

CONN. TO A.C.  
OR P.V.C. PIPE

NOTE:  
WATER METER SERVICE RUNS  
OR WATER METER BOXES  
ARE NOT TO BE LOCATED IN  
DRIVEWAYS

COPPER COUPLING (SILVER  
SOLDER ONLY) SERVICES  
OVER 100 FEET.

CONN. TO STEEL PIPE

RESTORE COATING AROUND COVERING  
TOP OF COUPLING

LEGEND ON PLANS — W

FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO  
 UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE

ITEM NO.	REPLACES SAN DIEGO REGIONAL STD. DWG. WS-01 SIZE & DESCRIPTION	MATERIAL SPECIFICATIONS	REMARKS
1.	DOUBLE STRAP BRASS SADDLE W/STAINLESS STRAPS, AND FEMALE IRON PIPE THREADS		FLAT STRAPS
2.	BRASS CORPORATION STOP: MALE IRON PIPE X COMPRESSION		
3.	REQUIRED TUBING, COPPER SERVICE SIZE (1" ONLY)	TYPE 'K' SOFT	
4.	BRASS ANGLE BALL VALVE W/LOCK WING. COMPRESSION NUT. WITH 3/4" METER THE REDUCTION SHALL BE IN THE ANGLE METER VALVE		
5.	METER BOX #4-1/2 WITH OUTER COVER, AND READ LID TO BE SUPPLIED BY CITY	CONCRETE & PLASTIC	1 PIECE LID
6.	HIGH PRESSURE FORGED STEEL COUPLING (1" ONLY)	3,000 PSI	WELD TO PIPE NO SUBSTITUTIONS
7.	BALL VALVE SUPPLIED BY THE CITY.		
8.	WATER METER TO BE PURCHASED FROM CITY		

APPROVED: DATE: 4-2-2014  
 UTILITY ENGINEER

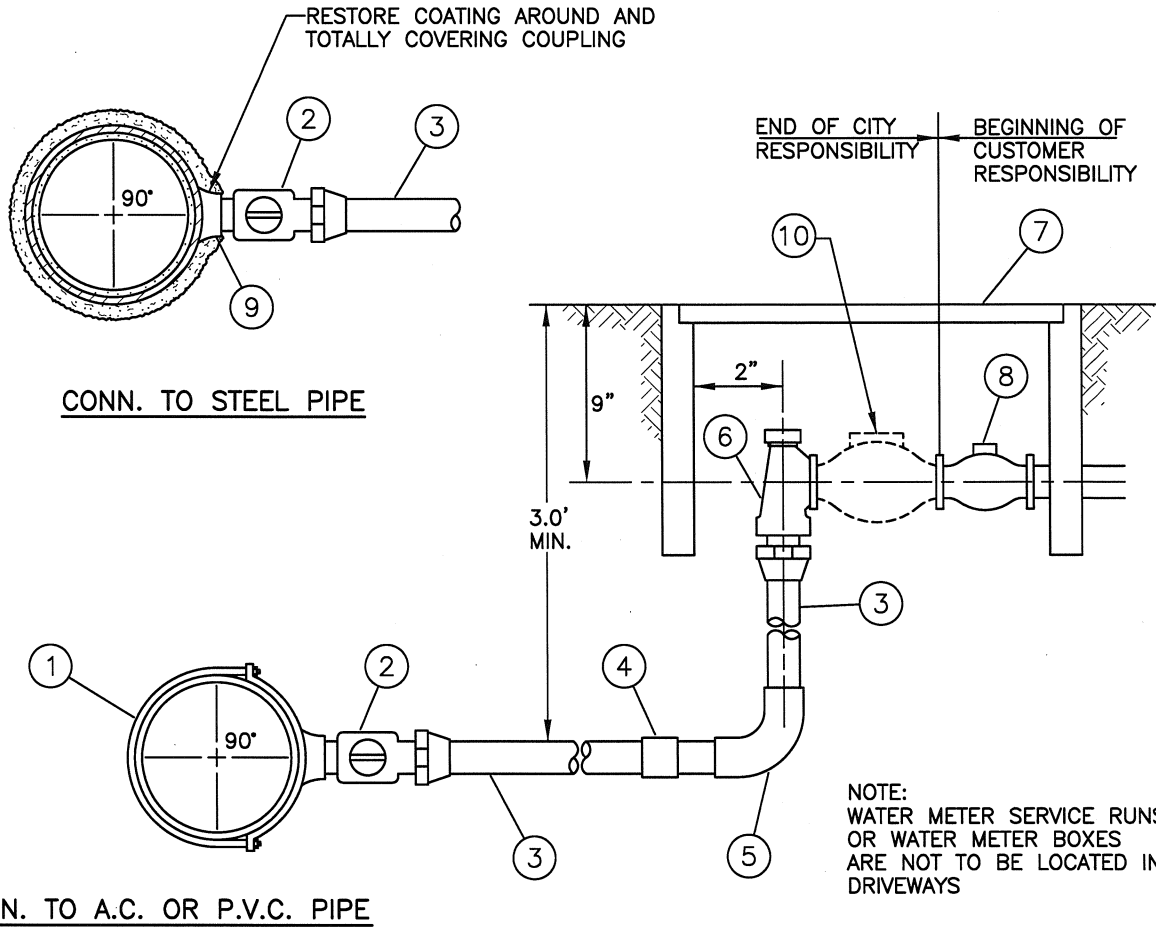
**CITY OF ESCONDIDO**  
 UTILITY DEPARTMENT

SCALE:  
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REVISED	APPROVED

**1" WATER SERVICE  
 FOR 3/4" AND 1" METERS**

STANDARD DRAWING NO.  
**W-1-E**

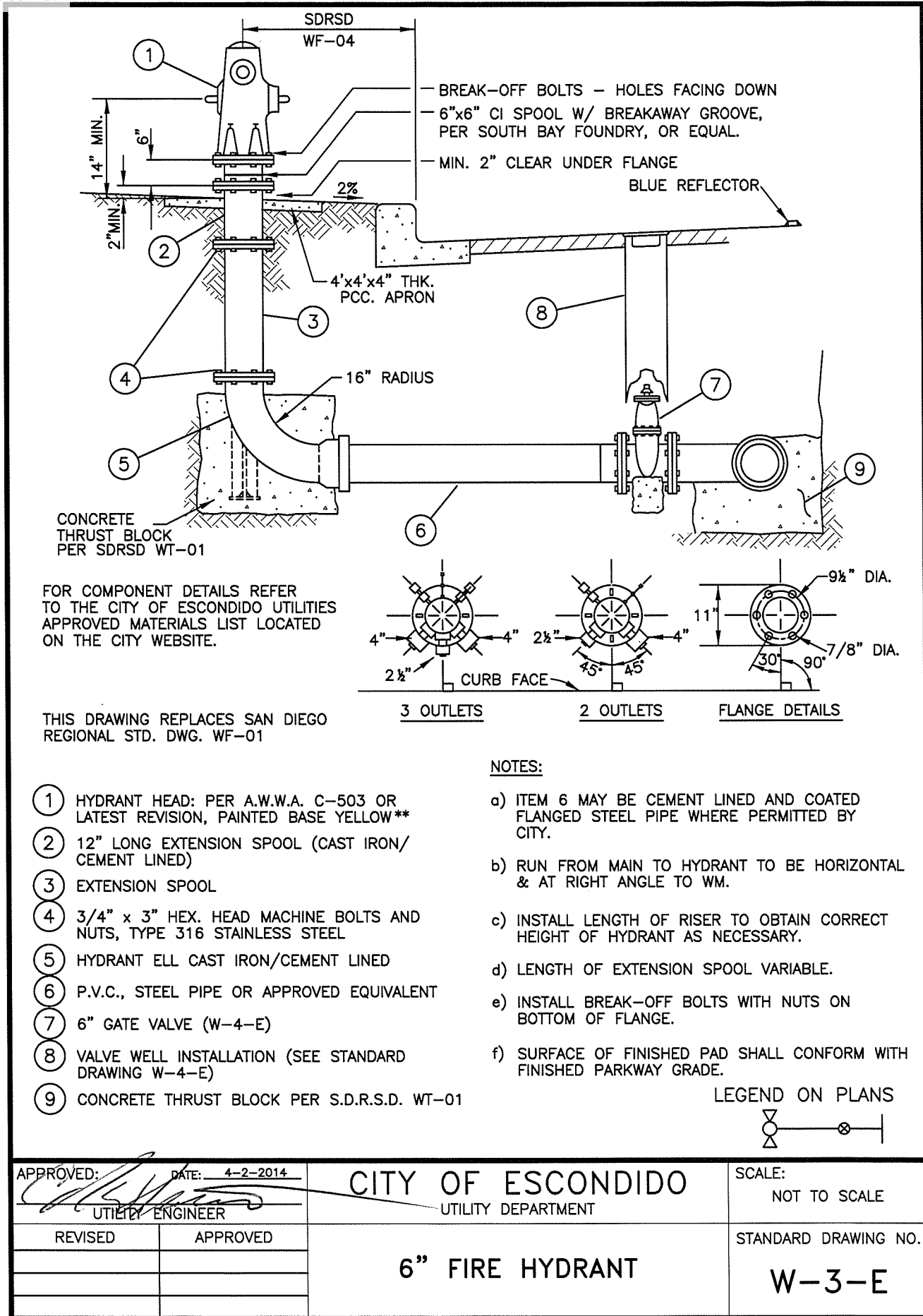


LEGEND ON PLANS

FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

ITEM NO.	REPLACES SAN DIEGO REGIONAL STD. DWG. WS-02 SIZE AND DESCRIPTION	REMARKS
1	DOUBLE STRAP SADDLE WITH STAINLESS STRAPS, AND FEMALE IRON PIPE THREADS	FLAT STRAPS
2	CORPORATION STOP: MALE IRON PIPE X COMPRESSION FORD FB 1100-7-Q-NL	TYPE "K" SOFT
3	REQUIRED TUBING, COPPER SERVICE SIZE (2" ONLY)	
4	COPPER COUPLING, COPPER SLIP FITTING WHEN SERVICE IS OVER 20' (SILVER SOLDER ONLY)	
5	COPPER 90° SLIP FITTING (SILVER SOLDER ONLY)	
6	ANGLE BALL VALVE WITH LOCK WING. INLET COMPRESSION/OUTLET METER FLANGE	
7	METER BOX #6 OUTER COVER, READ LID -REFER TO SDRD WS-03 FOR LOCATION- TO BE SUPPLIED BY CITY.	NO SUBSTITUTIONS
8	BALL VALVE - TO BE SUPPLIED BY CITY	NO SUBSTITUTIONS 3,000 PSI STEEL
9	HIGH PRESSURE FORGED STEEL COUPLING 2" F.I.P. (WELDED TO PIPE)	
10	WATER METER TO BE PURCHASED FROM CITY	

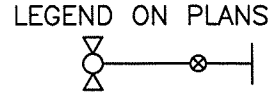
APPROVED:	DATE: 4-2-2014	<b>CITY OF ESCONDIDO</b> UTILITY DEPARTMENT	SCALE: NOT TO SCALE
REVISOR	APPROVED		STANDARD DRAWING NO. <b>W-2-E</b>
<b>2" WATER SERVICE FOR 1 1/2" AND 2" METERS</b>			



FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

- ① HYDRANT HEAD: PER A.W.W.A. C-503 OR LATEST REVISION, PAINTED BASE YELLOW\*\*
- ② 12" LONG EXTENSION SPOOL (CAST IRON/CEMENT LINED)
- ③ EXTENSION SPOOL
- ④ 3/4" x 3" HEX. HEAD MACHINE BOLTS AND NUTS, TYPE 316 STAINLESS STEEL
- ⑤ HYDRANT ELL CAST IRON/CEMENT LINED
- ⑥ P.V.C., STEEL PIPE OR APPROVED EQUIVALENT
- ⑦ 6" GATE VALVE (W-4-E)
- ⑧ VALVE WELL INSTALLATION (SEE STANDARD DRAWING W-4-E)
- ⑨ CONCRETE THRUST BLOCK PER S.D.R.S.D. WT-01

- NOTES:**
- a) ITEM 6 MAY BE CEMENT LINED AND COATED FLANGED STEEL PIPE WHERE PERMITTED BY CITY.
  - b) RUN FROM MAIN TO HYDRANT TO BE HORIZONTAL & AT RIGHT ANGLE TO WM.
  - c) INSTALL LENGTH OF RISER TO OBTAIN CORRECT HEIGHT OF HYDRANT AS NECESSARY.
  - d) LENGTH OF EXTENSION SPOOL VARIABLE.
  - e) INSTALL BREAK-OFF BOLTS WITH NUTS ON BOTTOM OF FLANGE.
  - f) SURFACE OF FINISHED PAD SHALL CONFORM WITH FINISHED PARKWAY GRADE.



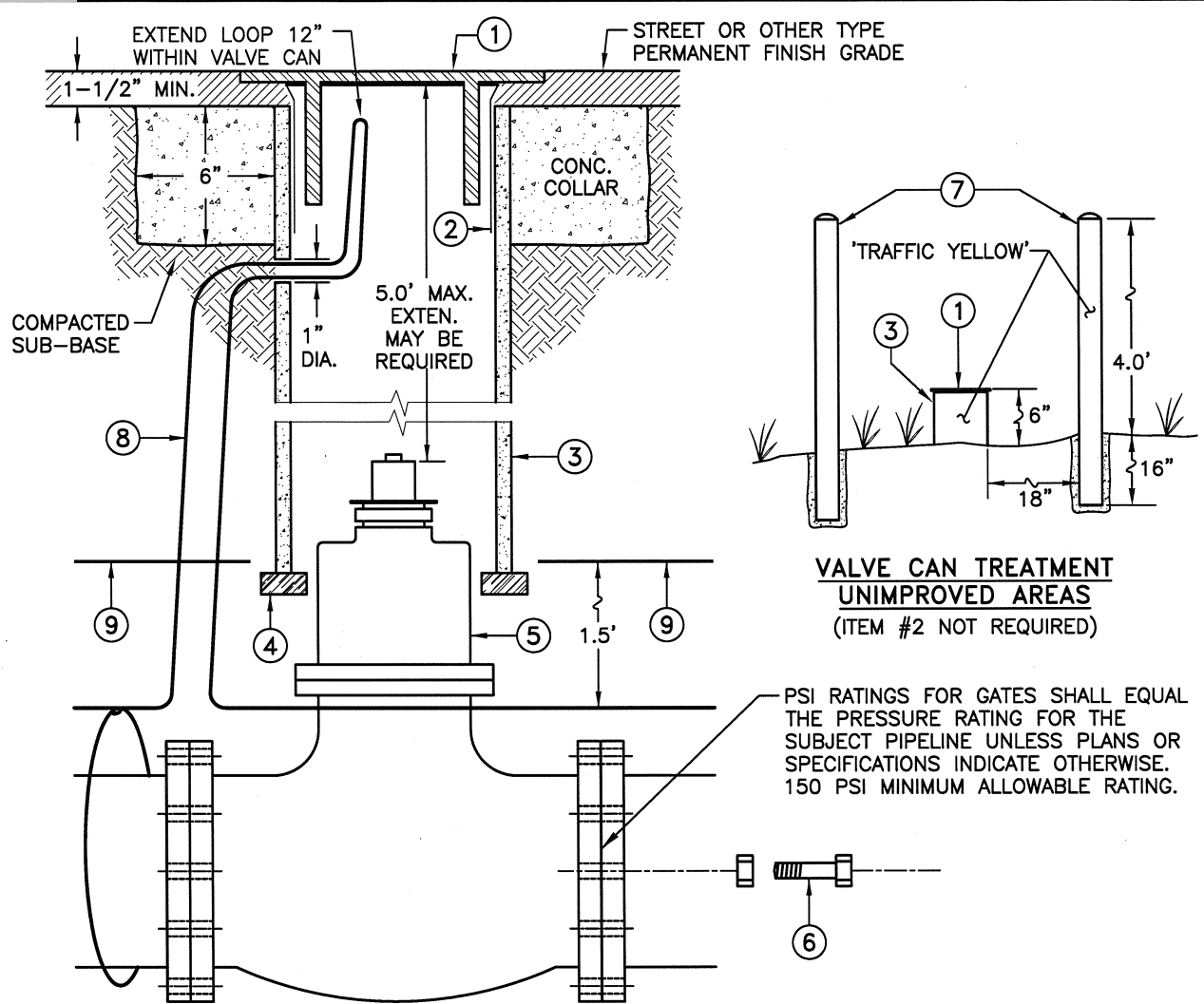
APPROVED:	DATE: 4-2-2014
REVISOR	APPROVED

**CITY OF ESCONDIDO**  
 UTILITY DEPARTMENT

**6" FIRE HYDRANT**

SCALE:  
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STANDARD DRAWING NO.  
**W-3-E**



**VALVE CAN TREATMENT  
 UNIMPROVED AREAS**  
 (ITEM #2 NOT REQUIRED)

FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

REPLACES SAN DIEGO REGIONAL STD. DWG. WV-01 & WV-02

- ① 8" LONG SKIRT CAST IRON VALVE CAN COVER MARKED 'WATER'
- ② 8"x12" 20 GAUGE GALVANIZED METAL SLIP CAN (W/ VERTICAL SPLIT)
- ③ 8"x REQUIRED LENGTH UN-REINFORCED CONCRETE PIPE OR C-900 PVC PIPE
- ④ 2"x4" REDWOOD BLOCKS
- ⑤ GATE VALVE. ALL GATES TO CONFORM TO LATEST AWWA C-509 SPECIFICATIONS ALL GATES TO BE FLANGE x FLANGE, NON-RISING STEM. VALVES SHALL OPEN COUNTER-CLOCKWISE.
- ⑥ HEXAGONAL BOLT & NUT, TYPE 316 STAINLESS STEEL
- ⑦ VALVE MARKER POST, 4" STEEL PIPE CONCRETE FILLED & ANCHORED
- ⑧ #10 SOFT BARE CONTINUOUS COPPER WIRE
- ⑨ 6" WIDE STRIP OF POLYETHYLENE BLUE NONMETALLIC DETECTION TAPE.

LEGEND ON PLANS

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 UTILITY ENGINEER

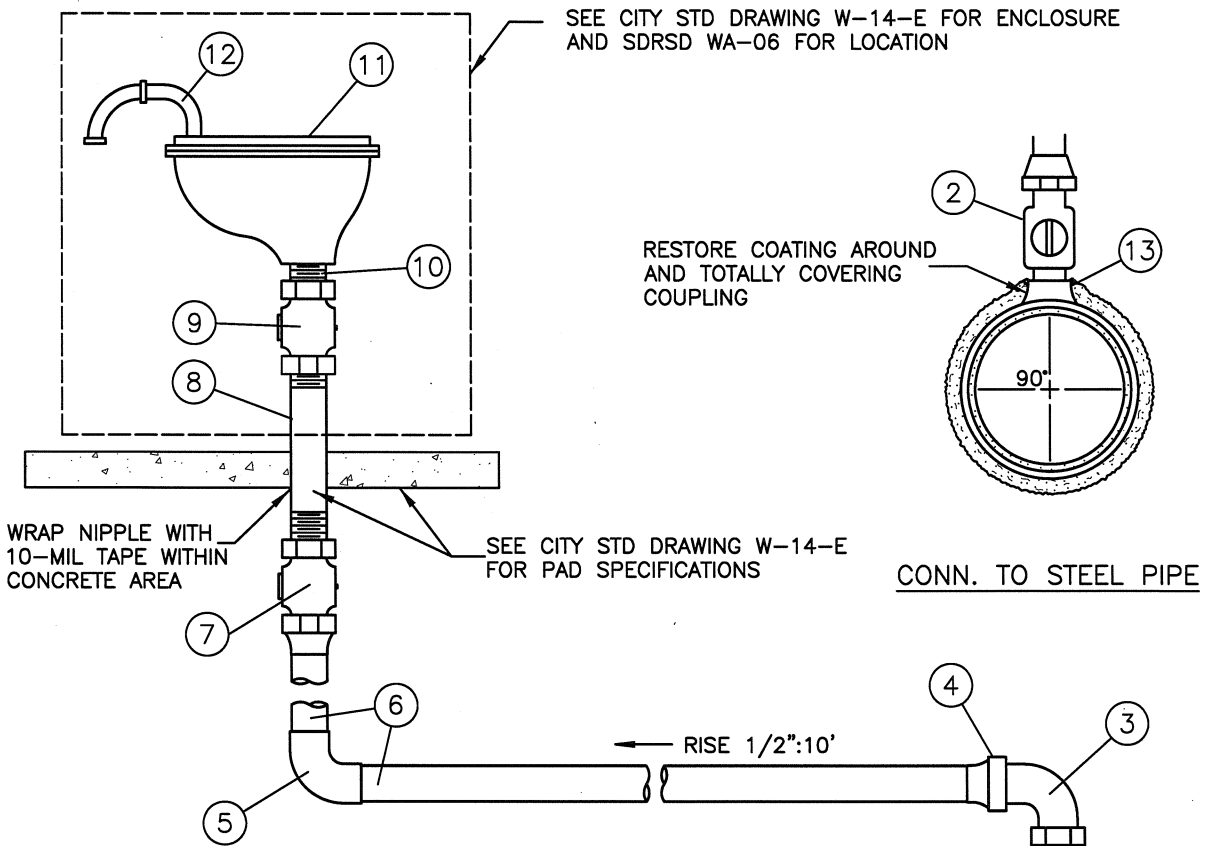
**CITY OF ESCONDIDO**  
 UTILITY DEPARTMENT

SCALE:  
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**GATE VALVE &  
 VALVE CAN**

STANDARD DRAWING NO.  
**W-4-E**



FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

- ① DOUBLE STRAP SADDLE W/STAINLESS STRAPS, AND FEMALE IRON PIPE THREADS
- ② CORPORATION STOP: MIP X MIP
- ③ 90 ELL: FIP X FIP.
- ④ ADAPTER: MIP X COMPRESSION
- ⑤ 2" AIR VALVE SERVICE USE 90° COPPER ELL (SILVER SOLDER ONLY) 1" SWEEP OK.
- ⑥ TYPE "K" SOFT COPPER.
- ⑦ BALL VALVE: FIP X FLARE WITH HANDLE
- ⑧ NO LEAD-BRASS NIPPLE MALE IRON PIPE THREADS, MINIMUM LENGTH 6", MAX 12".
- ⑨ BALL VALVE: FIP X FIP FORD B11-XXX-W-NL
- ⑩ NO LEAD-BRASS NIPPLE MALE IRON PIPE THREADS.
- ⑪ COMBINATION AIR VALVE ASSEMBLY
- ⑫ 2-90° ELLS (STAINLESS STEEL SCREEN ON OUTLET END).
- ⑬ HIGH PRESSURE FORGED STEEL COUPLING (WELDED TO PIPE). 3000 PSI STEEL

**NOTE:**  
 COPPER COUPLING (SILVER SOLDER ONLY) SERVICES OVER 100 FEET AND 2" SERVICE OVER 20 FEET

LEGEND ON PLANS

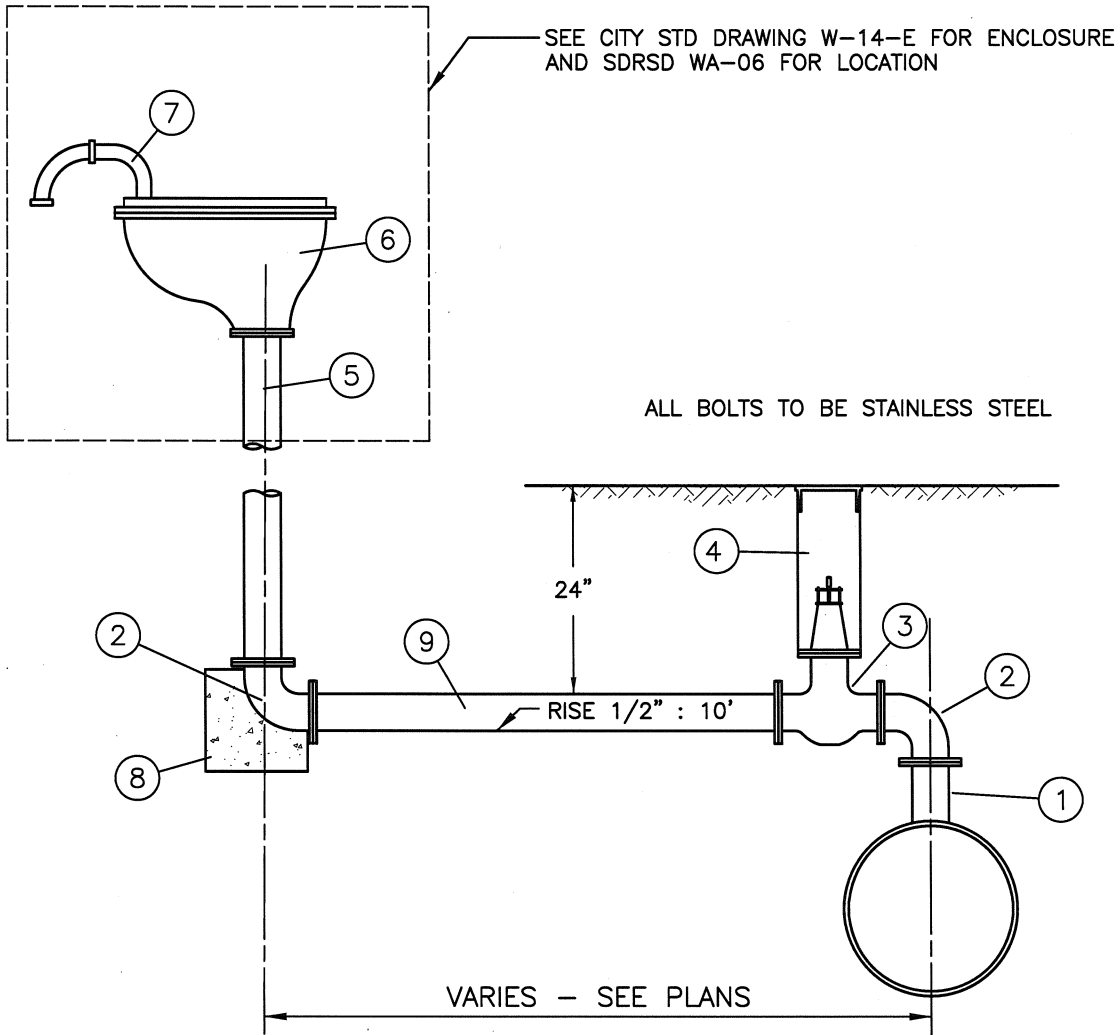
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UTILITY ENGINEER	
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 UTILITY DEPARTMENT

SCALE:  
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**COMBINATION AIR VALVE**  
 1" & 2"

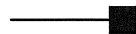
STANDARD DRAWING NO.  
**W-5-E**



FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIAL LIST LOCATED ON THE CITY WEBSITE.

- ① FLANGED OUTLET, CEMENT LINED AND COATED STEEL
- ② FLANGED, 90° ELL, CEMENT LINED AND COATED STEEL OR CEMENT LINED DUCTILE IRON
- ③ VALVE (SEE STD. DWG. W-4-E)
- ④ VALVE WELL AND CAP (SEE STD. DWG. W-4-E)
- ⑤ STEEL PIPE, CEMENT LINED AND COATED
- ⑥ COMBINATION AIR VALVE
- ⑦ 2 - 90° ELLS (SCREENED ON THE OUTLET END)
- ⑧ CONCRETE THRUST BLOCK PER SDRSD WT-01
- ⑨ C-900 PVC

LEGEND ON PLANS



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 UTILITY ENGINEER

**CITY OF ESCONDIDO**  
 UTILITY DEPARTMENT

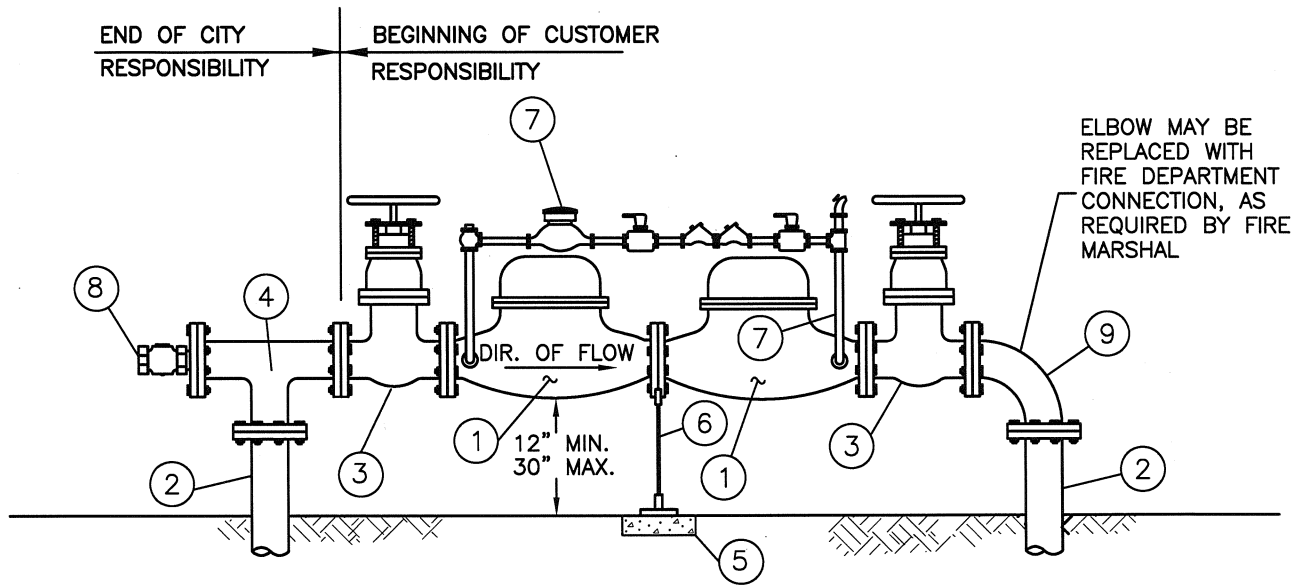
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**COMBINATION AIR VALVE**  
 4" & 6"

STANDARD DRAWING NO.

**W-6-E**



FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

NOTES:

- A. BEFORE WATER SERVICE IS PROVIDED, DETECTOR CHECK SHALL BE TESTED BY CITY STAFF TO INSURE PROPER WORKING CONDITION.
- B. TYPE OF DETECTOR ASSEMBLY SHALL BE BASED ON THE DEGREE OF HAZARD.
- C. ALL BOLTS SHALL BE STAINLESS STEEL.

- 1) DETECTOR CHECK ASSEMBLY (SHALL BE SELECTED FROM THE APPROVED U.S.C. LIST ON FILE WITH THE CITY)
- 2) RISER SPOOLS - SHALL BE CEMENT LINED & COATED STEEL OR DUCTILE IRON SPOOLS, WITH WELD-ON RAISED FACE FLANGES
- 3) FLANGED GATE VALVE (HUB OR HAND-WHEEL) AS APPROVED BY THE CITY (SEE W-4-E)
- 4) CAST IRON TEE OR 90.
- 5) CONCRETE PAD - 18" x 18" x 3 1/2"
- 6) VALVE SUPPORT STAND
- 7) 5/8" x 3/4" WATER METER (METER MUST BE PURCHASED FROM CITY UTILITY BILLING PRIOR TO CONNECTION TO CITY WATER SYSTEM). THE CITY SHALL PROVIDE, INSTALL AND MAINTAIN METER.
- 8) 2" LOCKING BALL VALVE WITH 2 1/2" FIRE HOSE CONNECTION.
- 9) 90° CAST IRON ELBOW

LEGEND ON PLANS

— [ DCA ] —

APPROVED: \_\_\_\_\_ DATE: 4-2-2014

UTILITY ENGINEER

**CITY OF ESCONDIDO**  
 UTILITY DEPARTMENT

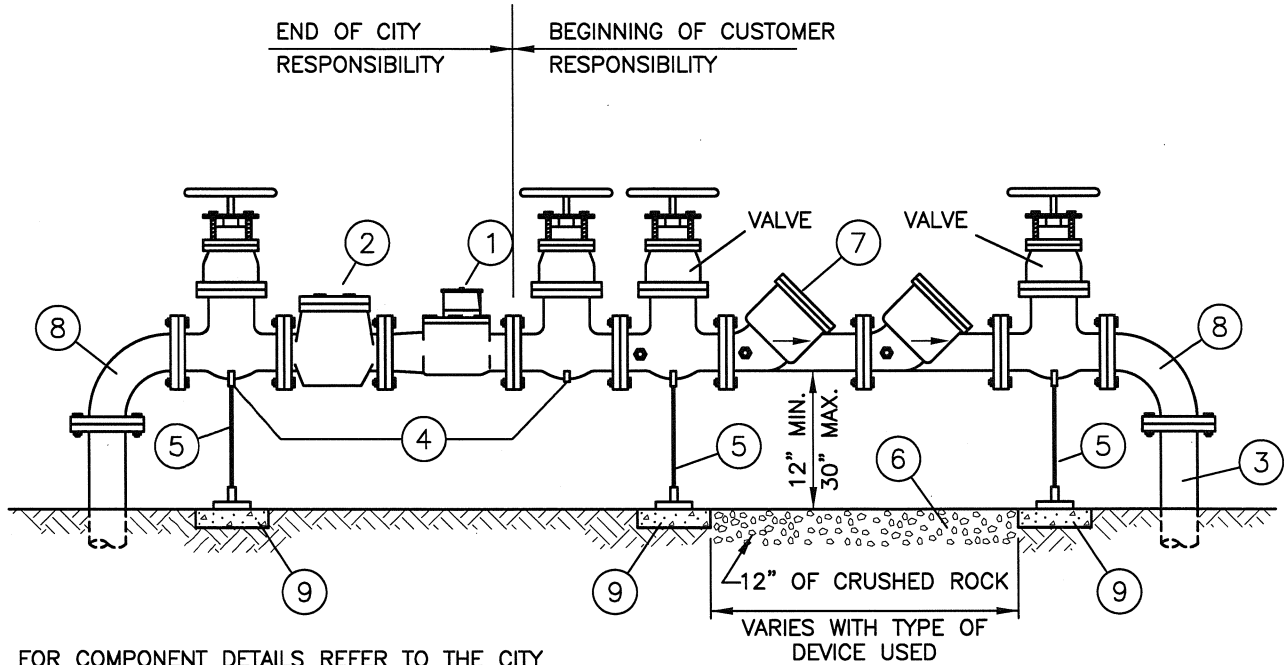
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**3", 4", 6", 8", & 10"**  
**DETECTOR CHECK**  
**ASSEMBLY**

STANDARD DRAWING NO.

**W-7-E**



FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

ALL BOLTS SHALL BE STAINLESS STEEL.


**NOTES:**

- ① WATER METER— METER SHALL BE PURCHASED FROM THE CITY. METER SHALL BE TYPE & SIZE APPROVED BY THE CITY. THE CITY SHALL PROVIDE, INSTALL AND MAINTAIN METER.
- ② STRAINER — SHALL BE TYPE & SIZE APPROVED BY THE CITY AND SHALL BE SUPPLIED BY THE CITY.
- ③ RISER SPOOLS — SHALL BE CEMENT LINED & COATED STEEL OR DUCTILE IRON, WITH WELD-ON RAISED FACE FLANGES.
- ④ FLANGED GATE VALVE (HUB OR HAND-WHEEL) PER STANDARD DRAWING W-4-E.
- ⑤ VALVE SUPPORT STAND
- ⑥ OPTIONAL ROCK BASE
- ⑦ BACKFLOW PREVENTION ASSEMBLY
- ⑧ 90° CAST IRON ELBOW
- ⑨ CONCRETE PAD — 18" X 18" X 3 1/2"

- A) ALL INSTALLATIONS SHALL BE ABOVE GROUND.
- B) ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE AS CLOSE TO THE WATER METER AS POSSIBLE.
- C) THE BACKFLOW PREVENTION ASSEMBLY SHALL BE SELECTED FROM THE APPROVED U.S.C. LIST ON FILE WITH THE CITY.
- D) NO CONNECTIONS SHALL BE MADE BETWEEN THE WATER METER AND THE BACKFLOW PREVENTION ASSEMBLY.
- E) TYPE OF BACKFLOW PREVENTION ASSEMBLY SHALL BE BASED ON THE DEGREE OF HAZARD.
- F) APPROPRIATE TEST COCKS SHALL BE IN PLACE AT ALL TIMES.
- G) CITY SHALL HAVE ACCESS TO BACKFLOW PREVENTION ASSEMBLY AT ALL TIMES.
- H) BACKFLOW PREVENTION ASSEMBLY SHALL HAVE AT LEAST THE SAME CROSS-SECTIONAL AREA AS THE WATER METER.
- I) BACKFLOW ASSEMBLY SHALL BE TESTED TO INSURE PROPER WORKING CONDITION BEFORE WATER IS PROVIDED, AND ANNUALLY THEREAFTER.

LEGEND ON PLANS

— **BFPD** —

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**CITY OF ESCONDIDO**  
 UTILITY DEPARTMENT

**3", 4", 6", 8" & 10"**  
**STANDARD METER ASSEMBLY**  
**BACKFLOW PREVENTION**  
**ASSEMBLY 3" & LARGER**

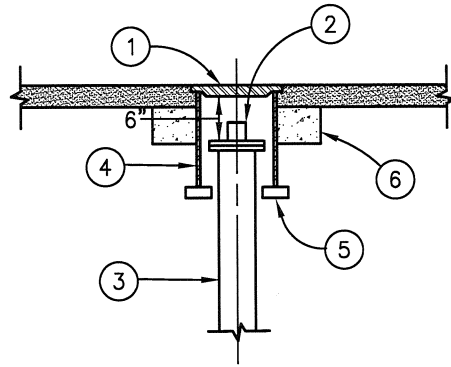
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STANDARD DRAWING NO.  
**W-8-E**

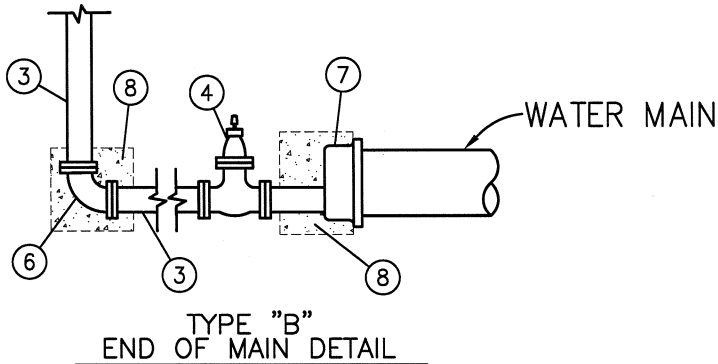


FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

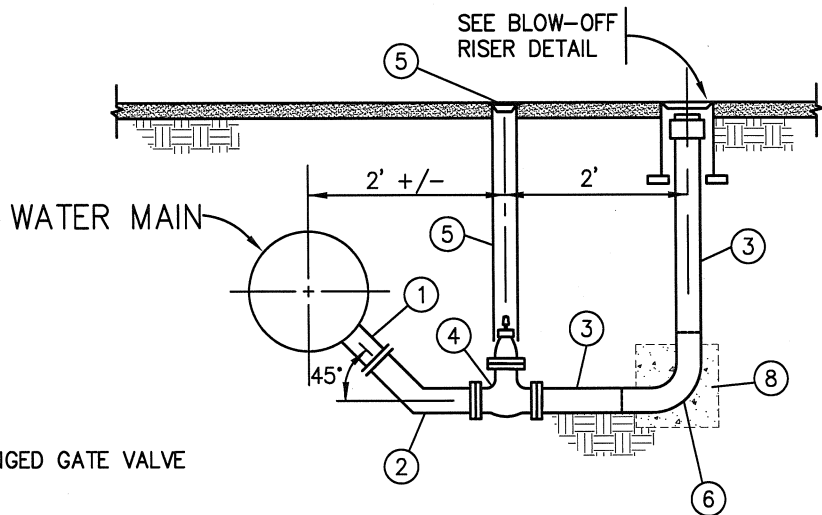
- ① SET 12" O.D. C.I. GATE WELL CAP MARKED "WATER"
- ② SET 4"X4" FEMALE FACED COMPANION FLANGE WITH 4" ABS PLASTIC PLUG.
- ③ 4" DUCTILE IRON PIPE.
- ④ 12" C900 PVC PIPE CL235
- ⑤ CONC. BLOCKS.
- ⑥ 6" x 6" X-SECT. CONC. COLLAR.



BLOW-OFF RISER DETAIL

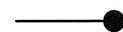


ALL BOLTS SHALL BE STAINLESS STEEL.



- ① FLANGED TEE (LINE SIZE X 4")
- ② SHORT RADIUS 45° FLANGED BEND (SAME MATERIAL AS ITEM 3)
- ③ 4" FLANGED DUCTILE IRON PIPE
- ④ 4" RESILIENT SEATED 200 PSI FLANGED GATE VALVE PER W-4-E
- ⑤ VALVE WELL PER W-4-E
- ⑥ 90° FLANGED BEND (SAME MATERIAL AS ITEM 3)
- ⑦ DUCTILE IRON LINE SIZE P.O. X 4" FLANGE REDUCER
- ⑧ CONCRETE THRUST BLOCK PER SDRSD WT-01

LEGEND ON PLANS



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 UTILITY ENGINEER

**CITY OF ESCONDIDO**  
 UTILITY DEPARTMENT

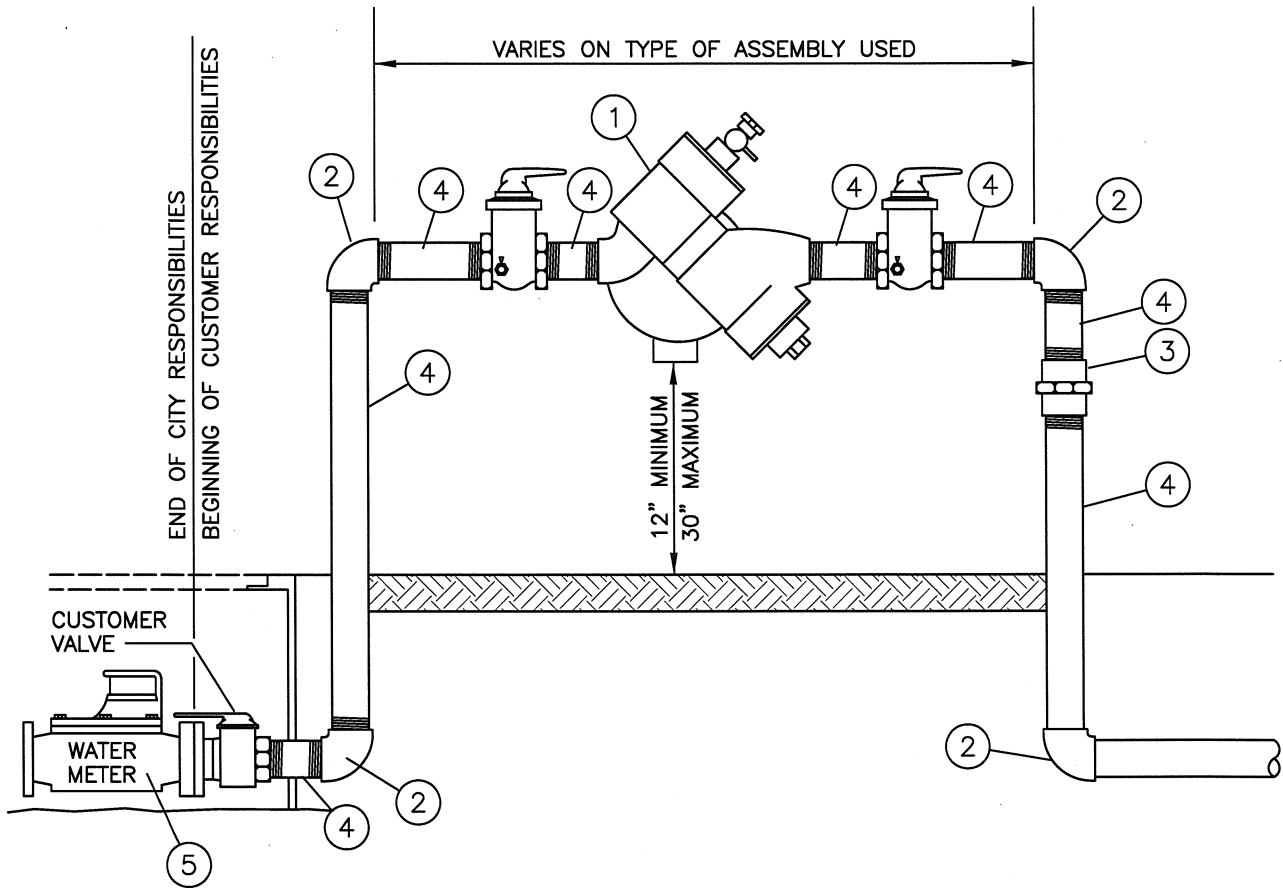
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**4" BLOW-OFF ASSEMBLY**

STANDARD DRAWING NO.

**W-9-E**



NOTES:

FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

- ① BACKFLOW PREVENTION ASSEMBLY
- ② 90° ELBOW (THREADED RED BRASS OR COPPER)
- ③ UNION (THREADED RED BRASS OR COPPER)
- ④ NIPPLE (THREADED RED BRASS, OR COPPER, VARIES IN LENGTH)
- ⑤ WATER METER STD. W-1-E OR W-2-E

- A) ALL INSTALLATIONS SHALL BE ABOVE GROUND.
- B) ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE AS CLOSE TO THE WATER METER AS POSSIBLE.
- C) THE BACKFLOW PREVENTION ASSEMBLY SHALL BE SELECTED FROM THE APPROVED U.S.C. LIST ON FILE WITH THE CITY.
- D) NO CONNECTIONS SHALL BE MADE BETWEEN THE WATER METER AND THE BACKFLOW PREVENTION DEVICE.
- E) TYPE OF BACKFLOW PREVENTION DEVICE SHALL BE BASED ON THE DEGREE OF HAZARD.
- F) CITY SHALL HAVE ACCESS TO BACKFLOW PREVENTION DEVICE AT ALL TIMES.
- G) REFER TO STANDARD DRAWINGS FOR INSTALLATION OF WATER METER & SERVICE. (W-1-E AND W-2-E)
- H) OPTIONAL: STRAINER LOCATED DOWNSTREAM OF ASSEMBLY.
- I) BACK FLOW PREVENTION ASSEMBLY SHALL HAVE AT LEAST THE SAME CROSS-SECTIONAL AREA AS THE WATER METER.
- J) BEFORE WATER SERVICE IS PROVIDED, BACKFLOW ASSEMBLY SHALL BE TESTED BY CITY STAFF TO INSURE PROPER WORKING CONDITION.

APPROVED:  DATE: 4-2-2014  
 UTILITY ENGINEER

**CITY OF ESCONDIDO**  
 UTILITY DEPARTMENT

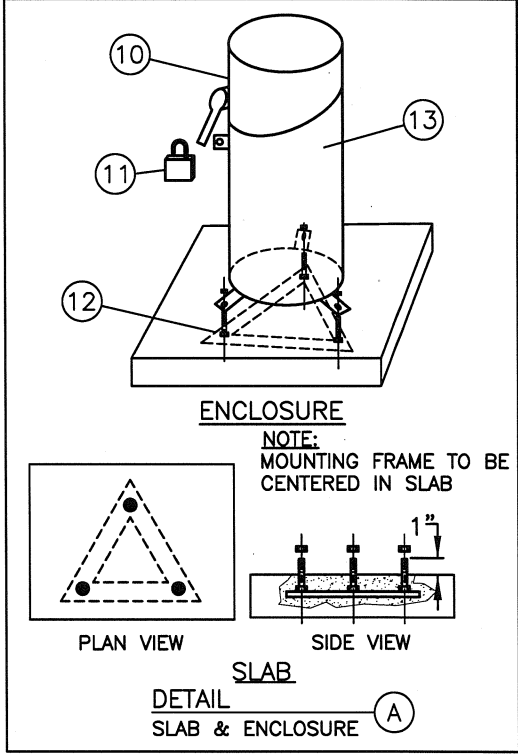
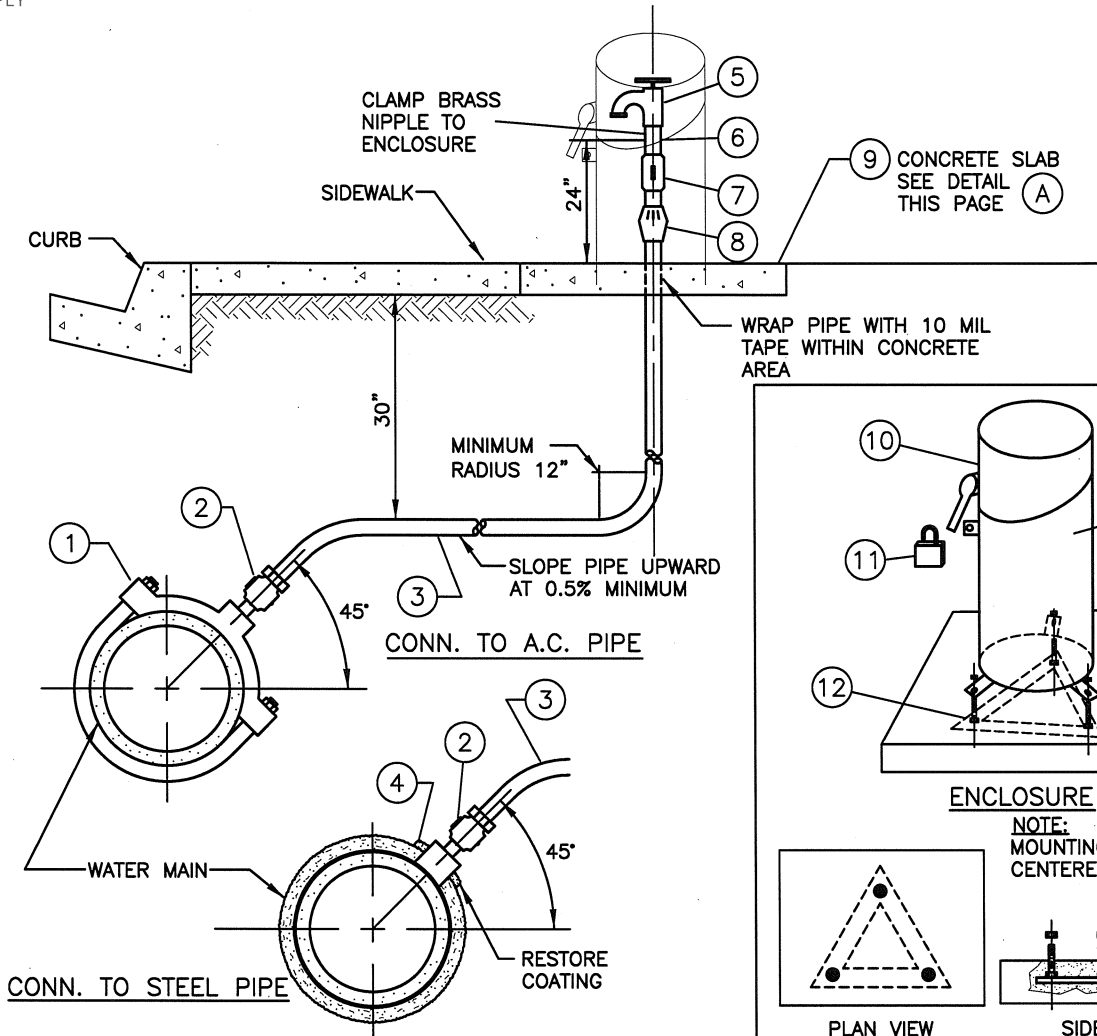
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**BACKFLOW PREVENTION  
 ASSEMBLY 2" & SMALLER**


STANDARD DRAWING NO.

**W-10-E**



FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

- ① DOUBLE STRAP SADDLE (SEE W-1-E)
- ② CORPORATION STOP: MALE IRON PIPE X COMPRESSION
- ③ 1 INCH TYPE K SOFT COPPER
- ④ HIGH PRESSURE FORGED STEEL COUPLING 3000 P.S.I. RATED
- ⑤ BENT NOSE SPIGOT - NO LEAD
- ⑥ 3/4 IN. x 4 IN THREADED BRASS NIPPLE
- ⑦ BALL VALVE 1 IN. F.I.P. x F.I.P WITH 1 IN. X 3/4 IN. BUSHING.
- ⑧ STRAIGHT COUPLING M.I.P. x FLARE COPPER.
- ⑨ CONCRETE SLAB 2 FT. x 2 FT. SQ. x 3-1/2" THICK.
- ⑩ STEEL SAMPLE POINT ENCLOSURE (8 IN. x 30 IN.).
- ⑪ MASTER PADLOCK (SUPPLIED BY CITY).
- ⑫ TRIANGULAR MOUNTING FRAME WITH 3/8-16 x 3 IN. TYPE 316 S.S. BOLTS.
- ⑬ ENCLOSURE AND HARDWARE TO BE ZINC EPOXY POWDER PRIMER (2-3 MIL DRY FILM THICKNESS) AND APWA BLUE POLYESTER POWDER TOP COAT (2-3 MIL DRY FILM THICKNESS)

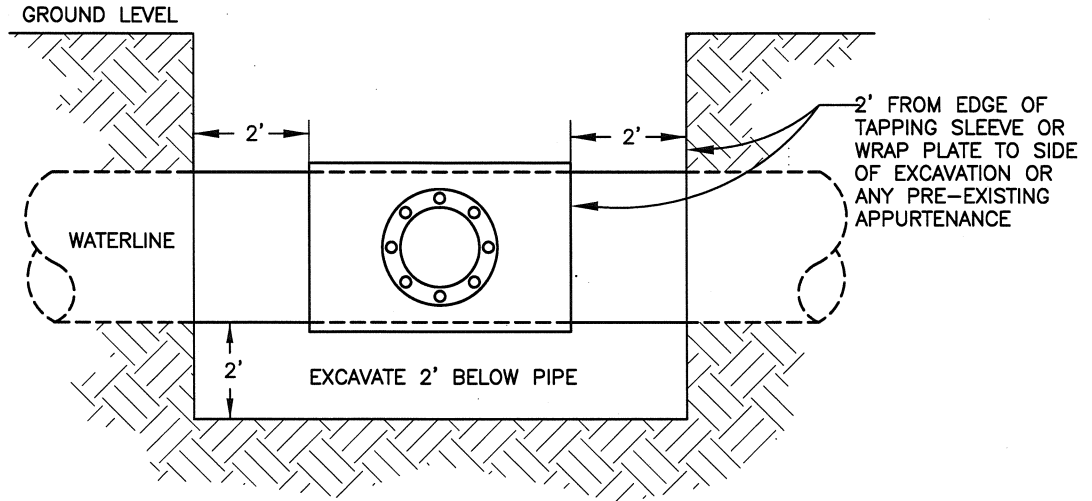
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UTILITY ENGINEER	
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**CITY OF ESCONDIDO**  
 UTILITY DEPARTMENT

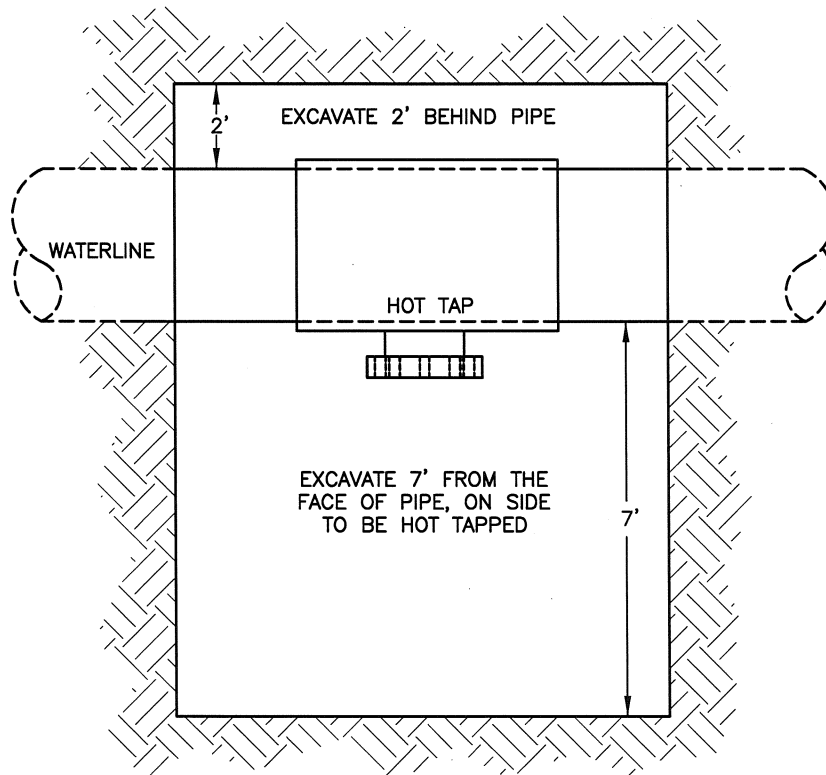
**WATER SERVICE  
 POINT & CAN**

SCALE:  
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STANDARD DRAWING NO.  
**W-11-E**



SECTION VIEW – NOT TO SCALE



PLAN VIEW – NOT TO SCALE

**NOTES:**

1. BEFORE THE CITY OF ESCONDIDO WATER DEPARTMENT WILL TAP THE PIPE, A WATER DEPARTMENT SUPERVISOR WILL FIELD-VERIFY THAT THE EXCAVATION IS TO THE PROPER DIMENSIONS AND PROPERLY SHORED. IF ANY CORRECTIVE WORK IS NEEDED TO BRING THE EXCAVATION INTO COMPLIANCE, IT SHALL BE DONE BEFORE THE TAP CREWS ARRIVE ON SITE.
2. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL REQUIRED FOR HOT TAP ON SITE FOR CITY CREW TO COMPLETE WORK.
3. THE CONTRACTOR SHALL REPAIR TRENCH AFTER COMPLETING HOT TAP BY THE CITY.

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 UTILITY DEPARTMENT

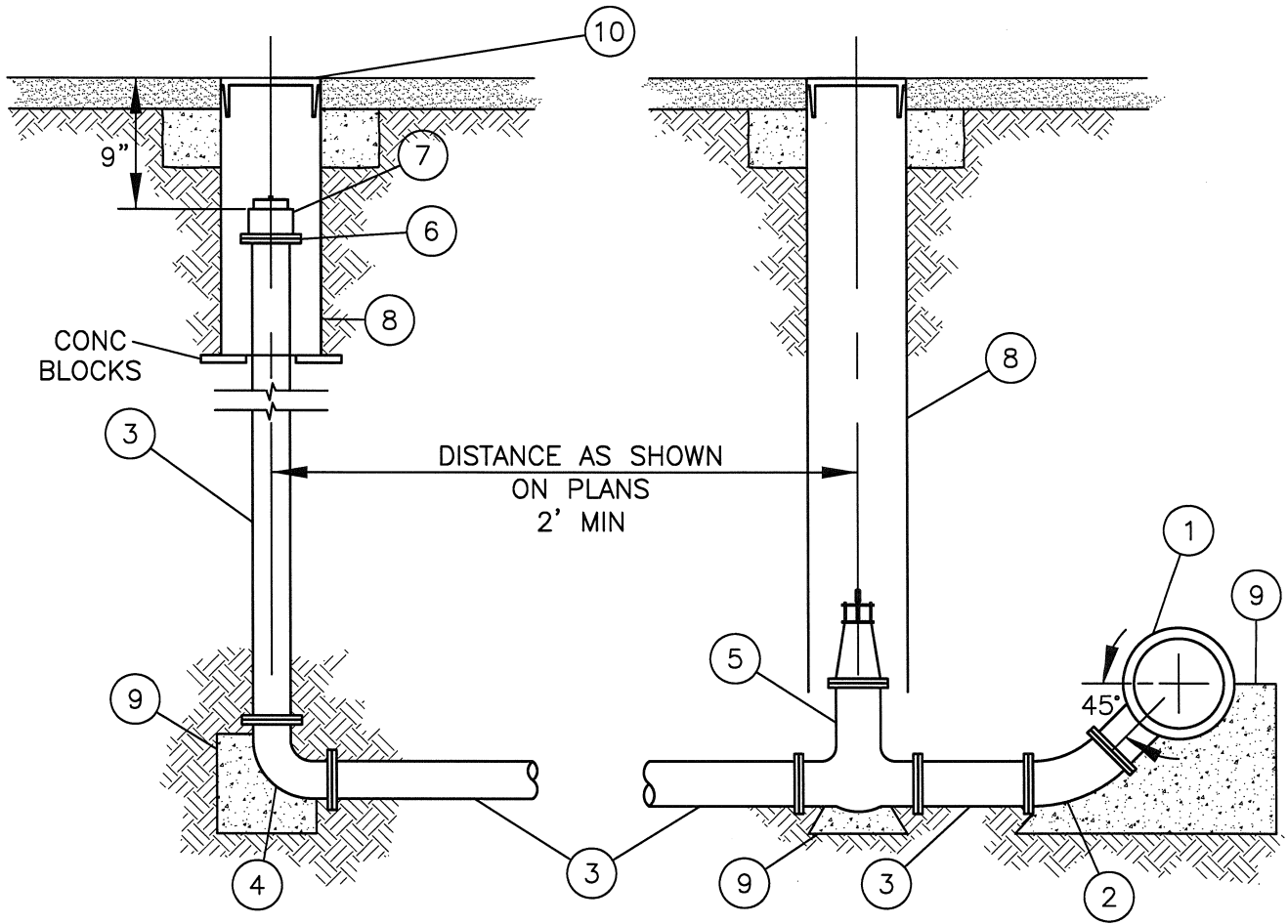
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**WATERLINE HOT-TAP  
 EXCAVATION**

STANDARD DRAWING NO.

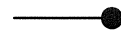
**W-12-E**



FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

- ① MAIN SIZE X FLANGED OUTLET, CEMENT LINED AND COATED
- ② FLANGED 45° DUCTILE IRON ELL
- ③ 6" CML&C WELDED STEEL OR CONC LINED DUCTILE IRON PIPE
- ④ FLANGED 90° DUCTILE IRON BEND
- ⑤ FLANGED GATE VALVE (SEE W-4-E)
- ⑥ 6 X 6 COMPANION FLANGE
- ⑦ 6" ABS PLASTIC PLUG W/2" HUB NUT
- ⑧ VALVE WELL INSTALLATION, SEE W-4-E
- ⑨ CONCRETE THRUST BLOCK PER SDRSD WT-01
- ⑩ 12" GATE WELL CAP W/4" SKIRT

LEGEND ON PLANS



APPROVED: \_\_\_\_\_ DATE: 4-2-2014

UTILITY ENGINEER

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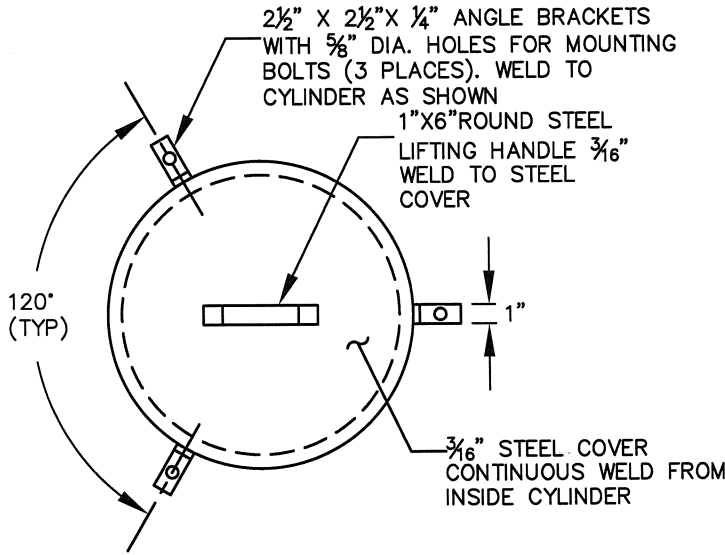
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**6" BLOW-OFF ASSEMBLY**

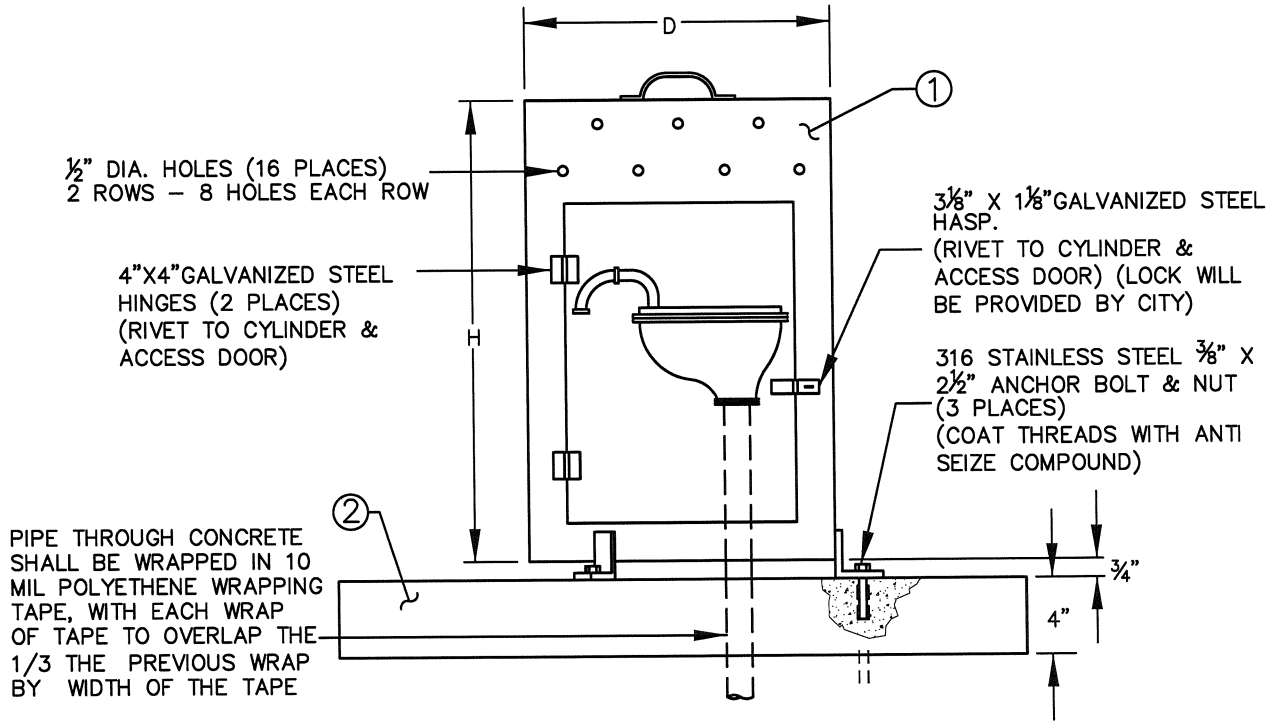
STANDARD DRAWING NO.

**W-13-E**



NOTE:  
 SEE SDRSD WA-06 FOR LOCATION OF ENCLOSURE

VALVE SIZE	D	H
1" & 2"	16"	24"
4"	24"	30"
6"	30"	36"



FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

- ① 3/16 INCH STEEL ENCLOSURE WITH ACCESS DOOR, MISC. HARDWARE. CABINET AND HARDWARE SHOULD BE ZINC EPOXY POWDER PRIMER (2-3 MIL DRY FILM THICKNESS) AND APWA BLUE POLYESTER POWDER TOP COAT (2-3 MIL DRY FILM THICKNESS)
- ② 4 FT X 4 FT X 4 INCH CONCRETE PAD (520-C-2500 CONCRETE)

APPROVED: \_\_\_\_\_ DATE: 4-2-2014  
 UTILITY ENGINEER

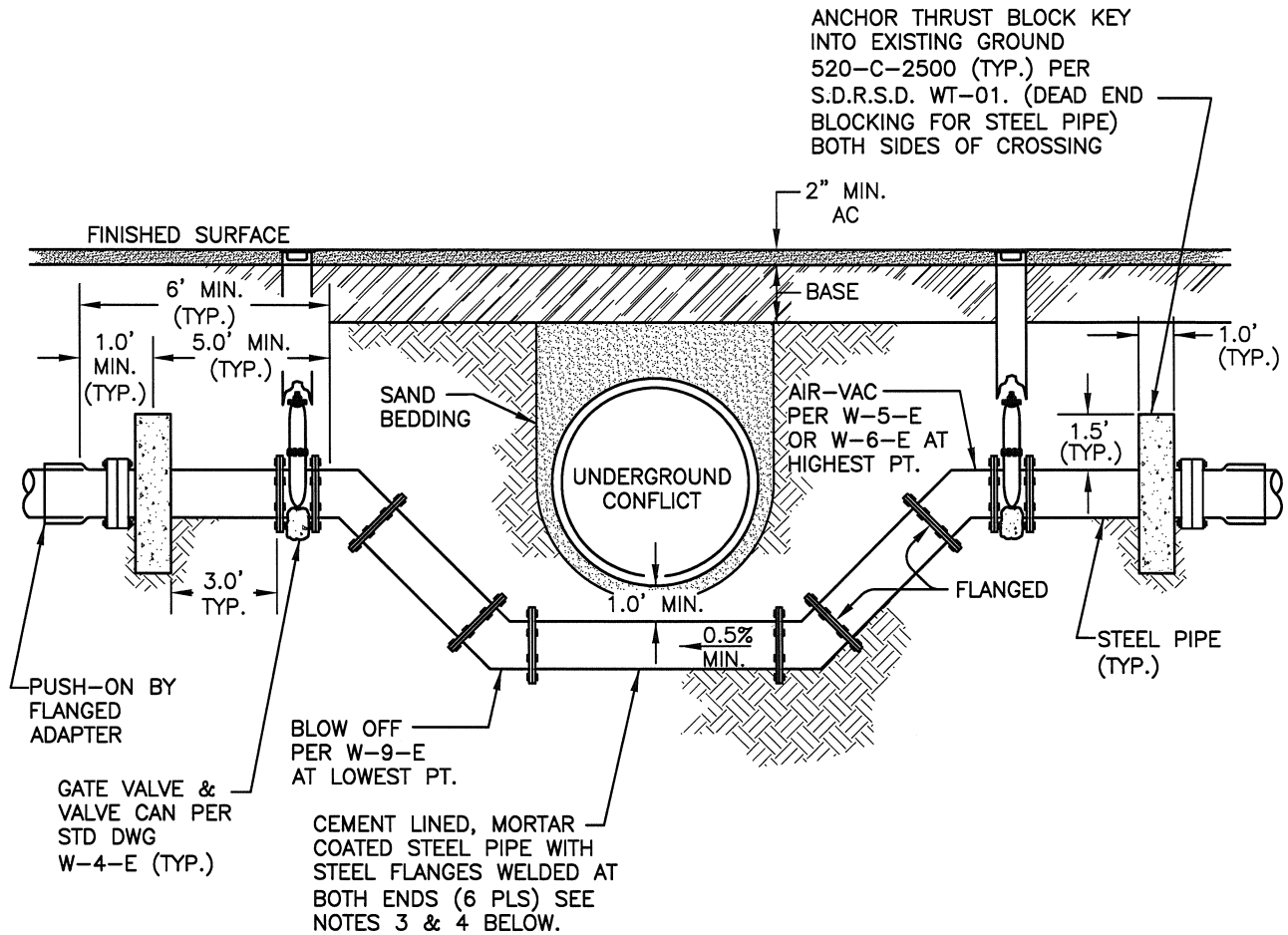
CITY OF ESCONDIDO  
 UTILITY DEPARTMENT

SCALE:  
 NOT TO SCALE

REVISED	APPROVED

AIR AND VACUUM VALVE  
 ENCLOSURE

STANDARD DRAWING NO.  
 W-14-E



FOR COMPONENT DETAILS REFER TO THE CITY OF ESCONDIDO UTILITIES APPROVED MATERIALS LIST LOCATED ON THE CITY WEBSITE.

NOTES:

1. THE STEEL PIPE SIPHON SECTION SHALL BE PREFABRICATED, PRESSURE TESTED AND DISINFECTED PRIOR TO INSTALLATION IN THE TRENCH.
2. THIS FIGURE REPRESENTS A GENERAL CONCEPT APPROVED BY THE CITY UTILITIES MANAGER AND REQUIRES AN INDIVIDUAL DESIGN FOR EACH PROJECT.
3. FOR CML&C PIPE LINE, CROSSING SHALL BE CML&C, W/WELDED FLANGES. USE 12 GAUGE STEEL PIPE MIN. USE 10 GAUGE STEEL FOR COVER LESS THAN 3 FEET.
4. RESTRAINED JOINT DUCTILE IRON FITTINGS WITH STAINLESS STEEL BOLTS, OR RESTRAINED JOINT PVC MAY BE USED FOR CROSSING WHERE MAIN PIPE LINE IS PVC.
5. THIS OPTION MAY ONLY BE UTILIZED WITH PRIOR APPROVAL OF THE UTILITIES MANAGER.

APPROVED: *[Signature]* DATE: 4-2-2014

UTILITY ENGINEER

REVISED

APPROVED

CITY OF ESCONDIDO  
 UTILITY DEPARTMENT

SCALE:  
 NOT TO SCALE

WATER MAIN  
 CONFLICT CROSSING

STANDARD DRAWING NO.

W-15-E