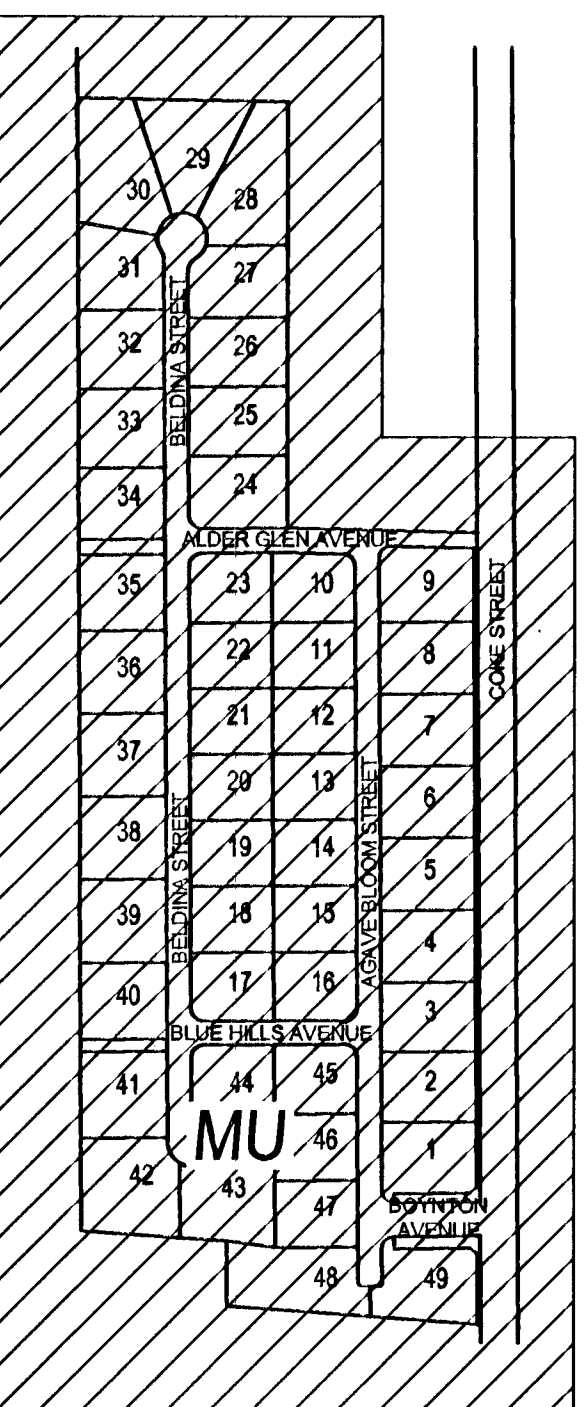


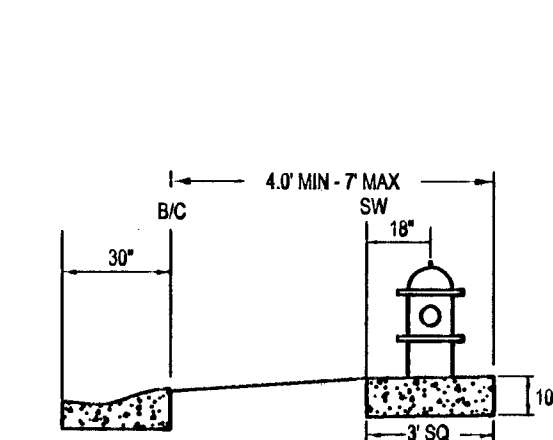
KEY MAP



UTILITY NOTES

- ALL WATER FACILITIES CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS), LATEST EDITION.
- FIRE, WATER, AND SEWER SERVICES, AS APPROVED ON THIS PLAN, ARE INTENDED SPECIFICALLY FOR THE LOT AND USE SHOWN, AND ARE NOT INTENDED TO SERVICE ADDITIONAL PARCELS OR STRUCTURES WHICH MAY BE CREATED IN THE FUTURE. IN THE EVENT THAT THE PARCELS AND/OR LOTS SHOWN ON THIS PLAN ARE FURTHER DIVIDED TO CREATE ADDITIONAL PARCELS OR LOTS, THE OWNER IS REQUIRED TO PROVIDE SEPARATE FIRE, WATER, & SEWER SERVICES TO EACH.
- WATER AND SEWER LATERALS SHALL BE INSTALLED A MINIMUM OF 48" APART IN SEPARATE TRENCHES. WATER LATERALS SHALL BE A MINIMUM OF 12" ABOVE THE SEWER LATERAL. (REF. UDACS SECTION 2.22.03)
- LOCATOR WIRE SHALL BE USED FOR ALL SERVICE LATERALS NOT PERPENDICULAR TO THE MAIN. (TYPICAL)
- ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS" (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
- ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENTS HAVE BEEN OBTAINED FROM THE OFFSITE OWNER AND GIVEN TO CLARK COUNTY.
- ALL ONSITE STREETS AND DRAINAGE EASEMENTS ARE TO BE PRIVATELY OWNED AND MAINTAINED.
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING. (UDACS PLT. 15)

FIRE HYDRANT DETAIL



RPPA NOTES (2) 1"

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE 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.

LVVWD NOTES

THE DISTRICT CANNOT GUARANTEE A WATERTIGHT SHUT DOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPEDE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

MAINTAIN A MIN. 3' OF HORIZONTAL CLEARANCE FROM WATER MAINS AND DRY UTILITIES PER UDACS SECTION 2.04.02.

MAINTAIN MIN. 12" OF VERTICAL CLEARANCE BETWEEN WATER MAINS AND DRY UTILITIES PER UDACS SECTION 2.04.08.

MAINTAIN MIN. 6" OF VERTICAL CLEARANCE BETWEEN WATER LATERALS AND DRY UTILITIES PER UDACS SECTION 2.04.08.

CONSTRUCTION NOTES

- 1" COPPER WATER SERVICE W/ 3/4" METER (UDACS PLT. 4)
- 4" SEWER LATERAL WITH MARKER BALL & CURB MARKING (UDACS PLT. 40)
- 1" IRRIGATION METER W/ 1" RPPA (UDACS PLT. 4 AND 8)
- 8" X 8" WATERLINE TEE (UDACS PLT. 31)
- 8" 90° WATERLINE BEND (UDACS PLT. 31)
- 8" GATE VALVE (UDACS PLT. 39 AND 39)
- INSTALL END CAP & 2" BLOW-OFF ASSEMBLY (UDACS PLT. 36)
- REMOVE EXISTING STUB AND BLOW-OFF AND CONNECT TO EXISTING 8" WATERLINE (UDACS PLT. 36)
- 8" 11 25' WATERLINE BEND (UDACS PLT. 31)
- 8" X 8" REDUCER (UDACS PLT. 30)
- INSTALL 24" X 8" TAPPING SLEEVE WITH 8" TAPPING VALVE PER UDACS 2.24.01.8 AND PLATE #34
- 48" MANHOLE, GRADE RING COLLAR AND LID (DCSWCS SD-1 TO SD-5)
- EXISTING STRUCTURES TO BE REMOVED
- 8" X 8" WATERLINE TEE (UDACS PLT. 31)
- INSTALL 8" X 8" TAPPING SLEEVE WITH 8" TAPPING VALVE (UDACS 2.24.01.8 AND PLATE #34)
- 8" 22.5' WATERLINE BEND (UDACS PLT. 31)
- 4" C900 SEWER LATERAL WITH MARKER BALL & CURB MARKING (DCSWCS SD-2)
- 8" 45' WATERLINE BEND (UDACS PLT. 31)
- 8" 90° WATERLINE BEND (UDACS PLT. 31)
- SEWER MANHOLE TO BE CONSTRUCTED WITH WATER QUALITY JOINTS (UDACS 2.22.03.02)
- REMOVE EXISTING SEWER STUB
- 8" 45' VERTICAL WATERLINE BEND (UDACS PLT. 31)

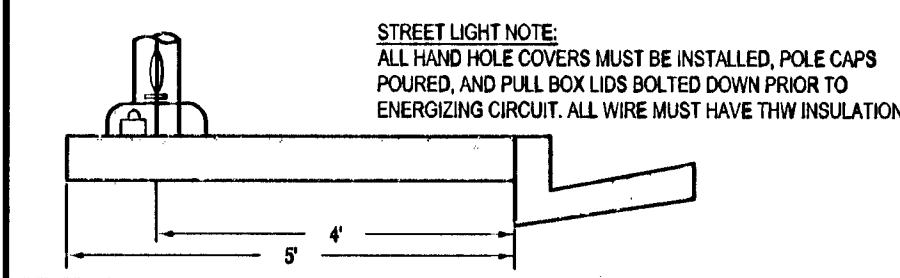
EASEMENTS

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 VALVE(S), BACKFLOW ASSEMBLIES, AND PIPING FROM THE ADJACENT RIGHT-OF-WAY.

UTILITY BOXES

PER TITLE 19.08 & 19.09 ALL ABOVE-GROUND UTILITY BOXES AND APPURTENANCES SHALL BE FULLY SCREENED FROM ALL RIGHTS-OF-WAY.

STREETLIGHT LOCATION

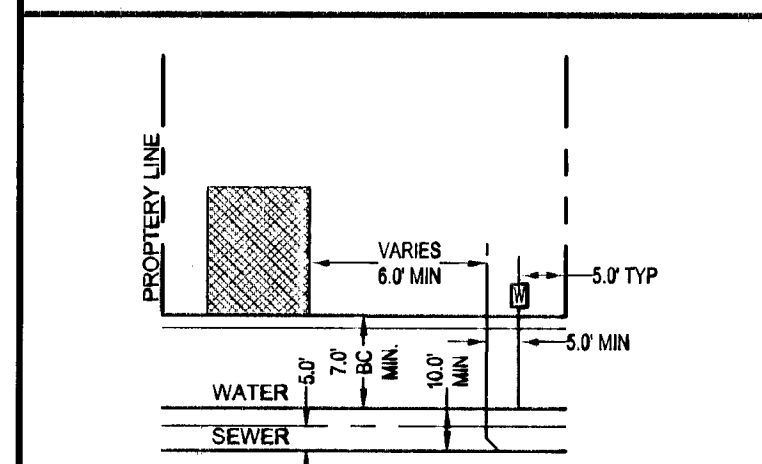


WASTEWATER CALCULATIONS

FACILITY TYPE: SINGLE FAMILY RESIDENTIAL
TOTAL UNITS AT BUILD OUT: 49 HOUSES

AVERAGE FLOW (MGD) = 0.0121
PEAK FLOW (MGD) = 0.0424
CALCULATION:
AVG FLOW = 49 X (90,000/365) X (1/1,000,000) = 0.0121 MGD
PEAK FLOW = 0.0121 X 3.5 = 0.0424 MGD

TYPICAL LATERAL LAYOUT



WATER MAIN JOINT DEFLECTION

PVC 4" I-2
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MAXIMUM 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, FITTING SHALL BE USED.

FIRE FLOW CALCULATIONS

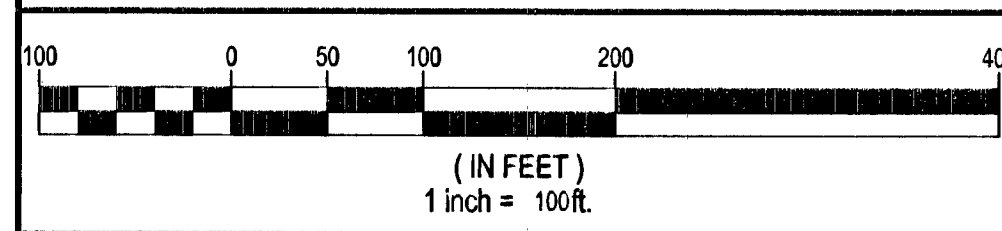
FIRE FLOW REQUIREMENT IS 1,750 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL.

BASED ON:
SQUARE FOOTAGE: 4,410 SQ FT
LARGEST AREA BETWEEN SEPARATE WALLS: N/A
HEIGHT: 24'
TYPE OF CONSTRUCTION: IBC-V-B
ROOF CONSTRUCTION: TILE
STORIES: 1
ESFR SYSTEM: NO
SPRINKLER SYSTEM: NO
HIGH PILED COMBUSTIBLE STORAGE: NO

UTILITY DISCLAIMER NOTE

EXISTING UTILITY LOCATIONS SHOWN HEREIN 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 OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATIONS. CALL BEFORE YOU DIG: 1-800-227-2600
CALL BEFORE YOU OVERHEAD: 1-702-227-2929

SCALE



LEGAL DESCRIPTION

SOUTHEAST QUARTER (SE 1/4) OF SECTION 9, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M. CLARK COUNTY, NEVADA.

BASIS OF BEARINGS

SOUTH 89°22'27" EAST, BEING THE BEARING OF THE NORTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 9, TOWNSHIP 19 SOUTH, RANGE 60 EAST, AS SHOWN BY MAP THEREOF ON FILE IN BOOK 118, PAGE 40 OF PLATS IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA.

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL POINT "BLV90 SE4", BEING A CITY OF LAS VEGAS RIVET AND ROUND PLATE IN TOP OF CURB ON THE EAST SIDE OF COKE STREET, 35.1 MILES NORTH-EAST OF P.L. OF HORSE DRIVE AND COKE STREET
ELEVATION: 2437.32 (FEET)
742.897 (METERS)

VERTICAL CONTROL BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

APPROVAL BLOCK

APPROVED FOR CONSTRUCTION

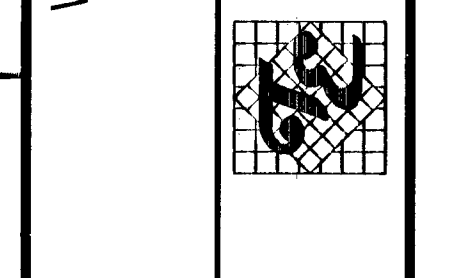
Drashheads 12/22/14 DATE
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
LVVWD APPROVED FIRE FLOW 1,750 GPM AT 20 PSI RESIDUAL

R. Miller 12/3/14 DATE
LAS VEGAS FIRE DEPARTMENT
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW = 1,750 G.P.M. AT 20 PSI RESIDUAL.

NO.	DESCRIPTION	DATE	APPR.	SHTS.

WILLIAM LYON HOMES
500 PILOT ROAD, STE. 40
LAS VEGAS, NV 89119
(702) 263-3000 FAX: (702) 263-3020

TANEY ENGINEERING
6800 S. JONES BLVD STE 100
LAS VEGAS, NV 89118
(702) 362-8844 FAX: (702) 362-8833



HORSE AND COKE
A RESIDENTIAL SUBDIVISION
MASTER UTILITY PLAN

DATE: 12/3/14
SCALE: 1"=100'
JOB NO: WLL-07-054
DESIGNED BY: AKE
CHECKED BY: RRC
SHEET NAME: MU
SHEET: 21 OF 29
HTE # 10715018
CLV # 55549

Underground
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS
1-702-229-6611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

Call Before You Dig
YOU DO IT YOURSELF.
CALL
1-800-227-2600
AND
CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-6000

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