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, AND 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 IS HEREBY ENGINEER OF ANY DISCREPANCY.

Call before you Dig
Call before you Overhead
1-702-227-2929 Nevada Power
1-800-227-2600 Southwest Gas
1-702-455-7548 Clark County Fire Prevention Bureau Public Operations

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 2.2.3 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	< 4,600 S.F.
TOTAL SF UNDER ROOF	< 4,600 S.F.
NUMBER OF STORIES	1
BUILDING USE	12
SPRINKLERING	SINGLE FAMILY RESIDENTIAL
NUMBER OF FIRE HYDRANTS	NO
FIRE FLOW #	7
	1250 GPM AT 20 PSI RESIDUAL

BACKWATER VALVE

BFV 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.

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 LEAST 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 IS 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 S4C4

A SPIKE AND PLUG IN THE TOP OF CURB AT THE NORTHEAST CORNER OF PASEO WEST 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.

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-23) 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, 38 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 8" CAP WITH 2" BLOW OFF ASSEMBLY PER UDACS PLATE No. 58
16. INSTALL 1" COPPER SERVICE LATERAL WITH 5/8" 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 SC-5976 SHEET 8A WHICH ISOLATES THE 3435 PRESSURE ZONE.
19. INSTALL 8" 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

LINE TABLE

LINE	BEARING	LENGTH
L1	N 14°16'38" W	11.94'

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT
C1	30°24'40"	200.00'	106.14'	54.37'
C2	7°42'01"	1000.00'	134.41'	67.32'
C3	18°14'19"	150.00'	47.74'	24.07'
C4	19°7'8"	250.00'	83.40'	42.14'
C5	30°48'53"	100.00'	53.77'	27.71'

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 HORIZONTAL CURVATURE OF 1,150 FEET. PER UDACS 2.07.01 AND 2.07.02

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

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

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 = 0.0465 MGD PEAK

WATER NOTE FOR ALL LOTS

1. THIS PROJECT RESIDES WITHIN THE 3550 WATER ZONE. THEREFORE ALL LOTS WITH A FINISH FLOOR ELEVATION LESS THAN 3365.39 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. PRVS ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL

BY: K Wells DATE: 9/17/13

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

APPROVED FOR CONSTRUCTION

H# 43157

BY: [signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 04/28/13 PROJECT # 121254

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

REV	DESCRIPTION	BY	APPRO	DATE

DATE: APRIL 17, 2013
HORIZ. SCALE: 1"=30'
VERT. SCALE: N/A
DRAWN BY: AM
DESIGNED BY: AM
CHECKED BY: JL
APPROVED BY: JL
PROJECT #: 31JL0013

TOLL BROTHERS INC.
1140 HIGH GLEN AVE, SUITE 250
LAS VEGAS, NEVADA 89134
PHONE: 702-243-1930 FAX: 702-243-0910

RCI Engineering
RCI, Inc. Las Vegas, Nevada

IMPROVEMENT PLANS FOR
SANTALUZ AT SUMMERLIN VILLAGE 23A
PARCELS ES-1 AND WS-1
UTILITY PLAN (SHEET 2 OF 5)
NEVADA

CITY OF LAS VEGAS

JOHN I. LAND Exp. 12/31/2013 CIVIL No. 18441 STATE OF NEVADA
PROFESSIONAL ENGINEER
4/17/2013

DRAWING
U-2
SHT 20 OF 99
CLV DRAWING NUMBER
101411884
CLV PROJECT NUMBER 140153