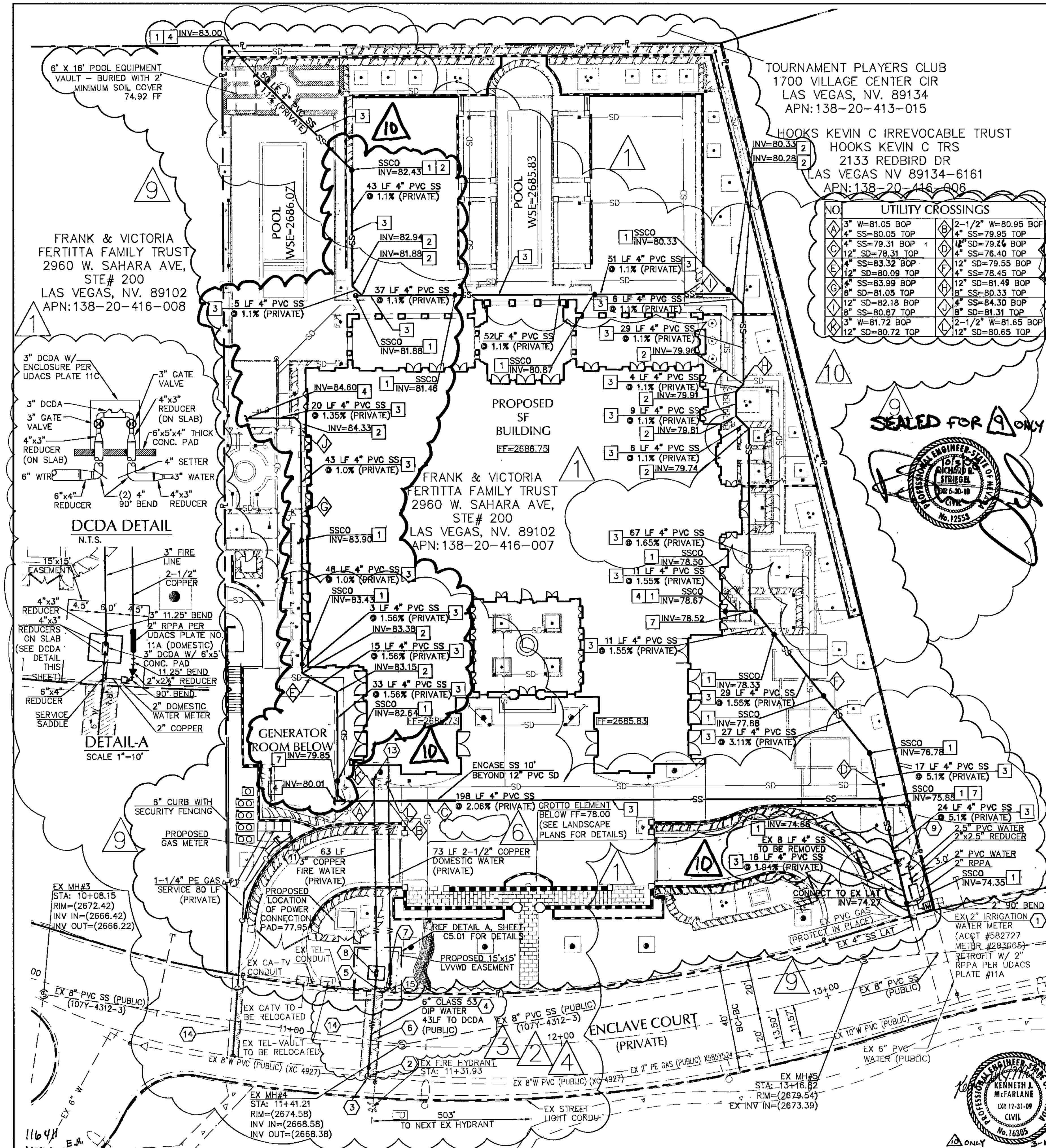


NO	UTILITY CROSSINGS	NO	
A	3" W=81.05 BOP 4" SS=80.05 TOP	B	2-1/2" W=80.95 BOP 4" SS=79.95 TOP
C	4" SS=79.31 BOP 12" SD=78.31 TOP	D	12" SD=79.26 BOP 4" SS=76.40 TOP
E	4" SS=83.32 BOP 12" SD=80.09 TOP	F	12" SD=79.55 BOP 4" SS=78.45 TOP
G	4" SS=83.99 BOP 6" SD=81.05 TOP	H	12" SD=81.49 BOP 8" SS=80.33 TOP
I	12" SD=82.18 BOP 8" SS=80.87 TOP	J	4" SS=84.30 BOP 8" SD=81.31 TOP
K	3" W=81.72 BOP 12" SD=80.72 TOP	L	2-1/2" W=81.65 BOP 12" SD=80.65 TOP

WATER CROSSING NOTE:

WHEN PROTECTION OF THE WATERLINE 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 STORM/SEWER LINE, THE STORM/SEWER LINE MUST BE CONSTRUCTED WITH ANY OF THE FOLLOWING:

A. EXTRA HEAVY CAST IRON OR DUCTILE IRON PIPE
B. WATER SUPPLY QUALITY
C. 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 BOTH SIDES OF THE WATER LINE AT 90 DEGREES TO THE CROSSING.

DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) (1) 3" DCDA

THE DOUBLE DETECTOR CHECK ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH UDACS PLATE No. 11C. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

NOTE:

ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS), LATEST EDITION.

NOTE:

FIRE SERVICE AND DOMESTIC WATER, AS APPROVED ON THIS PLAN, ARE INTENDED SPECIFICALLY FOR THE LOT AND USE SHOWN, AND ARE NOT INTENDED TO SERVE ADDITIONAL PARCELS AND/OR LOTS. IF THE PARCEL AND/OR LOTS SHOWN ON THIS PLAN ARE FURTHER DIVIDED TO CREATE ADDITIONAL PARCELS OR LOTS, THE OWNER IS REQUIRED TO PROVIDE FIRE AND DOMESTIC SERVICE TO EACH.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 2" RPPA

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 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. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

WATER METERING REQUIREMENTS FOR NEW DEVELOPMENTS:

A) SEPARATE DOMESTIC AND FIRE SERVICES (WHERE APPLICABLE) ARE REQUIRED FOR EACH DWELLING UNIT, PUBLIC, QUASI-PUBLIC, COMMERCIAL, AND/OR INDUSTRIAL OCCUPANCY IS LOCATED ON A SINGLE PARCEL OR LOT.

B) IN THE EVENT THAT A BUILDING WITHIN AN AN INDUSTRIAL OR COMMERCIAL SUBDIVISION IS SUBDIVIDED, SEPARATE DOMESTIC SERVICES ARE REQUIRED FOR EACH UNIT.

C) EACH PARCEL OR LOT OF A COMMERCIAL OR RESIDENTIAL SUBDIVISION WILL HAVE A MINIMUM OF ONE (1) METERED DOMESTIC IS REQUIRED, EACH PARCEL OR LOT WILL HAVE A MINIMUM OF ONE (1) FIRE SERVICE. THE CITY, AT ITS OPTION, MAY ALLOW A COMMUNAL FIRE MANAGEMENT ASSOCIATION WHICH ACCEPTS RESPONSIBILITY FOR THE PAYMENT OF WATER BILLS AND THE MAINTENANCE AND OPERATIONS IF THE FIRE LANES AND BACK FLOW PREVENTION ASSEMBLY.

WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.06.01 AND 2.06.02. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

NOTE

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.19 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSING AND CLEARANCES.

GENERAL NOTE:

IT IS THE CONTRACTORS RESPONSIBILITY TO FILE A NOTICE OF INTENT/REQUEST TO BE INCLUDED IN THE STORM WATER GENERAL PERMIT, AND SUBMIT THE ASSOCIATED STORMWATER POLLUTION PREVENTION PLAN (SPPP) AS REQUIRED BY FEDERAL LAW, AND MONITORED BY THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.

SANITARY SEWER ESTIMATED FLOW RATES:

DAILY AVERAGE	27,605 GPD
PEAK FLOW	101,880 GPD

NOTE:

GAS LINES HEREON ARE SCHEMATIC. GAS CONTRACTOR TO COORDINATE WITH THE MEP AND LANDSCAPE ARCHITECT TO AVOID CONFLICTS.

SUPPLEMENTAL LEGEND

- SD — FOR REFERENCE ONLY. SEE SHEET C4.02, FOR STORM DRAIN DETAILS.
- SS — FOR REFERENCE ONLY. SEE SHEET C5.01 FOR SANITARY SEWER DETAILS.
- W — FOR REFERENCE ONLY. SEE SHEET C5.01 FOR WATER DETAILS.
- ■ 9" LANDSCAPE DRAIN

FIRE FLOW CALCULATIONS:

FIRE FLOW REQUIREMENTS IS: 1,500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:

SQUARE FOOTAGE (TOTAL)	22,905 SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	N/A SQUARE FEET
BUILDING HEIGHT:	33'-2"
NUMBER OF STORIES:	2
TYPE OF CONSTRUCTION:	V-A
OCCUPANCY:	SINGLE FAMILY
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES
REVIEW BY:	[signature]
DATE:	10/2/08

APPROVED FOR CONSTRUCTION
1ST AMD 4-17-09
10-03-08
LAS VEGAS VALLEY WATER DISTRICT PROJECT # 113901 DATE

KENNETH J. McFARLANE EXP. 12-31-09 CIVIL No. 16305 — PROFESSIONAL ENGINEER STATE OF NEVADA — 10 ONLY 3-11-09

GRAPHIC SCALE

(IN FEET)
1 INCH = 20 FT

BASIS OF BEARING

SOUTH 89°30'09" WEST BEING THE BEARING OF THE NORTH OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 29, TOWNSHIP, RANGE 60, M.D.M., AS SHOWN BY MAP THEREOF ON FILE FILE 54, PAGE 82 OF PARCEL MAPS IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

BENCHMARK

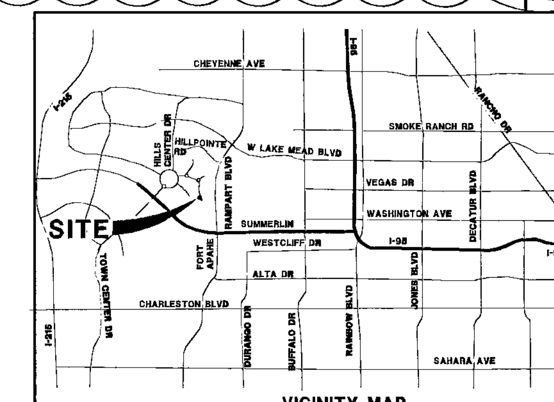
CITY OF LAS VEGAS BM OLVOO 19E6
A RIVET AND PLATE IN TOP OF CURB AT VILLAGE CENTER AND HILLS CENTER ON NORTH EDGE OF ROUNDABOUT
ELEVATION=2689.87' (819.6912M) (NAVD 88)

SEWER CONSTRUCTION NOTES

No.	ITEM *SS STD. PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1	INSTALL CLEAN OUT PER UPC SECTION 707 (SAME SIZE AS LINE.) WHERE CLEANOUT OCCURS IN PAVEMENT, INSTALL A TRAFFIC BEARING LID
2	INSTALL 45° BEND (SAME SIZE AS LINE.)
3	INSTALL 4" DIA. PVC (SDR-35) SEWER LATERAL
4	SEE PLUMBING PLAN FOR CONTINUATION
5	REMOVE PLUG & CONNECT
6	INSTALL WYE AND CAP FOR FUTURE EXPANSION
7	INSTALL WYE (SAME SIZE AS LINE.)
8	NOT USED
9	INSTALL 90° BEND (SAME SIZE AS LINE.)

WATER CONSTRUCTION NOTES

No.	ITEM *UDACS PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1	REMOVE STUB AND CONNECT
2	INSTALL 45° BEND WITH THRUST BLOCK. PER UDACS PLATE NO. 5 (SAME SIZE AS LINE)
3	INSTALL 8" X 6" MJ TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE 22
4	INSTALL 6" WATER LINE (PUBLIC) CLASS 53 D.I.P.
5	INSTALL SERVICE SADDLE AND NEW SERVICE INSTALLATION FOR 2" METER PER UDACS PLATE 1D
6	FOR DETAILED PROFILE OF WATER LINE, SEE DETAIL M SHEET C8.01
7	INSTALL 2" DOMESTIC WATER METER PER UDACS PLATES 1D
8	INSTALL 3" DCDA PER UDACS PLATE NO. 11C ON 6'x5' CONCRETE PAD
9	SEE IRRIGATION PLANS FOR CONTINUATION.
10	INSTALL 2-1/2" COPPER DOMESTIC WATER (PRIVATE) SERVICE LINE
11	INSTALL 3" COPPER FIRE WATER (PRIVATE) SERVICE LINE
12	INSTALL 2 1/2" COPPER LINE (PRIVATE) & CAP FOR LANDSCAPE IRRIGATION
13	SEE PLUMBING PLAN FOR CONTINUATION
14	TRENCH SECTION PER UDACS PLATE NO. 6B. MATCH EXISTING SURFACE GRADE
15	INSTALL 90° BEND WITH THRUST BLOCK PER UDACS PLATE NO. 5. (SAME SIZE AS LINE)



VICINITY MAP
NTS

NOTE:

ON-SITE WATER LINES AND APPURTENANCES ARE PRIVATE FACILITIES NOT TO OPERATED OR MAINTAINED BY THE CITY OF LAS VEGAS.

NOTE:

FIRE SPRINKLER SYSTEM SHALL BE PLUMBED TO MASTER TOILET. **NO EXCEPTIONS ALLOWED.** OTHERWISE, 2" WATER SERVICE RPPA WILL BE REQUIRED.

NOTE:

FOR STORM DRAIN INFORMATION REFER TO GRADING SHEETS.

NOTE:

SEE NEVADA POWER COMPANY PROJECT # 182656 FOR POWER CONNECTION

NOTE:

SEE ARCHITECTURAL PLANS FOR ALL CONNECTION DETAILS AT THE BUILDINGS.

NOTE:

SEWER LINE DISTANCES ARE TAKEN FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEMS. IT'S COSTLY. CALL BEFORE YOU DO UNDERGROUND WORK. CALL 1-702-455-7511 CLARK COUNTY TRAFFIC OPERATIONS AND CALL 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO OVERHEAD WORK. CALL 1-702-227-2929

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. CALL 811 OR 1-800-227-2600 AND CLARK COUNTY TRAFFIC OPERATIONS CALL 1-702-455-7544

MARTIN & MARTIN ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

LEGEND (FUTURE / EXISTING / PROPOSED): SLOPE; GRADING/ELEVATION TAG; STORM MANHOLE; DRAIN INLET; CONTOUR; SCREEN/RETAINING WALL; POWER LINE/POLE; TELEPHONE LINE; METERS/PULL BOXES; UTILITY POLE; STREET LIGHTS 100 W H.P.S., 150 W H.P.S., 200 W H.P.S., 250 W H.P.S., AREA LIGHT; FIRE HYDRANT; FIRE DEPARTMENT CONNECTION; WATER VALVE; REDUCER; SEWER MANHOLE; SEWER CLEANOUT; STORM CLEANOUT; GAS VALVE; PL-RIGHT-OF-WAY; PL-ADJACENT; CENTERLINE; EASEMENT LINE; FLOW LINE; WATER LINE; GAS LINE; STORM DRAIN; SANITARY SEWER LINE; AC PAVEMENT; 6" TYPE "A" CURB; 24" TYPE "L" CURB & GUTTER; 30" ROLL CURB; CONCRETE; SIGN POLE; CHAIN LINK FENCE; WIRE FENCE; GUARDRAIL; FINISH FLOOR; MISCELLANEOUS: SAWCUT LINE, LANDSCAPING, TREE

ENTIRE SHEET GENERAL REVISION

CLV DWG# 107V4847

NO.	DESCRIPTION OF REVISIONS	DATE	INITIALS
1	REVISED WATER, GAS AND POWER LOCATIONS AND REVISED SHEET INDEX NUMBER.(CLV)	11/27/07	EP
2	ADDED WATERLINE PROFILE.(LVVWD)		
3	REVISED PLAN & WATERLINE PROFILE.(LVVWD)		
4	REVISED WATERLINE PLAN & PROFILE.(LVVWD)		
5	REMOVED ENCASING NOTE.(LVVWD)		
6	REMOVED NOTE.(LVVWD)	10/6/08	EP
9	REVISED SEWER DESIGN TO ACCOMMODATE ADDED POOL AND FOUNTAIN VAULTS.(CLV)	3/11/09	
10	REVISED SEWER TO ACCOMMODATE REVISED SEWER AND ADDED PIZZA GARDEN.(CLV & LVVWD)	3/13/09	

SEAL — PROFESSIONAL ENGINEER STATE OF NEVADA RICHARD R. STRIEGEL EXP. 6-30-10 CIVIL NO. 12553

DATE	10/2/2008
JOB NUMBER	2137.02
DESIGN BY	B. TEDUITS
DRAWN BY	K. KEELER
CHECKED BY	R. STRIEGEL P.E.

MYLAR REPLOT

ENCLAVE LOT 7 RESIDENCE

APN: 138-20-416-007

UTILITY PLAN (SANITARY, WATER AND GAS)

MARTIN & MARTIN
Civil Engineers
2101 S. Jones Blvd., Suite 120
Las Vegas, Nevada 89146
Phone (702) 248-8000
Fax (702) 248-8070

SHEET NUMBER
C5.01
SHEET 7 OF 9

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