



**BENCHMARK**  
CITY OF LAS VEGAS BENCHMARK NO. 1LV11 55ES, BEING A RIVET AND PLATE IN TOP OF CURB AT NORTHWEST CORNER OF SAHARA AVENUE AND RANCHO ROAD.  
ELEVATION: 632.900 METERS  
2076.44 FEET (NAVD 1988)

**BASIS OF BEARING**  
NORTH 27°58'15" EAST, BEING THE CENTERLINE LINE OF HIGHLAND DRIVE, LOCATED IN A PORTION OF THE NW4 OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 51 EAST M.D.M. AS PER GOLDEN GATE TRACT—INDUSTRIAL SUBDIVISION IN BOOK 4 PAGE 84 OF PLATS, CLARK COUNTY NEVADA RECORDS.

Call before you Dig  
1-800-227-2600  
Call before you Overhead  
1-702-227-2929  
Call before you Underground  
1-702-227-6811

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

**WATERMAIN 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.

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

**NOTE:**  
TRENCH PIPE BEDDING AND BACKFILL PER UDACS STANDARD PLATE 16, 17, AND DCSWS 5D-16A AND SD11.

- LEGEND**
- BOUNDARY LINE / RIGHT-OF-WAY
  - PROPOSED PVC SEWER MAIN WITH 4" MANHOLE (SIZE AS SHOWN)
  - PROPOSED PVC WATER MAIN AND GATE VALVE (SIZE AS SHOWN)
  - PROPOSED FIRE HYDRANT ASSEMBLY
  - EXISTING PVC SEWER MAIN WITH EXISTING MANHOLE
  - EXISTING STORM DRAIN MAIN WITH EXISTING MANHOLE
  - EXISTING PVC WATER MAIN AND GATE VALVE
  - PROPOSED 4" SEWER LATERAL AND CLEANOUT
  - PROPOSED WATER SERVICE LATERAL WITH METER
  - EXISTING FIRE HYDRANT ASSEMBLY

**FOR ALL UTILITY NOTES, SEE GENERAL NOTES SHEET # C3 AND FOR UTILITY QUANTITIES SEE SHEET # U1**

**DISCLAIMER NOTE**  
EXISTING 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 AND 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 LOCATIONS.  
NOTIFY ENGINEER IMMEDIATELY IF DISCREPANCIES ARE ENCOUNTERED.

THOMSON CONSULTING ENGINEERS  
3927 E. WARM SPRINGS ROAD, SUITE 400  
LAS VEGAS, NEVADA 89120  
702-932-6125 FAX: 702-932-6129  
PROJECT NO. 088.10001

GARRETT CAPITAL LLC  
3790 PARADISE ROAD SUITE# 250 LAS VEGAS, NEVADA 89169  
PH: 702-947-8330 FAX: 702-947-8313

ARTISAN WATERLINE PLANS  
PLAN AND PROFILE  
25 FT ALLEY

PAULO E. CHAVEZ  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
EX. NO. 18788

DATE: 08/25/11 PROJECT # 116735  
SHEETS C1-C3, U1, P1

2000

H# 40911 107VS891