



**SOUTHWEST GAS APPROVAL**  
*Chris* 7/16/18  
 SOUTHWEST GAS CORPORATION DATE

CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

**APPROVAL**  
*Fallon* 7/24/18  
 LAS VEGAS FIRE AND RESCUE DATE

**ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS**  
 70 UNITS X 250 GPD/UNIT = 17,500 GPD = 0.017 MGD  
 TOTAL PEAK FLOW = 0.017 X 3.65 (PEAK FACTOR) = 0.06205 MGD

**FIRE FLOW CALCULATIONS**  
 FIRE FLOW REQUIREMENTS IS 1150 GPM @ 20 PSI RESIDUAL BASED ON:  
 SQUARE FOOTAGE: 1150 SQUARE FEET  
 NUMBER OF STORES/FLOORS: 2  
 AUTOMATIC FIRE SPRINKLER SYSTEM: NO  
 ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 0 GPM  
 HOMES ABOVE 4800 SQUARE FEET AND/OR HOMES REQUIRING NFPA 130 SYSTEMS ARE REQUIRED TO OBTAIN LVWD AND CLV FIRE DEPARTMENT APPROVAL PRIOR TO BUILDING PERMIT ISSUANCE.  
 # OF HYDRANTS PROVIDED: 2

**FOR ALL DRY UTILITY CROSSINGS**  
 1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING  
 2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION  
 3. ANY EXCAVATION AT BACK OF CURBS MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KNOWN, GENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

**SEWER CONNECTION NOTE**  
 ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

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ALL LOTS/LOTS: 27-44, 130-141  
 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.

**WATER NOTES**  
 1. 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.  
 2. REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPP) 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.  
 3. ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.  
 4. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.  
 5. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING PER UDACS PLATE NO. 15.  
 6. THE LVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE ADJUSTMENTS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPED CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.  
 7. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.  
 8. DISCLAIMER: EXISTING UTILITY LOCATIONS SHOWN HEREON 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 IN THEIR PROPER LOCATION.

**BENCHMARK**  
 USDA BRASS CAP ON AN IRON PIPE, 140' SOUTHWEST OF TELEPHONE POLE #26944, SOUTHWEST CORNER OF THE U.S. 95/KYLE CANYON TURNOFF.  
 ELEVATION = 2817.62 FEET, 858.813 METERS  
 N.A.V.D. 88  
 PER THE CLARK COUNTY VERTICAL CONTROL LAST REVISED 2003

**BASIS OF BEARINGS**  
 SOUTH 00°08'59" WEST, BEING THE BEARING OF THE EAST LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 59 EAST, 104M, CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 147, PAGE 71 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

APPROVED FOR CONSTRUCTION  
*Shane Dean*  
 LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES  
 PROJECT No. 126049 FIRST APPROVED DATE: 7-31-18  
 LVWD APPROVED FIRE FLOW: 1150 GPM AT 20 PSI RESIDUAL

**FAST**  
 Call before you Dig  
 UnderGround  
 1-702-432-5300  
 FREEWAY & ARTERIAL SYSTEM OF TRANSPORTATION (F.A.S.T.)

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.  
 CALL BEFORE YOU DIG OVERHEAD  
 1-702-227-2929

Call before you Dig  
 AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.  
 Call 811  
 OR  
 1-800-227-2600

**SLATER HANIFAN GROUP**  
 CONSULTING ENGINEERS & PLANNERS  
 5740 S. ARVILLE STREET, LAS VEGAS, NV 89118  
 PHONE (702) 284-5300 FAX (702) 284-5399

CITY OF LAS VEGAS, NEVADA

**GREYSTONE NEVADA, LLC**  
**SUMMERLIN VILLAGE 24 PARCEL D PHASE 1**  
**MASTER UTILITY PLAN**

DATE: 7/13/18  
 DRAFTER: DNP  
 DESIGNER: BCC  
 CHECKED: BCC  
 PROJECT NO. CAL1701-000

PROFESSIONAL ENGINEER - STATE OF NEVADA  
 No. 14161  
 7-13-18

**MU-1**  
 SHEET 31 OF 41  
 L18-00808  
 1075083-1

PROJ # 126049 AGR #110715 QS 137-33-SE