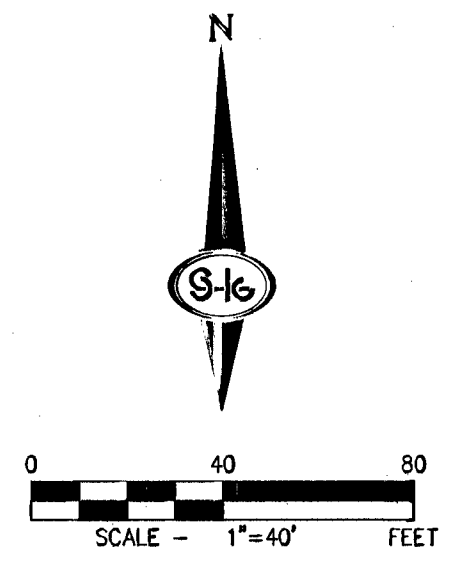
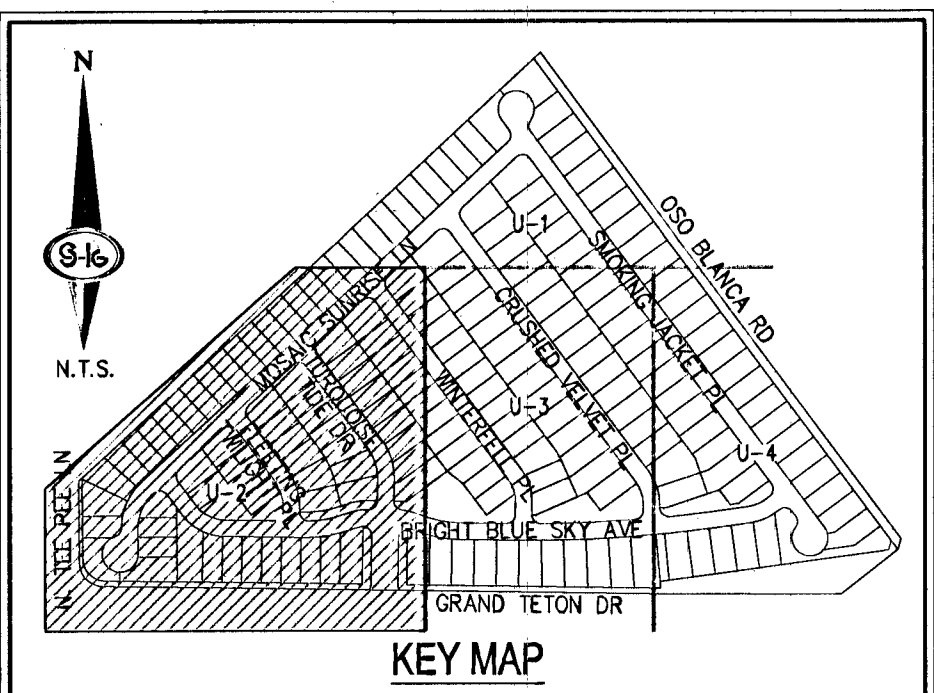


MH #	STREET NAME	STREET STA	RIM ELEV	INV. THRU
EX. SDHM #1	GRAND TETON DR	09+42.39	2721.6	2706.28
EX. SDHM #2	GRAND TETON DR	13+30.62	2708.4	2694.94
EX. SDHM #3	GRAND TETON DR	17+32.21	2696.8	2683.21
EX. SDHM #4	GRAND TETON DR	21+30.05	2678.5	2669.20
EX. SDHM #5	GRAND TETON DR	24+19.09	2673.2	2659.57
EX. SDHM #6	GRAND TETON DR	25+64.10	2671.8	2657.79



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

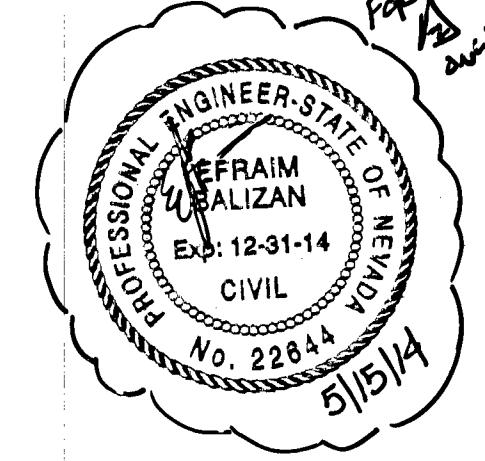
GENERAL NOTES

- REPLACE ALL TRAFFIC CONTROL DEVICES (SIGNS AND/OR PAVEMENT 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.
- IN THE EVENT THAT THE TRAFFIC SIGNAL CONDUITS, LOOP DETECTORS OR ASSOCIATED EQUIPMENT ARE DAMAGED BY CONTRACTOR, THE CONTRACTOR WILL HIRE AN INSA LEVEL II ELECTRICAL CONTRACTOR TO MAKE REPAIRS PER UNIFORM SPECIFICATION NO. 623.01.02.
- 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.
- 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.
- FITTINGS SHALL NOT FALL UNDER CURBS, GUTTERS OR SIDEWALK.

- WATER NOTES**
- 6" PVC WATER PIPE (2860 MP2)
 - 8" PVC WATER PIPE (2860 MP2)
 - 8" DIP WATER PIPE (CLASS 53)
 - 8" x 8" TEE PER UDACS PLATE NO. 31
 - 8" x 8" TEE PER UDACS PLATE NO. 31
 - 10" x 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS PLATE NO. 34, 39, & UDACS SECTION 2.24.01A
 - 12" x 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS PLATE NO. 34, 39, & UDACS SECTION 2.24.01B
 - 1 DEGREE MAXIMUM JOINT DEFLECTION PER UDACS SECTION 2.07.01
 - 5 DEGREE BEND WITH RESTRAINED JOINTS
 - 11.25 DEGREE BEND PER UDACS PLATE NO. 31
 - 22.5 DEGREE BEND PER UDACS PLATE NO. 31
 - 85° REDUCER PER UDACS PLATE NO. 30
 - 8" GATE VALVE WITH VALVE BOX PER UDACS PLATE NO. 30
 - CAP AND 2" BLOW-OFF VALVE PER UDACS PLATE NO. 36
 - FIRE HYDRANT ASSEMBLY W/ 8" GATE VALVE PER UDACS PLATE NO. 36
 - INSTALL BLUE REFLECTIVE RAISED PAVEMENT MARKERS
 - 1" COPPER SERVICE W/ 3/4" METER PER UDACS
 - 1" COPPER SERVICE W/ 1" IRRIGATION METER AND 1" RPPA PER UDACS PLATE NO. 4 & 8 (BRASS BETWEEN METER AND RPPA)
 - POINT OF CURVATURE OF WATER MAIN USING 1" JOINT DEFLECTIONS PER UDACS SECTION 2.07.01
 - 45 DEGREE BEND PER UDACS PLATE NO. 31
 - 90 DEGREE BEND PER UDACS PLATE NO. 31

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



DISCLAIMER NOTE
 EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL 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 (DIP. 4" - 12")
 DIP PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE (2.5) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 415' (8' SEC)/460' (20' SEC), PER UDACS 2.07.03.
 FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA)
 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 LVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENTS(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 (DIP. 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.

APPROVED FOR CONSTRUCTION
 [Signature]
 LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
 DATE 07/17/13 PROJECT NO. 121258
 LVWD APPROVED FIRE FLOW 1750 GPM AT 20 PSI RESIDUAL

ESTIMATED AVERAGE DAILY SEWER CONTRIBUTIONS
 183 UNITS X 250 GPD/UNIT = 45,750 GPD
 TOTAL AVERAGE CONTRIBUTION = 45,750 GPD = 0.04575 MGD
 TOTAL PEAK FLOW = 0.04575 MGD X 3.5 (PEAK FACTOR) = 0.16013 MGD

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

FIRE FLOW CALCULATIONS

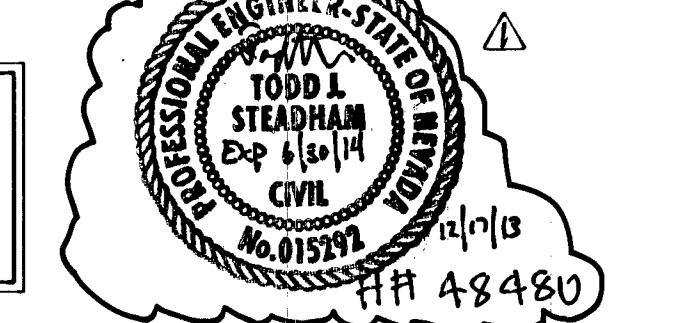
FIRE FLOW REQUIREMENT IS 1750 GALLONS PER MINUTE AT 20 P.S.I. RESIDUAL PRESSURE.

USE/OCCUPANCY	SINGLE FAMILY
TYPE OF CONSTRUCTION (IBC)	TYPE V-B
AUTOMATIC FIRE SPRINKLERS	NO
SQUARE FOOTAGE	4800
LARGEST AREA BETWEEN 4 HOUR WALLS	N/A
BUILDING HEIGHT	<35
NO OF STORES INCLUDING BASEMENT	2
HIGH PILED COMBUSTIBLE STORAGE	NO
NO OF HYDRANTS INSTALLED	12

BENCHMARK
 RIVET & PLATE ON NORTHEAST CORNER OF HEADWALL ON THE WEST SIDE OF BLANCA RD. 200' SSE OF FORT APACHE & RACKEL, 7/15/08W/W
 NAVD 88 ELEV=814.651 METERS=2672.3 FEET

BASIS OF BEARING
 NORTH 001°48'23" WEST, BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF THE SOUTHWEST QUARTER (SE1/4) OF SECTION 7, TOWNSHIP 19 SOUTH, RANGE 60 EAST, MERIDIAN CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN BY MAP THEREOF IN BOOK 122, PAGE 37 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, NEVADA.

APPROVAL
 [Signature]
 LAS VEGAS FIRE AND RESCUE
 DATE 7/16/13



SLATER HANIFAN GROUP
 CONSULTING ENGINEERS & PLANNERS
 5740 S. ARVILLE STREET #216, LAS VEGAS, NV 89118
 PHONE (702) 284-5500 FAX (702) 284-5389

NO.	DESCRIPTION	DATE	BY	APP.	VER.
1	UPDATE SEWER CHECK VALVE LEG. & ADD LEG. FOR NEW UNDERGROUND	10/21/13	DRH		
2	REVISED STREET LIGHT	5/17/14	DRH		

DR. HORTON
 GRAND TETON AND TEE PEE
 UTILITY PLAN II

DATE: 04/09/13
 DRAFTER: DSP
 DESIGNER: DSP
 CHECKED: DJP
 PROJECT NO.
DRH1213-000

U-2
 SHEET 40 OF 47
 10744986