



BUSINESS OF THE CITY COUNCIL CITY OF MERCER ISLAND

AB 5853
May 4, 2021
Public Hearing

AGENDA BILL INFORMATION

TITLE:	AB 5853: 2022-2027 Six-Year Transportation Improvement Program (TIP) Public Hearing & Review	<input checked="" type="checkbox"/> Discussion Only
RECOMMENDED ACTION:	Receive comments from public hearing and provide feedback to staff	<input type="checkbox"/> Action Needed: <input type="checkbox"/> Motion <input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution

DEPARTMENT:	Public Works
STAFF:	Matt Mornick, Finance Director Patrick Yamashita, City Engineer/Deputy Public Works Director
COUNCIL LIAISON:	n/a
EXHIBITS:	1. Summary of Public Comments Received by April 16 2. Detail of Proposed Expenditures 2022-2027 3. Street Fund Balance, as of April 2021 4. Project Descriptions 5. Map of Proposed Six-Year TIP Roadway and PBF Improvements 6. Map of PBF on the Mercer Ways
CITY COUNCIL PRIORITY:	1. Prepare for the impacts of growth and change with a continued consideration on environmental sustainability.

AMOUNT OF EXPENDITURE \$ n/a

AMOUNT BUDGETED \$ n/a

APPROPRIATION REQUIRED \$ n/a

SUMMARY

The purpose of this agenda bill is to conduct a public hearing on the 2022-2027 Transportation Improvement Program (TIP) and for the City Council to provide staff with feedback. Adoption of the TIP is scheduled for June 1.

BACKGROUND

The Six-Year TIP is a planning tool used to identify specific projects that serve to maintain, preserve, and maximize use of the existing roadway and trail systems. The TIP balances revenues and expenditures within the Street Fund through programming and phasing construction of projects.

RCW 35.77.010 requires cities to formally adopt a TIP annually and submit it to WSDOT and the Puget Sound Regional Council ("PSRC") by July 1. A public hearing on the draft TIP is a requirement of State law and is incorporated as part of the City Council meeting. Once the TIP is adopted, projects are budgeted and funded through the City's Capital Improvement Program ("CIP") during the biennial budget process.

The TIP is also used to coordinate future transportation projects with needed underground utility improvements so that utility work is budgeted and programmed to occur prior to or in conjunction with roadway projects. All arterial street and pedestrian and bicycle facility (“PBF”) projects must be included in the TIP to be eligible for State and Federal funding.

The draft TIP is an update of the 2021-2026 version adopted by the City Council in June 2020. Individual projects/programs are combined, where feasible, to create economies of scale for construction. The draft TIP includes transportation improvement projects and programs in the following categories:

1. Residential Street Resurfacing
2. Arterial Street Improvements
3. Pedestrian and Bicycle Facilities (PBF) – New
4. East link Traffic/Safety Mitigation projects
5. Other

At the May 4, 2021 meeting, the City Council will conduct a public hearing on the draft 2022-2027 TIP and provide feedback to staff to guide development of the final TIP. A final version of the 2022-2027 TIP will be presented for review and adoption at the June 1, 2021 City Council meeting.

PUBLIC COMMENTS

The public comment period runs for ten weeks from March 24 to June 1 when the City Council adopts the TIP. Notices advertising the opportunity for public comment were posted on the City’s website, in the Mercer Island Weekly (March 24 and April 14), in the Mercer Island Reporter (March 24 and March 31), and on [Let’s Talk](#). Additional information was available on the City’s TIP webpage (www.mercergov.org/TIP). Let’s Talk and the City’s TIP webpage provide users with access to TIP maps, FAQ’s, and related information to learn more about the TIP process and to submit comments online. Staff met with representatives from the Mercer Island School District prior to and during the public comment period to solicit their feedback. This resulted in prioritizing a sidewalk and bike lane improvement project (SP116) on SE 40th Street as a safe route to school and deferring a lower priority sidewalk improvement on 92nd Ave. SE.

Prior to the public hearing, a total of 34 public comments were received.

- Pedestrian and bicycle facilities project (26 comments),
- Arterial & residential street resurfacing (4 comments),
- Other transportation projects (2 comments),
- Transportation related but non-TIP project requests (2 comments)

These comments are summarized in Exhibit 1. Public comment will also be taken during the public hearing. Legal notice for the public hearing was published in the Mercer Island Reporter on March 31 and April 21, 2021.

STREET FUNDING

Street Fund revenues for the six-year planning period (2022-2027) include:

- 55% from Real Estate Excise Taxes (REET) revenues
- 12% from State-shared Motor Vehicle Fuel Taxes (MVFT)
- 1% from Multimodal Transportation Fees
- 11% from Vehicle License Fees

- 2% from Transportation Impact Fees
- 19% from Sound Transit in association with Eastlink mitigation projects.
- Grant opportunities (when available)

Except for REET funding, all other revenues are dedicated solely to the Street Fund. One hundred percent of REET-1 revenues go to the Capital Improvement Fund to fund capital improvements including parks, open space, public building maintenance projects, and to pay debt service on construction of the Community Center. REET-2 revenues are split differently. Ten percent of REET-2 revenues are directed to the Capital Improvement Fund. The remaining 90 percent is committed to the Street Fund for construction and maintenance of streets and pedestrian and bicycle facilities.

MVFT is a fixed tax, currently making up 44.5 cents of the per gallon price of gasoline, diesel, and other fuels. It is not based on the dollar amount of the fuel, but rather on the volume of fuel sold. Hence, there is no revenue benefit from higher gas prices. The state shared revenue is distributed based on population and other set allocation methods.

MVFT is to be spent on salaries and wages, material, supplies, equipment, purchase or condemnation of right-of-way, engineering or any other proper highway or street purpose in connection with the construction, alteration, repair, improvement, or maintenance of any city street, bridge, viaduct, or under passage along, upon, or across such streets. The share of the motor vehicle fuel tax distributed to the City of Mercer Island is projected to decline overtime.

Like MVFT, Multimodal Transportation funds are a state shared revenue. Distributions are shared equally between cities and counties. The city portion is made on a per capita basis. In general, Mercer Island's population grows at a slower rate than surrounding cities, so this revenue will remain flat if not slightly decline over time.

City Council adopted Ordinance 14C-11 directs vehicle license fees collected under the Transportation Benefit District (TBD) to the operation, preservation, and maintenance of principal arterials of regional significance, high-capacity transportation, and/or public transportation. Street Right of Way Maintenance and Operations, and portions of arterial street improvements are the kind of projects typically funded with vehicle license fees.

Washington State law (RCW 82.02.050) specifies that Transportation Impact Fees are to be spent on "system improvements." System improvements can include physical or operational changes to existing roadways, as well as new roadway connections. These are generally projects that add capacity (new streets, additional lanes, widening, signalization, etc.), but can also include bicycle, pedestrian, and transit-supportive projects that provide capacity for future growth and are within the right of way of 'streets and roads' as defined by the Growth Management Act.

Past practice with funding transportation infrastructure improvements has been to utilize the more restrictive resources in the Street Fund – such as funds in the TIF reserve – before using the less restrictive resources (such as REET-2 or revenues from the State's Motor Vehicle Fuel Tax). This practice will continue, as outlined in the 2022-2027 TIP.

PROGRAM ELEMENTS

The following describes the TIP categories and follows the same order as the Detail of Expenditures in Exhibit 2. The proposed TIP projects fall under two main categories – “Preservation & Maintenance Projects” and “New Construction Projects”. The Capital Improvement Program includes a budget policy that prioritizes capital reinvestment projects (preservation & maintenance) over capital facilities projects (new facilities). Staff utilizes this policy as a guideline when prioritizing projects in the TIP to maintain a positive Street Fund balance. For specific project descriptions, refer to Exhibit 4. For a map of these projects, refer to Exhibit 5.

Section A - Preservation & Maintenance Projects

Residential Street Resurfacing

This program restores and resurfaces the City's 58 miles of public residential streets on an approximate 35-year cycle. Over the last 12 years, approximately 12.7 miles of residential streets have been resurfaced with a Hot Mix Asphalt (“HMA”) overlay and 2.8 miles have been resurfaced with a chip seal. This combined mileage accounts for almost 27% of the residential street network. HMA overlay construction for residential streets currently costs between \$350,000 and \$450,000 per road mile. Chip sealing, which was added to the program in 2012, currently costs approximately \$150,000 per road mile. The residential program also improves substandard streets in public right-of-way at the rate of roughly one per biennium, as the need arises. Selection and timing of residential resurfacing work is based upon Pavement Condition Index (“PCI”) ratings performed every three years as well as planned water, sewer, and storm drainage utility work. The most recent PCI ratings were completed in 2019.

Arterial Street Improvements

This category provides preservation and improvement of the City's 25.5 miles of arterial streets on an approximate 25-year cycle. This includes the 2.6 miles of Town Center arterial streets. Project priorities are based on PCI, the need for underground utility improvements, condition of pedestrian and bicycle facilities, and timing of other large projects. These projects incorporate reinvestment in existing pedestrian and bicycle facilities. Residential street overlays are linked when feasible to arterial street projects to create an economy of scale. In the next six years, resurfacing projects are planned on portions of all three Mercer Ways, SE 68th Street, SE 70th Place, Gallagher Hill Road, SE 36th Street, SE 40th Street, and SE 27th Street.

Section B - New Construction Projects

Pedestrian and Bicycle Facilities (“PBF”)

This category improves and adds to the pedestrian and bicycle facilities network. Specific projects are based primarily on those identified in the 2010 PBF Plan, with input from the community and the School District. PBF “reinvestment” projects, such as asphalt overlays of existing pedestrian paths adjacent to arterial street improvements, are not included in this category. Rather, they are included in the scopes of their associated arterial street improvement projects. This category also includes ongoing program funding to implement smaller scale Americans with Disabilities Act (ADA) compliance improvements and PBF improvements.

The Roadside Shoulder Development Program was established in 2002 to create new paved shoulders suitable for pedestrian and bicycle use on the Mercer Ways. Since that time, numerous phases of work have been completed. While most of these have been on East Mercer Way, improvements have also been made on North and West Mercer Ways. Exhibit 6 shows the status of the Roadside Shoulder Development Program. Since 2003, the City has constructed at least one shoulder project per biennium, for a total investment of over \$3.5 million. Projects within the proposed 2022-2027 TIP will complete the Roadside Shoulder Development Program for a lifetime program cost of approximately \$5.1 million.

East Link Traffic/Safety Mitigation Projects

This category was added in 2018 to reflect projects identified to mitigate traffic/safety concerns due to the I-90 center roadway closure and the opening of the East Link Light Rail station. Staff developed these projects based on the community's feedback, analysis of traffic patterns and anticipated needs for pedestrian/bicycle safety improvements on routes to the light rail station. The projects are funded through the Sound Transit settlement funds.

NEW PROJECTS AND CHANGES TO CONSIDER FROM THE PREVIOUS TIP

The following is a summary of the noteworthy changes incorporated into the draft 2022-2027 TIP. Refer to Exhibit 4 for a description of the projects in the draft 2022-2027 TIP.

1. Arterial Street Improvements

Arterial projects can vary in scope from substantial reconstruction (as seen on SE 40th Street in 2018), to hot mix asphalt overlays (East Mercer Way in 2019), to chip seals (East Mercer Way in 2018). Staff utilizes PCI data to help determine the scope, resurfacing method, and timing of arterial street projects. Arterial work for the next six years continues to focus on preserving existing facilities through HMA overlays and chip sealing.

While the City's primary roadway pavement preservation method is hot mix asphalt paving, the City has also performed several chip sealing projects in recent years:

- 2011: Residential streets only.
- 2013: Residential streets and an arterial (Mercerwood Drive).
- 2018: Residential streets and three arterials - East Mercer Way (SE 68th to the south tip), SE 53rd Place (Island Crest Way to East Mercer Way), and 78th Avenue (SE 34th to SE 39th Streets).

Cost comparison of the City's recently completed 2018 East Mercer Way Chip Seal and the 2019 East Mercer Way Asphalt Overlay projects shows that chip sealing is less than one-third the cost of hot mix asphalt paving. Chip seal (formally called Bituminous Surface Treatment, or BST) is a very economical tool for preserving asphalt roadways that are in fair to good condition and have adequate pavement strength. It consists of one or more layers of fine rock chips spread over a coating of liquid asphalt. The chips are then rolled to press them into the liquid asphalt. The process seals the underlying pavement from water intrusion, oxidation, and weathering, and provides a new wearing surface. While chip sealing is initially rougher than HMA and will shed some of its rocks, traffic will further smooth the surface over the first couple of years of its life. Most of the rock shedding stops after the first winter.

Comparatively, a typical HMA overlay is 2-inches thick and is compacted into place. The finished HMA paving is very smooth when first installed, but its surface slowly gets rougher as it ages and traffic wears on it. Given the lighter traffic loads and volumes that Mercer Island streets see compared to other eastside cities, staff believes the arterial chip seals placed in recent years will have service lives of 15 years or more. The City used chip sealing extensively in the 1980's and several miles of the City's residential streets still have those chip seals as their wearing surfaces today. In comparison, hot mix asphalt paving (at triple the price), has a service life of 25 to 35 years on Mercer Island streets.

- **SP105: West Mercer Way (SE 56th St – East Mercer Way)** - This project proposes chip sealing on West Mercer Way in 2023 while it is in good enough condition for a chip seal to preserve it. If a hot mix asphalt overlay of West Mercer (alternative project **SP105A**) is desired, then

that overlay should not be performed until the roadway's condition has degraded to the point of needing the hot mix overlay. Based on current PCI data and roadway use, staff estimates that West Mercer will not need an overlay until 2027 at the earliest.

City Council direction is needed to determine which option to pursue: the proposed chip seal preservation project now (\$511,000) or the future overlay project (\$1,810,000 including inflation). If the City Council prefers the overlay project, West Mercer's pavement condition will be allowed to degrade further before it is repaved. One option for handling the additional expense of the HMA overlay would be to break the project into two shorter segments, which is what was done for the 2019 and 2021 East Mercer Way overlays.

- East Mercer Way (SE 36th St – SE 40th St) - One new project is proposed for 2027: HMA paving of East Mercer Way from SE 36th Street to SE 40th Street. This section of roadway was last repaved in the mid 1980's by WSDOT and it is anticipated the roadway will be near the end of its life by 2027.

2. Pedestrian and Bicycle Facilities (PBF)

- SE 32nd Street Sidewalk Replacement (77th to 78th Ave SE) – This is a new project. Replacement of existing sidewalk adjacent to Mercerdale Park in 2025 to address sidewalk damage and uplift caused by street trees. This sidewalk provides access to the park and is used by patrons of the Farmer's Market.
- West Mercer Way Roadside Shoulders Phase 4 (8100 WMW to 8400 EMW) – An error in the described project limits has been corrected and project costs updated to reflect an increase of \$92,701 for a total of \$610,926.
- East Mercer Way Roadside Shoulders – Phase 11 (SE 79th St to 8400 block) is programmed for 2026 to continue the every other year rhythm of improving the Mercer Way shoulders. This phase will complete the Mercer Way loop around the island.

3. East Link Traffic/Safety Mitigation Projects

- North–South Bike Route, Island Crest Way (90th Ave SE – SE 63rd St) – The project phasing has been refined to consolidate activities. Phase 1 combines identification of alternatives, feasibility, public engagement, and City Council selection of the preferred alternative. Consultant selection will begin in Q4 of 2022. Phase 1 is expected to run through 2024 due to the complexity and impacts of project alternatives and an extensive public outreach process. Phase 2 is shown in 2025 for design with a placeholder of \$213,000 until the scope has been determined. Staff will pursue available grant opportunities following selection of the preferred design alternative. Phase 3 will be reflected in the TIP once the preferred alternative has been selected and cost estimates are developed for design and construction.

4. Other

- Pedestrian and Bicycle Facilities (PBF) Plan Update – This is a new project proposed for the 2026-2027 biennium. The project cost is estimated at \$385,000. The original PBF Plan was created in 1996 with a modest, low-cost update in 2010. Over time, standards have changed, and new facilities (Northwood Elementary and the Sound Transit Link Light Rail Station) are being built. While the current Plan identifies deficiencies in the pedestrian and bicycle network, it does not consider feasibility, provide detailed project information, refined costs, or priorities of work. Updates to the Plan will incorporate the results of several City planning efforts (the ADA Transition Plan, the Parks, Recreation and Open Space (PROS) Plan, the Town

Center Parking Study, and others). The updated PBF Plan will also evaluate the use of urban street design guidelines such as NACTO, and evaluate projects and priorities to provide a functional roadmap and foundation to plan for future improvements.

LOOKING AHEAD – UNFUNDED PEDESTRIAN AND BICYCLE FACILITIES (“PBF”) PROJECTS BEYOND 2027

Several PBF projects are unfunded pending further evaluation of scope, confirmation of need, and availability of funding. They include:

- (Construction phase) North-South Bike Route, Island Crest Way (90th Ave SE – SE 63rd Street) – Complete gap in North-South Bike route. Phase 2 Design costs will be updated and phase 3 Construction will be proposed for funding in future years, following the outcome of Phase 1 decision on preferred alternative.
- 84th Ave SE Sidewalk Improvement (SE 33rd to 36th Streets) – Enhance existing gravel path with curb, gutter, and sidewalk to provide a “safe walk route” for Northwood Elementary and the High School.
- 86th Ave SE Sidewalk Improvement (SE 42nd Street to Island Crest Way) – Install curb, gutter, and sidewalk along east side of 86th Avenue where no walkway currently exists. This project would fill in a gap in the PBF network.
- Merrimount Drive (Island Crest Way to West Mercer Way) – Sidewalk improvements on both sides of roadway, requested by the community. Supports Safe Routes to School. The estimated cost is approximately \$960,000.
- 78th Ave SE (SE 40th-SE 41st Streets) – Install curb, gutter, and sidewalk on west side of roadway where no walkway currently exists. Project is a gap completion in the PBF network. This may require right of way acquisition.
- 92nd Ave SE Sidewalk Improvements (SE 40th Street to SE 41st Street) - Build concrete curb, gutter, and sidewalk along the west side of 92nd Ave SE to provide a “safe walk route” for Northwood Elementary and the High School, as well as a bus stop location for Islander Middle School. The estimated cost is \$610,000. This project will complete a missing link on 92nd Avenue by connecting with sidewalks along the High School frontage, creating a continuous sidewalk from SE 40th to SE 42nd Streets. This project may be eligible for TIB or SRTS Grant funding. This is a low/moderate priority for the School District. City and District staff will monitor the need and propose in a future TIP if warranted.

MOBILE ASSET DATA COLLECTION & PAVEMENT CONDITION RATINGS

As part of the ongoing effort to cost-effectively maintain the City’s street network, staff has contracted for pavement condition assessment of City roadways at regular intervals (completed in 2009, 2013, 2016, and 2019). The data collected produces a Pavement Condition Index (PCI) value for each of the over 700 segments of pavement within the City’s 83.5-mile public road network. This rating process is based on collecting visual pavement distress information and computing it into numerical deduction values which are subtracted from a highest possible score of 100, resulting in a PCI score between 0 and 100. These numerical scores are bracketed into six condition ranges: Good (PCI 100-86), Satisfactory (85-71), Fair (70-56), Poor (55-41), Very Poor (40-26), and Failed (25-0).

The overall health of Mercer Island’s road network can be determined by three general indicators: the average network PCI, the amount of network backlog (defined as a PCI below 40), and the amount of network in Good condition (PCI of 100-86).

Data in 2013 gave the City’s road network an average PCI of 77. This was considered an above-average grade in the pavement rating industry. The backlog of 7.8% was considered low (below 15% is desirable) and the

amount of Good condition streets at 32% was considered high (should be at least 15%). In 2016, the City's road network condition dropped slightly, to an average PCI score of 75. The backlog dropped to 4.0% and the amount of Good condition streets dropped to 25%.

PCI data from 2019 showed the City's road network condition was relatively unchanged. The average PCI score dropped one point, to 74. Backlog remained steady at 4.0%, and the amount of Good condition streets dropped one point, to 24%. Over the last six years, City road projects have repaved numerous streets in the Poor and Failed categories, which has significantly lowered the backlog. While pavement data appears to show a slight downward trend in the "Good condition" value, staff does not anticipate a large change in these three indicators in the next PCI data set.

Staff uses PCI information as the primary basis for prioritizing street resurfacing projects within the TIP. Other factors that are considered when scheduling roads for repaving are pending utility projects (storm drainage, water mains, natural gas work) and coupling with PBF improvements. Because pavement conditions change over time, data collection needs to be an ongoing process. Staff plans to collect PCI data again in the summer of 2022.

SUMMARY

Staff is seeking general feedback on the draft 2022-2027 TIP, in addition to conducting the public hearing. The TIP is scheduled for adoption on June 1.

RECOMMENDATION

Receive comments from the public hearing and provide feedback to staff.