



Cooper Landing, Alaska

Walkable Community Project

*Alternative transportation planning to address congestion
and road impacts near the Russian and Kenai Rivers*



Native Village of Eyak
Alternative Transportation Planning Project

September 2009





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I. Project Overview

A. Native Village of Eyak Regional Alternative Transportation Planning

Cooper Landing has been included in the scope of a regional project involving a comprehensive plan for alternative transportation. The Native Village of Eyak received a grant from the Federal Transit Administration to look at a system-wide plan for Prince William Sound, the Gulf of Alaska, and the Copper River Watershed. The grant language states the need to address congestion and road impacts for areas (specifically named) like Cooper Landing near the Russian and Kenai Rivers, and Chitina on the Copper River, and to propose alternative transportation options, that would reduce impacts while still allowing visitor experiences and maintain access. Cooper Landing's desire to host a "walkable communities" design charette for the community, fit into the overall project scope and timelines.

B. Cooper Landing Planning

A series of meetings have been held to address the pressing issues of safety and pedestrian access within the community. Deb Carlson and a "community core group" were able to propose a strategy for the Eyak Alternative Transportation Project to adopt their mission if they were able to raise funds to help put on a community-wide Design and Planning charette and bring in "walkable communities" consultant, Dan Burden, to conduct a walk audit and two day charette. Staff of the Native Village of Eyak decided that this fit within the guidelines of their grant, and they would match the \$4500 raised by the community through fundraisers.



During August 11-12, 2009 a design charette in Cooper Landing drew in many residents concerned about pedestrian safety

The design charette was held on August 11-12, 2009 at the Cooper Landing Community Center and was attended by 70 individuals the first day and 47 the second day. A walking tour was attended by 25 individuals. The first day had participants walk a one mile stretch of the corridor and discuss with Dan different design strategies. They then came back, and at 5 tables, spread out

to draw their plans for how the community corridor might look. There was a large degree of consensus among all five groups.

The second day included a brief visual overview of the previous days consensus designs and project priorities, and then a panel of 10 agency representatives responded to these, giving ideas and suggestions on how to proceed with finding funding, approval process, etc. In the afternoon, the “core” group and some agency people created an action plan to proceed with project requests, which included creating draft plan/vision in poster format, taking this to APC and Cooper Landing community club for approval, and then to the Kenai Borough for adoption into their overall plan. From there, letters to potential partnering agencies would be issued asking for assistance with getting on appropriate funding and program lists. Attention of the legislative delegation for the community plan was also listed in the action plan.



Day 2 of the charette, a panel of agency representatives were asked to respond to "consensus designs" generated on Day 1

The workshop included an overview of technical aspects of pedestrian facilities within the transportation network and examples of projects completed in other locations. A large group of 25 also ‘walked’ much of the Cooper Landing community, performing on-site analysis of what seems to work and what seems lacking.

The last day of the workshop was primarily devoted to discussions with agency representatives and non-profit organization interest. The day also included a discussion of consensus that had been reached concerning corridor requirements. That discussion is summarized in the Project Summary Section of this report.



A "walk-about" was performed to look at site specific safety issues - like this curve with no shoulder

1. Partners

Partners and attending organizations at the workshop included the following:

Kenai Peninsula Borough Planners
Kenai Peninsula Borough Mayor
US Fish and Wildlife Service
Environmental Protection Agency
DOT Kenai Peninsula, Highway Safety Improvement Coordinator
Chugach National Forest – US Forest Service
Senator Lisa Murkowski staff
Representative Don Young staff
Alaska Transportation Priorities Project
Alaska Trails Anchorage Citizens Coalition
Alaska Center for the Environment
Kachemak Bay Conservation Alliance
Kenai Peninsula Economic Development District
Kenai Mountain Turnagain Arm Corridor President (KMTA)
Kenai River Special Management Area (KRSMA)
CARTS Central Area Rural Transportation System, Inc.
Cooper Landing Advisory Planning Commission (CLAPC)



Cooper Landing has around 350 residents and is unincorporated. Volunteers organized this effort and invited agencies to participate.



The Sterling Highway in the heart of Cooper Landing is an Alaska Department of Transportation (ADOT) facility.



Agencies are key to this planning effort given the extensive public lands and waterways in the Cooper Landing area. These include Chugach National Forest, Kenai National Wildlife Refuge & Wilderness Area, various State and Borough Designated Recreation Lands, and the Kenai and Russian Rivers within the Kenai River Special Management Area.

2. Community Needs & Goals

The community of Cooper Landing, Alaska identified the following pressing needs to may be met in part or whole by the Walkable Community Project:

- Move traffic through in a safe and efficient manner for travelers (motorized and non-motorized)
- Protect both the ecologic and economic values of the Kenai River watershed
- Safe and healthy living for residents and tourists (paths for walking and biking)
- Allow growth of the economic base of Cooper Landing (town center and trails, paths for transportation and connections to the world class destinations that surround the community.)



Walkable Community Charette break-out discussion group

Additionally, at the meetings, specific community and project goals emerged:

1. Create an atmosphere throughout the community of Cooper Landing to allow for safe walking and bicycling; “Reclaim the community for pedestrian access”
2. Establish a “Sense of Place” for Cooper Landing
3. Protect the lake and rivers running through and surrounding the community
4. Design projects/plans to improve safety, calm traffic and reduce motor vehicle speeds
5. Create a plan that capitalizes on the presence and abilities of federal, state, and borough agencies and non-profit organizations
6. Create an overall plan to be submitted and approved by:
 - a. Cooper Landing
 - b. Borough Planning Commission
 - c. Submit to the Alaska Department of Transportation
7. Coordinate with all related agencies and organizations.



Walkable Community Charette participants on a “walking audit” of Sterling Highway safety issues

II. Existing Conditions

A. Physical Setting

Cooper Landing lies along the banks of Kenai River and Kenai Lake, forming a sinuous band of residential and commercial development in a generally natural and picturesque setting. The valley in which Cooper Landing is located is a linear U-shaped valley, the result of glacial formations dating back 12,000 years. Surrounding peaks range between 3000 and 5000 feet in elevation while the valley floor rests at approximately 400 to 500 feet. Forests are generally mixed birch, cottonwood, aspen,



Cooper Landing is located within a U-shaped valley along the banks of Kenai River and Kenai Lake.

and white spruce, though the spruce growth has been decimated over the past 20 years by spruce bark beetle. Much of the beetle-kill spruce has been harvested leaving an open forest in much of the Cooper Landing area. The forest transitions to sub-alpine/alpine at approximately 1000 to 1500 feet in elevation.

The river and lake compose a dominant feature of the valley and the waters are world re-known for their beauty and their fishing opportunities. The waters are a remarkable turquoise blue, fed from high glacial valleys to the north, east, and south. The river is approximately 100 to 200 feet wide, depending on specific location and the season, with high waters in the spring and late summer, and low water through the winter. The river generally flows at a moderate pace with some rapids that lends itself to floating for sightseeing, wildlife spotting, and fishing. Though portions of the river and lake through Cooper Landing are lined by cabins or sparse commercial properties, the majority of the banks are in a natural state.

B. Community Character

While the dominant natural features of the community are the Kenai Lake and Kenai River, the community character owes itself in large part to the Sterling Highway. The highway is a two lane road with no shoulders and the community is roughly defined as the portions of the roadway between Mileposts 44.8 (Quartz Creek) and 52.3 (Resurrection Pass Trailhead) according to community members' input in a two day workshop August 11-12, 2009.



Cooper Landing has developed largely along the Sterling Highway and the Kenai River, with a predominant log cabin standard that adds to their attraction as a truly "Alaskan" community.

Development is characterized by small individually developed parcels that serve as cabins, permanent residences, and commercial properties. Most commercial development is oriented to the highway and the visitor industry. Commercial development includes small motels, bed and breakfasts, guest cabin developments, stores, a fuel station, and guide/river rafting services. Most buildings are of 1950s to 1980s construction with a few more recently constructed buildings. Much of the community has built to a "log cabin" standard, much owing to the availability of spruce bark beetle logs resulting from the several years of infestation that have plagued the forest. This has added to the sense of a truly "Alaskan" community that visitors prize in their travels through Alaska.

Cooper Landing has grown as a visitor destination throughout its history. Visitor-related improvements have generally included enlargement of campgrounds and growth of accommodations and attractions such as rafting and fishing vendors. Perhaps the most notable visitor project over the years has been the Kenai Princess Lodge, a Princess-owned lodge located above the Kenai River on Bean Creek Road. While the visitors to the lodge enjoy the setting and the small-town character of Cooper Landing, the ability of guests of the lodge to get to town is limited since there are no pedestrian facilities available that would aid visitors in getting to town. Thus that connection only happens if tours are set up or if visitors arrive by personal or rental vehicles. Given this, there is somewhat of a damper on the ability of local businesses to gain commerce related to visitation to the lodge.

While the community is seen as a “small rural village” (from a visitor’s perspective), the ability of residents to visit within the community is relegated to a large degree by travel by vehicle. Pedestrian facilities are minimal, generally characterized by a gravel/dirt path within the Sterling Highway right-of-way, separated from the highway by 5-10 feet of dirt or alder. Thus much travel is by vehicle which limits the ability for casual contact among residents in the simple tasks of going to the post office, taking children to school, or making incidental purchases at local small grocers. The ability of residents to move freely within the community by other than vehicle has long been a hope of area residents.



The Sterling Highway’s lack of roadside pedestrian facilities is a safety issue and limits local commerce from Princess Lodge visitors.



Cooper Landing has minimal pedestrian facilities. Most residents drive instead of walking or biking around town, especially if a Sterling Highway crossing is required.

C. Transportation System

The Sterling Highway is the dominant transportation element within the community. It carries a mix of visitors, freight, and local passenger vehicles which provides a mix of different interests with respect to user expectations for the roadway which is addressed in later sections of this study under “Traffic”.

The Sterling Highway through Cooper Landing is designated a “State Scenic Byway” (from Sterling Wye to Skilak Lake, MP 37 to 75). This designation recognizes that the corridor supports scenic driving, and the local community draws economic benefit through road-based tourism, primarily during the summer months. As a result, there have been numbers of “enhancements” provided over the years to address needed roadside facilities. In 1998 the State of Alaska did a study for the *Sterling Highway entitled Trails and Recreational Access for Alaska* (TRAAK, 1998), recognizing that “well-designed waysides, rest-areas, and scenic view opportunities are needed for residents and visitors”. The TRAAK study was followed by a *Sterling Scenic Byways Corridor Partnership Plan* (ADOT, 2006) that looked at recreational driving along the Sterling Highway. Both studies detailed recreational access, resources and other needs along the study area corridor, which are listed in Table 1 on page 9.



The Sterling Highway's course meanders alongside the Kenai River through Cooper Landing. The majority of the land in this corridor is publicly owned (Borough, State, Federal) and is managed for recreational uses.

1. Area Plans Affecting this Project

There are a number of plans that help define transportation solutions for the Cooper Landing area and that provide a historic perspective to the project.

Kenai Area Plan (DNR, 2001)

This plan identifies management objectives for state and state-selected lands in Cooper Landing. This plan recognizes that key goals are to provide a quality recreational experience for users of the Kenai River, to protect and perpetuate wildlife resources and habitat, and to ensure public safety (Kenai Area Plan, DNR 2001). Other goals and considerations identified in the Kenai Area Plan that are specific to the project area include:

- Buffers to protect viewsheds and opportunity for construction of bike trails along the Sterling Highway, including management agreements and other methods for addressing legal access, maintenance, and enforcement on trail systems that cross both federal and state lands, including the Bean Creek and Resurrection Pass trails;
- If the Sterling Highway is re-routed to the north side of the Kenai River in the Juneau Creek Alternative, a large state parcel that the alternative crosses (Unit 395) is to be conveyed by DNR to the KPB to facilitate community development. If it is not re-routed, DNR will retain Unit 395 for brown bear habitat and travel values, and convey Unit 394B to the KPB instead;
- If the Sterling Highway is routed to a bypass, retain a scenic buffer and limit direct access along the re-routed highway in order to avoid strip commercial development and retain the existing community/business center;

Table 1. Identified Recreational Access and Roadside Facilities along the Existing Sterling Highway in Cooper Landing

MP	Name	Description and Features
44.8	Day Use Area	USFS Quartz Creek Day Use Area via Quartz Creek Road; boat launch, picnic and restroom
44.8	Crescent Campground	Campground via Quartz Creek Road; 9 sites and restroom; trail to Crescent Lake and recreation opportunities
44.8	Quartz Creek Campground	45 sites and restroom adjacent to Kenai Lake
45	Kenai Lake	Popular recreation area with scenic water and mountain views
45.6	Interpretive Site Opportunity	Gravel area for 20 vehicles; good potential of interpretation and Dall sheep viewing; thinning of vegetation and improvement
46.4	Small gravel pull-off	(no description provided)
47	Gravel pull-off	(no description provided)
47.7	Bean Creek Road	(no description provided)
47.8	Cooper Landing Bridge	Crosses outlet of Kenai Lake; major recreation destination
47.9	Snug Harbor Road	Road leads to Cooper Lake (12 miles) and trailhead for the 23 mile Russian River Trail.
47.9	Cooper Landing Boat Launch /View Point	Accessible boat launch with parking, boardwalk, interpretation & host cabin; opportunity for viewing platform at Dave's Creek
48.7	Cooper Landing Museum	Small but interesting; could use expansion and improved interpretation
49.4	Paved pull-off	Opportunities for scenic views of Kenai River; needs vegetation management; interpretive sign opportunity; inconsistent access to public restroom; not signed; various rafting guides, tours and cabins for next half mile; river access for rafting
49.5	Paved parking	Area for 12 vehicles and RV's; along Kenai River; needs river access and interpretation.
50.5	Cooper Creek Bridge & Campground	23 campground sites; opportunity for bald eagle viewing interpretive displays; campground could be expanded; reconstruct of old Stetson Creek Trail
50.6	Cooper Creek Campground	7 campground sites; access to Creek; opportunity for bald eagle viewing interpretive displays; campground is small with limited area
50.7	Gravel parking	Area for 10 vehicles, unorganized; potentially a new trailhead for Stetson Creek
51	Stetson Creek Trailhead	Improved backcountry trail 6.5 miles long
52.3	Russian River Campground & Russian Lakes Trailhead	83 campground sites and Russian Lakes trailhead
52.4	K'Beq Footprints Heritage Site	Cultural heritage site of Kenaitze Indian tribe; parking, and interpretation of native culture trail
53	Schooner Bend Bridge	Western limit of Cooper Landing
53.1	Resurrection Pass Trailhead	Popular 36 mile recreation trail with cabins along route; large parking area, restrooms, interpretive facilities; mountain bike and horseback use allowed



The Sterling Highway follows the water as it meanders through the Kenai River Valley. This narrow winding road becomes highly congested, especially during the summer when anglers and river rafting are major attractions. The 86 bed red-roofed Princess Lodge is visible at center.

Sterling Scenic Byway Corridor Partnership Plan (ADOT, 2006)

This draft plan details how byway communities can work together to “improve the transportation facilities, recreation facilities, and the economy for the benefit of residents, businesses, and visitors.” The plan was part of a nominating package that seeks national byway status for the Sterling Highway state scenic byway, and has specific recommendations to enhance the six traits that make a great byway—recreational, cultural, scenic, natural, historical, and archaeological resources. The plan also raises concerns and makes recommendations about safety and seasonal congestion, and is paraphrased following:

- The northern segment of the Sterling Highway is a narrow and winding highway through mountainous terrain. In the summer, numerous RVs and other slow moving vehicles can make travel a slow affair. Congestion in Cooper Landing and along the winding Kenai River continues to be a major issue during the summer months.
- Dangerous curves are the most serious problem facing the highway and have been targeted by the ADOT for future realignment in the Cooper Landing area. Developing a consistent paved shoulder/bike lane along the entire route is needed.
- The Cooper Landing area should work to brand its section of byway “North Sterling: An Angler’s Paradise.” The area remains one of the premier fishing destinations in North America, with numerous other recreation opportunities,



There are many locations with unplanned pullouts and parking along the highway near fishing areas adding to the congestion and pedestrian safety concerns.

as well as a community that is very “small town Alaska” surrounded by a gorgeous valley. These qualities and especially its great fishing and classic small community make Cooper Landing very unique, even in Alaska.

- Dozens of unplanned pullouts/parking areas along the highway exist near fishing areas. These need to be formally designed, paved and signed, with new pullouts installed in strategic locations to reduce safety issues related to the existing unplanned pullouts. Established parking areas should be coordinated with fishing areas and habitats that can accommodate anglers and manage sensitive riverbanks to limit habitat damage.
- The plan recommends that trail/separated path improvements are needed along the highway in a variety of locations, especially along narrow winding sections of the highway. Connect with existing trails to create loop routes. Develop separated trail/path from the Sunrise Inn to Jim’s Landing.

2. Traffic

The Sterling Highway is comprised of a wide variety of vehicle types that combine with existing roadway conditions to make a difficult transportation corridor. Highway users include local drivers, in-state visitors, and through travelers whose dissimilar driving behaviors can make for irregular traffic flows. The profile of vehicle types may also adversely affect traffic conditions, especially during summer traffic peaks, when oversize RVs, trailer trucks, and tour buses comprise a larger share of the traffic stream.

While there is a large mix of recreational traffic, the Sterling Highway also provides the only overland access for the western Kenai Peninsula, including

unincorporated areas as well as the cities of Soldotna, Kenai, and Homer. The highway provides the only access to the many recreational destinations located on the western Kenai Peninsula and serves as the National Highway System link to the western Kenai Peninsula.

Traffic counts on the roadway vary widely from winter to summer with the July maximum average daily traffic count at 7401 vehicles. The January maximum average daily traffic count by comparison is 1353. The annualized average daily traffic count is 3120 vehicles (AKDOT, 2009).



Pedestrian safety is a concern given the generally high average speeds of between 40 and 50 MPH through Cooper Landing.

Speeds on the highway vary with location but generally average between 40 and 50 miles per hour. Based on Alaska DOT information, traffic tends to be slowest through the Cooper Landing community where measured at the Alpine Inn Motel where speeds in August of 2007 averaged 40.34 miles per hour, posted speed limit being 35 miles per hour. This average speed increases slightly south of the Alpine end, nearer the end of the posted 35 mile per hour speed limit at Milepost 49 where average speeds are 42.63 miles per hour. The highest average traffic speed in the community was measured at the Russian River Campground turn with speeds averaging 48.41 miles per hour with posted speed limit of 55 miles per hour (ADOT, 2009). From this information it can generally be concluded that the traffic speed is averaging 5 to 7 miles per hour over the posted speed limit in the more developed portions of the community.

The highway character adds to the difficulties of traffic within the corridor. The existing highway includes poor sight lines, narrow shoulders, lack of passing lanes, numerous intersections, and inadequate space for roadside parking. This contributes to traffic congestion that negatively impacts the sense of a “community” and may suggest possible safety issues.

An origin-destination study conducted in the project area by ADOT during July 2001 found that approximately 63 percent of vehicles passed through the study area without stopping. Another 6 percent took more than 22 minutes but less than two hours to pass through Cooper Landing, suggesting that the vehicles had stopped for a limited period of time to purchase food or fuel, or some other travel related reason, and then continued on their journey. The remaining 31

percent of vehicles entered the study area and stayed for two or more hours. Traffic studies completed by ADOT in 2007 found that the mix of traffic ranges from 13-20 percent commercial vehicles throughout the year. Buses comprise less than a half percent of the traffic.

3) Pedestrian Facilities

The need for pedestrian facilities within the community, and safety concerns have been identified for over 35 years. The community is well known as home for the “world-class trail” over Resurrection Pass. There also has been a number of other trails in the community that serve the local population and visitors as well.

However, the community has lagged in the development of trails that would provide a continuous pedestrian thread through the community. By the fact that residents feel it is unsafe to attempt to “walk across the street (Sterling highway) in the summertime, pedestrian facilities to insure safety are greatly needed.



During the community meetings, 25 individuals walked through Cooper Landing documenting pedestrian facility needs and safety issues.

Historic Trail Overview

Ms. Mona Painter is a long-time resident of the community and provides a glimpse at the nature of development relative to the Sterling Highway and pedestrian safety:

“In the early 1970’s traffic was picking up pretty fast through Cooper Landing and local folks were alarmed when accidents occurred and several near-misses happened regarding children walking to school. One man, who saw a pickup truck narrowly miss a child walking on the narrow highway shoulder near the Kenai River Bridge below the school, turned his vehicle around and followed the pickup until it turned off and stopped at Sportsman’s Lodge. He had some strong words for the driver. One child was hit, but fortunately only bumped and not injured, as he bicycled near Hamilton’s Place. As a result, Jean Romig and I worked through the Cooper Landing Community Club and Dall Homemakers to get a safety path through most of Cooper Landing and had much support through the two years we were most active. Our state

legislature was also supportive, but in the end, we could not persuade a few property owners along the highway right-of-way to allow the use of a bit of their land for the pathway. In the 1970's a safety walkway was added to the Kenai River Bridge and a safety school bus route was established for all children to use, no matter how close they lived in relation to the school. The safety bus route was dropped in recent years due to budget constraints."

Mona Painter, August 2009

Ms. Painter references some efforts at establishing trails along the Sterling Highway. One reference is to the Kenai River Bridge. This trail is a structural cantilever that was added to the western side of the bridge long after its original construction. The trail is a metal-supported, wooden walkway that is approximately four feet wide with a low chain-link fence on the river side and a W-beam barrier on the road side of the walkway. It does not meet federal or state standard for pedestrian passage but is nonetheless a very important safety feature that has improved pedestrian safety in the community. Ms. Painter's other reference is to a trail that is located on the western and northern side of the roadway through much of the community. It generally can be described as a dirt and gravel trail approximately 4-8 feet wide that is discontinuous across numbers of properties, as described in the text.



Starting in the 1970's, traffic on the Sterling Highway increased and sped up, and the community identified walking as dangerous, which it still is today.

The Kenai Peninsula Borough has identified a number of trail improvements appropriate for Cooper Landing:

Kenai Peninsula Borough Trail Plan (KPB, 1992, 1998)

The Kenai Peninsula Borough Trail Plan identifies a number of existing recreational trails in the Cooper Landing area and considers how to preserve traditional local trail access that in many cases cross multiple land ownership (private, borough, state, federal). Trails identified as important to the community are listed in Table 2.

Table 2. Preliminary Trail Needs List, Cooper Landing

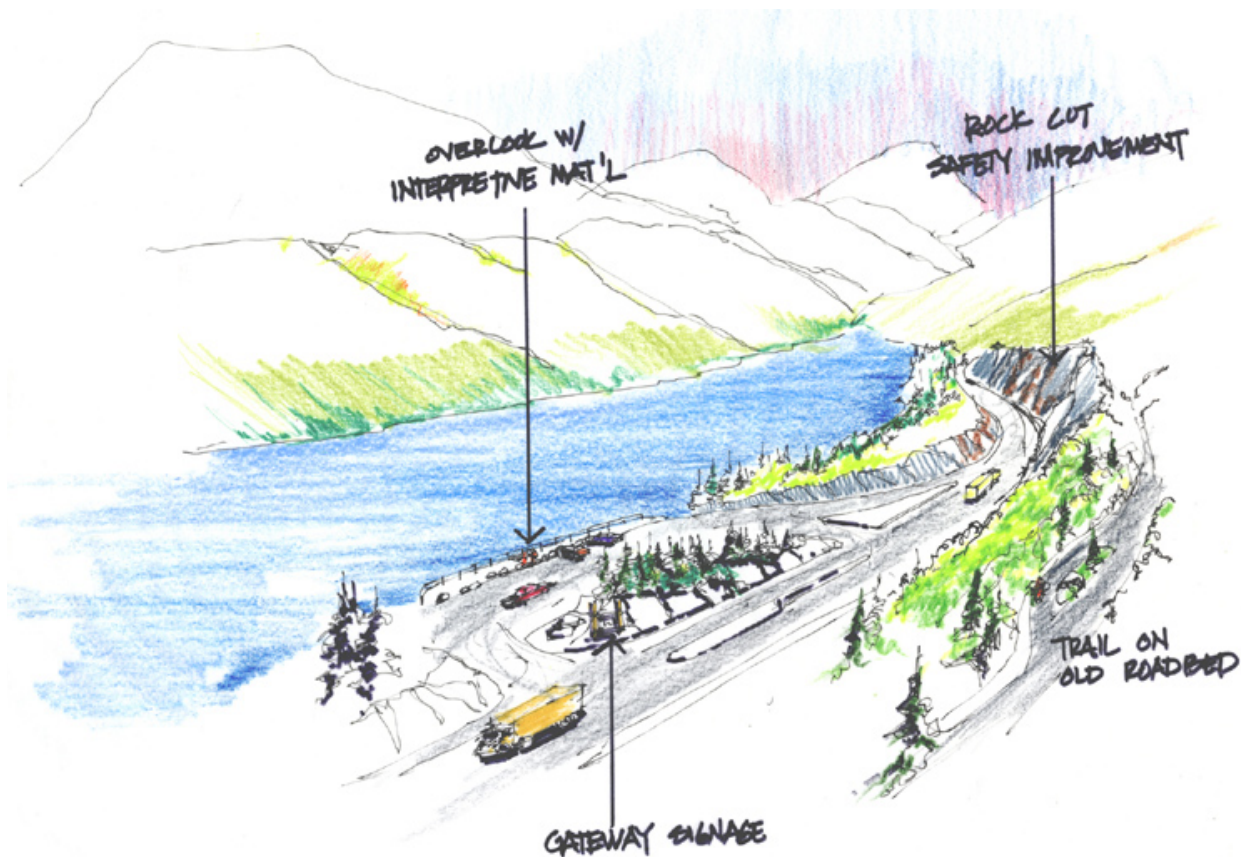
TRAIL OR FACILITY	COMMENTS AND RECOMMENDATIONS
Art Anderson Trail	Trailhead needed / possible dedication needed
Bean Creek	Trailhead needed/ multiple land ownership/ signage
Birch Hill	Ski trails on KPB land / public access dedication needed/ management agreement needed
Business District Bike path	Needed for safety and transportation access
Cooper Creek Trail	KPB selection along trail
Cooper Lake Trail	Possible dedication needed through KPB land
Coyote Notch	Public access dedication needed / KPB and federal land / potential accommodation with residential development
Coyote Ridge	Potential new ski trails/ multiple land ownership
Dry Creek	Proposed new trail through KPB land to USFS land
Golden Eagle Trail	(no information provided)
Juneau Bench Trails	USFS trails
Kenai River Nature Trail	By Princess Lodge – existing
Quartz Creek Trail	KPB selection along trail, possible separation of motorized-non motorized needed
Rainbow Lake Trail	State Land management issues
Raven's Run Trail	(no information provided)
Resurrection Pass Trail	Potential for change if highway relocated
Russian Gap	USFS/ KPB agreement needed – potential residential development in area – multi-use trail area/ multiple land ownerships
Russian River Trail	(no information provided)
Sterling Highway	Pedestrian access (current safety path has possible dedication problems)
Stetson Mine Trail	KPB and State Land / public access dedication needed

Source: KPB Trail Plan, December 1998.

III. Consensus Projects

A. Project Descriptions

A number of projects were identified in the Community Visioning Workshop that convened in Cooper Landing on August 11 and 12, 2009. The projects range in complexity and the ability to implement them. Further, almost all will require further evaluation and engineering before implementation is possible. In some cases such as major work projects, the candidate project must compete against projects statewide. Others must be considered relative to factors such as potential for vandalism or maintenance requirements. Regardless, projects for which there was consensus in the August workshop are described.



Project #1, illustrated above to the right of the sketch includes using the old roadbed west of Sunrise for the start of the trail corridor. Project #3 includes a rock cut safety improvement/gateway located to indicate the beginning of the Cooper Landing community, also illustrated above.

PROJECT 1. Use old roadbed west of Sunrise as the start of the trail

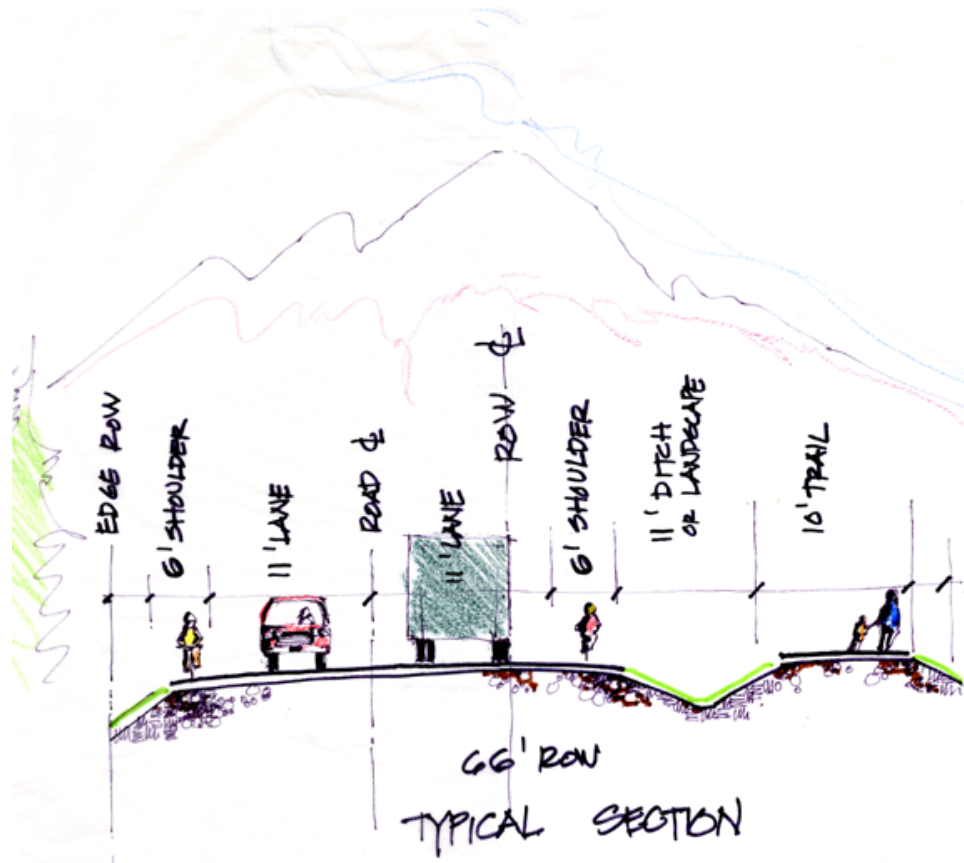
This project would provide a trail on a bench that is a remnant of the old roadway that is located on the north side of the Sterling Highway, above the existing roadway beginning at Sunrise, or sometimes described as the Quartz Creek Campground intersection (approximately MP 45.0). The bench is the location of the old roadway alignment that was relocated many years ago as an alignment improvement of the Sterling Highway. This location would provide outstanding views to Kenai Lake and would provide separation from the highway. This would serve as the start of the proposed separated trail that would travel west and south and follow the length of the Sterling Highway through Cooper Landing.

PROJECT 2. Separated multi-purpose trail should be provided throughout Cooper Landing

This is a long-envisioned trail that would serve the full Cooper Landing community, possibly from Milepost 45.0 (Quartz Creek Campground intersection- see above discussion- to Milepost 53.2 (the Resurrection Pass Trailhead). This continuous trail would be separated from the roadway, be located on the north side of the roadway, and serve pedestrians and cyclists and would provide connectivity for the community. It would use the existing dirt and gravel trail for most of its alignment, extending that to the east (north roadway mileposts) and west (south roadway mileposts). There are locations in developed portions of the community such as the Kenai River Bridge/ Snug Harbor intersection and commercial areas that should have trails on both sides of the highway.

Such a trail is not so much an amenity as it is a safety necessity. Increasing traffic on the roadway and the presence of freight traffic makes the provision of safe pedestrian facilities important. **Current plans for a 3R (resurfacing project) within the Cooper Landing area should consider the provision of paving a portion or all of the existing path** to provide a safe and reasonable walking and biking surface for visitors and residents, given that the path is an existing facility and merits treatment for transportation of a nature similar to the safety concerns appropriate for vehicles on the vehicular travel way.

Any design of the separated pathway may have right-of-way challenges related to drainage and grade differences. While some of the Sterling Highway is within ample rights-of-way, much of that through the Cooper Landing commercial area is 66-foot right-of-way. The existing path appears to be at the extreme edge of the northern portion of the roadway but improvement will require careful



Project recommendation #2 includes a 10 foot wide pedestrian trail along the Sterling Highway through Cooper Landing. This project is seen as not so much an amenity, but as a safety necessity.

engineering to ensure the path is reconstructed within the right-of-way. This may require offsetting the roadway centerline or other adjustments of drainage or grade to provide the “fit” of the roadway within the right-of-way.

PROJECT 3. Rock cut safety improvement/Gateway

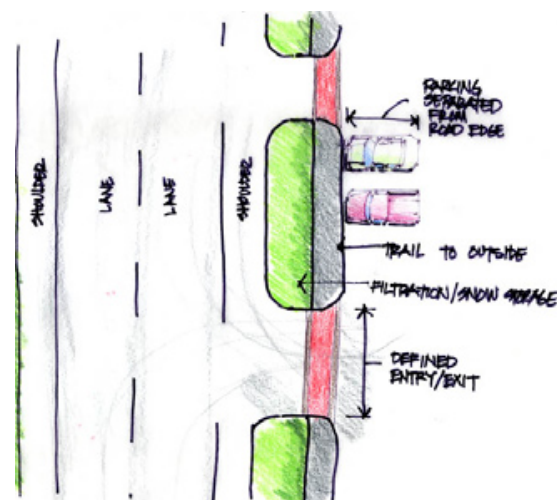
While portions of the Seward Highway have been improved over the years one of the recognized safety issues that remain is the portion of the highway west of Sunshine/Quartz Creek Campground intersection that remains as a narrow roadway with limited shoulders and limited site visibility (Milepost 45.0 to 45.3). The Cooper Landing Advisory Planning Commission has approved the re-alignment of portions of the roadway to improve safety. This would primarily include a rock cut and increase in the radii of both horizontal and vertical curves through the section. The improvement should also include appropriate shoulders and signage. The widening of this section should focus on the potential for safety, but not encourage faster speeds. Ice on the road in winter with this very narrow stretch and deep drop-offs, does not allow for any errors i.e., skidding or sliding.

In doing this safety improvement, this project should also address other issues that have been proposed as part of these recommendations. Given the amount of excavation/rock cut that would be generated, the improvement should also include the development of a viewing opportunity by provision of a pullout and interpretive material on the lake side of the project. This location is one of the first opportunities to view the turquoise waters of Kenai Lake and is a prime opportunity for provision of a view location, telescopes, and interpretive materials. Rock removed from the steep sides could be used to create an interpretive pull-out and/or crushed for gravel to help in the grading of the bicycle/pedestrian sidepaths.

This is also in the proximity of the area that the August workshop proposed that a “gateway” be located to indicate the beginning of the Cooper Landing community. Given this desire, this section and the area just before it (mile 44.6-45.0) would be an appropriate place to provide a divided roadway with raised median that would provide signage and a “gateway feature” that would signify entry into the community. There is presently a median to allow for a turn lane, but it is painted, not raised and therefore doesn’t function as a true median. The gateway could provide turn lanes to the pullout described above as well as a median with appropriate signage and “gateway” features. All of these elements would contribute the definition of the community and “traffic calming” which is highly desired by the attendees to the workshop.

PROJECT 4. Define entry and exit lanes to businesses

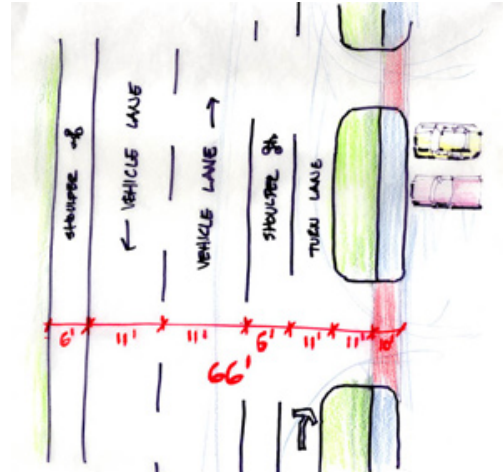
Currently it is difficult for drivers to determine where vehicles may enter or exit the roadway as multiple businesses share a broad stretch of gravel/dirt with no definition of traffic movements. Further, parked cars along the roadside obscure traffic in parking lots as that traffic attempts to enter the stream of traffic on the highway. Driveways should be well defined with setback of parking from the roadway. Further, driveways should clearly marked with good sight visibility.



Recommendation #4 includes use of medians to separate traffic and parking and define turn movements

PROJECT 5. Acceleration/deceleration lanes should be provided to smooth traffic flow

Turning traffic creates slowing of traffic, reducing highway capacity and the smooth flow of traffic. This is of particular concern given the numbers of recreational vehicles and vehicles pulling trailers. The lack of turn lanes may also lower the desire of travelers to pull off given the lack of room to maneuver into parking areas. Turn lanes would provide space for acceleration and deceleration which would smooth the traffic flow. These entry/exit lanes should be provided throughout the community.



Recommendation #5 includes use of dedicated Turn Lanes to smooth traffic flow

PROJECT 6. The trail on the bridge should be constructed to a standard that meets safety criteria

The existing trail on the Kenai River Bridge (Milepost 47.9) is important to pedestrian traffic and provides relatively safe passage along the roadway and bridge. However, it does not meet current design standards. It needs to have adequate width and height of guardrails to address the needs of the full spectrum of users. The surface is also very unfriendly to bicyclists. A design study should be completed to consider improvement of the pedestrian crossing. Also, a replacement bridge should be programmed and include provisions for pedestrians and cyclists.



Trail attached to bridge structure that meets width and guardrail design standards.

PROJECT 7. An under-bridge trail crossing should be provided under the southern bridge end

Pedestrians moving from either side of the southern side of the Milepost 47.9 bridge must cross moving traffic that is traveling approximately 45 miles per hour. The aforementioned design study should include consideration of an undercrossing on the southern side of the bridge to enable pedestrians to travel from the Snug Harbor side to the boat launch side without requiring the crossing of the roadway. Bridge improvements should include this undercrossing and connection to the adjacent side for a trail up to Snug Harbor road and the post office.



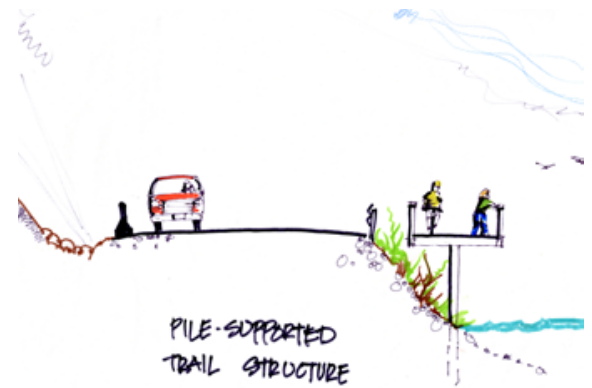
Trail underpass beneath highway

PROJECT 8. Provide a pile-supported or bin wall trail for .2 miles at MP 50.3

The earlier mentioned separated multi-purpose trail is challenged at Milepost 50.3 due to the presence of a cut slope that continues to feed material to the base of the slope. This is currently retained by a “Jersey Barrier” that prevents rocks from rolling onto the roadside.

This greatly inhibits the ability to provide a pedestrian path on the south side of the roadway.

Due to the limited platform to accommodate both a roadway and pedestrian path, a creative method needs to be provided to fit a path near the roadway, allowing continuous travel. Two different approaches could address this issue. One would be the use of “bin walls” similar to construction techniques used in the widening of the Seward Highway between Anchorage and Girdwood to accommodate both the Seward Highway and the Alaska Railroad. The bin walls would allow increase in the road prism to accommodate a roadway and trail while minimizing impact to the Kenai River. A second approach would use a pile-supported structure to support the trail, leaving the roadway in its present location while separating the trail on its own deck above the fill prism and river.



Pile Supported Structure at MP 50.3

PROJECT 9. Colored/textured/signed pedestrian crossings should be provided at road crossings and driveways

Attendees at the August 11-12 meeting suggested the use of textured and colored asphalt or concrete at crossing of roadway intersections and driveway intersections. These highlights would indicate to drivers that pedestrians and cyclists cross at those locations. Locations could include Milepost 48.0 at the Snug Harbor Road intersection, Milepost 48.5 at Hamilton’s Place, and Milepost 48.7 at the Museum.

PROJECT 10. “Your speed” message signs at key locations to help slow traffic

Trailers with speed detectors are sometimes employed to indicate to drivers the posted speed and the speed at which they are traveling. These have been found to have some beneficial effect to slowing traffic. Permanent installations have been used in such locations at Kincaid Park in Anchorage. ADOT&PF has indicated that there is some concern for vandalism of the structures and their use should be carefully considered before investing in them. However, Cooper Landing may be an appropriate place for their use regardless given the average speed that is 10 miles per hour over the posted speed and the lack of a suitable and safe pedestrian corridor next to the roadway.

PROJECT 11. Round-a-bouts/gateways
[Bean Creek Rd & Snug Harbor Rd]

Round-a-bouts have gained popularity nationally and in Alaska as a way to calm traffic while maintaining traffic flow. These traffic features also have the possibility of providing “gateway” features given the space in the middle of the round-a-bout.

The intersection of the Sterling Highway with both Bean Creek Road and Snug Harbor Road should be considered for construction of round-a-bouts. These locations would provide ideal locations for slowing traffic as it enters the commercial district of Cooper Landing while maintaining traffic flow. Also, these would be ideal locations for gateway features of significance that would provide identity to the community for both residents and motorists.



Project #11 includes a proposed gateway at the eastern end of Cooper Landing incorporating Round-a-bouts on each side of Bridge—Bean Creek Road and Snug Harbor Rd, w/ Gateway Features

PROJECT 12. Resurrection Trail should be a gateway with trailhead improvements and a “gateway enhancement”

The proposed turnout and enhancement near Quartz Creek Campground intersection (Milepost 45.0) provides the first “gateway” element for the community and indicates to motorists entry to Cooper Landing from the eastern end. Likewise, a similar improvement at Milepost 53.2 would announce the entry to/exit from the community at the western end. This would enhance the prominence of a nationally significant trailhead which currently is rather nondescript. Also, turn lanes and a median would enhance traffic flow and calm traffic through the area.



Project #12 includes a proposed gateway enhancement at the western end of Cooper Landing associated with the Resurrection Trailhead at Milepost 53.2.

PROJECT 13. Provide medians at key locations to act as “secondary gateways”

In the interest of maintaining traffic flow through the community and “calming traffic”, secondary gateways that include medians, turn lanes, and possibly plantings are proposed at key locations along the roadway. Suggested locations have included Jim’s Landing and the key commercial areas within Cooper Landing. A suggested solution for commercial districts could be similar to improvements that have been completed in Winter Park, Colorado as shown in the Google TM photo on page 23. Note the necking down of the traffic lanes, the inclusion of turn lanes and medians, and the provision of structures at key pedestrian crossings.



Winter Park Colorado-U.S. Highway 40 Google TM

PROJECT 14. Provide interpretive material at Bridge and within the community

Given the number of visitors that pass through Cooper Landing the provision of interpretive nodes with historical information as well as “fishing” related information would help “tell the story” of the community. This has been embraced in numbers of other communities and helps bring communities to life in the minds of visitors and residents. These nodes could be provided at key overlooks of the river as well as key intersections and commercial districts.



City of Seward Historical Interpretive Plaques

PROJECT 15. Art should be incorporated into designs

Cooper Landing has many resident artists and many communities are defined by the art within the community. This can be true of Cooper Landing as well. To the degree possible, art should be employed as an identifying device and incorporated into the design of kiosks, street furniture, and other amenities and roadside improvements.



City of Seward-Port Avenue Plaza

PROJECT 16. “No Jake Brakes” signage

Freight traffic through the community sometimes employs “Jake Brakes” as they slow for traffic or at intersections. This produces significant amounts of noise and is disturbing to residents and pedestrians in particular. As a simple matter signage should be provided indicating that Jake Brakes are prohibited in the community.



Planning for this project was initiated by Cooper Landing residents, who did fundraising and coordinated with the Native Village of Eyak on an FTA grant. Implementation of the projects identified will require the assistance of numerous agencies and funding sources.

B. Implementation

This section consists of an action plan, draft vision plan, and addresses partnering agencies, and potential funding sources. Actions proposed in the above section will require the assistance of numerous partnering agencies and funding sources. In many cases there are concerns for environmental issues, particularly with respect to any actions that may place structures or fill in the Kenai River. A number of key steps are necessary to move actions that are proposed into reality.

STEP 1) This action plan must be approved by the Cooper Landing Advisory Planning Commission and forwarded to the Kenai Peninsula Borough Planning Commission for action. No funding can move forward for the suggested projects until such time as the Borough has approved them as Borough priorities for the Cooper Landing area.

STEP 2) Members of the community and proponents of the proposed actions must begin informal discussions with regulatory agencies and potential funding agencies to determine concerns and issues that should be addressed in any proposed improvements. While the regulatory process and funding mechanisms will require a formal process, informal meetings help define areas of concern and hurdles that must be met to bring projects to fruition. Further, aspects such as the need for right-of-way from federal agencies and potential mechanisms for funding amenities may best be identified early via early discussions with those agencies.

STEP 3) Projects must be inserted into the appropriate ADOT&PF funding programs via the Statewide Transportation Improvement Program (STIP). This will require the collection of resolutions for governing bodies such as the Kenai Peninsula Borough as well as those of partnering agencies that can be brought into the mix. These bodies may include the US Forest Service and the US Fish and Wildlife Service. Some projects may also qualify for other ADOT&PF programs including maintenance programs for some signage such as the Jake Brake signs or programs such as the Highway Safety Improvement Program (HSIP). Also, many of the proposed projects may be counted as “enhancements” that may qualify for portions of funding that are relegated specifically to enhancements improvements as part of the STIP.

STEP 4) There are many partners that are non-profit organizations that may assist in garnering support and providing direction for trail and amenity development. The community needs to continue to build support via these organizations in order to continue to identify funding mechanisms that may become available nationally, statewide, or via non-profit organizations.

On the final page is a chart of the proposed projects and implementation needs.

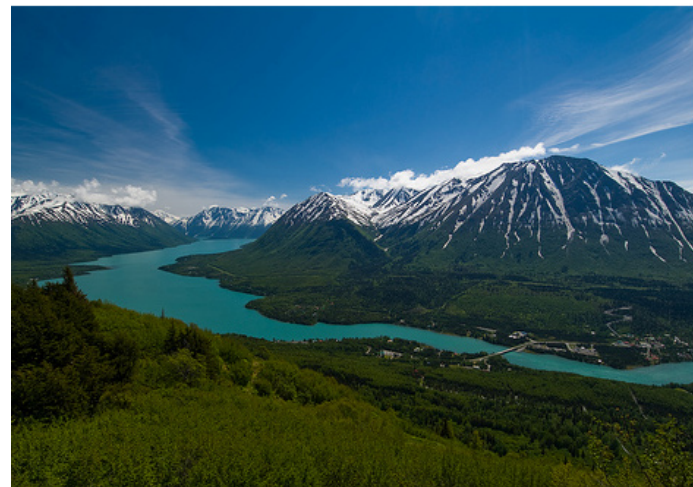
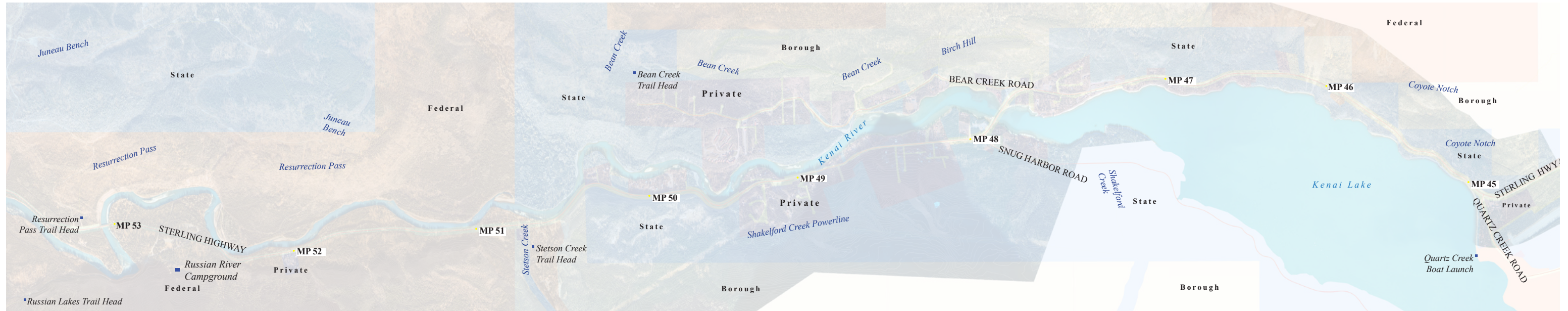
Cooper Landing, Alaska

Walkable Community Project Implementation Plan

Proposed Action	Prime Agency/ Partnering Agencies	Funding Sources
#1) Use old roadbed west of Sunrise as the start of the trail corridor	ADOT, USFS	ADOT is the primary agency via the STIP. Money may be available separately via the enhancements portion of the STIP.
#2) Separated multi-purpose trail should be provided throughout Cooper Landing	ADOT, USFS, USFWS, EPA, US COE	Primary funding is available via the STIP though portions may be available as a separate line item in the Enhancements portion. Project will require consideration of possible impacts to Kenai River and Kenai Lake given possible fill into the waterbodies.
#3) Rock cut safety improvement/ Gateway	ADOT	Primary funding is via the STIP. There may be some fund sources available as a result of the designation of the roadway as a “Scenic Byway”. The proposed wayside may need consideration of fill into Kenai Lake depending on the design and location of the wayside. Fill into the lake is not necessary however.
#4) Define entry and exit lanes to businesses	ADOT	Funding for these improvements would be via the STIP and the HSIP.
#5) Acceleration/deceleration lanes should be provided to smooth traffic flow	ADOT	Funding for these improvements would be via the STIP and the HSIP.
#6) The trail on the bridge should be constructed a standard that meets safety criteria	ADOT	Funding for these improvements would be via the STIP and possibly the HSIP. The scope of improvements may require bridge replacement before implementation is possible.
#7) An under-bridge trail crossing should be provided under the southern bridge end	ADOT, EPA, USCOE	Any near-term implementation would require EPA and US Corps of Engineer review and possibly permitting. Long-term implementation may need bridge replacement before it is possible.
#8) Provide a pile-supported or bin wall trail at MP 50.3	ADOT, EPA, USCOE	This will require coordination with EPA and USCOE. Early coordination with these agencies is recommended. Implementation is probably via the STIP and the Enhancements pool though there may be a possibility of funding via the HSIP.
#9) Colored/textured/signed pedestrian crossings should be provided at road crossings and driveways	ADOT	Funding for these improvements would be via the STIP and the HSIP. It is probably not practicable to do this project until such time that the trail is installed and the roadway improved.
#10) Place “Your speed” message signs at key locations to help slow traffic	ADOT	This may be available through ADOT maintenance funding or HSIP.
#11) Round-a-bouts/gateways	ADOT	Funding is dependent on the STIP. Funding via the HSIP would require warrants for a “controlled intersection” which may not be possible.
#12) Resurrection Trail should be a gateway with trailhead improvements and a “gateway enhancement”	ADOT, USFS	This will probably require funding through the STIP although it may be enhanced if USFS funding for the trailhead expansion could provide additional credit to STIP process.
#13) Provide medians at key locations to act as “secondary gateways”	ADOT	Funding for these improvements would be via the STIP and the HSIP. HSIP funding would be dependent upon demonstrated safety need which may be challenging.
#14) Provide interpretive material at Bridge and within the community	ADOT, USFS, USFWS, non-profit organizations, private corporate funding	Funding is available through the enhancements portion of the STIP and could be provided via any improvement projects that occur in the corridor. Separate funding may also be available via the resource agencies. Further, funding may be available via non-profit organizations such as AK Conservation Foundation, Sierra Club, or any number of private interests.
#15) Art should be incorporated into designs	ADOT	Best acquired through early coordination in the design process as it begins to ensure that ADOT have and understanding with respect to the scope of the project and the inclusion of the art. This is not a standard inclusion into ADOT projects and requires coordination beyond the typical project.
#16) “No Jake Brakes” signage	ADOT	Possibly funded via the ADOT maintenance fund.

Cooper Landing, Alaska

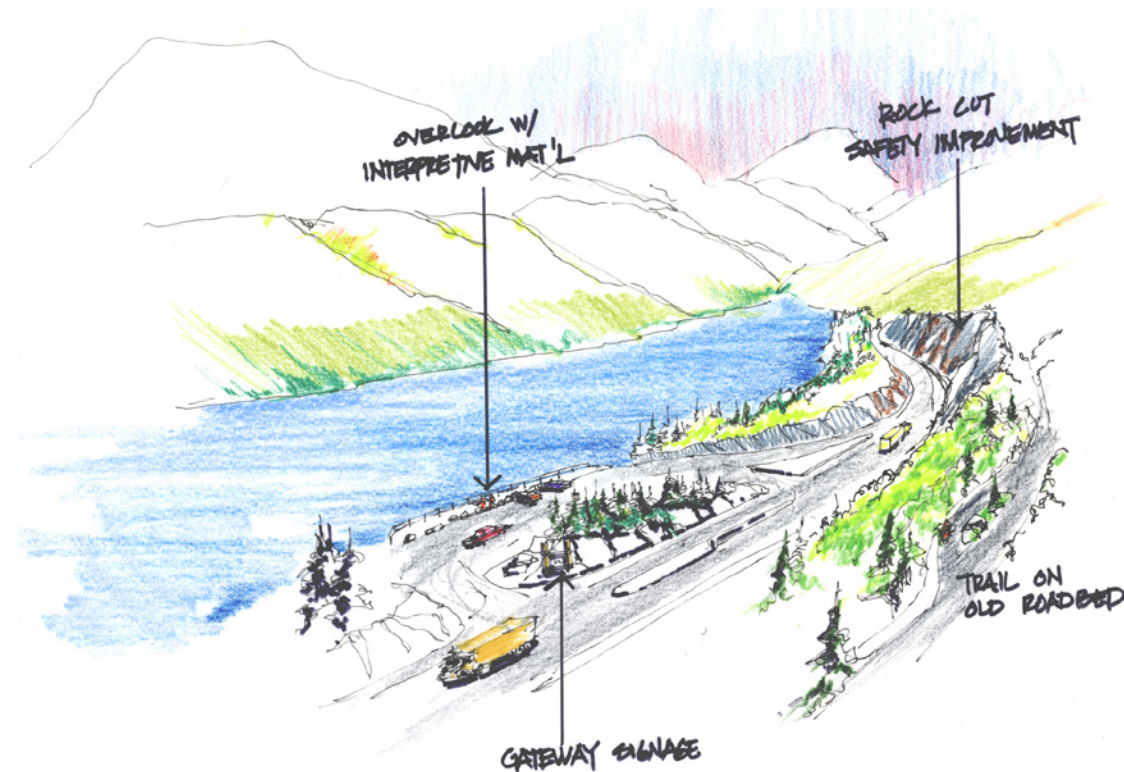
Walkable Community Project Area Sterling Highway, Mileposts 45 - 53



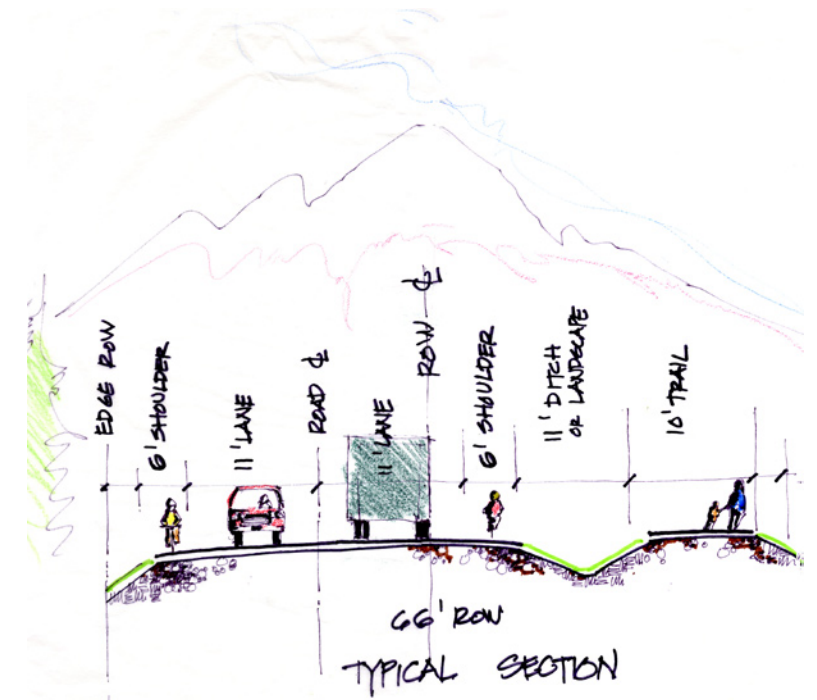
A number of projects were identified in the "Walkable Community" Visioning Workshop that convened in Cooper Landing on August 11 and 12, 2009. The projects generally fall along the Sterling Highway, MP 45 to 53 as shown in the map above.

The projects are defined at a conceptual level reflecting the consensus of participants, and range in complexity, cost and the ability to implement. Almost all projects will require further evaluation and engineering.

Project #1 includes using the old roadbed west of Sunrise for the start of a trail corridor near MP 45. In the same general area, excavation/rock cut work would be included allow a divided roadway with raised median (Project #3) with signage and a "gateway feature" that would signify entry into the community.



Project #2 includes a 10 foot wide pedestrian trail along the Sterling Highway through Cooper Landing. This project is seen as a safety necessity, not an amenity.



Alternative transportation planning to address congestion
and road impacts near the Kenai and Russian Rivers

Native Village of Eyak
Alternative Transportation Planning Project

