

**BASIS OF BEARINGS**  
 THE BASIS OF BEARINGS FOR THIS PROJECT IS NORTH 27°54'26" EAST - THE CENTERLINE OF LAS VEGAS BOULEVARD FROM STATION 78+107.400.00 POT TO STATION 78+115.54-93.64 POT (AND FREMONT AVENUE) BEARS NORTH 27°54'36" EAST PER NEVADA DEPARTMENT OF HIGHWAY DRAWINGS, PROJECT NUMBER F05-1(3), AS SHOWN BY THAT RECORD OF SURVEY ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA, FILE 67 OF SURVEYS, AT PAGE 78.

**PROJECT BENCHMARK**  
 PROJECT DATUM: CITY OF LAS VEGAS BENCH MARK NO. CLVBM FREMONT 5 - RIVET AND PLATE IN THE TOP OF CURB AT THE NORTHEAST RETURN OF FREMONT AND LAS VEGAS BOULEVARD.  
 NAVD83 ELEVATION: 2007.52 METERS (6586.70 FEET)

**FIRE FLOW CALCULATIONS**

FIRE FLOW REQUIREMENTS IS 2,250 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:

SQUARE FOOTAGE:	37,803 SQUARE FEET
OCCUPYING SQUARE FOOTAGE:	29,256 SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS:	N/A
MAX BUILDING HEIGHT:	38'-4" FLOORS
NUMBER OF STORIES:	4
TYPE OF CONSTRUCTION:	V-B COMMERCIAL
OCCUPANCY:	COMMERCIAL
FULL AUTOMATIC FIRE SYSTEM:	YES

REVIEWED BY: [Signature] DATE: 7/31/07  
 LAS VEGAS FIRE DEPARTMENT

**NOTE:**  
 PER LAS VEGAS PROJECT STANDARDS MANUAL, DIVISION 2, UNDERGROUND UTILITY TRACING REQUIRES TRACE WIRE ON ALL NON-CONDUCTIVE PIPE.

**NOTE:**  
 "IF THERE IS A CONFLICT BETWEEN CONTRACT DRAWINGS AND/OR SPECIFICATIONS, THE LAS VEGAS PROJECT STANDARDS SHALL PREVAIL."

APPROVED FOR CONSTRUCTION  
 7/21/07  
 Las Vegas Valley Water District  
 Date: 8-07-07  
 PROJECT# 113706

**QUANTITY ESTIMATES (ON-SITE)**

NO.	DESCRIPTION	QUANTITY
1	8" 90° BEND	7 EA
2	8"x8" MJ TAPPING SLEEVE (PER UDACS PLATE 22)	1 EA
3	8" TAPPING VALVE (PER UDACS PLATE 22)	1 EA
4	8" CAP AND BLOW OFF (PER UDACS PLATE 4A)	1 EA
5	INSTALL PIV (W/ TAMPER SWITCH)	1 EA
8" PVC WATER (PRIVATE FIRE LINE)(RATED FOR 200PSI)		302.90 LF

**REDUCED PRESSURE PRINCIPLE ASSEMBLY (1) 1"**  
 APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNLESS THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWVD.

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.

EASEMENT SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

ESN.026

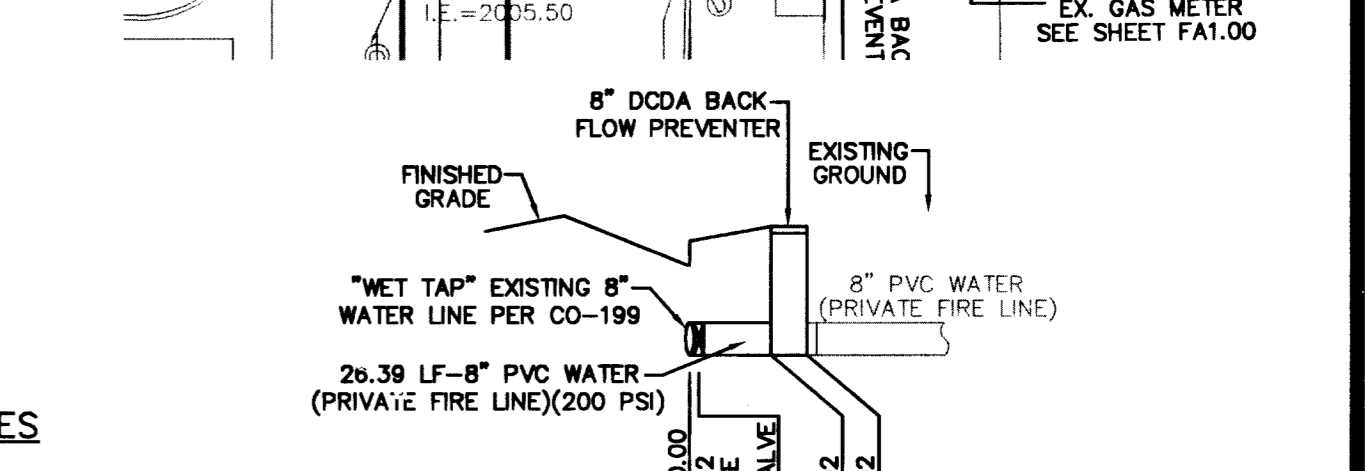
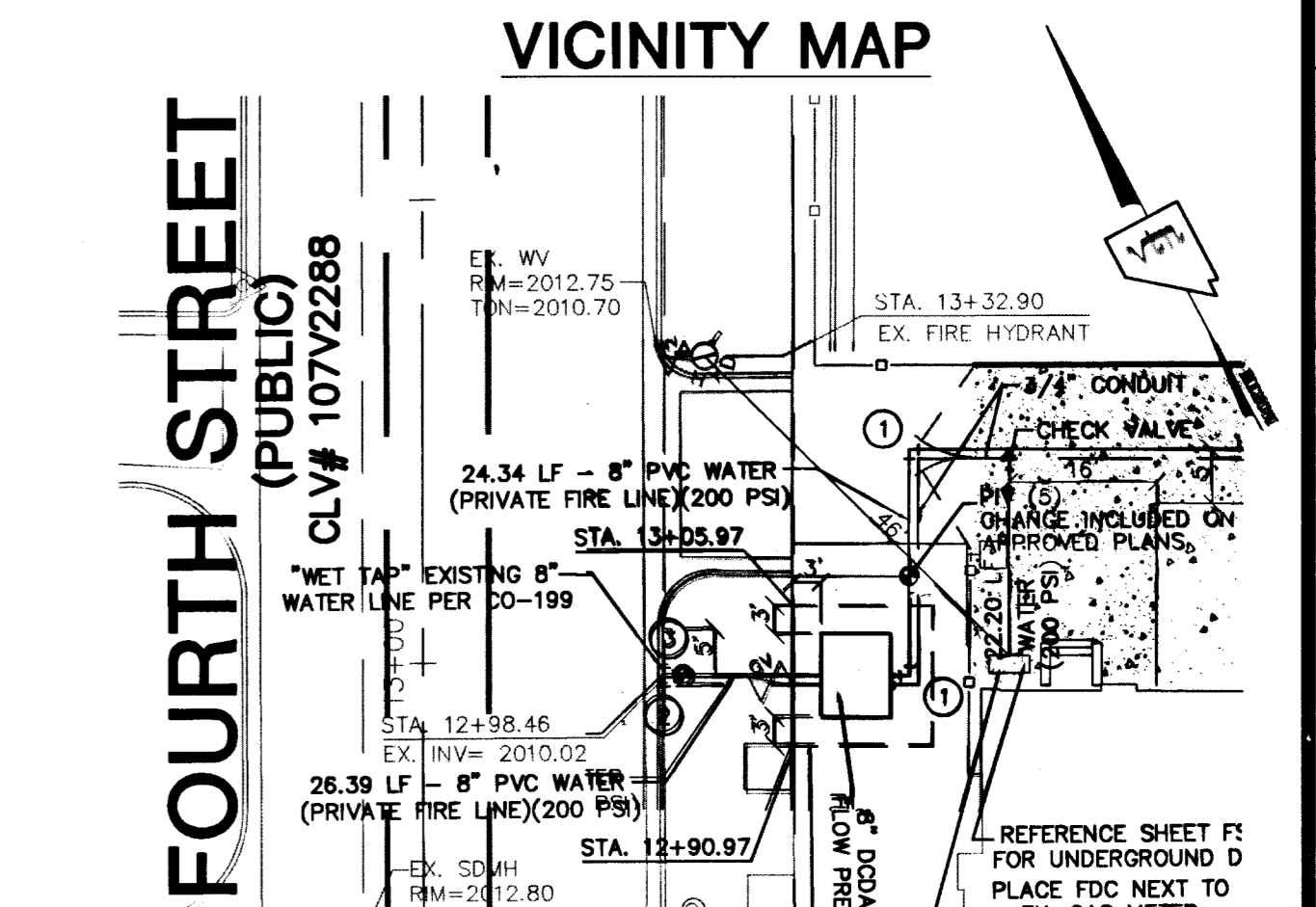
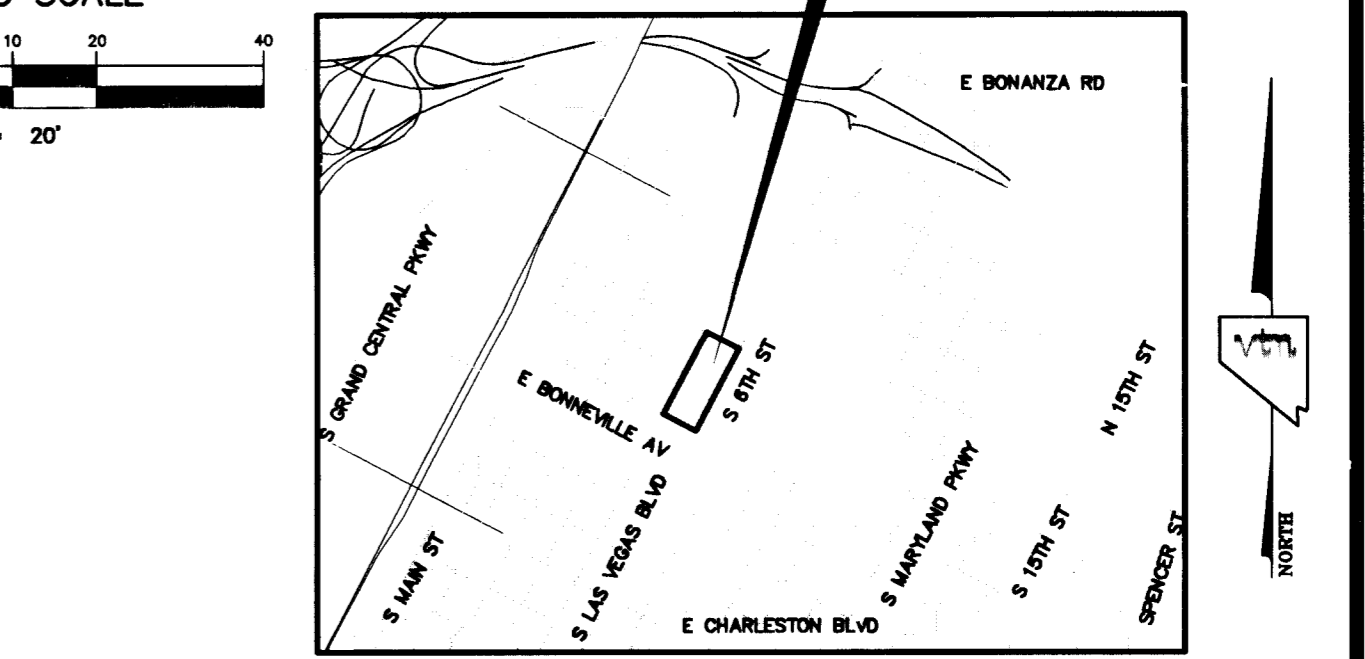
**DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) (1) 8"**  
 THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 11C. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

**Call before you Dig**  
 1-702-227-2929

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

UNDERGROUND  
 1-702-455-7511  
 1-702-228-0611

HAENSEL # 18-21  
 CLV# 03-3657



**UTILITY REFERENCES**

SEWER: REFER TO SHEET P1.00  
 HVAC: REFER TO SHEET M1.01  
 TELECOM SERVICE: REFER TO SHEET EMBARO  
 IRRIGATION: REFER TO SHEET L4.01

- PRIVATE FIRE SERVICE MAIN STANDARD NOTES**
- A PRIVATE FIRE SERVICE MAIN IS THAT PIPE AND ITS APPURTENANCES ON PRIVATE PROPERTY.
    - BETWEEN A SOURCE OF WATER AND THE BASE OF THE RISER (NOT OVER 6 IN. ABOVE THE FLOOR) FOR WATER-BASED FIRE PROTECTION SYSTEMS.
    - BETWEEN A SOURCE OF WATER AND THE BASE ELBOW OF PRIVATE HYDRANTS OR MONITOR NOZZLES.
    - THE NEVADA STATE FIRE MARSHALL HAS DETERMINED THAT THE UNDERGROUND PORTIONS OF A SPRINKLER SYSTEM ARE DEFINED AS: THAT PORTION OF THE PIPING BETWEEN A SOURCE OF PUBLIC WATER (USUALLY IN A PUBLIC STREET) AND THE BASE OF THE SPRINKLER RISER (NOT OVER 6 IN. ABOVE THE FLOOR).
  - THE UNDERGROUND CONTRACTOR INSTALLING THE PRIVATE FIRE SERVICE MAIN SUPPLYING ANY AUTOMATIC FIRE SPRINKLER SYSTEM, MUST BE LICENSED BY THE STATE OF NEVADA, STATE FIRE MARSHALL DIVISION FOR THE UNDERGROUND INSTALLATION OF SPRINKLER
  - THE INSPECTION AND TESTING OF ALL PRIVATE FIRE SERVICE MAINS SHALL BE WITNESSED AND APPROVED BY THE FIRE PREVENTION DIVISION.
  - ALL VALVES CONTROLLING CONNECTIONS TO WATER SUPPLIES AND TO SPRINKLER PIPING SHALL BE LISTED INDICATING VALVES OR AS APPROVED BY THE FIRE PREVENTION DIVISION.
  - ALL VALVES CONTROLLING CONNECTIONS TO WATER SUPPLIES AND TO SPRINKLER PIPING SHALL BE PROTECTED FROM FREEZING WHEN EXPOSED TO TEMPERATURES LESS THAN 40 F. FREEZE PROTECTION SHALL BE PROVIDED IN SUCH A MANNER THAT IT WILL LAST THE LIFETIME OF THE VALVE.
  - ALL FIRE DEPARTMENT CONNECTIONS (FDC) FOR FIRE SPRINKLER SYSTEMS SHALL BE LOCATED WITHIN 100 FEET OF FIRE HYDRANT. ALL WORK SHALL BE IN ACCORDANCE WITH NFPA 24, STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES.

**CITY OF LAS VEGAS**  
 400 EAST STEWART AVENUE  
 LAS VEGAS, NEVADA 89101  
 (702) 228-6638

**UTILITY PLAN**  
 FIFTH STREET SCHOOL  
 CLV FIFTH STREET SCHOOL REHABILITATION BUILDING DEPARTMENT SUBMITTAL

2727 SOUTH RAINBOW BOULEVARD  
 LAS VEGAS, NEVADA 89146-5148  
 PH: (702) 873-7550 FAX: (702) 362-2597 WEB: WWW.VTVN.COM  
 CONSULTING ENGINEERS & PLANNERS • LAND SURVEYORS

**CONSULTING**

DATE: 8/18/07  
 REVISION: 8/18/07

SCALE: 1"=20'

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