

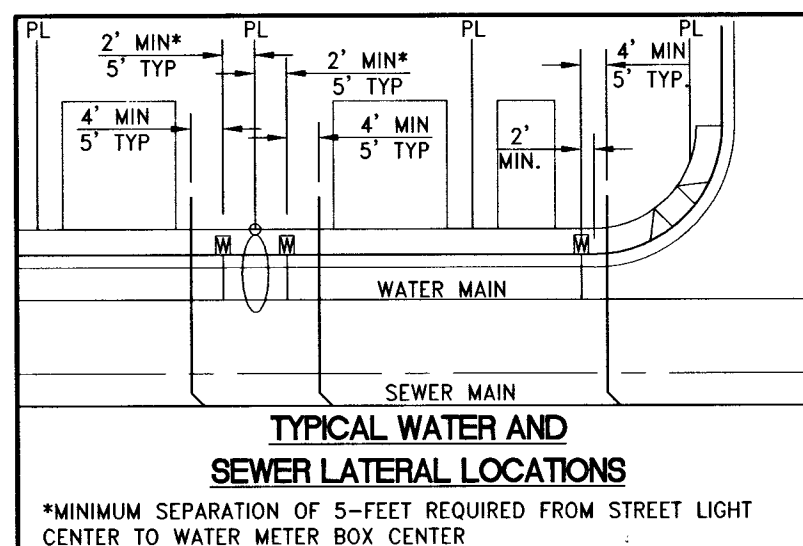
UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IF SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

Avoid overhead power line contact. It's costly. Call before you Overhead 1-702-227-2929 Nevada Power Environment and Safety Services Department	Call before you Dig Avoid cutting underground utility lines. It's costly. Call 811 OR 1-800-227-2600 AND CLARK COUNTY TRAFFIC OPERATIONS 1-702-455-6000
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ALL OF PARCEL Q AS SHOWN ON THE FINAL MAP OF SUMMERLIN VILLAGE 23B, UNIT No. 2 ON FILE IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY NEVADA IN BOOK 145 OF PLATS AT PAGE 83, SITUATE IN SECTION 27, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY NEVADA.

CITY OF LAS VEGAS BENCHMARK STATION 5LV09 34NE6
RIVET AND PLATE IN TOP OF CURB AT THE NORTHEAST
CORNER OF DESERT FOOTHILLS AND ALTA DRIVE.
ELEVATION = 1007.197 METERS (NAVD'88)
ELEVATION = 3304.45 US SURVEY FEET (NAVD'88)

NORTH 89°46'49" EAST, BEING THE BEARING OF THE NORTH
LINE OF SECTION 27, TOWNSHIP 20 SOUTH, RANGE 59 EAST,
M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS
SHOWN BY MAP THEREOF ON FILE IN FILE 91, PAGE 28 OF
PARCEL MAPS IN THE COUNTY RECORDER'S OFFICE, CLARK
COUNTY, NEVADA.



(BWV) ALL LOTS WITH THIS SYMBOL REQUIRE A BACKWATER VALVE

NO LOTS IN THIS PROJECT REQUIRE ONSITE
PRIVATE PRESSURE REDUCING VALVES.

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 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.

ISOLATION VALVES ARE REQUIRED AT THE POINT OF CONNECTION (EXTERIOR) AND WITHIN 10' OF THE BACK OF CURB (INTERIOR), WITH NO SERVICE CONNECTION BETWEEN THE VALVES.

- THE PIPELINE MATERIAL BETWEEN THE VALVES MUST BE CLASS 53 DIP, DOUBLE WRAPPED, WITH RESTRAINED JOINTS.
- THE PIPELINE MUST BE PLACED AT A MINIMUM OF 6 FOOT DEPTH OF COVER.
- THE PIPELINE MUST BE PLACED IN A STEEL CASING FOR THE ENTIRE LENGTH OF THE EASEMENT / COMMON ELEMENT PER UDACS PLAN #23.
- AT A MINIMUM, THE JOINT MUST BE BONDED AND A TEST STATION INSTALLED AT ONE END OF THE EASEMENT / COMMON ELEMENT.
- FOR ALL PIPELINES 16-INCH AND GREATER, A TEST PORT WILL BE REQUIRED TO FACILITATE PIPELINE CONDITION ASSESSMENT.
- THE ENTIRE TRENCH BACKFILL MUST BE CLASS 1 CLOWM.
- THE EASEMENT MUST BE A MINIMUM OF 30 FEET WIDE.
- THE PIPELINE MUST BE LOCATED A MINIMUM OF 10 FEET FROM THE EDGE OF THE EASEMENT.
- CROSS SECTION OF THE EASEMENT MUST BE SHOWN ON THE PLS WITH CURB/GUTTER OR BLOCK WALL USED TO DELINEATE THE BOUNDARY OF THE EASEMENT.
- THE PIPELINE MUST BE SHOWN IN A PROFILE VIEW THE ENTIRE LENGTH OF THE COMMON ELEMENT/EASEMENT.
- NO BUILDINGS, STRUCTURES, OR FENCES ARE ALLOWED WITHIN THE EASEMENT / COMMON ELEMENT.

SAID EASEMENT FOR THE DURATION OF THIS EASEMENT EXCEPT THAT SAID EASEMENT MAY BE IMPROVED AND USED FOR STREET, ROAD OR DRIVEWAY PURPOSES, TRAIL, PATH, PARKING LOT, PLAYGROUND, NON-VEHICULAR PUBLIC ACCESS, AND OTHER PURPOSES.

AND FOR OTHER UTILITIES IN SO FAR AS SUCH UTILITIES AND THEIR USE DOES NOT INTERFERE WITH ITS USE BY THE DISTRICT FOR THE PURPOSES FOR WHICH IT IS GRANTED.

CARSONITE OR BRASS MARKERS MUST BE USED TO DELINEATE THE LOCATION/ALIGNMENT OF THE PIPELINE WITHIN THE EASEMENT.

THE FINAL MAP MUST DEDICATE THE SUBJECT EASEMENT AREA AS A COMMON ELEMENT AND A SEPARATE EASEMENT DOCUMENT IS REQUIRED.

A SURFACE MAINTENANCE/REPAIR AGREEMENT WILL BE REQUIRED STATING THE DEVELOPER AGREES TO SURFACE RESTORATION/REPAIR AT SOLE COST, IN PERPETUITY.

[illegible]

TEST BOX TO BE LOCATED IN BACK OF EXISTING AND FUTURE CURB IN SIDEWALK OR BE COLLARED

BLUE MARKING TAPE LABELED "CAUTION CATHODIC PROTECTION CABLE BURIED BELOW"

(2) #6 HMWPE TEST LEADS

FINISH GRADE

2' MIN

6'

3'

4' MIN

R/W

BIND WITH TIES @ 48" O.C.

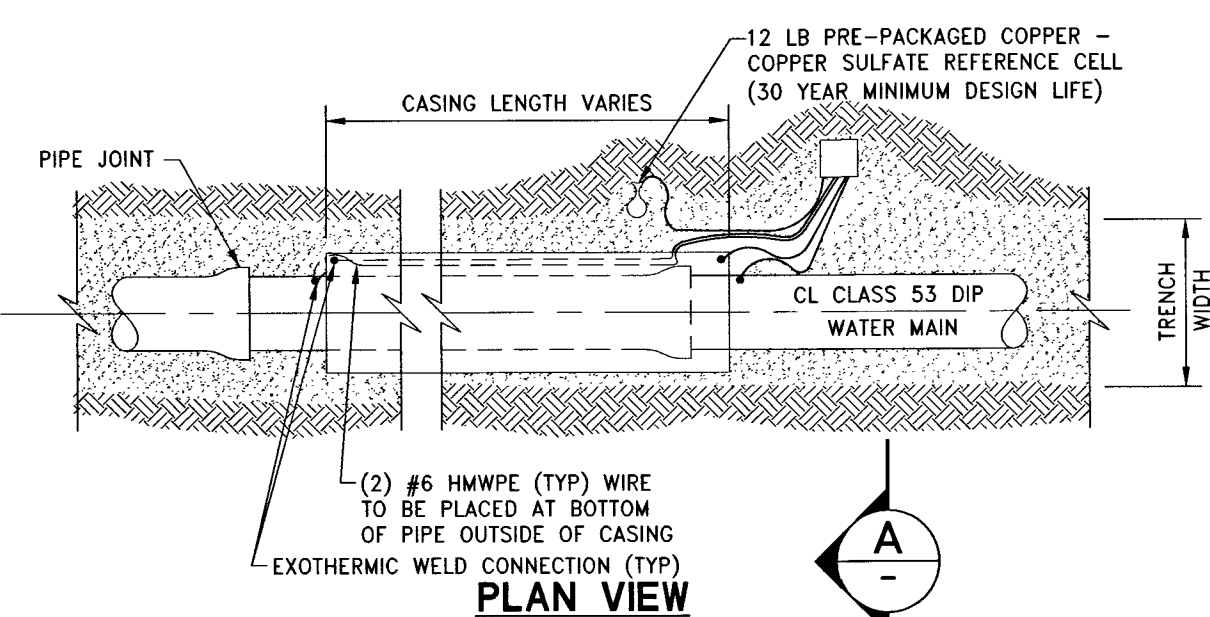
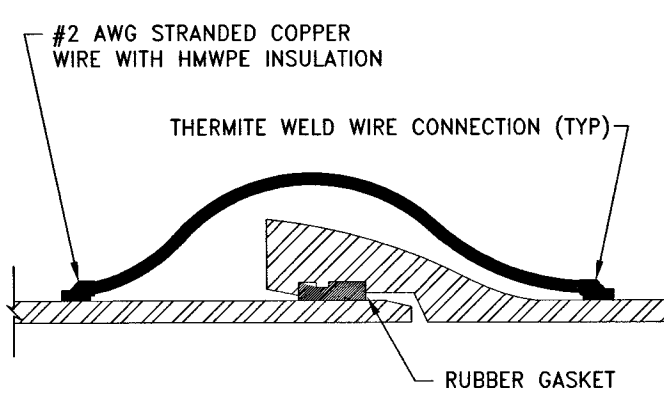
REFERENCE TEST LEAD

(1) #14 HMWPE

12'

SEE TRENCH SECTION BACKFILL SPECIFICATION

1. USE ONLY NATIVE SOIL FREE OF ROCKS AND CLODS FOR BACKFILL AROUND CELLS WITH A MINIMUM OF 5 FEET OF WATER COVER. DO NOT OVERPACK. DURING INSTALLATION, DO NOT USE SAND AS BACKFILL.
2. SUPPLY ENOUGH WIRE FROM EACH LEAD TO REACH FULL EASEMENT WIDTH PLUS FIVE (5) ADDITIONAL FEET. COIL WIRE IN BOTTOM OF BOX. (200' MAX.) BLACK WIRE - CASING
WHITE WIRE - DUE PIPELINE
3. TEST STATION PLACEMENT TO BE PERPENDICULAR TO PIPE. AT INTERSECTIONS, TEST STATION WIRES TO BE PLACED PARALLEL TO PIPE FOR PLACEMENT PERPENDICULAR TO PIPE AFTER ROAD EASEMENT IS COMPLETED. TEST STATION WIRES TO BE ELONGATED.
4. STANDARD CASING PER UDCAS PLATE 23
W/ ANNUAL SPACE FILLED WITH CLASS 1 CLSM
PIPE TO BE TYPE 53 .53 DI RESTRAINED FULL LENGTH, AND DOUBLE WRAPPED.
5. PIPE JOINT BONDING PER DETAIL PLD2-9 AND DETAIL PLD2-10

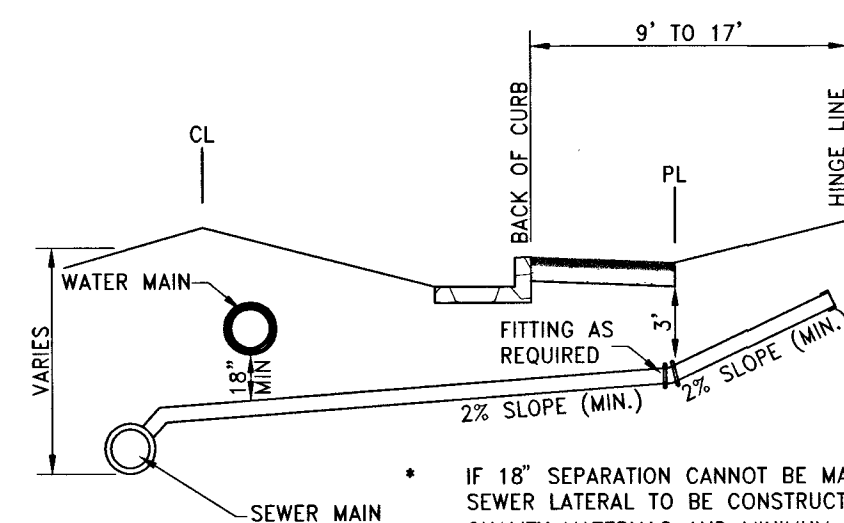


NOT TO SCALE

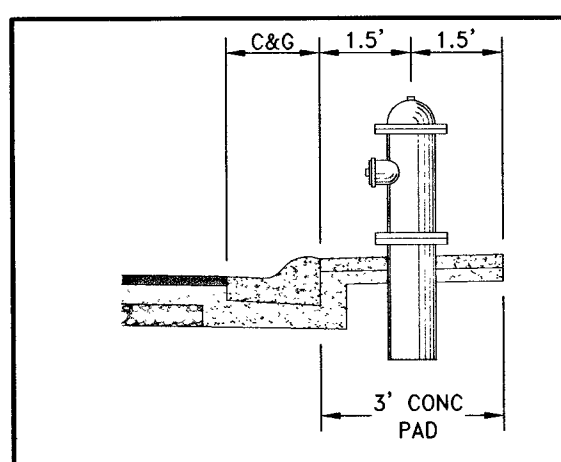
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY (S) SHALL BE INSTALLED PER THE UDACS PLAT NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY LVVWD, ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

NOTES:

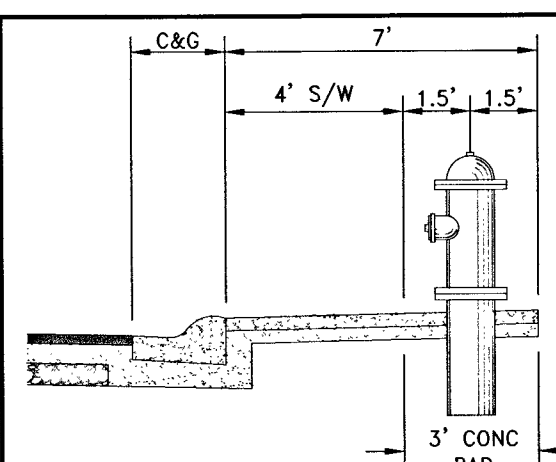
1. SEE DCSWCS SD-22 & SD-23 FOR SEWER LATERALS.
2. CURB SHALL BE STAMPED WITH AN "S" PER DCSWCS SD-25.
3. SEPARATION FROM WATER MAIN TO BE IN COMPLIANCE WITH UDACS SECTION 2.22.03.



INSTALL WATERLINE IN STEEL CASING PER UDACS PLATES No. 23. MINIMUM 18-INCH CLEARANCE IS REQUIRED ABOVE THE TOP OF THE CASING. DUCTILE IRON PIPE WITH RESTRAINED JOINTS IS REQUIRED. ANNULAR SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH CLASS I CLSM. SEE UDACS PLATE 16 AND 19. FOR BEDDING AND BACKFILL REQUIREMENTS.



WITH SIDEWALK PER UDACS PLT 40



1. ADJUST WATER VALVE BOXES TO FINISH GRADE PER UDACS PLATE NO.39. VALVES SHALL BE ACCESSIBLE AT ALL TIMES.
2. ALL SEWER/STORM DRAINS CROSSING WATERLINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSING AND CLEARANCES.
3. ALL WATER PIPE DIMENSIONS SHOWN ARE GIVEN FROM FITTING TO FITTING AND ARE FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.

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.

UTILITY LATERAL NOTE:
WATER AND SEWER LATERAL STATION
SHOWN ON THIS PLAN SET ARE
CALCULATED AT THE BACK OF CURB

TYPE OF CONSTRUCTION:	V-
TOTAL LIVING AREA:	< 4,487 S.F.
TOTAL SF UNDER ROOF:	< 5,317 S.F.
NUMBER OF STORIES:	
BUILDING USE:	SINGLE FAMILY RESIDENTIAL
SPRINKLERED:	N
NUMBER OF FIRE HYDRANTS:	1
FIRE FLOW:	2,000 GPM AT 20 PSI RESIDUAL

EXISTING UTILITY NOTE
1. EXISTING UTILITIES AS SHOWN TO FIELD VERIFY BOTH VERTICAL UTILITIES PRIOR TO CONSTRUCTION. ANY DISCREPANCIES PRIOR TO RESPONSIBILITY FOR EXISTING NOT SHOWN.

- (1) INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 39 & 40 (INCLUDES 6" GATE VALVE)
- (2) INSTALL 1" COPPER SLEEVE WITH 1/2" LATERAL WITH 3/4" METER PER UDACS PLATE NO. 32
- (3) INSTALL 8" GATE VALVE PER UDACS PLATE NO. 30 & NO. 39
- (4) INSTALL 8" X 6" TEE PER UDACS PLATE NO. 31
- (5) INSTALL 8" X 8" TEE PER UDACS PLATE NO. 31
- (6) INSTALL 8" CAP WITH 2" BLOW OFF ASSEMBLY PER UDACS PLATE NO. 36
- (7) INSTALL (2) 4" SCHEDULE 40 PVC IRRIGATION SLEEVES
- (8) INSTALL 2" COPPER SLEEVE WITH 1/2" LATERAL WITH 3/4" METER (FOR IRRIGATION) WITH 1/2" RPPA PER UDACS PLATE NO. 34 & 8 (1" BRASS WATERLINE BETWEEN METER AND RPPA)
- (9) **INSTALL 8" VERTICAL 45° BEND PER UDACS PLATE NO. 31**
- (10) INSTALL 8" 5° BEND PER UDACS PLATE NO. 31
- (11) INSTALL 8" 11.25° BEND PER UDACS PLATE NO. 31
- (12) INSTALL 8" 22.5° BEND PER UDACS PLATE NO. 31
- (13) INSTALL 8" 45° BEND PER UDACS PLATE NO. 31
- (14) INSTALL 8" 90° BEND PER UDACS PLATE NO. 31
- (15) REMOVE EX CAP AND BLOWOFF AND CONNECT TO EXISTING WATER MAIN PER UDACS PLATE NO. 36
- (16) INSTALL STEEL SLEEVE PER UDACS PLATE NO. 23

INSTALL 48" STANDARD MANHOLE (PER DCSWCS STD. No. SD-1A, SD-1B, SD-4, SD-5 & SD-6)
(TYP) INSTALL 4" SEWER LATERAL (PER DCSWCS STD No. SD-17, SD-22 & SD-25)
TYPICAL LOCATION FOR SEWER LATERAL AT WATER MAIN CROSSING. ALL SEWER LATERALS MUST MAINTAIN 18" VERTICAL CLEARANCE BELOW WATER MAIN AT CROSSINGS.
INSTALL 8" SEWER CAP AND 1 CU-FT THRUST BLOCK @ CAP

1. EXISTING UTILITIES AS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY BOTH VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. ENGINEER ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN INCORRECTLY OR OTHERWISE NOT SHOWN.

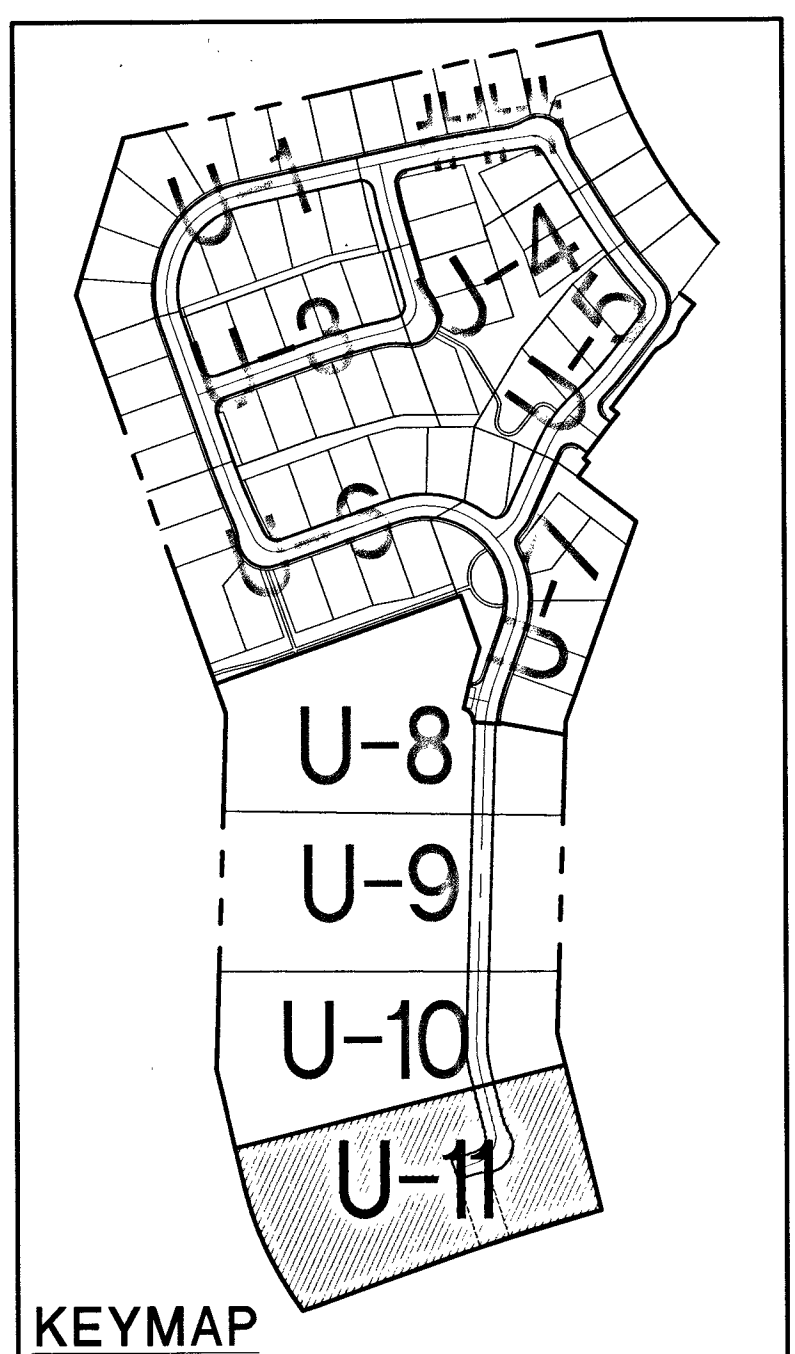
BY: K. Miller DATE 3/10/15

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR ANY APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAW.

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVPWD.

FIRE FLOW 2,000 GPM AT 20 PSI RESIDUAL

Don Meade
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 03/17/15 PROJECT# 123421



CALCULATIONS:
66 ERU (66 LOTS) * 250 GPD = 0.0165 MGD
= 0.0165 * 3.5 = 0.05775 MGD PEAK

**ALTURA UNIT 1
A SINGLE FAMILY RESIDENTIAL SUBDIVISION**

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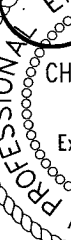
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TOLL SOUTH LV, LLC
11400 CENTER DRIVE SUITE 250
LAS VEGAS, NV 89144
PHONE: 702-243-9800 FAX: 702-243-9610

RCI *Engineering*

3325 Dean Martin Drive Suite 300, Las Vegas, NV
PHONE: 472-9000 FAX: 472-9001

ALTURA UNIT 1
A SINGLE FAMILY RESIDENTIAL SUBDIVISION
UTILITY PLAN (SHEET 11 OF 11)



3/7/15

DRAWING

U-11

SHT 27 OF 47

CLY DRAWING NUMBER

10745034

H#57645

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