

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORMED DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSING AND CLEARANCES.

CONTROLLED LOW STRENGTH MATERIAL (CLSM)

PROTECT WATERLINE IN PLACES WHEREVER A WATERLINE IS ABOVE A STORM DRAIN OR SEWER WHERE COMPACTION REQUIREMENTS UNDER A WATERLINE CANNOT BE MET, BACKFILL TRENCH WITH CLASS I / CLASS II CONTROLLED LOW STRENGTH MATERIAL (CLSM) TO THE SPRINGLINE OF THE WATERLINE. THIS REQUIREMENT IS FOR STRUCTURAL SUPPORT ONLY. ADDITIONAL HEALTH REQUIREMENTS MAY APPLY PER UDACS 2.19. ESN#2

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 2.07.01 AND 2.07.02.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

APN: 125-19-401-010
ZONING: U-R
(V F R-SOUTHWEST DESERT EQUITIES)
DEED# 2008092401369

WATER CONSTRUCTION NOTES AND QUANTITIES

		PUBLIC	PRIVATE
A	INSTALL FIRE HYDRANT ASSEMBLY PER UDACS STD. PLATE NO. 40 OR 41(CENTENNIAL PARKWAY)	5 EA	---
B	1" METER AND 1" TYPE K COPPER LATERAL PER UDACS STD. PLATE NO. 4 & 1" MIN. METER BOX	10 EA	---
C	3/4" IRRIGATION METER PER UDACS PLATE NO. 4	2 EA	---
D	INSTALL GATE VALVE PER UDACS PLATE NO. 30 WITH VALVE BOX PER UDACS PLATE NO. 9	13 EA	---
E	INSTALL 10"x10" TEE PER UDACS PLATE NO. 31.	2 EA	---
F	INSTALL 10"x8" REDUCER PER UDACS STD. PLATE NO. 30.	3 EA	---
G	INSTALL 90° BENDS AND THRUST BLOCKS AS REQUIRED PER UDACS PLATE NO. 31.(SAME SIZE AS LINE)	---	---
H	INSTALL 45° BENDS AND THRUST BLOCKS AS REQUIRED PER UDACS PLATE NO. 31. (SAME SIZE AS LINE)	10 EA	---
I	3/4" METER AND 1" TYPE K COPPER LATERAL PER UDACS STD. PLATE NO. 4 & 1" MIN. METER BOX	15 EA	---
J	CAP AND 2" BLOWOFF ASSEMBLY PER UDACS STD. PLATE NO. 38 (SAME SIZE AS LINE)	5 EA	---
K	INSTALL STEEL CASING 10" EACH SIDE OF CROSSING PER UDACS PLATE NO. 22 AND 23. SIZE OF STEEL CASING VARIES SEE PROFILES.	2 EA	---
L	INSTALL 10"x6" TEE PER UDACS PLATE NO. 31.	3 EA	---
M	INSTALL 8"x8" TEE PER UDACS STD. PLATE NO. 31.	1 EA	---
N	INSTALL 12"x8" TEE PER UDACS PLATE NO. 31.	1 EA	---
O	INSTALL 8"x8" REDUCER PER UDACS STD. PLATE NO. 30.	2 EA	---
P	INSTALL 8"x8" TEE PER UDACS STD. PLATE NO. 31.	2 EA	---
R	INSTALL 12"x10" TEE PER UDACS STD. PLATE NO. 31.	2 EA	---
PRV	PRESSURE REDUCING VALVE	---	---
6" PVC WATERLINE C900 (PUBLIC)		304 LF	---
8" PVC WATERLINE C900 (PUBLIC)		885 LF	---
10" PVC WATERLINE C900 (PUBLIC)		1,977 LF	---
10" FUSIBLE C900 PVC WATER LINE (PUBLIC)		134 LF	---
12" PVC WATERLINE C900 (PUBLIC)		505 LF	---
12" FUSIBLE C900 PVC WATER LINE (PUBLIC)		21 LF	---
(2)-3" PVC IRRIGATION SLEEVES (PRIVATE)		---	119 LF

PRESSURE NOTE: WATER MAIN IS INSTALLED FROM THE 2880 PRESSURE ZONE PER LVWD.

SEWER NOTES AND QUANTITIES

		PUBLIC	PRIVATE
A	CONSTRUCT 48" STANDARD ECCENTRIC MANHOLE PER DCSWCS PLATE SD-1	5 EA	---
B	INSTALL 4" SEWER LATERAL PER DCSWCS PLATE SD-22 AND SD-27	---	733 LF
C	CONSTRUCT 48" STANDARD ECCENTRIC MANHOLE PER DCSWCS PLATE SD-1, WITH WATER QUALITY. INSTALL WATER QUALITY TIGHT JOINTS	1 EA	---
SWV	INSTALL RESIDENTIAL SEWER BACK WATER VALVE PER DCSWCS PLATE SD-29	---	6 EA
8" PVC SEWERLINE (PUBLIC)		1,722 LF	---

SEWER CONTRIBUTION

25 UNITS @ 1 ERU PER UNIT (90,000 GPD/ERU) = 2,250,000 GPD
365 DAYS PER YEAR
AVERAGE DAILY FLOW = 6,165 GPD
PEAK FACTOR = 3.5
APPROXIMATE PEAK FLOW = 21,578 GPD

SEE TRAFFIC PLANS FOR STRIPING / SIGNAGE / TRAFFIC

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS: 2,000 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

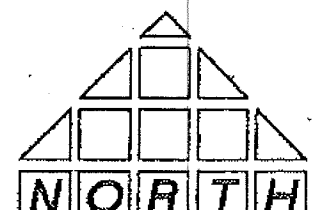
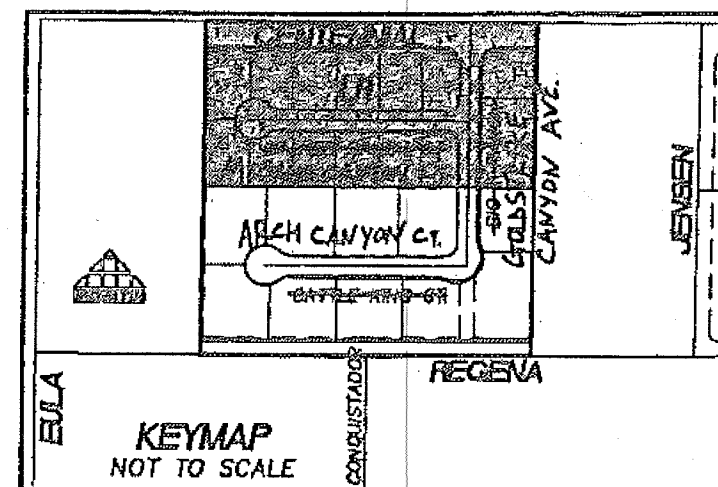
BASIS ON:	< 6,169
SQUARE FOOTAGE:	< 6,169
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	< 35 FEET
BUILDING HEIGHT(FEET):	2 STORY
NUMBER OF STORIES(FLOOR):	V-B
TYPE OF CONSTRUCTION:	RESIDENTIAL
OCCUPANCY:	---
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	NO
HIGH PILED STORAGE(YES/NO)?	NO

FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVWD. ESN#12

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 3/17/15

PROJECT NO. 122283 DATE: 3/17/15
LVWD APPROVED FIRE FLOW 2,000 GPM AT 20 PSI RESIDUAL



LEGEND

- PROPOSED PVC SEWER MAIN WITH 48" MANHOLE (SIZE AS SHOWN)
- PROPOSED PVC WATER MAIN AND GATE VALVE (SIZE AS SHOWN)
- PROPOSED FIRE HYDRANT ASSEMBLY
- EXISTING PVC SEWER MAIN WITH EXISTING MANHOLE
- EXISTING STORM DRAIN MAIN WITH EXISTING MANHOLE
- EXISTING PVC WATER MAIN AND GATE VALVE
- PROPOSED 4" SEWER LATERAL AND CLEANOUT
- PROPOSED 1" WATER SERVICE LATERAL WITH 3/4" METER
- EXISTING FIRE HYDRANT ASSEMBLY
- UTILITY EASEMENT (SIZE AS SHOWN)
- SLEEVED PIPE PER UDACS PLATE 22 & 23
- PROPOSED POWER TRANSFORMER
- UTILITY POINT OF CONNECTION
- PRESSURE REDUCING VALVE (REQUIRED FOR ALL LOTS WITH STATIC PRESSURE EXCEEDING 80 PSI)

FOR ALL UTILITY NOTES, SEE GENERAL NOTES SHEET # C3 AND FOR UTILITY QUANTITIES SEE THIS SHEET # U1

TYPICAL FIRE HYDRANT LOCATION W/O SIDEWALK
NOT TO SCALE

TYPICAL OFFSITE FIRE HYDRANT LOCATION
NOT TO SCALE

FIRE HYDRANT CLEARANCE DETAIL
NOT TO SCALE

LATERAL NOTES:
WATER & SEWER SERVICE LATERALS SHALL BE INSTALLED IN SEPARATE TRENCHES A MINIMUM OF 48" APART. WATER LATERALS SHALL BE A MINIMUM OF 12" ABOVE THE SEWER LATERAL (REF. UNIFORM PLUMBING CODE). WATER LATERAL SHALL BE PLACED 18" ABOVE SEWER MAINS AND LATERALS AT CROSSINGS.

TYPICAL LATERAL LOCATION

MANHOLE SCHEDULE
#2 CUT 9.28 TO RIM - INV.
#3 CUT 8.75 TO RIM - INV.
#4 CUT 8.10 TO RIM - INV.
#5 CUT 7.11 TO RIM - INV.

FOR ALL DRY UTILITY CROSSING
-MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
-MAINTAIN MINIMUM 3" PARALLEL SEPARATION
-ANY EXCAVATION AT BACK OF CURB MUST BE KEPT OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

THE DISTRICT CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPEDE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.
CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPOINTMENTS ARE AVAILABLE.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (2) ?

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD.

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.

EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION. ESN#28 REVISED 10/27/11

BENCHMARK
CITY OF LAS VEGAS BENCHMARK 6LV89 245ES
A RIVET AND PLATE IN THE TOP OF CURB AT THE NORTHWEST CORNER OF CENTENNIAL PARKWAY AND HUALAPAI WAY.

ELEVATION=844.924 METERS (NAVD'83)
ELEVATION=2772.08 US SURVEY FEET (NAVD'83)

BASIS OF BEARING
NORTH 89°56'34" EAST, BEING THE BEARING OF THE NORTH LINE OF THE NORTHEAST QUARTER (NE 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 50 EAST, M.D.M., AS SHOWN IN FILE 114, PAGE 57 OF SURVEYS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE

PROTECT IN PLACE AND ADJUST LVWD EXISTING FACILITIES TO FINISH GRADE. ALL LVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES
ESN#078 01/05/15

ADJUST WATER VALVE BOX TO FINISHED GRADE PER UDACS PLATE NO. 39. VALVE SHALL BE ACCESSIBLE AT ALL TIMES.

PRIVATE STREET NOTE

ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

DISCLAIMER NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD 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.

NOTIFY ENGINEER IMMEDIATELY IF DISCREPANCIES ARE ENCOUNTERED.

Call before you dig
1-800-227-2600

FAST
Underground
1-702-432-5300

LENNAR HOMES
2480 PASSED VERDE PARKWAY, SUITE 120, HENDERSON, NV 89074 FAX(702) 438-7708
PH (702) 438-7700

CENTENNIAL AND CONQUISTADOR
UTILITY PLAN 1

JOHN B. MCADAM
CIVIL
NO. 22439
EXP. 12-31-15

U1
6 OF 21
107Y5022
H# 55906