| MH# | TABLE |
|---|---|
| 9 | C- 7.25 TO RIM |
| 8 | C- 8.05 TO RIM |
| 7 | C- 8.48 TO RIM |
| 14 | C- 7.50 TO RIM |
| 10 | C- 7.65 TO RIM |
| | |

EXISTING SERVICES

IF ANY OF THE EXISTING SERVICES ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON, THE DEVOLOPER SHALL ABANDON THE LATERALS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH THE UDACS STANDARDS, AND AT TEH DEVELOPERS EXPENSE.

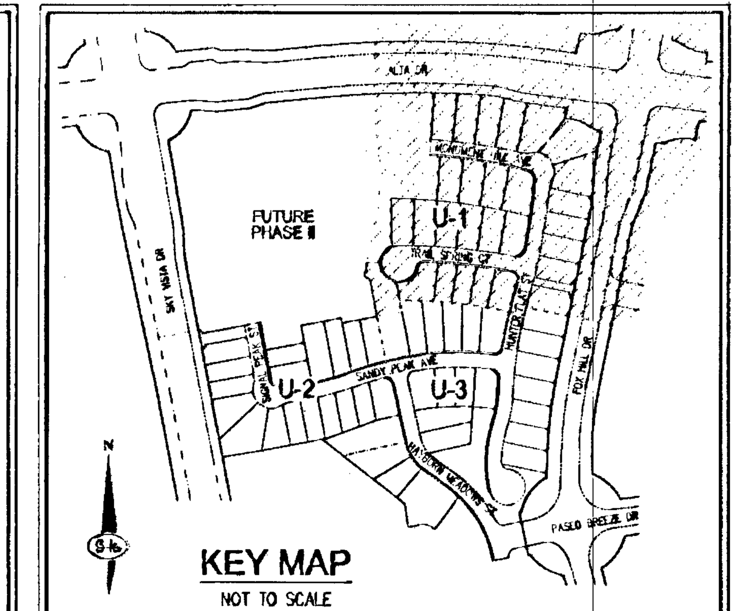
## WATER NOTES

1. 6" PVC WATER PIPE (2745 WPZ)
2. 8" PVC WATER PIPE (2745 WPZ)
3. 8" DIP WATER PIPE (CLASS 53)
4. 8" X 8" TEE PER UDACS PLATE NO. 31
5. 8" X 6" TEE PER UDACS PLATE NO. 31
6. 8" X 6" REDUCER PER UDACS PLATE NO. 31
7. 5 DEGREE BEND WITH RESTRAINED JOINTS
8. 11.25 DEGREE BEND PER UDACS PLATE NO. 31
9. 22.5 DEGREE BEND PER UDACS PLATE NO. 31
10. 45 DEGREE BEND PER UDACS PLATE NO. 31 (SEE PROFILE FOR STATION OF VERTICAL BENDS)
11. 90 DEGREE BEND PER UDACS PLATE NO. 31
12. 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30 & 39
13. CAP AND 2" BLOW-OFF VALVE PER UDACS PLATE NO. 38
14. FIRE HYDRANT ASSEMBLY W/6" GATE VALVE PER UDACS PLATE NO. 40
15. INSTALL BLUE REFLECTIVE RAISED PAVEMENT MARKERS
16. 1" COPPER SERVICE W/ 3/4" METER PER UDACS PLATE NO. 2
17. 1" COPPER SERVICE W/ 3/4" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8 (BRASS BETWEEN METER AND RPPA)
18. 1" COPPER SERVICE W/ 1" METER PER UDACS PLATE NO. 4
19. FIELD VERIFY LOCATION, CUT, AND CONNECT TO EXISTING WATER
20. 1 DEGREE MAXIMUM JOINT DEFLECTION PER UDACS SECTION 2.07
21. POINT OF CURVATURE OF WATER MAIN USING 1° JOINT DEFLECTIONS PER UDACS SECTION 2.07.01
22. INSTALL 2 - 4" IRRIGATION SLEEVES
23. INSTALL PVC TO DIP COUPLER

## SEWER NOTES

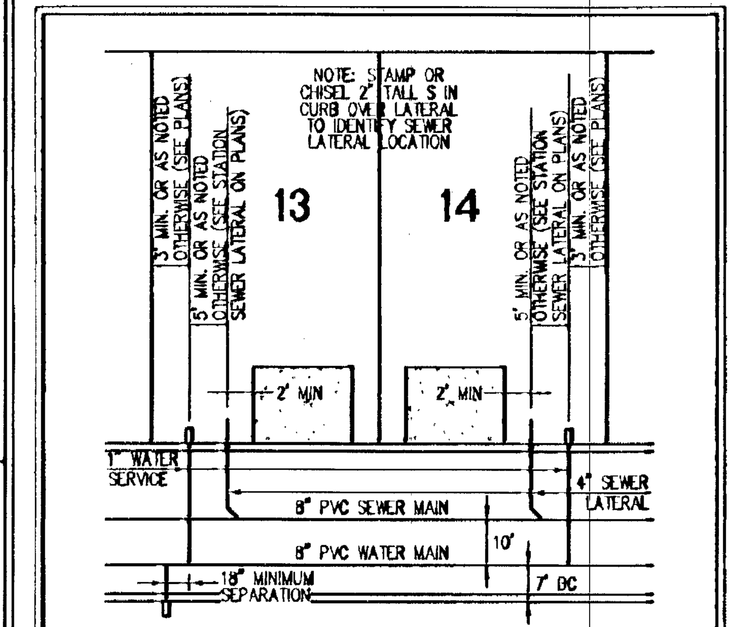
1. 8" PVC SANITARY SEWER PIPE
2. 8" C-900 WATER QUALITY SANITARY SEWER PIPE
3. 48" DIAMETER SANITARY SEWER MANHOLE WITH PRECAST BASE PER DCWCS SD-1A
4. 8" SANITARY SEWER CAP (SEE DETAIL 19 SHEET D-2 FOR THRUST BLOCK DETAIL)
5. FIELD VERIFY AND CONNECT TO EX STUB
6. INSTALL 4" SANITARY SEWER LATERAL, PLUG AND 4"x4" POST PER DCSWCS SD-22
7. INSTALL 4" SANITARY SEWER LATERAL, PLUG AND 4"x4" POST PER DCSWCS SD-22 AND SD-25
8. PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED

SEE SHEET C-2 FOR LEGEND, ABBREVIATIONS AND QUANTITIES




## KEY MAP

NOT TO SCALE




## TYPICAL UTILITY LOCATION

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

## 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.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"

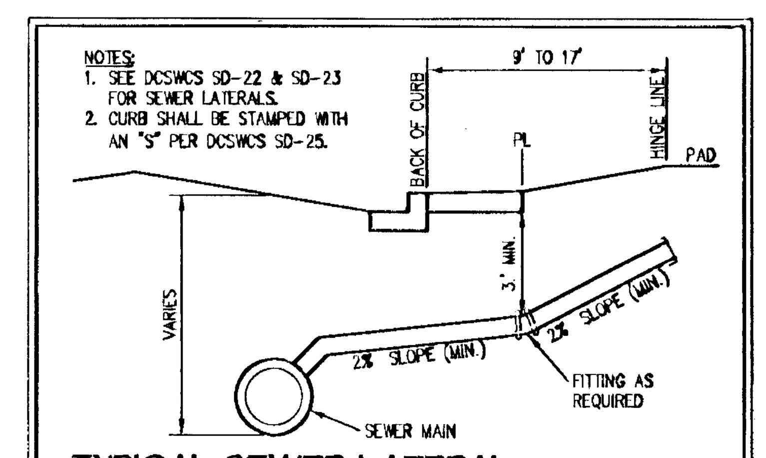
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED 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.

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.

NOTES:
1. SEE DCSWCS SD-22 & SD-23 FOR SEWER LATERALS.
2. CURB SHALL BE STAMPED WITH AN "S" PER DCSWCS SD-25.




## TYPICAL SEWER LATERAL

NOT TO SCALE

## GENERAL NOTES

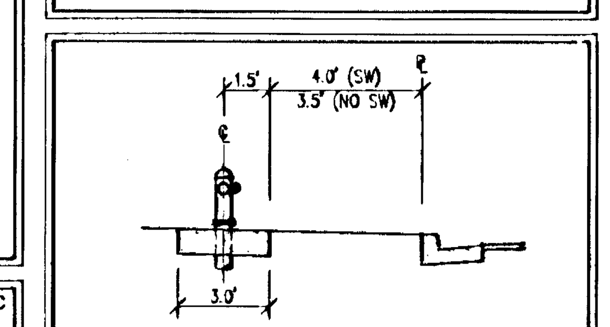
1. REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT MARKINGS), UNDER CLARK COUNTY'S JURISDICTION, THAT ARE DISTURBED, DESTROYED, MOVED OR MODIFIED BY TRENCHING ACTIVITIES TO CLARK COUNTY'S SATISFACTION. ALL MATERIAL USED SHALL MEET CLARK COUNTY'S SPECIFICATIONS OR WILL WILL BE AN APPROVED EQUIVALENT.
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.G.01.02
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. 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.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
1-800-227-2600
OR
AND
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.
Call before you do UnderGround
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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

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




## FIRE HYDRANT LOCATION DETAIL

NOT TO SCALE — PER UDACS PLATE NO. 40

## BENCHMARK

RIVET & PLATE IN TOP OF CURB IN THE SOUTHEAST CORNER OF DESERT MOON ROAD & DESERT SUNRISE ROAD, 7LV0934SW6A

NAVD 88 ELEV = 1006.289 METERS = 3301.47 FEET

## BASIS OF BEARING

NORTH 05°59'55" WEST, BEING THE BEARING OF THE WEST LINE OF SECTION 34, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF ON FILE IN BOOK 143, PAGE 47 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

## FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS 1,750 GALLONS PER MINUTE AT 20 P.S.I. RESIDUAL PRESSURE.

| | |
|---|---|
| USE/OCCUPANCY | SINGLE FAMILY |
| TYPE OF CONSTRUCTION (IBC) | TYPE V |
| AUTOMATIC FIRE SPRINKLERS | NO |
| SQUARE FOOTAGE | <4800 |
| 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 |

## ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS

66 UNITS X 250 GPD/UNIT = 16,500 GPD
TOTAL AVERAGE CONTRIBUTION = 16,500 GPD = 0.0165 MGD

TOTAL PEAK FLOW = 0.0165
MGD X 3.5 (PEAK FACTOR) = 0.05775 MGD

APPROVAL

K Milk 10/18/12

LAS VEGAS FIRE AND RESCUE — DATE

APPROVED FOR CONSTRUCTION

Dan Meade

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE 10/31/12 PROJECT NO. 117426
LVVWD APPROVED FIRE FLOW 1,750 GPM AT 20 PSI RESIDUAL

SUMMERLIN

SUMMERLIN RESIDENTIAL DESIGN REVIEW COMMITTEE — DATE

THIS SIGNATURE IS LIMITED TO APPROVAL OF THESE DOCUMENTS FOR CONFORMANCE TO THE DESIGN INTENT OF THE APPLICABLE DESIGN CRITERIA. NEITHER SUMMERLIN NOR THE SUMMERLIN RESIDENTIAL DESIGN REVIEW COMMITTEE ASSUMES RESPONSIBILITY FOR PLAN CONFORMANCE WITH APPLICABLE LAWS, ORDINANCES, AND CODES.

H# 44992


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. |
|---|---|---|---|---|---|
| | | | | | |

LAS VEGAS, NV

Woodside Homes
BETTER BY DESIGN

# ANDORRA & CASTILLE - PHASE 1
## UTILITY PLAN I

S 34 T 20 R 59

DATE: 10/17/12
DRAFTER: DSP
DESIGNER: DSP
CHECKED: CAL

PROJECT NO.
WSH1105-001

PROFESSIONAL ENGINEER STATE OF NEVADA — COREY A. LIEBER — Exp. 12/31/2013 — CIVIL — No. 15875 — 10-17-12

U-1
SHEET 20 OF 25

10744982-1

# SEWER - ASBUILTS