

FIRE DEPARTMENT NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS" AND "HYDRANT INSTALLATION SPECIFICATIONS," AND ORDINANCE # 3677.
- AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:
 - KENNEDY GUARDIAN
 - MUELLER A-423 CENTURIAN
 - CLOW MODEL 2546 MEDALLION
- ON ANY NEW HOME OR BUILDING INSTALLATION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.
- CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANT AS REQUIRED IN ORDINANCE #3677 TO IDENTIFY FIRE HYDRANT LOCATIONS.
- CALL THE LAS VEGAS BUILDING DEPARTMENT AT 229-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.
- PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER ORDINANCE #3677 SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.
- A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT. THE PERMIT AND CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.
- A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.
- ALL ON-SITE FIRE MAIN MATERIALS MUST BE UL LISTED AND AWWA APPROVED.
- FIRE HYDRANT SPACING:
 - RESIDENTIAL: 500 FEET UNSPRINKLERED, 600 FEET SPRINKLERED
 - COMMERCIAL, INCLUDING MULTIFAMILY: 500 FEET UNSPRINKLERED, 400 FEET SPRINKLERED
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20' OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT, OR ANY OTHER OBSTRUCTION.
- NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.
- THE TURNING RADIUS FOR ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS AND 22 FEET INSIDE RADIUS.
- A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS PLACED MORE THAN 50 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS. (SEE EXCEPTIONS IN UFG 91 SECTION 10203)
- ALL DRIVING AND FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE PUBLIC OR PRIVATE IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURNAROUND AREA. (SEE ORDINANCE #3677)
- ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE BITE FOR RELEASE SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF LAS VEGAS GUIDELINES FOR AUTOMATIC EMERGENCY VEHICLE ACCESS GATES.

LAS VEGAS FIRE DEPARTMENT

FIRE FLOW REQUIREMENT IS: 1,500 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL

BASED ON:	
SQUARE FOOTAGE	1,634+ SF
LARGEST AREA BETWEEN AREA SEPARATION WALLS	N/A
HEIGHT	TWO-STORY
TYPE OF CONSTRUCTION	TYPE 5
EXPOSURES	10' MIN
SPRINKLER SYSTEM	NONE
OCCUPANCY	SINGLE FAMILY
ROOF CONSTRUCTION	TILE

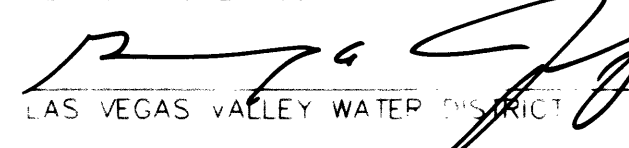
LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD FOLLOWING WATER PLAN APPROVAL. 48 HOUR NOTICE SHALL BE GIVEN TO THE LVVWD CUSTOMER SERVICE DEPARTMENT (258-1111) 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, DRAWINGS, AND SPECIFICATIONS, 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 OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
- A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
- ALL SERVICE LATERALS TWO (2) INCHES 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, VALLEY AND CURB GUTTERS.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATERLINE AND SANITARY OR STORM SEWER LINE CROSS:
 - MINIMUM EIGHTEEN (18) INCH VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) MUST BE MAINTAINED WHEN THE WATERLINE IS INSTALLED OVER THE SANITARY OR STORM SEWERLINE. IF THE VERTICAL SEPARATION CANNOT BE MAINTAINED OR THE WATERLINE MUST BE PLACED UNDER THE SANITARY OR STORM SEWERLINE, THE SANITARY OR STORM SEWERLINE MUST BE CONSTRUCTED WITH ONE OF THE FOLLOWING OR, AS SHOWN ON THESE PLANS:
 - POTABLE WATER SUPPLY QUALITY MATERIAL.
 - ENCASEMENT WITH FOUR (4) INCH CONCRETE (MINIMUM).
 - SHELLING WITH POTABLE WATER SUPPLY QUALITY PIPE.
 - FAH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE MAIN, A MINIMUM 10 FOOT DISTANCE PERPENDICULAR TO THE WATER MAIN EXTERIOR.
- WARNING TAPE SHALL BE REQUIRED OVER ALL MAINS, ALL SIX (6) INCH 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 (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY- EIGHT (48) HOURS PRIOR TO PICKUP.
- CONSTRUCTION MAY INTERRUPT SERVICE WITH LVVWD APPROVAL AND PROPER NOTIFICATION. BETWEEN THE HOURS OF 10 PM AND 6 AM, SUNDAY THROUGH THURSDAY, CIRCUMSTANCES MAY REQUIRE TEMPORARY SERVICE FEES BE INSTALLED, WITHOUT LVVWD REIMBURSEMENT. ANY TEMPORARY SERVICE FEES MUST HAVE PRIOR LVVWD APPROVAL.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

APPROVALS


 JAMES MARSHALL
 LAS VEGAS FIRE MARSHALL
 10-13-94
 DATE

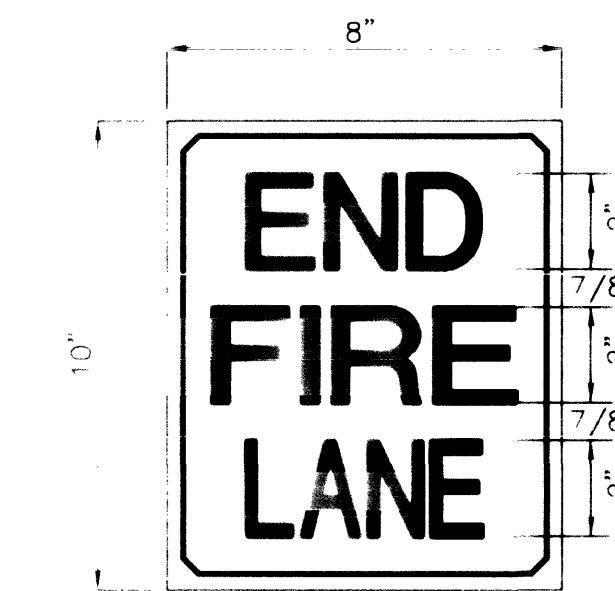

 CURT LAMBERT
 NEVADA POWER COMPANY
 10-16-94
 DATE


 [illegible]
 LAS VEGAS VALLEY WATER DISTRICT
 11/08/94
 DATE

PUBLIC TRAFFIC SIGN LEGEND & QUANTITIES

6" D-3 STREET NAME SIGN (STD. DWG. 250)	6 EA
STOP SIGN (R1-1)	2 EA
"END FIRE LANE" SIGN (SEE DETAIL BELOW)	17 EA
"ONE WAY" SIGN	1 EA

"END FIRE LANE" SIGN DETAIL



NOTE:

SIGN TO BE PLACED IN FRONT OF ISLAND IN SIX UNIT CLUSTERS ONLY (AS SHOWN ON PLANS). SIGN MUST BE KEPT CLEAR OF ALL OBSTRUCTION (IE. VEGETATION, ETC.)

ESTIMATE OF WATER QUANTITIES

PRIVATE	PUBLIC
8" WATERMAIN 3167 LF	8" WATERMAIN 290 LF
1" 1/2" WATERMAIN 5594 LF	6" WATERMAIN 29 EA
3" IRRIGATION LINE 117 LF	8" 90° BEND 2 EA
8" 45° BEND 3 EA	6" 90° BEND 1 EA
8" 22 1/2° BEND 16 EA	6" DOUBLE CHECK VALVE ASSEMBLY 2 EA
8" 11 1/4° BEND 4 EA	6" x 5" FMCT AND VAULT 2 EA
FIRE HYDRANT 12 EA	12" x 6" TAPPING SLEEVE AND VALVE 1 EA
8" x 8" TEE 3 EA	8" x 6" REDUCER 1 EA
8" GATE VALVES 9 EA	
8" 90° BEND 2 EA	
8" x 6" REDUCER 2 EA	

CLV SEWER NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA AS AMENDED. IN ALL CASES THESE STANDARDS SHALL SUPERSEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CONTROLLING AGENCY.
- CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATION, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II GRAVEL.
- ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.
- TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. SIZE. CONNECTIONS TO 15" OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.
- A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE NOT LESS THAN TEN FEET (10') TO EACH SIDE OF THE CENTERLINE OF THE WATER MAIN.
- ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.
- THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.10) OF A FOOT FROM THE APPROVED CONSTRUCTION PLANS. SEWER MAINS FOUND TO EXCEED THIS TOLERANCE WILL HAVE TO BE REMOVED AND REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO APPROVAL BY THE CITY.

UTILITY LEGEND

W	EXISTING WATER LINE	◇	"END FIRE LANE" SIGN
W	PROPOSED WATER LINE	◇	EXISTING 1" 1/4" PVC ST. LT. CONDUIT
⊕	EXISTING FIRE HYDRANT	◇	PROPOSED 1" 1/4" PVC ST. LT. CONDUIT
⊕	PROPOSED FIRE HYDRANT	•	250W HPS LUMINAIRE W/11 GA. POLE
⊕	GATE VALVE	•	200W HPS LUMINAIRE W/11 GA. POLE
⊕	REDUCER	•	EXISTING STREET LIGHT
⊕	EXISTING SEWER LINE	•	PROPOSED NO. 3-1/2 CONCRETE PULL BOX W/ METAL COVER
⊕	PROPOSED SEWER LINE	•	CONCRETE DRIVEWAY
⊕	PROPOSED SEWER LATERAL		
⊕	EXISTING SEWER MANHOLE		
⊕	PROPOSED SEWER MANHOLE		

FITTINGS LEGEND

1	8" GATE VALVE
2	STANDARD FIRE HYDRANT ASSEMBLY
3	8" TEE
4	8" 90° BEND
5	8" 45° BEND
6	8" 22 1/2° BEND
7	8" 11 1/4° BEND
8	8" x 12" VAULT
9	6" x 3" FMCT AND VAULT
10	W/ CHECK VALVE
11	6" SEWER CLEANOUT
12	SEE DET. 3/23 FOR IRR. CONNECTION POINT

BENCHMARK

RIVET AND PLATE IN TOP OF CURB, SOUTHWEST RETURN OF CHEYENNE AVENUE AND RAMPART BOULEVARD. CITY OF LAS VEGAS DATUM BENCH MARK NO. 0LV00 17NES = ELEVATION 2448.333

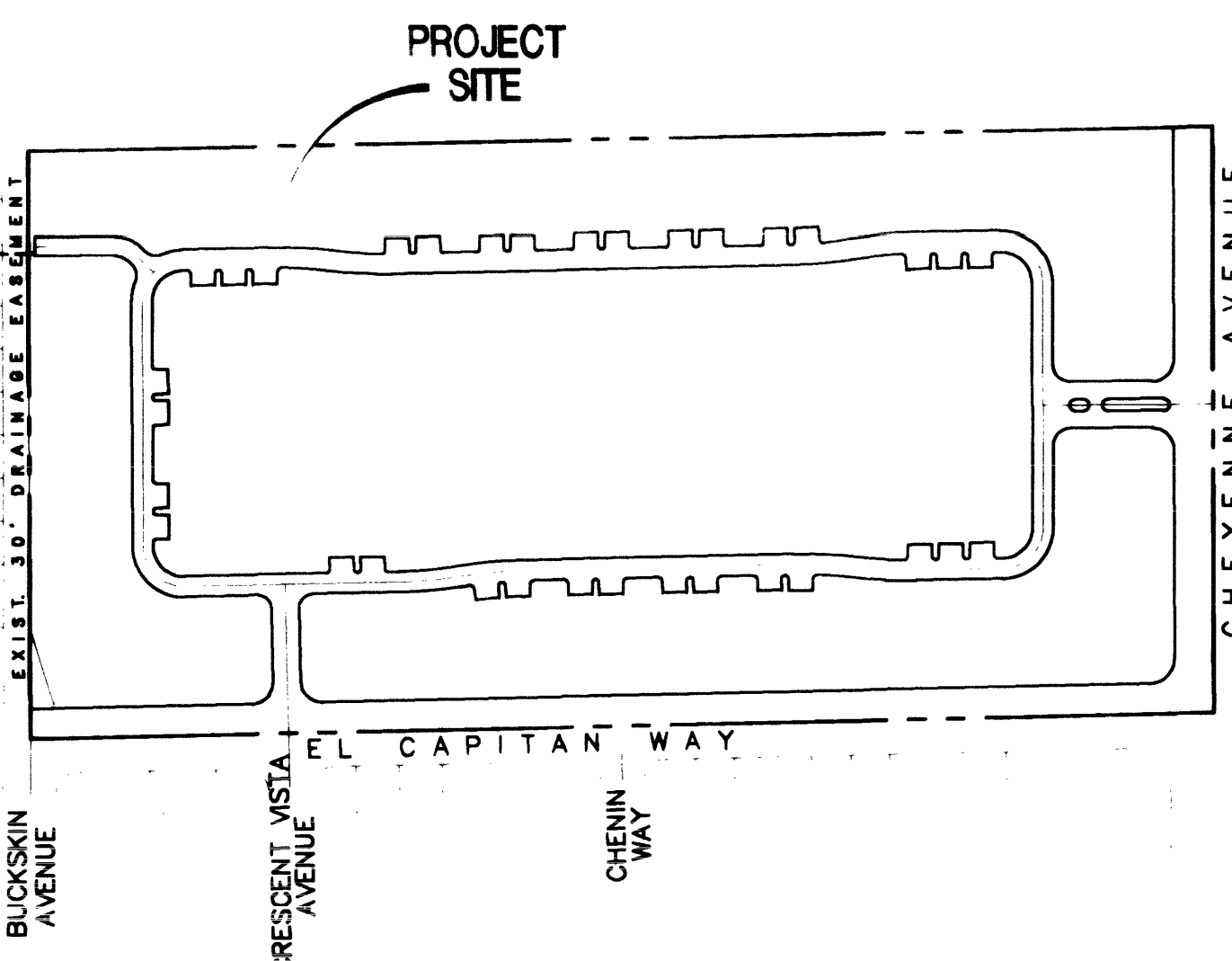
PROJECTED SEWER FLOWS

PEAK = 175,100 GPM
AVERAGE DAILY = 0515 GPM

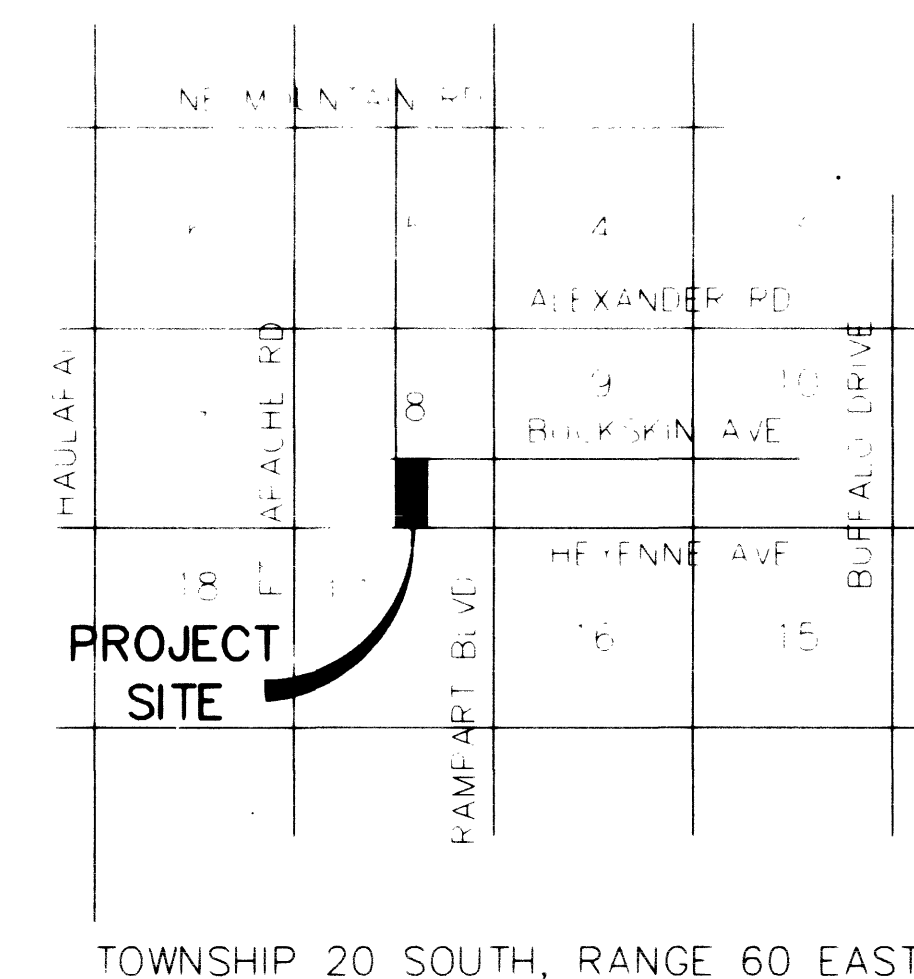
Avoid cutting underground utility lines - It's costly.

Call before you Dig.

1-800-227-2600
UNDERGROUND SERVICE ALERT (USA)



LOCATION MAP



VICINITY MAP

PENTACORE
Engineering, Inc.
6763 West Charleston Boulevard
Las Vegas, Nevada 89102

AMERICAN WEST HOME
AMERICAN WEST VILLAGE - UNIT NO. 1
UTILITY APPROVALS

SHEET
3
OF 23

307Y-4325