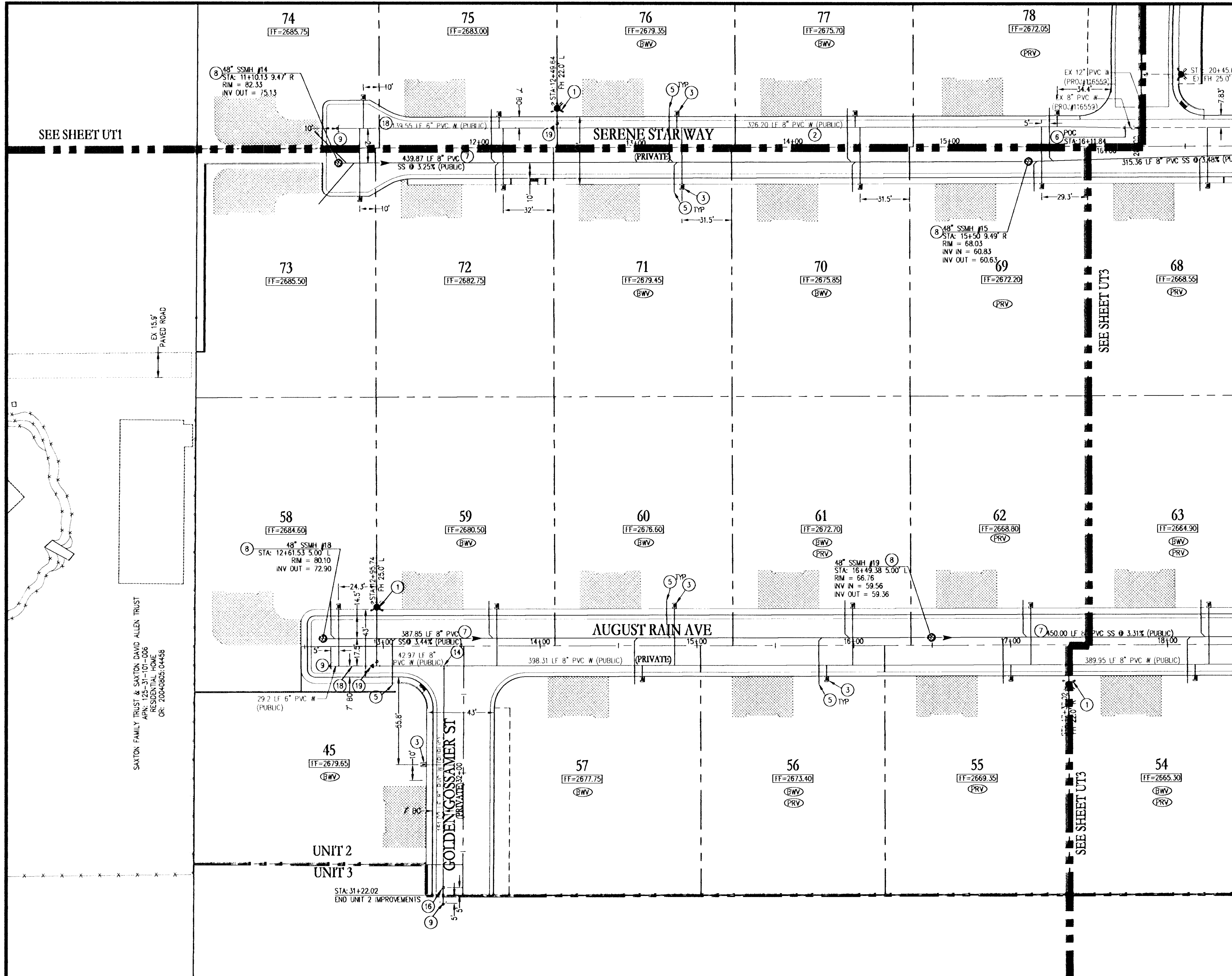
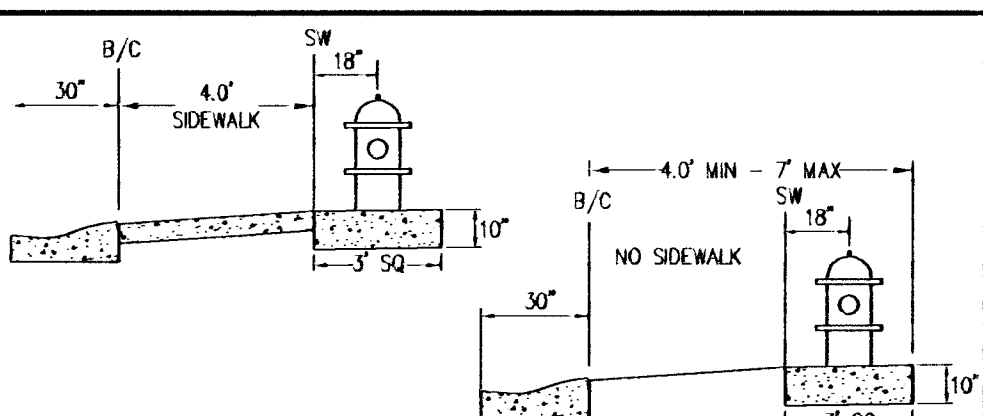
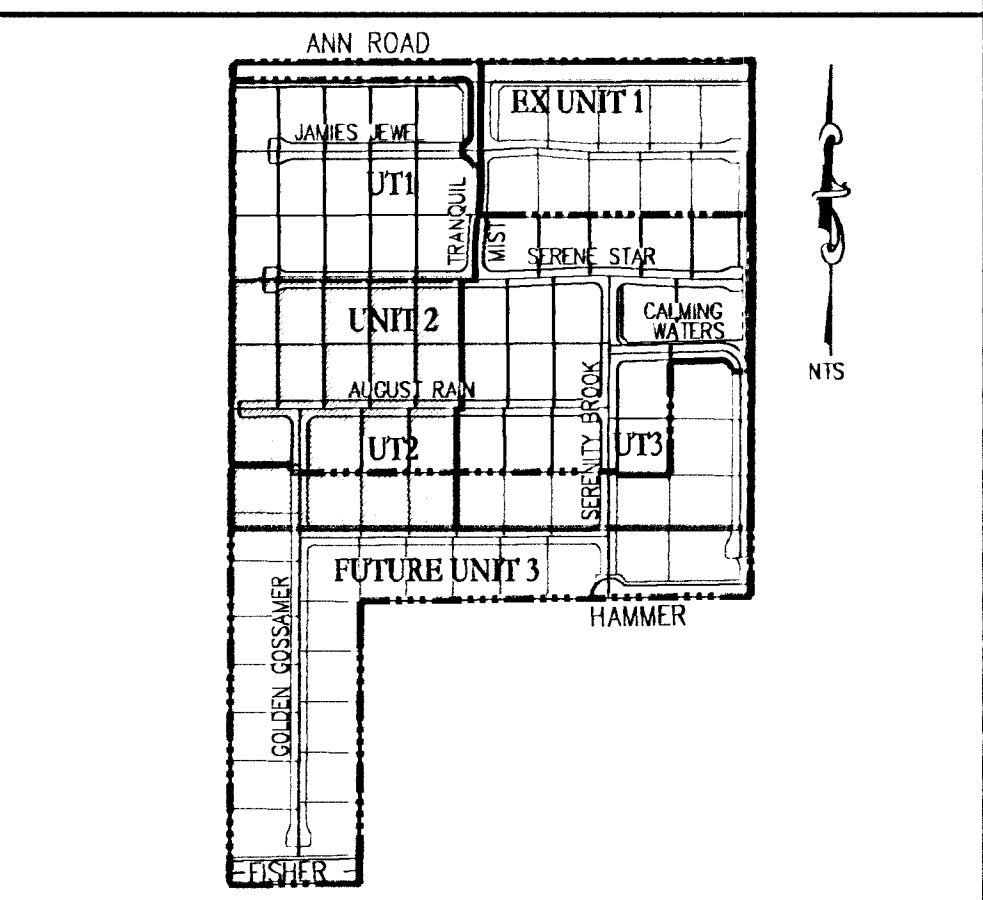




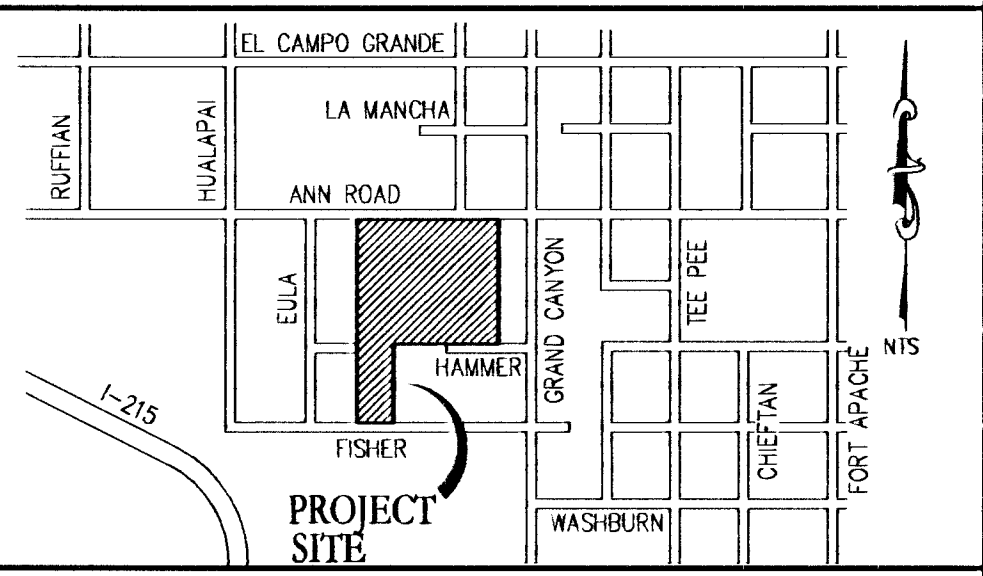
FIRE HYDRANT DETAIL



SITE MAP



KEY MAP



UTILITY NOTES

1. ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS), LATEST EDITION.
2. FIRE, WATER, AND SEWER SERVICES, AS APPROVED ON THIS PLAN, ARE INTENDED SPECIFICALLY FOR THE LOT AND USE SHOWN, AND ARE NOT INTENDED TO SERVICE 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, WATER, & SEWER SERVICES TO EACH.
3. WATER AND SEWER LATERALS SHALL BE INSTALLED A MINIMUM OF 48" APART IN SEPARATE TRENCHES. WATER LATERALS SHALL BE A MINIMUM OF 12" ABOVE THE SEWER LATERAL. (REF. UNIFORM PLUMBING CODE)
4. LOCATOR WIRE SHALL BE USED FOR ALL SERVICE LATERALS NOT PERPENDICULAR TO THE MAIN. (TYPICAL)
5. ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
6. ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENTS HAVE BEEN OBTAINED FROM THE OFFSITE OWNER AND GIVEN TO CLARK COUNTY.
7. ALL ONSITE STREETS AND DRAINAGE EASEMENTS ARE TO BE PRIVATELY OWNED AND MAINTAINED.

CONSTRUCTION NOTES

1. FIRE HYDRANT ASSEMBLY W/ 8" GATE VALVE (UDACS PLT 40) - PRIVATE (SEE FIRE HYDRANT DETAIL THIS SHEET)
2. 8" PVC WATERLINE - PUBLIC
3. 1" COPPER WATER SERVICE W/ 3/4" METER (UDACS PLT 4)
4. 3/4" IRRIGATION METER W/ 1" RPPA (UDACS PLT 4 & 8)
5. 4" SEWER LATERAL (DCSWS SD-22 SEE LL-022) - PRIVATE
6. REMOVE CAP AND BLOW OFF PER UDACS PLT. 36 & CONNECT TO EX. STUB
7. 8" PVC SEWER - PUBLIC
8. 48" SEWER MANHOLE (DCSWS SD-1A) - PUBLIC
9. CAP & 2" BLOW OFF VALVE (UDACS PLT 36) - PUBLIC
10. 45" WATER LINE BEND (UDACS PLT 31) - PUBLIC
11. 48" SEWER MANHOLE (DCSWS SD-1A) - PUBLIC
12. CONTRACTOR TO INSTALL MANHOLE COLLAR OUTSIDE OF CROSS CUTTER
13. CONTRACTOR TO REMOVE 44' LF OF EXISTING SEWER
14. 8" WATER LINE TEE (UDACS PLT 31) - PUBLIC
15. 12" x 8" MECHANICAL JOINT TAPPING SLEEVE
16. 8" GATE VALVE (UDACS PLT 30 & 39) - PUBLIC
17. 4" CSOQ WATER QUALITY SEWER LATERAL - PRIVATE
18. 8" PVC WATERLINE - PUBLIC
19. 8" WATERLINE REDUCER (UDACS PLT 30)
20. 4" IRRIGATION CONDUITS - PRIVATE

APPROVAL SIGNATURES

Gregory 01/24/11 DATE
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER (PROJ# 116617)
John W. White 01/24/11 DATE
CLARK COUNTY FIRE DEPARTMENT #1-335/6614
APPROVAL OF THESE PLANS SHALL NOT BE CONSIDERED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW = 2,000 G.P.M. AT 20 PSI RESIDUAL.

LEGEND

EXISTING	PROPOSED
CENTERLINE	CENTERLINE
RIGHT-OF-WAY	RIGHT-OF-WAY
OUT LINE-ASPHALT	OUT LINE-ASPHALT
CURB AND GUTTER	CURB AND GUTTER
FENCE	FENCE
POWER POLE	POWER POLE
SIDEWALK RAMP	SIDEWALK RAMP
CURB DROP INLET	CURB DROP INLET
STORM DRAIN W/MANHOLE	STORM DRAIN W/MANHOLE
SIDEWALK	SIDEWALK
PROPERTY LINE	PROPERTY LINE
EDGE OF PAVEMENT	EDGE OF PAVEMENT
CAP & 2" BLOW OFF VALVE	CAP & 2" BLOW OFF VALVE
WATERLINE FITTINGS	WATERLINE FITTINGS
GATE VALVE	GATE VALVE
FIRE HYDRANT	FIRE HYDRANT
SEWER LINE W/MANHOLE	SEWER LINE W/MANHOLE
SEWER LATERAL	SEWER LATERAL
WATER LINE	WATER LINE
WATER LATERAL W/METER	WATER LATERAL W/METER
BACKWATER VALVE	BACKWATER VALVE
PRESSURE REDUCING VALVE	PRESSURE REDUCING VALVE

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 MAXIMUM RADIUS OF CURVATURE OF 1,500 FEET, PER UDACS 2.07.01 AND 2.07.02.
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTING SHALL BE USED.

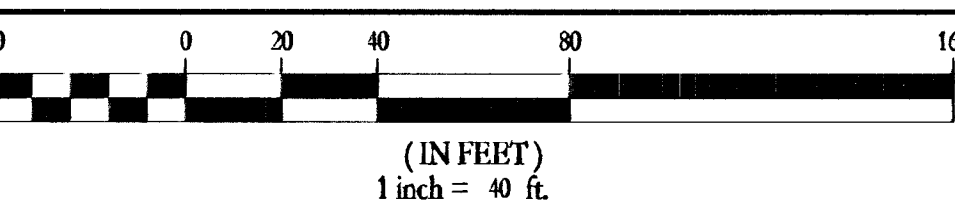
FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS 2,000 GPM AT 20 POUNDS PER SQUARE INCH RESIDUAL. HYDRANTS TO BE INSTALLED: 6
BASED ON:
SQUARE FOOTAGE: 6,200 SQ. FT.
HEIGHT: 35'-FT.
SPRINKLER SYSTEM: NO
ROOF CONSTRUCTION: TLE
HIGH PILED COMBUSTIBLE STORAGE: NO
LARGEST AREA BETWEEN SEPARATE WALLS: N/A
TYPE OF CONSTRUCTION: V-B
OCCUPANCY: R-3
STORIES: 1-STORY
ESR SYSTEM: NO

UTILITY DISCLAIMER NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREIN ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATIONS.
CALL BEFORE YOU DIG: 1-800-227-2600
CALL BEFORE YOU OVERHEAD: 1-702-227-2929

SCALE



LEGAL DESCRIPTION

BEING A PORTION OF THE NORTHWEST QUARTER (1/4) OF SECTION 31, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.B.D. & M. CLARK COUNTY, NEVADA

BASIS OF BEARINGS

S 89°41'18" E, BEING THE NORTH LINE OF THE SE 1/4, NW 1/4, SECTION 31, T19S, R60E; M.D.M. AS SHOWN ON FILE 97, PAGE 85 OF PARCEL MAPS, CLARK COUNTY, NEVADA OFFICIAL RECORDS.

BENCHMARK

B.M. #19V90-31C4 GLV RIVET & ROUND PLATE IN CONC PAD WEST SIDE OF GRAND CANYON DR., 120 FEET SOUTH OF WASHBURN ROAD.
ELEVATION = 795.579 M (2010.18 FEET) NAVD 88

NOTE

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	OC	ON CENTER
BC	BACK OF CURB	PB	PULL BOX
BR	BACK OF CURB RADIUS	PC	POINT OF CURVE
BM	BENCHMARK	POC	POINT OF COMPOUND CURVE
BVC	BEGIN VERTICAL CURVE	PI	POINT OF INTERSECTION
CAV	CABLE TELEVISION	PL	PROPERTY LINE
CC	CLARK COUNTY	PLT	PLATE
CL	CENTERLINE	PVC	POINT OF CONNECTION
CLV	CITY OF LAS VEGAS	PP	POWER POLE
CONV	CITY OF NORTH LAS VEGAS	PRC	POINT OF REVERSE CURVE
CO	CLEAN OUT, SEWER	PT	POINT OF TANGENCY
COH	CITY OF HENDERSON	PTV	POLYETHYLENE TEREPHTHALENE
CY	CUBIC YARD	R	RADIUS
DCSWS	DESIGN AND CONSTRUCTION STANDARDS OF	RCC	REINFORCED CONCRETE BOX
DR	DESIGN GRADE	RCP	REINFORCED CONCRETE PIPE
DRP	DRAINAGE PITCH	R/W	RIGHT-OF-WAY
EC	END OF CURVE	RT	RIGHT
EP	EDGE OF PAVEMENT	SD	STORM DRAIN
EV	END VERTICAL CURVE	SLT	STREETLIGHT
EX	EXISTING	SNWA	SOUTHERN NEVADA WATER AUTHORITY
FF	FINISH FLOOR ELEVATION	SS	SANITARY SEWER
FL	FLOW LINE	STD	STANDARD
FT	FEET	SVZ	RIGHT VISION ZONE
GA	GRADE BREAK	TC	TOP OF CURB
GP	GRADE POINT	TF	TOP OF FOOTING
HP	HIGH POINT	TR	TOP OF RETAINING
INV	INVERT	TW	TOP OF WALL
LF	LINEAR FEET	TYP	TYPICAL
LT	LEFT	UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS
LTVWD	LAS VEGAS VALLEY WATER DISTRICT	USD	UNIFORM STANDARD DRAWING
MAX	MAXIMUM	VC	VERTICAL CURVE
MH	MANHOLE	VCP	VERTIFIED CLAY PIPE
MIN	MINIMUM	VG	VALLEY GUTTER
NIS	NOT TO SCALE	W	WATER
		WC	WOOD CURB

LVVWD NOTE

AT THE DIRECTION OF THE DEVELOPER, 3/4" WATER METERS ARE SHOWN TO BE INSTALLED ON THIS PROJECT. METER SIZE HAS BEEN DETERMINED BY FIXTURE UNIT CALCULATIONS BY THE PROJECT ENGINEER PER CHAPTER 6 OF THE UNIFORM PLUMBING CODE.
ANY OPTIONAL FEATURE ADDED TO THE STRUCTURES TO BE BUILT ON THESE LOTS, OR ANY CHANGE IN THE STANDARD FEATURES OF THE STRUCTURES TO BE BUILT ON THESE LOTS WHICH ADDS TO THE TOTAL FIXTURE UNIT COUNT FOR THAT STRUCTURE MAY RESULT IN NON-COMPLIANCE WITH THE UNIFORM PLUMBING CODE.

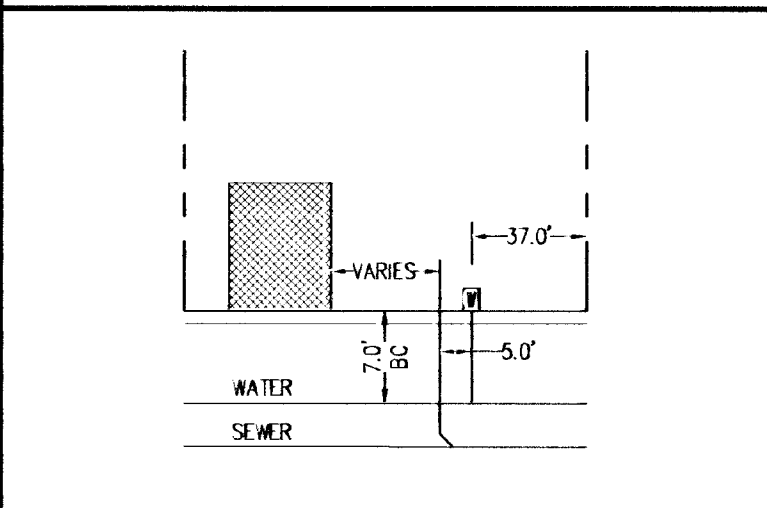
PRESSURE REDUCING VALVE

LOTS: 11-17, 24-25, 52-56, 61-69, 78 (ALL LOTS IN UNIT 2)
THESE LOTS MAY HAVE STATIC PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT PRIVATE (ON-SITE) PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRVs ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF THESE LVVWD FACILITIES.

BACKWATER VALVE

LOTS: 11-12, 14, 17, 45, 52-54, 56-57, 59-65, 67, 70-71, 76-77, 79, 81, 86, 88
THESE LOTS HAVE DRAINAGE PIPING FEATURES THAT ARE LOWER THAN THE NEXT UPSTREAM SEWER MANHOLE COVER AND SHALL HAVE BACKWATER VALVES INSTALLED PER DCSWS SD-29.

TYPICAL LATERAL LAYOUT



AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD

1-702-227-2929

AVOID HITTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

CALL 811

1-800-227-2600
CLARK COUNTY UTILITY OPERATIONS
1-800-455-7544

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.

UnderGround

1-702-455-7511
CLARK COUNTY TRAFFIC OPERATIONS
1-702-229-6611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

WILLIAM LYON HOMES
300 PILOT ROAD STE# G
LAS VEGAS, NV 89119
(702) 263-8200 FAX: (702) 263-8200

TANEY ENGINEERING
6000 S. JONES BLVD STE# 100
LAS VEGAS, NV 89118
(702) 362-8664 FAX: (702) 362-8233

ANN AND GRAND CANYON - UNIT 2
(SERENITY RIDGE)
A RESIDENTIAL SUBDIVISION

UTILITY PLAN - SOUTHWEST

DATE: 1/3/11
SCALE: 1"=40'
JOB NO: WIL-10-068
DESIGNED BY: MC
CHECKED BY: RDC
SHEET NAME: UT2
SHEET: 10 OF 25
10-26904