

Arterial BRT Corridor Concepts

Network**NEXT**

December 2020

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Introduction

The project team developed corridor concepts for each of the eleven corridors, shown in Table 1, that were advanced through the arterial BRT candidate corridor screening phase. Corridor concepts include alignments, termini, concept station locations, and concept service plans; these elements form the basis of the corridor evaluation. This memo outlines the station siting methods and criteria applied to the corridors and introduces each of the corridor concepts in greater detail.

Table 1. Advancing Corridors

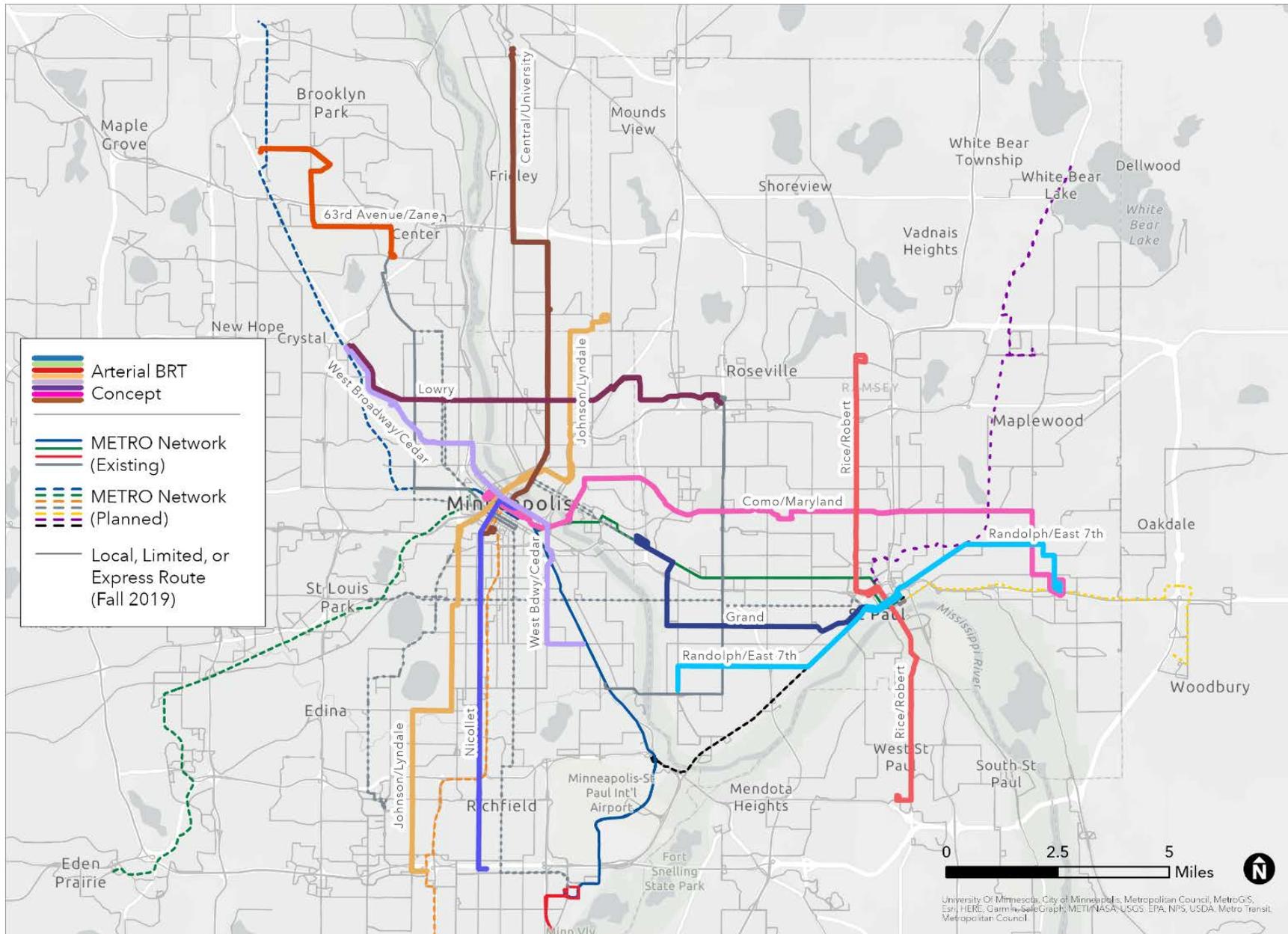
Corridor	Approximate Length (mi)
63rd Avenue/ Zane	6.0
Central	13.0
Como/ Maryland	16.6
Grand	8.5
Johnson/ Lyndale	17.1
Lowry	10.5
Nicollet	9.2
Randolph/ East 7th	11.5
Rice/ Robert	11.5
West Broadway/ Cedar	10.5

West 7th/ White Bear Corridor Screening

In fall 2020, Metro Transit engaged stakeholders around the 11 advanced corridors that emerged from the screening step. During this period, Ramsey County requested that Metro Transit remove the West 7th/ White Bear corridor from continued consideration in the Network Next process as the County advances efforts on the Riverview Corridor Modern Streetcar. The locally preferred alternative for the Riverview Corridor, a Modern Streetcar from downtown St. Paul to the airport and Mall of America along West 7th Street, was adopted into the regional Transportation Policy Plan (TPP) in 2019. The Engineering and Pre-Environmental study phase of the Riverview project began in October 2020 and is planned to continue through 2023. This process will examine impacts and gather detailed information to inform the project's preliminary design. These efforts will include detailed, corridor-specific analysis of both the Modern Streetcar locally preferred alternative and a BRT alternative.

The West 7th/ White Bear corridor will not advance in Network Next, leaving the 10 corridors listed above advancing for technical evaluation and prioritization.

Figure 1. Advancing Corridors



Concept Development Methods

Corridor concepts are meant to represent the application of arterial BRT in each corridor and provide adequate definition to facilitate corridor evaluation. Concept station locations are shown at the intersection level. Generally, a station intersection is representative of two station platforms, one in each direction; an intersection located on a one-way street represents one station platform. Corridor service plans were developed to represent approximate level of arterial BRT and connecting/ supporting service within the corridors. Further planning and stakeholder engagement will refine station locations and service plans in future phases of corridor development.

Alignment and Termini

Alignment and termini shown in the corridor concepts are generally consistent with the corridors as defined by Metro Transit for the candidate corridor screening. In the few cases where alternate routing is proposed it is noted in the concept.

Concept Station Locations

The project team identified concept station locations by creating a base map that incorporated trip generators and future land use, stop-level boarding and alighting counts and schedule transit trips, as well as transit connections. Key stations were assigned near major land use trip generators, stops with high existing ridership, and major transfer points to local and METRO routes. Table 3 lists the data sources used to facilitate the station siting process.

Intermediate stations were assigned between the key stations with qualitative consideration for access and spacing, potential fatal flaws, and pedestrian/ bike access. Individual station siting rationale is provided by corridor in the appendix. Spacing followed the regional transitway guidelines of 2016 for arterial BRT routes, shown in Table 2, siting stations 0.25 to 0.5 miles apart. Parallel corridors were compared for consistency in station spacing and locations.

Table 2. Regional Transitway Guidelines (2012) for Arterial BRT Station Spacing

Station Spacing Guideline	Station Spacing	Stations per Mile
Average Spacing*	1/4 (0.25) mile to 1/2 (0.5) mile	4 to 2
Minimum Spacing between Two Stations*	1/8 (0.125) mile or longer	--

* Outside downtown Minneapolis and Saint Paul

Table 3. Corridor Concepts Station Siting Analysis Layers

Layer	Description	Data Source
Corridor Stop Activity	Combined weekday boarding and alighting activity by stop of the primary route(s) covering the corridor currently; fall 2019 automatic passenger counter (APC) data	Metropolitan Council
Weekday Ridership by Route (All Non-Corridor Routes)	Combined weekday boarding and alighting activity by stop for all Metro Transit routes, not including the primary route(s) used for each corridor; fall 2019 APC data	Metropolitan Council
Weekday Trip Count (All routes except express)	Sum of the number of trips (buses) available at each individual Metro Transit bus stop on weekdays, regardless of route, fall 2019; excludes service from express routes	Metropolitan Council
Transitway Stations – Existing	Transitway stations for the Northstar commuter rail line, METRO Green and Blue light rail lines, and the METRO Red, A, and C lines	Metropolitan Council
Transitway Stations – Planned	Transitway stations planned for the METRO Green (Southwest) and Blue line light rail extensions, and the D Line, Orange, Gold, and Rush BRT lines	Metropolitan Council
Transit Routes – 2019	Existing local, express, BRT, light rail, and commuter rail transit routes, fall 2019	Metropolitan Council
Planned 2040 Allowable Residential Density	The planned allowable residential land use intensities used for 2040 comprehensive planning requirements, as of April 2020	Metropolitan Council
Generalized Land Use 2016	Existing generalized land use qualifications, as of 2016	Metropolitan Council
BRT Candidate Corridor Buffers – ¼ Mile	Buffer around all corridors evaluated in the candidate corridor screening process	Project team
Schools	All institutions of higher education, high schools, middle schools, and elementary schools, public and private	ESRI
Hospitals	All general care hospitals	ESRI
City Boundaries	Municipal boundaries within the region	ESRI
Aerial Basemap	A detailed world imagery basemap for urban fabric context	ESRI

Concept Service Plans

A preliminary service plan was developed for each arterial BRT corridor concept for planning and evaluation purposes. These service plans represent approximate level of service within the corridors, including service from the arterial BRT line and connecting/ supporting local routes. The amount of connecting/ supporting local service in each corridor was developed with the goal of maintaining existing connections and preserving service on segments not identified for arterial BRT service. Additional work and engagement will be done to determine final service plans prior to the implementation of the BRT corridor.

Downtown Alignments

Downtown station locations were generally excluded from the above alignment and station siting process. Instead, downtown corridor segments were assigned to an existing or potential transit spine. In downtown Minneapolis, this included Hennepin Avenue, Nicollet Mall, 7th/ 8th Street, and Washington Avenue; in downtown Saint Paul, this included Robert Street and 5th/ 6th Street corridors.

As shown in Figure 2, a new Washington Avenue alignment is proposed in downtown Minneapolis. Operating new arterial BRT service on Washington Avenue would result in better route spacing and legibility compared to the use of alignments from existing primary underlying routes of the Central (Route 10), Como/ Maryland (Route 3), Nicollet (Route 18), and West Broadway/ Cedar (Routes 14 and 22) corridor concepts. Moreover, a new Washington Avenue transit spine would enable opportunities for shared arterial BRT stations among these four corridor concepts. Table 4 lists the proposed arterial BRT corridor concepts in downtown Minneapolis and their relationship to the transit spines. Additional consideration should be given to the desired relationship with the intersecting north-south transit spine along Marquette and 2nd Avenues (Marq2).

Table 4. Corridor Concepts in Downtown Minneapolis and Relationship to Transit Spine Alignments

Corridor Concept	Orientation	Transit Spine	Notes
Como/ Maryland	East – west	Washington Avenue – from Cedar Avenue to 3rd Avenue N	Existing Route 3 uses 3rd/4th Street
West Broadway/ Cedar	East – west	Washington Avenue – from Cedar Avenue through downtown	Existing Route 14 uses 6th/7th Street; existing Route 22 uses Washington, 4th/5th Avenue, and 7th/8th Street
Central	North – south	Nicollet Mall – Washington Avenue to 3rd Avenue S	Three-block segment on Washington between Nicollet and 3rd Avenue S; existing Route 10 uses 1st Street S, Marquette/2nd Avenue S, and Washington
Nicollet	North – south	Nicollet Mall – Washington Avenue to 4th Avenue S	Four-block segment on Washington between Nicollet and 4th Avenue S; existing Route 18 uses Washington in northbound direction and 3rd Street S in southbound direction
Johnson/ Lyndale	North – south	Hennepin Avenue	Shared with METRO E Line

Future planning should consider capacity constraints in downtown Saint Paul, including the relationships to local bus service and planned transitways. Planned METRO Gold Line and B Line will use 5th/6th Street in downtown Saint Paul, while the planned Rush Line will travel north-south via Robert Street. Four of the arterial BRT corridor concepts would interact with these planned transitways (Figure 3):

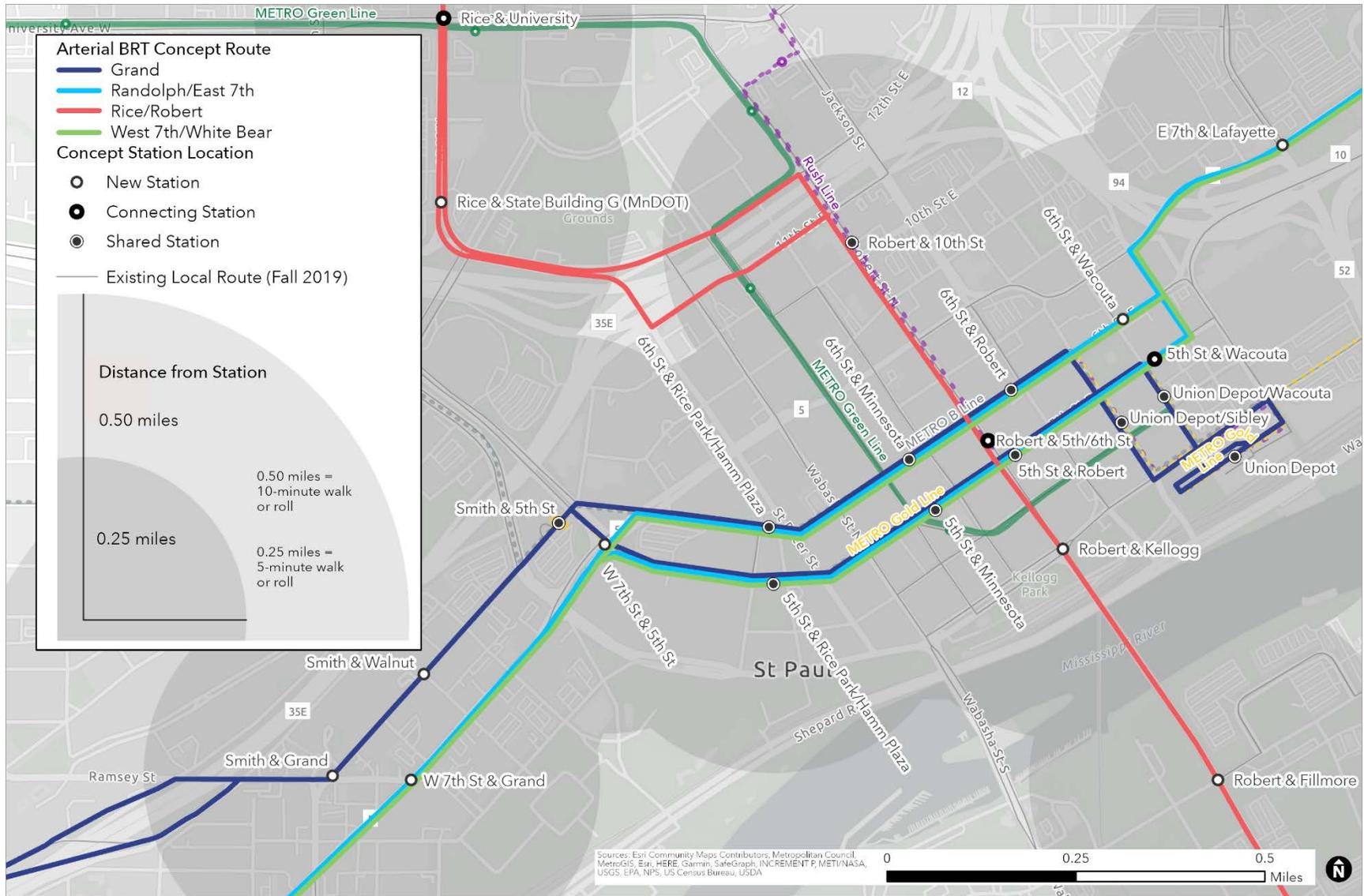
- The Grand concept would use all 10 planned METRO Gold Line and B Line stations in downtown Saint Paul; the three stations furthest east (around Union Depot) would also be served by the planned Rush Line.
- The Randolph/ East 7th corridor concept would use 6 of 10 planned METRO Gold Line and B Line stations in downtown Saint Paul; the 5th & Robert and 6th & Robert stations would be served by the planned Rush Line as well.
- The Rice/ Robert concept would serve the Rush Line’s Robert Street & 10th Avenue station. The proposed Rice/ Robert concept station at Robert & 5th/ 6th Street would not be shared, but would provide connections to the nearby 5th Street & Robert and 6th Street & Robert stations, each of which would be served by the Rush Line and METRO Gold and B Lines.

Table 5 lists the concepts in downtown Saint Paul and their relationship to the transit spines.

Table 5. Corridor Concepts in Downtown Saint Paul and Relationship to Transit Spine Alignments

Corridor Concept	Orientation	Transit Spine	Notes
Grand	East – west	5th/6th Streets	Shared with METRO B Line, METRO Gold Line, and Rush Line; existing Route 63 uses 5th and 6th Streets today
Randolph/ East 7th	East – west	5th/6th Streets	Shared with METRO B Line, METRO Gold Line, and Rush Line; existing Route 63 uses this alignment today
Rice/ Robert	North – south	Robert Street	Shared with Rush Line between 5th and 12th Streets; existing Route 62 uses Cedar and Wabasha Streets; existing Route 68 uses Robert Street

Figure 3. Corridor Concepts in Downtown Saint Paul



Corridor Concepts

For all corridor concepts, a table outlines the concept station locations and rationale. Where proposed station locations differ from those identified in precedent studies (e.g., Arterial Transitway Corridors Study), an explanation for the change is provided. Overview maps show the station locations and current ridership activity in the corridors. Stations are organized from west to east, or from north to south, depending on the general orientation of the corridor.

An overview of the number of stations and average station spacing is shown in Table 6. It also compares the proposed spacing to the existing and planned stations for the METRO A, B, C, D, and E Lines.

Table 6. Average Corridor Concept Station Spacing

Corridor Concept	Approximate Length	Number of Station Intersections	Average Station Intersections per Mile	Average Spacing Between Station Intersections (Miles)
63rd Avenue/ Zane	6.0	15	2.5	0.40
Central	13.0	30	2.3	0.43
Como/ Maryland	16.6	40	2.4	0.42
Grand ¹	8.5	24	2.8	0.35
Johnson/ Lyndale ²	17.1	42	2.5	0.41
Lowry	10.5	24	2.3	0.44
Nicollet	9.2	24	2.6	0.38
Randolph/ East 7 th ³	11.5	36	3.1	0.32
Rice/ Robert	11.5	30	2.6	0.38
West Broadway/ Cedar	10.5	27	2.6	0.39
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A Line	9.6	20	2.1	0.48
C Line	8.6	20	2.3	0.43
D Line	17.8	40	2.2	0.45
B Line (plan in development)	12.7	33	2.6	0.38
E Line (study concept)	12.8	31	2.4	0.41
A-E Averages			2.3	0.43

¹ Includes four additional intersections for one-way pairs in downtown Saint Paul, calculation based on 20 station intersections.

² Includes two additional intersections for one-way pairs in northeast Minneapolis, calculation based on 40 station intersections.

³ Includes four additional intersections for one-way pairs in downtown Saint Paul, calculation based on 32 station intersections.

63rd Avenue/ Zane

Concept Station Locations

From north to south, the corridor begins at the Starlite Transit Center in Brooklyn Park and ends at the Brooklyn Center Transit Center. The 63rd Avenue/ Zane preliminary concept identifies 15 station intersections over the approximately 6.0-mile corridor. Today, the corridor is primarily served by Route 724.

Considerations in the corridor:

- The proposed terminal at the existing Starlite Transit Center is 0.1 mile from the future METRO Blue Line station at West Broadway Avenue and Brooklyn Boulevard. Future planning should consider how to integrate transit modes at this location.
- The corridor connects to the future METRO Blue Line extension. The Metropolitan Council is committed to working closely with community and city partners to determine the best course forward for the METRO Blue Line Extension project.
- Longer station spacing between the Brooklyn Center Transit Center and Xerxes & 63rd is due to low density of land use and low ridership.

Concept Service Plan

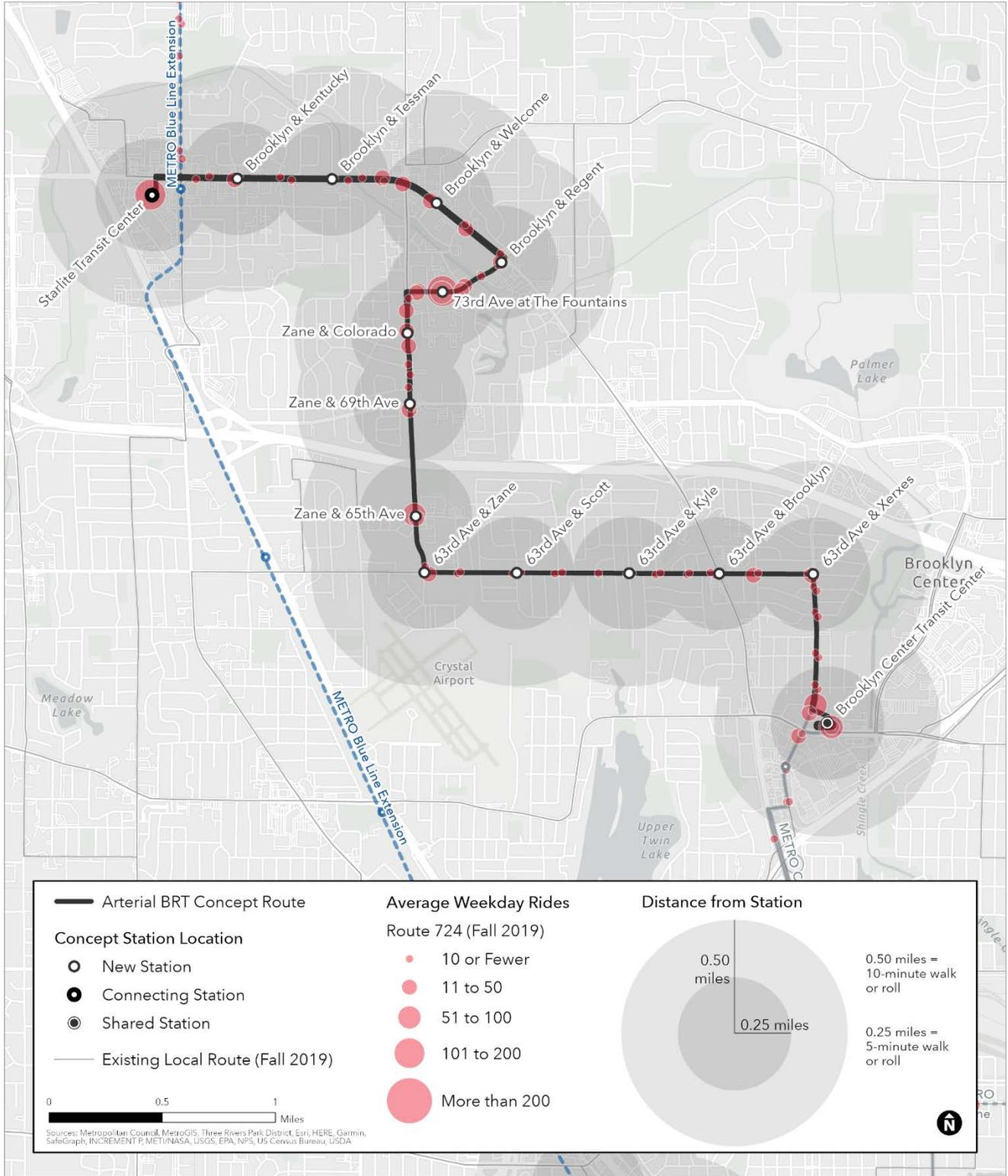
The 63rd Avenue/ Zane arterial BRT concept would operate every 10 minutes for most of the day (Table 7). Six buses would be required to provide this level of service. The arterial BRT service would replace the existing limited stop Route 724 that operates within the corridor today. The proposed Route 724 would be modified to instead operate between the Starlite Transit Center (the proposed northern terminal BRT station) and the Target North Campus. Modified Route 724 would operate approximately every 30 minutes throughout most of the day, seven days per week, requiring two buses.

Table 7. 63rd Avenue/ Zane Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
63rd Avenue/Zane BRT	20	10	10	10	20	30
Route 724	-	30	30	30	30	-

Map

Figure 4. 63rd Avenue/ Zane Concept Alignment and Station Locations



Central

Concept Station Locations

From north to south, the corridor begins at Northtown Mall in Blaine and ends in downtown Minneapolis. The Central preliminary concept identifies 30 station intersections over the approximately 13.0-mile corridor. Today, the corridor is primarily served by Route 10.

Considerations in the corridor:

- The station at University and 69th Avenue in Fridley differs from the station siting identified in the 2012 Arterial Transitway Corridors Study (ATCS) due to new developments in the area. The station would also serve Fridley city hall.
- A station is sited to the west of the intersection of Central Avenue & 53rd Avenue, near Target.
- Stations at 49th Avenue and 45th Avenue could be shifted to better serve the Hilltop mobile home community.
- The station at 41st Avenue would be on-street, removing the current pull-in to the Columbia Heights Transit Center.
- Station siting in the segment between the Columbia Heights Transit Center and Lowry Avenue in Minneapolis with low existing Route 10 ridership could be adjusted; planning should consider a station near apartment homes at 35th Avenue.
- Mid-block station siting between University Avenue and 4th Street along Central would facilitate transfers to the METRO E Line.
- The current alignment would partially operate on a new Washington Avenue transit spine in downtown Minneapolis.
- Future planning should consider an alternative alignment that uses the Hennepin Avenue bridge to cross the Mississippi River, then travels along East Hennepin Avenue and Northeast 1st Avenue in northeast Minneapolis. Such may alleviate the potential for shared station and alignment issues along the proposed Washington Avenue transit spine at South 3rd Avenue & Washington Avenue.

Maps

Figure 5. Central Concept Alignment and Station Locations – North

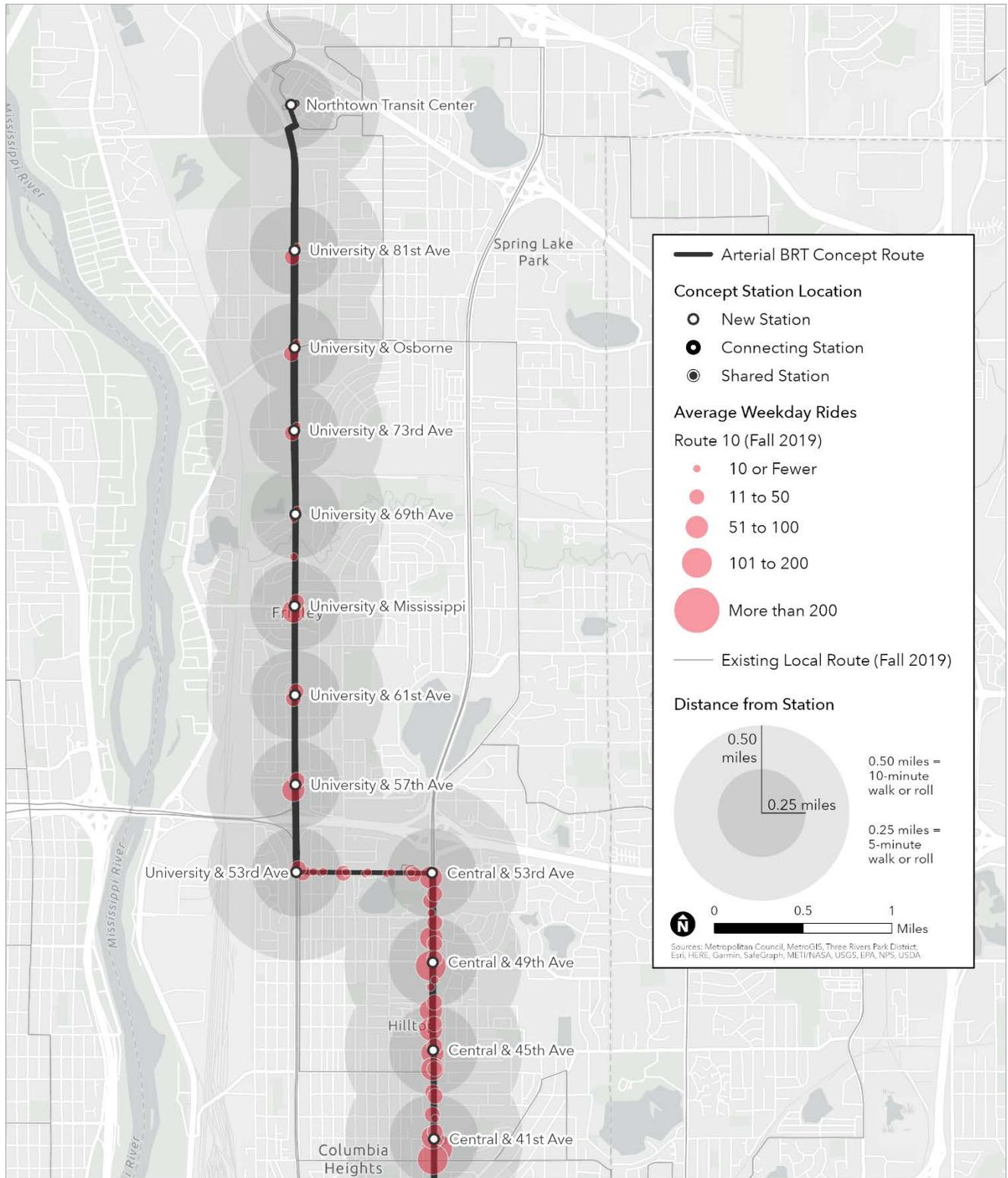
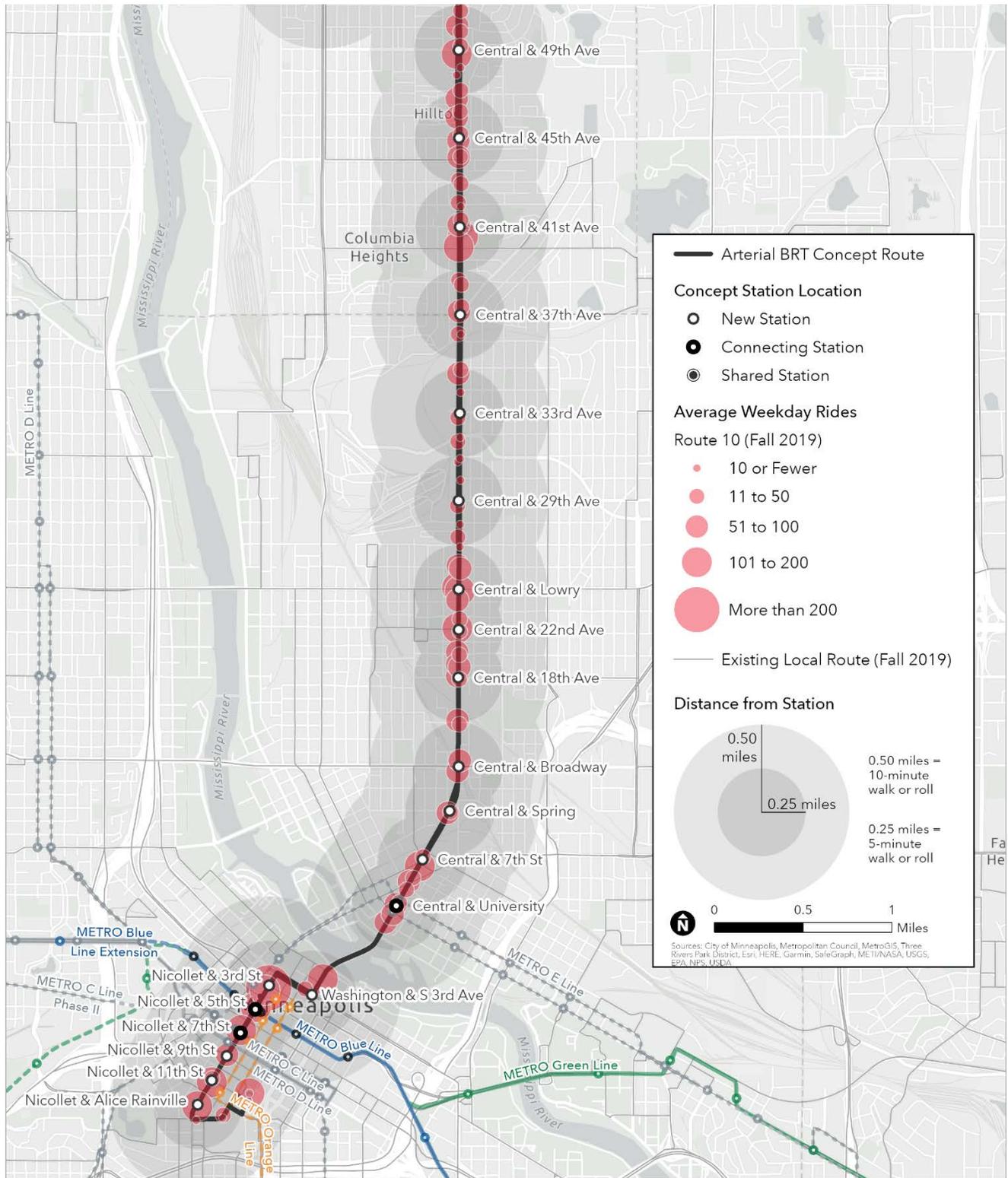


Figure 6. Central Concept Alignment and Station Locations – South



Concept Service Plan

The corridor is served today primarily by Route 10, which operates three main patterns (or branches) based out of downtown Minneapolis:

- 10H to 53rd Avenue via Central Avenue,
- 10N to Northtown Transit Center via Central Avenue and Monroe Street north of 53rd Avenue, and
- 10U to Northtown Transit Center via University Avenue north of 53rd Avenue.

Additionally, Route 59 serves this corridor, providing peak-only limited stop service on Central Avenue between 53rd Avenue and downtown Minneapolis. A few Route 59 trips also provide service north of 53rd Avenue. Route 10 would be modified to operate as a single pattern, and Route 59 would be eliminated as part of the Central arterial BRT concept plan.

The Central arterial BRT concept route mirrors the structure of existing Route 10U and would operate between downtown Minneapolis and Northtown Transit Center via Central Avenue to 53rd Avenue and via University Avenue north of 53rd Avenue (Figure 5). The arterial BRT concept would operate every 10 minutes for most of the day (Table 8). Fifteen buses would be required to provide this level of service.

Route 10 would continue to operate on a path similar to the existing Route 10N branch, maintaining service through Spring Lake Park and Fridley along Central and Monroe Avenues north of 53rd Avenue. Modified Route 10 would operate approximately every 30 minutes throughout most of the day, seven days per week, requiring six buses.

Table 8. Central Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
Central BRT	20	10	10	10	20	30
Route 10	-	30	30	30	30	-

Como/ Maryland

Concept Station Locations

From west to east the corridor begins in downtown Minneapolis and ends at the Sun Ray Transit Center in Saint Paul. The Como/ Maryland preliminary concept identifies 40 station intersections over the approximately 16.6-mile corridor. Today, the corridor is served by Route 3 west of Rice St, Route 64 along Maryland Avenue between Payne Avenue and White Bear Avenue, and Route 80 along White Bear Avenue.

Considerations in the corridor:

- Route 3 currently operates on 3rd Street and 4th Street, one-way pairs, in downtown Minneapolis. The recommended station locations reflect a shift east one-to-two blocks to the Washington Avenue transit spine.
- Station spacing between Washington & 11th and Washington at Willey Hall is proposed at 0.7 miles. An additional station may be considered to improve transfers with the METRO Green Line and to serve the Seven Corners and Riverside Plaza areas. There may be opportunities for a shared station with the West Broadway/ Cedar corridor in this area near Cedar & 3rd Street.
- Station spacing is longer than the guidelines near the State Fairgrounds due to current land use and access constraints; stations are sited at Como & Fifield and Como at the Minnesota State Fairgrounds, 0.65 miles apart.
- Station spacing is longer than the guidelines between the Van Slyke & Como and Maryland & Grotto stations due to low existing Route 3 ridership activity and the existing street network.
- Future planning should consider longer station spacing along White Bear Avenue south of Maryland Avenue, which is served today by Route 80 and has low ridership activity.
- The corridor would end at the Sun Ray Transit Center, near a planned METRO Gold Line station.

Maps

Figure 7. Como/ Maryland Concept Alignment and Station Locations – West

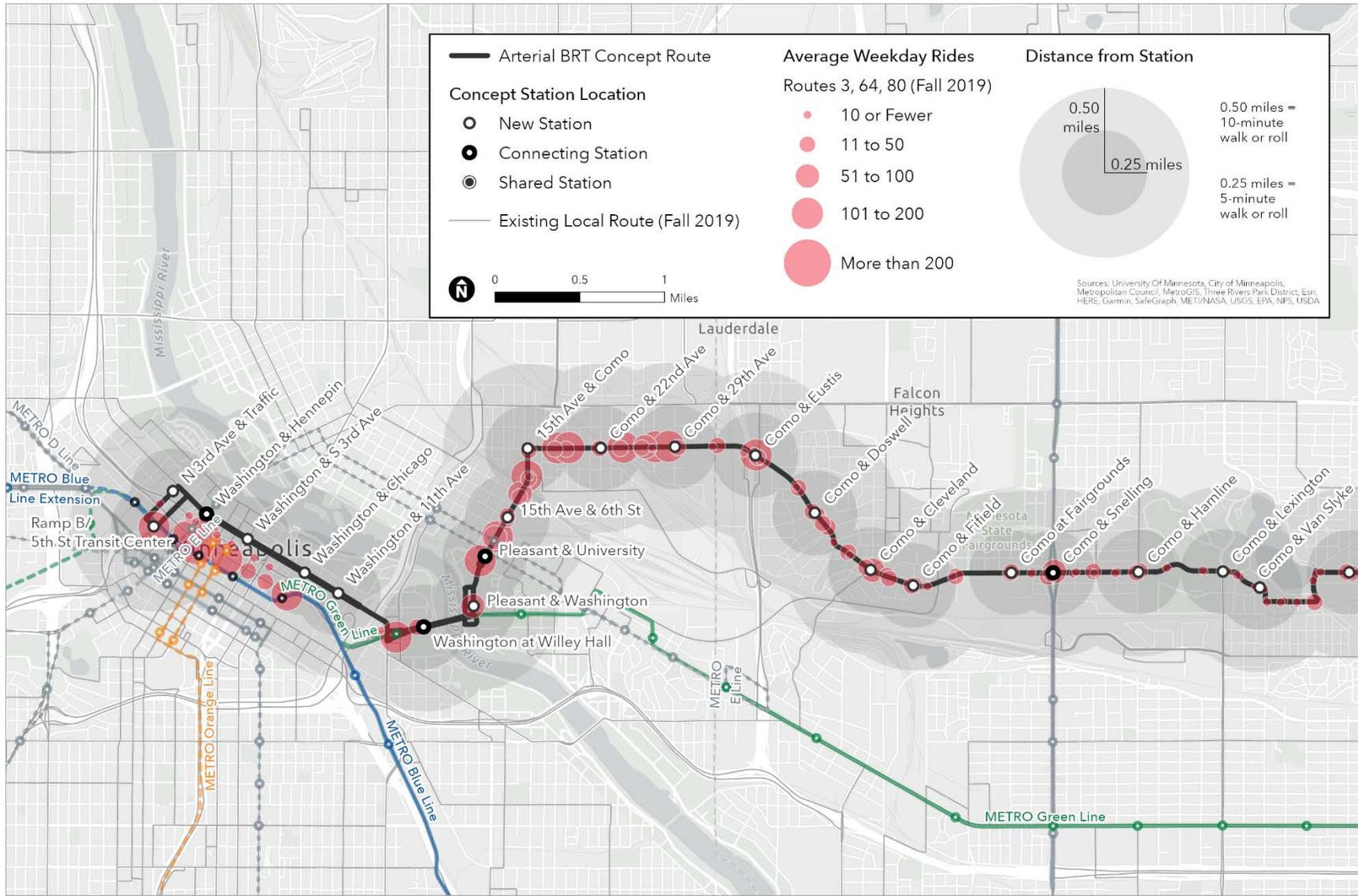
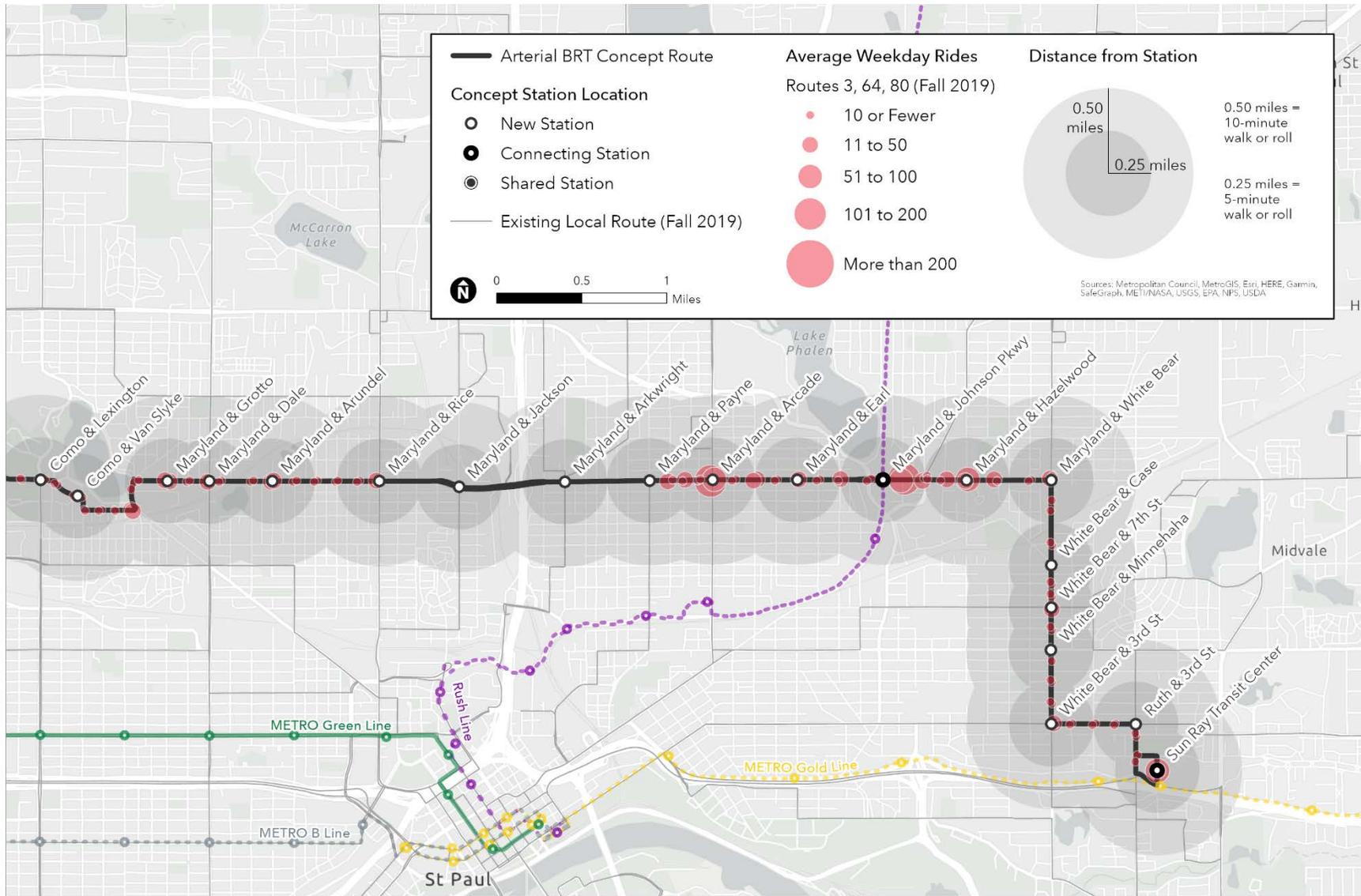


Figure 8. Como/ Maryland Concept Alignment and Station Locations – East



Concept Service Plan

Today, the corridor is served by Route 3 west of Rice Street, Route 64 along Maryland Avenue between Payne Avenue and White Bear Avenue, and Route 80 along White Bear Avenue. Route 3 would be eliminated and replaced with arterial BRT service and a new Route 66.

The Como/ Maryland arterial BRT concept would operate every 10 minutes for most of the day (Table 9). Eighteen buses would be required to provide this level of service.

Route 66 would provide connecting local service from the State Fairgrounds at Como Avenue just west of Snelling Avenue to downtown Saint Paul, via Energy Park Drive, Front Avenue, and Como Avenue. This area is served today by the Route 3B branch. Route 66 would operate approximately every 30 minutes throughout most of the day, seven days per week, requiring three buses.

Table 9. Como/ Maryland Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
Como/ Maryland BRT	20	10	10	10	20	30
Route 66	-	30	30	30	30	-

Grand

Concept Station Locations

From west to east, the corridor begins at Berry Street by the Westgate METRO Green Line station and ends in downtown Saint Paul. The Grand preliminary concept identifies 24 station intersections over the approximately 8.5-mile corridor. This includes four additional intersections for one-way pairs in downtown Saint Paul. Today, the corridor is primarily served by Route 63.

Considerations in the corridor:

- Long station spacing from Vandalia & Wabash to Cretin & Marshall Avenue is due to pedestrian access gaps and transit-unfriendly land uses. The corridor crosses I-94 and then proceeds along a golf course.
- Corridor alignment along I-35E resulted in longer station spacing from Grand & Dale to Grand & Smith.
- Future planning should consider capacity constraints in downtown Saint Paul with overlap of the METRO Gold Line, Rush Line, B Line, and Randolph/ East 7th corridors and local service.

Concept Service Plan

The corridor is served today by Route 63, which operates from Berry Street & University Avenue through downtown Saint Paul to the Sun Ray Transit Center before terminating at McKnight Road and Lower Afton Road. As part of the concept service plan, Route 63 would operate only between downtown Saint Paul and Sun Ray Transit Center.

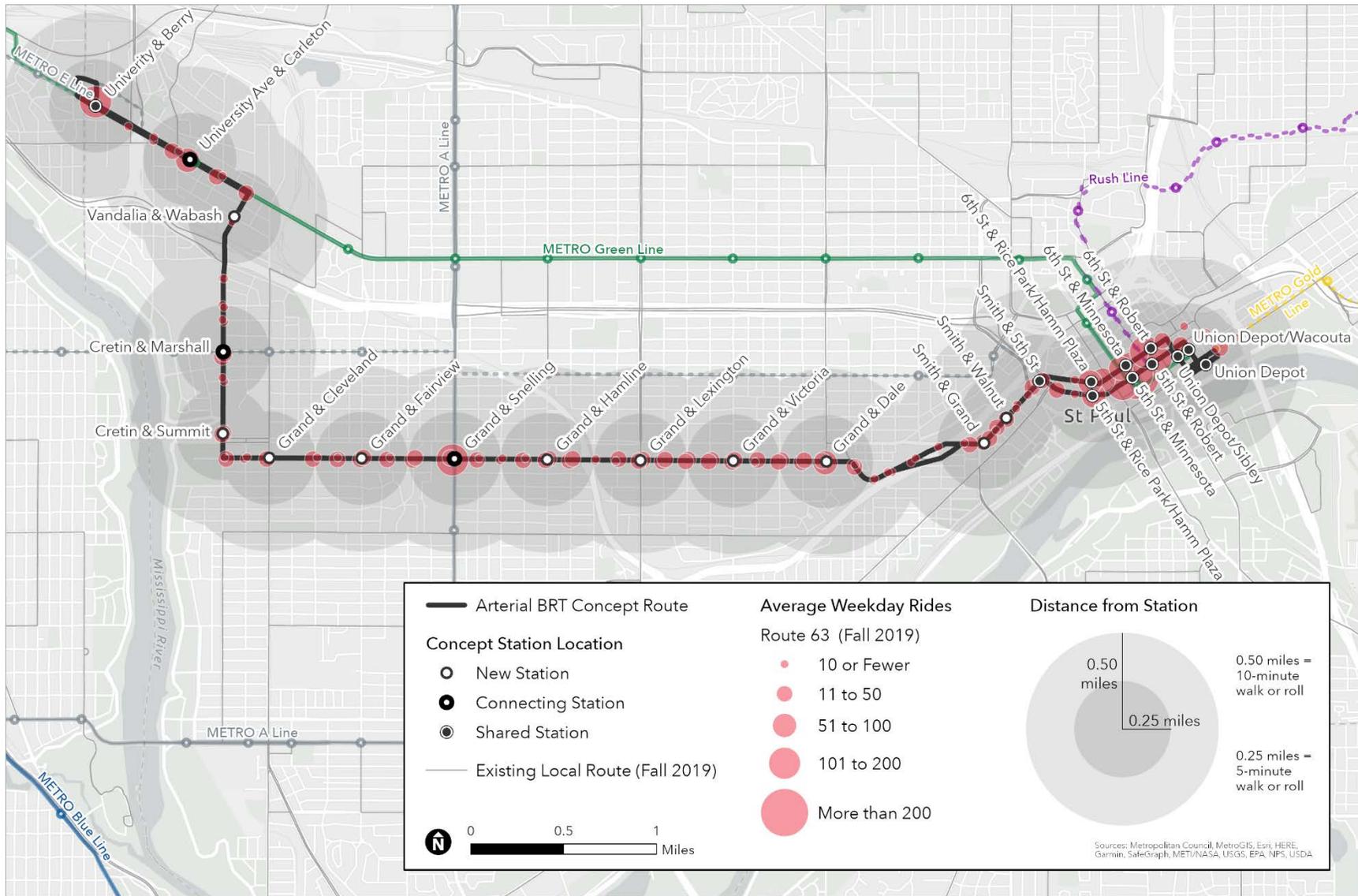
The Grand arterial BRT concept would operate every 10 minutes for most of the day (Table 10) between University Avenue & Berry Street and Union Depot in on the eastern edge of downtown Saint Paul. Nine buses would be required to provide this level of service. Modified Route 63 would operate between Smith Ramp on the western edge of downtown Saint Paul and Sun Ray Transit Center via East 3rd Street, with service approximately every 30 minutes throughout most of the day, seven days per week. Modified Route 63 would require three buses.

Table 10. Grand Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
Grand BRT	20	10	10	10	20	30
Route 63	-	30	30	30	30	-

Map

Figure 9. Grand Concept Alignment and Station Locations



Johnson/ Lyndale

Concept Station Locations

From north to south, the corridor begins at Silver Lake Village in St. Anthony and ends in Bloomington near the METRO Orange Line station at Knox Avenue & American Boulevard. The Johnson/ Lyndale preliminary concept identifies 42 station intersections over the approximately 17.1-mile corridor. This includes two additional intersections for one-way pairs in northeast Minneapolis. Today, the corridor is primarily served by Route 4.

Considerations in the corridor:

- The specific station siting at Silver Lake Village is to be determined.
- Platforms would be sited on opposite sides of I-35W at Johnson & East Hennepin and Johnson & Broadway.
- Siting a station at 10th Avenue SE & 8th St SE may prove challenging given the I-35W bridge and existing street network. Final decisions should consider access to high density residential areas on the east side of I-35W.
- Station siting in northeast Minneapolis along Hennepin and 1st Avenues should consider relationships to planned METRO E Line stations and potential stations in the Central corridor.
- The corridor would share stations with the METRO E Line in a common segment from Hennepin & 4th Street NE to Groveland Avenue.
- Stations located between Franklin Avenue and 46th St largely parallel those of the planned METRO D Line.
- Route 4 follows Bryant Avenue today between 31st Street and 50th Street. The arterial BRT alignment is shown following Bryant Avenue (Figure 10, Figure 11), though the City of Minneapolis is exploring the potential to move transit service to Lyndale Avenue as it plans to reconstruct Bryant Avenue. Concept alignment and stations shown on this segment of the corridor may be reconsidered as the long-term alignment of transit service in this corridor is reviewed and refined.
- A station is sited at Penn & 54th near a small commercial node and the potential for residential development identified in the 2040 Comprehensive Plan.
- The southern terminal station would be shared with the METRO Orange Line at Knox Avenue & American Boulevard.

Maps

Figure 10. Johnson/ Lyndale Concept Alignment and Station Locations – North

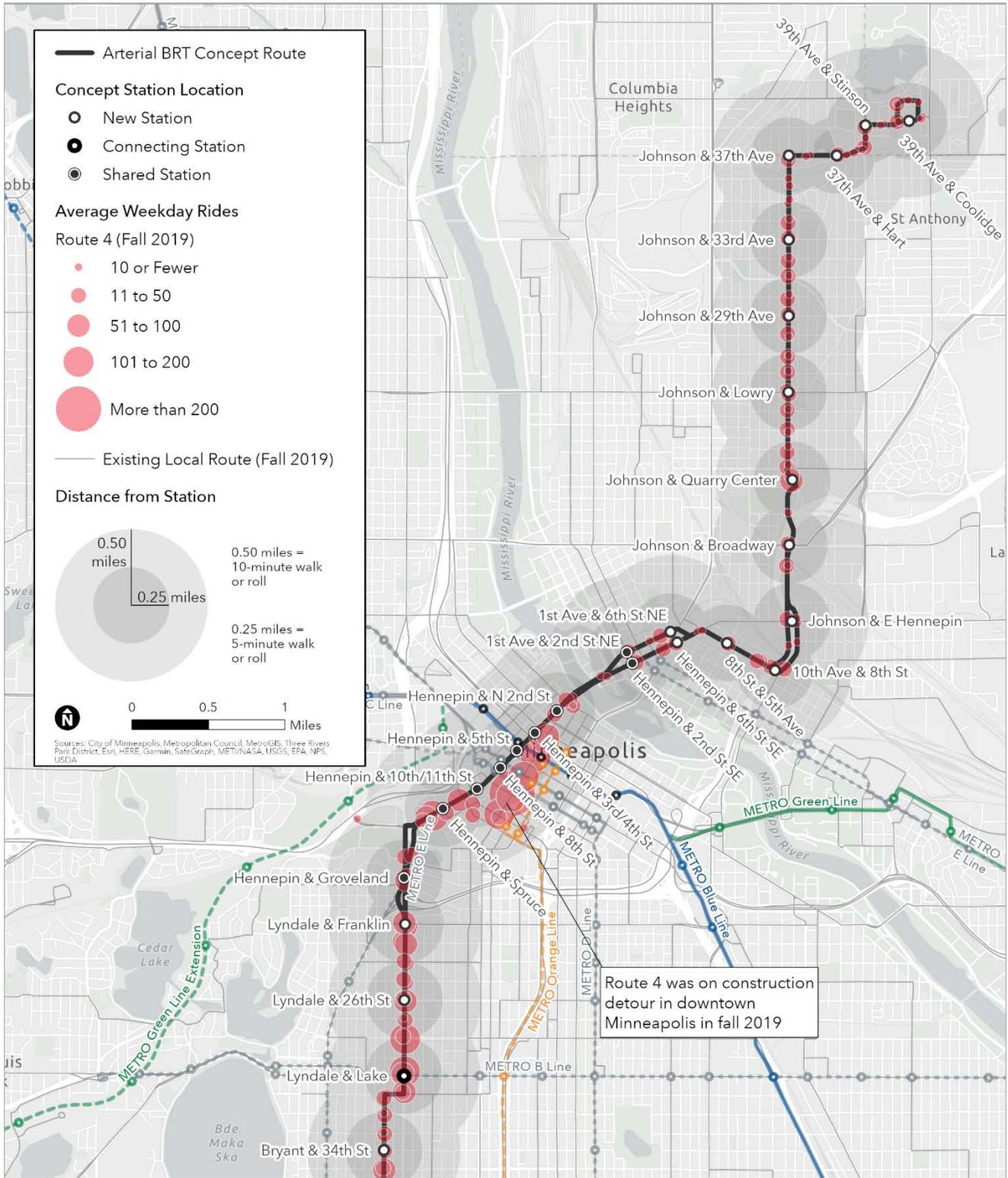
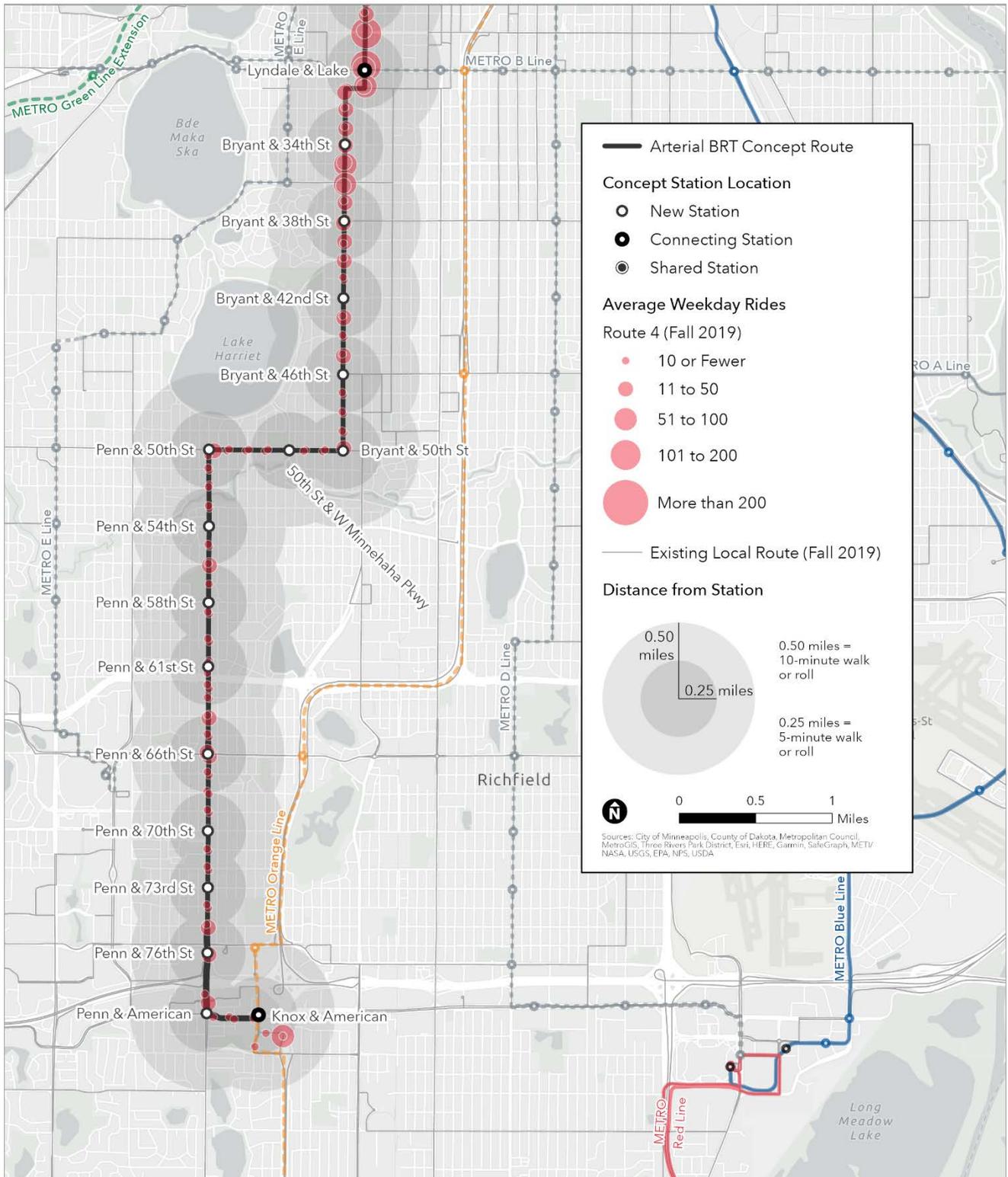


Figure 11. Johnson/ Lyndale Concept Alignment and Station Locations – South



Concept Service Plan

The Johnson/ Lyndale corridor is served today primarily by Route 4, which operates several patterns (or branches). Portions of existing Route 4 patterns would continue under the concept service plan to maintain service coverage and provide supporting underlying local service. Additionally, existing Route 141 serves the corridor from downtown Minneapolis to the Silver Lake Village in St. Anthony before continuing north to 1st Avenue Northwest & Old Highway 8 in New Brighton. Route 141 would be eliminated as part of the Johnson/ Lyndale arterial BRT concept plan.

The Johnson/ Lyndale BRT route would operate seven days per week, with service every 10 minutes for most of the day (Table 11). Twenty buses would be required to provide this level of service.

The Johnson/ Lyndale arterial BRT concept route incorporates multiple existing Route 4 branches. South of 46th Street, BRT would run primarily along Penn Avenue before reaching its terminal station at Knox Avenue & American Boulevard. Lyndale Avenue would be served by a modified Route 4 that is similar to the existing Route 4B from Knox Avenue & American Boulevard to downtown Minneapolis via Lyndale Avenue. Additionally, the new Route 804 shuttle would connect the BRT’s northern terminal station in St. Anthony to 1st Avenue Northwest & Old Highway 8 in New Brighton; this shuttle serves as a replacement for existing Route 4 branches D, E, and F, and Route 141.

Both of the modified connecting local service – Routes 4 and 804 – would operate approximately every 30 minutes throughout most of the day, seven days per week (Table 11).

Table 11. Johnson/ Lyndale Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
Johnson/ Lyndale BRT	20	10	10	10	20	30
Route 4	-	30	30	30	30	-
Route 804	-	30	30	30	30	-

Lowry

Concept Station Locations

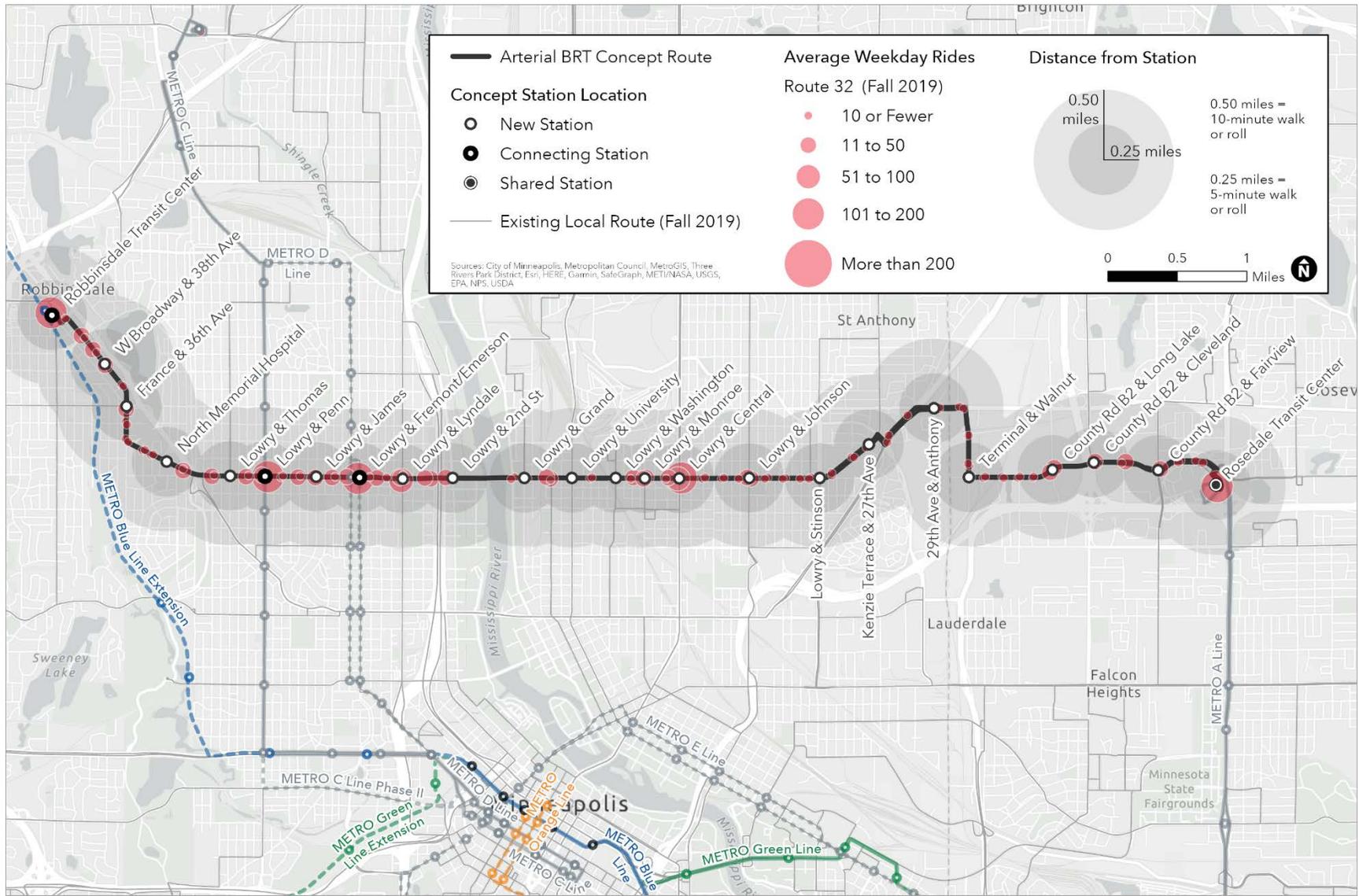
From west to east, the corridor begins in downtown Robbinsdale and ends at the Rosedale Transit Center. The Lowry preliminary concept identifies 24 station intersections over the approximately 10.5-mile corridor. Today, the corridor is primarily served by Route 32.

Considerations in the corridor:

- The corridor shares its alignment and stations with the West Broadway/ Cedar Corridor from downtown Robbinsdale to North Memorial Hospital. Sited stations in this segment are consistent with the West Broadway Transit Study (WBTS), except for eliminating the station at France & 34th Ave. Station siting at North Memorial Hospital would require thorough analysis and engagement.
- The corridor connects to the future METRO Blue Line extension. The Metropolitan Council is committed to working closely with community and city partners to determine the best course forward for the METRO Blue Line Extension project.
- The Thomas Avenue station fills the gap between North Memorial Hospital and Penn Avenue, and serves the area east of the Broadway & Lowry interchange.
- Station siting at Fremont/ Emerson is to be determined. Midblock siting would better serve METRO D Line transfers, while Emerson has better spacing in relationship to the stations at James and Lyndale.
- The station siting at Lowry & 2nd Street is based on the residential development potential identified in the 2040 Comprehensive Plan and to serve the area between the Mississippi River and I-94.
- The Grand Street station would be the new transfer point to Route 11.
- Redevelopment along Kenzie Terrace and a former mobile home court could shift the station location at 27th Avenue in St. Anthony.
- Longer station spacing in the industrial area between St. Anthony and the Rosedale Transit Center is due to the low existing ridership on Route 32.

Map

Figure 12. Lowry Concept Alignment and Station Locations



Concept Service Plan

The Lowry arterial BRT concept would operate with service every 10 minutes for most of the day (Table 12). Nine buses would be required to provide this level of service. The arterial BRT service would replace the existing Route 32, which operates along the same streets today.

Table 12. Lowry Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
Lowry BRT	20	10	10	10	20	30

Nicollet

Concept Station Locations

From north to south, the corridor begins in downtown Minneapolis ends in Bloomington near American Boulevard. The Nicollet preliminary concept identifies 24 station intersections over the approximately 9.2-mile corridor. Today, the corridor is primarily served by Route 18.

Considerations in the corridor:

- The north terminal would be at Washington & 3rd Avenue S.
- Stations located between Franklin Avenue and 46th Street largely parallel those of the planned METRO D Line.
- Redevelopment of the Kmart site north of Lake Street and reconnection of Nicollet Avenue may be a consideration for the implementation of this corridor.
- The station at 46th Street would be 0.15 mile from the METRO Orange Line station at 46th Street and I-35W.
- A station is sited at 60th Street to serve the Cub Foods grocery store and apartment homes to the north and south. This location currently does not have a bus stop; current stops are located at 59th Street and 61st Street.
- The southern terminal station would be near the intersection of Nicollet & American Boulevard.

Map

Figure 13. Nicollet Concept Alignment and Station Locations – North

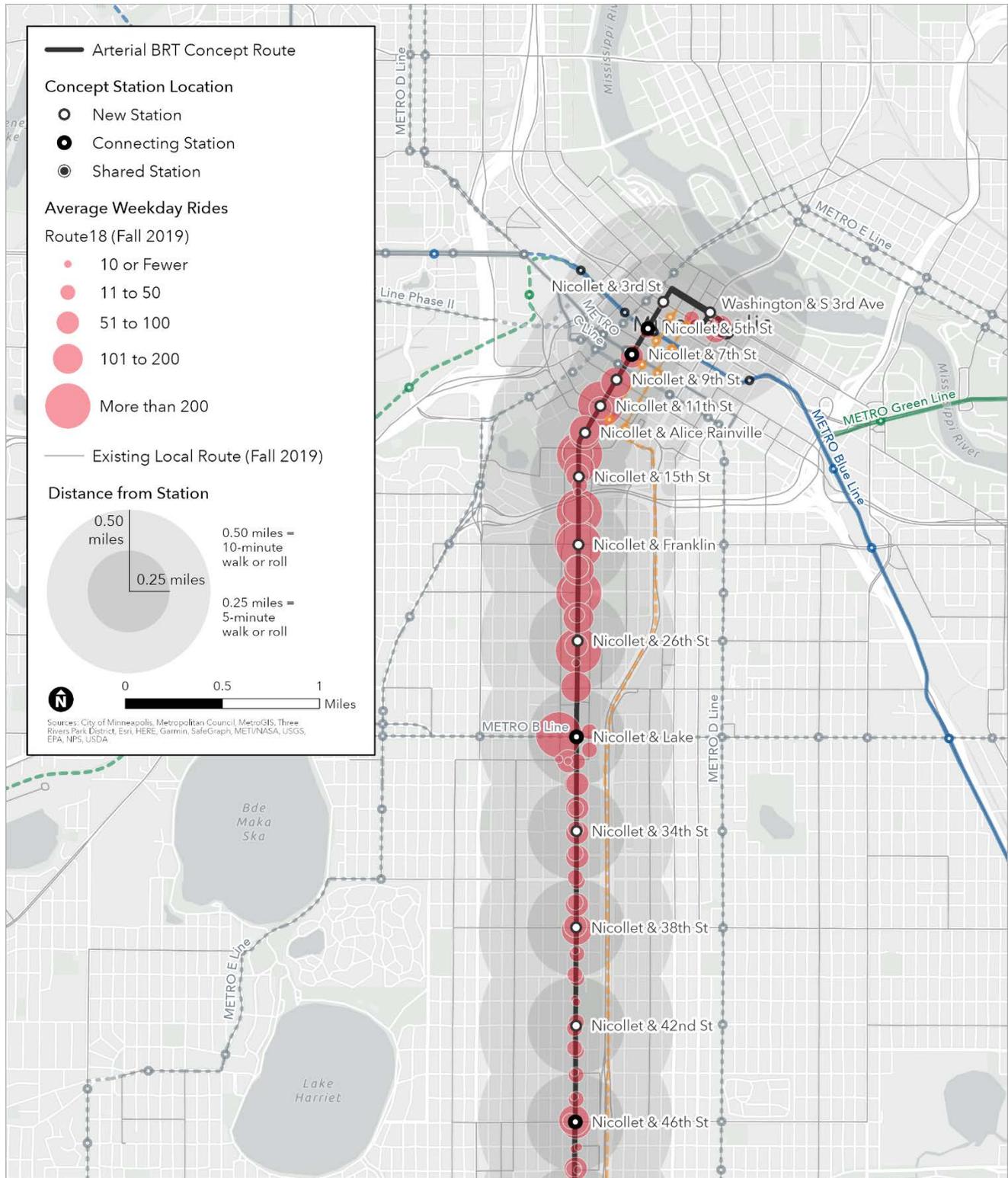
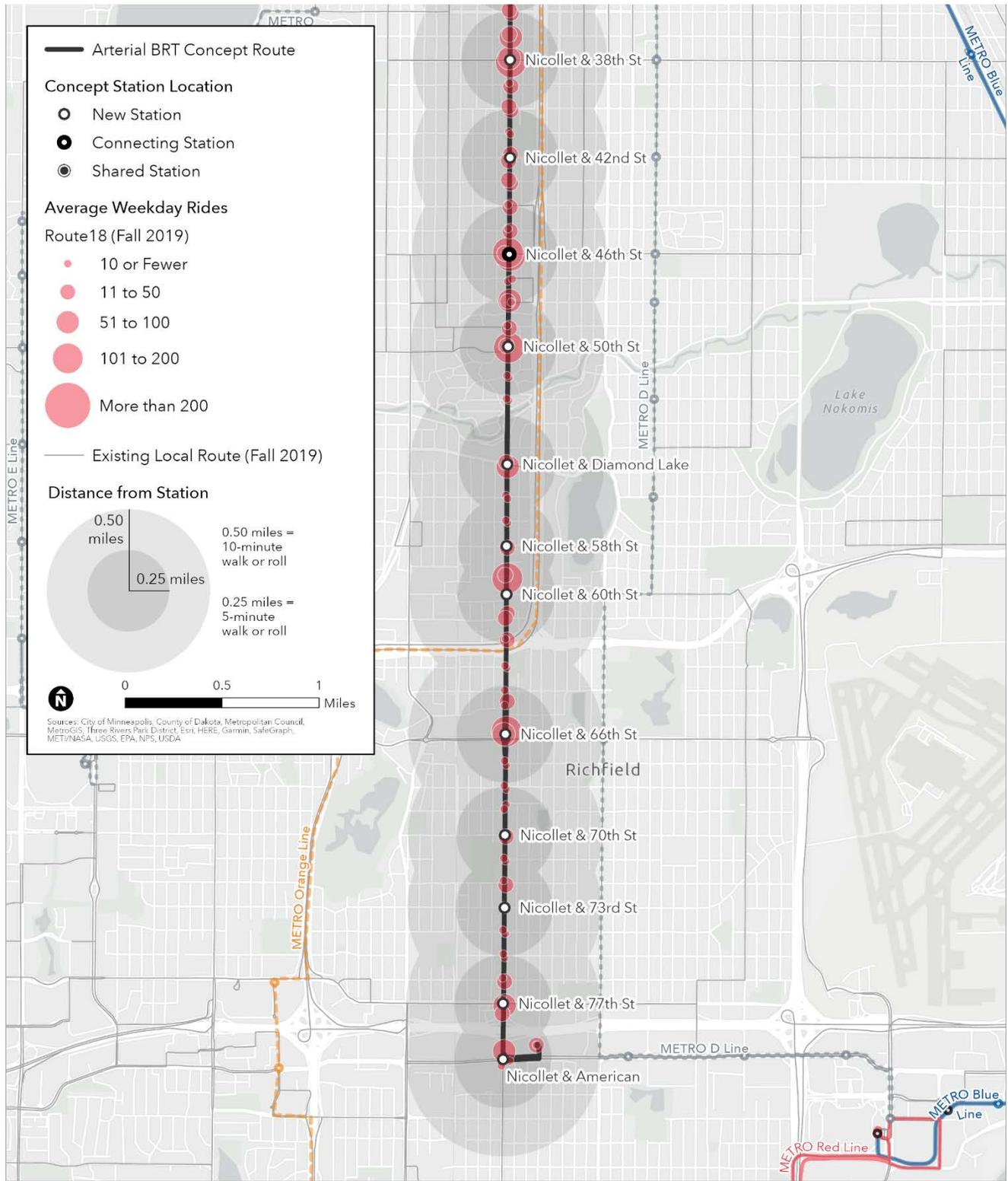


Figure 14. Nicollet Concept Alignment and Station Locations – South



Concept Service Plan

The Nicollet corridor is served today primarily by Route 18, which operates several patterns (or branches). Route 18 service headways diminish as the alignment travels south. In general, average weekday service headways are 8 minutes north of 46th Street, 15 minutes between 46th Street and American Boulevard, and 30 minutes between American Boulevard and south Bloomington. Route 18 would be eliminated and replaced by the arterial BRT service between downtown Minneapolis and American Boulevard. A new Route 518 would be introduced to cover areas south of American Boulevard currently served by Route 18.

The Nicollet arterial BRT concept would operate with service every 10 minutes for most of the day (Table 13). Thirteen buses would be required to provide this level of service. The new Route 518 would replace existing Route 18 service south of American Boulevard. Route 518 would begin at the planned METRO Orange Line station at Knox Avenue & 76th Boulevard (near the Best Buy Headquarters), connect with Nicollet arterial BRT at 77th Avenue & Nicollet Avenue, then continue south on Nicollet Avenue to terminate at 104th St & W Bloomington Freeway Road. The route would operate approximately every 30 minutes throughout most of the day, seven days per week, requiring two buses.

Table 13. Nicollet Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
Nicollet BRT	20	10	10	10	20	30
Route 518	-	30	30	30	30	-

Randolph/ East 7th

Concept Station Locations

From west to east, the corridor runs through Saint Paul from the Ford & Finn A Line Station near the future Highland Bridge Development (Ford Site) and ends at the Sun Ray Transit Center. The Randolph/ East 7th preliminary concept identifies 36 station intersections over the approximately 11.5-mile corridor. This includes four additional intersections for one-way pairs in downtown Saint Paul. Today, the corridor is primarily served by Route 74.

Considerations in the corridor:

- The western terminal at Ford and Finn does not have any driver amenities. Future planning should consider a layover location at the future Highland Bridge Development (Ford Site).
- Future planning should consider efforts by Ramsey County for streetcar or light rail service on West 7th between Randolph and downtown Saint Paul.
- Future planning should consider capacity constraints in downtown Saint Paul with overlap of the METRO Gold Line, Rush Line, B Line, and Grand Avenue corridors and local service.
- The corridor would end at the Sun Ray Transit Center, near a planned METRO Gold Line station.

Maps

Figure 15. Randolph/ East 7th Concept Alignment and Station Locations – West

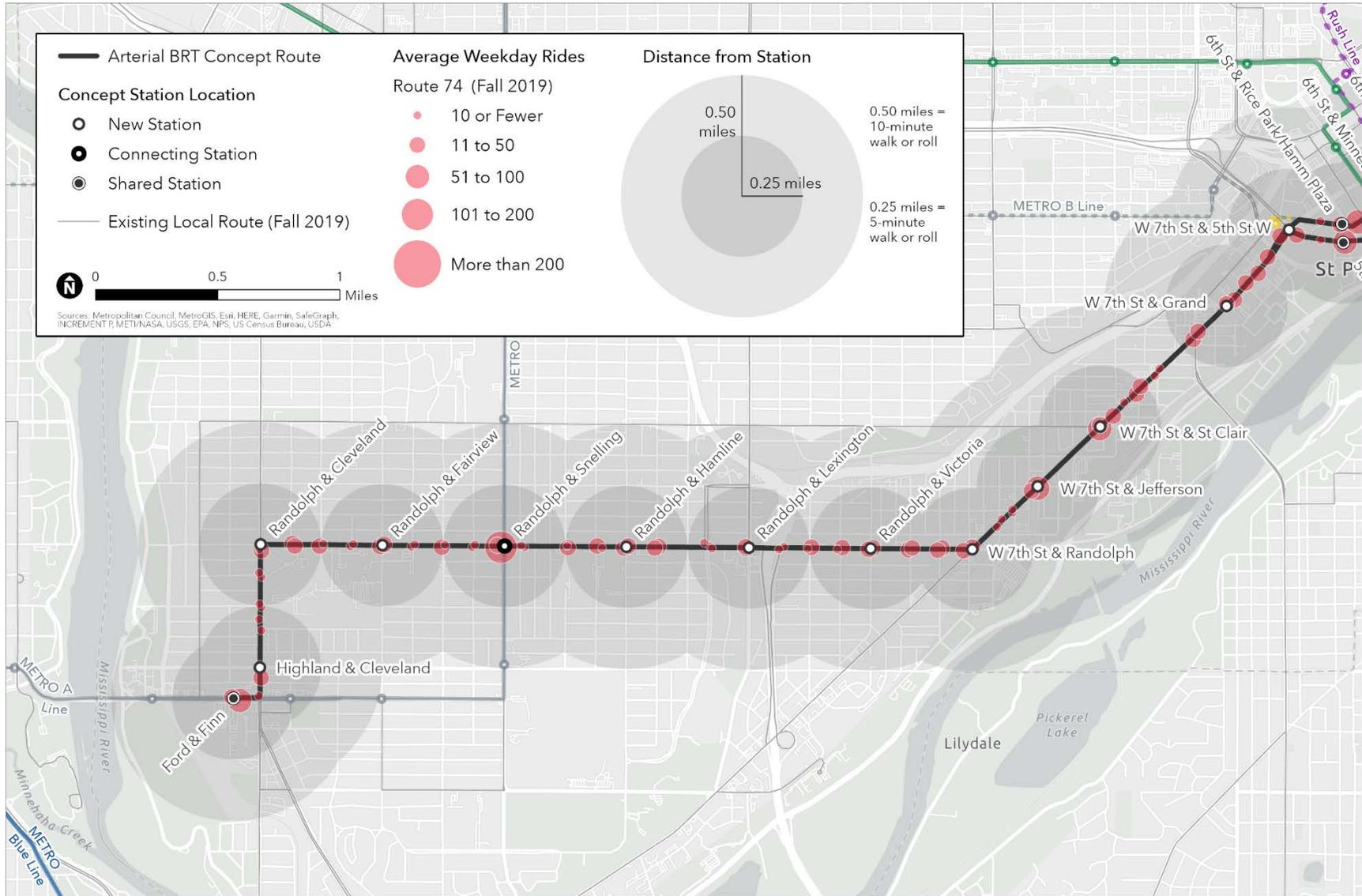
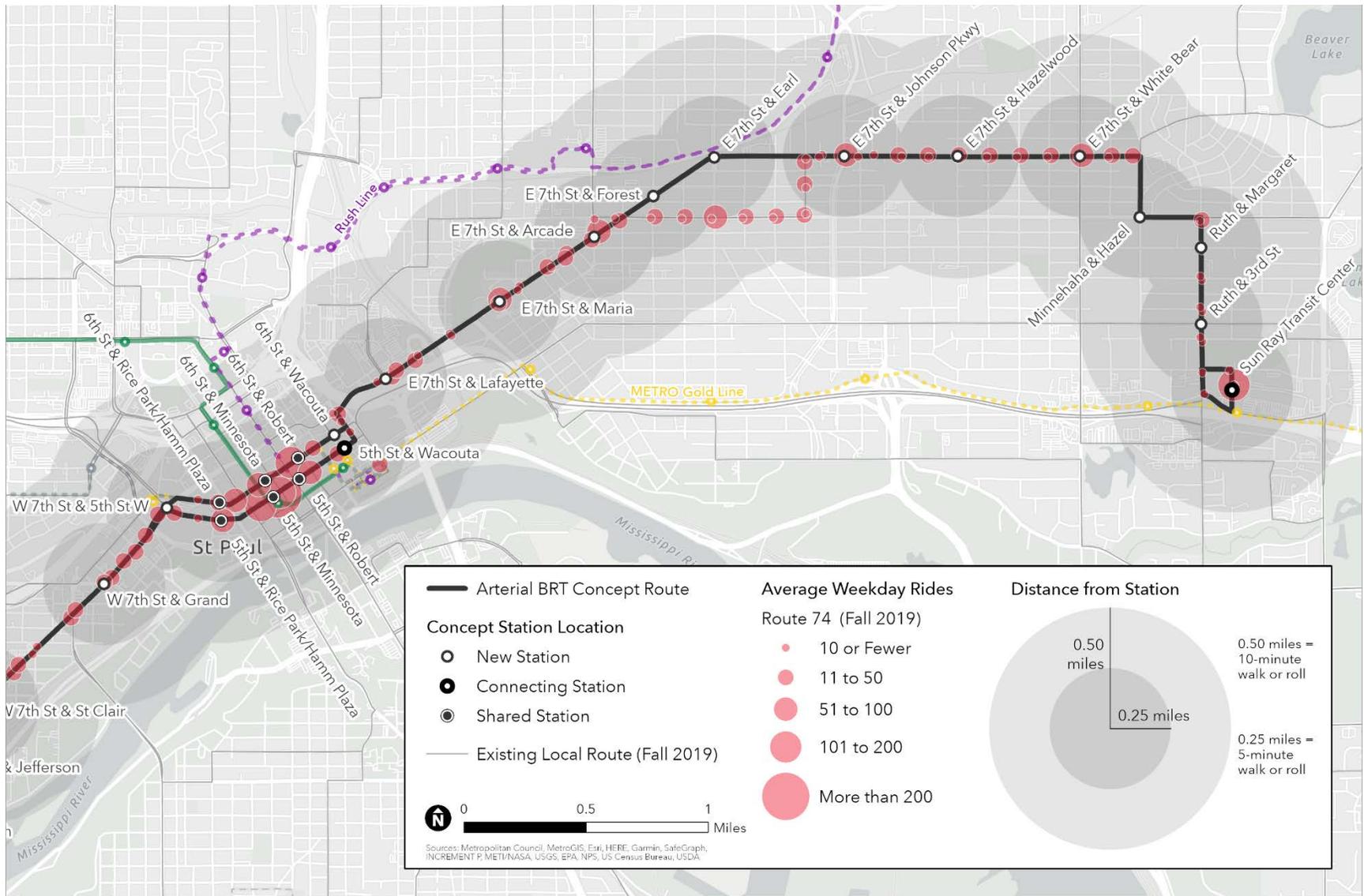


Figure 16. Randolph/ East 7th Concept Alignment and Station Locations – East



Concept Service Plan

The Randolph/ East 7th corridor is served today primarily by Route 74, which operates several patterns (or branches). Route 74 would be eliminated and replaced by the arterial BRT service between Ford & Finn, downtown Saint Paul, and Sun Ray Transit Center. A new Route 324 would be introduced to cover areas north and east of Sun Ray Transit Center currently served by Route 74.

The Randolph/ East 7th arterial BRT concept would operate service every 10 minutes for most of the day (Table 14). Thirteen buses would be required to provide this level of service. The new Route 324 would operate between the Sun Ray Transit Center and Ivey Avenue & Century Avenue in Maplewood via Ruth Street, East Minnehaha Avenue, Stillwater Avenue, Nokomis Avenue, and East Maryland Avenue. The route would operate approximately every 30 minutes throughout most of the day, seven days per week, requiring two buses.

Table 14. Randolph/ East 7th Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
Randolph/ East 7th BRT	20	10	10	10	20	30
Route 324	-	30	30	30	30	-

Rice/ Robert

Concept Station Locations

From north to south, the corridor begins in Little Canada and ends at the Northern Dakota County Service Center in West St. Paul. The Rice/ Robert preliminary concept identifies 30 station intersections over the approximately 11.5-mile corridor. Today, the corridor is primarily served by Route 62 along Rice Street and Route 68 along Robert Street.

Considerations in the corridor:

- The northern terminal would be at the Little Canada Transit Center.
- Future planning should consider siting County Road B2 stations on the south side of the intersection to serve the commercial area between County Road B2 and Highway 36, near Minnesota Avenue.
- Future planning should consider integrating the park and ride to the east of Rice & County Road B.
- Station siting in the segment between Maryland Avenue and Pennsylvania Avenue could change through further analysis and engagement. Siting should consider spacing, new development at Sycamore, as well as existing ridership near Wayzata Street or Milford Street.
- Current station siting at Pennsylvania Avenue offers better spacing from University Avenue, future planning should consider Como for better local bus transfers.
- The corridor shares the 10th Street station in downtown Saint Paul with the proposed Rush Line. Siting proposes a mid-block station at Robert & 5th/ 6th for transfers to the METRO Gold Line, B Line, Grand Avenue, and Randolph/ East 7th corridors and local service.
- Stations not included in the ATCS (2012) include Plato, Isabel, and Wentworth.
- Future planning should consider station spacing, ridership, and walkability in commercial areas from Butler Avenue southward.

Maps

Figure 17. Rice/ Robert Concept Alignment and Station Locations – North

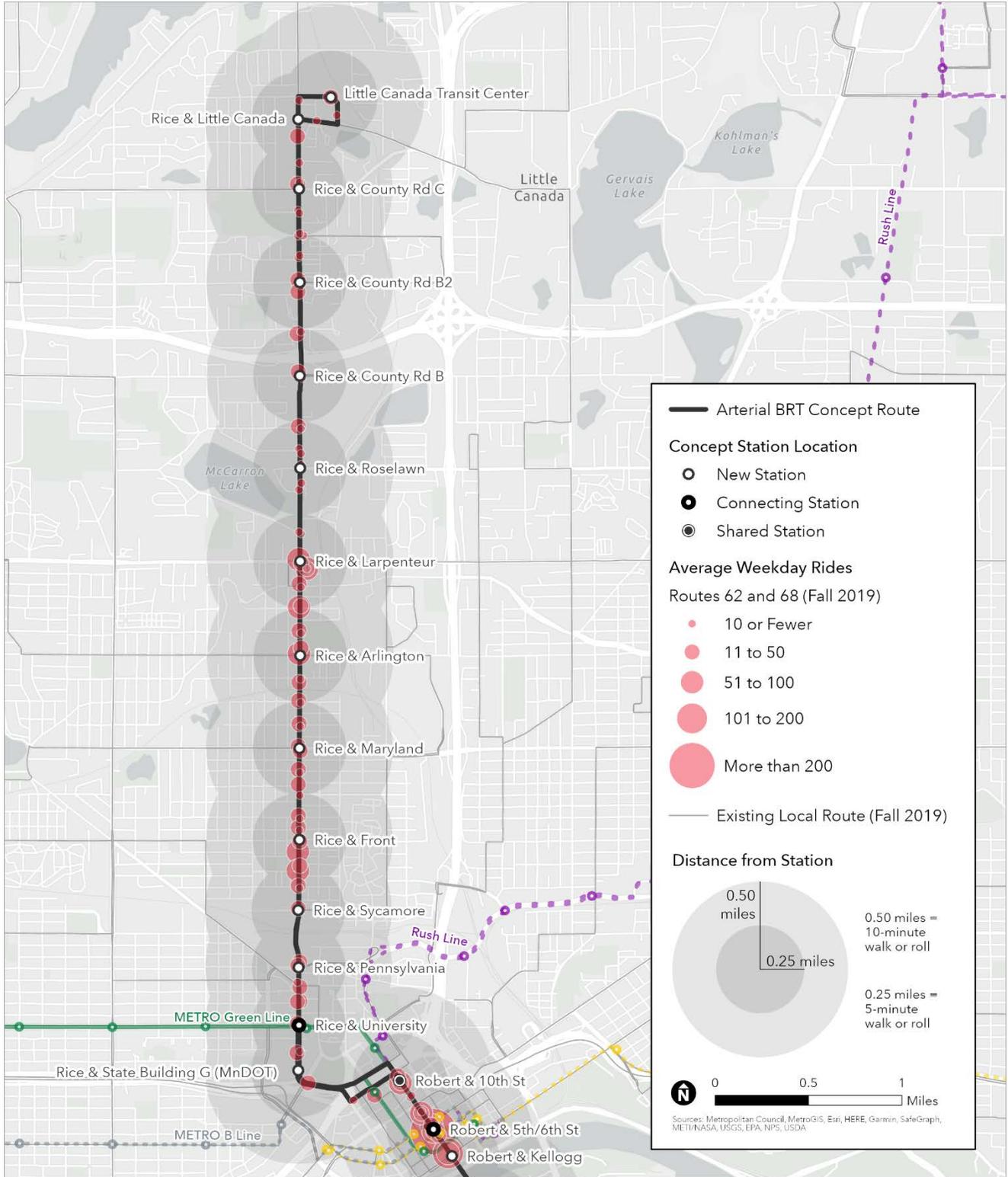
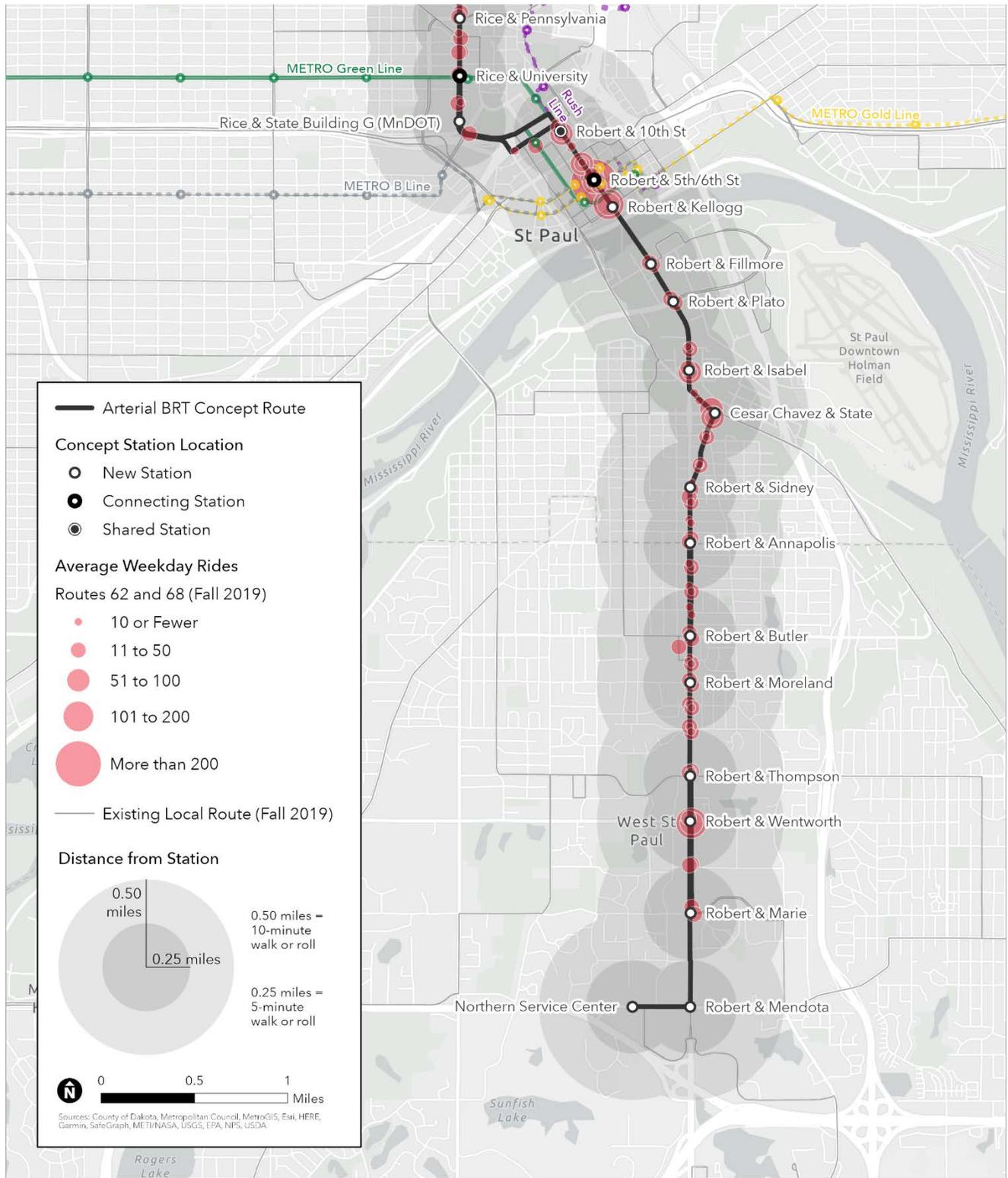


Figure 18. Rice/ Robert Concept Alignment and Station Locations – South



Concept Service Plan

The Rice/ Robert corridor is served today primarily by Route 62 and 68, each of which operate several patterns (or branches). Within the concept service plan, Route 68 would be significantly modified, Route 62 would be eliminated, and a new Route 222 would be added to serve areas north of Little Canada Transit Center, the Rice/ Robert corridor’s northern terminal station.

The Rice/ Robert BRT route would operate with service every 10 minutes for most of the day (Table 15). Twelve buses would be required to provide this level of service. The arterial BRT concept route would mirror the core of existing Route 62 between downtown Saint Paul and Little Canada Transit Center, and the core of existing Route 68 between downtown Saint Paul and Marie Avenue in West Saint Paul.

The concept service plan includes a modified Route 68, representing a combination of existing branches of the Routes 62 and 68, in order to maintain service coverage beyond the arterial BRT corridor. Modified Route 68 would serve areas south of Marie Avenue, to the west of the corridor (e.g., Smith Avenue in West Saint Paul and Saint Paul, today served by Route 62) and east of the corridor (e.g., Jackson Street between Sycamore Street and Larpenteur Avenue north of downtown Saint Paul). Modified Route 68 would operate approximately every 15-20 minutes throughout most of the day, seven days per week, requiring 14 buses.

Additionally, a new Route 222 would connect the BRT’s northern terminal station at Little Canada Transit Center to the Shoreview Community Center about four miles north via Rice Street and Hodgson Road, similar to the existing Route 62C and 62D branches. Route 222 would operate approximately every 30 minutes throughout most of the day, seven days per week, requiring three buses.

Table 15. Rice/ Robert Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
Rice/ Robert BRT	20	10	10	10	20	30
Route 68	20	15	20	15	30	-
Route 222	-	30	30	30	30	-

West Broadway/ Cedar

Concept Station Locations

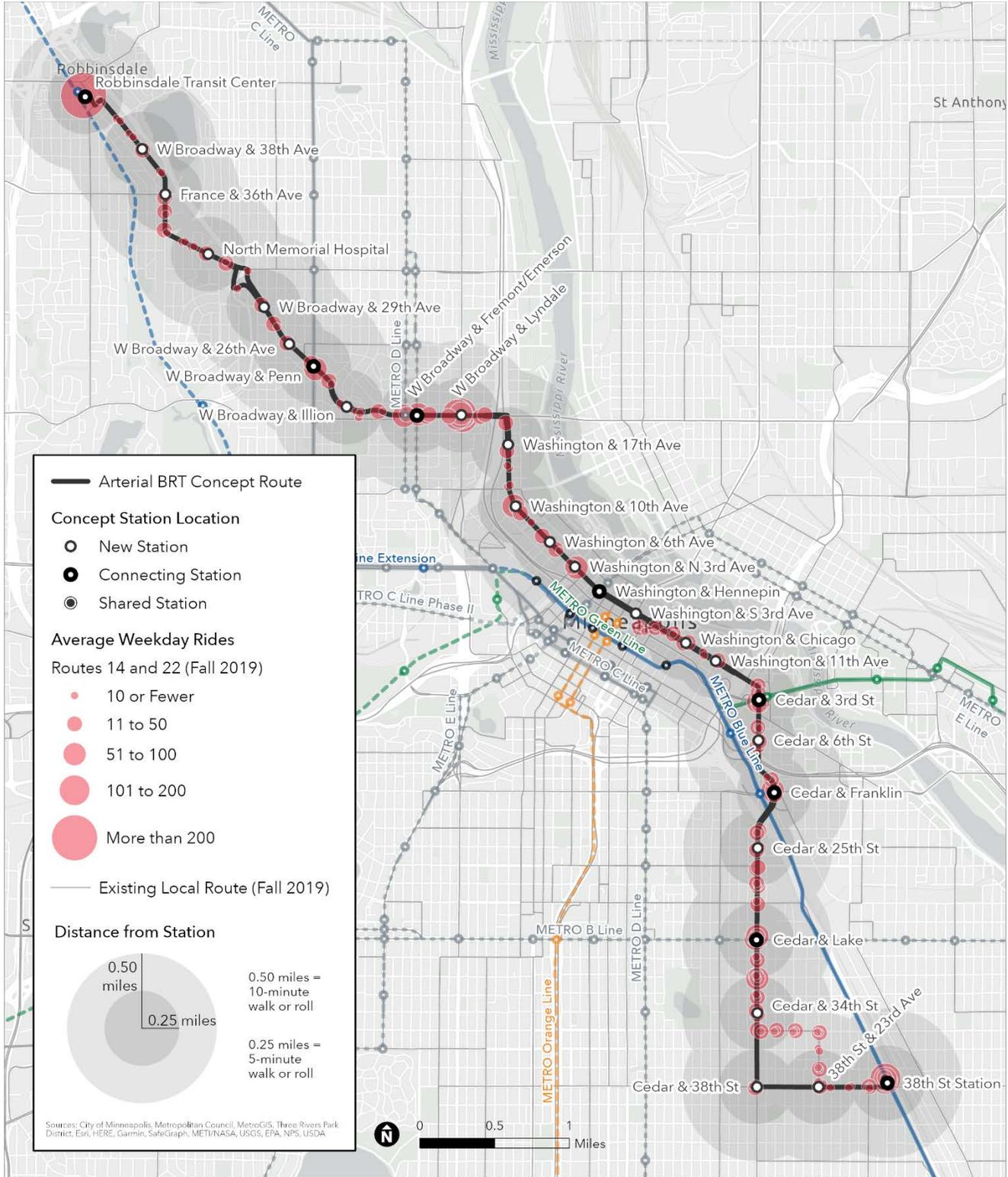
From north to south, the corridor begins in downtown Robbinsdale and ends at the 38th Street Station in Minneapolis. The West Broadway/ Cedar preliminary concept identifies 27 station intersections over the approximately 10.5-mile corridor. Today, the corridor is primarily served by Route 14 along West Broadway and Route 22 along Cedar Avenue.

Considerations in the corridor:

- The corridor shares its alignment and stations with the Lowry Corridor from downtown Robbinsdale to North Memorial Hospital. Sited stations in this segment are consistent with the West Broadway Transit Study (WBTS), except for eliminating the station at France & 34th Ave. Station siting at North Memorial Hospital would require thorough analysis and engagement.
- The corridor connects to the future METRO Blue Line extension. The Metropolitan Council is committed to working closely with community and city partners to determine the best course forward for the METRO Blue Line Extension project.
- Station siting between Penn and Fremont/ Emerson would need to consider future development proposals, particularly those for vacant parcels north of West Broadway Avenue. Current siting at West Broadway & Illion is consistent with the West Broadway Transit Study.
- Station siting at Fremont/Emerson is to be determined. Midblock siting would better serve METRO D Line transfers, while Emerson has better spacing in relationship to the stations at Illion and Lyndale.
- The West Broadway/ Cedar corridor is expected to operate on a new Washington Avenue transit spine in downtown Minneapolis.
- The specific siting at Cedar & 3rd Street would need further discussion. An additional station may be needed to improve transfers with the METRO Green Line and to serve the Seven Corners and Riverside Plaza areas. There may be opportunities for a shared station with the Como/ Maryland corridor in this area.
- The current siting at Cedar & 25th serves the Little Earth community, future planning could consider 26th Street for better spacing.
- The concept extends the alignment further south along Cedar to 38th Street, rather than turning at 35th Avenue, to eliminate two turns in the corridor.

Map

Figure 19. West Broadway/ Cedar Concept Alignment and Station Locations



Concept Service Plan

The West Broadway/ Cedar corridor is served today primarily by Routes 14 and 22, each of which operate several patterns (or branches). Route 22 would be significantly modified, Route 14 would be eliminated, and a new Route 24 would be added to serve areas south of 38th Street Station, the West Broadway/ Cedar corridor’s southern terminal station.

The West Broadway/ Cedar BRT route would operate with service every 10 minutes for most of the day (Table 17). Fourteen buses would be required to provide this level of service. The arterial BRT concept route mirrors the core of existing Route 14 north of Washington Avenue in downtown Minneapolis, and the core of existing Route 22 between downtown Minneapolis and 38th Street.

The concept service plan includes a modified Route 22, representing a combination of existing Routes 14 and 22, in order to maintain service coverage parallel to and beyond the West Broadway/ Cedar arterial BRT corridor. Modified Route 22 would travel between 66th Street in Richfield and Brooklyn Center Transit Center via Bloomington Avenue, 7th and 8th Streets in downtown, North Lyndale Avenue, and 57th Avenue North. The route would operate approximately every 10 minutes throughout most of the day, seven days per week, requiring 16 buses (Table 17).

Additionally, a new Route 24 would connect the BRT’s southern terminal station at 38th Street to the VA Medical Center via 28th Avenue South. This area is served today by Route 22. The new Route 24 would operate approximately every 30 minutes throughout most of the day, seven days per week, requiring two buses.

Table 16. West Broadway/ Cedar Concept Service Plan

Route	Early	AM Peak	Midday	PM Peak	Evening	Night
West Broadway/ Cedar BRT	20	10	10	10	20	30
Route 22	30	10	10	10	30	30
Route 24	-	30	30	30	30	-

Appendix: Station Location Tables

63rd Avenue/ Zane

Table 17. 63rd Avenue/ Zane Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	Brooklyn Center Transit Center	•Following: 0.7	C Line, D Line, 19, 22, 717, 721, 722, 723, 801,	Brooklyn Center Transit Center
2	63rd Ave & Xerxes	•Preceding: 0.7 •Following: 0.43		Station spacing deviance due to low density land use and low ridership
3	63rd Ave & Brooklyn	•Preceding: 0.43 •Following: 0.38	723	
4	63rd Ave & Kyle	•Preceding: 0.38 •Following: 0.5		
5	63rd Ave & Scott	•Preceding: 0.5 •Following: 0.4		
6	63rd Ave & Zane	•Preceding: 0.4 •Following: 0.3	716	
7	Zane & 65th Ave	•Preceding: 0.3 •Following: 0.45	716	
8	Zane & 69th Ave	•Preceding: 0.45 •Following: 0.33		
9	Zane & Colorado	•Preceding: 0.33 •Following: 0.33		
10	73rd Ave at The Fountains	•Preceding: 0.33 •Following: 0.33		
11	Brooklyn & Regent	•Preceding: 0.33 •Following: 0.3		Park Center High School
12	Brooklyn & Welcome	•Preceding: 0.4 •Following: 0.5		

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
13	Brooklyn & Tessman	<ul style="list-style-type: none"> •Preceding: 0.5 •Following: 0.45 		
14	Brooklyn & Kentucky	<ul style="list-style-type: none"> •Preceding: 0.45 •Following: 0.45 		
15	Starlite Transit Center	•Preceding: 0.45	723, 705, 724, METRO Blue Line Extension	Starlite Transit Center. Consider how to integrate transit modes at this location

Central

Table 18. Central Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	Northtown Transit Center	•Following: 0.9	25, 805, 831	Shopping and commercial center
2	University & 81st Ave	•Preceding: 0.9 •Following: 0.6		
3	University & Osborne Rd	•Preceding: 0.6 •Following: 0.5		
4	University & 73rd Ave	•Preceding: 0.5 •Following: 0.5		
5	University & 69th Ave	•Preceding: 0.5 •Following: 0.5		New development to the east, city hall
6	University & Mississippi St	•Preceding: 0.5 •Following: 0.5		
7	University & 61st Ave	•Preceding: 0.5 •Following: 0.5		Northstar Fridley Station adjacency Fridley High School
8	University & 57th Ave	•Preceding: 0.5 •Following: 0.5		
9	University & 53rd Ave	•Preceding: 0.5 •Following: 0.7	824	
10	Central & 53rd Ave	•Preceding: 0.7 •Following: 0.5		Station closer to Target
11	Central & 49th Ave	•Preceding: 0.5 •Following: 0.5		Consider Hilltop mobile home community Columbia Heights High School
12	Central & 45th Ave	•Preceding: 0.5 •Following: 0.5		Consider Hilltop mobile home community
13	Central & 41st Ave	•Preceding: 0.5 •Following: 0.5	11, 801	Remove pull-in to transit center
14	Central & 37th Ave	•Preceding: 0.5 •Following: 0.5		

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
15	Central & 33rd Ave	•Preceding: 0.5 •Following: 0.5		Consider 35th Ave
16	Central & 29th Ave	•Preceding: 0.5 •Following: 0.5		
17	Central & Lowry	•Preceding: 0.5 •Following: 0.25	Lowry Corridor, 32	
18	Central & 22nd Ave	•Preceding: 0.25 •Following: 0.25		Edison High School
19	Central & 18th Ave	•Preceding: 0.25 •Following: 0.5		ATCS used 18 1/2 Ave
20	Central & Broadway	•Preceding: 0.5 •Following: 0.25	30	
21	Central & Spring	•Preceding: 0.25 •Following: 0.3		
22	Central & 7th St	•Preceding: 0.3 •Following: 0.3	Johnson/ Lyndale Corridor, 2, 4, 17	Consider alternative alignment along Hennepin - E Line stations.
23	Central & University	•Preceding: 0.3 •Following: 0.7	E Line, 6	Consider Hennepin Avenue bridge alignment instead. Midblock station for E Line transfers
24	Washington & S 3rd Ave	•Preceding: 0.7 •Following: 0.3	Downtown, Nicollet Corridor, West Broadway/ Cedar Corridor	Marquette and 2nd transit spine. New Washington Avenue downtown transit spine
25	Nicollet & 3rd St	•Preceding: 0.3 •Following: 0.15	Downtown, Nicollet Corridor	
26	Nicollet & 5th St	•Preceding: 0.15 •Following: 0.15	Downtown, METRO Green and Blue lines, Nicollet Corridor	
27	Nicollet & 7th St	•Preceding: 0.15 •Following: 0.15	Downtown, C Line, D Line, Nicollet Corridor	

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
28	Nicollet & 9th St	•Preceding: 0.15 •Following: 0.15	Downtown, Nicollet Corridor	
29	Nicollet & 11th St	•Preceding: 0.15 •Following: 0.15	Downtown, Nicollet Corridor	
30	Nicollet & Alice Rainville Pl (13th St)	•Preceding: 0.15	Downtown, Nicollet Corridor	

Como/ Maryland

Table 19. Como/ Maryland Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	Ramp B/5th St Transit Center	•Following: 0.4	Downtown	Target Field and Target Center Terminal station
2	N 3rd Avenue& Traffic	•Preceding: 0.3 •Following: 0.3	Downtown, METRO Green and Blue lines	Only served in-bound to Minneapolis
3	Washington & Hennepin	•Preceding: 0.4 •Following: 0.25	Downtown, E Line, West Broadway/ Cedar Corridor, Johnson/ Lyndale Corridor	
4	Washington & S 3rd Ave	•Preceding: 0.25 •Following: 0.4	Downtown, Central Corridor, Nicollet Corridor	
5	Washington & Chicago	•Preceding: 0.4 •Following: 0.25	Downtown, West Broadway/ Cedar Corridor	US Bank Stadium
6	Washington & 11th Ave	•Preceding: 0.25 •Following: 0.7	West Broadway/ Cedar Corridor, 7, 22	
7	Washington at Willey Hall	•Preceding: 0.7 •Following: 0.36	METRO Green Line, 2	University of Minnesota Station spacing deviance due to I-35W
8	Pleasant & Washington	•Preceding: 0.36 •Following: 0.31		Eastbound Station Only. University of Minnesota
9	Pleasant & University	•Preceding: 0.31 •Following: 0.25	E Line, 2, 6	University of Minnesota
10	15th Avenue& 6th St	•Preceding: 0.25 •Following: 0.44		University of Minnesota athletics venues
11	Como & 15th Ave	•Preceding: 0.44 •Following: 0.43		
12	Como & 22nd Ave	•Preceding: 0.43 •Following: 0.43		
13	Como & 29th Ave	•Preceding: 0.43 •Following: 0.5		

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
14	Como & Eustis	•Preceding: 0.5 •Following: 0.5	30	Park & Ride Potential layover location mid-route
15	Como & Doswell	•Preceding: 0.5 •Following: 0.5		
16	Como & Cleveland	•Preceding: 0.5 •Following: 0.27	87, 124	
17	Como & Fifield	•Preceding: 0.27 •Following: 0.6		Station spacing deviance due to existing land use
18	Como at Fairgrounds	•Preceding: 0.6 •Following: 0.25	121, 124	Station spacing deviance due to existing land use around the Fairgrounds State Fairgrounds
19	Como & Snelling	•Preceding: 0.25 •Following: 0.5	A Line, 84	
20	Como & Hamline	•Preceding: 0.5 •Following: 0.5	83	
21	Como & Lexington	•Preceding: 0.5 •Following: 0.25	83	
22	Como & Van Slyke	•Preceding: 0.25 •Following: 0.7		Station spacing deviance due to existing low density of ridership and land use
23	Maryland & Grotto	•Preceding: 0.7 •Following: 0.25		Station spacing deviance due to existing low density of ridership and land use Como Park High School
24	Maryland & Dale	•Preceding: 0.25 •Following: 0.35	65	
25	Maryland & Arundel	•Preceding: 0.35 •Following: 0.6		Station spacing deviance due to existing low density of ridership and land use
26	Maryland & Rice	•Preceding: 0.6 •Following: 0.5	Rice/ Roberts Corridor, 62	Station spacing deviance due to existing low density of ridership and land use
27	Maryland & Jackson	•Preceding: 0.5 •Following: 0.75	68	Station spacing deviance due to crossing of I-35E

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
28	Maryland & Arkwright	•Preceding: 0.75 •Following: 0.5	71	Station spacing deviance due to crossing of I-35E
29	Maryland & Payne	•Preceding: 0.5 •Following: 0.38	64	
30	Maryland & Arcade	•Preceding: 0.38 •Following: 0.5	West 7th/White Bear Corridor, 54, 61, 74	Johnson High School
31	Maryland & Earl	•Preceding: 0.5 •Following: 0.4	West 7th/White Bear Corridor	
32	Maryland & Johnson Pkwy	•Preceding: 0.4 •Following: 0.5	Rush Line, West 7th/White Bear Corridor	
33	Maryland & Hazelwood	•Preceding: 0.5 •Following: 0.5	West 7th/White Bear Corridor	
34	Maryland & White Bear	•Preceding: 0.5 •Following: 0.5	West 7th/White Bear Corridor, 54, 64, 80	
35	White Bear & Case	•Preceding: 0.5 •Following: 0.25		
36	White Bear & 7th St	•Preceding: 0.25 •Following: 0.25	Randolph/ East 7th Corridor, 74	
37	White Bear & Minnehaha	•Preceding: 0.25 •Following: 0.5		
38	White Bear & 3rd St	•Preceding: 0.5 •Following: 0.5	63	
39	Ruth & 3rd St	•Preceding: 0.5 •Following: 0.4	74, 219	
40	Sun Ray Transit Center	•Preceding: 0.4	Gold Line, 63, 74	Sun Ray Shopping Center

Grand

Table 20. Grand Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	University & Berry	•Following: 0.6	METRO Green Line, E Line, 30	Station spacing deviance due to crossing of 280 and existing land use
2	University & Carleton	•Preceding: 0.6 •Following: 0.5	METRO Green Line	Station spacing deviance due to crossing of 280 and existing land use
3	Vandalia & Wabash	•Preceding: 0.5 •Following: 0.75		Station spacing deviance due to crossing of I-94 and golf course with low ridership High School for Recording Arts
4	Cretin & Marshall	•Preceding: 0.75 •Following: 0.42	B Line, 21, 53	Station spacing deviance due to crossing of I-94 and golf course with low ridership
5	Cretin & Summit	•Preceding: 0.42 •Following: 0.37	21, 134	University of St. Thomas
6	Grand & Cleveland	•Preceding: 0.37 •Following: 0.5	87, 134	University of St. Thomas
7	Grand & Fairview	•Preceding: 0.5 •Following: 0.5		
8	Grand & Snelling	•Preceding: 0.5 •Following: 0.5	A Line, 84	Macalester College
9	Grand & Hamline	•Preceding: 0.5 •Following: 0.5		
10	Grand & Lexington	•Preceding: 0.5 •Following: 0.5	83	
11	Grand & Victoria	•Preceding: 0.5 •Following: 0.5		William Mitchell College of Law
12	Grand & Dale	•Preceding: 0.5 •Following: 0.84	65	Station spacing deviance due to crossing of I-35E ridership Saint Paul Academy

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
13	Smith & Grand	•Preceding: 0.84 •Following: 0.25		Preceding station spacing deviance due to crossing of I-35E ridership, following station spacing deviance due to high ridership demand at Allina Hospital
14	Smith & Walnut	•Preceding: 0.25 •Following: 0.33		Allina Hospital
15	Smith & 5th St	•Preceding: 0.33 •Following: 0.3	Gold Line, 21, 53,	Xcel Center
16/17	Rice Park/ Hamm Plaza (Stops on 5th and 6th)	•Preceding: 0.3 •Following: 0.25	Downtown, Gold Line, B Line, Corridor, Randolph/ East 7th Corridor	Performing Arts Center & Library
18/19	Minnesota (Stops on 5th and 6th)	•Preceding: 0.25 •Following: 0.13	Downtown, METRO Green Line, Gold Line, B Line, Randolph/ East 7th Corridor	
20/21	Robert (Stops on 5th and 6th)	•Preceding: 0.13 •Following: 0.36	Downtown, METRO Green Line, Gold Line, Rush Line, B Line, Randolph/ East 7th Corridor, Rice/ Robert Corridor	
22	Union Depot/Sibley	•Preceding: 0.20 •Following: 0.20	Downtown, METRO Green Line, Gold Line, Rush Line, B Line	Westbound station
23	Union Depot/Wacouta	•Preceding: 0.15 •Following: 0.30	Downtown, METRO Green Line, Gold Line, Rush Line, B Line	Eastbound station
24	Union Depot	•Preceding: 0.13	Downtown, B Line	Union Depot

Johnson/ Lyndale

Table 21. Johnson/ Lyndale Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	39th Avenue& Coolidge (Silver Lake Village)	•Following: 0.3	25, 141, 801	Terminal station siting to be determined
2	39th Avenue& Stinson	•Preceding: 0.3 •Following: 0.4		Apartment homes
3	37th Avenue& Hart	•Preceding: 0.4 •Following: 0.3		
4	Johnson & 37th Ave	•Preceding: 0.3 •Following: 0.5		
5	Johnson & 33rd Ave	•Preceding: 0.5 •Following: 0.5		
6	Johnson & 29th Ave	•Preceding: 0.5 •Following: 0.5		
7	Johnson & Lowry	•Preceding: 0.5 •Following: 0.6	Lowry Corridor, 32	
8	Johnson & Quarry Center	•Preceding: 0.6 •Following: 0.5	30	
9	Johnson & Broadway	•Preceding: 0.5 •Following: 0.5		Split platforms across I-35W
10	Johnson & E Hennepin	•Preceding: 0.5 •Following: 0.35		Split platforms across I-35W
11	10th Ave SE & 8th St SE	•Preceding: 0.35 •Following: 0.4	2	Likely split platforms across I-35W
12	8th St SE & 5th Ave SE	•Preceding: 0.4 •Following: 0.4		Station added primarily to meet access/ spacing guidelines
13	1st Ave NE & 6th St NE	•Preceding: 0.4 •Following: 0.3	Central Corridor, 2, 10, 17	Southbound station

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
14	Hennepin & 6th St NE	•Preceding: 0.4 •Following: 0.3	Central Corridor, 2, 10, 17	Northbound station
15	1st Ave NE & 2nd St NE	•Preceding: 0.3 •Following: 0.6	E Line, 6, 11	An E Line station is recommended here or on Nicollet Island. Southbound station.
16	Hennepin & 2nd St NE	•Preceding: 0.3 •Following: 0.6	E Line, 6, 11	An E Line station is recommended here or on Nicollet Island. Northbound station.
17	Hennepin & Washington or 2nd St	•Preceding: 0.6 •Following: 0.15	Downtown, E Line, Broadway/ Cedar Corridor, Como/ Maryland Corridor	E Line station
18	Hennepin & 3rd/4th St	•Preceding: 0.15 •Following: 0.15	Downtown	E Line station
19	Hennepin & 5th St	•Preceding: 0.15 •Following: 0.15	Downtown	E Line station
20	Hennepin & 8th St	•Preceding: 0.15 •Following: 0.2	Downtown, C Line, D Line	E Line station
21	Hennepin & 10th/11th St	•Preceding: 0.2 •Following: 0.25	Downtown	E Line station
22	Hennepin & Spruce	•Preceding: 0.25 •Following: 0.6		E Line station
23	Hennepin & Groveland	•Preceding: 0.6 •Following: 0.3	E Line	E Line station
24	Lyndale & Franklin	•Preceding: 0.3 •Following: 0.5	2	
25	Lyndale & 26th St	•Preceding: 0.5 •Following: 0.5		
26	Lyndale & Lake	•Preceding: 0.5 •Following: 0.6	B Line, 21	
27	Bryant & 34th St	•Preceding: 0.6 •Following: 0.5		

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
28	Bryant & 38th St	•Preceding: 0.5 •Following: 0.5	23	
29	Bryant & 42nd St	•Preceding: 0.5 •Following: 0.5		
30	Bryant & 46th St	•Preceding: 0.5 •Following: 0.5	46	
31	Bryant & 50th St	•Preceding: 0.5 •Following: 0.35		
32	50th St & W Minnehaha Pkwy	•Preceding: 0.35 •Following: 0.5		
33	Penn & 50th St	•Preceding: 0.5 •Following: 0.5	46	
34	Penn & 54th St	•Preceding: 0.5 •Following: 0.5		Commercial node, future land use allows high residential
35	Penn & 58th St	•Preceding: 0.5 •Following: 0.38		
36	Penn & 61st St	•Preceding: 0.38 •Following: 0.6		
37	Penn & 66th St	•Preceding: 0.6 •Following: 0.5	515	
38	Penn & 70th St	•Preceding: 0.5 •Following: 0.38		
39	Penn & 73rd St	•Preceding: 0.38 •Following: 0.4		
40	Penn & 76th St	•Preceding: 0.4 •Following: 0.4	540	Richfield Middle School
41	Penn & American	•Preceding: 0.4 •Following: 0.3		
42	Knox & American	•Preceding: 0.3	Orange Line	Shared station with Orange Line

Lowry

Table 22. Lowry Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	Robbinsdale Transit Center	•Following: 0.6	West Broadway/ Cedar Corridor, future Blue Line station, 14, 32, 716, 717	Commercial center Consistent with the WBTS
2	West Broadway & 38th Ave	•Preceding: 0.6 •Following: 0.4	West Broadway/ Cedar Corridor	Apartment homes north of street Consistent with the WBTS
3	France & 36th Ave	•Preceding: 0.4 •Following: 0.6	West Broadway/ Cedar Corridor	Consistent with the WBTS
4	North Memorial Hospital	•Preceding: 0.6 •Following: 0.5	West Broadway/ Cedar Corridor	Consistent with the WBTS
5	Lowry & Thomas	•Preceding: 0.5 •Following: 0.25	19	
6	Lowry & Penn	•Preceding: 0.25 •Following: 0.38	C Line, 19	
7	Lowry & James	•Preceding: 0.38 •Following: 0.3		
8	Lowry & Fremont/Emerson	•Preceding: 0.3 •Following: 0.3	D Line, 5	
9	Lowry & Lyndale	•Preceding: 0.3 •Following: 0.35	22	
10	Lowry & 2nd St	•Preceding: 0.35 •Following: 0.5		Based on 2040 allowable residential density, access between Mississippi River and I-94
11	Lowry & Grand	•Preceding: 0.5 •Following: 0.35	11	
12	Lowry & University	•Preceding: 0.35 •Following: 0.3		
13	Lowry & Washington	•Preceding: 0.3 •Following: 0.2	17	

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
14	Lowry & Monroe	•Preceding: 0.3 •Following: 0.25		Edison High School
15	Lowry & Central	•Preceding: 0.25 •Following: 0.5	Central Corridor, 10	
16	Lowry & Johnson	•Preceding: 0.5 •Following: 0.5	Johnson/ Lyndale Corridor, 4	
17	Lowry & Stinson	•Preceding: 0.5 •Following: 0.4	25	
18	Kenzie Terrace & 27th Ave	•Preceding: 0.4 •Following: 0.7		Consider future redevelopment plans
19	29th Ave & Anthony	•Preceding: 0.7 •Following: 0.75		Low ridership in industrial area
20	Terminal & Walnut	•Preceding: 0.75 •Following: 0.6		Low ridership in industrial area
21	County Rd B2 & Long Lake Rd	•Preceding: 0.6 •Following: 0.3		Low ridership in industrial area
22	County Rd B2 & Cleveland	•Preceding: 0.3 •Following: 0.5	801	Low ridership in industrial area
23	County Rd B2 & Fairview	•Preceding: 0.5 •Following: 0.6	87, 225	
24	Rosedale Transit Center	•Preceding: 0.6	A Line, 65, 87, 225, 227, 801	Shopping Mall

Nicollet

Table 23. Nicollet Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	Washington & 3rd Ave	•Following: 0.3	Downtown, Central Corridor, West Broadway/ Cedar Corridor	Exact location to be determined. Consider Marquette and 2nd transit spine and the new Washington Avenue downtown transit spine.
2	Nicollet & 3rd St	•Preceding: 0.3 •Following: 0.15	Downtown, Central Corridor	
3	Nicollet & 5th St	•Preceding: 0.15 •Following: 0.15	Downtown, METRO Green and Blue lines, Central Corridor	
4	Nicollet & 7th St	•Preceding: 0.15 •Following: 0.15	Downtown, C Line, D Line, Central Corridor	
5	Nicollet & 9th St	•Preceding: 0.15 •Following: 0.15	Downtown, Central Corridor	
6	Nicollet & 11th St	•Preceding: 0.15 •Following: 0.15	Downtown, Central Corridor	
7	Nicollet & Alice Rainville Pl (13th St)	•Preceding: 0.15 •Following: 0.25	Downtown, Central Corridor	
8	Nicollet & 15th St	•Preceding: 0.25 •Following: 0.35		
9	Nicollet & Franklin	•Preceding: 0.35 •Following: 0.5	2	
10	Nicollet & 26th St	•Preceding: 0.5 •Following: 0.5		
11	Nicollet & Lake	•Preceding: 0.5 •Following: 0.5	B Line, 21	Kmart site redevelopment
12	Nicollet & 34th St	•Preceding: 0.5 •Following: 0.5		
13	Nicollet & 38th St	•Preceding: 0.5 •Following: 0.5	23	

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
14	Nicollet & 42nd St	•Preceding: 0.5 •Following: 0.5		New development proposal at 42nd & Nicollet
15	Nicollet & 46th St	•Preceding: 0.5 •Following: 0.5	11, 46	Near 46th Street Orange Line station
16	Nicollet & 50th St	•Preceding: 0.5 •Following: 0.6		Washburn High School
17	Nicollet & Diamond Lake Rd	•Preceding: 0.6 •Following: 0.4		
18	Nicollet & 58th St	•Preceding: 0.4 •Following: 0.25		
19	Nicollet & 60th St	•Preceding: 0.25 •Following: 0.7		
20	Nicollet & 66th St	•Preceding: 0.7 •Following: 0.5	515	
21	Nicollet & 70th St	•Preceding: 0.5 •Following: 0.38		Richfield High School
22	Nicollet & 73rd St	•Preceding: 0.38 •Following: 0.5		
23	Nicollet & 77th St	•Preceding: 0.5 •Following: 0.3	540	
24	Nicollet & American	•Preceding: 0.3	542	Terminal station siting to be determined

Randolph/ East 7th

Table 24. Randolph/ East 7th Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	Ford Pkwy & Finn	•Following: 0.3	A Line, 23, 46, 70, (84, 134 at Cleveland)	Terminal near future Highland Bridge Development (Ford Site), A Line Station. Future planning should consider layover at the future Highland Bridge Development.
2	Highland & Cleveland	•Preceding: 0.3 •Following: 0.5		
3	Randolph & Cleveland	•Preceding: 0.5 •Following: 0.5	87, 134	College of St Catherine
4	Randolph & Fairview	•Preceding: 0.5 •Following: 0.5		College of St Catherine campus
5	Randolph & Snelling	•Preceding: 0.5 •Following: 0.5	A Line, 84	
6	Randolph & Hamline	•Preceding: 0.5 •Following: 0.5		Cretin-Durham Hall High School
7	Randolph & Lexington	•Preceding: 0.5 •Following: 0.5	83	
8	Randolph & Victoria	•Preceding: 0.5 •Following: 0.4		Monroe High School
9	Randolph & West 7th	•Preceding: 0.4 •Following: 0.4	54	Saint Francis-Saint James School
10	West 7th & Jefferson	•Preceding: 0.4 •Following: 0.4		
11	West 7th & St Clair	•Preceding: 0.3 •Following: 0.72	70	Exceeds spacing between St Clair and Grand
13	West 7th & Grand	•Preceding: 0.72 •Following: 0.4	74	
14	West 7th & 5th St W	•Preceding: 0.4 •Following: 0.25	Downtown	Xcel Energy Center, RiverCentre and multiple hospitals are major destinations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
15/16	Rice Park/ Hamm Plaza (Stops on 5th and 6th)	•Preceding: 0.2 •Following: 0.25	Downtown, Gold Line, B Line, Grand Corridor	
17/18	Minnesota (Stops on 5th and 6th)	•Preceding: 0.25 •Following: 0.1	Downtown, METRO Green Line, Gold Line, B Line, Grand Corridor	
19/20	Robert (Stops on 5th and 6th)	•Preceding: 0.1 •Following: 0.2	Downtown, METRO Green Line, Gold Line, Rush Line, B Line, Grand Corridor, Rice/ Robert Corridor,	
21/22	Wacouta (Stops on 5th and 6th)	•Preceding: 0.2 •Following: 0.5	Downtown	
23	East 7th St & Lafayette	•Preceding: 0.5 •Following: 0.5	64	
24	East 7th St & Maria	•Preceding: 0.5 •Following: 0.5		Metro State University
25	East 7th St & Arcade	•Preceding: 0.5 •Following: 0.3	54	
26	East 7th St & Forest	•Preceding: 0.3 •Following: 0.3		
27	East 7th St & Earl	•Preceding: 0.3 •Following: 0.5		
28	East 7th St & Johnson Pkwy	•Preceding: 0.5 •Following: 0.47		
30	East 7th St & Hazelwood	•Preceding: 0.47 •Following: 0.4		
31	East 7th St & White Bear	•Preceding: 0.4 •Following: 0.2	80	
32	East 7th St & Hazel	•Preceding: 0.2 •Following: 0.25		
33	Minnehaha & Hazel	•Preceding: 0.25 •Following: 0.4		

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
34	Ruth & Margaret	<ul style="list-style-type: none"> •Preceding: 0.4 •Following: 0.3 		
35	Ruth & 3rd St	<ul style="list-style-type: none"> •Preceding: 0.3 •Following: 0.5 		
36	Sun Ray Transit Center	•Preceding: 0.5	Gold Line, Como/ Maryland Corridor, 63, 80	Sun Ray Shopping Center

Rice/ Robert

Table 25. Rice/ Robert Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	Little Canada Transit Center	•Following: 0.38	71	Commercial center
2	Rice & Little Canada Rd	•Preceding: 0.38 •Following: 0.38	71	
3	Rice & County Rd C	•Preceding: 0.38 •Following: 0.5	223	
4	Rice & Country Rd B2	•Preceding: 0.5 •Following: 0.5		Consider Minnesota Avenue commercial area to the south
5	Rice & County Rd B	•Preceding: 0.5 •Following: 0.5	270	Consider park and ride to the east
6	Rice & Roselawn	•Preceding: 0.5 •Following: 0.5		
7	Rice & Larpenteur	•Preceding: 0.5 •Following: 0.5	68	
8	Rice & Arlington	•Preceding: 0.5 •Following: 0.5	61	Washington Tech Magnet School
9	Rice & Maryland	•Preceding: 0.5 •Following: 0.5	Como/ Maryland Corridor	
10	Rice & Front	•Preceding: 0.5 •Following: 0.38		
11	Rice & Sycamore	•Preceding: 0.38 •Following: 0.3		Consider Wayzata Street
12	Rice & Pennsylvania	•Preceding: 0.3 •Following: 0.3	68	Consider Como Avenue and transfers to local routes
13	Rice & University	•Preceding: 0.3 •Following: 0.25	METRO Green Line, 3, 67	
14	Rice & State Building G (MnDOT)	•Preceding: 0.25 •Following: 0.7		Future Sears block redevelopment

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
15	Robert & 10th St	•Preceding: 0.7 •Following: 0.3	Downtown, Rush Line	
16	Robert & 5th/6th St	•Preceding: 0.3 •Following: 0.18	Downtown, Rush Line, Gold Line, B Line, Grand Corridor, Randolph/ East 7th Corridor	Mid-block
17	Robert & Kellogg	•Preceding: 0.18 •Following: 0.38		
18	Robert & Fillmore	•Preceding: 0.38 •Following: 0.25	71, 94	
19	Robert & Plato	•Preceding: 0.25 •Following: 0.4		Not included in the ATCS
20	Robert & Isabel	•Preceding: 0.4 •Following: 0.3		Not included in the ATCS
21	Cesar Chavez & State	•Preceding: 0.3 •Following: 0.4	71	
22	Robert & Sidney	•Preceding: 0.4 •Following: 0.3		Humboldt High School
23	Robert & Annapolis	•Preceding: 0.3 •Following: 0.5		
24	Robert & Butler	•Preceding: 0.5 •Following: 0.25	62, 75	
25	Robert & Moreland	•Preceding: 0.25 •Following: 0.5		Signal Hills Shopping Center
26	Robert & Thompson	•Preceding: 0.5 •Following: 0.25	62, 75	
27	Robert & Wentworth	•Preceding: 0.25 •Following: 0.5		Not included in the ATCS
28	Robert & Marie	•Preceding: 0.5 •Following: 0.5	75	
29	Robert & Mendota	•Preceding: 0.5 •Following: 0.25		

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
30	Northern Service Center	•Preceding: 0.25		

West Broadway/ Cedar

Table 26. West Broadway/ Cedar Concept Station Locations

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
1	Robbinsdale Transit Center	•Following: 0.6	Lowry Corridor, Blue Line extension, 14, 32, 716 and 717	Future land use: Commercial center Consistent with the WBTS Connection to future Blue Line extension
2	West Broadway & 38th Ave	•Preceding: 0.6 •Following: 0.4	Lowry Corridor	Apartment homes north of street Consistent with the WBTS
3	France & 36th Ave	•Preceding: 0.4 •Following: 0.6	Lowry Corridor	Consistent with the WBTS
4	North Memorial Hospital	•Preceding: 0.6 •Following: 0.6	Lowry Corridor	Consistent with the WBTS
5	West Broadway & 29th Ave	•Preceding: 0.6 •Following: 0.3		
6	West Broadway & 26th Ave	•Preceding: 0.3 •Following: 0.25		
7	West Broadway & Penn	•Preceding: 0.25 •Following: 0.38	C Line, 19	
8	West Broadway & Ilion	•Preceding: 0.38 •Following: 0.5		Review future development plans
9	West Broadway & Fremont/Emerson	•Preceding: 0.5 •Following: 0.3	D Line, 5, 30	
10	West Broadway & Lyndale	•Preceding: 0.3 •Following: 0.5	22	
11	Washington & 17th Ave	•Preceding: 0.5 •Following: 0.4		
12	Washington & 10th Ave	•Preceding: 0.4 •Following: 0.3	7	
13	Washington & 6th Ave	•Preceding: 0.3 •Following: 0.25		

Station Intersection	Intersection Location	Station Spacing (miles)	Connecting Service	Comments
14	Washington & 3rd Ave N	•Preceding: 0.25 •Following: 0.25	Downtown	
15	Washington & Hennepin	•Preceding: 0.25 •Following: 0.25	Downtown, E Line, Johnson/ Lyndale Corridor	
16	Washington & 3rd Ave S	•Preceding: 0.25 •Following: 0.4	Downtown, Nicollet Corridor, Central Corridor	Marquette and 2nd transit spine. New Washington Avenue downtown transit spine
17	Washington & Chicago	•Preceding: 0.4 •Following: 0.25	Downtown	
18	Washington & 11th Ave	•Preceding: 0.25 •Following: 0.4	7	
19	Cedar & 3rd St	•Preceding: 0.4 •Following: 0.25	METRO Green Line, Como/ Maryland Corridor, 2, 7	General area, consider light rail station/Seven Corners/Riverside Plaza
20	Cedar & 6th St	•Preceding: 0.25 •Following: 0.4		
21	Cedar & Franklin	•Preceding: 0.4 •Following: 0.4	METRO Blue Line, 2, 67	
22	Cedar & 25th St	•Preceding: 0.4 •Following: 0.6		Service to Little Earth, consider 26th St for spacing
23	Cedar & Lake	•Preceding: 0.6 •Following: 0.5	B Line, 21	South High School
24	Cedar & 34th St	•Preceding: 0.5 •Following: 0.5		
25	Cedar & 38th St	•Preceding: 0.5 •Following: 0.4	23	Straight alignment along Cedar
26	38th St & 23rd Ave	•Preceding: 0.4 •Following: 0.5		
27	38th St Station	•Preceding: 0.5	METRO Blue Line, 14, 23	