

To: Board of Directors

From: Chris Simmons, Manager of System Planning

Date: February 2, 2023

Subject: Title IV Analysis – 2024 and Beyond Network

BACKGROUND

Community Transit is proposing a restructured bus network to align with the launch of Sound Transit's Lynnwood Link light rail in 2024. Restructuring bus service to feed north end light rail stations rather than directly connect to Northgate or downtown Seattle will allow the agency to provide more local bus service to more places within Snohomish County, while also allowing customers to easily connect to the regional High-Capacity Transit system.

The proposed 2024 and Beyond network was developed through a multi-year process which included multiple public involvement opportunities, internal and partner agency reviews, analysis of ridership data, and consideration of operational design best practices. It includes a 32% increase over March 2023 service levels with an emphasis on providing more frequent service. The proposed network represents the ultimate level of service anticipated to begin implementation in 2024 with continued ramp-up of route frequency levels in 2025 and 2026. The network proposal is described in the *Information: Transit Changes in 2024 and Beyond* memo presented to the Board of Directors at the February 2nd, 2022 Board meeting.

In compliance with federal regulations, Community Transit evaluates service change proposals for impacts to racial minorities and low-income populations. If negative impacts exceed adopted thresholds, Title VI policy requires justification for the disparate or disproportionate impacts, evaluation of lower impact alternatives, and/or mitigation. The analysis is subject to public review and becomes part of the record to be considered by decision makers in approving the proposed changes. Board policy (Resolution 04-12) requires an impact analysis and public hearing for service changes that alter 25 percent or more of a route's geography or service hours, and for service changes that call for addition or elimination of a route. Service changes that meet this threshold are considered "major service changes."

Status

Staff has conducted an analysis on the 2024 and Beyond network proposal and has determined that it qualifies as a major service change. Since the proposed changes include significant adjustments to route geography and naming conventions, this analysis uses system-level and stop-level data to assess impacts.

Title VI Analysis

The proposed 2024 and Beyond network includes the elimination of service into King County, with service to downtown Seattle and Northgate station terminating instead at the future Lynnwood Link light rail station. Service capacity from these eliminated segments is re-invested to allow for increased service levels within Snohomish County. Routes will also be restructured within Snohomish County to improve local connectivity.

For this analysis, routes in both the March 2023 network and proposed 2024 and Beyond network are identified as Minority Routes or Low-Income Routes as determined through demographic analysis using data from the latest available Census information. Routes that have higher-than-average minority or low-income population are considered Title VI routes. These definitions for the proposed routes are listed in the table below.

Route	Low-Income Population %* (for Census Tracts within 1/4 mile of the Route)	Title VI Low-income Route**	Percent of Route Miles in Minority Census Tracts (with 1/4 mile buffer)	Title VI Minority Route***	Route
101	23.7%	Yes	100.0%	Yes	101
102	18.0%	No	53.3%	Yes	102
103	21.7%	Yes	93.0%	Yes	103
106	18.4%	No	97.2%	Yes	106
109	19.7%	Yes	43.1%	Yes	109
111	12.5%	No	25.3%	No	111
112	18.3%	No	89.1%	Yes	112
114	18.4%	No	76.3%	Yes	114
117	21.4%	Yes	74.3%	Yes	117
119	18.7%	Yes	76.9%	Yes	119
120	15.7%	No	94.8%	Yes	120
121	17.0%	No	100.0%	Yes	121
130	17.7%	No	50.8%	Yes	130
166	17.0%	No	70.0%	Yes	166
201	22.5%	Yes	41.5%	Yes	201
202	22.4%	Yes	39.1%	Yes	202
209	16.7%	No	33.1%	No	209
220	19.9%	Yes	0.0%	No	220
222	20.0%	Yes	56.2%	Yes	222
223	19.9%	Yes	30.2%	No	223
230	19.1%	Yes	0.0%	No	230
240	19.7%	Yes	0.0%	No	240
270	21.0%	Yes	0.0%	No	270
271	23.3%	Yes	8.0%	No	271
280	20.6%	Yes	0.0%	No	280
701	24.0%	Yes	83.5%	Yes	701
702	19.6%	Yes	93.9%	Yes	702
703	22.5%	Yes	100.0%	Yes	703
901	19.0%	Yes	64.5%	Yes	901
903	19.2%	Yes	18.1%	No	903
904	22.3%	Yes	35.6%	Yes	904
905	22.0%	Yes	5.8%	No	905
907	23.1%	Yes	12.2%	No	907
908	13.6%	No	35.4%	Yes	908
909	15.8%	No	42.7%	Yes	909

When comparing overall service allocated to Title VI and non-Title VI routes in both the 2022 and 2024 and Beyond networks, there is a slight increase in both the total hours and total miles operated for both populations. The difference between these service level changes does not exceed the agency’s adopted 20% threshold, and therefore does not represent a disparate impact or disproportionate burden for low-income service hours or miles, or minority service hours. The difference between the minority and non-minority service miles changes, however, statistically rises to the level of a disparate impact. As explained in the technical analysis, this is an artifact of the methodology. In short, Community Transit cannot account for the service miles being provided as a part of the Link Light Rail service from Sound Transit replacing the service miles being provided by Community Transit commuter routes. Therefore, while the rider experience actually results in an increase in overall service available to the rider, the data shows a service disparity. Due to the significant increase in service quantity and reliability provided by the Link light rail connection, the analysis concludes that the change in bus service miles in the I-5 corridor does not represent a meaningful disparate impact.

	Minority	Non-Minority	Low Income	Non-Low Income
Service Hours	+7.2%	+7.6%	+7.9%	+7.5%
Service Miles	+3.9%	+5.3%	+5.6%	+4.9%

Further analysis was completed on service levels at individual stops that are identified as serving Title VI populations. The Technical Analysis section provides additional information on the areas showing significant service changes, both in increases and decreases, in terms of affected service areas and how the proposed route structure accounts for those differences. The proposed structure incorporated an equity analysis component from the beginning of the design process, and changes at the stop level can be accounted for through the provision of different services serving slightly different locations.

RECOMMENDATION

Information only. A public comment period on this proposal and the final Title VI analysis will be conducted from February 2, 2023, through March 1, 2023. A Board presentation will be provided on February 2, 2023 outlining the process and major changes from previous public drafts. A public hearing on the proposal will be held at the March 2, 2023, Board meeting. The Board will hear staff's recommendation and consider action on the proposal at the April 6, 2023 meeting.

Technical Analysis

This technical analysis section outlines the data and methodology used to analyze the proposal.

Service Hour Analysis

The service hours were analyzed by assigning the total amount of service time on a route to each stop along that route, adding the route times together when a stop serves multiple routes. The system totals are then used for comparison. The comparison basis is for the March 2023 service plan to this proposal.

Plan Year	Minority	Non-Minority	Low Income	Non-Low Income
2023	1,491,898,161	3,044,662,475	896,522,297	3,583,560,957
2026	1,598,877,685	3,276,425,877	967,311,264	3,853,608,371

Service Mile Analysis

The service miles were analyzed by assigning the total service miles on a route to each stop along that route, adding the route miles together when a stop serves multiple routes. The system totals are then used for comparison. The comparison basis is for the March 2023 service plan to this proposal.

Plan Year	Minority	Non-Minority	Low Income	Non-Low Income
2023	28,161,525,485	59,091,336,444	17,325,145,285	68,745,739,018
2026	29,249,298,937	62,243,958,893	18,294,151,986	72,096,988,688

Results

The agency threshold for further analysis on whether a disparate impact or disproportionate burden has been reached is a 20% or greater difference between the populations being compared. The threshold is not met for service hours under either a minority or low-income population nor for service miles under a low income population. The threshold is exceeded, however, for the service miles accorded to minority populations.

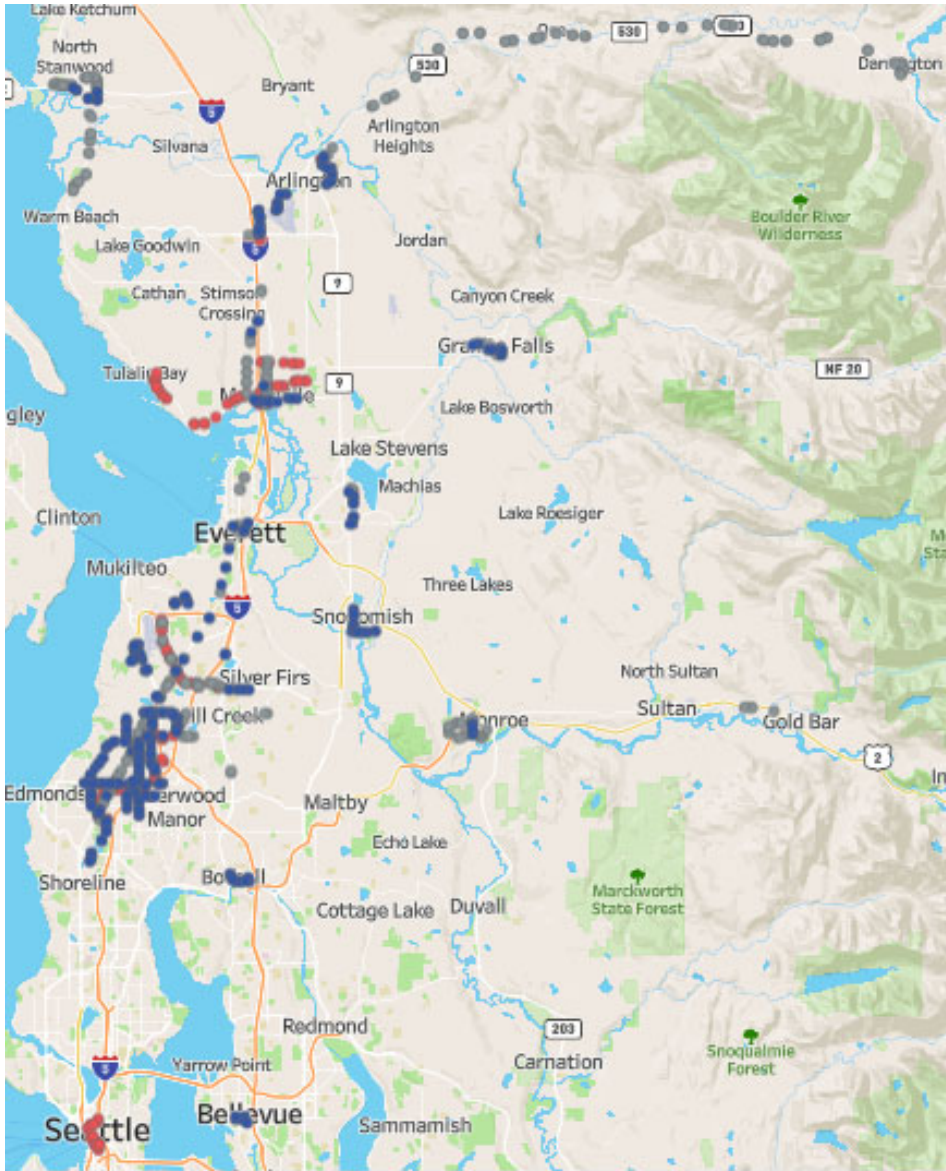
The agency anticipated this potential result in its service design. The commuter bus routes running between Snohomish County communities and downtown Seattle encompassed a large number of service miles that were, by design, being removed in favor of Sound Transit's Link Light Rail service between Lynnwood and downtown Seattle. That service, when fully launched, is designed to provide many times the capacity provided by Community Transit commuter bus services. Therefore, the system design intended to create greater service frequencies on local routes to connect to that more robust light rail service, at the cost of service miles attributable to Community Transit. Through this shift towards regional services for regional travel, it is the agency's conclusion that no further mitigation measures are needed on a system basis to account for the relative difference in the change of system miles between minority and non-minority Census tracts.

Stop Level Analysis

Prior to an in-depth discussion of the Title VI impacts of this service change at the stop level, some limitations of the methodology and map need to be identified:

- Swift Orange service metrics are included in the analysis numerically but cannot be made visible on the map because they are not yet assigned a location in Community Transit's GIS database. This means a significant amount of service in the 2024 and Beyond network is not visible on the map.
- There is a data artifact that can distort the service proposal impacts at transit centers: The map shows impacts at individual bays rather than summing service at the transit center as a whole. Since 2024 and Beyond routes were assigned transit center bays without reference to the bays currently served by routes, the percentage change at each bay can vary widely – from total loss to a doubling or more of service – even if the service metrics for the transit center as a whole are improving.
- The length of the route in both miles and hours is multiplied by the number of weekly trips on that route and then imputed to every stop along that route. This means that stops served by commuter routes to King County may show a large decrease in service, but many, and in some cases most, of those miles are operated in King County and as such do not represent actual losses to Snohomish County-based riders, who will be connected to Link for access to their King County destinations.
- As Link light rail is operated by Sound Transit and not Community Transit, the operations of that service cannot be directly included in this Title VI analysis as it is constrained to the operations of Community Transit. Therefore, while the actual experience of the riders and community would not experience an overall loss of connectivity or service, the data reflects service losses as the regional connections are transferred to Sound Transit services.

In this examination of the Title VI impacts of the 2024 and Beyond network, service decreases and increases affecting high minority and high poverty stops will be discussed. Most service decreases affect groupings of stops around a similar geography, although individual stops/stop pairs are also affected. These are often complex changes involving multiple routes. Service improvements tend to be linked to improvements in individual route service levels. Discussions of each affected stop grouping experiencing a significant change in service levels under the 2024 and Beyond network plan is below.



Map of service hour and/or service mile changes at minority and/or low income stops

Grey = no significant change

Blue = significant increase

Red = significant decrease

Decreases

1. Airport Road and Seaway Transit Center

This segment is currently served by just over half of weekday route 105 trips. The network restructure eliminates route 105, but maintains frequent, convenient Swift Green service along this segment with stations located in the best proximity of origin/destination locations. Community Transit service levels at Seaway Transit Center will improve five-fold with the addition of 20-minute service on route 103.

2. Ash Way Park & Ride

There are multiple issues at Ash Way that result in a lack of map clarity about the amount of service available here in the 2024 network. First, this park & ride is served by multiple frequent commuter routes (413, 415, 810, 860, 880) to Seattle that skew the service metrics with the elimination of service in King County. Second, the changes are displayed separated by bays, rather than for the park & ride as a whole; some routes may have moved from one bay to another, which displays as a loss of route

miles and hours, but in actuality is no change at all. Third, because Swift Orange stations cannot be mapped, the improvements in service miles and hours that the Orange Line brings are not visualized. When the service metrics for all Ash Way Park & Ride stops, including the Swift Orange station, are added, both service miles and service hours at Ash Way Park & Ride increase, and the increase of service hours is greater than 20%. The proposed changes around Ash Way therefore represent a significant improvement for the high minority and high poverty populations around this park and ride.

3. 164th St. SW between Ash Way and 36th

Stops between SR 525 and 35th show a decrease in miles as an artifact of the elimination of frequent commuter routes 413, 415, and 880. Because these routes extend to Northgate and downtown Seattle, the loss of route length in King County skews the impact of these route eliminations. Customers on this segment will have good access to Link at Lynnwood Station on Swift Orange, which is not visualized, and routes 112 and 116, which are. The stops at Manor Way shows a decrease in both miles and hours because they are currently served by routes 115, 116, and 196, which are being replaced by route 166. Customers at this stop will have access to Lynnwood via route 112, 166, and a .25 mile walk to the Orange Line station at Swamp Creek Park & Ride.

4. Alderwood Mall Parkway

Stops on Alderwood Mall Parkway near 33rd are currently served by routes 107, 115, 116, and 196. In the new network, this service is replaced by routes 117 and 166. The proposed restructure around Swift Orange maintains good service frequency to this location, with two routes operating 30-minute headways, and improves access to the west side of Alderwood Mall dramatically in return for the decrease here.

5. Southwest Alderwood Mall

Stops along 33rd Ave. W south of 188th St. SW show a decrease in service as the pathway from Mukilteo on route 103 is shifted from 33rd to 188th. One of these stops will be replaced by an Orange Line station. The remaining stops are short distances away from and Orange Line station (800 feet) and route 117 stops (400 feet). The stops on Alderwood Mall Blvd. at 33rd are currently served by multiple routes but will maintain service on route 117 after 2024.

6. 200th St. SW (route 114)

There are two distinct segments of 200th that show decreased service: east of Lynnwood Transit Center, and west of Lynnwood Transit Center. The segment on the east side is currently served by five routes. Three of these, routes 115, 116, and 196, will be replaced by route 166. Routes 107 and 113 will be replaced by route 117. Both restructured routes operate 30-minute headways, maintaining a good connection to Lynnwood Transit Center and Link light rail.

West of Lynnwood Transit Center, 200th St. SW is currently served by routes 115 and 116, operating a combined 15-minute headway. With the Orange Line restructure, these routes will be replaced with route 114, operating 30-minute headways. The resulting decrease in service extends through the shared pathway of routes 115 and 116, traveling by Edmonds College to 212th St. SW. However, significant service increases can be seen on 196th, .25 miles north of 200th, and access to Edmonds College will be greatly expanded with Swift Orange. South of Edmonds College, service is improved on 76th and Hwy 99, both very nearby.

7. 220th St. SW

There is a single stop pair on 220th just east of 66th that will be newly unserved with the elimination of commuter routes 405 and 871. Customers who currently use this stop can walk around the corner to access improved route 119, which has significantly better span than routes 405 and 871 and provides a direct trip to the regional connections available at Mountlake Terrace Link Station.

8. McCollum Park

McCollum Park Park & Ride is showing decreased miles because it is currently served by three commuter routes to King County (routes 412, 810, and 860), which are replaced in the new network by route 901, providing an express trip to Link light rail at Lynnwood Station. Route 115 is proposed for elimination, but it will be replaced by Swift Orange, which provides a vast improvement in service frequency and span, and likewise provides a reliable connection to Lynnwood Station. The map view of service at McCollum Park is skewed, as Swift Orange stations are included in the analysis but are not yet located in Community Transit's GIS system and therefore cannot be visualized on the map. Swift Orange will add a net of nearly 14,000 service miles at McCollum Park Park & Ride.

9. Tulalip/Marysville (route 222)

The apparent decrease in service in Tulalip and Marysville is a result of changes made to route 222. In the proposed network, route 222 is streamlined and shortened, but service frequency and span are improved. All stops that display as decreased service will have improved frequency, and better connections to regional routes like the 201, 202, 904, and 905. The segments removed from route 222 are added into new route 223, which will operate with similar service characteristics to the current route 222.

10. Smokey Point Boulevard (route 201)

Service decreases shown at three stops on Smokey Pt. Blvd. just south of 172nd St. NE are the result of moving route 202 from Smokey Point Blvd. to 51st Ave. NE. Route 201 will continue to provide 30-minute headways on this segment. The new segments on route 202 lie in census tracts with similar demographics, so this change effectively expands access to transit to more high poverty areas at the cost of frequency for the affected stops.

11. Downtown Arlington (route 227)

Service to stop 1049 on West Avenue will be removed with the changes to Boeing service, which discontinue Route 227, which currently serves this stop. Improved service is accessible less than .1 mile away on Olympic Avenue. For customers traveling to Boeing, route 907 will serve Smokey Point Community Church Park & Ride and the Smokey Point Transit Center, operating twice as many trips to Boeing as the current route 227.

Increases

Most service improvements identified on the map are the result of improved frequency and/or span of service on individual routes. The methodology imputing increased route length to each stop along that route accounts for the service improvements at some stops. High minority and high poverty segments and stops with improved service are identified by route or geographic area below.

1. Swift Blue

Multiple stations on Highway 99/Evergreen and in downtown Everett show increased levels of service as a result of the Swift Blue extension to the 185th St. Link Station in North Shoreline. Both service miles and service hours are increased as a result of this change.

2. Swift Orange

Although not visible on the map, Swift Orange will improve service on all 23 stops it serves by offering new Bus Rapid Transit service meeting agency service standards of 10-minute headways and all week service.

3. Route 103

Route 103 improvements affect stops along much of its length, including Hardeson Road stops, Seaway Transit Center, stops in the Harbour Pointe neighborhood, stops along 148th St. SW, 35th/36th Ave. W, 33rd Ave. SW, and 194th St. SW. Route 103's 20-minute headways are an improvement over current service on route 113, and route 103 provides a new connection between SR 525 and Seaway Transit Center.

4. Downtown Bothell

Routes 106 and 120 combine to provide more service to affected stops on Bothell Way, NE 185th St., and Beardslee Blvd. These stops are currently served by route 105, which operates 1-2 trips per hour on weekdays. When the 2024 and Beyond network is fully implemented, routes 106 and 120 will provide a combined 4 trips per hour in each direction during peak hour, and 3 trips per hour during the midday.

5. Route 109

Route 109 serves affected stops along 99th Ave. SE in Lake Stevens and on 132nd St. SE between SR 527 and 35th Ave. SE. 30-minute peak weekday headways improve on current 60-minute headways on both segments. Additionally, express route 901 will provide 30-minute peak headways on the 132nd St. SE corridor. Please see the item on Snohomish below for discussion of an additional 109 segment.

6. Route 112

Route 112 improvements touch affected stops along most of the northern half of the route, on 164th St. SW and 44th Ave. W north of Lynnwood Transit Center. On route 112, weekday headways will improve from 60 hours to 20 hours, and weekend headways will improve from 60 hours to 30 hours, providing a frequent, reliable connection to light rail.

7. Route 117

Route 117 serves affected stops on SR 525 near Harbour Pointe and at Lincoln Way. These stops are currently served by peak service only on routes 107, 417, and 880. The future route 117 will provide full weekday and weekend service to these stops.

8. Route 119

Most stops served by route 119 are high poverty and/or high minority stops. Weekday headways on route 119 will improve from 60 to 30 hours, increasing the number of weekday trips by nearly 60%.

9. Route 120

In addition to the previously discussed stops in downtown Bothell, route 120 serves affected stops along 204th St. SW between 44th and Poplar Way. Route 120 headways will improve from 60 to 30 hours on both weekdays and weekends.

10. Routes 130/909

Route 130 serves affected stops along 76th Ave. W, and both routes 130 and 909 served affected stops on Lakeview Drive, near Lake Ballinger. All of these stops are currently served only by route 130, which operates headways that vary from 30 to 60 hours. In the 2024 and Beyond network, route 130 weekday headways will improve to a consistent 30 hours, and route 909 will provide additional trips every 50 hours.

11. Route 166

Route 166 improves service to affected stops along 196th from Alderwood Mall Parkway to 80th Ave. W in Edmonds. These stops are currently served by route 196, which currently operates headways that vary from 30 to 60 hours on weekdays. Route 166 will improve service by operating consistent 30 minute headways on weekdays and Saturdays. Route 166 is also longer than route 196, which increases the connections for customers and improves the service metrics at these stops.

12. Route 220

Route 220 serves affected stops on much of its pathway through Arlington, which remains unchanged in the 2024 and Beyond network. The 60-minute headways it operates are also unchanged, but span is expanded on both weekdays and weekends.

13. Routes 209/223

Route 209 serves affected stops along 4th St./64th St. NE in Marysville and on 30th Ave. NE in Quil Ceda Village. Weekday peak headways are improved from 60 to 30 hours on route 209. Additionally, the new route 223 will serve affected stops along 4th St./64th St. NE in Marysville, further improving service levels along this corridor.

14. Central Stanwood

In Stanwood, affected stops are located along 268th ST NW, 72nd Ave. NW, and Pioneer Highway. Improvements at these stops include increased span on route 240, and span and frequency on route 905 that is an increase over current express service on routes 247 and 422.

15. I-5 Flyer Stops

Community transit service to I-5 flyer stops at 116th St. NE in Marysville will improve with the increased number of trips on route 905. Routes 903, 904, and 905 will all add stops at the South Everett Freeway Station to provide more connections to North County customers.

16. 109/270/271/908 Snohomish

Service improvements affect multiple high poverty stops along Ave. D and 2nd St. in central Snohomish. These stops are currently served by routes 109, 270, 271, and 424. In the 2024 and Beyond network, route 424 will be replaced by route 908. All of these routes will have improved frequency and/or span in the future network.

17. Route 908

In addition to the stops in Snohomish already discussed, Route 908 also serves affected stops on 179th Ave. SE in Monroe. Route 908 is shorter than its current counterpart, route 424, since it ends in Bellevue instead of downtown Seattle. However, route 908 will operate 12 trips each weekday, tripling the number operated by route 424.