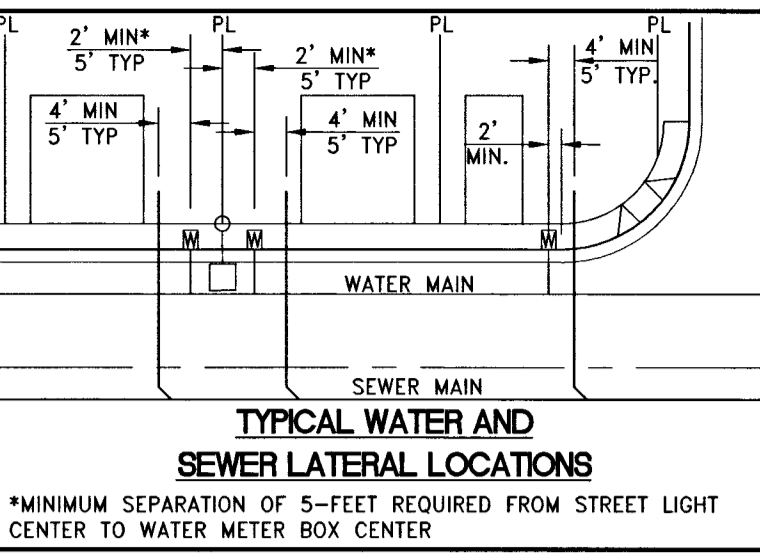
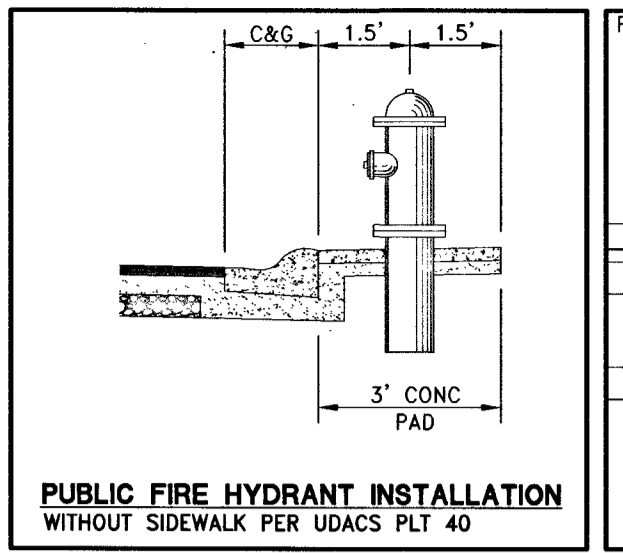


**DISCLAIMER NOTE:**  
 UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING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

**Call before you Dig**  
 Avoid cutting underground utility lines. It's costly.  
**Call before you Overhead**  
 Avoid overhead power line contact. It's costly.

1-702-227-2929  
 Nevada Power  
 Environment and Safety  
 Services Department

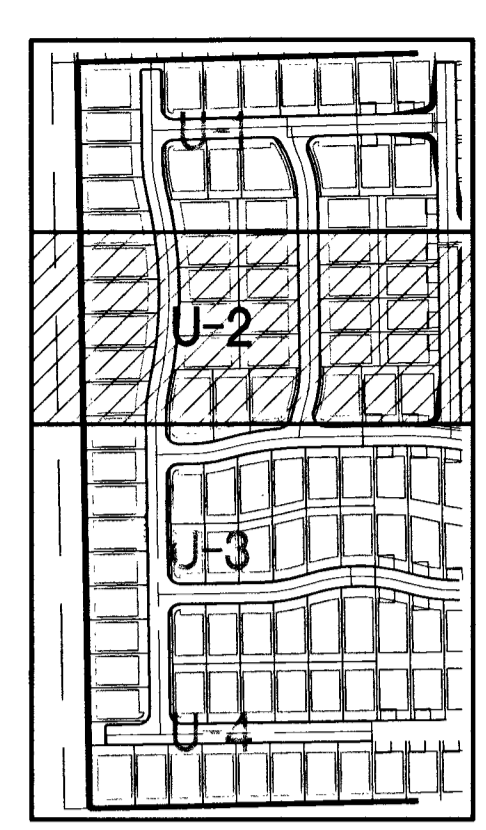
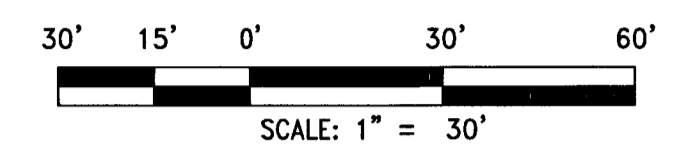
1-800-227-2600  
 CLARK COUNTY PUBLIC UTILITIES  
 1-702-455-6000



- WATER CONSTRUCTION NOTES**
- INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE No. 40 (INCLUDES 6" GATE VALVE)
  - REMOVE EXISTING 8" CAP AND 2" BLOWOFF AND CONNECT TO EXISTING 8" WATER MAIN
  - INSTALL 8" GATE VALVE PER UDACS PLATE No. 30 & No. 39
  - INSTALL 8" X 6" TEE PER UDACS PLATE No. 31
  - INSTALL 8" X 6" TEE PER UDACS PLATE No. 31
  - INSTALL 8" X 6" REDUCER PER UDACS PLATE No. 30
  - INSTALL 6" CAP WITH 2" BLOW OFF ASSEMBLY PER UDACS PLATE No. 36
  - INSTALL 1" COPPER SERVICE LATERAL WITH 3/4" METER PER UDACS PLATE No. 2
  - INSTALL 8" 5' BEND PER UDACS PLATE No. 31 WITH RESTRAINTS
  - INSTALL 8" 11.25' BEND PER UDACS PLATE No. 31
  - INSTALL 8" 22.5' BEND PER UDACS PLATE No. 31

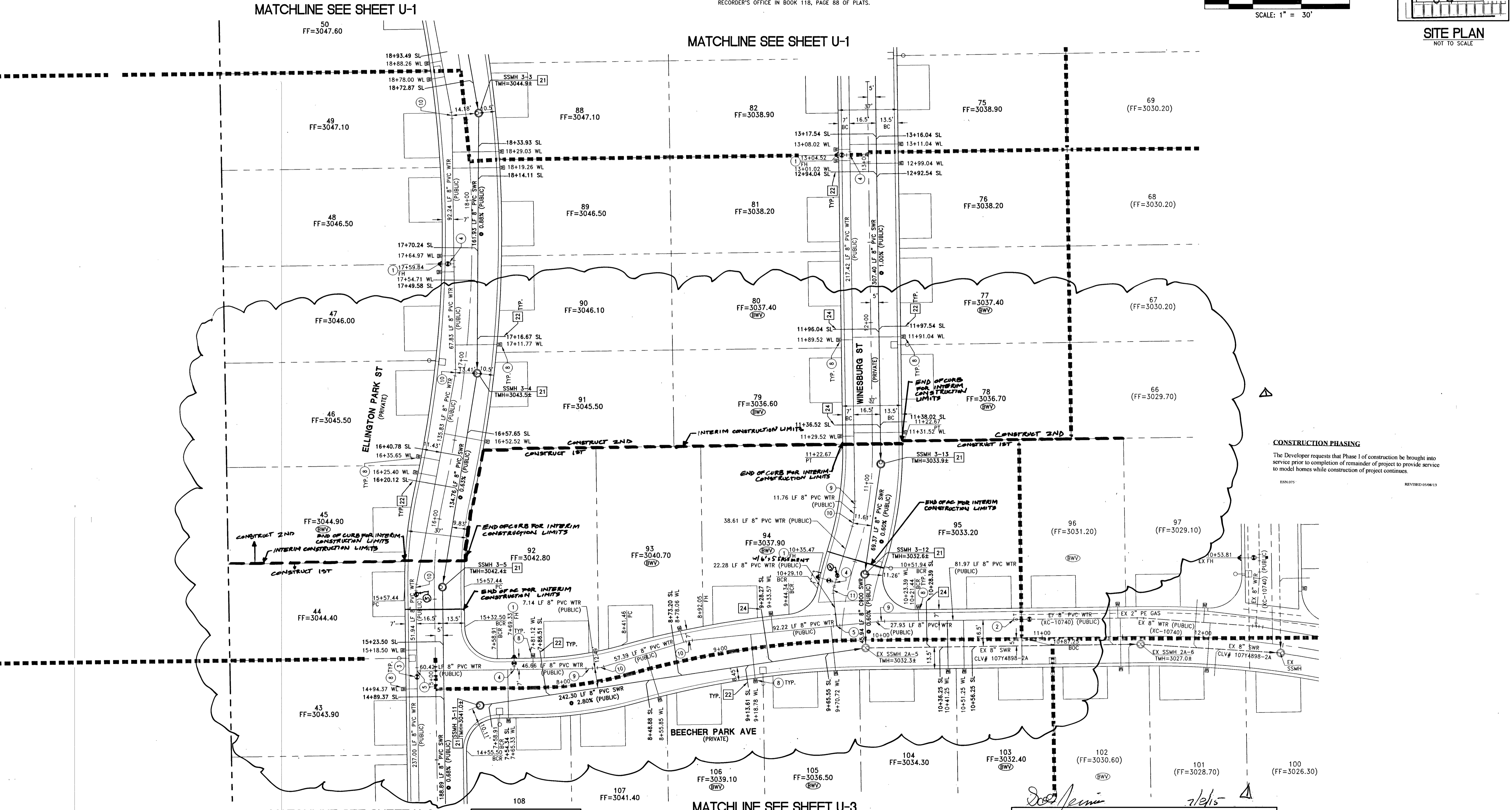
- SEWER CONSTRUCTION NOTES**
- INSTALL 48" STANDARD MANHOLE (PER DCSWCS STD. No. 21) SD-1A, SD-4, SD-5 & SD-6
  - INSTALL 4" SEWER LATERAL (PER DCSWCS STD No. SD-17, SD-22 & SD-25) AND 1 CU-FT THRUST BLOCK @ CAP
  - TYPICAL LOCATION FOR SEWER LATERAL AT WATER MAIN CROSSING. ALL SEWER LATERALS MUST MAINTAIN 24" VERTICAL CLEARANCE BELOW WATER MAIN AT CROSSINGS.
  - INSTALL 4" C-90S SEWER LATERAL (PER DCSWCS STD No. SD-17, SD-22 & SD-25) AND 1 CU-FT THRUST BLOCK @ CAP
- BENCHMARK**  
 CITY OF LAS VEGAS BENCHMARK 6LV99 24NNW6  
 RIVET & PLATE CONCRETE PAD (ELECTRIC) 200'+/- SW OF P.I. OF ELKHORN RD & SCHAUMBER RD (LANSFORD ST)  
 ELEVATION = 914.637 METERS (2008 ADJUSTMENT)  
 ELEVATION = 3000.77 U.S. SURVEY FEET (2008 ADJUSTMENT)
- BASIS OF BEARINGS**  
 NORTH 00°45'09" EAST BEING THE BEARING OF THE EAST LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 13, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN ON THAT CERTAIN MAP ON FILE IN THE CLARK COUNTY'S RECORDER'S OFFICE IN BOOK 118, PAGE 88 OF PLATS.

- BACKWATER VALVE**  
 ALL LOTS WITH THIS SYMBOL REQUIRE A BACKWATER VALVE
- PRESSURE REDUCING VALVE NOTE**  
 NO LOTS IN THIS PROJECT REQUIRE ONSITE PRIVATE PRESSURE REDUCING VALVES.



REV	DESCRIPTION	DATE

DATE: February 18, 2015  
 SHEET SCALE: N/A  
 VERT. SCALE: N/A  
 DRAWN BY: GS  
 DESIGNED BY: JIL  
 CHECKED BY: JIL  
 PROJECT # 11030003



**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

**NOTES**

- ADJUST WATER VALVE BOXES TO FINISH GRADE PER UDACS PLATE NO.39. VALVES SHALL BE ACCESSIBLE AT ALL TIMES.
- 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.
- ALL WATER PIPE DIMENSIONS SHOWN ARE GIVEN FROM FITTING TO FITTING AND ARE FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.

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

**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.

**BUILDING INFORMATION**

TYPE OF CONSTRUCTION: SINGLE FAMILY RESIDENTIAL  
 TOTAL LIVING AREA: < 4,800 S.F.  
 TOTAL S.F. UNDER ROOF: < 4,800 S.F.  
 NUMBER OF STORIES: 2  
 BUILDING USE: SINGLE FAMILY RESIDENTIAL  
 NUMBER OF FIRE HYDRANTS: 7  
 FIRE FLOW: 1,250 GPM AT 20 PSI RESIDUAL

**WASTEWATER FLOW CALCULATION**

EXISTING PHASES CALCULATIONS:  
 103 ERU (103 LOTS) \* 250 GPD = 0.0258 MGD  
 = 0.0258 \* 3.5 = 0.0901 MGD PEAK

PHASE 3 CALCULATIONS:  
 79 ERU (79 LOTS) \* 250 GPD = 0.0198 MGD  
 = 0.0198 \* 3.5 = 0.0691 MGD PEAK

TOTAL ALL PHASES= 0.1592 MGD

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL  
 DATE: 2/18/15

**APPROVED FOR CONSTRUCTION**

DATE: 2/17/15  
 PROJECT: 12345  
 LVWD APPROVED FIRE FLOW 1250 GPM AT 20 PSI RESIDUAL

IMPROVEMENT PLANS FOR  
**FRANKLIN PARK AT PROVIDENCE II PHASE 3**  
 A SINGLE FAMILY RESIDENTIAL SUBDIVISION  
 UTILITY PLAN (SHEET 2 OF 4)

TOLL NORTH LV, LLC  
 1140 TOWN CENTER DRIVE SUITE 250  
 LAS VEGAS, NV 89144  
 PHONE: 702-252-8800 FAX: 702-242-5810

**RCI Engineering**  
 4325 Debra Martin Drive Suite 300, Las Vegas, NV 89103  
 PHONE: 702-433-0800 FAX: 702-453-0801

NEVADA  
 JOHN I. LAND  
 Exp. 12/31/2015  
 CIVIL  
 No. 16441

2/18/2015  
**U-2**  
 SHEET 12 OF 32  
 DWG # 107Y4898-3  
 CLV # 56814