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Rocky Mountain National Park
Colorado



Trail Ridge Road Cultural Landscape Report

Volume I: Introduction, Site History & Existing Conditions Documentation

September 2023

Interior Region 7: Upper Colorado River Basin

Trail Ridge Road

Rocky Mountain National Park

Colorado

Cultural Landscape Report

Volume I: Introduction, Site History & Existing Conditions Documentation

September 2023

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Trail Ridge Road

Rocky Mountain National Park

Colorado

Cultural Landscape Report

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PREFACE

Just one trip up Trail Ridge Road leaves an imprint on memory. It is a July day, and I am a happy passenger. The windows are open, the air is cool. The Old-Man-of-the-Mountain sunflowers are standing erect, the storms clouds brooding over the Never Summer Mountains, and the bighorn sheep are at rest on alpine tundra. I think about the people who came before me, who walked to get here with children and tools in tow. They are with me today as I arrive with ease. We stop the car and peek over the edge, watching and listening for pika. Meep! The marmot suns on a rock nearby, and I decide that is what I will do too. I am not in a rush. Those clouds seem too far away to be bothersome.

The landscape architects who designed Trail Ridge Road were thinking of me. They curated my experience so that I can focus on the natural scenery. Trail Ridge Road is so versatile. Our visitors may desire to return home, take a scenic drive, experience nature, get to a trail head, or even marvel at the engineering. Ascending from the meadows, a path cut through forest, then every turn focuses attention on another peak. It is easy driving, unless you need guard rails and have a fear of heights. Every amenity is thoughtfully placed to serve visitor needs. The signs, stone walls, and buildings reinforce a sense of place.

Keeping this sense of place is challenging. Weather combined with age-related deterioration and millions of visitors require the park to prioritize. Cultural landscapes are living, changing things. How do we know what to preserve, when to allow change, and how to improve this special place?

The cultural landscape report is our road map. The team that produced this document combed through archives, drew maps, and compiled photos. They spent many hours exploring the corridor and considering the most important aspects of its history and its future. They considered the road corridor in summer and in winter from the Grand Lake Entrance to Fall River Entrance. It was a huge undertaking, and it was worth the effort.

Cheria Yost
Park Planner

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Introduction

INTRODUCTION

Management Summary

Trail Ridge Road is a 50-mile-long historic travel corridor that spans the Southern Rocky Mountains and the Continental Divide of the Americas.[1] The highest continuous paved roadway in the United States, Trail Ridge Road reaches a maximum elevation of 12,183 feet while traversing alpine tundra above the tree line for nearly one-third of its length. The road is a central feature of Rocky Mountain National Park, a unit of the National Park System administered by the National Park Service (NPS). Trail Ridge Road connects entrances into the park on the east side at Estes Park with those on the west side at Grand Lake, Colorado.

Rocky Mountain National Park was established in 1915, with enabling legislation that notes: "The regulations governing the park shall include provisions for the use of automobiles therein."[2] This mandate was an important impetus for the development, and continued maintenance of, Trail Ridge Road for public recreation. The road built upon an earlier trans-Continental Divide roadway built by 1920 when completed in the 1940s. It remains among the most popular attractions for visitors to the Park, visited each year by millions of people. Trail Ridge Road affords numerous opportunities for visitors to connect with the surrounding landscape, ranging from overlooks and pullouts to visitor centers, picnic areas, campgrounds, and trailheads. The road exhibits built features representative of both the New Deal era of the 1930s and early 1940s when the NPS employed Rustic style architecture and naturalistic landscape design principles in the construction of road camp structures, stone guidewalls (Figure 1-1),[3] retaining walls, and culverts, many of which were built by Civilian Conservation Corps (CCC) enrollees, as well as later improvements reflective of the Mission 66 program that introduced a more modern aesthetic between 1956 and 1966. During the Mission 66 period, the NPS further expanded on the recreational and educational opportunities afforded to visitors by adding more roadside pullouts, overlooks, interpretive nodes, trails, picnic and campground areas, and restroom facilities.

Although the NPS has continued to refine the road corridor over time to address contemporary safety and access standards, Trail Ridge Road retains a high degree of historic integrity and continues to convey masterful design and engineering principles. As such, Trail Ridge Road has been determined of national significance and is listed in the National Register of Historic Places (National Register). The travel corridor has also been designated an All American Roadway and is recognized as among the most notable scenic byways in the country.

[1] This is also known as the western Continental Divide.
[2] Rocky Mountain National Park Act, P.L. 63-238, 38 Stat. 798, Section 4.
[3] The term "guidewall" is used to identify a masonry wall that acts as a parapet extending above a retaining wall or the road's surface.



Figure 1-1. *Dramatic views of the Rocky Mountains and valleys are afforded from Trail Ridge Road, often edged by stone guidewalls built by Civilian Conservation Corps enrollees, such as this view from Rainbow Curve.* (Source: all photographs by authors and taken in 2021 or 2022 unless otherwise noted)

In addition to the heritage values associated with the early-to-mid-twentieth century designed road corridor, the landscape through which Trail Ridge Road passes is also associated with the traditional homelands of Native American groups and includes associated long-standing trail routes. The ethnographic landscape within which Trail Ridge Road is situated has been continuously used by humans for thousands of years. Cultural resources along the road corridor reflect both ancestral and contemporary Native American use of the landscape. Tribes for whom the Trail Ridge Road Cultural Landscape serves as ancestral and traditional homeland include the Ute, Arapaho, and Cheyenne. Many other tribes have also used this land, including the Comanche, Shoshone, and Sioux. There is also evidence along the route of historic period European American mining, homesteading, tourism, and recreational activities.

The impacts associated with the millions of people who visit Trail Ridge Road each year have taken a toll on the landscape. Since 2012, park visitation has increased more than 44 percent. As of 2019, 4.7 million visitors were recorded annually. Since 2020, visitation numbers have been skewed due to the COVID-19 pandemic, with the NPS introducing timed entry ticketing to manage visitation numbers as well as staffing need. The drastic and rapid increase in visitation since the 2010s has created significant challenges in terms of adequately addressing visitor needs while adhering to the NPS mission of preserving and protecting park resources.

The Trail Ridge Road corridor occupies a nexus of high park visitation, a fragile ecosystem in the form of the alpine tundra, and a large complement of facilities designed to accommodate visitor recreational, interpretive, and contact needs. The NPS also works to ensure that features associated with the road corridor meet federal requirements to comply with Architectural Barriers Act Accessibility Standards (ABAAS) and to meet Federal Highway Administration (FHWA) regulations. The NPS has negotiated several design exceptions in terms of FHWA regulations related to roadside delineators in the clear zone such as boulders and guidewalls. The design exception process for submission allows the NPS to accept risks associated with having features that do not necessarily comply with FHWA crashworthy standards. For example, the historic guidewalls that edge the road do not all meet FHWA crash standards but are notable features that contribute to the National Register significance of Trail Ridge Road and are protected by NPS for their heritage values. The guidewalls located within the alpine tundra area and

above the tree line fall within a highly sensitive environment where the NPS hopes to avoid disturbance to the landscape in meeting FHWA crash standards. The historic road corridor is also at risk from other impacts ranging from visitor access to extreme winter weather conditions, high elevation conditions, and the engineering issues associated with crossing alpine tundra. The various impacts have contributed to a current need for enhanced maintenance and management of Trail Ridge Road.

To protect the heritage values associated with Trail Ridge Road, the NPS engaged a team of preservation professionals to prepare a Cultural Landscape Report (CLR). The team, led by Architectural Resources Group (ARG) of San Francisco, California, includes Liz Sargent HLA and Rivanna Archaeological Services of Charlottesville, Virginia, and Provost & Pritchard Consulting Group of California. The CLR is intended to inventory and assess historic resources and their associated management needs and provide strategies for managing visitor use, routine/deferred maintenance (including compliance with life, health, safety, and accessibility), and environmental impacts in support of long-term management of the road corridor. The CLR also addresses a suite of specific needs articulated by park and regional NPS personnel.

Scope of Work and Methodology

Scope of Work

CLRs are the principal management tool for cultural landscapes eligible or listed in the National Register. CLRs provide both short- and long-term strategies for the preservation of highly significant landscapes by articulating the nature and rate of change of landscape features over time. CLRs guide management and treatment decisions about a landscape's physical attributes, biotic systems, occupation, and use by providing a clear understanding of the acceptable levels of change before landscape integrity becomes compromised.

CLRs contain two principal parts. The Part 1 CLR provides historic and existing conditions documentation, analyzes the significance of the property, and identifies landscape features contributing to significance. The Part 2 CLR provides guidance for future management in the form of a treatment plan.

The scope of work for the Trail Ridge Road CLR includes completion of both Part 1 and Part 2. The scope of work prepared by the NPS for the Part 1 CLR indicates the following tasks to be completed as part of the project:

- Assemble and review historical documentary information from a variety of primary and secondary sources including historic maps, photographs, and correspondence.
- Provide a description of the evolution of Trail Ridge Road up to the present and identify and describe the historic contexts and period of significance associated with the road.
- Document the existing conditions of Trail Ridge Road using narrative text, photographs, and illustrative graphics.
- Identify and describe the landscape characteristics and features associated with Trail Ridge Road.
- Analyze the findings from the site history and existing conditions to identify the extant character defining features of the cultural landscape, assess the condition and status of contributing/ non-contributing elements, and evaluate the level of historic integrity for determination of National Register eligibility.

The scope of work for the Part 2 CLR directs the project team to provide a treatment plan including development of a preservation strategy that addresses short- and long-term management of the cultural

landscape based on its significance, existing condition, and use. The Part 2 CLR entails completion of the following tasks:

- Recommendations for the installation of traffic control devices and removal and installation of signage.
- Preservation maintenance and potential rehabilitation for identified eligible/contributing features.
- Historic preservation rehabilitation and preservation maintenance planning for Trail Ridge Road.
- Other prioritized needs as developed with Park leadership during CLR site visits.
- Recommendations to address documented accessibility deficiencies, as provided by the park, in visitor use areas.

Methodology

The CLR team undertook tasks associated with the project using the methodologies described below.

Kick-off Conference Call

The CLR project team members first met by virtual meeting on January 15, 2021, to discuss the project scope and the initial site visit, and initiate work on background research and data collection. Those in attendance represented Rocky Mountain National Park, the Intermountain Regional Office (Serving Regions 6, 7, & 8) of the NPS, and representatives of the ARG consultant team. Attending the meeting were the following team members:

National Park Service, Rocky Mountain National Park

- Kelly Dick, Cultural Resources Program Manager
- Dan Jackson, Section 106 Coordinator
- Cheri Yost, Park Planner
- Rose Lang, Landscape Architect

National Park Service, Intermountain Regional Office (Serving Regions 6, 7, & 8)

- Fielding Link, Senior Historical Landscape Architect
- Allison Kennedy, Cultural Landscape Inventory Coordinator

Architectural Resources Group

- Kitty Vieth, Principal
- Alicia Virani, Project Manager

Liz Sargent HLA

- Liz Sargent, Historical Landscape Architect
- Jen Trompetter, Landscape Architect
- Kevan Klosterwill, Landscape Historian

Rivanna Archaeological Services, LLC

- Benjamin Ford, Archeologist

Provost & Pritchard Consulting Group, Inc.

- David Norman, Civil Engineer

During the meeting, the team requested several items in support of background research and preparation for field investigations. These included Geographic Information System (GIS) files and other mapping data, the list of the park's Facility Management Software System (FMSS) assets, archeological studies and reports, a park atlas, information available from the electronic Technical Information Center (eTIC), and Cultural Resource Information System (CRIS) information related to the road corridor.

Background Research and Data Collection

Following the meeting, team members began to collect additional documents and other materials pertaining to the project and the site from available online sources, such as the NPS Integrated Resource Management Applications (IRMA) portal, which affords data on natural resources and other documents, and National Register records. The team used the assembled material to prepare a base map suitable for conducting field investigations, while reviewing all available source materials ahead of the initial site visit in order to avoid duplicating research efforts.

Site Visit to Conduct Field Investigations and Research

Due to ongoing concerns regarding the COVID-19 pandemic, and the need to conduct field investigations during suitable weather conditions during the late spring, summer, and early fall months, the team postponed fieldwork until early August 2021. Team members traveled to Estes Park, Colorado, on Sunday, August 1, to initiate fieldwork. Liz Sargent HLA team members began field investigations and archival research on Monday, August 2.

Prior to conducting field investigations, the team met at the Beaver Meadows Visitor Center to review safety protocols (Figure 1-2). Following the review, park personnel led a tour of the road corridor. During the tour, NPS personnel described issues of concern and resource management objectives to be addressed as part of the CLR.



Figure 1-2. *Members of the CLR team outside the Beaver Meadows Visitor Center, August 2021.*

To conduct field investigations, the team divided the road corridor into five segments, each of which could be visited in one day. During the first day, fieldwork extended from the Fall River Road entrance to the intersection with Beaver Meadows Road at Deer Ridge Junction, Beaver Meadows Road to the Beaver

Meadows Entrance, and Trail Ridge Road from Deer Ridge Junction to Many Parks Curve. The second day focused on Trail Ridge Road between Many Parks Curve and the Forest Canyon Overlook parking area. The third day continued from Forest Canyon Overlook to the Rainbow Curve, while the fourth day extended to the Switchback Curves. The fifth and final day encompassed the section below the Switchbacks to the Grand Lake Entrance. Fieldwork was aided by a park crew that addressed the need for flagging and directing traffic to a single lane to allow the team to document roadside features.

During field investigations, the group worked together to visit each pullout and to investigate the location and condition of all landscape features along the road corridor. The CLR team collected photographs of features, annotated the base maps with observations, and took notes on materials, dimensions, and issues of concern. Team members also conducted research in the park archives with the assistance of archivist Kelly Cahill.

Workshop and Site Visit to Conduct Additional Field Investigations and Research

Several members of the Trail Ridge Road CLR team traveled to Estes Park, Colorado, on July 10, 2022, to undertake follow-up site investigations, document Hidden Valley, which was added to the project scope during winter 2021–2022 and conduct a workshop with NPS personnel to present work in progress findings related to the Part 1 CLR and kick off treatment and the Part 2 CLR.

The workshop featured two sessions, the first held on the afternoon of July 12, 2022, at the Fall River Visitor Center, and the second on the morning of July 13, 2022, in a conference room in McLaren Hall in the Rocky Mountain National Park Utility Area.

Those participating in the workshop included the following:

National Park Service

- Fielding Link, Regional Project Lead, Historical Landscape Architect, Intermountain Regional Office (Serving Regions 6, 7, 8)
- Kelly Dick, Park Project Lead, Cultural Resources Program Manager, Rocky Mountain National Park
- Michael Bernhardt, Roads and Fleet Supervisor, Rocky Mountain National Park
- Kelly Cahill, Curator, Rocky Mountain National Park
- Chris Clatterbuck, National Resources Program Manager, Rocky Mountain National Park
- Mark Franklin, Emergency Services Coordinator, Rocky Mountain National Park
- Dan Jackson, Section 106 Coordinator, Rocky Mountain National Park
- Rose Lang, Landscape Architect, Rocky Mountain National Park
- Cynthia Langguth, Park Ranger, AVC Supervisor, Rocky Mountain National Park
- Daniel Lawson, Deputy Facility Manager, Rocky Mountain National Park
- Amy Peabody, Design and Construction Program Manager, Rocky Mountain National Park
- Caleb Waters, Facility Manager, Rocky Mountain National Park (attended virtually)
- Cheria Yost, Park Planner, Rocky Mountain National Park
- Scott Zey, Project Manager, Rocky Mountain National Park (attended virtually)

ARG Team

- Liz Sargent, LSHLA, Historical Landscape Architect
- Jen Trompetter, LSHLA, Landscape Architect
- Alicia Virani, ARG, Project Manager (attended virtually)
- David Norman, Provost & Pritchard Consulting Group (attended virtually)

The focus of the first day of the workshop was an overview of the organization and findings of the Part 1 CLR, with presentation and discussion centering around the following topics:

- The status of the CLR in terms of submissions completed, those to come, and a schedule for the remainder of the project
- An overview of the workshop goals and agenda
- An introduction to the way in which the CLR is organized
- A description of the purpose and need for the report
- An overview of the Introduction chapter and its component parts
- A summary of the Site History chapter of the CLR
- A summary of the Existing Conditions Documentation of the CLR and the identification of a suite of road condition issues to be considered as part of the Treatment discussion on the second day of the workshop
- A summary of the National Register status of the road and related features, and the CLR recommendations for on current listing information
- A summary of the Analysis chapter of the CLR indicating the assessment of road related features
- The identification of aspects of resource documentation that would benefit from additional research information or input from the park
- The introduction of issues to be addressed during the second day of the workshop

The second day of the workshop was intended to identify NPS goals for treatment and solicit feedback from the agency on initial treatment concepts developed by the CLR team. The team first presented an overview of the information included in a typical Treatment chapter and continued with a list of the treatment issues to be addressed in the report based on discussions conducted with NPS personnel.

The discussion continued with an overview of engineering issues and concerns associated with the road corridor and some initial thoughts on treatment recommendations. Topics considered included stormwater management and the use of drop inlets and culverts, drain standards and drop inlet grates, shoulder maintenance, drainage issues of concern at several locations along Trail Ridge Road, including Rock Cut, above Hidden Valley Road and at West Horseshoe Park, water seeps at the Switchbacks, blowouts and bulges at the Switchbacks, slump areas and associated road failures, clay banks erosion, and rockfall areas.

Additional topics discussed over the course of the workshop included road gates (styles and locations), roadside barriers, curbs, pullouts, how repaving has elevated the roadway over time, guidewalls, retaining walls, delineators, snow poles, ditches and swales, signs and signposts, vegetation management, and protection of archeological resources. Those participating in the workshop also touched on the need to standardize contemporary additions/ replacements for road-related features, for specific guidelines where historic periods of significance are layered, how the road setting and natural resources might serve as guidance for treatment, where revegetation might be needed, wildlife and visitor management, interpretation, and safety.

Landscape Documentation

The Trail Ridge Road CLR was prepared in accordance with the guidance offered in the most recent versions of the following federal standards documents:

- *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques (1998)*

- *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes (1996)*
- NPS Management Policies (2006)
- NPS Director's Order 10A: *Design and Construction Drawings*
- NPS Director's Order 28: *Cultural Resources Management (1998)*
- NPS Director's Order 77—Reference Manual 77: *Natural Resource Management*
- Architectural Barriers Act Accessibility Standards (ABAAS)
- National Register Bulletin: *Guidelines for Documenting and Evaluating Rural Historic Landscapes*
- National Register Bulletin: *How to Evaluate and Nominate Designed Historic Landscapes*
- National Register Bulletin: *How to Apply the National Register Criteria for Evaluation*
- National Register Bulletin: *Telling the Stories: Planning Effective Interpretive Programs for Properties Listed in the National Register of Historic Places*
- National Register Multiple Property Documentation Form: *National Park Service Mission 66 Resources*

Preparation of existing conditions documentation followed the procedural guidance of the NPS *Guide to Cultural Landscape Reports: Contents, Process, and Techniques*, as well as the guidance afforded in National Register bulletins.

The team prepared the analysis, evaluation of significance, and assessment of integrity following the guidance afforded in several National Register bulletins.



***Figure 1-3**. Location map showing Rocky Mountain National Park in the state of Colorado.* (Source: "Free World Maps," www.freeworldmaps.net)

Description of the Study Area

Trail Ridge Road falls entirely within Rocky Mountain National Park, and extends into both Larimer and Grand Counties, Colorado (Figures 1-3 and 1-4). As noted, the approximately 50-mile-long road, primarily constructed between 1929 and 1941, crosses the Southern Rocky Mountains and spans the western Continental Divide, linking the communities of Estes Park and Grand Lake.

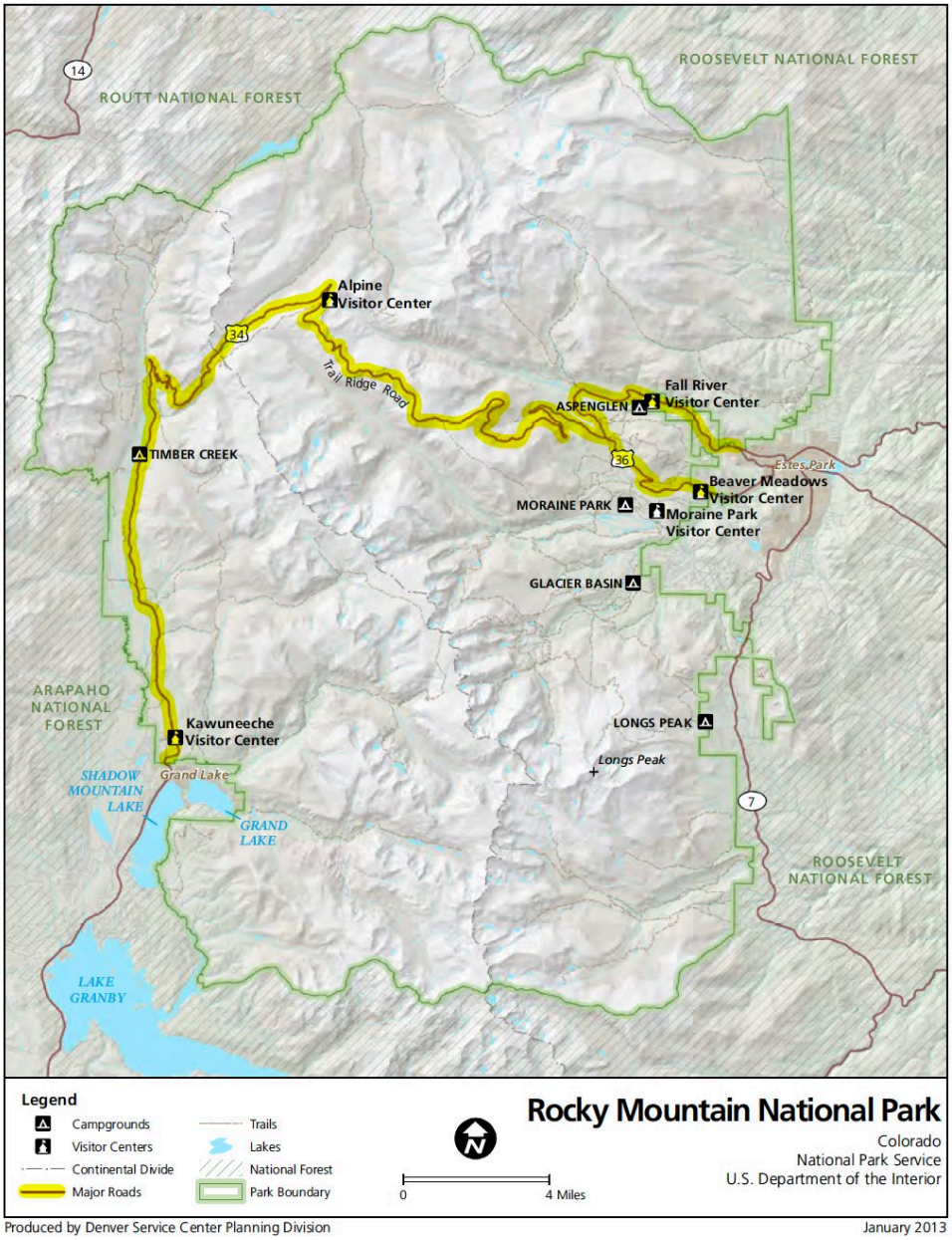


Figure 1-4. *Map showing the location of Trail Ridge Road Corridor that comprises the CLR study area, highlighted in yellow, as it extends through Rocky Mountain National Park.* (Source: Rocky Mountain National Park Foundation Document, 2013)

The road also falls within the Southern Rocky Mountains physiographic region, composed of several mountain ranges, including the Front Range and Never Summer Range. The physiography of the landscape is characterized by anticlinal arches and intermontane basins sandwiched between the Colorado Plateau on the west and the Great Plains on the east. Possessing some of the highest peaks in the Rocky Mountains, the Southern Rocky Mountains are defined by extreme variations in elevation and designated montane, subalpine, and alpine ecosystems. The montane ecosystem is found at elevations between 5,600 and 9,500 feet above mean sea level (AMSL) and possesses large open spaces composed of well-watered meadows and a diversity of plant and animal species. The subalpine ecosystem is found at elevations between 9,000 and 11,000 feet AMSL and possesses forested slopes with mountain lakes. The alpine ecosystem lies above 11,000 feet AMSL and is defined by an absence of trees and areas of tundra and exposed rock. These geologic features, and their associated natural

resources, have defined human activity and life for thousands of years and provide the framework for understanding historical development and human activity in the Rocky Mountains.[4]

Visitors experience much of the Southern Rocky Mountain physiographic province as they travel Trail Ridge Road and pass through the three associated ecosystems. The road affords views of the surrounding terrain from numerous overlooks oriented in different directions. Snow can occur at nearly anytime of the year, exposing visitors to the challenges posed by the high elevations of the mountain ranges. Snow removal, particularly when coupled with periods of extreme winds, is one of the management challenges faced by the NPS in maintaining Trail Ridge Road. Opening the road each spring entails a month-long period of snow removal to clear the large drifts that can reach 20 to 25 feet in depth in order to allow passage by visitors (Figure 1-5).



Figure 1-5. *Snow removal and extreme winds along Trail Ridge Road have historically proven challenging for park management due to the extent of snow fall and the high elevation of the road. View of snow removal near Lava Cliffs, May 13, 1958, ahead of road opening.* (Source: ROMO Archives, Contor photograph, #11-A-2 3945)

As discussed in the scope of work for the Trail Ridge Road CLR, the project study area encompasses three connected road segments, which are referred to herein as the Trail Ridge Road Cultural Landscape: 1) Historic Trail Ridge Road from Deer Ridge Junction to the park boundary at the Grand Lake Entrance; 2) Trail Ridge Extension, which includes the High Drive segment from Deer Ridge Junction to Sheep Meadow, and the Fall River Road segment from Sheep Meadow to the park boundary at the Fall River Entrance; and 3) Beaver Meadows Road from Deer Ridge Junction to the park boundary past the Beaver Meadows Entrance (Figure 1-6).

[4] National Park Service, "Natural Features and Ecosystems," *Rocky Mountain National Park, Colorado*, https://www.nps.gov/romo/learn/nature/naturalfeaturesandecosystems.htm.

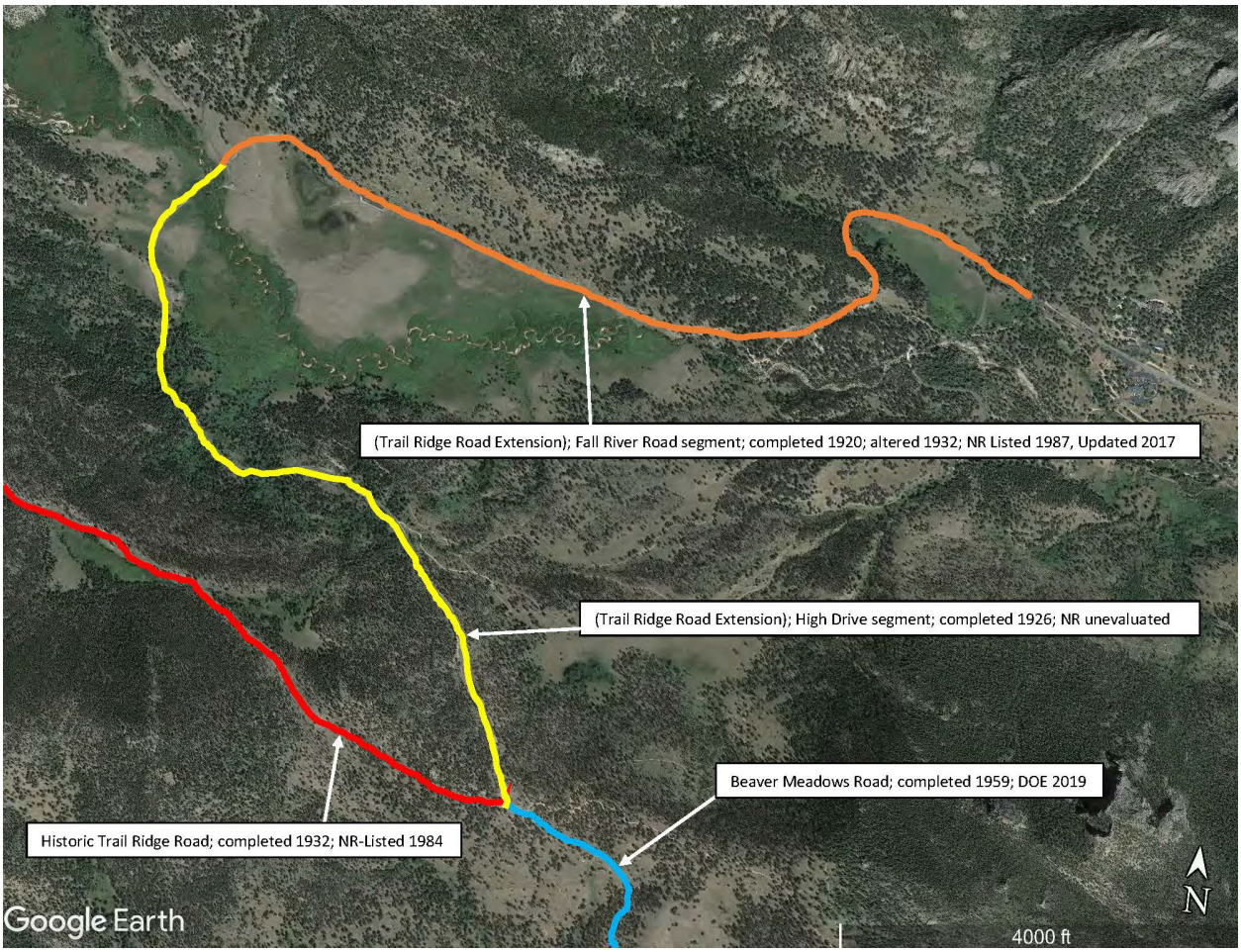


Figure 1-6. *Diagram showing the relationship between road segments as they approach Deer Ridge Junction.* (Source: National Park Service)

The Trail Ridge Road CLR study area encompasses a 100-foot-wide corridor to either side of the centerline of the roadway through these sections, with the exception of specifically named parking areas, overlooks, trails, and visitor use areas. Features indicated in the project scope of work to be documented within the study area include Fall River Road (5LR.885), the Fall River Entrance Station (5LR.1184), Sheep Lakes Overlook, West Horseshoe Park Parking/Trailhead Area, Woodpecker Army Overlook, Deer Ridge Junction, Beaver Meadows Road (5LR.13221.5), Beaver Meadows Entrance Station, 3M Curve (Longs Peak Overlook), Beaver Pond parking area and boardwalk, Trail Ridge Road (5LR.502/5GA.307), Many Parks Curve Overlook/Boardwalk, Rainbow Curve Overlook, Forest Canyon Overlook and Trail, Rock Cut parking area and Tundra Communities Trail, Lava Cliffs Overlook, Gore Range Overlook, Medicine Bow Curve Overlook, Milner Pass parking area and Trailhead, Lake Irene Picnic Area, including the historic Milner Pass Road Camp Mess Hall (5GA.1785), Farview Curve Overlook, Beaver Ponds Picnic Area, Harbison Meadows Picnic Area, and Grand Lake Entrance Station.

Features along the road that the scope of work identifies as not to be documented in a detailed manner include associated archeological resources, Aspenglen Campground, the Sterling Residence (B-0743), Cascade Cottages, Old Fall River Road (5LR.885), Alpine Visitor Center (B-0543) and Fall River Pass Historic District (5LR.14866), Kawuneeche Visitor Center (B-0392), Timber Creek Campground, Holzwarth Historic District (5GA.299), Beaver Meadows Visitor Center (B-0447) and Rocky Mountain

National Park Utility Area Historic District (5LR.487), park facilities at Green Mountain, and other major developed areas.[5]

Summary of Findings

Several National Register listed properties fall within the study area. These include Trail Ridge Road (listed 1984, 5LR.502/5GA.30), Fall River Road (listed 1987, #87001129), Fall River Pass Historic District (listed 2021, 5LR.14866), Fall River Entrance Historic District (listed 1988, amended 2018, #87001139, amended #100002148), Beatrice Willard Alpine Tundra Research Plots (listed 2007, #07001101), and Milner Pass Road Camp Mess Hall and Residence (listed as part of the Multiple Resource nomination in 1987, 5GA.1785).

Additional properties located along the corridor but outside the CLR study area have also been listed in the National Register. These include Cascade Cottages (listed 2020, 5LR.14505), the Holzwarth Historic District (listed 1977, 5GA.299), Little Buckaroo Ranch Barn (listed 2009, 5LR.3895), Rocky Mountain National Park Administration Building, also known as the Beaver Meadows Visitor Center (National Register and National Historic Landmark, listed 2001, 5LR.9947), Rocky Mountain National Park Utility Area Historic District (listed 1982, 5LR.487), the Snogo Snow Plow located in the Park Headquarters Area (listed 2006, 5LR.11068), Timber Creek Campground Comfort Station Nos. 245, 246, and 247 (listed 1988, 5GA.3895, 5GA.286, 5GA.285), and the Fall River Pump House and Catchment Basin (listed 2006, 5LR.10936). One of the listed properties, Timber Creek Road Camp Barn (listed 1987, 5GA.3619), was removed from the National Register in 2022 due to its loss during the East Troublesome Fire.

Based on review of all available National Register documentation for Trail Ridge Road, Fall River Entrance Historic District, Fall River Road, and Fall River Pass Historic District, and considering all aspects of significance addressed in these documents, the CLR suggests the Trail Ridge Road Cultural Landscape to be significant at the national, statewide, and local levels under Criteria A and C in the areas of Architecture, Engineering, Entertainment/Recreation, Landscape Architecture, Politics/Government, and Transportation between 1910 and 1968. The period of significance begins with the initial construction of Fall River Road and continues through completion of work along the road corridor based on the Mission 66 program that improved conditions within many park units nationwide. Historic contexts associated with the significance of the Trail Ridge Road Cultural Landscape include early road building and development, ca. 1910–1932; New Deal era federal funding programs contributing to road design and construction, ca. 1933–1941; and the NPS Mission 66 program that led to national park unit improvements nationwide associated with enhancing the visitor experience and park administration, as well as resource management and protection, ca. 1956–1968. The CLR recommends that consideration be paid to expanding the Trail Ridge Road National Register nomination boundary to include the CLR study area in its entirety, while also including the three Mission 66 era visitor centers associated with the road corridor—Beaver Meadows, Alpine, and Kawuneeche—as a single listed property. The CLR also recommends that the NPS consider designating Trail Ridge Road as a National Historic Landmark for its national significance and high degree of integrity, as a premier example of a scenic highway developed prior to and during the New Deal era.

Based on review of the historic periods of development, and consideration of change over time within the Trail Ridge Road Cultural Landscape, the property retains all aspects of integrity to the recommended period of significance. A large majority of the features built during the New Deal era as well as Mission 66 program survive today to convey their historic associations with park development and accommodation of visitors as well as safety and engineering needs. Evidence of the earlier alignment of the Ute Trail and Fall River Road are also present in the form of etched pathways, ditches, and grading. Integrity of setting,

[5] National Park Service, Scope of Services, Trail Ridge Road Cultural Landscape Report (ROMO 246875), July 10, 2020.

feeling, location, and association remain high. Changes impacting integrity of design, materials, and workmanship include the addition of new stormwater management structures composed of metal, plastic, and asphalt overlain atop stone channels, as well as prefabricated comfort station buildings, guidewalls with concrete footings, one guidewall with a concrete core and stone veneer, asphalt curbing, the introduction of numerous new pull-outs, buck-and-rail fencing, Carsonite posts, and metal frame waysides.

The CLR identifies a suite of features related to both the tangible and intangible landscape characteristics investigated in the cultural landscape analysis process that survive with integrity from the period of significance and contribute to the significance of the Trail Ridge Road Cultural Landscape. The CLR also identifies those features that postdate the period of significance and are thus non-contributing. The non-contributing features are further assessed to determine whether they are compatible with the character of the historic landscape.

Based on this evaluation and assessment, the CLR provides treatment recommendations to guide long-term management of the Trail Ridge Road Cultural Landscape. The treatment recommendations are also based on the goals and objectives set forth by the NPS for the project in the scope of work and during meetings for the project. These are listed and discussed in more detail in the Treatment chapter of the CLR.

Based on the goals for the property as noted by the NPS, which identify the need for changes to the cultural landscape to meet current and projected future interpretive, functional, and management goals, rehabilitation is recommended by this CLR as the most appropriate overarching treatment approach for the Trail Ridge Road Cultural Landscape. Because rehabilitation is defined as the act or process of making possible a compatible use for a property, this approach allows for protection of the site's historic character and resources while carefully addressing the need for limited enhancement of interpretive opportunities and circulation routes, sustainability, expanded access for all visitors to more of the property's resources, and the improvement of visitor amenities. As part of rehabilitation treatment, stabilization, protection, and preservation of historic and natural resources are assumed even when new uses are accommodated.

The primary goal of treatment is the long-term preservation and protection of existing Trail Ridge Road Cultural Landscape features that contribute to the historic character, setting, and significance of the site, while addressing the need to manage visitor use, address contemporary safety issues, and protect fragile and sensitive cultural and natural resources. Treatment recommendations for the Trail Ridge Road Cultural Landscape build on the existing conditions, as well as the research and analysis components of the CLR to produce a comprehensive stewardship strategy for the entire Trail Ridge Road corridor. The CLR also provides a series of treatment guidelines form the basis of treatment for the Trail Ridge Road Cultural Landscape that include the following:

- Preserve as much of the historic road corridor as possible, including constructed features and associated landscape settings
- Consider managerial solutions before proposing physical alterations to historic road landscapes
- Promote alternative transportation to reduce traffic volume and control circulation patterns
- Maintain historic road alignments, cross-sections, and profiles as closely as possible
- Realign roads only when absolutely necessary and try to retain historic character, views, width, and curvature
- Retain original road width where possible

- Preserve, rehabilitate, or find compatible replacements for original paving materials
- Preserve, restore, or replace-in-kind historic features such as walls, curbs, gutters, culverts, signage, scenic pullouts, and bridges
- Limit the construction of new barriers to areas with demonstrated safety hazards or impacts to important resources
- Use materials and construction methods that replicate the effect of historic building practices
- Choose materials and methods that are sustainable, compatible, and cost-effective in the long term
- Avoid the use of modern materials and construction methods that reduce costs and enhance durability except where they do not detract from historical character
- Maintain and restore historic vegetation patterns, especially in regard to corridor-width, canopies, and planned vistas
- Protect associated scenic, natural, and cultural features that are part of the character of the road system including rock formations, vegetation, water bodies, views, structures, and markers
- Preserve ethnographic resources and protect archeological sites
- Develop interpretation programs to enhance public awareness of park road history and build support for historic road preservation[6]

Where characteristics of the landscape have been significantly modified or are in a state of disrepair, treatment recommendations provide suggestions for returning the road and/or its component features to historic conditions, but with the understanding that adaptations may be required to address contemporary issues and concerns. In addition to complying with NPS planning regulations and federal preservation and environmental protections laws, treatment is indicated as needing to address the technical standards, policies, and protocols that inform contemporary highway engineering practice. Implementation of treatment recommendation must take into consideration national highway design standards along with the practical concerns and procedural requirements of the NPS Park Road Program (PRP) and its partners in the FHWA's Federal Lands Transportation Program (FLTP).[7]

Collectively, the treatment concept presented herein promotes protection of historic resources and character while acknowledging that future use will involve careful design and consideration by Park personnel on various levels to enhance visitor services, support educational and interpretive opportunities, and encourage sustainable practices to protect and ensure the character of the cultural landscape remains for future generations to enjoy. Because of the dramatic increases in visitation that have occurred since the 2010s, further changes are envisioned for Trail Ridge Road to accommodate visitors and ensure safety and protection of the environment and resources. To the extent possible, the approach to managing the Trail Ridge Road Cultural Landscape needs to be as inclusive as possible. Design guidelines prepared with the input of all relevant disciplines will be a key tool for addressing change and diminishing the impact on the historic landscape. Also critical will be tribal input and values, and ethnographic interests in developing resource protection strategies.

[6] Robert R. Page, Cathy A. Gilbert, and Susan A. Dolan, *A Guide to Cultural Landscape Reports; Contents, Processes, and Techniques* (Washington, DC: Department of the Interior, National Park Service, 1998).
[7] Timothy Davis, *Landscape Lines: Historic Roads. Cultural Landscape Guidance Documents* (Washington, DC: National Park Service, Park Cultural Landscapes Program, undated), 16.

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Site History

SITE HISTORY

Introduction

The site history that follows traces the evolution of the Trail Ridge Road cultural landscape from our understanding of the earliest evidence of human activity and use to the present time (2023).[8] The site history is generally organized into a series of continuous chronological periods. Major events, cultural adaptations, and/or physical changes typically mark the divisions between periods. The site history narrative describes cultural use and activity of the landscape principally through the lens of physical development, with social history providing context for the composition and character of the landscape imprints in evidence today. The site history focuses on the role that the environment, including geologic features and their associated natural resources, of the Rocky Mountains has played in shaping human activity and life within the area for thousands of years. The environment provides the framework for understanding historical development and human activity within the region accessed via Trail Ridge Road today.[9]

Historic maps, plans, and aerial and ground photographs are used to illustrate the narrative. Also supporting the narrative is a series of historical era period plans, also referred to as historical base maps. The period plans are analytical diagrams prepared by the CLR team to convey changes within the landscape at a similar scale and using consistent rendering techniques in order to facilitate an understanding of physical change over time.

The periods that organize the narrative include:

I. Native American History and Ethnohistory
   A. PaleoIndian (12,040–5,740 BCE)
   B. Archaic (7,800 BCE–150 CE
   C. Late Precontact (150–1,540 CE)
   D. Protohistoric Native American (ca. 1,000–1880s CE)

II. European and American Hunters and Trappers, Explorers, and Front Range Mining (1750s–1859)

III. Permanent European American Settlement, Geographical Survey, and Removal of Native Americans from the Rocky Mountains (1860–ca. 1881)

IV. Tourism, Never Summer Range Mining, the Grand Ditch, and the Establishment of Forest Lands (ca. 1870s–1910)

V. The Preservation and Conservation Movement, Planning of Fall River Road, and Initial Efforts to Establish Rocky Mountain National Park (ca. 1910–1915)

VI. Establishment of Rocky Mountain National Park and Trail Ridge Road Development (1915–1933)

VII. Completing Trail Ridge Road during the New Deal Era (1933–1941)

[8] The terms Indigenous, native, and Native American are used throughout this document to refer to the earliest occupants of North America. The term Tribe and Tribal Nation are used to refer to the current Federally recognized, and non-Federally recognized, native communities that possess some level of association with Rocky Mountain National Park. The term Indian Territory is used to describe an historical geographical region, defined by the US Government, to which many native peoples were forcibly removed.
[9] National Park Service, “Natural Features and Ecosystems.”

VIII. World War II and the Post-War II Years (1941–1956)

IX. Mission 66 (1956–1970)

X. Continued Road Improvements (1970–2022)

Native American History and Ethnohistory (ca. 12,040 BCE–2023 CE)

Native Americans have lived on this land since time immemorial. Oral histories and archeological resources provide a glimpse of what life was like in the past. Ancestral people relied on traditional knowledge to navigate through the landscape and thrived in what many would consider a harsh environment. They left behind rock cairns, rock rings, and artifacts such as pottery and projectile points. Despite being forcibly removed from this land and enduring attacks on their culture, Tribes continue to assert their sovereignty, keep their cultural practices alive, and maintain connections to their traditional homelands. The landscape that encompasses Rocky Mountain National Park is important to associated Tribes and is critical for maintaining and sustaining traditional cultural practices.[10]

Archeologists traditionally organize the Indigenous cultural history of the Southern Rocky Mountains into four major chronological periods, PaleoIndian, Archaic, Late Precontact, and Protohistoric; the first three each possess several subdivisions. The chronological periods are defined by both diagnostic artifact types and by broad patterns of settlement, subsistence, technology and socio-cultural organization that have been developed from decades of archeological research throughout the broader Rocky Mountain, Colorado Plateau and Plains regions. Because the Rocky Mountains have acted as a considerable physical and social barrier for millennia, the cultural characteristics of the Southern Rocky Mountains are heavily influenced by traits from the Platte River Basin to the east and the Upper Colorado River Basin to the west.[11]

For Rocky Mountain National Park, the Protohistoric period reflects both the presence of Numic speaking peoples throughout the greater West including the Upper Colorado River Basin and the western portion of the Trail Ridge Road CLR study area, and non-Numic speaking Athapaskan peoples and the presence of migrants from the northern Plains in the Front Range and eastern foothills of the Rocky Mountains in the eastern portion of the Trail Ridge Road CLR study area. In particular, it documents the occupation of the park and the broader region by the Ute, Cheyenne and Arapaho Tribes and presents both a Ute world view of the Rocky Mountain region, and one supported by archeological evidence. In addition, it documents the presence of Kiowa-Apache, Comanche, Pawnee, Shoshone, Kiowa, and Sioux people who also regularly accessed the Rocky Mountains and utilized its abundant resources (Table #1).

[10] Kelly Dick, Cultural Resource Program Manager, Rocky Mountain National Park, to Benjamin Ford, Rivanna Archaeological Service, LLC. Email communication, May 25, 2022. Out of respect for the significance of the Rocky Mountain landscape to the park's Tribal partners, an ethnographic landscape report is anticipated to be completed as a separate endeavor.

[11] Alan D. Reed and Michael D. Metcalf, *Colorado Prehistory: A Context for the Northern Colorado River Basin* (Eagle, Colorado: Colorado Council of Professional Archaeologists, 2009); Kevin Gilmore, Marcia Tate, March Chenault, Bonnie Clark, Terri McBride and Margaret Wood, *Colorado Prehistory: A Context for the Platte River Basin* (Eagle, Colorado: Colorado Council of Professional Archaeologists, 2009).

PaleoIndian	Clovis	12,040 – 9,750 BCE
	Folsom	11,340 – 8,720 BCE
	Plano	10,850 – 5,740 BCE
Archaic	Early	5,500 – 3,000 BCE
	Middle	3,000 – 1,000 BCE
	Late	1,000 BCE – 150 CE
Late Precontact	Early Ceramic	150 – 1150 CE
	Late Ceramic	1150 – 1540 CE
Protohistoric	Numic Expansion	1000 CE – 2022

Table 2-1. *Indigenous Occupation Periods and Dates*[12]

PaleoIndian Occupation (ca. 12,040–5,740 BCE)

Occupation of the broader Southern Rocky Mountains region was initiated by Indigenous peoples during the PaleoIndian period, a cultural era defined by significant environmental change of the Late Pleistocene epoch (129,000–11,700 BCE) and continuing into the Holocene epoch (11,700 BCE–1950 CE). During the Late Pleistocene, paleoclimate data document a significant period of warming and drying, followed by a shorter cold cycle. Following the Late Pleistocene, the Holocene was characterized by a warm and moist period, followed by a warm and dry period, and then a cooler and moister period. The Pleistocene and Holocene warming and drying led to a reduction and receding of mountain glaciers, and a consequent rising of the tree line.[13]

The PaleoIndian period is typically divided into the Clovis, Folsom, and Plano subperiods, stages defined largely by stylistic difference in stone points. Most PaleoIndian sites identified within the Rocky Mountains and adjacent Plains and Colorado Plateau regions are non-habitation kill or processing sites, or isolated finds. Because of this, the traditional interpretation of PaleoIndian subsistence is that they were primarily small band megafauna hunters following the seasonal migration of associated animals of interest. More recent documentation of variations in tool kit assemblages, however, suggests a more nuanced understanding of PaleoIndian subsistence that also includes the hunting of small- to medium-sized mammals as well as limited gathering of seasonally available flora. Bison, in particular, were actively hunted during the Folsom and Plano subperiods.[14]

Material culture recovered at PaleoIndian sites is composed nearly exclusively of lithic tools. The Clovis point is a distinctive small to large fluted lanceolate point typically used to hunt large game. Clovis sites are found predominantly in the plains east of the Rocky Mountains. Folsom points, smaller than their

[12] CE and BCE, Common Era and Before Common Era, are used throughout this document to refer to time notations.
[13] Robert H. Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park: Volume 1 – Final Report of Systemwide Inventory Program Investigations by the University of Northern Colorado (1988–2002)* (Greeley, Colorado: Prepared for the National Park Service, Rocky Mountain National Park by the Department of Anthropology, University of Northern Colorado, 2005), 46–58.
[14] Travis R. Bugg, Michelle A. Dinkel, Eva M. Garner, Kristin A. Gensmer, Christopher C. Kinneer, Brandon L. Parr, and Benjamin Perlmutter, *Class III Cultural Resource Inventory of Select Trail Corridors, Campsites, and Revegetation areas in Rock Mountain National Park in Boulder, Grand and Larimer counties, Colorado* (Fort Collins, Colorado: Prepared for the National Park Service, Rocky Mountain National Park by Centennial Archaeology, LLC, 2019), 19–20; Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park*, 64–79.

Clovis predecessors, are also fluted and lanceolate in form and are found in the eastern plains as well as in scattered locations in the Rocky Mountains. Plano points follow the lanceolate tradition but do not possess flutes.[15]

Within Rocky Mountain National Park, and particularly in its vicinity, archeologists have identified limited numbers of PaleoIndian sites and isolated finds. Folsom points have been recovered from the Middle Park and North Park vicinity and suggest a regular, perhaps seasonal, presence in these mountain valleys most likely associated with the presence of bison and other large animals. Although scarce in subalpine and alpine zones, Brunswig has argued for Late PaleoIndian occupation of lower mountain valleys in the winter, and high-altitude regions in the summer, a subsistence strategy he has called Mountain-adapted culture.[16]

Landscape Characteristics

PaleoIndian people organized themselves into small bands that practiced a highly mobile subsistence strategy, primarily hunting big game, transitioning into a broader and more diverse hunting and gathering strategy utilizing greater plant and animal resources by the end of the Pleistocene. Although predominantly occupying the adjacent Plains and Colorado Plateau, montane and subalpine regions within the Rocky Mountains were likely utilized on a seasonal basis during the Late Pleistocene by PaleoIndian peoples. Moving into and through the Rocky Mountains, PaleoIndian peoples likely followed animal trails defined largely by topography and location of natural resources. At least one PaleoIndian site has been recorded by archeologists within the Trail Ridge Road CLR study area.

Archaic Occupation (ca. 7,800 BCE–150 CE)

The warming and drying of the Late Pleistocene continued into the Holocene, rendering mountain valleys, foothills and mountain passes seasonably more accessible. However, a cooler and moister period gradually set in by the Late Holocene Epoch.[17]

The Archaic period is typically divided into Early, Middle, and Late subperiods with differing characteristics in subsistence, sedentism, and material culture. A relative lack of Early Archaic sites within the Southern Rocky Mountains and the adjacent eastern plains, believed to have been brought on by an extended period of warming, suggests that Early Archaic peoples may have sought moister conditions in the mountain valleys and foothills. Early Archaic material culture is composed of smaller non-lanceolate corner and side-notched points.[18]

Cooler and moister conditions predominated during the Middle Archaic period. As a result, archeologists have identified Middle Archaic sites throughout the Southern Rocky Mountains and their adjacent plains and plateau regions. These sites contain a greater diversity of features and suggest at least temporary habitation of the eastern plains, with regular seasonal use of the Southern Rocky Mountains. Ground stone, utilized in processing plants, nuts, and seeds, and storage cists and fire pits used in cooking are frequently found at Middle Archaic sites. Architectural features, predominantly found on Middle Archaic sites in the broader region, are represented by stone rings believed to be used in holding down hide and pole structures, as well as limited numbers of basin houses. Broadly distributed lithic forms recovered from Middle Archaic sites are characterized by a diverse array of both lanceolate and stemmed points

[15] Bugg et al., *Class III Cultural Resources Inventory*, 19–20.
[16] Bugg et al., *Class III Cultural Resources Inventory*, 20; Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park*, 73–79.
[17] Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park,* 80–82.
[18] Bugg et al., *Class III Cultural Resources Inventory*, 21; Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park,* 80–81.

that are termed the McKean complex. McKean points are frequently found in association with bison remains, suggesting a dependence upon these migrating herds.[19]

Compared to the Middle Archaic period, Late Archaic sites are more numerous, particularly on the eastern plains and Front Range of the Rocky Mountains. Continuity with the Middle Archaic cultural features, including ground stone, fire pits, and storage cists, persists in the Late Archaic as well as the presence of potentially symbolic finds such as bone and stone gaming and decorative items. Stone points recovered from Late Archaic sites continue a broad and diverse spectrum of smaller corner-notched and stemmed dart points.[20]

Subsistence during the Archaic period appears to have reflected the changes in fauna and flora brought on by warmer environmental conditions. Small band hunting and gathering defined existence, with Archaic peoples accessing high and low elevation sites following the availability of plant and animal resources throughout the season. Although bison were still hunted during the Archaic, a broader range of small to medium sized mammals, as well as reptiles were also sought and procured. The presence of numerous stone tools related to grinding uses suggests a greater reliance on gathering of seasonally available plants, nuts, and berries and the processing of these resources.[21]

Landscape Characteristics

Adapting to a warmer and drier climate, Archaic peoples practiced a more diversified subsistence strategy than their PaleoIndian predecessors. Organized into small bands, Archaic people hunted small to large-sized mammals and other animals, as well as gathering a variety of plant resources including nuts, berries and seeds. Although they did not live permanently in the Rocky Mountains, Archaic peoples visited seasonally more accessible mountainous areas following game and traveling over well-established paths to natural resource locations. Habitation sites in the Plains and Colorado Plateau consisted of basin houses, stone rings, storage cists, and fire pits. Sites within the Rocky Mountains include kill and game processing areas, as well as activity complexes focused on obtaining and processing raw materials and resources. Several Archaic sites have been recorded by archeologists within the Trail Ridge Road CLR study area.

Late Precontact Occupation (ca. 150–1540 CE)

The cultural homogeneity of the preceding Archaic period was replaced by regional cultural traditions during the Late Precontact period. East of the Continental Divide, the Late Precontact period is generally divided into the Early and Middle Ceramic subperiods, characterized by traditions that were heavily influenced from the Central Plains cultures. West of the Continental Divide, and particularly in southwestern Colorado, these Late Precontact cultural traditions are designated as the Formative period and were influenced by the Ancestral Puebloans of the Colorado Plateau.[22]

Perhaps the most important differences from the preceding Archaic period, and the technical markers by which the Late Precontact period is defined, were the adoption of the bow and arrow, and the manufacture and use of ceramics. Material culture recovered from Early and Middle Ceramic sites within the Rocky Mountains and in the adjacent eastern foothills include small corner and side-notched points suggesting the use of the bow and arrow along with the dart points. Likewise, ceramics also appear for

[19] Bugg et al., *Class III Cultural Resources Inventory,* 21-22; Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park,* 81–82.
[20] Bugg et al., *Class III Cultural Resources Inventory*, 22; Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park,* 82–83.
[21] Bugg et al., *Class III Cultural Resources Inventory*, 21.
[22] Bugg et al., *Class III Cultural Resources Inventory*, 23; Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park,* 83.

the first time. Late Precontact sites contain cord-marked ceramics, many of which were conoidal, biconical, and globular-shaped. In the eastern plains and along the Front Range, architecture in the form of basin houses and stone foundations, suggests a seasonal if not semi-permanent habitation. In association with some Early and Middle Ceramic sites, and particularly in the eastern plains, horticulture is inferred based on the presence of native corn. Despite the sparse evidence for horticulture in the eastern plains, Late Precontact period subsistence in the Rocky Mountains and its adjacent areas continued to be defined by small bands of people involved in hunting and gathering montane and alpine faunal and floral resources between the spring and fall.[23]

West of the Continental Divide, the Precontact period in the Northern Colorado River Basin is termed the Aspen tradition. Adoption of the bow and arrow is evidenced by the presence of small corner-notched points used in tandem with larger dart points. Ceramics, too, are present. Habitation sites are represented by shallow pit structures as well as stone rings most likely representing the location of wikiups. Similar to the Early and Middle Ceramic periods east of the Continental Divide, subsistence in the foothills, montane valleys, and western slope of the Southern Rocky Mountains was defined by a continuation of hunting and gathering and utilization of a broad range of plant and animal resources on a seasonal basis, although cultigens are found in some Aspen period sites at lower elevations.[24]

Late Precontact site types identified within Rocky Mountain National Park include camps, game and tool processing sites, and game drives likely reflecting nomadic hunting and gathering practices. Late Precontact sites are found in montane, subalpine, and alpine environmental contexts, a distribution pattern that reflects the utilization of varied plant and animal resources and the importance of a broad-based hunting and gathering subsistence.[25]

Landscape Characteristics

Precontact peoples continued the hunting and gathering traditions of their predecessors utilizing a diverse array of plant and animal resources. High and low elevation sites within the Rocky Mountains were visited seasonally according to the presence of game and availability of plant resources. Permanent to semi-permanent habitation sites, predominantly located in the adjacent Plains and Colorado Plateau, consisted of basin houses, stone rings, storage cists, and fire pits. The adoption of the bow and arrow and ceramics are the hallmark material culture signifiers of this period. Archeologists have identified sites related to Late Precontact occupation within the Trail Ridge Road CLR study area.

Protohistoric Native American Occupation (ca. 1000–1880s CE)

Ethnohistorical Evidence

The Ute, or *Nuuchiu*,[26] have been strongly associated with the Southern Rocky Mountains since time immemorial. The Ute traditionally formed numerous distinct bands that migrated seasonally over a broad territory, following well-established subsistence practices that had been passed down through generations. The Ute bands that occupied what is now Rocky Mountain National Park included the ancestors of the Parianuche, Yampa, and Sabuagan of the Ute Tribe, and the Mouache of the Southern Ute Tribe. Although independent and lacking a centrally organized political structure, these bands were unified by a mountainous landscape, and a common language, culture, and shared history. Ute bands were organized into family groups and were known by the land which they occupied or the food which

[23] Bugg et al., *Class III Cultural Resources Inventory*, 22–24; Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park,* 83–86.
[24] Reed and Metcalf, *Colorado Prehistory: A Context for the Northern Colorado River Basin*, 141–143.
[25] Brunswig, *Prehistoric, Protohistoric, and Early Historic Native American Archeology of Rocky Mountain National Park*, 119–125.
[26] *Nuuchiu*, is the Ute term for ‘the People.’

they ate. Primarily because of the mountainous landscape, as well as the scarcity of natural resources, the Ute traversed their broad territory in a seasonal circuit guided by an intimate environmental knowledge of the migration of game and the availability of plants, nuts, berries, and other resources. Following pre-established animal paths largely determined by topography, the Ute and their ancestors utilized and improved trails into and through the Rocky Mountains. These trails formed a network that facilitated movement, linking hunting grounds and locations of natural resources, as well as sacred and spiritual places.[27]

The Ute did not migrate into the area but have been living in the Rocky Mountains since they were created. The Ute creation story explains how they came to occupy the broader Rocky Mountains region. The story describes how Sinauf (Sinawav / Senawahv), a half-human half-wolf deity, made people by placing many sticks into a bag. The sticks magically transformed into people. Sinauf's brother, Coyote, became curious about all of the noise coming from the bag. Coyote cut a hole in the bag to see for himself. Not knowing about the hole in his bag, Sinauf began a long journey north. During the journey people fell and jumped out of the bag, creating the bands known today. At the end of his journey Sinauf found only a few people in his bag. He took them out and told them, 'My children, I will call you Utikas, and you shall roam these beautiful mountains. Be brave and strong.' These people are known today as the Ute.[28]

The Ute affirm that they have lived in the mountains of Colorado, Utah, Wyoming, and New Mexico for time immemorial and that until their removal in the 1880s, they were the longest tenured occupants of the Rocky Mountain region. Because they are 'mountain people,' the Ute have adapted to life in the mountains and have made the Rocky Mountains their home.[29]

Traditional lands of the Ute include what is today western Utah to the eastern slopes of the Rocky Mountains in Colorado and from northern New Mexico to central Wyoming. Because of this, the Ute consider pre-European archeological sites, cultural landscape features, and burials within their traditional lands as being their ancestral cultural property. All of what is now Rocky Mountain National Park is included in their traditional lands. Grand Lake and the Colorado River Valley, also known as the Kawuneeche Valley, are particularly significant places to the Ute as a place of origin. Kawuneeche is an English interpretation of the Arapaho word koho'owuniicii, meaning Coyote Creek.[30]

Originally from northwestern Minnesota, during the seventeenth century the Arapaho were forced into an extended westward migration to escape encroachment of and conflict with other displaced native tribes. Arriving in the Great Plains, the Arapaho continued to move west following migrating buffalo herds. The

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[27] Clifford Duncan, "The Northern Utes of Utah," in *A History of Utah's American Indians*, Forrest S. Cuch, ed. (Salt Lake City, Utah: Utah State Division of Indian Affairs, Utah State Division of History, 2003), 173–177; Virginia M. Simmons, *The Ute Indians of Utah, Colorado and New Mexico* (Boulder, Colorado: University Press of Colorado, 2000), 9; National Park Service, "Indigenous Connections at Rocky Mountain National Park, Resource Summary for the Ute Indian Tribe of the Uintah & Ouray Reservation, Southern Ute Indian tribe of the southern Ute Indian Reservation, and the Ute Mountain Ute Tribe of the Ute Mountain Indian Reservation," 1-3. Manuscript on file at Rocky Mountain National Park, Estes Park, Colorado; Richard Ott, *Perspectives on Ute Ethnohistory in West Central Colorado,* Prepared for the Ute Indian Tribe of the Uintah and Ouray Reservation, Ute Mountain Ute Tribe, and Southern Ute Indian Tribe, and the Bureau of Land Management, Colorado State Office (Grand Junction, Colorado: Dominguez Archaeological Research Group, 2010), 47; Sally McBeth, *Native American Oral History and Cultural Interpretation in Rocky Mountain National Park* (Greeley, Colorado: University of Northern Colorado, 2007), xii–xiii, 153.

[28] Duncan, "The Northern Utes of Utah," 167–168; Simmons, *The Ute Indians*, 1; Clifford H. Duncan and James A. Goss, *Consultation on Traditional Ute Sites in Rocky Mountain National Park, August 22, 23, and 24, 2000*, 10-11. Unpublished manuscript on file at Rocky Mountain National Park, Estes Park, Colorado.

[29] Duncan and Goss, *Consultation on Traditional Ute Sites*, 2–4; National Park Service, "Indigenous Connections at Rocky Mountain National Park, Ute Resource Summary," 1-3.

[30] Simmons, *The Ute Indians*, 1; Duncan and Goss, *Consultation on Traditional Ute Sites*, 2–4, 11; Ott, *Perspectives on Ute Ethnohistory*, 48, 50; Duncan, "The Northern Utes of Utah," 173–174; McBeth, *Native American Oral History*, xii–xiii, 22, 24.

Cheyenne moved west from the Great Lakes region throughout the late eighteenth to early nineteenth centuries. While some Cheyenne moved north into what would become the Dakotas and Canada, other bands arrived at the eastern flanks of the Rocky Mountains in the vicinity of the South Platte River. During their long migration, the Arapaho and Cheyenne encountered one another and often formed strategic alliances, travelling with one another and interacting on a socio-economic level.[31]

The Cheyenne relied predominantly upon the Great Plains to provide food resources. They did, however, occasionally visit the Rocky Mountains to hunt buffalo and gather plant resources. During these stays, the Cheyenne went into the Rocky Mountains in the summer targeting specific seasonally available plants and camping at lower elevations near water sources. The Arapaho, particularly the Bear Faces and Prairie bands, relied on the Rocky Mountains incorporating regular annual visits for hunting and gathering. Estes Park is a significant historic encampment for the Arapaho who utilized the broader area of Cache la Poudre and Big Thompson river basin as a base camp. Arapaho subsistence included summer visits throughout the Rocky Mountains to hunt and gather plant resources, winter encampments in the Front Range, and migratory trips to the Great Plains to hunt buffalo. Forced removal of the Cheyenne and Arapaho from the Rocky Mountains occurred in the mid-to-late 1860s.[32]

Archeological Evidence

As represented by the archeological record and documentary evidence, the Ute and Arapaho are believed to have arrived in the Rocky Mountain National Park vicinity from points both west and east of the Continental Divide. Based on both cultural traditions and linguistics, the Ute are believed to have migrated into what is now western Colorado from the Great Basin ca. 1100 CE and were well established along the western slope of the Rocky Mountains by ca. 1400 CE. In contrast, the Arapaho were more recent migrants, having been displaced by other native people arriving in the eastern slope of the Southern Rocky Mountains by the second quarter of the nineteenth century.[33]

The Protohistoric period in north central Colorado generally refers to two distinct periods. West of the Continental Divide, the Protohistoric is the period beginning with the arrival of the Ute (ca. 1100 CE) up to their forced removal to reservations in the early 1880s. East of the Continental Divide the Protohistoric is the period during which Europeans began settling the North American continent (ca. 1540 CE) up to the point in the second half of the nineteenth century when the Plains Tribal Nations were removed from Colorado and forced onto reservations.[34]

In the Northern Colorado River Basin, the Protohistoric period is directly associated with the Ute. Evidence for Ute occupation during this period is commonly divided into Canalla and Antero phases, based solely on the absence or presence of European trade goods, including guns and horses. Ute archeological sites are defined through the presence of specific material culture, including Uncompahgre Brown Ware ceramics, brush wickiup structures, ‘peeled’ trees, and small side-notched triangular points used on arrows. Like their Archaic and Precontact predecessors, the Ute also practiced a seasonal subsistence strategy focused on hunting and gathering, moving from the lower valleys in the spring to high tundra in the summer and fall, following migrating game and timing trips for harvesting of plants, nuts and berries. Paths and trails that the Ute used to travel through the Rocky Mountains on a repeated basis became part of the regional cultural knowledge. One of these trails, the Child’s or Ute Trail (5LR803),

[31] National Park Service, “Indigenous Connections at Rocky Mountain National Park, Resource Summary for the Cheyenne and Arapaho Tribes,” 2-3. Manuscript on file at Rocky Mountain National Park, Estes Park, Colorado.
[32] National Park Service, “Indigenous Connections at Rocky Mountain National Park, Resource Summary for the Cheyenne and Arapaho Tribes,” 3.
[33] Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park,* 91, 94.
[34] Bugg et al., *Class III Cultural Resources Inventory*, 24.

traverses the foothills just west of the Beaver Meadows entrance into the park and leads to Tombstone Ridge.[35]

Prior to the arrival of the Arapaho in the mid-nineteenth century, the Plains Apache (Athapaskan) are believed to have occupied the broader Front Range and eastern plains region as early as ca. 1400 CE. Although the Plains Apache possessed small triangular arrow points similar to the Ute, Apachean ceramics were elaborately decorated with stamped and painted surfaces as well as impressed rims. Stone circles, or tipi rings, are also believed to be associated with the Plains Apache occupation during this period. Expansion of territory by the Comanche and Ute forced the Plains Apache further south in the mid-eighteenth century. By the second quarter of the nineteenth century, the Arapaho migrated into the Southern Rocky Mountains from the Dakotas and Minnesota. Subsistence for both Apache and Arapaho likely incorporated seasonal forays into the Rocky Mountains for hunting and gathering purposes. However, subsistence for both groups was predominantly equestrian based, following buffalo herds and hunting them with guns. In a 1913 visit hosted by the Colorado Mountain Club to what would become Rocky Mountain National Park, two Arapaho elders described traditional hunting and trapping grounds, as well as places of ceremonial practices, and extended conflict with other regional native people within and adjacent to the park.[36] The Cheyenne Tribe, migrated west from the Plains following buffalo herds to the eastern flank of the Rocky Mountains. By the mid-nineteenth century, southern Cheyenne Tribes were noted to be present on the South Platte River near Greeley, Colorado. The Cheyenne made occasional trips to and throughout what is now Rocky Mountain National Park, camping at lower elevations near water sources and floral and faunal resources.[37]

Based on ethnographic evidence, Brett has noted that other native peoples who did not reside in the vicinity of what would become Rocky Mountain National Park, but likely visited the Southern Rocky Mountains on limited occasions, are the Kiowa-Apache, Comanche, Pawnee, Shoshone, Kiowa, and Sioux.[38]

Numerous Protohistoric Ute, Arapaho and Cheyenne archeological and cultural sites have been identified within Rocky Mountain National Park. Protohistoric Ute site types include sacred / spiritual sites; historic trails; game drives; hunting blinds; stone circles; wickiup sites; and peeled trees. Sites associated with Arapaho and Cheyenne occupation of the park include numerous trails, camping grounds, tipi rings, game drives, hunting blinds, and places where skirmishes and battles took place.[39]

Landscape Characteristics

The Ute practiced a highly mobile hunting and gathering subsistence that brought them into all portions of the Southern Rocky Mountains on a seasonal basis. In particular, South, Middle, and North park became traditional hunting grounds for three Ute bands—the Yamparika, Parianuche, and Tabeguache people—who settled in the Northern Colorado River basin. The Ute continued to use well-established paths

[35] Reed and Metcalf, *Colorado Prehistory: A Context for the Northern Colorado River Basin*, 148–151; Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park,* 87–92; Bugg et al., *Class III Cultural Resources Inventory*, 25–26. It should be acknowledged that the Ute state that all trails within Rocky Mountain National Park are Ute trails. See Duncan and Goss, *Consultation on Traditional Ute Sites*, 10.
[36] Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park,* 92–94; Bugg et al., *Class III Cultural Resources Inventory*, 24–25; Oliver W. Toll, *Arapaho Names and Trails: A Report of a 1914 Pack Trip* (Estes Park, Colorado: Rocky Mountain Nature Association, 1962. Reprinted 2003).
[37] John A. Brett, *Ethnographic Assessment and Documentation of Rocky Mountain National Park* (Denver, Colorado: University of Colorado, 2003), 9, 44–49; National Park Service, “Indigenous Connections at Rocky Mountain National Park, Resource Summary for the Cheyenne and Arapaho Tribes,” 2-5.
[38] Brett, *Ethnographic Assessment,* 44–53.
[39] Duncan and Goss, *Consultation on Traditional Ute Sites*, 4–8; McBeth, *Native American Oral History*, 109–157; Toll, *Arapaho Names and Trails*, 20–22; National Park Service, “Indigenous Connections at Rocky Mountain National Park, Ute Resource Summary,” 10-13; National Park Service, “Indigenous Connections at Rocky Mountain National Park, Resource Summary for the Cheyenne and Arapaho Tribes,” 3, 5.

throughout the Rocky Mountains that led to and from hunting grounds, and plant and other natural resources, and connected them with spiritual sites. Some of these trail corridors surmounted the Continental Divide linking the eastern and western slopes and generally followed earlier animal paths that conformed to natural topography. Portions of the Fall River Road and Trail Ridge Road followed and were built upon these precontact period trails. Upon the acquisition of horses, the Ute expanded their seasonal ranging covering broader territories and interacting with a greater number of Ute and other native people. The Ute grazed their horses on grass lands within the numerous parks of the Rocky Mountains.

Due to their highly mobile subsistence strategy, the seasonal nature of their resource utilization, the impermanent nature of their presence, as well as the harsh environmental condition, material culture evidence for Ute occupation within the Rocky Mountain region is ephemeral when compared to more sedentary cultures. Despite these factors, the sites of game drives, former wickiups, and peeled trees as well as Uncompahgre Brown Ware ceramics throughout the park attest to the long-term presence of the Ute throughout the broader Rocky Mountains and Colorado Plateau. Evidence for long-standing Ute occupation and use of the area has been identified by archeologists at several sites within the Trail Ridge Road CLR study area, while ethnographic investigations suggest a wide range of traditional associations for the Ute people with the corridor traversed by the road.

Arapaho and Cheyenne visited park lands periodically during the first half of the nineteenth century. They too had a highly mobile subsistence strategy, following and hunting buffalo and other large ungulates that entered the Rocky Mountains in search of grassland, camping at low elevations and in canyons on the east side of the park and generally utilizing seasonal plant resources. Trails followed by Arapaho and Cheyenne were created by animals and generally followed accessible topography. Material culture evidence of Arapaho and Cheyenne occupation within Rocky Mountain National Park is ephemeral and includes game drives, hunting traps, camp sites and tipi rings.

European and American Hunters and Trappers, Explorers, and Front Range Mining (1750s–1859)

Early European and American travels into and through what would become Colorado can be characterized as numerous small private ventures composed predominantly of French and American hunters and trappers, and US Government-funded exploration parties whose broad scientific focus was to document regional geography and natural resources and to make contact with Native Americans.

Seeking to purchase the French colony and port of New Orleans, and access to the Mississippi River that it provided, President Thomas Jefferson appointed James Monroe as a special envoy to France. With Robert Livingston, Monroe was to negotiate purchase of land east of the Mississippi with the French government in 1803. Monroe and Livingston were ultimately able to arrange the purchase of the Louisiana Territory, a land mass extending from New Orleans on the south to the 49th parallel on the north and encompassing all of the Mississippi River drainage. In 1803 the United States purchased the 530,000,000-acre tract from France.[40]

Immediately following the Lewis and Clark Expedition, and under orders from President Thomas Jefferson, Lieutenant Zebulon Pike commanded a small military party that traveled west in 1806 and 1807 to explore and map the recent lands encompassed by the Louisiana Purchase. Pike and his party traveled through what would become Missouri and Kansas, eventually entering southeastern Colorado. Pike crossed the Rocky Mountains and passed through the vicinity of what is now South Park, later

[40] The western boundary to the Louisiana purchase was negotiated with Mexico and ratified in the 1819 Adams-Onis Treaty. The northern boundary was negotiated with Great Britain in the Anglo-American Convention of 1818.

heading south into New Mexico where he was captured near Santa Fe and sent back by Spanish authorities (Figure 2-1).[41]



Figure 2-1. *Detail, A Chart of the Internal Part of Louisiana, showing the area where the South Platte River meets the eastern edge of the Rocky Mountains. Z. M. Pike, 1810.* (Source: Library of Congress, call #G4040 1810 .P5)

In 1820 President James Monroe appointed Major Stephen H. Long to lead a scientific expedition up the Platte River. The goal of Long's expedition was to document the geography and natural resources encountered during his travels. Long followed the Platte River, traveling upstream to the foothills of the Rocky Mountains. During his trip through what would become Colorado, Long and his party were assisted by parties of French hunters and trappers. Along the way, Long and his party encountered and interacted with many Plains tribes.[42]

European hunters and trappers had been exploiting the broader area west of the Mississippi River since the mid-eighteenth century. However, following the Louisiana Purchase and the introduction of the West to most Americans through the Lewis and Clark Expedition, interest in and exploration and exploitation of these new lands increased. The continued demand for furs, particularly beaver pelts, from Europeans during the early nineteenth century led trappers to explore the area further. As a result, French and American hunters and trappers began traveling to and through the Rocky Mountains during the second quarter of the nineteenth century. Hunters and trappers under contract with a trading company would travel year-round, collecting furs and returning to a trading post once or twice a year. An extensive network of trading posts linked the Rocky Mountains with eastern markets. By 1837 the Bent and St. Vrain company had established a fortified trading post at Fort St. Vrain located near present day Platteville on the South Platte River, approximately 35 miles north of what would become Denver and 20 miles east of the Rocky Mountains.[43]

[41] C.W. Buchholtz, *Rocky Mountain National Park: A History* (Boulder, Colorado: Colorado Associated University Press, 1983), 33.
[42] Buchholtz, *Rocky Mountain National Park*, 34–36.
[43] R.S. 'Joe' Pinner, *St. Vrain's Fort History Brief,* http://stvrainsfort.homestead.com/history.html.

The early French hunters and trappers who explored the Rocky Mountains also left a legacy of place names in Colorado. In addition to naming many rivers in the broader area—Grand, Platte, St. Vrain, Cache La Poudre—they established names for many basins or broad open valleys in the Rocky Mountains using the term 'parc.' North Park, Middle Park, and South Park are area names that remain in use today.[44]

Private parties who explored the Rocky Mountains in what would become Colorado, and published accounts of their travels during this period, were limited. In 1839 Thomas J. Farnham and a small party of men traveled westward from Illinois, initially following the Oregon Trail with a goal of settling in Oregon Country. In crossing the Rocky Mountains, Farnham is reported to have encamped in the vicinity of both North Park and Middle Park. Farnham's description of Middle Park presents a compelling picture of the beauty of these mountain valleys prior to permanent settlement by European Americans.

> The valleys that lie upon this stream [Grand River] and some of its tributaries are called by the hunters 'The Old Park.' …Extensive meadows running up the valleys of the streams, woodlands skirting the mountain bases and dividing the plains, over which the antelope, black and white-tailed deer, the English hare, the big horn mountain sheep, the grisly, gray, red and black bears and the buffalo and elk range–a splendid park indeed.[45]

In the early 1840s Rufus B. Sage, an itinerant explorer and hunter who traveled throughout the larger West, explored the Front Range west of what would become Denver. Based on the description in his journals, some historians have credited Sage with being the first European to explore and establish a hunting camp in what would become Estes Park. Accompanying a hunting party in 1846, Francis Parkman followed the Oregon Trail west until he encountered the Front Range and then headed south. Between 1854 and 1857, Sir St. George Gore organized a hunting expedition with a massive entourage that traveled throughout the larger American West. During his first year in 1854, St. George Gore remained in Middle Park for the hunting.[46]

Between 1842 and 1844, John C. Fremont led two expeditions into the greater American West. In 1842 the US Army Corps of Topographic Engineers charged Fremont to survey and map the Oregon Trail. During this trip he followed the Platte River and likely passed just east of the Rocky Mountains. A year later he was charged with locating a southern route across the Rocky Mountains. On his return trip he passed through Middle Park in 1844. Fremont's 1845 map of the western territories shows the area east of the Rocky Mountains in what is now Colorado as occupied by Cheyenne and Arapaho (Figures 2-2 and 2-3).[47]

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[44] Susan B. Baldwin, "Historic Resource Study. Dutchtown and Lulu City, Rocky Mountain National Park, Colorado" (Boulder, Colorado: Creative Land Use, 1980), 1; Robert C. Black, *Island in the Rockies: The History of Grand County, Colorado to 1930* (Boulder, Colorado: Pruett Publishing Company, 1969), 20.

[45] Black, *Island in the Rockies*, 21–22; F. Ross Holland Jr., *Rocky Mountain National Park. Historical Background Data* (Denver, Colorado: Office of History and Historic Architecture, Western Service Center. National Park Service, 1971), 10-13.

[46] Buchholtz, *Rocky Mountain National Park*, 39–42; Black, *Island in the Rockies*, 23; Holland Jr., *Rocky Mountain National Park. Historical Background Data*, 10–13.

[47] Bvt. Capt. J.C. Fremont, *Report of the Exploring Expedition to the Rocky Mountains in the Year 1842, and to Oregon and North California in the Years 1843–1844* (Washington, DC: Blair and Rives, Printers, 1845); See also S.N. Carvalho, *Incidents of Travel and Adventure in the Far West, with Col. Fremont's Last Expedition* (New York, New York: Derby and Jackson, 1859).



Figure 2-2. *Detail, "Map of an Exploring Expedition to the Rocky Mountains in the year 1842, and to Oregon & North California in the Years 1843-1844, showing the South Platte River, Fort St. Vrain, the Rocky Mountains and the three parks 'New Park,' 'Old Park,' and Bayou Salade or 'South Park.' Brevet Capt. J.C. Fremont," 1845.* (Source: Library of Congress, digital ID https://hdl.loc.gov/loc.wdl/wdl.6768)



Figure 2-3. *Detail, "Map of Oregon and Upper California from the Surveys of John Charles Fremont and other Authorities, showing the South Platte River, Fort St. Vrain, North, Middle and South Park and Pike's Peak," Charles Preuss, 1848.* (Source: Library of Congress, call #G3210 1848 .F72)

Many of these private groups and government sponsored parties undoubtedly encountered numerous Indigenous groups on their journeys to and through the West. However, during this early period, limited detailed documentation of these meetings exist.

Although the US Government had been acquiring native lands through purchase, by treaty, and outright force since the late eighteenth century, the Indian Removal Act of 1830 facilitated a quicker and more efficient means to the possession and settlement of former native lands by non-natives. As migrants began to settle these southeastern lands, western migration continued and pressure for new lands shifted to the Great Plains and the American West. By the mid-nineteenth century, the US Government began to

take a greater role in negotiating and renegotiating treaties with Tribal Nations, redefining lands west of the Mississippi originally ceded to native peoples by forcing them onto constricted reservations.

As in many other US regions, the settlement of eastern Colorado was only possible through taking of native lands. Throughout the first half of the nineteenth century, the Arapaho and Cheyenne occupied eastern Colorado. In 1851 the US Government signed a treaty with representatives of nine Tribal Nations including the Arapaho and Cheyenne. The Fort Laramie Treaty established a new homeland for all Native Americans in Indian Territory. Land designated as traditional lands of the Arapaho and Cheyenne was located between the North Platte and Arkansas Rivers and from the Continental Divide east, encompassing much of eastern Colorado and southeastern Wyoming.[48]

The discovery of gold on the South Platte River in mid-1858 adversely impacted the fate of the Arapaho and Cheyenne. Overly optimistic and exaggerated claims about ore extractions and potential of this and other regional strikes led to the Pikes Peak Gold Rush. Throughout the late 1850s and through the early 1860s, thousands of prospectors headed to the South Platte River, the Front Range, and the Rocky Mountains. Initially founded as a mining camp in November 1858, Denver would grow to become a major supply depot (Figures 2-4, 2-5, and 2-6). A direct result of the Colorado Gold Rush was that US Government authorities could not stop the flow of immigrants, mining activities, or the settlement of towns on traditional lands recognized by the US Government and occupied by the Arapaho and Cheyenne.[49]

Landscape Characteristics

European and American trappers arrived in the Rocky Mountains by the end of the first quarter of the nineteenth century. Predominantly seeking beaver, but also hunting the plentiful game, they followed pre-existing trails on a seasonal basis into the foothills, visiting the montane parks on a regular basis. By the mid-nineteenth century, the discovery of gold on the South Platte River stimulated limited exploration for valuable minerals by numerous small parties in the Front Range of the Rocky Mountains. The discovery of gold on the South Platte ultimately led to the establishment of Denver City and the platting and settlement of the area east of the Rocky Mountains. Informal roads linking mining camps with the eastern plains and Denver were also established. Federal and private exploring parties passing through the Rocky Mountains interacted with hunters and trappers and native people.

No archeological resources from this period have been documented within the Trail Ridge Road corridor.

[48] National Park Service, “Fort Laramie Treaty of 1851 (Horse Creek Treaty),” *Fort Laramie National Historic Site,* https://www.nps.gov/articles/000/horse-creek-treaty.htm.
[49] Buchholtz, *Rocky Mountain National Park*, 42–45.



Figure 2-4. *Detail, "Territory and Military Department of Utah, Compiled in the Bureau of Topographic Eng.rs of the War Department, showing the South Platte River, Long's Peak, Pike's Peak and North, Middle and South Parks in the Rocky Mountains," US War Department, 1860.* (Source: Library of Congress, call #G4300 1860 .U5)


NORTH PARK
LONGS PEAK
SOUTH FORK OF PLATTE
Boughtons Bridge
St Vrain
Silver Mines
GOLD LAKE
UTTLLA DIST.
Gold Hill
Boulder
GOLD DIRT DIST.
MIDDLE PARK
Central City
Golden City
GREGORY DIST.
Nevada
Denver City
Mt. Vernon
Russellville
Breckenridge
Tarryall
Buckskin Jo
SOUTH PARK
Colorado City
PIKES PEAK
Old Springs
Canon City
Fountain City
Woods R.
Stage St.
Fred Lamb
W.M. Makin & Co.
Stephens & Moore
Stage St.
Living Spring
Stage St.
Coment
well supplied
Top Stop
Good accommodations
Good accommodations
Stage's Provisions
Jolly Supplied
Good accommodations
Stage St.
Stage St.
Stage St.

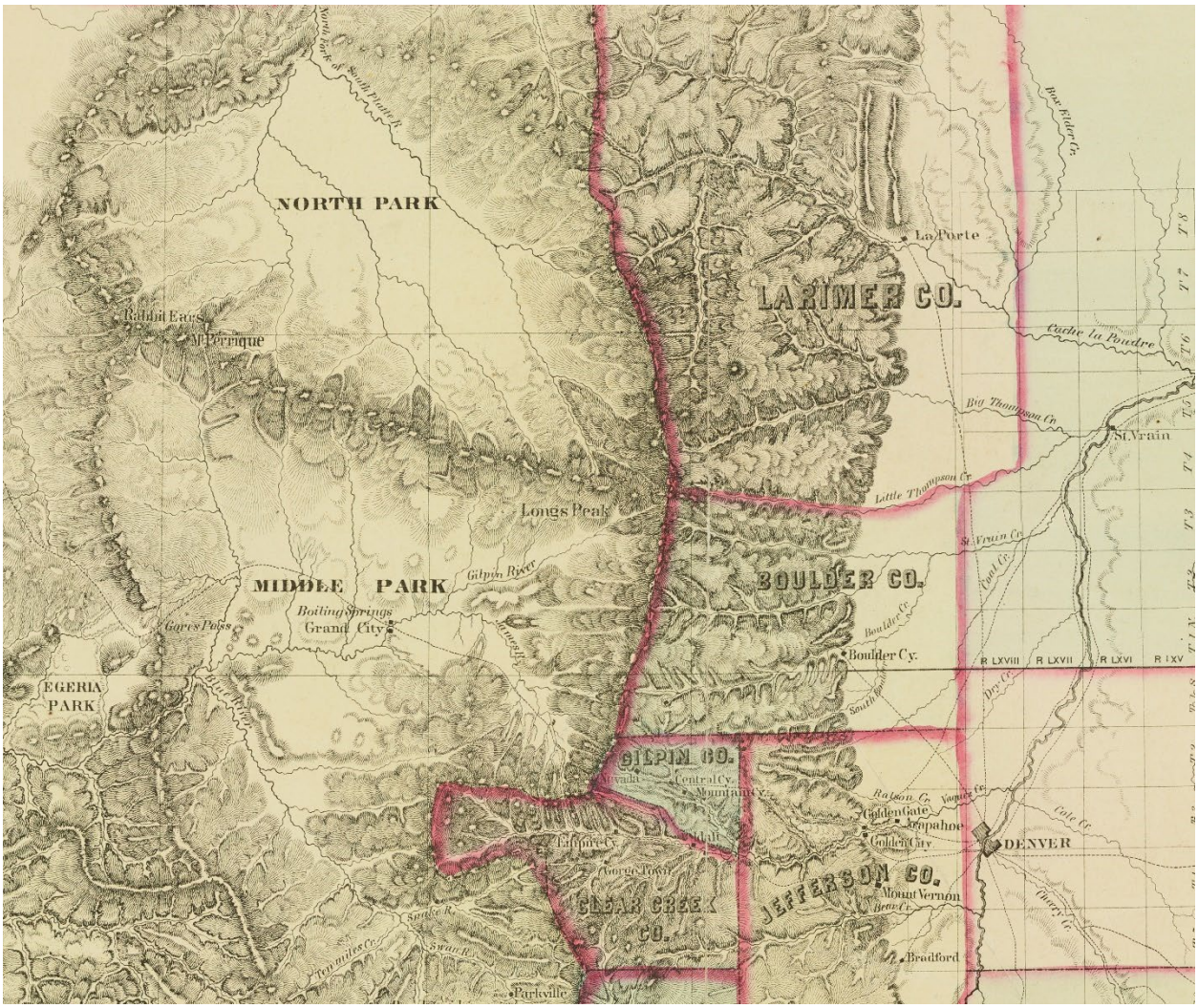


Figure 2-6. *Detail, "Map of Colorado Territory Embracing the Central Gold Region, showing Denver, Larimer and Boulder counties, Middle Park and Grand City," Frederick J. Ebert, 1862.* (Source: Denver Public Library, call #MAP-2017-459)

Permanent European American Settlement, Geographical Survey, and Removal of Native Americans from the Rocky Mountains (1860–ca. 1881)

Permanent European American Settlement and Continued Geographical Survey

Responding to the discovery of gold in Colorado and the subsequent rush of miners into the area, many residents of the Rocky Mountain region petitioned the US Government for territorial status during the antebellum period. In early 1861 the Colorado Territory was created out of portions of Utah, Nebraska, Kansas, and New Mexico territories. The new territory's boundaries were identical to what would become the State of Colorado. William Gilpin was the first Governor of the Colorado Territory.

Immediately following the establishment of the new territory, Congress passed the Homestead Act in May 1862. Designed to encourage settlement of western lands, the Act provided 160-acres to each adult who

settled and improved a claim through the construction of a dwelling and farming of the land.[50] The Act had an immediate impact on the plains east of the Rocky Mountains, lands that had been ceded the year before by the Arapaho and Cheyenne in the Treaty of Fort Wise (Figure 2-7).

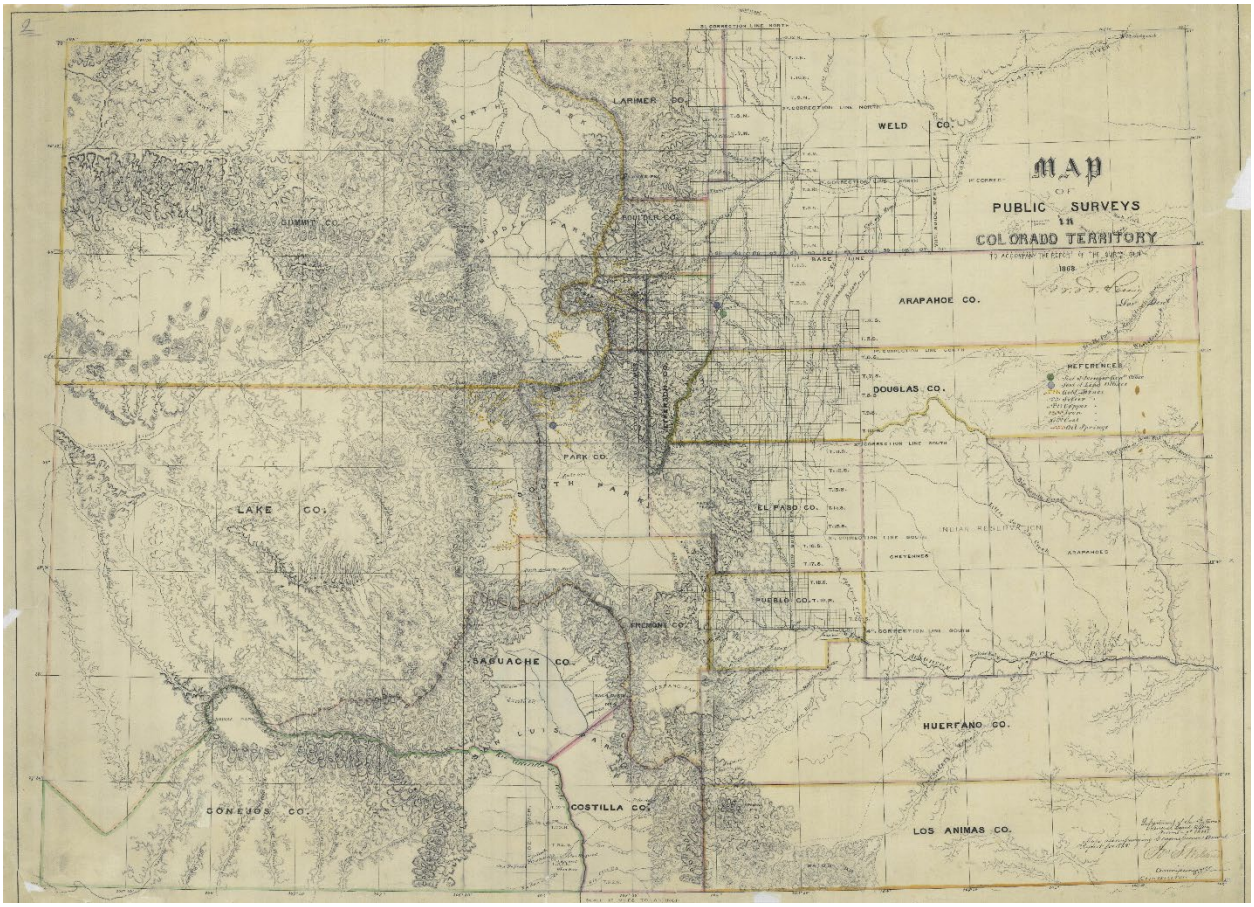


Figure 2-7. *Detail, "Map of Public Surveys in Colorado Territory, showing platted land east of the Rocky Mountains," anonymous, 1868.* (Source: National Archives and Records Administration, RG 49, Records of the Bureau of Land Management)

One of the first European American settlers in the foothills of the eastern flanks of the Rocky Mountains was Joel Estes. Like many others before him, Estes came to Denver during the gold rush. Abandoning his hope for a rich claim, Estes looked for a place to settle down and establish a ranch. In late 1859 Estes and his son took a hunting trip and followed Little Thompson Creek, eventually bringing them to the valley that would later bear his name. "We stood on the mountain looking down at the head waters of Little Thompson Creek where the park spread out before us. No words can describe our surprise, wonder and joy at beholding such an unexpected sight. It looked like a low valley with a silver streak or thread winding its way through the tall grass, down through the valley and disappearing around a hill among the pine trees. This silver thread was Big Thompson Creek. It was a grand sight and a great surprise."[51]

Astounded at the beautiful scenery and wildlife, as well as the potential for hunting and pasturage for his cattle, Estes returned the next year and established a small ranch composed of two log houses, a corral, and several other structures. Milton Estes, son of Joel, noted both the isolation and beauty of the locality. "We were monarchs of all we surveyed, …mountains, valleys, streams. There was absolutely nothing to

[50] In the case of *Worcester vs. Georgia* in 1832, the Supreme Court ruled that title to all lands possessed by Tribal Nations had to be obtained through the US Government. The 1862 Homestead Act therefore facilitated the formal settlement and ownership of former Indian Territory by non-native people.
[51] Milton Estes, "Memoirs of Estes Park," 123, *The Colorado Magazine*, Vol. 16, No. 4 (July 1939):121–132.

dispute our sway. We had a little world all to ourselves. There was no end to the game, for great bands of elk, big flocks of mountain sheep and deer where everywhere."[52] The Estes family, however, were not the first to occupy their Eden. As Milton Estes recalled, "there were signs that Indians had been there at some time. …for we found lodge poles in two different places."[53]

In 1860, the Estes family began ranching activities, with the introduction of their small herd of cattle to the valley. Throughout the early 1860s, the Estes family made a reasonable living hunting and ranching. As noted by Milton, "It was a fine place for stock, with an abundance of grass everywhere and clear running streams of water." Over time, hired hands were brought in to help with the ranching duties. The regular demand for meat and skins in the small but growing mining town of Denver, an approximately 50-mile trip southeast of what would become Estes Park, provided a regular market. According to Milton Estes, in 1863 they had "made a trail to Denver, where we sold many dressed skins and many hind quarters of deer, elk, and sheep."[54]

Leaving Denver in late summer of 1864, William N. Byers and a small party set out to climb Longs Peak. Byers followed the Estes cattle trail to the ranch and stayed with the Estes family. Byers described the valley as, "a gem of beauty. …The landscape struck us at first sight as one of the most lovely we ever beheld, and three or four days of familiarity with it only increased that admiration." Although they were not successful in scaling Longs Peak, the founder of the Denver based *Rocky Mountain News* eventually wrote about his experience, publishing an account that served to popularize recreational activities in the broader Rocky Mountain region. Byers was prescient in his assessment of the region predicting "eventually this park [Estes Park] will become a favorite pleasure resort."[55]

Following the cold and snowy winter of 1864–1865, the Estes family decided to move to a "milder climate and a wider range for the cattle, for we wanted to engage in stockraising on a larger scale." Joel Estes sold the ranch and a team of oxen to one Michael Hollinbeck and a partner in early 1866. The Estes family left the area for good in April 1866.[56]

West of the Continental Divide, the first European American settlers also began to move through Middle Park following the Grand [Colorado] River upstream. Hot Sulphur Springs, also called Saratoga West or Warm Springs, was established in 1860 and slowly attracted settlers. Between 1866 and 1867 Joseph Westcott traveled from Hot Sulphur Springs to the Grand Lake vicinity to hunt and fish, and ultimately constructed a small cabin there. Westcott was the first recorded European-American resident of Grand Lake. Shortly afterward and following the mining boom in the Rabbit Ears Range, Grand Lake became a formal platted town in 1879 that supplied mining efforts in the broader region west of the Continental Divide.[57]

Between 1867 and 1868 John Wesley Powell visited the Rocky Mountains. On his first trip in 1867 his goal was to survey the Grand [Colorado] River. During this excursion he ascended Pikes Peak. A year later in 1868 he again came to the Rocky Mountain region, this time with numerous students on a trip focused on studying and documenting the natural history of the region. While in the Rocky Mountains he took the opportunity to climb Longs Peak, approaching it from Middle Park and Grand Lake. An account of the ascent was written up in William Byers' *Rocky Mountain News*.[58]

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[52] Estes, "Memoirs," 123.
[53] Estes, "Memoirs," 123.
[54] Estes, "Memoirs," 124-125.
[55] Buchholtz, *Rocky Mountain National Park*, 49–52.
[56] Estes, "Memoirs," 131–132.
[57] Buchholtz, *Rocky Mountain National Park*, 56–57; Robert C. Black, *Island in the Rockies*, 62, 157–159; Baldwin, *Dutchtown and Lulu City*, 9, 19.
[58] William Byers, "The Powell Expedition: From Grand Lake to Long's Peak – Ascent of That Mountain – The View Therefrom – Return to the Hot Springs," *Daily Rocky Mountain News*, September 1, 1868; National Museum of Natural History, Department of Botany, "J.W. Powell Survey – Colorado River Exploring Expedition,"

Between 1867 and 1879 geographical and geological survey work of the American West was funded by the US Government. In 1867 the US Geological Survey of the 40th Parallel, led by geologist Clarence King, began their fieldwork in the Sierra Mountains of Nevada. However, it was not until 1871 that the survey party entered the Rocky Mountains.[59]

Two years after Clarence King led the US Geological Survey party of the 40th Parallel, Ferdinand V. Hayden organized another expedition to survey and map Colorado in 1873. The survey was divided into several small groups that, over the course of four years, mapped all of the Colorado Territory (Figures 2-8 and 2-9). In particular Hayden's survey included geographers, naturalists, artists, as well as photographer William H. Jackson. Jackson's photographs of the broader Rocky Mountain landscape remain of interest to this day (Figure 2-10).[60]

Landscape Characteristics

Initial permanent non-native settlement in the Rocky Mountains first occurred in the Estes Park and Grand Lake vicinities. Early settlers in these areas erected small cabins and other structures in meadows and parks, hunted game, fished for survival, and practiced small-scale ranching. Informal roads linking their small settlements with larger populations were established. The Powell, King, and Hayden expeditions explored and mapped a significant portion of the Rocky Mountains. Their publications, including maps and photographs, brought it to the attention of the American public and popularized the region. Archeological evidence for ranching and homesteading use of the area has been identified by archeologists within the Trail Ridge Road CLR study area.

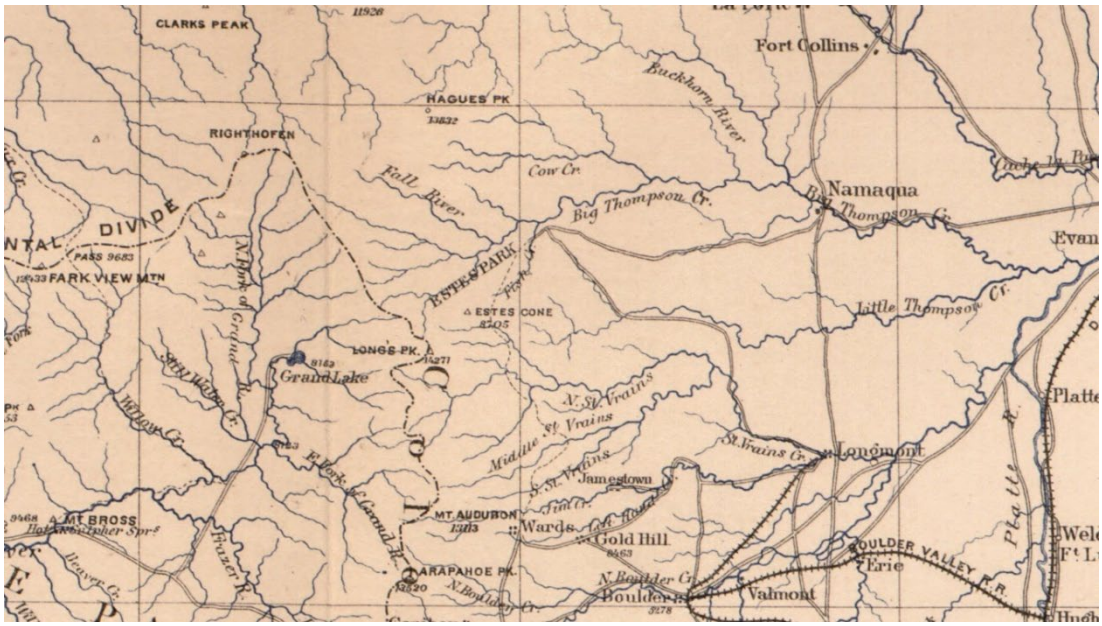


Figure 2-8. *Detail, "Drainage Map of Colorado, showing the Continental Divide, Estes Park and Grand Lake," March 1877. Geological and Geographical Atlas of Colorado and Portions of Adjacent Territories, US Department of the Interior, US Geological and Geographical Survey of the Territories, F.V. Hayden, US Geologist in Charge.* (Source: Library of Congress, call #G1501.C5 U5 1877)

https://naturalhistory.si.edu/research/botany/about/historical-expeditions/j-w-powell-colorado-exploring-expedition-1868.

[59] Clarence King, *Report of the Geological Exploration of the Fortieth Parallel*. Professional Papers of the Engineer Department, US Army, No. 18 (Washington, DC: Government Printing Office, 1878).

[60] Ferdinand V. Hayden, *Annual Report of the United States Geological and Geographical Survey of the Territories Embracing Colorado, Being a Report of Progress of the Exploration for the year 1873* (Washington, DC: Government Printing Office, 1874).

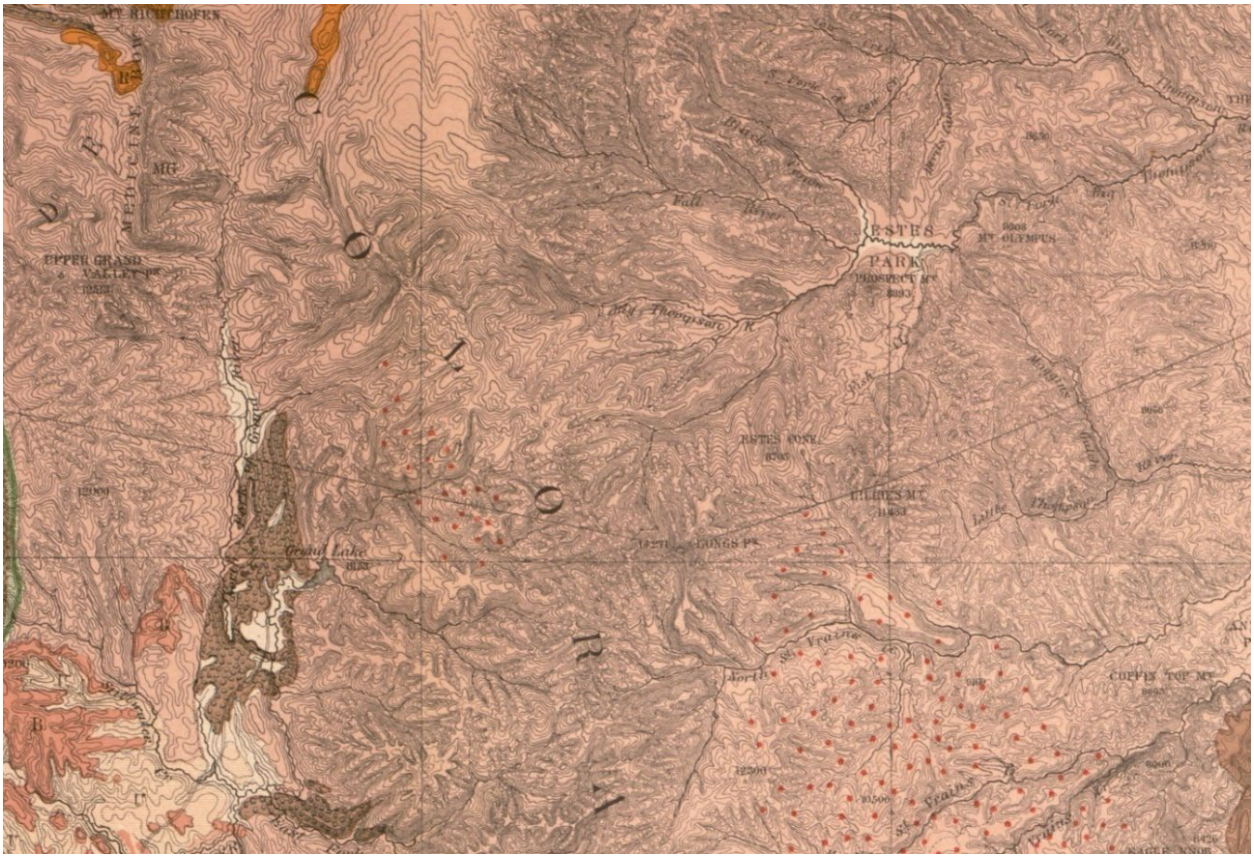


Figure 2-9. *Detail, "Northern Central Colorado, showing the topography between Estes Park and Grand Lake," 1877. Geological and Geographical Atlas of Colorado and Portions of Adjacent Territories, US Geological and Geographical Survey of the Territories, F.V. Hayden in Charge.* (Source: Library of Congress, call #G1501.C5 U5 1877)



Figure 2-10. *Grand Lake.* William Henry Jackson, 1878. (Source: University of Chicago Library, William H. Jackson Photograph Collection, 1870-1878, Jacsonwh-0001-055)

The Removal of Native Americans from the Colorado Rocky Mountains

Under pressure from Colorado Territorial officials to accommodate the claims of miners and new European-American settlers, the US Government found that the 1851 Fort Laramie Treaty with the Arapaho and Cheyenne, which granted these nations control of all of the land between the North Platte and Arkansas rivers, was untenable. As a result, the US Government negotiated the 1861 Treaty of Fort Wise with the Arapaho and Cheyenne. The new treaty ceded significant lands to the US Government and dictated a much smaller reservation for the Arapaho and Cheyenne than agreed upon during the 1851 Fort Laramie Treaty. The new, smaller reservation was located in what would become southeastern Colorado on the Arkansas River. Because the Treaty of Fort Wise further constricted their hunting lands and was negotiated by a limited number of chiefs, several bands of Arapaho and Cheyenne refused to abide by it.[61]

Over the course of the next few years, Plains tribes resisting the 1861 Fort Wise Treaty conducted occasional raids on settler communities intensifying conflict between the two groups. The goal of the raids was to drive European-American settlers out of Arapaho and Cheyenne territory. The repeated raids forced remote European-American camps and settlements to retreat to more populous areas, such as the growing mining town of Denver. In Fall 1864 the Governor of Colorado Territory, John Evans, invited "friendly Indians" to encamp near Fort Lyon in southeastern Colorado, convincing them that it was for their safety. Several hundred Native Americans led by Black Kettle, predominantly Cheyenne but also some Arapaho, and consisting of mostly women and children and a few men moved to Fort Lyon, and then on to Sand Creek. Under the command of Col. John Chivington, on November 29, 1864, the Colorado Territorial militia moved toward the Cheyenne and Arapaho encampment at Sand Creek. Surprising the encampment, soldiers in his 675-man unit attacked, slaughtering most of the defenseless Native Americans. Of the 130 to 140 Native Americans who were killed, historians have estimated that between 75 to 80 percent were women and children. The result of the massacre was the loss of peace seeking Cheyenne and Arapaho.[62]

Subsequent military investigations found that Colonel Chivington abused his power in taking advantage of the encamped Native Americans. "The truth is that he surprised and murdered, in cold blood, the unsuspecting men, women, and children on Sand Creek, who had every reason to believe they were under the protection of the United States authorities, and then returned to Denver and boasted of the brave deed he and the men under his command had performed."[63]

Groups of Sioux, Cheyenne, and Arapaho conducted retaliations for the Sand Creek Massacre on European-American settler communities during the first half of 1865. Following the end of the Civil War, the US Government again approached Plains Tribal Nations seeking a new treaty. In the subsequent negotiations, representatives of Cheyenne, Arapaho and Apache nations and the US Government signed the Little Arkansas Treaty in October of 1865. The treaty guaranteed peace between the parties, a new reservation located south of the Arkansas River, the right to range and hunt in the lands they claimed as traditional located between the Arkansas and Platte Rivers, and reparations in the form of lands to individuals who survived the 1864 Sand Creek Massacre.[64]

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[61] Donald J. Berthrong, "Federal Indian Policy and the Southern Cheyennes and Arapahoes, 1887–1907," 138–139. *Ethnohistory*, Vol. 3, No. 2 (Spring 1956):138–153.
[62] US Congress, "Massacre of Cheyenne Indians," *Report of the Joint Committee on the Conduct of the War at the Second Session, Thirty-Eighth Congress.* (Washington, DC: Government Printing Office, 1865); Peter R. Decker, *The Utes Must Go: American Expansion and the Removal of a People* (Golden, Colorado: Fulcrum Publishing, 2004), 30–31.
[63] US Congress, "Massacre of Cheyenne Indians," v.
[64] Goldman Law Library, "Treaty with the Cheyenne and Arapaho, October 14, 1865," The Avalon Project, Lillian Goldman Law Library, Yale Law School, https://avalon.law.yale.edu/19th_century/char65.asp.

Following the establishment of the Indian Peace Commission in mid-1867, and only two years after the 1865 Little Arkansas Treaty, in October of 1867 the US Government sought to formally, and finally, end their war with Plains Tribal Nations. The Medicine Lodge Treaty signed with the Arapaho and Cheyenne promised peace, further reduced the land contained within the Arapaho and Cheyenne 1865 reservation, severely limited access to former hunting grounds, and promised US Government assistance to tribal members.[65] The 1865 Little Arkansas Treaty and the subsequent 1867 Medicine Lodge Treaty effectively removed all Plains Tribal Nations from the Rocky Mountains and the Front Range. Only a decade later, however, the Arapaho were removed from Colorado altogether when they were forcefully marched by the US Army to a 'temporary' location on the Fort Washakie Agency in Wyoming. Later renamed the Wind River Reservation, the Northern Arapaho ultimately shared the reservation with the Shoshone people.[66] American settlers rapidly moved into the vacated lands of the Front Range slope (Figures 2-11 and 2-12).

[65] Brett, *Ethnographic Assessment*, 16–17, 109; Jacki Thompson Rand, "Medicine Lodge Treaty (1867)," *The Encyclopedia of Oklahoma History and Culture*, Oklahoma Historical Society, https://www.okhistory.org/publications/enc/entry.php?entry=ME005.
[66] Berthrong, "Federal Indian Policy," 138–139.

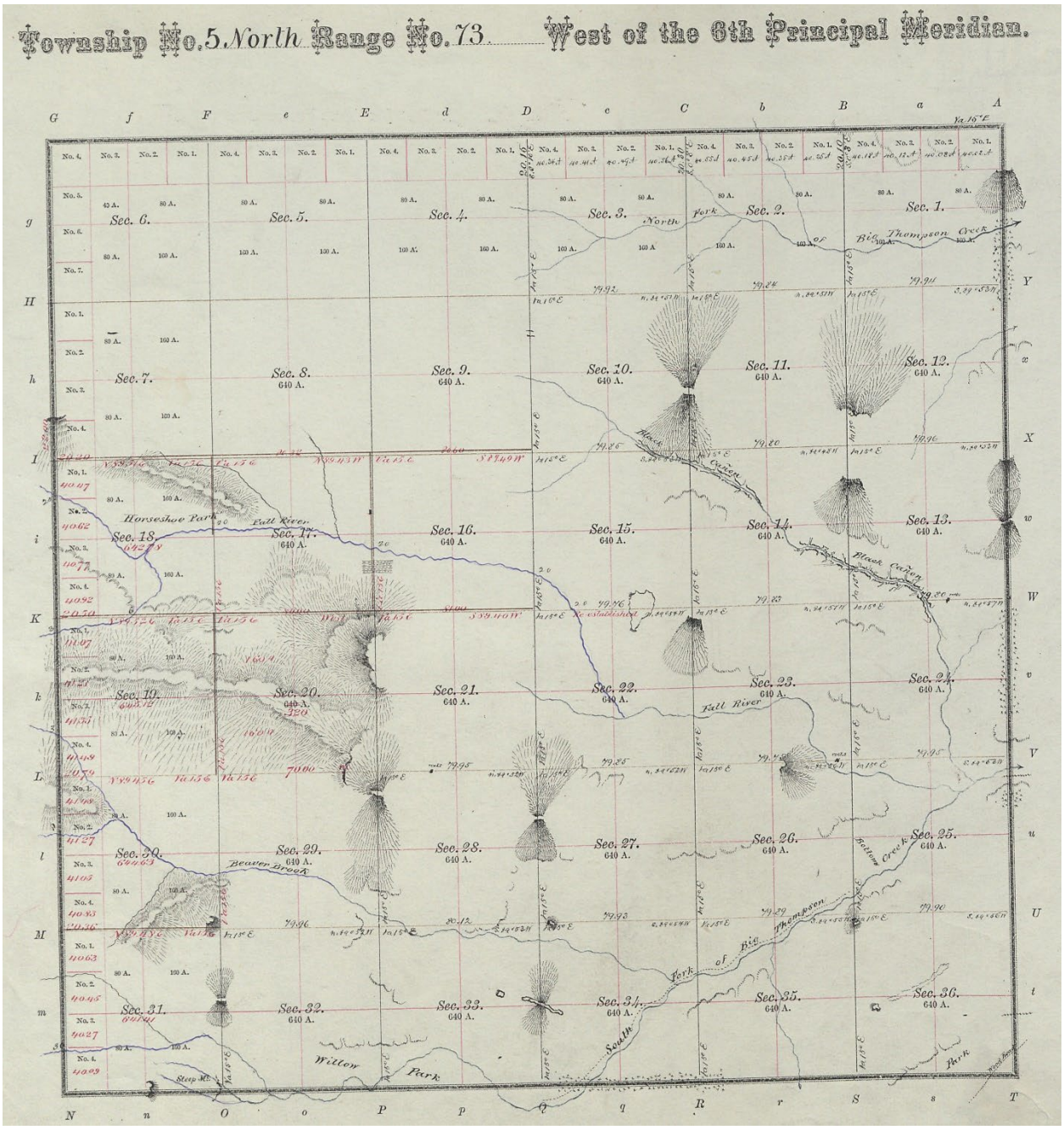


Figure 2-11. *Township 5 North, Range 73 West, showing Horseshoe Park and vicinity, 1874.* (Source: General Land Office Records, US Department of the Interior, Bureau of Land Management)

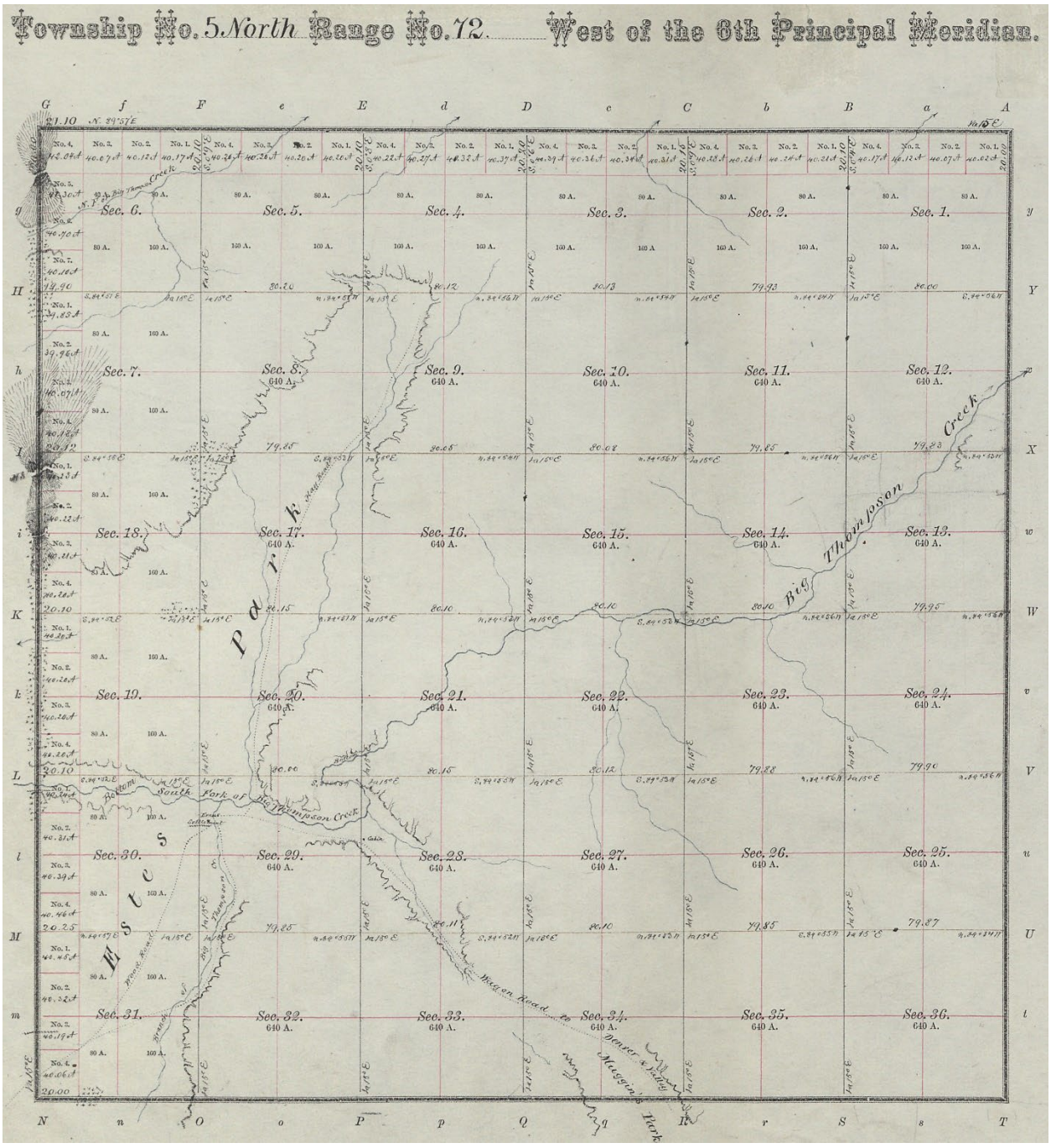


Figure 2-12. *Township 5 North, Range 72 West, showing Estes Park and vicinity, 1874.* (Source: General Land Office Records, US Department of the Interior, Bureau of Land Management)

Similar pressures in the 1860s and 1870s, including an increased presence and activity by miners as well as new European-American homesteads and settlements west of the Continental Divide, also initiated the process of expulsion of the Ute from the Rocky Mountains. In 1862 the US Government established the Middle Park Indian Agency, an agency run predominantly from points south and east that possessed no actual facilities. The agency was utilized by the US Government as a point of contact and to facilitate negotiations. In 1863 the US Government signed a treaty with the Uncompahgre Ute Chief Ouray, a leader who did not represent other Ute bands, and a negotiation that was not attended by the majority of Ute groups. The treaty stipulated that in exchange for a reduction in their traditional lands, the Ute

received a promise of assistance and guaranteed lands in the western portion of the Territory, and peace. The lands ceded by the Ute were located east and west of the Continental Divide and included Grand Lake, Hot Sulphur Springs, and Middle and South Park. However, because they were not represented in the negotiations, most of Ute bands ignored the treaty and its stipulations regarding their traditional lands.[67]

Over the course of the mid-1860s and into the 1870s, the Ute continued to hunt in their traditional lands throughout the Rocky Mountain region and in what is now Rocky Mountain National Park. Numerous travelers recorded encounters with Ute hunting parties during this period. Traveling through Middle Park in 1864, William Crawford noted the presence of Ute bands. Referring to the broad valley, he recorded that "no one dwells in it, save the Ute Indians who make it their hunting grounds, and the trappers, who visit it at the right seasons of the year. When we were there a band of Utes had recently passed by on their way to the better hunting grounds of North Park."[68] Again on the Grand [Colorado] River in the vicinity of Middle Park near Hot Sulphur Springs, in 1868 Samuel Bowles noted the presence of "a hundred white tents, …the encampment of six to eight hundred Ute Indians."[69] Ute associated with the White River Agency continued to hunt and range in the broader Rocky Mountain region and were encountered in Middle Park and on the plains "south of Denver" in 1878.[70]

Attempting to build on their desire to negotiate with all Ute groups, the US Government invited representatives of seven groups, including Chief Ouray, to come to Washington, DC, which led to the signing of a treaty in 1868. In return for ceding a significant portion of their traditional lands in the Rocky Mountains of Colorado, southern Wyoming, and northern New Mexico, the US Government promised the Ute assistance in the form of livestock, food, and supplies, and designated land west of the 107th meridian, essentially the western third of Colorado Territory, as a consolidated reservation for the Ute groups. The Ute were guaranteed "absolute and undisturbed use" of the reservation, and the treaty prohibited non-native people from passing through, or settling, on the land. The Treaty also established the Los Pinos River Ute Agency and the White River Ute Agency, settlements that were to possess schools and oversee the distribution of assistance to the Ute. The primary goal of the agencies, from the US Government's position, was to reeducate the Ute and transform their way of life from a wide-ranging hunting and gathering society to a more permanently settled, self-sufficient agriculture-based subsistence society, a model which more appropriately fit US expansionist desires.[71]

Even though the Utes were guaranteed sole possession of their land in the Treaty of 1868, predictably, conflict with their non-native neighbors in the broader region continued to occur. Miners continued to travel through Ute land and stake claims within their new reservation. Despite their protests to the local agency, the Ute never received assistance from the US Government to remove the trespassers. Likewise, Ute hunting parties continued to range in the broader non-reservation lands. In late 1879, upset at their treatment by Agent Nathaniel Meeker at the White River Agency, as well as the continued broader incursions into their traditional lands, and the prohibitions and threats made against them for leaving reservation lands, the Utes rebelled against US Government representatives. Responding to a request for assistance from Agent Meeker, the subsequent arrival of US Army troops and their arrival on Ute

[67] Decker, *The Utes Must Go,* 29–30; Paul M. O'Rourke, *Frontier in Transition: A History of Southwestern Colorado*, Cultural Resource Series, No. 10 (Denver, Colorado: Bureau of Land Management, Colorado State Office, 1980), 49; Thomas G. Andrews, *Environmental History of the Kawuneeche Valley and the Headwaters of the Colorado River, Rocky Mountain National Park* (Boulder: University of Colorado, 2011), 100–102.
[68] Rev. William Crawford, "Excursion to Middle Park," *The Home Missionary*, Vol. 37, No. 11 (March 1865):270-272.
[69] Samuel Bowles, *A Summer Vacation in the Parks and Mountains of Colorado* (Boston, Massachusetts: Lee & Shepherd, 1869), 70-71.
[70] T. D. Livingston, "Blood on the Moon," *The Colorado Magazine*, Vol. 32, No. 4 (1955):241–242.
[71] Simmons, *The Ute Indians of Utah, Colorado, and New Mexico*, 131–138; Decker, *The Utes Must Go*, 37–41, 43–45; O'Rourke, *Frontier in Transition*, 49; Andrews, *Environmental History of the Kawuneeche Valley*, 103.

controlled reservation lands resulted in a multiple day battle, the killing of numerous Federal troops and Ute warriors, the destruction of the Agency, and the killing of Agent Meeker and other agency staff. [72]

Under tremendous pressure to remove the Ute from Colorado entirely, the US Government initiated another treaty in Washington, DC. In March 1880 several Ute leaders, including Chief Ouray, were forced to sign a non-negotiable treaty that stipulated the removal of all Ute people from Colorado, placing them in the Uintah and Ouray reservations in Utah Territory. Enforcing the treaty in the Fall of 1881, US troops escorted the Northern and Uncompahgre Utes in a 350-mile march to the Utah reservations. A year later in 1882, an Act of Congress opened the former Ute lands in western Colorado for sale and settlement. By 1895 a narrow strip of land along the Colorado–New Mexico border was approved by Congress and accepted by the Southern Ute Tribe as a new reservation. The Southern Ute and Ute Mountain Ute were forcibly removed there in the mid-1890s. In 1934, the Ute Mountain Ute were provided their own reservation adjacent to and west of the Southern Ute Reservation in the Four Corners area (Figures 2-13 and 2-14).[73]

Landscape Characteristics

American expansion into and settlement of the Rocky Mountains during the second half of the nineteenth century continued in the form of isolated individual ranches, small communities and mining claims and works. These often illegal incursions into traditional Ute lands put a strain on regional wildlife, grass used for grazing, as well as water resources.

Arapaho and Cheyenne continued to visit the Rocky Mountains through the mid-nineteenth century. They hunted buffalo and other large game and gathered seasonal plant resources. Interaction with the Ute was limited, although conflict did occur during competition for resources. Arapaho and Cheyenne use of the Rocky Mountains and its resources had ceased by the mid-to-late 1860s with the signing of several treaties and their forced removal onto designated reservations.

While US Government treaties further restricted the legal extent of access to their land and resources, many Ute ignored the stipulations restricting their movement and continued to hunt in their traditional Rocky Mountain lands following long-established trails and utilizing seasonally available resources. Park grasslands also continued to provide significant pasturage for horses and the Ute continued to visit the locations of sacred sites. Archeological evidence for the presence of the Ute during the nineteenth century survives within the Trail Ridge Road CLR study area today.

[72] Decker, *The Utes Must Go*, 51–53, 106–119, 137–144; O'Rourke, *Frontier in Transition*, 52; Stephen G. Baker, "White River Ute Indian Agency," in *Colorado Encyclopedia*, ttps://coloradoencyclopedia.org/article/white-river-ute-indian-agency.
[73] Decker, *The Utes Must Go*, 161–165, 171–172, 178, 186–189; O'Rourke, *Frontier in Transition*, 53; Brett, *Ethnographic Assessment*, 110.



Figure 2-13. *Township 4 North, Range 76 West, showing Grand River and Kawuneeche Valley, 1881.* (Source: General Land Office Records, US Department of the Interior, Bureau of Land Management)



Figure 2-14. *Township 3 North, Range 75 West, showing Grand Lake and Grand Lake Town, 1881.* (Source: General Land Office Records, US Department of the Interior, Bureau of Land Management)

Tourism, Never Summer Range Mining, the Grand Ditch, and the Establishment of Forest Lands (ca. 1870s–1910s)

Incipient Tourist Economy

In the decades following the American Civil War, and particularly in the 1870s, private exploration of and travelling through America's western territories became a popular pastime. Fueled by mid-century stories of mineral strikes in California, Nevada, and Colorado, as well as initial local newspapers and regional and national publications reporting on the popular Longs Peak and Pikes Peak, the number of visitors traveling west to experience the grandeur and scenic wilderness of the Rocky Mountains increased dramatically.[74] The completion of the Denver Pacific railroad by 1870, a north-south rail line that linked Cheyenne in Wyoming Territory on the north and Denver in Colorado Territory on the south, and the Kansas Pacific railroad linking Denver to points east, made transportation to the west and the Rocky Mountains in particular easier, and the small towns and hotels that supported them, more accessible. By 1871, the Denver Pacific railroad was extended further south to Pueblo, Colorado. By the beginning of the last quarter of the nineteenth century, Colorado gained national attention as President Ulysses S. Grant signed a proclamation admitting it as the 38th state in 1876.[75]

Most likely due to its proximity to Denver, as well as the fact that William Byers promoted it in his *Rocky Mountain News*, Estes Park in particular received considerable public attention. In the decades following the initial occupation of the Estes Park region by Joel Estes and subsequent European-American settlers, word of the area's scenic beauty spread widely. During the early 1870s Estes Park and the Front Range received several prominent visitors. In December 1872, a hunting party led by Windham Thomas Wyndham Quin, the Earl of Dunraven, arrived in Estes Park and boarded with the then owner Griff Evans, a local cattle rancher, who had constructed several small cabins near his own residence on the former Estes ranch. Enamored of the location, its scenic beauty, and its future potential as a cattle ranch and private leisure and sporting grounds, the Earl of Dunraven returned in 1873, and through his agents, began systematically purchasing land in the vicinity of Estes Park. Over the next seven years the Earl purchased land directly from local occupants, established rights to acres of unclaimed lands, and utilized the 1862 Homestead Act to acquire numerous 160-acre parcels from false purchasers. Although several individuals who held claims predating the Earl's arrival held out, by 1880 he owned over 8,200 acres in and around Estes Park.[76]

As visitors to Denver, Estes Park, and the surrounding Rocky Mountains continued to arrive during the mid-1870s, the Earl of Dunraven recognized the potential economic opportunity. In 1876 he commissioned Albert Bierstadt to paint a picture of the Estes Park vicinity with the Rocky Mountains as backdrop. During his stay, Bierstadt also reportedly selected the site for the new Estes Park Hotel, a commodious structure built to accommodate tourists to the region. The construction of the Estes Park, or 'English' Hotel, marked the beginnings of the formal transition to an economy based on catering to regional visitors and their needs.[77]

Isabella L. Bird, an unmarried British tourist travelling alone, also visited the Rocky Mountains initially for health reasons. Upon her arrival in September of 1873, she too boarded with Griff Evans at Estes Park

[74] Demas Barnes, *From the Atlantic to the Pacific Overland. A Series of Letters by Demas Barnes* (New York, New York: D. Van Nostrand, 1866); J.H. Beadle, *The Undeveloped West or Five Years in the Territories, Being a Complete History of that Vast Region between the Mississippi and the Pacific, its Resources, Climate, Inhabitants, Natural Curiosities, Etc., Etc.* (Philadelphia, Pennsylvania: National Publishing Company, 1873), 438–441; William Byers, "Summer Saunterings, Number Eight. Boulder – St. Vrain - Little and Big Thompson – Estes Park – The Lakes – Fine Fishing and Hunting – Ascent of Long's Peak, &c., &c., &c.," *Daily Rocky Mountain News*, August 8, 1870.
[75] Clayton B. Fraser and Jennifer H. Strand, "Railroads in Colorado, 1858–1948," National Register of Historic Places Multiple Property Documentation Form (Washington, DC: National Park Service, 1997), E-2 to E-26.
[76] Buchholtz, *Rocky Mountain National Park*, 66–70.
[77] Buchholtz, *Rocky Mountain National Park*, 71–73.

(Figure 2-15). Bird wrote her sister about her experiences in the Rocky Mountains, letters which she later turned into a book. For Bird, the Rocky Mountains and Estes Park in particular were both a social and physical balm. “I have just dropped into the very place I was seeking, but in everything it exceeds all my dreams. …The scenery is the most glorious I have ever seen, …and it is above us, around us, at the very door” (Figure 2-16). While in Estes Park, Bird climbed Longs Peak with the help of James Nugent, or “Rocky Mountain Jim.”[78] Birds book, *A Lady’s Life in the Rocky Mountains,* sold very well and served to popularize the Rocky Mountains with both Americans and Europeans alike.

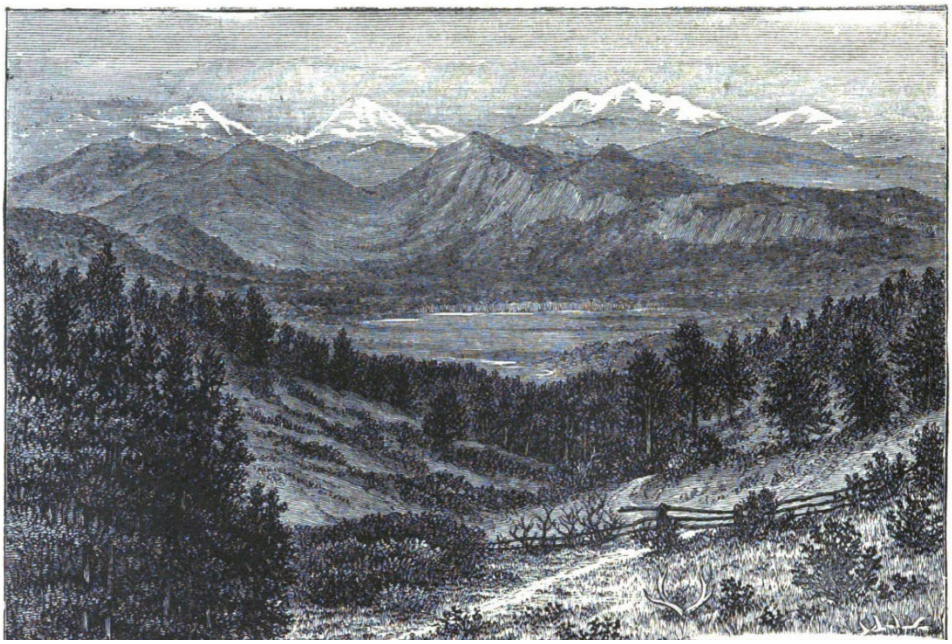


Figure 2-15. *“Estes Park.”* (Source: Isabella Bird, *A Lady’s Life in the Rocky Mountains,* 1879)

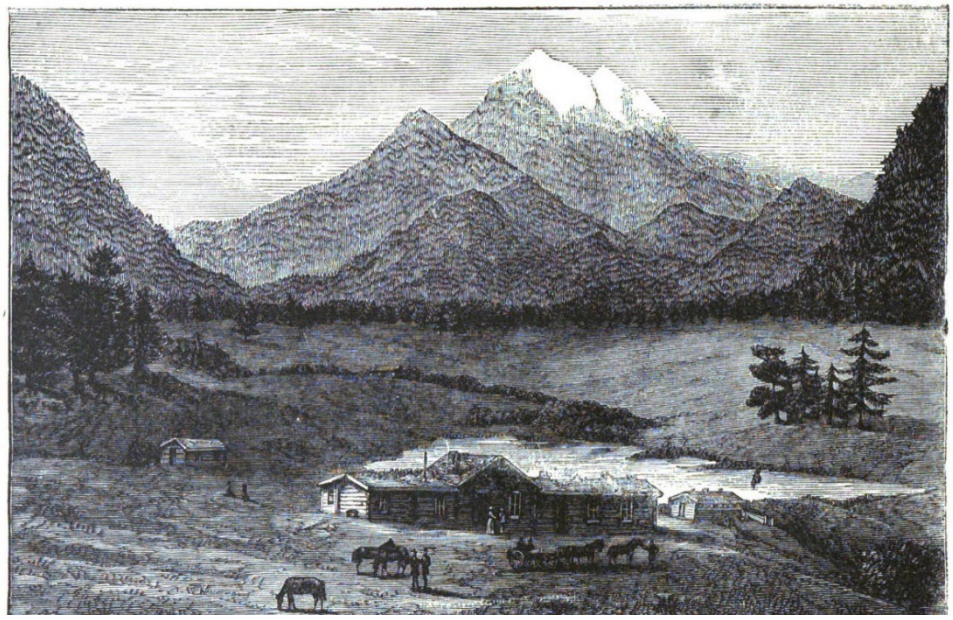


Figure 2-16. *“My Home in the Rocky Mountains.”* (Source: Bird, *A Lady’s Life in the Rocky Mountains*)

[78] Isabella L. Bird, *A Lady’s Life in the Rocky Mountains* (New York: G.P. Putnam’s Sons, 1879), 84.

Throughout the late-1870s, additional habitable valleys and park areas within the Rocky Mountains, and further west of Estes Park, continued to be settled. First viewing the Rocky Mountains in the late 1860s, Abner Sprague and a partner decided to establish a small ranch in what was then known as Willow Park (now Moraine Park) in 1875. There they built a cabin and began to ranch. Sprague was one of a few early settlers around Estes Park who fought against the expansive interests of the Earl of Dunraven. However, as Sprague faced problems from the large Dunraven cattle ranch, at the same time seasonal tourists continued to appear at their ranch in Moraine Park. Abner and his wife Alberta soon began to focus their efforts on catering to the seasonal visitors, supplying food, shelter and accommodations. In the early twentieth century, Abner Sprague recalled that "the hotel business was forced on us. We came here for small ranch operations, but guests and visitors became so numerous at first wanting to buy eggs, milk and other provisions, then wanting lodging, and finally demanding full accommodations, that we had to go into the hotel business or go bankrupt from keeping free company" (Figures 2-17, 2-18, and 2-19). The Spragues eventually sold their ranch at Moraine Park in 1904. Moraine Park Lodge would subsequently be constructed in this location by William and Mary I. MacPherson in 1908.[79]



Figure 2-17. *Cutting grass near the Sprague Ranch, Moraine Park, 1890.* (Source: ROMO 00357)

[79] Buchholtz, *Rocky Mountain National Park*, 77–81; Henry Pederson, *Those Castles of Wood: The Story of Early Lodges of Rocky Mountain National Park and Pioneer Days of Estes Park, Colorado* (Estes Park, Colorado: self-published, 1993), 255.



Figure 2-18. *Moraine Park Lodge, ca. 1900s.* (Source: ROMO 76000206 Photos)



Figure 2-19. *Sprague Ranch in Moraine Park, n.d. (ca. 1900s).* (Source: ROMO 00357)

In 1905 Willard H. Ashton purchased a 160-acre homestead from Edmund E. Richmond located at the western end of what would become Little Horseshoe Park. His homestead was connected to Estes Park on the east by a narrow road. Ashton and his wife Cora Steinhou decided that catering to the increasing number of visitors to the Rocky Mountains provided a reliable income and they eventually turned to tourism. In 1908 Ashton commissioned Frank Lloyd Wright to design a large Inn to accommodate visitors to Horseshoe Park. Wright's design was an expansive Prairie School-style Inn that, in the end, Ashton and Cora did not build. Instead, Ashton constructed a rustic log-style facility, the Horseshoe Inn (5LR4562), that was completed in 1909. The Horseshoe Inn was a large 18-room hotel with adjacent guest cabins located a short distance from the Ashton homestead in the western end of Horseshoe Park (Figure 2-20). Over time, the Inn was expanded to accommodate 115 guests. Ashton sold the Horseshoe Inn in 1915.[80]

[80] Sharon Olsen Babbitt, comp., "The Ashton Family and the Horseshoe Inn at Rocky Mountain National Park. Notes of Sharon Olson Babbitt, Researched 1980 – 2009," np. Manuscript at Rocky Mountain National Park, Estes Park, Colorado; Rocky Mountain National Park, ROMO Horseshoe Inn Collected Files, np. Manuscript at Rocky Mountain



Figure 2-20. *Sheep Lake, Horseshoe Park, 1913.* (Source: ROMO 1905)

Beginning in the last quarter of the nineteenth century and continuing into the first two decades of the twentieth century, operators of private lodges and cabins within and adjacent to the Rocky Mountains also began to facilitate what their visitors desired, access to nature and scenic destinations. To that end, operators took it upon themselves to provide or serve as guides, and to construct and maintain formal trails linking their accommodations with various sites of interest.[81]

West of the Continental Divide, and during the 1873–1874 Ferdinand V. Hayden US Geological Survey expedition that mapped the Colorado Territory, photographer William H. Jackson documented the landscape of what would become Rocky Mountain National Park. Jackson, the official photographer of the US Geological Survey of the Territories, photographed the Grand Lake and Middle Park areas. His photographs of the Western Territories, including Yellowstone, Grand Teton and the Rocky Mountains, were instrumental in raising government awareness of these areas and garnering support for broader conservation efforts. His photographs were subsequently published by the US Geological Survey and exhibited in the 1893 World's Columbian Exhibition.[82]

William Byers purchased 160 acres of land surrounding the Hot Sulphur Springs vicinity in 1869 and additional acreage five years later, subsequently building a cabin there. During his trips north to explore the Rocky Mountains, he visited Grand Lake. Like others before him Byers was taken with Grand Lake. "Imagine a great mirror, …a mile wide and two miles long, bordered all around with thick timber, and beyond that with stupendous mountains, flecked with patches and great fields of snow, except one

National Park, Estes Park, Colorado; William Butler, *The Historic Archeology of Rocky Mountain National Park* (Denver, Colorado: Rocky Mountain National Park Intermountain Region, 2005), 63, 67–68, 297; Kenneth Jessen, "Homesteader Willard Ashton built the Horseshoe Inn," *Loveland Reporter-Herald*, November 25, https://www.reporterherald.com/2014/11/25/homesteader-willard-ashton-built-the-horseshoe-inn/.

[81] Sierra Standish, "Rocky Mountain National Park MPS (Additional Documentation – Trails)," National Register of Historic Places Multiple Property Documentation Form (Washington DC: National Park Service, 2004), E-3 through E-4, E-12.

[82] Buchholtz, *Rocky Mountain National Park*, 88–89.

narrow, scarce noticeable notch through which the river escapes, and you have Grand Lake."[83] By 1879 the small town of Grand Lake was established on the lake's north side. Over time, Grand Lake grew to serve the commercial needs of mining communities established during the same period in the Never Summer Range.[84]

Mining in the Rabbit Ears (Never Summer) Range

In 1875 prospectors Alexander Campbell and James H. Bourn discovered ore containing silver, copper, and lead in what was then the Rabbit Ears Range (now Never Summer Range). Although the Wolverine and other strikes failed to produce significant mineral wealth, prospectors began flocking to the Rabbit Ears Range. Given the numerous mining strikes and encampments in the Rabbit Ears Range, prospectors Benjamin Burnett and William Baker organized the Middle Park and Grand River Land Improvement Company in 1879 to facilitate the establishment of what would become Lulu City. A 160-acre parcel of land was platted as Lulu City in the Spring of 1880. Over time residences and commercial establishments sprang up, driven by the local boosterism and word of mouth prophesizing the potential for immense wealth.[85]

Other mining 'towns' in the Kawuneeche Valley were also established during this period. Although quite small and short-lived, Dutchtown was established ca. 1880 by several German miners who were forced to leave the vicinity of Lulu City. Likewise, Gaskill was established approximately 8 miles south of Lulu City in late 1880 when A. R. Warner built a log cabin in this location supplying the needs of local miners. Over the course of several years, Gaskill grew, and the town was platted in mid-1882. By the early 1880s Gaskill and Lulu City were also connected with Grand Lake and points south via the Grand Lake to Walden Wagon Road (5GA2616), a north-south oriented corridor following the Grand River into the Kawuneeche Valley.[86]

The increased mining activity in the Rabbit Ears Range had a direct effect on neighboring communities. As previously noted, the town of Grand Lake grew significantly following the initiation of mining activities in the area and developed as a supply center for Gaskill and Lulu City. Prosperity for Grand Lake meant increased population, and by 1881 the County seat was moved there from Hot Sulphur Springs.[87]

Although the early 1880s were boom years for mining in the Rabbit Ears Range, ultimately the low yielding ores and the isolated nature of the mining communities led to a bust. By 1883 the decline was evident as miners began to leave the area, and town activity correspondingly declined. By 1884 Lulu City was abandoned (Figure 2-21). Two years later so was Gaskill.[88]

[83] William Byers as quoted in Buchholtz, *Rocky Mountain National Park*, 65.
[84] Buchholtz, *Rocky Mountain National Park*, 90.
[85] Buchholtz, *Rocky Mountain National Park*, 87–88; James E. Fell and Eric Twitty, National Register of Historic Places Multiple Property Documentation Form "The Mining Industry in Colorado" (Washington, DC: National Park Service, 2006, rev. 2008), 245; Baldwin, *Dutchtown and Lulu City*, 14–15, 28–37; Butler, *Historic Archeology*, 160–163; Black, *Island in the Rockies*, 53–54.
[86] Baldwin, *Dutchtown and Lulu City*, 20–21, 38–41; Butler, *Historic Archeology*, 57, 108–109, 164–166, 170–171; D. Ferrel Atkins, National Register of Historic Places Nomination "Dutchtown," (Washington, DC: National Park Service, 1975), 8-1; Andrews, *Environmental History of the Kawuneeche Valley*, 118–119; Black, *Island in the Rockies*, 53–54.
[87] Baldwin, *Dutchtown and Lulu City*, 19–20.
[88] Baldwin, *Dutchtown and Lulu City*, 17, 36–37, 43.



Figure 2-21. *Lulu City, Grand River Valley, July 20, 1889.* (Source: Denver Public Library, call #X-12238)

The decline of mining within the Rabbit Ears Range led to an increase in homestead claims. As Andrews notes, between 1880 and 1927, 42 individuals filed claims in the Kawuneeche Valley. However, farming, gardening, operating a ranch, and providing a living for oneself was difficult on marginally productive agricultural lands. Those located closer to Grand Lake could depend upon a ready market while those further up the valley encountered additional problems and costs of transportation. Agriculture and livestock husbandry was frequently supplemented by odd jobs as well as catering to visitors to the Rocky Mountains. Although many homesteaders could not make it and subsequently left their claims, those that stayed came to rely on a diversified form of subsistence, one that included agriculture, livestock, fishing, logging, irrigation, and accommodating tourists.[89]

One homesteader, a man named Robert 'Squeaky Bob' Wheeler, staked a claim at the northern end of the Kawuneeche Valley in 1903. After several unsuccessful years of gardening and farming, Wheeler turned to tourism. By the second decade of the twentieth century, he expanded his log cabin and opened the Hotel de Hardscrabble (Figure 2-22) catering to the Rocky Mountain visitor who shared a sense of adventure, both in the quality of its accommodations and its back-woods location. Wheeler's Hotel was subsequently transformed into a dude ranch known as the Phantom Valley Ranch.[90]

[89] Andrews, *Environmental History of the Kawuneeche Valley*, 180–217.
[90] Andrews, *Environmental History of the Kawuneeche Valley*, 202–204.



Figure 2-22. *Squeaky Bob's Hotel de Hardscrabble, 1916.* (Source: ROMO 1906)

The Grand Ditch

By the last quarter of the nineteenth century, most farmers living in the arid plains and prairie east of the Front Range realized that rapidly expanding agricultural production in the broader region required far more water than occurred naturally. During this period, the major drainages of the eastern slopes in what is now Rocky Mountain National Park, including the St. Vrain, Big Thompson, Fall, and Cache La Poudre rivers were relied upon to irrigate annual crops. However, reliance on the annual snow melt and drainages of the eastern slopes alone also soon proved inadequate. Complaints about access to water abounded and farming communities downriver from prominent drainages received annually diminishing water.[91]

In an attempt to solve issues concerning access to water, in 1876 the State Constitution instituted the Doctrine of Prior Appropriation where access and rights to water was determined upon its beneficial use and ranked in terms of priority for domestic, agricultural, and industrial use. Subsequent federal laws, in particular the 1897 Forest Service Organic Act, encouraged the use of water resources on forest lands and stipulated that it may be used for domestic, irrigation, or mining purposes.[92]

Formed in the early 1880s, the Larimer County Ditch Company began construction of the first section of a diversion canal, or Grand Ditch, in 1890. The plan of the ditch was to capture the runoff of drainages on the eastern flank of the Never Summer Range and divert it through La Poudre Pass and into Long Draw Creek and ultimately the Cache La Poudre River. The initial ditch was begun in 1890 and at the end of the season was only completed one mile. A year later in 1891 the Water Supply and Storage Company, a cooperative composed predominantly of farmers and ranchers in the Cache La Poudre River drainage, was formed taking over operation of the Larimer County Ditch Company works and the construction of the Grand Ditch. Over the course of the next decade, the Grand Ditch was extended southward along the

[91] Carl and Karen McWilliams and Gregory Kendrick, National Register of Historic Places Nomination "Multiple Resource Nomination for Rocky Mountain National Park" (Washington, DC: National Park Service, 1988), 7-7 to 7-8, 8-13 to 8-21; Patrick McKnight, "The Water Rights of Rocky Mountain National Park: A History." Unpublished manuscript, 1983. (Estes Park: Rocky Mountain National Park), 4.
[92] McWilliams and Kendrick, "Multiple Resource Nomination," 8-14.

eastern flank of the Never Summer Range taking in additional minor drainages and diverting them northward to the La Poudre Pass. Specimen Ditch, a diversion from Specimen Mountain to La Poudre Pass, was completed in 1900 and also became part of the Grand Ditch. By 1894 the ditch was approximately three miles long and by 1911 had been extended to Lost Creek, Mosquito Creek, and Opposition Creek. The completion of the Grand Ditch to Baker Gulch in 1936, a 14.3-mile-long system of ditches, represented the last and southernmost section constructed. Between 1914 and 1917, the Grand Ditch was covered with wooden framing to help protect it from falling trees and rocks.[93]

Construction of the diversion canal was a time consuming and arduous process that occurred in fits and starts. Initially much of the work in excavating the ditches that traversed the Never Summer Range was manual. Seasonal excavation was conducted with shovels, picks, and black powder. Livestock teams aided in hauling and grading. Some sources note that crews of Japanese laborers were hired to perform significant portions of the excavation. Temporary camps were established along the line of the Grand Ditch to accommodate the needs of the laborers.[94]

The Establishment and Conservation of Federal Forest Lands

Federal interest in and management of forest lands under its control began in the last quarter of the nineteenth century when the Division of Forestry was created within the Department of Agriculture from its agency predecessor in 1881. Although possessing no forests to manage, the primary role of the early Division of Forestry was to gather data about forests and forestry both in the United States and abroad. With the establishment of the Forest Reserve Act by Congress in 1891, the President of the United Sates was given the power to set aside forest reserves from public lands with the goal of protecting watersheds and preserving supplies of timber. President Benjamin Harrison created the Yellowstone Timberland Reserve, the first forest reserve in the same year. During his tenure, President Harrison established numerous additional forest reserves several of which were located in Colorado including the White River Plateau, Pikes Peak, Plum Creek, South Platte, and Battlement Mesa Timber Land Reserves. By the end of the nineteenth century, Congress passed the Organic Act of 1897 providing the goals and framework for managing the growing number of forest reserves. The Act stipulated that forest reserves could only be established if they protected forests and preserved water resources. Gifford Pinchot was appointed the head of the Department of Agriculture's Division of Forestry in 1898. In 1905 the Bureau of Forestry was established, and the management of forest reserves was moved from the Department of the Interior to the Department of Agriculture. The Forest Bureau was renamed the US Forest Service, and Forest Reserves were renamed National Forests in 1907.[95]

As previously noted, the stated primary goal of preserving forests was to protect watersheds. A denuded and deforested landscape meant greater runoff and erosion of soils and potentially less productive agricultural yields. In addition, a healthy forest meant a healthy quantity and diversity of game. Forest rangers, although few in number, were given the responsibility of patrolling vast tracts of land to prevent illegal non-regulated lumbering.

In 1905 President Theodore Roosevelt extended Wyoming's Medicine Bow Forest Reserve, originally established in 1902, further south into Colorado's Rocky Mountains creating the state's first forest

[93] D. Ferrel Atkins, National Register of Historic Places Nomination "Grand River Ditch" (Washington, DC: National Park Service, 1975), 7-1 through 7-2, 8-1 through 8-2: McWilliams and Kendrick, "Multiple Resource Nomination," 8-15 through 8-16; Buchholtz, *Rocky Mountain National Park*, 109–111; Andrews, *Environmental History of the Kawuneeche Valley*, 157–179.
[94] Atkins, *Grand River Ditch*, 7-1; Buchholtz, *Rocky Mountain National Park*, 109–111; Andrews, *Environmental History of the Kawuneeche Valley*, 164–166.
[95] Richa Wilson, *Within a Day's Ride: Forest Service Administrative Sites in Region 4, 1891–1960. A Contextual and Architectural History* (Ogden, Utah: US Department of Agriculture, Forest Service, 2004), 7; US Department of Agriculture, Forest Service, *Highlights in the History of Forest Conservation*, AIB-83 (Washington, DC: US Government Printing Office, 1976), 13–16; Robert M. Utley and Barry Mackintosh, *The Department of Everything Else: Highlights of Interior History* (Washington, DC: National Park Service, 1989), 18–19.

reserve. Three years later in 1908 Roosevelt withdrew nearly 800,000 acres of public lands in the Rocky Mountains establishing the Arapaho National Forest. Combined, these two forest reserves encompassed present day Rocky Mountain National Park. The Medicine Bow Forest Reserve would be renamed the Colorado National Forest in 1910. In the same year, the Forest Service opened a ranger station in Estes Park.[96]

Landscape Characteristics

The provisioning of room and board for late nineteenth and early twentieth-century visitors to the Rocky Mountains became widespread in the Southern Rocky Mountains as private ranches were increasingly converted to tourist lodges and places of accommodation. Amenities such as roads, cabins, outbuildings and trails were constructed to serve the individual lodges. Seasonal visitors continued to travel to and spend time in the Rocky Mountains, viewing its scenery and visiting its landmarks. Mining in the Rabbit Ears Range led to the establishment of claims and workings, access roads leading from Grand Lake to prominent workings such as Hardscrabble, Gaskill and Lulu City, and the establishment and rapid decline of mining towns that served them in the late nineteenth century. Construction and expansion of the Grand Ditch and other minor ditches throughout the Rocky Mountains provided water for communities adjacent to the Front Range. Access roads and temporary labor camps were necessary to construct the ditch. Blasting and excavation permanently altered the route of the ditch, and the diversion of drainages from the Kawuneeche Valley impacted plant and animal resources west of the Continental Divide. The establishment of forest lands led to the improvement of existing roads. Although few in number, forest rangers began patrolling the Southern Rocky Mountains monitoring illegal hunting and timbering.

The Preservation and Conservation Movement, Planning Fall River Road, and Initial Efforts to Establish Rocky Mountain National Park (ca. 1890s–1915)

(See Map 2-1: Period Plan, pre-1915 landscape at the end of this chapter)

Planning and Construction of Fall River Road

Although roads had long been the purview of private individuals, Good Roads Movement organizations, and county governments, the State of Colorado established a Highway Commission in 1909 whose purpose was to approve road building projects and facilitate funding. The Colorado State Highway Department and State Highway Fund were established later, in 1917.[97]

The potential for a road crossing the Continental Divide had long been discussed by many Rocky Mountain supporters since the late nineteenth century. By this time, trails and rough roads already provided tourists with access to the peripheries of the area that would become Rocky Mountain National Park, and visitors were eager for the opportunity to follow roads to other areas of scenic wonder by wagon, and later automobile. Railroad companies had also scouted Fall River Pass and other routes west and over the Continental Divide during the late nineteenth century in the hopes of establishing a scenic rail line. By the early 1900s, leaders in Estes Park and Grand Lake had begun to call for a road over the mountains.[98] This coincided with discussions about the creation of a national park in the Rocky Mountains. As these ideas began to gain traction, proponents of a road across the Rockies began to explore its practicality and the means of funding it.

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[96] Richard H. Quin, "Fall River Road, Rocky Mountain National Park, HAER No. CO-73" (Washington, DC: Historic American Engineering Record, 1993), 3.
[97] James W. Steely and Jeremy Huey, *Fall River Entrance, Rocky Mountain National Park, Larimer County, Colorado. Historic Context and Review of Other East-Park Entrances, 1917–1960* (Golden, Colorado: Anderson Hallas Architects, 2021), 9.
[98] Quin, "Fall River Road," 2–3.

Early access to Estes Park came from an array of rough wagon roads. In 1904, the Big Thompson Canyon Road, approaching Estes Park from Loveland, was the first designed road in the area, funded by private investment and county funds (Figure 2-23). The narrow road was traveled by stagecoach and steam-powered cars, known as Stanley Steamers.[99] The owner of the manufacturing company, F.O. Stanley, also operated a hotel in Estes Park.[100] Their use for early tourism in the era was a hint of the automotive-oriented development to come.

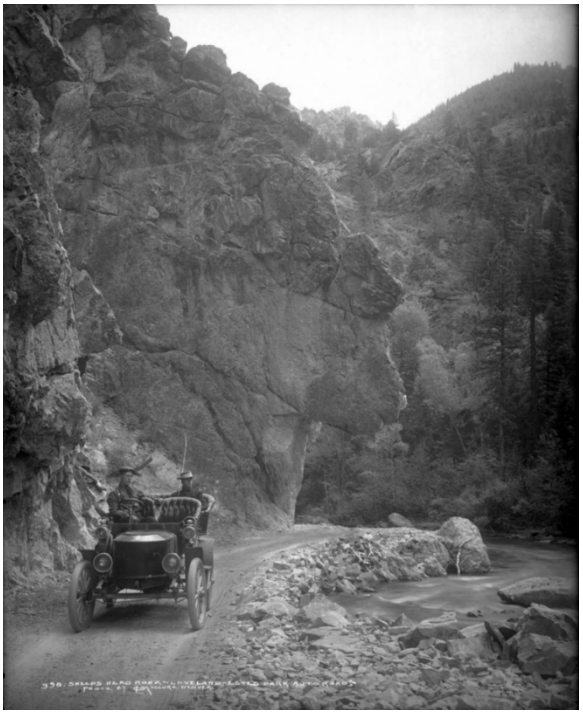


Figure 2-23. *A Stanley Steamer traveling through Big Thompson Canyon, ca. 1909.* (Source: Denver Public Library, https://digital.denverlibrary.org/digital/collection/p15330coll22/id/422/rec/10)

The areas around Estes Park saw not only the construction of larger hotels and resorts, but also the more dispersed development of seasonal cabins. These included nearly 200 cabins built by Peter Hondius in the Beaver Meadows area in early 1900s, along a corridor that became known as High Line Drive (and later High Drive).[101]

A route following the Fall River was the initial targeted alignment to cross the Continental Divide primarily because it possessed a relatively moderate grade and was by then a well-known travel route that had been utilized by native and non-native people alike. A good portion of the route had also been improved by the US Forest Service.[102]

While those efforts were unfolding, groups on both sides of the Continental Divide were working to create a road that would link them together. Conversations picked up in 1911, and by 1912, a local magazine, The *Estes Park Trail*, was calling for a new road across the mountains below the timberline. Fort Collins

[99] Lloyd K. Musselman, *Rocky Mountain National Park Administrative History, 1915-1965* (Washington, DC: National Park Service, 1971), 78.
[100] Musselman, Musselman, *Rocky Mountain National Park Administrative History*, 9.
[101] Michael J. Smith, "Hondius Water Line" (Washington, DC: US Department of the Interior, National Park Service, Historic American Engineering Record, September 1997), 8, http://lcweb2.loc.gov/master/pnp/habshaer/co/co0400/co0480/data/co0480data.pdf.
[102] James H. Pickering, *America's Switzerland: Estes Park and Rocky Mountain National Park, the Growth Years* (Louisville, Colorado: University Press of Colorado, 2005), 121–122; Quin, "Fall River Road," 3.

leaders pushed for a different route through the mountains that would position their community as a gateway to a proposed national park in the Rocky Mountains.[103] By 1912, a road that would connect the Estes Park community to the east with the Grand Lake community to the west was being promoted by many groups, and the idea that the road might form part of a much larger 'circular drive' from Denver to Grand Lake had also taken hold. In September of 1912, Frank Huntington, a surveyor from Grand Lake, scouted the corridor, and identified a workable route that included a series of switchbacks leading up to Milner Pass, and then following the slopes above the Cache la Poudre River and Chapin Creek before descending to the Fall River Valley (Figure 2-24).[104]

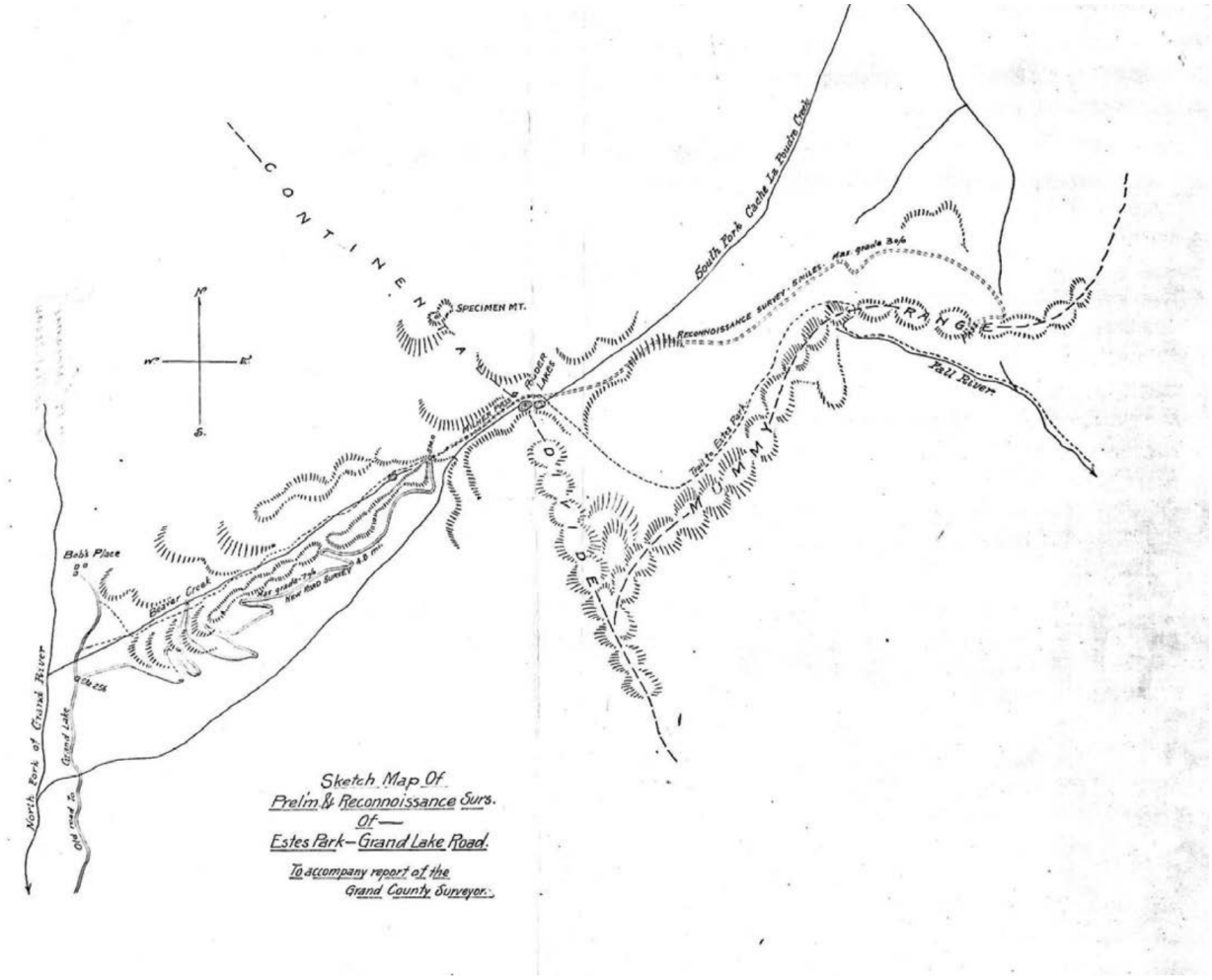


Figure 2-24. *Frank Huntington's survey of a workable road corridor across the Continental Divide, 1912.* (Source: http://grandlakehistory.org/wp-content/uploads/2020/06/Fall-River-Road-Final-exhibit-notebook.pdf)

The regional booster campaign succeeded when a year later, in 1913, Larimer County entered into an agreement with the Colorado Highway Commission to construct a road west from Estes Park. Simultaneously Grand County agreed to construct its portion of the road on the west side of the Continental Divide. As proposed, the so-called '14-mile' road would serve as a means of bringing visitors

[103] Quin, "Fall River Road," 3.
[104] Grand Lake Area Historical Society, "Fall River Road, 100th Anniversary, Opened September 1920" (2020), http://grandlakehistory.org/wp-content/uploads/2020/06/Fall-River-Road-Final-exhibit-notebook.pdf.

into the Rocky Mountains and allowing them to experience the otherwise inaccessible mountain scenery.[105]

In July 1913, road construction was initiated on the east side of the Continental Divide. Labor for the project was initially provided by prisoners from the State Penitentiary at Canon City. The prisoners were temporarily housed in a camp consisting of cabins and tents at the upper end of Horseshoe Park.[106] The *Estes Park Trail* announced the arrival of the convicts in the summer of 1913:

> The convict crew, which arrived in Estes Park Saturday, is now engaged in the preliminary work on the Fall River Road. There are 38 workmen in camp, which is located in Horseshoe Park at the foot of the canyon. Whether the road will be completed in time for next season depends largely on the opportunities for road building this winter.[107]

As with the earlier Grand Ditch project, all labor during the 1910s was still accomplished manually. Convicts used shovels, picks, augers, and explosives and worked in tandem with livestock teams. Work entailed clearing the road corridor, removing trees and other major obstructions, and grading the road base and gravel surfacing.[108]

Road construction, however, progressed slowly due to the challenges posed by the terrain. By the end of 1914, only 1 mile had been completed between Estes Park and Horseshoe Park. West of the Continental Divide during the same period, Grand County constructed approximately 2 miles of the road, using part of the old Lulu City wagon road that extended north from Grand Lake. The convict laborers, however, were replaced by contractors after about a year, perhaps due to conflicts with visitors.[109] As these initial segments were completed, tourists began to explore the new road. In 1914, over 50,000 people were estimated to have travelled to Estes Park.[110] This high level of interest demonstrated the success of regional boosters in improving recreational interest and offerings in the area. As a result, the local economy continued its swing towards focusing nearly exclusively on tourism.

Landscape Characteristics

Several individuals as well as groups and organizations supported the idea of establishing a road through the Southern Rocky Mountains of Colorado that would span the Continental Divide. The project finally got underway in 1913. Work would continue through the remainder of the decade. The road was intended to link the Estes Park and Grand Lake communities on the eastern and western sides of the range and support the interests of tourism and appreciation for the scenic beauty of the mountains. Initial work entailed the laying out of the route by surveyors, and the felling of trees, grading of the soil, and smoothing of the terrain through the use of stone retaining walls. Road construction first occurred with prison convict labor, but later was conducted using private contractors. Over time, the road required adjustment of narrow road beds, steep grades, sharp hairpin turns, drainage improvements, and the provision of guardrails for the safety of travelers. Construction impacted plants and animals as well as archeological resources within the road corridor.

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[105] Quin, “Fall River Road,” 3–4; Black, *Island in the Rockies*, 315–318; T. Ferrel Atkins, National Register of Historic Places Nomination: “Trail Ridge Road” (1983), n.p.
[106] Atkins, *Trail Ridge Road*, np; Quin, “Fall River Road,” 4; Butler, *Historic Archeology*, 69–70; McWilliams and Kendrick, “Multiple Resource Nomination,” 8-29 through 8-30; Marie Mayer, *Forest Canyon Pass*, *Rocky Mountain National Park, Larimer County, Colorado: A High Altitude Survey* (Denver, Colorado: Colorado Archeology Society, 1989), 205; Pickering, *America’s Switzerland*, 122.
[107] Quin, “Fall River Road,” 4.
[108] Quin, “Fall River Road,” 10.
[109] Quin, “Fall River Road,” 5–6.
[110] Musselman, *Rocky Mountain National Park Administrative History*, 25.

The Preservation and Conservation Movement and the Establishment of Rocky Mountain National Park

By the late 1800s, Denver and nearby towns in the Rocky Mountains had gained a reputation for healthy living due to the clean mountain air and nearby hot springs. As the center of a rail transportation hub, Denver was also accessible to tourists and other visitors.[111] Estes Park was among the communities to benefit from increasing tourism, and soon hosted a number of inns for visitors seeking to take in the scenery and brisk air. Grand Lake, on the other side of the mountains, saw similar tourism development.[112]

In September 1906 like-minded residents of Estes Park consisting predominantly, but not exclusively, of owners of local hotels and lodges, joined together to form a cooperative organization founded on the principles of conserving the area's natural resources and promoting the community as a tourist destination. As James H. Pickering notes in *America's Switzerland: Estes Park and Rocky Mountain National Park, the Growth Years*, the Estes Park Protective and Improvement Association (EPPIA) was initially established in 1895 "to prevent the destruction of fish in the rivers of the park, the illegal killing of game, and the destruction of the timber by campfires." The initial iteration of the EPPIA likely grew out of the recognition that over the last quarter of the nineteenth century, visitors to the Rocky Mountains were negatively impacting the once abundant flora and fauna that Estes Park residents cherished and was aimed at raising awareness of the need to protect and preserve these resources.[113]

In contrast, the early twentieth century EPPIA was a more formal response, with active leaders, the ability to raise funds, and specific goals. Lacking a local government, the cooperative organization relied on a shared responsibility and the motivation of volunteers coming together to conduct its business. Annual subscriptions of one dollar provided seed money. As expenses increased, fund raising activities were also conducted. The 1906 EPPIA charter outlined the goals of the organization and emphasized member inclusiveness and a diverse agenda. "The particular business and object for which our said association is formed shall be to promote social intercourse among ourselves and to suggest, provide for, and maintain improvements such as roads, trails, fish hatcheries, tree planting, forestry, and any like attempts intended to be of uses and benefits of this Association and its associates." Pickering pointed out that even though the goals of the EPPIA were weighted towards conservation of natural resources of the Rocky Mountains, the organization realized that their efforts to protect and preserve nature also helped to promote tourism, which helped the local economy and their own interests.[114]

Initial accomplishments of the EPPIA were the construction of a fish hatchery on Fall River in 1907, and the construction of numerous infrastructure projects such as bridges and trails leading to points of local interest. In the immediate pre-Park era, the EPPIA also worked with the US Forest Service to import and release herds of elk into Horseshoe Park.[115] Herbert N. Wheeler, then the Forest Supervisor for the US Forest Service, spoke to an EPPIA meeting in October 1907. Noting their desire to both conserve natural resources and continue to bring visitors to the area, he responded "If you want to draw tourists… you should establish a game refuge where tourists can see the wild life."[116]

Enos Mills began residing near Longs Peak by the mid-1880s becoming an early champion for conservation of the region's natural resources. In 1901 he purchased his cousin's ranch intending to

[111] Frank, *Making Rocky Mountain National Park,* 8–9.
[112] Buchholtz, *Rocky Mountain National Park*, 117.
[113] Pickering, *America's Switzerland*, 93–94.
[114] Pickering, *America's Switzerland*, 94–97; Patricia M. Fazio, "Cragged Crusade: The Fight for Rocky Mountain National Park, 1909-1915" (Master's Thesis, Laramie, Wyoming, University of Wyoming, 1982), 77.
[115] Pickering, *America's Switzerland*, 94–95, 101; Standish, *Rocky Mountain National Park MPS (Additional Documentation – Trails)*, E-5.
[116] Pickering, *America's Switzerland*, 102.

operate it as a hotel (Figure 2-25).[117] By 1904 he opened the Longs Peak Inn, providing visitors a no-frills experience focused on nature in the Rocky Mountains (Figure 2-26). The Inn was rebuilt in 1906 (Figure 2-27).



Figure 2-25. *Enos Mills in front of his cabin, 1914.* (Source: ROMO 1905)



Figure 2-26. *Longs Peak Inn, 1905.* (Source: ROMO 00357)

Mills, who later became known as the “Father of Rocky Mountain National Park,” had encountered John Muir as a young man while on a camping trip in California in 1889. Two years later, he visited

[117] Musselman, *Rocky Mountain National Park Administrative History,*17.

Yellowstone National Park as part of a survey party. From these experiences, Mills began to develop an interest in applying the ideas of parks and preservation in Colorado.[118] To spread his enthusiasm for the Rocky Mountains, Mills began writing for regional papers beginning in the late 1890s on tourism-related themes. After establishing Longs Peak Inn near the base of Longs Peak, he worked as a guide for climbers hoping to ascend to the summit.[119] He also shared his knowledge as a naturalist more broadly by serving as a nature guide for visitors to the region, hiring other guides, and establishing an informal "Trail School," providing nature study for children.[120] The Longs Peak Inn served as a gathering place, hosting famous visitors from around the country, including reformer Jane Addams, architect Frank Lloyd Wright, and industrialist and philanthropist John D. Rockefeller.[121] Mills entertained his guests with lectures and stories by the fire or led them on walks in the nearby landscape, all the while sharing enthusiasm for the Rocky Mountain region.



Figure 2-27. *Enos Mills' Longs Peak Inn, rebuilt in 1906, image ca. 1911–1920.* (Source: Denver Public Library, https://digital.denverlibrary.org/digital/collection/p15330coll22/id/10729)

As a full-throated conservationist heavily influenced by John Muir, Mills led nature tours in the Rocky Mountains and was a prolific nature writer. Wheeler's recommendation to the EPPIA to permanently conserve the Rocky Mountains resonated with Mills and his close associates.[122] The work of Mills and other regional advocates was instrumental in initial protection of the land by President Theodore Roosevelt in 1905, when the area around Longs Peak became part of Medicine Bow National Forest.[123]

While this was measurable progress, for Mills and others, only establishment of a national park would provide the kind of protection that the Southern Rocky Mountain landscape needed, especially as the

[118] Musselman, *Rocky Mountain National Park Administrative History*, 17.
[119] Carl Abbott, "'To Arouse Interest in the Outdoors': The Literary Career of Enos Mills," *Montana: The Magazine of Western History,* Vol. 31, No. 2 (1981): 4.
[120] Enos A. Mills, *The Adventures of a Nature Guide* (Garden City, New York: Doubleday, Page & Company, 1920), 155–81. Mills outlined his approach to teaching children about nature in a chapter of this book.
[121] Alexander Drummond, *Enos Mills: Citizen of Nature* (Niwot, Colorado: University Press of Colorado, 1995), 132.
[122] Pickering, *America's Switzerland*, 102.
[123] Buchholtz, *Rocky Mountain National Park*, 114.

broader environmental movement split over philosophical differences between the ideals of Gifford Pinchot as Chief of the US Forest Service and its active-use conservation ethic, and those of preservation-minded activities such as John Muir. In addition to winning support from communities on either side of the park as well as at the state level, Mills' campaign for a park also received support from figures like J. Horace McFarland, leader of the American Civic Association.[124]

In 1909 the EPPIA approved a resolution supporting a plan to establish a large park that would be organized in a way to protect all wildlife similar to a plan enacted in Yellowstone National Park. The park proposed by Mills and the EPPIA was massive, incorporating over 600,000 acres and stretching from Wyoming on the north to Mount Evans west of Denver on the south. F.O. Stanley, a citizen of Estes Park and leading member of the EPPIA, subsidized the efforts of Enos Mills to promote the idea of a park at a local, regional, and national level.[125]

Smith Riley, a forester with the US Forest Service, filed a report in 1910 assessing the proposed park. In general, he agreed with the concept of the park and suggested that it should be formed "more along the lines of a Game Preserve." His most important critique, however, was that it was too large to be manageable and instead recommended a much smaller park of approximately 370 acres. In particular he recommended the inclusion of the Kawuneeche Valley from Grand Lake north noting that the homesteading and mining interests in this area were not valuable.[126] Residents of Grand County were not entirely sold on the idea of a park, however, unable to see how it might benefit them. In particular, they opposed any Federal action that would take land for the park, believing that the mining industry might still provide a much-needed economic boost to the local economy. The Grand County Board of Commissioners expressed their opposition by issuing a formal resolution condemning the idea in 1911.[127]

In the years that followed, the group collaborated with Herbert Wheeler, supervisor of the nearby Colorado National Forest, who proposed the creation of a game preserve, with a favorable response from the EPPIA. Mills pushed the concept further and began his official calls for an "Estes National Park." While Mills had recently served as a lecturer for the Forest Service, since that time he had turned against the utilitarian philosophy of that agency in favor of the greater protections that true parks could provide. Mills' idea received support from other groups, including the Denver Chamber of Commerce.[128] In April 1912 the Colorado Mountain Club was organized. The club's charter noted that "we are organized to unite the energy, interest and knowledge of the students, explorers and lovers of the mountains of Colorado; to collect and disseminate information regarding the Rocky Mountains on behalf of science, literature, art, and recreation; to stimulate public interest in our mountain areas; to encourage the preservation of our forests, flowers, fauna and natural scenery; and to render readily accessible the alpine attractions of this reason."[129] Late in the same year Robert B. Marshall of the US Geological Survey viewed the proposed park and issued a report in early 1913. He supported the establishment of a park but, like Forester Riley in 1910, believed that a smaller size was more appropriate. In particular he noted that the Kawuneeche Valley was "an ideal camping ground and I am convinced that with the establishment of a national park it will derive far greater revenue for summer tourists than it could ever receive otherwise."[130]

At the same time, others mobilized against the idea, particularly those with ranching and mining interests. Despite some level of dissent, momentum continued to build for the idea and a Denver attorney was hired to draft legislation for the park that was introduced to the US Congress in early 1913.[131]

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[124] Buchholtz, *Rocky Mountain National Park,* 135.
[125] Pickering, *America's Switzerland*, 103; Andrews, *Environmental History*, 226.
[126] Andrews, *Environmental History*, 226–229.
[127] Andrews, *Environmental History*, 231.
[128] Frank, *Making Rocky Mountain National Park*, 12–13.
[129] Hugh Kingery, *The Colorado Mountain Club: The First Seventy-Five Years of a Highly Individual Corporation, 1912–1987* (Evergreen, Colorado: Cordillera Press, 1988), 11.
[130] Buchholtz, *Rocky Mountain National Park*, 135–136; Andrews, *Environmental History*, 230, 232.
[131] Frank, *Making Rocky Mountain National Park*, 13–19.

Acting in support of the movement to create a national park in the Southern Rocky Mountains, in 1913 Harriet Vaille Bouck and Edna Hendrie of the Colorado Mountain Club invited two Arapaho elders, Gun Griswold and Sherman Sage, and Arapaho interpreter Tom Crispin to visit the area with a goal towards documenting sites of significance and obtaining Arapaho names for mountains and other natural features within the future park. The small party, including Colorado Mountain Club members Shep Husted serving as guide, David Hawkins and Oliver Toll, visited Indigenous sites within the Rocky Mountains recording the place names, recalling stories where events took place, and documenting the names and location of trails (Figures 2-28 and 2-29). A total of six Indigenous trails were identified including the Big Trail, Child's or Ute Trail (5LR803), Deer Trail, Warriors Trail, Arapaho Trail, and Ethebaw or Dog Trail, so called because "dogs had been used to pull travois over the pass especially in snowy conditions." Oliver Toll subsequently published a small book documenting the trip and findings in 1962.[132]



Figure 2-28. *Group photograph of 1913 pack trip with Arapaho elders. From left to right Shep Husted, Gun Griswold, David Hawkins (seated), Sherman Sage, Tom Crispin, and Oliver Toll.* (Source: ROMO 6266)

[132] Quin, "Fall River Road," 2; Standish, *Rocky Mountain National Park MPS Additional Documentation*, E 11 through E 12; Buchholtz, *Rocky Mountain National Park*, 28; Butler, *Historic Archeology*, 52–53; Brett, *Ethnographic Assessment*, 88–90; Toll, *Arapaho Names and Trails*, 14–22, 31–34; Oliver W. Toll, "Report of Arapaho Indian Trip, 1913," 8–10. Manuscript at Rocky Mountain National Park Archives.

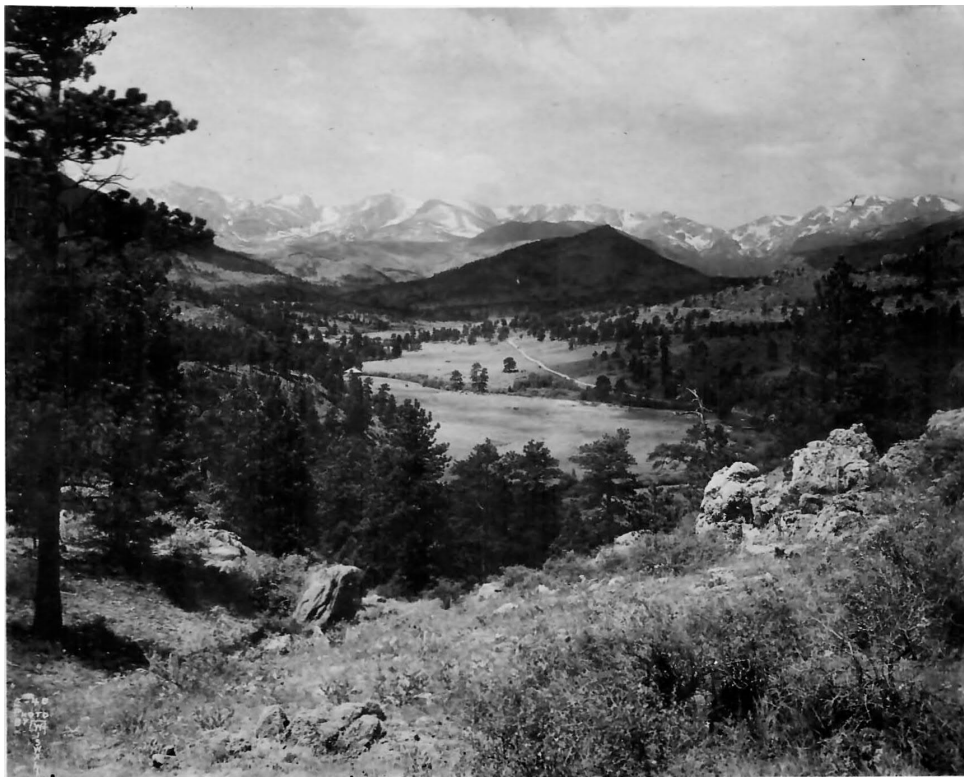


Figure 2-29. *Continental Divide, 1913.* (Source: ROMO 1905)

Landscape Characteristics

By the late nineteenth century, concerned residents of Estes Park began to notice a decline in the health and presence of plant and animal resources in the area surrounding their growing community. As a gateway to the Southern Rocky Mountains, the continued presence of thousands of seasonal visitors in Estes Park and local private lodges began to have an impact on native plant and animal life. In particular, residents noted overfishing and illegal hunting as problems. The establishment of the EPPIA led to a more formal effort to address infrastructural issues, as well as conservation of natural resources in Estes Park and the foothills of the Rocky Mountains. Projects undertaken by the EPPIA included the construction of more formal roads, bridges and trails connecting points of interest. In addition, numerous trees were planted, a fish hatchery designed to replenish local drainages was constructed and monitoring of illegal poaching was conducted.

Establishment of Rocky Mountain National Park and Trail Ridge Road Development (1915–1933)

(See Map 2-2: Period Plan, 1915–1933 at the end of this chapter)

Rocky Mountain National Park

The first bill proposing the establishment of Rocky Mountain National Park was presented in Congress in February 1913. Despite significant state level support for the new park, opposition related to issues of land ownership and existing and future timber and mineral rights threatened to derail the bill. In addition, park supporters faced growing pressure from government representatives to reduce the size of the proposed park, as well as opposition to the park from the US Forest Service and local residents in Grand County. As a result, proponents of the park ultimately supported a much-reduced size park encompassing approximately 358.5 square miles, as well as protections for landowners within the proposed park boundaries.[133]

Shepherded through Congress by Representative Edward Taylor and Senator Charles Thomas, the bill to establish Rocky Mountain National Park was again introduced in June 1914. With continued support from EPPIA, the Colorado Mountain Club, and passionate testimony from Enos Mills and other proponents, the bill passed the US Senate in October and also passed in the House of Representatives in January of 1915.[134] The bill established Rocky Mountain National Park as the ninth such reserve in the nation, placing it under the jurisdiction of the Secretary of the Interior.[135] It was the third time the bill had been brought forward, with the previous two iterations dying in committee.

On January 26, 1915, President Woodrow Wilson signed the Rocky Mountain National Park Act into law. The park encompassed 229,062 acres in Grand, Boulder, and Larimer counties. The Act provided for “the freest use of the said park for recreation purposes by the public and for the preservation of the natural conditions and scenic beauties thereof.” Among the provisions of the act was authority for the Secretary of the Interior to grant easements for concessions and visitor accommodations, as well as transportation through the park via road or rail. It specifically noted that regulations could be created as necessary to govern automobile use within the park. This legislation established the park in principle but sorting out the legal tangle associated with the park's roads and inholdings would prove to be a major challenge for its early managers. The park received its first ranger, R.T. "Dixie" MacCracken, in August. On September 4, 1915, state and federal representatives gathered in Horseshoe Park to celebrate and dedicate the new park.[136]

Completion of Fall River Road

At the time of the park's establishment, over 50 miles of roads and trails fell within its boundaries; however, the majority of these were governed by state and county authorities. Only five miles were under federal jurisdiction.[137] Maintaining these rough trails and managing access would prove a substantial challenge for early park authorities, bringing them into conflict local tourism boosters and guides, including Mills, who were used to forging their own way through the mountains. Improving and completing

[133] Buchholtz, *Rocky Mountain National Park*, 135; Andrews, *Environmental History*, 232–233.
[134] Buchholtz, *Rocky Mountain National Park*, 136.
[135] National Park Service, “Foundation Document: Rocky Mountain National Park” (US Department of the Interior, National Park Service, May 2013), 37–39, https://www.nps.gov/romo/learn/management/upload/ROMO_Foundation_Document.pdf.
[136] US Congress, “Rocky Mountain National Park Act,” Ch. 19, P.L. 63-238, 38 Stat 798, January 26, 1915; Buchholtz, *Rocky Mountain National Park*, 136–137.
[137] Musselman, *Rocky Mountain National Park Administrative History,* 78.

Fall River Road, though initially a state-driven project, would likewise occupy the attention of park staff. A 1915 survey of the nation's parks by Mark Daniels, the General Superintendent and Landscape Engineer of National Parks noted the transportation challenges facing Rocky Mountain National Park. Pointing to Yosemite and Mount Rainer, he suggested the creation of a comprehensive road system and concessions policies to manage use of the land. "The crying need of this park for the next two years will be roads and trails," Daniels wrote.[138]

To organize the new park, Charles R. Trowbridge was dispatched to the area as its first supervisor. That summer, he paid a great deal of attention on Fall River Road, recommending a survey of the route, and arguing for some initial improvements. The road, only 8 to 10 feet wide, featured a dangerous switchback, which Trowbridge succeeded in having improved with a new retaining wall and some widening.[139] But with limited staff and budget, maintenance and improvement to the park's roadways was overall quite limited.

The Organic Act of 1916 established the National Park Service (NPS) and was followed shortly thereafter by the appointment of Stephen T. Mather as the agency's first leader. Under Mather's guidance, the new agency increasingly formalized a stylistic language of rustic architectural and landscape improvements, influenced by the aesthetics and principles prevalent in the landscape architecture profession of the time.[140] Mather was an enthusiastic proponent of automobile travel, and their role in promoting parks. Among his early ideas was a National Park-to-Park Highway. This loop of improved roads would tie together many western parks, with Rocky Mountain National Park as one of its easternmost sights.[141]

Mather and the Park Service's designers began to promulgate a vision for its roadways that emphasized a harmonious relation between landscape and infrastructure. Roads and drainage infrastructure would respond to underlying topography and vegetation would be managed carefully, leaving adjacent areas undisturbed where possible but also opening vistas that highlighted the route's scenic qualities. Rustic materials for features like railings and bridges, and gateways, would likewise accentuate the landscape's underlying character.[142] In his first report on the new park system, Mather remarked on the heavy visitation to the park, more "than any other large scenic park." He also noted the slow but steady progress on the roadway from Estes Park to Grand Lake by the State of Colorado, but suggested that until it was completed, access to the park would be limited to foot and horse travel. Greater funding for visitor amenities would improve the park's accessibility.[143]

The Fall River Road project thus took on new importance after Rocky Mountain National Park was established in 1915. Inspection of the portion of the road completed to Horseshoe Park by NPS personnel noted that it required additional work to correct the narrowness of the roadbed, the grades that were too steep for automobiles to safely navigate, and the lack of railings, retaining walls, and culverts. Even though construction was proceeding steadily each year, the most suitable approach to completing Fall River Road remained open to debate. In 1916, the US Geological Survey (USGS) conducted a survey of the portions of Fall River Road that remained to be constructed, identifying a 16-mile route.[144] W.O. Tufts, the USGS surveyor who led the survey, identified a route that climbed northeast toward the continental divide at Milner pass, before turning back to climb up the slope and then, with another switchback,

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[138] Mark Daniels, *Report of the General Superintendent and Landscape Engineer of National Parks to the Secretary of the Interior, 1915* (Washington, DC: Government Printing Office, 1915), 20, https://www.biodiversitylibrary.org/item/94101.
[139] Musselman, *Rocky Mountain National Park Administrative History*, 79.
[140] Linda Flint McClelland, *Presenting Nature: The Historic Landscape Design of the National Park Service, 1916–1942* (Washington, DC: United States Government Printing Office, 1993), 80.
[141] Timothy Davis, *National Park Roads: A Legacy in the American Landscape* (Charlottesville, Virginia: University of Virginia Press, 2016), 74–75.
[142] McClelland, *Presenting Nature*, 73–74, 110.
[143] Stephen T. Mather, *Progress in the Development of the National Parks* (Washington, DC: Government Printing Office, 1916), 24–25.
[144] Quin, “Fall River Road,” 7.

continued northeast toward Fall River Pass while climbing toward the tundra. From there the route descended to the Fall River valley and progressed easterly toward Estes Park.[145]

Between 1917 and 1918, NPS and state officials wrangled over the final alignment, the former favoring a higher route over Fall River Pass that was more scenic, and the latter preferring a lower route that would be easier to construct.[146] The corridor was toured by civic groups in August 1918, who also endorsed the higher route.[147] State engineers also accepted recommendations previously made by surveyor Frank Huntington for a series of nine switchbacks, dubbed the “Giant's Ladder” in a postcard from the period, leading down from Milner Pass toward Grand Lake.[148]

The American entry into World War I brought delays in terms of labor and funding, however. Work on the road resumed in 1918 under a private contractor. A telephone line was strung along poles paralleling the road corridor also that year.[149] Even as construction proceeded throughout 1918 and 1919, contractor and hiring troubles caused promised completion deadlines to slip.[150] Much of the work continued to be accomplished using hand tools and horse teams.

While construction proceeded, questions about who owned the roadways within the park, and who had access to them, continued, with inholdings further complicating this situation. The recently established Deer Ridge Chalet, operated by Orville W. Bechtel, was one of several concessions that would be established in the park, alongside existing inholdings, bringing its own traffic. Bechtel’s operation, which grew steadily from a small outpost to a large complex of buildings, occupied a prime site along High Drive.[151]

In 1919, a franchise was given to Roe Emery's Rocky Mountain Parks' Transportation Company to carry passengers in the park, to the frustration of longtime operators like Mills and Stanley.[152] Mills was particularly enraged, and regularly flouted the rules, bringing him into open conflict with Rocky Mountain National Park Superintendent L. Claude Way.[153] These conflicts were exacerbated by the unclear legal status of the roads in the park, which included county and state corridors. In August 1919, Larimer County transferred control over its roads to the NPS, although this effectively referred only to maintenance and supervision; whether the underlying land belonged in the public domain remained a point of legal contention. Such debates would continue for several years.[154]

The developing road also served inholding properties within the new park, and some of these owners chose to capitalize on the increasing flow of tourists. One such property was the Studio in the Woods, an art gallery located just inside the Fall River Entrance Station operated by painter Dave Stirling.[155]

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[145] US Geological Survey, “Plan of Fall River Road, Rocky Mountain National Park.” 1916.
[146] Davis, *National Park Roads*, 124.
[147] Quin, “Fall River Road,” 7.
[148] One source indicates this name may have been used as early as 1915 by early surveyors of the route. Whether park staff more widely used it historically is unclear, but it is not apparent in early superintendent’s reports. As part of development of this CLR, current park staff have adopted the name as a way to distinguish this area from other abandoned road segments within the park; Grand Lake Area Historical Society, “Fall River Road.”
[149] Quin, “Fall River Road,” 4–10; Black, *Island in the Rockies*, 319–320; Pickering, *America’s Switzerland*, 122–124.
[150] Quin, “Fall River Road,” 8–9.
[151] Kenneth Jessen, “Deer Ridge Chalet Offered Gasoline, Curios, Viewing Tower and More,” *Loveland Reporter-Herald*, December 29, 2014, https://www.reporterherald.com/2014/12/29/deer-ridge-chalet-offered-gasoline-curios-viewing-tower-and-more/.
[152] Musselman, *Rocky Mountain National Park Administrative History*, 31.
[153] Musselman, *Rocky Mountain National Park Administrative History*, 31–36.
[154] Musselman, *Rocky Mountain National Park Administrative History*, 37.
[155] National Park Service, “Bugscuffle Ranch: The Studio in the Woods — in the Rocky Mountain National Park,” 0743 Stirling Residence Files, unpublished, undated manuscript in Rocky Mountain National Park Archives.

During 1919, nearly 4 miles had been completed on the western portion of the road, and the eastern end was within a mile of Fall River Pass.[156] The final route would proceed from Estes Park through Horseshoe Park and up to Fall River Pass, with a number of switchbacks, before descending to Milner Pass, and then down to Grand Lake via the nine “Giant's Ladder” switchbacks (Figure 2-30).



Figure 2-30. *View of Fall River Road switchbacks, undated.* (Source: ROMO 4014)

Park visitors in 1919 numbered an estimated 169,492. People arrived in private autos as well as tour buses. The number of visitors to the park in 1919 was a significant increase over the year before, when visitation had been slightly more than 100,000.[157] The increase in traffic revealed the many deficiencies of Fall River Road. Its sixteen switchbacks, steep grades, and sharp drop-offs alternately thrilled and terrified drivers. Many hairpin turns were so tight as to require that vehicles back up in order to navigate them, creating long lines of waiting traffic; sometimes rangers were even stationed in the more perilous sections to assist drivers in navigating the turns and other aspects of the roadway. The unpaved road also needed frequent maintenance due to dust, mud, pot holes, and other issues resulting from the harsh mountain conditions.[158]

In spring 1920, a new entrance station was constructed at the road's eastern end, allowing the park to begin officially monitoring visitation numbers (Figure 2-31). A 1917 revision of the park’s boundaries to encompass more of Horseshoe Park, including Sunnyside Knoll, yielded the site for this new structure, which was designed by Ranger Dean Babcock.[159]

With the efforts of the private contractor, work continued slowly until the road was completed in September 1920. Frequent washouts that summer slowed the work, requiring recently completed sections to be rebuilt.[160]

[156] Quin, “Fall River Road,” 10.
[157] Musselman, *Rocky Mountain National Park Administrative History*, 41.
[158] Davis, *National Park Roads*, 124–125.
[159] Steely and Huey, “Fall River Entrance,” 25.
[160] L.C. Way, “Superintendent’s Monthly Narrative Reports, August 1920, Rocky Mountain National Park,” 6.

On September 14, 1920, Park Superintendent Way and road contractor Dick McQueary drove their vehicles over the entire length of the road between Grand Lake and Estes Park. A week and a half later the road opened to the public. To celebrate the completion of the roadway, the NPS held a dedication ceremony. They neglected to invite the state officials who had funded the roadway, however, creating some friction between the two agencies.[161] For visitors, the telephone line was used to install telephones available for use every 5 miles.[162] The completed roadway was generally praised for its daring engineering and scenic character. Despite a generally positive review of the road by the NPS, the route was already functionally obsolete, the tight and winding road unable to serve the increasing levels of traffic and the tour buses that were bringing many visitors to the park. As such, the NPS quickly began to consider changes to the road alignment.[163]



Figure 2-31. *Sunnyside Entrance Station, Fall River Entrance, Hondius Park, 1924.* (Source: ROMO 1)

In 1920, the NPS produced a brochure describing the recently completed road:

> The new road extends from Estes Park on the eastern slope to Grand Lake on the western slope and crosses the Continental Divide through Milner Pass and at one point reaches an elevation of 11,797 feet above sea level. From east to west the road follows up the Fall River Canyon passing through Horseshoe Park and comes within easy walking distance of Horseshoe and Chasm Falls and Iceberg Lake. Before passing through Milner Pass beautiful Poudre Lakes are passed, then descending the west slope the road follows down the Grand River valley. The passage from dense forests to timberline and above it is here a matter of minutes. The ascent is inspiring, and the conquering of the Divide with the view beyond of the superlative Valley of the Poudre River, of the magnificent sheep-haunted heights of Specimen Mountain, and the beginning of the Forest Canyon, is highly dramatic.[164]

As completed in 1920, Fall River Road stretched for 33 miles. The road averaged 8 to 10 feet in width and possessed grades that were up to 15 percent. The road had many switchbacks edged by protective railings and supported by retaining walls (Figures 2-32, 2-33, and 2-34). The road was constructed for just over $300,000, a fraction of which was spent by the Federal Government.[165]

[161] Quin, “Fall River Road,” 10–11.
[162] Quin, “Fall River Road,” 9.
[163] Quin, “Fall River Road,” 9–11; Black, *Island in the Rockies*, 320.
[164] Quin, “Fall River Road,”11–12.
[165] Butler, *Historic Archeology*, 63; Quin, “Fall River Road,” 12–14.



Figure 2-32. *Bus on Fall River Road Pass, 1923.* (Source: ROMO 1900)



Figure 2-33. *Fall River Road switchback, 1923–1924.* (Source: ROMO 1908)



Figure 2-34. *Visitors to Fall River Road often arrived in buses as shown in this 1923–1924 photograph.* (Source: ROMO 1908)

Managing Fall River Road

Maintaining the new montane road required substantial labor, and the infrastructure necessary to house these workers was among the improvements that soon followed the road's construction. Several road camps were built and upgraded in the following years. One of the first such developments occurred near Milner Pass, where a tent camp for road workers was constructed in 1920.[166] This maintenance soon expanded to include more substantial improvements to the Fall River Road in response due to its operational challenges. In 1921, the park began reconstructing portions of the roadway, widening several switchbacks to allow longer buses to navigate them without reversing, and repairing failing retaining walls.[167] The road also received other amenities, including four toilets along the corridor, and temporary rangers' quarters at the Grand Lake Entrance.[168]

The next year work continued, with further widening of the switchbacks, the building of guidewalls and retaining walls for safety, installation of new metal culverts, and completion of the telephone line.[169] A shelter cabin was constructed near Fall River Pass as well.[170] Park Service staff conducted maintenance work on the road during this time and was reimbursed by the state highway department.[171] That summer, a 14-by-18-foot cabin was built at Fall River Pass. Two stone toilets were also planned—these were replaced a few years later with wooden structures when they were found "impracticable."[172] During this period, road camps were located near Horseshoe Park, Poudre Lakes, and a site known as Engineer Camp, near the timberline east of Fall River Pass.[173]

Improvements continued in 1923, with portions of the road planned for double tracking, widened curves, and the installation of additional retaining walls and culverts. Work crews also installed metal signs and mile markers along the road. Severe rainstorms that summer, however, damaged much of the road and washed out many of the walls, requiring significant repairs. That year, park staff constructed the Willow Park Cook and Mess Hall (now known as Willow Park Patrol Cabin) near Fall River Pass, a structure used to support maintenance crews.[174] A comfort station was constructed at the Fall River Entrance.[175] Comfort stations included flush toilets, whereas vault toilets lacked plumbing. In 1924, the bridge across Fall River in Horseshoe Park was replaced with a new log structure while a second bridge was constructed to serve the Aspenglen Campground.[176] Park staff also improved wayfinding throughout the park that summer, placing metal directional signs throughout the eastern portion of the park, and installing mile markers along the entire Fall River Road corridor.[177]

The year 1925 brought another major round of work to Fall River Road and adjacent park areas, which continued to experience increasing numbers of visitors. In addition to the ongoing maintenance and replacement or adjustment to walls, bridges, and drainage structures, the corridor received a new parking area at Chasm Falls, a popular park attraction along the road. Two sharp curves near Chiquita Creek were widened to allow two oncoming vehicles to pass. The NPS built Timberline Cabin to serve as quarters for maintenance crews; the structure was later repurposed as a patrol base and lodging facility

[166] Emilio Alejandro Santiago, "Cultural Resource Survey for Rehabilitate Lake Irene Trail to Improve Visitor Safety/Satisfaction" (Rocky Mountain National Park: NPS Cultural Resource Program, July 22, 2020), 15.
[167] Quin, "Fall River Road," 13.
[168] L.C. Way, "Superintendent's Monthly Narrative Reports, July 1921, Rocky Mountain National Park," 6.
[169] Quin, "Fall River Road,"14.
[170] Mark Hackbarth, Alexandra Howard, Helena Ruter, Paula Scott, Kelly Smith, and Jennifer Levstik, National Register of Historic Places Nomination "Fall River Road (Boundary Increase and Amendment) (US Department of the Interior, National Park Service, 2017), 7–5.
[171] Roger W. Toll, "Superintendent's Monthly Narrative Reports, March 1922, Rocky Mountain National Park," 5.
[172] Toll, "Superintendent's Monthly Narrative Reports, June 1924, Rocky Mountain National Park," 9.
[173] Toll, "Superintendent's Monthly Narrative Reports, July 1922, Rocky Mountain National Park," 7–9.
[174] Hackbarth et al., "Fall River Road," 7–5.
[175] Toll, "Superintendent's Monthly Narrative Reports, October 1923, Rocky Mountain National Park," 4.
[176] Quin, "Fall River Road," 15–16.
[177] Toll, "Superintendent's Monthly Narrative Reports, July 1923, Rocky Mountain National Park."

for a caretaker.[178] The following year, at Willow Park, the park built a complementary stable structure to support road maintenance operations.[179] Two additional camps for park laborers involved in snow removal and continual road repair were located in Horseshoe Park and near Poudre Lake.[180]

1925 also saw the legal fights over the park's transportation franchise come closer to resolution. The cases, which involved, state, local, and federal interests, were shunted from court to court over jurisdictional issues, eventually proceeding to the Supreme Court, where justice Oliver Wendell Holmes, Jr. weighed in, ordering the District Court of Colorado to finally resolve the issue.[181] In 1926, however, the state of Colorado dropped its interest in the case, and the following year introduced a bill to cede its jurisdiction over the park's roads.[182] The matter was finally concluded in 1929, when Colorado passed a bill transferring ownership, and President Calvin Coolidge signed a bill accepting the roads on behalf of the federal government.[183] Another issue, the development of concessions on park inholdings, remained an issue, however. In 1926, the Phantom Valley Trading Post was constructed near the Phantom Valley Ranch, featuring a gas station and gift shop.[184]

Throughout the late 1920s, the tents of the Milner Pass Road Camp were joined by more permanent structures. In 1926, NPS constructed a log Mess Hall with stone foundation, which reflected the rustic design principles of the period. A log bunk house was constructed in 1930, and subsequent years saw the addition of a stable and other support structures as the camp's function turned toward the construction of Trail Ridge Road.[185]

With the ongoing improvements conducted during the 1920s, Fall River Road slowly emerged as a roadway reflective of modern standards. By 1926, many sections of the roadway could accommodate two-way traffic, while guidewalls, drainage structures, bridges, and parking areas supported the safety and visitor use needs. NPS Rustic design style principles characterized the road corridor. Yet the road continued to convey aspects of its origins as a mode of movement used first by Native Americans and later by early trappers and hunters as well as settlers. As Americans began to embrace the automobile ever more tightly, Fall River Road would ultimately prove ill-suited to the needs of the hordes of visitors soon flocking to Rocky Mountain National Park. Even as road conditions began to improve, park officials were envisioning the development of a new route, one that might cross Trail Ridge, providing even more spectacular scenic views as well as a better driving experience.

Concept for Trail Ridge Road

Though a significant achievement, the deficiencies of Fall River Road were readily apparent by the mid-1920s. By 1926, the NPS had begun planning a new route to provide visitors with a cross-Continental Divide driving experience. The new road, which would eventually become known as Trail Ridge Road, would blend segments of the earlier Fall River Road route with newly built sections. The design of the new road would take advantage of the NPS's maturing road design philosophy and expertise, while also integrating engineering expertise afforded by the Bureau of Public Roads (BPR). Construction took place over more than a decade, resulting in one of the National Park System's most distinctive scenic roadways. Featuring 4 miles of road sited above 12,000 feet in elevation, with sweeping views of the surrounding mountains from above the tree line, the road was, and remains, the highest continuous

[178] Hackbarth et al., "Fall River Road," 7–5.
[179] Quin, "Fall River Road," 17.
[180] Quin, "Fall River Road," 14.
[181] Musselman, *Rocky Mountain National Park Administrative History*, 54.
[182] Musselman, *Rocky Mountain National Park Administrative History*, 57.
[183] Musselman, *Rocky Mountain National Park Administrative History*, 75.
[184] Andrews, *Environmental History of Kawuneeche Valley*, 279.
[185] Santiago, "Lake Irene Trail," 15–16.

paved roadway in the United States.[186] Trail Ridge Road would finally be realized in 1941, completing a quarter-century of road design and construction in the park.

By 1926, Fall River Road offered the most significant element of an increasingly elaborate road network within Rocky Mountain National Park, especially its eastern section. But despite its importance for the auto-oriented park, the roadway remained functionally inadequate. The deficits of Fall River Road had become apparent almost as soon as it opened, and as early as 1922, park staff began to contemplate creating a better roadway that would reduce the dangerous and difficult-to-maintain conditions between Estes Park and Fall River Pass.[187] Superintendent Roger Toll suggested a route that departed from either Moraine Park or High Drive and travelled up Trail Ridge to meet the existing roadway at Fall River Pass.[188] Park engineers undertook a more formal survey of a new route in 1925 and 1926, evaluating major bridges, much of the corridor between Fall River Pass and the park's western entrance, and potential routes in the Hidden Valley area of the eastern portion of the corridor.[189] From these efforts a concept for an improved roadway began to emerge.

In 1927, the NPS entered into a new partnership with the BPR. This partnership would guide the vision for an improved and more successful new trans-mountain route through the park. The partnership followed years of fragmented collaboration between the agencies and debates between the NPS and BPR officials and their engineers over how best to balance construction standards and scenic values. While generally skeptical of the BPR, NPS Director Stephen T. Mather and other NPS officials were attracted by the funding available to the highway agency. Ultimately, the partnership would yield dramatic improvements to parks throughout the country during an intensive period of road building that would extend from 1927 and continue through the Great Depression, with much of the work supported by New Deal programs such as the Civilian Conservation Corps (CCC). Despite the results, the friction between the two agencies continued throughout.[190]

The resulting design for what would become Trail Ridge Road was emblematic of this period and reflected the emerging technologies in terms of mechanized construction equipment, while accommodating faster and more comfortable automobiles. The roadway that resulted was improved in numerous ways. It was wider, with two lanes, and edged to either side wherever needed by ditches designed to carry stormwater away from the driving surface. Culverts carried the stormwater beneath the road where grades suggested. Roads were designed as tangent sections connecting curves designed to be much broader, with a minimum of 100 foot radius, to allow for a smoother ride and a faster driving speed. These were a substantial change from the tight hairpins of Fall River Road. The broader curves were more carefully integrated into the topography of the mountain slopes, using a design process that considered the relationship between both the vertical and horizontal geometry to ensure sight distance for safety and reduce the need for stacked switchbacks. The grade of the road was designed to be much less steep with a goal of not exceeding 7 percent slopes. In addition, the recreational function and driving experience of the roadway was also considered as integral to the design such that views were taken into consideration for the alignment, and ample pullouts were provided so that visitors could park and experience scenic vistas at a slower pace.[191] Also considered were the needs of maintenance and snow removal in the design.[192]

Along with these broad design principles came new standardized design details for road features such as retaining and guidewalls, bridges, and culverts. The details married NPS aesthetics with BPR engineering

[186] Davis, *National Park Roads*, 129.
[187] Davis, *National Park Roads*, 125.
[188] Richard H. Quin, Historic American Engineering Record, “Trail Ridge Road, Rocky Mountain National Park, HAER No. CO-31” (August 1993), 5.
[189] Quin, “Fall River Road, Rocky Mountain National Park,” 22; Quin, “Trail Ridge Road, Rocky Mountain National Park,” 5.
[190] Davis, *National Park Roads*, 91–107.
[191] Davis, *National Park Roads*, 127.
[192] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 6.

expertise. The NPS also introduced guidelines for road construction aimed at limiting the impacts of grading and other work on the surrounding terrain. The NPS also suggested ways to use stone gathered from the site, and logs from trees felled to build the road, in construction, as well as methods for disposing of unused rock displaced by the work by carefully placing it along nearby slopes with the weathered, lichen-covered sides facing up to ensure that no freshly broken rock stood out in the landscape.[193]

One of the advantages of the proposed new route was its siting with regard to the unique features and views of the park. Fully 12 miles of the proposed route was located above the tree line, an elevation of around 11,500 feet above sea level. As such, the route offered visitors easy access to the dramatic, if once remote, views for which the park had become known. The sections built above the tree line extended through alpine tundra. These sections required unique engineering solutions to address the permafrost conditions as well as thin soils overtop of bedrock.

Planning Trail Ridge Road

Planning for a new route began in earnest in 1926. That year, Superintendent Toll, NPS Landscape Architect Howard Baker, and BPR engineer Steven A. Wallace toured possible locations for a new road. Wallace then undertook a more extensive survey, seeking a route that hewed closely to a maximum 5 percent grade while highlighting significant scenery. Wallace and his survey crews established camps along the route and worked throughout 1926, completing their work the following year. Wallace also travelled the park in winter to evaluate snow accumulation (Figure 2-35).[194]

One of the locales that departed dramatically in alignment from Fall River Road was the segment extending through Hidden Valley and over Trail Ridge. The alignment embarked from High Drive near the Deer Ridge Chalet, by now a growing institution soon to receive a new lodge and observation tower.[195] It then traced its way up the lower reaches of Hidden Valley, before climbing to a long switchback that offered views back east. Other departures proposed included redirecting the route from Fall River Pass to Milner Pass via a single switchback at Medicine Bow Curve and following lower portions of the slope. Passing Poudre Lakes to the northeast, the road would then rejoin the older route for two miles to Farview Curve. There, the route would proceed to the north along a new set of switchbacks with easier grades, while Giant's Ladder would be abandoned. Once again rejoining the original alignment along the Colorado River, the road would receive only minor adjustments through the western section.

Following surveys of the proposed route on paper and on the ground by park officials, which resulted in minor revisions to enhance the corridor's scenic character, BPR engineers began developing construction drawings for the road.[196] During this process, Wallace also surveyed other corridors in the park, including an 8.2-mile-long connection between Deer Ridge and Bear Lake Road.[197]

[193] Frank, *Making Rocky Mountain National Park*, 35–36.
[194] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 6–7.
[195] Jessen, “Deer Ridge Chalet Offered Gasoline.”
[196] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 8–9.
[197] Richard H. Quin, “Rocky Mountain National Park Roads” (Washington, DC: US Department of the Interior, National Park Service, Historic American Engineering Record, 1993), 41.



Figure 2-35. *Survey crews on Trail Ridge, ca. 1920s.* (Source ROMO 1)

As planning continued on the new roadway, maintenance of the existing Fall River Road continued as in previous years. In addition to the usual routine maintenance tasks, work crews rebuilt dry stack retaining walls as they collapsed and tight hairpin curves were widened. They also laid new culverts and water breaks, pumps, and other features to manage the rains that continually eroded the corridor.[198] Following changes to the park boundary adopted by Congress in 1926 which again shifted the park boundary west, the Sunnyside Knoll Entrance disassembled and relocated to a point along Fall River Road in Horseshoe Park just west of the Sheep Lakes.[199]

High Drive also received considerable attention, with a 1.8-mile section extending east from the junction with Fall River Road rebuilt to a 16-foot width. Based on an amended agreement with the BPR, NPS plans were reviewed and revised by BPR engineers, led by William L. Lafferty, to meet new specifications. The rebuilt corridor was designed to eliminate several narrow road sections and tight turns. The redesigned corridor also created a short scenic loop through the park for visitors while also linking Fall River to other developments in Moraine Park and further south, all to modern standards. A 26-foot-long concrete bridge veneered in stone spanning Fall River was the most substantial structure constructed as part of the work (Figure 2-36).[200]

[198] Descriptions of these incremental measures are found throughout Superintendent's Monthly Reports of the period. Toll, “Superintendent’s Monthly Narrative Reports, September 1924, Rocky Mountain National Park,” 7; Toll, “Superintendent’s Monthly Narrative Reports, June 1925, Rocky Mountain National Park,” 8.
[199] Quin, “Fall River Road,” 20–21; Steely and Huey, “Fall River Entrance,” 28.
[200] W.L. Lafferty, “Final Construction Report (1926) on High Drive National Highway Project, Rocky Mountain National Park” (USDA Bureau of Public Roads, April 20, 1927), 1–3.

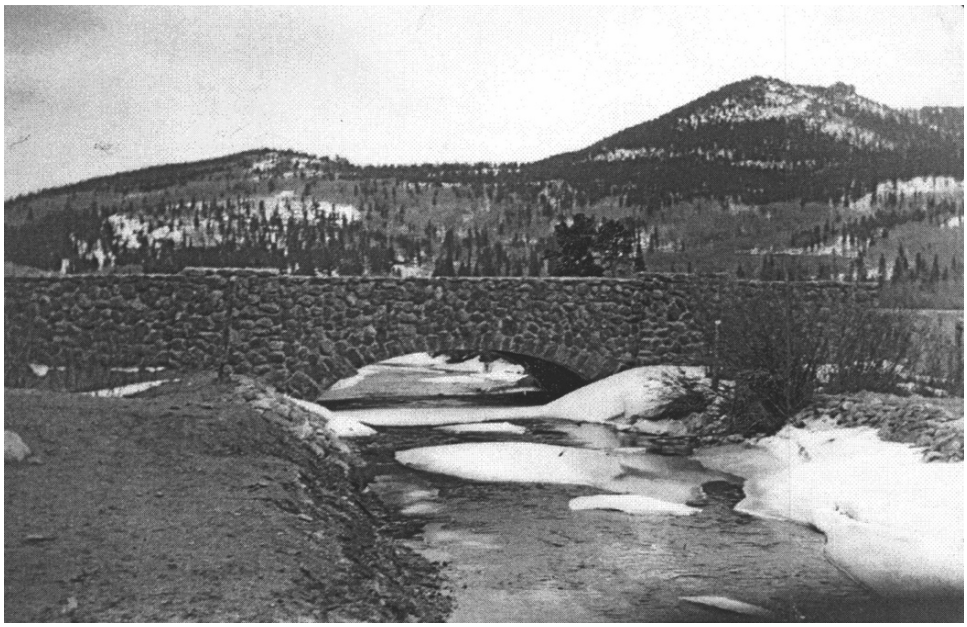


Figure 2-36. *The new bridge at Fall River, following construction, ca. 1920s.* (Source: ROMO Archives)

The following year, roads in the vicinity of Bear Lake began to receive similar treatment through widening to meet new standards.[201] In 1928, Fall River Road was further improved through construction of an earthen embankment, drained with a metal pipe, to replace a timber trestle over a swampy meadow.[202] Park officials also reported on maintenances and improvements to approaches to the park throughout this period, most notably acknowledging the widening of the "narrows" along the road from Estes Park by Larimer County that year.[203]

Revisions to the Trail Ridge Road design drawings continued throughout 1928, as NPS Chief Engineer Frank Kittredge and Chief Landscape Architect Thomas Vint inspected the proposed route, and Wallace in turn conducted additional surveys of these alignments. In spring 1929, newly appointed NPS Director Horace Albright announced that the park would receive $1.75 million for a ten-year improvement project, which included 30 miles of new roadway, estimated to cost at least $1 million. Optimistically, the NPS estimated that construction would take only three years. Following a final inspection that summer, Director Albright authorized construction to proceed.[204] A new road camp was constructed at Timber Creek north of Grand Lake, including a new log stable and storage shed.[205]

While the new road would accommodate the majority of the park's traffic, its planners also considered what to do with the original alignment of Fall River Road. Park officials sought to retain the lower portions of Fall River Road providing access to Chasm Falls, a major attraction.[206] Newly promoted Park Superintendent Edmund Rogers speculated on retaining the old route as a pack trail in 1929.[207] The park would elsewhere continue use of pioneer-era trails as foot or pack trails.[208] Meanwhile, NPS Landscape

[201] W.L. Lafferty, "Final Construction Report (1927–1928) on Bear Lake National Highway Project, Section 2-B, Rocky Mountain National Park" (USDA Bureau of Public Roads, March 11, 1929), 1–2.
[202] Quin, "Fall River Road," 20–21.
[203] Toll, "Superintendent's Monthly Narrative Reports, February 1928, Rocky Mountain National Park," 2.
[204] Quin, "Trail Ridge Road, Rocky Mountain National Park," 10–11.
[205] Edmund B. Rogers, "Superintendent's Monthly Narrative Reports, August 1929, Rocky Mountain National Park," 3.
[206] Quin, "Fall River Road," 21.
[207] Quin, "Trail Ridge Road, Rocky Mountain National Park," 11.
[208] Quin, "Trail Ridge Road, Rocky Mountain National Park," 9.

Architect Charles W. Eliot II speculated on retaining the road to create a one-way scenic drive in a 1930 report on the park's development.[209]

Constructing Trail Ridge Road

The State of Colorado ceded its rights to roadways through the park in February 1929, and the federal government accepted them in March, thus resolving longstanding legal uncertainties associated with road construction and management.[210] This cleared the way for the new road project to proceed. Work on the new road finally began in 1929, after Congress appropriated $450,000 in funds.

Much of the work conducted on the project—known in its earlier phases as the Fall River Pass Highway and other variations of the name—fell under the supervision BPR engineer Lafferty and his associate Robert Coffey. As time went on, even after the roadway went into active service, these BPR engineers continued to augment and tweak the road alignment and construct new features in response to conditions along the roadway such as slumps and slides, and to improve usage by park visitors. The additions included parking areas and overlooks, as well as guidewalls and drainage improvements. Despite the iterative process, the roadway retained a cohesive character even over a decade of construction due to the consistent application of BPR standards and NPS design principles that ensured consistency for the roadway landscape. The identity of the roadway, however, appears to have remained somewhat confused throughout much of this period. While NPS Superintendent's reports reference "Trail Ridge Road" as early as the late 1920s, BPR construction reports refer to the road as Fall River Pass Highway, or variations thereof, well into the 1940s.

For construction purposes, the road corridor was divided into four sections, each of which could be built by individual contractors based on successful bids. The sections included the following (Figure 2-37):

1. Section 1A: High Drive (0.8 miles)
2. Section 1B: Trail Ridge to Fall River Pass (17.20 miles)
3. Section 1C: Fall River Pass to West Side (10.86 miles)
4. Section 1D: West Side-Grand Lake (12.49 miles)

Construction officially began on September 3, 1929, after the first contract for Section 1-B of the roadway between Deer Ridge and Fall River Pass was awarded to contractor W.A. Colt.[211] The next day, however, the market began a dramatic downward slide, culminating on October 29 in a single day stock value drop that became known as Black Tuesday and marked the beginning of the Great Depression. Despite these events, work on Trail Ridge Road continued in the short term largely without interruption.

[209] Quin, "Rocky Mountain National Park Roads," 48.
[210] Buchholtz, *Rocky Mountain National Park*, 167.
[211] Quin, "Trail Ridge Road, Rocky Mountain National Park," 11.

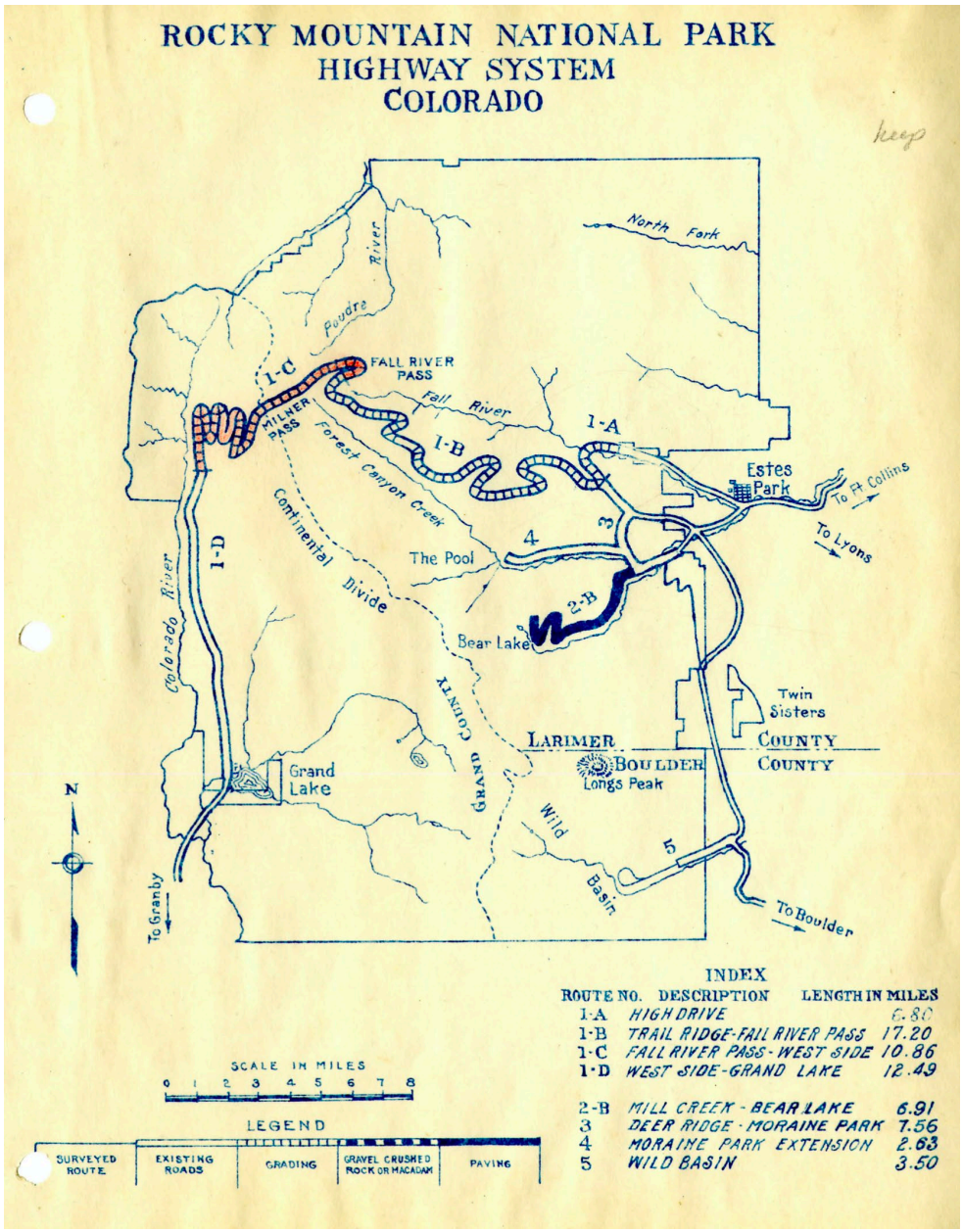


Figure 2-37. *Park roadway construction was organized into several segments, each of which progressed through various stages of construction, from surveying to grading to final paving. This map depicts the state of the roads ca. 1933.* (Source: ROMO Archives)

Construction on Section 1-B initially proceeded toward Grand Lake from Deer Ridge. The contractors resided in a road camp composed of temporary structures that could be moved along the corridor as construction progressed, limiting impacts on the surrounding landscape. The workforce initially consisted of several dozen men, but soon grew to around one hundred. Steam and gas shovels were used to accomplish much of the initial clearing and grading. As the crews cleared lumber from the route, higher grade material was saved for use in park construction.

At the lower elevations, crews were able to proceed through much of the fall and early winter. By January 1930, the route had progressed about 5 miles. However, weather forced shutdowns in February and March. The contractor acquired additional machinery as the year progressed, providing for more efficient operations. During summer 1930, a new gas shovel—the fourth then in operation—was sent up Fall River

once the snow had been cleared, allowing for construction to proceed simultaneously from Fall River Pass eastward. The contractor relocated their movable work camp, composed of four bunk houses and a cookhouse built on a truck chassis, to the site of the Timberline Road Camp on Fall River Road. This crew was able to rough grade a 4-mile-long section extending east along Trail Ridge by August. The growing operation by this point comprised over 150 workers.[212]

One of the sections of roads requiring special engineering is known as Rock Cut. This high-elevation feature—a projecting rock formation known as Monument Ridge—could not be avoided when building the road through the alpine tundra area. Engineers designed a blasting program to cut through the rock in order to allow Trail Ridge Road to pass. Work on Rock Cut began in August 1930 with laborers drilling blasting holes in the outcrops of Monument Ridge. As part of this work, workers constructed log dikes around the outcroppings to protect the features from exploded material. Blasting continued throughout the fall. Elsewhere on the tundra nearby, laborers laid metal pipe culverts across the roadway ahead of grading crews, worked on rough grading, built rock embankments by hand, and conducted finish grading. However, as fall set in, poor weather forced crews to relocate to lower elevations and join the westward-progressing work by other road crews, conducting rough grading behind the initial clearing operations. These efforts entailed rock wall, culvert headwall, and other rubble masonry work, including constructing wing walls for a large, reinforced concrete box culvert. By November 1930, bad weather forced the contractor to lay off the majority of his laborers. Work then proceeded through the winter months. A fire in the construction camp in December spread and burned portions of the forest in Hidden Valley. Even with work stalled by weather, by early 1931 much progress had been made, and the project was about two-thirds complete.[213]

In addition to the work of the contractors and the infrastructure necessary to support them, improvements also came to the park's road camps, likely to support maintenance operations as well private operations, which tended to co-locate with existing maintenance camps. A new bunkhouse was built at the Poudre Lakes Road Camp in the summer of 1930.[214] The Milner Pass Road Camp received a bunk house that year, and a stable with an open side the following year.[215] Similarly, in 1931, the Timber Creek road camp also received a bunk house and mess hall. The camp at Grand Lakes received a cesspool and sink, and a stone equipment shed was built at Forest Canyon Pass.[216]

In September 1930, Interior Department officials selected the L.T. Lawler Construction Company to begin work on the 10.2-mile Section 1-C that would extend from Fall River Pass toward Grand Lake. The project received $455,000 in funding from the park's annual road construction budget. By October, crews had begun clearing timber in the right of way.[217] As with the eastern section of the road, laborers sorted the timber as they worked, with higher quality logs saved for use in construction, while brush was burned.

Grading began later that month, with two steam shovels working from Farview Curve and the lower end of the route to cut the new switchbacks. The contractor established two camps, one comprising twelve buildings at Phantom Valley Ranch, the other a five-building camp initially sited near Poudre Lakes. The second camp was relocated as work progressed. As the weather turned colder, grading operations slowed, and the workers were reassigned to clearing crews. By the end of November, work ceased entirely.[218]

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[212] Quin, "Trail Ridge Road, Rocky Mountain National Park," 12–14.
[213] Quin, "Trail Ridge Road, Rocky Mountain National Park," 15–17.
[214] Rogers, "Superintendent's Monthly Narrative Reports, July 1930, Rocky Mountain National Park," 4.
[215] Santiago, "Lake Irene Trail," 11.
[216] Rogers, "Superintendent's Monthly Narrative Reports, August 1931, Rocky Mountain National Park," 5; Rogers, "Superintendent's Monthly Narrative Reports, September 1931, Rocky Mountain National Park," 5.
[217] Quin, "Rocky Mountain National Park Roads," 43.
[218] Robert Coffey, "Final Construction Report (1930–31–32) on Fall River Pass National Park Highway, Project 1-C, Rocky Mountain National Park" (USDA Bureau of Public Roads, May 20, 1933), 8–11.

In April 1931, workers began clearing slow along Section 1-C as a prelude to the season's work, and the contractor acquired additional steam shovels, bringing the total to four working on that segment. Over the course of the year, 8 miles of roadway were graded, with laborers placing metal culverts along much of the route. Nearly 200 laborers were at work on the project by fall. Although the work was proceeding quickly, complications arising from both the construction and park operations hindered the work. Rock slides often necessitated the regrading of recently completed sections, suggesting to the contractors the need for additional subsurface work to ensure adequate drainage as a preventive measure. Meanwhile, park visitors continued to pass through portions of the work area where it overlapped the original Fall River Road route, resulting in additional delays.

Major masonry structures constructed by subcontractor Lindstrom & Son during the year included concrete box culverts over the Poudre River and other perennial streams, a large retaining wall along Poudre Lake (Figure 2-38), and hand-laid embankment armoring (Figure 2-39), and guidewalls. The contractor also built a substantial retaining wall at Farview Curve. Some masonry materials were gathered from the rock slides, while others were quarried from Little Sheep Mountain near Milner Pass (currently known as Sheep Rock). Work continued until November 17 when winter conditions prevailed.[219]



***Figure 2-38**. Construction on the Poudre Lake retaining wall, ca. 1931–1932.* (Source: ROMO image 35,414)

[219] Quin, "Trail Ridge Road, Rocky Mountain National Park," 22–23.



Figure 2-39. *Hand-laid stone embankment near the lower switchbacks, ca. 1931–1932.* (Source: ROMO image 32,053)

Work did not resume on Section 1-B until June 1931. Initial construction efforts proceeded east. In July, a second crew was established to work in a westerly direction. By August, the rough grading of most of the road was completed. However, the work moved slowly in the latter part of the year, as crews worked to transform the existing alignment of local settler routes into a suitable roadway with adequate drainage through the rockiest portions of the route. On October 20, bad weather forced the contractor to again shut down for the season, with the project 94 percent complete, frustratingly close to their original goal of a November completion.[220]

In early June 1932, contractors resumed work on Section 1-C, addressing the remaining elements of the project. Work finally resumed on Section 1-B in early July, following snowfall removal efforts that began in late May. After a brief period of work, rock excavation activities were finally completed, and the project was ready for inspection (Figure 2-40).[221] On July 16, 1932, portions of Section 1-B were opened to traffic, establishing a loop route that included the original section of Fall River Road and the new eastern section of Trail Ridge Road. On August 23, the section of Section 1-C between Poudre Lake and Farview Curve opened; the remainder of Section 1-C opened a few days later once a few remaining elements were completed.[222] Motorists could continue along the original Fall River Road alignment to Grand Lake. The road was then turned over to the care of the BPR.[223]

[220] Quin, “Trail Ridge Road, Rocky Mountain National Park,”17–18.
[221] Quin, “Trail Ridge Road, Rocky Mountain National Park,”18.
[222] Quin, “Trail Ridge Road, Rocky Mountain National Park,”24.
[223] Quin, “Rocky Mountain National Park Roads,” 44.



Figure 2-40. *Log armoring used at Rock Cut to protect the existing stone during blasting, August 1932.* (Source: ROMO 1)

The result of these activities was a continuous corridor that, though still a graveled road, mitigated the most dangerous sections of the original route. It replaced the narrow, steep, and twisting corridor with one composed of graceful curves, gentle grades, and a generous roadbed. While the corridor generally followed the lines laid out by its engineers, the alignments were adjusted slightly in places, curves shifting in response to specific challenges encountered on site. The corridor was liberally supplied with culverts and stone walls, though these features would continue to be expanded upon in future years. A sign of the project's completion, that winter, Colt's company went on to work elsewhere in the park, constructing a new road from Deer Ridge to Moraine Park.[224]

As completed, the roadway was a complex engineering feat that entailed reconstruction of the subsurface and surrounding slopes to support drainage, as well as an array of structures, including a major bridge, culverts, retaining walls, and other structures. While many of these structures incorporated reinforced concrete, metal, and other modern materials, they were often faced with rubble masonry using stone appropriated from nearby the site. Retaining walls and guidewalls were often topped with crenellations. These gestures were reflective of NPS Rustic design principles and stylistic elements, which aspired to subordinate the human-made elements of the site to the broader landscape.[225] The standard details developed by the BPR for these masonry features guided the work.[226]

The engineering work throughout this period was in turn complemented by the ongoing landscape work of NPS crews, who frequently conducted roadside beautification activities along the corridor that included thinning brush and removing debris. These activities were billed by park officials as measures to both reduce fire loads and give the road a tidier appearance. Park officials also conducted selective thinning to open views from the road to Horseshoe Park and other key sites, creating a scenic sequence that brought the park's valleys and mountains into visual dialogue. Salt blocks placed near the park's roadways invited animals into the view of motorists, further enhancing the scene.[227]

[224] Quin, "Rocky Mountain National Park Roads," 49.
[225] McClelland, *Presenting Nature*, 1-3.
[226] US Department of Agriculture, Bureau of Public Roads, "Plans for Proposed Fall River Highway, Project 1-A, B, C & D Guard & Retaining Walls and Landscaping, Route No. 1 Fall River," 1934.
[227] Frank, *Making Rocky Mountain National Park*, 36–40.

Even in its unfinished state, the road, as opened in 1932, was an immediate success. While construction of the road served to boost the local economy, when the route opened, it also brought increased tourist traffic to the park and surrounding communities, which further supported nearby communities.[228]

Completing Trail Ridge Road during the New Deal Era (1933–1941)

(See Map 2-3: Period Plan, 1933–1941 at the end of this chapter)

While the new route was functionally finished and open to traffic, much work remained to be done. In the coming years, additional features such as pullouts and stonework would be built through numerous construction contracts, many of which were supported by funds made available through New Deal programs. Contractors would work to widen the roadway and pave it, and the road's final component, Section 1-D, connecting the park to Grand Lake would be constructed. These projects unfolded under the auspices of the BPR, which retained supervision of the corridor, in order to better coordinate the ongoing maintenance and improvement of the roadway.[229] Early maintenance work conducted by the BPR included not only snow removal, but clearing slides and making adjustments to adjacent slopes, widening shoulders, and resurfacing of portions of the roadway.[230] To accomplish this work, the BPR hired day laborers from among the local unemployed population.[231] A Snogo snow removal machine was acquired for use in the park, greatly improving efficiency. It was delivered to the park on November 30, 1932.[232]

Although much was completed during the New Deal era, the effort began in August 1932, just as the road was opening, when park officials issued a contract for 1,400 linear feet of retaining walls in the eastern section of the corridor. In September, the contractor established a camp for workers in Hidden Valley and began construction. Weather forced the project to shut down in early October, however, and the contractor failed to resume work on the project. In July 1933, a new contractor, who had previously worked as a subcontractor on the masonry in Section 1-C, was selected, and completed the work that fall.[233]

Another contract was initiated in December 1932 to surface the majority of the route through Sections 1-A, 1-B, and 1-C. Work began in June 1933. The contractor established a surfacing pit along the Old Fall River Road approximately 1.5 miles west of Fall River Pass on the old Fall River-Milner Pass Road and placed a work camp in the vicinity. It included a cook house and other contractor buildings. Following this preparatory work, the contractor began resurfacing the road, completing Section 1-C and portions of 1-B by September. The work entailed surfacing a 22-wide road prism, first covering the roadbed with 3 to 8 inches of crushed stone and then oiling the surface. Work crews also constructed rubble underdrains to manage stormwater, as necessary. As the work progressed west, the contractor relocated the camp and crushing equipment to Many Parks Curve, where surfacing material was supplied for the remainder of the route. By November, the surfacing was complete. The contractor assigned his laborers to continue with additional work on the grading of slopes and other ancillary tasks until the weather closed the project down in December. Work resumed the following June when the contractors oiled the road. Lindstrom & Son, masonry subcontractors on many other elements of the project, constructed a masonry guidewall, sidewalks, and curbs at Many Parks Curve (Figure 2-41). The project concluded in July when the stonework was finished.[234]

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[228] Buchholtz, *Rocky Mountain National Park*, 177.
[229] W.L. Lafferty, "Final Betterments and Maintenance Report (1932–1933) and Spring Snow Removal for 1933 on Fall River Pass National Park Highway, Projects 1-A, B, & C" (USDA Bureau of Public Roads, April 17, 1934), 1.
[230] Lafferty, "Final Betterments and Maintenance Report (1932–1933)," 7–8.
[231] Lafferty, "Final Betterments and Maintenance Report (1932–1933)," 2.
[232] William Butler, National Register of Historic Places Nomination "Snogo Snow Plow" (US Department of the Interior, National Park Service, August 18, 2005).
[233] Quin, "Trail Ridge Road, Rocky Mountain National Park," 30–31.
[234] W.L. Lafferty, "Final Construction Report (1933–1934) on Fall River Pass National Park Highway, Project 1-A, B, & C Surfacing" (USDA Bureau of Public Roads, April 13, 1935).



Figure 2-41. *Masonry construction at Many Parks Curve, August 31, 1934.* (Source: ROMO Archives)

New Deal programs were important to the development of the park's roadways in several ways. The program with the greatest impact on the project was the CCC. During the early years of the program, in 1933, two CCC camps were established along the road. The first temporary camp—meaning it was operated only during the summer—completed at Rocky Mountain National Park was NP-1-C, established in May 1933 at Little Horseshoe Park (Figure 2-42). Camp NP-1-C operated until November 4, 1939. The second temporary camp, NP-3-C, was located along Beaver Creek in the Kawuneeche Valley west of the Continental Divide. Like Camp NP-1-C, Camp NP-3-C was also a summer-use facility composed of canvas tents. The camp remained operational for the summers of 1933 and 1934, after which it was replaced during the summer of 1935 by the third temporary camp, NP-7-C, located near Phantom Valley. Also short-lived, Camp NP-7-C operated only during the summers of 1935 and 1938 in the vicinity of the site of NP-3-C. The park's permanent camps featured more durable wood-frame or prefabricated structures. Camp NP-4, established in May of 1934 in Hollowell Park, was the first permanent camp built. Camp NP-11 was later built on that site in 1940 and continued occupation until 1942. Camp NP-7 was reoccupied again for a brief time in 1940 while Camp NP-12-C was being built near Grand Lake. Other camps in the park were built at Mill Creek.[235]

[235] William B. Butler, *The Archeology of the Civilian Conservation Corps in Rocky Mountain National Park* (Rocky Mountain National Park, 2006), 2, 5–6, 14–15; Julia Brock, "A History of the CCC in Rocky Mountain National Park" (National Park Service, 2005).



Figure 2-42. *A 1933 image of CCC Camp NP-1-C in Little Horseshoe Park*. (Source: ROMO 1)

The temporary camps along Trail Ridge Road were designed to operate in the warmer months between May and late October. The camp housed enrollees in pyramidal canvas tents with wooden supports. In addition to the barracks, supporting facilities often included mess halls and recreational buildings, bath houses and latrines, and garages and workshops. In the case of NP-1-C, many of these support structures were built of more durable wood construction. Sometimes camps were supported by "stub camps" with more limited facilities for enrollees working in areas far from the main camp. One such stub camp was located near the Phantom Valley Trading Post, north of NP-3-C.[236]

While generally organized along military lines, the camp designs were often adapted to the constraints of the site. In the case of NP-1-C, two long rows of barracks were built along the moraine between Little Horseshoe Park and Horseshoe Park. NP-3-C apparently straddled Beaver Creek.[237]

CCC enrollees stationed at these camps conducted an array of activities, including forest management and trail building, as well as the obliteration of old roadways and other signs of pre-park settlement. Forest management occurred in areas near visitor use facilities, such as roadside pullouts and campgrounds, to enhance the park experience.[238]

Other New Deal programs also benefited work on the road. In winter 1933, the Fall River Checking Station was relocated two miles east by Civil Works Administration workers.[239] Funding provided by the National Recovery Act led to a project sent out for bids in fall 1933 to build retaining walls on the western portion of the roadway. This work began in June 1934 and was completed that October. Many of the walls were built to address the locations of rock slides along the corridor. Rubble underdrains were

[236] Butler, *The Archeology of the Civilian Conservation Corps,* 3–4, 7.
[237] Julia Brock, "A History of the CCC in Rocky Mountain National Park," 2005, 10–11.
[238] Frank, *Making Rocky Mountain National Park*, 98–101.
[239] National Park Service, "The Master Plan for Rocky Mountain National Park" (1936).

incorporated behind the walls to manage drainage. A sidewalk, parking area, and guidewall at Farview Curve were also included in the project.[240]

Developing Winter Recreation in Hidden Valley

Interest in winter sports, including skiing, grew throughout the 1920s, with initial trails for that purpose constructed in the park at Fern and Odessa Lakes in the 1920s. This use of the park was supported especially by Superintendent Toll, a member of Colorado Mountain Club, which was promoting winter sports. By the early 1930s, park officials were considering proposals for a formal winter sports program at the park, entertaining ideas for more elaborate ski trail systems at Moraine Park and a ski course and toboggan slide at Hidden Valley from local advocates.[241] NPS Director Horace Albright was among those calling for the use of Rocky Mountain National Park for winter sports, including the development of winter resort facilities. In this, Rocky Mountain was at the center of a broader push for winter activities across the National Park System.[242]

The Hidden Valley area was in many ways especially suitable for this use, as logging, fire, and road camps had resulted in a network of impacted open spaces there. Ranger Jack Moomaw had already taken advantage of this, illicitly creating a network of informal ski trails through the valley throughout the 1920s and 1930s. The consequences for Moomaw's actions, once discovered, were tempered by the growing support for skiing, however, and the use was slowly formalized. Superintendent Rogers, less enthusiastic about more elaborate ski facilities than his predecessor, favored a measured approach to the development of winter recreation infrastructure in the face of local pressure.[243] In 1933, Rogers, declared his support for creating the "best ski hill in the United States" at the park.[244]

In March of 1934, the park hosted the National Down Mountain and Cross Country Ski Races. The event included a one-mile long course down Hidden Valley and a cross country course from Bear Lake to the Brinwood Hotel. Ranger Moomaw served as one of the officials for the event.[245] With growing interest in accommodating winter sports, and increasing demand, park staff adapted sites within the park for these uses. That winter, a beaver pond in the lower reaches of Hidden Valley was cleared to be suitable for ice skating. A parking pullout with log railings was also constructed along the lower reaches of Hidden Valley Creek, providing access to the nearby beaver ponds (Figure 2-43). And in subsequent years, a new ski trail was constructed in Hidden Valley.[246]

[240] Robert Coffey, "Final Construction Report (1934) on Fall River National Park Highway, Fall River-West Side Section, Project 1-C, Guard Walls" (USDA Bureau of Public Roads, November 13, 1935).
[241] Musselman, *Rocky Mountain National Park Administrative History*, 171–172.
[242] Richard West Sellars, *Preserving Nature in the National Parks: A History* (New Haven, Connecticut: Yale University Press, 1997), 63.
[243] Frank, *Making Rocky Mountain National Park*, 176–181.
[244] Musselman, *Rocky Mountain National Park Administrative History*, 174.
[245] Musselman, *Rocky Mountain National Park Administrative History*, 174.
[246] Musselman, *Rocky Mountain National Park Administrative History*, 174–176.

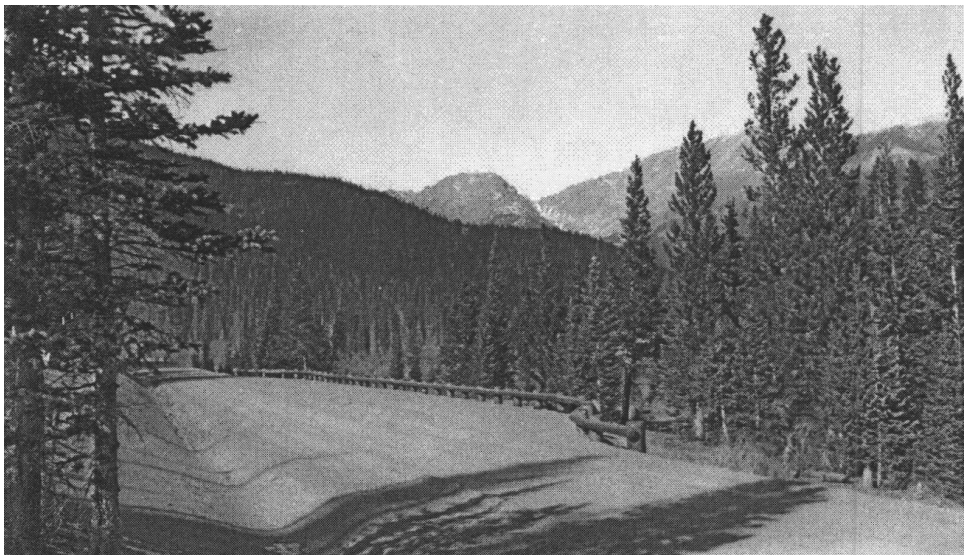


Figure 2-43. *Log railing at the pullout near the beaver ponds, 1930s.* (Source: ROMO image 38853)

As winter sports interest continued throughout the decade, park officials reported the poor and often dangerous conditions of the ski trails. Canfield, the new superintendent, recommended moving the winter sports programming away from Hidden Valley to Mill Creek or another more suitable site. But inertia kept winter usage in Hidden Valley for the time being.[247] By the late 1930s, three ski trails existed in the valley.[248] Park staff began to provide modest seasonal accommodations, including two 12 feet by 16 feet temporary shelters, one each at the top and bottom of the ski runs, and toilet facilities (Figure 2-44).[249] Hidden Valley also received a new roadside parking area.[250] The park also allowed local high school students to construct a primitive ski tow in the valley in 1941.[251]

[247] Buchholtz, *Rocky Mountain National Park*, 197.
[248] Musselman, *Rocky Mountain National Park Administrative History*, 177.
[249] David H. Canfield and John S. McLaughlin, "Superintendent's Monthly Narrative Reports, January 1938, Rocky Mountain National Park," 5.
[250] W.L. Lafferty, "Final Post Construction Report (1936–1937–1938–1939) on Fall River Pass National Park Highway, Project 1-A, B, C, D," 17.
[251] Musselman, *Rocky Mountain National Park Administrative History*, 178.



Figure 2-44. *A ca. 1938 image of the temporary shelter cabin at Upper Hidden Valley along Trail Ridge Road.* (Source: ROMO 1).

Continued Development of Trail Ridge Road

Between 1934 and 1936, the BPR conducted maintenance activities on the corridor using some forty to fifty local day laborers procured from the National Re-Employment Office, established as part of the New Deal programs in 1933, in Estes Park.[252] Work included seasonal snow removal and other maintenance tasks associated with opening the road for the season. After this task was completed, workers shifted to an array of projects along the roadway for the remainder of the season, including drainage improvements, slope stabilization, and widening of roadway shoulders. Workers also rebuilt portions of the roadbed in places where drainage issues were leading to problems with the road surface. Road maintenance, including repairs and enhancements to masonry structures and culverts, was also conducted by CCC enrollees.[253]

In 1934, CCC enrollees constructed drainage ditches and retaining walls in the vicinity of rock and mud slides along Section 1-C. At the site of the largest of these slides, workers installed a system of metal cribbing that covered 400 square feet of the slope.[254] The initial cribbing was later supplemented with additional sections installed on the slope below.[255]

The year 1934 also brought the completion of a reconstructed section of roadway in the Horseshoe Park area, extending from the junction of Old Fall River Road and High Drive to the park's entrance. The corridor was expanded to 24 feet in width, graded, and paved. With funding provided by the National Recovery Act, contractors hired workers drawn from local National Re-employment Office rolls. CCC

[252] W.L. Lafferty, "Final Post Construction and Maintenance Report (1934–1935–1936) on Fall River Pass National Park Highway, Project 1-A, B, C" (USDA Bureau of Public Roads, March 9, 1937), 1–4; Henry P. Guzda, "The US Employment Service at 50: it too had to wait its turn," *Monthly Labor Review* (June 1983):12–19, https://www.bls.gov/opub/mlr/1983/06/art2full.pdf.
[253] George A. Carlson, "Rocky Mountain National Park Narrative Report for Period Ending Sept. 30, 1935, Camp NP-4-C," n.d.
[254] Lafferty, "Final Post Construction and Maintenance Report (1934–1935–1936)," 6–7.
[255] Lafferty, "Final Post Construction and Maintenance Report (1934–1935–1936), n.p.

enrollees helped prepare for the project by clearing timber along the route.[256] A stone crushing plant, established near Deer Ridge Junction, which was configured as a Y-shaped triangular intersection, supported the effort. In addition to rebuilding the roadway, crews also installed metal culverts with masonry headwalls along the route and constructed a hand-laid rock embankment, or armoring, along a particularly steep slope.[257] Following establishment of the new roadway, enrollees obliterated evidence of the earlier road alignment.

In October 1934, C.V. Hallenback won a contract to surface 32 miles of the roadway with bitumen. The plans called for paving the route with a 3-inch surface. The contractor was also engaged to build a new road in the Bear Lake area, outside of the CLR study area. A stone crushing plant was similarly established as part of this project, and the area later converted to a parking area. The paving work was completed by June 1935.[258] BPR laborers installed metal culverts and conducted additional drainage improvements involving subsurface systems and the construction of additional culverts while the contractor installed the bituminous surfacing.[259]

Work finally commenced on Section 1-D-1 in 1934, with a portion of the earlier Fall River Road rebuilt through the Colorado River valley to Grand Lake. C.V. Hallenback was again awarded the contract for this work in November 1934, and commenced work that winter, establishing a camp at a nearby private lodge and beginning clearing along the route. After this brief season ended due to winter weather conditions, the contractor resumed work in April 1935, installing culverts and bringing in equipment. Frequent snow storms soon halted work, however, and operations did not resume until June. That summer, work proceeded on rough grading, construction of concrete box culverts, and masonry walls. To provide a stable footing in the wetland areas, several feet of soil were excavated under the roadway and filled with stone.[260]

Work continued on Section 1-D-1 until October 1935 but then ceased for the winter, resuming the following June 1936. The contractors established a new work camp on a site previously occupied by workers on the 1935 road oiling project, after their previous camp location had itself been turned over to workers on another project. Work completed by July 1936 included the addition of ditches and the grading of roadway side slopes, obliteration of the old roadway, and additional masonry work (Figures 2-45 and 2-46).[261] Hallenback received a third contract in October 1935 for slope stabilization along Sections 1-A, 1-B, and 1-C. This work, also conducted in 1936, included an array of drainage and slope improvements, and some retaining wall construction. Additional metal cribbing, covering 2,649 square feet in two tiers, was installed on the slope below the earlier cribbing along Section C, resulting in an engineered system of four tiers of cribbing to protect the slope from sliding. The cribbing was painted tan at the recommendations of the NPS landscape architect to render it more visually compatible with the landscape.[262]

[256] Robert Coffey, “Final Construction Report (1933–1934) on Fall River Highway (High Drive-East Entrance) NR-1-A2 Grading” (USDA Bureau of Public Roads, May 18, 1935), 3–4.
[257] Coffey, “Final Construction Report (1933–34)," 6.
[258] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 37–38.
[259] Lafferty, “Final Post Construction and Maintenance Report (1934–1935–1936),” 10–11.
[260] Robert Coffey, “Final Construction Report (1934–1936) Project NR-1-D1 Grading, Fall River Highway” (USDA Bureau of Public Roads, March 17, 1937).
[261] Coffey, “Final Construction Report (1934–1936).”
[262] Robert Coffey, “Final Construction Report (1936–1937) on Fall River National Park Project, 1-D1 Surfacing” (USDA Bureau of Public Roads, March 25, 1938), 7.



Figure 2-45. *A culvert conveying Onahu Creek beneath the road, 1930s.* (Source: ROMO image 48944)



Figure 2-46. *A stone-paved drainageway feeding water into a metal culvert with a masonry headwall, 1930s.* (Source: ROMO 49005)

Following a major slide within Section 1-C in 1936 that resulted in collapse of the roadbed, BPR laborers rebuilt a section of the new roadway several hundred feet in length. To prevent further problems within the same section, the engineers redesigned the road by flattening the curvature and adjusting the center line to ensure the road was sitting on cut rather than fill. They also conducted slope stabilization along several miles of roadway throughout the park. In addition to maintenance activities, the BPR also constructed a new picnic area along Section 1-B, grading a level area and adjusting the surrounding slopes to tie back to the natural landform. CCC enrollees also installed road signs, funded by the BPR, along the road that season.[263]

In 1936, the park received its first master plan, a comprehensive document that included an array of recommendations for the park's development and management, encompassing planning of existing and proposed developed areas, as well as fire control, and trail and road systems. The plan called for

[263] Lafferty, "Final Post Construction Report (1936–1937–1938–1939)," 5–6.

consolidating the park's eastern entrances, eliminating one in the vicinity of High Drive. The plan also featured numerous improvements to existing and proposed roadside areas, including the various camps that had been established for work crews, as well as public campgrounds along the park's major roadways. In addition to affirming the need for completing the highway through the park, the plan called for development of amenities at Fall River Pass, where old Fall River Road met the new route. Identified on the plan as "One of the most important stopping places en route across the Continental Divide," a new parking area was recommended to replace informal use of the space and sited to support a proposed new museum and shop (Figure 2-47).[264]



Figure 2-47. *Site plan for a new parking area and museum at the Fall River Pass Area, 1936 park master plan.* (Source: National Park Service, Master Plan for Rocky Mountain National Park, 1936)

Improvements to Fall River Pass came quickly. The museum was constructed in 1936, and associated infrastructure buildings, including a stone pump house rendered in the NPS Rustic style of the museum and nearby 1922 shelter cabin, followed in 1938.[265] A contract for landscaping improvements throughout the corridor, issued in August 1936, called for construction of the new parking area at Fall River Pass. The project also included railings at Rainbow Curve and retaining walls on Section 1-D-1.[266] Further improvements to the roadway for Section 1-D-1 commenced in September 1936 when additional roadbed surfacing was initiated. The project was completed the following year when the road was oiled.[267]

[264] National Park Service, "Master Plan for Rocky Mountain National Park" (1936).
[265] Cheria Yost, National Register of Historic Places Nomination "Fall River Pump House and Catchment Basin" (US Department of the Interior, National Park Service, October 2005).
[266] Quin, "Trail Ridge Road, Rocky Mountain National Park," 32.
[267] Coffey, "Final Construction Report (1936-1937)."

In 1936, former park superintendent Roger Toll, then stationed at Yellowstone, suddenly passed away. Following his death, Coloradoans sought to honor him. They succeeded in having a mountain south of Rocky Mountain National Park named for him. A peak finder and memorial were also installed at the park, above Rock Cut, around this time.[268]

Even after BPR engineers surveyed Section 1-D-2 in the early to mid-1930s, and construction of the section was funded in 1935, the road terminus location remained undetermined in the eyes of the park officials and the Grand Lake community. With the construction contract pending, the NPS finally chose to end the roadway west of the town, rather than in Grand Lake.[269] Before the work was completed, a checking station appears to have been built along the original Fall River Road alignment in 1937 (Figure 2-48). In the meantime, BPR engineers continued to survey the route approaching Grand Lake in order to finalize the alignment during 1937 and into 1938, working to locate a suitable route through the wetter areas of the Colorado River valley. The final route selected followed the existing Fall River Road for approximately 2 miles before shifting west for the final mile.[270] Acquisition of the land needed to build the road, however, proceeded slowly, further delaying construction of the final road segment.[271] Section 1-D-1 was finally paved in 1938 and 1939 with additional delays caused by inclement weather.[272]



Figure 2-48. *Newly constructed checking station at the Grand Lake Entrance, August 1937.* (Source: ROMO 1)

In the meantime, the BPR continued to undertake projects throughout the corridor. In 1937, BPR laborers installed 1.5 miles of stone-paved ditches along Sections 1-B and 1-C. Where these ditches met earlier inlets with headwalls, these features were reconstructed, and new drop inlets were installed on top of them to eliminate traffic hazards.[273] Three new parking areas were installed by BPR crews in 1938. Located in Hidden Valley, they provided access to the nearby Beaver Ponds, popular in the winter months for ice skating.[274] The NPS initiated work on new parking areas at Gore Range, Poudre Lakes,

[268] Lillian Rice Brigham, *Colorado Travelore: A Pocket* Guide (Denver: Peerless Printing Company, 1938), 402.
[269] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 39–40.
[270] Robert Coffey, “Location Survey Report on Relocation of Section 1-D2, Fall River-West Side-Grand Lake Project, Fall River Highway” (USDA Bureau of Public Roads, 1939).
[271] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 39.
[272] Robert Coffey, “Final Construction Report (1938–1939), 1-D1 Bituminous Surfacing” (Federal Works Agency, Public Roads Administration, June 20, 1940).
[273] Lafferty, “Final Post Construction Report (1936–1937–1938–1939),” 14.
[274] Lafferty, “Final Post Construction Report (1936–1937–1938–1939)," 9–10.

Monument Ridge, and Iceberg Lake that year.[275] The NPS also undertook snow removal operations in 1938, while BPR engineers and laborers focused on construction projects along the roadway, such as slope stabilization and sodding, roadway repair, drainage improvements, and widening of the bituminous surface.[276]

Projects completed in 1939 included setting 8-inch log maintenance posts along the roadway that featured 2 ½ inch tall numbers marking survey points along the road.[277] The guidewall at Many Parks Curve parking area, which had slumped, was lifted with hydraulic jacks and its foundation reconstructed.[278] In mid-1939, the BPR was transferred to the newly established Federal Works Administration, and rechristened the Public Roads Administration (PRA); its relationship with the park remained largely the same.[279]

Work accomplished by CCC crews in the 1940 fiscal year included substantial completion of the Timber Creek Campground, at the site of the earlier road camp there.[280] In August 1940, the NPS finally acquired the remaining land needed to complete Trail Ridge Road Section 1-D across the Harbison Ranch, allowing road construction to proceed. By June 1941, rough grading was completed, and soon progressed to surfacing and oiling. Some landscape improvements were conducted around the Grand Lake Checking Station. Old sections of the road were obliterated, and the project was completed on September 15.[281] One of the last major road projects was centerline striping for 11.5 miles of road above the tree line, completed in mid-1941.[282] The final segment of a new telephone line to Grand Lake was also completed in 1941, its route roughly paralleling the Trail Ridge Road corridor.[283]

By the end of 1941, when the United States would enter the conflict in Europe and Asia, the roadway was substantially complete, although this last section would remain without asphalt for several years. The total cost of roadway construction is estimated at between $1.25 and $2 million. The final route was a continuous 22- to 24-foot-wide roadway, marked by various major parking areas and overlooks as well as stone walls, railings, culvert headwalls, swales, walks, picnic areas, campgrounds, and trails located along the route.[284] Beyond these more visible elements, was an elaborate network of subsurface drainage features and structures and an engineered roadbed designed to promote the safety and enjoyment of the public.

World War II and the Post-War Years (1941–1956)

(See Map 2-4: Period Plan, 1941–1956 at the end of this chapter)

With the onset of World War II, roadbuilding projects were largely suspended, and Trail Ridge Road entered into a relatively slow period of development, a 1941 Road System Plan that identified numerous sites still deserving of pullouts and picnic areas along the Trail Ridge Road corridor and High Drive.[285] During the early 1940s, PRA maintenance crews continued their work, although projects were more

[275] Lafferty, “Final Post Construction Report (1936–1937–1938–1939)," 12.
[276] Lafferty, “Final Post Construction Report (1936–1937–1938–1939)," 11.
[277] Lafferty, “Final Post Construction Report (1936–1937–1938–1939)," 15.
[278] Lafferty, “Final Post Construction Report (1936–1937–1938–1939)," 18.
[279] United States Department of Transportation, Federal Highway Administration, “History | FHWA,” December 13, 2019, https://highways.dot.gov/federal-lands/about/history.
[280] Musselman, *Rocky Mountain National Park Administrative History*, 107.
[281] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 40.
[282] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 42.
[283] David H. Canfield, “Superintendent’s Monthly Narrative Reports, November 1941, Rocky Mountain National Park.”
[284] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 40.
[285] National Park Service “Road System Plan, Part of the Master Plan, Rocky Mountain National Park,” Drawing No. NP-RM 3011-F, 1941.

limited in scope, focusing primarily on repair or slope stabilization.[286] Notably, two timber bridges along the former Fall River Road corridor were replaced as part of the effort to convert that route to one-way uphill traffic in August 1942.[287]

The activities of the CCC were similarly curtailed. Park staff reported low enrollment by mid-1941, resulting in the closure of one camp and reduced output from those remaining.[288] Camp NP-7-C, near Grand Lake, was razed that July.[289] By 1942, all the camps had been disbanded. Camps NP-11 (the second permanent camp built of prefabricated buildings in November 1939), and NP-12 (the third permanent camp established outside the western park boundary at Grand Lake in 1940), the remaining CCC outfits in the park, were shuttered on July 14, 1942.[290]

Over the next three years, work was limited primarily to clearing the roadway of snow and rock slides. As a 1944 Superintendent's report noted, "Only the minimum maintenance work is being accomplished, consistent with available funds and labor ceilings, to protect the park and physical structures."[291] Labor shortages, reported in 1945, further curtailed maintenance activities in the park.[292] However, an engineer for the Public Roads Administration did conduct planning for new parking areas in Section 1-B in the fall of 1943, indicating the ongoing interest in building out the Trail Ridge Road corridor.[293]

During the war, visitation to the park dropped off significantly, from over 663,819 in 1941 to 392,565 the following year. With the end of the war, Rocky Mountain National Park, like many national parks around the country, saw surging visitation, bringing increasing numbers of automobiles into the park and users onto its trails. By 1951, visitation would climb to 1.33 million. However, years of austerity had taken their toll on Rocky Mountain National Park and other parks, which were not equipped to manage this surge. The poor conditions of the park were reflected in the increasing complaints received from visitors.[294]

The 1949 version of the park's Road System Plan reflected the deferred maintenance and development of the previous decade. In addition to identifying the unpaved sections of the road and unrealized roadside amenities requiring repair, it called for reconstruction of Section 1-C.[295] The plan also noted the desire for a connection from Beaver Meadows Junction to Estes Park, a route that roughly paralleled the original High Drive. In support of the concept, the NPS recommended a bill to be considered by Congress to acquire a 500-foot-wide corridor for the approach road. The bill was passed and signed into law by President Truman on August 24, 1949.[296]

Additional projects conducted in 1949 included paving of Section 1-D-2, the final stretch of roadway to Grand Lake, which was completed by October.[297] The following year saw further striping of the roadway, covering the sections below the timberline on the eastern side of the corridor.[298]

In January 1951, the BPR, now reestablished within the US Department of Commerce, was awarded a contract for the resurfacing and stabilization of Section 1-C (Figure 2-49). Planning for the project began

[286] W.L. Lafferty, "Final Report (1940–1943) on Post Construction of the Fall River Pass National Park Highway, Project 1-C, D" (Federal Works Agency, Public Roads Administration, March 8, 1944).
[287] Canfield, "Superintendent's Monthly Narrative Reports, August 1942, Rocky Mountain National Park," 3.
[288] Canfield, "Superintendent's Monthly Narrative Reports, June 1941, Rocky Mountain National Park," 3.
[289] Canfield, "Superintendent's Monthly Narrative Reports, July 1941, Rocky Mountain National Park," 3.
[290] Canfield, "Superintendent's Monthly Narrative Reports, July 1942, Rocky Mountain National Park."
[291] John E. Doerr, "Superintendent's Monthly Narrative Reports, July 1944, Rocky Mountain National Park," 2.
[292] Doerr, "Superintendent's Monthly Narrative Reports, September 1945, Rocky Mountain National Park."
[293] Doerr, "Superintendent's Monthly Narrative Reports, September 1943, Rocky Mountain National Park," 3.
[294] Frank, *Making Rocky Mountain National Park*, 40–43.
[295] National Park Service, "Road System Plan, Part of the Master Plan, Rocky Mountain National Park," Drawing No. NP-RM 3011-I, November 7, 1949.
[296] Musselman, *Rocky Mountain National Park Administrative History*, 210.
[297] Quin, "Trail Ridge Road, Rocky Mountain National Park," 41.
[298] Quin, "Trail Ridge Road, Rocky Mountain National Park," 42.

in 1945. The project proceeded slowly, with striking truckers, tourist crowds, and even beavers contributing to the delays. Other work initiated in 1951 included planning for expansion of the Fall River Pass Museum building and parking area. While the building was not expanded until 1963, the parking likely was.[299] In 1952, PRA completed slope stabilization and the installation of additional metal cribbing. When completed, the project contributed to a total of 21.6 miles of the roadway that met modern standards. In addition to widening the roadway surface and shoulders, asphalt gutters were incorporated in places.[300]



Figure 2-49. *Work on Section 1-C included adjustment to the alignment of the road at Farview Curve, yielding additional parking space, August 23, 1951.* (Source: ROMO image C-2957)

In 1953, the Colorado Highway Department completed centerline striping west of Fall River Pass, using paint supplied by the park. Striping in subsequent years was variously conducted by state, park, and private crews. The shift in responsibility away from the federal government likely reflected the shifting organizational status of the BPR.[301]

Other work conducted in 1953 included development of plans for improvements to Timber Creek's picnic and camping areas. Among the features these plans called for new acceleration and deceleration lanes, an indication of the increasingly modern character of the roadway.[302] Meanwhile, that year, a substantial rockslide occurred along Old Fall River Road; with limited funds to conduct maintenance, the upper portions were closed to cars and converted to use as a pack trail.[303] During this time, the park began studying options for changes to the Fall River Entrance. These plans included a drive-thru new entrance station, to replace an older checking station, which would in turn be converted to an information station, served by new parking.[304]

With the arrival of the Eisenhower administration in 1953, the NPS's national offices were reorganized, with a focus on increasing efficiency. The move brought increasing attention to the National Park

[299] National Park Service, "Fall River Pass Museum Area - Rev's., Part of the Master Plan, Rocky Mountain National Park," Drawing No. NP-RM 2121, October 13, 1951.
[300] Quin, "Trail Ridge Road, Rocky Mountain National Park," 43–44; Albert K. Patterson, "Final Construction Report (1951–1952) on Rocky Mountain National Park Project, Trail Ridge 1-C, Bituminous Surfacing and Stabilization" (US Department of Commerce, Bureau of Public Roads, June 16, 1954).
[301] Quin, "Trail Ridge Road, Rocky Mountain National Park," 42.
[302] National Park Service, "Timber Creek Campground: Part of the Master Plan, Rocky Mountain National Park," Drawing No. NP-RM 3126-E, July 1952.
[303] Quin, "Rocky Mountain National Park Roads," 58.
[304] National Park Service, "Study B: Fall River Entrance," Drawing No. NP-RM 2162-A, 1953.

System's lack of funding and the need for further development to meet new levels of recreational use in the Cold War era. The shift in administration helped build momentum that would later support the Mission 66 program.[305] At the same time, Rocky Mountain National Park personnel increased park planning and development efforts.

Improving Hidden Valley

During the 1940s, improvements in Hidden Valley had been limited, with the primary activities noted by monthly reports being the seasonal installation of shelter cabins, phone lines, and toilets, and maintenance and clearing of fallen trees in the ski runs. A small ski jump was also likely constructed during this period. The area remained popular, and in 1945 concessioner George Hurt sought permission to construct a ski tow and concession stand. He received approval the following year and installed a 1000-foot tow rope in the upper part of the valley, and a lunch wagon. The Rocky Mountain Parks Transportation Company also began to provide shuttles at the point where Trail Ridge Road crossed Hidden Valley.[306]

Though initially adequate, local boosters began to call for upgrading this infrastructure to compete with new amenities in ski resort areas like Aspen. In response to this pressure, NPS began to investigate more substantial winter use development at Rocky Mountain National Park, initially considering four sites, but ruling them out due to higher costs.[307] In 1953, park Landscape Architect Harold G. Fowler completed a study of the Hidden Valley area as a winter use zone. The report offered an ambitious program of development for the valley, encompassing new parking and a lodge at the base of the valley, as well as a more expansive ski lift that would span Trail Ridge Road, to be supported by a system of chair lifts running up the valley. The plan called for the clearing of trees to open up the runs, but recommended it be done in a naturalistic manner, with clumps or trees and curving tree lines that promoted a variety of shifting views (Figure 2-50).[308]

[305] Ethan Carr, *Mission 66: Modernism and the National Park Dilemma* (Amherst, Massachusetts: University of Massachusetts Press, 2007), 57–58.
[306] Frank, *Making Rocky Mountain National Park*, 180–183.
[307] Frank, *Making Rocky Mountain National Park*, 189.
[308] Harold G. Fowler, "A Report on the Potentialities of Hidden Valley as a Winter Use Area" (Rocky Mountain Landscape Architect, March 1953).

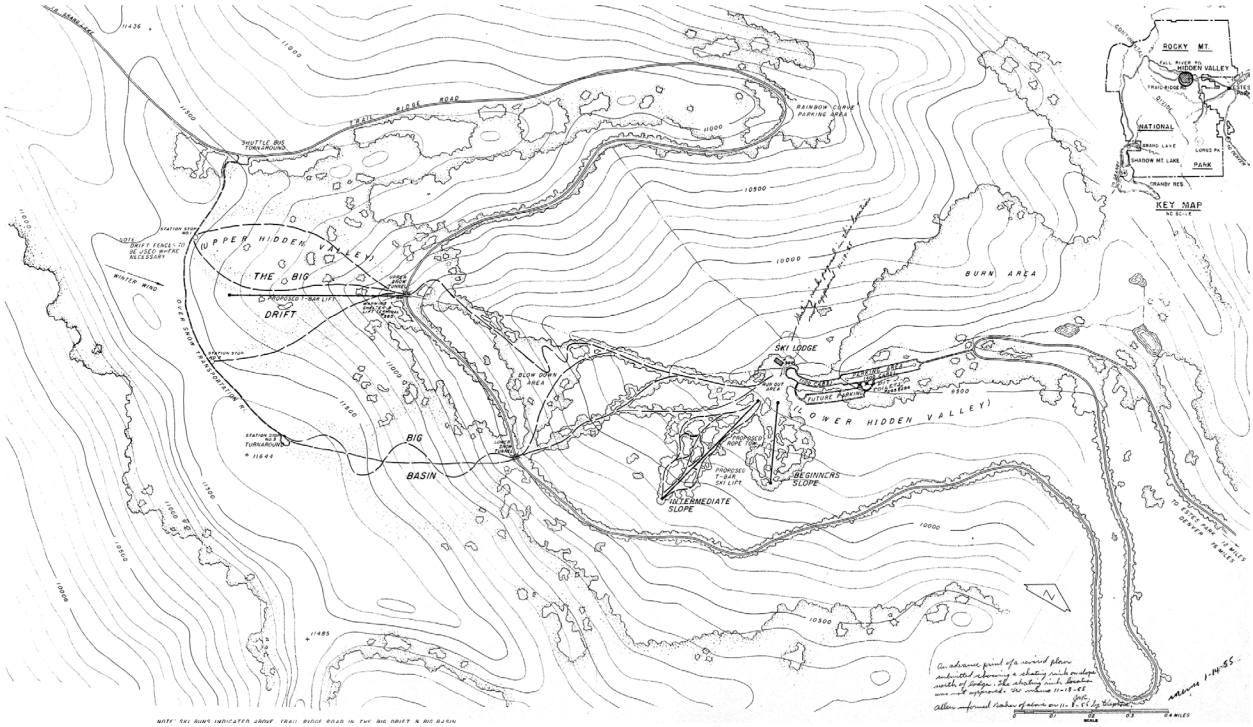


***Figure 2-50**. A 1954 plan for Hidden Valley.* (Source: National Park Service, drawing NP RM 3401)

Progress on Hidden Valley's development was swift, with work beginning on a more expansive circulation system including parking in the valley, and snow tunnels that would protect Trail Ridge Road and allow the ski run to pass over top of the road in 1954.[309] The snow tunnel was a moveable structure that could be installed at the beginning of the winter and removed the following spring (Figure 2-51).[310] A barn, relocated from the Little Horseshoe area, was also placed in the new parking area as a warming shelter.[311] Design studies supporting the work showed a large parking area and lodge at the base of the valley, with the shuttle bus turnaround proposed near where Trail Ridge Road approached the uppermost part of the ski slope.[312] Work proceeded over the course of 1954 and 1955 with a $350,000 budget. The new lodge and its associated facilities opened in time for the 1955–1956 winter season (Figure 2-52).[313]

[309] National Park Service, Landscape Division, Western Office Design and Construction, "Snow Tunnels (Upper Site Shown," Drawing No. NP-RM 3400, August 16, 1954.
[310] Frank, *Making Rocky Mountain National Park*, 191.
[311] James V. Lloyd, "Superintendent's Report, October 1954, Rocky Mountain National Park," 4.
[312] National Park Service, "Ski Lodge Site and Parking, Lower Hidden Valley," Drawing No. NP-RM 3402, November 1954.
[313] Frank, *Making Rocky Mountain National Park*, 193.



Figure 2-51. *A snow tunnel at Hidden Valley that allowed skiers to cross Trail Ridge Road, December 18, 1954.* (Source: ROMO 1)



Figure 2-52. *View of Hidden Valley, showing where the winter ski runs crossed Trail Ridge Road, date illegible.* (Source: ROMO 1)

An array of increasingly ambitious proposals for other parts of the park were also being developed by the mid-1950s. One concept under consideration was an interpretive center proposed for the Rock Cut area. Studies called for a new building to be either perched above the outcrop or extended out above the slopes on the downhill side of the road.[314] Neither of these concepts was realized.

[314] National Park Service, Landscape Architecture Division, Park Office, "Interpretive Center, Rock Cut, Rocky Mountain National Park," Drawing No. NP-RM 2196, n.d.

Planning also continued at the time on a new approach road to the park that would follow the old High Drive, which was closed by the mid-1950s. Preliminary surveys of a proposed entrance route in this area conducted in the early 1940s, and refined in 1949 and 1950, had resulted in little action.[315] However, the idea remained of interest to park personnel and the NPS continued to pursue the establishment of the new route, potentially a divided highway, that would link Estes Park to a new park headquarters located just to the east of a new checking station and road corridor built to meet Trail Ridge Road around Deer Ridge.[316] By 1955, responding to efforts by the state highway department to improve roads to the east, park officials quietly studied acquisition of necessary parcels in the High Drive corridor. Meanwhile, local civic organizations were beginning to agitate for an even more ambitious scheme, a bypass of Trail Ridge Road that would provide all-year access through Rocky Mountain National Park.[317]

Mission 66 (1956–1968)

(See Map 2-5: Period Plan, 1956–1970 at the end of this chapter)

Mission 66 was a federally sponsored program implemented between 1956 and 1966 to improve deteriorated and underserved conditions in the national parks following a dramatic increase in visitation after World War II. The program was a response to exponential increases in postwar visitation at America's national parks as improving economic conditions and changing workplace demographics afforded Americans more personal leisure time and increasing access to private automobiles. Between 1940 and 1955, the national parks saw an estimated rise in the number of visitors annually from 17 to 55 million. By 1950, nearly 99 percent of visitors arrived at national parks by car, a notable change from the pre-war era when trains were the preferred means of transportation.[318]

With federal budget allocations for parks barely above pre-war levels, and aging infrastructure not updated since the New Deal era, many parks struggled to accommodate the increasing numbers of visitors. By the early 1950s, most parks were in desperate need of updated visitor service and park administration facilities, personnel housing, and maintenance and operations facilities. Many of the buildings in use had been built with the help of CCC enrollees. The visitor contact facilities developed during the New Deal era were often modest in size and designed to blend with the environment to limit their visual and physical impact on the landscape. The small size of the New Deal-era visitor contact facilities, their limited services, and lack of visibility proved insufficient to accommodate rising levels of visitation. The result was overcrowding and damage to park landscapes. The limited automobile infrastructure, coupled with a significant increase in the use of private automobiles also led to congestion at park entrances, popular attractions, and visitor contact facilities.

With the sudden increase in automobile and foot traffic, and insufficient funds for repair and maintenance, parks began to exhibit signs of deterioration. Newspaper and magazine articles with titles such as "National Parks: Tomorrow's Slums?," "The Shocking Truth about Our National Parks," and "Twenty-four Million Acres of Trouble" described the poor condition of the nation's parks.[319]

Following his appointment as NPS Director in 1951, Landscape Architect Conrad Wirth resolved to address the growing criticism about the decline of the national parks. Wirth set out to devise a plan that would improve facilities system-wide on several fronts. Within a year he had conceived of a multi-year program to improve park facilities by modernizing, streamlining, and standardizing visitor flow and reconceiving several aspects of the park experience for visitors. Understanding that his vision would

[315] US Department of Commerce, Bureau of Public Roads, "Location Survey Report (1950) on High Drive Entrance - Route 2," August 18, 1952.
[316] National Park Service, "Study: High Drive Approach Road," Drawing No. NP-RM 2193, June 23, 1955.
[317] "Trail Ridge Alternate Road Urged," *Denver Post*, June 14, 1955.
[318] Carr, *Mission 66*, 5–6.
[319] Carr, *Mission 66*, 7.

require support from many stakeholders, Wirth set out to engage others in setting goals for the plan, soliciting input from the public by conducting a survey, completed in 1955, and requesting ideas and priorities for Mission 66. The survey revealed that most visitors anticipated spending one day or fewer in the parks, and virtually all planned to travel there by car. Visitors specifically complained of overcrowded conditions and a lack of accommodations and other amenities such as restaurants in many parks, suggesting an urgent need for better road and visitor service infrastructure. Wirth also surveyed park superintendents around the country to inquire about the projects they considered necessary to address current condition and visitor experience concerns as a way to start determining the scope of the budget that would be required to implement the plan.[320]

By February 1955, Wirth had formulated a vision for a comprehensive, system-wide plan to revitalize the national parks. In January 1956, Wirth presented the plan to President Dwight D. Eisenhower and his cabinet. In his proposal, Wirth referred to the program as "Mission 66."[321] Wirth's use of the word "mission" was designed to appeal to the President's military background and suggest its value as a purposeful undertaking, while also expressing the urgency of the national parks' situation to Congress. The "66" signified the anticipated end date of the program—1966—which would coincide with the fiftieth anniversary of passage of the NPS Organic Act in 1916. Wirth further justified the program by providing projections for visitation, suggesting ongoing exponential growth estimated to reach 80 million visitors by 1966. Wirth argued that the national parks would not be able to absorb these increases without experiencing additional damage should facilities and operations not be improved. Wirth described the way in which the plan would improve conditions in all national parks through the construction of new roads, trails, and visitor facilities, and increased operating budgets, while indicating how he would address other pressing needs of the national park system, such as staff housing, visitor lodging, interpretation, and access to important resources. To suggest the extent of the need, he used the project lists prepared by the park superintendents in his proposal.[322]

Anticipating the potential derailment of his plan by the federal funding process, the agency's dependence on annual appropriations from Congress, and the vagaries of politics, the economy, and advocacy, Wirth suggested that the program be fully funded up front as a ten-year capital improvement effort. The Eisenhower administration found Wirth's presentation of the program so compelling that they immediately suggested bringing it to Congress for funding. Following a presentation and request for an initial appropriation of $66 million, the US Senate not only accepted the proposal, but increased the amount of funding to $68 million. Congress continued to increase annual appropriations for Mission 66 each year until the government had invested over $787 million in the program by 1966. Through the course of the program, approximately $475 million in funds was used for construction, while the remainder contributed to management, preparation of plans, and protection of park resources.

One of the key changes that occurred during Mission 66 was a shift in the hallmark design style of NPS from the Rustic to something decidedly more modern. In fact, the goals of the Mission 66 program supported a change in philosophy with regard to the design of buildings in the national parks to address the need to accommodate larger numbers of visitors and streamline services.[323] Building technologies developed during and immediately following World War II also played a role in the agency's shift toward modern design, as new materials rendered construction faster and more economical, especially when compared with the costly, labor-intensive process of building Rustic-style features. The introduction of modern architecture within national parks, however, would prove controversial and was not always popular with the public. In defending the adoption of modernist design principles, Wirth and agency

[320] Carr, *Mission 66*, 10.
[321] Carr, *Mission 66*, 10.
[322] Carr, *Mission 66*, 66.
[323] Carr, *Mission 66*, 134–135.

designers argued that contemporary forms distracted less from the natural landscape, while allowing the NPS to meet the needs and lifestyles of modern visitors and better protect natural resources.[324]

The program would bring sweeping changes to Rocky Mountain National Park, including new housing based on standard designs and new visitor centers, a new building type conceived during the program.[325] The visitor center was intended to afford visitors the opportunity to experience the primary resource of the park through interpretive exhibits and views through large windows, and to interact with rangers and other park personnel in a centralized location. Visitor centers were designed to encourage efficient movement into and out of the building and the associated parking areas. As such, they reflected key principles of the Mission 66 program—efficiency and accommodation of visitor needs. Mission 66 planners strongly believed that expanded use of the parks could occur without impairing the quality of visitor experience and resources. Success required a new model of how parks were to function as public places and be redeveloped accordingly. Making parks into day-use destinations was to be achieved with wider roads, larger parking lots, and expanded "visitor use centers." Visitor centers would provide ample interpretive displays, restrooms, and administrative areas for increased numbers of proposed employees. As such, the visitor center was designed to be a one-stop centralized service center accessible to large numbers of visitors arriving in private automobiles. The construction of the Beaver Meadows Visitor Center in 1966–1967 is an example of the building type that provided visitors to Rocky Mountain National Park with an easily accessible, full-service, visitor services, orientation, and interpretation center located in close proximity to the town of Estes Park.

At the Mission 66 program's onset, Rocky Mountain National Park anticipated the need for more than $9 million worth of projects to address anticipated improvements. Much of this work was expected to center around the park's roadways. Some were to address maintenance needs, like repairing pot holes and dips in the settling roadbed of Trail Ridge Road, others were intended to reconcile safety issues, such as further widening of the roadway to accommodate larger cars and heavier traffic. In his annual report for 1956, Superintendent James Lloyd noted the need for improvements along Trail Ridge Road, citing the narrowness of the road, as well as inadequate shoulders and pullouts, which contributed to increasingly hazardous conditions along the busy corridor.[326] A complement of new visitor centers was recommended to serve visitors at the park's major entrances and destinations, including the Kawuneeche Visitor Center at Grand Lake entrance and Alpine Visitor Center at Fall River Pass, and the proposed new park headquarters at Beaver Meadows along the proposed new entrance route following the alignment of old High Drive.[327] In conjunction with the proposed new visitor center at Fall River Pass (Alpine Visitor Center), parking was to be expanded. Sections 1-A and 1-C of the road were also recommended to be rebuilt, with forty small new pullouts added along the roadway.[328] Collectively these proposed improvements confirmed the importance of the automobile in Rocky Mountain National Park.[329]

To address the need for new visitor services, the park stationed a house trailer at Rainbow Curve in 1956 to serve as an information station.[330] Meanwhile, summer of 1956 saw an enlargement of park boundaries on the eastern side of the park, supporting the establishment of the new approach road and the proposed visitor center and park administration headquarters facilities. In August, supported by Mission 66 funding, Lloyd officially announced the new road project, while the federal government began the process of acquiring the land within the expanded boundary.[331]

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[324] Maren Thompson Bzdek and Janet Ore, *The Mission 66 Program at Rocky Mountain National Park* (Fort Collins, Colorado: Colorado State University, 2010), 4.
[325] Sarah Allaback, *Mission 66 Visitor Centers: The History of a Building Type* (Washington, DC: US Government Printing Office, 2000).
[326] Quin, "Trail Ridge Road, Rocky Mountain National Park," 45.
[327] Buchholtz, *Rocky Mountain National Park*, 202–203.
[328] Quin, "Trail Ridge Road, Rocky Mountain National Park," 45.
[329] Quin, "Rocky Mountain National Park Roads," 60–61.
[330] Musselman, *Rocky Mountain National Park Administrative History*, 162.
[331] Musselman, *Rocky Mountain National Park Administrative History*, 209–211.

Mission 66 funding soon began to flow into an array of projects on the roadway itself. In 1957, new numbered markers were installed along Trail Ridge Road, keyed to new interpretive brochures developed by the park. A large parking area and walkway were constructed during this time at Forest Canyon Overlook, along with pullouts at Little Rock Cut, Rock Cabins, and Tundra Curves (Figure 2-53). Smaller pullouts were also constructed at several lower elevation sites, such as Poudre Lakes and Phantom Valley. Horseshoe Park and Sheep Lakes received new parking areas. The work was conducted by day laborers from 1957-1959. In addition to these pull outs, retaining walls in Upper Hidden Valley received extensions.[332]



Figure 2-53. *Parking area at Sheep Lakes, May 1968.* (Source ROMO 1)

Many of these improvements responded to the increasing evidence that visitors' feet and vehicles were significantly impacting the landscape adjacent to the road, especially in the tundra at the higher elevations. Pedestrian traffic had destroyed the sensitive lichens on the rocks and worn trails into the soil. To document these impacts, the park contracted with the University of Colorado to study disturbances to the alpine ecology in 1958. Ecologist Beatrice Willard, advised by John Marr, founder of the Institute of Arctic and Alpine Research, conducted much of the work (Figure 2-54). As part of this effort, Willard established two research plots at the Rock Cut and Forest Canyon Overlooks. The first of these was a site that had faced human impact for decades; the latter was a relatively new overlook site. These differing conditions allowed for a comparative evaluation of their impacts and recovery. As time went on, the areas excluded from use were found to slowly recover and provide inspiration for future management decisions.[333] Among the initial improvements that the study sparked was the paving of a social trail at Forest Canyon Overlook in 1959, which significantly reduced trampling on the nearby tundra. A path to a memorial to former Superintendent Roger Toll, located above Rock Cut, was also paved to similar effect

[332] Quin, "Trail Ridge Road, Rocky Mountain National Park," 45–46; James V. Lloyd, "Monthly Narrative Report, July 1959, Rocky Mountain National Park," 8–10.
[333] Cheria Yost, National Register of Historic Places Nomination "Willard, Beatrice, Alpine Tundra Research Plots" (US Department of the Interior, National Park Service, June 2007), 8-4.

in 1961.[334] Design strategies emerging from this work, including asphalt trails, buck-and-rail fencing, and signage, informed the park's approach to tundra in the years after.



Figure 2-54*. Beatrice Willard at work in the tundra research plots, ca. 1961.* (Source: https://www.nps.gov/articles/alpine-tundra-research-plots.htm)

In 1958, work began on the new entrance complex at Grand Lake, with clearing and grading of the site.[335] That year, work also finally began on the new entrance roadway in the Beaver Meadows area, supervised by the BPR. Contractor Carl V. Hill was selected for the project, and his outfit began work in July, clearing the site, grading, and installing drainage culverts throughout the summer and fall. Work was suspended in November, not long after the installation of base course materials on the roadway. The contractor resumed operations in June 1959 and completed asphalt paving of the route by August.[336] The corridor extended from new intersections at Beaver Park Junction and Beaver Point, which featured more elaborate engineering to allow for free movement of traffic. The road segment also featured a checking station with two kiosks and an office, which were completed in 1960 (Figure 2-55).[337]

[334] Yost, "Willard, Beatrice, Alpine Tundra Research Plots," 8-5.
[335] Quin, "Trail Ridge Road, Rocky Mountain National Park," 46.
[336] John W. Gibbs, "Final Construction Report (1958–1959) on Project 2-A High Drive Entrance Road, Grading, Base and Bituminous Surfacing" (US Department of Commerce, Bureau of Public Roads, October 11, 1961).
[337] Quin, "Rocky Mountain National Park Roads," 61; National Park Service, Landscape Architectural Branch, "Layout Plan - Beaver Meadows Entrance Sta.," Drawing No. Np-RM 2380-C, August 4, 1958.



Figure 2-55. *The new entrance station at Beaver Meadows, September 1962.* (Source ROMO 1)

In 1960, the Fall River Entrance was finally reconstructed. The checking station, once perched at the top of a long grade, was levelled and widened, and given new divided lanes. Unfortunately, the iconic stickwork arch at the entrance was lost during this project. Rock slides were also addressed on Trail Ridge Road during this time. Further roadwork occurred throughout the early 1960s, including reconstruction of the roadway between Fall River Road and Deer Ridge and replacement of the Fall River bridge with a steel and reinforced concrete structure.[338] During this reconstruction, the road was significantly realigned, and shifted from passing between the Sheep Lakes to skirting the edge of Horseshoe Park. A new concrete and steel girder bridge over Fall River, installed at this time, replaced an earlier rustic crossing. The road also received new parking areas at Phantom Valley Ranch and Gore Range Overlook, and Fall River Pass, where the new Alpine Visitor Center was under construction. Meanwhile, park landscape architects led improvements to the vegetation along the road corridor, thinning trees at Farview Curve to improve the view and conducting reseeding and revegetation efforts at various points along the route.[339]

During the late 1950s and early 1960s, the park also acquired numerous inholdings, including several lodges, and Deer Ridge Chalet, perched at the busy junction of High Drive and Trail Ridge Road. Acquired primarily for conservation purposes, these facilities conflicted with the increasingly cohesive experience of the park; however, their removal was questioned by local and environmental interests in light of the recent developments in Hidden Valley, which undermined conservation arguments.[340]

Similarly, debate with the local community about roadways through the park continued, as local organizations offered their own proposal for a transmontane route. Their proposal called for reclaiming

[338] Quin, “Rocky Mountain National Park Roads,” 62.
[339] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 46–47.
[340] Allaback, *Mission 66 Visitor Centers*, 183–184.

the now-shuttered Old Fall River Road, and constructing a connection via Chapin Pass, below the timberline to reconnect to Trail Ridge Road.[341] This route was one of the earliest surveyed in 1910s.

While previous work on roads and infrastructure met crucial needs in the park, it had yet to fully demonstrate the new vision offered by Mission 66. That began to appreciably change on July 15, 1965, the fiftieth anniversary of the establishment of Rocky Mountain National Park. That day, park officials held both a dedication for the new Alpine Visitor Center at Fall River Pass, and that afternoon, a groundbreaking for the park's second new visitor center and conjoined headquarters, to be built at Beaver Meadows (Figure 2-56).[342] That building was largely complete by late 1966, just missing the official fiftieth anniversary toward which Mission 66 had been targeted. The new headquarters was officially dedicated the following June (Figure 2-57).[343] The year 1966 also saw the construction of a new entrance station at Grand Lake, which had been long sought.[344]

The nearby Kawuneeche Visitor Center, last of the park's new visitor centers to be constructed, was completed in 1968. It was designed by Robert Newcomb, then an architect at the NPS San Francisco Planning and Service Center. The structure was designed as a series of pods supporting individual functions, such as offices, comfort station, and lobby space.[345]



Figure 1-56. *View toward Fall River Pass and the Alpine Visitor Center, September 1970.* (Source ROMO 1)

[341] Parker & Underwood, Consulting Engineers, "1964 Planning Report of United States Highway 34" (Highway 34 Association, 1964).
[342] Allaback, *Mission 66 Visitor Centers*, 181.
[343] Allaback, *Mission 66 Visitor Centers*, 199.
[344] Quin, "Trail Ridge Road, Rocky Mountain National Park," 46.
[345] Allaback, *Mission 66 Visitor Centers*, 260; "Colorado Cultural Resource Survey Architectural Inventory Form: B-0392-N CRD Kawuneeche Visitor Center," 2021.

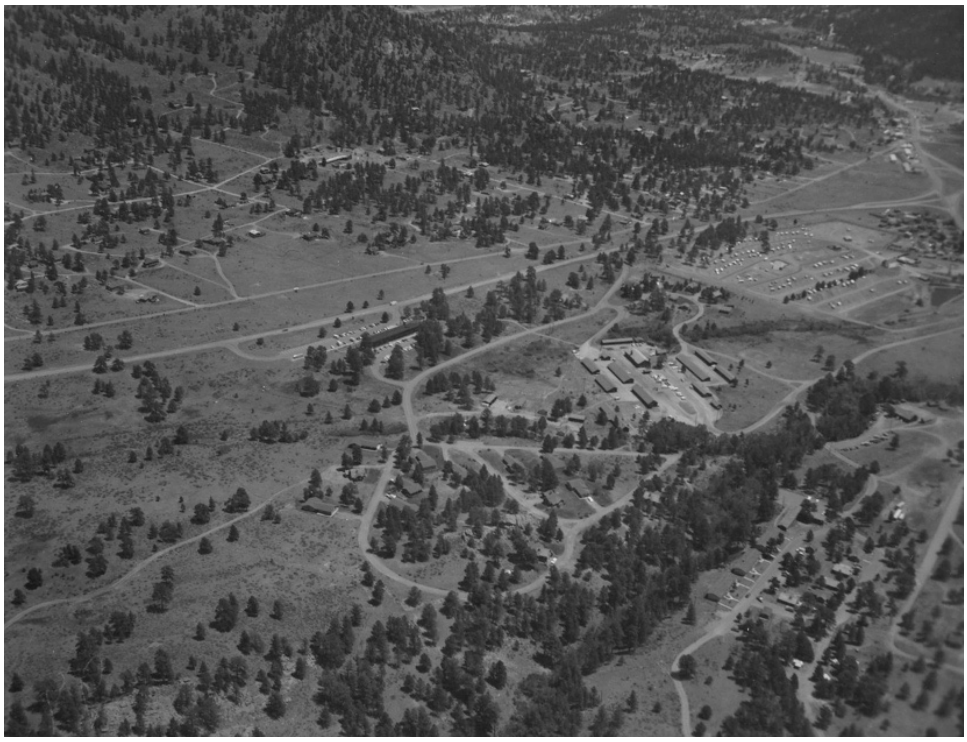


Figure 2-57. *View of the Beaver Meadows Visitor Center and park approach road, 1972.* (Source ROMO 1)

Among the last major roadway improvements of the Mission 66 era was the reestablishment of Old Fall River Road as a one-way drive. Park laborers reconstructed collapsed sections of the road, using gabions in places to stabilize the slope. The route reopened in 1968.[346] With this improvement, the road system of Rocky Mountain National Park had taken on its most developed form, and would not appreciably change in coming years, interventions being primarily limited to maintenance, widening, or occasional adjustments or enhancements of the roadway's pullouts, walls, and drainage systems.[347]

Continued Road Improvements (1968–2023)

(See Map 2-6: Period Plan, 1970–2023 at the end of this chapter)

In the five decades since the Mission 66 program ended, Trail Ridge Road has undergone successive waves of renewal and repair. Simultaneously, surrounding uses of the park landscapes have shifted away from many of the longstanding uses found there, toward an increasingly undeveloped character. Inholdings and tourist amenities, most notably the Hidden Valley ski area, have slowly disappeared. Infrastructure, including dams, have also been steadily removed. Joe Arnold, a former park engineer, estimated that during this period, over 100 buildings had been removed, and over 120 acres had been reclaimed from development.[348] Additions, during this period, meanwhile, reflected a progressive shift in style from the modern approach of Mission 66, toward an increasingly Neo-Rustic or Rustic Revival strategy that married new materials with the contextual strategy of earlier NPS Rustic design. This strategy was led by Arnold and other park staff and was influential on the character of the roadway in recent decades.[349]

[346] Quin, "Rocky Mountain National Park Roads," 63.
[347] Quin, "Rocky Mountain National Park Roads," 66.
[348] Personal interview with Joe Arnold by Sybil Barnes, May 12, 2011, 15.
[349] Joe Arnold, William Bryce Lloyd, and Amanda Jeter, "Rocky Mountain National Park Design Guidelines" (Estes Park, Colorado: National Park Service, Rocky Mountain National Park, December 21, 2010), 9.

Maintenance and repair work has encompassed improvements not only to the roadbed itself, which has required frequent repair and repaving, but also work on supporting infrastructure and landscape features such as drainage structures, stone work, eroded slopes, the vegetation along the road, and visitor facilities such as vault toilets and signage. The frequency of the need for road resurfacing generally reflects the harsh conditions of the environment through which the road passes, the wear and tear associated with snow removal, and the heavy seasonal visitor traffic. The stone walls lining the route received repairs on a cyclic basis, in the process often undergoing structural improvements, a process that is ongoing. Elements such as pullouts and trailheads have also received regular repairs, expansion, and other updates since 1970 to address increasing visitation.

The NPS applies an array of strategies to treating features along the corridor, which include careful preservation and reconstruction of historic retaining walls and guidewalls, to the use of contemporary materials and features as possible to address certain conditions, such as the need for additional comfort stations. In some cases, previously constructed elements, such as failing cribbing and gabions, have been removed and replaced with contemporary solutions. The NPS has also applied newer techniques and technologies to address the road's infrastructure, solutions often hidden beneath the road surface, to address drainage and the settling issues related to the alpine tundra soils and other harsh environmental conditions. These efforts mark a shifting emphasis, from the road as a modern marvel at the time of its construction, to a historic experience of an earlier time.[350]

Since the 1970s, the NPS position on accommodating winter sports and recreation activities within the park has changed. In 1971, the park authorized concessioner Rocky Mountain Park Company to build a chair lift at Hidden Valley, opening a 28-foot-wide corridor from the valley up to Trail Ridge Road. The lift was problematic, however, frequently requiring repairs that frustrated visitors, and amplified the perceived differences in experience between Hidden Valley and commercial ski resorts at places like Aspen. The lift was short-lived; a 1974 windstorm forced the closure of the lift.[351]

In 1972, cribbing built to protect a slope along the road below Farview Curve was removed when found to be at risk of failing. The NPS also worked to resurface portions of Trail Ridge Road between Deer Ridge Junction and Lower Hidden Valley between 1972 and 1974.[352] Sidewalks at Hidden Valley were also reconstructed, with asphalt replacing the failing concrete.[353] In 1973, the park replaced signs throughout the park to meet new NPS standards. The park approached the work by replacing individual signs as needed. Also completed in 1973 was slope stabilization at Upper Hidden Valley, restoration of former trails near the south end of Poudre Lakes, mountain pine beetle control efforts, and removal of hazardous trees along the road. Experimental buck-and-rail fences were also installed as drift fencing to guide users onto prepared paths in several places along the road.[354] New steel fencing was installed at the Willard research plots that year as well.[355] Also in 1974, new boulder embankments were installed at Gore Range and Forest Canyon overlooks to control pedestrians.[356]

Reflecting increasing appreciation for the fragile character of the park's landscapes, in 1974 President Nixon recommended that Congress designate much of the park, including lands adjacent to Trail Ridge

[350] Ray Vandersall, "Building the View: Rocky Mountain National Park's Trail Ridge Road" (Master's Thesis, United States – Wyoming, University of Wyoming, 2004), 73, https://www.proquest.com/docview/305116797/abstract/D816C98207EC4CD4PQ/1.
[351] Frank, *Making Rocky Mountain National Park*, 196–199.
[352] Quin, "Trail Ridge Road, Rocky Mountain National Park," 51.
[353] Roger J. Contor, "Superintendent's Annual Report 1972, Rocky Mountain National Park," 21.
[354] Wayne B. Cone (Acting Superintendent), "Superintendent's Annual Report 1973, Rocky Mountain National Park," 11; National Park Service, DRAFT "Trail Ridge Road Cultural Landscapes Inventory (CLI)" (2012), 50.
[355] National Park Service, DRAFT Trail Ridge Road CLI," 50.
[356] Quin, "Trail Ridge Road, Rocky Mountain National Park," 51; Contor, "Superintendent's Annual Report, 1974, Rocky Mountain National Park," 16.

Road, as wilderness according to the standards of the Wilderness Act of 1964.[357] Although the recommendation was not adopted then, the park was designated by UNESCO as a biosphere reserve in the coming years.[358] Continued acquisition of inholdings helped to further the broader conservation of the landscape. In 1974, the Nature Conservancy acquired the Holzwarth homestead, eventually transferring the property to the park.[359] This complemented the 1971 acquisition of Onahu Ranch, a former dude ranch also located along the western stretch of Trail Ridge Road.[360]

Robert Newcomb, architect for the Kawuneeche Visitor Center, designed new comfort stations for Rainbow Curve and Rock Cut, which were constructed in 1975. The buildings were nestled into the grade, with stone walls and featured angled shiplap siding and a chamfered stainless steel roofline.[361]

The park established experimental restoration plots near Tundra Curves and Fall River Pass in 1976.[362] Other restoration activities included work by the Youth Conservation Corps conducted at several sites throughout the park in 1977. Their efforts included planting trees and shrubs, sowing wild plant seeds, and protecting the restoration areas with buck-and-rail fencing. Further restoration and fencing work were conducted in 1979 at Many Parks Curve, Medicine Bow Curve, Deer Ridge Junction, and the Alpine Visitor Center.[363]

The National Trails System Act, initially passed by Congress in 1968, called for the study of several long-distance trails similar to the Appalachian Trail in the east. Among them was the Continental Divide Trail. This initial study was completed in 1977, and in 1978, the National Trails System Act was amended, expressly adding the Continental Divide National Scenic Trail to the system.[364] The US Forest Service was designated as the lead agency for the project and began studying potential routes. Their investigation of routes through the park was conducted in 1981.[365] As completed, the trail enters the park near Grand Lake, east of Trail Ridge Road, and then reaches the roadway at Green Mountain Trailhead. It parallels the road until the Bowen Gulch Trailhead, and then veers west into the Never Summer Wilderness Area.

The latter part of the decade also brought a variety of road projects. Several areas in the park, including portions of Trail Ridge Road, received sealcoating in 1976. In 1977, bicycle-safe sewer grates were installed along the road between Deer Ridge Junction and Hidden Valley; more were installed continuing to Fall River Pass the next year.[366] Hidden Valley also received improvements, including a picnic area and skating rink that year.[367] In 1979, a stone wall at Rock Cut was rebuilt.[368] Other walls in the vicinity

[357] National Park Service, “Wilderness - Rocky Mountain National Park,” August 4, 2016, https://www.nps.gov/romo/planyourvisit/wilderness.htm.
[358] United Nations Educational, Scientific, and Cultural Organization, “Rocky Mountain Biosphere Reserve, United States of America,” June 2019, https://en.unesco.org/biosphere/eu-na/rocky-mountain.
[359] National Park Service, “Holzwarth Historic Site – Rocky Mountain National Park,” April 28, 2017, https://www.nps.gov/romo/planyourvisit/holzwarth-historic-site.htm.
[360] Grand Lake Area Historical Society, “Onahu Ranch,” https://grandlakehistory.org/wp-content/uploads/2019/06/Onahu-Ranch.pdf.
[361] National Park Service, “Comfort Stations; Rainbow Curve, Rock Cut – Trail Ridge Road,” Drawing No. 121/41,049, November 7, 1975; “Colorado Cultural Resource Survey Architectural Inventory Form: B-0392-N CRD Kawuneeche Visitor Center,” 2021.
[362] National Park Service, DRAFT “Trail Ridge Road CLI,” 51.
[363] National Park Service, DRAFT “Trail Ridge Road CLI,” 51.
[364] Continental Divide Trail Coalition, “History of the Continental Divide Trail,” https://continentaldividetrail.org/history-of-the-cdt/.
[365] Chester L. Brooks, “Superintendent’s Annual Report, 1981, Rocky Mountain National Park,” 20.
[366] Harold L. Grafe, “Superintendent’s Annual Report, 1978, Rocky Mountain National Park,” 36.
[367] Brooks, “Superintendent’s Annual Report, 1977, Rocky Mountain National Park,” 23.
[368] The Superintendent’s Report describes these features only as “bicycle guard grates.” This description likely refers to a grate with bars spaced and oriented so as to allow bicycle tires to pass safely over them without being caught in the grate. National Park Service, DRAFT “Trail Ridge Road CLI,” 51–52.

were rebuilt in subsequent years.[369] Around this period, a ”Don’t Feed the Animals” sign was installed at Rainbow Curve, with others planned for additional overlooks along Trail Ridge Road.[370]

In 1980, a new stone overlook was built at Forest Canyon Overlook, which included realignment of the trail and obliteration and restoration of earlier paths. Other vegetation restoration projects occurred at the Toll Memorial and Milner Pass. Reconstruction of walls along the roadway during this period included work at Medicine Bow Curve. In these efforts, masons systematically disassembled the walls and documented the configuration of the pieces. Before re-laying the stones, new reinforced concrete footers were installed. On these new footers, masons then carefully cleaned and re-installed the walls according to images of the wall.[371] In many places, this work has responded to the impacts of frequent paving of the roadway, which in some places has become so thick as to render the walls as at best mere curbs, rather than functional guidewalls. Accordingly, footers have been elevated in places to respect the current elevation of the roadbed (Figure 2-58).[372]



***Figure 2-58**. A guidewall rebuilt with a concrete footer in 1983.* (Source: National Park Service)

In 1980, several segments of the road received chip-sealing, including the Hidden Valley parking area.[373] This incremental repair was followed the next year by an ambitious plan for modernizing Section 1-D, in the Colorado River District, which remained somewhat narrower than the rest of the corridor. The work would entail widening the road to a 22-foot profile with 3-foot-wide, flattened shoulders. The work would involve some modest realignment in places to ensure that the road worked with the adjacent grades. Another aspect of the plan was the expansion, improvement, or reconstruction of seventeen parking areas. The parking areas would receive wheelstops, while vault toilets reflecting Rustic design principles would be installed in some of the parking areas (Figure 2-59).[374] Boulder edging was installed at several sites. As part of this project, fifty-nine drop inlets were raised up to the road level, additional curb and gutter was installed, and new headwalls for the culverts were built at Beaver Creek and Timber Creek,

[369] Greg Daniels, “Condition Report: Rocky Mountain National Park, Outside Guard Walls, Inside Retaining Wall,” September 1989, unpaginated. Unpublished report, Rocky Mountain National Park Archives.
[370] Harold L. Grafe, “Superintendent’s Annual Report, 1978, Rocky Mountain National Park,” 22.
[371] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 52.
[372] National Park Service, DRAFT “Trail Ridge Road CLI,” 52.
[373] National Park Service, DRAFT “Trail Ridge Road CLI,” 52.
[374] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 51.

replacing the 1935 structures originally built at these stream crossings. The road also received a new entrance sign.[375] Collectively, these improvements brought this section of the road much closer to federal highway design standards, allowing for increased driving speeds, and providing for widened shoulders at pullouts. The visitor experience of this section was thus significantly altered.

Work on the western side of the park was delayed for a time, as striking Teamsters protested in the vicinity of a quarry pit along the Colorado River adjacent to the road in 1984, around 4 kilometers from the west entrance to the park. Although they had only been permitted to use the service drive to the quarry, the picketers frequently spilled onto the roadway, obstructing traffic along Trail Ridge Road.[376]

Meanwhile, an environmental assessment conducted that year as part of a proposed resurfacing of 23.1 miles between Phantom Valley and Hidden Valley noted the patchwork, built-up, character of the road and its increasingly uneven driving surface.[377] Work on resurfacing and sealing of the road took place over a three-year period between 1983 and 1985.[378] Work on the greater project was completed in 1986.[379] As part of the project, contractors worked to improve drainage along the corridor by clearing culverts, reconstructing failing masonry headwalls, installing new slot drains, underdrains, and other drainage structures, raising drop inlets, and paving ditches.[380] All of these improvements resulted in a comprehensive transformation of this section of the corridor.

[375] James B. Thompson, "Superintendent's Annual Report, 1985, Rocky Mountain National Park."
[376] Patrick Brower, "Teamsters Protest 'Unfair Labor Practices': Strike May Delay Work," *Grand Lake Prospector*, August 30, 1984.
[377] National Park Service, "Environmental Assessment for Trail Ridge Road Rehabilitation, Rocky Mountain National Park," n.d., Folder 206.1 / Series 2.3, Rocky Mountain National Park Archives.
[378] National Park Service, DRAFT "Trail Ridge Road CLI," 53.
[379] National Park Service, "Rocky Mountain National Park Package No. 106 & 302, Final Project Review, Unfinished Items" (January 1986).
[380] Quin, "Trail Ridge Road, Rocky Mountain National Park," 48–49; National Park Service, DRAFT "Trail Ridge Road CLI," 54.

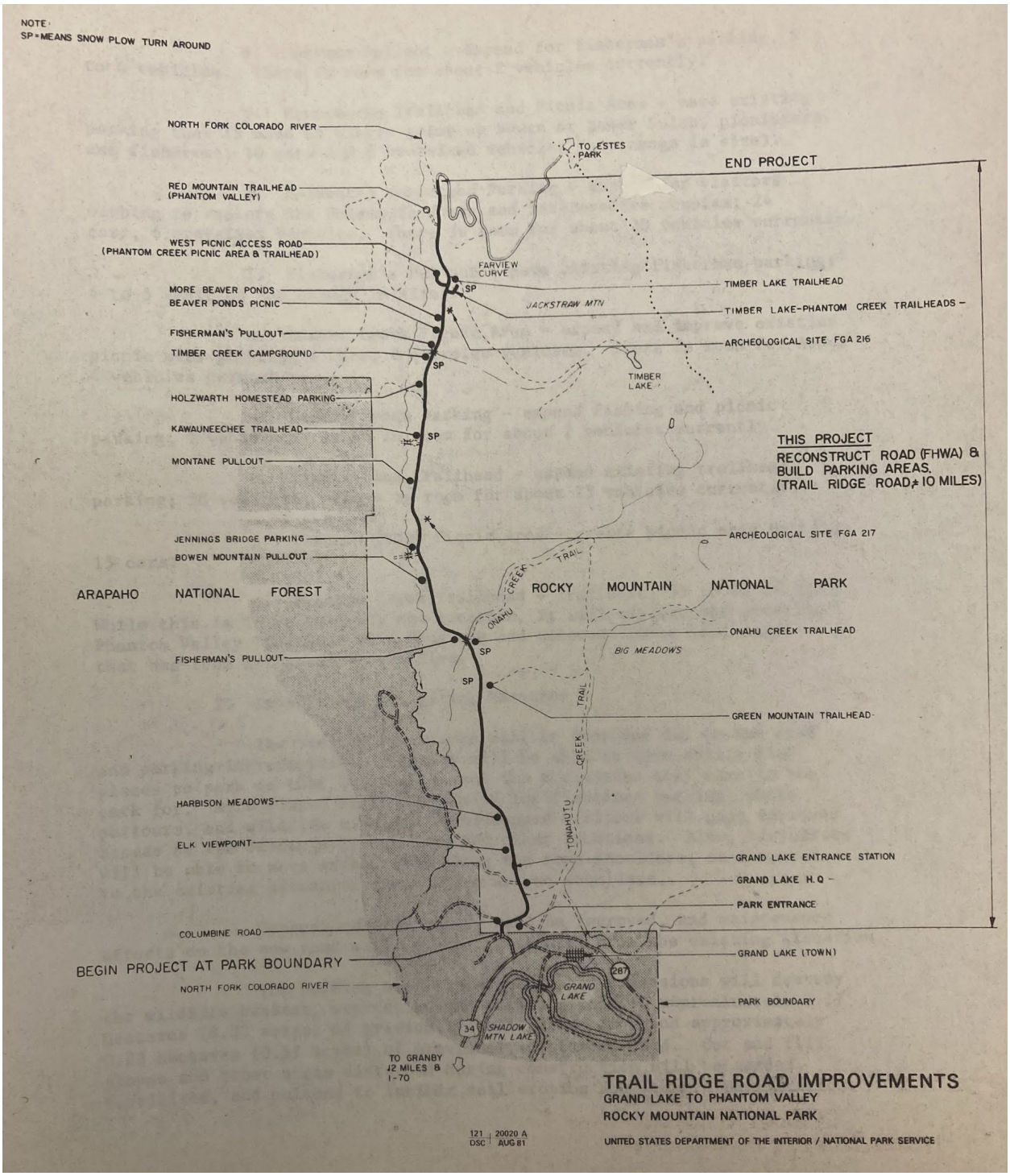


***Figure 2-59**. A map of proposed repaving and parking improvements, August 1981.* (Source: National Park Service, drawing 121/20020 A)

As these efforts were underway, on July 15, 1982, the Lawn Lake Dam broke, a catastrophic event with effects not only in the park but downstream in Estes Park. The floodwaters overtopped the Cascade Dam downstream in Horseshoe Park, flowing through the city's downtown, leaving two feet of mud behind. All

told, three people died and damage in the community was estimated at 31 million dollars.[381] Within the national park, impacts included a 40+ acre alluvial fan that covered almost a mile of Old Fall River Road and sweeping away a recently completed bridge over the Roaring River. The event came two days before the fiftieth anniversary of Trail Ridge Road.[382] It would take two years for Old Fall River Road to be rerouted and a new Roaring River bridge constructed in 1984.[383]

Further enhancements to roadside amenities came in 1984 with construction of a new walkway at Many Parks Curve. This feature, proposed in response to heavy pedestrian traffic at the switchback, incorporated the existing guidewall as a buffer between pedestrians and vehicles. To provide access over the wall, a new metal frame structure with wooden decking was built outside the wall, offering expansive views through its comparatively minimalist railing (Figure 2-60). A new boardwalk was also built at the Beaver Ponds, providing improved access to those features.[384] The following year, the parking area at Fall River Pass was overhauled.[385]

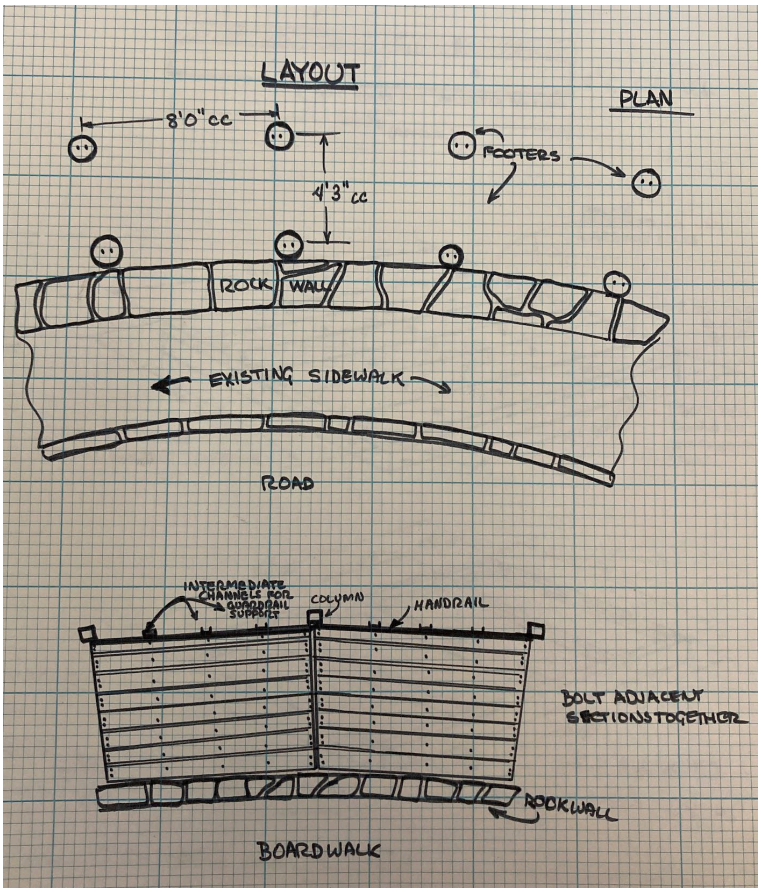


Figure 2-60. *A ca. 1981 sketch of the Many Parks Curve walk and proposed boardwalk deck structure.* (Source ROMO Archives)

In 1985, as many of these efforts drew toward a close, Trail Ridge Road was officially listed in the National Register of Historic Places.[386] The nomination identified the road as nationally significant as "an

[381] Chris Root, "The Lawn Lake Flood," Denver Public Library History, October 24, 2018, https://history.denverlibrary.org/news/lawn-lake-flood.
[382] Quin, "Trail Ridge Road, Rocky Mountain National Park," 53.
[383] Quin, "Rocky Mountain National Park Roads, Rocky Mountain National Park," 68.
[384] Quin, "Trail Ridge Road, Rocky Mountain National Park," 52.
[385] National Park Service, DRAFT "Trail Ridge Road CLI," 54.
[386] Quin, "Trail Ridge Road, Rocky Mountain National Park," 54.

engineering feat—the highest continuous highway in the United States—and for its role in the development of national park highways."[387]

The latter part of the decade witnessed annual work to chip-seal and restripe portions of the roadway, continued reconstruction of stone walls, and restoration of surrounding vegetation. In 1987, the park officially completed the installation of standardized trailhead signs at parking areas along Trail Ridge Road. Eight major overlooks throughout the park also received aluminum alloy waysides that year.[388] The park landscape architect initiated development of standards for construction and maintenance activities, which included an array of roadside features such as barrier stones and buck-and-rail fencing.[389] In 1989, two experimental precast retaining walls, created by park staff to manage slope erosion issues as part of its revegetation efforts, were installed likely in the area between Forest Canyon and Rainbow Curve. Access improvements were also made to the Alpine Visitor Center, while the Kawuneeche Visitor Center received a new educational wing, dedicated in 1990.[390]

While the 1980s were a fairly productive time in terms of repair and renewal of the roadway, these efforts slowed during the 1990s. Projects undertaken throughout the park in the early 1990s included a vault toilet replacement program and roadside vegetation management.[391] There were also emergency wall repairs and striping of many of the park's roads, crosswalks, and parking areas.[392]

In early 1992, the ski facilities at Hidden Valley finally closed following a slow decline in usership, deterioration of the infrastructure, and evidence of deleterious environmental impacts on the landscape. Soon after the facility closed, the NPS initiated repair of the site, removing buildings and other infrastructure and reforesting the former ski runs.[393] The snow tunnels that had been used to span Trail Ridge Road were relocated to the park's utility area and converted into storage buildings. The result of this effort was the return of over 20 acres to a wild state.[394] Portions of the facility were retained, however, including portions of the lodge complex, slated to become the park's Education Center.[395] Reflecting this shift toward educational spaces, at Coyote Valley, in 1994, an accessible trail was constructed. Interpretive waysides were installed the following year.[396]

In 1996, the FHWA's National Scenic Byways Program, established by Congress in 1991, identified 48 miles of Trail Ridge Road and Beaver Meadow Road as an "All American Road."[397] The 1996 group of byways was the program's first, and Trail Ridge Road's inclusion highlights its significance. The program noted especially the unique tundra views found along the corridor.

In 1999, two intersections along the park's roads were reconfigured, including Beaver Meadows and Deer Ridge Junction. Further upgrades to the park's visitor centers came around the turn of the millennium. A new Fall River Visitor Center, located just outside the park, opened to the public in 1999 as well. Unlike the park's other major entrances, Mission 66 planning had called for repurposing a historic cabin in the vicinity as a visitor orientation point for the Fall River Entrance, but this plan was unrealized.[398] This new building thus met that function, albeit at a new site acquired by the Rocky Mountain Conservancy, which

[387] Atkins, "Trail Ridge Road," Section 8.
[388] Thompson, "Superintendent's Annual Report, 1987, Rocky Mountain National Park," 8.
[389] Arnold, Lloyd, and Jeter, "Rocky Mountain National Park Design Guidelines," 77.
[390] National Park Service, DRAFT "Trail Ridge Road CLI," 54–55.
[391] Homer L. Rouse, "Superintendent's Annual Report, 1991–1992, Rocky Mountain National Park."
[392] A. Durand Jones, "Superintendent's Annual Report, 1995, Rocky Mountain National Park," 12.
[393] Frank, *Making Rocky Mountain National Park*, 200–201.
[394] Joe Arnold Oral History, 15.
[395] Jones, "Superintendent's Annual Report, 1995, Rocky Mountain National Park," 19.
[396] National Park Service, "Annual Narrative Report of Superintendents, Rocky Mountain National Park, 1995," 28.
[397] National Scenic Byway Foundation, "History of the Program," https://nsbfoundation.com/about/byways-across-america/history-program/.
[398] Steely and Huey, "Fall River Entrance," 33.

contributed over $2 million to the development.[399] The design of the structure reflected the Neo-Rustic principles of the time.[400]

At Hidden Valley, however, the remaining elements of the ski lodge were removed, work that included the removal of 100 tons of concrete and restoration of the surrounding landscape.[401] A new Ranger Station and restroom were built there in 2003, and the parking lot was reconstructed.[402] Additional amenities, added in 2004 and 2005 respectively, included a picnic shelter and accessible trail.[403]

Meanwhile, at Beaver Meadows Visitor Center, in 2003 the parking area was reconfigured and expanded, the entry plaza was redesigned, and a new comfort station was completed that was designed in consultation with Tom Casey, architect of the original visitor center and headquarters building.[404] A new automated pass lane was also built at the nearby entrance station.[405]

During the early 2000s, a range of maintenance work was pursued. A longstanding program of vault toilet replacement had by this time addressed over thirty sites throughout the park, including many along Trail Ridge Road.[406] This continued, with additional toilets replaced in 2001 and 2002.[407] Guidewall rehabilitation continued, including work conducted on a wall at Farview Curve in 2001, above Hidden Valley in 2005, and at Rainbow Curve in 2006 and 2008, with repairs to the adjacent sidewalk as well. Meanwhile, in 2003, 6 miles of the road between Alpine Visitor Center and Lake Irene were crack- and chip-sealed. Some vegetation management was also conducted in 2004, when several hundred lodgepole pines were cleared along the shoulders of Trail Ridge Road near the Green Mountain Trailhead.[408] Twenty-two trailhead kiosks in the east side of the park were replaced in 2006. Lake Irene Trail and Picnic Area were also rehabilitated.[409]

In the late 2000s, an extensive resurfacing project was undertaken with funds from the Federal Lands Highway Program. This project resulted in extensive repairs to Trail Ridge Road.[410] Proceeding in three phases between 2007 and 2010, the work involved recycling asphalt and repaving the roadway. As part of this work, slumping was addressed through installation of new subsurface drainage products under sections of the road. Work in 2007 covered areas between Deer Ridge Junction and Rainbow Curve. In 2009, crews worked on the western section of the road between Grand Lake and the Colorado River Trailhead. The project continued in 2010 with the section between the first two areas addressed. These projects covered resurfacing of the parking areas and pullouts and replacement of some culverts.[411]

On March 30, 2009, President Barack Obama signed the Omnibus Public Lands Management Act of 2009 into law. Included among its provisions was the designation of almost 250,000 acres as the Rocky Mountain National Park Wilderness area. This designation included much of the park, including land to either side of Trail Ridge Road. However, a swath of land immediately buffering the road, as well as pullouts and other adjacent developed areas such as campgrounds and visitor centers were excluded. Larger areas not designated as wilderness included Horseshoe Park and the Beaver Meadows area.

[399] Rocky Mountain Conservancy, “Completed Projects,” https://rmconservancy.org/our-projects/completed-projects/.
[400] Arnold, Lloyd, and Jeter, “Rocky Mountain National Park Design Guidelines,” 36.
[401] National Park Service, “Annual Report, Fiscal Year 2000, Rocky Mountain National Park,” unpaginated.
[402] National Park Service, “Annual Narrative Report of Superintendents, Rocky Mountain National Park, 2003,” 10.
[403] National Park Service, “Annual Narrative Report of Superintendents, Rocky Mountain National Park, 2004,” 2.
[404] National Park Service, DRAFT “Trail Ridge Road CLI,” 56–57.
[405] National Park Service, “Annual Narrative Report of Superintendents, Rocky Mountain National Park, 2003,” 3.
[406] National Park Service, “Annual Narrative Report of Superintendents, Rocky Mountain National Park, 2000.”
[407] National Park Service, “Annual Narrative Report of Superintendents, Rocky Mountain National Park, 2002,” 24.
[408] National Park Service, DRAFT “Trail Ridge Road CLI,” 57.
[409] National Park Service, “Annual Narrative Report of Superintendents, Rocky Mountain National Park, 2006,” 12-14.
[410] Joe Arnold Oral History, 8.
[411] National Park Service, DRAFT “Trail Ridge Road CLI,” 57–58.

Hidden Valley and other historically disturbed areas along Trail Ridge and Old Fall River Roads were also excluded.[412]

The East Troublesome Fire, which began October 14, 2020, in Grand County, burned around 30,000 acres within Rocky Mountain National Park. This impacted about 9% of the park's total area. Over 125,000 acres of land were impacted including land outside the park. The fire burned through areas along Trail Ridge Road on the west side of the park. It burned areas near the West Side Housing and Kawuneeche Visitor Center, but few structures were impacted. The Grand Lake Entrance Station was burned, however, as were many buildings in the Onahu Ranch area. Pull-offs along this section of the road were also impacted: the Harbison Picnic Area lost a vault toilet structure. The Timber Creek Road Camp Barn, built in 1930 and moved to its current site in 2002, was also lost. Burned and bent trees remain visible from the roadside as the landscape recovers.[413]

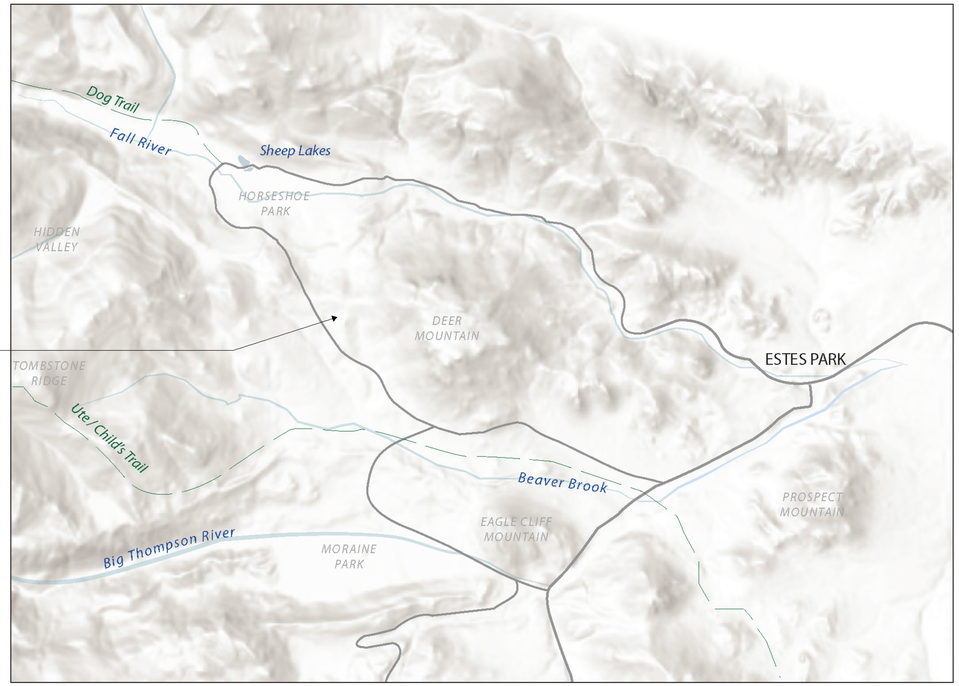
Work in recent years has followed a similar pattern to the work of previous decades. The roadway remains a site of active planning. Among recent projects was reclamation and repaving of the roadway between Deer Ridge Junction and the Bear Lake Intersection. Park staff evaluated existing informal pullouts around 2020-1, with some obliterated and others formalized through new paving. Some slopes were intentionally steepened to discourage roadside parking. Increases in visitation and automobile travel have led to the need for additional pullout space. In many cases, the need was identified as relating to providing a place for slower cars to pull over and allow other cars to pass, suggesting that these spaces could be relatively small in size, potentially only one car length. As constructed, these pullouts feature an angular geometry that contrasts with the more organic, curvilinear character of the road. As of 2022, Fall River Entrance is also in the process of receiving a new entrance station. Plans call for expansion of the number of entry lanes, with new kiosks and a new office building.[414]

[412] National Park Service, "Wilderness - Rocky Mountain National Park."
[413] National Park Service, "Cameron Peak and East Troublesome Fires," *Rocky Mountain National Park*, https://www.nps.gov/romo/learn/2020fire.htm (last updated July 29, 2021); Colorado Encyclopedia, "East Troublesome Fire," https://coloradoencyclopedia.org/article/east-troublesome-fire; Dan Jackson, Section 106 Coordinator, *Rocky Mountain National Park; October 21–24, 2020, East Troublesome Fire Event: Impacted Buildings Inventory* (National Park Service, January 21, 2021).
[414] National Park Service, "Replace Undersized Entrance Station, Fall River Entrance, Rocky Mountain National Park" (Denver Service Center, August 13, 2021).

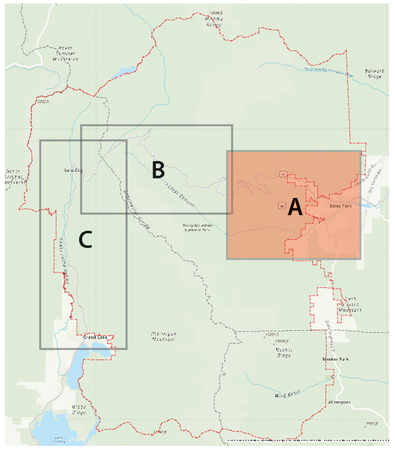
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Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



General location of William Ashlton homestead and Horseshoe Inn (1890s - c. 1932)



See CLR bibliography for map sources.

Key

- WAGON ROADS
- TRAILS CORRIDORS*
- RIVERS AND STREAMS

* *Trail corridor locations are loosely based on archeological maps and descriptions and are provided for illustrative purposes only*

0 1 2 3 miles

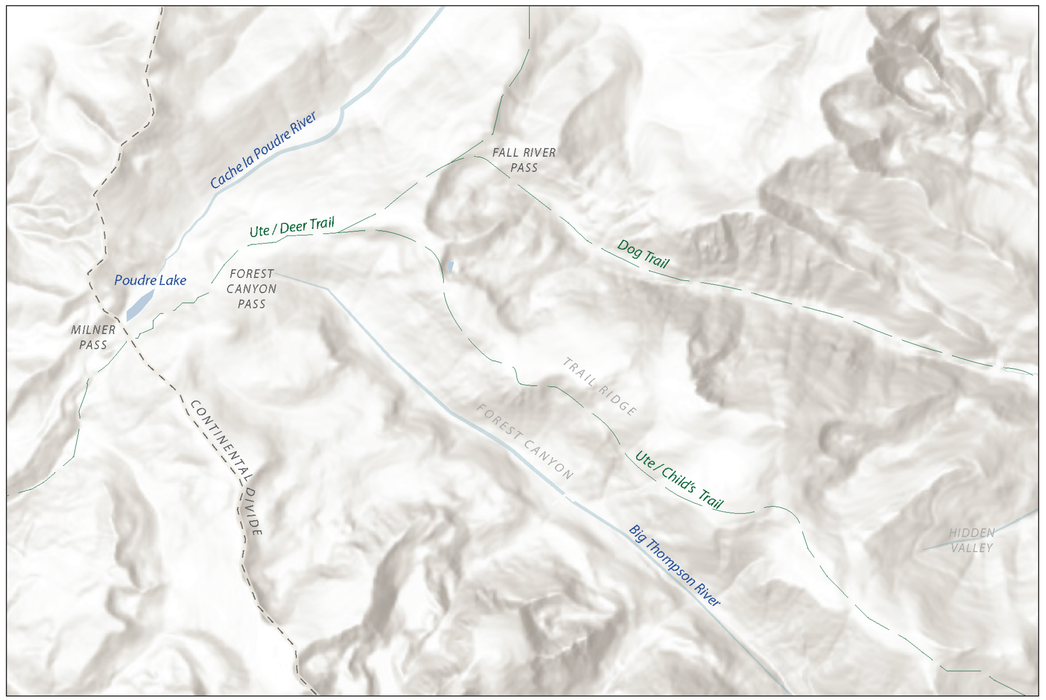
PERIOD PLAN - pre-1915

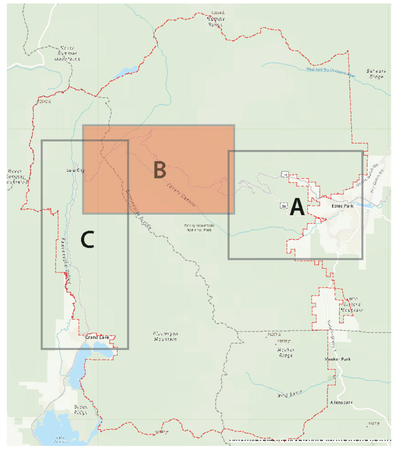
(Map 2-1A)

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Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report





See CLR bibliography for map sources.

Key

- TRAIL CORRIDORS*
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

* *Trail corridor locations are loosely based on archeological maps and descriptions and are provided for illustrative purposes only*

0 1 2 3 miles

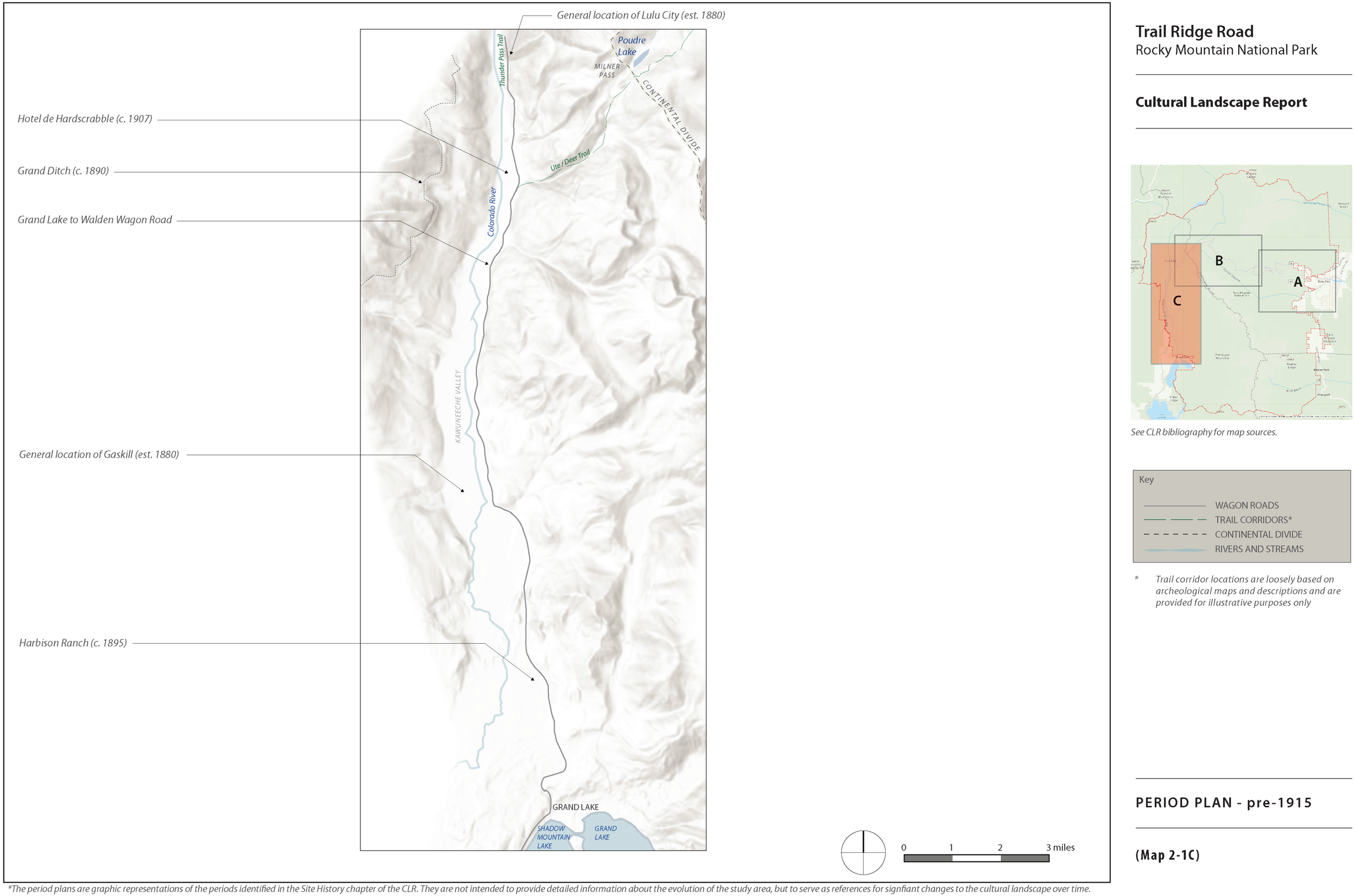
PERIOD PLAN - pre-1915

(Map 2-1B)

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Rocky Mountain National Park

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Key

- WAGON ROADS
- TRAIL CORRIDORS*
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

* *Trail corridor locations are loosely based on archeological maps and descriptions and are provided for illustrative purposes only*

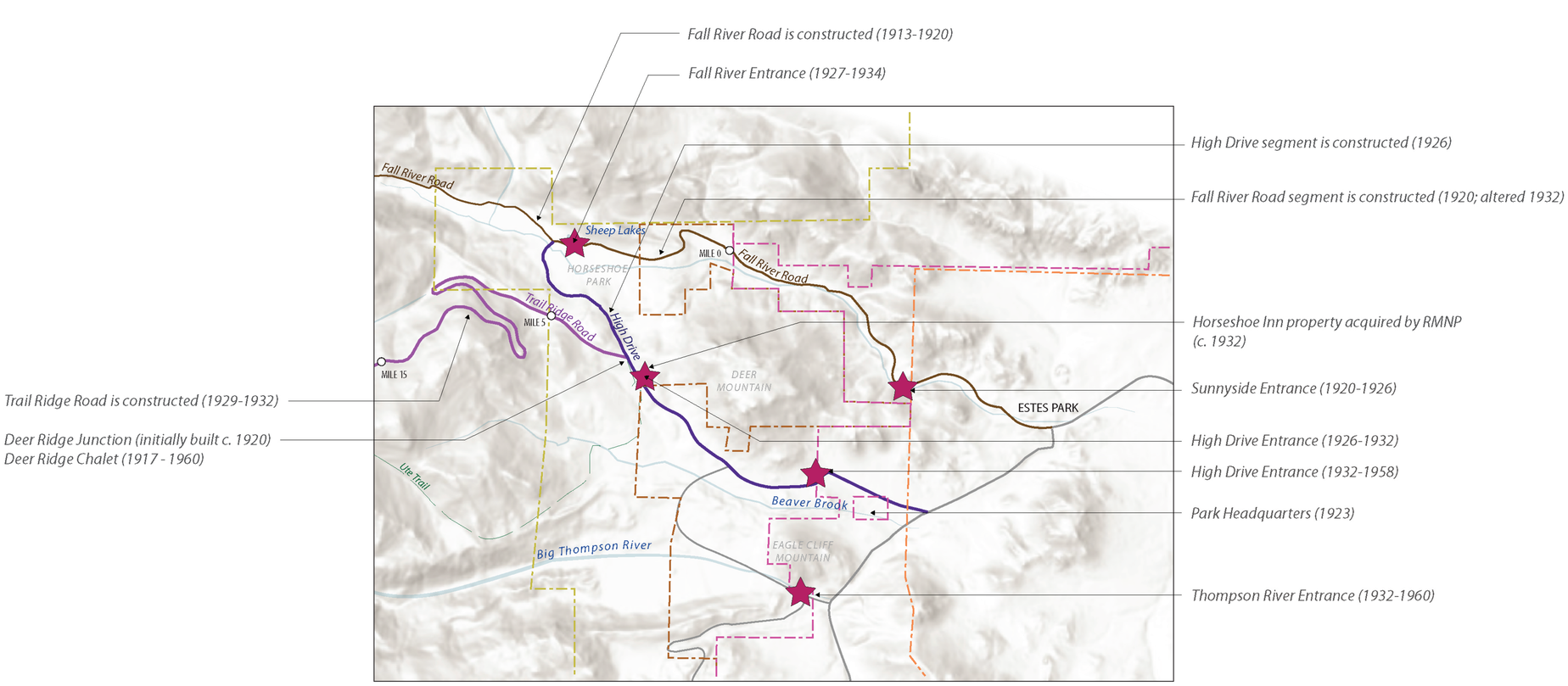
PERIOD PLAN - pre-1915

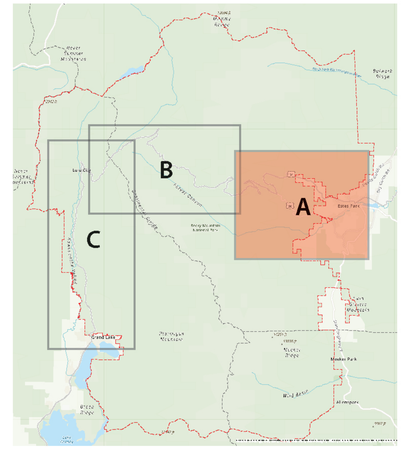
(Map 2-1C)

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Trail Ridge Road
Rocky Mountain National Park

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See CLR bibliography for map sources.

Key

- TRAIL RIDGE ROAD
- FALL RIVER ROAD
- HIGH DRIVE
- OTHER ROADS
- TRAIL CORRIDORS
- RIVERS AND STREAMS

Rocky Mountain National Park
Historic Boundaries

- 1915
- 1917
- 1926
- 1932

0 1 2 3 miles

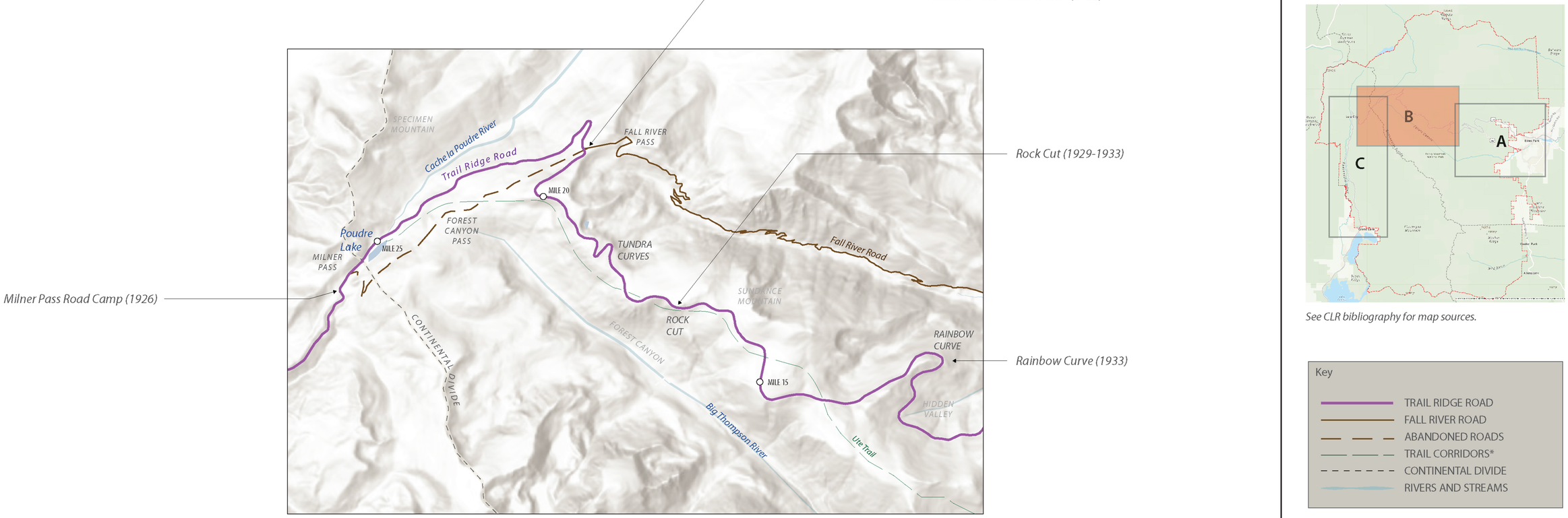
PERIOD PLAN - 1915-1933

(Map 2-2A)

**The period plans are graphic representations of the periods identified in the Site History chapter of the CLR. They are not intended to provide detailed information about the evolution of the study area, but to serve as references for signfiant changes to the cultural landscape over time.*

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



See CLR bibliography for map sources.

Key

- TRAIL RIDGE ROAD
- FALL RIVER ROAD
- ABANDONED ROADS
- TRAIL CORRIDORS*
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

PERIOD PLAN - 1915-1933

(Map 2-2B)

**The period plans are graphic representations of the periods identified in the Site History chapter of the CLR. They are not intended to provide detailed information about the evolution of the study area, but to serve as references for signfiant changes to the cultural landscape over time.*

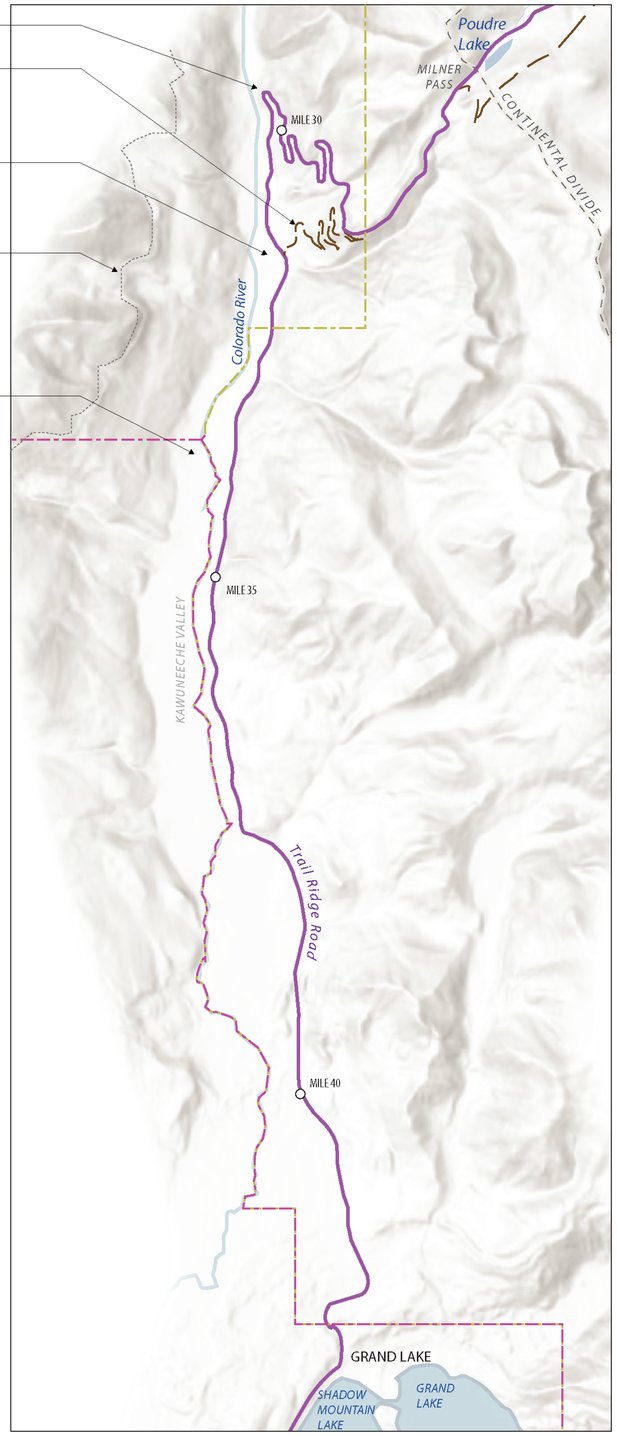
Switchbacks (c. 1932)

Abandoned West Side Switchbacks (1920-1932)

Hotel de Hardscrabble becomes Phantom Valley Ranch (c. 1926)

Grand Ditch

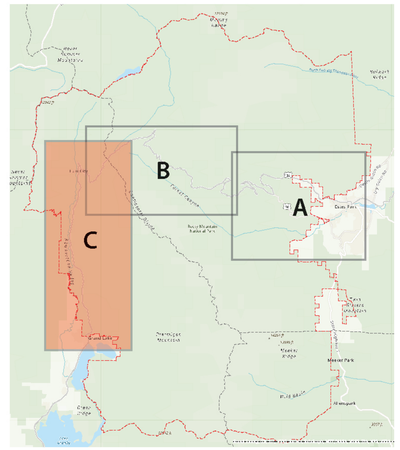
Holzwarth Ranch (c. 1917)



0 1 2 3 miles

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



*See CLR bibliography for map sources**

Key

- TRAIL RIDGE ROAD
- ABANDONED ROADS
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

Rocky Mountain National Park
Historic Boundaries

- 1915
- 1930

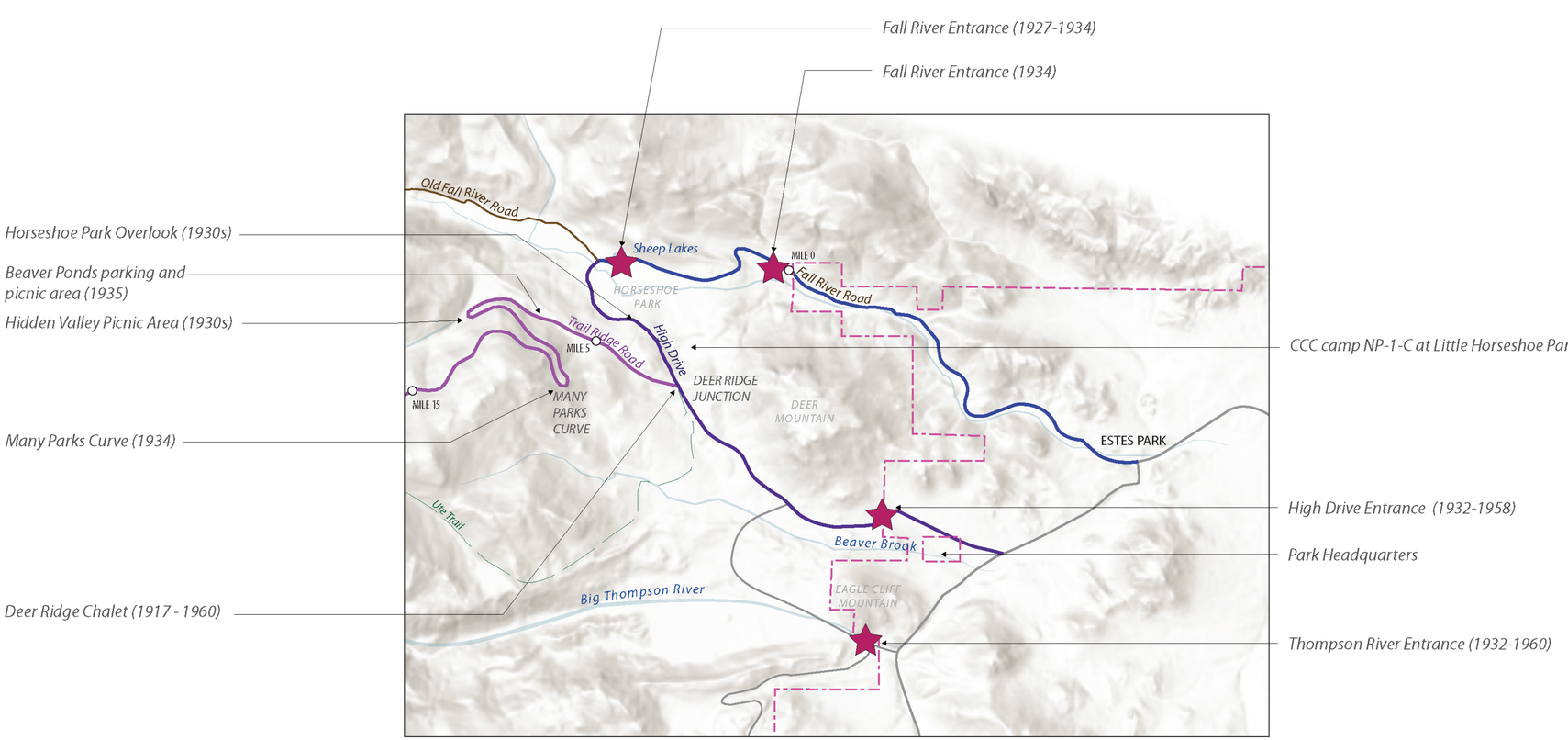
PERIOD PLAN - 1915-1933

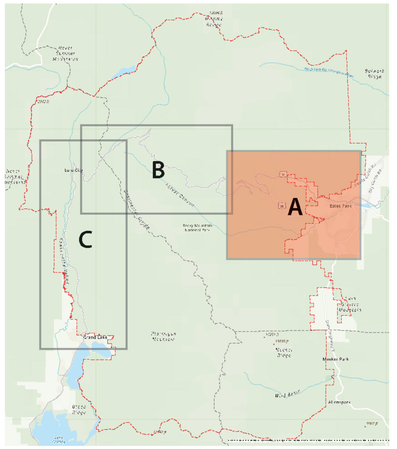
(Map 2-2C)

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Trail Ridge Road
Rocky Mountain National Park

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See CLR bibliography for map sources.

Key

- TRAIL RIDGE ROAD
- OLD FALL RIVER ROAD
- FALL RIVER ROAD
- HIGH DRIVE
- OTHER ROADS
- UTE TRAIL
- RIVERS AND STREAMS

Rocky Mountain National Park
Historic Boundaries
1932

0 1 2 3 miles

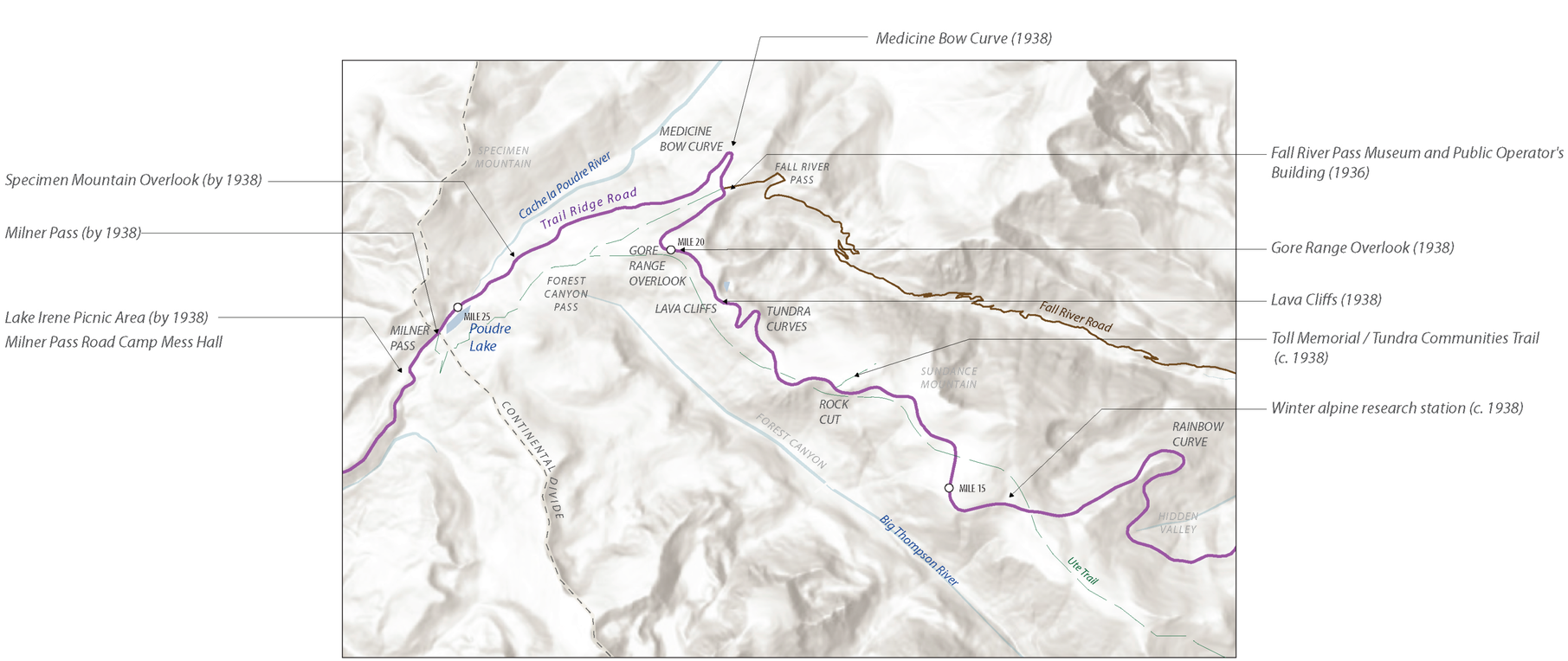
PERIOD PLAN - 1933-1941

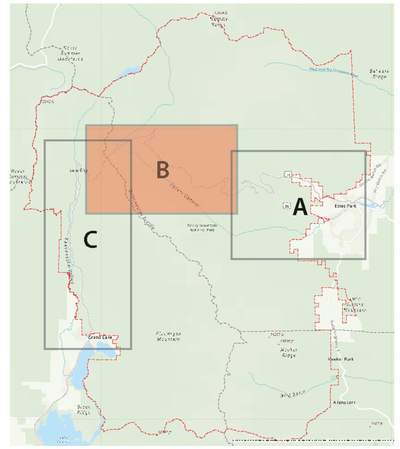
(Map 2-3A)

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Trail Ridge Road
Rocky Mountain National Park

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See CLR bibliography for map sources.

Key

- TRAIL RIDGE ROAD
- FALL RIVER ROAD
- UTE TRAIL
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

0 1 2 3 miles

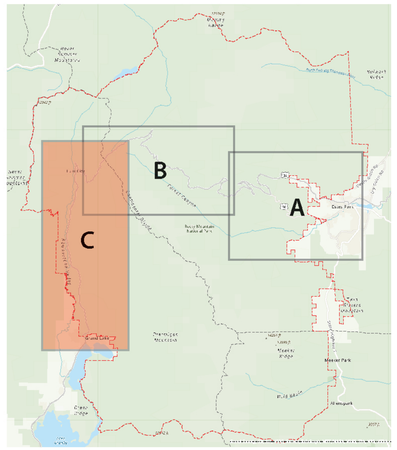
PERIOD PLAN - 1933-1941

(Map 2-3B)

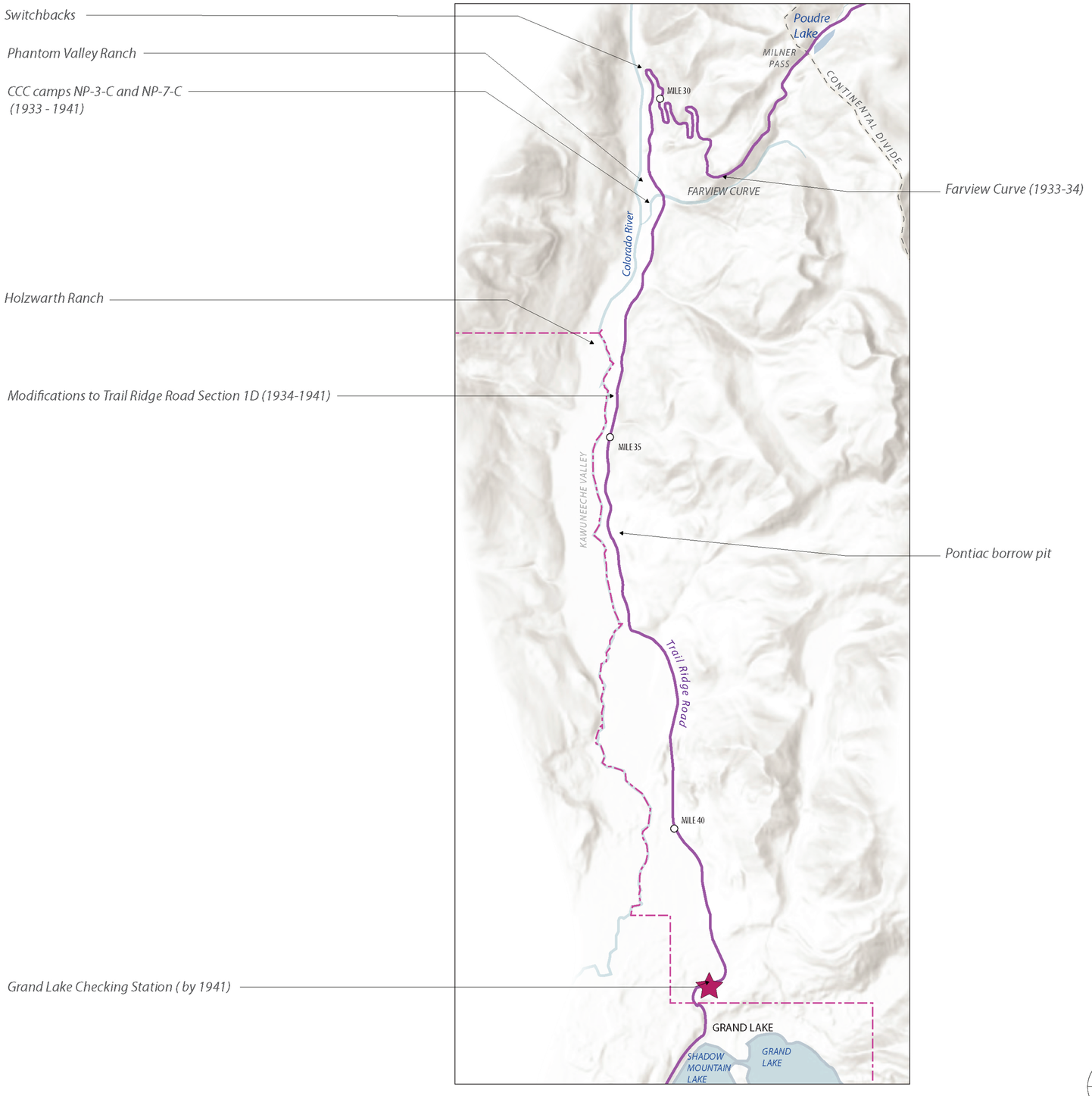
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Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



See CLR bibliography for map sources.



Key

- TRAIL RIDGE ROAD
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

Rocky Mountain National Park
Historic Boundaries
- 1930

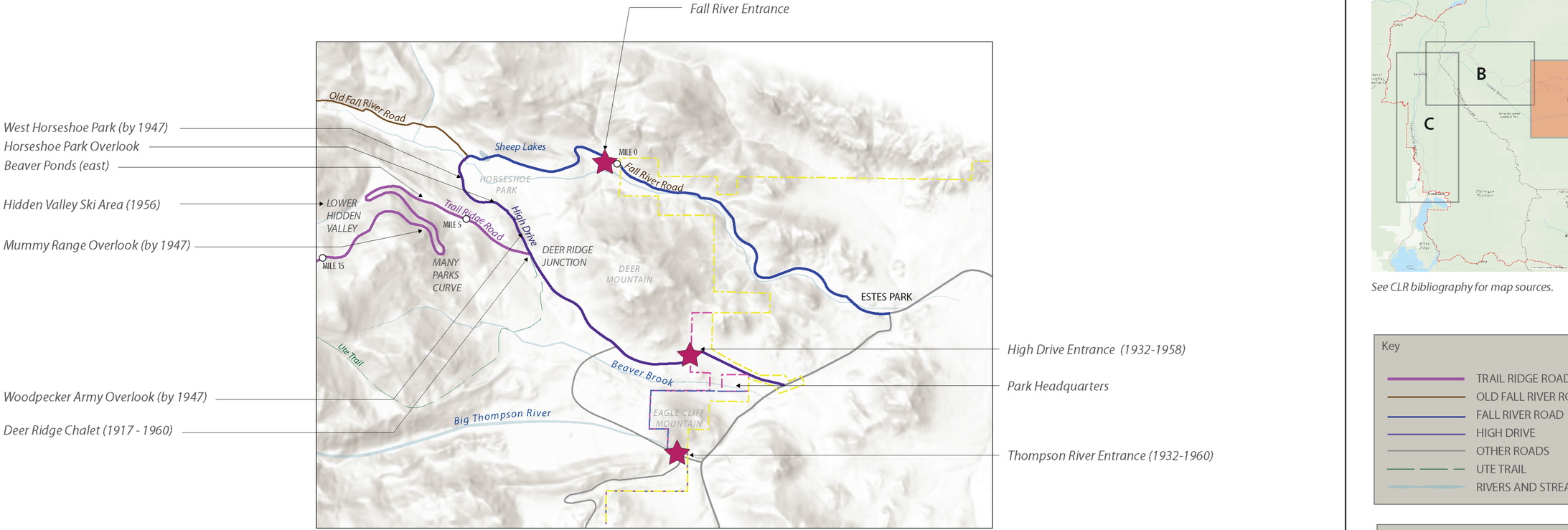
PERIOD PLAN - 1933-1941

(Map 2-3C)

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Trail Ridge Road
Rocky Mountain National Park

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See CLR bibliography for map sources.

Key

- TRAIL RIDGE ROAD
- OLD FALL RIVER ROAD
- FALL RIVER ROAD
- HIGH DRIVE
- OTHER ROADS
- UTE TRAIL
- RIVERS AND STREAMS

Rocky Mountain National Park
Historic Boundaries

- 1932
- 1949
- 1956

PERIOD PLAN - 1941-1956

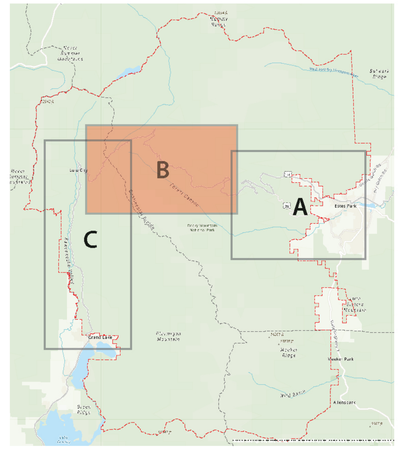
(Map 2-4A)

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Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report





See CLR bibliography for map sources.

Key

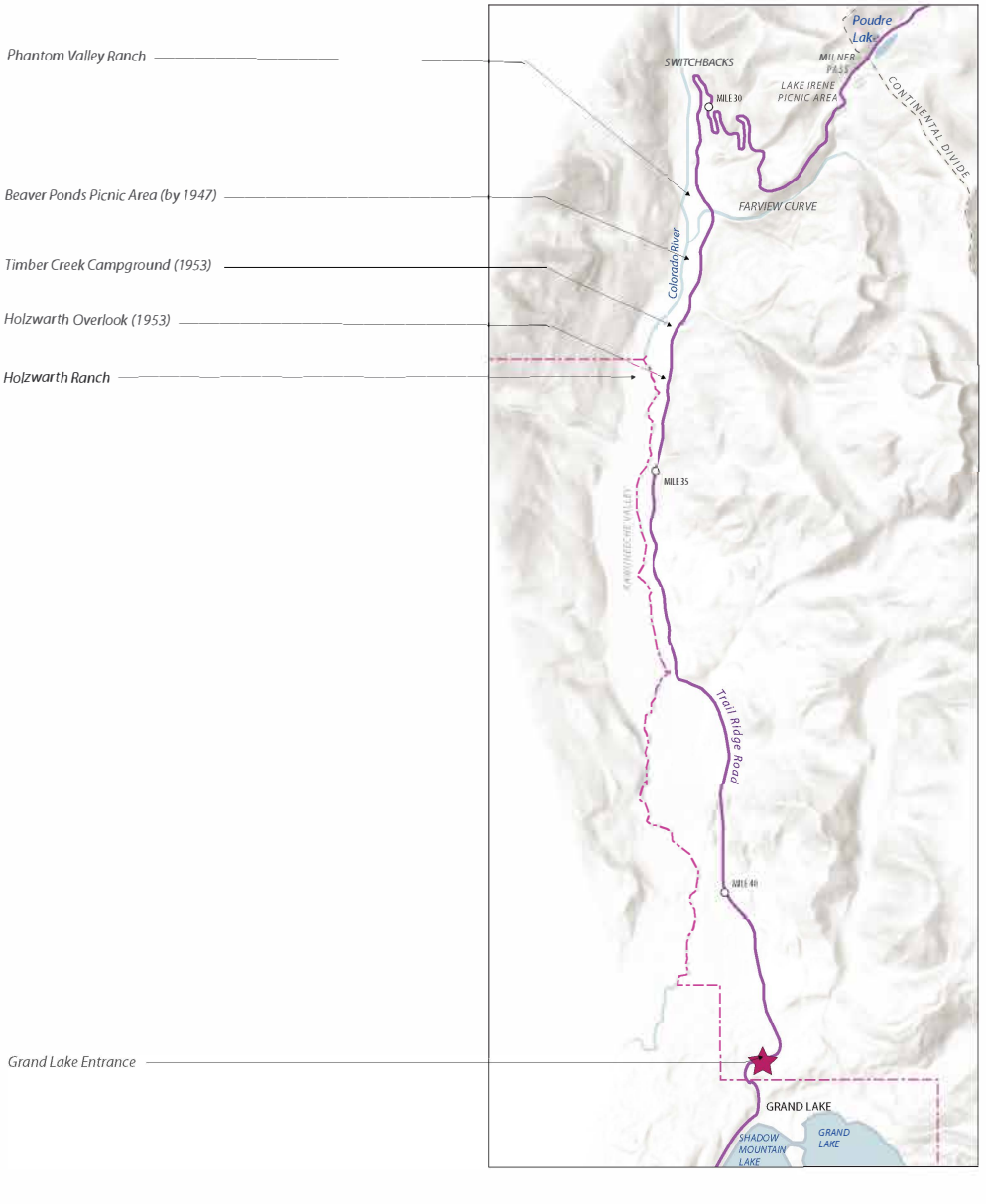
- TRAIL RIDGE ROAD
- FALL RIVER ROAD
- UTE TRAIL
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

0 1 2 3 miles

PERIOD PLAN - 1941-1956

(Map 2-4B)

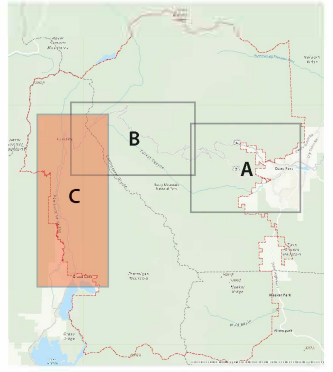
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Trail Ridge Road

Rocky Mountain National Park

Cultural Landscape Report



See CLR bibliography for map sources.

Key

- TRAIL RIDGE ROAD
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

Rocky Mountain National Park
Historic Boundaries
1930

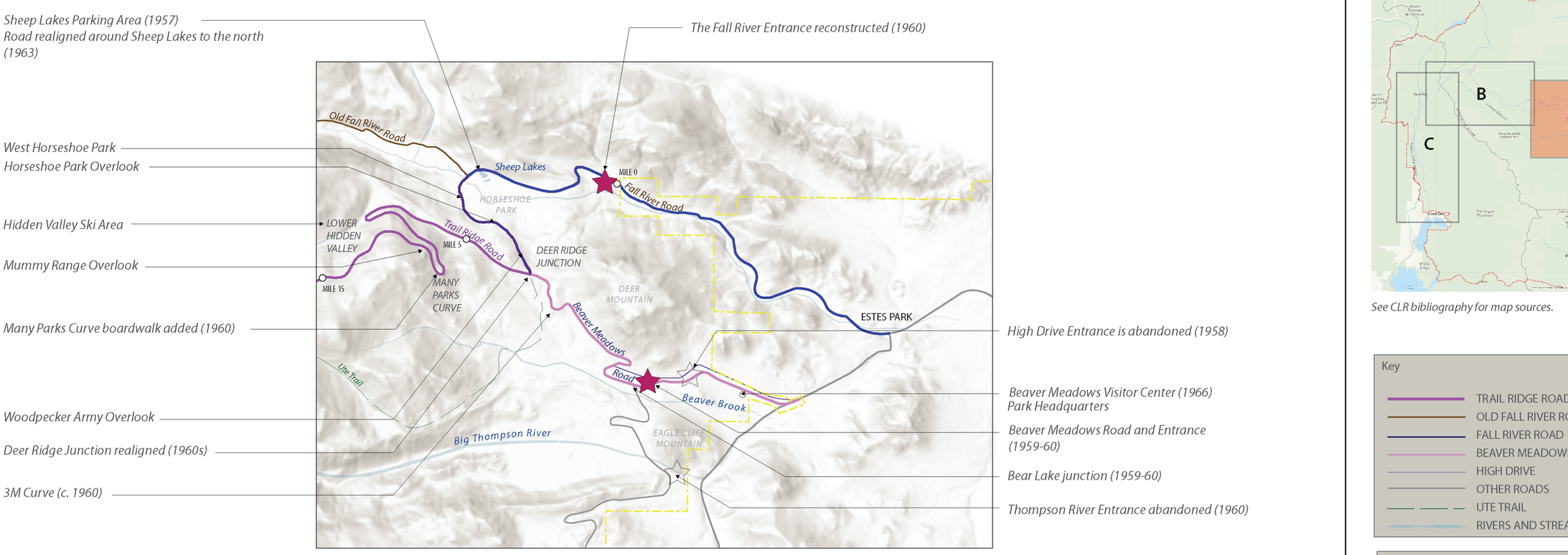
PERIOD PLAN - 1941-1956

(Map 2-4C)

**The period plans are graphic representations of the periods identified in the Site History chapter of the CLR. They are not intended to provide detailed information about the evolution of the study area, but to serve as references for signfiant changes to the cultural landscape over time.*

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



See CLR bibliography for map sources.

Key

- TRAIL RIDGE ROAD
- OLD FALL RIVER ROAD
- FALL RIVER ROAD
- BEAVER MEADOWS ROAD
- HIGH DRIVE
- OTHER ROADS
- UTE TRAIL
- RIVERS AND STREAMS

Rocky Mountain National Park
Historic Boundaries
1956

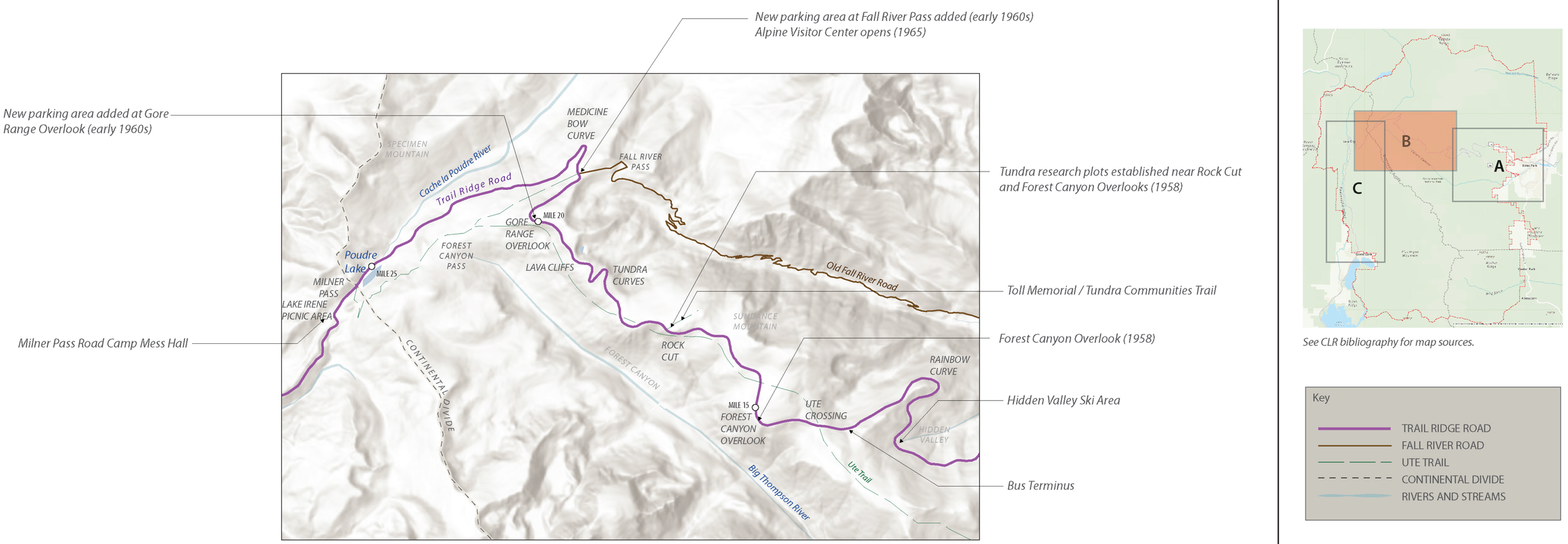
PERIOD PLAN - 1956-1970

(Map 2-5A)

**The period plans are graphic representations of the periods identified in the Site History chapter of the CLR. They are not intended to provide detailed information about the evolution of the study area, but to serve as references for signfiant changes to the cultural landscape over time.*

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



See CLR bibliography for map sources.

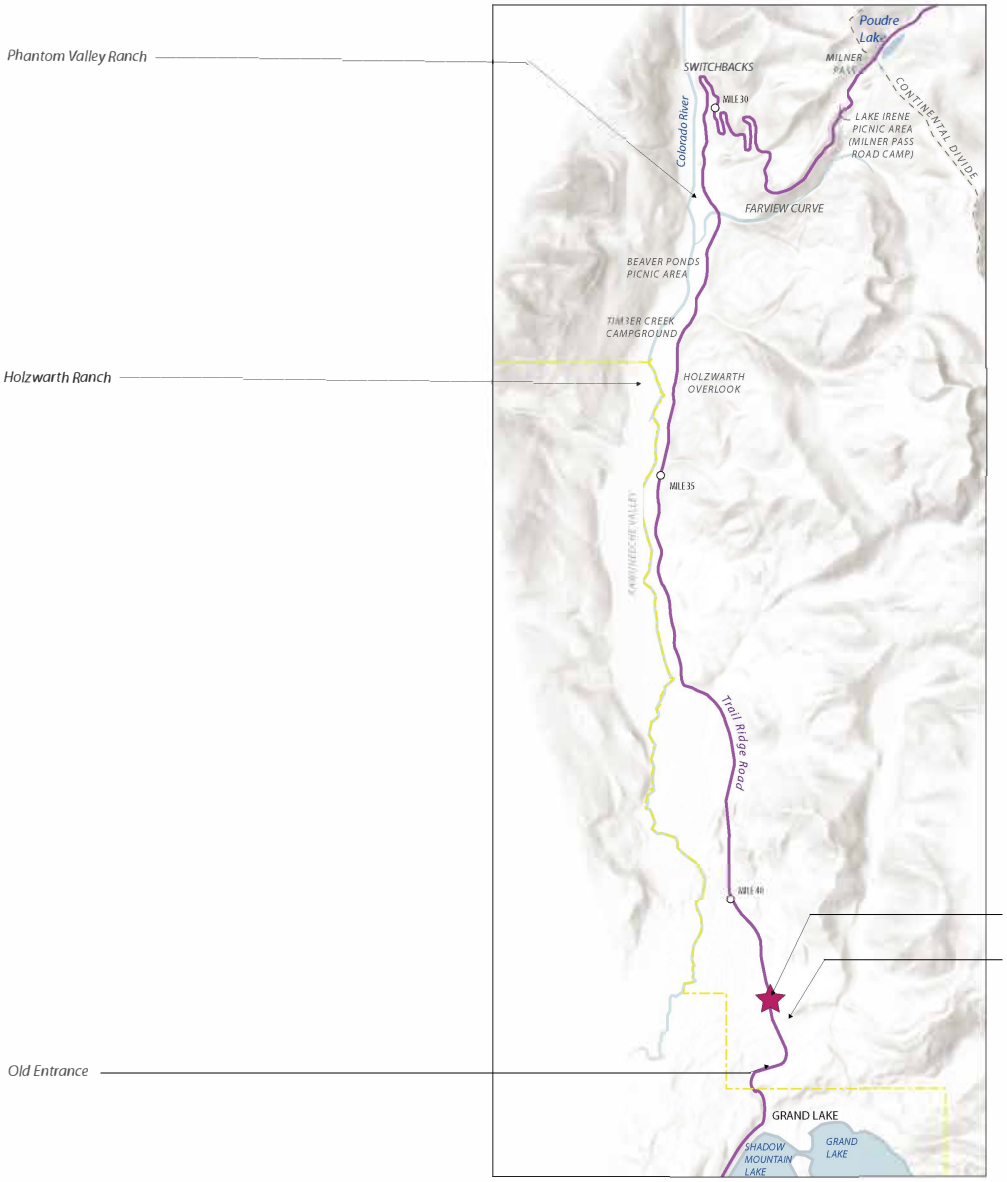
Key

- TRAIL RIDGE ROAD
- FALL RIVER ROAD
- UTE TRAIL
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

PERIOD PLAN - 1956-1970

(Map 2-5B)

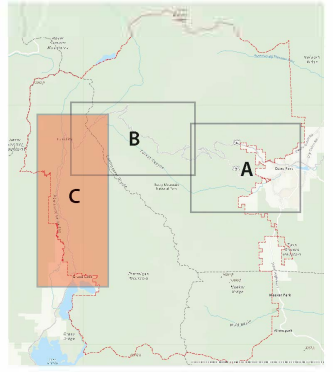
**The period plans are graphic representations of the periods identified in the Site History chapter of the CLR. They are not intended to provide detailed information about the evolution of the study area, but to serve as references for signfiant changes to the cultural landscape over time.*



Trail Ridge Road

Rocky Mountain National Park

Cultural Landscape Report



See CLR bibliography for map sources.

Key

- TRAIL RIDGE ROAD
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

Rocky Mountain National Park
Historic Boundaries
1956

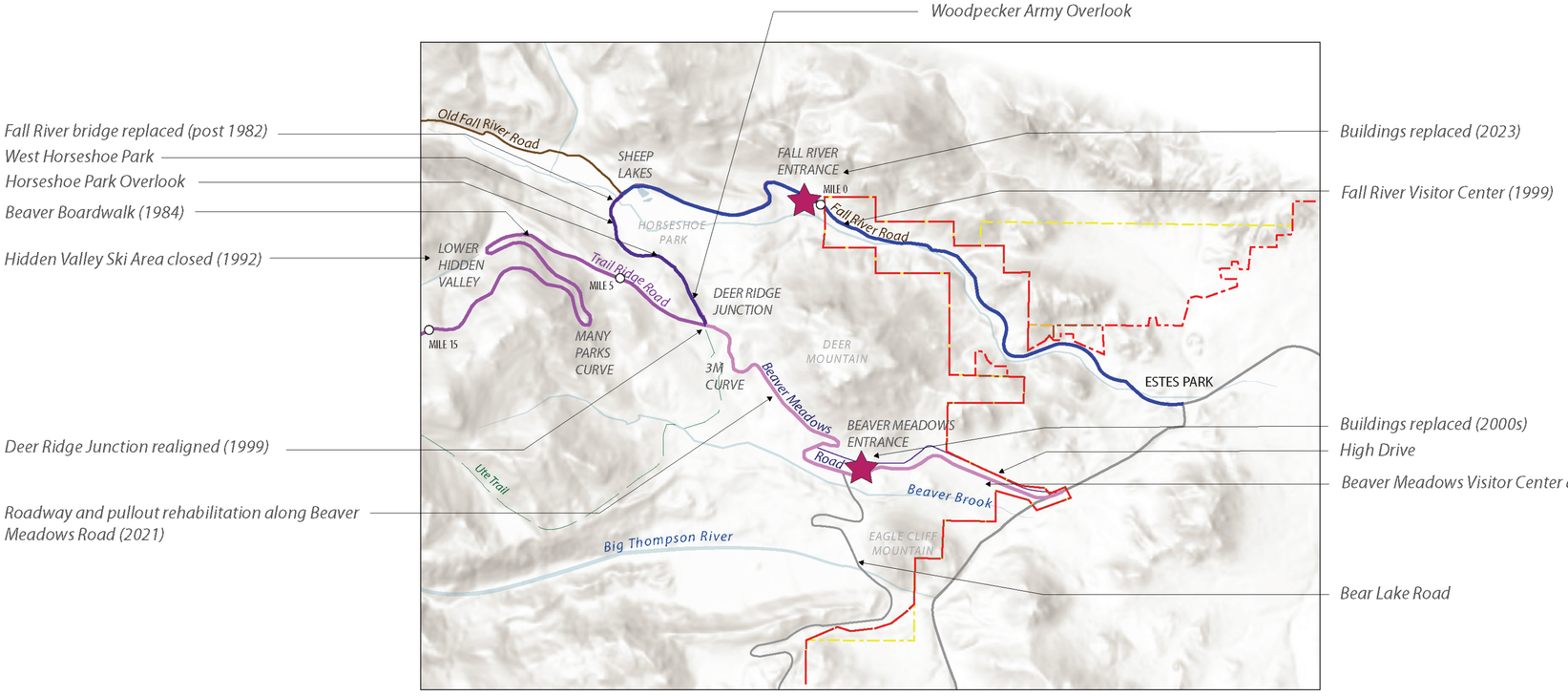
PERIOD PLAN - 1956-1970

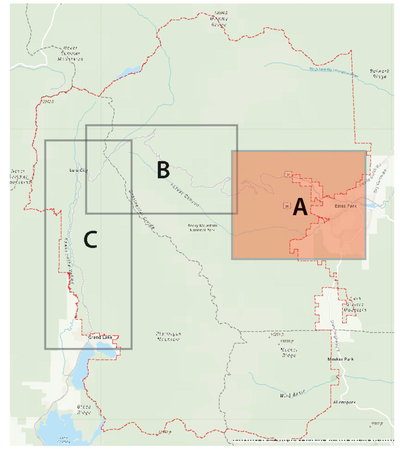
(Map 2-5C)

**The period plans are graphic representations of the periods identified in the Site History chapter of the CLR. They are not intended to provide detailed information about the evolution of the study area, but to serve as references for signfiant changes to the cultural landscape over time.*

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report





See CLR bibliography for map sources.

Key

- TRAIL RIDGE ROAD
- OLD FALL RIVER ROAD
- FALL RIVER ROAD
- BEAVER MEADOWS ROAD
- HIGH DRIVE / HIGH DRIVE TRAIL
- OTHER ROADS
- UTE TRAIL
- RIVERS AND STREAMS

Historic Rocky Mountain National Park Boundaries

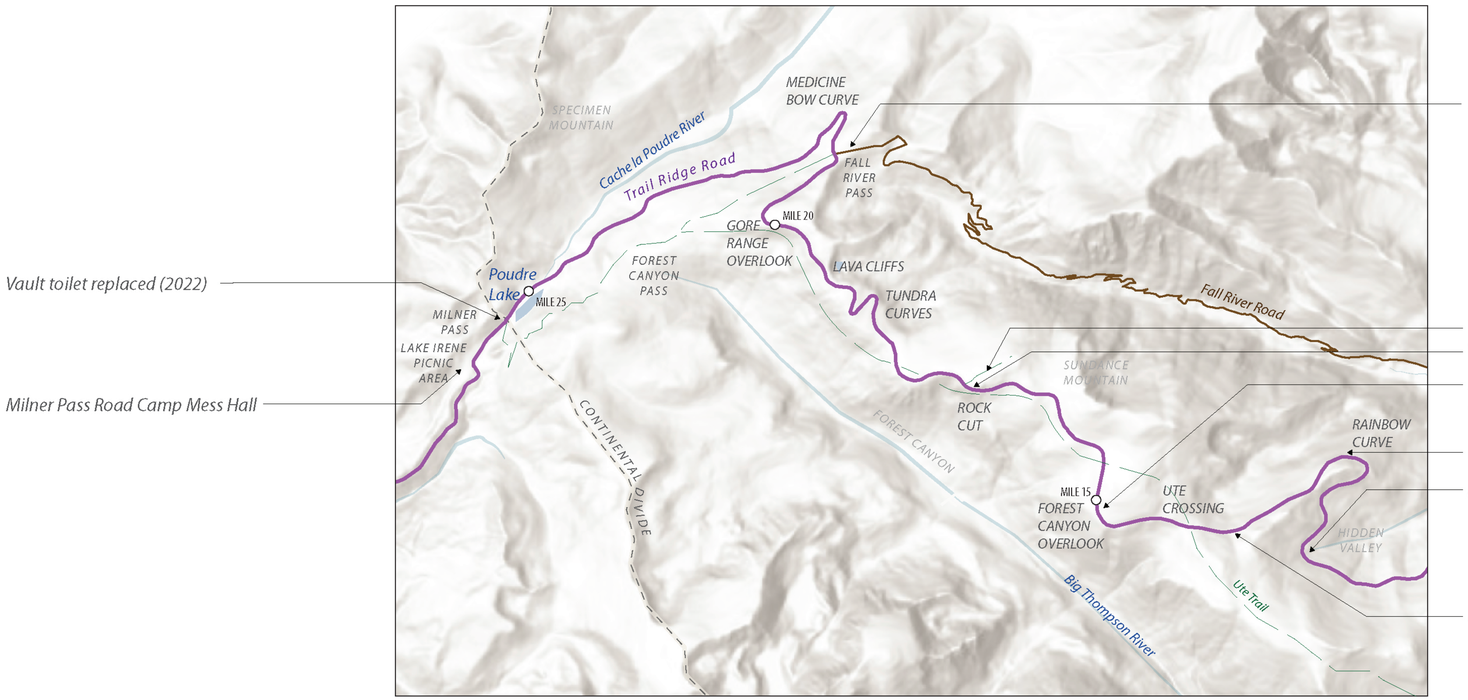
- *1956*
- *1980*
- *2000*
- *Current (2003)*

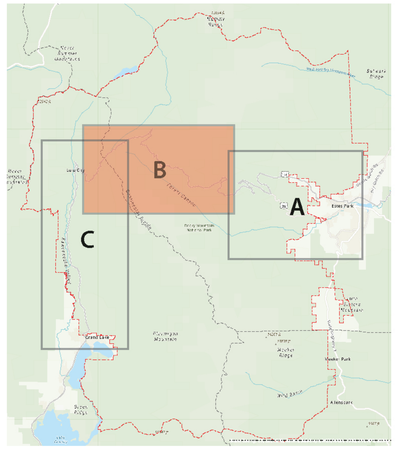
PERIOD PLAN - 1970-2023

(Map 2-6A)

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report





See CLR bibliography for map sources.

Key

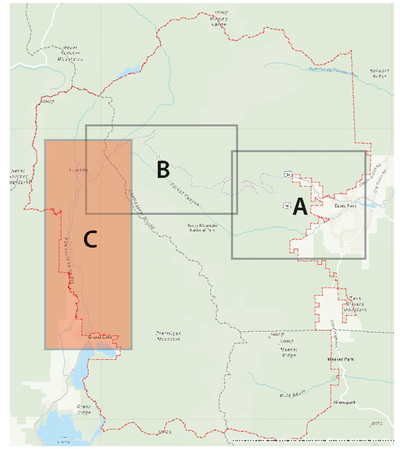
- TRAIL RIDGE ROAD
- FALL RIVER ROAD
- UTE TRAIL
- CONTINENTAL DIVIDE
- RIVERS AND STREAMS

PERIOD PLAN - 1970-2023

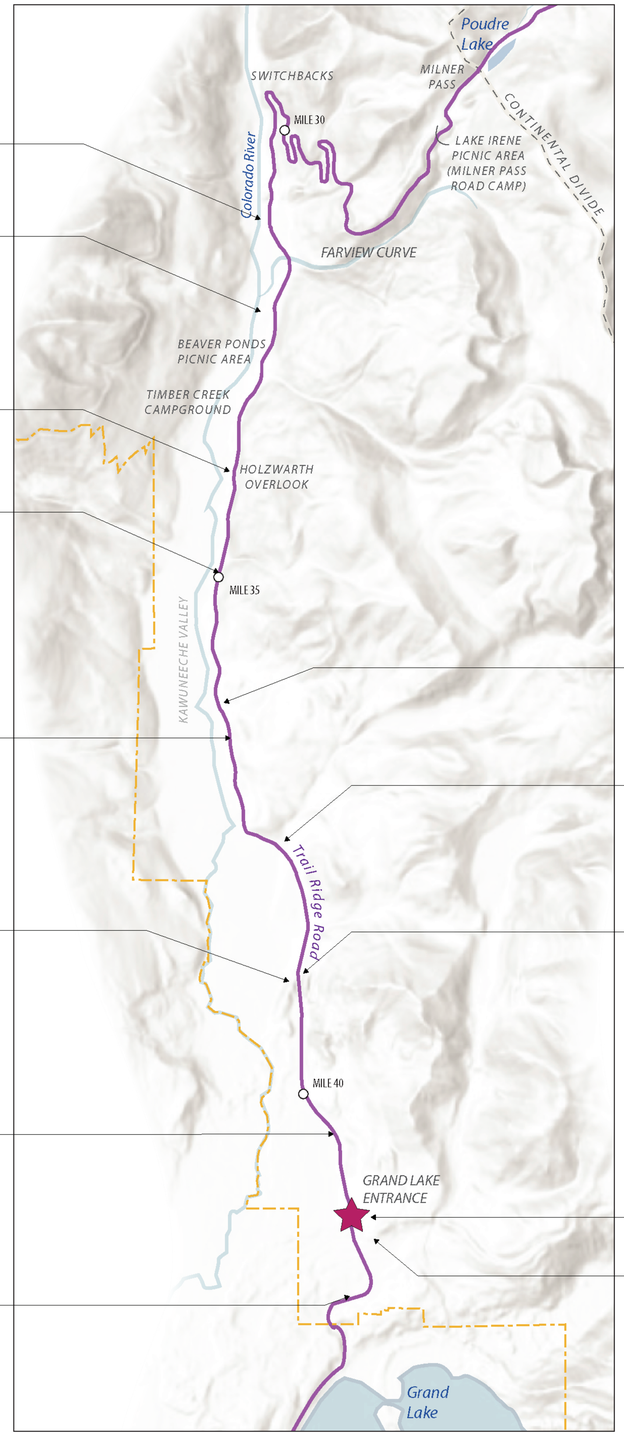
(Map 2-6B)

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



See CLR bibliography for map sources.



Phantom Valley Ranch purchased (1960)
Colorado River and Timber Lake trailheads and parking areas (mid 1980s)

Beaver Creek Picnic Area (1984-1986)

Holzwarth Ranch purchased (1974)
Holzwarth Historic Site (1977)

Bowen-Baker Trailhead and parking area

Western section of Trail Ridge Road widened and parking areas are added, expanded or improved (1981)

Cameron Peak Fire (outside of CLR study area) and East Troublesome Fire burn 30,000 acres within park boundary. The East Troublesome Fire damages developed areas and trails along the western section of Trail Ridge Road (2020)

Green Mountain Housing - destroyed 2020

Harbison Picnic Area (by 2010)
East Troublesome Fire damages structures and modifies landscape (2020)
Vault toilet replaced (2022)

Old Entrance

Pontiac Pit Road and area is used as a picnic location and pull-off for Park visitors (1970s)

Onahu Trailhead and parking area (1984-1986)

Green Mountain Trailhead and parking area

East Troublesome Fire damages buildings and modifies landscape (2020)

Kawuneeche Visitor Center

0 1 2 3 miles

Key

TRAIL RIDGE ROAD
CONTINENTAL DIVIDE
RIVERS AND STREAMS

Rocky Mountain National Park
Historic Boundaries
1980 (current)

PERIOD PLAN - 1970-2023

(Map 2-6C)



Existing Conditions Documentation

EXISTING CONDITIONS DOCUMENTATION

Introduction

This chapter describes, through narrative text, photographs, labeled base mapping, and analytical diagrams, the current conditions and extant landscape features associated with the Trail Ridge Road Cultural Landscape at Rocky Mountain National Park. For more information about aspects of road conditions related to civil engineering, see also Appendix A.

The chapter consists of three sections. The first section—Environmental and Cultural Context and Setting—sets the Trail Ridge Road Cultural Landscape within a regional and local context by discussing the larger natural systems that surround and encompass Rocky Mountain National Park (the Park) and the regional elements such as major road corridors, planning and zoning districts, demographics, and local attractions that provide a cultural framework for the study area. The second section—Overview Description of the Trail Ridge Road Cultural Landscape—describes the overall spatial layout and organization of the site within Rocky Mountain National Park. The third section—Existing Conditions Documentation by Landscape Characteristic—inventories and describes each of the landscape features present within the study area at the time the CLR was prepared. Feature descriptions are organized by landscape characteristic, the tangible and intangible aspects of a site that collectively convey its historic character and aid in the understanding of its cultural importance. Landscape characteristics range from large-scale patterns and relationships to site details and materials. Feature descriptions are organized into the following landscape characteristic categories:

- **Natural features and systems.** Natural features and systems are the environmental resources and qualities that have influenced the development and physical form of a landscape.

- **Landform and topography.** Topography is the three-dimensional configuration of the landscape surface characterized by features and orientation.

- **Vegetation.** Cultural vegetation is composed of the deciduous and evergreen trees, shrubs, vines, ground covers, and herbaceous plants that have been introduced in a landscape by cultural activities.

- **Spatial organization.** Spatial organization is the three-dimensional organization of physical forms and visual associations in a landscape, including the articulation of ground, vertical, and overhead planes that define and create spaces.

- **Circulation.** Circulation represents the patterns, features, and applied material finishes that constitute the systems of movement in a landscape.

- **Buildings and structures.** Buildings are elements constructed primarily for sheltering any form of human activity in a landscape, while structures are elements constructed for functional purposes other than sheltering human activities.

- **Land use.** Land use relates to the principal activities in a landscape that form, shape, and organize it as a result of human interaction.

- **Views and vistas.** Views are generally defined as being expansive and panoramic prospects, whether naturally occurring or designed, while vistas are deliberately designed views often meant to orient the gaze to a linear feature or particular focal point.

- **Small-scale features.** Small-scale features are the elements providing detail and diversity for both functional needs and aesthetic concerns in a landscape.

- **Archeological sites.** Archeological sites include the traces, or deposited artifacts in a landscape, evidenced by the presence of either surface or subsurface features.[415]

Environmental Context and Setting

Rocky Mountain National Park encompasses 265,761 acres, or 415 square miles, of the scenic southern Rocky Mountains. In 1977, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) included the Park within the international system of biosphere reserves, in addition to designating three zones that are the object of scientific research as core areas of the reserve. In 2009, US Congress designated 252,085 acres, or 95 percent of the Park, as Wilderness, which protects natural, untrammeled, and undeveloped conditions, as well as scientific, educational, and historical values, while also affording opportunities for solitude and primitive recreation.[416]

With elevations from 7,860 feet above mean sea level (AMSL) to 14,259 feet AMSL, the Park is one of the highest national park units in the nation. Nearly one-third of the Park is above the tree line, or higher than 11,400 feet AMSL in elevation. Seventy-two named peaks rise above 12,000 feet AMSL, with the high point being the expansive summit of Longs Peak. The Continental Divide angles through the Park for 42 miles northwest to south-central from the ridgetops of the Never Summer Mountains, south at La Poudre Pass, across Trail Ridge Road at Milner Pass, and on to Ogallala Peak at the Park's southern boundary.

The vast size and elevational change associated with the Park landscape allows for diverse terrestrial and aquatic ecosystems. Fragile alpine tundra encompasses one-third of the Park—one of the largest examples of alpine tundra ecosystems protected in the contiguous United States. The alpine tundra ecosystem starts between elevations of 11,000 to 11,500 feet AMSL, depending on exposure. Trail Ridge Road passes through this fragile landscape within an area designated by the NPS as a Tundra Protection Zone (Figure 3-1). The NPS works to restrict visitor access within the zone in order to protect the alpine tundra in high traffic areas. Strong, frequent winds and frigid temperatures limit plants to mostly perennials, many of which are dwarf in stature. Below the alpine tundra in elevation is the subalpine ecosystem, which occupies elevations between 9,000 and 11,000 feet AMSL. Much of the ecosystem is characterized by an expanse of evergreen forest that covers the mountainsides and gives way to clear lakes and meadows. Lower again in elevation is the montane ecosystem, which occupies a zone between 5,600 and 9,500 feet AMSL. This zone exhibits the richest diversity of plant and animal life. Meandering rivers surrounded by hills lead to open meadows that are blanketed with wildflowers throughout the summer growing season.

[415] Derived from Page, Gilbert, and Dolan, *A Guide to Cultural Landscape Reports*, 53.
[416] National Park Service, "Foundation Document Rocky Mountain National Park," 6.

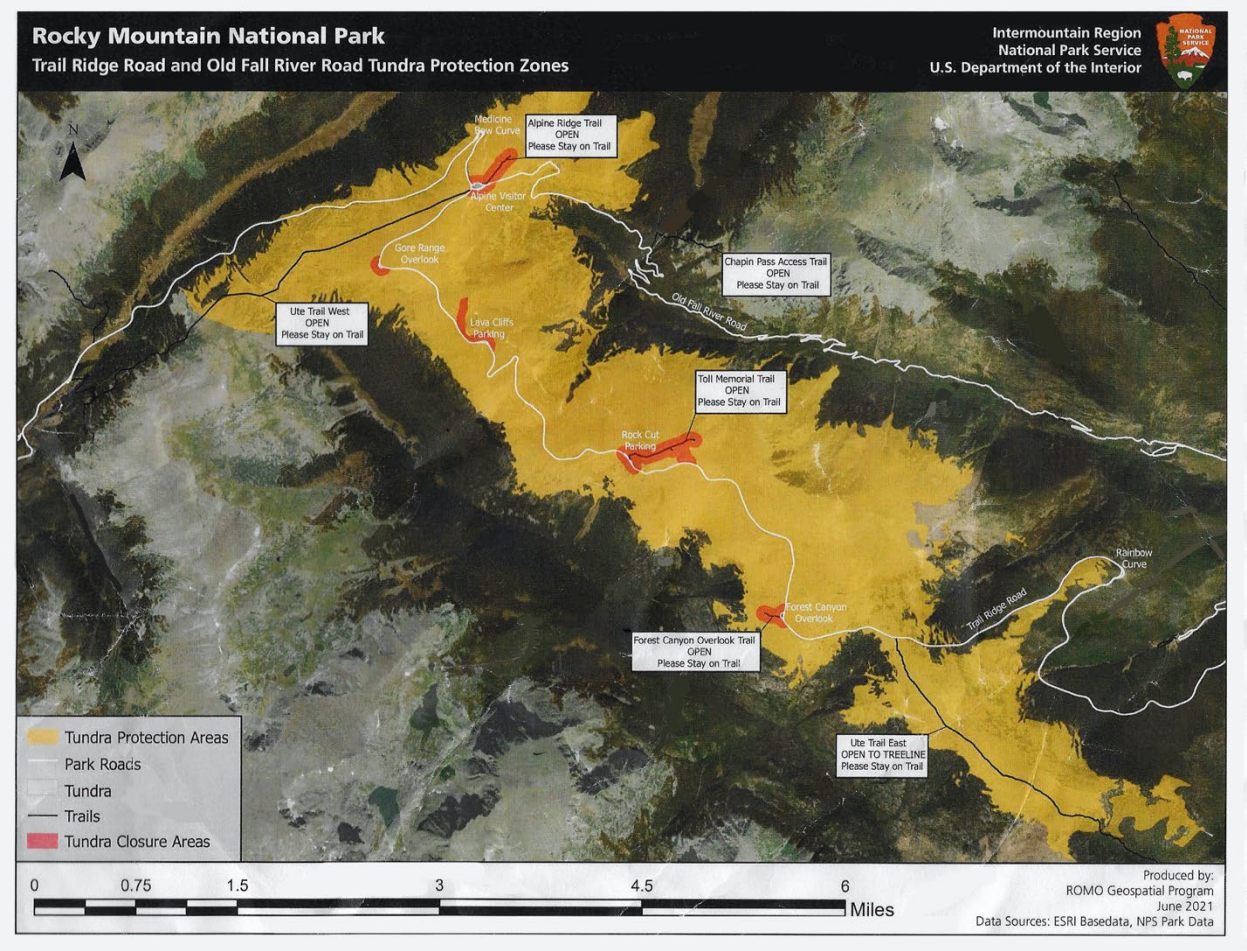


Figure 3-1. *Tundra Protection Zones, Rocky Mountain National Park.* (Source: Rocky Mountain National Park)

Glaciation is responsible for carving the landscapes and ecosystems of the Park. In the last 700,000 years, there have been at least six major glaciation events, with the two most recent (the Bull Lake Glaciation period from 300,000-127,000 years ago and the Pinedale Glaciation Period from 30,000 to 12,000 years ago) causing the most noticeable alterations to the landscape. Glacial erosion caused by massive ice blocks applying a formidable downward force on the rocks beneath is responsible for carving, cracking, and pushing rocks down the mountains. Rocks that were picked up and incorporated within the glacier, scraped lines into the bedrock as the glaciers traveled across the land and left behind evidence of the direction in which the glaciers moved as they made their way to the valley floor. The Park is defined by its many broad U-shaped valleys formed by rivers and streams carving out steep canyons that then continued to erode. At the edges and end of these valleys are moraines (lateral moraines along the sides of the glacier and terminal moraines at the end of the glacier) which represent the dumping grounds of glaciers. The moraines are composed of rocks of assorted sizes and the flour-like substance formed by the crushing of rock once trapped in the ice. Only one type of glacier is present within the Park today. This is the cirque glacier, which is a small formation, sometimes the remnant of an old valley glacier, that occupies the bowl of a small valley.[417] In addition to cirque glaciers, the Park contains year-round snow fields that are visible from Trail Ridge Road.

[417] Derived from US Geological Survey, “Geology of Rocky Mountain National Park,” https://www.usgs.gov/geology-and-ecology-of-national-parks/geology-rocky-mountain-national-park.

The western Continental Divide splits the Park hydrologically, with water flowing west draining into the Colorado River and water flowing east eventually traveling to the Missouri and Mississippi River drainages. The headwaters of four major river basins originate in the Park: the Colorado, the Big Thompson, the North Fork of the St. Vrain, and the Cache la Poudre. In 1986, 75 miles of the Cache la Poudre River were designated part of the National Wild and Scenic Rivers System. The 14 miles of the Cache la Poudre River that extend through the Park are thus protected for their "outstandingly remarkable values," and must be preserved in their "free-flowing condition." At the same time, the river and its immediate environments are protected for the benefit and enjoyment of present and future generations.[418]

In addition to rivers, more than 400 miles of streams flow through the Park, while a total of 147 lakes are found within the Park. Most of the lakes are small, high-elevation water bodies with low temperatures and low nutrient concentrations. In addition to their hydrologic functions of water storage and buffering, these lakes and their shorelines provide important habitat for a diverse assemblage of aquatic invertebrates and other wildlife.

The Park ranks as one of America's premier wildlife watching destinations, where visitors often catch glimpses of elk, bighorn sheep, mule deer, moose, black bears, coyotes, cougars, eagles, hawks, ptarmigan, and scores of smaller animals. The Park provides refuge for about 60 mammal species and more than 280 recorded bird species, as well as 6 amphibians, 1 reptile, 11 fish, and countless insect species, including a large number of butterflies.[419]

Temperatures fluctuate vastly in the Park. They are often moderate at elevations below 9,400 feet AMSL, but more volatile at higher elevations. Summer days in July and August often reach the 70's or 80's and drop into the 40's at night. At higher points, like Bear Lake, the Alpine Visitor Center, or Longs Peak, it may snow as late as July. Precipitation comes in the form of rain or snowfall throughout the year. Based on ten years of precipitation data, the town of Estes Park, Colorado, located just outside the eastern Park boundary, receives approximately 13.10 inches of moisture every year. The town of Grand Lake, just outside the western Park boundary, receives about 19.95 inches.[420]

With the shifts occurring locally as part of global climate change, preservation of the Park's specialized ecosystems has become more challenging. A 3.4 degree Fahrenheit rise in average annual temperature over the last century has been recorded in the Park, which has resulted in perceivable changes both within its boundaries and downstream.[421] Spring snow melts two to three weeks earlier, resulting in less water available in the summer for plants and animals. Invasive species well-suited to a warming climate, such as cheatgrass (*Bromus tectorum*), have become new competitors for the Park's native plant communities. Also recorded are a greater number of mountain pine beetles (*Dendroctonus ponderosae*) that survive the winter season, contributing to longer and more severe outbreaks and a greater loss of trees, which is changing the landscape throughout the Park.[422]

Climate change is also drastically affecting areas of permafrost—ground that remains frozen throughout the year—along Trail Ridge Road. According to NPS models, approximately 6 miles of Trail Ridge Road is underlain by permafrost. With just a few degrees of warming, only 1.6 miles of road will be sited atop a permafrost foundation. Field monitoring of the thermal conditions is used to provide an estimate of permafrost extent and depth as well as areas that are sensitive to future warming. As the permafrost

[418] National Park Service, "Foundation Document Rocky Mountain National Park," 6.
[419] National Park Service, "Foundation Document Rocky Mountain National Park," 6.
[420] National Park Service, "All About Weather," *Rocky Mountain National Park*, https://www.nps.gov/romo/planyourvisit/all-about-weather.htm.
[421] National Park Service, "Climate Change," *Rocky Mountain National Park,* https://www.nps.gov/romo/learn/nature/climatechange.htm.
[422] National Park Service, "Climate Change in Rocky Mountain National Park Frequently Asked Questions" (2014), https://www.nps.gov/romo/learn/nature/upload/Climate_Change_RMNP_FAQ.pdf.

melts, it will likely lead to the shifting, slumping, and/or subsidence of the ground, which in turn could pose a threat to the integrity of certain sections of the road. The objectives of NPS permafrost research are to establish a field network of soil temperature measurement sites, provide a more detailed account of the permafrost distribution along Trail Ridge Road, identify areas that will be sensitive to future warming in order to continue to monitor these sites to detect change, and better understand how land cover and soil variables affect permafrost formation. [423]

Fire is another growing challenge for NPS management of the Park. The rejuvenating effects of fire help keep the Park's forests healthy and increase biodiversity, meaning a wide variety of plant and animal species can thrive. However, fire suppression across North America, as well as increasing drought brought about by climate change, has made the Park more vulnerable to uncontrolled fires which have increased over the years.[424] On October 21, 2020, the East Troublesome Fire burned an area approximately 18 miles in length and 100,000 acres in size within Grand County, Colorado. The fire led to the loss of numerous structures, including eighteen historic buildings at the former Green Mountain-Onahu housing area that falls within the Trail Ridge Road Cultural Landscape.[425] Burning over 21,000 acres, the East Troublesome Fire was the largest fire in the Park's history.[426]

Cultural Context and Setting

The Park spans portions of Larimer, Grand, and Boulder counties in north-central Colorado (refer to Figures 1-3 and 1-4). The eastern boundary of the Park is located 38 miles northwest of Boulder, and approximately 50 miles northwest of Denver. Situated between Estes Park on the east and Grand Lake on the west, Rocky Mountain National Park is known worldwide as a destination for hikers, climbers, and all types of adventurers. The 415-square-mile Park is also bordered to the south by the Indian Peaks Wilderness Area and surrounded by Arapaho and Roosevelt National Forests (Figure 3-2). Because of its central location and spectacular beauty, the Park is among the most heavily visited in the National Park System, receiving more than 4.5 million visitors annually as of 2019.[427]

The town of Estes Park has an estimated population of approximately 5,900 as of April 2020.[428] The town, named after Missouri native Joel Estes, who came to the area in 1859, now centers around tourism and accommodating the needs of visitors to the Park. On the western side, the town of Grand Lake has a larger population of 15,717.[429] It also centers on tourism. The town is situated amongst two lakes: Shadow Mountain Lake, a man-made reservoir, and Grand Lake, which is the largest natural lake in Colorado.

The Trail Ridge Road corridor follows a pre-contact Native American trail corridor that, along with the entire Park itself, is within the ancestral and traditional homeland of the Ute, Arapaho, and Cheyenne. Many other tribes used this land including, but not limited to, the Comanche, Shoshone, and Sioux. The

[423] Scott Esser, Director of the Continental Divide Research Learning Center, email correspondence with Rose Lang, January 5, 2023.
[424] Philip Higuera, Bryan Shuman, and Kyra Wolf, "Rocky Mountain Forests Burning More Now than Any Time in the Past 2,000 Years," *The Conversation* (2021), https://theconversation.com/rocky-mountain-forests-burning-more-now-than-any-time-in-the-past-2-000-years-162383.
[425] The CRD housing project will replace housing lost at the Green Mountain Housing Area. The project is located west of the existing housing area near the Kawuneeche Visitor Center, in an area that is outside the CLR study area. National Park Service PMIS #316133.
[426] National Park Service, Rocky Mountain National Park. [Photo of Green Mountain-Onahu housing area]. Instagram, July 25, 2022, https://www..instagram.com/p/CgcBW_3LjHY/?igshid=NWRhNmQxMjQ=.
[427] National Park Service, "Record Visitation at Rocky Mountain National Park in 2019," https://www.nps.gov/romo/learn/news/record-visitation-at-rocky-mountain-national-park-in-2019.htm.
[428] US Census 2020.
[429] US Census 2020.

road is situated within an ethnographic landscape that has been continuously used by humans for thousands of years. Cultural resources along the corridor reflect ancestral and contemporary Native American use of the landscape, as well as more recent mining, homesteading, tourism, and recreational use. Examples of documented resources adjacent to the Trail Ridge Road Cultural Landscape include pre-contact campsites, game drives, trails, historical Native American wickiups, remnants of pioneer homesteads, irrigation features, and other historic archeological sites that relate to the period of significance and development of the road.

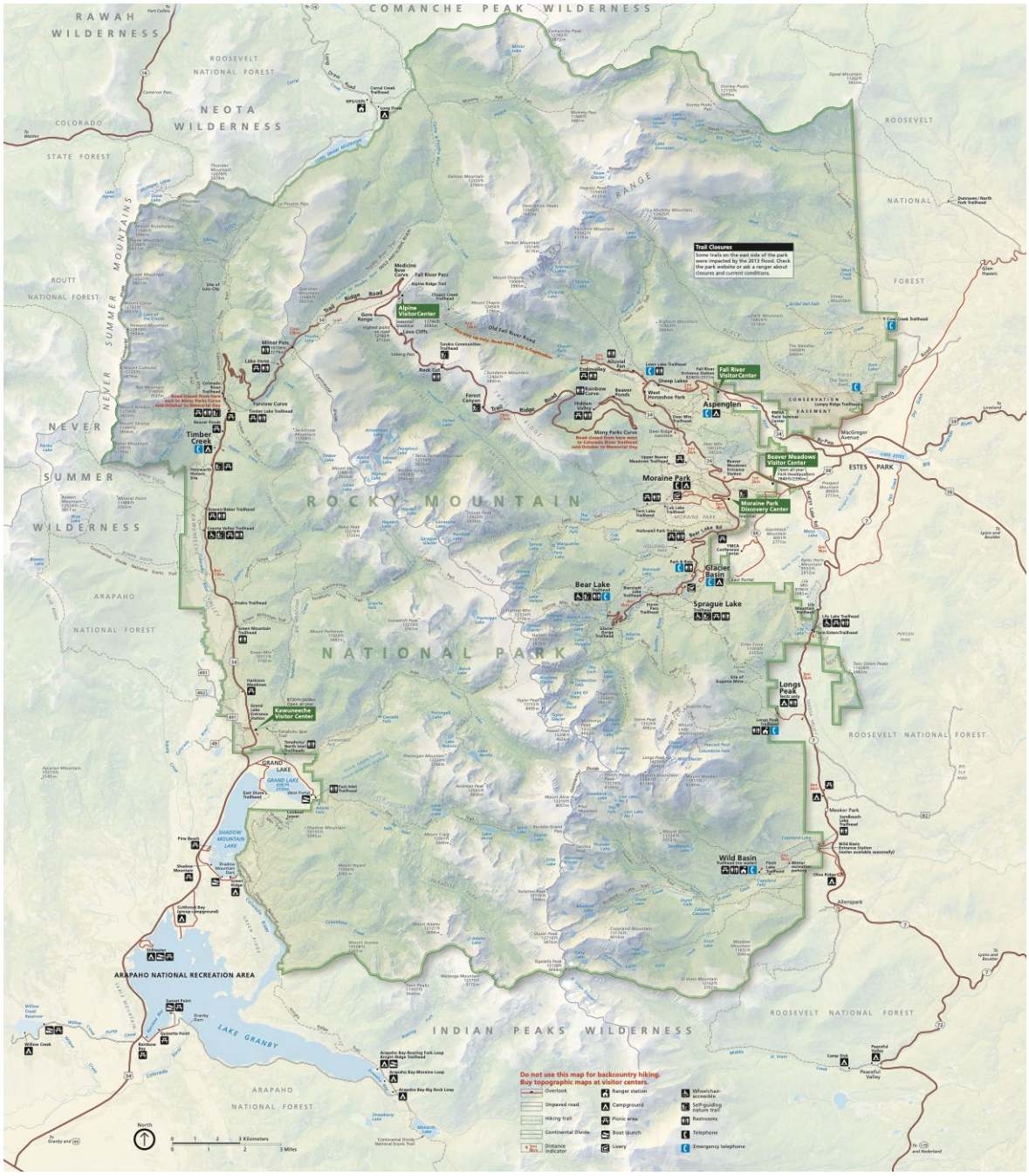


Figure 3-2. *Park unigrid map for Rocky Mountain National Park.* (Source: National Park Service, *Rocky Mountain National Park.* https://www.nps.gov/romo/planyourvisit/upload/ROMOmap1_small.pdf)

Overview Description of the Trail Ridge Road Cultural Landscape[430]

Trail Ridge Road is a linear landscape that links entrances to the east at Estes Park with Grand Lake to the west. The road corridor provides key access to amenities including visitor centers, trailheads, picnic areas, and campgrounds and is the primary experience for millions of Park visitors each year.

The Trail Ridge Road Cultural Landscape, as articulated within this CLR, includes four historic road segments: Fall River Road (5LR.885),[431] former High Drive, Beaver Meadows Road (5LR.13221.5), and historic Trail Ridge Road (5LR.502) (refer to Figure 1-6). Two segments comprise the 4.1-mile-long section between the Fall River Entrance at 8,240 feet AMSL and Deer Ridge Junction at 8,935 feet AMSL: Fall River Road, completed in 1932, and former High Drive, completed in 1926. These two segments, which are also part of US Highway 34, join at the Endovalley Road intersection, which is also the turn off to Old Fall River Road. Tying into Deer Ridge Junction from the east is the Beaver Meadows Road segment, which was not completed until 1959. This approximately 5-mile-long segment is roughly east-west trending and is part of US Highway 36. Beaver Meadows Road rises from an elevation of 7,675 feet AMSL at its east end near the intersection with US Highway 66 to 8,935 feet AMSL at Deer Ridge Junction.[432] The final road segment, Historic Trail Ridge Road, completed in 1949, continues between Deer Ridge Junction to the Park's western boundary near Grand Lake, where it continues on as US Highway 34. For the purposes of the CLR, these four segments, which total roughly 38 miles in length, form the Trail Ridge Road corridor and the Trail Ridge Road Cultural Landscape.

Trail Ridge Road is often recognized as the highest continuous paved highway in the United States, with an elevation reaching 12,183 feet AMSL between the visitor destinations at Lava Cliffs and Gore Range. Eleven miles of the highway travel above the tree line after reaching an elevation of approximately 11,500 feet AMSL where the Park's evergreen forests give way to the open expanse of alpine tundra, which affords expansive views of the mountainous terrain surrounding the road. As noted, the road also crosses the western Continental Divide, the boundary that separates North America's river systems, as it bisects the Park.[433]

Built during an era of growing automobile tourism, road designers took great pains to ensure that the route was sensitively located to avoid undue damage to natural resources while preserving forests and other special features along the road. In contrast to the twisting climb along the Fall River valley associated with Fall River Road, constructed prior to Trail Ridge Road, the higher elevation sections of Trail Ridge Road were designed to traverse the terrain with relatively gentle slopes and curves. The final alignment of the road was based on a 5 percent ruling grade with short stretches up to 7 percent grade. Minimum radii for open curves were specified at 100 feet and 200 feet for blind curves. Most curves were designed to sweep across but not dominate the landscape.[434]

The Trail Ridge Road corridor is accessed from two entrances on the east side of the Park and one on the west. On the east side, the Fall River Entrance lies just west of where the road enters the Park along the Fall River, generally following the route of the original Fall River Road west to Horseshoe Park. The

[430] The overview description and proceeding descriptions of the landscape characteristics of Trail Ridge Road are derived from National Park Service, DRAFT "Trail Ridge Road CLI," and National Park Service, Scope of Services, Trail Ridge Road Cultural Landscape Report, and information derived from research and fieldwork conducted by LSHLA in August 2021 and July 2022.
[431] Numbers in parenthesis are Smithsonian trinomials, unique identifiers for cultural resources.
[432] Abigail Sanocki, *Class III Archeological Survey of Beaver Meadows Road at Rocky Mountain National Park, Larimer County, Colorado* (National Park Service, 2019), 2.
[433] National Park Service, "Trail Ridge Road," *Rocky Mountain National Park,* https://www.nps.gov/romo/planyourvisit/trail_ridge_road.htm.
[434] Quin, "Trail Ridge Road, Rocky Mountain National Park," 5.

road passes an expansive open wet meadow associated with Fall River, which it crosses before beginning an ascent toward Deer Ridge Junction that follows the route of the former High Drive 1926 connector section. At Deer Ridge Junction, the route joins Beaver Meadows Road, which has ascended the ridge after passing through the Beaver Meadows Entrance. After Deer Ridge Junction, Trail Ridge Road travels west, dropping into Hidden Valley and following Hidden Valley Creek for more than a mile and a half. The road then climbs steadily, following a hairpin alignment at the Many Parks Curve Overlook to a winding segment that passes Upper Hidden Valley before reaching another sharp turn at the Rainbow Curve Overlook. After passing Knife's Edge, the road ascends Trail Ridge, passing above the tree line into the elevated terrain associated with the alpine tundra. The ridge, which extends in width from one-quarter mile to a mile, forms a divide between Fall River and the Big Thompson River. The road winds across the ridge, offering stunning views into various side canyons to either side.[435] Near Lava Cliffs and Iceberg Lake, west of Tundra Curves, the road reaches its high point of 12,183 feet AMSL. From this high point the road drops to Fall River Pass, the site where Old Fall River Road meets Trail Ridge Road, at 11,797 feet AMSL. The road continues to its northernmost point at Medicine Bow Curve, makes another sharp hairpin turn and then begins a long descent, passing over the Continental Divide at Milner Pass, located at an elevation of 10,758 feet AMSL. A series of switchbacks occurs just beyond the Farview Curve Overlook, after which the road follows the floor of the Kawuneeche Valley south to the Grand Lake Entrance on the western side of the Park.[436]

The Trail Ridge Road Cultural Landscape exhibits Rustic style elements from the 1930s that include CCC stone guidewalls and culvert headwalls, as well as Mission 66 era features from the 1950s and 1960s that include pullouts, overlooks, and parking areas. Trail Ridge Road, considered one of the most scenic byways in the country, is listed in the National Register of Historic Places (National Register) and was designated an All American Road in 1996. Today, maintenance of the US highways within the Park is shared by the NPS and the Federal Highway Administration (FHWA).

Existing Conditions Documentation by Landscape Characteristic

Natural Features and Systems

Natural features and systems define the Trail Ridge Road Cultural Landscape, impacting everything from the road alignment to views and vistas from the road, and the visitor experience of driving and exploring along its perimeter. The natural features and systems identified for the purpose of the CLR include the surface hydrological systems and water resources, as well as the native geology and soils.

Hydrology and Water Resources. Precipitation in the form of rain and snow feeds several rivers, streams, drainages, lakes, and ponds located along the Trail Ridge Road Cultural Landscape corridor. All of these water resources are naturally occurring, although they fluctuate in volume significantly from year to year and season to season. The hydrological features along the Trail Ridge Road Cultural Landscape include Fall River, Cache la Poudre River, Colorado River, Beaver Brook, Bighorn Creek, Hidden Valley Creek, Phantom Creek, Beaver Creek, Squeak Creek, Timber Creek, Onahu Creek, Sheep Lakes, Iceberg Lake, Poudre Lake, Lake Irene, Beaver Ponds, and several unnamed drainages that empty into the rivers, streams, lakes, and ponds (Figure 3-3).

[435] Quin, "Trail Ridge Road, Rocky Mountain National Park," 3, from S.A. Wallace, Chief of Survey, "Report of Surveys, Rocky Mountain National Park, Colorado" (Denver, Colorado: US Department of Agriculture, Bureau of Public Roads, 1928), 2.
[436] Quin, "Trail Ridge Road, Rocky Mountain National Park," 3.

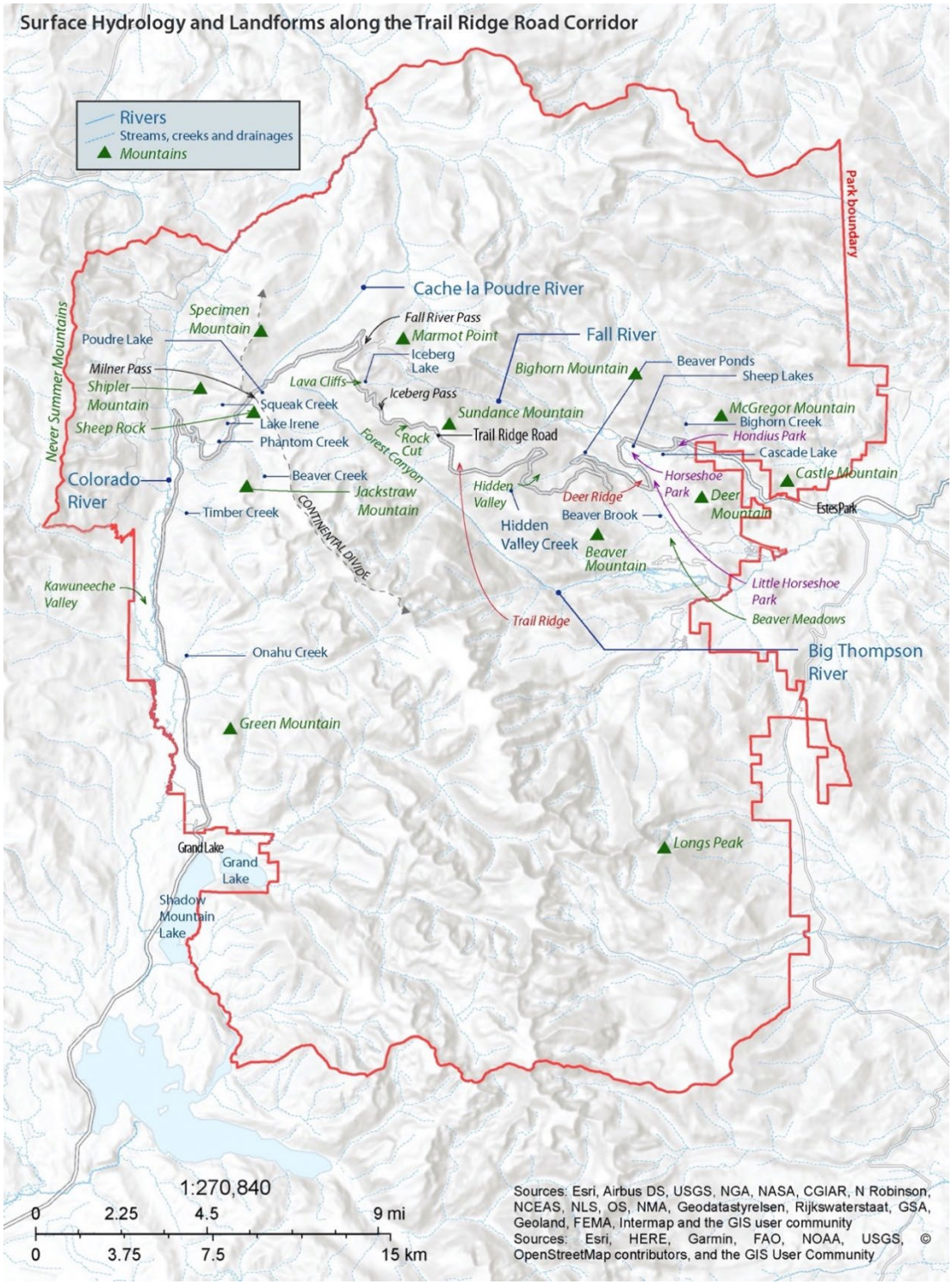


Figure 3-3. *Surface hydrology and landforms associated with the Trail Ridge Road Cultural Landscape.* (Source: LSHLA)

In addition to surface hydrology, water resources in the Park also include groundwater. Seeps and springs bring groundwater up to the surface along the corridor where the fresh water provides for habitat for many forms of life. Seeps from groundwater are evident in the springtime along the stretch of roadway between Many Parks Curve and Upper Hidden Valley where constructed spillways were designed by the road designers and built to capture the water and direct it to stone-lined ditches along Trail Ridge Road.

(Figure 3-4). Over time the spillways and ditches have become overgrown with vegetation due to the abundance and near constant presence of water.



***Figure 3-4**. A stone-lined spillway directs groundwater to a stone-lined ditch near Upper Hidden Valley.*

In addition to the construction of spillways and ditches, modifications associated with water resources include bridging and culverting to allow water to pass beneath the road corridor. These built features are discussed in the Buildings and Structures section of the CLR.

Geology and Soils. The geology and soils that underlie and surround the Trail Ridge Road Cultural Landscape are the result of an ancient and complex history spanning almost two billion years. The mountains that make up the Park, along with the rest of the Rocky Mountains, were uplifted during the Laramide Orogeny starting around 70 to 80 million years ago and ending roughly 35 million years ago. More recently, glaciation events occurring over the last several million years have eroded thousands of feet of rock and sediment. These erosional events resulted in the shaping of the peaks and valleys that line the Trail Ridge Road Cultural Landscape today. Examples of the resulting landforms that can be experienced along the road are wide U-shaped valleys leading broad cirques, steep arêtes, and elevated domes and peaks.[437]

The Park's oldest rocks were produced when plate movements subjected sea sediments to intense pressure and heat. The resulting metamorphic rocks (schist and gneiss) are estimated to be 1.8 billion years old. Later, large intrusions of hot magma finally cooled about 1.4 billion years ago to form a core of crystalline igneous rock (mostly granite). During the long Paleozoic Era, the Park area frequently submerged, lifted up and eroded. Early in the Mesozoic Era, approximately 100 million years ago, dinosaurs roamed the shoreline of a shallow sea which extended from the Gulf of Mexico to the Arctic Ocean. Animal remains were deposited in layers of sand, silt, and mud. The resulting sedimentary rock layers (including fossils) are now exposed in the foothills to the east of the Park.

[437] US Geological Survey, “Rocky Mountain National Park,” *Geology and Ecology of National Parks*, https://www.usgs.gov/geology-and-ecology-of-national-parks/rocky-mountain-national-park.

The Rocky Mountain uplift began approximately 70 million years ago. Giant blocks of ancient crystalline rock, overlain by younger sedimentary rock, broke and were thrust upward. Even as the uplift occurred, streams started eroding away the sedimentary rocks and washed new sediments to the east and west. When the sedimentary rocks were almost gone, erosion continued leveling the ancient Precambrian rocks until only a few isolated remnants projected above the gently rolling landscape. The gentle slopes atop Trail Ridge and Flattop Mountain are remnants of this erosional process. During the Cenozoic Era, some faulting and regional up-warping lifted the Rocky Mountain Front Range as much as 5,000 feet to its present height. Volcanic activity left young volcanic rock in contact with Precambrian rocks. Lava Cliffs, near the road's highpoint at over 12,000 feet AMSL, is the product of an accumulation of volcanic ash from ancient times. Rock which forms the wall of the cliff is reddish brown and differs in appearance from the old Precambrian rocks seen at other points on the road.

Differential movement along faults disrupted drainage patterns, resulting in higher mountains, waterfalls, and large valley areas. Streams had established drainage patterns with V-shaped valleys cut into hard rock before the climate became cooler, perhaps two million years ago. In the higher valleys, snow packed into glacial ice which flowed down the valleys. Glacial erosion changed V-shaped valleys into U-shaped valleys. The converging rivers of ice flowed down into lower valleys where the ice warmed, melted, and dropped the debris it had scraped from the mountainsides above. Loose rock material carried by the ice deposited along the sides, forming lateral moraines. At the ends of the glaciers, rocks piled up into terminal moraines.

Although glaciers must have filled high valleys and then melted at least four separate times, only the latest two glacial periods (Pinedale and Bull Lake) left evidence easy to find. During the last major glaciation period, glaciers from Forest Canyon, Spruce Canyon, Odessa Gorge, and numerous tributary valleys all flowed together and melted in the area now called Moraine Park, which is visible from Beaver Meadows Road. This glacier deposited lateral moraines along the south and north sides of Moraine Park and a terminal moraine against Eagle Cliff Mountain to the east. Similar glaciers were melting in Horseshoe Park and Kawuneeche Valley. Today, steep semicircular scars called cirques indicate the top of U-shaped glaciated valleys. A cirque on Sundance Mountain is easily seen from Trail Ridge Road. Glacial erosion also left scratches, grooves, and polished surfaces on some of the rocks. The few small glaciers and snowfields now occupying the tops of glacial valleys are only hints of what the ice age was like. The Park's high mountaintops were not covered with glacial ice and a few of the lower valley areas of the Park also escaped the effects of glaciation.[438]

Due to the various geological conditions and elevations along the Trail Ridge Road Cultural Landscape, soils vary in thickness and composition. At higher elevations, the soils associated with the alpine tundra zone are very thin with patchy examples of permafrost. At lower elevations such as Horseshoe Park, the soil is thick and rich—the product of deposition that has occurred over extended periods of time. Talus deposits are present at the base of steep slopes in the Park. Talus slopes form as angular blocks of rock and abundant interstitial smaller rock fragments both on steep slopes and at the base of cliffs. Freeze and thaw processes often cause rockfalls, which may also be triggered by intense summer rainstorms.

Modifications associated with the geology and soils are evident throughout the Trail Ridge Road Cultural Landscape as a result of road and Park development. Due to wide variations in the terrain and landform, large segments of the road corridor were modified through either cut of fill in order to maintain a relatively consistent grade and smooth driving surface. At the time of construction, road crews faced particular challenges when constructing the roadway across the alpine tundra where normal equipment would not penetrate the permafrost and special equipment had to be designed. Upper sections of the soil were carefully removed, then a prepared roadbed was constructed on rock fill sourced from nearby borrow pits,

[438] National Park Service, "Geologic Activity," *Rocky Mountain National Park*, https://www.nps.gov/romo/learn/nature/geologicactivity.htm.

such as the one near the Tundra Communities Trail, resting directly atop the frozen soil. The tundra sod that had been salvaged was then used to cover the road banks scarred during construction.[439] In addition to these disturbances associated with soils, geological formations were also impacted to accommodate the vertical alignment for the roadway. An example is Rock Cut, a section of exposed bedrock that was cut through in the 1930s using large quantities of explosives to allow passage of Trail Ridge Road. Other modifications include the construction of retaining walls, erosion matting, and cribbing put in place to stabilize slopes and protect the roadway from rockfalls. These built features are described in greater detail in later sections of this chapter.

Landform and Topography

The landform and topography of Rocky Mountain National Park provides an unrivaled experience for those traveling by vehicle along the routes that make up the Trail Ridge Road Cultural Landscape. Geological shifts and ancient erosion of the landforms has resulted in a unique combination of mountains, hills, plateaus, and plains that create a distinct and varied topography from the low, wet meadows or "parks" at the base of the Front Range on the east to the high altitude of the Continental Divide and the floodplain of the Colorado River on the west side. The geological features, or landforms, that border and define the experience of travelers along the Trail Ridge Road Cultural Landscape are identified in Figure 3-3.

Driving Trail Ridge Road offers an inimitable opportunity to experience the extremes of topographic variation. The topography of the Park ranges from roughly 8,240 AMSL at the Fall River Entrance and 7,840 AMSL at the Beaver Meadows Visitor Center (just outside the Beaver Meadows Entrance), to 12,183 feet AMSL at the road's highest point. Passing over the Continental Divide, the road sweeps down the Colorado River valley to 8,720 feet AMSL at the Kawuneeche Visitor Center. Due to variations in geology and soils, slopes visible from the road's corridor can vary from relatively level to extremely steep. The topography of the various landforms surrounding the Trail Ridge Road Cultural Landscape is indicated on Maps 3-1 to 3-12 at the end of this chapter. Modifications to topography are the result of earthwork and road construction to create a smooth, consistent, and drivable surface for vehicles with a maximum designed road slope of 7 percent.

Vegetation

The vegetation of the Trail Ridge Road Cultural Landscape varies from montane in the lower elevations to subalpine and alpine tundra as one travels higher in elevation along the corridor. The vegetation that occurs along the roadway from the Fall River Entrance to Deer Ridge Junction varies from marshy lowland meadows, known as "parks," or large valleys or basins surrounded by mountains, which contain aspen (*Populus tremuloides*) and willow (*Salix spp.*) to the lower elevations of the montane zone.

The montane zone (roughly 7,600 to 9,500 feet AMSL) is characterized by mixed conifer forests with lodge pole pine (*Pinus contorta*), Douglas fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*), which typically occur on the east side of the Park, and occasionally the Engelmann spruce (*Picea engelmannii*). The montane is an ecologically rich zone with the greatest variety of species of the biotic communities in the Park. As the visitor travels the road, the vegetation within this zone encloses the road corridors but then opens to reveal spectacular views of valleys below. This zone is considered fire adapted and areas that have been disturbed contain large numbers of lodge pole pine and quaking aspen (*Populus tremuloides*) stands.

[439] Christopher A. Boldt, Historic American Engineering Record, "Trail Ridge Road, Rocky Mountain National Park Roads – 1920–1932," HAER NO. CO-78 (2000), 3.

In recent years, the mountain pine beetle has impacted the montane zone. There are seventeen species of native bark beetle found within the Park. Although the beetle has been a noted issue of concern within the region since 1914, previous outbreaks have not been as severe as more recent ones—90 percent of the pine forests within the Park have already been impacted by mountain pine beetle.[440] During the years when the Park has seen above-average winter temperatures and periods of prolonged drought, the trees have been more vulnerable to attacks. The NPS has had mitigation processes in place for many years, including work undertaken in the 1930s by the CCC. Park personnel continue to monitor and manage forests throughout the Park in response to problems caused by the beetle.

The subalpine zone begins at approximately 9,500 feet AMSL and continues to about 11,400 feet AMSL, which generally marks the tree line. This zone is dominated by tree species that include Engelmann spruce and subalpine fir (*Abies lasiocarpa*), but also includes areas of open meadows with ponds and wetlands. Forest stands edge the road as it passes through the subalpine zone, slowly thinning as the elevation increases until it reaches the alpine tundra zone, where views are open and expansive.

Within the alpine tundra, the stands of fir and spruce are no longer present. The principal tree found within the zone is the limber pine (*Pinus flexilis*); trees found within the tundra are stunted and impacted by being buffeted by winds. As such, they are referred to as Krummholz, a German word meaning crooked, bent, and twisting. The alpine tundra generally experiences harsh weather and environmental conditions, including extensive periods of cold and high winds, along with a protracted growing season. The species that occur here are adapted to cool short summers and are typically small and low growing.

Interest in the ability of the plant community to adapt to challenging environmental conditions, along with responses to modern human impacts, has led to a great deal of ecological study within the Park. One of these ecological studies was led by Dr. Beatrice Willard, a renowned ecologist who worked extensively in the Park. She established test plots along Trail Ridge Road at Rock Cut and Forest Canyon Overlook where the tundra had been severely impacted by humans and the vegetation was damaged by visitor access. Willard started the two test plots in 1958 as part of an initial five-year study. Fencing was erected around the plots to protect them from further damage and to determine how long the tundra would take to recover from disturbance. Willard's studies helped park personnel reevaluate the way alpine ecosystems were managed, resulting in paved trails and designated pathways to keep visitors off the sensitive tundra. Although Willard's test plot at Rock Cut remains in existence today, the test plot at Forest Canyon Overlook is no longer maintained by park personnel.

One of the biggest threats to the Park's native plant communities and ecosystems, which continues to grow in scope, is exotic and invasive plant species. Invasive species commonly observed along the Trail Ridge Road corridor include Canada thistle (*Cirsium arvense*), dandelion (*Taraxacum officinale*), and cheatgrass, in both the higher and lower elevations. Non-native and invasive plants in the montane ecosystem include smooth brome (*Bromus inermis*), knapweed (*Centaurea scabiosa*), leafy spurge (*Euphorbia esula*), yellow toadflax (*Linaria vulgaris*), musk thistle (*Carduus nutans*), wooly mullein (*Verbascum thapsus*), and yellow sweetclover(*Melilotus officinalis*). Orange hawkweed (*Hieracium aurantiacum*) is found along the west side of the Park within the Colorado River District (CRD), as is reed canary grass (*Phalaris arundinacea*), which is primarily in the CRD but is present on the east as well. The most common, and most commonly treated non-natives, Canada thistle and cheatgrass, are managed by the NPS using herbicide. Due to the prevalence of invasives, and the NPS commitment to eradicating as many of these species as possible, contractors are expected to clean their vehicles before working in the Park and between sites of known infestations. As climate change continues to impact the Park, the

[440] National Park Service, "State of the Park Report Rocky Mountain National Park," *State of the Park Series No. 50*. (Washington, DC: National Park Service, 2017), xiii.

expectation that invasive and exotic species may climb further up into the alpine tundra is a growing concern that will impact treatment strategies throughout the entire Trail Ridge Road corridor.[441]

Spatial Organization

Spatial organization for the purposes of the CLR includes the linear and lateral layout of the roads that make up the Trail Ridge Road Cultural Landscape, and the developed nodes—which include overlooks, parking areas, and pullouts—designed and built for the enjoyment of Park visitors located and accessed along the routes. There are also numerous smaller vehicular pullouts built for one or two cars with few pedestrian amenities that are described in the Circulation section of this chapter, as are trailheads that are set off from Trail Ridge Road along the west side of the Park. Locations of the developed areas from the Park's east side to the west side are identified on the proceeding Place Names maps provided by NPS personnel (Figures 3-5 to 3-8), as well as on the existing conditions plans at the end of this chapter (Maps 3-1 through 3-12).

[441] Scott Esser, Director of the Continental Divide Research Learning Center, email correspondence with Kelly Dick, July 21, 2022.

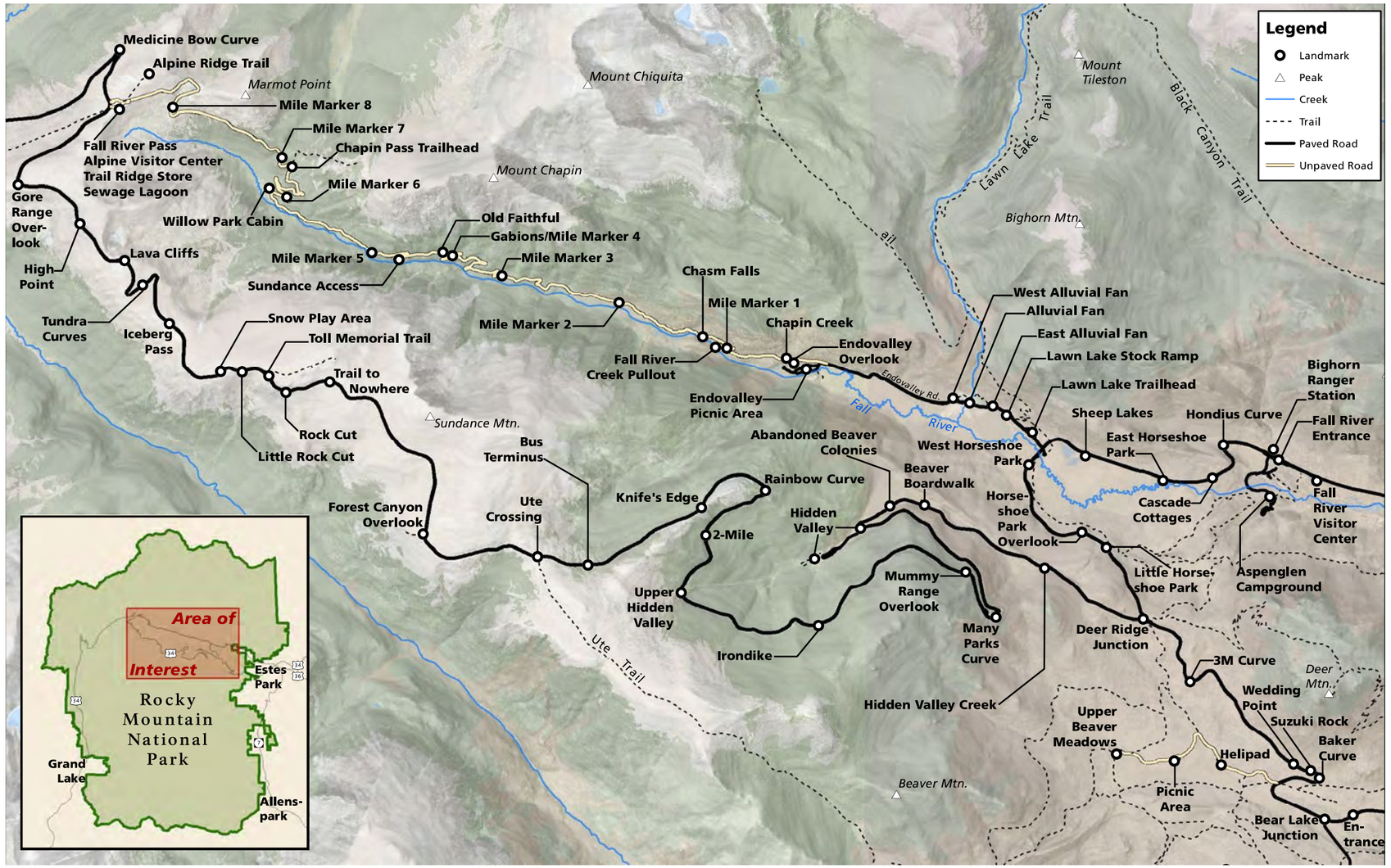


Figure 3-5. *Place Names for developed areas between the Park's eastern boundaries to Medicine Bow Curve.* (Source: Rocky Mountain National Park)

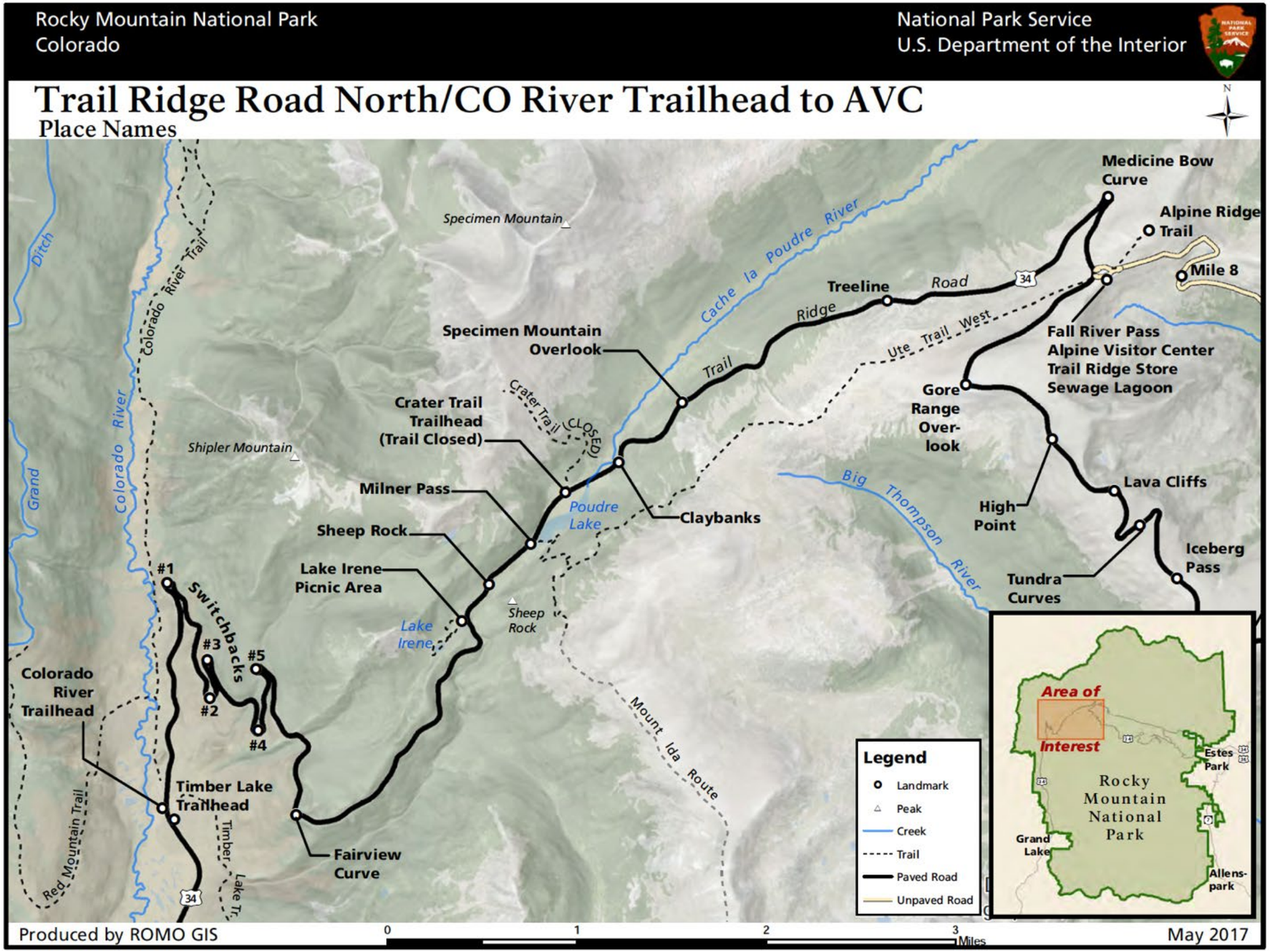


Figure 3-6. *Place Names for developed areas between Iceberg Pass and Timber Lake Trailhead.* (Source: Rocky Mountain National Park)

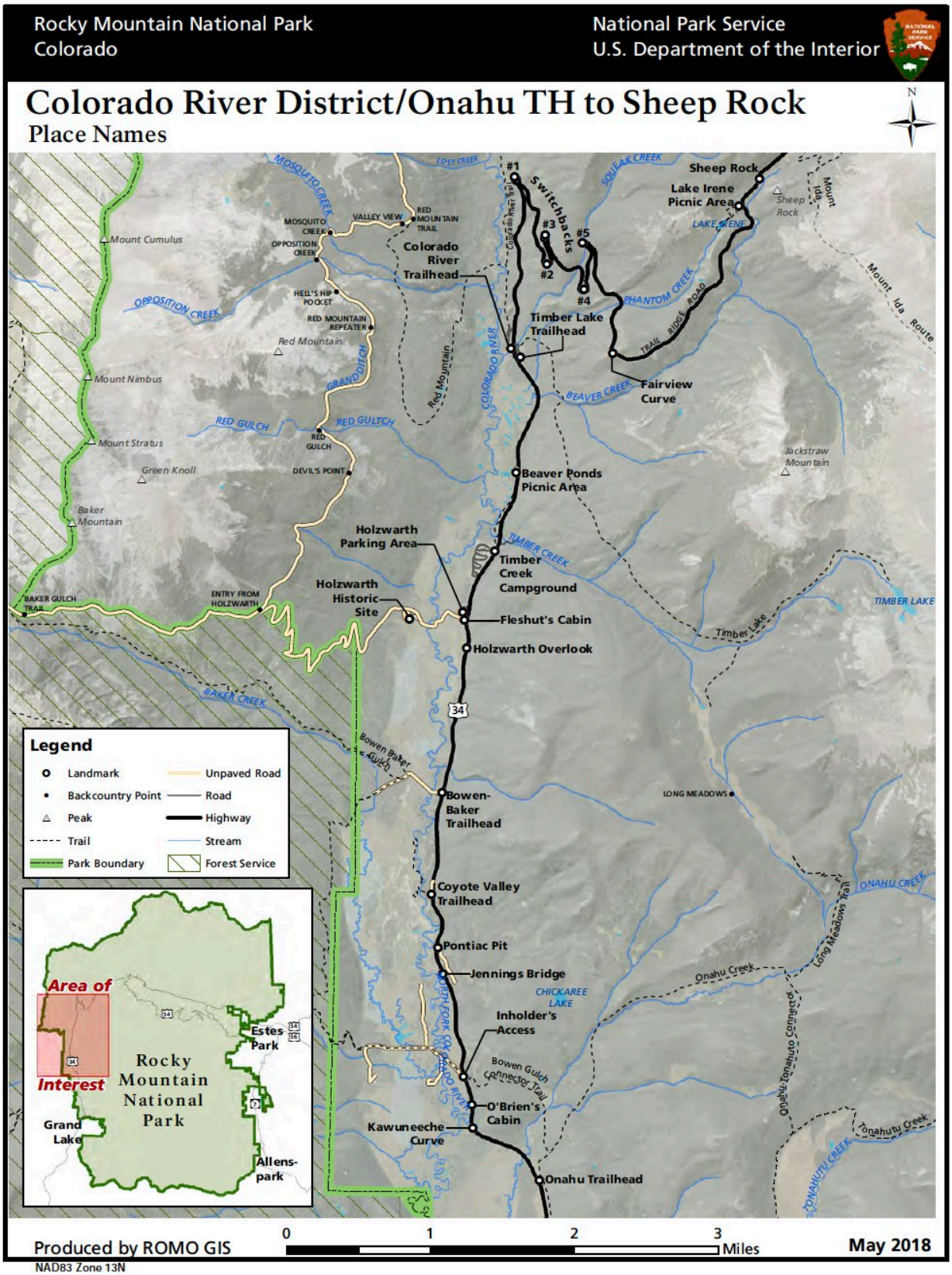


Figure 3-7. *Place names for developed areas between Sheep Rock and Onahu Trailhead.* (Source: Rocky Mountain National Park)

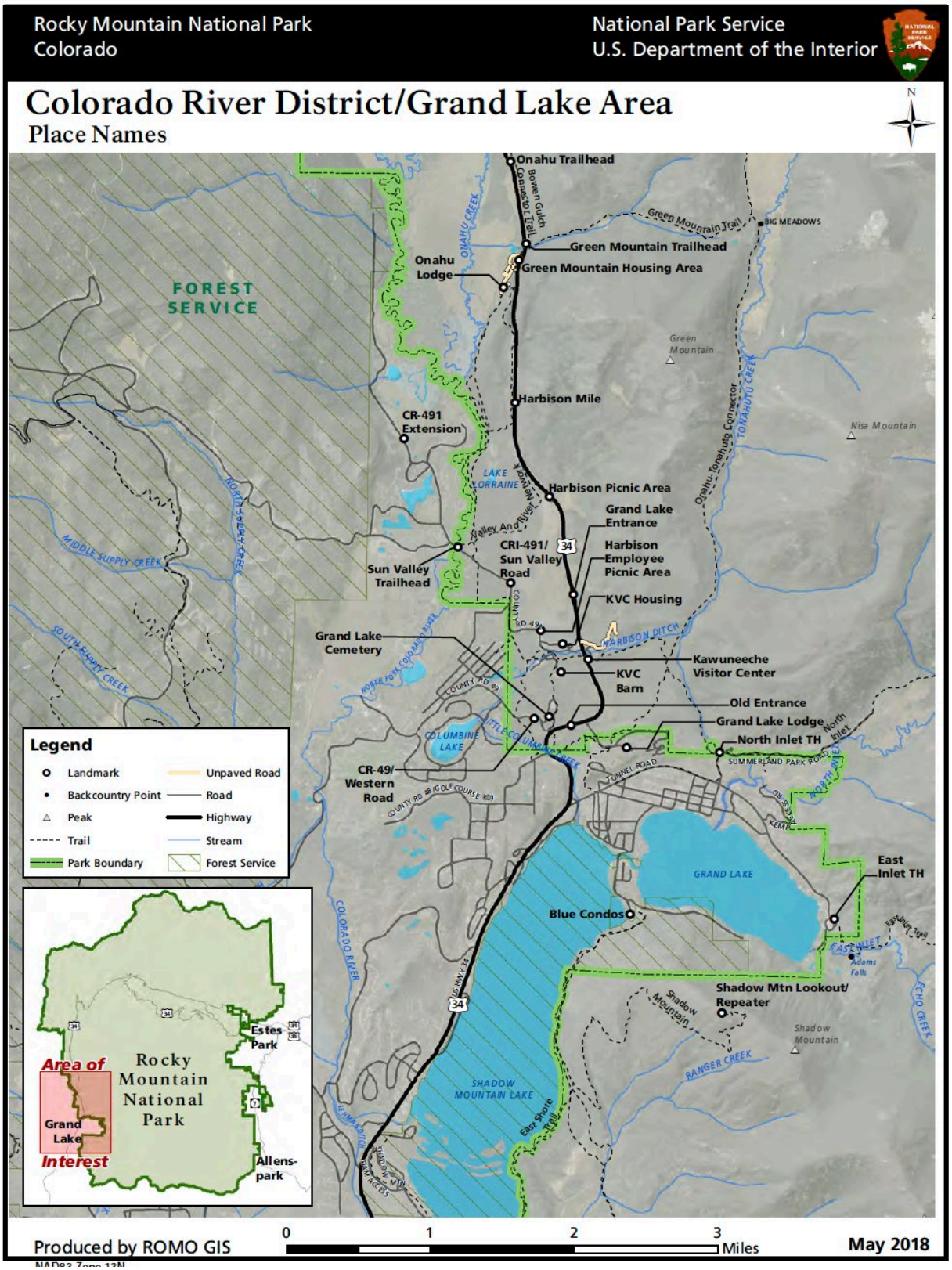


Figure 3-8. *Place names for developed areas between Onahu Trailhead and the Park's western boundary.* (Source: Rocky Mountain National Park)

Linear Layout. The linear layout of the road consists of the alignment starting on the east end of the Park at the Fall River Road Entrance and the Beaver Meadows Entrance and continuing to the west end of the Park at the Grand Lake Entrance. Landscape architects and engineers selected the alignment of the road to highlight natural features, identifying locations where scenic vistas and overlooks could be provided to allow visitors to take in the terrain. The two-lane roadway was carefully designed to avoid damage to the fragile alpine scenery it crossed with high elevation sections designed with gentle curves sweeping across the landscape, offering grand views into Forest Canyon and the Fall River Valley. Grades of the road were designed with a slope of 5 percent, or 1 foot change in elevation over a total of 20 feet of road length, or less wherever possible, with short sections reaching a maximum slope of 7 percent, or 1 foot change in elevation over a total of 14 feet or road length. In areas like Rock Cut, the road designers highlighted the unusual igneous rock formation rising above the alpine tundra by cutting a narrow passageway through the geological formation which, to this day, provides visitors a direct and incomparable traveling experience.[442] Further descriptions of the linear layout of the various segments of the Trail Ridge Road Cultural Landscape are provided within the Circulation section of this chapter below.

Lateral Layout. The lateral layout of the road is understood by its cross section, which is a vertical slice across the road and its edge conditions. The cross section identifies the dimensions, locations, and materials of the road structure and characterizes its immediate surroundings, sometimes referred to as the road prism, defined as the three-dimensional character of the road. The road prism and the adjacent natural topography and vegetation define the lateral spatial organization of the road. For example, areas of road that extend through forest, such as along the curve of Hidden Valley, provide a semi-enclosed feeling created by the presence of the trees that grow close together along the road's margins, while sections through tundra, such as the length between Rock Cut and Lava Cliffs, provide a more expansive experience because there are no trees and therefore views to distant landscapes prevail. In some locations, where the road rises from lower valleys and parks, such as the stretch from Old Fall River Road toward Deer Ridge Junction, there is a sense of enclosure due to the intermittent presence of sloping hillsides interspersed with trees. In other segments of Trail Ridge Road, the road is held along the edge of the mountain with wide open expansive views on the opposite side, such as where the road makes a wide turn at Medicine Bow Curve and follows the Cache la Poudre River. Where it follows the Kawuneeche Valley, the road setting provides less of a sense of immersion than other portions of the corridor due to the wider cross section of the road itself, flatter curves, and the increased setback of trees and views to the wide Colorado River floodplain.

The Trail Ridge Road corridor, as designed, was largely built into the hillside, and elevated on rock fill once it reached the tundra between the elevations of 11,000 and 11,500 feet AMSL. As originally constructed, the two-lane 22-foot-wide roadbed was intended to be edged by 3-foot-wide ditches to address stormwater management. The minimum radius for open curves was intended to be 100 feet, with 200 feet on blind curves. The road was designed to accommodate primarily tourists and other motorists; to this day, commercial vehicles are not permitted on the road, unless provided a special permit by the NPS.[443] To further connect drivers with the landscape, the designers added numerous stone-walled turnouts, typically located on major curves within the roadway, to provide ample space and pause for visitors to take in the panoramic views in all directions.[444] Additional descriptions of the road's lateral layout are provided for each of the road segments within the Circulation section of this chapter.

Developed Areas. The Trail Ridge Road Cultural Landscape serves as the spine for most of the developed areas and recreational opportunities within the overall 415 square miles of the Park, thereby generating most of the Park traffic. Numerous overlooks and parking areas have been developed over the years to provide visitors with opportunities to get out of their cars and enjoy the spectacular vistas from various locations offering a range of experiences and perspectives of the mountainous landscape. The

[442] Quin, "Trail Ridge Road, Rocky Mountain National Park."
[443] Rose Lang, Park Landscape Architect, email correspondence with CLR team, September 8, 2022.
[444] Quin, "Trail Ridge Road, Rocky Mountain National Park."

developed areas and pullouts, listed from east to west, are described below, and illustrated on the existing conditions plans (Maps 3-1 to 3-12) at the end of the chapter.

To aid in locating cultural features, the existing conditions plans at the end of this chapter identify mile markers along the various road segments that make up the Trail Ridge Road Cultural Landscape. Consistent with other Park documents, mile 0.0 is located at the Park's eastern boundary along Fall River Road (US Highway 34). Mile markings proceed southwest from the boundary along the roadway to Deer Ridge Junction (~Mile 4.1), and further west along Trail Ridge Road to the Park's western boundary near the Grand Lake Entrance (~Mile 41.1.), at mile 42.7. Mile markers have also been designated for Beaver Meadows Road (US Highway 36) with BMR Mile 0.0 at the Park's southeast boundary and continuing west before stopping at Deer Ridge Junction.



Figure 3-9. *View to the northeast of the Fall River Entrance Station. Note that the photograph was taken prior to the replacement of the entrance station structures in 2022.*

Fall River Entrance (See Map 3-1)**.** The Fall River Entrance is located near the eastern Park boundary along Fall River Road (US Highway 34), 4 miles northwest of the town of Estes Park at roughly 8,200 feet AMSL in elevation (Figure 3-9). The entrance station is marked by three small entry kiosks (Buildings B-669, B-700, and B-671) and a checking station (Building B-353) (information related to buildings and structures along the road corridor is provided in the Buildings and Structures section of this chapter). The entrance was moved to its current location in 1933. New buildings were constructed to replace the New Deal era entrance station in the 1960s through funding provided by the Mission 66 program.[445] Although the Mission 66 buildings remained present at the time fieldwork was conducted on behalf of this CLR, the buildings were later replaced beginning in 2022, with an expected completion date of June 2023.[446] The Fall River Entrance Station is listed in the National Register (5LR.1184).

[445] National Park Service, DRAFT "Trail Ridge Road CLI," 41.
[446] National Park Service PMIS #160755.

The Fall River Entrance is located along a moderately sloping hillside above the Bighorn Creek valley at the base of MacGregor Mountain. Bighorn Creek drains into Fall River along a fluvial floodplain just south of the road and entrance station. Stormwater and drainages north of the roadway are captured in culverts and drain grates and allowed to outfall into the floodplain below. Additional information about culverts and stormwater structures is provided in the Buildings and Structures section of this chapter below.

US Highway 34 approaches the Fall River Entrance as a 24-foot-wide two-lane, two-way asphalt-paved road (Figure 3-10). Moving northwest and approaching the entrance station, the roadway expands into an approximately 48-foot-wide surface divided into three inbound lanes by painted center stripes. Each lane measures approximately 10 feet in width. Periodic breaks in the median allow vehicles to turn around. Passing through the entrance, the three inbound lanes converge into two lanes—the left (southern) lane providing passage for those turning into and out of Aspenglen Campground—before forming a two-lane highway. The inbound lanes are separated from a single-lane outbound drive by medians. The roadway remains split for roughly a quarter of a mile before reverting to a two-lane road as it travels west.



Figure 3-10. *View to the northwest of US Highway 34 east of the Fall River Entrance.*

Near the entrance station, the asphalt road has a rough edge with a narrow shoulder of gravel and dirt, which widens periodically to allow for a vehicle to pull over. A single paved pullout with stone edging is located on the north side of the road west of the entry kiosks. For more information on pullouts, see the Circulation section of this chapter below.

Tightly spaced groves of predominately ponderosa pine, intermixed with Douglas fir and aspen, and dispersed meadows mark the perimeter of the road, with short grasses and pine trees dotting the medians. Views along the northern side of the roadway, which sits slightly higher with the grade, are minimal due to the sloping hillside and groves of trees, however, the landscape opens into a wide meadow to the south-southwest as one moves west beyond the entrance station (Figure 3-11).



Figure 3-11. *View to the southwest from an area west of the Fall River Entrance.*

Most small-scale features in the area are signs, predominantly informational and regulatory in nature, which are located along the side of the road. More information about signs is provided in the Small-scale Features section of this chapter below. A Park identity sign is set off from the north side of the road to the southeast of the entrance station. A wood post in front of the sign serves as a camera stand for visitors who stop to take photos. A small wooden box mounted on a wooden post allows visitors to recycle the maps they were provided when they entered the Park as they exit. A single overhead light pole and a flagpole are located near the entrance station. Boulders, treated wood posts, and Carsonite delineators are utilized along the edge of the roadbed to discourage vehicles from pulling over onto the gravel shoulders.



Figure 1-12. *View to the southeast of the walk edging the Sheep Lakes parking area.*

Sheep Lakes (see Map 3.1). Sheep Lakes is situated in a depression near a bend along the road near mile 1.8 at an approximate elevation of 8,520 feet AMSL (Figure 3-12). The parking area and overlook is the first designated stopping point for visitors after entering the Park at the Fall River Entrance. A prefabricated shed serves as an information kiosk often staffed by rangers and volunteers. Wayside exhibits edge the parking area, providing visitors with interpretive information. Sheep Lakes parking area was constructed in the 1960s when a segment of Fall River Road was re-routed to avoid passing between two of the Sheep Lakes.[447]

Sheep Lakes, located in a U-shaped valley called Horseshoe Park at the base of Bighorn Mountain, is known for its dramatic views. The parking area overlooks three small glacial lakes and a large grassy meadow within the Fall River floodplain below (Figure 3-13). The area is frequented by bighorn sheep that receive salt and other essential minerals they need for nutrition and digestion in the mud at Sheep Lakes.[448] Coyotes, ground squirrels, moose, and elk also frequent the lakes.

The linear asphalt parking area runs parallel and south of the roadway. The parking area includes twenty-one perpendicular parking spaces demarcated with white paint, including two accessible parking spaces, all facing to the south. Along a median that separates the parking area from the roadway an additional ten parallel parking spaces are provided.

The parking area and median is edged with colored aggregate concrete curbs and a sidewalk along the length of the perpendicular parking spaces. The sidewalk varies between asphalt surfacing and a section affiliated with the accessible parking spaces that is colored concrete. An asphalt curb runs along the eastern side of the eastern entrance into the parking area. The west side of the western entrance has a

[447] National Park Service, DRAFT "Trail Ridge Road CLI," 49.
[448] Scott Esser, Director of the Continental Divide Research Learning Center, email correspondence with Kelly Dick, July 21, 2022.

row of low timber barriers, referred to as “Stevens” logs by Park staff, placed along the roadway to discourage visitors from parking on the shoulders.

Flood plain vegetation surrounding Sheep Lakes is limited to meadow grasses and low shrubs which keep views unobstructed to the lakes and Horseshoe Park to the south (Figure 3-13).



Figure 3-13. *View to the southeast of Sheep Lakes from the parking area showing the remnant roadbed between the lakes.*

Small-scale features in the area include location and informational signage and wayside exhibits. A gravel area demarcated by boulders with log benches and a wayside exhibit is located on the west side of the parking area. Along the sidewalk on the south side of the parking area are wood benches, wayside exhibits, and trash and recycling receptacles. A square steel grate set atop a catch basin is in the corner of the parking area to capture surface stormwater. The developed area of Sheep Lakes is well-maintained and in good condition.



Figure 3-14. *View of the northern vehicular entrance into the West Horseshoe Park parking area.*

West Horseshoe Park (See Map 3-1). West Horseshoe Park is the name of an overlook situated near mile 2.5 that includes a linear parking area (Figure 3-14). The overlook and parking area at West Horseshoe Park appears to have been present by 1947.[449]

West Horseshoe Park overlooks Horseshoe Park to the east, which is characterized by a montane ecosystem of meandering waterways and open meadows along sloping hillsides. Vegetation within the area is limited to hydric meadow grasses that lie within the floodplain of the Fall River and a scattering of evergreen trees. To the northwest are impressive views of the stream valley and mountains beyond.

The linear asphalt parking area runs parallel to and east of the road. The perimeter of the unstriped parking area is demarcated with low boulders that serve to define the area for parking and deter off-road parking. Small-scale features that edge the parking area are wood bollards, wood post edging, wood wheel stops, a metal post, and stop signs. The parking area is in poor condition, particularly the asphalt surfacing.

[449] Determination of date of origin is made based upon review of US Forest Service aerial photograph BOW 34-160 (Larimer County, Colorado: 10/4/1947), https://cudl.colorado.edu/luna/servlet/view/all/where/Larimer?sort=sortorder%2Cdate&os=700.



Figure 3-15. *View to the northeast at Horseshoe Park Overlook.*

Horseshoe Park Overlook (See Map 3-1)**.** Horseshoe Park Overlook is a paved roadside pullout situated near mile 3.2 at an approximate elevation of 8,700 feet AMSL. The area is marked by a horseshoe-shaped parking area with rocky outcroppings that overlook the broad Horseshoe Park meadow below. Horseshoe Park Overlook was built in the 1930s.

Occupying a topographic rise above the stream valley, Horseshoe Park Overlook is known for its dramatic bird's-eye views of the meandering Fall River below and the Mummy Mountain Range beyond (Figure 3-15). Bighorn sheep, moose, and elk in the meadow below can often be spotted from this vantage point.[450]

The pullout is located on the north side of the road with a designated area for parking along the north side. There is no striping to indicate where to park, however. Topographically, the pullout and parking area are located below the roadway. As one enters the overlook parking area, the grade of the adjacent vegetated area remains elevated relative to the road, creating a sense of separation from the adjacent road corridor. Pine trees, aspen trees and low shrubs within the median heighten the sense of separation.

The parking area and median are edged with colored aggregate concrete curbs and a deteriorating asphalt sidewalk along the length of the parking area (Figure 3-16). The asphalt walk ends at a large rock outcropping where visitors often perch themselves for views across Horseshoe Park.

[450] National Park Service, "The NPS App," *Rocky Mountain National Park*. Mobile App Version. 1.2.3 (2021), https://www.nps.gov/subjects/digital/nps-apps.htm.



Figure 3-16. *View of a deteriorated asphalt walkway at Horseshoe Park Overlook.*

Vegetation at the overlook includes aspen and pine trees along with shrubs that dot the northern perimeter of the pullout leaving open views to the valley below.

Small-scale features in the area include wayside exhibit signage and wood posts to guide motorists to remain on the paved areas. The curbing at the western entrance to the pullout opens to a square steel grate atop a catch basin within the parking area that captures surface stormwater from the road surface and within the paved pullout. Portions of the developed area of Horseshoe Park Overlook are in poor condition and in need of repair, including the asphalt surfacing of the parking area and pedestrian pathway.



Figure 3-17. *View to the southeast of the Woodpecker Army Overlook.*

Woodpecker Army Overlook (See Map 3-1)**.** The Woodpecker Army Overlook looks down on Little Horseshoe Park. The paved roadside pullout, situated along the north side of the road near mile 3.9 (Figure 3-17), occurs at an elevation of 8,960 feet AMSL. The overlook provides views to the northeast of the former location of CCC Camp NP-1-C, which was the first such facility built west of the Mississippi River. In May 1933, workers set up a base in the meadow to house about 200 laborers who became known as the Woodpecker Army because they rode to work in old, red, sightseeing buses. The camp was composed of twenty-four tents used as living quarters, four larger hospital tents, and a field kitchen.[451] The Woodpecker Army Overlook appears to have been present by 1947.[452]

The pullout is edged with an asphalt curb which jogs at a pipe culvert that captures surface stormwater from the road surface and within the paved pullout. What appears to be a culvert with steel wing walls is partially buried near the northern edge of the pullout.

Small-scale features at the pullout are limited to a single wayside exhibit offset from the paved pullout that provides history about the CCC camp. An old concrete slab with a remnant steel post mounting bracket with the date “1967” is adjacent to the wayside exhibit. Wood posts are at the end of the pullout to deter parking. Other than maintenance issues related to stormwater structures, the Woodpecker Army Overlook is in good condition.

[451] Mark Hilton, ed., “Woodpecker Army Rocky Mountain National Park,” *The Historical Marker Database* (December 2020), https://www.hmdb.org/m.asp?m=162063.
[452] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 34-160 (Larimer County, Colorado: 10/4/1947), https://cudl.colorado.edu/luna/servlet/view/all/where/Larimer?sort=sortorder%2Cdate&os=700.



Figure 3-18. *View to the east at Deer Ridge Junction.*

Deer Ridge Junction (See Map 3-1)**.** Deer Ridge Junction marks the intersection of Trail Ridge Road, Beaver Meadows Road (Figure 3-18), and the High Drive segment which is the continuation of Fall River Road (refer to Figure 1-6). The junction, at 8,900 feet AMSL, is marked by a T-intersection with vegetated medians, signage, and the Deer Mountain Trailhead. Deer Ridge Junction was initially constructed in the late 1920s and realigned in the 1960s.[453] Prior to that there was a gas station, lodge, and cabins in the vicinity. Little, if any, evidence of this development remains today. As of 2023, the NPS is working to improve the efficiency of the circulation system while adding a parking area to reduce the congestion that regularly occurs at Deer Ridge Junction.[454]

Deer Ridge Junction is located west of Deer Mountain. Deer Ridge is characterized as a broad saddle with views of the surrounding mountains. The intersection sits at the base of a sloping hillside to the northwest where the grade slowly drops down toward an intermittent stream valley along the south side of the roadway. The vegetation near the junction is limited to grasses and coniferous trees with a minimal understory to allow open sight lines for turning vehicles. Due to topography and vegetation, views from the intersection are minimal.

The High Drive segment approaches the junction from the north as a two-lane, two-way asphalt-paved road. It then divides, with a narrow vegetated median between the northbound and southbound lanes. The road expands to include a turn lane toward Trail Ridge Road. Another lane allows visitors to turn left onto Beaver Meadows Road. Both Trail Ridge Road to the west and Beaver Meadows Road to the east are also divided by vegetated medians near the intersection, with turn lanes allowing for visitors to access the High Drive segment.

Curbing is intermittent at the junction. Concrete curbs are located along the east and west trending perimeters of the roadway and surrounding the vegetated medians. No curbing, however, is visible at the

[453] National Park Service, DRAFT “Trail Ridge Road CLI.”
[454] Personal communication, NPS, August 2021 site visit.

intersection to the north. An asphalt curb that captures stormwater flow from the roadway is located along the south side of the intersection. Just as the asphalt curb ends, an asphalt curb appears on the uphill (north) side of Trail Ridge Road as it heads west. Some of this curbing is in poor condition.

A pullout that allows parking is located along the north side of Beaver Meadows Road near the intersection at the location of a trailhead to Deer Mountain Trail. The pullout has an asphalt curb with an opening to allow access up a timber stair to the trailhead (Figure 3-19). A formal pullout with curbing was constructed in 2021 on the south side of the road at Deer Ridge Junction. A trailhead and trail to Beaver Mountain Trail/Upper Beaver Meadows Road/Moraine Park is located on the south side of the intersection.



Figure 3-19. *View to the north across Trail Ridge Road toward the Deer Mountain Trailhead.*

Structures in the vicinity include a trailhead kiosk which consists of an upright steel panel near the Deer Mountain Trailhead (Figure 3-19). A set of tubular steel swinging arm gates is located on the west side of the intersection to restrict vehicles during extreme weather or emergencies.

Most small-scale features in the area are signs, including many contemporary information and regulatory signs located along the side of the road. Trailhead markers are peeled posts with routed rectangular signs. Stone boulders, barrier-type features referred to as “Lawson” logs, and buck-and-rail fencing edge the roadbed to keep vehicles off road shoulders which are wide and gravel-surfaced. Portions of the Deer Ridge Junction developed area are in poor condition and in need of repair, including curbing along the perimeter and medians. There are also sign posts and trash pads which are no longer in use that have not been removed. Some drain inlets along the road margin also appear to be overcome with debris.



Figure 3-20. *View looking to the south toward the ramp at Beaver Boardwalk.*

Beaver Boardwalk (See Map 3-2)**.** The Beaver Boardwalk developed area is located along Trail Ridge Road near mile 5.9 at approximately 9,200 feet AMSL. The area is marked by a pullout with limited parking and a trail that leads to a wetland overlook (Figure 3-20). A parking and picnic area was originally constructed east of the current Beaver Boardwalk in the mid-1930s to provide visitors the opportunity to see beaver dams along the creek. However, by the 1940s beaver populations had declined dramatically in the Park due to trapping.[455] The current parking area and trail with a boardwalk and overlook was built to connect to the earlier boardwalk further west in 1984. The former Beaver Ponds area was removed in the early 2000s, but a social trail still links it to the current Beaver Boardwalk (Figure 3-21).[456]

[455] B.W. Baker, D. Mitchell, H.C. Ducharme, T.R. Stanley, and H.R. Peinetti, "Why aren't there more beaver in Rocky Mountain National Park" (US Geological Survey, conference paper, 2004), https://www.usgs.gov/publications/why-arent-there-more-beaver-rocky-mountain-national-park.
[456] Personal communication, NPS, August 2021 site visit.



Figure 3-21. *View looking west toward the former Beaver Ponds parking and picnic area that was located along Hidden Valley Creek.*

The developed area at Beaver Boardwalk sits alongside Hidden Valley Creek in an area previously blocked by a beaver dam. Up to 20 feet of silt and organic material eventually accumulated behind the dam. Sedges and grasses have grown up within this accumulation of soil, creating wet marshy areas.[457] Pine trees and hydric shrubs and grasses dot the trail leading to an overlook associated with the boardwalk.

Vehicular access to the area is from an asphalt pullout on the north side of Trail Ridge Road. The pullout is edged by a concrete curb and concrete sidewalk. A post-and-rail fence, significant portions of which are failing, lines the sidewalk. An unmarked signpost leans against the fence line.

Pedestrians access the overlook along a path that is 0.1 miles in length and has a varied surface. A curb cut in the concrete sidewalk allows for an accessible entry from the asphalt pullout to a wooden ramp edged by a similarly declining fence to that along the sidewalk. The sidewalk and ramp are supported by stacked stone walls (refer to Figure 3-20). At the base of the ramp, a roughly patched asphalt pathway edged by peeled logs jogs to the northwest until reaching a wooden boardwalk (Figure 3-22). The boardwalk leads to an observation deck that is octagonal in form, surfaced with a composite material, and edged by a wood railing (Figure 3-23). Two wood benches supported by steel brackets are built into the railing at the overlook where visitors can enjoy the peaceful montane wetlands. Along portions of the boardwalk, overgrown vegetation appears to encroach upon the pathway. Numerous social trails remain in the area, likely remnants of the pathways that once lead to the earlier boardwalk further east that was originally built in the 1930s.

[457] National Park Service, “Beaver Ponds on Trail Ridge Road,” *Rocky Mountain National Park*, https://www.nps.gov/places/romo_beaverponds.htm.



***Figure 3-22**. The wooden boardwalk leading to the beaver ponds.*



***Figure 3-23**. An overlook built of composite material provides views to the wetlands at Beaver Boardwalk.*

Small-scale features in the area include a wayside exhibit located along the asphalt walkway, steel post delineators with circular reflective decals at the ends of the paved pullout, and a utility feature with a steel plate cover. Two social trails lead through tall grasses and shrubs from the designated pathway. The developed area of Beaver Boardwalk is generally in fair to poor condition.



***Figure 3-24**. View down and to the north of Lower Hidden Valley.*

Lower Hidden Valley (See Map 3-2)**.** Lower Hidden Valley is a developed area along Hidden Valley Road, which intersects with Trail Ridge Road near mile 6.5 (Figure 3-24). The developed area is located at the end of the road at roughly 9,280 feet AMSL. Lower Hidden Valley was initially constructed in the 1930s as a seasonal winter sporting destination with improvements and expansions over the following decades. Lower Hidden Valley today is a year-round recreational site offering picnicking, hiking, and winter activities. The area is overall in fair to good condition.

The developed area is set along the riparian corridor of the creek for which the area is named. The popular visitor destination is characterized by a fan-shaped meadow that rests at the base of the valley surrounded by a forest of Engelmann spruce and subalpine fir which is marked with scars of old ski runs that operated until the Hidden Valley Ski Area closed in 1991 (Figure 3-25). During the winter, the snow often lies several feet deep in the valley, while temperatures during the summer are often relatively cool. There is roughly a 1,000-foot elevation gain from Lower Hidden Valley to Upper Hidden Valley. This change in topography allows for views toward Trail Ridge Road and the alpine tundra beyond. For travelers along Trail Ridge Road, as it sweeps across the upper ridgeline, views are also offered down to Lower Hidden Valley.

From the tight hairpin turn on Trail Ridge Road at the base of the valley, Hidden Valley Road traverses up for roughly 1,000 feet, passing a road gate and a dirt and gravel turn around before reaching an elongated parking area aligned to the terrain. The looping parking area is comprised of four bays of angled parking striped for roughly 110 cars, including accessible spaces. Portions of the asphalt surface throughout are in rough shape exhibiting areas of ponding, cracking, and broken asphalt particularly around the curb-less access road. A circular vegetated median terminates the parking area at a drop-off area located in front of a multi-use building that now serves as the Park's Junior Ranger Headquarters in the summer and a warming hut in the winter. The building also contains restrooms.



Figure 3-25. *View to the southwest of former ski runs looking toward Upper Hidden Valley.*

Pedestrian circulation includes sidewalks, an extensive trail network, and many social trails. A sidewalk surrounding the parking area is exposed aggregate with a concrete curb and gutter. It is in poor condition with areas of broken concrete and plants growing in the cracks. Accessed from the sidewalk around the parking area is a looping concrete path with a concrete stair edged with boulders and a wood post center rail with metal handrails which are worn and showing signs of age. A trail with a gentle grade leads from the looping walk toward the creek (Figure 3-25). The trail is compacted gravel with wood edging. Picnic tables as well as wayside exhibits edge the trail, providing places for visitors to rest and enjoy the setting. The trail follows the course of the creek which at one time appears to have been managed with stone walls and evidence of what appears to be an old concrete weir structure (Figure 3-26). Social trails are evident throughout the developed area.

Buildings and structures at Lower Hidden Valley include a ranger station with restrooms (B-1093) (Figure 3-27). Built in a neo-Rustic style in 2003, the large building has an open breezeway with exposed trusses, a stone veneer base and lapped wood siding. The roof is sloped standing seam metal with solar panels. There is also a picnic shelter (B-1127) built in 2004. The structure is timber framed and mounted atop 6 stone veneer concrete column bases with a sloped standing seam metal roof. There are inset wood benches at the base of both the shelter and multi-use building. Large boulders have been placed into the pavement outside the shelter to provide additional seating.



***Figure 3-26**. A concrete weir and stone masonry wall at Hidden Valley Creek.*



***Figure 3-27.** View of a pedestrian bridge over Hidden Valley Creek toward the ranger station.*

Other structures at Lower Hidden Valley include dry-stacked stone “rockeries” that edge the sloping hillside along the approach to the parking area and behind the picnic shelter. Grasses and other herbaceous species are growing in the crevices between the stones. A wood bridge provides pedestrian

access from the breezeway of the multi-use building to the trail up the riparian corridor of Hidden Valley Creek (Figure 3-27). Another footbridge with wood rails is further up the trail providing access across the stream. Various utility structures are also visible throughout the developed area. Large, corrugated pipes feed stormwater into the creek. The pipes are exposed and badly rusted. Smaller culverts that direct water into constructed trenches are visible under the compacted gravel trail.

Additional small-scale features are present including buck-and-rail fencing along the wooded hillsides, trash, and recycling receptables, accessible parking signs, and Jersey barriers that mark the centerline of the parking area (Figure 3-28). Within the breezeway of the building are sign panels that display information about the Park and Lower Hidden Valley.

Condition issues of note not already mentioned within Lower Hidden Valley include extensive erosion on the sides of the road and at the picnic area, areas of overgrown and invasive vegetation, and exposed plastic pipes.



***Figure 3-28**. View across the asphalt parking area at the Lower Hidden Valley developed area.*



Figure 3-29. *View to the southeast from the boardwalk at Many Parks Curve.*

Many Parks Curve (See Map 3-2). Many Parks Curve is one of the larger and more popular visitor destinations along Trail Ridge Road. Located near mile 8 at roughly 9,680 feet AMSL (Figure 3-29), the Many Parks Curve overlook and parking area is situated at a hairpin turn along the road and marked by a long boardwalk with panoramic views of the surrounding landscape to the east. Parking areas are located at both the lower and upper ends of the curve. Many Parks Curve was constructed on top of a crushing or quarrying site and was one of the first overlooks developed as part of the design of features along Trail Ridge Road to allow motorists to stop and safely view the surrounding scenery ca. 1934. The pedestrian walkway was added in the 1960s to improve safety and provide even more expansive views, with updates to the steel railing occurring ca. 2010. A metal gate located to the northwest of the upper parking area is used to close the remainder of Trail Ridge Road to the Colorado River Trailhead to visitors between mid-October and late May when weather conditions are not safe for motorists.

The overlook occupies a rocky, eastern slope which marks a shift from montane into the subalpine regions of the Park where Engelmann spruce and flat-needled fir trees are dominant. Aspen groves dot the edges of the overlook. The rock-face interior of the bend slopes steeply to the roadside and a large rock outcropping edges the lower parking area.

Trail Ridge Road approaches Many Parks Curve from the north along an incline. The road is crowned with an asphalt shoulder on each side except where the pedestrian boardwalk edges the road, which is lined by a stone curb with a stone-lined gutter and crenellated stone guidewall. Portions of the gutter were backfilled with crushed stone during the CLR team's visit. The road pavement is inlaid with rumble strips that run perpendicular to the direction of traffic and are intended to slow approaching vehicles.

Asphalt-paved parking areas define the lower and upper ends of Many Parks Curve. White striping delineates the roadway from the parking areas and is also used to mark individual parking spaces and a crosswalk from the upper parking area that flanks the road on the interior portion of the curve to the boardwalk on the other side (Figure 3-30). The crosswalk is located along a blind curve where westbound

vehicular traffic narrowly approaches pedestrians who cross the highway to get from the main parking area to the boardwalk.

The lower parking area, which is located on the cliff edge of the roadway, is smaller in scale than the upper area. Both the lower and the upper lots include accessible parking, however, the sloping access walk from the upper lot does not appear to meet current accessibility standards. The asphalt edge of the upper parking area is left rough and there are numerous ditches caused by soil erosion and washout from surface runoff. A buck-and-rail fence edges the upper parking area, while the lower parking area is edged by a rock outcropping that is a popular spot for visitors to climb. A single rustic wood bench is set along the rocky lower ledge.

Asphalt walks merge from both parking areas directing visitors to the boardwalk. The upper walk is steeply sloped with the roadway and edged by timber and buck-and-rail fencing (Figure 3-30). A deteriorating metal culvert that collects water along the interior shoulder runs below the pathway. The asphalt pathway along the lower parking area is edged with a stone curb that defines the perimeter of the parking area pullout.



Figure 3-30. *View to the south from the upper parking area at Many Parks Curve.*

The long boardwalk lines the outer perimeter of the curve for roughly 1/10-mile and provides a location to take in grand vistas to the southeast toward Longs Peak. The boardwalk is edged by a crenellated stone guidewall on the interior side and a weathering steel railing with wide horizontal lower and upper bars and thin vertical pickets on the outer edge. The Park first used weathering steel rails in this location, which have since become the standard in other areas.[458] The boardwalk is made of composite wood boards with a raised edge on the interior side. The edge board is cut to accommodate the rough façade of the stone guidewall (Figure 3-31). There are two trapezoidal bump-outs in the boardwalk, one of which includes wayside exhibits (Figure 3-32).

[458] As relayed by Rose Lang, Park Landscape Architect, to the CLR team during a project site visit.



Figure 3-31. *Detail of the carefully cut trim along the boardwalk against the crenellated stone guidewall at Many Parks Curve.*

The crenellated stone guidewall along the boardwalk breaks at the lower end of the boardwalk and continues on the other side, continuing toward the lower parking area where it stops at the stone outcropping. It then begins again on the other side of the rock outcrop and follows along the roadway.

The panoramic views from Many Parks Curve are unparalleled. Moraine Park, Upper Beaver Meadows, and Horseshoe Park meadows can be seen with a backdrop of Deer Mountain and Longs Peak.



Figure 3-32. *A bump out with wayside exhibits at the Many Parks Curve boardwalk.*

Small-scale features within the vicinity include several types of edging and barriers. A set of tubular metal gates that close off Trail Ridge Road in winter flank the roadway on the uphill side of the upper parking area. Buck-and-rail fencing marks the perimeter of the upper parking area and has also been positioned at the road edge to separate the parking areas from the roadway. Wood posts with attached wood stake delineators and boulders are used to mark the edge of the upper parking area. Orange and white delineator tubes (also called “candlesticks”) are set along the centerline between the two lanes along the radius of the curve near the lower parking area. They are there to prevent westbound traffic from attempting to Park in the lower parking area on the opposite side of the road and, according to Park staff, are damaged on a regular basis. The road crew must remove and reinstall these each season because they cannot be in place during winter snowplow operations.

Signs in the vicinity include a location sign that reads “Many Parks Curve” with the number “3” located along the downhill interior portion of the curve (the numbered signs are found along Trail Ridge Road and indicate a location highlighted in the “Guide to Trail Ridge Road,” an interpretive booklet the Rocky Mountain Conservancy produces which remains available for purchase in the visitor centers). Road signage includes a standard crosswalk sign and a sign posted in the center of the roadway to slow vehicles. Wayside panels cantilever from the bump outs along the boardwalk, while a single wayside exhibit is set within the lower parking area. Two trash cans are located along the edge of the asphalt within the upper pullout. The boardwalk portion of Many Parks Curve that edges the roadway has been well-maintained and is in good condition while the lower parking area is in fair condition and the upper parking area is in fair to poor condition.



Figure 3-33. *View of the pullout at Mummy Range Overlook.*

Mummy Range Overlook (see Map 3-2). Mummy Range Overlook near mile 8.4 is marked by a pullout along the north side of the roadway (Figure 3-33). The asphalt widens from the east to the west along the two-lane road to a width wide enough for one or two vehicles to pull over. The pullout is demarcated from the travel lane by a white stripe. A crenellated stone guidewall edges the overlook which is intended to provide directed views to Mummy Range to the northeast. Mummy Range Overlook appears to have been present by 1947.[459] The overlook is in good condition.

Upper Hidden Valley (See Map 3-2). The Upper Hidden Valley area located near mile 11 at roughly 10,500 feet AMSL marks the upper section of the former Hidden Valley Ski Area which opened in 1955. The area included two snow tunnels over Trail Ridge Road that were installed in winter and removed in spring. From 1971 to 1974, the NPS operated a chair lift at Hidden Valley which resulted in a 28-foot-wide corridor from Lower Hidden Valley up to Trail Ridge Road.[460] A bus used to bring skiers to Upper Hidden Valley and would utilize a pullout known as the Bus Terminus as a drop-off and turnaround location. In 1991, the ski facilities closed. A substantial restoration effort began which involved removal of many buildings and other infrastructure and reforestation of the former ski runs.[461] Although the ski area has closed, the area remains a sought-after destination for backcountry skiing enthusiasts and snowshoers in the winter.

[459] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 27-151 (Larimer County, Colorado: 9/10/1946), https://cudl.colorado.edu/luna/servlet/view/all?sort=sortorder%2Cdate&os=850.
[460] Frank, *Making Rocky Mountain National Park*, 196–199.
[461] Frank, *Making Rocky Mountain National Park*, 196–199.



Figure 3-34. *View to the southeast along Trail Ridge Road from the bend at Upper Hidden Valley.*

The Upper Hidden Valley bend is located along the edge of the alpine tundra ecosystem. Hidden Valley typifies the boreal ecosystem where spruce and fir trees, along with understory species such as fairy slipper orchids (*Calypso bulbosa*), feather moss, and moon ferns, creating a forest environment similar to that typically encountered further north.[462]

The road leading to Upper Hidden Valley from the east is edged along the south side by a low stone retaining wall with a stone gutter (Figure 3-34). The wall stops just after the bend, but the stone gutter, portions of which have been buried with asphalt or gravel, continues. The shoulders of the road are asphalt, and the road widens to a pullout on the north side of the road before reaching the bend at Hidden Valley Creek. During the spring and wet periods of the summer, water from either overland flow or underground springs spills down the steep slope above the roadway and seeps over the existing stone walls.

There are no formal trails at Upper Hidden Valley. A rock-lined social trail, however, descends from the roadside down the steep hillside which is armored with stone and exposes a large metal culvert.

Small-scale features within the area include signs requesting visitors keep off the upper hillside due to restoration efforts, buck-and-rail fencing near the bend in the road, and snow poles marking the ends of the walls. Significant overgrown vegetation along the existing stone walls, ditches and gutters results in the area appearing under-maintained and in poor condition (Figure 3-35).

[462] National Park Service, "Hidden Valley," *Rocky Mountain National Park,* https://www.nps.gov/romo/hidden_valley.htm.



Figure 3-35. *The view from Upper Hidden Valley to the rock armoring below the roadbed.*



Figure 3-36. *View toward Rainbow Curve from Trail Ridge Road traveling west.*

Rainbow Curve (See Map 3-2)**.** Rainbow Curve is located at mile 12 at roughly 11,000 feet AMSL in elevation. The panoramic viewpoint looks out to the northeast toward Horseshoe Park and the Fall River Valley (Figure 3-36). The popular visitor destination is marked by a wide paved pullout and parking area with a vault restroom building—Rainbow Curve Vault Toilet (Building B-1067) (Figure 3-37). The plan for

Rainbow Curve was drawn by NPS Landscape Architect Howard Baker in 1933. Construction required a long stretch of hand-laid embankment, using rock from the road cut to maintain the outer edge of the observation area. The plans extended the stone guidewalls and curbing by 30 to 40 feet which allowed for a walkway and views that capitalize on areas understood to possess the greatest scenic qualities.[463] Rainbow Curve is located at the tree line.

Trail Ridge Road approaches Rainbow Curve from the lower elevations along a steep southeast facing slope that is edged by a crenellated stone guidewall (refer to Figure 3-38). Large boulders along the steep slope have been known to fall from the hillside onto the road causing partial road closures over multiple years.[464] The wide asphalt parking area is delineated from the roadway by white striping and buck-and-rail fencing. White striping also serves to mark individual perpendicular parking spaces and areas that are off limits to vehicles.

Accessible parking is located on the south side of the restroom building with a median that separates the two spots from standard parking spaces. The median is edged by a stone curb, surfaced with gravel, but absent of any plantings. Parking continues along the south side with five marked perpendicular parking spaces. The narrowness of the parking area here requires vehicles to back out into the lane of traffic.



Figure 3-37. *A vault restroom at Rainbow Curve.*

The Rainbow Curve vault toilet (B-1067) is located on the south end of Rainbow Curve. The facility, which provides four individual stalls, is the next restroom visitors traveling west encounter along Trail Ridge Road after Lower Hidden Valley. This vault restroom facility appears to be in good condition.

A crenellated stone guidewall edges the overlook along the entire length of the switchback curve. The wall is roughly 20 inches wide yet varies in height from 2 inches to 3 feet. Loose rocks and boulders reinforce the wall to armor the slope that supports the overlook (refer to Figure 3-39).

[463] National Park Service, DRAFT "Trail Ridge Road CLI," 108.
[464] Rose Lang, Park Landscape Architect, email correspondence with CLR team, July 19, 2022.



Figure 3-38. *The sidewalk at Rainbow Curve.*

Pedestrian circulation at Rainbow Curve includes asphalt and both standard and colored concrete. A colored concrete sidewalk with a granite curb marks the base of the crenellated guidewall along the parking areas to the north (Figure 3-38). The sidewalk then transitions to black asphalt that is speckled with pink gravel at the surface edged by stone curbing. The concrete path transitions to standard concrete at the restroom and the curbing ends. Standard concrete surrounds the restroom building and provides an accessible route to the two accessible parking spaces on the south side of the building where the walk terminates. Much of the pedestrian circulation surfacing is cracked and exhibits significant wear, as does the stone curbing. Ponding at the concrete surrounding the restroom facilities is also evident.

Like Many Parks Curve, the impressive views from Rainbow Curve are panoramic due to the pullout being located at the edge of a wide switchback. From this vantage between Hidden Valley to the southeast and Hanging Valley to the northwest, visitors can view Deer Mountain, the Alluvial Fan, and the Mummy Mountain Range. Below lies Hidden Valley Creek, isolated from Horseshoe Park by a high ridge. Rainbows can often be seen here after a rain, giving the location its name.[465]

[465] National Park Service, "Rainbow Curve," *Rocky Mountain National Park,* https://www.nps.gov/places/romo_rainbowcurve.htm.



Figure 3-39. *The view from the concrete sidewalk to the north from Rainbow Curve.*

Several small-scale features are found at Rainbow Curve including buck-and-rail fencing and signage that includes wayside exhibits and “Thank You for Not Feeding the Wildlife” signs mounted to the stone wall (Figure 3-39), regulatory road signs, and a location sign. Trash receptacles mounted on concrete pads and concrete-filled steel bollards are located near the restroom. Wood posts are also present at the corner of the building to serve as delineators. A pair of metal swinging arm gates with wood delineators edge Trail Ridge Road on the north side of the parking area. Other than the condition issues noted, Rainbow Curve has been well-maintained and is in fair to good condition.



***Figure 3-40**. View east of Bus Terminus where visitors were once dropped off to ski at Hidden Valley.*

Bus Terminus (See Map 3-3). Bus Terminus is a semi-circular pullout located near mile 13.6 (Figure 3-40). The surface is paved in asphalt with a rough edge and a white stripe along the roadway to delineate the pullout from the travel lane. A dry-stacked stone retaining wall edges the turnout. The wall ranges in height from roughly a foot at the ends to 3 feet at its highest point near the center. Portions of the wall appear to be collapsing and grasses and other herbaceous species are growing in the crevices between the stones. Bus Terminus was utilized as a bus turnaround location for Hidden Valley Ski Area which opened in 1955 and appears to have been present by 1946.[466] Bus Terminus is in fair condition.

[466] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 31-97 (Larimer County, Colorado: 9/29/1946), https://cudl.colorado.edu/luna/servlet/view/all?sort=sortorder%2Cdate&os=1150.



Figure 3-41. *View to the northwest from the Ute Trail looking toward the Ute Crossing parking area.*

Ute Crossing (See Map 3-3)**.** Ute Crossing is located at mile 14 at roughly 11,500 feet AMSL within the alpine tundra ecosystem along Trail Ridge Road (Figure 3-41). The popular visitor destination is marked by a paved pullout and a trailhead for the Ute Trail, a historic route that Arapaho and Ute people utilized on their journey between winter and summer hunting grounds. Oral history and archeological evidence suggest this route was established hundreds, if not thousands, of years ago.[467] The date of origin of the pullout is currently unknown but appears on aerial maps dating from 1985.

Ute Crossing is located along a level ridge above Forest Canyon. Set within the area above the tree line, the landscape is stark and exposed. The surface is rocky with a low groundcover of dwarf perennials and cushion plants that have long taproots extending deep into the rocky soil (Figure 3-42).[468]

[467] Brunswig, *Prehistoric, Protohistoric and Early Historic Native American Archeology of Rocky Mountain National Park*; McBeth, *Native American Oral History*.
[468] National Park Service, "Alpine Tundra Ecosystem," *Rocky Mountain National Park*, https://www.nps.gov/romo/learn/nature/alpine_tundra_ecosystem.htm.



Figure 3-42. *View to the south along the rocky Ute Trail from Ute Crossing.*

Trail Ridge Road is fairly level on its approach to Ute Crossing. It widens to allow vehicles to parallel Park along the south side of the road. The pullout parking area has room for roughly eight vehicles and is edged with a curved colored-concrete curb that tapers at each end with gravel along its backside. An unmortared stone retaining wall supports the pullout area (Figure 3-43).



Figure 3-43. *Stone wall along the edge of the pullout at Ute Crossing.*

A section of colored concrete provides a landing from the pullout where two monolithic stone steps lead to the gravel and dirt Ute Trail. The trail that extends south from the Ute Crossing Trailhead provides expansive views and alpine tundra scenery along a relatively level route.

Small-scale features are limited to a wayside offset from the back of the curb, a trailhead sign that is significantly faded, and a wood post delineator. Corrugated black plastic pipes can be seen sticking out at the base and within the stone wall that edges the pullout (Figure 3-43). Other than the condition issues noted that relate to small-scale features, Ute Crossing has been well-maintained and is in good condition.



Figure 3-44. *View to the north of the Forest Canyon Overlook parking area.*

Forest Canyon Overlook (See Map 3-3)**.** The Forest Canyon Overlook and parking area is located near mile 15 of Trail Ridge Road at 11,716 feet AMSL (Figure 3-44). The area includes two bays of parking and a paved path (Forest Canyon Overlook Trail - TR-02) to an overlook with extensive views to Forest Canyon and beyond. Due to the high altitude and wide expanse of tundra surrounding the overlook, the area is prone to cold temperatures and gusty winds. Forest Canyon Overlook was initially built in 1958. A fenced tundra test plot was established in the area where the trail meets the sidewalk by Dr. Beatrice Willard a year later. While the plot is still present, the fence and interpretive information have been removed.[469] The 300-foot-long paved path leading to a viewing structure was built ca. 1980. An earlier iteration of the overlook viewing structure was replaced in 2002.

The pullout to the Forest Canyon Overlook and Parking Area is along the west side of Trail Ridge Road. The parking area is a single loop with two bays of perpendicular parking on each side, with a total of approximately thirty spaces including accessible parking. The parking spaces are marked with white paint on the dark asphalt and the entire area is loosely edged with boulders to prevent people from parking atop the sensitive tundra. Grasses and sedges with non-flowering lichens that cling to rocks and soil are evident in the tundra surroundings.

[469] National Park Service, DRAFT “Trail Ridge Road CLI,” 72.



Figure 3-45. *The colored concrete sidewalk at Forest Canyon Overlook parking area.*

A colored concrete sidewalk with a colored concrete curb edges the westernmost row of parking spaces (Figure 3-45). The surface of the concrete exhibits some cracking. Truncated domes in a compatible color mark the accessible curb cut to the sidewalk between two accessible parking spaces. The concrete leads to a sloping walk built of black asphalt with a layer of chip seal that levels out as it leads to the overlook. The sloping walk does not meet the ABAAS requirements in terms of steepness of slope and cross-slope. The trail is edged by stone boulders and shows signs of wear and tear in the form of cracks and ponding. Bump-outs along the walkway leading to the overlook contain waysides and rustic wood benches (Figure 3-46).

Stone walls are located along the south entrance into the parking area and on the back side of the sidewalk. The wall along the road is a crenellated stone guidewall while the wall adjacent to the sidewalk is a stacked stone wall. The overlook is elevated from the adjacent grade and held by a concrete wall and footer faced with 120 linear feet of rock.[470]

[470] National Park Service, Forest Canyon Overlook Rehabilitation Project Proposal/Clearance Form, 2/25/2002 (2002 0-05 Forest Canyon Overlook Rehab.pdf).



Figure 3-46. *Bump outs with wayside exhibits and benches along the trail leading to the Forest Canyon Overlook.*

The walk ends at the overlook in a widened asphalt expanse that is surrounded by a stone veneer wall (Figure 3-47). Two rustic wood benches are set within the expanse. At the base of the wall, square openings allow for drainage to pass out of the paved area. A large boulder outcropping is just to the west outside the walls. The overlook provides unsurpassed views to Forest Canyon and its tributary canyons, Hayden Gorge, and Gorge Lakes.[471]

Small-scale features in the area include signs, barriers, and gates. Two stop signs mark the exits out of the parking area. The stop signs have been backed with plywood to keep them from warping due to the high winds in the area. Other signs within the parking area include an accessible parking sign, wayside exhibits, and low signs requesting visitors stay on the trail and off the tundra. Buck-and-rail fence further discourages visitors from accessing the tundra. Snow poles are also present and trash receptacles on concrete bases are found along the sidewalk. A set of tubular metal gates are on the uphill (north) side of the parking area along Trail Ridge Road to limit access during inclement weather. Other than features noted such as the concrete sidewalk and trail surfacing which show signs of wear and tear, the developed area appears to be in good condition.

[471] National Park Service, "Forest Canyon," *Rocky Mountain National Park,* https://www.nps.gov/places/romo_forestcanyon.htm.



Figure 3-47. *View to the west of the Forest Canyon Overlook and the valley below.*



Figure 3-48. *View to the east along the pullout at Downgrade edged by Lawson logs to prevent visitors from walking across the fragile tundra.*

Downgrade (see Map 3-3). Downgrade is a term used by park personnel for a pullout located near mile 16.3 on the south side (eastbound lane) of Trail Ridge Road (Figure 3-48). The term is used to describe the area because it marks a transition in the grade of the roadway. The pullout is delineated with a wide

asphalt paved area edged by Lawson Logs to deter visitors from accessing the fragile alpine tundra. The Downgrade pullout is in good condition.

Trail to Nowhere (see Map 3-3). The Trail to Nowhere is a pullout located near mile 16.5 along the south side (eastbound lane) of Trail Ridge Road. The pullout used to lead to an informal trail that led up toward the landforms at the end of the Toll Memorial Trail but has been closed to visitors and is in the process of being revegetated. A social trail currently leads from the pullout to the southwest to a ridgetop view overlooking Forest Canyon. The Trail to Nowhere pullout is in fair condition.



Figure 3-49. *View to the southeast of Trail Ridge Road as it passes through Rock Cut. This segment of crenellated stone guidewall is the only one constructed with a concrete core along the road corridor.*

Rock Cut / Toll Memorial Trail (See Map 3-3)**.** Rock Cut is a popular Park landmark and visitor destination along Trail Ridge Road that occurs at an elevation of roughly 12,110 feet AMSL near mile 17. As the name implies, the area is marked by large rock outcroppings that were blasted in the 1930s to provide room for the road to extend through the area when constructed between 1929 and 1933 (Figure 3-49). Rock Cut is the only location on Trail Ridge Road where blasting was required, reflecting the efforts of designers to align the road with the natural topography of the land.[472]

Trail Ridge Road approaches Rock Cut from the east along the narrow two-lane road edged by crenellated stone guidewall segments. The minimal shoulders along the margins of Trail Ridge Road taper further where the road routes to the northwest and slices through the steep rocky hillside where drill marks are visible in the gneiss and shist layers of stone. Small cracks in the asphalt are present. The central segment of guidewall between the rock outcroppings is the single example of a stone guidewall with a concrete core, a construction technique utilized after a fatality occurred at this location (Figure 3-49). A smaller segment of stone guidewall edges the road between rock outcroppings and allows for a small pedestrian overlook with stunning views of Longs Peak, the Never Summer Mountain Range, the blue Gorge Lakes, and Hayden Gorge. After passing through the vertical faces of rock, the road widens to

[472] National Park Service, DRAFT “Trail Ridge Road CLI,” 135.

allow a shoulder along the east-bound lane which is also bound by a crenellated stone guidewall. The shoulder is initially striped to limit parking but farther north allows for roughly seventeen parallel parking spaces.

Just west of Rock Cut is a second parking area with the trailhead to the 0.5-mile loop of the Toll Memorial Trail (TR-09, also Tundra Communities Trail), where exhibits identify the flora and fauna of the tundra (Figure 3-50). The parking area was initially constructed during the early road development period of the 1930s and improved during the Mission 66 program in 1961. At the same time, the Toll Memorial Trail was paved, providing better access to the Roger Toll Memorial, installed at the upper reaches of the hillside after Toll's sudden death in 1936. The memorial features an inscribed stone plaque and a peak finder. The second Beatrice Willard tundra research plot, established in 1958, is located by the parking area. A granite quarry, or borrow pit, utilized during the construction of Trail Ridge Road is located north of the Toll Memorial Trail but its exact location remains unclear at the time of this submission.

As the topography levels past Rock Cut, perpendicular parking for roughly thirty cars is provided within a parking area along the east side of the roadway. Parking spaces are delineated with white striping. Vegetated medians edged by stone curbing separate the accessible parking spaces from the rest of the parking area. Visitors parked in perpendicular spaces must back out into the oncoming traffic when leaving.



Figure 3-50. *View to the west from the hillside above the Rock Cut parking area.*

A colored concrete sidewalk edges the parking area along the east side leading to sections of asphalt that provide access to two vault restrooms. The vault toilets (Buildings B-1063 and B-1064) are identical and include four stalls total. The sidewalk also provides two access points to the Tundra Communities Trail. The entrance to the south includes truncated domes in the sidewalk that mark the accessible route and an asphalt ramp edged by a dry-stacked stone wall. The other access point to the north is composed of a boulder stair and a stepped ramp, or stramp, that is asphalt with stone risers edged by stone boulders (Figure 3-51). Where the hillside rises from the sidewalk there is significant erosion and exposed soil. The

older asphalt along the stramp merges with the accessible trail that has a newer and darker coat of asphalt, which creates a sense of incongruity.

The Willard research plot is located alongside the parking area to the east of the Toll Memorial Trail trailhead. The research plot measures 5 feet by 20 feet, within a 50-by-40-foot exclosure. An old footpath runs through the plot that was once used to monitor rates of regrowth on the tundra. The existing brown-painted 3-foot-tall steel tube fence that surrounds the research plot was initially installed in the 1970s. It surrounds a larger space than the plot itself to protect the edges of the research area from trampling. Additionally, a small steel sign at the base of the plot explains that the fence protects the research plot.[473] The research area was entered in the National Register in 2007 as the first ecological plot in the country to be so recognized.[474]



***Figure 3-51**. A concrete and stone stepped ramp, or "stramp," leads to the Tundra Communities Trail.*

The asphalt Toll Memorial Trail / Tundra Communities Trail meanders through the tundra, leading to two expansive overlooks. Mushroom Rocks, the first of the two destinations along the trail, is accessed from an asphalt spur trail off the main trail (Figure 3-52). The name of the overlook refers to the unique forms of the rock outcroppings with eroded granite bases and bulbous schist caps. At the terminus of the trail is another large boulder outcropping with wide expansive views to the northeast (Figure 3-53). At both locations, signage and buck-and-rail fencing encourages people to stay on designated trails and landings. The trail does not appear to meet accessibility standards and exhibits significant signs of wear and tear evident in its mottled surfacing, cracks, exposed culverts, and rough edging.

[473] National Park Service, DRAFT "Trail Ridge Road CLI," 109.
[474] National Park Service, "Rock Cut," *Rocky Mountain National Park*, https://www.nps.gov/places/romo_rockcut.htm.



Figure 3-52. *A panoramic view to the north of the landing at Mushroom Rocks.*



Figure 3-53. *A panoramic view to the east of the trail and rock outcropping at the terminus of the Toll Memorial Trail.*

Small-scale features in the area consist of barriers, signage, and furnishings. Buck-and-rail fencing has been placed adjacent to the sidewalk and along the trail to deter visitors from trampling the tundra. In addition to numerous signs encouraging visitors to stay off the tundra throughout the parking area and along the trail, signage in the area also includes wayside exhibits, some of which are worn or faded, small steel panels with drawings and information on the natural history of the area, standard road signage, and a location sign that says “Rock Cut” with the #6 located along Trail Ridge Road—the numbers relating to a pamphlet that is sold at the visitor centers that identifies features along the roadway. Other small-scale features include wood post delineators, trash cans on concrete pads, a closed-caption camera and bollards near the restrooms, a monitoring well manhole, and an elevation marker located at Rock Cut. Other than features noted to exhibit significant wear and tear, the developed area at Rock Cut / Toll Memorial Trail is in fair to good condition.



Figure 3-54. *View to the west of the pullout at Snow Play Area which is now blocked from motorist access with Jersey barriers.*

Snow Play Area (see Map 3-3). Snow Play Area is a former pullout located near mile 17.3 along Trail Ridge Road where visitors often pull over and play in a formerly perennial snowbank (Figure 3-54). The area is marked by a widening of the asphalt roadway on the north side that is edged with buck-and rail fence. The snow is no longer present year round and access has been limited by the placement of Jersey barriers, which are not a standard feature found elsewhere in the Park and have been used as a temporary measure to restrict visitor access to the surrounding landscape, which falls within the Tundra Protection Zone. A sign reading “Restoration Area Keep Out” is posted on a wooden post and mounted in the tundra. Snow Play Area is in fair condition.



Figure 3-55. *View to the northwest of the identity sign and tour stop marker at Lava Cliffs.*

Lava Cliffs (See Map 3-4)**.** Lava Cliffs is a parking area located along a section of volcanic rock, an unusual geologic formation along Trail Ridge Road located near mile 19 at 12,080 feet AMSL (Figure 3-55). Lava Cliffs gets its name from the vertical cliffs of volcanic welded ash-flow tuffs that stand at the western end of the parking area. The cliff face and lower expanse is the result of lava that traveled from the Never Summer Range around 28 million years ago and was later cut by glaciers moving through the area.[475] The location is marked by a wide pullout along a bend in the road with a stone guidewall and interpretive signage. The overlook was initially constructed ca. 1938.

The parking area at Lava Cliffs is designed as an expanded area of asphalt along the north side, or west-bound lane of traffic, along Trail Ridge Road. A white stripe separates the roadway and pullout although striping is not utilized for individual parking spaces, which results in cars parked in various alignments. The asphalt is roughly edged along its boundary with cracks visible along the surface. A catch basin covered with a metal grate is located along the eastbound lane along Trail Ridge Road.

A sidewalk with a crenellated stone guidewall bounds the north edge of the parking area. The sidewalk is surfaced with layers of asphalt, including a layer with a colored aggregate (Figure 3-56). A colored concrete curb with concrete gutter edges the sidewalk. The sidewalk, curb, and gutter are all in poor condition and exhibit cracks, chipping, and spalling.

The hillside beyond the guidewall is eroded and various efforts have been undertaken to address drainage. A green steel framed cage intercepts water from a culvert to capture debris on the southeast end of the parking area and overlook and releases it above a remnant glacial ice pond. On the north side an asphalt-lined ditch collects water and channels it to a stone lined ditch which leads to Iceberg Lake (Figure 3-57).

[475] National Park Service, "Lava Cliffs," *Rocky Mountain National Park,* https://www.nps.gov/places/romo_lavacliffs.htm.



Figure 3-56. *View west along the walk at Lava Cliffs.*



Figure 3-57. *An asphalt ditch and buck-and-rail fencing at Lava Cliffs.*

Views from the overlook take in the cliffs and Iceberg Lake, located at the bottom of a rock basin, as well as snowbanks, ice ponds, and alpine meadows extending toward Fall River. Marmot Point, Old Fall River Road, Mount Chapin, and the Mummy Range are visible to the north, while the Never Summer Mountains are to the west.

Small-scale features include road signs, a location sign, signs restricting access to the tundra, and a wayside exhibit. Snow delineators include wood posts and green perforated metal posts. Wood edging is

utilized along the asphalt sidewalk below buck-and-rail fencing (Figure 3-58). Lava Cliffs exhibits significant signs of wear and tear and is in poor to fair condition.



Figure 3-58. *Wood edging along the asphalt walk at Lava Cliffs.*

High Point (See Map 3-3). At 12,183 feel AMSL, High Point marks the location of the highest elevation along Trail Ridge Road. Signs marking the elevation were initially posted at the location between miles 19 and 20 along Trail Ridge Road but due to concerns regarding traffic congestion and theft were later removed.

Gore Range Overlook (See Map 3-4)**.** Gore Range Overlook is located near mile 20 along Trail Ridge Road above 12,000 feet AMSL. The high point of the road of 12,183 feet AMSL is located only a half mile to the southeast. The site is perched above a tundra meadow and includes a bay of parking and a paved path along an overlook with extensive views toward the Never Summer Mountains and Gore Range. The parking area at Gore Range was initially constructed in 1938.

The pullout to Gore Range Overlook edges the eastbound lane of Trail Ridge Road. The parking area, which parallels Trail Ridge Road, is accessed from two turnoffs and contains approximately twenty spaces, including accessible parking. The parking spaces are marked with paint on the dark asphalt and the area is loosely edged with boulders and bollards to prevent people from parking on the sensitive tundra. Gore Range Overlook is one of the few places where a planting strip separates the parking area from the roadway (Figure 3-59). The narrow strip is edged by logs and is sparsely vegetated with a few larger boulders dotting the median. A stacked stone wall surrounds the parking area and overlook along three sides (Figure 3-60).



Figure 3-59. *View to the northwest of the median at Gore Range Overlook.*



Figure 3-60. *View west of the battered stone wall that supports the parking area at Gore Range Overlook.*

A colored concrete sidewalk with a colored concrete curb edges the parking (Figure 3-61). Truncated domes in a compatible color mark the accessible curb cut. Reserved parking signs and a wayside exhibit edge the sidewalk.



***Figure 3-61**. View to the north of the sidewalk and accessible parking at Gore Range Overlook.*

The panorama at the overlook features the Gore Range located 60 miles to the southwest, the Never Summer Mountains to the west, and the Medicine Bow Mountains in Wyoming to the north. The Ute Tail descends past here as it extends between the Alpine Visitor Center and the Kawuneeche Valley associated with the Colorado River. Between the Gore Range Overlook and the Alpine Visitor Center some of the highest peaks of the northern Rockies can be viewed in the distance.[476]

Small-scale features in the area include signs and barriers. Stop signs mark the two exit points onto Trail Ridge Road. Both are backed by plywood to keep them from warping due to the high winds in the area. Other signs within the parking area include accessible parking signs, a trail closed sign, a restoration area sign, and a wayside exhibit. Buck-and-rail fence discourages visitors from accessing the tundra and is located at the base of the stone wall. Wood bollards are used to edge the parking area along the north side and to support wooden delineators which are particularly susceptible to failure at such high altitudes. A manhole for a monitoring well is located within the vegetated median. Gore Range Overlook is in good condition.

[476] National Park Service, DRAFT "Trail Ridge Road CLI," 235.



Figure 3-62. *View to the south from Trail Ridge Road toward the Alpine Visitor Center parking area.*

Fall River Pass Historic District (See Map 3-4)**.** The Fall River Pass Historic District (5LR.14866), a National Register-listed property, includes the developed visitor service area at Fall River Pass near its intersection with Trail Ridge Road. The district is accessed via both Trail Ridge Road and Old Fall River Road, segments of which contribute to the district. The CLR study area includes the interface of Trail Ridge Road and the parking area to the Alpine Visitor Center but does not encompass the historic district in its entirety (Figure 3-62).

The Alpine Visitor Center is generally open to the public from Memorial Day to mid-October. The building offers interpretation, guest services, and recreation opportunities related to the surrounding alpine tundra ecosystem to between 400,000 and 500,000 visitors each summer.[477] At 11,796 feet AMSL, the building is designated as the highest visitor center in the National Park System. Approaching from the east, Trail Ridge Road makes a bend about a quarter mile from the Fall River Pass area. As the road descends the approximately 45 degree view features the first glimpse of the development tucked into the pass.[478] Development of Fall River Pass began with the construction of a public shelter in 1922. The Alpine Visitor Center was constructed from 1963 to 1965 as part of the Mission 66 program.

Access to the parking area, located at mile 21 on Trail Ridge Road, is marked by entrance and exit lanes separated by a median and parking bay (Figure 3-63). At the south entrance, Trail Ridge Road widens to allow for an asphalt turn lane which leads visitors into the parking area along the east side of Trail Ridge Road. At the north side of the parking area the asphalt exit lane splits to allow for traffic to turn to the south, which leads to the east toward Estes Park, or north which leads to the west toward Grand Lake. A short asphalt merging lane is used by cars traveling west. Both the entrance and exit lanes are edged with a colored concrete curb. White arrows on the asphalt surface help direct vehicles.

[477] Dr. Mary Therese Anstey and Cheria Yost, National Register of Historic Places Nomination “Fall River Pass Historic District” (US Department of the Interior, National Park Service, 2021).
[478] Anstey and Yost, “Fall River Pass Historic District.”



Figure 3-63. *The Alpine Visitor Center identify sign.*

The median that separates the entrance and exit lanes is edged by a concrete curb (Figure 3-63). Unlike the curb sections at the turn lane and merge lane, the concrete is a standard color and appears older and in poor condition. Boulders of varying sizes are set within the median, which also includes the identity sign for the Alpine Visitor Center. The east side of the median is edged by parking spaces for approximately twelve vehicles.

Several different drainage strategies are utilized at the entrance to the parking area. Rectangular metal grates are located along the turn lane and within the vegetated areas near both the entrance and exit lanes. The grate at the exit lane is large and made of weathering steel while the other rectangular grates are consistent in size and material to grates elsewhere along the roadway. The grate closest to the parking area entrance is located at the terminus of an asphalt ditch that begins at a cut in the curb along the turn lane (Figure 3-64). The presence of wattles by the inlet implies the drainage in this location is problematic. A long galvanized steel trench drain, the only one of its kind along Trail Ridge Road, runs across the median and exit lane within the parking area. The drain appears to outfall at a metal culvert with metal wing walls that is visible along the west side of Trail Ridge Road.

Near the culvert is a trailhead for Ute Trail West, which leads from the parking area at the Alpine Visitor Center to Milner Pass. A crosswalk (Figure 3-65) leads visitors from the parking area west across Trail Ridge Road to the unpaved trail through the tundra. A helipad location is also designated near the trail across from the parking area.[479] From the trail visitors can view the Never Summer and Medicine Bow ranges.

[479] Anstey and Yost, “Fall River Pass Historic District.”



Figure 3-64. *An asphalt drainage ditch leads to an inlet near the entrance to the Alpine Visitor Center.*



Figure 3-65*. A crosswalk leads from the parking area to the Ute Trailhead at the Alpine Visitor Center.*

Small-scale features include buck-and-rail fencing, utilized as a barrier along the east side Trail Ridge Road as it extends south from the parking area, and a set of tubular steel swinging arm gates south of the parking area along Trail Ridge Road. Signage along the east side of Trail Ridge Road includes the Alpine Visitor Center identity sign which is a brown and white metal panel bracketed onto a concrete base with stone veneer, “Tundra Protection Area” signs, and “No Parking” signs along the turn lane. Signage along the west side of the road includes a wood routed trailhead sign for the Ute Trail, a metal directional sign for Grand Lake and Estes Park, and a square wood post with a “Parking Area Ahead” sign, a faded yellow speed limit sign, and a NPS logo sign with a #8 etched on it. Except for condition issues indicated,

the interface of Trail Ridge Road at the developed area at the Fall River Pass Historic District is in fair condition.



Figure 3-66. *View to the northwest from the top of Medicine Bow Curve.*

Medicine Bow Curve (See Map 3-4)**.** Medicine Bow Curve is located along the descent from Alpine Visitor Center near mile 21.5 on Trail Ridge Road. At 11,660 feet AMSL, the overlook is situated at a tight hairpin curve with long vistas to the northeast (Figure 3-66). The overlook includes pullouts, a crenellated stone guidewall and a trailhead for a social trail. Medicine Bow Curve appears to have been present by 1938.[480]

Constructed as a cut along the tundra, Medicine Bow Curve is marked by three pullouts that edge the roadway—one along the east-bound lane of traffic on the upper portion of the curve, another at the radius of the curve along the outer west-bound lane, and a third lower along the roadway also along the west-bound lane (Figure 3-67). The asphalt pullouts are not striped for parking.

[480] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 13-19A (Larimer County, Colorado: 10/26/1938), https://cudl.colorado.edu/luna/servlet/view/all?sort=sortorder%2Cdate&os=150.



***Figure 3-67**. View to the northeast from the bottom of Medicine Bow Curve.*

Asphalt shoulders and curbing that edge the outer portion of the road give way to a long segment of crenellated stone guidewall that sweeps along the bend. Below the roadway a segment of stacked stone retaining wall is visible (Figure 3-68). The interior portion of the road is edged by a colored concrete curb. The road is superelevated along the curve to allow for positive drainage toward the inner portion of the bend where area drains capture water in culverts that outfall below the road along the hillside to the north.



***Figure 3-68.** View along the lower retaining wall at Medicine Bow Curve.*

An unpaved social trail marked by signs leads to the east from the curve (Figure 3-69). The NPS plans to improve and formalize the trail, which has been used since the 1960s. From the trail and pullout, rare views to the northernmost areas of the Park are provided. Looking to the horizon, visitors can glimpse the Medicine Bow Mountains and the state of Wyoming, 35 miles to the north. The Cache la Poudre River

can be seen flowing through the valley below. From the overlook, visitors can also see two tree lines. The uppermost tree line separates the subalpine ecosystem from the alpine tundra ecosystem. The lower tree line, seen near the bottom of the valley, indicates where wet meadow ends within the river valley floor.[481]

Small-scale features near the bend include standard road signs, locations signs, “Tundra Protection Area” signs, and a large red “Caution” sign. Snow poles also edge the road to aid in snow removal in the springtime. Medicine Bow Curve is in good condition.



Figure 3-69. *View to the unnamed trail at Medicine Bow Curve.*

Specimen Mountain Overlook (see Map 3.5). Specimen Mountain Overlook is an angular pullout, located near mile 24.2 (Figure 3-70). The surface is paved in asphalt with a newer colored concrete curb. A dry-stacked battered stone retaining wall holds the edge of the pullout, which provides focused vistas to Specimen Mountain. An overlook at Specimen Mountain appears to have been present by 1938.[482] The overlook is in good condition.

[481] National Park Service, “Milner Pass,” *Rocky Mountain National Park,* https://www.nps.gov/places/romo_medicinebow.htm.
[482] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 11-49 (Larimer County, Colorado: 10/25/1938), https://cudl.colorado.edu/luna/servlet/view/all?sort=sortorder%2Cdate&os=50.



Figure 3-70. *View to the southwest of the Specimen Mountain Overlook.*



Figure 3-71. *View northwest of Crater Trail from Trail Ridge Road.*

Crater Trailhead Parking Area (See Map 3-5). A small unstriped parking area edges Trail Ridge Road near mile 25 (Figure 3-71). The parking area formerly marked the location of the Crater Trail, which was closed in 2018 to protect sensitive natural and cultural resources. The parking area is edged by a worn asphalt curb which is offset by stone boulders to discourage pedestrian access. A trash receptacle, buck-and-rail fencing, trailhead sign and snow poles are also located at the former trailhead parking area. The parking area is in fair condition.



Figure 3-72. *View from the parking area at Milner Pass toward Poudre Lake.*

Milner Pass (See Map 3-5). Milner Pass is an exceedingly popular visitor destination located along the east side of Trail Ridge Road near mile 25.4. The area is marked by a parking area that parallels the roadway and two trailheads that lead to the north and south from the parking area. Milner Pass is named for T.J Milner, an ambitious railroad promoter who surveyed a rail route across the divide.[483] The parking area at Milner Pass appears to have been present by 1938.[484] In 2022, the NPS replaced two vault toilets at Milner Pass. Associated with the parking area and arrangement of vault toilets is a concrete paved area for waiting, benches, and a small retaining wall.[485]

At 10,759 feet AMSL, the parking area at Milner Pass is located on the Continental Divide. Trail Ridge Road crosses the divide where the water enters either the Atlantic or Pacific drainages. Poudre Lake (Figure 3-72), perched atop Milner Pass, releases its cold water into the Cache la Poudre River, which flows eastward toward the Atlantic Ocean.

The parking area at Milner Pass provides spaces for roughly twenty-five cars, including accessible parking, but is often full so that visitors park in non-designated areas on the asphalt and adjacent road margins (Figure 3-73). Due likely to the overcrowding and popularity of the area, the asphalt surface is badly worn and cracked particularly along its margins. Asphalt curbs, where present, are also damaged and in need of repair.

[483] National Park Service, “Milner Pass.”
[484] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 11-49 (Larimer County, Colorado: 10/25/1938), https://cudl.colorado.edu/luna/servlet/view/all?sort=sortorder%2Cdate&os=100.
[485] National Park Service PMIS #315038.



Figure 3-73. *View to the northeast of the parking area at Milner Pass.*

A concrete sidewalk edges the parking area. Trails depart from the sidewalk. From the trails, access is gained to Poudre Lakes or to the Ute Trail, which leads to Fall River Pass (Figure 3-74). To accommodate a change in elevation, stairs with both timber and stone risers are set along the trail. A social trail parallels Trail Ridge Road, leading northeast from the parking area. Erosion is evident throughout the developed area, particularly along the margins of trails, indicating how popular the developed area is. Buck-and-rail fencing, much of which has fallen, edges the sidewalk in an effort to keep visitors off the tender vegetation.

Masonry features in the area include a crenelated stone retaining wall that holds Trail Ridge Road along Poudre Lakes, stone masonry headwalls, and a dry-laid stone retaining wall. A stacked stone retaining wall also edges the sidewalk. Volunteer vegetation is evident along all the masonry structures.

Signage located within the developed area includes a large metal sign panel that marks the Continental Divide set on a mortared stone base (Figure 3-75), a trail kiosk, a wayside exhibit, trailhead signs, and restoration area signs. Other small-scale features include a nearby road gate, delineators, trash cans, and Stevens logs placed along the roadside to discourage parking. Overall Milner Pass is in fair to poor condition.



Figure 3-74. *A trail leads south from the parking area at Milner Pass.*



Figure 3-75. *The sign denoting the location of, and information about, the Continental Divide at the Milner Pass parking area.*



***Figure 3-76**. A picnic site near the parking area at the Lake Irene Picnic Area.*

Lake Irene Picnic Area (See Map 3-5)**.** The Lake Irene Picnic Area is located at 10,600 feet AMSL near mile 25.8 within the subalpine ecosystem of the Park (Figure 3-76). The picnic area is accessed from a looping parking area off Trail Ridge Road (Figure 3-77). Milner Pass Road Camp Mess Hall (Building B-220), which was constructed just west of the Continental Divide in 1926 as part of the facilities built to support the needs of construction workers, is also located at the Lake Irene Picnic Area. A picnic area and looping access road associated with Lake Irene was present by 1938.[486]

The parking area at Lake Irene Picnic Area includes roughly fifteen spaces for vehicles, including accessible parking. Both the parking area and access road are lined with boulders to prevent visitor parking in undesignated spaces, which is a common occurrence here. A vault restroom (Building B-1065) is located within the parking area which is accessed by a concrete sidewalk and set into the hillside edged by a veneer stone wall (Figure 3-78). Eight picnic tables surround the parking area which are accessed along gravel paths.[487] Both the picnic areas and the paths have timber edging, and some paths have stone risers to address the grade changes. The loop hike around Lake Irene begins from a trailhead located at the far end of the parking area, just beyond a couple of picnic sites. From the picnic area the 0.5 mile loop descends southwest towards the north shore of Lake Irene. The Lake Irene Picnic Area is in good condition.

[486] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 11-49 (Larimer County, Colorado: 10/25/1938), https://cudl.colorado.edu/luna/servlet/view/all?sort=sortorder%2Cdate&os=100.
[487] National Park Service, "Lake Irene Picnic Area," *Rocky Mountain National Park*, https://www.nps.gov/places/romo_lakeirenepicnic.htm.



***Figure 3-77**. View to the southeast toward the parking area at the Lake Irene Picnic Area.*



***Figure 3-78**. The vault toilet at the Lake Irene Picnic Area.*

Unnamed Picnic Area (See Map 3-5)**.** A small picnic area is located along the east side of Trail Ridge Road at mile 26 (Figure 3-79). The picnic area is accessed via an asphalt pullout that provides space for a few vehicles. Boulders edge the pavement. A social trail leads to a few picnic tables set amongst dispersed evergreen trees along the high bank above Beaver Creek. A sign indicates that campfires and camping are prohibited at the picnic area. The picnic area is in fair condition. The date of origin of the picnic area is not known.



***Figure 3-79**. A picnic table at an unnamed picnic area near mile 26 above Beaver Creek.*



***Figure 3-80.** View to the west of Farview Curve Overlook.*

Farview Curve Overlook (See Map 3-5)**.** Farview Curve Overlook is located at approximately 10,000 AMSL feet near mile 27.5 along Trail Ridge Road. The overlook provides sweeping views of the Kawuneeche Valley and the Never Summer Range (Figure 3-80). A viewpoint with crenellated walls at

this location was in existence by 1935 but has since been altered.[488] The overlook was created by a widening of the roadway along the west side, or eastbound lane of traffic. The widening of the road allows for both perpendicular and parallel parking for a total of roughly thirty spaces. Striping delineates the spaces to be used for parking. The area is prone to rockfalls.[489]

Abutting the perpendicular parking spaces is a colored concrete sidewalk and a crenellated stone guidewall. Recycling and trash receptacles are located on concrete bases set along the sidewalk with wayside exhibits that relay information on the New Summer Mountains. Farview Curve Overlook is in good condition.



***Figure 3-81**. View of a crenelated stone guidewall and armoring below the road along the Switchbacks.*

Switchbacks (See Map 3-5)**.** The Switchbacks refer to a series of five numbered hairpin turns along Trail Ridge Road located between miles 28 and 31. This section of the thoroughfare was constructed beginning in 1930 to replace an earlier route through the challenging terrain followed earlier. The route provides a dramatic sequence of views for motorists as it drops roughly 1,000 feet over 2 miles from a ridgetop down to the perimeter of the Kawuneeche Valley, with expansive views to the south and west. Along its route there are eighteen wall segments, both crenelated stone walls overlooking sharp drop-offs (Figure 3-81), typically along the segment's lower reaches, and retaining walls holding back steep slopes, typically at the higher elevations (Figure 3-82). The retaining walls range from a few feet to hundreds of feet in overall length and are constructed using both stone veneer and mortared stone. There are also segments of hand laid embankments, as well as culverts with stone headwalls. Streams that flow through the area are conveyed beneath the road corridor in large box culverts well below the finished grade of the travel route.

[488] National Park Service, DRAFT "Trail Ridge Road CLI," 42.
[489] Personal communication, NPS, during August 2021 site visit.



***Figure 3-82**. View of a pullout across from a stone retaining wall and steep embankment at the Switchbacks.*

The Switchbacks are in fair condition with issues of concern that include water seeps, blowouts, and bulges that are evident along certain retaining walls, and occasional rockfalls where adjacent slopes are quite steep. Additional information regarding wall conditions is noted in a subsequent section of this chapter, with accompanying documentation noted in the consulting engineer's report included in Appendix A.



***Figure 3-83**. View to the west of the Beaver Creek Picnic Area.*

Beaver Creek Picnic Area (See Map 3-6)**.** Beaver Creek Picnic Area is located near mile 32.3 along Trail Ridge Road at 9,000 feet AMSL. The area is south of the Beaver Creek bridge and is marked by an asphalt pullout along the west side of the roadway with access to a small hill with picnic tables and views

overlooking the Kawuneeche Valley (Figure 3-83). The picnic area appears for the first time on aerial photographs in 2011. CCC camps NP-3-C and NP-7-C were located north of the site across from Beaver Creek.[490] Social trails and areas where visitors have worn away vegetation, which has led to erosion in some cases indicates Beaver Creek Picnic Area to be in fair condition.



Figure 3-84. *View to the north of the Beaver Ponds Picnic Area.*

Beaver Ponds Picnic Area (See Map 3-6). Beaver Ponds Picnic Area is located just south of Beaver Creek Picnic Area at mile 32.6 near 9,000 AMSL. The picnic area is accessed from a gravel drive off Trail Ridge Road, which leads to a small parking area and loop turnaround also surfaced with gravel. The parking area is edged by raised timber posts and provides access to a vault toilet (Building B-1184) via a concrete sidewalk. Gravel and dirt paths lead to the six picnic tables and six grills provided for visitors (Figure 3-84).[491] Buck-and-rail fencing edges the picnic area, which sits above and overlooks the beaver ponds within the Kawuneeche Valley. A wooden plank bridge is located along one of the pathways, one of which leads to a gravel and timber stair with wood handrails leading to the ponds. Coniferous trees that are likely naturally-occurring are located throughout the picnic area. Small-scale features include the timber edging, a location sign and trash receptacles. A picnic area associated with Beaver Ponds appears to have been present by 1947.[492] Social trails and areas where visitors have worn away vegetation, which has led to erosion in some cases indicates Beaver Ponds Picnic Area is in fair condition.

Holzwarth Overlook (See Map 3-6). Holzwarth Overlook is a pullout located near mile 24. The asphalt pullout is located along the west side of the road. Stone boulders in a line, a wayside exhibit, and a trash receptacle edge the roadway. The Holzwarth Overlook is in good condition.

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[490] Butler, *The Archeology of the Civilian Conservation Corps in Rocky Mountain National Park*.
[491] National Park Service, "Beaver Ponds Picnic Area," *Rocky Mountain National Park*, https://www.nps.gov/places/romo_beaverpondspicnic.htm.
[492] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 33-86 (Larimer County, Colorado: 9/23/1947), https://cudl.colorado.edu/luna/servlet/view/all?sort=sortorder%2Cdate&os=1300.



Figure 3-85. *View to the west of cars parked at Onahu Trailhead parking area.*



Figure 3-86. *Trailhead to Onahu Creek Trail.*

Onahu Trailhead Parking Area (See Map 3-9). The Onahu Trailhead Parking Area is located at mile 38 on the east side of Trail Ridge Road. The parking area is striped for eight parking spaces, which are reached via two access lanes to the north and south separated by a vegetated median (Figure 3-85). A trail with worn square-cut timber risers provides access to Onahu Creek Trail, marked by a trailhead kiosk

(Figure 3-86). Other small-scale features in the vicinity include a trash receptacle and trailhead signage. The Onahu Trailhead parking area is in fair condition.

Harbison Picnic Area (See Map 3-9)**.** The Harbison Picnic Area is accessed from Trail Ridge Road near mile 40.4. Located at roughly 8,700 feet AMSL, the picnic area includes a large area for parking and overlooks the meadows of the Kawuneeche Valley to the west (Figure 3-87). The picnic area is in an area that was heavily impacted by the 2020 East Troublesome fire, with a vault toilet added ca. 2014 being destroyed. The site is named after Kitty and Annie Harbison, two sisters who were homesteaders on the land and ran a dairy ranch during the early twentieth century. In the late1930s, the NPS acquired the land for inclusion within the Park.[493] The picnic area and a shelter were present by 2010. The vault toilet was replaced in 2022 (Figure 3-88).

The asphalt parking area is accessed from a looping drive off Trail Ridge Road. There are approximately twenty perpendicular parking spaces marked with white paint, including accessible parking, and five parallel parking spaces. Concrete wheel stops are provided at the perpendicular parking spaces.

Other than the vault toilet, there is a picnic shelter that edges the parking area (Figure 3-89). The picnic shelter is accessed via a gravel walk. The structure is timber framed and mounted atop six stone veneer concrete column bases with a sloped standing seam metal roof.



Figure 3-87. *View to the parking area at Harbison Meadows Picnic Area.*

Four picnic tables and four grills are available to visitors at the picnic area.[494] In addition to the picnic tables, small-scale features within the picnic and parking area include wayside exhibits, trash and recycling receptacles, regulatory signs, and a metal sign like the style of sign along the nature trail at Rock Cut. A metal signpost without a sign panel is located within the meadow off the parking area. Considering that the site was badly impacted by the East Troublesome Fire, the Harbison Picnic Area is in fair to good condition.

[493] National Park Service, “Harbison Meadows,” *Rocky Mountain National Park*, https://www.nps.gov/places/romo_harbisonmeadows.htm.
[494] National Park Service, “Harbison Meadows.”



Figure 3-88. *View to the new vault toilet at Harbison Meadows Picnic Area, 2022, that replaced facilities lost to the East Troublesome Fire.* (Source: Rocky Mountain National Park)



Figure 3-89. *View of the picnic shelter at Harbison Meadows Picnic Area from the adjacent parking area.*

Grand Lake Entrance (See Map 3-10)**.** The Grand Lake Entrance, sometimes referred to as the Kawuneeche Visitor Center Entrance,[495] is located approximately a mile from the southwest boundary of the Park near mile 41.1 along Trail Ridge Road (Figure 3-90). The entrance is marked by two entry kiosks

[495] Personal communication, NPS, during August 2021 site visit.

and the remains of a checking station that was otherwise destroyed as a result of the East Troublesome fire in 2020. The entrance station was built as part of the Mission 66 program. The Mission 66 kiosks and checking stations were later replaced with more contemporary facilities that match the buildings at the Beaver Meadows Entrance.[496] The Grand Lake Entrance checking station is scheduled to be rebuilt in 2023.



***Figure 3-90**. View of the two entrance kiosks at the Grand Lake Entrance.*

Traffic approaches the entrance station from the south along Trail Ridge Road, which divides into two lanes to allow access to the east side of the ticketing kiosks. A third entry lane allows pass holders and employees to enter without the need to check-in. The traffic lanes are separated by raised vegetated medians with concrete curbs and concrete walks for staff. Two small parking areas are provided: a pullout for approximately five vehicles along the east side of the road upon passing through the check-in kiosk and a smaller area for a few vehicles along the single exit lane adjacent to the easternmost kiosk.

The entry kiosks are rectangular in plan, with the longer elevation abutting the traffic lane, similar to those built at the Beaver Meadows Entrance.[497] The kiosk extends in a small porch supported by a log truss protecting the door on the side opposite the entering traffic. The structures are built of horizontal plank shiplap siding with vertical log posts at the corners set on a stone veneered concrete base. The pitched roofs are of standing seam metal with small dormers over the triple casement ticket windows. The kiosks are painted brown.[498]

Small-scale features include metal bollards filled with concrete, regulatory signage, a picnic table, a map box, and a small metal storage unit. Due to the loss of features to the south of the road, the Grand Lake Entrance is in fair condition.

[496] National Park Service, DRAFT “Trail Ridge Road CLI,” 95.
[497] Rose Lang, Park Landscape Architect, via draft comment, December 2022.
[498] National Park Service, DRAFT “Trail Ridge Road CLI,” 95.



Figure 3-91. *View to the northeast from the location of the former southwest entrance into the park at Trail Ridge Road.*

Old Entrance (See Map 3-10). Pullouts to either side of the roadway are located near the southwest boundary of the Park. The pullouts mark the location where the Park's former western entrance station was located ca. 1932 (Figure 3-91). The Old Entrance site is in fair condition.

Beaver Meadows Road

The developed areas, listed from east to west along Beaver Meadows Road, are described below and illustrated on existing conditions plans (Maps 3-11 and 3-12) at the end of the chapter.

Beaver Meadows Entrance (See Map 3-11). The Beaver Meadows Entrance is located near the southeast boundary of the Park along US Highway 36, also known as Beaver Meadows Road, Beaver Meadows Entrance Road, or Park Entrance Road approximately 2 miles from the southeastern Park boundary.

The Public Roads Administration and NPS began construction of US Highway 36 from the southwest side of the town of Estes Park in 1958. The Park subsequently closed the Bear Lake Road and Thompson River entrances and abandoned lower portions of High Drive within the Park in 1960. After completion of the new connection from Estes Park into the Park, the Public Roads Administration designated the upper portions of High Drive to Deer Ridge Junction as US Highway 36. The NPS subsequently constructed the Beaver Meadows Entrance Station in 1960 as part of the Mission 66 program and completed construction of the Beaver Meadows Visitor Center in 1967. The entrance station was refurbished ca. 2005 and the original Mission 66 checking station and kiosks are non-extant.[499]

The entrance at Beaver Meadows Road is marked by five lanes of traffic and three small entry kiosks (Buildings B-1074, B-1075, and B-1076) and a checking station (Building B-1077). The kiosks are set

[499] Personal communication, NPS, during August 2021 site visit.

within medians edged with concrete (Figure 3-92). In addition to the kiosks, each median has a planter on the east side of the structure. The planter and base of each of the kiosks are faced with stone veneer. The plantings within the medians and the medians themselves are in poor condition.



Figure 3-92. *View to the southeast of the kiosks at the Beaver Meadows Entrance.*

The Beaver Meadows Entrance is located below Deer Mountain and overlooking Beaver Brook. A mile prior to the entrance station is a park identity sign located along a pullout edging the westbound lane near the Beaver Meadows Visitor Center. US Highway 36 approaches the Beaver Meadows Entrance as a two-lane, two-way asphalt-paved road before widening into a four-lane road with three westbound lanes flanked by three entry kiosks, and one eastbound lane. Each of the lanes measures approximately 10 feet in width. The lanes are separated by two yellow stripes. The northernmost westbound lane is designated for Park personnel to use in bypassing the kiosks and as a fast pass lane. After passing through the kiosks, the four lanes reconverge into two. There is also a parking area for approximately twelve vehicles located beyond the checking station along the north side of the roadway.

The vegetation surrounding the Beaver Meadows Entrance is almost exclusively grass, allowing for wide open vistas toward Moraine Park to the west. Grasses and groundcovers exist within the medians that separate the lanes of travel and within which the kiosks are located. The vegetation appears fairly overgrown.

Most small-scale features in the area are signs, including the park identity sign and contemporary information and regulatory signs. A small wooden box mounted on a wooden post allows visitors to drop off their maps for recycling on their way out of the Park. A flagpole is located near the checking station. A trash receptacle and single overhead light are near the parking area. Due to deep ruts in the asphalt where cars stop at the kiosks, broken pavement and curbing and social trails, the Beaver Meadows Entrance is in fair condition.

3M Curve (See Map 3-1)**.** 3M Curve, also known as Longs Peak Overlook, is the only designated scenic pullout situated off Beaver Meadows Road (Figure 3-93). The overlook is located 3.5 miles from the Beaver Meadows Visitor Center at an elevation of roughly 8,750 feet AMSL. The pullout is marked by two paved pullouts with large rock outcroppings and wayside exhibits. The origin of the name “3M” refers to “Mountains,” “Meadows,” and “Moraines,” all of which are visible from this location.



Figure 3-93. *View to the west of 3M Curve.*

Long views to the southeast focused on Longs Peak and the Front Range of the Rocky Mountains are afforded from the overlook (Figure 3-94). The location has become a popular destination for wedding ceremonies and visitors can receive wedding permits to marry at the overlook.[500] 3M Curve overlook was built with Beaver Meadows Road ca. 1960.

3M Curve is situated along a wide bend in the roadway on a hillside above an intermittent stream valley to the south. The roadway is superelevated with the high side on the south side of the bend where the westernmost, and larger, pullout is located. As such, stormwater runs back toward the north side of the road where it flows along the ditch shoulder currently covered in baffles to direct water. 3M Curve appears to be one of the locations where the road grade has been raised over repeated road rehabilitation efforts, as is evident from the hillside looking up to the pullout (Figure 3-95). This results in the adjacent visitor area sitting well below the pullout and being therefore inaccessible.

The second smaller pullout is further to the east along the roadway. Both pullouts are wide and delineated by a white stripe along the south edge of the roadway and edged with colored concrete curbs that taper at their ends. The straight curb segments are mitered at their intersection. A drop in the curb along the westernmost pullout is likely intended for accessibility. However, at the time of the CLR team's visit there the pathway was not accessible due to a significant grade change as noted.

A large boulder outcropping edges the westernmost pullout on its east side with an informal trail that leads around the rock outcropping. A second outcropping is further west and down the hillside which drops steeply. Boulders are utilized to terrace the steep hillside where the western pullout is located.

[500] National Park Service, "Wedding Locations," *Rocky Mountain National Park*, https://www.nps.gov/romo/planyourvisit/wedding_locations.htm.



Figure 3-94. *View to the south from the 3M Curve Overlook.*

Small-scale features in the area include two wayside exhibits and a rustic wood bench set below the pullout along the battered edge (Figure 3-94). A concrete slab with a square profile steel post is located along the edge of the parking area. Delineators in the form of small steel posts with reflective decals are located at the ends of the paved pullouts. 3M Curve is in fair condition.



Figure 3-95. *View looking to the pullout from a lower level at 3M Curve parking area.*

Circulation

Circulation is the primary landscape characteristic of the Trail Ridge Road Cultural Landscape. The asphalt paved corridor is the Park's singular thoroughfare between the east side and west side of the nearly 266,000 acre park. When a substantial portion of the route is closed over the winter, access from the east to the west requires a journey more than three times as long around the south over Interstate 70. Secondary roadways that intersect the primary thoroughfare in the Park connect visitors to multiple amenities such as trails, picnic areas, and campgrounds. Old Fall River Road, which once served as the original route across the Park, is accessed from the Trail Ridge Road corridor and provides a shorter yet more challenging way to reach the Alpine Visitor Center. Pullouts are provided along Trail Ridge Road for motorists to stop and take in the view, or just to slow down to allow faster moving vehicles to pass. Shoulders are often used by motorists as unsanctioned pullouts, which can cause compaction, erosion, and deterioration of the ground adjacent to the road. Trails depart from trailheads that are accessed from pullouts and parking areas throughout the route.

While the scenery along the Trail Ridge Road Cultural Landscape changes dramatically from the montane forests at lower elevations to the vast openness of the alpine tundra at higher elevations, the roadway itself remains fairly consistent in its dimensions, features, and materials. The road, designed as a two-lane, 22-foot-wide paved corridor with 3-foot-wide ditches to accommodate drainage in many locations, is generally paved with a dark colored asphalt, with the eastbound and westbound lanes divided by a yellow painted stripe down the centerline. White striping marks the road margins to either side. There are medians in several locations where the road widens to accommodate intersections, entrance stations, and separation between the road and an adjacent pullout or parking area. To blend into the setting, each segment of the roadway was designed to meet the particularities of the landscape it crossed including its topography, landform, slope, vegetation, views, geology, and soils.

In documenting circulation for the purposes of the CLR, Trail Ridge Road is divided into segments that range from 2 miles to 7 miles based upon the distinct character of the roadway (Figure 3-96). Within each section the spaces, features, and materials that constitute systems of movement along the road are described. The information supplements the descriptions of road edging conditions at the individual developed areas, overlooks, and pullouts provided above in the Spatial Organization section. Descriptions of walls and stormwater structures along the roadway are provided under Buildings and Structures. Maps of the various segments are noted on Existing Conditions Plans (Maps 3-1 to 3-12) at the end of the chapter.

Segment 1: Fall River Road segment / High Drive segment / US Highway 34

Mile 0.0 to mile ~4.2: Fall River Road segment / High Drive segment / US Highway 34 (see Map 3-1). The easternmost segment of the Trail Ridge Road corridor extends from the northeastern boundary of the Park (mile 0.0) to Deer Ridge Junction (mile ~4.1). This section was referred to as "1-A" during initial construction of the roadway (Figure 3-96) and combines two historic routes built at different periods: Fall River Road (5LR.885) and former High Drive. The Fall River Road segment continues between the Park boundary near the Fall River Entrance and the Endovalley Road intersection. At this intersection, visitors can turn right onto Endovalley Road to access Old Fall River Road. Across from the intersection is the entrance into the Endovalley cul-de-sac, itself a remnant of the former alignment of Fall River Road before it was re-routed from between Sheep Lakes in the early 1960s. The former High Drive segment continues from this intersection to Deer Ridge Junction.

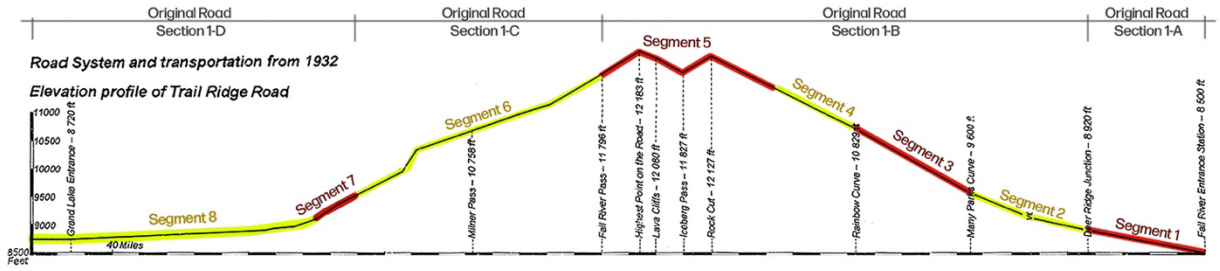


Figure 3-96. *Road elevation graphic adapted from NPS Park Roads Recording Program Rocky Mountain National Park Roads – 1920/1932 "Road System."* (Source: HAER CO-78)

Fall River Road passes a Park identity sign located to the north of the westbound lane where visitors stop to take a photograph. The road then passes through the entrance station, composed of a checking station and three kiosks that sit between individual lanes. The road widens to four lanes to accommodate visitors entering the Park, while a single eastbound lane allows visitors to exit the Park. Medians divide the westbound and eastbound lanes after the kiosks to allow visitors to turnaround as needed, and to access the Aspenglen Campground road to the south.

Approximately 300 feet northwest of the current entrance, is the site of an earlier checking station established in 1933–1934 when the Park boundary was expanded. The checking station was razed in 1961 when a new collection of buildings was added based on the Mission 66 program. These buildings, in turn, were replaced in 2022. Still present to the north of the road is evidence of parking associated with the earlier checking station. The parking area measures approximately 46 by 20 feet and is delineated by a coursed masonry curbing (Figure 3-97).[501] The curbing was rehabilitated as part of the Fall River Entrance station replacement project.[502]

[501] S. Alan Higgins and Elizabeth Heavrin, National Register of Historic Places Nomination "Fall River Entrance Historic District (Amendment and Boundary Increase)" (US Department of the Interior, National Park Service, 2017), 8.
[502] National Park Service PMIS #160755.



Figure 3-97. *Stone-lined parking spaces associated with the ca. 1930s location of the Fall River Entrance.*

Beyond the entrance, the road passes turnoffs to the Aspenglen Campground access road and the Bighorn Ranger Station before making its first bend at Hondius Curve (Figure 3-98), which overlooks the lower lying Hondius Park.



Figure 3-98. *View near Hondius Curve of Trail Ridge Road looking east.*

The road then turns back to the southwest to reveal Horseshoe Park and the Fall River Valley. As the road heads west, it passes roads leading to the Stirling Residence and Cascade Cottages. The road then follows the Fall River Valley and the open meadow associated with Horseshoe Park that contains the developed area of Sheep Lakes. Old Fall River Road intersects the Trail Ridge corridor between the parking area at Sheep Lakes and West Horseshoe Park near mile 2.2. Endovalley cul-de-sac is located opposite Old Fall River Road.

Shortly after passing this intersection, the road crosses a concrete bridge with metal railings that spans Fall River. Before beginning an ascent towards Deer Ridge, the road skirts Horseshoe Park, providing views of the wet meadows of the alluvial floodplain of the Fall River Valley, and the Mummy Mountain Range, with opportunities to pause at pullouts and parking areas at Sheep Lakes, West Horseshoe Park, Horseshoe Park Overlook, and Woodpecker Army Overlook. After passing the Horseshoe Park Overlook, the road begins to climb steadily through montane and ponderosa pine forests until it reaches the more open landscape at Deer Ridge Junction.

Along this segment, the road is graded for positive drainage and is generally in good condition. The asphalt of the roadway is smooth and at relatively level areas the road is crowned. Where the grade is higher on one side the road is superelevated to allow for stormwater to run off the roadway to the shoulders which are both gravel and asphalt. Curbing is intermittent on both sides of the roadway, and where present is asphalt. Some of the curbing has been cut to allow water to flow beyond the road for drainage (Figure 3-99). Despite grading efforts, a section of the roadway between Old Fall River Road and mile 3 regularly holds water in the springtime, likely due to clogged or blocked drainage structures.[503] Refer to the engineering report prepared as part of this CLR included as Appendix A for additional information.



Figure 3-99. *A cut in the asphalt curb across from the West Horseshoe Park parking area.*

[503] As relayed to the CLR team during the August 2021 site visit.

The road exhibits uniform design qualities along its length. The asphalt-paved road generally measures 24 feet in width with two 10-foot-wide travel lanes edges by 2-foot-wide gravel shoulders. At the Fall River Entrance, the road expands in width to approximately 48 feet and is divided into three inbound lanes and one outbound lane, separated by medians.[504] The road then reverts back to two lanes upon passing through the entrance station and a series of medians.

The roadway has an engineered slope of 3 percent from the Park's boundary at Fall River Road through the Fall River Entrance.[505] Drainage is promoted by the engineering of the roadway, which includes the use of crowns and cross-pitches used to direct stormwater toward the lower-lying side of the road as possible, or to culverts on the uphill side.

Segment 2: Trail Ridge Road (5LR.502) / US Highway 34

Mile ~4.2 to mile ~8: Trail Ridge Road/US 34 (see Map 3-1, 3-2). The initial segment of historic Trail Ridge Road extends from Deer Ridge Junction (mile ~4.2) to Many Parks Curve (mile ~8). It is the first part of what was referred to as "1-B" in the early construction plans, shown as continuing to Fall River Pass and built by 1932 (refer to Figure 3-96).[506] This portion of the road is also designated part of US Highway 34.

From Deer Ridge Junction, the road initially makes a steep ascent traveling westbound while passing through a stand of ponderosa pine trees (Figure 3-100). The road subsequently climbs more gently to the Hidden Valley Creek valley, after which it parallels the stream corridor for nearly 2 miles until reaching the turn for Hidden Valley Road (refer to Map 3.2). The road is edged by the Hidden Valley Creek pullout and Beaver Boardwalk parking area along this route, as well as the former Beaver Ponds Picnic area, which is no longer in use. After passing the turn for Hidden Valley Road, Trail Ridge Road turns sharply northeast and then southeast as it begins a steep climb, ascending through aspen and then lodgepole pine forests, and passing a former roadside parking area before reaching Many Parks Curve (Figure 3-101).

[504] Higgins and Heavrin, "Fall River Entrance Historic District," 7.
[505] Higgins and Heavrin, "Fall River Entrance Historic District," 8.
[506] National Park Service, DRAFT, "Trail Ridge Road CLI," 60.



***Figure 3-100**. View of Trail Ridge Road as it begins its ascent west of Deer Ridge Junction.*

Along this segment, Trail Ridge Road is graded for positive drainage and is generally in good condition. Park personnel, however, have indicated that the curve in the road leading up to Hidden Valley Road makes roadway striping a challenge. The superelevation of the road in that location makes the area prone to winter slide offs which require road crews to place an excess of sand in this area in an attempt to make the curve safer for visitors. This sand wears down the reflective roadway striping, which has to be repainted annually. Debris from the adjacent hillside tumbling into the roadway is also a problem . After rain or inclement weather, the road is often covered in rocks and dirt requiring near constant maintenance by park personnel. [507]

Beyond this segment of roadway, the asphalt is smooth and at relatively level areas the road is crowned. Where the grade is higher on one side the road is superelevated to allow for stormwater to run off the roadway to the shoulders which are both gravel and asphalt. Curbing is intermittent on both sides of the roadway, and where present is asphalt (see also Spatial Organization section for more information on Deer Ridge Junction, including curbing and shoulders near the road intersection). Curbing is most typical where the adjacent hillside is elevated above the roadway, as it is from Hidden Valley to Many Parks Curve. Curbing is absent along the eastbound edge.

[507] Rose Lang email correspondence with Park Road Supervisor, provided via email to the CLR team, July 19, 2022.



Figure 3-101. *View to the east of a former parking area located along Trail Ridge Road near mile 7.5 that has been closed to visitors for safety considerations.*

Segment 3: Trail Ridge Road (5LR.502) / US Highway 34

Mile ~8 to mile ~12: Trail Ridge Road/US 34 (see Map 3-2). The next segment of Trail Ridge Road continues in a westbound direction from Many Parks Curve (mile ~8) to Rainbow Curve (mile ~12). This segment is also part of the original construction section "1-B" (refer to Figure 3-96) completed in 1932. This segment follows the contours associated with the upper Hidden Valley Creek stream corridor, while ascending steeply in sections along the rocky, forested slopes southwest of Rainbow Curve.

At Many Parks Curve the road bends tightly around a rocky hillside and is edged on the cliffside by a crenellated stone guidewall. Upon passing the Many Parks Curve Overlook and parking areas, the road follows a series of curved sections, following the contours overlooking Hidden Valley Creek until reaching the sweeping curve at Upper Hidden Valley. The road passes the Mummy Range Overlook and the geological anomaly known as "Irondike," while traveling through an area of predominantly Engelmann spruce and subalpine fir just below the tree line on the way to Upper Hidden Valley (Figure 3-102). Stone retaining walls are present along both sides of the roadway, while pullouts are limited. At the sweeping bend of Upper Hidden Valley, Hidden Valley Creek passes beneath the road via culvert. The Upper Hidden Valley section of Trail Ridge Road is edged by pullouts as the terrain levels out. As it turns to the northeast, Trail Ridge Road begins to rise more steeply toward Rainbow Curve, set at the end of a small ridge that juts northeast from Trail Ridge. Rainbow Curve offers magnificent views to the Mummy Range located beyond the Park boundary to the east.



Figure 3-102. *View along Trail Ridge Road near the bend at Upper Hidden Valley with overgrown vegetation along the ditch line.*

Along this segment, Trail Ridge Road is graded for positive drainage and is generally in good condition. The asphalt of the roadway is smooth. Where the road is relatively level it is crowned. Where the grade is higher on one side, the road is pitched or superelevated to allow for stormwater to run off the roadway toward the downhill side. A minimal asphalt shoulder and asphalt curb edges the eastbound lane of traffic, except where a wall is present, to near mile 10; no curbing is present along the westbound lane. The asphalt shoulder then intermittently gives way to a low stone curb wall and stone-lined ditch that follows along the roadway past Upper Hidden Valley. Near mile 11 the asphalt curbing along the eastbound lane resumes to Rainbow Curve.

Segment 4: Trail Ridge Road (5LR.502) / US Highway 34

Mile ~12 to mile ~14: Trail Ridge Road/US 34 (see Map 3-2, 3-3). The next segment of Trail Ridge Road follows from Rainbow Curve (mile ~12) to Ute Crossing (mile ~14). It marks the transition from subalpine forest to alpine tundra as the road passes above the tree line. This segment is also part of the original construction section “1-B” (refer to Figure 3-96) completed in 1932.

After following a relatively level section west of Rainbow Curve, Trail Ridge Road begins to climb again as it pushes west. first bending tightly around a rock summit of craggy loose boulders, which have been prone to rockfall, and a few vestiges of subalpine vegetation. As the road rises above the adjacent topography motorists are provided a sudden 360 degree vista from the formation known as Knife’s Edge near mile 13 (Figure 3-103). The topography then quickly rises again along the eastbound lane, limiting views to the north. The roadway levels out again, passing through a final forested section as it passes three pullouts. including “Bus Terminus,” before reaching the saddle where Ute Crossing is located (refer to Map 3-3).



Figure 3-103. *View of Knife's Edge where the road rises to provide 360 degree views from Trail Ridge Road.*

Along this segment, Trail Ridge Road is graded for positive drainage and is generally in good condition. The asphalt of the roadway is smooth, with crowns present within relatively level sections. Where the grade is higher on one side, the road is pitched or superelevated to allow for stormwater to run off the roadway to the lower side. A narrow asphalt shoulder and curb follow the roadway along the eastbound lane from Rainbow Curve to Knife's Edge before disappearing. Asphalt curbing reappears along the roadway where pullouts are located.

Segment 5: Trail Ridge Road (5LR.502) / US Highway 34

Mile ~14 to mile ~21.5: Trail Ridge Road/US 34 (see Map 3-3, 3-4). The next segment of Trail Ridge Road extends from Ute Crossing (mile ~14) to Medicine Bow Curve (mile ~21.5). It also was constructed by 1932 and is the final part of the original construction section "1-B." This segment of Trail Ridge Road follows the ridge for which it is named for much of the distance. With much of the landscape in open cover, views from the road extend toward Forest Canyon to the southwest for long stretches. Through this section, the road rises in elevation from Ute Crossing to Rock Cut, before dipping down at Iceberg Pass, and then rising again through Tundra Curves to its highest elevation at 12,183 feet AMSL, before descending to Fall River Pass, located at an elevation 11,797 feet AMSL (refer to Figure 3-96). The entire segment is located within the alpine tundra ecosystem. Approximately 800 feet of the road falls within the Fall River Pass Historic District.[508] In addition to this section of road, a portion of the district that includes the entrance into the Alpine Visitor Center parking are also falls within the CLR study area.

Along this segment, much of the visitor experience is shaped by the open, panoramic views created by traversing the treeless alpine tundra (Figure 3-104). The road also shifts from the north to the south of Trail Ridge to allow for views into Forest Canyon and the mountain peaks beyond. The road closely follows the edge of Forest Canyon before reaching Forest Canyon Overlook near mile 15. For the next 6

[508] Anstey and Yost, "Fall River Pass Historic District."

miles, the road traverses a high, tundra-covered peneplain in a series of broad curves passing the pullouts “Downgrade” and “Trail to Nowhere” before reaching the iconic Rock Cut. After threading through the tight passageway at Rock Cut, the route travels past the parking area for Rock Cut / Toll Memorial Trail and continues in broad, sweeping curves through Little Rock Cut and the pullout at Snow Play Area toward Iceberg Pass, affording far-reaching views in all directions. The road continues to climb up toward to the switchbacks of Tundra Curves and to Lava Cliffs and Iceberg Lake, up to the highest point of the historic road at 12,183 feet AML. The road then begins a slow descent with one last bend overlooking Forest Canyon en route to Gore Range Overlook. After the Gore Range Overlook, Trail Ridge Road turns northeast toward the Fall River Pass Historic District cutting through hillsides where vegetation is still recovering from road construction some 90 years ago (Figure 3-105). From the Fall River Pass Historic District, Trail Ridge Road descends to Medicine Bow Curve.



Figure 3-104. *View looking along Trail Ridge Road between Iceberg Pass and Lava Cliffs.*



Figure 3-105. *View of cuts in the alpine tundra associated with road construction, still recovering after 90 years, en route to the Fall River Pass Historic District.*

Along this segment, Trail Ridge Road is generally graded for positive drainage. The asphalt of the roadway is generally smooth, with crowns present at relatively level areas. Between Gore Range Overlook and Fall River Pass, the roadway is pitched toward the side that edges an elevated slope where the drains are located rather than the low side due to erosional issues. When the drains are not functioning properly, this can cause problems with icy road conditions in the spring and fall. [509] Similarly, inadequate drainage along the roadway near Rock Cut results in icing in inclement weather. For more information, see the engineering report in Appendix A.

This segment includes much of the 8-mile-long portion of Trail Ridge Road that lies at least 11,000 feet above sea level, and the 3 miles that extend above 12,000 feet through the frozen permafrost of the alpine tundra that develops at a rate of about 1 inch every 100 years. Road construction required extra preparation due to the frozen soil and delicate ecosystem. Normal drills would not penetrate the terrain and special equipment had to be designed. The thinner areas could be stripped away like sod or melted by exposure, and where permafrost was deep disturbance had to be minimized even further to avoid allowing the sublayers to melt. Here the upper sections were carefully removed, then a prepared roadbed was constructed on rock fill resting directly atop the frozen soil. The alpine tundra sod that had been salvaged was then used to cover the road banks scarred during construction (Figure 3-106).[510]

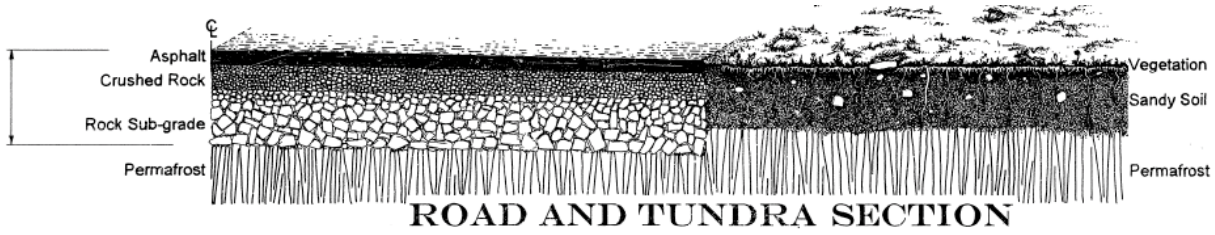


Figure 3-106. *Diagrammatic cross section of the construction method used to build Trail Ridge Road through the tundra.* (Source: Historic American Engineering Record)

Severe winters and the high altitude of this road section has led to significant frost heave problems and slumping. Slumping and related pavement failure has primarily occurred between Lava Cliffs (mile 19) and Gore Range Overlook (near mile 20) (Figure 3-107), but also is in evidence near Medicine Bow Curve. The longitudinal cracks present in locations between Gore Range Overlook and Lava Cliffs suggest where the problem is most acute. Marmots are also known to have been the cause of road surfacing problems where they have tunneled and undercut the subsurface pavement. Repairs have been made to correct problems caused by marmot tunneling at least two to three times per year for the past six years.[511] Patchy areas of asphalt paving are present where the road has been repeatedly repaired to address these problems.

[509] Rose Lang email correspondence with Park Road Supervisor, provided via email to the CLR team, July 19, 2022.
[510] Quin, "Trail Ridge Road, Rocky Mountain National Park," 5.
[511] Rose Lang email correspondence with Park Road Supervisor, provided via email to the CLR team, July 19, 2022.



Figure 3-107. *View to the southeast showing an area of "slump" near the road's highpoint where the asphalt surface of the roadway is settling.*

Asphalt curbing with a very narrow shoulder is present along the north side of the roadway at Ute Crossing and continues with a few interruptions at named pullouts where the roadbed is raised above the surrounding terrain until reaching Rock Cut. Asphalt curbing is then sporadic along the westbound lane to Iceberg Pass where it disappears all together. A small segment of asphalt curb and ditch appears along the west side of the roadway at the approach to Tundra Curves and then abruptly transitions to a stone-lined swale leading into the first of the two switchbacks (Figure 3-108). Asphalt curbing picks up intermittently through Tundra Curves along both sides of the roadway. Approaching Lava Cliffs only the eastbound lane of traffic has an asphalt curb, which hops over to the westbound lane only leading to the turn off at the Fall River Pass Historic District. Curbs are absent along the cut in the tundra between Fall River Pass and Medicine Bow Curve. In other locations along this segment the asphalt road edge is irregular and eroded. This segment of the roadway appears to be in good condition, except for locations where the road is visibly slumping or shows signs of visible repair work, and where deteriorated edge conditions are present.



Figure 3-108. *View of a stone-lined ditch with overgrown vegetation leading into the first switchback at Tundra Curves.*

Segment 6: Trail Ridge Road (5LR.502) / US Highway 34

Mile ~21 to mile ~27.5: Trail Ridge Road/US 34 (see Map 3-4, 3-5). The next segment of Trail Ridge Road follows from Medicine Bow Curve (mile ~21.5) to Farview Curve (mile 27.5). This portion of the roadway was referred to as “1-C” in the original construction plan for Trail Ridge Road. Section 1C extended from Fall River Pass to Timber Lake Trailhead (refer to Figure 3-96) and was constructed in the 1930s.

The segment is characterized by its descent and transition from the alpine tundra ecosystem back to the subalpine zone. The road overlooks the Cache la Poudre River Valley for the portion that extends southwest from Medicine Bow Curve before passing into the subalpine zone and a spruce fir forest. The road offers intermittent views to the northwest toward Specimen Mountain and north toward the Cache la Poudre River Valley from several overlooks before reaching the tree line. The south side of the road is edged by sparsely-vegetated hillside that gives way to patches of loose gravel and claybanks before fully entering the subalpine ecosystem. This segment of roadway is often affected by rockfall.

The long descent toward the western side of the Park through the spruce fir forest is characterized by a sense of enclosure as a result of the close spacing of trees until reaching a point where the valley of the Cache la Poudre River reveals its floodplain, with long views south toward and beyond Poudre Lake. The road crosses the river before following Poudre Lake along its western shore edged by a long stone wall. The road then crosses the Continental Divide at the Milner Pass parking area just west of Poudre Lake at an elevation of 10,750 feet AMSL. The open character of the landscape continues as the segment travels in a southwesterly direction past a road leading to Lake Irene Picnic Area and above Beaver Creek to a panoramic viewpoint of the Kawuneeche Valley at Farview Curve.

Along this segment, Trail Ridge Road is graded for positive drainage and is generally in good condition. The asphalt of the roadway is generally smooth with a crown in sections that are relatively level. Where the grade is higher on one side the road is pitched or superelevated to allow for stormwater to run off the roadway toward the lower side. Curbing is not found along Trail Ridge Road through this segment. The uphill side of the roadway, however, is edged by a substantial dirt and asphalt ditch along much of its length inset with drain inlets placed periodically to capture surface flow of stormwater (Figure 3-109). The ditch begins to narrow and then disappears as the road reaches the claybanks between miles 24 and 25 (refer to Map 3-5). From this point the road has narrow gravel shoulders that occasionally widen along both sides of the route until it reaches the Poudre River Trailhead near Poudre Lake. The road continues without shoulders or curbing, except at pullouts, along the relatively level grade to the parking area at Milner Pass. A narrow gravel and asphalt shoulder sporadically emerges and disappears along the westbound lane as it descends to Farview Curve.



Figure 3-109. *View to the southwest along Trail Ridge Road between Medicine Bow Curve and Specimen Mountain Overlook.*

Segment 7: Trail Ridge Road (5LR.502) / US Highway 34

Mile ~27.5 to Mile ~31.5: Trail Ridge Road/US 34 (see Map 3-5). The next segment of Trail Ridge Road continues from Farview Curve (mile 27.5) to the Colorado River Trailhead. Through this segment, the road drops swiftly down into the Kawuneeche Valley by following a series of five tight switchbacks between miles 28 and 31 (Figure 3-110). This portion of the roadway ends the original construction section referred to as “1-C” (refer to Figure 3-96), initially constructed in the 1930s.

The segment is characterized by its descent through five hairpin turns with views down the Kawuneeche valley to the west and, to the east, views of the steep and rocky hillsides, which are held by a series of stone retaining walls. A ‘blow out,’ where a stone wall is failing due to the buildup of water and vegetation behind it, is evident on the east side of the roadway between switchbacks 4 and 5, as described within the engineering report in Appendix A. The road itself is graded for positive drainage and is generally in good condition. The asphalt of the roadway is smooth and crowned within relatively level areas. Where the grade is higher on one side the road is pitched or superelevated to allow for stormwater to run off the roadway. At the base of the Switchbacks, the road enters the Kawuneeche Valley, a wide, relatively level basin shaped by the Colorado River. Two parking areas associated with trails, including the Colorado River Trailhead parking area and the Timber Lake Trailhead parking area, occur along the road as it enters the Kawuneeche Valley. Engineering issues identified in association with this section of the road include water seeping up through the roadway at times near the Switchbacks, as noted by Park personnel, and rockfall occurring where the steep roadcuts left exposed outcrops. These issues are also described within the engineering report in Appendix A.



Figure 3-110. *View of Trail Ridge Road within the area called the Switchbacks.*

Segment 8: Trail Ridge Road (5LR.502) / US Highway 34

Mile ~31.5 to mile 42.7: Trail Ridge Road/US 34 (see Map 3-6, 3-7, 3-8, 3-9, 3-10). The final segment of Trail Ridge Road follows the trailheads at Colorado River and Timber Lake parking areas (mile ~31.5) to the Park boundary at the Grand Lake Entrance (mile 42.7). This section of roadway was designated "1-D" in the original construction plans. It was not completed until 1941 (refer to Figure 3-96). This segment was extensively modified in the 1980s to create a 22-foot-wide roadway with 3-foot-wide shoulders, and improvements related to adequate base materials and drainage.[512] Several new structures, including walls and culverts, as well as pullouts were added when the road was improved. The segment is characterized by its steady descent at a low grade down the edge of the Kawuneeche Valley (Figure 3-111). A large section of this segment was impacted by the 2020 East Troublesome Fire.

Stands of pine trees and riparian vegetation edge the flowing Colorado River drainage along this road segment. Mountain pine beetles killed many of the mature lodgepole pines in this area between 2004 and 2006. Many of the remaining trees, vulnerable to being blown over in high winds, were subsequently removed. In response, Park personnel planted a variety of native trees salvaged from adjacent woodlands, along with seedlings grown from cones collected nearby. Many dead pine trees dominate the view but amid the stands of dead trees are young, green conifers that are too small to be attached by the beetles.[513]

Named creeks and unnamed streams leading to the Colorado River meander along and through culverts with massive stone headwalls, including Beaver Creek, Timber Creek and Onahu Creek. There are also several stone walls along this stretch of Trail Ridge Road.

[512] National Park Service, *Environmental Assessment for Road Improvements to Trail Ridge Road Grand Lake to Phantom Valley with FONSI and Record of Decision* (Denver, Colorado: Denver Service Center, August 1981), 2.
[513] Rocky Mountain Conservancy, *Guide to Trail Ridge Road; Rocky Mountain National Park Colorado* (Estes Park, Colorado: Rocky Mountain Conservancy, 2015), 21.



Figure 3-111. *View from the Harbison Meadows Picnic Area turnoff toward Trail Ridge Road.*

The largest impact on trees along this portion of the Trail Ridge Road Cultural Landscape occurred as a result of the East Troublesome Fire. The East Troublesome Fire was first reported within Arapaho National Forest on October 14, 2020, but within a week the wildfire rapidly spread eastward.[514] Around three hundred homes were destroyed in the greater Grand Lake area before the fire crossed into Rocky Mountain National Park. As prevailing winds pushed the main fire toward the Continental Divide, it also branched northward through the Kawuneeche Valley, up the Trail Ridge Road corridor. After nearly two months, the fire was determined 100 percent contained at 193,812 acres. The East Troublesome Fire burned 22,668 acres in the Park, including 4,898 acres on the east side and 17,770 acres on the west side. On the west side of the Park, within the Colorado River District (CRD), structural damage was concentrated in five separate developed areas along the Trail Ridge Road corridor: the CRD Trail Crew Pack Station area; Grand Lake Entrance Station area; Harbison Meadows Picnic Area; Green Mountain-Onahu Ranch area, and Betty Dick Ranch area.

From north to south, the roadway passes two parking and picnic areas, Beaver Creek and Beaver Ponds, along the west side of the roadway, as well as the Timber Creek Ranger Station and Campground, which are located outside the CLR study area, and the Holzwarth Historic District, also located outside the CLR study area, and an overlook that looks across to the district are south beyond Timber Creek. After the road reaches the river's lower floodplain, it sweeps along the Colorado River, past the Bowen / Baker Trailhead and Coyote Valley Trailhead parking areas, both located outside the CLR study area, in a nearly straight section that follows relatively flat terrain. The road crosses though forests of lodgepole pine and aspen, emerging occasionally to circumscribe open meadows as it passes trails and trailheads associated with Onahu Creek and Green Mountain, and the Harbison Picnic Area. Just after mile 41 the road passes through the Grand Lake Entrance before reaching the turn off to the Kawuneeche Visitor Center, located outside the CLR study area. Within the last mile before the Park's southwest boundary is a turn off to Grand Lake Lodge Road, a wide section of roadway that marks the location of the former entrance station, and County Road 49 connector. Park facilities along this segment include the Green Mountain Housing Area and CRD Housing / Maintenance Area off Country Road 49, located outside the CLR study area. Other developed areas located just off the corridor include a maintenance road and

[514] See also Jackson, *East Troublesome Fire Event: Impacted Buildings Inventory*.

maintenance area across from the Timber Creek Ranger Station, Fleshuts Cabin, Pontiac Pit Road, Gubbins-Johnson access road, Lemmer Cabin, and the Kawuneeche Visitor Center water tank road, County Roads 49 and 491.

Along this section, the design of the road imparts a more utilitarian feeling, unlike the meandering experience that characterizes other parts of the road, due in part to the wider cross section, the addition of turn lanes, and the relatively level alignment of the road corridor. Both lanes measure 11 feet in width and are edged consistently by a 3-foot-wide shoulder to either side, sometimes with an added drainage ditch (Figure 3-112). The asphalt road is smoothly surfaced and crowned with a 2 percent slope for drainage and has minimal horizontal and vertical curves along the route in comparison to segments to the east. There are also numerous pullouts. This segment of roadway is generally in good condition.

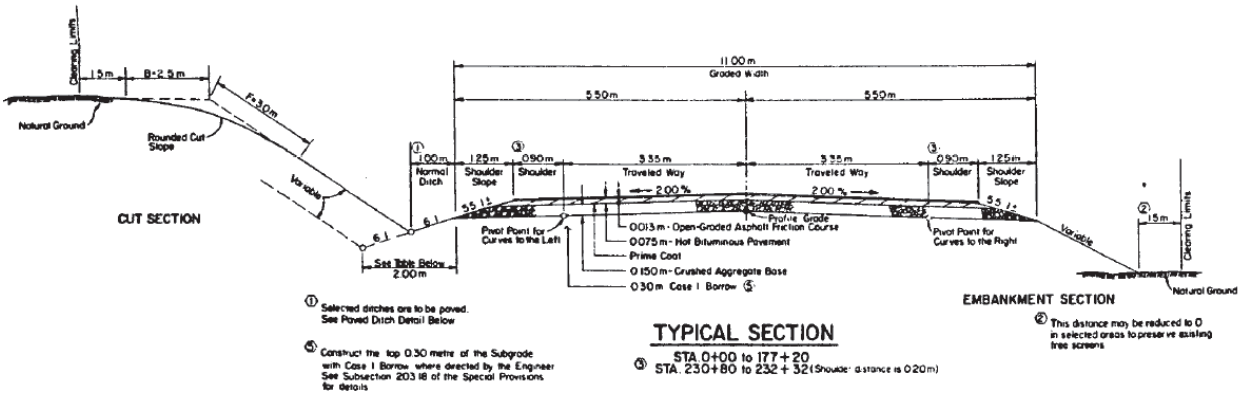


***Figure 3-112**. A typical section of the roadway along Segment 8 from the Colorado River Trailhead south to the Grand Lake Entrance*. (Source: 1991 FHA Final Construction Report on Trail Ridge Road)

Beaver Meadows Road / US Highway 36 (5LR.13221.5)

Beaver Meadows Road, also known as the Beaver Meadows Entrance Road, or Park Entrance Road, is part of US Highway 36. At the east end, where the road extends from the Park boundary outside the town of Estes Park, the road is also named Moraine Avenue.[515] Beaver Meadows Road intersects Trail Ridge Road / US Highway 34 at Deer Ridge Junction (refer to Map 3-11). The Beaver Meadows Road section extends for 5 miles in a roughly southeast-northwest trending direction. There is one significant switchback called Baker Curve and one named overlook at 3M Curve (refer to Map 3-12; Figure 3-113). Portions of Beaver Meadows Road were adapted from earlier roads, some dating to the 1870s. As it exists today, Beaver Meadows Road was completed in 1959.[516] The entire road segment underwent extensive improvements in 2021, including the construction of several pullouts edged by concrete curbing. It is generally in good condition.

From State Highway 66, just north of Beaver Brook, the alignment of Beaver Meadows Road follows landform contours with an uphill grade to the west where it intersects with Deer Ridge Junction. The road averages 2 to 4 percent in terms of its slope and features curves and switchbacks to maintain a consistent grade around drainages and hills. From the town of Estes Park, the road edges the Big Thompson River drainage into Beaver Meadows and then roughly parallels the north side of Beaver Brook near the Beaver Meadows Entrance. Passing the entrance station, the road features two switchbacks to gain steady elevation and then contours the south side of Deer Mountain on its way west

[515] Sanocki, *Class III Archeological Survey of Beaver Meadows Road,* 4.
[516] The overview description of Beaver Meadows Road is derived from Sanocki, *Class III Archeological Survey of Beaver Meadows Road*.

to Deer Ridge Junction. Along the western third of the segment, the road sits on an artificial cut along the southern slope of Deer Mountain and passes through several large rock outcrops that have been cut for the roadway. In areas where cuts are smaller near turns, the south side of the road is on top of locally sourced fill. Cut-and-fill areas range in height from 2 to 30 feet.



***Figure 3-113**. View to the west along a bend in Beaver Meadows Road on the approach to 3M Curve.*

At Deer Ridge Junction, the road features turn lanes, asphalt curbs, and a center median. On the east end of the segment, the road becomes a divided highway with an unpaved median at the State Highway 66 interchange. Traffic lanes and turn lanes are 10 feet wide and defined by yellow-colored painted lines, while turn lanes are defined by white painted lines. Turn lanes are at the segment's intersection with Bear Lake Road, the Beaver Meadows Entrance, and the Beaver Meadows Visitor Center. The roadway shoulders range from 1 to 10 feet in width. Shoulders are unpaved or asphalt-paved designated pullout parking areas ranging from 50 to more than 300 feet in length, depending on topography and landforms.

Much of the roadway is lined with reflective roadway markers composed of wood posts topped with a reflective tin strap or plastic posts with a reflective tip. The wood posts are assumed to be associated with NPS redevelopment of the roadway during the 1930s, 1958, or improvements dating to 1984. Additionally, there are roadway survey markers, most of which are concrete with metal caps, although markers added since 1990 to altered segments located along heavily trafficked areas on the east end are wood or fiberglass. Large granite boulders and unhewn timber buck-and-rail fencing have been placed along some shoulders to prevent people from parking outside designated areas.

Traffic signs that indicate the location of turn lanes, speed limits, upcoming curves, and stops are reflective print on sheet steel. Wayfinding signs with directions to specific roads and points of interest within the Park are steel or wood and have a white border and white print on a reddish-brown color background. In addition to the modern standardized traffic signs and roadway markers, a single gate, and multiple culverts are present along Beaver Meadows Road. Additional information on these features is available within the Buildings and Structures and Small-scale Features sections in this chapter.

Beaver Meadows Road affords views of Longs Peak and its surrounding mountain range to the south. At higher elevations in the west half of the segment the setting of the road is defined by a moderately dense pine forest and towering rock outcrops. This portion of the road provides views of Deer Mountain to the east and north, while pullouts provide prominent views of Beaver Meadows to the south and southeast. In the lower elevations in the east half of the segment the setting is characterized by the broad grass-covered valley of Beaver Brook, which is defined by gentle slopes, sparse moraine fields and small granite boulder outcrops, sparse stands of pine trees, and intermittent stands of aspen, willow, and riparian grasses and brush. At the east end of the segment, the setting is characterized by moderately dense modern highway development, private residences, and commercial amenities that include a restaurant and visitor overnight accommodations.

Shoulders

The material, details, and extent of shoulders and curbs along the Trail Ridge Road corridor varies throughout the corridor. The date of origin for the shoulders typically relates to the date of construction or repair of the corresponding roadway segments.

Road shoulders, where present, are most often asphalt or gravel and vary in width from a few to 48 inches, although many have been expanded as visitors continually pull over and compact the soil along the road margin. Where secondary roadways intersect the main thoroughfare, shoulders may be as wide as 12 feet. Depending upon their width, shoulders are often utilized by motorists as makeshift parking areas, particularly when nearby designated parking areas and overlooks are full (Figure 3-114). To limit visitor access to shoulders, Park personnel have increasingly added barriers and other types of road edging in the form of boulders, buck-and-rail fencing, Lawson logs, Stevens logs, and Carsonite posts. Road shoulders are generally in fair condition. See also Appendix A for information on road shoulders.



***Figure 3-114**. A gravel shoulder near Deer Ridge Junction where motorists often park.*

Curbs

Curbs have been built periodically along roadway margins. Where present, curbs typically measure 5 to 6 inches in height and between 6 and 12 inches width, and are built of asphalt, stone, or concrete. The date of origin for curbing typically relates to the date of construction or repair of the corresponding roadway segments. Stone and concrete curbs are found more frequently within the developed areas. Where asphalt curbing is located, the profile is either rounded or chamfered (Figure 3-115). Where asphalt curbing is not at the base of a hillside, and therefore not backfilled, the curbing is prone to fail or break apart. In the alpine elevations, snow management, including plowing and storage, has caused considerable damage to asphalt curbs. Concrete curbs are both standard and colored with Davis Colors© "Yosemite Brown," a pigment that has been identified as a standard for the Park (Figure 3-116). Older concrete curbing is often exposed aggregate. Concrete curbing is often paired with concrete gutter. There are two examples of log curbing, one at Gore Range Overlook (Figure 3-117) and the other at Beaver Ponds. In general, concrete curbing within the corridor is in fair to good condition, however, asphalt curbs, which are more common along the corridor, are in poor to fair condition.



***Figure 3-115**. A typical rounded asphalt curb along Trail Ridge Road.*



Figure 3-116. *A rounded concrete curb and gutter.*



Figure 3-117. *Peeled logs serve to edge the median at Gore Range Overlook.*

Pullouts

The Park was one of the first national parks designed to incorporate a system of scenic pullouts for motorists to stop and safely view the surrounding scenery.[517] Where the grading allowed, pullouts were often built as extensions of the roadway and edged by crenellated stone guidewalls like those used to edge the roadway at steep drop-offs. Some pullouts were developed as overlooks and designated visitor stops, where facilities such as restrooms were located, such as Rainbow Curve, or where interpretive signage and furnishings were provided, such as at Farview Curve. Some pullouts have provided access to trails and trailheads. Other pullouts were constructed as simple extensions of the road where motorists could momentarily stop. The date of origin for the pullouts typically relates to the date of construction or repair of the corresponding roadway segments.

Pullouts are found along much of the length of the Trail Ridge Road corridor. They are typically surfaced with either gravel or asphalt. In addition to providing scenic viewpoints, they serve as a place for buses and other vehicles to pass one another along the two-lane roadway. Pullouts within the alpine tundra elevations are often utilized by snowplows as turn-around locations. Park personnel have placed barriers along some of these pullouts to discourage motorists from accessing the fragile alpine tundra ecosystem from pullouts.

Pullouts are generally semi-elliptical or angular bump-outs along the road, with space for one or more vehicles to parallel park. Most of the pullouts range from 13 to 15 feet in width. The length of pullouts varies to a great degree, with those located along Beaver Meadows Road and near the eastern Park entrances often being wider (Figure 3-118). Most of the gravel pullouts are informal and not edged by curbing, while the asphalt-paved pullouts are often edged by curbs and are intentionally designed to accommodate several vehicles (Figure 3-119). The numerous pullouts built along Beaver Meadows Road in 2021 are angular and edged with colored concrete curbs that are tapered at their ends (Figure 3-120). Most asphalt pullouts are in fair to good condition while gravel pullouts are in poor to fair condition.



Figure 3-118. *A gravel pullout near the Fall River Entrance.*

[517] Quin, “Trail Ridge Road, Rocky Mountain National Park,” 5.



***Figure 3-119**. A pullout utilized for parking near the trailhead to Deer Mountain at Deer Ridge Junction.*



***Figure 3-120.** A pullout under construction in 2021 with an angled colored-concrete curb along Beaver Meadows Road.*

Secondary Roads

Secondary roads are routes that lead from the Trail Ridge Road corridor to other amenities heavily utilized by visitors, such as Old Fall River Road, Hidden Valley Road, and Bear Lake Road, or are service

roads used primarily by Park personnel that are often gated, such as Little Horseshoe Park Road, Pontiac Pit Road, and Country Road 491, which leads to the CRD Housing and Maintenance Area. Although secondary roads fall outside the CLR study area boundary, their intersections with Trail Ridge Road are documented herein. There are also roads that provide access to inholder parcels that are not maintained by the NPS.

Aspenglen Campground access road intersection (5LR.14435.1) (see Map 3-1)**.** Aspenglen Campground Road (Figure 3-121), a two-lane road constructed in 1960, is accessed from the Trail Ridge Road corridor approximately 435 feet northwest of the Fall River Entrance.[518] The road, which leads to the Aspenglen Campground, is 810 feet long by 32 feet wide and consists of an asphalt-paved route, crowned, with ditches to either side. There is a shallow bar ditch along its west and upslope margin.[519] The intersection portion of the road that falls within the CLR study area is in good condition.



Figure 3-121*. A gate limiting entry to the Aspenglen Campground access road near the Fall River Entrance.*

[518] Higgins and Heavrin, “Fall River Entrance Historic District,” 7.
[519] C. Briggs, J. Batista, S. Ottman, Colorado Resource Survey Linear Component Form “Aspenglen Campground Entrance Road Segment” (Denver: Prepared for the Colorado Historical Society - Office of Archaeology & Historic Preservation by ERO Resources Corporation, 2019), 2.



***Figure 3-122**. View north of the Bighorn Ranger Station access road.*

Bighorn Ranger Station access road intersection (see Map 3-1). The asphalt turn-off to Bighorn Ranger Station is located just past the Fall River Entrance Station along the north side of Fall River Road (Figure 3-122). This route dates to the mid-1930s and the construction of the Bighorn Ranger Station Area. The intersection that falls within the CLR study area is in good condition.



***Figure 3-123**. View to the northeast of the Stirling Residence from the access road.* (Source: Dan Jackson)

Stirling Residence (HS-0743) access road intersection (see Map 3-1) A gravel road near mile 1 provides access to the Stirling Residence (Figure 3-123). The road leads up a small ascent to a cottage, significant for its association with local artist, Dave Stirling, who resided here in the mid-1930s until shortly before his death in 1971. After the NPS acquired the property, the agency removed his studio which sat in the same meadow as the residence.[520] The intersection that falls within the CLR study area is in good condition.



Figure 3-124. *View to the south of one of the three access roads to the Cascade Cottages.*

Cascade Cottages access road intersections (see Map 3-1) Three access roads intersect Trail Ridge Road that provide access to the Cascade Cottages near mile 1. The intersections are a mix of deteriorated asphalt and gravel that are in poor to fair condition (Figure 3-124). The road intersections that fall within the CLR study area date to the era that the cottages were built between 1922 and 1960.

Endovalley Road intersection (see Map 3-1). Endovalley Road connects the Fall River Road segment of Trail Ridge Road with Old Fall River Road. The intersection occurs at a bend in the road near Horseshoe Park (Figure 3-125). Old Fall River Road, an unpaved route that is 11 miles in length, extends from Endovalley Road to Fall River Pass at an elevation of 11,796 feet AMSL. Endovalley Road terminates in a loop at the Endovalley Picnic Area where the pavement changes to gravel. It is at this point that Old Fall River begins. Endovalley Road was built during Mission 66 to connect the reworked Fall River Road segment of Trail Ridge Road with Old Fall River Road, which had been closed for several years due to concerns about the road's safety. The NPS reopened the road in 1968. Old Fall River Road was built between 1913 and 1920 and was the first road to span the Continental Divide within the Park. For the most part, the road followed the old Arapaho trail, known as Dog Trail, between Horseshoe Ranch to Fall River Pass, following the Fall River valley. The road continued from Fall River Pass through Milner Pass to the Kawuneeche Valley. Like Trail Ridge Road, it continued toward Grand Lake. Construction of Trail Ridge Road entailed reworking of sections of Old Fall River Road from Fall River Pass west, bypassing the route from Endovalley Road to Fall River Pass where a new route followed Trail Ridge

[520] National Park Service, "Stirling Residence" List of Classified Structures (LCS) Single Entry Report (2014).

rather than the Fall River Valley, and assimilating part of the road within the east side of the Park leading to Endovalley Road. [521] The intersection that falls within the CLR study area is in good condition.

Endovalley cul-de-sac (see Map 3-1). A small asphalt cul-de-sac is located along the southeast side of the bend where access to the Lawn Lake Trail is provided (Figure 3-126). The cul-de-sac is a remnant of the prior alignment of Fall River Road before it was realigned to avoid passing between two of the Sheep Lakes in the early 1960s. The intersection is in good condition while the cul-de-sac itself is in fair condition due to areas of cracked and broken asphalt.



***Figure 3-125**. A view from Trail Ridge Road toward Endovalley Road and Old Fall River Road.*

[521] National Park Service, DRAFT "Trail Ridge Road CLI," 129.



Figure 3-126. *View to the east of the Endovalley cul-de-sac.*



Figure 3-127. *View to the east of the gate and sign at Little Horseshoe Park Road.*

Little Horseshoe Park Road intersection (see Map 3-1). Little Horseshoe Park Road is a gravel road that intersects Trail Ridge Road near Hidden Valley Creek at mile 3.4. The intersection is marked by a location sign and a gate that restricts access to the road (Figure 3-127). Little Horseshoe Park Road leads to the area occupied by CCC Camp NP-1-C from 1933 to 1938. It terminates at the Ashton Garage

(Building B-0068), a remnant outbuilding of the former Ashton Homestead. The gravel road extends east from Trail Ridge Road, supported on its north side by a battered rough stone boulder wall. Small-scale features in the area are a signpost and a tubular metal swinging arm gate with mounted signage. The intersection that falls within the CLR study area is in good condition.



Figure 3-128. *View toward Trail Ridge Road from Hidden Valley Road.*

Hidden Valley Road (See Map 3-2). Hidden Valley Road is an asphalt road that intersects Trail Ridge Road at a sharp bend near mile 6.5 (Figure 3-128). Hidden Valley Road provides access to Lower Hidden Valley, a popular day-use area that was the former location of the Hidden Valley Ski area and, before that, a lumber mill dating to the early twentieth century.[522] A ranger station, restrooms, and picnic shelter are present at Hidden Valley today. The intersection is in fair condition due to some erosion and worn edges. The road in it is entirety and associated parking area are included in the CLR study area.

[522] National Park Service, DRAFT "Trail Ridge Road CLI," 15.



Figure 3-129. *View to the east of the intersection of the Colorado River Trailhead parking area and Trail Ridge Road.*

Colorado River Trailhead parking area intersection (see Map 3-6) Access to the Colorado River Trailhead Parking Area occurs on the west side of Trail Ridge Road near mile 31.5 (Figure 3-129). The asphalt access road leads north from the intersection to a looping parking area set within a woodland and riparian area with access to the Colorado River Trail. The intersection that falls within the CLR study area is in good condition.

Timber Lake Trailhead parking area intersection (see Map 3-6) Access to the Timber Lake Trailhead parking area occurs on the east side of Trail Ridge Road near mile 31.5 (Figure 3-130). The asphalt access road leads north from the intersection to a kidney-shaped parking area with picnic tables set within a woodland and meadow with access to the Timber Lake Trail. The intersection that falls within the CLR study area is in good condition.



Figure 3-130. *View to the west of the intersection of the Timber Lake Trailhead parking area and Trail Ridge Road.*



Figure 3-131. *View to the southeast of the maintenance road off Trail Ridge Road.*

Maintenance road intersection near Timber Creek Campground entrance road (see Map 3-6). A maintenance access road intersects Trail Ridge Road south of mile 33 near Timber Creek (Figure 3-131). The gated road intersection that falls within the CLR study area is a mix of broken asphalt and gravel and is in relatively poor condition.



Figure 3-132. *View to the south of the access road to Timber Creek Ranger Station off Trail Ridge Road.*

Timber Creek Ranger Station access road intersection (see Map 3-6). The asphalt access road to the Timber Creek Ranger Station intersects Trail Ridge Road south of mile 33 near Timber Creek (Figure 3-132). It is signed “employees only.” The road extends north of the Timber Creek Campground. The intersection that falls within the CLR study area is in good condition.



Figure 3-133. *View to the west of the access road to the Timber Creek Campground off Trail Ridge Road.*

Timber Creek Campground entrance road intersection (see Map 3-6) The Timber Creek Campground is the only campground on the western side of the Park. It was originally developed in the late 1930s and redeveloped during the Mission 66 era. The campground circulation system consists of four one-way loops oriented north to south and connected on the west by a two-way road for which the fourth loop serves as a return (Figure 3-133). The campground currently features one hundred campsites.[523] The intersection that falls within the CLR study area is in good condition.



Figure 3-134. *View to the west of the access road to the Holzwarth Historic District parking area off Trail Ridge Road.*

Holzwarth Historic District parking area and access road intersection (see Map 3-6). The Holzwarth Historic District access road is located at 8,884 feet AMSL. The asphalt-paved road dates to the 1920s, although it has been modified since that time (Figure 3-134). The intersection that falls within the CLR study area is in good condition.

[523] Jon Grams, Colorado Cultural Resources Survey "Timber Creek Campground" (National Park Service, 2017), 2.



Figure 3-135. *View to the east from the Bowen/Baker Trailhead parking area off Trail Ridge Road.*

Bowen/Baker Trailhead access road and parking area intersection (see Map 3-7). The Bowen/Baker Trailhead access road is located on the west side of Trail Ridge Road near mile 35 (Figure 3-135). The asphalt-paved road leads to an asphalt-paved parking area edged by a vault toilet. There is vehicular access to a hunting road that leads toward Baker Gulch. The intersection that falls within the CLR study area is in good condition.



Figure 3-136. *View to the north from the access road to the Coyote Valley Trailhead parking area off Trail Ridge Road.*

Coyote Valley Trailhead parking area intersection (see Map 3-7). The access road to the Coyote Valley Trailhead parking area is located on the west side of Trail Ridge Road near mile 35.5 (Figure 3-136). The parking area is accessed via a hard-packed earth road that leads through a narrow wooded area dotted with parking spaces. At the bottom of the sloping road is a trailhead edged by a kiosk that provides information on the Coyote Valley Trail. There is also a vault toilet present along the edge of the parking area. The intersection that falls within the CLR study area is in good condition although there is a significant overlay of gravel from the access road that has migrated onto Trail Ridge Road.



Figure 3-137. *View to the southeast from Trail Ridge Road to Pontiac Pit Road.*

Pontiac Pit Road intersection (see Map 3-7) Pontiac Pit Road is located on the east side of Trail Ridge Road near mile 36 (Figure 3-137). The road is a combination of hardpacked earth and asphalt. The Pontiac Borrow Pit was used in the 1920s and 1930s to excavate material used for road fill to construct Trail Ridge Road. The area was also used as a picnic location and pullout for visitors prior to 1978. The intersection that falls within the CLR study area is in good condition.



Figure 3-138. *View to the northwest from a shoulder adjacent to Trail Ridge Road at the Gubbins-Johnson access road.*

Gubbins-Johnson access road intersection (see Map 3-8) Gubbins-Johnson access road is a gravel road with an asphalt apron located near mile 37 along Trail Ridge Road (Figure 3-138) Gubbins-Johnson access road is used to reach an inholder property. It appears to have been present by 1938.[524] The intersection that falls within the CLR study area is in good condition.

[524] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 10-01 (Larimer County, Colorado: 10/25/1938), http://ucblibraries.colorado.edu/map/aerialphotos.htm.



Figure 3-139. *A view to the northwest from Trail Ridge Road to the access drive to the Lemmer Cabin site.*

Inholder residence entrance intersection (Lemmer Cabin) (see Map 3-8). An asphalt access road leads to a gravel area that serves the residents of Lemmer Cabin (Figure 3-139). The intersection that falls within the CLR study area is in fair condition.

Onahu Creek Trailhead parking area access roads (see Map 3-8). The Onahu Trailhead parking area is located at mile 38 on the east side of Trail Ridge Road (Figure 3-140). The small parking area has two entrances leading to the access road from Trail Ridge Road. The intersection that falls within the CLR study area is in good condition.



Figure 3-140. *View to the north from Trail Ridge Road of the southern drive leading to the Onahu Creek Trailhead parking area.*



Figure 3-141. *View to the northeast from the Green Mountain Trailhead parking area to its northern access road.*

Green Mountain Trailhead parking area intersection (see Map 3-9). The Green Mountain Trailhead parking area is located near mile 38.5 on the east side of Trail Ridge Road (Figure 3-141). The parking area is L-shaped with two entrances leading to it from Trail Ridge Road to the north and south. The intersection that falls within the CLR study area is in good condition.



Figure 3-142. *A view to the northwest from the intersection looking toward the remains of the Green Mountain Housing Area.*

Green Mountain Housing Area Road intersection (see Map 3-9) The former Green Mountain Housing Area is accessed from Trail Ridge Road near mile 39 (Figure 3-142). The housing area was destroyed in 2020 by the East Troublesome Fire and is slated for replacement. The intersection that falls within the CLR study area is in poor condition due to damage from the fire and subsequent repair work.

Harbison Meadows Picnic Area intersection (see Map 3-9) Access to the Harbison Meadows Picnic Area occurs at mile 40.5 along Trail Ridge Road (Figure 3-143). The picnic area with shelter was present by 2010. The road and parking area fall within the CLR study area. They are in good condition.



Figure 3-143. *A view to the east from the parking area at Harbison Meadows Picnic Area.*

Kawuneeche Visitor Center Water Tank Road Intersection (see Map 3-10). Access to the Kawuneeche Visitor Center water tank road is just north of the egress lane from the Kawuneeche Visitor Center. The narrow single gravel access road is difficult to see from Trail Ridge Road but the intersection that falls within the CLR study area appears to be in fair condition.



Figure 3-144. *A view to the north of the intersection of County Road 491 from the road shoulder along Trail Ridge Road.*

County Road 491 (Winding River Road) intersection (see Map 3-10) The Colorado River District (CRD) Housing and Maintenance Area is accessed from Trail Ridge Road along a County Road 491 which intersects Trail Ridge Road between miles 41 and 42 across from the egress lane from the Kawuneeche Visitor Center (Figure 3-144). The portion of the two lane asphalt road at the intersection that falls within the CLR study area is in good condition.



Figure 3-145. *View to the south of the Kawuneeche Visitor Center northern entrance lane intersection along Trail Ridge Road.*

Kawuneeche Visitor Center access roads (see Map 3-10) Access to the Kawuneeche Visitor Center occurs via an access road with two entrances at Trail Ridge Road that loops around to provide parking for visitors. The access road was built ca. 1958. The intersections that fall within the CLR study area are in good condition (Figure 3-145).

Grand Lake Lodge Road intersection (see Map 3-10). Grand Lake Lodge Road intersects Trail Ridge Road near the Park's western boundary (Figure 3-146). The intersection of the asphalt road that falls within the CLR study area is in good condition.

County Road 49 Connector intersection (see Map 3-10). County Road 49 Connector intersects Trail Ridge Road just north of the Park's southwest boundary (Figure 3-147). The intersection of the asphalt road that falls within the CLR study area is in good condition although there is evidence of road cracking.



Figure 3-146. *View to the southeast along Grand Lake Lodge Road from Trail Ridge Road.*



Figure 3-147. *View to the northeast from the intersection of County Road 49 Connector and Trail Ridge Road.*

Secondary Roads off Beaver Meadows Road / US Highway 36 (5LR.13221.5)

Mills Drive (see Map 3-11). Mills Drive is an asphalt road located east of the turn off to the Beaver Meadows Visitor Center (Figure 3-148). The route, which was formalized during the Mission 66 era, provides access to the Park Headquarters, which include administrative offices in the lower level of the Beaver Meadows Visitor Center, and a complex of maintenance facilities, housing, and offices often

referred to as the Utility Area. The margins of the asphalt are uneven with some signs of worn striping and erosion along the shoulders. Because of this the intersection is in fair condition. Mills Drive is otherwise outside the CLR study area.



Figure 3-148. *View to the west from the shoulder of Beaver Meadows Road to Mills Drive.*

Beaver Meadows Visitor Center access road intersection (see Map 3-11). An access drive for the Beaver Meadows Visitor Center leads from Beaver Meadows Road south into the parking area (Figure 3-149). The two-lane asphalt road, which was constructed during Mission 66 and expanded in the 2000s, is in good condition. Beyond the intersection, the access road falls outside the CLR study area.



Figure 3-149. *View to the west from the shoulder of Beaver Meadows Road to the intersection of the Beaver Meadows Visitor Center access road.*



Figure 3-150. *A view to the intersection of Bear Lake Road and Beaver Meadows Road.*

Bear Lake Road (**5LR.1233)** (see Map 3-11). Bear Lake Road is located roughly a quarter of a mile west of the Beaver Meadows Entrance (Figure 3-150). The segment joins US Highway 36 at a T-intersection at an elevation of 8,205 feet AMSL. The full extent of Bear Lake Road is 9.3 miles long from the US

Highway 36 intersection, south through Moraine Park, Tuxedo Park, Mill Creek, Hollowell Park, Glacier Basin, and Sprague Lake, ending at Bear Lake. At the time Congress established the Park in 1915, the road was a wide trail that connected ranches. The NPS applied a hard surface to the road in 1929 and maintained it in its current alignment until the late-1950s construction of US Highway 36.[525] The margins of the asphalt are uneven with some signs of worn striping and erosion along the shoulders. Because of this the intersection is in fair condition. Bear Lake Road is otherwise located outside the CLR study area.



Figure 3-151. *View to the east from Upper Beaver Meadows Road to Beaver Meadows Road.*

Upper Beaver Meadows Road (5LR.14568.1) (see Map 3-12). Upper Beaver Meadows Road is located to the west of Beaver Meadows Road approximately 1 mile east of the Beaver Meadows Entrance (Figure 3-151). The road follows the northern edge of Beaver Meadows. Surfaced with recycled asphalt, the road is approximately 1.5 miles in length. It terminates in a small parking area serving several trailheads. Upper Beaver Meadows Road was first depicted on a 1907 map. The NPS began consolidating the road system during the 1930s, and again in the 1960s in association with the construction of US Highway 36 and has continually maintained Upper Beaver Meadows Road in its historic location.[526] The intersection is in good condition. The remainder of Upper Beaver Meadows Road falls outside the CLR study area.

Trailheads and Trails

Numerous trailheads and trails connect with the Trail Ridge Road corridor. The trails vary in length and location, from the short Tundra Community Trail that takes visitors to the highest elevations along the road corridor, to the longer Green Mountain-Onahu Creek Loop Trail, which connects to the Continental Divide National Scenic Trail. The Ute Trail is one of the best known of the trails. This trail is known to have been used by Native Americans prior to European contact. Portions of the trail route were incorporated into Trail Ridge Road. Many of the trails that begin and end along the Trail Ridge Road corridor, particularly on the west side, are associated with small, designated parking areas.

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[525] Sanocki, *Class III Archeological Survey of Beaver Meadows Road,* 37.
[526] Sanocki, *Class III Archeological Survey of Beaver Meadows Road,* 64.

In addition to the sanctioned trails maintained by the NPS, social trails cut across the terrain throughout the Trail Ridge Road Cultural Landscape. Social trails are pedestrian routes that have been used so often that they become worn, or carved, into the surface of the ground. They are sometimes called “desire lines” because they often follow direct routes or shortcuts from a starting point to a sought-after location such as the bee-line social trail that leads from the pullout at Downgrade to a ridgetop viewpoint overlooking Forest Canyon (Figure 3-152). Social trails within the alpine tundra are particularly problematic because repeated footsteps often destroy alpine tundra plants requiring hundreds of years to recover. Other social trails that are visible from the corridor can be found at Medicine Bow Curve, Poudre Lakes, and Beaver Boardwalk, as well as numerous other locations where visitors tread off road.



***Figure 3-152**. A social trail leads through the alpine tundra from the pullout at Downgrade.*

Little Horseshoe Park - Lawn Lake Trailhead Trail (see Map 3-1). The Little Horseshoe Park - Lawn Lake Trail (FR-51) spans from the Fall River-Little Horseshoe Park Complex Trail (FR-50) to the Lower Lawn Lake Trail (Figure 3-153). The Fall River-Little Horseshoe Park Complex Trail is also accessed from Trail Ridge Road via Little Horseshoe Park Road. The trail appears to have been present by 1946.[527] The portion of the trail that falls within the CLR study area appears to be in good condition.

[527] Determination of date of origin is made based upon review of US Forest Service Aerial photograph BOW 27-151 (Larimer County, Colorado: 9/10/1946), http://ucblibraries.colorado.edu/map/aerialphotos.htm.



Figure 3-153. *Trail at the end of the Endovalley cul-de-sac across from Old Fall River Road.*

East and West Deer Mountain Trail and **Beaver Meadows-Deer Ridge Trail** (see Map 3-1). Two trails intersect Beaver Meadows Road at Deer Ridge Junction. To the north are the East and West Deer Mountain Trail (FR-27), while to the south is Beaver Meadows-Deer Ridge Trail (FR-59). Pullouts near the intersection are often filled with the parked cars of those who wish to access the trailhead located on the northeast hillside at the top of a set of timber and gravel steps (Figure 3-154). The route to Deer Mountain is 3 miles with a 1,093 feet elevation gain. The trail averages 6 feet in width. Visitors enjoy views to Longs Peak, Moraine Park, Upper Beaver Meadows, and Estes Park from the summit.[528] Along the south side of the junction is a trailhead for a spur trail to Beaver Mountain and Upper Beaver Meadows Road (Figure 3-155). The trail also leads to Moraine Park and to Ute Trail East. Origins of the trail date to the first quarter of the twentieth century although the trails in the Deer Ridge Junction area were formalized in the 1930s. Log steps at the trailhead were first established in the 1960s.[529] The trailheads and portions of the trails within the study area appear in good condition.

[528] National Park Service, "List of Hiking Trails," *Rocky Mountain National Park*, https://www.nps.gov/romo/planyourvisit/list_hiking_trails.htm (accessed February 17, 2023).
[529] Sanocki, *Class III Archeological Survey of Beaver Meadows Road,* 61.



***Figure 3-154**. View of the trailhead to Deer Mountain from Deer Ridge Junction.*



***Figure 3-155.** View of the trailhead at the spur trail that leads to Beaver Meadows and the Ute Trail.*

Abandoned Beaver Colony Trail (TR-10). A social trail is located near the current Beaver Boardwalk off Trail Ridge Road where a former visitor area was removed in the early 2000s (refer to Figure 3-21).[530]



Figure 3-156. *A Junior Park Ranger walks along the Hidden Valley accessible trail.*

Hidden Valley Trail. A gently graded route defines the Hidden Valley Trail (TR-12) which leads into Hidden Valley from the Junior Ranger Headquarters (Figure 3-156). An easy 1-mile-long walk, the hardpacked earth and gravel trail starts near the Hidden Valley picnic area and gains 100 feet of elevation as it makes a loop around Hidden Valley. Wood timbers edge the trail with offshoots to picnic and rustic play areas. Two wood pedestrian bridges cross the creek along the trail. There are interpretive signs along the way that provide information on the area and its plants and wildlife. The trail was developed during the 2000s along with the picnic shelter and ranger station. Other than areas where the trail surfacing has spilled over onto the grassy margins of the path, the trail is in good condition.

Ute Trail Trailheads and Trail (see Map 3-3, 3-4, 3-5). Trailheads to the Ute Trail (5LR.803) are located at Deer Ridge Junction (Ute Trail East – TR-06; see Map 3-1), at Ute Crossing (see Map 3-3) (Figure 3-157), Fall River Pass Historic District (see Map 3-4) (Figure 3-158), and Milner Pass (Ute Trail West, TR-03; see Map 3-5). Construction of Trail Ridge Road in the 1930s partially followed segments of the Ute Trail, a footpath used by Native Americans to hunt and move through the landscape. European American miners and trappers later followed the trail to move through the mountains until the late 1800s when tourists began traveling to the area. During the early 1930s, Trail Ridge Road was built to follow a section of the Ute Trail between Ute Crossing and the Alpine Visitor Center.[531] Other surviving sections of the trail remain in use by and important to traditionally associated tribes, while also serving recreational uses as a trail popular with visitors.[532]

[530] Personal communication, NPS, August 2021 site visit.
[531] National Park Service, DRAFT "Trail Ridge Road CLI," 63.
[532] National Park Service, DRAFT "Trail Ridge Road CLI," 2.



***Figure 3-157**. View of the Ute Trail from Ute Crossing.*



***Figure 3-158**. View along the Ute Trail from the road near the Alpine Visitor Center.*

The trail is an 8-mile round trip route with a 1,037 feet elevation change starting from an elevation of 11,796 feet AMSL and ending at 10,759 feet AMSL. Within the alpine tundra zone, the route is completely exposed with little to no tree cover and provides splendid views of the Never Summer Mountain Range

and the Cache la Poudre River valley below.[533] Within the Fall River Pass Historic District near the Alpine Visitor Center, the trail is narrow, about 2 feet wide, and unpaved with native soil as the surface. The trailhead and portion of the trail that fall within the CLR study area appear to be in good condition.



***Figure 3-159**. View to the northeast of the unnamed trail and park signs at Medicine Bow Curve.*

Medicine Bow Curve unnamed trail (see Map 3-4). An unnamed trail leads northeast from Medicine Bow Curve. It was established as a social trail accessed from the pullout along the hairpin curve near mile 21.5 (Figure 3-159). Park personnel are planning to improve the trail as a sanctioned route, which will allow for maintenance. Currently the trail is in poor condition due to erosion and resource damage.

Forest Canyon Overlook Trail (see Map 3-6). The short Forest Canyon Overlook Trail (TR-02) is accessed from the developed area at Forest Canyon Overlook near mile 15 at 11,716 feet AMSL (refer to Figure 3-46 and 3-47). The 300-foot-long paved path with a viewing structure was built ca. 1980. The overlook structure was rebuilt in 2002. The trail appears to require accessibility improvements to meet ABAAS.

Toll Memorial Trail / Tundra Communities Trail (See Map 3-3). The Toll Memorial Trail (TR-09; 5LR.14065), also known as Tundra Communities Trail, is accessed from the parking area near Rock Cut. The Roger Toll Memorial was dedicated in 1938 atop a high point above the parking area. It is assumed that the access trail was in place or improved at that time. The route is known to have retained the same alignment since 1957 and to have been paved in 1961.[534] The asphalt trail, a 0.5 mile round trip, meanders through the alpine tundra leading to two expansive overlooks (Figure 3-160). Mushroom Rocks, the first of the two overlooks along the trail, is accessed from an asphalt spur trail off the main trail.

[533] National Park Service, "Hike the Ute Trail," *Rocky Mountain National Park*, https://www.nps.gov/thingstodo/romo_utetrail.htm (accessed January 11, 2022).
[534] T. Bugg, M. Dinkel, and A. Hopper, ROMO Archeological Site Documentation Form "Toll Memorial Trail" (Fort Collins, Colorado: Prepared for the National Park Service, Rocky Mountain National Park by Centennial Archaeology, LLC, 2019), 4.

At the terminus of the trail is another large boulder outcropping with wide expansive views to the northeast. At both locations, signage and buck-and-rail fencing encourage people to stay on the designated trails and landings. The signage along the trail includes exhibits that identify the flora and fauna common to the alpine tundra zone.



Figure 3-160. *View to the east of the terminus of the Toll Memorial Trail that begins at the Rock Cut parking area.*

Crater Trailhead and Trail (see Map 3-5). The Crater Trail (TR-02) and surrounding open tundra slopes on Specimen and Shipler Mountains are currently closed to public access. This segment of Specimen Mountain Trail is locally known as Crater Trail because it is the only portion of the trail that was used for recreational access to the Crater overlook. The trail segment begins in the montane zone starting about 200 feet northwest of Poudre Lake on Milner Pass and quickly enters the subalpine zone with intermixed lodgepole pine and subalpine fir. Above the tree line, the trail extended up a steep fall line through the alpine zone to gain the Crater overlook, located about 0.25 mile northwest from tree line. The remaining portion of Specimen Mountain Trail extends north along the Continental Divide through a bighorn sheep protective area, which encompasses the Specimen Mountain and Crater area. Visitor access has been prohibited in the area since the early 1970s in order to protect sheep habitat.[535]

The trail was partially formalized in the 1930s by the NPS[536] and closed in 2018 with the intention of stabilizing and revegetating a length of 1 mile from the trailhead, thereby limiting access. Prior to its closure, the Crater Trail was traveled by about 3,000 hikers per year. [537] The trailhead and closed trail are in fair condition.

[535] C. Briggs, Colorado Cultural Resource Survey Management Data Form “Specimen Mountain Trail Segment” Resource Number 5LR.14065.1 (2016), 2.
[536] Briggs, “Specimen Mountain Trail Segment,” 3.
[537] National Park Service, Crater Trail Finding of No Significant Impact (FONSI), Rocky Mountain National Park (2018).



Figure 3-161. *A view of the Lake Irene Trail from the Lake Irene Picnic Area.*

Lake Irene Trailhead and Trail (see Map 3-5). The Lake Irene Trailhead (TR-04) is located at 10,748 feet AMSL within the Lake Irene Picnic Area (Figure 3-161). The hardpacked earth trail departs from the popular visitor destination along a steep route with many steps built of both timber and stone risers and edged with timbers. The Lake Irene Trail appears to have been present by 1938.[538] The trailhead and the portion of the trail that falls within the CLR study area appear to be in good condition.

Colorado River Trailhead and Trail (see Map 3-6). The Colorado River Trailhead is located on the north side of the trail parking lot directly off the west side of Trail Ridge Road near mile 31.5. The Colorado River Trail (NS-03; 5GA.4756.1) travels along the east side of the Colorado River headwaters in the northern end of the Kawuneeche Valley. Several ephemeral tributary drainages descend the west-facing slopes to the east of the trail. The trail passes through a series of small open meadows and lodgepole pine forest. The elevation ranges from 9038 feet to 9514 feet AMSL. The trail was completed in 1933.[539] The trailhead and portion of the trail that fall within the CLR study area appear to be in good condition.

[538] Determination of date of origin is made based upon review of US Forest Service aerial photograph BOW 11-49 (Larimer County, Colorado: 10/25/1938), http://ucblibraries.colorado.edu/map/aerialphotos.htm.
[539] T. Bugg, M. Dinkel, and A. Hopper, ROMO Archeological Site Documentation Form “Colorado River Trail” (Fort Collins, Colorado: Prepared for the National Park Service, Rocky Mountain National Park by Centennial Archaeology, LLC, 2019), 4.



Figure 3-162. *View of the Timber Lake Trail from the Timber Lake Trailhead parking area.*

Timber Lake Trailhead and Trail (see Map 3-6). The Timber Lake Trailhead is accessed from a parking area across Trail Ridge Road from the parking area that accesses the Colorado River Trailhead at 9,000 feet AMSL (Figure 3-162). The Timber Lake Trail (WV-01) is a steep hike located near where a landslide occurred in the summer of 2014. The landslide remains active and unstable, and multiple trees have been witnessed falling into the slide from the top. Warning signs are posted near the route. The Timber Lake Trail appears to have been present by 1947.[540] The trail within the CLR study area is well worn with areas of erosion along the margins. A picnic area and trailhead kiosk mark the beginning of the trail. The trailhead and portion of the trail that fall within the CLR study area appear to be in fair condition.

Timber Creek Campground-Beaver Ponds Picnic Area Trail (KA-08). A trail follows the west side of Trail Ridge Road between Timber Creek Campground and Beaver Ponds Picnic Area.

[540] Determination of date of origin is made based upon review of US Forest Service aerial photograph BOW 33-86 (Larimer County, Colorado: 9/23/47onahu), http://ucblibraries.colorado.edu/map/aerialphotos.htm.



Figure 3-163. *View of the kiosk that marks the beginning of the Bowen-Baker Trail.*

Bowen-Baker Trailhead and Trail (see Map 3-7). The Bowen-Baker Trailhead is located near mile 35 along Trail Ridge Road (Figure 3-163). The route is one of three hunting access corridors on the west side of the Park that convert to trail status when the gate at the entrance is closed. The Bowen-Baker Trail (KA-06) begins at the parking area. A kiosk stands at the beginning of the trail, which initially follows a road and bridge over the North Fork Colorado River. The section of the trailhead and trail that fall within the CLR study area are in good condition.



Figure 3-164. *View of the kiosk that marks the beginning of the Coyote Valley Trail.*

Coyote Valley Trailhead and Trail (see Map 3-7). The Coyote Valley Trailhead is located at 8,840 feet AMSL along the Colorado River (Figure 3-164). The Coyote Valley Trail (KA-01) begins along the margins of the Coyote Valley Trailhead parking area and was built in 1990.[541] The packed gravel trail measures 1 mile in length and has been improved for accessibility. The portion of the trailhead and trail that fall within the CLR study area are in good condition.

Bowen Gulch Connector Trail (see Map 3-8). The Bowen Gulch Connector Trail (KA-02) is accessed from Gubbins-Johnson Access Road, which intersects Trail Ridge Road near mile 37, or from the Bowen-Baker Trailhead (see Map 3-7). The trail is 7.4 miles one-way at an elevation ranging from 8,832 to 11,465 feet AMSL.[542] West of Trail Ridge Road the trail is based on Bowen Gulch Road, established in the late 1870s to 1880; the section to the east was established after 1981. The trail is located outside the CLR study area.

Onahu Creek Trailhead and Trail (see Map 3-8 and 3-9). The Onahu Creek Trail (WV-07; 5GA.4725.1) begins on the east side of the Kawuneeche Valley and generally follows the west-facing slopes of higher terrain that overlooks Onahu Creek, crossing the creek several times where the trail is supported by split log foot bridges (Figure 3-165). There are two trailheads that access the Onahu Trail within the CLR study area—one within the trail's designated parking area and another further to the north at mile 38. The surrounding environment is a lodgepole pine forest with an understory of common juniper, kinnikinic, and short grasses growing in gravely sandy loam derived from granite, gneiss, and schist. The trail passes by several areas with large boulder outcrops. The elevation ranges from 8,795 feet AMSL at the edge of the Kawuneeche Valley to 9,668 feet AMSL where the trail disappears at the southern edge of Long

[541] According to FMSS construction date as provided to CLR team in "Additional Info Trailheads Trails," January 2023.
[542] US Department of Agriculture, US Forest Service, "Bowen Gulch Trail (#119)," https://www.fs.usda.gov/recarea/arp/recarea/?recid=83285 (accessed October 5, 2022).

Meadows.[543] A small, designated pullout parking area is located at the trailhead. The trail was a result of an effort by the CCC beginning in 1939 although the trail had been used informally prior to that time.[544] The portion of the trailhead and trail that fall within the CLR study area are in good condition.



Figure 3-165. *View of the kiosk that marks the beginning of the Onahu Creek Trail.*

Green Mountain Trailhead and Trail and **the Valley and River Trail Network** (see Map 3-9). Green Mountain Trail (WV-06; 5GA.4469) parallels the Trail Ridge Road corridor between miles 38.5 and 40.5. (Figure 3-166) This is also the trailhead for the Valley And River Trail Network (KA-03), which crosses to the west of Trail Ridge Road and continues south through the Kawuneeche Valley. It extends east from the trailhead on the east side of Trail Ridge Road to Big Meadows where it terminates at the intersection with the Tonahutu Creek Trail. For much of its length the trail parallels the north side of an unnamed tributary of Onahu Creek. It crosses a second unnamed tributary drainage 0.8 mi east of the trailhead. The elevation along the trail ranges from 8789 feet to 1069 feet. The trail dates to the 1880s.[545] The trailhead and portion of the trail that fall within the CLR study area appear to be in good condition.

[543] Jenny Engleman, Katherine Mayo, Jessica Ericson, Justin Batista, *Class III Survey or Select Trails at Rocky Mountain National Park Grand County, Colorado* (Denver, Colorado: ERO Resources Corporation, 2019), 2.
[544] William C. Ramaley, "Trails and Trailbuilders of RMNP" (undated typescript, Rocky Mountain National Park archives), 187.
[545] T. Bugg, M. Dinkel, L. Erker, and C. Clark, ROMO Complete Class III Archaeological Surveys "Green Mountain Trail" (Denver, Colorado: Prepared for Rocky Mountain National Park by ERO Resources Corporation, 2019), 2.



Figure 3-166. *View of the kiosk that marks the beginning of the Green Mountain Trail.*

Livery Trails. Trails intersecting the Grand Lake Entrance area consist of livery trails designated for both pedestrian and equestrian use as well as a seasonal snowmobile trail. The trails include those that are maintained by NPS personnel and trails that are not intentionally maintained but remain through continued use and serve as a connection between the town of Grand Lake and the Park. The livery trails also connect to the Sun Valley Trail system to the north and the Tonahutu Trail system to the east through the Grand Lake Entrance. Portions of the livery trails were repurposed from the abandoned alignments of the old Fall River Road, Grand Lake Lodge Road, and the Grand Lake Lodge Hydroelectric Plant Road.[546] These trails area associated with the early resort era, as well as precontact era and early settlement period uses. They were later developed for Park use during the New Deal era.[547] The trails are in good condition.

Old Entrance Livery Trail (KA-05; 5GA.4721) The Old Entrance Livery Trail (also known as the Lower Valley Trails, CRD Admin Trail, and Historical Road segment[548]) is located on the west side of Trail Ridge Road and accessed from the Kawuneeche Visitor Center parking area. The western segment of the trail trends south from CR 491 as it reenters the Park for approximately 0.26 mile before it turns eastward and intersects with the Sewer Line/Snowmobile Access Trail. The central segment then travels north of the maintenance and utility area for approximately 0.28 mile before it intersects with the livery trail that follows the abandoned alignment of the old Fall River Road. The eastern segment then continues east for approximately 0.18 mile before reaching the western edge of Trail Ridge Road. The Old Entrance Livery Trail segments are narrow, dugout earthen trails. In areas where the trail segments traverse the maintenance and utility area and approach Trail Ridge Road, the trail is lined with fieldstone over

[546] Megan Daniels and Trevor Mark, “Intensive Level Architectural Survey of the Grand Lake Entrance Area in Rocky Mountain National Park, Grand County, Colorado” (National Park Service, 2022), 61.
[547] Daniels and Mark, “Intensive Level Architectural Survey of the Grand Lake Entrance Area,” 69.
[548] Daniels and Mark, “Intensive Level Architectural Survey of the Grand Lake Entrance Area,” 61.

corrugated metal culverts on the crest of the moraine and at road intersections. Logs are embedded perpendicular to the trail at several locations for erosion control.[549]



Figure 3-167. *View from the Kawuneeche Visitor Center parking area of the trail kiosk and Tonahutu Spur Trail.*

Livery Trail (WV-05; 5GA.4729.1) The Livery Trail (also known as the Kawuneeche Tonahutu Spur Trail – Kawuneeche to Tonahutu Trail[550]) is located on the east side of Trail Ridge Road and accessed from the Kawuneeche Visitor Center parking area (Figure 3-167). From the eastern edge of Trail Ridge Road, the trail is approximately 0.74 mile long and trends east through the Kawuneeche Visitor Center parking lot before veering southeast to intersect with the Tonahutu Trail. The trail is maintained with embedded logs for erosion control, drainage cuts, and corrugated metal culverts. A portion of the trail consists of logs lined on either side through a swampy/rock bed area. Another portion of the trail is built up along its edges with native rock. The trail travels through the East Troublesome Fire burn scar, where new vegetation, such as lupine and pine is beginning to appear in the burned understory; however, the logs used for erosion control and delineation are unburned. [551]

Livery Trail (5GA.4467.1) The Livery Trail (also known as the Tonahutu Spur Trail – Grand Lake Lodge Trail and Grand Lake Lodge Hydroelectric Plant road segment[552]) intersects the Old Entrance Livery Trail and is located on the west side of Trail Ridge Road. The trail begins at the southern park boundary at Old Tonahutu Ridge Road, where there is a vehicular gate and a park boundary sign. The trail is an unmaintained two-track road that trends northeast for approximately 0.72 mile around a large rock outcrop before it intersects with the Tonahutu Trail. The trail is along the abandoned alignment of the Grand Lake Lodge Hydroelectric Plant road. [553]

[549] Daniels and Mark, “Intensive Level Architectural Survey of the Grand Lake Entrance Area,” 64.
[550] Daniels and Mark, “Intensive Level Architectural Survey of the Grand Lake Entrance Area,” 61.
[551] Daniels and Mark, “Intensive Level Architectural Survey of the Grand Lake Entrance Area,” 63.
[552] Daniels and Mark, “Intensive Level Architectural Survey of the Grand Lake Entrance Area,” 61.
[553] Daniels and Mark, “Intensive Level Architectural Survey of the Grand Lake Entrance Area,” 63.



Figure 3-168. *View of the Buck Creek Trail leading east from Beaver Meadows Road and the former alignment of High Drive.*

Buck Creek Trail and **Beaver Meadows / Moraine Park Complex Trail** (see Map 3-12). The Buck Creek Trail (FR-52) and Beaver Meadows/Moraine Park Complex Trail (FR-30) are located on either side of Beaver Meadows Road at its intersection with Upper Beaver Meadows Road. The trails are located at the toe slope of Deer Mountain where the elevation averages 8,312 feet AMSL. The trails have an east-west alignment, eventually connecting with the abandoned road alignment of High Drive (Figure 3-168). The trails average 2 to 8 feet in width, and the entire extent is 0.8 mile long from Beaver Meadows Road to the active road alignment outside the Park and into Estes Park. The trails are repurposed from the original High Drive Road alignment developed out of an 1870s wagon road. During the 1920s and early 1930s, High Drive served as the Park's entrance road but was abandoned and converted it to a trail by the 1940s.[554] The trailhead and portions of the trails within the study area appear to be in good condition**.**

Buildings and Structures

Buildings within the Trail Ridge Road Cultural Landscape that fall within the CLR study area occur within 100 feet of the road's centerline. Examples include the checking stations and entry kiosks at the three Park entrances through which Trail Ridge Road passes; several vault toilets located within parking areas associated with key pullouts and overlooks; a ranger station and restroom at Lower Hidden Valley; an information shed at the Sheep Lakes parking area; and the Milner Pass Road Camp Mess Hall (Building B-0220) at the Lake Irene Picnic Area.

Structures are more commonly found along the corridor. These include the numerous guidewalls and retaining walls that edge the road, picnic shelters, bridges, and stormwater management structures such as ditches, culverts, drop inlets, trench drains, and underdrains.

[554] Sanocki, *Class III Archeological Survey of Beaver Meadows Road,* 63.

Fall River Entrance checking station (see Map 3-1). At the time Trail Ridge Road was surveyed on behalf of the CLR, the Park's northeast entrance was marked by a checking station and kiosks originally constructed in 1960 as part of the Mission 66 program. The Fall River Entrance is listed in the National Register as a Historic District (5LR.1184). The buildings were removed in 2022, with plans for their replacement with Neo-Rustic-style structures.

As present in 2021, the checking station (Building B-353) was a one-story, side-gabled frame building located on the north side of the road and oriented to the southwest. The building was situated on a poured concrete foundation and sheltered beneath a wood shake-clad roof with broad, open eaves with a 1 foot 9 inch overhang. The roof was finished with a wood fascia and sheet metal gutter. Walls were 3-5/8 inch thick and clad with vertically laid 1 by 10 inch shiplap wood siding set with a "V" joint. A single-leaf pedestrian entry filled with a glazed aluminum door was located just east of center on the façade (southwest elevation), providing access to the office, closet, and lavatory on the interior. A band of aluminum windows flanked the entry to either side, wrapping the east and west corners onto the southwest and northwest sides, respectively. The window abutting the facade entry to the west featured sliding aluminum sashes, while the other windows had fixed panes. The northeast side was punctuated by a single-leaf pedestrian entry with solid-core wood door at the eastern corner and a single aluminum sliding sash window at the western corner. The southeast elevation featured a single aluminum sliding sash window, and the northeast elevation exhibits a single one-one, double hung aluminum sash window.[555] At the time of the CLR site visits, the building was in poor condition.

The replacement buildings included new kiosks and a remit station, while the road was updated with a new fast-pass lane. Wastewater and water systems were updated when the new buildings were constructed.[556]



Figure 3-169. *Checking station and entry kiosks at the Fall River Entrance, which were removed in 2022 in preparation for the construction of new facilities.*

[555] Higgins and Heavrin, "Fall River Entrance Historic District," 7-12.
[556] National Park Service PMIS #160755.

Fall River Entrance kiosks (see Map 3-1). Also at the time fieldwork was conducted on behalf of the CLR there were three Mission 66 era kiosks at the Fall River Entrance Station (Buildings B-669, B-670, and B-671). The kiosks were removed in 2022 in anticipation of their replacement with Neo-Rustic style buildings.[557]

In 2021, the two kiosks flanking the central inbound lane at the Fall River Entrance Station were designed to be moveable and were situated on wood skids that allowed them to be relocated to accommodate wide loads and equipment such as snowplows (Figure 3-169). Each kiosk measured 11 feet by 4.5 feet. The skids give the buildings overall dimensions of 14 feet by 4 feet 7.5 inches. The 3-5/8-inch-thick walls were clad with vertically laid 1 inch by 10 inch shiplap wood siding set with a "V" joint, and the gabled roofs were clad with wood shakes set with a Boston ridge, providing a weather-tight joint. The roof was finished with a wood fascia, and fluorescent lighting was inset below the eaves. The northeast and southwest sides of each kiosk featured an off-center single-leaf pedestrian entry with glazed pocked door. To the east was an aluminum window with one single-light sliding sash and one single-light fixed sash; to the west, the original single-light fixed aluminum window had been replaced with a wood inset. The southeast and northwest sides were punctuated by a full-width, single-light fixed aluminum window that provided a full view of approaching traffic.[558] The kiosks appeared to be in poor condition.

Beaver Meadows Entrance checking station. The Beaver Meadows Entrance was opened in 1960. Although the original checking station and kiosks were later replaced in 2002 with Neo-Rustic style buildings, the entrance station remains in its original location (Figure 3-170). The present-day checking station (Building B-1077) features an entryway set beneath a small breezeway supported by a log truss facing the roadway. The entrance station is built of horizontal plank shiplap siding with vertical log posts at the corners set on a stone veneered concrete base. The pitched roofs are standing seam metal. The siding is painted a gray-brown color. The entrance station appears to be in good condition.



Figure 3-170. *Checking station at Beaver Meadows Entrance.*

[557] National Park Service PMIS #160755.
[558] Higgins and Heavrin, "Fall River Entrance Historic District," Section 7-12.



***Figure 3-171**. Entry kiosks at Beaver Meadows Entrance.*

Beaver Meadows Entrance kiosks. The three entry kiosks at the Beaver Meadows Entrance also date to 2002 (Buildings B-1074, B-1075, and B-1076) (Figure 3-171). The kiosks are Neo-Rustic in style and rectangular in plan, with the longer elevation abutting the traffic lane. The matching kiosks extend in a small porch supported by a log truss protecting the door on the side opposite the entering traffic. The buildings have horizontal plank shiplap siding with vertical log posts at the corners set on a stone veneered concrete base. The pitched roofs are standing seam metal with small dormers over the triple casement ticket windows. The kiosks are painted a gray-brown color. Traffic lanes are separated by raised planted medians with concrete curbs.[559] The kiosks appear to be in good condition although the medians are in poor condition.

Grand Lake Entrance checking station. The Grand Lake Entrance is in its fourth location. The current location dates to 1967, although the checking station and kiosks were replaced in 2008. The checking station (Building B-1141), which was located along the eastern margin of Trail Ridge Road, was destroyed by the 2020 East Troublesome Fire and is expected to be rebuilt in 2023.[560]

Grand Lake Entrance kiosks (see Map 3-10). The two Grand Lake Entrance kiosks date to 2008 and are replacements for Mission 66 period buildings (Buildings B-1142 and B-1143). They are similar in design to those present at the Beaver Meadows Entrance, and Neo-Rustic in style (Figure 3-172). The kiosks are rectangular in plan, with the longer elevation abutting the traffic lane. The kiosk extends in a small porch supported by a log truss protecting the door on the side opposite the entering traffic. These structures are built of horizontal plank shiplap siding with vertical log posts at the corners set on a stone veneered concrete base. The pitched roofs are standing seam metal with small dormers over the triple casement ticket windows. These kiosks are painted a gray-brown color. Traffic lanes are separated by raised planted medians with concrete curbs. The kiosks appear to be in good condition although the medians are in poor condition.

[559] National Park Service, DRAFT "Trail Ridge Road CLI," 49.
[560] National Park Service PMIS # 316173.



Figure 3-172. *Entry kiosks at the Grand Lake Entrance Station. The checking station that was destroyed due to fires in 2020 is visible to the left.*

Milner Pass Road Camp Mess Hall (see Map 3-5). The Milner Pass Road Camp Mess Hall (CRIS #50655; Building B-220) was built in 1926 to support construction of Trail Ridge Road (Figure 3-173). The building served as a place where laborers constructing Trail Ridge Road could eat meals. An early example of the NPS Rustic style in the Park, the Milner Pass Road Camp Mess Hall is a 1-1/2-story building constructed of logs with a gable roof with exposed log rafter ends. Rectangular in footprint, the structure measures 35 by 18 feet in plan. The foundation is uncoursed fieldstone and there is a single brick chimney.[561] The Milner Pass Road Camp Mess Hall is currently not in use but will be preserved until the NPS determines an appropriate new use. The building is in fair condition, due to some structural deterioration.

[561] Carl and Karen McWilliams, "Classified Structure Field Inventory Report: Mess Hall and Residence" (1987), https://npgallery.nps.gov/NRHP/GetAsset/NRHP/87001130_text (accessed January 12, 2022).



Figure 3-173. *Milner Pass Road Camp Mess Hall located at the Lake Irene Picnic Area.*



Figure 3-174. *Ranger station and restroom building at Lower Hidden Valley.*

Hidden Valley Ranger Station and restroom building (see Map 3-2). A combination ranger station and restroom building (Building B-1093) is located at Lower Hidden Valley (Figure 3-174). Built in the early 2000s as a ranger station, the building was later converted to serve as the headquarters for the Park's Junior Ranger program. The building is Neo-Rustic in style. Rectangular in plan with a central opening

cross-axis in the form of an open breezeway with exposed trusses that extends to the north and south. The building has horizontal plank siding stained dark brown atop a stone veneered concrete base. The building has a standing seam metal cross-gabled roof with solar panels along the south-facing angle. Access to the restrooms and staff offices is through the breezeway which also displays signage and maps related to the area (Figure 3-175). The column bases provide niches for wood benches. The building appears to be in good condition.



Figure 3-175. *Information panels inside the breezeway of the building at Lower Hidden Valley.*

Vault toilets (see Maps 3-2, 3-3, 3-5, 3-9). Vault toilet facilities are located in association with several parking areas along the Trail Ridge Road corridor. The facilities generally date to the late 1990s and early 2000s and are Neo-Rustic in style.

The vault toilet facilities vary in design depending upon location. Vault toilets above the tree line, like those at Rainbow Curve (Figure 3-176) and Rock Cut (Figure 3-177), have facades that are fully veneered in stone. Those within the subalpine areas, such as the ones at Lake Irene (refer to Figure 3-179) and Beaver Ponds Picnic Area, have stone veneer only at their base, with horizontal wood siding and large timber beams supporting the roofline. Wood components of the buildings are painted brown. Newer vault toilets, such as those at Milner Pass (Figure 3-178) and Harbison Meadows (Figure 3-180), have no stone veneer but instead have alternating horizontal (lower half) and vertical (upper half) siding. All vault toilet facilities are one story and have metal vents that protrude from their standing seem metal roofs corresponding to the number of stalls. Within the alpine tundra, the facilities have hip roofs while in the subalpine area, the restroom facilities have gable roofs. Some of the gable roofs extend over accessways to the restrooms. The individual vault toilets located with the CLR study area are described below.

Rainbow Curve Vault Toilet (Building B-1067). The current Rainbow Curve restroom facility was constructed ca. 2000 (Figure 3-176). It replaced a previous vault toilet constructed in 1976.



Figure 3-176. *Vault toilet at Rainbow Curve.*



Figure 3-177. *One of two vault toilets at Rock Cut.*

Rock Cut Vault Toilets (Buildings B-1063 and B-1064). Two vault restrooms are accessed from the parking area at Rock Cut / Toll Memorial Trail (Figure 3-177). Design drawings were prepared in 1975 and the buildings were constructed either that year or the following but were replaced with the current Neo-Rustic-style buildings in 1999.



Figure 3-178. *Vault toilets under construction at Milner Pass in 2022.* (Source: Rocky Mountain National Park)

Milner Pass vault toilets (Building B-1043 and B-X). New vault toilets were in the process of being installed at the Milner Pass parking area in 2022–2023 (Figure 3-178). The vault toilets replaced earlier buildings and were set in a new concrete apron for queuing, with benches and a small retaining wall sited nearby to accommodate waiting visitors.[562]

Lake Irene Picnic Area vault toilet (Building B-1065). The vault restroom at Lake Irene is accessed from the parking area (Figure 3-179). The roofline of the facility overhangs a stone veneer wall that retains the adjacent hillside.

Beaver Ponds Picnic Area vault toilet (Building B-1184). A vault restroom facility is accessed via a concrete sidewalk adjacent to a gravel parking area at the Beaver Ponds Picnic Area (Figure 3-180).

[562] National Park Service PMIS #315038.



Figure 3-179. *The vault toilet at the Lake Irene Picnic Area.*



Figure 3-180. *The vault toilet at the Beaver Ponds Picnic Area.*



Figure 3-181. *Newly constructed vault toilets at Harbison Meadows Picnic Area, 2022.* (Source: Rocky Mountain National Park)

Harbison Meadows Picnic Area vault toilets (Buildings B-X and B-X). New vault toilets were installed at the Harbison Meadows Picnic Area in 2022–2023 (Figure 3-181) to replace the facility that was destroyed by the East Troublesome Fire.[563]

Lower Hidden Valley Picnic Area shelter (see Map 3-2). A picnic shelter is located near the Lower Hidden Valley parking area (Figure 3-182). The structure is timber framed and fastened atop six stone veneer concrete column bases with a sloping standing seam metal roof. The column bases provide niches for wood benches. The structure was built in the early 2000s and appears to be in good condition.

[563]National Park Service PMIS #316135.



***Figure 3-182**. The picnic shelter at Lower Hidden Valley.*

Harbison Meadows Picnic Area shelter (see Map 3-9). The picnic shelter at Harbison Meadow Picnic Area is the only building of its kind along the west side of the Trail Ridge Road corridor (Figure 3-183). The structure is timber framed with peeled logs and mounted atop six stone veneer concrete column bases with a sloping standing seam metal roof. The structure was built in 2010 and appears to be in good condition.



***Figure 3-183**. The picnic shelter at the Harbison Picnic Area.*

Sheep Lakes information shed (see Map 3-1). The information shed at the Sheep Lakes parking area is a prefabricated wood frame building with plywood siding (Figure 3-184). The gable roof is clad with asphalt shingles. The structure is set on a wood platform which allows it to be moved. The building is painted brown with white painted soffit and trim boards. The building does not meet ABAAS accessibility code requirements. The shed appears to be in fair condition although it is not considered compatible with the cultural landscape.



Figure 3-184. *The information shed at Sheep Lakes parking area.*

Road Bridges

There is only one road bridge within the Trail Ridge Road Cultural Landscape. The bridge crosses Fall River in Horseshoe Park not far from the Endovalley Road turn off to Old Fall River Road. There are also large culverts that span creeks and drainages, which could be classified as bridges based on the definition provided by the FHWA because they span more than 20 and have culverts that are beneath the roadway. The four such structures are at La Poudre River, Beaver Creek, Timber Creek, and Onahu Creek.

Fall River Road Bridge. A vehicular bridge that crosses Fall River occurs within the Fall River Road section of the Trail Ridge Road Cultural Landscape near the intersection with Endovalley Road (Figure 3-185). The bridge is a 1980s replacement for an older structure destroyed during the Lawn Lake flood in 1982.[564] The structure includes a concrete box culvert with colored concrete wing walls and a metal guardrail that has been painted red-brown but is badly faded. The surface of the roadway between the guardrails is concrete. The bridge is in fair condition although the railing is in poor to fair condition.

[564] National Park Service, DRAFT "Trail Ridge Road CLI," 19.



***Figure 3-185**. View of the Fall River as it flows below the Fall River bridge.*



***Figure 3-186.** View of the stone culvert carrying Cache la Poudre River beneath Trail Ridge Road.*

La Poudre River culvert. Trail Ridge Road crosses Cache la Poudre River north of Poudre Lake via a boxed culvert faced with mortared stone headwalls (Figure 3-186). A culvert was initially built in this location in 1931. It is not known whether the current culvert has been rebuilt since 1931, but the current culvert appears to be in good condition.

Beaver Creek culvert. Trail Ridge road crosses Beaver Creek near mile 32 via a 60-inch corrugated metal pipe culvert faced with mortared stone headwalls (Figure 3-187). The walls are both 36 feet in length with an average wall height of 3 and 4 feet and maximum wall height of 6 and 8 feet. [565] The Beaver Creek culvert was initially built in 1935. It was rebuilt ca. 1980-1985 as part of the road improvements completed during the same time period. Despite extensive vegetative growth on and near the wall, the culvert and stone wall are in good condition.



Figure 3-187. *View of Beaver Creek culvert.*

Timber Creek culvert. Trail Ridge road crosses Timber Creek south of mile 33 via a culvert faced with mortared stone headwalls (Figure 3-188). On the inlet side of the culvert, the wall is 34 feet in length with an average wall height of 5 feet and maximum wall height of 12 feet. Along the outlet side of the wall, the wall length is 45 feet with an average wall height of 8 feet and maximum wall height of 16 feet. [566] The Timber Creek culvert was initially built in 1935. It was rebuilt ca. 1980-1985 as part of the road improvements completed during the same time period. The culvert and walls are in good condition.

Onahu Creek culvert. Trail Ridge road crosses Onahu Creek near mile 37.7 via a box culvert faced on each side of the roadway with a mortared stone wall (Figure 3-189). On the inlet side of the culvert, the wall is 45 feet in length with an average wall height of 5 feet and maximum wall height of 10 feet. Along the outlet side of the wall, the wall length is 32 feet with an average wall height of 4 feet and maximum wall height of 9 feet. [567] The Onahu Creek culvert was initially built in 1935. It was rebuilt ca. 1980-1985 as part of the road improvements completed during the same time period. The walls are in fair condition mostly as a result of overgrown vegetation on and near the walls.

[565] US Department of Transportation, Federal Highway Administration, “Rocky Mountain Wall Inventory Program (WIP) Report” (2015).
[566] US Department of Transportation, “Rocky Mountain WIP Report.”
[567] US Department of Transportation, “Rocky Mountain WIP Report.”



Figure 3-188. *A view to the west side of the Timber Creek culvert.*



Figure 3-189. *View to the east side of the Onahu Creek culvert.*

Walls

Walls are present along every segment of roadway within the Trial Ridge Road Cultural Landscape. The walls serve in many capacities including to retain the grade, provide slope protection, function as guides

along curves, or function as headwalls for culverts (see the discussion of culverts under Stormwater Structures in the following section). The CLR focuses primarily on walls that extend above the road surface and are built using regional stone that serves either as the structural core of the wall or as a veneer façade on a concrete core wall. Walls that are set below the road's surface and retain a minimum of 4 feet of retained earth, including culvert headwalls, are only mentioned in passing in the CLR but are described within the 2015 US Department of Transportation, Federal Highway Administration, "Rocky Mountain Wall Inventory Program Report."

For the purposes of documentation in the CLR, the walls are organized into four types: crenellated stone guidewalls, dry-laid stone retaining walls; stone veneer retaining walls; and mortared stone retaining walls. The Existing Conditions plans at the end of this chapter provide locations for the walls along the road corridor and identify the type of wall based on the following descriptions.

Wall Type 1: crenellated stone guidewall. Wall Type 1 is composed of mortared native stone where the wall extends above the ground surface as a parapet with a crenellated top (Figure 3-190). A crenellated guidewall is marked by regularly spaced voids, called crenels or embrasures, interspersed with higher, squared-off sections called merlons (Figure 3-191). This type of wall originated during the New Deal era of construction and was built by CCC laborers. Many have been rehabilitated, with the original stonework placed atop new concrete footers added beneath walls requiring elevation as the height of the adjacent roadway has become elevated with each subsequent repaving effort. One section of Wall Type 1, a guidewall at Rock Cut, has been replaced with a concrete core and faced with native stone salvaged from the older walls (refer to Figure 3-49).



Figure 3-190. *A stone retaining wall, referred to as a guidewall, with a crenellated top located just before mile 1 along Trail Ridge Road.*

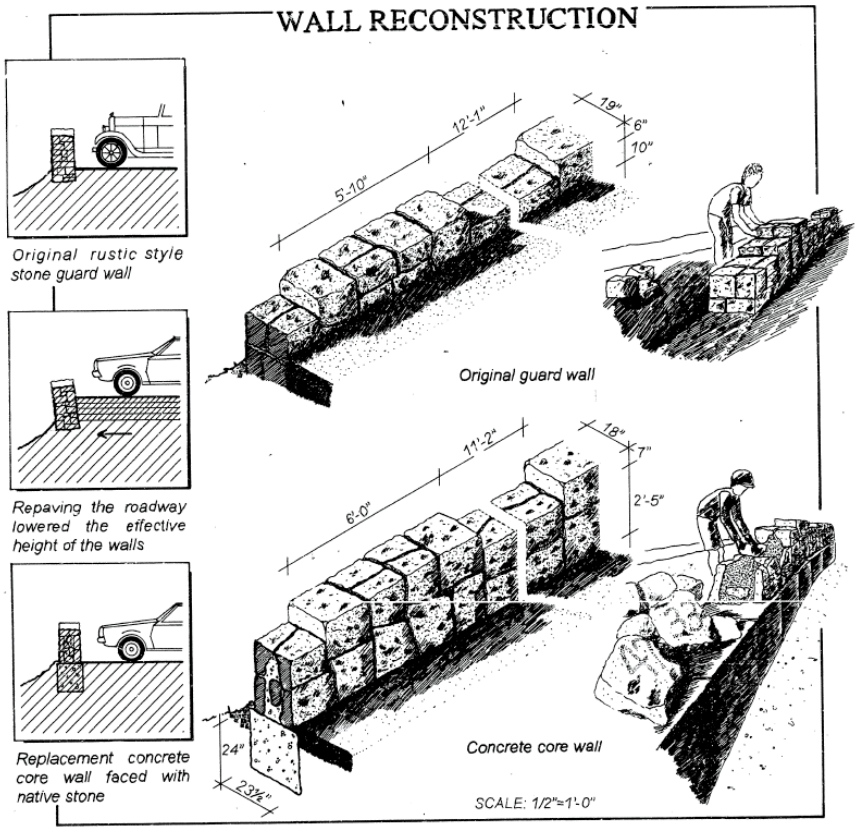


Figure 3-191. *Sketches of the original stone guidewalls along Trail Ridge Road.* (Source: HAER CO-78, 7). Only one segment of guidewall, located at Rock Cut, has a concrete core although concrete footers are used in various locations the corridor.

Along most portions of the roadway where Wall Type 1 is used the stones are rough ashlar or angular cut and range in size from approximately 6 by 8 inches to 18 by 24 inches. Mortar joints range from 1 inch to 3 inches. When originally built, the parapet portion of the original crenellated guidewalls ranged in height from 10 inches at the low sections to 16 inches at the higher sections. The higher sections were typically 5 feet 10 inches long with the lower sections at roughly 12 feet 1 inch. The original guidewalls were 19 inches thick. Rehabilitated walls range in height from 2 feet 5 inches at the low sections to 3 feet at the higher sections. The higher sections are typically 6 feet long with the lower sections at roughly 11 feet 2 inches. The rehabilitated guidewalls are 18 inches thick.[568]

Over the years, some of the crenellated stone guidewalls have been partially buried by asphalt and road base materials as new or remilled surfacing has been layered onto the existing roadway during road repair projects (Figure 3-192). As a result, guidewalls that have been rebuilt have been raised on concrete footings to be at the current road level. Many of the crenellated stone walls are being significantly encroached upon by overgrown vegetation (Figure 3-193). Vegetation and/or water can creep into mortar joints and dislodge stones (Figure 3-194), resulting in the need for ongoing maintenance and rehabilitation. Due to issues of repair as noted above, walls consistent with the Wall Type 1 description within the Trail Ridge Road Cultural Landscape are in fair to good condition.

[568] Quin, "Trail Ridge Road, Rocky Mountain National Park," 7.



***Figure 3-192**. The crenellated stone guidewall at Poudre Lake has been partially buried during road rehabilitation activities.*



***Figure 3-193**. Vegetation encroaching on a crenellated stone guidewall near Rainbow Curve.*



Figure 3-194. *A damaged section of crenellated stone wall at Medicine Bow Curve.*

Wall Type 2: dry-laid stone retaining wall. Wall Type 2 is a retaining wall composed of stone set without mortar and used to armor or retain earth. Examples of this wall type are found at the Bus Terminus pullout near mile 13.6 (Figure 3-195), along Little Horseshoe Park Road (Figure 3-196), along the steep hillside above the road near mile 9.5 (Figure 3-197), and at the pullouts between miles 22 and 23 (Figure 3-198). There are also dry-stacked walls at Gore Range Overlook (refer to Figure 3-60) and Lower Hidden Valley, which are referred to as "rockeries" by FHWA.[569] Dry-laid stone walls are also present along the base of many of the crenellated stone guidewalls, particularly near parking areas and overlooks such as at Many Parks Curve and Rainbow Curve. A modified version of this wall type is a gabion wall located within the Switchbacks (Figure 3-199). Typically, the stones are either rounded or angular and range in size from 6 by 6 inches to 24 by 30 inches. Many of the dry-laid stone walls date to the construction of the roadway while others have been added or reconstructed over the years with road improvements. Walls consistent with the Wall Type 2 description within the Trail Ridge Road Cultural Landscape appear to be generally in good condition.

[569] US Department of Transportation, Federal Highway Administration, "Cut Rockery Details" (2011), as provided via email from Rose Lang, September 8, 2022.



***Figure 3-195**. A dry-laid stone retaining wall at the Bus Terminus near mile 13.6.*



***Figure 3-196**. A battered dry-laid stone retaining wall at Little Horseshoe Park Road.*



Figure 3-197. *A series of dry-laid stone walls support the hillside near mile 9.5.*



Figure 3-198. *A series of dry-laid stone retaining walls support pullouts between miles 22 and 23 just west of Medicine Bow Curve.*



Figure 3-199. *Gabion walls retain the steep grade above a mortared retaining wall at the Switchbacks.* (Source: Google Maps)

Wall Type 3: stone veneer retaining wall. Wall Type 3 is a retaining wall composed of a concrete stem with a mortared stone veneer along the face and top of the wall. Stones used in the veneer are generally rough angular cut and range in size from approximately 8 by 8 inches to 18 by 30 inches. Mortar joints range from roughly ¾ to 2-inches thick. An example of this type of wall is found along Trail Ridge Road near mile 9.5 (Figure 3-200) and just east of Gore Range Overlook. The wall near mile 13.9 appears to have been built in segments with large vertical construction joints apparent between veneer panels. Stone veneer walls began to be added to the Trail Ridge Road Cultural Landscape in the 1980s. Walls consistent with the Wall Type 3 description within the Trail Ridge Road Cultural Landscape appear to be in good condition although are somewhat inconsistent in their detailing from the more historic and rustic walls along the corridor.



Figure 3-200*. A stone veneer retaining wall near mile 9.5 along Trail Ridge Road.*

Wall Type 4: mortared stone retaining wall. Wall Type 4 is a retaining structure composed of mortared stone that is uniform along the top (not crenellated) (Figure 3-201). Stones are both rough ashlar and angular cut and range in size from approximately 3 by 4 inches to 24 by 30 inches. Mortar joints range from ¾ to 1-1/2 inches thick. The height of the wall ranges from roughly 6 inches where it operates as a curb to roughly 6 feet. In some areas, where the wall is curb height, it is canted to armor the base of the hillside it is supporting (Figure 3-202). Examples of this wall type are found along Trail Ridge Road near mile 9.8 approaching Upper Hidden Valley and at various locations along the Switchbacks (Figures 3-199 and 3-203). Stone headwalls at culverts are also examples of Wall Type 4. Some of the older stone headwalls at culverts have station numbers etched into the mortar (Figure 3-204). Most of the mortared stone retaining walls within the Trail Ridge Road Cultural Landscape date to the period of construction, although they have been reconstructed for stability since that period. Some of the mortared walls have similar issues with overgrown vegetation, particularly where they are close to water sources such as when they are used as headwalls. Walls consistent with the Wall Type 4 description within the Trail Ridge Road Cultural Landscape appear to be generally in good condition. An exception is a wall within the Switchbacks that has sections that have blown out, and others that are bulging, likely from hydrostatic pressure behind the wall. For more information, see the engineering report in Appendix A.



***Figure 3-201**. A low stone retaining wall near mile 10.*



***Figure 3-202**. A canted portion of the stone retaining wall near Upper Hidden Valley.*



***Figure 3-203**. A segment of stone retaining wall at the Switchbacks.*



Figure 3-204. *A stone headwall at a road culvert near mile 7.4.*

Drainage Structures

Drainage structures along the Trail Ridge Road Cultural Landscape corridor include ditches, spillways, stormwater culverts, underdrains, drop inlets, slot drains and trench drains.

Ditches. Ditches are throughout the corridor most often where the topography along the side of the roadway is higher than the road itself. The surfacing ranges from soil or gravel (Figure 3-205) to asphalt (Figure 3-206) or stone (Figure 3-207). The ditches function to collect water that sheet flows along the roadway or falls from above and, at times, may also serve to capture rockfalls from above. In some locations where ditches are present along the roadway, drain inlets are at their base to collect and direct the water to underground culverts.

Stone-lined ditches that edge the roadway are apparent in only a few locations paralleling the roadway (Figure 3-208), although there are places where asphalt appears to be the surface of the ditch, but further inspection reveals buried stonework.

In various locations, ditches retain soil and debris which can lead to vegetation growth and the clogging of catch basins and drop inlets. Ditches throughout the cultural landscape are in fair condition. Near Upper Hidden Valley stone-lined ditches that appear to date to the original road construction run perpendicular to the roadway to collect runoff of hillsides and direct it to drop inlets, many of which are also clogged with debris. Some of the ditches that edge Trail Ridge Road along the Kawuneeche Valley were modified with the road project that occurred in the 1980s and remain in good condition.



***Figure 3-205**. An eroded gravel ditch along the roadway not far from the Fall River Entrance.*



***Figure 3-206**. An asphalt-lined ditch near Upper Hidden Valley filled with debris.*



Figure 3-207. *A stone-lined ditch along Trail Ridge Road between Many Parks Curve and Upper Hidden Valley.*



Figure 3-208*. A stone-lined ditch at Upper Hidden Valley.*

Spillways. Spillways are visible along the roadway on the approach from Many Parks Curve to Upper Hidden Valley. The spillways are built of mortared stone and were constructed as part of the original road construction (Figure 3-209). Most of the stone-lined spillways are extensively overgrown and undercut with vegetation and in poor condition (Figure 3-210).

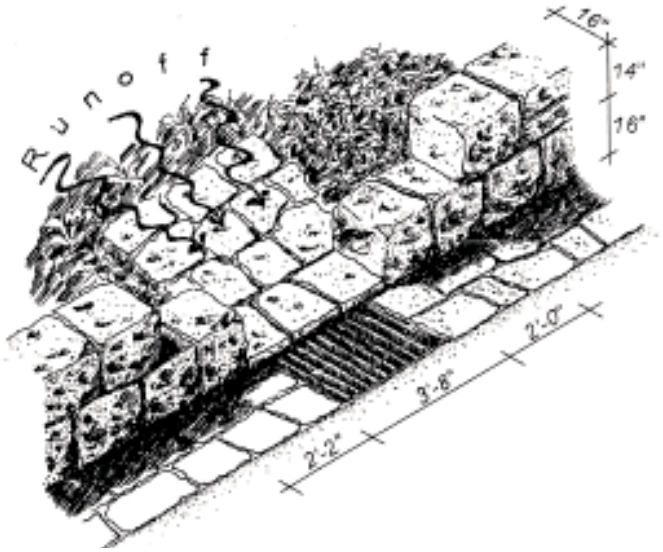


***Figure 3-209**. Sketch of the original spillways along Trail Ridge Road.* (Source: HAER CO-78), 7)



***Figure 3-210**. A stone-lined spillway that runs perpendicular to the hillside and roadway on the approach to Upper Hidden Valley.*



***Figure 3-211**. A large culvert that outfalls near the boardwalk at Beaver Ponds.*

Stormwater culverts. There are hundreds of stormwater culverts within the Trail Ridge Road Cultural Landscape. Culverts within the study area include those that extend beneath the roadway, collecting and directing water from one side to the other, and those that pass below pathways or other secondary roads. Culverts beneath the roadway date from the period of construction through to the present day. Culverts near Deer Ridge Junction, the Beaver Meadows Entrance, the Beaver Meadows Visitor Center and along the east third of the Trail Ridge Road corridor are more contemporary. Historic culverts along the recorded segment are associated with 1930s NPS road improvements. Due to the extended period of introduction, there are a wide range of styles, sizes, and materials represented.

Most of the older ones utilize iron pipes and the newer pipes are most often galvanized (Figure 3-211), although some concrete ones are present. Many of the older culverts along the roadway also have rustic stone headwalls, such as the one that directs Hidden Valley Creek under Trail Ridge Road near mile 3.5 has a mortared stone headwall with a concrete box culvert (Figure 3-212). Some metal pipe culverts include metal wingwalls (Figure 3-213) while others have no end sections, such as the pipe at Beaver Boardwalk and beneath the walkway at Many Parks Curve (Figure 3-214). Some plastic pipes are located under pathways off the Trail Ridge Road corridor (Figure 3-215). A few of the more contemporary culverts along the roadway within the alpine tundra portion have collars with metal box cages that are painted a mint green color (Figure 3-216). Culverts throughout the cultural landscape were generally seen to be in fair to good condition, however many appeared partially blocked due to various environmental conditions as described within the engineering report in Appendix A.



***Figure 3-212**. A concrete box culvert with stone headwalls direct Hidden Valley Creek beneath the roadway near Little Horseshoe Park Road.*



***Figure 3-213**. A galvanized pipe with wingwalls near the Fall River Entrance.*



Figure 3-214. *A worn pipe underneath the asphalt path at Many Parks Curve.*



Figure 3-215*. A plastic pipe under a footpath along the Green Mountain-Onahu Creek Trail.*



***Figure 3-216**. A metal cage at the end of a metal culvert between Medicine Bow and Specimen Mountain Overlook intended to collect trash.*

Drop Inlets. Drop inlets with steel grates are common stormwater structures throughout the corridor (Figures 3-217 through 3-220). They are typically located in areas that are asphalt paved but are also found in low areas of vegetation along the road banks. Drop inlets date from the period of construction through to the present day. Due to the extended period of introduction, there is a wide range of styles, sizes, and materials represented. Grates that cover drop inlets are either square or rectangular. The larger drop inlets have grates that are 24 by 24 inches or larger and are considered by park facilities staff to pose as hazards to bicyclists, snow removal operations and are prone to debris buildup or damage. While no damage was observed, many of the drop inlets throughout the cultural landscape are clogged with vegetation, soil, or other debris, and are therefore considered to be in poor t fair condition. A few of the grates protrude above the pavement causing safety hazards for motorists and bicyclists. Additional information on drop inlets can be found within the engineering report in Appendix A.



Figure 3-217. *A powder-coated grate along the ditch near Medicine Bow Curve.*



Figure 3-218. *A steel grate in the parking area at Sheep Lakes.*



Figure 3-219. *A steel grate set at a low point near the Fall River Entrance.*



Figure 3-220. *A grate set within concrete at a low point adjacent to the exit lane at Alpine Visitor Center.*

Slot drains. Slot drains are located along asphalt ditches parallel to the direction of travel (Figure 3-221). The metal drains are roughly 2 inches wide and can run for 20 feet or longer edging the travel lanes. Slot drains date to the 1980s and have been repaired and replaced as needed since that time. Slot drains are

in good condition although a sizable number were clogged with debris at the time of the CLR site visit in July 2021.



Figure 3-221. *A slot drain in an asphalt ditch along Trail Ridge Road near Upper Hidden Valley.*

Trench drain. An iron trench drain is located at the Alpine Visitor Center parking lot along a parking aisle and egress lane (Figure 3-222). The trench drain may date to when access improvements were made to the Alpine Visitor Center ca. 1990 and is in good condition.



Figure 3-222*. A large trench drain collects water at the Alpine Visitor Center parking area.*

Underdrains. Underdrains are conduits that collect subsurface water and transport it to where it can be discharged. Plastic perforated pipes serve as underdrains in retaining walls along the road (Figure 3-223). These pipes were likely added over the past twenty years and appear to be in good condition.



***Figure 3-223**. A plastic underdrain allows water to outfall from the wall at Ute Crossing.*

Land Use

The Trail Ridge Road was built for driving—as a corridor for tourism, recreation, and transportation—a use that has continued over the past 90 years. Trail Ridge Road, however, is not an all-season road (Figure 3-224). Every year, typically in October, the road officially closes for the winter season to vehicular through traffic from Many Parks Curve on the east side to the Colorado River Trailhead on the west side. Many popular destinations, including Bear Lake Road, Moraine Park, Horseshoe Park and the section of Trail Ridge Road along the Kawuneeche Valley, remain open, weather permitting. The corridor remains open to bicycles and leashed pets through November but then reverts to "winter trail status" which means that bicycles and leashed pets are no longer permitted beyond the closed gates, although pedestrians, snowshoers and skiers are allowed to enter. In the spring, typically the last week in May, the road reopens with an annual ceremonial ribbon cutting (Figure 3-225). The earliest the road has opened was on May 7, 2002; the latest June 26, 1943.[570]

[570] National Park Service, "Rocky Mountain National Park News Release" (October 25, 2021).



Figure 3-224. *Park snowplow operations to open Trail Ridge Road in May 2021.* (Source: Rocky Mountain National Park)



Figure 3-225. *Ribbon-cutting ceremony to open Trail Ridge Road for the season, including local Grand Lake and Estes Park officials and RMNP Superintendent Darla Sidles and park staff, May 2021.* (Source: Rocky Mountain National Park)

The Trail Ridge Road Cultural Landscape also accommodates educational uses through the placement of wayside exhibits that interpret the history of the region. Recreation is accommodated at many of the

developed areas along the road corridor that provide access to hiking trailheads and campgrounds utilized by visitors throughout the spring, summer, and fall.

The road has also provided access to the alpine tundra for specialized research projects such as the plots developed by Beatrice Willard in 1958. Beatrice Willard and Gail Murie, as part of the Alpine Wilderness Ecology Research Program, monitored the alpine tundra plants and the rate at which trampled alpine habitat could recover under extreme climatic conditions. An alpine tundra test plot, located along Trail Ridge Road at the Toll Memorial Trailhead, is still monitored and continues to yield important data about one of the planet's most fragile environments. The plot, along with a second one that is no longer maintained near the Forest Canyon Overlook, were entered in the National Register in October 2007. In addition, Park personnel continue to study the ecosystems along the road through the Continental Divide Research Learning Center. The center issues research permits to scientists that study the resources located in the Park. There are ongoing studies on elk, greenback cutthroat trout, exotic plants, glaciers, air quality and people. These studies help the NPS to formulate appropriate management plans for the landscape associated with Trail Ridge Road.

Views and Vistas

The Park contains some of the most iconic and awe-inspiring views and vistas within the NPS, most of which are captured from designated vista points along Trail Ridge Road. Vistas are views that have been designed for prospect with a directed line of site. Many of the overlooks, pullouts and parking areas along the corridor provide vistas to distant parks and meadows, valleys, and mountain ranges. The road itself, with its winding alignment over vast terrain and elevation, contains sweeping and panoramic views to the north, south, east, and west. The following key observation points, however, are considered to be particularly dramatic and memorable, as identified by NPS. Refer to the existing conditions plans at the end of this chapter for map locations of each of the designated views and vistas.



Figure 3-226. *View to the west from the Fall River Entrance.*

View from Fall River Entrance (See Map 3-1). From the Fall River Entrance, a prospect through the trees provides a framed view towards Bighorn Mountain (Figure 3-226). The focused viewpoint has been present since the road entrance was moved to its current location in 1933. The view remains open and is well-maintained.

View from Sheep Lakes (See Map 3-1). Sheep Lakes is located in Horseshoe Park, a U-shaped valley at the base of Bighorn Mountain. The site is not far from the Fall River Entrance and is known for its dramatic 180 degree views down toward Deer Mountain and up towards Mount Chapin. The parking area overlooks three small glacial lakes and a large grassy meadow within the Fall River floodplain below (Figure 3-227). The area is frequented by bighorn sheep that receive salt and other essential minerals they need for nutrition and digestion in the mud at Sheep Lakes.[571] Coyotes, ground squirrels, moose, and elk also frequent the lakes. This designated viewpoint has been present since the Sheep Lakes parking area was constructed in the 1960s when a segment of Fall River Road was re-routed and a

[571] Scott Esser, Director of the Continental Divide Research Learning Center, via email correspondence with Kelly Dick, July 21, 2022.

portion of the road that formerly passed between the two Sheep Lakes was demolished. The view remains open and is well-maintained.



Figure 3-227. *View from Sheep Lakes parking area toward Horseshoe Park.*



Figure 3-228. *View from the Horseshoe Park Overlook.*

View from Horseshoe Park Overlook (See Map 3-1). Occupying a topographic rise above the Fall River Valley, Horseshoe Park Overlook is known for its dramatic 180 degree views from aspen-clad slopes up Fall River to the west to the Mummy Mountain Range and MacGregor Mountain to the east. (Figure 3-228). The designated viewpoint has existed since the overlook was built in the 1930s and is still open and well-maintained. Bighorn sheep, moose, and elk in the meadow along the meandering oxbows below can be spotted from this vantage point.[572]

View from Many Parks Curve (See Map 3-2**).** From the boardwalk and vista point at Many Parks Curve (Figure 3-229) visitors can take in awe-inspiring views to the east, southeast and south of 'many parks,' or low-lying meadows, including Moraine Park, Upper Beaver Meadows, and Horseshoe Park with a backdrop of mountain peaks within the Mummy Mountain Range, as well as Deer Mountain and Longs Peak. Many Parks Curve was initially constructed ca. 1934 as one of the first of a coordinated system of scenic pullouts devised to allow motorists to stop and safely view the surrounding scenery. The view remains open and is well-maintained.



Figure 3-229. *View from the boardwalk at Many Parks Curve.*

View from Rainbow Curve (See Map 3-2). Rainbow Curve sits at tree line where the subalpine landscape transitions to alpine tundra. From the vista, visitors can enjoy 270-degree views from Mount Chiquita to the west toward Horseshoe Park, Deer Mountain, the Alluvial Fan, and the Mummy Mountain Range, as well as Longs Peak (Figure 3-230). Rainbows are often visible during rainy days, giving the location its name. The designated viewpoint from Rainbow Curve has existed since the 1930s. The view remains open and is well-maintained.

[572] National Park Service, "The NPS App."



Figure 3-230. *View from Rainbow Curve.*



Figure 3-231. *Sundance view to the northeast from a pullout.*

Sundance view (See Map 3-2**).** The 135-degree vantage point referred to as “Sundance view” can be seen from a pullout between Bus Terminus and Knife’s Edge (Figure 3-231). Set above the tree line, the landscape is vast and exposed. From a high point on Trail Ridge, panoramic vistas toward Sundance Mountain and the Mummy Range are afforded. The view remains open and is well-maintained.



Figure 3-232. *View along the Ute Trail*

View from East Ute Trailhead (See Map 3-3)**.** Ute Crossing is located along Trail Ridge above Forest Canyon (Figure 3-232). The popular visitor destination provides access to the Ute Trail, a travel route utilized by tribal people since time immemorial. From the trailhead, 360-degree views toward the Continental Divide, Sundance Mountain and the Mummy Range are afforded, along with alpine tundra scenery and glimpses into Forest Canyon. The view remains open and is well-maintained.



Figure 3-233. *View from the paved path at Forest Canyon Overlook.*

View from Forest Canyon Overlook (See Map 3-3)**.** Forest Canyon Overlook rests along the edge of Trail Ridge at 11,716 feet AMSL (Figure 3-233). A paved trail through the fragile tundra provides access to a vista point over Forest Canyon and its tributary canyons—Hayden Gorge and Gorge Lakes. Views extend for 180 degrees towards the south that include Longs Peak and continue across the Continental Divide towards the Never Summer Range. The designated viewpoint from Forest Canyon Overlook was created ca. 1958. The view remains open and is well-maintained.

View from Toll Memorial and Toll Memorial Trail (See Map 3-3). Views extend for 360 degrees from the Toll Memorial, reached via the Toll Memorial Trail, and include Longs Peak, the Continental Divide, Gore Range, the Never Summer Mountains, and the Mummy Range (Figure 3-234). The Toll Memorial is an etched stone marker at the apex of the Toll Memorial Trail. Associated with the marker is a peak finder. The designated viewpoint has been present since ca. 1936. The view remains open and is well-maintained.

View from Rock Cut (See Map 3-3**).** Rock Cut is a Park landmark at roughly 12,110 feet AMSL. As the name implies, the area is marked by large rock outcroppings that have been blasted through to allow for the building of Trail Ridge Road (Figure 3-235). From this location up-close views of the rock formations and blast marks resulting from the road's construction, as well as 180-degree distant views across Forest Canyon towards the Continental Divide, Lava Cliffs, and the Never Summer Mountains are realized. The designated viewpoint was initially constructed during the early road development period of the 1930s and improved during the Mission 66 program in 1961. The view remains open and is well-maintained.



Figure 3-234. *View toward Forest Canyon from Mushroom Rocks along the Toll Memorial Trail.*



Figure 3-235. *View from Rock Cut.*

View from Lava Cliffs (See Map 3-4). Lava Cliffs is located near Iceberg Pass where lava once flowed from the Never Summer Range before glaciers moved through and scraped the hillside (Figure 3-236). A designated vista point allows for a 180-degree view of the unique geology of lava cliffs and Iceberg Lake below, along with distant views toward the Mummy Mountain Range to the northeast. Views are also afforded towards Sundance Mountain and Longs Peak. The designated viewpoint was initially constructed ca. 1938 and remains well-maintained.

View from Gore Range Overlook (See Map 3-4). From one of the highest points along Trail Ridge Road, Gore Range Overlook offers distant 180-degree views to the west and southwest of the Medicine Bow Mountains, Never Summer Mountains, and Gore Range (Figure 3-237). To the southeast, the flat top of Longs Peak can also be seen. The designated viewpoint at Gore Range was initially constructed in 1938 and remains well-maintained.



Figure 3-236. *View from Lava Cliffs parking area.*

View into Fall River Pass Historic District (See Map 3-4). The Fall River Pass Historic District (5LR.14866) includes the developed visitor service area surrounding the Alpine Visitor Center to the east of Trail Ridge Road (Figure 3-238). The district is accessed via both Trail Ridge Road and Old Fall River Road, segments of which contribute to the district. Upon the approach to the historic district from the east, views are afforded of the pass and mountain ranges to the northeast. The views from this location would have been present to visitors by the 1930s when this portion of Trail Ridge Road was completed. The Ute Trail departs across the parking area of the Alpine Visitor Center and provides views toward Specimen Mountain and beyond (Figure 3-239). The view remains open and is well-maintained.



Figure 3-237. *View from the Gore Range Overlook.*



Figure 3- 238. *View approaching the Fall River Pass Historic District.*



Figure 3-239. *View from the Ute Trail Trailhead at Fall River Pass.*

View from Medicine Bow Curve (See Map 3-4). From the northernmost point along Trail Ridge Road, Medicine Bow Curve provides 180-degree views all the way from the New Summer Range to the Medicine Bow Mountains and the state of Wyoming 38 miles away. Views are also afforded toward the Mummy Mountain Range to the northeast, as well as the Cache la Poudre River valley to the southwest (Figure 3-240). From the vista point, both the tree line that separates the subalpine ecosystem from the alpine tundra ecosystem and a lower tree line toward the bottom of the valley where soil is too wet for trees to grow are visible. The views from this location would have been present to visitors by the 1930s when this portion of Trail Ridge Road was completed. The view remains open and is well-maintained.



Figure 3-240. *View of Medicine Bow Curve.*

Views from pullouts southwest of Medicine Bow Curve (See Map 3-4). From Trail Ridge Road and pullouts southwest of Medicine Bow Curve, 180-degree views are afforded to the north toward the Cache la Poudre River valley, Specimen Mountain, and Desolation Peaks. Near the tree line that marks the transition from the alpine tundra ecosystem to the subalpine landscape, visitors can also enjoy 135-degree views toward Specimen Mountain to the southwest across the Cache la Poudre River valley (Figure 3-241). The views from this location would have been present to visitors by the 1930s when this portion of Trail Ridge Road was completed. The view remains open and is well-maintained.

View from Farview Curve Overlook (See Map 3-5). Sweeping views to the southwest of the Kawuneeche Valley, Colorado River, and Never Summer Mountains are enjoyed from the vista point at Farview Curve Overlook (Figure 3-242). On a clear day, Grand Ditch, a historic irrigation canal, can be seen running across the middle of the mountain range. The designated viewpoint from this location would have been present to visitors by the 1930s when this portion of Trail Ridge Road was completed. The view remains open and is well-maintained.



Figure 3-241. *View from a pullout southwest of Medicine Bow Curve.*



Figure 3-242. *View from Farview Curve Overlook.*



Figure 3-243. *View from Harbison Meadows Picnic Area to the southwest.*

View from Harbison Meadows Picnic Area (Map 3-9). From the Harbison Meadows Picnic Area, visitors may look across the meadow to the south toward a 180-degree view to Shadow Mountain and Grand Lake (Figure 3-243). The designated viewpoint was present by 2010. The view remains open and is well-maintained.

View from the Old Entrance (Map 3-10). From the large pullout that marks the former entrance station to Trail Ridge Road on the west side of the Park there are 90-degree views towards Grand Lake City with nearby homes and aspen stands (Figure 3-244). The view corresponds with the presence of the former entrance station ca. 1932. The view remains open and is well-maintained.

View from Grand Lake Entrance (Map 3-10). From the Grand Lake Entrance, sweeping 180-degree views up the Kawuneeche Valley and toward the Never Summer Range are available (Figure 3-245). Views were provided from this location by the time the entrance was relocated during the Mission 66 era. The view remains open and is well-maintained.



Figure 3-244. *View southwest from the old entrance near the western park boundary at Grand Lake.*



Figure 3-245. *View from the Grand Lake Entrance toward the Kawuneeche Valley.*



Figure 3-246. *View from the Beaver Meadows identity sign northwest into the park.*

View from Beaver Meadows Entrance identity sign (Map 3-11). Visitors experience a 180-degree view from Longs Peak up Beaver Meadows Road into the Park from the identity sign located near the southeast entrance. Views are also afforded to Deer Mountain and Castle Mountain from this location (Figure 3-246). The view has been present since the road and entrance were formalized in the late 1950s and early 1960s and is well-maintained.



Figure 3-247. *View from Beaver Meadows Road toward the Beaver Meadows Visitor Center.*

View from entrance to Beaver Meadows Visitor Center (Map 3-11). A designed view to the southeast is provided from the entrance road toward the Beaver Meadows Visitor Center, an important work of mid-twentieth-century architecture (Figure 3-247). This designated viewpoint was created with the completion of the building in 1967 and the entrance road, which was later expanded in the 2000s. The view remains open and is well-maintained.

View from Beaver Meadows Entrance (Map 3-11). The Beaver Meadows Entrance is located along Beaver Meadows below Deer Mountain and overlooking Beaver Brook. The relatively low-growing vegetation allows for wide open vistas toward Moraine Park to the west and 360-degree views to the surrounding mountains (Figure 3-248). The view from the Beaver Meadows Entrance Station has been present since the early 1960s. The view remains open and is well-maintained.



Figure 3-248. *View from High Drive toward the Beaver Meadows Entrance.*

View from 3M Curve (See Map 3-12). The 3M Curve overlook, located along Beaver Meadows Road, provides 90-degree views of Beaver Brook and low-lying meadows including Moraine Park and Upper Beaver Meadows with a backdrop of Longs Peak (Figure 3-249). The designated viewpoint at the 3M Curve overlook has been present since ca. 1960. The view remains open and is well-maintained.



Figure 3-249. *View from the 3M Curve overlook.*

Small-scale Features

Small-scale features within the Trail Ridge Road Cultural Landscape include gates, road edging and barriers, delineators, information kiosks, signs, furnishings, utility structures, and miscellaneous features.

Gates

Road gates within the Trail Ridge Road Cultural Landscape are all swinging metal arm gates composed of horizontal and diagonal crossbars, typically tubular, attached to rotating post (Figure 3-250). Some of the gates have vertical posts within the triangular frame. Most of the gates include signs and reflective decals and are powder coated. Gates along the corridor are in poor to fair condition, likely due to extreme weather and age. Most are later additions, ca. 1990 to the present. The NPS is in the process of replacing all the road gates with a new Park standard.



***Figure 3-250**. A road gate uphill from the Alpine Visitor Center along Trail Ridge Road.*

Road Edging and Barriers

Road edging or barriers are common features along the routes that make up the Trail Ridge Road corridor and at developed areas and pullouts. They include buck-and-rail fencing, dating as far back as the 1970s (Figure 3-251), wood post-and-rail fencing, metal post-and-rail fencing (Figure 3-252), boulder edging (Figure 3-253), peeled log posts (Figure 3-254), metal bollards (Figure 3-255), log wheelstops (Figure 3-256), and log railings (Figure 3-257). Some of the wood features, including buck-and-rail fencing, are considered by some Park staff to have safety implications when located within 25 feet of the road edge.

More recent additions that have been added since the 2000s include Park-designed features called Lawson logs (Figure 3-258) and Stevens logs (Figure 3-259), as well as products like Jersey barriers (Figure 3-260), candlesticks, and Carsonite markers (Figure 3-261), that are used to direct visitors away from parking on the shoulders of the road or traveling outside of designated lanes. Both Stevens logs and

Lawson logs have their own safety implications. Due to the fragility of the construction, they are both prone to collapse should a vehicle hit them.

Orange and white traffic delineators, also known as candlesticks, are used in many places, such as within the centerline of the road at Many Parks Curve (refer to Figure 3-262) to keep visitors from crossing traffic to enter the lower parking area at a blind curve.

Generally, road edging and barriers along the corridor are in fair to good condition. Components made of wood found within the alpine elevations appear well-preserved from a structural standpoint. However, the impact of UV rays has resulted in extreme bleaching of the wood. Some of the wooden structures at lower altitudes and painted or powder-coated metal elements are in fair to poor condition.



***Figure 3-251**. Buck-and-rail fencing at the Snow Play pullout.*



***Figure 3-252**. Tubular metal fencing at the Beatrice Willard Alpine Tundra Research Plot at Rock Cut parking area.*



***Figure 3-253**. Boulder edging along the roadway leading to the Fall River Entrance.*



Figure 3-254. *Peeled log post edging within the alpine tundra zone.*



Figure 3-255. *A metal bollard at the corner of a vault restroom that may have been part of a gate structure.*



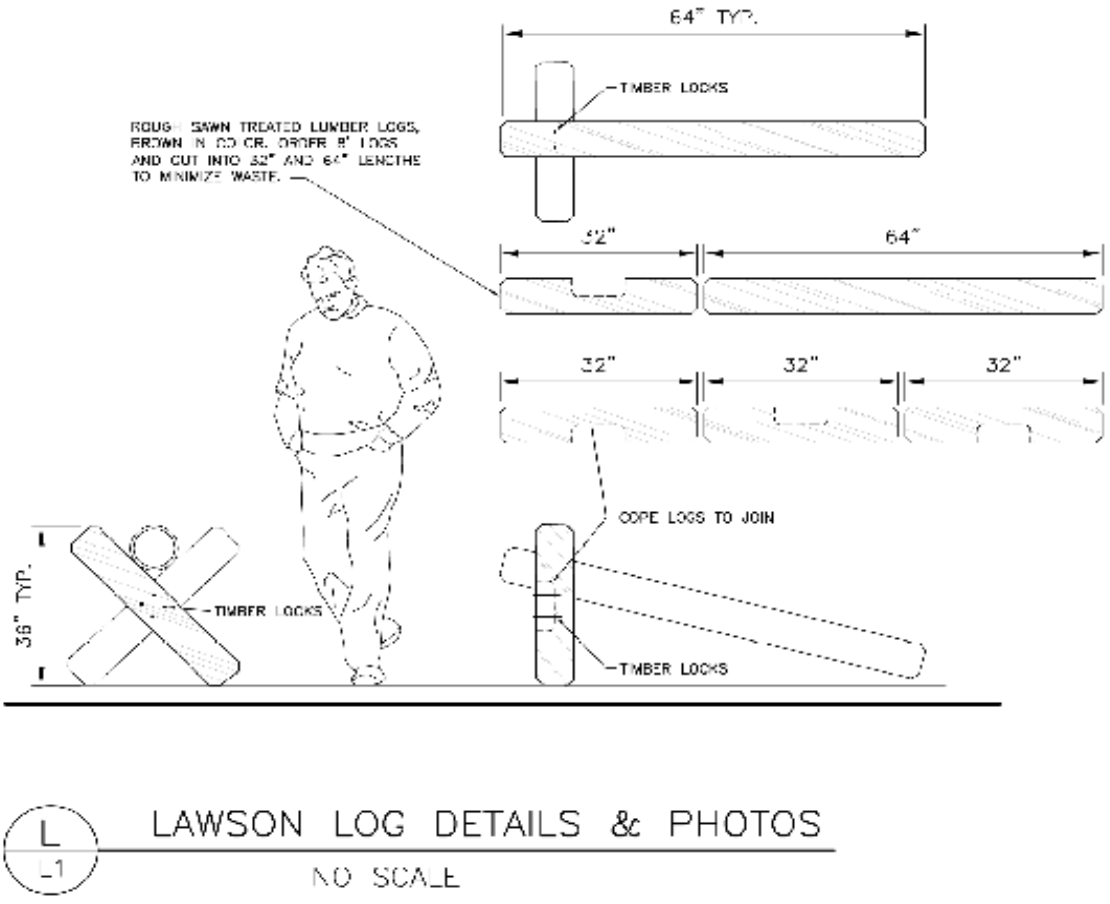
Figure 3-256. *Log wheelstops at the Green Mountain Trailhead parking area.*



Figure 3-257. *Log railings at Beaver Ponds parking area.*







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LAWSON LOG DETAILS & PHOTOS

NO SCALE

***Figure 3-258**. Lawson log details and photos.* (Source: Rocky Mountain National Park)



***Figure 3-259**. Stevens logs edge the curve of the parking area at Sheep Lakes.*



***Figure 3-260.** Jersey barriers limit access to the Snow Play pullout.*



***Figure 3-261**. Brown Carsonite markers edge the roadway and ditch near Sheep Lakes.*



***Figure 3-262.** Traffic delineator tubes (also known as candlesticks) are used to define traffic lanes.*

Roadside Delineators

Roadside delineators are features that help snow plow operators with their clearing operations in the springtime. They serve to mark the perimeter of the roadway and delineate parking areas and structures

that edge or are accessed from the road. The majority of roadside delineators are considered to be relatively contemporary additions to the landscape, although snow poles have been in use for decades.

The most common delineators are narrow, peeled trunks often called “snow poles” that stand vertical at a height of roughly 12 feet (Figure 3-263). The poles are emblematic features along the corridor throughout the alpine tundra zone where the snowpack can reach 18 to 25 feet in height. Generally, these features are replaced on an as-needed basis and so are in relatively good condition. In a few locations, such as at Many Parks Curve, the CLR team saw snow poles that were broken and awaiting replacement or removal.

Other types of delineators are found at lower elevations along the road. These include different variations of metal posts with deflectors (Figures 3-264), including those placed to mark structures such as culverts and beginning and ends of walls (Figure 3-265). Some of the posts have been damaged by vehicles or exhibit worn patches of paint or powder-coating.



***Figure 3-263**. Thin peeled trunks referred to as snow poles serve as delineators along the road and developed areas within the alpine tundra zone.*



***Figure 3-264**. A green post with a reflector edges the roadway near the Fall River Entrance.*



***Figure 3-265.** Perforated metal posts with reflectors line the roadway near Deer Ridge Junction.*

Information Kiosks

Information kiosks. Information kiosks are located throughout the Trail Ridge Road Cultural Landscape at trailheads (refer to Figure 3-166). The structures are timber framed with a single upright panel for

signage. Each has a gable roof with wood shingles. More than twenty kiosks were installed within the east side of the Park in 2006. Other kiosks located along Trail Ridge Road likely date to this time period. The kiosks are a Park standard built and maintained by trail crews and are generally in good condition.

Signs

Signs of all shapes and sizes are located within the Trail Ridge Road Cultural Landscape. The largest signs are the Park identity signs at the Fall River Entrance (Figure 3-266), Grand Lake Entrance (Figure 3-267), and Beaver Meadows Entrance (Figure 3-268). Each is similarly designed but distinct. They are constructed of wood posts and planks painted tan with routed lettering stating “Rocky Mountain National Park Established in 1915” painted green. The signs generally sit atop tapered stone veneer bases. The entrance sign at Fall River Entrance, added ca. 1995, is slated for in-kind replacement as part of a Fall River Entrance rehabilitation project.[573] These signs are in good condition.



Figure 3-266. *An identity sign marks the Park entrance along the Fall River Road.*

[573] As relayed by Rose Lang, Park landscape architect, to the CLR design team in 2021.



***Figure 3-267**. An identity sign marks the Park entrance near Grand Lake.*



***Figure 3-268**. An identity sign marks the Park entrance at Beaver Meadows Road.*

Other types of identity signs are common along the roadway and mark the different developed areas such as Sheep Lakes (Figure 3-269) and Rainbow Curve (Figure 3-270). There is also a large identity sign that marks the Alpine Visitor Center along Trail Ridge Road (Figure 3-271) and a sign that identifies the Continental Divide at Milner Pass (Figure 3-272). Attached to some of the posts which hold the identity

signs are wooden plaques cut to the form of the NPS arrowhead with a number indicated that corresponds to tour stops indicated in the “Guide to Trail Ridge Road” pamphlet sold at the visitor centers. Identity signs along the corridor are generally in good condition.



Figure 3-269. *An identity sign identifies the Sheep Lakes parking area.*



Figure 3-270. *A numbered arrowhead sign is set below an identity sign that edges the west-bound lane at Rainbow Curve Overlook. The sign relates to a pamphlet that is available to visitors in the visitor centers.*



Figure 3-271. *An identity sign marks the location of the Alpine Visitor Center at mile 21.*



Figure 3-272*. An informational sign marks the location of Continental Divide at Milner Pass.*

Interpretive signage includes wayside exhibits (Figures 3-273 and 3-274) found throughout the corridor at pullouts and developed areas. The wayside exhibits are representative of standardized NPS signage consisting of an angled panel framed in steel and mounted on two steel posts, painted dark brown. The signage portion of the waysides are 24 inches by 36 inches typically, with a single exception at Rock Cut

that is 18 inches by 36 inches. This type of wayside exhibit first appeared in the Park in the early 2000s. Due to extreme environmental conditions along Trail Ridge Road, including ultraviolet exposure and blowing snow and grit, most of the waysides require replacement every 5 to 15 years. The metal frame bases often last longer than the sign panels and can often be repaired by sandblasting rather than complete replacement. [574] Most of the wayside exhibits are in fair condition, although some of the sign panels within the alpine tundra exhibit significant UV damage.

Along the Tundra Communities Trail there is another style of interpretive signage composed of small metal plaques that provide information to visitors about the area's natural history and ecology (Figure 3-275). The text are excerpts from *Land Above the Trees*, by Ann Swinger and Beatrice E. Willard, written in 1986. [575] A similar type of sign is located at Harbison Meadows. These plaques are in fair condition.



***Figure 3-273**. A wayside exhibit at Sheep Lakes.*

[574] Rose Lang, Park Landscape Architect, via email correspondence with CLR team, December 19, 2022.
[575] Rose Lang, Park Landscape Architect, via email correspondence with CLR team, December 19, 2022.



***Figure 3-274**. A wayside exhibit along the Tundra Communities Trail.*



***Figure 3-275**. One of the small metal plaques along the Tundra Communities Trail provide interpretive information.*

Other signs found along the road corridor include brown and white metal directional signs (Figures 3-276 and 3-277) and standard regulatory road signs such as stop signs, speed limit signs, yield signs, and accessible parking signs (Figures 3-278 and 3-279). Many of the signs are supported on wood posts. Most of the posts have a double chamfered top and are painted brown. The backs of all regulatory signs

are painted brown so that they are not reflective, diminishing their intrusive quality. Road signs along the tundra zone are often backed with plywood to help them withstand the high winds that are common at high elevations (Figure 3-280). Standard traffic signs were added in the 1970s to meet new highway standards. These signs appear to be in good condition



***Figure 3-276**. A directional sign at the approach to Deer Ridge Junction.*



***Figure 3-277.** A directional sign across from the parking area at Alpine Visitor Center.*



Figure 3-278. *A speed limit sign near the Fall River Entrance.*



Figure 3-279. *A sign marking a "Reserved" accessible parking space at Gore Range Overlook.*



Figure 3-280. *A stop sign at Gore Range Overlook is backed with plywood to help it withstand the strong alpine winds.*

There are also smaller trailhead signs, typically wood with routed letters mounted on peeled wood posts (Figure 3-281). A temporary trail closed sign is also mounted on a peeled post at Ute Trail (Figure 3-282). Many of the trailhead signs date to the late 1980s and are in poor to fair condition and in need repair or replacement due to weathering.



Figure 3-281. *A trailhead sign near Deer Ridge Junction.*



Figure 3-282. *A "Trail is Closed" sign at Ute Crossing.*

Both wood and metal signs are throughout the Trail Ridge Road Cultural Landscape, and especially within the Tundra Protection Zone, to encourage visitors to use the designated trails and avoid trapsing through restoration areas or fragile terrain (Figures 3-283, 3-284, and 3-285). These signs are generally in good condition; however, some appear to need replacement due to weathering or age.



***Figure 3-283**. A sign near the Beatrice Willard Alpine Tundra Research Plot attempts to keep visitors out of the fragile area.*



***Figure 3-284**. "Tundra Closed" signs are scattered along Trail Ridge Road and within developed areas like Rock Cut.*



***Figure 3-285**. Small signs that request visitors to "Stay on Trail" edge the walk along Tundra Communities Trail.*

Site Furnishings

Site furnishings within the Trail Ridge Road Cultural Landscape include trash and recycling receptacles (Figure 3-286), wood benches (Figure 3-287), and picnic tables (Figure 3-288).

Most of the trash receptacles are of a standard metal bear-proof design painted brown. Park personnel are in the process of replacing these receptacles with a new standard. The current ones have a metal lid and are set on concrete pads and attached by a square post. In a few locations the lids appear to need repainting, or the trash receptacles have been removed yet the pad and post remain. As such, the trash receptacles are considered to be in fair condition.

The recycling receptacles are either green metal boxes with yellow lettering or a green-painted version of the trash receptacles. They appear to be in good condition.

Most of the benches are half-log wood set on log feet. The benches are in good condition.

Picnic tables are found in picnic areas along the road, particularly in the western section of the road. Most are integrally colored "Yosemite Brown" concrete, a Park standard, although some older ones remain that are reddish or darker in color. Most appear to be in good condition.



Figure 3-286. *Recycling and trash receptacles at Sheep Lakes parking area.*



Figure 3-287*. Rustic wood benches at Sheep Lakes parking area.*



Figure 3-288. *Picnic tables are primarily found in designated picnic areas along Trail Ridge Road.*

Utilities

In addition to stormwater utilities, other utilities present along the road corridor include HVAC, sewer (Figure 3-289), and permafrost monitoring well manholes (Figure 3-290).

Manholes for underground utilities are located near the Fall River Entrance and the Beaver Meadows Entrance. The sewer system manholes at the Fall River Entrance were constructed in the 1960s and are currently being rehabilitated or replaced as part of the larger Fall River Entrance project.[576] The manholes visible in the medians near the Beaver Meadows Entrance are tied to the HVAC system that provide positive pressure in the kiosks. They were constructed when the kiosks were rebuilt in the early 2000s and are in good condition.

The permafrost monitoring well manholes house wells with loggers that read soil temperature and permafrost changes within the alpine tundra areas along Trail Ridge Road. There are thirty locations total throughout the permafrost areas along the roadway including three permanent borehole monitoring wells at Forest Canyon that fall within the median strip, Tundra Communities Trailhead, and Gore Range pullout (Figure 3-291). The other twenty-seven are scattered throughout the alpine tundra area and are hand dug bore holes that can be backfilled, as needed. Some are covered by rock to conceal them from view. The permafrost monitoring wells were installed between 2008 and 2010 and are permitted to remain through 2024.[577] The monitoring well manholes are in good condition.

There is also a helipad landing site located within the Fall River Pass Historic District west of Trail Ridge Road. Unless there is a helicopter present to transport patients, there is no visible indication from the road or visitor complex that the site exists. A small, square, orange, metal sign with a large black “H” is the only indication of its presence near the start of the Milner Pass Trail. This marker serves as the center of the landing zone for medical helicopters and was added ca. 1998.[578] The helipad site is in good condition.

[576] Rose Lang, Park Landscape Architect, via email correspondence with CLR team, December 28, 2022.
[577] Scott Esser, Director of the Continental Divide Research Learning Center, via email correspondence with Rose Lang, January 5, 2023.
[578] Anstey and Yost, “Fall River Pass Historic District,” 12.



***Figure 3-289**. A sewer manhole with a delineator adjacent to it is set at a low point within the planted island at the Fall River Entrance.*



***Figure 3-290**. A permafrost monitoring well located in the alpine tundra along Trail Ridge Road.*

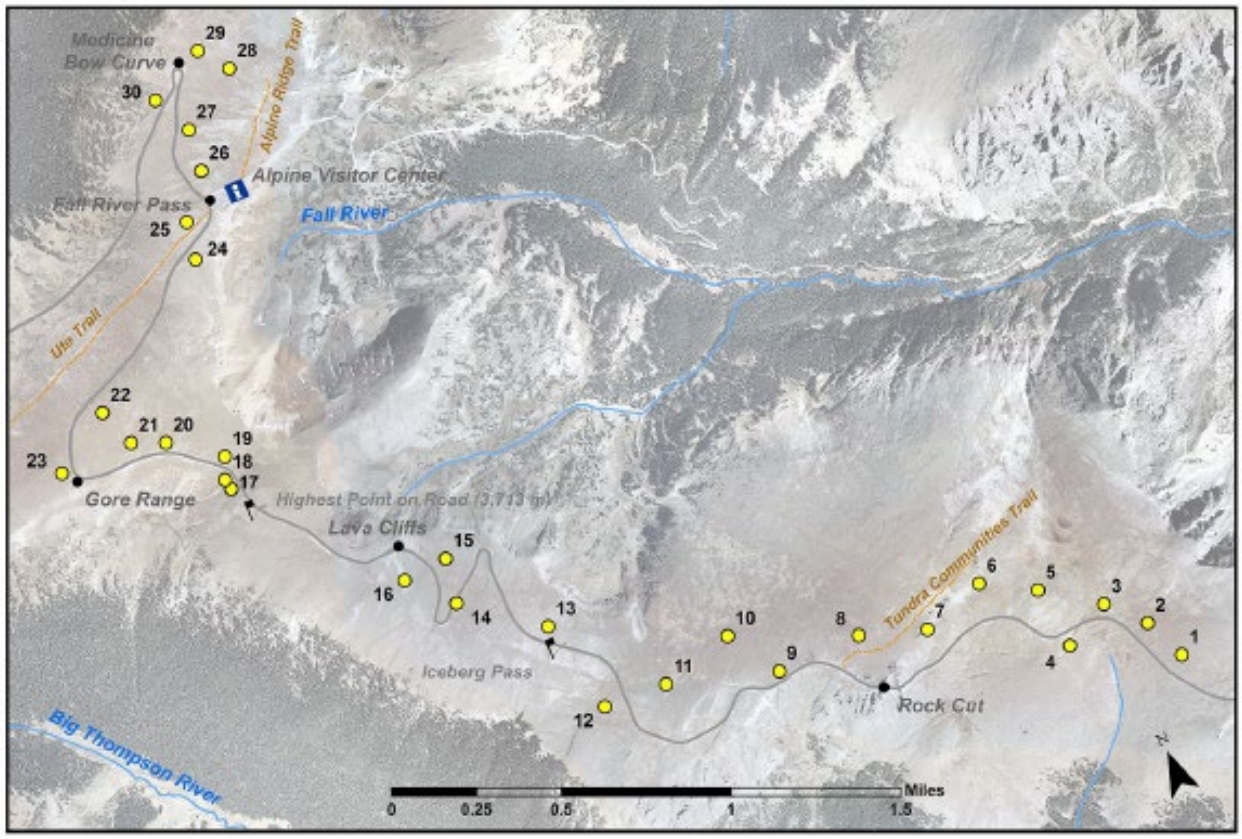


***Figure 3-291**. A map of permafrost monitoring well locations.* (Source: Rocky Mountain National Park)

Survey Benchmarks, Survey Posts, and Station Markings

Small-scale features along the road corridor that may date to the road's construction survey benchmarks, survey posts, and road station markings on headwalls.

Survey benchmarks are composed of a bronze or steel shaft with a disk head that is roughly 3 inches in diameter. The survey benchmarks were driven into the grade or, in the case of Rock Cut, into the bedrock by workers who designed and constructed the roadway (Figures 3-292 and 3-293). Considering their age, they are in good condition.

Survey posts are composed of 8-inch log posts along the roadway that feature 2-½ inch tall numbers (Figure 3-294). The CLR team observed that the survey posts are present along the roadway within the alpine tundra zone only and do not appear to be set at any particular distance interval. Similar to the survey benchmarks, the posts were placed during the design and initial construction of the roadway. They remain in good condition.

Station markers are etched into the mortar or concrete at stone masonry walls that date to either the road's construction period or the 1980s when walls were reconstructed (Figure 3-295). They are in good condition.



***Figure 3-292**. A survey benchmark is imbedded in the rock at Rock Cut.*



***Figure 3-293**. A survey benchmark is set in the landscape between the Forest Canyon Overlook and Rock Cut.*



Figure 3-294. *A road survey post with routed numbers along the road between the Forest Canyon Overlook and Rock Cut.*



Figure 3-295. *A road station marker carved into the mortar between stones in a masonry wall near Upper Hidden Valley.*

Miscellaneous Features

Other small-scale features include truncated domes marking curb cuts at accessible parking areas (Figure 3-296), a closed-circuit camera at the Rock Cut Parking Area, and fire hydrant, light poles,

flagpoles, and map boxes at the Fall River Entrance (Figure 3-297) and Beaver Meadows Entrance Station. These features are contemporary additions that are in good condition.

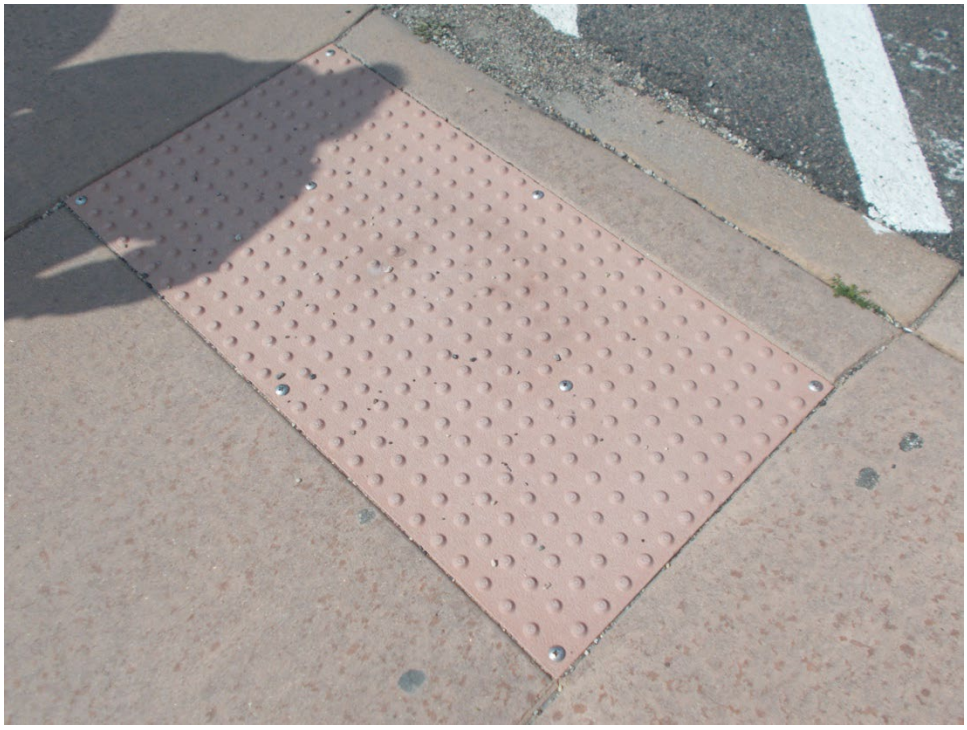


Figure 3-296. *Truncated domes at an accessible curb cut associated with an accessible parking space.*



Figure 3-297. *A map box at the Fall River Entrance.*

Archeological Sites

Archeological Research

Interest in the earliest inhabitants of the Rocky Mountains began with the arrival of the area's first permanent settlers in the late nineteenth century, but quickly increased with early pre-park tourism efforts and the establishment of Rocky Mountain National Park in 1915. The influx of visitors travelling to the Park, and the increasing accessibility of new trails and roads, led to unauthorized artifact collecting. Early Park staff, working on trails and visiting remote sites, also participated in the artifact collecting. Most of these private collections were later added to Park archival collections.[579] An early ranger at the Park, Jack Moomaw, explored many remote areas. By the 1920s, Moomaw had begun identifying and documenting Native American sites and features and seeking out and collecting significant quantities of artifacts. Although Moomaw published several articles in regional journals in the late 1950s, James Benedict noted that many artifacts collected by Moomaw were sold, traded or lost, and that he had an extensive collection of material culture that was kept in his home.[580]

Formal archeological survey was initiated within the broader Rocky Mountain National Park only in the second quarter of the twentieth century. Early on, this occasional research was conducted by graduate students in regional universities and focused on the identification and interpretation of predominantly Native American cultural resources. Working from non-systematic collections made during initial and subsequent park development, these students examined museum collections containing Native American lithics and ceramics, identifying site types and locations and assigning chronological and cultural affiliations. Visits to previously identified sites, and survey and identification of new sites within the Park, were limited. In 1935 Mary E. Yelm completed a master's thesis for the University of Denver that was based on her limited fieldwork within Rocky Mountain National Park and an examination of Native American material culture predominantly recovered from the vicinity of the upper and lower Big Thompson River drainage and held in the "collection of the government Museum of Rocky Mountain National Park in Estes Park" [now the Rocky Mountain National Park Museum Research Facility]. Yelm's study characterized archeological sites into camps (more permanent and less permanent), scattered finds, lookouts, and rock shelters based on the quantity and type of material culture recovered and analyzed their geographic distribution. Likewise, her study provided a comprehensive temporal and cultural typology of stone tools and ceramic vessels. Wilfred M. Husted conducted limited survey and relocation of previously identified sites and turned to the comparison of regional material culture collections. Husted's material-based study focused predominantly on the classification of stone tools and ceramic vessels and grouped them into four temporally and culturally organized periods.[581]

Since the last quarter of the twentieth century, systematic and comprehensive park wide and project-oriented investigations have been conducted by National Park Service archeologists as well as University and private contractors based on agreements with the Park. Research strategies have incorporated both

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[579] Brunswig, *Prehistoric, Protohistoric, and Early Historic American Indian Archeology*, 3; Brett, *Ethnographic Assessment*, 30.

[580] Brett, *Ethnographic Assessment*, 29–30; Jack Moomaw, "Ancient Stone 'Walls' in the Colorado Rockies" *Southwestern Lore* Vol. 20, No. 1 (1954):5–6; Jack Moomaw, "Rubbing Stones Found in Northeastern Colorado" *Southwestern Lore* Vol. 21, No. 1 (1955):9–11; Kenneth Jessen, "Ranger Jack Moomaw Made his Mark at Rocky Mountain National Park" *Loveland Reporter-Herald*, October 6, 2018, https://www.reporterherald.com/2018/10/06/ranger-jack-moomaw-made-his-mark-at-rocky-mountain-national-park/; James Benedict, "Archaeologists Above Timberline: The Early Years," *Southwestern Lore* Vol. 67 No. 2 (2001):5.

[581] Mary Yelm, *Archaeological Survey of Rocky Mountain National Park – Eastern Foothill Districts* (Master's Thesis, University of Denver, 1935), 1–2, 15–18, 104–107; Wilfred M. Husted, *A Proposed Archeological Chronology for Rocky Mountain National Park Based on Projectile Points and Pottery* (Master's Thesis, University of Colorado, 1962), 22–31, 57–86.

surface survey and subsurface investigations. Surface survey, characterized by the observation and collection of material culture through systematic transects, has been the predominant means of identifying new sites and relocating previously recorded archeological sites. Subsurface investigations, characterized by systematic and opportunistic shovel testing and targeted large unit excavation, have been fairly limited in both frequency and scope. Park wide and project oriented archeological research has had two goals, 1) broad surveys focused on the identification and documentation of new sites within Rocky Mountain National Park; and 2) limited surveys focused on the mitigation of specific construction and development projects, and the relocation of previously identified archeological sites.

In the nearly hundred years since its construction, only a limited number of archeological initiatives have targeted survey and identification efforts within or adjacent to the Trail Ridge Road CLR corridor. Since 1978, very few archeological surveys have been conducted along the Trail Ridge Road CLR corridor. This relative lack of data on the presence and condition of archeological resources contributes to the perceived absence of such resources. In addition, of those surveys completed, few identified archeological resources have been revisited since initial documentation. In 1978 the Midwest Archeological Research Center conducted survey work on proposed construction projects in the Park, including portions of Trail Ridge Road. Under the direction of Thomas R. Lincoln, areas surveyed included an 11-mile corridor in the Kawuneeche Valley north of Grand Lake, a 3.5-mile corridor between Beaver Meadows Entrance and Deer Ridge Junction, and a 12-mile corridor from Iceberg Lake to Deer Ridge Junction. Two archeological sites, a multicomponent Native American lithic scatter and historic recreation area associated with Camp Wheeler (5GA216), and a disturbed Native American lithic scatter with several non-diagnostic bifaces (5GA217), were identified and recorded.[582] Cooperative agreements with the University of Northern Colorado in the late 1990s, designed to build the Park's archeological resources inventory, targeted inadequately surveyed areas and portions of the Park that had received very little survey. In 2005 Robert Brunswig published the findings of a five-year survey of Rocky Mountain National Park that identified archeological resources in montane, subalpine and alpine contexts. Brunswig identified and revisited numerous archeological sites within and adjacent to the Trail Ridge Road CLR corridor.[583] Complimenting Brunswig's study, William Butler completed a study of historic contexts within Rocky Mountain National Park in 2005. His study classified identified historic sites into several types including exploration and settlement, transportation systems, mining sites, lumber and sawmill sites, water system sites, power plant sites, ranches resorts and recreation sites, Civilian Conservation Corps period sites, and National Park Service sites. Butler's study provided a valuable historic context for the development of the broader Rocky Mountain National Park.[584] More recently comprehensive archeological work has been conducted on the eastern and western ends of Trail Ridge Road CLR corridor in park entrance areas of Fall River, Beaver Meadows, and Grand Lake.[585]

Archeological Resources

Although fewer in number when compared with the broader park, archeological resources identified within the Trail Ridge Road CLR study area are broadly representative of both Native-American and European-American occupations. A limited number of sites possess multiple components, although these are presumed to represent subsequent occupations and not contemporaneous use of the same location.

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[582] Thomas R. Lincoln, "Archeological Reconnaissance, Rocky Mountain National Park" (Lincoln, Nebraska: Midwest Archeological Center, 1978).
[583] Brunswig, *Prehistoric, Protohistoric, and Early Historic American Indian Archeology,* 2005.
[584] Butler, *The Historic Archeology of Rocky Mountain National Park*.
[585] James M. Brechtel, "Cultural Resource Inventory, Rocky Mountain National Park, Headquarters Utility Area B" (Larimer County, Colorado, National Park Service, 1994); Jenny Engleman, Katherine Mayo and Sean Larmore, *Class III Archeological Inventory for Housing Projects at Rocky Mountain National Park, Grand and Larimer counties, Colorado* (Denver: ERO Resources Corporation, 2000); Abigail Sanocki and Katherine Mayo, *Class III Archeological Survey of Beaver Meadows Road at Rocky Mountain National Park, Larimer County, Colorado* (Denver: ERO Resources Corporation, 2020); Engleman et al., *Class III Surveys of Select Trails*.

Native-American Archeological Sites Along Trail Ridge Road

Native-American archeological resources identified within the Trail Ridge Road study area consist of both sites and isolated finds. Site types are predominantly represented by flakes and lithic scatters. Because chronologically sensitive architecture, points, tools or ceramics are largely absent from these site types, they are generally considered non-diagnostic. One PaleoIndian site (5GA02537), defined by a Goshen type point, was identified in the vicinity of Milner Pass. Archaic period sites are dominated by the Early and Late periods (5LR10704, 5GA02535, 5GA00217, 5LR07064), and consist of points, scrapers and other lithic tools as well as a roasting pit. Late Pre-Contact period sites are limited in number (5GA00080, 5LR00803.05, 5LR00803.07) and consist of lithic clusters and ceramics, as well as Ute Trail segments. Protohistoric sites, most likely reflecting continued Ute occupation of park lands, consist of points, ceramics, lithic scatters, and a peeled ponderosa tree.

Although Native-American archeological sites within the Trail Ridge Road CLR study area are quantitatively fewer when compared to European-American archeological sites, this may reflect differing preservation factors such as late nineteenth to twentieth-century private and federal development efforts, as well as early artifact collecting from visible sites. It is clear however that these Native-American archeological sites, both within the CLR study area and in the broader park, document the long-term presence, and continuous seasonal use of all environmental zones by the Ute and other tribal groups, as well as their ancestors, extending back several thousands of years.[586]

Historic Period Archeological Sites Along Trail Ridge Road

Only recently have historic period sites become a focus of archeological survey within Rocky Mountain National Park.[587] Historic period archeological site types identified along and within the Trail Ridge Road CLR study area can be broadly grouped into two chronological periods, pre- and post-Rocky Mountain National Park establishment. Historic period archeological sites established prior to 1915 are generally limited to privately initiated infrastructure including late nineteenth through mid-twentieth-century ranching, lodge and cabin sites as well as other commercial sites (21), and various midden and dump sites (5).

Archeological site types established after 1915 and located within or crossing the Trail Ridge Road CLR study area include a Civilian Conservation Corps site (1), and various privately owned buildings, lodges, cabins, camps, and miscellaneous sites such as and trash middens. National Park Service-related historic period site types located within the Trail Ridge Road CLR study area include entrance stations features (4), staff housing / residences (1), and horse related features (2).

Identified archeological sites associated with the planning, construction or maintenance of Trail Ridge Road include the CCC period Milner Pass Camp Mess Hall and cabin site (5GA01795), road construction camp sites (5GA02536, 5LR07049, 5LR07050), an artifact scatter or trash midden (5LR07052), drill bits in a rock wall (5LR11337, 5LR01372), and several borrow pits and quarry sites (5LRxxTRQ, 5AxxFRWork, 5GA00217, and 5GA02658). The borrow pits and quarry sites were identified in the late twentieth century will likely require further field verification and documentation.

Impacts to Archeological Resources

Archeological resources present within Rocky Mountain National Park have been impacted for nearly a century and a half by 1) development of privately owned homesteads, ranches and lodges; 2) activities

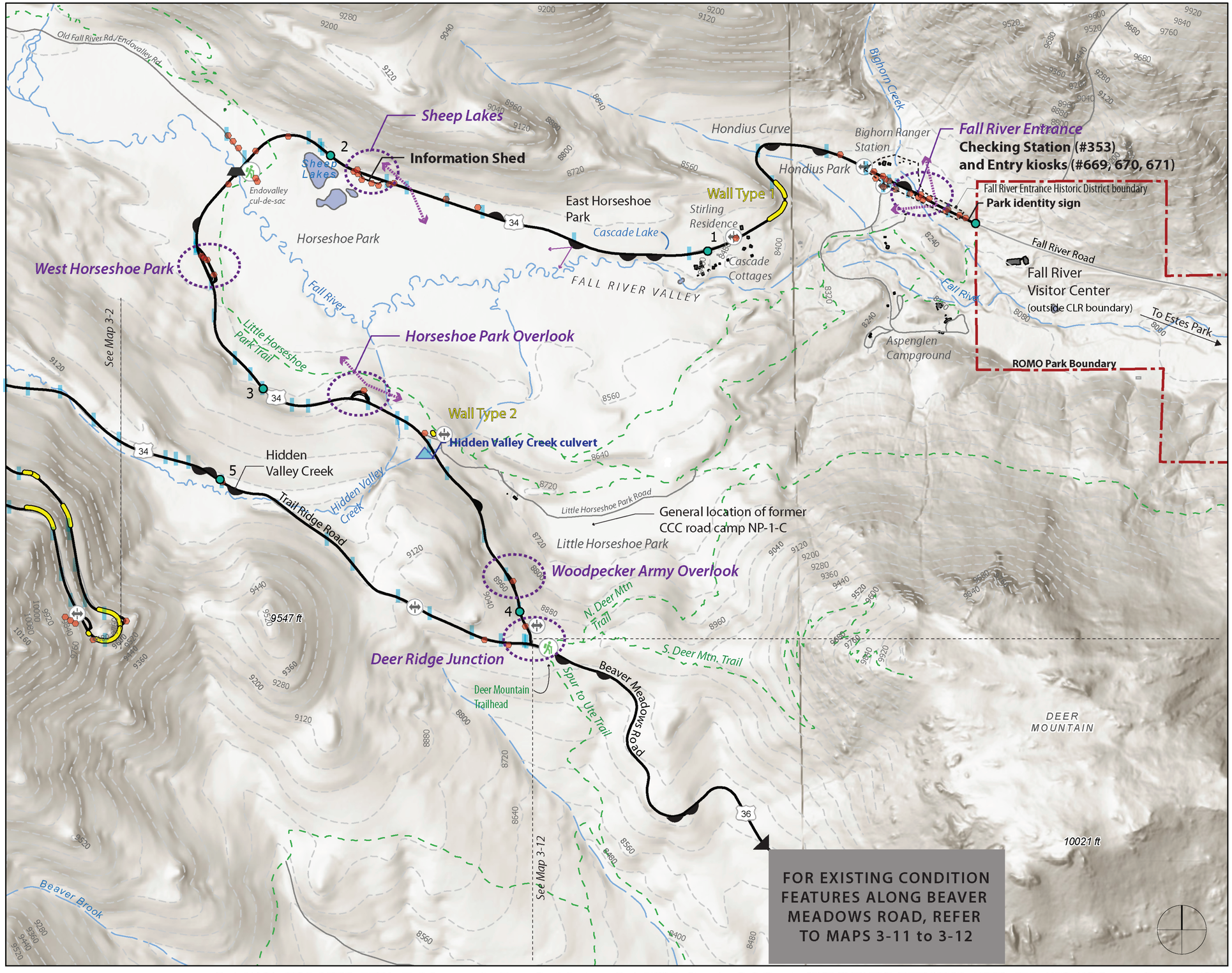
[586] Brett, *Ethnographic Assessment*, 9–14, 36, 42–44; Brunswig, *Prehistoric, Protohistoric, and Early Historic American Indian Archeology of Rocky Mountain National Park*, 98.
[587] See Butler, *Historic Archeology*, 2005.

associated with the development of the Rocky Mountain National Park, and 3) through unauthorized collecting of surface material culture. From early 1915 onwards, development within the Park has consisted of the construction and maintenance of roads, residences, administrative and maintenance structures, and visitor amenities, as well as the construction of subsurface utilities and the clearing of fire fuel hazard. The planning and construction of vehicular roads and pedestrian paths throughout the Park often followed corridors used by Native-American peoples. Portions of the Fall River Road and Trail Ridge Road in particular followed trails used for generations by Native Americans. Archeological research has identified a number of precontact sites that lie within or adjacent to the Trail Ridge Road study area, many of which have been obscured or impacted by direct or indirect actions associated with road construction and maintenance. Throughout the second and third quarters of the twentieth century park development activities rarely considered the presence of precontact or historic period archeological sites. It is only in the last 50 years that park related projects have been consistently assessed for their impact to known and potential archeological resources and appropriate mitigation conducted. Likewise, the activities of visitors collecting surface material culture during both the pre- and post-1915 periods have directly impacted the integrity and accurate understanding of known archeological sites. In particular, and during the first few decades of park operation, extensive and repeated visitor and staff collection of Native American artifacts impacted the visibility, extent, and overall integrity, of these archeological sites. While late nineteenth- to early twentieth-century accounts of what would become Rocky Mountain National Park note the prolific nature of material features and artifacts representing Native American presence, the unauthorized, long-term collection of artifacts has impeded the ability of archeologists to understand the location and distribution of sites, as well as to determine potential cultural and temporal affiliations and the representativeness of artifact assemblages.[588]

Natural processes, such as rain, wind, and freezing and thawing, can have a detrimental effect on archeological resources. High altitude wind and precipitation on steep slopes causes long-term erosional issues. Erosion adversely affects archeological sites and in extreme cases can impact depositional integrity of soils and the material culture they contain. Likewise, exposure of organic matter to freezing and thawing can precipitate rapid decay. More generally, climate change and increases in temperature and rainfall have been found to have a detrimental impact on archeological sites and resources, particularly organic archeological deposits but also more stable materials. Cold temperatures are generally better for the long-term preservation of organic archaeological deposits. With warming temperatures, the rate of degradation or organic archeological deposits increases as oxygen facilitates decomposition of plant and animal remains. Even features constructed of more stable materials, such as stone and brick, can also be impacted from increased rainfall causing subsidence of soils, and less frequently landslides.

[588] Brett, *Ethnographic Assessment*, 29–30; Jack C. Moomaw, “Aborigines of the Colorado Highlands” *Southwestern Lore* Vol. 23, No. 3 (1957):35–37.

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Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

TRR MAP 1

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- Box Culvert

Small-Scale Features
- Gate
- Sign

Views and Vistas
- Rocky Mountain View

Other
- Mile Marker

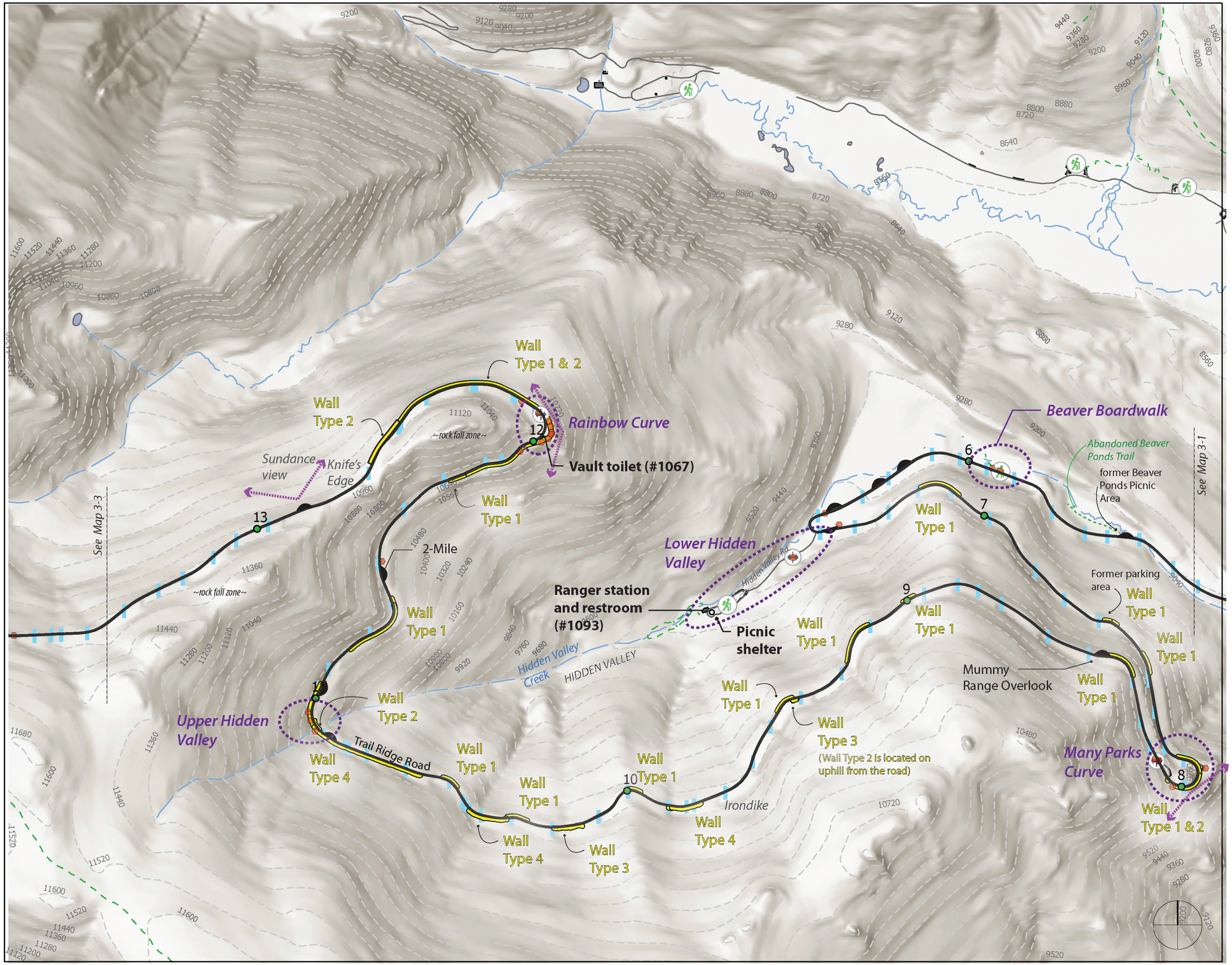
Sources: RMNP provided GIS data, LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-1)

0 ¼ ½ Miles

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- Box Culvert

Small-Scale Features
- Gate
- Sign

Views and Vistas
- Rocky Mountain View

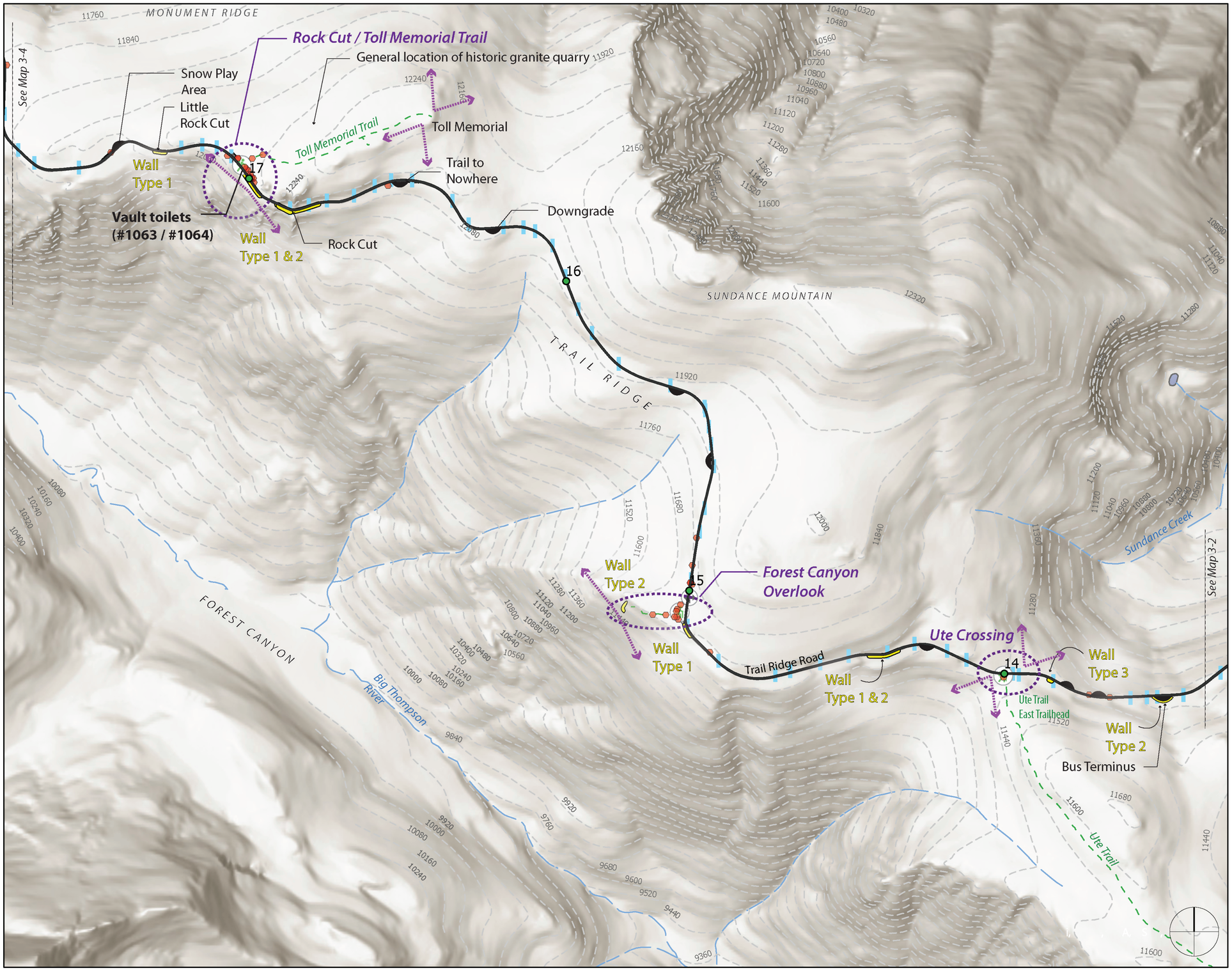
Other
- Mile Marker

Sources: RMNP provided GIS data, LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-2)

0 ¼ ½ Miles

TRR MAP 2



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Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- 8720 Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- Box Culvert

Small-Scale Features
- Gate
- Sign

Views and Vistas
- Rocky Mountain View

Other
- 6 Mile Marker

Sources: RMNP provided GIS data, LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

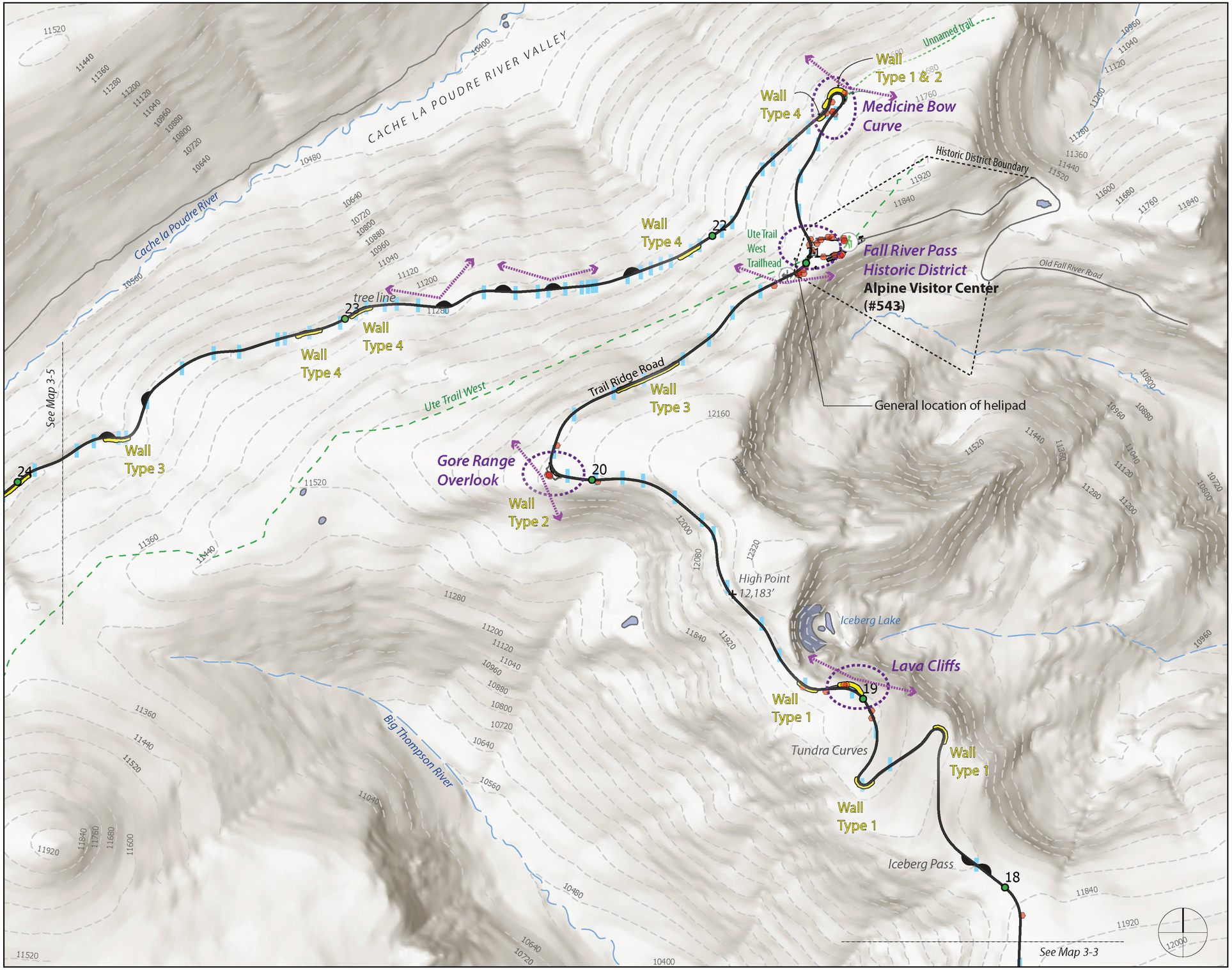
EXISTING CONDITIONS PLAN (Map 3-3)

0 ¼ ½ Miles

TRR MAP 3

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

TRR MAP 4

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- 8720 Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- Box Culvert

Small-Scale Features
- Gate
- Sign

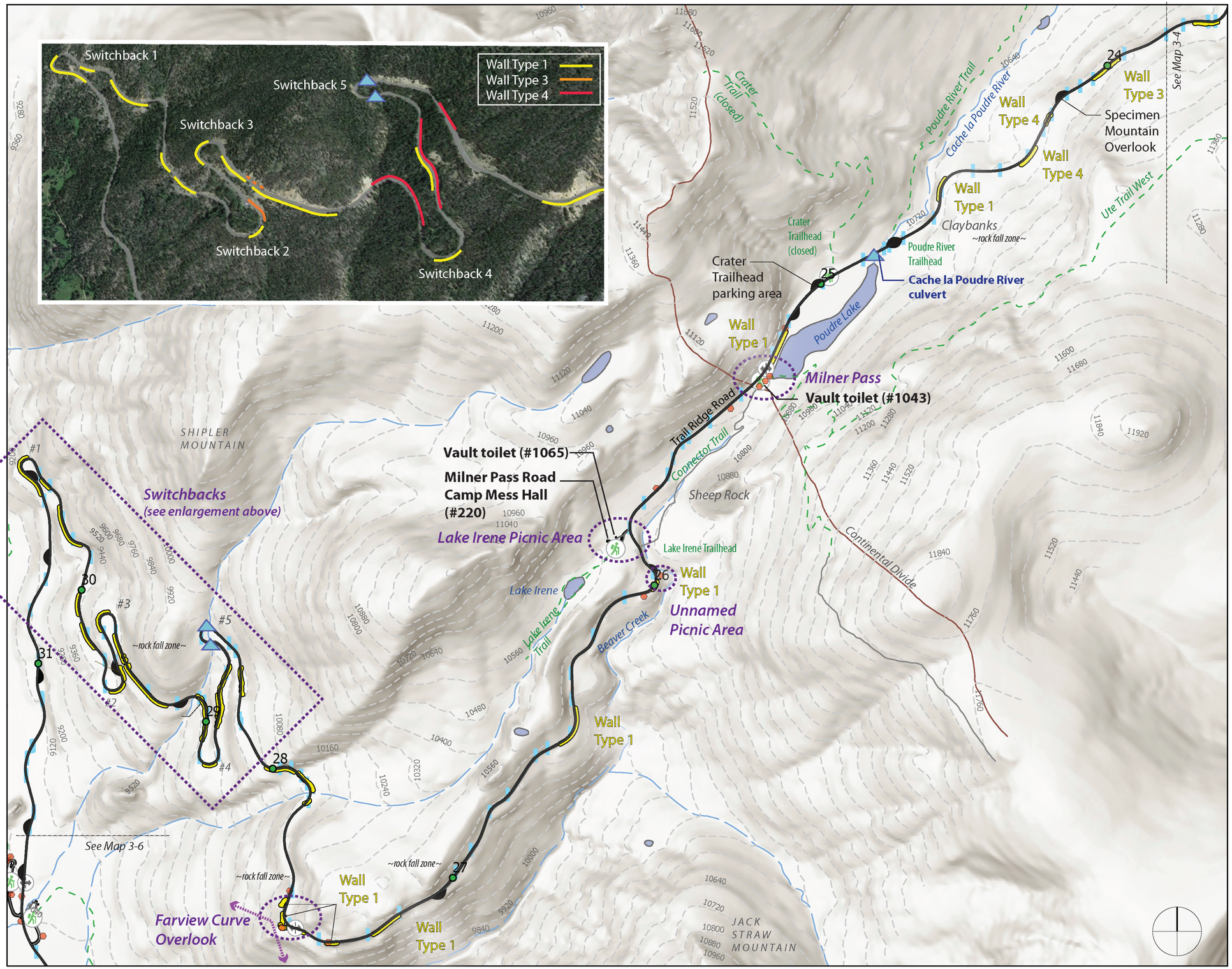
Views and Vistas
- Rocky Mountain View

Other
- 6 Mile Marker

Sources: RMNP provided GIS data, LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-4)

0 ¼ ½ Miles



Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

TRR MAP 5

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- Box Culvert

Small-Scale Features
- Gate
- Sign

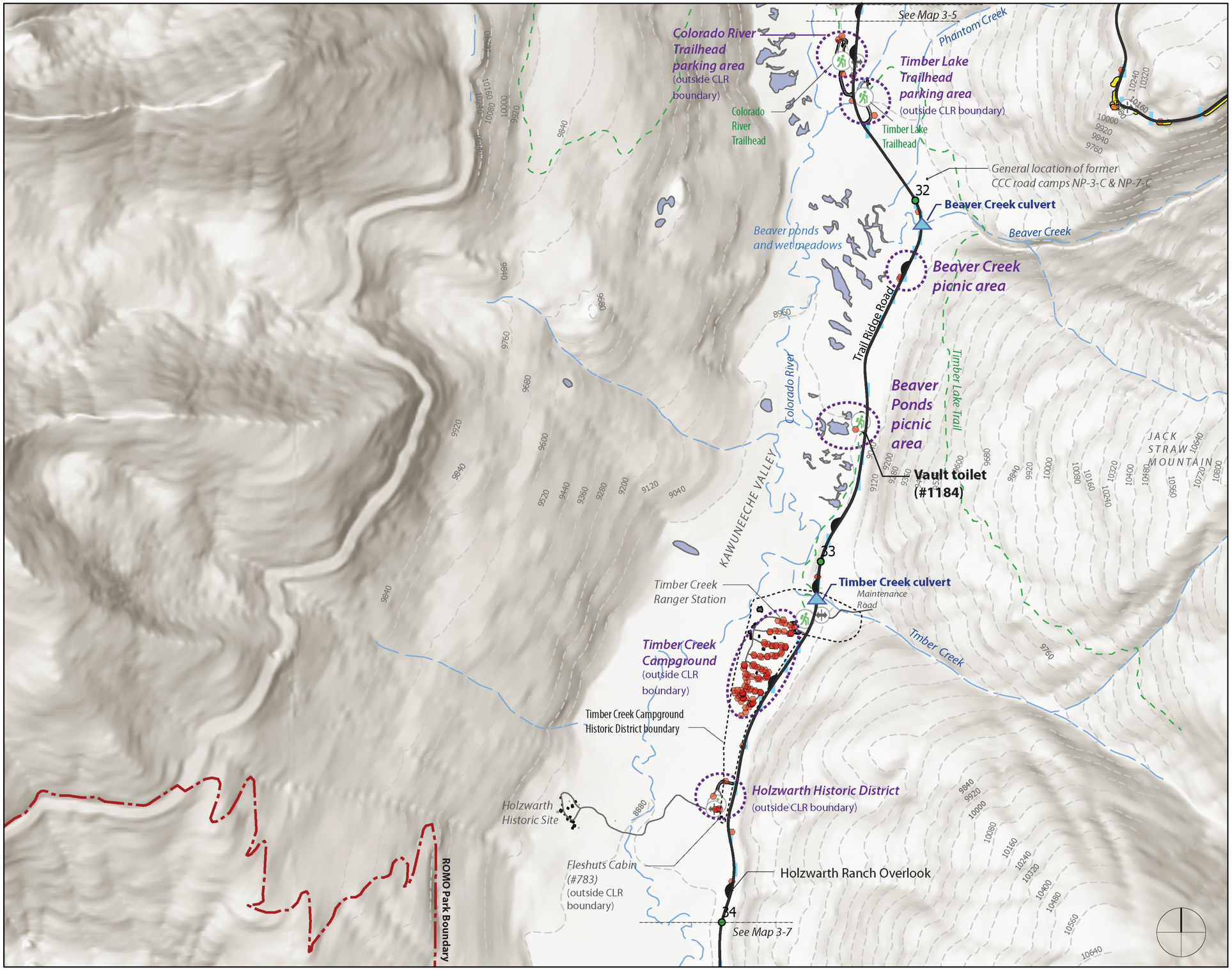
Views and Vistas
- Rocky Mountain View

Other
- Mile Marker

Sources: RMNP provided GIS data, LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-5)

0 ¼ ½ Miles



Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

TRR MAP 6

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- Box Culvert

Small-Scale Features
- Gate
- Sign

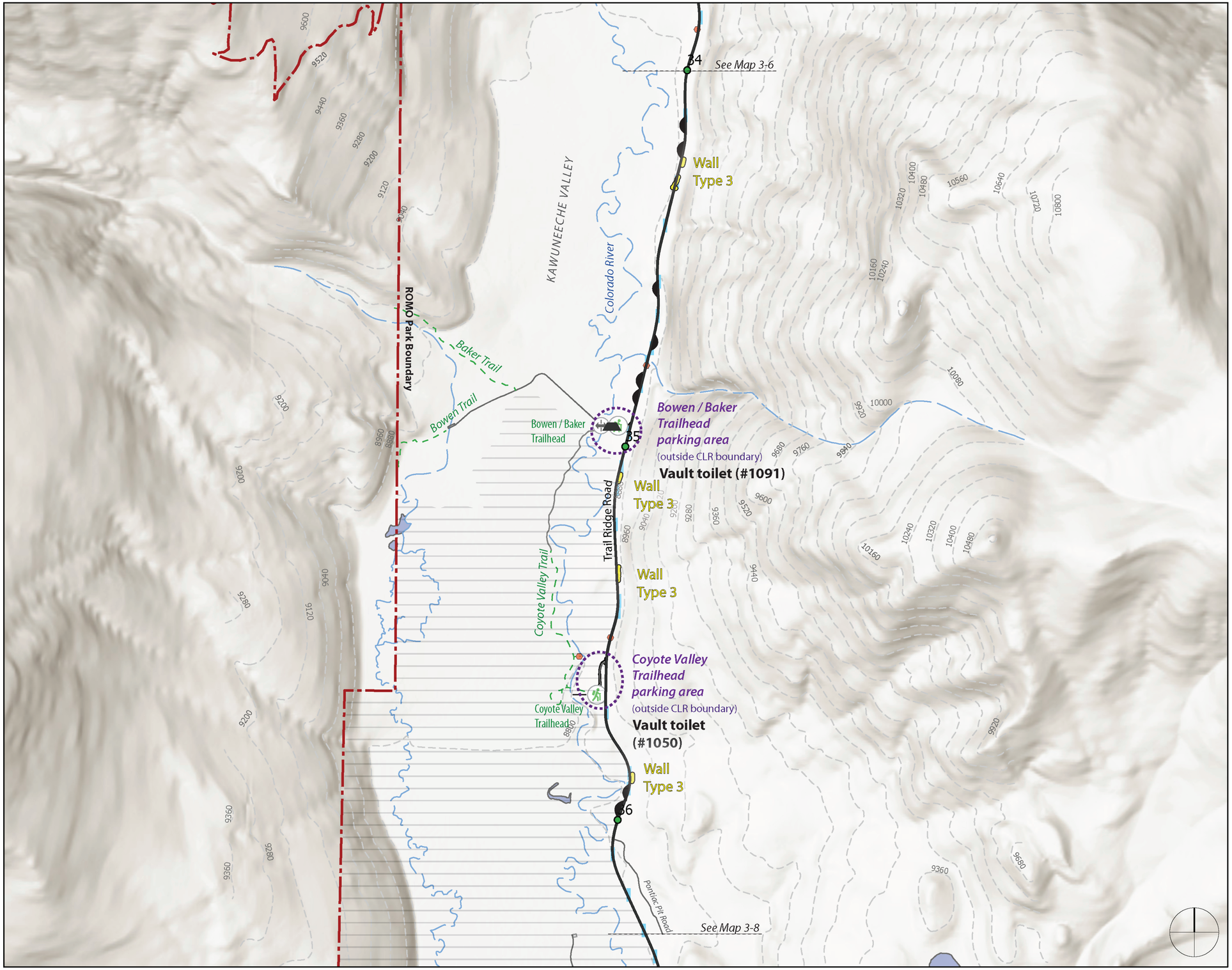
Views and Vistas
- Rocky Mountain View

Other
- Mile Marker

Sources: RMNP provided GIS data, LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-6)

0 ¼ ½ Miles



Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

TRR MAP 7

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- Box Culvert
- East Troublesome Fire Impact Zone

Small-Scale Features
- Gate
- Sign

Views and Vistas
- Rocky Mountain View

Other
- Mile Marker

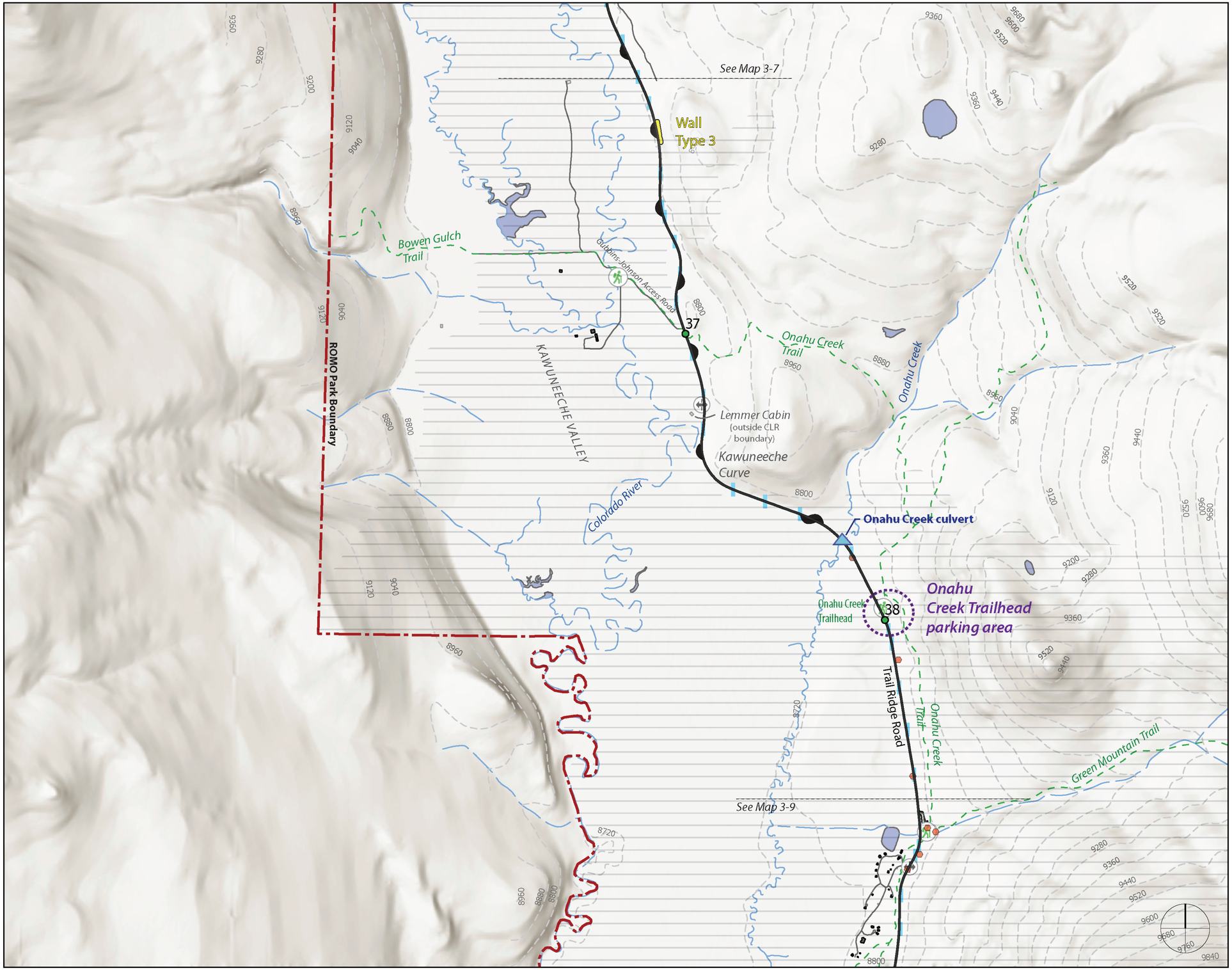
Sources: RMNP provided GIS data, LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-7)

0 ¼ ½ Miles

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- 8720 Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- Box Culvert
- East Troublesome Fire Impact Zone

Small-Scale Features
- Gate
- Sign

Views and Vistas
- Rocky Mountain View

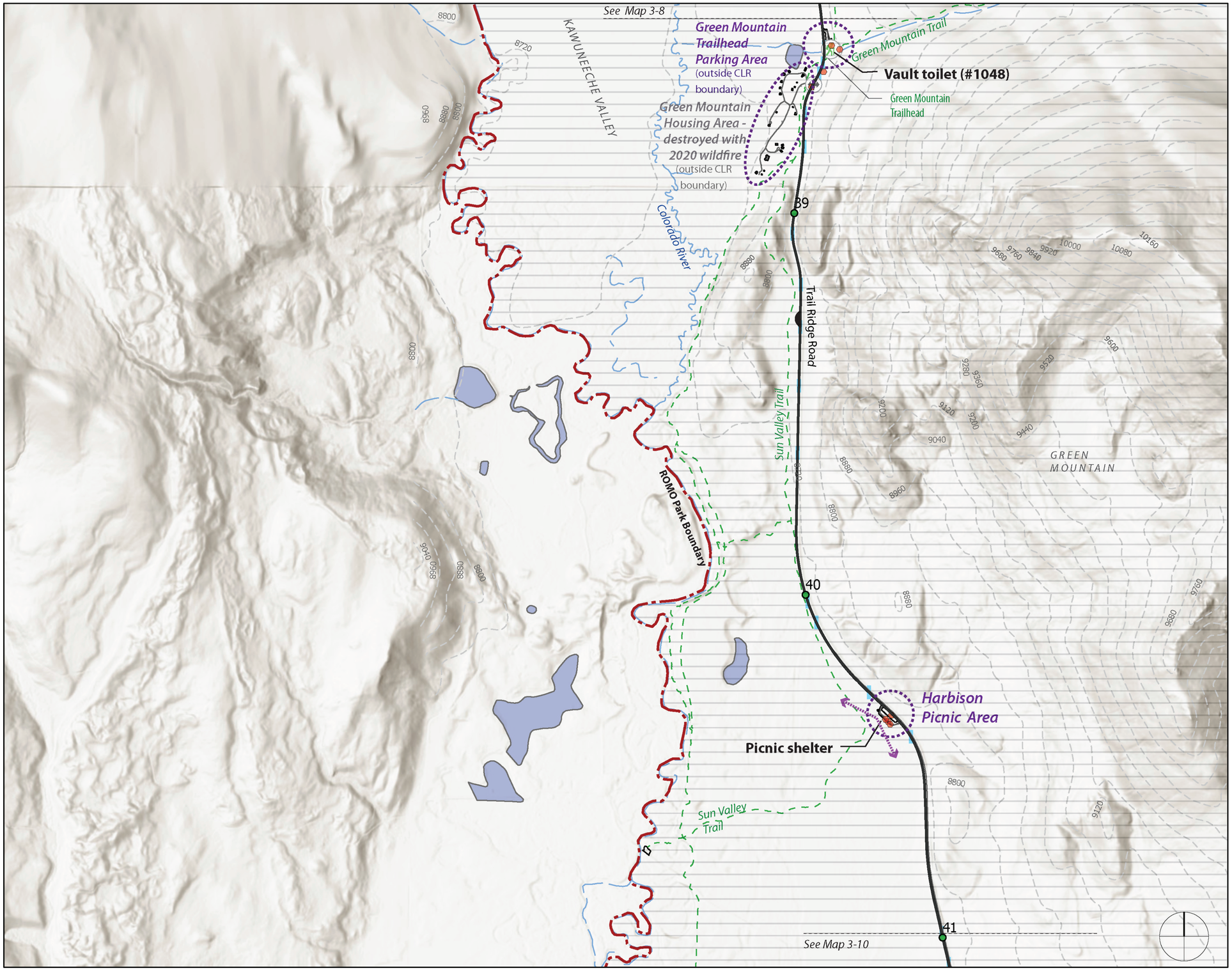
Other
- 6 Mile Marker

Sources: RMNP provided GIS data, LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-8)

0 ¼ ½ Miles

Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA



Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80' contours
- Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- East Troublesome Fire Impact Zone

Small-Scale Features
- Gate
- Sign

Views and Vistas
- Rocky Mountain View

Other
- Mile Marker

Sources: RMNP provided GIS data, East Troublesome Fire Event: Impacted Buildings Inventory (2021), LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-9)

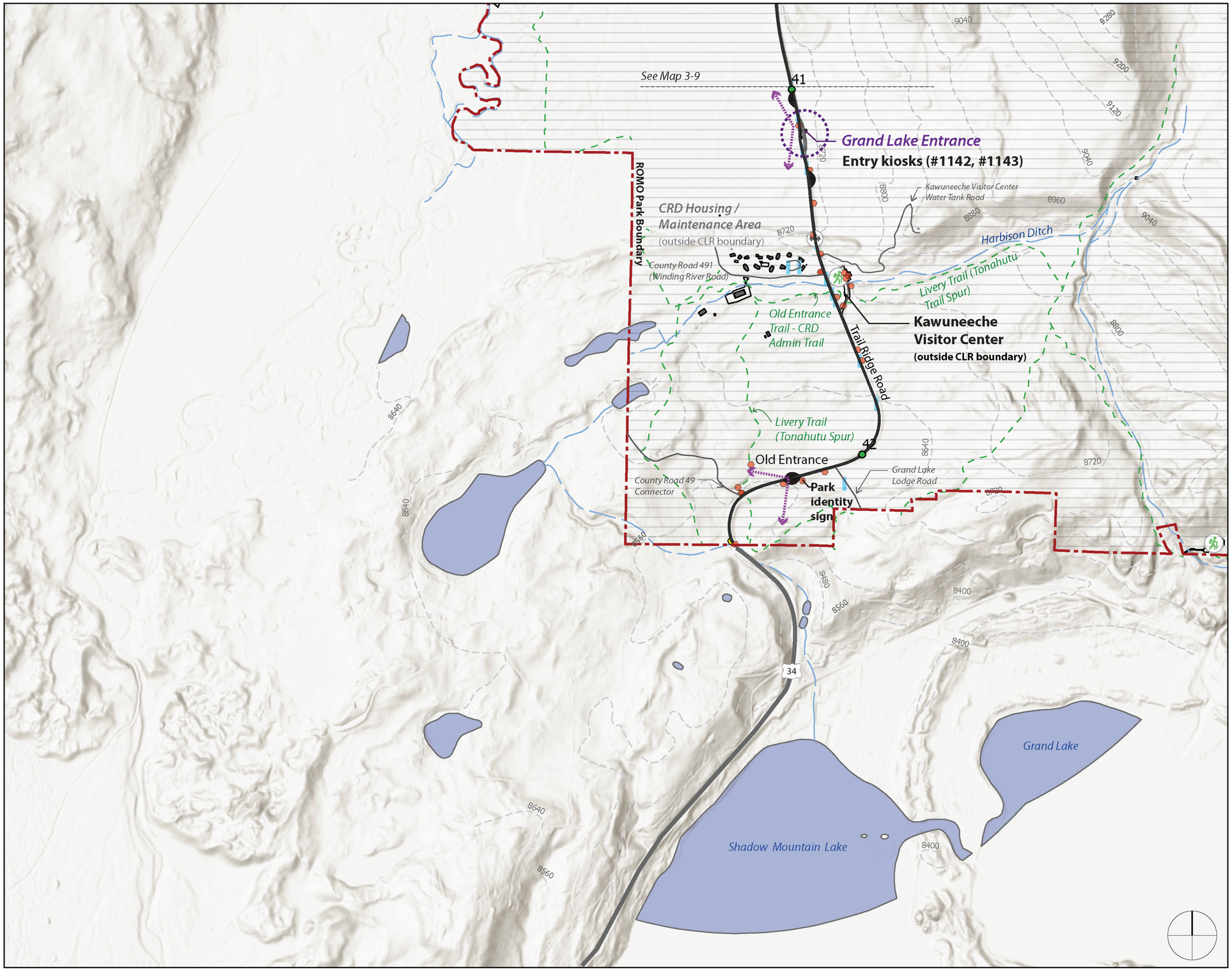
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TRR MAP 9

Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report



Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)
- East Troublesome Fire Impact Zone

Small-Scale Features
- Gate
- Sign

Views and Vistas
- Rocky Mountain View

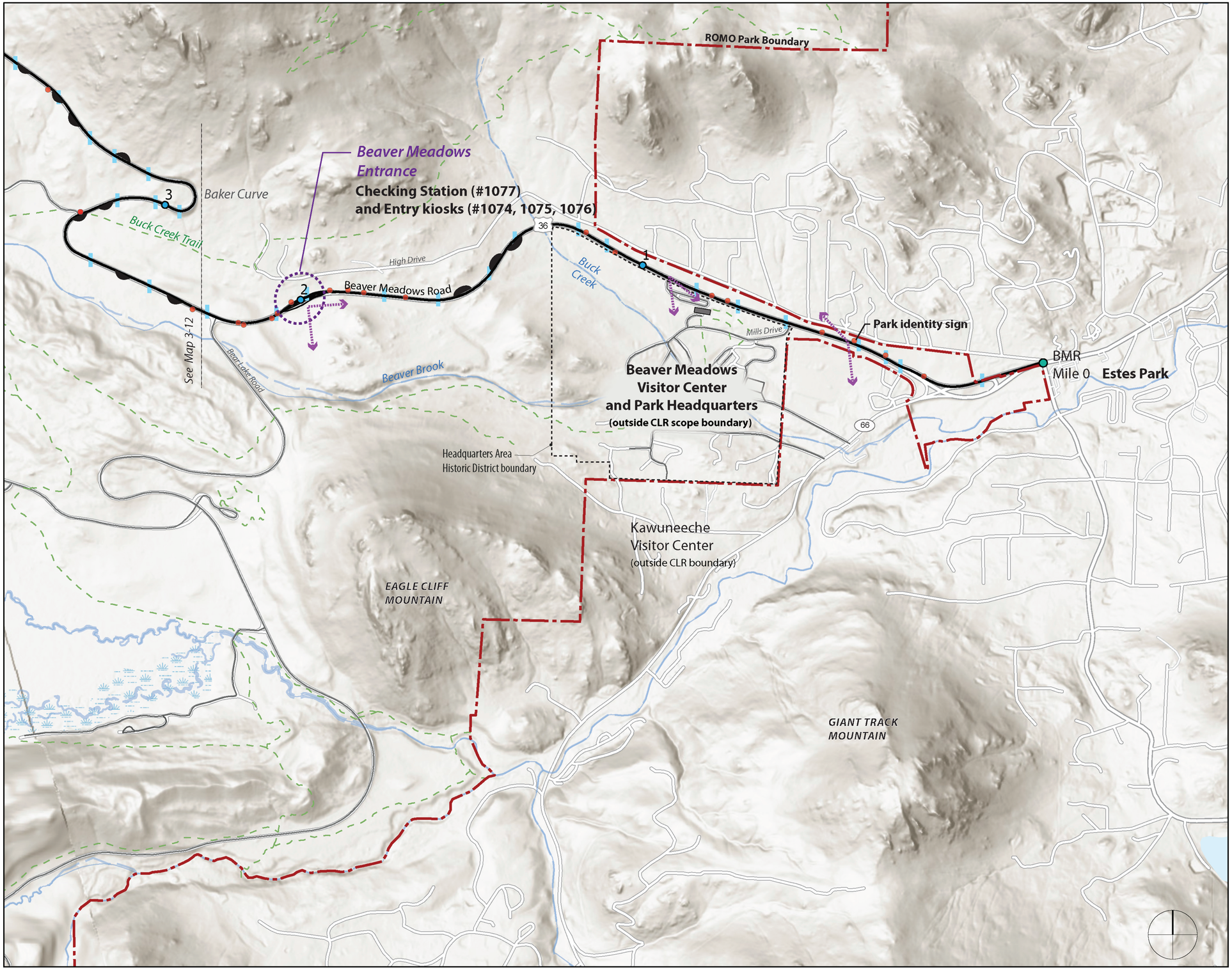
Other
- Mile Marker

Sources: RMNP provided GIS data, East Troublesome Fire Event: Impacted Buildings Inventory (2021), LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-10)

0 ¼ ½ Miles

Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA



Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- 8720 Contour intervals

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)

Small-Scale Features
- Gate
- Sign

Views and Vistas
- Rocky Mountain View

Other
- 6 Mile Marker

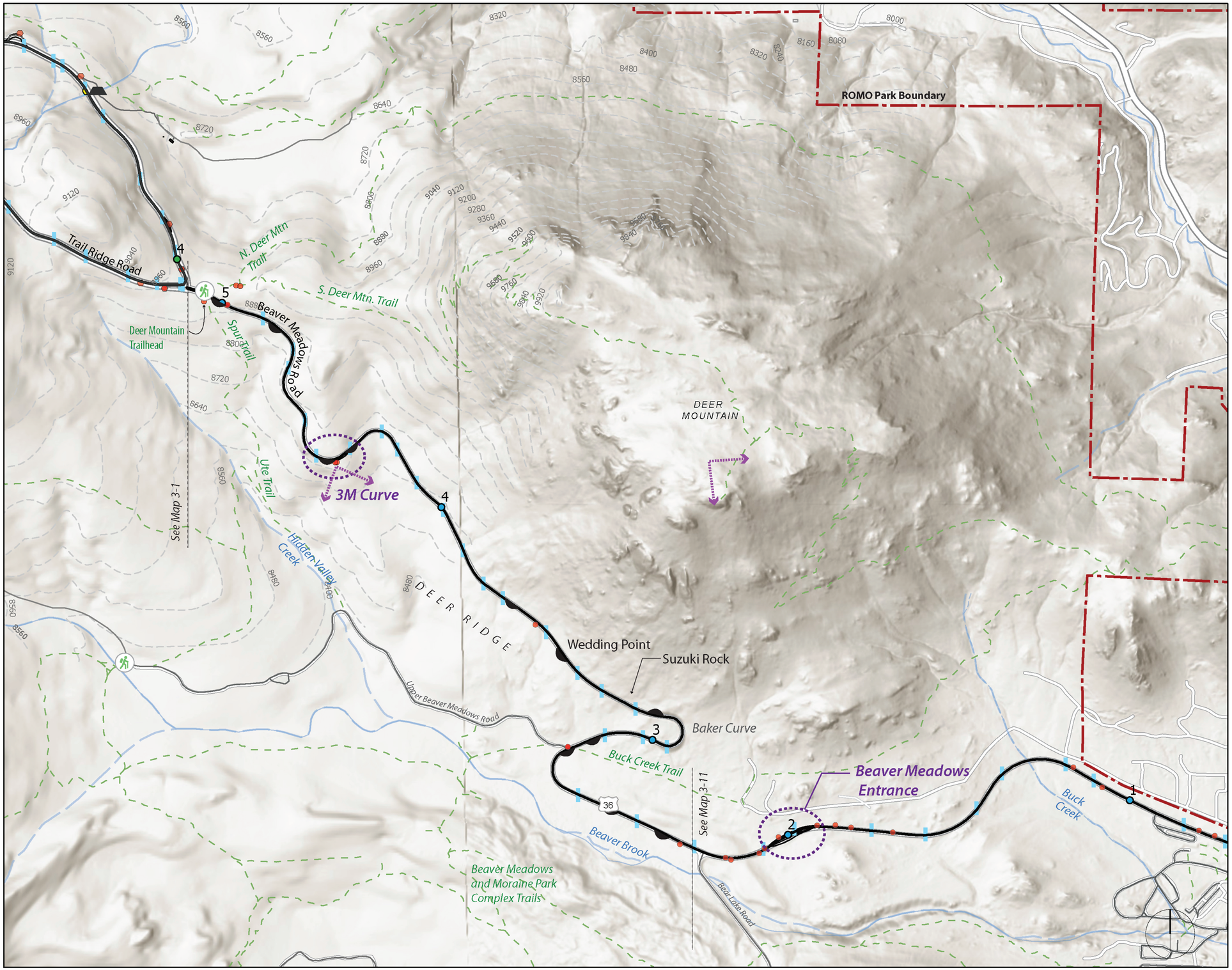
Sources: RMNP provided GIS data, East Troublesome Fire Event: Impacted Buildings Inventory (2021), LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-11)

0 ¼ ½ Miles

BMR MAP 1

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Trail Ridge Road
Rocky Mountain National Park

Cultural Landscape Report

Natural Systems and Features
- Lakes and Ponds
- Rivers and Streams

Topography
- 80′ contours
- Contour intervals (8720)

Spatial Organization
- National Park Boundary
- Developed Area

Circulation
- Primary Roadway
- Secondary Roadway
- Pullout
- Trail
- Trailhead

Buildings and Structures
- Building
- Bridge
- Wall
- Culvert (RMNP GIS)

Small-Scale Features
- Gate
- Sign

Views and Vistas
- Rocky Mountain View

Other
- 6 Mile Marker

Sources: RMNP provided GIS data, East Troublesome Fire Event: Impacted Buildings Inventory (2021), LSHLA field inventory (2021, 2022), Google Map Imagery (2021/2022) and Street View (2012), ESRI ArcGIS data as noted below.

EXISTING CONDITIONS PLAN (Map 3-12)

0 ¼ ½ Miles

Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

BMR MAP 2