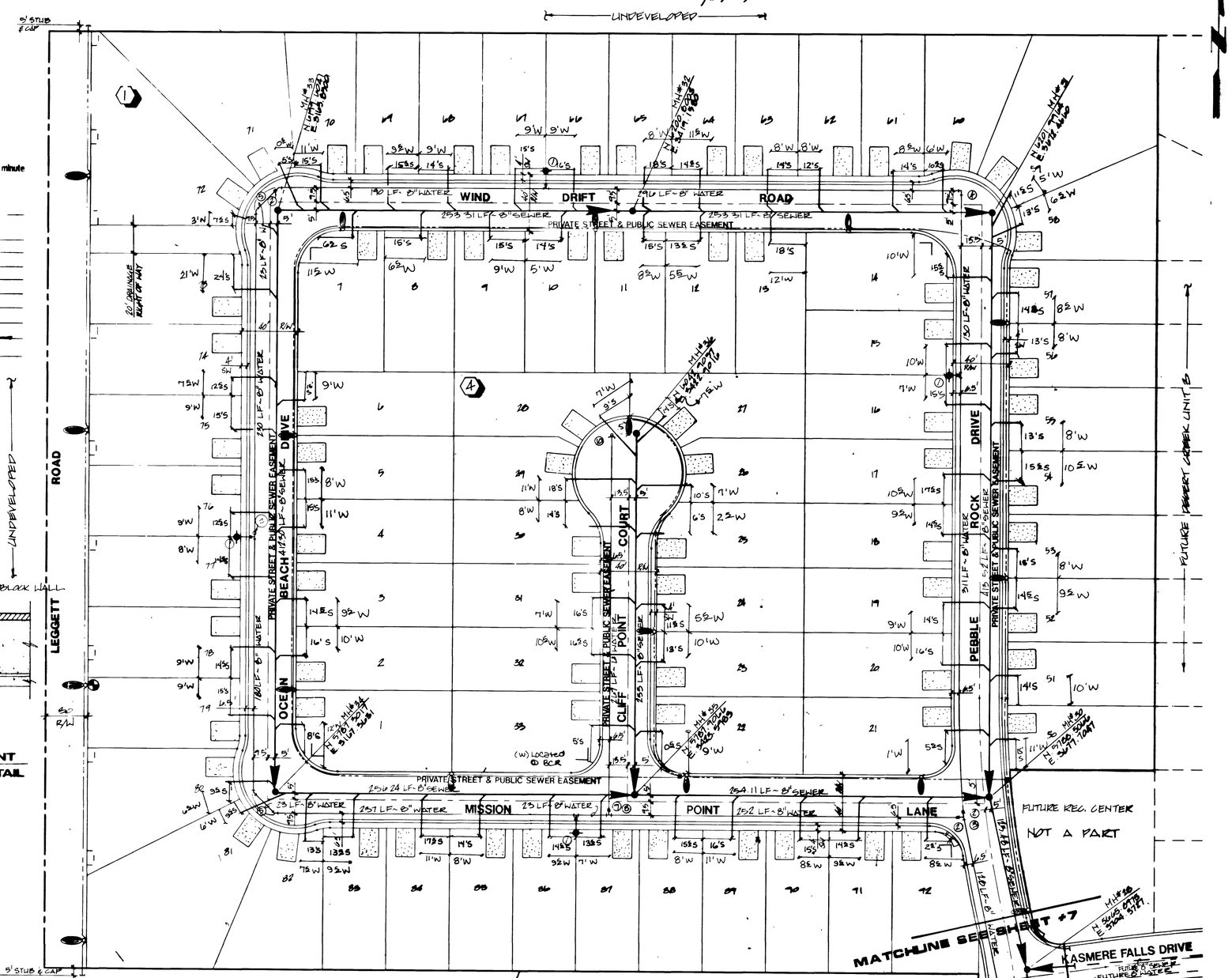
SEWER AND WATER LATERAL ASBUILTS

UTILITY "ASBUILT" CERTIFICATION
John H. Grange
JOHN H.GRANGE, P.L.S.
NEVADA CERT.NO. 8341

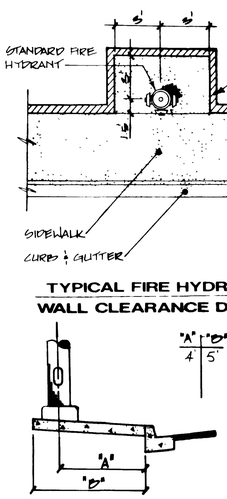
PROFESSIONAL LAND SURVEYOR - STATE OF NEVADA - JOHN H. GRANGE - CERT. No. 8341
1-4-94



LAS VEGAS FIRE DEPARTMENT

Fire Flow Requirement is 1500 gallons per minute at 20 pounds per square inch residual.

Based on:
Square footage 1973 SF
Largest area between area separation walls 10'
Height 2 STORY - 24'
Type of Construction V
Exposures NONE
Sprinkler System NO
Occupancy SINGLE FAMILY
Roof Construction CERAMIC TILE
Reviewed By: Richard G. Brown
Date: 11-21-91



TYPICAL FIRE HYDRANT WALL CLEARANCE DETAIL

STREETLIGHT DETAIL

CITY OF LAS VEGAS SEWER NOTES

1. All construction and materials shall be in accordance with the latest edition of the Design & Construction Standards for Wastewater Collection Systems and the Uniform Standard Specifications for Public Works" Construction Off-Site Improvements, Clark County Area, Nevada, as amended. In all cases, these Standards shall supersede the Uniform Standard Specifications. It will be the responsibility of the Contractor to be aware of the contents of the above specification books.
2. It shall be the Contractor's responsibility to perform construction as per plans. Any additions, deletions, or changes shall first meet with the approval of the controlling Agency.
3. Chisel "S" or "W" in curbs where sewer or gas laterals pass under the curb.
4. Polyvinyl (PVC) sewer pipe shall meet ASTM D-3034 SDR 35 specifications, installed with sand bedding and backfill of Type II granuel.
5. All manholes in paved streets 60' R/W and larger, shall have concrete collars.
6. The saddles shall be used to connect sewer laterals to outgoing main. Use up to 12" dia. size. Connections to 15" or larger mains shall require special procedures.
7. A sewer main crossing over a water main or less than 18" under a water main, must be reinforced concrete encased for a distance not less than 10 feet (10') to each side of the centerline of the sewer main.
8. All Contractors installing sewer mains that will be under the jurisdiction of the controlling Agency must be Class "A" Contractors.

PROJECT NAME: DESERT CREEK Phase II Unit 1
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.

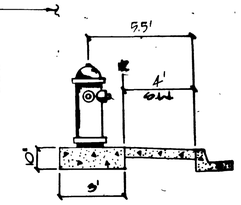
LVVWD 11-26-91 Date
Sheets 1 of 7

BENCHMARK

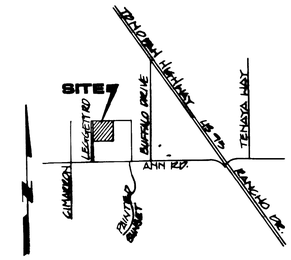
BM = U.S.G.S. Brass Cap and Conc. stamped 5169 Reset 1963
Elev. = 2357.04
Approx. 400' No. Ann Road & 4.0' East of the East E.P. NB Lane of Oran Gragson Expressway

STREET LIGHT NOTE

1. All street light 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. ALL HAND HOLE COVERS MUST BE INSTALLED, POLE CAPS REMOVED, AND PULL BOX LIDS BOLTED DOWN PRIOR TO ENERGIZING CIRCUIT. ALL WIRE MUST HAVE THW INSULATION. ALL BALLAST MUST BE MAG REG.



FIRE HYDRANT DETAIL



VICINITY MAP

LEGEND & QUANTITY ESTIMATE

WATER

7	FIRE HYDRANT ASS'Y (TO INCLUDE PIPE, TEE, VALVE, RISER)	7 EA.
2	8" GATE VALVE	11 EA.
3	8"x4" TEE	3 EA.
4	8" 90° BEND	1 EA.
5	8" 45° BEND	7 EA.
6	8" 22 1/4° BEND	3 EA.
7	8" CROSS	EA.
8	8"x1" TEE	1 EA.
9	1" GATE VALVE	1 EA.
10	2" BLOW OFF ASS'Y	2 EA.
	3/4" SERVICE	105 EA.
	5/8" METER BY LVVWD	105 EA.
	8" WATER MAIN	3292 LF.
	1" WATER MAIN	267 LF.
11	8"x8" M.J. TAPPING TEE & VALVE	1 EA.
12	8" 11 1/4° BEND	2 EA.
13	1" IRRIGATION SERVICE	1 EA.

SEWER

	STANDARD MANHOLE	14 EA.
	8" SEWER MAIN	1491 LF.
	4" SEWER LATERALS	2980 LF.
	WYES	109 EA.
	15" SEWER MAIN	110 LF.

OFFSITE STREETLIGHT

	150 WATT LUMIN.	4 EA.
	100 WATT LUMIN.	4 EA.
	1 1/2" CONDUIT	1337 LF.
	SERVICE POINT & R.O.O.G.	1 EA.
	STREET SIGNS	9 EA.

STREETLIGHT:

	100 WATT LUMIN.	20 EA.
	1 1/2" CONDUIT	9500 LF.
	#3 1/2 PULL BOX	5 EA.

*NOTE - W = Water Meter, S = Sewer — CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS", "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3545.
2. AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
   A. KENNEDY GUARDIAN
   B. MUELLER A-423 CENTURIAN
   C. CLOW MODEL 2546 MEDALLION
3. ON ANY NEW HOME OR BUILDING INSTALLATION, 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.
4. CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE #3545 TO IDENTIFY FIRE HYDRANT LOCATIONS.
5. CALL THE LAS VEGAS BUILDING DEPARTMENT AT 799-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
6. PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE, PER ORDINANCE #3545, SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
7. A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT. THE PERMIT AND CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
8. A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
9. ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND F.M. APPROVED.
10. FIRE HYDRANT SPACING:
    RESIDENTIAL - 500 FEET UNSPRINKLERED, 600 FEET SPRINKLERED
    COMMERCIAL, INCLUDING MULTI-FAMILY - 300 FEET UNSPRINKLERED, 400 FEET SPRINKLERED.
11. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
12. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
13. NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
14. THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE, SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS AND 22 FEET INSIDE RADIUS.
15. A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS (SEE EXCEPTIONS IN UFC 88, SECTION 10.207).
16. ALL DEAD END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA. SEE ORDINANCE #3545.

APPROVALS:

Richard G. Brown 11-21-91
CITY LAS VEGAS FIRE MARSHALL DATE

12-13-91
LAS VEGAS VALLEY WATER DISTRICT DATE

Don Jackson 12/10/91
NEVADA POWER COMPANY DATE
NEVADA POWER COMPANY APPROVAL IS ONLY FOR THE PLACEMENT & CLEARANCE OF STREET LIGHT & SIGNAL LIGHT INSTALLATION

REV	DATE	BY	REVISION
	1-6-94	JS	ADD STREET LIGHT TO INTERSECTIONS PER DEVELOPER

CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS
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LAS VEGAS, NEVADA 89102-5148 PHONE (702) 873-7550 FAX (702) 362-2597

DESERT CREEK ASSOCIATES
LAS VEGAS, NEVADA

TITLE: MASTER UTILITY PLAN ASBUILTS
PROJECT: DESERT CREEK PHASE II UNIT 1

SEAL
1-22-91

WO NO. A008-1
BY N.M.
DATE JAN. 91
SCALE NTS
SHEET 1 OF 2 SHEETS

"As Built" 3074-4074-II-1

SEWER AND WATER LATERAL ASBUILTS

UTILITY "ASBUILT" CERTIFICATION

JOHN HERNANDEZ, P.L.S.

NEVADA CERTIFICATE 12040

VICINITY MAP

LEGEND & QUANTITY ESTIMATE

TYPICAL FIRE HYDRANT WALL CLEARANCE DETAIL

STREETLIGHT DETAIL

FIRE HYDRANT DETAIL

STREETLIGHT NOTES

BENCHMARK

MASTER UTILITY PLAN ASBUILTS

DESERT CREEK PHASE II UNIT 1

CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

"As Built" 3077-00194-SC-1