



Since 1910

Western Heights Water Company

STANDARD DRAWINGS

JANUARY 2016

PREPARED BY:

ENGINEERING RESOURCES OF SOUTHERN CALIFORNIA, INC.

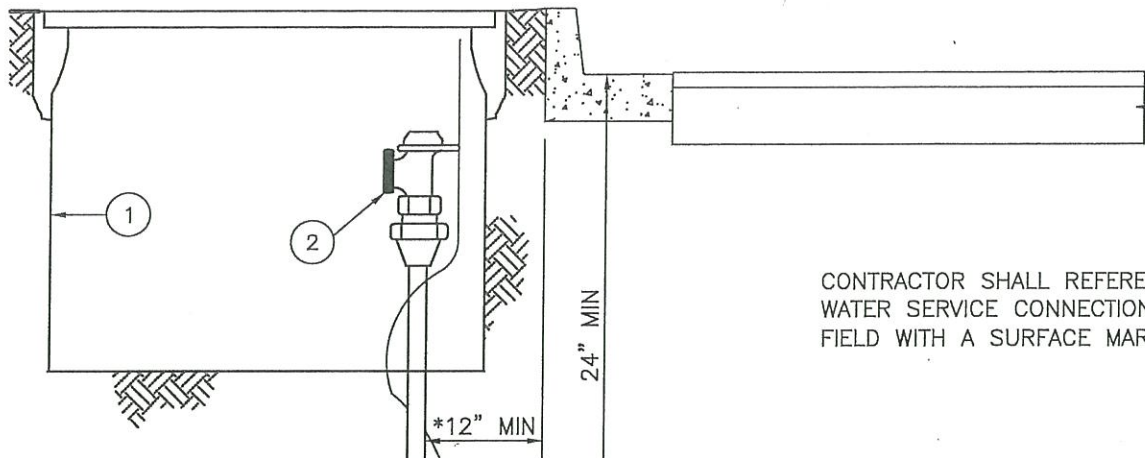
WESTERN HEIGHTS WATER COMPANY

STANDARD DRAWINGS

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January 2016

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CONTRACTOR SHALL REFERENCE EACH
WATER SERVICE CONNECTION IN THE
FIELD WITH A SURFACE MARKER.

14 GAUGE LOCATING WIRE

- ① METER BOX (EXIST)
- ② ANGLE METER STOP JAMES JONES # E 4201
- ③ SERVICE TUBING, POLYETHYLENE PER AWWA C-901
- ④ CORPORATION STOP JAMES JONES # E 3403
- ⑤ SERVICE CLAMP

* EXCEPT WHEN S/W IS CURB ADJACENT, METER
SHOULD BE LOCATED 12" BEHIND SIDEWALK.

WESTERN HEIGHTS WATER COMPANY

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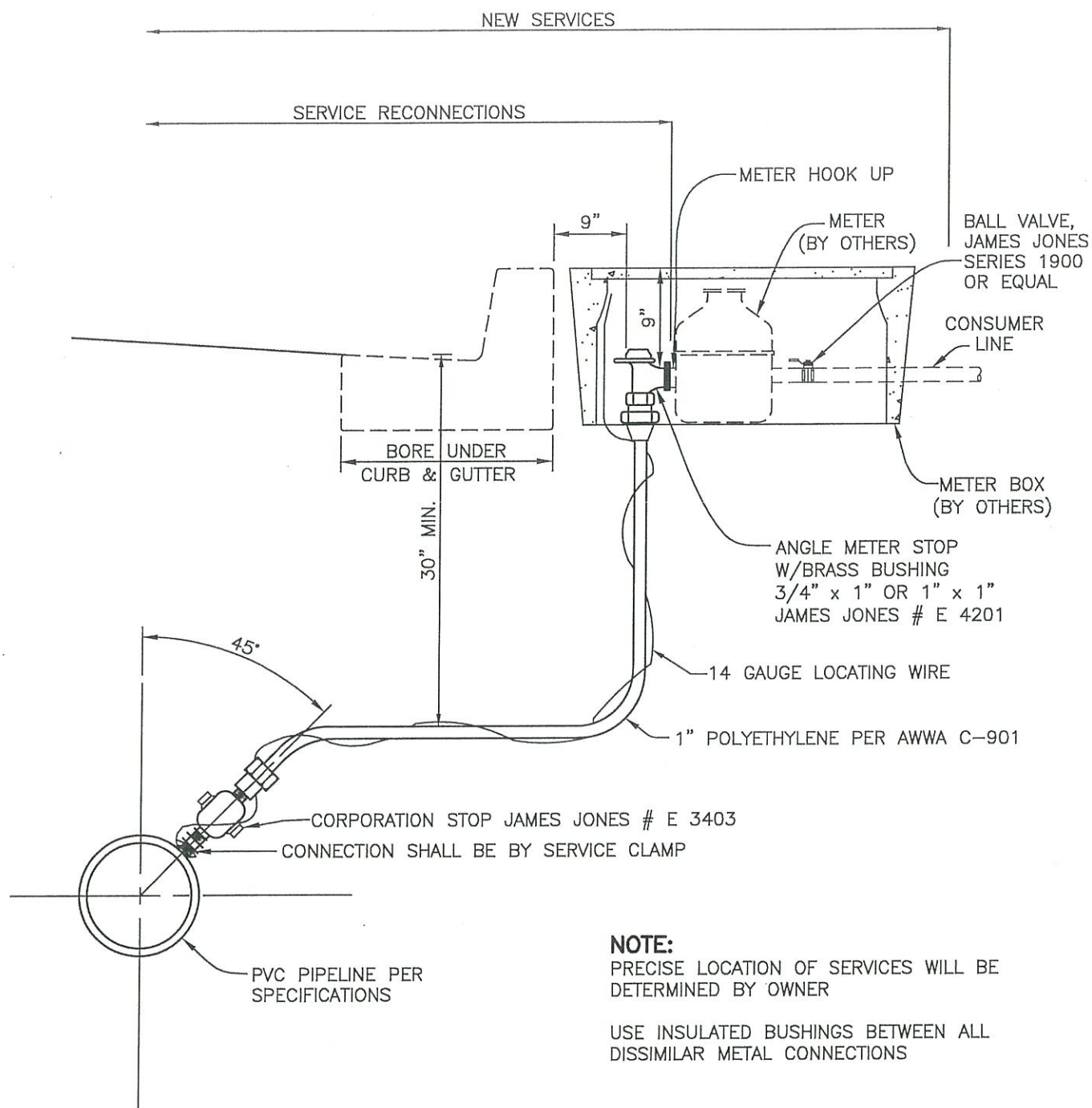
R.C.E. NO. 14853

DATE:

1" SERVICE CONNECTION FOR NEW STREET CONSTRUCTION

DRAWING
NUMBER

W-1



WESTERN HEIGHTS WATER COMPANY

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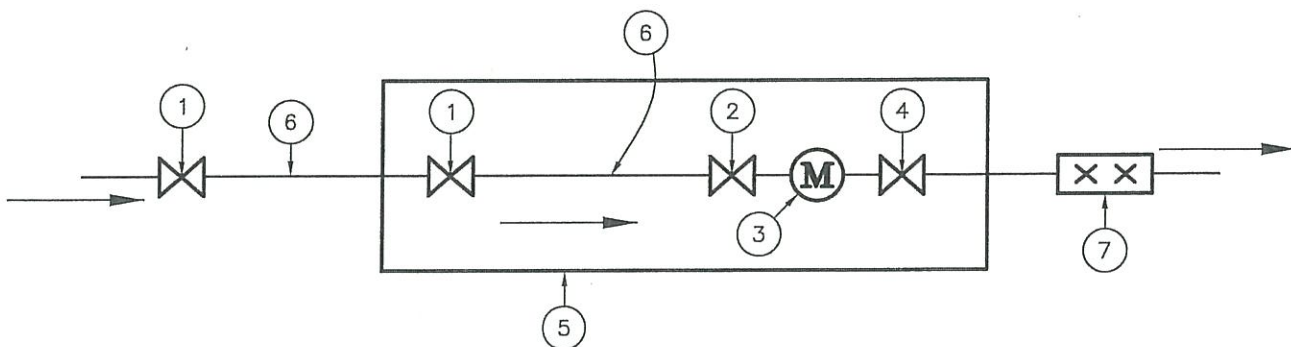
R.C.E. NO. 14853

DATE:

1" SERVICE CONNECTION
AT EXISTING STREET

DRAWING
NUMBER

W-1A



- ① CORP STOP
- ② CURB STOP
- ③ WATER METER
- ④ BALL VALVE
- ⑤ METER BOX
- ⑥ 1" POLYETHYLENE TUBING PER AWWA C-901
- ⑦ REDUCED PRESSURE BACKFLOW DEVICE

WESTERN HEIGHTS WATER COMPANY

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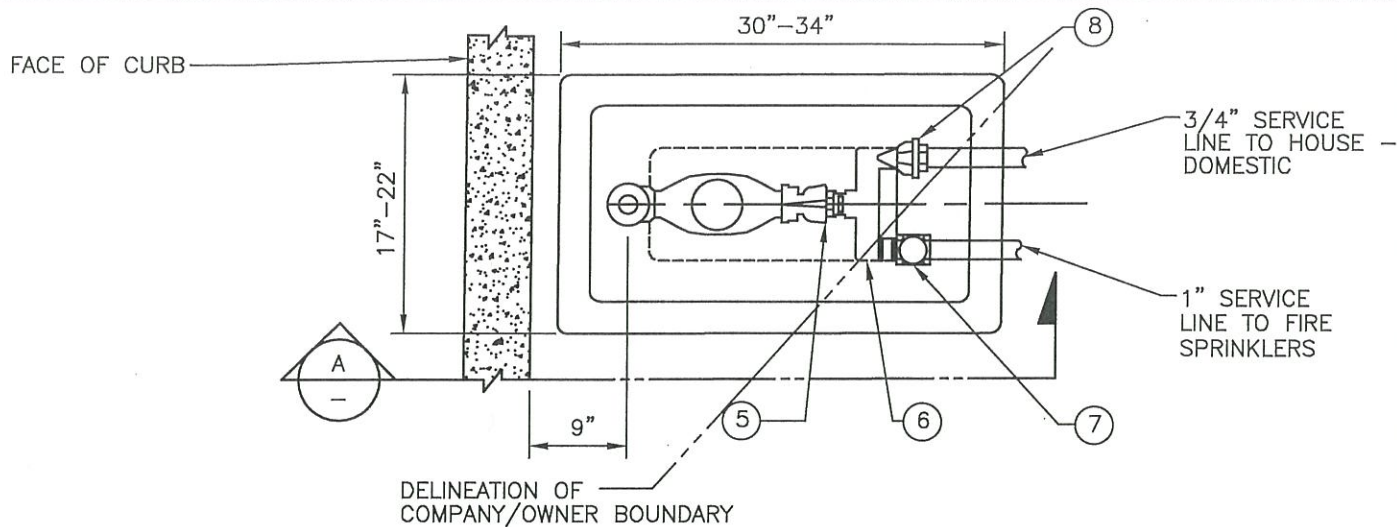
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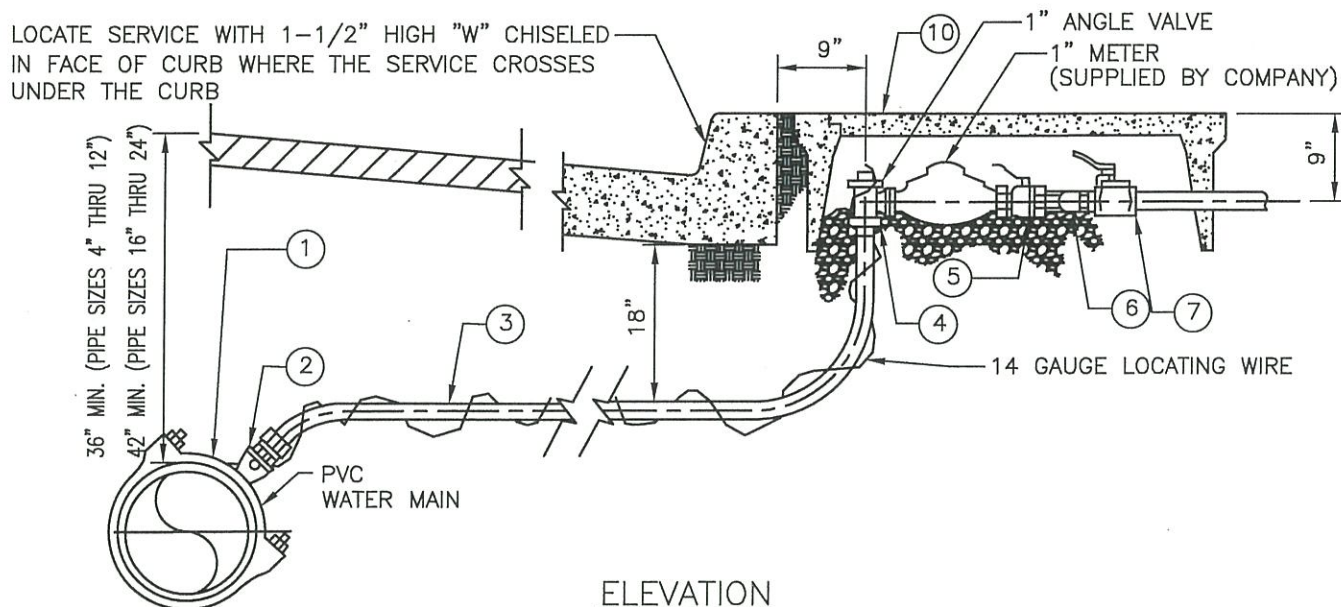
1" COMBINATION HOUSE AND FIRE SPRINKLER SERVICE

DRAWING
NUMBER

W-1B



PLAN



ELEVATION

- 1 - SERVICE SADDLE W/ 1" I.P. OUTLET
- 2 - 1" BRONZE BALL CORPORATION STOP (M.I.P.T. X COMPRESSION)
- 3 - 1" POLYETHYLENE SERVICE PIPE
- 4 - BRONZE BALL ANGLE METER STOP W/ LOCKWING (1" COMPRESSION X METER)

- 5 - 1" LOCKWING BALL METER VALVE (LOCK-OFF POSITION)
- 6 - 1" "U"-BRANCH (M.I.P.T. X M.I.P.T.)
- 7 - 1" DOUBLE CHECK (INLINE DOUBLE CHECK)
- 8 - BALL VALVE WITH LOCKWING (F.I.P. X F.I.P.)
- 10 - METER BOX (BY COMPANY)

WESTERN HEIGHTS WATER COMPANY

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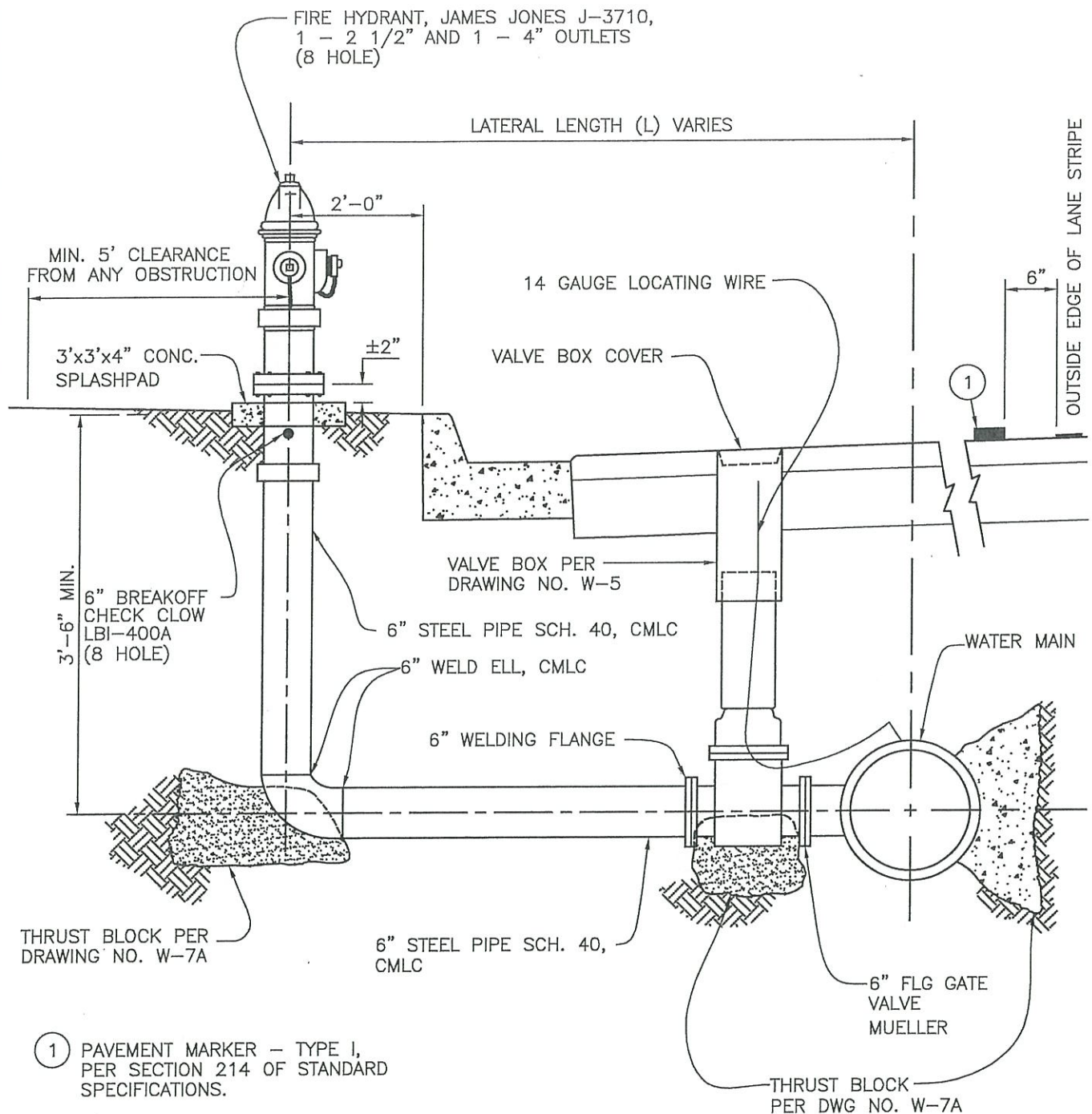
14853

DATE:

1" SEPARATE FIRE SPRINKLER SERVICE

DRAWING
NUMBER

W-1C



NOTE

1. WHERE NO CURB EXISTS OR WHEN DIRECTED BY COMPANY INSPECTOR, CONTRACTOR SHALL INSTALL TWO, 4" SCH. 40 STEEL PIPE POST BARRICADES TO PROTECT HYDRANT. PER STD DWG W-16.

WESTERN HEIGHTS WATER COMPANY

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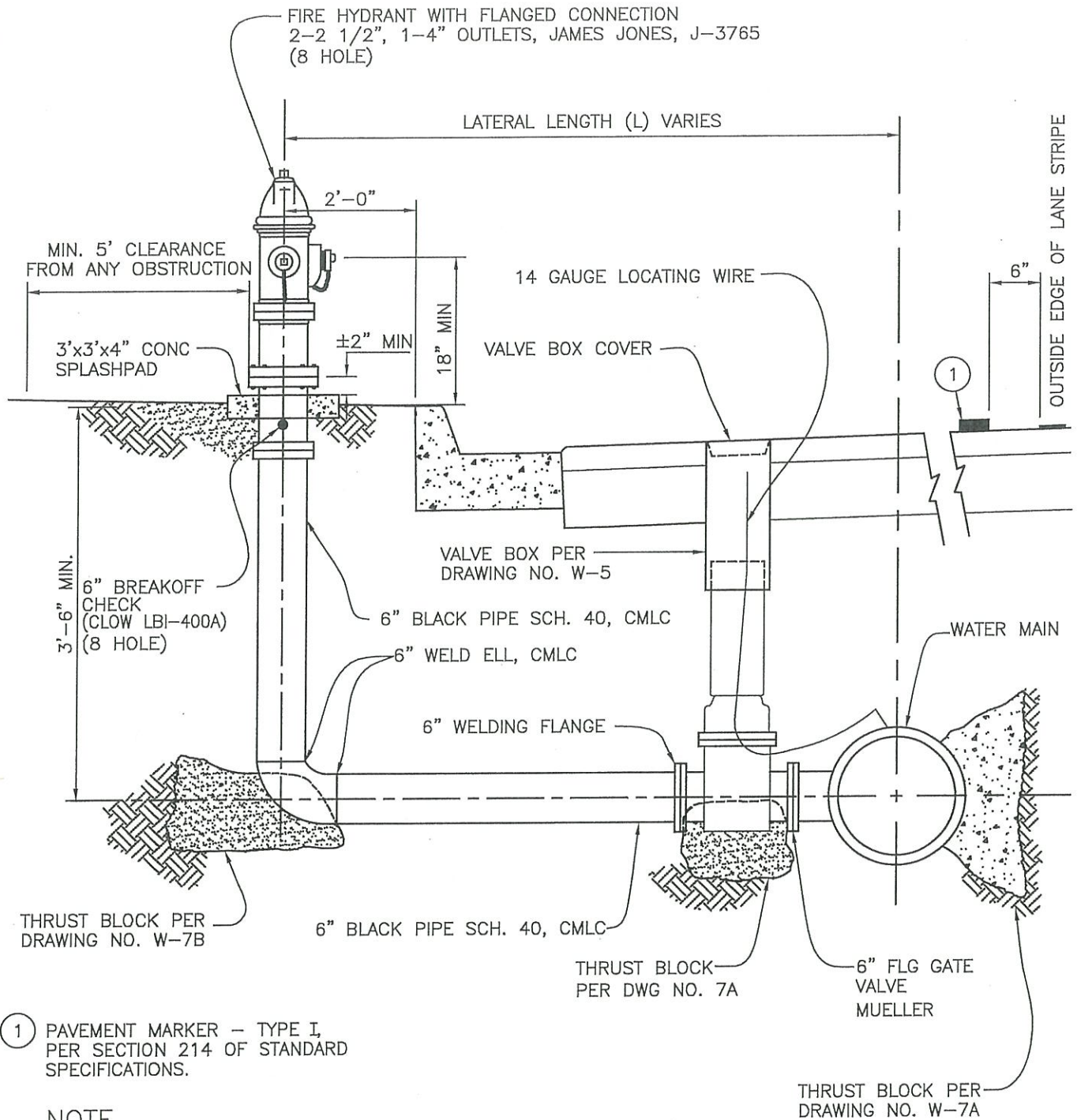
DRAWING
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TWO-NOZZLE FIRE HYDRANT ASSEMBLY

W-2

R.C.E. NO. 14853

DATE:



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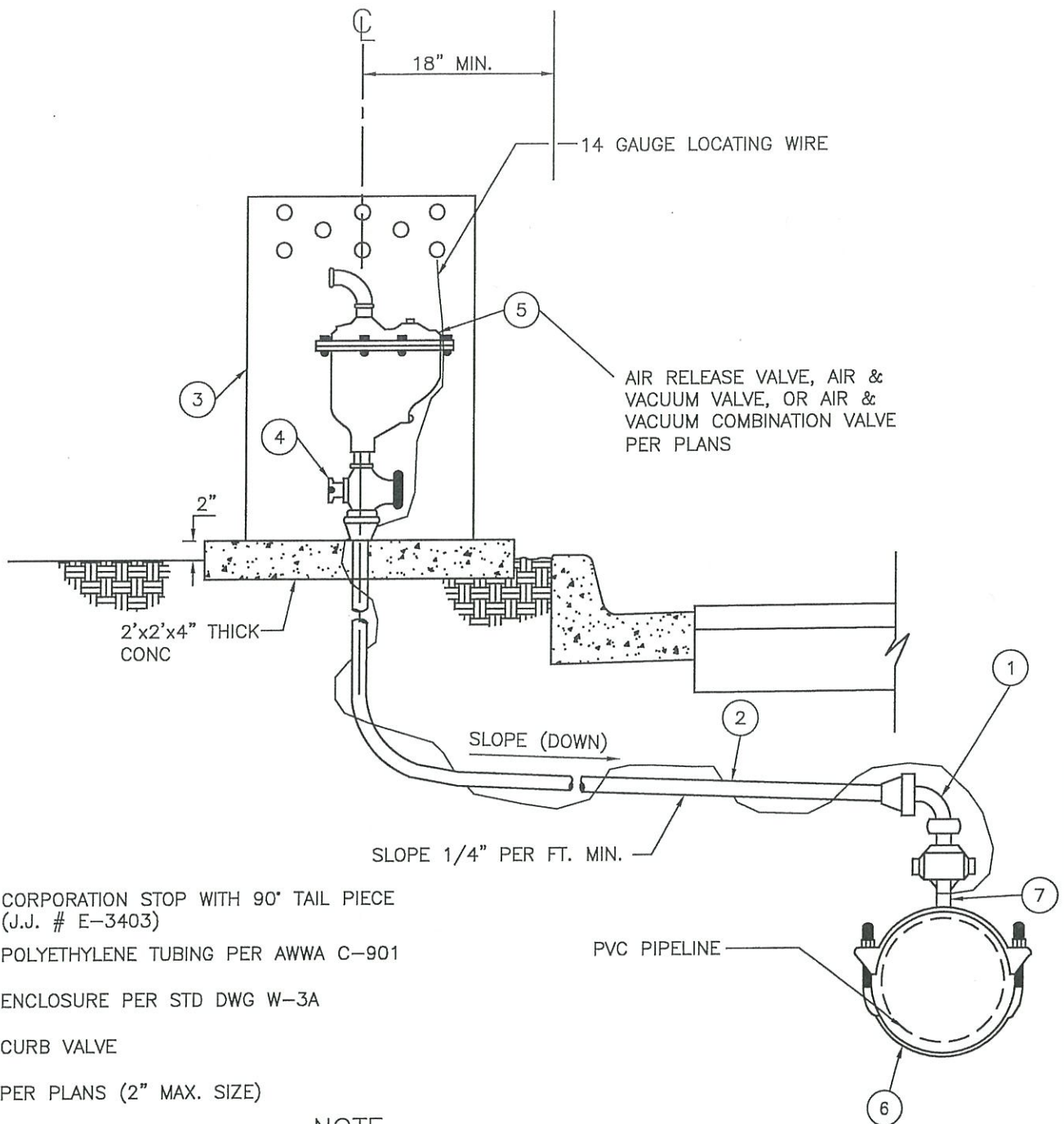
DRAWING
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THREE-NOZZLE FIRE HYDRANT ASSEMBLY

W-2A

R.C.E. NO. 14853

DATE:



- ① CORPORATION STOP WITH 90" TAIL PIECE (J.J. # E-3403)
- ② POLYETHYLENE TUBING PER AWWA C-901
- ③ ENCLOSURE PER STD DWG W-3A
- ④ CURB VALVE
- ⑤ PER PLANS (2" MAX. SIZE)
- ⑥ SERVICE CLAMP
- ⑦ FULL CPLG.

NOTE

1. WHERE NO CURB EXISTS OR WHEN DIRECTED BY COMPANY INSPECTOR, CONTRACTOR SHALL INSTALL TWO, 4" SCH. 40 STEEL PIPE POST BARRICADES TO PROTECT HYDRANT. PER STD DWG W-16.
2. SIZE OF PIPE, FITTINGS, AND VALVES SHALL CONFORM TO THE SIZE OF AIR AND VACUUM VALVE.

WESTERN HEIGHTS WATER COMPANY

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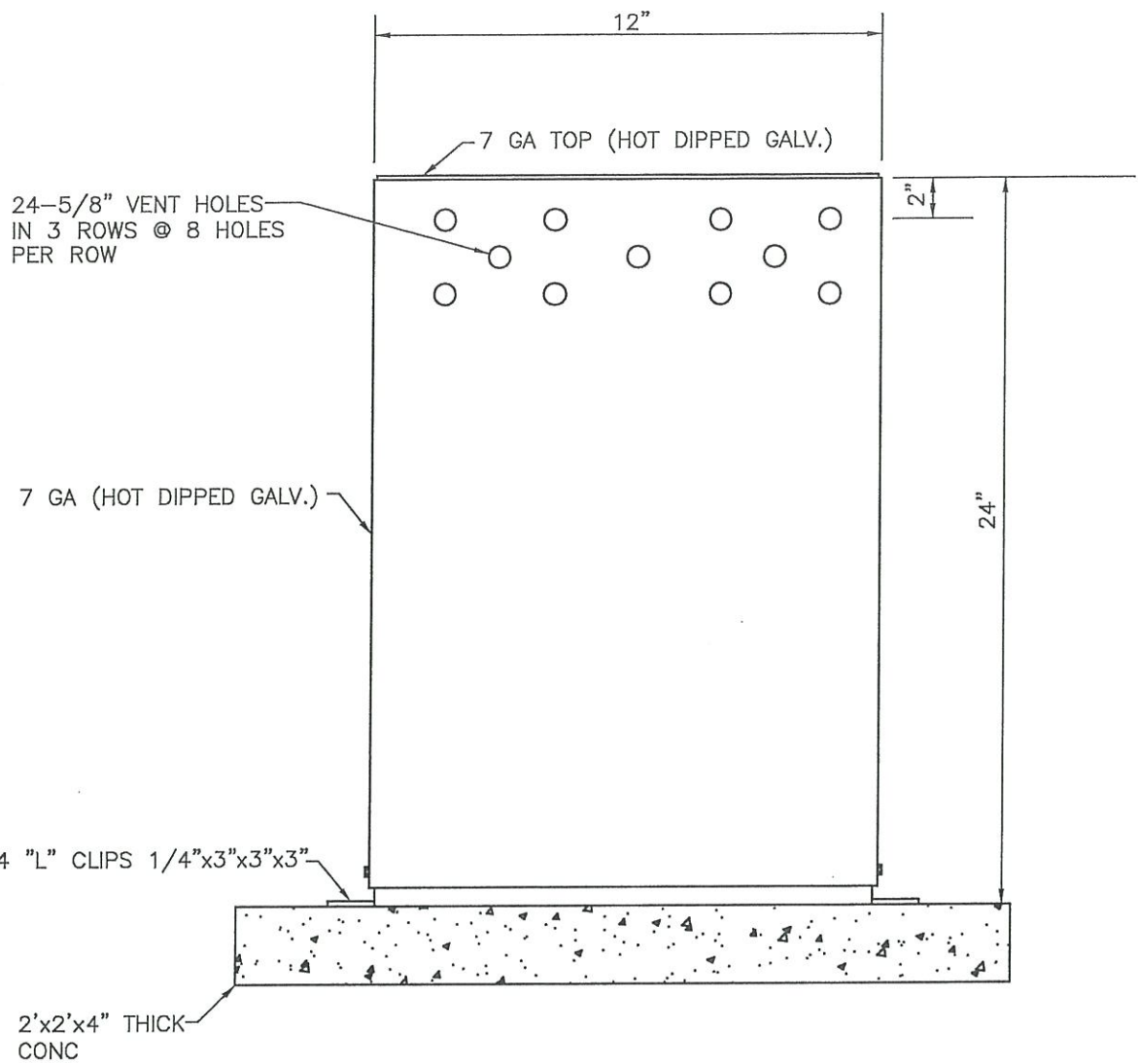
R.C.E. NO. 14853

DATE:

AIR AND VACUUM VALVE ASSEMBLY

DRAWING
NUMBER

W-3



WESTERN HEIGHTS WATER COMPANY

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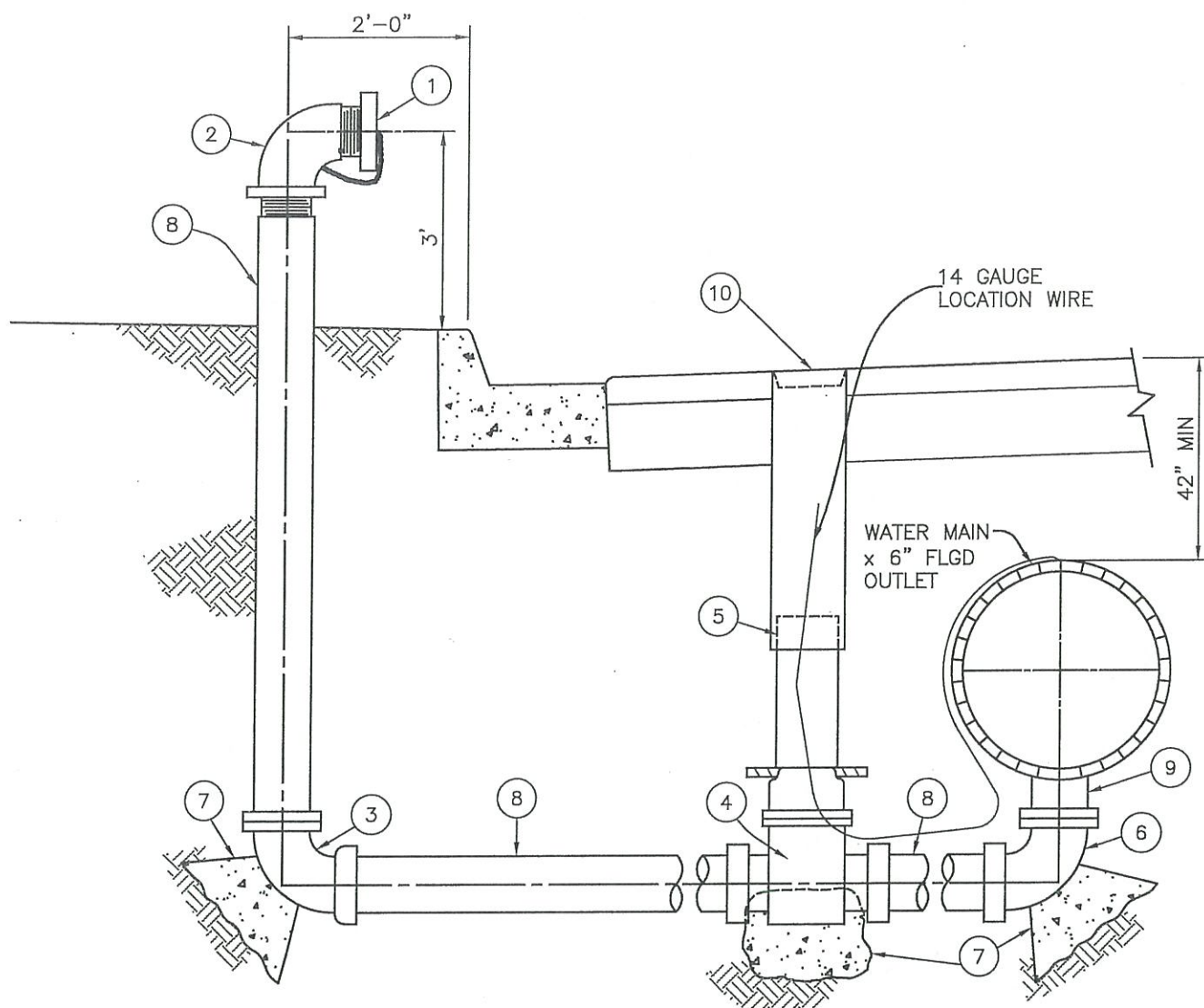
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NUMBER

AIR VALVE ENCLOSURE

W-3A

R.C.E. NO. 14853

DATE:



- | | |
|---------------------------|---------------------------------|
| ① PLUG WITH CHAIN | ⑥ FLG. ELL. OR FLG. X WELD ELL |
| ② SCR. ELL. | ⑦ THRUST BLOCK PER DRAWING W-7A |
| ③ C. I. ELL.-SCR. X FLG. | ⑧ STD PIPE, CMLC |
| ④ GATE VALVE-FLG. MUELLER | ⑨ FLGD OUTLET |
| ⑤ VALVE BOX PER DWG W-5 | ⑩ VALVE BOX COVER |

NOTE:

1. 6" BLOWOFF WILL BE REQUIRED FOR 10", 12" AND 14" DIAMETER WATER MAINS.
2. THE MIN. INSIDE DIAMETER OF ALL PIPE, VALVES AND FITTINGS ON ANY BLOWOFF SHALL BE EITHER 4" OR 6".

WESTERN HEIGHTS WATER COMPANY

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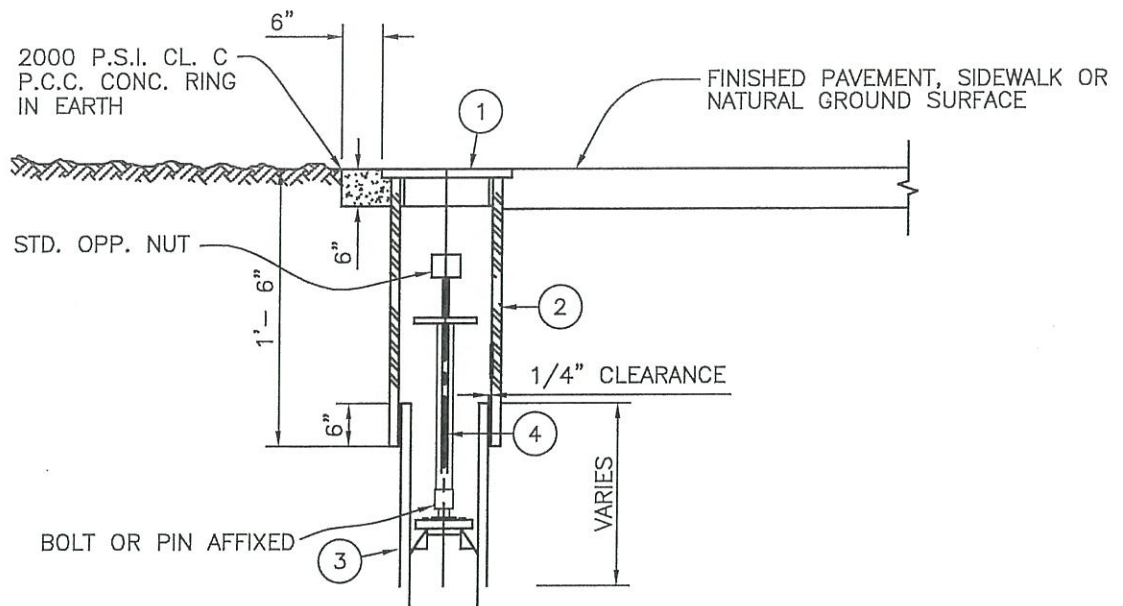
R.C.E. NO. 14853

DATE:

4" AND 6" BLOWOFF ASSEMBLY

DRAWING
NUMBER

W-4



- ① 6" DIAMETER VALVE BOX COVER, CAST IRON
- ② 6" DIAMETER ADJUSTABLE VALVE SLEEVE, TOP SECTION. LENGTHS OF 12" OR 18", 10 GAUGE STEEL.
- ③ 6" DIAMETER ADJUSTABLE VALVE SLEEVE, BOTTOM SECTION. SDR 35 PVC.
- ④ FABRICATED EXTENSION STEM (REQUIRED IF VALVE NUT MORE THAN 36" BELOW SURFACE)

WESTERN HEIGHTS WATER COMPANY

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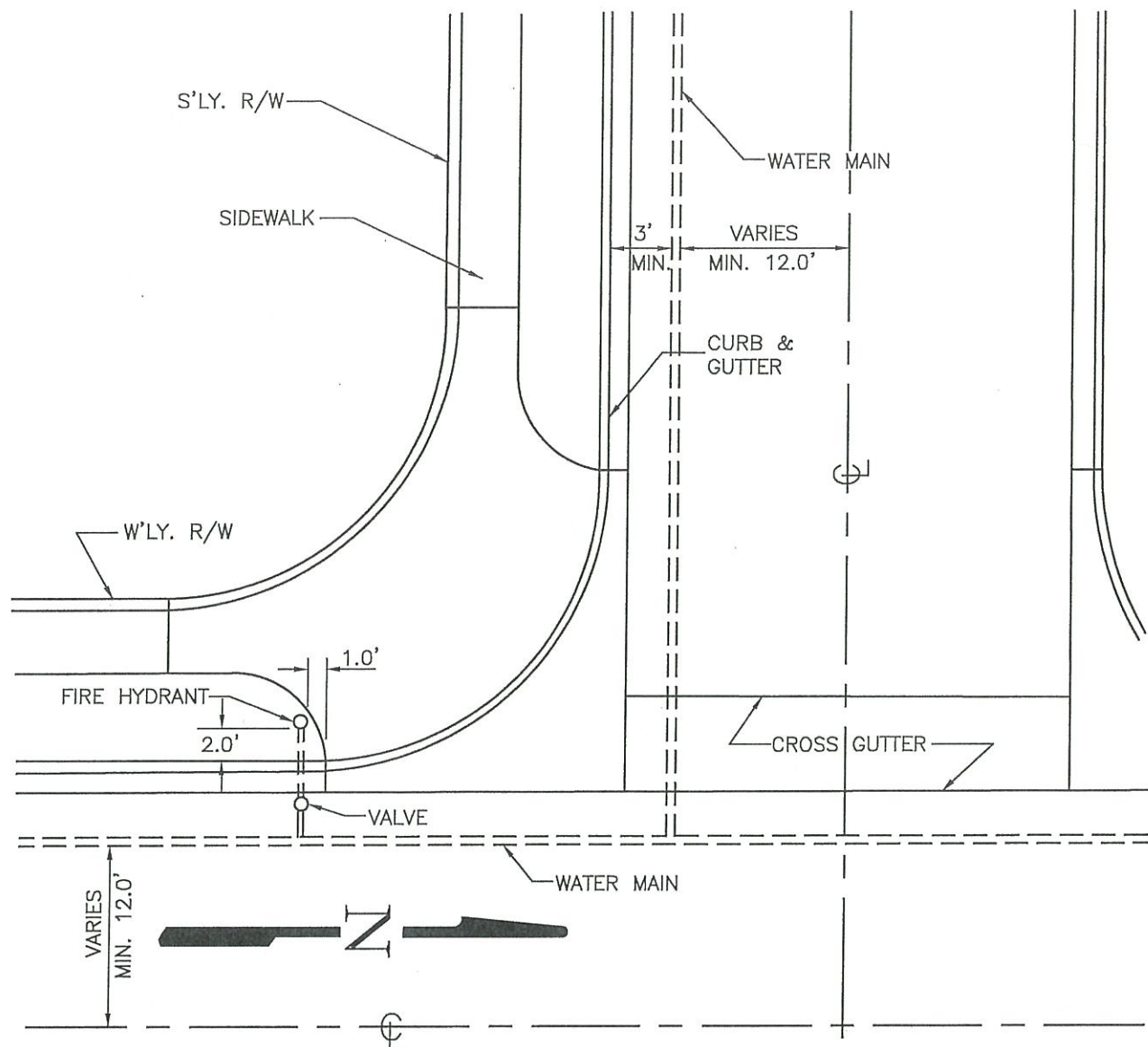
DRAWING
NUMBER

R.C.E. NO. 14853

DATE:

VALVE BOX

W-5



NOTES:

1. LOCATION OF WATER LINES AND VALVES SHALL BE SHOWN ON THE PLAN VIEW.
2. HYDRANT TO BE SET PLUMB, WITH NOZZLE A MINIMUM OF EIGHTEEN (18") INCHES ABOVE GROUND LEVEL. WHEN HYDRANTS ARE PLACED BEFORE GRADING IS COMPLETED, THE FINAL GRADE LINE AND ACCESSIBILITY SHOULD BE CONSIDERED.
3. NO OBSTRUCTIONS SUCH AS POLES, GUY LINES, ETC. SHOULD BE PLACED CLOSER THAN FIVE (5') FEET TO HYDRANT.
4. REPAIR OF TRENCHES AND REPLACEMENT OF PAVED SURFACING IN EXISTING COUNTY ROADS SHALL BE IN ACCORDANCE WITH CURRENT "SPECIFICATIONS FOR TRENCH REPAIR" PER CITY STANDARDS AND SPECIFICATIONS.

WESTERN HEIGHTS WATER COMPANY

APPROVED:

RECOMMENDED UTILITY LOCATION

DRAWING
NUMBER

R.C.E. NO. 14853

W-6

DATE:

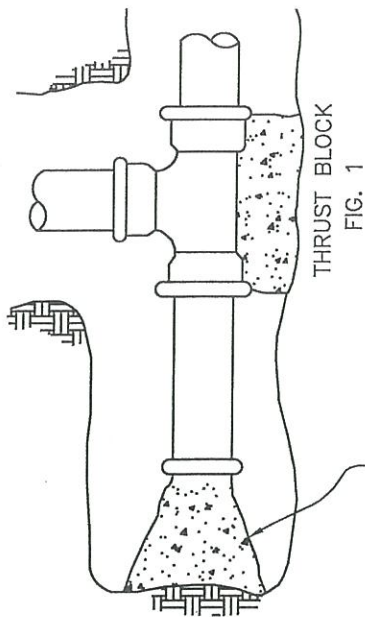


FIG. 1
PLAN VIEW

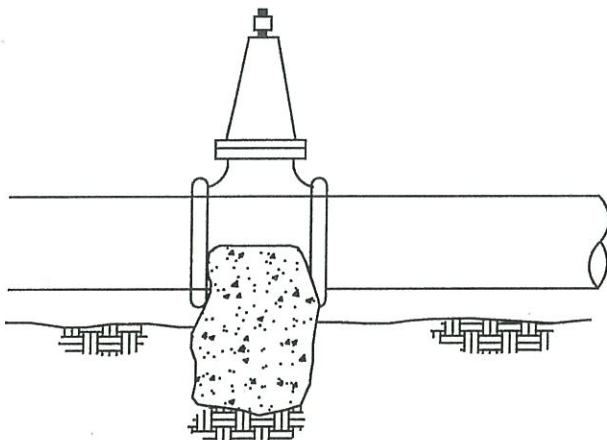
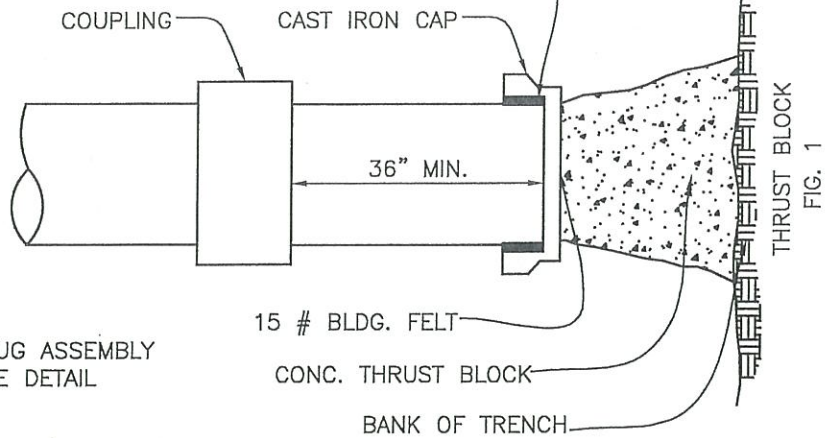


FIG. 2
ELEV. VIEW

JOINT SHALL CONSIST OF CAP AND RUBBER RING
FURNISHED BY PIPE MANUFACTURER



PLUG ASSEMBLY DETAIL

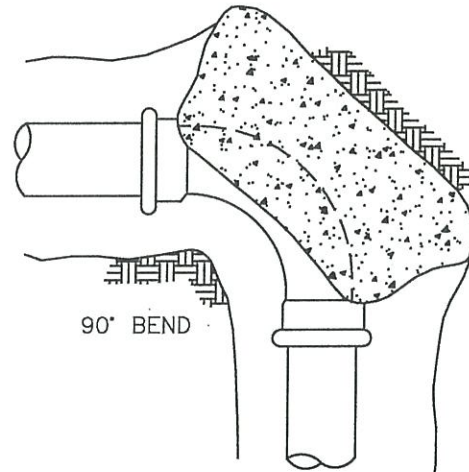


FIG. 3
PLAN VIEW

NOTE:
SPECIAL DESIGN REQUIRED
FOR BEARING AREAS FOR CLASS
CLASS OF PIPE HIGHER THAN 150.

SIZE OF PIPE	BEARING AREA-SQ. FEET		VOL.-CUBIC FEET
	CLASS 150		CLASS 150
	FIG. 1	FIG. 3	FIG. 2
4"	3	3	AS DIRECTED BY ENGINEER
6"	5	6	
8"	8	10	
10"	12	16	
12"	17	22	

WESTERN HEIGHTS WATER COMPANY

APPROVED:

R.C.E. NO. 14853

DATE:

THRUST BLOCKS

DRAWING
NUMBER

W-7A

2-1/2" DIAMETER RODS
OR STRAPS WITH 2
NUTS ON EACH END.

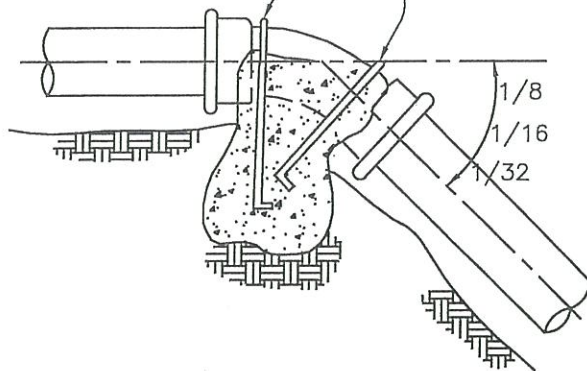


FIG. 4
ELEV. VIEW

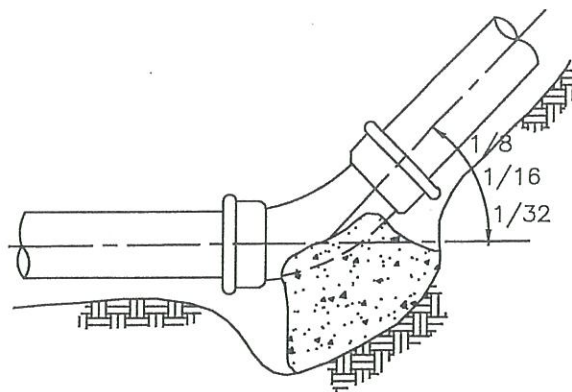


FIG. 5
ELEV. VIEW

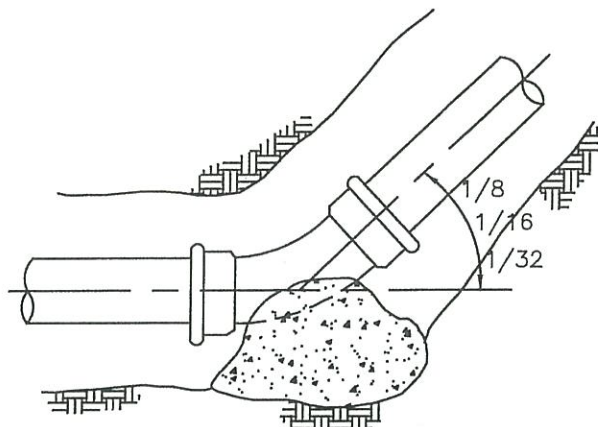


FIG. 6
PLAN VIEW

NOTE:
SPECIAL DESIGN
REQUIRED FOR
BEARING AREAS
FOR CLASS OF
PIPE HIGHER
THAN 150.

SIZE OF PIPE	VOLUME — CUBIC FEET			BEARING AREA — SQ. FEET					
	CLASS 150			CLASS 150					
	FIG. 4			FIG. 5			FIG. 6		
	1/8	1/16	1/32	1/8	1/16	1/32	1/8	1/16	1/32
4"	8	3	3	2	1	0	2	1	0
6"	22	5	3	4	2	1	4	2	1
8"		14	3	6	3	1	6	3	1
10"		29	3	9	5	2	9	5	2
12"			6	13	7	3	13	7	3

WESTERN HEIGHTS WATER COMPANY

APPROVED:

R.C.E. NO. 14853

DATE:

THRUST BLOCKS

DRAWING
NUMBER

W-7B

				GEN. NOTES	
PLAN		LEGEND		EST. OF QUANTITIES	
CERTIFICATES		VICINITY MAP		TITLE BLOCK	

NOTES:

1. PLAN SHEET SIZE 24"x36"
2. THE FOLLOWING SHALL APPEAR ON THE FIRST SHEET OF PLANS:
 - GENERAL NOTES PER DRAWING NO.S W-10A & W-10B
 - CERTIFICATES PER DRAWING NO. W-9
 - LEGEND PER DRAWING NO. W-11
 - TITLE BLOCK PER DRAWING NO. W-14
 - INDEX PLAN (IF MORE THAN ONE PLAN SHEET)

WESTERN HEIGHTS WATER COMPANY

APPROVED:

R.C.E. NO. 14853

DATE:

TYPICAL PLAN

DRAWING
NUMBER

W-8

THE FOLLOWING NOTES SHALL APPEAR ON THE FIRST SHEET OF PLANS:

THIS CERTIFIES THAT ON _____, 20____, I REVIEWED THESE PLANS OF DOMESTIC WATER SYSTEM FOR _____ IN _____ AND FIND THAT THEY MEET THE MINIMUM REQUIREMENTS OF THE CALIFORNIA HEALTH AND SAFETY CODE FOR THE DESIGN AND CONSTRUCTION OF DOMESTIC WATER SYSTEMS.

RCE

EXPIRES

THIS CERTIFIES THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN REVIEWED BY AND ARE HEREBY APPROVED BY THE WESTERN HEIGHTS WATER COMPANY AND THAT THIS COMPANY IS WILLING AND ABLE TO SUPPLY WATER TO EVERY UNIT IN THIS _____ PROJECT IN ACCORDANCE WITH THE PURE WATER LAWS OF THE STATE OF CALIFORNIA AND THIS COMPANY'S RULES AND REGULATIONS.

WESTERN HEIGHTS WATER COMPANY

TITLE

DATE

FIRE PROTECTION SYSTEM APPROVED

CITY FIRE WARDEN

DATE

WESTERN HEIGHTS WATER COMPANY

APPROVED:

DRAWING
NUMBER

CERTIFICATES

W-9

R.C.E. NO. 14853

DATE:

THE FOLLOWING NOTES SHALL APPEAR ON THE FIRST SHEET OF PLANS:

GENERAL NOTES

1. ALL WATER LINES SHALL BE CONSTRUCTED OF CEMENT MORTAR LINED, DIPPED AND WRAPPED STEEL PIPE, 10 GAGE MINIMUM, OR CLASS 200 PVC AS SHOWN ON THE PLANS.
2. ALL UNCOATED BURIED STEEL SURFACES, INCLUDING NUTS AND BOLTS, SHALL RECEIVE TWO COATS OF KOPPERS BITUMASTIC NO. 505 FOR A MINIMUM DRY FILM THICKNESS OF 30 MILS AND THEN BE WRAPPED WITH 8 MIL POLYETHYLENE SHEET.
3. FIRE HYDRANTS SHALL BE WET BARREL OF 6-INCHES WITH ONE 4-INCH AND ONE OR TWO 2-1/2 INCH HOSE CONNNECTIONS AS SPECIFIED. THE HYDRANTS SHALL BE ACCEPTABLE TO WESTERN HEIGHTS WATER COMPANY AND THE FIRE MARSHALL. HYDRANTS AND ABOVE SLAB PIPING SHALL BE PAINTED WITH TWO COATS OF RED LEAD PRIMER AND TWO COATS OF RUSTOLEUM YELLOW 659.
4. CONCRETE THRUST BLOCKS SHALL BE PLACED AT ALL FIRE HYDRANT ASSEMBLIES, UNDER VALVES AND AT ANY BENDS OR FITTINGS WHEN THERE IS A FLEXIBLE JOINT WITHIN 100 FEET. ALL CONCRETE SHALL BE 2000 PSI MINIMUM AND SHALL BEAR AGAINST UNDISTURBED OR COMPACTED SOIL.
5. MAINS SHALL BE PRESSURE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH AWWA STANDARDS.
6. COMPACTION TESTS FOR TRENCH LINES SHALL BE PERFORMED BY AN APPROVED SOILS TESTING FIRM. THE CONTRACTOR SHALL GIVE THE WATER COMPANY 24 HOURS NOTICE BEFORE SOIL COMPACTION TESTING IS TO BE DONE.
7. GATE VALVES SHALL HAVE RESILIENT SEATING WITH NON-RISING STEM AND O-RING SEALS ALL CONFORMING TO AWWA STANDARDS. GATE VALVES SHALL HAVE FLANGED ENDS.
8. ALL WATER MAINS, VALVES AND FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH CURRENT AWWA STANDARDS AND THE STANDARDS OF THE WESTERN HEIGHTS WATER COMPANY.
9. ALL VALVES 14" AND LARGER SHALL BE BUTTERFLY VALVES. BUTTERFLY VALVES SHALL CONFORM TO AWWA STANDARDS. VALVES SHALL BE FLANGED AND OF THE SHORT BODY TYPE. VALVE SHAFTS SHALL BE CARBON STEEL WITH O-RING SHAFT SEALS. VALVE DISCS SHALL BE OF CAST IRON, ASTM A48 CLASS 30 OR 40. METAL MATING SEAT SURFACE IN THE VALVE BODY OR ON THE DISC SHALL BE TYPE 18-8 STAINLESS STEEL FOR VALVES RATED FOR 150 PSI WORKING PRESSURE. VALVES SHALL BE RATED FOR THE SPECIFIED WORKING PRESSURE.

WESTERN HEIGHTS WATER COMPANY

APPROVED:

R.C.E. NO. 14853

DATE:

GENERAL NOTES

DRAWING
NUMBER

W-10A

GENERAL NOTES (CONT.):

10. THE WESTERN HEIGHTS WATER COMPANY SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF ANY CONSTRUCTION, TESTING OR BACKFILL OPERATION. PHONE MANAGER AT 790-1901.
11. THE CONTRACTOR SHALL NOTIFY UNDERGROUND ALERT 48 HOURS PRIOR TO EXCAVATION. PHONE 811.
12. THE CONTRACTOR SHALL NOT OPERATE ANY OF THE WATER COMPANY'S WATER VALVES OR FIRE HYDRANTS NOR INTERFERE IN ANY WAY WITH THE OPERATION OF THE WATER SYSTEM.
13. PERMIT IS REQUIRED FOR ANY CONSTRUCTION IN COUNTY OR CITY RIGHT-OF-WAY OR FOR USE OF COUNTY OR CITY MAINTAINED ROADS BY OVERLOAD EQUIPMENT. ANY NECESSARY REPAIRS SHALL BE DONE TO THE SATISFACTION OF THE CITY OR COUNTY.
14. THE CONTRACTOR SHALL PROVIDE SAFE PASSAGE FOR VEHICULAR AND PEDESTRIAN TRAFFIC AND PROVIDE AND MAINTAIN ANY BARRIERS, LIGHTS, FLAGMEN AND SUCH AS MAY BE NECESSARY TO PROVIDE ADEQUATE WARNING AND DIRECTION TO THE PUBLIC.
15. MINIMUM AND MAXIMUM PRESSURE RANGE OF WATER SYSTEM:
_____ PSI MAX. _____ PSI MIN.
16. SEPARATION BETWEEN WATER MAINS AND SANITARY SEWERS SHALL CONFORM TO THE STATE DEPARTMENT OF HEALTH BULLETIN "REQUIRED SEPARATION BETWEEN WATER MAINS AND SANITARY SEWERS".
17. MINIMUM DEPTH OF COVER OVER WATER MAIN PIPING SHALL BE 36" FROM FINISHED GRADE.
18. ALL LABOR AND MATERIAL WILL BE FURNISHED BY WESTERN HEIGHTS WATER COMPANY AND PAID FOR BY OWNER/DEVELOPER UNLESS OTHERWISE SPECIFIED.

WESTERN HEIGHTS WATER COMPANY

APPROVED:

R.C.E. NO.




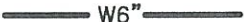
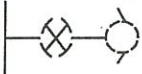
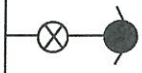
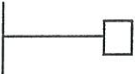
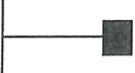
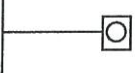
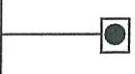
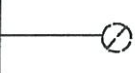

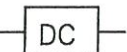

14853

DATE:

GENERAL NOTES (CONT.)

DRAWING
NUMBER

W-10B

	EXISTING VALVE & VALVE BOX
	PROPOSED VALVE & VALVE BOX
	EXISTING WATER LINE (6")
	PROPOSED WATER LINE (6")
	EXISTING FIRE HYDRANT ASSEMBLY
	PROPOSED FIRE HYDRANT ASSEMBLY
	EXISTING WATER METER
	PROPOSED WATER METER
	EXISTING AIR VALVE
	PROPOSED AIR VALVE
	EXISTING BLOWOFF
	PROPOSED BLOWOFF
	PROPOSED DETECTOR CHECK VALVE ASSEMBLY
	PROPOSED GUARD POST

WESTERN HEIGHTS WATER COMPANY

APPROVED:

R.C.E. NO.

14853

DATE:

LEGEND

DRAWING
NUMBER

W-11

PLAN CHECK LIST:

- ☐ PROJECT TITLE
- ☐ VICINITY MAP
- ☐ GENERAL NOTES
- ☐ CERTIFICATES
- ☐ LEGEND
- ☐ ESTIMATE OF QUANTITIES
- ☐ SCALE AND NORTH ARROW
- ☐ BENCHMARK AND BASIS OF BEARINGS
- ☐ DIMENSIONS / STATIONING

WESTERN HEIGHTS WATER COMPANY

APPROVED:

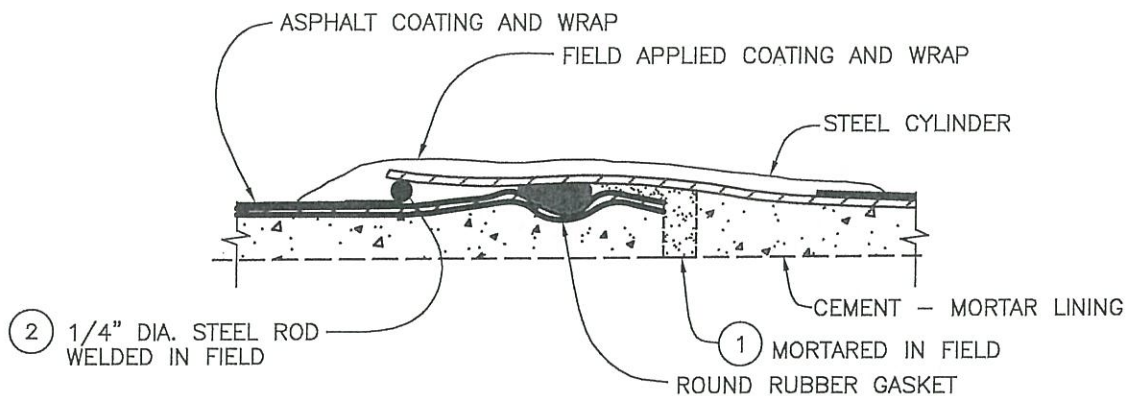
R.C.E. NO. 14853

DATE:

PLAN CHECK LIST

DRAWING
NUMBER

W-12



CEMENT — MORTAR LINED, ASPHALT COATED AND WRAPPED STEEL PIPE

NO SCALE

(1) FOR PIPE 20" DIA. AND SMALLER, THE BELL END SHALL BE DAUBED WITH MORTAR PRIOR TO JOINING, AND SHALL BE SWABBED SMOOTH AFTER JOINING. PIPE 24" DIA. AND LARGER SHALL BE MORTARED AND SWABBED FROM THE INSIDE AFTER JOINING.

(2) STEEL ROD SHALL BE 2" LONG AND DOUBLE FILLET WELDED ON THE TOP OF THE JOINT. WHERE SPECIFIED, THE WELD SHALL BE CONT. AROUND JOINT.

WESTERN HEIGHTS WATER COMPANY

APPROVED:

DRAWING
NUMBER

STEEL PIPE JOINT

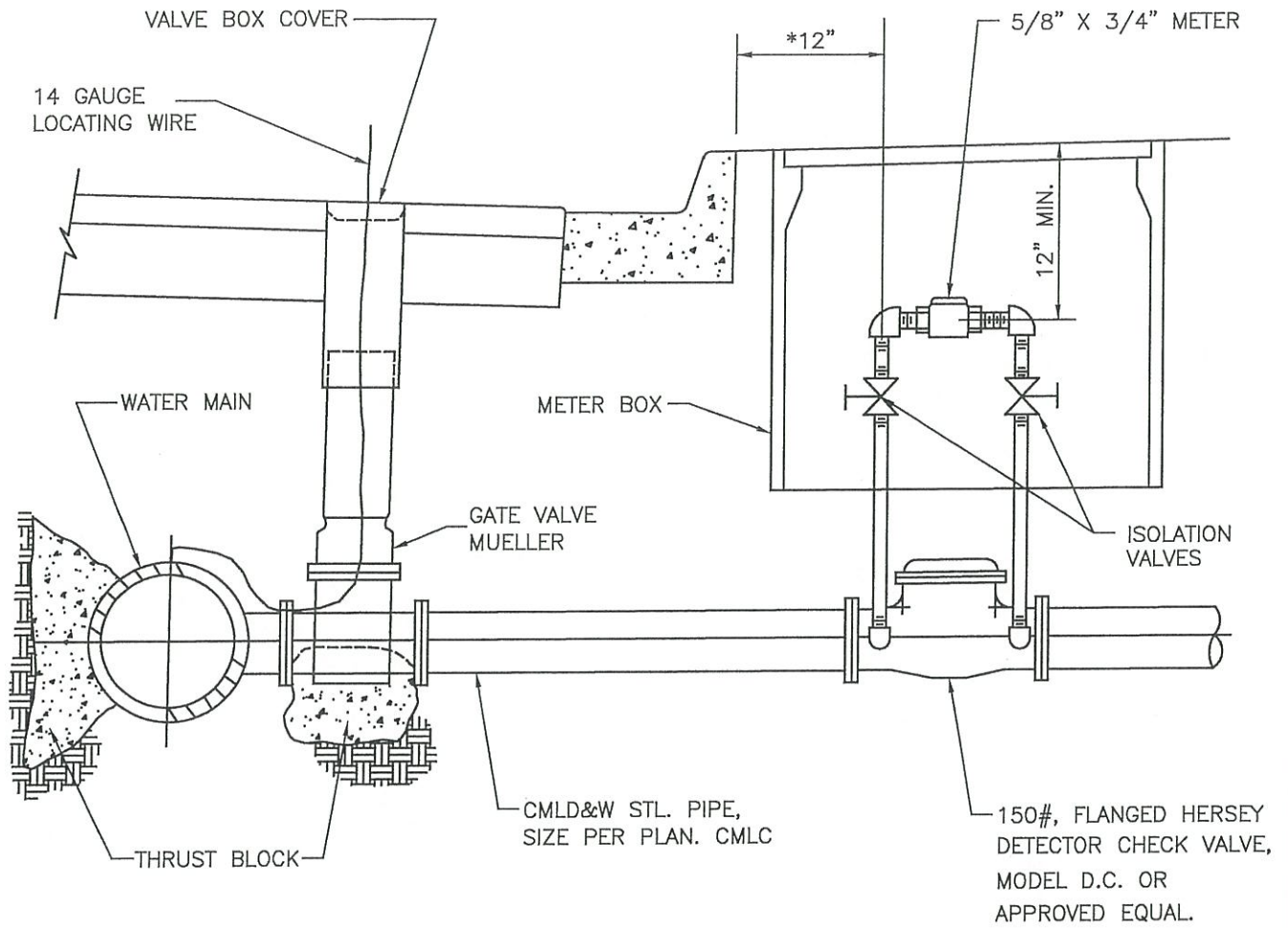
W-13

R.C.E. NO. 14853

DATE:

WESTERN HEIGHTS WATER COMPANY WATER DISTRIBUTION PLAN	DATE:
TRACT NO 00001 YUCAIPA BLVD.	SHEET NO 1 OF 1 SHEETS

WESTERN HEIGHTS WATER COMPANY		
APPROVED: R.C.E. NO. 14853 DATE:	STANDARD TITLE BLOCK	DRAWING NUMBER W-14



*EXCEPT WHEN SIDEWALK IS CURB ADJACENT METER SHOULD BE LOCATED 12" BEHIND SIDEWALK.

WESTERN HEIGHTS WATER COMPANY

APPROVED:

R.C.E. NO.

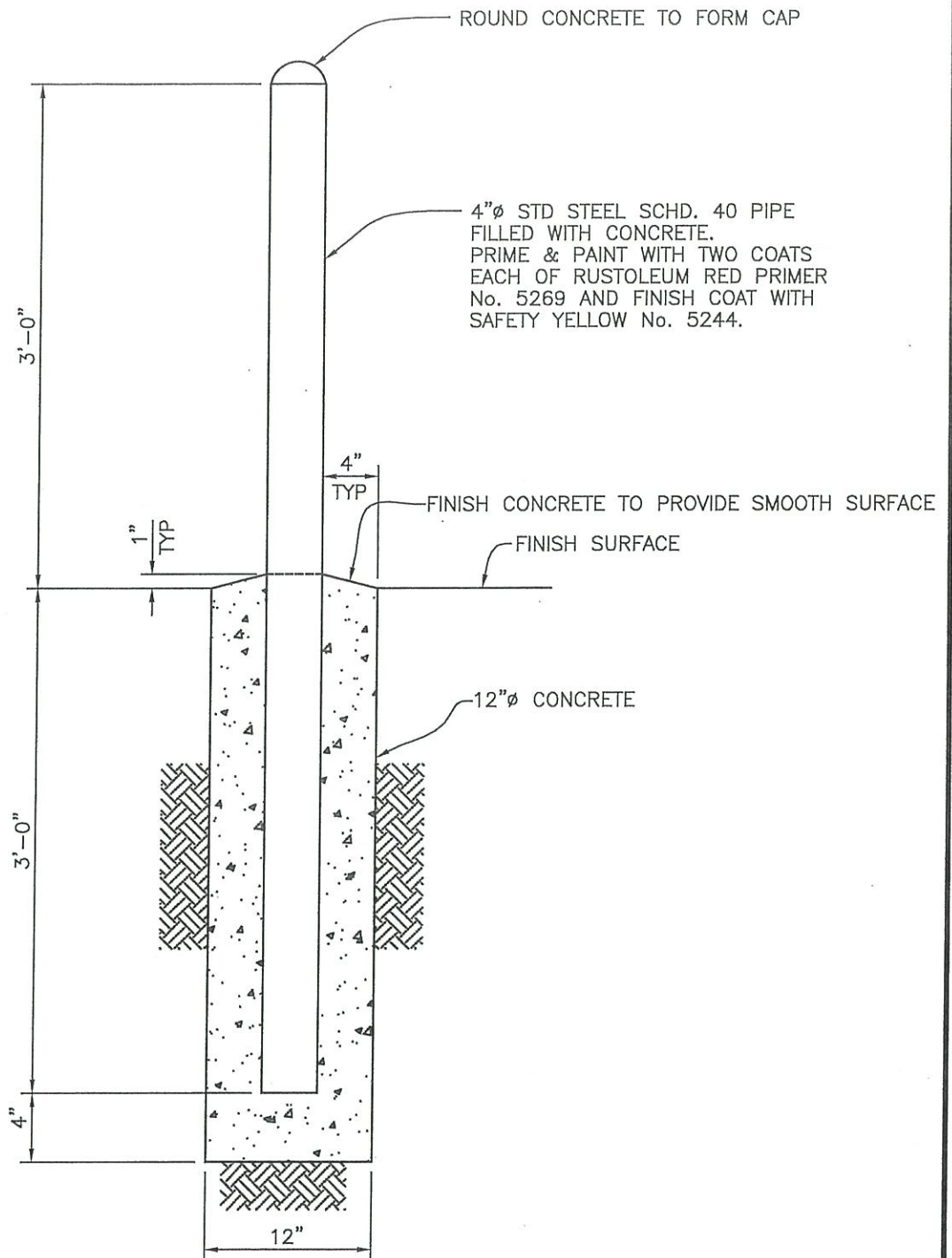
14853

DATE:

DETECTOR CHECK VALVE ASSEMBLY

DRAWING
NUMBER

W-15



NOTE:

GUARD POSTS TO BE INSTALLED WHERE DIRECTED BY THE WATER COMPANY.

NO SCALE

WESTERN HEIGHTS WATER COMPANY

APPROVED:

R.C.E. NO. 14853

DATE:

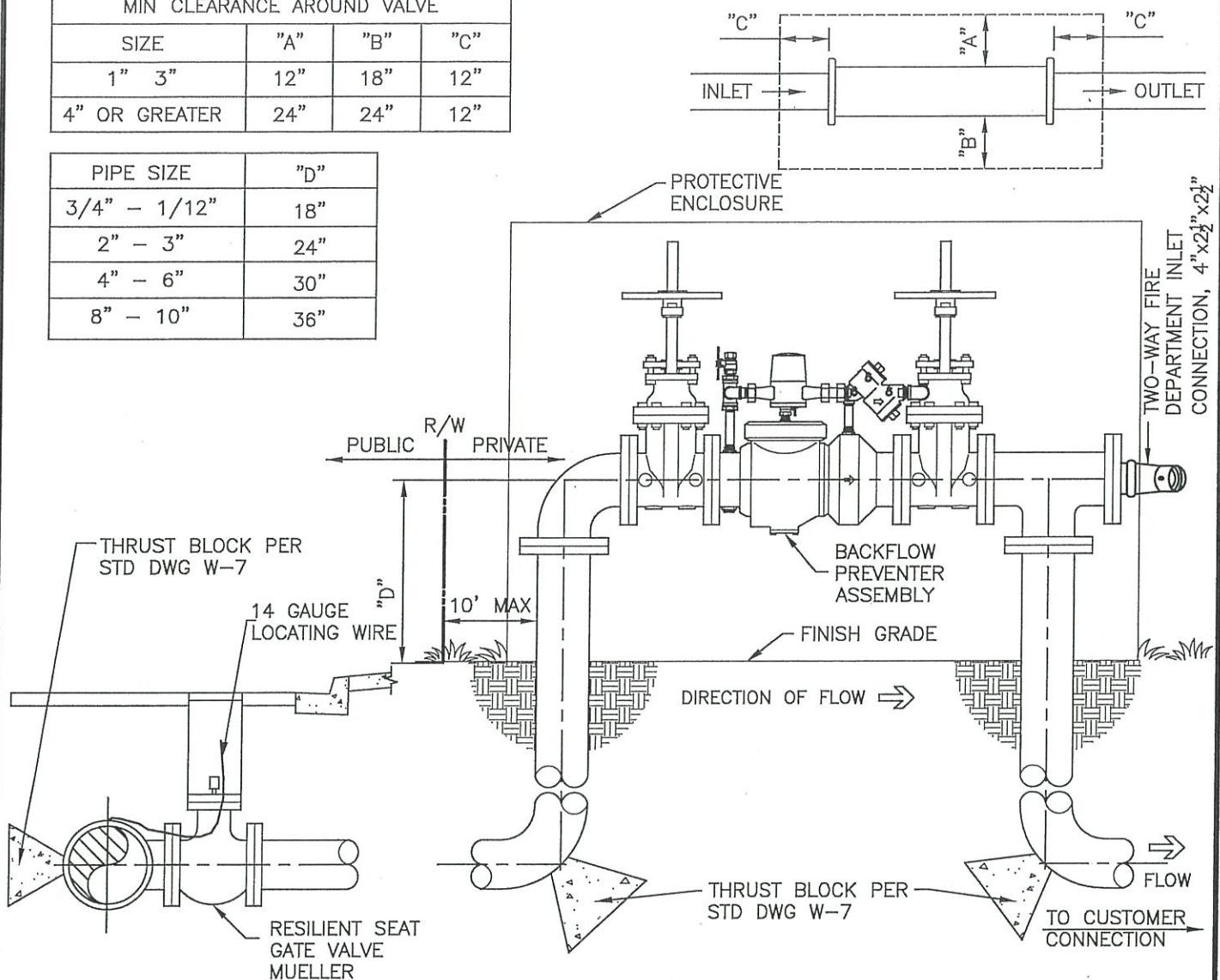
GUARD POST

DRAWING
NUMBER

W-16

MIN CLEARANCE AROUND VALVE			
SIZE	"A"	"B"	"C"
1" - 3"	12"	18"	12"
4" OR GREATER	24"	24"	12"

PIPE SIZE	"D"
3/4" - 1/12"	18"
2" - 3"	24"
4" - 6"	30"
8" - 10"	36"



NOTES

1. PIPE SHALL BE CML&C, PRIMED AND PAINTED ABOVE GROUND
2. INSTALLATION AND APPROVAL OF ASSEMBLY SHALL BE BY WHWC
3. WHWC TO PROVIDE LOCKS AND CHAINS
4. ALL FLANGED JOINTS, VALVES AND FLEXIBLE COUPLINGS IN CONTACT WITH THE SOIL SHALL BE COATED WITH ONE COAT OF SUPER TANK SOLUTION OR KOPPERS #50 BITUMASTIC, WRAPPED WITH TWO LAYERS OF 8 mil. POLYETHYLENE, AND SECURED TO THE PIPE AND SEAM SEALED WITH 2" WIDE SCOTCHRAP #50 OR CITY APPROVED EQUAL
5. BACKFLOW PREVENTER ASSEMBLY - REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY, WILKINS 975DA OR APPROVED EQUAL.

WESTERN HEIGHTS WATER COMPANY

APPROVED:

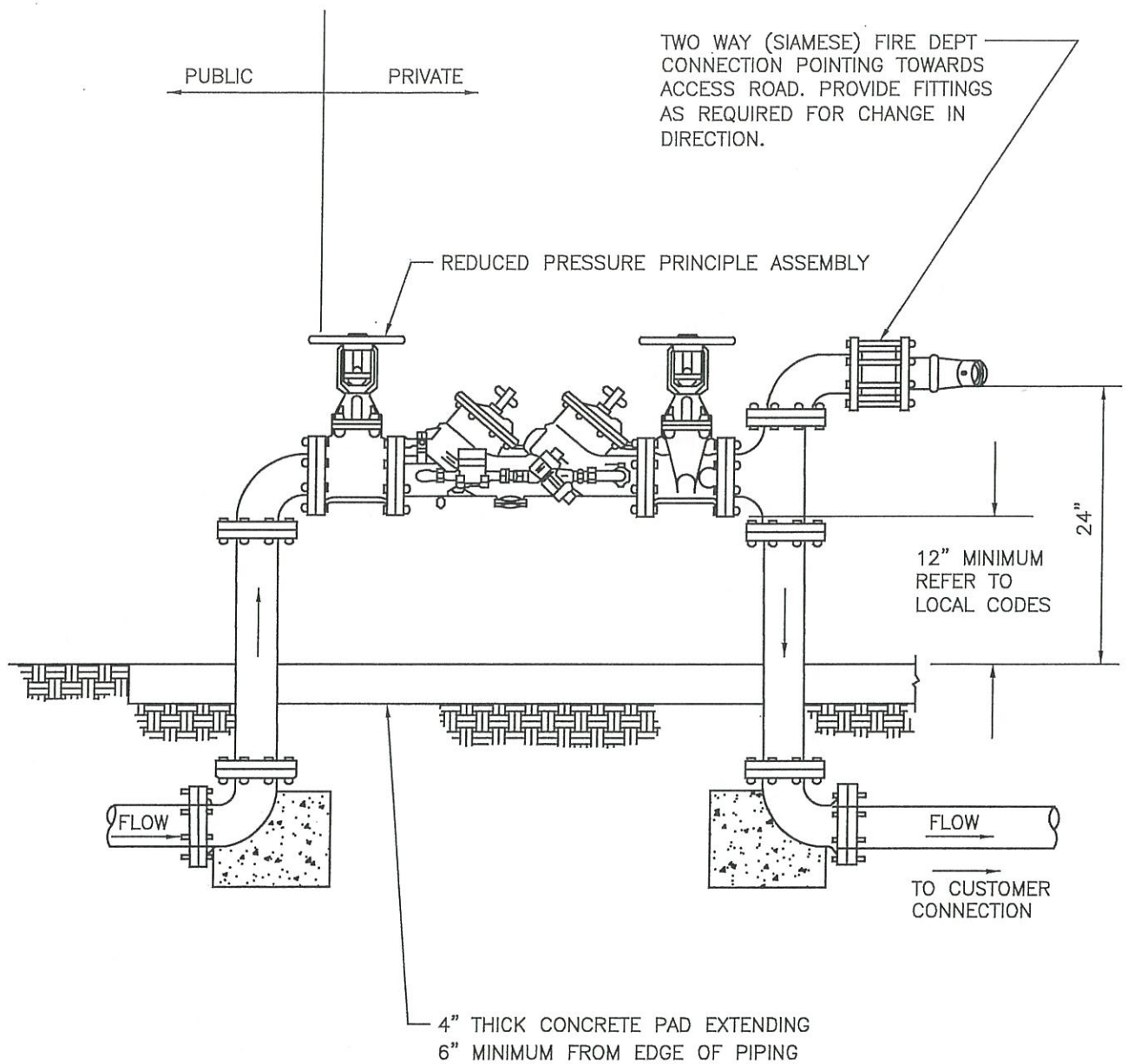
R.C.E. NO. 14853

DATE:

REDUCED PRESSURE PRINCIPLE DETECTOR
BACKFLOW PREVENTER ASSEMBLY

DRAWING
NUMBER

W-17



WESTERN HEIGHTS WATER COMPANY

APPROVED:

R.C.E. NO.

14853

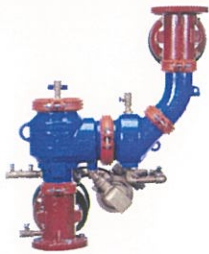
DATE:

REDUCED PRESSURE PRINCIPLE ASSEMBLY

DRAWING
NUMBER

W-17A

SPECIFICATION SUBMITTAL SHEET



MODEL 475DAV



MODEL 475DA

FEATURES

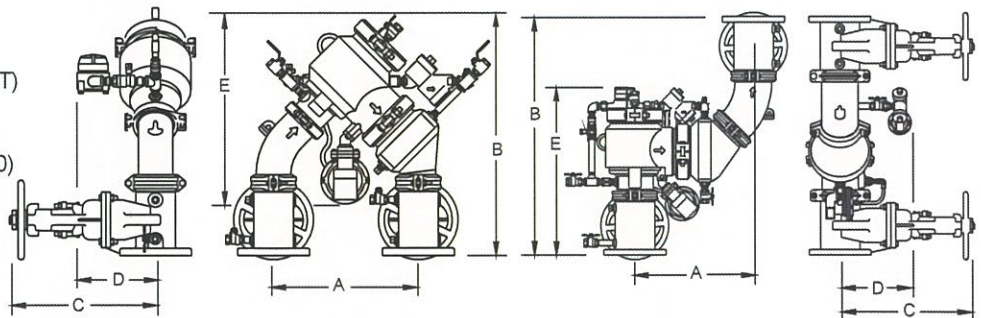
Sizes:	<input type="checkbox"/> 4"	<input type="checkbox"/> 6"	<input type="checkbox"/> 8"	<input type="checkbox"/> 10"
Maximum working water pressure	175 PSI			
Maximum working water temperature	140°F			
Hydrostatic test pressure	350 PSI			
End connections (Grooved for steel pipe)	AWWA C606-87			
(Flanged) ANSI B16.1	Class 125			

OPTIONS (Suffixes can be combined)

- ☐ - with OS & Y gate valves (standard)
- ☐ L - less shut-off valves (grooved body connections)
- ☐ LM - less water meter
- ☐ - with remote reading meter
- ☐ - with gpm meter (standard)
- ☐ - with cu ft/min meter
- ☐ V - vertical flow up configuration
- ☐ G - with groove end gate valves
- ☐ FG - with flanged inlet gate connection and grooved outlet gate connection
- ☐ MS - with integral Relief Valve Monitor Switch
- ☐ BGVIC - with grooved end butterfly valves (see document BF-475DA&VBGVIC for dimensions and approvals)
- ☐ PI - with Post Indicator Gate Valve (4"-10")

ACCESSORIES

- ☐ Air gap (see spec sheet BF-AG)
- ☐ Repair kit (rubber only)
- ☐ Thermal expansion tank (Model XT)
- ☐ Valve setter (Model FLS or MJS or MJFS)
- ☐ Gate valve tamper switch (OSY-40)
- ☐ QT-SET Quick Test Fitting Set
- ☐ Test Cock Lock (Model TCL24)



DIMENSIONS & WEIGHTS (do not include pkg.)

MODEL 475DA & 475DAV SIZE	DIMENSIONS (approximate)														WEIGHT			
	A		B WITH GATE VALVES		B LESS GATE VALVES		C OS&Y OPEN		C OS&Y CLOSED		D		E		LESS GATE VALVES		OS&Y GATE VALVES	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	kg
4" 475DA	18 5/16	465	30	762	21	533	22 3/4	578	18 1/4	464	8	203	23 3/16	589	113	51.3	303	137.4
4" 475DAV	18 7/8	479	36 1/2	927	18 1/2	470	22 3/4	578	18 1/4	464	8	203	21	533	113	51.3	303	137.4
6" 475DA	18 11/16	475	35 1/2	902	25	635	30 1/8	765	23 3/4	603	10	254	26	660	187	84.9	487	221
6" 475DAV	21	533	42	1067	21	533	30 1/8	765	23 3/4	603	10	254	22	559	187	84.9	487	221
8" 475DA	29	737	46	1168	34 7/16	875	37 3/4	959	29 1/4	743	13	330	33 1/4	845	421	191.1	897	406.8
8" 475DAV	30 5/16	770	53 1/2	1359	30 5/16	770	37 3/4	959	29 1/4	743	13	330	37 7/8	962	421	191.1	897	406.8
10" 475DA	29	737	47 1/2	1207	34 7/16	875	45 3/4	1162	35 3/8	899	13	330	33 1/4	845	439	199.3	1113	504.8
10" 475DAV	30 5/16	770	56 1/2	1435	30 5/16	770	45 3/4	1162	35 3/8	899	13	330	39 3/8	1000	439	199.3	1113	504.8

APPLICATION

Designed for installation on potable water lines in fire protection systems to protect against both backsiphonage and backpressure of contaminated water into the potable water supply. The Model 475DA/475DAV shall provide protection where a potential health hazard exists. Incorporates metered by-pass to detect leaks and unauthorized water use.

STANDARDS COMPLIANCE

- ASSE® Listed 1047 (4" thru 8")
- UL® Classified (4" thru 10")
- C-UL® Classified (4" thru 10")
- FM® Approved (4" thru 8")
- NYC MEA 170-02-M VOL 2 (4-8")
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California (4" thru 8")

MATERIALS

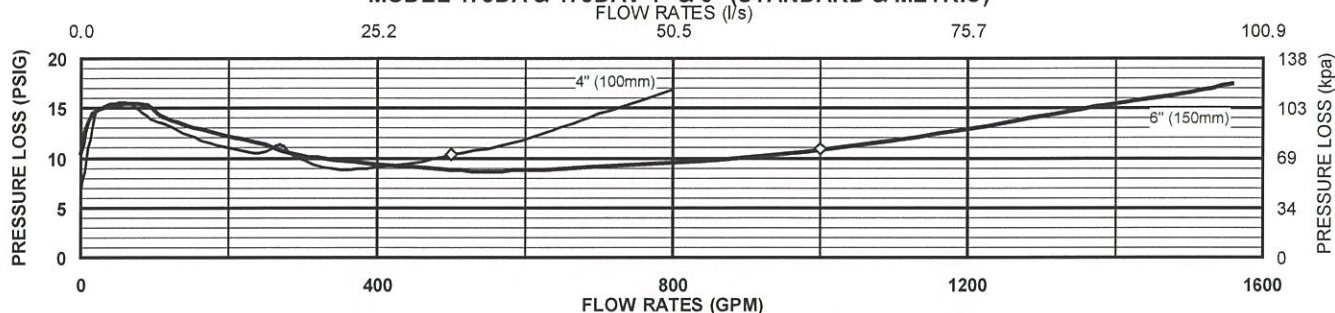
Main valve body	Ductile Iron ASTM A 536 Grade 4
Access covers	Ductile Iron ASTM A 536 Grade 4
Coatings	FDA Approved fusion epoxy finish
Fasteners	Stainless Steel, 300 Series
Elastomers	EPDM (FDA approved)
	Buna Nitrile (FDA approved)
Polymers	NORYL™, NSF Listed
Springs	Stainless steel, 300 series

Relief Valve discharge port:

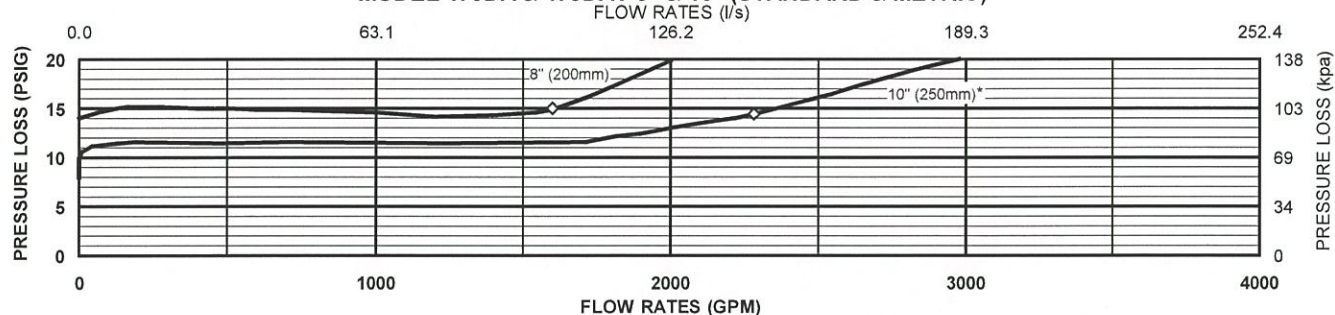
2 1/2" - 6"	-	2.75 sq. in.
8" - 10"	-	3.69 sq. in.

FLOW CHARACTERISTICS

MODEL 475DA & 475DAV 4" & 6" (STANDARD & METRIC)



MODEL 475DA & 475DAV 8" & 10" (STANDARD & METRIC)



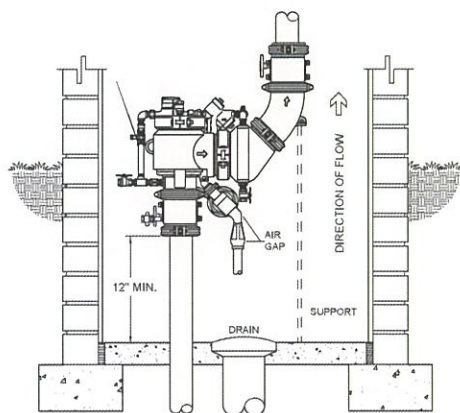
◇ Rated Flow (Established by approval agencies) (*UL curve)

TYPICAL INSTALLATION

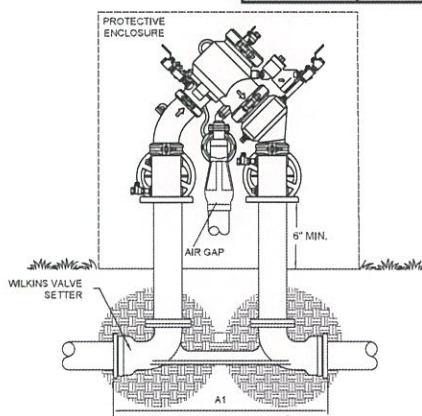
Local codes shall govern installation requirements. To be installed in accordance with the manufacturers' instructions and the latest edition of the Uniform Plumbing Code. Unless otherwise specified, the assembly shall be mounted above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

Capacity thru Schedule 40 Pipe (GPM)

Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
2 1/2"	75	112	149	224
3"	115	173	230	346
4"	198	298	397	595
6"	450	675	900	1351
8"	780	1169	1559	2339
10"	1229	1843	2458	3687



VERTICAL INSTALLATION



OUTDOOR INSTALLATION

MODEL SIZE	DIMENSIONS (approximate)			
	A1 SETTER END TO END FLS		A1 SETTER END TO END MJS	
in. mm	in.	mm	in.	mm
4 100	31 5/16	795	29 5/16	745
6 150	34 3/4	884	32 3/4	832
8 200	47	1194	44 5/8	1133
10 250	51	1295	47	1194

SPECIFICATIONS

The Reduced Pressure Detector Assembly shall be ASSE® Listed 1047, and supplied with full port OS & Y gate valves. The main body and access covers shall be epoxy coated ductile iron (ASTM A 536 Grade 4), the seat ring and check valve shall be NORYL™, the stem shall be stainless steel (ASTM A 276) and the seat disc elastomers shall be EPDM. The first and second checks shall be accessible for maintenance without removing the relief valve or the entire device from the line. If installed indoors, the installation shall be supplied with an air gap adapter. The Reduced Pressure Detector Assembly shall be a WILKINS Model 475DA or 475DAV.

WILKINS a Zurn company, 1747 Commerce Way, Paso Robles, CA 93446 Phone: 805/238-7100 Fax: 805/238-5766

IN CANADA: ZURN INDUSTRIES LIMITED, 3544 Nashua Dr., Mississauga, Ontario L4V 1L2 Phone: 905/405-8272 Fax: 905/405-1292

Product Support Help Line: 1-877-BACKFLOW (1-877-222-5356) • Website: <http://www.zurn.com>