

APPENDIX A: HEA-076 DETERMINATION OF ELIGIBILITY FORM

DETERMINATION OF ELIGIBILITY FORM ⁵

**Northern Land Use Research, Inc.
P.O. Box 83990
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1. NAME OF PROPERTY

Historic name: Tunnel 8
Other name: Moody Tunnel
AHRS number: 49-HEA-076

2. LOCATION

Map sheet: Healy D-4
Aliquot: T13S R7W NW1/4 of SW1/4 of NW1/4 of Section 9
UTM: Zone 6 404825E 7076498N
Acreage: <1
Street and number:
City or town: near Healy, Alaska

3. DESCRIPTION

Ownership of property: ARRC
Category of property: Structure
Number of resources: 1
Property's historic function: INDUSTRY/Transportation
Property's current function: IN USE
Architectural classification: Tunnel
Materials: Wood

⁵ Form adopted from *Historic Preservation Series Number 7* (draft dated December 1993) prepared by the Office of History and Archaeology, Alaska Department of Natural Resources, P.O. Box 107001, Anchorage, Alaska 99510-7001. This form is intended to provide minimum information necessary to make a determination of eligibility to the National Register of Historic Places, as defined in 36 CFR 60. For further information, consult *National Register Bulletin*, numbers 15, 16A, 16B, and 39.

Integrity: (consider location, design, setting, materials, workmanship, feeling, and association)

This historic site is located along ARRC MP 353.6, approximately 6 km south-southeast of Healy. The George Parks Highway and Nenana River Bridge are located approximately 200 m south-southwest of the tunnel. The tunnel does not appear to be extensively modified. According to Steve Love (personal communication 2003) no major modifications, such as the replacement of structural timbers, has occurred since he began working along this section of track in 1975. One minor modification to the tunnel is the filling of a hole cut into the schist bedrock with polyurethane foam above the south portal (Figure A3). Steve Love (personal communication 2003) noted that a train was wedged in the tunnel and a hole was cut into the bedrock at the top of the south portal in order to dislodge it. The tunnel does retain physical and locational integrity.

Narrative description:

HEA-076 is a 262 ft tunnel built in the early 1920s along with the rest of the Alaska Railroad. It is located at ARRC MP 353.6 (Figure A1), approximately 200 m north of the George Parks Highway and Nenana River Bridge. The tunnel was built with drill and blast methods through schist bedrock. The track running through the tunnel is at a 10 degree curve running to the right when traveling northward. No major modification to the structure of the tunnel, such as the replacement of timbers, has occurred since 1975 (Steve Love, personal communication 2003); however, polyurethane foam was used to fill in a hole cut into the schistic bedrock above the south portal. Moody Tunnel has a standard style of construction similar to that of Garner Tunnel (see Alaskan Engineering Commission 1919). Like Garner Tunnel, 12" x 12" timbers were used as structural members of the portals and interior construction. All of the timbers used in the construction of the portals were saturated with creosote; most of the interior timbers were not. The portals are approximately 19' wide and 25' to 30' tall. Portal roof is composed of an arch set made of a 12" x 12" cap laid horizontally across the opening and 4" x 12" lagging laid horizontally and perpendicular above it. The portal wall supports are composed of 12" x 12" posts with 4" x 12" timber siding bolted to the outside. Additional supports were added to the basic structure of the north and south portals (Figures A3 and A4). The interior structure is composed of several arch sets 12" x 12" timbers doubled-up for support posts. Each arch set is spaced approximately 2' from each other. The footing of the interior consists of 12" x 12" sill timbers bolted to the bottom of the arch sets. 4" x 12" lagging is fastened to the bottom of each sill timber. Beveled 12" x 12" timbers were used as arch supports that are braced to the beveled top of each wall post within each arch set. Each arc set has the arch supports bolted to a beveled 12" x 12" cap.

4. STATEMENT OF SIGNIFICANCE

Applicable National Register Criteria:

Criteria A: _____

Criteria B: _____

Criteria C: X

Criteria D: _____

Criteria Considerations

religious _____

relocated _____

birthplace/grave _____

cemetery _____

Reconstructed _____

Commemorative _____

less than 50 years old _____

Areas of significance: Architectural

Significant date(s)/period of significance: 1920s

Significant person: N/A

Cultural affiliation: Euroamerican

Architect/engineer/builder: Alaska Railroad

Statement of significance:

The site consists of 12" x 12" treated (creosote) and untreated wood timbers. No major modification to the structure of the tunnel, such as the replacement of timbers, has occurred since 1975 (Steve Love, personal communication 2003); however, spray foam was used to fill in a hole cut into the schistic bedrock above the south portal. No schematic drawings for this particular tunnel are known, however, the style of construction appears to be a general one used throughout the region during the 1920s (see Alaska Railroad Commission 1919). The physical and locational integrity of the tunnel have been maintained and can significantly contribute to our understanding of 1920s railroad tunnel construction.

Historic information:

Railroad transportation played a significant role in Alaska's economic development. The Alaska Railroad was built to connect Fairbanks to Seward. Railroad transportation within the Nenana Gorge area provided shipment of locally extracted coal to as far north as Fairbanks and south to Anchorage and Seward. For a general overview of Alaska railroad history, see Fitch (1967).

See Orth (1971: 653), HEA-076 AHRS database record and the Alaska Railroad files in [Anchorage](#) for information on this railroad site.

5. MAJOR BIBLIOGRAPHIC REFERENCES

There are no published references linked specifically to this site. For an overview of Garner and Nenana Gorge history and bibliographies relating to that subject see:

Alaskan Engineering Commission

1919 Standard Tunnel Section and Timber Portal. Engineering schematic by the Office of R. J. Wier, Seward. Alaskan Engineering Commission, Department of the Interior.

Fitch, E. L.

1967 *The Alaska Railroad*. Fredrick A. Praeger, New York.

Fuglestad, T. C.

1986 The Alaska Railroad Between Anchorage and Fairbanks: Guidebook to Permafrost and Engineering Problems. State of Alaska Department of Natural Resources Division of Geological and Geophysical Surveys in cooperation with Alaska Railroad Corporation.

Murray, J. A.

1982 *An Annotated Alaska History Bibliography for the Nenana Valley: Nenana to Cantwell*. Unpublished annotated bibliography, Alaska Historical Commission, Anchorage.

Orth, D. J.

1971 *Dictionary of Alaska Place Names*. Geological Survey Professional Paper 567. U.S. Department of the Interior, Washington, D. C.

6. FORM PREPARED BY

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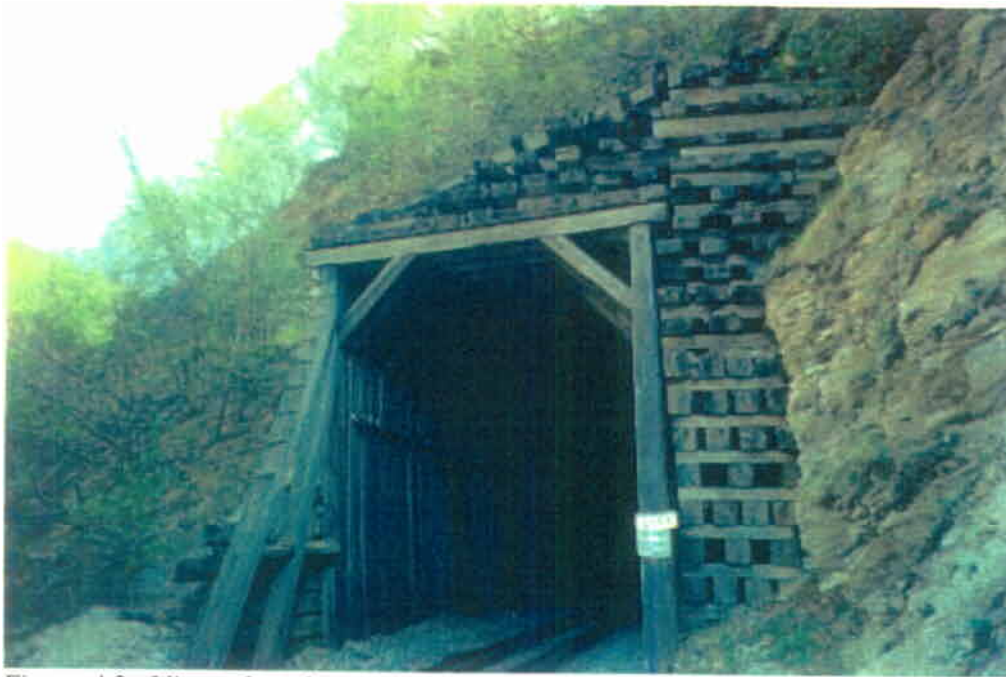


Figure A2. View of north portal of Moody tunnel looking south.



Figure A3. View of south portal of Moody tunnel looking north.



Figure A4. View of the interior of Moody tunnel looking north.