

**CITY OF LAS VEGAS FIRE NOTES**

- All work shall be done in strict accordance with the City of Las Vegas Fire Department's Ordinance # 5115, "Hydrant Specifications"; and "Hydrant Installation Specification".
- Authorized hydrants for this project are:  
A. Kennedy Guardian  
B. Mueller A-423 Cantorian  
C. Clear model 2046 Medallion
- On any residential or commercial installations fire hydrants shall be installed and fire apparatus access roads shall be maintained before commencement of any combustible construction. All fire hydrants shall be in good working order and shall be capable of delivering the required fire flow.
- To identify the fire hydrant locations, contractor shall place a blue reflective marker at the center line of street adjacent to the fire hydrants as required by Ordinance #5115.
- All underground inspections, pressure and flush verifications of all fire hydrants and fire lines, shall be conducted before covering the lines. Call the City of Las Vegas Inspection Hot-Line at 233-2071 to request an inspection by the City of Las Vegas Fire Department.
- Painting of the curbs and fire hydrants and all other work necessary as required by Ordinance # 5115, for the protection of fire hydrants from physical damage, shall be completed before approved by the City of Las Vegas Fire Department.
- A permit is required from the City of Las Vegas Fire Department for the on-site water lines and fire hydrants. The permit and contractor's material and test certificate for underground piping form shall be obtained from the Fire Protection Engineer before commencement of work.
- Private fire hydrants shall be painted red.
- Prior to the final occupancy, a flow test must be witnessed by the City of Las Vegas Fire Department to verify adequacy of the required fire flow.
- All on-site underground water mains and materials shall be U.L. listed, A.W.W.A. approved, and shall be rated for the appropriate working pressure.
- Fire hydrant spacing shall be:  
Residential - 500 feet un-sprinklered; 1,000 feet sprinklered.  
Commercial - 300 feet un-sprinklered; 600 feet sprinklered.
- Where new water mains are extended along streets where fire hydrants are not needed for protection of the structures, fire hydrants shall be installed at maximum 1,000 foot spacing, to provide for transportation hazards.
- No fire hydrants shall be located within the required radius of a cut-de-sac or within 20 feet of the perimeter of the radius of the cut-de-sac.
- No fire hydrants shall be located within 6 feet of any curb return, driveway, power pole, street light or any other obstruction.
- The maximum distance from a fire hydrant to the end of a dead-end street shall not exceed 200 feet.
- The maximum distance from a fire hydrant to a Fire Department Connection (FDC) shall not exceed 100 feet, as measured by an approved route.
- Two sources of supply are required whenever there are 4 or more fire hydrants/sprinkler head-ins are installed on a single system.
- Sectional control valves shall be installed so that no more than 2 fire hydrants can be out of service due to a break in a water main.
- All fire apparatus access roads shall have an unobstructed width of not less than 20 feet (flow line to the flow line), provided no parking is allowed on either side, 28 feet (flow line to the flow line) if parallel parking is allowed on one side only; and 36 feet (flow line to the flow line) if parallel parking is allowed on both sides. Vertical clearance shall be not less than 13 feet 8 inches.
- All fire apparatus access roads shall be paved to provide all-weather driving capabilities, and shall be designed and maintained to support the imposed loads of the fire apparatus.
- The gradient for a fire apparatus access roads shall not exceed 12% angles of approach and angles of departure shall not exceed 4% for 25 feet prior to or after the grade change.
- The turning radius of a fire apparatus access roads shall be no less than 45 feet outside and 22 feet inside turning radius.
- A fire apparatus access road shall be required when any portion of an exterior wall of the first story is located more than 150 feet from a fire department vehicle access (See Exceptions in UFC 97, Section 902.2).
- All dead-end fire apparatus access roads and/or fire lanes, public or private, in excess of 150 feet in length shall be provided with an approved turn around area having a minimum diameter of 81 feet (back of the curb to the back of the curb).
- All fire apparatus access roads shall be marked by placing approved signs at the start of the designated fire lane, one sign at the end of the fire lane and with signs at intervals 100 feet along all designated fire lanes. Signs to be placed on both sides of an access roadway if needed to prevent parking on either side. Signs to be installed no higher than 10 feet or less than 6 feet from roadway level. The curbs along or on the pavement or cement if curb is not provided shall be painted with a red weather resistant paint in addition to the signs.
- Electrically controlled access gates shall be provided with an approved emergency vehicle detector/detector/actuator system. Said system shall be installed in accordance with the City of Las Vegas guidelines for Automatic Emergency Vehicle Access Gates.

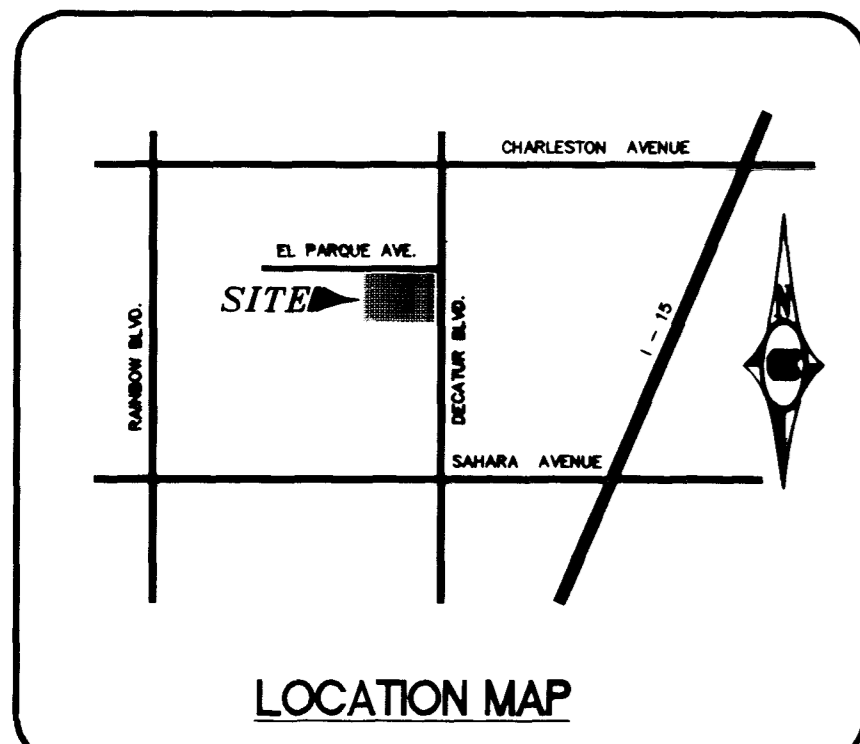
DECATUR BOULEVARD

**L.V.V.W.D. STANDARD NOTES**

- No work shall begin until the water plans have been released for construction by the LVVWD. Following water plan approval, forty-eight (48) hour notice shall be given to the LVVWD Communication Support Center (258-7171) prior to the start of construction. Notice must be given by 2:00 P.M. the business day prior to a LVVWD inspection.
- All work shall conform to LVVWD standard plates, drawing, and specifications and the Uniform Design and Construction Standards for Water Distribution Systems (UDACS), latest edition.
- All work, except as modified by these plans or by note 2, shall be done in accordance with the most current draft or edition of the Uniform Standard Specifications for Public Works Construction Off-Site Improvements, Clark County Area.
- A single pipe material shall be used throughout the project, unless otherwise approved by the LVVWD.
- All service laterals two inches (2") in diameter and smaller shall be copper tubing with LVVWD approved service saddles.
- All water meter boxes shall be located outside of driveway areas.
- All valves shall be located outside of driveways, gutters, curbs and alley gutters.
- The following requirements must be met in the event a water line and a sanitary sewer or storm sewer line cross:  
A. A minimum eighteen inch (18") vertical separation (outside to outside) must be maintained when the water line is installed over the sanitary or storm sewer line. If the vertical separation cannot be maintained or the water line must be placed under the sanitary or storm sewer line, the sanitary or storm sewer line must be constructed with one of the following or, as shown on these plans.  
B. Potable water supply quality material  
C. Encasement, with four inch (4") concrete (minimum)  
D. Sleeving with potable water supply quality pipe.  
Each provision must extend along the sanitary or storm sewer, on either side of the water main, a minimum ten foot (10') distance perpendicular to the exterior of main.
- Warning tape shall be required over all mains, all six inch (6") diameter and larger service laterals, and any service lateral not installed perpendicular to the main in accordance with Standard Plate No. 27.
- All water facilities shall be filled, disinfected, pressure tested, flushed, filled and an acceptable water sample obtained prior to connection to the LVVWD's Distribution System.
- The Contractor must obtain all meters two inches (2") and smaller from LVVWD Central Stores. Telephone 258-3152 forty-eight (48) hours prior to pick-up.
- Construction may interrupt service, with LVVWD approval and proper notification, between the hours of 10:00 P.M. and 6:00 A.M. Sunday through Thursday. Circumstances that may require temporary service feed must have prior LVVWD approval.
- All water facility construction materials used must be as listed on the LVVWD's pre-approved materials and manufacturers listing for new facilities, latest revision or specifically approved on these plans.

**CLV GENERAL NOTES**

- All construction and materials shall be in accordance with the "Uniform Standard Specifications for Public Works Construction Off-Site Improvements, Clark County Area Nevada", latest issue, the "Uniform Standard Drawings for Public Works Construction, Clark County Area Nevada", latest edition, and other applicable approved standards issued by the controlling agency, the Uniform Building Code, and all local city codes and ordinances applicable, except as noted on this sheet as "Deviations from Standards".
- The existence and location of any overhead or underground utility lines, pipes, or structures shown on these plans are obtained by a research of the available records. Existing utilities are shown on plans only for the convenience of the Contractor. Existing utility service laterals may not be shown on the plans. The Contractor shall, at his own expense, locate all underground and overhead interference which may affect his operation during construction and shall take all necessary precautions to avoid damage to same. The Contractor shall use extreme caution when working near overhead utilities so as to safely protect all personnel and equipment, and shall be responsible for all cost and liability in connection therewith.
- The Contractor shall take all precautionary measures necessary to protect existing utility lines, structures and street improvements which are to remain in place, from damage, and all such improvements or structures damaged by the Contractor's operations shall be repaired or replaced satisfactory to the City Engineer and owning utility company at the expense of the Contractor.
- All construction shall be as shown on these plans, any revisions shall have the prior written approval of the City Engineer.
- Type V cement shall be used in all off-site concrete work. Concrete to be 3000 P.S.I. minimum @ 28 days. Mix design to be approved by the City Engineer, prior to the use on the project.
- Permits are required for any work in the public Right-of-way. The Contractor shall secure all permits and inspections required for this construction.
- Expansion joints required, maximum every 300' in extruded-type curb.
- AC pavement to be on-half inch (1/2") above lip of all gutters after compaction, except at sidewalk ramps and cross gutters.
- Curb and gutter found to be unacceptable to the City of Las Vegas shall be removed and replaced per standard drawing 216.
- Sidewalk ramps shall be constructed in each quadrant of an intersection per standard drawing 235. Exact location of ramps may be adjusted in the field by a City Inspector.
- Contractor shall provide all necessary horizontal and vertical transitions between new construction and existing surfaces to provide for proper drainage and for ingress and egress to new construction. The extent of transitions to be as shown on plans.
- All grading work shall conform to the soils report as prepared by the Soils Engineer approved by the City Engineer, and as shown on these plans.
- Exact location of all sewer lines may be adjusted or determined in the field by a City of Las Vegas Engineer if location on plans is not clearly shown, or existing pavement condition requires relocations.
- The Contractor shall take all precautions necessary to protect existing permanent survey monuments. Any monuments disturbed shall be replaced and adjusted per available records in accordance with N.R.S. Statute No. 625.550.
- Utility company meter boxes, manhole lids, valve covers, etc., shall be located out of driveways, driveway aprons, flowlines, and cross gutters unless written approval is granted by the utility company and the City Engineer.
- All walls, new or existing, are only shown on civil plans for the purpose of reviewing grading relationships, flood control and sight distance at intersections. New walls require Building Permit & Building Inspection.
- Asphalt mix design must be submitted and approved by the City Engineer prior to the placement of asphalt within city Right of Way.
- Contractor shall adjust all new and existing inlets, valve boxes, manhole rims, and sewer clean outs, etc. to finish grade as applicable whether or not they are shown on the plans.
- Materials, handling and placement of Portland Cement Concrete shall be in accordance with applicable sections of NDOT or the Clark County Area Specifications (as applicable) and the plans and details shown hereon.



**Call before you Dig**  
1-800-227-2600

**Call before you Overhead**  
593-6111

**BENCHMARK**  
CITY OF LAS VEGAS BENCHMARK NO. 1LV10/1E4 BEING A RIVET AND PLATE IN TOP OF CURB, SW RETURN OAKLEY BLVD. AND DECATUR BLVD.  
ELEVATION: 2218.89 FEET, OR 676.3186 METERS. N.A.V.D. 1988

**BASIS OF BEARING**  
NORTH 00°07'00" WEST BEING THE EAST LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 21 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, AS SHOWN ON A MAP IN FILE 30, PAGE 66 OF SURVEYS ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA, SAID LINE ALSO BEING THE CENTERLINE OF DECATUR BOULEVARD.

FIRE FLOW CALCULATIONS	
DESCRIPTION	EXISTING CAR SALES BUILDING
TYPE OF CONSTRUCTION	Y-N
NO. OF STORIES	2 STORY
TOTAL FLOOR AREA (SQ.FT.)	19,800 SF
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS	19,800 SF
BUILDING HEIGHT	25 FEET
FULL AUTOMATIC FIRE SPRINKLER SYSTEM	YES W/ REMODEL
FIRE FLOW @ 20 PSI RESIDUAL	1,875 GPM W/ SPRINKLERS
ESTIMATED FIRE LINE FLOW	1,000 GPM FOR SPRINKLERS ONLY
OCCUPANCY	

REVIEWED & VERIFIED BY: *[Signature]* DATE: 5-12-99  
LAS VEGAS FIRE DEPARTMENT APPROVAL FOR FIRE LINE ONLY\*

**INSTALLATION OF DOUBLE CHECK DETECTOR ASSEMBLY (1) 6"**  
THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE 20B.  
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 TO THE VAULT(S) FROM THE ADJACENT RIGHT-OF-WAY.

**CONSTRUCTION NOTES**

- INSTALL 4" WHITE DIAGONAL STRIPING
- INSTALL HANDICAP SYMBOL
- REMOVE EXISTING CURBING
- CONSTRUCT 4" CONCRETE WALKWAY MATCH EXISTING SIDEWALK AND AC PAVEMENT

**REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"**  
APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A OR 11B. 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 DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 P.S.I. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 P.S.I. PRVs ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.

- WATER CONSTRUCTION NOTES**
- 6" x 6" MJ TAPPING TEE W/ TAPPING VALVE
  - 6" DCDA PER UDS PLATE #20B, FEBCO "N" PATTERN OR APPROVED EQUAL
  - 6" 90° BEND
  - FRPA
  - 16' x 10' LVVWD EASEMENT
  - EXISTING FIRE HYDRANT

**APPROVED FOR CONSTRUCTION**  
*[Signature]* 5/14/99  
LAS VEGAS VALLEY WATER DISTRICT DATE

**APPROVALS**  
CITY OF LAS VEGAS FIRE MARSHAL  
FIRE LINE FLOW - 1000 GPM @ 20 PSI RESIDUAL  
APPROVAL OF FIRE LINE ONLY  
*[Signature]* 5-20-99  
CITY PLANNING ENGINEER DATE

APPROVAL OF THESE PLANS IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHT-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION ON ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS, EXCEPT THOSE SPECIFICALLY LISTED UNDER DEVIATIONS FROM STANDARD THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN DEVIATIONS FROM STANDARDS IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA.



DESERT VOLKSWAGON/AUDI DEALERSHIP

HANDICAP ACCESS AND FIRE LINE UTILITY PLAN

6665 Bermuda Road  
Las Vegas, NV 89119  
702-898-5400 Fax 702-898-5454

**Carter Burgess**  
Consultants in Planning, Engineering, Architecture, Construction Management, and Related Services

DRAWN BY: MSW  
DESIGNED BY: MSW  
CHECKED BY: MSW  
PROJECT NO: 98071  
SCALE: 1"=20' N/A  
SHEET 1 OF 1 SHEETS  
DRAWING NO: 107-V3081

