

**LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES**

- No work shall begin on the water plans until they have been released for construction by the LVWD. Following approval of the plans, notice shall be given to the LVWD Customer Service Department (870-3191) 48 hours prior to actual construction, and 24 hours prior to an inspection.
- Call Before You Dig 1-800-227-2608.
- All work shall conform to LVWD latest standard plates, drawings, and specifications.
- All work, except as modified herein or by Note 3, shall be done in accordance with the most current edition of the Uniform Standard Specifications for Public Works Construction Office Improvements, Clark County Area.
- District-approved service stubs or tapped collars shall be required on all 3/4" and 1" service laterals. Service saddles only shall be permitted on 1-1/2" and 2" service laterals. Double tapped collars are not permitted.
- COPPER SERVICE LATERALS:** All 3/4" to 2" service laterals shall be of copper tubing in accordance with the District's specification titled "3002 - Copper Water Tubing".

- The maximum allowable joint deflection for ACP and Ductile iron pipe shall be as follows:  

PIPE SIZE	ACP	Ductile iron	mechanical joints
8" - 12" inch	2.5 degrees	1.5	1.5
14" - 16" inch	2 degrees	1.5	1.5
18" - 24" inch	N/A	1.5	1.5
- On PVC pipe, the maximum offset for a 20' length of factory belled pipe shall be 16 inches for 6" pipe, 12 inches for 8" pipe, and 9 inches for 10" and 12" pipe.
- If these offsets conflict with the pipe manufacturer's recommendation, the more stringent requirement shall apply.
- All water meter boxes shall be located outside of driveway areas.
- All water meters shall be located outside of driveways and valley gutters.
- Detector taps shall be required in accordance with Standard Plate No. 27 where indicated, and as follows:  
 a) over all mains not installed 6 feet from back of curb.  
 b) over all service laterals not installed at right angles to main.
- All water mains shall be pressure tested at 500 psi for a continuous two hour period, in accordance with District Standards.
- All water mains shall be disinfected, flushed, and an acceptable Health Sample obtained, prior to the connection of the water mains and/or laterals to the District's System.

13. CONTRACTOR TO OBTAIN ALL METERS 2" AND SMALLER FROM LVWD CENTRAL STORES TELEPHONE 250-3122 FORTY EIGHT (48) HOURS PRIOR TO PICKUP

**FIRE DEPARTMENT NOTES**

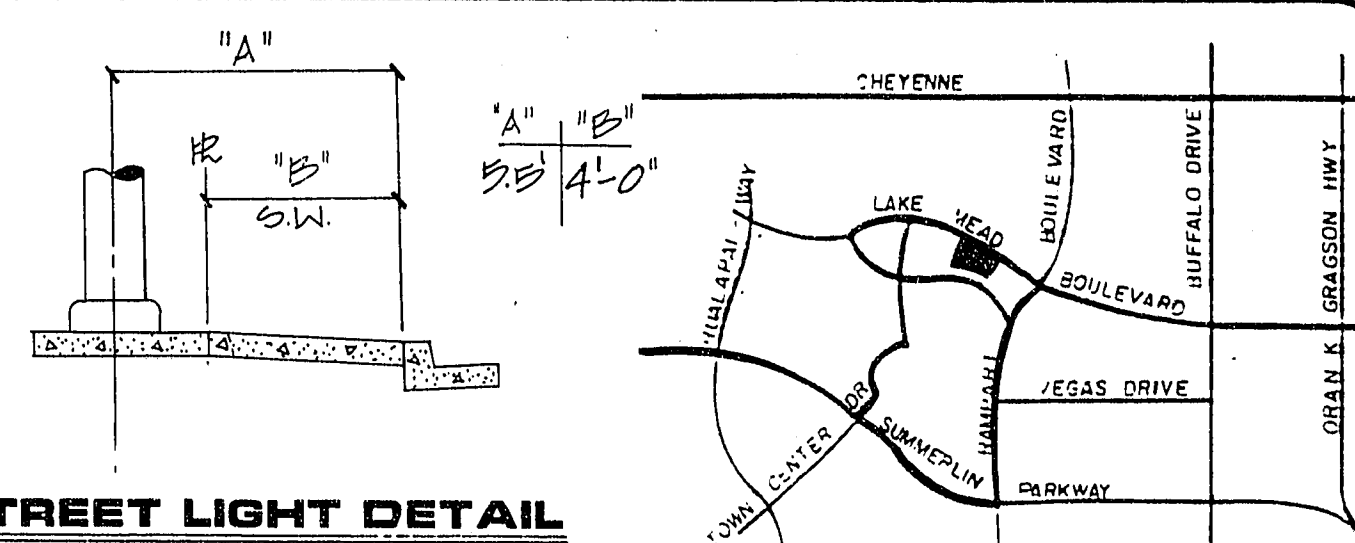
- All work shall be done in strict accordance with the City of Las Vegas Fire Department "Hydrant Specifications", "Hydrant Installation Specifications" and Ordinance 13318.
- Authorized hydrants for this project are:  
 A - Kennedy Guardian  
 B - Mueller 3-423 Centurian  
 C - Clow Model 2546 Medalion
- On any new home or building construction, accessible fire hydrants shall be installed before combustible construction commences and said fire hydrants shall be in good working order with an adequate water supply.
- Contractor shall place a green reflective marker at centerline of street adjacent to fire hydrants.
- Call the Las Vegas Fire Department at 383-2888 for underground inspection, pressure and flush verification of all private fire hydrants and fire lines before covering.
- Painting of the curbs and hydrant and any work necessary for protection of hydrants from physical damage per Ordinance 13318 shall be completed before approval by the City of Las Vegas Fire Department.
- A permit is required from the Fire Department for water line and fire hydrant installations on the private side of the meter.
- A flow test must be witnessed by the Fire Department for verification of on-site water supply.
- All on-site fire main materials must be U.L. listed and F.M. approved.
- Fire hydrant spacing:  
 Residential - 500 ft. Maximum  
 Commercial, including multi-family - 500 ft. Maximum  
 Fire hydrant shall be located within 500 ft. of any construction or combustible open storage.
- No fire hydrant shall be located within the required radius of a cul-de-sac or within 20 ft. of the perimeter of the radius of the cul-de-sac.
- No fire hydrant shall be located within 6 ft. of any curb return, driveway, power pole, street light or any other obstruction.
- FIRE FLOW: 1500 GPM @ 20 PSI SINGLE FAMILY DETACHED

**SEWER NOTES**

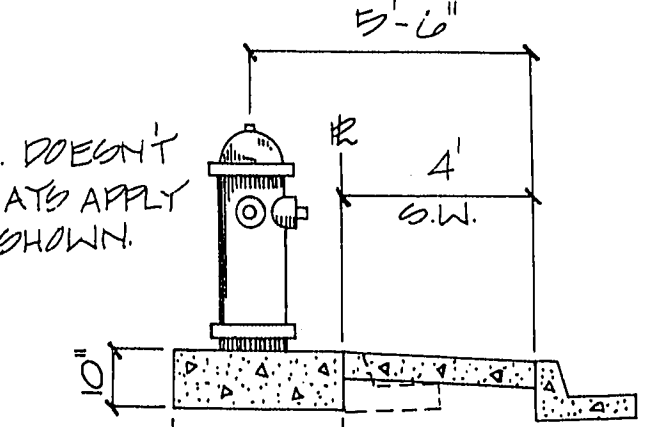
- All sanitary sewer installations shall conform to the standard details and specifications of the City of Las Vegas, and shall also conform to the uniform standard specifications for public works construction of off-site improvements, Clark County Area, latest edition, unless otherwise noted.
- Chisel "S" or "C" in curbs where sewer or gas laterals pass under the curb.
- Polyvinyl Chloride (PVC) sewer pipe shall meet ASTM D-3034 SDR 35 specifications, and installed with sand bedding and backfill of Type II gravel.
- All manholes in paved streets 80' R/W and larger, shall have concrete collars.
- Tee saddles shall be used to connect sewer laterals to existing main lines up to 12" DIA size. Connections to 15" or larger mains shall require special procedures.
- A sewer main crossing over a water main or less than 18" under a water main must be reinforced concrete encased pipe for a distance not less than ten feet (10') to each side of the centerline of the water main.

**STREET LIGHT DETAIL**

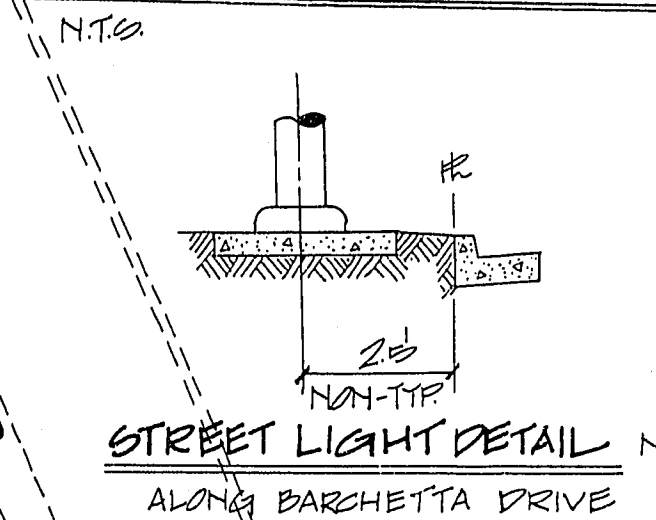
N.T.S.  
 \* BLOCK WALL CUT-DIPS TO BE PROVIDED WITH MINIMUM 10" CLEARANCE BETWEEN R OF STREET LIGHT & BLOCK WALL.



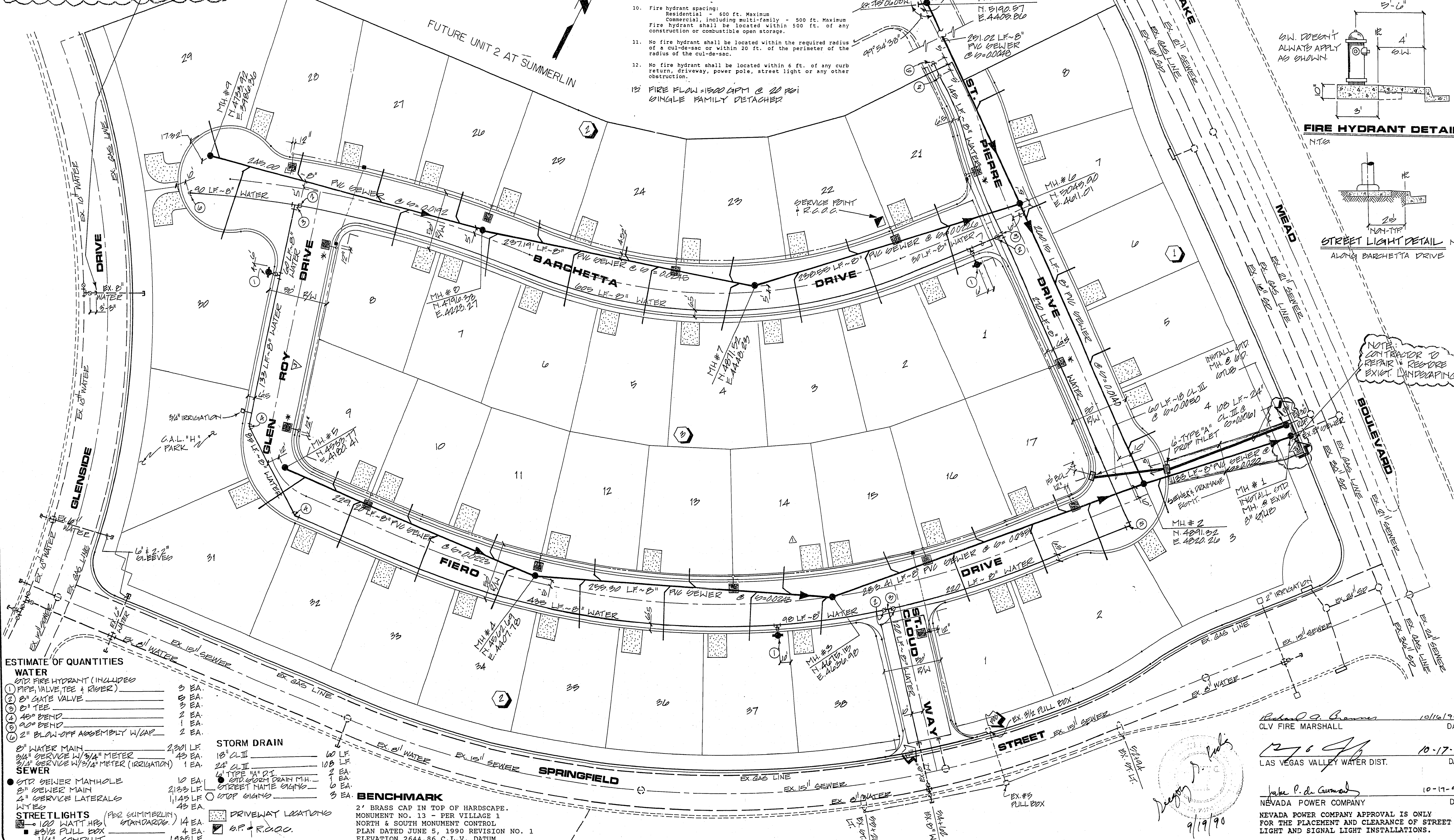
**VICINITY MAP**



**FIRE HYDRANT DETAIL**



**ABANDON VALVE AND CUT AND CAP WITHIN RIGHT-OF-WAY**  
 All valves to be abandoned shall be abandoned in the closed position, unless shown otherwise, by removing a minimum of the top 12 inches of the valve box and then filling the remaining portion of the valve box with concrete having a compressive strength of at least 2,000 psi.  
 The Contractor shall cut the existing pipe within the right-of-way or easement boundary and install a cap. Where a joint or coupling in the existing pipe is uncovered at the cut and cap location, the installation of a plug may be permitted, with District approval. The Contractor shall install a concrete thrust block in accordance with the provisions of the District's Standard Plate No. 5 at all cap or plug locations.



**ESTIMATE OF QUANTITIES**

WATER		SEWER		STORM DRAIN	
1) 6" FIRE HYDRANT (INCLUDES PIPE, VALVE, TEE & RISER)	0 EA.	1) 6" SEWER MANHOLE	10 EA.	1) 18" CL II	10 LF.
2) 8" GATE VALVE	0 EA.	2) 8" SEWER MAIN	2183 LF.	2) 24" CL II	10 LF.
3) 8" TEE	3 EA.	3) 2" SERVICE MAIN	1149 LF.	3) 24" CL II	2 EA.
4) 45° BEND	2 EA.	4) 2" SERVICE LATERALS	49 EA.	4) 2" TYPE "A" D.I. STREET DRAIN M.H.	1 EA.
5) 200° BEND	1 EA.	5) 1" SERVICE LATERALS	14 EA.	5) 2" STREET METER SIGNS	1 EA.
6) 2" BLOW-OFF ASSEMBLY W/CAP	2 EA.	6) 1" SERVICE LATERALS	14 EA.	6) 2" STREET METER SIGNS	1 EA.
7) 2" WATER MAIN	2201 LF.	7) 1" SERVICE LATERALS	14 EA.	7) 2" STREET METER SIGNS	1 EA.
8) 3/4" SERVICE W/3/4" METER	49 EA.	8) 1" SERVICE LATERALS	14 EA.	8) 2" STREET METER SIGNS	1 EA.
9) 3/4" SERVICE W/3/4" METER (IRRIGATION)	1 EA.	9) 1" SERVICE LATERALS	14 EA.	9) 2" STREET METER SIGNS	1 EA.
10) 2" BLOW-OFF ASSEMBLY W/CAP	2 EA.	10) 1" SERVICE LATERALS	14 EA.	10) 2" STREET METER SIGNS	1 EA.
11) 2" WATER MAIN	2201 LF.	11) 1" SERVICE LATERALS	14 EA.	11) 2" STREET METER SIGNS	1 EA.
12) 3/4" SERVICE W/3/4" METER	49 EA.	12) 1" SERVICE LATERALS	14 EA.	12) 2" STREET METER SIGNS	1 EA.
13) 3/4" SERVICE W/3/4" METER (IRRIGATION)	1 EA.	13) 1" SERVICE LATERALS	14 EA.	13) 2" STREET METER SIGNS	1 EA.
14) 2" BLOW-OFF ASSEMBLY W/CAP	2 EA.	14) 1" SERVICE LATERALS	14 EA.	14) 2" STREET METER SIGNS	1 EA.
15) 2" WATER MAIN	2201 LF.	15) 1" SERVICE LATERALS	14 EA.	15) 2" STREET METER SIGNS	1 EA.
16) 3/4" SERVICE W/3/4" METER	49 EA.	16) 1" SERVICE LATERALS	14 EA.	16) 2" STREET METER SIGNS	1 EA.
17) 3/4" SERVICE W/3/4" METER (IRRIGATION)	1 EA.	17) 1" SERVICE LATERALS	14 EA.	17) 2" STREET METER SIGNS	1 EA.
18) 2" BLOW-OFF ASSEMBLY W/CAP	2 EA.	18) 1" SERVICE LATERALS	14 EA.	18) 2" STREET METER SIGNS	1 EA.
19) 2" WATER MAIN	2201 LF.	19) 1" SERVICE LATERALS	14 EA.	19) 2" STREET METER SIGNS	1 EA.
20) 3/4" SERVICE W/3/4" METER	49 EA.	20) 1" SERVICE LATERALS	14 EA.	20) 2" STREET METER SIGNS	1 EA.
21) 3/4" SERVICE W/3/4" METER (IRRIGATION)	1 EA.	21) 1" SERVICE LATERALS	14 EA.	21) 2" STREET METER SIGNS	1 EA.
22) 2" BLOW-OFF ASSEMBLY W/CAP	2 EA.	22) 1" SERVICE LATERALS	14 EA.	22) 2" STREET METER SIGNS	1 EA.
23) 2" WATER MAIN	2201 LF.	23) 1" SERVICE LATERALS	14 EA.	23) 2" STREET METER SIGNS	1 EA.
24) 3/4" SERVICE W/3/4" METER	49 EA.	24) 1" SERVICE LATERALS	14 EA.	24) 2" STREET METER SIGNS	1 EA.
25) 3/4" SERVICE W/3/4" METER (IRRIGATION)	1 EA.	25) 1" SERVICE LATERALS	14 EA.	25) 2" STREET METER SIGNS	1 EA.
26) 2" BLOW-OFF ASSEMBLY W/CAP	2 EA.	26) 1" SERVICE LATERALS	14 EA.	26) 2" STREET METER SIGNS	1 EA.
27) 2" WATER MAIN	2201 LF.	27) 1" SERVICE LATERALS	14 EA.	27) 2" STREET METER SIGNS	1 EA.
28) 3/4" SERVICE W/3/4" METER	49 EA.	28) 1" SERVICE LATERALS	14 EA.	28) 2" STREET METER SIGNS	1 EA.
29) 3/4" SERVICE W/3/4" METER (IRRIGATION)	1 EA.	29) 1" SERVICE LATERALS	14 EA.	29) 2" STREET METER SIGNS	1 EA.
30) 2" BLOW-OFF ASSEMBLY W/CAP	2 EA.	30) 1" SERVICE LATERALS	14 EA.	30) 2" STREET METER SIGNS	1 EA.
31) 2" WATER MAIN	2201 LF.	31) 1" SERVICE LATERALS	14 EA.	31) 2" STREET METER SIGNS	1 EA.
32) 3/4" SERVICE W/3/4" METER	49 EA.	32) 1" SERVICE LATERALS	14 EA.	32) 2" STREET METER SIGNS	1 EA.
33) 3/4" SERVICE W/3/4" METER (IRRIGATION)	1 EA.	33) 1" SERVICE LATERALS	14 EA.	33) 2" STREET METER SIGNS	1 EA.
34) 2" BLOW-OFF ASSEMBLY W/CAP	2 EA.	34) 1" SERVICE LATERALS	14 EA.	34) 2" STREET METER SIGNS	1 EA.
35) 2" WATER MAIN	2201 LF.	35) 1" SERVICE LATERALS	14 EA.	35) 2" STREET METER SIGNS	1 EA.
36) 3/4" SERVICE W/3/4" METER	49 EA.	36) 1" SERVICE LATERALS	14 EA.	36) 2" STREET METER SIGNS	1 EA.
37) 3/4" SERVICE W/3/4" METER (IRRIGATION)	1 EA.	37) 1" SERVICE LATERALS	14 EA.	37) 2" STREET METER SIGNS	1 EA.
38) 2" BLOW-OFF ASSEMBLY W/CAP	2 EA.	38) 1" SERVICE LATERALS	14 EA.	38) 2" STREET METER SIGNS	1 EA.
39) 2" WATER MAIN	2201 LF.	39) 1" SERVICE LATERALS	14 EA.	39) 2" STREET METER SIGNS	1 EA.

**BENCHMARK**  
 2" BRASS CAP IN TOP OF HARDSCAPE.  
 MONUMENT NO. 13 - PER VILLAGE 1 NORTH & SOUTH MONUMENT CONTROL PLAN DATED JUNE 5, 1990 REVISION NO. 1 ELEVATION 2644.86 C.L.V. DATUM

Richard G. Brown 10/16/90 DATE  
 CLV FIRE MARSHALL  
 10-17-90 DATE  
 LAS VEGAS VALLEY WATER DIST.  
 10-17-90 DATE  
 NEVADA POWER COMPANY  
 NEVADA POWER COMPANY APPROVAL IS ONLY FOR THE PLACEMENT AND CLEARANCE OF STREET LIGHT AND SIGNAL LIGHT INSTALLATIONS.

REVISION	DATE	BY	APPD.
1	10-16-90	WJR	
2	10-17-90	WJR	
3	10-17-90	WJR	
4	10-17-90	WJR	
5	10-17-90	WJR	
6	10-17-90	WJR	
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49	10-17-90	WJR	
50	10-17-90	WJR	

CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS  
 2727 SOUTH RAINBOW BOULEVARD  
 LAS VEGAS, NEVADA 89102-5148 PHONE (702) 873-7550 FAX (702) 362-3597

**MASTER UTILITY PLAN**

**BELAIRE ESTATES UNIT 1**

HO NO. 3967-1  
 BY WJR  
 DATE SEPT. 1990  
 SCALE 1" = 40'

SHEET 7 OF 10 SHEETS

10-13-23 307V-4147-1