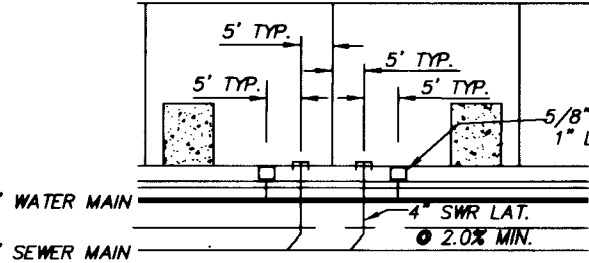
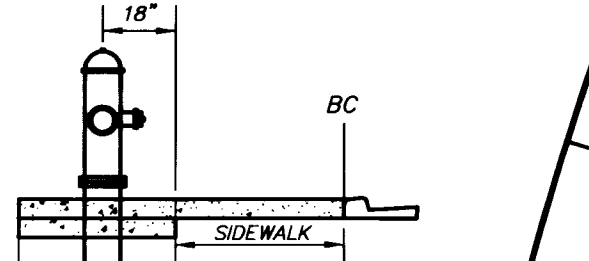


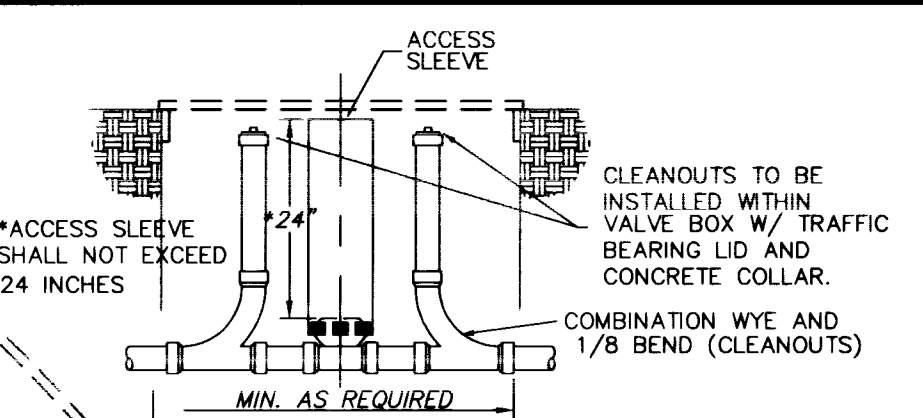
STREET LIGHT LOCATION
N.T.S. SSD NO. E-27



TYPICAL LATERAL LOCATION
N.T.S.



FIRE HYDRANT LOCATION
N.T.S. STD DWG NO. 519



SEWER BACKWATER VALVE

KEY NOTES:

- INSTALL BLOWOFF ASSEMBLY
- INSTALL 8" GATE VALVE
- INSTALL 8"x6" TEE, 6" GATE VALVE, AND FIRE HYDRANT ASSEMBLY
- INSTALL 8" TEE W/THRUST BLOCK
- INSTALL 90° ELBOW W/THRUST BLOCK
- INSTALL 45° ELBOW W/THRUST BLOCK
- INSTALL 22 1/2" ELBOW W/THRUST BLOCK
- INSTALL 8"x 6" TEE W/THRUST BLOCK
- REMOVE PLUG AND CONNECT TO EXISTING 8" WATER STUB
- INSTALL 45° ELBOW AND 11 1/4" ELBOW W/THRUST BLOCK
- INSTALL 11 1/4" TEE W/THRUST BLOCK
- INSTALL IRRIGATION SLEEVES PER SIS U-18
- INSTALL 1 1/4" STLT CONDUIT
- REACH WATER MAIN BELOW SEWER AND STORM DRAIN @ ELEV. INV. 34.77 INSTALL 45° BENDS TO TRANSITION BACK TO MIN. COVER 10" MIN. PAST SEWER AND SD CROSSING. SEE DETAIL "W" SHEET 21.

THE FOLLOWING LOTS WITHIN BROOKFIELD REQUIRE A RESIDENTIAL SEWER BACKWATER VALVE:
LOIS: 13-15, 18-20, 58-64, 67-77, 96-100, 141-145
NOTE: SEE THIS SHEET FOR SEWER BACKWATER VALVE DETAIL.

LEGEND:

- PROPOSED PVC SEWER MAIN WITH 4" MANHOLE
- PROPOSED PVC WATER MAIN AND GATE VALVE
- PROPOSED FIRE HYDRANT ASSEMBLY
- EXISTING PVC SEWER MAIN WITH EXISTING MANHOLE
- EXISTING PVC WATER MAIN AND GATE VALVE
- EXISTING FIRE HYDRANT ASSEMBLY
- PROPOSED 1" WATER SERVICE LATERAL WITH 5/8" METER, STUB & PLUG
- PROPOSED 4" SEWER LATERAL AND CLEANOUT
- PROPOSED DRIVEWAY LOCATIONS
- EXISTING STREET LIGHT
- PROP. 100W HPS STREETLIGHT
- PROP. 1 1/4" ST. LT. CONDUIT
- PROP. SEWER BACKWATER VALVE
- PHASE LINE
- MATCH LINE

- NOTES:**
- THE CITY OF LAS VEGAS AND HUNSAKER & ASSOCIATES SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES IN THE PLANS OR CONDITIONS IN THE FIELD.
 - ALL UTILITY INSTALLATION SHALL CONFORM TO LAS VEGAS VALLEY WATER DISTRICT STANDARDS AND THE UNIFORM PLUMBING CODE.
 - ALL WORK TO BE PERFORMED OUTSIDE OF THE PROJECT BOUNDARY AND ON PRIVATE PROPERTY SHALL NOT BE PERFORMED UNTIL WRITTEN PERMISSION AND EASEMENT HAVE BEEN OBTAINED FROM THE OFFSITE OWNER.
 - ALL WORK PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY AND OUTSIDE THE PROJECT BOUNDARY SHALL BE PERFORMED UNDER A SEPARATE ENCROACHMENT PERMIT ISSUED BY THE CITY OF LAS VEGAS.
 - ALL FIRE HYDRANTS SHALL BE PLACED A MIN. 18" BEHIND BACK OF SIDEWALK.
 - CONTRACTOR SHALL PROVIDE A MINIMUM OF 11 FEET SEPARATION BETWEEN WATER MAIN AND SANITARY SEWER MAIN.
 - PRIOR TO CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS AND SHALL CONTACT ENGINEER IF ANY DISCREPANCIES ARE FOUND.
 - FIRE HYDRANT STATIONING REFERENCES TEE LOCATION.
 - ADD 3100' TO ALL ELEVATIONS SHOWN.
 - ALL STREETS WITHIN SUBDIVISION ARE PUBLIC STREETS, P.U.E.s AND CITY OF LAS VEGAS SEWER EASEMENTS.
 - A 1" X 3/4" ANGLE METER STOP AND 3/4" METER BOX WILL BE REQUIRED WITH THE 1" SERVICE LATERALS FOR ALL SERVICES WITH 5/8" OR 3/4" SERVICES. DETAILS OF THE ABOVE INSTALLATION ARE AVAILABLE FROM THE ENGINEERING SERVICES DIVISION AND FROM THE DISTRICT'S INSPECTORS.

LAS VEGAS FIRE DEPARTMENT

FIRE FLOW IS: 1500 GPM AT 20 PSI RESIDUAL PRESSURE

BASED ON:	2000 SF
SQUARE FOOTAGE:	2000 SF
LARGEST AREA BETWEEN 4-HR:	N/A
AREA SEPARATION WALLS:	N/A
BUILDING HEIGHT:	25 FEET
NUMBER OF STORIES:	2 FLOORS
OCCUPANCY:	RESIDENTIAL
FULL AUTOMATIC FIRE SYSTEM:	N/A

NOTE: SEE SHEET 15 FOR SEWER DISCHARGE MAP

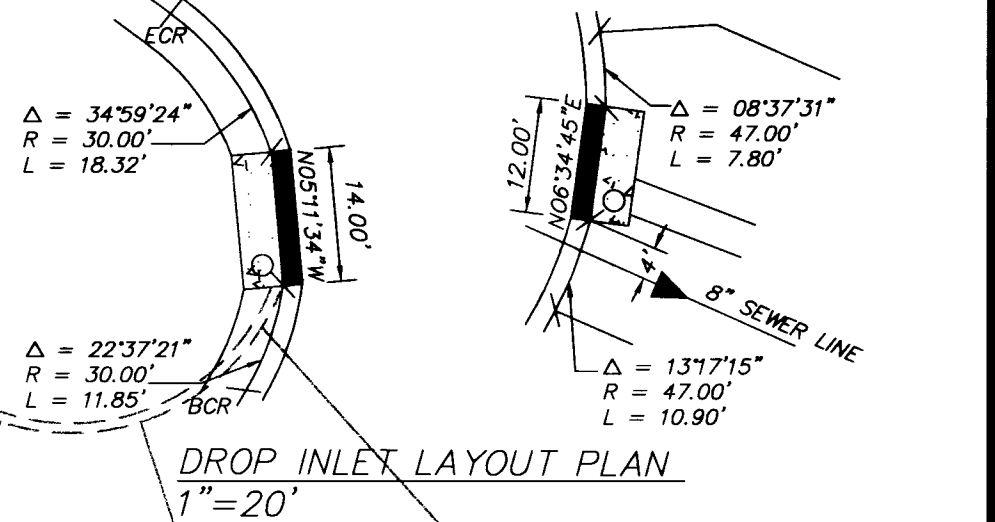
SEWER CONNECTION NOTE

ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

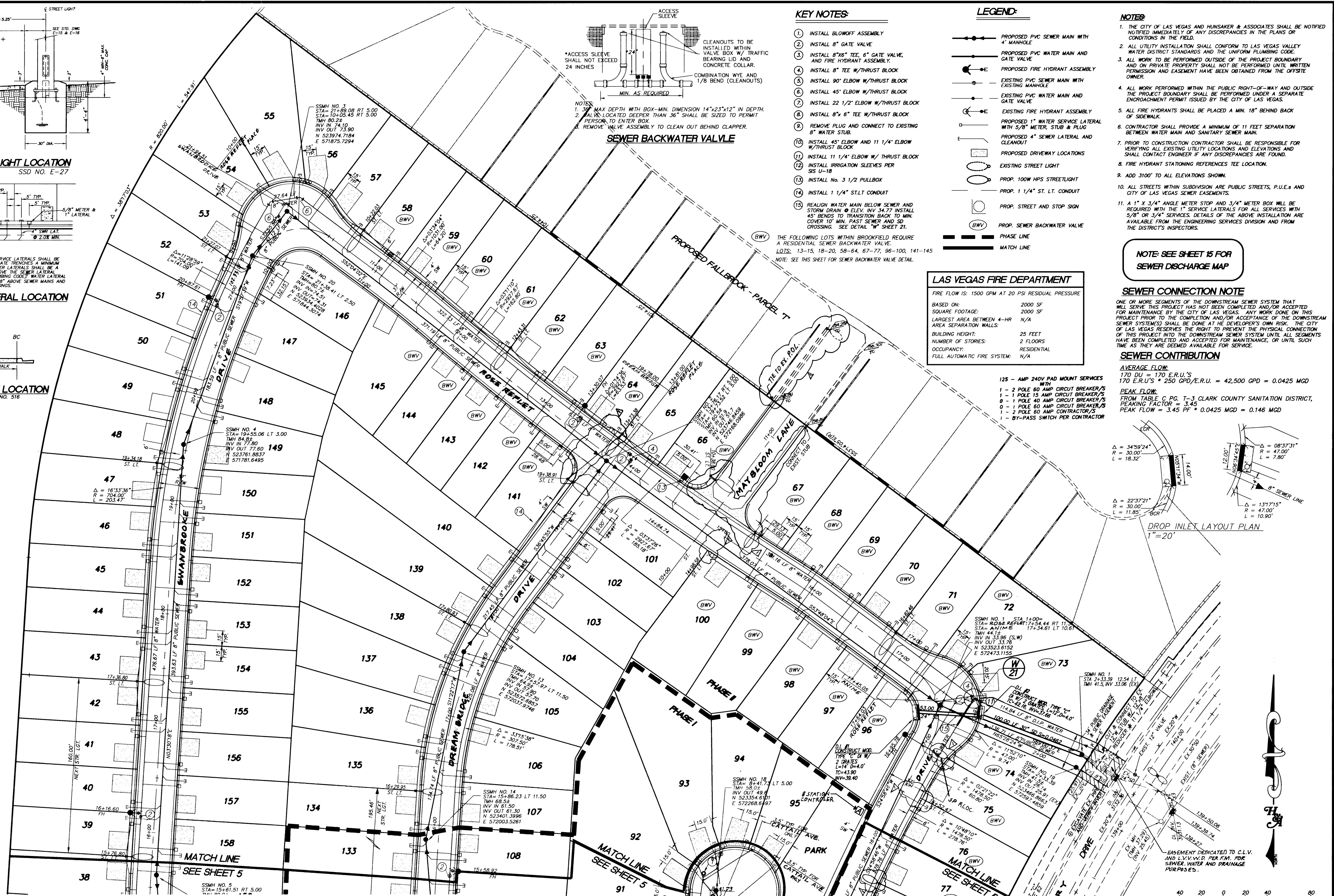
SEWER CONTRIBUTION

AVERAGE FLOW:
170 DU = 170 E.R.U.'S
170 E.R.U.'S * 250 GPD/E.R.U. = 42,500 GPD = 0.0425 MGD

PEAK FLOW:
FROM TABLE C PG. T-3 CLARK COUNTY SANITATION DISTRICT.
PEAKING FACTOR = 3.45
PEAK FLOW = 3.45 PF * 0.0425 MGD = 0.146 MGD



DROP INLET LAYOUT PLAN
1" = 20'



Avoid overhead power line contact.
Call before you Overhead
1-702-593-6111
NEVADA POWER ENVIRONMENT SAFETY SERVICES DEPARTMENT

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

LEGAL DESCRIPTION:
LOT 3 AS SHOWN ON THE FINAL MAP OF THE ARBORS AT SUMMERLIN VILLAGE 11.11 UNIT NO. 3 4-81 AS RECORDED IN BOOK 78 OF PLATS, PAGE 62, BEING A PORTION OF SECTIONS 23 AND 26, TOWNSHIP 20 SOUTH, RANGE 29 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.
A.P.N. 137-26-511-001

BASIS OF BEARING:
BEING THE LINE BETWEEN CONTROL POINTS #189 AND #197 AS SAID CONTROL POINTS ARE SHOWN ON THE RECORD OF SURVEY IN FILE 85, OF SURVEYS, PAGE 17, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA. THE COORDINATES OF THESE CONTROL POINTS ARE PUBLISHED IN RECORD OF SURVEY, USING THESE COORDINATES, THE COMPUTED LINE BETWEEN CONTROL POINTS #187 AND #199 IS NORTH 46°10'00" EAST.

BENCHMARK:
BEING CONTROL POINT #199 AS SHOWN ON THE RECORD OF SURVEY IN FILE 85 OF SURVEYS, PAGE 17, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA. THE ELEVATION OF 3107.63 SUMMERLIN DATUM (SUMMERLIN DATUM + 2.20 = NAD 83) CLV BENCHMARK NO. 010988855. RIVER AND PLATE IN TOP OF CURB. I.E. RETURN OF CHARLESBOULEVARD AND HUALAPAI WAY ELEVATION: NAVD 88 = 2932.23 SUMMERLIN = 2910.05 (DATUM FOR THIS PROJECT)

SCALE: HORIZ = 1" = 40'

APPROVALS
Amey Chong 5/22/98
CITY FIRE MARSHALL DATE
L.V.W.D. 5-22-98
DATE

KAUFMAN BROAD
4755 INDUSTRIAL ROAD
LAS VEGAS, NV 89103
(702) 261-1000

HUNSAKER & ASSOCIATES
PLANNING & ENGINEERING
SUBDIVISION
Las Vegas, NV
San Bernardino, CA
Phoenix, AZ
401 N. Buffalo Dr. Suite 100, Las Vegas, Nevada 89108 (702) 242-4400

UTILITY PLAN
CITY OF LAS VEGAS
NEVADA
BROOKFIELD PARCEL "U"
PHASE I AND II - SUMMERLIN

QUALITY CONTROL BY: SHEET
DRAWN BY: M. CATRAN
DESIGNED BY: C. PEREZ
CHECKED BY: C. PEREZ
PROJECT NO.: 1506-30
SCALE: 1" = 40'

UT2
6 OF 22
307Y-4545-1+2

