

PROCEDURES TO RELOCATE A CORROSION TEST STATION

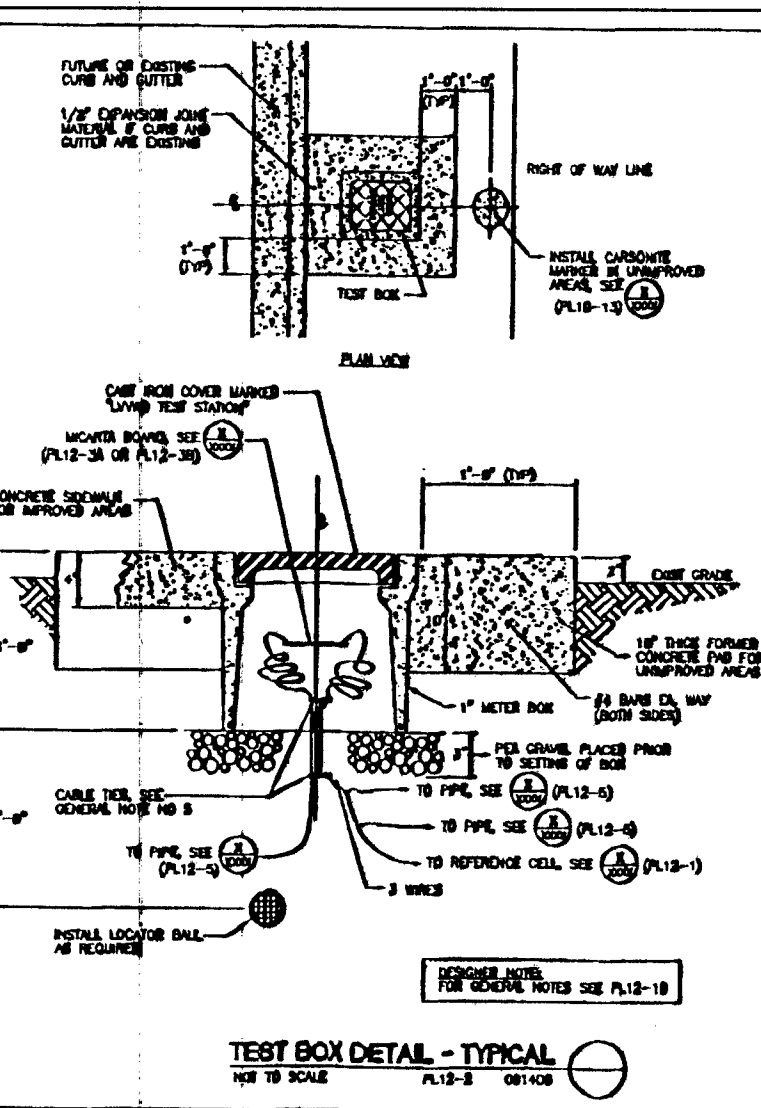
- Expose the test station(s) and label all leads according to the TYPICAL TEST BOARD DETAIL.
- The leads that are connected to the pipe require #8 copper wire with a HMMPE jacket such as Raychem Permarad.
- The lead that is connected to the reference cell requires #14 copper wire with a HMMPE jacket such as Raychem Permarad.
- Connect the two wires to be spliced with a copper butt connection using the proper crimping tool.
- Make each splice using a Scotchcast resin splicing kit, Duro-cast universal splice kit, or a Raychem amode splice encapsulation kit.
- Reconnect the test board to proper leads, and place the test box at the new site.
- The test box at the new site will be installed according to the TYPICAL TEST BOARD DETAIL.
- All test leads and anode leads inside the test box shall be bundled together at 8 inch intervals with nylon ties and shall be provided with a minimum of 4 feet of slack.
- All test leads and anode leads shall be color coded with colored tape at each end, and at 4 foot intervals.
- Relocated test station to be tested by certified Cathodic Protection Specialist, Corrosion Specialist, or registered Professional Corrosion Engineer. Results to be submitted in writing to LVWD Construction Division.

GENERAL NOTES

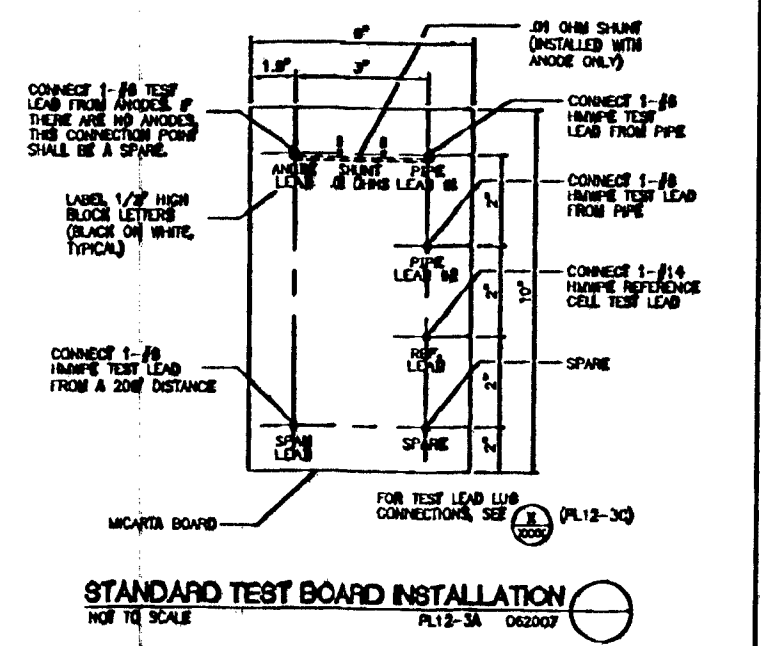
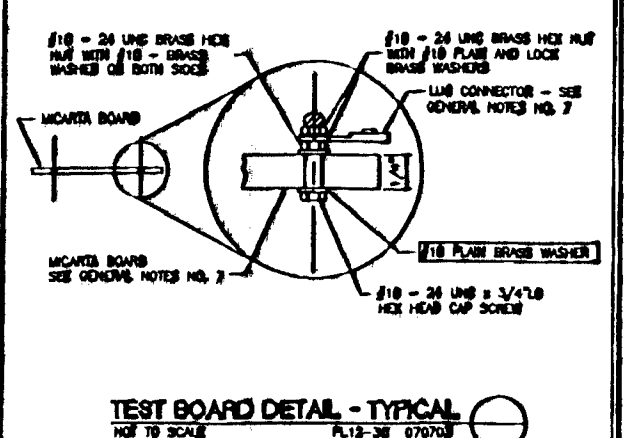
ALL TEST LEADS AND ANODE LEADS SHALL BE COLOR CODED WITH COLored TAPE AT EACH END AND AT 4 FOOT INTERVALS. EXCEPTING ON THE PLUMBING.

TEST BOARD LEADS FROM PIPE - WHITE
 ANODE LEAD FROM PIPE - RED
 REFERENCE CELL LEAD - BLUE
 TEST LEAD - GREEN

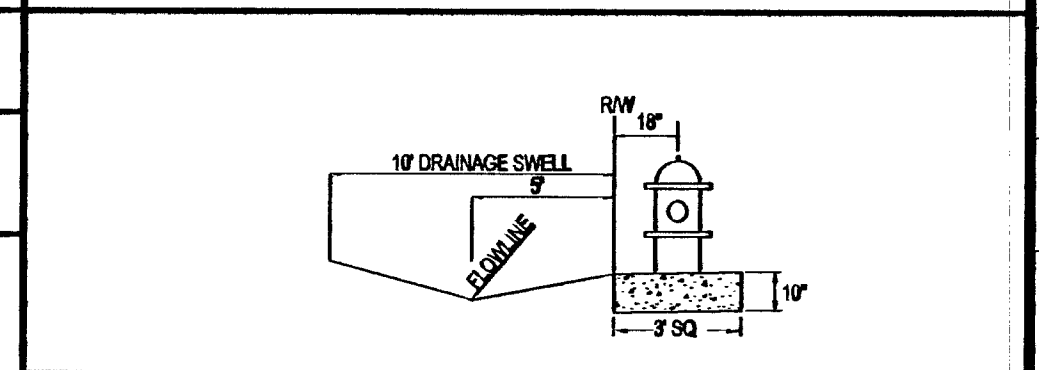
ALL TEST LEADS AND ANODE LEADS SHALL BE CONNECTED TO THE TEST BOARD WITH THE TEST BOARD AND SHALL BE PROVIDED WITH A MINIMUM OF 4 FEET OF SLACK.



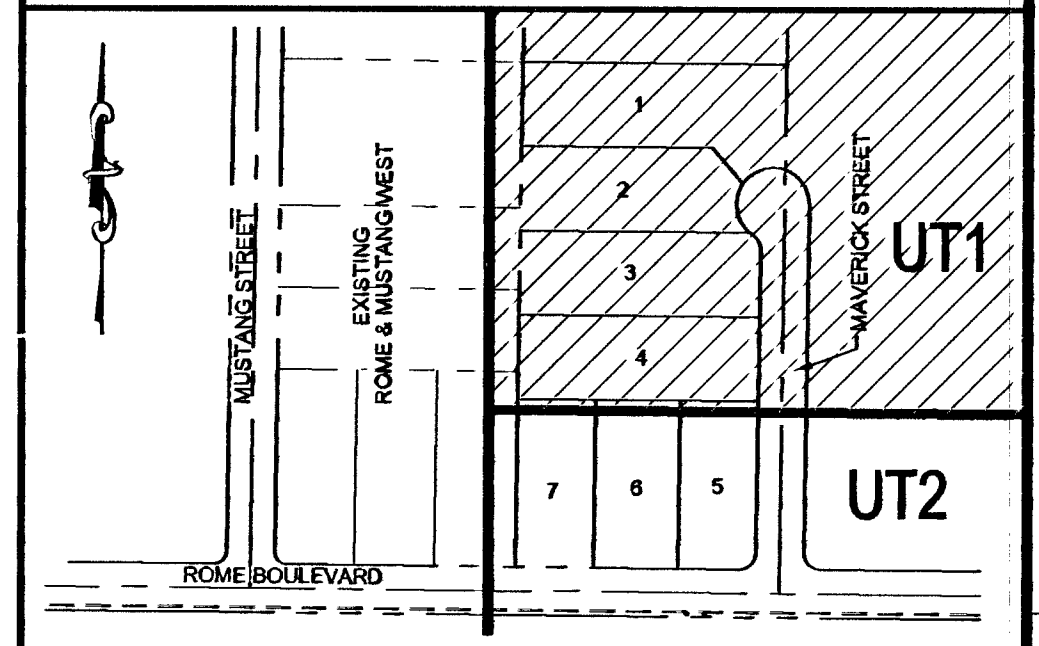
TEST BOARD DETAIL - TYPICAL



FIRE HYDRANT DETAIL



KEY MAP



WATER MAIN CROSSING

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEM (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

PROCEDURES TO RELOCATE A CORROSION TEST STATION

- EXPOSE THE TEST STATION (S) AND LABEL. ALL LEADS ACCORDING TO THE TYPICAL TEST BOARD DETAIL.
 - THE LEADS THAT ARE CONNECTED TO THE PIPE REQUIRE #8 COPPER WIRE WITH A HMMPE JACKET SUCH AS RAYCHEM PERMARAD.
 - THE LEAD THAT IS CONNECTED TO THE REFERENCE CELL REQUIRES #14 COPPER WIRE WITH A HMMPE JACKET SUCH AS RAYCHEM PERMARAD.
 - CONNECT THE TWO WIRES TO BE SPLICED WITH A COPPER BUTT CONNECTION USING THE PROPER CRIMPING TOOL.
 - MAKE EACH SPICE USING A SCOTCHCAST RESIN SPLICING KIT, DURO-CAST UNIVERSAL SPLICING KIT, OR A RAYCHEM AMODE SPLICING ENCAPSULATION KIT.
 - RECONNECT THE TEST BOARD TO PROPER LEADS, AND PLACE THE TEST BOX AT THE NEW SITE.
 - THE TEST BOX AT THE NEW SITE WILL BE INSTALLED ACCORDING TO THE TYPICAL TEST BOARD DETAIL.
 - ALL TEST LEADS AND ANODE LEADS INSIDE THE TEST BOX SHALL BE BUNDLED TOGETHER AT 8 INCH INTERVALS WITH NYLON TIES AND SHALL BE PROVIDED WITH A MINIMUM OF 4 FEET OF SLACK.
 - ALL TEST LEADS AND ANODE LEADS SHALL BE COLOR CODED WITH COLOred TAPE AT EACH END, AND AT LEAST 4 FEET INTERVAL.
 - RELOCATED TEST STATION TO BE TESTED BY CERTIFIED CATHODIC PROTECTION SPECIALIST, CORROSION SPECIALIST, OR REGISTERED PROFESSIONAL CORROSION ENGINEER. RESULT TO BE SUBMITTED IN WRITING TO LVWD CONSTRUCTION DIVISION.
- FOR TEST BOARD DETAIL, SHEET SHEET 8 OF 12, P22

CONSTRUCTION NOTES

- INSTALL 8"X6" TAPPING SLEEVE & 6" TAPPING VALVE PER UDACS 2.24.01 (B) PLATE 54.8.39
- INSTALL 1" SERVICE SADDLE AND CORPORATION STOP (UDACS PLATE NO. 4)
- INSTALL 1" METER (UDACS PLATE NO. 4)
- INSTALL 8"X6" TEE (UDACS PLATE NO. 3)
- INSTALL FIRE HYDRANT ASSEMBLY WITH 6" WATER LINE AND 6" GATE VALVE (UDACS PLATE NO. 4)
- INSTALL 6" CAP WITH 2" BLOW OFF (UDACS PLATE NO. 3)
- INSTALL 8" GATE VALVE (UDACS PLATE NO. 30 AND 3)
- INSTALL 4" 6000 PVC WATER QUALITY SANITARY SEWER LATERAL (UDACS 2.22.03 B)
- INSTALL 8" 90° ELBOW PER UDACS PLATE NO. 31
- REMOVE EXISTING TEE AND INSTALL 8" CROSS PER UDACS PLATE #31
- INSTALL 6" GV PER PLT 39 AND 30 WITH 10" STUB TO END CAP
- INSTALL WATER LATER PER UDACS PLT 15 AND SECTION 2.17.01 B W/24 MIN DIAMETER SEWER
- EXISTING WATER DISTRICT ACCESS MANHOLE ASSEMBLY
- EXISTING GATE VALVE ADJUST TO GRADE. MUST BE ACCESSIBLE AT ALL TIMES

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. UNIFORM PLUMBING CODE)
- 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)
- SEWER TRENCH BACKFILL SHALL BE PER USDOCA DWG. NO. 503.

LEGAL DESCRIPTION

THE EAST HALF (E 1/2) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 23, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.B. & M.

EXCEPTING THEREFROM THE NORTH 30 (30) FEET, THE EAST THIRTY (30) FEET, AND THE SOUTH THIRTY (30) FEET, AS CONVEYED FOR ROADS AND INCIDENTAL PURPOSES IN THOSE DEEDS RECORDED FEBRUARY 7, 1973 AS DOCUMENT NO. 259243, IN BOOK 300, AND RECORDED FEBRUARY 23, 2007 AS DOCUMENT 04746, IN BOOK 20070223, OFFICIAL RECORDS, CLARK COUNTY NEVADA.

TOGETHER WITH THOSE PORTIONS OF SAID LAND VACATED BY THOSE CERTAIN ORDERS OF VACATION RECORDED NOVEMBER 07, 1991 IN BOOK 911107 AS DOCUMENT NO. 00692, AND RECORDED FEBRUARY 28, 2007 IN BOOK 20070228 AS DOCUMENT NO. 04812, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

BENCHMARK

CLARK COUNTY STATION 0LV90 2356
 ELEVATION 708.755 METERS 2,325.31 FEET

CITY OF LAS VEGAS RIVET AND ROUND PLATE IN CONCRETE CYLINDER, TORREY PINES DR. AND ROME BLVD.

WASTEWATER CALCULATIONS

FACILITY TYPE: SINGLE FAMILY RESIDENTIAL
 TOTAL UNITS AT BUILD OUT: 5 HOUSES

AVERAGE FLOW (MGD) = 0.0017
 PEAK FLOW (MGD) = 0.0060

CALCULATIONS:
 AVG FLOW = $7 \times 90,000 \times \frac{1}{365} = 0.0017$ MGD
 PEAK FLOW = $0.0017 \times 3.5 = 0.0060$ MGD

ALL LOTS

THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 90 PSI THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL, ON-SITE (PRIVATE), PRESSURE-REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 90 PSI. PRIVATE ARE THE DEVELOPER'S RESPONSIBILITY, AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVWD FACILITIES.

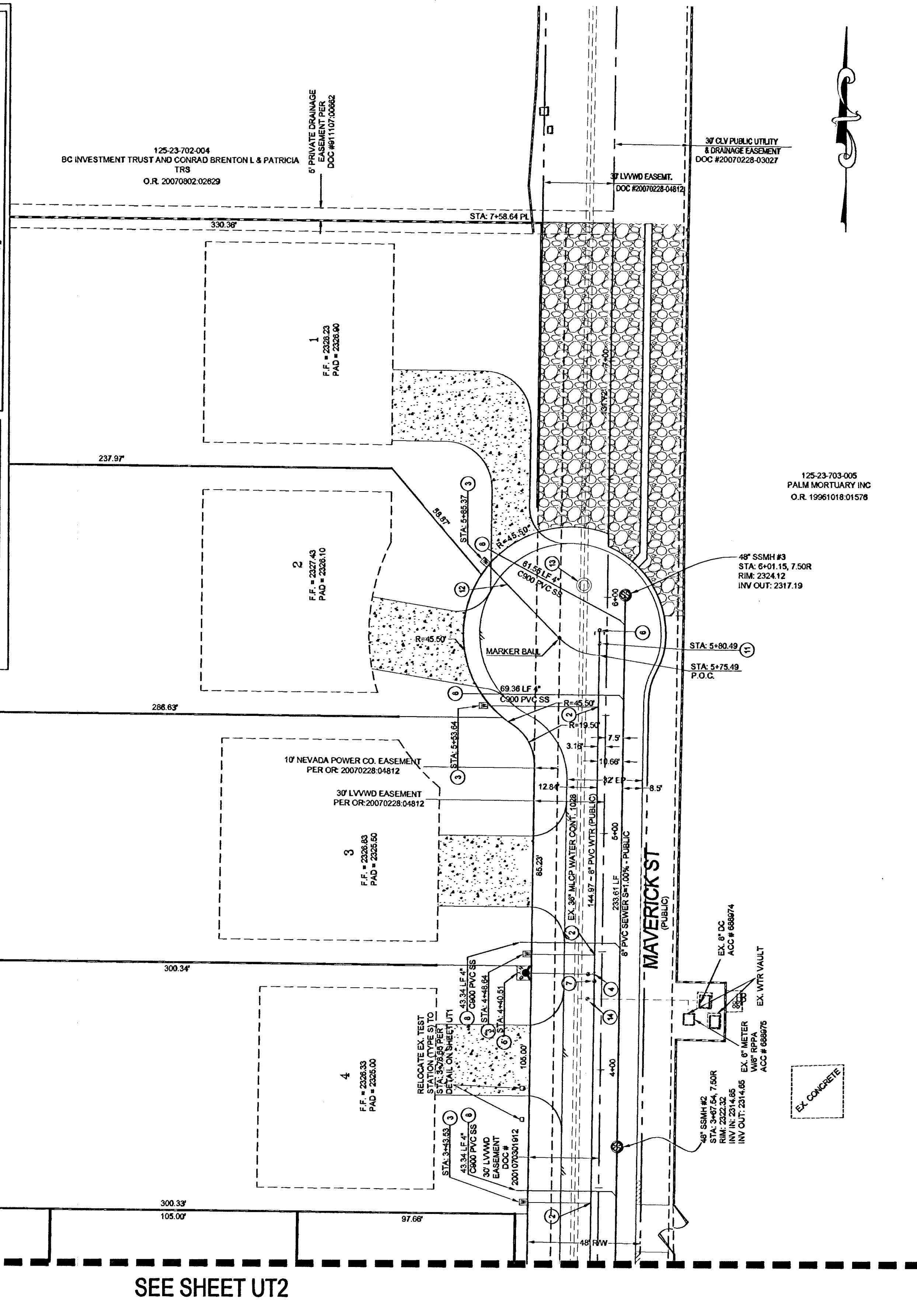
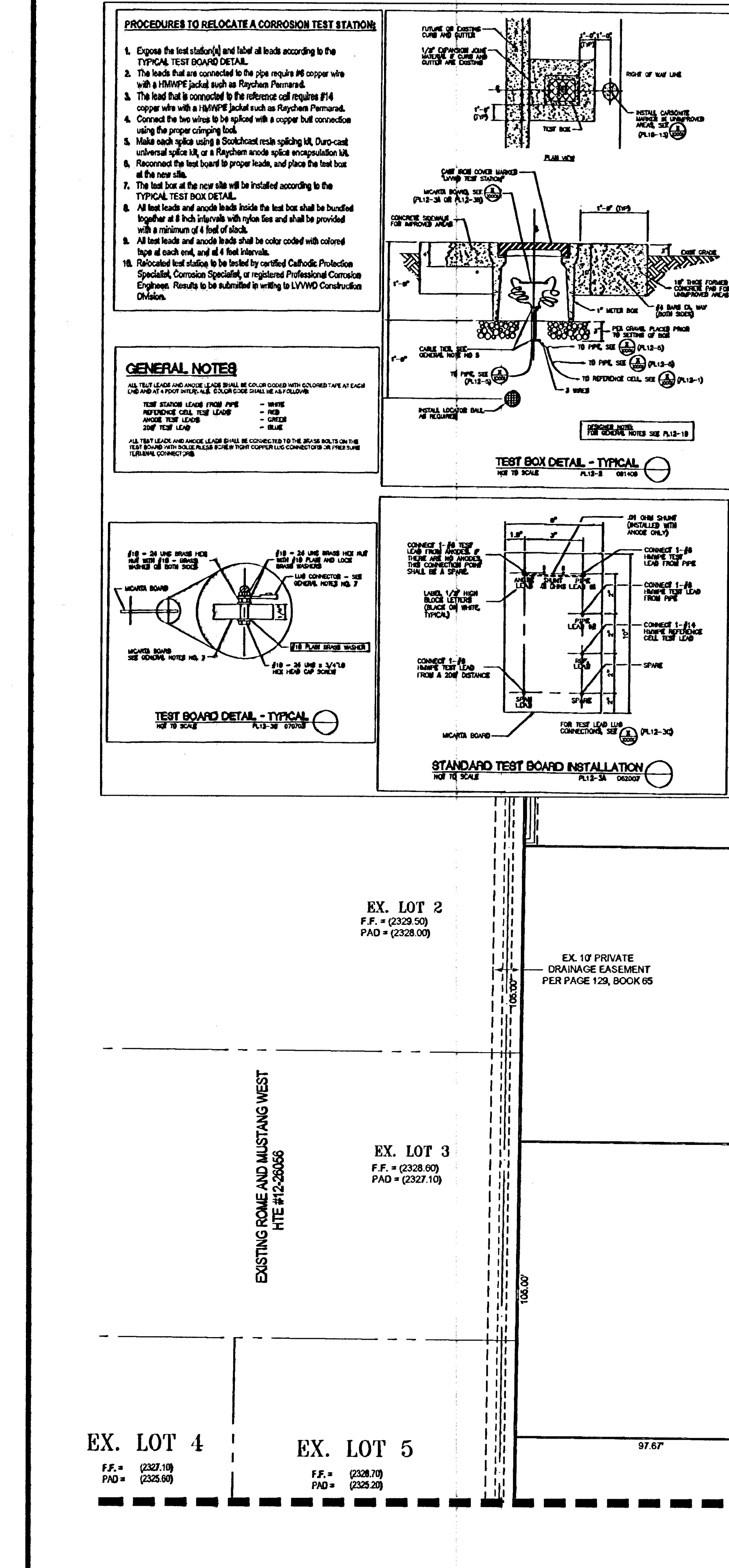
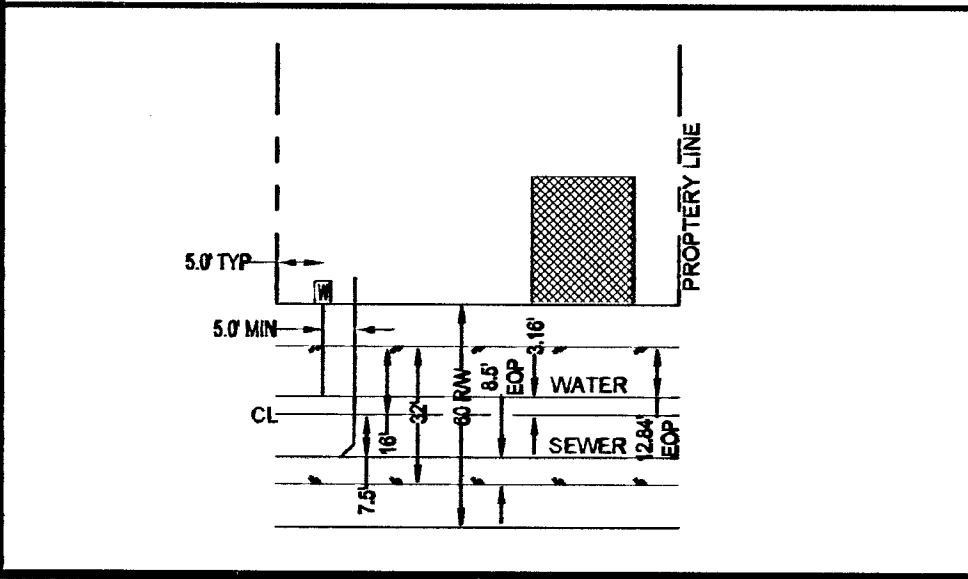
WATER CROSSING

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEM (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

NOTES

- PRIOR TO COMMENCING SEWER INSTALLATION, THE CONTRACTOR IS REQUIRED TO PULL PERMITS FROM LAND DEVELOPMENT SERVICES, CITY OF LAS VEGAS AT 333 NORTH RANCHO.
- SERVICE LATERALS FOR LOTS 5 & 7 WILL BE TAPPED ON EXISTING MAIN BY OWNERS CONTRACTOR UNDER DIRECTION OF THE LVWD.

TYPICAL LATERAL LAYOUT



WATER MAIN JOINT DEFLECTION

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.

SQUARE FOOTAGE: 4,000 SQ. FT.
 LARGEST AREA BETWEEN SEPARATE WALLS: N/A
 HEIGHT: 35-FT
 SPRINKLER SYSTEM: NO
 ROOF CONSTRUCTION: TILE
 HIGH PILED COMBUSTIBLE STORAGE: NO

TYPE OF CONSTRUCTION: V-B
 OCCUPANCY: R-1
 STORIES: 1-STORIES
 ESFR SYSTEM: 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.

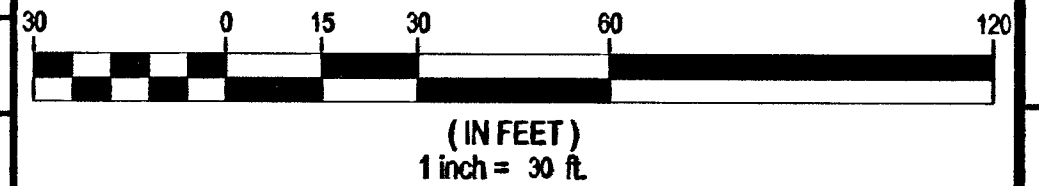
CLV SEWER NOTE

SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY OF LAS VEGAS OFFSITE INSPECTION AND TESTING SECTION PRIOR TO PROJECT ACCEPTANCE. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS AT THE CONNECTION TO A DROP INLET, CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE SEWER SERVICE LATERALS EXITS THE PUBLIC RIGHT-OF-WAY. THE LOCATION SHALL BE DESCRIBED BY STATE PLANE COORDINATES WHICH SHALL BE BASED ON THE "NEVADA COORDINATE SYSTEM OF 1983, EAST ZONE" AS DEFINED BY THE NEVADA REVISED STATUTES CHAPTER 327, AND TIED TO THE CITY OF LAS VEGAS VERTICAL CONTROL BENCHMARK NETWORK. COORDINATES MUST BE CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTIES OF +/- 0.1 METER (+/- 0.3 FEET). A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).

WATER MAIN JOINT DEFLECTION (PVC, 4" - 24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM 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.

SCALE



BASIS OF BEARINGS

SOUTH 00 39'27" WEST BEING THE WEST LINE OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 23, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.B. & M. CLARK COUNTY, NEVADA, PER THE FINAL MAP OF MUSTANGS AND ROME BLVD., RECORDED IN BOOK 123, PAGE 65 OF PLANTS, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

APPROVAL BLOCK

DATE: 8/30/2013
 SCALE: 1"=30'
 JOB NO: DRH-12-037
 DESIGNED BY: CH
 CHECKED BY: RC
 SHEET NAME: UT1
 SHEET: 11 OF 12
 1147824
 3071071
 CC HTE # 12-49141

DR HORTON 330 CAROUSEL PKWY HENDERSON, NV 89014 (702) 885-3600 FAX: (800) 900-4601	TANEY ENGINEERING 6000 S. JONES BLVD STE 100 LAS VEGAS, NV 89118 (702) 582-8644 FAX: (702) 582-5225
UTILITY PLAN I	ROME AND MAVERICK A RESIDENTIAL SUBDIVISION
REVISIONS	APPROVAL BLOCK
DESCRIPTION	APPROVAL BLOCK
SHTS.	APPROVAL BLOCK
DATE	APPROVAL BLOCK

Call Before You Dig
 AVOID HITTING UNDERGROUND UTILITIES & STRUCTURES.
 CALL 1-800-227-2600
 CLARK COUNTY TRAFFIC OPERATIONS
 1-800-455-7544

UnderGround
 AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEMS. CONSULT ITS COORDINATOR.
 CALL 1-702-455-7511
 CLARK COUNTY TRAFFIC OPERATIONS
 1-702-229-6611
 LAS VEGAS, NV 89102

Call Before You Dig
 AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
 CALL BEFORE YOU DIG OVERHEAD
 1-702-227-2929