

Transportation Alternatives Program 2021 Application

Instructions

Complete application in the space provided. Applicants are limited to application form and 5 pages of attachments. Submit completed application and attachments electronically to dale.robins@rtc.wa.gov. You will receive an e-mail confirmation within one business day of submittal. If you do not receive confirmation or have questions about the application contact Dale Robins at 564-397-5212.

General Information

Project Title: Highway 99 Sidewalk (Vicinity of NE 102nd Street - Vicinity of NE 104th Street)
 Project Location and Limits: NE Highway 99 (Vicinity of NE 102nd Street - Vicinity of NE 104th Street)
 Project Length (miles): 0.12
 Agency: Clark County Public Works
 Contact Person: John McSherry
 Telephone: (564) 397-5794 Email: john.mcsherry@clark.wa.gov
 Certified Acceptance Agency: Clark County Public Works

Project Screening Criteria

Check all that apply.

- Project is consistent with the RTP
- Project contains at least one eligible Transportation Alternatives Category
- Project is directly related to the surface transportation system (except trails)
- Project does not supplement the construction of an existing project
- Project is open to public access

Cost Summary

Project Phase	Start Date	TAP Funds	Other Funds	Total Cost
Design	07/01/2022	\$145,000	\$29,000	\$174,000
Right of Way	01/01/2023		\$75,000	\$75,000
Construction	06/01/2024	\$505,000	\$173,000	\$678,000
Totals	n/a	\$650,000	\$277,000	\$927,000
Overall Match Ratio:				29.88%

Project Type

Check all that apply.

- | | |
|---|---|
| <input checked="" type="checkbox"/> Bike/Pedestrian facilities | <input type="checkbox"/> Vegetation management practices |
| <input checked="" type="checkbox"/> Safe routes for non-drivers | <input type="checkbox"/> Archaeological activities |
| <input type="checkbox"/> Abandoned railroad corridors for trails | <input type="checkbox"/> Environmental mitigation activity |
| <input type="checkbox"/> Turnouts, overlooks, and viewing areas | <input type="checkbox"/> Recreational Trails Program |
| <input type="checkbox"/> Control of outdoor advertising | <input checked="" type="checkbox"/> Safe Routes to School Program |
| <input type="checkbox"/> Historic preservation of transportation facilities | |

Project Information

1. Project Description:

This project is located along on the east side of Highway 99 between the vicinity of NE 102nd Street and NE 104th Street in urban southwest Clark County. The existing sidewalk currently ends on Highway 99 just south of the Tenny Creek crossing. Highway 99 is a four-lane principal arterial paralleling Interstate-5 between downtown Vancouver and NE 134th Street and is also one of the highest accident corridors in Clark County. There are no sidewalks or dedicated walkways within the project limits. Pedestrians are forced to walk beside more than 20,000 vehicles per day on an uneven shoulder that averages five feet in width. A substandard guardrail and a steep embankment that drops about 25 feet starts at edge of the pavement, forcing pedestrians closer to the 40-mph travel lane.

Major project improvements include:

- installing 650 feet of new curb and sidewalk.
- Structural stabilization of new sidewalk area at the Tenny Creek crossing.
- Pedestrian and traffic safety barrier at the Tenny Creek crossing.
- Restripe bicycle lanes on Highway 99.
- Other safety improvements as required.

This project will construct 650 feet of new raised concrete curb and sidewalk along the east side of Highway 99 and south side of NE 104th Street fulfilling the gap of missing sidewalk. The project begins where the existing sidewalk ends near NE 102nd Street and extends approximately 420 feet north to the corner of Highway 99 and NE 104th Street, then turns east along the south side of NE 104th Street for approximately 230 feet and ends at an existing sidewalk on NE 104th Street. The proposed sidewalk will vary in width between 5.5 and 10 feet. ADA compliant curb ramps will be installed at the corner of NE 104th Street and the existing pedestrian signal call button will be relocated. Additionally, a new landing pad will be constructed on the northeast corner of Highway 99 and NE 104th Street.

At the Tenny Creek crossing there is a ravine approximately 25 feet deep and 250 feet wide on the east side of NE Highway 99. The slope is armored with rock and is covered in vegetation with some trees growing in the embankment. There is an existing guardrail at the edge of the roadway shoulder. The 30 percent plans call for a Mechanically Stabilized Earth (MSE) retaining wall (about 200 feet long) to support the eastern edge of the new sidewalk. For traffic and pedestrian safety, a concrete slab will be installed behind the sidewalk with a short metal pedestrian handrail on top of the slab at the standard 42" height. This structure (MSE wall) could change, depending upon further engineering analysis and structural investigations. The final design may include a cantilevered sidewalk supported by a soldier pile wall, or a pedestrian bridge or other engineered solutions.

Project Information

2. Describe how the project will improve the public travel experience, and travel options, including the benefit to the community:

Construction of this sidewalk will provide pedestrians with a safe alternative to walking in the roadway, thereby eliminating pedestrian-vehicle and pedestrian-bicycle conflicts. This project will also improve vehicular, bicyclist and pedestrian mobility enhancing safety for all users. This project will benefit the community by allowing better pedestrian access to their homes, jobs, schools, transit, shops, churches, and parks while increasing opportunity for walking and biking for exercise and recreation. This project will provide continuous sidewalk connectivity linking extensive sidewalk networks in the project area. Additionally, this project will encourage non-motorized and multimodal travel throughout the Highway 99 area.

This project will improve access to C-Tran bus stops at the corner of Highway 99 and NE 104th Street - #19 Salmon Creek, Stop ID 3254. C-Tran's Highway 99 route is the third busiest in the entire route system, boarding more than 12,000 riders per month. The proposed sidewalk improvements will enhance the travel experience and increase accessibility of transit stops for all residents and users. The Legacy Salmon Creek Medical Center, Kaiser Permanente and Washington State University-Vancouver are all within a short bus ride of the proposed project.

Clark County is one of the fastest growing counties in the State of Washington, and the Highway 99 community is experiencing a significant share of the county's overall residential and commercial growth and development. Up to 27.4% of the population living in the project area are at or below the 184% Federal Poverty Guidelines and are very dependent on the Highway 99 pedestrian facilities. Completing this missing segment of sidewalk is a priority in the Highway 99 Sub-area Plan, which was adopted by the County Councilors. The plan cites the importance of this sidewalk segment to connect under-served residents to schools, daycare/preschools, transit stops, grocery stores, pharmacies, banking, medical facilities, and other shopping located in the project area.

3. Describe how the project provides a connection between modes, or improves transportation choices, or connects to land use services such as job locations, a civic center, library, grocery market, playground, retail center, medical office, school, and other. (Include modes and list of specific land uses connect within 1/2 mile of project):

This project is in a busy, densely populated area between two urban freeway interchanges (NE 99th Street and NE 134th Street). The area has numerous pedestrian destinations and generators. Zoning within a half mile of the project's site includes high density residential (R-43, R-30, R1), General Commercial (GC), Community Commercial (CC), Light Industrial (IL) and Parks/Wildlife refuge (P/WL). The project connects to more than 1,500 housing units including: approximately 15 apartment complexes; two mobile home parks; the Sarah J Anderson Elementary and Gaiser Middle Schools; two pre-school day care centers; a shopping center with a Winco grocery store and a Walgreens pharmacy; a bank; medical facilities including the Clinica de Salud Familiar medical clinic, Sheron Dental, Hazel Dell Dentistry 4 Children; two community parks; two churches including a church for the deaf; and several multi-tenant shopping centers including one adjacent to the project.

This project will improve connections between walking, bicycling and public transit modes. Transit will become a stronger transportation mode providing a direct pedestrian route to the C-Tran #19 stop located at the corner of NE Highway 99 and NE 104th Street. Additionally, 12 transit stops are located within a 1/2 half mile radius on NE Highway 99 including the 99th Street Transit Center.

Pedestrians that walk on a regular basis will be encouraged by this project to walk more often. Individuals, parents, and disabled persons that understandably avoided the roadway due to vehicular conflict and high speeds will be empowered to use the newly connected sidewalk. Walking will be considered as an alternative transportation mode and will become a more attractive transportation choice. Additionally, many people without vehicles who have long relied on the pedestrian facilities on Highway 9 will be rewarded with a safe walking route.

The bicycle lane along Highway 99 will be separated from pedestrian travel by restriping between NE 102nd Street and NE 104th Street. This will result in reduced conflicts and increased safety, thereby encouraging bicycling as an alternative transportation mode.

Project Information

4. Describe how the project relates to an adopted plan such as the GMA plan, modal plan, neighborhood plan or other planning process. (Include name of Plan and attach a copy of page from plan that including project by name):

This project is listed in the: 2021-2026 Clark County Transportation Improvement Program (Sidewalks and ADA Compliance Program), 2016-2035 Comprehensive Growth Management Plan via the Capital Facilities Plan, Highway 99 Sub-Area Plan, Clark County Pedestrian Crossing Treatment Policy, Clark County 2010 Bicycle and Pedestrian Master Plan, and supported by Clark County Complete Streets Ordinance.

Sidewalks, pedestrian features, and bicycle facilities are emphasized design elements for in the Highway 99 Sub-Area Plan adopted by the County Council. This plan builds on more than 20 years of work by the Team 99 Committee of interested stakeholders. The plan inventoried and mapped the sidewalk system and developed a list of priority projects with staff from Public Works using the current ranking criteria for the sidewalk program. This project ranked high because it improves pedestrian access to schools, transit stops, parks, and commercial and industrial job centers.

The Bicycle Advisory Committee worked with county staff to develop criteria to prioritize bike lane improvement projects. Highway 99 was listed as a high priority primary north/south bike route and NE 104th Street was listed as a priority for providing bike access to Sarah J. Anderson Elementary and Gaiser Middle Schools. While bicycle lanes exist along the majority of both routes, this project improves bicycle safety by removing pedestrians from the roadway

5. Describe to what extent the project will improve mobility for disadvantage populations, including elderly, disabled minority, and low income populations:

It's not uncommon to see parents with strollers, disabled people in wheelchairs or scooters traveling in the street due to the lack of sidewalk in the project area. Many low income and disadvantaged populations do not have access to a vehicle, and elderly people often limit driving. Both populations are more reliant on the ability to walk to destinations, or easily walk to transit stations. Federal statistics list the area within a 1/2 mile of the project as among the lowest income in the county, with 14.4% to 27.4% of the population living at or below 184% Federal Poverty Guidelines. Also, in RTC's Regional Transportation Plan for Clark County, 2019 Update, Appendix K - Environmental Justice Analysis, the map in Figure K-1 show that the minority population in the project area is 19.8% or above.

Installing this missing piece of sidewalk and enhancing bicycle lanes along this heavily traveled portion of Highway 99 will improve mobility for elderly, disabled, minority, and low income populations by improving access to C-Tran route #19, increasing mobility of the less auto-dependent population. Disadvantaged pedestrians and bicyclists traveling to or from nearby bus routes on Highway 99 and NE 99th Street will be able to complete their trips more safely.

6. List affordable house complex and number of housing units that are within 1/2 mile of project:

There are portions of four census tracts within a 1/2-mile radius of this project. The percentage of the population at or below 184% the Federal Poverty Guidelines ranges between 14.4% and 27.4%. The Vancouver Housing Authority (VHA) does not operate any affordable housing complexes in the project area. However, the VHA reports that there are 257 subsidized units in the project's four census tracts. The VHA indicated that many of those subsidized units are located within the 15 apartment complexes and two mobile home parks located in the project area including Hidden Village Mobile Home Park, Vancouver Landing Mobile Home Park, Ridge Crest Apartment, Timber Knoll Apartment, Maple Knoll Apartment, Bridge Creek Apartment, Alderbrook Apartment, Park Lane Apartments, Teal Pointe Apartments, West Wynd Apartments, Erica Village, Trail Creek Apartments, Olympic Park, Crystal Springs, Starcrest Apartments and Forest Canyon Village Apartments.

Project Information

7. Identify the safety issues addressed by project (collision data, lack of adequate safe crossing or access, lack of separated facility, high speed or volume, other):

Lack of a continuous separated sidewalk and bike lanes on Highway 99 and NE 104th Street creates the following safety issues:

- Pedestrians are forced onto roadway due to dead end sidewalks and rough roadway edge terrain.
- Pedestrian can come into close conflict with vehicles and bicyclists in the roadway.
- Pedestrians in the roadway adds to congestion along busy Highway 99 - ADT over 20,000.
- Missing ADA ramps hinder travel for disabled persons.
- Vehicle speeds in the project area may exceed the 40 MPH limit.
- Existing east-side guardrail north at the Tenny Creek crossing does not meet current standards.

In September 2016, a vehicle hit a pedestrian in the roadway approximately 210 feet north of the NE 102nd Street/Highway 99 intersection at the Tenny Creek crossing. This project would significantly reduce pedestrian crashes.

8. Describe how the project addresses the safety issues identified:

This project will construct missing curbs and sidewalk along the east side of Highway 99 between NE 102nd Street and NE 104th Street and along the south side of NE 104th Street east of Highway 99. ADA ramps will be constructed to provide a smoother transition to the street crossings and safer sidewalk for wheelchair bound residents and pedestrians with strollers. The new raised sidewalks will improve pedestrian safety by removing pedestrians from the roadway, eliminate pedestrian-vehicle and pedestrian bicycle conflicts.

Shoulders will be re-striped for designated bike lanes. Bicycle lanes reduces the potential for bicycle-vehicle conflict and accidents.

Slope stabilization and new barrier constructed at Tenny Creek crossing will improve safety for pedestrians and vehicles.

9. Readiness:

- Design at 70% or higher
- Right of way acquisition complete or not needed
- Environmental permits approved

Please explain:

Preliminary Engineering: The project is currently at 30 percent design. Plans have been developed that call for a structural wall to support the eastern edge of the sidewalk. Depending on geotechnical engineering and structural investigations, the final design may be changed to include a cantilever and piers sidewalk or a pedestrian bridge. The environmental permitting processes will begin at 50 percent design.

Right of way acquisition: The sidewalk project is expected to be built almost entirely within existing right of way with the exceptions of temporary construction easements and a possible sliver acquisition on NE 104th Street.

Construction: Project money is currently programmed for construction in 2024.

Project Information

10. Describe how the local community and other agencies have been involved in the planning process for the project.

List any opposition to the project and how it was overcome:

Daily, pedestrians encounter many challenges associated with not having a sidewalk in this busy area. The missing sections of sidewalk and narrow shoulders, steep slopes, and uneven surfaces force pedestrians to walk in the roadway where they can come into conflict with close passing vehicles and bicycles.

The local community (residents, businesses, and neighborhood associations) strongly support sidewalk along Highway 99. With help from residents, businesses, and property owners, known as Team 99, Clark County developed a subarea plan to revitalize Highway 99 and neighborhoods nearby. The Highway 99 Subarea Plan was adopted by the Board of Clark County Commissioners on December 16, 2008.

The corridor also figured as a prominent area of need in the 2010 Clark County Bicycle and Pedestrian Plan. Eighteen different community leaders participated in the development of this 20-year plan. The Bicycle and Pedestrian Advisory Committee currently includes 11 members of the community who provide input on county projects and proposals.

Pedestrian sidewalks have been proposed within the project area over the past several years. The local community has been in strong support of construction of a dedicated pedestrian route along Highway 99. Letter-writing campaigns by community members and the neighborhood association were conducted in 2013, 2014 and 2016 and there is a long history of public testimony in favor of sidewalks along Highway 99, noted during County Council public comment periods.

11. Describe how the project improves public health and increase physical activity:

This project will create a safe, smooth, connected, sidewalk that will encourage more people to walk to their destinations. Additionally, the proposed enhancements to the bicycle lane promote more use of bicycles. The ability to safely walk or bicycle in this busy commercial corridor can be a significant incentive to avoid or reduce motor vehicle use in favor of more physical activity, thereby improving individual and public health.

12. Describe how the project includes design elements that contribute to quality of life:

Design elements that contribute to quality of life will be developed as the project design process progresses. Design elements may include decorative concrete, landscaping/hardscaping, planting strips, furniture (benches, trash receptacles, etc.), and/or other elements that beautify the streetscape per the adopted Highway 99 Subarea Plan. These elements contribute to quality of life by encouraging people to appreciate the area as they transit to their destination.

The addition of new curb separated sidewalks and ADA improvements will create safer pedestrian experiences as residents access transit stops, shopping, job centers, medical facilities, schools, churches, and public parks both inside and outside of the project area. ADA upgrades will provide better experiences for those who rely on wheelchairs, are visually challenged, and for pedestrians with strollers.

Project Information

13. List all funding partners contributing to the project:

Funding Source	Amount
Local Dollars - County Road Fund/Real Estate Excise Tax II	\$277,000

Other Information

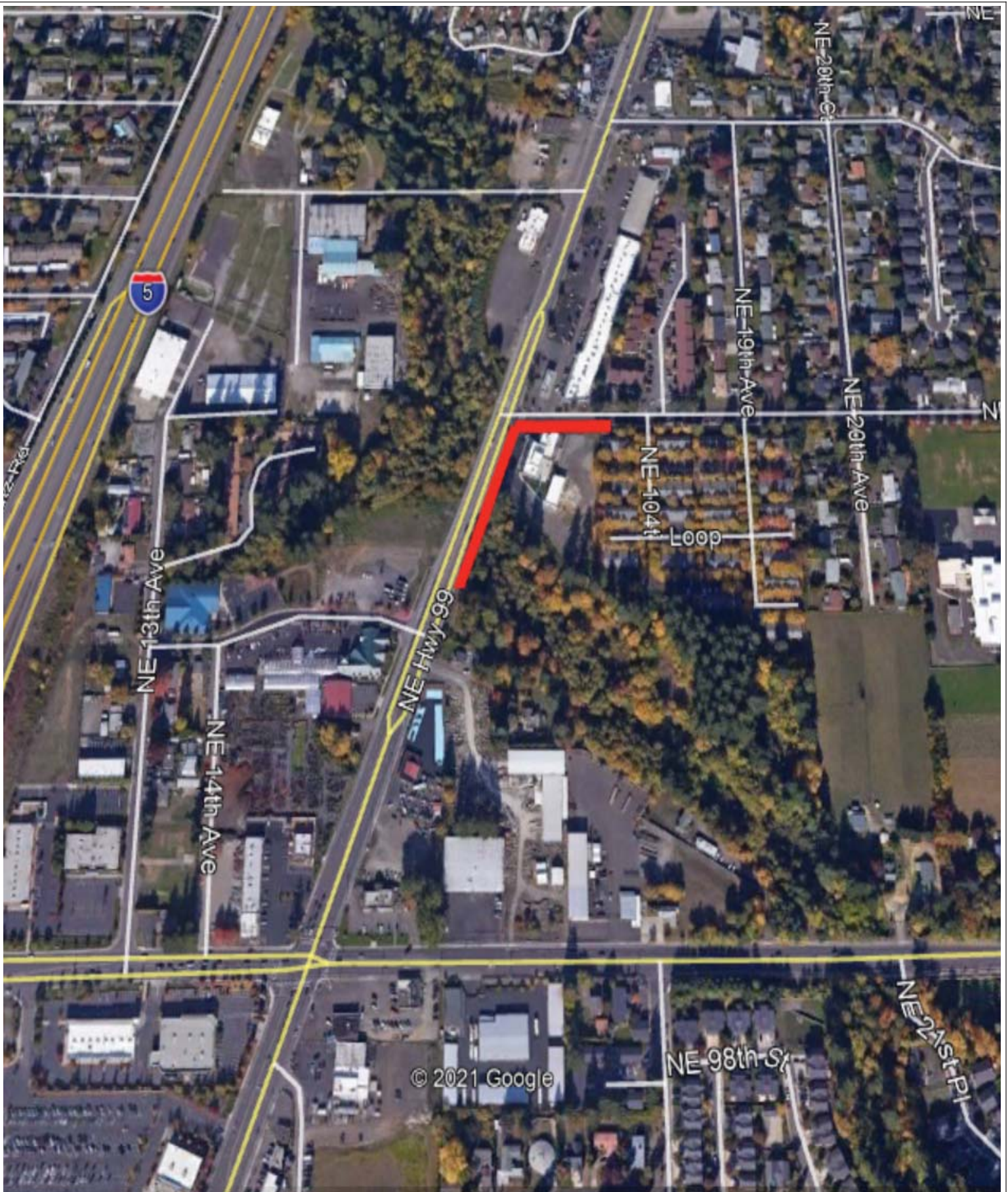
You may use this space to provide any additional project information considered worth noting:

This project will build on several constructed sidewalk projects along the Highway 99 corridor that Clark County has completed in the past decade.

Links to Clark County's Adopted 2021-2026 Transportation Improvement Program and Adopted 2021 Annual Construction Program are here: <https://clark.wa.gov/public-works/transportation-improvement-program>

Attached for your consideration:

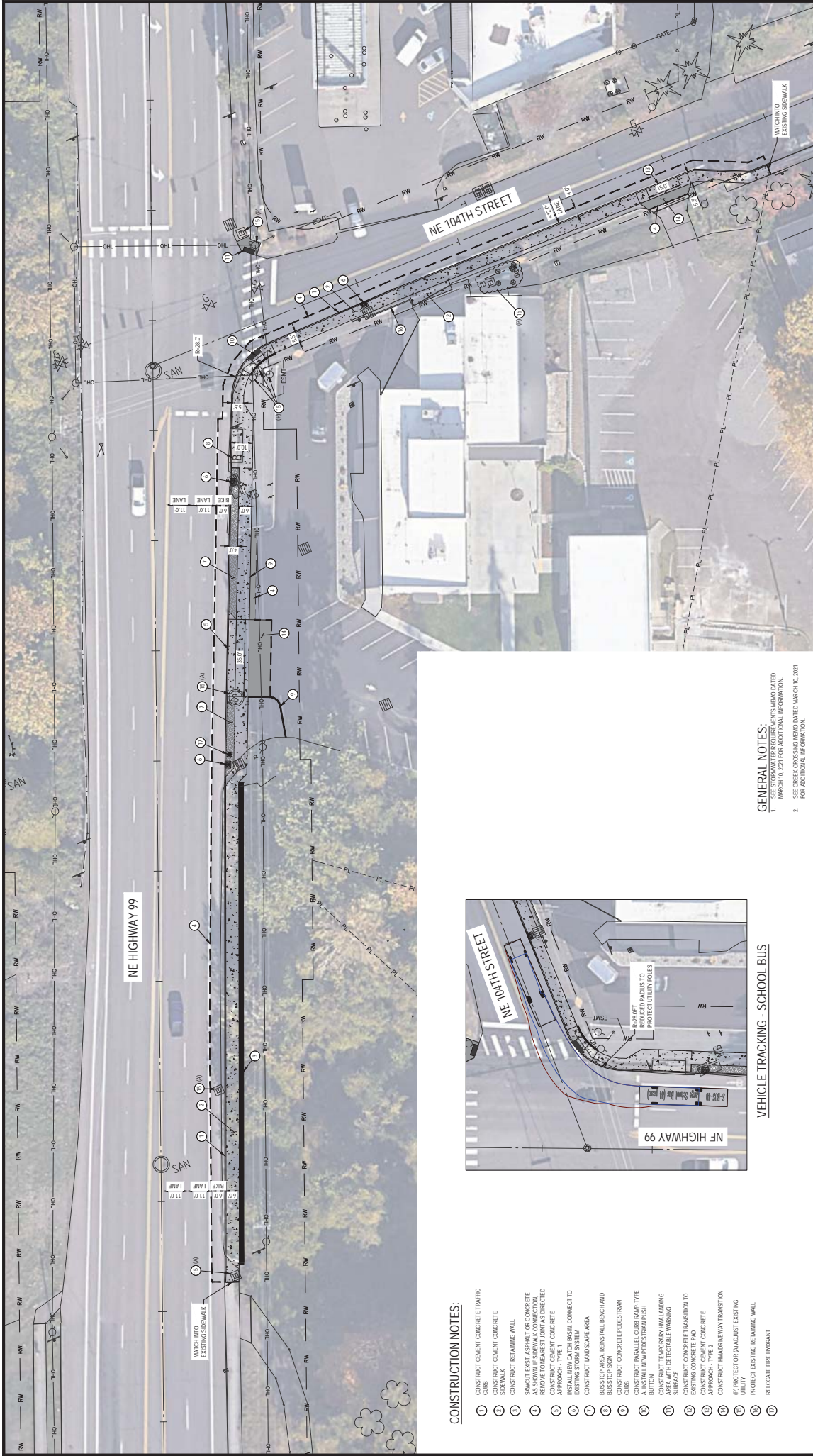
- Vicinity Map
- Conceptual layout plan based on the project's 30% design plans
- Engineers Estimate of Probable Cost - 30% Design
- Photos of current conditions
- The page from Highway 99 Subarea Plan mentioning this project



Highway 99 Sidewalk (Vicinity of NE 102nd Street - Vicinity of NE 104th Street)

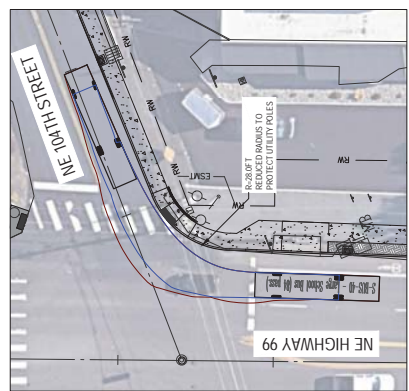
VICINITY MAP





CONSTRUCTION NOTES:

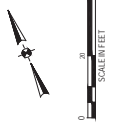
- 1. CONSTRUCT CEMENT CONCRETE TRAFFIC CURB
- 2. CONSTRUCT CEMENT CONCRETE SIDEWALK
- 3. CONSTRUCT RETAINING WALL
- 4. SAWCUT EXIST ASPHALT OR CONCRETE SURFACE TO NEAREST JOINT AS DIRECTED
- 5. CONSTRUCT CEMENT CONCRETE APPROACH - TYPE 1
- 6. CONSTRUCT CEMENT CONCRETE EXISTING STORM SYSTEM
- 7. CONSTRUCT LANDSCAPE AREA
- 8. BIE STOP AREA, REINSTALL BENCH AND BUS STOP SIGN
- 9. CONSTRUCT CONCRETE PEDESTRIAN CURB
- 10. CONSTRUCT PARALLEL CURB BARD TYPE A, INSTALL NEW FEEDSTRAN FLASH BUTION
- 11. CONSTRUCT TEMPORARY HAND LANDING SURFACE
- 12. CONSTRUCT CONCRETE TRANSITION TO EXISTING TECHNIQUE SURFACE
- 13. CONSTRUCT CEMENT CONCRETE APPROACH - TYPE 2
- 14. CONSTRUCT MAINLINE TRANSITION
- 15. (P) PROTECT OR (A) ADJUST EXISTING UTILITY
- 16. PROTECT EXISTING RETAINING WALL
- 17. RELOCATE FIRE HYDRANT



VEHICLE TRACKING - SCHOOL BUS

GENERAL NOTES:

1. THIS PROJECT WAS APPROVED MARCH 10, 2021 FOR ADDITIONAL INFORMATION
2. SEE SHEET CROSSING BARRIO DATED MARCH 10, 2021 FOR ADDITIONAL INFORMATION



Highway 99 Sidewalk (Vicinity of NE 102nd Street - Vicinity of NE 104th Street)

DATE: March 10, 2021

Otak
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 Vancouver, WA 98660
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CLARK COUNTY PUBLIC WORKS

CRP #310422

Highway 99 Sidewalk (Vicinity of NE 102nd Street - Vicinity of NE 104th Street)

Engineers Estimate of Probable Cost

30% Design



Estimate date: 4/2/2021

Prepared by: Phil Hymas, Otak

Unit costs for items derived from prior bid tabulations, WSDOT unit costs, and professional experience.

Note: Estimate does not include costs for property acquisition (if needed) or utility impacts

ITEMS

BID ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
1	MOBILIZATION (10%)	L.S.	1	\$ 40,400.00	\$ 40,400.00
2	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.	1	\$ 15,100.00	\$ 15,100.00
3	CLEARING AND GRUBBING	L.S.	1	\$ 3,000.00	\$ 3,000.00
4	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	1	\$ 15,000.00	\$ 15,000.00
5	ROADWAY EXCAVATION INCL. HAUL	C.Y.	280	\$ 25.00	\$ 7,000.00
6	SELECT BORROW INCL. HAUL	C.Y.	110	\$ 22.00	\$ 2,420.00
7	CRUSHED SURFACING BASE COURSE	C.Y.	315	\$ 80.00	\$ 25,200.00
8	HMA CL 1/2 IN PG 64-22	TON	220	\$ 90.00	\$ 19,800.00
9	HMA FOR APPROACH CL 1/2 IN PG 64-22	TON	15	\$ 140.00	\$ 2,100.00
10	TEMPORARY HMA RAMP	S.F.	30	\$ 35.00	\$ 1,050.00
11	COMBINATION INLET	EACH	3	\$ 3,000.00	\$ 9,000.00
12	ADJUST MANHOLE	EACH	1	\$ 700.00	\$ 700.00
13	ADJUST COMMUNICATION VAULT	EACH	2	\$ 500.00	\$ 1,000.00
14	MOVING EXISTING HYDRANT	EACH	1	\$ 2,000.00	\$ 2,000.00
15	EROSION CONTROL AND WATER POLLUTION PREVENTION	L.S.	1	\$ 15,000.00	\$ 15,000.00
16	LANDSCAPING AND SEEDING	L.S.	1	\$ 10,000.00	\$ 10,000.00
17	CEMENT CONC. TRAFFIC CURB (E-1)	L.F.	755	\$ 40.00	\$ 30,200.00
18	CEMENT CONC. SIDEWALK	S.Y.	410	\$ 70.00	\$ 28,700.00
19	CEMENT CONC. APPROACH TYPE 1	S.Y.	39	\$ 100.00	\$ 3,900.00
20	CEMENT CONC. APPROACH TYPE 2	S.Y.	14	\$ 100.00	\$ 1,400.00
21	PARALLEL CURB RAMP TYPE A	EACH	1	\$ 2,500.00	\$ 2,500.00
22	DETECTABLE WARNING SURFACE	S.F.	10	\$ 40.00	\$ 400.00
23	PAINT LINE	L.F.	400	\$ 2.50	\$ 1,000.00
24	PEDESTRIAN PUSH BUTTON	EACH	1	\$ 5,000.00	\$ 5,000.00
25	REMOVE AND REINSTALL BUS STOP SIGN AND BENCH	EACH	1	\$ 1,000.00	\$ 1,000.00
26	REMOVE AND REINSTALL MAILBOX	EACH	1	\$ 600.00	\$ 600.00
27	RETAINING WALL INCL. SHORING, EXC., AND BACKFILL	SF	1900	\$ 65.00	\$ 123,500.00
28	MOMENT SLAB WITH PED RAIL	LF	220	\$ 350.00	\$ 77,000.00
29	ENVIRONMENTAL MITIGATION	L.S.	1	\$ 30,000.00	\$ 30,000.00

SUB TOTAL		\$ 473,970.00
CONTINGENCIES	30%	\$ 142,000.00
CONTRACT SUBTOTAL		\$ 615,970.00
CM/CE	10%	\$ 62,000.00
TOTAL CONSTRUCTION COST		\$ 678,000.00
PE	20%	\$ 124,000.00
ENVIRONMENTAL PERMITTING		\$ 50,000.00
PE TOTAL	28%	\$ 174,000.00
ROW		\$ 75,000.00
TOTAL ESTIMATED PROJECT COST		\$ 927,000.00

NE Highway 99 Sidewalk (Vicinity NE 102nd Street - Vicinity NE 104th Street)
Current Condition Photos



End of sidewalk Hwy 99 near NE 102nd Street – Looking north



Corner of Hwy 99 – Looking south



End of sidewalk NE 104th Street – Looking west to Hwy 99



Corner of Hwy 99 & NE 104th Street – Looking east



Ped/Bike Conflict Hwy 99



Ped/Vehicle Conflict Hwy 99



C-Tran #19 Salmon Creek Route – Bus Stop ID 3254

In addition, these older neighborhoods tend to have lower densities than the newer neighborhoods with sidewalk. The lower density neighborhoods are less likely to have pedestrians than areas with multi-family development and, therefore, may score lower for future sidewalk projects than areas with higher density.

One other pattern of note is Highway 99, the section between NE 63rd Street and NE 99th Street. Large sections of the road have sidewalk obstructions. This section of Highway 99 may be improved through a County road fund for improving sidewalks to ADA standards, as well as through State and Federal Department of Transportation grants.

Pedestrian safety and access to transit stops is another key issue for the Highway 99 planning area. C-Tran staff was consulted to assist in identifying issues regarding pedestrian access to transit. According to C-Tran staff, several transit stops in the Highway 99 planning area lack adequate sidewalks. In addition, sidewalk improvements should be considered that improve the pedestrian environment. Such improvements would include the following: wider sidewalks, landscaping, and possibly street furniture.

Problematic areas where sidewalks are incomplete/non-existent:

- **Highway 99** (north of NE 99th Street): Both sides of this street have sidewalks that are incomplete on one side.
- **Highway 99** (near its intersection with NE 104th Street): Sidewalks are incomplete or non-existent at the northbound transit stops.
- **Highway 99** (near its intersection with NE 107th Street): Northbound transit stops have incomplete or non-existent sidewalks.
- **Highway 99** (near its intersection with NE 112th Street): Sidewalks are incomplete or non-existent for southbound transit stops.
- **NE 88th Street** (NE 15th to NE 25th Avenue): C-Tran has not placed a transit stop for eastbound buses along NE 88th Street because of the lack of sidewalks. The County has an improvement project for NE 88th Street that will probably construct sidewalks on this road section.

Clark County Public Works uses a rule of thumb cost estimate for sidewalk of \$5.00 per square foot. This cost does not, however, reflect the stormwater costs associated with sidewalk construction. In 2007, the County built two projects and the construction cost for one was \$14 per square foot and the other was \$42 per square foot. These projects were selected because they were relatively simple and stormwater costs were low. The cost to construct a sidewalk section could be significantly higher depending on stormwater, right-of-way purchase, and wall requirements. Further detailed analysis is needed before the exact costs of sidewalk construction in the Highway 99 area can be determined.

Trails

A final consideration is providing a system of trails through the planning area. Two trails are located in the Hwy 99 planning area. The Salmon Creek trail is located on the far north side of the Highway 99 planning area and the Ellen Davis Trail along NE Minnehaha is located on the south end.

The Salmon Creek trail meanders primarily on the northwest side of the Highway 99 planning area. With the replacement of Kline Line Bridge and improvement to its surrounding roads, the Salmon Creek trail will extend eastward toward the BPA right-of-way.

The Ellen Davis trail begins east of the planning area on NE St. James Road, just south of its intersection with NE Minnehaha Street. It follows Burnt Bridge Creek through the BPA right-of-way and the JD Ross Substation Complex, on NE 54th Street, then the trail turns south