

WATER DISTRICT STANDARD 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 SIZES	ACP	DUCTILE IRON	DUCTILE IRON
6 INCH	2.5 DEGREES	SLIP JOINT	MECHANICAL JOINT
8-12 INCH	2.5 DEGREES	2.5 DEGREES	2.5 DEGREES
14-16 INCH	2.0 DEGREES	1.5 DEGREES	1.5 DEGREES
18-24 INCH	N/A	1.5 DEGREES	1.5 DEGREES

ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BELLED PIPE SHALL BE 16 INCHES FOR 8" PIPE, 12 INCHES FOR 10" PIPE, AND 9 INCHES FOR 12" AND 14" 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 GUTTERS.
- 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 200 PSI FOR A CONTINUOUS TWO HOUR PERIOD, IN ACCORDANCE WITH DISTRICT STANDARDS. 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.
- CONTRACTOR TO OBTAIN ALL METERS 2" AND SMALLER FROM LVWD CENTRAL STORES. TELEPHONE 256-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.

FIRE DEPARTMENT NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS", "HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3677.
- AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
 - KENNEDY GUARDIAN
 - MUELLER A-423 CENTURIAN
 - GLOW MODEL 2546 MEDALLION
- 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. CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE #3677 TO IDENTIFY FIRE HYDRANT LOCATIONS.
- 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.
- PAINTINGS OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE, PER ORDINANCE #3677, 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. 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.
- 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 F.M. APPROVED.
- FIRE HYDRANT SPACING:

RESIDENTIAL	COMMERCIAL
500 FEET UNSPRINKLERED, 600 FEET SPRINKLERED	500 FEET UNSPRINKLERED, 600 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 22 FEET INSIDE RADIUS.
- 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 UFD 88, SECTION 10.207).
- 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 #3677.
- ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAS VEGAS GUIDELINES FOR AUTOMATIC EMERGENCY VEHICLE ACCESS GATES.

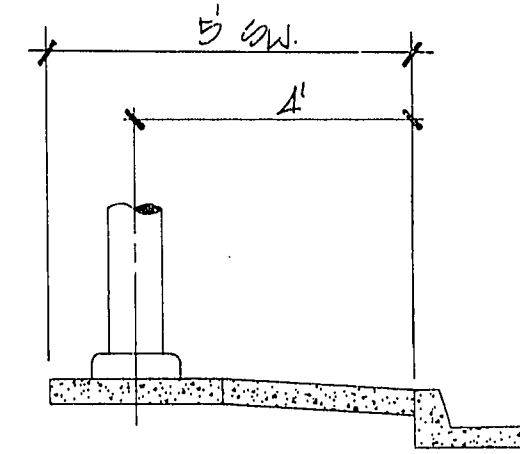
CITY OF LAS VEGAS SEWER NOTES

- 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 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 "G" 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 OF TYPE II GRAVEL.
- ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
- TEE 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 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.
- THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED AND REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY.

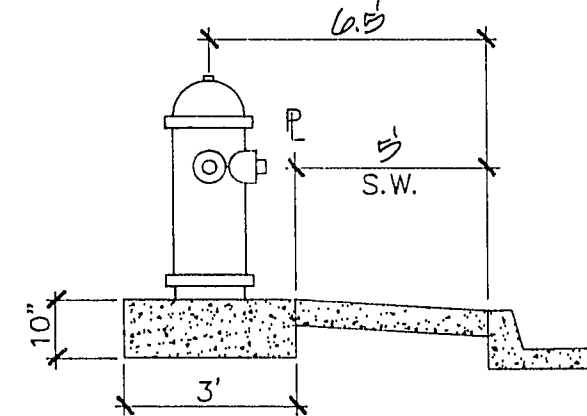
STREET LIGHT NOTE

ALL STREET LIGHTING INSTALLATION EXCEPT AS NOTED ON THE STREET LIGHTING PLANS SHALL CONFORM TO THE IMPROVEMENT STANDARDS, DEPARTMENT OF PUBLIC WORKS, CLARK COUNTY, NEVADA, AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA.

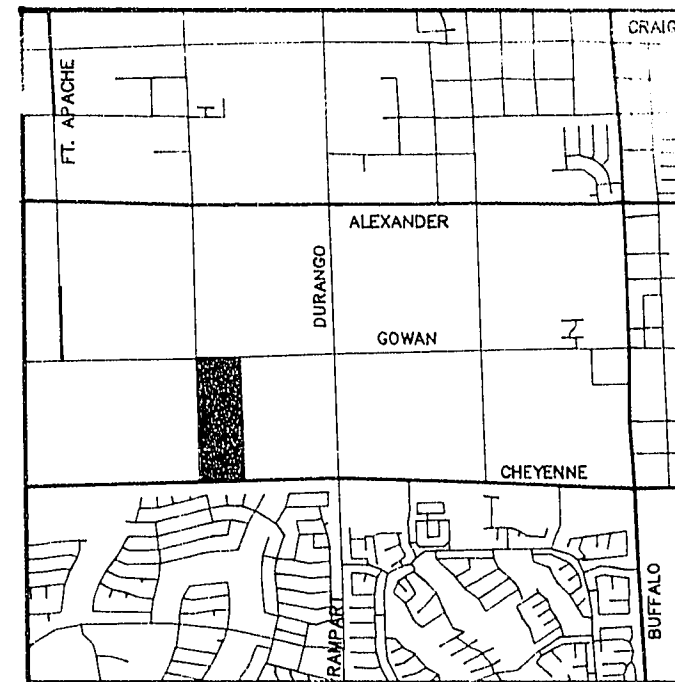
ALL POLES TO BE GALVANIZED.



STREET LIGHT DETAIL



FIRE HYDRANT DETAIL



LOCATION MAP

ESTIMATE OF QUANTITIES

WATER

1" FIRE HYDRANT ADAPTER	2 EA.
8" GATE VALVE	2 EA.
8" TEE	1 EA.
8" 90° BEND	1 EA.

3/4" WATER OVER WOOD METERS	20 EA.
8" WATER MAIN	735 LF.

SEWER

6" MANHOLE	1 EA.
8" SEWER MAIN	544 LF.
4" SEWER LATERALS	734 LF.
WYBOS	17 EA.

STREETLIGHTS

200 WATT LUMIN.	1 EA.
100 WATT LUMIN.	5 EA.
1/4" CONDUIT	805 LF.
#2 1/2" PULL BOX	1 EA.

STREET NAME PLANNER 2 EA.

LAS VEGAS FIRE DEPARTMENT

FIRE FLOW REQUIREMENT IS 1500 GALLONS/MIN. AT 20 LBS./SQ.IN. RESIDUAL.

BASED ON:

SQUARE FOOTAGE:
LARGEST AREA BETWEEN SEPARATION WALLS:
HEIGHT:
TYPE OF CONSTRUCTION:
EXPOSURES:
SPRINKLER SYSTEM:
OCCUPANCY:
ROOF CONSTRUCTION:

REVIEWED BY:

DATE:
PROVIDE FIRE LANE IDENTIFICATION PER CITY ORD. 3677

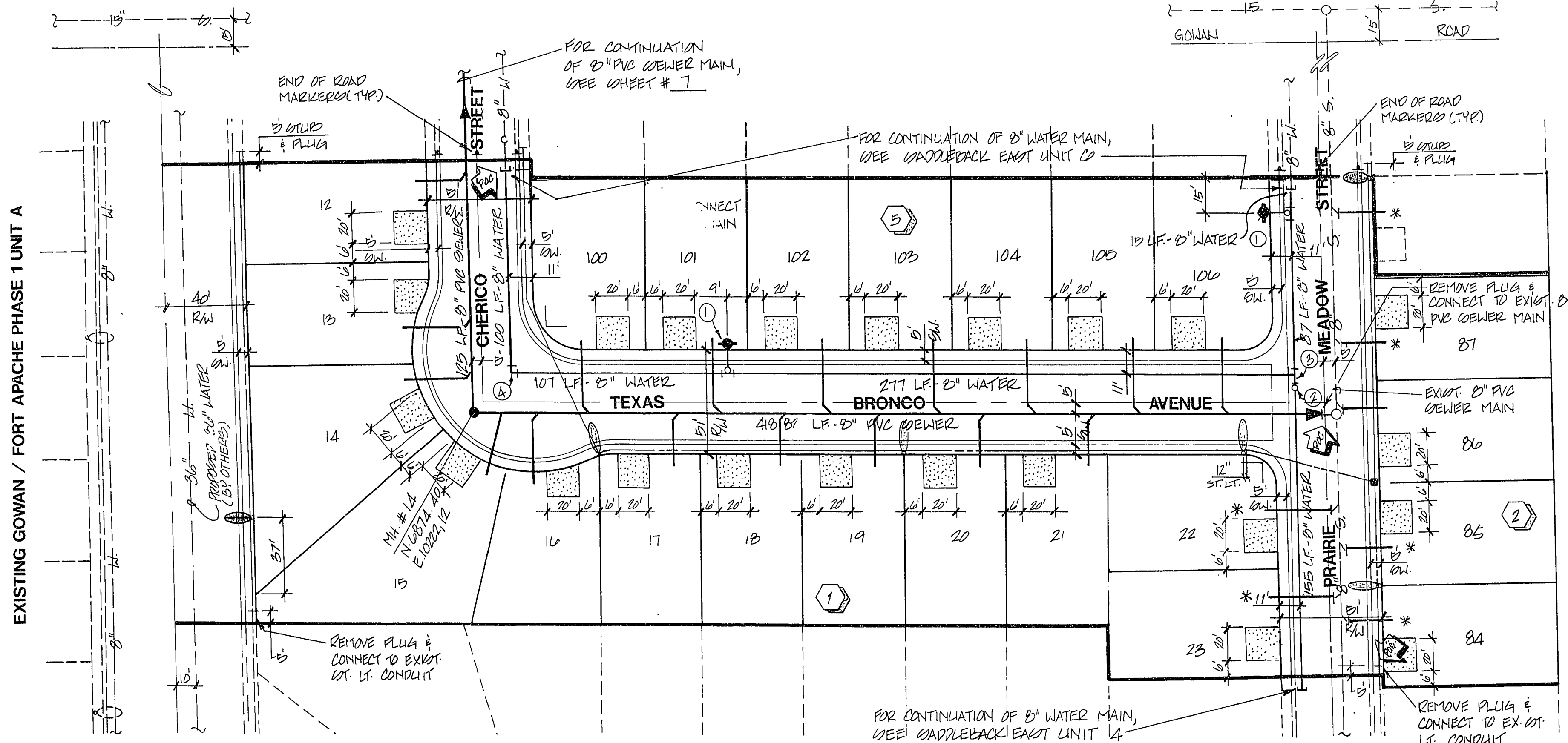
APPROVAL:

James R. Proctor 5/25/94
LAS VEGAS VALLEY WATER DISTRICT DATE

J. Lopez 2/2/94
CITY OF LAS VEGAS FIRE MARSHALL DATE

Gregory M. Schmitt 2-1-94
NEVADA POWER COMPANY DATE

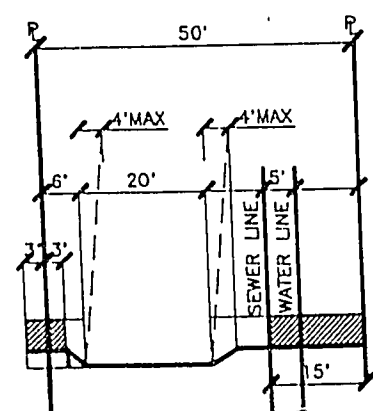
NEVADA POWER COMPANY APPROVAL IS ONLY FOR THE PLACEMENT AND CLEARANCE OF STREET LIGHT AND SIGNAL LIGHT INSTALLATION.



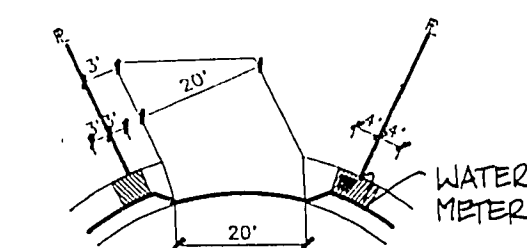
UNDEVELOPED

THIS UNIT WILL ONLY BE VALID IF THE WATER FACILITIES TO UNITS 3-6 ARE CONSTRUCTED SIMULTANEOUSLY.

* INDICATES EXIST. WYBOS INSTALL LATERALS ONLY. (SEWER)



DW LOCATION FOR STANDARD 50 FT. LOT



DW LOCATION FOR LOTS 33 FT. OR MORE WIDE

- NOTES:
- ALL BOXES MUST BE LOCATED WITHIN THE SHADED AREAS OF THE SIDEWALK.
 - IF FIELD CONDITIONS DON'T ALLOW BUILDING TO THESE CONDITIONS CONTACT DEVELOPER.

SEWER CONTRIBUTION

AVERAGE: 5750 G.P.D.
PEAK: 9,200 G.P.D.

NOTE:

CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING UTILITIES AND TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

PROJECT NAME: SADDLEBACK EAST UNIT 5

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.

270 JFC 2/09/94
LVWD Date

BENCHMARK

BW # 010007N5
2 X 2 PLATE, SW CORNER CHEYENNE AND RAMPART.
ELEVATION = 2448.33

2 working days
Call before you Dig
1-800-227-2600

AMERICAN WEST HOMES, INC.
CITY OF LAS VEGAS, NEVADA

CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89102-5148 PHONE (702) 873-7550 FAX (702) 362-2597

nevada
vbm

MASTER UTILITY PLAN

SADDLEBACK EAST UNIT 5

SEAL

Gregory M. Schmitt 2/1/94
DATE

NO. NO. 4490-5

BY: D.E. WUR

DATE DEC., '93

SCALE 1" = 40'

SHEET 4 OF 6 SHEETS

3074-4325-5