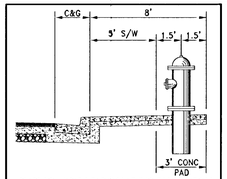
DISCLAIMER NOTE:

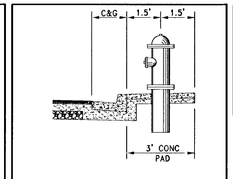
UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

Avoid overhead power line contact. It's costly.
Call before you Overhead
1-702-227-2929
Nevada Power Environment and Safety Services Department

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
or
1-800-227-2600
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-7544



PUBLIC FIRE HYDRANT INSTALLATION
WITH SIDEWALK PER UDACS PLT 40



PUBLIC FIRE HYDRANT INSTALLATION
WITHOUT SIDEWALK PER UDACS PLT 40

NOTES:

1. ADJUST WATER VALVE BOXES TO FINISH GRADE PER UDACS PLATE NO. 39. VALVES SHALL BE ACCESSIBLE AT ALL TIMES.
2. ALL SEWER/STORM DRAINS CROSSING WATERLINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSING AND CLEARANCES.
3. ALL WATER PIPE DIMENSIONS SHOWN ARE GIVEN FROM FITTING TO FITTING AND ARE FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.

FIRE FLOW INFORMATION

TYPE OF CONSTRUCTION:	V-B
TOTAL LIVING AREA:	< 4,800 S.F.
TOTAL SF UNDER ROOF:	< 4,800 S.F.
NUMBER OF STORIES:	2
BUILDING USE:	SINGLE FAMILY RESIDENTIAL
SPRINKLERED:	NO
NUMBER OF FIRE HYDRANTS:	7
FIRE FLOW:	1750 GPM AT 20 PSI RESIDUAL

BACKWATER VALVE
(BWV) ALL LOTS WITH THIS SYMBOL REQUIRE A BACKWATER VALVE

PRESSURE REDUCING VALVE
[PRV] ALL LOTS WITH THIS SYMBOL REQUIRE A PRESSURE REDUCING VALVE

EXISTING UTILITY NOTE:

1. EXISTING UTILITIES AS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY BOTH VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. ENGINEER ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN INCORRECTLY OR OTHERWISE NOT SHOWN.

WATER MAIN JOINT DEFLECTION (PVC 4'-24')

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 2.07.01 AND 2.07.02

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

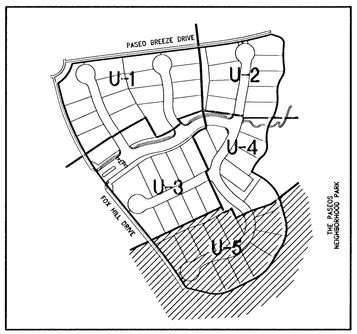
NOTE:
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15

WATER NOTE FOR ALL LOTS

1. THIS PROJECT RESIDES WITHIN THE 3550 WATER ZONE. THEREFORE ALL LOTS WITH A FINISH FLOOR ELEVATION LESS THAN 3565.39 WILL REQUIRE AN INDIVIDUAL, ON SITE (PRIVATE) PRESSURE REDUCING VALVE.
2. THIS PROPERTY HAS 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 LVVWD FACILITIES.

ABANDONED VALVES CUT AND CAP

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX, AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE, THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LAST TWO THOUSAND (2,000) PSI. THE LATERAL MUST BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE CONTRACTOR SHALL CUT THE EXISTING PIPE WHERE SHOWN ON THE DRAWING AND INSTALL A CAP COMPLETE WITH THRUST BLOCK. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATIONS, THE INSTALLATION OF A PLUG MAY BE PERMITTED WITH DISTRICT APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CAP OR PLUG LOCATIONS IN ACCORDANCE WITH THE PROVISIONS OF UDACS PLATE 31.



BENCHMARK

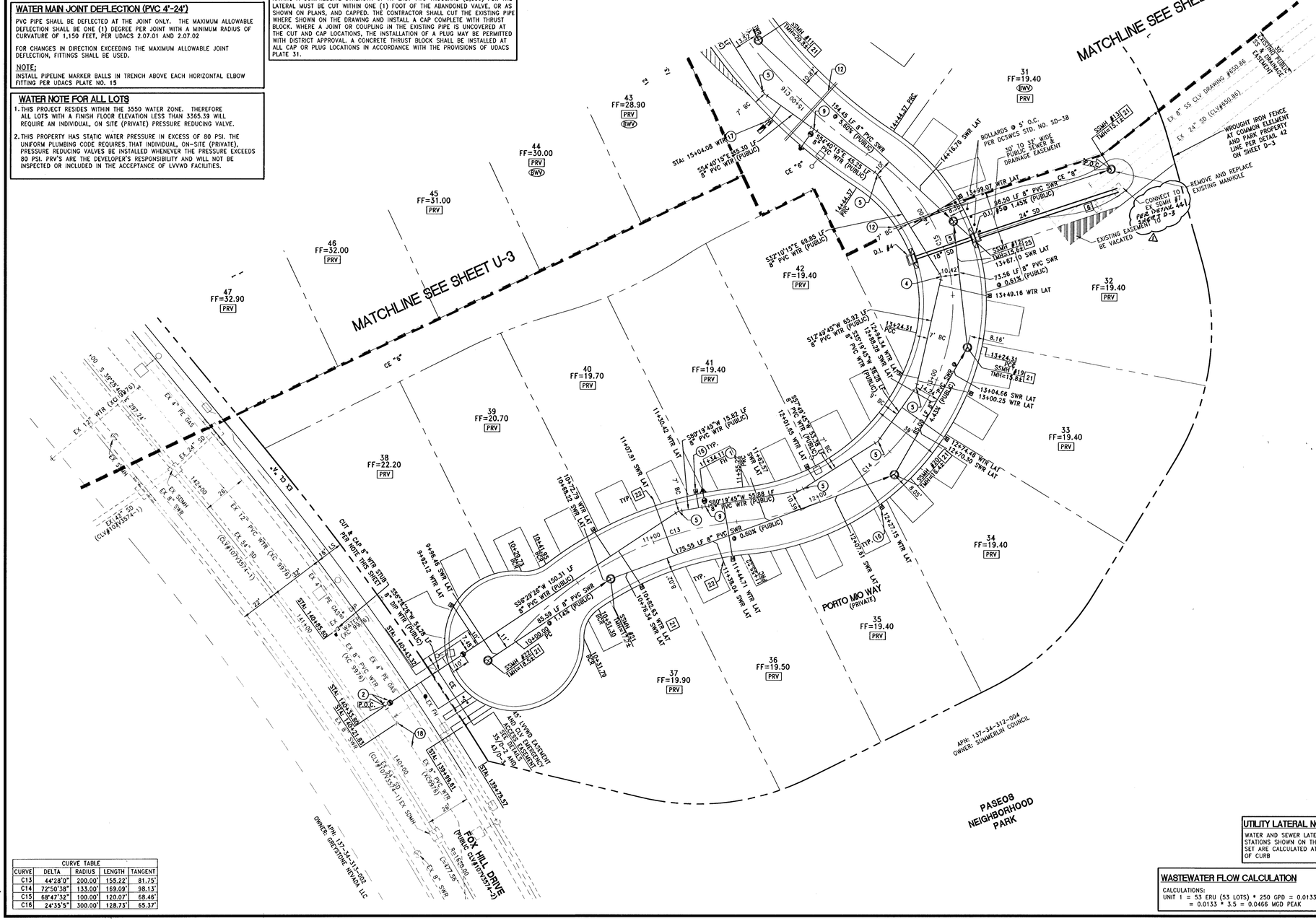
CITY OF LAS VEGAS BENCHMARK No. 7LV09 34C4

A RIVET AND PLATE IN THE TOP OF CURB AT THE NORTHEAST CORNER OF PASEO MIST DR AND DESERT MOON DR.

ELEVATION=997.024 METERS (NAVD'88)
ELEVATION=3271.07 US SURVEY FEET (NAVD'88)

BASIS OF BEARINGS

SOUTH 83°00'00" WEST BEING THE BEARING OF THE CENTERLINE OF PASEO BREEZE DRIVE AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 121, PAGE 12 OF PLATS



CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	TANGENT
C13	44°28'0"	200.00'	155.22'	81.75'
C14	72°50'38"	133.00'	169.09'	98.13'
C15	68°47'32"	100.00'	120.07'	68.46'
C16	24°35'5"	300.00'	128.73'	65.37'

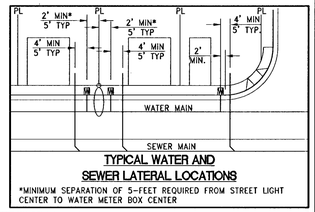
1700 R.O.W.

SEWER CONSTRUCTION NOTES

21	INSTALL 48" STANDARD MANHOLE (PER DCSWCS STD. No. SD-1A, SD-4, SD-5 & SD-6)
22	INSTALL 4" SEWER LATERAL (PER DCSWCS STD No. SD-17, SD-22 & SD-25) AND 1 CU-FT THRUST BLOCK @ CAP
23	ABANDON EXISTING 8" SEWER MAIN PER DCSWCS 3.18.1
24	ABANDON EXISTING 48" SEWER MANHOLE PER DCSWCS 3.18.2
25	INSTALL 48" STANDARD MANHOLE WITH CORROSION PROTECTION (PER DCSWCS STD. No. SD-1A, SD-4, SD-5, SD-6 & CSWWCS 2.2.10.1.2)

WATER CONSTRUCTION NOTES

1	INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE No. 40 (INCLUDES 6" GATE VALVE)
2	INSTALL 8" X 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS PLATE Nos. 34, 39 AND UDACS 2.24.01A
3	INSTALL 8" X 8" TEE PER UDACS PLATE No. 31
4	INSTALL 8" 45° BEND PER UDACS PLATE No. 31
5	INSTALL 8" 22.5° BEND PER UDACS PLATE No. 31
6	INSTALL 8" 11.25° BEND PER UDACS PLATE No. 31
7	INSTALL 8" 5° BEND WITH RESTRAINED JOINTS
8	INSTALL 8" GATE VALVE PER UDACS PLATE No. 30 & No. 39
9	INSTALL 8" X 6" TEE PER UDACS PLATE No. 31
10	INSTALL 8" X 6" REDUCER PER UDACS PLATE No. 30
11	INSTALL 6" 11.25° BEND PER UDACS PLATE No. 31
12	INSTALL (2) 4" SCHEDULE 40 PVC IRRIGATION SLEEVES
13	INSTALL (4) 4" SCHEDULE 40 PVC IRRIGATION SLEEVES
14	OPEN GATE VALVE AFTER ISOLATION OF 3435 PRESSURE ZONE IS COMPLETED PER NOTE 18 BELOW.
15	INSTALL 6" CAP WITH 2" BLOW OFF ASSEMBLY PER UDACS PLATE No. 36
16	INSTALL 1" COPPER SERVICE LATERAL WITH 3/4" METER PER UDACS PLATE No. 4 (INSTALL PER UNIMPROVED LOCATION)
17	INSTALL 1" COPPER SERVICE LATERAL WITH 3/4" WATER METER (FOR IRRIGATION) WITH 1" RPPA PER UDACS PLATE No.'s 4 & 8 (1" BRASS WATERLINE BETWEEN METER AND RPPA)
18	PRIOR TO CONNECTIONS TO THE EXISTING WATER MAIN IN FOX HILL DRIVE, GATE VALVES AND CONNECTOR PIPE BETWEEN WATER PRESSURE ZONES TO BE ABANDONED PER THE NOTE ON XC-9976 SHEET 8A WHICH ISOLATES THE 3435 PRESSURE ZONE.
19	INSTALL 6" 22.5° BEND PER UDACS PLATE No. 31



TYPICAL WATER AND SEWER LATERAL LOCATIONS
*MINIMUM SEPARATION OF 5-FEET REQUIRED FROM STREET LIGHT CENTER TO WATER METER BOX CENTER

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL

BY: _____ DATE: 4/18/13

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR ANY APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS.

FIRE FLOW 1,750 GPM AT 20 PSI RESIDUAL

UTILITY LATERAL NOTE:
WATER AND SEWER LATERAL STATIONS SHOWN ON THIS PLAN SET ARE CALCULATED AT THE BACK OF CURB

WASTEWATER FLOW CALCULATION
CALCULATIONS:
UNIT 1 = 53 ERU (53 LOTS) * 250 GPD = 0.0133 MGD
= 0.0133 * 3.5 = 0.0466 MGD PEAK

APPROVED FOR CONSTRUCTION 1#48157

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 04/22/13 PROJECT# 121254

LVVWD APPROVED FIRE FLOW 1,750 GPM AT 20 PSI RESIDUAL

REV	DESCRIPTION	BY	APPD	DATE
1	REVISE SW, RETAINING WALLS, STREET LIGHTS & STORM DRAIN	JL		4/17/2013

DATE: April 17, 2013
HORIZ. SCALE: 1"=30'
VERT. SCALE: N/A
DRAWN BY: AW
DESIGNED BY: AW
CHECKED BY: JIL
APPROVED BY: JIL
PROJECT #: 3110.0013

TOLL BROTHERS INC.
1140 TOWN CENTER DRIVE SUITE 250
LAS VEGAS, NV 89144
PHONE: 702-243-8800 FAX: 702-243-8810

RCI Engineering
3281 South Highland Drive, Suite 810, Las Vegas, NV 89109
PH#702.453.0500 FAX#702.453.0501

IMPROVEMENT PLANS FOR
SANTALUZ AT SUMMERLIN VILLAGE 23A
PARCELS ES-1 AND WS-1
UTILITY PLAN (SHEET 5 OF 5)
CITY OF LAS VEGAS NEVADA

PROFESSIONAL ENGINEER STATE OF NEVADA
JOHN I. LAND
Exp. 12/31/2013
CIVIL
No. 16441
4/17/2013

DRAWING
U-5
SHT 29 OF 39
CLV DRAWING NUMBER
10744984

CLV PROJECT NUMBER #48157

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