PREPARED FOR: metro

Heartland Regional Transit Vision

Metro Fixed-Route Operations Analysis

NETWORK EVOLUTION PLAN

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Introduction

In a commitment to a future emphasizing smart growth for the Omaha-Council Bluffs Metropolitan area, the Partnership for Sustainable Communities awarded a grant to the Omaha-Council Bluffs Metropolitan Area Planning Agency (MAPA) to examine and shape the growth of the region over the long term. Heartland 2050, a multi-million dollar planning effort to shape the region's future with a focus on sustainability and livability, seeks to:

- Define a vision for the region's future that strikes a balance between the three key dimensions of sustainability – environment, social equality, and economic development.
- Develop a strategic framework for delivery and maintenance of vital public service and infrastructure in specific sectors, including transportation, housing, utilities, and land use.
- Identify the consequences of and synergies between investments in physical infrastructure and socioeconomic outcomes, including education, job accessibility, and public health.
- Improve legibility, resolution, and availability of data collected regionally to foster collaborative, evidence-based policy-making.
- Engage and involve all segments of the population, particularly those marginalized from traditional planning processes, including minorities and residents of rural communities.

As a key provider of mobility throughout the region, Omaha Metro can play an important role in shaping the narrative of future development. The agency is well-positioned to establish the kind of all-day high-frequency transit needed to support the growing demands on the region's transportation network and foster the growth of a denser and more sustainable urban environment.

To help accomplish this end goal of providing high-quality, flexible, and competitive transit options both in the short- and long-term, the *Network Evolution Plan* was developed. The *Network Evolution Plan,* an input to the *Regional Transit Vision,* was developed based on the following key plan elements:

- **Market Assessment and Needs Analysis:** Presents an understanding for the demand for use of transit in the greater Omaha region. Enhanced understanding of the context to which Metro provides transit services will guide insight into existing transit performance, provides the opportunity to make available market-matched services and identifies valuable opportunities for increasing system ridership.
- **Service Evaluation:** Provides a data driven understanding of the transit system's fixed route performance and structure necessary to inform subsequent policy and planning discussions. Findings will contribute to the development of service alternatives and recommendations by identification through analysis of existing service including ridership patterns, productivity and financial effectiveness of the system.

- **Plan Framework and Guiding Principles:** The recommendations of the Metro network are shown through individual route maps with proposed route level changes organized into multiple tiers of service levels. These changes provide a unified vision for the future of transit in the Omaha region. The guiding principles became a foundation for designing the final recommendations to ensure consistency and accuracy of individual recommendations with a broader policy objective.

Existing Conditions

The *Market Assessment and Needs Analysis* and *Service Evaluation* detailed the existing conditions in Metro's service area. The findings from these documents informed the guiding principles, the framework for the final recommendations. The *Market Assessment and Needs Analysis* utilized key demographic data to evaluate the current demand for transit use and helped identify where transit operations would be most successful. The *Service Evaluation* provided an analysis of the current fixed route transit system's performance, highlighting opportunities for where Metro can continue to grow and improve service. A collection of key findings from both documents follow, with full results of the analysis available in separate documents.

Metro Overview

Metro is the largest transit agency in the State of Nebraska with a service area covering three counties (Sarpy and Douglas, Nebraska and Pottawattamie, Iowa). According the 2011 National Transit Database Metro service area includes around 580,000 people. Metro directly operates service within the Omaha city limits and provides service to Bellevue, Council Bluffs and the Tri-cities area of Ralston, Papillion, and La Vista through a private contract between each city. Metro's fixed route fleet utilizes a maximum of 122 buses. In 2012, Metro operated around 285,000 annual vehicle revenue hours and more than 3,900,000 annual vehicle revenue miles. Bus service is operated on 34 routes: 25 local routes, 2 downtown circulators, and 7 express routes. In 2012, 4,225,034 boardings were recorded on Metro's fixed route service, a 6 percent increase in ridership from the prior year.

Market Assessment and Needs Analysis Key Findings

Metro Service Area

- Much of Omaha's service area can be defined by low population and employment densities spread over a wide geographic area that proves not to be conducive to public transit operations.
- Current routing is stretched throughout the region reaching to areas that are not transit oriented and are currently serving locations of low density.

Market Area Profile

- Discontinuous development patterns in auto-centric areas prove a challenging environment for Metro to provide cost-effective transit service.
- Current concentrated pockets of density exist in outlying regions, which are typically very auto-centric suburban communities, are unlikely to sustain all-day or all-week transit service.
- Employment in the region generally is organized along linear commercial corridors conducive to transit operations but with an auto-centric structure (low cost or free parking and low pedestrian friendliness) challenging to transit services.
- The strongest market opportunities for productive transit service exist in the core region of Omaha in both downtown and the immediately surrounding neighborhoods.

Rider Profile

- Current transit customers are both very loyal and tend to depend on Metro for mobility.
- Surveyed riders have noted that Metro can better improve transit by increasing service on weekends, increasing service spans into the evening weekday hours and raising weekday service frequency levels.
- A majority of current surveyed transit riders either have limited or no access to an automobile for use in transportation. This dependency proves critical for Metro to provide valuable connections to areas throughout the Omaha region.

Travel Patterns

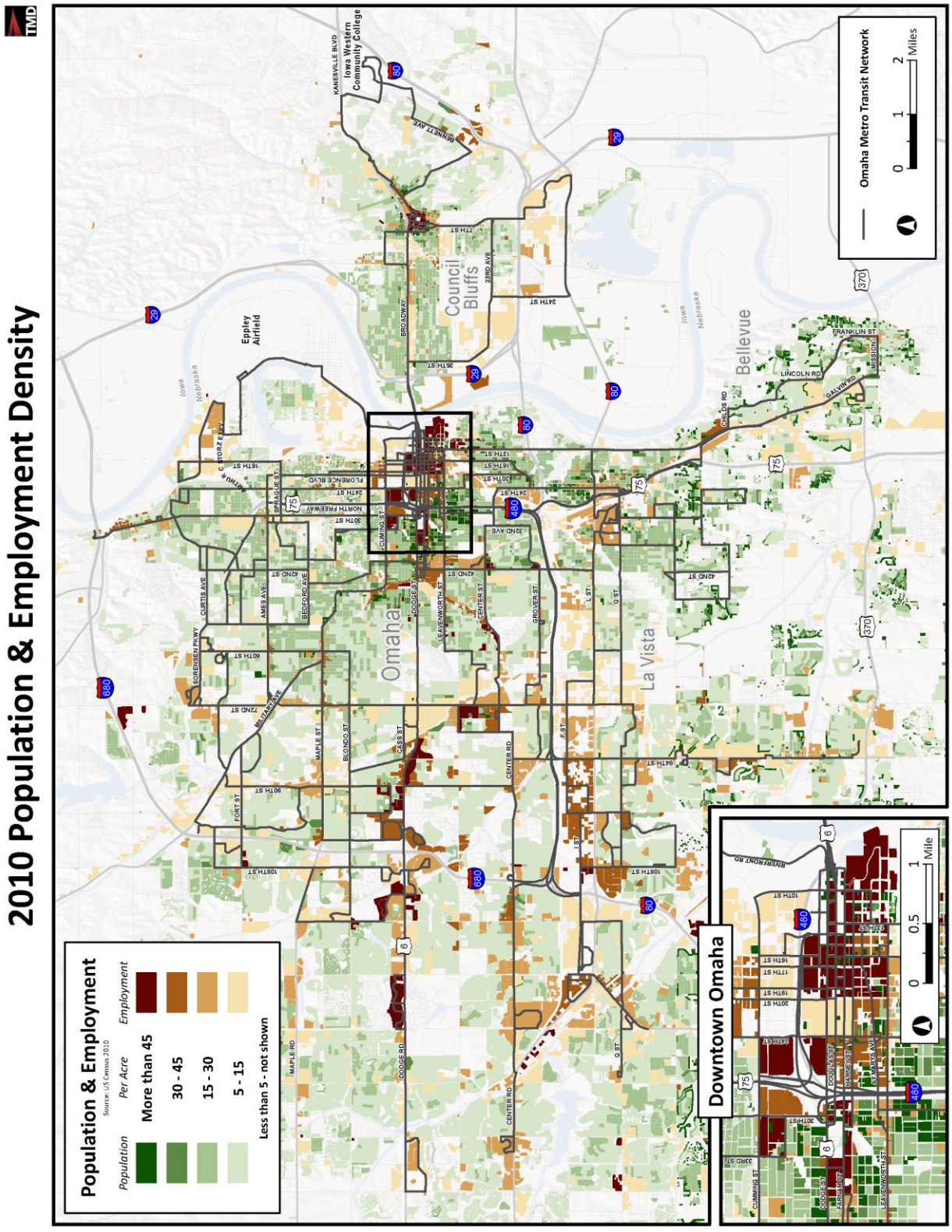
- A large number of commuting trip segments are still traveling to the downtown/midtown region, as measured per acre, where the Dodge Street corridor forms a key spine through the core of the transit system.
- Existing parking supply around the downtown/midtown area caters to low-cost auto-centric standards which inhibit current transit ridership growth warranting the need to create more competitive transit products.

Key Destinations

- Significant employment centers, in addition to the downtown region, include the L Street and Dodge Street Corridors.
- Metro is currently serving all major employment, tourist, educational, recreational and medical facilities which enable sustained ridership on select routes.

Future Development

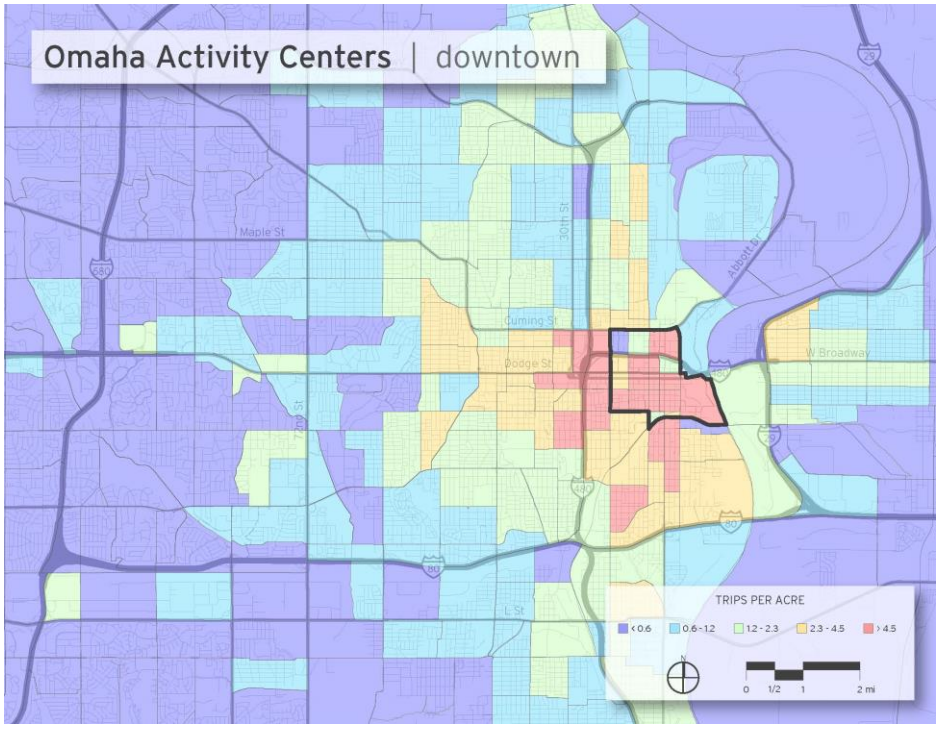
- Future population and employment expansion is slated to press further westward to areas not currently being served by Metro's transit system. Redevelopment and infill projects are also currently being executed in areas north, south and west of the downtown core taking advantage of the current Metro transit system which supports sustainable transit communities.



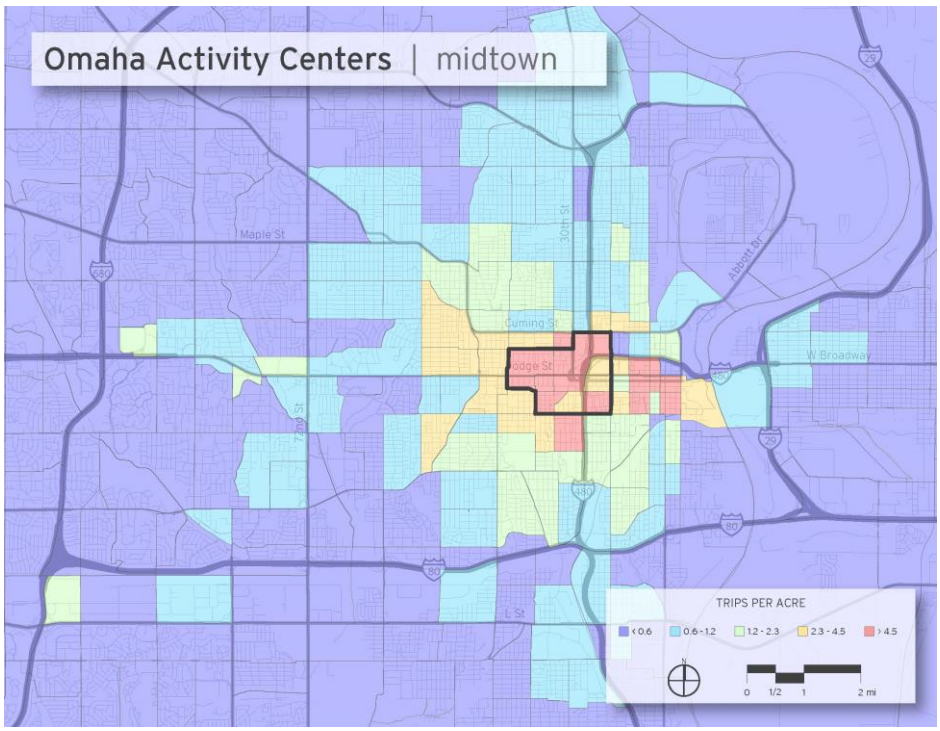
Map 1: Population and Employment Density

Metro Survey Rider Profile			**Route**
Survey Topic	Key Findings	Responses	Results
Gender	Gender distribution is almost equal	Female	49%
		Male	51%
Age	The majority of Metro riders are working age.	17 <	7%
		18 - 24	18%
		25 - 34	21%
		35 - 54	37%
		55 - 64	14%
		> 65	3%
Income	The majority of fixed route riders are of lower income levels.	$30,000 <	68%
		$30,000 - $49,999	15%
		$50,000 - $69,999	7%
		$70,000 - $99,999	5%
		> $100,000	4%
Vehicle in Household	Over half of Metro's riders are transit reliant, in that they do not have access to a vehicle.	0	55%
		1	26%
		2	14%
		3 or more	5%
Customer Loyalty	Over half of transit riders have been riding Metro for 3 or more years, while 1 in 5 is a new rider.	< 6 months	18%
		6 - 12 months	10%
		1 -2 years	15%
		> 3 years	57%
Ride Frequency	A majority of Metro riders are frequent users, with 70% using the service 5 or more days per week	5 - 7 days/week	71%
		3 -4 days/week	18%
		1 - 2 days/week	7%
		1st time to 2 days/month	4%
Fare Payment Method	Cash payment still accounts for nearly half of all fare collection methods	Cash	48%
		10 Ride Card	27%
		30 Day Pass	12%
		University Pass	7%
		1 Ride Card w/ Transfer	5%
Rider Ethnicity	Ridership is largely split between African American and Caucasian	African American	44%
		Caucasian	40%
		Hispanic/Latino	6%
		Native American	5%
		Asian	3%
		Other	3%
Metro Improvement Categories	Categories are listed in order of importance	1. More service on weekends	
		2. End service later on weekdays	
		3. More frequent service on weekdays	

Figure 1: Rider Profile



Map 2: Omaha Activity Centers Downtown



Map 3: Omaha Activity Centers Midtown

Service Evaluation Key Findings

Metro Ridership and Service Performance

- Overall, Metro's routes are efficiently operated (i.e. use scheduling practices such as interlining), but unproductive with a weekday average of just 18 boardings per revenue hour. Increasing ridership on well performing routes and reducing or eliminating underperforming routes is critical for increasing overall service performance. Increased productivity will reduce the subsidy per passenger boarding and increase farebox recovery, resulting in a stronger case for ongoing financial sustainability.
- The top 5 producing routes (Routes 2, 18, 30, 13, and 7) generate 42 percent of total network ridership. Strengthening these routes [faster, more frequent and reliable] will positively affect almost half of system ridership every day. As well, the remaining 29 routes and the overall network structure are in need of routing and schedule changes in order to influence a transformation in ridership.
- Many of Metro's current routes are not productive. In some cases, route or network restructuring will significantly improve productivity. However, in many other cases, the market for transit is not strong enough to generate high ridership no matter what transit service is operated. In these cases, the recommended plan should consider alternative mobility options that can be cost effectively provided or eliminating underperforming routes or segments.
- Current analysis shows that 43 percent of riders pay by cash, which if transitioned to a more fare/ticket based system, has the ability to enhance boarding times and route operating speed. More importantly, changes to the network are likely to place an increased emphasis on frequent, grid service where customers are more likely to transfer as the destination opportunities increase.

Service Quality

- Metro currently operates only two routes which meet the minimum 'spontaneous use' standard of 15 minute service. Most routes operate at lifeline 30 – 60 minute frequencies. The opportunity to grow discretionary travel and attract new 'transit lifestyle' customers will require frequent transit service in a less downtown-oriented network [hybrid grid is one likely option].
- Current stop spacing throughout Metro's network prioritizes short walk access over fast travel with minimal delay – the top two attributes for attracting patronage are short waits [frequency] and fast travel, with short walks less important to most existing and potential riders. The plan should consider adjustments in stop spacing that better balance these competing attributes.

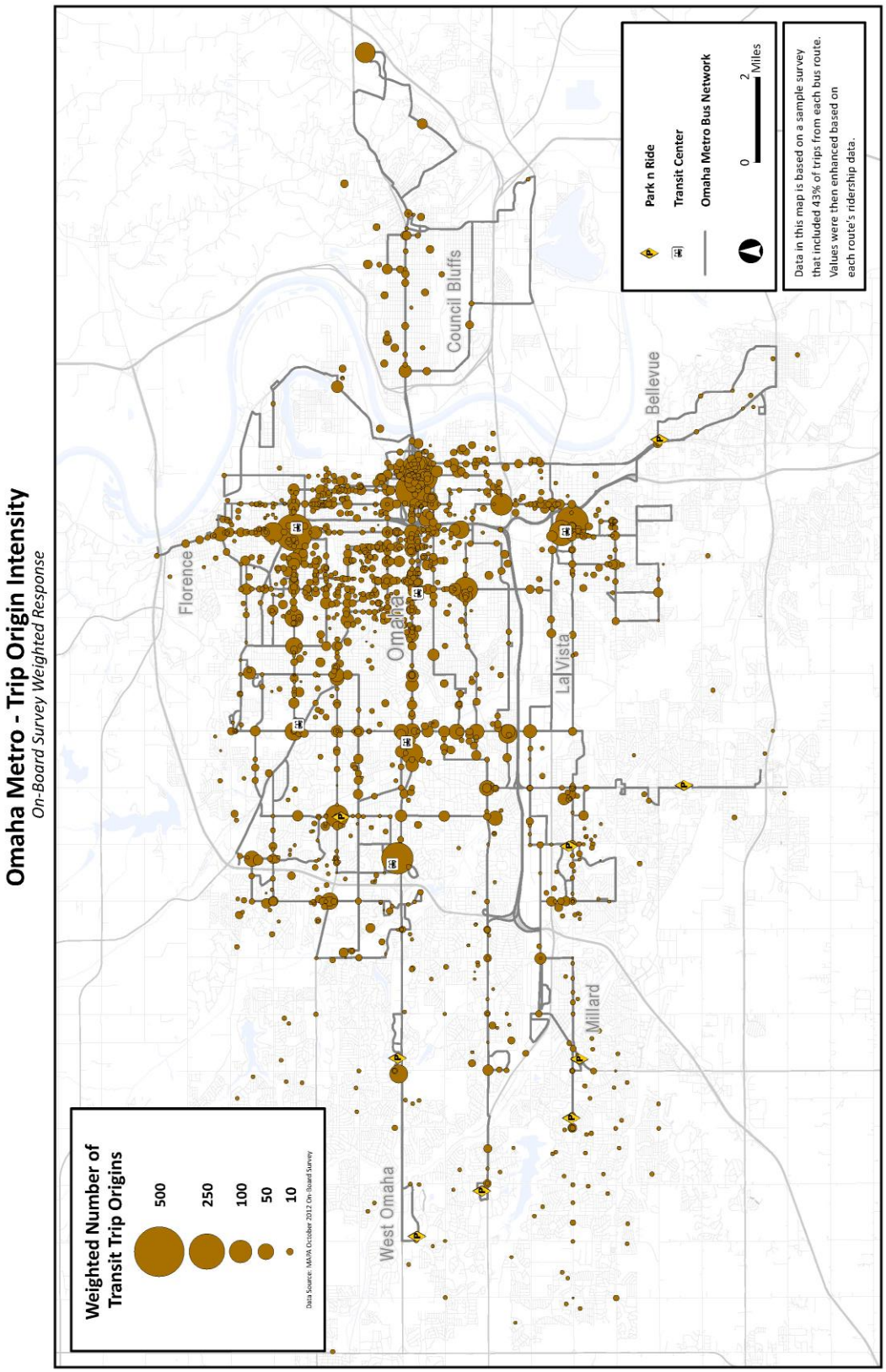
Route Network Design

- The existing transit network is a radial/crosstown structure focused on downtown Omaha augmented by hub-and-spoke subarea elements. Locating transit centers where the dominate service levels transition from relatively frequent to infrequent is consistent with effective network design, given the location and operation of facilities to minimize out-of-direction movement and deviations.
- Establishing a coordinated, multi-tiered network approach will increase network clarity for the customer, allow staff to better match service products to the market demand present for transit across the service area, and facilitate clearer policy choices regarding the level of service investment.

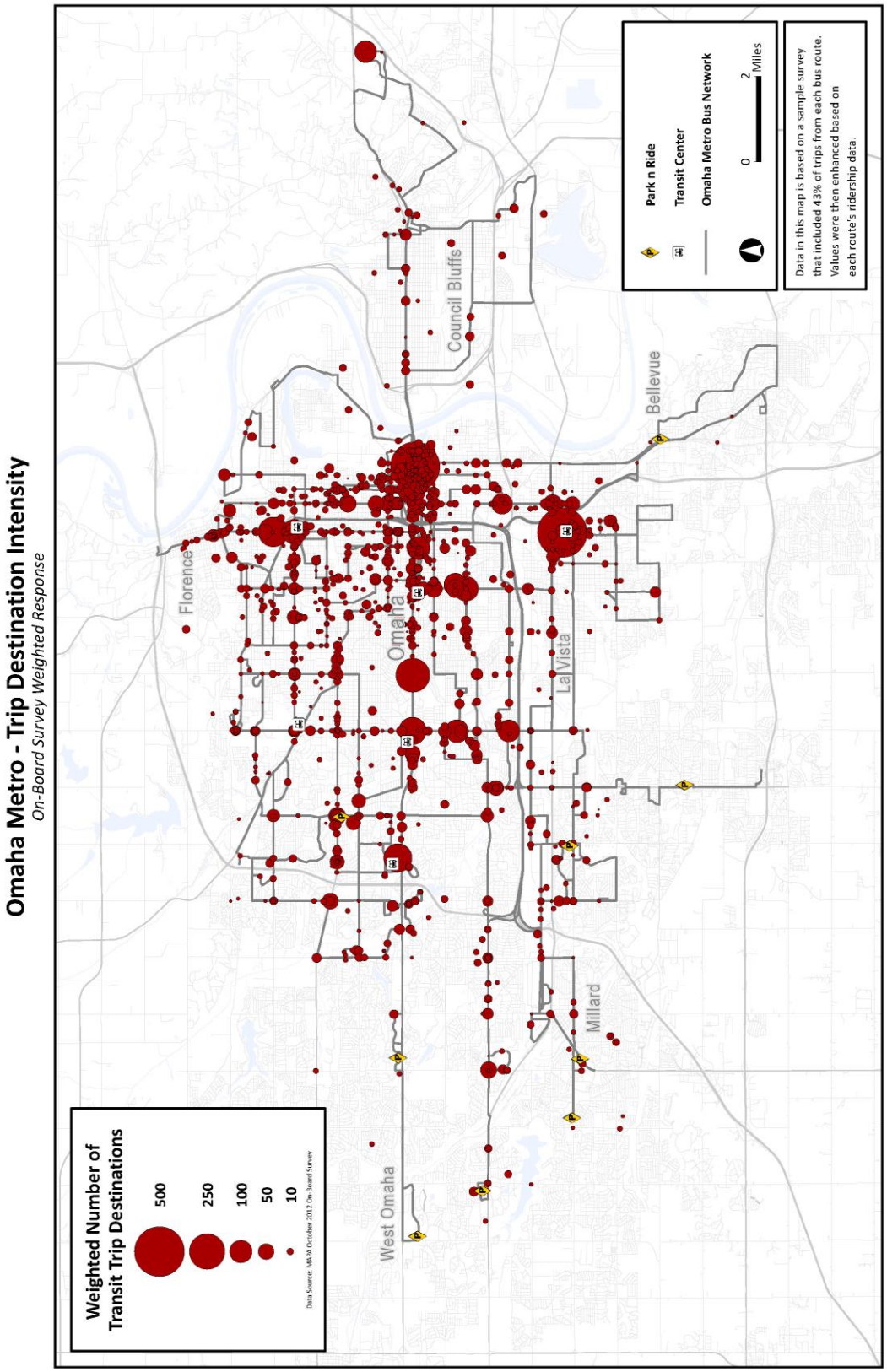
- Service complexity presents a special barrier to use for unique, spontaneous trips that support additional system use beyond established, reoccurring trips such as work or school commutes. Creating an easy-to-understand network of transit services which facilitates ease of trip-making across a variety of trip purposes, presents competitive travel times, and provides direct, consistent service will help increase ridership and transit market share across a broader range of consumer demographics.
- An approach which spreads limited operating resources thinly across a wide geographic area limits the ability of transit service to provide a viable, competitive mobility option. A path toward increasing the role of transit in Omaha's mobility involves restructuring transit service with a focus on supporting the development of sustainable active-mode oriented corridors, while balancing consolidation of service investment on transit-conducive corridors with provision of transit across a wide geographic area.
- An element of building transit success will be the identification, reinforcement, and development of corridors into network subareas where frequent service can foster the emergence of active mode lifestyle corridors. Building a frequent [and fast] network that carries a majority of system ridership simplifies connections between routes, will reduce the need for close service coordination and complicated operations. A frequent network that supports reliable and convenient route connections is the fundamental building block of transit network success.

Downtown Operations

- Route alignments should provide fast streamlined service through the heart of downtown, while providing access to major destination within a 0.5 mile walk shed of the route.
- Passenger transfers need to be facilitated for both the convenience of the passenger and the reliability of the service. Transfers should take place at the first convenient location.
- Vehicle layover locations should provide for operator rest facilities, but do not necessarily need to be the same location as the passenger transfers.
- Current Metro downtown operations focusing on 16th Street follow these best practices; however still lack passenger amenities, have single lane travel in both directions, and stoplights every block.
- Metro should explore relocating the downtown hub in conjunction with the Farnam Busway. The new hub should include real-time arrival information, high quality shelters, bike amenities, and an offsite layover/restroom area for drivers.



Map 4: Metro Trip Origins



Map 5: Metro Trip Destinations

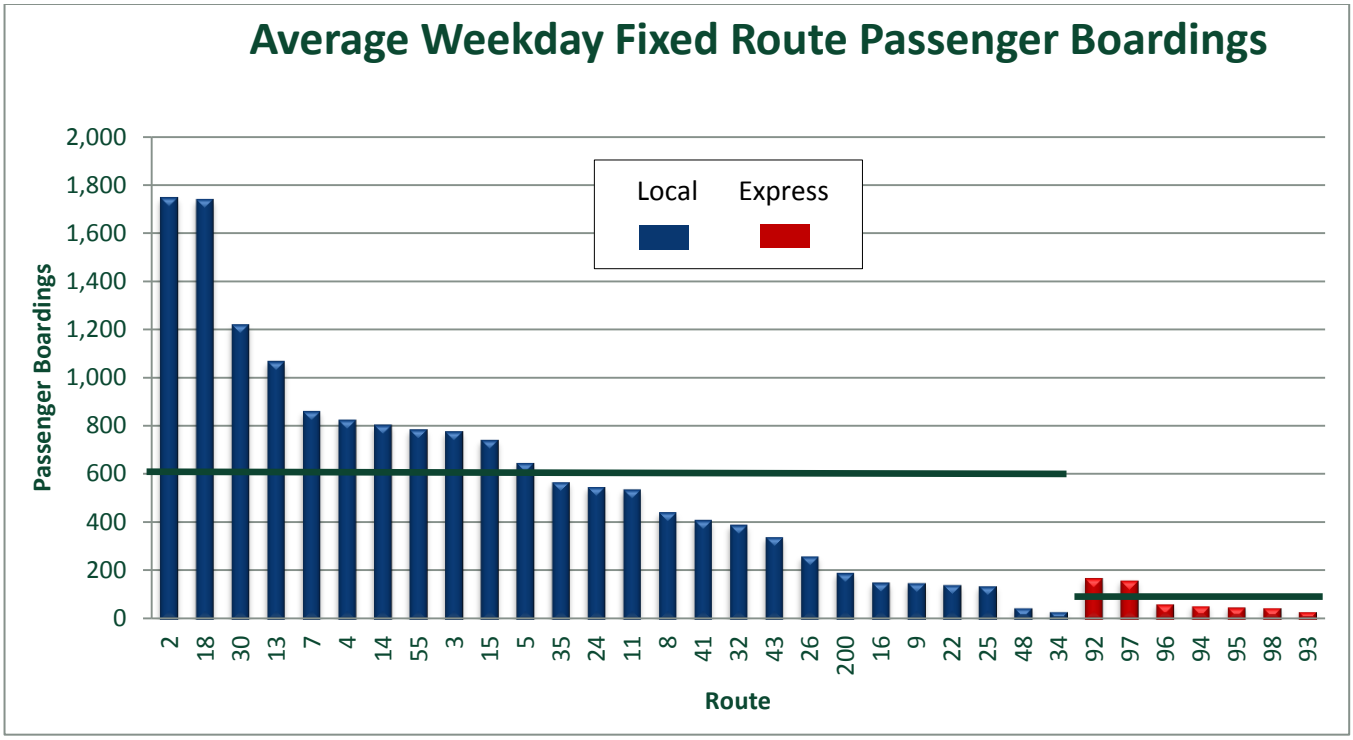


Figure 2: Average Weekday Passenger Boardings

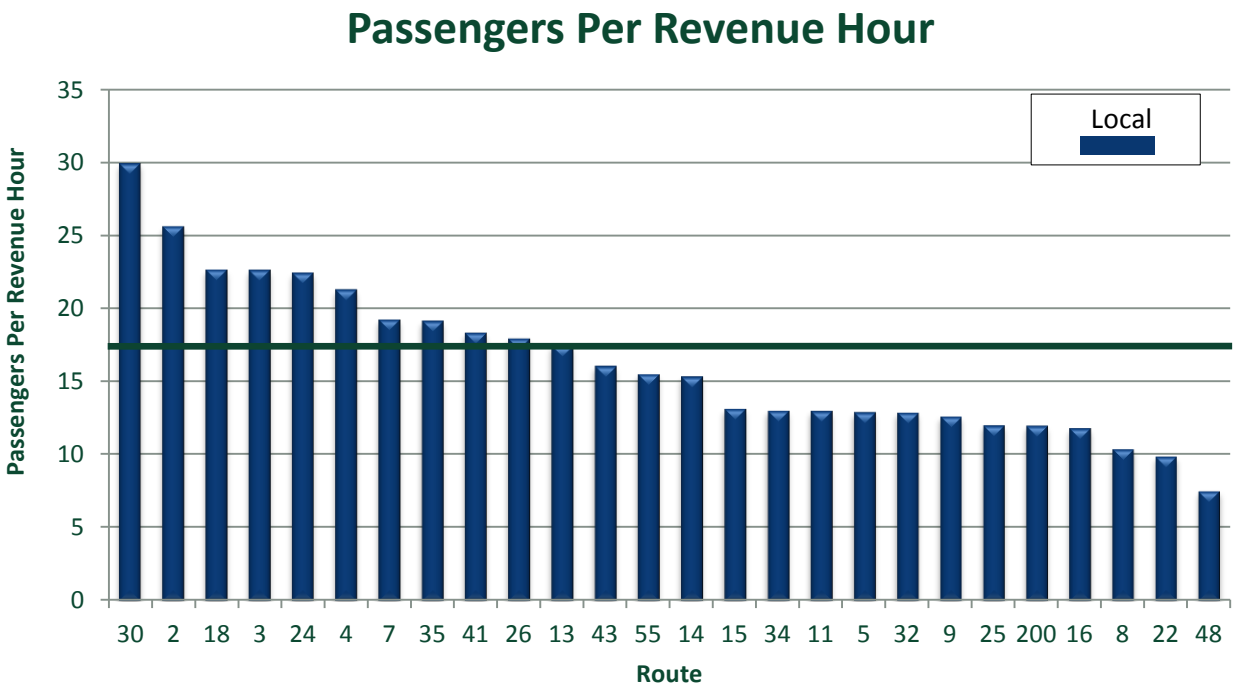
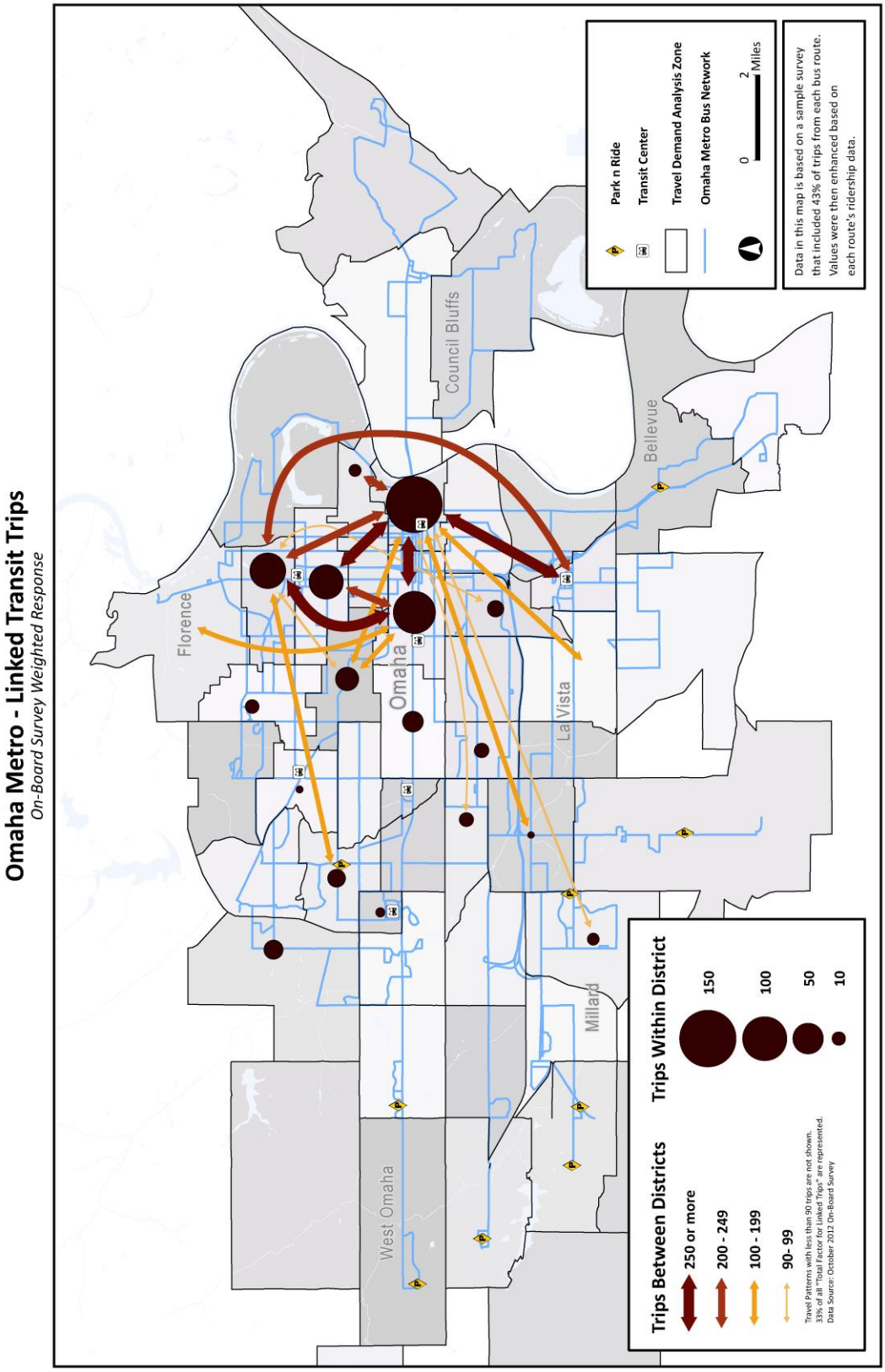
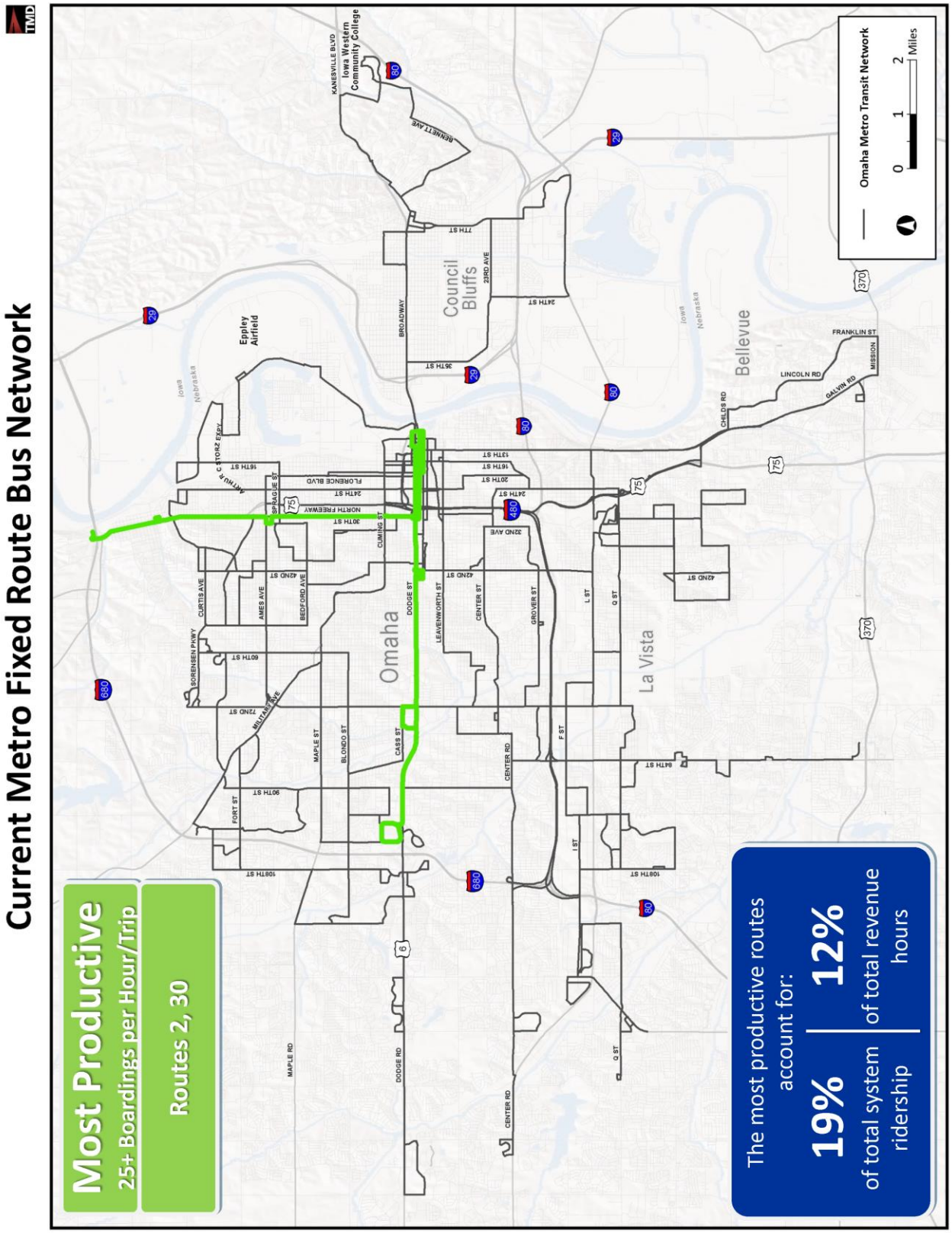


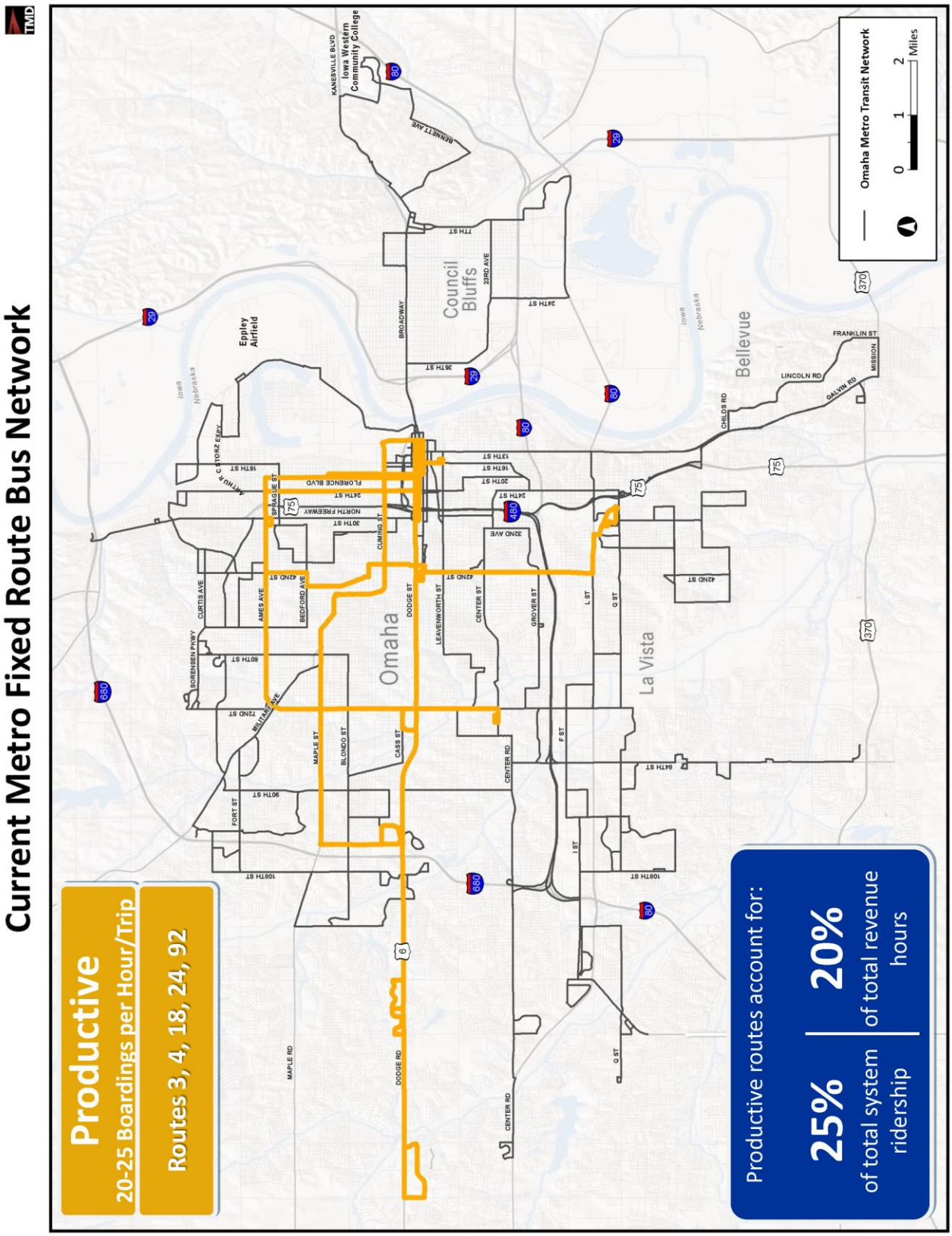
Figure 3: Passengers per Revenue Hour (Local Service)



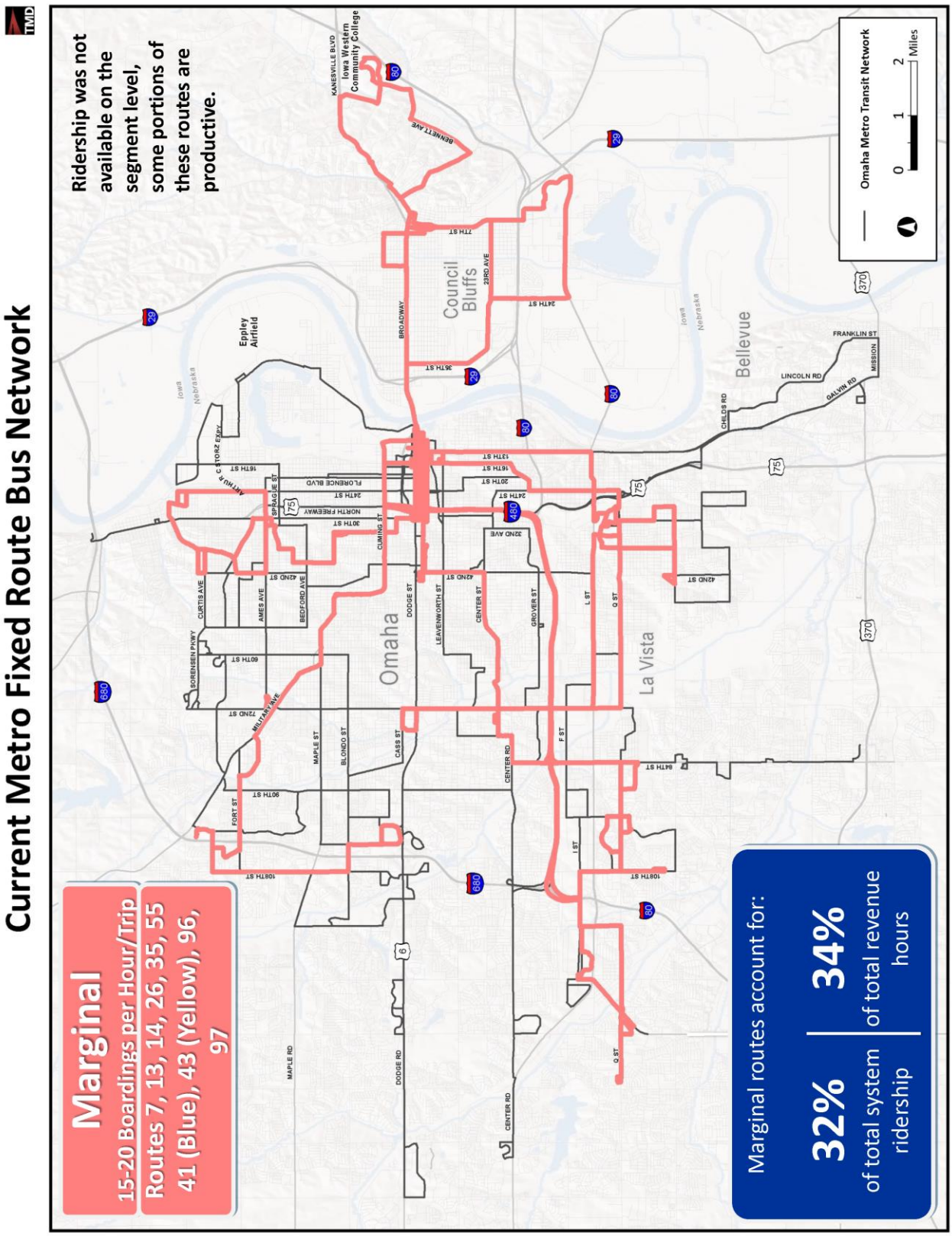
Map 6: Linked Transit Trips



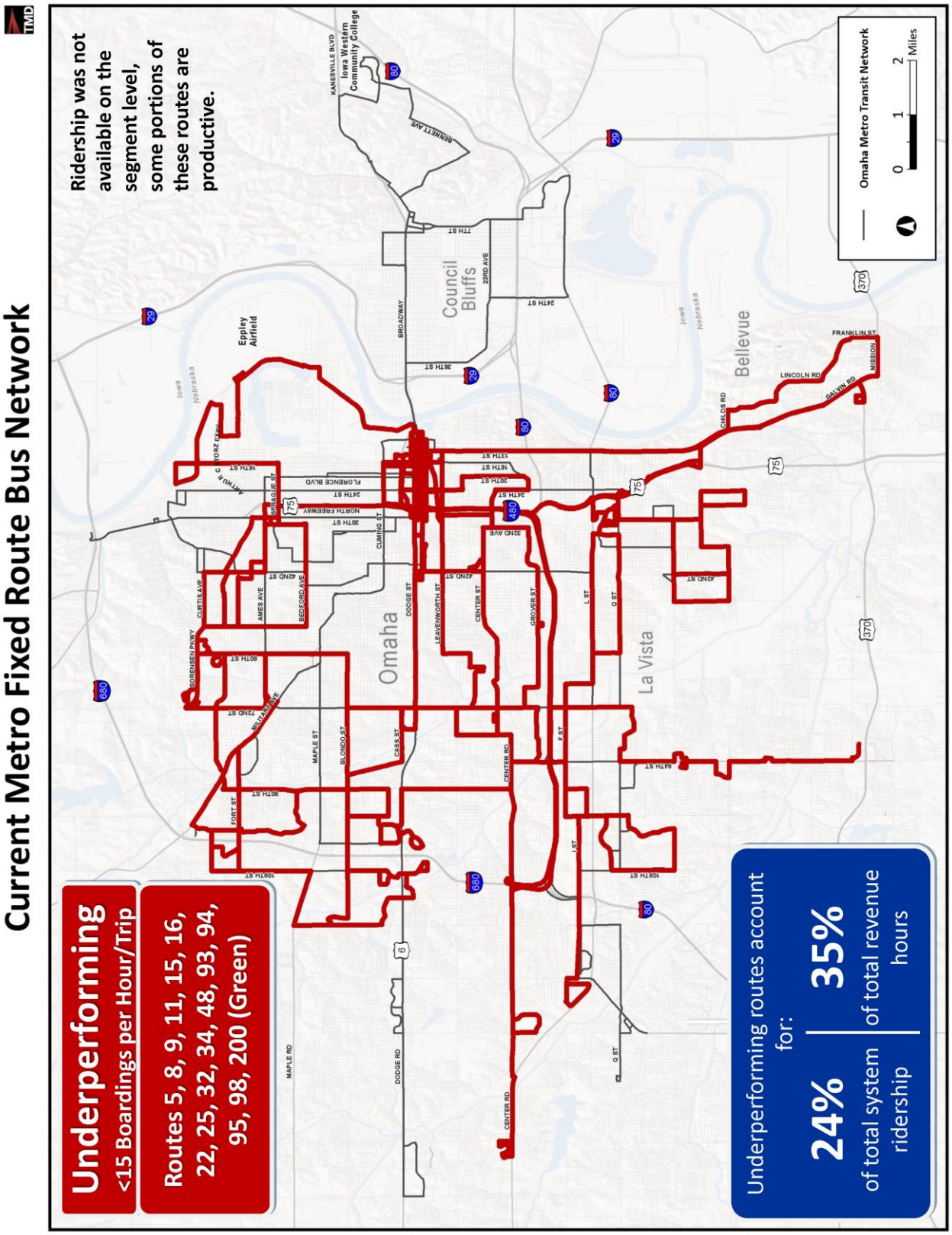
Map 7: Most Productive Routes



Map 8: Productive Routes



Map 9: Marginal Routes



Map 10: Underperforming Routes

Existing Conditions Summary

Given the results of the existing conditions analysis the future direction for the Metro bus network should be organized into three distinct planning horizons, Phase I (near term), Phase II (long term), and Phase III (vision). Future BRT and LRT projects can be included in any of the three phases. The opportunities, challenges, and possibilities are distinct in each timeframe. Recognizing the unique planning context of each timeframe will assist in developing achievable and sustainable service planning goals.

Near Term

Metro has done a good job of using its resources efficiently given the limited market for transit. Most routes in the system operate efficiently due to service design and delivery. While Metro has run an efficient system, existing market conditions such as scattered density, dispersed travel patterns, and non-linear nature of land use present a challenging environment in which to generate high ridership. Limited ridership generation on otherwise efficient routes limits the effectiveness of the system as a result of low volumes of passengers carried. Some market conditions (low densities, disperse destinations) will not respond to any level of transit service. The existing near term conditions warrant a focus on reinforcing and refining service along current productive corridors while scaling additional investment appropriately. Additional near-term opportunities include addressing the lack of high frequency transit services and improving network connectivity.

Long Term & Vision

The long term seeks to increase the role of transit in Omaha. Achieving a goal of increased transit mobility will depend on a paradigm shift in development patterns, necessitating participation of both the city and county to develop mutually supportive land use patterns that emphasize sustainable mobility. If transit is to become a part of the mobility solution, then a commitment to sustainable development patterns is necessary.

Framework and Guiding Principles

The findings from the existing conditions analysis informed the development of the Guiding Principles which provide a uniform vision for transit in the Omaha region. The guiding principles supported the development of the final recommendations.

Guiding Principles

Right Size Service to Market

As the development patterns in the greater Omaha region vary widely, the need to properly match Metro services to a variety of market conditions proves a critical challenge to the future of sustainable transit services. Metro should optimize their service options to match these market opportunities to balance coverage with frequency. Successful fixed-route transit needs linear corridors with adequately dense mixed-use development. Investment in improved transit service should occur on key, transit supportive corridors where frequent service supports increased ridership.

Strengthen Network Structure

Metro's current route structure is a complex interlined radial crosstown network. Through streamlining routes into more direct, linear alignments will create a more effective and easier to understand network. The creation of a multiple tiered route network will enable integrated service products and network spines allowing for a coordinated and right-sized transit system, whether fixed route, or non-fixed route service in low demand areas. This plan takes the first steps in migrating the network structure to a grid versus radial orientation that will support sustainable community mobility in the urban core.

Improve the Customer Experience

Metro should focus on providing faster travel times by reducing out-of-vehicle wait time by implementing a frequent network of services enabling transit to be competitive with other travel

modes. Through improvements customer experience Metro can attract a greater cross-section of the community. Current bus shelters and wait amenities are mismatched throughout the network and need uniformity to provide a consistent customer experience and public image.

Promote Financial Sustainability

Metro currently uses financial resources wisely, but could improve by establishing performance and productivity standards that allow for consistent monitoring of the system. Retention of current riders and attraction of new riders is critical to future success. Growing ridership will increase farebox revenue supportive of financial sustainability. Continued advocacy for increased investment in transit mobility and the development of sustainable transit communities will support future transit success.

Applying the Guiding Principles

The design objectives provide tangible directions for translating the guiding principles into actual service on the street. The following design objectives help focus recommendations at both the network and individual route level:

- Right Size Service to Market
    - Match service levels with market demand for transit.
    - Invest resources in areas where transit will have a better chance of succeeding. Routes have been more productive when operating in areas of high population or employment density.
- Strengthen Network Structure
    - Invest improvements in key corridors rather than coverage.
    - Reshape urban core structure from radial to grid to support a many-to-many sustainable transit lifestyle.
    - Ensure consistency between individual recommendations with overall network design decisions.
- Improve the Customer Experience
    - Create all week network which provides customers the opportunity to use transit throughout the week.
    - Implement spontaneous use frequency for highest-performing routes.
- Promote Financial Sustainability
    - Reduce circuitous alignments and reconfigure routes to have more direct travel patterns.

- Consolidate duplicative services where market does not warrant current level of service and reinvest resources into single effective route.
- Consider operating cost, efficiency, and effectiveness when making route design decisions.
- Consider non-fixed route service alternatives in low-demand areas.

Recommendations Overview and Approach

Recommendations Overview

The *Network Evolution Plan* developed a refocused network through the restructuring of numerous routes. The recommendations were developed through an iterative and collaborative process supported by the *Market Assessment and Needs Analysis*, *Service Evaluation*, and the *Guiding Principles*. Key findings about market conditions and existing service performance characteristics informed the development of route concepts and design objectives intended to shape a future vision for transit. Achieving this vision involved modifications, eliminations, and additions of individual routes. Detailed route-level design choices used a similar approach to network level decisions to ensure a top-down, bottom-up consistent plan.

Key Recommendation Elements

The phased recommendations implement the vision outlined in the guiding principles and design objectives utilizing three core recommendation elements: increasing frequency on productive corridors, improving weekend service levels, and service restructuring.

Service Restructuring

The network recommendation element, service restructuring, encompasses the guiding principles through the introduction of new routes, consolidation of underperforming services, adjustments to alignment and frequency to increase system efficiency, and the reshaping of the urban core network. This recommendation category reallocates unproductive resources for reinvestment in key services, corridors, and transit-supportive markets.

Increasing Frequency on Productive Corridors

Metro Route 2, 4, 13, 15, 18, and 30 are some of the most productive routes in the network due to their design and by serving transit-supportive, higher density markets. Increasing frequency on productive

corridors (Route 2, 4, 13, 15, 18, and 30) will improve mobility for the customer by providing shorter travel times and increased flexibility. These lines also form the backbone of the urban core network grid and provide the necessary frequency to facilitate ad hoc street corner transfers.

Improving Weekend Service Levels

Improving weekend service levels is emphasized in all three phases of the plan because it addresses a key unmet need in the system—the all-week network. Existing service frequencies on the weekend range from 30 to 120 minutes, with most routes operating with frequencies above 60 minutes. The improvement in frequencies and spans will result in a better customer experience, encouraging the use of the system both during the week and on weekends.

Service Tiers

The establishment of the recommended service tiers allow for the classification of Metro service products by network role and market function. The service tiers detailed in the following tables allow Metro to better tailor service types and levels based on local demand for transit in each market.

	Service Type	Description	Network Role	Key Markets	Frequency Target
Corridors	Arterial BRT Rapid Bus	High frequency, high capacity, and high quality service that uses transit priority measures to speed travel times. Stop spacing is typically greater than local bus with enhanced service characteristics intended to emulate the passenger experience of arterial rail transit.	Spontaneous use, transit-oriented corridor, fast travel and short waits	All-day, all-week community and sub-regional travel	10 minutes
	Key Corridor Local Bus	Conventional bus service, operating on a timetable following a pre-set route with identified stops that typically operate as part of a wider network of integrated routes.	Structural network corridor, fast sub-regional service	All-day, all-week community and sub-regional travel	15 minutes

Network Connections	Supporting Local Bus	Fixed route transit using various size vehicles serving a specific community area with connections to the regional and/or subregional transit network.	Network completion and service coverage	All-day weekday community and sub-regional travel	30 minutes
	Community Circulators	Fixed route transit using various size vehicles serving a specific community area with connections to the regional and/or subregional transit network.	Targeted network connection, local circulation	Community travel in less transit-conducive areas	60 minutes or Demand Based
Express	Peak Express	Conventional express bus service, operating on a timetable following a pre-set route with identified stops connecting surrounding communities with downtown, typically for commute trips.	Freeway or key corridor based commute	Peak period regional travel	Tailored to Demand
	Reverse Commute Express	Conventional express bus service, operating on a timetable following a pre-set route with identified stops connecting downtown with employment in surrounding communities, serving travel patterns opposite the typical peak, downtown oriented direction.	Freeway or key corridor based commute	Reverse commute travel	Tailored to Demand

Figure 4: Service Tiers

Recommendation Phase Summary

The following summaries provide an overview of the proposed changes to the Metro bus network in each phase and how each phase contributes to the overall goal of strengthening transit in the Omaha Metro service area.

Phase I

Using existing funding levels, Phase I reinvests in key high demand market areas and corridors in order to promote better network connectivity. The refocused structural network fosters the guiding principles creating spontaneous transit use and shorter travel times. In addition, rationalizing and restructuring unproductive fixed route services with market tailored alternative services supports financial sustainability.

Phase II & III

With additional funding, Phase II and III build on Phase I by investing in increased route frequencies. Route 4 will be restructured to provide 5 minute frequency along Farnam and Harney between Downtown and Midtown. A new Route 44 will be introduced in Phase II to provide service along Cumming Street and create a new connection between Downtown and Benson Park Transit Center

Recommendation Details by Phase Plan

The following section provides specific details about recommendations within each phase, including an overview of the network level changes, route-level changes, proposed service levels and spans, and estimated operating statistics (hours, miles, peak fleet). Individual route profiles of each route by plan phase are provided in the Appendix.

Phase I

Phase I focuses on reinforcing and refining service along current productive corridors while scaling additional investment appropriately. This includes addressing the lack of high frequency transit services and improving network connectivity. Map 11 illustrates the proposed Phase I recommendations.

Route Level Changes

The following table provides a detailed description of the proposed alignment changes for Phase I.

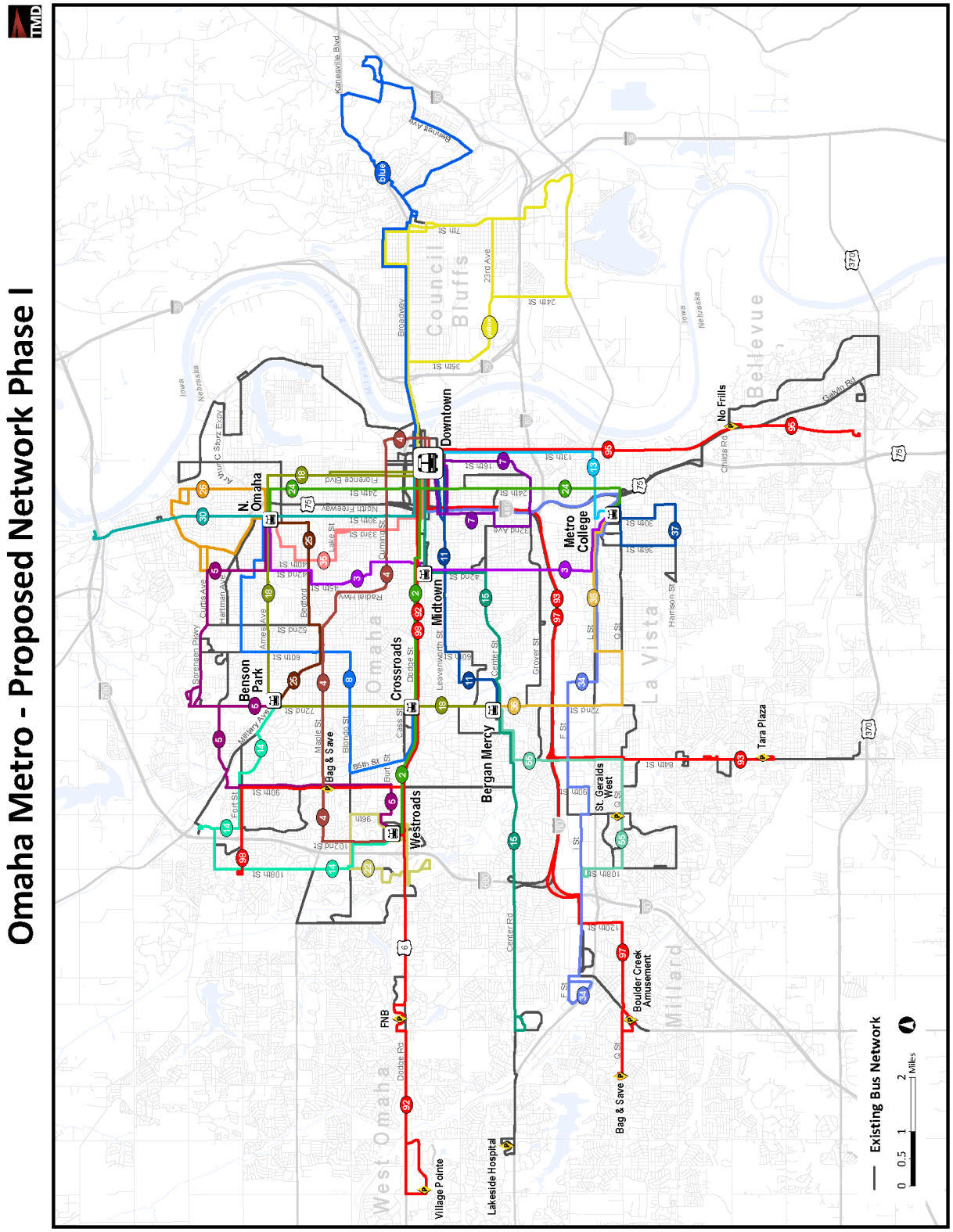
Route Number	Alignment Recommendations
2	**Streamline service.** Serve downtown via 40th St., Farnam St., and Harney St., instead of Dodge St.
3	**No changes.**
4	**No changes.**
5	**Restructure service.** Operate from the Westroads Transit Center along Burt St., 90th St., Crown Point Ave, 72nd Ave to the Benson Park Transit Center, Sorensen Pkwy, Curtis Ave, 42nd St., and Ames Ave to the North Omaha Transit Center. Peak service south of the Westroads Transit Center will be discontinued, as well as service along Fort St., 96th St., Military Rd, 109th St. loop.
7	**Restructure service.** Operate clockwise and counter-clockwise from Downtown along 16th St., Vinton St., 32nd Ave, Ed Creighton Ave, Park Ave, St. Mary's Ave, and Leavenworth St. Service south of Vinton St. will be discontinued. Service will cover segments of the proposed discontinuation of Route 32.
8	**Streamline service.** Operate between the Crossroads Transit Center to the North Omaha Transit Center via 72nd St., Cass St., Dodge St., 85th St., Blondo St., 60th St., Fort St., Fontenelle Blvd, Grand Ave, 40th St., and Ames Ave. Service north of Fort St. will be discontinued.
9	**Discontinued.** Route recommended for discontinuation. Portions of Route 9 will be served by Route 7 and 24.
11	**Restructure service.** Operate between Bergan Mercy Hospital and the Downtown Transit Center via Mercy Rd, 67th St., Pacific St., 60th St., Leavenworth St., St. Mary's Ave., 16th St., Douglas St., and Capitol St. Evening service to the Crossroads Transit Center will be discontinued.
13	**Restructure service.** Operate between the Metro College Transit Center and the Downtown Transit Center via Edward Babe Gomez Ave., L St., 13th St., Douglas St., and Capitol St. Service to the Crossroads Transit Center will be discontinued. Route 36 will provide service from Metro College Transit Center to Bergan Mercy.
14	**Restructure service.** Operate between the Westroads Transit Center and the Benson Park Transit Center along existing alignment. Service east of the Benson Park Transit Center will be discontinued. Route 18 will provide service from Benson Park to Downtown
15	**Restructure service.** Operate between the Downtown Transit Center and Bergan Mercy Hospital via Farnam and Harney St., 42nd St., Center Rd, and Mercy Rd. Every other trip will continue to the Oak View Mall via Mercy Rd, 78th St., and West Center Rd. Service west of the Oak View Mall will be discontinued.
16	**Discontinued**. Route recommended for discontinuation. Metro will strive to evaluate low-cost alternative transportation options to serve this area.

Route Number	Alignment Recommendations
18	**Restructure service.** Operate service from Downtown to North Omaha Transit Center to Benson Park Transit Center to Bergan Mercy. Service around Crossroads Mall (west of 72nd) will be discontinued.
22	**Restructure service.** Operate service between the Westroads Transit Center, and the North Mill and South Mill developments. The alignment will follow 102nd St., Nicholas St., 96th St., Blondo St., 108th St., and one-way loops along North Mill Rd and Mill Valley Rd, Dodge St. and South Bridge Rd, and Farnam Drive and Harney Cir.
24	**New crosstown service.** Operate between the North Omaha Transit Center and the Metro College Transit Center via Ames Ave, 24th St., and Q St. Route deviation to the Downtown Transit Center will be discontinued.
25	**Restructure service.** Will now run between the Benson Park Transit Center and the North Omaha Transit Center via Ames Ave, Military Ave, Maple St., 52nd St., Bedford Ave, 31st. Ave. Service north of the Benson Park and North Omaha Transit Centers will be discontinued.
26	**No changes.**
30	**No changes.**
32	**Discontinued.** Route recommended for discontinuation. Portion of Route 7 will serve eliminated segments of Route 32.
34	**Restructure service.** Operate between the Downtown Transit Center and the Boulder Creek Amusement P 'n R via Farnam St., Harney St., I-480, the Metro College Transit Center, L St., 67th St., F St., 90th St., J St., I St., and F St. Alignment will no longer follow 60th St., Q St., or Leavenworth St. In addition, route will no longer run north of Farnam St.
35	**No changes.**
36	**New route.** Replaces a portion of existing Route 13. Service will operate between Bergan Mercy Hospital and the Metro College Transit Center via Mercy Rd, 72nd St., Q St., 60th St., L St., 33rd St., and Edward Babe Gomez Ave.
37	**New Route.** Replaces a portion of existing Route 7. Service will operate from the Metro College Transit Center along Q St., 36th St., Harrison St., 27th St., Washington St., and 30th St.
Blue	**No changes.** This route was recently studied and no short term recommendations are needed.
Yellow	**No changes.** This route was recently studied and no short term recommendations are needed.
55	**Restructure service.** Operate from Bergan Mercy to 108th & I St. Service along Park Dr. and west of 108th will be discontinued.
92	**No changes**.

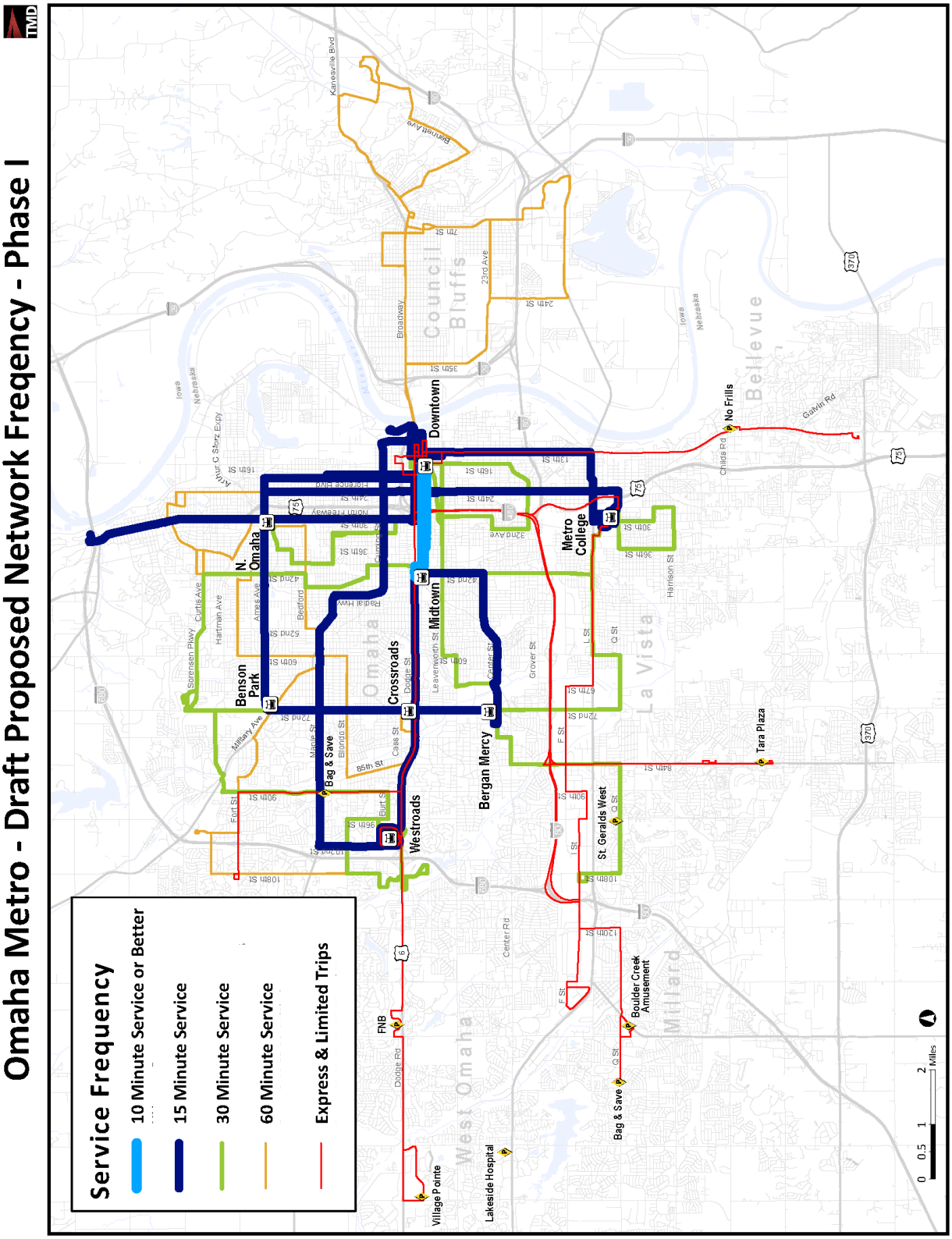
Route Number	Alignment Recommendations
93	**Restructure service.** Operate between the Tara Plaza Park and Ride to the Downtown Transit Center via 84th St., I-80, I-480, Douglas St., 14th St., 10th St., Dodge St., and Douglas St. Service south of the Tara Plaza Park and Ride, a route deviation along Q St., Main St., and 72nd St., will be discontinued.
94	**Discontinued.** Route recommended for discontinuation.
95	**Restructure service.** Operate between Harlan Drive and Fort Crook Rd and the Downtown Transit Center via the No Frills Park and Ride, and 13th St.
96	**Discontinued.** Route recommended for discontinuation due to the restructuring of Route 93.
97	**Restructure service.** Downtown alignment will be restructured.
98	**Restructure service.** Operate between the Downtown Transit Center, the Midtown Transit Center, the Crossroads Transit Center, and Fort Street and 108th St. Service along 72nd, Blondo St., 117th St., 120th St., Maple St., 108th St., Parkview Dr., and Maplewood Blvd. discontinued.
200	**No changes.**

Figure 5: Phase I Route Alignment Recommendations

Map 11 illustrates the proposed Phase I Metro fixed route bus network. Map 12 illustrates the peak frequency recommendations.



Map 11: Proposed Network Phase I



Map 12: Proposed Network Frequency Phase I

Frequency will increase/decrease on the following routes during weekdays:

- Route 2 will increase from 20 minutes to 15 minutes during the off-peak
- Route 3 will increase from 60 minutes to 30 minutes during the off-peak
- Route 4 will increase from 30 minutes to 15 minutes during the peak
- Route 4 will increase from 60 minutes to 30 minutes during the off-peak
- Route 8 will decrease from 30 minutes to 60 minutes during peak
- Route 13 will increase from 30 minutes to 15 minutes during peak
- Route 14 will decrease from 30 minutes to 60 minutes during peak
- Route 15 will increase from 60 minutes to 30 minutes during peak
- Route 18 will increase from 30 minutes to 15 minutes during the off-peak
- Route 24 will increase from 30 minutes to 15 minutes during the peak
- Route 30 will increase from 30 minutes to 15 minutes during peak
- Route 55 will increase from 60 minutes to 30 minutes during peak
- Route 92 will increase from 4 peak commute trips to 5 peak commute trips
- Route 97 will increase from 4 peak commute trips to 5 peak commute trips

Frequency will increase/decrease on the following routes during Saturdays:

- Route 4 will increase from 75 minutes to 30 minutes
- Route 5 will increase from 90 minutes to 60 minutes
- Route 7 will decrease from 45 minutes to 60 minutes
- Route 11 will decrease from 45 minutes to 60 minutes
- Route 18 will increase from 60 minutes to 30 minutes
- Route 22 will decrease from 75 minutes to no service
- Route 25 will increase from 120 minutes to 60 minutes
- Route 26 will increase from 90 minutes to 60 minutes
- Route 55 will decrease from 30 minutes to 60 minutes

Frequency will increase/decrease on the following routes during Sundays:

- Route 4 will increase from 90 minutes to 60 minutes
- Route 7 will decrease from 45 minutes to 60 minutes
- Route 11 will increase from 90 minutes to 60 minutes
- Route 25 will increase from 120 minutes to 90 minutes

Route	Current Network			Phase I Network		
	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
	Peak/Off-peak	All Day	All Day	Peak/Off-peak	All Day	All Day
2	15/20	30	30	15/15	30	30
3	30/60	60	60	30/30	60	60
4	30/60	75	90	15/30	30	60
5	30/60	90		30/60	60	NS
7	30/30	45	45	30/30	60	60
8	30/60	60	60	60/60	60	60
9	60/60	120	120	Discontinued		
11	30/30	45	90	30/30	60	90
13	30/30	60	90	15/30	60	60
14	30/60			60/60		-
15	60/60	30	60	30/60	30	60
15SL				30/60	-	-
16	45/NS			Discontinued		
18	15/30	60	60	15/15	30	60
22	30/60	75		30/60	-	-
24	30/30	60	60	15/30	60	60
25	60/60	120	120	60/60	60	90
26	60/60	90	90	60/60	60	90
30	30/30	30	60	15/30	30	60
32	30/60	120	120	Discontinued		
34	1 trip			1 trip	-	-
35	30/30	60	60	30/30	60	60
36				30/60	60	90
37				30/60	60	-
Blue	60/60			60/60	-	-
Yellow	60/60	90		60/60	90	-
55	60/60	30		30/60	60	-
200	5/NS			5/NS	-	-
92	4 peak/4reverse			5 peak/4 reverse	-	-
93	2 peak/2 reverse			2 peak/2 reverse	-	-
94	2 peak/2 reverse			Discontinued		
95	2 peak/2 reverse			2 peak/2 reverse	-	-
96	2 peak/2 reverse			Discontinued		
97	4 peak/4 reverse			5 peak/4 reverse	-	-
98	2 peak/2 reverse			2 peak/2 reverse	-	-

Figure 6: Phase I Operating Statistics

Figure 7: Phase I Annual Operating Resources

Phase I Annual Operating Resources			
Route	**Revenue Hours**	**Revenue Miles**	**Peak Buses**
2	23,600	289,300	5
3	16,500	193,300	3
4	19,200	285,600	5
5	9,700	156,600	3
7	10,200	118,900	2
8	7,200	115,100	1
11	14,600	144,700	3
13	9,600	122,700	3
14	4,500	62,000	1
15	6,400	79,000	2
15SL	16,200	205,300	4
18	24,600	366,500	7
22	2,100	35,400	1
24	25,900	249,100	7
25	4,000	49,800	1
26	4,800	76,200	1
30	21,500	239,800	6
34	1,000	16,700	1
35	10,700	124,700	2
36	10,500	142,500	3
37	8,100	92,500	2
Blue	5,900	85,600	1
Yellow	6,600	96,200	2
55	6,300	77,800	2
200	4,100	41,800	1
92	4,100	71,400	3
93	1,500	27,800	3
95	1,000	20,100	2
97	4,100	69,400	3
98	2,000	22,600	2
Phase I Total	**286,500**	**3,678,400**	**82**
Contingency		**240,100**	
Operating Costs[1]	**$22,837,800**		

[1] Phase operating costs were calculated using a blended operating cost approach which includes unit costs for both revenue hours ($51.30 per revenue hour) and miles ($2.22 per revenue mile). All cost calculations are based on existing unit costs from FY2012. Revenue contingency hours and miles are not included. The escalation of operating costs for future plan years will occur in the next phase of the Regional Transit Vision.

Phase II

Phase II seeks to increase the role of transit in Omaha by creating a spontaneous use network.

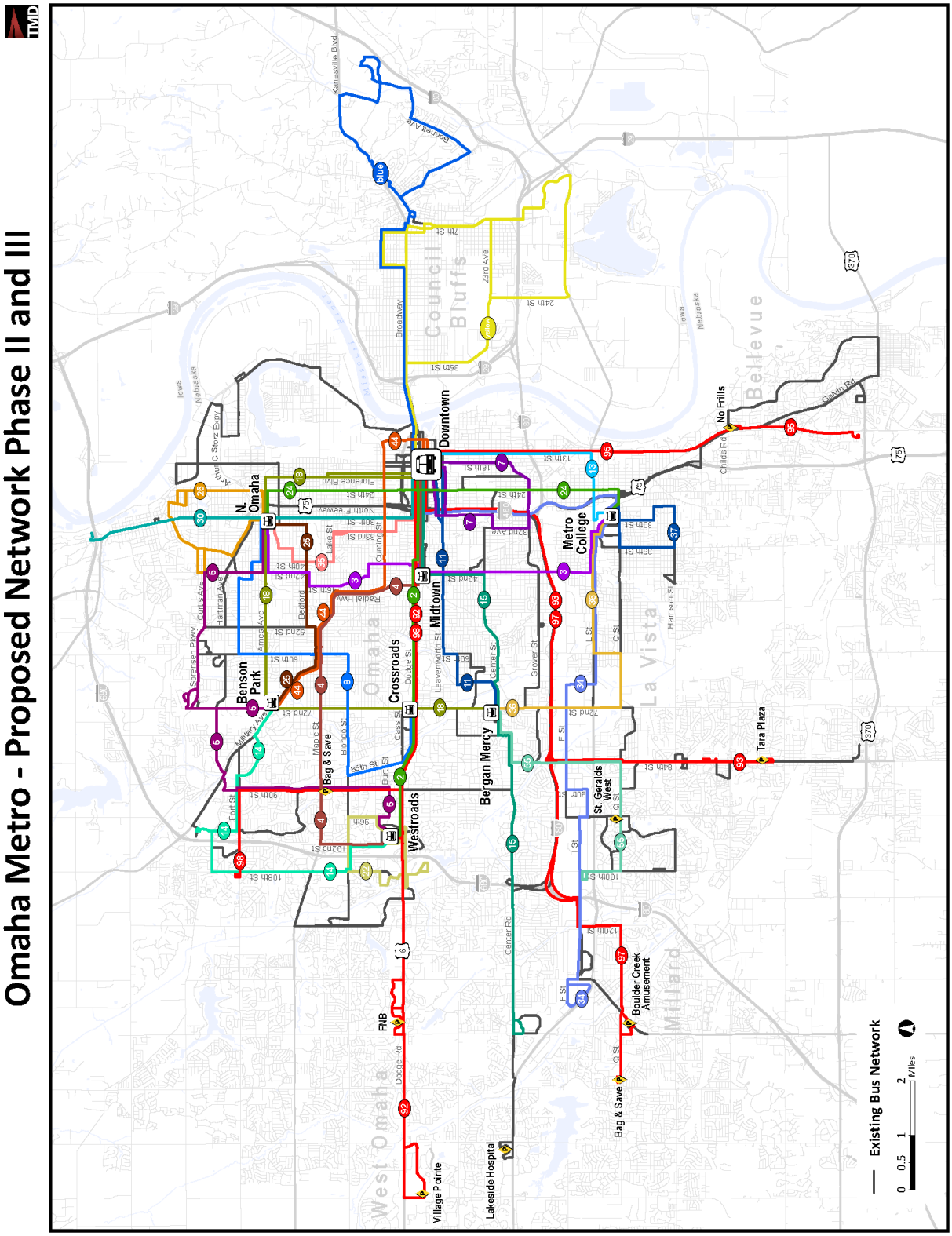
Route Level Changes

The following table provides a detailed description of the proposed alignment changes for Phase II.

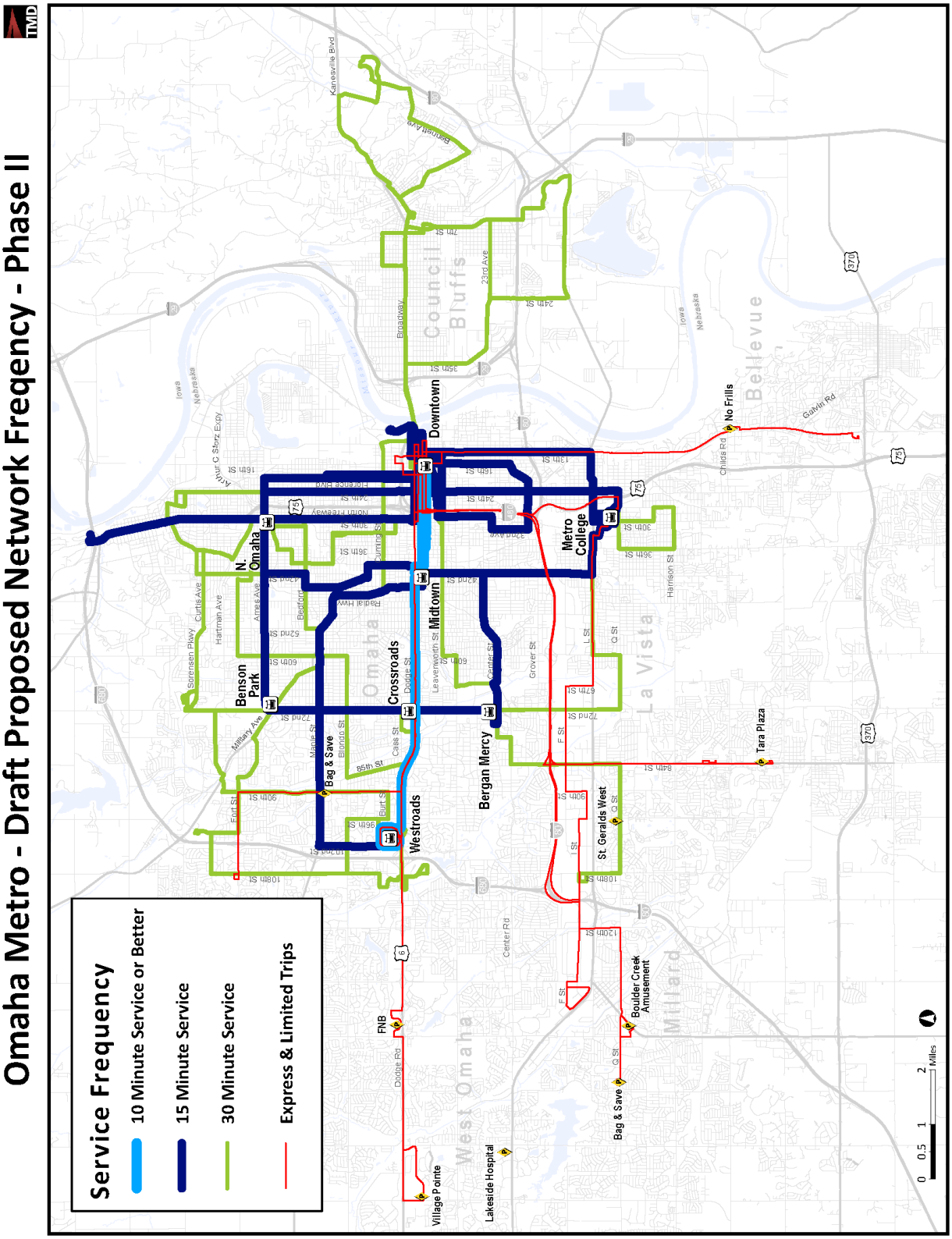
Route Number	Alignment Recommendations
4	**Restructure service.** Operate service between Downtown and Westroads Transit Center via Farnam/Harney, Saddle Creek Rd., NW Radial Hwy, Maple St., and 102nd St. Service along Cuming Street would be discontinued.
44	**New service.** Operate service between Downtown and Benson Park Transit Center along Cumming, NW Radial HWY, and Military Ave.

Figure 8: Phase II Route Alignment Recommendations

Map 13 illustrates the proposed Phase II Metro fixed route bus network. Map 14 illustrates peak frequency recommendations.



Map 13: Proposed Network Phase II &III



Map 14: Proposed Network Frequency Phase II

Frequency will increase on the following routes during weekdays:

- Route 2 will increase from 15 minutes to 10 minutes during the peak and off-peak
- Route 3 will increase from 30 minutes to 15 minutes during the peak
- Route 5 will increase from 60 minutes to 30 minutes during the off-peak
- Route 7 will increase from 30 minutes to 15 minutes during the peak
- Route 8 will increase from 60 minutes to 30 minutes during the peak
- Route 14 will increase from 60 minutes to 30 minutes during the peak
- Route 15 will increase from 60 minutes to 30 minutes during the off-peak
- Route 15SL will increase from 60 minutes to 30 minutes during the off-peak
- Route 24 will increase from 30 minutes to 15 minutes during the peak
- Route 25 will increase from 60 minutes to 30 minutes during the peak
- Route 26 will increase from 60 minutes to 30 minutes during the peak
- Route 41 (Blue) will increase from 60 minutes to 30 minutes during the peak
- Route 43 (Yellow) will increase from 60 minutes to 30 minutes during the peak
- Route 44 will increase from no service to 30 minutes during the peak and off-peak
- Route 92 will increase from 5 peak commute trips to 6 peak commute trips
- Route 93 will increase from 2 peak commute trips to 4 peak commute trips

Frequency will increase on the following routes during Saturdays:

- Route 2 will increase from 30 minutes to 15 minutes
- Route 3 will increase from 60 minutes to 30 minutes
- Route 4 will increase from 30 minutes to 15 minutes
- Route 7 will increase from 60 minutes to 30 minutes
- Route 11 will increase from 60 minutes to 30 minutes
- Route 13 will increase from 60 minutes to 30 minutes
- Route 15SL will increase from no service to 30 minutes
- Route 18 will increase from 30 minutes to 15 minutes
- Route 24 will increase from 60 minutes to 30 minutes
- Route 35 will increase from 60 minutes to 30 minutes
- Route 41 (Blue) will increase from no service to 60 minutes
- Route 43 (Yellow) will increase from 90 minutes to 60 minutes
- Route 44 will increase from no service to 30 minutes

- Route 55 will increase from 60 minutes to 30 minutes

Frequency will increase on the following routes during Sundays:

- Route 2 will increase from 30 minutes to 15 minutes
- Route 3 will increase from 60 minutes to 30 minutes
- Route 4 will increase from 60 minutes to 15 minutes
- Route 5 will increase from no service to 60 minutes
- Route 7 will increase from 60 minutes to 30 minutes
- Route 11 will increase from 90 minutes to 30 minutes
- Route 13 will increase from 60 minutes to 30 minutes
- Route 14 will increase from no service minutes to 60 minutes
- Route 15 will increase from 60 minutes to 30 minutes
- Route 15SL will increase from no service to 30 minutes
- Route 18 will increase from 60 minutes to 15 minutes
- Route24 will increase from 60 minutes to 30 minutes
- Route 25 will increase from 90 minutes to 60 minutes
- Route 26 will increase from 90 minutes to 60 minutes
- Route 30 will increase from 60 minutes to 30 minutes
- Route 35 will increase from 60 minutes to 30 minutes
- Route 36 will increase from 90 minutes to 60 minutes
- Route 37 will increase from no service to 60 minutes
- Route 41(Blue) will increase from no service to 60 minutes
- Route 43 (Yellow) will increase from no service to 60 minutes
- Route 44 will increase from no service to 30 minutes
- Route 55 will increase from no service to 30 minutes

Route	Phase II Network		
	Weekday	Saturday	Sunday
	Peak/Off-peak	All Day	All Day
2	10/10	15	15
3	15/30	30	30
4	15/15	15	15
5	30/30	60	60
7	15/30	30	30
8	30/60	60	60
11	30/30	30	30
13	15/15	30	30
14	30/60	60	60
15	30/30	30	30
15SL	30/30	30	30
18	15/15	15	15
22	30/60	-	-
24	15/30	30	30
25	30/60	60	60
26	30/60	60	60
30	15/30	30	30
34	2 trips	-	-
35	30/30	30	30
36	30/60	60	60
37	30/60	60	60
Blue	30/60	60	60
Yellow	30/60	60	60
44	30/30	30	30
55	30/60	30	30
200	5/NS	-	-
92	6 peak/4 reverse	-	-
93	4 peak/4 reverse	-	-
95	2 peak/2 reverse	-	-
97	5 peak/4 reverse	-	-
98	2 peak/2 reverse	-	-

Figure 9: Phase II Operating Statistics

Figure 10: Phase II Annual Operating Resources

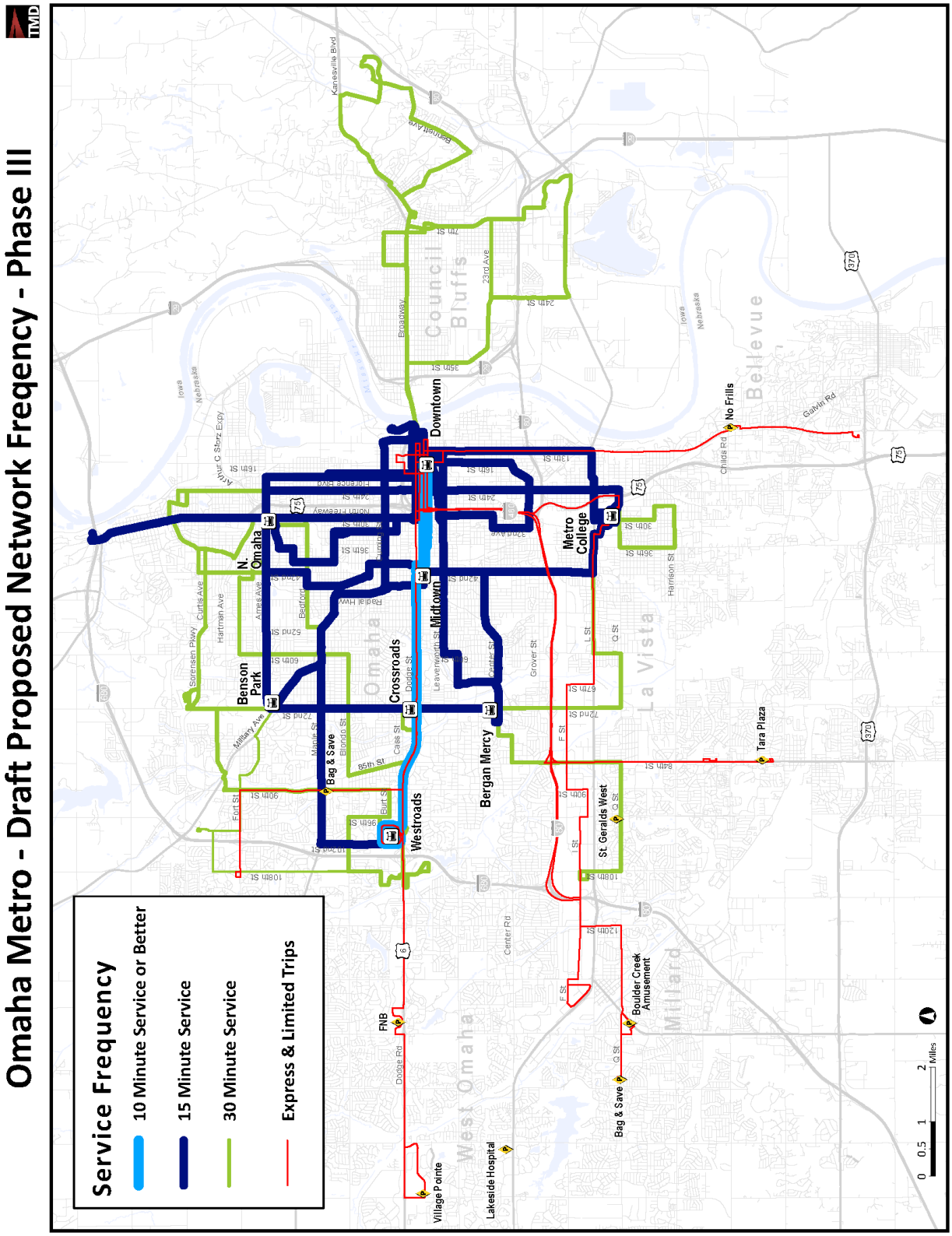
Phase II Annual Operating Resources			
Route	**Revenue Hours**	**Revenue Miles**	**Peak Buses**
2	32,400	493,900	6
3	21,700	266,000	6
4	31,400	474,300	5
5	14,200	228,100	3
7	14,600	167,700	4
8	9,100	144,400	2
11	17,000	159,600	3
13	19,000	245,300	4
14	8,600	118,300	2
15SL	10,700	129,300	2
15	24,400	310,500	4
18	39,000	589,000	7
22	2,900	49,500	1
24	25,300	309,800	6
25	5,200	71,100	2
26	6,000	95,600	2
30	23,300	252,400	6
34	2,000	33,300	1
35	12,900	155,400	2
36	8,800	112,300	2
37	5,800	73,300	2
Blue	10,300	160,000	3
Yellow	11,600	179,800	3
44	11,200	161,000	2
55	9,200	114,100	2
200	4,100	41,800	1
92	4,100	79,400	3
93	2,600	41,700	3
95	1,000	20,100	2
97	4,100	69,400	3
98	2,000	22,600	2
Phase II Total	**394,500**	**5,369,000**	**96**
Operating Costs[2]	**$32,157,000**		

[2] Phase operating costs were calculated using a blended operating cost approach which includes unit costs for both revenue hours ($51.30 per revenue hour) and miles ($2.22 per revenue mile). All cost calculations are based on existing unit costs from FY2012. The escalation of operating costs for future plan years will occur in the next phase of the Regional Transit Vision.

Phase III

Route Level Changes

The network structure in Phase III will remain the same as in Phase II (See Map 13). Service levels and frequencies are proposed to increase as shown in Map 15.



Map 15: Proposed Network Frequency Phase III

Frequency will increase on the following routes during weekdays:

- Route 3 will increase from 30 minutes to 15 minutes during the off-peak
- Route 7 will increase from 30 minutes to 15 minutes during the off- peak
- Route 8 will increase from 30 minutes to 15 minutes during the peak
- Route 11 will increase from 30 minutes to 15 minutes during the peak
- Route 24 will increase from 30 minutes to 15 minutes during the off-peak
- Route 25 will increase from 60 minutes to 30 minutes during the off-peak
- Route 26 will increase from 60 minutes to 30 minutes during the off-peak
- Route 30 will increase from 30 minutes to 15 minutes during the off-peak
- Route 34 will increase from two trips to four trips
- Route 35 will increase from 30 minutes to 15 minutes during the peak
- Route 36 will increase from 60 minutes to 30 minutes during the off-peak
- Route 37 will increase from 60 minutes to 30 minutes during the off-peak
- Route 41 (Blue) will increase from 60 minutes to 30 minutes during the off-peak
- Route 43 (Yellow) will increase from 60 minutes to 30 minutes during the off-peak
- Route 55 will increase from 60 minutes to 30 minutes during the off-peak
- Route 92 will increase from 6 peak commute trips to 8 am peak commute trips
- Route 93 will increase from 4 peak commute trips to 6 peak commute trips
- Route 95 will increase from 2 peak commute trips to 4 peak commute trips
- Route 97 will increase from 5 peak commute trips to 6 peak commute trips
- Route 98 will increase from 2 peak commute trips to 4 peak commute trips

Frequency will increase on the following routes during Saturdays:

- Route 3 will increase from 30 minutes to 15 minutes
- Route 5 will increase from 60 minutes to 30 minutes
- Route 8 will increase from 60 minutes to 30 minutes
- Route13 will increase from 30 minutes to 15 minutes
- Route 14 will increase from 60 minutes to 30 minutes
- Route 24 will increase from 30 minutes to 15 minutes
- Route 25 will increase from 60 minutes to 30 minutes
- Route 26 will increase from 60 minutes to 30 minutes
- Route 30 will increase from 30 minutes to 15 minutes

- Route 36 will increase from 60 minutes to 30 minutes
- Route 37 will increase from 60 minutes to 30 minutes
- Route 41 (Blue) will increase from 60 minutes to 30 minutes
- Route 43 (Yellow) will increase from 60 minutes to 30 minutes

Frequency will increase on the following routes during Sundays:

- Route 3 will increase from 30 minutes to 15 minutes
- Route 5 will increase from 60 minutes to 30 minutes
- Route 8 will increase from 60 minutes to 30 minutes
- Route13 will increase from 30 minutes to 15 minutes
- Route 14 will increase from 60 minutes to 30 minutes
- Route 24 will increase from 30 minutes to 15 minutes
- Route 25 will increase from 60 minutes to 30 minutes
- Route 26 will increase from 60 minutes to 30 minutes
- Route 30 will increase from 30 minutes to 15 minutes
- Route 36 will increase from 60 minutes to 30 minutes
- Route 37 will increase from 60 minutes to 30 minutes
- Route 41 (Blue) will increase from 60 minutes to 30 minutes
- Route 43 (Yellow) will increase from 60 minutes to 30 minutes

Route	Phase III Network		
	Weekday	Saturday	Sunday
	Peak/Off-peak	All Day	All Day
2	10/10	15	15
3	15/15	15	15
4	15/15	15	15
5	30/30	30	30
7	15/15	30	30
8	30/60	30	30
11	15/30	30	30
13	15/15	15	15
14	30/60	30	30
15	30/30	30	30
15SL	30/30	30	30
18	15/15	15	15
22	30/60	-	-
24	15/15	15	15
25	30/30	30	30
26	30/30	30	30
30	15/15	15	15
34	4 trips	-	-
35	15/30	30	30
36	30/30	30	30
37	30/30	30	30
Blue	30/30	30	30
Yellow	30/30	30	30
44	30/30	30	30
55	30/30	30	30
200	5/NS	-	-
92	8 peak/4 reverse	-	-
93	6 trips	-	-
95	4 trips	-	-
97	6 peak/4 reverse	-	-
98	4 trips	-	-

Figure 11: Phase III Annual Operating Statistics

Figure 12: Phase III Annual Operating Resources

Route	Revenue Hours	Revenue Miles	Peak Buses
2	32,400	493,900	6
3	32,600	399,300	6
4	31,400	474,300	5
5	15,300	226,200	3
7	18,600	214,700	4
8	14,700	168,600	3
11	20,000	203,300	5
13	21,600	279,300	4
14	14,100	145,000	3
15SL	11,800	146,000	2
15	24,400	310,500	4
18	39,000	589,000	7
22	2,900	49,500	1
24	38,000	464,900	6
25	9,700	154,600	2
26	12,200	193,500	2
30	34,000	373,800	6
34	4,100	66,700	2
35	20,600	171,700	5
36	12,600	160,600	2
37	8,200	104,900	2
41	14,700	229,000	3
43	16,600	257,200	3
44	11,200	161,000	2
55	9,200	114,100	2
200	4,100	41,800	1
92	5,100	95,200	3
93	4,100	55,600	2
95	1,500	30,100	3
97	4,100	77,200	3
98	2,600	33,900	3
Phase III Total	**491,400**	**6,485,400**	**105**
Operating Costs[3]	**$39,606,400**		

[3] Phase operating costs were calculated using a blended operating cost approach which includes unit costs for both revenue hours ($51.30 per revenue hour) and miles ($2.22 per revenue mile). All cost calculations are based on existing unit costs from FY2012. The escalation of operating costs for future plan years will occur in the next phase of the Regional Transit Vision.

Ridership Projections

A majority of Metro customers will experience a positive impact from the recommendations including reduced travel times, more frequent service options, and better connectivity between major destinations. These improvements will also generate additional use by existing customers and prompt new customers to begin using the system. A smaller number of customers currently using very low-volume routes recommended for discontinuation will experience a loss of service. The following section details the net changes in ridership as a result of each phase of the plan.

Impacted Customers

A customer impact was considered to occur when an existing service was restructured or discontinued causing an existing customer to be further than a quarter-mile from a fixed route. Passengers are impacted by route restructuring in Phase I, when 19 existing routes change alignments and 5 routes are discontinued. Many of these changes are offset with increases in service in the form of increased frequency or new fixed route services. Overall, the 616 weekday boardings are impacted in Phase I represent about 4.2 percent of the daily weekday ridership.

Ridership Estimation Methodology

The proposed system recommendations improve the transit experience for both existing and potential customers by adding frequency to current routes, lengthening service spans, and introducing new services. Passengers accrue benefits in the form of travel time savings and increased mobility throughout the Metro service area. The benefits to passengers translate into increased system ridership.

Existing riders can immediately benefit from increased frequency. On the corridors proposed for increased service levels, passengers will save an average of 7.5 minutes per one-way trip from decreased waiting times when frequencies increase from 30 to 15 minutes. The savings calculation assumes random arrivals. Passengers who time their arrival to coincide with system schedules will save less time but they will still gain a benefit from the increased service levels and the improved flexibility in trip making. The magnitude of time savings increases on higher performing routes, affecting a greater number of passengers. Several trip pairs were selected for additional analysis and are included in the Appendix.

New ridership will develop as the improved passenger experience attracts additional customers. Gains in ridership resulting from increases in frequency were calculated by multiplying the each route's additional revenue hours by a conservative anticipated rate of productivity (passengers per revenue hour). In Phase I each additional revenue hour invested on frequency on a route was projected to generate 80 percent of the existing average productivity of the existing route. In Phase II each additional revenue hour invested on frequency on a route was projected to generate 110 percent of the existing average productivity of the existing route. In Phase III each additional revenue hour invested on frequency on a route was projected to generate 120 percent of the existing average productivity of the existing route. The ridership calculations assume that initially operating additional service hours will not achieve the existing level of productivity, rather, ridership will build over time.

Each phase aims to reallocate revenue hours from services with low productivity to higher-performing routes, which raises the system's average productivity. The proposed Metro network is projected to gain over four and a half million new annual boardings when the high-frequency vision network (Phase III) becomes fully implemented, which represents about twice the current annual weekday ridership.

The ridership projections do not account for growth resulting from system synergy, whereby an increasingly robust transit network attracts greater numbers of customers beyond the growth related to route-level service improvements. The anticipated year-by-year growth in ridership not directly related to service improvements but rather population growth will be included in the future steps of the Regional Transit Vision project.

System Projections

The following table shows the projected system wide ridership by phase. The ridership presented is a summation of estimated baseline ridership and ridership generated from improved frequencies. Each phase is anticipated to produce more ridership in part because a greater pool of projected funding allows for more service to be operated.

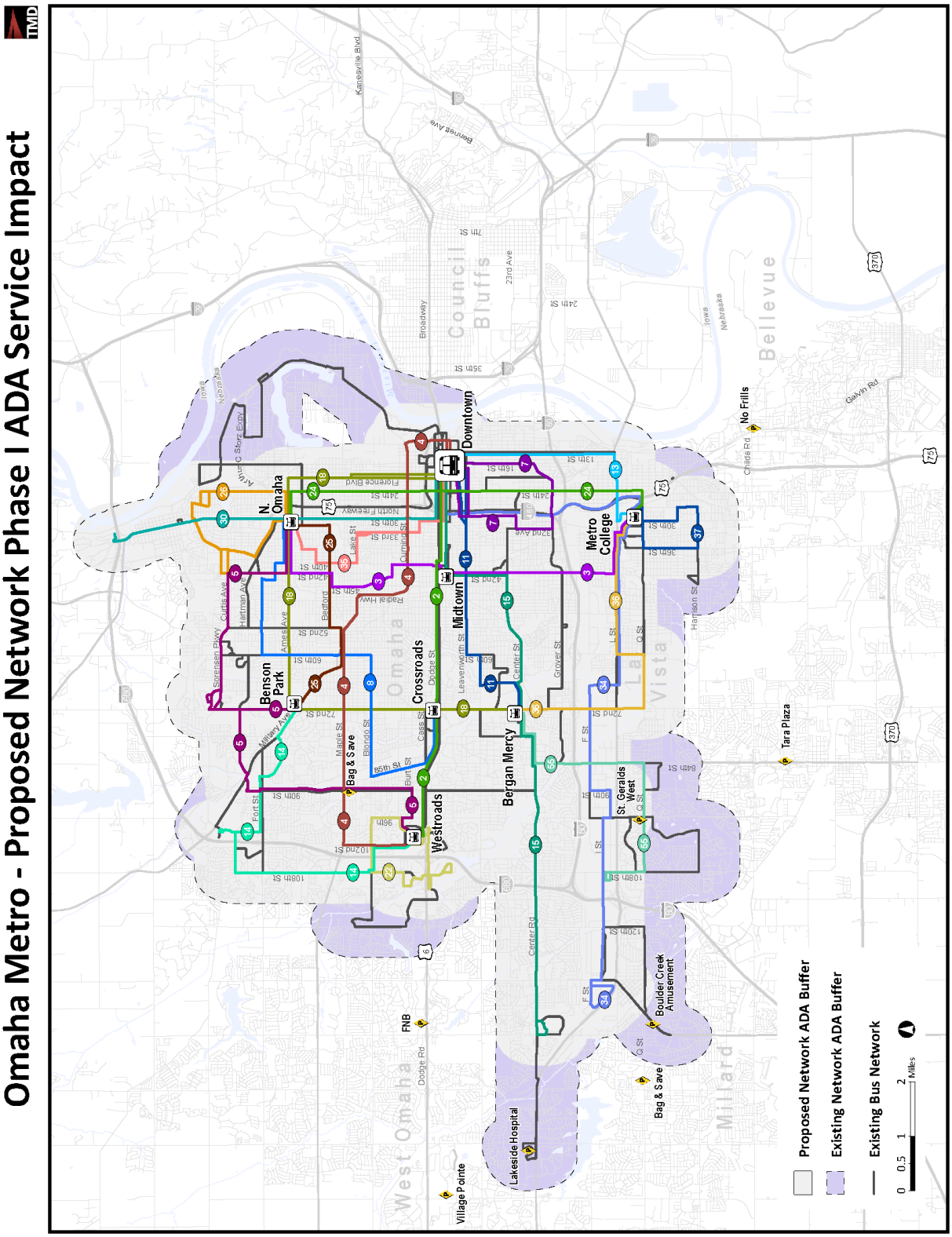
In addition to increasing ridership, the objective of each subsequent phase is to prepare the network for growth and financial sustainability. Emphasis is placed on system productivity and making recommendations that improve it. Using conservative productivity estimates, the path from Phases I to III represents an overall increase in system productivity compared to the current system.

Estimated Ridership by Plan Phase				
Phase	**Current Annual Ridership**	**Projected New Ridership**	**Percent Projected Ridership Gained**	**Projected Total Ridership**
Existing	4,225,000	-	-	**-**
Phase I	-	616,800	14.6%	**4,845,200**
Phase II	-	2,627,300	62.1%	**6,855,700**
Phase III	-	4,575,500	108.2%	**8,803,800**

Figure 13: Estimated Ridership by Plan Phase

Changes in ADA Coverage Area

Map 16 illustrates the change in the ADA service area corresponding with the changes in Phase I. Changes made in Phase II and III will not impact the ADA coverage area. A buffer of three-quarters of a mile was applied to the fixed route network to derive the updated ADA service area. Overall impacts to the ADA service area minor in terms of changes in overall area served. Additional detailed analysis of specific existing trip making on ADA service will provide a better understanding of the specific impacts of the change in ADA service area.



Map 16: Phase I ADA Service Area Impact

Implementation Plan

Implementing the Plan

The Network Evolution Plan is structured to improve the agency's financial sustainability while putting into motion a transit network that properly meets the needs of existing riders while also attracting new ones. These recommendations aim to improve the core network, increase riders, and enable Metro to move towards better financial sustainability. The recommendations and changes to individual routes outlined in the *Network Evolution Plan* were devised based on systematic analysis of current ridership and productivity metrics in order to allocate resources most prudently. Overall, the service changes outlined in the Network Evolution Plan will ensure that most riders will retain access to the Metro network, and many will experience improved service options.

Using existing funding levels, Phase I reinvests in key high demand market areas and corridors in order to promote better network connectivity. The recommendations in Phase I can be implemented in the near term. With additional funding, Phase II and III build on Phase I by investing in increased route frequencies. The timeframes for Phases II and III depend on increases in the availability of operating funding.

Capital Plan

The subsequent table details the capital requirements for each phase. As projected, the number of peak buses for each phase will be greater than the number of buses currently used during the peak periods. Recommended increases in peak frequencies explain the increased capital requirements. If Metro decides to pursue the recommendations in each phase, then it may need to acquire additional vehicles to satisfy peak bus requirements.

Route	Phase I Peak Buses	Phase II Peak Buses	Phase III Peak Buses
2	5	6	6
3	3	6	6
4	5	5	5
5	3	3	3
7	2	4	4
8	1	2	3
11	3	3	5
13	3	4	4
14	1	2	3
15SL	2	2	2
15	4	4	4
18	7	7	7
22	1	1	1
24	7	6	6
25	1	2	2
26	1	2	2
30	6	6	6
34	1	1	2
35	2	2	5
36	3	2	2
37	2	2	2
Blue	1	3	3
Yellow	2	3	3
44	-	2	2
55	2	2	2
200	1	1	1
92	2	2	2
93	2	2	2
95	2	2	2
97	3	3	3
98	2	2	2
Total Peak Buses	**80**	**94**	**102**

Figure 14: Peak Vehicle Requirements by Phase

Public Involvement

Successfully implementing the recommendations will require buy-in from the local community, key decision makers, and the customer base. Providing the constituency with justifications supported by data will bolster the recommendations and help the plan move forward particularly during the transition between each phase. When proceeding with the recommendations, Metro should employ the following outreach methods to engage the community on the proposed changes:

- Publicize changes on website;
- Post information in buses;
- Hold public meetings in various parts of the Metro service area;
- Provide notices to public officials, key stakeholders, and community groups; and
- Place “ambassador” personnel at key bus stops and transit hubs to discuss service changes with customers.

Appendix

Appendix A: Travel Time Comparison

Appendix B: Proposed Individual Route Maps

Appendix A: Travel Time Comparison

MCC Fort Campus to MCC South Campus Travel Time Analysis			
Existing			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	15	15	15
MCC Fort Campus to Downtown (Rt. 30)	23	23	23
Wait in Downtown	16	16	16
Downtown to MCC South Campus (Rt.7)	20	20	20
Existing Total Travel Time	**74**	**74**	**74**
Proposed			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	7.5	15	7.5
MCC Fort Campus to North Omaha (Rt.30)	4	4	4
Wait at North Omaha	7.5	15	7.5
North Omaha to MCC South Campus (Rt.24)	37	37	37
Proposed Total Travel Time	**56**	**71**	**56**

*Assumes arrival every 15 minutes, with coordinated transfers with 24. Wait is either 15 minutes or 0 minutes.

Downtown to Crossroads Mall Travel Time Analysis			
Existing			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	7.5	10	7.5
72nd & Dodge to Dodge & 16th Street (Rt. 2)	26	24	26
Existing Total Travel Time	**33.5**	**34**	**33.5**
Proposed			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	7.5	7.5	7.5
72nd & Dodge to Farnam & 16th Street (Rt. 2)	25	24	25
Proposed Total Travel Time	**33**	**32**	**33**
Future Proposed			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	5	5	5
72nd & Dodge to Farnam & 16th Street (Rt. 2)	24	23	24
Proposed Total Travel Time	**29**	**28**	**29**

*Additional 5% savings based on reduced stops

24th Street and Lake Street to Oakview Mall Travel Time Analysis			
Existing			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	15	15	15
24th St & Lake St to Downtown (Rt.24)	12	12	12
Wait time in Downtown	6	6	6
Downtown to Oakview (Rt.15)	58	58	58
Existing Total Travel Time	**91**	**91**	**91**
Proposed			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	15	15	15
24th St & Lake St to Downtown (Rt.24)	9	9	9
Wait time at 24th & Farnam	6	6	6
Downtown to Oakview (Rt.15)	55	55	55
Proposed Total Travel Time	**85**	**85**	**85**

UNO to 108th Street and Fort Street Travel Time Analysis			
Existing			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	7.5	10	7.5
UNO to Westroads (Rt.2)	16	16	16
Wait at Westroads	6	6	6
Westroads to 108th Street and Fort Street (Rt.14)	12	12	12
Existing Total Travel Time	**42**	**44**	**42**
Proposed			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	7.5	7.5	7.5
UNO to Westroads (Rt.2)	14	14	14
Wait at Westroads	6	6	6
Westroads to 108th Street and Fort Street (Rt.14)	12	12	12
Proposed Total Travel Time	**40**	**40**	**40**

*Assumes Coordinated Transfer at Westroads

72nd Street and Pine Street to 42nd Street and Fort Street Travel Time Analysis			
Existing			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	15	15	15
72nd Street and Pine Street to Crossroads (Rt.13)	7	7	7
Wait at Crossroads	18	33	18
Crossroads to 42nd St and Ames (Rt.18)	22	22	22
Walk from 42nd and Ames to 42nd and Fort Street	10	10	10
Existing Total Travel Time	**72**	**87**	**72**
Proposed			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	7.5	7.5	7.5
72nd Street and Pine to 60th and Ames (Rt.18)	26	26	26
Walk from 42nd and Ames to 42nd and Fort Street	10	10	10
Proposed Total Travel Time	**43**	**44**	**44**

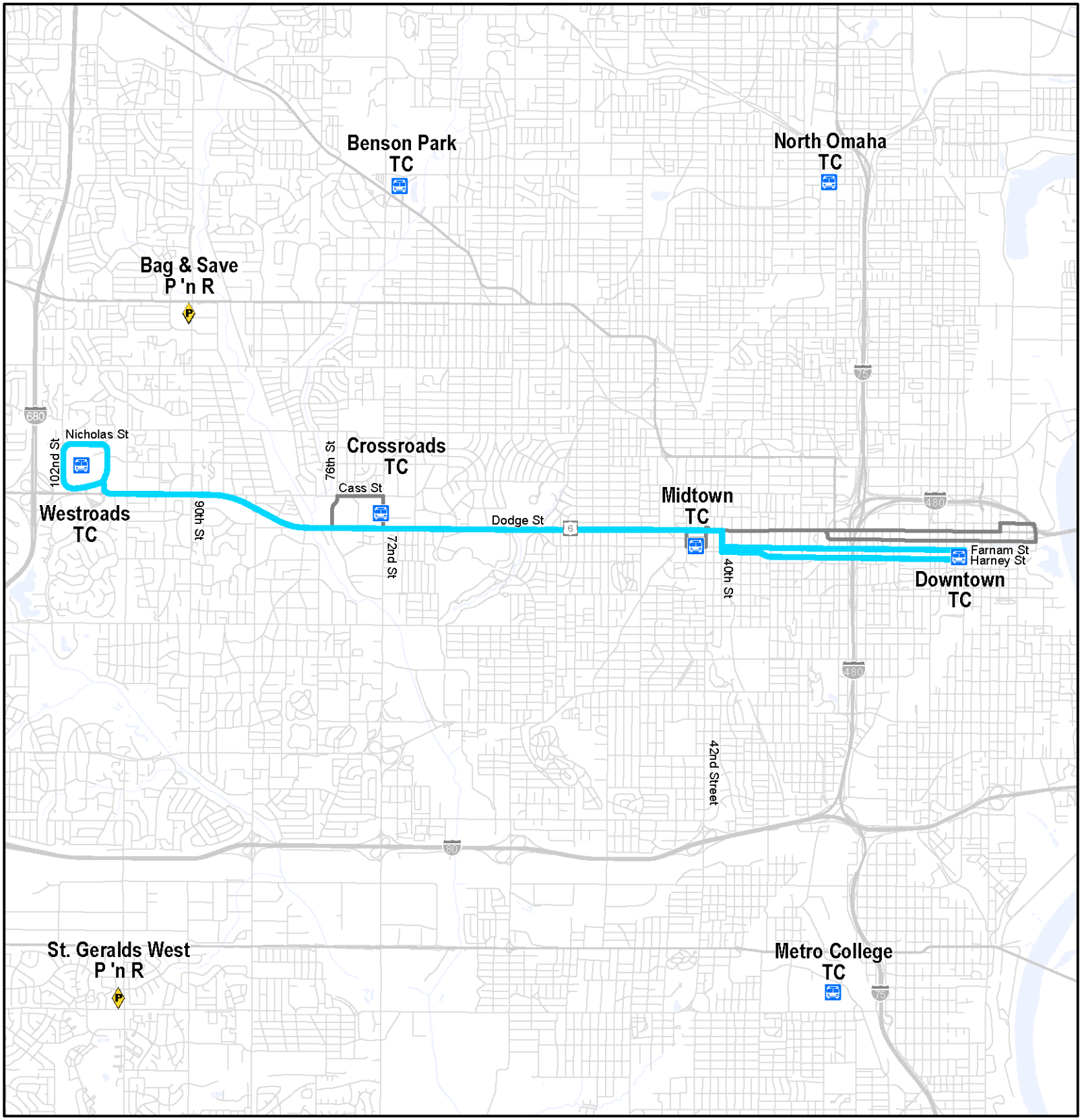
42nd Street and Grover Street to 24th Street and Broadway Travel Time Analysis			
Existing			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	15	30	15
42nd Street and Grover Street to Downtown (Rt.32)	18	21	24
Wait in Downtown	32	32	21
Downtown to 24th Street and Broadway (Yellow)	13	13	13
Existing Total Travel Time	**78**	**96**	**73**
Proposed			
Segments	**AM Peak 7AM**	**Midday 1PM**	**PM Peak 5PM**
Wait Time	15	15	15
42nd Street and Grover Street to 42nd and Dodge (Rt.3)	11	11	11
Wait at 42nd and Dodge	3.25	7.5	3.25
42nd and Dodge to Downtown (Rt.2/15/55)	11	11	11
Wait Downtown	32	32	21
Downtown to 24th Street and Broadway (Yellow)	13	13	13
Proposed Total Travel Time	**85**	**90**	**74**

*Assumes 7.5 minute frequency in peak and 15 minute frequency in off-peak.

Appendix B: Proposed Individual Route Maps

Route 2 - Proposed Alignment

Rapid



Frequency Targets

	Phase I	Phase II	Phase III
Peak	15	10	10
Off-Peak	15	10	10

Proposed Route Alignment

Existing Route Alignment

Transit Center

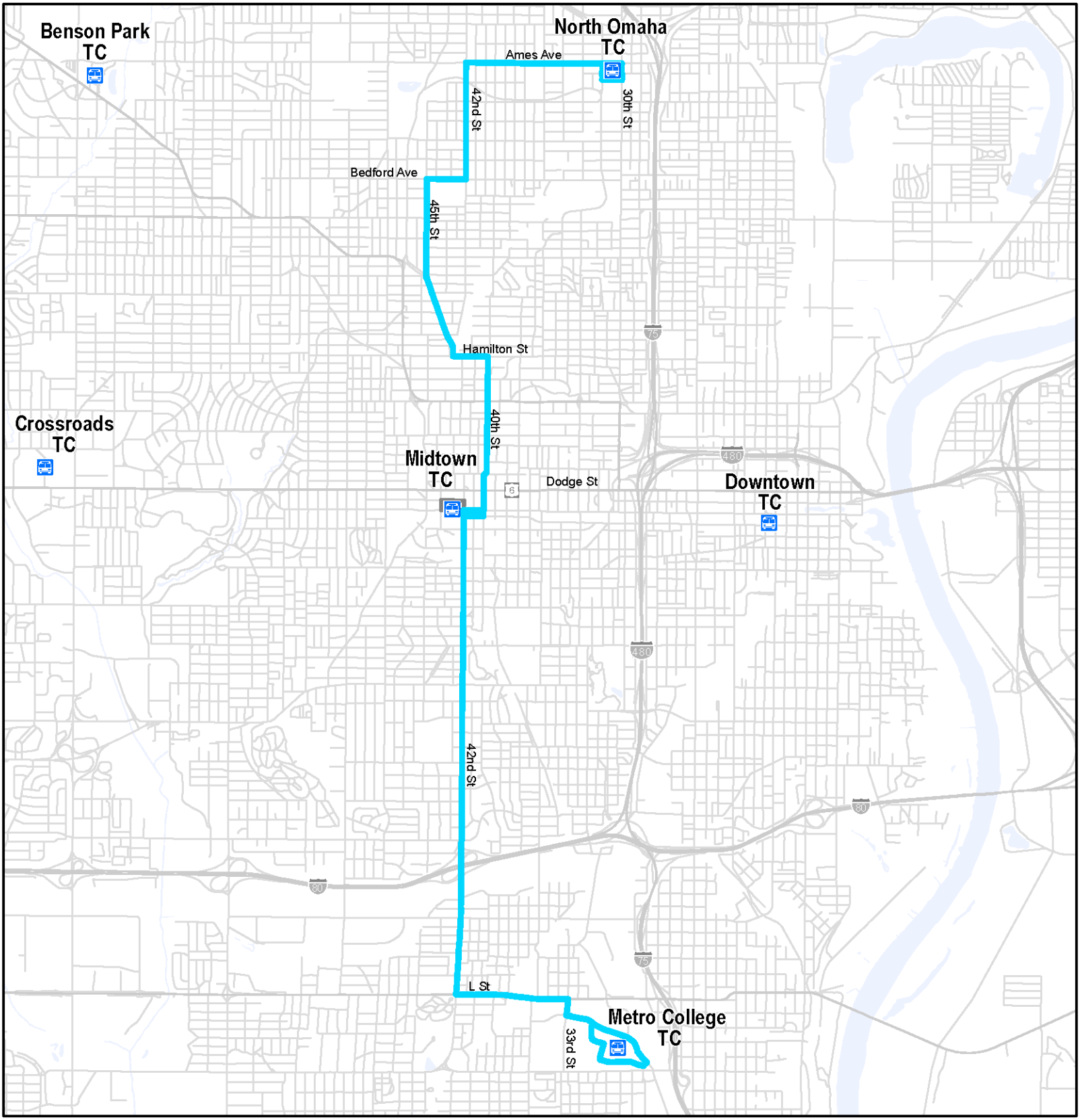
Park 'n Ride

0 1 Mile

ITMD

Route 3 - Proposed Alignment

Local | Frequent Network



Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	15	15
Off-Peak	30	30	15

Proposed Route Alignment

Existing Route Alignment

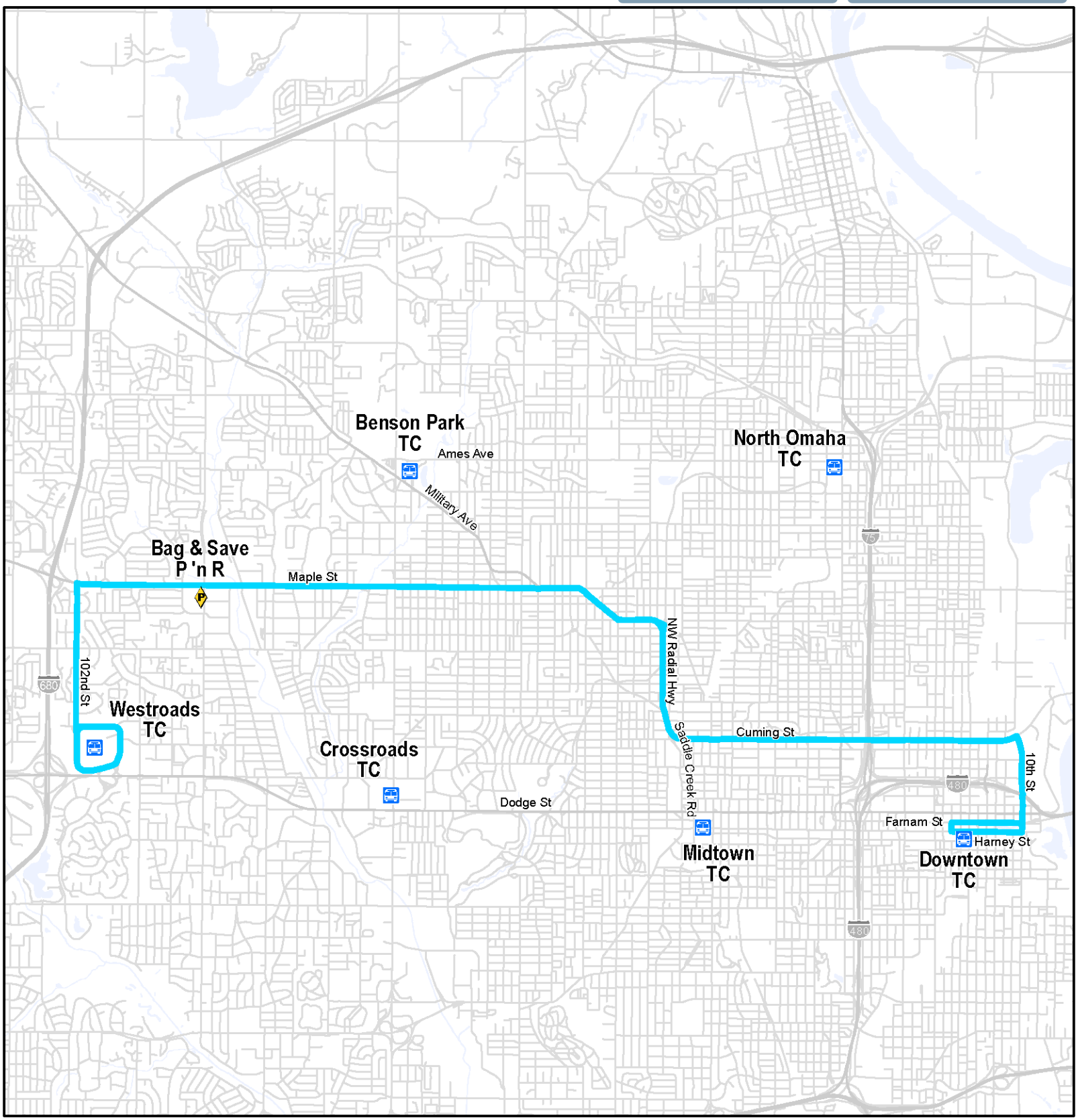
Transit Center

Park 'n Ride

0 1 Mile

Route 4 - Proposed Alignment

Local | Frequent Network



Frequency Targets

	Phase I
Peak	15
Off-Peak	30

Proposed Route Alignment

Existing Route Alignment

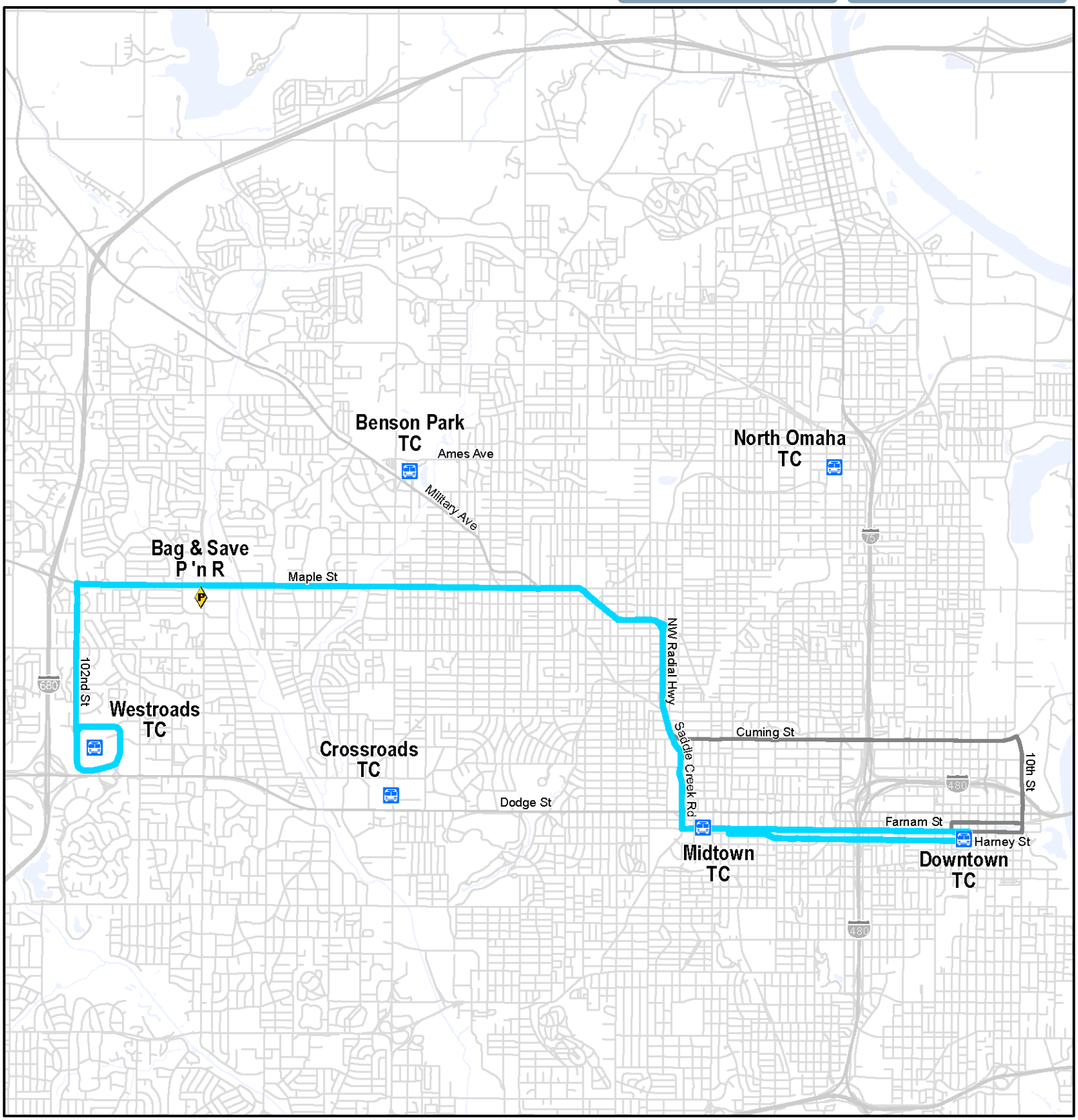
Transit Center

Park 'n Ride

0 1 Mile

Route 4 - Proposed Alignment

Local | Frequent Network



Frequency Targets

	Phase II	Phase III
Peak	15	15
Off-Peak	15	15

Proposed Route Alignment

Existing Route Alignment

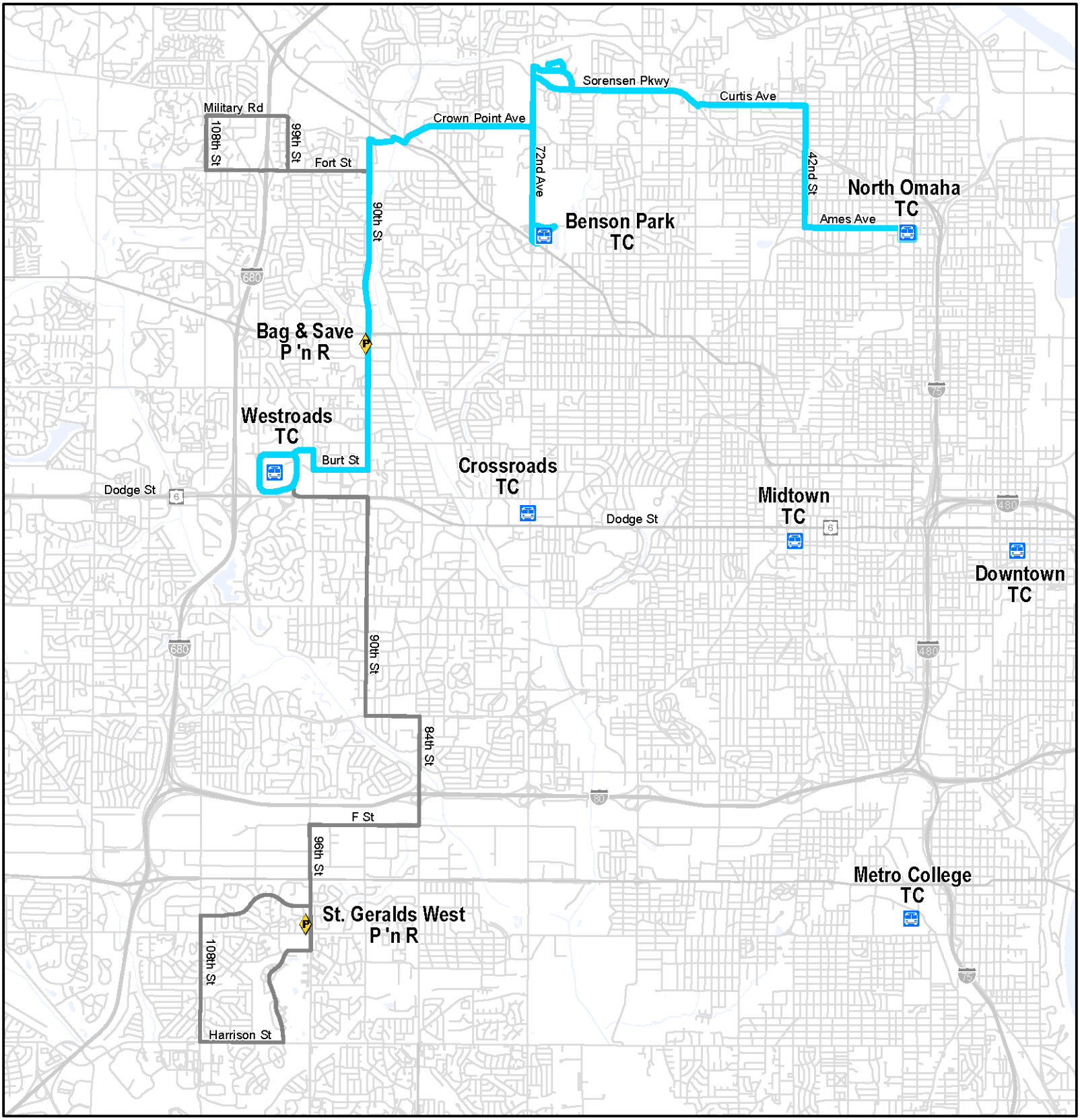
Transit Center

Park 'n Ride

0 1 Mile

Route 5 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	30	30
Off-Peak	60	30	30

Proposed Route Alignment

Existing Route Alignment

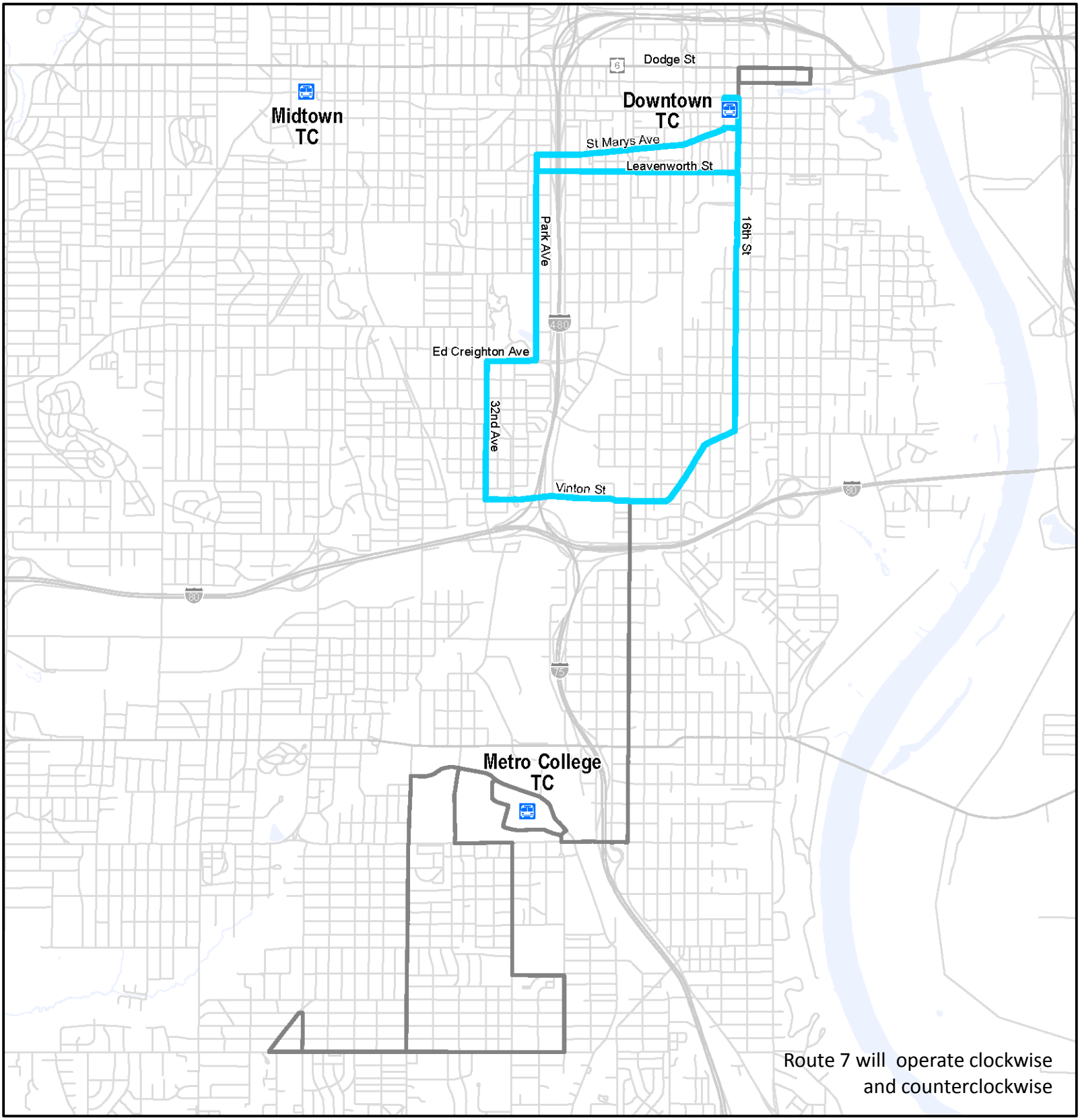
Transit Center

Park 'n Ride

0 1 Mile

Route 7 - Proposed Alignment

Local | Community Circulator



Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	15	15
Off-Peak	30	30	15

Proposed Route Alignment

Existing Route Alignment

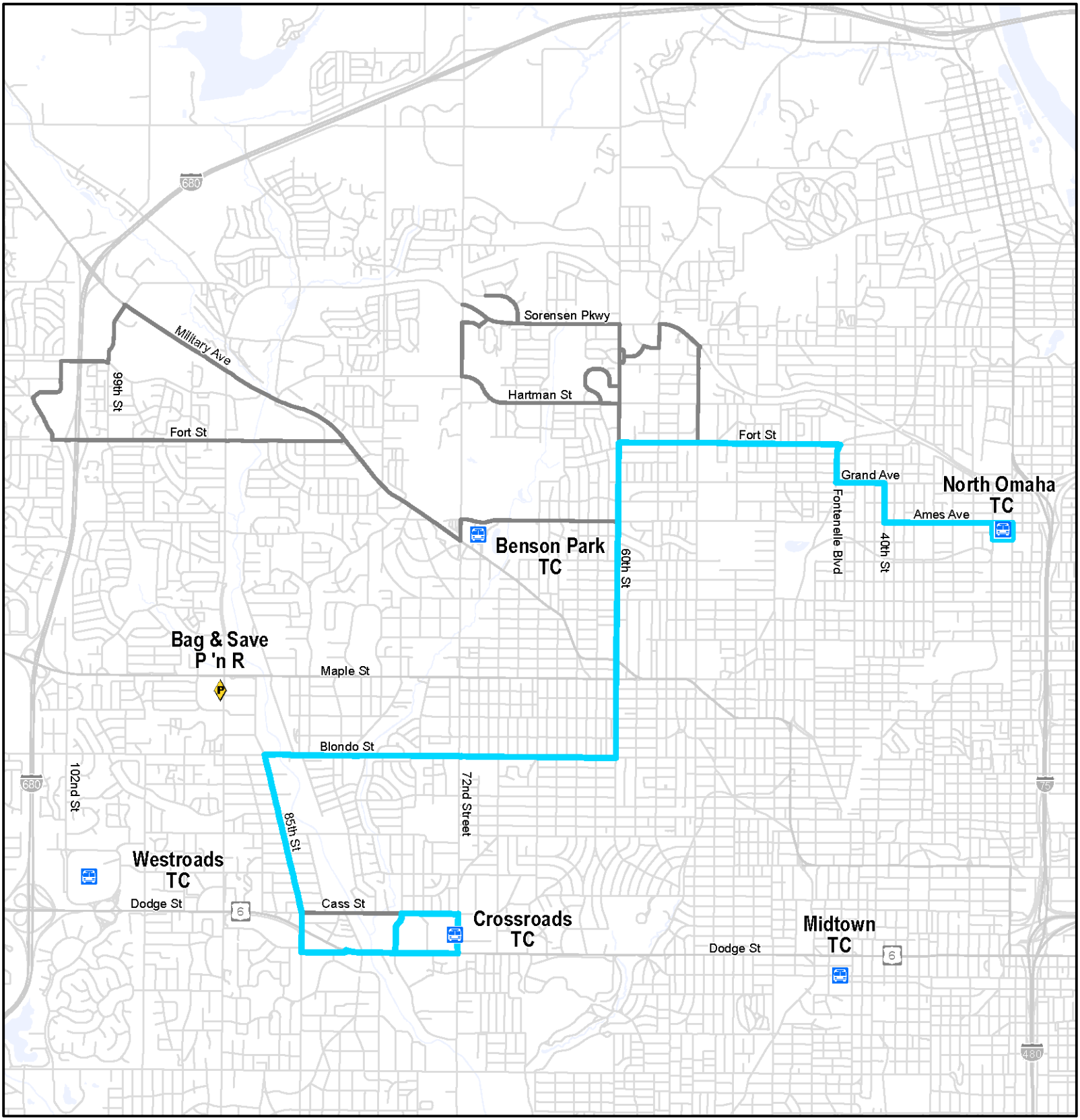
Transit Center

Park 'n Ride

0 0.5 Mile

Route 8 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	60	30	30
Off-Peak	60	60	60

Proposed Route Alignment

Existing Route Alignment

Transit Center

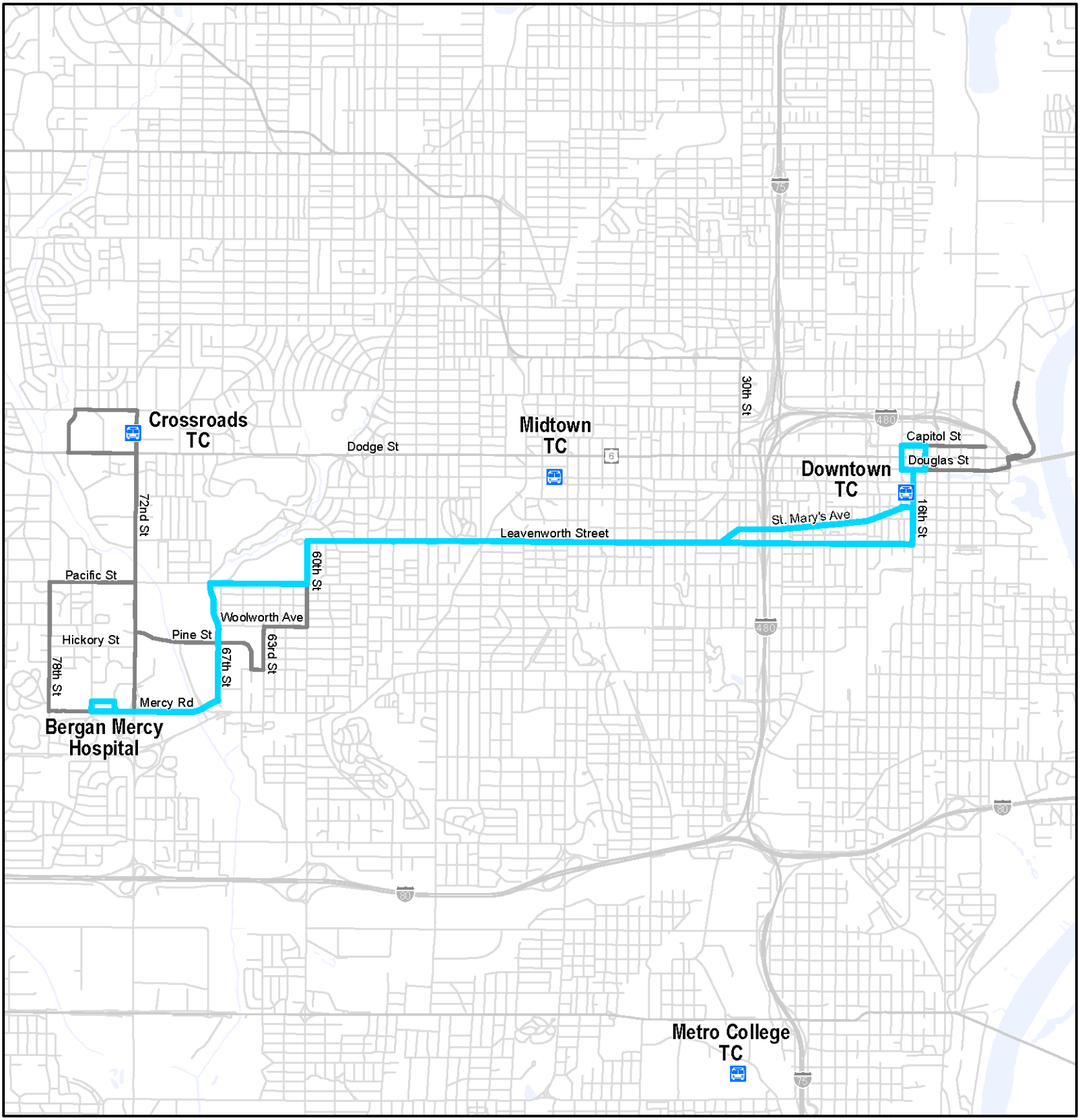
Park 'n Ride

0 1 Mile

IMD

Route 11 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	30	15
Off-Peak	30	30	30

Proposed Route Alignment

Existing Route Alignment

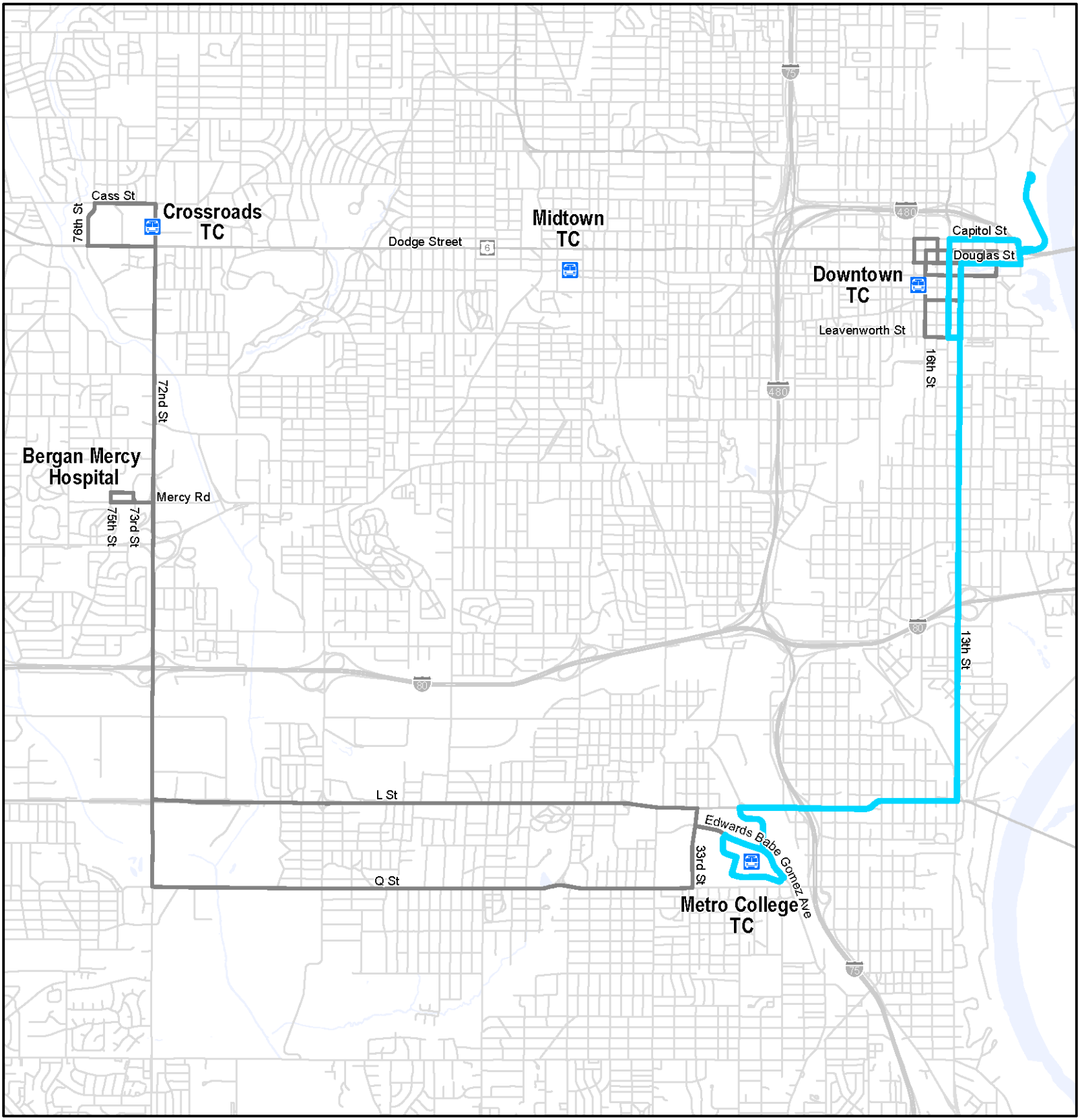
Transit Center

Park 'n Ride

0 1 Mile

Route 13 - Proposed Alignment

Local | Frequent Network



Frequency Targets

	Phase I	Phase II	Phase III
Peak	15	15	15
Off-Peak	30	15	15

Proposed Route Alignment

Existing Route Alignment

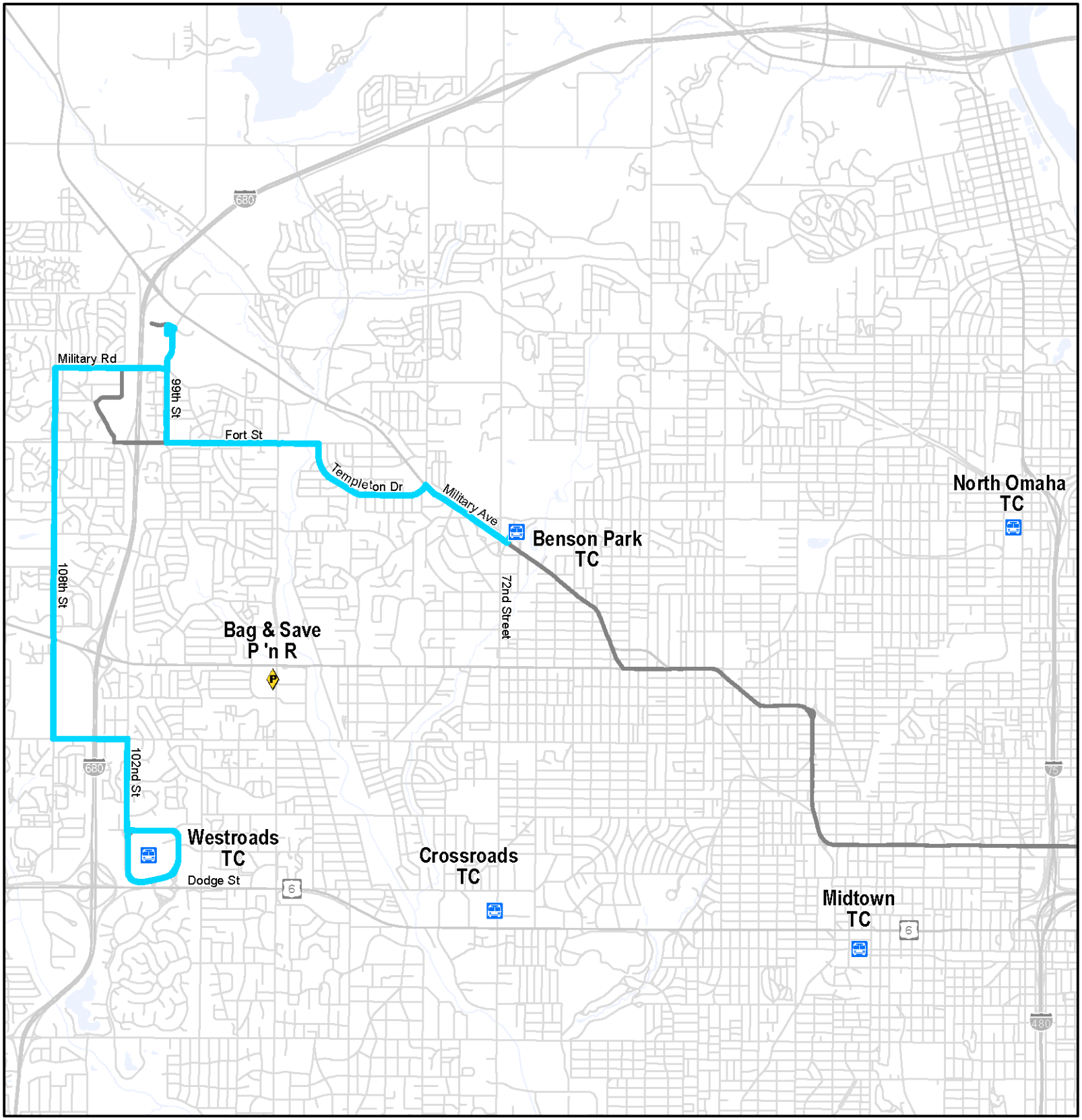
Transit Center

Park 'n Ride

0 1 Mile

Route 14 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Short	Long	Vision
Peak	60	30	30
Off-Peak	60	60	60

Proposed Route Alignment

Existing Route Alignment

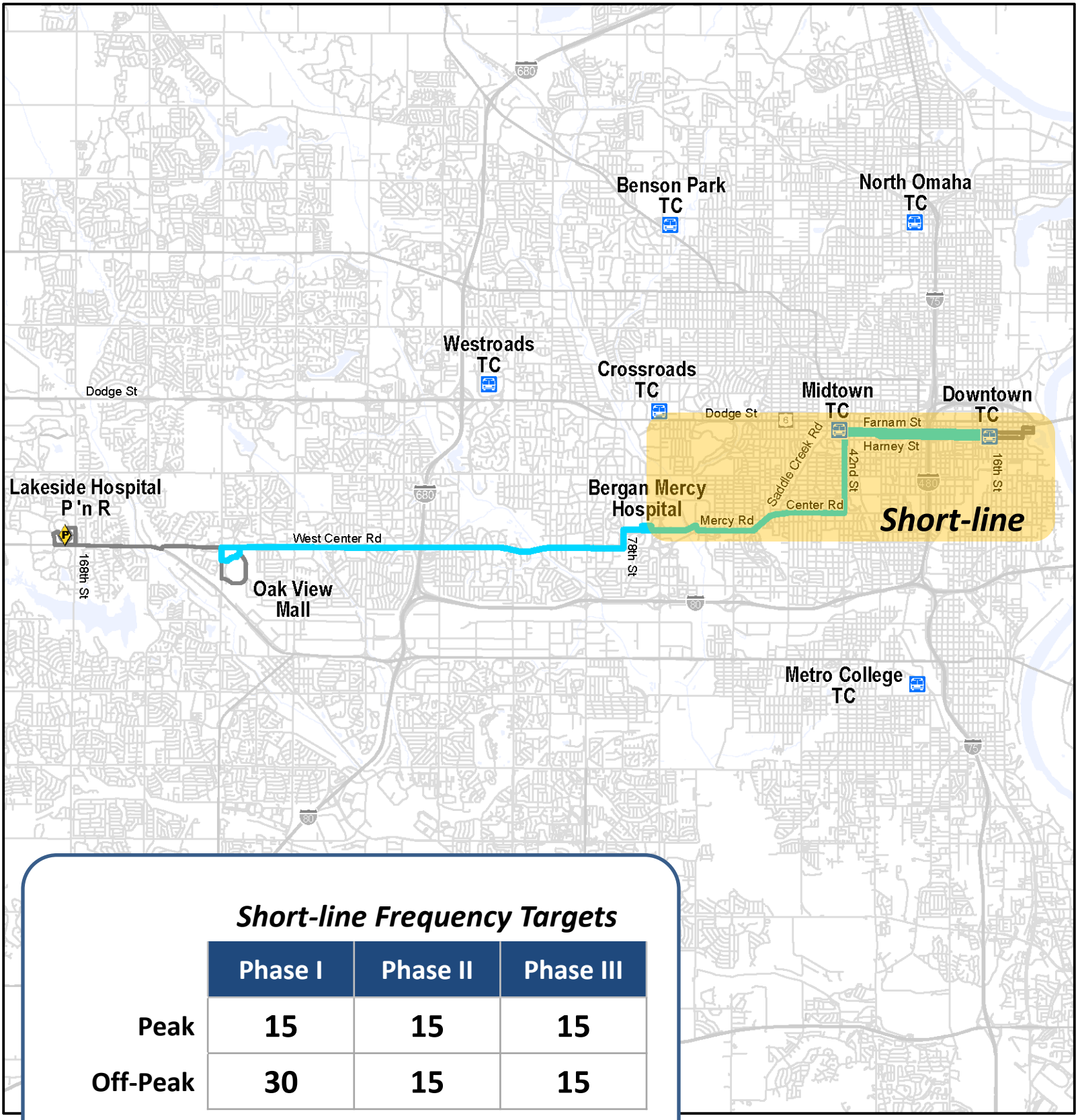
Transit Center

Park 'n Ride

0 1 Mile

Route 15 - Proposed Alignment

Local | Frequent Network



Short-line Frequency Targets

	Phase I	Phase II	Phase III
Peak	15	15	15
Off-Peak	30	15	15

Long-line Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	30	30
Off-Peak	60	30	30

Proposed Route Alignment

Existing Route Alignment

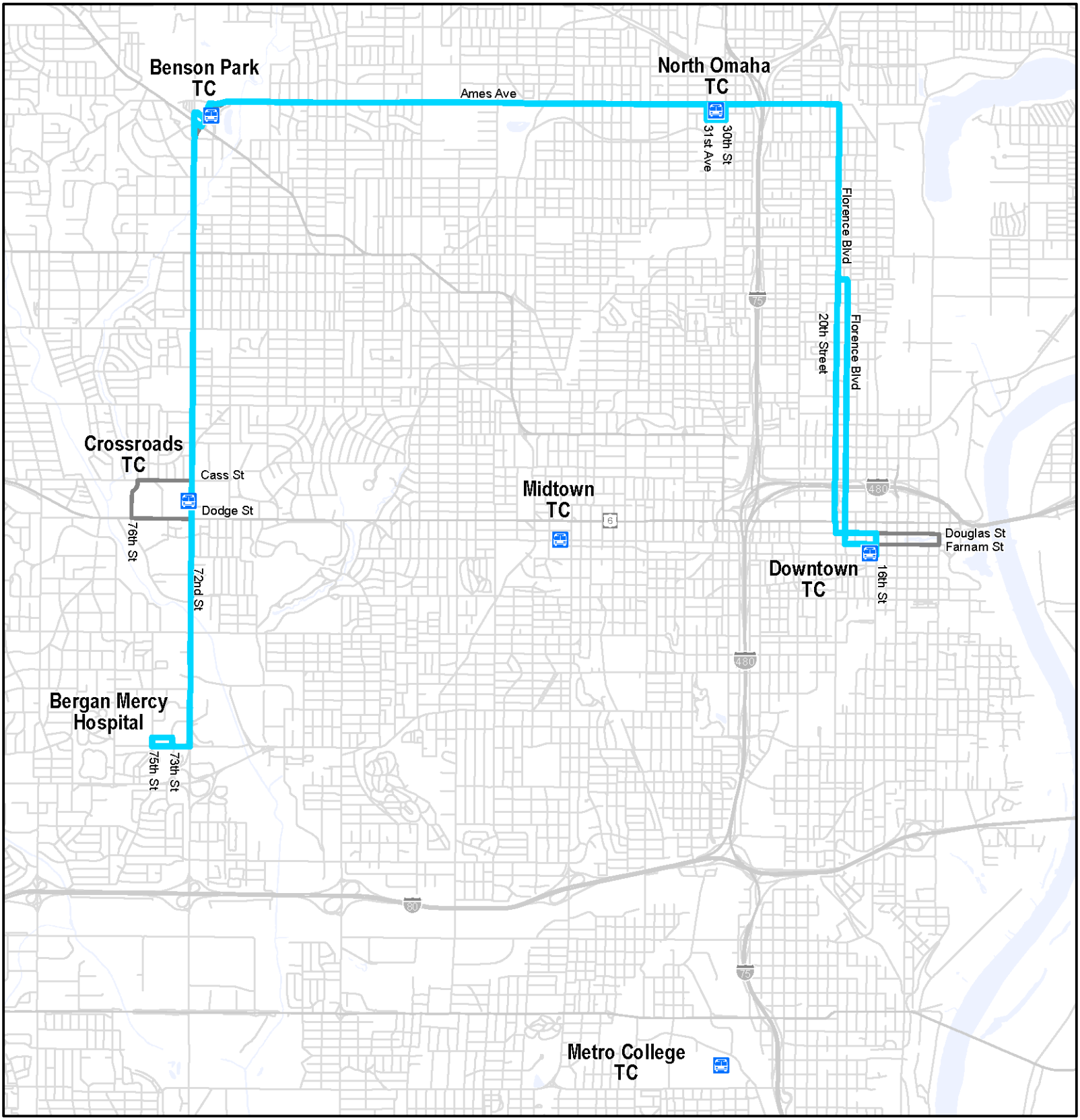
Transit Center

Park 'n Ride

0 1 Mile

Route 18 - Proposed Alignment

Local | Frequent Network



Frequency Targets

	Phase I	Phase II	Phase III
Peak	15	15	15
Off-Peak	15	15	15

Proposed Route Alignment

Existing Route Alignment

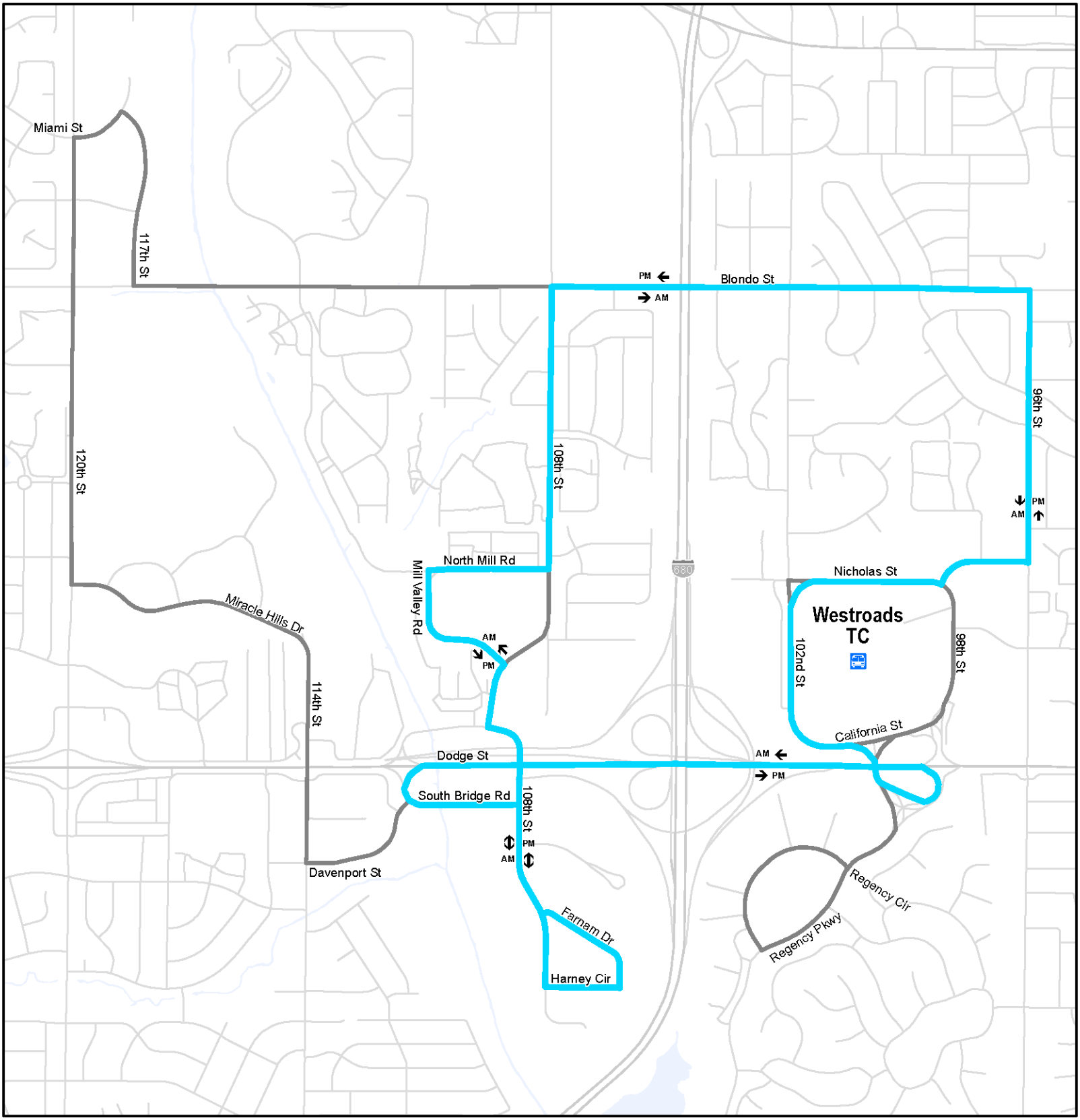
Transit Center

Park 'n Ride

0 1 Mile

Route 22 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	30	30
Off-Peak	60	60	60

Proposed Route Alignment

Existing Route Alignment

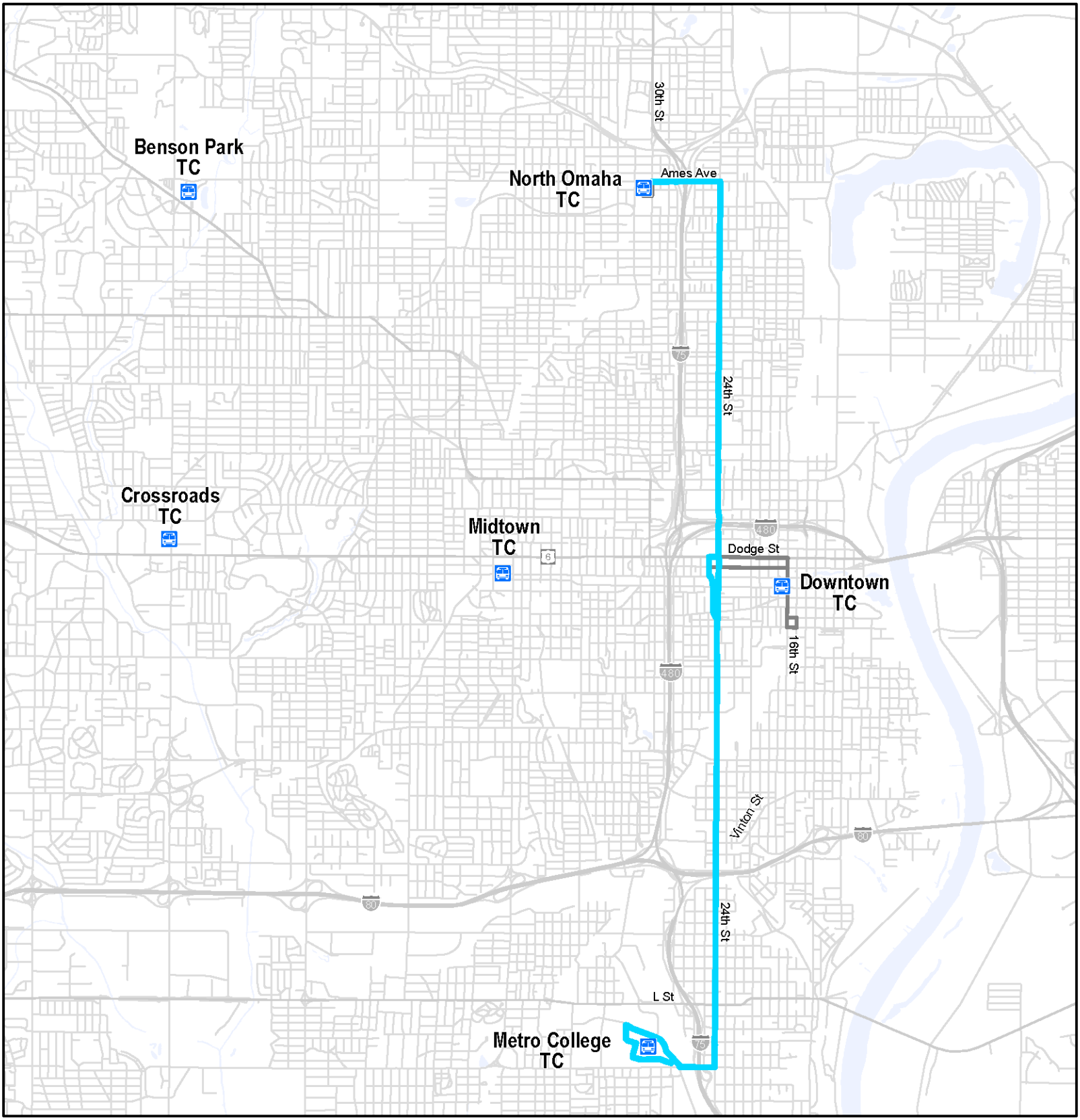
Transit Center

Park 'n Ride

0 0.25 Mile

Route 24 - Proposed Alignment

Local | Frequent Network



Frequency Targets

	Phase I	Phase II	Phase III
Peak	15	15	15
Off-Peak	30	30	15

Proposed Route Alignment

Existing Route Alignment

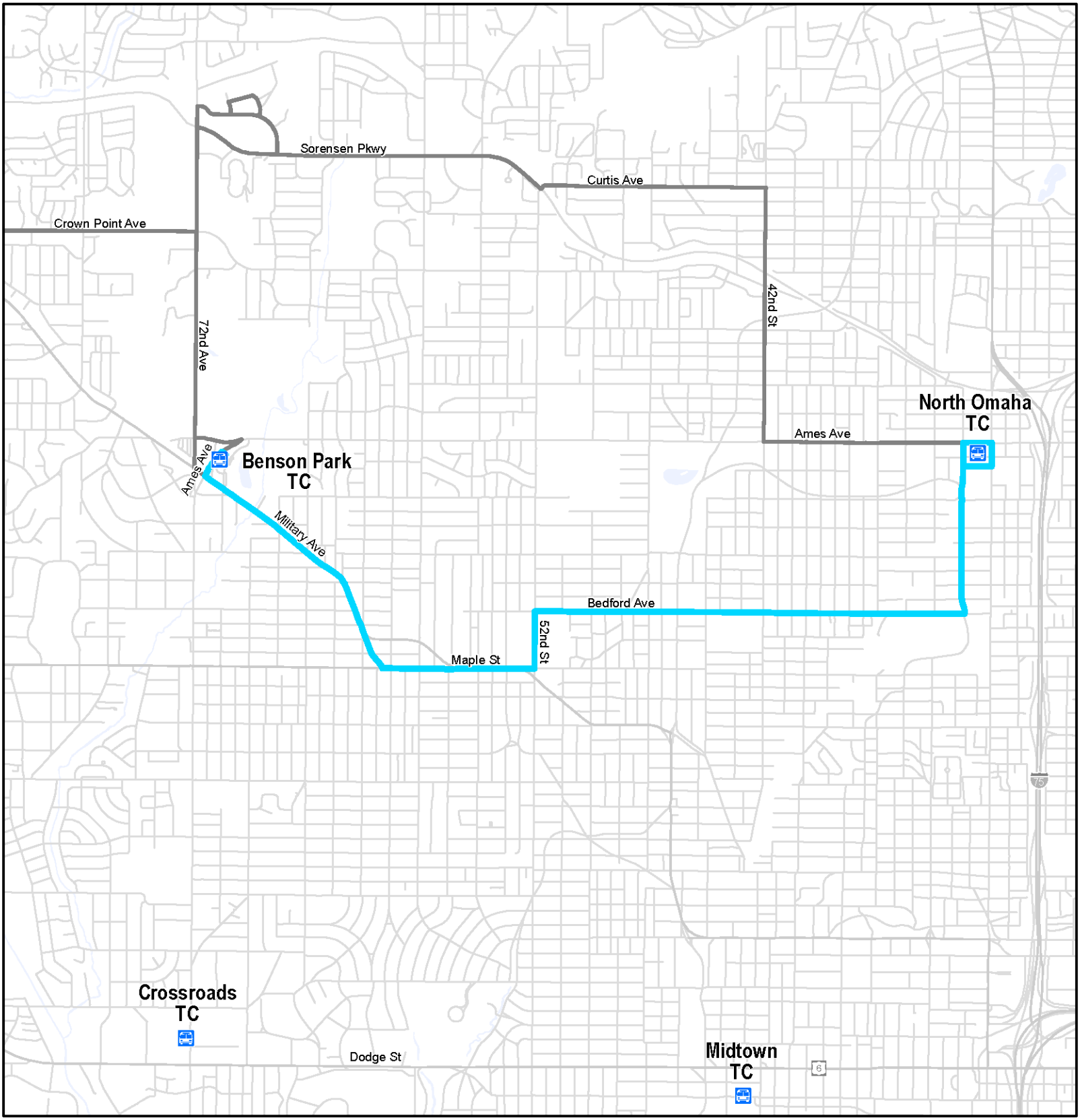
Transit Center

Park 'n Ride

0 1 Mile

Route 25 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	60	30	30
Off-Peak	60	60	30

Proposed Route Alignment

Existing Route Alignment

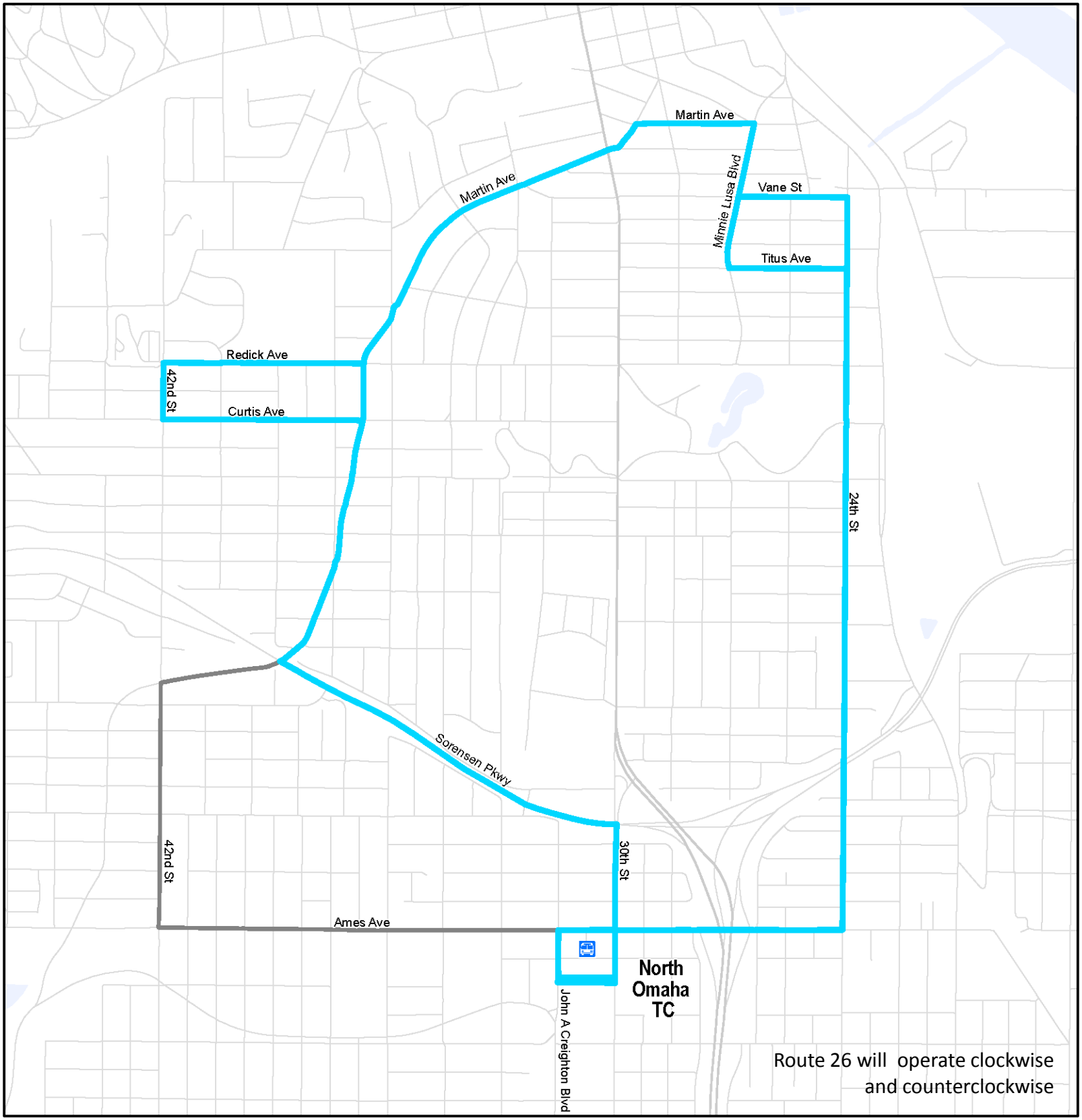
Transit Center

Park 'n Ride

0 0.5 Mile

Route 26 - Proposed Alignment

Local | Community Circulator



Frequency Targets

	Phase I	Phase II	Phase III
Peak	60	30	30
Off-Peak	60	60	30

Proposed Route Alignment

Existing Route Alignment

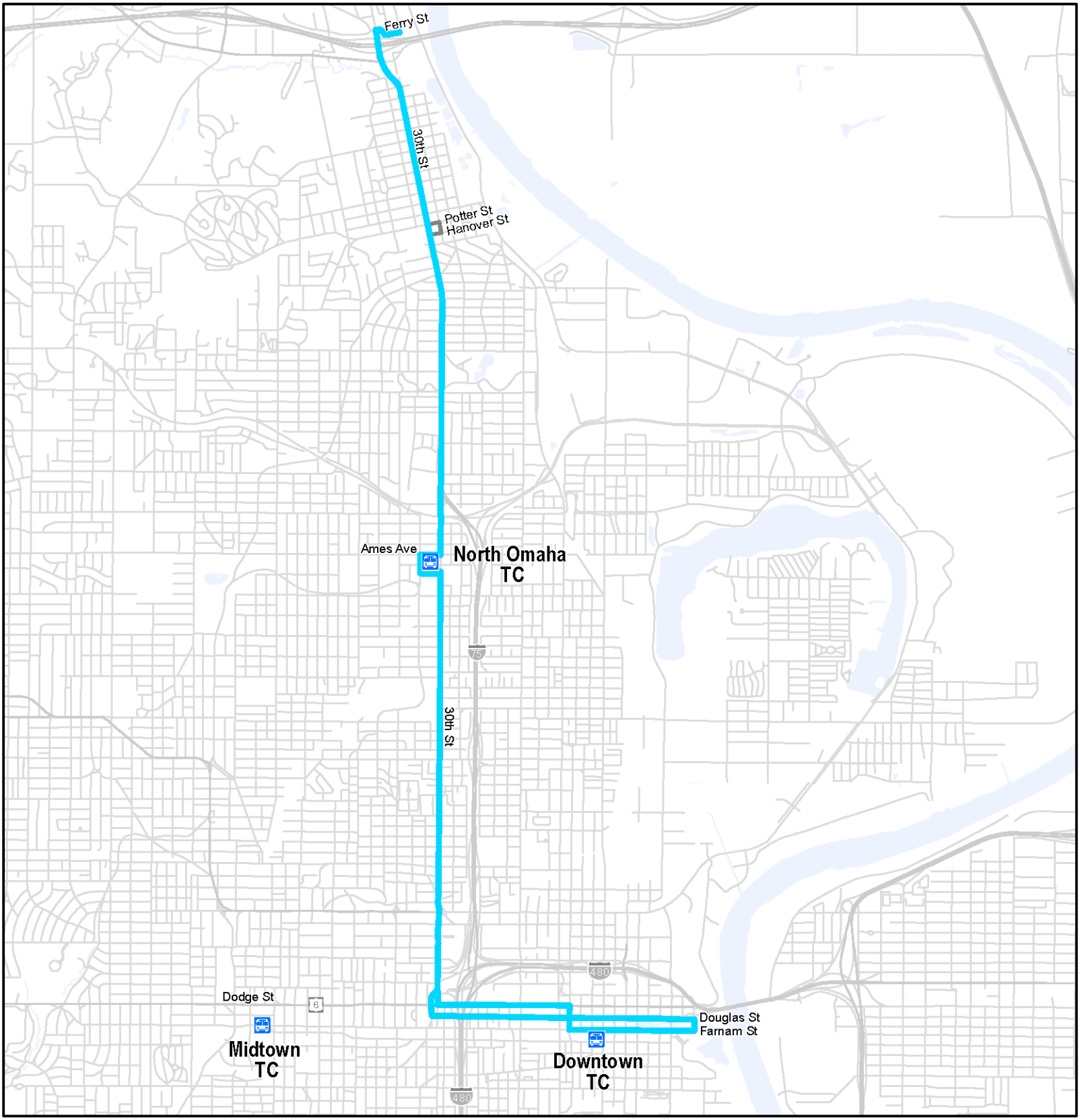
Transit Center

Park 'n Ride

0 0.25 Mile

Route 30 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	15	15	15
Off-Peak	30	30	15

Proposed Route Alignment

Existing Route Alignment

Transit Center

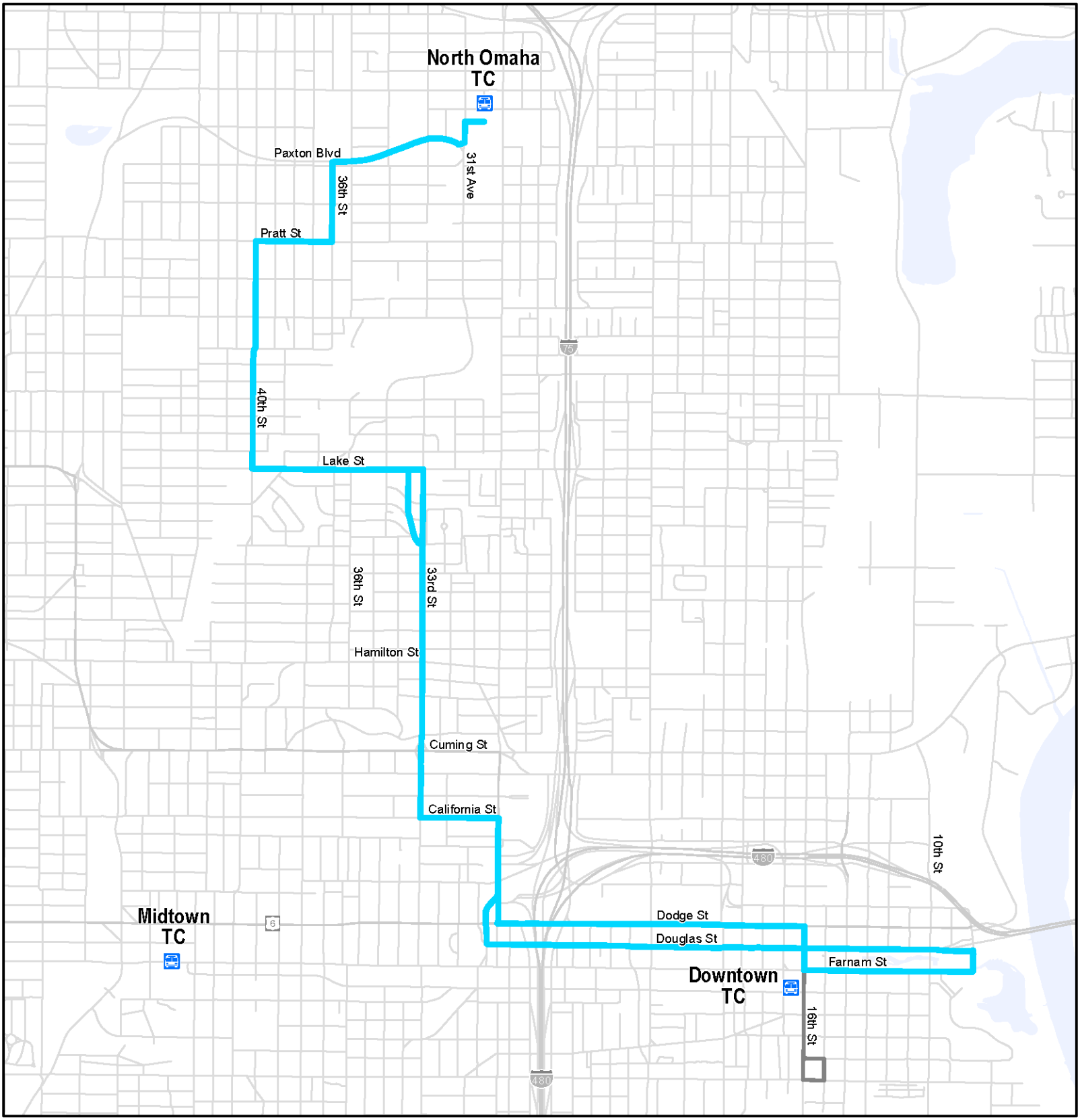
Park 'n Ride

0 1 Mile

TMD

Route 35 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	30	30
Off-Peak	30	30	30

Proposed Route Alignment

Existing Route Alignment

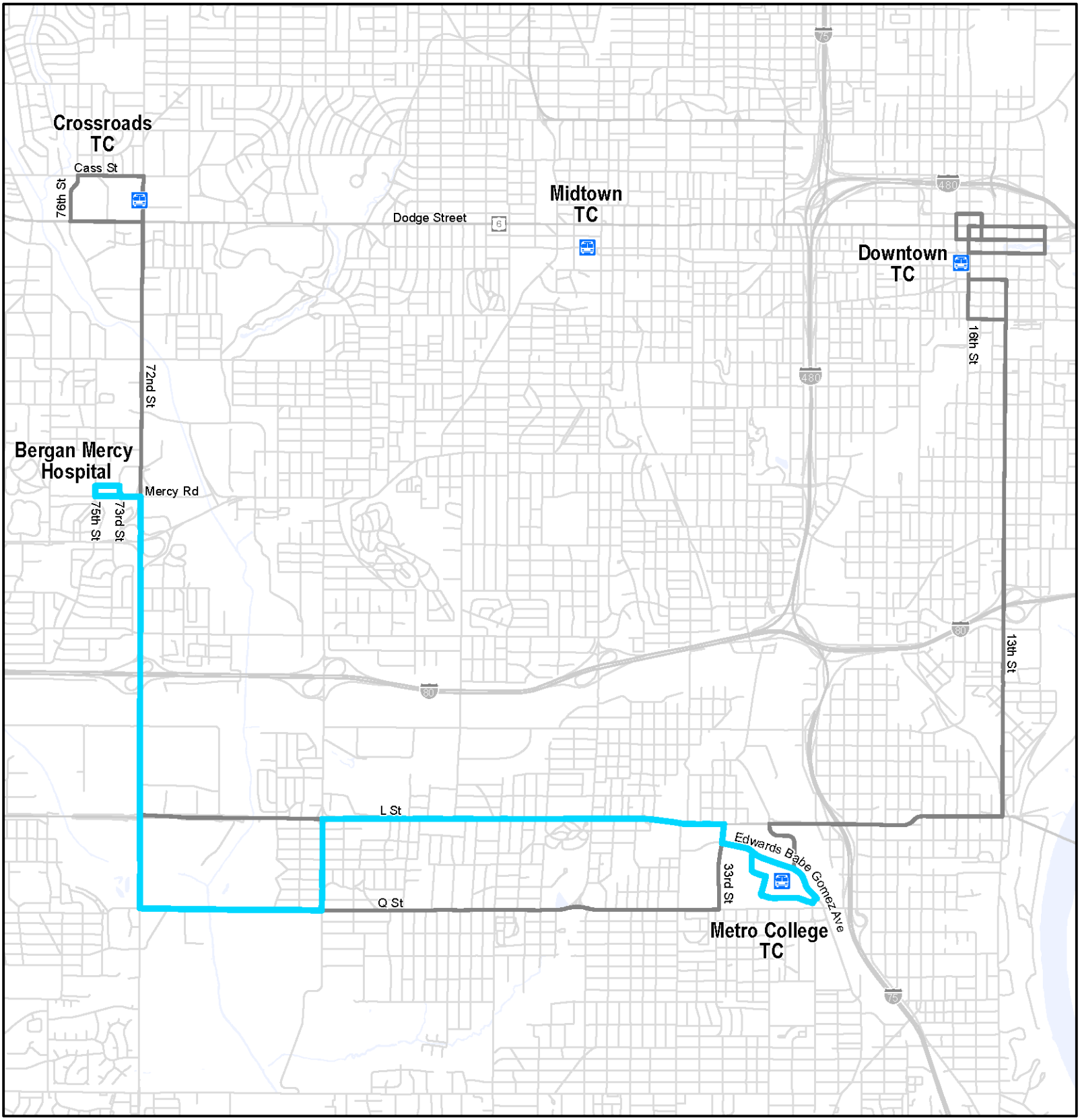
Transit Center

Park 'n Ride

0 0.5 Mile

Route 36 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	30	30
Off-Peak	60	60	30

Proposed Route Alignment

Existing Route Alignment

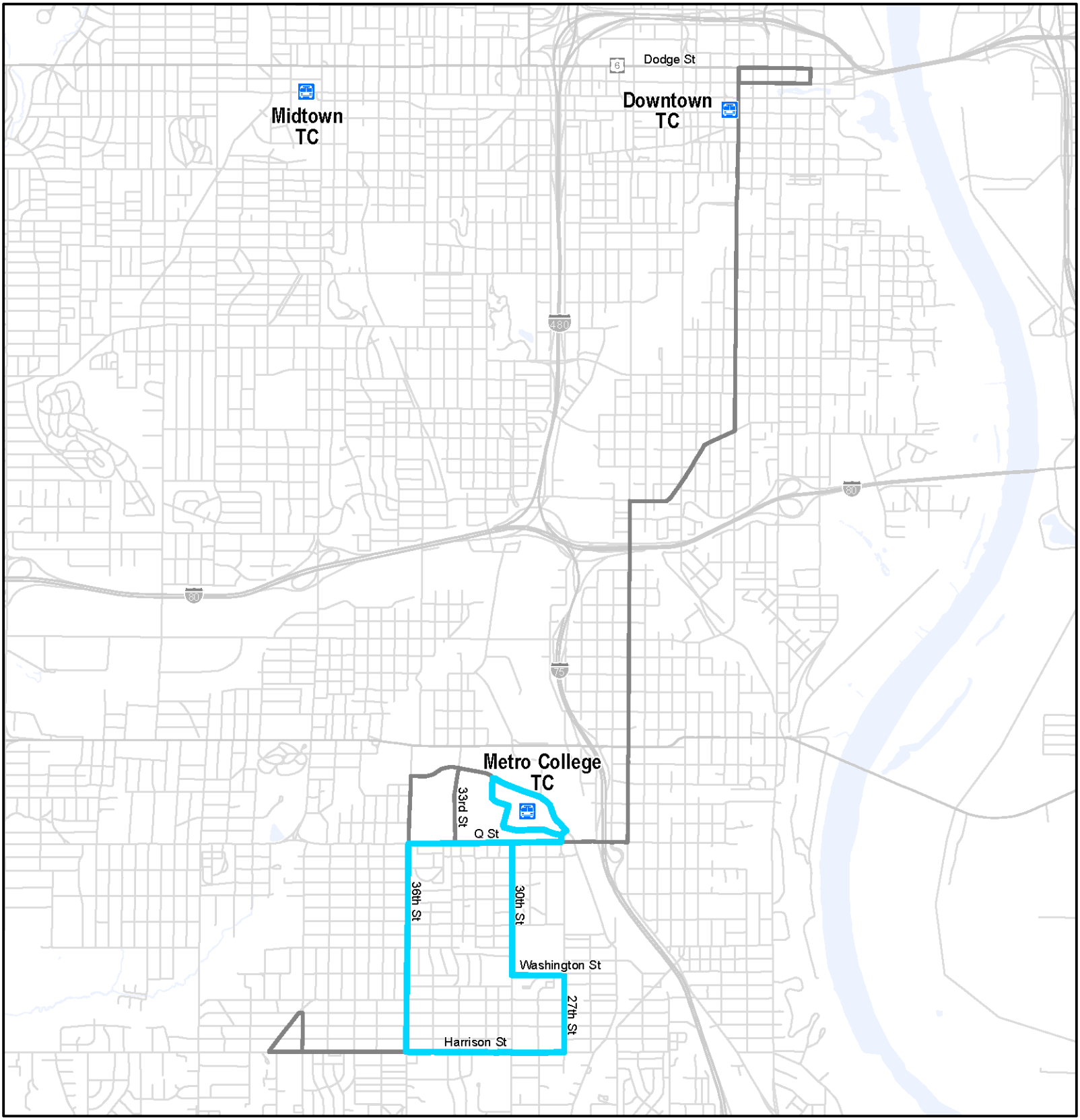
Transit Center

Park 'n Ride

0 1 Mile

Route 37 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	30	30
Off-Peak	60	60	30

Proposed Route Alignment

Existing Route Alignment

Transit Center

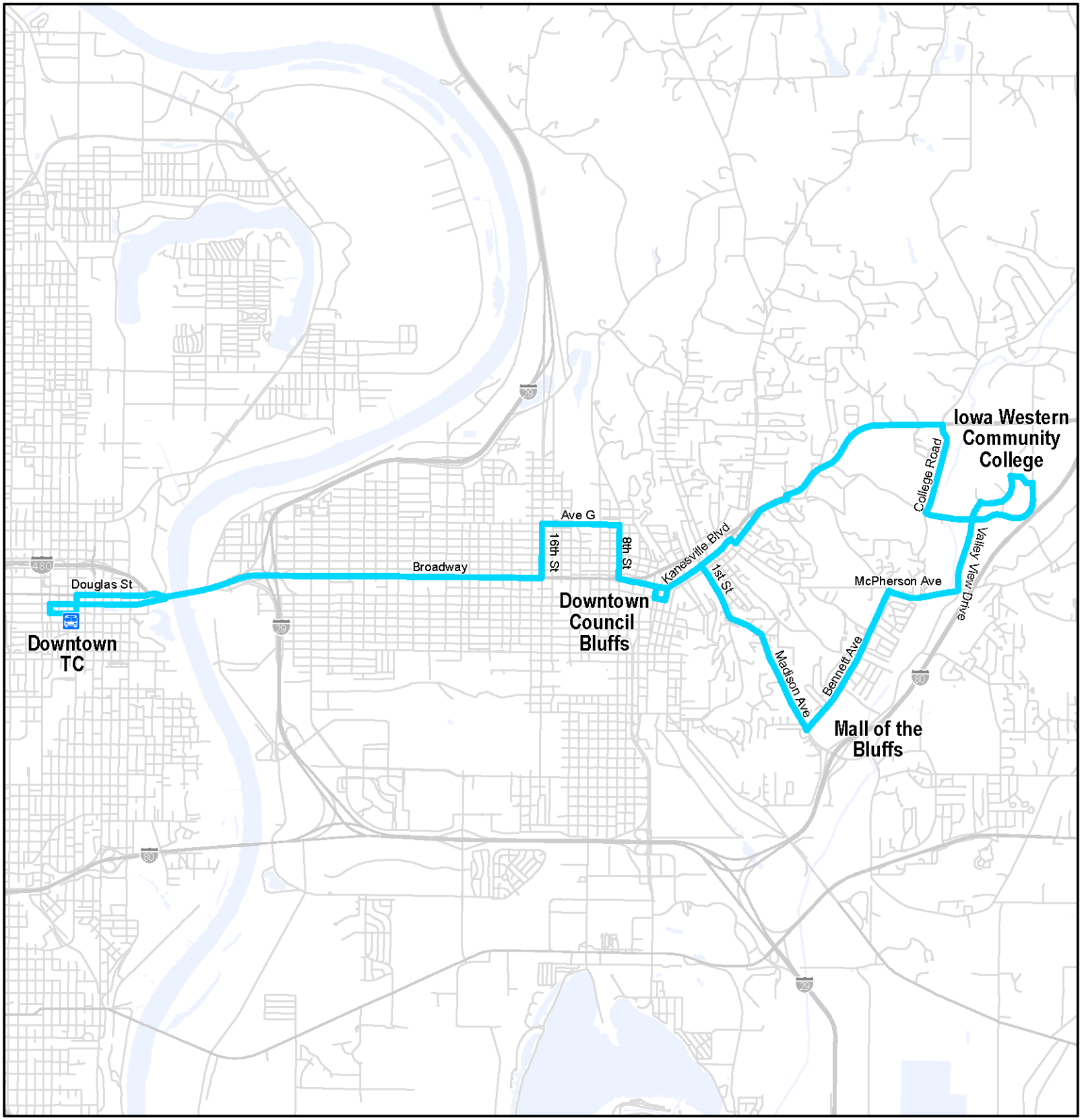
Park 'n Ride

0 0.5 Mile

TMD

Blue – Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	60	30	30
Off-Peak	60	60	30

Proposed Route Alignment

Existing Route Alignment

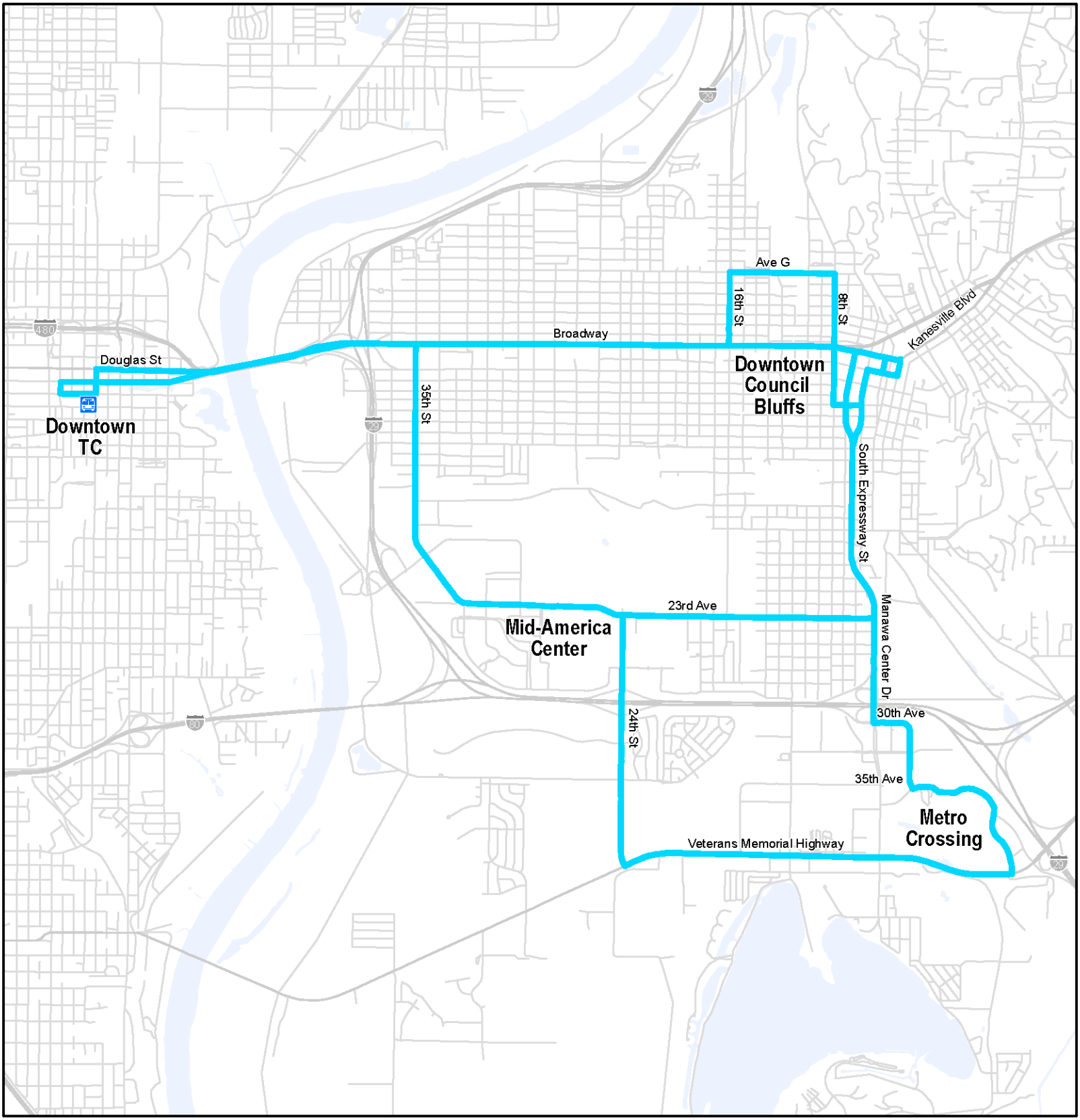
Transit Center

Park 'n Ride

0 0.5 Mile

Yellow– Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	60	30	30
Off-Peak	60	60	30

Proposed Route Alignment

Existing Route Alignment

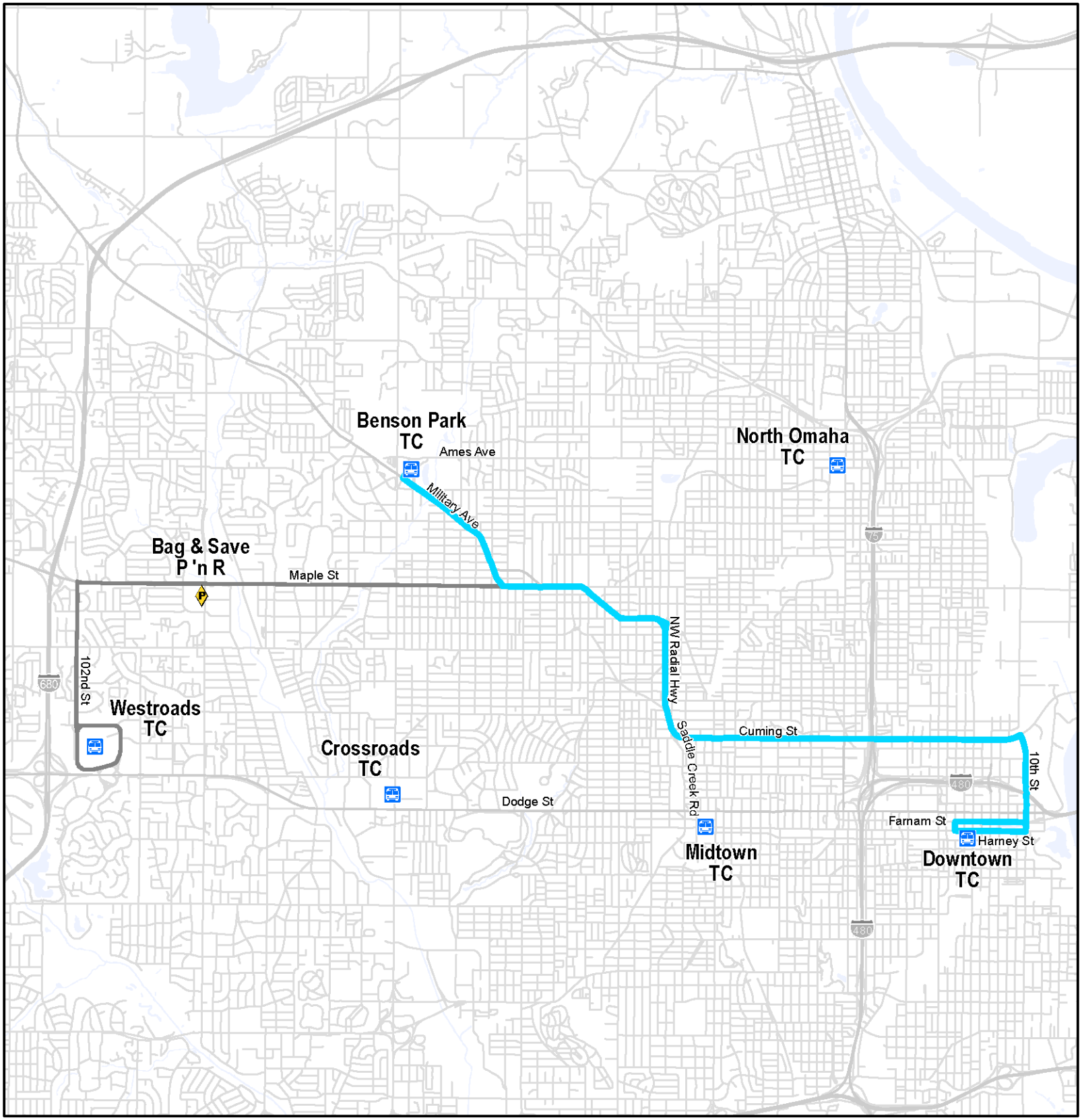
Transit Center

Park 'n Ride

0 0.5 Mile

Route 44 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	-	30	30
Off-Peak	-	30	30

Proposed Route Alignment

Existing Route 4

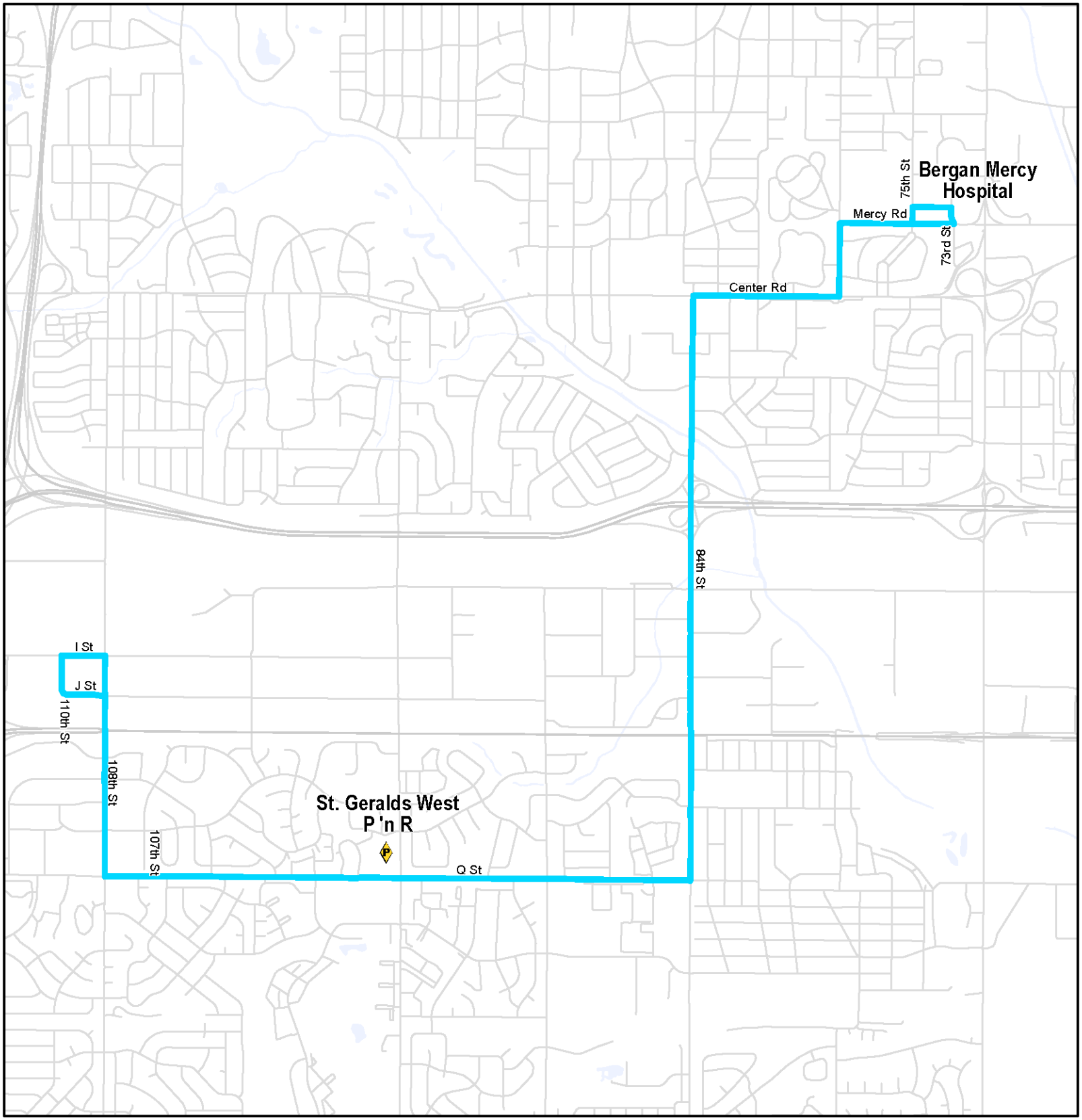
Transit Center

Park 'n Ride

0 1 Mile

Route 55 - Proposed Alignment

Local | Network Completion



Frequency Targets

	Phase I	Phase II	Phase III
Peak	30	30	30
Off-Peak	60	60	30

Proposed Route Alignment

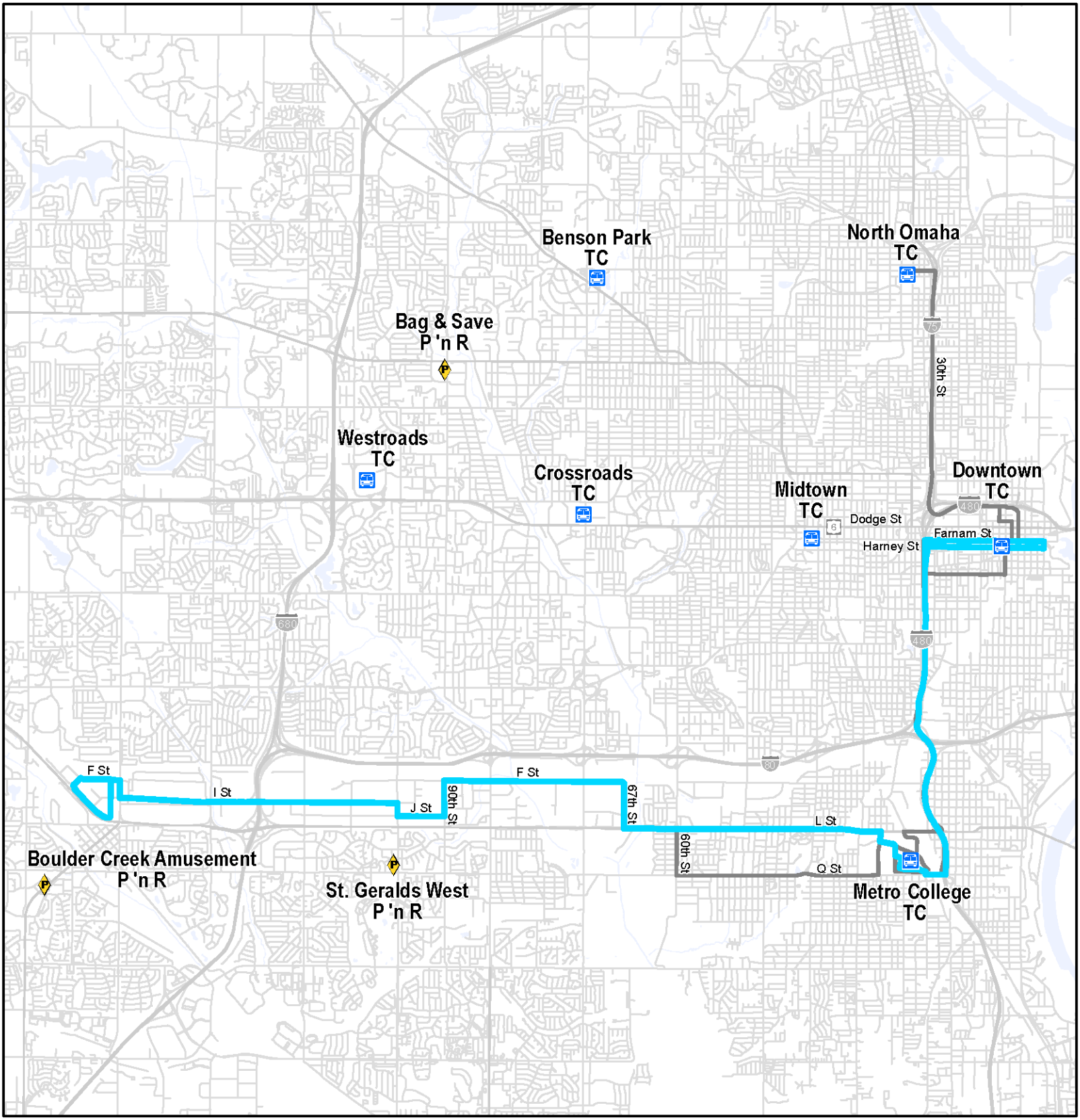
Transit Center

Park 'n Ride

0 0.5 Mile

Route 34 - Proposed Alignment

Express



Trip Targets

	Phase I	Phase II	Phase III
Peak	1	2	4
Off-Peak	-	-	-

Proposed Route Alignment

Existing Route Alignment

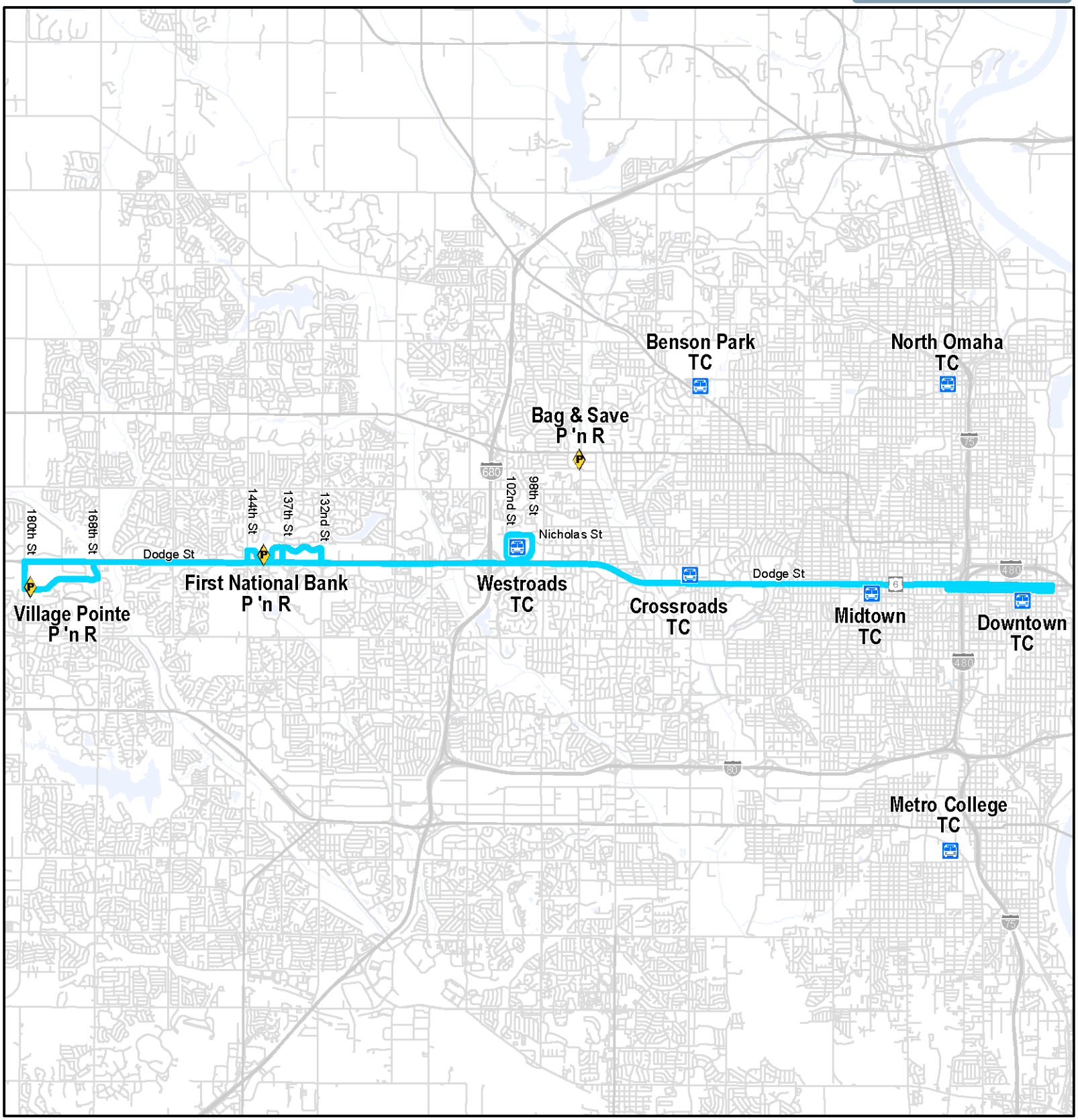
Transit Center

Park 'n Ride

0 1 Mile

Route 92 - Proposed Alignment

Express



Trip Targets

	Short	Long	Vision
Peak	5	6	8
Peak Reverse	4	4	4

Proposed Route Alignment

Existing Route Alignment

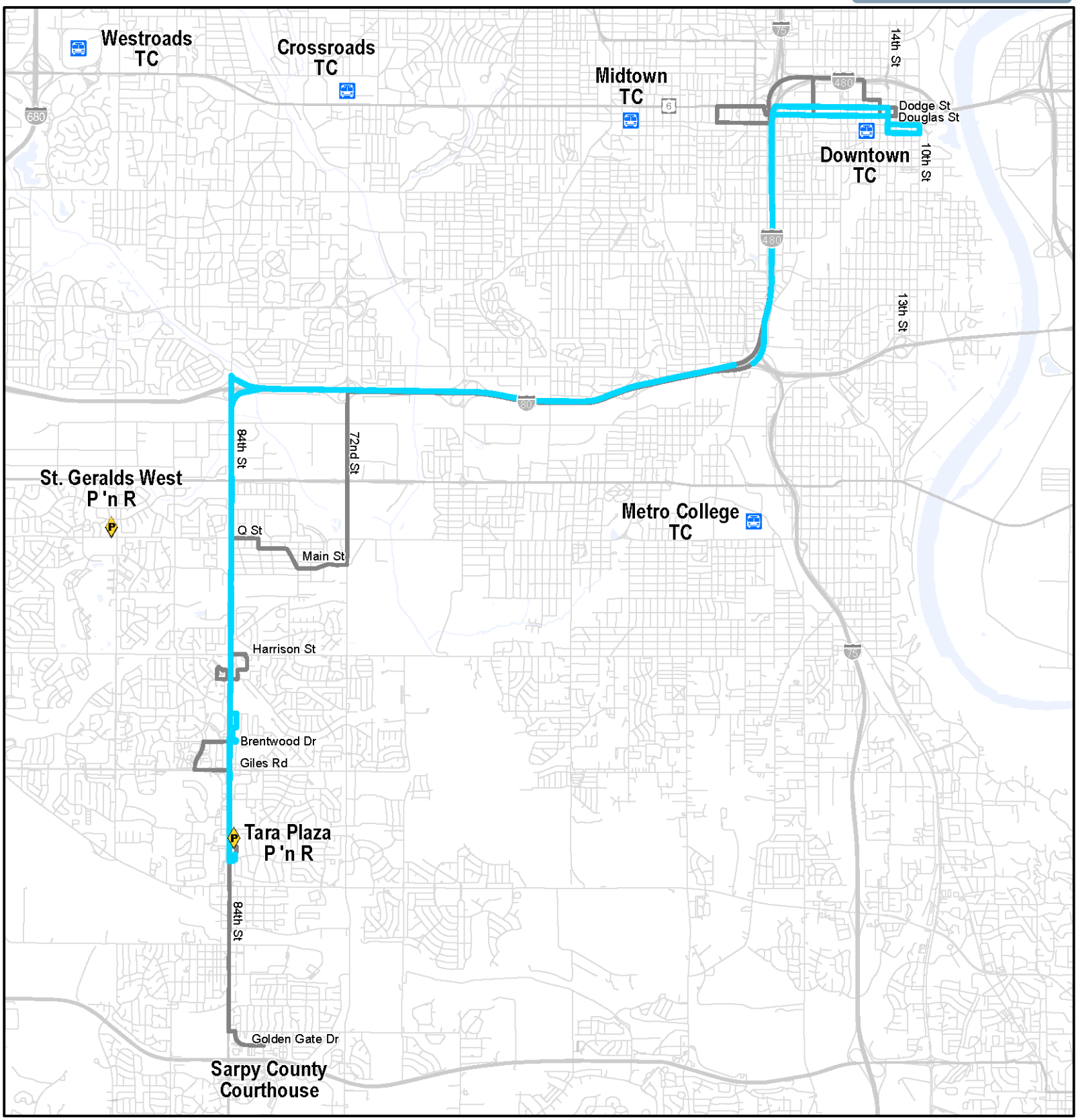
Transit Center

Park 'n Ride

0 1 Mile

Route 93 - Proposed Alignment

Express



Trip Targets

	Phase I	Phase II	Phase III
Peak	2	4	6
Peak Reverse	2	2	2

Proposed Route Alignment

Existing Route Alignment

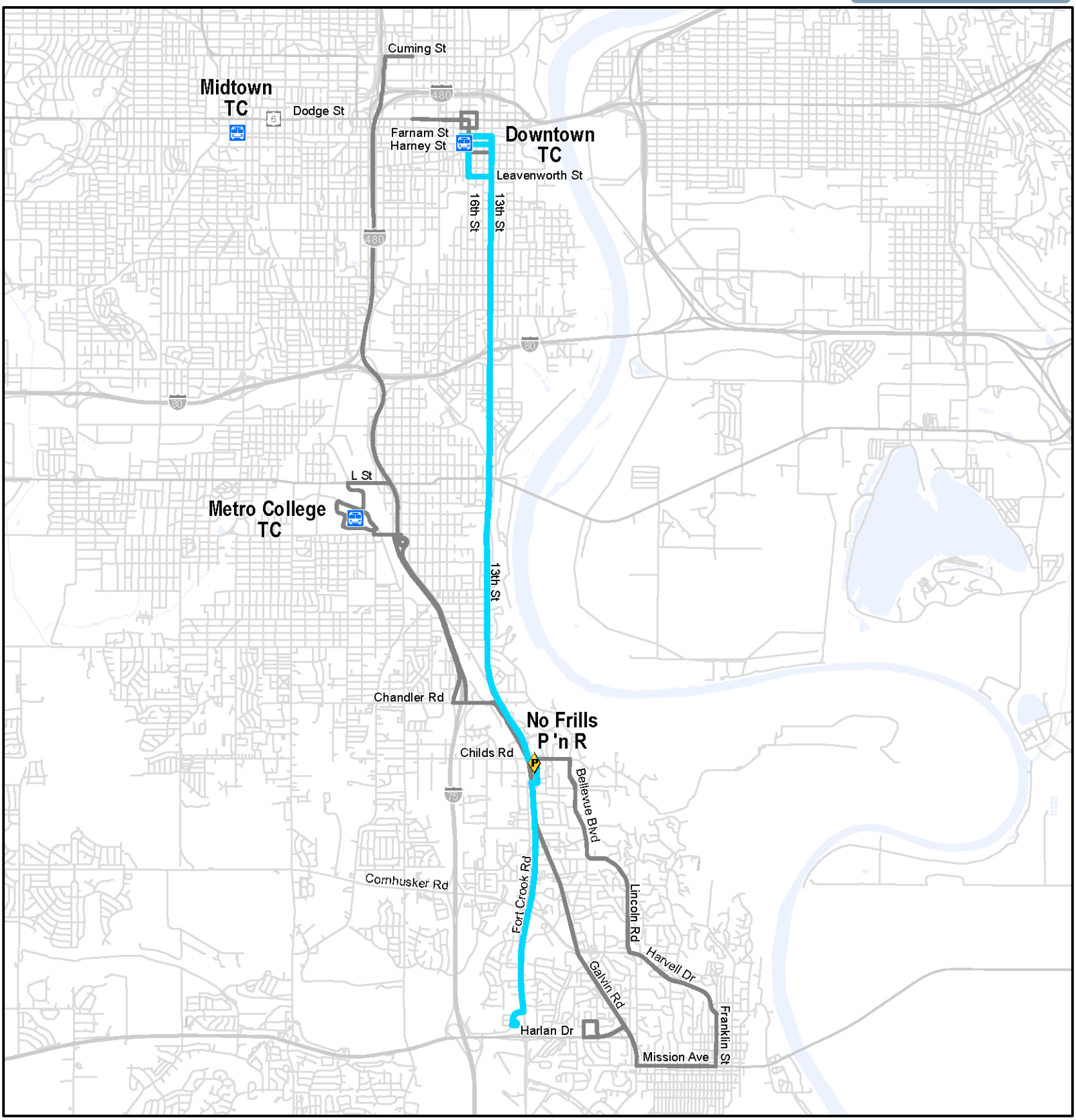
Transit Center

Park 'n Ride

0 1 Mile

Route 95 - Proposed Alignment

Express



Trip Targets

	Phase I	Phase II	Phase III
Peak	**2**	**2**	**4**
Peak Reverse	**2**	**2**	**2**

Proposed Route Alignment

Existing Route Alignment

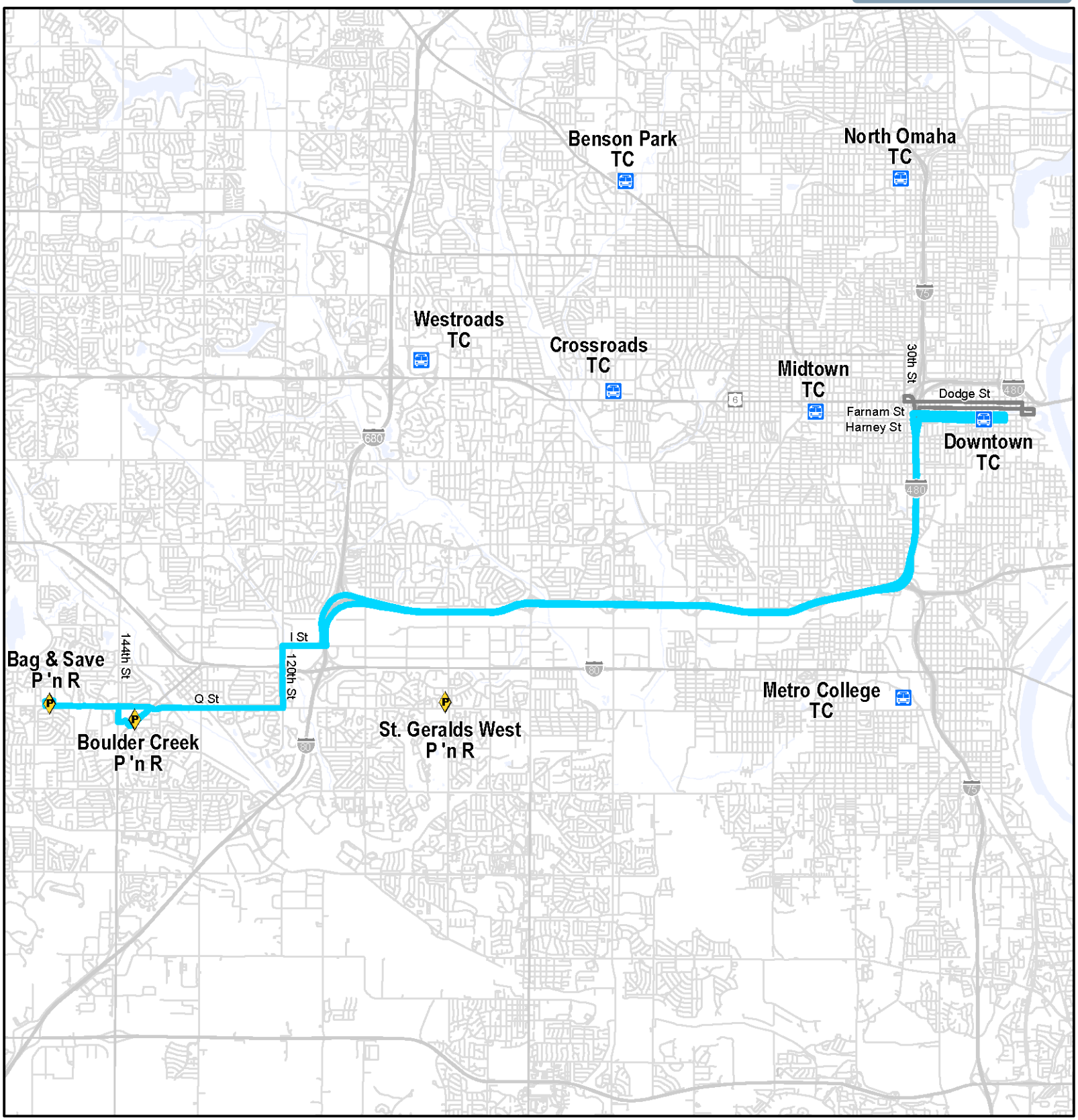
Transit Center

Park 'n Ride

0 1 Mile

Route 97 - Proposed Alignment

Express



Trip Targets

	Phase I	Phase II	Phase III
Peak	5	5	6
Peak Reverse	4	4	4

Proposed Route Alignment

Existing Route Alignment

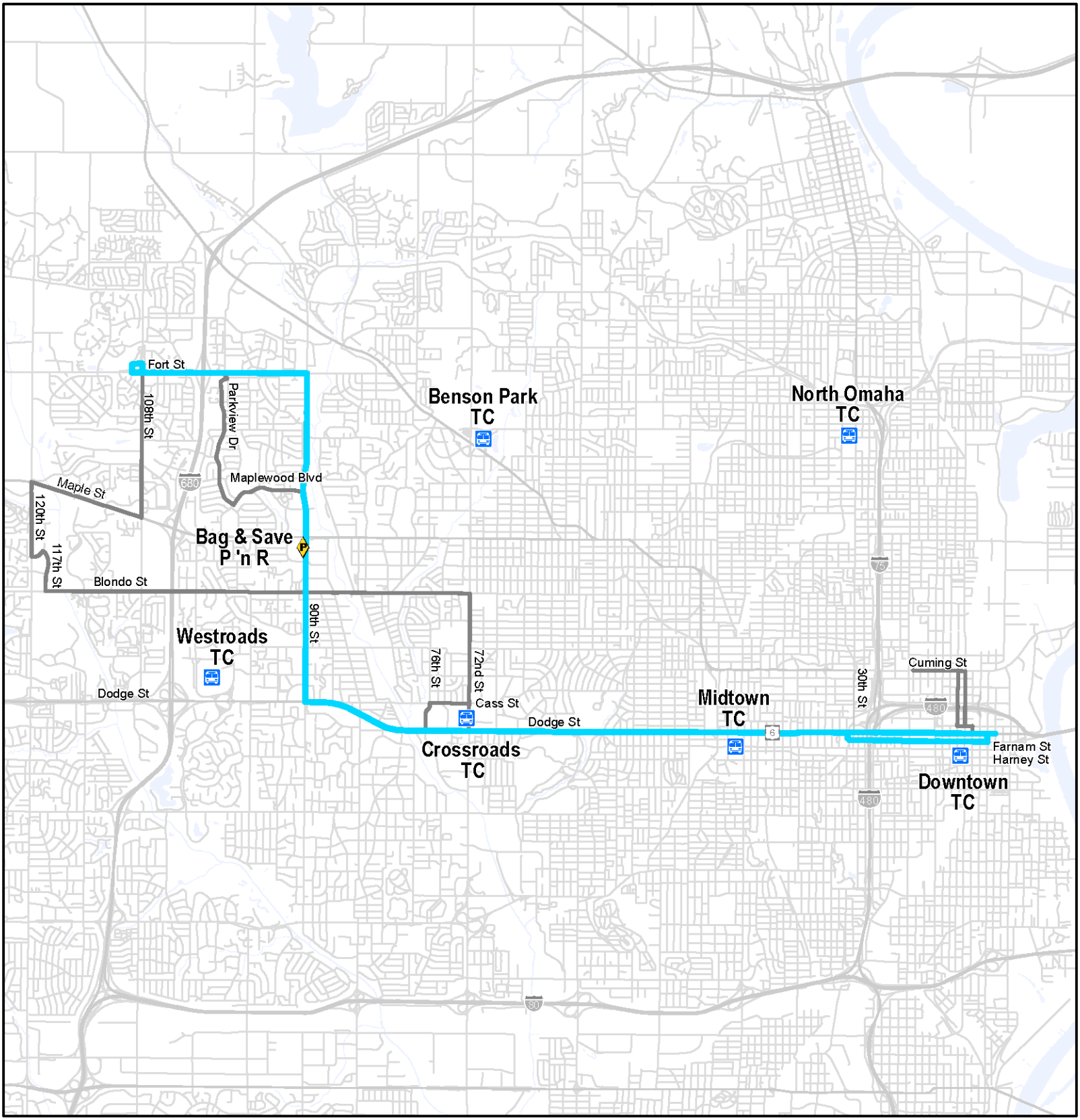
Transit Center

Park 'n Ride

0 1 Mile

Route 98 - Proposed Alignment

Express



Trip Targets

	Phase I	Phase II	Phase III
Peak	2	2	4
Peak Reverse	2	2	2

Proposed Route Alignment

Existing Route Alignment

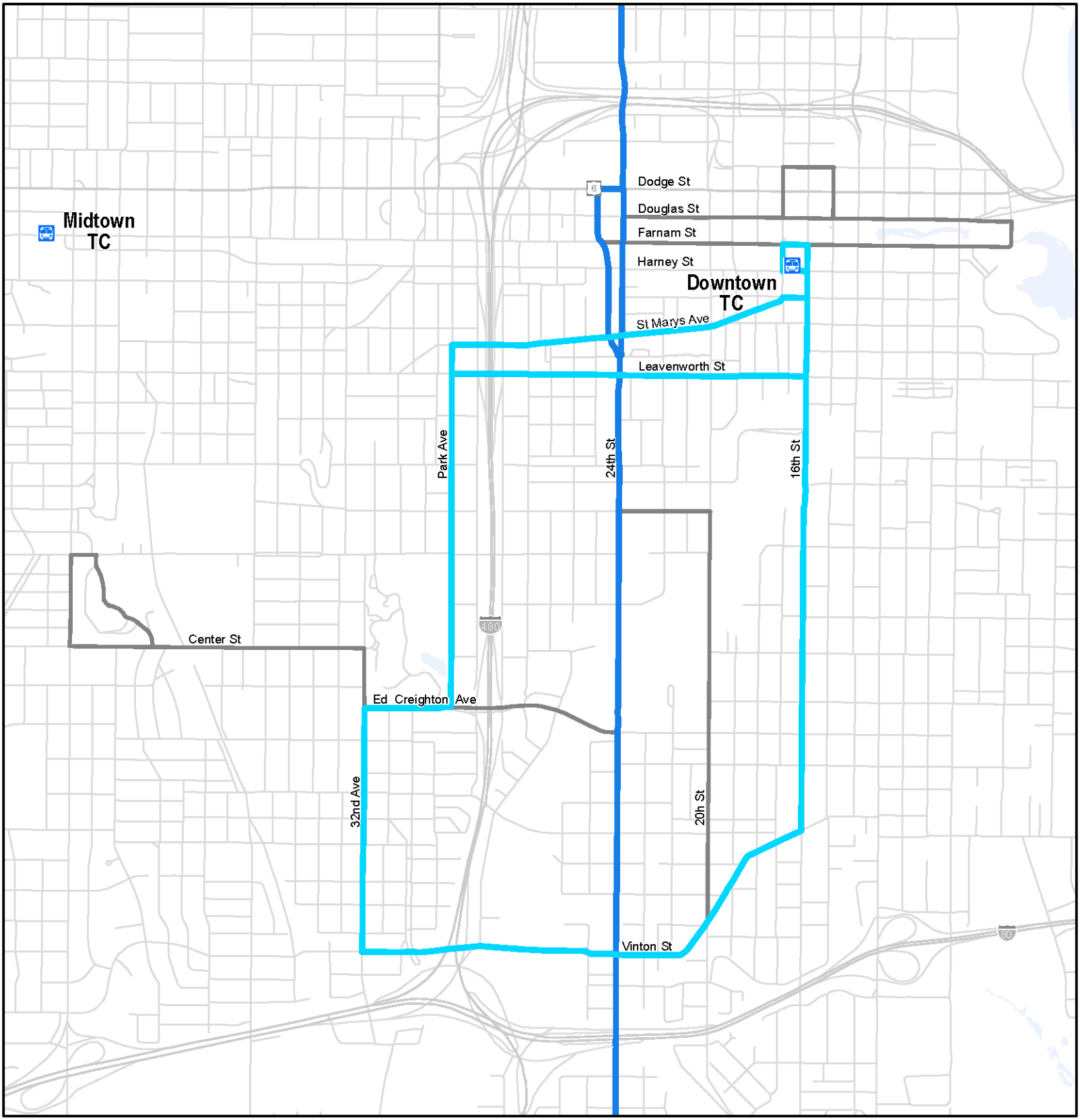
Transit Center

Park 'n Ride

0 0.5 Mile

Route 9 - Discontinued

Discontinued



Frequency Targets

	Phase I	Phase II	Phase III
Peak	-	-	-
Off-Peak	-	-	-

Proposed Route 7

Proposed Route 24

Existing Route Alignment

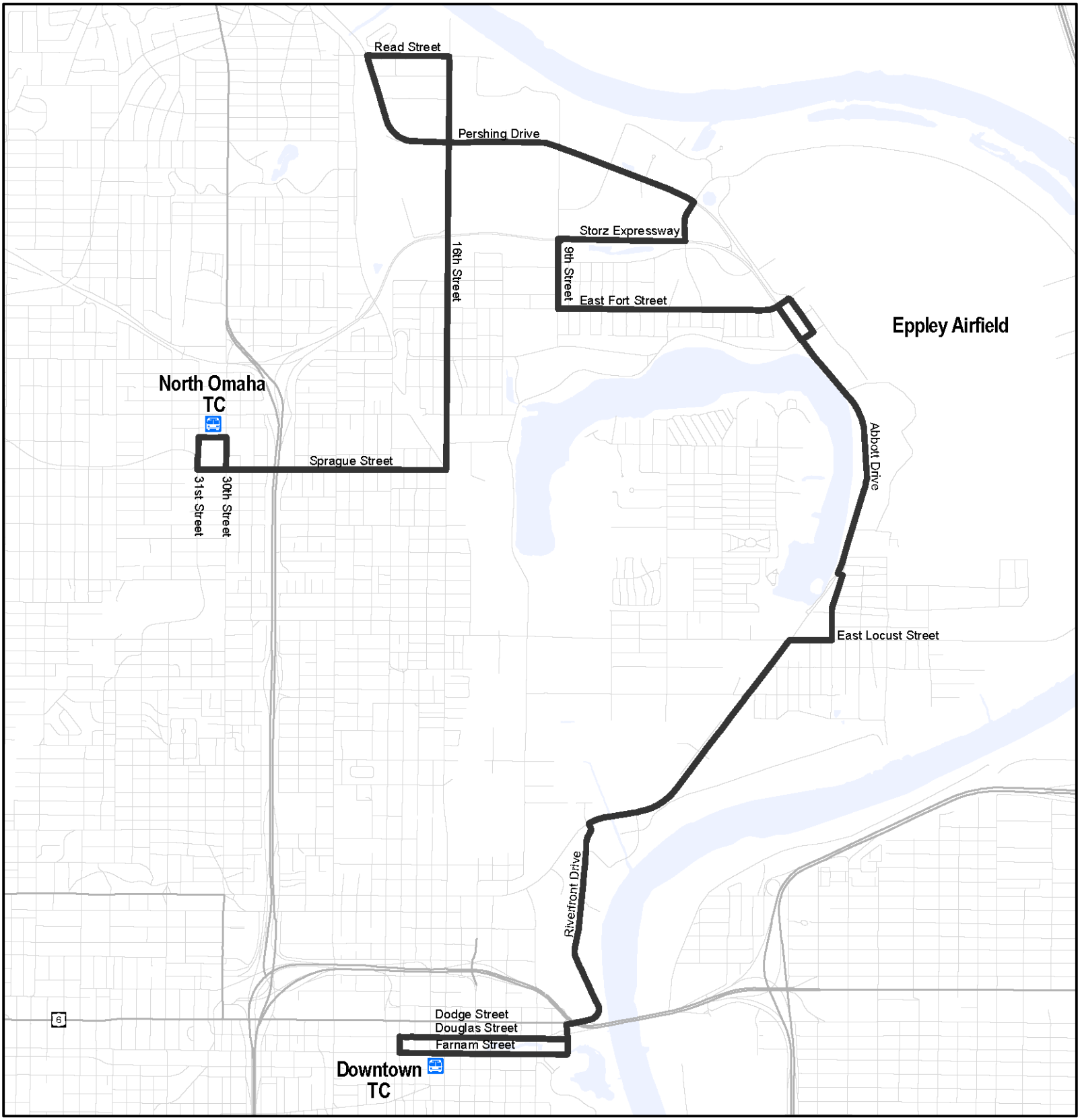
Transit Center

Park 'n Ride

0 0.5 Mile

Route 16 - Discontinued

Discontinued



Frequency Targets

	Phase I	Phase II	Phase III
Peak	-	-	-
Off-Peak	-	-	-

Discontinued Route Alignment

Existing Route Alignment

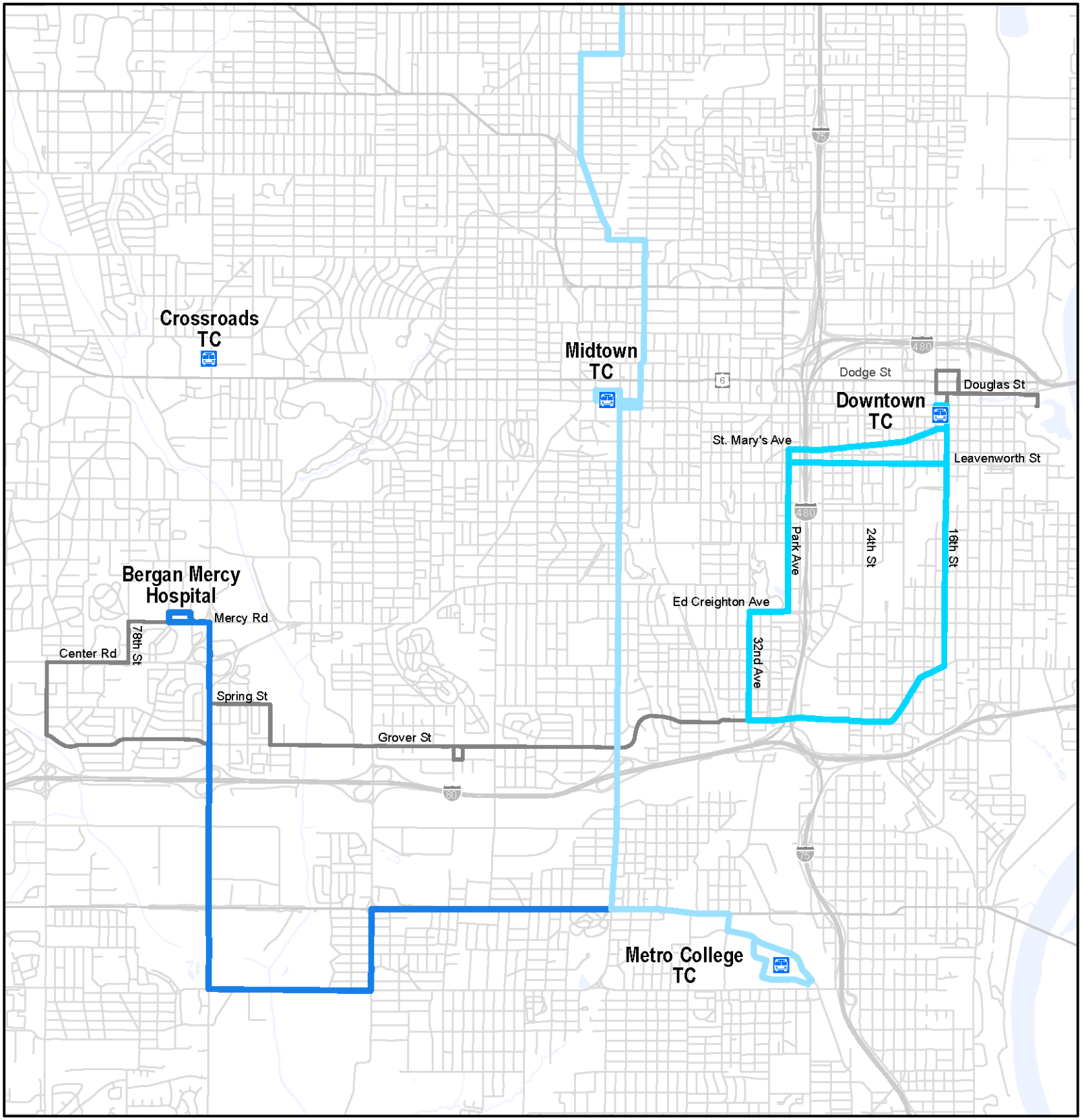
Transit Center

Park 'n Ride

0 0.5 Mile

Route 32 - Discontiued

Discontinued



Frequency Targets

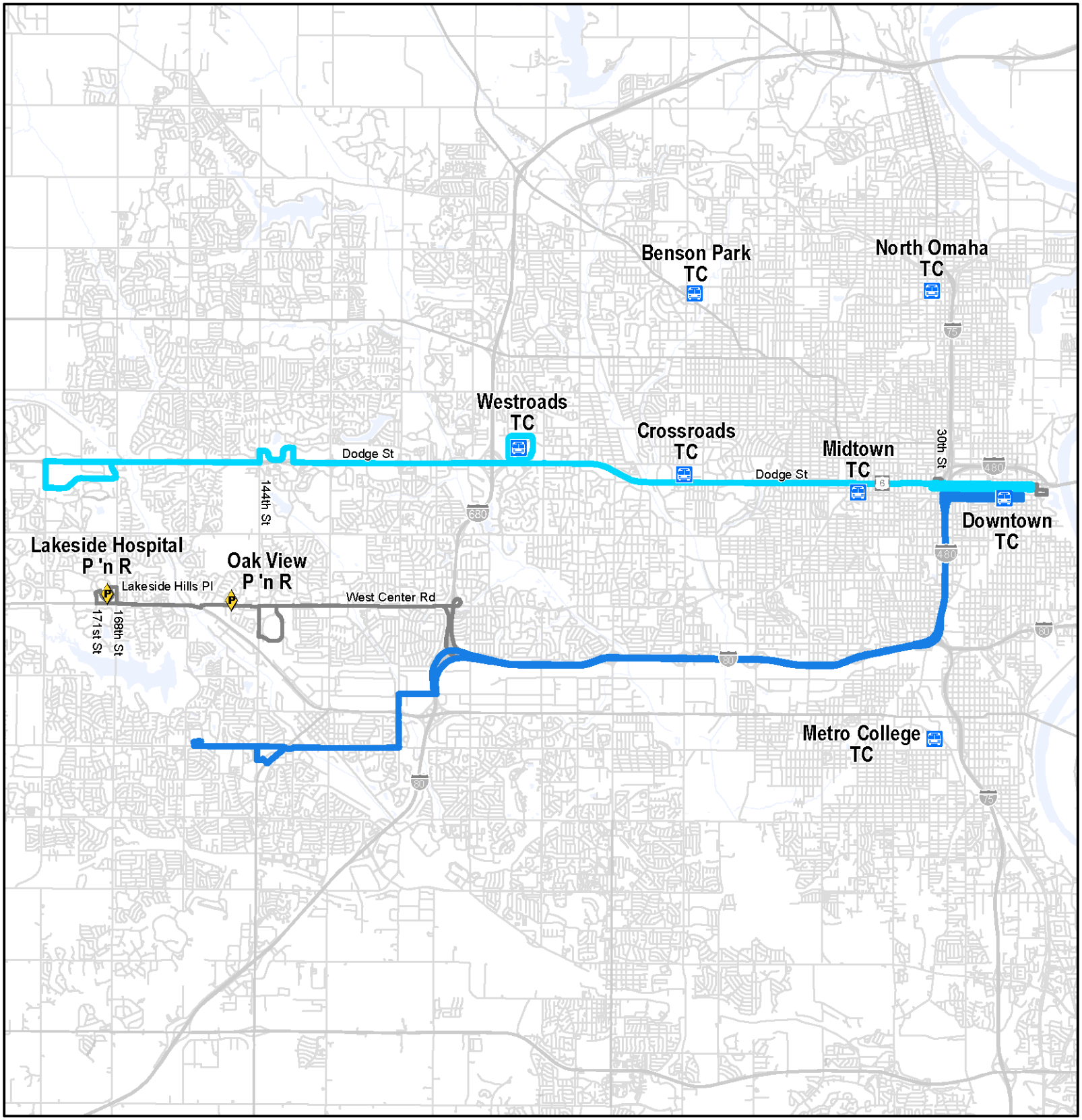
	Phase I	Phase II	Phase III
Peak	-	-	-
Off-Peak	-	-	-

- Proposed Route 3
- Proposed Route 7
- Proposed Route 36
- Existing Route Alignment
- Transit Center
- Park 'n Ride

0 0.5 Mile

Route 94 - Discontinued

Discontinued



Frequency Targets

	Phase I	Phase II	Phase III
Peak	-	-	-
Off-Peak	-	-	-

Proposed Route 92

Proposed Route 97

Existing Route Alignment

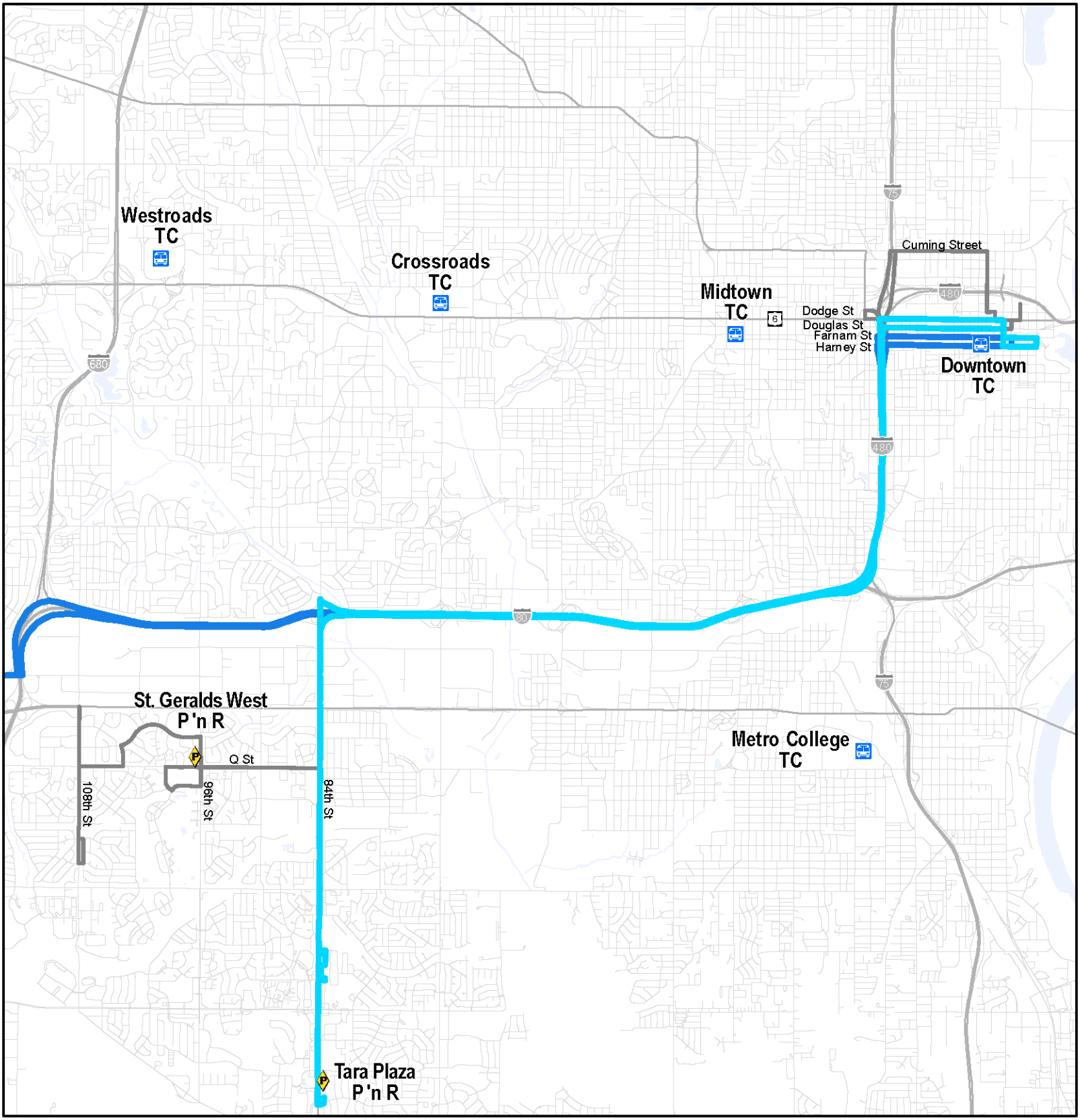
Transit Center

Park 'n Ride

0 1 Mile

Route 96 - Discontinued

Discontinued



Frequency Targets

	Phase I	Phase II	Phase III
Peak	-	-	-
Off-Peak	-	-	-

Proposed Route 93

Proposed Route 97

Existing Route Alignment

Transit Center

Park 'n Ride

0 1 Mile