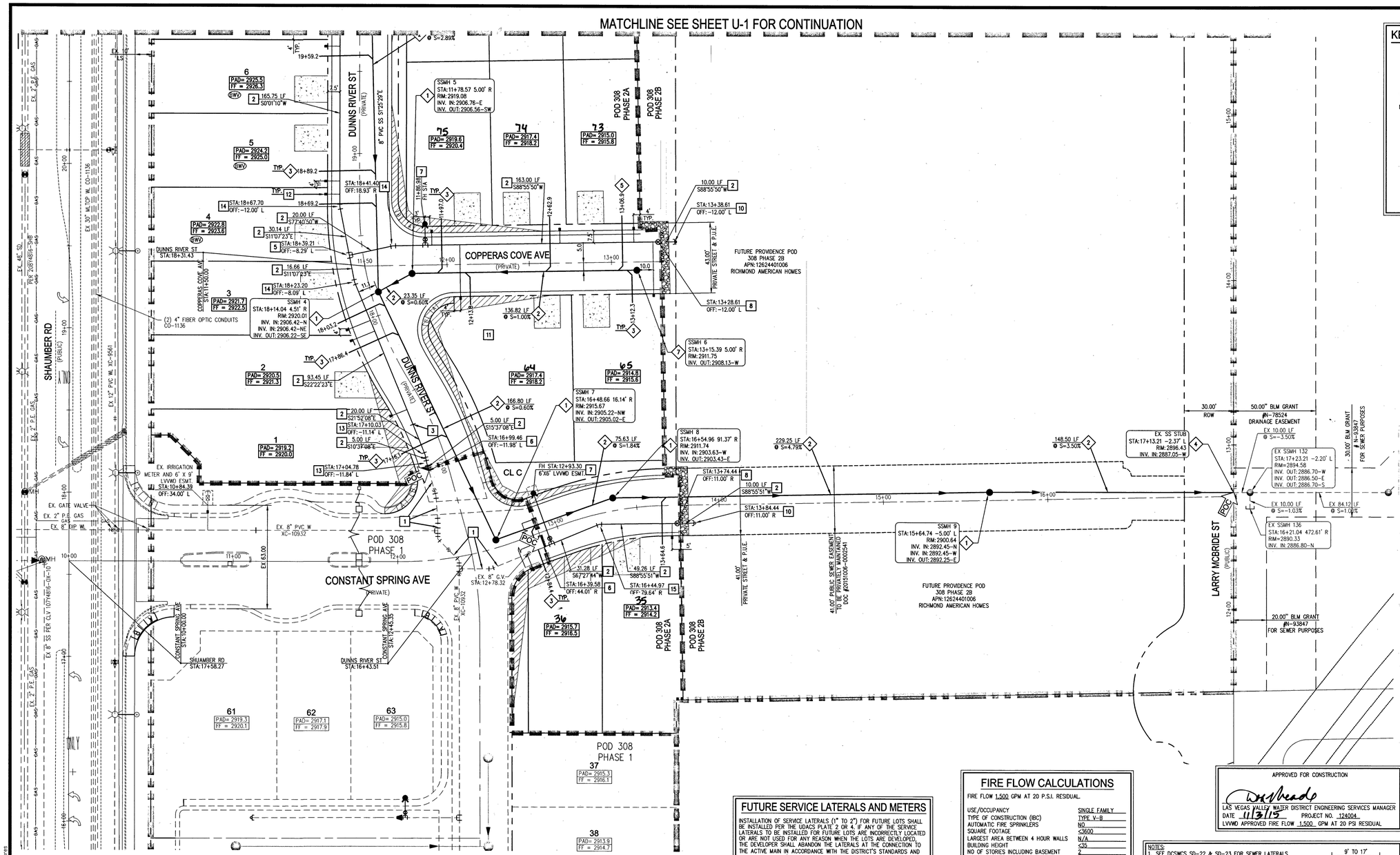
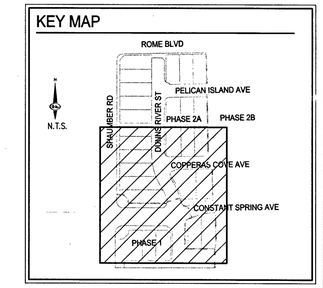




WATER NOTES:

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

NOTE:
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.

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

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.

EASEMENTS 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 DISTRICT DIRECT ACCESS TO THE VAULT(S) BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

NOTE:
FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.

NOTE:
WATER LINES TO BE CONSTRUCTED WITH MINIMUM DEPTH OF COVER AS LISTED IN UDACS SECTION 2.08 AND UDACS PLATES NO. 16 & 17, UNLESS AS SHOWN OTHERWISE ON THE PROFILE.

GENERAL NOTES

1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CITY OF LAS VEGAS JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CITY OF LAS VEGAS SATISFACTION. ALL MATERIAL USED SHALL MEET CITY OF LAS VEGAS SPECIFICATIONS OR WILL WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN IMSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.0.01.02
3. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.06 AND 19.08.
4. 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.
5. THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.

BASIS OF BEARING

NORTH 89°00'28" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 24, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CLARK COUNTY, NEVADA, PER BOOK 118, PAGE 88 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

BENCHMARK

BENCHMARK NUMBER 6LV9924W6
RIVET AND PLATE IN TOP OF CURB AT WEST SIDE OF SCHAUMBER ROAD AT DEER SPRINGS WAY.
ELEVATION 901.509 METERS (2957.70 FEET)
PER THE CITY OF LAS VEGAS INTERACTIVE WEBSITE AS OF JANUARY 7, 2015.

APPROVAL
LAS VEGAS FIRE AND RESCUE — DATE 10/28/15

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE 11/3/15 PROJECT NO. 124004
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

FIRE FLOW CALCULATIONS

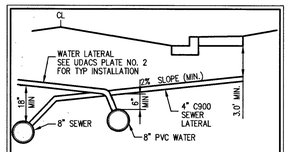
FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL.

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
AUTOMATIC FIRE SPRINKLERS	NO
SQUARE FOOTAGE	<3600
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<35
NO OF STORIES INCLUDING BASEMENT	2
HIGH PILED COMBUSTIBLE STORAGE	NO
NO OF HYDRANTS INSTALLED	3

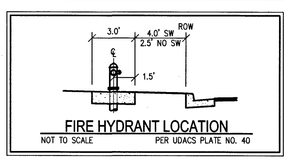
FUTURE SERVICE LATERALS AND METERS

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.

SERVICE FOR LOTS: 16 WILL BE TAPPED ON EXISTING MAIN BY OWNER'S CONTRACTOR UNDER DIRECTION OF THE LVVWD

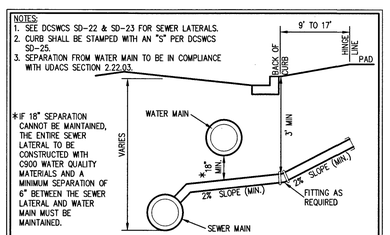


LATERAL CROSSING DETAIL FOR LOTS 14 & 21
NOT TO SCALE — PER UDACS SECT. 2.22



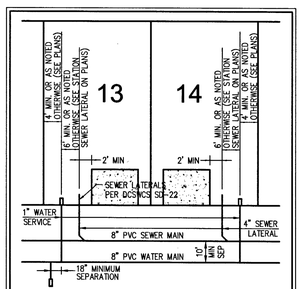
FIRE HYDRANT LOCATION
NOT TO SCALE — PER UDACS PLATE NO. 40

NOTES:
1. SEE DCSWCS SD-22 & SD-23 FOR SEWER LATERALS.
2. CURB SHALL BE STAMPED WITH AN "S" PER DCSWCS SD-25.
3. SEPARATION FROM WATER MAIN TO BE IN COMPLIANCE WITH UDACS SECTION 2.22.03



*IF 18" SEPARATION CANNOT BE MAINTAINED, THE ENTIRE SEWER LATERAL TO BE CONSTRUCTED WITH C900 WATER QUALITY MATERIALS AND A MINIMUM SEPARATION OF 6" BETWEEN THE SEWER LATERAL AND WATER MAIN MUST BE MAINTAINED.

TYPICAL SEWER LATERAL
NOT TO SCALE



TYPICAL UTILITLTY LOCATION
UNLESS OTHERWISE NOTED (SIZES AS NOTED ON PLANS) — NOT TO SCALE

SEWER NOTES

1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH SINGLE LID AND PRECAST BASE PER DCSWCS SD-1A, SD-1B
2. INSTALL 8" PVC SANITARY SEWER PIPE
3. 4" PVC SEWER LATERAL
4. REMOVE PLUG AND CONNECT TO EXISTING SANITARY SEWER PER CLV# 307V1107
5. 4" C900 SEWER LATERAL
6. NOT USED
7. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE TYPE "A" SHORTY CONE PER DCSWCS SEC 2.2.11, SD-9, AND SD-13

SEE SHEET C-2 FOR LEGEND, QUANTITIES & ABBREVIATIONS

WATER NOTES

1. EXISTING 8" WATER LINE (LVVWD #123101)
2. INSTALL 8" PVC WATER PIPE (3090 WPZ)
3. INSTALL 1 DEGREE MAXIMUM JOINT DEFLECTION PER UDACS SECTION 2.07
4. INSTALL 8" X 6" REDUCER PER UDACS PLATE NO. 30
5. INSTALL 8" X 8" TEE PER UDACS PLATE NO. 31
6. REMOVE EXISTING CAP AND BLOW-OFF ASSEMBLY AND CONNECT TO EXISTING WATER PIPE
7. INSTALL FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
8. INSTALL 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
9. INSTALL 6" PVC WATER PIPE (3090 WPZ)
10. INSTALL CAP AND 2" BLOW-OFF VALVE PER UDACS PLATE NO. 36
11. INSTALL 8" X 6" TEE PER UDACS PLATE NO. 31
12. INSTALL 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 4
13. INSTALL 5.0 DEGREE BEND WITH RESTRAINED JOINTS
14. INSTALL 11.25 DEGREE BEND PER UDACS PLATE NO. 31
15. INSTALL 22.5 DEGREE BEND PER UDACS PLATE NO. 31

SEE SHEET C-2 FOR LEGEND, QUANTITIES & ABBREVIATIONS

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 DEVELOPERS OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT 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

SEWER NOTES:

ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS:
24 UNITS X 250 GPD/UNIT = 6,000 GPD
TOTAL AVERAGE CONTRIBUTION = 6,000 GPD = 0.006 MGD
TOTAL PEAK FLOW = 0.006 MGD X 3.5 (PEAK FACTOR) = 0.021 MGD

NOTE:
THE CONTRACTOR IS TO VERIFY THE ACTUAL FIELD CONDITIONS OF ALL LOTS AND INSTALL SEWER CHECK VALVES WHERE REQUIRED PER THE LATEST EDITION OF THE UNIFORM PLUMBING CODE.

N
SCALE – 1"=30' — 0 30 60 FEET

FAST Call before you UnderGround 1-702-432-5300 (NEVADA & ARIZONA STATES OF TRANSPORTATION (FAST))
AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY. CALL BEFORE YOU DO 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 #216, LAS VEGAS, NV 89118
PHONE (702) 284-5300 FAX (702) 284-5399

NO.	DESCRIPTION	DATE	BY	APP. DATE	APP.

CITY OF LAS VEGAS, NEVADA

RICHMOND AMERICAN HOMES

PROVIDENCE POD 308 PHASE 2A
UTILITY PLAN II

S24 T19S R59E

DATE: 10/19/15
DRAFTER: JMT
DESIGNER: IG
CHECKED: ARP
PROJECT NO. RAH1405

PROFESSIONAL ENGINEER – STATE OF NEVADA – TODD J. STEADHAM – Exp. 06/30/2016 – CIVIL – No. 15232 – 10/27/15

U-2
SHEET 12 OF 14

H# 60799
107S020-2A

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