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## TRANSPORTATION IMPROVEMENT PLAN

UPDATED SEPTEMBER 2018



## Overview

In accordance with RCW 35.77.010, all cities and towns are required to prepare and adopt a comprehensive transportation program annually that spans at least six calendar years. This comprehensive transportation program is typically called a Transportation Improvement Plan (TIP). The TIP identifies transportation projects that the City may not have funding for but would like to build sometime in the future. The six-year TIP must also be consistent with any adopted comprehensive plan. The annually adopted TIP should be transmitted to the Washington State Secretary of Transportation on or before July 1 of each year. Although not required by the RCWs, the City also sends a copy of the TIP to the Puget Sound Regional Council (PSRC), the regional body that coordinates the transportation plans of individual entities within King, Snohomish, Pierce and Kitsap counties.

The TIP usually includes projects valued at \$25,000 or more and, in accordance with state law, must cover a six-year period. The City updates its Capital Improvement Plan (CIP) as part of its biennial budget process, so the proposed TIP covers a seven-year period in order to comply with the six-year reporting requirement. Projects that have funding allocated to them within the next 6-year period are included in the City's CIP.

## Brief Project Descriptions

**35<sup>th</sup> Ave. SE Reconstruction Project:** The 35th Avenue Southeast Reconstruction Project will address the chronic settlement of the roadway between 144th Street Southeast and 141st Street Southeast that has occurred over time. The roadway was constructed across Penny Creek in an area underlain with compressible peat deposits. The project site is bound on the east by Thomas Lake and Penny Creek, which flows from the north along the east side of 35th Avenue Southeast, crossing within the study limits and continuing westerly. This project will construct a pile-supported concrete slab to support the roadway and prevent any future settlement. 35th Avenue Southeast has a functional classification of major arterial.



**Seattle Hill Road Pavement Preservation:** Repave Seattle Hill Road between Village Green Drive and 35th Avenue Southeast. The scope of work includes a full width, two-inch grind and overlay, replacement of landscaped median curbs and Americans with Disabilities (ADA) upgrades at all curb ramps and two traffic signals. A federal grant was obtained for construction in 2019 in the amount of \$720,000. In 2016, the pavement condition for this minor arterial was 59 (scale 0 to 100). The existing curb ramps and traffic signals do not meet current ADA standards. The curbs on all landscape medians have been damaged beyond repair over the years by vehicle collisions. No new operational expenses will result from this project.



**35<sup>th</sup> Avenue SE Pavement Preservation:** The project would include a full-width, 2-inch grind and overlay of 35th Avenue from 132nd Street SE to 141st Street SE (.57 miles), including traffic control, upgrade of ADA ramps, signing, channelization and other work. This project would connect to the section of 35th Avenue SE upgraded in the City's 2018 35th Avenue SE Reconstruction project. Per the Comprehensive Plan Level of Service Guidelines, the City should maintain a minimum average Pavement Condition Index (PCI) rating of 65 for collector and arterial roadways. The most recent evaluation identified this section of 35th Avenue SE as having a PCI of between 29 and 34.

**132<sup>nd</sup> Street SE Mid-Block Crossing Improvement (HAWK):** The proposed mid-block crossing with American with Disabilities (ADA) compliant curb ramps, pedestrian refuge island, marked crosswalk, High-Intensity Activated crossWalk beacon (HAWK) signal and illumination are needed to provide pedestrians a safer place to cross 132nd Street SE. A HAWK signal at the mid-block crossing on 132nd Street SE, west of 35th Avenue SE, will be installed to allow pedestrians to stop vehicular traffic in order to cross the street safely. The proposed HAWK signal will be interconnected with the existing traffic signal at 35th Ave SE in order to reduce the potential of rear-end collisions as vehicles move from one signal to the next. The proposed improvements will install a pedestrian refuge island at the midblock crossing to reduce the crossing distance to 20-30 ft. Illumination is limited to street lighting around the adjacent shopping area. In order to increase pedestrian visibility to drivers, the proposed improvements include additional lighting focused on the mid-block crossing location.

**Street Pavement Marking Program:** The goal of the Annual Street Pavement Marking Program is to maintain markings that identify travel lanes and other guidance markings for auto, pedestrian, bicycle, transit and other forms of transportation. Per the 2015 Comprehensive Plan, the City owns and maintains 77 lane miles of residential and local streets, 19 lane miles of collector streets and 10 lane miles of arterial streets (total of 106 lane miles of roadway).

**Mill Creek Boulevard Corridor Improvements Study:** Mill Creek Boulevard is an important north-south transportation corridor located in the heart of Mill Creek. The goal of the Mill Creek Boulevard Corridor Improvements Study is to enhance economic vitality and provide a framework to multiple capital improvements which include: intersection improvements at 164th Street, 161st Street, Main and SR 527; surface water aging infrastructure failures identified in a 2018 study produced by Pertee; pavement preservation and roadway re-configurations to better support Community Transit's bus rapid transit (BRT) lines. This study will peripherally address zoning and land use.

**Concrete Sidewalk Replacement Program:** The goal of this annual program is the preservation of the City's sidewalk systems which includes 75 miles of public sidewalks and more than 1,000 curb ramps. The scope of work includes repair or replacement of damaged sections of curb, gutter, sidewalk and curb



ramps that meet the American with Disabilities Act (ADA). The first year of the program will include a citywide assessment and rating of sidewalks and prioritization of needed repairs as well as recommendations on alternative repair methods. This program may include tree removal or alternative construction methods to preserve existing trees. Some of the benefits of this program include: 1) improved pedestrian safety, 2) compliance with ADA standards, and 3) savings in maintenance costs.

**Pavement Preservation and Rehabilitation Program:** The goal of this annual program is to extend the useful life of the City's streets by assessing, preserving and rehabilitating pavement conditions. Typical work will include crack filling, removal and replacement of failed pavement, patching, surface preservation treatments (seal coat, slurry seal, microsurfacing, chip seals) and asphalt overlays. The City is responsible for approximately 106 lane miles of roadway. The Program includes replacement or installation of accessible curb ramps to meet the requirements of the Americans with Disabilities Act (ADA). Per the Comprehensive Plan, the City's level of service guidelines for pavement management identifies a minimum pavement condition index of 65 for collectors and arterial roadways and 70 for local and residential roadways. In 2019, an assessment and pavement rating will be conducted to establish a priority list for future repairs. Federally funded roadway preservation projects are programmed in 2019 (Seattle Hill Road) and 2021 (35th Ave. SE).



**Citywide Traffic Signal Upgrades:** The City owns seven traffic signals that are operated and maintained by Snohomish County. The existing controllers and conflict monitors use outdated technology and need to be replaced in order for the signals to work within the County's integrated system. The project scope includes the installation of new pedestrian push buttons for compliance with the American with Disabilities Act (ADA), new side mounted battery backup systems (164th Street and Mill Creek Boulevard; Dumas Road at Park Road; Mill Creek Road and Village Green Drive), new controllers and conflict monitors. All work will be completed by Snohomish County.

**Bridge Monitoring and Improvement Program:** The City of Mill Creek owns a total of ten bridges. Only four of those bridges have a structure length over 20LF. In 2017, all ten bridges were inspected by WSDOT and load ratings were completed by KPFF on the four structures with span lengths greater than 20LF. Bridge scour conditions were identified at two bridges: North Creek Bridge (Bridge Number: MILL CR 1 located on 164th Street SE) and Penny Creek Bridge (Bridge Number: MILL CR 2 located on 144th Street SE). Based on service stresses, posted load restrictions were recommended at the North Creek Bridge (Bridge Number: MILL CR 1 located on 164th Street SE) and 153rd Street SE Bridge (Bridge Number: MILL CR 3). A load rating was also conducted on Mill Creek Road Bridge (Bridge Number: MILL CR 10). The City could elect to post load limits based on strength load rating, in which case the tonnages would be much higher, but the bridge would see greater deterioration over time.



**East Gateway Urban Village “Spine Road” West Connection (Phase 1):** The East Gateway Urban Village (EGUV) subarea plan was designed with internal access provided via a “Spine Road”. Several parcels in the East Gateway Urban Village have developed or are proposed for development and construction of the “Spine Road” has been a condition of approval for these developments. Right-of-way was dedicated as part of the approval of the Polygon Apartments/Townhome development, the Gateway Building, the Vintage and would be required with The Farm (project application submitted in 2018). This project will complete the “Spine Road” from 39<sup>th</sup> Ave. SE to 44<sup>th</sup> Ave. SE. Partial right-of-way purchase will be needed at two parcels for subsequent roadway design and construction.

**East Gateway Urban Village “Spine Road” East Connection (Phase 2):** The East Gateway Urban Village (EGUV) subarea plan was designed with internal access provided via a “Spine Road”. Several parcels in the East Gateway Urban Village have developed or are proposed for development and construction of the “Spine Road” has been a condition of approval for these developments. Right-of-way was dedicated as part of the approval of the Polygon Apartments/Townhome development, the Gateway Building, the Vintage and would be required with The Farm (project application submitted in 2018). This project will complete the “Spine Road” from 44<sup>th</sup> Ave. SE to Seattle Hill Road. Partial right-of-way purchase will be needed at three parcels for subsequent roadway design and construction.

**SR 96 at Dumas Road:** Operations at this intersection do not meet LOS guidelines primarily due to the existing split phasing required for traffic on Dumas Road/Elgin Way. The current channelization provides an exclusive left-turn lane and a shared left/through/right lane for northbound traffic. In addition to high through volumes on SR 96, this intersection has a high number of left turns from northbound Dumas Road to westbound SR 96 (529 vehicles in the 2040 PM peak hour). Installing a second northbound left-turn lane for northbound Dumas Road and a shared through/right-turn lane allows protected left-turn phases on each approach. This modification, in combination with optimizing timings, will reduce the average control delay by over 10 seconds per vehicle, resulting in LOS D.

**SR 96<sup>th</sup> at 35<sup>th</sup> Avenue SE Intersection Improvements:** 35th Avenue SE has high left-turn movement volumes onto SR 96. Two left-turn lanes are provided for southbound traffic, but northbound users only have one. This intersection currently has a Level of Service E with an average vehicle delay of 71.7 seconds. Adding a second northbound left-turn lane and optimizing signal timing improves intersection operations to an average delay of 55.3 seconds per vehicle.

**SR 527 / 164<sup>th</sup> Street Intersection Improvements:** This location is an intersection of two major arterials that connect users to regional destinations. The critical movement at this intersection is the eastbound left-turn movement, which is projected to have over 300 vehicles in the 2040 PM peak hour. Currently, this movement is served by a single left-turn lane with short storage length in order to maintain access to properties north of 164th Street SE. Removing the property access to the north, extending the turn-lane storage length, and optimizing the traffic signal timing can reduce delays to 80 seconds



per vehicle and achieve a Level of Service E. Community Transit's bus rapid transit (BRT) Orange Line is planned to connect from the Lynnwood Light Rail station east on 164th Street SE. Intersection improvements at this location will support BRT Orange Line operations.

**SR 527 / SR96 Intersection Improvements:** This project proposes to add an additional Eastbound/Westbound through lane, install intelligent transportation systems (ITS) infrastructure to direct traffic to use alternate routes which may include 16<sup>th</sup> Ave. SE or Dumas Road.

**Traffic Safety and Calming Program:** Ongoing program to install traffic calming devices to improve neighborhood livability and pedestrian safety. Improvements can include additional signage, pavement markings, speed "bumps," medians/islands, mini-roundabouts, flashing crosswalk lights, speed radar signs, etc. Improvements are evaluated and prioritized when citizen requests are received. City Council approved the formation of a formal citywide traffic calming program in April 2006 (revised in October 2007) and it has been well received by citizens. This program builds upon the City's Traffic Calming Program prepared in 2007, which focused on the safety and livability of City neighborhoods and was focused on streets with an average daily traffic (ADT) of less than 8,000 vehicles. The 2019-2024 TIP Traffic Safety and Calming Program expands to address safety and traffic calming concerns to collectors and arterials.

**(Old) Seattle Hill Road at SR 527:** The project consists of intersection control improvements coordinated by the City of Mill Creek, Snohomish County and the Washington State Department of Transportation.

**164<sup>th</sup> Street SE at Mill Creek Boulevard Intersection Improvements:** This intersection has a high volume left-turn movement, which results in a Level of Service F. Eastbound left-turn volumes exceed 500 vehicles in the PM peak hour, while the remaining approaches have over 100 vehicles per hour each. Currently, each approach has one left-turn lane. Adding an additional eastbound left-turn lane and optimizing signal timings will decrease the average delay per vehicle by around 40 seconds, resulting in a Level of Service E. This modification will require an additional receiving lane on the north leg, likely terminating at the intersection of Mill Creek Boulevard and 161st Street SE.

**Trail Preservation Program:** As a part of the development of several subdivisions in the City (e.g., Brighton, Amberleigh, The Springs), the City accepted the responsibility for maintenance of trail infrastructure through open space tracts in exchange for public access easements on the trails. The Trail Preservation Program would initially identify all of these trails within the City and assess their current condition. A priority list would be established ranking the severity of the deficiencies as well as establishing a schedule for future repairs and resurfacing.



**North Creek Trail Study:** The North Creek Trail connects multiple regional trails including the Burke Gilman and Sammamish River Trails to the South with the Interurban Trail to the North. The result is a network of trails which enables non-motorized transportation for commuters and local residents in a nearly continuous route from the Everett area all the way to the communities of Bothell, Lynnwood and Seattle. This trail system serves and connects the significant Regional Growth Centers of Bothell Canyon Park, Lynnwood and Everett as well as the locally designated Mill Creek Town Center and the Paine Field Manufacturing Industrial Center. The North Creek Trail Study will look at potential future development, improvements and upgrades to the North Creek Trail within the City of Mill Creek. This Feasibility Study will include assessment of American with Disabilities (ADA) compliance for built out sections, high level cost estimate for trail gaps, environmental preliminary assessment, geotechnical investigation and funding options. Improvements are intended to make the trail a shared use path for users of all ages and abilities.

## Funding Sources

Possible funding sources for TIP projects are development mitigation fees, real estate excise taxes (REET), grants, bonds, developer contributions, and legislative allocations.

### TIP Master Project List

Proj. No.	Project Name	Total	2019	2020	2021	2022	2023	2024
<b>Transportation Projects</b>								
1	35th Ave. SE Reconstruction Project	\$350,000	\$350,000	\$0	\$0	\$0	\$0	\$0
2	Seattle Hill Road Pavement Preservation	\$1,750,000	\$1,750,000	\$0	\$0	\$0	\$0	\$0
3	35th Avenue SE Pavement Preservation	\$1,150,000	\$0	\$150,000	\$1,000,000	\$0	\$0	\$0
4	132nd Street SE Mid-Block Crossing Improvements (HAWK)	\$750,000	\$87,000	\$663,000	\$0	\$0	\$0	\$0
5	Street Pavement Marking Program	\$700,000	\$150,000	\$150,000	\$100,000	\$100,000	\$100,000	\$100,000
6	Mill Creek Boulevard Corridor Improvements Study	\$250,000	\$250,000	\$0	\$0	\$0	\$0	\$0
7	Concrete Sidewalk Replacement Program	\$580,000	\$80,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
8	Pavement Preservation and Rehabilitation Program	\$3,100,000	\$100,000	\$750,000	\$0	\$750,000	\$750,000	\$750,000
9	Citywide Traffic Signal Upgrades	\$75,000	\$0	\$75,000	\$0	\$0	\$0	\$0
10	Bridge Monitoring & Improvement Program	\$600,000	\$0	\$50,000	\$250,000	\$50,000	\$250,000	\$0
11	East Gateway Urban Village "Spine Road" West Connection (Phase 1)	\$5,000,000	\$500,000	\$500,000	\$4,000,000	\$0	\$0	\$0
12	East Gateway Urban Village "Spine Road" East Connection (Phase 2)	\$6,000,000	\$0	\$0	\$0	\$2,000,000	\$750,000	\$3,250,000
13	SR 96 and Dumas Road Intersection Improvements	\$5,390,000	\$0	\$0	\$0	\$200,000	\$5,190,000	\$0
14	SR 96 at 35th Avenue Intersection Improvements	\$3,460,000	\$0	\$150,000	\$3,310,000	\$0	\$0	\$0
15	SR 527 / 164th Street Intersection Improvements	\$2,090,000	\$0	\$0	\$250,000	\$1,840,000	\$0	\$0
16	SR 527 / SR96 Intersection Improvements	\$9,460,000	\$0	\$0	\$0	\$0	\$860,000	\$8,600,000
17	Traffic Safety and Calming Program	\$75,000	\$0	\$25,000	\$0	\$25,000	\$0	\$25,000
18	(Old) Seattle Hill Road at SR 527	\$1,150,000	\$0	\$150,000	\$1,000,000	\$0	\$0	\$0
19	164th Street SE at Mill Creek Boulevard Intersection Improvements	\$7,370,000	\$0	\$0	\$0	\$0	\$670,000	\$6,700,000
Transportation Project Totals		\$49,300,000	\$3,267,000	\$2,763,000	\$10,010,000	\$5,065,000	\$8,670,000	\$19,525,000
<b>Trail Projects</b>								
20	Trail Preservation Program	\$95,000	\$20,000	\$25,000	\$0	\$25,000	\$0	\$25,000
21	North Creek Trail Study	\$75,000	\$0	\$75,000	\$0	\$0	\$0	\$0
Trail Project Totals		\$170,000	\$20,000	\$100,000	\$0	\$25,000	\$0	\$25,000
<b>TIP Totals All Project Categories</b>		<b>\$49,470,000</b>	<b>\$3,287,000</b>	<b>\$2,863,000</b>	<b>\$10,010,000</b>	<b>\$5,090,000</b>	<b>\$8,670,000</b>	<b>\$19,550,000</b>



## 2019-2024 Transportation Improvement Plan

