

AK LEGISLATURE SPECIAL COMMITTEE FILES SCOMM 146 3133 ?

Chemical Weed Control as Part of Integrated Vegetation Management

- **Background:** In 1983, the federal railroad stopped using chemical weed control in the face of public controversy and litigation. Since the state took over the Railroad, we've spent millions of dollars on non-chemical methods and research. We cut brush with machinery and hire people to pull and hack weeds manually. In the end, these methods are simply not effective, or practical, in keeping the weeds at bay



between the rails and ends of the ties along more than 600 miles of main, siding, branch and yard track. The cumulative effects of inadequate vegetation control are impossible to ignore. Entrenched root systems are collecting water in the ballast. The freeze-thaw cycles are eroding the track bed. Roots cause railroad ties to heave and rail joints to connect unevenly, increasing the risk of derailment. Above ground, overgrown weeds hide hoies and hazards, increasing the risk of employee trip-slip-fall injuries. And overhanging bushes and tree branches conceal important warning and operating signs.

The Federal Railroad Administration (FRA) knows how serious uncontrolled vegetation is. That's why the FRA continues to impose fines on the Alaska Railroad for failing to adequately control vegetation.

- **Position:** Maintaining the status quo with regard to vegetation control poses an unacceptable level of risk. For this reason, ARRC has applied for an Alaska Department of Environmental Conservation (ADEC) permit to integrate chemical weed control into our vegetation management program.

Our vegetation control plan includes hiring the most qualified licensed professionals to apply the weed control products. Leading industry experts in railroad vegetation control will use state-of-the-art equipment with low-volume, low-pressure ground-directed application to target only our track bed and operating yards.

Our goal is to fashion a vegetation control program responsible and responsive to local concerns, while protecting our employees, customers and neighbors and the state's investment in our critical transportation infrastructure.

In addition to compliance with federal regulatory requirements, use of chemical weed control products as part of an integrated program will address the numerous safety issues, as well as reduce fuel for wild fires, protect recent substantial capital investment in track and infrastructure, and prevent the spread of noxious non-native invasive weeds species.

Chugach Forest Whistle Stop Service

- **Background:** The USDA Forest Service (USFS) and Alaska Railroad are partners in developing a new Whistle Stop Service that will provide a variety of world-class recreation and transportation opportunities for users of the Chugach National Forest. The project includes development of several sites between Portage and Moose Pass that will be accessible by rail and interconnected by approximately 35 miles of trail between the proposed locations. Other likely features include picnic facilities, camping facilities, wildlife viewing facilities and expanded trails.

A successful whistle stop experience requires that the rail passenger equipment be independent of other railroad operations. The current project scope calls for acquisition of two self-propelled commuter style railcars.

- **Position:** The project would provide an opportunity for visitors to connect with nature in a variety of unique, safe and memorable settings otherwise largely inaccessible. It would provide controlled access to the Chugach National Forest backcountry while protecting the forest

resources. It would provide a variety of activities for visitors with varying degrees of skill. It would support the Alaska Railroad's Anchorage-Seward operations with increased ridership. And, the project would enhance ridership on the rail route south of Anchorage and would offer an alternative to the congested Seward Highway, thereby helping to reduce heavy summer traffic. We have therefore embraced this initiative and are working closely with the USFS to make it happen.

Business with the Military in Alaska

- **Position:** The military is an important customer of the Alaska Railroad. In turn, the Railroad provides freight, fuel and mobility services that are critical to the military's mission in Alaska. Some mutually beneficial projects and agreements include:
 - Eielson Branch Rail Realignment — Funding for the environmental phase of this project is being underwritten by the Department of Defense (DOD), in large part due to the significant benefit the project will have on Fort Wainwright. Realignment of the track around the more congested areas of the Army base will enhance base security and alleviate delays to traffic and base operations caused by slow train movement through the installation, as well as returning right-of-way property to the base for construction of more Army facilities.
 - 1st Stryker Brigade, 25th Infantry Division (25 ID) Support — The Alaska Railroad has acquired additional locomotives and rail flat cars to enhance its capability to support the 1st Stryker Brigade of the 25 ID, stationed at Fort Wainwright, particularly with its rapid deployment requirements. A \$15.88 million DOD grant was funded in 2006.
 - Northern Rail Extension — This project would extend the existing rail from North Pole 80 miles southwest to the Delta Junction / Fort Greeley area. The proposed rail line would provide freight and passenger rail services serving commercial interests and communities in or near the project corridor. The rail line as planned would also provide

access to military property west of the Tanana River. It would provide transportation alternatives to support military training exercises as well as DOD passengers of all types. Because of potential benefits to the military the Environmental Impact Statement is being funded by DOD.

Reversion

- **Background:** The federal transfer act included a provision under which railroad right-of-way reverted to the U.S. (and eventually passed to adjacent landowners) if it ceased to be used by the State for transportation, communication, or transmission purposes for a period of 18 years. ARRC began to focus on this around 2000, because swapping right-of-way for various realignment projects raised the issue with other parties. Also, a couple of spurs existed that had been unused since before transfer, and 18 years was fast elapsing. Rather than deal piecemeal with separate federal legislation for projects or doing "makework" on the old spurs to qualify as use, ARRC determined it more appropriate to seek a repeal of the reversion from the transfer act. Legislation was signed into law on February 20, 2003 (Public Law 108-7).
- **Position:** ARRC believed, as a policy matter, it was important to preserve the entire rail corridor in case either the railroad or State had a transportation or utility use for it. Corridors are notoriously difficult and costly to assemble and ARRC's corridor has a lot of value for different forms of transportation (other than rail), communication and transmission purposes. For example, the old Palmer Branch could someday prove important to development of the well-known Wishbone Hill coal prospects. Any decision to convey or lose any portion of such a valuable State asset should be a State initiative, not solely ARRC's. While the subject is now removed from any automatic federal law, it is one that can be considered on a case-by-case basis at the State level when any significant realignment occurs.



2007 Potential Railroad Legislation

Land Exchanges

- Exchange land with ADOT/PF to support Fairbanks airport heavy aircraft apron parking.
- Exchange land with ADOT/PF for Parks Highway upgrade in Wasilla.
- Eklutna, Inc.

Eklutna Quarry

- Transfer Eklutna Quarry to Eklutna, Inc. fee simple. This may be possible under current authorization provided within the North Anchorage Land Agreement.

Railroad Bonds

- Agrium Corporation is considering the use of Railroad tax-exempt conduit revenue bonds to finance its Kenai Blue Sky coal gasification project. The bond debt would be repaid by Agrium.







Alaska Railroad Corporation

Program of Projects

FOR 2007

revised 1/04/2007

Alaska Railroad 2007 Program of Projects



The Alaska Railroad Corporation (ARRC) continues to pursue a comprehensive program of capital improvements. ARRC is investing millions on rail, ties and ballast to aggressively improve infrastructure. Safety and efficiency upgrades include projects to straighten the main track in several areas, build longer sidings (railroad "passing" lanes), add automated and heated switches, and install a collision avoidance system. The railroad is also capitalizing on opportunities to better serve Alaskans through new depots, passenger services and equipment. Detailed descriptions of these projects are available at the ARRC website: www.AlaskaRailroad.com.

Established in 1923, the Alaska Railroad is the last of the full-service railroads in the United States, offering both freight and passenger service. From tidewater at Whittier and Seward to the heart of Interior Alaska, our route covers more than 500 miles. ARRC is a state-owned corporation, however it does not receive state funding to operate. ARRC relies on passenger, freight and real estate revenues to operate its trains and maintain tracks and facilities.

Funding for much of the capital projects program has come from approximately \$580 in federal grants received since 1996, including approximately \$51.3 million for 2007, to date. Funds have come from the Department of Defense (DOD; \$94.4 million, including \$16 million in 2007), Federal Railroad Administration (FRA; \$225.4 million), Federal Transit Administration (FTA; \$184 million, including \$34.3 in 2007), Amtrak (\$23.2 million in 2007), Federal Highway Administration (FHWA; \$9.94 million, including \$5 million in 2007) and Congressional earmarks through various agencies, such as the U.S. Forest Service (USFS; \$7.13 million) and U.S. Fish & Wildlife Service (USFW; \$444,000), Transportation Security Administration (TSA; \$734,000), Federal Emergency Management Administration (FEMA; \$1.0 million), and the State of Alaska Division of Homeland Security (\$234,000). FTA-, FHWA- and FEMA-funded projects require 9% to 25% matching funds from the Alaska Railroad (\$32.8 million, including \$3.4 million in 2007). In addition to providing the match for federal funds, ARRC will have invested an additional \$158 million of internally generated funds in numerous other non-federal improvement projects between since 1996, including \$15.6 million in 2007.

The Alaska Railroad also sold \$76.1 million worth of revenue bonds in 2006, primarily to accelerate track rehabilitation efforts. \$30 million of these funds will be expended on Track Rehabilitation in 2007. Bonds will be repaid with future FTA formula fund appropriations.

Public Input:

To comment on any or all of these projects:

- E-mail to public_comment@akrr.com
- Mail to: Capital Projects, Alaska Railroad Corporation, P.O. Box 107500, Anchorage, AK 99501
- Fax to (907) 265-2365
- TTY/TDD 265-2620 or voice 265-2494, Alaska Relay Service TTY 1-800-770-8973 or voice 1-800-770-8255





Seward Loading Facility

Project Scope

In 2003, the Alaska Railroad (ARRC) acquired the Loading Facility located in Seward, Alaska, and recently completed various improvements to the facility. The goal of the purchase and improvements was to increase facility efficiency, driving down the cost of operation, thus making Alaska's coal more competitive in the global coal market. The facility was previously owned by Hyundai Merchant Marine (Hyundai) and the Alaska Industrial Development and Export Authority (AIDEA). Seward Terminals Inc., a subsidiary of Hyundai, has remained the operator through a lease and operating agreement with ARRC, although a new operator is expected to be retained in 2007.

The 20-year-old facility, located on ARRC land, unloads coal from railcars, conveys it to storage, reclaims material from storage, and loads it into bulk ships. It consists of the following major components (*see drawing on page 2*):

- Railcar dumper facility, with a pit and unloaders to discharge coal from hopper cars;
- Conveying systems to move coal from the railcar dumper to ships or the stockpile; and to move coal from the stacker-reclaimer through a sampling station and onto the ship loader;
- Stacker-reclaimer, which distributes the coal from the conveyor to the stockpile and, in turn, reclaims the coal from the stockpile for ship loading;
- Stationary ship loader with a conveyor system for discharging coal into the holds of oceangoing bulk carriers; and
- Two-story office/control building, a shop building, and a crew breakroom located in a portable building.



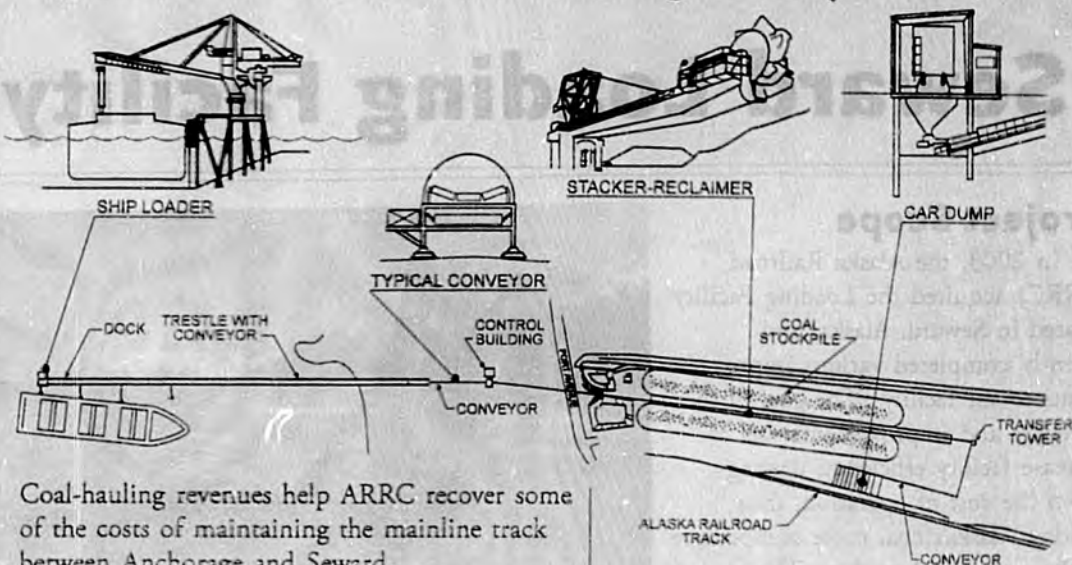
A coal ship loads at the Seward Loading Facility's conveyor-fed dock.

Through purchase of this facility, ARRC became responsible for all components of coal transport between the source, Usibelli Coal Mine (UCM) in Healy, and the ships. Using Federal funds, the ARRC recently completed the first phase of mechanical, electrical, structural and dust control improvements. Other planned improvements are several measures to alleviate difficulties associated with unloading frozen coal from railcars in winter months.

Benefits

- The acquisition essentially revived the export of coal from Alaska. Depressed coal prices, led by cheap exports from Indonesia, made the cost of Alaska coal too high compared to competing exporters from Indonesia, Australia, China, South Africa and Canada.
- The major limitations of the facility were the ship loading circuit rate and the stock piling circuit rate, both resulting in a higher cost of transporting the coal to the ships. The recent improvements have enhanced operational efficiency, thereby making Alaska coal more competitive in the global market.

Components of the Seward Loading Facility



- Coal-hauling revenues help ARRC recover some of the costs of maintaining the mainline track between Anchorage and Seward.

Status

- The ARRC hopes to keep Alaska coal competitive in the export arena by pursuing greater efficiencies in operations, plant facility and equipment; negotiating new contracts and marketing the facility.
- In 2005, ARRC proposed to expand the Seward Loading Facility by increasing its stockpile area to the north, and submitted permit applications to fill an approximately 6-acre area, including a small man-made pond. The purpose is to provide additional storage space to improve operating efficiency, accommodate an increase in demand for Alaskan coal, and to ensure sufficient coal is available when ships are ready to be loaded. The necessary permits have been issued for the project, although construction has been delayed until funding is obtained.
- A number of community members raised concerns about the proposal to expand the stockpile area. ARRC addressed to these concerns in responses to frequently asked questions (available on ARRC's website). Many of the comments related to fugitive coal dust. Recent improvements to the SLF include installation of directional chutes, often referred to as "dustless" chutes, to transfer coal and other material. These chutes reduce turbulence, thereby reducing dust generation and spillage, and improve the effectiveness of the suppres-

sion/collection systems. Also, recent improvements have reduced the operating time to load each ship. This decreases material handling time, resulting in an overall decrease in the amount of dust generated. ARRC plans to continue to work with the operator to identify other reasonable measures to reduce the potential for generating fugitive coal dust.

Cost and Funding

- In 2003, the Federal Railroad Administration awarded a \$9.54 million grant, of which \$8.3 million was used to acquire the facility, perform associated due diligence studies, evaluation and inspection. The remainder was subsequently used for inspections, repairs and improvements.
- There are not any federal grants currently in place for the facility. ARRC continues to fund ongoing minor capital improvements with the limited funds generated from rail operations.



The stacker-reclaimer moves coal to/from the stockpile.



Seward Docks and Intermodal Facility

Project Scope

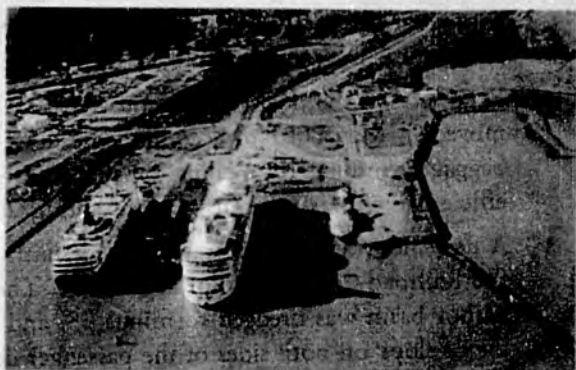
To improve safety and better meet passenger needs in Seward, the Alaska Railroad (ARRC) constructed a new freight dock and overhauled the existing dock to serve as a passenger-only facility. Previously, one dock served both types of customers. Loading ships with logs and unloading steel pipe in close proximity to tourists from cruise ships presented an unacceptable safety conflict. In addition, the United State's Coast Guard recently enacted new security regulations requiring the two operations be separated.

In addition to separating freight and passenger operations, there are improvements to the land adjacent to the docks. These are increasing safety and enhancing efficiency while passengers transfer from ship to bus, train or other mode of transportation.

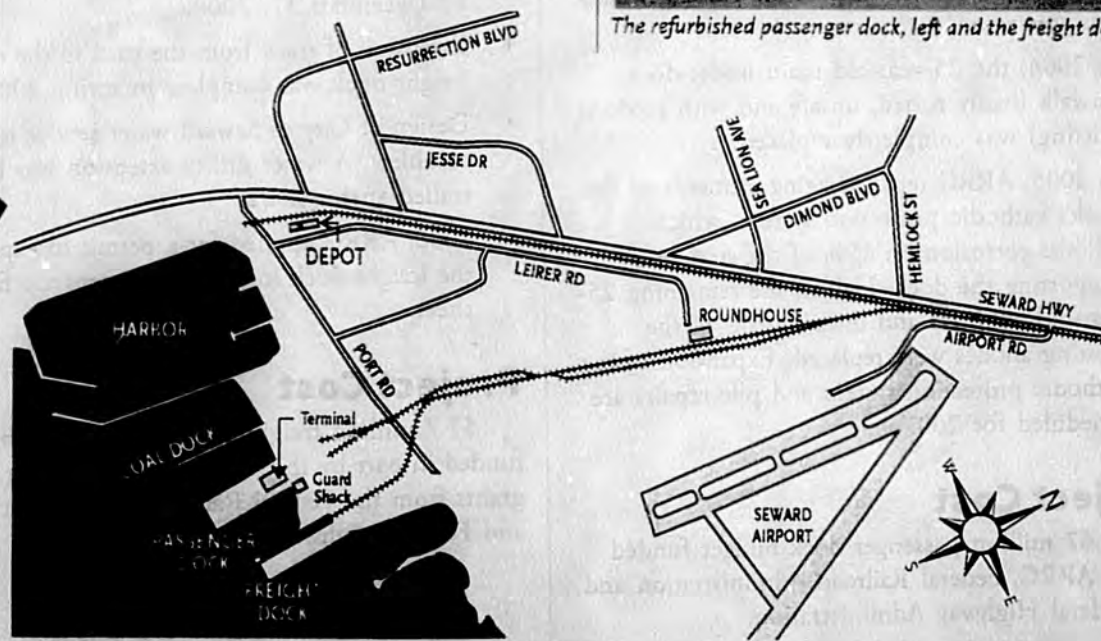
Benefits

- Separating freight and passenger operations greatly improves safety and efficiency.

- Brings existing facility into compliance with State and Federal regulations.
- Addition of a new dockface enables multiple ship berthings, improving service to valued cruise line and freight customers.
- Facility renovation provides the potential for year-round real estate development.
- Many passengers arriving at the dock require same-day transfer via bus, train, ferry or vehicle. Improvements conveniently consolidate intermodal choices at the mainline terminal, providing safe, secure and efficient transfer of people and baggage.



The refurbished passenger dock, left and the freight dock, right.





Phase I: Passenger Dock and Terminal Facility

Passenger dock improvements in 2001 included a connection to the City of Seward sewer service, an increase in interior floor square footage by covering the depressed rail track with decking, a concrete overlay floor surface to include radiant heat, new lighting and miscellaneous electrical and mechanical upgrades.

Status

- New east side dock fendering system installed in 1998.
- Adjacent three-story steel roll-on roll-off structure (Cherrier Ramp) directly east of the passenger dock was dismantled and removed to allow eastside berthings.
- Interior flooring improvements and electrical and mechanical upgrades completed March through May 2001. Additional electrical and mechanical upgrades completed spring 2002.
- Rectifiers on the dock's south end were removed in May 2001 to accommodate dock-side baggage handling from ships. Smaller, more efficient rectifiers were installed in spring 2002.
- A new mooring dolphin was installed south of the Railroad's existing dolphin in 2003. The harbor basin was dredged to minus 33, and the toe of slope on both sides of the passenger dock was steepened.
- In 2004, the 25-year-old main under-dock catwalk (badly rusted, unsafe and with sections missing) was completely replaced.
- In 2005, ARRC repaired aging elements of the dock's cathodic protection system, which inhibits corrosion on 85% of the steel piles supporting the dock. Half of the remaining 25-year-old rectifiers and three-fourths of the existing anodes were replaced. Expansion of the cathodic protection system and pile repairs are scheduled for 2007.

Project Cost

- \$2.67 million passenger dock budget funded by ARRC, Federal Railroad Administration and Federal Highway Administration.

- \$455,000 cathodic protection system repair budget funded 2005-2007 by the Alaska Railroad.

Phase II: Freight Dock

The Freight Dock Project entailed construction of a new bulkhead fill dock located 400 feet east of the Railroad's existing dock facility. The new dock is approximately 640 feet in length, 200 feet wide and includes a mooring dolphin and catwalk at the seaward end.

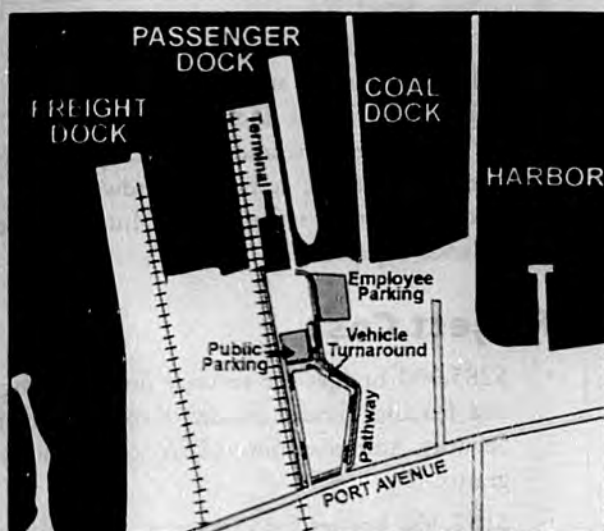
The freight dock features a modern low maintenance ship fendering system and is designed to accept a deeper mooring basin, and seaward extension if required by future vessel use. The freight dock facility accommodates both truck and rail transport. It will include new water service, new electrical service and high mast area lighting for safe year-round use.

Status

- Dock construction contract was awarded to B. West Construction Co. in February 2000.
- Fabrication of fender and dock fascia components began in March 2000. Dock construction began August 2000 and was substantially completed by December 31, 2000.
- Dock approach and mooring basin dredging began in November 2000 and was completed by December 31, 2000.
- Extension of track from the yard to the new freight dock was complete in spring 2001.
- Design of City of Seward water service is complete. A water utility extension was installed spring 2002.
- 2006: ARRC applied for a permit to expand the freight dock in phases. See separate fact sheet.

Project Cost

\$7.7 million freight dock construction budget, funded in part by the Alaska Railroad, along with grants from the Federal Railroad Administration and Federal Highway Administration.



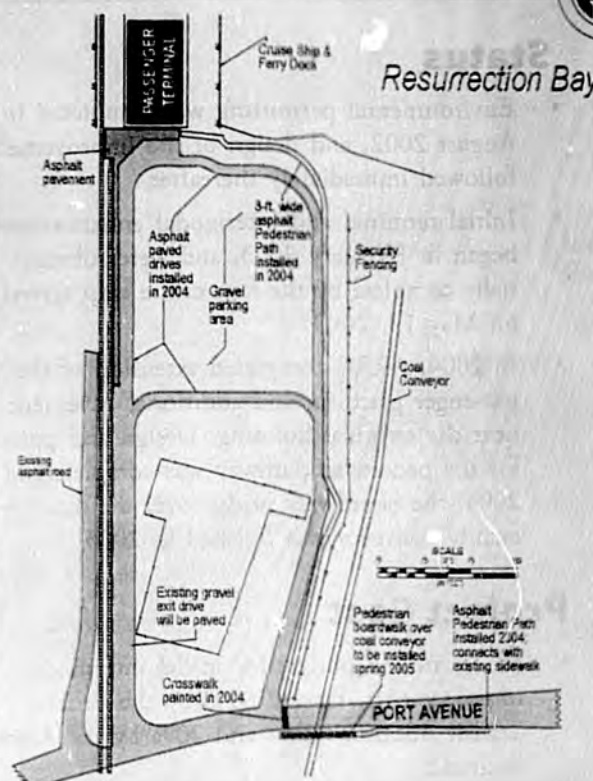
Phase III includes improvements to the "uplands" just north of, and adjacent to, the docks.

Phase III: Intermodal Enhancements

Intermodal improvements began in 2003. On the land just north of the secure passenger dock ("uplands"), existing tracks and signals have been demolished to make way for several intermodal upgrades. These include paved parking areas for ferry passengers, dock employees, rental car staging and buses. Orderly vehicle access to parking and passenger drop off sites comes by way of a one-way circular asphalt roadway, which extends off of Port Avenue, leading toward the dock. Exterior lighting adds to the safety and security of new roadways, pathways and parking areas. Widening the existing passenger platform, and extending pavement to



The passenger dock terminal is in need of security, efficiency and aesthetic upgrades.



A new pedestrian pathway leads from the terminal.

Port Avenue provides safer pedestrian access from the trains to the terminal. Also enhancing pedestrian safety is a new pathway connecting the terminal to the city's sidewalk along Port Avenue. Finally, a single track extending from Port Avenue to the northeast corner of the passenger terminal better separates the passenger and freight operations.

Additional modifications to the passenger dock include removal of four tracks and repaving of the dock surface to reduce tripping hazards and improve drainage. Changes to the terminal facility involve security checkpoints, building aesthetics, and upgrades to better accommodate passenger and baggage transfer requirements.

Status

- Environmental permitting was completed in August 2002, and design of site improvements followed immediately thereafter.
- Initial terminal and intermodal enhancements began in February 2003, and were substantially complete by the first cruise ship arrival on May 17, 2003.
- In 2004, ARRC completed extension of the passenger platform and additional pavement near the terminal building. Design and paving for the pedestrian pathway was completed in 2004; the boardwalk bridge over the loading facility conveyor was finished in 2005.

Project Cost

- \$3.77 million budget for initial intermodal improvements, funded 80% by the Federal Transit Administration and 20% by the Alaska Railroad.
- The Alaska Railroad funded the passenger platform extension, additional paving, and the pedestrian pathway at a cost of \$254,000.

Security Improvements

In response to more stringent security requirements from the U.S. Coast Guard and the U.S. Department of Homeland Security, the railroad is upgrading security features at its docks and loading facility in Seward.

In 2004, the Railroad installed security fencing and lighting to prevent unauthorized access into secured operational areas of ARRC's passenger dock. Additional security measures include enhanced dock lighting, and installation of battery backup lighting.

ARRC purchased a 27-foot, heated cab patrol boat for waterside surveillance and interception, not only for the railroad's passenger dock terminal, but also for the entire Port of Seward. Delivered in May 2004, the vessel is owned and operated by the Alaska Department of Military & Veterans Affairs. It is available to local officials for law enforcement, and could also serve as a dive platform to support underwater inspections. Fencing and lighting installation and vessel acquisition were completed in 2004.

In 2005, ARRC installed a video surveillance system to augment security at the passenger dock, freight dock and coal loading facility. The system includes video cameras, associated electrical service, computer hardware, and associated computer software with Internet-based surveillance capabilities.

Project Cost

- \$285,000 budget for security dock lighting and fencing, funded through Transit Security Administration (TSA) port security grants.
- \$152,000 budget for the vessel, funded by TSA grants.
- \$297,000 budget for the video surveillance system, funded by TSA grants.



New security fencing is installed.



Seward Freight Dock Expansion

Project Scope

The Alaska Railroad Corporation (ARRC) proposes to expand its Freight Dock in Seward in phases to improve the safety, efficiency and capacity of freight intermodal operations (ship-to-train, ship-to-truck or ship-to-barge). Expansion would occur entirely within ARRC's land reserves.

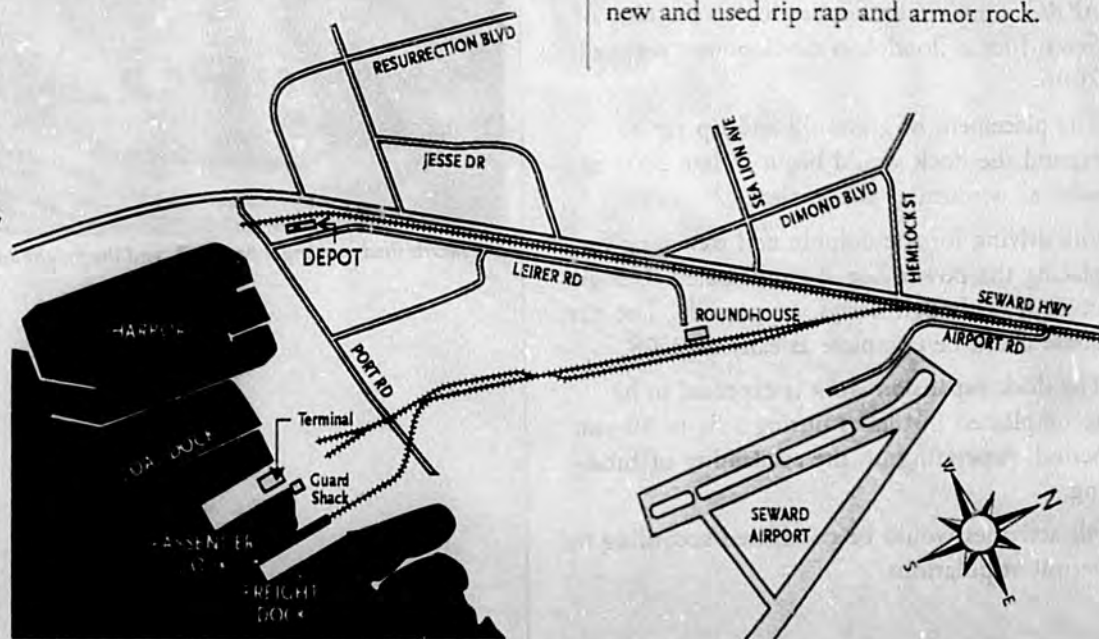
The existing freight dock was constructed between 2000 and 2002. It is supported by a sheet pile bulkhead on the west side, a riprap and armor rock fill slope on the east side, and a combination of the two on the south side. It has a series of fenders on the west side. The dock footprint, including the approach, is approximately 5.3 acres in size (200-by-620 feet), and was constructed with about 143,700 cubic yards of fill material. A catwalk and mooring dolphin were installed at the end of the dock to aid in berthing of vessels, and the basin adjacent to the new dock was dredged.

The first phase of expansion would widen a portion of the dock from 200 feet to 320 feet. In later phases, the dock would be widened the

full length of the dock to meet the existing shoreline, thus providing adequate operating area for a complete truck circuit from ships to an area where trailers are loaded and/or unloaded to/from railcars. Rip-rap and armor rock would be placed to protect the dock's east and south sides from wave action.

To aid in the safe berthing of vessels, a steel-pile mooring dolphin with appropriate navigational lighting would be installed approximately 400 feet south of the freight dock. To provide power for a motorized capstan and lighting, an electric line would be extended from the dock to the dolphin in an underground trench through the tideflats. The dolphin and electrical trench footprint is approximately 0.1 acres.

The total expansion would essentially double the dock's 5.3-acre footprint to approximately 10.6 acres. A total of 115,000 cubic yards (CY) of fill material would be brought to the site using rail cars and trucks. Existing rip rap and armor rock would be removed and reused as new fill is placed. Of the 115,000 CY of fill 92,000 CY would be below the high tide line - 86,000 of this would be gravel, and 6,000 CY would be the new and used rip rap and armor rock.



Benefits

- The first phase of the expansion will provide immediate improvements to the capacity, safety and efficiency of cargo ship loading and unloading operations.
- Construction of later phases that finish the expanded dock infrastructure will improve service to marine customers, enhancing local economic development efforts to grow freight.

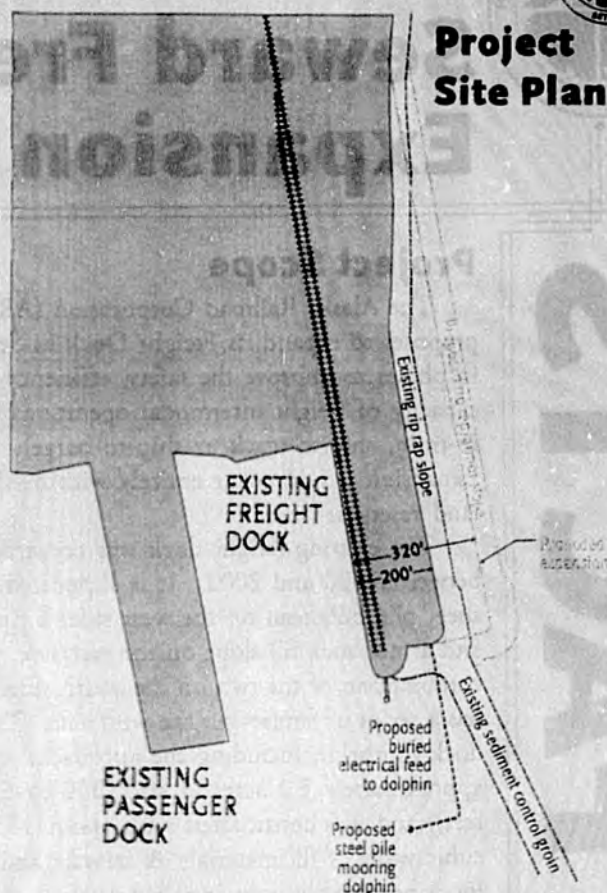
Project Cost

- The budget for constructing the first phase beginning in 2007 is estimated at \$2.2 million. Funding is from non-federal sources, including the Alaska Railroad.
- Later phases to include additional expansion of the dock surface, electric and water utility upgrades, further track work and other upgrades/modifications, are estimated to cost at least \$1.6 million. Funding is not yet identified, however, private sources are being investigated.

Status/Schedule

- In November 2006, ARRC submits an application to the U.S. Army Corps of Engineers (USACE) and the Alaska Department of Natural Resources (ADNR) to modify an existing permit that will include the expansion.
- ARRC submitted an application to the City of Seward for a floodplain development permit in 2006.
- The placement of gravel fill and rip rap to expand the dock would begin in late 2007 as soon as permitting is complete.
- Pile driving for the dolphin and trenching for placing the power line are anticipated to begin in 2007, although delays are possible. The first phase could be complete as early as 2008.
- The dock expansion work is expected to be accomplished in phases during a 5- to 10-year period, depending on the availability of funding.
- Fill activities would be conducted according to permit stipulations.

Project Site Plan



The refurbished passenger dock, left, and the freight dock, right.



Whittier Master Plan

The Alaska Railroad (ARRC) is pursuing a Master Plan to guide development of improved Alaska Railroad Corporation (ARRC) infrastructure in Whittier.

Project Scope / Objectives

Improvement objectives are:

- Accommodate anticipated increases in rail passenger and freight activities.
- Improve safety and efficiency of passenger and freight operations.
- Segregate passenger and freight operations to the extent possible.
- Promote passenger safety and convenience.
- Enhance the safety of pedestrian movements, including intermodal and marine/land interfaces.
- Reduce modal conflict between railroad operations and vehicular access between the waterfront and the city center.

Additional goals and objectives specifically related to the Whittier community are:

- Enhance the Whittier community (residents and visitors),
- Integrate the Railroad's Master Plan and the Whittier Comprehensive Plan to foster local economy development.

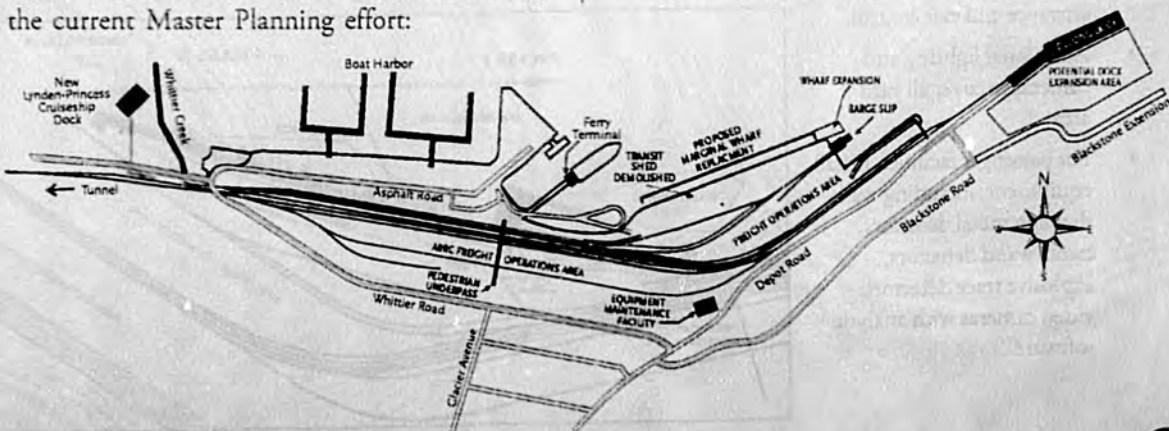
Status

A number of previous studies and planning efforts have been undertaken and contribute to the current Master Planning effort:

- Whittier Comprehensive Plan Update (City of Whittier, 2005)
- Whittier Intermodal Development Concept and Design, Draft Needs and Purpose Report (Alaska Railroad, 2004)
- Draft Whittier Intermodal: Market Forces and Revenue Estimates (Alaska Railroad, 2003)
- Phase I Environmental Site Assessment for Whittier Intermodal Development (Alaska Railroad).

Through these planning efforts, a number of projects have been accomplished.

- Yard Pedestrian Underpass – 300-foot portal for safe passage under the railyard. Completed 2002. \$2.285 million budget funded 80% by Federal Transit Administration (FTA) and 20% ARRC.
- Marginal Wharf – closed 2002 due to deteriorating infrastructure.
- DeLong Dock – fender piling, water and electrical service improvements to accommodate displaced Marginal Wharf tenants. More than \$600,000 spent since 2002, funded by ARRC.
- Equipment Maintenance Facility – new building to store and maintain heavy equipment. Completed 2003. \$2.225 million budget funded 80% FTA and 20% ARRC.
- Freight Barge Slip – repairs and upgrades to maintain and improve facility performance. Side loading structures complete in 2002; \$2.26 million budget funded by ARRC. Safety improvements in 2003 funded by ARRC. Initiated multi-year program to rehabilitate aging components in 2005.





- **Cruiseship Passenger Loading/Unloading Spur** – spur and platform constructed near Whittier Creek in 2004 to accommodate safe transfer of passengers to and from the train. Funded by ARRC.
- **Transit Shed** – demolition and removal completed in 2003. \$1.27 million budget funded 80% FTA and 20% ARRC.
- **Security Improvements** – includes security office at yard entrance, seasonal fence on the water side of the yard, and video cameras to monitor barge operations and restricted areas. Funded by ARRC.
- **Master Plan** – Initiated in 2004, work resumed in 2006, with completion expected by early 2007. \$597,000 budget, funded by 80% FTA and 20% by ARRC.
- **Passenger Intermodal Improvements** – initiated in 2006, an assessment of passenger and intermodal improvements in the marginal wharf and uplands areas. To be completed in 2007. \$2.1 million to initiate Phase I (Marginal Wharf demolition). Funded by 91% by FTA and 9% by ARRC.

Future Actions Recommended by the Whittier Master Plan

The Master Plan has identified the following actions to meet future needs.

Freight Operational Improvements

Barge business is expected to maintain at current levels, while container traffic is expected to grow 3-4% annually. To address current and future rail-barge demands:

- Replace Barge Slip within 3-10 years to accommodate railcars and forklifts, operational at all tide cycles, good visibility and communications, lighting, docking and mooring mechanisms, and other safety enhancements.

Security

- Fence the entire working yard perimeter with access-control gates.
- Card reader access for entrance and exit control.
- Additional lighting and cameras to cover all yard areas.
- For passenger facilities, install equipment, including walk-through metal detectors, hand-wand detectors, explosive trace detectors, video cameras with analytic software.

Railyard and Track Improvements

- Reconfigure track within the rail yard to separate passenger and freight train activity, and improve yard drainage and snow removal. Pending funding, these activities could be accomplished by 2008.
- Work with city to develop future options to reduce traffic delays at the major railroad/highway crossing adjacent to Whittier Creek.

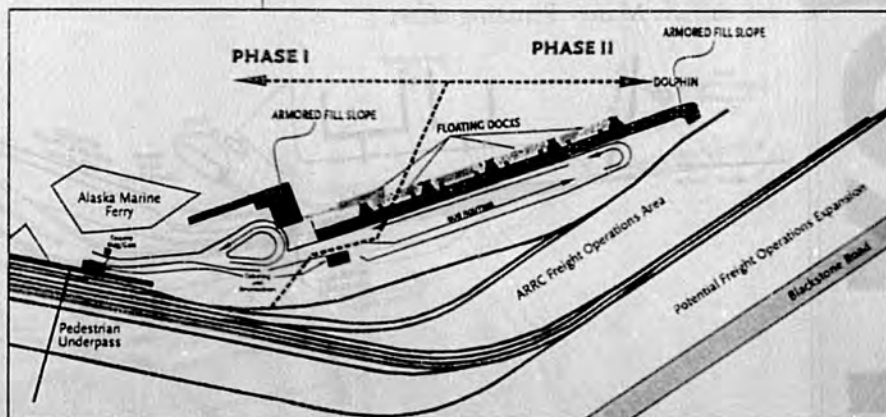
Passenger Intermodal Improvements

ARRC projects a 55% increase in passenger volume on regularly scheduled service.

- Docksider Passenger Improvements needed to address current limited dock space for day boats, multi-day small cruise boats, and cruise ships:
- Demolish and remove the condemned Marginal Wharf. \$2.1 million budget to initiate project in 2007. Currently funded 91% by FTA and 9% by ARRC. More funding may be needed to finish the demolition.
- Construct improved public use facilities, including new dock, to provide access for day boats and multi-day small ship cruise boats.

The passenger rail platform near Whittier Creek is nearly half a mile from water-borne facilities, and its location often conflicts with freight operations. Key rail passenger improvements include:

- Locate passenger facilities near the Ferry Terminal and public use dock, near the Pedestrian Underpass, and easily accessible to road and harbor.
- Pending funding a new passenger terminal and train-loading facility will remain a high priority.
- Build sheltered, Americans With Disabilities Act-compliant rail terminal, to accommodate air/marine/rail ticketing, baggage handling, passenger waiting and loading areas, bus staging and vehicle parking.
- Next to the terminal construct 500-foot covered passenger train loading facility that includes two rails for simultaneous loading of two passenger trains.



Whistle Stop Service in Chugach National Forest

Project Scope

The USDA Forest Service (USFS) and Alaska Railroad (ARRC) are partners in developing a new Whistle Stop Service that will provide a variety of world-class recreation and transportation opportunities for users of the Chugach National Forest.

The project includes development of several sites between Portage and Moose Pass that will be accessible by rail and interconnected by trail (See Figure 1 - Proposed Whistle Stop Locations, on page 2). Development at each site will vary, depending on the terrain and potential recreational opportunities. All developed sites would include an ADA-compliant boarding/unboarding platform, passenger shelter, toilets and interpretive signage (See Figure 1 - Whistle Stop Layout Concept). Other possible features include picnic facilities, camping facilities, wildlife viewing facilities and expanded trails.

The project trail system consists of approximately 35 miles of trail between the proposed Whistle Stop locations. One new trail would interconnect Luebner Lake, Spencer, Bartlett Glacier and Grandview. Spur trails leading to viewing platforms, natural features and camping facilities are planned at Spencer, Bartlett Glacier and Grandview.

A successful whistle stop experience requires that the rail passenger equipment be independent of other railroad operations. The current project scope calls for acquisition of two self-propelled railcars.

Benefits

The project would:

- Provide an opportunity for visitors to connect with nature in a unique, safe, world class and memorable setting.

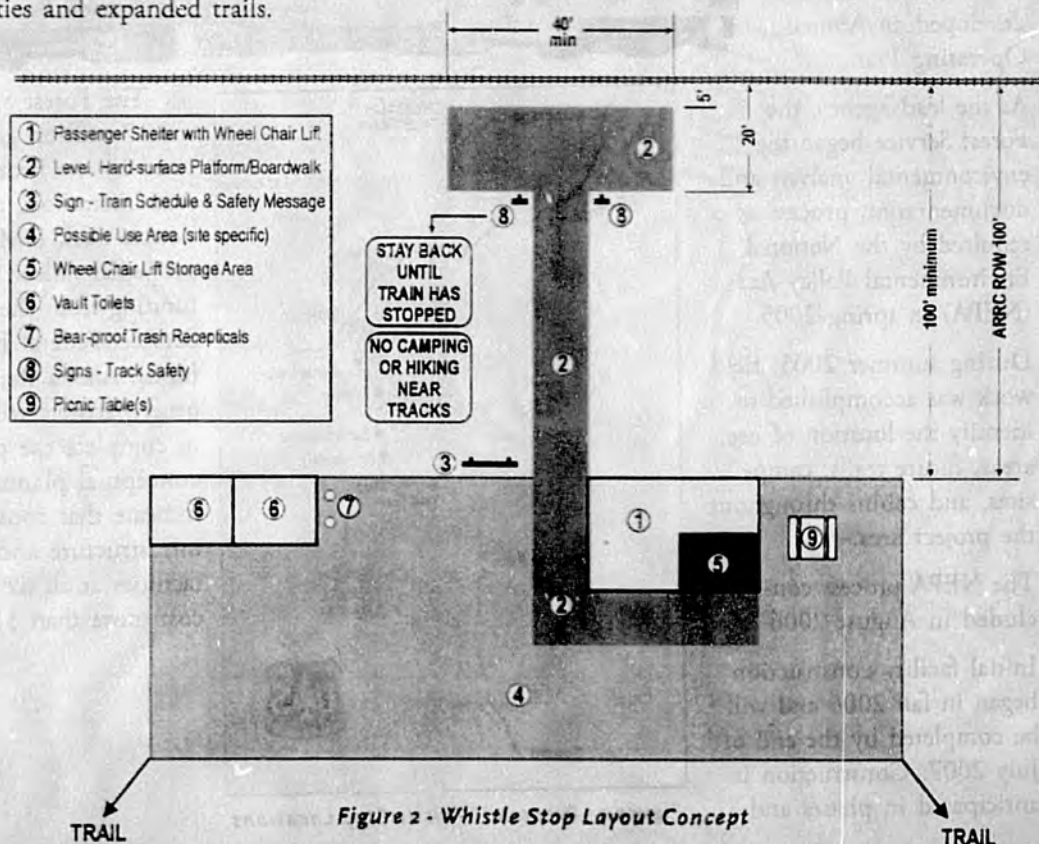


Figure 2 - Whistle Stop Layout Concept



- Provide controlled access to the Chugach National Forest backcountry while protecting the resources. Currently, access to the forest's backcountry in this area is extremely limited.
- Provide a variety of activities for visitors with varying degrees of skill.
- Support the Alaska Railroad's Anchorage-Seward operations with increased ridership.
- Development of the rail route will offer opportunities to disperse recreational activities from the congested highway, thereby reducing heavy summer traffic.

Project Status

- In 2003, the Alaska Railroad and Forest Service entered into a partnership with a Memorandum of Understanding.
- A business plan was initiated in 2004, and completed in early 2005. ARRC and USFS entered into a Challenge Cost-Share Agreement (recognizing workforce contributions from both entities), and further developed an Annual Operating Plan.
- As the lead agency, the Forest Service began the environmental analysis and documentation process as required by the National Environmental Policy Act (NEPA) in spring 2005.
- During summer 2005, field work was accomplished to identify the location of use areas, future trails, campsites, and cabins throughout the project area.
- The NEPA process concluded in August 2006.
- Initial facility construction began in fall 2006 and will be completed by the end of July 2007. Construction is anticipated in phases and

will be dictated by available funding.

- Phase I – Spencer & Grandview
- Phase II – Luebner Lake & Bartlett Glacier
- Phase III – Hunter & Trail Creek

- Funding has been approved to buy a double-deck self-propelled commuter railcar that may be similar to the bi-level DMU by Colorado Railcar pictured at right. To facilitate whistle stop service, ARRC is requesting some special features including a control cab at either end, and wheelchair lift on either side.

Project Cost and Funding

Chugach National Forest received a \$1.6 million earmark being spent as follows:

- \$600,000 for Forest Service plans, survey and design of Whistle Stop station infrastructure
- \$1 million for Alaska Railroad planning, design and construction of Whistle Stop station infrastructure.



Figure 2 - Proposed Whistle Stop Locations

The Forest Service awarded a \$4.7 million grant, administered by the Federal Transit Administration, to purchase a double-deck DMU self-propelled railcar. Additional funding from the Forest Service, Federal Highway funds, Alaska Railroad and other partners will be necessary to complete the project. Initial conceptual planning estimates indicate that construction of infrastructure and recreational facilities at all six sites would cost more than \$14 million.

Spencer Whistle Stop

Construction began on the Spencer Whistle Stop in early fall 2006. Construction of the passenger platform is complete, and earth movement activities were carried out to prepare the site for facilities and boardwalk construction in 2007.

Spencer will be the first and only Whistle Stop completed in 2007, making it possible to begin the Whistle Stop service this year. The site is scheduled to be operational in July 2007.

Design for Whistle Stop facilities was approved by the Forest Service and State Historic Preservation Office (SHPO) in December 2006. Pavilions

and toilet facilities will be representative of a historic railroad camp. Photos of the Dead Horse Creek (Curry) Railroad Construction Camp served as models for the board-and-batten theme for facility construction. All wood will be yellow cedar. Boards will vary from 6 to 10 inches and will be randomly interspersed to provide an irregular appearance. Battens (a narrow strip of lumber used especially to seal or reinforce a joint) will be a uniform 1-by-2-inches. All of the site's pavilions will be the same size (16-by-20-foot footprint), but will differ, depending on the number of sides left open, and those with board-and-batten siding and multi-pane window(s).



Pavilion sides with board-and-batten siding and window(s).



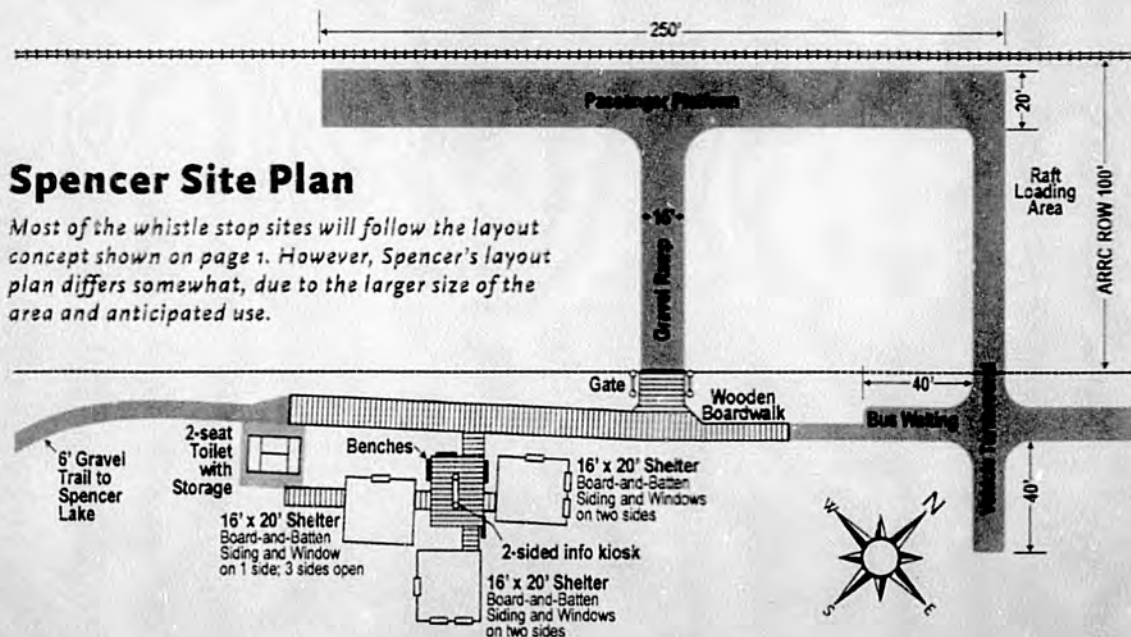
Pavilion sides left open, with no siding or windows.



North end looking south at passenger train platform.



Foreground, raft loading area; background, bus parking.



Spencer Site Plan

Most of the whistle stop sites will follow the layout concept shown on page 1. However, Spencer's layout plan differs somewhat, due to the larger size of the area and anticipated use.



Anchorage Rail Capacity Improvements MP110-114

Project Scope

The Alaska Railroad (ARRC) is investigating alternatives to increase capacity along the mainline track from the Anchorage International Airport Spur (near MP 110) to the Anchorage Rail Yard (MP 114). The capacity improvement alternatives initially considered included additional sidings (passing lanes), installing automated signals and switches, and/or extending the double track that was constructed in south Anchorage, along the mainline stretching between 120th Avenue (MP 105) and the Minnesota Drive overpass (MP 110, near the rail spur to the Anchorage International Airport). The Railroad is pursuing preliminary engineering, environmental studies required for National Environmental Policy Act (NEPA) documentation, and public involvement activities. As preliminary design activities have progressed, the alternatives have been refined such that the two alternatives that will be fully analyzed in the Environmental Assessment (EA) include "No Build" and "Double Track".

Benefits

The four-mile rail corridor from the Anchorage Yard to South Anchorage is the busiest on the Alaska Railroad. In the summer, as many as 20 trains per day use the corridor. Typical summer train traffic along the corridor includes passenger trains traveling to/from Seward, Portage, Grandview, and Whittier; and numerous trains hauling gravel, coal and general freight. The railroad also operates fuel trains running from Anchorage to Whittier and Seward. There are regularly a number of work trains and special charters that may add to the overall train activity. Projections call for rail passenger traffic to increase significantly, while the forecast for freight operations growth along this corridor is more modest.

There is growing interest in a commuter rail service connecting Anchorage and Girdwood (as

well as Anchorage and the Mat-Su Valley). This would also increase passenger train activity along this corridor. The railroad will start construction next year on a multi-year project to build an intermodal facility in Ship Creek, which may also lead to additional charter and commuter train traffic.

Capacity improvements will alleviate congestion and enhance safety for the Railroad and the community. Improvements would also increase operational efficiency and prepare the Railroad to better handle future passenger and freight train demands.

Status

ARRC initiated the following activities in 2002, with efforts continuing to the present:

- Compiled and evaluated information on existing rail use (type, number, daily and seasonal schedules), projected rail traffic increases, existing constraints (speeds, communication, grades, delays), existing and projected maintenance issues.
- Initiated a public and agency involvement program, including presentations at community council meetings, public and agency scoping meetings, and other meetings to solicit input from the affected community on its concerns about the project.
- Identified issues of community concern.
- Conducted a winter, spring and summer noise and vibration analysis, including identification of sensitive receptors, measuring ambient noise levels and train-induced noise and vibration at selected locations, projecting noise and vibration levels associated with future build conditions, and developing initial noise and/or vibration mitigation options to address potential impacts. The purpose was to determine existing conditions, seasonal variations,



impacts at various speeds, and the differences between freight trains and lighter passenger trains. Study measurements are helping to predict future noise and vibration levels given various alternatives to addressing the increasing capacity, i.e. modeling for single and double track.

- Conducted a grade-separation (overpass/underpass) feasibility analysis, field studies of potentially sensitive areas (Fish Creek crossings), aerial survey work and dispatch modeling analysis.
- Based on studies and data analysis, ARRC initiated an Environmental Assessment (EA) of two options: a) no action and b) extension of the double track from its existing termination near 44th Avenue to the Anchorage Yard. Alternatives that were considered but dismissed include construction of a siding and construction of double track between Westchester Lagoon and the Anchorage Yard. These measures would not have accomplished the necessary capacity improvements.
- A draft EA is expected to be sent to the Federal Transit Administration (FTA) for consideration in early 2007. Once the FTA approves the EA, it will be made available for public review and comment.

Project Costs

- Budget for preliminary engineering, environmental studies and public involvement is \$1 million, funded 80% by FTA and 20% by ARRC.
- Design and construction costs will depend on the option selected; however, the full double track option is expected to cost approximately \$40 million (2005 estimate). There is currently no funding for construction. Funding sources may include the FTA, Federal Railroad Administration and ARRC.





Anchorage Yard Freight & Passenger Car Shops

Project Scope

The Alaska Railroad Corporation (ARRC) proposes to build a new freight car repair shop and to remodel the existing car shop into a service and repair facility dedicated specifically to passenger cars. Both car shops would be located within the Anchorage Railyard. Constructing the new shop will separate passenger and freight car maintenance activities and allow more timely and cost efficient repair and maintenance of the railcar fleet.

Project Need & Benefit

ARRC has an ever expanding fleet of passenger and freight cars with maintenance needs that have outgrown the corporation's existing repair and maintenance facilities. The existing passenger fleet consists of nearly 50 cars and the freight car fleet numbers more than 1,000.

During the passenger season, all passenger cars are in use on a daily basis, and must be serviced and maintained each day. Day-to-day servicing includes sanitary (water and sewage), cleaning, restocking galleys, and other activities. In addition to these general service activities, various maintenance inspections are required by the Federal Railroad Administration. Daily maintenance activities require continual switching and movement of cars in and out of the shop. Additionally, maintenance crews must work around freight cars that are also being maintained or under heavy repair in the same location.

Construction of the new freight car shop will separate the passenger and freight car maintenance functions. Freight cars are periodically maintained and inspected, and are repaired when required. The new freight car shop will have different areas dedicated to routine maintenance and to heavy repair. Cars that require only routine maintenance can be moved quickly through, while cars that require heavy repair may be kept in the shop for days. Configuration

of the new shop will allow more efficient and cost effective operations by providing state-of-the-art equipment and reducing the number of times cars must be moved in and out of the shop.

With a new car shop devoted to freight maintenance requirements, the existing car shop will be available to meet the passenger-related maintenance and servicing requirements. A dedicated passenger car shop will make daily maintenance much more efficient, as many more cars will fit in the shop, requiring fewer train movements. The existing car shop will be modernized by replacing outdated electrical and mechanical systems, as well as other upgrades.

Status

- In 2006, ARRC conducted an investigation to identify and evaluate possible locations for the new freight car shop. Numerous possibilities were identified and pros and cons considered for each. The preferred location is within the Anchorage Railyard, near the Knik Power Plant on Whitney Road.
- Late in 2006, an engineering firm was selected to complete the evaluation of proposed sites and to prepare conceptual design, which is anticipated to during the summer of 2007.

Project Costs

- Budget for conceptual design and National Environmental Policy Act (NEPA) compliance is \$300,000, funded by the sale of revenue bonds, underwritten by Federal Transit Administration formula funds.
- Total project costs, including design and construction, is estimated to be approximately \$40 million (2005 dollars). Funding is not yet identified.

Weigh-In-Motion Scale

Project Scope

The Alaska Railroad (ARRC) is purchasing and installing a Weigh-in-Motion Scale to replace the current static scale, which is located in the northeast area of the Anchorage Rail Yard.

The coupled-in-motion system is designed to weigh complete trains, a group of several cars, or individual cars as they pass over the weigh bridge at speeds up to 10 miles per hour. The system is designed to automatically identify the weighing direction, initiate the weighing logic, sense the train speed, detect engines, and record railcar weights. Systems of this type can operate in both directions and completely

unattended. Train information is recorded in real time and is stored for further processing.

A railcar identification (AEI) reader will be added to the system to provide a complete record for each car being weighed. With this feature, the railcar weight and identification are automatically matched and recorded.

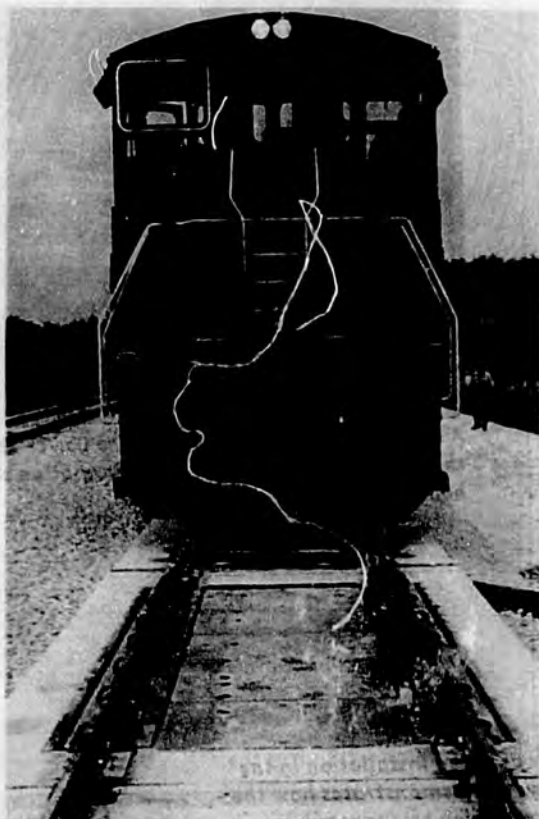
Installing the system requires demolition of the existing old static scale and scale house, as well as excavation and grading to prepare the site. Two 75-foot concrete approaches will be constructed on either end of the scale. The system weigh bridge requires construction of a foundation, as well as installation of telecommunications equipment and equipment programming. After system installation, the track will be repaired and upgraded, and the new scale house will be installed next to the weigh-in-motion scale.

Benefits

The installation of a weigh in motion scale will greatly reduce employee's exposure to pinch points and slip-trip-and-fall injuries by eliminating the need to couple and uncouple rail cars on the scale while weighing them.

The installation of a weigh-in-motion scale will save a minimum of labor equating to 4 hours per week, and 208 hours per year. The time that equipment is needed to accomplish weighing is reduced five-fold. (It currently takes an estimated 2.5 hours per week using a static scale, compared to 0.5 hours using the weigh-in-motion scale). Annual savings realized from reduced labor and equipment costs is approximately \$68,000.

Use of the scale will meet all requirements of federal (AREMA, NIST, NTEP) and State of Alaska regulations and recommended practices.



A locomotive in the Lower 48 pulls a train over a newly-installed weigh-in-motion scale bridge.



Project Status

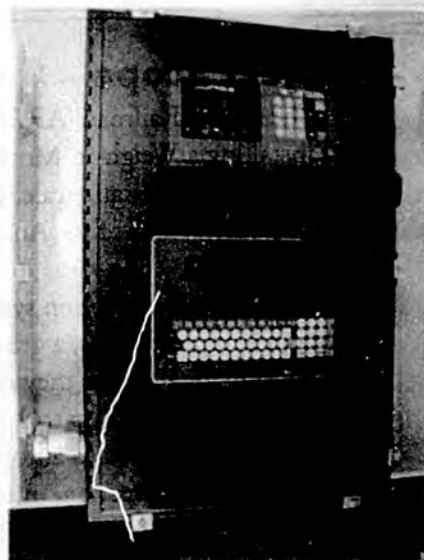
- The Alaska Railroad has purchased one unattended coupled-in-motion weigh scale with optional accessories.
- The scale will be installed in spring 2007.

Project Cost

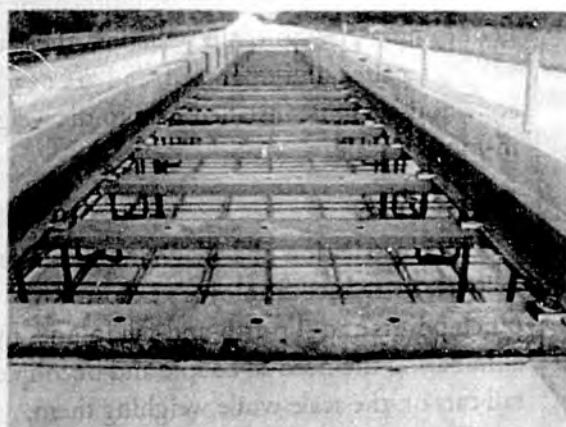
The budget for equipment purchase and installation is \$360,000, funded 100% by the Alaska Railroad.



The existing old static scale is located in the northeast area of the Anchorage Rail Yard. The new weigh-in-motion scale will be installed in this same location.



The system controller will be located in the scale house.



The 75-foot approaches on either side of the weigh bridge require concrete construction.



A construction crew member in the Lower 48 puts the finishing touches on a weigh-in-motion scale house.



The pictured installation in the Lower 48 demonstrates how the heavy weigh bridge requires use of a crane to set the structure in place upon the concrete foundation.



Ship Creek Projects

Ship Creek Master Plan

Project Scope

The Alaska Railroad (ARRC) initiated its Ship Creek master planning effort in 1998 and completed a master plan that was approved by the ARRC Board the following year.

In conjunction with the Municipality of Anchorage (MOA), the master planning effort provides for broad redevelopment of Ship Creek spanning 20 years. It considers potential uses for housing and hotels, retail, restaurants, railroad museum, trails, an outdoor plaza for a market, arts, crafts and recreation activities, parking and an intermodal facility to support commuter rail services and other forms of mass transportation. It also outlines a set of short-term achievable and implementable tasks and addresses long-term infrastructure investment with targeted redevelopment plans.

The Master Plan serves as a road map for the potential development of Ship Creek based on targeted land uses for each development district and specific development guidelines including streetscapes, lighting, landscaping, signs, and construction standards.

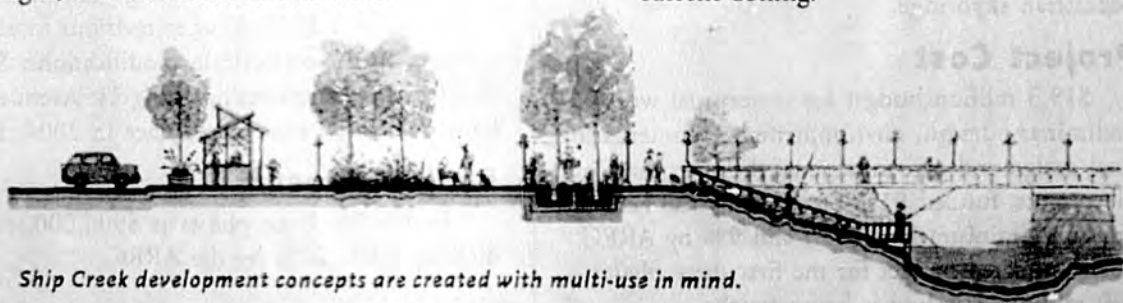


The plan was developed around five major components:

- Public access
- Transportation
- Environmental
- Area based land use
- Historical evaluation

Status

- The Railroad Board of Directors approved the Ship Creek Master Plan at its meeting June 9, 1999. In December 2000, the board approved the proposed Development Program and Design Guidelines. These were submitted to MOA Planning & Zoning (MOA P&Z) for review and implementation in January 2001, and the ARRC initiated preliminary marketing efforts.
- The ARRC met with Ship Creek tenants in 2001 and 2002 to inform them of plans and to keep them abreast of developments. Meetings continued through 2005 regarding intermodal planning.
- Initial development was aimed at pedestrian amenities, including construction of sidewalks and a plaza in 2001, 2002 and 2003. The ARRC initiated a plaza vendor program to increase activity in the core area as longer-term plans are implemented.
- The Railroad has continued to work with MOA P&Z to adopt the design guidelines. Initial development is allowable under current zoning.



Ship Creek development concepts are created with multi-use in mind.

- The MOA P&Z Commission approved ARRC's final design guidelines which were subsequently approved by the MOA Assembly on July 11, 2006, along with a revised Zoning Ordinance (AS 2006-46 (S)) for the Ship Creek Planned Community zoning area. Copies of the Ordinance and the design guidelines are available by contacting the Real Estate Department. These revisions essentially update uses, and offer guidelines that are conducive to foot traffic, tourism business and residential uses.

Ship Creek Intermodal

Project Scope

The ARRC seeks to develop a transportation hub in the Ship Creek area, providing bus and rail facilities, pedestrian improvements, new rail platforms, bus/van stops, retail development, airport accommodations and visitor information. Development includes elevated walkways that will connect the intermodal facility to downtown Anchorage.

Project Status

Preliminary concept work, NEPA studies, and the NEPA document are complete and the project is in the design phase. Phase I includes utility relocation, two new tracks and two rehabilitated tracks between the existing depot and Ship Creek Avenue. Design of Phase I was completed in 2006, and construction on Phase I will begin in 2007. Future phases include: Phase II - build a service/office building and rehabilitate the historic depot. Phase III - build a new departure lounge and pedestrian skybridge.

Project Cost

\$19.3 million budget for conceptual work, preliminary design, environmental documentation, final design and construction of the first phase of the project, funded 91% provided by the Federal Transit Administration (FTA) and 9% by ARRC. Total estimated budget for the first three phases is \$60 million. Funding is being sought.



Pedestrian Safety & Amenities Projects

Project Scope

Phase I improved pedestrian amenities and safety by adding sidewalks, lighting, bus gates, fencing, pedestrian rail gates and landscaping between the Anchorage Historic Depot and the long-term parking area on Ship Creek Avenue.

Phase II completes pedestrian access to the Ship Creek area by adding and/or refurbishing sidewalks a) on the south side of Ship Creek Avenue, in front of the ARRC Headquarters building, b) on the west side of North C Street between Ship Creek and 1st avenues, and c) on the north side of 1st Avenue along the west end of the depot. Pedestrian safety is further enhanced on North C Street by providing pedestrian crossing panels over the track.

Other enhancements along the new sidewalks include decorative fencing, lighting, landscaping, and interpretive and directional signs. Along the north side of Ship Creek Avenue, east of North C Street, street lighting fixtures were repaired and replaced, providing a safer environment for pedestrians during evening hours.



Project Status

Phase I was initiated and completed in 2000.

Phase II final sidewalk design drawings were completed in fall 2003, after revisions to accommodate MOA storm drain modifications. Sidewalk construction, landscaping along 1st Avenue, and light pole installation took place in 2004. I.

Project Cost

Budget for both phases is \$904,000, funded 80% by FTA, 20% by the ARRC.

Plaza Project

Project Scope

The MOA, in cooperation with the ARRC, improved pedestrian amenities in the Ship Creek area by adding a plaza at the corner of Ship Creek Avenue and C Street. The project included adding benches, landscaping and creating a central gathering place for visitors to the area.

Project Status

- Architectural contract was awarded to Land Design North on August 1, 2000. Final plan was completed summer 2001.
- Construction began in fall 2001 and was completed by early summer 2002.

Project Cost

- \$254,000 budget, \$194,000 funded by MOA through a state grant, and \$60,000 by ARRC.



Parking Improvements

Project Scope and Status

In 2004, the ARRC drained, filled and paved the parking lot adjacent to the plaza. The ARRC completed the project in 2005 with landscaping, sidewalk, striping and lighting.

Project Cost

- \$Phase I, \$400,000 and Phase II, \$360,000, funded by the ARRC.



Complementary Project

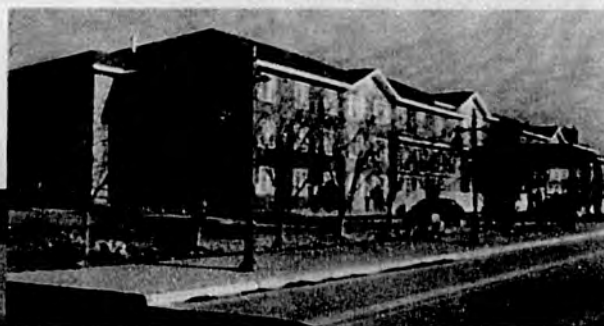
Project Scope

The American Association of State Highway and Transportation Officials (AASHTO) held its annual meeting in Anchorage in fall 2002. While here, AASHTO selected Ship Creek as the location for a Legacy Project. The project was aimed at enhancing ARRC's continuing pedestrian amenity projects. Specifically, the Legacy Project provided the following items:

- Decorative 4-panel interpretive sign kiosk at the Ship Creek Plaza
- 10-space paved parking lot for short term visitors to the plaza
- Decorative interpretive panel sign along the Ship Creek Trail
- 12-space paved parking lot for short term visitors to the Ship Creek Trail

Project Cost

- Approximate \$75,000 budget, funded by primarily by AASHTO. Other contributing agencies included:
 - Federal Highway Administration
 - Alaska Department of Transportation & Public Facilities
 - Alaska Railroad
 - Alaska Department of Natural Resources, Division of Parks & Outdoor Recreation (Office of History & Archaeology & Design Construction)
 - Municipality of Anchorage
 - Anchorage Historic Properties, Inc.



The Ulu Factory and Comfort Inn have made significant investments in new tourism-related infrastructure within the Ship Creek area.



Ship Creek Intermodal Transportation Center

Project Scope

The Alaska Railroad (ARRC) is in the design and engineering phase for an Intermodal Transportation Center (ITC) and associated improvements (pedestrian amenities, transit infrastructure, parking, track modifications, etc.) in the Ship Creek area.

The purpose is to facilitate connections from one transportation mode to another – rail, public transit, air, marine, bus, taxi, private vehicle, bicycle, and pedestrian – and to improve links to Anchorage's downtown business district to meet passenger transit needs over the next 30 years.

A secondary goal is to provide an efficient and safe connection between downtown Anchorage and the Ship Creek area, creating better access for residents and visitors. The Ship Creek ITC project is designed to complement existing and projected developments in the Ship Creek area. Project components include:

1. A new Intermodal Transportation Center with adequate baggage and passenger services, convenient and safe passenger boarding zones, well-defined arrival and departure areas and platforms, signage, appropriate security, and retail / office space that complements ridership – for example, news stands, beverage businesses, and transit-related office space.

2. Pedestrian connections between the ITC area and downtown Anchorage, between Ship Creek Avenue and 2nd Avenue.
3. Public parking improvements and expansion.

Project Background

The Ship Creek ITC has been part of the vision and plans for the Ship Creek and Downtown areas for several years. It has been identified in, and is consistent with, a number of initiatives:

- 1998 Ship Creek Site Assessment identified existing land uses and conditions in the Ship Creek area.
- 1999 Ship Creek Strategic Action Plan formulated by ARRC and a mayoral task force.
- 1999 U.S. Congress appropriated funding through the Federal Transit Administration, allowing ITC planning, environmental assessment (EA), and conceptual design to begin.
- 2000 Draft Ship Creek Master Development Plan by ARRC.
- 2000 Ship Creek Multi-Modal Transportation Plan, developed in conjunction with a citizen task force and adopted by MOA.



Design model view from the north.



Pedestrian bridge rendering.

Facility Site Plan



MOA Planning Department and Downtown Partnership held hearings on proposed north-south pedestrian corridors – the E Street corridor is favored.

- 2001** Anchorage 2020 Comprehensive Plan states that Downtown should connect to a redeveloped Ship Creek area and a multi-choice transportation system should be provided.
- 2003-2006** ARRC continues to work with MOA, the Downtown Partnership, and other organizations to implement the vision for Downtown Anchorage and Ship Creek.
- 2006** The original project scope included a five-track 154-foot wide railroad crossing of North C Street. Due to the width of the crossing and the number of tracks, ARRC was concerned with crossing safety. A diagnostic team consisting of ARRC, the Municipality of Anchorage, and the Alaska Department of Transportation was convened to analyze the crossing and provide recommendations with regard to safety. After several meetings, the team recommended permanent closure of the crossing. Options for traffic rerouting were developed and presented to the public at several meetings; however, many area residents and businesses were concerned that closing the crossing would have an adverse effect on the area and were opposed to the closure. After further analysis, ARRC developed another alternative that reduced the crossing to four tracks with a width of approximately 100 feet. This revised layout will allow the crossing to remain open,

but without the significant safety concerns of the original layout.

Project Benefits

- The project addresses the inadequacy of ARRC's depot. The current facility has inefficient baggage handling, limited passenger service capability, and baggage handling and passenger loading/unloading activities that share a platform, resulting in conflicts. The depot location also affords poor traffic circulation and poor pedestrian access.
- includes two new tracks and rehabilitation of two existing tracks. This will include one new passenger track and one new main that will allow passenger and freight through traffic to bypass the intermodal facility without disrupting passenger operations. The new and rehabilitated passenger tracks will provide more flexibility in operations and provide the infrastructure for commuter rail, which is anticipated to be implemented in the future as discussed below.
- The project addresses the inadequate parking areas and sidewalks leading to the depot.
- The project will accommodate an estimated 3% annual growth rate in mass transit via rail over the next 30 years. Projected rail traffic increases would require multiple trains on the platform, construction of additional tracks and platforms to enable efficient, safe boarding procedures.
- Long-term projections consider increased train activity via a shuttle service from downtown Anchorage to the Ted Stevens Anchorage International Airport (TSAIA), where ARRC's new rail station opened in May 2003. By 2030, up to 60 trains may be departing / arriving from the Ship Creek ITC per day – 10 trains would run in the critical morning time frame. This figure includes the shuttle service between TSAIA and downtown Anchorage, trains running between Anchorage and Seward, and trains running between Anchorage and Whittier. The long-term shuttle service projection assumes 30 minute headways (4 trains/hour), 12 hours per day.



- Projections also anticipate increased rail activity from development of commuter rail service to the Matanuska-Susitna Valley. By 2024, such service is expected to handle 40,000 passengers per week. This translates into an additional 1,000 commuters per day moving through the depot. The morning commuter period alone may include at least four train arrivals /departures between 7:00-9:00 a.m.
- The project takes into account other impacts from commuter service, including the need for long-term parking. This would accommodate the likely number of commuters opting to drive a vehicle into Anchorage at the beginning of the week, commute via train throughout the week, and then drive their vehicle home at the end of the work week.
- The project recognizes that the current depot was designed as a train passenger waiting area, and is ill-equipped to interface with other modes of transportation. Project plans call for facilities and infrastructure that can accommodate pedestrian and vehicle traffic circulation, and efficient intermodal transfers.

Project Status

NEPA

- Initiated public scoping on Sept. 23, 2002, regarding the project's purpose, need and proposed scope. Organized a public open house during the comment period, which ended October 24, 2002.
- An Environmental Assessment was released for public comment in mid-April 2003.
- A Finding of No Significant Impact (FONSI) was issued by FTA in June 2003.
- An EA re-evaluation was initiated in spring 2006 to consider possible closure of North "C" Street. An open house on this issue was held April 25, 2006.
- ARRC is coordinating with MOA to use a small portion of Quiana Park to accommodate parking area expansion and landscaping, and to rehabilitate the Eisenhower Memorial. ARRC anticipates MOA will solicit public comment in early 2007. This is the final step in the EA re-evaluation.

DESIGN

- A contract for design of the project was awarded to ECI/Hyer, an Anchorage-based architectural firm, in July 2004.
- Three concepts were developed and resulted in the final preferred facility layout, which incorporates continued use of the existing depot with the new facility.
- The schematic design phase was complete in July 2005. Following ARRC Board approval, the design was unveiled to the public at an open house on October 6, 2005. Final design for Phase 1 is underway, and is scheduled for completion in 2006.

CONSTRUCTION

- Construction of the project's first phase will include relocation of utilities and construction of two new tracks and rehabilitation of two tracks between the existing depot and Ship Creek Avenue. Construction of the first phase is expected to begin in spring 2007 and will likely be completed in 2008.
- It is anticipated that future phases will include the following (pending funding):
 - **Phase 2** - Construct a service/office building and rehabilitate the Historic Anchorage Depot to improve electrical and mechanical systems, expand the depot lobby, and modernize ticketing and baggage handling operations.
 - **Phase 3** - Construct the new departure lounge over the tracks and a pedestrian skybridge connecting the project with Downtown Anchorage.

Project Costs

\$19.3 million is funded for conceptual work, preliminary design, environmental documentation, final design and construction of Phase 1. Funding is 91% by the Federal Transit Administration and 9% by the Alaska Railroad. Additional funding is needed to construct later phases. Total project costs for the first three phases is estimated at \$60 million (in 2005 dollars).



Support of Ship Creek Trail Extension

Project Scope

The Alaska Railroad (ARRC) is supporting a Municipality of Anchorage (MOA) effort to complete the Ship Creek Trail Extension project.

The Municipality of Anchorage began this effort in 1999, constructing a pathway from the Chugach Electric Association Dam to Post Road. Since then, trail efforts have continued in segments. A tunnel was built under Post Road and the trail was extended east to the William Tyson School in Mountain View. On the other end, a trail was constructed from North C Street, east to the first bridge over Ship Creek. In 2004, work continued to connect these newly constructed segments of the trail.

The Railroad became involved with the project in 2001 when the trail design proposed an at-grade crossing of the mainline track. In the interest of safety, ARRC pledged \$1.5 million in FTA formula funds to grade-separate the trail and tracks with a bridge at this location.

Benefits

- The connection provides a long-awaited upgrade to the city trail system, creating commuter and recreational opportunities.
- Pedestrian activity in the Ship Creek basin has continued to increase with the Ship Creek fishery. The level of activity is expected to rise as future development expands commercial and retail businesses. Extending

the trail provides a safe avenue for non-motorized visitors to enjoy this unique area.

- The bridge over the railroad tracks just west of Post Road will enhance trail user safety, eliminating the potential risks associated with getting too close to a moving train.

Status

- MOA and the Railroad began design work on the trail bridge over the tracks in 2004. Construction is scheduled to begin in spring 2006, with completion by summer 2006.

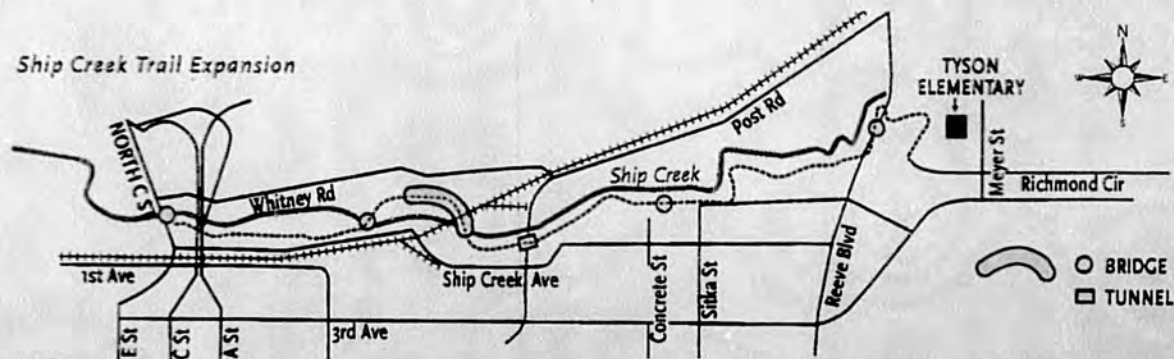
Cost and Funding

- \$1.5 million budget for the trail bridge, funded 91% by the Federal Transit Administration and 9% by the Alaska Railroad.



The Ship Creek Trail pedestrian bridge will go over the existing rail bridge and creek at this location within the ARRC Anchorage Rail Reserve.

Ship Creek Trail Expansion





Complimentary Project: Connecting Ship Creek Trail to the Coastal Trail

The Municipality of Anchorage is pursuing a project to connect the Coastal Trail with the existing Ship Creek Trail. Currently, the Coastal Trail leaves the coast at Elderberry Park to end on 2nd Avenue and H Street; and the Ship Creek Trail follows the creek, ending just west of the C Street Overpass, near the Ulu Factory. The gap lies within the Alaska Railroad's Terminal Reserve.

Work on the trail connection's environmental documentation and preliminary engineering began in 2005. Construction could begin as early as 2007 if funds are available.

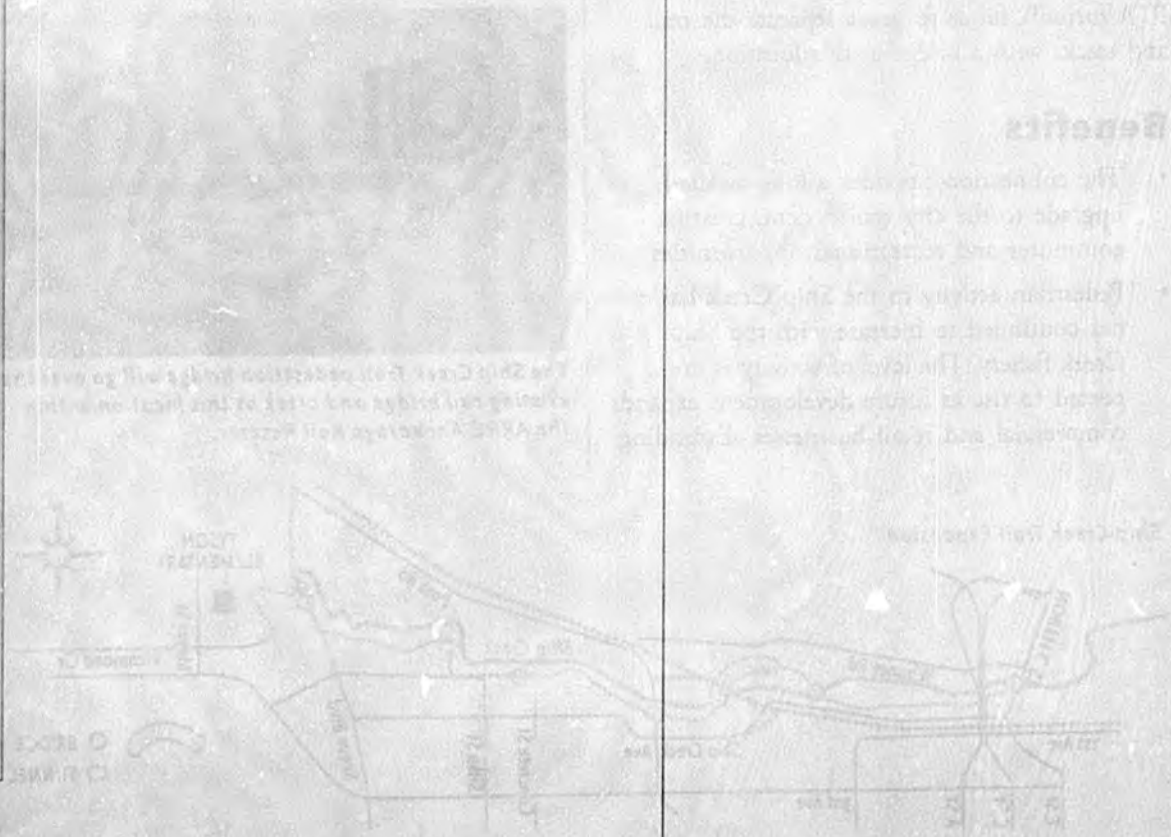
One concept for this connection, preliminarily called the Ship Creek Tidelands Trail Connection, calls for a trail on fill across the mud flats to create a potential marsh area similar to Potter Marsh, with elevated boardwalks for viewing areas. ARRC



The existing Ship Creek Trail ends behind the Ulu Factory.

is supporting the MOA design efforts for this work within the rail yard reserve.

MOA is currently administering a \$3 million Federal Highway Administration grant for work on linking the Coastal Trail and the Ship Creek Trail.





Anchorage-to-Wasilla Track Realignment

PROJECT FACTS

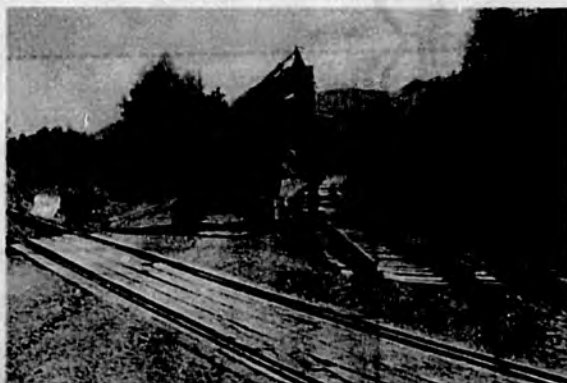
Project Scope

The Alaska Railroad's (ARRC) Anchorage-to-Wasilla track realignment projects will reduce track curvature and improve safety features along the mainline track. The effort is separated into three project sections: a) Anchorage to Eagle River Bridge, b) Eagle River to Knik River, and c) Knik River to Wasilla.

Benefits

Reducing track curvature will increase the speed that freight and passenger trains can safely travel. Speed increases will shorten passenger transit time, as well as improve freight efficiency. Once completed, train travel time between Anchorage and Wasilla is expected to drop from 90 minutes to less than an hour. Shorter travel times will reduce costs associated with relief train and engine crews, and will also make commuter rail service between Anchorage and the Mat-Su Valley a viable option.

Straighter track also lessens the risk of derailment, and reduces rail maintenance and wheel repair. In addition, Anchorage-to-Eagle River improvements will increase operational flexibility in preparing trains for northbound journeys and receiving trains in the Anchorage yard from the north.



Intersection of new and old alignments at MP 126, near the end of the realignment on Fort Richardson.

Project Costs

- The Eagle River-to-Wasilla budget is \$22.3 million, funded 80-91% by the Federal Transit Administration; 9-20% by ARRC.
- The Anchorage-to-Eagle River budget is \$55.2 million, funded primarily by the Dept. of Defense via FRA-administered grants.

Status — Eagle River to Wasilla

This section includes rehabilitation on select bridges as well as curve straightening design and construction on 42 curves between Eagle River (ARRC Milepost 127.5) and Wasilla (Milepost 159.6). The project was split into two segments to meet Long Range Transportation Plan (LRTP) requirements. These are Eagle River to Knik River and Knik River to Wasilla.

EAGLE RIVER TO KNIK RIVER

- The FTA issued a Finding of No Significant Impact on the EA (Environmental Assessment) for the Eagle River to Knik River segment in 2004.
- Track realignments on curves 129 and 130 completed in 2005.
- Grade construction for track realignments on curves 131, 132 and 132A was completed in summer 2005. Track construction will be completed in 2006.
- Work on curves 133, 133A and 133B in the Beach Lake Recreational Area, has been put on hold due to the discovery of an underground ice lens. Any of the possible engineering solutions will cost substantially more than is currently budgeted, causing the railroad to reevaluate this segment.



KNIK RIVER TO WASILLA

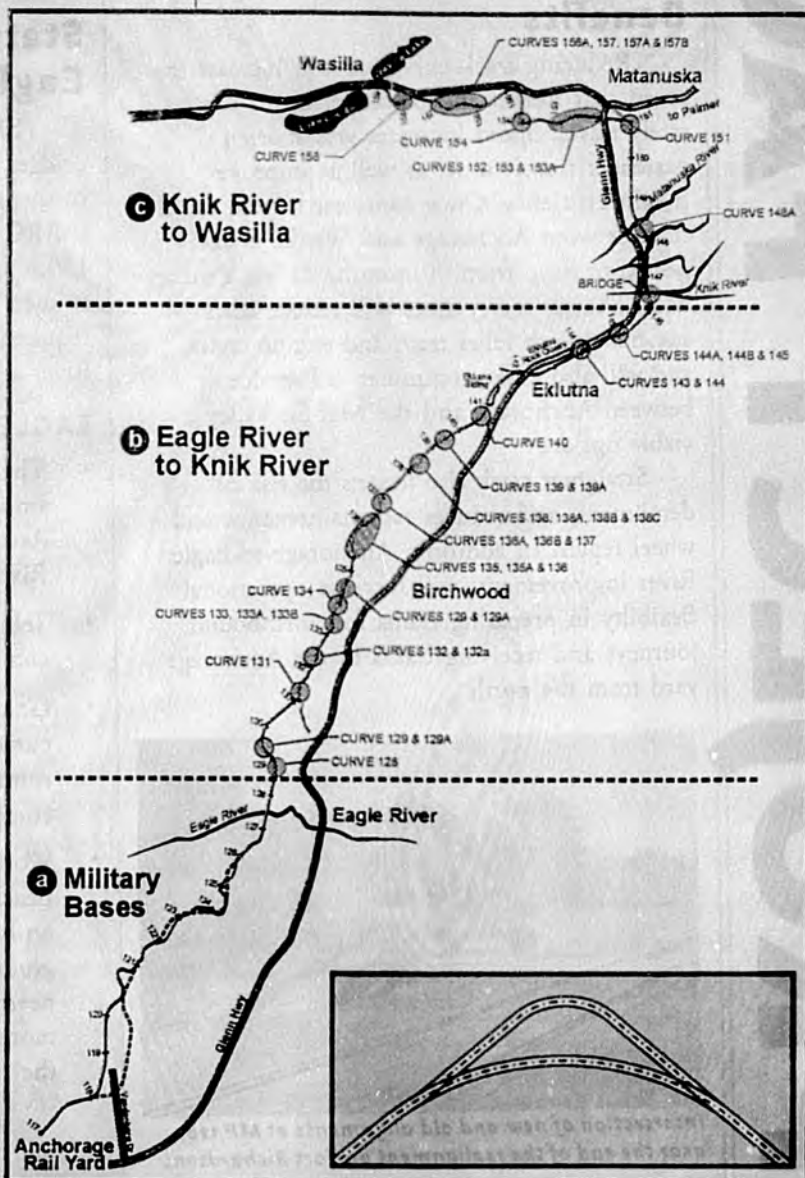
- FTA has approved the Categorical Exclusion for Knik River to Wasilla segment, with the exception of MP 154-157, which is currently undergoing an EA as the "South Wasilla Track Realignment" project.
- Final design complete for Knik to Wasilla. Construction began spring 2002, with completion expected in spring 2006.

Status — Anchorage to Eagle River

- The original alignment included numerous curves, at-grade (level with the road) crossings and ran too close to the Elmendorf AFB north-south runway. This project realigns 12 miles of the existing main-line track. Construction will straighten 28 curves and involve extensive realignment outside the existing right-of-way (ROW). This includes moving the track out of the east-west runway clear zone on Elmendorf AFB. In addition, the project constructs a second track (parallel to the existing main line) from the north end of the Anchorage Rail Yard (MP 117) to the Elmendorf AFB-Fort Richardson boundary (MP 121.3).
- Environmental Assessment is complete.
- Construction of new track from MP 117 to MP 121.6, including a grade-separated (where roads are constructed above or below the track) crossing over Vandenberg Road on Elmendorf AFB was completed in 2001. Construction of new track from MP 123.1 to MP 125 on Fort Richardson was completed in November 2003. Construction of final new track between MP 121.6 to MP

123.1 was completed during the 2004 construction season.

- Construction of new track from MP 121.6 to MP 127.5 (Eagle River Bridge) on Fort Richardson was completed in September 2004. A grade-separated crossing for Loop Road on Fort Richardson was completed in October 2006.
- Extension of double track from MP 119.8 to MP 121.3 was completed November 2006.
- With construction completed in 2006, remediation and restoration of the existing alignment will be completed in spring 2007.





South Wasilla Track Realignment

PROJECT FACTS

Project Scope

The Alaska Railroad Corporation (ARRC), in cooperation with the Federal Transit Administration (FTA), plans to straighten curves along the mainline track in South Wasilla, between ARRC Mileposts 154-158. This is part of a larger ARRC effort to reduce track curvature and improve safety features along the mainline track between Girdwood and Wasilla.

Project Benefits

- The new alignment will eliminate five at-grade (same level) road-rail crossings, thereby improving safety at crossings.
- Straighter track reduces the risk of derailment, thereby improving operational safety.
- Reducing track curvature will allow trains to travel safely at increased speeds, thereby shortening passenger train travel times, as well as improving freight train efficiency.
- Shortened passenger travel times will make commuter rail service between Anchorage and the Mat-Su Valley a viable option.
- Straighter track saves in operating costs for fuel and labor; and decreases wear and tear on train wheels and rail, thereby lowering maintenance costs.
- Does not preclude a City of Wasilla rail bypass in the future, if funded.

Status

- In spring 2003, a joint steering committee (formed in 2002 and including ARRC, Alaska Department of Transportation & Public Facilities [ADOT&PF], City of Wasilla, Matanuska-Susitna Borough, and the Mat-Su Community Transit [MASCOT]) identified the South Wasilla Track Realignment as one of six area projects to move forward for engineering and environmental analysis work.
- In late spring 2003, FTA approved advance right-of-way acquisition, so that land needed for

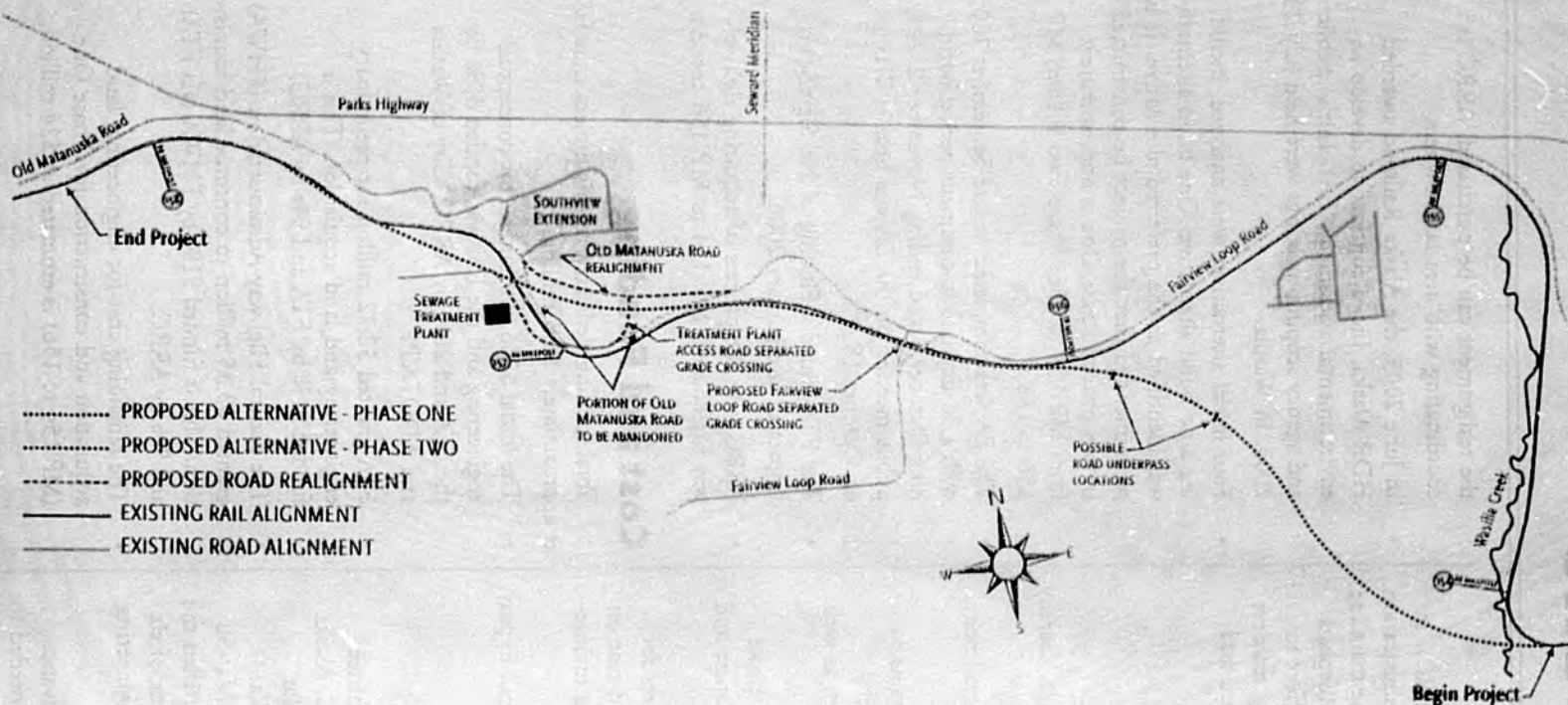
the realignment can be purchased. ARRC is coordinating with area land owners.

- In June 2003, the Alaska Railroad awarded HDR Alaska, Inc. a contract to develop an environmental assessment (EA). Initial public and agency scoping meetings were held July 23, 2003, in Wasilla.
- Four initial alternatives were analyzed, including a no build alternative. One build alternative was identified as the preferred alternative. It is recommended that the project be constructed in two phases: Phase One is approximately from MP 154 to 156; Phase Two is from MP 156 to 158.
- The EA was completed in late September 2005, with a 30-day public comment period beginning October 3 and ending November 2. A public meeting on the EA was held in Wasilla on October 18.
- The FTA issued a Finding of No Significant Impact in late January 2006.
- ARRC is in the process of acquiring right-of-way for Phase I, MP 154 to MP 156 corridor.

Cost and Funding

Total funding dedicated to this project thus far is approximately \$6.3 million.

- The initial \$246,000 budget for conceptual engineering and the EA, was funded 80% by the FTA and 20% by ARRC, City of Wasilla and ADOT&PF.
- FTA granted \$2.72 million for preliminary engineering and land acquisition. This is funded 91% by FTA and 9% by ARRC.
- The Federal Highway Administration (FHWA) granted \$3.35 million to continue land acquisition. This is funded 91% by FHWA (via FTA) and 9% by ARRC.
- The remaining cost for engineering, land acquisition and construction for Phase One (MP 154 to 156) is estimated at \$24 million.

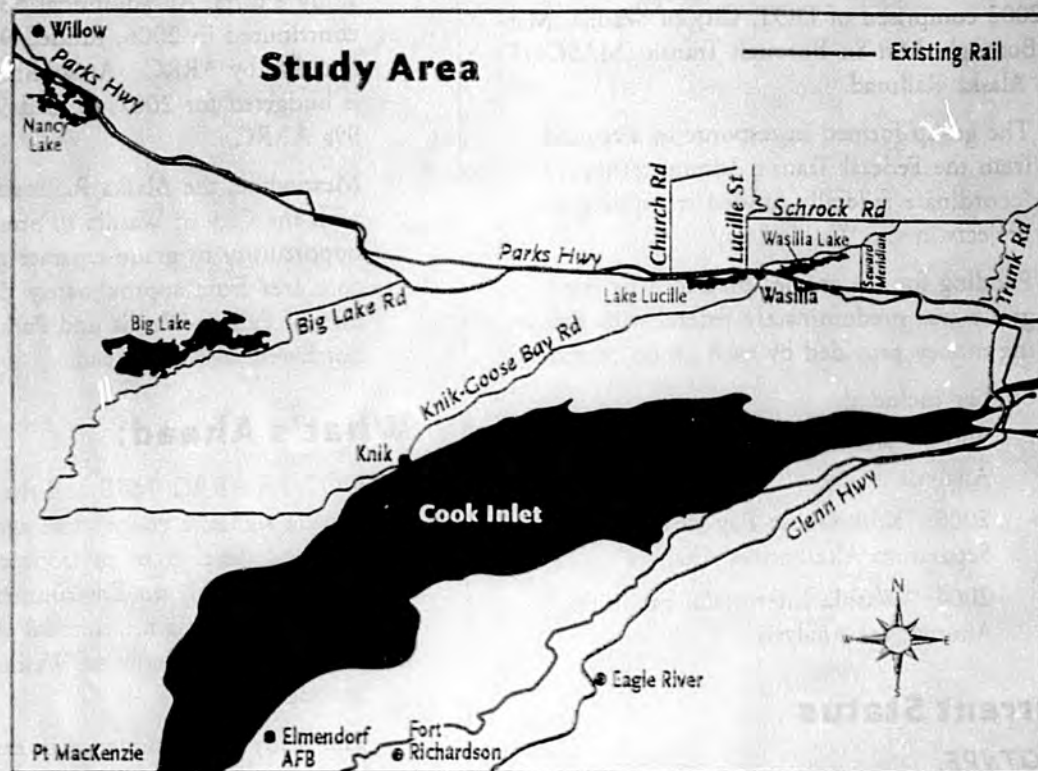


Realignment would eliminate the large curve between ARRC Milepost 154 and 156. Pictured is the tip of the curve at MP 155, near where Fairview Loop road crosses the tracks.





Status Summary: Road-Rail Transportation Corridor Realignment Around Wasilla



The Problem

- The Mat-Su Borough including the City of Wasilla and Palmer is the fastest growing region in the state
- Both the Parks Highway and the Alaska Railroad go through downtown Wasilla
- Both the Highway and the Railroad provide a critical transportation link between Interior Alaska and Southcentral Alaska
- Both Highway and Railroad are congested:
 - The Parks Highway is rapidly transitioning into more of an urban corridor, complete with traffic. Eventually the transportation corridor will need to be a freeway, limited access road.
 - The Alaska Railroad is adding more and longer trains.

- The Alaska Railroad and the community have safety concerns with at-grade road crossings in this busy area. Knik Goose Bay Road, in particular, will need to be grade separated soon.
- The City of Wasilla is concerned about road/rail congestion and safety aspects of the current at-grade crossings.

Transportation Project and Study Efforts to Date

ADOT&PF:

- Ongoing construction of 4-lane Parks Highway from Glenn Parks to Lucas Rd
- Current design project underway for Parks Highway from Lucas to Big Lake



City of Wasilla:

- 2002 "Wasilla Alaska Railroad Relocation" completed to identify potential rail corridors around the city

Joint:

The Joint Intermodal Planning Group formed in 2002 comprised of DOT, City of Wasilla, Mat-Su Borough, Mat-Su Borough Transit (MASCOT) and Alaska Railroad.

- The group formed in response to a request from the Federal Transit Administration to "coordinate federally funded transportation projects in the Wasilla area."
- Funding for the studies produced by the group was predominately federal with matching money provided by each group member
- Studies included:
 - 2005: "Wasilla Realignment Alternatives Analysis Study"
 - 2005: "Knik-Goose Bay Road Grade Separation Alternatives Analysis"
 - 2004: "Wasilla Intermodal Facilities: Alternatives Analysis"

Current Status

ADOT&PF:

- DOT/PF has programmed funds to determine if a shared highway/rail corridor around Wasilla is needed. This is expected to be a \$2,000,000 effort.
- The \$2,000,000 was included in DOT/PF's 2006 budget. The money is intended for DOT/PF to initiate a joint road/rail corridor study and represents seed money for an environmental study.

Alaska Railroad:

- The Alaska Railroad supports further study of a joint road/rail corridor because it believes a realignment around the City of Wasilla is also

the railroad's preferred course of action to deal with congestion and safety concerns.

- The Alaska Railroad committed \$300,000 from an existing grant (80% Federal Transit Administration, and 20% local match) in 2005 to help fund initial environmental study efforts. An additional \$300,000 was contributed in 2006, funded 91% by FTA and 9% by ARRC. An additional \$200,000 is budgeted for 2007, funded 91% FTA and 9% ARRC.
- Meanwhile, the Alaska Railroad is working with the City of Wasilla to preserve the opportunity to grade-separate through the core area from approximately the intersection of Palmer-Wasilla and Parks highways northwest to Mack Road.

What's Ahead:

- DOT/PF, ARRC, MSB and the City of Wasilla signed a cooperative agreement to plan and develop an environmental document - probably an Environmental Impact Study (EIS) for a multimodal corridor within the boundaries of Wasilla and the borough.
- The study will commence in early 2007, and will require public meetings, a detailed analysis of the environmental impacts, a detailed analysis of the alternative alignments including the "no build" alternative, and identification of the selected proposed alternatives.
- The environmental study will determine if the project can proceed. Assuming it can, funding would be secured for property acquisition and final design. Construction could proceed after design and property acquisition.

NOTE: There is currently a project underway to straighten a four-mile section of track located at the southeastern end of Wasilla. The South Wasilla Track Realignment (SWTR) is a separate project with independent utility that would not affect any studies or decisions regarding the transportation corridor realignment around Wasilla. A fact sheet on SWTR is available at www.alaskarailroad.com/projects.



Curry Quarry Development

PROJECT FACTS

Project Scope

The Alaska Railroad Corporation (ARRC) is planning to develop a quarry site near Curry, located approximately 22 miles northeast of Talkeetna. Curry is a remote area, accessible only by train or by boat along the Talkeetna River. ARRC owns approximately 4,000 acres along the mainline track, known as the Curry Reserve. The quarry development includes the following (see Figure 1 on page 2):

- **Quarry Site** – 25- to 40-acre area where rock mining will occur during a 50- to 100-year quarry life.
- **Quarry Access Corridor** – The existing road/trail is too steep. A wider mile-and-one-half long access road will be constructed to accommodate mining truck traffic. The road leads from the track to the mine site several hundred feet above and behind Curry.
- **Laydown, Loadout, and Process Area** – This 41-acre area will be leveled off and used to process and stockpile mined rock from the Quarry Site.
- **Track Work** – The existing historic wye will be replaced with a loop track. The wye has a relatively sharp 19-degree curvature, which contributes to higher derailment risk. The use of a wye for quarry access will also require additional switching and coupling/uncoupling activity which detracts from operational efficiency and employee safety. The loop track will better comply with industry safety and operational preferences for curvature 10 degrees or less, and will reduce switching and coupling/uncoupling activity. Mitigation for impacts to this historic resource will be in accordance with an agreement with the State Historic Preservation Officer (SHPO).

- **Communications Tower** – Included in this same general area is a communications tower that will be installed using ARRC funds to enhance safety through better communication with trains and railroad workers in that area. An access road will be extended as necessary to the tower site.

The quarry would be used for ballast, riprap, armor stone and other processed rock materials that are needed for construction projects and maintenance of the railroad's track bed. Some quarry rock materials will be used on federally-funded projects.

Purpose and Need

The Alaska Railroad is developing a cost-effective and efficient source of high quality ballast and riprap. Ballast is comprised of small, jagged rocks that fit snugly together to form a stable bed to support the tremendous weight of a train, while still providing adequate drainage.

Current ballast sources cost the railroad between \$11 and \$22 per ton. The railroad uses nearly 100,000 tons of ballast material for track bed re-surfacing each year. In addition to the high cost of ballast, the lack of a railroad-owned quarry deprives ARRC of other useful quarry byproducts, such as rip-rap and other materials for construction.

Development of the Curry Quarry will improve ballast quality because the rock is harder and more angular than current sources. Curry is located approximately mid-way along the Railroad's 466-mile mainline track, offering a centrally located supply of ballast for both the north and south sections of the Railbelt.

Curry is also situated in an area susceptible to flooding and washout conditions, due to the proximity of the Susitna River. Having a nearby rock source will facilitate faster response in repairing high water damages, and alleviate track outages caused by high water.

The track and roadway construction is also expected to improve access to Curry for recreational users. The road will be built at a grade (incline) more conducive to Nordic skiing and usable in the winter when quarry operation is impractical.

Status

The Railroad envisions a three-year development approach. The access road was built in 2005 and 2006. In 2007, the railroad will construct new facility tracks and prepare the site for mining.

Cost and Funding

The project is 100% funded by the Alaska Railroad. The approximately \$3.5 million budget includes geo-technical work, engineering and construction. \$3.117 was funded in 2005 and 2006; \$400,000 is budgeted for 2007.

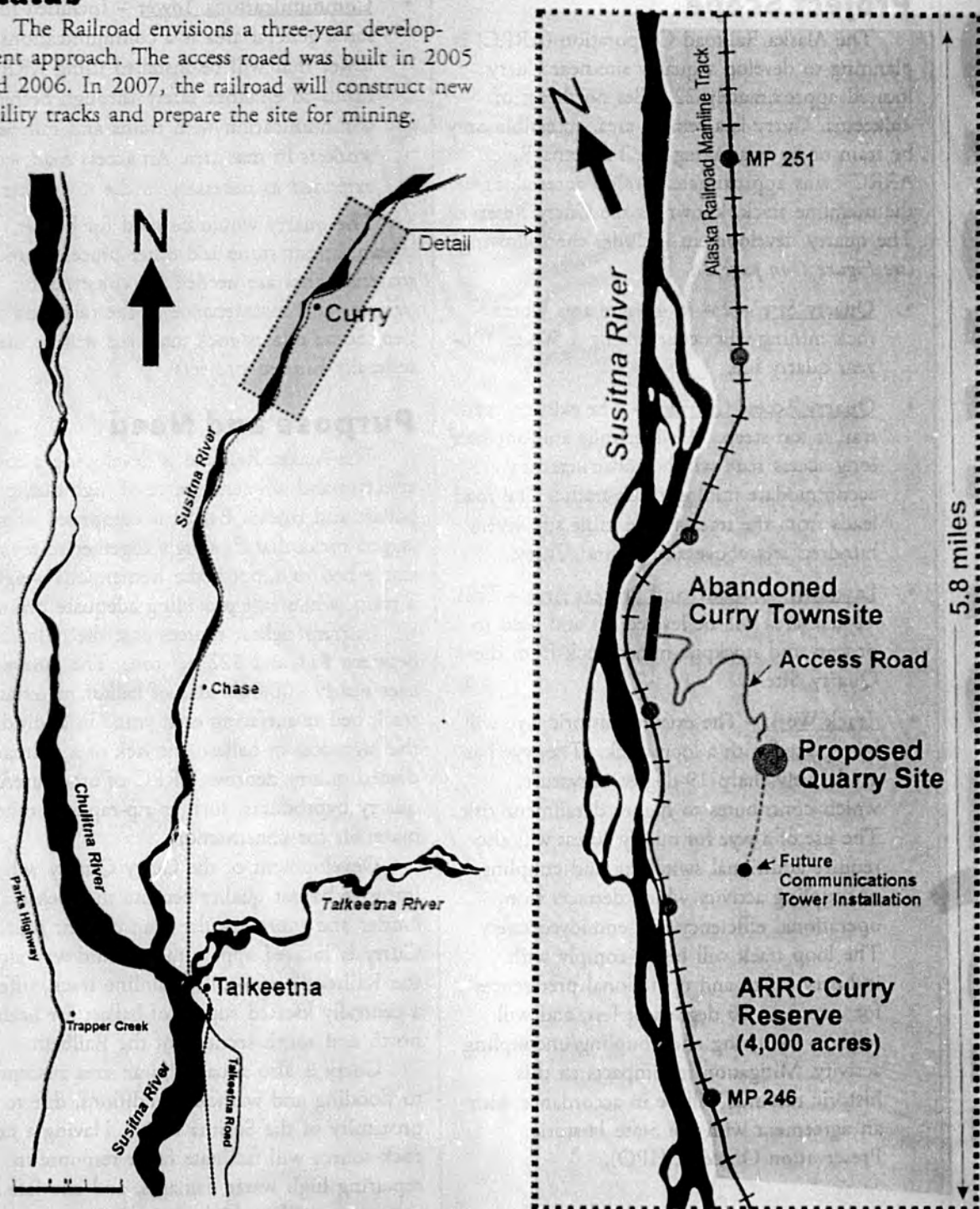


Figure 1 - Location of Curry, ARRC Curry Reserve and Quarry Site

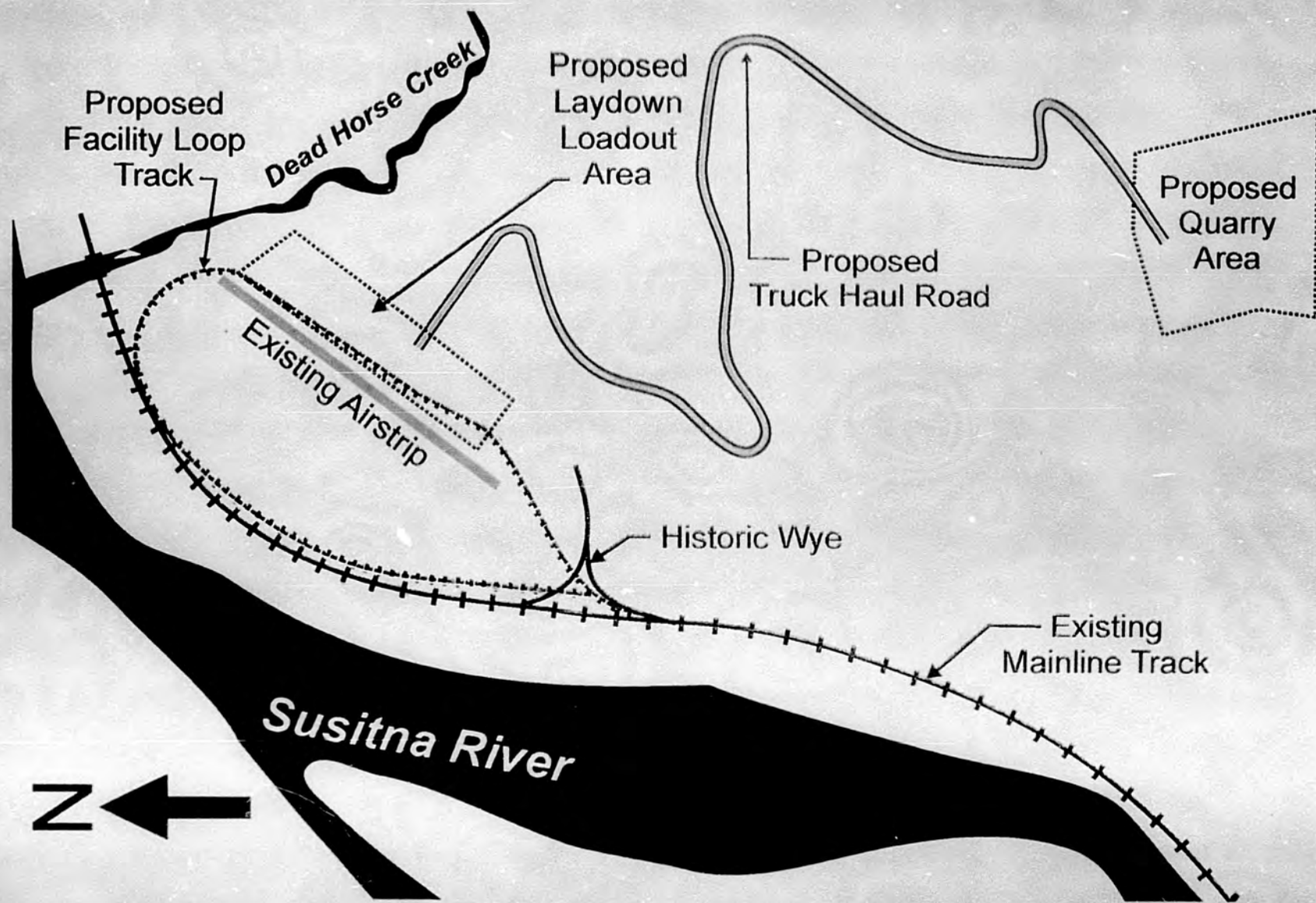


Figure 2 - Quarry Site Development Plan





Colorado to Broad Pass Siding

PROJECT FACTS

Project Scope

The Alaska Railroad Corporation (ARRC) proposes to connect the siding (train passing lane) at Colorado with the siding at Broad Pass by adding approximately 6.1 miles of new siding track. The project includes distant and intermediate signal pads, which provide signal control for the siding. The distant signal pads must be located 10,000 to 12,000 feet before the siding switches, and the intermediate signal pads must be located 10,000 to 12,000 feet apart between switches.

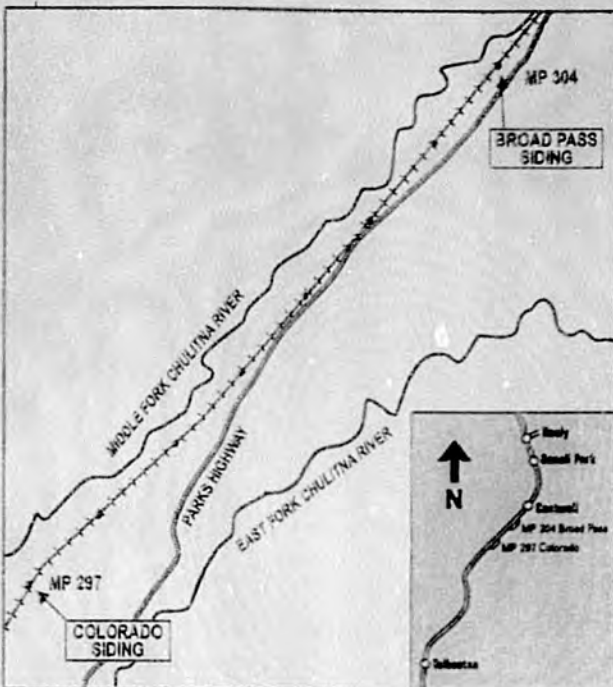
Colorado siding (ARRC Milepost 297) is located approximately 61 miles south of Healy. Broad Pass siding is located a few miles north (ARRC Milepost 304). This track corridor is on the southeast side of the Middle Fork of the Chulitna River, northwest of the Parks Highway.

Purpose and Need

The project effectively provides a strategic section of double track. This would facilitate greater flexibility when trains meet on the single mainline track, thereby reducing run time between Anchorage and Fairbanks.

The Colorado and Broad Pass sidings combined are the heaviest used sidings on the Alaska Railroad. During the passenger season, approximately May 15 to October 15, ARRC runs two passenger trains daily between Anchorage and Fairbanks, one northbound and one southbound. In order for these trains to meet and pass along a single track, one of the trains must pull into the siding and wait for the second train to pass by before the first train can pull back out onto the mainline track. Due to their location, these two sidings are used for the majority of train meet-and-pass situations.

Between March and November 2004, approximately 1,277 operational hours were lost



while a train pulled into a siding to wait for another to pass. Approximately 12% of these meets occurred either at Colorado or Broad Pass sidings, the highest use of any of the railroad's 44 sidings.

Status

- Preliminary field investigation, including wetlands delineation, occurred fall 2004.
- Additional field work and data collection was completed spring 2005.
- Final design and construction is scheduled to begin in 2010, pending funding.

Cost and Funding

- \$100,000 budget for environmental and engineering work only, funded by ARRC.
- Construction is conceptually estimated to be \$28 to \$32 million. Funding is not identified.



Healy Canyon Safety and Reliability Program

PROJECT FACTS

Proposed Project Scope

Healy Canyon lies between Denali Park Station (ARRC Milepost 348) and Healy (ARRC MP 358). The tracks follow the Nenana River gorge on a narrow grade requiring two tunnels. The Alaska Railroad (ARRC) proposes a series of projects to:

- Stabilize the track bed in Healy Canyon
- Control the rock fall problems
- "Daylight" Moody tunnel at MP 353.6 (i.e. removing the rock and soil above the tunnel, thereby exposing it to daylight)
- Realign tracks around Garner Tunnel
- Realign the tracks to enhance safety and train speeds

Benefits

- *Enhanced safety* - Proposed stabilization projects would address rock slide problems associated with the area's steep slopes and erosion-prone soil and track straightening would decrease the risk of derailment.
- *Enhanced reliability* - Track realignment and improvements would decrease delays, enhancing intercity passenger service.
- *Reduced operational costs* - Maximum train speed in the area is currently 15 mph. Track realignment would increase train speeds, reducing higher operational costs and lost revenue opportunities due to slow speeds.



2005: Track realigned around Garner Tunnel. Inset: Garner Tunnel's portal.

Project Summary and Costs

Below is a summary of projects needed to resolve the major safety and reliability problems, and improve transit times in Healy.

Project Focus Estimated Cost

Track realignment	\$ 46,238,000
Track bed and slide stabilization	15,102,000
Tunnel engineering and upgrades	11,403,000
Bridge upgrades and replacement	1,425,000
Total	\$74,168,000

Project Status

- The Alaska Railroad's Engineering Services Department began the engineering in 2002.
- While ARRC continues to seek federal funding for Healy Canyon projects, ARRC recognizes the importance of pursuing an ongoing, year-by-year stabilization and realignment improvement program in this area.
- In 2002-2004, ARRC spent \$1 million in Federal Railroad Administration (FRA) funding to stabilize the slopes above Garner Tunnel. Efforts included blasting and constructing rock barriers to control slide zones and protect against falling debris. Slide zone stabilization reduces maintenance and increases safety for passenger and freight trains moving through the area.
- In 2005, ARRC spent \$1,885,750 in FRA funds to realign track outside of Garner Tunnel, improve drainage to reduce erosion, and seal the tunnel.
- Engineering is underway and construction started in fall 2006 to remove the earthen top (i.e. "daylight") from Moody Tunnel. Construction will be accomplished over three years. Most work will be done in winter to minimize passenger train disruption.
- \$1.7 million in FTA revenue bond money is budgeted in 2006 and 2007, along with \$900,000 in FTA funds in 2008.



- Nenana Airport existing facilities and potential expansion.
- Golden Valley Electric Association (GVEA) transmission lines and facilities.
- Parks Highway.
- Land status issues, including development at the municipal airport and on other city and private land.

The NEPA process is designed to evaluate these and other areas of concern. This process will also foster inter-governmental coordination and enhance public participation in environmental planning. By early October 2004, the EA had been prepared for agency and public review and comments. This document analyzed identified concerns and project alternatives, offering a forum for public input to the decision making process.

Status

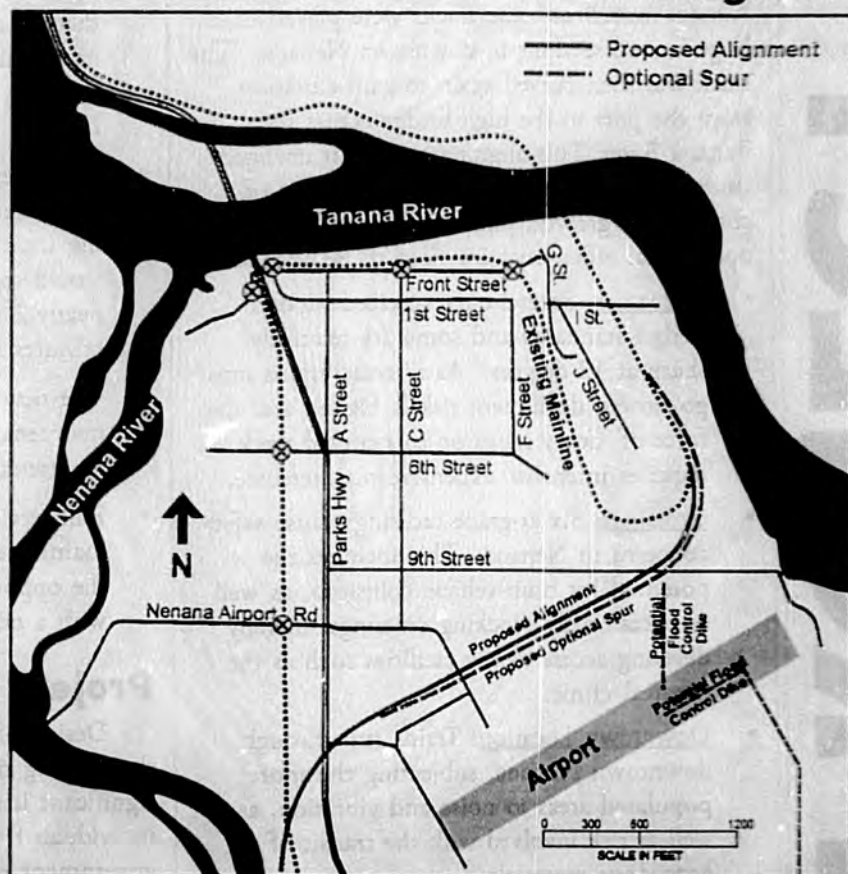
- URS Corporation was contracted to perform environmental field work and documentation in spring 2003. In early May 2003, a public scoping meeting was held in Nenana, and an agency scoping meeting was held in Fairbanks.
- A noise and vibration study was conducted July 2003.
- An environmental assessment (EA) was initiated in fall 2003 to consider three alternative realignment routes, and a "no action" alternative.
- The EA was released for public review on October 10, 2004. A public meeting was held October 26, 2004, in Nenana, with public comment on the EA accepted through November 15. The Federal Transit Administration (FTA) issued a finding of no significant impact (FONSI) mid-December 2004.

- Tryck Nyman Hayes, Inc. and sub-contractors were hired to accomplish final design, which began in May 2005. Survey and geotechnical work occurred during summer 2005 to assist in the design and to determine right-of-way requirements.
- Right-of-way acquisition began in 2006 and will continue in 2007.

Costs and Funding

- The budget for engineering/design, environmental studies, public involvement and land acquisition is \$1,000,000, funded 91% by the FTA and 9% by ARRC.
- The budget for construction and right-of-way land acquisition for the preferred alternative is estimated to be \$25 million.
- Funding for land acquisition of \$861,776 is appropriated from the Federal Highway Administration. FHWA funds will be transferred to the FTA for administration. ARRC is required to match 9% in funding.

Figure 1





Nenana Rail Realignment

Project Description

The Alaska Railroad Corporation (ARRC) proposes to realign the railroad mainline track around the downtown area of Nenana, Alaska. The track would be realigned outside of the existing right-of-way north of the airport and southeast of town, over the Parks Highway (as generally depicted by Proposed Alignment on Figure 1). The track structure through Nenana would be maintained to support port activities. The purpose of the project is to improve the safety of rail/highway crossings and railroad operations, reduce transportation time, and reduce operating costs.

Purpose and Need

Built about 1920, the existing alignment through Nenana parallels the Tanana River along the City's waterfront. In order to serve the Nenana waterfront, the tracks were placed in large curved sections in downtown Nenana. The track was then curved again to gain elevation from the port to the high bridge across the Tanana River. This alignment has not changed since original construction, and the issues of community growth, public safety, and railroad operational efficiency now need to be addressed:

- **Curvature:** Several curves exceed modern design standards and some are relatively sharp at 12 degrees. As a result, trains must go slower, derailment risk is higher, and the force of heavy trains on this curved track requires intensive, expensive maintenance.
- **Crossings:** Six at-grade crossings cause safety concerns in Nenana. This includes the potential for train-vehicle collisions, as well as occasionally blocking crossings, thereby delaying access to key facilities such as the medical clinic.
- **Downtown Location:** Trains run through downtown Nenana, subjecting the more populated areas to noise and vibration, as well as risk involved with the transit of hazardous materials.

Benefits

The project's primary objectives are to improve the safety of rail/highway crossings and railroad operations, reduce rail transportation times, and reduce operating costs. The project also provides other opportunities for community-based improvements. Specifically, benefits derived from a new track alignment include:

- At-grade crossing safety concerns would be addressed by the possible elimination of some crossings, and a dramatic reduction in the rail traffic on others.
- The new alignment would grade separate road crossings – where trains go over the road – nearly eliminating the risk of train-vehicle collisions.
- The new alignment would also reduce trains running through downtown Nenana, thereby reducing the transportation of hazardous materials through downtown, and reducing disturbance from noise and vibration.
- Straighter track alignment would significantly reduce derailment risk, while increasing train speeds. The proposed alignment would reduce the length of the track by nearly 2 miles and save as much as 6-8 minutes in through train running time.
- The new track structure would be much less maintenance intensive, and existing railroad maintenance facilities may be relocated.
- Rail service to the Port of Nenana would be maintained, and the project would provide the opportunity to serve the Nenana Airport with a rail spur.

Project Scope

Design of the new realignment outside of the existing right-of-way must address several significant issues that require coordination with individuals from tribal, federal, state and local government organizations:



Fairbanks Freight Intermodal Improvements

PROJECT FACTS

Project Scope

The Alaska Railroad (ARRC) and Alaska Department of Transportation & Public Facilities (ADOT/PF) are pursuing projects that will result in improvements to the Freight Intermodal Area of the Alaska Railroad's Fairbanks Rail Yard. There are two major areas of improvement.

1 Danby Street intersection access improvements

This area is the responsibility of ARRC:

- Move and improve existing at-grade crossings to allow longer trains to be spotted without blocking truck egress.
- Construct a centralized trailer parking location (which will accommodate up to 80 trailers) near the entrance and adjacent to Danby Street.
- Pave access to Danby Street.
- Pave and stripe the intermodal unloading area.
- Improve drainage to facilitate runoff and reduce ponding.

Future improvements call for installation of 100-foot high mast lighting at key operating areas in the yard.

2 Phillips Field Road improvements

This area is the responsibility of ADOT/PF:

- Resurface and strengthen the existing pavement.
- Widen the shoulders.
- Replace and improve guardrail.
- Remove vegetation/other sight obstruction.

Benefits

Danby intersection access improvements will enable faster pick-up and drop-off by truck operators, and will enhance safety and security of train/truck operations.

Phillips Field Road improvements will enhance truck traffic efficiency and safety by improving and expanding driving area and improving visibility at intersections and curves.

Project Status

- The project concepts were developed in 2005 and 2006.
- Final design and engineering will begin in 2007. Project completion is expected by 2010.

Project Cost and Funding

The Federal Highway Administration is funding 91% of the projects, providing a \$5 million grant through the Alaska Department of Transportation and Public Facilities.

ARRC and ADOT/PF will provide matching funds at 9% of the grant. ARRC's match is approximately \$248,000.



Fairbanks Freight Intermodal Improvements



Fairbanks Area Rail Realignment

PROJECT FACTS

Project Scope - Fairbanks to North Pole

The Alaska Railroad Corporation (ARRC) proposes to improve and realign the railroad track along its Eielson Branch. The project area extends from the new ARRC depot in Fairbanks at railroad Milepost (MP) G0.0 and ends at MP G19.0, approximately three miles east of the city of North Pole, immediately west of the Chena River Floodway. The branch serves three major users, including Fort Wainwright, Eielson AFB, and a North Pole refinery.

This project was most recently included in the Eielson Branch Rail Realignment Environmental Assessment (EBRR EA), initiated in early 2006 with funding from the Department of Defense (DOD). In late 2006, the Fort Wainwright segment of the project was separated as having immediate need and independent utility, and to preserve DOD funding. Going forward, the Fairbanks-to-North Pole part of the Fairbanks area Realignment will build on preliminary engineering, public involvement and concept analysis gleaned from the EBRR EA.

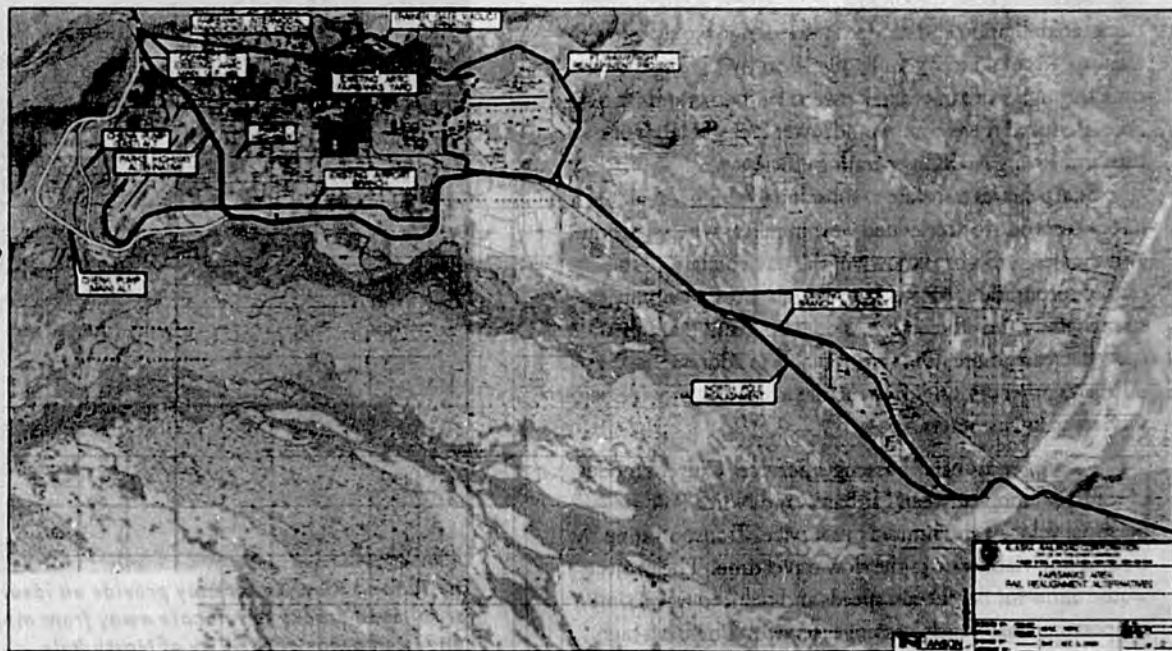
Several alternatives are being considered for realigning the track and crossing the Richardson Highway. Once south of the highway, the realigned track will likely be on, or adjacent to, the flood levee along the Tanana River.

Project Scope - South Fairbanks

In summer 2006, at the request of Fairbanks, North Pole and Fairbanks North Star Borough leadership, the Alaska Railroad Corporation (ARRC) initiated public involvement and conceptual planning activities to move forward on a project to realign and/or improve freight rail tracks through the city of Fairbanks. This effort was essentially the next step on previous studies that had conceptualized potential alignments. These studies considered new rail alignments through south and west Fairbanks and potential upgrades to the existing rail alignment. The goal of the South Fairbanks Rail Realignment was to advance to a design stage, develop additional alternatives as necessary, and hold public meetings to identify community interests and concerns. The Fairbanks-to-North Pole segment of the EBRR will be incorporated into this goal, moving forward as the Fairbanks Area Rail Realignment.

Purpose and Need

The purpose of Fairbanks Area Rail Realignment Project is to: 1) enhance the safety of rail/roadway crossings, railroad operations, and pedestrian activities



within urban/suburban Fairbanks and along the Eielson Branch; 2) reduce travel times and improve operational efficiency; and 3) accommodate mass transit/passenger service. Objectives are to construct a straighter railroad track alignment, reduce the number of at-grade (same elevation) roadway crossings, and establish a rail-based passenger system in the Fairbanks North Star Borough (FNSB).

Enhance Safety: There are dozens of at-grade road crossings within Fairbanks and along the Eielson Branch. Fewer at-grade crossings would decrease the inherent safety concerns, including the potential for accidents between trains and vehicular traffic. It would also provide reduce roadway traffic delays, including delays to emergency response vehicles.

Sharp curves on the track increase the likelihood of train derailments, while straighter track reduces the risk. In the Fairbanks Area, there are dozens of curves ranging from 1 degree (°) to 14°, and 9 curves sharper than 6°. The desired degree of curvature is between 1° to 3°, preferably less than 2°. The proposed project would straighten sharp curves along the majority of the route of less than 2°.

Currently, the track passes near four schools: Ladd Elementary and Tanana Middle schools on Trainer Gate Road in Fairbanks, and the North Pole High School and Middle schools accessible from the Old Richardson Highway. In North Pole, popular restaurants that are frequented by students are on the opposite side of the railroad tracks, and there are no controlled crossings in the area. The project would realign the track away from the Old Richardson Highway in North Pole.

Operational Efficiency: Existing track curvature limits train speed to 10-20 mph, resulting in long travel times and high operating costs (labor, fuel, etc.). Curve straightening, track rehabilitation and modern track design would allow for train speeds of 45 to 79 mph, significantly cutting travel time through Fairbanks and between Fairbanks and North Pole. Reduced travel time would lower fuel and labor costs, thus improving ARRC's operating efficiency.

Sharp curves translate to substantially higher maintenance costs due to accelerated wear in railcar wheels, the rail, and the ties, and a breakdown of the track ballast. As a public corporation, ARRC has a fiduciary responsibility to spend wisely and efficiently. As operating and maintenance costs decrease, more funds are available to address the railroad's other critical infrastructure needs and provide better services to its customers.

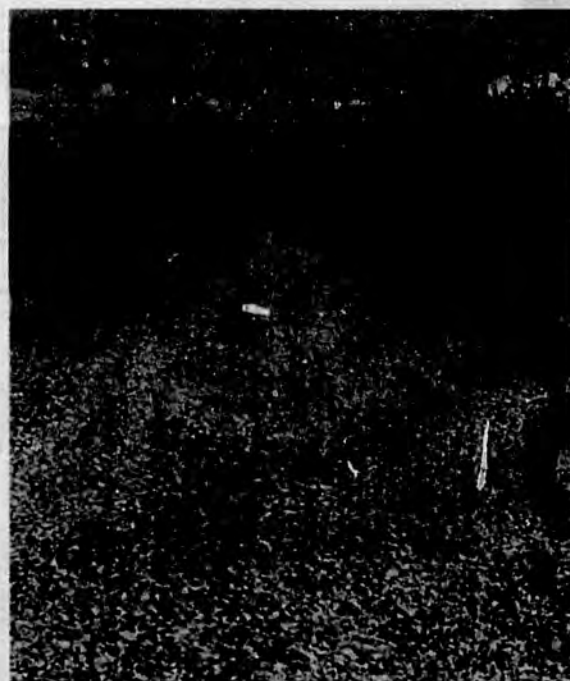
Passenger Transit / Passenger Service: Current modes of transportation between Fairbanks and North Pole are personal vehicles and limited bus service. Transportation by train is not viable due to the slow travel time. The project would allow for faster train speeds and reduced travel times, supporting mass transit/passenger services. There is a high potential for rail ridership given the location of the Eielson

Branch, service to North Pole, Fort Wainwright, the University of Fairbanks, and the commercial district of Fairbanks, linking employment and shopping centers.

Passenger transit service would be particularly important in the winter. Much of the FNSB lies within an air quality maintenance area due to carbon monoxide (CO) emissions from motor vehicles that increase in low winter temperatures. The winter driving environment frequently includes blowing snow, black ice and other cold-weather conditions that render the roadway slick and dangerous. Passenger rail service would provide a safer transportation alternative during the winter, which typically lasts 5-6 months in Alaska's interior.

Status

- Reconnaissance level engineering and phasing studies were completed in 2001 and 2002. These studies considered the feasibility of realignment outside of the more populated areas of Fairbanks and North Pole.
- Public outreach was conducted to develop consensus for the realignments. Formal resolutions of support have been received from the Fairbanks North Star Borough and the City of North Pole.
- ARRC began work on preliminary design and planning for an Eielson Branch Rail Realignment Environmental Assessment (EA) in May 2005. The Federal Railroad Administration (FRA) was the federal funding agency and both the FRA and Federal Transit Administration



The Tanana River Levee may provide an ideal "bed" for railroad tracks to relocate away from more congested areas of the City of North Pole.

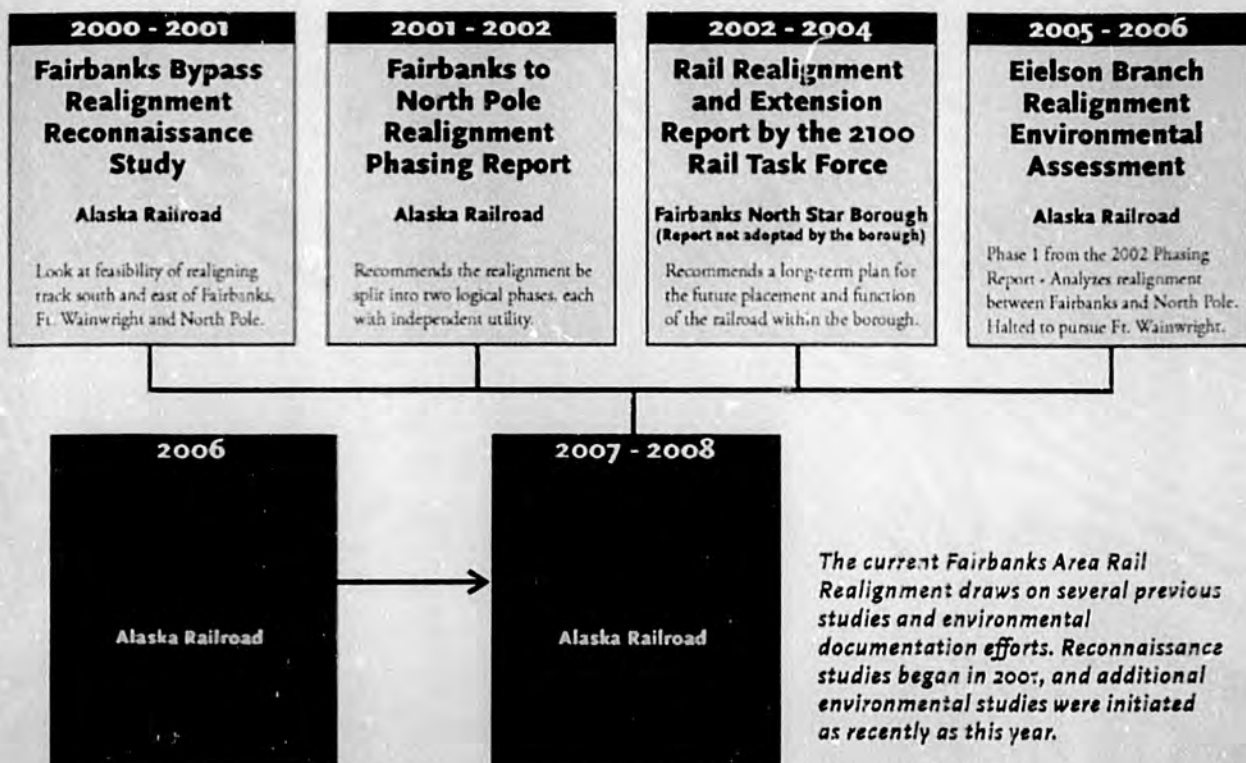


(FTA) were the lead agencies for preparation of the EA in accordance with the National Environmental Policy Act (NEPA). Funding came from the Department of Defense.

- The EA scoping (fact-gathering) process with agencies and the public began in June, with an agency scoping meeting held June 28 in Fairbanks, and public scoping meetings held July 6 in Fairbanks and July 7 in North Pole in 2006.
- In Summer 2006, the Railroad initiated action to address a rail realignment outside of the more congested areas of Fairbanks. Called the South Fairbanks Rail Realignment Study, the effort renewed public involvement activities and started some preliminary engineering and alternative analysis of options posed in previous reconnaissance studies.
- In December 2006, the Fort Wainwright component of the Eielson Branch Rail Realignment EA project was separated, effectively redirecting the EA focus to Fort Wainwright.
- For 2007 the South Fairbanks and Eielson Branch realignment efforts were combined into a Fairbanks Area Rail Realignment project, which will likely require an Environmental Impact Statement. Until funding is identified, this project will move forward with an alternatives analysis that incorporate the findings of previous studies.

Project Costs

- \$200,000 in initial funding to accomplish preliminary engineering for the South Fairbanks Rail Realignment Study was provided 91% by the Federal Highway Administration (FHWA) with a 9% match from the Alaska Railroad. Residual funds from this money will be used to pursue Alternative Analysis work for the Fairbanks Area Rail Realignment project. An additional \$200,000 is budgeted for 2007, with funding from FHWA and an ARRC match.
- The Eielson Branch Rail Realignment Environmental Assessment, including preliminary engineering was estimated to cost approximately \$1.5 million and was funded through a U.S. Department of Defense (DOD) 2005 appropriation being administered as a grant through the Federal Railroad Administration. \$2 million in additional DOD funding was appropriated in 2006. While DOD funds will be used to complete environmental documentation for the Fort Wainwright segment, work accomplished on the EA will benefit the Fairbanks Area Rail Realignment project effort. Additionally, DOD has appropriated \$12 million to begin construction on the Fort Wainwright segment in 2007.
- Project cost range for design and construction of realignment efforts are estimated to be hundreds of millions of dollars. Funding for preliminary engineering, environmental documentation, final design and construction has not been identified.





Fort Wainwright Rail Realignment

Project Scope

The Alaska Railroad Corporation (ARRC) proposes to improve and/or realign approximately five (5) miles of railroad track that runs through Fort Wainwright. Located along the ARRC Eielson Branch, the project segment begins approximately at Branch Milepost G3.0 (Trainor Gate Road) and MP G8.0 (Badger Road). To that end, ARRC proposed an Environmental Assessment (EA) that is separate from the EA that currently considers a Fort Wainwright realignment.

The track through Fort Wainwright was included in the Eielson Branch Rail Realignment Environmental Assessment (EBRR EA) project, which was initiated in early 2006 and addressed realignment and improvement of the 19-mile branch between the Fairbanks Depot and North Pole. The EBRR EA was co-led by the Federal Railroad Administration (FRA) and the Federal Transit Administration (FTA) and funded by the Department of Defense (DOD).

As the EBRR EA progressed in 2006 it became clear, through public involvement, that portions of the branch realignment would be better addressed in a broader study (likely an Environmental Impact Statement) that also included realignment of the track outside of more

populated areas of Fairbanks. This broader effort is now known as the Fairbanks Area Rail Realignment (FARR).

Realignment on Fort Wainwright has immediate need, given existing negative impacts to the installation's operations. It also has independent utility, meaning it is required regardless of the outcome of any larger project. Implementing a Fort Wainwright Rail Realignment (FWRR) would not detract from, or enhance, any options considered in the larger FARR project.

Purpose and Need

The Fort Wainwright Rail Realignment purpose is to:

- 1 Improve safety by eliminating at-grade crossings in the cantonment area;
- 2 Reduce rail-related traffic congestion, noise and interference with Fort Wainwright's operational activities in its main cantonment area;
- 3 Enhance security and provide force protection by moving the track closer to the post boundary and away from post infrastructure and personnel;
- 4 Enhance safety by relocating the railroad tracks and train traffic away from the Ladd Field immediate runway protection zone;





- 3 Provide better rail service to Fort Wainwright's proposed loading facility; and
- 6 Reduce travel times through Fort Wainwright and improve ARRC's operational efficiency in the Fort Wainwright area.

Enhance Safety: There are 10 at-grade crossings on Fort Wainwright. Eliminating at-grade crossings would decrease the inherent safety concerns, including the potential for accidents between trains and vehicular traffic. It would also avoid roadway traffic delays.

Sharp curves on the track increase the likelihood of train derailments, while straighter track reduces the risk. On the installation, there are a series of 11 curves ranging from 2° to 14°. The desired degree of curvature is between 1° to 3°, preferably less than 2°. The proposed project would straighten sharp curves reducing track curvature to 3° or less in most areas on Fort Wainwright.

Operational Efficiency: Existing track curvature limits train speed to 10 mph, resulting in long travel times. It takes from 20-25 minutes to traverse the fort. As longer freight trains travel through the area, the installation is effectively cut in half with all street access cut off due to the number of at-grade crossings. Curve straightening, track rehabilitation and modern track design would allow for train speeds of at least 35 mph, cutting travel time significantly. Reduced travel time would lower fuel and labor costs, thus improving ARRC's operating efficiency.

Sharp curves translate to substantially higher maintenance costs due to accelerated wear in railcar wheels, the rail, and the ties, and a breakdown of the track ballast. As a public corporation, ARRC has a fiduciary responsibility to spend wisely and efficiently. As operating and maintenance costs decrease, more funds are available to address the railroad's other critical infrastructure needs and provide better services to its customers.

Improved operating efficiency and reduced travel times would benefit ARRC's freight customers, including the ongoing transformation of U.S. Army infantry brigade at Fort Wainwright to a Stryker Brigade Combat Team (SBCT). The SBCT moves equipment and personnel between the Port of Anchorage and Fort Wainwright for deployment throughout the Pacific. Rail transportation is an efficient means to accomplish the deployments. The proposed project would reduce traffic delays caused by long military convoy transport on the highway, improve mobilization times, and reduce wear and tear on both military equipment and the highway.

Reduce Military Interference: The existing alignment extends through the cantonment area of Fort Wainwright. Trains slowed by curvature and at-grade crossings interfere with traffic movements and disrupt other Fort Wainwright operational activities for nearly 20 minutes, up to eight times

per day. Such disruptions affect routine military activities and emergency response and mobilization activities. Fort Wainwright has seen an increase in personnel and expects further increases as new units are added and the SCBT returns from duty abroad. Personnel growth will increase vehicular traffic on post roads and the need for housing and medical services rise. The project would move the railroad out of the main cantonment area, and away from planned housing areas and the new post hospital.

Status

- Reconnaissance level engineering and phasing studies were completed in 2001 and 2002. These studies considered the feasibility of realignment around Fairbanks and North Pole, and considered options and impacts on Fort Wainwright.
- ARRC began work on preliminary design and planning for an Eielson Branch Rail Realignment Environmental Assessment (EA) in May 2005. EA scoping (fact-gathering) meetings and dialogue with agencies and the public were pursued through 2006. Through the public process, residents and local government leaders of Fairbanks, North Pole and the Fairbanks North Star Borough, expressed the desire to see realignment of the Eielson Branch to be combined with efforts to realign the track around Fairbanks.
- By the end of 2006, ARRC requested permission from the FTA and FRA to pursue the Fort Wainwright Rail Realignment as a separate EA. The federal funding agencies agreed.

Project Costs

- Environmental analysis and preliminary engineering for the EBRR EA was originally estimated to cost approximately \$1.5 million. The EBRR EA was funded through a U.S. Department of Defense (DOD) appropriation being administered as a grant through the FRA. \$2 million in additional DOD funding was appropriated in 2006. Because DOD funding was granted for the express benefit to support the Stryker Brigade at Fort Wainwright, the DOD funds not yet spent on the EBRR EA were allocated to a component Fort Wainwright Rail Realignment EA.
- DOD appropriated an additional \$12 million to finish design and begin construction in 2007.
- It will cost an additional \$24 million to complete construction of the Fort Wainwright segment. Funding has not yet been identified, although funding will likely come from DOD.



Locomotives and Railcars to Support the Stryker Brigade

PROJECT FACTS

Project Scope

The Alaska Railroad Corporation (ARRC) plans to acquire additional locomotives and rail flat cars to enhance its capabilities to support the 172nd Stryker Brigade Combat Team, stationed at Fort Wainwright, near Fairbanks, as well as other military units in Alaska.

Over the past year, the Alaska Railroad has had a number of opportunities to prove its proficiency in moving Stryker Brigade Combat Team units that have been mobilized for duty outside of Alaska, including in Iraq. The Stryker Brigade, along with other Alaska-based U.S. Army and Air Force units, has consistently relied on Alaska Railroad infrastructure and expertise to transport equipment and personnel in support of military exercises and real-world missions.

Benefits

Purchasing additional locomotives and railcars will give the railroad more flexibility and capacity to support the Stryker Brigade's demands for reliable transport. The

brigade is outfitted with tank-like armored vehicles (Strykers) that perform a number of battle functions. Weighing approximately 19 tons each, the vehicles present a weighty challenge for mobilization. Fortunately, the railroad is ideally suited to transport heavy cargo. Along with efficient freight capability, the railroad is also equipped to transport a large number of personnel. The Stryker Brigade Combat Team consists of about 3,100 soldiers stationed at Fort Wainwright, along with another 700 soldiers stationed at Fort Richardson, near Anchorage.

Project Status

- 30 flat cars are scheduled for completion in spring 2007.
- Four SD70 MAC locomotives are scheduled for completion in September 2007.

Project Costs and Funding

- \$16 million budget, funded through a U.S. Department of Defense (DOD) appropriation that will likely be administered as a grant through the Federal Railroad Administration.



In spring 2005, the Alaska Railroad loads Stryker Brigade vehicles and equipment from Fort Wainwright, for shipment to the Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana. The brigade team tested their combat skills at JRTC and became officially certified as a Stryker unit.



Northern Rail Extension

Project Description

The Alaska Railroad Corporation proposes to construct and operate a new rail line in the area between North Pole and Delta Junction. The project would involve approximately 80 miles of new rail line connecting the existing Eielson Branch rail line at the Chena River Overflow Structure and extending to a point near Delta Junction. The proposed rail line would provide freight and potentially passenger rail services serving commercial interests and communities in or near the project corridor.

The new rail line would be operated as part of the Alaska Railroad system. As a common carrier, the line would be available to the general public, commercial, and military shippers including agricultural and resource development businesses. With a top design speed of 79 miles per hour for passenger trains, the track could support public transit operations between Fairbanks, North Pole, Salcha, and Delta Junction.

In order to fulfill transport needs and avoid mountainous terrain along the northeast bank of the Tanana River, the project would require a Tanana River crossing. The new rail line may also cross the Salcha, Little Delta and Delta Rivers, as well as Delta Creek.

The current project scope is to complete sufficient engineering and analysis to support the development of an Environmental Impact Statement (EIS) as required by the National Environmental Policy Act (NEPA). This work includes identifying and analyzing feasible alignment alternatives, completing engineering design on alternatives selected for review in the EIS, and estimating anticipated construction costs.

Purpose and Need

The Northern Rail Extension Project would provide essential freight and passenger service to support transportation and mobility needs of the region. Specifically, the project may provide any or all of the following:

- Commercial freight service supporting communities and commerce in or near the rail corridor, including existing agricultural, mining, and petrochemical industries, thus reducing reliance and wear and tear on the Richardson Highway. Currently, both the agricultural community located near Delta Junction and mineral resource industries in the area receive materials that are initially shipped by rail. Materials must be off-loaded in or near Fairbanks, and then transported by truck via the Richardson Highway.

- Transportation alternative to the Richardson Highway for passenger transportation, with scheduled station stops between Fairbanks and Delta Junction by way of North Pole and other communities. Passenger rail service would be available for citizens, military personnel, contractors, and dependent families who wish to travel for work, shopping, medical, educational, or other reasons.
- Military support. Depending on military requirements, the rail line could provide access to military property west of the Tanana River and provide transportation alternatives to support military training exercises. Future training needs and uses for these training lands are currently being evaluated.
- Support regional tourism. Tourism is a major industry in Alaska and the rail line would provide further opportunities for visitors to enjoy the Alaska environment.

Benefits

- Common carrier rail service would provide for bulk transport of goods to and from existing agricultural developments, mineral resource developments, and other business enterprises. Freight and transit services in the area would enhance opportunities for economic expansion in a relatively isolated area of the state. The tourism support provided by the Alaska Railroad to other parts of the system could potentially be expanded to Delta Junction and provide additional opportunities to see Alaska by rail.
- Additional communities within Interior Alaska would be connected by rail to three ports, including the Port of Anchorage, recently designated as one of 15 strategic ports in the nation.
- Public transit would facilitate additional choices for families and individuals who desire safe, reliable, year-round transportation opportunities between the Delta Junction and Fairbanks areas. Rail transit would be an alternative to driving the Richardson Highway, which can present hazardous driving conditions during the long, dark, icy winter months.
- The rail extension could assist the military in accessing training facilities within the project corridor.



Status/Timeline

- Late 2004, ARRC initiated conceptual development.
- March 2005, HDR Engineering Inc. was retained to provide Program Management, preliminary engineering, and environmental support services.
- April 2005, ICF Consulting was selected as the Independent Third Party Contractor to prepare the EIS, under the direction of the Surface Transportation Board (STB), the lead federal agency.
- November 2005, STB publishes a "Notice of Intent" in the Federal Register.
- December 2005, Public and Agency Scoping meetings.
- Mid 2007, Draft EIS is expected to be complete.
- Early 2008, Final EIS and STB Decision is expected.
- Final design and construction based on funding

Cost and Funding

- Preliminary engineering and design and NEPA-mandated environmental assessments and documentation are included in a \$12.5 million budget from an initial Department of Defense (DOD) appropriation in 2006 being administered as a grant through the Federal Railroad Administration (FRA). DOD has appropriated an additional \$4 million for 2007.
- Construction costs, currently estimated to be between \$450 and \$800 million, will be more accurately determined through the engineering process in support of the EIS preparation. Funding sources are being sought. All or part of the project could be financed through the sale of revenue bonds that are secured by advance shipping contracts.

Project Participants

There are a number of players involved with the Northern Rail Extension and its environmental study phase.

- The Alaska Railroad Corporation (ARRC) is a self sustaining corporation owned by the State of Alaska. ARRC is the project sponsor of the Northern Rail Extension Project
- The Surface Transportation Board (STB) is the lead federal agency on the project. Because the project involves new line construction requiring federal approval, an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA) will be prepared. The EIS will evaluate, among other things, the proposed action and reasonable alternatives, including no action. The STB, through its Section of Environmental Analysis (SEA), will prepare the EIS with the assistance of an independent third party contractor.

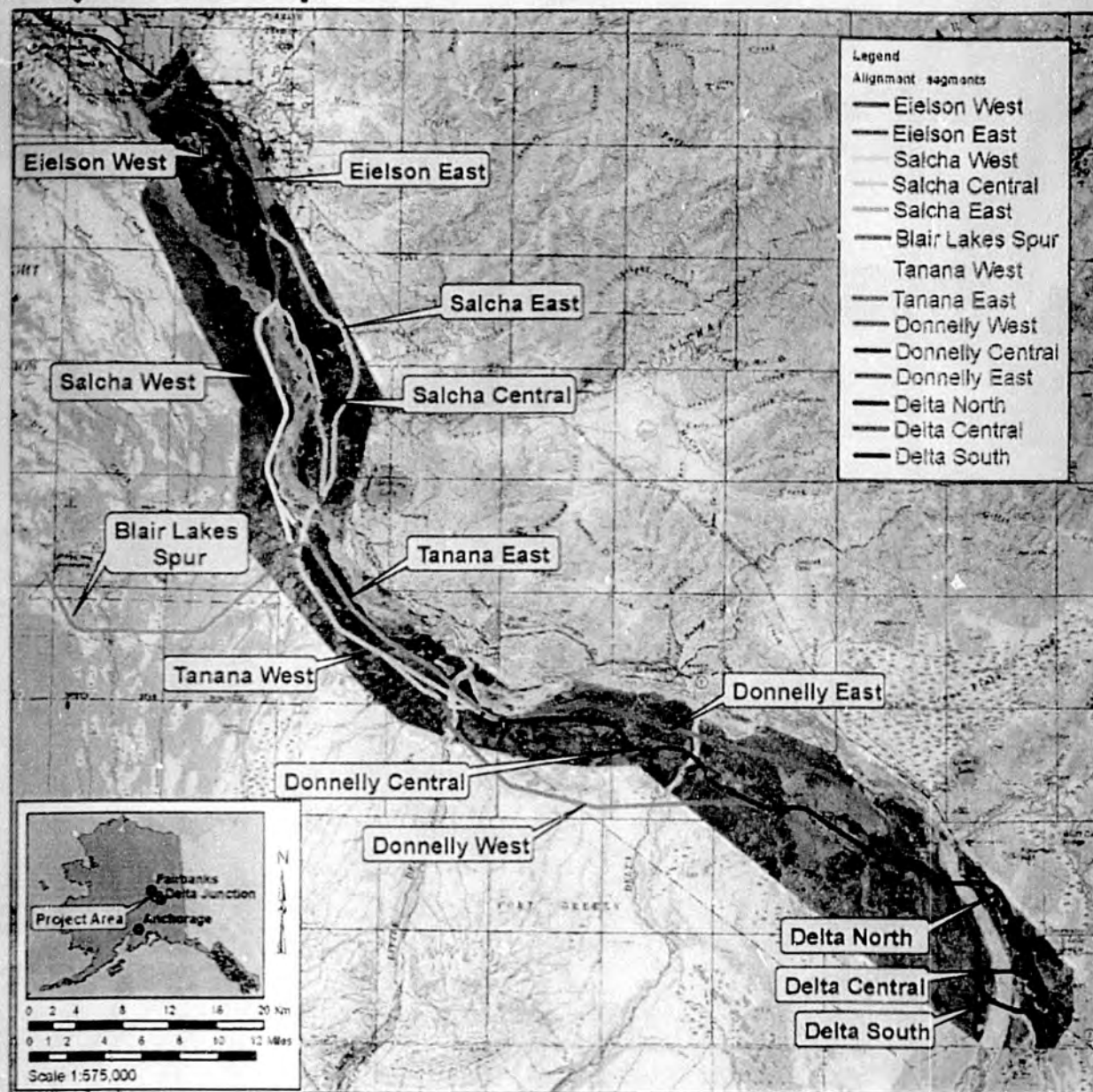
- ICF Consulting, Inc. (ICF) was selected as the independent third party contractor to assist the STB in the preparation of the EIS. ICF has extensive experience in environmental consulting and has served as the third party consultant to SEA in the preparation of NEPA documents (EAs and EISs) in other rail construction matters. ICF Consulting, Inc., with offices in the Washington, D.C. area, has hired several Alaska-based firms to assist with EIS tasks. ICF Consulting, and its Alaska-based subcontractors, will act under the sole direct supervision and control of SEA. As part of the environmental review process, the public will be notified and asked to provide comments.
- HDR Alaska Inc. (HDR) has been contracted by ARRC to provide environmental and public relations services in support of the NEPA process. ARRC may provide technical and environmental information to SEA for possible use by the agency in preparing the EIS. In addition, ARRC plans to keep the Alaskan public apprised of progress of the project, HDR is assisting ARRC in preparing project newsletters, maintaining a project web site, and providing other public information services.
- TNH-Hanson has been retained by ARRC to develop preliminary engineering to support the EIS process.
- The Federal Railroad Administration (FRA) is a cooperating agency with the STB and the administering agency for the federal grant funding the EIS development. The FRA will provide technical oversight for the project.
- Cooperating Federal Agencies. In addition to the FRA the following federal agencies will be cooperating on the EIS: The Federal Transit Administration (FTA), The Bureau of Land Management (BLM), The Alaska Command (ALCOM), The U.S. Air Force (USAF) 354th Fighter Wing (Stationed at Eielson Air Force Base), The U. S. Army Corps of Engineers (USACE), and the U. S. Coast Guard (USCG). These agencies will provide review and comment on various aspects of the project throughout the development of the EIS.

To provide public comment

- E-mail to public_comment@akrr.com
- Mail to: Alaska Railroad Corporation - Capital Projects
P.O. Box 107500, Anchorage, AK 99510-7500
- or Fax to (907) 265-2365
- TTY/TDD 265-2620/voice 265-2494 or
Alaska Relay Service TTY 1-800-770-8973/
voice 1-800-770-8255



Project Area Map



Potential alternatives for proposed railroad extension from Eielson AFB to Delta Junction area.



Improved Siding Access

Project Scope

The Alaska Railroad (ARRC) is making its operations more safe and efficient by improving signalization and access to sidings (turnouts used to allow trains to pass) through this ongoing program, which began in 2000. The Railroad is improving access to sidings by replacing some manual switches with remote controlled switches, heating switch locations, lengthening existing sidings to accommodate longer trains, upgrading existing sidings for use by new locomotives, and building new sidings.

The total program will provide Centralized Traffic Control (CTC) and heaters at sidings from South Anchorage to Pittman. Some existing sidings are being extended; others are being newly built. Decisions to add, upgrade or

automate and signalize sidings depend on several factors:

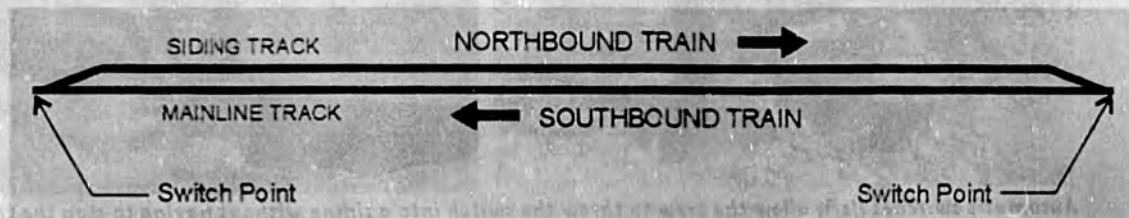
- **Obvious need.** Optimally, sidings are spaced at approximately half-hour (based on travel time) intervals, so that a train would not be delayed over an hour while waiting for an opposing train to pass. A usable siding is one that is long enough to hold a freight train up to 6,000 feet long and is constructed with sufficient material to withstand the weight and tractive forces produced by a heavy freight train pulled by SD70MAC locomotives. Freight trains that pull into a siding allow passenger trains to proceed without delay.
- **Statistical need.** ARRC uses a computerized rail traffic modeling program to identify

areas needing strategic siding upgrades. In 2000, model statistics, coupled with input from train dispatchers and transportation managers, resulted in a "5 Year Siding Improvement Plan."

The 5-year Siding Access Plan has continued to be updated as needs are identified and as funding is confirmed. On page 3, see siding and CTC projects accomplished between 2000 and 2006, and other projects proposed for future years.



Sidings, such as the Pittman Siding constructed in 2001 pictured above, allow trains traveling in opposite directions on the main track to pass.



Benefits

- Enhance efficiency for freight and passenger business by enabling movement of more and longer trains in meet-and-pass situations.
- Reduce the risk of injuries and incidents by providing a fail-safe system to determine status of switches.
- Lengthening existing sidings will accommodate long freight trains, allowing passenger trains to stay on the main line.
- Reduce crew sizes and maintenance required to keep siding switches operational in the winter.



Train signals are the "stop signs" of the railroad. They indicate when a train can continue on the main track, or when it must move into a siding. Automatic train signals can be controlled from the train or from the Railroad's Anchorage Dispatch Center.

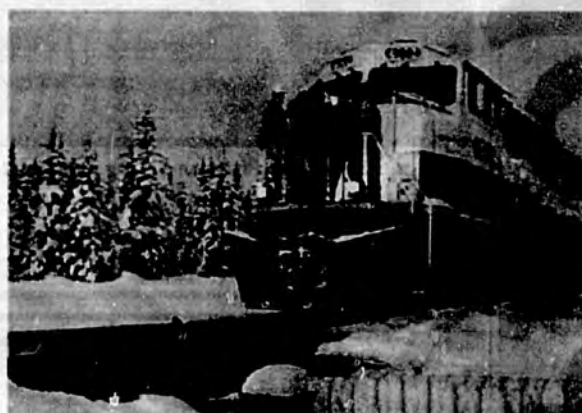
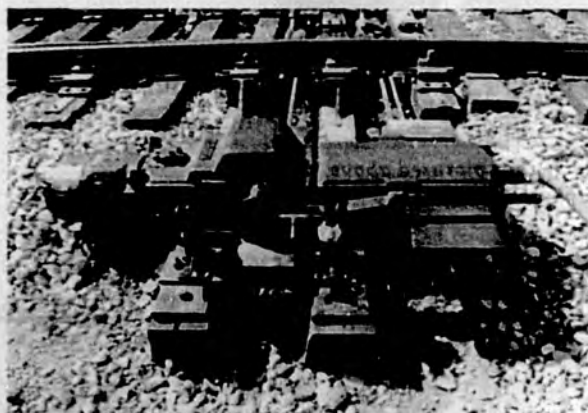
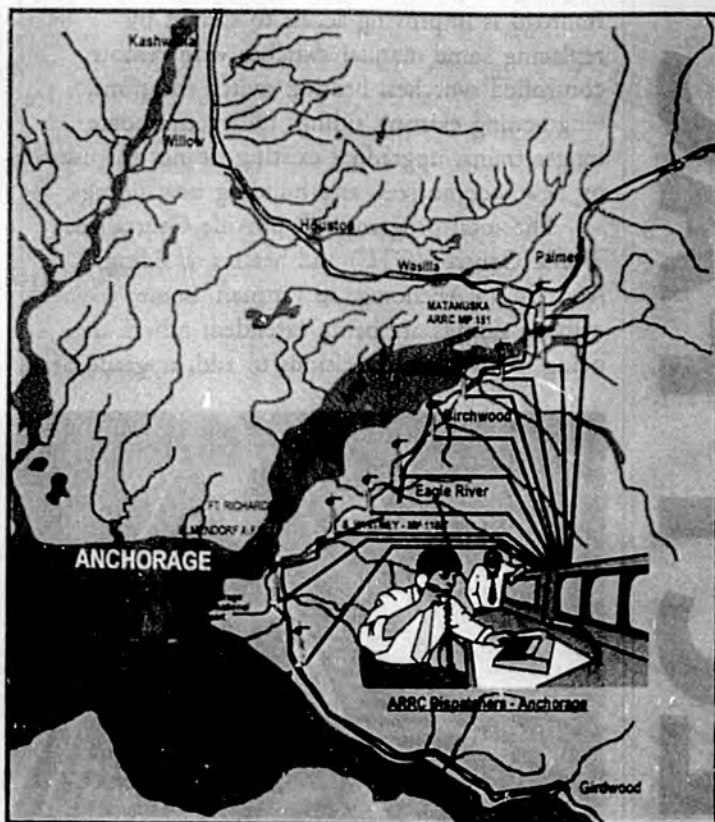
Cost and Funding

The Federal Railroad Administration (FRA) has provided the following grant funds:

- 2005 - \$1.11 million
- 2004 - \$1.048 million
- 2003 - \$4.495 million
- 2002 - \$8.25 million
- 2001 - \$9.317 million

Starting with 2006, funding will be provided 91% by the Federal Transit Administration (FTA) and 9% by the Alaska Railroad. FTA/ARRC funding to date:

- 2006 - \$2.5 million
- 2007 - \$3.066 million budgeted



Automatic switches (left) allow the crew to throw the switch into a siding without having to stop the train.



Siding Projects in 2000-2006

- **Hurricane Section:** Siding upgrade at MP 281. Extend siding from 2,400 feet to 6,000 feet, and install remote controlled switches and switch heaters. Completed November 2000.
- **Pittman:** New 6,000-foot siding at MP 166, about 10 miles north of Healy. Completed 2001.
- **North Ferry:** New 6,000-foot siding at MP 274, just north of Wasilla. Completed 2001.
- **Hunter:** Siding rehabilitation at MP 40. Replace old rail with new heavier rail on existing 4,800-ft. siding. Completed May 2002.
- **Indian:** Siding rehabilitation at MP 88.7. Replace old rail with new heavier rail on existing 4,800-ft. siding. Completed July 2002.
- **Rainbow:** Siding rehabilitation at MP 93.1. Replace old rail with new heavier rail on existing 1,500-ft. siding, and add north switch. Completed in 2003.
- **Eldutna:** Siding extension at MP 141. Lengthen approximately 160 feet to a total of 5,252 feet to accommodate block signals. Relocate north end turnout, and install heated power switches. Completed 2004.
- **Matanuska (Palmer Junction):** New 6,000-ft. siding, built to enhance train passing efficiency. Coincided with the curve realignment at MP-151 and the extension of the Palmer Junction track. Install heated power switches. Completed October 2003.
- **Houston:** Siding rehabilitation at MP 175.3. Replace old rail with new heavier rail on existing 2,422 feet of siding. Completed August 2002.
- **Susitna:** New 6,200-ft. siding located near MP 251, 30 miles south of the Susitna River crossing built to enhance train passing efficiency. Completed September 2002.
- **Summit:** Siding extension at MP 312.5. Lengthen 1000 feet to a total of 3,000 feet. Replace old rail with new heavier rail on existing 2,000 feet of siding. Completed July 2002.
- **Manley:** Siding rehabilitation at MP 420.4, 10 miles north of the Tanana River crossing. Replace old rail with new heavier rail on existing 3,900 feet of siding and extend to 6,200 feet. Completed 2003.
- **Goldstream (Ester):** New 6,200-ft. siding at MP 460. 2005.
- **Anchorage Yard:** New 6000-ft. siding at MP 116-117, near the Ship Creek north bluff excavation. Needed as part of yard expansion effort to meet current and future demand. 2005.
- **Birchwood:** Siding extension at MP 136.3. Lengthen siding by 2,100 feet for a total of 6,300 feet to accommodate longer trains. Scheduled in conjunction with curve realignments at MP-135. Install heated power switches. Completed 2004.
- **Gold Creek:** Install heated power switches at MP 263.2. Completed 2003.
- **Complete CTC Installation between Anchorage and Matanuska:** Install intermediate signals and convert existing "D" signals to intermediate signals. Completed 2004.

- **Extend CTC from MP 109.5 south to MP 105.2:** Install power switch at the south end of double track MP 105.2 and install power crossover switches near MP 107.2. 2005.
- **CTC Installation from Matanuska to Pittman:** Install intermediate signals and electric locks between Matanuska and Pittman. 2005.
- **Chulitna:** Upgrade siding with heavier rail at MP 273.8. Completed 2006.
- **Denali Park:** Upgrade siding with heavier rail at MP 347.7. Completed in 2006.

Other Proposed Siding and CTC Projects

- **Broad Pass:** Extend siding to 6,200 feet at MP 304-305.
- **Canwell:** Extend siding to 6,200 feet and install heated power switches at MP 319.5.
- **Canyon:** Siding upgrade at MP 268.4.
- **Cascade:** New 2,200-foot siding with heated power switches at MP 350.5.
- **Caswell:** Extend siding to 6,200 feet and install heated power switches at MP 202.3.
- **Clear Site:** Extend siding to 6,200 feet and install heated power switches at MP 392.9.
- **Colorado:** Extend siding to 6,200 feet near MP 298.
- **Colorado to Broad Pass:** 6.1-mile extension to connect two existing sidings, including heated power switches and CTC (see separate fact sheet).
- **Dunbar:** Extend siding to 6,200 feet and install heated power switches at MP 431.6.
- **Garner:** Upgrade siding with heavier rail at MP 355.7.
- **Houston:** Extend siding to 5,000 feet with heated power switches and CTC at MP 175.3.
- **North Nenana:** Extend siding to 6,200 feet at MP 415.4.
- **Saulich:** Extend siding to 6,200 feet with heated power switches at MP 450.8.
- **Wasilla:** Extend siding to 4,800 feet at MP 159.8.
- **Other Proposed Heated Power Switch installations:** Chase at MP 236.2, Healy at MP 358.7, Susitna at MP 250, Sunshine at MP 215.3 and Willow at MP 185.7.
- **Other Proposed CTC installations:** Ester at MP 460, Happy at MP 463, Summit at MP 312.5, and Willow at MP 185.7.



2007 Track Rehabilitation

Project Scope

The Alaska Railroad (ARRC) is continuing an aggressive track rehabilitation program in 2007 as part of an ongoing effort to upgrade the mainline, sidings and yards from Seward to Fairbanks. The program calls for replacement of rail, ties and ballast in areas of critical need railbelt-wide.

For engineering and maintenance purposes, the Railroad divides the mainline track into five districts, as follows:

- MP 0 (Seward) to MP 120 (just south of Eagle River)
- MP 120 to MP 203 (just north of Caswell)
- MP 203 to MP 306 (just north of Broad Pass)
- MP 306 to MP 386 (between Healy and Nenana)
- MP 386 to Eielson AFB

Project Cost and Funding

The 2007 track rehabilitation budget is funded \$31.7 million by the Alaska Railroad through the sale of revenues bonds that are backed by the Federal Transit Administration (FTA):

- \$15.3 million to replace rail and eliminate joints (welding)
- \$5.5 million to replace wood ties



An Alaska Railroad crew installs new track that is improved with continuously welded rail and concrete ties.

- \$6.6 million to install concrete ties in high degree curve areas.
- \$4.3 million to place ballast and surface

Rail Program

Rail is replaced when it has worn away in curves, or when it has become severely battered in tangent sections. The 2007 Rail Program will replace worn rail joints with continuously welded rail (CWR). The conversion to CWR dramatically decreases maintenance costs, and improves ride quality. Focus will be on the corridors from Hurricane to Broad Pass, Denali Park, Windy, locations near Nenana and near Willow. Work to include rail grinding for longevity of rail, rebuilding mainline switches, as needed, and rail flaw detection.