



Structural
Engineering
▪
Architectural
Preservation
▪
Materials
Conservation

June 1, 2008

Alison Bunting, President
Empire Ranch Foundation
P. O. Box 842
Sonoita, AZ 85637

Dear Alison,

This letter is a follow up in writing with my response to the question posed at the May 2, 2008 meeting to present the initial findings from the structural/seismic study of four buildings at the Empire Ranch.

Per our discussion the question was raised about the effect of continuous blasting from the proposed Rosemont mine, might have on the historic adobe buildings of the Empire Ranch. As I understand it the proposed mine is within five miles of the ranch headquarters, which as you know are listed on the National Register of Historic Places.

I responded that the steady ground disturbances from blasting, similar to small earthquakes, would most likely precipitate the deterioration of the mortar between the adobe blocks. This loss of mortar has two effects. The first is the increased maintenance of the buildings through more frequent repointing of the adobe. Further there is a continuing cycling probable, almost a rocking of the block due to ground motion. While the amplitudes are small the continued vibration will have a deleterious effect on the adobe walls.

Currently in China, building that survived the initial earthquake continue to fall in aftershocks, the continuing working and weakening of the materials. It is somewhat similar to this case.

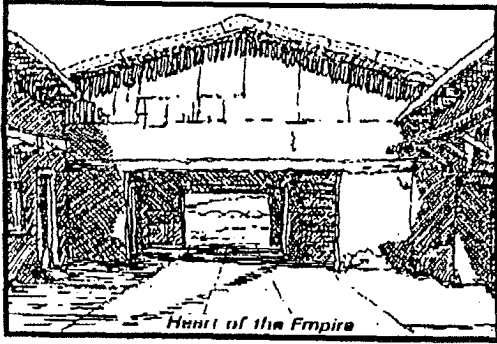
It is most important for the U. S. Forest Service officials studying the environmental impact of the proposed mine to engage qualified experts to assess the potential impact of the mine on the Empire Ranch buildings,.

If I can provide any additional assistance, please feel free to contact me.

Sincerely,

Melvyn Green
Structural Engineer

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June 17, 2008

Beverly Everson
 USDA Forest Service
 Coronado National Forest
 300 West Congress Street
 Tucson, AZ 85701

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Dear Ms. Everson,

On behalf of the Empire Ranch Foundation (ERF) Board of Directors I'm submitting this notification of potential significant negative impact of the proposed Rosemont Copper Mine on the historic buildings of the Empire Ranch Headquarters. The Empire Ranch Headquarters is located on the Las Cienegas National Conservation Area (LCNCA), approximately 5 miles southeast of the proposed Rosemont mine. The LCNCA is administered by the Bureau of Land Management (BLM).

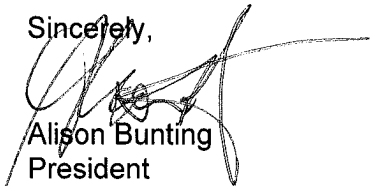
The Empire Ranch House, the oldest part of which was built between 1871 and 1874, is listed on the *National Register of Historic Places* and is designated a *Save America's Treasures* site. The Ranch House includes 22 rooms and sprawls over about 4,500 square feet of living space. Its construction is primarily of hand cast adobes. Several historic outbuildings comprise the Headquarters complex including an adobe haybarn built in the 1880s, the south barn c. 1920; and the adobe hired man's house, c. 1910.

BLM and the Foundation work together for cultural resources preservation and adaptive reuse and interpretation. Through this partnership, the Foundation has researched the history of the ranch, developed plans for its preservation and interpretation, and has driven the implementation of those plans through hands-on work, grant writing, and raising funds. To date, the Foundation has contributed over \$500,000, and the BLM's deferred maintenance program has contributed nearly \$1.5 million for preservation work to restore the Ranch House and the other outbuildings at the headquarters.

ERF and the BLM recently commissioned a structural/seismic evaluation of the headquarters buildings to identify the most critical preservation needs and help prioritize future projects. During a meeting to discuss the preliminary results of the evaluation, Mel Green, the structural engineer on the assessment team, was asked what effect continuous blasting from the proposed mine might have on the adobe buildings. He responded that the steady ground disturbances from blasting would most likely precipitate the deterioration of the mortar between the adobe blocks. After the meeting Mr. Green provided the attached letter which documents his opinion.

Section 106 of the National Historic Preservation Act directs Federal agencies to take into account the effects of projects on historic properties that are listed in the National Register, and to consult with the State Historic Preservation Officer and the Advisory Council on Historic Preservation. As part of the NHPA assessment we request that the Forest Service engage qualified experts to determine the potential impact of the mine's continuous blasting on the Empire Ranch buildings. Once the study is completed, an agreement between BLM, SHPO, ACHP and ERF must be reached on how the proposed Rosemont Copper Mine project can be carried out without harm to Empire Ranch historic structures and incorporated into the Mine Plan of Operations.

Sincerely,



Alison Bunting
President

Attachment: June 1, 2008 letter from Mel Green to Alison Bunting

Cc: Brian Belew, Manager, Tucson Field Office, BLM
Karen Simms, Acting Manager, Ironwood Forest and LCNCA
Chris Schragar, Archaeologist, BLM
ERF Board of Directors