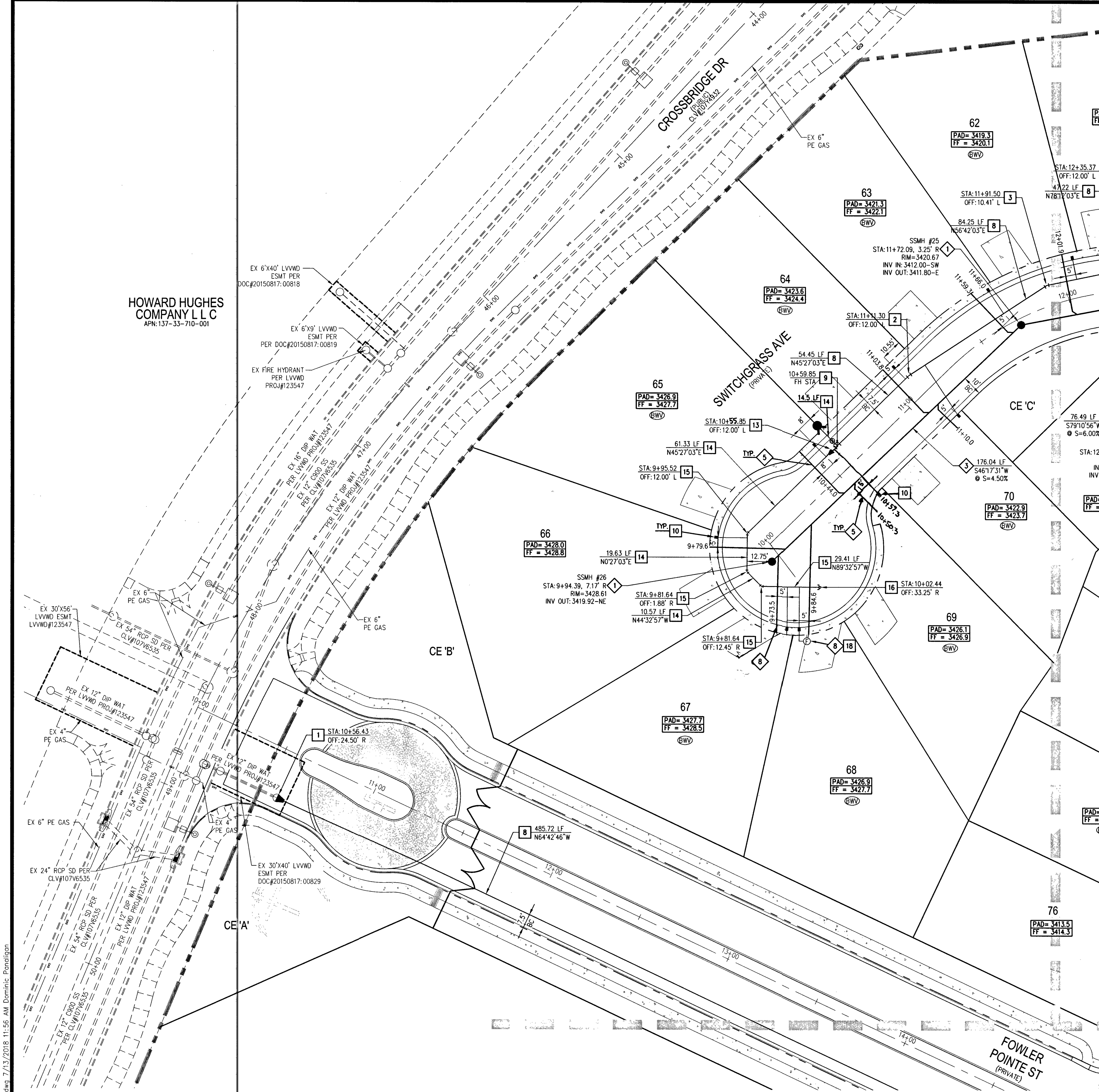
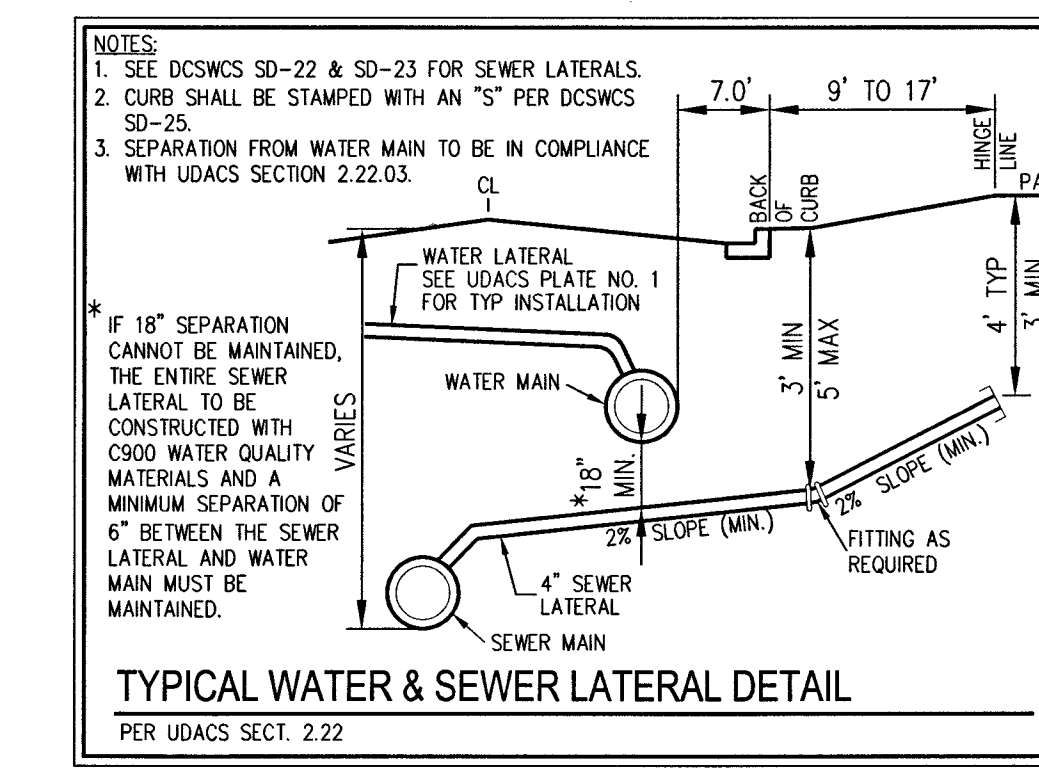
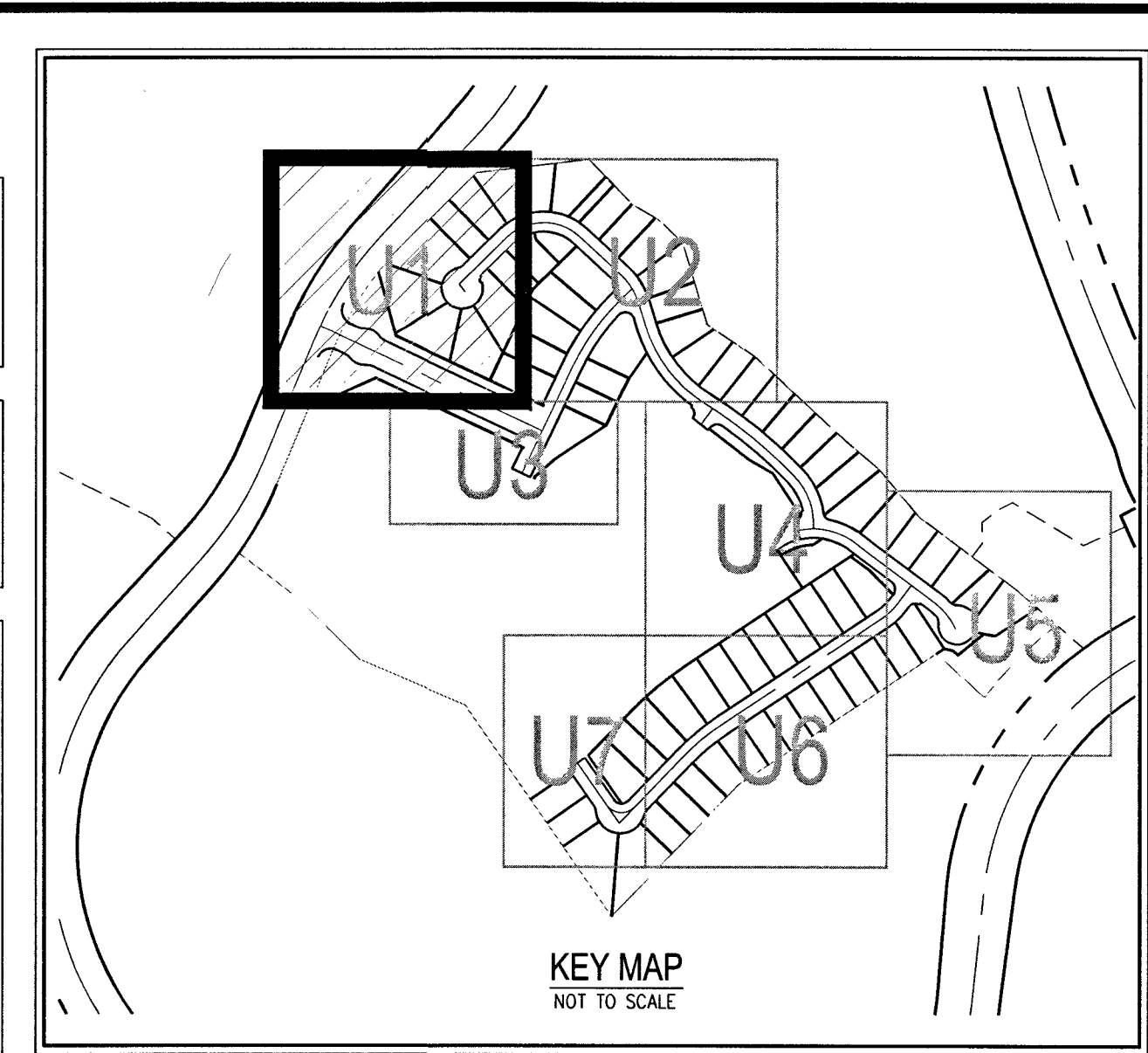




APPROVAL
LAS VEGAS FIRE AND RESCUE
7/13/18

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

FIRE FLOW CALCULATIONS
FIRE FLOW REQUIREMENTS IS 1500 GPM @ 20 PSI RESIDUAL.
BASED ON:
SQUARE FOOTAGE: 43600 SQUARE FEET
NUMBER OF STORIES/FLOORS: 2
AUTOMATIC FIRE SPRINKLER SYSTEM: NO
ANTICIPATED FIRE SPRINKLER FLOW DEMAND: 0 GPM
HOMES HOMES ABOVE 4800 SQ. FT. REQUIRES NFPA 13D SYSTEM IF FIRE FLOW AVAILABILITY INSUFFICIENT
AUTOMATIC FIRE SPRINKLER SYSTEM (NFPA 13D) FOR HOMES WITH SQUARE FOOTAGES GREATER THAN 4,800 SF: NO
OF HYDRANTS PROVIDED: 7



- WATER NOTES**
1. INSTALL 12" X 8" REDUCER PER UDACS PLATE NO. 30
 2. INSTALL 8" 11.25' BEND PER UDACS PLATE NO. 31
 3. INSTALL 8" 22.5' BEND PER UDACS PLATE NO. 31
 4. INSTALL 8" 45' BEND PER UDACS PLATE NO. 31
 5. INSTALL 8" 5' BEND PER UDACS PLATE NO. 31 (MECHANICALLY RESTRAINED)
 6. INSTALL 8" CAP WITH BLOWOFF PER UDACS PLATE NO. 36
 7. INSTALL 8" X 8" TEE PER UDACS PLATE NO. 31
 8. INSTALL 8" PVC WATER PIPE
 9. INSTALL 8" X 6" TEE PER UDACS PLATE NO. 31 AND FIRE HYDRANT ASSEMBLY WITH 6" GATE VALVE PER UDACS PLATE NO. 41
 10. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 1
 11. INSTALL 1" COPPER SERVICE W/ 1" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8 AND CURB STOP DETAIL ON SHEET U-3
 12. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
 13. INSTALL 8" X 6" REDUCER PER UDACS PLATE NO. 30
 14. INSTALL 6" PVC WATER PIPE
 15. INSTALL 8" 45' BEND PER UDACS PLATE NO. 31
 16. INSTALL 8" CAP WITH BLOWOFF PER UDACS PLATE NO. 36
 17. INSTALL 8" DIP WATER PIPE (CLASS 350)
 18. INSTALL FLUSHING VALVE ASSEMBLY PER DETAIL ON SHEET MU-1
 19. INSTALL 8" CAP WITH THRUST BLOCK PER UDACS PLATE NO. 31
 20. INSTALL BLOWOFF ASSEMBLY PER UDACS PLATE NO. 36

- SEWER NOTES**
1. INSTALL 48" SSMH PER DCSWCS SD-1A THRU SD-4 AND SD-9 (24" SINGLE LID)
 2. INSTALL 8" C-900 SS PER DCSWCS SD-1A THRU SD-4 AND SD-9
 3. INSTALL 8" PVC SS PER DCSWCS SD-15 AND SD-17
 4. MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.8
 5. INSTALL 4" SEWER LATERAL (PRIVATE) PER SD-22, SD-23, & SD-25 W/8" X 4" WYE (TYPICAL) (C-900 WHERE SHOWN ON PLANS)
 6. INSTALL 60" SSMH PER DCSWCS SD-1A THRU SD-4 AND SD-9 (24" SINGLE LID)
 7. INSTALL 8" CAP WITH THRUST BLOCK PER DCSWCS SECTION 2.2.5
 8. INSTALL SS CLEANOUT WITH TRAFFIC-RATED LID (PER DCSWCS SD-20) IN DRIVEWAY, BACK OF SIDEWALK
 9. INSTALL 72" SSMH PER DCSWCS SD-1A THRU SD-4 AND SD-9 (24" SINGLE LID)

OWNER/DEVELOPER
RYLAND HOMES NEVADA, LLC
9275 WEST RUSSELL ROAD, SUITE #400
LAS VEGAS, NV 89148
PH: 702-840-2700
FX: 702-840-2760

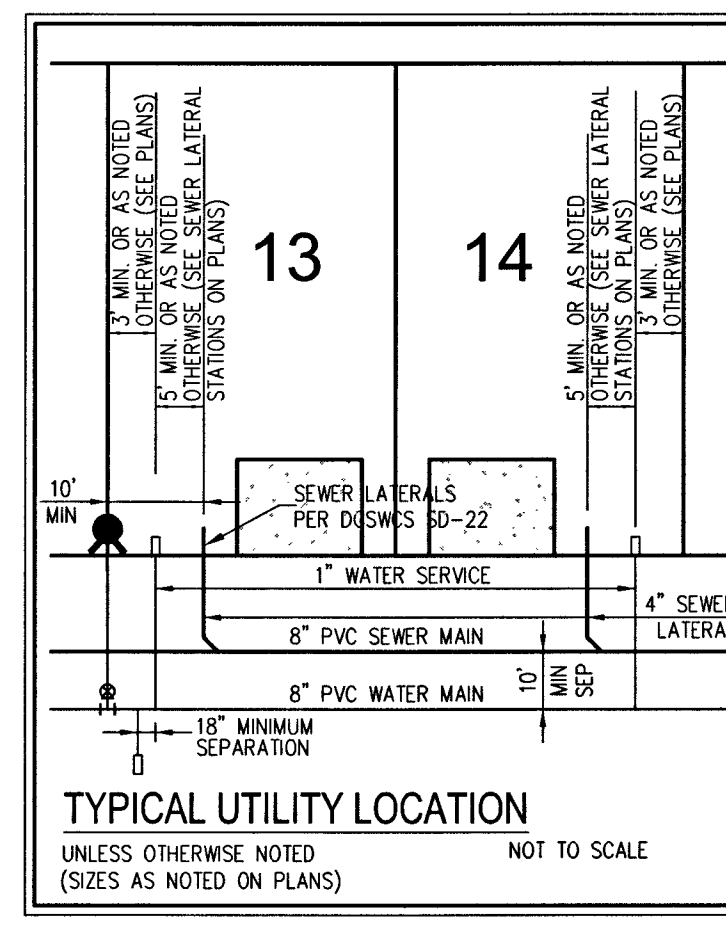
ENGINEER
SLATER HANIFAN GROUP, INC.
5740 S. ARVILLE STREET, SUITE 216
LAS VEGAS, NV 89118
PH: (702) 284-5300
FX: (702) 284-5399
CONTACT: JERRY SLATER

BENCHMARK
USDA BRASS CAP ON AN IRON PIPE, 140' SOUTHWEST OF TELEPHONE POLE #269941, 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 000°59' WEST, BEING THE BEARING OF THE EAST LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 12, TOWNSHIP 12 SOUTH, RANGE 59 EAST, N.M.D., 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
Las Vegas Valley Water District Engineering Services
PROJECT NO. 126049 FIRST APPROVED DATE: 7-31-18
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

SOUTHWEST GAS APPROVAL
SOUTHWEST GAS CORPORATION
DATE

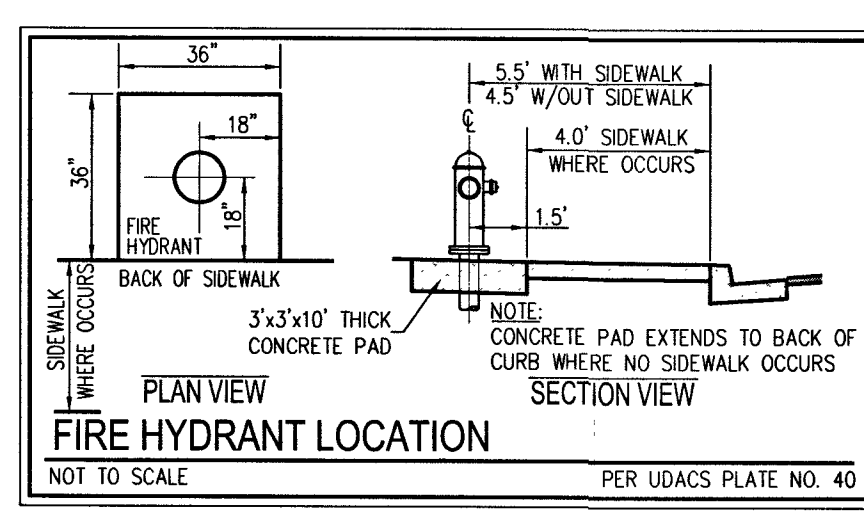


- WATER NOTES**
1. WATER MAIN JOINT DEFLECTION (PVC 4" - 24")
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1:150 FEET. PER UDACS 2.07.01 AND 2.07.02 FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.
 2. REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA)
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 LVVWD. 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 LVVWD 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 MAKE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRENCH SHUTDOWN.
 7. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPOINTMENTS ARE AVAILABLE.
 8. MINIMUM 24" COVER PER UDACS SEC. 2.08.04 GRADING BE COMPLETE PRIOR TO WATERLINE INSTALLATION.
 9. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 & 19.08.
 10. DISCLOSED: 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.
 11. DISCLAIMER: FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROPOSED LIP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOT NOTIFY THE ENGINEER.

SEWER CONNECTION NOTE
ONE OR MORE SEGMENTS OF THE DOWNSIDE 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 DOWNSIDE 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 DOWNSIDE SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

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

- 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 CURB MUST REMAIN 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.



ALL LOTS/LOTS: 26-44, 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 LVVWD FACILITIES.

PAVERS AREA MAINTENANCE NOTE:
MAINTENANCE WORK ON LVVWD FACILITIES LOCATED WITHIN THE AREA OF THE PROPOSED PAVERS MAY INCLUDE THE PLACEMENT OF AN ASPHALT OR CONCRETE PATCH AS APPLICABLE. THE LVVWD WILL NOT REPLACE OR MATCH ANY DECORATIVE SURFACE, LANDSCAPE FEATURE, OR ANY OTHER IMPROVEMENTS DISTURBED AS A RESULT OF THE MAINTENANCE ACTIVITIES.

SLATER HANIFAN GROUP
CONSULTING ENGINEERS & PLANNERS
5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

GREYSTONE NEVADA, LLC
SUMMERLIN VILLAGE 24 PARCEL D PHASE 1
UTILITY PLAN - I

U-1
SHEET 32 OF 41
L18-00808
1075083-1

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

PROJ #126049 AGR #116715 QS 137-35 SE