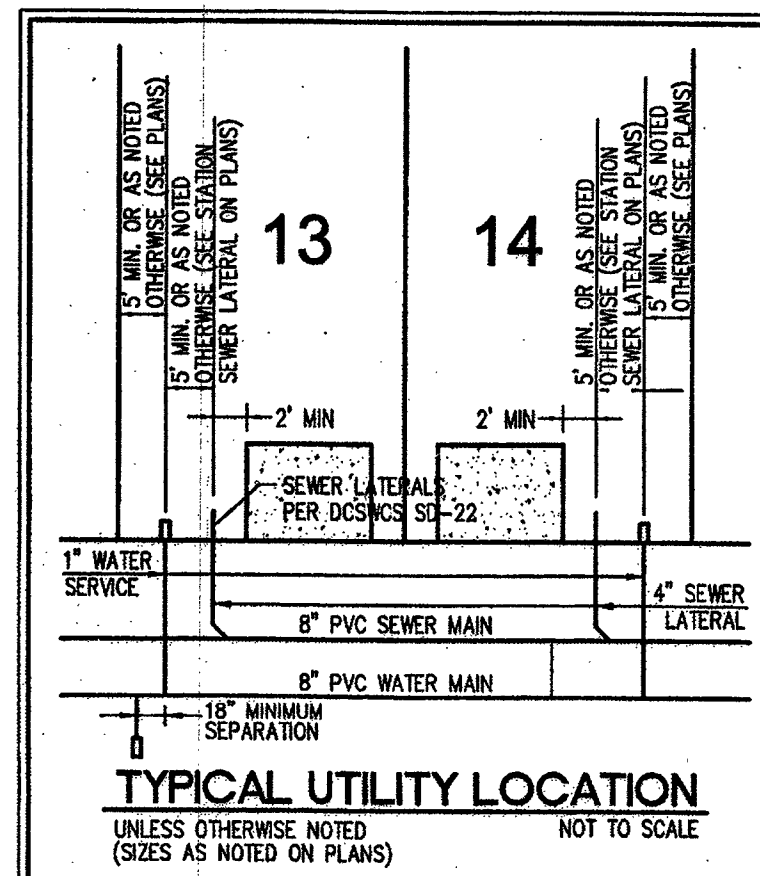
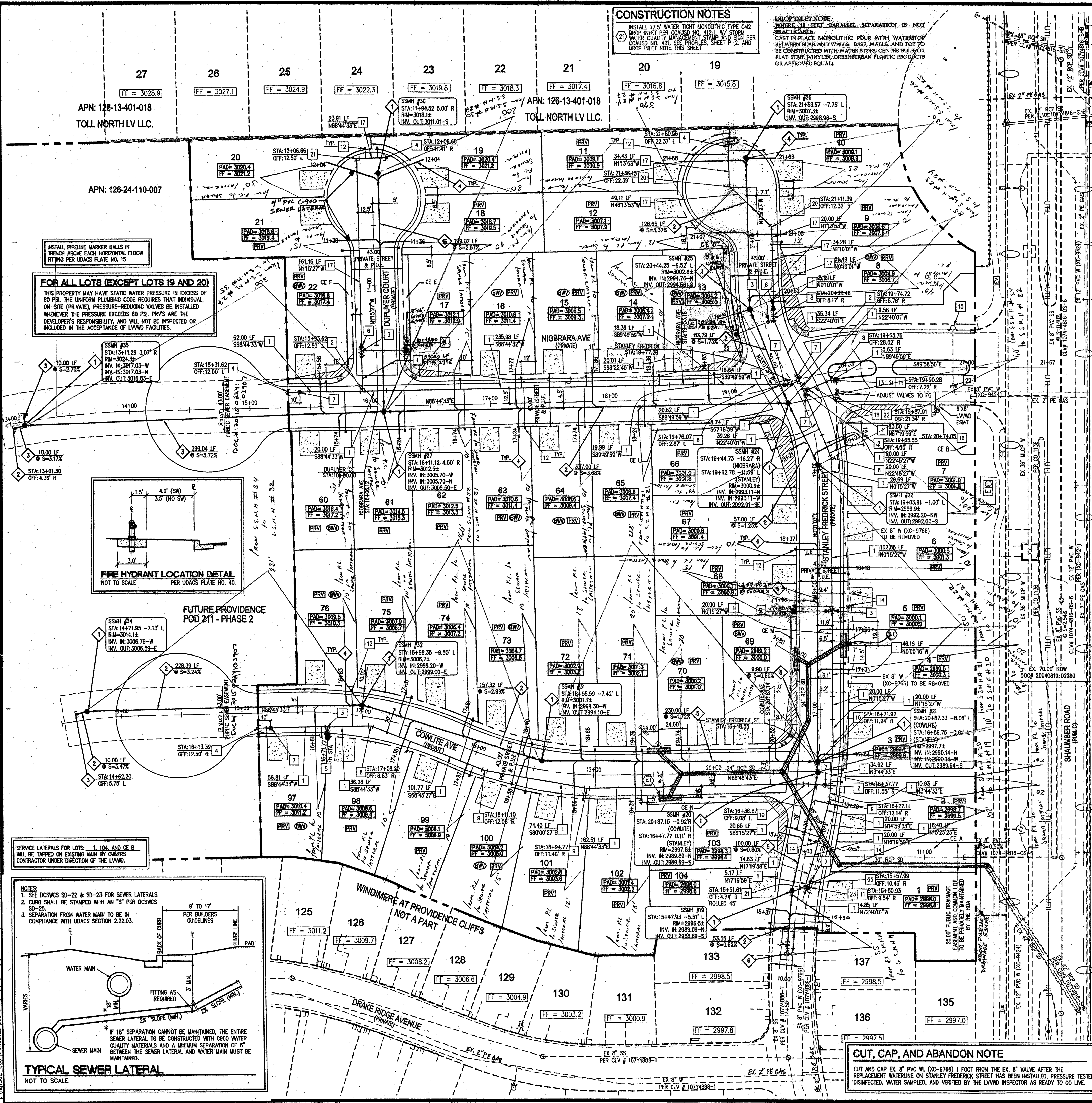




ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS
47 UNITS X 250 GPD/UNIT = 26,000 GPD
TOTAL AVERAGE CONTRIBUTION = 26,000 GPD = 0.02600 MGD
TOTAL PEAK FLOW = 0.02600 MGD X 3.5 (PEAK FACTOR) = 0.09100 MGD

FIRE HYDRANT & LATERAL ABANDONMENT
WHERE SHOWN ON THE DRAWING, THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT(S) BY REMOVING BOTH THE UPPER AND LOWER FIRE HYDRANT BARRELS SO NO PORTION OF THE REMAINING FIRE HYDRANT ASSEMBLY IS CLOSER THAN TWO (2) FEET TO THE EXISTING GRADE. THE EXISTING HYDRANT SHALL BE DESTROYED TO THE AGENCY. THE EXISTING VALVE SHALL BE ABANDONED IN A CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE. THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2,000) PSI. THE REMAINING PORTION OF THE LATERAL SHALL BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE EXISTING CONCRETE HYDRANT PAD SHALL BE REMOVED.

DISCLAIMER NOTE
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.

WATER MAIN JOINT DEFLECTION (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 UDCS 2.07.01 AND 2.07.02. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

RPFA (1) 1"
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDCS 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 EASEMENTS 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.

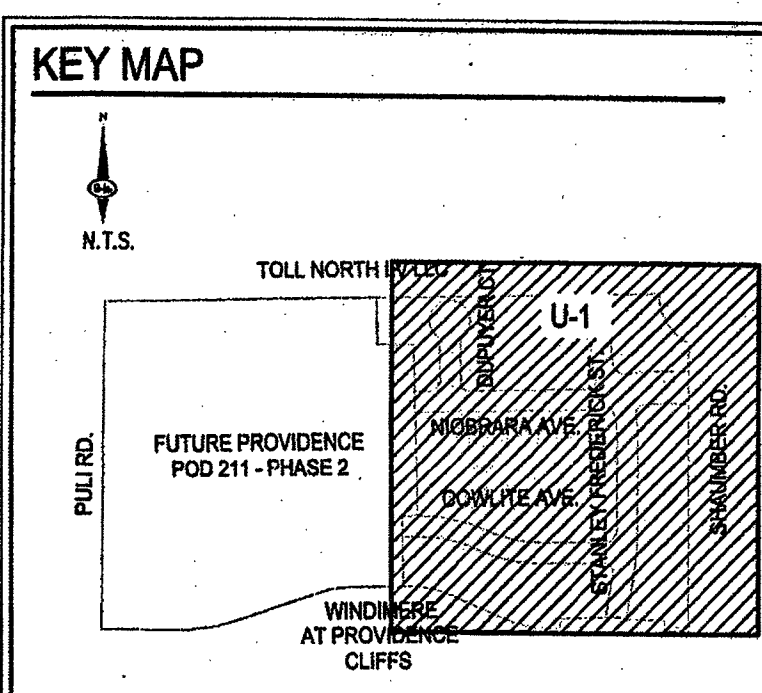
GENERAL NOTES
1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAYMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENDING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL BE AN APPROVED EQUIVALENT.
2. IN THE EVENT THAT THE TRAFFIC SIGNALS, COORDINATORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN ASA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.601.02 (UDCS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
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 (UDCS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
4. 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.
5. FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.

BASIS OF BEARING
NORTH 88°43' EAST, BEING THE BEARING OF THE SOUTH LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 24, TOWNSHIP 19 SOUTH, RANGE 50 EAST, M.D.M., CLARK COUNTY, NEVADA, PER BOOK 118, PAGE 88 OF PLATS IN THE CLARK COUNTY RECORDS' OFFICE, NEVADA.

BENCHMARK
BENCHMARK NUMBER: 61V992496
RIVET AND PLATE IN TOP CURB WEST SIDE OF SCHAMBER ROAD AT DEER SPRINGS WAY.
ELEVATION = 2957.70 FEET, 901.509 METERS
N.A.D. 88 DATUM
PER THE CITY OF LAS VEGAS BENCHMARKS - 2008 ADJUSTMENT (UPDATED 05/24/2010).

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 3/9/15 PROJECT NO. 122955
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL

CALL BEFORE YOU DIG
Avoid cutting underground utility lines. It's costly. Call 811
1-800-227-2600
CLARK COUNTY TRAFFIC OPERATIONS
LAS VEGAS AREA
COMPUTERIZED TRAFFIC SYSTEM



- WATER NOTES**
- 1" 8" PVC WATER PIPE (3205 WP2)
 - 2" 8" x 6" TEE PER UDCS PLATE NO. 31
 - 3" 8" x 6" TEE PER UDCS PLATE NO. 31
 - 4" PER PLAN
 - 5" FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDCS PLATE NO. 40
 - 6" 8" x 6" REDUCER PER UDCS PLATE NO. 30
 - 7" GATE VALVE WITH VALVE BOX PER UDCS PLATE NO. 30 & 39. SIZE PER PLAN.
 - 8" 22.5 DEGREE BEND PER UDCS PLATE NO. 31. SIZE PER PLAN.
 - 9" 11.25 DEGREE BEND PER UDCS PLATE NO. 31. SIZE PER PLAN.
 - 10" 5 DEGREE BEND MECHANICALLY RESTRAINED ON BOTH ENDS. SIZE PER PLAN.
 - 11" FIELD VERIFY LOCATION, AND CONNECT TO EXISTING WATER.
 - 12" 1" COPPER SERVICE W/ 3/4" METER PER UDCS PLATE NO. 2
 - 13" REMOVE EXISTING CAP AND BLOW-OFF VALVE.
 - 14" ABANDON EXISTING VALVES, PER UDCS SEC. 2.11.07
 - 15" ABANDON EXISTING FIRE HYDRANT, PER UDCS SEC. 2.21.06 AND FIRE HYDRANT LATERAL ABANDONMENT NOTE THIS SHEET
 - 16" 1" COPPER SERVICE W/ 3/4" IRRIGATION METER & 1" RPFA PER UDCS PLATE NO. 3 & 8
 - 17" 6" PVC WATER PIPE (3205 WP2)
 - 18" LIMITS OF WATER LINE REMOVAL.
 - 19" 5 DEGREE BEND PER UDCS PLATE NO. 31. SIZE PER PLAN.
 - 20" 45 DEGREE BEND PER UDCS PLATE NO. 31. SIZE PER PLAN.
 - 21" 90 DEGREE BEND PER UDCS PLATE NO. 31. SIZE PER PLAN.
 - 22" CUT EX. VAL. END CAP PER CUT, CAP, AND ABANDON NOTE THIS SHEET FOR DETAILS
 - 23" INSTALL 8" x 6" TAPPING SLAVE & 8" TAPPING VALVE PER UDCS PLATE NO. 34 & UDCS SECTION 2.24.01.A

CUT AND CAP NOTE
THE LATERAL MUST BE CUT WITHIN ONE (1) FOOT OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE CONTRACTOR SHALL CUT THE EXISTING PIPE WHERE SHOWN ON THE DRAWING AND INSTALL A CAP COMPLETE WITH THRUST BLOCK. WHERE A JOINT OF COUPLING IN THE EXISTING PIPE IS UNCOVERED, THE JOINT AND CAP LOCATIONS, THE INSTALLATION OF A PLUG MUST BE PERMITTED WITH AGENCY APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CAP OR PLUG LOCATIONS IN ACCORDANCE WITH THE PROVISIONS OF UDCS PLATE 31.

- SEWER NOTES**
1. INSTALL 48" DIAMETER SANITARY SEWER MANHOLE WITH PRECAST BASE PER DOWNS SD-1A
 2. INSTALL 6" PVC SANITARY SEWER PIPE (PUBLIC)
 3. INSTALL 8" SANITARY SEWER CAP. PER UDCS PLATE NO. 31
 4. INSTALL 4" PVC SANITARY SEWER LATERAL, PLUG AND 4"x4" POST PER DOWNS SD-22
 5. INSTALL 8" 8000 PVC SANITARY SEWER PIPE (PUBLIC)
 6. CORE DRILL AND CONNECT TO EXISTING MANHOLE
- SEE SHEET C-2 FOR LEGEND, ABBREVIATIONS AND QUANTITIES

NOTE
PER 19.08 & 19.12 ALL ABOVE-GROUND UTILITY BOXES SHALL BE FULLY SCREENED FROM ALL RIGHTS OF WAY.

FIRE FLOW CALCULATIONS
FIRE FLOW REQUIREMENT IS 1,500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.
USE/OCCUPANCY: SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC): TYPE V-B
NO. AUTOMATIC FIRE SPRINKLERS: NO
SQUARE FOOTAGE: <3600
LARGEST AREA BETWEEN 4 HOUR WALLS: N/A
BUILDING HEIGHT: 2
NO. OF STORIES INCLUDING BASEMENT: 2
HIGH PILED COMBUSTIBLE STORAGE: NO
NO. OF HYDRANTS INSTALLED: 4

APPROVAL
LAS VEGAS FIRE AND RESCUE
DATE: 3/9/15

SCALE: 1"=40 FEET

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

RICHMOND AMERICAN HOMES
PROVIDENCE POD 211, PHASE 1
UTILITY SHEET

DATE: 1/22/15
DRAFTER: SS
DESIGNER: DEB
CHECKED: BDP
PROJECT NO. FIG1302-000

U-1
SHEET 17 OF 18
4#59489
107Y5021-1