

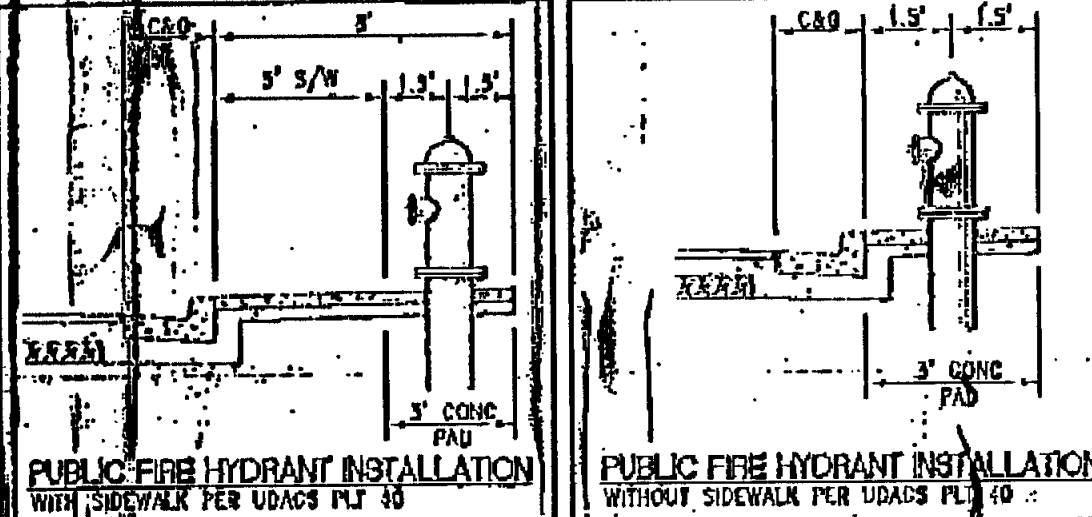
DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S 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 SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

Call before you dig!
 1-800-277-2400
 Nevada Fire Department and Safety Services Department
 1-800-277-2400
 702-462-7044

PORTING UTILITY NOTE:

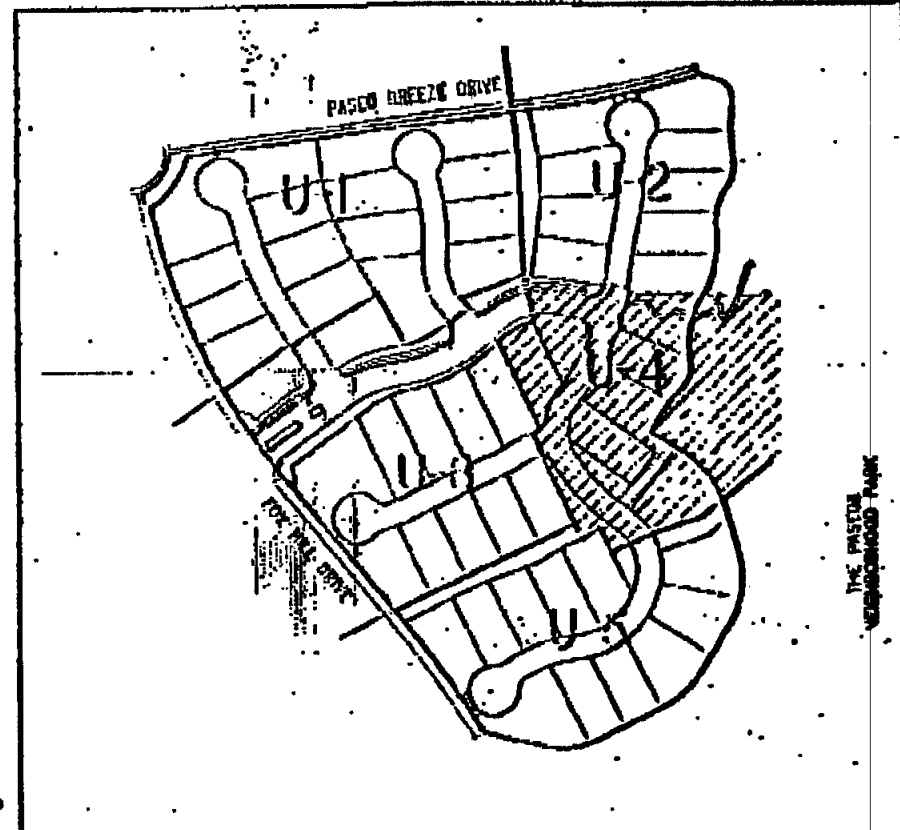
EXISTING UTILITIES AS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO VERIFY BOTH VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. ENGINEER ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN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



BACKWATER VALVE
 ALL LOTS WITH THIS SYMBOL REQUIRE A BACKWATER VALVE.
PRESSURE REDUCING VALVE
 ALL LOTS WITH THIS SYMBOL REQUIRE A PRESSURE REDUCING VALVE.

NOTES:
 1. ADJUST WATER VALVE BOXES TO FINISH GRADE PER UOAGS PLATE NO. 38. VALVES SHALL BE ACCESSIBLE AT ALL TIMES.
 2. ALL SEWER/SOON DRAINS CROSSING WATERLINES MUST CONFORM TO SECTION 2.2.2 OF UOAGS DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UOAGS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
 3. ALL WATER DIMENSIONS SHOWN ARE GIVEN FROM FINISH TO FINISH AND ARE FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA)
 APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE INSTALLED PER THE UOAGS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY CHECK VALVE OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT TO ALLOW THE DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENT SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.



BENCHMARK

CITY OF LAS VEGAS BENCHMARK NO. 72109 3404
 A BENCHMARK PLATE IN THE TOP OF CURB IN THE NORTHEAST CORNER OF THE BASED WEST AND DESERT MOON DR.

ELEVATION=3271.07 METERS (NAVD83)
 ELEVATION=3271.07 US SURVEY FEET (NAVD83)

BASIS OF BEARINGS

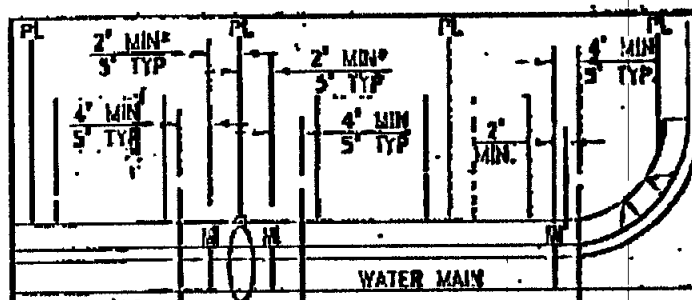
SOUTH 87°00'00" WEST BEING THE BEARING OF THE CENTERLINE OF PASO DE VIEJA DRIVE AS SHOWN ON MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 121, PAGE 12 OF PLATS

SEWER CONSTRUCTION NOTES

- INSTALL 4" STANDARD MANHOLE PER DCSWCS STD. NO. 30-1A, SD-4, SD-5 & SD-6
- INSTALL 4" SEWER LATERAL PER DCSWCS STD. NO. 30-17, SD-22 & SD-23 AND 1 CU-FT THRUST BLOCK @ CAP
- ABANDON EXISTING 8" SEWER MAIN PER DCSWCS 3.18.1
- ABANDON EXISTING 48" SEWER MANHOLE PER DCSWCS 3.18.2
- INSTALL 4" STANDARD MANHOLE WITH CORROSION PROTECTION (PER DCSWCS STD. NO. SD-1A, SD-4, SD-5, SD-6 & CSWPCS 2.2.10.1.2)

WATER CONSTRUCTION NOTES

- INSTALL FIRE HYDRANT ASSEMBLY PER UOAGS PLATE NO. 10 (INCLUDES 8" GATE VALVE)
- INSTALL 8" 8' TAPPING SLEEVE WITH 8" TAPPING VALVE PER UOAGS PLATE NO. 34, 38 AND UOAGS 2.2.4.01A
- INSTALL 8" 8' TEE PER UOAGS PLATE NO. 31
- INSTALL 8" 45° BEND PER UOAGS PLATE NO. 31
- INSTALL 8" 22.5° BEND PER UOAGS PLATE NO. 31
- INSTALL 8" 11.25° BEND PER UOAGS PLATE NO. 31
- INSTALL 8" 5° BEND WITH RESTRAINED JOINTS
- INSTALL 8" GATE VALVE PER UOAGS PLATE NO. 30 & No. 38
- INSTALL 8" 8' TEE PER UOAGS PLATE NO. 31
- INSTALL 8" 8' REDUCER PER UOAGS PLATE NO. 30
- INSTALL 8" 11.25° BEND PER UOAGS PLATE NO. 31
- INSTALL (2) 4" SCHEDULE 40 PVC IRRIGATION SLEEVES
- INSTALL (4) 4" SCHEDULE 40 PVC IRRIGATION SLEEVES
- OPEN GATE VALVE AFTER ISOLATION OF 3438 PRESSURE ZONE IS COMPLETED PER NOTE 18 BELOW.
- INSTALL 8" CAP WITH 2" BLOW OFF ASSEMBLY PER UOAGS PLATE NO. 38
- INSTALL 1" COPPER SERVICE LATERAL WITH 3/4" WATER METER (FOR IRRIGATION) WITH 1" BPPA PER UOAGS PLATE NO. 9 & 8 (1" BRASS WATCHLINE BETWEEN METER AND BPPA)
- PRIOR TO CONNECTIONS TO THE EXISTING WATER MAIN IN FOX HALL DRIVE, GATE VALVES AND CONNECTOR PIPE BETWEEN WATER PRESSURE ZONES TO BE ABANDONED PER THE NOTE ON JO-5014 SHEET 04 WHICH ISOLATES THE 3438 PRESSURE ZONE.
- INSTALL 8" 22.5° BEND PER UOAGS PLATE NO. 31



TYPICAL WATER AND SEWER LATERAL LOCATIONS
 MINIMUM SEPARATION OF 3-Feet REQUIRED FROM STREET LIGHT CENTER TO WATER METER BOX CENTER

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL

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 1,250 GPM AT 20 PSI RESIDUAL

APPROVED FOR CONSTRUCTION

DATE: 01/22/13
 LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
 PROJECT # 121254
 LVVWD APPROVED FIRE FLOW 1,250 GPM AT 20 PSI RESIDUAL

LINE	DATE	REVISION
1	1/17/13	E

CURVE DATA	DATE	REVISION
1	1/17/13	E

WATER MAIN JOINT DEFLECTION (PVC 2-24)

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 UOAGS 2.07.01 AND 2.07.02.

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

NOTES:
 PORTAL PIPELINE NUMBER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW
 TYPING PER UOAGS PLATE NO. 17

PIPE FLOW INFORMATION

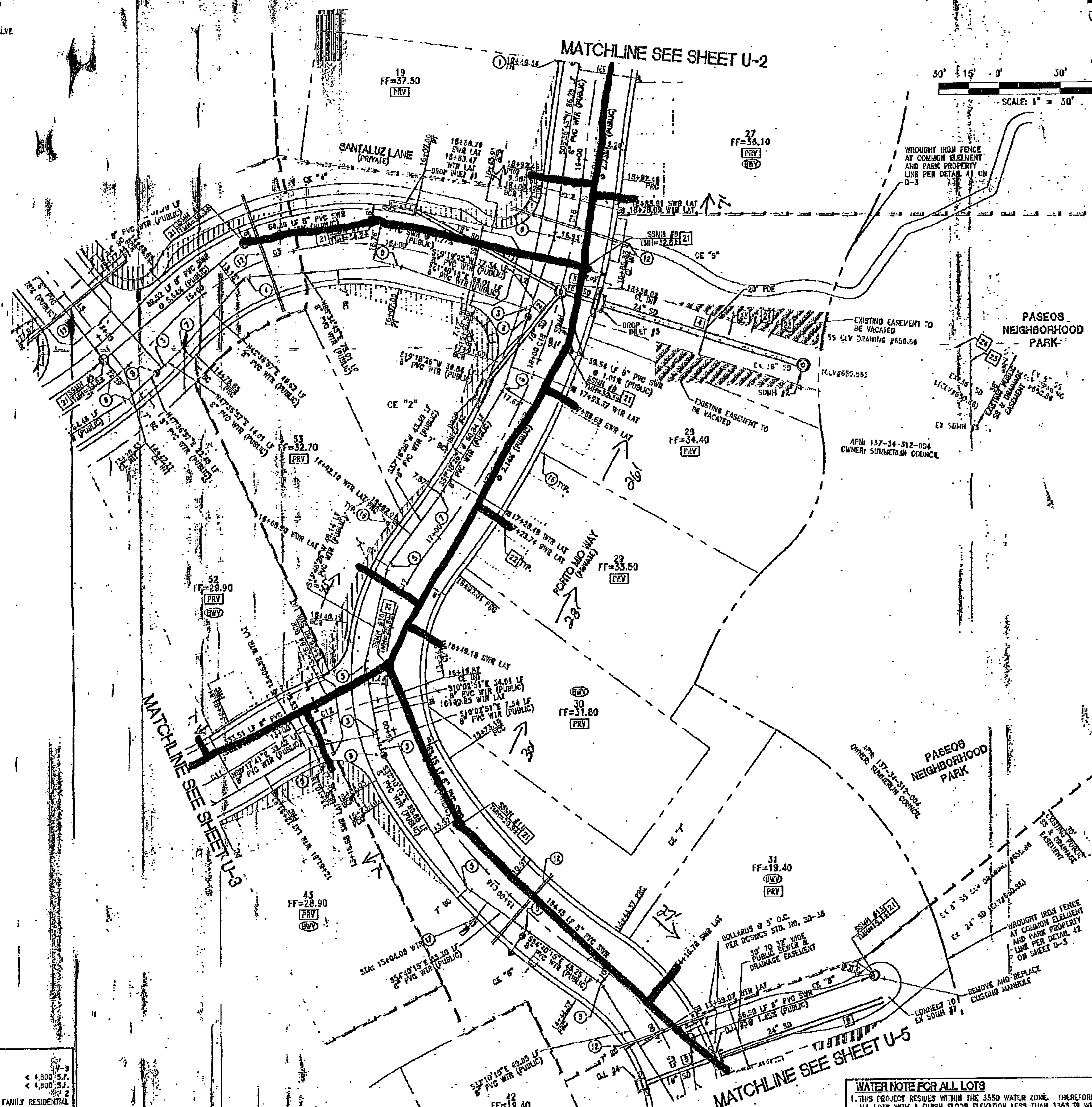
TYPE OF CONSTRUCTION
 TOTAL LIVING AREA
 TOTAL SF UNDER ROOF
 NUMBER OF STORES
 BUILDING USE
 SPRINKLERED
 NUMBER OF FIRE HYDRANTS
 FIRE FLOW
 750 GPM AT 20 PSI RESIDUAL

WASTEWATER FLOW CALCULATION

CALCULATIONS
 UNIT 1 = 53 ERU (53 LOTS) * 250 GPD = 0.0133 MGD
 = 0.0133 * 5.5 = 0.0732 MGD PEAK

UTILITY LATERAL NOTE

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

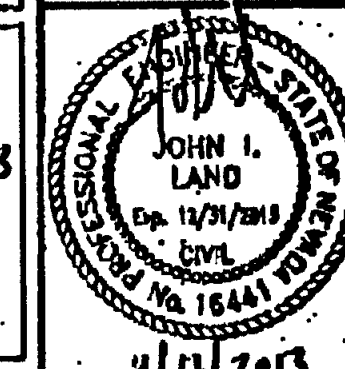


WATER NOTE FOR ALL LOTS

- THIS PROJECT RESIDES WITHIN THE 3550 WATER ZONE. THEREFORE, ALL LOTS WITH A FINISH FLOOR ELEVATION LESS THAN 3365.58 WILL REQUIRE AN INDIVIDUAL ON-SITE (PRIVATE) PRESSURE REDUCING VALVE.
- 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. THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

TOLL BROTHERS INC.
 11411 W. CROSS CIRCLE, SUITE 200
 LAS VEGAS, NV 89135
 PHONE: 702-331-7800 FAX: 702-331-7810

SANTALUZ AT SUMMERLIN VILLAGE 23A
PARCELS ES-1 AND WS-1
UTILITY PLAN (SHEET 4 OF 5)



DATE: 1/17/2013
 DRAWN: U-4
 SHEET 28 OF 39
 CIVIL DRAWING NUMBER: 10747721
 CIVIL PROJECT NUMBER: 101157