BOARD OF SUPERVISORS

ROBERT CROWELL MAYOR BRAD BONKOWSKI SUPERVISOR JIM SHIRK SUPERVISOR JOHN MCKENNA SUPERVISOR SUPERVISOR KAREN ABOWD CITY CLERK ALAN GLOVER

OWNER

CARSON CITY PUBLIC WORKS 3505 Butti Way Carson City, NV 89701 Phone (775) 283-7584 Fax (775) 887-2112

CARSON CITY MAINTENANCE FACILITY EXPANSION Carson City, Nevada

DEFERRED SUBMITTALS: METAL BUILDING FIRE SPRINKLER SYSTEM FIRE ALARM SYSTEM

Conformed Set

SHEET

COVER

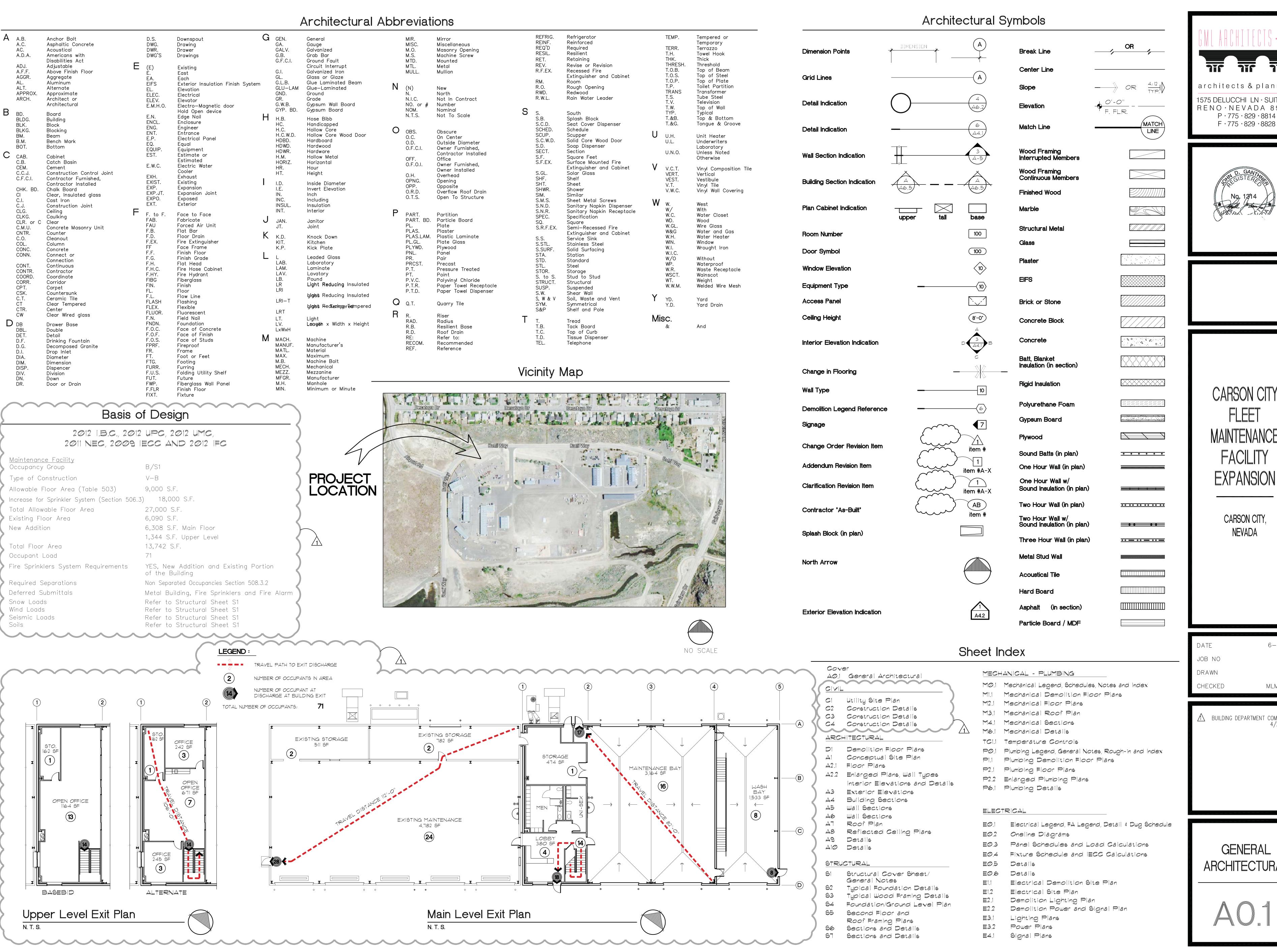
HYYTINEN ENGINEERING structural engineers AINSWORTH & ASSOCIATES mechanical engineers

> PK ELECTRICAL electrical engineers

architects & planners

1575 DELUCCHI LN·SUITE 120

P·775·829·8814 F·775·829·8828





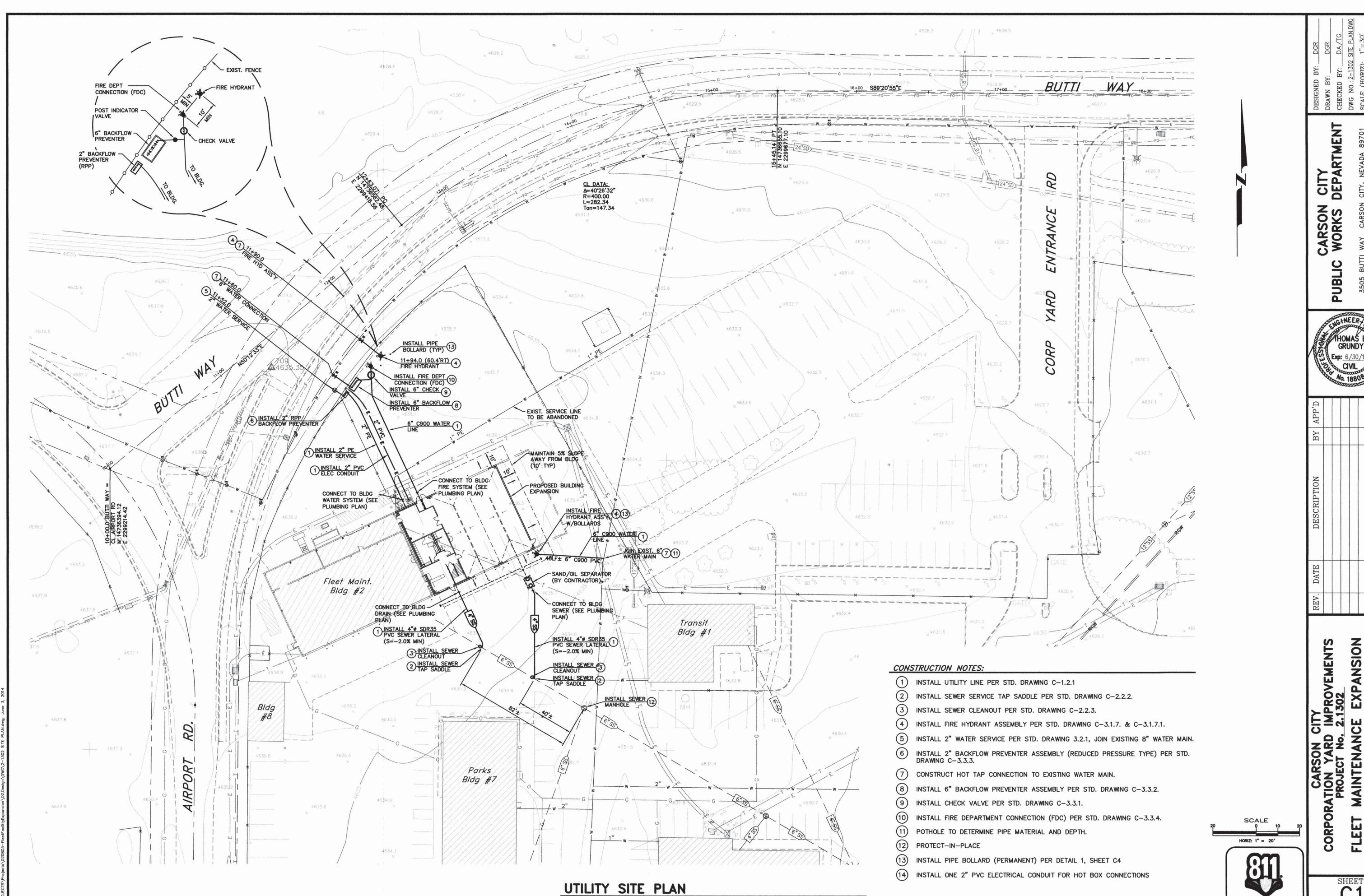


CARSON CITY FLEET MAINTENANCE **FACILITY EXPANSION**

6-2-14 MLM/JDG

⚠ BUILDING DEPARTMENT COMMENTS

GENERAL ARCHITECTURAL



TYPICAL TRENCH SECTION

- WATER DENSIFIED BACKFILL AND TUNNELING SHALL BE BY SPECIAL PROVISION ONLY.
- BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF CLASS E BACKFILL AS SPECIFIED IN SUBSECTION 200.03.06 OF THE SSPWC. MATERIAL SHALL BE PLACED IN LIFT THICKNESS SPECIFIED IN SUBSECTION 305.10 OF THE SSPWC AND DENSIFIED TO 90% RELATIVE COMPACTION.
- BEDDING SHALL CONFORM TO THE REQUIREMENTS OF CLASS A BACKFILL AS SPECIFIED IN SUBSECTION 200.03.02 OF THE SSPWC. MATERIAL SHALL BE DENSIFIED TO 90% RELATIVE COMPACTION.
- PLANS SHALL INCLUDE A DETAIL FOR SUBGRADE STABILIZATION INCLUDING BACKFILL MATERIAL, STRUCTURAL GEOTEXTILE FILTER FABRIC AND MODIFIED CUTOFF COLLARS WHEN POTENTIAL FOR UNSTABLE SUBGRADES
- EXIST, SUBJECT TO THE APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR. FOR TRENCHES IN ROADWAY SECTION, SEE PAVEMENT PATCH DETAIL (DWG. No. C-5.1.6).
- FOR THE PURPOSE OF PAYMENT; EXCAVATION AND BACKFILL QUANTITIES ARE BASED ON THESE STANDARD DRAWINGS, AND NO ADDITIONAL COMPENSATION WILL BE MADE. SHORING OR SLOPED CUT SLOPES MAY BE NECESSARY, BUT THERE WILL BE NO ADDITIONAL PAYMENT. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.

(SEE

SECTION A-A

- PLACE NON METALLIC WARNING TAPE 1 FOOT ABOVE ALL BURIED PIPES AND CONDUITS.
- TRACER WIRE SHALL BE 12 GAUGE (MINIMUM THICKNESS) INSULATED SOLID COPPER OR COPPER-CLAD STEEL CORE WIRE. INSULATION SHALL BE 30 MIL HDPE. PLANS SHALL SPECIFY WIRE STRENGTH AND INSULATION THICKNESS FOR BORING APPLICATIONS. SPLICES SHALL BE CONNECTED BY WIRE NUTS, SEALED WITH AQUA SEAL OR SILICON FILLED, AND DOUBLE WRAPPED WITH U/L LISTED ELECTRICAL TAPE. TRACER WIRE COLOR SHALL BE, BLUE FOR WATER, PURPLE FOR RECLAIMED WATER, AND GREEN FOR SEWER.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
		1	TRENCH EXCAVATION	DRAWING NO.
				C-1.2.1 (3
APPROV	ED BY:	7/09	AND BACKFILL	7/2009

GREEN TRACER WIRE (AND

ANODE IF REQUIRED) (SEE

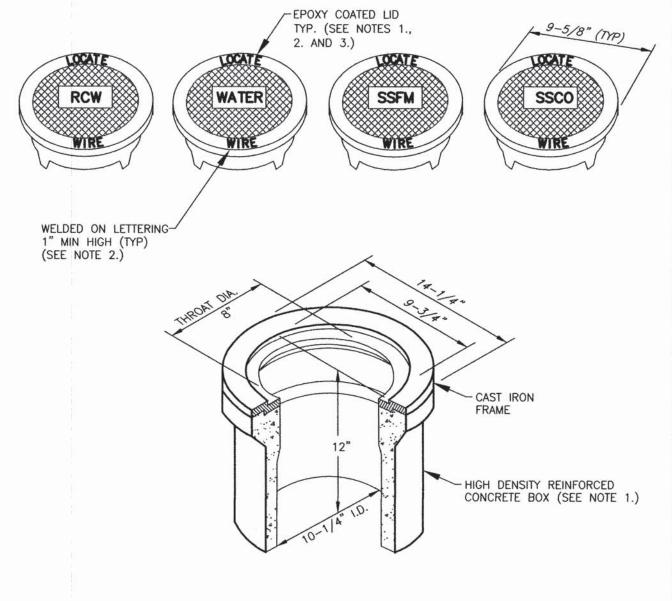
EXISTING

SEWER MAIN

SHALL IT MATCH THE FLOWLINE OF THE PIPE.

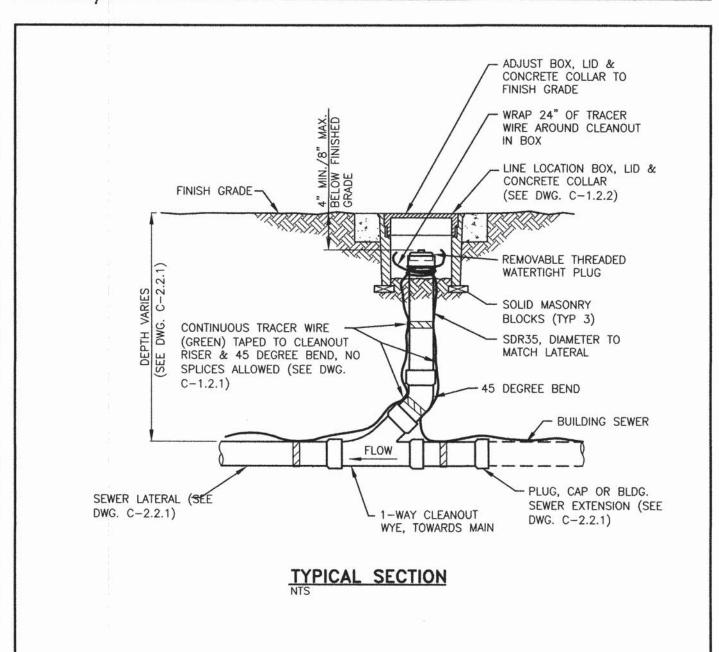
APPROVED BY:

DWGS. C-1.2.1 & C-2.2.1



- 1. BOX AND LID SHALL BE TRAFFIC RATED WITH A MINIMUM INSIDE DIAMETER OF 10 INCHES (CHRISTY G3 TRAFFIC VALVE BOX & LID).
- 2. CAST IRON LID SHALL BE MARKED AT THE FACTORY "LOCATE WIRE", AND "WATER" FOR WATER APPLICATIONS, "RCW" FOR RECLAIMED WATER APPLICATIONS, "SSFM" FOR SANITARY SEWER FORCE MAIN APPLICATIONS, AND "SSCO" FOR SANITARY SEWER CLEANOUT APPLICATIONS.
- 3. CAST IRON LID SHALL BE EPOXY COATED AT THE FACTORY, OR POWDER COATED, COLOR SHALL BE BLUE FOR WATER APPLICATIONS, PURPLE FOR RECLAIMED WATER APPLICATIONS AND GREEN FOR
- 4. BOX SHALL BE SET OR ADJUSTED TO GRADE PER DRAWING NO. C-3.1.4, RISER FOR ADJUSTED BOX SHALL BE PER DRAWING NO. C-3.1.4 FOR OVERLAY ADJUSTMENTS, RISER WILL NOT REQUIRE REPLACEMENT OR EXTENSION IF IT EXTENDS A MINIMUM OF 2 INCHES INTO ADJUSTED BOX.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
		-	LINE LOCATION	DRAWING NO.
			BOX & LID	C-1.2.2 (306,
APPROV	ED BY: .	7/09	טטא מ בוט	7/2009



NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
		1		CARSON CITY
			SEWER CLEANOUT	DRAWING NO. C-2.2.3 (203,30
APPROV	ED BY:	07/09	OZWZW OZZAWOO!	DATE 7/2009

1. WATER MAIN SHUTDOWNS/INTERRUPTION OF WATER/FIRE SERVICE; OBTAIN TENTATIVE APPROVAL FROM CARSON CITY WATER UTILITY PRIOR TO PLANNING A SHUTDOWN. APPROVAL IS REQUIRED ONE WORKING DAY PRIOR TO NOTIFICATION OF CUSTOMERS. COMMERCIAL CUSTOMERS SHALL RECEIVE 2 WORKING DAYS WRITTEN AND VERBAL NOTICE OF A SHUTDOWN. SPECIAL ARRANGEMENTS INCLUDING NIGHT TIME SHUTDOWNS MAY BE REQUIRED OF THE CONTRACTOR TO ACCOMMODATE CUSTOMER OPERATIONS. RESIDENTIAL CUSTOMERS SHALL RECEIVE 24 HOURS WRITTEN NOTICE. WHEN WORK IS PERFORMED BY CITY STAFF, THE CITY IS RESPONSIBLE FOR THE NOTIFICATION. THE CONTRACTOR IS RESPONSIBLE IN ALL OTHER CASES. A LIST SHALL BE KEPT BY THE RESPONSIBLE PARTY LISTING THE DATE, TIME AND ADDRESS OF ALL PERSONS NOTIFIED. THE PERSON NOTIFIED SHALL BE INCLUDED ON THE LIST FOR ALL COMMERCIAL CUSTOMERS. CONTACT CARSON CITY WATER UTILITY FOR PHONE NUMBERS WHEN COMMERCIAL CUSTOMERS CANNOT BE LOCATED. THE CONTRACTOR WILL BE SUBJECT TO DAMAGE CLAIMS SHOULD THEY FAIL TO NOTIFY CUSTOMERS OR MAINTAIN DOCUMENTATION OF NOTIFICATION OF CUSTOMERS. THE TOTAL TIME OF ANY WATER SERVICE INTERRUPTION IS LIMITED TO 4 HOURS MAXIMUM. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING WATER VALVES. WATER MAIN SHUTDOWNS WILL ONLY BE SCHEDULED FOR TUESDAYS, WEDNESDAYS, OR THURSDAYS, EXCLUDING THE WORKING DAYS BEFORE AND AFTER A HOLIDAY. CONTRACTOR SHALL MAKE A WRITTEN

SEWER GENERAL NOTES

DRAWING NO

7/2009

C-2.1.1 (204, 306, 323)

APPROVED BY:

MATERIAL SPECIFICATIONS

SHELL: 304 STAINLESS STEEL

LUGS: 304 STAINLESS STEEL

WORKING PRESSURE.

GRADE 65-45-12.

BOLTS, WASHERS AND NUTS: NC ROLLED THREAD

GASKETS: VIRGIN SBR COMPOUNDED FOR WATER

FLANGE: 304 STAINLESS STEEL OR HIGH TENSILE

DUCTILE (NODULAR) IRON, ASTM A536-80,

FULL GASKET. 360° PIPE COVERAGE 150 PSI MIN.

304 STAINLESS STEEL, 5/8" DIAMETER.

SERVICE. ASTM D2000-80MA 4AA607

NO. | REVISION | DATE | STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION | SECTION

1. ALL SEWER MAINS AND LATERALS IN THE RIGHT-OF-WAY/EASEMENT SHALL BE PVC SDR35

3. THE CONTRACTOR SHALL INSTALL A PLUG AT THE POINT OF EXTENSION OF A SEWER MAIN

4. SEWER LINES SHALL BE TESTED PER SECTION 336.03.07 OF THE SSPWC AS ADOPTED BY

PER SECTION 336.03.09 OF THE CARSON CITY AMENDMENT TO THE SSPWC SHALL BE

MARKING TAPE SHALL BE INSTALLED 12 INCHES ABOVE ALL SEWER MAINS AND LATERALS.

HAVE BEEN INSPECTED, TESTED, CLEANED AND FLUSHED. REMOVAL OF THE PLUG BY THE

2. NON-FLEXIBLE TRANSITION COUPLINGS ARE REQUIRED WHEN CONNECTING NEW SEWER LINES TO

PRIOR TO THE START OF CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL ALL LINES

CONTRACTOR PRIOR TO APPROVAL IS A VIOLATION OF THE CARSON CITY MUNICIPAL CODE AND

CARSON CITY. AN AIR PRESSURE TEST PER SECTION 336.03.07.04 AND A DEFLECTION TEST

TAPE WIDTH SHALL BE 3 INCHES; THICKNESS SHALL BE FOUR 4 MIL OR GREATER AND SHALL

BE GREEN AND BEAR LARGE PRINTING DENOTING "CAUTION BURIED SEWER LINE BELOW" OR

6. TRACER WIRE SHALL BE ATTACHED TO ANY SEWER LATERAL WHICH IS NOT PERPENDICULAR TO

UNLESS OTHERWISE NOTED.

EXISTING LINES AND/OR FITTINGS, SEE DWG. C-2.1.6.

MAY RESULT IN FINES UP TO \$1,000 A DAY.

PERFORMED ON ALL SEWER LINES.

THE SEWER MAIN. SEE DWG C-2.2.1

EQUIVALENT WORDING.

APPROVED BY:

07/09

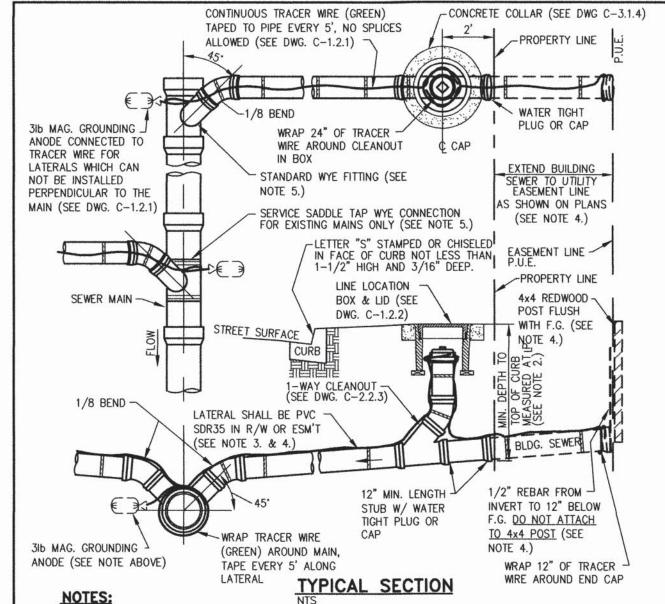
PLANNED SHUTDOWN.

2. WATER MAINS (6 INCH THRU 12 INCH) SHALL BE PVC C900, DR 18 (MINIMUM WALL THICKNESS) UNLESS HIGHER PRESSURE IS SPECIFIED ON THE PLANS. WATER SERVICES 2 INCHES OR LESS SHALL BE CTS, PE TUBING MINIMUM 200 PSI; WATER SERVICES 3 INCHES OR GREATER SHALL BE 4 INCH MINIMUM DIAMETER PVC C900, DR 18 OR AS SPECIFIED ON THE PLANS.

REQUEST, TO THE WATER OPERATIONS CHIEF, A MINIMUM OF 10 CALENDAR DAYS IN ADVANCE OF ANY

- MAINTAIN 18 INCHES VERTICAL AND 5 FEET HORIZONTAL SEPARATION BETWEEN ALL UNDERGROUND UTILITY LINES AND WATER LINES. IF WATER LINE IS BELOW POWER LINE OR IS WITHIN 18 INCH VERTICAL SEPARATION OF POWER LINE, POWER/TELEPHONE LINE SHALL BE ENCASED WITH 4 INCHES MINIMUM OF CONCRETE EXTENDING 5 FEET EACH SIDE OF CROSSING. (SEE NV ENERGY SPECS.) CONCRETE ENCASEMENT OF WATER LINES IS NOT ALLOWED.
- 4. ALL HOT TAPS, GREATER THAN 2 INCHES AND LESS THAN 14 INCHES, ARE TO BE PERFORMED BY CARSON CITY WATER UTILITY. THE CONTRACTOR SHALL CONTACT THE WATER OPERATIONS CHIEF AT LEAST 2 WORKING DAYS PRIOR TO SCHEDULING HOT TAP DATE AND TIME (HOT TAPS ARE PERFORMED TUESDAY THRU THURSDAY EXCLUDING THE WORKING DAYS BEFORE AND AFTER A HOLIDAY). PRIOR TO HOT TAPPING, THE SADDLE SHALL BE HYDROSTATICALLY PRESSURE TESTED TO 150 PSI MINIMUM OR THE DESIGN OF PIPE SYSTEM FOR A MINIMUM OF 5 MINUTES. THE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE WATER UTILITY PERSONNEL PRIOR TO PERFORMING THE TAP.
- 5. WATER VALVE MARKERS SHALL BE BLUE CARSONITE UTILITY MARKER (CUM-375), 5 FEET-2 INCHES (5'-2") WITH CARSON CITY WATER VALVE DECAL (CWV-116) OR APPROVED EQUAL. PLACE MARKER NO MORE THAN 5 FEET FROM THE VALVE OR AS DIRECTED BY THE CARSON CITY INSPECTOR.
- 6. REDUCED PRESSURE PRINCIPLE AND DOUBLE CHECK VALVE BACKFLOW ASSEMBLIES SHALL BE APPROVED BY THE CARSON CITY INSPECTOR, AND TESTED BY A CERTIFIED BACKFLOW ASSEMBLY TESTER, AND TEST RESULTS SHALL BE APPROVED BY CARSON CITY WATER UTILITY. FOR NEW WATER METER SETS, THE REQUIRED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED, INSPECTED, APPROVED AND CERTIFIED TEST RESULTS PROVIDED TO THE CARSON CITY INSPECTOR WITHIN 5 DAYS OF METER SET, UNLESS THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR APPROVES OTHERWISE. THE SERVICE WILL BE LOCKED OFF IF INSPECTIONS AND CERTIFICATIONS ARE NOT COMPLETED AS SPECIFIED ABOVE. A 25 DOLLAR FEE WILL BE ASSESSED AT TIME OF TURN-ON WHEN LOCK IS REMOVED DURING NORMAL WORKING HOURS. THE FEE WILL BE ASSESSED ON THE BUILDING PERMIT FOR THE INSTALLATION OF THE BACKFLOW DEVICE.
- 7. ALL WATER MAIN, WATER/FIRE SERVICE, AND BACKFLOW PREVENTION INSPECTIONS AND TESTING MUST BE APPROVED PRIOR TO APPROVAL OF ANY CERTIFICATE OF OCCUPANCY.
- 8. DISINFECTION TABLETS SHALL BE PLACED USING TITEBOND MULTI-PURPOSE CLEAR 100%% SILICONE OR APPROVED EQUAL FOOD GRADE SILICONE

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
1200				CARSON CITY
			WATER	DRAWING NO. C-3.1.1 (307)
APPROV	ED BY:	07/09	GENERAL NOTES	DATE 7/2009



1. IN NO CASE SHALL A LATERAL CONNECT TO THE SEWER MAIN DIRECTLY ON TOP OR MATCH THE FLOWLINE OF THE PIPE.

2. SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 2%. PLANS SHALL INDICATE INVERT ELEV. REQUIRED TO SERVE PROPERTY AND CLEAR UNDERGROUND OBSTRUCTIONS.

3. ALL JOINTS ON SEWER LATERAL PIPE WITHIN THE RIGHT-OF-WAY SHALL BE COMPRESSION TYPE. C900 PVC MAY BE SUBSTITUTED FOR SDR35 TO MEET NDEP BSDW SEPARATIONS.

4. LATERAL SHALL BE PERPENDICULAR TO THE MAIN AND EXTEND TO PROPERTY LINE. WHEN SHOWN ON PLANS TO INSTALL BUILDING SEWER PRIOR TO PUBLIC UTILITIES, INSTALLATION OF BUILDING SEWER IS EXTENDED TO UTILITY EASEMENT LINE AND STANDARD WATERTIGHT PLUG OR CAP, REDWOOD POST AND REBAR SHALL BE INSTALLED AT EASEMENT LINE.

5. USE OF SEWER SERVICE TAP SADDLE CONNECTIONS SHALL NOT BE ALLOWED FOR NEW SEWER MAIN CONSTRUCTION. WHEN A TAP SADDLE CONNECTION IS TO BE USED ON AN EXISTING SEWER MAIN, IT SHALL BE A WYE SADDLE AND BE INSTALLED PER DWG. C-2.2.2.

DISCONTINUANCE OF USE OF AN EXISTING SEWER LATERAL REQUIRES ABANDONMENT OF THE LATERAL. CUT, REMOVE 1 FOOT OF EXISTING LATERAL AND CAP BOTH ENDS OF THE EXISTING SEWER LATERAL TO BE ABANDONED WITHIN 6 INCHES OF THE SEWER MAIN. INSPECTION BY CARSON CITY SEWER UTILITY IS REQUIRED

7. PROPERTY OWNER SHALL BE RESPONSIBLE FOR OPERATION, MAINTENANCE AND REPAIR OF THE SEWER LATERAL WITHIN THE PUBLIC RIGHT-OF-WAY PER CCMC 12.05.050.5.

NO. | REVISION | DATE | STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION | SECTION SEWER LATERAL

CARSON CITY DRAWING NO 7/2009

RSON CITY

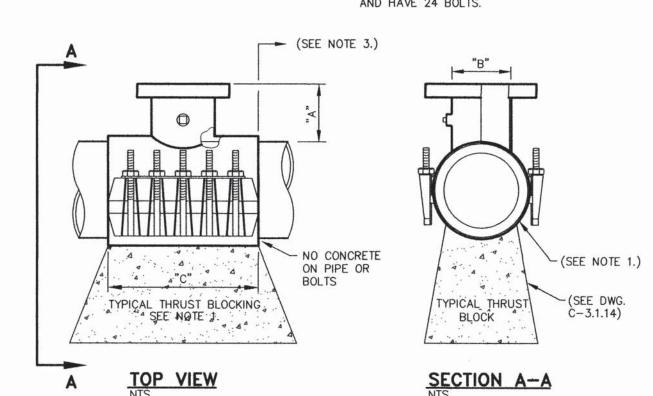
3.1.3 (203,307)

7/2009

9-1/32" 11-1/32"

*TAPPING SLEEVES IN THE 24" NOMINAL PIPE SIZE RANGE WITH 6" OR 8" FLANGES ARE 24" LONG (C-DIMENSION) AND HAVE 24" BOLTS. **TAPPING SLEEVES IN THE 12" & 14" NOMINAL PIPE SIZE RANGE W/ 12" FLANGE ARE 24" LONG

13-1/32"



- 1. MATERIAL USED FOR THRUST BLOCKING SHALL NOT PREVENT ACCESS TO THE BOLT ASSEMBLY. POTABLE WATER HOT TAPS GREATER THAN 2 INCHES AND LESS THAN 14 INCHES SHALL BE
- PERFORMED BY CARSON CITY WATER UTILITY.
- MINIMUM DISTANCE BETWEEN TAP SADDLE, COLLARS, JOINTS, SERVICE TAPS, ETC. SHALL BE 18 INCHES
- 4. SADDLE TO BE HYDROSTATICALLY PRESSURE TESTED BY THE CONTRACTOR, TO 150 PSI (MIN.) FOR A MINIMUM OF 5 MINUTES, WITNESSED BY CARSON CITY WATER UTILITY, PRIOR TO PERFORMING TAP.
- 5. REFERENCE "WATER GENERAL NOTES" DWG. C-3.1.1, FOR HOT-TAP SCHEDULING INFORMATION.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	
			TAPPING SLEEVE	0 0
APPROV	ED BY:	07/09		

Sio EXP CARSON CI RATION YARD II PROJECT No. 2 MAINTENANCE

OW

CAR

THOMAS

GRUNDY

----- OF---

SEWER LATERAL PIPE RUBBER GASKET SEAL & FITTINGS, 4" MIN. (SEE DWG. C-2.2.1) - PVC SEWER WYE SERVICE SADDLE (SEE NOTE 2.) - RUBBER GASKET SEAL, SEAL TO MAIN 1/4" MAX. ALL AROUND – € EXISTING SEWER MAIN SIDE VIEW

EXISTING SEWER MAINS SHALL BE CORE DRILLED UTILIZING A DRILL GUIDE FOR A WYE SADDLE AND A CORE DRILL WITH A LENGTH EXCEEDING THE LATERAL DIAMETER, INSERT-A-DRILL IDY75 & EXTRA LONG HOLE SAW OR APPROVED EQUAL. DIAMOND CORE BITS SHALL BE USED ON NON-PVC MAINS. SERVICE TAP SADDLES SHALL BE PVC SEWER WYE SADDLES. A ROMAC STYLE "CB" SEWER SADDLE OR /1

APPROVED EQUAL MAY BE USED ON EXISTING SEWER MAINS ONLY WHEN MAIN IS NOT PVC. SADDLES SHALL BE INSTALLED AT 45 DEGREES TO MAIN AS SHOWN IN SECTION A-A. IN NO CASE SHALL A LATERAL CONNECTING TO THE EXISTING SEWER MAIN BE LOCATED DIRECTLY ON TOP OF THE PIPE, NOR

NO.	REVISION	DATE	STANDARD	DETAIL	FOR	PUBLIC	WORKS	CONSTRUCTION	SECTION
入	NOTE 2	7/12		CEV		D C	EDV	IOF	CARSON

DRAWING NO. SEMFK SFKAICE -2.2.2 (203,306) TAP SADDLE 7/2009

- SEWER LATERAL

PVC SEWER WYE

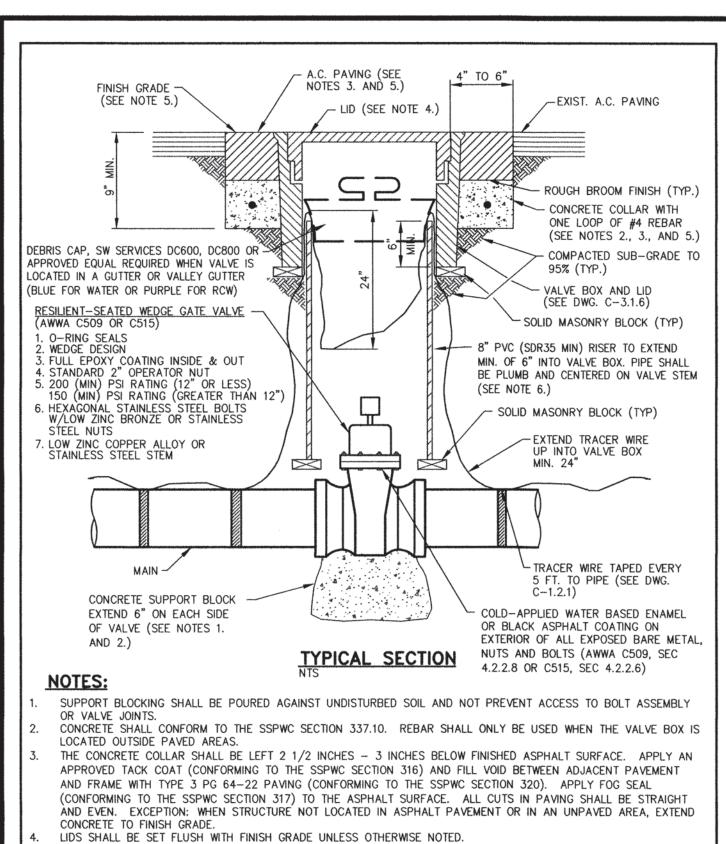
(SEE NOTE 2.)

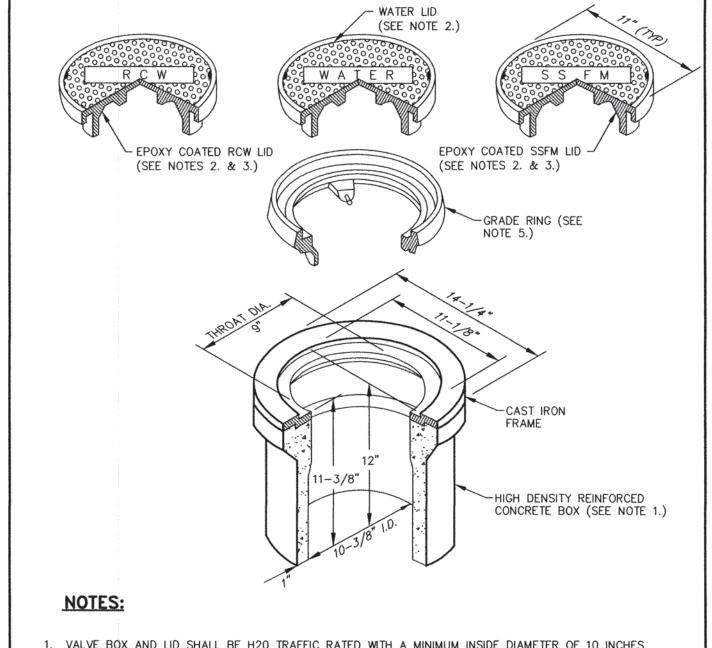
- CORE DRILL UTILIZING DRILL

GUIDE (SEE NOTE 1.)

SERVICE TAP SADDLE

(SEE DWG. C-2.2.1)

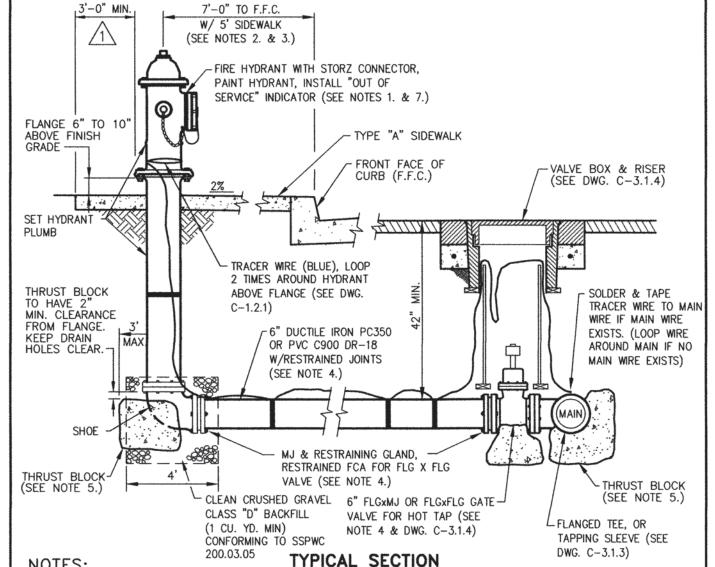




- 1. VALVE BOX AND LID SHALL BE H20 TRAFFIC RATED WITH A MINIMUM INSIDE DIAMETER OF 10 INCHES (CHRISTY G5 TRAFFIC VALVE BOX & LID).
- 2. CAST IRON LID SHALL BE MARKED AT THE FACTORY "WATER" FOR WATER APPLICATIONS, "RECLAIMED WATER" OR "RCW" FOR RECLAIMED WATER APPLICATIONS, AND "SS FORCE MAIN" OR "SSFM" FOR SANITARY SEWER APPLICATIONS.
- 3. FOR RECLAIMED WATER AND SANITARY SEWER APPLICATIONS, CAST IRON LID SHALL BE EPOXY COATED AT THE FACTORY, OR POWDER COATED, COLOR SHALL BE PURPLE FOR RECLAIMED WATER APPLICATIONS AND
- GREEN FOR SANITARY SEWER APPLICATIONS. 4. VALVE BOX SHALL BE SET OR ADJUSTED TO GRADE PER DRAWING NO. C-3.1.4, RISER FOR ADJUSTED VALVE BOX SHALL BE PER DRAWING NO. C-3.1.4. FOR OVERLAY ADJUSTMENTS, RISER WILL NOT REQUIRE
- REPLACEMENT OR EXTENSION IF IT EXTENDS A MINIMUM OF 2 INCHES INTO ADJUSTED VALVE BOX.

5.	GRADE F	RING I	S NO	T ALLOW	ED FO	R NEW	VALVE	BOX	INST	ALLATI	ONS.	CAST	IRON	GRADE	RING	(CHRISTY
	GRADE F										OVE	RLAY	DEPTH	EQUAL	S THE	GRADE
	DEPTH.	NO MO	DRE 1	HAN ON	E GRA	DE RIN	G ALLC	OWED	PER	BOX.						

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CI
			VALVE BOX & LID	DRAWING NO C-3.1.6 (2
	10	-	William Dox of Lib	DATE
APPROV	ED BY:	07/09		7/200

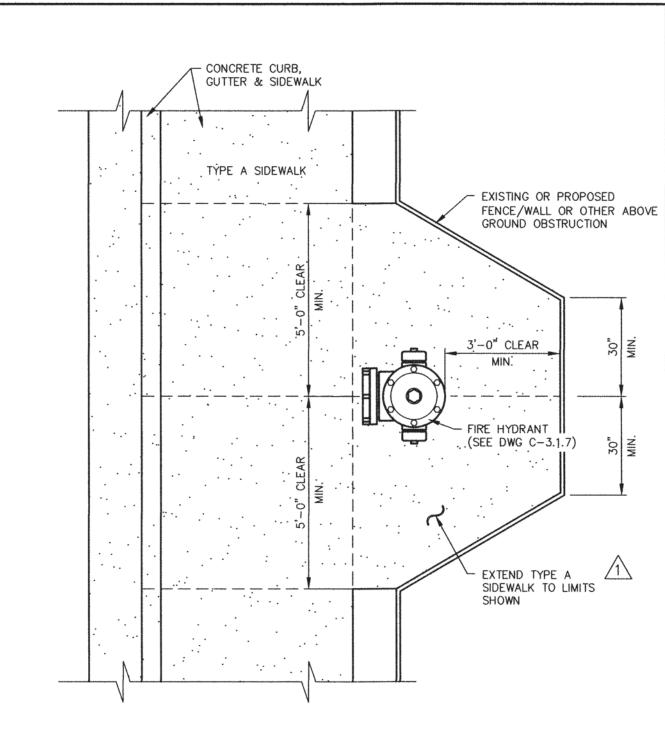


FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION 250 OR WATEROUS 5 1/4 INCH PACER (WB-67-250). ALL HYDRANTS SHALL HAVE HARRINGTON HIHS 5 INCH INTEGRAL HYDRANT STORZ, OR APPROVED EQUAL, WITH BLIND CAP & CABLE AND "OUT OF SERVICE" INDICATOR. OPERATING NUT SHALL BE 1-1/2 INCH PENTAGON. VALVE OPENING SHALL BE 5-1/4 INCHES AND OPEN COUNTER-CLOCKWISE. HYDRANTS SHALL HAVE (2) 2-1/2 INCH HOSE NOZZLES WITH AMERICAN NATIONAL HOSE COUPLING THREADS, (NO SUBSTITUTIONS). HYDRANT SHALL BE INSTALLED SO AS TO PROVIDE CLEARANCE IN ALL DIRECTIONS PER DWG. C-3.1.7.1.

- FOR 9 FEET-0 INCHES OR WIDER SIDEWALK OR OFFSET SIDEWALK, HYDRANT SHALL BE 2 FEET-0 INCHES TO FRONT FACE OF CURB. IF SIDEWALK IS NOT PRESENT, HYDRANT SHALL BE LOCATED 7 FEET-0 INCHES TO FRONT FACE OF CURB, EXCEPT IN DOWNTOWN AREA. RESTRAINING GLANDS SHALL BE ROMAC GRIPRING PIPE RESTRAINER FOR MECHANICAL JOINT VALVES OR ROMAC RESTRAINED FCA FOR FLANGED VALVES OR APPROVED EQUAL. PIPE RESTRAINT SHALL BE ROMAC "600" SERIES RESTRAINING SYSTEM
- OR APPROVED EQUAL. RESTRAINING DEVICES SHALL BE FULL CIRCLE (NON POINT) LOADING TYPE. HYDRANT SHOE MAY BE AQUAGRIP, RESTRAINED MECHANICAL JOINT (MJ) OR APPROVED EQUAL. THRUST BLOCKS SHALL HAVE THREE (3) SQUARE FEET MINIMUM AREA AND SHALL BE FORMED AGAINST UNDISTURBED NATIVE OR BACKFILL COMPACTED TO 95%, AND CONFORM TO DWG. C-3.1.14. NO CONCRETE ON HYDRANT DRAIN HOLES OR BOLTS.

INSPECTION BY THE CARSON CITY INSPECTOR SHALL BE REQUIRED PRIOR TO BACKFILLING. HYDRANTS SHALL BE PAINTED INTERNATIONAL ORANGE (RUST-OLEUM 7400 HIGH GLOSS ALKYD ENAMEL OR APPROVED EQUAL). DO NOT PAINT 5 INCH STORZ, CAP OR CABLE. RECLAIMED WATER HYDRANTS SHALL BE PAINTED PURPLE. INSTALL "OUT OF SERVICE" INDICATOR COLLAR ON 2-1/2 INCH NOZZLE. INDICATOR SHALL BE HIGHLY VISIBLE, YELLOW WITH BLACK LETTERS, 2-1/2 INCH MINIMUM WIDTH WITH 1 INCH LETTERS STATING "OUT OF SERVICE". INDICATOR SHALL BE "CALPICO" OR EQUAL

	APPROVED BY TH	E CARS	ON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.	
NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
1	REVISED CONC.	11/13		CARSON CITY
	CMITS		FIRE HYDRANT	DRAWING NO.
			ASSEMBLY	C-3.1.7 (203,30
APPRO\	/ED BY: DBS	11/13	ASSEMBLI	7/2009

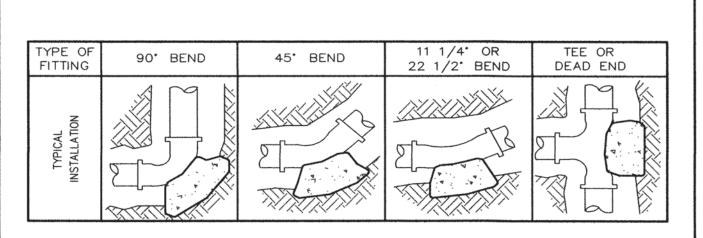




1. SEE DWG. C-3.1.7 FOR FIRE HYDRANT INSTALLATION.

2. INSTALL OR RELOCATE EXISTING FENCE/WALL/LANDSCAPING/MISC IMPROVEMENTS ETC. TO PROVIDE THE MINIMUM CLEARANCE AROUND THE HYDRANT AS SHOWN.

REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
REVISED CONC.	11/13		CARSON CITY
		FIRE HYDRANT SETBACK	DRAWING NO.
		FENCE CLEARANCE	DATE
FD RY: DE	11/17	/ FEITUE ULEARANUE	7/2000



WHEN LOCATED IN NDOT RIGHT-OF-WAY, CONCRETE COLLAR SHALL CONFORM TO NDOT STANDARD PLAN SHT

VALVES ON FIRE LINES SHALL BE UL/FM APPROVED AND MEET ALL APPLICABLE NFPA REQUIREMENTS. NO. REVISION DATE STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION SECTION

RISER COLOR SHALL BE BLUE, OR SAME COLOR AS MAIN FOR WATER APPLICATIONS, PURPLE FOR RECLAIMED WATER

GATE VALVE

CARSON CITY DRAWING NO.

2-3.1.4 (203,307)

7/2009

R-4.3.3 AND STANDARD SPECIFICATION 609.

APPROVED BY:

APPLICATIONS, AND GREEN FOR SANITARY SEWER APPLICATIONS.

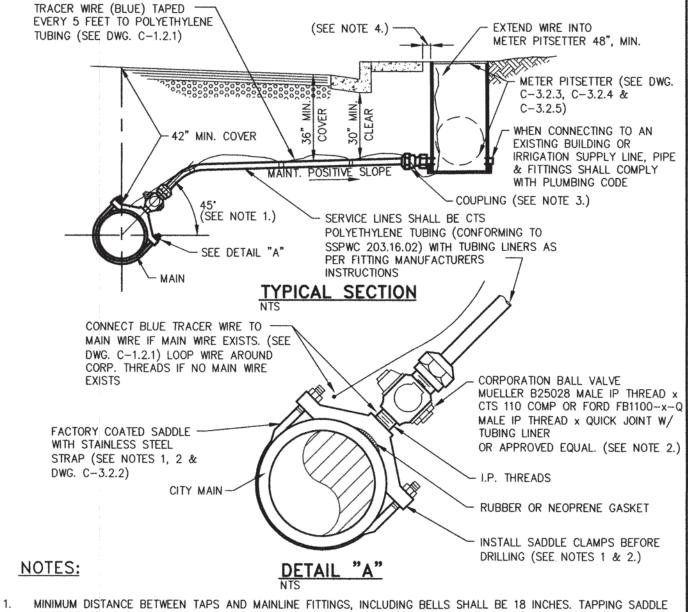
		THRUST	BLOCK BE	EARING ARE	EA (SQ. FT.	.)	
	E OF TING	90° BEND	45* BEND	11 1/4° OR 22 1/2° BEND	TEE OR DEAD END	TEE W/PLUG	CROSS W/PLUG
	4"	2	1	1	2	2	2
PIPE	6"	4	4	2	4	4	4
ā	8"	7	4	2	5	7	7
P.O.	10"	12	6	3	8	12	12
Ш	12"	16	10	5	12	16	16
SIZE	14"	20	12	6	14	20	20
, , , , , , , , , , , , , , , , , , ,	16"	27	15	8	18	27	27
	18"	45	25	13	32	45	45
	24"	65	35	18	46	65	65

TYPE OF FITTING	CROSS W/PLUG	TEE W/PLUG
TYPICAL INSTALLATION		

NOTES:

- THRUST BLOCKS TO BE CONSTRUCTED OF CONCRETE CONFORMING TO 337.10 OF THE SSPWC AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI @ 28 DAYS.
- AREAS GIVEN ARE FOR CLASS 150 PIPE AT WORKING AND TESTING PRESSURE OF 150 P.S.I., WITH 2000 P.S.F. BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/OR SOIL TYPES SHOULD HAVE AREAS ADJUSTED ACCORDINGLY, SUBJECT TO THE APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
- THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.

	4. JOINTS	, FLANG	ES, NUTS, BOLTS AND FACE OF PLUG SHALL BE KEPT CLEAR OF CONCRE	TE.
Э.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
			THRUST BLOCKS	DRAWING NO. C-3.1.14
ROV	/ED BY:	07/09	TITICOST BEOOKS	DATE 7/2009



MUST BE AT 45 DEGREE ANGLE, EXCEPTIONS MUST BE APPROVED BY CARSON CITY WATER UTILITY.

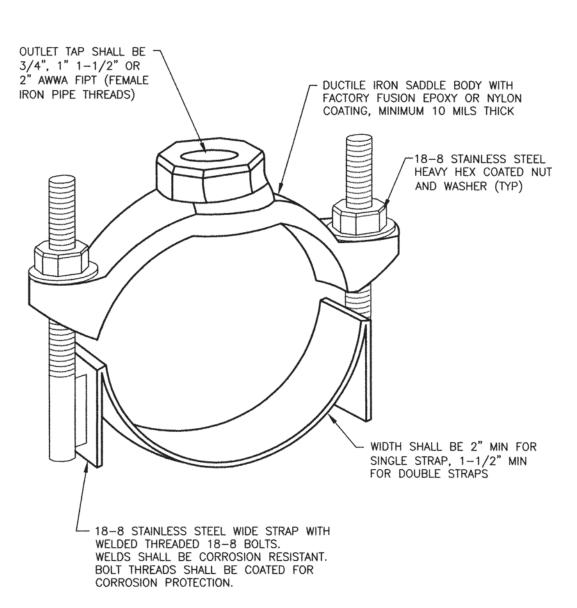
CORPORATION VALVES AND SERVICE SADDLES SHALL CONFORM TO AWWA C800 AND BE NO LESS THAN THE SERVICE LINE SIZE. WHEN REPLACING AN EXISTING SERVICE LINE AND A SIZE LARGER THAN SHOWN IS ENCOUNTERED, THE LARGER SIZE LINE, FITTINGS AND SADDLE SHALL BE INSTALLED UNLESS APPROVED BY CARSON CITY WATER UTILITY.

COUPLING FITTING SHALL CONFORM TO AWWA C800 AND BE A MUELLER H-15451 CTS 110 COMP OR FORD C14-xx-Q QUICK JOINT W/ TUBING LINER x FEMALE IP THREAD OR APPROVED EQUAL.

METER PITSETTERS TO BE PLACED 4 INCHES FROM BACK OF SIDEWALK IN AREAS WHERE SIDEWALK IS ADJACENT TO CURB, OR 6 INCHES FROM BACK OF CURB IN AREAS WHERE SIDEWALK IS OFFSET FROM CURB, OR AS DIRECTED BY CARSON CITY WATER UTILITY. IN AREAS WHERE NO CURB OR SIDEWALK IS PRESENT, METER PITSETTERS SHALL BE PLACED WITHIN THE RIGHT-OF-WAY AS SHOWN ON THE APPROVED PLANS.

DISCONTINUANCE OF USE OF A SERVICE REQUIRES ABANDONMENT OF THE SERVICE. NOTIFY CARSON CITY PUBLIC WORKS FOR METER REMOVAL PRIOR TO PROCEEDING WITH ABANDONMENT. REMOVE EXISTING METER BOX AND EXPOSE CORP STOP AT MAIN FOR SHUT-OFF. ALL PIPING OR TUBING SHALL BE DISCONNECTED FROM CORP AND PLUGGED AT BOTH ENDS. CARSON CITY PUBLIC WORKS SHALL BE NOTIFIED FOR INSPECTION OF CORP ASSEMBLY PRIOR TO BACKFILLING.

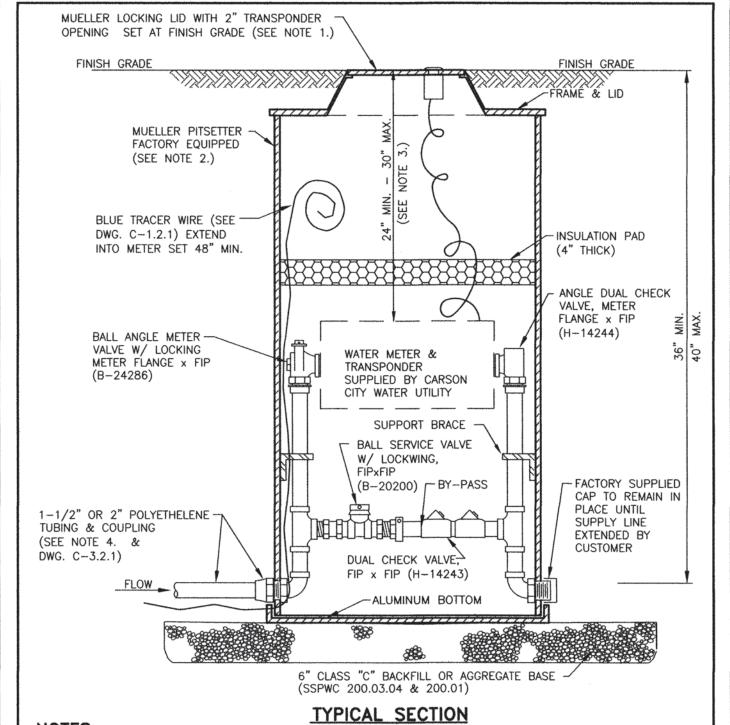
NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION	ı
			_ /	CARSON CITY	ı
			3/4" TO 2" WATER SERVICE	DRAWING NO. C-3.2.1 (203,307)	
APPROV	ED BY:	07/09	WATER SERVICE	7/2009	
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SERVICE SADDLE DETAIL

- SERVICE SADDLES FOR 3/4 INCH, 1 INCH, 1-1/2 INCH & 2 INCH TAPS SHALL CONFORM TO AWWA C800 WITH A MINIMUM WORKING PRESSURE OF 150 PSI, UNLESS A HIGHER PRESSURE IS SPECIFIED, AND BE MANUFACTURED BY FORD, MUELLER, ROMAC, SMITH-BLAIR OR APPROVED EQUAL. (SEE DWG. C-3.2.1 FOR ADDITIONAL NOTES AND DETAILS.) POTABLE SERVICE SADDLES SHALL BE IN COMPLIANCE WITH NSF61.
- 2. SERVICE SADDLES SHALL BE FACTORY COATED DUCTILE IRON (ASTM A395 OR A536) WITH TYPE 18-8 STAINLESS STEEL (304 OR 304L) STRAP(S), BOLTS, NUTS, & WASHERS. ALL STAINLESS STEEL SHALL BE FULLY PASSIVATED.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
		1	3/4" TO 2"	DRAWING NO. C-3.2.2 (203, 307)
APPROV	ÆD BY:	07/09	SERVICE SADDLE	DATE 7/2009
		NO. REVISION APPROVED BY:		3/4" TO 2" SERVICE SADDLE



- MUELLER 18 INCH LOCKING LID (PART No. TRPL-780113) AND 27 INCH x 18 INCH FRAME.
- MUELLER EZ-VAULT METER SETTER-RIGID PVC, FACTORY EQUIPPED AS SHOWN, CONFORMING TO AWWA C800. WATER METER SHALL BE NO MORE THAN 30 INCHES FROM TOP OF LID AND NOT LESS THAN 24 INCHES FROM
- A 2 INCH METER SET REQUIRES A 2 INCH MINIMUM SERVICE LINE.

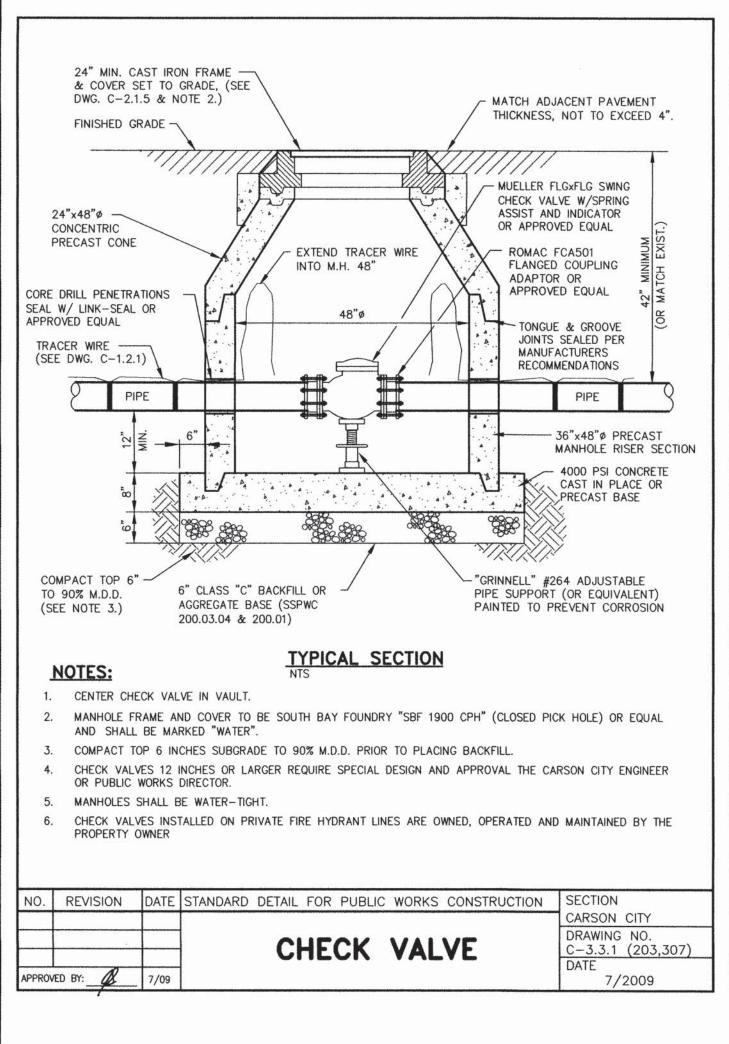
	NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				. 44.00	CARSON CITY
, 307)				1 1/2"-2"	DRAWING NO. C-3.2.5 (203,307)
, 307)				PIT SETTER	DATE (200,307)
	APPROV	ED BY:	7/09	FII SEITER	7/2009

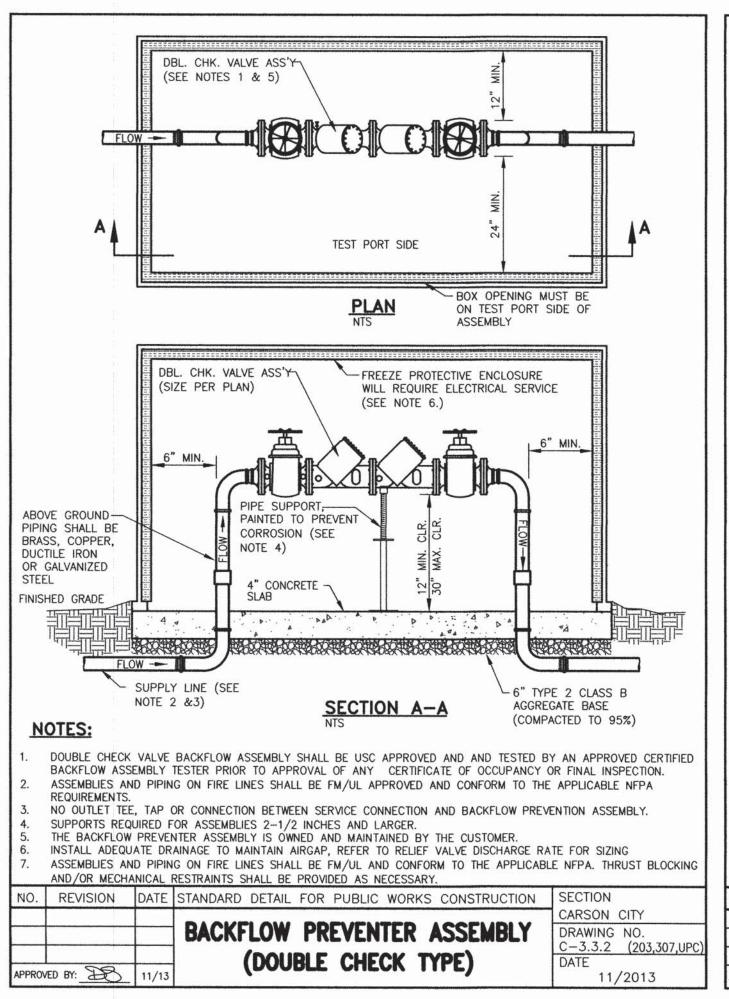
SIO EXPAN RATION YARD II
PROJECT No. 2
MAINTENANCE

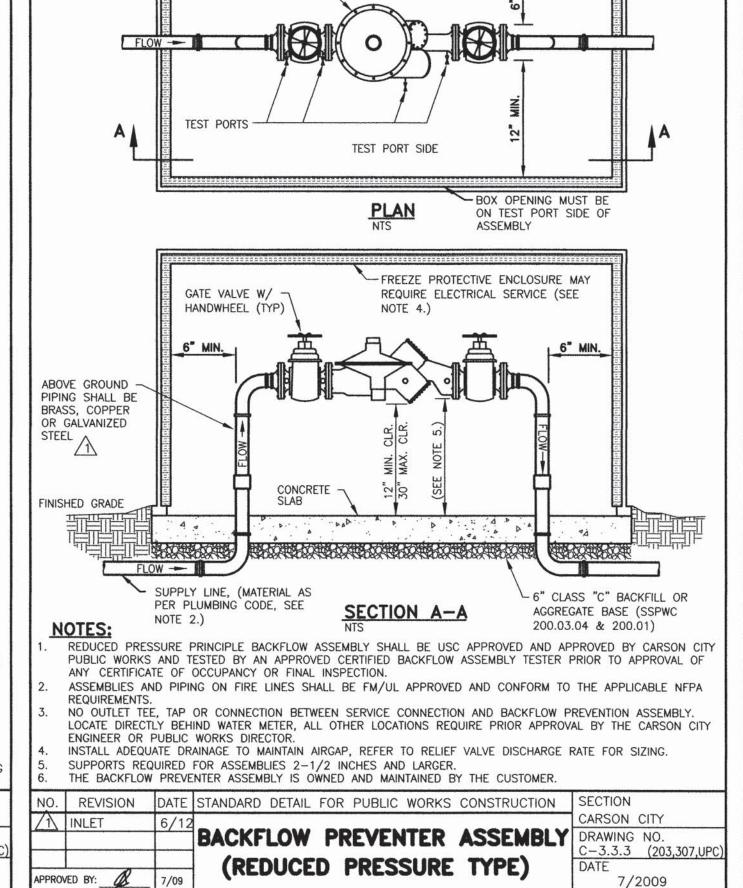
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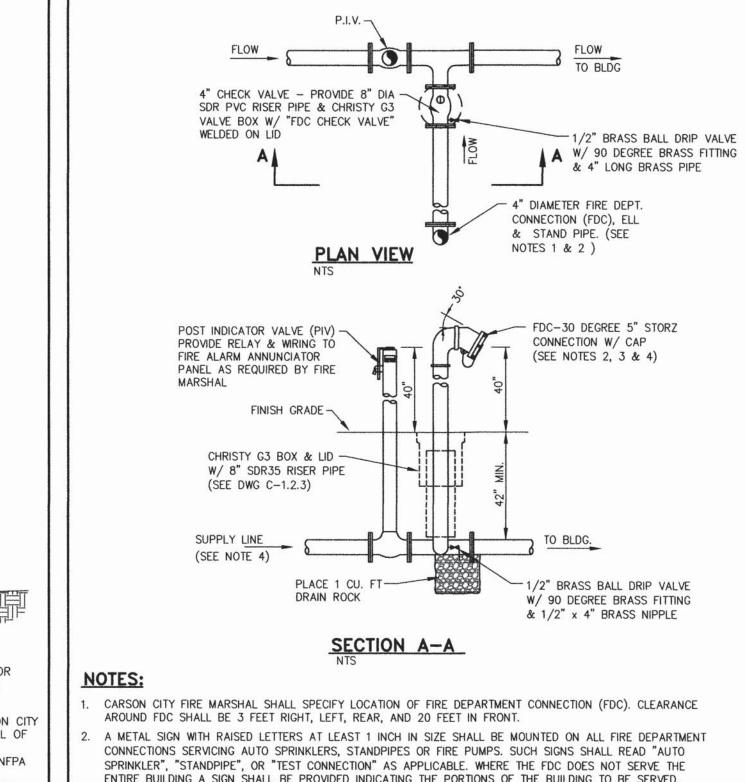
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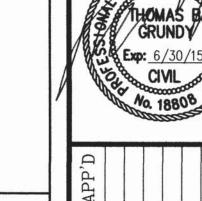






REDUCED PRESSURE PRINCIPAL BACK FLOW PREVENTER ASSEMBLY





RTM

CT

CARSON

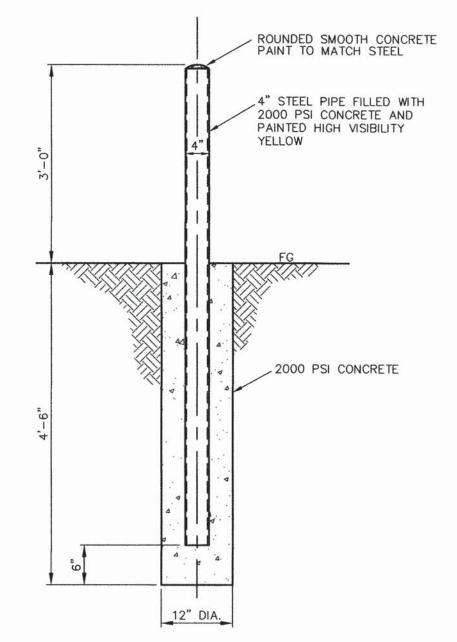
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ENTIRE BUILDING A SIGN SHALL BE PROVIDED INDICATING THE PORTIONS OF THE BUILDING TO BE SERVED.

FIRE PROTECTION FACILITIES ARE OWNED AND MAINTAINED BY THE CUSTOMER.

ASSEMBLIES AND PIPING ON FIRE LINES SHALL BE FM/UL AND CONFORM TO THE APPLICABLE NFPA. THRUST BLOCKING AND/OR MECHANICAL RESTRAINTS SHALL BE PROVIDED AS NECESSARY.

		POST INDICATOR VALVE AND FIRE DEPT. CONNECTION	DRAWING NO. C-3.3.4 (203, 2
NO.	REVISION	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	CARSON CITY





EXPANSION ETAILS CORPORATION Y