

Title VI Service and Fare Equity Analysis (SAFE)

Northgate Link Extension



Final Report

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Executive Summary

As a new extension of the existing Link light rail system, the opening of the Northgate Link Light Rail Extension project requires a Service and Fare Equity (SAFE) analysis to ensure the associated changes prove beneficial and were selected without regard to race, color or national origin.

In fall 2021, the 4.3-mile Northgate Link Light Rail Extension (the Project) will bring three new stations (Northgate, Roosevelt and the U District) to North Seattle and offer new connections to passengers around the region.

The Sound Transit service area includes the coordinated provision of service by a variety of transit partners. For several years, Sound Transit worked alongside Community Transit and King County Metro (Metro), to plan for the Project opening. An important consideration in service planning efforts was in support of an integrated regional transit network that acknowledges the increasing need for passengers to use Community Transit, Metro and Sound Transit services. As Link continues to expand, ongoing coordination to provide an integrated network will be essential to the region's collective success.

When the Project opens, some ST Express and partner routes will be rerouted to feed the expanded Link system at Northgate, Roosevelt and U District Stations. The opening presents an opportunity to reduce bus operating costs by terminating trips from Snohomish County at Northgate, while allowing customers to avoid traffic by transferring to Link. This is a planning effort that has required extensive coordination among partners to ensure the network works collaboratively and that community engagement helps inform planning.

The goal of service changes in support of the Project is to provide equitable, effective, and reliable service, while being efficient and fiscally responsible. Sound Transit coordinated with Community Transit and Metro on their service changes related to the project opening. This document includes an overview of the operating partner analyses for the coordinated changes that support the network necessary for the project opening. This includes a review of the major service changes related to the Project, adverse effects and reasoning for the proposed service changes, and the consideration of steps to avoid, minimize or mitigate any adverse effects.

The 2021 proposed service changes were developed through a process that included public comment and were approved by the Sound Transit Board in late 2020 (Appendix A). The process for the development of service changes for partner agencies Metro and Community Transit included public comment and approval by respective board/councils. Metro's service changes are pending, with anticipated adoption in May 2021. Throughout the process, robust and equitable public participation helped inform decision-making.

While each operating agency identifies adverse effects, these result from the variety of service changes needed to bring the Project online and minimize redundancies. Each partner analyzed the adverse effects with consideration of the restructure for the project, and this document looks at the network and associated changes collectively as a whole.

All of the associated service changes that support an undertaking at the magnitude of the Project are done to improve service and increase system connectivity. The Project, which includes associated partner service provisions, is designed to provide fast, frequent, and reliable service that connects new and existing transit users to jobs, education, recreation, and other opportunities.

Other Project benefits include meeting the growing demand for transit in the region and increasing transit ridership. When the Project opens, Link will improve headways to operate every eight

minutes during peak periods, every 10 minutes during the midday and on weekends, and every 15 minutes during the evenings.

The Project and associated overall partner agency service changes prove beneficial and were selected without regard to race, color or national origin.

1 Introduction

This Service and Fare Equity (SAFE) Analysis is being conducted for the Northgate Link light rail extension of Sound Transit's Link light rail system. The Project would not have been possible without the Federal Transit Administration (FTA) commitment of \$150 million through grant funding and a \$615 million TIFIA (Transportation Infrastructure Finance and Innovation Act) loan through the United States Department of Transportation's Build America Bureau.

Per FTA Circular 4702.1B, transit providers that will implement a New Starts fixed guideway capital project shall conduct a SAFE analysis. Per the circular, changes to parallel or connecting service (operated both by Sound Transit, Metro and Community Transit) are also included in this evaluation.

Sound Transit conducts a Title VI service equity analysis to ensure that changes to transit service are consistent with Title VI policies defined by the FTA and Board policies defined by the Sound Transit Board of Directors. The FTA is responsible for ensuring that federally supported transit services and related benefits are distributed by applicants and recipients of FTA assistance in a manner consistent with Title VI, Section 601 of the Civil Rights Act of 1964, which states:

No person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

The Title VI analysis provides an assessment of potential impacts to minority and low-income communities associated with the proposed changes in the service plan. The analysis includes the service changes and associated equity analysis, the fare change and equity analysis, and the public outreach process for the Project and associated changes.

1.1 Regulatory Framework

Chapter IV of the FTA's Circular 4702.1B further describes the requirements that FTA recipients must follow to ensure that the programs, policies and activities comply with the Title VI requirements. The requirements set system-wide service standards and policies that apply to all fixed-route providers of public transportation service.

Title 49 CFR Section 21.5 (b)(2) specifies that a recipient shall not "utilize criteria or methods of administration which have the effect of subjecting persons to discrimination because of their race, color or national origin, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program with respect to individuals of a particular race, color or national origin." Section 21.5 (b)(2) requires recipients to "take affirmative action to assure that no person is excluded from participation in or denied the benefits of the program or activity on the grounds of race, color or national origin."

Transit providers that operate 50 or more fixed-route vehicles in peak service and are in an urbanized area (UZA) of 200,000 or more in population are required to meet all requirements of Chapter IV including setting service standards and policies, collecting and reporting data, monitoring transit service, and evaluating fare and service changes. All three transit partners meet the requirements listed above.

1.1.1 Transit Title VI Program Plan

Sound Transit prepared the Title VI Program Plan in compliance with Title 49 CFR Section 21.9 (b) and with the FTA Circular 4702.1B “Title VI Requirements and Guidelines for Federal Transit Administration Recipients.” The purpose of the Title VI Program is to document the steps Sound Transit has taken and will take to ensure Sound Transit provides services without excluding or discriminating against individuals on the basis of race, color or national origin. The Title VI Program Plan provides an outline of Sound Transit’s Title VI policies including what constitutes a major service change, the disparate impact and disproportionate burden policy. The Title VI Program Plan also includes the general requirements for Title VI and the requirements for fixed route transit providers. In October 2019, the Sound Transit Board approved the Title VI Program Plan Update that was submitted to FTA.

As direct recipients of FTA funding, Metro and Community Transit are also required to prepare and submit a Title VI Program Plan.

1.1.2 National Environmental Policy Act - Environmental Justice Review for the Project

In 2006, the Final Environmental Impact Statement (FEIS) for North Link was submitted as a supplement to the Central Link Project FEIS of 1999. It provided additional information regarding impacts and alternatives, and it discussed changes to the proposal since the 1999 analysis. The scope of environmental review and range of alternatives evaluated in the FEIS responded to public and agency comments received during the public scoping process that began in October 2001. After the close of the formal scoping period, community participation was further extended through community workshops, stakeholder presentations and agency coordination meetings. The North Link alternatives design provided enough information to identify potentially significant impacts and measures available to mitigate them.

The FEIS determined that a No-Build Alternative would be inconsistent with regional policies because the light rail project was an integral component of Destination 2030 and Sound Move, the proposed regional transit system. The selected alignment was determined to have disproportionately high and adverse effects on the minority or low-income populations in the Northgate Link area. The alignment was determined to provide benefits to residents including the minority and low-income populations living near the station areas. These benefits included improved access to transit, transit travel time savings, expanded access to employment and other amenities, streetscaping and other improvements, and the potential for increased economic development. The analysis determined impacts were limited in scope or could be mitigated. For mitigation of impacts, Sound Transit developed programs and policies to assist the relocation of businesses and residents.

Due to needed refinements of the project, Sound Transit published a Supplemental Environmental Impact Statement (SEIS) for the North Link Project (including the Northgate Link segment) in 2014 and 2015 regarding additional refinements and additions to the project. The 2014 SEPA determined that the “relocated transmission line would not substantially change the analysis of significant impacts and alternatives in the Final SEIS and no new probable significant environmental impacts would arise.” The 2015 SEPA concluded that, although some conditions have changed, the impact determination for cumulative effects would be the same as in the Final SEIS, due to the minor nature of these changes. Both concluded that the Project impacts were limited in scope or could be mitigated and would continue to provide substantial benefits.

1.2 The Central Puget Sound Transit Environment

As the regional transit provider, Sound Transit trains and buses offer express service between major population and employment centers in King, Pierce and Snohomish counties. Sound Transit's district stretches 1,080 square miles and serves about three million people, or 40% of the state's population. Sound Transit works closely with local transit agencies that provide service in the Sound Transit district. Metro is the largest of these partner agencies, serves Washington State's most populous county and has a service area of approximately 2,150,000. Community Transit in Snohomish County has a service area population of approximately 565,244, and Pierce Transit in Pierce County has a service area of approximately 555,578. Operating partners provide local service to their respective counties as well as express service to transit hubs within King County.

1.2.1 Northgate Environment

Link currently runs from Angle Lake (south of the Sea-Tac Airport) to University of Washington (UW). The Project will extend Link north from U District Station to Northgate (Figure 1). The Project includes two underground (U District and Roosevelt) stations and an elevated station at Northgate, which will feature frequent bus connections, a park-and-ride, and a bicycle/pedestrian bridge to North Seattle College (Figure 2).

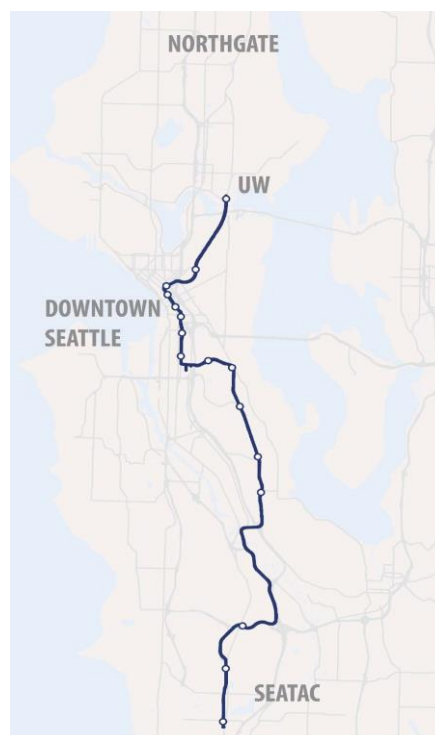


Figure 1 Link Current Alignment

Sound Transit's expansion of the existing Link will enhance transit access and speed and reliability for the diverse neighborhoods along the new and existing corridor. The Project will bring new service to: University District (U District), Roosevelt and Northgate while providing expanded access to and from south King County, south/central Seattle and Sea-Tac Airport.

The Project will operate within an area historically dense with transit service operated primarily by Metro. In addition, the Northgate Station is located at the current Northgate Transit Center, which is served by both Metro and Sound Transit bus service. The Project also parallels extensive express bus service on I-5 operated by Sound Transit and Community Transit providing connections between King and Snohomish counties.

2 Service Equity Analysis – A Regional Approach

The opening of the Project offered a significant opportunity to restructure existing bus service to provide more connections for transit riders and minimize redundant services. In order to develop the new transit network Sound Transit, Metro and Community Transit worked closely with each other, stakeholders, and members of the public. This section describes the service changes and equity analysis that Sound Transit, Metro and Community Transit adopted as a result of the Northgate extension.

Each agency provides a unique type of service in the Project area. Sound Transit provides regional express bus service — with longer distances between stops — in addition to Link and commuter rail service. Metro provides primarily local service within King County, connecting



Figure 2 Northgate Alignment

neighborhoods and communities with more frequent stops. Community Transit provides primarily local service within Snohomish County. Within the Project area, Community Transit bus service is primarily commuter service between Snohomish County and King County.

Service changes for all three partner agencies underwent service equity analysis during the planning process prior to adoption. Metro and Community Transit service changes were analyzed based on each agency's approved Title VI definitions and methodologies. Metro's and Community Transit's analyses appear in Appendix B and C of this report. Sound Transit evaluated the impact of service changes to both ST Express and Link service. Read the full analysis in Appendix D of this report.

2.1 Interagency Coordination Strategy

The extension of Link presented a large opportunity to re-envision transit service throughout the region by harnessing the benefits speed, reliability and capacity provided by this major regional investment. When planning for the opening of the Project began, there was recognition among Community Transit, Metro and Sound Transit about the benefits of truncating certain routes at new Link stations and reinvesting the savings of

operating shorter routes into improved frequencies.

Because of the regional nature of this project, bus service was significantly restructured along three major corridors intersecting the Project and neighborhoods adjacent to new stations (Figure 3). The following section summarizes how changes in each corridor were coordinated and consistent with long-term plans.

2.1.1 Regional Long-Term Planning Context

For several years Sound Transit, Metro and Community Transit have been collaboratively planning for the Project opening. Many ST Express routes were designed to serve customers during the funding, planning and construction of high-capacity transit. The concept of interim express bus service establishing a market for high-capacity transit is codified in the enabling legislation of Sound Transit as Revised Code of Washington (RCW) 81.104.015:

(2) "High-capacity transportation system" means a system of public transportation services within an urbanized region operating principally on exclusive rights-of-way, and the supporting services and facilities necessary to implement such a system, including interim express services ...

As projects like Northgate Link Extension reach completion, Sound Transit is charged to work with the region's transit

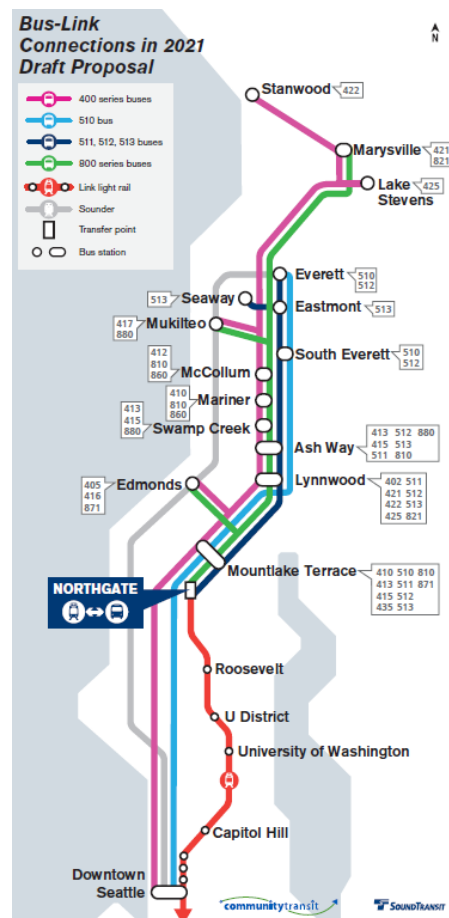


Figure 3 Bus-Link Connections in 2021

agencies to modify existing service to complement, and not duplicate, new transit investments and services, pursuant to RCW 81.112.010:

As the single agency's services are established, any public transportation services currently provided that are duplicative should be eliminated.

2.1.2 Interstate 5 North Corridor

I-5 is a north-south limited-access highway connecting downtown Seattle with the Northgate neighborhood and western Snohomish County.

Community Transit is a public transit benefit district serving a large fraction of the urbanized areas of Snohomish County excluding the City of Everett. Community Transit operates express service during peak periods from Snohomish County and park-and-rides to the UW Seattle campus (800-series routes) as well as downtown Seattle (400-series).

Sound Transit currently operates four express bus routes connecting Snohomish County to downtown Seattle (510-series routes). Sound Transit's regional tax authority covers much of the southwestern portion of Community Transit's benefit district and includes the City of Everett. Sound Transit service in this corridor is designed to establish a market for future Link extensions, with a mandate of eliminating service duplications once high-capacity transit begins operating.

Community Transit and Sound Transit coordinated under a broad strategy to leverage the strengths of each agency. A consensus between the agencies formed in which Community Transit would truncate their 800-series routes serving the UW while the 400-series routes would continue serve downtown Seattle directly. Providing Snohomish County riders outside of Everett with a peak-period one-seat ride allowed an opening for Sound Transit to truncate most of its downtown Seattle service at Northgate Station, while preserving direct peak-period service for Everett riders (Route 510).

2.1.3 State Route 522 Corridor

SR-522 is an east-west arterial roadway connecting northeast Seattle with the cities of Lake Forest Park, Kenmore, Bothell and Woodinville. There are a number of existing transit amenities such as business access and transit lanes, queue jumps and bus shelters shared by Sound Transit and Metro service. Sound Transit is currently developing the Bus Rapid Transit (BRT) Stride S3 line to serve this corridor.

Currently this corridor is served by all-day Route 522, which operates as frequently as every eight minutes during peak periods and 30-60 minutes during the midday, evenings and weekends. Route 522 connects this corridor to downtown Seattle. In addition to truncating Route 522 at Roosevelt Station, off-peak frequencies will increase to emulate frequent all-day future BRT service more closely, while peak frequencies will be reduced in order to maintain more consistent service levels throughout the day. In order to accommodate peak-period ridership demand, Metro routes 320 and 322 will provide peak-period capacity in the corridor between Kenmore and Roosevelt/Northgate stations. Schedules will be coordinated to minimize overlap and maximize consistent headways. Metro helps connect markets not served by Link, such as Seattle's First Hill (with Route 322) and South Lake Union (with Route 320) neighborhoods. Additionally, Metro operates Route 372 in this corridor, connecting Bothell directly with the UW.

2.1.4 State Route 520 Corridor

SR-520 is an east-west limited-access highway connecting the UW and I-5 with Kirkland, Bellevue and Redmond. Numerous Sound Transit and Metro bus routes traverse this corridor.

Sound Transit Route 555 is a peak period, peak direction service connecting Northgate to Bellevue. Sound Transit Route 556 is a peak period, peak direction service connecting Issaquah to Northgate via Bellevue and the UW. These routes are currently under pandemic-related suspension.

Sound Transit Route 542 connects Redmond to UW and Roosevelt. Metro Route 271 connects the UW with Bellevue as express service, and between Bellevue and Issaquah as local service. Because the Project will connect the U District with Roosevelt and Northgate stations, the duplicative portions on Sound Transit routes 542 and 556 with Link were eliminated. If this same approach were applied to Sound Transit Route 555, the result would be almost identical to the Metro Route 271 between UW and Bellevue. Sound Transit and Metro shared passenger load projections to confirm that Route 271 could singularly accommodate the UW-Bellevue market, enabling the elimination of Route 555. This enabled the preservation of a route serving UW from a different corridor, including Sound Transit Route 586 (Tacoma Dome-University District). Route 586 had been proposed for elimination but serves a significant fraction of low-income and minority communities.

Figures 4, 5 and 6 outline the Project-related service changes and include demographic information for minority, low-income and limited-English proficiency (LEP) persons located within the Sound Transit Service District.

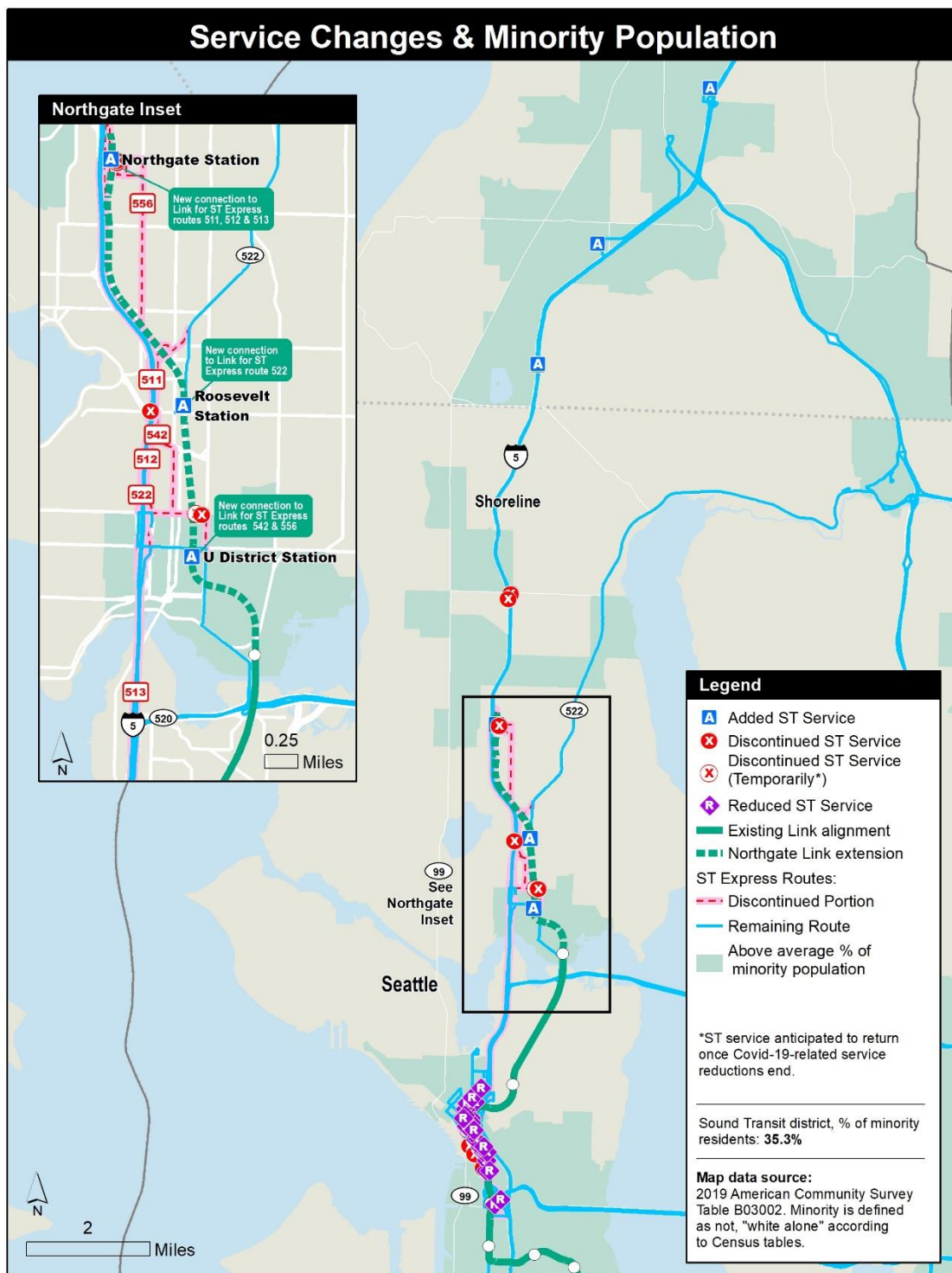


Figure 4 Service Changes and Minority Population

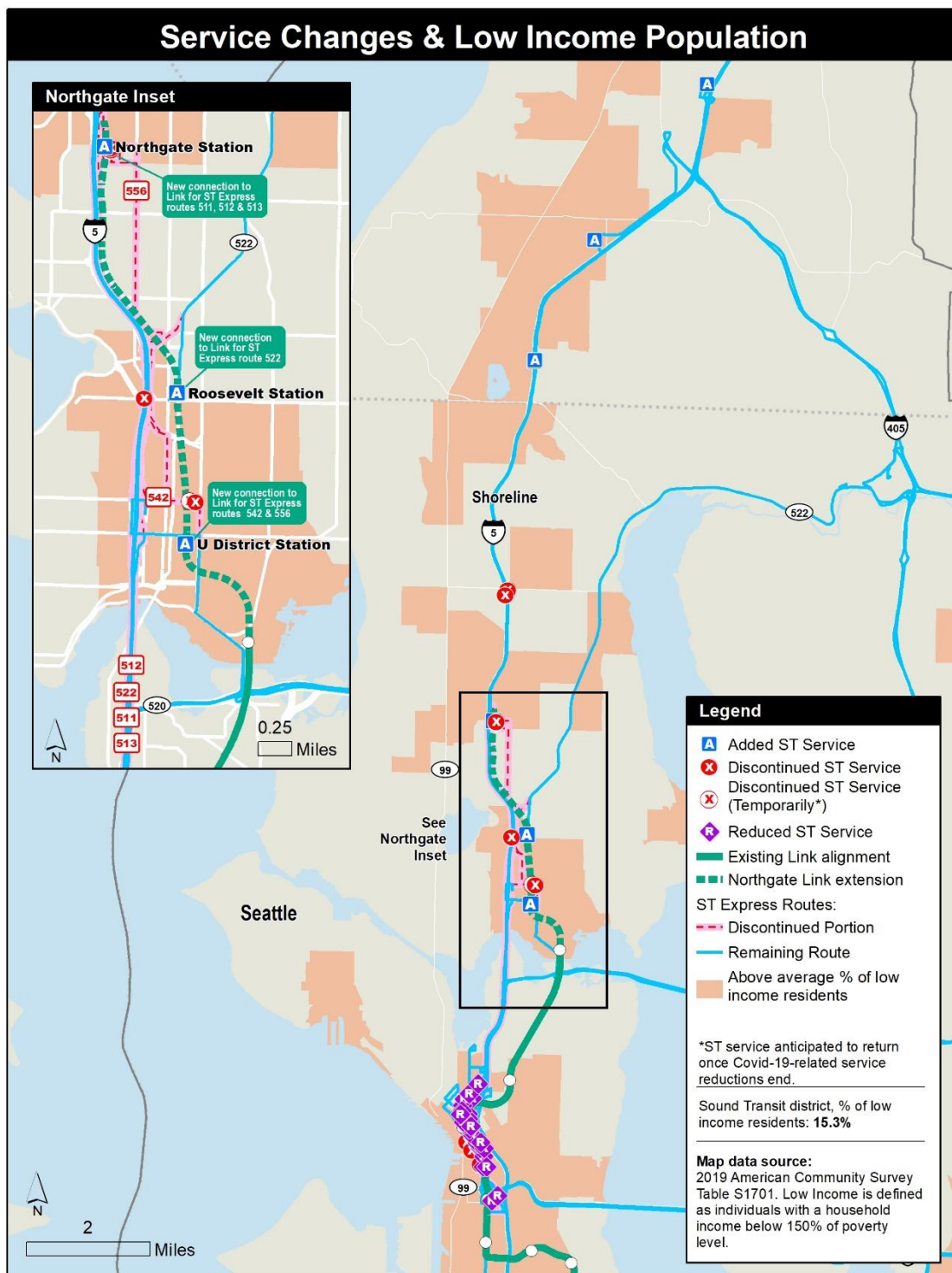


Figure 5 Service Changes and Low-Income Population

Service Changes & Limited English Proficiency Population

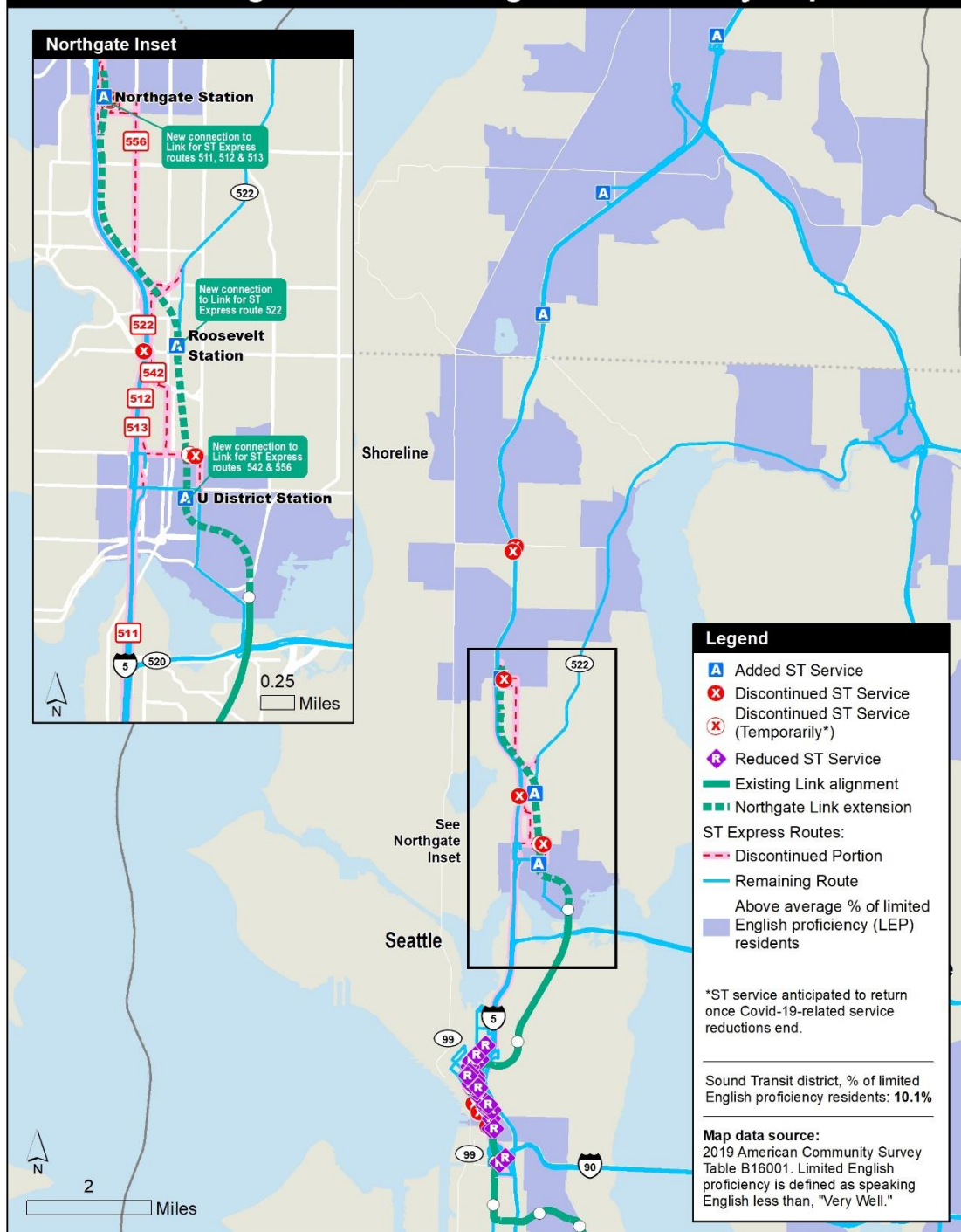


Figure 6 Service Changes and Limited-English Proficiency Population

Northgate Link Extension Service and Fare Equity Analysis

2.1.5 North Seattle Area

Local bus service connecting North Seattle with adjacent cities and neighborhoods will be realigned to accommodate the new stations at Northgate, Roosevelt and the U District. Metro Route 41, which currently connects downtown Seattle with Northgate and Lake City, will be eliminated owing to its duplication with the Link extension and other restructured routes.

Changes to service are outlined in greater detail further below.

2.2 Sound Transit Service Changes

When the Project opens, some ST Express routes will be rerouted to feed the expanded Link system at Northgate, Roosevelt and U District Stations. When the extension opens, Link will improve headways to operate every eight minutes during peak periods, every 10 minutes during the midday and on weekends, and every 15 minutes during the evenings.

The opening presents an opportunity to reduce bus operating costs by terminating trips from Snohomish County at Northgate, while allowing customers to avoid traffic by transferring to Link. This will help offset costs from the Project and Link Operations and Maintenance Facility East, which will accommodate longer trains and more service with the opening of the new extension. Sound Transit services affected by the opening of the Project are routes 510, 511, 512, 513, 522, 542, 555, 556 and Link. Moreover, the reduced fare and tax revenue as a result of the pandemic required additional operating cost containment implemented through service changes.

Sound Transit included service changes related to the Project in the annual Service Plan which outlines planned changes to service in the next budget year. The Sound Transit Board of Directors adopted the 2021 Service Plan, including Northgate Link service changes, in November 2020. Prior to Board adoption, Sound Transit solicited public input on this plan in September 2020, and staff revised proposals based on feedback, which are reflected in this document.

The following section provides the service equity analysis for the Sound Transit service changes associated with the opening of the Project.

2.2.1 Policies and Definitions

Sound Transit documented the development and Title VI analysis for service changes related to the Project in the agency's 2021 Service Plan using approved policies and definitions to identify major service changes and assessing their impacts on Title VI populations. The section below describes Sound Transit's approved policies identifying major service changes, identifying adverse effects and evaluating any impacts on Title VI populations.

2.2.2 Major Service Change

Resolution R2013-18, adopted by the Sound Transit Board of Directors in 2013 (Appendix E), established policies for conducting equity analyses of major service changes and assessing the impacts on minority and low-income populations.

This policy defines a major service change as follows:

- A major service change is any single change in service on an individual bus or rail route that would add or eliminate more than 25% of the route's weekly platform service hours.
- Move the location of a stop or station by more than a half mile.
- Closing or removing a stop or station without replacement within a half mile.

Northgate Link Extension Service and Fare Equity Analysis

2.2.3 Adverse Effects

The adopted Sound Transit major service change policy defines potential adverse effects of major service changes and thresholds for determining whether the proposed service change would have a disparate impact on minority populations and/or a disproportionate burden on low-income populations. Definitions are as follows:

- A potential **adverse effect** is a geographical or time-based addition or reduction in service that includes but is not limited to: changes to span of service, changes to frequency of service, or elimination of routes or route segments.
- A **disparate impact** occurs when the minority percentage of the population adversely affected by a major service change is greater than the average minority percentage of the population of Sound Transit's service area.
- A **disproportionate burden** occurs when the low-income percentage of the population adversely affected by a major service change is greater than the average low-income percentage of the population of Sound Transit's service area.

Per Sound Transit's policy, if any disparate impact or disproportionate burden is found during the service equity analysis, Sound Transit will consider steps to avoid, minimize or mitigate the adverse impacts, and reanalyze the modified changes to determine if the impacts are removed or lessened.

2.2.4 Public Involvement Policy

Sound Transit's Inclusive Public Participation Policy, Resolution R2011-15 (Appendix F) guides public outreach for proposed service and fare changes. The document describes in greater detail public involvement efforts conducted for the service changes associated with the Project.

2.2.5 Service Standards and Performance Measures

Service standards and performance measures are a set of guidelines that are used to design, evaluate, and modify transit service. The standards and measures establish baselines to obtain optimum efficiency and effectiveness in the system on a short-term basis, while maintaining or improving the quality of service. Planning and day-to-day management of transit service is based on the established service standards and performance measures. The guidelines provide a process to identify the level and type of service that should be provided, as well as a process to implement any changes needed to meet established priorities.

The Service Standards and Performance Measures define the criteria for making major or administrative service changes, as well as guidelines and driving factors for the type of changes needed to ensure Sound Transit services are meeting the demand for regional transit in the Puget Sound area.

2.3 Definitions and Data Analysis

The following sections describe the data definitions and methodologies used by Sound Transit to develop estimates for Title VI populations within the Sound Transit service area.

2.3.1 Demographic Analysis Methodology and Title VI Data Definitions

Sound Transit uses census demographic data to identify Title VI communities (minority, low-income and limited-English proficiency) for service equity analysis and calculates the systemwide or mode-specific average representation of these communities within the general population. Only minority or low-income status are used to determine if a disparate impact or disproportionate burden must be mitigated or analyzed. However, identifying LEP residents helps Sound Transit

Northgate Link Extension Service and Fare Equity Analysis

to ensure that outreach efforts reach diverse customers. Sound Transit uses the 2010 designated census tracts as the geographic basis for assessing the Title VI populations.

Sound Transit uses the most recent five-year demographic estimates available from American Community Survey (ACS).

The following sections describe the methodology for identifying each of the Title VI populations for the purposes of the annual service equity analysis.

2.3.2 Sound Transit Title VI Population Estimates

Using the demographic analysis and Title VI definitions previously outlined in this section, percentages for Title VI populations for the Sound Transit service area are identified by census tract and the district overall.

Table 1 shows Title VI population averages for the Sound Transit service area using the American Community Survey five-year estimates 2018 dataset. Minority and low-income averages serve as a comparison in the service change analysis to determine if mitigation must be considered, while LEP averages help to advise the outreach strategy. The maps below (Figures 7, 8 and 9) show census tracts with minority and low-income populations above the Sound Transit district average and LEP.

Table 1 Sound Transit District Populations

Title VI Populations (2018)	Percentage of District Population
Minority	39.7%
Low-income (150% Poverty)	16.4%
Limited-English Proficiency	10.1%

Northgate Link Extension Service and Fare Equity Analysis



Figure 7 Minority Population Overview

Northgate Link Extension Service and Fare Equity Analysis

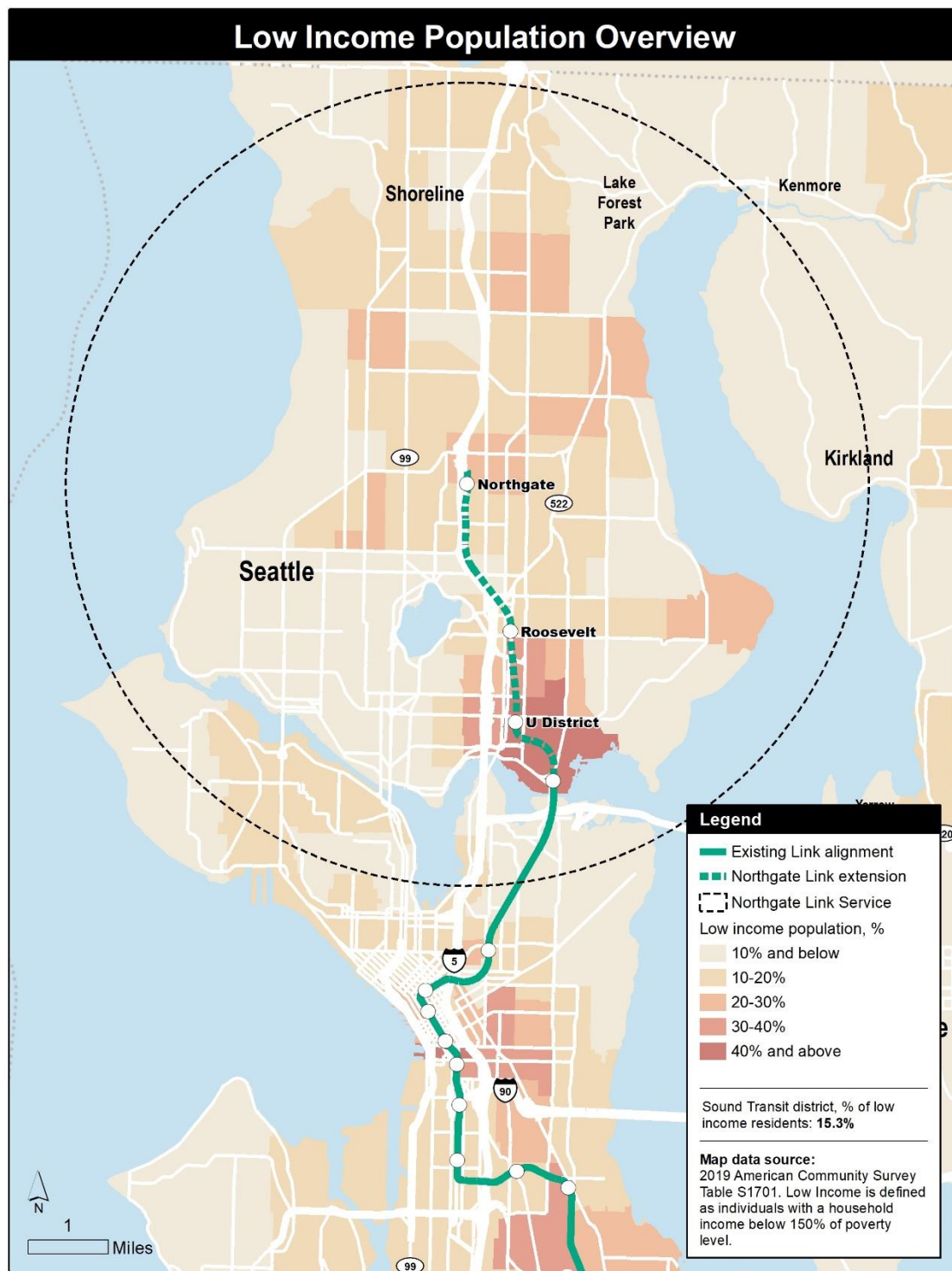


Figure 8 Low-income Population Overview

Northgate Link Extension Service and Fare Equity Analysis

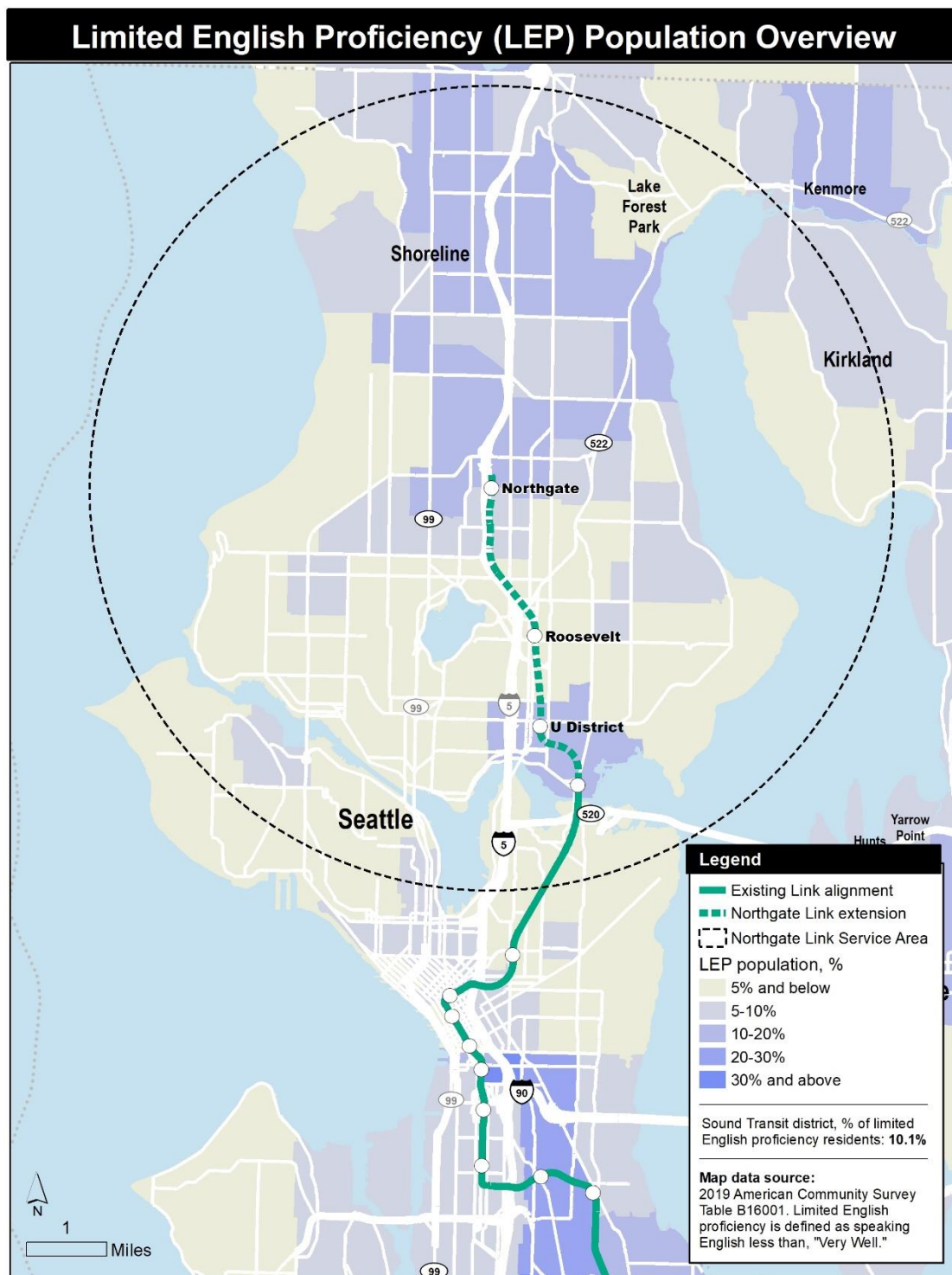


Figure 9 Limited-English Proficiency Population Overview

Northgate Link Extension Service and Fare Equity Analysis

2.3.3 Service Area Methodology

Most transit agencies in the United States define their service area as a buffered distance around each of their transit routes. Given the unique service characteristics of Sound Transit service — limited stops connecting regional urban and employment centers — the agency defines its service area based on a radial distance from each transit stop, rather than the transit route alignment. Table 2 provides details on Sound Transit’s service area by stop type.

Table 2 Sound Transit Service Area Definitions

Stop Type	Service Area (Miles)
Bus stop without parking	0.5
Rail station without parking	1.0
Major bus facilities with parking	2.5
Rail station with parking	5.0

2.4 Sound Transit Route-Level Service Change Title VI Analysis

Sound Transit considered changes to routes 510, 511, 512, 513, 522, 542, 555, 556, 586 and Link coordinated with the opening of the Project. Sound Transit evaluated each route-level service change related to the opening of the Project using adopted Title VI policies and definitions. The following section details the development of the service changes and the service equity evaluation results.

2.4.1 Route 510

Route 510 serves downtown Seattle to Everett Sounder Station.

Initial Proposed Changes

The initial September 2021 proposal for Route 510 shared with the public proposed a stop at Mountlake Terrace Freeway Station. Route 510 would continue to provide direct service to downtown Seattle. A new stop at Mountlake Terrace would provide a connection for riders wishing to connect with the rest of the network.

Route 510 riders would continue to have direct access to downtown Seattle and would also have the option to transfer at Mountlake Terrace to routes serving Northgate Station. The addition of the Mountlake Terrace stop on Route 510 would result in approximately two minutes greater travel time for riders traveling to downtown Seattle.

Alternatives Considered

In the original public engagement efforts, Route 510 was shown as terminating at Northgate Station similar to routes 511/512/513. However, the public response to this change was substantially more negative than to changes to routes 511/512/513. This discrepancy was due in part to the unique demand profile of this route, in which ridership peaks much earlier in the morning (around 6:30 a.m.) than other routes in this corridor. At the time of peak Route 510 demand, traffic congestion on the I-5 is relatively low, thus the speed and reliability benefits offered by diverting to Link at Northgate is less compelling. Secondly, Route 510 provides the only direct transit connection between the popular South Everett Park-and-Ride and downtown Seattle. Conversely, Route 511 serves the Ash Way Park-and-Ride and Lynnwood Transit Center — locations that have Community Transit route 400-series alternative connections to downtown Seattle.

Northgate Link Extension Service and Fare Equity Analysis

A “no-change” option was ruled out, as this would result in no practical way to integrate Route 510 with the remaining regional transit network serving the I-5 corridor. Introducing a stop at Mountlake Terrace freeway station provides this low-cost integration point with routes serving Northgate Station, including riders from routes 511, 512 and 513.

Title VI Analysis

The proposed change has no disparate impact. The proposed change impacts an area with a minority population of 39.1%, lower than the Sound Transit District average of 39.7%. The proposed change has a disproportionate burden. The proposed change impacts an area with a low-income population of 20.5%, higher than the Sound Transit District average of 16.4%.

Table 3 Route 510 Frequencies Changes

Route 510	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do buses run on weekdays?	Early AM	20 min.	20 min.	20 min.	20 min.
	AM Rush	10 min.	10-30 min.	10-30 min.	10-30 min.
	PM Rush	12 min.	12 min.	12 min.	12 min.

Public Input

Public comments noted the attractiveness of limited stops on current Route 510 and expressed concern that additional stops will make the service less desirable. Overall, more respondents approved of the changes to Route 510 than opposed them.

Adopted Service Change and Discussion of Modifications

No changes were made from the initial proposal to add a stop to Route 510 at Mountlake Terrace Freeway Station.

2.4.2 Route 511, 512, 513

Routes 511, 512 and 513 services downtown Seattle to Ash Way, Everett Sounder Station and Seaway Transit Center, respectively.

Initial Proposed Changes

During the planning process, a significant restructure of the three routes in the I-5 North corridor were evaluated. Table 4 provides a summary of the I-5 North Service Changes. Truncating routes 511, 512 and 513 at Northgate Station provides consistent service levels from Snohomish County by leveraging the new Link extension at Northgate and conserving resources. Community Transit would continue to provide service between Lynnwood/Ash Way and downtown Seattle in the commute direction.

Route 511 would have an additional stop at the new Northgate Link Station. It would discontinue service between Northgate and downtown Seattle. Direct rush hour service from Ash Way to downtown Seattle would be provided by Community Transit routes 413, 415 and direct rush- hour service from Lynnwood to downtown Seattle would be provided by Community Transit routes 402, 421, 422 and 425.

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Route 512 would have an additional stop at the new Northgate Link Station. It would discontinue the stop at I-5 and NE 145th St and service between Northgate and Downtown Seattle. Route 513 would have an additional stop at the new Northgate Link Station, Lynnwood Transit Center and Ash Way Park-and-Ride, and discontinue service between Northgate and downtown Seattle.

Table 4 I-5 North Service Changes

Route	September 2021
511	Truncate at Northgate Link Station. Increase service levels.
512	Truncate at Northgate Station and discontinue stop at N 145th St. Maintain September 2020 service levels.
513	Truncate at Northgate Link Station and add stops at Lynnwood Transit Center and Ash Way Park-and-Ride. Increase service levels.

Increased service levels on Route 513, in addition to two new stops at Ash Way Park-and-Ride and Lynnwood Transit Center, would provide much more frequent peak service for Snohomish County riders. Ending routes 511, 512 and 513 at Northgate would allow riders to access new destinations served by Link and avoid congestion in downtown Seattle and a portion of I-5.

However, riders on routes 511, 512 and 513 would need to transfer in order to reach downtown Seattle, which could save up to two minutes or increase travel time by up to six minutes. Buses will drop off close to the station, but riders will need to walk to the platform. The addition of stops at Ash Way Park-and-Ride and Lynnwood Transit Center on Route 513 would result in greater travel time for riders traveling to Everett. Removing the 145th St. stop on Route 512 would cause riders who need that stop to use alternate service.

Alternatives Considered

A “no-change” option was ruled out early in the planning process, since this would run counter to the goals of eliminating duplicative regional connections and limit opportunities to implement a cost-neutral frequency increase between Northgate Station and Lynnwood Transit Center in advance of the Lynnwood Link. Increasing frequencies will better emulate future Link service and help expand the ridership base in this corridor. The Lynnwood Link Extension is scheduled for completion in 2024. Originally, Route 513 was proposed to offer bidirectional service during the peak period and no stops at the Ash Way Park-and-Ride and Lynnwood Transit Center. Budget limitations, low historical ridership and uncertain demand in Everett modified the proposal to its current form.

Title VI Analysis

Route 511 had no disparate impact nor disproportionate burden. The proposed change impacts an area with a minority population of 38.8%, lower than the Sound Transit District average of 39.7% and a low-income population of 16.0%, lower than the Sound Transit District average of 16.4%.

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Table 5 Route 511 Frequencies

Route 511	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do buses run on weekdays?	Early AM	20 min.	40 min.	40 min.	20 min.
	AM Rush	15 min.	20-30 min.	20-30 min.	15 min.
	PM Rush	15 min.	15 min.	15 min.	15 min.

Route 512 had no disparate impact. The change impacts an area with a minority population of 38.7%, lower than the Sound Transit District average of 39.7%. Route 512 had a disproportionate burden since the proposed change impacts an area with a low-income population of 18.5%, higher than the Sound Transit District average of 16.4%. Due to the determination of a disproportionate burden, results from public input and a review of alternatives helped shape the final proposal.

Table 6 Route 512 Frequencies

Route 512	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do buses run on weekdays?	Early AM, AM rush	15 min.	15 min.	15 min.	15 min.
	Midday, PM rush, Evening	15 min.	15 min.	15 min.	15 min.
	Late evening	30 min.	30 min.	30 min.	30 min.
How often do buses run on Saturdays?	All day	15 min.	15 min.	15 min.	15 min.
How often do buses run on Sundays?	All day	30 min.	30 min.	30 min.	30 min.

Route 513 had no disparate impact. The proposed change impacts an area with a minority population of 37.5%, lower than the Sound Transit District average of 39.7%.

Route 513 had a disproportionate burden since the proposed change impacts an area with a low-income population of 17.8%, higher than the Sound Transit District average of 16.4%.

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Table 7 Route 513 Frequencies

Route 513	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do buses run on weekdays?	Early AM	30 min.	60 min.	60 min.	15 min.
	AM Rush	15 min.	30 min.	30 min.	15 min.
	PM Rush	20-30 min.	60 min.	60 min.	15 min.

Benefits

- Increased service levels on Route 513, in addition to two new stops at Ash Way Park-and-Ride and Lynnwood Transit Center, provide much more frequent peak service for Snohomish County riders.
- Ending routes 511, 512 and 513 at Northgate allows riders to access new destinations served by Link and avoid congestion on part of I-5.

Trade-offs

- Riders on routes 511, 512 and 513 need to transfer in order to reach downtown Seattle, which could save up to two minutes or increase travel time by up to six minutes. Buses will drop off close to the station, but riders will need to walk to the platform.
- The addition of stops at Ash Way Park-and-Ride and Lynnwood Transit Center on Route 513 results in greater travel time for riders traveling to Everett.
- Removing the 145th St. stop on Route 512 would cause riders who use that stop to use alternate service. Metro Route 347 connects the area surrounding 145th St. and I-5 with Northgate Station and Mountlake Terrace Park-and-Ride.

Public Input

Many comments expressed displeasure at the idea of introducing a transfer with Link at Northgate Station on routes 511, 512 and 513. Other comments noted the attractiveness of limited stops on current Route 513 and expressed concern that additional stops will make the service less desirable. Many comments requested higher frequency in the earlier and later periods of the day. A significant number of comments noted difficulty in understanding the complexity of changes proposed in the draft service plan. Overall, more respondents approved of the changes to routes 511, 512 and 513 than opposed them.

Adopted Service Change and Discussion of Modifications

The initial proposed changes to service were adopted with one modification to Route 512. On weekends, Route 512 will operate at 15-minute frequencies through 10 p.m. on trips connecting from Link, seven days a week. Since the existing Sunday span of service on Route 512 is later than Link, the last Sunday evening Route 512 trip will depart from downtown Seattle.

2.4.3 Route 522

Route 522 services downtown Seattle to Woodville. In September 2020, daily trips were reduced from 103 to 98.

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Initial Proposed Changes

The initial change to Route 522 considered during the planning process truncated the route to operate between Woodinville and Roosevelt Station. Both midday and weekend service levels would improve to operate approximately every 15 minutes.

Ending Route 522 at Roosevelt Station conserves resources by leveraging the new Project while providing consistent service levels. During peak periods, additional capacity will be provided in the SR-522 corridor by the proposed Metro routes 320 and 322. Metro Route 320 and 322 will also connect with Link at Northgate and Roosevelt stations while providing access to destinations near downtown Seattle not served by Link. Timing of trips among the three routes will be coordinated to provide consistent spacing of buses.

Alternatives Considered

A “no-change” option was ruled out early in the planning process since this would run counter to the goals of eliminating duplicative regional connections and limit opportunities to implement a cost-neutral all-day frequency increase to emulate future BRT in this corridor.

Title VI Analysis

Route 522 had no disparate impact nor disproportionate burden. The proposed change impacts an area with a minority population of 32.1%, lower than the Sound Transit District average of 39.7% and a low-income population of 13.3%, lower than the Sound Transit District average of 16.4%.

Table 8 Route 522 Frequencies

Route 522	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do buses run on weekdays?	Early AM	10 min.	15 min.	15 min.	15 min.
	AM rush	7 min.	7 min.	7 min.	15 min.
	Midday	30 min.	30 min.	30 min.	15 min.
	PM rush	8 min.	8 min.	8 min.	15 min.
	Evening	30 min.	30 min.	30 min.	15 min.
	Late evening	60 min.	60 min.	60 min.	30 min.
How often do buses run on Saturdays?	All day	30 min.	30 min.	30 min.	15 min.
How often do buses run on Sundays?	All day	30 min.	30 min.	30 min.	15 min.

Benefits

- Truncating Route 522 at Roosevelt would allow riders to access new destinations served by Link and avoid congestion in downtown Seattle and a portion of I-5.

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- Midday, evening and weekend service would increase to every 15 minutes.

Trade-offs

- Riders would need to transfer in order to reach downtown Seattle, which could increase travel times by an estimated two to 10 minutes in off-peak times. The transfer requires walking one to two blocks as shown in the map.
- Rush-hour frequency would be reduced in order to provide higher midday, evening and weekend frequency. Metro will continue to provide parallel service on the corridor, supplementing Route 522 during rush hour.

Public Input

Many respondents noted their commutes would take longer compared to today's one-seat ride and questioned the benefits of no longer serving downtown Seattle. Others noted that if Link is to serve as the spine of regional connections, frequency should be 10 minutes or better. Out of 140 Route 522 respondents, 49% indicated truncating at Roosevelt Station and improving off-peak frequency to 15 minutes met their needs, compared to 29% who indicated "No." The remainder responded "I don't know" or "not applicable."

Adopted Service Change and Discussion of Modifications

Changes to Route 522 were adopted as initially proposed, no modifications were made from the initial proposal.

2.4.4 Route 542

During peak periods, Route 542 currently connects the Green Lake Park-and-Ride to Redmond via the U District. During the midday, evenings and weekends, this route ends in the U District.

Initial Proposed Changes

As part of the larger restructure initially proposed, Route 542 would be shortened, discontinuing peak-period service between the U District and Green Lake Park-and-Ride.

Alternatives Considered

A "No-change" scenario was considered in which the peak-period variant of Route 542 to Green Lake Park-and-Ride would remain. However, in addition to effectively duplicating service between Roosevelt and U District Stations, continuing to operate this variant would introduce layover constraints with the revised Route 522.

Title VI Analysis

Route 542 had no disparate impact nor disproportionate burden. The proposed change impacts an area with a minority population of 32.5%, lower than the Sound Transit District average of 39.7% and a low-income population of 14.3%, lower than the Sound Transit District average of 16.4%.

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Table 9 Route 542 Frequencies

Route 542	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do buses run on weekdays?	Early AM	20 min.	20 min.	20 min.	20 min.
	AM rush	15 min.	20 min.	20 min.	20 min.
	Midday	30 min.	30 min.	30 min.	30 min.
	PM rush	15 min.	20 min.	20 min.	20 min.
	Evening	30 min.	30 min.	30 min.	30 min.
How often do buses run on Saturdays?	All day	30 min.	30 min.	30 min.	30 min.
How often do buses run on Sundays?	All day	30 min.	30 min.	30 min.	30 min.

Public Input

Some comments noted that eliminating the peak-only portion of Route 542 between the U District and Green Lake Park-and-Ride would be inconvenient, as it currently provides access to several stops lacking good Metro service. Other comments approved of shortening Route 542, expecting a resulting improvement in reliability. Out of 100 Route 542 respondents, 46% indicated truncating at U District Station met their needs, compared to 17% who indicated “No.” The remainder responded “I don’t know” or “not applicable.”

Adopted Service Change and Discussion of Modifications

The initial proposal was adopted without modifications.

2.4.5 Route 555/556

Route 555 connects Northgate to Bellevue. Route 556 connects Northgate to Issaquah via Bellevue.

Initial Proposed Changes

During the planning process, the initial proposal for Route 555/556 was for Route 555 to remain suspended and for service on Route 556 between Issaquah Highlands and the U District Link station to be restored.

Routes 555 and 556 primarily serve commuters, and ridership on these routes is not expected to rebound in 2021 due to workers continuing to work from home. In March 2021, suspension would be maintained because ridership is not expected to rebound significantly until late 2021. Ending at U District Station provides consistent service levels to and from Bellevue and Issaquah in September 2021 by leveraging the new Link service. Ending at U District Station instead of Northgate would allow the restoration of service while conserving resources.

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Ending routes at the U District avoid congestion on part of I-5. Riders would need to transfer to travel between Northgate and the Eastside. Prior to the Project opening, riders can use Metro Route 41 and transfer to a Bellevue-bound 550 or an Issaquah-bound 554 in Downtown Seattle. Bellevue-bound riders can also use Metro routes 67 and 271 with a connection in the University District. The transfer will add travel time and require walking between stops. After September 2021, riders can transfer from Link to Route 555 or 556 in the U District.

Title VI Analysis

Route 555 had no disparate impact nor disproportionate burden. The proposed change impacts an area with a minority population of 30.3%, lower than the Sound Transit District average of 39.7% and a low-income population of 14.7%, lower than the Sound Transit District average of 16.4%.

Table 10 Route 555 Frequencies

Route 555	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do buses run on weekdays?	Early AM	40 min.	--	--	30 min.--
	AM Rush	20 min.	--	--	30 min.--
	PM Rush	30 min.	--	--	30 min.--.

Route 556 had no disparate impact nor disproportionate burden. The proposed change impacts an area with a minority population of 35.9%, lower than the Sound Transit District average of 39.7% and a low-income population of 14.7%, lower than the Sound Transit District average of 16.4%.

Table 11 Route 556 Frequencies

Route 556	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do buses run on weekdays?	Early AM	30 min.	--	--	30 min.
	AM Rush	30 min.	--	--	30 min.
	PM Rush	30 min.	--	--	30 min.

Public Input

Some comments wished to see routes 555 and 556 return retained and expressed disapproval of making a transfer to reach Northgate. Others stressed the importance of frequent Link connections to making transfers work well. Overall, more respondents approved of the changes to routes 555 and 556 than opposed them. However, it must be noted, the draft service plan proposed truncating Route 555 near U District Station instead of eliminating it entirely.

Adopted Service Change and Discussion of Modifications

Originally Route 555 had been proposed for restoration in September 2021. However, in further coordination with Metro, Sound Transit redirected the funds to restore service on Route 586. Metro operates Route 271, which provides frequent connections between the U District and

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Bellevue, with a stop pattern very similar to what a Route 555 truncating in the U District would provide. Recently Metro has begun operating Route 271 with higher-capacity coaches, eliminating much of the anticipated need of Route 555 to provide supplemental capacity in this corridor.

2.4.6 Route 586

Route 586 connects Tacoma to University District and UW's Seattle campus. In September 2020, daily trips were reduced from 16 to 14.

Initial Proposed Changes

In the initial restructure proposal Route 586 would be eliminated to reduce duplication in services and reinvest in Route 590 service to Seattle.

Title VI Analysis

The proposed change has disparate impact and disproportionate burden. The proposed change impacts an area with a minority population of 45.4%, higher than the Sound Transit District average of 39.7%. The proposed change impacts an area with a low-income population of 33.7%, higher than the Sound Transit District average of 16.4%.

Table 12 Route 586 Frequencies

Route 586	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do buses run on weekdays?	Early AM	30 min.	30 min.	30 min.	30 min.
	AM Rush	30 min.	30 min.	30 min.	30 min.
	PM Rush	30 min.	30 min.	30 min.	30 min.

Public Input

We received more than 50 comments related to the elimination of Route 586 in the draft service proposal, most of which requested Sound Transit maintain Route 586. When asked whether changes to bus service related to the Project met their needs, 47% of Route 586 riders indicated “No” compared to 25% for “Yes.” The remainder indicated “I don’t know” or “Not applicable.” Representative comments are:

- “Keep the 586, even if it is fewer trips a day. The 590 + light rail isn’t really an equal replacement when counting the time it takes to disembark, cross the tracks, wait for a light rail, etc. Particularly when the light rail has had some issues with overcrowding and disrupted service in the past.”
- “Commuting from the south Sound (Tacoma) to the UW can be very complex without bus 586. Please keep in mind how many people currently (and in the future) commute from the south to the UW for employment, school and medical care.”

Adopted Service Change and Discussion of Modifications

The initial planning phase of outreach proposed eliminating Route 586 when Link service begins in the U District, since the Tacoma-U District-University of Washington connection would be duplicated by Sound Transit light rail and commuter rail. Because any adverse changes to this route would lead to a determination of disparate impact and disproportionate burden, public input and a review of alternatives helped shape the mitigation of those impacts in the final proposal.

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Additionally, due to a strong response from customers uncomfortable with the transfer, the proposal was revised to retain September 2020 service levels on Route 586 while introducing a new stop at the Federal Way Transit Center in order to accommodate passengers who previously rode the now-suspended Route 197 (Federal Way – University District).

2.4.7 Link

In September 2021 Link will extend north from UW to Northgate allowing customers to travel from Northgate to Angle Lake.

Initial Proposed Changes

In the initial service opening proposal, Link service would begin serving three new stations (Northgate, Roosevelt and U District) in fall 2021, with trains arriving every eight minutes during rush hour, every 10 minutes during the daytime and weekend, with evening service frequency every 30 minutes.

At Northgate, connections will be available to ST Express and Community Transit buses serving Snohomish County. Metro and ST Express connections to communities along SR-522 out to Woodinville will be available at Roosevelt Station. Metro and ST Express connections to communities along SR-520 will be available at U District and UW stations.

Sound Transit's 2018 Rail Fleet Management Plan envisioned six-minute peak period headways serving Northgate-Angle Lake, then a transition to eight-minute peak headways at the opening of the East Link Extension in 2023. Each line would be evenly offset by four minutes to provide an effective combined peak headway of four minutes between Northgate and International District stations. As a result of the financial impacts of the pandemic, the frequency reductions that occurred on Link for the duration of 2020 were extended into the initial proposal taken to public outreach.

This creates a unique service change where riders along the existing Link alignment benefit from new transit access with the three new stations while also experiencing an adverse effect from lower service frequencies compared to service levels prior to March 2020. The following equity analysis considers both the accrual of benefits for existing Link riders and the adverse effect of pandemic-driven service reductions.

Title VI Analysis

Any change to Link service has the potential for a disparate impact or a disproportionate burden; however, there are no adverse effects with the extension of Link to Northgate, Roosevelt and U District stations, as this is a service addition. Moreover, the additional service benefits an area with a minority population of 54.8%, which is higher than the Sound Transit District average of 39.7%. The additional service also benefits an area with a low-income population of 23.0%, which is higher than the Sound Transit District average of 16.4%.

Evaluating the adverse effects of the service frequency reductions, shown when comparing the March 2020 and September 2021 columns in the table below, results in the finding show both a disparate impact and disproportionate burden. Lower frequencies impact an area with both a higher minority population and a higher low-income population than the Sound Transit District average. Due to the determination of both a disparate impact and disproportionate burden from the prior change, results from public input and a review of alternatives were used to shape the final proposal.

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Table 13 Link Frequencies

Link	Time of Day	March 2020	September 2020	March 2021 Adopted	September 2021 Adopted
How often do trains run on weekdays?	Early AM	12 min.	15 min.	15 min.	15 min.
	AM Rush	6 min.	8 min.	8 min.	8 min.
	Midday	10 min.	15 min.	15 min.	10 45 min.
	PM Rush	6 min.	8 min.	8 min.	8 min.
	Evening	10 min.	15 min.	15 min.	15 min.
	Late evening	15 min.	30 min.	30 min.	15 30 min.
How often do trains run on Saturdays?	All day	10 min.	15 min.	15 min.	10 45 min.
How often do trains run on Sundays?	All day	10 min.	15 min.	15 min.	10 45 min.

Public Opinion

Sound Transit received more than 160 comments involving Link in its 2021 Service Plan Outreach Survey. Many comments noted the importance of having well-timed connections for bus routes connecting with Link. A substantial number of Link comments expressed concerns around public safety, station access and overcrowding. In comments pertaining to the proposed Link span and frequency, approximately 70% indicated a desire for better service levels. Many respondents wished for improved midday and evening service. There were many concerns regarding the potential for overcrowding due to the planned truncations of Sound Transit, Metro, and Community Transit bus services at Northgate, Roosevelt and U District stations.

- Noteworthy comment: *“Link should run a more consistent schedule throughout the day and into the night. Half hourly service on light rail is useless to me. Demand for higher rush-hour frequency vs. midday is not yet there. Single-car trains could be run at night as ridership is low, but I feel you are sacrificing a usable level of nighttime frequency indefinitely.”*

Adopted Service Change and Discussion of Modifications

As a result of the finding of a disparate impact and disproportionate burden for the service frequency reduction, Sound Transit considered alternatives and public feedback in modifying the initial service proposal. With an improved budget outlook, Sound Transit was able to partially mitigate the adverse effects by reducing the severity of the service frequency reductions. The adopted service changes increased midday service frequency to one train every 10 minutes, improved from 15 minutes in the initial proposal. Additionally, late evening service frequency improved from 30 minutes to 15 minutes. The improvements to the initial service plan, along with the positive accrual of benefits from new Link service connecting to an improved bus network, reduce and mitigate the adverse effects from lower rush-hour service frequencies.

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2.5 Summary of Sound Transit Service Equity Analysis Results

Table 14 outlines service changes and lists the presence of disparate impacts and disproportionate burdens discussed in detail in the previous section. Based on the analysis in the 2021 Service Plan, it was determined that some service changes would create a disparate impact or a disproportionate burden to minority and low-income populations. In response, Sound Transit evaluated alternatives on the adversely affected routes, considered public input on the identified alternatives, and made several modifications as a result. Several components of the September 2021 service change were adjusted prior to board adoption to minimize and mitigate adverse impacts Route 510, retaining Route 586, and expanding midday and late evening frequency Link.

Connecting bus service to the new Link service will improve access and reduce service duplication to help achieve necessary operating cost savings. Overall, the Project will deliver improved transit access throughout the region, and within the Project area, by harnessing the benefits speed, reliability, and capacity provided by Link. Sound Transit's expansion of the existing Link alignment will enhance transit access and speed and reliability for the diverse neighborhoods along the new and existing corridor. The Project will bring new service to U District, Roosevelt, and Northgate while providing expanded access to and from south King County, south/central Seattle and Sea-Tac Airport.

Table 14 Service Changes – Disparate Impact/ Disproportionate Burden

Route	Service Change Evaluated	Disparate Impact	Disproportionate Burden	Reasoning for Change
510	Add stop at Mountlake Terrace Freeway Station, no change in service levels.	No	Yes	Reduced rush hour demand. Adding the stop allows passengers to transfer between I-5 North routes to choose between a bus-trip or bus-Link trip to downtown Seattle.
511	Re-route to Northgate Link Station, coordinate schedule with Route 513.	No	No	No disparate impact of disproportionate burden
512	Re-route to Northgate Station and discontinue stop at 145th St.	No	Yes	Provides access to all Link stations, more reliable travel time during rush hour.
513	Re-route to Northgate Link Station, add stops at Lynnwood Transit Center and Ash Way Park-and-Ride, increase service levels.	No	Yes	Provides access to all Link stations, more reliable travel time during rush hour.
522	Re-route to Roosevelt Station, operate every 15 minutes all-day, including weekends.	No	No	No disparate impact of disproportionate burden
542	Re-route to U District Station, route operates between Redmond and U District only.	No	No	No disparate impact of disproportionate burden
555	Continue service suspension	No	No	No disparate impact of disproportionate burden

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Route	Service Change Evaluated	Disparate Impact	Disproportionate Burden	Reasoning for Change
556	Route would operate between Issaquah and the U District Link station.	No	No	No disparate impact of disproportionate burden
586	March 2021: Add stop at Federal Way Transit Center. September 2021: Continue March 2021 service levels	Yes	Yes	This route was previously proposed for elimination in the draft 2021 Service Plan due to low ridership and overlap with other modes. However, COVID-19 reductions have led to a loss of direct connections between Federal Way and the U District previously provided by King County Metro. Inserting Federal Way into the stop pattern will improve ridership, maintains direct connections for essential workers (including UW Hospital) and avoids the elimination of this route.
Link	Service to Northgate begins. On weekdays, trains operate every eight minutes during the morning and afternoon rush hours, every 10 minutes during the early morning, midday and early evening, and every 30 minutes late at night. On weekends, service operates every 10 minutes, improve late night frequency to every 15 minutes	Yes	Yes	Reduced demand. During peak periods, four-car trains at eight-minute frequencies are anticipated to provide adequate capacity and enable synchronization with the future Link 2 Line 2. Improving service level at other times of day provides better service to riders which riders, which depend on transit, including low-income and essential workers.

2.6 Proposed Metro Service Changes

The Metro September 2021 Public Transportation Service Changes Title VI Service Analysis (Appendix B) summarizes Metro's service analysis of changes proposed for the September 2021 service change submitted to the King County Council for approval. As part of the ordinance, Metro proposes to revise routes that currently serve north Seattle and north King County. The analysis details the results of the Title VI analysis of the changes, known as the North Link Connections Mobility Project, which impact Seattle, Shoreline, Lake Forest Park, Kenmore and Bothell.

Northgate Link Extension Service and Fare Equity Analysis

Metro annually publishes a System Evaluation report that outlines the analysis of target service levels and route performance management efforts. The annual report will include a comprehensive list of the prior years' service changes and will identify and discuss service changes that address performance-related issues. Metro works to provide transparency in Metro's process and help jurisdictions plan for the future by conducting regular outreach throughout the county about the results of the System Evaluation Report.

Metro's 2020 System Evaluation Report identifies corridors that are currently below their target transit service levels and identifies and prioritizes the additional hours needed on routes in these corridors to meet the service level targets based on Metro Service Guidelines (also referred to as Priority 3 service investment needs). Replacing inefficient routes with poor reliability and ridership with a more frequent, more direct network of service, the project reallocates some existing resources to increase span of service, improve frequency and add important connectivity within the region, while also reducing the number of overall service hours in the network due to ongoing budget impacts from COVID-19.

In accordance with FTA regulations, Metro conducted a service analysis of changes proposed for the September 2021 service change submitted to the King County Council. As part of the service change ordinance, Metro proposed to revise routes that currently served north Seattle and north King County. The report details the results of the Title VI analysis of these changes, known as the North Link Connections Mobility Project, which impact Seattle, Shoreline, Lake Forest Park, Kenmore, and Bothell.

2.6.1 Approach to Measuring Impacts

Metro measures disparate impacts by comparing changes in the number of trips serving minority or non-minority census tracts, or by comparing changes in the number of service hours on minority or nonminority routes. Metro defines a minority census tract as one in which the minority population percentage is greater than that of the county. For regular fixed-route service, Metro defines a minority route as one for which the percentage of inbound weekday boardings in minority census tracts is greater than the average percentage of inbound weekday boardings in minority census tracts for all Metro routes.

2.6.2 Proposed September 2021 Service Changes

The proposed changes will affect 89 census tracts with a total population of about 442,628 residents.

The affected routes in this project include routes 5X, 26, 31, 32, 43, 48, 63, 64, 71, 73, 74, 75, 76, 77, 78, 79, 301, 302, 303, 304, 308, 309, 312, 316, 320, 322, 355 and 373.

Affected routes 5X, 63, 76, 77, 78, 308, 316, 355, and 373 would be replaced with routes 16X, 79, 320 and 322.

The proposed changes meet all criteria for a major service change by Metro and FTA definitions.

2.6.3 Title VI Analysis

Classifying minority and low-income census tracts

Metro classifies census tracts as minority tracts if the percentage of the population that is minority within a tract is greater than the percentage for King County as a whole. Based on the American Community Survey five-year average for 2014-2018 data, 40.1% of the population is classified as minority within the county.

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The proposed service changes addressed in this Title VI report will affect the level of service provided to 89 King County census tracts currently served by Metro (Table 15). The low-income (Table 16) and minority (Table 17) characteristics of affected census tracts are provided below.

Table 15 Low-income and Minority Characteristics of Affected Census Tracts

Census Tract Classification				
Total Census Tracts Affected	Minority & Low-income	Minority ONLY	Low-income ONLY	Neither Minority nor Low-income
89	19	2	29	39

Table 16 September 2021 Service Change Title VI Analysis - Low-Income Populations

Category ²	Tracts with Adverse Effects ¹	% of tracts adversely affected	% of tracts system-wide	Difference	Disproportionate Burden ³ ?
Low-Income	6	55%	42%	13%	YES
Non-Low-Income	5	45%	58%		
Total	11	100%	100%		

Table 17 September 2021 Service Change Title VI Analysis - Minority Populations

Category ²	Tracts with Adverse Effects ¹	% of tracts adversely affected	% of tracts system-wide	Difference	Disparate Impact ⁴ ?
Minority	4	36%	45%	-9%	NO
Nonminority	7	64%	55%		
Total	11	100%	100%		

Notes for Tables 16 and 17

1. An adverse effect is defined as a reduction of 25% or more in trips per week.
2. Tracts are classified as low-income or minority when the percentage of low-income or minority persons in the tract is greater than the percentage of low-income or minority persons in the county as a whole.
3. A disproportionate burden occurs when the percentage of low-income tracts with adverse effects is more than 10 percentage points greater than the countywide percentage of low-income tracts.
4. A disparate impact occurs when the percentage of minority tracts with adverse effects is more than 10 percentage points greater than the countywide percentage of minority tracts.

Affected Census Tracts

The proposed changes together affect 89 census tracts, including two minority-only census tracts, 29 low-income only census tracts, and 19 tracts which are both minority and low-income. There are 11 tracts experiencing a reduction in trips greater than 25%, four are both low-income and minority, two are low-income only, and five are neither low-income nor minority tracts.

The analysis indicates that the proposed changes would place a disproportionate burden on low-income populations but would not have a disparate impact on minority populations.

Metro's Title VI analysis provides a detailed description of the impacts to residents in the four low-income and minority tracts and two low-income only tracts experiencing a disproportionate burden, along with the alternatives available to riders. The four minority tracts in Table 17 are also

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low-income and the same tracts low-income and minority tracts shown in Table 16. There is a total of six low-income and/or minority tracts with adverse effects.

2.6.4 Alternatives and Mitigation

All of these tracts are served by routes that were eligible to receive investments from the Seattle Transportation Benefit District (STBD), which expired in 2020 and was renewed by voters with significantly fewer resources. The proposed network includes no STBD resources, while the baseline network does result in a significant reduction in trips on routes across the system, including routes in the North Link project area.

Tracts 205 and 211, Shoreline – North City, Ridgecrest, Briarcrest

These tracts are currently served by all-day routes 65, 330, 347 and 348 and peak-only routes 301, 303, 308 and 373. With the proposed changes these tracts are served by all-day routes 65, 330, 347 and 348 and revised peak-only Route 304. Trips in Tract 205 will be reduced by 29% and trips in Tract 211 will be reduced by 27%.

Routes 301 and 303 are proposed to be revised in September 2021, to streamline connections between the Aurora Village Transit Center, Northgate Station, and downtown Seattle. Route 303 is proposed to be revised to serve neighborhoods west of I-5, while Route 301 is proposed to no longer serve its single stop in Tract 211, a freeway station stop at NE 145th St, that is being consolidated due to speed and reliability concerns. Riders who used this stop at NE 145th St will no longer have direct service to downtown Seattle; however they will be able to connect to Route 347 and Route 304 on NE 145th St to Northgate Station where they can transfer to Link or another Metro bus route to continue to destinations further south.

Route 308 is a low performing, peak-only route that serves Lake Forest Park, the SR-522 corridor, and NE 145th St before heading to downtown Seattle via I-5; only the segment along NE 145th St serves a tract with adverse effects (Tract 211). Route 308 is proposed to be deleted in the changes for September 2021. Riders who used stops along NE 145th St will no longer have direct service to downtown Seattle, however they will be able to connect to Route 347 and Route 304 to Northgate Station, where Link will continue to downtown Seattle.

Route 373 is a limited span all-day route that connects Aurora Village Transit Center and the University District, that pairs with shorter midday-only Route 73 along 15th Ave NE. Route 373 is proposed to be deleted in September 2021 to simplify the network and reduce duplicative service. Peak riders traveling from Aurora Village Transit Center, or other parts north of NE 145th St that are not served by the increased span of service and frequency improvements on Route 73 can connect to routes 301 or 302 to connect to Link or another Metro bus route to continue their trip to the University District.

Routes 347 and 348 are proposed to have improved frequency in the peak periods, operating every 20 minutes. On the corridor they share, 15th Ave NE, there will be trips every 10 minutes connecting to high-capacity, frequent Link at Northgate Station.

All-day routes 65 and 330 are not proposed to be revised in September 2021, however Route 65 frequencies were adjusted to reflect the loss of STBD partner funding

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Tracts 73, 85, 91, and 92, downtown Seattle – Cascade, First Hill, Occidental Square, and Chinatown-International Neighborhoods

These tracts are currently served by all-day routes 40, 41, 49, 62, 70 and 74 and peak-only Routes 5X, 43, 63, 64, 76, 77, 301, 303, 304, 308, 309, 312, 316 and 355.

With the proposed changes these tracts are served by all-day routes 40 and 70 and peak-only routes 64, 302, 303, 320 and 322. Route 302 replaces Route 304 and routes 320 and 322 replace routes 309 and 312, while other connections are replaced by Link or non-project area Metro bus routes. Frequencies of routes 40, 49, 62 and 70 were adjusted to reflect the loss of STBD funding.

Trips in Tract 73 will be reduced by 26%, trips in Tract 85 will be reduced by 34%, trips in Tract 91 will be reduced by 36%, and trips in Tract 92 will be reduced by 25%.

The most significant impact is from routes either being deleted due to their duplication of Link or truncated at a Link train station. Route 41 is deleted, as the connection between Northgate Station and downtown Seattle is directly duplicative of Link. Route 63 is deleted and replaced by Route 320 and Link. Routes 76 and 77 are deleted and replaced by routes 64 and 322 and Link from Roosevelt Station. Routes 74, 301, and 304 were truncated at Link stations and still operate in neighborhoods north of downtown, which increases their reliability. routes 5X, 316, and 355 are replaced by new Route 16X and Link.

2.6.5 Conclusion

While the analysis indicates that the proposed changes would place a disproportionate burden on low-income populations, altogether, the proposed changes will better meet community-identified needs, including improved connections to priority community destinations, improved east-west connectivity, more integrated regional transit network and increased peak commuter service. On average, the project area is proposed to see a decrease of approximately 12% of its weekly trips on Metro services. Much of this is due to ongoing budget impacts from COVID-19 pandemic, loss of partner funding from STBD and the continued integration with Link.

The proposed transit service changes feature creation of Route 16X, 320 and 322 that simplify peak-only service, create new connections to Link, and other regional bus routes at both Northgate Station and Roosevelt Station. The proposed improvements will connect north Seattle and north King County riders to high-capacity frequent transit in Link, as it expands its service area to three new stations in the University District, Roosevelt, and Northgate areas.

To prepare for the extension of Link service to Northgate, respond to changing mobility needs, and improve mobility and access for historically underserved populations, Metro is initiating a mobility project in north King County serving communities within north Seattle, Shoreline, and the North Shore communities of Lake Washington. The project will deliver an updated mobility network that integrates with and complements Link. The project will be done in coordination with Sound Transit, the Seattle Department of Transportation, the UW, Community Transit, and many other partners.

The updated mobility network will be implemented in 2021 at the soonest service change after the opening of Link service at Northgate, Roosevelt, and University District Stations.

The project goals include:

- Improve mobility for historically underserved populations, centering on people of color.

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- Equitably inform, engage, and empower current and potential customers traveling in the project area.
- Deliver integrated service that responds to Link expansion and meets customer needs.
- Minimize duplication of Metro service with Link and improve connections to Link, including development of facilities that support easy, comfortable, and convenient transfers between modes.

The above goals reflect the project's overall approach and desired outcomes for all riders.

2.7 Community Transit Service Changes

Community Transit conducted the standard analysis on the proposal to restructure service around the Project and has determined that the proposals for routes 810, 821, 855 and 871 qualify as major service changes. Since changes are proposed to all 800-series routes and they currently serve the same commuter market to UW campus, routes 860 and 880 are also included in the Title VI analysis (Appendix C).

2.7.1 Restructure Proposal Related to Project

The Project restructure shows changes in service levels for routes 810, 821, 860, 871 and 880, and the elimination of Route 855. This Title VI analysis evaluates the allocation of the service increases and decreases to ensure that Title VI populations are neither disproportionately burdened nor insufficiently benefited by the proposals.

The service restructure to the 800-series routes provides overall significant benefits, adding 691 service hours and 8,160 trips annually to minority and low-income bus routes, while nonminority and non-low-income bus routes remain unchanged in this proposal.

2.7.2 Title VI Analysis

Based on 2010 Census demographics and 2013-2017 American Community Survey Data, all 800-series routes have been designated as Title VI low-income and minority routes. With the exception of Route 855, the same segment (from Northgate to UW) is eliminated from each route (-5.73 miles per trip) and replaced with the pathway to the Northgate Station (+1.05 miles per trip), where the routes connect with Link service. Although the distance is the same for all routes, it represents a different percentage change for each route, according to the route's overall length.

Title VI Designations

Route designations from Community Transit's 2019 Title VI Program Plan and are based on route geography versus ridership characteristics for the purposes of this analysis.

The status of each route as a Title VI affected route should be determined by the characteristics of each route's riders. This data is available from Community Transit's 2017 On-Board Survey, comparing the percentage of each route's minority and low-income riders to that of system riders. However, the sample size for each route from the survey is insufficient to be statistically representative.

As an alternative, the route designations from Community Transit's 2019 Title VI Program Plan were used. Based on route geography rather than ridership characteristics, all affected routes are both Title VI minority and low-income routes.

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2.7.3 Ridership Retention

The reductions in route miles do represent a loss to customers. These losses are mitigated as detailed below:

Pathway between Northgate and the UW (routes 810, 821, 860, 871, 880)

At over five miles in length, this pathway is entirely in King County, so the elimination results in no change to Snohomish County residents' access to transit. It is also among the most congested pathways in the Community Transit system. Under the proposal, this segment is replaced with service on Link, which will provide a faster, more dependable trip. With trips every eight minutes during the peak and every 10-15 minutes during the off-peak, Link will provide service much more frequently and for a longer span than existing Community Transit bus routes.

Route 855

Route 855 currently provides service from Lynnwood Transit Center to the UW. Under the proposal, Route 855 is eliminated, but the service is replaced with significantly increased service on Route 821, which also stops at Lynnwood Transit Center. Sound Transit is also proposing a restructure to their service in the I-5 corridor, which would result in peak service from Lynnwood Transit Center to Northgate Station at six-minute headways and off-peak headways of 10-15 minutes. These service proposals represent a substantial improvement in service available to current 855 riders.

Route 810: Stop at Lynnwood Transit Center

Route 810 currently provides off-peak service from multiple park-and-rides in Snohomish County to the UW. Eliminating the stop at Lynnwood Transit Center will improve travel times for customers boarding at park-and-rides north of Lynnwood. Riders at Lynnwood Transit Center will have access to proposed Sound Transit service departing every six to fifteen minutes, a large improvement over the current 30-minute headways operated by Route 810.

2.7.4 Summary of Impacts

Based on the above analysis, it was determined that the package of route change proposals would not create a disparate impact or a disproportionate burden to minority and low-income populations, and that any negative impacts are mitigated by the substantial improvements to service (Table 18).

Table 18 Summary of Impacts

Route	Change	Positive	Negative
810	Terminate at Northgate Station. Remove stop at Lynnwood Transit Center. Add 10 trips per day.	Faster trips for riders north of Lynnwood. Improved span and frequency. Access to new destinations.	Transfer to Link to reach UW.
821	Terminate at Northgate Station. Add 17 trips per day.	Improved span and frequency. Access to new destinations.	Transfer to Link to reach UW.
855	Eliminate route.	Improved service available on Route 821 and Sound Transit routes 511/512/513.	Transfer to Link to reach UW.

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Route	Change	Positive	Negative
860	Terminate at Northgate Station. Add eight trips per day.	Improved span and frequency. Access to new destinations.	Transfer to Link to reach UW.
871	Terminate at Northgate Station. Add seven trips per day.	Improved span and frequency. Access to new destinations.	Transfer to Link to reach UW.
880	Terminate at Northgate Station. Add eight trips per day.	Improved span and frequency. Access to new destinations.	Transfer to Link to reach UW.

2.8 Coordinated Partner Service Changes Conclusion

The opening of the Project offered a significant opportunity to restructure existing bus service to provide more connections for transit riders and minimize redundant services to ensure efficient use transit operating resources. Community Transit, King County Metro, and Sound Transit worked together to leverage the benefits of truncating a substantial portion of their bus services at new Link stations and reinvesting the saving of operating shorter routes with improved frequencies and span.

The substantial improvements to service by each agency resulted in an updated and coordinated route structure to complement the addition to new Link service served by the Project. The benefits include:

- Increased peak commuter service.
- Increased service during midday, evenings, and weekends.
- Improved connections to priority community destination.
- Improved east-west connectivity.
- A more integrated regional transit network.

The Northgate Link Extension required a coordinated planning effort among agency and jurisdictional staff, elected leaders, and the public. Based on the above analyses, where adverse effects created a disparate impact or a disproportionate burden to minority and low-income populations, mitigation measures were incorporated. Any negative effects are mitigated by the substantial improvements to service by each agency including the introduction of new routes and Link with high-capacity frequency. All service changes were evaluated based on the operating agency's Title VI policies. When evaluated individually at the route level, some service changes created disparate impacts and/or disproportionate burdens to minority and low-income populations.

Overall, the identified adverse impacts are mitigated by the substantial improvements to transit service capacity and access for both the project area and region. Connecting both local and express bus service to the Project provides access to improved speed, reliability, and capacity. Also, the restructure of service is consistent with established long-term plans and balances the financial impacts of both the COVID-19 pandemic and the additional operating costs of delivering increased high-capacity transit.

St3 Fare Equity Analysis

Northgate Link Extension Service and Fare Equity Analysis

3.1 Description of Fare Changes

Regular adult fares on Link are set by a distance-based policy last updated in November 2014 in Sound Transit Board of Directors Resolution R2014-28 (Appendix G).

Although the existing fare structure will apply to riders using the three new stations, the new Link segment and associated proposed changes in bus service would alter some customers' rides and the fare they pay. Sound Transit proposes to terminate service on routes 511, 512, and 513 at the new Link station at Northgate, on Route 522 at the new Roosevelt Link station, and on Routes 542 (Redmond to U District and the Greenlake Park-and-Ride), 555 (Bellevue to Northgate) and 556 (Issaquah to Northgate) at the new U District Station. This will require those customers who previously made their trips solely by ST Express service on these routes to transfer between ST Express bus service and Link (511, 512, 513, 542, 555 and 556). Some riders on Route 542 might choose to transfer to Metro service for destinations between the U District and Roosevelt stations. For certain customers, the transfer introduced by these service changes and the Link extension will create a change in the fare they pay.

3.2 Policies and Definitions

3.2.1 Fare Equity Analysis Policy

Sound Transit Board of Directors Resolution R2013-19 established policies for conducting equity analyses of fare changes impacting minority and low-income populations.

The policy directs Sound Transit to conduct a fare equity analysis prior to making any fare change to analyze potential adverse effects on minority and low-income populations and establishes the following thresholds for determining whether the proposed fare change would have a disparate impact on minority populations and/or a disproportionate burden on low-income populations:

*A **disparate impact** occurs when the minority percentage of the population adversely affected by a fare change is greater than the average minority percentage of the population of Sound Transit's service area.*

*A **disproportionate burden** occurs when the low-income percentage of the population adversely affected by a fare change is greater than the average low-income percentage of the population of Sound Transit's service area.*

Per Sound Transit's policy, if any disparate impact or disproportionate burden is found during the fare equity analysis, Sound Transit will consider steps to avoid, minimize, or mitigate the adverse effects and reanalyze the modified changes to determine if the impacts are removed or lessened.

3.2.2 Link Fare Policy and Rates

All central Puget Sound transit services utilize the RFID-enabled fare card One Regional Card for All (ORCA). Payment for transit fare through ORCA can be made using "E-Purse" (debit) or a pass product. Pass products are associated with a one-way fare value. For the purposes of this analysis, seven fare types are considered: adult cash/ticket, adult ORCA, adult low-income ORCA ("ORCA LIFT"), Regional Reduced Fare Permit (RRFP) cash/ticket and ORCA, and youth cash/ticket and ORCA. RRFP ORCA permits are available to senior citizens (65+ years old) and persons with qualifying disabilities. RRFP card holders may use their RRFP cards in the same way as an ORCA card or may present the card to validate a cash/ticket payment at the RRFP

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fare rate. Riders aged 6 to 18 are eligible for youth fare, which can be paid through ORCA or cash/tickets with identification.

Per Sound Transit Board Resolution R2014-28 in November 2014, rates were adjusted so the adult one-way base fare for Link was set at \$2.25, with a flat, \$1.50 fare for low-income adults paying with an ORCA LIFT card. For full-fare adult one-way trips, a per-mile charge of \$0.05, rounded up or down to the nearest \$0.25 is added to the base fare to determine the fare for any given pair of stations. ORCA LIFT, youth and RRFP fares are flat rates (not distance-based). The current and future one-way Link fares for pre and post-extension are shown in Tables 19 and 20.

Table 19 shows regular adult one-way fares. The yellow-shaded cells show the fares for trips originating or ending in the new stations. As shown in Table 19, the fares for the existing alignment range from \$2.25 to \$3.25. The base one-way full adult fare for the new stations is \$2.25, the same cost as the base one-way adult fare for the existing stations. A trip for the entire length of the line will be \$3.50. This is \$0.25 higher than the current maximum fare because of the 4.3-mile extension from the U District Station to Northgate. Table 20 shows current and future one-way fares for reduced fare customers (ORCA LIFT, youth, RRFP-senior/disabled), which are not distance-based and will not change after the opening of the Link extensions.

Current Sound Transit fare policy grants a two-hour transfer credit among different Sound Transit modes Link, express bus, and commuter rail and between Sound Transit and ORCA partner transit agency services for customers using ORCA. Customers paying with cash or mobile tickets do not receive transfer credits.

Table 19 Current and Future One-Way Adult Fares for Link

	Northgate	Roosevelt	U-District	University of Washington	Capitol Hill	Westlake	University St.	Pioneer Square	International District	Stadium	Sodo	Beacon Hill	Mount Baker	Columbia City	Othello	Rainier Beach	Tukwila Intl. Blvd.	SeaTac / Airport	Angle Lake
Northgate		\$2.25	\$2.50	\$2.50	\$2.50	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$3.00	\$3.00	\$3.00	\$3.25	\$3.50	\$3.50
Roosevelt	\$2.25		\$2.25	\$2.25	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$3.00	\$3.25	\$3.25	\$3.25
U-District	\$2.50	\$2.25		\$2.25	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$3.25	\$3.25	\$3.25
University of Washington	\$2.50	\$2.25	\$2.25		\$2.25	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.75	\$2.75	\$2.75	\$3.00	\$3.25	\$3.25
Capitol Hill	\$2.50	\$2.50	\$2.50	\$2.25		\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.50	\$2.50	\$2.50	\$2.50	\$2.75	\$3.00	\$3.00	\$3.00
Westlake	\$2.75	\$2.50	\$2.50	\$2.50	\$2.25		\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.50	\$2.50	\$2.50	\$2.50	\$3.00	\$3.00	\$3.00
University St.	\$2.75	\$2.50	\$2.50	\$2.50	\$2.25	\$2.25		\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.50	\$2.50	\$2.50	\$2.50	\$3.00	\$3.00	\$3.00
Pioneer Square	\$2.75	\$2.50	\$2.50	\$2.50	\$2.25	\$2.25	\$2.25		\$2.25	\$2.25	\$2.25	\$2.25	\$2.50	\$2.50	\$2.50	\$2.50	\$3.00	\$3.00	\$3.00
International District	\$2.75	\$2.50	\$2.50	\$2.50	\$2.25	\$2.25	\$2.25	\$2.25		\$2.25	\$2.25	\$2.25	\$2.50	\$2.50	\$2.50	\$2.50	\$3.00	\$3.00	\$3.00
Stadium	\$2.75	\$2.50	\$2.50	\$2.50	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25		\$2.25	\$2.25	\$2.25	\$2.25	\$2.50	\$2.50	\$2.75	\$3.00	\$3.00
Sodo	\$2.75	\$2.75	\$2.50	\$2.50	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25		\$2.25	\$2.25	\$2.25	\$2.50	\$2.50	\$2.75	\$2.75	\$3.00
Beacon Hill	\$2.75	\$2.75	\$2.75	\$2.50	\$2.50	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25		\$2.25	\$2.25	\$2.50	\$2.50	\$2.75	\$2.75	\$3.00
Mount Baker	\$2.75	\$2.75	\$2.75	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.25	\$2.25	\$2.25		\$2.25	\$2.25	\$2.50	\$2.75	\$2.75	\$3.00
Columbia City	\$3.00	\$2.75	\$2.75	\$2.75	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.25	\$2.25	\$2.25	\$2.25		\$2.25	\$2.25	\$2.50	\$2.75	\$2.75
Othello	\$3.00	\$2.75	\$2.75	\$2.75	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.25	\$2.25	\$2.25		\$2.25	\$2.50	\$2.75	\$2.75
Rainier Beach	\$3.00	\$3.00	\$2.75	\$2.75	\$2.75	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.25	\$2.25		\$2.50	\$2.50	\$2.75
Tukwila Intl. Blvd.	\$3.25	\$3.25	\$3.25	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$2.75	\$2.75	\$2.75	\$2.75	\$2.50	\$2.50	\$2.50		\$2.25	\$2.50
SeaTac / Airport	\$3.50	\$3.25	\$3.25	\$3.25	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$2.75	\$2.75	\$2.75	\$2.75	\$2.75	\$2.50	\$2.25		\$2.25
Angle Lake	\$3.50	\$3.25	\$3.25	\$3.25	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$2.75	\$2.75	\$2.75	\$2.50	\$2.25	

Table 20 Current and Future One-Way Fares for Link Reduced Fare Customers

Customer Fare Category	Current Fare (before Northgate opens)	Future Fare (after Northgate opens)
Low-income adult (ORCA LIFT)	\$1.50	\$1.50
Youth (6 to 18 years old)	\$1.50	\$1.50

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Senior/Disabled with Regional Reduced Fare Permit	\$1.00	\$1.00
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3.2.3 Fares on ST Express and Other Possible Transfer Modes

Table 21 shows the fares for different customer groups paid by riders on ST Express routes.

Table 21 ST Express Fares

Customer Category	Fare
Adult	\$3.25
Low-income adult (ORCA LIFT)	\$1.50
Youth (6 to 18 years old)	\$1.50
Senior/Disabled with Regional Reduced Fare Permit	\$1.00

While most riders on the ST Express routes being reconfigured as the result of the opening of the Project are expected to transfer to Link, some riders on Route 542 may choose to transfer to Metro bus service for destinations between the U District and Roosevelt Link stations. Metro fares are shown by rider category in Table 22.

Table 22 Metro Bus Fares

Customer Category	Fare
Adult	\$2.75
Low-income adult (ORCA LIFT)	\$1.50
Youth (6 to 18 years old)	\$1.50
Senior/Disabled with Regional Reduced Fare Permit	\$1.00

3.3 Dataset Description and Technique Used to Collect Data

The data used in this analysis are from an origin-destination (O-D) survey conducted onboard Sound Transit Express bus routes which are planned to terminate at the Northgate, Roosevelt or U District stations with the opening of the Project – Routes 511, 512, 513, 522, 542 and 556. The survey was conducted in the first quarter of 2019. The survey was conducted during weekdays for all time periods using paper surveys offered to every rider for sampled trips. Survey workers remained on board during the entire trip or portion of the trip surveyed. Customers could return surveys to the survey workers or by postage paid return mail.

Overall, the survey included responses from about 9,500 ST Express riders (representing 19% of average weekday boardings, with a 43% response rate), including completed responses from 1,319 ST Express riders surveyed on those routes analyzed here. Data were weighted to represent average weekday boardings at the route level.

For this analysis, low-income is defined as at or below 200% of the Federal poverty level. This is the same threshold used to qualify customers for the ORCA LIFT (low-income fare) program. Table 23 below describes the household size and income thresholds used to classify respondents as low-income for this analysis.

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Table 23 Household Size and Income to Qualify For ORCA LIFT*

Household Size	Annual Household Income
1	\$24,972
2	\$33,816
3	\$42,660
4	\$51,492
5+	\$60,300

* 200% Federal Poverty Level

As described in Section 3.2, Sound Transit policy calls for a comparison of the impacts of a fare change on minority and low-income populations to the population of Sound Transit's service area. The numbers used in this report are derived from the American Community Survey, 2018.

3.4 Fare Media Analysis

Table 24 below shows the number and percent of minority and low-income rider boardings for the routes analyzed here in each customer category paying cash or using ORCA from the O-D survey effort described above. As also noted above, the counts are representative of data weighted to average weekday ridership for the routes of focus here.

Table 24 Current Fare Payment Type by Customer Category

Fare Type	Percent				Count			
	Minority	Non Minority	Low-income	Non Low-income	Minority	Non Minority	Low-income	Non Low-income
Adult Cash/Ticket	0%	100%	0%	100%	0	15	0	15
Adult ORCA	40%	60%	14%	86%	2648	4014	956	5706
ORCA LIFT	50%	50%	81%	19%	111	110	180	42
RRFP ORCA	25%	75%	29%	71%	99	302	117	284
RRFP Cash	NA	NA	NA	NA	0	0	0	0
Youth ORCA	56%	44%	54%	46%	39	31	38	32
Youth Cash	NA	NA	NA	NA	0	0	0	0
Total	39%	61%	18%	82%	2897	4472	1291	6079
ST Service Area	23%	77%	40%	60%				

The survey data indicate there are greater percentages of minority riders on the routes proposed to be terminated or eliminated than in the Sound Transit service area as a whole, and for the following customer categories: 1) full fare adult riders using ORCA fare payment, 2) ORCA LIFT riders, 3) RRFP riders using ORCA, and youth riders using ORCA. The survey data also indicate there is a greater percentage of ORCA LIFT and Youth riders using ORCA on these routes who are low-income than the percentage of all low-income riders in the service area as a whole, though the total sample of Youth riders is quite small.

The survey data on fare payment type by customer type shows no minority and low-income riders surveyed who currently pay cash on impacted routes. The large majority of adult riders use ORCA.

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Survey results also show the vast majority of riders are full-fare adult, with few ORCA LIFT, RRFP and youth riders. The survey also yielded no RRFP and Youth riders paying cash.

3.5 Disparate Impact/Disproportionate Burden

As noted above, Sound Transit provides a discounted flat fare for low-income adult riders via the ORCA LIFT fare. Sound Transit's flat-rate discounted fares for youth, seniors and disabled riders also provide a discounted fare for low-income riders in these customer categories. These discounted fares are the same on ST Express and Link. Since ORCA provides transfer credits, riders in these fare categories paying with ORCA cards will see no fare change when transferring between ST Express service and Link.

As Table 25 shows, only cash riders in each category will be impacted by route termination/elimination. ORCA riders will see no impact. Overall, cash ridership on ST Express bus service is very low – it represented only 3.9% of total boardings in 2019. Since the survey yielded no minority or low-income cash riders on these routes, this analysis shows no disparate impacts on minority nor disproportionate impacts on low-income riders.

Table 25 New Fares for Current Regional Express Riders Transferring to Link or Metro

Fare Type	Fare			Change			
	Existing	Proposed -low	Proposed - high	\$ change - low	\$ change - high	% change - low	% change - high
Adult Cash/Ticket - transfer to Link	\$3.25	\$5.50	\$6.00	\$2.25	\$2.75	69%	85%
Adult Cash/Ticket - transfer to Metro	\$3.25	\$6.00	\$6.00	\$2.75	\$2.75	85%	85%
Adult ORCA - trans to Link & Metro	\$3.25	\$3.25	\$3.25	-	-	0%	0%
ORCA LIFT - trans to Link & Metro	\$1.50	\$1.50	\$1.50	-	-	0%	0%
RRFP Cash - trans to Link & Metro	\$1.00	\$2.00	\$2.00	\$1.00	\$1.00	100%	100%
RRFP ORCA - trans to Link & Metro	\$1.00	\$1.00	\$1.00	-	-	0%	0%
Youth Cash - trans to Link & Metro	\$1.50	\$3.00	\$3.00	\$1.50	\$1.50	100%	100%
Youth ORCA - trans to Link & Metro	\$1.50	\$1.50	\$1.50	-	-	0%	0%

The results of this analysis are summarized in Table 26.

- There is no disparate impact or disproportionate burden for cash riders in any customer category, since the survey either identified no riders in these customer categories, or the

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percentage of minority or low-income riders in a customer category was less than the ST service area average.

- The percentage of minority riders on these routes was higher than the average for the Sound Transit service area for the following customer categories: full fare Adult ORCA, ORCA LIFT, RRFP Orca and Youth ORCA riders.
- The percentage of low-income riders on these routes was higher than the Sound Transit service area average for ORCA LIFT riders.
- With none of these ORCA fare categories experiencing a fare change from the termination of these routes and transferring to Link, there is no disparate impact/disproportionate burden.

Table 26 Summary - Disparate Impact/Disproportionate Burden

Fare Type	% Greater than ST Service Area Avg		Fare Change?		Disproportionate Impact/Disparate Burden	
	Minority	Low-Income	Minority	Low-Income	Minority	Low-Income
Adult Cash/Ticket	NO	NO			NO	NO
Adult ORCA	YES	NO	NO		NO	NO
ORCA LIFT	YES	YES	NO	NO	NO	NO
RRFP Cash	NO	NO			NO	NO
RRFP ORCA	YES	NO	NO		NO	NO
Youth Cash	NO	NO			NO	NO
Youth ORCA	YES	NO	NO	NO	NO	NO

3.6 Fare Impact Mitigation

The onboard surveys identified very few adult cash riders and no youth or RRFP riders on the ST Express routes proposed for termination/elimination with opening of the Project. The Title VI analysis identified no disparate impact/disproportionate burden. However, there will be impacts on the small number of fare current cash riders whose current one-seat bus ride will be replaced by a two-seat (and two-fare) ride involving a transfer between bus and Link. To mitigate these impacts, ST will be working to make it easy for cash riders to convert to use of ORCA cards rather than cash for fare payment. ORCA card fare payment will enable riders to receive full transfer value between modes and experience no fare increase.

Sound Transit will be providing ORCA cards to be handed out by street teams to cash-paying riders transferring between bus and Link services during the first few weeks of Link service. To assist cash riders to convert to ORCA, Sound Transit will provide cash riders with ORCA cards pre-loaded with fare value. Sound Transit will also continue the ongoing marketing campaign to promote the ORCA LIFT program for low-income riders. Sound Transit will continue loading E-purse incentives on ORCA LIFT cards for those who qualify for this program. Finally, Sound Transit will work with Metro and Public Health staff who will also be on site at the new stations actively enrolling riders for reduced fare, youth and ORCA LIFT discounted fare programs. Riders

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new to ORCA will also be provided information on how to use the card, and how and where to recharge, including online, retailers and TVMs at Link stations.

These efforts will be accompanied by an extensive public outreach and information campaign to inform riders of the need to use an ORCA card to ensure they can continue riding for a single fare (and avoid having to pay a higher fare through payment of two separate cash fares) for any transfer trips following the service change.

4 Public Involvement and Outreach

The public involvement and outreach for the Project has been ongoing since voter approval in 2008. Sound Transit has engaged with the communities along the Project alignment for more than thirteen years to advance the planning, design and construction phases of the project. Through each phase, the Sound Transit Community Engagement team has strived to provide high-quality communications that build trust and connect with impacted communities, future customers, stakeholders and the public at large. At each key decision-point, from the publication of the Northgate Link Extension Draft Environmental Impact Statement, design and planning milestones, to construction mitigation analyses, Sound Transit engaged with the community to seek feedback and incorporated that feedback back into the project to refine the route, station locations, public art, station access, and construction methods. To ensure a high-quality, durable project, Sound Transit sought to be inclusive, with stated objectives of broad participation, two-way communication/engagement and diverse audience engagement. A variety of tactics used to engage the public include, but are not limited to:

- In-person open-houses and public meetings.
- Briefings.
- Door to door outreach.
- Property owner meetings.
- Community fairs and festivals.
- Interpretation and translation services.
- Direct mail notifications.
- Business relations services.
- Community partnerships.
- Service provider interviews.
- Printed updates and digital media.
- Surveys.

In addition to the capital project engagement work of Sound Transit, a variety of joint outreach efforts were undertaken by Sound Transit, Community Transit and Metro as part of and at different stages of the Project. Outreach and public involvement were prevalent through the planning, construction, service change, and launch phases of the project.

4.1 Equitable Engagement at Sound Transit

Equitable community engagement is the commitment to exceed our standard engagement practices by ensuring that institutionally underserved communities and those who are most at risk of being adversely impacted by our actions are well-informed and provided frequent opportunities to share their experiences and perspectives. Our approach to engage with the diverse communities in our service area can be summarized in a five step process:

- Step 1: Identify the appropriate level of engagement.
- Step 2: Identify your audience.
- Step 3: Planning your engagement.

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Step 4: Data collection.

Step 5: Long-term relationships.

During the joint process, Metro, Sound Transit and Community Transit all gathered feedback on proposals to restructure bus service once the Link extends to Northgate in 2021. This included express service in Snohomish County and King County, as well as local service in Seattle.

Staff from all agencies collaborated on an analysis to ensure that adequate Link capacity was provided for connecting bus passengers during peak demand times. A key objective in bringing in these other partners is to improve the customer experience for making rail-bus connections by ensuring an integrated transit network across the multiple transit agencies, and by leveraging the fast and reliable Link service when possible. Collaboration on the Project is also critical for installing wayfinding signage, relocating bus stops closer to stations and providing real-time bus departure information.

4.2 Coordination with Partners

In partnership, Metro and Sound Transit worked closely to engage the public to help shape service alternatives and changes that will take effect after the opening of the Project. The public outreach process included co-led outreach events, joint online open house experiences, shared resources between the agency websites, and public information materials. Through three joint phases of public outreach, all three agencies gathered feedback from their transit riders, and the community as a whole.

4.3 Engagement for the Northgate Link Extension Bus Restructure

Connecting to Northgate Station is an early opportunity for Snohomish County and north King County residents to access the Link system. As part of the regional bus-rail transit integration work, Community Transit, Metro and Sound Transit have all been working jointly on how best to connect bus riders to the new Link station at the three new Link stations - Northgate Station, Roosevelt Station and U District Station.

Starting in fall 2019, the transit agencies began public outreach to understand how bus riders can connect to fast, reliable Link service to the UW, downtown Seattle and other regional destinations.

For Snohomish County riders, the initial proposal envisioned truncating all Sound Transit routes serving downtown Seattle and Community Transit's UW routes at Northgate Station. All passengers would transfer to/from Link to reach their final destinations. The resulting service hour savings of operating shorter routes would be reinvested into more frequent service and a longer span of service.

Following Phase 1 of outreach and a public survey, the agencies adjusted their original idea and conducted a second phase of outreach on a revised proposal in spring 2020. Key feedback from customers included a willingness to change their commute patterns, including transfers, if it achieved improved speed and reliability. The transfer experience and connections from Link stations to their destinations were also points riders wanted to understand better. Based on this feedback, the agencies adjusted their original proposals to retain some routes in peak directions maintaining direct rides to downtown Seattle from locations in Snohomish County. These revisions give customers a choice between accessing downtown Seattle by bus or connecting to Link.

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Concurrent to the engagement happening in Snohomish County, Sound Transit partnered with Metro to engage riders along the SR 522 corridor in north King County. Similar trade-offs were evaluated as we asked riders to provide feedback on how existing bus service can reorient to better serve the new Link stations. In the survey, 49% indicated truncating at Roosevelt Station and improving off-peak frequency to 15 minutes met their needs, compared to 29% who indicated “No.” The remainder responded, “I don’t know” or “not applicable.” The survey also conveyed that the top concern for priority participants was longer travel times and less convenient service. Sound Transit decided to maintain the proposal for Route 522 along the SR 522 corridor.

Finally, in September, Sound Transit conducted online outreach regarding the proposed 2021 Service Plan changes which included all previous bus restructure proposals for the Northgate Link Extension bus restructure. The survey included questions about current and future transit use as well as open-ended questions about the clarity of the information in the service plan, what people thought about the service plan changes and impacts to riders’ transit use during COVID-19.

Sound Transit’s 2021 Service Plan was approved by the Board in November 2020.

Due to COVID-19, the engagement work conducted for the Northgate bus restructure had to react to a changing environment as the impact of the virus permeated all areas of life. Traditional tactics of rider engagement were no longer possible, and all the transit agencies had to adapt to the situation. Building relationships with Community Based Organizations (CBOs) and proactively translating content became even more critical therefore Sound Transit leveraged multiple ethnic media buys to help spread the word about the bus restructure project and provide opportunities for engagement.

4.4 Results for the Project Bus Restructure Engagement

The phases and the proposals in each phase are described below. The three phases were: 1) Link Connections: Northgate Phase 1, 2) North Link Connections Mobility Project/ Link Connections: Northgate Phase 2, and 3) 2021 Service Plan Engagement.

All efforts consisted of a website with comprehensive project information with Google translate enabled, press releases and earned media, printed rack cards on buses, translated fact sheets, social media effort via Facebook (organic and/or paid) and Twitter, and email and text updates to service notification subscribers.

4.4.1 Phase 1: Link Connections: Northgate

Phase 1 was a collaboration effort with Community Transit and Sound Transit from Nov 12 to Dec 31, 2019. This effort consisted of an online open house and a digital survey in Spanish, Chinese and English, six in-person pop-up events at accessible locations in Everett, Lynwood, and two street team outreach events at bus stations in November/December 2019.

The online open houses received 9,740 visits, and we collected 1,398 survey responses. The survey included both open- and closed-ended questions and asked various demographic information.

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Value		Percent	Responses
Caucasian/White		69.4%	932
Black or African American		2.0%	27
Asian		10.6%	143
Native Hawaiian or Other Pacific Islander		0.7%	10
American Indian or Alaskan Native		0.7%	10
Two or More Races		4.6%	62
Other		1.0%	13
I prefer not to say		10.9%	146
Totals: 1,343			

Figure 10 Link Connections: Northgate Demographic Data

4.4.2 Phase 2a: North Link Connections Mobility Project

Phase 2 was a collaboration effort with Metro and Sound Transit from Jan 21 to April 31, 2020. This effort consisted of a digital survey open from Jan 21 to April 7 in Arabic, Spanish, Vietnamese, Korean, Chinese and Russian, a technical briefing, Metro's Mobility Board, and a drop-in session at the UW.

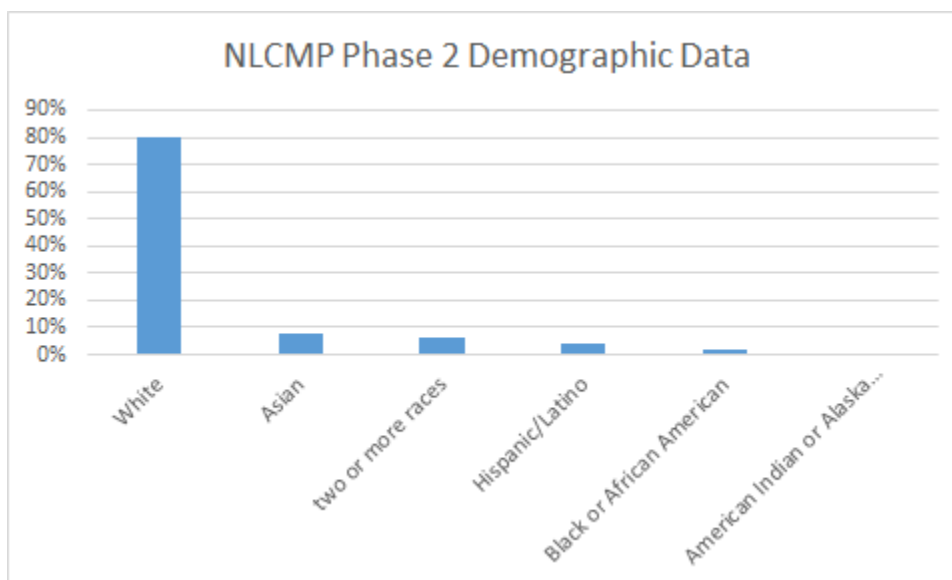


Figure 11 NLCMP Phase 2 Demographic Data

From January to April 2020, Sound Transit and Metro partnered together to conduct in-person and online outreach regarding the bus restructure taking place in north King County for the opening of the Project. In the middle of this outreach process, COVID-19 hit the world and both agencies had to react quickly and change tactics, moving to an online based engagement process. Regardless the plan to reroute bus service in north King County and reorient to the three new Link stations went out for public comment because the Project maintained its original schedule.

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The two main bus routes in the SR 522 corridor were Route 522 and Metro 312. The survey received a total of 2916 responses on these two routes and 88 open-ended responses.

4.4.3 Phase 2b: Link Connections: Northgate

Phase 2 was a collaboration effort with Community Transit and Sound Transit from April 6 to June 4, 2020. This effort consisted of online open houses in Spanish, Chinese and English, and a digital survey in Spanish, Chinese and English.

Value	Percent	Responses
Caucasian/White	79.3%	211
Black or African American	1.1%	3
Asian or Asian American	13.5%	36
Native Hawaiian or Other Pacific Islander	2.6%	7
American Indian or Alaskan Native	2.3%	6
Other (please specify) (click to view)	4.9%	13

Figure12 Link Connections: Northgate Demographic Data

In the updated proposal, Sound Transit and Community Transit routes would see a large overall increase in bus frequency for routes traveling from Snohomish County to the University District and Downtown Seattle. The online open house shared an overview of the proposed route-specific changes such as bus frequency, hours of operation and duration of service; users could both rate the importance of bus frequency and provide a written comment, if desired.

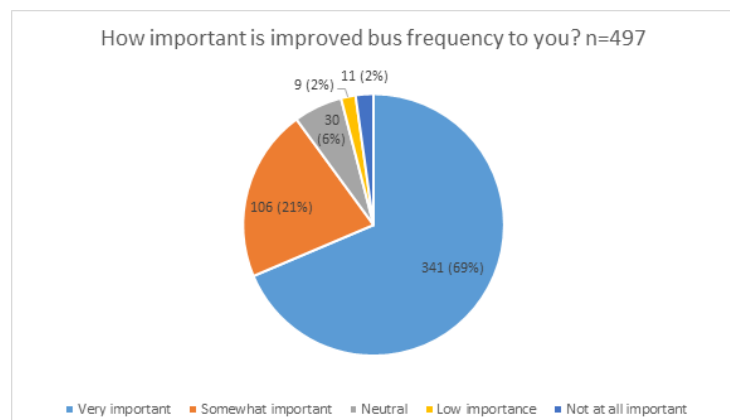


Figure 13 Importance of Improved Bus Frequency Response

4.4.4 Phase 3: 2021 Service Plan Engagement

Phase 3 was a collaboration effort within Sound Transit from Sept 4-25, 2020. This effort consisted of a survey, fact sheets in seven languages, a project website with links the translated fact sheets and survey, multi-lingual digital engagement toolkits distributed via email to Community Based Organizations and Agency partners and translated display ads in six languages: Spanish, Simplified Chinese, Vietnamese, Russian, Korean, and Tagalog, Radio

ads in Mandarin, Cantonese, and Spanish.

In September 2020, Sound Transit conducted online outreach regarding the proposed 2021 Service Plan changes which included all previous bus restructure proposals for the Project bus restructure. Online engagement included a survey that ran from Sept 4-25, 2020. The survey received a total of 1,902 survey responses (which included 630 partially completed surveys). The survey was offered in seven other languages, including Traditional Chinese, Simplified Chinese, Vietnamese, Korean, Russian, Tagalog and Spanish, with a total of 40 responses to the in-language surveys. The survey included questions about current and anticipated future transit use

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as well as open-ended questions about the clarity of the information in the service plan, what people thought about the service plan changes and impacts to riders' transit use during COVID-19. The survey also included demographic questions. The demographic data from the survey is shown in the figure below.

Value		Percent	Responses
Caucasian/White		79.2%	938
Black or African American		3.7%	44
Asian or Asian American		14.9%	177
Native Hawaiian or other Pacific Islander		1.4%	17
American Indian or Alaskan Native		2.8%	33
Other - Write In		6.6%	78

Figure 14 Phase 2021 Service Plan Engagement Demographic Data

4.5 Findings from the 2021 Service Plan Engagement

Overall, riders were excited about Link and for more frequent Link service. They believed the service plan changes were understandable but, also expressed interest in not cutting existing transit service/routes. About 15% of respondents did not feel that the proposed 2021 Service Plan would meet their travel needs. Riders had a preference for direct routes (minimize waiting at stations, accessibility concerns with transfers, preference for shorter transit trips). There was also a concern about COVID-19 (concern about safety of riding today, challenge of planning for the future, concern about crowded transit post-pandemic).

Current riders expressed that less frequent service during the pandemic has made transit feel less reliable. People need to adjust their personal schedules or are consistently late to work. Suggestions to increase non-peak hour transit options. Acknowledgement that people that do not have other transportation options are hard-hit by service reductions during pandemic.

Not-current riders expressed that the key reason for change in transit use was because people are making fewer trips, teleworking, etc. They also stated that less frequent service during pandemic has made transit feel less reliable, people that have cars often choose to drive.

It should be noted that with an extensive change of the overall system, there may have been too much information and people didn't have time to read it. Additional maps and a summary could make it more understandable.

4.6 Engagement for SAFE

To promote the comment period for the Northgate SAFE document, a press release was issued by Sound Transit. More than 200 news outlets received a copy of this press release, which includes almost 70 publications who target diverse community members. Finally, we sent out stakeholder emails to community groups who we previously engaged during the Northgate Link Connection bus restructure process. The survey received four respondents and two comments about flat fare structure that were forwarded to the Finance Department and the Fares Committee.

4.7 Summary for Public Involvement and Outreach

In conclusion, public involvement and outreach for the Project opening and service change has been ongoing since 2019. During each phase of engagement, the public weighed in on the plan,

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and their feedback helped shape the proposals as they emerged. Originally, the goal of outreach was to engage Snohomish County and north King County riders to see if they were willing to make a transfer at Northgate or Roosevelt stations to travel to Seattle – something that will be reflected in the ST Express bus network as Link extensions continue to open over the next few years. In the beginning – there was a willingness to transfer, but riders still wanted to maintain a one-seat ride option. Riders also felt uneasy about the transfer experience. Therefore, the Phase 2 service proposal included options.

The COVID-19 pandemic had financial implications for transit agencies. Sound Transit's 2021 Service Plan reflected a transfer experience for more routes than it did previously, in order to conserve expenditures and align itself with the future financial situation. Through the public engagement process, Route 586 was added back into the final 2021 Service Plan to help minimize the impact on low-income and minority populations who access that route. The majority of the proposed changes as a result to the Project will take place as part of the September 2021 service change. The public helped inform the final plan amidst the shifting process that resulted from the COVID-19 pandemic. Sound Transit leveraged equitable engagement practices in order to make sure priority populations had an opportunity to comment and help inform the process.

5 Conclusion

This report documents the Title VI Service and Fare Equity Analysis required for the Project. The analysis was based on agency Title VI thresholds and FTA's Circular 4702.1B to determine whether the proposed new service will have a disparate impact or disproportionate burden on minority and low-income populations relative to non-low-income and nonminority populations.

The opening of the Project offered a significant opportunity to restructure existing bus service to provide more connections for transit riders and minimize redundant services to ensure efficient use of transit operating resources. Community Transit, King County Metro and Sound Transit worked together to leverage the benefits of truncating a substantial portion of their bus services at new Link stations and reinvesting the saving of operating shorter routes with improved frequencies and span.

Based on the above analyses, where adverse effects created a disparate impact or a disproportionate burden to minority and low-income populations, mitigation measures were incorporated. Any negative effects are mitigated by the substantial improvements to service by each agency including the introduction of new routes and Link with high-capacity frequency.

Overall, the identified adverse effects are mitigated by the substantial improvements to transit service capacity and access for both the project area and region. Connecting both local and express bus service to the Project provides access to improved speed, reliability, and capacity. Also, the restructure of service is consistent with established long-term plans and balances the financial impacts of both the COVID-19 pandemic and the additional operating costs of delivering increased high-capacity transit.

Sound Transit has involved the public throughout all Project phases. Coordinating the service around the project with Metro and Community Transit, who conducted their own analysis, provided a comprehensive approach to Project including extensive outreach.

A disparate impact on minority populations and a disproportionate burden on low-income populations will result for the small number of customers who pay with cash and will need to transfer between Metro and Community Transit bus and Link after the service change take place. As discussed in the fare equity analysis portion of this report, Sound Transit and Metro will mitigate

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with the following efforts and an extensive public outreach and information campaign to inform riders of the need to use an ORCA card to ensure they can continue riding for a single fare (and avoid having to pay a higher fare through payment of two separate cash fares) for any transfer trips following the service change.

- Hand out ORCA card by street teams to cash-paying riders transferring between bus and Link services during the first few weeks of service.
- Provide cash riders with ORCA cards pre-loaded with fare value.
- Continue the ongoing marketing campaign to promote the ORCA LIFT program for low-income riders.
- Continue loading E-purse incentives on ORCA LIFT cards for those who qualify for this program.
- Work with Metro and Public Health staff who will also be on site at the new stations actively enrolling riders for reduced fare, youth and ORCA LIFT discounted fare programs.
- Provide information on how to use the card, and how and where to revalue, including online, retailers and TVMs at Link stations to riders new to ORCA.

In summary, this Title VI Service and Fare Equity Analysis concludes that the Project and associated service and fare changes prove beneficial and were selected without regard to race, color or national origin.

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6 Appendix

- A. [Sound Transit 2021 Service Plan](#)
- B. Metro September 2021 Public Transportation Service Changes Title VI Service Analysis
- C. Community Transit Northgate Link Service Restructure Proposal - Title VI Analysis
- D. Sound Transit 2021 Service Plan Appendix – Definitions and Methodology for Title VI Analysis (originally published with the draft 2021 Service Plan and findings used to develop final 2021 Service Plan)
- E. [Establishing policies for conducting equity analyses of Major Service Changes and Fare Changes impacting minority and low income populations, Sound Transit Resolution R2013-18](#)
- F. [Inclusive Public Participation Policy, Sound Transit Resolution R2011-15](#)
- G. [Establishing a Low-income Discount Fare, Sound Transit Resolution R2014-28](#)