Determination of Eligibility

Elliott Highway

Fairbanks-North Star Borough and the Yukon-Koyukuk Census Area of the Alaska Unorganized Borough

Prepared for

Alaska Department of Transportation and Public Facilities

December 2014

DOT&PF NOTE:
PILOT DOE
SHPO CONCURRENCE 2/19/15

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Management Summary

The Alaska Department of Transportation and Public Facilities (DOT&PF) retained Mead & Hunt, Inc. (Mead & Hunt) to complete a Determination of Eligibility of the Elliott Highway (Alaska Heritage Resources Survey numbers are listed in Appendix A; Coordinated Data System (CDS) number 153000). This work was completed as a component of the Applied Historic Context of Alaska Roads Project completed in 2012-2014. Mead & Hunt conducted a field survey of approximately 154 miles (248 kilometers) along the Elliott Highway from its termini of the Steese Highway at Fox to the Tanana River at Manley Hot Springs between August 9 and 15, 2014.

Research found multiple periods of construction in the development of the current Elliott Highway. This Determination of Eligibility evaluates the highway in four segments reflecting various periods of development, including those of predecessor roads. As a result, the Elliott Highway has been divided into Segments A, B, C, and D (see maps in Appendix A).

Certain bypassed sections within Segments A, B, and D possess significance at the local level and retain integrity under *Criterion A* for their direct and important association with *Transportation* and under the supplemental area of significance of *Industry* and are eligible for listing in the National Register of Historic Places (National Register) as indicated below.

Properties Recommended National Register Eligible

Name and Location	Applicable Criteria	Period of Significance	Level of Significance	Historic Boundary
Bypassed section A2 of Segment A	*Criterion A*	1938-1959	Local	See Appendix A
Bypassed sections B11 and B16 of Segment B	*Criterion A*	1938-1959	Local	See Appendix A
Bypassed sections D1, D2, and D4 Segment D	*Criterion A*	c.1913-1959	Local	See Appendix A

The remaining portions of the Elliott Highway either do not possess significance or lack integrity and are not eligible for listing in the National Register.

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Appendices

Introduction

This Determination of Eligibility of the Elliott Highway (Alaska Heritage Resources Survey (AHRS) numbers are listed in Appendix A; Coordinated Data System (CDS) number 153000) was prepared as a component of the Applied Historic Context of Alaska Roads Project completed in 2012-2014 for the Alaska Department of Transportation and Public Facilities (DOT&PF), which includes the *Alaska Roads Historic Overview: Applied Historic Context of Alaska's Roads* (Roads Overview) (February 2014) and the *Alaska Roads: Methodology for Assessing National Register of Historic Places Eligibility* (Roads Methodology) (May 2014). The Alaska DOT&PF retained Mead & Hunt, Inc. (Mead & Hunt) to complete the project. This project will facilitate Alaska DOT&PF compliance with federal requirements under Section 106 of the National Historic Preservation Act (Section 106). The Section 106 process includes identifying properties that qualify for listing in the National Register of Historic Places (National Register). No undertaking by the Alaska DOT&PF is associated with this Determination of Eligibility.

The project included completing an evaluation of National Register significance for a select number of roads and a Determination of Eligibility for the Elliott Highway. Mead & Hunt conducted a field survey of approximately 154 miles (248 kilometers) along the Elliott Highway, including numerous bypassed sections of the highway, from its termini of the Steese Highway at Fox to the Tanana River at Manley Hot Springs. Section 1 of this report contains a description of the Elliott Highway and Appendix A contains maps of the Elliott Highway.

This Determination of Eligibility applies the Roads Methodology and utilizes contextual information from the Roads Overview. Research was completed for the development of a road-specific historic context in which to understand how the Elliott Highway relates to National Register areas of significance. Research was completed in 2014 and field survey conducted August 9-15, 2014. Section 2 of this report provides the research design.

The road-specific historic context provided in Section 3 identifies and describes the important historic themes to understand the development of the Elliott Highway, while Section 4 addresses the National Register significance of the Elliott Highway. To assess integrity, Section 5 of this report describes the physical development of the road and identifies the essential physical features during its periods of significance necessary for it to convey its significance and qualify for listing in the National Register. Conclusions on National Register eligibility are provided in Section 6.

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1. Description of the Elliott Highway

The Elliott Highway (AHRS numbers are listed in Appendix A; CDS number 153000) is approximately 154 miles (248 kilometers) long and runs from the Steese Highway at Fox to the Tanana River at Manley Hot Springs, and is designated as part of Alaska Route 2. The highway is owned by the Alaska DOT&PF and passes through the Fairbanks-North Star Borough and the Yukon-Koyukuk Census Area of the Alaska Unorganized Borough. The highway provides access to the region northwest of Fairbanks between the Yukon and Tanana Rivers, and the portion west of Livengood follows the south slope of the Yukon-Tanana Divide, a ridgeline that runs east-west and separates the two river valleys. Maps illustrating the location of the Elliott Highway are provided in Appendix A.

The current alignment of the Elliott Highway extends from the Steese Highway north of Fairbanks to its junction with the Dalton Highway (Segments A and B on the maps), then heads west to the junction with Eureka Road (Segment C), where it continues west to Manley Hot Springs and ends at the Tanana River (Segment D). Many of the communities along the route, such as Olnes, Livengood, and Eureka, were established as gold mining settlements but are mostly now abandoned.

The Elliott Highway traverses the Fairbanks, Tolovana, and Hot Springs Mining Districts, and some segments follow the approximate routes of earlier wagon roads constructed to serve the Fairbanks and Hot Springs districts in the early twentieth century. Segment A began as a wagon road constructed by the Alaska Road Commission (ARC). Completed in 1911, Segment A, also known as the Fox-Olnes Road, connected mines in the Olnes vicinity with a short-line railroad. Beyond Olnes, the only routes to Livengood were sled and foot trails until 1931, when the ARC commenced construction of an automobile road to connect Fairbanks with the Tolovana Mining District. By 1938 the all-weather, graveled Elliott Highway extended 63 miles from the Steese Highway at Fox to Livengood, which included the construction of Segment B from Olnes to Livengood and incorporating Segment A.[1] Segment D began as a c.1913 automobile road between Eureka and Manley Hot Springs—the Manley Hot Springs-Eureka Road—and was also incorporated into the Elliott Highway's western terminus in 1959 when Segment C between Livengood and Eureka was completed.

Most of Segments A and B are paved, while Segments C and D have paved and graveled portions. Generally the entire road has two travel lanes measuring 24 feet wide, with the road crown extending 30-34 feet and an embankment forming shoulders that extend several feet beyond the road crown.

Numerous sections of Segments A, B, and D were bypassed after 1959. Bypassed sections include short isolated gravel and earth sections of roadbed resulting from curve straightening, many less than three-tenths of a mile in length; inaccessible portions not in vehicular use; and longer gravel and earth sections generally 1.5 miles or more in length in vehicular use.

Thirteen bridges that cross waterways are located along the Elliott Highway. Twelve of the bridges are in vehicular use with dates of construction ranging from 1961 through 2007 (see Appendix C for a list of

[1] The extent of changes made to Segment A to upgrade it to all-weather standards in 1938 was not indicated in the historic documents.

current bridges). A single-span Warren pony truss constructed in 1949 spans the Tatalina River on a bypassed section of Segment B. Features common to all segments include corrugated metal pipe culverts, many with thaw pipes; ditches adjacent to the roadbed embankment; intersecting roads; turn-outs; and material (borrow) sites. Segment A includes one weigh station at the southern terminus.

Most of the road traverses densely forested areas of flat valleys and over hilly terrain. At the southern terminus of Segment A the road passes through the community of Fox, and includes residential and commercial development adjacent to the road. At the western terminus of Segment D the road passes through Manley Hot Springs, and includes residences, recreational areas, commercial buildings, and community facilities, which include a school, community hall, and an airstrip.

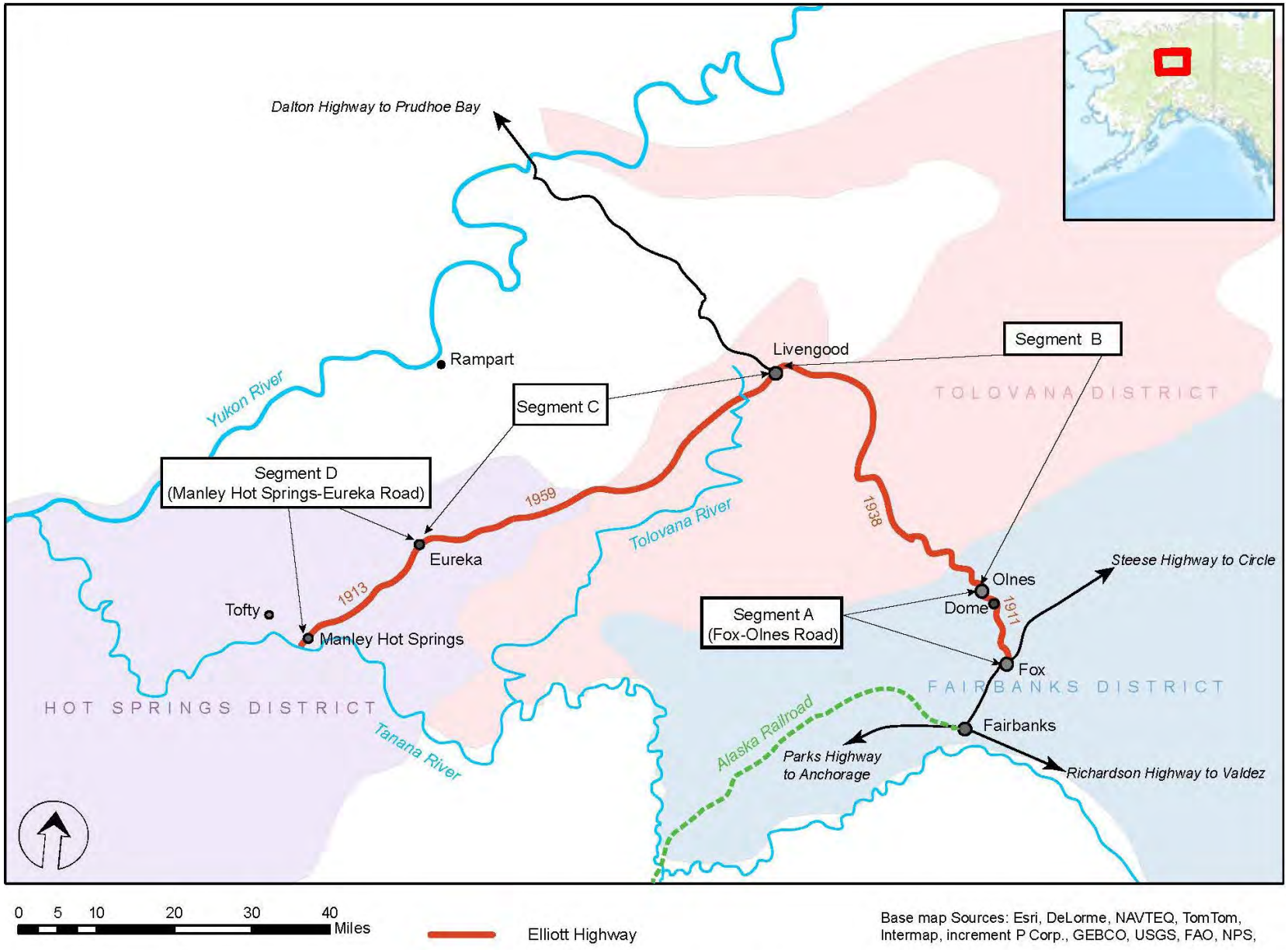
Appendix A provides more detailed mapping and representative images of the road segments based on the results of field survey completed in August 2014.

2. Research Design

A research design and survey procedures were prepared and submitted to the Alaska DOT&PF and the Office of History and Archaeology as part of the project and the application to obtain an Alaska Cultural Resource Permit, which Mead & Hunt was granted (Field Archaeology Permit 2014-31 dated July 14, 2014).

The objective of research and field survey was to evaluate significance and assess integrity to determine if the Elliott Highway qualifies for listing in the National Register. Research was conducted to supplement information from the Roads Overview with a road-specific historic context in which to understand how the Elliott Highway relates to areas of significance identified in the Roads Methodology. The entire length of the road was driven during field survey. Field survey was completed for segments of the road found to possess significance—Segments A, B, and D—to document the roadbed and roadbed-related features of the Elliott Highway within the public right-of-way and to characterize the surrounding environment. Field survey consisted of inspecting approximately 154 miles (248 kilometers) of the Elliott Highway from its termini of the Steese Highway at Fox to the Tanana River at Manley Hot Springs between August 9 and 15, 2014 (see map on the next page). In addition to the current alignment of the Elliott Highway, numerous bypassed sections of the highway were identified. Bypassed sections of road that were accessible by automobile were inspected and documented following survey procedures. Representative images of the road and roadbed-related features and maps of the Elliott Highway and the approximate milepost locations of bypassed sections of road are provided in Appendix A.

Research and fieldwork was completed by staff of Mead & Hunt that exceed the *Secretary of the Interior's Professional Qualification Standards* in the areas of history and architectural history.



Route of Elliott Highway, showing mining districts traversed

3. Historic Context

The area west of Fairbanks, between the Tanana and Yukon Rivers, is a mineral-rich region first explored by prospectors in the 1880s.[2] Organized placer mining in the Livengood-Rampart-Hot Springs area began in 1896, when a mining community was established at Rampart on the Yukon River.[3] Shortly thereafter, a group of prospectors discovered gold at Eureka Creek in 1898, having come down the Yukon River and up the Tanana to the area near the present site of Manley Hot Springs. Their discovery brought a rush of miners in from Rampart the following year, and although Rampart was originally the supply point for the community at Eureka, it was located on the other side of the Yukon-Tanana divide, making overland hauling difficult. By 1906 Frank G. Manley had built a hotel at Hot Springs; the town that sprang up now bears his name and became the main supply point for the miners working in the Eureka area.[4] A third discovery in the region came in the winter of 1906, when prospectors found placer gold in the vicinity of Tofty, located approximately 12 miles northwest of Manley Hot Springs.[5]

The Fairbanks Mining District has been Alaska's leading producer of placer gold through much of the twentieth century. Following the discovery of gold at Pedro Creek in 1902, early efforts relied on the use of machinery in order to develop deposits buried under gravel and muck, necessitating the rapid construction of a transportation system to move this equipment from Fairbanks northwest to the mines. A local road network developed, complemented by a narrow-gauge rail built by a private mining company.[6] The Tanana Mines Railway, later renamed the Tanana Valley Railroad, ran from Fairbanks and Chena northwest to Gilmore, via Fox, by 1905, and was extended to Chatanika via Olnes.[7]

In 1905 Congress established the Board of Road Commissioners (later the ARC), which assumed responsibility for road construction and maintenance in the territory of Alaska.[8] In the first decade of the ARC's operations, emphasis was placed on construction of wagon roads in mining areas as a means of reducing freight costs. In 1906 the ARC began construction of a wagon road known as the Fox-Dome Road (Route 7B), which extended from the Fox station on the Tanana Mines Railway to Dome City, a supply point and post office at Dome Creek. Dome Creek was then one of the most productive creeks in the Fairbanks Mining District, and the road was also expected to provide access to Vault Creek, a newly developing area. The new route was so heavily traveled that construction crews had difficulty keeping

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[2] J.B. Mertie, Jr., *Mineral Deposits of the Rampart and Hot Springs Districts, Alaska*, U. S. Geological Survey Bulletin 844-d (Washington, D.C.: US GPO, 1934), 163-164.

[3] Mertie, *Mineral Deposits of the Rampart and Hot Springs Districts, Alaska,* 165.

[4] Mertie, *Mineral Deposits of the Rampart and Hot Springs Districts, Alaska*, 165-166.

[5] Mertie, *Mineral Deposits of the Rampart and Hot Springs Districts, Alaska,* 166.

[6] Edward Cobb, *Placer Deposits of Alaska*, U.S. Geological Service Bulletin 1374 (Washington, D.C.: US GPO, 1973), 128.

[7] Daniel L. Osborne, *Alaska's Tanana Valley Railroads* (Charleston, S.C.: Arcadia Publishing, 2013), 33.

[8] The Board of Road Commissioners for Alaska was renamed the Alaska Road Commission in 1926, was briefly subsumed by the Bureau of Public Roads between 1957 and 1958, and was replaced by Alaska's public works agency following statehood in 1959; for the sake of simplicity, this text refers to the pre-statehood organization as "ARC" throughout. Claus-M. Naske, *Paving Alaska's Trails* (Lanham, Md.: University Press of America, 1986), 28.

freight teams off the road before it was ready for use. The reduction in freight costs over the course of the first summer exceeded the $13,348 total cost of the construction of the Fox-Dome Road.[9] Historically the route of the Fox-Dome Road appears to have followed portions of Segment A; however, the current alignment of Segment A no longer connects to the location of former Dome City because the Elliott Highway was realigned to the west. The first mile north from Fox utilized corduroy, and the remainder of the 16-foot-wide roadway was graded using a horse-drawn grader to save time.[10] Within two years the ARC also completed Route 7G, which connected the Fox-Dome Road to Fairbanks.[11]

The ARC maintained the 13-mile Fox-Dome Road along with the other Fairbanks local roads that made up the Route 7 designation, and by 1911 the ARC had extended the road to Olnes, which comprises the northern terminus of Segment A. The Tanana Valley Railroad was the most cost-effective means of moving freight between Fairbanks and the gold-bearing creeks as far as Fox. As a result, the wagon road between Fairbanks and Fox was lightly used, but the Fox-Dome Road saw heavier traffic as it was still the only way to reach Dome and Olnes from the railroad.[12] Prior to 1913 the ARC received funds from the territorial road tax; the repeal of the tax forced the ARC to limit its activities in the Fairbanks Mining District, and further work was confined to the most necessary repairs, although most of the Fairbanks local roads were in need of extensive improvement.[13]

In the Hot Springs district to the west, a network of sled roads connected Manley Hot Springs with nearby mines, and a long-distance sled route from Fairbanks to Nome provided mail service from October through May. In 1909 the ARC improved a 2-mile portion of the trail from Manley Hot Springs to the boat landing at the Tanana River. The route was upgraded to a wagon road using additional funds raised by citizens of Manley Hot Springs, although later reports indicate that the road may have been turned over to private residents prior to the completion of this segment.[14] Between 1908 and 1909 the ARC also reconstructed portions of a number of private roads originally built by mining companies, incorporating these segments into a 22-mile wagon road, designated as Route 36, between Manley Hot Springs and Eureka.[15] By 1913 the Manley Hot Springs-Eureka Road had been extended to 32 miles in length and

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[9] Board of Road Commissioners for Alaska, *Alaska Operations 1906*, in U.S. House of Representatives document 253, 59th Congress, 2nd Session (Washington, D.C.: US GPO, 1907), 26, 35.

[10] Board of Road Commissioners for Alaska, *Alaska Operations 1906*, 26.

[11] Alaska Road Commission, "Report of Operations for the Season of 1908," in *War Department Annual Report, 1908*, Vol. 1 (Washington, D.C.: US GPO, 1908), 109.

[12] Board of Road Commissioners for Alaska, *Report of Operations for the Season of 1911* (Washington, D.C.: US GPO, 1912), 14-15.

[13] Board of Road Commissioners for Alaska, *Report of Operations for the Season of 1913* (Washington, D.C.: US GPO, 1914), 24-25.

[14] Board of Road Commissioners for Alaska, *Report of Operations for the Season of 1909* , in U.S. House of Representatives Document 864, 61th Congress, 2nd Session (Washington, D.C.: US GPO, 1910), 18; Board of Road Commissioners for Alaska, *Report of Operations for the Season of 1913,* 26.

[15] Board of Road Commissioners for Alaska, *Report of Operations for the Season of 1909*, 19; Alaska Road Commission, "Report of Operations for the Season of 1908," 107.

incorporated the segment between Manley Hot Springs and the Tanana River, which comprises Segment D.[16]

In the summer of 1914 prospectors discovered placer deposits on Livengood Creek, located in the Tolovana River basin approximately 40 miles northwest of Olnes. The discovery brought hundreds of people to the Tolovana Mining District over the following year, and by 1915 ten mines were in operation.[17] The town of Livengood was established on the creek, and by 1916 had developed into the commercial center of the district, with a post office, wireless station, recording office, and a United States Commissioner's office.[18] Within two years of the initial discovery at Livengood Creek, 21 operations employing as many as 250 workers had been established on Livengood Creek.[19] Although equipment and supplies could be brought up the Tolovana River from Fairbanks, the furthest navigable point upriver (known as "the Log Jam") was still roughly 10 miles from Livengood, and the cost of water freight from Fairbanks was high, as much as $140 per ton. Private interests constructed a tramway from the Log Jam to Livengood in the 1910s, which was subsequently taken over by the ARC in 1921, although it proved unprofitable.[20] The ARC constructed a sled road to provide a cheaper alternative, and by 1916 Route 7K ran 55 miles between Olnes and Livengood, providing access to the Tanana Valley Railroad. However, within a few years Route 7K as a sled road was largely abandoned in favor of a less hilly sled road known as the Dunbar-Brooks sled road. Following this, Route 7K was primarily used as a foot trail until the 1930s.[21]

In the 1910s miners and geologists noted the presence of mineral hot springs in a band that roughly parallels the Yukon River, including several along what are today the Elliott and Steese Highways. Early bathing establishments and health resorts were established at a number of hot springs, though they were fairly basic and were used primarily by local residents.[22] In the 1910s hot springs at Chena and Circle were developed into resorts; the Chena hot spring was improved with cabins and a bathhouse, and was a winter destination for sleighing parties from Fairbanks.[23] Other hot springs were located at Manley Hot Springs and Tolovana Hot Springs; the former site was developed briefly by Frank G. Manley, who built a

[16] Board of Road Commissioners for Alaska, *Report of Operations for the Season of 1913,* 26.

[17] Alfred H. Brooks, "Preliminary Report on the Tolovana District," in *Mineral Resources of Alaska, Report on Progress of Investigations in 1915*, U.S. Geological Survey Bulletin 642 (Washington, D.C.: US GPO, 1916), 201.

[18] Brooks, 208.

[19] J.B. Mertie, Jr., "The Gold Placers of the Tolovana District," in *Mineral Resources of Alaska, Report on Progress of Investigations in 1916*, U.S. Geological Survey Bulletin 662 (Washington, D.C.: US GPO, 1918), 266.

[20] Norman L. Wimmler, *Placer Mining in Alaska in 1929* (College, Alaska: Territorial Department of Mines, 1929), 197.

[21] Brooks, 209; Board of Road Commissioners for Alaska, *Annual Report of the Board of Road Commissioners for Alaska, 1916* (Washington, D.C.: US GPO, 1916), 13.

[22] Bruce D. Thomas, *Tolovana Hot Springs, Alaska* (College, Alaska: Territorial Department of Mines, 1948), 1, 4.

[23] Gerald A. Waring, *Mineral Springs of Alaska*, U.S. Geological Survey Water Supply Paper 418 (Washington, D.C.: US GPO, 1917), 51-55

hotel and several cement bathing tanks, although the enterprise had failed by 1913. The Tolovana site was only accessible via a difficult trail and was not developed commercially at that time.[24]

In the years leading up to World War I, summertime automobile use was beginning in some areas of the territory such as Juneau, Nome, and Fairbanks, as well as for long-distance use on the Richardson Highway.[25] At a time when most roads in Alaska were constructed of earth, the ARC recognized by the 1920s that automobile use was increasing and that this type of traffic required a higher-quality road. Important routes were widened and graveled during this period, and demand for automobile roads continued; by 1925 approximately 90 percent of all travel over wagon roads in the state was done in motor vehicles.[26] Despite this trend, the roads in the Manley Hot Springs, Tolovana, and Rampart Mining Districts were not improved for automobile use during this time. Mining continued in the Rampart and Hot Springs Mining Districts in the 1930s, and as of the 1930 census the two areas had a combined population of 148 persons, including Alaskan Natives. Both population centers were served by steamboat during the summer. Freight from Skagway reached Rampart via steamboat down the Yukon, while most supplies reached Manley Hot Springs by steamboat service maintained by the Alaska Railroad, which brought freight north by train and then down the Tanana River by boat.[27] The Territorial Department of Mines bemoaned the lack of a road, stating in 1929 that the area was still "much handicapped by its isolation."[28] By 1931, while an automobile road ran between Manley Hot Springs and Eureka Creek, most freight to the mining operations was still moved by boat.[29]

Hydraulic and scraper operations were active in the 1930s, although dredging began in the Tofty area by 1917 and continued sporadically into the late 1920s and early 1930s.[30] By 1930 many of the readily accessible deposits in the Alaskan interior had been exhausted, and small-time, one-man operations were not able to compete with mechanized operations that afforded economy of scale and enabled operators to work gravels with lower gold content. The Territorial Department of Mines reported that in many areas, dredging operations were the only way to continue mining at all. Livengood residents petitioned the ARC to build a road, and the Territorial Department of Mines' 1930 report on the future of mining in Alaska made the direct relationship between mining and transportation in the Livengood area abundantly clear:

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[24] Waring, 57-60.

[25] Board of Road Commissioners for Alaska, *Report of Operations for the Season of 1914* (Washington, D.C.: US GPO, 1914), 12, 17.

[26] Board of Road Commissioners for Alaska, *Annual Report Fiscal Year 1921* (Washington, D.C.: US GPO, 1921), 6; Board of Road Commissioners for Alaska, *Report Upon the Construction and Maintenance of Military and Post Roads, Bridges, and Trails, Alaska*, from Chief of Engineers Annual Report, 1925 (Washington, D.C.: US GPO, 1925), 1992.

[27] Mertie, *Mineral Deposits of the Rampart and Hot Springs Districts, Alaska*, 170-171.

[28] Wimmler, 197.

[29] Mertie, *Mineral Deposits of the Rampart and Hot Springs Districts, Alaska*, 171.

[30] Mertie, *Mineral Deposits of the Rampart and Hot Springs Districts, Alaska*, 197, 213-214.

> All future development in the Tolovana District is dependent on a road connecting it to the railroad by way of Olnes. Present transportation costs are so high that no one can afford to start large operations in the district. With the possible exception of the Fortymile country, the Tolovana country appears to be the next area of large scale operation which will come into production in the central part of Alaska.[31]

Work began on the Olnes-Livengood Road the following year, and the 1932 ARC annual report lists the route among the nine most important new construction projects.[32] The ARC abandoned the tramway from the Log Jam in 1931 in order to free up funds for the construction of the new road.[33] The 1930s construction of the Elliott Highway from Olnes to Livengood generally follows the path of the Route 7K sled road and comprises Segment B. Progress continued for several years, although work was suspended in 1933 due to lack of funds.[34] By 1935 the ARC had constructed the bridges along the route and had completed enough grading that by the start of freeze-up, trucks carried freight between Fairbanks and Livengood at a savings of $60 per ton over the previous rates.[35] Due to ongoing funding shortages, surfacing continued slowly from 1936 to 1938, during which time the highway could only be used after freeze-up. Listed as the Elliott Highway in the 1936 annual report, the route (comprised of Segments A and B) was completed as an all-weather road in 1938 and officially opened for use.[36] The highway's effect on operations in the Livengood vicinity was immediate, and the Territorial Department of Mines noted a marked increase in the use of machinery in 1938. The opening of the highway "materially reduced costs and permitted the working of lower grade ground," of particular importance in areas where easily accessible deposits had already been worked over.[37] Livengood Placers, Inc. acquired much of the land in the vicinity at that time and began operations in 1938.[38]

Interest in Alaska's mineral resources received another boost in 1939, when Congress passed the Strategic Materials Act, which spurred interest in the extraction of minerals other than gold in the Livengood and Hot Springs Mining Districts. Although most mining activity in the region was devoted to gold production, a number of other minerals were produced as byproducts. The act defined a list of minerals considered critical to defense production, such as those metals used in weapons manufacturing, and provided authorization for the government to create a stockpile of these resources and to investigate

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[31] Irving Reed, *The Future of the Placer Mining Industry in Seward Peninsula and the Interior of Alaska* (College, Alaska: Territorial Department of Mines, 1930), 9.

[32] Alaska Road Commission, *Twenty-Eighth Annual Report of the Alaska Road Commission, Fiscal Year 1932* (Washington, D.C.: US GPO, 1932), 3.

[33] "Discontinue Livengood Tram," *Fairbanks Daily News-Miner*, 21 July 1931.

[34] United States Department of the Interior, *Annual Report of the Alaska Road Commission for Year Ending June 30, 1933* [Washington, D.C.: United States Department of the Interior, 1933], 9.

[35] Alaska Road Commission, *Annual Report 1935* [Juneau, Alaska: Alaska Road Commission, 1935], 10.

[36] Alaska Road Commission, *Annual Report* 1937 [Juneau, Alaska: Alaska Road Commission, 1937], 7, 9; Alaska Road Commission, *Annual Report 1938* [Juneau, Alaska: Alaska Road Commission, 1938], 11.

[37] H.R. Joesting, *The Tolovana District, Alaska Territorial Department of Mines Miscellaneous Report 49-2* (College, Alaska: Territorial Department of Mines, 1938), 2.

[38] State of Alaska, Department of Highways, *Environmental Impact Statement for Project S-068-0(17) Tolovana to Livengood*, prepared for the Federal Highway Administration, June 1971, 18.

the quality and quantity of materials available domestically. A number of strategic materials, including nickel, silver, copper, tungsten, mercury, gold, antimony, and tin, are found in Alaska. The U.S. Bureau of Mines conducted numerous investigations to determine the availability and production viability of deposits in the Yukon-Tanana region.[39] This interest continued after World War II as the legislation was expanded to lessen the nation's dependence on foreign sources by developing domestic sources of strategic minerals.[40] By this time, geologists and miners recognized that the Tofty area contained a mineralized belt with tin deposits.[41] The presence of cinnabar deposits (the ore containing mercury) had also been previously noted in the Tolovana Mining District, and the Territorial Department of Mines urged further investigations.[42]

Congressional appropriations for the ARC rose sharply after the end of World War II, enabling a wave of new construction and substantial upgrades. In 1948 Congress appropriated nearly $4 million, nearly double the annual appropriations from 1943 to 1946. Over the next several years the ARC completed an initial program of paving and improving important routes before commencing work on an ambitious six-year plan scheduled through 1958.[43] As part of the wave of immediate improvements, reconstruction began on the Elliott Highway in 1948. The ARC regraded and resurfaced the highway, made some minor improvements to the alignment, and widened the roadway to a uniform 24-foot width.[44] The reconstruction was completed the following year, bringing the entire route of the Elliott Highway up to the standards for feeder roads established by the ARC in 1949, with a 24-foot-wide roadbed and gravel surfacing.[45]

When initially completed to Livengood, the Elliott Highway represented the furthest northward and westward expansion of Alaska's highway network; the ARC intended it to be the starting point of any future extensions towards Nome or the Arctic.[46] By the 1950s plans were underway to extend U.S. Highway 97 (which runs from northern California through Washington to the Canadian border) all the way to Nome, incorporating the Alaska Highway into the designation.[47] As of 1954 Segment B was the northern terminus of the Elliott Highway at Livengood, Segment C did not exist, and Segment D was not connected to the rest of the highway system. Freight was brought into the Hot Springs Mining District by

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[39] Kenneth A. Kessel, *Strategic Minerals: U.S. Alternatives* (Washington, D.C.: National Defense University Press, 1990), 16.

[40] Larry J. Bradfish, "United States Strategic Mineral Policy," *Loyola of Los Angeles Law Review* 21, no.1 (1987), 112.

[39] Mertie, *Mineral Deposits of the Rampart and Hot Springs Districts, Alaska*, 208.

[42] Joesting, *The Tolovana District, Alaska Territorial Department of Mines Miscellaneous Report 49-2*, 4.

[43] Naske, *Paving Alaska's Trails,* 226, 240.

[44] Alaska Road Commission, *Annual Report for Fiscal Year 1948*, 7.

[45] John R. Noyes, *Report of Operations of the Alaska Road Commission for the Fiscal years 1949, 1950 & 1951*, (Juneau, Alaska: Department of the Interior, 1951), 10; Appendix 8.

[46] Naske, *Paving Alaska's Trails,* 240.

[47] Alaska Road Commission, *Annual Report for the Fiscal year Ended June 30, 1956* (Juneau, Alaska: U.S. Department of the Interior, Office of Territories, 1956), 12.

the Alaska Railroad, unloaded at Nenana, and taken down the Tanana River by boat.[48] The construction of Segment C of the Elliott Highway west from Livengood, connecting Manley Hot Springs, was intended to serve the remaining miners in the two districts and envisioned as part of the plan to extend the Elliott Highway to Nome.[49] The ARC completed a survey between Livengood and Eureka in 1950, and the route was constructed in sections in the mid-1950s, with the final section completed in 1959.[50]

By the time the Livengood-Eureka segment was completed, tying the old Tofty-Manley-Eureka local road system into the main highway system, mining activities in the Tolovana and Hot Springs Mining Districts were fairly limited. In 1960 two one-man operations were active near Tolovana, and four operations at Eureka employed a total of 15 additional men; mining had been discontinued at Tofty. Most freight still arrived at Manley Hot Springs by river, although the road made it easier for prospectors to obtain repair parts quickly and it was hoped that improved access would lead to new development in the area.[51]

Although the springs at Manley Hot Springs was recognized as a potential recreational destination in the 1930s, no further development occurred beyond minimal maintenance of the bathing tanks that remained after the resort was destroyed by fire in 1913.[52] Following World War II and the expansion of Alaska's interior roads, the demand for more tourist attractions led to an interest in developing mineral hot springs.[53] With the exception of the facility at Manley Hot Springs, however, sites on the Elliott Highway remain undeveloped and are currently accessed via hiking trails.[54]

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[48] Robert L. Thorne and W.S. Wright, *Report of Investigations: Sampling Methods and Results at the Sullivan Creek Tin Placer Deposits, Manley Hot Springs, Tofty, Alaska* (Juneau, Alaska: United States Department of the Interior, Bureau of Mines, 1948), 2.

[49] Woodrow Johansen, Interview on 17 April 1985, Oral History Interviews, Alaska & Polar Regions Collection, University of Alaska Fairbanks, recording, http://vilda.alaska.edu/cdm/singleitem/collection/cdmg11/id/3223/rec/30.

[50] Alaska Road Commission, *Annual Report for the Fiscal year Ended June 30, 1956*, 12; Jerry Brown and R.A. Kreig, eds., *Guidebook to Permafrost and Related Features Along the Elliott and Dalton Highways, Fox to Prudhoe Bay, Alaska,* Fourth International Conference on Permafrost, July 18-22, 1983, University of Alaska, Fairbanks, Alaska, 2; H.R. Joesting, *The Manley Hot Springs District, Alaska Territorial Department of Mines Miscellaneous Report 48-1* (College, Alaska: Territorial Department of Mines, 1938), 1; Charles E. Holmes and Rachel Joan Dale, *Cultural Resources Survey of the Elliott Highway, Milepost 73-154*, prepared for the Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation, Office of History and Archaeology, 1987, 9.

[51] Joesting, *The Manley Hot Springs District, Alaska Territorial Department of Mines Miscellaneous Report 48-1*, 1.

[52] Mertie, *Mineral Deposits of the Rampart and Hot Springs Districts, Alaska*, 174.

[53] Thomas, 1, 4.

[54] Alaska Public Lands Information Centers, "Interior Alaska Hot Springs," http://www.alaskacenters.gov/interior-alaska-hot-springs.cfm (accessed 18 July 2014).

Following Alaskan statehood in 1959, responsibility for road construction and maintenance was transferred to a newly created state agency.[55] The Alaska Department of Highways began reconstructing the portion of the Elliott Highway between Fox and Livengood in 1961, including paving of the first 20 miles north from Fox.[56] Activity in the mining districts north of Fairbanks all but ceased in the postwar period. The establishment of military facilities and government offices at Fairbanks provided many more job opportunities as the city grew, and from the 1950s onward mining in the Yukon-Tanana region continued to decline. As outlying settlements were abandoned, the recording district at Livengood was closed and its records sent to Fairbanks. By 1967 mining accounted for only a small amount of the region's economic activity.[57]

As the ARC had anticipated some 20 years earlier, the northern terminus of Segment B of the Elliott Highway served as the starting point of a new road to the arctic coast after the 1968 discovery of oil at Prudhoe Bay. In the summer of 1969 the Alyeska Pipeline Service Company, an entity owned by eight oil companies with holdings in the Prudhoe Bay oilfield, began planning for the Trans-Alaska Pipeline System (TAPS), an oil pipeline beginning at the drilling operations near Deadhorse and continuing south across the Yukon River to Livengood, then on to a marine terminal at Valdez for transfer to tanker vessels for further transport.[58] As the existing road system did not extend beyond the Yukon River, north of Fairbanks, the plans also included a parallel 420-mile, gravel, all-weather haul road branching off the Elliott Highway northwest of Livengood to Prudhoe Bay.[59] This new road to the North Slope began at Livengood, and between 1969 and 1970 the Alyeska Pipeline Service Company constructed the first portion of a pipeline access road from Livengood to the Yukon River. Later known as the Dalton Highway, the route was completed in 1974 and currently begins at Mile 73.1 on the Elliott Highway.[60]

The first section of the pipeline was laid in March 1975.[61] From Livengood to Fox, the pipeline roughly parallels the Elliott Highway. Pipeline contractors established a number of temporary construction camps along the route, including a camp near Livengood.[62] Twelve pumping stations were constructed along the

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[55] After statehood, Alaska's state highway agency changed names three times, from the Department of Public Works, Division of Highways (1959-1961) to the Alaska Department of Highways (1962-1976) and finally to the current Alaska Department of Transportation & Public Facilities (1977-present). Claus-M. Naske, *Alaska's Inclusion in the Federal-Aid Highway Act of 1956*, 341.

[56] Brown and Kreig, eds., 2; State of Alaska, Department of Public Works, Division of Highways, *Annual Report (1961) Division of Highways* [Juneau, Alaska: Department of Public Works, Division of Highways, 1961], 83.

[57] R.H. Saunders, *Mineral Occurrences in the Yukon-Tanana Region, Alaska* (Juneau, Alaska: State of Alaska Department of Natural Resources, Division of Mines and Minerals, 1967), 6.

[58] The Alyeska Pipeline Service Company was created by Amerada Hess, Atlantic Richfield, British Petroleum, Humble (Standard Oil of New Jersey), Mobil, Phillips, Union, and SOHIO (Standard Oil of Ohio); originally known as TAPS, the name was changed in 1970. For clarity, this document refers to the entity throughout as Alyeska Pipeline Service Company (Alyeska Pipeline) and the pipeline itself as TAPS.

[59] "Interior to Grant Permit for Oil Pipeline Haul Road," *Fairbanks Daily News-Miner,* 29 July 1969; Joshua Ashenmiller, "The Alaska Pipeline as an Internal Improvement," *Pacific Historical Review*, August 2006, 469.

[60] Brown and Kreig, eds., 3.

[61] Peter A. Coates, *The Trans-Alaska Pipeline Controversy* (Bethlehem, Pa.: Lehigh University Press, 1991), 252.

[62] McCutcheon Collection, AMRC-b90-14-3-957, Archives, University of Alaska Fairbanks.

length of the pipeline, one of which is located approximately halfway between Fox and Livengood. Although the camps were removed, Pump Station 7 remains in operation.[63] Segments A and B were used to move supplies during construction and continue to support North Slope oil industry freight traffic between Fairbanks and Deadhorse. Portions of Segments B and C were realigned c.1980 when the road bypassed Livengood and connected to the Dalton Highway. The road currently named the Old Elliott at Livengood is part of the bypassed portion of Segment C.[64]

[63] Alyeska Pipeline Service Company, "Pipeline Operations," http://www.alyeska-pipe.com/TAPS/PipelineOperations/PumpStations (accessed 22 July 2014).

[64] This bypassed section of Segment C is listed as CDS number 152800.

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4. Significance

The Roads Methodology provides guidance on the application of the National Register Criteria for Evaluation, identifying areas of significance, and evaluating significance under *Criteria A, B, C*, and *D*.

The historic context describes multiple periods of construction associated with the development of the Elliott Highway. Segments A, B, C, and D of the current highway, including bypassed sections of these segments, were evaluated individually to assess their significance related to the Elliott Highway and any predecessor road.

4.1 *Criterion A: Events*

To meet the threshold for significance under *Criterion A,* a road or bypassed sections of a road must possess a direct and important association in one or more supplemental areas of significance as identified in the Roads Methodology in addition to *Transportation*. This evaluation of significance under *Criterion A* considered all potential areas of significance identified in the Roads Methodology. Based on research and context development, only the applicable areas of significance for this road are addressed below.

Transportation

The Elliott Highway has an association with *Transportation* because it provided the first vehicular access to the western portion of the Yukon-Tanana region. When the Elliott Highway was completed in 1938 connecting Fox to Livengood, it represented the northernmost and westernmost point of the territory's connected highway system and was intended to serve as the node of any future construction to Seward Peninsula or North Slope. The North Slope connection was realized with construction of the Dalton Highway, completed in 1974. Although the Elliott Highway was further extended to Manley Hot Springs, the continuation of the route to Nome remains unbuilt. The period of significance for *Transportation* will relate to the historical purpose this road had in the conveyance of people and goods as defined in one or more supplemental areas of significance.

Industry

Segment A possesses significance at the local level in the area of *Industry* for its association to early local road networks that supported mining activities within the Fairbanks Mining District. This segment functioned as part of larger systems of local roads that served mines and complemented other modes of transportation such as water and rail. The period of significance for Segment A begins in 1911 with the completion of the road from Fox to Olnes and ends in 1938 when it was incorporated into the Elliott Highway.

Segments A and B are significant at the local level in the area of *Industry* for their role in opening up vehicular access to the Tolovana Mining District as the Elliott Highway, which resulted in a period of expansion for mining. At this time, Segment A was upgraded to an all-weather road and Segment B was constructed in direct response to the need to lower freight costs, enabling heavy machinery to reach the district more cheaply to sustain and expand existing mining activities. The completion of this work resulted in the increased mechanization of mining operations, allowing mining in the district to expand to areas of lower-value deposits. The period of significance begins with the completion of upgrades on

Segment A and the construction of Segment B in 1938 as the Elliott Highway and ends in 1959, at which point most mining activities had declined.

Segment C, the portion of the Elliott Highway constructed in 1959 between Livengood and Eureka, is not significant in the area of *Industry*, as it was constructed after the decline of mining in the Tolovana and Hot Springs Mining Districts and was envisioned to create a new route to Nome, which was never realized.

Segment D possesses significance at the local level in the area of *Industry* for its association to early local road networks that supported mining activities within the Hot Springs Mining District. This segment functioned as part of larger systems of local roads that served mines and complemented other modes of transportation such as water and rail. The period of significance for Segment D begins c.1913 with the completion of the Manley Hot Springs-Eureka Road and ends in 1959 with its incorporation into the Elliott Highway.

Segments A and B of the Elliott Highway, along with other highways such as the Dalton and Richardson, facilitated the construction of the Trans-Alaska Pipeline. Completed in 1977, the pipeline construction represents an event of extraordinary importance in the state. Segments A and B of the Elliott Highway have an association with this event and continue to facilitate maintenance along a portion of the pipeline. The role of Segments A and B in the pipeline has potential for significance but does not rise to the level of significance to warrant exceptional significance to meet *Criteria Consideration G,* which is needed due to the pipeline's construction less than 50 years ago. The Dalton Highway better demonstrates the exceptional significance needed to meet *Criteria Consideration G* because it was built expressly to facilitate pipeline construction and provided access all the way to the North Slope.

Entertainment/Recreation and Conservation

Neither the Elliott Highway nor any of its individual segments meet the requirement for significance in the area of *Entertainment/ Recreation and Conservation*. This area of significance focuses on the specific use of roads to provide critical and direct access to important entertainment or recreational facilities or conservation activities. The road was not initially developed to provide direct access to recreational facilities but rather provided access to gold mining operations. Following its construction, recreational facilities, tourism, and areas of scenic and natural importance were developed along the road by the access provided by the Elliott Highway. However, many regional and state highways in Alaska frequently led to the development of recreational activities and points of interest due to the access a transportation corridor could provide. Research did not reveal that the road provided critical access to important entertainment or recreational activities or areas deemed critical for the management of natural resources subsequent to its construction that transcends normal recreational activities to meet National Register significance in the area of *Entertainment/Recreation and Conservation*.

Community Planning and Development

Neither the Elliott Highway nor any of its individual segments meet the requirement for significance in the area of *Community Planning and Development*. This area of significance focuses on roads designed to serve a crucial role in the physical development within a community. The Elliott Highway was planned to provide a link to a mining district, and research did not reveal that it was constructed to directly improve or

subsequently improved the physical structure within specific communities along its route. Growth and decline of communities along the highway are related to *Industry*, reflecting the boom and decline of mining, and *Transportation* for its function of transporting goods and services.

4.2 *Criterion B: Persons*

As outlined in the Roads Methodology, a road is not likely to qualify for National Register significance under *Criterion B* for association with a significant person. To qualify under *Criterion B*, the road would need to best exemplify a person's contribution to history. Mere association with a road, such as involvement in design or construction, or roads named for an individual that is commemorative in nature, would not render a road significant under *Criterion B*. Although the Elliott Highway is named in honor of Malcolm Elliott, president of the ARC from 1927 to 1932, the majority of the construction occurred under the supervision of his successor and the name is a commemorative recognition. No other individuals were identified through research to have played a significant role in the Elliott Highway that would qualify it under *Criterion B*.

4.3 *Criterion C: Design/Construction*

The Roads Methodology explains how a road would meet the threshold for significance under *Criterion C*. Roads will generally reflect patterns of features common to a particular road type, and under the Roads Methodology this does not convey significance on its own. In order to possess significance, a road must also reflect other important or distinctive design features and/or construction practices or be a rare surviving example of a type.

Segment A was built in 1911 to connect Fox to Olnes and Segment D in c.1913 to connect Manley Hot Springs to Eureka as early wagon roads. Segment A was upgraded between 1931 and 1938 as an all-weather road. Segment D was upgraded between 1954 and 1959 with the completion of Segment C. Although Segments A and D incorporate earlier roads, the upgrading of these roads as the Elliott Highway from 1931 to 1938 (for Segment A) and from 1954 to 1959 (for Segment D) occurred in a period when the ARC had already established a body of institutional knowledge of road construction in Alaska. At the time construction of Segment B was underway in the 1930s and Segment C was underway in the 1950s, the ARC had already constructed the Richardson and Steese Highways and had several decades of experience building roads through muskeg and permafrost.

A review of the ARC's annual reports and other materials from the period in which the highway was constructed yielded no evidence of any engineering design or construction features important in road engineering that serve to distinguish it from other roads. Nothing in the literature noted any engineering significance; the highway's design and construction fall within the ARC's established standard practices of the time and it does not represent innovative developments in highway construction. Early road portions of Segment A and Segment D employed corduroy construction; however, the entire Elliott Highway was reconstructed by 1949 and there is no evidence of corduroy construction within these segments.

Bypassed sections of gravel roadbed associated with Segments A, B, and D do not constitute significance under *Engineering* merely as a surviving example of an earlier road type. As a result, neither

the Elliott Highway nor any of its bypassed sections of road meet the threshold for significance in the area of *Engineering*.

4.4 *Criterion D: Information Potential*

Criterion D is most often applied to archaeological properties. As outlined in the Roads Methodology, roads in vehicular use are not likely to be significant under *Criterion D* for the ability to yield information. The Elliott Highway is in vehicular use and remains an above-ground property type. No evidence was found for potential significance under *Criterion D*.

4.5. Significance Recommendation

Segments A, B, and D possess significance at the local level under *Criterion A* for their direct and important association with *Transportation* and under the supplemental area of significance of *Industry*.

4.5.1 Segment A

Segment A has two periods of development: the Fox-Olnes Road, a preexisting road with an earlier history serving mining activities prior to its inclusion into the Elliott Highway; and the Elliott Highway.

Segment A possesses significance under *Criterion A* for its association with *Transportation* and *Industry* for its role in the development of early mining activities within the Fairbanks Mining District as the Fox-Olnes Road. The period of significance for this event extends from the construction of the Fox-Olnes Road in 1911 and extends through 1938 when it became part of the Elliott Highway.

By 1938 Segment A was incorporated into the newly established Elliott Highway that extended from Fox to Livengood. As part of the Elliott Highway in this period, Segment A is important under *Criterion A* for its association with *Transportation* and *Industry* for its role in opening up vehicular access to the Tolovana Mining District, resulting in a period of expansion for mining. As completed in 1938, the Elliott Highway was constructed in direct response to the need to lower freight costs, enabling heavy machinery to reach the district more cheaply to sustain and expand existing mining activities. Its completion in 1938 resulted in the increased mechanization of mining operations, allowing mining in the district to expand to areas of lower-value deposits. The period of significance begins with the 1938 completion of the Elliott Highway to Livengood and ends in 1959 when the road is no longer associated with important mining activities in the region.

Segment A was not found to possess significance under *Criteria B* or *C*.

4.5.2 Segment B

Segment B is important for its role in opening up vehicular access to the Tolovana Mining District, which resulted in a period of expansion for mining, under *Criterion A* for its association with *Transportation* and *Industry*. The route of Segment B was constructed in direct response to the need to lower freight costs, enabling heavy machinery to reach the district more cheaply to sustain and expand existing mining activities. Its completion in 1938 extended the northern terminus of Segment A at Olnes to Livengood and resulted in the increased mechanization of mining operations, allowing mining in the district to expand to areas of lower-value deposits. The period of significance begins with the completion of the

highway in 1938 and ends in 1959 with the extension of the highway to Eureka, at which point mining activities had declined.

Segment B was not found to possess significance under *Criteria B* or *C*.

4.5.3 Segment C

This segment was completed in 1959, connecting Eureka to Livengood; however, by this point mining activities in the Tolovana and Hot Springs Mining Districts had declined and the subsequent connection to Nome was never realized. Segment C is not significant in the area of *Industry* and was not found to possess significance under *Criteria A, B,* or *C*.

4.5.4 Segment D

Segment D was a preexisting road with an earlier history serving mining activities prior to its inclusion into the Elliott Highway. Segment D possesses significance under *Criterion A* for its association with *Transportation* and *Industry* for its role in the development of early mining activities within the Hot Springs Mining District as the Manley Hot Springs-Eureka Road. The period of significance for this event begins with the construction of the Manley Hot Springs-Eureka Road c.1913 and extends through 1959 when it became part of the Elliott Highway and is no longer associated with important mining activities in the region.

Segment D was not found to possess significance under *Criteria B* or *C*.

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5. Integrity

The Roads Methodology provides guidance on the application of the National Register Criteria for Evaluation and assessing integrity under *Criteria A, B, C*, and *D*. To be eligible for the National Register Segments A, B, or D, or bypassed sections of roadbed associated with these roads, must retain historic integrity. Assessing historic integrity requires identifying the essential physical features and which aspects of historic integrity are most important to convey significance.

5.1 Essential physical features

The essential physical features are those physical features that were present during the period of significance and must be visible to understand a road's significance. Segments A, B, and D are significant at the local level under *Criterion A* in the areas of *Transportation* and *Industry*. The essential physical features of these segments will demonstrate their historic function of providing an important connection between communities and their role in the development of early mining.

Research efforts did not reveal the original plans for the roads being evaluated. The Roads Overview, road-specific research, and historic photographs of the Elliott Highway c.1934-1938 show the characteristics of the historic roadbed and other roadbed-related features (see Appendix B for a selection of historic photographs).[65]

The Roads Overview provides general characteristics of road construction during this period. During the early 1900s through World War II wagon road construction consisted mainly of clearing and flattening and minimal design with a total cleared width of 24 feet, with travel lanes typically 12 to 13 feet wide. On lighter-traffic or steep side-hill sections this could be reduced to 10 or even 8 feet. Design included crowned surface and ditches for drainage with portions employing corduroy or plank construction with log and corrugated metal type culverts. In 1920 the ARC was still constructing earthen wagon roads that were typically one lane wide. Improvement efforts in the 1930s typically consisted of widening and upgrading wagon roads to an all-weather, crushed gravel surface, which was the highest standard then in use. By 1932 the Alaskan road system consisted of approximately 2,200 miles; less than one-quarter of that total were graveled, and none were paved. [66] In 1938 Segments A and B from Fox to Livengood consisted of an all-weather road with a gravel surface.[67]

The characteristics provided from the sources above were used to identify the essential physical features of travel lanes, embankment, and alignment for Segments A, B, and D. Table 1 provides a description of the essential physical features for each segment.

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[65] Research to locate plans was completed at the Alaska DOT&PF Northern Region and the National Archives; photographs were obtained from Woodrow Johansen Papers, [USUAFV6-234], Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks.

[66] Mead & Hunt, Inc., *Alaska Roads Historic Overview: Applied Historic Context of Alaska's Roads* completed for the Alaska Department of Transportation and Public Facilities (February 2014), 152-154, 156-158.

[67] Alaska Road Commission, *Annual Report 1938*, 7.

Table 1. Essential physical features

Segment	Period(s) of Significance	Feature
A	1911-1938	• Single lane • Low embankment with no shoulder • Pre-1938 alignment that connected Fox station, Dome City, and Olnes
A	1938-1959	• Single lane through 1948; two travel lanes, 1949-1959 • Low embankment with no shoulder through 1948; subsequent widening to embankment, 1949-1959 (to accommodate additional travel lane)
B	1938-1959	• Single lane through 1948; two travel lanes, 1949-1959 • Low embankment with no shoulder through 1948; subsequent widening to embankment, 1949-1959 (to accommodate additional travel lane) • Pre-1959 alignment that connected Olnes to Livengood
D	c.1913-1959	• Single travel lane through c.1931; two travel lanes, c.1931-1959 • Low embankment with no shoulder • Pre-1959 alignment that connected the Tanana River, Manley Hot Springs, and Eureka

The road surface material and roadbed-related features (such as bridges, drainage features, traffic signals, signage, mile markers, lighting safety barriers, and parking areas) from the period of significance were determined not to be necessary in understanding the road's function of providing important connections to early mining activities and its association under *Criterion A* in the areas of *Transportation* and *Industry*, and are not identified as essential physical features.

5.2 Alterations

Changes that have occurred outside the period of significance for each of the segments are derived from a review of as-built plans and right-of-way files from the Alaska DOT&PF Northern Region of the Elliott Highway from 1958-2007 (see Appendix C for detail). The activities in these sources from outside the period of significance were used to identify alterations to the essential physical features and road features for Segments A, B, and D). Table 2 provides a summary of the alterations to the essential physical features for each segment.

Table 2. Summary of alterations to the essential physical features

Segment	Activity
A	• Multiple realignments • Widening of travel lanes from single lane (16 feet) to two lanes (24 feet) • Regrading that widened and elevated the embankment Widening and changes to embankment occurred from 1931 to 1938 as it was reconstructed as part of the Elliott Highway; realignments and subsequent alterations to embankment occur between 1959 and 2007.

Table 2. Summary of alterations to the essential physical features

B	• Numerous realignments • Regrading that widened and elevated the embankment Realignments and changes to embankment occurred along multiple portions of the road from 1959 to 2007.
D	• Multiple realignments • Regrading that widened and elevated the embankment Widening and changes to embankment occurred from 1954 to 1959 as it was reconstructed as part of the Elliott Highway; subsequent alterations occur between 1959 and 2007.

Alterations to other roadbed and roadbed-related features to portions of all three segments being evaluated include a change in surface material from gravel to hard pavement; replacement of the bridges, culverts, and drainage features; replacement of markers, signs, and guardrails; and the addition of turn-outs.

5.3 Assessment of integrity

Segments A, B, and D are significant under *Criterion A* for their historical association with the development of early mining activities, which is demonstrated by the essential physical features listed above. Under *Criterion A*, location, design, and association are the most important aspects of integrity to convey significance. Integrity of association is generally retained for road segments, or bypassed sections of road, on alignments from the period of significance. Retention of integrity of location, design, and association are required for a segment to be eligible under *Criterion A*. Setting and feeling are also important aspects under *Criterion A* and should also be retained to convey significance. Aspects of materials and workmanship are least important and are not required to convey significance.

5.3.1 Segment A

Segment A includes realignments, widening, and regrading of large portions of the roadbed outside the periods of significance, which results in changes to the essential physical features of alignment, travel lanes, and embankment and a loss of design, location, materials, association, and feeling. The replacement of other historic characteristics with new features from outside the periods of significance (e.g., bridges, culverts, and drainage features; markers, signs, and guardrails) and the addition of hard surface pavement, turn-outs, and a weigh station results in changes to the historic character of the road and diminishes overall design, materials, feeling, and setting. The loss of essential physical features and changes to the historic character of the road results in alterations to the degree that the road cannot convey its significance.

Bypassed section A1 retains the pre-1959 alignment reflecting the road's periods of significance. This section is a short portion of roadbed extending less than one-half-mile in length. For this bypassed section of road, the embankment and travel lanes are not visible for the entire length of the roadbed and this section does not appear as it did historically. Due to the loss of essential roadbed features it no longer provides a similar travel experience as during the period of significance. The loss of embankment and travel lanes results in changes to the essential physical features and a loss of design, materials, setting,

feeling, and association. The loss of essential physical features and changes to the historic character of this road segment results in alterations to the degree that it no longer conveys its significance.

Bypassed section A2 extends approximately 4 miles in length and retains the alignment, embankment, and travel lanes reflective of the period of significance from 1938-1959 as the Elliott Highway. Bypassed section A2 compares favorably with the historic character evident in historical images of the Elliott Highway (see Appendix B) and therefore appears much as it did during the 1938-1959 period of significance. This bypassed section retains integrity of design, location, association, setting, feeling, and materials, and reflects the historic character of the road to convey its significance in providing access to early mining activities during the period of significance.

5.3.2 Segment B

Segment B includes multiple realignments, widening, and regrading of large portions of the roadbed outside the period of significance, which results in changes to the essential physical features of alignment and embankment and a loss of design, location, materials, feeling and association. The replacement of other historic characteristics with new features from outside the period of significance (e.g., bridges, culverts, and drainage features; markers, signs, and guardrails) and the addition of hard surface pavement and turn-outs results in changes to the historic character of the road and diminishes overall design, materials, feeling, and setting. The loss of essential physical features and changes to the historic character of the road results in alterations to the degree that the road cannot convey its significance.

Bypassed sections B11 and B16 retain the pre-1959 alignment reflecting the road's period of significance, 1938-1959. These sections extend approximately 1.5 miles or more in length and retain the alignment, embankment, and travel lanes reflective of the period of significance and compared favorably with the historic character evident in historical images of the Elliott Highway (see Appendix B) and therefore appear much as they did during the period of significance. These bypassed sections retain integrity of design, location, association, setting, feeling, and materials and reflect the historic character of the road to convey their significance in providing access to early mining activities during the period of significance.

Bypassed sections B1-B10 and B12-B15 retain the pre-1959 alignment reflecting the road's period of significance, 1938-1959. These sections are generally characterized as short, isolated portions of roadbed with most extending less than three-tenths of a mile. For these bypassed sections of road, the embankment and travel lanes are not visible for the entire length of the roadbed and the roads do not appear as they did historically. Due to the loss of essential roadbed features these bypassed sections of road no longer provide a similar travel experience as during the period of significance. The loss of embankment and travel lanes results in changes to the essential physical features and a loss of design, materials, setting, association, and feeling. The loss of essential physical features and changes to the historic character of these road segments results in alterations to the degree that these bypassed road sections no longer convey their significance.

5.3.3 Segment D

Changes to Segment D include multiple realignments, widening, and regrading of large portions of the roadbed outside the period of significance, which results in changes to the essential physical features of alignment and embankment and a loss of design, location, association, and materials. The replacement

of other historic characteristics with new features from outside the period of significance (e.g., bridges, culverts, and drainage features; markers, signs, and guardrails) and the addition of hard surface pavement results in changes to the historic character of the road and diminishes overall design, feeling, and materials. The loss of essential physical features and changes to the historic character of the road results in alterations to the degree that the road cannot convey its significance.

Bypassed sections D1, D2, and D4 retain the pre-1959 alignment reflecting the road's period of significance, c.1913-1959. These sections of roadbed extend approximately three-fourths of a mile or more in length and retain their alignment, embankment, and travel lanes reflective of the period of significance. These bypassed sections of road retain integrity of association because they convey their historical role of providing access to former mining activities. These bypassed sections compared favorably with the historic character evident in historical images of the Elliott Highway (see Appendix B) and therefore appear much as they did during the period of significance. These bypassed sections retain integrity of design, location, association, setting, feeling, and materials and reflect the historic character of the Elliott Highway to convey their significance in providing access to early mining activities during the period of significance.

Bypassed section D3 retains its pre-1959 alignment reflecting the road's period of significance, c.1913-1959. This section is characterized as a short portion of roadbed in which the embankment and travel lanes are not visible for the entire length of the roadbed. This bypassed section of road does not appear as it did historically and due to the loss of essential roadbed features no longer provides a similar travel experience as during the period of significance. The loss of embankment and travel lanes results in changes to the essential physical features and a loss of design, materials, setting, association, and feeling. The loss of essential physical features and changes to the historic character of this road segment results in alterations to the degree that the road cannot convey its significance.

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6. National Register Eligibility Recommendations

Segments of the Elliott Highway that possess significance and retain integrity are recommended eligible for listing in the National Register as indicated below.

6.1 Segment A

Changes made to Segment A outside the period of significance are of a sufficient scale that they result in a loss of design, location, materials, feeling, association, and setting. This segment no longer retains the aspects of historic integrity most important to coveys its significance under *Criterion A* in the areas of *Transportation* and *Industry* and is recommended not eligible for listing in the National Register.

Bypassed section A1 reflects changes to the roadbed outside the period of significance that are of sufficient scale that they result in a loss of design, materials, setting, association, and feeling. This section of roadbed no longer retains required or important aspects of historic integrity to convey significance under *Criterion A* in the areas of *Transportation* and *Industry* and is recommended not eligible for listing in the National Register.

Bypassed section A2 retains integrity under *Criterion A* and is recommended eligible for listing in the National Register in the areas of *Transportation* and *Industry* at the local level. The period of significance begins in 1938 when the roadway was included in the Elliott Highway and ends in 1959, at which point most mining activities had declined.

The historic boundary of this bypassed section encompasses its historic alignment and the width of its embankment and travel lanes. The termini corresponds to the extant portions of the bypass that demonstrate its essential physical features. A transitional area exists at the junction of the bypass section and the current alignment of Segment A of the Elliott Highway. This transitional area exhibits alterations resulting from the realignment and other activities such as widening and regrading, resulting in the loss of roadbed and its essential physical features. As a result, the transitional area at the termini with the current alignment of Segment A of the Elliott Highway does not contribute to the significance of this bypassed section of road. Appendix A provides a map indicating its approximate historic boundaries.

6.2 Segment B

Changes made to Segment B outside the period of significance are of a sufficient scale that they result in a loss of design, location, materials, feeling, association, and setting. This segment no longer retains the aspects of historic integrity most important to coveys its significance under *Criterion A* in the areas of *Transportation* and *Industry* and is recommended not eligible for listing in the National Register.
Bypassed sections B1-B10 and B12-B15 reflect changes to the roadbed outside the period of significance that are of sufficient scale that it results in a loss of design, materials, setting, feeling, and association. These sections of roadbed no longer retain required or important aspects of historic integrity to convey significance under *Criterion A* in the areas of *Transportation* and *Industry* and are recommended not eligible for listing in the National Register.

Bypassed sections B11 and B16 retain integrity under *Criterion A* and are recommended eligible for listing in the National Register in the areas of *Transportation* and *Industry* at the local level. The period of significance begins with the completion of this segment of the Elliott Highway in 1938 and ends in 1959 with the extension of the highway to Eureka when the road is no longer associated with important mining activities in the region.

The historic boundary of these bypassed sections encompasses their historic alignment and the width of their embankment and travel lanes. The termini corresponds to the extant portions of the bypassed sections that demonstrate their essential physical features. A transitional area exists at the junction of the bypassed sections and the current alignment of Segment B of the Elliott Highway. This transitional area exhibits alterations resulting from the realignment and other activities such as widening and regrading, resulting in the loss of roadbed and its essential physical features. As a result, the transitional area at the termini with the current alignment of Segment B of the Elliott Highway does not contribute to the significance of these bypassed sections of road. Appendix A provides maps indicating approximate historic boundaries.

6.3 Segment D

Changes made to Segment D outside the period of significance are of a sufficient scale that they result in a loss of design, location, association, feeling, and materials. This segment no longer retains the aspects of historic integrity most important to coveys its significance under *Criterion A* in the areas of *Transportation* and *Industry* and is recommended not eligible for listing in the National Register. Bypassed section D3 reflects changes to the roadbed outside the period of significance that are of sufficient scale that it results in a loss of design, feeling, and materials. This section of roadbed no longer retains required or important aspects of historic integrity to convey significance under *Criterion A* in the areas of *Transportation* and *Industry* and are recommended not eligible for listing in the National Register.

Bypassed sections D1, D2, and D4 retain integrity under *Criterion A* and are recommended eligible for listing in the National Register in the areas of *Transportation* and *Industry* at the local level. The period of significance begins c.1913 when the Manley Hot Springs-Eureka Road was constructed and extends through 1959 when the road is no longer associated with important mining activities in the region.

The historic boundary of these bypassed sections encompasses their historic alignment and the width of their embankments and travel lanes. The termini corresponds to the extant portions of the bypassed sections that demonstrate their essential physical features. A transitional area exists at the junction of the bypassed sections and the current alignment of Segment D of the Elliott Highway. This transitional area exhibits alterations resulting from the realignment and other activities such as widening and regrading, resulting in the loss of roadbed and its essential physical features. As a result, the transitional area at the termini with the current alignment of Segment D of the Elliott Highway does not contribute to the significance of these bypassed sections of road. Appendix A provides maps indicating approximate historic boundaries.

Appendix A. Alaska Heritage Resources Survey Numbers, Mapping, and Representative Images of the Elliott Highway from Field Survey (August 2014)

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A1. Alaska Heritage Resources Survey Numbers

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Alaska Heritage Resources Survey Numbers for the Elliott Highway

Segment	Alaska Heritage Resources Survey Number
Segment A	FAI-02294, LIV-00750
Bypassed Section A1 of Segment A	FAI-02329
Bypassed Section A2 of Segment A	LIV-00753
Segment B	LIV-00751
Bypassed Section B1 of Segment B	LIV-00754
Bypassed Section B2 of Segment B	LIV-00755
Bypassed Section B3 of Segment B	LIV-00756
Bypassed Section B4 of Segment B	LIV-00757
Bypassed Section B5 of Segment B	LIV-00758
Bypassed Section B6 of Segment B	LIV-00759
Bypassed Section B7 of Segment B	LIV-00760
Bypassed Section B8 of Segment B	LIV-00761
Bypassed Section B9 of Segment B	LIV-00762
Bypassed Section B10 of Segment B	LIV-00763
Bypassed Section B11 of Segment B	LIV-00764
Bypassed Section B12 of Segment B	LIV-00765
Bypassed Section B13 of Segment B	LIV-00766
Bypassed Section B14 of Segment B	LIV-00767
Bypassed Section B15 of Segment B	LIV-00768
Bypassed Section B16 of Segment B	LIV-00769
Segment C	LIV-00752, TAN-00126
Segment D	TAN-00127, XKR-00030
Bypassed section D1 of Segment D	TAN-00128
Bypassed section D2 of Segment D	TAN-00129
Bypassed section D3 of Segment D	TAN-00130
Bypassed section D4 of Segment D	TAN-00131

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A2. Route of the Elliott Highway

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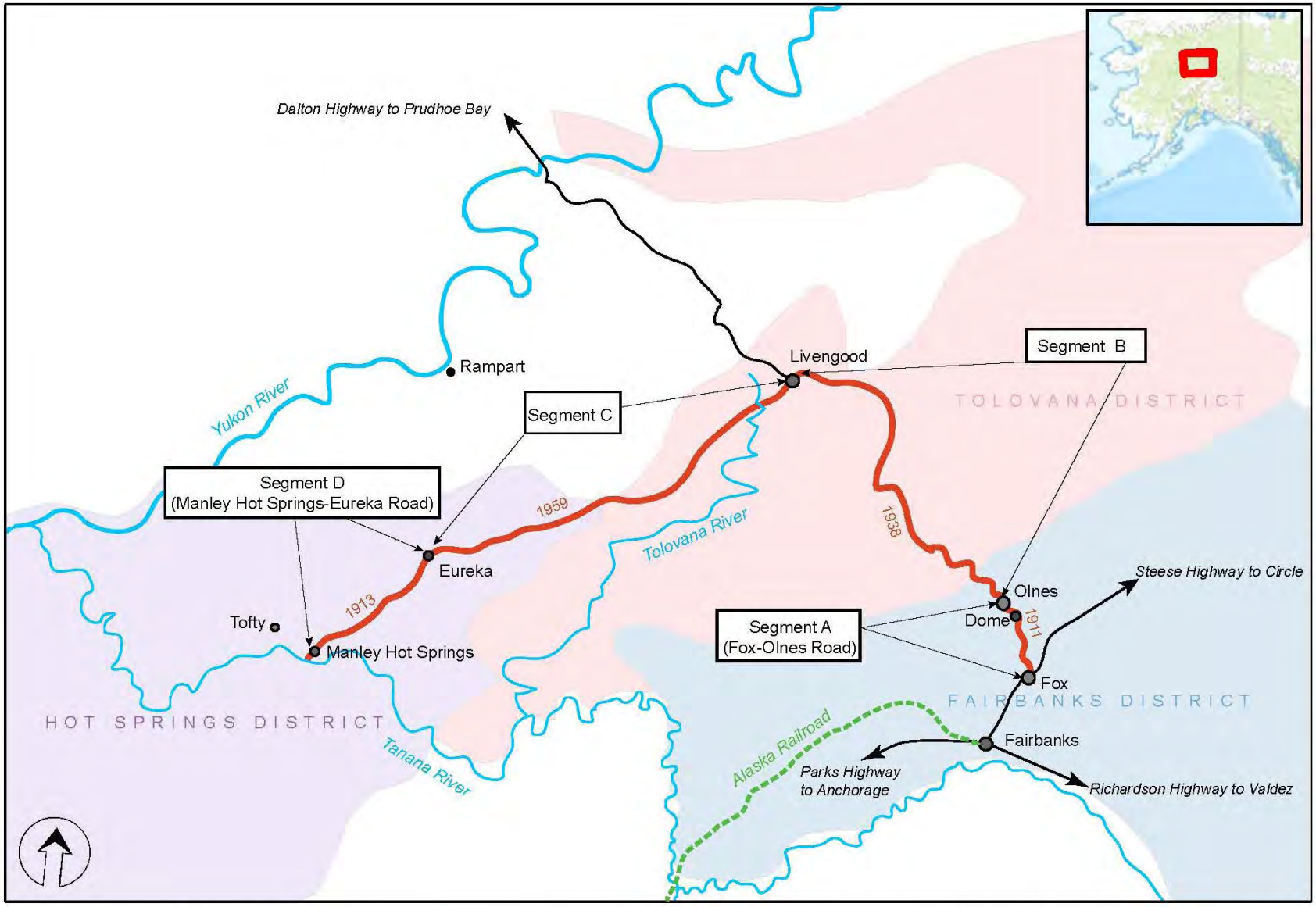

Route of Elliott Highway, showing mining districts traversed

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A3. Mapping and Representative Images from Field Survey (August 2014) of Segments A, B, and D

Segments A and B

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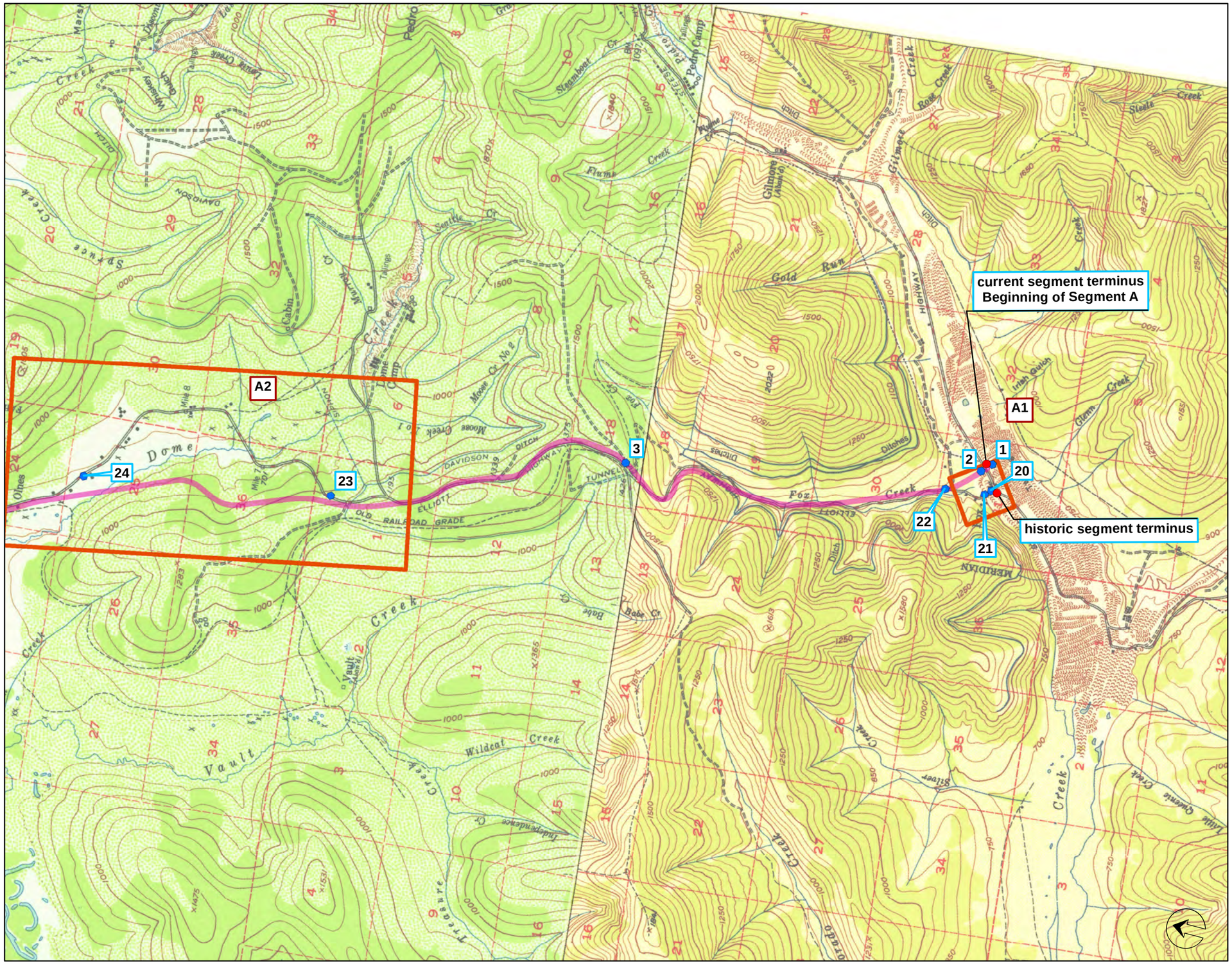
Elliott Highway
Fox-Livengood
Segments A & B

Base: USGS 1955-1956



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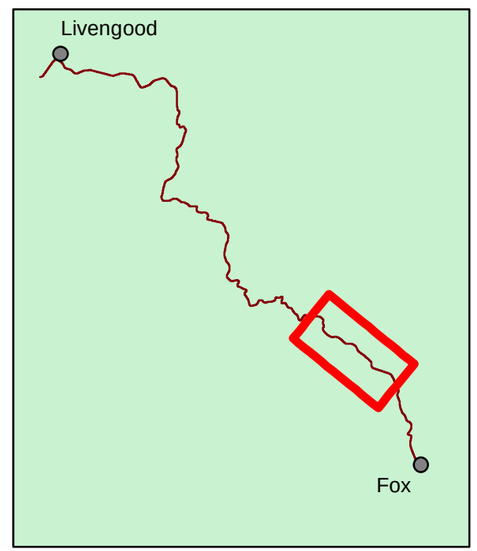
Elliott Highway
Fox-Livengood
Segments A & B

Base: USGS 1955-1956

End of Segment A
Beginning of Segment B

B3
B2
B1
A2
26
5
4
25
24

Bypassed Segments
Photograph Locations/ Figure Numbers
Current Alignment
Segment C (post 1958)



0 0.475 0.95 1.9 2.85 3.8 Miles

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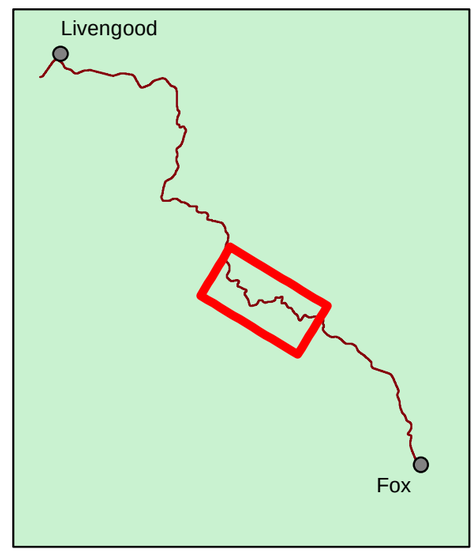
Elliott Highway
Fox-Livengood
Segments A & B

Base: USGS 1955-1956

B8
B7
B6
B5
B4
15
8
6
7

Bypassed Segments
Photograph Locations/ Figure Numbers
Current Alignment
Segment C (post 1958)



0 0.5 1 2 3 4 Miles

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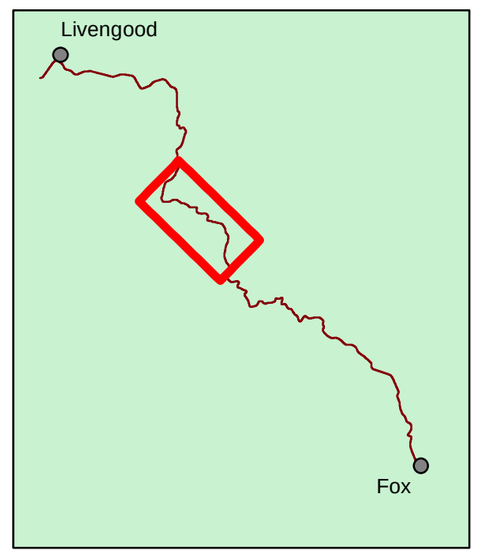
Elliott Highway
Fox-Livengood
Segments A & B

Base: USGS 1955-1956

B12
B11
B10
B9
9
10
13
14
28
29
30
31
32
ELLIOTT HIGHWAY
Cabin
O'Brien Creek
Globe
River

Bypassed Segments
Photograph Locations/ Figure Numbers
Current Alignment
Segment C (post 1958)



0 0.5 1 2 3 4 Miles

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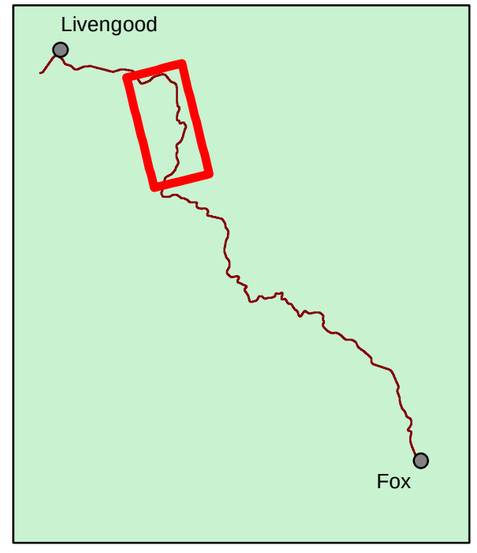
Elliott Highway
Fox-Livengood
Segments A & B

Base: USGS 1955-1956

B14
B13
B12
B15
12
16
27
17

Bypassed Segments
Photograph Locations/ Figure Numbers
Current Alignment
Segment C (post 1958)



0 0.5 1 2 3 4 Miles

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Elliott Highway
Fox-Livengood
Segments A & B

Base: USGS 1955-1956

historic segment terminus

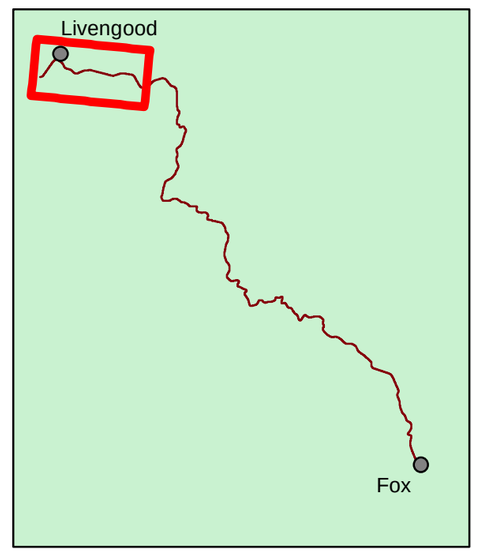
Segment C

current segment terminus
End of Segment B

Jct Dalton Highway

35
36
18
34
33
19
11
17
B16
B15

Bypassed Segments
Photograph Locations/ Figure Numbers
Current Alignment
Segment C (post 1958)



0 0.5 1 2 3 4 Miles

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Representative views of roadbed and roadbed-related features
Segments A and B of the Elliott Highway

(Representative view of bypassed sections for these segments are shown at the end)

Figure 1. Intersection with the Steese Highway at the southern terminus of the current alignment of the Elliott Highway. View facing northwest.

Figure 2. Weigh station at the southern terminus of the current alignment of the Elliott Highway. View facing northeast.

Representative views of roadbed and roadbed-related features
Segments A and B of the Elliott Highway

Figure 3. Typical roadbed in hilly terrain. View facing northeast.

Figure 4. Typical roadbed in valley/flats. View facing southeast.

Representative views of roadbed and roadbed-related features
Segments A and B of the Elliott Highway

Figure 5. Typical roadbed showing wide shoulder. View facing east.

Figure 6. Turn-outs (paved). View facing north.

Figure 7. Turnout (gravel). View facing north.

Figure 8. Roadside cut. View facing northeast.

Figure 9. Roadside cut. View facing north.

Representative views of roadbed and roadbed-related features
Segments A and B of the Elliott Highway


Figures 10 (view facing southeast) and 11 (view facing northeast). Typical roadbed showing extent of wide embankment.


Figures 12 (view facing east) and 13 (view facing north). Typical roadbed showing extent of elevated embankment due to borrow/fill.


Figures 14 (view facing northeast) and 15 (view facing east). Examples of replacement guard railing.

Representative views of roadbed and roadbed-related features
Segments A and B of the Elliott Highway

Figure 16. Example of a replacement bridge. View facing north.

Figures 17 (view facing northeast) and 18 (view facing south). Typical replacement corrugated metal culverts (one with thaw pipe).

Figure 19. View from the intersection with the Dalton Highway, northern terminus of Segment A of the Elliott Highway. View facing east.

Bypassed sections of roadbed
Segments A and B of the Elliott Highway

(Approximate locations of bypassed sections of road for these segments are indicated at the end)

Bypassed section A1

Figure 20. North of the intersection with the Old Steese Highway showing bypassed pre-1959 alignment of the Fox-Olnes Road/Elliott Highway. View facing northwest.

Figure 21. Replacement bridge. View facing north.

Figure 22. Turn-out north of Fox at the approximate location where the northern portion of the pre-1959 alignment of the Fox-Olnes Road/Elliott Highway merges into current alignment. View facing north.

Bypassed section A2

Figure 23. Southern portion of roadbed showing one travel lane and embankment reflective of pre-1959 period of significance. View facing north.

Figure 24. Northern portion of roadbed showing two travel lanes and embankment reflective of pre-1959 period of significance. View facing southeast.

Bypassed sections of roadbed
Segments A and B of the Elliott Highway

Bypassed sections B1-B10, B12-B15

Figure 25. Example loss of embankment and travel lanes (obliteration of roadbed). View facing north.

Figure 26. Example loss of embankment and travel lanes (widening). View facing northeast.

Figure 27. Example loss of travel lanes (unmaintained). View facing northwest.

Figure 28. Example loss of embankment (unmaintained). View facing east.

Bypassed section B11

Figure 29. Gravel roadbed, two travel lanes, and embankment reflective of pre-1959 period of significance – south of the Tatalina River. View facing east.

Figure 30. Gravel roadbed, one travel lane, and embankment reflective of pre-1959 period of significance – south of the Tatalina River. View facing south.

Bypassed sections of roadbed
Segments A and B of the Elliott Highway

Figure 31. Example loss of embankment – north of the Tatalina River. View facing north.

Figure 32. 1949 Warren pony truss bridge reflective of pre-1959 period of significance (does not connect to gravel roadbed) – over the Tatalina River. View facing south.

Bypassed section B16

Figure 33. Gravel roadbed, one travel lane, and embankment reflective of pre-1959 period of significance. View facing northwest.

Figure 34. Gravel roadbed, one travel lane, and embankment reflective of pre-1959 period of significance. View facing southwest.

Figure 35. Roadbed at northern terminus in Livengood. View facing northwest.

Figure 36. Replacement bridge in Livengood. View facing north.

Approximate Milepost Location on the Elliott Highway of Bypassed Sections of Road for Segments A and B

Bypassed Section	Approximate Milepost (beginning and ending)
A1	0-0.5
A2	5.25-8.5
B1	9.5-10.5
B2	16.75
B3	16-16.5
B4	19-19.5
B5	22.5-23
B6	23-23.5
B7	27.5-28
B8	29-29.5
B9	32-35
B10	38.5-39
B11	40.5-43
B12	45
B13	47-47.5
B14	49-50.5
B15	54.5-59
B16	61.5-Livengood (no ending milepost available, since this segment does not reconnect with the current Elliott Highway)

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Segment D

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Elliott Highway
Eureka-Manley Hot Springs
Segment D

Base: USGS 1955-1956

historic segment terminus

current segment terminus

no extant roadbed identified

D1

D2

D3

43

44

45

46

47

48

49

50

51

52

53

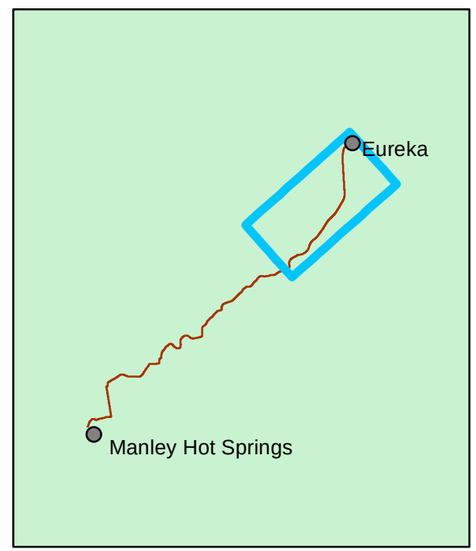
54

Photograph Locations

Bypassed Segments

Current Alignment

Segment C (post-1958)



0 0.5 1 2 3 4 Miles

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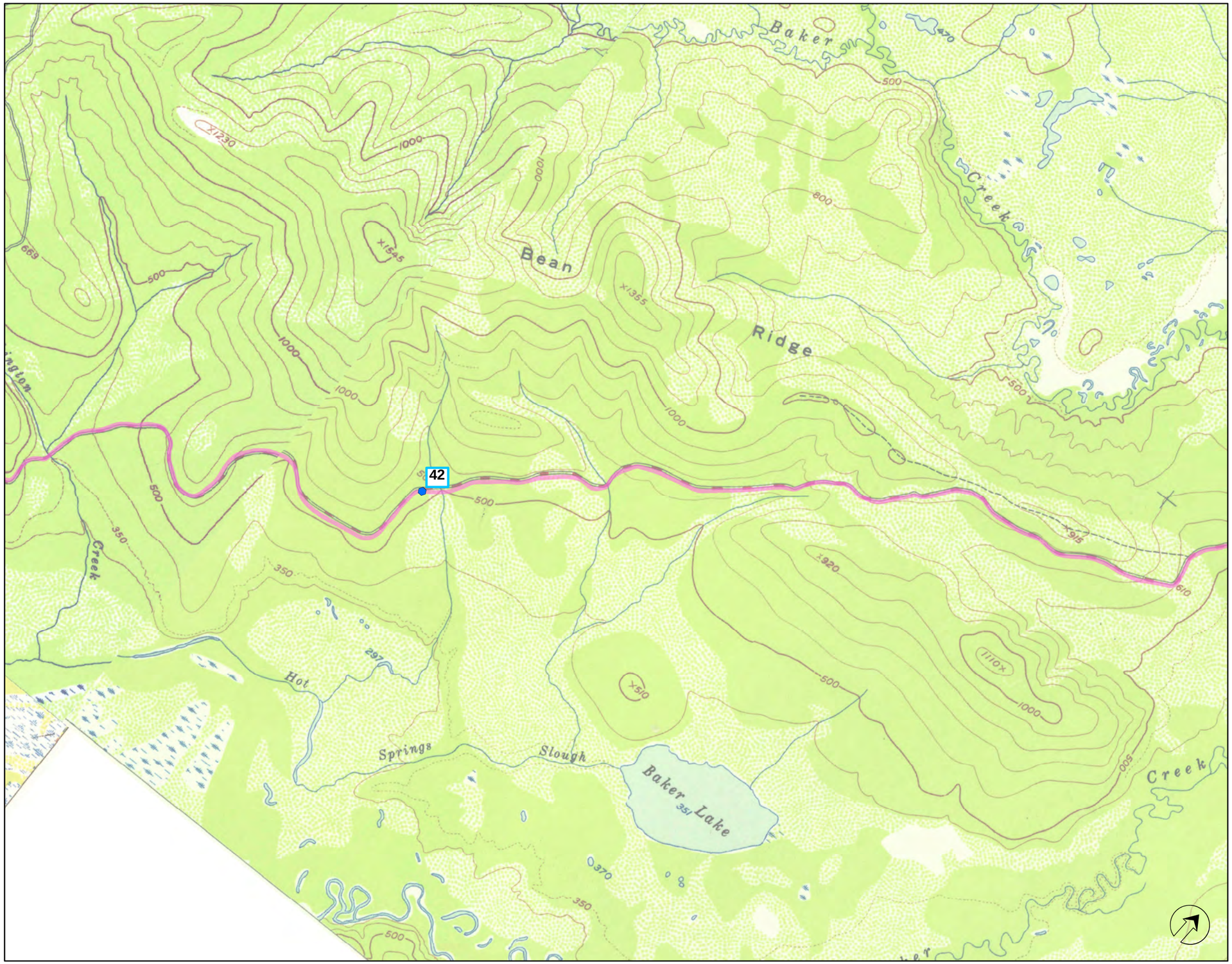
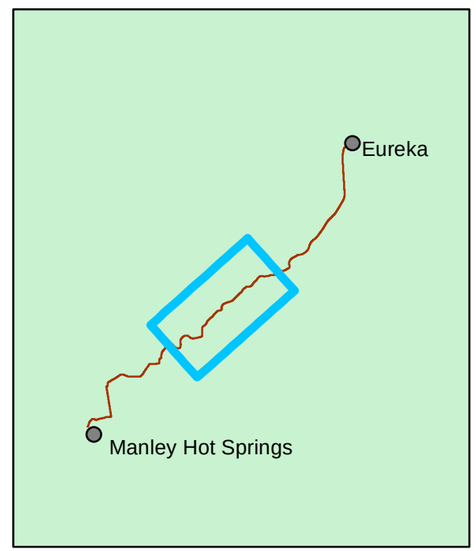
Elliott Highway
Eureka-Manley Hot Springs
Segment D

Base: USGS 1955-1956



- Photograph Locations
- Bypassed Segments
- Current Alignment



0 0.5 1 2 3 4 Miles

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Elliott Highway
Eureka-Manley Hot Springs
Segment D

Base: USGS 1955-1956

D4

39 41 55 56 57 40

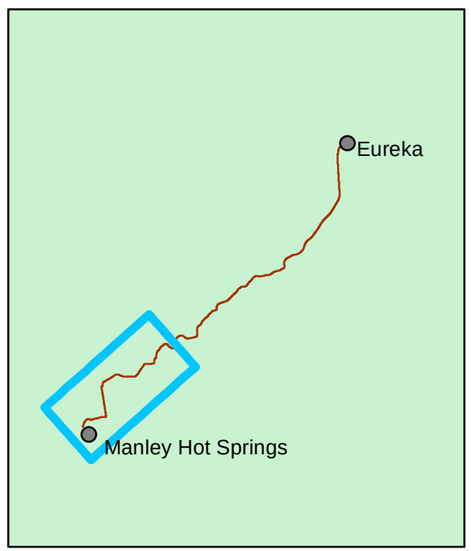
segment terminus

38 37

Photograph Locations

Bypassed Segments

Current Alignment



0 0.5 1 2 3 4 Miles

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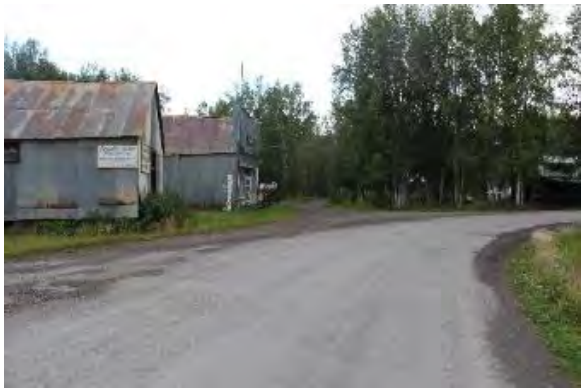
Representative views of roadbed and roadbed-related features of Segment D

Representative views of bypassed sections of road for this segment are shown at the end

Figure 37 (view facing southwest) and 38 (view facing north). Western terminus of the Manley Hot Springs Road at Tanana River Hot Springs Landing.



Figures 39 (view facing south), 40 (view facing north), and 41(view facing south). Paved roadbed and 1961 overhead truss bridge in Manley Hot Springs.

Representative views of roadbed and roadbed-related features of Segment D

Figure 42. Gravel roadbed east of Manley Hot Springs. View facing northeast.

Figure 43. Paved roadbed east of Manley Hot Springs. View facing southwest.

Representative views of roadbed and roadbed-related features of Segment D

Figure 44. Replacement bridge. View facing south.

Figures 45 (view facing west) and 46 (view facing southwest). Replacement culverts (one with thaw pipe).

Figures 47 (view facing southeast) and 48 (view facing southwest). Eastern terminus of Manley Hot Springs-Eureka Road (Segment D of the Elliott Highway) at the intersection with Eureka Road and Segment C of the Elliott Highway.

Bypassed sections of Segment D

(Approximate locations of bypassed sections of road for this segment are indicated at the end)

Bypassed section D1

Figures 49 (view facing southeast) and 50 (view facing north). Gravel roadbed with embankment and two travel lanes reflective of pre-1959 period of significance.

Bypassed section D2

Figure 51. Gravel roadbed with single travel lane reflective of pre-1959 period of significance. View facing south.

Figure 52. Roadbed and embankment reflective of pre-1959 period of significance. View facing north.

Bypassed section D3 (inaccessible/not in vehicular use)

Figure 53. Example loss of embankment and travel lanes. View facing north.

Figure 54. Example loss of embankment and travel lanes (obliteration of roadbed). View facing northwest.

Bypassed sections of Segment D

Bypassed section D4

Figure 55. Gravel roadbed with one travel lane and embankment reflective of pre-1959 period of significance. View facing southwest.

Figure 56. Single-lane gravel roadbed transition into widened portion of section near eastern terminus/intersection with Segment B of the Elliott Highway. View facing west.

Figure 57. Gravel roadbed with two travel lanes and embankment eastern terminus/intersection with Segment B of the Elliott Highway. View facing east.

Approximate Milepost Location on the Elliott Highway of Bypassed Sections of Roadbed for Segment D

Bypassed Section	Approximate Milepost (beginning and ending)
D1	126-Approx. 1.5 miles N of junction of Elliott Highway and Eureka-Rampart Road
D2	126.5-127.5
D3	130-132
D4	144.5-145

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A4. Historic Boundary Maps for Properties Recommended National Register Eligible

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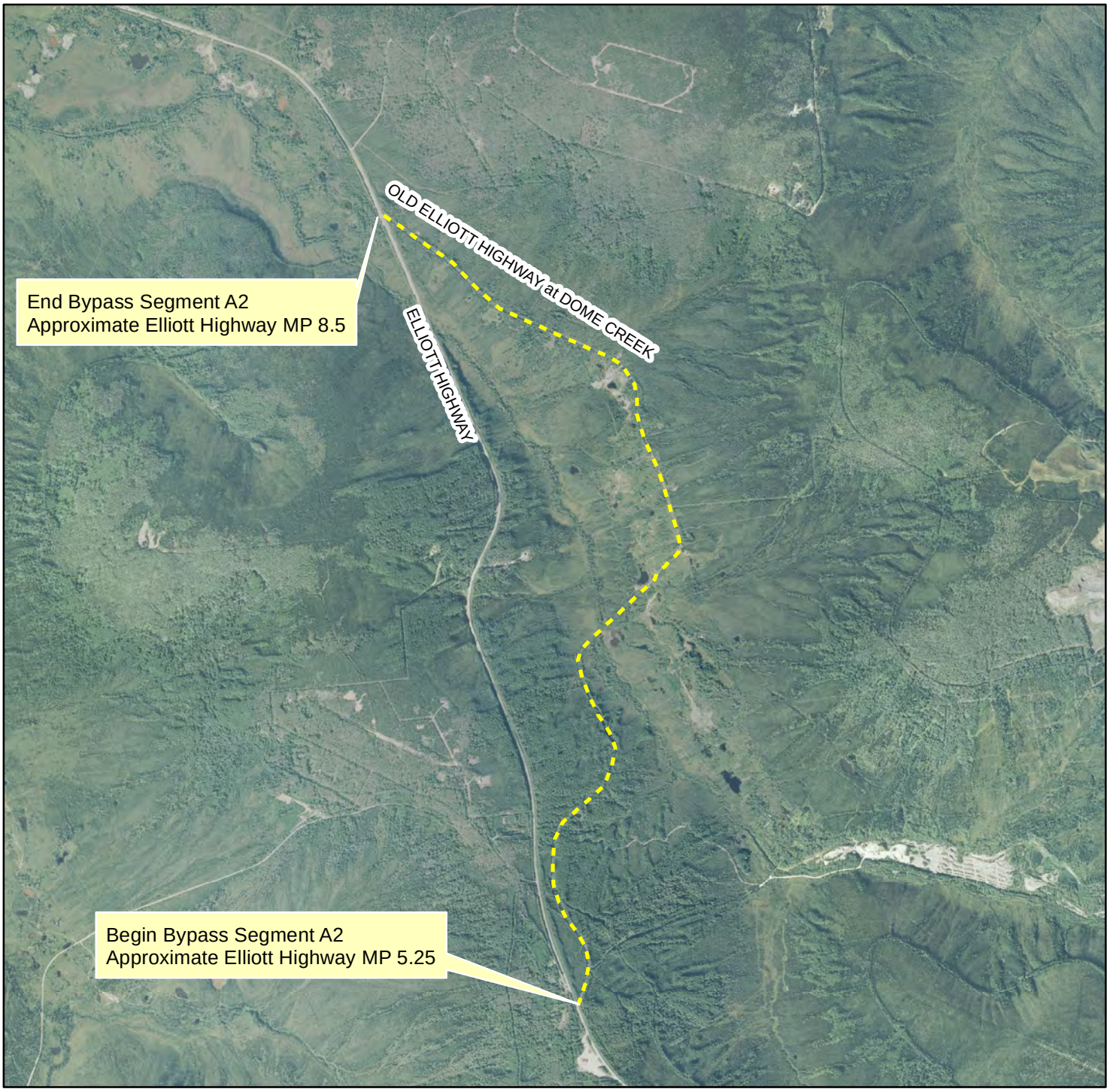
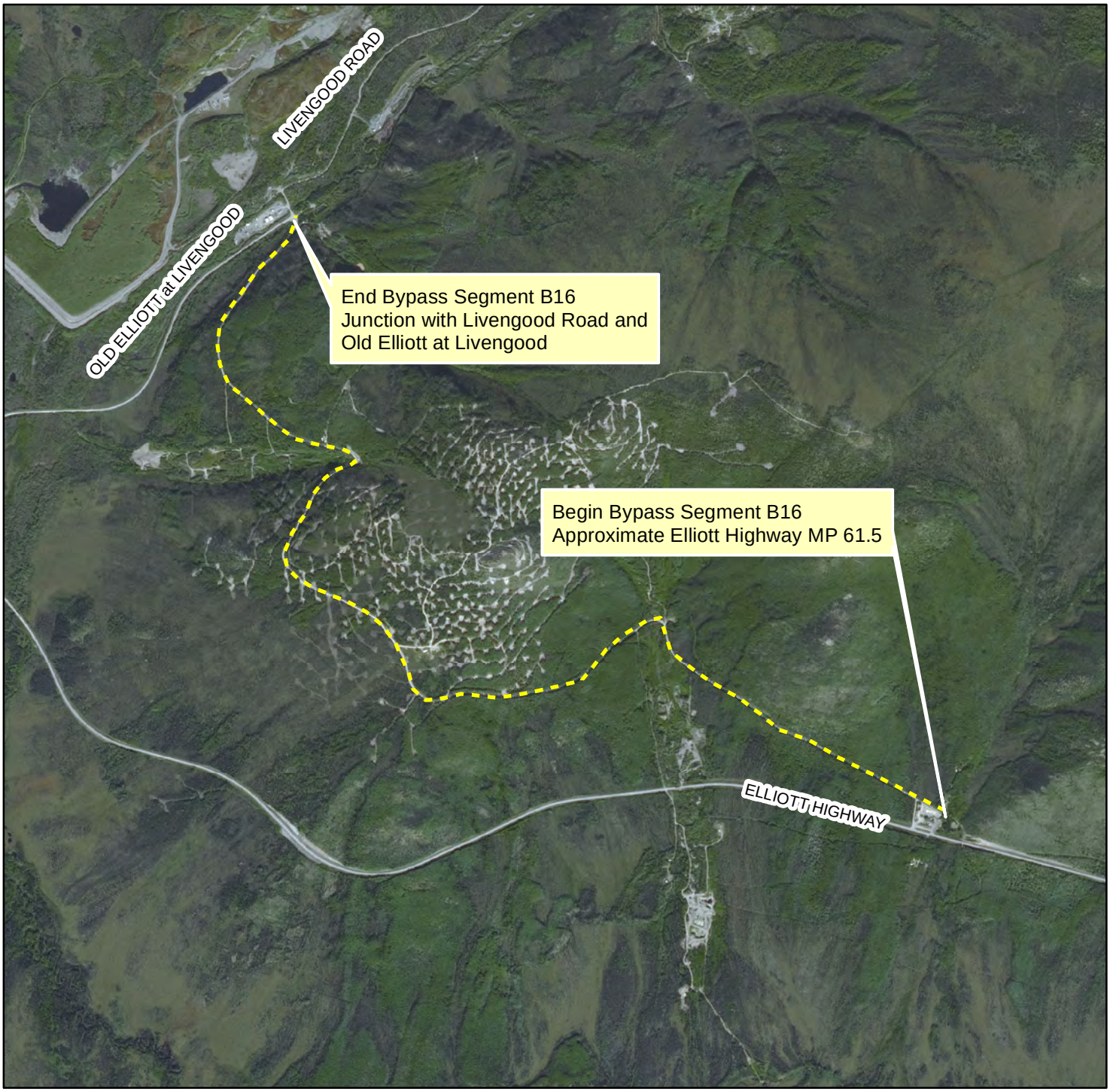
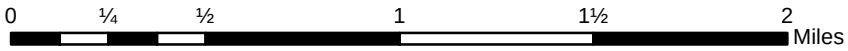


Bypassed Segment A2
Elliott Highway

Bypassed Segment B11

Elliott Highway

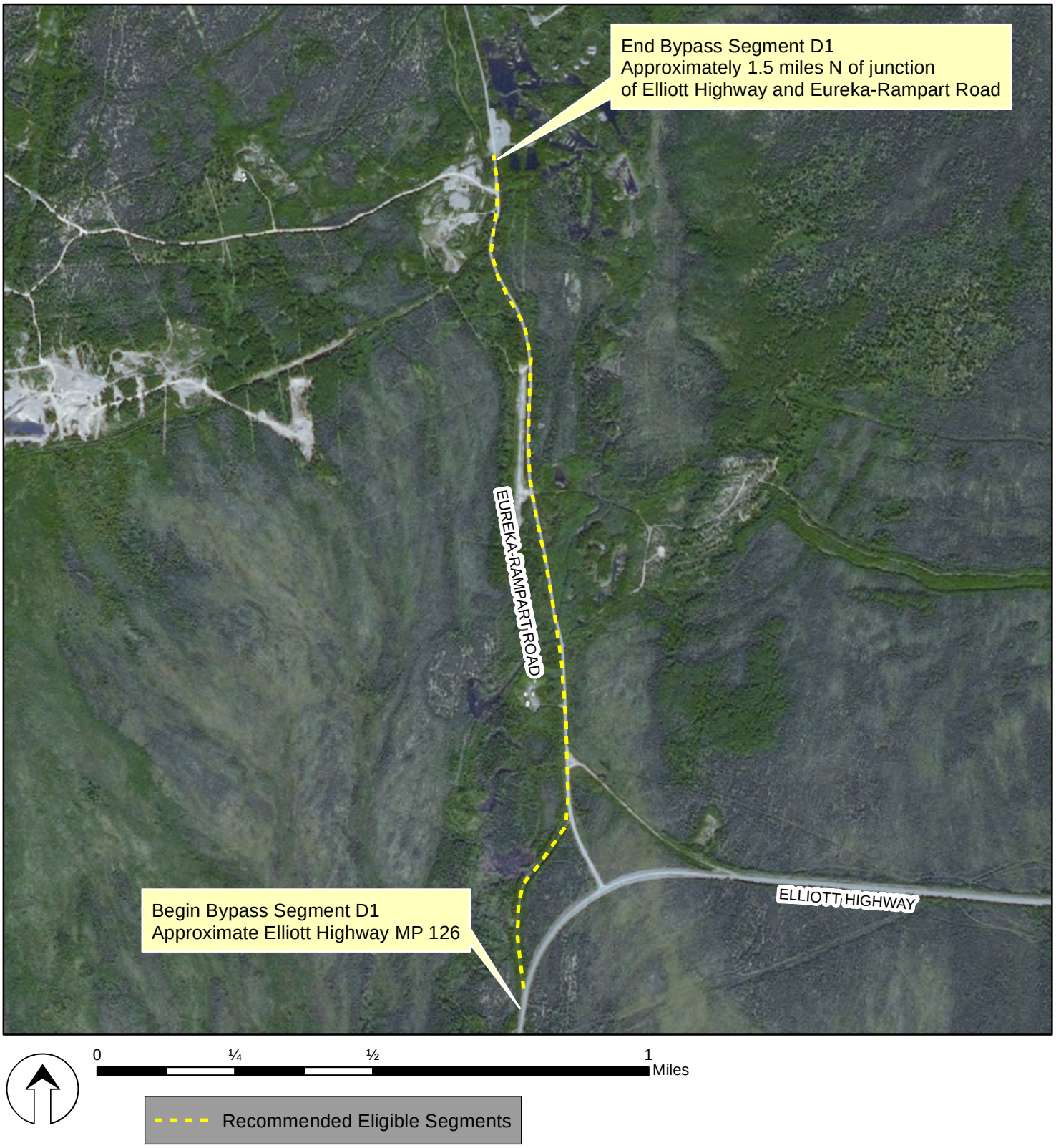




Recommended Eligible Segments

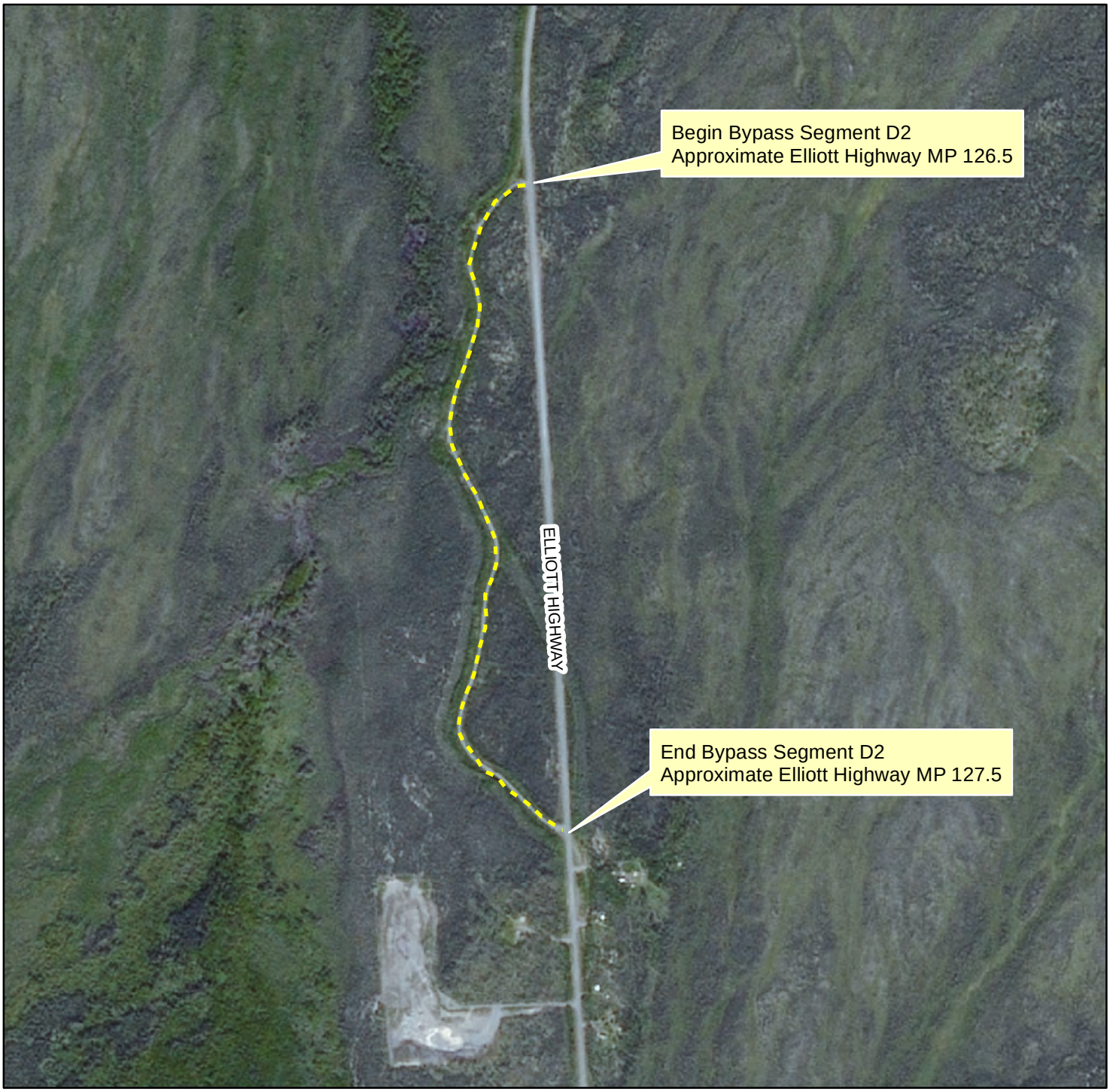
Bypassed Segment B16

Elliott Highway



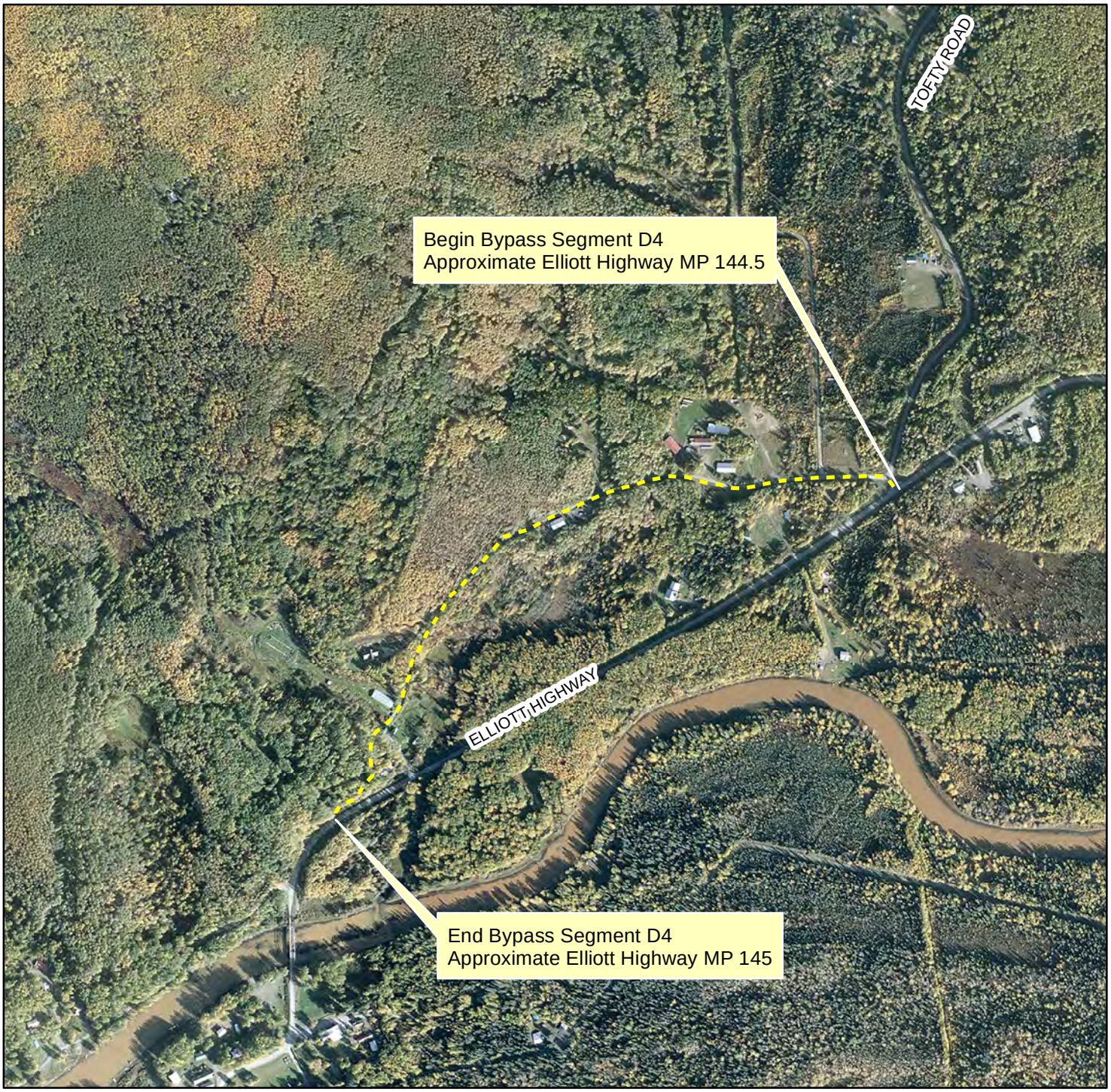
Bypassed Segment D1

Elliott Highway



Bypassed Segment D2

Elliott Highway



0 ¼ ½ Miles

Recommended Eligible Segments

Bypassed Segment D4

Elliott Highway

Appendix B. Historic Photographs of the Elliott Highway, c.1934-1938

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Historic Photographs of the Elliott Highway, c.1934-1938

Representative images of the Elliott Highway were obtained from the Woodrow Johansen Papers, [USUAFV6-234], Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks.

View at Willow Creek Flats at Mile 15, c.1934.

Grade at Snowshoe Gulch at Mile 15, c.1934.

Tolovana Flats looking east at Mile 49, c.1934.

Olive Creek at Mile 58, 1934.

Bridge crossing Livengood Creek in Livengood, c.1938.

Near the northern terminus looking north towards Livengood, 1934.

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Appendix C. List of Current Bridges and Improvement History of the Elliott Highway, 1958-2007

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C1. List of Current Bridges Located on the Elliott Highway

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List of Current Bridges Located on the Elliott Highway

(Provided by the Alaska DOT&PF, June 2014)

Bridge no.	Bridge name	Year built
0836	Chatanika River	1971
0837 (7149)	Willow Creek (minor structure)	1972
0838	Washington Creek	2007
1394	Globe Creek	1978
1400	Tatalina River	2002
0440	Tolovana River	1969
1434	Livengood Creek	1979
4034	Livengood Creek	2002
	Junction with Dalton Highway	
0325	West Fork Tolovana River	1971
0274	Hutlinana Creek	2004
0273	Baker Creek	1998
0272	Hot Springs Slough	1961

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C2. Improvement History of the Elliott Highway, 1958-2007

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Construction History Summary of the Elliott Highway, 1958-2007

This table is based on a review of available as-built plans and right-of-way files on the Elliott Highway available from the Alaska DOT&PF Northern Region from 1958-2007 in which major construction activities are summarized for use in the assessment of integrity of this Determination of Eligibility report.

Date completed	Location[68]	Abbreviated title of plans	Project No.	Summary description of main project activities
Unknown/ illegible	MP 7 to Snowshoe Pass	Mile 7 to Snowshoe Pass Grading, Drainage, and Hot Asphalt Pavement	FR-F-065-1(2)	• 19.8 miles in length • Grading of roadbed, 30 feet wide • Asphalt pavement (new and reconditioned), 24 feet wide • Excavation, grade raise, and borrow • Addition of aggregate base course • Addition of drainage control features • Replacement of metal pipe culverts • Replacement markers, signs, and guard railings
1958	Manley Hot Springs	Elliott Highway Old Easement File from Right-of-Way (ROW)	N/A	• ROW acquisition for approximately 1.5 miles north of the bridge over the Tanana River for the realignment of portions of the Manley Hot Springs-Eureka Road were incorporated into the Elliott Highway • Portions of the Manley Hot Springs-Eureka Road south of the bridge appear to have been obliterated
1960	Eureka Creek, New York Creek, and Allen Creek	Bridge replacements	S-0680(9)	• BPR standard timber trestle bridge plans for 24-foot roadway for three bridges.
1965	Fox (intersection with the Steese Highway) to Olnes area	Fox to Olnes Grading and Drainage	S-0680(12)	• 9 miles in length • Widening of subgrade to 34 feet • Realignment and straightening of large portions of the roadway • Replacement of culverts and thaw pipes • Excavation and borrow • Replacement markers, signs, and guard railings

[68] Mileposts listed are to earlier alignments of the Elliott Highway and may not correspond to current mile markers.

Date completed	Location[68]	Abbreviated title of plans	Project No.	Summary description of main project activities
1967	Elliott Highway east of Fox Creek, north of Fox	Fox Rest Area	LSS-0680(2)	• Construction of rest area, including median between parking area and highway, rest room buildings, foot bridges, fireplaces, and picnic areas • Replacement markers, signs, and guard railings
1969	Fox (intersection with the Steese Highway) extending north	Fox to Olnes Crushed Aggregate Base and Hot Bituminous Paving	S-0680(11)	• 9 miles in length • Asphalt pavement, 24 feet wide • Crushed aggregate base course, 30 feet wide • Replacement markers, signs, and guard railings
1969	Milepost (MP) 18.3 (Washington Creek) to MP 57.1 (Tolovana River)	Washington Creek and Tolovana River Bridges and Approaches (Bridge Nos. 838 and 440)	S-0680(8)	• 0.3 miles in length • Replacement of existing bridges • Widen, grade, and realign approach roadway to 28 feet width • Obliterate bypassed sections of road at both locations • Replacement markers, signs, and guard railings
1972	MP 13 (Chatanika River) to MP 77 (West Fork Tolovana River)	Chatanika River and West Fork Tolovana River Bridges and Approaches	S-0680(16)(18)	• 0.17 miles in length • Replacement of existing bridges • Replacement of culverts and other drainage features • Replacement markers, signs, and guard railings • Project included realignment of roadway segment for Bridge No. 325 (West Fork Tolovana River) and Bridge 836 (Chatanika River), which included the realignment of approach roadway widening and grading (Chatanika 1.726 mile of widening/regrading to 34 feet width; West Fork Tolovana, 0.132 mile of widening/regrading to 28 feet) • Material source locations used

Date completed	Location[68]	Abbreviated title of plans	Project No.	Summary description of main project activities
1973	MP 11.9 to MP 28	Chatanika River - Snowshoe Pass Grading, Drainage and Bridge	S-0680(21) [Note the cover sheet lists S-0680(21) with as built date of August 1973 and subsequent sheets list S-0680(23) with 1972]	• 15.3 miles in length • Grading and widening to 34 feet • Realignments and obliteration of bypassed sections of road • Replacement of Bridge No. 837 • Replacement of culverts and drainage features • Material source locations used • Replacement markers, signs, and guard railings • Project included access roads, channel change, fish weir, underdrain trenches, and removal of wood box culverts
1980	Extends 28 miles south from the Tolovana River	Snowshoe Pass - Tolovana River Grading, Drainage, 8 Bridges	F-065-1(1)	• 28.3 miles in length • Realignment and widening to 35-39 feet wide • Replacement of Bridge No. 1400 (Tatalina River) and Bridge No. 1394 (Globe River) • Replacement of culvert and installation of drainage features • Excavation, borrow, cut and fill • Replacement markers, signs, and guard railings • Installation of turnout with a scenic viewpoint • Material sites and "bench cuts" used • Additional right-of-way with major realignments indicated south of Globe Creek and Tatalina River.

Date completed	Location[68]	Abbreviated title of plans	Project No.	Summary description of main project activities
1981	Tolovana River to the junction with the Dalton Highway	Tolovana - Livengood Grading, Drainage, and Bridge	F-FR-065-1(13)	• 13.4 miles in length • Grading, realignment, and widening to 38 feet wide • Large segments bypassed • Cut and fill, including bed rock bench cuts • Replacement of culvert, installation of thaw pipe and other drainage features • Installation of "tourist" turn-outs with footpath to spring • Replacement markers, signs, and guard railings • Material sites used • As-builts indicate that bypassed sections of road were not obliterated • Widening of existing cuts for additional fill • No mention of hard surface pavement
1986	Fox (Junction with Steese Highway) to between Olnes and Dome Camp	Fox to Mile 7 Repair and Resurfacing	F-065-1(5)/ A-20022	• 6.84 miles in length • Asphalt pavement, 24 feet wide • Crushed aggregate base course, 30 feet • Replacement markers, signs, and guard railings • Replacement of culverts and installation of drainage features • Installation of traffic control devices (speed and volume classifier detection devices)
1991	Beginning approximately 38 miles north of Fairbanks to the junction with the Dalton Highway	Elliott Highway/Snowshoe North Crushed Aggregate Surfacing	F-065-1(6)/60208	• 41.78 miles in length • Grading and pavement reconditioning, 34 feet • Excavation, borrow, cut and fill • Replacement markers, signs, and guard railings • Replacement of select culverts and thaw pipes; installation of drainage features (geotextile separation, underdrain) • Excavation, borrow, embankment widening, cut and fill • Material sites used • Replacement markers, signs, and guard railings

Date completed	Location[68]	Abbreviated title of plans	Project No.	Summary description of main project activities
1991	Around MP 86	Mile 86 RS-0680(25)/64658 Grading and Drainage	RS-0680(25)/64658	• 1.27 miles in length • Grading, 28 feet • Realignment (straightening) and obliteration of bypasses segments • Replacement of culverts and drainage features (ditch dikes) • Excavation, cut and fill • Replacement markers, signs, and guard railings
1993	North of MP 10 to south of MP 25	MP 7 North Rehabilitation Grading, Drainage, and Paving Rehab	F-065-1(12)/63406	• 19.671 miles in length • Crushed aggregate and repaving, 30 feet • Replacement of culverts and drainage features • Replacement markers, signs, and guard railings • Excavation, cut and fill • Installation of turn-out • Replacement of concrete slab at MP 20.5 • Material sites used • Installation of traffic control devises
1996	MP 120.5 to MP 127.5	Mile 120 -127 Rehabilitation	STP-0680(27)/66659	• 7 miles in length • Grading, 24 feet • Crushed aggregate base course • Excavation, cut and fill • Construction of turn-out at MP 123 • Material sites used • Replacement markers, signs, and guard railings • Replacement of culverts and other drainage features (ditch dikes, geotextile) • No hard surfacing noted

Date completed	Location[68]	Abbreviated title of plans	Project No.	Summary description of main project activities
1997	MP 149.5 to MP 153.5	Manley Slough to Tanana River Elliot Highway Mile 149.5 - 153.5 Rehabilitation	STP-0680(28)/66661	• 4 miles in length • Grading and rehabilitation, 22 feet (note: plans indicate roadway is not paved, plans show work to include aggregate surfacing and aggregate course base with asphalt surface treatment) • Widening of shoulders, re-grading of vertical alignment; some horizontal realignment near to Manley Hot Springs • Replacement of culverts and other drainage features (geotextiles, fin drain) • Excavation, borrow • Replacement markers, signs, and guard railings • Roadway widened by trading post • Re-grading of curve between Tofty Road and Alaska DOT&PF maintenance building • Re-grading of parking/camping area near Tanana River • Work on Bridge No. 272 (1961 overhead truss over Tanana River), including straightening of diagonals and verticals, and replacement of guard railing, bottom portal member, sway bracing, timber deck, stringers, and piers • Material sites used
1999	Near MP 131, near the intersection to Eureka, to near MP 138, Baker Creek	Eureka to Baker Creek Reconstruction	STP-0680(29)/ 66663	• 8 miles in length • Grading, 24 feet wide • Excavation, borrow • Realignment and obliteration of bypassed sections of road • Asphalt surface treatment • Replacement of culverts and installation of drainage features (geotextile) • Replacement of Bridge No. 273 (Baker Creek) • Material sites used

Date completed	Location[68]	Abbreviated title of plans	Project No.	Summary description of main project activities
2000	Fox (Junction with the Steese Highway) to intersection with Murphy Dome Road	MP 0 - 4 Rehabilitation	NH-065-1 (20)/ 60382	• 3.23 miles in length • Removal, widening, and reconditioning of asphalt pavement, at 32-50 feet wide; work included the Fox turn-out • Excavation and borrow • Aggregate base course • Replacement markers, signs, and guard railings • Replacement of culverts, thaw pipes, and other drainage features • Installation of traffic control devices
2001	MP 28 to MP 72.9 (intersection with the Dalton Highway)	MP 28 - 72 Rehabilitation and Paving	IM-065-1(22)/ 61064	• 41.7 miles in length • Reconditioning and reconstruction, 30 feet wide • Construction of turn-out • Replacement of culverts and other drainage features • Excavation and borrow • Material sites used • Replacement of railings for Bridge No. 440 (Tolovana River), Bridge No. 1394 (Globe Creek), and Bridge No. 1434 (Livengood Creek) • Replacement of Bridge No. 1400 (Tatalina River) • Replacement markers, signs, and guard railings
2001	MP 120.5 to MP 127.5	Northern Region Road Surface Treatments Elliott Highway Area	STP-0680(30)/ 60901	• 7 miles in length • Aggregate base course, reconditioning of asphalt, 24 feet • No changes to alignment or profile
2003	MP 28 to MP 72.9	Rehabilitation and Paving	IM-065-1(22)/61064	• 41.74 miles in length • Paving and reconditioning • Grading, excavation, and borrow • Replacement of Bridge No. 440 (Tolovana River), Bridge No. 1394 (Globe Creek), Bridge No. 1434 (Livengood Creek), and Bridge No. 1400 (Tatalina River) • Replacement of culverts and installation of drainage features • Replacement markers, signs, and guard railings

Date completed	Location[68]	Abbreviated title of plans	Project No.	Summary description of main project activities
2004	MP 120.5 to MP 127.5	MP 120 - 131 Rehabilitation and Spot Repairs	STP 0680(26)/ 66493	• 10 miles of spot repair • Rehabilitation 3 miles in length, 24 feet wide • Excavation and borrow • Obliteration of roadway near Hutlinana Creek • Aggregate base course and asphalt • Replacement of culverts, thaw pipes, and installation of drainage features • Replacement markers, signs, and guard railings • Replacement of Bridge No. 274 (Hutlinana Creek) • Material sites used
2007	South of MP 18 to north of Washington Creek	Washington Creek Bridge #0838	61069	• 1 mile in length • Re-grading, widening, paving, and surfacing at 32 feet wide • Replacement of culverts and thaw pipes • Obliteration of bypassed roadway segment • Excavation and borrow • Aggregate base course • Replacement markers, signs, and guard railings • Curve realignment • Abandoned segment reclaimed north of Washington Creek • Replacement of Bridge No. 838 (Washington Creek)