

- NOTES:**
- 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 FIRE HYDRANTS SHALL BE PLACED A MIN. 18" BEHIND BACK OF SIDEWALK, SEE SHEET 9 OF 9 FOR DETAIL.
 - 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 2400' TO ALL ELEVATIONS SHOWN.

SEWER CONTRIBUTION

80 ERU @ 90,000 GPD/EACH
 APPROXIMATELY 19,726 GPD TOTAL
 PEAK FACTOR = 3.3
 APPROXIMATE PEAK FLOW = 65,085 GPD

SEWER QUANTITIES

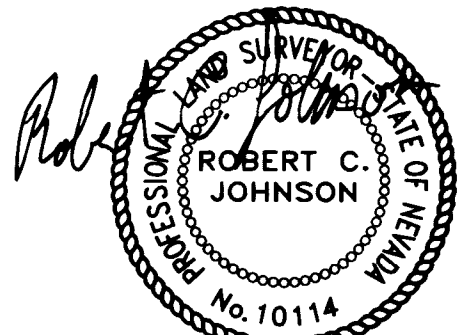
| | |
|---------------------------|-----------|
| 8" SEWER LINE | 2729 L.F. |
| 4" SEWER SERVICE LATERALS | 80 EA. |
| SEWER MANHOLES | 15 EA. |

WATER QUANTITIES

| | |
|---|-----------|
| 8" WATER LINE | 2205 L.F. |
| 6" WATER LINE | 469 L.F. |
| 1" WATER SERVICE LATERALS W/ 5/8" METER | 80 EA. |
| 8" GATE VALVES | 5 EA. |
| FIRE HYDRANT ASSEMBLY | 6 EA. |
| 8" TEES | 3 EA. |
| BLOWOFF ASSEMBLY | 4 EA. |
| 8"x 6" TEE | 1 EA. |
| 90° ELBOW | 1 EA. |
| 8"x 6" REDUCER | 2 EA. |
| 22 1/2" ELBOW | 1 EA. |
| 11 1/4" ELBOW | 1 EA. |

AS-BUILTS NOTES:

THE DISTANCES SHOWN FROM THE LOT LINES TO THE SEWER LATERALS WERE MEASURED IN THE FIELD FROM LOT CORNER SCRIBES TO THE POINT WHERE THE UNDERGROUND CONTRACTOR MARKED THE SEWER LATERAL LOCATION ON THE CURB. NO ATTEMPT HAS BEEN MADE TO VERIFY THE CONTRACTOR'S MARKS. HUNSAKER AND ASSOCIATES ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF SAID MARKS. THE INVERT AND RIM ELEVATIONS OF THE MANHOLES WERE DETERMINED BY A FIELD SURVEY.



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.

SEWER VICINITY MAP

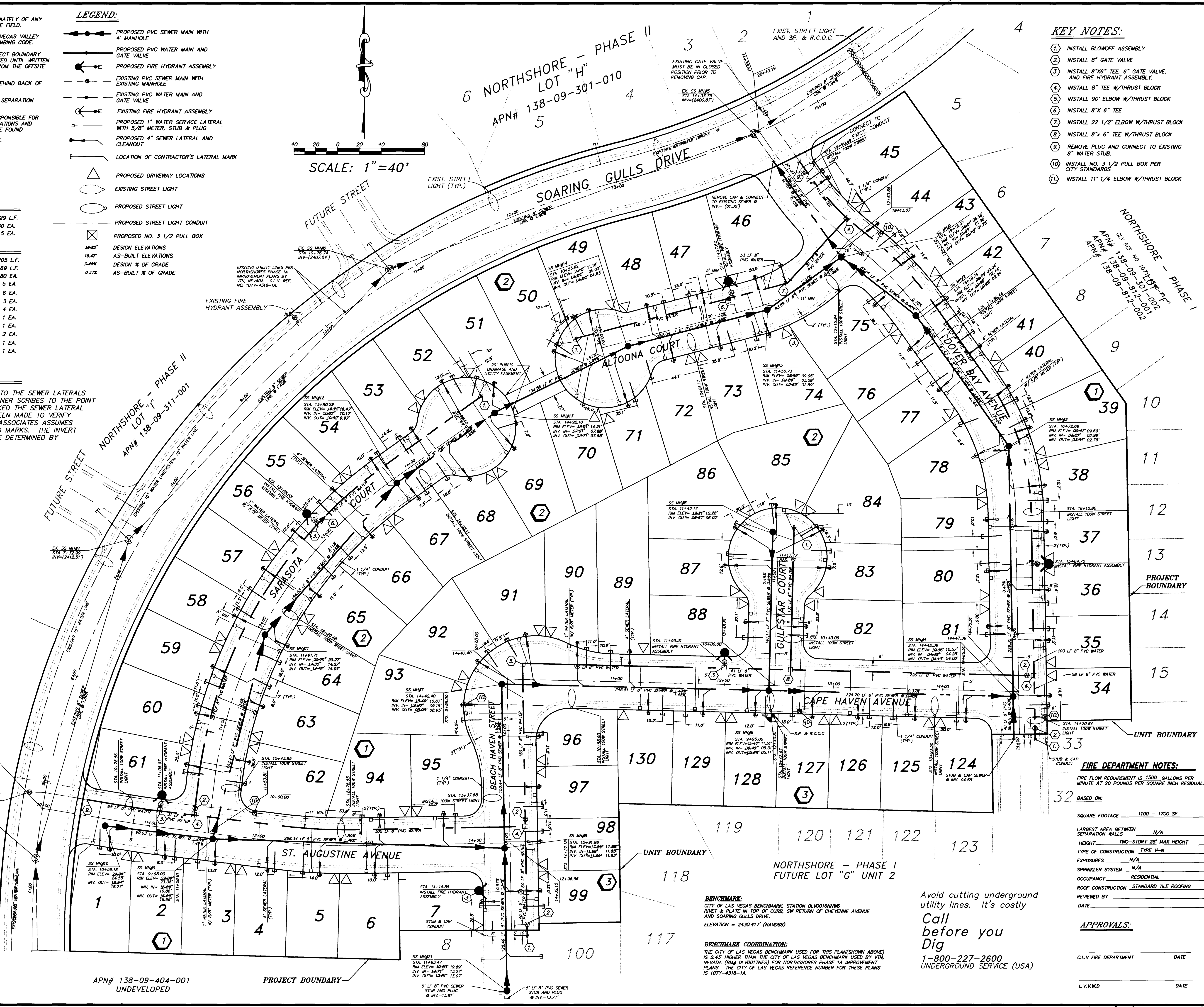
NO SCALE

A.P.N. 138-09-801-010

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

- 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
 - LOCATION OF CONTRACTOR'S LATERAL MARK
 - PROPOSED DRIVEWAY LOCATIONS
 - EXISTING STREET LIGHT
 - PROPOSED STREET LIGHT
 - PROPOSED STREET LIGHT CONDUIT
 - PROPOSED NO. 3 1/2 PULL BOX
 - DESIGN ELEVATIONS
 - AS-BUILT ELEVATIONS
 - DESIGN % OF GRADE
 - AS-BUILT % OF GRADE

SCALE: 1" = 40'



- 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 8"x 6" TEE
 - 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 NO. 3 1/2 PULL BOX PER CITY STANDARDS
 - INSTALL 11" 1/4 ELBOW W/THRUST BLOCK

FIRE DEPARTMENT NOTES:

FIRE FLOW REQUIREMENT IS 1500 GALLONS PER MINUTE AT 20 POUNDS PER SQUARE INCH RESIDUAL.

BASED ON:

| | |
|---------------------------------------|--------------------------|
| SQUARE FOOTAGE | 1100 - 1700 SF |
| LARGEST AREA BETWEEN SEPARATION WALLS | N/A |
| HEIGHT | TWO-STORY 28' MAX HEIGHT |
| TYPE OF CONSTRUCTION | TYPE V-N |
| EXPOSURES | N/A |
| SPRINKLER SYSTEM | N/A |
| OCCUPANCY | RESIDENTIAL |
| ROOF CONSTRUCTION | STANDARD TILE ROOFING |

REVIEWED BY: DATE: APPROVALS:

APPROVALS:

| | |
|-----------------------|------|
| CL.V. FIRE DEPARTMENT | DATE |
| L.V.V.W.D. | DATE |

PREPARED BY: Hunsaker Planning & Engineering, Inc. Surveying, Planning, Engineering, Nevada, Inc.

PROJECT: NORTHSHORES - PHASE I LOT "G" UNIT 1 LAS VEGAS, NEVADA

SCALE: (H): 1" = 40' (V): 1" = 40'

DESIGN BY: R.C.J.

DATE: 5/98

PROJECT NO.: 1221-16

SHEET: 1 OF 1

REVISIONS:

| NO. | DESCRIPTION | BY | DATE | APPR. |
|-----|-------------|----|------|-------|
| | | | | |

