Funding Application

**Competition**  Regional FTA
**Application Type**  Main Competition
**Status**  submitted
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**Prepopulated with screening form?**  No

**Project Information**

1. **Project Title**  
   Northgate to Downtown Transit Improvements
2. **Regional Transportation Plan ID**  
   5141
3. **Sponsoring Agency**  
   Seattle
4. **Cosponsors**  
   N/A
5. **Does the sponsoring agency have "Certification Acceptance" status from WSDOT?**  
   N/A
6. **If not, which agency will serve as your CA sponsor?**  
   N/A
7. **Is your agency a designated recipient for FTA funds?**  
   No
8. **Designated recipient concurrence**  
   King County Metro has provided concurrence for the project.

**Contact Information**

1. **Contact name**  
   Jim Storment
2. **Contact phone**  
   206-684-5013
3. **Contact email**  
   jim.storment@seattle.gov

**Project Description**

1. **Project Scope**  
   The City of Seattle will construct transit spot improvements and multimodal corridor improvements along King County Metro Route 40 to improve connections to major destinations in North and Central Seattle including Northgate, Greenwood, Crown Hill, Ballard, Fremont, South Lake Union, and Downtown Seattle. These are the key features of the enhanced Route 40 corridor:
   - Bus priority lanes (e.g., bus-only lanes, business access/transit (BAT) lanes, queue jumps) at pinch points where buses experience congestion-related delays
   - Traffic signal optimization at intersections
   - Bus stop rebalancing along the bus route to improve consistency of stop spacing
• Bus stops at approximately five intersections converted to in-lane bus stops (bus bulbs)
• Bicycle and pedestrian upgrades (e.g., bike lanes, ADA ramps, widened sidewalks) to support enhanced connectivity between transit and the City's growing bike and pedestrian networks. With the coordination of Metro and adjacent Seattle Department of Transportation (SDOT) projects, the project will improve transit travel times and reliability for transit users, as well as non-motorized access to transit and other destinations along the Route 40 corridor.

2. Project Justification, Need, or Purpose
The Metro Route 40 alignment is a priority corridor for transit investment as part of the SDOT Transit-Plus Multimodal Corridor (TPMC) program. The TPMC is one of the top priorities, and the largest single category of local investment, within the City's 9-year Levy to Move Seattle. The project would focus on the implementation of transit travel time and reliability improvements with supplementary benefits related to pedestrian and bicycle facility upgrades along the corridor and at key nodes connecting to the corridor as envisioned in the TPMC.

The route provides important transit connections for Northwest Seattle between Ballard, Fremont, Westlake, South Lake Union and Denny Triangle. It also connects to the Northgate Transit Center where the future Northgate Link Station will open in 2021. Despite only being introduced in 2012, Route 40 currently has an average weekday daily ridership of approximately 13,400, which makes it the third highest ridership route in Metro’s system. Large service investments by the Seattle Department of Transportation (SDOT) and Metro are being made to address peak-period crowding. Through the Seattle Transportation Benefit District (STBD), SDOT and Metro have also invested in all-day frequency of 15 minutes or better, with peak-period, peak-direction frequencies of 5 minutes, as well as Night Owl service for the route.

However, bus service is often slow, unreliable, and overcrowded. Passengers frequently experience long wait times for the next bus or get passed up by full buses as they wait to begin their trip. They might also arrive late for work or school when they reach their destination, or miss important transfers when they arrive at a transfer point. Overall, the quality of service often dissuades rather than attracts new riders. The 13.5-mile length of the route often compounds these problems. If buses become delayed at any point along their journey, very large numbers of downstream riders will be affected, and the original delay often cascades into additional problems downstream such as bus bunching and longer dwell times. Peak-period travel times are an issue in both directions. Peak vs off-peak travel times significantly increase in the AM by 35% inbound and 28% outbound, and in the PM by 59% outbound and 54% inbound. Bus travel time is longer than general purpose traffic by 30% to 40% during peak periods within the South Lake Union and Fremont sections. Daytime on-time performance ranges from 61% to 83%. Northbound on-time performance is particularly low, averaging below 70% between 9 AM and 10 PM.

Project Location

1. Project Location
Metro Route 40 via Westlake Ave N from Denny Way to Fremont Ave N, Fremont Ave N from Westlake Ave N to Fremont Pl N, Fremont Pl N from Fremont Ave N to N 36th St, N 36th St from Fremont Pl N to Leary Way NW, Leary Way NW from N 36th St to NW Market St, NW Market St from Leary Way NW to 24th Ave NW, 24th Ave NW from NW Market St to NW 85th St, NW 85th St from 24th Ave NW to 15th Ave NW, 15th Ave NW from NW 85th St to Holman Rd NW, Holman Rd NW from 15th Ave NW to N 105th St, N 105th St from Holman Rd N to Aurora Ave N

2. Please identify the county(ies) in which the project is located. (Select all that apply.)
King

3. Crossroad/landmark nearest the beginning of the project
Westlake Ave N at 9th Ave N

4. Crossroad/landmark nearest the end of the project
N 105th St at Aurora Ave N (SR 99)

5. Map and project graphics
Route40v2.pdf

Plan Consistency

1. Is the project specifically identified in a local comprehensive plan?
No

2. If yes, please indicate the (1) plan name, (2) relevant section(s), and (3) page number where it can be found.
N/A

3. If no, please describe how the project is consistent with the applicable local
comprehensive plan, including specific local policies and provisions the project supports. In addition, please describe how the project is consistent with a transit agency plan or state plan, if applicable.

Seattle's Transit Master Plan (TMP) was created to clearly prioritize investments that support current and planned land use, including rapid growth in designated areas. The TMP's first stated outcome was "Identifying the city's most important transit corridors that carry high ridership today and/or have the potential to serve transit needs that will emerge as Seattle grows and transit demand increases." After identifying seven key corridors as a high-priority transit investment, and BRT as the preferred mode for these corridors, the plan goes on to state that "Comprehensive transit improvements such as light rail or BRT systems can provide large increases in transit use and attract riders who would otherwise travel by automobile. Various cities have seen increases in bus ridership with the introduction of BRT service, for example: Pittsburgh (38%), Los Angeles (40%), Brisbane (42%), Adelaide (76%), and Leeds (50%)."

Seattle's Comprehensive Plan also speaks strongly to prioritizing transit investments and promoting transit use. "Providing convenient and accessible transit service can help reduce reliance on single-occupant vehicles, slow the increase in environmental degradation associated with their use, and increase mobility without building new streets and highways. Street rights-of-way are limited and as streets get more congested, transit provides an efficient way to move large numbers of people around the city and the region and support growth in urban centers and villages. These policies will guide City decisions to enhance transit, and are also intended to guide decisions of transit serving Seattle." Specific goals include:

TG11 Create a transit-oriented transportation system that builds strong neighborhoods and supports economic development.
TG12 Provide mobility and access by public transportation for the greatest number of people to the greatest number of services, jobs, educational opportunities, and other destinations.
TG13 Increase transit ridership, and thereby reduce use of single-occupant vehicles to reduce environmental degradation and the societal costs associated with their use.

Federal Functional Classification

1. Functional class name
   14 Urban Principal Arterial

Support for Centers

1. Describe the relationship of the project to the center(s) it is intended to support. Identify the designated regional growth or manufacturing/industrial center(s) and whether or not the project is located within the center or along a corridor connecting to the center(s).

   Route 40 traverses many regionally and locally identified centers along its 13.5 miles. From north to south, the route serves the Northgate Regional Growth Center (RGC), Aurora/Licton Springs Urban Village, Crown Hill Urban Village, Ballard Urban Village, Ballard/Interbay Manufacturing/Industrial Center (MIC), Fremont Urban Village, South Lake Union RGC, and Downtown Seattle RGC.

Criteria: Benefit to Center

1. Describe how the project will benefit or support the existing and planned housing and employment development of a center or centers. Does it support multiple centers?

   Route 40 connects multiple Regional Growth Centers (RGCs), urban villages, and Manufacturing/Industrial Centers (MICs) between the Northgate neighborhood and downtown Seattle. Centers directly supported through this project include the Downtown Seattle RGC, South Lake Union RGC, Northgate RGC, and Ballard-Interbay MIC. Locally-designated centers served by Route 40 include the Ballard and Fremont hub urban villages, which offer a balance of housing and employment opportunities along with a mix of goods and services for their residents and surrounding neighborhoods, and the Crown Hill and Aurora-Licton Springs residential urban villages that offer goods and services for residents and surrounding communities.

   In addition to providing direct service to these centers, the corridor is connected to several other major transit lines – including Link light rail, two existing RapidRide lines, and at least five future RapidRide lines – offering numerous transfer opportunities to reach more places of housing, employment, education, and recreation. The corridor hosts an unusually high number of transit-dependent people. Currently, 9% of households within a quarter mile of the route are without access to a personal vehicle, and large percentages of people take the bus to work in the Ballard, Fremont, and Crown Hill neighborhoods.

   There are approximately 306,032 jobs and 65,445 people living within a quarter mile of bus
stops along the route, underscoring the importance of affordable and reliable transit options, especially with the increased demand as a result of continued residential and job growth that is anticipated in the coming years. According to Seattle’s 2035 Comprehensive Plan, the total estimated growth by 2035 within the neighborhood centers and villages along the route is 29,500 housing units and 63,300 jobs. The current roadway network cannot support additional vehicles, particularly single-occupancy vehicles traveling on city streets during peak periods. Roadway expansion is not a preferred option as the City aims to reduce emissions from automobiles, nor is it even an option in constrained sections of the corridor. As a prioritized TPMC project, the corridor is recognized for its high ridership and anticipated housing and economic growth. This project will support future development on the corridor by sustainably accommodating increased demand for mobility along the corridor while not pushing its roadway infrastructure over capacity.

2. Describe how the project will support the development or redevelopment plans and activities (objectives and aims) of a center or centers.

Seattle’s 2035 Comprehensive Plan emphasizes the critical importance of transit services like those proposed in the Route 40 project to ensure Seattle is meeting the needs of a growing city. In coordination with Metro, the Route 40 project prioritizes improvements to achieve the Comprehensive Plan’s transportation goals and policies outlined below.

- Enhance transit service and facilities to make it a more attractive travel mode for people living and working.
- Seek to coordinate improvements to transit service with crosswalks and pedestrian, bicycle, and transit shuttle routes.
- Strive to maximize access to planned citywide and regional transit services (e.g., Monorail, Sound Transit, water taxi, etc.).
- Work with transit agencies to provide transit service to and through neighborhoods to meet growing demand and changing markets.

In 2019, Seattle announced its Housing Seattle Now initiative, which prioritizes affordable housing in all parts of the city, particularly neighborhoods with very good transit service. Historically communities of color and lower income communities have been displaced to parts of the region that are further from jobs, thereby making transportation to job centers within Seattle longer and more challenging. By providing and encouraging the development of more affordable housing, further harm to these communities is lessened and communities can be reestablished and thrive. Route 40 will help connect riders to jobs, schools, and places of leisure, and this project has the potential to make transit a reliable and competitive mode for a variety of ridership markets and address historical inequities.

3. Describe how the project improves access to major destinations within the center, including enhanced opportunities for active transportation that can provide public health benefits through the following relevant areas: walkability, public transit access, public transit speed and reliability, bicycle mobility and facilities, streetscape improvements, etc.

Route 40 operates along six major corridors with significant commercial activity: Westlake Ave N, 36th Ave N, Leary Way NW, NW Market St, 15th Ave NW, and Holman Rd NW. Improvements included with this project will allow users to safely connect to the existing and future extensions of the non-motorized network, like the Burke-Gilman Trail and intersecting neighborhood greenways.

In order to prepare for future growth and travel demand, and encourage use of non-motorized transportation, the project will incorporate facilities such as wider sidewalks, curb ramps, curb extensions at key intersections to reduce crossing distances, marked crosswalks, and signal timing adjustments. These enhancements align with the City’s Vision Zero goal and recent policies to slow general purpose traffic to 25 mph on 80% of city streets, promote safe and comfortable pedestrian and bike access, and enhance transit reliability.

4. Describe how the project provides a range of travel modes to users traveling to centers, or if it provides a missing mode.

With the Route 40 project, access to transit is a major component. The project will include enhanced pedestrian and bicycle facilities such as bike lanes, ADA ramps, widened sidewalks, and signalized pedestrian crossings. Through this project, opportunities are considered for filling in gaps in modal networks, such as a new bike lane on Fremont Ave N. These improved opportunities for active transportation, and first-mile/last-mile transit connections, add a previously missing mode (transit) for many people along the corridor. It’s a mode that’s not entirely missing but is often inaccessible.

In addition to improvements for non-motorized modes of transportation, traffic signal design may be modified to improve not only transit operations but also general-purpose traffic flow. Typical improvements include adaptive signals or equivalent signal upgrades, designed to improve traffic flow at the intersection and within the surrounding network, as well as leading pedestrian intervals to enhance safety for those on foot or on bikes. These improvements will make a mode that’s not entirely missing but is often inaccessible, reliable, and reasonably efficient.
5. Describe how the project will benefit a variety of users, including commuters, residents, and commercial users.

The population density of the Route 40 corridor is 11,029 people per square mile, which is higher than Seattle's average population density. Similarly, housing density in the study area is also higher than Seattle as a whole. The minority (non-white) population comprises 19% of residents in the corridor. The population with no personal vehicle available in the study area is 9%, which is similar to the city's overall average of 10%. Of the people who live within the study area, approximately 9% also work within the study area. The study area shows similar commuting characteristics to the city of Seattle as a whole; the percentage of people who live in the study area that commute via transit averages 22% as compared to Seattle's overall average (21%).

Land use along the Route 40 Study Corridor is mixed in nature. At the southern end of the corridor, dense mixed uses along Westlake Ave N give way to mixed commercial and residential zones, with some maritime commercial uses in the Westlake neighborhood. Neighborhood-commercial zones surrounded by single-family housing and low-rise multifamily housing are predominant in the mid-corridor area of Route 40 in Fremont, Ballard, Crown Hill, and Greenwood, with Fremont and Ballard also hosting significant employment. At the northern end of the Route 40 corridor, single-family zones, low-rise multifamily zones, and commercial zones predominate around Northgate Mall at the northern end of the Route 40 corridor. Industrial zones are heavily concentrated within the part of the corridor that passes through the Ballard-Interbay MIC.

6. Describe how the project will benefit those groups identified in the President’s Order for Environmental Justice, seniors, people with disabilities, those located in highly impacted communities, and/or areas experiencing high levels of unemployment or chronic underemployment.

As a 13.5-mile corridor with numerous transfer opportunities, the project is expected to reach a large number of seniors, people who are living with disabilities and/or in poverty, and other highly transit-dependent populations. Within a quarter mile of the corridor, there are more than 65,000 residents and 300,000 jobs. In addition to the project’s exceptionally long distance, Route 40 serves several census tracts with unusually high rates of disadvantaged populations:

- Many of the corridor’s segments show poverty levels that are typical for our region, but both ends or “anchors” of the transit line show poverty rates that far exceed our region overall: 23% at the northern end and 24% at the southern end.
- The southern end of the route is also identified as an Air Quality Focus Community, indicating a neighborhood that is disproportionately burdened by road-oriented pollution and its health impacts such as asthma, heart disease, and lung disease.
- In the southern end of the corridor, people with disabilities comprise as much as 21% of the population, indicating an unusually large population of transit-dependent riders.

7. Describe how the project will support the establishment of new jobs/businesses or the retention of existing jobs/businesses including those in the industry clusters identified in the adopted Regional Economic Strategy.

The Northgate to Downtown Transit Corridor serves an unusually large and diverse mix of employment centers. The Downtown Seattle RGC alone hosts major employers within each of the region’s nine key industry clusters (as listed in the adopted Regional Economic Strategy). Notable examples are Business Services (Safeco, Collaborative Business Solutions, etc.), Information & Communication Technology (Amazon, Zillow, Oracle, etc.), and Maritime (Argosy Cruises, etc.).

However, the project’s benefits for our region’s economic engine go far beyond the downtown core. With service to two additional RGCs, one Manufacturing/Industrial Center (MIC), and four locally identified centers, the project’s reach is remarkably broad. For example, the Ballard-Interbay MIC alone contains approximately 17,000 to 20,000 jobs. This is comparable to King County’s two MICs outside Seattle – in Kent and Tukwila – but the Ballard-Interbay MIC has an unusual role in our region due to its significance for international freight. It is the only MIC—aside from Seattle’s Duwamish MIC—that handles seaport cargo to and from Pacific Rim countries and other partners in worldwide trade. Within this MIC, Terminal 91 is a large general cargo terminal complex, and Pier 86 is a Port of Seattle export grain terminal. The MIC is also the home port of the North Pacific Fishing Fleet. These international portals make the MIC an important feeder for each of the other MICs in our region.

The Northgate RGC, known as a regional shopping destination, also hosts several of the city’s major medical destinations and strongly supports the Life Sciences & Global Health industry cluster. The Northwest Hospital in this RGC is one of the city’s few hospital complexes outside of central Seattle. The 281-bed hospital is a hub for the University of Washington’s cardiac surgery program, and Northgate RGC also hosts a wide array of small medical and dental clinics.

8. Does the project promote Commute Trip Reduction (CTR) opportunities?

One of the goals of the Seattle CTR program is to work with regional employers to put programs in place for commuters to make efficient use of the transportation network, especially during high-demand peak periods. As commute trip reduction programs seek to provide attractive alternatives to driving alone during peak commute times, provision of
reliable transit service is a key strategy. Route 40 is the third highest ridership route in the system. Even with 5-minute to 10-minute frequencies during peak travel periods, approximately 8% to 14% of the Route 40 trips are overcrowded, which results in pass-ups at bus stops and rider dissatisfaction.

Route 40 passes through neighborhoods in which 15% to 50% of people take the bus to work. In addition, the route provides connections, not just between Northgate and Downtown, but also to other high-capacity transit services such as the RapidRide E and D Lines, Route 44, Streetcar, and direct access to the future Northgate Link station, along with various local and regional routes at Northgate Transit Center. Efficient transfers within the transit network are necessary for trips that take place before and after work, such as classes or daycare pick-ups.

With improvements like exclusive bus lanes, in-lane bus stops, and real-time information signs that are being considered for the Route 40 Transit-Plus Multimodal Corridor (TPMC) project, bus trips will become more reliable and restore confidence in riders that they can take transit to and from work with predictable service.

Criteria: System Continuity/Long Term Benefit-Sustainability

1. **Describe how this project provides a "logical segment" that serves a center, or allows users to access the system.**

   Route 40 is an established high ridership corridor, currently ranking third in the Metro system. As a TPMC-prioritized route and recognized High Capacity Transit Corridor (HCT), this is a "logical segment" that serves centers. The route connects eight centers between North Seattle and Downtown Seattle without a transfer. With a two-seat transit trip – a single transfer – many more residential centers, job centers, and places of education and recreation can be reached. Enhancements to the route will allow for transit-dependent riders and choice riders to confidently take trips to their destinations because the travel time and cost is as competitive as personal vehicle or shared vehicle trips. The Seattle Transit Master Plan (TMP) anticipates 9,000 new transit riders for this project area when RapidRide service is established.

   The TMP, adopted in 2012 and amended in 2016, identifies proposed transit facilities, programs, and system features to accommodate Seattle’s transit needs through 2030. The TMP goal is to establish a network of top-quality, frequent transit services to meet the travel needs of most Seattle residents and workers and serve as a backbone of sustainable urban growth. The TMP includes several categories of Priority Bus Corridors that serve as transit investment priorities over the next 12 years, with the top being High Capacity Transit (HCT). One such HCT corridor is the Route 40 corridor. These HCT Corridors are designed to move high volumes of passengers at competitive speeds. Reliability and access are key. Notably, the Seattle Transit Master Plan identifies the Route 40 corridor as a future RapidRide Bus Rapid Transit (BRT) corridor. BRT service provided along HCT corridors should be characterized by transit signal priority, enhanced stations, specialized vehicles, RapidRide branding, enhanced fare collection systems, and dedicated running ways.

2. **Describe how the project fills in a missing link or removes barriers to a center (e.g. congestion, inadequate transit service/facilities.).** Describe how this project will relieve pressure or remove a bottleneck on the Metropolitan Transportation System and how this will positively impact overall system performance.

   The project focuses on strategic improvements along the Route 40 corridor where transit is currently experiencing delay by prioritizing the most cost-effective treatments along the corridor in conjunction with other planned transportation improvements such as the future light rail extension to Ballard. The focus areas for these treatments are Westlake/South Lake Union, Fremont, north end of Ballard Bridge, Leary Way NW into Ballard/Market area, Holman Road NW, and Aurora Ave N/N 105th St.

   Proposed bus lane improvements between the corridor’s urban centers are being considered along Westlake Ave N, 36th Ave N, Leary Way NW, and Holman Rd NW, in addition to transit and multimodal improvements at bottlenecks such as Fremont Ave N & N 35th St and NW Leary Way & 15th Ave NW. These improvements are planned to help remove barriers to reduce transit travel times and to increase reliability for transit users to access other transit facilities. Improvements along the Route 40 will support access between employment centers, residential neighborhoods, local business districts, and essential services.

3. **Describe how this project addresses safety and security.**

   Reducing crash rates by increasing transit use is an extremely powerful tool in reaching our local, regional, and national traffic safety targets. Researchers reviewing national crash data from 2000 to 2009 reported drivers or passengers in personal vehicles faced a fatality risk of 7.3 per billion passenger-miles, while fatality rate per billion passenger-miles for buses was 0.11. Operating a personal vehicle increased risk by more than 60-fold compared to riding transit. Of course, the national data may not represent the specific conditions that would be present on urban roads, but a variety of local and national reports tell essentially the same story: encouraging a shift of trips from personal vehicles to transit is one of the greatest
In 2015, for example, SDOT completed a series of safety and transit-related upgrades on 35th Ave SW between SW Roxbury St and SW Holly St. Before and after data show transit ridership along this corridor increased 12% to 14%, while drive-alone travel dropped approximately 7%. During the same period, serious injury crashes decreased by 64%. These trends are typical of urban transit corridors where large numbers of people travel by bus.

Encouraging transit use and activating the public realm are very effective ways to reduce crash rates and to improve people’s sense of personal security. Streetscapes feel safe and inviting when they complement human-scale activities and host a wide variety of busy, active people including commuters, shoppers, families, and people of all ages and abilities. These types of streetscapes encourage a sense of personal security and encourage more people to choose non-motorized travel modes, support local businesses, and feel a sense of ownership in their community. Transit-oriented corridors, unlike auto-oriented corridors, tend to produce this type of environment.

In addition to benefits related to large-scale mode shift, the project includes a variety of elements that directly reduce exposure and improve safety for our roadways’ most vulnerable users: people on foot or on bikes. These improvements include new bike lanes and curb ramps, as well as repaired or widened sidewalks to accommodate the high volumes of pedestrian traffic that are expected along Seattle’s high-capacity transit corridors.

4. Describe how the project improves intermodal connections (e.g. between autos, ferries, commuter rail, high capacity transit, bus, carpool, bicycle, etc.), or facilities connections between separate operators of a single mode (e.g., two transit operators).

The Route 40 corridor intersects with many prioritized areas within the City of Seattle’s modal plans. The corridor is designated as one of Seattle’s Transit Master Plan priority corridors for transit investment and as a key corridor in the city’s frequent transit service network. Additionally, portions of the project are part of the recommended citywide bicycle network within Seattle’s Bicycle Master Plan, and the route travels through several pedestrian priority investment areas, as defined by the Pedestrian Master Plan. The Route 40 Corridor is crucial to the City’s goal of providing equitable access to, and encouraging the use of, multiple transportation options.

The Route 40 TPMC project intersects or is within approximately a quarter mile the following intermodal connections:

• Bicycle: Westlake Cyclerack Trail, N 34th St Bike Lanes, Burke Gilman Trail, Ballard 17th Neighborhood Greenway (NGW), Ballard 58th NGW, Fremont Ave NGW
• Local Bus: KCM Route 5, 15, 17, 18, 29, 31, 32, 44, 45, 62, 355
• High Capacity Transit: South Lake Union Streetcar, Rapid Ride D, Rapid Ride E, existing and future light rail stations (Northgate, Westlake, South Lake Union, Ballard, Interbay)

This project focuses on making improvements to transit access and transit connections, establishing a safe and convenient pedestrian and bicycle network with these connections, and improving the street-level environment for people and vehicles.

5. If applicable, describe how the project provides an improvement in travel time and/or reliability for transit users traveling to and/or within centers.

The project aims to improve transit travel time and reliability by at least 5% to 10% through various bus improvements at key sections and segments of the corridor where traffic bottlenecks currently cause slow and/or unreliable travel times. These improvements include:

• Bus priority lanes (e.g., bus-only lanes, queue jumps)
• Lane rechannelization
• Traffic signal optimization (e.g., transit signal priority)
• Bus stop rebalancing
• In-lane bus stops (i.e., bus bulbs)

The specific combination and location of bus improvements will be optimized to maximize the amount of travel time and/or reliability improvement as compared to cost and other impacts. In particular, project elements will be finalized based upon total travel time savings, travel time saving per passenger, and average improvement in travel time reliability.

6. If applicable, describe how the project increases transit use to or within centers.

The project includes improved transit stops, signal upgrades, transit signal priority, queue jumps, bus-only lanes, and bus bulbs that will improve transit reliability. The decrease in transit travel time and improved reliability will make transit a more attractive travel option along the corridor and throughout the regional and local centers. Since the corridor connects eight neighborhood centers, improvements to Route 40 are expected to increase transit use by approximately 5-10% with a corresponding decrease in automobile trips between centers.

7. Describe how this project supports a long-term strategy to maximize the efficiency of the corridor? Describe the problem and how this project will remedy it.

Within the next 15 years, the corridor served by Route 40 will connect to future Link light rail stations in Northgate, Ballard, Interbay, and South Lake Union. These connections will significantly increase the distance people can travel by transit within a time that is competitive
with an automobile. This project will accommodate and improve efficiency for transit with signal upgrades and improved channelization. Safety upgrades will focus on increasing access for bicycles and pedestrians to other modes of travel along the corridor.

Criteria: Air Quality and Climate Change

1. Please select one or more elements in the list below that are included in the project’s scope of work, and provide the requested information in the pages to follow.
   Roadway Improvement, Bicycle and Pedestrian Facilities, Intelligent Transportation Systems

Air Quality and Climate Change: Roadway Improvement

1. What is the length of the project?
   13.5 miles

2. What is the average daily traffic before and after the project?
   Existing ADT volumes for key sections of the study corridor are as follows (estimated by dividing the higher of the 2019 AM and PM peak volumes by 10%):
   • Westlake Ave north of Mercer St: 7,970
   • Fremont Bridge: 27,880
   • Leary Way NW at 15th Ave NW (Ballard Bridge): 18,300
   • Market St between 22nd Ave NW and 24th Ave NW: 10,520
   • 15th Ave NW north of NW 85th St: 27,810
   Existing Route 40 daily ridership is approximately 13,400. It is expected that 5% to 10% transit travel time savings would occur, leading to 5% to 10% ridership increase. Using 7.5%, it is expected approximately 1,000 trips would be converted from auto to transit. The expected ADT volumes after the project for the key sections are as follows:
   • Westlake Ave north of Mercer St: 6,970
   • Fremont Bridge: 26,880
   • Leary Way NW at 15th Ave NW (Ballard Bridge): 17,300
   • Market St between 22nd Ave NW and 24th Ave NW: 9,520
   • 15th Ave NW north of NW 85th St: 26,810

3. What is the average speed before and after the project?
   Current corridor bus speeds during the peak period are approximately 15 to 19 mph; the project aims to increase speeds by 5% to 10%. This would translate to corridor travel time savings of 2-4 minutes.

4. What is the average daily transit ridership along the corridor?
   13,400 daily riders

5. How many daily peak period transit trips serve the corridor?
   7,800 daily transit trips, including 3,000 during the AM peak (5-9 AM) and 4,800 during the PM peak (3-7 PM)

6. What is the expected increase in transit speed due to the BAT/HOV lanes?
   During peak periods when congestion slows bus speeds (i.e., operating at ~10 mph), dedicated transit lanes have been shown to increase speeds by approximately 20%.

7. What is the expected increase in transit ridership due to the BAT/HOV lanes?
   Improved transit service, particularly faster service, has been shown to directly lead to increased ridership. A conservative estimated elasticity between speed and ridership is 1:1, meaning that a 1% speed improvement would lead to a 1% ridership increase in the long term. Using this assumption, the anticipated ridership is expected to be 5% to 10%, corresponding to the travel time improvements on the corridor. This translates to a daily increase in ridership of 670 to 1,340 riders per day. BAT lanes would be a primary contributing factor to these speed improvements, although other tools such as signal enhancements would also provide travel time benefits.

8. What is the percentage of freight truck traffic on the facility?
   3% of traffic is freight trucks

9. Will the project result in shorter trips and reduced VMT? If so, please explain.
   Yes, the increase in transit ridership on the corridor is expected to result in fewer SOV trips along the corridor as well as a corresponding reduction in VMT.

10. Please describe the source of the project data provided above (e.g., Environmental Impact Statement, EPA/DOE data, traffic study, survey, previous projects, etc.).
    Project Existing Conditions Report based on traffic studies, surveys, and other data collection and analysis.
    Estimates regarding the relationship between travel time savings and increases in ridership
Air Quality and Climate Change: Bicycle and Pedestrian Facilities

1. Describe the facilities being added or improved
   Protected bike lanes are proposed for a section of the corridor at N 34th St & Fremont Ave. Pedestrian improvements will be made throughout the corridor, including crossing improvements along 36th St and at NW 45th St, to aid in transfers between the Route 40 and Route 44. The project also proposes bus bulbs to aid boarding, expanded bus stops, and ADA compliance ramps throughout the corridor.

2. What is the length of the proposed facility?
   • Proposed protected bike lanes on Fremont Ave between Fremont Bridge and N 34th St: 475 feet (part of N 34th St Mobility Improvements) • Pedestrian improvements: In Fremont (from N 34th St to NW 39th St: 3,245 feet), Ballard Bridge (14th Ave to Dock Pl: 1,778 feet), and Ballard Market segments (20th Ave to 24th Ave: 1,682 feet): 1.3 miles • Bus boarding/alighting and ADA ramps enhancements: throughout the study corridor: 9.1 miles

3. Describe the connections to existing bicycle/pedestrian facilities and transit.
   The Route 40 corridor includes sidewalks throughout the corridor. Per Section 4.25 of the City of Seattle’s Right-of-Way Improvements Manual, transit stops should be located in well-lit areas with good site distance and close proximity to crosswalks. Of the 79 stops on the Route 40 corridor: 53 (67%) are near a crosswalk and signal and are accessible to pedestrians crossing the street; five stops (6%) have a non-signalized crosswalk; 19 stops (24%) are not accessible to a crosswalk of any kind; and two stops (3%) are located at the Northgate Pedestrian Bridge in the northern section of the corridor.

4. Describe the current bicycle/pedestrian usage in the project area. If known, provide information on the shift from single occupancy vehicles.
   Generally, the southern sections that are closer to downtown Seattle have higher pedestrian counts, while northern sections have lower pedestrian counts. Pedestrian counts are generally higher in the PM peak period (3-7 PM) than the AM peak period (5-9 AM). Fremont had the highest pedestrian activity where data was available, with 2,520 pedestrians at eight intersections during the PM peak. The two intersections with the highest pedestrian activity among the study intersections are Fremont Ave North & North 34th Street and the intersection of Fremont Ave North & North 35th Street, with 856 and 423 pedestrians respectively. This is also a section with a higher percentage of commuters who use transit. The intersection with the highest pedestrian counts outside of Fremont was NW Leary Way/ NW Market St in the Ballard/Market area with 628 pedestrians during the PM peak. The highest bicycle volumes occur at the Westlake Ave N & 9th Ave N intersection (284 cyclists) in South Lake, as well as the Westlake Ave N / Dexter Ave N / Nickerson St / 4th Ave N (192 cyclists), Fremont Ave N & N 34th St (515 cyclists), and the Fremont Ave N & N 35th St (166 cyclists) intersections in Fremont.

5. What is the expected increase in bicycle/pedestrian usage from the project? If known, provide information on the shift from single occupancy vehicles.
   Recent facilities installed in the project area have shown ridership increases in the 200% range, and these increases in ridership are in line with national predictions for dense urban areas. The Transportation Research Board indicates that roughly 35% to 60% higher ridership is expected on roads with cycling facilities. A report from People for Bikes, a cycling advocacy organization, also shows that protected bike lanes have increased ridership substantially, ranging from 55% up to well over 200%.

6. What is the average bicycle trip length?
The 2019 Seattle Center City Commute Mode Split Survey found that the average bike commute trip to downtown Seattle is 5.6 miles. There is no data currently on average trip lengths for other purposes such as recreation or running errands by bike in downtown Seattle. While the Route 40 project area is larger than the area covered within the Mode Split Survey, trip lengths are expected to be similar along the corridor.

7. **What is the average pedestrian trip length?**
The 2019 Seattle Center City Commute Mode Split Survey found that the average pedestrian commute trip to downtown Seattle is 1.8 miles. There is no data currently on average trip lengths for other purposes such as recreation or running errands by walking in downtown Seattle. While the Route 40 project area is larger than the area covered within the Mode Split Survey, trip lengths are expected to be similar along the corridor.

8. **Please describe the source of the project data provided above (e.g., Environmental Impact Statement, EPA/DOE data, traffic study, survey, previous projects, etc.)**
   Project Existing Conditions Report based on traffic studies, surveys, and other data collection.

**Air Quality and Climate Change: Intelligent Transportation Systems and Corridor Efficiency**

1. **What is the existing level of service?**
The level of service varies significantly along the corridor, but the project scope will focus on key intersections and segments where buses experience substantial delays related to congestion. For example, 7 intersections in the AM peak period and 12 intersections in the PM peak period show failing levels of service (D, E, or F). Below is a description of the number of segments along the Route 40 corridor that fall into level of service (LOS) categories A through F. • A – AM - 4 segments; PM - 3 segments • B – AM - 5 segments; PM - 3 segments • C – AM - 5 segments; PM - 3 segments • D – AM - 4 segments; PM - 6 segments • E – AM - 2 segments; PM - 5 segments • F – AM 1 segment; PM - 1 segment

2. **What are the existing number of lanes (in one direction)?**
The number of lanes along the Route 40 Study Corridor varies between two and five (both directions) but the majority of the corridor has four travel lanes. Bicycle lanes are present along part of Fremont Ave North and bike sharrows are utilized along other parts of the Corridor. The presence of on-street parking varies. Medians are not present but center turn lanes exist along many parts of the corridor. The roadway configuration changes at several intersections along the corridor, for example from four travel lanes to two travel lanes and bike lanes.

3. **What is the existing average daily traffic?**
Average daily traffic varies substantially along the corridor. Examples of higher volume areas are in the South Lake Union RGC, where volumes range from 21,000 to 30,000, and between the Crown Hill and Aurora/Licton Springs urban villages, where volumes range from 28,000 to 34,000. The highest volume along the route is at the Aurora Bridge, with 39,600 daily trips. Improvements will be focused on the areas with the greatest congestion-related delays.

4. **What is the existing average speed?**
Average peak hour general traffic travel speeds are 15 to 19 mph, depending on time of day and direction.

5. **What are the ITS improvements being provided?**
Signal optimization and transit signal priority

6. **How many intersections are being improved?**
Up to 21 intersections

7. **What is the length of the project?**
13.5 miles total

8. **What is the percentage of freight truck traffic in the project area?**
3% of vehicles are trucks

9. **What is the expected improvement to level of service?**
As previously noted, the existing level of service for intersections along the Rt. 40 corridor range from A to F during the AM and PM peak hour depending on the location. Project improvements are being selected with a focus on improving bus speed and reliability. Along some points of the corridor, the level of service for general traffic may decrease due to the presence of bus lanes or other bus priority elements. However, where feasible channelization updates, access management, realignment, turn restrictions, and signal timings are being optimized to benefit general purpose traffic operations and safety. Overall, the project aims to maintain a relatively similar level of service as compared to existing conditions.

10. **What is the expected improvement to average speed?**
Current corridor bus speeds during the peak period are approximately 15 to 19 mph; the project aims to increase speeds by 5% to 10%. This would translate to corridor travel time
11. **What is the expected improvement to average vehicle delay?**
   As previously noted, the proposed improvements seek to prioritize transit operations. However, certain improvements such as channelization, access management, realignment, turn restrictions, and signal timing optimization also benefit general purpose traffic operations and safety. This is anticipated to result in an average vehicle delay that is relatively similarly to existing conditions. Because transit vehicles have higher capacity than general traffic, average delay per person is expected to decrease.

12. **Please describe the source of the project data provided above (e.g., Environmental Impact Statement, EPA/DOE data, traffic study, survey, previous projects, etc.)**
   Project Existing Conditions Report based on traffic studies, surveys, and other data collection

### Criteria: Project Readiness and Financial Plan

1. **What is the PSRC funding source being requested?**
   N/A

2. **Has this project received PSRC funds previously?**
   No

3. **If yes, please provide the project's PSRC TIP ID**
   N/A

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**Total Request:** $4,000,000.00

### Total Estimated Project Cost and Schedule

#### PE

- **Funding Source**
  - Local: Secured
  - 5307: Unsecured

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**Expected year of completion for this phase:** 2023

#### Construction

- **Funding Source**
  - 5307: Unsecured
  - Local: Secured

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**Expected year of completion for this phase:** 2024

### Summary

1. **Estimated project completion date**
   December 2024

2. **Pretty total project cost**
   $16,118,000.00

### Funding Documentation

1. **Documents**
   Route_40_Budget.pdf
2. Please enter your description of your financial documentation in the text box below. Local funds are available through the Levy to Move Seattle. An excerpt from Seattle's Capital Improvement Program (CIP) is attached for documentation. The project scope shown in the CIP is approximately $23 million, but we have not secured funds for the entire scope. For example, we hope to secure additional construction funds from the Regional Mobility grant program and from underspending our 2020 allocation of local funds. However, in this grant application, we have described the scope of work that could be completed with no additional funds. If our budget is limited to our programmed local funds and this additional FTA grant, we would construct the approximately $16M project described in this grant application.

Project Readiness: PE

1. Are you requesting funds for ONLY a planning study or preliminary engineering?  
   No

2. What is the actual or estimated start date for preliminary engineering/design?  
   October 2020

3. Is preliminary engineering complete?  
   No

4. What was the date of completion (month and year)?  
   N/A

5. Have preliminary plans been submitted to WSDOT for approval?  
   N/A

6. Are there any other PE/Design milestones associated with the project? Please identify and provide dates of completion. You may also use this space to explain any dates above.  
   N/A

7. When are preliminary plans expected to be complete?  
   September 2023

Project Readiness: NEPA

1. What is the current or anticipated level of environmental documentation under the National Environmental Policy Act (NEPA) for this project?  
   Documented Categorical Exclusion (DCE)

2. Has the NEPA documentation been approved?  
   No

3. Please provide the date of NEPA approval, or the anticipated date of completion (month and year).  
   June 2023

Project Readiness: Right of Way

1. Will Right of Way be required for this project?  
   No

2. What is the actual or estimated start date for right of way?  
   N/A

3. What is the estimated (or achieved) completion date for the right of way plan and funding estimate (month and year)?  
   N/A

4. Please describe the right of way needs of the project, including property acquisitions, temporary construction easements, and/or permits.  
   N/A

5. What is the zoning in the project area?  
   N/A

6. Discuss the extent to which your schedule reflects the possibility of condemnation and the actions needed to pursue this.  
   N/A

7. Does your agency have experience in conducting right of way acquisitions of similar size and complexity?
8. If not, when do you expect a consultant to be selected, under contract, and ready to start (month and year)?
N/A

9. In the box below, please identify all relevant right of way milestones, including the current status and estimated completion date of each.
N/A

**Project Readiness: Construction**

1. Are funds being requested for construction?
   Yes

2. Do you have an engineer’s estimate?
   No

3. Engineers estimate document
   N/A

4. Identify the environmental permits needed for the project and when they are scheduled to be acquired.
   NEPA Documented Categorical Exclusion

5. Are Plans, Specifications & Estimates (PS&E) approved?
   N/A

6. Please provide the date of approval, or the date when PS&E is scheduled to be submitted for approval (month and year).
   N/A

7. When is the project scheduled to go to ad (month and year)?
   January 2024

**Other Considerations**

1. Describe any additional aspects of your project not requested in the evaluation criteria that could be relevant to the final project recommendation and decision-making process.
   TBD

2. Describe any innovative components included in your project: these could include design elements, cost saving measures, or other innovations.
   TBD

3. Describe the process that your agency uses to determine the benefits of projects; this could include formal cost-benefit analysis, practical design, or some other process by which the benefits of projects are determined.
   The purpose of the Route 40 evaluation framework is to score and rank improvements within the seven distinct segments of Route 40, and prioritize improvements along the full corridor, to ensure that the most meaningful and beneficial projects are carried forward and implemented within the program’s budgetary constraints. A workshop, facilitated by the project consultant, was held with SDOT and King County Metro (KCM) in November 2019 to further develop project goals, identify success factors, and streamline the evaluation criteria. The TPMC program corridors are all following a similar evaluation process.

   The Seattle Transit Master Plan (TMP) identifies Route 40 for RapidRide service and recommends appropriate improvements to the corridor, including transit signal priority, bus bulbs, queue jumps, right-of-way treatments, and other potential improvements. The Route 40 framework allows for a streamlined evaluation that retains a performance-based and data-driven evaluation process to select improvements while balancing the need to evaluate a robust improvement list within a constrained timeframe.

   To align with the goals of the Move Seattle Levy, the following five general categories of criteria are used to screen and evaluate potential corridor concepts: transit, safety, access, community, and project implementation. Each category includes multiple screening and evaluation measures. Where applicable, the criteria for evaluating the concepts are consistent with SDOT assessment and prioritization methodologies. Potential corridor improvement concepts for the Route 40 Corridor will be developed based upon existing transit speed and reliability data gathered from KCM, modal plans and their implementation plans, input gathered through direct observation, input gathered through SDOT and KCM staff, as well as information included in the project’s Complete Streets Checklist. This data will provide a broad, multimodal collection of concepts for consideration.
within this project.

Following the evaluation, a list of recommended concepts will be reviewed by the Route 40 project team and SDOT leadership. A final recommended set of concepts will advance into preliminary design and environmental documentation.

4. **Final documents**

   N/A
Seattle Department of Transportation

Route 40 Northgate to Downtown Transit Improvements

**Project Type:** Discrete  
**Project No.:** MC-TR-C079

**Start/End Date:** 2016-2024  
**BSL/Program Code:** BC-TR-19003

**Project Category:** Improved Facility  
**BSL/Program Name:** Mobility-Capital

**Current Project Stage:** Initiation, Project Definition, & Planning  
**Location:** Various

**Neighborhood District:** Multiple  
**Council District:** Multiple

**Total Project Cost:** $23,900  
**Urban Village:** Multiple

This project will design and construct transit speed and reliability improvements and upgraded bus stop passenger facilities. Improvements to the route, which connects Downtown, South Lake Union, Fremont, Ballard, and Northgate, will support conversion to RapidRide service by partner agency King County Metro.

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*Funds are appropriated through the Adopted Budget at the Budget Control Level. All amounts shown above are in thousands of dollars.*

2019 - 2024 Proposed Capital Improvement Program