

Call Before You Dig  
1-800-227-2600

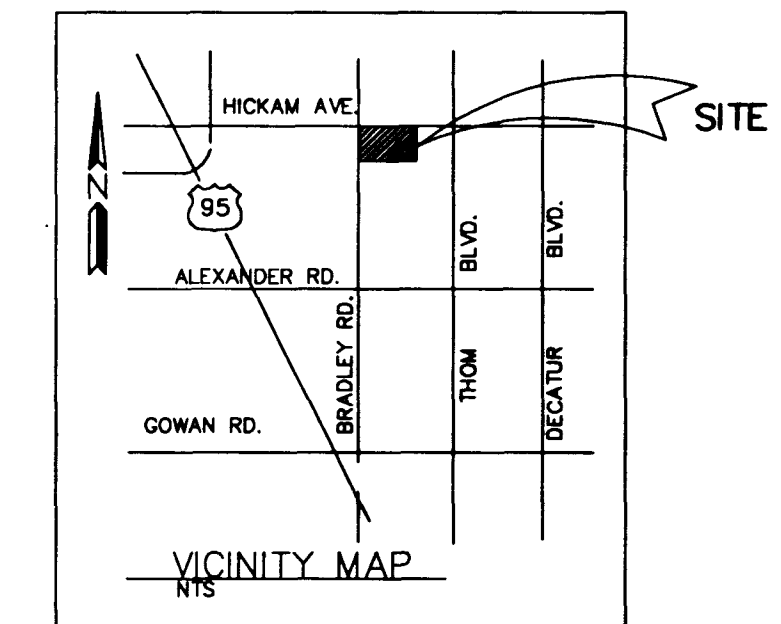
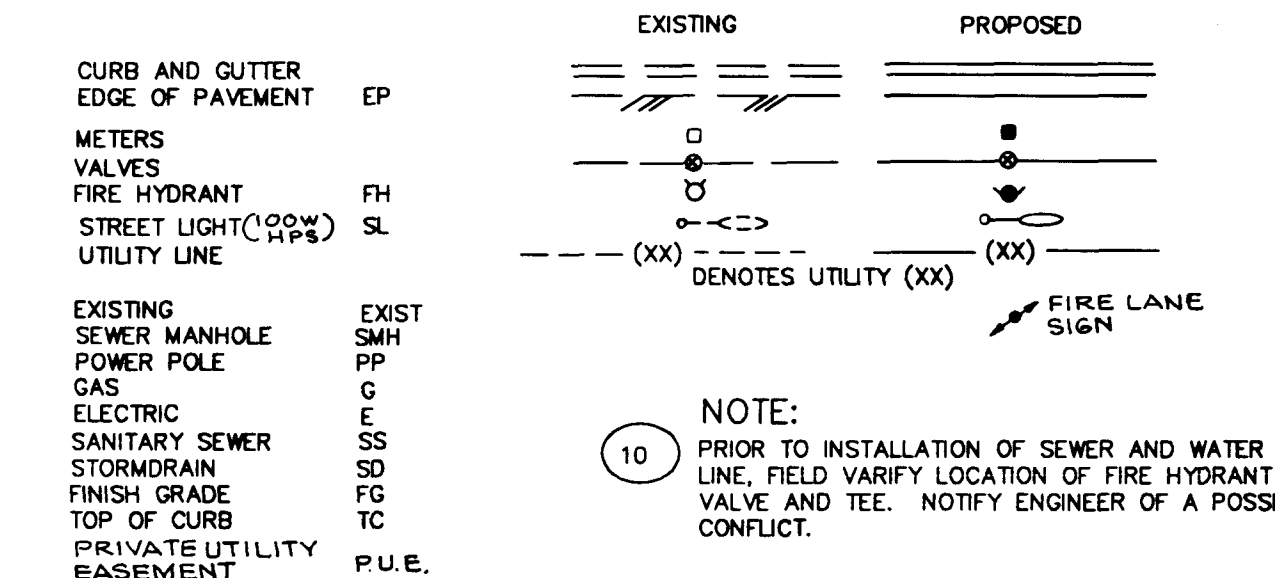
**UNDERGROUND UTILITY NOTICE:**  
THE LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN DETERMINED FROM SURFACE EVIDENCE OF THEIR EXISTENCE FROM INFORMATION OBTAINED FROM THE UTILITY COMPANIES. THE ENGINEER ACCEPTS NO LIABILITY FOR THE EXISTENCE OR NON-EXISTENCE OF UTILITY LINES. CONTRACTORS AND OTHERS USING THIS MAP MUST CONFIRM THE LOCATION OF UNDERGROUND LINES OF STRUCTURES WITH THE UTILITY COMPANIES PRIOR TO COMMENCING ANY EXCAVATIONS.

A 1" x 3/4" ANGLE METER STOP AND 3/4" METER BOX WILL BE REQUIRED WITH THE 1" SERVICE LATERALS FOR ALL SERVICES WITH 5/8" OR 3/4" SERVICES. DETAILS OF THE ABOVE INSTALLATION ARE AVAILABLE FROM THE ENGINEERING SERVICES DIVISION AND FROM THE DISTRICT'S INSPECTORS.

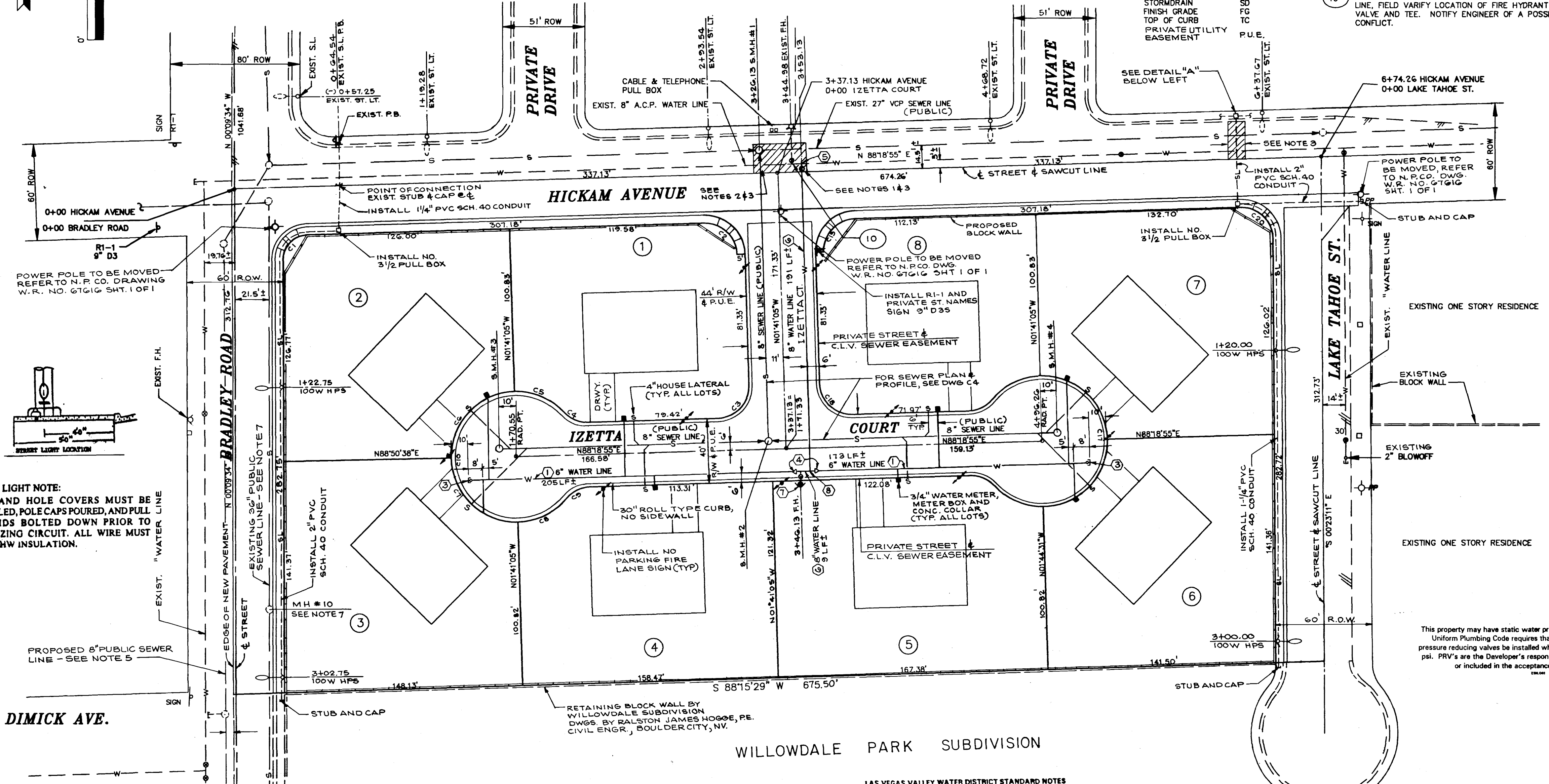
**ESTIMATE OF SEWER QUANTITIES**

8" PVC SEWER LINE W/FITTINGS	517 LF
4" PVC HOUSE LATERAL	248 LF
48" DIAMETER MANHOLE	3 EA.
60" DIAMETER MANHOLE	1 EA.

**ABBREVIATIONS AND LEGEND**



**LB Engineering**  
LEONARD BRUNO  
940 S. MARTIN L. KING  
LAS VEGAS, NV. 89106  
(702) 382-7559



**ESTIMATE OF WATER QUANTITIES**

1	8" PVC WATER LINE W/FITTINGS	378 LF
2	1" COPPER WATER SERVICE	8 EA
3	3/4" WATER METER PER U.D.S. PL. NO. 10	8 EA
4	6" CAP W/2" B.O. ASSEMBLY PER U.D.S. PL. NO. 4	2 EA
5	8"x6" MI TAPPING TEE W/5" TAPPING VALVE	2 EA
6	8" PVC WATER LINE W/FITTINGS	200 LF
7	FIRE HYDRANT ASSY PER U.D.S. PL. NO. 7 & U.S.D. 516	1 EA
8	8" TEE	1 EA

**SEWAGE FLOW**

AVERAGE DAILY FLOW = 1446 GAL/DAY  
PEAK FLOW = 4923 GAL/DAY

**FIRE FLOW CALCULATION**

FIRE FLOW REQUIREMENT IS 1,500 GALLONS PER MINUTE AT 20 PSI RESIDUAL

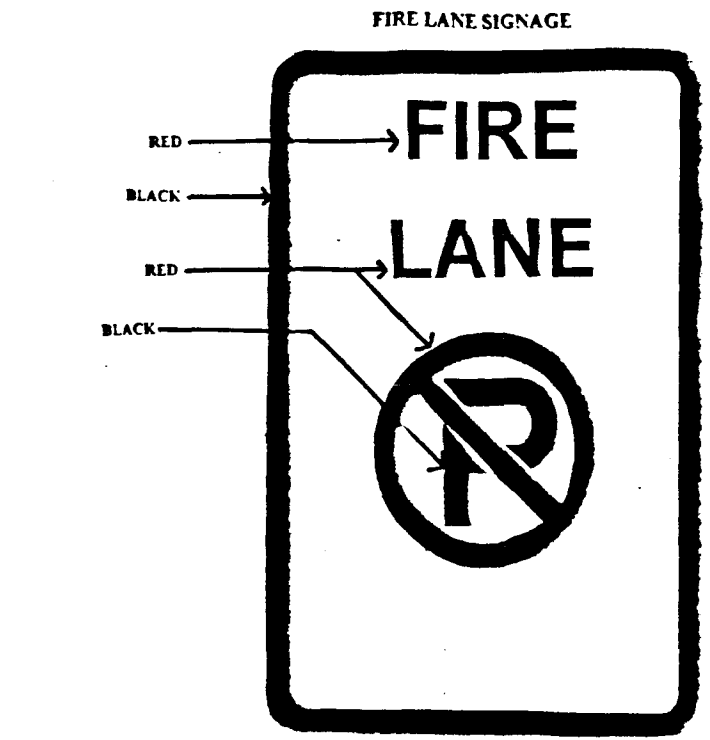
BASED ON:

SQUARE FOOTAGE	3,000 <sup>sq</sup>
BUILDING HEIGHT	20' MAX SINGLE STORY
TYPE OF CONSTRUCTION	5-N
SPRINKLER SYSTEM	NONE

**NOTES:**

- FOR WATER LINE TRENCHING AND REPAVING REQUIREMENTS, REFER TO C.L.V. UNIFORM STD. DWG. NO. 503 & U.D.S. PL. NO. 68.
- FOR SEWER LINE TRENCHING AND REPAVING REQUIREMENTS, REFER TO C.L.V. UNIFORM STD. DWG. NO. 503 & U.D.S. PL. NO. 68.
- REMOVE EXISTING PAVING AND RECONSTRUCT CROSS HATCH AREA AS FOLLOWS: MACHINE LAID PAVEMENT REPLACEMENT, 10 FT. MIN. WIDTH OF FOG SEAL OVER 3/4" CONC. OVER PRIME COAT OVER 4" TYPE II AGGREGATE BASE OVER 6" TYPE I AGGREGATE BASE.
- STREET LIGHT NOTES: ALL HAND HOLE COVERS MUST BE INSTALLED, POLE CAPS POURED AND PULL BOX LIDS BOLTED DOWN PRIOR TO ENERGIZING CIRCUIT. ALL WIRES MUST HAVE THW INSULATION.
- 8" SEWER LINE AND MANHOLE ON WEST SIDE BRADLEY ROAD ARE PARTS OF WILLOWDALE PARK SUBDIVISION PROJECT SOUTH OF THIS SUBDIVISION.
- STREET LIGHT INSTALLATIONS SHALL CONFORM TO CITY OF LAS VEGAS STANDARD DRAWINGS AND SPECIFICATIONS.
- 36" SEWER LINE AND MANHOLE EAST SIDE BRADLEY ROAD CURRENTLY UNDER CONSTRUCTION BY C.L.V. (MONTE CRISTO/CHEYENNE INTERCEPTOR PROJECT)

**STREET LIGHT NOTE:**  
ALL HAND HOLE COVERS MUST BE INSTALLED, POLE CAPS POURED, AND PULL BOX LIDS BOLTED DOWN PRIOR TO ENERGIZING CIRCUIT. ALL WIRE MUST HAVE THW INSULATION.

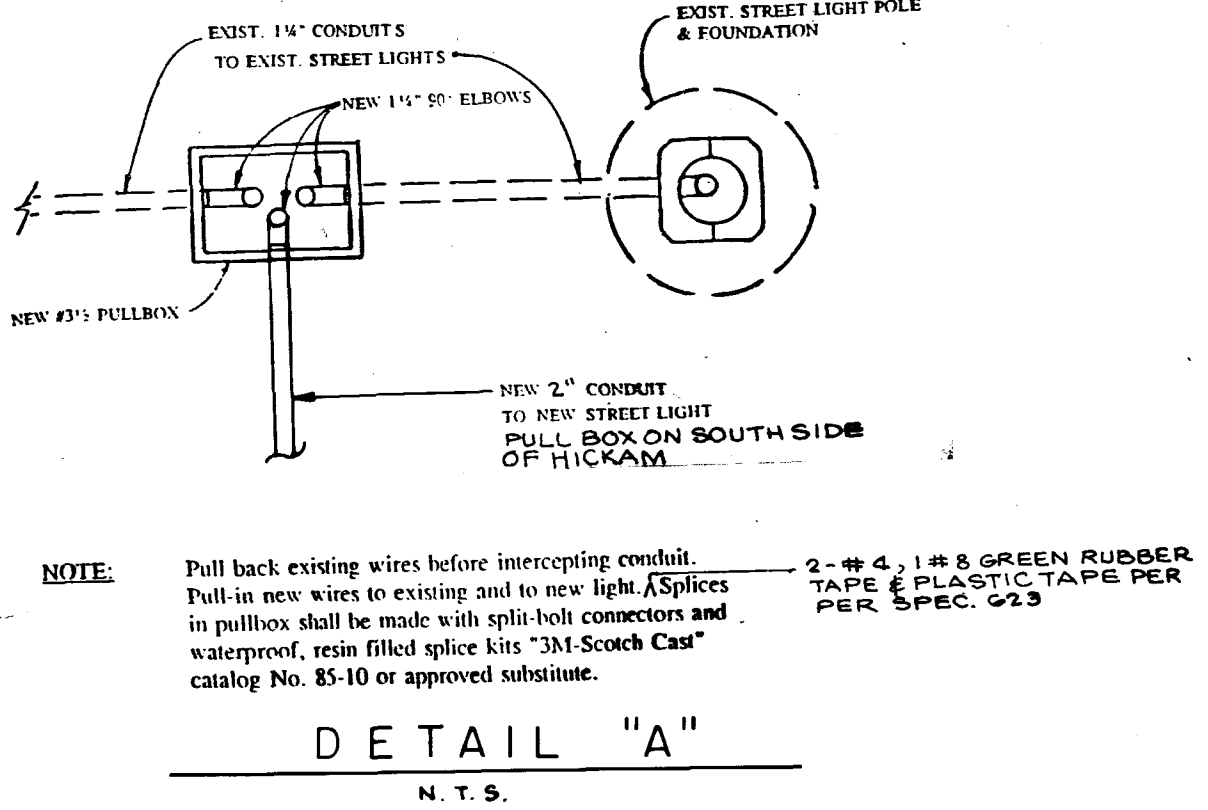


**Minimum Specifications of "No Parking Fire Lane Signs"**

Size: 1' wide x 1 1/2' long or 2' wide x 2 1/2' long as required

Color: Red and black on white luminous background (see above example)

Symbol: International No Parking Symbol

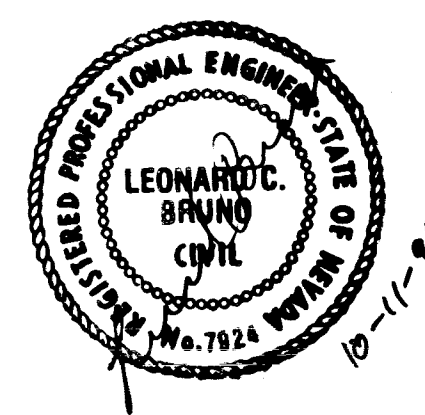


**WILLOWDALE PARK SUBDIVISION**

**LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES**

- No work shall begin until the water plans have been released for construction by the LVVWD. Following water plan approval, 48 hour notice shall be given to the LVVWD Communication Support Center (258-7171) prior to the start of construction. Notice must be given by 2:00 p.m. the business day prior to a LVVWD inspection.
- All work shall conform to the LVVWD's Standard Plates, Drawings, and Specifications and the Uniform Design and Construction Standards for Water Distribution Systems (UDACS), latest edition.
- All work, except as modified by these plans or by Note 2, shall be done in accordance with the most current draft or edition of the Uniform Standard Specifications for Public Works Construction Offset Improvement, Clark County Area.
- A single pipe material shall be used throughout the project unless otherwise approved by the LVVWD.
- All service laterals two (2) inches in diameter and smaller shall be copper tubing with LVVWD approved service saddles.
- All water meter boxes shall be located outside of driveway areas.
- All valves shall be located outside of driveways, valley and curb gutters.
- The following requirements must be met in the event a water line and sanitary or storm sewer line cross:
  - A minimum eighteen (18) inch vertical separation (outside to outside) must be maintained when the water line is installed over the sanitary or storm sewer line. If the vertical separation cannot be maintained or the water line must be placed under the sanitary or storm sewer line, the sanitary or storm sewer line must be constructed with one of the following or, as shown on these plans:
    - Potable Water supply quality material.
    - Encasement with four (4) inch concrete (minimum)
    - Sleeving with potable water supply quality pipe.
  - Each provision must extend along the sanitary or storm sewer, on either side of the main, a minimum 10 foot distance perpendicular to the water main exterior.

- Warning tape shall be required over all mains, all six (6) inch diameter and larger service laterals, and any service lateral not installed perpendicular to the main in accordance with Standard Plate No. 27.
- All water facilities shall be filled, disinfected, pressure tested, flushed, filled and an acceptable water sample obtained, prior to connection to the LVVWD's distribution system.
- The contractor must obtain all meters two (2) inches and smaller from LVVWD Central Stores. Telephone 258-3152 forty-eight (48) hours prior to pickup.
- Construction may interrupt service, with LVVWD approval and proper notification, between the hours of 10 PM and 5 AM, Sunday through Thursday. Circumstances may require temporary service feeds be installed, without LVVWD reimbursement. Any temporary service feed must have prior LVVWD approval.
- All water facility construction materials used must be as listed on the LVVWD's Pre-Approved Materials and Manufacturers Listing for New Facilities, latest revision, or specifically approved on these plans.



PROJECT NAME: **MRKULIC PARK**

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.

*Gregory P. Rodwin* 8/9/96  
LVVWD DATE

*Gregory P. Rodwin* 10-11-96  
CITY OF LAS VEGAS DATE  
FIRE DEPARTMENT

*Gregory P. Rodwin* 10-11-96  
LAS VEGAS VALLEY WATER DISTRICT DATE

*Lee Tupsalaha* 11-1-96  
NEVADA POWER COMPANY DATE

NOTE: THIS APPROVAL IS ONLY FOR ACKNOWLEDGING THE LOCATION OF STREET LIGHTS AND SIGNALS; NOT FOR INSTALLATIONS AND STREET LIGHT CLEARANCE.

REV	BY	DATE	DESCRIPTION	APPR

Drawn by: *ASB*  
Check by:   
Date:   
Scale: 1"=60'

**MRKULIC PARK**  
RESIDENTIAL PLANNED DEVELOPMENT

MASTER UTILITY PLAN

DRAWING NO. **C5**

SHEET **5** OF **5**

1328

307Y-4515

