TRUCKEE MEADOWS WATER AUTHORITY:

APPLICANT TO FURNISH AND/OR INSTALL:

ALL TRENCHING AND EXCAVATION PER TMWA ENGINEERING & CONSTRUCTION STANDARDS SECTIONS 4 AND 5.

ALL SURVEY STAKING NECESSARY TO CLARIFY RIGHT-OF-WAY, EASEMENTS, PROPERTY LINES, ELEVATIONS, ETC.

ALL NECESSARY PERMITS, PAVEMENT CUTTING, PAVEMENT REMOVAL, AND PAVEMENT REPLACEMENT.
APPLICANT TO INSTALL WATER METER SETTER AND ENCLOSURE.
WATER METER INSTALLED BY TMWA.

ALL REQUIRED LINE PRESSURE TESTS AND WELDING/FUSION QUALITY TESTS SHALL BE PERFORMED IN ACCORDANCE WITH AWWA C600, C605 AND TMWA ENGINEERING & CONSTRUCTION STANDARDS. MOST STRINGENT STANDARD SHALL APPLY. ALL PRESSURE TESTS SHALL BE PERFORMED BEFORE THE PIPING IS FLUSHED, DISINFECTED OR SAMPLED FOR AN ANALYSIS OF WATER QUALITY.

ADDRESSES OR BUILDING DESIGNATION.

LETTER TO VERIFY THAT ELEVATIONS ARE AT ENGINEERED SUB-GRADES PRIOR TO UTILITY CONSTRUCTION.

ALL PRIVATE DOMESTIC AND IRRIGATION LINES BEYOND THE POINT OF CONNECTION AT TMWA'S METER PROVISION AND ALL NECESSARY WATER PRESSURE REGULATION EQUIPMENT (REFER TO THE MOST CURRENT EDITION OF THE UNIFORM PLUMBING CODE WHICH HAS BEEN ADOPTED BY THE GOVERNMENTAL ENTITY HAVING JURISDICTION OVER THE PROJECT).

WATER MAINS SHALL NOT BE PLACED IN SERVICE UNTIL DISINFECTED PER AWWA STANDARD C651 AND AN ANALYSIS WHICH INDICATES IT MEETS PRIMARY STANDARDS FOR COLIFORM BACTERIA HAS BEEN OBTAINED.△ FINAL WATER QUALITY TESTS WILL BE FORWARDED TO THE REVIEWING AGENCY UPON COMPLETION OF ANALYSIS.

CONTRACTOR TO COORDINATE WITH TMWA INSPECTOR REGARDING DISCHARGE OF SPENT CHLORINATED WATER.

APPROX. 167' OF 10" AWWA C151 DUCTILE IRON MAIN PIPE WITH ALL FITTINGS AND APPURTENANCES.
(DUCTILE IRON MAIN PIPE SHALL BE PRESSURE CLASS 350 UNLESS OTHERWISE SPECIFIED)
V-BIO POLYETHYLENE WRAP TO BE USED ON ALL DUCTILE IRON PIPE (DIP) AND FITTINGS PER AWWA STANDARD C105.

ALL RESTRAINED JOINT PIPING SHALL BE DUCTILE IRON PIPE (RJ-DIP). BELL AND SPIGOT PUSH-ON JOINTS SHALL BE RESTRAINED USING RUBBER GASKETS WITH STAINLESS STEEL LOCKING SEGMENTS VULCANIZED INTO THE RUBBER GASKET. RESTRAINED JOINT FITTINGS SHALL BE MECHANICAL JOINT (MJ) DUCTILE IRON RESTRAINED WITH MECHANICAL JOINT WEDGE ACTION RESTRAINT GLANDS.

ALL CONCRETE FOR THRUST BLOCKS PER TMWA ENGINEERING & CONSTRUCTION STANDARDS AND DRAWING NUMBER 10L-2.

APPROX. 36' OF 2" AWWA C901 CTS HDPE TUBING WITH ALL FITTINGS AND APPURTENANCES.
(INCLUDING ALL HOT TAPS 2" AND UNDER). DOMESTIC

SEPARATION BETWEEN WATER SERVICE TAPS:

C900 PVC PIPE, TRANSITE (AC) PIPE – SERVICE TAPS ON THE SAME SIDE OF PIPE SHALL HAVE A MINIMUM 36" SEPARATION. SERVICES STAGGERED SIDE TO SIDE OF PIPE SHALL HAVE A MINIMUM 18" SEPARATION. NO SERVICES ALLOWED WITHIN 24" OF CUT END OR PIPE TO BELL TRANSITION.

DUCTILE IRON PIPE, CAST IRON PIPE, STEEL PIPE – SERVICE TAPS ON THE SAME SIDE OF PIPE SHALL HAVE A MINIMUM 18" SEPARATION. SERVICES STAGGERED SIDE TO SIDE OF PIPE SHALL HAVE A MINIMUM 9" SEPARATION. NO SERVICES ALLOWED WITHIN 24" OF CUT END OR PIPE TO BELL TRANSITION.
TRAFFIC RATED (TR) ENCLOSURES SHALL BE USED WHEN LOCATED IN TRAFFIC AREAS OR WITHIN 3' OF DRIVEWAYS.

1 – 17" x 30" SINGLE WATER METER PROVISION ASSEMBLY(IES).

APPROX. 152' OF 6" AWWA C151 RESTRAINED JOINT – DUCTILE IRON PIPE FOR 2 – PUBLIC FIRE HYDRANT LATERALS AND PUBLIC FIRE HYDRANT ASSEMBLIES WITH ALL FITTINGS AND APPURTENANCES. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL FIRE HYDRANT LOCATIONS AND CONSTRUCT FIRE HYDRANTS TO SPECIFICATIONS OUTLINED BY THE LOCAL FIRE JURISDICTION.

APPROX. 52' OF 6" AWWA C900 PVC PIPE FOR FIRE SERVICE(S).

APPROX. 36' OF 6" AWWA C151 RESTRAINED JOINT – DUCTILE IRON PIPE FOR FIRE SERVICE(S).

PRESSURE REGULATOR VALVE (PRV) – PRV'S ARE REQUIRED WITHIN THIS DEVELOPMENT TO REDUCE WATER PRESSURE IN DOMESTIC LINES AND IRRIGATION SYSTEMS. WATER PRESSURE MAY BE GREATER THAN 80 PSI WHEN THE SERVICE IS INITIALLY CONNECTED OR IN THE FUTURE AS A RESULT OF PRESSURE INCREASES PLANNED WITHIN THE AREA. THE APPLICANT IS RESPONSIBLE FOR THE INITIAL INSTALLATION AND MAINTENANCE OF THE ASSEMBLY(IES). WHEN A CHANGE IN OWNERSHIP OCCURS, FUTURE MAINTENANCE OF THE ASSEMBLY(IES) BECOMES THE RESPONSIBILITY OF THE NEW OWNER.

TMWA TO FURNISH AND/OR INSTALL:

FIELD INSPECTOR TO INSPECT MAINS AND SERVICES

HOT TAP LABOR (GREATER THAN 2" ONLY)

1 – 2" OMNI R2 – SENSUS WATER METER(S) FOR DOMESTIC.

GENERAL COMMENTS:

CONTRACTOR TO CALL PROJECT COORDINATOR AT (775) 834-8101 48-HOURS PRIOR TO START OF CONSTRUCTION TO SCHEDULE ON-SITE INSPECTION.
(INCLUDE WORK ORDER NUMBER 23-9264)

APPLICANT TO NOTIFY TMWA OF ANY DESIGN AND/OR ADDRESS CHANGES.

ALL MATERIALS, INCLUDING BACKFILL, SHALL BE AT THE JOB SITE PRIOR TO START OF CONSTRUCTION AND SHALL COMPLY WITH TMWA ENGINEERING & CONSTRUCTION STANDARDS.

MAINTAIN POTABLE WATER AND SS/SD/NON-POTABLE HORIZONTAL AND VERTICAL CLEARANCES AS SPECIFIED IN NEVADA ADMINISTRATIVE CODE (NAC) SECTION 445A AND TMWA ENGINEERING & CONSTRUCTION STANDARDS SECTION 1.1.

AT ALL CROSSINGS, UNDERGROUND ELECTRIC FACILITIES SHALL BE LOCATED BELOW WATER MAINS AND/OR WATER SERVICES WITH A MINIMUM OF 2-FEET VERTICAL CLEARANCE.

ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE TMWA ENGINEERING & CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SECURE COPIES OF THE AFOREMENTIONED CONSTRUCTION SPECIFICATIONS ON HIS/HER OWN BEHALF. THE ENGINEERING & CONSTRUCTION STANDARDS MAY BE DOWNLOADED FROM:
www.tmwa.com/standards

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.

THESE DRAWINGS ARE BASED ON CIVIL PLANS DATED: APRIL, 2023

THIS MAP ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES. NO RESPONSIBILITY IS ASSUMED AS TO THE SUFFICIENCY OR ACCURACY OF THE DATA DISPLAYED HEREON.

CAUTION: CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING WORK AROUND ALL EXISTING UTILITIES. PRIOR TO EXCAVATION, CHECK TO ENSURE ADDITIONAL DEPTH IS NOT REQUIRED TO ACCOMMODATE INSTALLATION OF GAS FACILITIES.

SOILS RETENTION MAY BE REQUIRED AROUND WATER METER BOXES, FIRE HYDRANTS, AND OTHER FACILITIES IF SLOPES EXCEED 15%.

WATER METERS SHALL BE LOCATED WITHIN A PUBLIC UTILITY EASEMENT (PUE).

TOP OF WATER METER ENCLOSURE SHALL BE SET 0.2 FEET ABOVE HIGHEST FINISHED GRADE SURROUNDING ENCLOSURE WITHIN LANDSCAPED AREAS. FOR INSTALLATIONS IN CONCRETE OR OTHER PAVED AREAS, SET TOP OF LID FLUSH WITH SURROUNDING SURFACE.

APPLICANT TO ADVISE PLUMBING CONTRACTOR OF HIS/HER RESPONSIBILITY TO VERIFY WATER PRESSURE DURING STATIC CONDITIONS AT ALL SERVICE LOCATIONS. THE PLUMBING CONTRACTOR IS REQUIRED TO CONFORM TO THE MOST CURRENT EDITION OF THE UNIFORM PLUMBING CODE WHICH HAS BEEN ADOPTED BY THE GOVERNMENTAL ENTITY HAVING JURISDICTION OVER THE PROJECT. SPECIAL ATTENTION SHOULD BE GIVEN TO THE SECTION OF THE CODE CONCERNING STATIC WATER PRESSURE IN EXCESS OF 80 PSI.

UNUSED SERVICE LATERALS SHALL BE RETIRED BACK TO TMWA'S WATER MAIN.

WATER MAINS TO EXTEND A MINIMUM OF 10-FEET BEYOND END OF PAVING. MAINS ARE NOT TO BE INSTALLED UNDER SIDEWALK AND/OR CURB & GUTTER.

DURING CONSTRUCTION ALL OPEN ENDS OF PIPES OR FITTINGS SHALL BE SEALED AT THE END OF EACH WORKING DAY TO PREVENT THE ENTRY OF FOREIGN OBJECTS.

ALL PIPE AND APPURTENANCES SHALL BE NSF 61 CERTIFIED.

BACKFLOW PREVENTION:

BACKFLOW PREVENTION IS REQUIRED BY NEVADA ADMINISTRATIVE CODE (NAC) SECTION 445A.67185.
1. DOMESTIC AND IRRIGATION BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE METER.
2. FOR FIRE SERVICE BACKFLOW ASSEMBLY(IES): CONTACT BACKFLOW PREVENTION GROUP FOR TYPE AND REQUIRED LOCATION.

BACKFLOW PREVENTION GROUP WILL APPROVE WATER METER SET AND PERMANENT WATER SERVICE AFTER:
1. THE ASSEMBLY IS INSTALLED PER TMWA INSTALLATION STANDARDS AND INSPECTED BY THE BACKFLOW PREVENTION GROUP.
2. OPEN TRENCH, DITCH, AND/OR SLURRY INSPECTIONS COMPLETED BY THE BACKFLOW PREVENTION GROUP.
3. FINAL INSTALLATION AND FREEZE PROTECTION INSPECTED BY THE BACKFLOW PREVENTION GROUP.
4. CALL (775) 834-8288 FOR INSPECTIONS OR QUESTIONS.

THE OWNER/DEVELOPER IS RESPONSIBLE TO CONTACT TMWA BACKFLOW PREVENTION GROUP FOR CURRENT BACKFLOW INSTALLATION STANDARDS.

FIRE SERVICES

DCD USC APPROVED DCDA (DOUBLE CHECK DETECTOR ASSEMBLY)

TESTING OF BACKFLOW PREVENTION ASSEMBLY IS REQUIRED WITHIN 7-10 DAYS AFTER METER IS SET OR SERVICE ACTIVATION. A COPY OF TEST RESULTS ARE TO BE FORWARDED TO TMWA WATER QUALITY/BACKFLOW PREVENTION PERSONNEL BY A CERTIFIED ASSEMBLY TESTER.

DOMESTIC SERVICES

RP USC APPROVED RP (REDUCED PRESSURE PRINCIPLE ASSEMBLY)

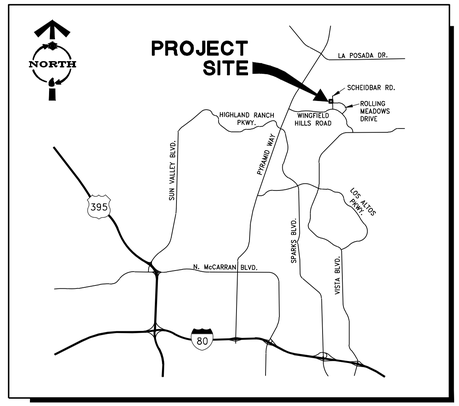
IF INITIAL TEST DONE BY TMWA FIELD PERSONNEL FAILS, RE-TESTING OF BACKFLOW PREVENTION ASSEMBLY IS REQUIRED WITHIN 7-10 DAYS AFTER METER IS SET OR SERVICE ACTIVATION. A COPY OF TEST RESULTS ARE TO BE FORWARDED TO TMWA WATER QUALITY/BACKFLOW PREVENTION PERSONNEL BY A CERTIFIED ASSEMBLY TESTER.

NNPH PERMITTING PURPOSES ONLY

TRUCKEE MEADOWS WATER AUTHORITY
APPROVED FOR CONSTRUCTION
WATER FACILITIES ONLY

Katie Mason — 10/24/2023
ENGINEERING — DATE

Jamie Marche — 10/25/2023
BACKFLOW — DATE



VICINITY MAP

NOT TO SCALE

ABBREVIATIONS

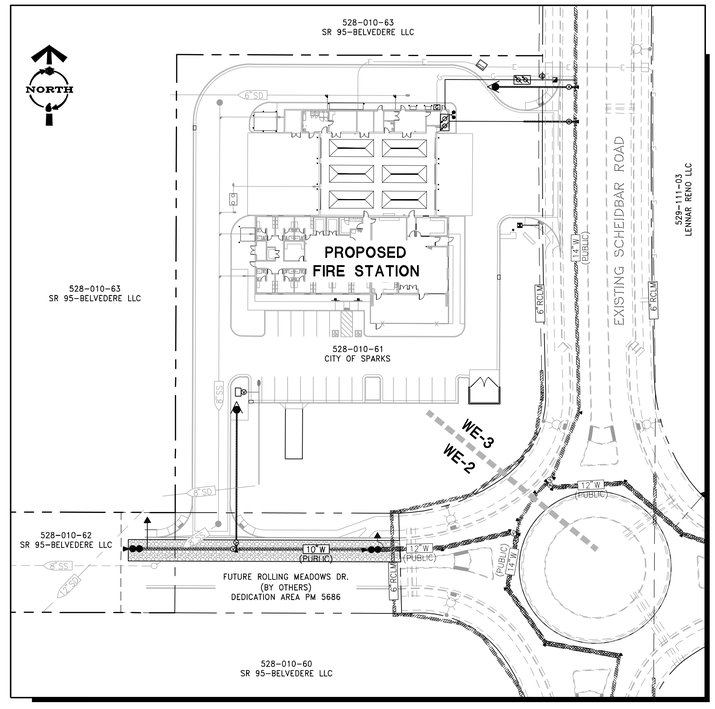
ARV	AIR RELEASE VALVE
ASSY	ASSEMBLY
BOT	BOTTOM (OF PIPE)
BOV	BLOW-OFF VALVE
CL	CENTERLINE
CONST	CONSTRUCT
CTS	COPPER TUBE SIZE
DI OR DIP	DUCTILE IRON PIPE
DIA	DIAMETER
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
EX.	EXISTING
FCA	FLANGE COUPLING ADAPTER
FH	FIRE HYDRANT
FLG OR FL	FLANGE
FVA	FLUSH VALVE ASSEMBLY
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
IE	INVERT ELEVATION
MJ	MECHANICAL JOINT
MRJ	MECHANICALLY RESTRAINED JOINT
OD	OUTSIDE DIAMETER
PL OR P/L	PROPERTY LINE
PO	PUSH ON
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
RFCA	RESTRAINED FLANGE COUPLING ADAPTER
ROW OR R/W	RIGHT OF WAY
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY
STL	STEEL
TB	THRUST BLOCK
TS	TEST STATION
TYP	TYPICAL
W	WATER
W/	WITH
XING	CROSSING

11" ELBOW
22" ELBOW
45" ELBOW
90" ELBOW
BACKFLOW PREVENTOR
CHECK VALVE
FIRE HYDRANT
FLUSH VALVE
METER-DUAL
METER-SINGLE
REDUCER
SERVICE-DUAL
SERVICE-SINGLE
TEE
CROSS
VALVE

CHLORINE DOSAGE

NUMBER OF 5 gram CALCIUM HYPOCHLORITE TABLETS REQUIRED FOR DOSE OF 25mg/L

PIPE DIAMETER INCHES	LENGTH OF PIPE SECTION FEET			
	13 OR LESS	18	20	
6	1	1	1	
8	1	2	2	
10	2	3	3	
12	3	4	4	



SITE PLAN

NOT TO SCALE

Digitally signed by Matthew J. Roulias
DN: C=US, E=mroulias@woodrodgers.com, O="Wood Rodgers, Inc", OU=Reno Civil, CN=Matthew J. Roulias
Date: 2023.10.19 13:03:45-07'00'

Matthew J. Roulias

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WOOD RODGERS IS NOT RESPONSIBLE FOR PUBLIC WATER SYSTEM ANALYSIS, INCLUDING PIPE SIZING & SYSTEM PRESSURES.

811 Know what's below. Call before you dig.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER — MATTHEW J. ROULIAS — Exp 12-31-23 CIVIL — No. 18708 — STATE OF NEVADA

DATE: 10/19/2023

FOR TMWA USE ONLY
NEW BUSINESS WATER

WO#		Map #	
New Main			
Date Installed:		Depth:	
Pressure Test Date:			
PSI	Hours Tested:		
Inspector:			
Contractor:			
Feet Laid	Size	Type	Main/Svc
Retired/ Abandoned/Removed			
Feet Rel.	Size	Type	Main/Svc
# of Meter boxes Inst./Size:			
# of Setters Inst./Size:			

WORK ORDER NO. 23-9264
DESIGNED MJR
DRAWN JPS
DATE AUGUST, 2023
CHECKED MJR
SUBMITTED
RECOMMENDED
APPROVED

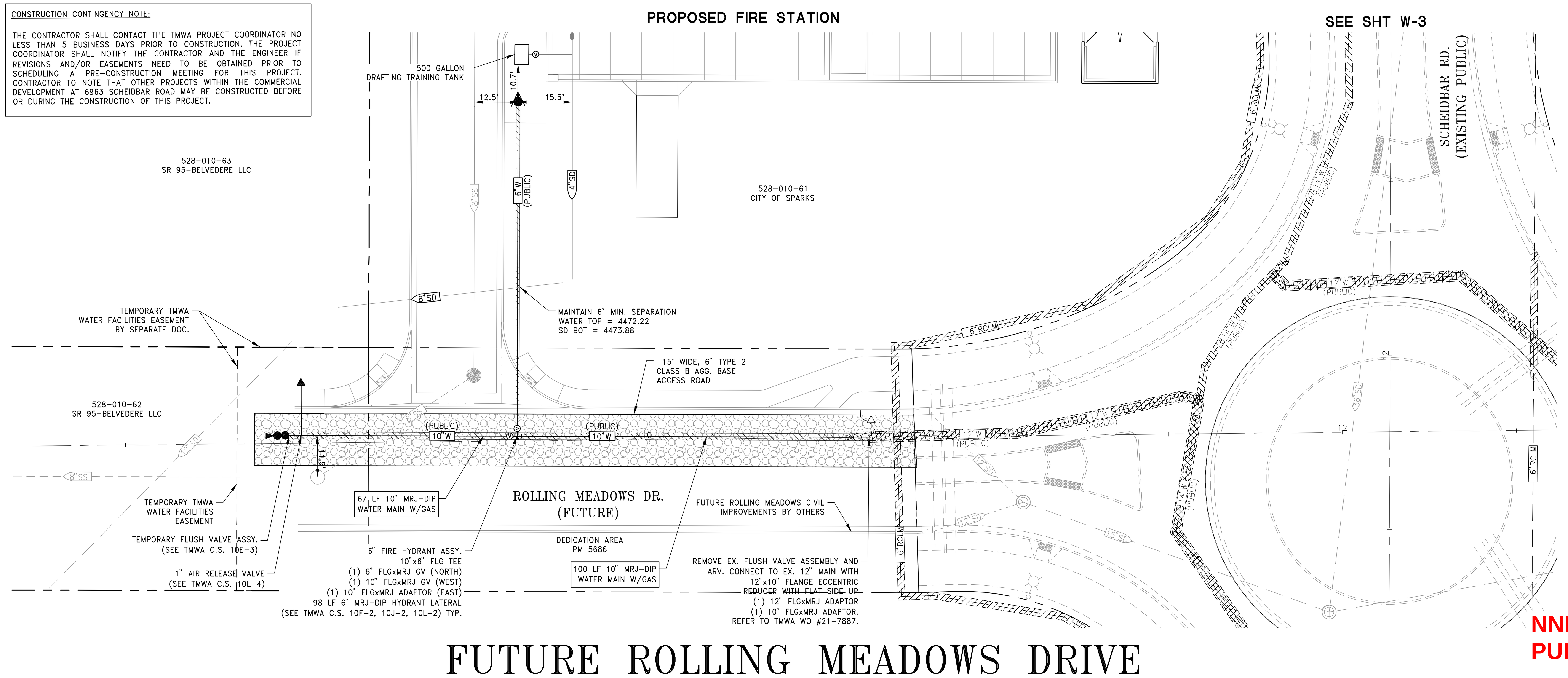
TRUCKEE MEADOWS WATER AUTHORITY
1355 CAPITAL BLVD.
RENO, NEVADA 89502
PH 775-834-8000 / FX 775-834-8003

6963 SCHEIDBAR RD. FIRE STATION_COM MAIN

TITLE SHEET

SHEET NUMBER
WE-1
1 OF 7

J:\Jobs\8503_CityofSparks\003_PM_Fire_Station\Civil\Dwg\TMWA WO_PM_FIRESTATION.dwg 10/19/2023 10:47 AM Matthew Roulias



CONSTRUCTION CONTINGENCY NOTE:

THE CONTRACTOR SHALL CONTACT THE TMWA PROJECT COORDINATOR NO LESS THAN 5 BUSINESS DAYS PRIOR TO CONSTRUCTION. THE PROJECT COORDINATOR SHALL NOTIFY THE CONTRACTOR AND THE ENGINEER IF REVISIONS AND/OR EASEMENTS NEED TO BE OBTAINED PRIOR TO SCHEDULING A PRE-CONSTRUCTION MEETING FOR THIS PROJECT. CONTRACTOR TO NOTE THAT OTHER PROJECTS WITHIN THE COMMERCIAL DEVELOPMENT AT 6963 SCHEIDBAR ROAD MAY BE CONSTRUCTED BEFORE OR DURING THE CONSTRUCTION OF THIS PROJECT.

NOTES

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3. WOOD RODGERS IS NOT RESPONSIBLE FOR PUBLIC WATER SYSTEM ANALYSIS, INCLUDING PIPE SIZING & SYSTEM PRESSURES.
4. TRACER WIRE TO BE INSTALLED WITH ALL SERVICE LATERALS THAT DO NOT REMAIN PERPENDICULAR TO MAIN OR ARE MORE THAN 50' IN LENGTH. A 1 POUND ANODE IS TO BE INSTALLED AT THE MAIN AND THE TRACER WIRE SHALL BE BROUGHT UP INTO THE METER BOX AND SHALL BE LONG ENOUGH TO EXTEND A MINIMUM OF 12 INCHES ABOVE FINISH GRADE.
5. TMWA WILL NOT ACCEPT JM PIPE, OR ANY PIPE WITH JM EAGLE, PW PIPE, PW EAGLE MARKINGS, OR ANY PIPE MANUFACTURED BY ANY SUBSIDIARY OF JM PIPE.
6. FOR SEWER/STORMDRAIN/WATER SEPARATIONS REFER TO TMWA DETAILS 10L-10, 10L-11, 10L-12 AND 10L-13 SHEET WE-6.
7. MRJ DIP = MECHANICALLY RESTRAINED JOINT-DUCTILE IRON PIPE. MINIMUM 36' OF DUCTILE IRON PIPE. ALL JOINTS WITHIN 10' OF CROSSING MUST BE MECHANICALLY RESTRAINED.
8. ALL 2" DOMESTIC SERVICES INSTALLED UNDER STORM DRAIN SHALL BE PLACED IN 2-1/2" HDPE TUBING WITH 3M COLD SHRINK MODEL 8429-6. TUBING SHALL EXTEND FROM MAIN TO SETTER.
9. INDIVIDUAL PRV'S ARE REQUIRED DOWNSTREAM OF METERS.

811 Know what's below. Call before you dig.

NNPH PERMITTING PURPOSES ONLY

TRUCKEE MEADOWS WATER AUTHORITY APPROVED FOR CONSTRUCTION WATER FACILITIES ONLY

Katie Mason — ENGINEERING — DATE 10/24/2023
Jamie Marche — BACKFLOW — DATE 10/25/2023

WOOD RODGERS
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1361 Corporate Boulevard, Reno, NV 89502
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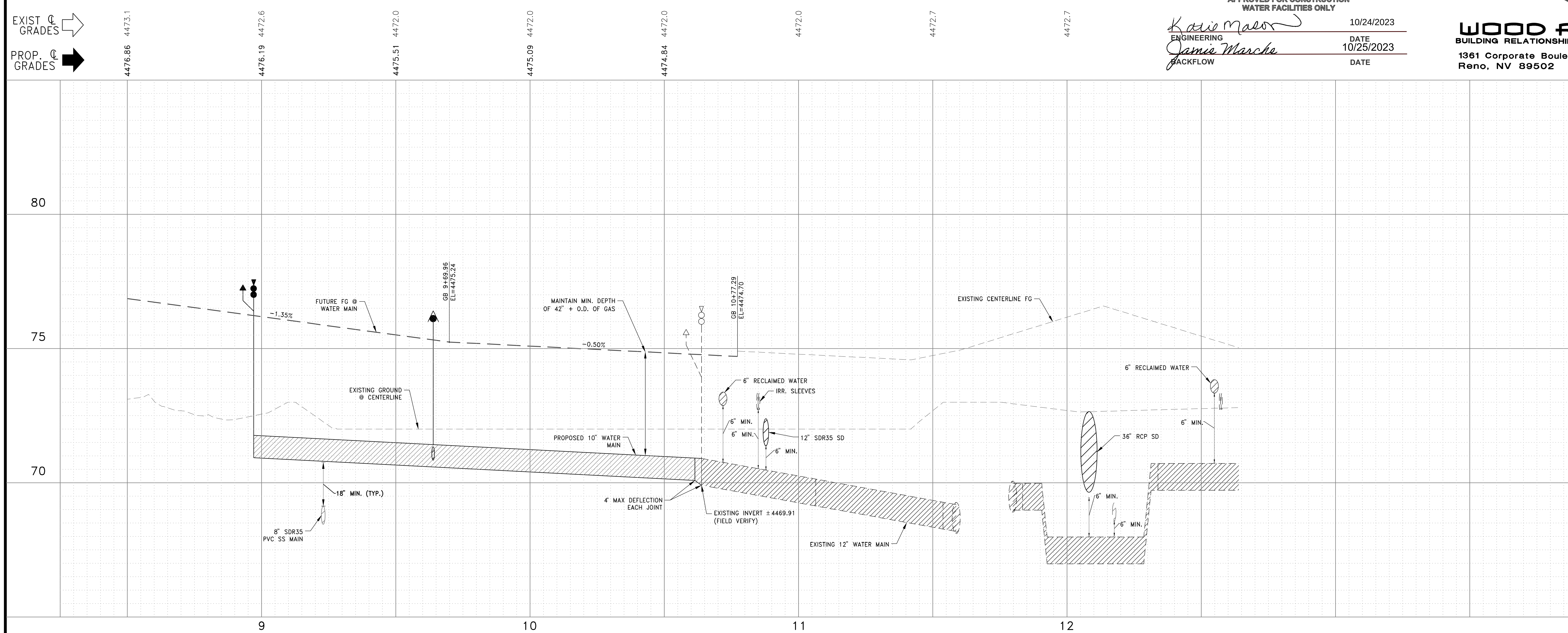


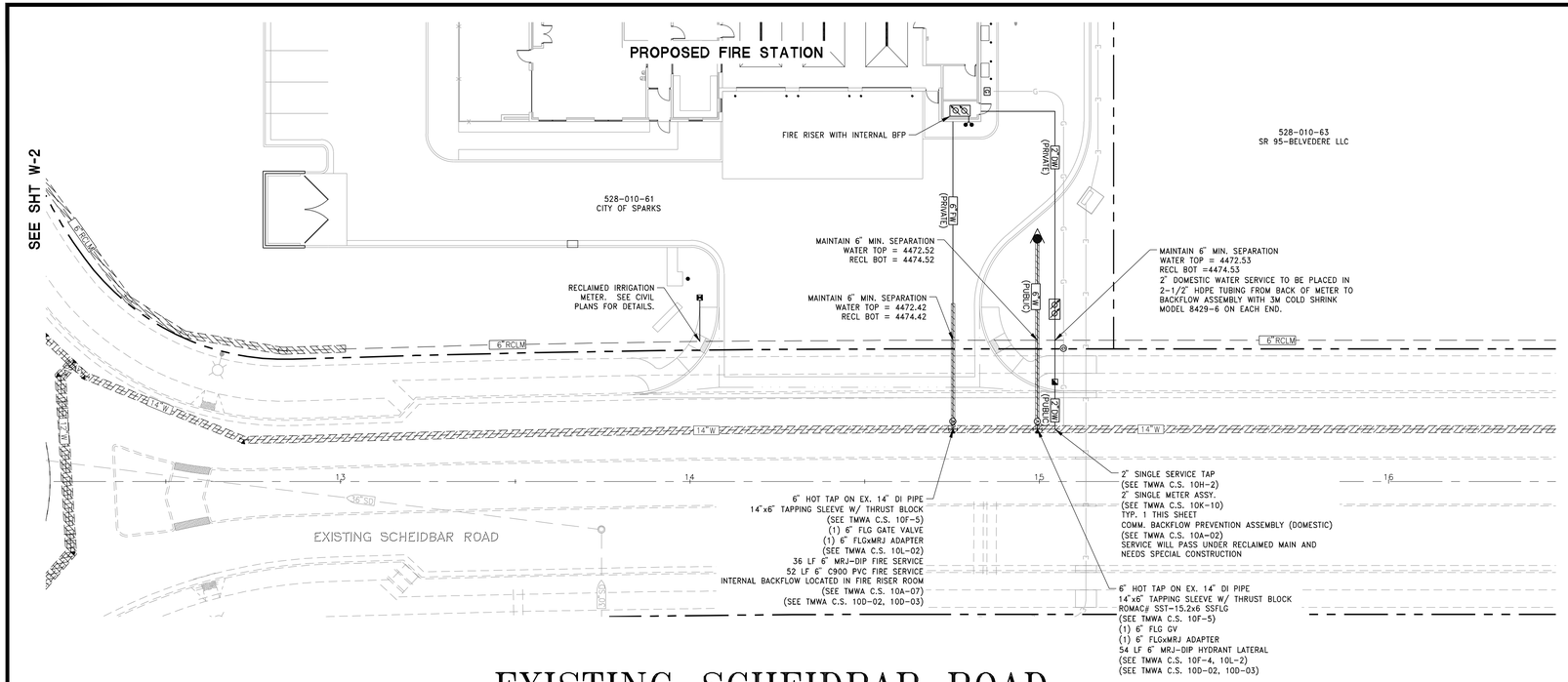
WOOD RODGERS — MATTHEW J. ROULIAS, CIVIL, No. 18708, Exp: 12-31-23
DATE: 10/17/2023

WORK ORDER NO. 23-9264
DESIGNED MJR
DRAWN JRS
DATE AUGUST, 2023
CHECKED MJR
SUBMITTED
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER AUTHORITY
1355 CAPITAL BLVD.
RENO, NEVADA 89502
PH 775-834-8000 / FX 775-834-8003

6963 SCHEIDBAR RD. FIRE STATION_COM MAIN
PLAN & PROFILE

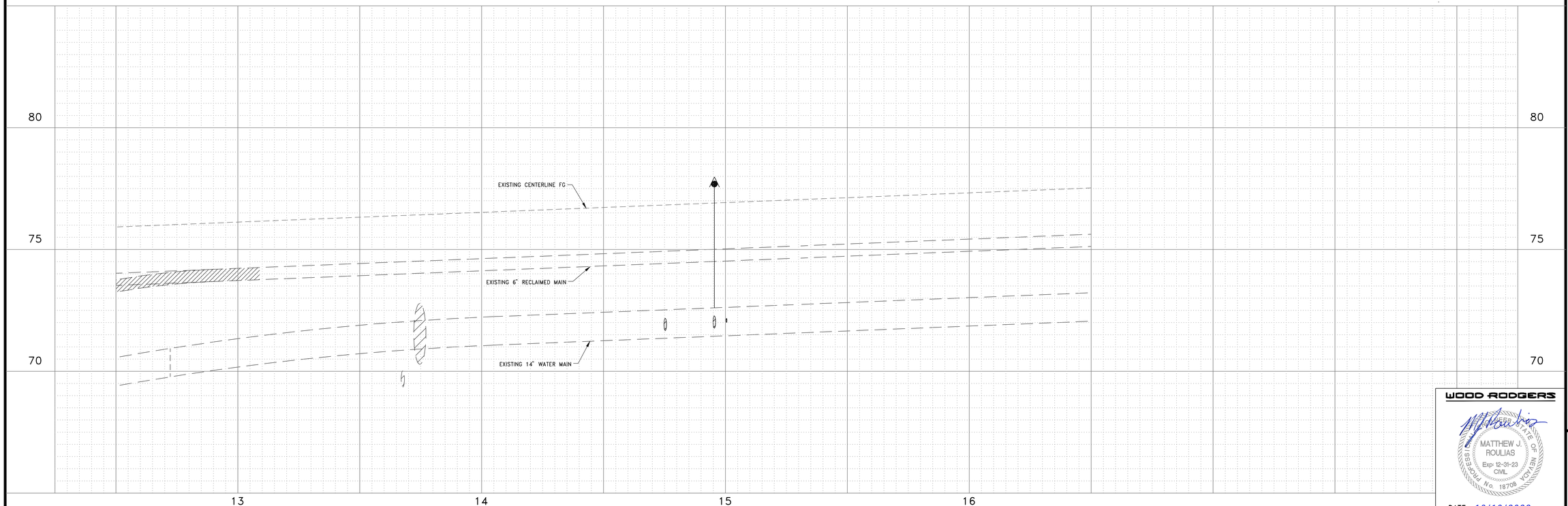
SHEET NUMBER
WE-2



EXISTING SCHEIDBAR ROAD

EXIST ℄ GRADES
PROP. ℄ GRADES

4475.9 4476.1 4476.3 4476.5 4476.7 4476.9 4477.1 4477.3



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9. INDIVIDUAL PRV'S ARE REQUIRED DOWNSTREAM OF METERS.
10. THE CONTRACTOR SHALL CONTACT THE TMWA PROJECT COORDINATOR NO LESS THAN 5 BUSINESS DAYS PRIOR TO CONSTRUCTION. THE PROJECT COORDINATOR SHALL NOTIFY THE CONTRACTOR AND THE ENGINEER IF REVISIONS AND/OR EASEMENTS NEED TO BE OBTAINED PRIOR TO SCHEDULING A PRE-CONSTRUCTION MEETING FOR THIS PROJECT. CONTRACTOR TO NOTE THAT OTHER PROJECTS WITHIN THE COMMERCIAL DEVELOPMENT AT 6963 SCHEIDBAR ROAD MAY BE CONSTRUCTED BEFORE OR DURING THE CONSTRUCTION OF THIS PROJECT.

NORTH

20' 10' 0 20'
SCALE: 1" = 20'

811
Know what's **below.**
Call before you dig.

NNPH PERMITTING PURPOSES ONLY

TRUCKEE MEADOWS WATER AUTHORITY
APPROVED FOR CONSTRUCTION
WATER FACILITIES ONLY

Katie Mason 10/24/2023
ENGINEERING DATE
Jamie Marcke 10/25/2023
BACKFLOW DATE

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WORK ORDER NO. 23-9264
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6963 SCHEIDBAR RD. FIRE STATION_COM MAIN

PLAN & PROFILE

SHEET NUMBER
WE-3
3 OF 7

WOOD RODGERS
REGISTERED PROFESSIONAL ENGINEER
MATTHEW J. ROULIAS
Exp 12-31-23
CIVIL
No. 18708
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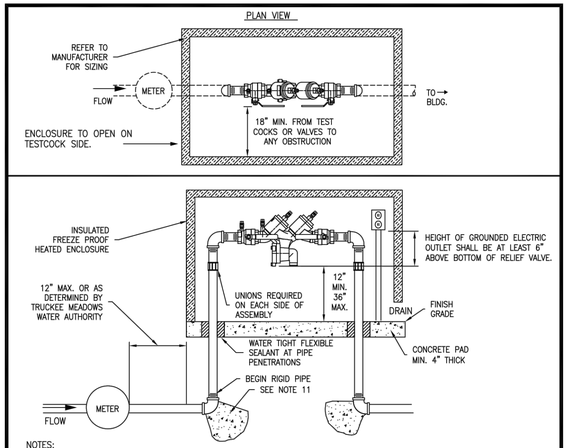
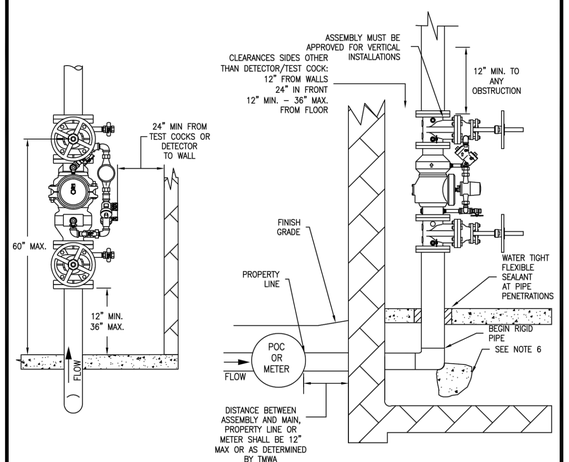
DATE: 10/19/2023



NOTES:
1. ASSEMBLY SHALL BE A USC APPROVED LEAD FREE DEVICE.
2. THE RP SHALL BE INSTALLED ABOVE GRADE.
3. GROUNDED ELECTRIC SUPPLY SHALL BE A MINIMUM OF 6" ABOVE BOTTOM OF RELIEF VALVE AND STUBBED TO THE OUTSIDE.
4. NO STOP AND WASTE VALVES.
5. FREEZE PROOF INSULATED BOX AND 1 SOURCE OF HEAT ARE REQUIRED. 2 SOURCES OF HEAT ARE STRONGLY RECOMMENDED.
6. INSULATED BOX SHALL SWING CLEAR OF ASSEMBLY TO PROVIDE CLEARANCES SHOWN OR INSULATED BOX SHALL BE SIZED TO PROVIDE CLEARANCES SHOWN.
7. SPRING LOADED LID REQUIRED ON LARGE BOXES.
8. THERMAL EXPANSION PROTECTION IS REQUIRED IN ANY DOMESTIC WATER SUPPLY SYSTEM THAT IS DOWNSTREAM FROM A BACKFLOW PREVENTION DEVICE. REFERENCE: UNIFORM PLUMBING CODE & NAC 445A.67235.
9. INSPECTION BY TMWA BACKFLOW PREVENTION GROUP PERSONNEL REQUIRED BEFORE METER IS SET OR SERVICE IS ACTIVATED.
10. IF INITIAL TEST DONE BY TMWA FIELD PERSONNEL FAILS, RETESTING OF BACKFLOW ASSEMBLY IS REQUIRED WITHIN 7 DAYS AFTER METER IS SET OR SERVICE ACTIVATION. COPY OF TEST RESULTS TO BE FORWARDED TO TMWA BACKFLOW PREVENTION GROUP BY A CERTIFIED ASSEMBLY TESTER WITHIN THAT SAME TIMEFRAME.
11. MINIMUM DIMENSIONS FOR THE THRUST BLOCK BEARING AREA FOR PIPE 2" AND SMALLER SHALL BE 8" X 8" AND 12" IN DEPTH. ALL OTHER SIZES TO BE DETERMINED BY ENGINEER.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10A BACKFLOW PREVENTION ASSEMBLIES	DRAWING NUMBER
	7/2001		10A-2
	REV	REDUCED PRESSURE PRINCIPLE ASSEMBLY FOR DOMESTIC USE EXTERNAL - HORIZONTAL	
	9/2016		



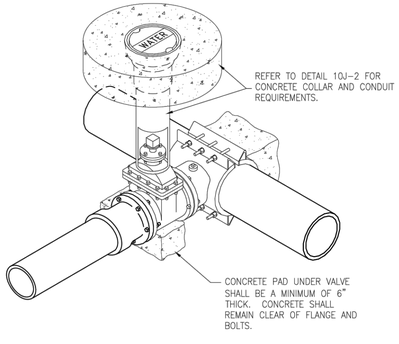
NOTES:
1. ASSEMBLY SHALL BE A USC APPROVED DEVICE.
2. NO STOP AND WASTE VALVES.
3. CALL LOCAL BUILDING AND/OR FIRE DEPARTMENTS FOR DEPTH AND TYPE OF PIPE TO BE USED.
4. INSPECTION BY TMWA BACKFLOW PREVENTION GROUP PERSONNEL REQUIRED BEFORE METER IS SET OR SERVICE IS ACTIVATED.
5. TESTING OF BACKFLOW ASSEMBLY REQUIRED WITHIN 7 DAYS AFTER METER IS SET OR SERVICE ACTIVATION. COPY OF TEST RESULTS TO BE FORWARDED TO TMWA BACKFLOW PREVENTION GROUP PERSONNEL BY A CERTIFIED ASSEMBLY TESTER WITHIN THAT SAME TIMEFRAME.
6. MINIMUM DIMENSIONS FOR THE THRUST BLOCK BEARING AREA FOR PIPE 2" AND SMALLER SHALL BE 8" X 8" AND 12" IN DEPTH. ALL OTHER SIZES TO BE DETERMINED BY ENGINEER.
7. TMWWA'S BACKFLOW DEPARTMENT MUST APPROVE THE USE OF INTERNAL BACKFLOW ASSEMBLIES.
8. VALVES ON DETECTOR BYPASS SHALL REMAIN OPEN AT ALL TIMES.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10A BACKFLOW PREVENTION ASSEMBLIES	DRAWING NUMBER
	7/2001		10A-7
	REV	FIRE - CLASS 1, 2 & 3 DOUBLE CHECK VALVE DETECTOR ASSEMBLY INTERNAL VERTICAL INSTALLATION	
	7/2011		

TAP SIZE – FLANGED BRANCH							
MAIN SIZE	VENDOR	MAIN TYPE	4"	6"	8"	10"	12"
4"	SM ROM	DI/CI PVC	663-04800400-200 SST-4.90 x 4" FL				
6"	SM ROM	DI/CI PVC	663-06630400-000 SST-7.00 x 4" FL	663*06630600-200 SST-7.00 x 6" FL			
	SM ROM	TR	663-(OD)400-000 SST-(OD) x 4" FL	663-(OD)0600-200 SST-(OD) x 6" FL			
8"	SM ROM	DI/CI PVC	663-09050400-000 SST-9.06 x 4" FL	663-09050600-000 SST-9.06 x 6" FL	663-09050800-200 SST-9.06 x 8" FL		
	SM ROM	TR	663-(OD)0400-000 SST-(OD) x 4" FL	663-(OD)0600-000 SST-(OD) x 6" FL	663-(OD)0800-200 SST-(OD) x 8" FL		
	SM ROM	SCH 40 STEEL	663-08630400-000 SST-8.63 x 4" FL	663-08630600-000 SST-8.63 x 6" FL	663-08630800-200 SST-8.63 x 8" FL		
10"	SM ROM	DI/CI PVC	663-11100400-000 SST-11.45 x 4" FL	663-11100600-000 SST-11.45 x 6" FL	663-11100800-000 SST-11.45 x 8" FL	663-11101000-200 SST-11.45 x 10" FL	
	SM ROM	TR	663-(OD)0400-000 SST-(OD) x 4" FL	663-(OD)0600-000 SST-(OD) x 6" FL	663-(OD)0800-000 SST-(OD) x 8" FL	66-(OD)1000-200 SST-(OD) x 10" FL	
	SM ROM	SCH 40 STEEL	663-10750400-000 SST-11.13 x 4" FL	663-10750600-000 SST-11.13 x 6" FL	663-10750800-000 SST-11.13 x 8" FL	663-11071000-200 SST-11.13 x 10" FL	
12"	SM ROM	DI/CI PVC	663-10750400-000 SST-13.30 x 4" FL	663-13200600-000 SST-13.30 x 6" FL	663-13200800-000 SST-13.30 x 8" FL	663-13201000-000 SST-13.30 x 10" FL	663-13201200-200 SST-13.30 x 12" FL
	SM ROM	TR	663-(OD)0400-000 SST-(OD) x 4" FL	663-(OD)0600-000 SST-(OD) x 6" FL	663-(OD)0800-0000 SST-(OD) x 8" FL	663-(OD)1000-000 SST-(OD) x 10" FL	663-(OD)1200-200 SST-(OD) x 12" FL
	SM ROM	SCH 40 STEEL	663-12750400-000 SST-12.85 x 4" FL	663-12750600-000 SST-12.85 x 6" FL	663-12750800-000 SST-12.85 x 8" FL	663-12751000-000 SST-12.85 x 10" FL	663-12751200-200 SST-12.85 x 12" FL
14"	ROM	DI		SST-15.2 x 6" FL			

NOTES:
1. MAXIMUM TEST PRESSURE IS 300 PSI FOR LISTED MANUFACTURERS.
2. FLANGES (FL) SHALL BE STAINLESS STEEL ASTM A 240, TYPE 304.
3. VENDOR (MANUFACTURER): SM = SMITH-BLAIR, ROM = ROMAC INDUSTRIES
4. (OD) = PIPE OUTSIDE DIAMETER. CHECK WITH MANUFACTURER FOR CATALOG NUMBER FOR OTHER SIZES.
5. FOR TAPS ON TRANSITE MAINS OD MUST BE FIELD MEASURED PRIOR TO ORDERING PARTS.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10D DISTRIBUTION TAP INSTALLATION	DRAWING NUMBER
	7/2011		10D-2
	REV	WATER TAPPING SLEEVES	



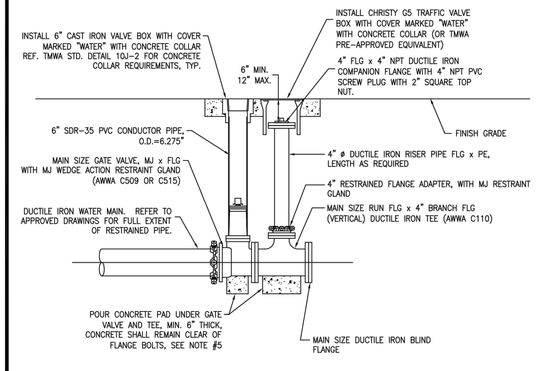
NOTES:
1. REQUIRES ONE (1) TAPPING SLEEVE. REFER TO 10D-2.
2. WHEN TAPPING STEEL OR OD STEEL BACKING PLATE MUST BE DESIGNED BY ENGINEER. WHEN TAPPING OD STEEL SIZE ON SIZE, REDUCE TAP ONE SIZE THEN BELL UP AFTER TAP.
3. REFER TO DETAIL 10L-2 FOR THRUST BLOCK SIZING. BAG CONCRETE IS NOT ACCEPTABLE FOR PAD OR THRUST BLOCK. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
4. ALL EXPOSED METAL MUST BE COATED WITH BRUSH ON MASTIC.
5. REMOVE TEST PLUG AND HYDROSTATICALLY PRESSURE TEST TAPPING SLEEVE NOT TO EXCEED MANUFACTURER'S PRESSURE RATING, APPLY PIPE COMPOUND, AND REINSERT PLUG.
6. VALVE SHALL BE BLIND FLANGED AND PRESSURE TESTED AT TIME OF TAPPING SLEEVE PRESSURE TEST.
7. TAP SHALL BE A MINIMUM OF 24" FROM THE CUT OR SPIGOT END OF THE PIPE OR THE PIPE TO BELL TRANSISTION.

MATERIAL LIST

QTY	DESCRIPTION
1	FL x FL RESILIENT WEDGE GATE VALVE WITH 2" OPERATING NUT (SIZE TO MATCH TAP DIAMETER)
1	TAPPING SLEEVE (STAINLESS STEEL FLANGE)
1	FL x PO ADAPTER
1	6" ø SDR-35 PVC CONDUIT PIPE SECTION
1	6" ø CAST IRON VALVE BOX WITH COVER MARKED "WATER"
1	FULL FACE GASKET
1	CONCRETE BULK
1	MASTIC (1 GALLON CAN – BRUSH ON)

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10D DISTRIBUTION TAP INSTALLATIONS	DRAWING NUMBER
	7/2001		10D-3
	REV	STANDARD TAP 4" TO 12"	
	7/2011		

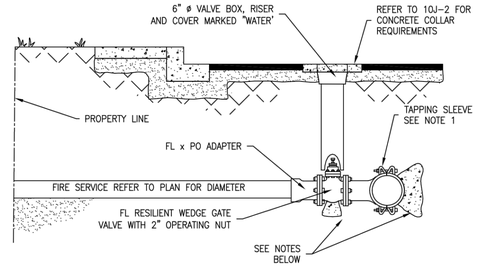
NOTES:
1. ALL EXPOSED METAL SHALL BE COATED WITH BRUSHED-ON MASTIC.
2. ALL BOLTS AND ASSOCIATED HARDWARE SHALL BE FLUOROPOLYMER COATED.
3. TEE, VALVE, FITTINGS, DUCTILE IRON PIPE, AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105.
4. CONCRETE FOR PADS SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ACCEPTABLE.
5. ALL PIPE AND FITTINGS IN CONTACT WITH WATER SHALL BE NSF-61 CERTIFIED.



MATERIAL LIST

QTY.	DESCRIPTION
1	MAIN SIZE RUN FLG x 4" BRANCH FLG DUCTILE IRON TEE (AWWA C110)
1	MAIN SIZE GATE VALVE, MJ x FLG, (AWWA C509 OR C515)
1	MAIN SIZE MJ WEDGE ACTION RESTRAINT GLAND
1	MAIN SIZE DUCTILE IRON BLIND FLANGE
1	4" FLG x 4" NPT DUCTILE IRON COMPANION FLANGE
1	4" ø DUCTILE IRON RISER PIPE FLG x PE (LENGTH AS REQUIRED)
1	4" RESTRAINED FLANGE ADAPTER, WITH MJ RESTRAINT GLAND
1	4" PVC SCREW PLUG, NPT, WITH 2" SQUARE TOP NUT
1	6" CAST IRON VALVE BOX WITH COVER MARKED "WATER"
1	CHRISTY G5 TRAFFIC VALVE BOX WITH COVER MARKED "WATER"
1	6" SDR-35 PVC CONDUIT PIPE SECTION, O.D.=6.275"
–	CONCRETE BULK – PADS, COLLARS

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10E FLUSH ASSEMBLY INSTALLATIONS	DRAWING NUMBER
	7/2001		10E-3
	REV	FOR TEMPORARY DEAD-END LOCATIONS	
	9/2016	FOR MAIN SIZES 6" TO 12"	



NOTES:
1. REFER TO APPENDIX 10D FOR TAPPING SLEEVE DETAILS.
2. REFERENCE NAC 445A, TMWA CONSTRUCTION AND DESIGN STANDARDS AND JURISDICTIONAL FIRE AGENCY FOR REQUIRED PIPE MATERIALS. POLYETHYLENE WRAP TO BE USED ON ALL DUCTILE IRON PIPE AND FITTINGS PER AWWA C105.
3. REFER TO PLAN FOR DIAMETER AND LENGHT OF SERVICE LATERAL.
7. KEEP A MINIMUM OF 2" CLEARANCE BETWEEN FLANGES/BOLTS AND CONCRETE.
8. ALL EXPOSED METAL MUST BE COATED AND WRAPPED.
9. REFER TO CITY STANDARDS OR APPENDIX 10L FOR THRUST BLOCK REQUIREMENTS. USE THE MOST CONSERVATIVE.
10. REFER TO APPROVED PLAN AND APPENDIX 10A FOR APPROPRIATE BACKFLOW DEVICE.
11. PRESSURE TEST TAPPING SLEEVE AND VALVE TO MANUFACTURER'S RECOMMENDATION.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10F FIRE PROTECTION INSTALLATION	DRAWING NUMBER
	7/2001		10F-5
	REV	FIRE SERVICE OFF EXISTING MAIN	
	9/2016		

NNPH PERMITTING PURPOSES ONLY

TRUCKEE MEADOWS WATER AUTHORITY APPROVED FOR CONSTRUCTION WATER FACILITIES ONLY

Katie Mason — 10/24/2023
ENGINEERING — DATE

Jamie Marche — 10/25/2023
BACKFLOW — DATE

NOTE:
REFER TO THRUST BLOCK SCHEDULE ON SHEET WE-5 FOR THRUST BLOCK REQUIREMENTS

811 Know what's below. Call before you dig.

THIS MAP ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES. NO RESPONSIBILITY IS ASSUMED AS TO THE SUFFICIENCY OR ACCURACY OF THE DATA DISPLAYED HEREON.

WOOD RODGERS IS NOT RESPONSIBLE FOR PUBLIC WATER SYSTEM ANALYSIS, INCLUDING PIPE SIZING & SYSTEM PRESSURES.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

WOOD RODGERS
STATE OF NEVADA — REGISTERED PROFESSIONAL ENGINEER — MATTHEW J. ROULIAS — Exp: 12-31-23 — CIVIL — No. 18708
DATE: 08/22/2023

WORK ORDER NO. 23-9264
DESIGNED MJR
DRAWN JPS
DATE AUGUST, 2023
CHECKED MJR
SUBMITTED
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER AUTHORITY
1355 CAPITAL BLVD.
RENO, NEVADA 89502
PH: 775-834-8000 / FX: 775-834-8003

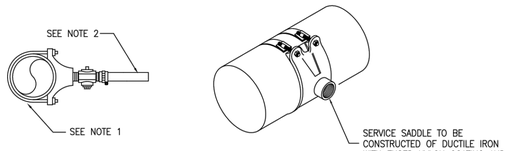
6963 SCHEIDBAR RD. FIRE STATION_COM MAIN

DETAIL SHEET

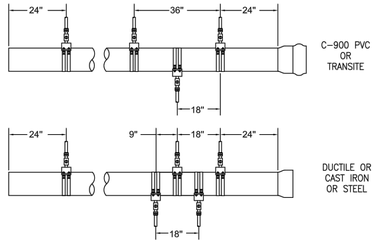
SHEET NUMBER
WE-4
4 OF 7

J:\Jobs\18523_CityofSparks\000_PM_Fire_Station\Civil\Dwg\TMWA\WE4_PM_FIRESTATION.dwg 8/22/2023 3:53 PM Matthew Roulias

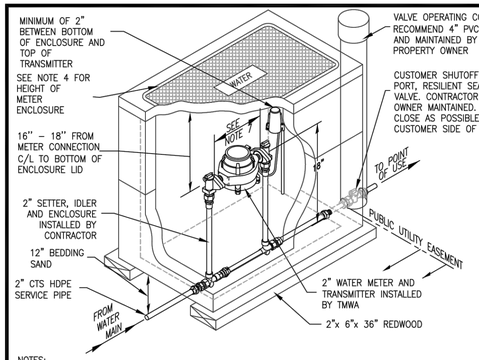
NOTES:
1. SERVICE CLAMP SIZE IS DEPENDENT UPON THE SIZE AND TYPE OF MAIN.
2. SDR-9 CTS HDPE TUBING, LENGTH AND DIAMETER TO BE DETERMINED BY ENGINEER. REFER TO APPROVED PLAN.
3. STOP CORP IP THREAD INLET, COMPRESSION OUTLET, DIAMETER TO MATCH TAP SIZE AS SHOWN ON PLAN.
4. INSERT RIGID STAINLESS STEEL LINER TO SDR-9 CTS HDPE TUBING.
5. SERVICE TAPS OFF OF EXISTING PVC MAINS SHALL USE TAPPED FULL CIRCLE REPAIR CLAMP, MINIMUM LENGTH: 15". MANUFACTURER SHALL BE APPROVED BY TMWA.



SERVICE SADDLE TO BE CONSTRUCTED OF DUCTILE IRON WITH FUSED NYLON COATING AND DOUBLE STAINLESS STEEL STRAPS. SEE NOTE 5.



TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10H	DRAWING NUMBER
	7/2001	SERVICE TAP INSTALLATIONS	10H-2
	REV	FOR 1", 1.25", 1.5" AND 2" SERVICE TAPS	
	9/2016		

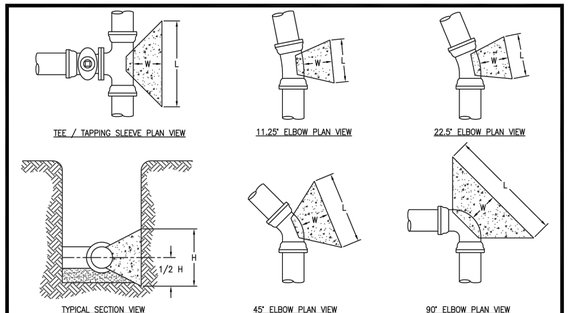


NOTES:
1. THERMAL EXPANSION PROTECTION IS REQUIRED IN ANY DOMESTIC WATER SUPPLY SYSTEM THAT IS DOWNSTREAM FROM A BACKFLOW PREVENTION DEVICE. REFERENCE: UNIFORM PLUMBING CODE.
2. METER AND TRANSMITTER SUPPLIED AND INSTALLED BY TMWA.
3. FOR DRIVEWAY OR TRAFFIC AREAS USE 17x30 ENCLOSURE APPROVED FOR TRAFFIC RATED H/20 LOADING. SEE DETAIL 10K-18.
4. TOP OF METER ENCLOSURE SHALL BE SET 0.2 FEET ABOVE HIGHEST FINISHED GRADE SURROUNDING ENCLOSURE WITHIN LANDSCAPED AREAS, AND SHALL BE SET FLUSH WITH SURROUNDING FINISH GRADE IN TRAFFIC AREAS.
5. ENCLOSURE TO BE BACKFILLED WITH WATER PIPE BEDDING SAND ONLY, SEE SECTION 5, TRENCH BEDDING & BACKFILL.
6. BLANKET TO BE INSTALLED ABOVE METER AND BELOW TRANSMITTER.
7. DISTANCE BETWEEN FLANGES SHALL BE 17.25".

MATERIAL LIST

ITEM ID	QTY.	DESCRIPTION
MS-2.00	1.0	SETTER WATER METER, NEW 2" FIP ENDS
WSC-2.00x2.00-CTSxMIP	1.0	COUPLING SERVICE 2" CTS COMPRESSION X 2" MIP
SSL-2.00	1.0	LINER RIGID STAINLESS STEEL FOR 2" CTS HDPE TUBING
GSKT-2.00	2.0	GASKET–2" FOR WATER METER
WM-DISC-2.00	1.0	2" WATER METER – SUPPLIED AND INSTALLED BY TMWA
ENCL-17x30-NT	1.0	ENCLOSURE NON-TRAFFIC 17 X 30 WATER METERS, SEE NOTE 3
ENCL-17x30-LID-NT	1.0	COVER NON-TRAFFIC 17 X 30, NON CONCRETE FIBRELYTE LID, SEE NOTE 3
ENCL-17x30-EXT-NT	1.0	EXTENSION BOX NON-TRAFFIC 17 X 30, SEE NOTE 3
INSL-BLKT-4x4	1.0	BLANKET INSULATION 4' X 4' FOR WATER METERS
RDWD-BRD-2X6X36	2.0	BOARD – REDWOOD 2" X 6" X 36"
IDLR-2.00	1.0	IDLER WATER METER 2" SETTER
BOLTS	4.0	BOLT COPPER #651 SILICONE BRONZE 5/8" X 2-1/2" WITH 2 FLAT WASHERS & NUTS
ERT	1.0	REMOTE TRANSMITTER – SUPPLIED AND INSTALLED BY TMWA

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10K	DRAWING NUMBER
	6/2004	WATER METERS - SMALL	10K-10
	REV	NEW COMMERCIAL INSTALLATION 2" SINGLE SERVICE FOR 2" SETTER, METER AND TRANSMITTER	
	7/2011		



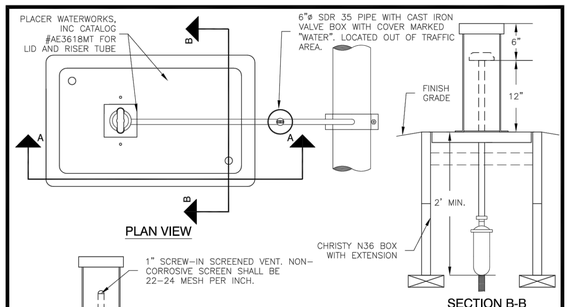
THRUST BLOCK DIMENSIONS																	
TEE, TAP, OR DEAD END					11.25° ELBOW			22.5° ELBOW			45° ELBOW			90° ELBOW		
BRANCH SIZE (INCHES)	L (FEET)	H (FEET)	W MIN. (FEET)	ELBOW SIZE (INCHES)	L (FEET)	H (FEET)	W MIN. (FEET)	L (FEET)	H (FEET)	W MIN. (FEET)	L (FEET)	H (FEET)	W MIN. (FEET)	L (FEET)	H (FEET)	W MIN. (FEET)
4	1.5	1	1	4	1	1	1	1	1	1	1.5	1	1	2	1	1
6	2	2	1	6	1	1	1	1.5	1	1	2	1.5	1	2.5	2	1
8	3	2	1	8	1.5	1	1	1.5	1.5	1	2.5	2	1	4	2	1
10	3.5	2.5	1	10	2	1	1	2	2	1	3	2.5	1	5	2.5	1
12	4.5	3	1	12	2	1.5	1	2.5	2	1	4	2.5	1	6	3	1

THRUST BLOCK DESIGN CRITERIA:

THRUST BLOCK SIZES HAVE BEEN CALCULATED USING THE METHOD AND EQUATIONS PUBLISHED IN *THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE, SIXTH EDITION 2006* BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) UTILIZING THE FOLLOWING DESIGN PARAMETERS: DESIGN PRESSURE = 150 PSI (SEE NOTE #4 BELOW), SOIL BEARING CAPACITY = 2,000 PSF (SEE NOTE #4 BELOW), SAFETY FACTOR = 1.5, AND NOMINAL PIPE DIAMETER

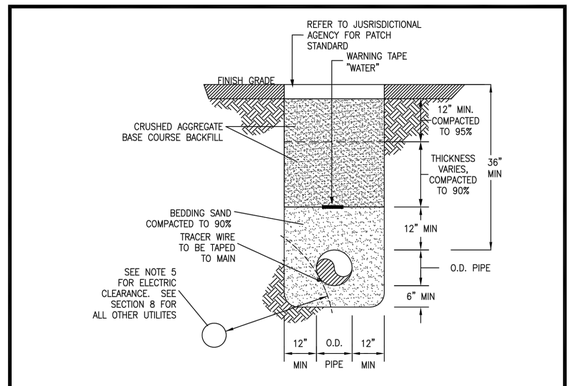
THRUST BLOCK NOTES:
1. CONCRETE FOR THRUST BLOCKS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. REFERENCE SECTION 1.1.13 OF THE TRUCKEE MEADOWS WATER AUTHORITY ENGINEERING & CONSTRUCTION STANDARDS FOR ADDITIONAL REQUIREMENTS. BAG CONCRETE MIX IS NOT ACCEPTABLE.
2. ALL FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE WRAP PER AWWA C105. MASTIC (BRUSH-ON) SHALL BE APPLIED TO ALL BOLTS, ETC.
3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL. IN CASES WHERE THIS IS NOT PRACTICAL, BACKFILL AREA BEHIND WHERE THRUST BLOCK WILL BE POURED WITH TYPE 2, CLASS B AGGREGATE BASE (PER SECTION 200.01.03 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION – ORANGE BOOK) COMPACTED TO 95% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY PROCEDURES SET FORTH IN ASTM D 1557, CUT-BACK COMPACTED AGGREGATE BASE TO EXPOSE A FIRM SURFACE, THEN POUR THRUST BLOCK.
4. FOR SOIL BEARING CAPACITY LESS THAN 2,000 PSF AND/OR DESIGN PRESSURE IN EXCESS OF 150 PSI, INCREASE THRUST BLOCK BEARING AREAS ACCORDINGLY. REVISED THRUST BLOCK SCHEDULE FOR SPECIFIC CONDITIONS SHALL BE SUBMITTED BY THE DESIGN ENGINEER.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10L	DRAWING NUMBER
	7/2011	THRUST BLOCKS	10L-2
	REV	TEES, TAPPING SLEEVES, DEAD ENDS 11.25, 22.5, 45 AND 90 DEGREE ELBOWS 4" TO 12"	



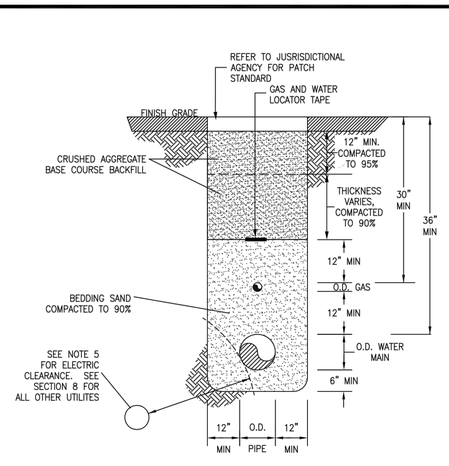
NOTES
1. REFER TO APPENDIX 10H FOR SERVICE TAP INSTALLATION.
2. REFER TO 10L-6 FOR TRENCH BEDDING AROUND HDPE PORTION OF THIS DETAIL. BEDDING SAND TO BE USED UNLESS OTHERWISE CALLED FOR.
3. TOP OF ENCLOSURE AND VALVE CAP SHALL BE SET 0.2 FEET ABOVE HIGHEST FINISHED GRADE SURROUNDING ENCLOSURE WITH LANDSCAPE AREAS.
4. PLACE TYPE 2 CLASS B CRUSHED AGGREGATE BASE WITHIN BOX TO EXTEND HALF WAY UP BODY OF THE ARV AND EXTEND UNDER BOX TO A DEPTH OF 6" BELOW THE BRASS NIPPLE/COPPER TUBE. BASE TO EXTEND FROM THE ARV TO THE CURB VALVE AND BEYOND THE EXTENTS OF THE ENCLOSURE FOR 6-INCHES.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10L	DRAWING NUMBER
	7/2005	COMBINATION AIR RELEASE VALVE	10L-4
	REV		
	9/2016		



NOTES:
1. ALL TRENCHES MUST CONFORM TO APPLICABLE TMWA, CITY, STATE, COUNTY, AND OSHA SPECIFICATIONS AND REQUIREMENTS. IN THE CASE OF CONFLICT, THE MORE RIGID SPECIFICATION OR STANDARD SHALL APPLY.
2. BEDDING SAND SHALL BE COMPACTED TO 90% MAXIMUM DENSITY PER SECTION 5.05.03 AND SHALL BE A MINIMUM OF 12" ABOVE AND 6" BELOW THE MAIN. PER SECTION 5 OF TMWA STANDARDS.
3. CRUSHED AGGREGATE BASE COURSE BACKFILL SHALL BE PLACED IN 12" MAXIMUM LOOSE LIFTS. THE TOP 12" SHALL BE COMPACTED TO 95% MAXIMUM DENSITY. THE AREA ABOVE THE BEDDING SAND & BELOW 12" FROM FINISH GRADE SHALL BE COMPACTED TO 90% MAXIMUM DENSITY. PER SECTION 5 OF TMWA STANDARDS.
4. NON-METALLIC BLUE WARNING TAPE SHALL BE PLACED IN ALL TRENCHES AT LEAST 12" ABOVE THE WATER MAIN.
5. ELECTRIC UTILITIES MUST BE LOCATED BELOW WATER & MAINTAIN 2' MINIMUM RADIAL CLEARANCE FROM TMWA WATER FACILITIES. IF 2' RADIAL CLEARANCE CAN NOT BE MET ELECTRIC CONDUIT MUST BE CONCRETE ENCASED AT LEAST 18" EACH SIDE OF WATER CROSSING. FIBER OPTIC AND/OR COMMUNICATION CONDUITS SHALL NOT BE PLACE IN THE SAME TRENCH AS WATER.
6. ALL CHANGES MUST BE APPROVED BY THE TMWA INSPECTOR AND/OR THE TMWA ENGINEER.
7. SEPARATION FOR PIPES IN A JOINT TRENCH SHALL BE A MINIMUM OF 12".
8. TRACER WIRE SHALL BE #14 COPPER CLAD STAINLESS STEEL CORE WITH 30 MILS BLUE HDPE INSULATION. ALL WIRE SPLICES SHALL BE MADE USING A SPLIT BOLT CONNECTOR WRAPPED WITH AQUASEAL AND ELECTRIC TAPE. THE CONTRACTOR SHALL INSTALL A 3 POUND ANODE AT EVERY TEST STATION. TEST STATIONS SHALL BE LOCATED ALONG THE MAIN NO MORE THAN 500 FEET APART. REFER TO 10L-9.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10L	DRAWING NUMBER
	7/2011	MISCELLANEOUS WATER DETAILS	10L-6
	REV	TRENCH DETAIL WATER ONLY	
	02/2014		



NOTES:
1. ALL TRENCHES MUST CONFORM TO APPLICABLE TMWA, CITY, STATE, COUNTY, AND OSHA SPECIFICATIONS AND REQUIREMENTS. IN THE CASE OF CONFLICT, THE MORE RIGID SPECIFICATION OR STANDARD SHALL APPLY.
2. BEDDING SAND SHALL BE COMPACTED TO 90% MAXIMUM DENSITY PER SECTION 5.05.03 AND SHALL BE A MINIMUM OF 12" ABOVE AND 6" BELOW THE MAIN. PER SECTION 5 OF TMWA STANDARDS.
3. CRUSHED AGGREGATE BASE COURSE BACKFILL SHALL BE PLACED IN 12" MAXIMUM LOOSE LIFTS. THE TOP 12" SHALL BE COMPACTED TO 95% MAXIMUM DENSITY. THE AREA ABOVE THE BEDDING SAND & BELOW 12" FROM FINISH GRADE SHALL BE COMPACTED TO 90% MAXIMUM DENSITY. PER SECTION 5 OF TMWA STANDARDS.
4. METALLIC WATER AND GAS LOCATOR TAPE SHALL BE PLACED IN ALL TRENCHES AT LEAST 12" ABOVE THE GAS.
5. ELECTRIC UTILITIES MUST BE LOCATED BELOW WATER & MAINTAIN 2' MINIMUM RADIAL CLEARANCE FROM TMWA WATER FACILITIES. IF 2' RADIAL CLEARANCE CAN NOT BE MET ELECTRIC CONDUIT MUST BE CONCRETE ENCASED AT LEAST 18" EACH SIDE OF WATER CROSSING. FIBER OPTIC AND/OR COMMUNICATION CONDUITS SHALL NOT BE PLACED IN THE SAME TRENCH AS WATER.
6. ALL CHANGES MUST BE APPROVED BY THE TMWA INSPECTOR AND/OR THE TMWA ENGINEER.
7. SEPARATION FOR PIPES IN A JOINT TRENCH SHALL BE A MINIMUM OF 12".

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10L	DRAWING NUMBER
	7/2011	MISCELLANEOUS WATER DETAILS	10L-7
	REV	TRENCH DETAIL GAS AND WATER	
	02/2014		

NNPH PERMITTING PURPOSES ONLY

TRUCKEE MEADOWS WATER AUTHORITY
APPROVED FOR CONSTRUCTION
WATER FACILITIES ONLY

Katie Mason — 10/24/2023
ENGINEERING — DATE

Jamie Marsche — 10/25/2023
BACKFLOW — DATE

NOTE:
REFER TO THRUST BLOCK SCHEDULE ON SHEET WE-5 FOR THRUST BLOCK REQUIREMENTS

811 Know what's **below.** **Call** before you dig.

THIS MAP ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES. NO RESPONSIBILITY IS ASSUMED AS TO THE SUFFICIENCY OR ACCURACY OF THE DATA DISPLAYED HEREON.

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WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

WOOD RODGERS
MATTHEW J. ROULIAS
Exp: 12-31-23
CIVIL
No. 18708
STATE OF NEVADA
REGISTERED PROFESSIONAL ENGINEER
DATE: 08/22/2023

WORK ORDER NO. 23-9264
DESIGNED MJR
DRAWN JPS
DATE AUGUST, 2023
CHECKED MJR
SUBMITTED ###
RECOMMENDED ____
APPROVED ____

TRUCKEE MEADOWS WATER AUTHORITY
1385 CAPITAL BLVD. RENO, NEVADA 89502
PH 775-834-8000 / FX 775-834-8003

6963 SCHEIDBAR RD. FIRE STATION_COM MAIN

DETAIL SHEET

SHEET NUMBER
WE-5
5 OF 7

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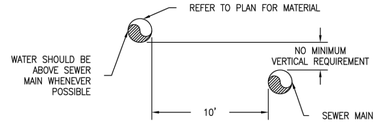
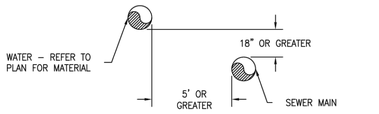
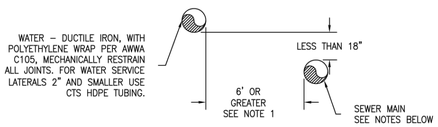


OPTION 1



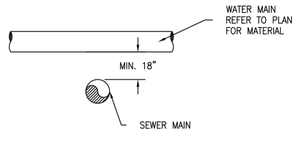
OPTION 2



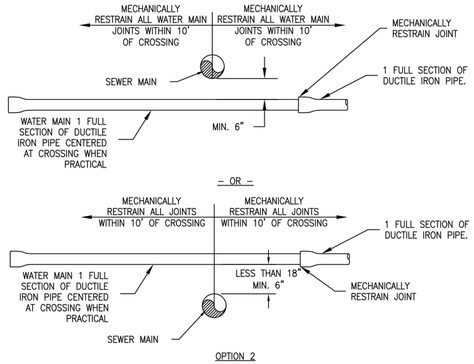
OPTION 3

NOTES:
1. IF SEPARATION IS 10 FEET OR MORE USE OPTION 1.
2. NON–PRESSURIZED SEWER MAINS SHALL BE SDR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER MAINS ARE PRESSURIZED, THE SEWER MAINS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
3. FOR STORM SEWER MAINS WITH A DIAMETER OF 24" OR LARGER, THE SEWER MAINS SHALL BE INSTALLED WITH WATER TIGHT JOINTS THAT USE JOINT SEALANTS OR JOINT GASKETS.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10L MISCELLANEOUS WATER DETAILS WATER MAIN OR WATER SERVICE LATERAL PARALLEL TO SEWER MAIN	DRAWING NUMBER
	02/2014		10L-10
	REV		



OPTION 1

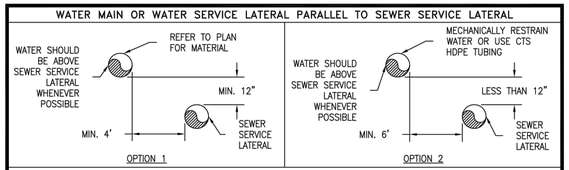


OPTION 2

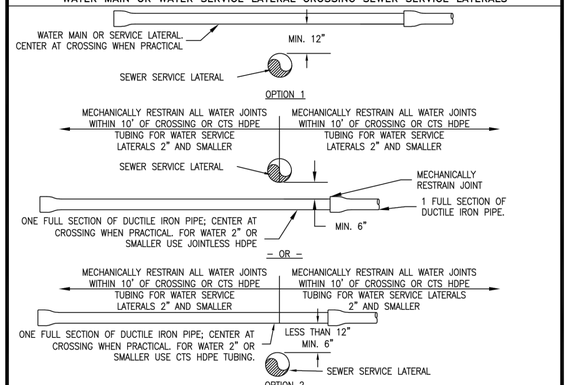
NOTES:
1. OPTION 1 SHOULD BE UTILIZED WHEN POSSIBLE.
2. NON–PRESSURIZED SEWER MAINS SHALL BE SDR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER MAINS ARE PRESSURIZED THE SEWER MAINS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
3. ALL MECHANICALLY RESTRAINED WATER PIPES SHALL BE DUCTILE IRON WITH POLYETHYLENE WRAP PER AWWA C105.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10L MISCELLANEOUS WATER DETAILS WATER MAIN CROSSING SEWER MAIN	DRAWING NUMBER
	02/2014		10L-11
	REV		

WATER MAIN OR WATER SERVICE LATERAL PARALLEL TO SEWER SERVICE LATERAL

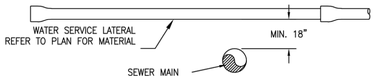


WATER MAIN OR WATER SERVICE LATERAL CROSSING SEWER SERVICE LATERALS

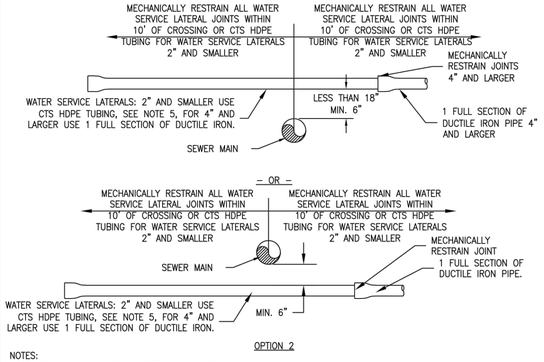


NOTES:
1. OPTION 1 SHOULD BE UTILIZED WHEN POSSIBLE.
2. NON–PRESSURIZED SEWER SERVICE LATERALS SHALL BE SDR 35 PVC. IF SEWER SERVICE LATERALS ARE NON SDR 35 PVC, SEWER SERVICE LATERALS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER SERVICE LATERALS ARE PRESSURIZED, THE SEWER SERVICE LATERALS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
3. ALL MECHANICALLY RESTRAINED WATER PIPES SHALL BE DUCTILE IRON WITH POLYETHYLENE WRAP PER AWWA C105.
4. FOR WATER SERVICE LATERALS 2" AND SMALLER THERE SHALL BE NO JOINTS OR FITTINGS BETWEEN THE WATER MAIN AND THE WATER METER.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10L MISCELLANEOUS WATER DETAILS WATER MAIN OR WATER SERVICE LATERAL PARALLEL TO OR CROSSING SEWER SERVICE LATERAL	DRAWING NUMBER
	02/2014		10L-12
	REV		



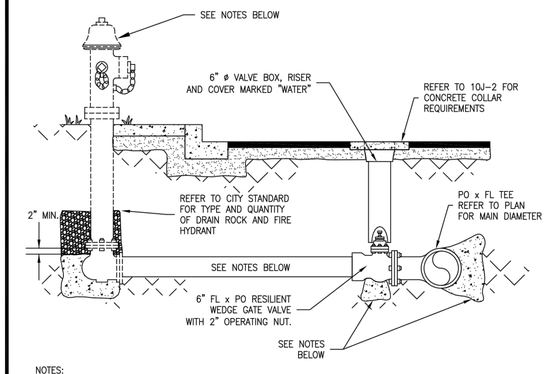
OPTION 1



OPTION 2

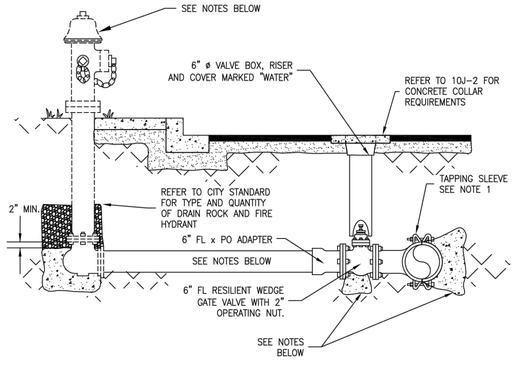
NOTES:
1. OPTION 1 SHOULD BE UTILIZED WHEN POSSIBLE.
2. NON–PRESSURIZED SEWER MAINS SHALL BE SDR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER MAINS ARE PRESSURIZED, THE SEWER MAINS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
3. ALL MECHANICALLY RESTRAINED WATER PIPES SHALL BE DUCTILE IRON WITH POLYETHYLENE WRAP PER AWWA C105.
4. FOR WATER SERVICE LATERALS 2" AND SMALLER THERE SHALL BE NO JOINTS OR FITTINGS BETWEEN THE WATER MAIN AND THE WATER METER.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10L MISCELLANEOUS WATER DETAILS WATER SERVICE LATERAL CROSSING SEWER MAIN	DRAWING NUMBER
	02/2014		10L-13
	REV		



NOTES:
1. REFERENCE NAC 445A, TMWA CONSTRUCTION AND DESIGN STANDARDS AND JURISDICTIONAL FIRE AGENCY FOR REQUIRED PIPE MATERIALS. POLYETHYLENE WRAP TO BE USED ON ALL DUCTILE IRON PIPE AND FITTINGS PER AWWA C105.
2. REFER TO PLAN FOR ACTUAL DIAMETER AND LENGTH FOR HYDRANT LATERAL.
3. KEEP A MINIMUM OF 2" CLEARANCE BETWEEN FLANGES/BOLTS AND CONCRETE.
4. LOCATION OF FIRE HYDRANT TO BE DETERMINED BY APPROPRIATE GOVERNMENTAL FIRE AGENCY. FIRE HYDRANT AND BARREL EXTENSION TO BE SUPPLIED BY OTHERS.
5. REFER TO JURISDICTIONAL AGENCY'S ADOPTED FIRE CODE FOR HYDRANT TYPE, COLOR AND CONNECTION TYPES.
6. ALL EXPOSED METAL MUST BE COATED AND WRAPPED.
7. REFER TO CITY STANDARDS OR APPENDIX 10L FOR THRUST BLOCK REQUIREMENTS. USE THE MOST CONSERVATIVE.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10F FIRE PROTECTION INSTALLATIONS 6" FIRE HYDRANT SERVICE OFF NEW MAINS	DRAWING NUMBER
	7/2001		10F-2
	REV		
	9/2016		



NOTES:
1. REFER TO APPENDIX 10D FOR TAPPING SLEEVE DETAILS.
2. REFERENCE NAC 445A, TMWA CONSTRUCTION AND DESIGN STANDARDS AND JURISDICTIONAL FIRE AGENCY FOR REQUIRED PIPE MATERIALS. POLYETHYLENE WRAP TO BE USED ON ALL DUCTILE IRON PIPE AND FITTINGS PER AWWA C105.
3. REFER TO PLAN FOR ACTUAL DIAMETER AND LENGTH FOR HYDRANT LATERAL.
4. KEEP A MINIMUM OF 2" CLEARANCE BETWEEN FLANGES/BOLTS AND CONCRETE.
5. LOCATION OF FIRE HYDRANT TO BE DETERMINED BY APPROPRIATE GOVERNMENTAL FIRE AGENCY. FIRE HYDRANT AND BARREL EXTENSION TO BE SUPPLIED BY OTHERS.
6. REFER TO JURISDICTIONAL AGENCY'S ADOPTED FIRE CODE FOR HYDRANT TYPE, COLOR AND CONNECTION TYPES.
7. ALL EXPOSED METAL MUST BE COATED AND WRAPPED.
8. REFER TO CITY STANDARDS OR APPENDIX 10L FOR THRUST BLOCK REQUIREMENTS. USE THE MOST CONSERVATIVE.
9. PRESSURE TEST TAPPING SLEEVE AND VALVE TO MANUFACTURER'S RECOMMENDATION.

TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10F FIRE PROTECTION INSTALLATIONS 6" FIRE HYDRANT SERVICE OFF EXISTING MAIN	DRAWING NUMBER
	7/2001		10F-4
	REV		
	9/2016		

NNPH PERMITTING PURPOSES ONLY

TRUCKEE MEADOWS WATER AUTHORITY
APPROVED FOR CONSTRUCTION
WATER FACILITIES ONLY

Katie Mason — 10/24/2023
ENGINEERING — DATE

Jamie Marcks — 10/25/2023
BACKFLOW — DATE

NOTE:
REFER TO THRUST BLOCK SCHEDULE ON SHEET WE–5 FOR THRUST BLOCK REQUIREMENTS

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Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

WOOD RODGERS
MATTHEW J. ROULIAS
Exp: 12-31-23
CIVIL
No. 18708
STATE OF NEVADA
DATE: 08/22/2023

WORK ORDER NO. 23-9264
DESIGNED MJR
DRAWN JPS
DATE AUGUST, 2023
CHECKED MJR
SUBMITTED
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER AUTHORITY
1355 CAPITAL BLVD.
RENO, NEVADA 89502
PH 775-834-8000 / FX 775-834-8003

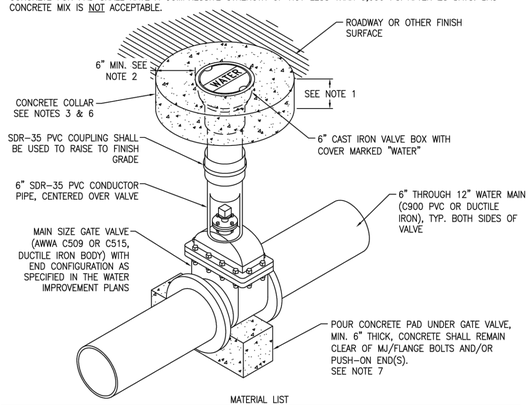
6963 SCHEIDBAR RD. FIRE STATION_COM MAIN

DETAIL SHEET

SHEET NUMBER
WE-6
6 OF 7

J:\Jobs\16523_CityofSparks\000_PM_Fire_Station\Civil\Dwg\TMWA\WR_PM_FIRESTATION.dwg 8/22/2023 3:54 PM Matthew Roulias

NOTES:
1. CONCRETE COLLAR SHALL BE MINIMUM 6-INCHES THICK OR MATCH PAVEMENT THICKNESS, WHICHEVER IS GREATER, UNLESS OTHERWISE SPECIFIED BY THE JURISDICTIONAL AGENCY RESPONSIBLE FOR THE ROADWAY.
2. FOR MULTIPLE VALVE/RISER BOXES IN CLOSE PROXIMITY, A MONOLITHIC CONCRETE COLLAR MAY BE POURED.
3. CONTRACTOR AND/OR DESIGN ENGINEER SHALL CONSULT WITH THE JURISDICTIONAL AGENCY RESPONSIBLE FOR THE ROADWAY FOR REQUIREMENTS THAT MAY VARY FROM THIS STANDARD PRIOR TO CONSTRUCTION.
4. ALL BOLTS AND EXPOSED METAL SHALL BE COATED WITH BRUSHED-ON MASTIC.
5. GATE VALVE, DUCTILE IRON PIPE, AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105.
6. UNLESS OTHERWISE SPECIFIED BY THE JURISDICTIONAL AGENCY RESPONSIBLE FOR THE ROADWAY, PORTLAND CEMENT CONCRETE (P.C.C.) FOR CONCRETE COLLAR SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4,000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAXIMUM WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. BAG CONCRETE MIX IS NOT ACCEPTABLE.
7. CONCRETE FOR PAD SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ACCEPTABLE.



MATERIAL LIST

QTY	DESCRIPTION
1	MAIN SIZE GATE VALVE (AWWA C509 OR C515, DUCTILE IRON BODY) WITH END CONFIGURATION AS SPECIFIED IN THE WATER IMPROVEMENT PLANS
1	MASTIC (1 GALLON CAN – BRUSH ON)
1	6" ø SDR-35 PVC CONDUCTOR PIPE SECTION
1	6" ø CAST IRON VALVE BOX WITH COVER MARKED "WATER"
1	FULL FACE GASKET
1	CONCRETE BULK – PAD AND COLLAR

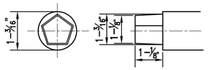
TRUCKEE MEADOWS WATER AUTHORITY	DATE	APPENDIX 10J DISTRIBUTION VLAVE INSTALLATION	DRAWING NUMBER
	1/2002	IN-LINE GATE VALVE WITH CONCRETE COLLAR	10J-2
	REV 7/2011		

FIRE HYDRANT COLOR SCHEDULE

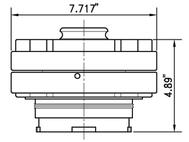
RENO
ALL HYDRANTS TO BE FACTORY ENAMELED SAFETY RED.

SPARKS
PUBLIC HYDRANTS TO BE FACTORY ENAMELED SAFETY YELLOW.
PRIVATE HYDRANTS TO BE FACTORY ENAMELED SAFETY RED.

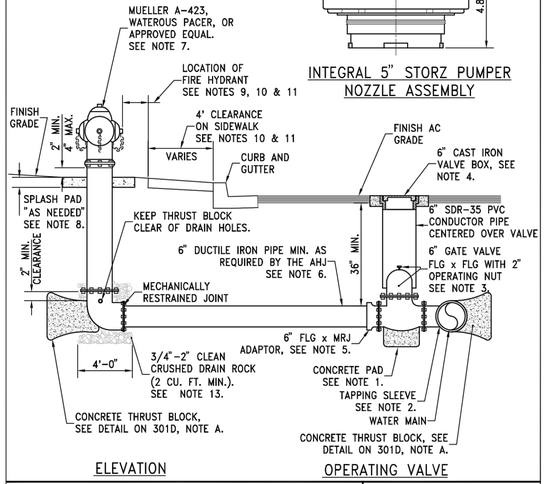
WASHOE COUNTY
PUBLIC HYDRANTS TO BE FACTORY ENAMELED SAFETY RED.
PRIVATE HYDRANTS TO BE FACTORY ENAMELED SAFETY RED WITH HIGH REFLECTIVE WHITE TOP.



OPERATING NUT – PENTAGON



INTEGRAL 5" STORZ PUMPER NOZZLE ASSEMBLY



ELEVATION

OPERATING VALVE

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.
City of Sparks	FIRE HYDRANT	S-301A
		APPROVED BY: JE | DATE: 1/2020

NOTES:

1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY AUTHORITY HAVING JURISDICTION (AHJ). CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY AHJ.

2. TAPPING SLEEVE
HOT-TAP TAPPING SLEEVES SHALL BE FULL-CIRCLE ASTM A 240, TYPE 304 STAINLESS STEEL WITH FULL CIRCUMFERENCE GASKETS THROUGHOUT SLEEVE LENGTH WITH AWWA C207 CLASS D ANSI 150 LB. DRILLING ASTM A 240, TYPE 304 STAINLESS STEEL FLANGE. TYPE 304 STAINLESS STEEL STUD BOLTS, HEAVY HEX NUTS, AND WASHERS SHALL BE INCLUDED. HEAVY HEX NUTS AND STUD BOLTS SHALL BE COATED TO PREVENT GALLING. TYPE 304 STAINLESS STEEL TEST PLUG SHALL BE INCLUDED WITH THREADS COATED TO PREVENT GALLING. TAPPING SLEEVE SHALL BE RATED FOR A TEST PRESSURE OF 300 PSI AND WORKING PRESSURE OF 200 PSI. TAPPING SLEEVE SHALL BE ROMAC STYLE "SST" STAINLESS STEEL TAPPING SLEEVE AS MANUFACTURED BY ROMAC INDUSTRIES, INC.; SMITH-BLAIR 663 STAINLESS STEEL FLANGE TAPPING SLEEVE AS MANUFACTURED BY SMITH-BLAIR, INC.; OR EQUAL.

ALL WATER MAIN SHUT DOWNS AND/OR INSTALLATION OF TAPPING SLEEVES SHALL BE COORDINATED WITH THE WATER PURVEYOR IN THE AREA AND CONFORM TO THEIR REQUIREMENTS. TAPPING SLEEVES ARE TO BE USED ONLY FOR EXISTING INSTALLATIONS.

3. GATE VALVE
GATE VALVE SHALL BE 6-INCH, FLG X FLG AND SHALL MEET AWWA C515, DUCTILE IRON BODY, NON-RISING STEM, RESILIENT-SEATED VALVE. GATE VALVE SHALL BE EQUIPPED WITH A 2-INCH OPERATING NUT FOR BURIED SERVICE. GATE VALVE SHALL BE FUSION EPOXY LINED AND COATED. ALL VALVES FOR BURIED SERVICE SHALL BE POLYETHYLENE ENCASED PER AWWA C105. GATE VALVE SHALL BE A MUELLER A-2361 RESILIENT WEDGE GATE VALVE; AMERICAN AVK COMPANY SERIES 65 AWWA C515 DUCTILE IRON GATE VALVE; OR APPROVED EQUAL.

4. 6" VALVE BOX SHALL BE D&L #8044 & #8056 OR APPROVED EQUAL. CASTINGS SHALL BE CAST IRON GRAY AND MEET THE REQUIREMENTS OF ASTM A48-74, CLASS 30B, NO PAINT.

5. 6-INCH FLG X MRJ ADAPTOR
6-INCH FLG X MRJ ADAPTOR SHALL BE DUCTILE IRON AND MEET THE REQUIREMENTS OF AWWA STANDARDS C110/C153 AND C104. ALL FITTINGS SHALL BE POLYETHYLENE ENCASED PER AWWA C105. ADAPTOR SHALL BE ASPHALTIC COATED WITH CEMENT-MORTAR LINING PER AWWA C110/C153 AND C104.

6. 6-INCH MINIMUM DUCTILE IRON LATERAL PIPE
ALL DUCTILE IRON PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARDS C151, C104, AND C111 WITH PRESSURE CLASS 350, STANDARD CEMENT LINING, BITUMINOUS COATING, AND SHALL BE NSF-61 CERTIFIED. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE ENCASED WITH THICKNESS OF 4 MIL AND BE BLACK IN COLOR. MATERIAL SHALL BE HIGH-DENSITY, CROSS-LAMINATED FILM CONFORMING TO SECTION 4.1.3 OF AWWA STANDARD C105. TUBE SIZE SHALL BE AS LISTED IN TABLE 1 OF SAME STANDARD. DUCTILE IRON PIPE SHALL BE EQUIPPED WITH TYTON TYPE BELL AND SPIGOT JOINTS. DUCTILE IRON PIPE SHALL BE TYTON DUCTILE IRON PIPE AS MANUFACTURED BY U.S. PIPE, GRIFFIN TYTON JOINT DUCTILE IRON PIPE AS MANUFACTURED BY GRIFFIN PIPE PRODUCTS CO., INC., OR APPROVED EQUAL. EXCEPTIONS FOR PRIVATE INSTALLATION UPON APPROVAL FROM AHJ.

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NOTES CONT:

7. MUELLER A-423 OR AMERICAN WATEROUS PACER WB67-250 WITH 5-1/4" VALVE OPENING OR FIRE DEPARTMENT APPROVED EQUAL. RISER SHALL BE 4 FT OR 5 FT AND RISER TYPE SHALL BE SAME AS THE FIRE HYDRANT MANUFACTURER. HYDRANTS MUST BE FACTORY PAINTED TO BE ACCEPTED. ALL HYDRANTS SHALL HAVE TWO 2-½" HOSE NOZZLES AND ONE FACTORY INSTALLED INTEGRAL 5" STORZ PUMPER NOZZLE ASSEMBLY.

8. IF PROPOSED HYDRANT LOCATION IS WITHIN PARKWAY OR LANDSCAPE WHERE NO CONCRETE EXISTS, PLACE 36" DIAMETER ROUND OR 36" x 36" SQUARE, 4" THICK REINFORCED CONCRETE SPLASH PAD AS REQUIRED BY THE AHJ. NO FENCES, LANDSCAPE FEATURES, OR OTHER OBSTRUCTIONS SHALL BE ALLOWED WITHIN 3-FEET OF ANY PORTION OF A FIRE HYDRANT. CLEARANCE IS MEASURED FROM ALL OBSTRUCTIONS TO THE NEAREST POINT ON THE FIRE HYDRANT. ANTICIPATED PLANT GROWTH TO BE CONSIDERED IN DESIGN AND INSTALLATION.

9. FIRE HYDRANTS SHALL BE INSPECTED BY AHJ INSPECTOR. INSPECTIONS SHALL BE SCHEDULED A MINIMUM OF TWO BUSINESS DAYS PRIOR AND INSPECTIONS SHALL BE PERFORMED DURING REGULAR BUSINESS HOURS. CONTACT AHJ FIRE PREVENTION BUREAU TO SCHEDULE INSPECTIONS.

10. FIRE HYDRANTS SHALL BE PLACED WITHIN THE RIGHT-OF-WAY OR EASEMENT GRANTED OUTSIDE THE RIGHT-OF-WAY. FIRE HYDRANT PLACED WITHIN PEDESTRIAN WALKWAY AND/OR SIDEWALKS SHALL PROVIDE FOR A MINIMUM OF 4 FT CLEARANCE IN ACCORDANCE WITH PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).

11. AHJ APPROVAL IS REQUIRED FOR HYDRANT LOCATION WHERE NO SIDEWALK EXISTS BEHIND CURB OR WHERE A LANDSCAPE STRIP IS BETWEEN THE CURB AND THE SIDEWALK.

12. FIRE HYDRANTS SHALL BE TESTED BY THE AHJ PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.

13. FOR TRENCH EXCAVATION/BACKFILL SPECIFICATIONS SEE DETAIL BELOW. ALL DRAIN ROCK SHALL BE PLACED PRIOR TO INSPECTION AND BACKFILL.

TRENCH EXCAVATION/BACKFILL	
AHJ	DETAIL #
RENO	R-122
SPARKS	S-117
WASHOE COUNTY	W-22

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.
City of Sparks	NOTES - FIRE HYDRANT	S-301C
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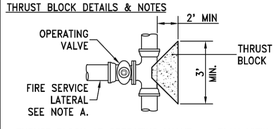
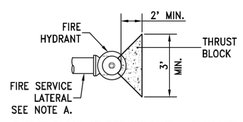
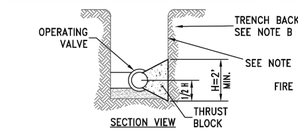
THRUST BLOCK DETAILS & NOTES

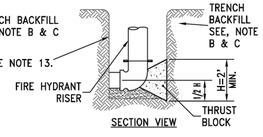




THRUST BLOCK AT OPERATING VALVE – PLAN VIEW



THRUST BLOCK AT FIRE HYDRANT – PLAN VIEW



THRUST BLOCK NOTES
A. THRUST BLOCK SIZE ASSUMES MAXIMUM 6" DIAMETER FIRE HYDRANT SERVICE. THRUST BLOCKS FOR LARGER SERVICES REQUIRE APPROVAL OF AHJ.

B. THE THRUST BLOCK DESIGN SHALL BE BASED ON THE FORCE RESISTING CAPACITY OF THE NATIVE SOILS AS STATED IN THE SOILS EVALUATION REPORT SPECIFIC TO THE PROJECT SITE. THE CALCULATIONS SHOWN WITH THE TRUST BLOCK DESIGN AND SIZING TABLE SHALL BE BASED ON THE REQUIREMENTS OF THE MOST CURRENT NFPA 24, ARTICLE 10.8.2 REQUIREMENTS. THE SOIL EVALUATION REPORT OR A SINGLE PAGE, STAMPED SUMMARY SHALL BE SUBMITTED WITH THE PROJECT PLANS.

C. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL. IN CASES WHERE THIS IS NOT PRACTICAL, BACKFILL AREA BEHIND WHERE THRUST BLOCK WILL BE PLACED WITH AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION, CUT-BACK COMPACTED AGGREGATE BASE TO EXPOSE A FIRM SURFACE, THEN PLACE THRUST BLOCK.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.
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		APPROVED BY: JE | DATE: 1/2020

NNPH PERMITTING PURPOSES ONLY

TRUCKEE MEADOWS WATER AUTHORITY
APPROVED FOR CONSTRUCTION
WATER FACILITIES ONLY

ENGINEERING — DATE 10/24/2023
BACKFLOW — DATE 10/25/2023

NOTE:
REFER TO THRUST BLOCK SCHEDULE ON SHEET WE-5 FOR THRUST BLOCK REQUIREMENTS

811 Know what's below. Call before you dig.

THIS MAP ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES. NO RESPONSIBILITY IS ASSUMED AS TO THE SUFFICIENCY OR ACCURACY OF THE DATA DISPLAYED HEREON.

WOOD RODGERS IS NOT RESPONSIBLE FOR PUBLIC WATER SYSTEM ANALYSIS, INCLUDING PIPE SIZING & SYSTEM PRESSURES.

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
1361 Corporate Boulevard
Reno, NV 89502
Tel 775.823.4068
Fax 775.823.4066

WOOD RODGERS
MATTHEW J. ROULIAS
Exp: 12-31-23
CIVIL
No. 18708
STATE OF NEVADA
REGISTERED PROFESSIONAL ENGINEER
DATE: 08/22/2023

WORK ORDER NO. 23-9264
DESIGNED MJR
DRAWN JPS
DATE AUGUST, 2023
CHECKED MJR
SUBMITTED
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER AUTHORITY
1355 CAPITAL BLVD.
RENO, NEVADA 89502
PH 775-834-8000 / FX 775-834-8003

6963 SCHEIDBAR RD. FIRE STATION_COM MAIN

DETAIL SHEET

SHEET NUMBER
WE-7
7 OF 7