

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 WASTE WATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
- 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 CITY PLANNING ENGINEER.
- CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASIM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
- ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT RIW AND LARGER SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80') FOOT RIW WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
- TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" 5" SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
- WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
- ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA 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 AT ANY LOCATION. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY PLANNING ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
- INSTALLATION OF CURVED SEWER REQUIRES SPECIAL CONSTRUCTION PROCEDURES AND INSPECTIONS. CONTACT CITY OF LAS VEGAS CONSTRUCTION SERVICES 24 HOURS PRIOR TO INSTALLATION.

LAS VEGAS VALLEY WATER DISTRICT NOTES

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, FORTY-EIGHT (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 LVVWD STANDARD PLATES, DRAWING, 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 OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.
- A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT, UNLESS OTHERWISE APPROVED BY THE LVVWD.
- ALL SERVICE LATERALS TWO INCHES (2") 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, GUTTERS, CURBS AND ALLEY GUTTERS.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND A SANITARY SEWER OR STORM SEWER LINE CROSS:
 - A MINIMUM EIGHTEEN INCH (18") 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 INCH (4") CONCRETE (MINIMUM)
 - SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.

EACH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE WATER MAIN, A MINIMUM TEN FOOT (10') DISTANCE PERPENDICULAR TO THE EXTERIOR OF MAIN.

- WARNING TAPE SHALL BE REQUIRED OVER ALL MAINS, ALL SIX INCH (6") 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 INCHES (2") AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICK-UP.
- CONSTRUCTION MAY INTERRUPT SERVICE, WITH LVVWD APPROVAL AND PROPER NOTIFICATION, BETWEEN THE HOURS OF 10:00 P.M. AND 6:00A.M. SUNDAY THROUGH THURSDAY. CIRCUMSTANCES THAT MAY REQUIRE TEMPORARY SERVICE FEE 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.
- APPROVAL OF THESE PLANS FOR THE WATER STUB OUT INSTALLATION WILL NOT BE CONSTRUED AS A COMMITMENT FOR WATER SERVICE TO THIS PROPERTY.
- CONDITIONAL APPROVAL OF VALVED OUTLET (6" AND LARGER)

IN THE EVENT THE WATER PLANS SHOW ONE OR MORE VALVED OUTLETS EXTENDING OUT OF PAVED AREAS, INSTALLATIONS OF THESE OUTLETS IS ACCEPTABLE, HOWEVER, IF THE OUTLETS ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON WHEN THE PROPERTY IS DEVELOPED, THE DEVELOPER SHALL ABANDON THE OUTLETS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE DISTRICT'S STANDARDS AND AT THE DEVELOPER'S EXPENSE.

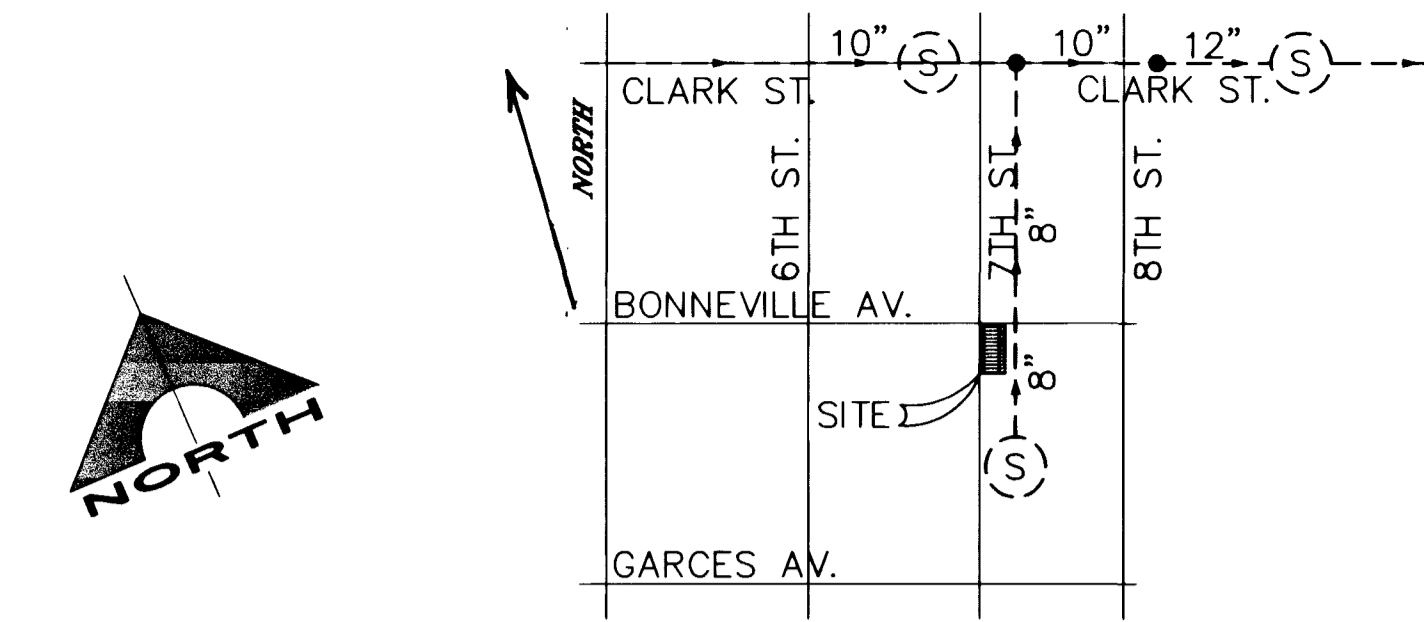
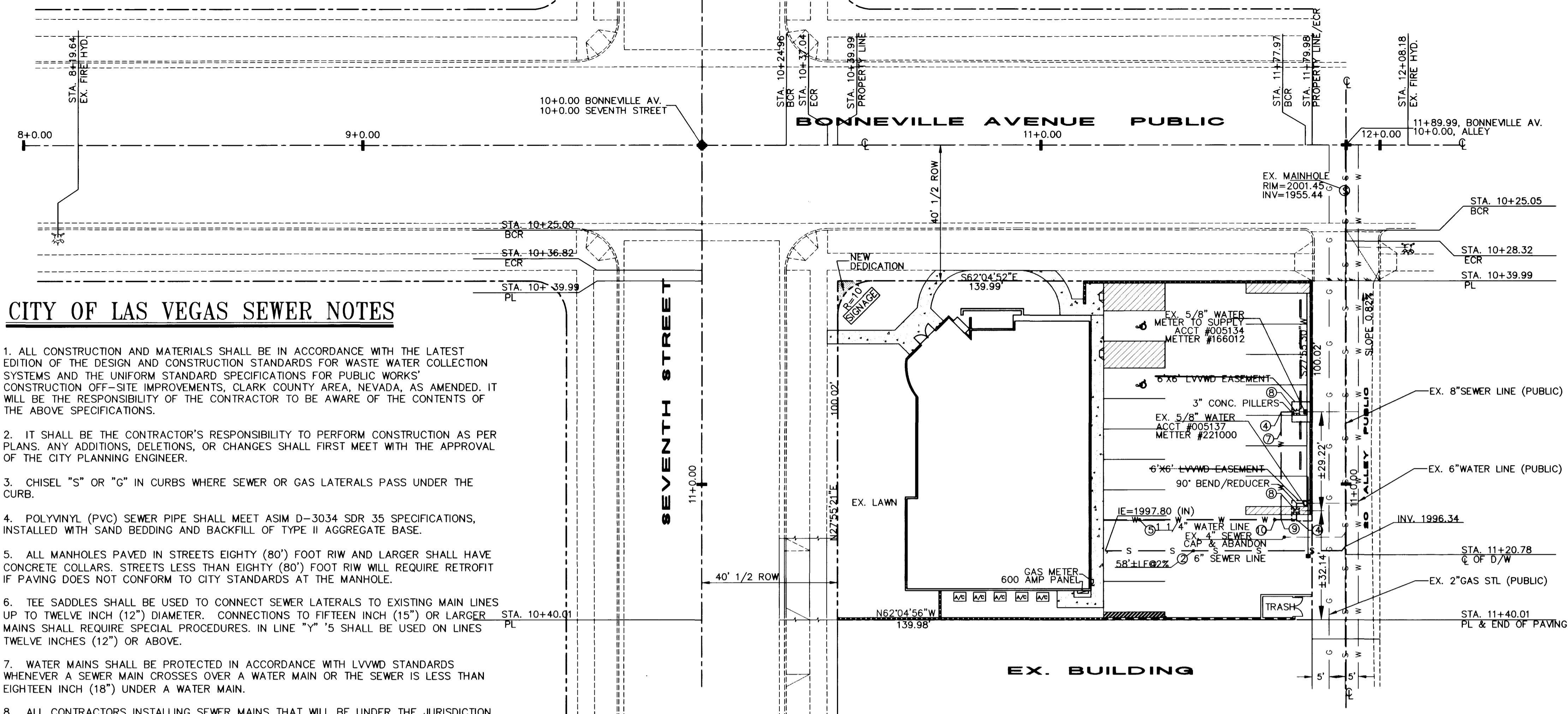
16. WATER CROSSING NOTE

THE FOLLOWING ARE THE REQUIREMENTS THAT MUST BE MET WHEN THERE IS A WATER SEWER CROSSING:

WHEN PROTECTION OF THE WATER LINE IS CONSIDERED, THE MINIMUM VERTICAL DISTANCE OF EIGHTEEN INCHES (18") MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SEWER/STORM LINE. IF THIS DISTANCE CANNOT BE MAINTAINED BECAUSE OF PHYSICAL OBSTRUCTIONS OR THE WATER LINE MUST BE PLACED UNDER THE SEWER/STORM LINE, THE SEWER/LINE MUST BE CONSTRUCTED WITH ANY ON IF THE FOLLOWING:

- EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE
- WATER SUPPLY QUALITY
- ENCASEMENT WITH 4 INCHES MINIMUM OF CONCRETE OR SLEEVING WITH WATER QUALITY PIPE.

EACH OF THESE PROVISIONS MUST BE EXTENDED FOR TEN FEET (10') ON EITHER SIDES OF THE WATER LINE AT 90 DEGREES TO THE CROSSING.



VICINITY MAP

BENCHMARK:

RIVET AND PLATE IN TOP OF CURB, EAST CURB LINE ON LITE BASE 200 FT± SOUTH OF BONNEVILLE AV. ON MAIN STREET BM. NO. 6001-34 SW6 ELEV = 617.904 METERS (NAVD 88) = 2027.24 FEET (NAVD 88)

BASIS OF BEARING:

S 62° 04' 52" BEING CENTERLINE OF BONNEVILLE AV.

SOIL TESTING REPORT BY:

PROJECT NO 64985361 DEC. 7 1998 TERRACON, 4343 SOUTH POLARIS AVE. LAS VEGAS NV, 89103 PHONE (702) 597-9393 FAX 597-9009

LEGAL DESCRIPTION

BEING A PORTION OF SOUTHEAST QUARTER(SE1/4) OF SOUTH HALF (S1/2) OF SECTION 34, TOWNSHIP 20S RANGE 62 EAST, M.D.B. & M. CLARK COUNTY, NEVADA

NOTE:

EXISTING UTILITIES ARE LOCATED ON THE PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE ENGINEER BEARS NO RESPONSIBILITY FOR THE LOCATION OF UTILITIES SHOWN OR NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES BEFORE STARTING CONSTRUCTION AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES WITH THE UTILITY COMPANIES.

SEWER CONTRIBUTION:

AVERAGE DAILY FLOW = 0.00225 MGD
PEAK FLOW = 0.00675 MGD
(INCLUDES FUTURE BLDG.; ASSUMING 2 FIXTURES)

REDUCED PRESSURE PRINCIPLE ASSEMBLY

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

FIRE FLOW CALCULATIONS:

FIRE FLOW REQUIREMENTS IS 1750 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE

BASED ON:

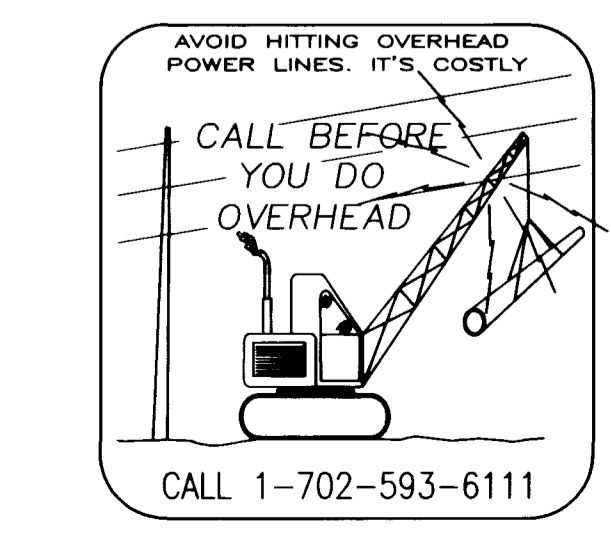
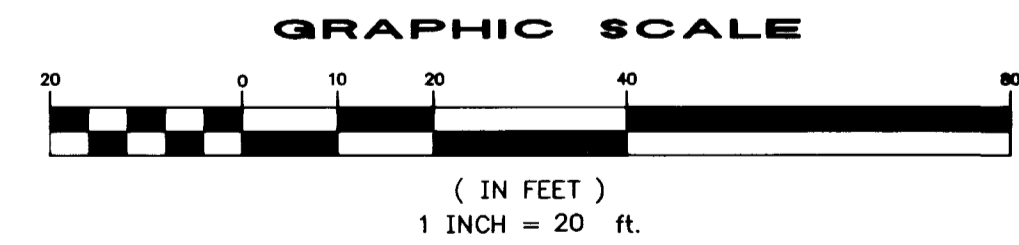
SQUARE FOOTAGE OF LARGEST BUILDING	4200	SQ. FT.
LARGEST AREA BETWEEN 4-HR SEPARATION WALL	N/A	SQ. FT.
BUILDING HEIGHT	35	FEET
NUMBER OF STORIES	2	FLOOR
TYPE OF CONSTRUCTION	VN	
OCCUPANCY	COMMERCIAL	
FULL AUTOMATIC FIRE SPRINKLER SYSTEM	NO	

APPROVED BY: *[Signature]* 4-28-99 DATE
FIRE DEPARTMENT APPROVAL

APPROVED BY: *[Signature]* 4-29-99 DATE
LAS VEGAS VALLEY WATER DISTRICT

ESTIMATE OF QUANTITIES

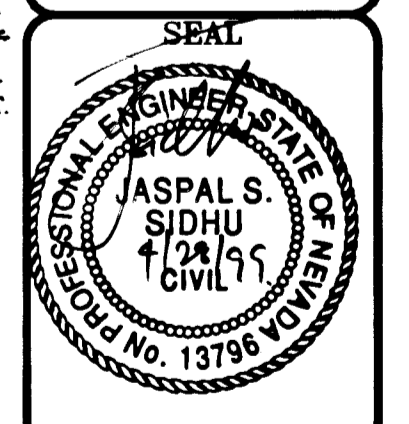
1	PROVIDE 6" CLEANOUT	(PRIVATE)	1 EA.
2	PROVIDE 6" ABS SEWER LINE	(PRIVATE)	58± LF.
4	PROVIDE 3/4" X 90"	(PRIVATE)	1 EA.
5	PROVIDE 1" WATERLINE	(PRIVATE)	56± LF.
6	CONNECT WATER LINE TO EX. WATER METER	(PRIVATE)	1 EA.
7	INSTALL 3/4" WATER LINE	(PRIVATE)	40 LF.
8	INSTALL 3/4" RPPA PER UDACS PLATE NO. 11-A	(PRIVATE)	2 EA.
9	INSTALL 3/4" X 3/4" X 3/4" TEE	(PRIVATE)	1 EA.
10	INSTALL 3/4" X 1/4" REDUCER	(PRIVATE)	1 EA.
11	INSTALL 6" X 6" X 6" MECHANICAL TAPPING SLEEVE WITH VALVE	(PUBLIC)	1 EA.
12	INSTALL 6" PVC WATER LINE	(PUBLIC)	20 LF.
13	INSTALL FIRE HYDRANT PER UDACS PLAT 7A	(PUBLIC)	1 EA.



REVISIONS:

ACE ENGINEERING
5720 S. VALLEY VIEW BLVD,
SUITE 200, LAS VEGAS, NV 89118
PHONE: 702 596-5844 FAX 702 596-7982

UTILITY PLAN
WOLFSON & GLASS
601 S. 7TH STREET



DATE: 11/20/98
JOB : 98-141
DWG. BY: E.M
C2
SHEET
2 OF 4
CLV NO.
107-V3079

