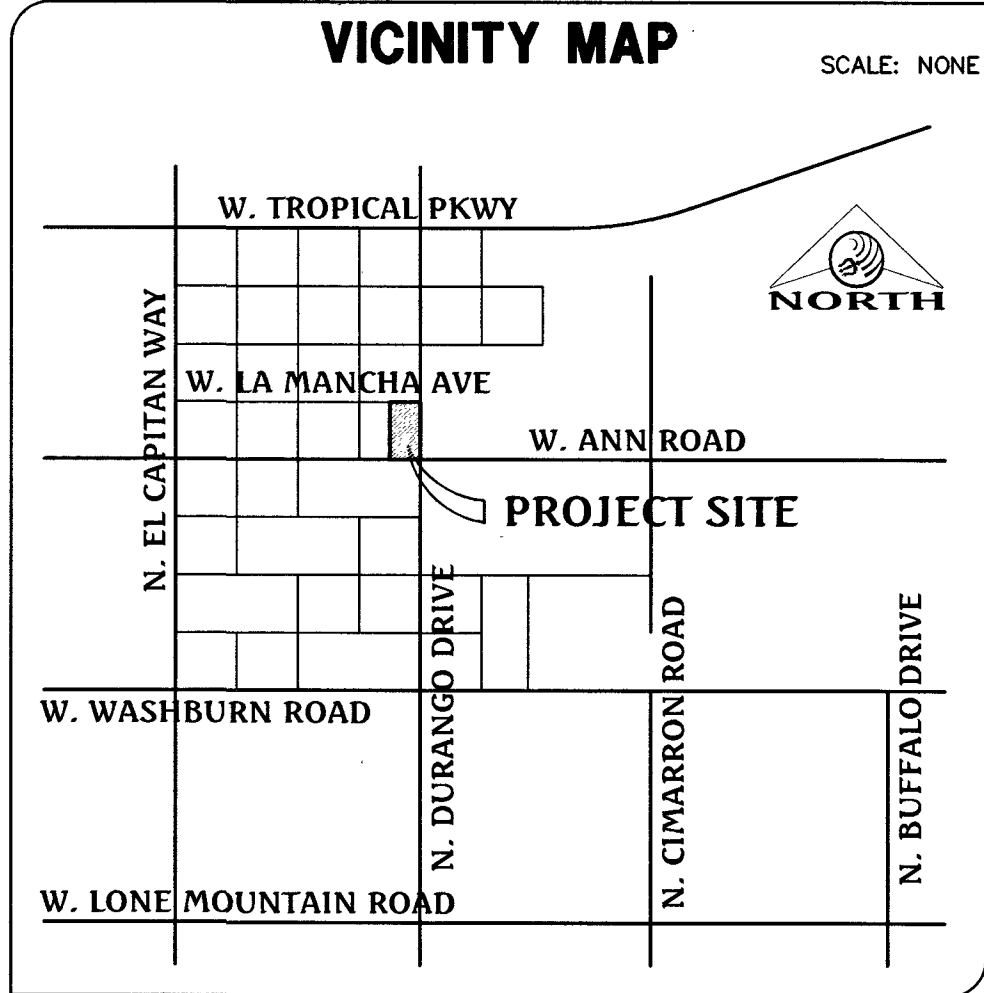
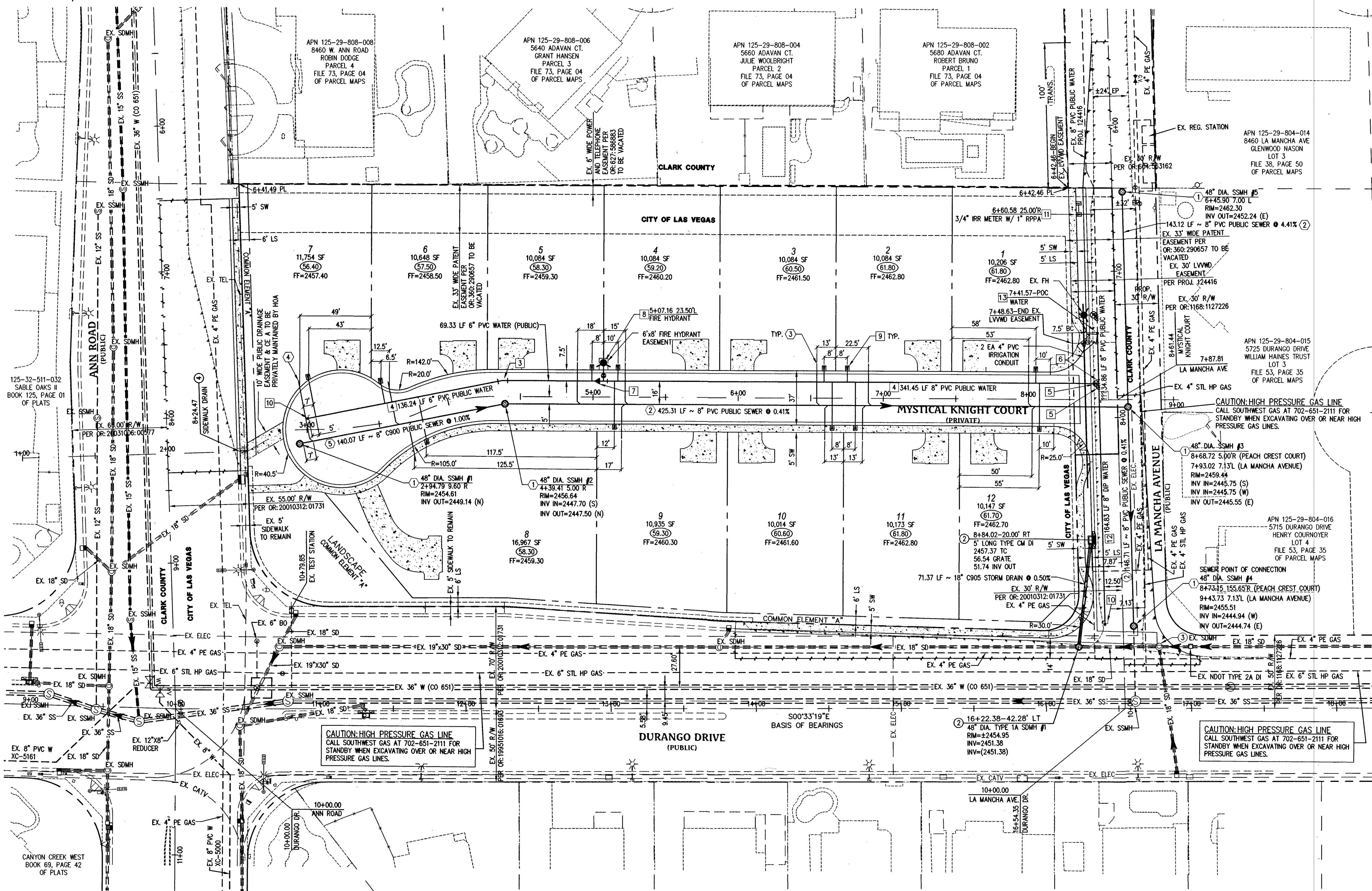




UTILITY LEGEND

EX. GAS	EXISTING GAS	PROPOSED STANDARD FIRE HYDRANT WITH 6" LATERAL, 6" GATE VALVE AND TEE
EX. 10" S	EXISTING SEWER MAIN	BACK WATER VALVE
8" S	PROPOSED SEWER MAIN	
EX. 36" SD	PROPOSED SEWER LATERAL	PRESSURE REDUCING VALVE
36" SD	EXISTING STORM DRAIN	EXISTING STREET LIGHT
EX. 8" W	PROPOSED STORM DRAIN	FUTURE STREET LIGHT
8" W	EXISTING WATER MAIN	PROPOSED 100' WPS STREET LIGHT
	PROPOSED WATER MAIN	PROPOSED 150' WPS STREET LIGHT
	PROPOSED WATER LATERAL WITH 3/4" METER	PROPOSED 200' WPS STREET LIGHT
	EXISTING UTILITY MANHOLE	PROPOSED 250' WPS STREET LIGHT
	PROPOSED UTILITY MANHOLE	PROPOSED 400' WPS STREET LIGHT
	EXISTING VALVE	PROPOSED CONCRETE DRIVEWAY
	PROPOSED VALVE	
	PROPOSED REDUCER	

SEWER NOTES

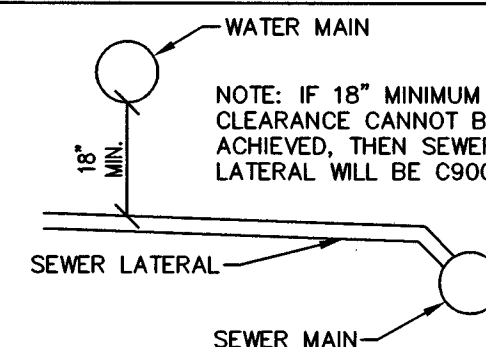
- INSTALL 48" DIA. SEWER MANHOLE WITH PRECAST BASE PER DCSWCS SD-1A, SD-17, SD-4 WITH SINGLE LID (TYPICAL)
- INSTALL 8" PVC SS PER DCSWCS SD-17
- INSTALL 4" PVC SEWER LATERAL WITH MARKER BALL & CURB MARKING PER DCSWCS SD-22 AND SD-25
- INSTALL 4" C-900 SEWER LATERAL WITH MARKER BALL & CURB MARKING PER DCSWCS SD-22 AND SD-25
- INSTALL 8" C900 SS PER DCSWCS SD-17

STORM DRAIN NOTES

- INSTALL 48" DIA. TYPE 1A STORM DRAIN MANHOLE PER CCAUSD #404
- CONSTRUCT TYPE CM 2 GRADE DROP INLET PER CCAUSD #412.1. SEE DETAIL ON SHEET 5. STORM WATER STAMP TO BE LOCATED ADJACENT TO DROP INLET PER CCAUSD #421.
- EXISTING STORM DRAIN MH TO BE ADJUSTED TO GRADE.
- CONSTRUCT SIDEWALK UNDERDRAIN PER CCAUSD #236.

WATER NOTES

- POC - REMOVE EX. CAP AND CONNECT TO EX. 8" WATER LINE
- INSTALL 6" PVC WATER MAIN PER UDACS PLATE NO. 18
- INSTALL 4" 11-1/4" BEND PER UDACS PLATE NO. 31
- INSTALL 8" PVC WATER MAIN PER UDACS PLATE NO. 18
- INSTALL 8" GATE VALVE, PER UDACS PLATE NO. 30 AND 39
- INSTALL 8"x8" TEE PER UDACS PLATE NO. 31
- INSTALL 8"x6" REDUCER, PER UDACS PLATE NO. 30
- INSTALL FIRE HYDRANT ASSEMBLY WITH 6" LATERAL, 6" GATE VALVE AND 8"x6" TEE PER UDACS PLATE NO. 39 AND 40
- INSTALL 1" COPPER WATER SERVICE WITH 3/4" METER, PER UDACS PLATE NO. 2
- INSTALL 2" BLOW OFF ASSEMBLY WITH CAP PER UDACS PLATE NO. 36
- INSTALL 3/4" IRRIGATION METER WITH 1" RPPA PER UDACS PLATE NO. 4 & 8 (BRASS BETWEEN METER & RPPA)
- INSTALL 8" DIP WATER MAIN PER UDACS PLATE NO. 18



NOTE:

THIS PROJECT PLAN APPROVAL CONTINGENT ON "LA MANCHA FIRE HYDRANT" LVWD PROJECT #124416 PLAN APPROVAL.

FIRE DEPARTMENT APPROVAL

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

APPROVALS

[Signature] 11/14/16
LAS VEGAS FIRE AND RESCUE DATE

APPROVED FOR CONSTRUCTION

[Signature]
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

DATE: 12/22/16 PROJECT NO.: 124480
LVWD APPROVED FIRE FLOW 1500 GPM @ 20 PSI RESIDUAL

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 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 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.

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.

EXCLUSIVE EASEMENT WITH TREES, SHRUBS, DECORATIVE ROCKS, BLOCK WALL, OR FENCE

TREES, SHRUBS, OR DECORATIVE ROCKS, AND ANY BLOCK WALL OR OTHER FENCE MATERIAL, SHALL BE DESIGNED AND CONSTRUCTED AROUND THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S), BACKFLOW ASSEMBLY, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

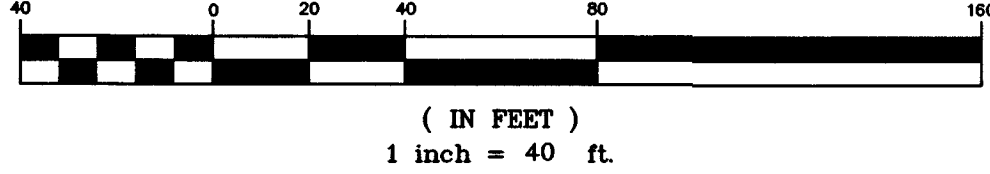
NOTE: CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

PRV PRESSURE REDUCING VALVE

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE) 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 LVWD FACILITIES.

LOTS WITHIN 2635 ZONE WITH A FINISH FLOOR ELEVATION LESS THAN 2450.4 WILL REQUIRE A PRV
NO PRVS ARE REQUIRED

GRAPHIC SCALE



BASIS OF BEARING

SOUTH 00°33'19" EAST BEING THE BEARING OF THE EAST LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 29, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN ON THAT CERTAIN MAP ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN FILE 101 OF SURVEYS, AT PAGE 47.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK: 5LV90 29SES
A RIVET AND PLATE IN TOP OF CURB AT THE NORTHWEST CORNER OF ANN ROAD AND DURANGO DRIVE.
ELEVATION=747.621 Meters (NAVD'88)
ELEVATION=2452.82 US Survey Feet (NAVD'88 2008 ADJUSTMENT)

WASTEWATER FLOW

FACILITY TYPE: SINGLE-FAMILY RESIDENTIAL
TOTAL LOTS AT BUILD OUT: 12 LOTS
AVERAGE FLOW: 0.003 MGD
PEAK FLOW: 0.003 MGD
PEAKING FACTOR: 3.5

FUTURE SERVICE LATERALS AND METERS:

INSTALLATION OF SERVICE LATERALS (1" TO 2") FOR FUTURE LOTS SHALL BE INSTALLED PER THE UDACS PLATE 2 OR 4. IF ANY OF THE SERVICE LATERALS TO BE INSTALLED FOR FUTURE LOTS ARE INCORRECTLY LOCATED OR ARE NOT USED FOR ANY REASON WHEN THE LOTS ARE DEVELOPED, THE DEVELOPER SHALL ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE DISTRICT'S STANDARDS AND AT THE DEVELOPER'S EXPENSE.

FIRE FLOW CALCULATIONS

THE FIRE FLOW REQUIREMENT IS: 1,500 GALLONS PER MINUTE 20 PSI RESIDUAL PRESSURE.

BASED ON:
SQUARE FOOTAGE: 2,631 SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: N/A SQUARE FEET
BUILDING HEIGHT: 18 FEET
NUMBER OF STORIES: 1 FLOORS
TYPE OF CONSTRUCTION: V-B
OCCUPANCY: SINGLE FAMILY RESIDENTIAL
FULL AUTOMATIC FIRE SPRINKLER SYSTEM: NO

NOTE: MINIMUM 24" COVER DURING CONSTRUCTION PER UDACS SEC 2.08.04. GRADING MUST BE INSTALLED PRIOR TO WATERLINE INSTALLATION.

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

NOTE: 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 1150 FEET. PER UDACS 2.07.01 AND 2.07.02. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.
ESN 059 REV. 09/10/09

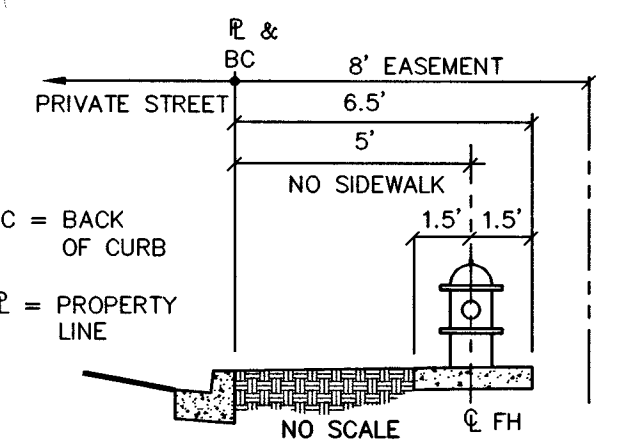
NOTE: NO FITTINGS SHALL FALL UNDER CURB, GUTTER AND/OR SIDEWALK (TYP.). PROVIDE LADDER ADJUSTMENT AND INSTALLATION OF FALL PROTECTION (IF APPLICABLE).

NOTE: ALL EXISTING APPURTENANCES, PROTECT IN PLACE, AND ADJUST TO FINISHED GRADE IF NECESSARY.

NOTE: CONTRACTOR TO INSTALL DETECTOR TAPE ON ALL SEWER LATERALS THAT ARE NOT 90° AND COMPLY WITH DCSWCS SD-22 AND SD-25.

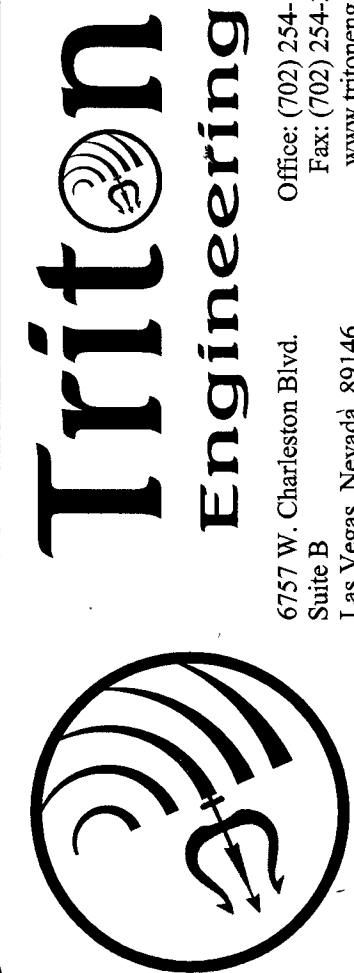
NOTE: CONTRACTOR TO INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15.

TYPICAL FIRE HYDRANT LOCATION DETAIL (PRIVATE STREETS ONLY)

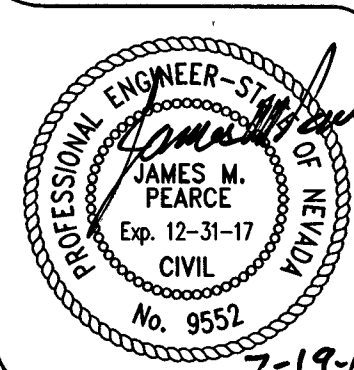


FAST
Call before you dig
1-702-432-5300
PREPARED BY ARTISTAL SYSTEM OF TRANSPORTATION

Call before you dig
Avoid cutting underground utility lines. It's costly.
811
OR
1-800-227-2800



DR HORTON
ANN & DURANGO
UTILITY PLAN



SHEET 10 of 19
C.L.V. DWG.# 63427 10745099