

WATER LINE NOTES

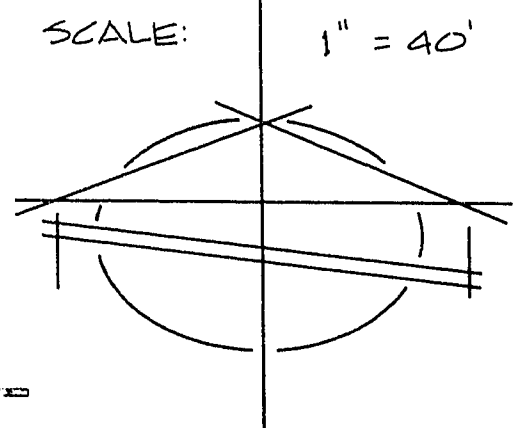
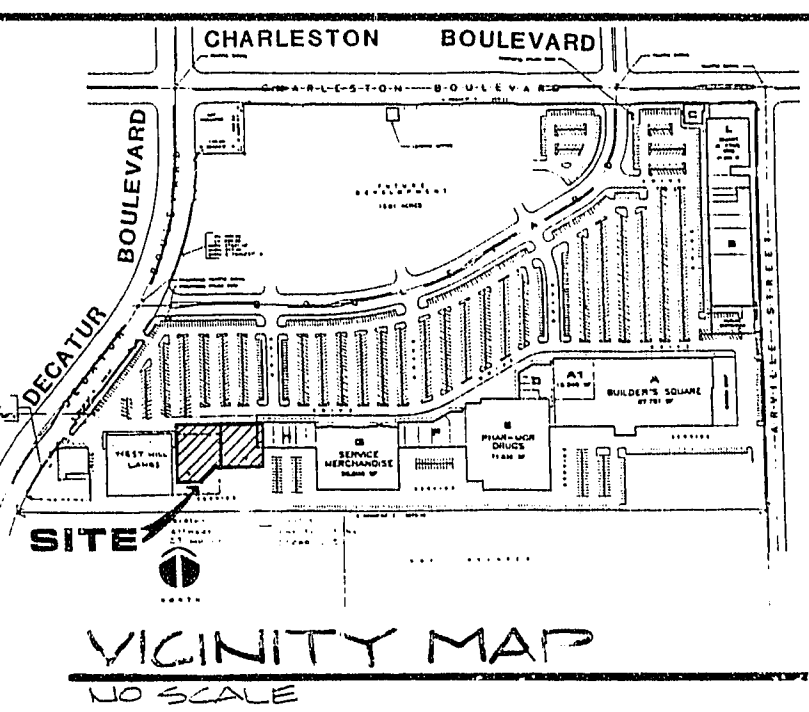
- NO WORK SHALL BEGIN ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE SHALL BE GIVEN TO THE LVWD CUSTOMER SERVICE DEPARTMENT (870-4194), 48 HOURS PRIOR TO ACTUAL CONSTRUCTION, AND 24 HOURS PRIOR TO AN INSPECTION.
 - CALL BEFORE YOU DIG 1-800-227-2600
 - ALL WORK SHALL CONFORM TO LVWD LATEST STANDARD PLATES, DRAWINGS AND SPECIFICATIONS.
 - ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 3, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR ADDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENTS, CLARK COUNTY AREA.
 - 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.
 - 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.
 - THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP AND DUCTILE IRON PIPE SHALL BE AS FOLLOWS:
- | Pipe Size | AGE | Ductile Iron | ACIP | Ductile Iron | mechanical joint |
|--------------|-------------|--------------|-------------|--------------|------------------|
| 6 inch | 2.5 degrees | 2.5 degrees | 2.5 degrees | 2.5 degrees | 2.5 degrees |
| 8 - 12 inch | 2.5 degrees | 2.5 degrees | 2.5 degrees | 2.5 degrees | 2.5 degrees |
| 14 - 16 inch | 2.0 degrees | 1.5 degrees | 1.5 degrees | 1.5 degrees | 1.5 degrees |
| 18 - 24 inch | N/A | 1.5 degrees | 1.5 degrees | 1.5 degrees | 1.5 degrees |
- ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BELLED PIPE SHALL BE 3/4" INCHES FOR 6" PIPE, 12 INCHES FOR 8" PIPE, AND 9 INCHES FOR 10" AND 12" PIPE.
- IF THESE OFFSETS CONFLICT WITH THE PIPE MANUFACTURERS RECOMMENDATION, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
 - ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS AND VALLEY CUTS.
 - DETECTOR TAPE SHALL BE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED, AND AS FOLLOWS:
 - OVER ALL MAINS NOT INSTALLED 6 FEET FROM BACK OF CURB.
 - OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAIN.
 - ALL WATER MAINS SHALL BE PRESSURE TESTED AT 100 PSI FOR A CONTINUOUS TWO HOUR PERIOD, IN ACCORDANCE WITH DISTRICT STANDARDS.
 - ALL WATER MAINS SHALL BE DISINFECTED, AND 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.
 - CONTRACTOR TO OBTAIN ALL METERS 3" AND SMALLER FROM LVWD CENTRAL STORES. TELEPHONE 258-3152. FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.

FIRE DEPT NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS", "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3545.
- AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
 - KENNEDY GUARDIAN
 - MUELLER A-433 CENTURIAN
 - CLUM MODEL 3546 MEDALLION
- ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMPLETION OF CONSTRUCTION AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING WITH AN ADEQUATE WATER SUPPLY.
- 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.
- 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.
- PAINTING OF THE CURB 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.
- A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT INSTALLATIONS. THE PERMIT AND CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
- A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
- ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND P.M. APPROVED.
- FIRE HYDRANT SPACING:
 - RESIDENTIAL - 300 FEET UNSPRINKLERED, 600 FEET SPRINKLERED
 - COMMERCIAL, INCLUDING MULTI-FAMILY - 300 FEET UNSPRINKLERED, 400 FEET SPRINKLERED
- 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.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.
- NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
- 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 20 FEET INSIDE RADIUS.
- A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS. (SEE EXCEPTIONS IN UFG 88, SECTION 10.207).
- ALL ROAD AND FIRE APPARATUS ACCESS ROADS AND/OR FIRE LANE PUBLIC OR PRIVATE IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURNAROUND AREA.

BENCHMARK

CLV BM # 06131 C1 - BOLT & PLATE AT THE NW CORNER OF CHARLESTON BLVD & EX-12R CITY OF LAS VEGAS DATUM
ELEVATION: 2181.41



Call before you Dig.
1-800-227-2600
UNDERGROUND SERVICE USA

LEGEND

- PROPERTY LINE
- STREET CENTERLINE
- EXISTING BUILDING LINE
- NEW BUILDING LINE
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING GAS LINE
- NEW SEWER LINE
- NEW WATER LINE

ESTIMATED WATER QUANTITIES

1	8" PVC WATERLINE	500 LF
2	8" PVC WATERLINE	110 LF
3	10" X 8" REDUCER	1 EA
4	8" X 6" X 6" TEE	4 EA
5	8" 90° ELBOW	3 EA
6	8" NRS GATE VALVE W/BOX & COVER	1 EA
7	8" 45° ELBOW	2 EA
8	8" NRS GATE VALVE W/BOX & COVER	4 EA
9	FIRE HYDRANT	2 EA
10	2" SERVICE CONNECTION	2 EA
11	2" SERVICE LINE (PE)	70 LF
12	10" PLUG W/THRUST BLOCK	2 EA
13	REMOVE EXIST. 1" SERVICE	1 EA
14	6" 45° ELBOW	1 EA

ESTIMATED SEWER QUANTITIES

1	8" PVC	200 LF
2	8" PVC (C-900)	245 LF
3	8" PVC	90 LF
4	6" X 6" WYE CONNECTION (FIELD VERIFY SIZE)	3 EA
5	6" X 6" WYE CONNECTION	3 EA
6	SEWER MANHOLE (4" DIA)	1 EA
7	SEWER CLEANOUT	4 EA

APPROVALS

[Signature] 4-30-92
LAS VEGAS VALLEY WATER DISTRICT
[Signature] 4-10-92
CITY OF LAS VEGAS FIRE DEPARTMENT

UTILITY PLAN
SECTION 21 SOUTH RANGE 61 EAST, MERIDIAN 11
CITY OF LAS VEGAS
WESTLAND FAIR PHASE 1B

DATE: FEB. 1992
DESIGN: BAUGHMAN & TURNER INC.
DRAWN: J.A.
CHECK: J.A.
SCALE: 1"=40'

PROJ. NO. 307Y-4083-13

FIRE DEPT DATA

HEIGHT 1 STORY
PETSMAST 24,900 SQ. FT. TYPE VII
COMPUTER CITY 29,000 SQ. FT. TYPE IIN
FIRE SPRINKLER SYSTEM-ALL UNITS
TOTAL FIRE FLOW REQ'D-3200 GPM @ 20 FPM CALC

UTILITY NOTE

The location of underground utilities shown hereon has been determined from surface evidence of their existence or 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 or structures with the utility companies prior to commencing any excavation.

SEWER LINE NOTES

- ALL CONSTRUCTION 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 SUPERSEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.
- 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.
- CHISEL "S" OR "C", IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OR TYPE II GRAVEL.
- ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
- THE 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.
- ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.

CAUTION

WATER PRESSURE WILL EXCEED 100 PSI
ALL BUILDINGS SHOULD BE PROTECTED WITH A PRESSURE REDUCING DEVICE PER THE UNIFORM PLUMBING CODE SECTION 1007.3

NOTE

ALL ON-SITE SEWER LINES ARE PRIVATELY OWNED & MAINTAINED

[Signature]
4/10/92