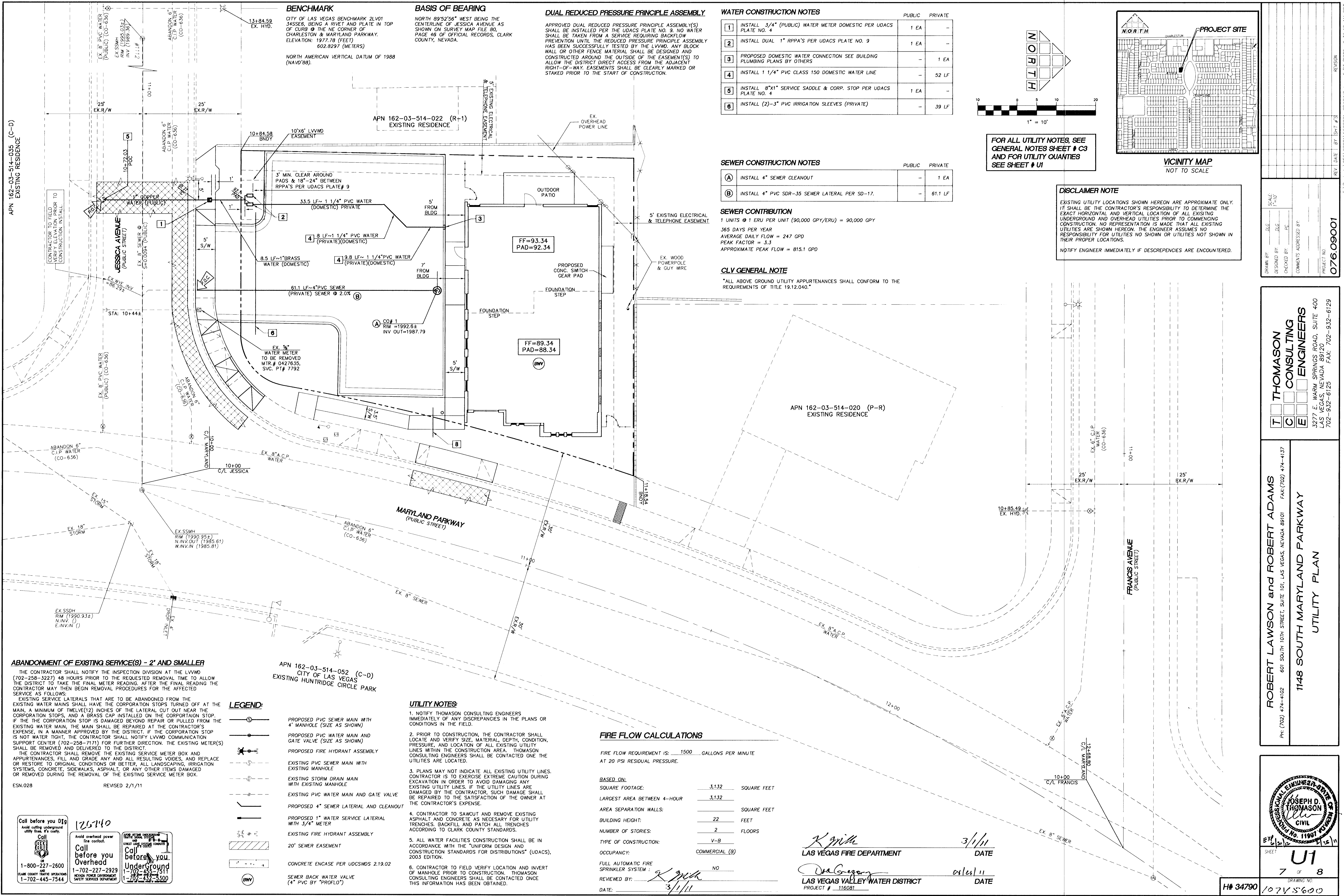




**BENCHMARK**  
CITY OF LAS VEGAS BENCHMARK 2LV01  
345SE6, BEING A RIVET AND PLATE IN TOP  
OF CURB @ THE NE CORNER OF  
CHARLESTON & MARYLAND PARKWAY.  
ELEVATION: 1977.78 (FEET)  
602.8297 (METERS)  
NORTH AMERICAN VERTICAL DATUM OF 1988  
(NAVD'88).

**BASIS OF BEARING**  
NORTH 89°52'56" WEST BEING THE  
CENTERLINE OF JESSICA AVENUE AS  
SHOWN ON SURVEY MAP FILE 80,  
PAGE 46 OF OFFICIAL RECORDS, CLARK  
COUNTY, NEVADA.

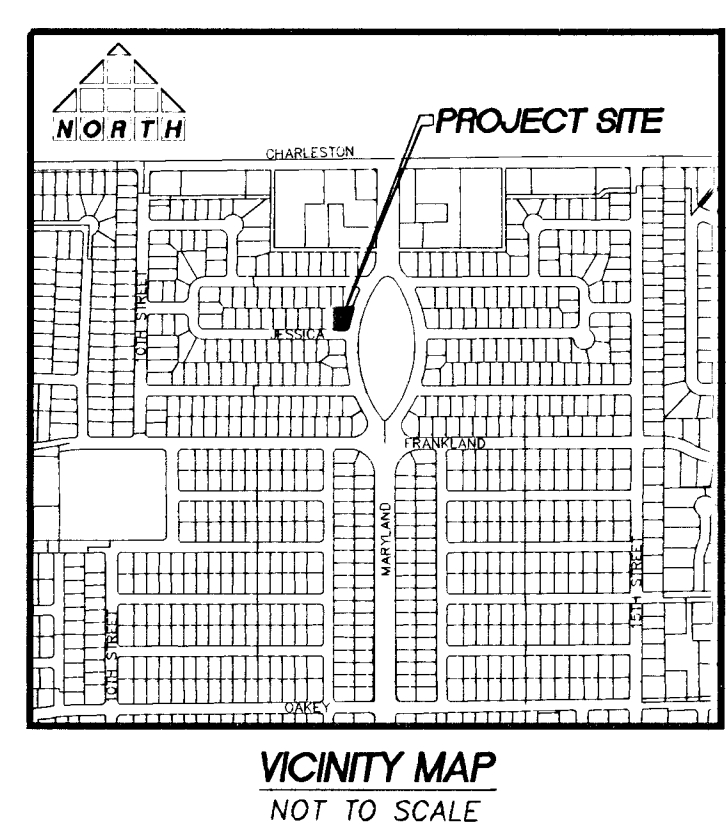
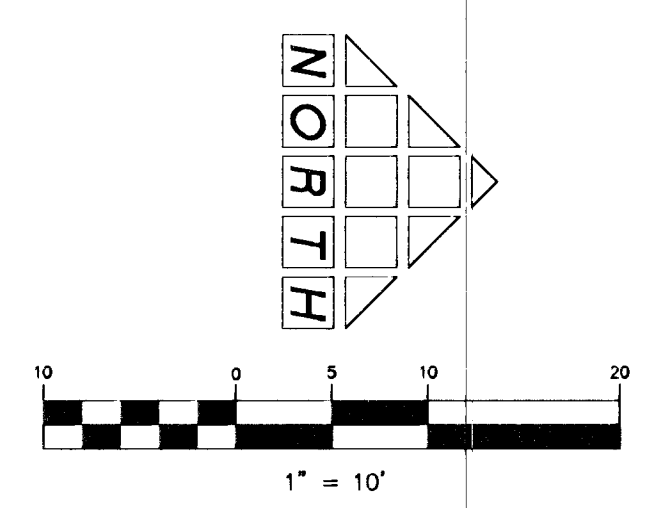
**DUAL REDUCED PRESSURE PRINCIPLE ASSEMBLY**  
APPROVED DUAL REDUCED PRESSURE PRINCIPLE ASSEMBLY(S)  
SHALL BE INSTALLED PER THE UDACS PLATE NO. 9. NO WATER  
SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW  
PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY  
HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. ANY BLOCK  
WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND  
CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO  
ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT  
RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR  
STAKED PRIOR TO THE START OF CONSTRUCTION.

| WATER CONSTRUCTION NOTES |                                                                          | PUBLIC | PRIVATE |
|--------------------------|--------------------------------------------------------------------------|--------|---------|
| 1                        | INSTALL 3/4" (PUBLIC) WATER METER DOMESTIC PER UDACS PLATE NO. 4         | 1 EA   | -       |
| 2                        | INSTALL DUAL 1" RPPA'S PER UDACS PLATE NO. 9                             | 1 EA   | -       |
| 3                        | PROPOSED DOMESTIC WATER CONNECTION SEE BUILDING PLUMBING PLANS BY OTHERS | -      | 1 EA    |
| 4                        | INSTALL 1 1/4" PVC CLASS 150 DOMESTIC WATER LINE                         | -      | 52 LF   |
| 5                        | INSTALL 8"x1" SERVICE SADDLE & CORP. STOP PER UDACS PLATE NO. 4          | 1 EA   | -       |
| 6                        | INSTALL (2)-3" PVC IRRIGATION SLEEVES (PRIVATE)                          | -      | 39 LF   |

| SEWER CONSTRUCTION NOTES |                                                | PUBLIC | PRIVATE |
|--------------------------|------------------------------------------------|--------|---------|
| A                        | INSTALL 4" SEWER CLEANOUT                      | -      | 1 EA    |
| B                        | INSTALL 4" PVC SDR-35 SEWER LATERAL PER SD-17. | -      | 61.1 LF |

**SEWER CONTRIBUTION**  
1 UNITS @ 1 ERU PER UNIT (90,000 GPY/ERU) = 90,000 GPY  
365 DAYS PER YEAR  
AVERAGE DAILY FLOW = 247 GPD  
PEAK FACTOR = 3.3  
APPROXIMATE PEAK FLOW = 815.1 GPD

**CLV GENERAL NOTE**  
\*ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.12.040.\*



**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.

**ABANDONMENT OF EXISTING SERVICE(S) - 2" AND SMALLER**

THE CONTRACTOR SHALL NOTIFY THE INSPECTION DIVISION AT THE LVWD (702-258-3227) 48 HOURS PRIOR TO THE REQUESTED REMOVAL TIME TO ALLOW THE DISTRICT TO TAKE THE FINAL METER READING. AFTER THE FINAL READING THE CONTRACTOR MAY THEN BEGIN REMOVAL PROCEDURES FOR THE AFFECTED SERVICE AS FOLLOWS:  
EXISTING SERVICE LATERALS THAT ARE TO BE ABANDONED FROM THE EXISTING WATER MAINS SHALL HAVE THE CORPORATION STOPS TURNED OFF AT THE MAIN, A MINIMUM OF TWELVE(12) INCHES OF THE LATERAL CUT OUT NEAR THE CORPORATION STOPS, AND A BRASS CAP INSTALLED ON THE CORPORATION STOP. IF THE CORPORATION STOP IS DAMAGED BEYOND REPAIR OR PULLED FROM THE EXISTING WATER MAIN, THE MAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, IN A MANNER APPROVED BY THE DISTRICT. IF THE CORPORATION STOP IS NOT WATER TIGHT, THE CONTRACTOR SHALL NOTIFY LVWD COMMUNICATION SUPPORT CENTER (702-258-7171) FOR FURTHER DIRECTION. THE EXISTING METER(S) SHALL BE REMOVED AND DELIVERED TO THE DISTRICT.  
THE CONTRACTOR SHALL REMOVE THE EXISTING SERVICE METER BOX AND APPURTENANCES, FILL AND GRADE ANY AND ALL RESULTING VOIDS, AND REPLACE OR RESTORE TO ORIGINAL CONDITIONS OR BETTER. ALL LANDSCAPING, IRRIGATION SYSTEMS, CONCRETE, SIDEWALKS, ASPHALT, OR ANY OTHER ITEMS DAMAGED OR REMOVED DURING THE REMOVAL OF THE EXISTING SERVICE METER BOX.

**LEGEND:**

- 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 1" WATER SERVICE LATERAL WITH 3/4" METER
- EXISTING FIRE HYDRANT ASSEMBLY
- 20" SEWER EASEMENT
- CONCRETE ENCASE PER UDACS 2.19.02
- SEWER BACK WATER VALVE (4" PVC BY "PROFLO")

**UTILITY NOTES:**

- NOTIFY THOMASON CONSULTING ENGINEERS IMMEDIATELY OF ANY DISCREPANCIES IN THE PLANS OR CONDITIONS IN THE FIELD.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL LOCATE AND VERIFY SIZE, MATERIAL, DEPTH, CONDITION, PRESSURE, AND LOCATION OF ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. THOMASON CONSULTING ENGINEERS SHALL BE CONTACTED ONE THE UTILITIES ARE LOCATED.
- PLANS MAY NOT INDICATE ALL EXISTING UTILITY LINES. CONTRACTOR IS TO EXERCISE EXTREME CAUTION DURING EXCAVATION IN ORDER TO AVOID DAMAGING ANY EXISTING UTILITY LINES. IF THE UTILITY LINES ARE DAMAGED BY THE CONTRACTOR, SUCH DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR TO SAWCUT AND REMOVE EXISTING ASPHALT AND CONCRETE AS NECESSARY FOR UTILITY TRENCHES. BACKFILL AND PATCH ALL TRENCHES ACCORDING TO CLARK COUNTY STANDARDS.
- ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR DISTRIBUTIONS" (UDACS), 2003 EDITION.
- CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT OF MANHOLE PRIOR TO CONSTRUCTION. THOMASON CONSULTING ENGINEERS SHALL BE CONTACTED ONCE THIS INFORMATION HAS BEEN OBTAINED.

**FIRE FLOW CALCULATIONS**

FIRE FLOW REQUIREMENT IS: 1500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

|                                       |                   |
|---------------------------------------|-------------------|
| BASED ON:                             |                   |
| SQUARE FOOTAGE:                       | 3,132 SQUARE FEET |
| LARGEST AREA BETWEEN 4-HOUR           | 3,132             |
| AREA SEPARATION WALLS:                | SQUARE FEET       |
| BUILDING HEIGHT:                      | 22 FEET           |
| NUMBER OF STORIES:                    | 2 FLOORS          |
| TYPE OF CONSTRUCTION:                 | V-B               |
| OCCUPANCY:                            | COMMERCIAL (B)    |
| FULL AUTOMATIC FIRE SPRINKLER SYSTEM: | NO                |
| REVIEWED BY:                          | DATE: 3/1/11      |
| DATE:                                 | 3/1/11            |

Call before you Dig  
Avoid cutting underground utility lines. It's costly.

Call before you Overhead  
Avoid overhead power line contact.

Call before you UnderGround  
Avoid power equipment safety services department.

1-800-227-2600  
CLARK COUNTY TRAFFIC OPERATIONS  
1-702-445-7544

1-702-227-2929  
UTILITY POWER EQUIPMENT  
SAFETY SERVICES DEPARTMENT  
1-702-432-5300

*K. Miller*  
LAS VEGAS FIRE DEPARTMENT

*Don Gregory*  
LAS VEGAS VALLEY WATER DISTRICT  
PROJECT # 116081

3/1/11  
DATE

04/26/11  
DATE

**THOMASON CONSULTING ENGINEERS**  
T C E  
3277 E. WARM SPRINGS ROAD, SUITE 400  
LAS VEGAS, NEVADA 89120  
702-932-6125 FAX: 702-932-6129

**ROBERT LAWSON and ROBERT ADAMS**  
PH: (702) 474-4102 601 SOUTH 10TH STREET, SUITE 101, LAS VEGAS, NEVADA 89101 FAX: (702) 474-4137

**1148 SOUTH MARYLAND PARKWAY**  
**UTILITY PLAN**

Professional Engineer Seal for Joseph D. Thomason, License No. 11907, State of Nevada.

U1  
7 OF 8  
DRAWING NO.

H# 34790 107V5600