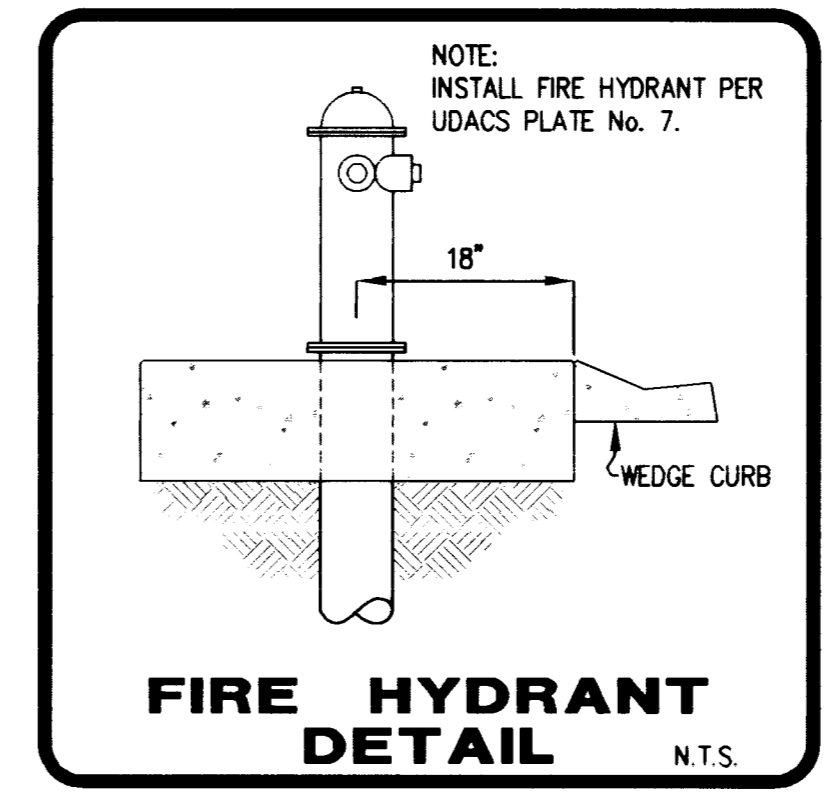
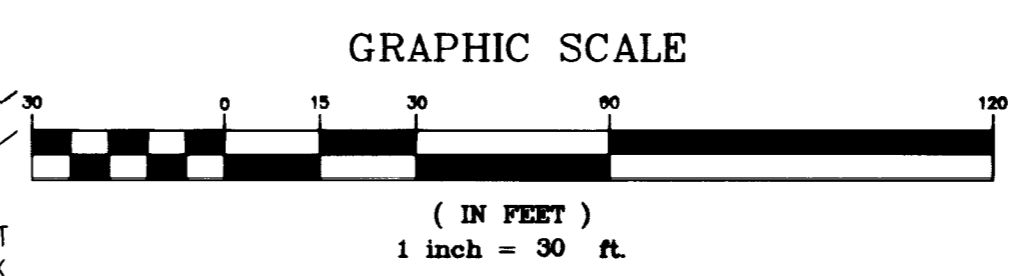
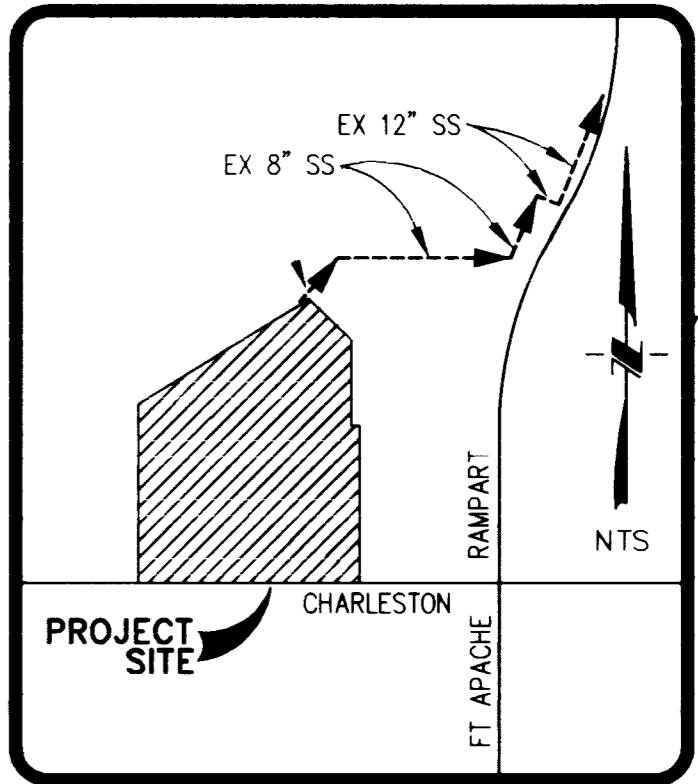
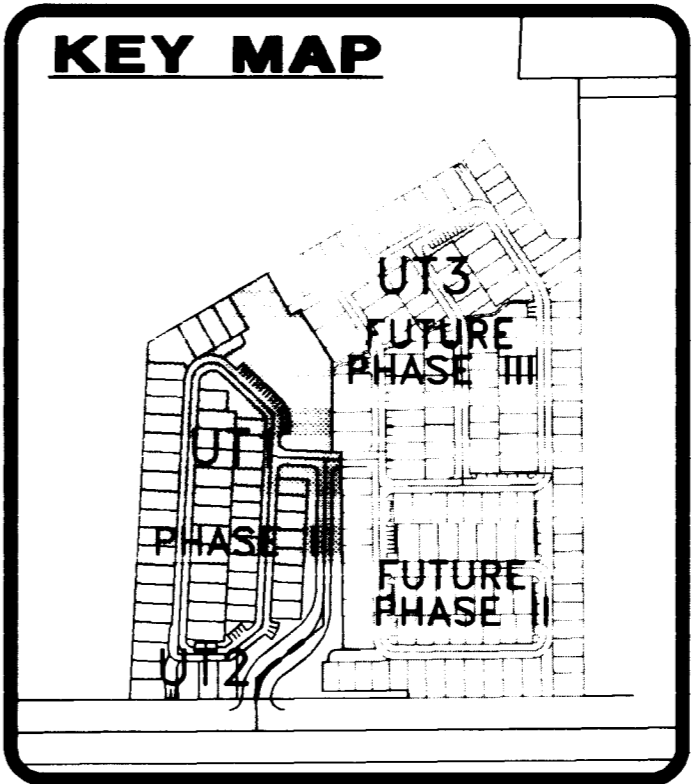
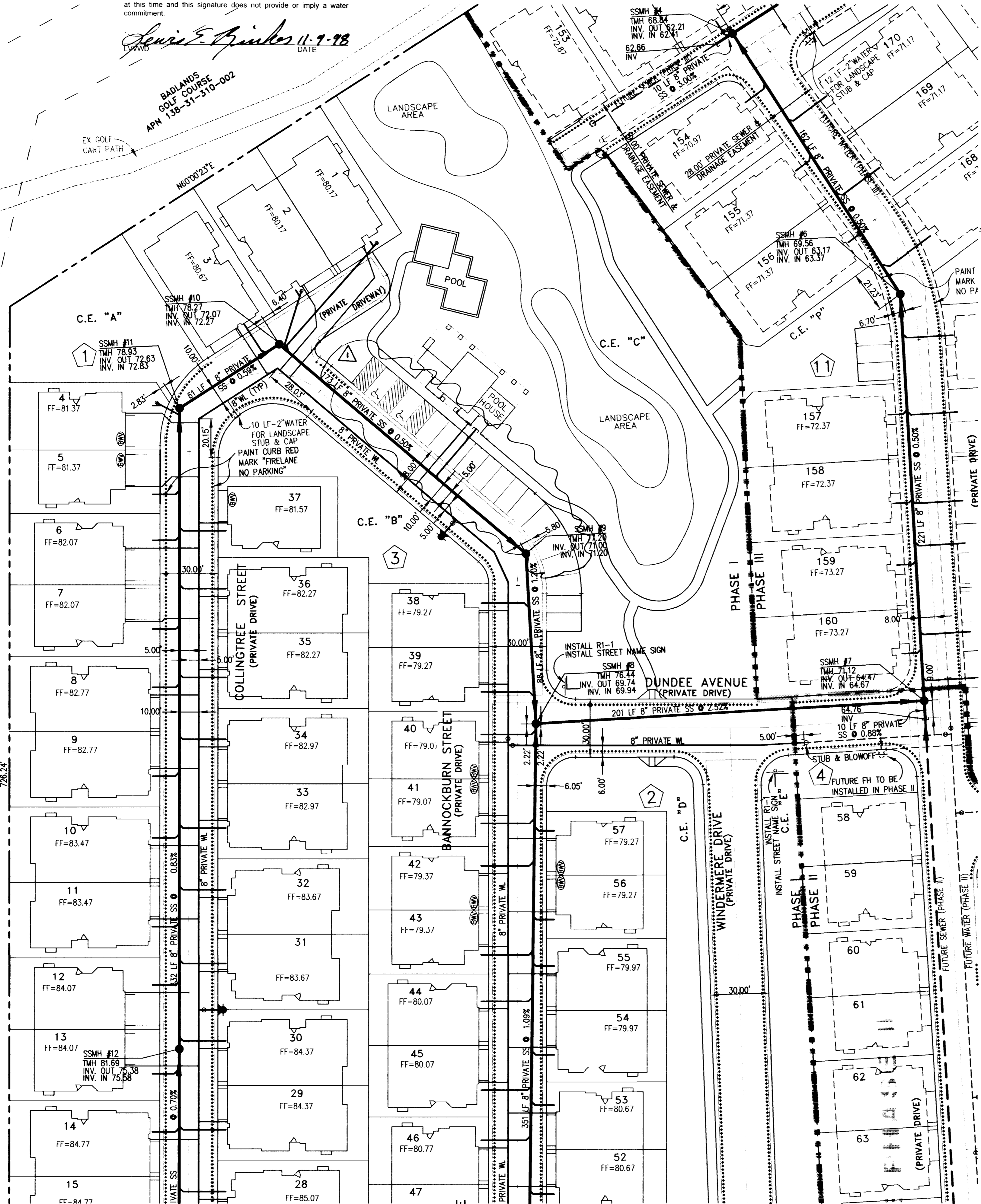


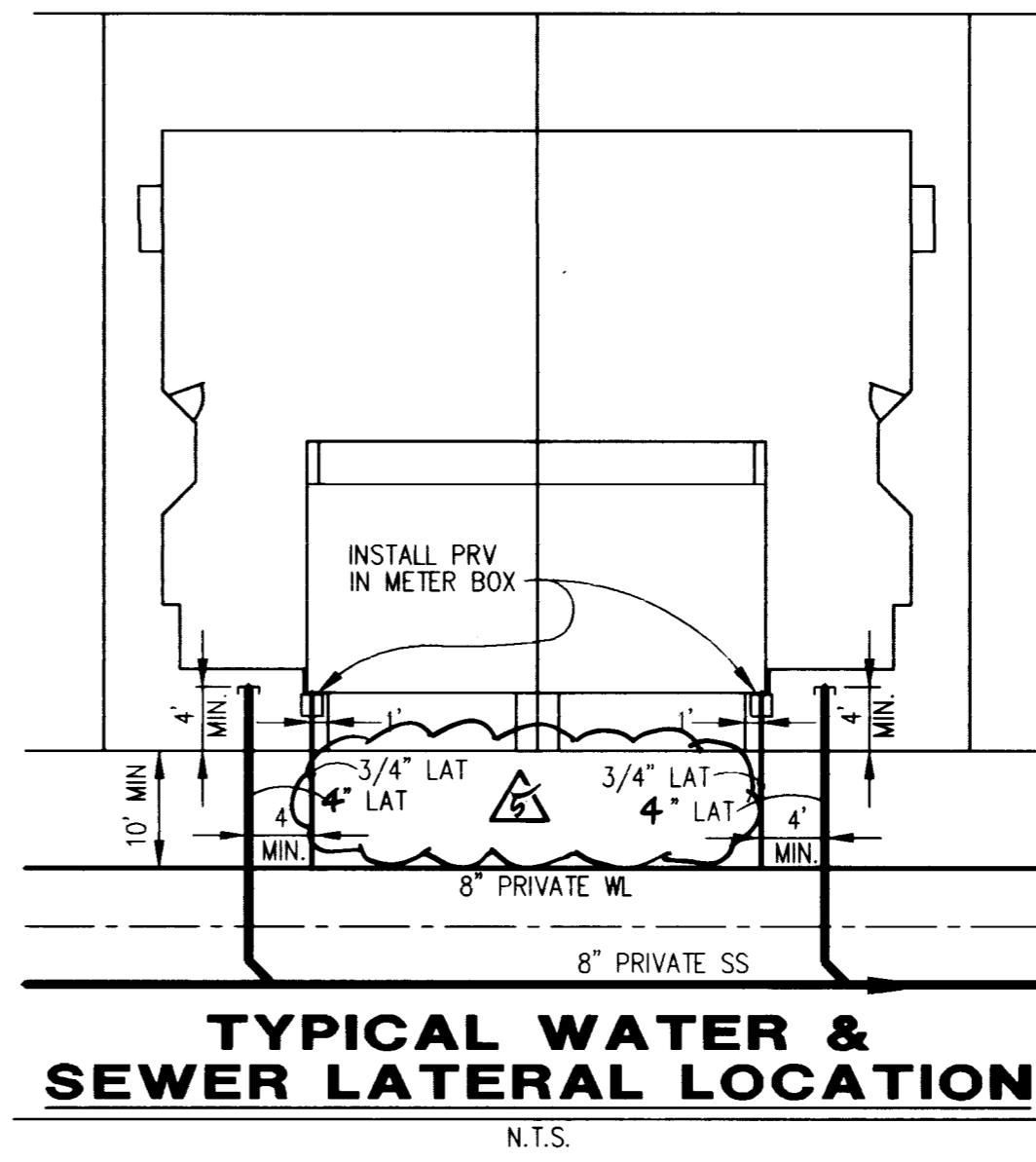
PROJECT NAME: Queensridgeway
Phase I UT3
 This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is **NOT APPROVED FOR CONSTRUCTION** at this time and this signature does not provide or imply a water commitment.

Louis E. Brinkley 11-9-98
 L.V.W.D. DATE

FOR CONTINUATION SEE SHEET U3



- LEGEND**
- FUTURE SEWER MANHOLE AND SEWER LINE
 - FUTURE WATER LINE
 - CAP OR PLUG
 - EXISTING SEWER MANHOLE AND EX. SEWER LINE
 - PROP. SEWER MANHOLE AND SEWER LINE
 - FUTURE FIRE HYDRANT
 - PROP. FIRE HYDRANT AND WATER LINE
 - PAINTED CURB - "FIRE LANE"
 - PROPOSED GATE VALVE (G.V.)
 - EXISTING GATE VALVE
 - BLOW OFF ASSEMBLY
 - TOP OF CLEANOUT
 - INVERT
 - MH MANHOLE
 - FF FINISH FLOOR
 - CO CLEAN OUT
 - SS SANITARY SEWER
 - BWV BACK WATER VALVE
 - SIGN
 - STREET NAME SIGN



SEWER CONTRIBUTION

PHASES I, II & III AVERAGE FLOW = 0.0518 MGD
 PEAK FLOW = 0.1700 MGD
 BASIS OF CALCULATION: PHASE I = 57 UNITS
 PHASE II = 64 UNITS
 PHASE III = 85 UNITS
 PHASE I AVERAGE FLOW = 0.0173 MGD
 PHASE II AVERAGE FLOW = 0.0567 MGD

BASIS OF BEARING
 N. 89°26'21" E., BEING THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 32, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN BOOK 77, PAGE 23, OF PLATS ON FILE IN THE CLARK COUNTY RECORDERS OFFICE, CLARK COUNTY, NEVADA.

LEGAL DESCRIPTION
 BEING A PORTION OF LOT 1, FILE 92, PAGE 48 OF PARCEL MAPS SITUATED IN THE SE 1/4, SE 1/4 OF SECTION 31 AND A PORTION OF THE SW 1/4, SW 1/4 OF SECTION 32 TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

BENCHMARK
 CLV BM # 32 0LVOO 31ES
 RIVET & PLATE IN TOP OF CURB ON CHARLESTON BOULEVARD, 1446' WEST OF FORT APACHE ROAD, NORTH CURB LINE.

ELEVATION = 847.6375 METERS
 2780.96 FEET (NAVD '88)

ESTIMATE OF PUBLIC QUANTITIES

WATER		
8" WATER LINE		32 LF
8" 90° BEND		1 EA
8" 45° BEND		2 EA
8" X 6" REDUCER		1 EA
6" X 3" FNCT W/BYPASS W/ 6" DCVA		1 EA

CONTRACTOR TO VERIFY QUANTITIES. ESTIMATE OF QUANTITIES PROVIDED FOR ENTITY APPROVAL.

FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS: 1500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:
 SQUARE FOOTAGE: N/A SQUARE FEET
 LARGEST AREA BETWEEN 4-HOUR AREA SEPERATION: N/A SQUARE FEET
 WALLS: N/A SQUARE FEET
 BUILDING HEIGHT: N/A FEET
 NUMBER OF STORIES: 2 FLOOR
 TYPE OF CONSTRUCTION: V-N
 OCCUPANCY: SINGLE FAMILY RESIDENTIAL
 FULL AUTOMATIC FIRE SPRINKLER SYSTEM: NO

REVIEWED BY: *[Signature]* 11-5-98
 DATE:

- NOTE**
- ALL DIMENSIONS ARE TO THE CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.
 - CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING UTILITIES AND NOTIFY CIVILTEC IMMEDIATELY ON ANY DISCREPANCIES PRIOR TO ANY CONSTRUCTION.
 - SEE SHEET C2 FOR ENTITY GENERAL NOTES.
 - FOR FIRE FLOW CALCULATIONS, LOT UTILITY DETAIL, FIRE HYDRANT LOCATION DETAIL, AND ESTIMATE OF PUBLIC QUANTITIES, SEE SHEET U3.
 - NO WALLS, FENCES, TREES SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT.
 - PARKING SPACE FOR COMPACT CAR ONLY.
 - APPROXIMATELY 930 LF OF 8" SS WILL BE INSTALLED IN A 20' PRIVATE SEWER EASEMENT (FUTURE PHASE III) TO CONNECT TO EXISTING 8" SS AT THE NORTHEAST END OF FUTURE PHASE III.
 - SEE SOUTHWEST PLANS FOR C.E. LIGHTING

APPROVED FOR CONSTRUCTION
[Signature] 11/21/98
 LAS VEGAS VALLEY WATER DISTRICT DATE

NO.	REVISIONS	DATE
1	REV. TO SINGLE DCVA	11-5-98
2	REV. DET. TO SHOW 4" SS LAT	11-5-98
3	REV. DET. TO SHOW 4" SS LAT	11-5-98
4	COMMON AREA LIGHTING - NOTES	11-14-98
5	REV. TO SHOW 4" SS LAT	11-14-98
6	REV. TO SHOW 4" SS LAT	11-14-98
7	REV. TO SHOW 4" SS LAT	11-14-98
8	REV. TO SHOW 4" SS LAT	11-14-98
9	REV. TO SHOW 4" SS LAT	11-14-98
10	REV. TO SHOW 4" SS LAT	11-14-98
11	REV. TO SHOW 4" SS LAT	11-14-98
12	REV. TO SHOW 4" SS LAT	11-14-98
13	REV. TO SHOW 4" SS LAT	11-14-98
14	REV. TO SHOW 4" SS LAT	11-14-98
15	REV. TO SHOW 4" SS LAT	11-14-98
16	REV. TO SHOW 4" SS LAT	11-14-98
17	REV. TO SHOW 4" SS LAT	11-14-98
18	REV. TO SHOW 4" SS LAT	11-14-98
19	REV. TO SHOW 4" SS LAT	11-14-98
20	REV. TO SHOW 4" SS LAT	11-14-98

CHARTERED DEVELOPMENT
 6120 W TROPICANA SUITE A-16/229
 LAS VEGAS NV 89103
 (702) 872-3994

Civiltec
 ENGINEERS SURVEYORS PLANNERS
 7025 SANDHILL RD LAS VEGAS, NV 89121
 (702) 438-3009

UTILITY PLAN
 NORTHWEST QUARTER
 QUEENSRIDGE
 FAIRWAY HOMES PHASE I
 CITY OF LAS VEGAS NEVADA

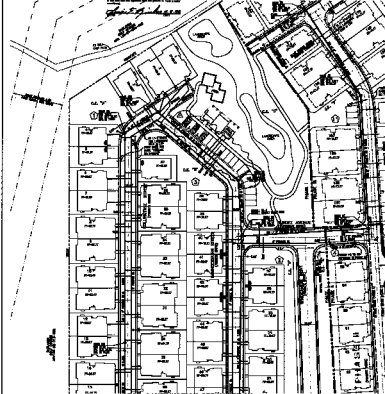
SEAL
 PROFESSIONAL ENGINEER - STATE OF NEVADA
 CAMERON
 11-1-98
 (11-4-98)

SCALE(H): 1" = 30'
 SCALE(V): 1" = 10'
 DES. BY: AMZ
 DWN. BY: dp
 CHK. BY: AMZ
 PROJ. START DATE: 11/97

PROJECT NO. 3074-1
 DRAWING NAME: 3074UT
 SHEET U1
 8 OF 17 SHEETS
 CITY OF LAS VEGAS DWG. NO. 3074-4578-1

Showing Sanitary Sewer, Stormwater, and Water Mains
 1/2" = 100'
 1/4" = 100'

FOR CONTINUATION SEE SHEET 10



FOR CONTINUATION SEE SHEET 10



- LEGEND**
- SANITARY SEWER
 - STORMWATER
 - WATER MAIN
 - 12" WATER MAIN
 - 18" WATER MAIN
 - 24" WATER MAIN
 - 30" WATER MAIN
 - 36" WATER MAIN
 - 42" WATER MAIN
 - 48" WATER MAIN
 - 54" WATER MAIN
 - 60" WATER MAIN
 - 66" WATER MAIN
 - 72" WATER MAIN
 - 78" WATER MAIN
 - 84" WATER MAIN
 - 90" WATER MAIN
 - 96" WATER MAIN
 - 102" WATER MAIN
 - 108" WATER MAIN
 - 114" WATER MAIN
 - 120" WATER MAIN
 - 126" WATER MAIN
 - 132" WATER MAIN
 - 138" WATER MAIN
 - 144" WATER MAIN
 - 150" WATER MAIN
 - 156" WATER MAIN
 - 162" WATER MAIN
 - 168" WATER MAIN
 - 174" WATER MAIN
 - 180" WATER MAIN
 - 186" WATER MAIN
 - 192" WATER MAIN
 - 198" WATER MAIN
 - 204" WATER MAIN
 - 210" WATER MAIN
 - 216" WATER MAIN
 - 222" WATER MAIN
 - 228" WATER MAIN
 - 234" WATER MAIN
 - 240" WATER MAIN
 - 246" WATER MAIN
 - 252" WATER MAIN
 - 258" WATER MAIN
 - 264" WATER MAIN
 - 270" WATER MAIN
 - 276" WATER MAIN
 - 282" WATER MAIN
 - 288" WATER MAIN
 - 294" WATER MAIN
 - 300" WATER MAIN

SEWER CONTINUATION
 SEE SHEET 10 FOR CONTINUATION

NAME OF SEWER
 SEE SHEET 10 FOR NAME OF SEWER

LEGAL DESCRIPTION
 SEE SHEET 10 FOR LEGAL DESCRIPTION

SEWERAGE
 SEE SHEET 10 FOR SEWERAGE

SEWERAGE
 SEE SHEET 10 FOR SEWERAGE

SEWERAGE
 SEE SHEET 10 FOR SEWERAGE

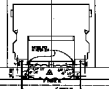
SEWERAGE
 SEE SHEET 10 FOR SEWERAGE

SEWERAGE
 SEE SHEET 10 FOR SEWERAGE

SEWERAGE
 SEE SHEET 10 FOR SEWERAGE

SEWERAGE
 SEE SHEET 10 FOR SEWERAGE

SEWERAGE
 SEE SHEET 10 FOR SEWERAGE



TYPICAL WATER & SEWER LATERAL LOCATION

UTILITIES (EXISTING)
 CITY OF LAS VEGAS
 WESTWIND GOLF COURSE
 FAIRWAY HOUSES PHASE I
 CITY OF LAS VEGAS
 574-1
 574-UT
 1/2" = 100'
 1/4" = 100'