|  |  |
| --- | --- |
| **Analyst:** | **Paul Carlson** |

**Transit Division (King County Metro)**

**Budget Table**

|  |  |  |  |
| --- | --- | --- | --- |
|  | 2015-2016  Revised\* | 2017-2018  Proposed | % Change 2015-2016 v. 2017-2018 |
| Budget Appropriation | $1,437,003,386 | $1,578,034,000 | 9.8% |
| Max FTEs: | 4,242.8 | 4,584.2 | 8.0% |
| Max TLTs: | 27.0 | 48.0 | 77.8% |
| Transit Revenue Fleet Replacement | $329,367,192 | 0 | (100.0%) |
| Public Transportation Construction – Unrestricted CIP | $479,558,923 | $489,376,701 | N/A |
| Public Transportation – Revenue Fleet CIP | N/A | $565,617,012 | N/A |
| Transit Debt Service | $30,810,593 | $44,614,000 | 44.8% |
| Estimated Revenues | $2,050,575,920 | $2,196,892,225 | 7.1% |
| Major Revenue Sources | Dedicated sales tax and property tax, fares, grants, Sound Transit payments for light rail and Regional Express bus service, City of Seattle partnership payments, mitigation payments, debt proceeds. | | |
| \* Note: 2015-2016 Revised includes the 2015-2016 Adopted Budget plus adopted supplementals as of transmittal of the Executive’s proposed 2017-2018 budget.  Implementation of new Fund Management Policies has resulted in changes to some Subfunds with the result that direct comparison to 2015-2016 budget categories is not always possible. | | | |

**Program Description and Purpose**

King County Metro Transit (Transit) operates about 1,400 buses carrying 122 million trips per year and the largest public vanpool fleet in the U.S., and provides more than 1.3 million accessible service trips annually. Transit also operates regional express bus service and Link Light Rail service under contract for Sound Transit and streetcar service (South Lake Union and First Hill Lines) for the City of Seattle.

In support of countywide mobility goals the Strategic Plan for Public Transportation (SPPT) and King County Metro Service Guidelines provide operational guidance to the Division through development and management of a transit system that emphasizes productivity, ensures social equity and provides geographic value.

**Issues**

**Issue 1 – Service Addition of 300,000 Hours: $30,466,940 and 213.0 FTE**

The proposed budget would add 300,000 bus service hours in 2017-2018. The decision package for operating impacts of this change includes $30,466,940 and 213.0 FTE.

Approximately 160,000 service hours are proposed to be invested according to King County Metro Service Guidelines priorities (crowding, schedule reliability, and underserved corridors). Of the remainder:

* 33,400 hours are added to trip schedules to ensure that drivers have adequate time for comfort station breaks.
* 39,710 hours are available for reinvestment by the City of Seattle under the terms of the Proposition 1 partnership agreement.
* 68,300 hours are included in the budget to preserve existing bus service levels at the time when buses leave the Downtown Seattle Transit Tunnel (DSTT) and in response to other construction project-related impacts.

For bus route changes meeting the threshold for Council approval, the Council would consider a service change ordinance. Other changes would be carried out under the KCDOT Director’s administrative authority. Table 1 identifies the estimated service hours in each of the next four service changes and what category they fall in. These service hours are all proposed to be funded with Public Transportation revenues. The table also includes about 22,000 hours of Sound Transit and other revenue-backed service that is expected to be added.

Table 1 summarizes the categories of bus service and which of the four service changes the investments are anticipated to be made.

**Table 1. Additional Bus Service Hours, 2017-2018**

|  |  |  |
| --- | --- | --- |
| REVISED to reflect service guidelines and Spring 2017 Comfort Station scheduling |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Total** | **Spring 17** | **Fall 17** | **Spring 18** | **Fall 18** |
| 2016 Crowding-Schedule[[1]](#footnote-1) | 31,150 | 31,150 |  |  |  |
| Other Service Guidelines[[2]](#footnote-2) | 128,650 |  | 35,000 | 65,000 | 28,650 |
| Comfort Station | 33,400 | 17,210 | 16,190 |  |  |
| DSTT/Construction Impacts | 68,300 |  | 12,300 | 27,000 | 29,000 |
| Seattle | 39,710 | 7,360 | 8,750 | 16,100 | 7,500 |
| Revenue-backed[[3]](#footnote-3) | 21,570 | 0 | 8,697 | 6,000 | 6,873 |
|  | **322,780** | **55,720** | **80,937** | **114,100** | **72,023** |

***Councilmembers asked what bus routes would receive additional investments:***

The recently-transmitted 2016 Service Guidelines Report lists the crowding and schedule reliability service hours. Transit will also review the newest ridership and reliability data available when actually scheduling routes for improvement, since service continues to grow and change constantly.  All hours below are planning level estimates subject to some variation when scheduled. Transit notes that there are some differences between these values and those used in preliminary budgeting; however, Transit would intend to meet all crowding and reliability needs in the 2016 Report if the budget passes as proposed.

Tables 2-5 lists routes that would receive investments under the proposed budget. Changes that would increase a route’s service hours by 25 percent or more would require approval by ordinance.

**Table 2. Priority 1 – Crowding Needs**

|  |  |  |  |
| --- | --- | --- | --- |
| **Route** | **Description** | **Day** | **Annual Hours Needed** |
| D Line | Crown Hill - Ballard - Seattle Center - Seattle CBD | Weekday | 1,050 |
| 5 | Shoreline CC - Seattle CBD | Weekday | 300 |
| 14 | Mount Baker - Seattle CBD | Weekday | 250 |
| 15EX | Blue Ridge - Ballard - Seattle CBD | Weekday | 400 |
| 18EX | North Beach - Ballard - Seattle CBD | Weekday | 350 |
| 24 | Magnolia - Seattle CBD | Weekday | 250 |
| 101 | Renton TC - Seattle CBD | Weekday | 300 |
| 102 | Fairwood - Renton TC - Seattle CBD | Weekday | 450 |
| 116EX | Fauntleroy Ferry - Seattle CBD | Weekday | 450 |
| 118EX | Tahlequah – Vashon | Weekday | 700 |
| 119 | Dockton – Vashon | Weekday | 200 |
| 122 | Highline CC -Burien TC - Seattle CBD via Des Moines Memorial Dr S | Weekday | 500 |
| 125 | Westwood Village - Seattle CBD | Weekday | 200 |
| 128 | Southcenter - Westwood Village - Admiral District | Weekday | 500 |
| 132 | Burien TC - South Park - Seattle CBD | Weekday | 350 |
| 158 | Kent East Hill - Seattle CBD | Weekday | 550 |
| 167 | Renton - Newport Hills - University District | Weekday | 900 |
| 177 | Federal Way - Seattle CBD | Weekday | 450 |
| 212 | Eastgate - Seattle CBD | Weekday | 700 |
| 216 | Sammamish - Seattle CBD | Weekday | 500 |
| 219 | Redmond - Sammamish - Seattle CBD | Weekday | 550 |
| 252 | Kingsgate - Seattle CBD | Weekday | 400 |
| 255 | Brickyard - Kirkland TC - Seattle CBD | Weekday | 750 |
| 257 | Brickyard - Seattle CBD | Weekday | 400 |
| 268 | Redmond - Seattle CBD | Weekday | 500 |
| 271 | Issaquah - Bellevue - University District | Weekday | 400 |
| 355EX | Shoreline CC - University District - Seattle CBD | Weekday | 450 |
|  | Total |  | 12,800 |
|  |  |  |  |

**Table 3. Priority 2 – Reliability Needs**

| **Route** | **Description** | **Day** | **Annual Hours Needed** |
| --- | --- | --- | --- |
| E Line | Aurora Village – Seattle CBD | Weekday | 500 |
| 5 | Shoreline CC – Seattle CBD | Weekday | 250 |
| 9EX | Rainier Beach – Capitol Hill | Weekday | 300 |
| 15EX | Blue Ridge – Ballard – Seattle CBD | Weekday | 250 |
| 17EX | Sunset Hill – Ballard – Seattle CBD | Weekday | 250 |
| 18EX | North Beach – Ballard – Seattle CBD | Weekday | 250 |
| 21EX | Arbor Heights – Westwood Village – Seattle CBD | Weekday | 400 |
| 22 | Arbor Heights – Westwood Village – Alaska Junction | Sunday | 50 |
| 29 | Ballard – Queen Anne – Seattle CBD | Weekday | 1,000 |
| 37 | Alaska Junction – Alki – Seattle CBD | Weekday | 250 |
| 41 | Lake City – Seattle CBD via Northgate | Weekday | 250 |
| 55 | Admiral District – Alaska Junction – Seattle CBD | Weekday | 300 |
| 57 | Alaska Junction – Seattle CBD | Weekday | 250 |
| 60 | Westwood Village – Georgetown – Capitol Hill | Weekday | 1,300 |
| 83 | Seattle CBD – Ravenna | Weekday | 300 |
| 84 | Seattle CBD – Madison Park – Madrona | Saturday | 50 |
| 99 | International District – Waterfront | Weekday | 250 |
| 101 | Renton TC – Seattle CBD | Saturday, Sunday | 150 |
| 102 | Fairwood – Renton TC – Seattle CBD | Weekday | 250 |
| 111 | Lake Kathleen – Seattle CBD | Weekday | 300 |
| 113 | Shorewood – Seattle CBD | Weekday | 250 |
| 114 | Renton Highlands – Seattle CBD | Weekday | 250 |
| 119EX | Dockton – Seattle CBD via ferry | Weekday | 250 |
| 121 | Highline CC –Burien TC – Seattle CBD via First Ave S | Weekday | 500 |
| 122 | Highline CC –Burien TC – Seattle CBD via Des Moines Memorial Dr S | Weekday | 400 |
| 123 | Burien – Seattle CBD | Weekday | 250 |
| 128 | Southcenter – Westwood Village – Admiral District | Weekday | 300 |
| 143 | Black Diamond – Renton TC – Seattle CBD | Weekday | 600 |
| 148 | Fairwood – Renton TC | Weekday | 250 |
| 150 | Kent Station – Southcenter – Seattle CBD | Weekday | 250 |
| 153 | Kent Station – Renton TC | Weekday | 250 |
| 157 | Lake Meridian – Seattle CBD | Weekday | 300 |
| 158 | Kent East Hill – Seattle CBD | Weekday | 400 |
| 159 | Timberlane – Seattle CBD | Weekday | 250 |
| 164 | Green River CC – Kent Station | Weekday | 250 |
| 168 | Maple Valley – Kent Station | Saturday | 50 |
| 177 | Federal Way – Seattle CBD | Weekday | 300 |
| 180 | Auburn – SeaTac Airport – Burien TC | Weekday | 400 |
| 182 | NE Tacoma – Federal Way TC | Weekday | 250 |
| 187 | Federal Way TC – Twin Lakes | Saturday | 50 |
| 192 | Star Lake – Seattle CBD | Weekday | 250 |
| 193EX | Federal Way – First Hill | Weekday | 500 |
| 197 | Twin Lakes – University District | Weekday | 500 |
| 217 | Issaquah – Eastgate – Seattle CBD | Weekday | 250 |
| 221 | Education Hill – Overlake – Eastgate | Saturday | 50 |
| 232 | Duvall – Bellevue | Weekday | 250 |
| 244 | Kenmore – Overlake | Weekday | 250 |
| 246 | Eastgate – Factoria – Bellevue | Weekday | 250 |
| 252 | Kingsgate – Seattle CBD | Weekday | 250 |
| 269 | Issaquah – Overlake | Weekday | 250 |
| 271 | Issaquah – Bellevue – University District | Saturday | 50 |
| 303EX | Shoreline – First Hill | Weekday | 500 |
| 304 | Richmond Beach – Seattle CBD | Weekday | 250 |
| 308 | Horizon View – Seattle CBD | Weekday | 250 |
| 309EX | Kenmore – First Hill | Weekday | 250 |
| 312EX | Bothell – Seattle CBD | Weekday | 600 |
| 330 | Shoreline CC – Lake City | Weekday | 250 |
| 331 | Shoreline CC – Kenmore | Saturday | 50 |
| 345 | Shoreline CC – Northgate | Saturday | 50 |
| 355EX | Shoreline CC – University District – Seattle CBD | Weekday | 600 |
|  | Total |  | 18,350 |
|  |  |  |  |

**Priority 3 – Target Service Levels on Underserved Corridors**

Transit has identified priority 3 investments in 21 corridors proposed for implementation between September 2017 and September 2018.  Table 4 lists the routes in the order they appear in the 2016 Service Guidelines Report. According to Transit, there are many factors that affect the phasing of added service, such as availability of buses and operators during the peak period. More information on these factors has been requested.  For additions that exceed 25 percent of the current service hours on a route, the proposed addition would be subject to County Council approval through a service change ordinance.

**Table 4. Priority 3 – Target Service Levels**

|  |  |  |
| --- | --- | --- |
| **Route** | **Description** | **Hours** |
| 131 | Burien – Seattle CBD | 3,900 |
| 60 | White Center – Capitol Hill | 3,100 |
| 150 | Kent – Seattle CBD | 5,100 |
| 101 | Renton – Seattle CBD | 8,400 |
| 169 | Kent – Renton | 14,300 |
| F Line | Renton – Burien | 3,400 |
| 930 | Redmond – Totem Lake | 1,600 |
| 180 | Auburn – Burien | 8,300 |
| 181 | Auburn – Federal Way | 3,900 |
| 183 | Federal Way – Kent | 7,300 |
| 153 | Kent – Renton | 3,000 |
| 269 | Issaquah – Overlake | 9,000 |
| 156 | Tukwila – Des Moines | 1,800 |
| 5 | Greenwood – Seattle CBD | 1,800 |
| 24 | Magnolia – Seattle CBD | 800 |
| 31/32 | Fremont – University District | 3,100 |
| 30/74EX | Sand Point – U. District | 2,700 |
| 373 EX | Shoreline – U. District | 4,800 |
| 345 | Shoreline CC – Northgate | 2,200 |
| 240 | Bellevue – Renton | 13,000 |
| 245 | Kirkland – Factoria | 3,200 |
|  | Total | 104,700 |

Staff is continuing to work on additional information about the process for developing this set of investments and details of these investments.

**Comfort Station Hours**

For March 2017, Transit has identified 35 routes to receive investments to improve comfort station access.  This list was developed based on the estimated time that is required for bus operators to reach a comfort station from specific terminals.  Variances in number of trips needing layover time adjustment, comfort station distance from the terminal and current actual time in the schedule at terminals have been considered across the system.  Additional comfort station hours will be identified for implementation after March 2017, the distribution of these hours between routes is not known.  All hours below are planning estimates subject to some variation when scheduled.

**Table 5. Comfort Station Hours, March 2017**

|  |  |  |
| --- | --- | --- |
| **Route** | **Description** | **Hours** |
| A Line | Federal Way – Tukwila | 750 |
| C Line | Westwood Village – Alaska Junction – Seattle CBD | 400 |
| D Line | Ballard – Seattle Center – Seattle CBD | 250 |
| E Line | Aurora Village – Seattle CBD | 50 |
| 1 | Kinnear – Seattle CBD | 530 |
| 2 | West Queen Anne – Seattle CBD – Madrona Park | 800 |
| 3 | Queen Anne – Seattle CBD – Madison Park | 720 |
| 4 | Queen Anne – Seattle CBD – Judkins Park | 610 |
| 7 | Rainier Beach – Seattle CBD | 1070 |
| 13 | Seattle Pacific University – Queen Anne – Seattle CBD | 660 |
| 14 | Mount Baker – Seattle CBD | 600 |
| 21 | Arbor Heights – Westwood Village – Seattle CBD | 60 |
| 36 | Othello Station – Beacon Hill – Seattle CBD | 1040 |
| 40 | Northgate TC – Ballard – Seattle CBD via Leary Av NW | 390 |
| 41 | Lake City – Seattle CBD via Northgate | 70 |
| 44 | Ballard – Wallingford – Montlake | 920 |
| 48 | Mount Baker – University District | 2550 |
| 49 | University District – Capitol Hill – Seattle CBD | 1090 |
| 57 | Alaska Junction – Seattle CBD | 60 |
| 70 | University District – Seattle CBD | 710 |
| 73 | Jackson Park – University District | 110 |
| 101 | Renton TC – Seattle CBD | 100 |
| 106 | Renton TC – Rainier Beach – International District | 400 |
| 111 | Lake Kathleen – Seattle CBD | 200 |
| 114 | Renton Highlands – Seattle CBD | 300 |
| 120 | Burien TC – Westwood Village – Seattle CBD | 720 |
| 125 | Westwood Village – Seattle CBD | 260 |
| 150 | Kent Station – Southcenter – Seattle CBD | 100 |
| 158 | Kent East Hill – Seattle CBD | 100 |
| 159 | Timberlane – Seattle CBD | 50 |
| 177 | Federal Way – Seattle CBD | 50 |
| 179 | Twin Lakes – Seattle CBD | 50 |
| 255 | Brickyard – Kirkland TC – Seattle CBD | 10 |
| 271 | Issaquah – Bellevue – University District | 1310 |
| 312EX | Bothell – Seattle CBD | 120 |
|  |  | 17,210 |

**Downtown Seattle Transit Tunnel/Construction impacts**

Table 6 further describes the 68,300 hours described as “construction-related service maintenance” in the budget documents with the estimated service changes.

**Table 6. Construction-Related Service Impacts**

|  |  |  |  |
| --- | --- | --- | --- |
| **Timing** | **Project** | **Added Hours** | **Action** |
| Fall 2017 | Convention Place Station (CPS) Interim Access | 11,300 | County sale of CPS |
| Fall 2017 | CPS construction impacts – Olive Way | 1,000 | County sale of CPS |
| Spring 2018 | D2 Roadway Closure (East Link I-90) | 4,000 | ST – East Link |
| Spring 2018 | Alaskan Way Viaduct | 23,000 | WSDOT |
| Fall 2018 | CPS – end of construction | -11,300 |  |
| Fall 2018 | End of joint bus-rail DSTT use | 40,300 | County policy |
|  | Net Total | 68,300 |  |

**DSTT** – The end of joint operations in the DSTT will require added running time to all routes currently operating in the DSTT because surface street operations are slower than DSTT operations. These hours are therefore likely to be spent to add time to Routes 41, 74, 101, 102, 150, 255, and Sound Transit 550.

Transit anticipates that there will be impacts to other routes as travel speeds slow due to a higher number of buses traveling on surface streets in downtown Seattle.  There may also be changes in layover locations prompted by moving buses out of the DSTT.  Because of the complexity of these changes, the full impacts and distribution of added hours to all routes will not be known until the final pathways of the DSTT routes and any other routing changes are determined.  Transit is engaged with partner agencies to plan for this major system change and will focus hours where needed to maintain quality service for customers.

**Alaskan Way Viaduct** - When the Alaskan Way Viaduct closes and before the Alaskan Way surface street is constructed and provides a priority pathway for transit on the Seattle waterfront, Transit will need to operate routes on an interim pathway to and from downtown Seattle.  This pathway change will affect all the routes that currently travel on the Alaskan Way Viaduct, including the RapidRide C Line and Routes 21EX, 37, 55, 56, 57, 113, 120, 121, 122, 123, and 125.  The cost estimate for the interim pathways was developed by comparing current travel times with longer projected travel times on this corridor when the Viaduct closes.  Hours would be allocated to each route as needed to maintain the existing number of trips; routes with the most trips such as the C Line and the 120 would therefore have more hours invested in them than other routes.

**Seattle Investments** – TheSeattle investments are not known at this time. These investments are typically developed about 4 to 6 months before each service change.[[4]](#footnote-4)

**Sound Transit Investments** – Transit expects that Sound Transit (ST) may need to add service hours to Route 550 when the DSTT is closed to buses.  Other ST investments are not known; these would be developed through the annual Service Implementation Plan (SIP) process.

Transit’s operational capacity to add 323,000 hours of service is affected by several limits. Prior staff reports discussed how base capacity constrains the addition of buses to about 100, the number identified with the proposed 323,000 hour addition. Other factors include the risk that trips might be cancelled because vehicles or operators are unavailable; the need to fill 100 operator vacancies and recruit 1,000 trainees to meet attrition and support new service; limits on available fareboxes and ORCA equipment for additional buses; and a backlog of vehicle service preparation that is projected to last through the biennium.

**Option 1: Approve as proposed.**

**Option 2: Refer to the Budget Leadership Team for final balancing of the budget.**

**Issue 2 – Downtown Seattle Issues - Layover Space and Center City Mobility**

Transit service in the Seattle Central Business District (CBD) includes:

* Link Light Rail in the Downtown Seattle Transit Tunnel (DSTT);
* Sound Transit and King County buses in the DSTT;
* King County, Sound Transit and Community Transit buses on surface streets;
* The South Lake Union streetcar to the north;
* The First Hill Streetcar in Pioneer Square.

During 2017-2018, the expected end of bus operations in the DSTT and the movement of buses to surface streets will affect all transit service on the surface streets. Alaskan Way Viaduct replacement construction is also expected to require the creation of new pathways for some bus routes. Staff analysis is continuing on several capital projects addressing changes that will affect Seattle CBD transit operations:

**Downtown Seattle Layover Facilities** (CIP #1129343) – This project is intended to identify bus layover space to replace existing layover space that is displaced due to development and the removal of buses from the DSTT. The project request for 2017-2018 is for $11.9 million in design and initial implementation funding, with a 2019-2020 request of $85.1 million including acquisition and implementation costs.

At the north end of the CBD, generally in the South Lake Union area, interim facility requirements are for 12 buses and a long-term need is for 30 to 35 buses. At the south end of the CBD, in the Pioneer Square-International District area, the need is for long-term space for 10 to 20 buses.

**Center City Mobility Plan** (CIP #1129633) is a $27.2 million request for the King County share of projects designed to mitigate the impacts of the DSTT closure to buses. The Center City Mobility Plan (also called One Center City) is a joint effort of King County, Sound Transit, the City of Seattle and the Downtown Seattle Association to address near- and long-term impacts of growth and traffic in the center city area. The City’s comprehensive plan anticipates 56,000 more jobs and 25,000 more households in center city neighborhoods by 2035.

A near-term concern is that the end of bus operations in the DSTT, potentially in September 2018, would result in over 80 buses per hour in the peak moving to surface streets. All buses in the CBD would be affected. As an example of the impacts, absent other measures, afternoon peak period bus speeds would decline by 26 percent on Second Avenue and by 43 percent on Fourth Avenue. Metro operating costs due to the slower travel times are estimated to increase by more than $4.5 million per year, with another $2.1 million added costs for Sound Transit and Community Transit.

In the First Quarter of 2017, the partner agencies are expected to identify an “early actions” plan that will allow them to conduct public engagement and possibly submit legislation to the County Council for projects that mitigate the effects of leaving the DSTT.  The County role could include bus stop improvements in the CBD; off board fare validation equipment at stops in the CBD to speed boarding; transit facilities associated with Accessible Mt. Baker, a Seattle-led project to improve transit facilities, pedestrian circulation and traffic operations near the Mount Baker Link Light Rail Station; and new on and off street bus layover facilities in areas affected by transit service revisions. The City of Seattle and other partners could deliver such program elements as: signal improvements to improve traffic movement, provide transit priority, or reduce delay associated with pedestrian crossings; rechannelizing surface streets; and other improvements.

***Councilmembers asked for details of each agency’s share of project costs:***

The overall One Center City (OCC) project budget amount was calculated at $63.8 million in June 2016, based on probable project elements and cost estimates prepared by the OCC consultant team.  Assumptions were made as to which agency would lead work on individual project elements.  Transit-led elements are associated with bus stop improvements and total $27,756,000.  SDOT-led elements are associated with roadway and signal improvements, and total $36,003,000. Detail on the Transit project elements is summarized in Table 7:

**Table 7. Estimated King County Elements of One Center City**

|  |  |
| --- | --- |
| Bus Stop Improvements in CBD | $6,740,000 |
| Off board fare collection in CBD | $2,622,000 |
| Transit Facilities Associated with Accessible Mt Baker | $3,750,000 |
| Layover Facilities | $4,645,000 |
| Unidentified project elements | $10,000,000 |
|  | **$27,756,000** |

The appropriation is intended to provide sufficient authority to cover Transit-led elements of the project; however there is not yet a formal agreement on the cost-sharing arrangement.  In addition to the distribution of the project work by the lead agency, the portion of the work that would be shared by Sound Transit has yet to be determined.  The details of the agreement including cost sharing would be subject to an interagency agreement.

***Councilmembers asked for more information about the Center City Mobility Projects:***

Powerpoint presentations will be emailed separately to Councilmembers; Transit staff are available to provide briefings.

**Yesler Way Electrification (CIP #1129643)** would construct trolleywire on 0.6 miles of Yesler Way and Eighth and Ninth Avenues. The 2017-2018 request is $2.0 million for planning and design, with an estimated $27.1 million in final design and implementation costs in 2019-2022. The goals of this project are to provide service to Yesler Terrace and to move Routes 3 and 4 off James Street, where congestion at the I-5 on ramp has the effect of degrading reliability for the Routes 3 and 4.

Because the 2017-2018 budget request is for planning, the estimate of total costs is not refined. The planning process would also provide more information about the benefits and impacts on rider experience.

***Councilmembers asked for more information about the impacts for people traveling to and from Harborview:***

**Project Benefits**

The Yesler project would allow Routes 3 and 4 to serve Harborview via stops on 9th Avenue, between Alder and Jefferson Streets.  This route is next to one of the main entrances and would be more convenient for those using those entrances.  Transit would no longer serve the stop on 9th near Jefferson, which is nearest to the emergency room entrance, about a block away.

According to Transit, potential project benefits include:

* Improved speed and reliability for Routes 3 and 4.  These routes had 11,700 rides per weekday in 2015.  This project would allow these routes to avoid the extreme congestion around the James Street/I-5 interchange by using an improved pathway along Yesler Way.  Transit adds: **If the pathway saves time, it could allow for operating savings.**
* Improved service to Yesler Terrace; and
* Improved network design – provides a frequent service connection further south, improving the spacing of frequent corridor connections between the Seattle CBD and the First Hill/Capitol Hill areas.  It would also reduce left-turning buses off of Third Avenue at James Street, reducing delays to other buses travelling through that intersection.

Transit plans to conduct outreach in 2017 about the routing before making a final decision about moving forward with the project.  Transit will also contact Harborview and other area institutions during that process.

**Additional Information on Project Costs:**

The 2017-2018 request of $2.0 million is for planning and preliminary design work; outyear budget numbers are estimates and are not based on any preliminary engineering. Aspects of the project that make it high risk include:

* Yesler Way bridge over I-5: The bridge is a long span and has been there for many years. Adding trolley support infrastructure to the bridge may be costly and is likely to require reinforcing the structure in some way to accept the additional loads of the poles and related systems. Construction over I-5 will add to the cost.
* Outside the bridge limits, the pathway is in a very built up area and Transit has not assessed the available room for poles and other support structures. Limited availability of right of way for poles may add to costs.
* The project is assumed to require at least one new trolley support substation to provide power, requiring coordination with Seattle City Light on the location and feeds and possibly requiring acquisition of right of way or an easement.

Transit would hire a consultant to inventory the route and gather information for use in preparing the preliminary design. By the next biennium, Transit would expect to have refined cost estimates.

Council staff has asked for information about the City of Seattle’s position on the project and the benefit analysis.

**Option 1: Approve as proposed.**

**Option 2: Refer to the Budget Leadership Team for final balancing of the budget.**

**Issue 3 – Capital Program Management**

The budget includes a large increase in the CIP and a number of projects proposed to move forward. The budget and KCM staff acknowledge that the number of projects, their scope, and the wide range of project types creates a challenge for the agency’s capital management capacity. The King County Auditor, in an email to Councilmembers dated September 13, 2016, recommends: (1) strong comprehensive facilities planning, (2) robust and transparent program management; and (3) resolution of barriers to project delivery by assuring adequate organizational, staffing, and outside consultant resources.

Transit responds that the agency recognizes the need to address capital project delivery as part of a broader procedural change designed to deliver the ambitious Metro Connects expansion of transit service and infrastructure. A few highlights are provided below.

**Improved Program Oversight**:

* Consolidation of several capital programs under one Deputy General Manager
* Reinvigoration of the Capital Program Review Committee
* Establishment of project milestones and instituting visual management displays
* Development of a long range plan providing a long term vision for the program.[[5]](#footnote-5)

**Standardization and Reporting**:

* Implementation of Capital Management Reporting System (CMRS)[[6]](#footnote-6), supports:
  + Development of on-demand reporting
  + Tracking project costs through stages of budget development
  + Review of resource plans at the project, program, and organizational levels[[7]](#footnote-7).
  + Implementation of CPMWG and other best business practices as part of CMRS
* Requiring project managers to have training in project management tools and techniques
* Exploring new procurement methods that can accelerate project implementation. As an example, the most recent bus procurements are being made off of other government contracts rather than King County creating a new procurement.

**Staffing**:

The 2017-2018 budget includes a request for resources to support project management as well as project identification, development and implementation. Resources are identified to support the base expansion program and the remainder of the capital program. In addition, resources are requested for activities such as external plan review, which will enable capital program staff to focus on capital project work rather than responding as needed for plan review and interaction with jurisdictional projects. Decision-packages include (DS\_051 and DS\_052, DS\_050) FTEs being requested by section include:

**Table 8. Proposed New Capital Management FTEs and TLTs, 2017-2018**

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **New FTEs** | **New TLTs** | **Brief Description** |
| Vehicle Maintenance | 3 |  | Support for fleet procurement and camera installs |
| Power & Facilities – Radio Maintenance | 1 | 12 | Installation support |
| Power & Facilities | 3 |  | Program management, project support |
| Design & Construction | 6 | 6 | Project management, designers/engineers, project Control, Real Estate |
| Route Facilities | 4 | 0 | Project identification, requirements, work with jurisdictions |
| Speed & Reliability | 3 |  | Project identification, requirements, work with jurisdictions, technical support |

**State of Good Repair and Transit Asset Maintenance Projects** – The current federal surface transportation authorization act, MAP-21, includes “State of Good Repair” (SGR) requirements for transportation agencies including transit agencies. Many capital projects fall within the SGR category, with the **Transit Asset Maintenance Project (TAMP)** being one of the largest. The Auditor has recommended that TAMP investments should be maintained to avoid creating a large future backlog and that Transit focus on management changes to increase the accomplishment rate. This proposed budget would terminate the TAMP Program and replace it with multiple projects for specific subproject types (Infrastructure Asset Management, Site Asset Management, Building Asset Management, Equipment Asset Management, SGR Administration).

**Table 9. TAMP Restructure - 2017-2018 Proposed Capital Projects**

|  |  |  |
| --- | --- | --- |
| **Project** | **2017-2018 Request** | **Total Six-Year CIP 2017-2022** |
| Transit Asset Maintenance Program (TAMP)[[8]](#footnote-8) | ($25,218,717) | ($25,218,717) |
| Infrastructure Asset Management | $40,753,142 | $45,853,142 |
| Site Asset Management | $27,175,175 | $57,836,571 |
| Building Asset Management | $57,658,563 | $132,116,702 |
| Equipment Asset Management | $3,592,691 | $7,807,634 |
| State of Good Repair Administration | $11,681,064 | $15,315,413 |

**Option 1: Approve as proposed.**

**Option 2: Refer to the Budget Leadership Team for final balancing of the budget.**

**Issue 4 – Transit Technology Investments: $113,856,277**

The 2017-2018 Transit budget includes 12 proposed technology investments, with total estimated project costs of $113.9 million from the Public Transportation Fund. Many of these technology requests received initial funding during the 2015-2016 budget process.

In anticipation of the significant technology investments that would be necessary in future budgets, the 2015-16 adopted budget required Transit to develop a strategic technology roadmap, referred to here as the Strategic Technology Roadmap for Transit (STRT). The STRT was transmitted in June 2016 (2016-0292) and presents a forward-looking understanding of Transit’s evolving technology needs and solutions over the next three to five years. Council staff will reviewed the project proposals for consistency with the STRT.

In addition, in accordance with King County Code, Transit has provided a business case, cost-benefit analysis, and benefit achievement plan for each of the proposed projects. Staff reviewed the project documentation for all of these projects and will provide an analysis of the projects during upcoming budget panels.

**Table 10. 2017-2018 Proposed Transit IT Investments**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Project** | **2017-2018 Request** | **Total Project Cost[[9]](#footnote-9)** | **Approved in budget process** | **Ready for BFM** |
| ORCA Replacement | $42,933,167 | $57,537,784 | BLT |  |
| Replacement for 4.9 Network | $23,950,639 | $28,099,616 |  | ✓ |
| Transit Signal Priority | $4,328,805 | $6,619,305 |  | ✓ |
| Vehicle Telematics for Transit Coaches | $3,428,817 | $3,428,817 | ✓ |  |
| Transit Business Intelligence Resource Data | $1,678,764 | $6,000,976 | ✓ |  |
| Rider Information Systems | $1,090,000 | $1,896,427 |  | ✓ |
| Safety and Security Systems | $2,114,368 | $2,406,468 | ✓ |  |
| Transit Customer Information Systems | $765,394 | $5,149,251 |  | ✓ |
| On-Board Camera Management | $640,778 | $640,778 |  | ✓ |
| Real-Time Improvements | $565,018 | $1,309,722 |  | ✓ |
| Vehicle Maintenance Dispatch Replacement | $195,667 | $323,831 | ✓ |  |
| Hastus Planning Module | $99,444 | $443,302 |  | ✓ |
| **Total** | **$81,790,861** | **$113,856,277** |  |  |

Thus far, the budget committee has reviewed five projects. The staff report for this week includes information on the remaining seven projects.

**Replacement of Wireless Network[[10]](#footnote-10) and Routers (Next Generation Wireless)**

|  |  |
| --- | --- |
| Prior appropriation | $1,648,977 |
| 2017-2018 Request | $23,950,639 |
| Future Request | $2,500,000 |
| Total Project Cost | $28,099,616 |
| Fund Source | Public Transportation Fund |

*Project Summary*: This project is to replace the wireless network used to transmit data such as ORCA fare revenues and transit signal priority requests between buses and centralized systems.

In 2009, Transit installed a wireless network to connect bus on-board systems with “back office systems” at the seven operating bases to obtain daily on-time performance data, passenger counts, fare transactions, ORCA card reloads, fare tables, daily on-board bus schedules, stop announcements and other on-board configuration data. The network processes more than 60 percent of fare revenue and potential failure could result in the loss of fare revenue if data cannot be downloaded before its seven day expiration deadline. The existing also provides data for RapidRide route signal priority and Real Time Information Systems.

The current network technology and equipment are reaching their end-of-life and the vendor is moving away from this technology. Additionally, the frequency used by the network is not expected to remain available for transit system use in the future. As a result, the current network experiences maintenance and operations issues and risk of service disruptions that are expected to increase in frequency over time. Eventually, if the system is not replaced, the loss of availability of the network frequency and failing equipment will lead to system failure. Given the wide number of transit functions that use Transit’s wireless network, from fare collections to route information, system failure would severely impact Transit operations.

The project would replace 1,450 mobile routers on buses, 140 routers on RapidRide corridors, 44 access points at transit bases, and 241 access points on RapidRide corridors and other transit corridors. The proposed replacement is use of commercial cell service and targeted WiFi-Plus[[11]](#footnote-11). This approach would shift much of the network operations and maintenance responsibility from Transit to commercial cellular network providers. It would also increase network capacity above the current network and above Transit’s currently anticipated future needs.

*Status of Existing Project:* The Executive Proposed 2015-2016 Budget included a request for $14.7 million[[12]](#footnote-12) for replacing the current network. The Council reduced the appropriation to $1.6 million to provide for the planning phase of the project while Transit further evaluated alternatives and the dependencies between the network replacement and other existing and proposed transit systems. That work has now been completed. Additionally, Transit and KCIT were able to reach an agreement with the vendor of the current wireless network system equipment to continue supporting their equipment, previously announced to be unsupported after 2017. During the planning phase of the project, Transit conducted an alternatives analysis and identified the preferred technology and approach for the replacement project. The project is currently in preliminary design.

*2017-2018 Appropriation Request:* The proposed project phasing estimates spending $3.3 million on design in 2017, $21.2 million on implementation in 2018, and an additional $2.5 million for continuing implementation and project closeout in 2020-2021. The 2017-2018 funding request includes $7.6 million for Transit and KCIT labor—which includes costs for installing equipment on buses and at bases, $9 million for equipment, and $6.9 million for on-street equipment installation by a contractor. The project also includes a 20 percent contingency.

*Integration with Other Transit Projects:* The 2015-2016 Budget required Transit to develop a Strategic Technology Roadmap for Transit (STRT) to present a forward-looking, integrated understanding of Transit’s evolving technology needs. The STRT, which has been transmitted for Council review, identifies integration points between the Wireless Network Replacement and other planned Metro technology projects. According to the STRT, the Wireless Network Replacement project requires coordination with the proposed Transit Signal Priority, ORCA Replacement, Transit Video Cameras, and Real-Time Information Sign projects.

*Review of the Benefit Achievement Plan (BAP):* The BAP identifies the primary benefit of this project as enhancing network reliability and ensuring continuity of the many onboard systems and functions that rely on wireless network availability. The enhanced capacity of the proposed network replacement would allow for new benefits through other projects such as ORCA enhancements and expansion of the Transit Signal Priority and Real Time Information systems.

The project does not appear to have any policy issues requiring further analysis.

**Transit Signal Priority Equipment Replacement**

|  |  |
| --- | --- |
| Prior Appropriation | $1,000,500 |
| 2017-2018 Request | $4,328,805 |
| Future Request | $1,290,000 |
| Total Project Cost | $6,620,466 |
| Fund Source | Public Transportation Fund |

*Project Summary*: This project would update Transit’s Signal Priority (TSP) equipment. TSP is a technology that improves bus schedule reliability and speed by requesting changes to traffic signal cycles as a bus approaches so it can move through an intersection with less delay. RapidRide Lines and some other bus routes use TSP.

Metro’s TSP platform is based on 20-year old technology that is costly to operate, maintain, and particularly costly to expand, preventing wider-spread use throughout the system. This project would replace the TSP central server and update the TSP technology used by current equipment on buses, which is expected to result in a system that is more efficient and less costly to operate, maintain, and potentially expand as new RapidRide Lines are added to the transit network.

The total project cost of $6,630,466 includes $2.3 million for Transit and KCIT labor costs for design, installation and testing, and $3.3 million for vendor costs, including hardware and software purchases and consultants to provide expertise where necessary. The project includes a proposed contingency of 20 percent.

*Status of Existing Project:* The planning phase of this project was funded in the 2015-2016 budget and included an alternatives analysis. Currently the project is in preliminary design. The 2017-2018 appropriation request of $4,328,805 would fund final design and implementation through 2018. An additional appropriation request of $1,290,000 is expected for 2019-2020 to fund the remaining implementation and project close out costs.

*Integration with Other Transit Projects and Policies:* This project is closely linked to the Wireless Network Replacement Project, as it uses Transit’s wireless network to transmit and receive signal request data. According to Transit, it is possible to implement this project in parallel with the 4.9 Replacement Project because the TSP platform can work using either the current or planned network. Additionally, updating the TSP equipment relates to Transit’s proposed long-range plan, Metro Connects, currently under consideration by the Regional Transit Committee. Metro Connects proposes future expansion of features such as TSP to facilitate a fast, frequent network of service. Updating the TSP platform would allow for more cost-effective expansion and operation of TSP throughout the transit system.

*Review of the Benefit Achievement Plan (BAP):* The BAP identifies the primary benefit of this project as replacing the outdated 20 year old TSP technology to improve the reliability of TSP operations. A secondary benefit is that the new TSP technology is expected to reduce the cost and effort involved in operating and maintaining the equipment.

The project does not appear to have any policy issues requiring further analysis.

**DOT Transit Customer Information Systems**

|  |  |
| --- | --- |
| 2015-2016 Request | $3,897,225 |
| 2017-2018 | $765,394 |
| Total Project Cost | $5,149,292[[13]](#footnote-13) |
| Fund Source | Transit Capital Fund[[14]](#footnote-14) |

*Project Summary*: The proposed 2017-2018 budget includes $765,000 for enhancements to various customer information systems.

The project began in June 2012. It is considered a “Master” project with many sub-projects related to customer information systems. The subprojects include the upgrade of the online Trip Planner and the Tracker mobile application, which riders can use to schedule trips and find the nearest bus, light rail, sounder or ferry station. The project expanded in 2013 to include the Customer Relations Management System and again in 2015 to add the Customer Information Systems Enhancements project, SMS (texting) Departure Information, and WiFi in the Downtown Seattle Transit Tunnel.

All of the applications within the master project of Customer Relationship are relatively small applications. Transit plans to keep them “refreshed” on a three year cycle. The 2017-2018 budget includes appropriation request for those applications scheduled for refresh in 2017-2018.

Of the $765,000 appropriation request:

* $120,000 is to refresh Transit’s Customer Relationship Management system, which is used to organize, automate, and synchronize customer service records;
* $50,000 is to develop the SMS texting application, which will allow users to query next departure information for a desired stop via text messaging; and
* $598,000 will be used as needed by Transit to address IT needs related to customer information systems.

Transit will also perform work on other customer service applications in 2017-2018 using carry-over appropriation from prior years. The project includes a 20% contingency based upon the anticipated associated level of risk.

*Review of the Benefit Achievement Plan (BAP):* The Transit Division will measure benefits from these systems through customer surveys. The Division anticipates at least a 10% increase in customer satisfaction with the tool following each refresh. Council staff are working with Executive staff to revise the BAP to identify timing and method of the customer satisfaction surveys relative to project implementation.

**Option 1: Approve as proposed**

**Option 2: Refer to BLT pending revision of Benefit Achievement Plan to provide more information on how customer satisfaction with the improvements will be measured.**

**DOT On-Board Camera Management System**

|  |  |
| --- | --- |
| 2015-2016 Request | $0 |
| 2017-2018 | $640,778 |
| Total Project Cost | $640,778 |
| Fund Source | Public Transportation Fund |

*Project Summary:* The project will introduce a centralized camera management system of cameras throughout the Transit Fleet.

Over 600 of Metro’s coaches currently have on-board cameras. The Executive has proposed CIP project No. 1129648 (approximately $7.6 million) to provide 100 percent of the bus fleet with on-board camera systems by the end of 2018, as part of its effort to increase safety and security.

King County Metro does not have a central system to manage the existing or new on-board cameras and must rely on time consuming manual processes to obtain video footage and maintain the camera program. To address the manual workload associated with expanding on board cameras, Transit is proposing 7 TLTs as part of its operating budget. In addition, the existing system does not report equipment malfunctions; these are identified either during monthly inspections or during a video recovery process. This project would implement a new On-Board Camera Management System that will include wireless video retrieval (subject to implementation of next generation wireless – see below), file management and storage, and equipment and system status monitoring. Once the system is fully operational, Transit anticipates reducing the added TLTs included in the operational budget.

This project would be funded from the Public Transportation Fund and includes a contingency of 20 percent based on the level of project risk. The appropriation request of $640,778 also includes $258,982 for labor, $220,000 for equipment and $55,000 in consultant costs.

*Review of the Benefit Achievement Plan (BAP):* This project will provide faster access to videos and increase the likelihood that video will be recoverable. In addition, remote health status monitoring will eliminate the need for the monthly inspections of the camera system currently performed by VM. These inspections currently take 30 minutes per coach.

According to Transit, implementation of this proposed system is dependent on the Next Generation Wireless project (Replace 4.9 Network and Mobile Router). The system’s remote access must be provided by a wireless network that has sufficient bandwidth to download large video files. The current on-board wireless communications network is inadequate for this task. The Next Generation Wireless project must construct the infrastructure, identify and have devices installed on all coaches before the video images can be available for the Video Management system. The project documents state that both project teams will coordinate during requirements, design and implementation phases of each. According to Executive staff, the on-board camera systems (standalone equipment on every bus) will be installed by the end of 2018, with system implementation continuing through 2019 in line with the 4.9 Replacement project, although phasing and timing has not yet been determined.

New Analysis: Executive staff revised the Benefit Achievement Plan to identify the baseline costs for the current video retrieval and management system as 7 TLTs and $1,274,278. The revised BAP also reflects ongoing system implementation through 2019, which aligns with the timing of the Next Generation Wireless Project referenced above. It also states that by 2019 or “whenever the system is fully functional,” no additional resources will be required and the TLT positions will be reduced without a degradation in response rates or system reliability.

Staff have not identified any policy issues with this project.

**HASTUS Upgrade**

|  |  |
| --- | --- |
| Prior appropriation | $343,858 |
| 2017-18 Request | $99,444 |
| Future Request | None |
| Total Project Cost | $443,302 |
| Fund Source | Public Transportation Fund |

*Project Summary*: This project will acquire a new module for HASTUS, the software suite that Service Planners use to produce vehicle and operator schedules. The purpose of the new module is to allow more efficient schedule development and transfer of schedule planning data to other work groups.

Transit’s Service Planning group develops route schedules for the service changes approved by the Council through ordinance and by the Department of Transportation in the case of administrative changes. The service planners use a labor-intensive, Excel-based process to produce draft timetables, which are used to estimate costs and evaluate service design concepts. GIS-based tools are used to generate spatial views of network design concepts and produce street-by-street instructions for publication in paper-based service change packages. After a service change proposal is finalized, information is provided in pdf form to other work groups including Scheduling, which must re-enter all the data and factor in any supplemental information provided by Schedule Planning.

The HASTUS Planning Module was chosen because it is integrated with other HASTUS modules and would give planners easy access to current ridership, run-time and trip arrival/departure data and more efficiently incorporate these data in the development of route and network design concepts. By reducing the time needed to estimate costs, use of the module would give Service Planning more capacity to consider multiple options.

Service change Information would be provided by Service Planning to Scheduling through the HASTUS program, eliminating the need for Scheduling staff to reenter data.

*Contingency:* The project would be funded by the Public Transportation Fund and as proposed would warrant a contingency of 20 percent based on the level of risk associated with this project. Once the project funding was updated, the contingency amount turned out to be 16.7 percent of the project budget; it was decided to go with this amount.

*Review of the Benefit Achievement Plan (BAP):* According to the Benefit Achievement Plan, the primary benefits of this project are that it will make bus route planning more efficient and will allow information about new schedules to be transmitted directly to Schedulers in an accessible format, eliminating the need to reenter data.

Staff have identified no issues for this project.

**Rider Information Systems (TABS)**

|  |  |
| --- | --- |
| Prior appropriation | $806,429 |
| 2017-18 Request | $1,090,000 |
| Future Request | None |
| Total Project Cost | $1,896,429 |
| Fund Source | Public Transportation Fund |

*Project Summary*: The legacy Timetables and Bus Schedule Information System (TABS) is used to produce Automated Time Tables and Bus Stop Information. The legacy TABS was custom designed and implemented in 1992 to produce paper timetables and paper bus stop schedules that are posted at bus stops. TABS is used to collect and reorganize data for use by PageMaker publishing software and to provide schedule information for use in Metro Online. TABS currently has two components (Automated Time Tables and Bus Stop Information) each of which is facing significant end-of-life issues.

The TABS system is a highly customized, non-vendor supported system, which includes non-standard and outdated hardware and software. As technology and business requirements change, the risk of being able to produce timetables and bus schedules in a consistent and timely manner will be at risk.

While TABS is working today, the complexity of data and changing business requirements will continue to require resources to modify and update the highly customized and non-vendor supported system. This project will replace both components of TABS (Automated Time Tables and Bus Stop Information).

An industry-wide RFI to identify potential products determined that none matched the published requirements. During follow-up discussions with Giro, the HASTUS vendor, the project team identified a new option, integrating TABS into HASTUS, an existing Metro platform, and modify business processes, tools and interfaces to take advantage of this integration.

The HASTUS platform has been in use by Transit for over 20 years. Giro’s HASTOP module includes most, but not all, of the functionality requested in the RFI. Benefits of this approach are described as moving ownership of key data elements upstream in the transit data creation process, thereby improving data accountability and reducing potential errors and need for rework; integration would reduce some IT post-processing required under the current architecture; this integration will leverage the work in progress on the Data Infrastructure Replacement project, specifically the data management changes being delivered by Stop-Based Scheduling; Life cycle support for TABS would be folded into the overall HASTUS program. An element of risk is this project depends on implementation of the Stop-Based Scheduling project, which is projected to have a fall 2017 implementation but depends on KCIT resource availability to meet its milestones.

This preferred approach has been approved by the project steering committee.

*Contingency:* The project would be funded by the Public Transportation Fund and as proposed would warrant a contingency of 20 percent based on the level of risk associated with this project. The current contingency amount of $257,400 is actually 23.6 percent.

*Review of the Benefit Achievement Plan (BAP):* The primary benefit of this project is that it will replace an outdated system and thereby reduce the risk of a failure that would prevent timely production of timetables and printed schedules.

Staff have identified no issues with this project.

**Issue 5 – Metro Connects Investments**

The 2013 update to the Transit Strategic Plan added new Strategy 6.1.2 calling for development of a transit long range plan in collaboration with local jurisdictions. This plan was directed to include transit service and facilities consistent with regional growth targets and city comprehensive plans. Proposed Ordinance 2016-0404, now pending in the Regional Transit Committee (RTC), would adopt Metro Connects, as the Transit Long Range Plan (LRP) has been titled. The RTC is expected to take action on Metro Connects late this year or early next year, with subsequent referral to the Transportation, Economy and Environment Committee and the full Council.[[15]](#footnote-15)

The Metro Connects vision includes a substantial increase in transit service (by 2040, a 70 percent increase in service hours anticipated to result in a doubling of ridership) and a large supporting capital element. This large increase in service and infrastructure reflects the increased role of transit in accommodating regional population and job growth by 2040, as identified by the Puget Sound Regional Council (PSRC); Metro Connects also reflects city comprehensive plan assumptions about transit needs. As noted in the Metro Connects plan itself, current funding sources are not sufficient to fund all of the additional capital and operating needs.

Metro Connects envisions a 2025 network and a 2040 network of services. The 2025 network includes an additional 860,000 service hours and capital investments estimated at $5.4 billion that would be required for the 2025 network. The Metro Connects plan suggests that 620,000 service hours and $1.4 billion of the capital program could be funded with existing resources assuming the growth projected in the OEFA forecast. The 300,000 hour service addition proposed in the 2017-2018 budget is part of the 620,000 hour service growth. If the OEFA forecast holds, there would be an estimated 320,000 hours for investment in Service Guidelines priorities and Metro Connects-related service needs through 2025. Additional revenue or other policy choices could change the number of service hours available for these needs.

The budget request includes operating funds for Metro Connect planning which would be used to develop an Implementation Program. In addition to current staff resources, the budget requests funding for 1.0 FTE to support development of the Metro Connects Implementation Program. Another 1.0 FTE is requested for Access to Transit-related studies and standards (Access to Transit is interwoven with Metro Connects and addresses pedestrian and bicycle access to transit as well as park-and-ride issues).

As part of its expanded bus service network, Metro Connects envisions the addition of 20 new RapidRide Lines (Lines G through Z) throughout the county. Each new RapidRide would serve an existing corridor but would include the distinctive RapidRide station buses and station amenities. Conversion of existing bus routes to RapidRide typically requires added service hour investments to achieve more frequent service. The 2025 network includes 13 new RapidRide lines.[[16]](#footnote-16) Seven are identified in the Seattle Transit Master Plan and six would be located in other parts of the county.

The 2017-2018 capital program includes funding for two projects relating to the Metro Connects RapidRides.

**Move Seattle RapidRide Expansion** (CIP #1129632) – is for Move Seattle RapidRide Line investments. Table 10 lists Move Seattle RapidRide projects using the list from the Metro Connects Appendix. The focus of 2017-2018 funding is capital infrastructure on Madison Avenue and in the Delridge neighborhood (Burien-Seattle CBD). Funding is identified as being from an agreement with the City of Seattle and a Washington State grant. The fleet procurement project for 60-foot trolleybuses includes a new appropriation for 13 trolleybuses to be used on the Madison RapidRide Line, paid through a federal grant. The 2017-2018 budget request is for $4.0 million in preliminary and final design, with $600,000 in initial implementation costs. It appears that most of the estimated $120 million cost of the Madison RapidRide would be included in the Seattle DOT budget, not in the county budget.

Next steps for the Madison RapidRide include the city’s continued work on assembling a funding package and development of an interlocal agreement between the City of Seattle and the county for the project. The steps for creating a RapidRide Line would include County Council approval of an ordinance formally establishing the RapidRide alignment and a service change ordinance creating the route and deleting any bus routes that would be replaced by the RapidRide Line. Seattle hopes to have the Madison RapidRide in service by fall of 2019, which would mean that service hour changes would be funded through the next biennium budget.

**Table 10. Move Seattle RapidRide Lines, Metro Connects 2025 Network**

|  |  |  |
| --- | --- | --- |
| **Proposed RapidRide Corridor** | **One-Way Miles** | **Current Bus Routes** |
| Madison Valley-Seattle CBD via E. Madison | 2 | 11, 12 |
| Burien TC-Seattle CBD via Westwood Village | 13 | 120 |
| Lake City-Seattle CBD via Ballard | 14 | 40 |
| Ballard-Children’s Hospital via Wallingford | 6 | 44 |
| South Lake Union-Northgate via Eastlake | 7 | 67, 70 |
| University District-Rainier Beach via Mt. Baker | 11 | 7s, 48s |
| South Lake Union-Mt. Baker via Seattle CBD | 5 | 7n, SLU Streetcar |

The following information about the two Move Seattle RapidRide projects is provided as an illustration of how a transit corridor would move from its current service level to a RapidRide service leve:

**Madison BRT and Route 120 RapidRide**

**Existing corridor frequencies**

The table below shows the Madison and Route 120 Corridors as identified in the King County Metro Transit 2015 Service Guidelines Report.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **RapidRide Corridor** | **Corridor ID#** | **Between** | **And** | **Via** | **Major Route** | **Peak Frequency** | **Off Peak Frequency** | **Night Frequency** |
| Madison Corridor | 22 | Capitol Hill | Seattle CBD | Madison Street | 12 | <15 min | 15 min | 30 min |
| Route 120 Corridor | 17 | Burien | Seattle CBD | Delridge, Ambaum | 120 | <15 min | 15 min | 30 min |

**Existing service hours and frequencies by Route**

The table below shows the shared annual service hour cost of routes that will be included in a restructure planning process around the Madison BRT and Route 120 RapidRide project. Please note that this is not an exhaustive list of routes that would be included in any restructure planning process around these two RapidRide projects.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | | | | **Weekday Frequencies (in min.)** | | | | |
| **Route** | **Metro** | **SeattleProp. 1** | **AWV Mitigation** | **Total Annual Platform Hours** | **AM** | **Mid- day** | **PM** | **Eve** | **Night** |
| 11 | 20,493 | 8,426 | 0 | 28,919 | <15 | 15 | <15 | 30 | 30 |
| 12 | 23,212 | 3,560 | 0 | 26,772 | 10 | <15 | 10 | 15 | 30 |
| 120 | 62,749 | 2,850 | 4,900 | 70,499 | <15 | 15 | <15 | 15 | 30 |

**Estimated additional hours needed to reach RapidRide frequencies**

The table below identifies both a low end and high end annual service hour cost estimate for bringing these two corridors up to RapidRide level frequencies. These estimates take into account existing resources within the underlying network.

|  |  |  |
| --- | --- | --- |
| **Corridor** | **Low End Estimate (Annual Service Hours)** | **High End Estimate (Annual Service Hours)** |
| Madison BRT | 15,000 | 40,000 |
| Route 120 RapidRide | 20,000 | 25,000 |

**Metro Connects RapidRide Expansion** (CIP #1129747) is the initial capital project for design and infrastructure for RapidRide Lines outside of Seattle that would be included in the 2025 network. For 2017-2018, the budget request is for $13.6 million in planning and design funds. The total in the six-year CIP is $329.7 million, with additional spending projected beyond the six-year CIP. The reason for this budget request is that planning would need to begin in this biennium if the array of Metro Connects 2025 Network projects are to be accomplished by 2025. Table 11 lists the seven RapidRide Lines in the Metro Connects Appendix with the addition of the Crossroads-Bellevue via NE 8th Corridor to the 2025 list, as pending in the Regional Transit Committee.

**Table 11. County RapidRide Lines, Metro Connects 2025 Network**

|  |  |  |
| --- | --- | --- |
| **Proposed RapidRide Corridor** | **One-Way Miles** | **Current Bus Routes** |
| Bothell-University of Washington via Lake City | 15 | 372 |
| Totem Lake-Bellevue via Eastgate | 15 | 234, 235, 271 |
| Crossroads-Bellevue via NE 8th | 3 | B South |
| Overlake-Renton via Newcastle | 18 | 240, 245 |
| Renton-Auburn via Kent | 16 | 180 |
| Highline College-Green River CC via Kent | 12 | 164, 166 |
| Twin Lakes- Green River CC via Federal Way | 14 | 181 |

There are several touchpoints for the Council as these projects advance. For the first six RapidRide Lines, A through F, the Council adopted legislation defining each RapidRide alignment and then approved a service change ordinance with the RapidRide service additions. Since the RapidRide Lines are likely to require significant additional service hours to attain RapidRide frequencies, future biennium budgets would have to include funding for the additional service as it is implemented. Transit has provided a high-level estimate of 20,000 hours per corridor.

Future issues for Councilmembers to consider are:

* Given the Metro Connects funding shortfall, the emphasis on RapidRide could limit flexibility in implementing other Metro Connects projects unless additional resources– both capital and operating – are identified.
* Because the RapidRides are on corridors that are already high-performing, but not necessarily underserved according to the Service Guidelines evaluation, these service hour investments would fall under Service Guidelines priority #4, which concerns the addition of service to productive corridors where the additional service hours are expected to perform well.

**Option 1: Approve as proposed.**

**Option 2: Refer to the Budget Leadership Team for final balancing of the budget.**

**Additional Follow up from Previous Panel Meetings**

***Councilmembers asked about the interim Transit Police facility:***

**Interim Police Facility,** Project #1124395 – This capital project will pay for tenant improvements for a new Interim Metro Transit Police building in Georgetown. A lease agreement is expected to be transmitted to the Council by the end of the year.  The lease will be for 10 years, with the option for two 5-year extensions.  The lease payments are included in the Transit operating budget.

Relocation of the Transit Police from the old Atlantic/Central Operations Building and Frye Warehouse is necessary to free up space to expand bus capacity at Atlantic/Central. Further, the existing facilities are in very poor condition. The tenant improvements for the leased facility are based on a requirements document prepared by Transit Design and Construction. These will include features such as locker rooms, bike repair, weapon and ammunition storage; security and access control systems; and IT infrastructure.

1. The 2016 Service Guidelines Report indicates that investment priority #1, crowding needs total 12,800 hours and investment priority #2, and schedule reliability needs are 18,350 hours. This is more than the 29,800-hour total of the two in the budget documents. Transit intends to address all priority #1 and #2 needs in Spring 2017. [↑](#footnote-ref-1)
2. These hours would be invested in priority #3 Service Guidelines needs, underserved corridors, with the caveat that the 2017 Service Guidelines Report could identify additional priority #1 and #2 needs for investment in 2018. The total priority #3 service hour need is 488,300 hours. [↑](#footnote-ref-2)
3. These are the only revenue-backed hours in the decision package; 20,570 of these hours are attributable to Sound Transit and 1,000 are with the City of Seattle.

   [↑](#footnote-ref-3)
4. Proposition 1 requires that Seattle-purchased hours not supplant service hour investments that the County would have made with its own resources. The interlocal agreement between Seattle and the County provides for a service hour credit to Seattle as the County adds service, using a formula defined in the interlocal agreement (approved by Ordinance 17978. [↑](#footnote-ref-4)
5. This will include the development of comprehensive facility plan that will address base and other needs. Resources are requested in the budget to support the preparation of this plan. This plan needs to address all the potential changes that will occur with battery bus technologies as well as changing business processes. [↑](#footnote-ref-5)
6. When implemented in 2017, the CMRS will eliminate a variety of labor-intensive manual processes. [↑](#footnote-ref-6)
7. This resource review will help ensure that resources are appropriately identified and assigned and to identify opportunities to use consultant and other external resources to advance project work. [↑](#footnote-ref-7)
8. The disappropriation amount may be understated, potentially requiring a technical correction. [↑](#footnote-ref-8)
9. Includes expenditures in prior years through completion. [↑](#footnote-ref-9)
10. Project title is Replacement of 4.9 GHz Network and Routers [↑](#footnote-ref-10)
11. WiFi-Plus is similar to the WiFi network most people have in their homes and offices. This will be used in targeted areas where intensive data transfers are made, such as at transit bases. [↑](#footnote-ref-11)
12. Project costs have increased since early cost estimates available in 2014 due to a better understanding of the preferred technology solution and the equipment and network design costs needed for the project. [↑](#footnote-ref-12)
13. Includes appropriations through 2018 ($4,662,619) plus projected 2019 expense totaling $486,633 to refresh the CRM and SMS Departure Info subprojects [↑](#footnote-ref-13)
14. The project has received $505,000 in federal grant funds. [↑](#footnote-ref-14)
15. Because Metro Connects is a countywide plan, Proposed Ordinance 2016-0404 is considered a mandatory referral to the RTC. If the Council seeks to change the RTC-recommended version, the changes are subject to referral back to the RTC and if not approved by the RTC, the Council would have to approve the legislation with a 6-vote supermajority. [↑](#footnote-ref-15)
16. The Regional Transit Committee may add a 14th RapidRide Line to the 2025 Network. [↑](#footnote-ref-16)