH SHALL BE INCREASED. DEVELOPER’S ENGINEER TO DESIGN SAME.

City of Pacific
Thrust Restraint
for Ductile Iron Pipe

<table>
<thead>
<tr>
<th>DATE</th>
<th>DRAWN</th>
<th>CHECKED</th>
<th>SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/96</td>
<td>JH</td>
<td>TJO</td>
<td>None</td>
</tr>
</tbody>
</table>

DRAWING NO. WT-Thrust-Rest
**TYPE "A" BLOCKING**

FOR 11 1/4"-22 1/2" VERTICAL BENDS

<table>
<thead>
<tr>
<th>PIPE SIZE NOMINAL INCHES</th>
<th>VB</th>
<th>S</th>
<th>D</th>
<th>L</th>
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<tr>
<td>4&quot;</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>300</td>
<td>22 1/2</td>
<td>11</td>
<td>2.2</td>
<td>5/8&quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>22 1/2</td>
<td>11</td>
<td>2.2</td>
<td>5/8&quot;</td>
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<tr>
<td>8&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>22 1/2</td>
<td>16</td>
<td>2.5</td>
<td>5/8&quot;</td>
</tr>
<tr>
<td>12&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>22 1/2</td>
<td>32</td>
<td>3.2</td>
<td>7/8&quot;</td>
</tr>
<tr>
<td>16&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>225</td>
<td>22 1/2</td>
<td>70</td>
<td>4.1</td>
<td>7/8&quot;</td>
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<tr>
<td>20&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>225</td>
<td>22 1/2</td>
<td>91</td>
<td>4.5</td>
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</tr>
<tr>
<td>24&quot;</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>200</td>
<td>22 1/2</td>
<td>128</td>
<td>5.0</td>
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</table>

**TYPE "B" BLOCKING**

FOR 45° VERTICAL BENDS

<table>
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<tr>
<th>VB</th>
<th>S</th>
<th>D</th>
<th>L</th>
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<td>4&quot;</td>
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<td>12&quot;</td>
<td>250</td>
<td></td>
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<tr>
<td>232</td>
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<tr>
<td>247</td>
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<td>1 1/8&quot;</td>
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<td>20&quot;</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>560</td>
<td></td>
<td>8.2</td>
<td>1 1/4&quot;</td>
</tr>
<tr>
<td>24&quot;</td>
<td>820</td>
<td></td>
<td>9.4</td>
</tr>
</tbody>
</table>

NOTE:

This table represents the "minimum" construction standards. The developer's engineer shall be responsible for the design and sizing of all blocking based on soil conditions, test pressures, and other relevant considerations.

City of Pacific

Water

Thrust Blocking

DRAWING NO.  WT-Thrst-Blk

APPROVED:          DATE:

8/96              JH

CHECKED:  SCALE:  DRAWN:

TJO               None
CONCRETE THRUST BLOCK
EXISTING CI, DI, STEEL, OR A.C. PIPE
DUCTILE IRON OR FABRICATED STEEL TAPPING SLEEVE
DIRECT TAP, 1" CORP STOP, AND HOSE FOR TEMPORARY AIR RELIEF IF REQ'D. REPLACE CORP STOP W/TAPERED BRASS PLUG AFTER PURITY RESULTS HAVE PASSED.

NEW SYSTEM

RESILIENT SEAT TAPPING GATE VALVE. OPERATION SHALL BE BY CITY PERSONNEL ONLY. CONTRACTOR SHALL NOT OPERATE valves.

NOTE:
① VALVE BOX TO HAVE A LOCKING LID UNTIL ACCEPTED BY THE CITY.
② O.D. STEEL PIPE SHALL USE S.S. SLEEVE (FUSION COATED).
③ STAINLESS STEEL SLEEVE IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. SEE SECTION 7-04 B3 "TAPPING SLEEVES AND TAPPING VALVES".

City of Pacific
Wet Tap Connection Detail

<table>
<thead>
<tr>
<th>DRAWING NO.</th>
<th>WT- Wet Tap</th>
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<tr>
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<td>8/96</td>
<td>JH</td>
</tr>
<tr>
<td>SCALE:</td>
<td>None</td>
</tr>
</tbody>
</table>
NOTE:
1. NO DEFLECTION SHALL BE ALLOWED AT EITHER COUPLING
2. ADDITIONAL "IN-LINE" VALVES(S) MAY BE REQUIRED AT THE DIRECTION OF THE CITY.

STERILIZED PIPE SPOOL ASSEMBLED WITH TEE OR CROSS AS REQUIRED SEE NOTE 2.

DISCHARGE PRESSURE PRIOR TO REMOVAL OF THRUST BLOCK AND CONNECTION TO EXIST. SYSTEM.

DUCTILE IRON SOLID SLEEVE (STERILIZED) TYP. (LONG SLEEVE PATTERN)

LENGTH AS REQUIRED (ONE PIPE LENGTH MAX.)

1/4" MAX WIDTH AT EACH END
1'-6"  SEE NOTE 1

COMPRESSION STYLE  
FIRE HYDRANT

2 1/2" HOSE NOZZLE WITH  
NATIONAL STANDARD THREADS

4 1/2" PUMPER PORT WITH  
NATIONAL STANDARD THREADS  
WITH STORZ 5" ADAPTOR AND CAP

±3"

FINISHED GRADE

3'-6" MIN. COVER  
ON WATER MAIN

6" RESILIENT  
SEAT GATE VALVE  
(FL X MJ)

STANDARD 2-PIECE  
CAST IRON VALVE BOX

CONCRETE THRUST BLOCK

6" D.I. PIPE  
(CLASS 53)

WRAP DRAIN GRAVEL IN  
NON-WOVEN FILTER FABRIC

CONCRETE BEARING BLOCK

1/2 CU.YD. OF 1/2" WASHED  
DRAIN GRAVEL

NOTES:
1. OR 3' FROM BACK OF CURB

2. PROVIDE 8' OF 12" MINIMUM OR EQUAL  
IN SIZE TO ANY ADJACENT DITCH PIPE  
TO COUNTY, STATE OR CITY STANDARDS  
IF APPLICABLE

3. PROVIDE MIN. 5'-0" CLEARANCE AND  
LEVEL AREA AROUND HYDRANT

4. PAINT FIRE HYDRANT WITH TWO COATS  
PRESERVATIVE BRAND NO. 43-616 YELLOW

5. STENCIL FOOTAGE TO VALVE ON  
FIRE HYDRANT FOOTAGE UNDER PORT

6. REMOVE ALL CHAINS FOR  
FIRE HYDRANT CAPS

City of Pacific
Fire Hydrant Assembly

<table>
<thead>
<tr>
<th>APPROVED:</th>
<th>DATE:</th>
<th>DRAWN:</th>
<th>CHECKED:</th>
<th>SCALE:</th>
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<tr>
<td></td>
<td>8/96</td>
<td>JH</td>
<td>TJO</td>
<td>None</td>
</tr>
</tbody>
</table>

DRAWING NO.  
WT-THA
ROCK RETAINING WALL

LEVEL ALL AROUND MIN. 3' RADIUS

EXISTING DITCH

CUT

LEVEL ALL AROUND MIN. 3' RADIUS

ROCK RETAINING WALL

PROVIDE MINIMUM 12" CULVERT (15' MINIMUM LENGTH) SIZE MAY BE SIGNIFICANTLY GREATER BASED ON LOCAL CONDITIONS

FILL

City of Pacific

Fire Hydrant Cut or Fill Location

<table>
<thead>
<tr>
<th>DRAWING NO.</th>
<th>WT-FHA-C-F</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPROVED:</td>
<td>DATE:</td>
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<tr>
<td>8/96</td>
<td>JH</td>
</tr>
<tr>
<td>CHECKED:</td>
<td>TJO</td>
</tr>
<tr>
<td>SCALE:</td>
<td>None</td>
</tr>
</tbody>
</table>
NOTES:
1. Provide a 2' wide sidewalk panel centered at each meter for maintenance and repair.
2. Meter boxes in sidewalks can be concrete or plastic.
SINGLE AND DOUBLE WATER SERVICE DETAIL

1. 3/4" METER YOKE END CONNECTION EQUAL TO MUELLER H-14222
2. 1" IPTxIPS INSTA-TITE CORP STOP EQUAL TO MUELLER B-25005
3. 5/8"x3/4"x12" COPPER SETTER EQUAL TO MUELLER B-2404
4. ROMAC SADDLE (1" IPT) SINGLE STAINLESS STEEL STRAP FOR PIPE DIAMETERS LESS THAN 10" AND DOUBLE STAINLESS STEEL STRAP FOR PIPE DIAMETERS 10" AND GREATER.
5. 1" (DOUBLE) OR 3/4" (SINGLE) HIGH MOLECULAR (200 PSI, SIDR 7) "POLY" PIPE (LENGTH AS REQUIRED)
6. 14 GAUGE WIRE FROM MAINLINE TAP TO METER BOX AND EXPOSE 6" MINIMUM IN BOX (RUN INSIDE 2" PVC GUARD CONDUIT WHERE APPLICABLE)
7. METER BOX - CARSON 1419 OR EQUAL (SET FLUSHED WITH FINISHED GRADE, PIT LID ADAPTER HOLE IN LID)
8. INSTALL SERVICE LINE IN 2" PVC GUARD PIPE (SCH-80) WHEN CROSSING ROADWAY (3' MINIMUM BEYOND AND BENEATH PAVEMENT SECTION) NOT REQ'D WHEN WATER MAIN IS UNDER STREET PAVEMENT
9. TOP ENTRY VERTICAL LOCKING BALL ANGLE METER VALVE
10. ANGLE DUAL CHECK VALVE
11. 1" IPSxPE INSTA-TITE CURB VALVE EQUAL TO MUELLER H-15191
12. 3/4" IPSx12" LONG BRASS NIPPLE
13. 3/4" IPSx12" LONG BRASS NIPPLE W/CAP

DOUBLE SERVICE

14. 3/4" IPSx18" LONG BRASS NIPPLE
15. 3/4"x3/4"x1" BRASS BULLHAD TEE
16. 3/4"x3/4"x1" BRASS ELBOW

City of Pacific
Water Service
3/4 Inches and 1 Inch

Approved by Public Works Sub-Committee on 1/30/01

<table>
<thead>
<tr>
<th>DRAWING NO.</th>
<th>WT-Srv 1</th>
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<td>SCALE:</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>MAKER OR RATING</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>1. Double Stainless Steel Strap Saddle</td>
<td>Romac or Equal Mueller or Equal</td>
</tr>
<tr>
<td>2. Corporation Valve</td>
<td>AWWA C901</td>
</tr>
<tr>
<td>3. Pipe – High Molecular Polyethylene</td>
<td>Mueller or Equal</td>
</tr>
<tr>
<td>4. Compression Couplings</td>
<td>Rich or Equal</td>
</tr>
<tr>
<td>5. Valve Box</td>
<td>Carson or Equal</td>
</tr>
<tr>
<td>6. Meter Box</td>
<td>Mueller or Equal</td>
</tr>
<tr>
<td>7. Meter Setter w/Lockable Bypass</td>
<td>14 Gauge Copper Wire</td>
</tr>
<tr>
<td>8. 90° Brass Street Elbow</td>
<td></td>
</tr>
<tr>
<td>9. Tracer Wire</td>
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</tbody>
</table>

City of Pacific

Water Service
1-1/2 Inches and 2 Inches

DRAWING NO. WT-Service 2

APPROVED: ______________________ DATE: ________________

DATE: 8/96 DRAWN: JH CHECKED: TJO SCALE: None
NOTES
1. "SENSUS" METERS (3" TO 10") SHALL BE FURNISHED BY CONTRACTOR AND SIZED BY CITY. METERS SHALL READ IN CUBIC FEET.
2. VAULT SHALL BE PRECAST, UTILITY VAULT OR OWNER APPROVED EQUAL.
3. ALL PIPE & FITTINGS 4" AND LARGER SHALL BE CEMENT LINED.
4. PIPING FROM MAIN TO VAULT SHALL BE AS SHOWN IN TABLE BELOW. PROVIDE TEE WITH VALVE ON DISTRIBUTION MAIN.
5. ALL PIPING SHALL BE PAINTED (TWO COATS) WITH PARKER PAINT MARINE ENAMEL, MARATHON 1065, TAHOE BLUE.

<table>
<thead>
<tr>
<th>METER SIZE</th>
<th>MAIN-LINE</th>
<th>BYPASS</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>3”</td>
<td>4” Di.</td>
<td>1 1/2” BRASS</td>
<td>7’-6”</td>
<td>3’-0”</td>
<td>9 1/2”</td>
<td>6”</td>
<td>2’-8”</td>
<td>9”</td>
<td>4”</td>
</tr>
<tr>
<td>4”</td>
<td>4” Di.</td>
<td>1 1/2” BRASS</td>
<td>7’-6”</td>
<td>3’-0”</td>
<td>9 1/2”</td>
<td>6”</td>
<td>2’-8”</td>
<td>9”</td>
<td>4”</td>
</tr>
<tr>
<td>6”</td>
<td>6” Di.</td>
<td>2” BRASS</td>
<td>9’-6”</td>
<td>3’-6”</td>
<td>12”</td>
<td>6”</td>
<td>2’-8”</td>
<td>9”</td>
<td>4”</td>
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<tr>
<td>8”</td>
<td>8” Di.</td>
<td>4” DI.</td>
<td>11’-0”</td>
<td>4’-0”</td>
<td>12”</td>
<td>9”</td>
<td>3’-6”</td>
<td>14”</td>
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<tr>
<td>10”</td>
<td>10” Di.</td>
<td>4” DI.</td>
<td>13’-0”</td>
<td>5’-0”</td>
<td>16”</td>
<td>12”</td>
<td>4’-0”</td>
<td>16”</td>
<td>6”</td>
</tr>
</tbody>
</table>
MATERIAL LIST

1. 2–FLEX CPLG TO FIT ROCKWELL 441 (4” X 3” REDUCER, M.J. FOR 3” METER

2. 2–DOUBLE STRAP SERVICE CLAMPS, ROMAC 101 WITH IPS TAP, OR EQUAL

3. 3–STRAIGHT CPLG. BRASS TO OUTSIDE I.P. THREAD MUELLER H–15425,H–15428 110 COMP., OR EQUAL

4. 1 1/4” BEND CPLG BRASS TO BRASS MUELLER H–15525.

5. 1 1/4” BEND CPLG, BRASS TO OUTSIDE I.P. THREAD MUELLER H–15530, OR EQUAL.

6. 1 BALL VALVE WITH PADLOCK WING OR LOCK CAP, FORD B21–444W OR B21–666 WITH LOCK CAP OR B21–777 WITH LOCK CAP.

7. 2–RESILIENT SEAT GATE VALVE, FL X FL, (RIsing STEM)

8. 1–3” TO 10” COMPOUND METER ("SENSUS" TOUCH READ) – SIZE TO BE AS SPECIFIED BY CITY AND FURNISHED BY CONTRACTOR/DEVELOPER

9. 1 C.I. ADPT. FL X PE (LENGTH TO FIT)

10. 1–CPLG. ADAPT., FL ROCKWELL 912, OR OWNER APPROVED EQUAL

11. CAST IN PLACE OR PRECAST CONCRETE VAULT WITH (H2O) BILCO (HATCH SIZE AND LOCATION TO BE APPROVED BY CITY)

12. WELDED FL RESTRAINT OR SHAKLE TO THRUST BLOCK TO PREVENT MOVEMENT IF METER IS REMOVED

13. INSULATED CPLG. TO 3” CU SERVICE.

14. UNION

15. INSTALL ALUMINUM LADDER WITH TELESCOPIC RISER FASTEN TO WALL WITH STAINLESS STEEL FASTENER AT MAXIMUM THREE FOOT INTERVALS.

16. PROVIDE 4” DRAIN PIPE TO DAYLIGHT (MIN. SLOPE = 2%) OR CITY APPROVED SUMP PUMP SYSTEM AS REQUIRED.

City of Pacific
Water Meter Vault
3 Inches thru 10 Inches

| APPROVED: | DATE: |
| DRAWING NO. | WT-Mtr 3–10 Nts |
| DRAWN: | CHECKED: |
| SCALE: |

PAGE 3 OF 3
BLOW-OFF HYDRANTS SHALL BE NON-FREEZING, SELF-DRAINING TYPE.

1. SET UNDERGROUND IN CITY APPROVED METER BOX, THESE HYDRANTS WILL BE FURNISHED WITH A 2" FIP INLET, A NON-TURNING OPERATING ROD, AND SHALL OPEN TO THE DESIGN, AND BE SERVICEABLE FROM ABOVE GRADE WITH NO DIGGING.

2. THE OUTLET SHALL ALSO BE BRONZE AND BE 2-1/2" NST.

3. HYDRANTS SHALL BE LOCKABLE TO PREVENT UNAUTHORIZED USE.

(SPECIFY OVERALL LENGTH 6" SHORTER THAN NORMAL DEPTH OF BURY. MINIMUM OPENING IN METER BOX SHALL BE 10").
1. VALVE MARKER POST PAINTED YELLOW WITH BLACK STENCILLED DISTANCE & DIRECTION TO VALVE.

2. 17"x28" CONC. METER BOX WITH 3/8" STEEL DIAMOND PLATE COVER, FOG-TITE METER SEAL CO. NO.2

3. CAST IRON VALVE BOX

4. 2" AWWA RESILIENT SEAT GATE VALVE THD X THD, WITH OPERATING NUT

5. 2" TYPE "K" COPPER PIPE

6. DOUBLE STRAP SERVICE CLAMP

7. 90° BEND MUELLER No. H-15526 COMPRESSION X COMPRESSION

8. 2" COMBINATION AIR & VACUUM RELEASE ASSEMBLY; A. APCO MODEL 144.
   B. CRISPIN MODEL CRAL 2.

9. 2, 2"X90° ELL, GALV. WITH WEEP HOLE IN VERTICAL BEND

10. 2" GALV. IRON PIPE (FIELD LOCATE NEXT TO EXISTING PROPERTY LINE).

11. 2"X90° ELL (GALV.)

12. PAINT PORTION ABOVE GROUND WITH TWO COATS OF PRESERVATIVE BRAND No. 43-616 YELLOW PAINT

13. 2" BEEHIVE STRAINER

14. 2" OPEN PATTERN RETURN BEND

15. STRAIGHT COUPLING, MUELLER No. H-1542 COMPRESSION X COMPRESSION

NOTES:

1. ALL PIPING BETWEEN DOUBLE STRAP SADDLE AND INLET SIDE OF COMBINATION AIR AND VACUUM ASSEMBLY SHALL BE COPPER

2. TAP WATER MAIN AT HIGH POINT, LOCATION TO BE APPROVED BY THE CITY

City of Pacific

Water
Combination Air/Vacuum Assembly

<table>
<thead>
<tr>
<th>APPROVED</th>
<th>DATE</th>
<th>DRAWN</th>
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<td>None</td>
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</table>

DRAWING NO.: WT-Air/Vac

DATE: 8/96
NOTE:
USE FORD S90 BRASS TAPPING SADDLE
IF WATER MAIN PIPE IS P.V.C. AND FB100,
FB 1101, CORPORATION STOPS AS NECESSARY.
REDUCED PRESSURE BACKFLOW DEVICE

1 PROVIDE CITY APPROVED SUPPORT FOR 2 1/2" AND LARGER DEVICES.
Hersey model, detector double check valve assembly sized by city or equal uniflange with set screws

Galvanized steel ladder to be secured to vault

Concrete vault to be sized by city, with Bilco cover (H20 loading)

Water-tight grout, restrain inlet/outlet pipe with welded flange or shackle to thrust block to prevent shackle through vault if check valve assembly is removed.

4" min. diameter PVC drain to daylight where applicable, minimum slope 2%.

Adjustable pipe stanchion, Grinnell pipe supports.

Valve assembly to be centered in vault.

Cl. 53 D.I., MJ with megalugs

Notes:
1. Assembly shall be maintained by property owner and annual certification required.
2. Fireline shall not be put into service until the backflow prevention device is approved by the district.
3. A reduced pressure backflow prevention device may be required by the direction of the city.
4. Paint piping with Parker paint marine enamel, Marathone 1065, Tahoe blue.
NOTES:

1. MINIMUM BOX SIZE 3/4" - 1" ASSEMBLIES, 10"x13"
   1 1/4" - 2" ASSEMBLIES, 14"x20"

2. ASSEMBLY MUST BE INSTALLED WITH TEST COCKS
   FACING UP OR TO ONE SIDE. INSTALL WATERTIGHT
   PLUGS IN ALL TEST COCKS.

3. SUFFICIENT DRAINAGE MUST BE PROVIDED TO
   PREVENT ASSEMBLY FROM BEING SUBMERGED.

4. PROVIDE SUPPORT BLOCKS AS MAY BE REQUIRED.

5. PROVIDE A STRAINER WITH BLOW OUT TAPPING
   AHEAD OF DEVICE IF REQUIRED BY CITY.

6. THOROUGHLY FLUSH THE LINE, PRIOR TO THE
   INSTALLATION OF THE DCCA.

7. PROTECT DEVICE FROM FREEZING BY INSTALLING IN
   STRUCTURE OR PER "HOT BOX" SHOWN IN REDUCED
   PRESSURE BACKFLOW DEVICE DETAIL.

City of Pacific
Detector Double Check
Assembly - Residence

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<tr>
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LEGEND

1. DOUBLE-CHECK DETECTOR VALVE ASSEMBLY CAPABLE OF METERING WATER USAGE UNDER LOW FLOW CONDITIONS. 10.0 P.S.I. HEAD LOSS AT 1600 GPM FOR 8" SIZE. ASSEMBLY TO BE STATE DOH APPROVED. SIZE AS APPROVED BY CITY. (SENSUS TOUCH READ)
   - 1A. 2 - CHECK VALVES, (FL)
   - 1B. 1 - BY-PASS METER 5/8" X 3/4" SENSUS (C.F. READING) METER TOUCH READ COMPLETE WITH SPUD NUT.
   - 1C. 1 - DOUBLE CHECK VALVE ASSEMBLY, (DOH APPROVED.) 3/4" FOR 8" D.D.C.V.
   - 1D. 2 - GATE VALVES, (FL) W/HAND WHEEL; RISING STEM, RESILIENT SEATED AS PER CITY REQUIREMENTS.
   - 1E. 2 - GATE VALVES, (FL) W/HAND WHEEL; RISING STEM, RESILIENT SEATED AS PER CITY REQUIREMENTS.

2. 2 - FLANGED COUPLING ADAPTER, SIZE AS SPECIFIED ON PLANS. (LOCATE MINIMUM 8" FROM INNER WALL)

3. 2 - PIPE SPOOLS, PLAIN END.

4. 1 - REDUCER (MJ X MJ), IF REQUIRED.

5. RESTRAINED JOINT WATER MAIN CL50.

6. ALUMINUM (TELES CopING) LADDER, LOCATE AS DIRECTED BY CITY, USE STAINLESS STEEL FASTNERS AT 3" MAX. SPACING

7. UTILITY VAULT CO. VAULTS SHALL BE CITY STD. OF QUALITY; SUBMIT ALTERNATIVES FOR APPROVAL. HINGED AND SPRING LOCKED STEEL DIAMOND P/L COVER 2-332P, (DOUBLE HATCH COVER.) 4" C.I. FLOOR DRAIN INTO 4" PVC DRAIN LINE. DAYLIGHT OR STORM SYSTEM. (NO SUMP PUMPS) CHECK VAULT SIZE REQUIRED FOR ENCLOSING COMPLETE ASSEMBLIES.

8. PROVIDE GRINNELL PIPE SUPPORTS, TO INCLUDE STEEL YOKE, BOLT TO VAULT FLOOR USING RECOMMENDED CONNECTION AND SIZES.

MIN. VAULT SIZES:

4" 5106 LA -- 5'-0" X 10'-6" X 6'-3" HIGH
6" 5106 LA -- 5'-0" X 10'-6" X 6'-3" HIGH
8" 612 LA -- 6'-0" X 12'-0" X 6'-6" 1/2'
10" 612 LA -- 6'-0" X 12'-0" X 6'-6" 1/2'

NOTE:
1. PAINT ALL PIPING WITH PARKER PAINT MARINE ENAMEL, MARATHON 1065 TAHOE BLUE
2. PROVIDE GRINNELL PIPE SUPPORTS, WHERE REQUIRED. (3 MINIMUM)
CONCRETE COLLAR, SEE VALVE BOX ADJUSTMENT DETAIL

FINISHED GRADE

CAST IRON VALVE BOX

2" SQUARE OPERATING NUT WITH 1/4" THICK ROUND PLATE WELDED TO NUT & EXTENSION

1/4" CLEARANCE INSIDE

EXTENSION STEM – MAKE FROM 1" DIA. MILD STEEL OR DOUBLE EXTRA STRONG PIPE.

MAKE 2" SQUARE NUT SOCKET FROM 1/4" STEEL PLATE — WELD TO 1" EXTENSION STEM

3/4" COLD ROLLED BLACK STEEL PIPE W/ ONE COATING OF HARD-HAT SILVER RUST PREVENTION PAINT

2" CAST IRON OPERATION NUT

2" SQUARE TUBING W/ 2-1/2" FLATBAR

City of Pacific

Water Valve
Stem Extension

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1. EACH VALVE SHALL BE PROVIDED WITH AND ADJUSTABLE CAST IRON VALVE BOX OF 5 INCHES (5") INSIDE DIAMETER. VALVE BOXES SHALL HAVE A TOP SECTION WITH AN EIGHTEEN INCH (18") MIN. LENGTH. THE VALVE BOX SHALL BE RICH NO. 940 OR APPROVED EQUAL. VALVE BOX EARS SHALL BE PLACED IN LINE WITH PIPE IT SERVES.

2. 15” MINIMUM, 36” MAXIMUM FOR OPERATOR NUT. EXTENSION MAY BE REQUIRED.
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<tr>
<th>NO.</th>
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<tr>
<td>1</td>
<td>2&quot; GATE VALVE</td>
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<td>2</td>
<td>FORD STAINLESS STEEL DOUBLE STRAP SADDLE (OR APPROVED EQUAL)</td>
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<tr>
<td>3</td>
<td>2&quot; GALV. NIPPLE</td>
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<td>4</td>
<td>2&quot; GALV. 90' ELL</td>
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<td>5</td>
<td>D.I. CL. 52 SUPPLY MAIN (SIZE AS DETERMINED BY FIRE FLOW REQUIREMENTS)</td>
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<td>6</td>
<td>90' BEND (MJ X MJ) WITH MEGALUG ADAPTER</td>
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<td>7</td>
<td>CONCRETE THRUST BLOCK (SIZE TO BE APPROVED BY CITY)</td>
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<td>PIPE SLEEVE</td>
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NOTES:
1. AFTER SYSTEM IS TESTED, PURITY SAMPLES WILL BE TAKEN AT ALL RISERS IN SYSTEM