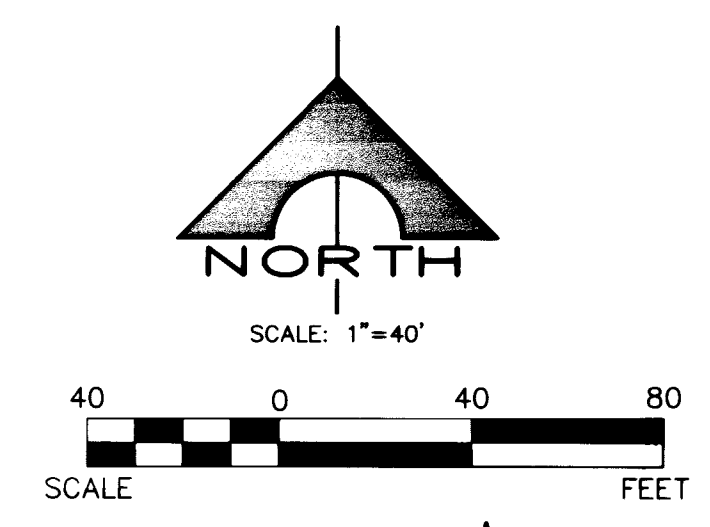
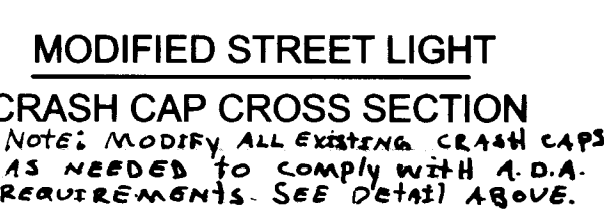
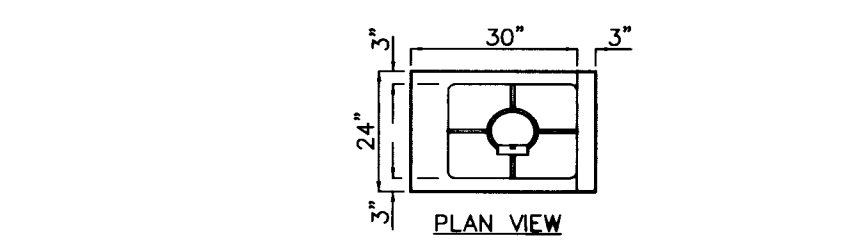
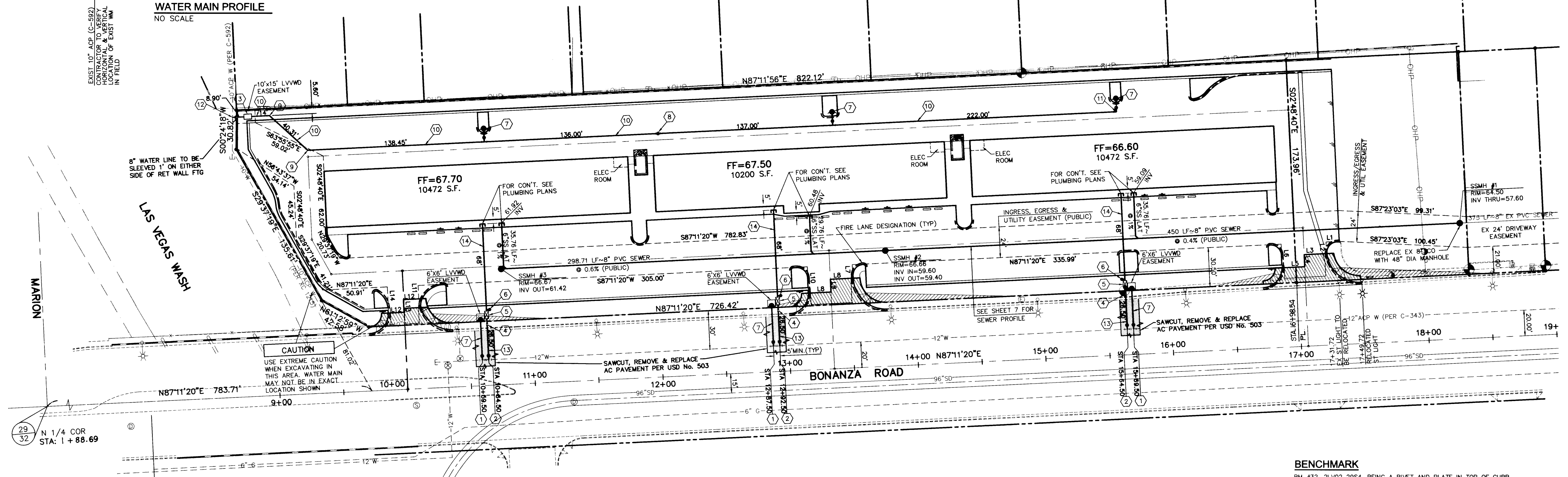


WATER MAIN PROFILE
NO SCALE

PROJECT NAME: **SEAGULL PARK BONANZA EAST PLAZA**
(SPP 1, 2, 3, 4)
This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is **NOT APPROVED FOR CONSTRUCTION** at this time and this signature does not provide or imply a water commitment.
Quinn S. Rankin 5-19-99
LWVWD DATE

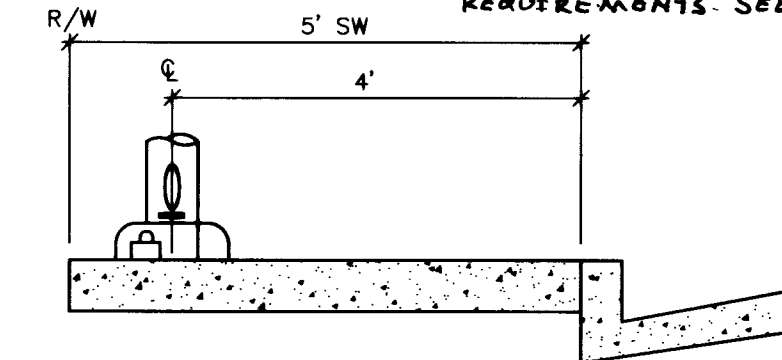


SUNLAND VILLAGE
BOOK 4 PAGE 91

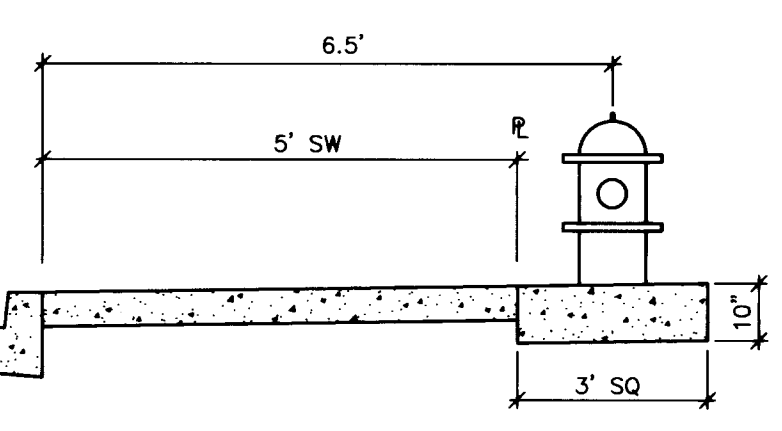


Line Table

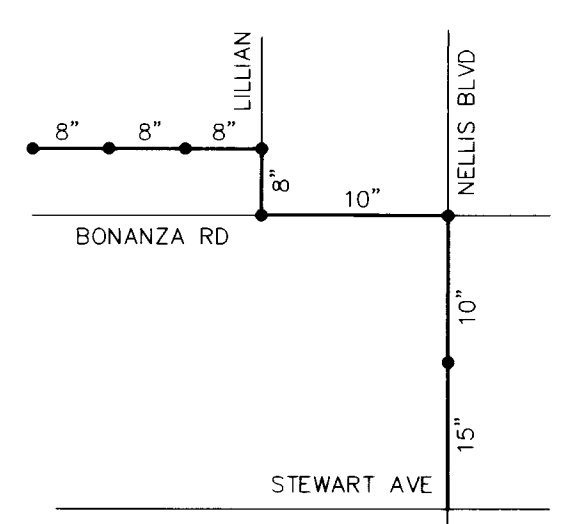
No.	Bearing	Distance
1	N87°11'20"E	10.48'
2	N02°48'40"W	3.08'
3	N87°17'58"E	17.58'
4	N02°48'40"W	3.48'
5	N87°11'20"E	12.51'
6	N02°48'40"W	18.50'
7	N02°48'40"W	10.54'
8	N87°11'20"E	17.54'
9	N02°48'40"W	9.99'
10	N02°48'40"W	20.53'
11	N02°48'40"W	10.50'
12	N87°11'20"E	12.00'
13	N02°48'40"W	9.89'
14	N02°48'40"W	20.39'



STREET LIGHT DETAIL TYPICAL



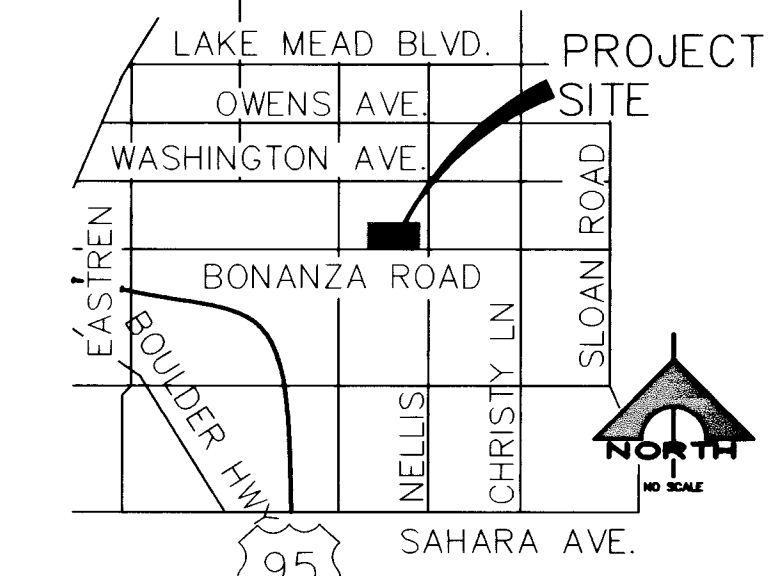
FIRE HYDRANT DETAIL TYPICAL



LOCATION MAP

LEGEND

- 12" W— EXISTING WATER LINE
- 8" SS— EXISTING SEWER LINE
- G— EXISTING GAS LINE
- 12" SD— EXISTING STORM DRAIN
- OH— EXISTING OVERHEAD POWER
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING MANHOLE
- PROPOSED WATER LINE
- PROPOSED SEWER LINE
- PROPOSED FIRE HYDRANT
- ⊙ PROPOSED WATER VALVE
- PROPOSED MANHOLE
- PROPOSED CLEANOUT
- FIRE LANE - PAINT CURBS RED



VICINITY MAP

CONSTRUCTION NOTES AND ESTIMATE OF QUANTITIES

- WATER**
- 1) INSTALL 12"x6" TAPPING SLEEVE AND 6" TAPPING VALVE 3 EA
 - 2) INSTALL 12"x 1-1/2" SERVICE SADDLE WITH CORP. STOP PER UDACS PLATE 1-D 3 EA
 - 3) INSTALL 8" DCCA (FEBCO "N" PATTERN, MODEL No. 876) PER UDACS PLATE NO. 20B 1 EA
 - 4) INSTALL 1-1/2" WATER METER PER UDACS PLATE NO 1-D 3 EA
 - 5) INSTALL 1-1/2" RPPA PER UDACS PLATE NO 11-A 3 EA
 - 6) INSTALL IRRIGATION AUTO SUPPORT VALVE 3 EA
 - 7) INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO 7 6 EA
 - 8) INSTALL 8" GATE VALVE 1 EA
 - 9) INSTALL 8" 45° BEND 2 EA
 - 10) INSTALL 8" WATER MAIN (FIRE) 688 LF
 - 11) INSTALL 8" 90° BEND 3 EA
 - 12) INSTALL 10"x8" MECH. JT. TAPPING SLEEVE & 8" TAPPING VALVE 1 EA
 - 13) INSTALL 1-1/2" WATER LINE 80 LF
 - 14) INSTALL 2" WATER LINE 204 LF
 - 15) INSTALL 2"x1-1/2" REDUCER 3 EA
- SEWER**
- 48" STANDARD MANHOLE (PUBLIC) 3 EA
 - 8" PVC SEWER (PUBLIC) 749 LF
 - 6" PVC SEWER 101 LF

NOTE:
THIS PROPERTY MAY HAVE 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. PRV'S ARE THE DEVELOPERS RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN ACCEPTANCE OF LWVWD FACILITIES.

INSTALLATION OF DOUBLE CHECK DETECTOR ASSEMBLY (1) - 8"

THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS STANDARD 20B. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

REDUCED PRESSURE PRINCIPLE ASSEMBLY - (3) (1-1/2")

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS STANDARD PLATE NO. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REQUIRED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LWVWD.

SEWER CONTRIBUTION
AVERAGE FLOW = 0.0112 MGD
PEAK FLOW = 0.0390 MGD

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 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 LOCATION.

BENCHMARK
BM #32, 2LV02 2954, BEING A RIVET AND PLATE IN TOP OF CURB, NE RETURN MARION DRIVE AND BONANZA ROAD.
ELEV: 1766.98' NAVD88

BASIS OF BEARINGS
N 87°11'20" E BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 62 EAST, M.D.M., CITY OF LAS VEGAS, NEVADA. AS PER PARCEL MAP 48, PAGE 97 OF CLARK COUNTY OFFICIAL RECORDS, SAID LINE ALSO BEING THE CENTERLINE OF BONANZA ROAD.

LAS VEGAS FIRE DEPARTMENT

FIRE FLOW IS 2000 GPM AT 20PSI RESIDUAL PRESSURE
BASED ON:
SQUARE FOOTAGE:
AREA BETWEEN 4 HOUR AREA SEPARATION WALLS:
BUILDING HEIGHT: 1 FT
NUMBER OF STORIES: 1
OCCUPANCY: B&M
FULL AUTOMATIC FIRE SYSTEM: NO
TYPE CONSTRUCTION: V-1 HR

APPROVAL
APPROVED FOR CONSTRUCTION
Quinn S. Rankin 5/19/99
CITY FIRE MARSHAL DATE

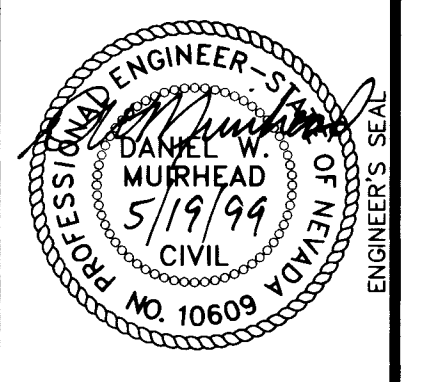
LAS VEGAS VALLEY WATER DISTRICT DATE



SCALE (H)	SCALE (V)	DESIGN BY	DRAWN BY	REV. #	DATE	DESCRIPTION	APPROVAL
1"=40'	NONE	PK	PK				
					7/14/99	ADD 10' TO 4.5' VARIATION TO RETAINING WALL	
					7/15/99	REPLACE EX 8" DCCA WITH 48" DIA MANHOLE	

TETRA
Southwest
3081 South Valley View • Las Vegas, Nevada 89012
Phone: (702) 889-6010 • Fax: (702) 889-6020

SEAGULL PARK
BONANZA EAST PLAZA
UTILITY PLAN



SHEET C4
4 OF 7 SHEETS
JOB# 99007
107-V3097

