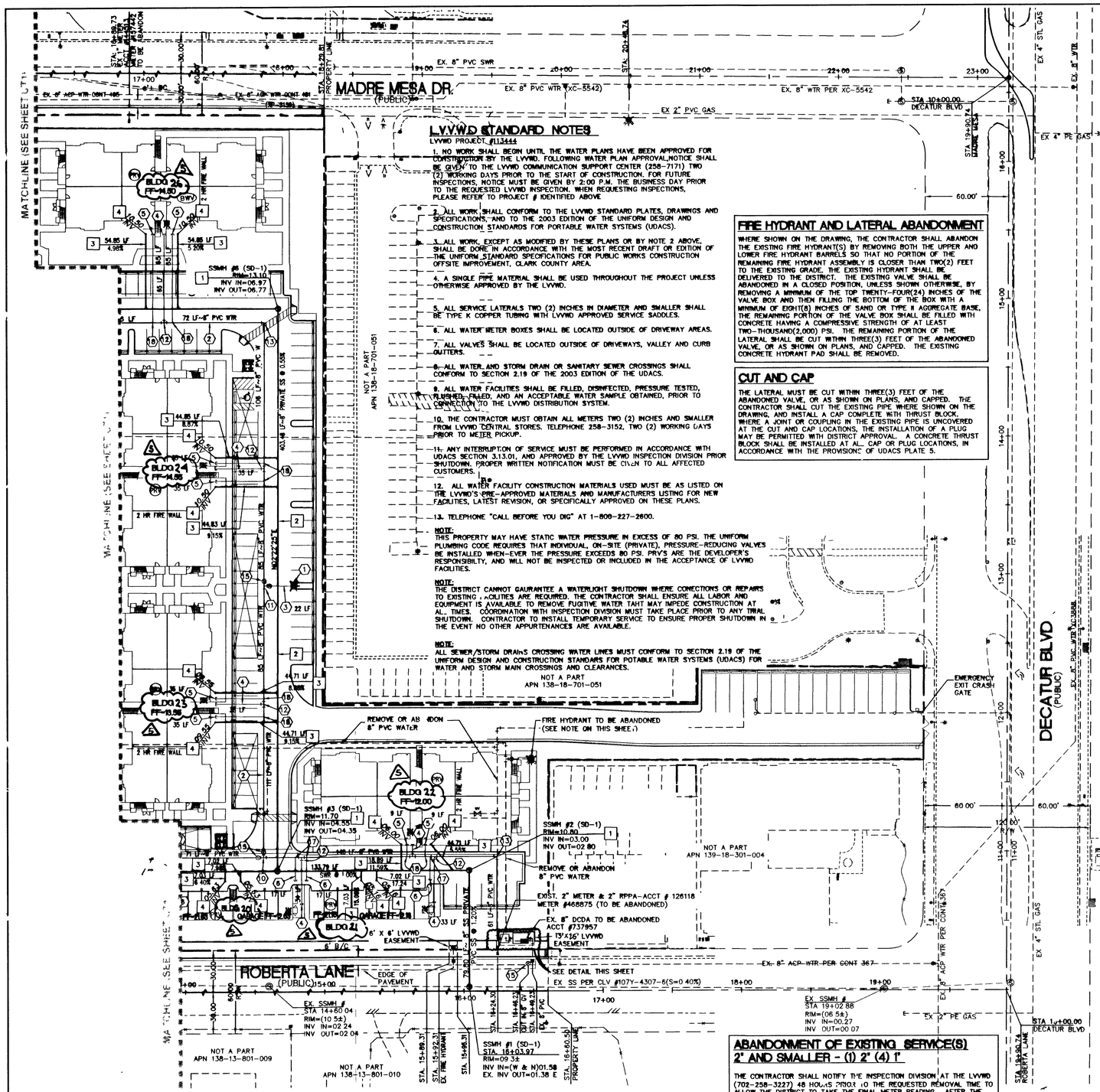



## LVVWD STANDARD NOTES

LVVWD PROJECT #113444

1. NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (258-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO PROJECT # IDENTIFIED ABOVE.
2. ALL WORK SHALL CONFORM TO THE LVVWD STANDARD PLATES, DRAWINGS AND SPECIFICATIONS, AND TO THE 2003 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS).
3. ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA.
4. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
5. ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
6. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
7. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
8. ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSINGS SHALL CONFORM TO SECTION 2.19 OF THE 2003 EDITION OF THE UDACS.
9. ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
10. THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
11. ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.13.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. 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.
13. TELEPHONE "CALL BEFORE YOU DIG" AT 1-800-227-2600.

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

**NOTE:**
THE DISTRICT CANNOT GAURANTEE A WATERTIGHT SHUTDOWN WHERE CONECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER TAHT 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.

**NOTE:**
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.19 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

## FIRE HYDRANT AND LATERAL ABANDONMENT

WHERE SHOWN ON THE DRAWING, THE CONTRACTOR SHALL ABANDON THE EXISTING FIRE HYDRANT(S) BY REMOVING BOTH THE UPPER AND LOWER FIRE HYDRANT BARRELS SO THAT NO PORTION OF THE REMAINING FIRE HYDRANT ASSEMBLY IS CLOSER THAN TWO(2) FEET TO THE EXISTING GRADE. THE EXISTING HYDRANT SHALL BE DELIVERED TO THE DISTRICT. THE EXISTING VALVE SHALL BE ABANDONED IN A CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR(24) INCHES OF THE VALVE BOX AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT(8) INCHES OF SAND OR TYPE II AGGREGATE BASE, THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO-THOUSAND(2,000) PSI. THE REMAINING PORTION OF THE LATERAL SHALL BE CUT WITHIN THREE(3) FEET OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE EXISTING CONCRETE HYDRANT PAD SHALL BE REMOVED.

## CUT AND CAP

THE LATERAL MUST BE CUT WITHIN THREE(3) FEET OF THE ABANDONED VALVE, OR AS SHOWN ON PLANS, AND CAPPED. THE CONTRACTOR SHALL CUT THE EXISTING PIPE WHERE SHOWN ON THE DRAWING, AND INSTALL A CAP COMPLETE WITH THRUST BLOCK. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATIONS, THE INSTALLATION OF A PLUG MAY BE PERMITTED WITH DISTRICT APPROVAL. A CONCRETE THRUST BLOCK SHALL BE INSTALLED AT ALL CAP OR PLUG LOCATIONS, IN ACCORDANCE WITH THE PROVISIONS OF UDACS PLATE 5.

## WATER CONSTRUCTION NOTES

| | ITEM | UNIT | QUANTITY PUBLIC | QUANTITY PRIVATE |
|---|---|---|---|---|
| 1 | INSTALL FIRE HYDRANT ASSEMBLY PER UDS PLATE NO. 7 | EA | – | 8 |
| 2 | INSTALL 8" PVC (CLASS 150) WATER LINE | LF | 600 | 2689 |
| 3 | INSTALL 6" PVC (CLASS 150) WATER LINE | LF | – | 103 |
| 4 | INSTALL 4" PVC WATER LINE | LF | – | 1559 |
| 5 | INSTALL 2" WATER SERVICE | LF | – | 1004 |
| 6 | INSTALL 1-1/2" WATER SERVICE | LF | – | 365 |
| 7 | NOT IN USE 8" | EA | – | – |
| 8 | INSTALL 8" REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA) PER UDACS PLT. 11C | EA | 2 | – |
| 9 | ABANDON EX. 8" DCDA AND INSTALL 6" X 3" TYPE I FSM PER UDS PLT NO. 21C | EA | 2 | – |
| 10 | INSTALL 8" X 8" TEE W/THRUST BLOCK PER UDS PLT. NO. 5 | EA | 1 | 4 |
| 11 | INSTALL 8" X 6" TEE W/THRUST BLOCK PER UDS PLT. NO. 5 | EA | – | 8 |
| 12 | INSTALL 8" X 4" TEE W/THRUST BLOCK PER UDS PLT. NO. 5 | EA | – | 25 |
| 13 | INSTALL 8" 90° BEND W/THRUST BLOCK PER UDS PLT. NO. 5 | EA | – | 6 |
| 14 | INSTALL 8" X 6" REDUCER | EA | – | 4 |
| 15 | INSTALL 8" GATE VALVE | EA | 1 | 8 |
| 16 | INSTALL 8" MANUAL BLOW-OFF ASSEMBLY PER UDS PLT. NO. 4A | EA | 1 | 2 |
| 17 | INSTALL 1-1/2" SERVICE SADDLE | EA | – | 23 |
| 18 | INSTALL 2" SERVICE SADDLE | EA | – | 21 |

## SEWER CONSTRUCTION NOTES

| | ITEM | UNIT | QUANTITY PUBLIC | QUANTITY PRIVATE |
|---|---|---|---|---|
| 1 | INSTALL 48" DIA. SANITARY SEWER MANHOLE PER STD. DWG. NO. SD-1 | EA | 1 | 11 |
| 2 | INSTALL 8" PVC (SDR-35) SEWER MAIN | LF | – | 2275 |
| 3 | INSTALL 4" PVC (SDR-35) SEWER LATERAL | LF | – | 1329 |
| 4 | INSTALL 4" SANITARY SEWER CLEANOUT | EA | – | 48 |

## MANHOLE SCHEDULE

| MANHOLE | TYPE | RIM | INV IN | INV OUT | DEPTH |
|---|---|---|---|---|---|
| SSMH #1 | SD-1 | 09.3± | 01.58 | 01.38 | 08.33 |
| SSMH #2 | SD-1 | 10.80 | 03.00 | 02.80 | 08.00 |
| SSMH #3 | SD-1 | 11.70 | 04.55 | 04.35 | 07.35 |
| SSMH #4 | SD-1 | 14.00 | 07.80 | 07.60 | 06.31 |
| SSMH #5 | SD-1 | 15.70 | – | 08.70 | 06.00 |
| SSMH #6 | SD-1 | 13.10 | 06.97 | 06.77 | 06.35 |
| SSMH #7 | SD-1 | 14.50 | 08.80 | 08.60 | 05.90 |
| SSMH #8 | SD-1 | 18.60 | 11.32 | 11.12 | 07.48 |
| SSMH #9 | SD-1 | 18.75 | 12.56 | 12.36 | 06.37 |
| SSMH #10 | SD-1 | 18.30 | – | 13.30 | 06.00 |
| SSMH #11 | SD-1 | 17.75 | 11.9± | 11.75 | 06.00 |
| SSMH #12 | SD-1 | 18.30 | - | 12.66 | 05.64 |

## INSTALLATION OF METER AND VAULT (2) 6"X3" TYPE I FSM WITH BYPASS

THE METER(S) AND VAULT(S) WITH NON-TRAFFIC BEARING COVER(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 21C AND WITH UDACS STANDARD VAULT DRAWING C-475, LATEST REVISION. 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. EASMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

METERS MUST BE SET IN HORIZONTAL POSITION, AT LEAST EIGHT (8) DIAMETERS OF STRAIGHT PIPE ARE REQUIRED AT THE INLET END.

## REDUCED PRESSURE PRINCIPLE ASSEMBLY (2) 8" RPPA

APPROVED REDUCED PRESSURE PRINCIPAL ASSEMBLY(S) SHALL BE INSTALLED PER THE U.D.A.C.S. PLATE No. 11C. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPAL ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE L.V.V.W.D. 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 VAULTS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENT SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

## ABANDONMENT OF EXISTING SERVICE(S) 2" AND SMALLER - (1) 2" (4) 1"

THE CONTRACTOR SHALL NOTIFY THE INSPECTION DIVISION AT THE LVVWD (702-258-3227) 48 HOURS PRIOR TO THE REQUESTED REMOVAL TIME TO ALLOW THE DISTRICT TO TAKE THE FINAL METER READING. AFTER THE FINAL READING THE CONTRACTOR MAY THEN BEGIN REMOVAL PROCEDURES FOR THE AFFECTED SERVICE AS FOLLOWS. EXISTING SERVICE LATERALS THAT ARE TO BE ABANDONED FROM THE EXISTING WATER MAINS SHALL HAVE THE CORPORATION STOPS TURNED OFF AT THE MAIN. A MINIMUM OF TWELVE(12) INCHES OF THE LATERAL CUT OUT NEAR THE CORPORATION STOPS, AND A BRASS CAP INSTALLED ON THE CORPORATION STOP. IF THE CORPORATION STOP IS DAMAGED BEYOND REPAIR OR PULLED FROM THE EXISTING WATER MAIN, THE MAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, IN A MANNER APPROVED BY THE DISTRICT. IF THE CORPORATION STOP IS NOT WATER TIGHT, THE CONTRACTOR SHALL NOTIFY LVVWD COMMUNICATION SUPPORT CENTER (702-258-7171) FOR FURTHER DIRECTION. THE EXISTING METER(S) SHALL BE REMOVED AND DELIVERED TO THE DISTRICT.
THE CONTRACTOR SHALL REMOVE THE EXISTING SERVICE METER BOX AND APPURTENANCES, FILL AND GRADE ANY AND ALL RESULTING VOIDS, AND REPLACE OR RESTORE TO ORIGINAL CONDITIONS OR BETTER, ALL LANDSCAPING, IRRIGATION SYSTEMS, CONCRETE, SIDEWALKS, ASPHALT, OR ANY OTHER ITEMS DAMAGED OR REMOVED DURING THE REMOVAL OF THE EXISTING SERVICE METER BOX.

## RELOCATION OF PRIVATE FIRE HYDRANTS (4)

(EXTENSION OF EXISTING LATERAL)
THE CONTRACTOR SHALL REMOVE AND RELOCATE BOTH THE UPPER AND LOWER BARRELS OF THE EXISTING FIRE HYDRANT(S) WHERE SHOWN, EXTEND THE EXISTING LATERAL AS REQUIRED, AND REINSTALL SUCH HYDRANT(S) AT THE NEW LOCATION(S) INDICATED. FIRE HYDRANTS SHALL BE TESTED PRIOR TO AND AFTER RELOCATION, UNDER THE DIRECTION OF THE DISTRICT, TO ENSURE QUALITY. INSTALLATION SHALL BE IN ACCORDANCE WITH UDACS PLATE 7. LATERALS MADE OF UNAPPROVED MATERIALS SHALL BE REPLACED FROM THE MAIN TO THE FIRE HYDRANT. RELOCATIONS WHERE THE LATERAL CANNOT BE EXTENDED SHALL BE TESTED AS NEW INSTALLATIONS.

## ABANDONED VALVES NOTE

ALL VALVES TO BE ABANDONED SHALL BE ABANDONED IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP TWENTY-FOUR (24) INCHES OF THE VALVE BOX AND THEN FILLING THE BOTTOM OF THE BOX WITH A MINIMUM OF EIGHT (8) INCHES OF SAND OR TYPE II AGGREGATE BASE, THE REMAINING PORTION OF THE VALVE BOX SHALL BE FILLED WITH CONCRETE HAVING A COMPRESSIVE STRENGTH OF AT LEAST TWO THOUSAND (2,000) PSI.

AVERAGE = 3402 FU x 0.45 ERU / FU . 250 GPD / ERU = 0.3827 MGD

PEAK = 3.4 x 0.3827 = 1.3.2 MGD

## FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS N/A GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE

BASED ON:
SQUARE FOOTAGE: 16,182 SQUARE FEET
LARGEST AREA BETWEEN 4-HOUR AREA SEPARATION WALLS: N/A SQUARE FEET
BUILDING HEIGHT: 35' MAX
NUMBER OF STORIES: 2 FLOORS
TYPE OF CONSTRUCTION: V-B
OCCUPANCY: R
FULL AUTOMATIC FIRE SPRINKLER SYSTEM: YES NO

REVIEWED BY: [signature] DATE: 12/7/06
LAS VEGAS FIRE DEPT.

AVOID DIGGING UNDERGROUND WATER, SEWER, GAS, ELECTRIC, TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEMS CONDUITS IT'S COSTLY! CALL BEFORE YOU DIG UNDERGROUND
Call before you UNDERGROUND
1-702-455-7511 CLARK COUNTY AREA UNDERGROUND FACILITIES
1-702-229-6611 LAS VEGAS AREA CONSTRUCTION TRAFFIC SYSTEMS

## DISCLAIMER NOTE

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 AND OVERHEAD 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 LOCATION.

Avoid cutting underground utility lines. It's costly. Call before you Dig 1-800-227-2600 UNDERGROUND SERVICE (USA)

Avoid overhead power line contact Call before you OVERHEAD 1-702-227-2929 NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

CLV DWG #107Y4783

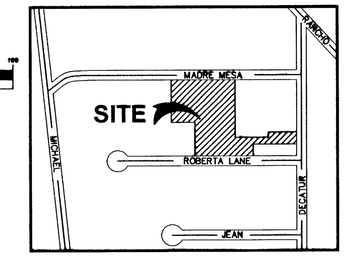
## BENCHMARK

BCOD 13SES-2 IN BRASS CAP IN THE TOP OF CURB @ NW CORNER OF DECATUR & SMOKE RANCH ELEVATION ELEVEATION=672.27 METERS (2205.60 FEET) NAVD88

## BASIS OF BEARING

NORTH 02°27'23" EAST - THE CENTERLINE OF DECATUR BOULEVARD AS SHOWN ON AMENDED PARCEL MAP IN FILE 98, PAGE 79, CLARK COUNTY RECORDS, NEVADA.

GRAPHIC SCALE
( IN FEET )
1 inch = 40 ft.



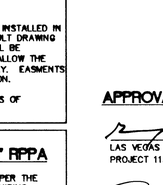

VICINITY MAP
NO SCALE

## LEGEND

- PROPERTY LINE
- STREET CENTERLINE
- PROPOSED "L" CURB & GUTTER
- EXISTING "L" CURB & GUTTER
- PROPOSED "A" CURB & GUTTER
- EXISTING BLOCK WALL
- PROPOSED EDGE OF PAVEMENT
- EXIST. EDGE OF PAVEMENT
- WATER CONSTRUCTION NOTE
- SEWER CONSTRUCTION NOTE
- PROPOSED FIRE HYDRANT ASSY.
- EXISTING FIRE HYDRANT
- PROPOSED GATE VALVE
- PROP. WTR — PROPOSED WATERLINE
- EX. WTR — EXISTING WATERLINE
- PROPOSED SEWER MANHOLE
- EXISTING SEWER MANHOLE
- PROPOSED SEWER LATERAL W/CLEANOUT
- PROPOSED WATER LATERAL
- PROPOSED FIRE DEPARTMENT CONNECTION LOCATION
- PRV — PRESSURE REDUCING VALVE
- BWV — BACK WATER VALVE
- EXISTING STREETLIGHT
- PROPOSED STREETLIGHT




DCDA/TYPE I FSM
NOT TO SCALE




## APPROVALS

[signature] 12/7/06
LAS VEGAS VALLEY WATER DISTRICT DATE
PROJECT 113444 SHEET UT1,UT2, UT3

[signature] 12/7/06
CITY OF LAS VEGAS FIRE MARSHAL DATE

FIRE FLOW REQUIREMENT IS 1750 GALLONS PER MINUTE AT 20 PSI RESIDUAL

| | | |
|---|---|---|
| 5 | 5/1/08 | REVISED GUESS #5 |
| 4 | 11/24/07 | REVISED GUESS #4 |
| 3 | 10/26/07 | REVISED GUESS #3 |
| 2 | 10/02/07 | REVISED GUESS #2 |
| 1 | 9/25/07 | REVISED GUESS #1 |
| DATE NO. | | REVISIONS |

PREPARED FOR
TMF INVESTMENTS
1048 IRVINE AVE #643
NEWPORT BEACH, CA 92660
PH 949-677-0076
FAX 920-8501

| | | |
|---|---|---|
| DATE | DECEMBER 2006 | |
| DESIGN | UFH | |
| DRAWN | JSR | |
| CHECK | LH | |
| SCALE | 1"=40' | |

BAUGHMAN & TURNER, INC.
CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS
1110 HINSON STREET LAS VEGAS, NEVADA 89102
(702) 870-6771 (702)878-2695

DECATUR VILLAGE APARTMENTS
UTILITY PLAN
SECTION 13, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.B.& M.
CITY OF LAS VEGAS NEVADA
DECATUR BLVD AND MADRE MESA DRIVE

SHEET UT2 OF 7 of 12