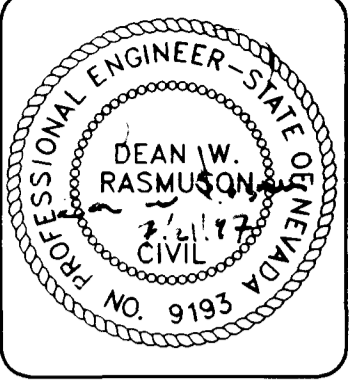


IMPROVEMENT PLANS FOR WASHINGTON & SANDHILL UNIT I



| | |
|--------------|---|
| DESIGNED BY: | DATE: |
| CHECKED BY: | JOB NUMBER: 020-6001 |
| DRAWN BY: | REVISION: |
| NO. | BY DATE |
| 1 | REVISE STREET NAMES PER FINAL MAP 5/14/98 |

COVER SHEET
WASHINGTON & SANDHILL
UNIT I
REX & FRAN CALLAWAY FAMILY TRUST
 CITY OF LAS VEGAS, NEVADA

ORION ENGINEERING AND SURVEYING, INC.
2700 CHANDLER AVENUE, SUITE B-1
LAS VEGAS, NEVADA 89120
(702) 739-5921 FAX (702) 739-5929

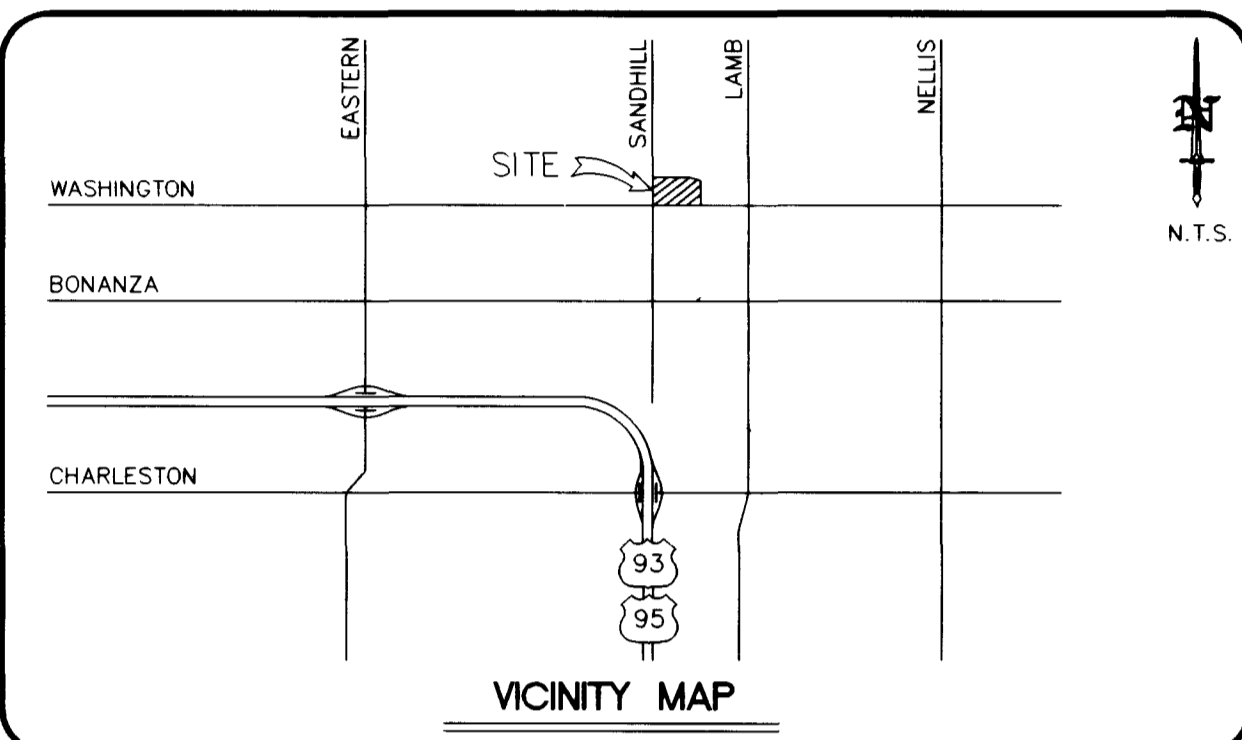
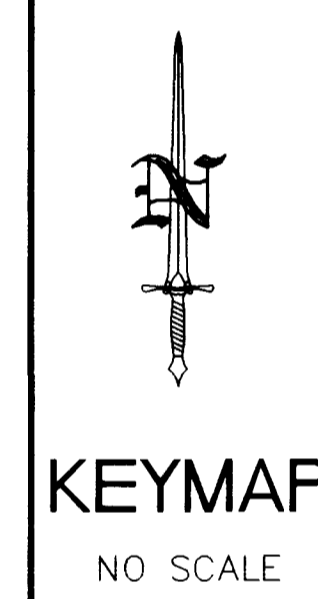
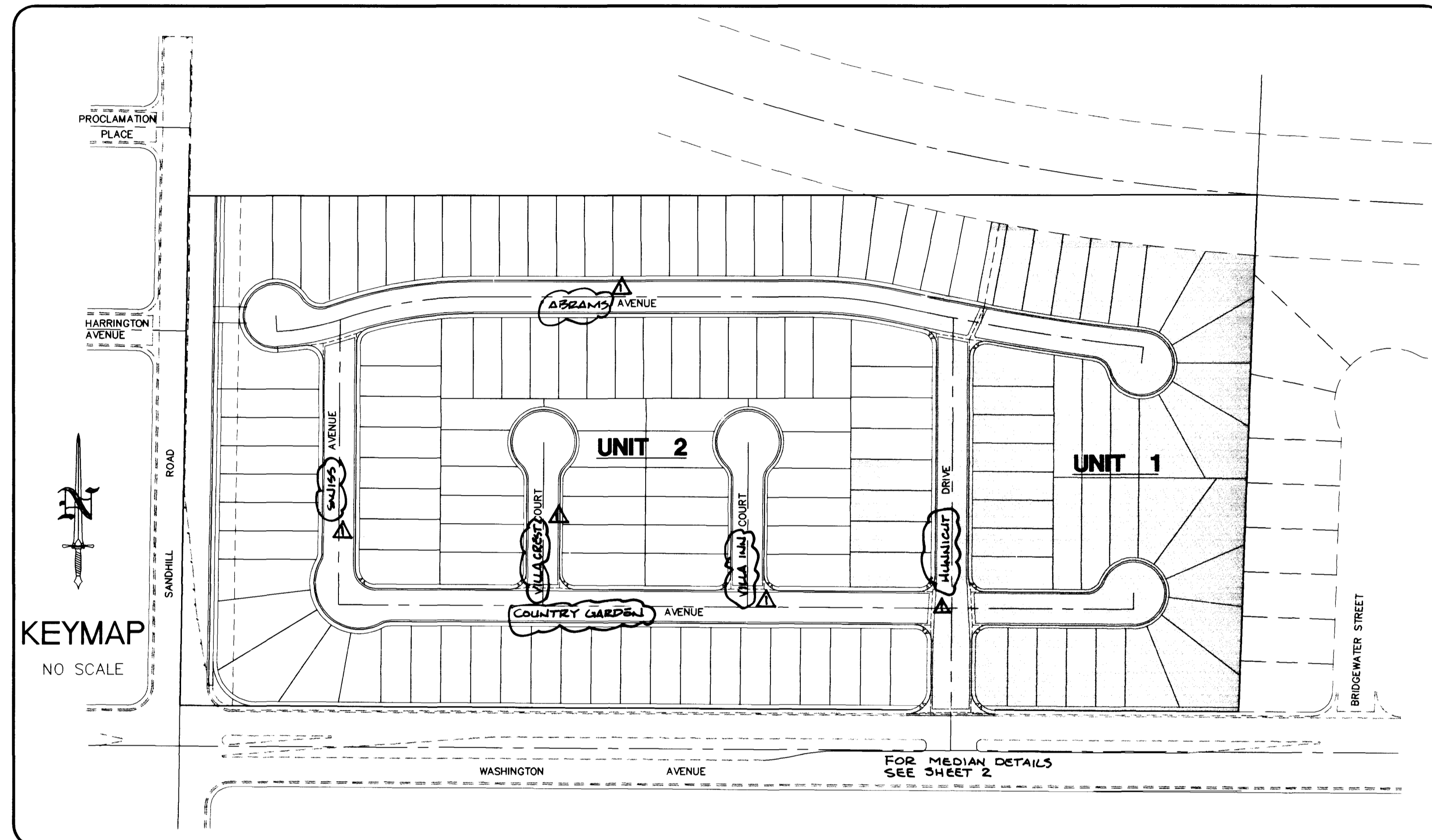
SHEET 1
of 9

ABBREVIATIONS

| | |
|-----|----------------------|
| AC | ASPHALT CONCRETE |
| TC | TOP OF CURB |
| FG | FINISH GRADE |
| FL | FLOW LINE |
| EP | EDGE OF PAVEMENT |
| GB | GRADE BREAK |
| BVC | BEGIN VERTICAL CURVE |
| BFE | BASE FLOOD ELEVATION |
| EVG | END VERTICAL CURVE |

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST ISSUE; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
- THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCES WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD OR UNDERGROUND POWER, GAS AND/OR OTHER UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COSTS AND LIABILITY IN CONNECTION THEREWITH.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES, AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER OR OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
- ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
- TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGN TO BE APPROVED BY THE QUALITY CONTROL DIVISION PRIOR TO USE ON THE PROJECT.
- PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
- EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED TYPE CURB.
- AC PAVEMENT TO BE 1/2" ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS.
- APPLY FOG SEAL ONLY AFTER ALL CORRECTIONS AND ADJUSTMENTS HAVE BEEN MADE.
- CURB & GUTTER WITH A GRADE OF LESS THAN FOUR TENTHS OF ONE PERCENT SHALL BE WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION. ANY CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY SHALL BE REMOVED AND REPLACED.
- SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF TRANSITIONS TO BE SHOWN AS ON PLANS, OR AS DESIGNATED IN THE FIELD BY A CITY INSPECTOR.
- ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
- EXACT LOCATION OF ALL SCOUT LINES MAY BE DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS INSPECTOR IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATION.
- CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.550.
- UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC. SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.
- WALL NOTES:
A. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN FOR THE PURPOSE OF GRADING RELATIONSHIPS.
B. THE STRUCTURAL AND ARCHITECTURAL DESIGN OF ALL WALLS (RETAINING OR NON-RETAINING) MUST BE APPROVED BY THE CLV BUILDING DEPARTMENT.
- ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO PLACEMENT OF ASPHALT ON CITY STREETS.



ENGINEER

ORION ENGINEERING & SURVEYING INC.
 CIVIL ENGINEERING - PLANNING - LAND SURVEYING
 2700 CHANDLER AVENUE, SUITE B-1
 LAS VEGAS, NEVADA 89120
 (702) 739-5921 FAX (702) 739-5929

- INDEX OF DRAWINGS**
- COVER SHEET
 - NOTES AND DETAILS
 - GRADING PLAN - I
 - UTILITY PLAN
 - PLAN AND PROFILE - HUNNICH DR. AND COUNTRY GARDEN
 - PLAN AND PROFILE - ADAMS AVE. - PAVED
 - PLAN AND PROFILE - ADAMS AVE. - GRAVEL
 - CHANNEL PLAN - I
 - CHANNEL PLAN - II

DEVIATIONS FROM STANDARDS

- THE USE OF A STRAIGHT GRADE STREET SECTION ALONG SANDHILL ROAD TO ACHIEVE CLEARANCE OVER THE EXISTING 3'-8"x12" RCB'S IS A DEVIATION FROM STANDARD (FUTURE PHASE)

ESTIMATED QUANTITIES

| ITEM (OFF-SITES) | QUANTITY |
|----------------------------------|----------|
| 2" A.C. PAVEMENT | 424 SF |
| AGGREGATE BASE | 2610 CY |
| ROLL CURB & GUTTER | 2075 LF |
| SIDEWALK | 8608 SF |
| CROSS GUTTER | 3237 SF |
| 6" TYPE III GRAVEL ROAD | 510 CY |
| MEDIAN MODIFICATION | 1 L.S. |
| 150 W HPS STREET LIGHT | 2 EA |
| 250 W HPS STREET LIGHT | 1 EA |
| WATER | |
| SEE SHEET 4 OF 9 FOR QUANTITIES. | |
| SEWER | |
| SEE SHEET 4 OF 9 FOR QUANTITIES. | |
| ELEVATION ADJUSTMENT | |
| 16390 CY | |
| WATER | |
| 2 EA | |
| FLOOD CONTROL | |
| 35 L.S. | |

BENCHMARK

NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)

B.M. NO. 16 STATION 0002 20WS
 FOUND RIVET AND SQUARE ALUMINUM PLATE IN TOP OF CURB,
 IN THE NORTHEAST CORNER OF OWENS AVE. AND LAMB BLVD. NEAR THE
 P.C. OF OWENS AVE.

ELEVATION = 1792.13 FEET
 546.243 METERS

BASIS OF BEARING

BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE1/4) OF THE
 NORTHEAST QUARTER (NE1/4) OF SECTION 30, T.20S., R. 62E., M.D.M.,
 CITY OF LAS VEGAS, CLARK COUNTY, NEVADA. SAID LINE BEARS
 N.89°53'26"E.

PROPERTY OWNER

REX & FRAN CALLAWAY FAMILY TRUST
 P.O. BOX 8180
 LAS VEGAS, NEVADA 89180
 (702)-795-4500

LEGAL DESCRIPTION

BEING A PORTION OF THE SOUTH HALF (S1/2) OF THE
 SOUTHWEST QUARTER (SW1/4) OF THE NORTHEAST QUARTER
 (NE1/4) OF SECTION 30, T.20S., R. 62E., M.D.M.,
 CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

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 OR OVER-
 HEAD 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.
 Call before you Dig
 1-800-227-2600
 (underground service only)

Avoid overhead power line contact.
 Call before you Overhead
 1-702-593-6111
 (NEVADA POWER CORPORATION AND SAFETY SERVICE DEPARTMENT)

APPROVALS

APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHTS-OF-WAY AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE THE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIFICALLY LISTED UNDER "DEVIATIONS FROM STANDARDS". THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN "DEVIATIONS FROM STANDARDS" IN FAVOR OF THE UNIFORM STANDARDS DRAWINGS AND SPECIFICATIONS CLARK COUNTY AREA NEVADA.

Dennis Anderson 4-17-98
 DENNIS ANDERSON P.E. #9160
 CITY OF LAS VEGAS CITY ENGINEER

SEE SHEET # 4
 CITY OF LAS VEGAS FIRE DEPARTMENT DATE

SEE SHEET # 4
 LAS VEGAS VALLEY WATER DISTRICT DATE

Curt Lambert 7-29-97
 NEVADA POWER COMPANY DATE

THIS APPROVAL IS ONLY FOR THE PLACEMENT AND CLEARANCE OF STREETLIGHTS AND SIGNAL LIGHT INSTALLATION.

Shahid McCarry 7-21-97
 SOUTHWEST GAS CORPORATION DATE

Noble Smith 7-22-97
 SPRING CENTRAL TELEPHONE - NEV. DATE

Victor Koushan 7-22-97
 PRIME CABLE DATE

IMPROVEMENT PLANS FOR WASHINGTON & SANDHILL UNIT I



| | |
|----------|----------|
| DATE | 11/15/01 |
| BY | ... |
| CHECKED | ... |
| APPROVED | ... |

CORNER SHEET
 WASHINGTON & SANDHILL
 UNIT I
 SEE 2 PLANS CALLISTO FAMILY TRUST
 11/15/01

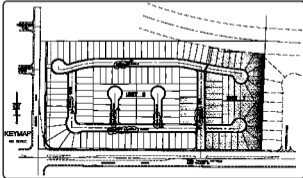
ORION
 CIVIL ENGINEERING & ARCHITECTURE
 1111 K STREET, SUITE 200
 SAN DIEGO, CA 92101
 TEL: 619-594-1111
 FAX: 619-594-1112

SHEET 1
 OF 4

| ADDITIONAL NOTES | |
|------------------|----------|
| 1. | SEE PLAN |
| 2. | SEE PLAN |
| 3. | SEE PLAN |
| 4. | SEE PLAN |
| 5. | SEE PLAN |
| 6. | SEE PLAN |
| 7. | SEE PLAN |
| 8. | SEE PLAN |
| 9. | SEE PLAN |
| 10. | SEE PLAN |

GENERAL NOTES

1. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF SAN DIEGO SPECIFICATIONS AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS.
3. ALL MATERIALS SHALL BE APPROVED BY THE CITY ENGINEER.
4. ALL UTILITIES SHALL BE PROTECTED AND DEEPENED AS NECESSARY.
5. ALL EXISTING UTILITIES SHALL BE MAINTAINED AND PROTECTED.
6. ALL NEW UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF SAN DIEGO SPECIFICATIONS.
7. ALL CONCRETE SHALL BE 3000 PSI COMPRESSIVE STRENGTH.
8. ALL REINFORCEMENT SHALL BE #4 BARS.
9. ALL CURBS SHALL BE 4" HIGH AND 12" WIDE.
10. ALL DRIVEWAYS SHALL BE 12" THICK CONCRETE ON 4" GRANULAR FILL.
11. ALL SIDEWALKS SHALL BE 4" THICK CONCRETE ON 4" GRANULAR FILL.
12. ALL DRIVEWAY AND SIDEWALK JOINTS SHALL BE 1/4" GALVANIZED IRON.
13. ALL DRIVEWAY AND SIDEWALK JOINTS SHALL BE 1/4" GALVANIZED IRON.
14. ALL DRIVEWAY AND SIDEWALK JOINTS SHALL BE 1/4" GALVANIZED IRON.
15. ALL DRIVEWAY AND SIDEWALK JOINTS SHALL BE 1/4" GALVANIZED IRON.
16. ALL DRIVEWAY AND SIDEWALK JOINTS SHALL BE 1/4" GALVANIZED IRON.
17. ALL DRIVEWAY AND SIDEWALK JOINTS SHALL BE 1/4" GALVANIZED IRON.
18. ALL DRIVEWAY AND SIDEWALK JOINTS SHALL BE 1/4" GALVANIZED IRON.
19. ALL DRIVEWAY AND SIDEWALK JOINTS SHALL BE 1/4" GALVANIZED IRON.
20. ALL DRIVEWAY AND SIDEWALK JOINTS SHALL BE 1/4" GALVANIZED IRON.



NOTES

OVER EXISTING & EXISTING FC.
 CIVIL ENGINEERING - PLANS - UNIT I
 JOHN ORION, CIVIL ENGINEER, STATE # 1
 1111 K STREET, SUITE 200
 SAN DIEGO, CALIF. 92101
 (619) 594-1111 Fax (619) 594-1112

- LIST OF CHANGES**
1. CHANGE 1-1
 2. CHANGE 1-2
 3. CHANGE 1-3
 4. CHANGE 1-4
 5. CHANGE 1-5
 6. CHANGE 1-6
 7. CHANGE 1-7
 8. CHANGE 1-8
 9. CHANGE 1-9
 10. CHANGE 1-10

NOTATION FOR REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|----------|--------------------|
| 1 | 11/15/01 | ISSUED FOR PERMITS |

REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|----------|--------------------|
| 1 | 11/15/01 | ISSUED FOR PERMITS |

DESIGNER

JOHN ORION
 CIVIL ENGINEER
 1111 K STREET, SUITE 200
 SAN DIEGO, CALIF. 92101
 (619) 594-1111

DATE OF DESIGN

11/15/01

PROJECT NAME

WASHINGTON & SANDHILL UNIT I

SCALE

AS SHOWN

REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|----------|--------------------|
| 1 | 11/15/01 | ISSUED FOR PERMITS |

STAMPS

CIVIL ENGINEER
 JOHN ORION
 11/15/01

CIVIL ENGINEER
 JOHN ORION
 11/15/01