

UNDERGROUND FIRE PLANS 2015 E. GLENDALE BOULEVARD

ALL PRIVATE FIRE SYSTEMS WILL BE DESIGNED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE, CALIFORNIA FIRE CODE, & NFPA 24. PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES MINIMUM COVER SHALL BE 36 INCHES.

OWNER

GLENDALE UNIFIED SCHOOL DISTRICT
223 NORTH JACKSON STREET
GLENDALE, CA 91206
(818) 241-3111

SITE ADDRESS

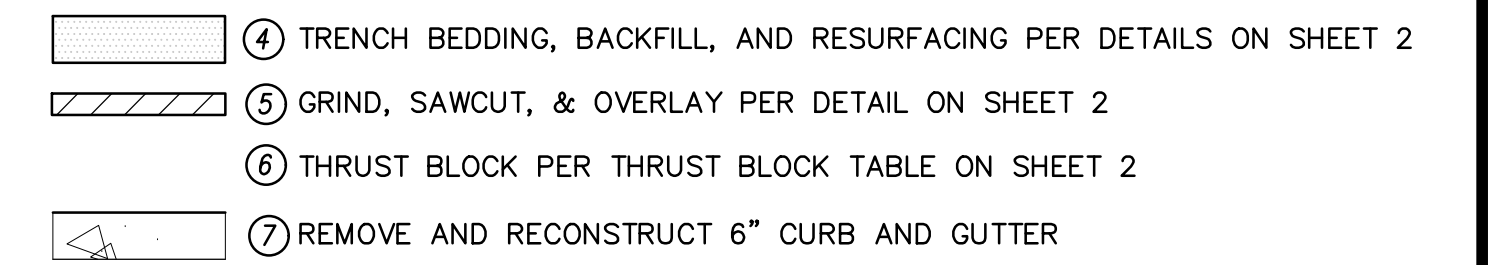
2015 E. GLENOAKS BLVD.
GLENDALE, CA 91206

BUILDING INFORMATION

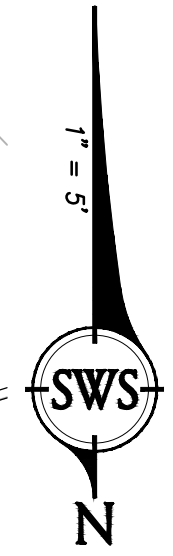
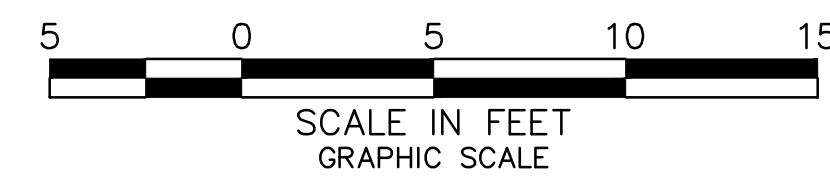
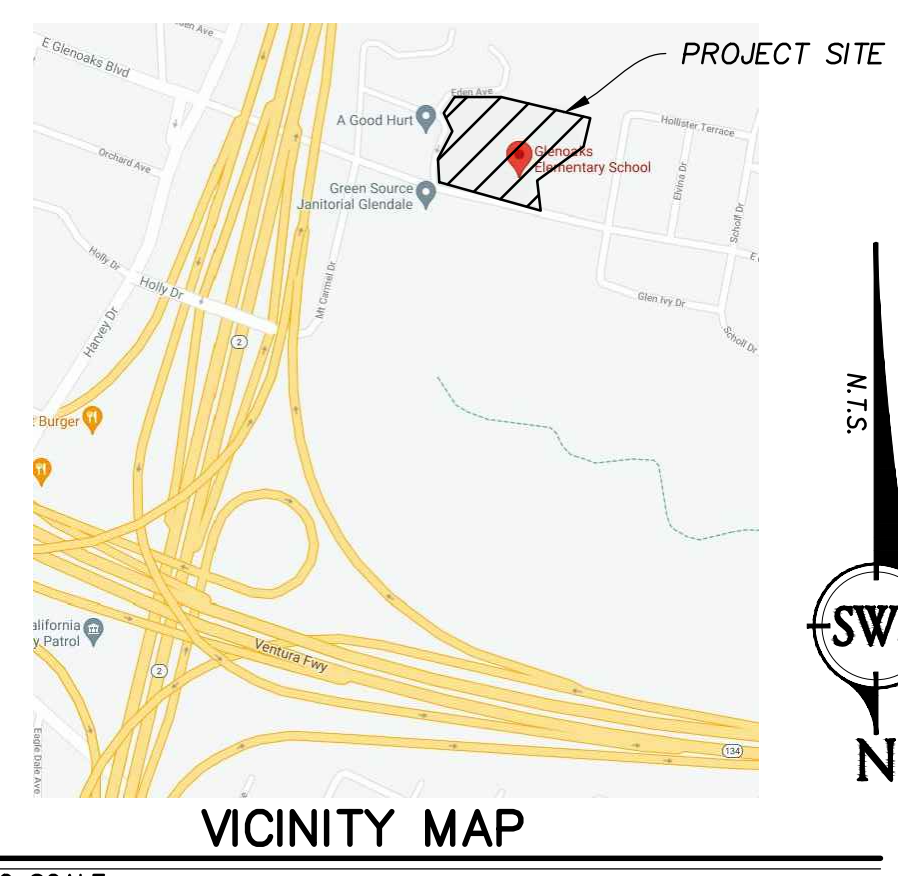
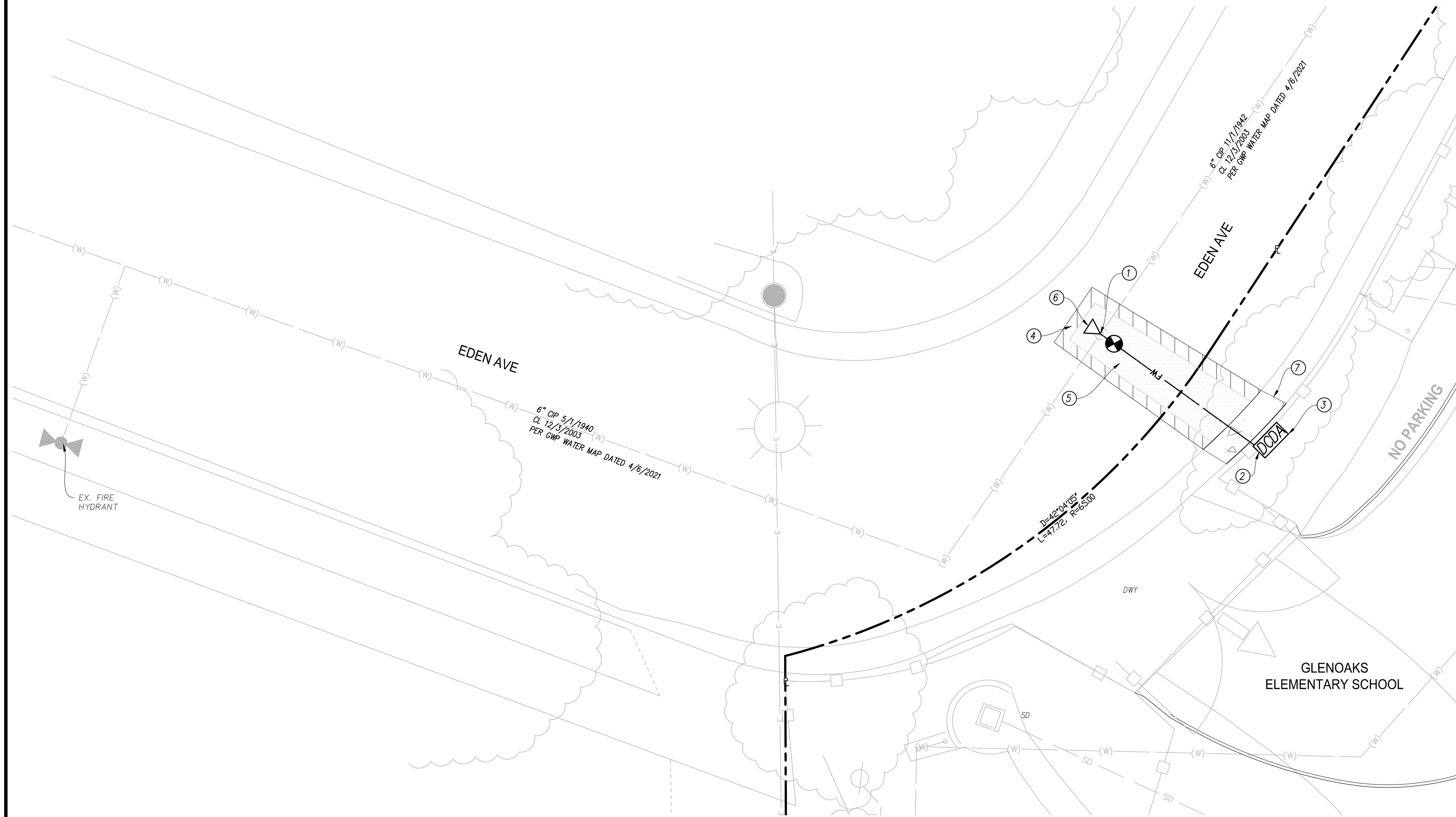
TYPE OF CONSTRUCTION: VB
OCCUPANCY CLASSIFICATIONS: E OR B
FIRE SPRINKLERS: AUTOMATIC FIRE SPRINKLERS

CONSTRUCTION NOTES

- ① 6" FIRE SERVICE PER GWP STANDARD DRAWING NO. 6560-A AND 6561-A, 6"x6"x6" TEE (CUT IN)
- ② BACKFLOW PREVENTER DOUBLE CHECK DETECTOR ASSEMBLY PER GWP STANDARD DRAWING NO. 6762-A (WILKINS/ZURN 350DA; 6" DCDA)
- ③ CONTINUATION PER DSA APPROVAL # _____
- ④ TRENCH BEDDING, BACKFILL, AND RESURFACING PER DETAILS ON SHEET 2
- ⑤ GRIND, SAWCUT, & OVERLAY PER DETAIL ON SHEET 2
- ⑥ THRUST BLOCK PER THRUST BLOCK TABLE ON SHEET 2
- ⑦ REMOVE AND RECONSTRUCT 6" CURB AND GUTTER



APPROVED BACKFLOW PREVENTION DEVICE			
	DOMESTIC	IRRIGATION	FIRE
Size:			
Type:			
Mfg:			
Model:			
Notes:			
Sign:		Date:	
For inspection call GWP Water Engineering at (818) 548-2062 to schedule an appointment.			
City of Glendale Water & Power			



DIGALERT
DIAL TOLL FREE
1-800-422-4133
AT LEAST TWO DAYS
BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA



MICHAEL D. SCHWEITZER R.C.E. NO. 59658 EXP: 12-31-2021

DATE:

GLENDALE UNIFIED SCHOOL DISTRICT	
TITLE SHEET FOR:	
FIRE SERVICE UNDERGROUND	
DATE:	04/19/2021
SHEET 1 OF 2 SHEETS	

ZURN Model 350DA Double Check Detector Assembly

Application
Designed for installation on water lines in fire protection systems to protect against both backsiphonage and backpressure of polluted water into the potable water supply. Model 350DA shall provide protection where a potential health hazard does not exist. Incorporates metered by-pass to detect leaks and unauthorized water use.



Standards Compliance
(Sizes 2 1/2" - 10" Horiz. & Vert., 12" Horizontal Only)
• ASSE® Listed 1048 (Sizes 2 1/2" thru 12")
• CSA® Certified B64.6 (Sizes 2 1/2" thru 8", & 12")
• AWWA Compliant C510 (Sizes 2 1/2" thru 12"), and C560
• UL® Classified (Sizes 2 1/2" thru 12")
• C-UL® Classified (Sizes 2 1/2" thru 12")
• FM® Approved (Sizes 2 1/2" thru 10")
• NYC MEA 147-99-M Vol 4 (2-1/2" - 10")
• Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California (Sizes 2 1/2" thru 12")
• Meets the requirements of NSF/ANSI 61*
*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

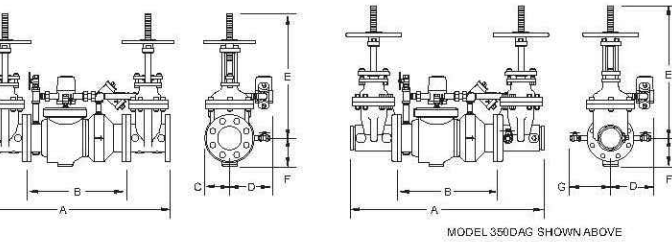
By-Pass Backflow Assembly 3/4" Model 950XLD

Materials
Main valve body: Ductile Iron ASTM A 536
Access covers: Ductile Iron ASTM A 536
Coatings: NSF Approved fusion epoxy finish
Internals: Stainless steel, 300 Series
Fasteners: Stainless Steel, 300 Series
Elastomers: EPDM (FDA approved)
Polymers: Buna Nitrile (FDA approved)
Springs: Stainless Steel, 300 Series

- Options**
(Suffixes can be combined)
- L - with OS & Y gate valves (standard)
 - LM - less shut-off valves (flanged gate connections)
 - G - with gallon meter (standard)
 - CFM - with cu ft meter
 - CMM - with cu meter meter
 - G - with groove end gate valves
 - FG - with flanged inlet connection and grooved outlet connection
 - PI - with Post Indicator Gate Valve
 - GF - with flanged inlet connection and grooved outlet connection
 - BG - with grooved end butterfly valves with integral monitor switches (2 1/2" - 10")

- Accessories**
- Repair kit (rubber only)
 - Thermal expansion tank (Model XT)
 - OS & Y Gate valve tamper switch (OSY-40)
- Attention:**
Model 350DA (flange body) and Model 350ADA (grooved body) have different lay lengths.

Features
Sizes 2 1/2", 3", 4", 6", 8", 10", 12"
Maximum working water pressure: 175 PSI
Maximum working water temperature: 140°F
360 PSI
Hydrostatic test pressure: AWWA C606
End connections (Grooved for steel): ASME B16.42
(Flanged bolt pattern): Class 150

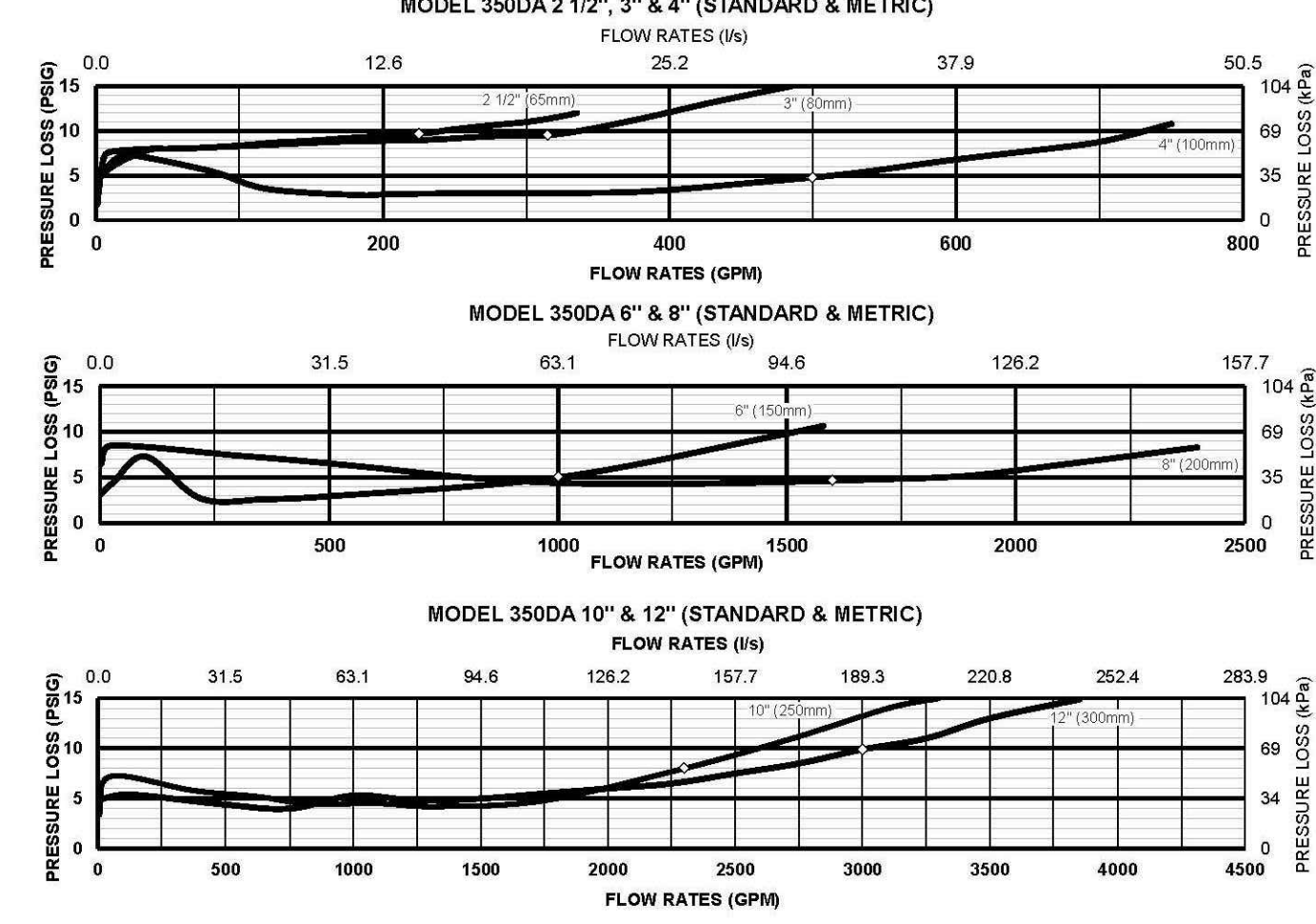


Dimensions & Weights (do not include pkg.)

MODEL SIZE	DIMENSIONS (approximate)												WEIGHT			
	A	B	C	D	E	F	G	H	I	J	K	L	Net	Gross	Net	Gross
2 1/2"	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Zurn Industries, LLC | Wilkins
1747 Commerce Way, Paso Robles, CA U.S.A. 93446 Ph. 855-683-9876, Fax 805-238-5766
In Canada | Zurn Industries Limited
7900 Goreway Drive, Unit 10, Brampton, Ontario L6T 5W6, 877-892-5216
www.zurn.com

Flow Characteristics



Typical Installation
Local codes shall govern installation requirements. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) 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)

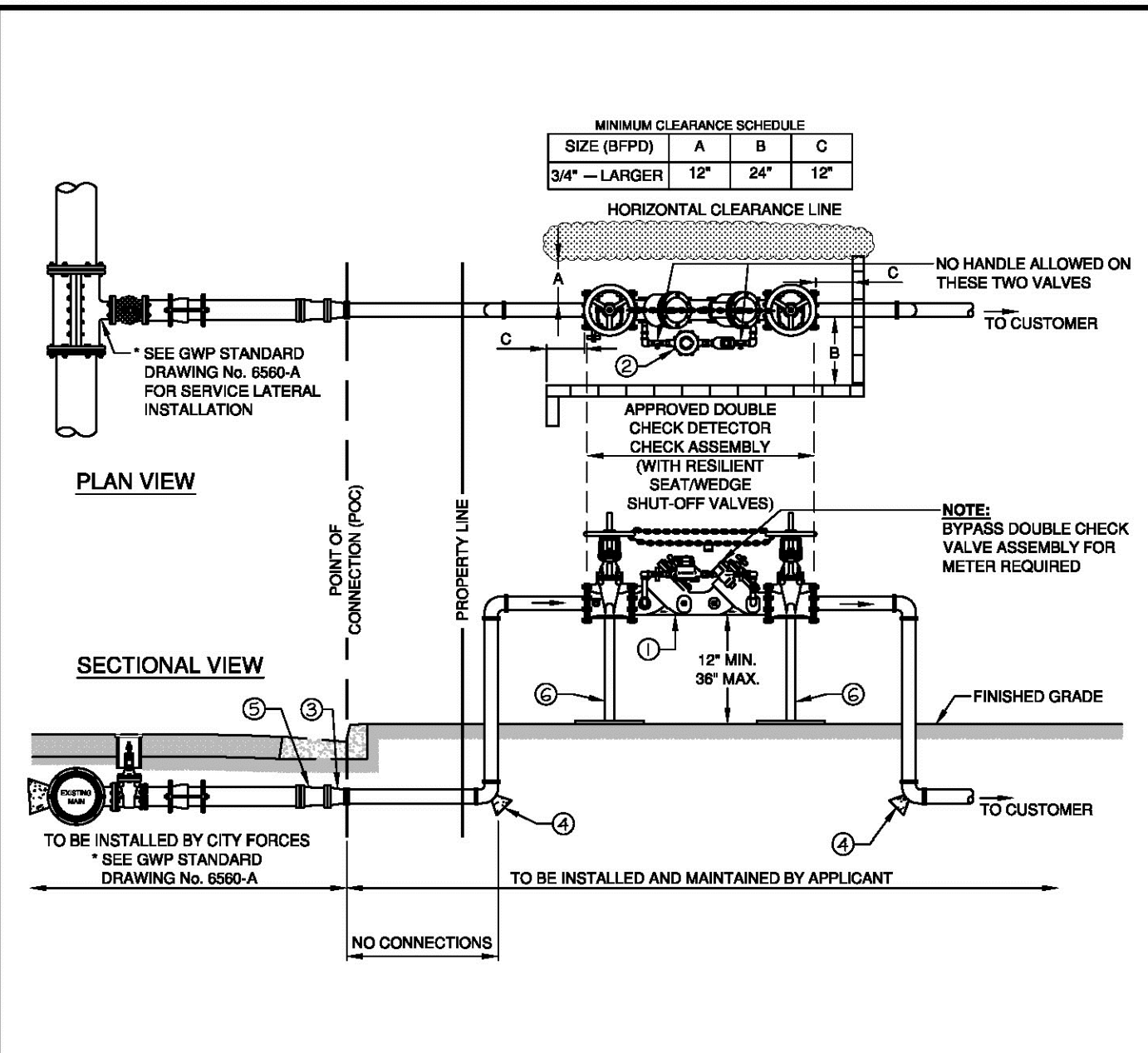
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
2 1/2"	75	112	149	224
3"	115	175	230	348
4"	198	298	397	595
6"	450	675	900	1351
8"	780	1169	1558	2339
10"	1220	1843	2458	3687
12"	1763	2644	3525	5288

Specifications
The Double Check Detector Backflow Prevention Assembly shall be certified to NSF/ANSI 61, ASSE® Listed 1048, and supplied with full port gate valves. The main body and access cover shall be epoxy coated ductile iron (ASTM A 536), 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 check valves shall be accessible for maintenance without removing the device from the line. The Double Check Detector Backflow Prevention Assembly shall be a ZURN WILKINS Model 350DA.

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INSTALLATION REQUIREMENTS

- ALL INSTALLATIONS MUST BE COORDINATED WITH GLENDALE WATER & POWER (GWP). ANY UNAUTHORIZED CONNECTION TO, OR OPERATION OF, A GWP FACILITY MAY BE GROUNDS FOR DENIAL OF WATER SERVICE.
- BACKFLOW PREVENTION ASSEMBLY (BFP) MUST BE APPROVED BY THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH AT THE UNIVERSITY OF SOUTHERN CALIFORNIA AND MUST BE INSTALLED IN THEIR ORIGINAL (UNALTERED) MANUFACTURED FORM.
- THE ASSEMBLY SHALL BE INSTALLED AS CLOSE TO THE METER OR TO THE RIGHT-OF-WAY LINE AS PRACTICAL (SEE STANDARD DRAWING No. 6528-A & 6561-A).
- THE BFP MUST BE TESTED BY A GWP-AUTHORIZED TESTER PRIOR TO ACTUAL SERVICE (SEE GWP'S APPROVED TESTER LIST).
- ANY UNAUTHORIZED CONNECTION TO A BFP WILL RESULT IN DISCONNECTION OF SAID CONNECTIONS AND POSSIBLE SHUT OFF OF WATER SERVICE.
- PLEASE CONTACT (818) 937-8948 FOR APPROVAL OF BFP INSTALLATION LOCATION PER CA CODE OF REGULATIONS, TITLE 17 & CITY OF GLENDALE ORD. No. 5678.
- FOR A LIST OF APPROVED BFP, PLEASE CONTACT (818) 937-8948. NEW DEVICES MUST BE INSPECTED BY GWP AND TESTED BY LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH CERTIFIED BACKFLOW TESTER IMMEDIATELY UPON INSTALLATION BEFORE WATER SERVICE IS APPROVED.
- ACCORDING TO CALIFORNIA AND GLENDALE CITY CODE AND REGULATIONS, ALL COMMERCIAL FIRE SERVICES AND IRRIGATION SERVICES WILL REQUIRE SOME FORM OF BACKFLOW PREVENTION SYSTEM TO PROTECT THE POTABLE WATER SYSTEM. PLEASE BE SURE TO THOROUGHLY REVIEW GWP STANDARD DRAWINGS. (SEE STANDARD DRAWINGS 6528-A & 6561-A)
- ALL BFP SHALL BE LOCATED AS CLOSE AS PRACTICAL TO THE USER'S CONNECTION. THEY WILL BE INSTALLED A MINIMUM OF TWELVE INCHES (12") AND NOT MORE THAN THIRTY SIX INCHES (36") ABOVE FINISHED STREET GRADE MEASURED FROM THE BOTTOM OF THE DEVICE. A MINIMUM OF TWELVE INCHES (12") SIDE CLEARANCE, AND TWENTY-FOUR INCHES (24") FRONT CLEARANCE, LOCATED WHERE IT IS READILY ACCESSIBLE FOR INSPECTION, TESTING AND MAINTENANCE.



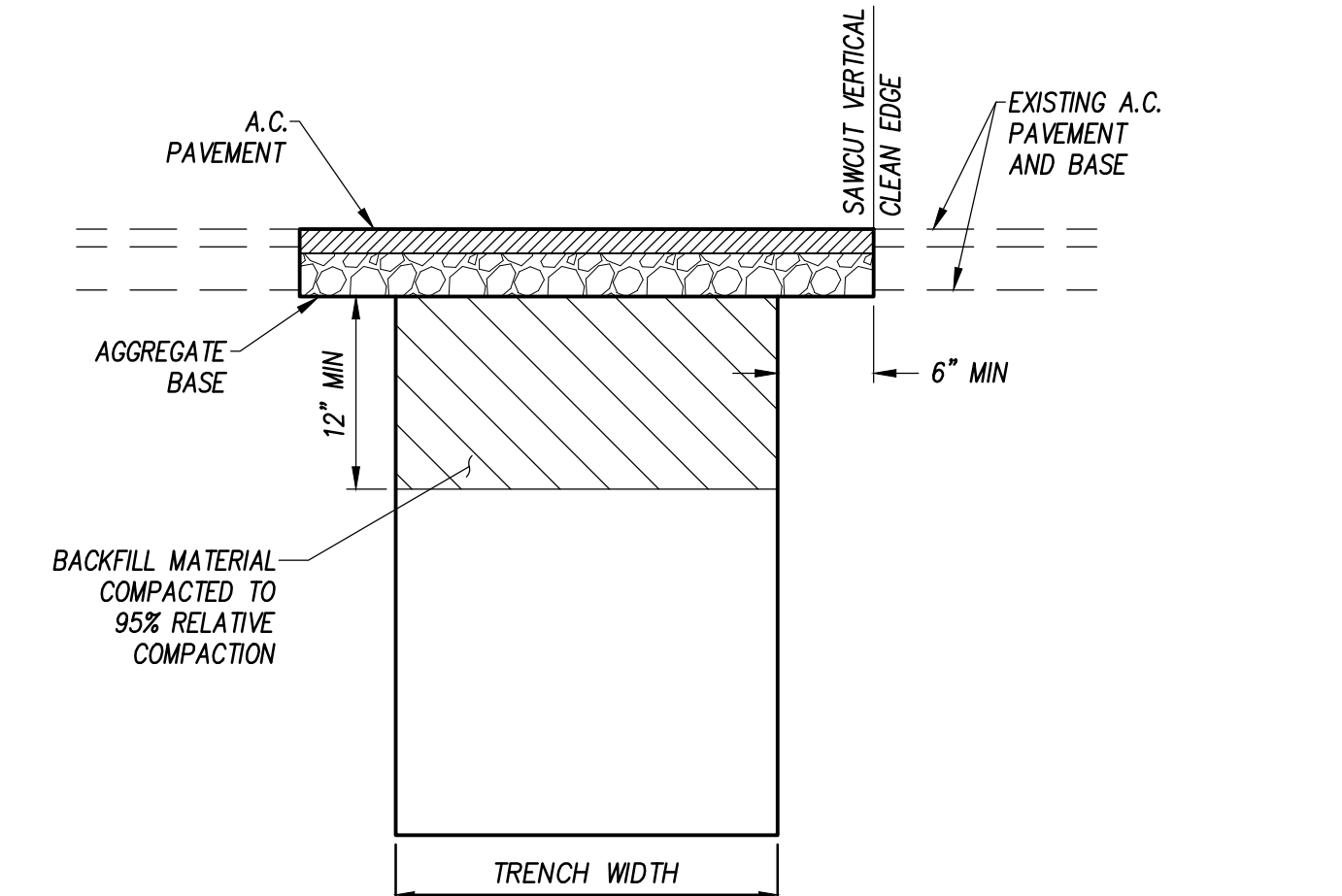
DETAIL	DESCRIPTION
1	DOUBLE CHECK DETECTOR CHECK ASSEMBLY APPROVED BY HEALTH AGENCY.
2	BYPASS METER TO BE FURNISHED BY GWP AT CUSTOMER'S EXPENSE.
3	4" x 3" FLG. x FLG. REDUCER (WHEN NEEDED).
4	SEE GWP STD. DWG. No. G083-A FOR THRUST BLOCK INSTALLATION.
5	4" M.J. x FLG. ADAPTOR.
6	ADJUSTABLE PIPE SUPPORT. SEE GWP STD. DWG. No. G022-A.

APPROVED
GERALD TOM, SENIOR CIVIL ENGINEER, R.C.E. No. C51208 DATE 07/14/2015
GLENDALE WATER & POWER - WATER DEPARTMENT

SCALE: NONE
DATE: 07/14/15
APP: 6762-A

APPROVED
GERALD TOM, SENIOR CIVIL ENGINEER, R.C.E. No. C51208 DATE 07/14/15
GLENDALE WATER & POWER - WATER DEPARTMENT

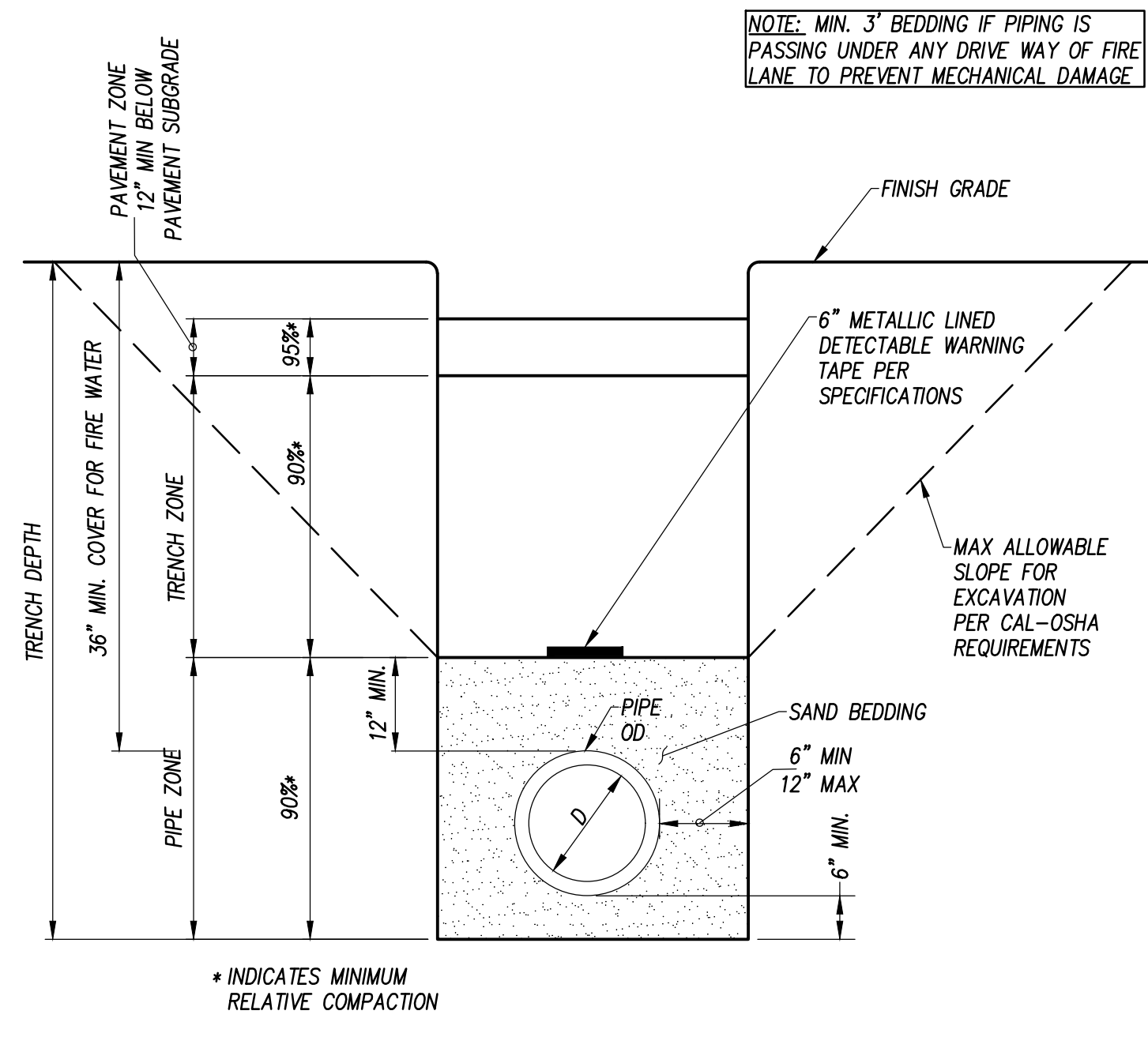
SCALE: NONE
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- NOTES:**
- MINIMUM A.C. PAVEMENT THICKNESS SHALL BE ONE INCH GREATER THAN EXISTING A.C. OR AS SHOWN ON PLAN.
 - A.C. PAVEMENT SHALL BE HOT PLANT MIX.
 - TACK COAT SHALL BE APPLIED TO ALL EDGES PRIOR TO PLACEMENT OF A.C. PAVEMENT.
 - A.C. RESURFACING SHALL BE SEAL COATED WITH AN EMULSIFIED ASPHALT AND COVERED WITH SAND.
 - AGGREGATE BASE MATERIAL SHALL MATCH THE THICKNESS OF EXISTING BASE OR AS SHOWN ON PLAN.

TRENCH RESURFACING - A.C. PAVEMENT

NOT TO SCALE

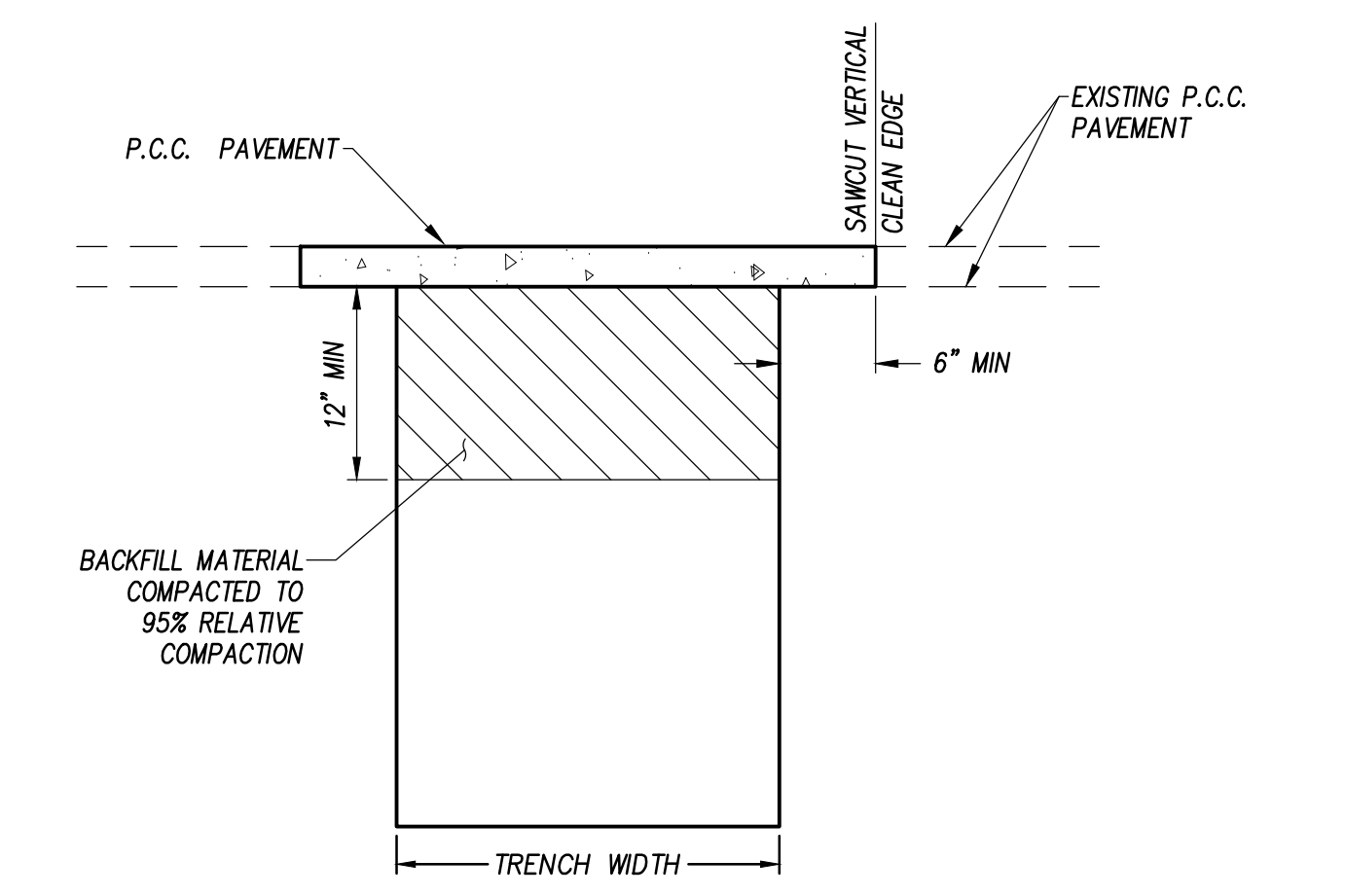


PIPE BEDDING & TRENCH BACKFILL FOR WATER & FIRE

NOT TO SCALE

THRUST BLOCK TABLE
PER NFPA 24
SOIL BEARING = 2,000 PSF W/ 1.5 SAFETY FACTOR

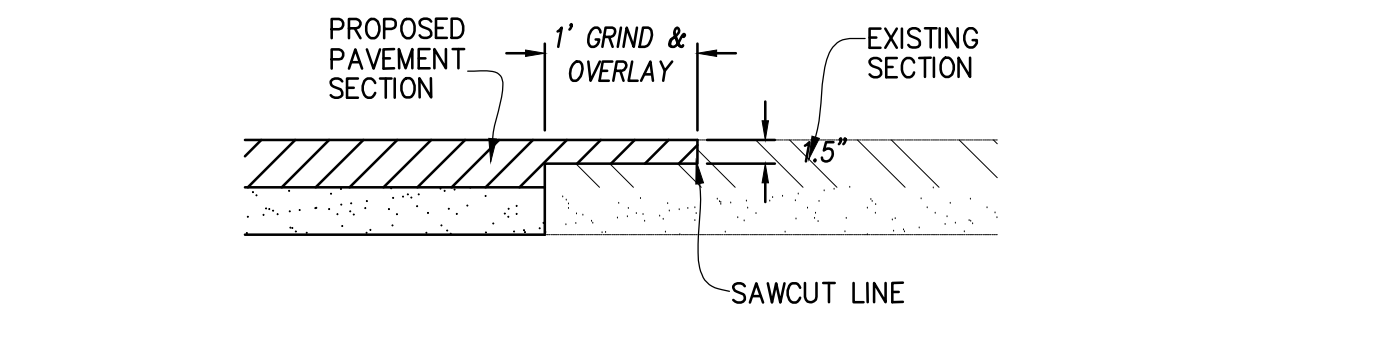
PIPE (IN)	ANGLE (DEG)	HEIGHT (FT)	WIDTH (FT)	AREA (SF)	PIPE (IN)	ANGLE (DEG)	HEIGHT (FT)	WIDTH (FT)	AREA (SF)
4	11.25	1.0	1.0	1.0	8	11.25	1.0	2.0	2.0
4	22.5	1.0	1.1	1.1	8	22.5	1.9	2.0	3.8
4	45	1.1	2.0	2.2	8	45	2.0	3.7	7.4
4	90	1.9	2.0	3.8	8	90	2.7	5.1	13.8
4	TEE	1.4	2.0	2.8	8	TEE	2.3	4.2	9.7
6	11.25	1.0	1.1	1.1	10	11.25	1.4	2.0	2.8
6	22.5	1.1	2.0	2.2	10	22.5	2.0	3.0	6.0
6	45	2.0	2.2	4.4	10	45	2.4	4.7	11.3
6	90	2.0	4.0	8.0	10	90	3.2	6.4	20.5
6	TEE	2.0	2.8	5.6	10	TEE	2.7	5.4	14.6



- NOTE:**
MINIMUM P.C.C. THICKNESS SHALL BE 5" OR THAT OF THE EXISTING P.C.C. PAVEMENT, WHICHEVER IS GREATER.

TRENCH RESURFACING - P.C.C. PAVEMENT

NOT TO SCALE



GRIND, SAWCUT & OVERLAY DETAIL

NOT TO SCALE

APPROVED
GERALD TOM, SENIOR CIVIL ENGINEER, R.C.E. No. C51208 DATE 07/14/2015
GLENDALE WATER & POWER - WATER DEPARTMENT

SCALE: NONE
DATE: 07/14/15
APP: 6762-A

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MICHAEL D. SCHWEITZER R.C.E. NO. 59658 EXP. 12-31-2021

GLENDALE WATER & POWER CITY OF GLENDALE CALIFORNIA

INSTALLATION REQUIREMENTS FOR BACKFLOW PREVENTION ASSEMBLY DEVICE (BFP)

GLENDALE WATER & POWER CITY OF GLENDALE CALIFORNIA

STANDARD FIRE LINE INSTALLATION WITH DOUBLE CHECK DETECTOR CHECK ASSEMBLY - (3" - 12")

DATE: 04/19/2021

SHEET 2 OF 2 SHEETS