

Attachment  
MRCA Item V(h)  
August 5, 2009

---

## **Southwestern Engineering Geology**

---

July 29, 2009

Mountains Recreation & Conservation Authority  
570 West Avenue 26, Suite 100  
Los Angeles, CA 90065

Attention: Ms. Lisa Soghor

**SUBJECT: PROPOSAL TO PREPARE UPDATE LETTER FOR PROPOSED PARK AND TRAIL IMPROVEMENTS IN RAMIREZ CANYON, ESCONDIDO CANYON, CORRAL CANYON, AND TO PREPARE NEW RECONNAISSANCE OF ENGINEERING GEOLOGIC CONSTRAINTS TO DEVELOPMENT FOR PROPOSED PARK AND TRAIL IMPROVEMENTS IN LATIGO CANYON AND ON MALIBU BLUFFS, CITY OF MALIBU, CALIFORNIA.**

**Reference:** Southwestern Engineering Geology (2006) Reconnaissance of Engineering Geologic Constraints to Development; Proposed Park and Trail Improvements in Ramirez Canyon, Escondido Canyon and Corral Canyon, City of Malibu, California; Original Report dated November 16, 2006, Revised April 13, 2007; Project No. 1-208/707-2006.

### **Introduction**

At the request of Ms. April Winecki of Dudek, the following proposal is presented to prepare an update of previous reconnaissance reports prepared to address campground and trail improvements proposed at Ramirez Canyon, Escondido Canyon and Corral Canyon in Los Angeles County, California, and to prepare original reconnaissance studies of geologic constraints to development for a road extension (Via Acero) and road widening (Ramirez Canyon Road) improvements in Ramirez Canyon, and campground and trail improvements proposed in Latigo Canyon and at Malibu Bluffs in Los Angeles County, California. These studies would supplement work completed for MRCA under Contract No. MRCA-105/07. The scope of study outlined below is based upon review of the earlier work, published geologic references on file in my office and review of materials provided by Dudek. Materials provided include recent conceptual plans of the proposed improvements illustrated on detailed topographic base maps at various scales ranging from 1" = 20' to 1" = 100'.

### **Site Description**

I understand that the boundaries of the areas of interest in the park areas that require an update remain essentially as described in the referenced report in Ramirez Canyon and Escondido Canyon, and that the area under consideration for new trails extends about one mile further north than originally considered in Corral Canyon. Areas under new consideration include a short section of the ridgeline that divides Latigo Canyon from Escondido Canyon about ¼ mile north of Pacific Coast Highway, and a section of Malibu Bluff State Park located between Pacific Coast Highway and Malibu Road, and extending from about Malibu Canyon Road westward to a small un-named drainage just west of Marie Canyon. All of the proposed improvement sites are located in the Malibu area of Los Angeles County, California. The improvement sites are proposed in ridgeline and canyon areas. Limited development has been present in the general vicinities for many years. Canyon slopes range up to heights of about 1000 feet inclined at overall gradients of about 2:1 (Horizontal to Vertical).

### **Proposed Development**

Recent conceptual plans have been provided for all of the campground areas except Malibu Bluffs. Specific plans for road extensions and widening are not currently available, nor are specific trail alignments for the extended

July 24, 2009

northern area of Corral Canyon. I anticipate that conceptual plans/base maps will become available as the work progresses. The plans currently available indicate that only limited improvements are proposed. These improvements include hike-in camp sites, self contained restroom facilities, limited trail construction and parking areas. There is also a possibility that Ramirez Canyon Road may be widened to 20 feet for a distance of about ¼ mile south of the park entrance (to about Delaplane Road), and/or that Via Acero Road may be extended approximately 1500 feet to connect with Kanan Dume Road. Specific construction details of these various improvements are not available at this time. Minimal modifications to existing grades and no habitable structures are currently anticipated. Within the campgrounds, there appear to be only minor changes relative to earlier design concepts. This proposal is based on an assumption that improvements proposed at the Malibu Bluffs Park site will be similar to those proposed at the other park sites.

### **Geologic Conditions**

The park sites are located in the western Transverse Ranges geomorphic province of California, on the southern side of the Santa Monica Mountains. The Santa Monica Mountains consist of metamorphic and crystalline Jurassic and Cretaceous rocks overlain by a sequence of Miocene-aged marine and non-marine sedimentary rocks. Regional, north-south directed compressional forces have deformed these rocks into a broad, east-plunging anticline in which the northern and southern limbs of the fold generally correspond with the northern and southern flanks of the mountains. In the coastal Malibu area, this pattern of deformation is complicated by subsidiary tight folds and faults where sedimentary and volcanic rocks have been tectonically interleaved by repeated movement along low-angle reverse faults. Shallow subsurface conditions beneath the park sites are expected to be characterized by highly deformed bedrock, poorly consolidated alluvial deposits, faults and landslides.

### **Scope of Work**

The investigation will be designed to provide a general assessment of geologic conditions that underlie the park sites and a preliminary review of how these conditions might influence the proposed improvements. The following specific tasks are proposed:

- Review of stereoscopic aerial photographs taken between 1928 and 2002.
- Review of pertinent published geotechnical and geologic information on file in my office;
- Review of geotechnical records available at the City of Malibu (for the new sites, and for road extensions);
- Brief field review of the park sites discussed in the referenced report. The purpose of this field review will be to verify that no significant changes have occurred at the site since the earlier work was completed, and to supplement the earlier work in any areas where current design concepts differ from earlier plans.
- Reconnaissance-level geologic surface mapping of the new areas (Latigo Canyon, Malibu Bluffs, the northern area of Corral Canyon, and the road extension/widening) and field checking of selected features identified during the research and air photo evaluation. No subsurface exploration is proposed as part of this evaluation;
- Geologic analysis of seismic hazards likely to affect the property;
- Analysis of geologic constraints likely to be encountered during the future investigation, permitting and development of the property;
- Preparation of a Geologic Constraints Map for each improvement area. These maps will compile available data concerning geologic structure and the distribution of bedrock and surficial materials (alluvium, colluvium, artificial fill, landslide deposits, etc.). All data compiled on the earlier photo base maps will be transferred to the new topographic base maps where available. No geologic cross sections are proposed at this time;
- Preparation of a geologic report to present my professional opinions regarding the existing site conditions and constraints that should be considered in planning for the proposed improvements. The format of the reports will be coordinated with Ms. April Winecki of Dudek. At the discretion of MRCA, separate reports can be

July 24, 2009

prepared for each site, an update exclusive to the earlier work can be presented separately from the new reconnaissance of Latigo Canyon or Malibu Bluffs, or a new stand-alone report can be prepared that consolidates the earlier work updated to reflect revisions, with current work for the new park sites.

**Cost of Services/Scheduling**

The geologic services described above will be provided on a time and materials basis in accordance with the attached fee schedule. Fees will not exceed \$19,800.00 without your written authorization. This estimate includes approximately 25 hours to respond to public comments. Work will begin on this project immediately upon receipt of your retainer and authorization to proceed. The project can be completed within eight weeks of that time.

If this proposal meets with your satisfaction, please indicate your approval by issuing either a Standard Agreement or an appropriate amendment to Contract No. MRCA 105/07.

I will be pleased to review any questions you may have regarding costs, conditions, or my proposed scope of services. I am most readily available on my cell phone at 805-625-0485. I look forward to speaking with you and to being a part of the design team on this project. Please let me know if I can be of any additional service.

Sincerely,

Christopher J. Sexton  
Certified Engineering Geologist 1441

Distribution: (2) Mountains Recreation and Conservation Authority  
Attention: Ms. Ms. Lisa Soghor

(1) Dudek (via e-mail)  
Attention: Ms. April Winecki

Enclosures: Fee Schedule

**Southwestern Engineering Geology**  
**FEE SCHEDULE**

**PROFESSIONAL SERVICES**

**HOURLY FEES**

Expert Witness Testimony (Deposition and Court*) (Research, Meetings etc. associated with legal testimony billed at Certified Engineering Geologist rate.)	\$350.00
Certified Engineering Geologist/Geotechnical Engineer	\$130.00
Project Geologist/Engineer	\$110.00
Staff Geologist/Engineer	\$ 95.00
Supervising Field Technician	\$ 65.00
Field Technician	\$ 55.00
Draftsman	\$ 50.00
Word Processing	\$ 40.00
Secretarial	\$ 32.50

A minimum two-hour charge will be billed for each site visit or inspection.

All plan reviews for signature require a minimum turn-around time of 24 hours and a minimum charge of \$150.00.

\*Minimum charge of four hours for appearance at deposition or in court

**OTHER FEES**

Mileage	\$0.55/Mile
Postage	at cost
Additional Copies of Report (most reports)	\$ 25.00
Equipment Rental	cost + 20%
Per Diem	\$120/day

Effective 6/1/2008

1119 Oriole Circle, Fillmore, California 93015  
(805) 524-4418