APPENDIX H

New Seward Highway Pathway and Pedestrian Facilities

New Seward Highway Pathway and Pedestrian Facilities

Rabbit Creek Road to 36th Avenue

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New Seward Highway Project
Rabbit Creek Road to 36th Avenue

Prepared by: Land Design North
441 West 5th Avenue
Suite 200
Anchorage, AK 99501

Prepared For: CH2MHILL
301 West Northern Lights
Suite 601
Anchorage, AK 99503

New Seward Highway Project

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Maps

All pathways and pedestrian facilities in the New Seward Highway right-of-way are designed to meet the criteria outlined in the Municipality of Anchorage Draft Design Criteria Manual (DCM). The DCM provides design standards for trails described within the *Areawide Trails Plan* (AWTP) adopted by the Municipality of Anchorage in April 1997. Additional information for the DCM was compiled from the *Guide for the Development of Bicycle Facilities* published in 1999 by the American Association of State Highway and Transportation Officials (AASHTO).

Shared-Use Pathways (also called Multi-Use Paved Trails)

Shared-use pathways refer to pathways physically separated from motorized vehicular traffic by an open space or barrier. All shared-use pathways in the Seward Highway right-of-way will be paved and designed for a minimum design speed of 20 mph. Pathways are recommended to be 8' wide with 2' shoulders, allowing joint use by bicyclists, walkers and joggers. The standard stopping sight distance on flat surfaces will be 125 feet and horizontal curve radii will be 95 feet. Grades of the pathway will be kept to a minimum and will not exceed a grade of 5 percent for over 500'.

Pathways will have the minimum recommended setback from the road shoulder of 7', providing for increased pedestrian safety. The trail separation from the roadway also allows an area for snow storage and drainage channels, allows vehicles and trail users time to react to potential conflicts and separates trail users from splashback. If the setback cannot be met due to right-of-way constrictions, a guardrail will be used along the roadway shoulder.

Clearances are important safety considerations. Horizontal clearance will be 2 feet measured from the paved edge of the pathway. A horizontal clearance of 3 feet from the paved edge to poles, trees and other obstructions will also be maintained. Vertical clearance will be 10'. The clear areas provide additional maneuvering space to prevent conflicts between bicyclists and other path users.

Perpendicular intersections of trails are desired; however, AASHTO allows a 45 degree latitude in constrained right-of-ways. Cross slopes should be approximately 1 –2 percent in one direction. All trail intersection should be signed to alert users to the type of crossing. See Figure 1.

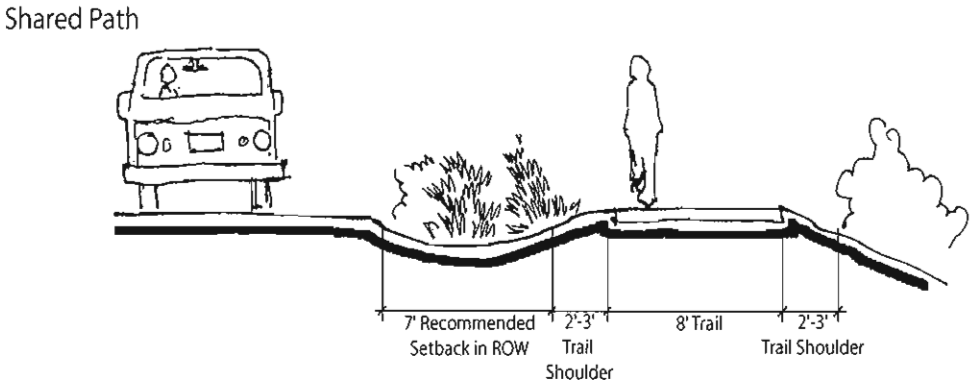


Figure 1 - Shared-Use Pathway

Commuter Bicycle Routes (on-street facilities)
In order for bicycles and motor vehicles to share the use of a roadway without compromising the level of service and safety for either, the facility should provide a minimum 4' wide paved shoulder (without curb and gutter) or 5' wide shoulder from the face of curb to accommodate both modes per DCM standards. The proposed Seward Highway shared roadway accommodates bicycle use on shared roadways with the inclusion of a 5' paved shoulder from the face of curb. Rumble strips or raised pavement markers are not recommended where shoulders are to be used by bicyclists. See Figure 2.

Sidewalks
According to the *Areawide Trails Plan*, pedestrian facilities are required when the average daily traffic is over 300 daily trips. Sidewalks are provided for pedestrian use in the Seward Highway road right-of-way in conjunction with commuter bicycle routes to better serve all users. The sidewalks will be concrete, 5.5' wide and will be constructed at a higher elevation than the roadway in order to prevent runoff onto the sidewalk. Shared-use pathway facilities are preferred; however, attached sidewalks are appropriate when right-of-way, cost or other constraints make a separated pathway or sidewalk impractical. See Figure 3.

Designating Sidewalks as Signed Bikeways
Designating sidewalks as signed bikeways are permitted per AASHTO and should be considered under certain limited conditions such as on long narrow bridges where a separated facility is impractical. Sidewalk bikeways are recommended to be 8' wide and have the same characteristics as sidewalks.

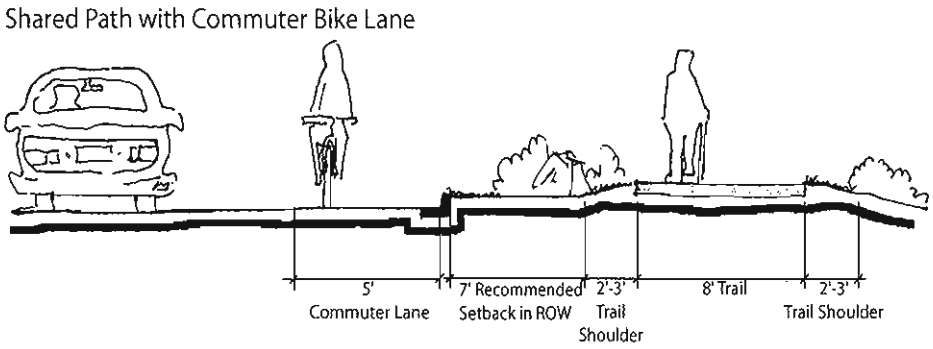


Figure 2 - Commuter Bicycle Route

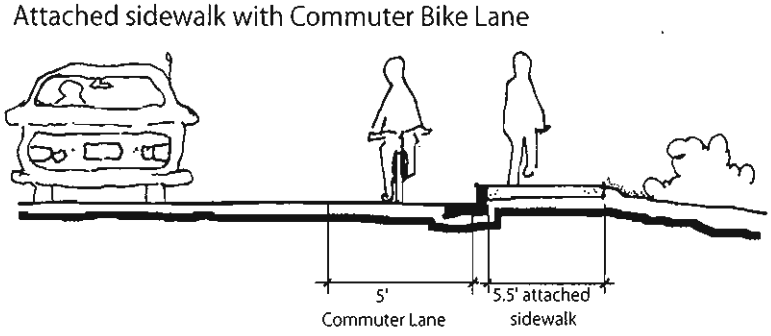
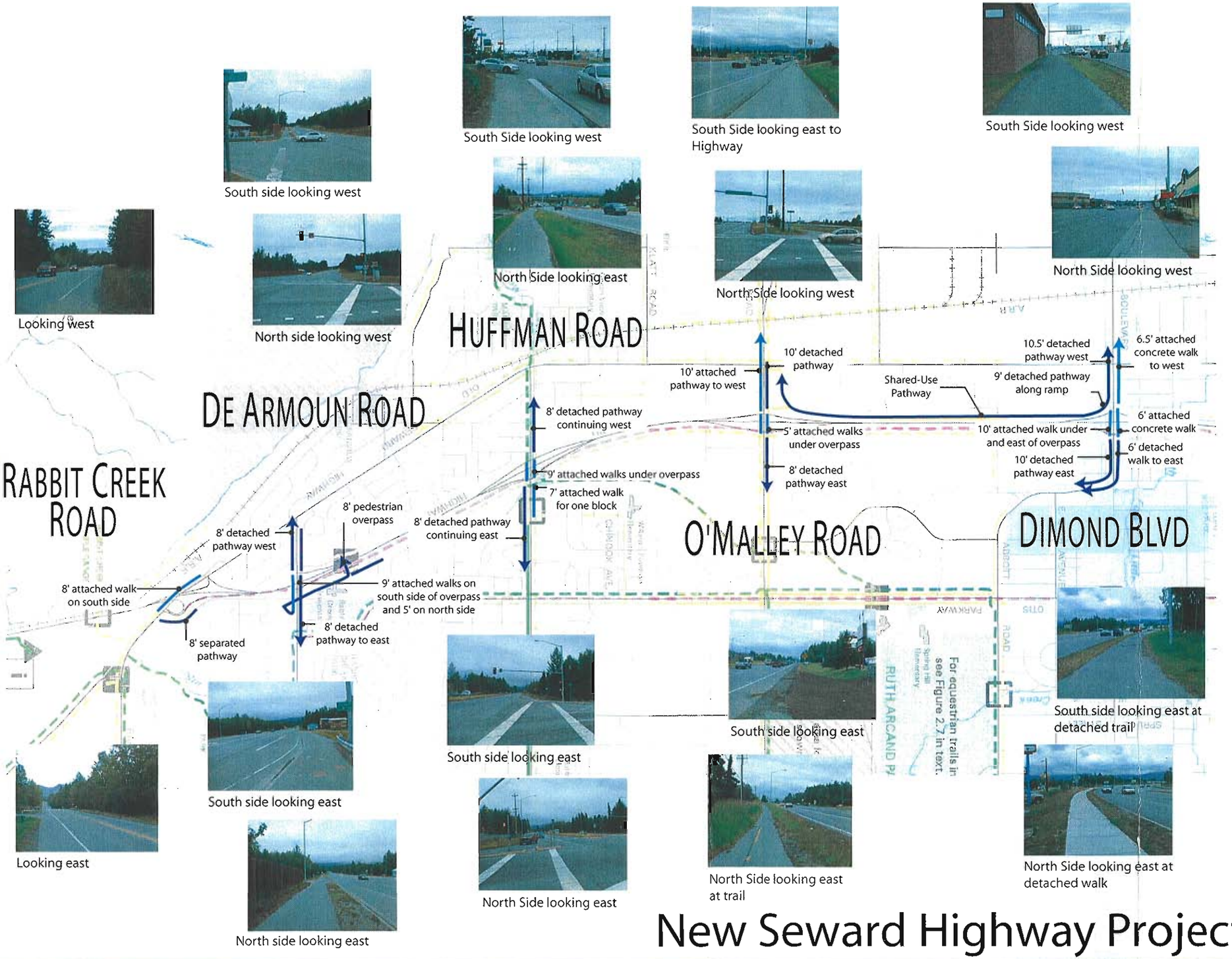


Figure 3 - Attached Sidewalk

EXISTING CONDITIONS A



Legend:

1. Shared-Use Pathway
2. Sidewalk

Rabbit Creek Road

De Armoun Road

Huffman Road

O'Malley Road

Dimond Blvd

Areawide Trails Plan Base

- Planned Bike Route
- Existing Bike Route
- Planned Multi-Use Paved Route
- Existing Multi-Use Paved Route
- Planned Multi-Use Unpaved Route
- Existing Multi-Use Unpaved Route

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New Seward Highway Project

2003

Rabbit Creek Road to Dimond Blvd

EXISTING CONDITIONS B


South Side looking west to NSH


The terminus of International Airport Road


North side looking west

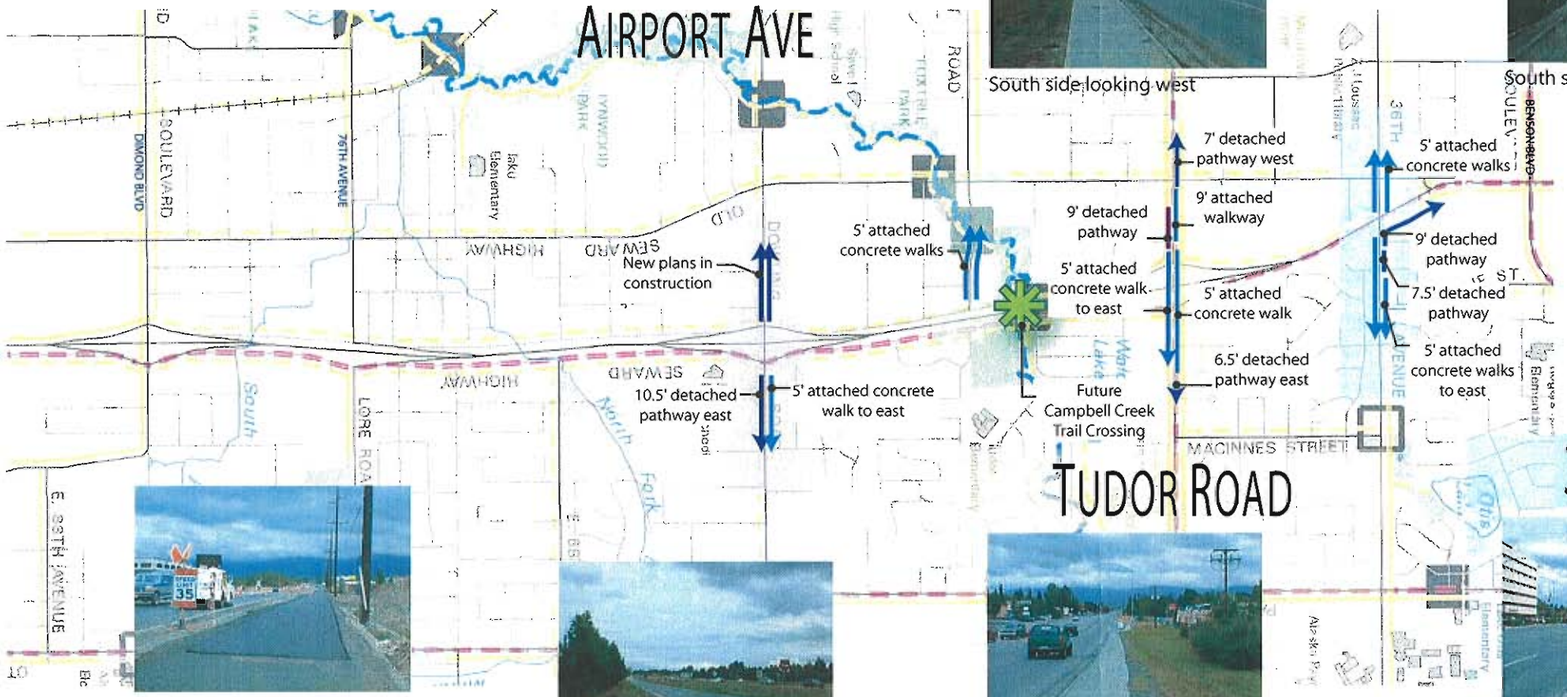

North side looking west


South side looking west


South side looking west

DOWLING ROAD

INTERNATIONAL AIRPORT AVE



South Side looking east to trail

Frontage Road looking north


Frontage Road looking south

South Side looking east


North Side looking east


South side looking east


North side looking east

New Seward Highway Project

Legend:

1. Shared-Use Pathway
2. Sidewalk

Dowling Road

International Airport Road

Tudor Road

36th Avenue

Areawide Trails Plan Base

- Planned Bike Route
- Existing Bike Route
- Planned Multi-Use Paved Route
- Existing Multi-Use Paved Route
- Planned Multi-Use Unpaved Route
- Existing Multi-Use Unpaved Route

NORTH

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Rabbit Creek Road to O'Malley Road

The Preliminary Engineering team proposes a commuter bicycle route along Brayton Drive frontage road in accordance with the AWTP.

There is an existing shared-use pathway on the east side connecting Rabbit Creek Road to Brayton Drive and connecting Rabbit Creek Elementary via an overpass to the residential neighborhood on the west side. The Preliminary Engineering team proposes a shared-use pathway along Brayton Drive and along the west side of the New Seward Highway in accordance with the AWTP to connect the existing facilities and because of the high density of residential units in this area.

O'Malley Road to Dimond Blvd

The Preliminary Engineering team proposes a commuter bicycle route and shared-use pathway along Brayton Drive frontage road in accordance with the AWTP. A shared-use pathway currently exists along the west side of the New Seward Highway.

We propose at-grade pedestrian crossings at 92nd Avenue and at Dimond Boulevard. The east shared -use pathway crosses Dimond Boulevard and routes along an existing 6' attached sidewalk facility. The Preliminary Engineering team recommends acquistion of additional right-of-way to provide a continuous separated pathway for north-south travel.

Rabbit Creek Road Intersection

The Preliminary Engineering team recommends maintaining the existing 8' attached sidewalk on the south side of the Rabbit Creek Road overpass for bicycle and pedestrian traffic. Although the facility will not meet the separated requirement of the AWTP, the sidewalk bikeway on the narrow overpass ensures continuity to the future shared-use pathway on the west side of Old Seward Highway and the south side of Rabbit Creek Road. A separated facility is impractical because of the prohibitive cost of expanding the overpass.

Rabbit Creek Proposed Pedestrian Overcrossing

There is an existing shared-use pathway on the east side connecting Rabbit Creek Elementary via an overpass to the residential neighborhood on the west side. The pedestrian bridge currently is accessed by stairs at each end of the structure. A goal of this project is to provide ADA access to the structure by constructing ramps with grades of 5% or less and the proper landings.

DeArmoun Road

The Preliminary Engineering team recommends maintaining the existing 9' attached sidewalk on the south side of the De Armoun overpass and upgrading the north sidewalk to an 8' sidewalk bikeway for bicycle and pedestrian traffic. Although the facility will not meet the separated requirement of the AWTP, the sidewalk bikeway ensures continuity to the existing shared use pathway on the south-west and north-east De Armoun road. A separated facility is impractical because of the prohibitive cost of expanding the overpass.

Huffman Road

The Preliminary Engineering team proposes maintaining the 9' attached sidewalk on the south side of Huffman Road. We recommend an 8' wide shared-use pathway upgrade on the north side of Huffman Road in accordance with the AWTP to connect with the existing shared use pathway on the north-west and south-east of Huffman. This proposed facility will replace the existing 9' attached sidewalk. Curb cuts and ramps will be included at the frontage road intersections.

O'Malley Road

The Preliminary Engineering team is considering minor intersection improvements for the O'Malley Road Interchange. We recommend maintaining the existing pedestrian circulation at this intersection. A separated pathway on the north side could be added with a future project that upgrades the overpass for increased traffic.

92nd (Abbott) Avenue

A project goal is to raise the mainline New Seward Highway allowing 92nd Ave (Abbott Road) to cross underneath and connect through to Academy Drive. The current design alternative shows sidewalks along both sides of 92nd Avenue to the points where the vertical alignment matches existing grades. The design of the freeway bridge structure provides additional width for a future separated pathway. This pathway could be added with a future project that upgrades 92nd Avenue for the increased traffic and pedestrian/ bicycle volumes.

Dimond Blvd

Currently both sides of Dimond Boulevard have an attached sidewalk behind the curb and gutter. The Preliminary Engineering team proposes a separated shared-use pathway in accordance with the AWTP on the south side to maintain continuity with existing separated shared- use facilities. We recommend an 8' sidewalk bikeway on the north side with provisions for curb cuts and ramps for bicyclists and pedestrians at every intersection. Ramps will be flush with the street and wide enough to accommodate two-wheel bicycle trailers. These pedestrian improvement meet the AWTP requirements.

New Seward Highway Project

PEDESTRIAN FACILITY PRESCRIPTIONS A

Legend:

1. Proposed Shared-Use Pathway
2. Existing Shared-Use Pathway
3. Proposed Sidewalk
4. Existing Sidewalk
5. Proposed Commuter Bicycle Route

Areawide Trails Plan Base

- Planned Bike Route
- Existing Bike Route
- Planned Multi-Use Paved Route
- Existing Multi-Use Paved Route
- Planned Multi-Use Unpaved Route
- Existing Multi-Use Unpaved Route

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Dimond to Dowling Road

The Preliminary Engineering team recommends an attached sidewalk in conjunction with a commuter bicycle route on both Brayton Drive and Homer frontage roads. The AWTP calls for a shared-use pathway on both sides of the New Seward Highway; however, limited residential facilities in this area and a restricted ROW make provisions for a separated shared-use pathway impractical.

The Preliminary Engineering team proposes at-grade pedestrian crossings at 76th Avenue, Lore Road, 68th Avenue and Dowling Road intersections.

Dowling Road to Tudor Road

The Preliminary Engineering team proposes an attached sidewalk in conjunction with a commuter bicycle route along Homer Drive from Dowling to International Airport Road because of the limited residential connections. We propose a commuter bicycle route and shared-use pathway along Homer Drive from International Airport Road to Tudor Road and along Brayton Drive in accordance with the AWTP. The shared-use pathways provide connectivity from the Campbell Creek Greenbelt Trail to adjacent residential neighborhoods and businesses. Access to the Campbell Creek Trail from both the east and west pathways will be included.

Tudor to 36th Avenue

Although the AWTP includes a commuter bicycle route; the Preliminary Engineering team does not propose any commuter bicycle route facilities along the New Seward Highway because of safety regulations. The Preliminary Engineering team recommends a shared-use pathway in accordance with the AWTP on both the east and west side of the New Seward Highway. The separated facility will accommodate bicycle commuters as well as other pedestrian traffic.

76th Avenue

Similar to 92nd Avenue, the Preliminary Engineering team recommends raising the New Seward Highway to allow 76th Avenue to cross underneath and connect to Lore Road. The current design alternative shows sidewalks along both sides of 76th Avenue to the points where the vertical alignment matshes existing grades. The design of the freeway bridge structure provides additional width for the addition of a future separated pathway. This pathway could be added with a future project that upgrades 76th Avenue and Lore Road for the increased traffic and pedestrian/bicycle volumes.

68th Avenue

The New Seward Highway will be raised to allow 68th Avenue to cross underneath. The current design alternative shows sidewalks along both sides of 68th Avenue to the points wehre the vertical alignment matches existing grades. The design of the freeway bridge structure provides additional width for the addition of a future separated pathway. This pathway could be added with a future project that upgrades 68th Avenue for the increased traffic and pedestrian/bicycle volumes.

Dowling Road Underpass

The Preliminary Engineering team recommends incorporating the current interchange construction plan. Under this plan a sidewalk at back of curb will be constructed on the north side of Dowling Road and an 8' wide separated shared-use pathway is proposed on the south side of Dowling Road. Curb cuts and ramps will be provided at every intersection. These provisions are in accordance with the requirements of the AWTP.

International Airport Road

A project goal is to connect International Airport Road to Alpenhorn Avenue by raising the New Seward Highway over the new link. The Preliminary Engineering team recommends maintaining the sidewalks at back of curb on the north and south sides of International Road and extending the sidewalks to Brayton Drive. Curb cuts and ramps will be included at the frontage road intersections.

Tudor Road

The Preliminary Engineering team is considering several options for the Tudor Road Interchange. These options include expanding the "diamond" interchange with dual-left turns or constructing loop ramps in the NW and SE quadrants. With each of these options we propose widening the existing sidewalk to an 8' sidewalk bikeway along both sides of the Tudor Road overpass to provide bicycleway continuity along the heavily traveled roadway. The design will provide curb cuts and ramps for bicyclists and pedestrians at every intersection. Ramps will be flush with the street and wide enough to accommodate two-wheel bicycle trailers. Although the facility will not meet the separated requirement of the AWTP, a separated facility is impractical because of the prohibitive cost of expanding the overpass.

36th Avenue Project Terminus

The Preliminary Engineering team proposes only minor changes at the intersection. We recommend maintaining the existing pedestrian circulation at this intersection.

Campbell Creek Trail Connection

The Preliminary Engineering team design for the International Airport Road overcrossing also provides new bridge structures over the nearby Campbell Creek. New bridges for the New Seward mainline and frontage roads will provide the clearances necessary to allow for the future construction of Campbell Creek Trail connection. The existing pathway ends on the west side of the New Seward Highway at International Airport Road and picks up on the east side of the highway in Bancroft Park at the corner of Rakof Avenue and Pavalof Street. The future Campbell Creek Trail connection is currently the responsibility of the Municipality of Anchorage.

New Seward Highway Project

PEDESTRIAN FACILITY PRESCRIPTIONS B

Legend:

1. Proposed Shared-Use Pathway
2. Existing Shared-Use Pathway
3. Proposed Sidewalk
4. Existing Sidewalk
5. Proposed Commuter Bicycle Route

Areawide Trails Plan Base

- Planned Bike Route
- Existing Bike Route
- Planned Multi-Use Paved Route
- Existing Multi-Use Paved Route
- Planned Multi-Use Unpaved Route
- Existing Multi-Use Unpaved Route

NORTH

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