

Q:\Triton Drawings\007108 Elkhorn Tenney\Drawings\Improvements\Phase\08 007108-ph1-imp-Utilities.dwg Date: Tue, 27 Jun 2017 1:19pm

SEE SHEET 27

SEE SHEET 30

REDUCED PRESSURE PRINCIPLE ASSEMBLY (2) 1'

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 EASEMENTS TO ALLOW THE DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

WELL ABANDONMENT

WELL SHALL BE ABANDONED PRIOR TO BRINGING ANY DOMESTIC CONNECTIONS INTO SERVICE.

WELL DRILLERS LOG NO.:
LVWD ENGINEERING SERVICES WELL VERIFICATION DATE:

BACK WATER VALVE

BACKWATER VALVES REQUIRED PER U.P.C., LATEST EDITION, SECTION 710.0.

TOTAL LOTS REQUIRING BACKWATER VALVES = 0

PRESSURE REDUCING VALVE

LOTS WITHIN 2538 ZONE WITH A FINISH FLOOR ELEVATION LESS THAN 2353.4 WILL REQUIRE A PRV

TOTAL LOTS REQUIRING A PRV = 0

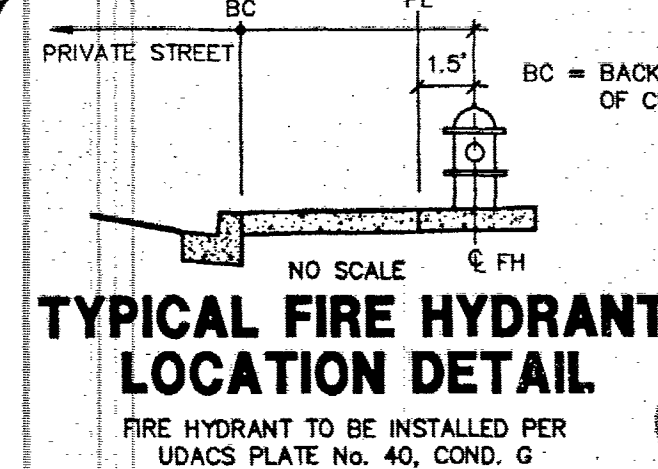
PROTECT IN PLACE AND ADJUST LVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

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

HAND DIGGING IS REQUIRED FOR ANY EXCAVATION WITHIN 2 FEET OF THE TOP OF THE EXISTING 60 INCH M/COP WATER MAIN AND EXTENDING 10' ON EITHER SIDE.

UTILITY LEGEND

EX. GAS	EXISTING GAS
EX. 10" S	EXISTING SEWER MAIN
EX. 36" SD	PROPOSED SEWER MAIN
EX. 36" SD	EXISTING STORM DRAIN
EX. 8" W	PROPOSED STORM DRAIN
EX. 8" W	EXISTING WATER MAIN
EX. 8" W	PROPOSED WATER MAIN
EX. 8" W	PROPOSED WATER LATERAL WITH 3/4" METER
EX. 8" W	EXISTING UTILITY MANHOLE
EX. 8" W	PROPOSED UTILITY MANHOLE
EX. 8" W	EXISTING VALVE
EX. 8" W	PROPOSED VALVE
EX. 8" W	PROPOSED STANDARD FIRE HYDRANT WITH 6" LATERAL, 6" GATE VALVE, AND TEE
EX. 8" W	BACK WATER VALVE
EX. 8" W	PRESSURE REDUCING VALVE
EX. 8" W	EXISTING STREET LIGHT
EX. 8" W	FUTURE STREET LIGHT
EX. 8" W	PROPOSED 100W HPS STREET LIGHT
EX. 8" W	PROPOSED 200W HPS STREET LIGHT
EX. 8" W	PROPOSED 250W HPS STREET LIGHT
EX. 8" W	PROPOSED 400W HPS STREET LIGHT
EX. 8" W	PROPOSED CONCRETE DRIVEWAY



WATER NOTES

- POC - 12" x 8" TAPPING SLEEVE WITH TAPPING VALVE, PER UDACS PL. NO. 34, 39 & SEC. 2.24.01A
- POC - 12" TAPPING SLEEVE WITH TAPPING VALVE, PER UDACS PL. NO. 34, 39 & SEC. 2.24.01A
- FIRE HYDRANT ASSEMBLY (INCLUDING 6" LATERAL, 6" GATE VALVE AND 6" x 6" TEE), PER UDACS PLATE 40 CONDITION G
- INSTALL GATE VALVE (SIZE PER PIPE), PER UDACS PLATE NO. 30 AND 39
- 12" x 8" TEE, PER UDACS PLATE NO. 31
- TEE (SIZE PER PIPE), UDACS PLATE NO. 31
- 11.25" BEND (SIZE PER PIPE), PER UDACS PLATE NO. 31
- 45° BEND (SIZE PER PIPE), PER UDACS PLATE NO. 31
- 90° BEND (SIZE PER PIPE), PER UDACS PLATE NO. 31
- INSTALL 8" x 6" REDUCER, PER UDACS PLATE NO. 31
- 2" BLOW OFF ASSEMBLY WITH CAP, PER UDACS PLATE NO. 36
- INSTALL 1" COPPER WATER SERVICE WITH 3/4" METER, PER UDACS PLATE NO. 4 AND SEC. 2.17.01
- INSTALL 3/4" IRRIGATION METER WITH 1" RPPA, PER UDACS PLATE NO. 4 AND 5 AND SEC. 2.17.01, WITH 6" LVWD NON-EXCLUSIVE ESM

SEWER NOTES

- POC - INSTALL 72" MANHOLE WITH CAST-IN-PLACE BASE AND DUAL CONCENTRIC COVER, PER DCSWS SD-2, SD-4 AND SD-7, CORROSION PROTECTION PER DCSWS 3.16.8.8
- EXISTING 48" MANHOLE TO BE PROTECTED IN PLACE AND ADJUSTED TO GRADE
- INSTALL 48" MANHOLE WITH PRECAST BASE, PER DCSWS SD-1A, SD-1B, SD-4, WITH SINGLE 24" LID
- INSTALL 8" SD-35 PVC SEWER PIPE, PER DCSWS SD-15, SD-16 AND SD-17
- INSTALL 4" SD-35 PVC SEWER LATERAL WITH CURB MARKING, PER DCSWS SD-22 AND SD-25

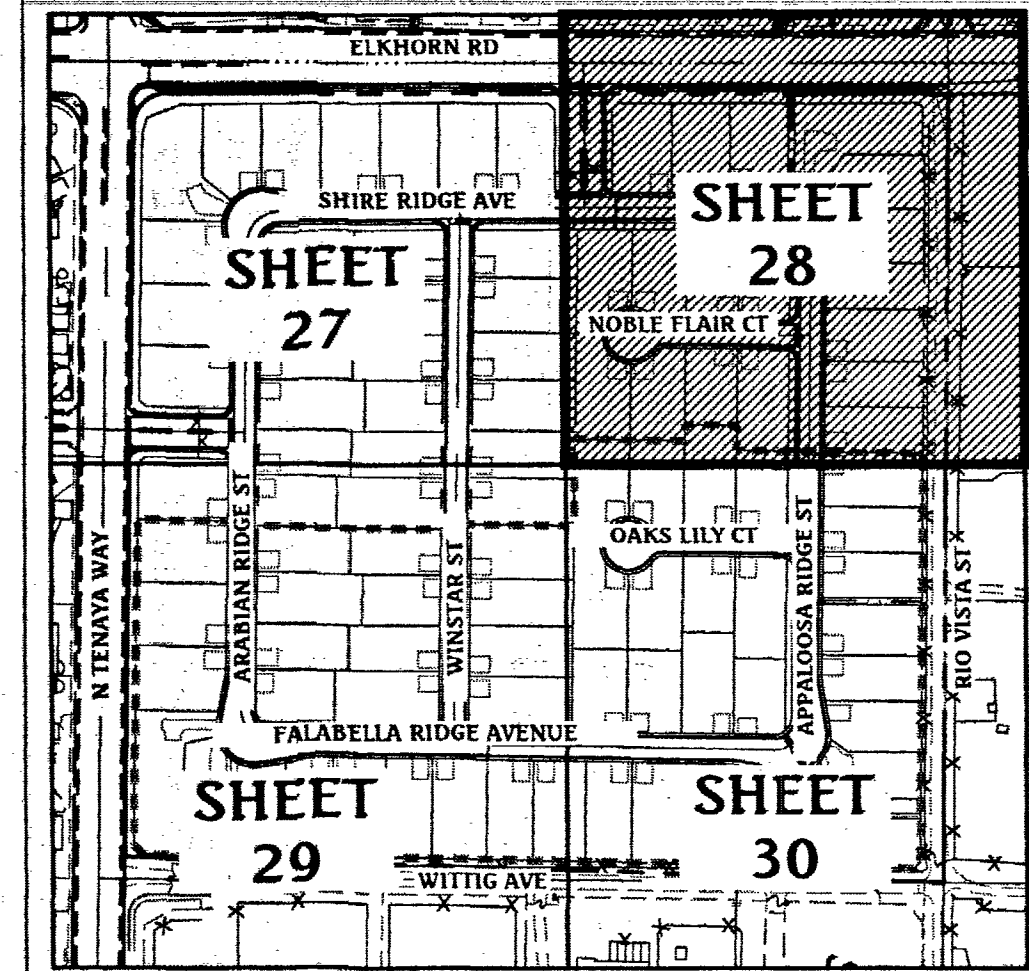
UTILITY CROSSING NOTE

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

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 1:150 FEET, PER UDACS 2.07.01 AND 2.07.02. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

KEY MAP



Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL
1-800-227-2600

FAST
Call before you Dig
Underground
1-702-432-5300

Call before you Overhead
1-702-227-2929



FIRE FLOW CALCULATIONS

THE FIRE FLOW REQUIREMENT IS: 1,750 GALLONS PER MINUTE 20 PSI RESIDUAL PRESSURE.

BASED ON:	
SQUARE FOOTAGE:	4,230 SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	N/A SQUARE FEET
BUILDING HEIGHT:	21 FEET-7 3/4" INCHES
NUMBER OF STORIES:	1 FLOOR
TYPE OF CONSTRUCTION:	V-NON RATED
OCCUPANCY:	RESIDENTIAL
FULL AUTOMATIC FIRE SPRINKLER SYSTEM:	NO

BASIS OF BEARING

NORTH 00°56'37" EAST, BEING THE BEARING OF THE WEST LINE OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 163, PAGE 26 OF SURVEYS.

BENCHMARK

CLARK COUNTY BENCHMARK STATION: 6LV90 155S66
RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF RIO VISTA AND ELKHORN ROAD.

ELEVATION = 717.800 METERS (NAVD'88 V.2003)
ELEVATION = 2354.98 US SURVEY FEET (NAVD'88 V.2003)

FIRE DEPARTMENT APPROVAL

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

APPROVED FOR CONSTRUCTION

Las Vegas Valley Water District Engineering Services Manager
DATE: 6/16/17 PROJECT NO.: 125391
LVWD APPROVED FIRE FLOW 1,750 GPM @ 20 PSI RESIDUAL

APPROVALS

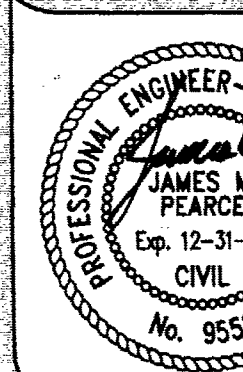
Las Vegas Fire and Rescue
DATE: 6/16/17

Triton Engineering



DR HORTON
ELKHORN 40 PHASE 1

UTILITY PLAN II

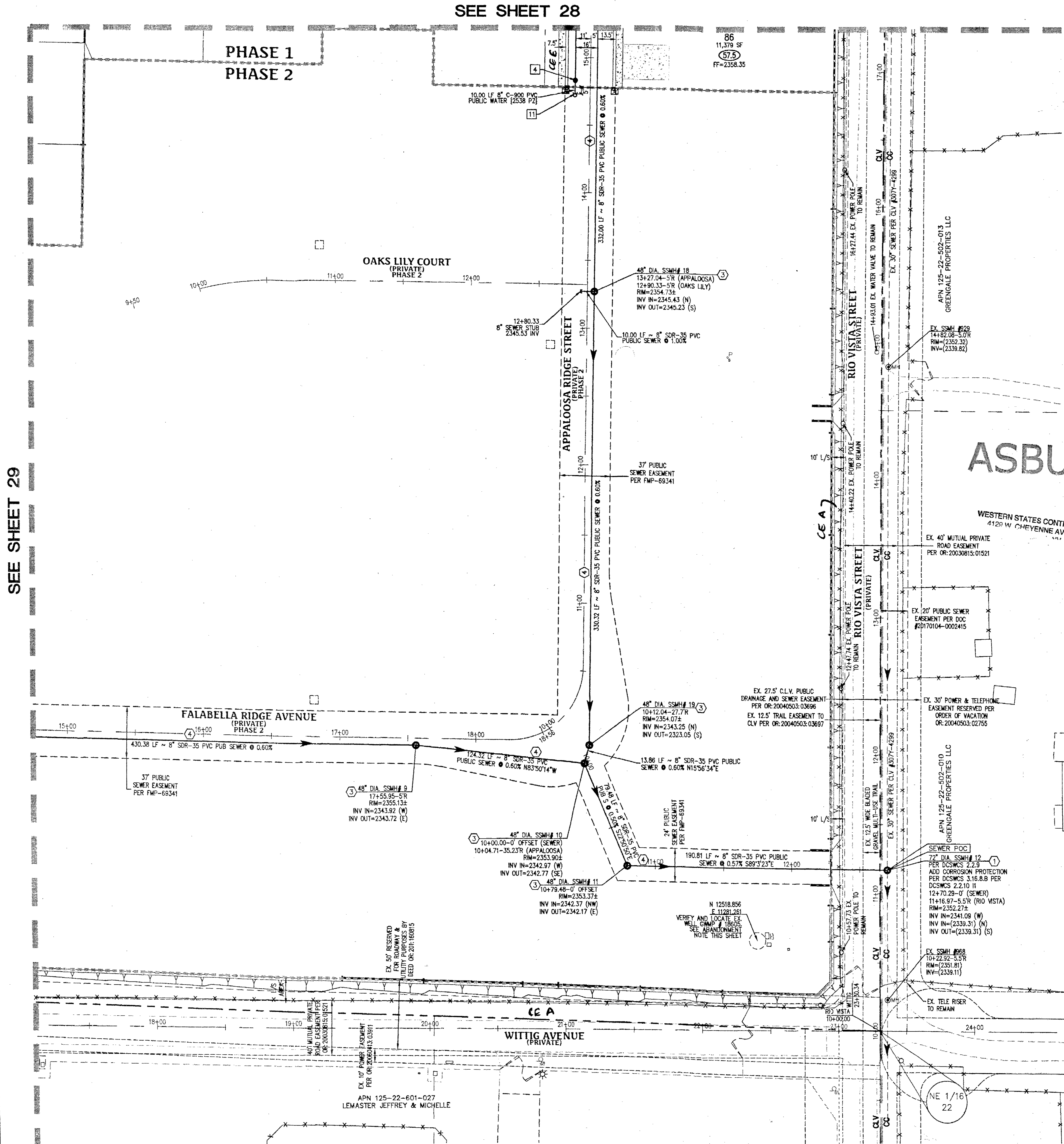


SHEET 28 OF 37
C.L.V. DWG.# 69184

CC HTE #17-11784



SEE SHEET 29



UTILITY LEGEND

EX. GAS	EXISTING GAS
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8" S	PROPOSED SEWER MAIN
EX. 36" SD	PROPOSED SEWER LATERAL
36" SD	EXISTING STORM DRAIN
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	PROPOSED WATER LATERAL WITH 3/4" METER
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	PROPOSED UTILITY MANHOLE
	EXISTING VALVE
	PROPOSED VALVE
	PROPOSED REDUCER
	PROPOSED STANDARD FIRE HYDRANT WITH 6" LATERAL, 6" GATE VALVE, AND TEE
(BWV)	BACK WATER VALVE
(PRV)	PRESSURE REDUCING VALVE
	EXISTING STREET LIGHT
	FUTURE STREET LIGHT
	PROPOSED 100w HPS STREET LIGHT
	PROPOSED 150w HPS STREET LIGHT
	PROPOSED 200w HPS STREET LIGHT
	PROPOSED 250w HPS STREET LIGHT
	PROPOSED 400w HPS STREET LIGHT
	PROPOSED CONCRETE DRIVEWAY

PRIVATE WELLS (WITH REVOCABLE RIGHTS) TO BE REMOVED FROM SERVICE

THE EXISTING PRIVATE WELL IS TO BE ABANDONED. THE DISTRICT WATER SERVICE WILL REMAIN IN THE OFF AND LOOKED POSITION UNTIL THE WELL HAS BEEN ABANDONED. THE STATE OF NEVADA DIVISION OF WATER RESOURCES (TELEPHONE NUMBER 702-486-2770) MAY BE CONTACTED FOR INFORMATION CONCERNING REQUIREMENTS AND PROCEDURES FOR ABANDONING WELLS. PROOF FROM THE STATE THAT THE WELL HAS BEEN ABANDONED AND IS NO LONGER FUNCTIONAL WILL BE REQUIRED AS A CONDITION OF PROJECT ACCEPTANCE AND SERVICE ACTIVATION. (ABANDONED PER WELL DRILLERS LOG REPORT # 18505)

WELL ABANDONMENT

WELL SHALL BE ABANDONED PRIOR TO BRINGING ANY DOMESTIC CONNECTIONS INTO SERVICE.
WELL DRILLERS LOG NO.:
LVVMD ENGINEERING SERVICES WELL VERIFICATION DATE:

PROTECT IN PLACE AND ADJUST LVVMD EXISTING FACILITIES TO FINISHED GRADE. ALL LVVMD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

WATER NOTES

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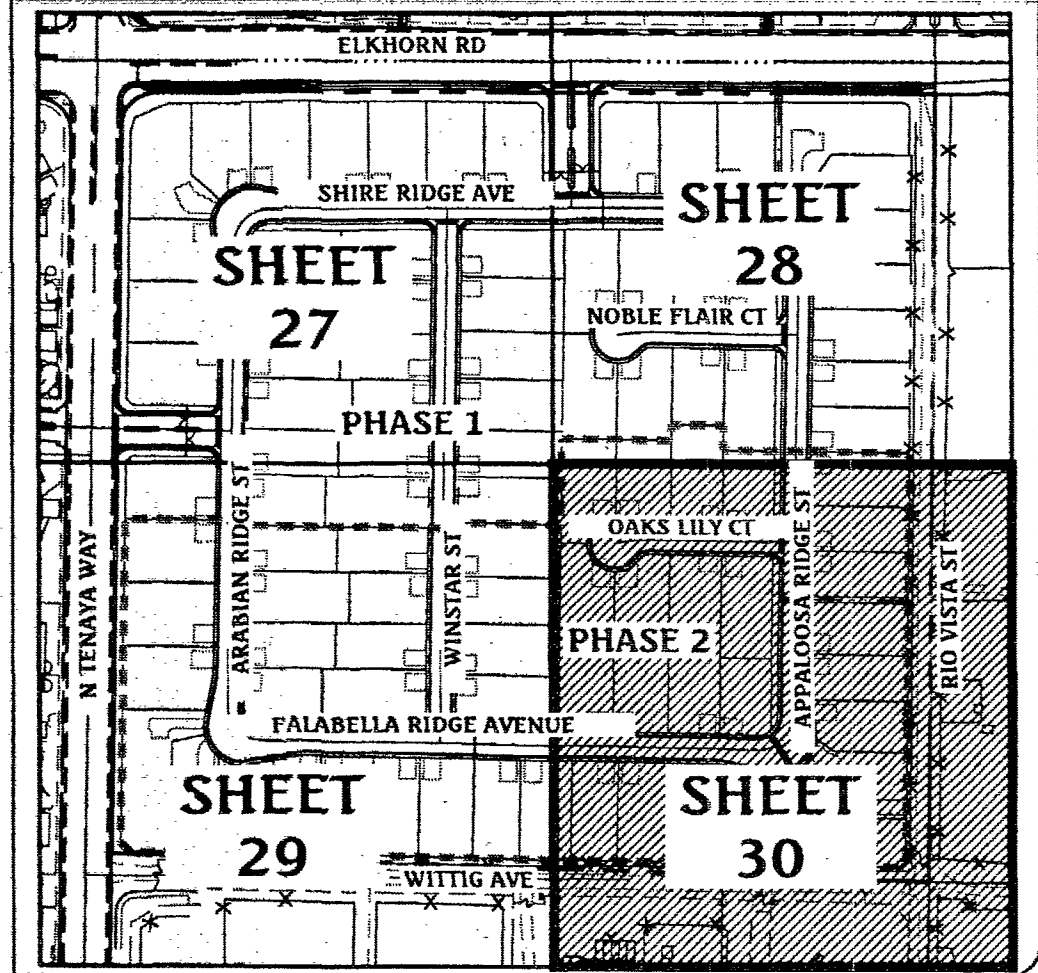
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KEY MAP



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OR
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FAST
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FREEMAN AND ARTERIAL SYSTEM OF TRANSPORTATION

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FIRE DEPARTMENT APPROVAL

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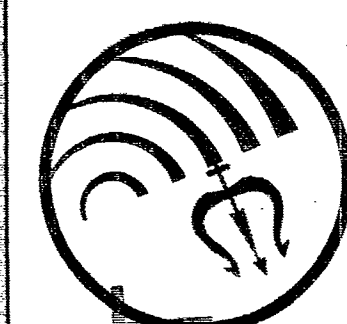
APPROVED FOR CONSTRUCTION

James Dean for Symm
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 6/28/17 PROJECT NO.: 125391
LVVMD APPROVED FIRE FLOW 1,750 GPM @ 20 PSI RESIDUAL

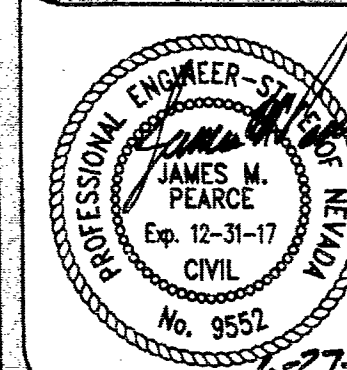
APPROVALS

Scott Spencer
LAS VEGAS FIRE AND RESCUE
6/28/17
DATE

Triton Engineering
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Suite B
6757 W. Charleston Blvd.
Las Vegas, Nevada 89146
www.tritoneng.com



ASBUILT
UTILITY PLAN IV
DR HORTON
ELKHORN 40 PHASE 1



SHEET 30 of 37
C.L.V. DWG.# 69184