

REDUCED PRESSURE DETECTOR ASSEMBLY (2)-8"
THE REDUCED PRESSURE DETECTOR ASSEMBLY SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 58. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) SO AS TO ALLOW LVWD DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (5)-1 1/2"; (2)-2"; (1)-1"
THE REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) SO AS TO ALLOW LVWD DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

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

FIRE WATER AT DOMESTIC CROSSINGS
ALL NON-POTABLE FIRE WATER LINES CROSSING POTABLE DOMESTIC WATER LINES ARE TO BE INSTALLED WITH A "VERTICAL SEPARATION OF NO LESS THAN SIX INCHES..." AND IN ACCORDANCE WITH THE UDACS 2.23.01, 2.04.03, 2.22.02.B1, AND 2.22.02.B2.

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.

UDACS NOTE
ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER DISTRIBUTION SYSTEMS" UDACS, LATEST EDITION.

NOTE:
ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.12.040.

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

WARNING FIRE LANE (NON-POTABLE WATER)
ALL EXISTING, RELOCATED OR PROPOSED DCPA/RPDA INSTALLATIONS

"TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, THE FIRE LINE, OR ANY OF ITS COMPONENTS, SHALL NOT BE USED FOR POTABLE DRINKING WATER AT ANY TIME"

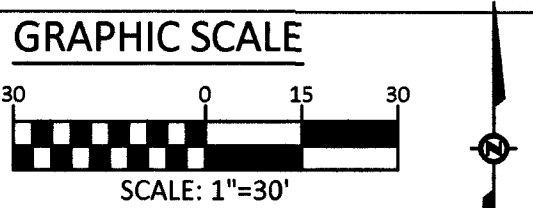
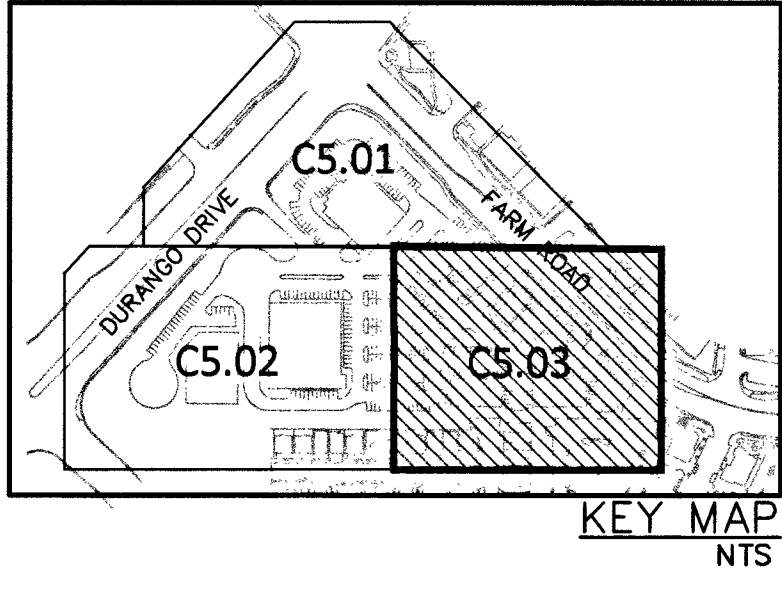
PROTECT IN PLACE AND ADJUST LVWD EXISTING FACILITIES TO FINISHED GRADE. ALL LVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.

RELOCATION OF FIRE HYDRANTS

(EXTENSION OF EXISTING LATERAL)
THE CONTRACTOR SHALL REMOVE AND RELOCATE BOTH THE UPPER AND LOWER BARRELS OF THE EXISTING FIRE HYDRANT WHERE SHOWN. EXTEND THE EXISTING LATERAL AS REQUIRED, AND REINSTALL SUCH HYDRANT(S) AT THE NEW LOCATION(S) INDICATED. FIRE HYDRANTS SHALL BE TESTED PRIOR TO AND AFTER RELOCATION, UNDER THE DIRECTION OF THE DISTRICT, TO ENSURE QUALITY. INSTALLATION SHALL BE IN ACCORDANCE WITH UDACS PLATE 40. LATERALS MADE OF UNAPPROVED MATERIALS SHALL BE REPLACED FROM THE MAIN TO THE FIRE HYDRANT. RELOCATIONS WHERE THE LATERAL CANNOT BE EXTENDED SHALL BE TREATED AS NEW INSTALLATIONS.

ANNUAL SPACE BETWEEN PIPE AND CASING SHALL BE FILLED WITH FINE SAND OR CONTROLLED LOW STRENGTH MATERIAL (CLSM 50 PSI - 75 PSI). SEE UDACS PLATES 16, 17, 18 AND 19 FOR BEDDING AND BACKFILL REQUIREMENTS.

INSTALL WATERLINE IN STEEL CASING PER UDACS PLATES NO.21 AND 23. MINIMUM CLEARANCE IS REQUIRED ABOVE THE TOP OF THE CASING, FROM THE UPPER BENDS THROUGHOUT THE LOWERED SECTION OF THE PIPE. DUCTILE IRON PIPE WITH RESTRAINED JOINTS IS REQUIRED. IN ADDITION, THRUST BLOCKS ARE TO BE INSTALLED AT THE UPPER BENDS.



BASIS OF BEARING
SOUTH 00°06'57" WEST, BEING THE WEST LINE OF THE GOVERNMENT LOT 11, LYING WITHIN THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 17, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., AS SHOWN IN BOOK 140, PAGE 12 OF PLATS IN THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE.

BENCHMARK
CITY OF LAS VEGAS BENCHMARK # SLV90 1756
A RIVET AND PLATE IN THE TOP OF CURB AT THE NORTHWEST CORNER OF OSO BLANCA ROAD AND DURANGO DRIVE.
NAVD 88 ELEVATION = 798.4331 METERS / 2619.53 FEET
NORTH AMERICAN DATUM OF 1988

WATER CONSTRUCTION NOTES

NO.	ITEM	UDACS PLATE NO. PER UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS
1	INSTALL PVC WATER LINE (C-900) (SIZE PER PLAN) PER UDACS PLATE NO. 17.	
2	INSTALL 45° BEND (SAME SIZE AS LINE) PER UDACS PLATE NO. 31.	
3	INSTALL 90° BEND (SAME SIZE AS LINE) PER UDACS PLATE NO. 31.	
4	INSTALL TEE (SIZE PER PLAN) PER UDACS PLATE NO. 31.	
5	INSTALL FIRE HYDRANT ASSEMBLY PER UDACS PLATE NO. 40.	
6	INSTALL GATE VALVE (SAME SIZE AS LINE) PER UDACS PLATE NO. 30 & 39.	
7	INSTALL 12"x8" TAPPING SLEEVE W/8" TAPPING VALVE PER UDACS PLATE NO. 34 & SEC 2.24.01.	
8	INSTALL 8" RPDA PER UDACS PLATE NO. 59.	
9	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION.	
10	INSTALL COPPER TYPE "K" WATER LINE (SIZE PER PLAN) PER UDACS PLATE NO. 4.	
11	INSTALL PVC WATER LINE (SIZE PER PLAN) PER UDACS PLATE NO. 17.	
12	INSTALL 12"x 2" SERVICE SADDLE PER UDACS PLATE NO. 4.	
13	INSTALL 12"x 1 1/2" SERVICE SADDLE PER UDACS PLATE NO. 4.	
14	INSTALL 12"x 1" SERVICE SADDLE PER UDACS PLATE NO. 4.	
15	INSTALL 2" DOMESTIC METER PER UDACS PLATE NO. 4 WITH 2" RPPA PER UDACS PLATE NO. 8.	
16	INSTALL 1 1/2" DOMESTIC METER PER UDACS PLATE NO. 4 WITH 1 1/2" RPPA PER UDACS PLATE NO. 8.	
17	INSTALL 1" DOMESTIC METER PER UDACS PLATE NO. 4 WITH 1" RPPA PER UDACS PLATE NO. 8.	
18	POINT OF CONNECTION. SEE LANDSCAPING PLANS FOR CONTINUATION.	
19	RELOCATE EXISTING FIRE HYDRANT PER NOTE.	

SEWER CONSTRUCTION NOTES

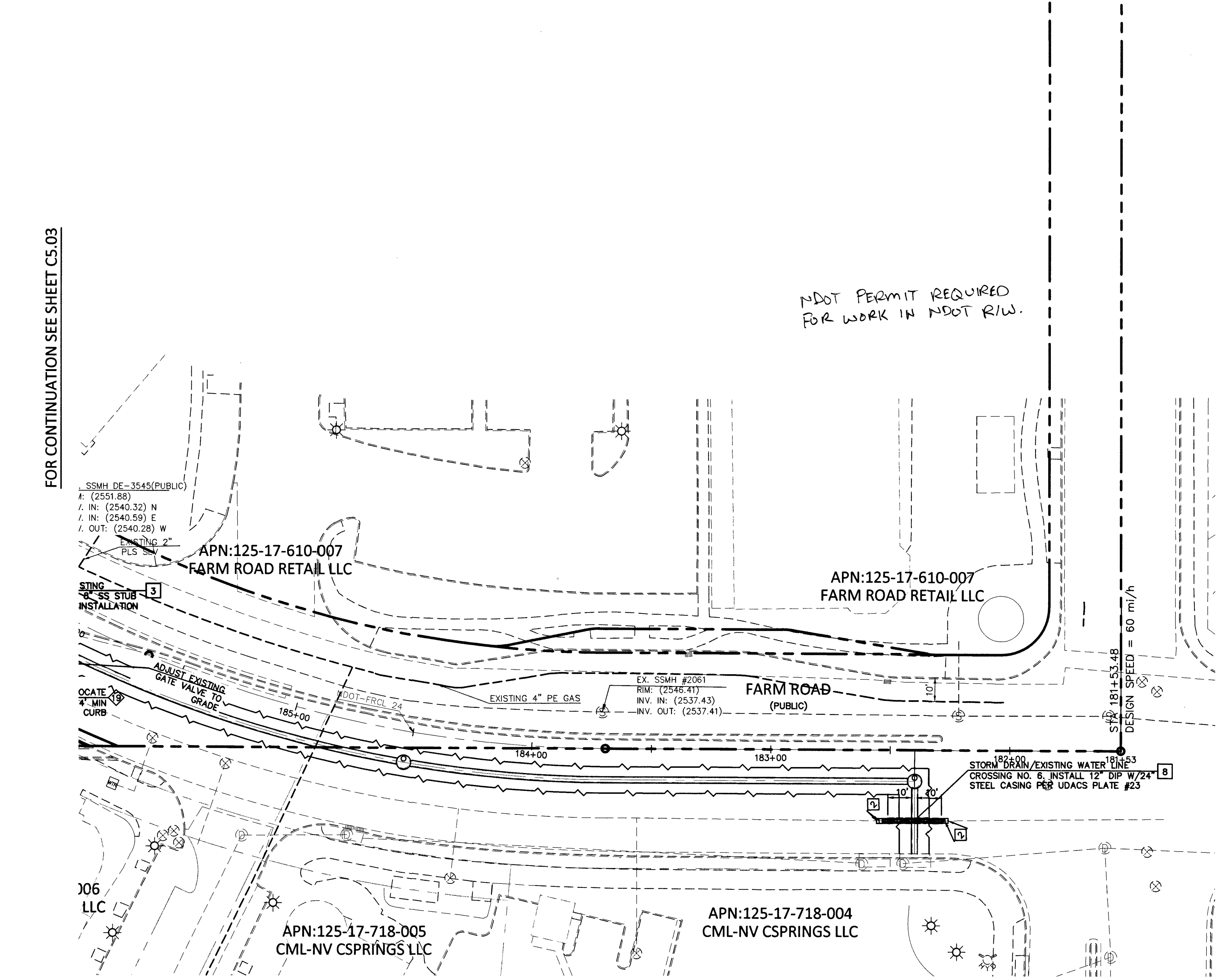
NO.	ITEM	*SS STD PER DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS
1	INSTALL PVC SEWER LINE (SDR-35) PER DCSWCS, DWG. No. SD-15, DWG. No. SD-17. (PAVED AREA)	
2	INSTALL WYE PER DCSWCS DWG. NO. SD-22 AND DETAIL 'U' SHEET C8.01.	
3	REMOVE EXISTING CAP AND CONNECT TO EXISTING SEWER MAIN.	
4	INSTALL 48" SSMH PER SD1-A, SD1B AND SD-4.	
5	POINT OF CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION AND USE.	
6	INSTALL 60" SSMH PER SD-1A, SD-1B AND SD-4.	
7	INSTALL 6" CLEAN-OUT PER DCSWCS DWG. NO. SD-26	
8	STORM DRAIN/EXIST. WATER LINE CROSSING. PER UDACS PLATE NO. 21 SEE SHEET C5.05	
9	INSTALL SEWER BACK WATER VALVE SAME SIZE AS LINE SHOWN.	

BUILDING F

FIRE FLOW INFORMATION BLOCK	
USE/OCCUPANCY	M/A-2
TYPE OF CONSTRUCTION	V-B
FIRE FLOW	1500 GPM @ 20 PSI
AUTOMATIC FIRE SPRINKLERS	X YES/NO
NFPA 13 X 13R	130
ESFR	YES/NO X
SQUARE FOOTAGE	11,245
LARGEST AREA BETWEEN 4 HOUR WALLS	NO
BUILDING HEIGHT	30'
# OF STORIES INCLUDING BASEMENT	1
HIGH PILED COMBUSTIBLE STORAGE	YES/NO X
# OF HYDRANTS INSTALLED	2

[Signature]
LAS VEGAS FIRE & RESCUE
DATE: 10/6/16

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 10/24/16 PROJECT NO: 124863
LVWD APPROVED FIRE FLOW: 1245 GPM AT 20 PSI RESIDUAL
SHEETS: C1.01, C1.02, C4.05-C4.09, C4.10, C4.11, C4.12, C4.13, C5.01, C5.02, C5.03, C5.04, C5.05, C5.06, C5.07, C5.08, C5.09, C5.10, C5.11, C5.12



CALL BEFORE YOU DIG
AVOID HITTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

CALL BEFORE YOU DO OVERHEAD WORK
AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

Call 811
1-800-227-2600

Call 1-702-432-5300
FOR ALL UTILITY LOCATIONS

Call 1-702-227-2929
FOR ALL UTILITY LOCATIONS

COLLINS ENGINEERS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

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