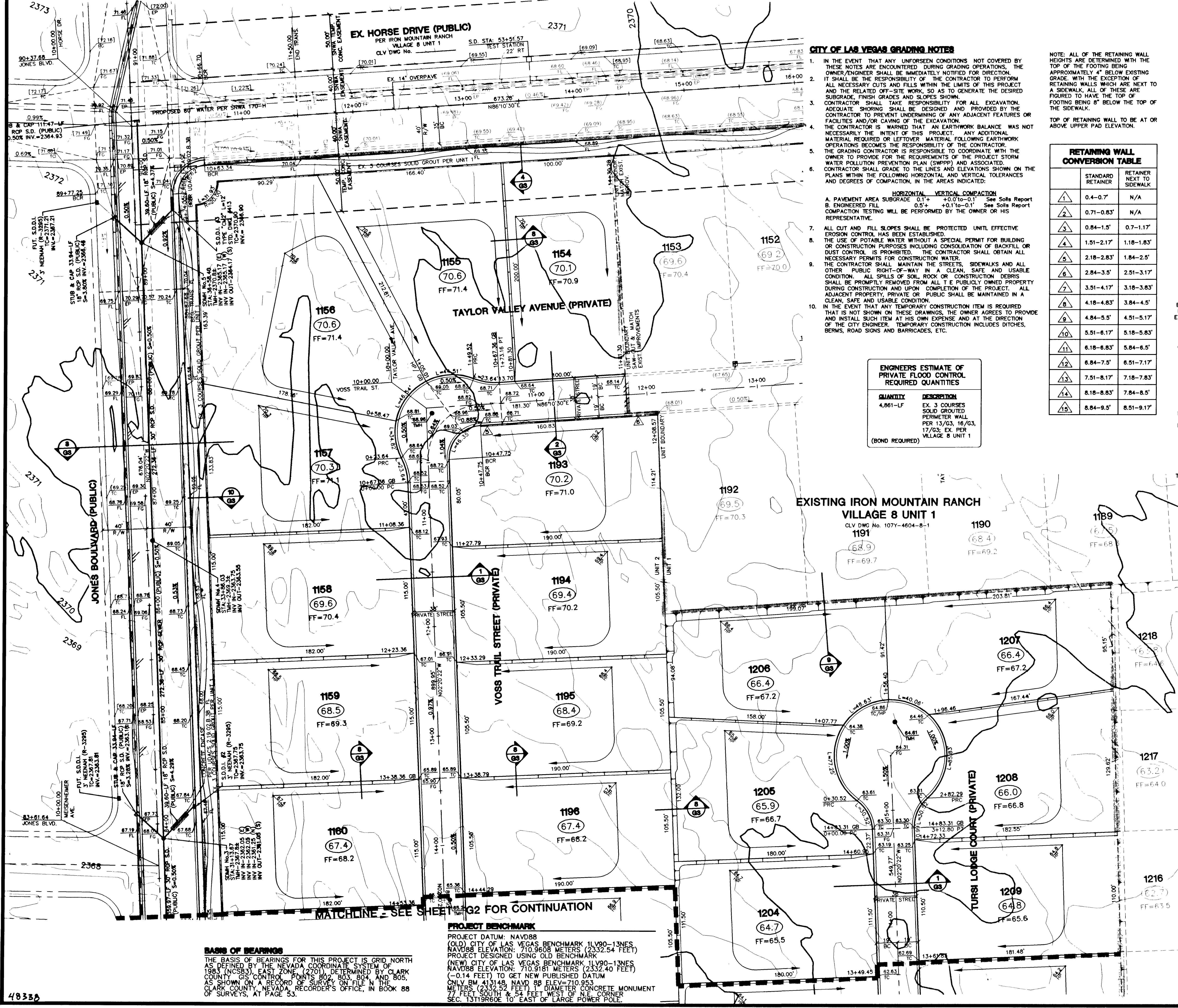




**BASIS OF BEARINGS**  
THE BASIS OF BEARINGS FOR THIS PROJECT IS GRID NORTH AS DEFINED BY THE NEVADA COORDINATE SYSTEM OF 1983 (NCS83). EAST ZONE (2701) DETERMINED BY CLARK COUNTY GIS CONTROL POINTS 802, 803, 804 AND 805, WHICH SHOW ON A RECORD OF SURVEY ON FILE IN THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE, IN BOOK 88 OF SURVEYS, AT PAGE 53.

**PROJECT BENCHMARK**  
PROJECT DATUM: NAVD83  
(OLD) CITY OF LAS VEGAS BENCHMARK 11V90-13NES  
NAVD83 ELEVATION: 710.9608 METERS (2332.54 FEET)  
PROJECT DESIGNED USING OLD BENCHMARK  
(NEW) CITY OF LAS VEGAS BENCHMARK 11V90-13NES  
NAVD83 ELEVATION: 710.9181 METERS (2332.40 FEET)  
(-0.14 FEET) TO GET NEW PUBLISHED DATUM  
ONLY BM 413148, NAVD 88 ELEV=710.953  
METERS (2332.52 FEET) 1" DIAMETER CONCRETE MONUMENT  
FEET SOUTH & 54 FEET WEST OF N.E. CORNER  
SEC. 13118606 TO EAST OF LARGE POWER POLE.

- CITY OF LAS VEGAS GRADING NOTES**
- IN THE EVENT THAT ANY UNFORSEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.
  - CONTRACTOR SHALL TAKE RESPONSIBILITY FOR ALL EXCAVATION, ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:
- HORIZONTAL - VERTICAL COMPACTION**  
A. PAVEMENT AREA SUBGRADE 0.1" + -0.0 to -0.1" See Soils Report  
B. ENGINEERED FILL 0.5" + -0.1 to -0.1" See Soils Report  
COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.
- ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN INSTALLED.
  - THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION OF POTABLE WATER.
  - THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM ALL CITY ENGINEER OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
  - IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE, AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

**ENGINEER'S ESTIMATE OF PRIVATE FLOOD CONTROL REQUIRED QUANTITIES**

| QUANTITY | DESCRIPTION                                       |
|----------|---------------------------------------------------|
| 4,861-LF | EX. 3 COURSES SOLID GROUTED PERIMETER WALL        |
|          | PER 13/G3, 16/G3, 17/G3; EX. PER VILLAGE 8 UNIT 1 |

(BOND REQUIRED)

**RETAINING WALL CONVERSION TABLE**

|    | STANDARD RETAINER | RETAINER NEXT TO SIDEWALK |
|----|-------------------|---------------------------|
| 1  | 0.4-0.7'          | N/A                       |
| 2  | 0.71-0.83'        | N/A                       |
| 3  | 0.84-1.5'         | 0.7-1.17'                 |
| 4  | 1.51-2.17'        | 1.18-1.83'                |
| 5  | 2.18-2.83'        | 1.84-2.5'                 |
| 6  | 2.84-3.5'         | 2.51-3.17'                |
| 7  | 3.51-4.17'        | 3.18-3.83'                |
| 8  | 4.18-4.83'        | 3.84-4.5'                 |
| 9  | 4.84-5.5'         | 4.51-5.17'                |
| 10 | 5.51-6.17'        | 5.18-5.83'                |
| 11 | 6.18-6.83'        | 5.84-6.5'                 |
| 12 | 6.84-7.5'         | 6.51-7.17'                |
| 13 | 7.51-8.17'        | 7.18-7.83'                |
| 14 | 8.18-8.83'        | 7.84-8.5'                 |
| 15 | 8.84-9.5'         | 8.51-9.17'                |

**LEGEND**

FG FINISH GRADE  
FL FLOW LINE  
TC TOP OF CURB  
TRC TOP OF ROLL CURB  
EAC EDGE OF ASPHALT PAVEMENT  
FUT. EXIST. VALLEY GUTTER  
VG VALLEY GUTTER  
NG NATURAL GROUND  
H.P. HIGH POINT  
L.P. LOW POINT  
C/L CENTER LINE  
O/C OFFSET CROWN  
BCR BACK OF CURB  
TF BEGIN CURB RETURN  
GB TOP OF FOOTING  
PC POINT OF CURVATURE  
PT POINT OF TANGENCY  
PRC POINT OF REVERSE CURVATURE  
PCC POINT OF COMPOUND CURVATURE  
BVC BEGIN VERTICAL CURVE  
MVC MID-POINT OF VERTICAL CURVE  
EVC END VERTICAL CURVE  
PRVC POINT OF REVERSE VERTICAL CURVE  
VPI VERTICAL POINT OF INTERSECTION  
TPW TOP OF PLANTER WALL  
TRW TOP OF RETAINMENT WALL  
TOP TOP OF CHANNEL/SCARP  
TOE TOP OF CHANNEL/SCARP  
TOB TOP OF BOX  
PP POWER POLE  
TRANS TRANSITION  
RET. RETAINMENT  
INT. INTERSECTION  
D.G. DESIGN GRADE  
TSW TOP OF SIDEWALK  
FF FINISH FLOOR  
OFF GARAGE FINISH FLOOR  
BFE BASE FLOOD ELEVATION  
R/W RIGHT-OF-WAY  
S/W SIDEWALK

EX. CONTOUR(5' INTERVAL)  
EX. CONTOUR(1' INTERVAL)  
PROPOSED CONTOUR  
FUT./EXIST. PAD GRADE  
SLOPE AND FLOW DIRECTION  
EDGE OF EXIST. A.C.  
SAW CUT & MATCH A.C.  
SIDEWALK RAMP  
PAD SWALE SLOPES  
SCARP AREA  
LOT NUMBER  
BLOCK NUMBER  
RETAINING HEIGHT (FEET)  
SIGHT VISIBILITY ZONES  
PROJECT BOUNDARY LINE  
R/W OR P/L  
EXIST. IMPROVEMENTS  
FUTURE IMPROVEMENTS  
CENTER LINE  
RETAINING WALL  
CONC. BLOCK WALL  
EXIST. CONC. BLOCK WALL  
EXIST. DIRT ROAD  
EXIST. AC  
UNIT BOUNDARY

**KEY MAP**  
GRAPHIC SCALE  
1" = 40'

**SIDEWALK RAMP TABLE**  
PER STD. DWG 235 CASE 1

| NO. | DIM "A" | DIM "B" | CASE |
|-----|---------|---------|------|
| 1   | 8.0'    | 8.0'    | I    |
| 2   | 4.5'    | 12.0'   | I    |

**NOTE:** ALL PRIVATE STREETS ARE P.U.E.A. CLV PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED

**Call before you Overhead**  
1-702-593-6111

**Call before you Dig**  
1-800-227-2600

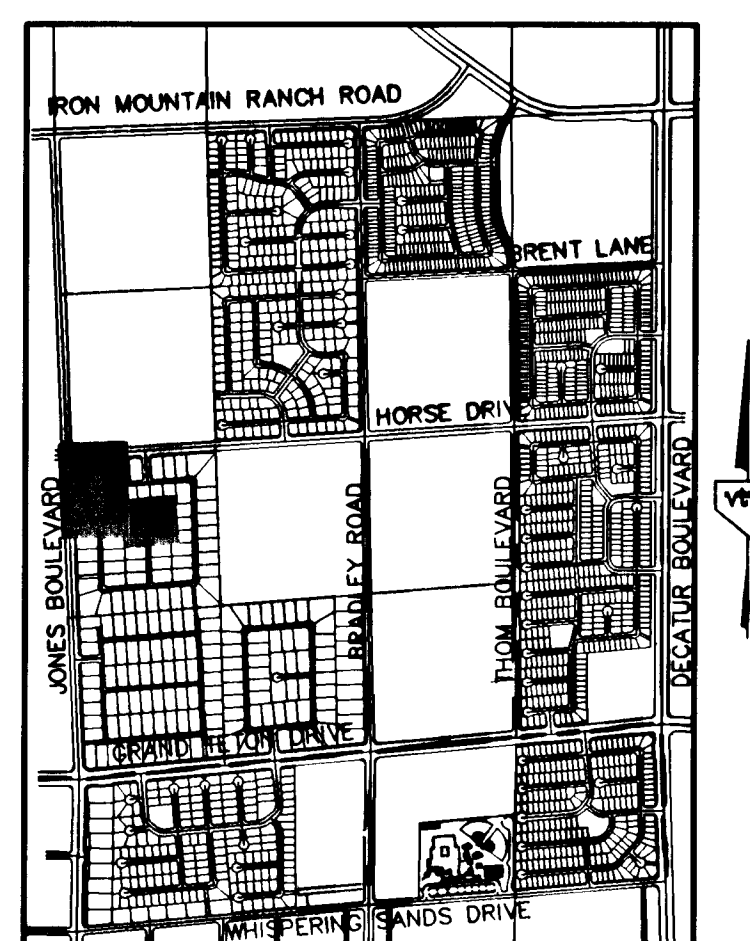
CONTRACTOR SHALL FIELD LOCATE AND PROTECT ALL SNWA/SNWS APPURTENANCES INCLUDING, BUT NOT LIMITED TO AV/AR, ACCESS MANWAYS AND CATHODIC PROTECTION SYSTEMS. ALL ABOVE GROUND STRUCTURES AND AT GRADE STRUCTURES MUST BE ADJUSTED TO NEW GRADE AT CONTRACTOR'S EXPENSE. CATHODIC PROTECTION TEST STATIONS, RECTIFIERS, AND AV/AR'S MUST BE RELOCATED TO THE SIDEWALK PER SNWA STANDARDS AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO NOTIFY SOUTHERN NEVADA WATER AUTHORITY, DEVELOPMENT PLAN REVIEW, AT (702) 862-3444 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY.

*Heanne Miller* 10/3/02  
SOUTHERN NEVADA WATER AUTHORITY DATE

SNWA APPROVAL IS VALID FOR ONE (1) YEAR FROM THE SIGNATURE DATE. IF CONSTRUCTION WITHIN THE EASEMENT OR RESTRICTED PIPE SAFETY ZONE IS NOT COMPLETE, PLANS MUST BE RESUBMITTED TO SNWA FOR APPROVAL.

"I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT"

*Ken Nicholson* 10-29-02  
KEN NICHOLSON (P.E. No. 10539) DATE



**CITY OF LAS VEGAS**

**KB HOME**  
750 PILOT ROAD, SUITE F  
LAS VEGAS, NV 89166  
(702) 814-2500

**IRON MOUNTAIN RANCH VILLAGE 8 UNIT 2**

**GRADING PLAN**

DRAWN BY: JULY 2002  
DESIGNED BY: JULY 2002  
CHECKED BY: JULY 2002  
PROJECT NO: 8027-02  
SCALE: 1"=40' HORIZ. NA VERT.

**PROFESSIONAL ENGINEER**  
KENNETH NICHOLSON  
STATE OF NEVADA  
P.E. NO. 10539  
EXPIRES 12-31-03

**SHEET**  
7 of 24 SHEETS  
DRAWING NO. 1071-4604-B-2

REVISION

| NO. | DATE | BY |
|-----|------|----|
| 1   |      |    |
| 2   |      |    |
| 3   |      |    |
| 4   |      |    |
| 5   |      |    |
| 6   |      |    |
| 7   |      |    |