

**LEGAL DESCRIPTION:** LOT 1, BLOCK 10A, UNIT 3, VOLCANO CLIFFS SUBDIVISION.

**AREA:** 1.19 ACRES

**BENCHMARK:** ACS BM "3-E10" LOCATED WEST OF THE INTERSECTION OF UNSER BLVD. AND SANTO DOMINGO NW. ELEV. = 5312.12

**FLOOD ZONE DESIGNATION:** PANEL 112 OF THE FEMA FLOODPLAIN MAP INDICATES THIS SITE IS WITHIN ZONE X WHICH IS DETERMINED TO BE OUTSIDE THE 500-YR FLOODPLAIN.

**SITE SOILS:** THE SCS SOIL SURVEY OF BERNALILLO COUNTY CLASSIFIES THIS SITE AS BLUEPOINT-KOKAN ASSOCIATION WHICH IS A LOAMY FINE SAND IN HYDROLOGIC SOIL GROUP 'A'

**EXISTING CONDITIONS:** THE SITE IS UNDEVELOPED AND SLOPES TO THE EAST AT 3 PERCENT. RUNOFF ENTERS SANTO DOMINGO ST. AT THE SOUTHEAST CORNER AND IS CARRIED EAST TO TESUQUE DRIVE. SURFACE FLOW IS THEN CARRIED NORTH TO INLETS WHICH ROUTE STORM DRAIN FLOW TO THE BOCA NEGRA ARROYO.

**EXISTING HYDROLOGY:**  
PRECIPITATION ZONE: 1  
LAND TREATMENT: 100% A  
 $Q_{100} = (1.29 \text{ CFS/AC})(1.19 \text{ AC}) = 1.5 \text{ CFS}$

**PROPOSED CONDITIONS:** EIGHT TOWNHOMES ARE PROPOSED WITH FOUR DUPLEX UNITS. AN IMPERVIOUS SURFACE IS PROPOSED FOR THE INTERNAL PUBLIC ACCESS EXTENDING TO THE NORTHERLY UNITS. RUNOFF WILL BE CARRIED SOUTH WITHIN THIS PUBLIC STREET AND WILL DISCHARGE TO SANTO DOMINGO NW. BACKYARD PONDING IS PROPOSED FOR LOT 1-H, WHILE ALL DEVELOPED FLOWS WILL BE REQUIRED TO DISCHARGE TO CRABTREE COURT NW.

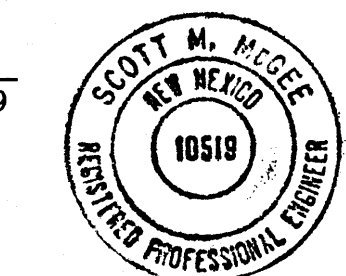
**PROPOSED HYDROLOGY:**  
LAND TREATMENT: 10% B, 25% C, 65% D  
 $Q_{100} = (0.12)(2.03) + (0.30)(2.87) + (0.77)(4.37) = 4.5 \text{ CFS}$

**STREET CAPACITY:** SANTO DOMINGO ST. WAS COMPLETED BY SAD 219. USING A 38-FT WIDTH AND A 2.7% SLOPE, DPM PLATE 22.3 D-2 GIVES A HALF-STREET CAPACITY OF 23 CFS FOR 0.5 FT DEPTH. THE CONTRIBUTING AREA, FROM UNSER BLVD EAST TO TESUQUE DRIVE, ON THE SOUTH SIDE OF MOJAVE IS ONLY 3.5 ACRES. AT AN ESTIMATED RESIDENTIAL UNIT RUNOFF RATE OF 3.6 CFS/ACRE, THE MAXIMUM FLOW RATE IN THE NORTH GUTTER OF SANTO DOMINGO ST. IS 12.6 CFS.

**CONCLUSION:** THIS SITE DEVELOPMENT WILL NOT ADVERSELY IMPACT ANY DOWNSTREAM FACILITIES AND SHOULD BE ALLOWED TO DISCHARGE FREELY TO SANTO DOMINGO NW.

**ENGINEER'S CERTIFICATION**  
I, SCOTT M. MCGEE, LICENSED UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN DATED 01/12/04 AS-BUILT GRADES WERE FIELD VERIFIED BY JAKE ARGUELLES, JR., ON 09/21/04 IN ACCORDANCE WITH THE "NEW MEXICO ENGINEERING AND SURVEYING ACT" SECTION 61-23-1 THROUGH 61-23-32 NMSD (1978).

*Scott M. McGee*  
SCOTT M. MCGEE, NMPE NO. 10519  
DATE 12/29/04



- LEGEND**
- 5200 — EXISTING CONTOUR
  - 52 — PROPOSED CONTOUR
  - ◆ 78.3 PROPOSED SPOT ELEVATION
  - FLOW ARROW
  - PG=01.2 PAD GRADE ELEVATION
  - TC= TOP OF CURB ELEVATION
  - FL= FLOWLINE
  - INV=72.5 INVERT ELEVATION
  - PROPOSED RETAINING WALL
  - TRW= TOP OF RETAINING WALL
  - BRW= BOTTOM OF RETAINING WALL
  - X 0.69 AS-BUILT ELEVATION

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C4	25.00	34.27	20.44	31.65	N 50°30'36" W	78°32'09"

**PETROGLYPH PARK**

**GRADING & DRAINAGE PLAN**

DEC 29 2004

HYDROLOGY SECTION

ISAACSON & ARFMAN, P.A.  
Consulting Engineering Associates  
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1286GRD.DWGonw 1/12/04

**SHEET 3 OF 5**

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