

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS AND OUTDOOR RECREATION OFFICE OF HISTORY AND ARCHAEOLOGY

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February 3, 2006

File No.: 3130-2R Alaska Railroad
3330-6 HEA-062

SUBJECT: Moody Tunnel Removal, ARRC Mile 353.6

Barbara C. Hotchkin
Alaska Railroad Corporation
P. O. Box 107500
327 Ship Creek Avenue
Anchorage, AK 99501

Dear Ms. Hotchkin:

The State Historic Preservation Office received on January 13, 2006, your letter and attached report titled *Cultural resources survey of proposed re-alignment sections along the Alaska Railroad, Healy Canyon, Alaska* by Northern Land Use Research, Inc. (December 2005). We have reviewed your proposed undertaking to remove the Moody Tunnel for conflicts with cultural resources under Section 106 of the National Historic Preservation Act. We concur with your determination that the Nenana River Gorge Site (HEA-062), is eligible for the National Register of Historic Places under criterion D and that the site was adversely affected by the emergency repairs to the Moody Tunnel last summer. We also concur with your finding that the proposed removal of the Moody Tunnel (HEA-076) will be an adverse effect.

We look forward to working with you to develop a memorandum of agreement to mitigate the adverse affects to HEA-062 and HEA-076. Architectural and photographic recordation of the tunnel and compilation of available engineering drawings is acceptable mitigation for HEA-076. We agree with stabilizing Locus IA of HEA-062 depending on landowner permission. We also recommend limited data recovery of Locus III (or another locus) outside of the area of potential effect.

Please contact Stefanie Ludwig at 269-8720 if you have any questions or if we can be of further assistance.

Sincerely,



Judith E. Bittner
State Historic Preservation Officer

JEB:sll

ALASKA RAILROAD CORPORATION



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327 Ship Creek Avenue, Anchorage, Alaska 99501

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January 13, 2006

Ms. Judith Bittner
State Historic Preservation Officer
Office of History and Archaeology
550 West 7th Ave, Suite 1310
Anchorage, Alaska 99501

Subject: Moody Tunnel Removal, ARRC Mile 353.6
USGS Quadrangle Healy D-4, T13S, R7W, Section 9, FM

Dear Ms. Bittner:

The Alaska Railroad Corporation (ARRC), using internal funds, proposes to remove Moody Tunnel to improve safety and system reliability. The following paragraphs provide background information and describe the proposed project, impacts, and our proposed mitigation for impacts to the tunnel and a nearby prehistoric site. Please confirm that the proposed mitigation is acceptable. Your prompt response is requested, as we would like to begin work this spring.

Background Information

On July 24, 2003, on behalf of the Federal Railroad Administration (FRA), ARRC submitted a report prepared by Northern Land Use Research (NLUR) titled "*Cultural Resources Survey and Evaluation of Tunnels and Proposed Stabilization Area Along the Alaska Railroad, Healy Canyon, Alaska*," and a request for concurrence with a determination that the Moody Tunnel was eligible for the National Register of Historic Places (NRHP). On August 7, 2003, you concurred that Moody Tunnel is eligible for listing in the NRHP (HEA-076).

Moody Tunnel is a 262-foot long tunnel built in the early 1920s during construction of the Alaska Railroad, and is located just north of the George Parks Highway Nenana River Bridge. In June 2005, the tunnel was damaged and partially collapsed at the north end. I notified your office that repairs would be necessary, and provide photographs in a follow-up e-mail. Due to the need to address tunnel safety, and since there are several other potential future realignment projects in the Healy Canyon area, ARRC requested NLUR to conduct additional surveys in the Healy Canyon area. A copy of NLUR's report titled "*Cultural Resources Survey of Proposed Re-alignment Section along the Alaska Railroad, Healy Canyon, Alaska*" is enclosed. (This report includes determinations of eligibility for two properties.) Upon receiving a NLUR's draft copy of that report in late 2005, we learned that activities undertaken in June 2005 during the emergency to construct an access road from the highway to the tunnel adversely impacted a portion of a prehistoric site (HEA-062, Nenana River Gorge Site).

Project Description

Moody Tunnel is a continuing safety concern, as it provides an overhead hazard to train traffic. The north portal of the Moody Tunnel collapsed in June 2005, and the south portal had collapsed in 1990. The long term stability of the tunnel is questionable due to deterioration of the timber lining from seepage, impact damage by oversized loads, and the susceptibility of the bedrock to weathering. The tunnel also restricts the load size the trains can carry, which limits the railroad's ability to economically meet its customer's needs.

The proposed project involves "daylighting" Moody Tunnel -- scaling off the rock and removing the tunnel. The tunnel would be removed by systematic rock excavation during planned closures when train traffic is light. The post-removal back slope would be cut to a stable configuration to minimize rockfall that could impact rail operations. All activities would occur within the railroad's 200-foot right-of-way. The rock removed would be placed in Area 2 (see Figure 3 in the report), in an area on the west side of the tracks, and well south of Locus IB, which is also addressed in the attached report. The proposed project would have no additional impact on Locus III, or any of the other portions of HEA-062.

Alternatives Considered

In addition to the proposed action, three other alternatives were considered: 1) do nothing, 2) improve the tunnel, and 3) remove part of the tunnel. The alternatives and the reasons why they were not selected are summarized below.

Alternative 1 – Do Nothing: This alternative involves leaving the tunnel in its current condition, but maintaining it as needed. This alternative would continue to restrict the size of load that the trains can move and would leave the railroad vulnerable to the types of tunnel problems that have plagued it in the past. Portions of the aging wooden tunnel lining are in a deteriorated condition that would continue to degrade with time, and would require frequent maintenance, possibly on an emergency basis, to correct structural deficiencies. Annual maintenance would involve the replacement of the structurally deficient timber sets with steel sets. This alternative would not address the existing safety concerns, and would result in continued load size restrictions. There would be continued risk of future track closures with the costs and impacts noted above, plus a higher level of maintenance than for track with no tunnels.

Alternative 2 - Improve the Tunnel: Under this alternative, the tunnel would be improved by increasing its height and width clearances to accommodate double stacked freight loads and/or by replacing the tunnel lining in the northern portion of the tunnel where there are signs of deterioration. Visual observations and recent tunnel performance indicate the timber lining in the northern third of the tunnel is approaching the end of its service life and would require replacement with higher capacity steel sets in the near future. Increasing the tunnel size would require systematic removal of the timber sets, one or two at a time, mechanical excavation of the rock, selective rock reinforcement with rock bolts, and installation of replacement steel sets. The new lining in the north portion of the tunnel, where seepage is evident in the crown, would include an impermeable cap to keep the seepage off the track. The portal structures would need to be rebuilt if the lining is replaced as the rock above the portals is relatively loose from past damage. The cost of this effort would be substantial and unplanned closures and associated costs could occur if stability problems are encountered during reconstruction. These improvements would also destroy the historic characteristics of the tunnel.

Alternative 3 – Remove Part of the Tunnel: Removing part of the tunnel would involve leaving the majority of the tunnel in place (approximately 200 feet), but removing approximately 60 feet at the north end, and not increasing its height and width clearances. This alternative retains the historic features of the tunnel to the extent possible, although it is not clear if the remaining portion of the tunnel would retain sufficient integrity for eligibility to the National Register. This alternative would require substantial rock excavation (but less than Alternative 2 and the proposed action), construction of a new portal, and possibly rock reinforcement for long term stability. It would not be a substantial improvement over the Do Nothing alternative because the railroad would still be vulnerable to potential tunnel damage and the resultant track closures, continued load restrictions, and future maintenance and repair costs.

Mitigation

ARRC proposes the following mitigation for impacts to Moody Tunnel due to the proposed project and for the inadvertent impact to Locus III of HEA-062 in June 2005.

Moody Tunnel: ARRC proposes architectural recordation of this tunnel, similar to the architectural recordation that has been conducted over the past several years for some ARRC bridges. The architectural recordation, including photographs and available engineering drawings, would be submitted to the National Archives and Records Administration in Anchorage.

HEA-062 - Locus III: ARRC proposes stabilization of Locus IA, where erosion is ongoing. This would be dependant upon receiving landowner permission for the stabilization, as it is not in ARRC's right-of-way.

Thank you for taking time to review the cultural resource report and our proposed mitigation. Please let us know if the proposed mitigation is acceptable. Please contact me at (907) 265-2313 if you have questions or require additional information.

Very truly yours,



Barbara C. Hotchkin
Permits and NEPA Specialist

Enclosure

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS AND OUTDOOR RECREATION
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August 7, 2003

File No.: 3130-1R FRA
3330 HEA-76, 327, 329
3330-6N HEA-77, 79, 328

SUBJECT: Healy Canyon, MP 353.5-356.5
Determinations of eligibility and effect.

Barbara C. Hotchkin
Alaska Railroad Corporation
P. O. Box 107500
327 W. Ship Creek Avenue
Anchorage, AK 99501

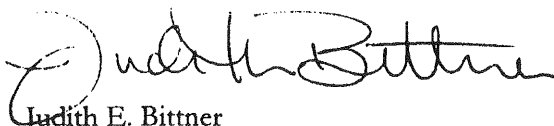
Dear Ms. Hotchkin:

We have reviewed your correspondence regarding the referenced project (July 24, 2003) including the report *Cultural Resources Survey and Evaluation of Tunnels and Proposed Stabilization Areas along the Alaska Railroad, Healy Canyon, Alaska*. We concur with your determination that HEA-76 (Moody Tunnel) is eligible for the National Register of Historic Places under Criterion C, and that both HEA-327 (Healy's Lucky Strike) and HEA-329 are eligible for the National Register under Criterion D. We also concur with your determinations that HEA-77 (Tunnel 9), HEA-79 (Garner Tunnel) and HEA-328 are not eligible for the National Register.

We concur with your determination that no historic properties will be affected by the work in the Garner Slide area or within the Garner Tunnel. We also concur that no historic properties will be affected by the railroad track alignment south of the Garner Tunnel provided that HEA-329 is avoided. A buffer area around HEA-329 should be marked by flagging to ensure that the site is not disturbed. No ground disturbing work should occur in the vicinity of HEA-327 until further consultation with our office and any necessary mitigation of the site is completed.

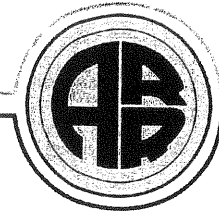
Please contact Stefanie Ludwig at 269-8720 if you have any questions or if we can be of further assistance.

Sincerely,



Judith E. Bittner
State Historic Preservation Officer
JEB:sl

ALASKA RAILROAD CORPORATION



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July 24, 2003

Ms. Judith Bittner
State Historic Preservation Officer
Office of History and Archaeology
550 West 7th Ave, Suite 1310
Anchorage, Alaska 99501

Subject: **Section 106 Concurrence**
Healy Canyon, Milepost 353.5 - 356.5
USGS Quadrangle Healy D-4, T12S, R7W, Section 28, 29, and 32, FM
USGS Quadrangle Healy D-4, T13S, R7W, Section 5, 8, and 9, FM

Dear Ms. Bittner:

The Alaska Railroad Corporation (ARRC) plans to undertake a project in the Healy Canyon area that will be funded by the Federal Railroad Administration (FRA). This letter responds to your letter of April 28, 2003 recommending that ARRC complete an archaeological survey of the proposed access road and railroad track realignment area, and provide a determination of eligibility on the Garner Tunnel. At ARRC's request, Northern Land Use Research, Inc. (NLUR) surveyed these areas and one other area, and prepared Determinations of Eligibility (DOE) on the Garner Tunnel and two additional ARRC tunnels in the area that are listed on the AHRS. DOEs were also prepared for three new sites identified. Detailed information is included in the enclosed report by NLUR entitled "*Cultural Resources Survey and Evaluation of Tunnels and Proposed Stabilization Area Along the Alaska Railroad, Healy Canyon, Alaska.*" The findings are summarized below.

Archaeological Survey of the Proposed Access Road (and Garner Slide Area)

Survey Area 1, as established by NLUR, encompasses the slide zone north of the Garner tunnel and access road routes to the slide zone. The proposed activities in Survey Area 1 involve establishing access roads to and from the slide zone and removing rock within the slide zone to stabilize slopes. The slide area has been extensively disturbed over the past 20 years through uncontrolled slides, removal of rock, and establishment of benches to control rock slides. To safely remove rock, work would begin at the top of the slide zone slope and work down toward the track. Two high walls were installed in this slide zone many years ago, and now a third high wall would be constructed at a higher elevation. Limited blasting may also be conducted in some areas.

NLUR's enclosed report indicates that no archeological sites were identified along the proposed access roads to the Garner slide area. Although one new AHRS site of scattered historic debris was identified in the slide zone (HEA-328), it was found not eligible for listing on the National Register of Historic Places (NRHP). A DOE is provided in Appendix E. Therefore, development of the access roads and stabilization of the slopes within the slide zone would have no adverse effect on historic resources.

Railroad Track Realignment Area

The proposed activities in Survey Area 2 involve a track realignment in the area south of the Garner Tunnel on the railroad east side of the tracks, a staging area for equipment and vehicles along an existing access road (in the vicinity of HEA 078), and reuse of a former access road west of Garner Tunnel. The proposed realignment would bypass the tunnel entirely. Rock removed from the slide zones in Survey Area 1 would be hauled by truck and placed in the area identified for realignment, since considerable fill would eventually be needed in this area to create a haul road and embankment for the realigned track.

NLUR's enclosed report indicates that no archeological sites were identified along the access road or in the track realignment area south of the Garner Tunnel on the railroad east side of the tracks. However, a new AHRS site (HEA-329) was identified further east of the realignment area. Although this site was found eligible for listing on the NRHP, it is not within the APE and would not be affected by the proposed realignment. A DOE is provided in Appendix F. Therefore, use of the access road and the realignment area would have no adverse effect on historic resources.

HEA-078 is in the vicinity of an existing access road to the railroad, which also would be used for access and staging equipment and vehicles. As indicated in the attached report, no cultural resources associated with HEA-078 were located within the APE, and all of the former buildings associated with this site have been removed. Therefore, use of this area would have no adverse effect on historic resources.

Determination of Eligibility on the Garner Tunnel and Moody Tunnel

As mentioned above, the Garner Tunnel (HEA-079) may be affected by the proposed realignment, which would bypass the tunnel entirely. Approximately 100 feet of the northern portion of the Garner Tunnel would be filled to stabilize the nearby section of the realigned track. The tunnel is in poor condition and would no longer be maintained, so it may eventually collapse. The project may also include replacing the portals at the Garner Tunnel, if this work is necessary for safety reasons before the realignment is complete. The DOE provided in Appendix C indicates the Garner Tunnel is not eligible for the NRHP, as it has undergone numerous modifications and repairs over the years. Therefore, the proposed activities would have no adverse effect on the tunnel.

NLUR also prepared a DOE for Moody Tunnel (HEA-076), which is at the south end of the project area. Moody Tunnel was found eligible for the NRHP (Appendix A). However, it is not within the APE, and would not be affected by the proposed project. Therefore, there would be no adverse effect on Moody Tunnel.

Survey Area 3

The proposed activities in Survey Area 3 involve removing rock within the active slide zone on the railroad west side of the tracks in the vicinity of the location of a former ARRC tunnel (HEA-077). The former tunnel was found not eligible for the NRHP due to lack of integrity (Appendix B). However, NLUR identified a new prehistoric site at a bench or terrace above the railroad tracks in this area (HEA-327), found the site eligible for the NRHP (Appendix D), and recommended additional testing. Therefore, work planned for this area will be postponed until that testing and further consultation with SHPO is conducted.

Request for Concurrence

Based on the information in this letter and the enclosed report, we have determined that there would be No Adverse Effect to historic resources in Survey Areas 1 or 2 or the tunnel associated with the proposed project. We request your concurrence with this determination and the determinations of eligibility

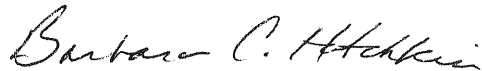
Ms. Judith Bittner
July 24, 2003
Page 2

provided in the attached report. Additional testing and coordination with your office will be conducted prior to conducting any work in the area of HEA-327.

Work is scheduled to begin in early August 2003 to develop the access roads to the Garner Slide Area and the realignment area, and to place fill material in the northern portion of the realignment area. If possible, please provide immediate Section 106 concurrence for activities in these areas.

Thank you for taking time to review these findings. We look forward to receiving your input in this matter. Please contact me at (907) 265-2313 if you have any questions.

Very truly yours,



Barbara C. Hotchkin
Permits and NEPA Specialist

Attachments

Cc: David Valenstein
USDOT, Federal Railroad Administration
1120 Vermont Avenue, MS-20, Washington, DC 20590