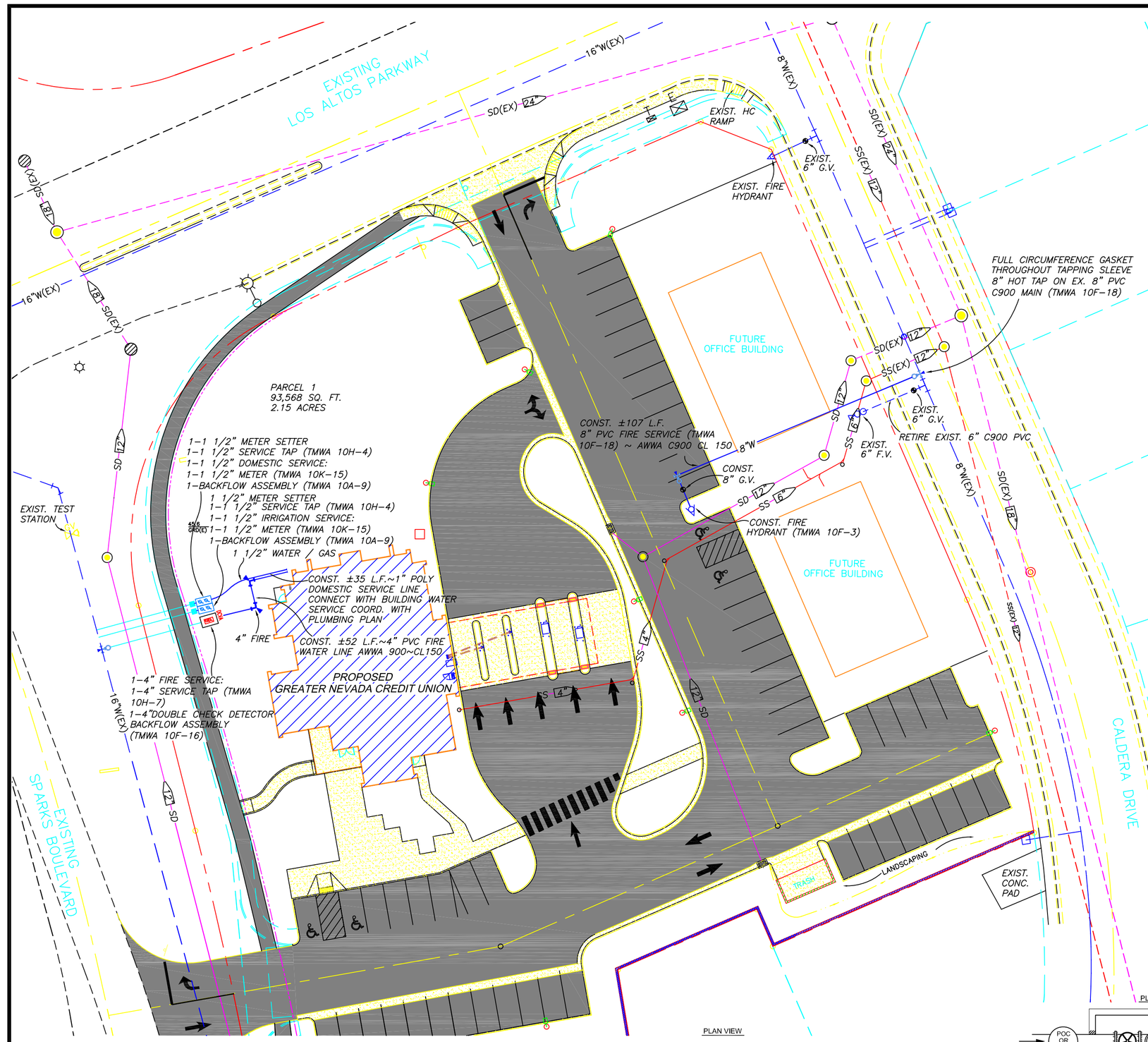
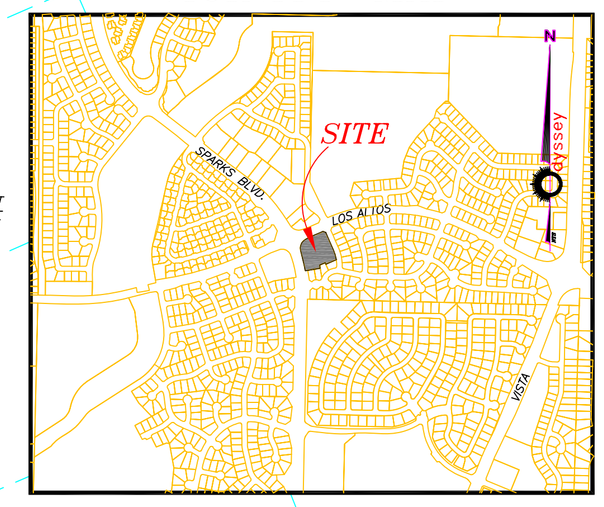


VICINITY MAP



- 45° Elbow
- 90° Elbow
- Backflow Preventor
- Check Valve
- Check Valve–double
- Coupling
- Fire Hydrant
- Fire Service
- Flush Valve
- Meter–dual
- Meter–single
- Reducer
- Service–dual
- Service–single
- Tee
- Valve

TRUCKEE MEADOWS WATER AUTHORITY:

APPLICANT TO FURNISH AND/OR INSTALL:

ALL TRENCHING, BACK FILL AND COMPACTION / SIEVE TESTS (PER TMWA ENGINEERING & CONSTRUCTION STANDARD – SECTION 5)

ALL STAKING / SURVEY NECESSARY TO CLARIFY RIGHT–OF–WAY, EASEMENTS, PROPERTY LINES AND 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 BE PERFORMED IN ACCORDANCE WITH TMWA CONSTRUCTION STANDARDS

ADDRESSES OR BUILDING DESIGNATION.

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

APPROX. 39' OF 1 – 1 1/2" PL SERVICE PIPE WITH ALL FITTINGS AND APPURTENANCES. (INCLUDING ALL HOT TAPS 2" AND UNDER). DOMESTIC

APPROX. 39' OF 1 – 1 1/2" PL SERVICE PIPE WITH ALL FITTINGS AND APPURTENANCES. (INCLUDING ALL HOT TAPS 2" AND UNDER). IRRIGATION

SEPARATION BETWEEN WATER SERVICES:

PVC C-900 SERVICE TAPS ON SAME SIDE OF PIPE TO HAVE A MINIMUM 36" SEPARATION SERVICES STAGGERED SIDE TO SIDE OF PIPE MUST HAVE MINIMUM 18" SEPARATION NO SERVICES ALLOWED WITHIN 24" OF CUT END OR PIPE TO BELL TRANSITION.

D.I. PIPE SERVICE TAPS ON SAME SIDE OF PIPE OR STAGGERED SIDE TO SIDE MAY HAVE A MINIMUM SEPARATION OF 18".

APPROX. 52' OF 4" PVC PIPE FOR FIRE SERVICE(S).–PRIVATE

APPROX. 107' OF 8" PVC PIPE FOR FIRE SERVICE(S).–PRIVATE

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 MOST RECENT EDITION OF THE UNIFORM PLUMBING CODE AS CURRENTLY ADOPTED BY THE APPROPRIATE GOVERNMENTAL ENTITY).

ALL CONCRETE FOR THRUST BLOCKS PER TMWA STD. MWC WITHIN APPENDIX 10L.

SUPPLY ALL CHLORINATION OF WATER FACILITIES (PER TMWA ENGINEERING & CONSTRUCTION STANDARD APPENDIX 9C.

BACK FLOW PREVENTION

FIRE SERVICES

DCD USC APPROVED DCD (DOUBLE CHECK DETECTOR ASSEMBLY 10A–12)

DOMESTIC SERVICES

RP USC APPROVED RP (REDUCED PRESSURE PRINCIPAL ASSEMBLY 10A–7)

IRRIGATION SERVICES

RP USC APPROVED RP (REDUCED PRESSURE PRINCIPAL ASSEMBLY 10A–9)

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

BACK FLOW PREVENTION GROUP WILL APPROVE WATER METER SET AND PERMANENT WATER SERVICE AFTER:
1. THE ASSEMBLY IS INSTALLED PER TMWA INSTALLATION STANDARDS AND INSPECTED BY BACK FLOW PREVENTION GROUP.
2. OPEN TRENCH, DITCH, AND SLURRY INSPECTIONS COMPLETED BY BACK FLOW PREVENTION GROUP.
3. FINAL INSTALLATION AND FREEZE PROTECTION INSPECTED BY BACK FLOW PREVENTION GROUP.
4. CALL 834–8011 FOR INSPECTIONS OR QUESTIONS.

TESTS BY A CA/NV AWWA CERTIFIED BACK FLOW TESTER MUST BE COMPLETED AND PROVIDED TO TMWA WITHIN 7 DAYS OF THE METER SETS OR WATER SERVICE WILL BE DISCONTINUED.

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

TMWA TO FURNISH AND / OR INSTALL:

FIELD INSPECTOR TO INSPECT MAINS AND SERVICES.

HOT TAP LABOR. (GREATER THAN 2" ONLY)
1 – 1 1/2" DISC TYPE – BADGER WATER METER(S) FOR DOMESTIC.
1 – 1 1/2" DISC TYPE – BADGER WATER METER(S) FOR IRRIGATION.

GENERAL COMMENTS:

CONTRACTOR TO CALL 834–8012, 48 HOURS PRIOR TO START OF CONSTRUCTION TO SCHEDULE ON SITE INSPECTION. (INCLUDE WORK ORDER NUMBER) 03–1286

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

ALL MATERIAL, INCLUDING BACK FILL, SHALL BE AT THE JOB SITE PRIOR TO START OF CONSTRUCTION.

MAINTAIN POTABLE WATER AND SS/SD/NON–POTABLE VERTICAL CLEARANCES AS DEFINED NRS445A AND TMWA ENGINEERING AND CONSTRUCTION STANDARD SECTION 8. THE MINIMUMM VERTICAL CLEARANCE BETWEEN TMWA'S WATER MAIN AND SS/SD/NON–POTABLE MAINS AT A CROSSING POINT SHALL BE 12–INCHES. IF SS/SD/NON–POTABLE MAINS ARE ABOVE THE TMWA WATER MAIN, OR LESS THAN 18–INCHES BELOW THE TMWA WATER MAIN, THE SS/SD/NON–POTABLE MAIN PIPE MATERIAL SHALL BE CONSTRUCTED OF SDR35 WITH WATER TIGHT JOINTS PER SEC. 203.15.01.03 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK), OR INSTALLED WITHIN A CONTINUOUS PIPE SLEEVE WITH NO JOINTS, EXTENDING TO 10–FT. ON BOTH SIDES OF THE CROSSING, OR ENCASED WITHIN 4–INCHES OF CEMENT SLURRY EXTENDING TO 10–FT. ON BOTH SIDES OF THE POINT OF CROSSING. IN ALL CASES, WHERE A WATER MAIN WILL BE INSTALLED BELOW SS/SD/NON–POTABLE MAINS, THE POTABLE WATER MAIN MUST BE CONSTRUCTED WITH DUCTILE IRON PIPE WITH NO JOINTS WITHIN 9–FT TO BOTH SIDES OF THE POINT OF CROSSING.
ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE TMWA ENGINEERING AND CONSTRUCTION STANDARD. THE CONTRACTOR SHALL SECURE COPIES OF THE AFOREMENTIONED CONSTRUCTION SPECIFICATIONS ON HIS OWN BEHALF.
CONSTRUCTION STANDARDS MAY BE DOWNLOADED FROM:
http://www.tmh20.com/customer_services/new_construction/standards

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

THESE DRAWINGS ARE BASED ON CIVIL PLANS DATED: SEPTEMBER 9, 2005

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:
PRIOR TO EXCAVATION, CHECK TO ENSURE ADDITIONAL DEPTH IS NOT REQUIRED TO ACCOMMODATE GAS OR ELECTRIC FACILITIES.
APPLICANT IS RESPONSIBLE FOR LOCATING AND COORDINATING WORK AROUND ALL EXISTING UTILITIES WITHIN WATER SERVICE TAP AREA

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

WATER METERS SHALL BE LOCATED WITHIN A PUBLIC UTILITY EASEMENT

TOP OF METER ENCLOSURE TO BE SET 0.2 ft. ABOVE HIGHEST FINISHED GRADE SURROUNDING ENCLOSURE.

DEVELOPER TO ADVISE PLUMBING CONTRACTOR OF HIS 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 PORTION OF THE CODE CONCERNING STATIC WATER PRESSURE IN EXCESS OF 80 PSI.

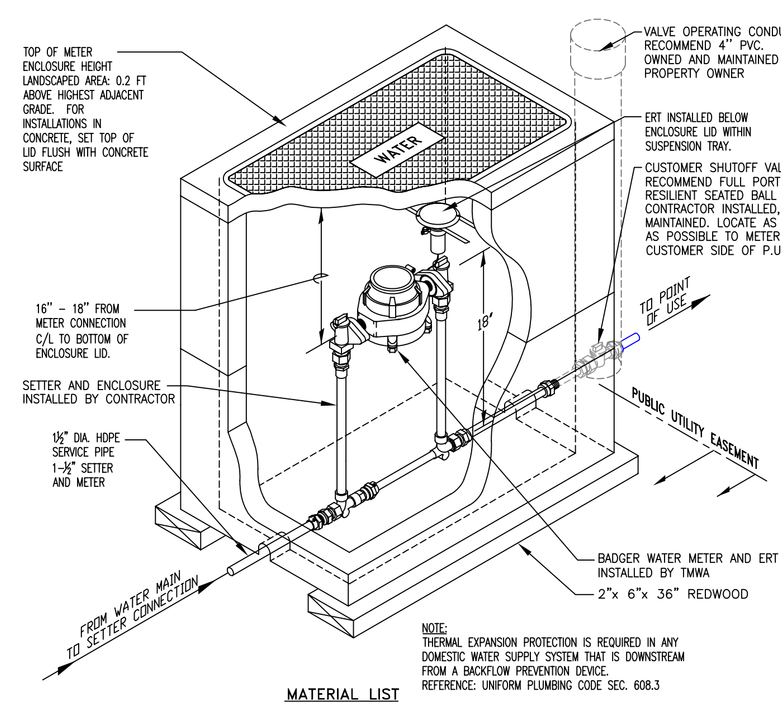
UNUSED METERS AND SERVICE LATERALS SHALL BE RETIRED BACK TO TMWA'S WATER MAIN

WATER MAINS TO EXTEND A MINIMUM OF 10' BEYOND END OF PAVING. MAINS ARE NOT TO BE INSTALLED UNDER CURB / GUTTER.

NORTH

2 working days Call before you Dig. 1–800–227–2600

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.



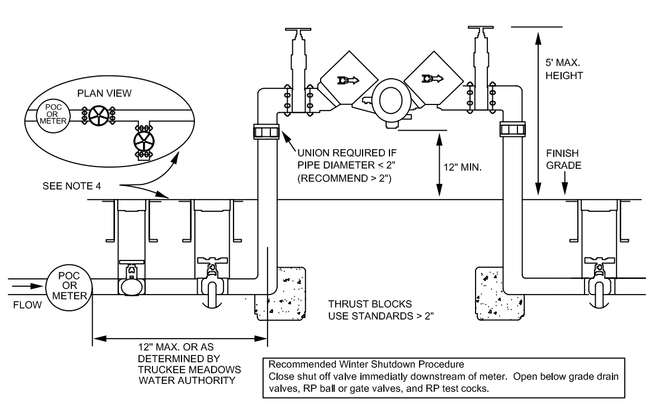
NOTE:
THERMAL EXPANSION PROTECTION IS REQUIRED IN ANY DOMESTIC WATER SUPPLY SYSTEM THAT IS DOWNSTREAM FROM A BACKFLOW PREVENTION DEVICE.
REFERENCE: UNIFORM PLUMBING CODE SEC. 608.3

MATERIAL LIST

ITEM ID		QTY.	DESCRIPTION
MS–1.50		1.0	SETTER WATER METER, WITH KEY VALVE INLET AND OUTLET, FIP ENDS
WSC–1.50x1.50–CTSxMIP		1.0	COUPLING SERVICE 1–1/2" CTS COMPRESSION X 1–1/2" MIP
SSL–1.50		1.0	LINER RIGID STAINLESS STEEL FOR 1–1/2" CTS PLASTIC PIPE
GSKT–1.50		2.0	GASKET–1–1/2" FOR WATER METER
WM–DISC–1.50		1.0	1–1/2" DISC TYPE BADGER WATER METER – SUPPLIED & INSTALLED BY TMWA
ERT–TRAY		1.0	ERT SUSPENSION TRAY SUPPLIED & INSTALLED BY TMWA
ERT		1.0	BADGER ERT HOLDING EMF
ENCL–17x30–NT	*	1.0	ENCLOSURE NON–TRAFFIC 17 X 30 WATER METERS
ENCL–17x30–LID–NT	*	1.0	COVER NON–TRAFFIC 17 X 30
ENCL–17x30–EXT–NT	*	1.0	EXTENSION BOX NON–TRAFFIC 17 X 30
INSL–BLKT–4x4		1.0	BLANKET INSULATION 4' X 4' FOR WATER METERS
RDWD–BRD–2x6		2.0	BOARD – REDWOOD 2" X 6" X 36"
IDLR–1.50		1.0	IDLER WATER METER 1–1/2" SETTER
BOLTS		4.0	BOLT COPPER #651 SILICON BRONZE 5/8"x2–1/2" W/2 FLAT WASHERS & NUT

* FOR DRIVEWAY APPROACH OR TRAFFIC AREAS USE 17x30 ENCLOSURE APPROVED FOR TRAFFIC RATED H/20 LOADING. REFERENCE TMWA C.S. DETAIL DRAWING 10K–46

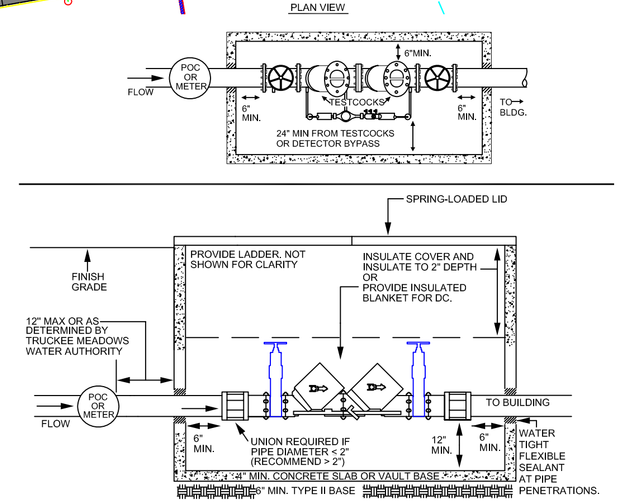
CIVIL ENGINEER
XYZ engineering firm name and wetstamped



NOTES:
1. THE RP SHALL BE INSTALLED ABOVE GRADE.
2. EITHER VALVE BOXES OR PIPE RISERS MAY BE USED FOR THE 2 BELOW GRADE SHUT OFF VALVES.
3. MANUAL SHUT OFF VALVE: INLINE BRASS GLOBE OR CURB VALVE SIZED SAME AS MAINLINE. NO STOP AND WASTE VALVES.
4. DRAIN CONFIGURATION: INLINE "T" TO BRASS SHUT OFF VALVE WITH RUBBER SEAT & ¾" 90° EL WITH FEMALE THREADS. ADD ¾" RED FREEZE KING DRAIN.
5. NO STOP AND WASTE VALVES.
6. DRAINS SHALL HAVE CLEAN GRAVEL BELOW PER LOCAL BUILDING CODES.
7. CALL LOCAL BUILDING AND/OR FIRE DEPARTMENTS FOR DEPTH AND TYPE OF PIPE TO BE USED.
8. INSPECTION BY TMWA WATER QUALITY/BACKFLOW PROTECTION PERSONNEL REQUIRED BEFORE METER IS SET OR SERVICE IS ACTIVATED.
9. TESTING OF BACKFLOW ASSEMBLY REQUIRED WITHIN 7–10 DAYS AFTER METER IS SET OR SERVICE ACTIVATION. COPY OF TEST RESULTS TO BE FORWARDED TO TMWA WATER QUALITY/BACKFLOW PROTECTION PERSONNEL BY A CERTIFIED ASSEMBLY TESTER.

TYPICAL INSTALLATION STANDARDS FOR USC APPROVED ASSEMBLIES
COMMERCIAL, INDUSTRIAL, OR MULTI-TENANT DOMESTIC USE
IRRIGATION - HORIZONTAL
REDUCED PRESSURE PRINCIPLE ASSEMBLY

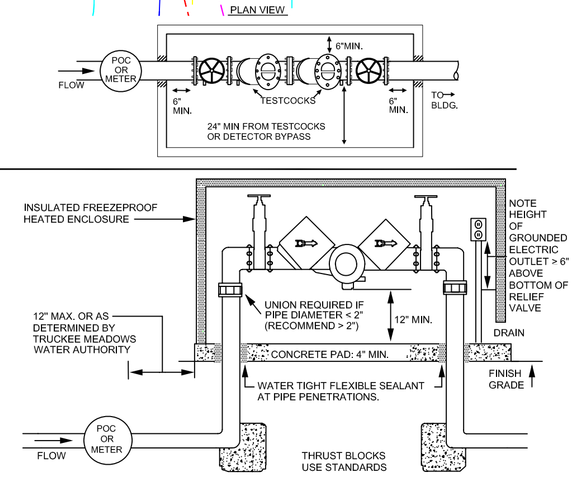
APPENDIX 10A BACKFLOW PREVENTION ASSEMBLIES COMMERCIAL, INDUSTRIAL, OR MULTI-TENANT DOMESTIC USE REDUCED PRESSURE PRINCIPAL ASSEMBLIES IRRIGATION-HORIZONTAL	DRAWING NUMBER 10A-9



NOTES:
1. FREEZE PROOF INSULATED BOX VAULT REQUIRED.
2. BELOW GROUND VAULT SHALL BE SIZED TO PROVIDE CLEARANCES SHOWN IN PLAN VIEW.
3. BELOW GROUND VAULT SHALL REMAIN DRY THROUGHOUT THE YEAR.
4. SPRING LOADED LID REQUIRED ON LARGE VAULTS WITH ASSEMBLIES LARGER THAN 2 INCHES
5. NO STOP AND WASTE VALVES.
6. CALL LOCAL BUILDING AND/OR FIRE DEPARTMENTS FOR DEPTH AND TYPE OF PIPE TO BE USED.
7. INSPECTION BY TMWA WATER QUALITY/BACKFLOW PROTECTION PERSONNEL REQUIRED BEFORE METER IS SET OR SERVICE IS ACTIVATED.
8. TESTING OF BACKFLOW ASSEMBLY REQUIRED WITHIN 7–10 DAYS AFTER METER IS SET OR SERVICE ACTIVATION. COPY OF TEST RESULTS TO BE FORWARDED TO TMWA WATER QUALITY/BACKFLOW PROTECTION PERSONNEL BY A CERTIFIED ASSEMBLY TESTER.

TYPICAL INSTALLATION STANDARDS FOR USC APPROVED ASSEMBLIES
FIRE - CLASS 1, 2, & 3
EXTERNAL - HORIZONTAL
DOUBLE CHECK VALVE DETECTOR ASSEMBLY - BELOW GRADE

APPENDIX 10A BACKFLOW PREVENTION ASSEMBLIES FIRE-CLASS 1,2 & 3 DOUBLE CHECK VALVE DETECTOR ASSEMBLIES EXTERNAL-HORIZONTAL BELOW GRADE	DRAWING NUMBER 10A-12



NOTES:
1. THE RP SHALL BE INSTALLED ABOVE GRADE.
2. GROUNDED ELECTRIC SUPPLY SHALL BE A MINIMUM OF 6" ABOVE BOTTOM OF RELIEF VALVE AND STUBBED TO THE OUTSIDE.
3. NO STOP AND WASTE VALVES.
4. FREEZE PROOF INSULATED BOX AND 1 SOURCE OF HEAT ARE REQUIRED. 2 SOURCES OF HEAT ARE STRONGLY RECOMMENDED.
5. INSULATED BOX SHALL SWING CLEAR OF ASSEMBLY TO PROVIDE CLEARANCES SHOWN IN PLAN VIEW OR INSULATED BOX SHALL BE SIZED TO PROVIDE CLEARANCES SHOWN IN PLAN VIEW.
6. SPRING LOADED LID REQUIRED ON LARGE BOXES.
7. CALL LOCAL BUILDING AND/OR FIRE DEPARTMENTS FOR DEPTH AND TYPE OF PIPE TO BE USED.
8. INSPECTION BY TMWA WATER QUALITY/BACKFLOW PROTECTION PERSONNEL REQUIRED BEFORE METER IS SET OR SERVICE IS ACTIVATED.
9. TESTING OF BACKFLOW ASSEMBLY REQUIRED WITHIN 7–10 DAYS AFTER METER IS SET OR SERVICE ACTIVATION. COPY OF TEST RESULTS TO BE FORWARDED TO TMWA WATER QUALITY/BACKFLOW PROTECTION PERSONNEL BY A CERTIFIED ASSEMBLY TESTER.

TYPICAL INSTALLATION STANDARDS FOR USC APPROVED ASSEMBLIES
COMMERCIAL, INDUSTRIAL, OR MULTI-TENANT DOMESTIC USE
EXTERNAL - HORIZONTAL.
REDUCED PRESSURE PRINCIPLE ASSEMBLY

APPENDIX 10A BACKFLOW PREVENTION ASSEMBLIES COMMERCIAL, INDUSTRIAL, OR MULTI-TENANT DOMESTIC USE REDUCED PRESSURE PRINCIPAL ASSEMBLIES EXTERNAL-HORIZONTAL	DRAWING NUMBER 10A-7

APPENDIX 10K WATER METERS COMMERCIAL INSTALLATION 1-1/2" SINGLE SERVICE WITH 1-1/2" SETTER, METER, AND E.R.T. WITHIN 17 X 30 ENCLOSURE	DRAWING NUMBER 10K-15

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 Ret.	Size	Type	Main/Svc
# of Meter boxes Inst./Size:			
# of Setters Inst./Size:			

H:\GREATER–NEVADA–CREDIT–UNION\TMWAW–1.DWG

WORK ORDER NO. 05–1945–1
DESIGNED ODYSSEY ENGINEERING INC.
DRAWN S.B.
DATE 11/28/05
CHECKED J.W.
SUBMITTED
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER AUTHORITY
1155 CORPORATE BLVD / PO BOX 30013
RENO, NEVADA 89502–3013
PH 775–834–8000 / FX 775–834–8003

LOS ALTOS-COM-SMITH
WATER SERVICES

SHEET NUMBER
W-1
1 OF 2