

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.

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED DURING GRADING OPERATIONS. 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 WATER.

8. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM ALL PUBLICLY 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.

9. 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, BERM, ROAD SIGNS AND BARRICADES, ETC.

ENGINEERS ESTIMATE OF PRIVATE FLOOD CONTROL REQUIRED QUANTITIES

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

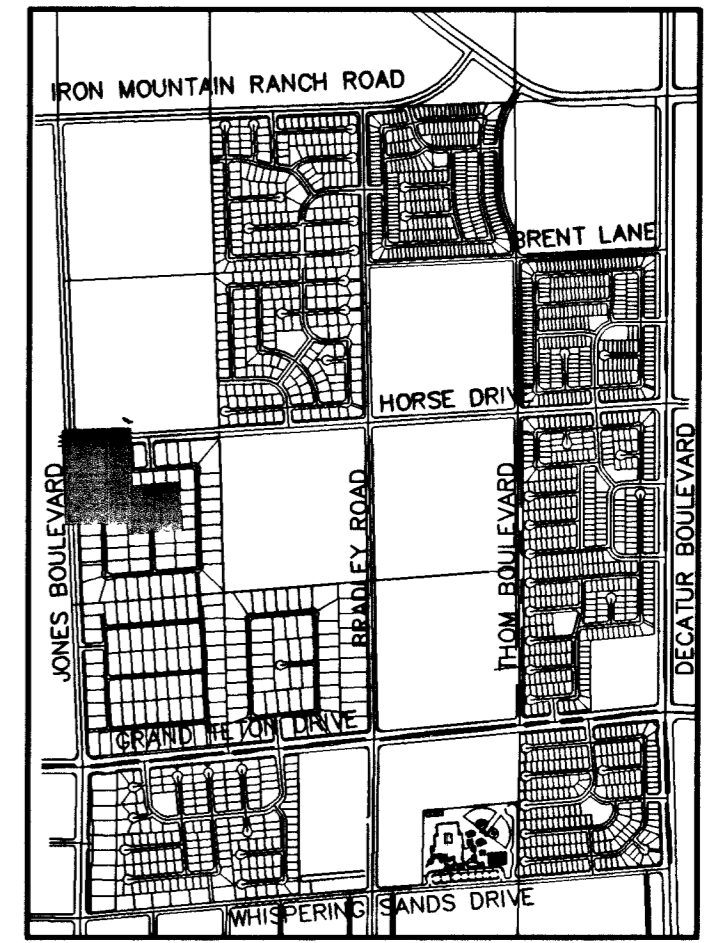
(BOND REQUIRED)

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'

NOTE: ALL OF THE RETAINING WALL HEIGHTS ARE DETERMINED WITH THE TOP OF THE FOOTING BEING APPROXIMATELY 4" BELOW EXISTING GRADE. WITH THE EXCEPTION OF RETAINING WALLS WHICH ARE NEXT TO A SIDEWALK, ALL OF THESE ARE FIGURED TO HAVE THE TOP OF FOOTING BEING 8" BELOW THE TOP OF THE SIDEWALK.

TOP OF RETAINING WALL TO BE AT OR ABOVE UPPER PAD ELEVATION.



KEY MAP GRAPHIC SCALE

LEGEND

FG	FINISH GRADE	EX	EX. CONTOUR(S) INTERVAL
FL	FLOW LINE	EX	EX. CONTOUR(1' INTERVAL)
TC	TOP OF CURB	PC	PROPOSED CONTOUR
TRC	TOP OF ROLL CURB	PG	PROPOSED PAD GRADE
EAC	EDGE OF ASPHALT PAVEMENT	VG	FUT./EXIST. PAD GRADE
FUT.	FUTURE	NG	NATURAL GROUND
EX	EXISTING (EX.)	H.P.	HIGH POINT
VG	VALLEY GUTTER	L.P.	LOW POINT
NG	NATURAL GROUND	C/L	CENTER LINE
H.P.	HIGH POINT	O/C	OFFSET CROWN
L.P.	LOW POINT	BC	BACK OF CURB
C/L	CENTER LINE	BCR	BEGIN CURB RETURN
O/C	OFFSET CROWN	TF	TOP OF FOOTING
BC	BACK OF CURB	GB	GRADE BREAK
BCR	BEGIN CURB RETURN	PC	POINT OF CURVATURE
TF	TOP OF FOOTING	PT	POINT OF TANGENCY
GB	GRADE BREAK	PRC	POINT OF REVERSE CURVATURE
PC	POINT OF CURVATURE	PCC	POINT OF COMPOUND CURVATURE
PT	POINT OF TANGENCY	BVC	BEGIN VERTICAL CURVE
PRC	POINT OF REVERSE CURVATURE	MVC	MID-POINT OF VERTICAL CURVE
PCC	POINT OF COMPOUND CURVATURE	EVC	END VERTICAL CURVE
BVC	BEGIN VERTICAL CURVE	PRVC	POINT OF REVERSE VERTICAL CURVE
MVC	MID-POINT OF VERTICAL CURVE	VP	VERTICAL POINT OF INTERSECTION
EVC	END VERTICAL CURVE	TPW	TOP OF PLANTER WALL
PRVC	POINT OF REVERSE VERTICAL CURVE	TRW	TOP OF RETAINING WALL
VP	VERTICAL POINT OF INTERSECTION	TC	TOP OF CHANNEL/SCARP
TPW	TOP OF PLANTER WALL	TOE	TOE OF CHANNEL/SCARP
TRW	TOP OF RETAINING WALL	TOB	TOP OF BOX
TC	TOP OF CHANNEL/SCARP	PP	POWER POLE
TOE	TOE OF CHANNEL/SCARP	TRANS	TRANSITION
TOB	TOP OF BOX	RET.	RETAINMENT
PP	POWER POLE	INT.	INTERSECTION
TRANS	TRANSITION	D.G.	DESIGN GRADE
RET.	RETAINMENT	TSW	TOP OF SIDEWALK
INT.	INTERSECTION	FF	FINISH FLOOR
D.G.	DESIGN GRADE	OFF	GARAGE FINISH FLOOR
TSW	TOP OF SIDEWALK	BFE	BASE FLOOR ELEVATION
FF	FINISH FLOOR	R/W	RIGHT-OF-WAY
OFF	GARAGE FINISH FLOOR	S/W	SIDEWALK
BFE	BASE FLOOR ELEVATION		
R/W	RIGHT-OF-WAY		
S/W	SIDEWALK		

SIDEWALK RAMPS 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

Avoid overhead power lines. It's costly.

Call before you Dig
 1-702-593-6111

Avoid cutting underground utility lines. It's costly.

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.

Heane ylls 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

40330 Plan 50929 or 52395

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. ALL TOWNSHIP AND RANGE RECORDS OF SURVEY ON FILE IN THE CLARK COUNTY, NEVADA, RECORDER'S OFFICE, IN BOOK 88 OF SURVEYS, AT PAGE 53.

PROJECT BENCHMARK
 PROJECT DATUM: NAVD88 (OLD) CITY OF LAS VEGAS BENCHMARK 1LV90-13NES NAVD88 ELEVATION: 710.968 METERS (2332.54 FEET) PROJECT DESIGNED USING OLD BENCHMARK (NEW) CITY OF LAS VEGAS BENCHMARK 1LV90-13NES NAVD88 ELEVATION: 710.918 METERS (2332.40 FEET) (-0.14 FEET) TO GET NEW PUBLISHED DATUM ONLY BM 413148 NAVD 88 ELEVATION 710.953 METERS (2332.52 FEET) 1" DIAMETER CONCRETE MONUMENT 7 FEET SOUTH & 54 FEET WEST OF N.E. CORNER SEC. 13T19R60E 10' EAST OF LARGE POWER POLE.

CITY OF LAS VEGAS

KB HOME
 750 PILOT ROAD, SUITE F
 LAS VEGAS, NV 89119
 (702) 816-2500

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. VERT. NA

PROFESSIONAL ENGINEER
 KENNETH NICHOLSON
 CIVIL ENGINEER
 No. 10539
 10-29-02
 EXPIRES 12-31-03

SHEET
G1
 7 OF 24 SHEETS
 DRAWING NO.
 (STN)-4664-B-2

2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89146-5148
 PH: (702) 873-7550 FAX: (702) 362-2597
 novada CONSULTING ENGINEERS & LAND SURVEYORS