

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.06.01 AND 2.06.02.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE No. 27.

ALL SEWER/STORM DRAINS CROSSINGS WATER LINES MUST CONFORM TO SECTION 2.19 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVMD.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

EASEMENT SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING IMPROVEMENTS UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

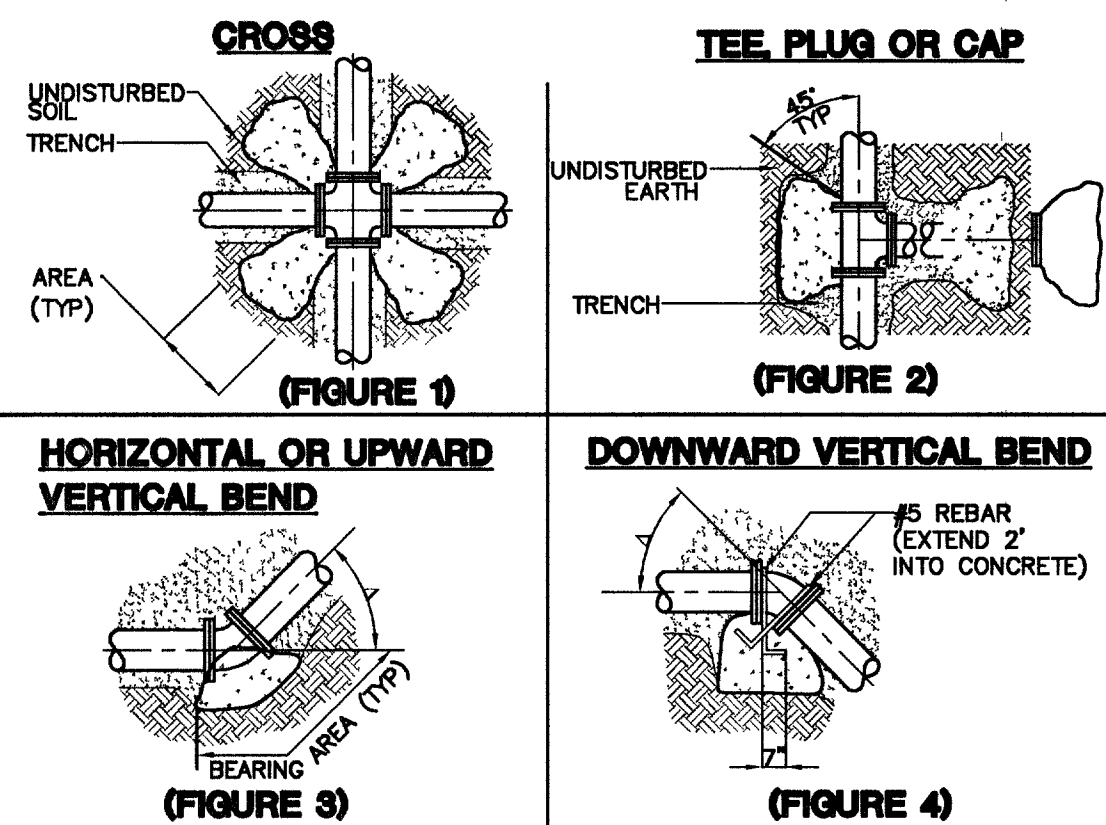
PRIVATE STREETS AND PRIVATE DRIVES
ARE P.U.E.S C.L.V. PUBLIC SEWER EASEMENTS, AND PUBLIC
DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

LOTS: 1-8, 12-15, 22, 23, 38-45, 50-105 121-133 & 135-137

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVWDD FACILITIES.

		BEARING AREA IN SQ FT					CONC/CU YDS		
PIPE ID	FIGURE	FIGURE 3, Δ					FIGURE 4, Δ		
	1	2	90°	45°	22½°	11½°	45°	22½°	11½°
4"	2	2	2	1	1	1	1.0	0.5	0.5
6"	2	3	4	2	1	1	1.5	1.0	0.5
8"	3	5	7	4	2	1	3.0	1.5	1.0
10"	4	8	10	6	3	2	4.5	2.5	1.5
12"	5	11	16	8	4	2	6.5	3.0	1.5

N.T.S. USD PLATE NO. 5 PL11-1



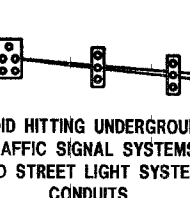
N.T.S.

Avoid overhead power
line contact. It's costly

Call
before you
Overhead
1-702-227-2929

Avoid cutting underground
utility lines. It's costly

Call
before you
Dig
1-800-227-2600



**AVOID HITTING UNDERGROUND
TRAFFIC SIGNAL SYSTEMS
AND STREET LIGHT SYSTEM
CONDUITS
IT'S COSTLY
CALL BEFORE
YOU GO
UNDERGROUND**

Call
before you

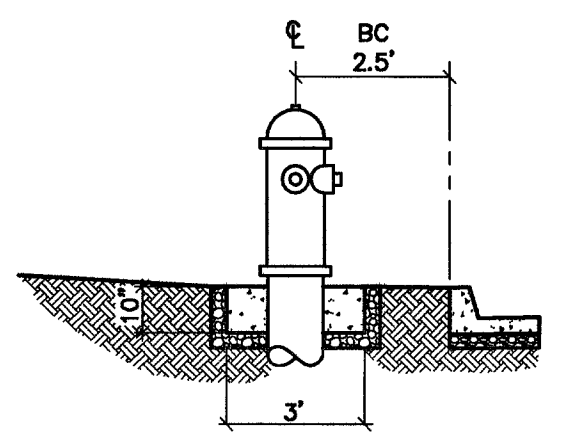
Underground

1-702-455-7511

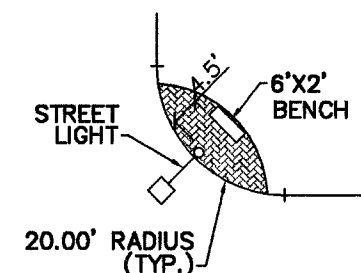
**CLARK COUNTY TRAFFIC OPERATIONS
AND**

1-702-223-6611

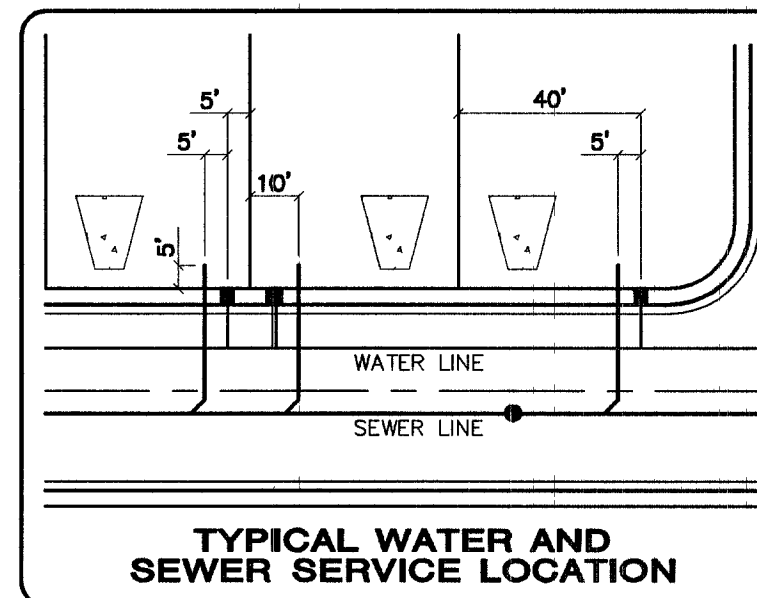
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM



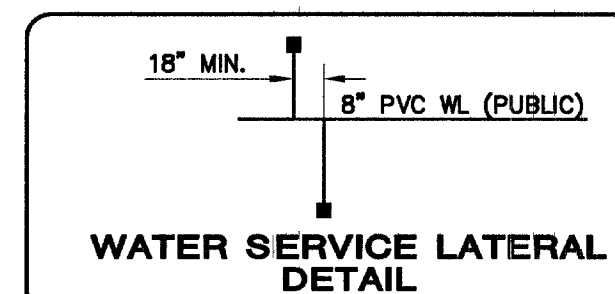
FIRE HYDRANT DETAIL
(PRIVATE STREET) N.T.S.



TYPICAL STREET LIGHT LOCATION DETAIL
N.T.S.



TYPICAL WATER AND SEWER SERVICE LOCATION



**LAS VEGAS VALLEY WATER DISTRICT
(LVVWD) STANDARD NOTES**

DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV888)
CITY OF LAS VEGAS BENCHMARK: 8LV99:13SES
NAV888 ELEVATION: 869.608 METERS (2853.03 FEET)
RIVET AND PLATE IN CONCRETE CYLINDER NW CORNER OF HUALAPAI AND ELKHORN
NOTE: WHEN THE SURVEYING FOR THIS PROJECT BEGAN, THE ABOVE REFERENCED
BENCHMARK 8LV99:13SES WAS NOT PUBLISHED. THE DATA FOR THIS DATUM FOR
THIS PROJECT IS SHOWN ON RECORD OF SURVEY FILE 124 PAGE 94, CLARK
COUNTY BENCHMARK 1C00-860, WHICH AT THE TIME OF THE ORIGINAL SURVEY
WAS THE CURRENT 2011 BENCHMARK. THE PUBLISHED BENCHMARK HAD AN
ELEVATION OF 2584.61 FEET TO CONVERT THE CURRENT CITY OF LAS
VEGAS BENCHMARK 8LV99:13SES TO MATCH THE ORIGINAL PROJECT DATUM, 0.34'
NEEDS TO BE ADDED TO THE ELEVATION OF 2584.61 FEET.

THE BASIS OF BEARINGS FOR THIS PROJECT IS NORTH 00°08'16" EAST BEING THE EAST LINE OF THE NORTHWEST QUARTER (NE 1/4) OF THE SECTION 24, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE IN FILE 123 AT PAGE 32.

SANITARY SEWER MANHOLE SCHEDULE					
SSMH #	NORTHING	EASTING	TMSH	INV. IN	INV. OUT
1 T-LOCK					
2	26812994.1158	731236.3391	2983.8±	2969.55	2969.35
2	26812991.2353	731185.9905	2987.7±	2973.80	2973.60
3	26812613.3776	731136.4781	2991.3±	2981.31	2981.11
4	26812605.9271	730745.6771	3000.6±	2993.60	2993.40
5	26812739.0975	730780.9337	3002.3±	N/A	2993.30
6	26812688.0875	731316.7651	2986.6±	2981.60	2981.40
7	26812765.0605	731148.0411	2990.1±	2983.10	2982.90
8	26812812.4643	731147.0580	2990.9±	2983.30	2983.70
9	26812807.8637	730815.2701	3000.5±	2993.20	2993.00
10	26812780.8148	730789.1891	3000.5±	2994.50	2994.30
11	26812870.0618	730686.1704	3008.9±	2990.00	2989.90
12	26812868.1100	730567.3490	3012.2±	3003.67	3003.47
13	26812817.3558	730490.1893	3012.3±	3004.34	3004.14
14	26812756.2114	730463.2053	3011.8±	3004.80	3004.60
15	26812996.8189	730467.0530	3014.6±	3007.60	3007.40
16	26812587.9121	730353.4291	3011.5±	3004.58	3004.38
17	26812510.2432	730135.6531	3012.8±	N/A	3005.10
18 T-LOCK					
18	26812791.2011	730363.0951	3015.8±	3005.51	3005.31
19	26812786.4273	730132.4340	3025.1±	3019.46	3019.26
20	26812907.2871	730153.7632	3026.4±	N/A	3020.20
21	26813010.7339	730114.8128	2994.8±	2987.85	2987.65
22	26813010.2181	730126.4393	3006.4±	2988.58	2988.38
23	26813011.7786	730900.2963	3000.6±	2993.60	2993.40
24	26813076.4344	730692.0894	3008.8±	3001.80	3001.60
25	26813076.4344	730541.0213	3013.9±	3006.90	3006.70
26	26812997.5004	730305.2191	3013.8±	3014.80	3014.60
28A	26812997.5810	730178.2613	3025.0±	3018.20	3018.00
28B	26812998.3621	730170.7291	3025.0±	3018.20	3018.00
27A	26812998.3659	730139.6646	3025.9±	3018.90	3018.70
28	26813096.0122	731017.2438	3029.5±	N/A	2998.37

LVVWD PROJECT # 111525

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT #IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2003 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS).
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSING SHALL CONFORM TO SECTION 2.19 OF THE 2003 EDITION OF THE UDACS.
9. ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
10. THE CONTRACTOR MUST OBTAIN ALL METER TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURER'S LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT 1-800-227-2600.

WATER PUBLIC

WATER		PUBLIC
①	FIRE HYDRANT ASSEMBLY (INCLUDES 8"x6" GATE VALVE PER UDACS PLT. 7)	12 EA.
②	6" GATE VALVE PER UDACS PLT. 3	1 EA.
③	6" TEE PER UDACS PLT. 5	0 EA.
④	8"x6" TEE PER UDACS PLT. 5	2 EA.
⑤	8"x 8" GROSS PER UDACS PLT. 5	3 EA.
⑥	6" 90° ELBOW PER UDACS PLT. 5	2 EA.
⑦	6" GATE VALVE PER UDACS PLTS. 3 & 8	21 EA.
⑧	6" TEE PER UDACS PLT. 5	9 EA.
⑨	CAP ONLY	1 EA.
⑩	CAP W/ 2" B.O PER UDACS PLT. 4A	8 EA.
⑪	8" 90° BEND PER UDACS PLT. 5	0 EA.
⑫	4"x5" BEND PER UDACS PLT. 5	13 EA.
⑬	8"-22 1/2" BEND PER UDACS PLT. 5	8 EA.
⑭	8"-11 1/4" BEND PER UDACS PLT. 5	26 EA.
⑮	8" 5" BEND RESTRAINING BOTH ENDS	2 EA.
⑯	6"-22 1/2" BEND PER UDACS PLT. 3	2 EA.
⑰	8"x6" REDUCER PER UDACS PLT. 3	2 EA.
⑱	1" IRRIGATION METER PER UDACS PLATE 1-0 W/1" RPPA PER UDACS PLATE 11-A	1 EA.
1B	W/ 3/4" METER (UDACS PLATE 1B)	136 EA.
EWV	BACK WATER VALVE (PRIVATE)	60 EA.
	6" WATER MAIN (PUBLIC)	291.67 LF.
	8" WATER MAIN (PUBLIC)	5,300.61 LF.
	8" WATER MAIN D.I.P. (PUBLIC)	48.40 LF.
SEWER		PUBLIC
●	STANDARD MANHOLE (PUBLIC)	30 EA.
④	4" SEWER LATERALS (PRIVATE)	3,589.43 LF.
④	4" SEWER WYES (PUBLIC)	136 EA.
④	8" SEWER MAIN (PUBLIC)	4,248.97 LF.

AVERAGE DAILY FLOW = 0.034 MGD
PEAK FLOW = 0.119 MGD

 DRIVEWAY LOCATION
(SCHEMATIC ONLY)

 POINT OF CONNECTION (UTILITIES)

NTS

1. CONCRETE COLLARS TO BE CLASS "A" CONCRETE PER SECTION 501.03.04 OF "UNIFORM STANDARD SPECIFICATION, CLARK COUNTY AREA, NEVADA."
2. INSTALL ONE #3 REBAR ALL AROUND IF REQUIRED BY THE APPLICABLE UTILITY OR AGENCY.
3. CONCRETE COLLARS SHALL BE INSTALLED TO MIN. DIMENSIONS SHOWN HEREON UNLESS OTHERWISE DELINEATED BY STANDARDS DICTATED BY THE APPLICABLE UTILITY OR AGENCY.
4. BASE AND BACKFILL WITHIN THE "COMPACTION ZONE" DELINEATED HEREON SHALL BE COMPACTED TO THE SAME STANDARD ON-SITE MATERIALS COMPACTED TO 95% MAXIMUM RELATIVE DENSITY.

LAS VEGAS VALLEY WATER DISTRICT (PROJECT #111525) DATE 5/30/01

CITY OF LAS VEGAS FIRE MARSHAL DATE 10/18/05

NEVADA POWER COMPANY DATE 10/19/05

FIRE FLOW REQUIREMENT IS 1500 GALLONS PER MINUTE
AT 20 psi RESIDUAL PRESSURE

BASED ON:

SQUARE FOOTAGE: 3600 SQ. FT.

LARGEST AREA BETWEEN
4-HOUR AREA SEPARATION
WALLS: 3600 SQ. FT.

BUILDING HEIGHT: - FEET

NUMBER OF STORIES: 2

TYPE OF CONSTRUCTION: V-NR

OCCUPANCY: SFR

FULL AUTOMATIC FIRE
SPRINKLER SYSTEM N/A

REVIEWED BY: [Signature]

DATE: 1/16/2015

CITY OF LAS VEGAS

KIMBALL HILL
8 SUNSET WAY, SUITE 101
HENDERSON, NEVADA 89014

**UTILITY
NOTES AND DETAILS SHEET**

DRAWN BY: _____ 10/05

DESIGNED BY: _____ 10/05

PROFESSIONAL ENGINEER - STATE OF NEVADA

CHRISTOPHER E. GRUBBS
No. 13956
CIVIL

EXPIRES
06-30-07

10/5/05

SHEET
UT7
10 OF 52 SHEETS
DRAWING NO.
107-44888-1

84629 Nm 92264