HAMILTON CIVIL ENGINEERS UTILITY NOTE

HAMILTON CIVIL ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS. 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 OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

THE CONTRACTOR IS TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THIS DRAWING AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY.

CAUTION TO CONTRACTOR

THE CONTRACTOR SHALL BE RESPONSIBLE TO INVESTIGATE AND VERIFY THE ACTUAL LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND FACILITIES AT LEAST 48 HOURS IN ADVANCE OF THE PERFORMANCE OF ANY WORK.

FIRE DEPT FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS:	2,500 GPM
AT 20 PSI RESIDUAL PRESSURE	
BASED ON SQUARE FOOTAGE:	58,410 SQ. FT.
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	58,410 SQ. FT.
BUILDING HEIGHT:	39 FEET
NUMBER OF STORIES:	2
TYPE OF CONSTRUCTION:	III-B
OCCUPANCY:	S-1
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	YES

LIMITS OF PHASE 1

PHASE 2: FUTURE 4.985 ACRES (NOT A PART)

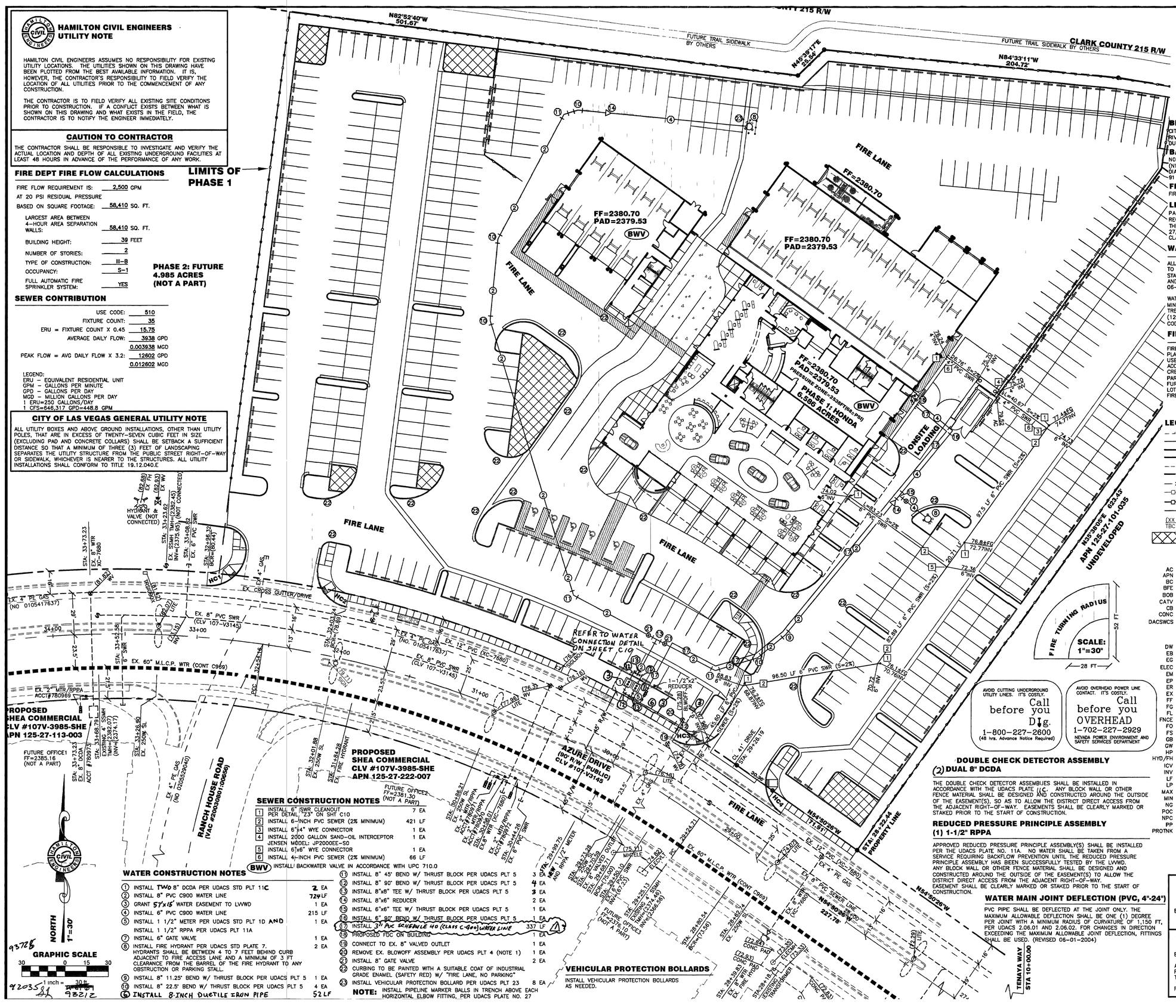
SEWER CONTRIBUTION

USE CODE:	510
FIXTURE COUNT:	35
ERU = FIXTURE COUNT X 0.45	15.75
AVERAGE DAILY FLOW:	3938 GPD
	0.003938 MGD
PEAK FLOW = AVG DAILY FLOW X 3.2:	12602 GPD
	0.012602 MGD

LEGEND:
ERU - EQUIVALENT RESIDENTIAL UNIT
GPM - GALLONS PER MINUTE
GPD - GALLONS PER DAY
MGD - MILLION GALLONS PER DAY
1 ERU=250 GALLONS/DAY
1 CFS=646,317 GPD=448.8 GPM

CITY OF LAS VEGAS GENERAL UTILITY NOTE

ALL UTILITY BOXES AND ABOVE GROUND INSTALLATIONS, OTHER THAN UTILITY POLES, THAT ARE IN EXCESS OF TWENTY-SEVEN CUBIC FEET IN SIZE (EXCLUDING PAD AND CONCRETE COLLARS) SHALL BE SETBACK A SUFFICIENT DISTANCE SO THAT A MINIMUM OF THREE (3) FEET OF LANDSCAPING SEPARATES THE UTILITY STRUCTURE FROM THE PUBLIC STREET RIGHT-OF-WAY OR SIDEWALK, WHICHEVER IS NEARER TO THE STRUCTURES. ALL UTILITY INSTALLATIONS SHALL CONFORM TO TITLE 19.12.040.E



SEWER CONSTRUCTION NOTES

1	INSTALL 6" SWR CLEANOUT PER DETAIL 23" ON SHT C10	7 EA
2	INSTALL 6-INCH PVC SEWER (2% MINIMUM)	421 LF
3	INSTALL 6"x4" WYE CONNECTOR	1 EA
4	INSTALL 2000 GALLON SAND-OIL INTERCEPTOR JENSEN MODEL: JP2000EE-SO	1 EA
5	INSTALL 6"x6" WYE CONNECTOR	1 EA
6	INSTALL 4-INCH PVC SEWER (2% MINIMUM)	66 LF

BWV INSTALL BACKWATER VALVE IN ACCORDANCE WITH UPC 710.0

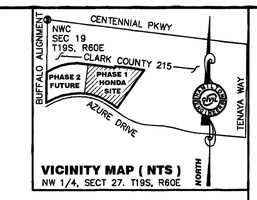
WATER CONSTRUCTION NOTES

1	INSTALL TWO 8" DCDA PER UDACS STD PLT 11C	2 EA
2	INSTALL 8" PVC C900 WATER LINE	724 LF
3	GRANT 5'x15' WATER EASEMENT TO LVVWD	1 EA
4	INSTALL 6" PVC C900 WATER LINE	215 LF
5	INSTALL 1 1/2" METER PER UDACS STD PLT 1D AND INSTALL 1 1/2" RPPA PER UDACS PLT 11A	1 EA
7	INSTALL 6" GATE VALVE	1 EA
8	INSTALL FIRE HYDRANT PER UDACS STD PLATE 7. HYDRANTS SHALL BE BETWEEN 4 TO 7 FEET BEHIND CURB ADJACENT TO FIRE ACCESS LANE AND A MINIMUM OF 3 FT CLEARANCE FROM THE BARREL OF THE FIRE HYDRANT TO ANY OBSTRUCTION OR PARKING STALL.	2 EA
9	INSTALL 8" 11.25° BEND W/ THRUST BLOCK PER UDACS PLT 5	1 EA
10	INSTALL 8" 22.5° BEND W/ THRUST BLOCK PER UDACS PLT 5	4 EA
16	INSTALL 8-INCH DUCTILE IRON PIPE	52 LF
11	INSTALL 8" 45° BEND W/ THRUST BLOCK PER UDACS PLT 5	3 EA
12	INSTALL 8" 90° BEND W/ THRUST BLOCK PER UDACS PLT 5	4 EA
13	INSTALL 8"x8" TEE W/ THRUST BLOCK PER UDACS PLT 5	3 EA
14	INSTALL 8"x6" REDUCER	2 EA
15	INSTALL 6"x6" TEE W/ THRUST BLOCK PER UDACS PLT 5	1 EA
16	INSTALL 6" 90° BEND W/ THRUST BLOCK PER UDACS PLT 5	1 EA
17	INSTALL 3" PVC SCHEDULE 40 (CLASS C-400) WATER LINE	337 LF
18	PROPOSED FDC ON BUILDING	1 EA
19	CONNECT TO EX. 8" VALVED OUTLET	1 EA
20	REMOVE EX. BLOWOFF ASSEMBLY PER UDACS PLT 4 (NOTE 1)	1 EA
21	INSTALL 8" GATE VALVE	2 EA
22	CURBING TO BE PAINTED WITH A SUITABLE COAT OF INDUSTRIAL GRADE ENAMEL (SAFETY RED) W/ "FIRE LANE, NO PARKING"	
23	INSTALL VEHICULAR PROTECTION BOLLARD PER UDACS PLT 23	8 EA

NOTE: INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 27

VEHICULAR PROTECTION BOLLARDS

INSTALL VEHICULAR PROTECTION BOLLARDS AS NEEDED.



VICINITY MAP (NTS)
NW 1/4, SECT 27. T19S, R60E

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 8LV90-27NWW6
RIVET AND ROUND PLATE IN CONCRETE +/- 22 FT SE OF BUFFALO AND DURHAM AVENUE. ELEV: 727.175M=2385.74 FT, NAVD88

BASIS OF BEARING

N00°55'40"E BEING THE WEST LINE OF THE NORTHWEST ONE-QUARTER (NW-1/4) OF SECTION 27, TOWNSHIP 19 SOUTH, RANGE 60 EAST, MOUNT DIABLO MERIDIAN. SHOWN ON MERGER AND RESUBDIVISION MAP, FILE 101, PAGE 91 OF PARCEL MAPS, CLARK COUNTY RECORDERS OFFICE.

FLOOD ZONE

FIRM PANEL NO. 32003C1745 E, ZONE "X", EFFECTIVE SEPTEMBER 27, 2002

LEGAL DESCRIPTION

PARCEL 2 OF THAT CERTAIN PARCEL MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE AT FILE 101, PAGE 91 OF PARCEL MAPS SITUATED WITHIN THE NORTH HALF (N 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 27, THOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

WATER/SEWER CROSSING 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 DRAIN CROSSINGS AND CLEARANCES. ESN.064 REVISED 06-01-04.

WATER AND SEWER SERVICE LATERALS SHALL BE INSTALLED A MINIMUM OF FORTY-EIGHT (48) INCHES APART IN SEPARATE TRENCHES. WATER LATERALS SHALL BE A MINIMUM OF TWELVE (12) INCHES ABOVE THE SEWER LATERAL (REF. UNIFORM PLUMBING CODE)

FIRE AND WATER SERVICES NOTE

FIRE, AND WATER SERVICES AS APPROVED ON THIS PLAN, ARE INTENDED SPECIFICALLY FOR THE LOT AND USE SHOWN, AND ARE NOT INTENDED TO SERVE ADDITIONAL PARCELS OR STRUCTURES WHICH MAY BE CREATED IN THE FUTURE, IN THE EVENT THAT THE PARCELS AND/OR LOTS SHOWN ON THIS PLAN ARE FURTHER DIVIDED TO CREATE ADDITIONAL PARCELS OR LOTS, THE OWNER IS REQUIRED TO PROVIDE SEPARATE FIRE, AND WATER SERVICES TO EACH.

LEGEND

EP	EDGE OF PAVEMENT
CL	CENTERLINE
PL	PROPERTY LINE
R/W	PUBLIC ROAD RIGHT OF WAY
	EXISTING CURB & GUTTER, SIDEWALK
BSL	BUILDING SETBACK LINE
	EX. CHAIN LINK FENCE
	EX. WALL
	PROPOSED WALL
	ASPHALT SAWCUT LINE
(XX.XX) TBC	EXISTING GRADE
XX.XX TBC	PROPOSED GRADE
	CONCRETE ISLAND
	TRENCH AND BACKFILL (UNPAVED AREAS)
	EX. CONTOUR
1800	FINISH CONTOUR

AC	ASPHALTIC CONCRETE	PVC	POLYVINYL CHLORIDE
APN	ASSESSOR PARCEL NUMBER	RAC	REBAR AND ALUMINUM CAP
BC	BRASS CAP	RET	RETAINING
BFE	BASE FLOOD ELEVATION	RPC	REBAR AND PLASTIC CAP
BOB	BASIS OF BEARING	SL	STREET LIGHT
CATV	CABLE / TELEVISION	SNWA	SOUTHERN NEVADA WATER AUTHORITY
CB	CABLE BOX	SP	SERVICE POLE
CONC	CONCRETE	SSCO	SANITARY SEWER CLEANOUT
DACSWCS	DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTIONS SYSTEMS	SSMH	SANITARY SEWER MANHOLE
		STA	STATION
DW	DRIVEWAY	SVRZ	SIGHT VISIBILITY RESTRICTION ZONE (SVRZ): NOTHING OVER 24 INCHES IN HEIGHT AS MEASURED FROM TOP OF CURB ALLOWED IN SVRZ EXCEPT TRAFFIC CONTROL DEVICES.
EB	ELECTRIC BOX		
EG	EDGE OF GRAVEL		
ELEC	ELECTRIC		
EM	ELECTRIC METER	SWR	SEWER
EP	EDGE OF PAVEMENT	TB	TELE-BOX
ER	EDGE OF ROAD	TBC/TC	TOP BACK OF CURB
EX	EXISTING	TBSW	TOP BACK OF SIDE WALK
FF	FINISHED FLOOR	TELE	TELEPHONE
FG	FINISHED GRADE	TF	TRANSFORMER
FL	FLOW LINE	TMH	TOP OF MANHOLE
FNCE	FENCE	TOE	TOE OF SLOPE
FO	FIBER OPTIC	TOP	TOP OF SLOPE
FS	FINISHED SURFACE	TR	TELE-RISER
GB	GRADE BREAK	TW	TOP OF WALL
GW	GUY WIRE	TV	TELE-VAULT
HP	HIGH POINT	UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS
HYD/FH	FIRE HYDRANT		
ICV	IRRIGATION CONTROL VALVE	UGE	UNDERGROUND ELECTRIC
INV	INVERT	USDCCA	UNIFORM STANDARD DRAWINGS (CLARK COUNTY AREA)
LF	LINEAR FEET	VG	VALLEY GUTTER
LP	LIGHT POLE	WC	WELL CASING
MAX	MAXIMUM	WT	WATER TANK
MIN	MINIMUM	WTR	WATER
NG	NATURAL GROUND	WM	WATER METER
POC	POINT OF CONNECTION	WV	WATER VALVE
NPC	NEVADA POWER CO. METER		
PP	POWER POLE		
PROTNK	PROPANE TANK		

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig.
1-800-227-2600
(48 hrs. Advance Notice Required)

AVOID OVERHEAD POWER LINE CONTACT. IT'S COSTLY.
Call before you OVERHEAD
1-702-227-2929
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

DOUBLE CHECK DETECTOR ASSEMBLY

(2) DUAL 8" DCDA

THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE 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.

REDUCED PRESSURE PRINCIPLE ASSEMBLY

(1) 1-1/2" 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 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. EASEMENT SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

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 FT, PER UDACS 2.06.01 AND 2.06.02. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED. (REVISED 06-01-2004)

APPROVED FOR CONSTRUCTION

BY: _____ DATE: 7-13-06
LAS VEGAS VALLEY WATER DISTRICT
(SHEETS 1, 2, AND 7 - PROJECT #112554) AND SHEET 10

CITY OF LAS VEGAS FIRE DEPARTMENT APPROVAL

BY: _____ DATE: 5.23.06

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS.

FIRE FLOW 2,500 GPM AT 20 PSI RESIDUAL.

REV	DATE	BY	DESCRIPTION
1	06-26-2006	HCE	PUMPHOUSE WATER LINE FROM 2-INCH TO 6-INCH TO REDUCE PRESSURE LOSS WITHIN THE SITE

DEVELOPER:
DEXON CONSTRUCTION
5685 SOUTH CAMERON
LAS VEGAS, NV 89118
PH: (702) 876-9800
FAX: (702) 251-0534
steve@addmgt.com

PROPERTY OWNER:
CLIFF AND DONNA FINDLAY TRUST
310 NORTH GIBSON ROAD
HENDERSON, NEVADA 89014-6702
PH: (702) 558-8822 FAX: (702) 558-5414
CONTACT: TYLER CORDER, CHIEF FINANCIAL OFFICER
EMAIL: tcorder@findlayauto.com

HAMILTON ENGINEERS
3945 Pebble Creek Avenue
Las Vegas, Nevada 89147
Ph: (702) 580-3658
Fax: (702) 247-4507
John@HamiltonCivilEngineers.com

PHASE 1: UTILITY PLAN

NAME OF PROJECT: FINDLAY-SHACK HONDA
APN 125-27-101-036
ASSESSOR PARCEL NUMBER: APN 125-27-101-036
GOVERNING ENTITY: CITY OF LAS VEGAS, NEVADA

1"=30'

HAMILTON CIVIL ENGINEERS: HCE 05-500-005

ENGINEER'S SEAL: REGISTERED PROFESSIONAL ENGINEER JOHN R. HAMILTON Exp.06/30/2007 CIVIL No.015735 STATE OF NEVADA 5/24/06

SHEET ID: C7

7 OF 11 SHEETS

GOVERNING ENTITY REF NO.: 107V4632