

Call before you dig  
1-800-227-2600

**SEWER LATERAL ENCASUREMENT NOTE:**

THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT OF WATER-SEWER/STORM DRAIN CROSSING:

- 1) WHEN PROTECTION OF THE WATERLINE IS CONSIDERED, THE MINIMUM VERTICAL DISTANCE OF 18 INCHES MUST BE MAINTAINED WHEN THE WATERLINE IS INSTALLED OVER THE SEWER/STORM LINE. IF THIS DISTANCE CANNOT BE MAINTAINED BECAUSE OF PHYSICAL OBSTRUCTIONS OR THE WATERLINE MUST BE PLACED UNDER THE SEWER/STORM LINE, THE SEWER/STORM LINE MUST BE CONSTRUCTED WITH ANY ONE OF THE FOLLOWING:
  - a. EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE.
  - b. WATER SUPPLY QUALITY MATERIAL.
  - c. ENCASUREMENT WITH 4 INCHES MINIMUM CONCRETE SLEEVING OR WITH WATER QUALITY PIPE.
- 2) WHEN LESS THAN 3 FEET OF COVER IS PROVIDED OVER SEWER LATERAL IN PUBLIC RIGHT-OF-WAY THE LATERAL REQUIRES REINFORCED CONCRETE ENCASUREMENT PER PLAN NO. 50-11, DESIGN AND CONSTRUCTION STANDARDS FOR WASTE WATER COLLECTION SYSTEMS, REQUIRED FOR LENGTH SPECIFIED FROM EDGE OF RIGHT-OF-WAY, WHERE INDICATED ON PLAN.

**CITY OF LAS VEGAS STREETLIGHT NOTES**

1. ALL STREET LIGHTING INSTALLATIONS SHALL CONFORM TO THE LATEST ISSUE OF 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, 1986 UNLESS OTHERWISE NOTED.
2. SEE UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION CITY OF LAS VEGAS, DRAWING NO. 318.
3. 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.

**CITY OF LAS VEGAS SEWER NOTES**

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND 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 SUPERCEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.
2. THESE STANDARDS SHALL APPLY TO ALL CONSTRUCTION.
3. SEWER MAINS ONLY TO BE LAID IN SEWER TRENCHES.
4. ALL LATERALS TO BE LAID AT NOT LESS THAN MINIMUM SLOPES AS SHOWN IN THESE STANDARDS.
5. 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.
6. SOILS TESTING SHALL BE DONE IN ACCORDANCE WITH SECTION 3.11 OF THESE STANDARDS.
7. ALL EXFILTRATION, INFILTRATION, AIR TESTING AND TELEVISION OF LINES SHALL BE IN ACCORDANCE WITH THESE STANDARDS.
8. CUT SHEETS MUST BE SUBMITTED TO THE AGENCY BEFORE CONSTRUCTION WILL BE PERMITTED TO START.
9. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.

**CITY OF LAS VEGAS FIRE DEPT. 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 NO. 3545.
2. AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
  - A - KENNEDY GUARDIAN
  - B - MUELLER A-423 CENTURION
  - C - CLOW MODEL 2546 MEDALLION
3. ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES, AND 540 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 NO. 3545 TO IDENTIFY FIRE HYDRANT LOCATIONS.
5. CALL THE LAS VEGAS BUILDING DEPARTMENT AT 229-2071 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 NO. 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' OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT, 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 OF 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 U.F.C. 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 TURNAROUND AREA. SEE ORDINANCE NO. 3545.

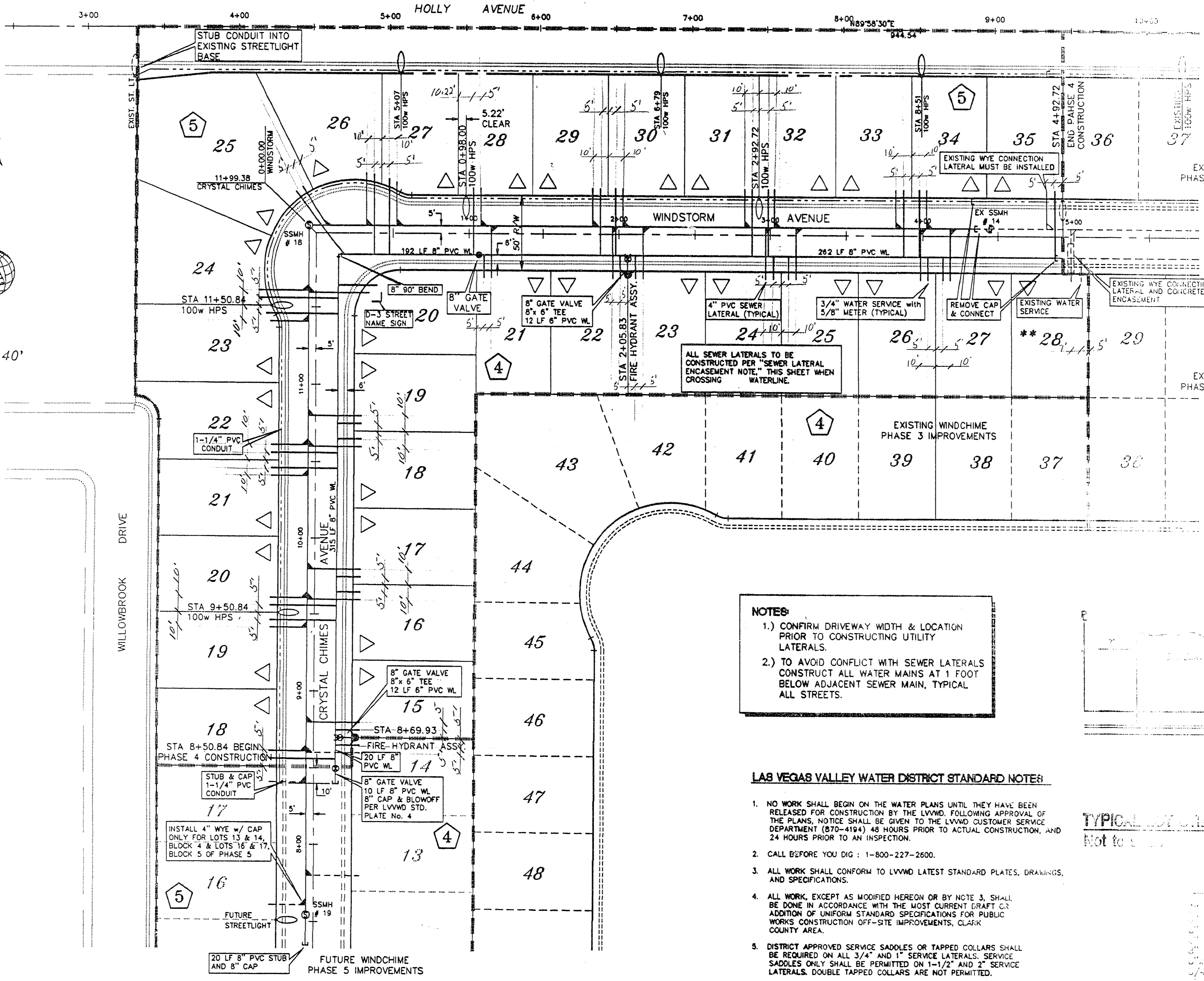
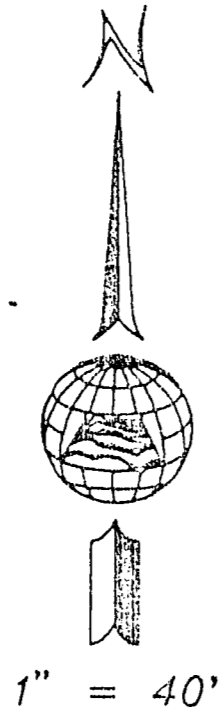
**SEWER LATERAL NOTES:**

1. FOR SEWER LATERAL DEPTHS @ R/W GREATER THAN OR EQUAL TO 4' STANDARD WYES ARE OK.
2. FOR SEWER LATERAL DEPTHS @ R/W LESS THAN 3.50', FLAT WYES AND CONCRETE ENCASUREMENT IS REQUIRED.
3. FOR SEWER LATERAL DEPTHS @ R/W BETWEEN 3.50' TO 4.00' FLAT WYES (TRANSITION BETWEEN FLAT WYE TO STANDARD WYE) WITHOUT CONCRETE ENCASING IS OK, UNLESS CROSSING OVER WATERLINE.

**BUILDING DATA -- CITY OF LAS VEGAS FIRE DEPARTMENT**

THE FIRE FLOW REQUIREMENT IS 1,500 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL PRESSURE. THIS REQUIREMENT IS BASED UPON SQUARE FOOTAGE FOR TYPE "V" NR CONSTRUCTION. THE FLOW INDICATED IS THE MINIMUM ALLOWED BY THE CITY OF LAS VEGAS FIRE DEPARTMENT FOR SINGLE FAMILY RESIDENTIAL CONSTRUCTION.

*David Berman 1/27/93*  
CITY OF LAS VEGAS FIRE DEPARTMENT DATE



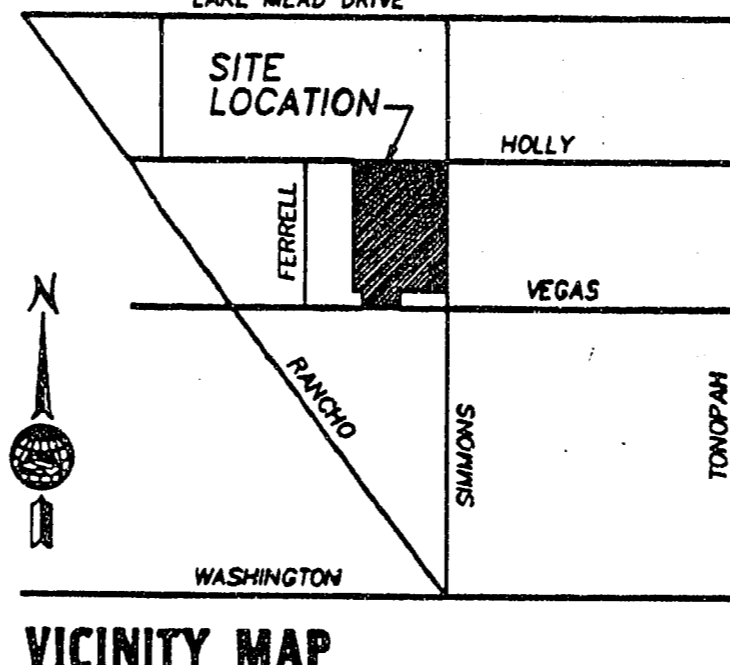
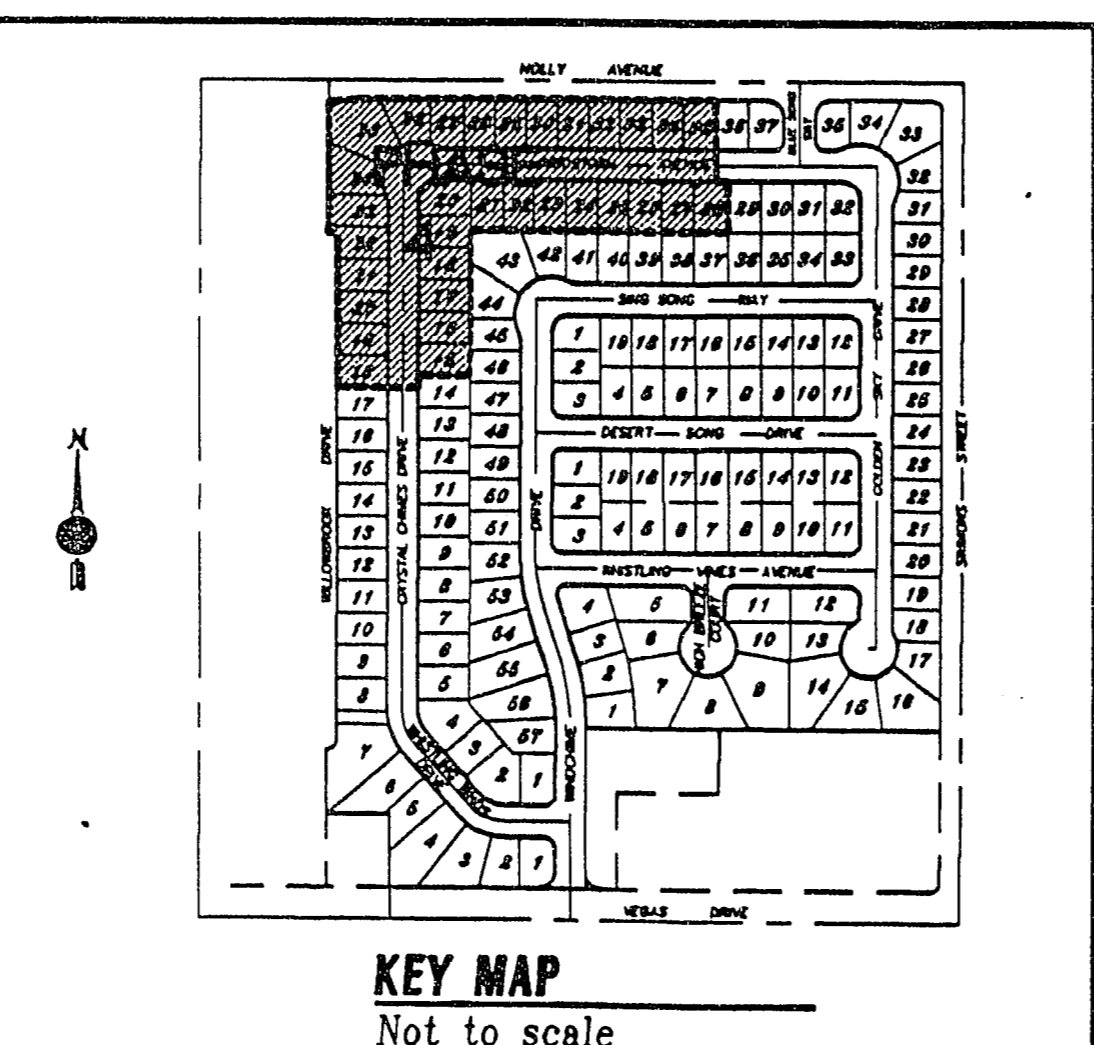
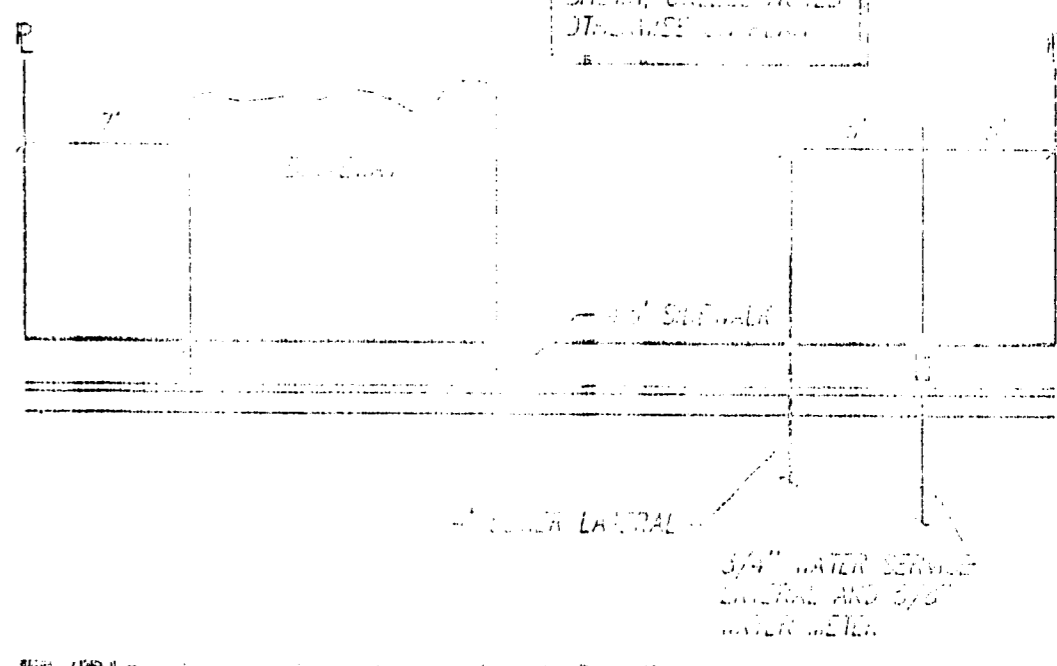
**NOTES:**

- 1) CONFIRM DRIVEWAY WIDTH & LOCATION PRIOR TO CONSTRUCTING UTILITY LATERALS.
- 2) TO AVOID CONFLICT WITH SEWER LATERALS CONSTRUCT ALL WATER MAINS AT 1 FOOT BELOW ADJACENT SEWER MAIN, TYPICAL ALL STREETS.

**LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES:**

1. 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 (870-4194) 48 HOURS PRIOR TO ACTUAL CONSTRUCTION, AND 24 HOURS PRIOR TO AN INSPECTION.
2. CALL BEFORE YOU DIG: 1-800-227-2600.
3. ALL WORK SHALL CONFORM TO LVWD LATEST STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS.
4. ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 3, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR ADDITION OF UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.
5. DISTRICT APPROVED SERVICE SADDLES 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.
6. COPPER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS SHALL BE OF COPPER TUBING IN ACCORDANCE WITH THE DISTRICT'S SPECIFICATIONS AND STANDARD PLATES.
7. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR A.C.P. AND DUCTILE IRON PIPE SHALL BE AS FOLLOWS:
 

PIPE SIZES	A.C.P.	DUCTILE IRON SLIP JOINT	DUCTILE IRON MECHANICAL JOINT
8 INCH	2.5 DEGREES	2.5 DEGREES	3.5 DEGREES
8-12 INCH	2.5 DEGREES	2.5 DEGREES	2.5 DEGREES
14-18 INCH	2.0 DEGREES	1.5 DEGREES	1.5 DEGREES
18-24 INCH	N/A	1.5 DEGREES	1.5 DEGREES
8. ON P.V.C. 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 THE OFFSETS CONFLICT WITH THE PIPE MANUFACTURER'S RECOMMENDATION, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
9. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
10. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS AND VALLEY OUTLIER.
10. DETECTOR TAPE SHALL BE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED, AND AS FOLLOWS:
  - a) OVER ALL MAINS NOT INSTALLED 8 FEET FROM BACK OF CURB.
  - b) OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAIN.
11. ALL WATER MAINS SHALL BE PRESSURE TESTED AT 200 P.S.I. FOR A CONTINUOUS TWO HOUR PERIOD, IN ACCORDANCE WITH DISTRICT STANDARDS.
12. ALL WATER MAINS SHALL BE DISINFECTED, FLUSHED, AND AN ACCEPTABLE HEALTH SAMPLE OBTAINED, PRIOR TO THE CONNECTION OF THE WATER MAIN(S) AND/OR LATERAL(S) TO THE DISTRICT'S SYSTEM.
13. CONTRACTOR TO OBTAIN ALL METERS 2" AND SMALLER FROM LVV.W.D. CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.



**ENCHILAVES**  
SET DRIVE RIVET IN A 3/4" ALUMINUM PLATE, IN DRILLED HOLE WITH EPOXY GLUE, IN TOP OF CURB, NORTHWEST CORNER OF VEGAS DR. & WINDSTORM DR. NEAR THE PC OF RANCHO DR. ELEV: 2114.7-9

STA 6+11.27 EXISTING FIRE HYDRANT PER PHASE 2 PLANS

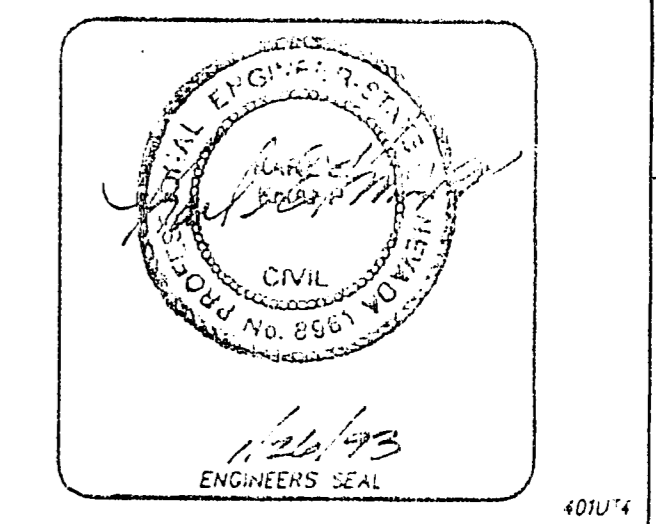
EXISTING WINDCHIME PHASE 2 IMPROVEMENTS

EXISTING WINDCHIME PHASE 3 IMPROVEMENTS

EXISTING WINDCHIME PHASE 4 IMPROVEMENTS

THESE QUANTITIES ARE AN ESTIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR EXACT QUANTITIES FOR BIDDING PURPOSES.

REFER TO COVER SHEET FOR ADDITIONAL UTILITY QUANTITIES.



Date	
Appr.	
Date	
Instr.	
REVISIONS	
No.	
Church Engineering of Nevada, Inc.	
6500 W. Charleston Blvd.	
State 140	
Las Vegas, NV 89102	
(702) 676-6244	
WINDCHIME PHASE 4	
UTILITY PLAN PHASE 4	
Scale	1" = 40'
Drawn by	AMB
Checked by	AMB
Date	JAN. 23, 1993
Job Number	7089.401
Sheet Number	4 OF 8
File No.	401M/P-4