Heartland connections

Regional Transit Vision Feasibility Analysis

Draft Report

December 2013

MAPA
www.mapacog.org

www.heartland2050.org/connections

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1. Introduction

Heartland Connections - Regional Transit Vision identifies a future vision for public transit in the Omaha-Council Bluffs metropolitan area. *Heartland Connections* is being conducted as part of the **Heartland 2050**[1] process and in parallel with ongoing assessments of multi-modal corridor development opportunities.

Heartland Connections identifies a future vision for public transit in the Omaha-Council Bluffs metropolitan area.

The *Regional Transit Vision* feasibility study process has defined long-term transit investment scenarios and options through a technical process that included stakeholder outreach, travel market analysis, transit service planning, financial analysis and institutional considerations. The scenarios have been developed to support broader regional growth plans that are a part of **Heartland 2050.**

Heartland 2050 and the more focused *Heartland Connections* initiative will position Omaha for managed growth and future success through a consensus-based strategy for thoughtful and reasoned investment in the transportation network and other public infrastructure. Together, these initiatives will advance Complete Streets as well as other pedestrian and bicycle-oriented strategies in selected regional corridors.

Working closely with Metro and other stakeholders, the *Heartland Connections - Regional Transit Vision* study:

- Recommends improvements to the existing Metro transit system;
- Prioritizes corridors for future service enhancements based on their potential to support improved transit;
- Develops various transit service scenarios that improve mobility in priority corridors and establish service parameters for other areas as well;
- Identifies capital and operating costs for each transit service scenario;
- Outlines funding strategies needed to implement each transit service scenario; and
- Provides input to **Heartland 2050** by defining the transit elements of one or more regional growth scenarios.

Targeted public outreach has been an essential element of the technical process, including meeting with local experts and elected officials, hosting transit workshops with community leaders and presenting findings at H**eartland 2050** public meetings. Public input on the *Regional Transit Vision* will also be collected in conjunction with the broader **Heartland 2050** process. Additionally, the latest electronic and social media tools are being utilized to ensure that everyone has a chance to provide their input on the future of transit in the region. Stakeholder involvement and the overall planning process are described in more detail later in this chapter.

Several important planning elements are reviewed and considered and described in detail in **Chapter 2** of this report:

- The current Metro transit system, including fixed-route bus and paratransit operations;
- Transit systems in similar (peer) communities;
- Land use patterns in the region and how they relate to the need and potential for transit;
- The market for transit, now and in the future, in the Omaha-Council Bluffs metropolitan area; and
- Costs and funding options, as well as how best to organize and manage the transit system.

The study builds on existing plans and information, including the the City of Omaha Master Plan, the ongoing Central Omaha Transit Alternatives Analysis and the Metropolitan Planing Agency's (MAPA) current Multi Modal Corridors initiative. Relevant elements of these existing plans are summarized in **Chapter 2**. The results of this *Heartland Connections* planning process will be incorporated into the updated 2040 Long Range Transportation Plan (LRTP).

The *Heartland Connections - Regional Transit Vision* provides a phased strategy for enhanced transit service in select corridors in the Omaha region, and a consensus-based vision for how to structure, fund and manage the transit system in a sustainable manner for the future.

1 - http://heartland2050.org/connections/

1.1 A Critical Component of a Regional Vision: Built Capital

The ongoing **Heartland 2050** planning initiative reflects a three-fold strategy for a regional vision: (1) *human capital,* (2) *natural capital and* (3) *built capital*.

Critical considerations in the planning process necessarily include human capital considerations such as supporting quality education, workforce development, economic diversity and effective governance.

Natural capital considerations include protecting natural resources and ensuring appropriate access to these resources as an enhancement to regional quality of life.

When considering built capital, strategies for planned growth and responsible development patterns are paramount. Successful planning for the future will necessitate close coordination of land use, transportation and infrastructure policies. Ensuring multi-modal mobility is a critical element to regional success and also can contribute significantly to quality of life through "placemaking" - the attention to urban design of the public realm. Public investment decisions have a significant impact on resulting urban form and can be utilized to support efficient development patterns (contiguous, infill-oriented and multi-modal) or inefficient development patterns (scattered, greenfield-oriented and auto-dependent).

Ensuring multi-modal mobility is a critical element to regional success and also can contribute significantly to quality of life.

The **Heartland 2050** process will result in regional strategies that support and enhance existing neighborhoods. It also will focus future efforts on support of a more efficient development pattern that more closely integrates growth with the most cost-effective deployment of existing and new public services and infrastructure over time.

Competing for jobs and talent with other regions — the most successful of which offer significant quality of life amenities — requires the proactive and comprehensive planning that will result from *Heartland Connections* and **Heartland 2050** initiatives. Today's sought-after "knowledge" industries and workers desire a high quality of life, which includes mobility options in addition to housing options, a vibrant and attractive public environment and access to cultural and recreational resources.

Heartland Connections has developed viable strategies related to public transportation, seeking to extend the reach of the "pedestrian mode" by making mobility without an automobile a viable option in key locations. Along priority corridors, it fosters a truly multi-modal environment that provides mobility via transit, bicycles and walking.

1.2 The Case for Public Transit Investment

Several factors are contributing to a new emphasis on planning for future public transit investment in the Omaha region. Both nationally and regionally, the need to focus resources and to improve transportation choices is becoming more widely recognized.

Nationally: The "Interagency Partnership for Sustainable Communities" was announced on June 16, 2009 by the U.S. Departments of Transportation (DOT), Housing and Urban Development (HUD) and the Environmental Protection Agency (EPA). This newly formed partnership utilizes six (6) "livability principles" as the agencies seek to coordinate federal investments in transportation, environmental protection and housing.

The most relevant of these livability principles to transportation planning efforts in the Omaha region is the first. The Partnership seeks to *"develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health."*[2] Federal funding priorities are anticipated

2 - http://www.dot.gov/affairs/2009/dot8009.htm

to shift to modes of transportation that not only promote mobility, but do so in a manner that leverages transportation investment to fulfill broader and multi-faceted goals. Public transit is expected to become a vital component of any future federal transportation strategy.

Regionally: The increasing daily aggravation of peak hour traffic congestion negatively impacts residents' quality of life and could affect business location and expansion decisions. Offering viable alternatives to commuting by car is considered to be important to attracting and retaining jobs and workers in the Omaha region, especially as it relates to "new economy" or "knowledge" jobs and workers that are geographically flexible. Investment in public transit will benefit both those who use it for their work trips and those who must still travel the region's roadways to access their jobs.

An aging population in the Omaha region, as in most other areas of the country, suggests a long-term need to provide viable mobility options not only for standard work trips, but also for non-work trips and during non-peak periods. Offering public transit to and between medical facilities, commercial areas and other key destinations will support both the quality of life of the senior population and the increasing needs of the transit-dependent.

Locally: The structure of the Omaha area lends itself well to the creation of a transit network, due to downtown's role as an employment center and the confluence of significant regional destinations arrayed along the Dodge Street corridor and other corridors extending from downtown. These physical features of the study area will be discussed and analyzed in more detail in later sections of this report.

1.3 Stakeholder Involvement

The participation of local stakeholders from the Omaha region have and will provide invaluable insight during the *Heartland Connections* process, establishing priorities and assessing potential implementation strategies as future transit service scenarios are developed and analyzed. Stakeholders representing the five counties and municipalities in MAPA's service area have provided feedback on the following key questions, ensuring that proposed solutions are as responsive as possible to local concerns and priorities:

- What is your vision for transportation in the Omaha metro region?
- What is the appropriate role of transit in the region, from both a regional and local perspective?
- How should the regional transit vision be funded?
- How should a regional transit system be managed and administered?

1.3.1 Steering Committee

A steering committee has been selected for dedicated involvement through the *Heartland Connections* process, based on a proven record of community involvement, transit interest and the ability to deploy the members and communication networks of the organizations they represent on behalf of transit. Following is a summary of the Steering Committee meetings held throughout the study process.

The Steering Committee included a wide range of city, county, and state officials as well as members of the business and nonprofit communities, including the following:

- MAPA;
- Metro;
- Planning officials from Sarpy County and from the cities of Bellevue, La Vista, Omaha and Papillion;
- Engineers and public works officials from Sarpy County and from the cities of Council Bluffs and Omaha;
- District engineer from the Nebraska Department of Roads;
- The Douglas County Health Department;
- The Greater Omaha Chamber;
- American Medical Response/Access2Care;
- Omaha Downtown Improvement District Association; and
- The Empowerment Network

Feedback generated in each meeting, both from committee members and related to the group through the outreach process, was used to further refine and direct the study approach.

- **Kickoff Meeting (September 2012)**: The purpose of this introductory meeting was to introduce the project team, the anticipated project time line and fundamental project strategies such as: branding; outreach; goals and objectives; peer regions to be considered; funding options to be considered; and data collection approach. Approximately 25 people attended this meeting, including MAPA, Metro, various municipalities and counties, and other key stakeholders.
- **Progress Meeting #1A (October 2012)**: This meeting began with a review of the status of early project tasks, including input from the Steering Committee. The majority of the meeting was devoted to the service analysis and recommendations to be developed by Transportation Management & Design, Inc. (TMD). A comprehensive Strengths, Weaknesses Opportunities and Threats (SWOT) analysis was conducted with input from the committee. Topics included the current standing of the Metro system, opportunities for improvements and desired goals, objectives and project outcomes.
- **Progress Meeting #1 (February 2013)**: Early study milestones were presented at this meeting, including: peer region review; community outreach; legislative framework review; land use assessment; Metro operations analysis; service planning and financial assumptions. Candidate projects to be included in future service planning scenarios were then defined.
- **Progress Meeting #2 (June 2013)**: This all-day meeting contained an extensive and detailed discussion of the findings to date, including the completed operations analysis presented by TMD; legislative review; land use assessment; and community outreach. Following that, the team presented the entire scenario development process, including the financial model, funding options, candidate projects, financial assumptions and the six Preliminary Transit Investment Scenarios evaluated. Steering Committee members participated in breakout sessions, discussing the scenarios and providing feedback. That feedback was used in developing the Refined Scenarios.
- **Progress Meeting #3 (July 2013)**: The primary purpose of this meeting was to present the three Refined Transit Investment Scenarios, as well as a discussion of governance options for any proposed new regional transit authority.
- **Progress Meeting #4 (August 2013):** The primary purpose of this meeting was to review the preliminary findings of the Central Omaha Transit Alternatives Analysis, to present the two Transit Vision Scenarios, and to discuss comments on the draft report. The recommended governance structure was presented, along with a series of implementation steps to realizing the regional transit vision.

1.3.2 Community Leadership

Elected officials and other community leaders have served as "ambassadors" for the transit vision to the broader community as the *Heartland Connections* process progresses. During the process, the team provided community leaders with study information so that they could respond to plan-related constituent questions or concerns and plan progress. These leaders have been engaged in both formal and informal opportunities to provide personal or constituent input about the plan and specific issues. They also have assisted in creating a fact-based foundation from which to make decisions affecting future regional improvement funding and timely implementation.

Community leaders engaged in the study included the following:

- Mayors of the cities of Omaha, Council Bluffs and Bellevue;
- Elected County Board Members representing Douglas, Mills, Sarpy and Pottawattamie counties;
- Planning officials from the cities of Omaha, Council Bluffs and Douglas County;
- Public works officials from the cities of Bellevue, Council Bluffs and Omaha;
- Administrators from Douglas and Sarpy counties;
- District Engineer, Nebraska Department of Roads;

- The Greater Omaha Chamber and the Council Bluffs Chamber; and
- The Empowerment Network.

Initial individual and small group meetings with community leaders were held in November 2012. These meetings provided the opportunity for community leaders to share early insights with the consulting team. Topics of these informal discussions included general and transportation issues, market and development trends, funding options and financial strategies. Policy recommendations were provided related to system design, building community support, governance and finance. Recurring themes that emerged from the discussions included:

> Community leaders have assisted in creating a fact-based foundation from which to make decisions affecting future regional funding and implementation.

System Design

- Focus on incremental system growth, with a combination of "leading" demand in the core area inside I-680 (encouraging and supporting density) and "following" demand in outlying areas (focusing on key existing and emerging "nodes" of higher density).
- Create "early wins" (readily implementable short-term projects), which are needed to make transit more visible and demonstrate its benefits to a broader potential passenger market ("choice" riders).
- Develop a tiered transit system with a hierarchy of vehicle and service types, with higher frequency services on key corridors inside I-680.
- Encourage "choice" riders with passenger conveniences and service reliability.
- Broaden the constituency of support for transit and maximize its positive impact by linking transit to non-motorized mobility improvements such as trail development.

Community Outreach / Governance

- Provide the personal freedom to choose a neighborhood and lifestyle that best suits each individual, while boosting overall transportation system efficiency with transit improvements.
- Encourage younger residents to settle and raise families in the Omaha region with transit systems that respond to changing regional demographics and activity centers.
- Ensure mobility options for an increasing senior population and provide mobility choices.
- Educate decision makers, potential funders and the general public about the broader wellness and quality of life benefits of providing transit (those beyond congestion relief and environmental benefits).

Financial

- Establish at least a three-county "vision" with the potential for initial phases serving a smaller geographic footprint.
- Tie transit system enhancement to infill development, allowing for more cost-efficient provision of public services over time.
- Seek innovative methods of funding, including seeking philanthropic support for capital needs where feasible.
- Minimize new spending and taxation in the initial phase and be able to clearly demonstrate the cost efficiency improvements for both existing and expanded transit spending.
- Match taxes and/or fees incurred to services being offered, ensuring an equitable distribution of cost relative to benefits experienced geographically (by riders and non-riders alike).
- Create a "mobility authority" that plans, funds and/or operates transit and other mobility improvements (roadways, trails) in a coordinated manner.

1.4 Planning Process and Plan Elements

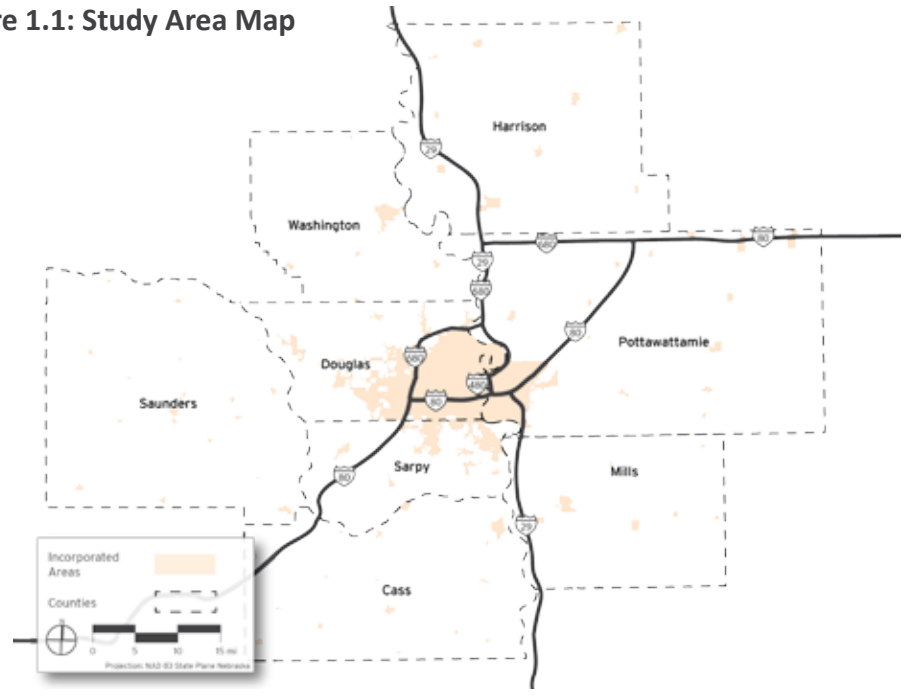
Guided by the Steering Committee, the *Heartland Connections* planning process serves as a precursor to the broader **Heartland 2050** regional planning initiative. The process is broadly comprised of the following (as documented in subsequent chapters):

- A detailed description of the existing public transportation network, supplemented by analyses of fixed-route operations, paratransit operations and Title VI impacts.
- A summary of recent and ongoing plans throughout the region as they relate to transit planning efforts and a summary of potentially applicable implementation strategies and best practices.
- A compendium of transit-supportive land use policies in use or being considered by local municipalities and recommendations for improving the linkage between land use planning and transit planning efforts.
- An inventory of current practices in selected peer regions that represent a range of approaches to transit implementation and governance, to inform recommendations regarding funding, operations and administration.
- A consensus-based transit "vision," supplemented with guiding goals and objectives.
- Documentation of candidate projects, assessment and prioritization of these projects and several transit "scenarios" that combine the projects in differing ways to achieve the vision.
- Assessment and refinement of the transit scenarios utilizing a customized and integrated service planning financial model, resulting in a preferred transit vision scenario for implementation.
- A detailed discussion of implementation, including key initiatives and supporting policies, funding sources, governance strategies and procedures for ongoing refinement.

The study area for *Heartland Connections Regional Transit Vision* as depicted in **Figure 1.1,** encompasses the following eight counties, including both incorporated and unincorporated areas in each county:

- Nebraska counties: Cass, Douglas, Sarpy, Saunders and Washington
- Iowa counties: Harrison, Mills and Pottawattamie
- The study area is also coterminous with the boundaries of the Omaha-Council Bluffs Metropolitan Area, as defined by the Office of Management and Budget and the U.S. Census Bureau.

Figure 1.1: Study Area Map



2 ANALYSIS AND EVALUATION

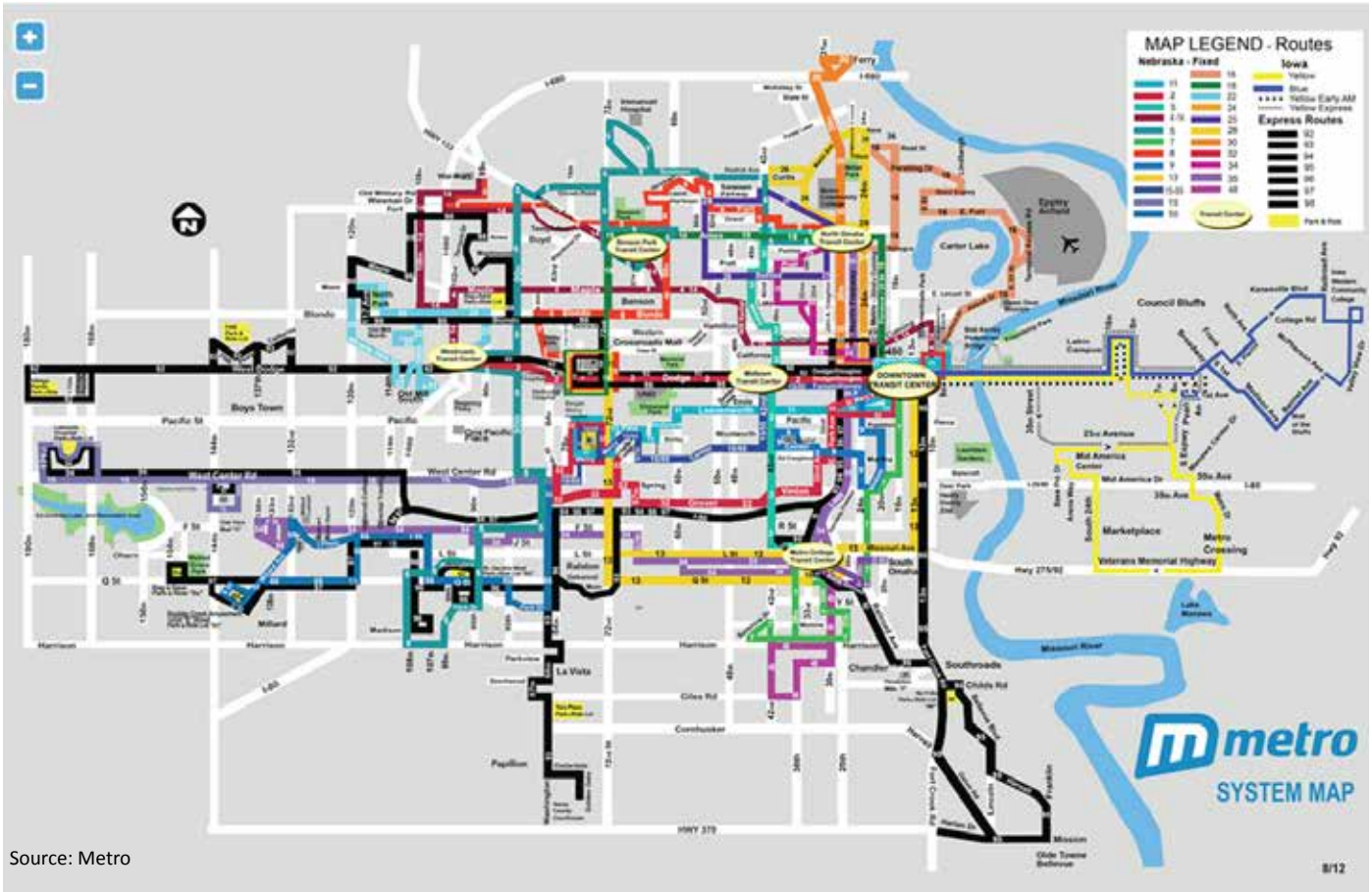
The analysis and evaluation of the existing transit system (known as "Metro") described in this section sets the stage for identifying opportunities for near-term efficiency and long-term service improvements as part of the transit vision scenarios to follow. Additional elements that will inform the scenarios, as also described in this section, include: an understanding of recent and ongoing planning efforts in the region; industry-wide best practices; transit-supportive land use opportunities; and an assessment of transit system performance and governance approaches in peer regions across the country.

2.1 The Existing Public Transit Network

A detailed evaluation of existing Metro services has been prepared by Transportation Management & Design, Inc. (TMD), including a description of existing services and trends and is available in its entirety in **Appendix D**.[3] An overview summary of Metro's current network and recent initiatives, follows.

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 to the 2011 National Transit Database, the Metro service area includes approximately 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 with each city. Metro's fixed route fleet utilizes a maximum of 122 buses. In 2012, Metro operated about 285,000 annual vehicle revenue hours and over 3,900,000 annual vehicle revenue miles. As depicted in **Figure 2.1,** bus service is operated on 34 routes: 25 local routes, two downtown circulators and seven express routes. In

Figure 2.1: Metro System Map



Source: Metro

3 - Heartland Regional Transit Vision: Metro Fixed-Route Operations Analysis- Evaluation of Existing Services, prepared by TMD, Inc., March 2013.

2012, Metro's fixed route service recorded 4,225,034 boardings, a six percent increase from the prior year.

The Metro transit network still largely follows the historic routes that date from when more compact urban development was prevalent, with dispersed routing later expanding to serve more auto-centric, suburban communities. In 2005, the City of Omaha annexed the City of Elkhorn, where increased suburban expansion has taken place. It is challenging to provide efficient transit service in areas with low population densities and few pedestrian amenities, as the operations analysis to follow will discuss.

Metro operates local bus services seven days a week and express service weekdays. **Table 2.1** provides an overview of Metro's existing services. Weekday service is provided from 4 a.m. to 12 a.m. Metro weekday

Table 2.1: Existing Metro Services

		Weekday			
		Span		Frequency	
Route	Route Name			Peak/Off Peak	Interlined
2	Dodge	5:05 AM	11:47 PM	15/20	
3	North 40th / South 42nd	4:57 AM	10:45 PM	30/60	25
4	Maple / Fort	4:40 AM	10:26 PM	30/60	14,22
5	North 90th / South 96th	5:08 AM	7:01 PM	30/60	
7	South 16th / 24th	4:40 AM	11:46 PM	30/30	
8	North 60th / West Blondo	5:05 AM	10:38 PM	30/60	
9	South 20th / Vet's Loop	5:09 AM	6:15 PM	60/60	
11	Leavenworth	5:15 AM	11:05 PM	30/30	
13	Beltway South	4:57 AM	11:42 PM	30/30	18
14	Maple / Fort	4:01 AM	11:42 PM	30/60	4
15	West Center / Q Street	5:15 AM	11:38 PM	60/60	30
16	East Omaha / North 16th	5:38 AM	6:50 PM	45/NS	
18	Beltway North	4:22 AM	11:37 PM	15/30	13
22	West Dodge Circulator	5:35 AM	6:32 PM	30/60	4
24	24th Street	4:38 AM	10:39 PM	30/30	35
25	Bedford / Hartman Loop	5:08 AM	11:19 PM	60/60	3, 24, 35
26	North Omaha Circulator	5:08 AM	11:20 PM	60/60	24, 35
30	Florence	4:26 AM	11:23 PM	30/30	15, 55
32	Gover / Vinton	4:40 AM	6:47 AM	30/60	
34	Industrial Parks	5:38 AM	4:35 PM	One Trip	93, 96
35	North 33rd	5:08 AM	10:45 PM	30/30	24, 25, 26
41	Council Bluffs - Blue	6:35 AM	11:40 PM	60/60	
43	Council Bluffs - Yellow	5:02 AM	7:30 PM	45/60	
55	West Center / Q Street	5:11 AM	7:56 PM	60/60	30
200	Green Downtown Circulator	5:30 AM	7:30 PM	5/NS	
300	Red Downtown Circulator	6:30 AM	5:45 PM	5/NS	
92	Dodge Express	5:10 AM	7:20 PM	30/NS	
93	Tri-Communities Express	6:05 AM	6:17 PM	30/NS	34
94	West Center Express	5:49 AM	6:28 PM	30/NS	
95	Bellevue Express	4:13 AM	7:47 PM	15/NS	
96	Express	5:56 AM	6:24 PM	30/NS	34
97	Millard Express	5:34 AM	6:27 PM	15/NS	
98	Maple Village Express	5:52 AM	6:39 PM	15/NS	

Source: TMD

service frequencies range from 15 minutes to 90 minutes. During the peak period, two routes (Route 2 and Route 18) operate every 15 minutes, with the other routes operating every 30, 45, or 60 minutes. In the off-peak, most routes operate every 30 or 60 minutes. Weekend service provided from 6 a.m. to 10 p.m.

The highest frequency routes are Route 2 serving the Dodge Street corridor and Route 18 connecting northern Omaha to downtown and Crossroads mall along Ames Avenue, Florence/20th Street and 72nd Street.

Metro's overall daily ridership in October 2012 averaged:[4]

- Weekdays – 16,193 boardings;
- Saturdays – 5,832 boardings; and
- Sundays – 2,631 boardings.

Table 2.1: Existing Metro Services

		Saturday				Sunday			
		Span		Frequency		Span		Frequency	Interlined
Route	Route Name			All Day	Interlined			All Day	
2	Dodge	5:58 AM	10:14 PM	30		6:58 AM	7:02 PM	30	
3	North 40th / South 42nd	6:18 AM	9:52 PM	60	25	8:04 AM	6:52 PM	60	25
4	Maple / Fort	6:24 AM	10:19 PM	75	22	6:08 AM	6:04 PM	90	
5	North 90th / South 96th	5:52 AM	8:04 PM	90					
7	South 16th / 24th	6:23 AM	10:15 PM	45		6:53 AM	7:01 PM	45	
8	North 60th / West Blondo	5:56 AM	10:39 PM	60		6:56 AM	7:09 PM	60	
9	South 20th / Vet's Loop	7:07 AM	6:33 PM	120	32	8:15 AM	5:13 PM	120	32
11	Leavenworth	7:19 AM	10:07 PM	45		6:47 AM	6:40 PM	90	
13	Beltway South	6:39 AM	10:13 PM	60	18	7:10 AM	5:48 PM	90	
14	Maple / Fort								
15	West Center / Q Street	5:58 AM	10:46 PM	30	30	6:58 AM	7:01 PM	60	30
16	East Omaha / North 16th								
18	Beltway North	6:39 AM	10:19 PM	60	13	6:23 AM	6:31 PM	60	
22	West Dodge Circulator	7:15 AM	5:57 PM	75	4				
24	24th Street	6:28 AM	9:08 PM	60	35	6:58 AM	5:29 PM	60	35
25	Bedford / Hartman Loop	6:29 AM	9:48 PM	120	3, 24, 35	9:45 AM	6:19 PM	120	3
26	North Omaha Circulator	6:28 AM	9:51 PM	90	24, 35	5:58 AM	6:07 PM	90	
30	Florence	5:57 AM	10:00 PM	30	15, 55	6:58 AM	6:05 PM	60	15
32	Gover / Vinton	6:25 AM	5:57 PM	120	9	7:10 AM	6:15 PM	120	9
34	Industrial Parks								
35	North 33rd	6:59 AM	9:15 PM	60	24, 26	6:28 AM	6:12 PM	60	24
41	Council Bluffs - Blue								
43	Council Bluffs - Yellow	6:30 AM	9:02 PM	90					
55	West Center / Q Street	6:23 AM	7:14 PM	30	30				
200	Green Downtown Circulator								
300	Red Downtown Circulator								
92	Dodge Express								
93	Tri-Communities Express								
94	West Center Express								
95	Bellevue Express								
96	Express								
97	Millard Express								
98	Maple Village Express								

4 - October 2012 represented the most recent month without significant holidays or vacation periods.

As detailed further in TMD's report, midday ridership makes up a significant portion of weekday boardings, nearly matching the combined ridership of both peak periods, suggesting an opportunity for higher all-day service levels.

The geographic patterns of existing ridership provide insight into system functionality and customer use of transit service. As one of the strongest indicators of transit success, drawing conclusions from patterns of existing ridership provides a key input into route and network rethinking. Geographic analysis of origin-destination (O-D) points and high-volume linked transit trip pairs suggest the importance of key corridors, downtown Omaha, college destinations and the existing use of park-and-ride facilities for express service access. Examples of both strong corridor-based travel and point-to-point travel to major destinations exist within the Omaha service area, including:

- Downtown to Crossroads via Dodge Street;
- Metro Community College North Omaha Campus to Metro Community College South Omaha Campus via 24th Street;
- North Omaha Transit Center to Bergan Mercy via Ames and 72nd Street;
- Downtown to Metro Community College Omaha South Campus via 13th Street;
- Maple Street between 40th Street and 72nd Street;
- Center Street between 42nd Street and 72nd Street; and
- Farnam and Harney between 13th Street and 42nd Street.

2.2 Fixed-Route Operations Analysis

A fixed-route operations analysis, also prepared by TMD, included a market assessment and needs analysis, an evaluation of existing services, development of service standards and a network evolution plan. Key findings follow.

2.2.1 Market Assessment and Needs Analysis

The market assessment and needs analysis examined opportunities, challenges and existing market conditions for transit within the Omaha region and is available in its entirety in Appendix D.[5] Enhanced understanding of the context in which Metro provides transit services provided insight into existing transit performance and the opportunity to make available market-matched services and identify valuable opportunities for increasing system ridership. The market analysis provided detailed insight in the following areas:

- **Metro Service Area:** Defines where Metro operates and the service levels provided.
- **Market Area Profile:** Identifies the community population, demographics and employment patterns in the Metro service area and greater Omaha region, while highlighting areas with characteristics that generate a propensity for high transit ridership and reviews growth projections for the Metro Area.
- **Rider Profile:** Defines characteristics and demographics of Metro's current customers.
- **Travel Patterns:** Analyzes the region's overall travel patterns, compares them with Metro's ridership patterns and identifies major travel demand patterns.
- **Key Destinations:** Defines the region's key generators of travel (employment, education, retail, commercial, medical, tourist, etc.) and suggests how transit can best serve these markets.
- **Future Development:** Outlines future developments expected in the Omaha region and the ability of transit to effectively serve them. Offers suggestions on how transit planning may be more closely linked with the planning and implementation of these developments.

Metro Service Area

- Much of Omaha's service area can be defined by low population and employment densities spread over a wide geographic area. These conditions typically prove to not be conducive to public transit operations.

5 - Heartland Regional Transit Vision: Metro Fixed-Route Operations Analysis- Market Assessment and Needs Analysis, prepared by TMD, Inc., January 2013.

- Current routing is stretched throughout the region, reaching to areas that are not transit oriented and 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 that exist in outlying regions, which are typically auto-centric suburban communities, are unlikely to sustain all-day or all-week transit service.

> The strongest market opportunities for productive transit service exist in the core region of Omaha: downtown and the surrounding neighborhoods

- 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 effective 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 and suggest 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.

2.2.2 Evaluation of Existing Services

A detailed evaluation of existing Metro services is available in its entirety in **Appendix D**.[6] The evaluation provides the data-driven understanding of the transit system's fixed route performance and structure necessary to inform subsequent policy and planning discussions. Findings contributed to the development of service alternatives and recommendations through analysis of existing service, including: ridership patterns; productivity; and the financial effectiveness of the system. Key findings and some general strategies for improvement identified in this evaluation include:

Metro Ridership and Service Performance

- Overall, Metro's routes are efficiently operated, maximizing the time vehicles spend in revenue service. Productivity has also increased over the past decade, particularly following the 2012 service reductions which focused primarily on Metro's least productive routes.
- Metro's weekday average productivity of 18 boardings per revenue hour is relatively low compared to peer regions. This places additional pressure on the agency to maintain the subsidy levels upon which it depends. A limited number of particularly well-performing routes have the potential for further growth in productivity. Increasing ridership on these well performing routes and reducing or eliminating under-performing routes, has the potential to improve overall service performance. Increased productivity will reduce the subsidy per passenger boarding and increase farebox recovery, resulting improved long-term financial stability and a sustainable future for Metro.
- The top five producing individual routes generate 42 percent of total network ridership (Routes 2, 7, 13, 18, and 30). Four other routes that combine to form two high-ridership "trunk" segments, Route 15/55 and Route 4/14, account for an additional 20 percent of total network ridership. Increasing service frequency and reliability on these routes will better serve more than half of the people who ride Metro every day.
- Metro's other local routes and the overall network structure would benefit from routing and schedule changes in order to influence a positive transformation in ridership.
- Many of Metro's current routes are not productive. In some cases, route or network restructuring will significantly improve productivity. In other cases, however, the market for transit is not strong enough to generate high ridership regardless of how transit service is operated. In these cases, it is recommended that alternative mobility options be considered that can be cost effectively provided, or eliminating some under-performing routes or segments.
- Current analysis shows that 43 percent of riders pay by cash. Transitioning these riders to a ticket-based fare system has the potential 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, making tickets more attractive.

Service Quality

- Metro currently operates only two routes which meet the minimum "spontaneous use" standard of 15 minute frequency (Routes 2 and 18). Two additional "trunk" segments served by more than one route also have frequencies of 15 minutes or better (Routes 15/55 and 4/14) The opportunity to grow discretionary travel and attract new 'transit lifestyle' customers will require frequent transit service in a less downtown-oriented network.
- Three of Metro's top five routes in total ridership (Route 2, 18 and 30) are also among the group of productive routes noted above and two of these lines (Routes 2 and 18) offer 15 minute service. This is not unusual as most high ridership routes are also highly productive if the service levels are well matched to a strong corridor market. The service provided is highly affected by the efficiency of the service design and the scheduling. In this area Metro has done well, although the Network Evolution Plan presents new opportunities to further improve efficient design and delivery, as it will better match services to mobility markets.
- Current stop spacing throughout Metro's network prioritizes short walk access over fast travel with minimal delay. The top two attributes for attracting

6 - Heartland Regional Transit Vision: Metro Fixed-Route Operations Analysis- Evaluation of Existing Services, prepared by TMD, Inc., March 2013

patronage are short waits and fast travel, with short walks less important to most existing and potential riders. The plan considers 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 market demand and service levels transition 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 transit 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 and consistent service will all help to 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 this focus 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 faster network that carries a majority of system ridership simplifies connections between routes and 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.

> 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 destinations within a one-half (1/2) mile walkshed 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 in the same location as the passenger transfers.

2.2.3 Service Standards

A framework was developed for evaluating the productivity and financial effectiveness of existing services, as well as determining the need for and form of modified and new service. *Service Standards* outlines various products and service tiers and then establishes standards for various classifications, broken into two broad categories:

- ***Service Design Standards*** addresses the manner in which transit service should be configured and delivered, including route design, service coverage, route frequency, span of service and stop spacing.
- ***Service Performance Standards*** outlines key metrics for evaluating the productivity and quality of service provided, as well as laying out a menu of potential corrective actions for routes at various performance levels.

Finally, the document outlines a proposed ongoing service evaluation process, including monthly, quarterly and annual reviews, public input and environmental justice considerations. The entire Service Standards document is available in **Appendix D**[7] and is summarized the following sections.

Service Products and Tiers

Six types of services are defined, organized into three tiers as shown in **Table 2.2**. Each service type has a defined role in the regional transit network, including frequent corridor services, network support routes and express service. For each service type there is also a target service frequency, ranging from 10 minutes to 60 minutes for network routes, with lesser frequencies possible on express routes.

Service Design Standards

For designing transit service, the document defines seven service standards, described briefly below. The complete document offers significant additional detail for each of these categories.

- **Route Design:** Routes should be direct, following major streets across a hybrid grid and radial crosstown structure, with the exception of community circulator routes. Route deviations and out-of-direction movements should be minimized.
- **Coverage Area:** In the urban core routes should be separated by approximately one-half mile to maintain short walking distances. Outside the urban core, service should be provided only to areas with densities of at least 2,000 residents or jobs per square mile and to special generators.
- **Connectivity:** The system should be designed to foster timed on-street transfers in the urban core and at regional hubs. Effective transfers can save resources by limiting the need for duplicative service. Locations where transfers occur should also have high-quality amenities including enhanced shelters, lighting, pedestrian-friendly design, trip information and Metro branding.
- **Service Frequency:** Frequencies of 15 minutes or better are necessary to encourage "random" usage of a transit route, which is a requirement for a large segment of the market. Recommended service frequencies are identified by route type, ranging from 10-15 minutes for bus rapid transit (BRT) services to 60 minutes for community routes.
- **Span of Service:** Spans of service should be determined by the market served rather than the service type. Urban core network service should generally operate from approximately 4:15 a.m. until 11 p.m. on weekdays, 6 a.m. to 10 p.m. on Saturdays and 7 a.m. to 7 p.m. on Sundays. Community services should be tailored to local demand patterns, but typically should operate from 6 a.m. to 7 p.m. on weekdays. Express service should be tailored to demand patterns.
- **Stop Spacing and Placement:** Rapid bus routes on corridors also served by local services should have stops spaced one-half to one mile apart, focusing on major destinations and transfer points. Local service should have stops spaced between 1000 feet and one-quarter mile apart (closer for community services). Express routes should have minimal stops, primarily located at park-and-ride facilities and major urban destinations. Stops should be spaced on the downstream side of intersections whenever possible.
- **New Service Warrants:** The document recommends a number of considerations in evaluating potential new service, including density (as described in the "Coverage Area" standard), transit-dependent populations and network integration. A one-year trial period for new service is recommended.

Service Evaluation Standards

Six metrics are recommended as tools for evaluating service, falling under the three broad categories of *Efficiency and Effectiveness; Cost Effectiveness;* and *Service Quality*. For each standard, specific quantified targets are described, sometimes varying by service type. The evaluation standards are summarized in the following.

Efficiency and Effectiveness

- **Passengers per Revenue Hour:** Thresholds for this measure vary by service type, ranging from 30 on rapid weekday service (25 on weekends) to 15 for supporting local service (10 on weekends). Current Metro route-level performance ranges from 10 to 30 on weekdays and from six to 25 on weekends.

7 - Heartland Regional Transit Vision: Metro Fixed-Route Operations Analysis- Service Standards, prepared by TMD, Inc., May 2013.

Table 2.2: Service Products and Tiers

Tier	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 of 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 or flexible route transit using of 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	Commute Express	Peak hour express bus service with limited stops connecting surrounding communities with downtown and other major regional destinations. Assess typically via park-and-ride at the residential end.	Freeway or key corridor based commute	Peak period regional travel	Tailored to Demand
	Reverse Commute Express	Peak hour express bus service with limited stops connecting major core area hubs (often downtown) with employment in surrounding communities, serving reverse direction commuters.	Freeway or key corridor based commute	Reverse commute travel	Tailored to Demand

- **Passengers per One-way Trip (express routes):** Express service is not evaluated on a passengers per hour basis, but rather on a passengers per one-way trip basis. Assuming a bus with 40 seats, the threshold for this measure is 30 passengers per trip for commute trips and 15 passengers per trip for reverse commute trips.

Cost Effectiveness

- **Farebox Recovery Ratio:** No specific industry standard exists; Metro should seek to maximize this ratio.
- **Subsidy per Passenger Boarding:** No specific industry standard; Metro should seek to minimize this subsidy.

Service Quality

- **One-time Performance (service predictability):** Metro currently considers "on time" as up to zero to three minutes late at each timepoint, an unnecessarily tight standard relative to the industry standard of one minute early to five minutes late. In addition, Metro should adopt a minimum goal of 85 percent on-time performance system-wide, an industry standard that balances performance

and cost and also recognizes that operating issues beyond Metro's control will occur on some days.

- **Load Standards (service availability and comfort):** The maximum load standards are 125 percent of seated capacity for two or more miles on rapid/local/express service and 125 percent of seated capacity on short duration routes for community service. Metro considers a route to be overcrowded if 25 percent or more of the one-way trips on the route exceed the maximum load standard.

Service Evaluation

The following evaluation processes are recommended:

- **Route Performance Analysis:** Routes should analyzed quarterly, making use of monthly performance data.
- **Annual System Analysis:** This should be conducted in conjunction with the annual budgeting process and should include an analysis of market and demographic trends; economic trends including fuel prices; addition of new service and discontinuation of under-performing service; and other major service adjustments.

Per FTA regulations, transit agencies must evaluate substantial service and fare changes for compliance with Title VI of the Civil Rights Act of 1964. Such an analysis should include public participation in the form of a public meeting.[8] While the FTA directs agencies to establish a policy defining what constitutes major service changes, a standard metric used in the transit industry defines such a change as one affecting 25 percent or more of a route's total revenue miles. This could manifest in the form of a modified route or a change in service hours or frequencies.

Metro currently defines a "major service change" as one or more of the following:

- Twenty-five (25) percent or more addition or reduction in revenue miles on an individual route;
- Twelve (12) percent or more addition or reduction in system revenue miles; or
- Addition or elimination of a bus route.

Metro previously defined a "major service change" as either the elimination of a bus route, or as a change of 15 percent or more in annual systemwide revenue miles. Metro may consider applying different standards in designated corridors where municipalities have made a commitment to the implementation of transit-supportive land use strategies. To support the evolution of higher density, mixed use, walkable environments in corridors with frequent transit service, Metro should work with MAPA and local communities to designate corridors, participate in station area development planning and pedestrian improvement planning and potentially tolerate somewhat lower performance thresholds than in other areas before reducing service frequency below 15 minute thresholds.

2.2.4 Network Evolution Plan

As a key provider of mobility throughout the region, 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. The Network Evolution Plan, available in **Appendix D**,[9] was built upon the findings of the previous three reports (summarized in the preceding sections) to present recommendations for phased operational improvements that could be implemented to improve the quality of Metro's services, attract new riders and complement MAPA's goals for the long-term development of the region.

The recommended Network Evolution Plan service improvements are structured into three phases, representing "Near Term," "Long Term," and "Vision" planning horizons. It is important to note that the recommendations contained in the Network Evolution Plan represent operational changes and do not include the types of capital improvements and new vehicle technologies discussed beginning in Chapter 4. Such capital improvements can be made in conjunction with or subsequent to the recommended operational changes.

Guiding Principles

- **Right Size Service to Market:** Given the wide variety of development patterns within Metro's

8 - Title VI Requirements and Guidelines for Federal Transit Administration Recipients, FTA Circular C 4702.1B, October 1, 2012
9 - Heartland Regional Transit Vision: Metro Fixed-Route Operations Analysis- Service Standards, prepared by TMD, Inc., May 2013

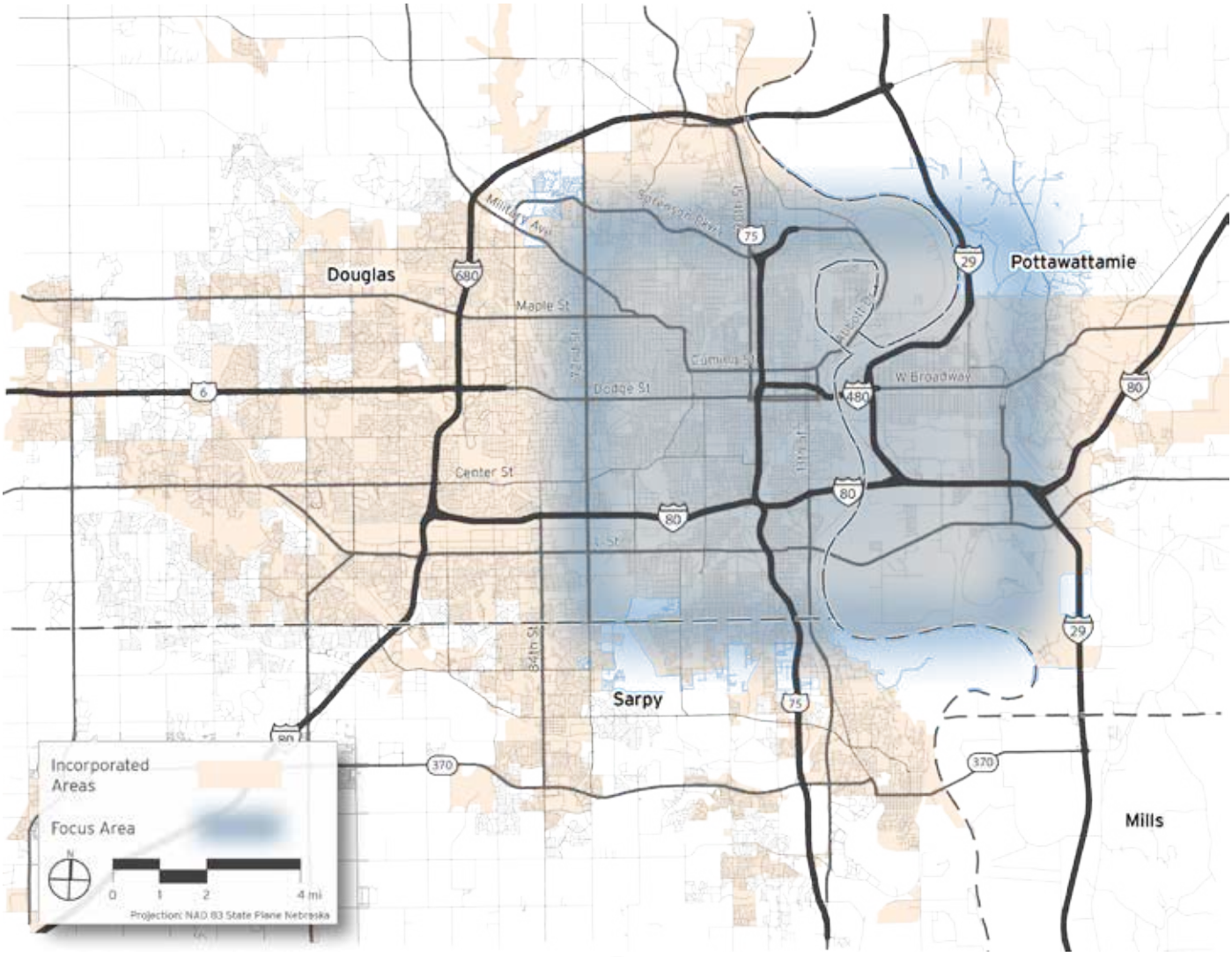
service area, matching service to various markets is both a significant challenge and a key to future success. Metro's goal should be to strike a balance between network coverage and service frequency. Recommendations for substantial investments in service will focus on key, transit supportive corridors where frequent service can support increased ridership. For example, the region can be roughly distinguished between the urban core, featuring a grid street network and high-density development and the surrounding area featuring suburban-style development at lower-densities. **Figure 2.2** shows the approximate boundaries between these two development patterns.

- **Strengthen Network Structure:** The service recommendations, particular those in Phase I (Near Term) focus on simplifying routes, transitioning to more of a grid-based network and creating distinct tiers of service, while emphasizing high-frequency service in the urban core.
- **Improve the Customer Experience:** In addition to boosting frequencies and service span in key corridors, recommendations also focus on developing uniform station and shelter amenities as well as agency branding for "a consistent customer experience and public image."
- **Promote Financial Sustainability**: Short-term recommendations are geared toward improving Metro's overall system productivity by boosting ridership in a cost-neutral fashion. Long-term recommendations aim to continue to attract new riders and farebox revenue.

Recommendation Phase Summary

- **Phase I (Near Term) Service Recommendations:** Phase I is intended to enhance the quality and

Figure 2.2: Transit Focus Area

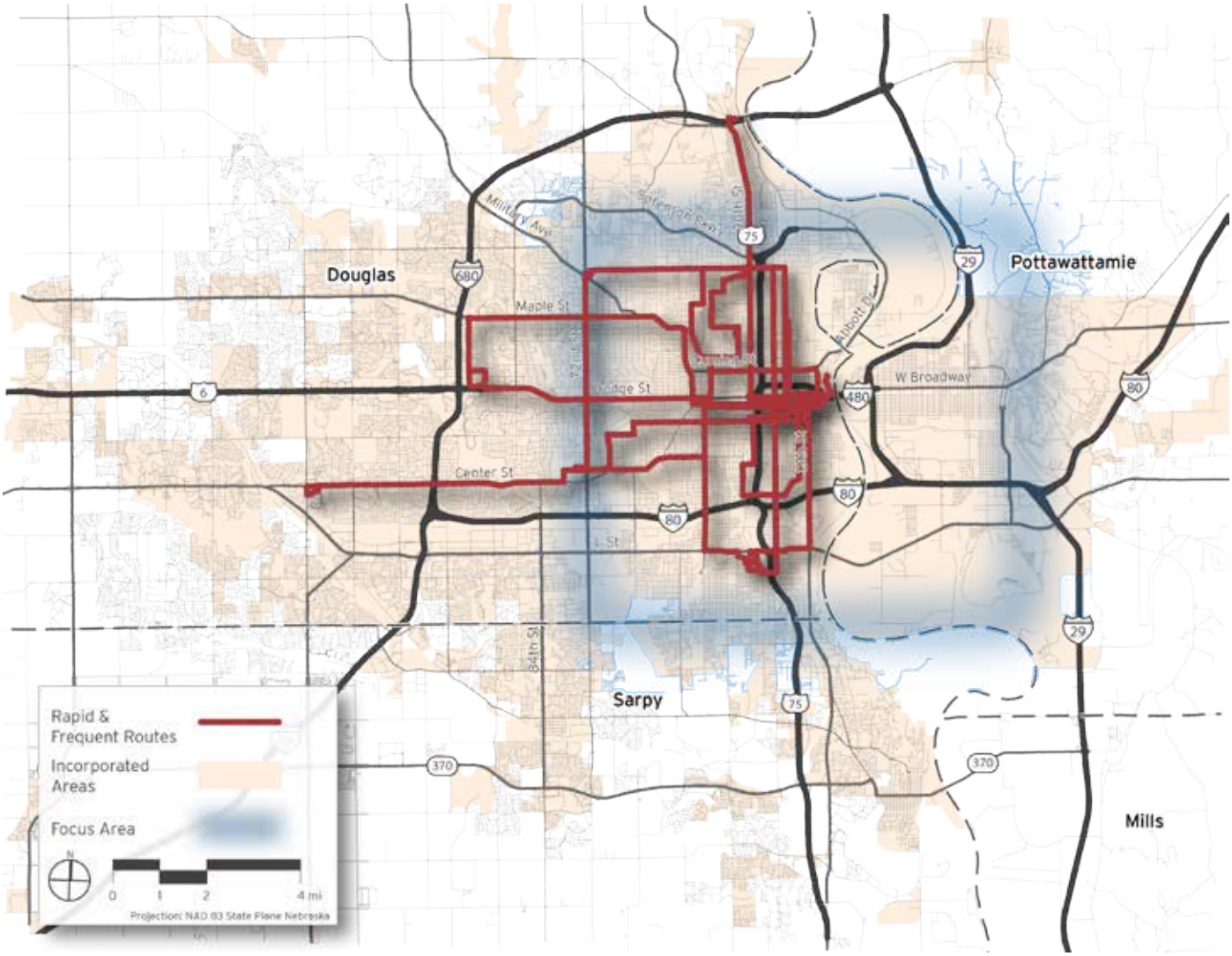


productivity of Metro's services using existing resources. Phase I reinvests in key high demand market areas and corridors in order to refine and reinforce service along current productive corridors, while promoting better overall network connectivity. The refocused structural network fosters the guiding principles, encouraging spontaneous transit use in the urban core and shorter travel times throughout the network. In addition, rationalizing and restructuring unproductive fixed route services with market tailored alternative services supports financial sustainability.

Phase I includes a number of restructured, combined, or discontinued routes. In particular, high-frequency service is provided on the corridor between Downtown and the University of Nebraska Medical Center (UNMC) via Dodge, Douglas, Farnam, and/or Harney Streets (pending results of the Central Omaha Transit Alternatives Analysis).

Phase II (Long Term) and Phase III (Vision) Service Recommendations: Phase II seeks to increase the role of transit in Omaha by achieving spontaneous-use frequencies on key corridors throughout the network. Service improvements come primarily in the form of increased frequencies over the Phase I service recommendations. The majority of the route structure remains the same, with the exception of one route realignment intended to provide additional service frequency on the Downtown-UNMC corridor via Dodge, Douglas, Farnam, and/or Harney Streets. Upon implementation of Phase II, service frequencies along that key corridor would reach five minutes or better during peak travel periods.

Figure 2.3: Proposed Rapid and Frequent Routes (Phase III)



- Phase III does not contain any changes to the physical network as compared with Phase II, focusing instead on expanding the availability of rapid and frequent service to promote spontaneous use of the system, a critical element to attracting new transit riders.

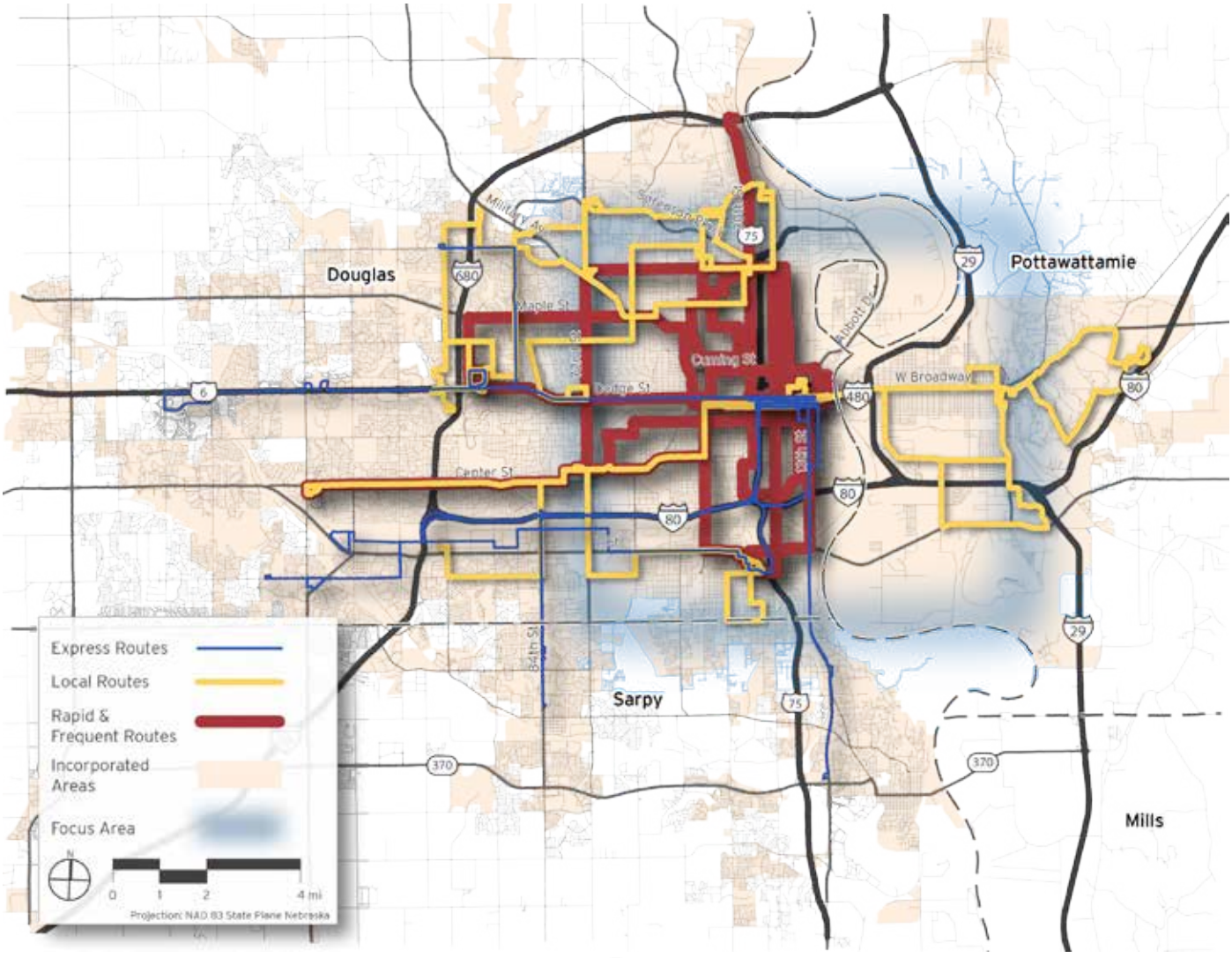
All of the new and restructured routes recommended under the phased Network Evolution Plan are classified according to the tiered structure illustrated in **Table 2.2** (page 15).

Figure 2.3 shows the location of routes designated for Rapid or Frequent service under Phase III. As shown, the routes generally follow a simplified grid structure, serving primarily the dense urban portions of Omaha and either emanating from the Downtown area or following other key north-south or east-west arterials.

Figure 2.4 overlays the remaining local and express routes atop the rapid and frequent routes shown in the previous figure. Local routes and community circulators tend to fill in the remaining areas where frequent service is not provided, while also supplementing frequent service in the urban core. Express service serves outlying areas where regular all-day service is not practical.

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 transit-supportive mobility. If transit is to become a part of the mobility solution, then a commitment to sustainable development patterns is necessary as well.

Figure 2.4: Proposed Service Tier and Route Structure



2.3 Paratransit Operations Analysis

A key element of the **Regional Transit Vision** is an assessment of existing paratransit and human services transit operations in the MAPA region. The evaluation of paratransit services and alternatives for improving the efficiency and productivity of these services focuses on opportunities to leverage industry best practices in meeting ADA policy requirements and identifying alternatives for delivering services.

TMD undertook an analysis that included meeting with the MAPA Coordinated Public Transit-Human Services Transportation Committee, conducting interviews with MOBY operations staff, reviewing MAPA's Veteran's Transportation & Community Living Imitative (VTCLI) capital grant, the 2007 Omaha Coordinated Human Services Transportation Plan (CHSTP), 2008 and 2011 MOBY Triennial Review documents and conducting a peer benchmarking survey. (MOBY refers to paratransit services offered via Metro.) The findings and recommendations resulting from this analysis are fully documented in **Appendix D**[10] and are summarized below.

- MOBY and local social service agencies all play a key role in the provision of paratransit services in Omaha. MOBY consists of directly operated paratransit vans, supplemented by local taxi services. Service is provided using 19 vans and a fleet of 34 taxi cabs to augment supply. MOBY offers service within 3/4 mile of its fixed route (non-express) services as required by ADA. It directly provides approximately 46,000 annual hours of service and procures 13,000 hours of taxi service. Using those hours, it directly provides 95,000 annual passenger trips and procures 31,000 taxi trips. MOBY's annual cost (FY2011) is $2.6 million. This is generated by paratransit ($2.27 million) and contracted taxi services ($0.36 million). Annual revenue totals $160,000 for the paratransit service and $22,000 for taxi services. MOBY has experienced significant increases in ridership, resources provided and, correspondingly, costs. Between 2007 and 2011, MOBY (paratransit only) annual trips increased 66 percent while operating expenses increased 54 percent.
- When compared with paratransit systems in selected cities of similar size, MOBY generally lies in the lower quarter in terms of annual ridership, operating expenses and fare revenues. In general, MOBY compares favorably with its peers in many key indicators, particularly passengers per revenue hour. MOBY has also held hourly operating costs constant while significantly increasing the number of trips provided. Its cost of operation has increased by 54 percent which is the second largest increase among its peers. Fare revenue increased 7.5 percent, among the smallest increases in the group.
- While augmenting service with local taxi providers has helped expand capacity and mitigate costs, Metro and the local social service agencies are also looking at the concept of a "brokerage" service. The purpose of a brokerage service is to increase transportation supply and reduce costs by sharing resources and by eliminating service duplication and overlap. The brokerage approach, in concept, would provide a greater number of funding sources, additional resources leading to enhanced mobility, an increase in efficiency and a stronger overall paratransit network. It accomplishes these elements by better utilizing the current number of vehicles and drivers, thus increasing the total number of trips and trip availability per hour. It provides this through a consolidated "one-call" center for the customer.
- Demand for MOBY services has increased significantly in the last five years. While MOBY has responded by dedicating additional resources, augmenting capacity through the addition of taxi services, additional efforts will need to be undertaken. The brokerage concept is one that other cities and agencies are considering and experimenting with as they look to improve service, better utilize services and better serve customers. The model merits continued discussion within the greater Omaha family of transportation providers.

10 - Heartland Regional Transit Vision: Metro Fixed-Route Operations Analysis- Paratransit Operations Analysis Technical Memorandum, prepared by TMD, Inc., May 2013.

2.4 Title VI Analysis

Title VI of the Civil Rights Act of 1964 ensures that "no person in the United States shall, on the basis of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Metro has committed to the Federal Transit Administration (FTA) Title VI objectives set forth in Circular 4702.1 ensuring that FTA-assisted benefits and related services are made available and are equitably distributed without regard to race, color or national origin. Title VI regulations require a review of any service reduction or addition considered by the agency to be a "major service change."

Metro currently defines a "major service change" as one or more of the following:

- Twenty-five percent or more addition or reduction in revenue miles on an individual route;
- 12 percent or more addition or reduction in system revenue miles; or
- Addition or elimination of a bus route.

However, Metro previously defined a "major service change" as either the elimination of a bus route, or as a change of 15 percent or more in annual systemwide revenue miles. The analysis presented in this section is based on that previous definition.

Proposed Phase I service changes from the Network Evolution Plan were evaluated to comply with Title VI and to receive financial assistance from the FTA. Note that at present, no fare policy changes are proposed. Complete documentation of the Title VI analysis is available in **Appendix D**.[11] The results of the analysis follow.

2.4.1 Major Service Changes

Annual revenue miles for the existing system and the proposed Phase I recommendations were compared. The proposed Phase I recommendations would result in a 6.53 percent change in revenue miles (**Table 2.3**).

Table 2.3: System-wide Change in Annual Revenue Miles

	Existing	Phase 1	Percent Change
Annual Revenue Miles	3,918,500	3,678,400	6.53%

The Network Evolution Plan route realignments are intended to focus the Metro network on the most productive core while also retaining a dense and highly productive network of supporting routes. Recommendations to discontinue route segments were primarily based on low ridership and the desire to provide better quality, higher frequency transit wherever supportive markets exist. While the Metro network is to undergo significant changes, care was taken to minimize impacts to Title VI-sensitive populations. Other routes for which routing and/or schedule changes are proposed may also meet the definition of a major service change under Metro's revised criteria. Changes to these routes should be reviewed for potential Title VI impacts prior to implementation.

Routes 9, 16, 32, 94, and 96 are proposed for elimination, which meets Metro's definition of a major service change, and require additional review for potential Title VI impacts. Based on Metro's definition of a "major service change" (any 15 percent change in system revenue miles and/or the elimination of a route) these routes require additional review for potential Title VI impacts. Based on analysis of all census tracts within a one-quarter mile walkshed of these routes with a concentration of minority and/or low-income residents exceeding the overall network average, population demographics indicate proposed major service changes to Route 9, 16, 32 and 96 required further analysis. While Route 94 is undergoing a major service change, its service area does not include areas with high concentrations of minority and low-income people, indicating any effects on those groups will be limited.

11 - Heartland Regional Transit Vision: Metro Fixed-Route Operations Analysis- Draft Title VI Analysis Technical Memorandum, prepared by TMD, Inc., June 2013.

2.4.2 Service Equity Analysis

Results of the analysis of the four potentially impacted routes are summarized below.

- **Route 9:** Overall, the elimination of Route 9 will not have disproportionate negative impacts on Title VI populations. Existing riders on Route 9 will have better service options with the new Route 7 and Route 15.
- **Route 16:** Metro may consider instituting a vanpool or carpool service, which would more adequately match commute and demand patterns to jobs around the airport. Until a vanpool or carpool program is established, Route 16 riders will be impacted by the service change. However, maintaining the service in its current form is unsustainable. By reallocating the resources to a more productive service in Title VI areas, the region will experience an overall net benefit.
- **Route 32:** The highest ridership segment of Route 32 from Downtown to 32nd and Vinton will be served by Route 7. Service to this segment will increase to 30 minutes in the midday. Overall, the elimination of Route 32 will not have a disproportionate negative impact on Title VI populations. Title VI-sensitive population along Park Avenue will experience an overall service increase.
- **Route 96:** Route 96 is proposed to be discontinued due to the close proximity of Express Route 93 and 97. Resources currently allocated to Route 96 will be reallocated to Route 97 to create an additional express trip during the peak period.

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. The increases in service on routes that serve Title VI-sensitive areas reflect Metro staff's commitment to serving all demographics. On the whole, the benefits garnered from the Network Evolution Plan will be felt across the network, with minority and low-income riders as particular beneficiaries.

2.5 Recent and Ongoing Transit Planning Efforts

In the past decade, regional-scale planning efforts have contributed significantly to increasing understanding of the need for public transportation options and have provided increasingly focused planning guidance. The *Heartland Connections* effort builds on the strong foundation provided by these previous initiatives and will proceed in cooperation with related planning efforts that are ongoing. Among these initiatives:

- In 2003 and as updated in 2007, the Omaha Metro Transit Alternatives Analysis resulted in the identification of regional corridors well suited to higher-capacity transit service. The MAPA 2035 Long Range Transportation Plan[12] (LRTP) then documented these high-priority corridors as part of a comprehensive regional transportation plan in 2010. The LRTP includes a thorough analysis of then-current conditions and provides a "blueprint" for transformation of the regional transportation network into a more effective and efficient multi-modal system. Inclusion in the 2035 LRTP ensures that projects will be eligible for federal funding.
- The Omaha Master Plan[13], initially adopted in 1991 as the comprehensive plan for the City, addresses transit-supportive land use in several discrete elements. The *Transportation Element*[14] of the Omaha Master Plan, as updated in 2012, is intended to provide tools and policies intended to support a high quality of life through four goals:
  - Provide balanced options for enhanced mobility;
  - Attain a safe and healthy environment;
  - Create livable and connected neighborhoods; and
  - Promote economic returns with fiscal stability.

One of the key outcomes of this Plan is to identify a balanced transportation system with a strong emphasis on active transportation modes (walking and biking)

12 - http://www.mapacog.org/long-range-transportation-planning
13 - Omaha Master Plan, 1991, www.cityofomaha.org/planning/urbanplanning/omaha-master-plan
14 - http://www.cityofomaha.org/planning/urbanplanning/images/stories/Master%20Plan%20Elements/ Transportation_Element_Final_2012_web.pdf

to enhance community health and quality of life. The Plan also recognizes that public transit can serve as a logical extension to the mobility of pedestrians, creating a viable alternative to automobile use in selected areas of the City where supportive infrastructure and development patterns are in place or can be created.

The *Transportation Element* identifies opportunities to enhance the transportation system through coordinated land development initiatives in several key locations, including: 72nd and Dodge Street (around Crossroads Mall and the Nebraska Furniture Mart); West Dodge and I-680 (around Westroads shopping center and the Old Mill area); and the area around Saddle Creek Road and Cuming Street. Redevelopment concepts for these areas are intended to support enhanced transportation options, including opportunities for transit. Transit-supportive principles identified within these concept plans include a connected street network, pedestrian and bicycle facilities and connections, proper orientation/siting of development and an appropriate development density and mix of uses to support enhanced future transit service options.

- The *Central Omaha Transit Alternatives Analysis*[15] is an ongoing, parallel planning effort, scheduled for completion in 2013, focusing on the highest priority corridor identified in the Master Plan. This AA is being conducted as a partnership between Metro and the City of Omaha, focusing on evaluation of high-capacity transit alternatives to serve the corridor between Downtown Omaha, Midtown Omaha, UNMC and the University of Nebraska at Omaha (UNO), with a potential extension west to 72nd to serve the Crossroads and Aksarben Village areas. The study will identify and analyze alternatives to provide "convenient, accessible and affordable mobility" in Omaha's urban core, by identifying and comparing the costs, benefits and impacts of various transit alternatives. One or more locally preferred alternatives (LPAs) will be recommended for more detailed evaluation, potentially including fixed rail (streetcar) and/or BRT alternatives.
- MAPA has more recently identified priorities for "Complete Streets" in the region through a *Multi-Modal Corridors* planning initiative. This initiative takes a broader look at opportunities to create complementary mobility options in key corridors-including roadway, transit and trail facilities. Consideration of opportunities to support non-motorized mobility (walking and bicycling) and multi-modal linkages that will support transit use are an important element to this transit-focused study.

2.6 Institutional Strategies and Best Practices

Another key element of the **Regional Transit Vision** is to review Metro's existing institutional arrangements and to identify industry best practices that could improve institutional performance. This includes assessing opportunities for efficiencies and cost savings, strategies to maximize revenue and strategies related to marketing and branding.

TMD undertook an analysis that included a peer benchmarking survey, reviewing five-year expenditure trends, assessing key performance indicators, compiling cost containment and revenue enhancement strategies and identifying marketing/branding enhancement opportunities. The findings and recommendations resulting from this analysis are fully documented in **Appendix D**[16] and are summarized below.

2.6.1 Findings

- Metro generally lies near the middle of the five peer systems studied (Lincoln, Des Moines, Kansas City, Indianapolis and Albuquerque) in terms of population, service provided (revenue miles and hours), operating expenses and fare revenues. It is on the lower end when comparing ridership. While Metro is the least productive in generating ridership, it controlled expenses (over the 2007-2011 period) as well or better than any of its peers on the basis of expense per revenue hour or revenue mile. Local (property) taxes make up an increasing share of Metro operating funds (over

15 - http://omahaalternativesanalysis.org/

16 - Heartland Regional Transit Vision: Metro Fixed-Route Operations Analysis- Institutional Strategies and Best Practices Technical Memorandum, prepared by TMD, Inc., May 2013.

the 2007-2011 period), rising from 40 percent to 50 percent, with Omaha lying in the middle of the peer systems studied on this measure.

- Metro ranks higher than average in expense increases and lower than average in ridership and fare revenue increases, while generally "maintaining" service levels. Metro's unit costs were consistently below their peers during this time period. However, the rate of increase on these unit costs was greater that its peers. Institutionally, agencies need to manage both the level of expense and the rate at which their unit costs increase. Trends over five years per the National Transit Database (NTD) are summarized in **Table 2.4**.

Table 2.4 : Metro Five-Year Trends (2007-2011)

	Annual Ridership	Operating Expenses	Fare Revenues	Revenue Hours
Peer Range*				
	-1.5% to 27%	5% to 22%	-6.5% to 32%	-9% to 35%
Peer Average*				
	6%	14%	11%	5%
Metro				
	0.8%	20%	2.2%	3.5%

* - Operations peer agencies included: Lincoln, Des Moines, Kansas City, Indianapolis and Albuquerque.
Source: NTD, compiled by TMD

- Metro consists of 240 employees to provide transit service. Operators and mechanics make up the largest work group and represent the largest expense center, as is expected at a transit system. In general, Metro as an organization:
  - Has a narrow span of control and a flat management structure;
  - Has basic support and software systems in place;
  - Has a traditional labor agreement and work rules;
  - Completes a comprehensive monthly operations report that monitors a variety of performance metrics including productivity, safety, reliability and efficiency;
  - Manages within its annual budget (averaged 1.6 percent under budget during the 2007-2011 period); and
  - Meets local audit requirements and successfully completed the most recent Federal Transit Administration Triennial Review.

In 2011, Metro expenses were allocated as shown in **Table 2.5**.

Table 2.5: Metro Revenue and Expense Breakdown (2011)

Revenue Category	Percentage of Total Expenses
Property Taxes	51.8%
Federal Operating Grants	27.2%
Passenger Fares	13.9%
State Operating Grants	3.1%
Service Contracts/Investments/Other	4.0%
Expense Category	**Percentage of Total Expenses**
Revenue Vehicle Operations	65%
Maintenance	19%
Administrative and Other	16%

Operating costs increased 20 percent between 2007 and 2011. Fares remained stable between 2007 and 2011, resulting in property taxes and federal funding increasing in absolute terms and as a percentage of revenues. Metro has an ongoing "expense management" program in place, contributing to their ability to manage unit costs better than their peer systems.

2.6.2 Recommendations

- Metro should consider implementation of the following organizational efficiency strategies:
  - Maximize Operator Availability;
  - Optimize Operator and Mechanic Overtime;
  - Expand Maintenance Key Performance Indicators;
  - Expand Key Financial/Resource Utilization Key Performance Indicators;
  - Educate the Work Force on Key Performance Indicators;

- Address Workers Compensation Costs;
- Focus on Local Market Levels and Conditions Relative to Positions and Programs; and
- Improve System Service Performance.

- It is important that key performance indicators are monitored and acted on by the entire organization. Key revenue and expense indicators should be made available so employees can track them. It will also be important to monitor service performance in conformance using the updated service standards to ensure that the recommended Plan delivers improved service productivity and performance.
- Revenue enhancement strategies will compliment Metro's efforts to promote and expand transit service. While increasing fares at the same time as a unveiling a new transit network and services is not recommended, once ridership stabilizes strategies to increase fare yield per boarding (higher fare per trip) and per individual customer (more trips) should be considered. This should involve more than a simple fare hike and calls for a comprehensive examination of Metro's overall market and pricing scheme. It can build on industry efforts in developing successful creative pricing strategies, such as: programs that encourage increased riding during lower demand periods, moving to new flexible fare media strategies across all income groups (e.g., capped fare Smart Card programs, flexible time based passes), incentivized community or organization wide pass programs and frequent user programs or vendor linkages. Rebuilding advertising revenues to 2007 levels or higher is another key revenue strategy.
- Metro has recently completed a re-branding process, which included a variety of efforts ranging from print material to the vehicle livery graphic theme. Metro also sponsors and participates in visible public events. Building on these efforts the general approach covering awareness, incentive and advocacy marketing should be to: identify Metro's community role and vision, establish and consistently "message" that role and vision and build on system strengths in marketing efforts. Traditional and social media, an online presence and special events can all be used to promote the "message." Establishing and nurturing an advocacy network (such as employers, social service agencies, schools and medical facilities) within the community will also be key.
- Improving the "product" to attract more riders by implementing a core network of higher frequency services, creating a route structure that is clear and navigable and initiating new enhanced services and infrastructure is the key element in the new Metro "brand" and should be fully exploited by the agency's marketing strategy.

Metro has succeeded in managing its costs while maintaining service levels in a fiscally constrained operating environment. It compares favorably to its peers on many categories. That being said, the local tax base continues to bear an increasingly greater share of operating expenses while ridership has been flat with service productivity below that of its peers. Although there are elements that the organization can improve, the larger question lies in the shape of the network, improving service efficiencies and effectiveness and improving revenues through increased ridership and average yield. Continued support and investment in the system should take place in this context.

2.7 Legislation Review

A technical memorandum prepared by Husch Blackwell provides a summary of the legislative implications of the three priority funding mechanisms identified in early community outreach and an assessment of the existing legal authority for their implementation. The three funding sources include property taxes, transit assessment districts and a multi-jurisdictional regional transit authority.

2.7.1 Property Taxes

The existing Metro transit system is supported locally by property taxes. Metro makes an annual request to the Omaha City Council and Douglas County Board for tax support. Although state statute allows for the request

to be up to $0.10 on each $100 of taxable property, the city and county are only required to allocate "no less than three cents per hundred dollars of taxable property, per entity subject to the levy of the transit authority if requested by such authority." (Neb. Rev. Stat. § 77- 3443)

Existing Authority

Property taxes are subject to existing city and county levy caps as follows:

- § 77-3442 caps the amount of property taxes on any one parcel of property.
- A city may only levy $0.45 per $100 of taxable property plus an additional $0.05 per $100 to cover inter local agreements, for a total of $0.50.
- A county may levy $0.50 per $100 of taxable property with $0.05 designated for the county's share of inter local agreement funding; a maximum of $0.15 of the $0.50 may be allocated to other political subdivisions. This county tax levy is not currently available for use by Metro.
- Any property tax allocated to a transit authority by a county must fit within the $0.50 overall cap and also within the $0.15 cap for funds going to political subdivisions.

Potential Future Modifications

Nebraska law provides that the people may vote to raise the levy limit, as well as the levy allocation, at a primary, general, or special election (Neb. Rev. Stat. § 77-3444). However, increases are subject to expenditure limits as follows:

- A political subdivision may adopt a budget with an increase of up to 2.5 percent over the prior year due to increases in property tax valuation and annexation.
- Upon approval of 75 percent of the political subdivision's governing authority, an additional one percent increase is allowed.

If compliance with the applicable levy caps proves to be unworkable, a statutory amendment could be sought to make the transit authority a political subdivision with its own independent levy authority.

2.7.2 Transit Assessment District

The Nebraska Constitution expressly permits the Legislature to grant cities the power "to make local improvements by special assessments or special taxation of property benefited" (Neb. Const. art. VIII, §6).

Existing Authority

District types that could be considered without legislative action include:

- **Business Improvement:** Cities can create Business Improvement Districts to impose a special assessment on the properties directly benefited in order to fund: parking facilities; landscaping; sidewalks; bus shelters; lighting and other "useful or necessary public improvements."
- **Street and Sidewalk Improvement:** Cities of the metropolitan class can create Street and Sidewalk Improvement districts solely for investments in street and/or sidewalk construction and reconstruction.

Potential Future Modifications

While existing provisions could provide a mechanism for the funding of some transit-related improvements, additional authority would be needed to establish a special assessment to fund creation of a public transportation corridor. Current precedents also focus on capital improvements, which could limit opportunities to use the proceeds of transit assessment districts to fund operating costs of improved bus or street car service in a designated corridor.

The Transit Authority Law was amended in 2003 and now authorizes the creation of a regional transit authority

2.7.3 Multi-Jurisdictional Regional Authority

The Transit Authority Law was amended in 2003 and now authorizes the creation of a regional transit authority covering the following: the City of Omaha; Douglas; Washington; Dodge and Sarpy Counties in

Nebraska; and Pottawattamie County in Iowa (through inter local and/or contractual arrangement).

Existing Authority

Sources of regional authority funding available under existing law include: bonds; federal funds; fees for use (fares); sales taxes and/or property taxes from participating jurisdictions.

- Currently, a regional Transit Authority can make an annual property tax request to the city council and county board of each participating jurisdiction of up to $0.10 on each $100 of taxable property.
- A regional Transit Authority can also access sales tax funds through inter local agreements with participating municipalities. The Local Option Revenue Act permits municipalities to impose a sales tax, which must be approved by the voters. Voter approved tax rates over 1.5 percent must also be approved by 70 percent of the city council.

Potential Future Modifications

Potential sources, pending appropriate enabling legislation, could include direct taxing authority. State legislation, recognizing the Regional Transit Authority as a separate political subdivision, could provide the authority with its own dedicated tax levy authority and its own tax cap to be determined. Further, a "multi-modal" entity could be created to take responsibility for road, bridge, trail and public transit improvements with the authority to raise revenue through a dedicated sales tax and/or property tax.

2.8 Transit-Supportive Land Use

In order to evaluate options for Omaha region's transit network, including potential premium transit service on select corridors, it is critical to examine existing and emerging land use patterns along these corridors and evaluate existing plans and policies. This will ensure that transit-supportive opportunities are identified and that transportation investments and land use policies and tools are aligned to be mutually reinforcing.

"Transit-supportive land use" generally refers to providing an appropriate mix and intensity of uses to support transit service, while employing public realm and site design principles to support convenient and efficient use of transit as a desirable alternative to the automobile. Also often referred to as transit oriented development (TOD), transit-supportive development is generally characterized by the following:

- **Density** - an increased concentration of activities around a transit access node (station or stop);
- **Diversity** - a fine-grained mix of retail, office, residential, civic and/or recreational uses that promote activity throughout the day and week; and
- **Design** - urban design features that create a high quality pedestrian environment, while de-emphasizing the role of the automobile.

2.8.1 Existing Patterns and Policies

Existing land use plans and policies in the Omaha region have been reviewed for this study, specifically in relation to their support for transit. In addition to the review, planning officials and staff from key jurisdictions were interviewed to understand both existing and emerging plans and policies. The following provides a summary of the review and local discussions and preliminary recommendations for strengthening and coordinating transit-supportive land use policies throughout the region.

Omaha

Omaha is the economic hub of the metropolitan region, the largest City in the state and the 42nd-largest city in the United States. Omaha is home to ten Fortune 1,000 companies including five (5) Fortune 500 companies: Berkshire Hathaway; Union Pacific; ConAgra Foods; Kiewit Corporation; and Mutual of Omaha. This strong economic base supports a vibrant downtown urban core as well as a number of suburban employment centers. In scale the downtown is clearly the primary employment center for the region. This economic base supports a growing population with access to diverse

housing choices, albeit in an increasingly dispersed pattern in recent decades.

Omaha Master Plan

In addition to the Transportation Element of the *Omaha Master Plan* previously described in Section 2.5, transit-supportive land use is also addressed in the Environmental and Land Use Elements, as summarized below.

The Environmental Element[18] of the *Omaha Master Plan,* as updated in 2010, was developed in partnership with Omaha by Design and the City of Omaha. It establishes a comprehensive vision for the community by identifying more than 600 environmental recommendations in five key areas. The most relevant goals for the city, for the key areas of Urban Form and Transportation, include:

- Accommodate its potential urban population within a compact, contiguous urban area;
- Productively and effectively use all land within its 2010 municipal limits; and
- Support an efficient city form with a balanced transportation network that increases the role of low-impact and active transportation modes in providing access to all parts of the city.

The Plan measures success by achieving four overall measures of sustainability within the next 20 years:

- Omaha's population density will grow to 4,500 people per square mile. Current (2010) population density is 3,489 people per square mile, whereas population density in 1950 was 6,171 people per square mile.
- Ten percent of all trips in Omaha will be made by "active" transportation modes – pedestrian, bicycle and public transportation. In 2008, about 2 percent of all trips and 4.4 percent of commuting trips are made by active modes.
- Fewer than 65 percent of all work commuting trips will be made in single-occupant vehicles by 2030. Currently, about 82 percent of commuting trips are made in single-occupant vehicles.
- Using 2010 as the base year, decrease per capita motor vehicle miles traveled (VMT) by Omaha motorists 10 percent by 2030. This will require creating a framework for measuring and monitoring VMT using indicators such as traffic modeling, traffic counts, gas consumption, population levels and or other relevant data.

The Land Use Element[19] of the *Omaha Master Plan*, as updated in 2011, calls for increased intensity around key mixed-use nodes located approximately every mile along key corridors, including three proposed transit corridors shown in **Figure 2.5**:

- West Center Road
- West Dodge Road
- West Maple Road

Additional density would be allowed and encouraged in these nodes and along these corridors (up to eight dwelling units per acre). To support viable transit service, residential density along the West Maple, West Dodge and West Center corridors would need to average eight dwelling units per net residential acre. To obtain this density, a variety of residential housing types should be encouraged within these corridors, including multi-family development in the mixed-use node areas and a mix of town-homes, duplexes and single-family homes in the remaining portion of the corridor.

Zoning

Omaha has a zoning overlay district entitled "Areas of Civic Importance" (ACI). The ACI overlay district is being implemented in small segments. It will eventually extend along the prominent thoroughfares of the City as shown in **Figure 2.6**. It is being implemented incrementally to allow for time to address local questions and concerns. This map includes some, but not all, of the potential high-capacity corridors identified for study through the Heartland 2050 process.

The ACI overlay district promotes urban design principles that will enhance important areas of the city by implementing the *Urban Design Handbook* of the Omaha Zoning Code. The U*rban Design Handbook* promotes placing buildings closer to the street and providing a wider sidewalk and landscape area between

18 - http://www.cityofomaha.org/planning/urbanplanning/images/stories/Master%20Plan%20Elements/ EnvironmentElement2010.pdf
19 - http://www.cityofomaha.org/planning/urbanplanning/images/stories/Master%20Plan%20Elements/ LandUse%20Element4-4-12_web.pdf

the building and the street to encourage an active pedestrian environment. Design goals within the handbook relate to supporting high quality transit options, enhancing "walkability" to support a multi-modal environment. At the conclusion of the Heartland 2050 process, proposed ACI boundaries should be reconciled as appropriate with areas slated for transit-supportive land use in the future.

Council Bluffs

Council Bluffs, located on the Iowa side of the Missouri River, is the second-largest jurisdiction in the region. Council Bluffs benefits from its location near the I-29/I-80 intersection and from its proximity to Omaha's urban core. According to city staff, approximately

> Thirty percent of work trips from Council Bluffs go to downtown Omaha. Therefore, Council Bluffs benefits greatly from a vibrant downtown Omaha.

30 percent of work trips from Council Bluffs go to downtown Omaha. Therefore, Council Bluffs benefits greatly from a vibrant downtown Omaha.

Currently, Council Bluffs does not have any specific transit-supportive land use policies or tools. However, the city is in the process of updating its Comprehensive Plan, entitled the *Bluffs Tomorrow 2030 Plan*[20]. According to city staff, this plan update will consider additional development densities and transit-supportive development for downtown Council Bluffs and the West Broadway Corridor. The West Broadway Corridor connects downtown Omaha to key activity centers in Council Bluffs, including Alegent Creighton Health Mercy Hospital and Iowa Western Community College. Currently, West Broadway is an older commercial corridor with significant redevelopment opportunities. According to city staff, high-density development within the corridor is not anticipated. However, there may be opportunities for targeted infill and adaptive reuse with modestly increased densities at key nodes to support future transit service. These nodes will be identified during the *Tomorrow 2030 Plan* process.

Bellevue

Bellevue is the third largest jurisdiction in the region. The city is home to one of the region's largest employers, Offutt Air Force Base (AFB), with approximately 10,000 military and federal employees. Offutt AFB is the headquarters of the U.S. Strategic Command, the Air Force Weather Agency and the 55th Wing of the Air Combat Command. According to city staff, while a significant number of these employees live within the city, a large percentage of them commute from communities throughout the region.

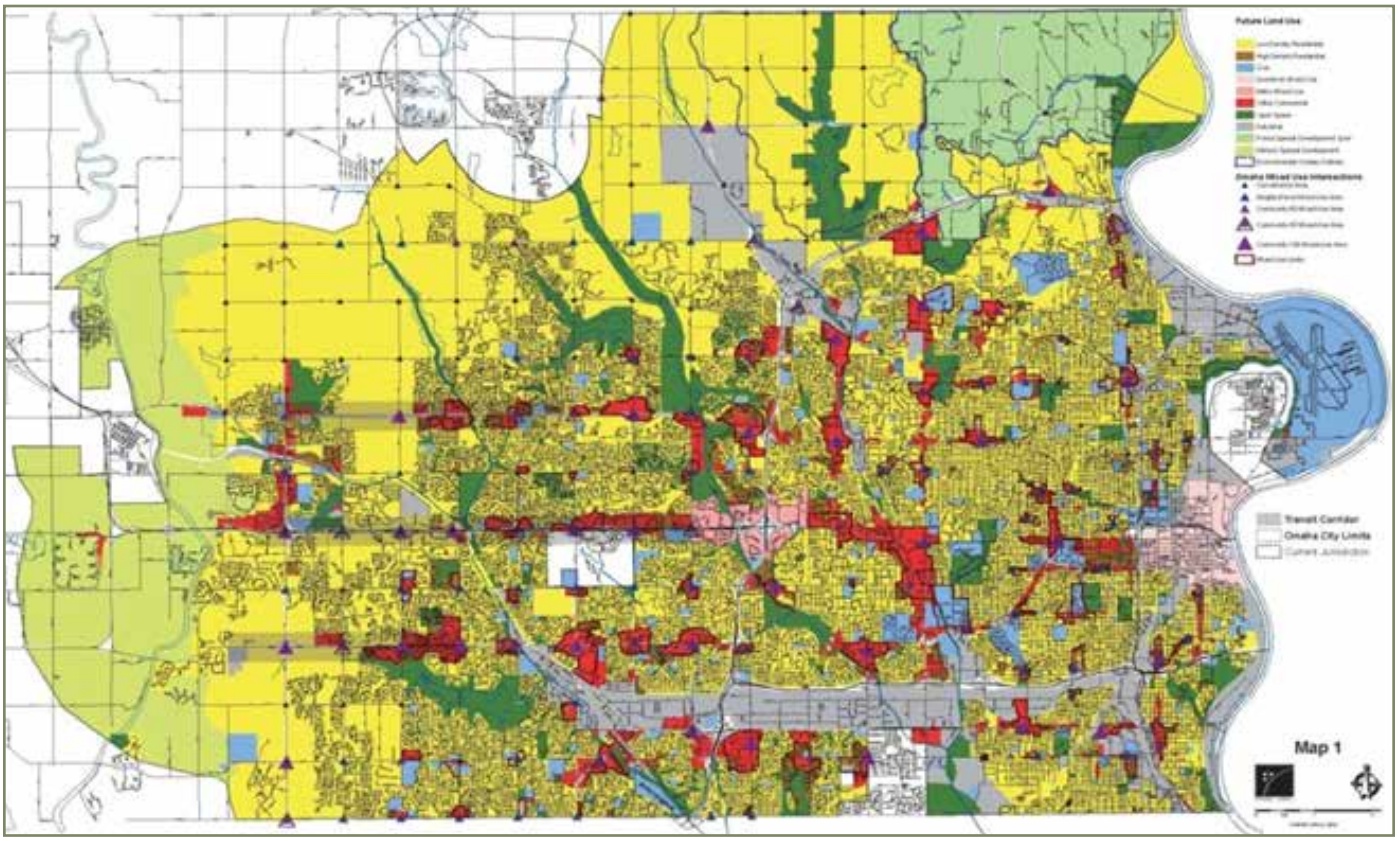
Bellevue has a relatively low-density development pattern, including in the downtown area. Much of Bellevue's recent growth has been to the west along Cornhusker Road and Highway 370. The Highway 370 corridor connects to rapidly growing areas in Papillion and La Vista. A new Missouri River crossing and realigned Platteview Road will provide an improved connection to Glenwood and Mills County in Iowa. This improvement will greatly reduce travel time to Bellevue from communities across the Missouri River, providing additional housing and employment choices.

Fort Cook Road, a major north-south arterial and former state highway, is an older commercial corridor that connects to downtown Omaha via 24th Street and according to city staff, has significant redevelopment potential. A majority of regional traffic on Fort Cook Road has shifted to a parallel limited access highway, the Kennedy Freeway (U.S. 75). Due to this shift, lower traffic volumes along Fort Cook Road offer the opportunity for a "road diet." This creates a potential opportunity to use a portion of the right-of-way for a dedicated bike lane, trail, shared use path and/or a dedicated transit lane.

The *Bellevue Comprehensive Plan*[21] does not include specific transit-supportive strategies. However, the City has adopted a Complete Street Policy to support "transportation improvements that are planned, designed and constructed to encourage walking, bicycling and transit use, while promoting safe and efficient operations for all users."

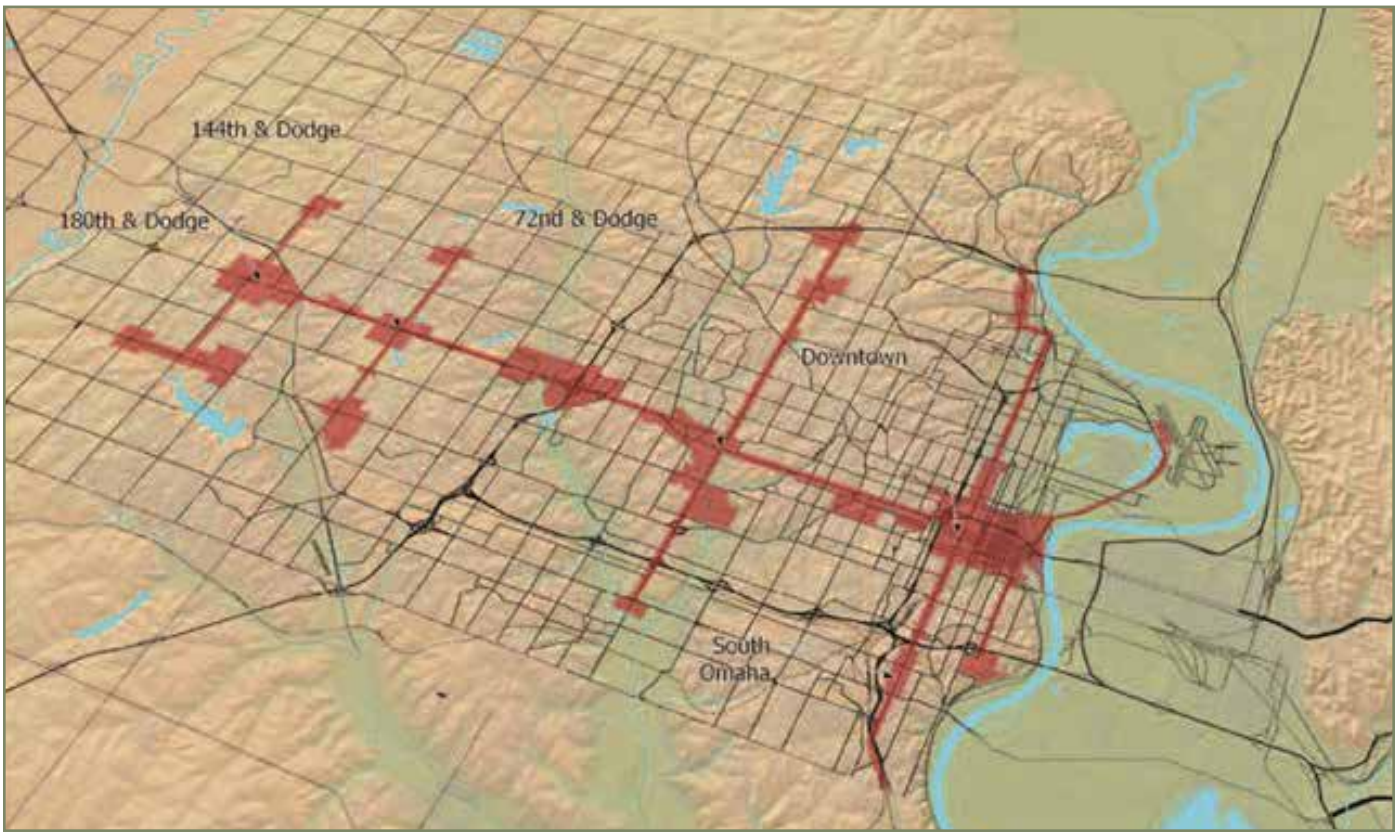
20 - Bluffs Tomorrow 2030 Plan, www.bluffstomorrow2030.com.
21 - Bellevue Comprehensive Plan: www.bellevue.net/Departments/Planning.aspx

Figure 2.5: Omaha Future Land Use Plan



Source: Omaha Master Plan, Land Use Element

Figure 2.6: Areas of Civic Importance (Omaha Zoning Code)



Source: Urban Design Article of the Omaha Zoning Code

Papillion

Papillion is the fourth-largest jurisdiction in the region. In 2009, Papillion was named the "3rd best place to live" in the United States by CNN Money, based on the City's diverse employment base, affordable housing choices, quality schools, ample green space and excellent quality of life. Papillion, along with La Vista, is located southwest of Omaha in one of the fastest-growing areas of the region.

Major growth corridors in the city are Highway 370 and West Lincoln Road. These corridors are experiencing the most growth, especially commercial uses. Shadow Lake Towne Center and Alergent Creighton Health Midlands Hospital are significant activity centers along Highway 370. Shadow Lake Town Center, at 72nd Street and Highway 370, is an 880,000 square-foot lifestyle center with shopping, dining, entertainment and special events. Werner Park, home of the Omaha Storm Chasers, the Kansas City Royals AAA baseball affiliate, is located at 128th Street and Ballpark Way north of Highway 370.

Papillion is in the process of updating its *Comprehensive Plan*[22] which will include recommendations to support mixed-use development. The plan will include a vision for Downtown, located just off of 84th Street. Key plan goals include:

- Strengthening downtown as a mixed-use urban environment;
- Making downtown a place to go to, rather than a place to move through;
- Maintaining neighborhood connections and removing barriers;
- Increasing the number of people who live downtown; and
- Increasing both the supply and convenience of parking where it needed the most while reducing demand.

La Vista

La Vista is the fifth-largest jurisdiction in the region and is located adjacent to Papillion in the fast-growing southwest quadrant of the region.

Major development within the community is occurring on Giles Road near I-80 and includes Southport West, a large outlet and entertainment center located near I-80 and Giles Road, as well as major employment centers such as PayPal and the Oriental Trading Company.

The *La Vista Comprehensive Plan*[23] does not include specific transit-supportive strategies and no significant updates are anticipated in the near future. The city has adopted the *Vision 84 Plan*[24] that identifies aesthetic improvements and enhanced connections to a future regional trail network along the 84th Street Corridor. *Vision 84* includes a recommendation for a mixed-use City Center that is envisioned to include retail, office, commercial and residential uses. Future implementation of *Vision 84* may include design guidelines for buildings and public amenities along 84th Street. These guidelines should incorporate appropriate transit-supportive design strategies, as discussed at the end of this chapter.

2.8.2 Potential Transit-Supportive Development Strategies

Post-World War II development patterns in the Omaha metropolitan area – bolstered by an expanding and improved roadway system, abundant land availability with few geographic barriers and auto-centric land use policies – have resulted in a dispersed, low-density urban character throughout most of the region. This has resulted in ever-increasing public service and maintenance costs and it has limited the ability to efficiently provide alternative transportation choices, especially public transit options.

Heartland Connections is intended to not only develop recommendations for a future transit system framework, but to also provide strategies to promote transit-supportive development within Metro-served areas. The strategies are intended to:

- Consider land use and transportation needs concurrently;
- Promote compact development patterns to support enhanced and efficient transit service;

22 - Papillion Comprehensive Plan: www.papillion.org/planning_comprehensive_plan.cfm.
23 - La Vista Comprehensive Plan: www.cityofLaVista.org/index.aspx?nid=655.
24 - Vision 84: www.cityofLaVista.org/index.aspx?NID=704.

- Ensure that development is oriented in a way that is conducive to future transit service; and
- Focus targeted transit-supportive strategies to specific high-capacity corridors.

What is Transit-Supportive Development?

This section introduces "best practice" planning and design strategies that can potentially be applied to guide new development and redevelopment, maximizing future transit support and synergy through thoughtful planning and design. These strategies are not intended to replace existing local regulatory tools. Rather, they are intended to supplement existing tools with a focus on how to ensure that current and upcoming development projects throughout the city can be configured to best accommodate future transit service. Potential planning strategies are organized in the following general categories: Land Use; Site Design; Parking; and Connections.

Land Use

Compact mixed-use development is encouraged along transit corridors to maximize efficient transit operations and to help facilitate convenient pedestrian and bicycle connections. Mixed-use development can be vertical (within a single building) or horizontal (within a collection of buildings). Key features include an interconnected street grid, shared parking and convenient pedestrian and bicycle connections between uses. The land use mix should be complementary to encourage trips via walking or bicycling. If users have access to most of their daily activities along a single corridor, there will be fewer occasions when they have to transfer between transit routes or resort to automobile use. Ideally, a high-capacity transit corridor will connect a wide range of uses including, but not limited to, residential, employment, services, shopping and entertainment within a short walk (less than one-quarter mile) of stops/stations. Auto-oriented single-use developments such as drive-through restaurants or banks, gas stations or car sale lots should be discouraged close to transit stops/stations because they interrupt a walkable environment.

Allowable development densities along transit corridors should support future transit service aspirations. Increased densities along transit corridors maximize the amount of people with walking access to transit

Example of transit-supportive development surrounding a bus transit stop in Renton, Washington.

A description of each category and potential strategies follows.

Example of urban infill mixed-use development in down-town Denver, Colorado..

services. At a minimum, a transit corridor should average eight (8) units per acre. High-capacity and frequency transit corridors will ideally support greater densities, especially within one-quarter mile of future transit stops/stations.

Strategies:

- Within vertical mixed-use developments, encourage active uses such as retail, restaurants, services, etc., to be located on the ground floor and oriented toward the street or primary pedestrian paths.

- Within horizontal mixed-use developments, encourage safe and convenient pedestrian connections between clustered active uses within the site as well as surrounding uses and neighborhoods.
- The logistics of providing transit services to the proposed development should be considered in the site plan evaluation process, to proactively anticipate and accommodate transit routing and future stop locations and effectively integrate transit access into the site layout.
- Allowable residential development densities should support future transit service, with higher density residential uses clustered within the "walkable" zone along transit routes and an overall average density of at least eight dwelling units per acre.

Site Design

The physical location of buildings can encourage transit use, allow for efficient transit operations, encourage pedestrian activity and greatly enhance an overall "sense of place." Along key transit corridors, buildings should be oriented toward the primary street and have minimal setbacks to maximize visibility and reduce walking distances. Large surface parking lots that separate buildings from the street make walking less convenient and therefore should be located behind or beside buildings and/or internal to the site. Public plazas and private courtyards should be sited in such a way as to create a cohesive walkable environment in combination with the public sidewalk network. Space should be allocated for future transit stops, as appropriate, in locations convenient for transit operations (e.g. with minimal need for time-consuming deviations from major arterial streets), with safe and convenient pedestrian connections to adjacent buildings.

The architecture of buildings should be encouraged to include architectural details, pedestrian scale signage, window displays and views from the sidewalk of indoor activities. Omaha's Old Market area provides an example of how architecture and streetscape design can be used to create a pleasant pedestrian environment. Dating back to the late 1880s, Old Market buildings contain pedestrian-friendly features such as awnings, articulated facades and street front display windows.

Omaha's existing *Urban Design Handbook* serves as a guide for building design in this area. These strategies should be extended to all identified transit corridors and other jurisdictions within the region should consider incorporating similar strategies in their design review process.

Example of quality pedestrian-scale development in Omaha's Old Market neighborhood..

Strategies:

- Along identified high-capacity transit corridors, cities in the region should consider adding a Transit or "T" designation as an additional zoning overlay with selected transit-supportive design principles. These principles can be used in conjunction with the City of Omaha's *Urban Design Handbook* to ensure quality development that supports future premium or high-capacity transit service alternatives.
- Major development applications within identified transit corridors should be reviewed by staff from both the local municipality and from Metro. This already occurs in Omaha within identified transit corridors and mixed-use nodes. However, this review should extend to new corridors identified as part of the *Heartland Connections* process, within Omaha as well as other jurisdictions in the region. This review should occur as early as possible in the process, ideally at the concept plan or preliminary plat stage. If appropriate, Metro staff should have the opportunity to recommend changes to initial development proposals.

Parking

Transit-supportive development encourages integrated parking strategies that meet the needs of all modes and users. The proper type, size and location of parking facilities are critical components to transit-supportive development. Vertical density necessitates structured parking within urban developments, but it can also be used within denser suburban developments along transit corridors. Structured parking provides for a more efficient use of space, additional area devoted to plazas and open spaces and reduced walking distances between destinations. It can be provided in a stand-alone parking garage or integrated within a multi-use building.

Surface parking lots should be located behind buildings and include safe, convenient and attractive pedestrian pathways connected to buildings and adjacent development to encourage shared parking opportunities. Uses that operate during different times of the day can share parking facilities.

With frequent high-capacity transit service along a specific corridor, parking demand will likely be reduced in response to transit use by local residents. In these cases, jurisdictions should consider reducing parking requirements. Depending on the transit service and frequency, jurisdictions may consider setting a parking maximum within a specified service area. This would essentially cap the number of parking spaces to further encourage transit, walking and biking within the area or district. Reducing the minimum parking requirements, or setting maximum parking requirements, can lower the construction costs of development and make parking structure solutions more feasible.

Example of a parking garage integrated with retail/ office development at Country Club Plaza in Kansas City, Missouri.

Strategies:

- Where appropriate, enacting zoning regulations which require parking lots to be located behind or beside buildings, with safe and convenient pedestrian connections to the buildings and surrounding development.
- Encourage the integration of active ground floor uses within parking garages to contribute to a more pedestrian friendly environment.
- Promote shared parking between uses as appropriate, ideally in public parking lots rather than private lots serving individual uses.
- Consider reducing parking requirements. Within high-capacity and high-frequency transit corridors, consider establishing parking maximums within the transit service area or district.

Connections

An interconnected street grid disperses traffic rather than concentrating it on arterial roads and encourages walking and bicycling. The benefits of an interconnected grid include reducing concentrations of vehicular congestion and providing multiple convenient route choices for all modes. A dispersed traffic pattern and direct connections between developments and activity centers make walking and biking more attractive. Along transit corridors, the increased pedestrian and bicycle connectivity and mobility created by a well-connected street system increases the area that can be served by a transit stop.

Within suburban locations, pedestrian access between subdivisions and arterials must be convenient if residents are to be encouraged to use transit. In some typical post-World War II neighborhoods, subdivisions are often disconnected or include a pattern of dead-end cul-de-sacs. These developments reduce through traffic on some local streets. They do so at the expense of discouraging local residents through longer indirect routes from walking or biking to commercial or public uses, including transit stops, on adjacent arterial streets.

Sidewalks to and along transit corridors should provide a comfortable pedestrian environment. This environment should include a buffer between the sidewalk and the street. The buffer could include a landscaped parkway, street trees, a bicycle lane and/or on-street parking. The area between the sidewalk and adjacent development should include an amenity zone with pedestrian lighting, benches, litter receptacles, wayfinding elements, etc.

Bicycle accommodations should include dedicated bicycle lanes or parallel off-street paths, as appropriate. In addition, secure bicycle parking should be available at key destinations and should be as close to building entrances and transit stops as possible.

Strategies:

- Require new developments adjacent to transit corridors to provide an interconnected street grid with safe and convenient pedestrian connections to adjacent development and activity centers.
- Encourage new or improved pedestrian and bicycle connections to adjacent development and activity centers as redevelopment and infill development occurs within established areas.
- Work with established neighborhoods to identify opportunities for new pedestrian paths and/or multipurpose trails to connect to adjacent development and activity centers, even if the ability to modify the existing street network is limited.

Example of a multi-modal corridor, the Cultural Trail through downtown Indianapolis, Indiana.

- Locate transit stops on arterial streets to minimize the need for time consuming deviations into activity centers or development sited.
- Develop updated street standards for improved pedestrian and bicycle connections and associated amenities along designated transit corridors and in particular at key nodes.

Chapter 8 includes recommendations regarding the development of criteria for implementation of these land use strategies in the context of the Long Range Transportation Plan (LRTP) and Transportation Improvement Plan (TIP).

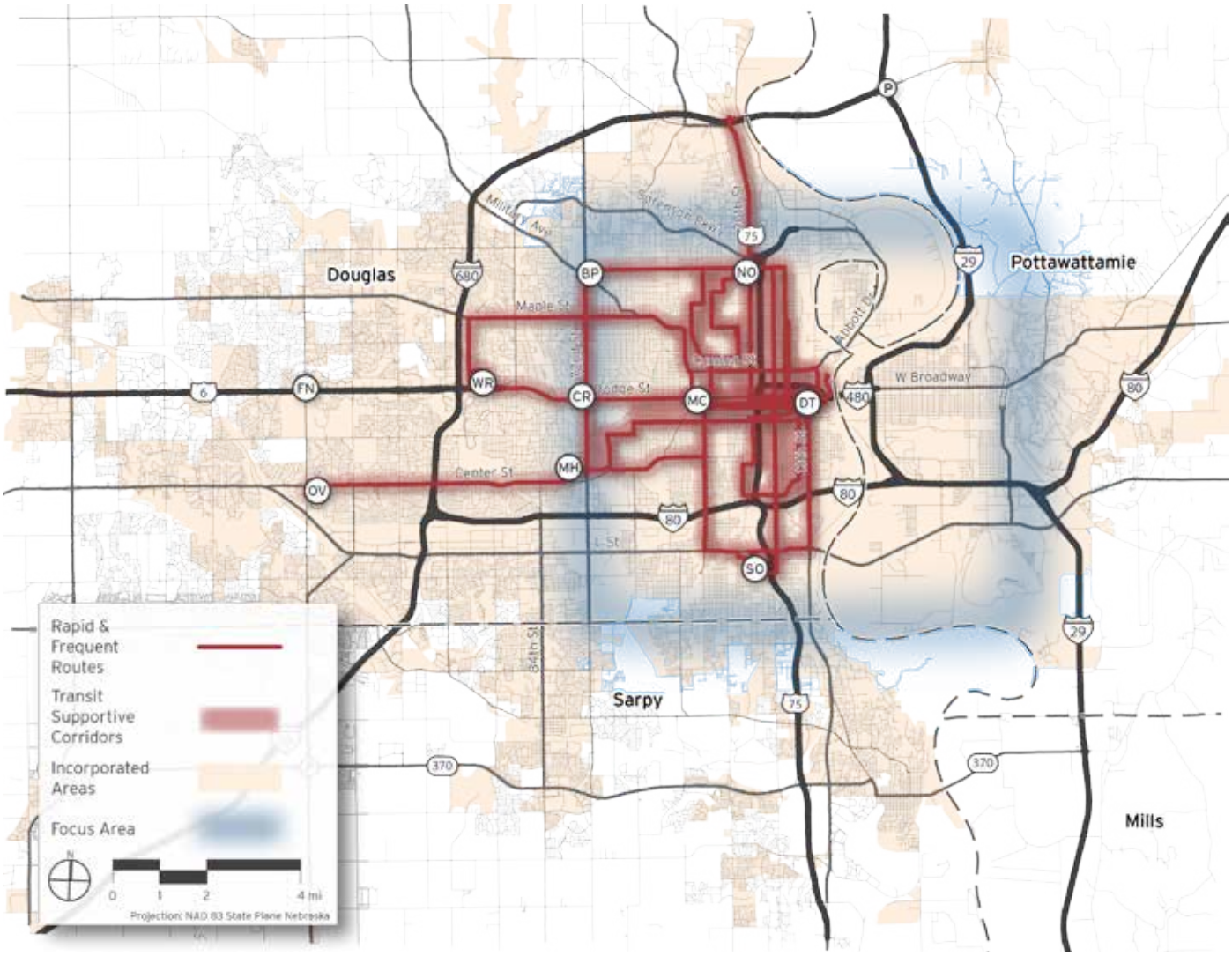
2.8.3 Transit Corridor Typologies

For the purposes of recommended application of transit-supportive strategies, priority transit corridors have been assigned as appropriate to the following four categories:

- High Intensity Urban Corridors
- Urban Fringe Corridors
- Established Suburban Corridors
- New Suburban Corridors

These typologies overlay the transportation corridor network, as shown in Figure 2.7. The typologies are described below. Appropriate coordination of transportation and land use planning efforts is discussed in the following implementation section.

Figure 2.7: Proposed Transit Corridor Network



High Intensity Urban Corridors

- Dodge and Farnam Streets
- Downtown to Midtown Crossing

These corridors are within Omaha's downtown core inside the highway loop and extend to Midtown Crossing to the west. Midtown Crossing, opened in 2010, is a new urban development that combines condos and apartments with one million square feet of retail, dining and entertainment built around the six-acre Turner Park.

Land Use

- Vertical high-density mixed-use development, with mid-rise to high-rise buildings (four stories minimum), is strongly encouraged.
- Residential densities are encouraged to be 30 or more dwelling units per acre to support future transit service. The highest development densities should be clustered within one-quarter mile of mixed-use nodes.

Site Design

- Buildings should be oriented toward the transit corridor and have minimal setbacks to encourage walking and transit use.

Connections

- Streets are characterized by an extensive interconnected street grid.
- Wide sidewalks and enhanced pedestrian amenities are encouraged to promote active streets.

Parking

- Parking structures are encouraged over surface parking, ideally in integrated structures.
- Encourage shared parking as appropriate to improve efficiency of parking space use and accommodate on-street parking where feasible.
- Reduce parking requirements for new projects based on proactive discussions with developers during the design review process.
- Depending upon future transit service options, consider parking maximums to set an absolute limit that cannot be exceeded within a specific area.

Example of high intensity urban corridor development, Midtown Crossing in Omaha.

Urban Fringe Corridors

- West Broadway/Kanesville, Dodge Street
- Midtown Crossing to UNMC, 24th Street/North 30th Street

These corridors are on the fringe of Omaha's downtown, or are within the downtown core in Council Bluffs. These areas developed prior to World War II and are urban in character, with a mid-rise to low-rise development pattern on closely spaced small lots served by a dense, interconnected street grid.

Land Use

- Uses within these areas will likely be primarily residential mixed-use, with commercial or office mixed-use at major centers or nodes as identified by local land use plans. Development opportunities will largely consist of targeted infill redevelopment. Development types may include mid-rise condominiums or apartments, town-homes and single family homes on small lots. At major centers, these uses may support structured parking; however, a majority of uses will likely be smaller infill projects with surface parking.

Site Design

- Buildings should be oriented toward the transit corridor and have minimal setbacks to encourage walking and transit use.
- Encourage 15 or more dwelling units per acre along transit corridors and 24 or more dwelling units per acre at identified mixed-use nodes.

Parking

- Encourage shared parking between uses, including cross-easements, where feasible. Surface parking should be located behind or beside buildings, with safe and convenient pedestrian connections between the lots and nearby buildings.

Connections

- Identify opportunities to reconnect closed streets and use alleys where appropriate for improved circulation and access to parking and loading facilities as redevelopment occurs.
- Ensure that sidewalks are available and in good condition to support safe and convenient pedestrian connections.

Established Suburban Corridors

- Dodge Street: UNMC to Westroads, Ft. Cook Road, West Maple, West Center, 72nd Street, 84th Street

These corridors transect established commercial centers and neighborhoods that were primarily developed after World War II. These areas are characterized by auto-oriented, low-density development patterns. Aksarben Village is an example of a major center of this type.

Land Use

- There may be opportunities to re-purpose and/or redevelop older commercial centers, in addition to targeted infill redevelopment. Development types may include mid-rise condominiums, apartments, town-homes, duplexes and single family homes on small lots.
- Eight or more dwelling units per acre are encouraged for infill or new development to support future transit service. The highest development densities should be clustered within one-quarter mile of designated mixed-use nodes. New development projects will transition down in density when adjacent to established suburban neighborhoods.

Site Design

- Buildings should be oriented toward the transit corridor and have minimal setbacks to encourage walking and transit use.

Parking

- Parking is encouraged to be located behind buildings. However, if the existing buildings are in reuse or if parking cannot be reconfigured, the lot should be screened by quality landscaping from the adjacent sidewalk, with safe and convenient pedestrian connections provided to the building.
- Encourage shared parking between uses, including cross-easements, where feasible. Surface parking should be located behind or beside buildings, with safe and convenient pedestrian connections between the lot and nearby buildings.

Connections

- As redevelopment along these corridors occurs, commercial uses should provide convenient cross-access connections to adjacent development.
- Ensure that sidewalks in these corridors provide a quality pedestrian environment. As redevelopment occurs, ensure that adjacent development provides a convenient connection to the main sidewalk and/or adjacent developments and neighborhoods.

Suburban Corridors

- Dodge: Westroads to Village Point, 144th Street, Highway 370

A majority of development within these areas will have occurred within the past twenty years, in an entirely auto-oriented fashion. For the most part, new development in these areas will occur on undeveloped "greenfield" sites. Examples of recent developments within these areas include Village Pointe Shopping Center in Omaha, Southport in La Vista and Shadow Lake Town Center in Papillion.

Example of newer suburban corridor development, Village Pointe Shopping Center in Omaha.

Land Use

Development types may include neighborhood commercial centers, professional offices and services, single-family homes, town-homes and garden (low-rise) apartments. Mixed-use development will most likely be horizontal in configuration.

Eight or more dwelling units per acre are encouraged. Higher densities should be accommodated within one-quarter mile of an identified mixed-use node.

Site Design

- Buildings should be oriented toward primary transit routes with plazas, open space and parking internal to the site.

Parking

- Encourage shared parking where appropriate.

Connections

- Neighborhoods should provide safe and convenient pedestrian connections to adjacent development through sidewalks on both sides of the street and/or multi-purpose trails.
- Commercial developments should provide cross-easement access for vehicles and safe and convenient pedestrian connections to adjacent developments. Public space should be located in a manner that supports providing a visible and comfortable transit stop.

2.8.4 Land Use Policy Implementation

This section describes potential transit-supportive design strategies for the Omaha region. Planners, property owners, developers, architects and engineers should apply these strategies as appropriate during all stages of the development process, from initial site planning through to the design and review of proposals.

Policies supporting coordinated land use and transportation planning will need to be defined, adopted and enforced consistently throughout the Metro service area. In addition, strategic changes to development regulations and in some cases incentives, may be necessary to encourage transit-supportive uses. These strategies will need to be codified and consistently applied over time to realize transit-supportive development patterns and support a balanced transportation system for the Omaha region.

Key next steps to move the process forward with regard to transit-supportive land use will include, but are not limited to, the following:

- Relevant performance measures related to transit-supportive development should be developed, in common with Heartland 2050 to the extent feasible, for use in the evaluation of transit scenarios and subsequent tracking of related transit-supportive development efforts.

Policies supporting coordinated land use and transportation planning will need to be defined, adopted and enforced consistently throughout the Metro service area.

- Each jurisdiction should continue to, or begin to, establish appropriate regulatory and administrative policies to support development locally in transit-supportive areas. Policies should be reasonably consistent across municipal boundaries and the process should include an ongoing dialogue with property owners and institutions that may benefit from transit investments, as well as local elected officials and key stakeholders representing the jurisdictions that will be impacted. Development review should include Metro to ensure that transit service needs are being accommodated. Development incentives to be considered locally should include catalyst projects (e.g. libraries, police stations, parks and/or other public facilities), streamlined permitting, impact or permit fee relief, density bonuses and/or other tools to encourage development in high-priority locations.
- Building on the *Heartland Connections* and Heartland 2050 processes, each jurisdiction should develop corridor and/or area plans with appropriate transit-supportive land use recommendations, design guidelines and transportation and infrastructure requirements for identified high-capacity transit corridors with the potential for significant multi-modal coordination and/or transit-supportive development. The City

of Omaha's *Urban Design Handbook* will be a key resource in this effort.

- "Nodes" along each corridor with relatively strong potential for multi-modal coordination and new or infill real estate development that support transit have been identified. Local area master plans developed in coordination with community groups should be prepared to identify specific locations where development opportunities converge with the one or more frequent, all day transit services that are proposed to serve these key nodes.
- Consider the use of "interim" zoning overlays to forestall any ill-advised development approvals on key sites, thus allowing time to implement the transit-supportive development strategies outlined in this chapter along designated high-capacity transit corridors and key nodes.
- After corridor and node plans are completed and adopted, create permanent zoning overlays to implement the specific transit-supportive recommendations of each local plan. The zoning overlays should incorporate prescriptive measures such as density thresholds and parking maximums, incentives such as density bonuses and flexible parking standards, or a combination of both. Each jurisdiction will craft requirements based on the type of transit investment and local needs as identified in each area or node plan. In Omaha, the ACI zoning overlay could be amended to include a Transit or "T" designation for designated high-capacity transit corridors.
- Municipalities should assess existing public and private parking supply and conditions at key nodes, to develop an appropriate long-term parking management strategy that balances the needs of all users while supporting transit use.
- Municipalities should investigate options for the use of value capture strategies to fund the local elements of a regional transit system, such as transit stops/stations, park-and-ride facilities, streetscape improvements, bicycle and pedestrian facilities and other associated infrastructure improvements and amenities. Throughout the country, it has been demonstrated that high-capacity transit projects have the potential to increase property values and leverage private reinvestment that would not have occurred without the project. Value capture strategies use this incremental value increase to fund station/stops and associated area improvements. Such strategies can include Special Assessment Districts, Tax Increment Financing Districts, or Developer/Impact Fees.

2.9 Governance Peer Regions

To provide relevant insight into the development of transit agency governance strategies that support the long-term transit vision for the Omaha region, an inventory of eight "peer" metropolitan regions is presented in this section. The peer regions identified represent a range of approaches to balancing transit benefits, contributions and board representation across a diverse metropolitan region. Peer regions in which relevant statistics and governance approaches have been assembled include:

1. Albuquerque, New Mexico (Rio Metro Regional Transit District)
2. Austin, Texas (Capital Metropolitan Transportation Authority)
3. Cincinnati, Ohio (Southwest Ohio Regional Transit Authority)
4. Denver, Colorado (Regional Transportation District)
5. Des Moines, Iowa (Des Moines Area Regional Transit Authority)
6. Kansas City, Missouri (Kansas City Area Transportation Authority)
7. Minneapolis – St.. Paul, Minnesota (Metro Transit)
8. St.. Louis, Missouri (Bi-State Development Agency, dba Metro Transit)

Data categories presented for comparisons across these peer regions include the following, as summarized in **Table 2.5** and described in detail in **Table 2.6** and **Table 2.7:**

- Demographics: Census metropolitan statistical area (MSA) population, MSA size, MSA 20-year Compound Annual Growth Rate (CAGR), presence of state capital and/or major university
- Planning agencies: Regional planning agency (MPO), regional transit agency, presence of other transit agencies
- Regional planning agency (MPO) characteristics: Planning area, share (%) of MSA population represented, board size and structure, board member selection method, geographic representation of board, planning functions, operating functions
- Transit system size: Number of transit vehicles by type, system ridership, status of rapid transit provision (fixed guideway or BRT)
- Regional transit agency characteristics: Unit of membership, agency participation mechanism, service area description, service area size, service area share (%) of MSA population, board size and structure, board member selection method, geographic representation of board, agency powers
- Regional transit agency financials: Capital and operating budgets (five-year average totals), local share (%) of capital and operating funds, sources of local operating funds, dedicated transit funding (tax rate and type)

For purposes of comparison, the data noted above is also presented for the Omaha region, MAPA and Metro currently.

As the regional transit vision for the Omaha region was identified over the course of this study, governance and funding strategies were recommended based on the existing legislative framework, the unique characteristics of the region and the relevant lessons gleaned from these peer regions. The experiences of other agencies that provide services similar to those being considered in Omaha and/or that have addressed similar challenges, offered valuable perspectives as implementation strategies are developed.

Considerations will include:

- Developing workable approaches to collecting and appropriating transit funds, avoiding excessive cross-subsidization between communities.
- Balancing the jurisdictional sources of funding support with the broad regional benefits of transit service provision.
- Balancing representation on the transit agency board with the geographic incidence of funding sources and investment areas.
- Structuring the transit agency board to be responsive, engaged, effective and representative of the region's diverse needs.
- Appropriate "lessons learned" from the peer regions that are determined to be most directly applicable to the Omaha region are identified and summarized in the context of the preferred vision scenario, presented in Chapter 7.

Table 2.5: Peer Region Summary Characteristics[25] (Albuquerque, Austin, Cincinnati, Denver & Des Moines)

Peer Region	Albuquerque	Austin	Cincinnati	Denver	Des Moines
Population					
MSA Counties	4 counties	5 counties	15 counties	10 counties	5 counties
MSA Size (Sq. Miles)	9,283	4,220	4,392	8,346	2,884
MSA Population 2010	887,077	1,716,289	2,130,151	2,543,482	569,633
Ratio to Omaha	1.03	1.98	2.46	2.94	.66
Twenty-Year Compound Annual Growth Rate (CAGR)	2.0%	3.6%	0.7%	2.1%	1.6%
Population Density (per square mile)	96	407	485	305	198
State Capital	No	Yes	No	Yes	Yes
Major University	Yes	Yes	Yes	Yes	No
Regional Planning Agency	Mid-Region Council of Governments (MRCOG)	Capital Area Council of Governments (CAPCOG)	Ohio-Kentucky-Indiana Regional Council of Governments (OKI)	Denver Regional Council of Governments (DRCOG)	Des Moines Area Metropolitan Planning Organization (DMAMPO)
Website	www.mrcog-nm.gov	www.capcog.org	www.oki.org	www.drcog.org	www.dmampo.org
Regional Transit Agency	Rio Metro Regional Transit District (Rio Metro RTD)	Capital Metro Transportation Authority (CMTA)	Southwest Ohio Regional Transit Authority (SORTA)	Regional Transportation District (RTD)	Des Moines Area Regional Transit Authority (DART)
Website	www.riometro.org	www.capmetro.org	http://www.go-metro.com/about-metro/sorta	www.rtd-denver.com	www.ridedart.com
Other Urban Transit Agencies	1	0	4	0	0
Rural/Suburban Transit Agencies	0	1	2	0	1
System Size (VOMS – NTD 2011)					
Ridership (total annual)	1,237,867	34,385,196	18,957,732	97,784,885	4,043,128
Vehicles Operated in Maximum Service					
Rail Vehicles	20	4	0	108	0
Buses	0	340	287	822	94
Demand Response	6	123	48	359	29
Ferryboat	0	0	0	0	0
Rapid Transit Status (i.e. BRT or Commuter Rail)	Operation	Operation	Planning	Operation	Planning
Transit Budget FY 2010 (NTD 2011) (millions)					
Regional Agency – Operating	$25	$171	$84	$425	$20
Regional Agency – Capital	$8	$11	$23	$627	$5
Other Operators – Operating (2011) (If available)	$43	N/a	$27	N/a	$4
Other Operators – Capital (2011) (If available)	$2	N/a	$4	N/a	$1

25 - Data as of August, 2012

Table 2.5: Peer Region Summary Characteristics (Kansas City, Minneapolis-St. Paul, St. Louis & Omaha)

Peer Region	Kansas City	Minneapolis- St. Paul	St. Louis	Omaha
Population				
MSA Counties	15 counties	13 counties	15 full counties, 1 partial county and 1 city	8 counties
MSA Size (Sq. Miles)	7,827	6,027	8,623	4,350
MSA Population 2010	2,035,334	3,279,833	2,812,896	865,350
Ratio to Omaha	2.35	3.79	3.25	–
Twenty-Year Compound Annual Growth Rate (CAGR)	1.1%	1.3%	.4%	1.2%
Population Density (per square mile)	260	544	326	199
State Capital	No	Yes	No	No
Major University	No	Yes	Yes	Yes
Regional Planning Agency	Mid-America Regional Council (MARC)	Metropolitan Council (Met Council)	East-West Gateway Council of Governments (EWGCOG)	Metropolitan Area Planning Agency (MAPA)
Website	http://marc.org	www.metrocouncil.org	www.ewgateway.org	www.mapacog.org
Regional Transit Agency	Kansas City Area Transportation Authority (ATA)	Metro Transit	Bi-State Development Agency (dba Metro Transit)	Transit Authority of Omaha (dba Metro)
Website	www.kcata.org	http://metrotransit.org	www.metrostlouis.org	www.ometro.com
Other Urban Transit Agencies	0	0	0	0
Rural/Suburban Transit Agencies	2	9	3	1
System Size (VOMS – NTD 2011)				
Ridership (total annual)	15,887,134	80,886,890	42,971,353	3,991,168
Vehicles Operated in Maximum Service				
Rail Vehicles	0	47	58	0
Buses	197	741	316	122
Demand Response	76	0	95	19
Ferryboat	0	0	0	0
Rapid Transit Status (i.e. BRT or Commuter Rail)	Operation	Operation	Operation	Planning
Transit Budget FY 2010 (NTD 2011) (millions)				
Regional Agency – Operating	$80	$290	$233	$26
Regional Agency – Capital	$16	$514	$31	$5
Other Operators – Operating (2011) (If available)	$15	$101	$21	N/a
Other Operators – Capital (2011) (If available)	$3	$16	$24	N/a

Table 2.6: Characteristics of Peer Regional Planning Agencies[26] (Albuquerque, Austin, Cincinnati, Denver & Des Moines)

Peer Region	Albuquerque	Austin	Cincinnati	Denver	Des Moines
Regional Planning Agency Name	Mid-Region Council of Governments (MRCOG)	Capital Area Council of Governments (CAPCOG)	Ohio-Kentucky-Indiana Regional Council of Governments (OKI)	Denver Regional Council of Governments (DRCOG)	Des Moines Area Metropolitan Planning Organization (DMAMPO)
Planning Area					
Basic Description	All of Bernalillo, Sandoval, Torrance, Valencia and Edgewood in Santa Fe County	Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Llano, Travis and Williamson Counties	Butler, Clermont, Hamilton and Warren counties in Ohio; Boone, Campbell and Kenton counties in Kentucky; and Dearborn County in Indiana	Fifty-seven local governments, including all of seven counties and two city/counties	Parts of Dallas, Madison, Polk and Warren counties including, but not limited to, the cities of Altoona, Ankeny, Bondurant, Carlisle, Clive, Des Moines, Grimes, Indianola, Johnston, Mitchellville, Norwalk, Pleasant Hill, Polk City, Urbandale, Waukee, West Des Moines, Windsor Heights
Share of MSA Region (approximate)	100%	107%	94%	N/A	N/A
Board Structure					
Voting Board Members	57	25+	over 100	57	42
Board Size	Full 57 member board serves as policy body. Twelve member Executive Board acts as administrative and financial body for MRCOG.	The governing body is the 25 to 27 member Executive Committee of the COG.	Executive Committee of approximately 30 voting members has the authority to make all policy decisions for OKI Board. Board of Directors is approximately 117 members.	The 57-member DRCOG Board of Directors is made up elected officials who are the appointed representatives of local government members. The City and County of Denver has both City and County representation as it pays for both memberships. The City and County of Broomfield is represented only as the City of Broomfield. The 16-member Regional Transportation Committee administers the transportation planning/MPO responsibilities.	Full 42-member policy committee takes formal action on issues. Five advisory members include representative from the Des Moines International Airport, FTA FHWA, Heart of Iowa RTA and Iowa DOT.

26 - Data as of August, 2012

Table 2.6: Characteristics of Peer Regional Planning Agencies (Kansas City, Minneapolis-St. Paul, St. Louis & Omaha)

Peer Region	Kansas City	Minneapolis-St. Paul	St. Louis	Omaha
Regional Planning Agency Name	Mid-America Regional Council (MARC)	Metropolitan Council (Met Council)	East-West Gateway Council of Governments (EWGCOG)	Metropolitan Area Planning Agency (MAPA)
Planning Area				
	Johnson, Leavenworth, Miami and Wyandotte in Kansas; and Cass, Clay, Jackson, Platte and Ray in Missouri	Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington Counties	Franklin, Jefferson, St.. Charles and St.. Louis Counties and the City of St.. Louis in Missouri and Madison, Monroe and St.. Clair Counties in Illinois	Washington, Douglas and Sarpy Counties in Nebraska and Pottawattamie and Mills Counties in Iowa
Share of MSA Region (approximate)	94%	87%	80%	93%
Board Structure				
Voting Board Members	33	17	24	9
Board Size	Full board of 33 members are locally elected leaders from the 9 member counties and the 6 largest cities in the region: Kansas City, KS; Kansas City, MO; Independence, MO; Lee's Summit, MO; Olathe, KS; Overland Park, KS.	Total of 17 Council Members appointed by the governor. Thirty-three-member Transportation Advisory Board contains one representative from each county, 10 municipal officials; 7 county commissioners, 8 citizen representatives, 4 state and regional agency representatives, 4 modal representatives (2 transit, 1 non-motorized, 1 freight)	24-member board includes 17 elected officials, including 9 from Missouri and 8 from Illinois. 6 appointed regional citizens also serve. Both state DOTs and representatives from the State, including the transit agency are nonvoting members	Board members represent nine specific Council of Officials member entities. Full governing body is a 63-member council of officials, representing each of the 63 governmental units which comprise MAPA. Current membership consists of five counties, 38 towns, 19 special purpose governmental entities and one city council

Table 2.6: Characteristics of Peer Regional Planning Agencies[26] (Albuquerque, Austin, Cincinnati, Denver & Des Moines)

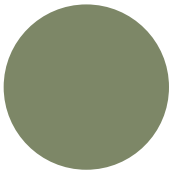
Peer Region	Albuquerque	Austin	Cincinnati	Denver	Des Moines
Regional Planning Agency Name	Mid-Region Council of Governments (MRCOG)	Capital Area Council of Governments (CAPCOG)	Ohio-Kentucky-Indiana Regional Council of Governments (OKI)	Denver Regional Council of Governments (DRCOG)	Des Moines Area Metropolitan Planning Organization (DMAMPO)
Method of Selection	Appointed by member entities	The CAPCOG General Assembly, made up of representatives of member organizations, nominates and selects city and county elected officials to serve on the Executive Committee.	Appointed by member entities	Elected officials appointed by member entities	Appointed by member entities
Board Members Appointed by / Representing					
State	1/1	0/0	0/0	0/0	0/0
Counties	8/8	11/11	8/8	8/8	5/5
Largest city	7/7	1/1	0/0	1/1	9/9
DOT	0/0	0/0	0/0	0/0	0/0
Transit Agency	0/0	0/0	0/0	0/0	1/1
Other Cities/Districts	41/41	10/10	17/17	48/48	27/27
At Large	0/0	3/3	5/5	0/0	0/0
Planning Functions					
MPO (transportation planning)	Yes	No	Yes	Yes	Yes
Water Resources Planning	Yes	Yes	Yes	Yes	No
Open Space Planning	Yes	Yes	Yes	No	No
Land Use Planning	Yes	Yes	Yes	Yes	No
Other	Economic Development Workforce Development	Economic Development; Air Quality; Solid Waste Planning Transportation planning in conjunction with the MPO – Capital Area Metropolitan Planning Organization	Clean Air; Economic Development	Disaster Planning;Aging/ Seniors; Sustainability; Bicycle and Pedestrian Planning; Transit Oriented Development	Bicycle and Pedestrian Planning
Operating Functions					
Transit Operations	Yes	No	No	No	No
Mobility Services	Yes	No	Yes	No	No
Ridesharing	No	No	Yes	Yes	No
Wastewater Treatment	No	No	No	No	No
Solid Waste Disposal	No	No	No	No	No
Parks	No	No	No	No	No
Convention Center	No	No	No	No	No
Affordable Housing	No	No	No	No	No

26 - Data as of August, 2012

Table 2.6: Characteristics of Peer Regional Planning Agencies (Kansas City, Minneapolis-St. Paul, St. Louis & Omaha)

Peer Region	Kansas City	Minneapolis-St. Paul	St. Louis	Omaha
Regional Planning Agency Name	Mid-America Regional Council (MARC)	Metropolitan Council (Met Council)	East-West Gateway Council of Governments (EWGCOG)	Metropolitan Area Planning Agency (MAPA)
Method of Selection	Appointed by member entities	Appointed by governor	Elected members and appointed by elected officials of member entities	Appointed by member entities
Board Members Appointed by / Representing				
State	0/0	17/0	1/0	0/0
Counties	18/14	0/0	15/15	3/3
Largest City	5/4	0/0	3/3	2/2
DOT	0/0	0/0	0/0	0/0
Transit Agency	0/0	0/0	0/0	0/0
Other Cities/Districts	10/15	0/16	5/5	4/4
At Large	0/0	0/1	0/1	0/0
Planning Functions				
MPO (transportation planning)	Yes	Yes	Yes	Yes
Water Resources Planning	Yes	Yes	No	No
Open Space Planning	Yes	Yes	No	No
Land Use Planning	Yes	Yes	No	Yes
Other	Aviation; Community and Workforce Development; Bicycle/Pedestrian Planning; Aging/Seniors; Local Government Services; Homeland Security and Emergency Services	Aviation System Planning	Emergency Response; Environmental; Community Engagement; Aviation	Environmental; Community and Economic Development
Operating Functions				
Transit Operations	No	Yes	No	No
Mobility Services	No	Yes	No	No
Ridesharing	No	Yes	No	Yes
Wastewater Treatment	No	Yes	No	No
Solid Waste Disposal	Yes	No	No	No
Parks	No	Yes	No	No
Convention Center	No	No	No	No
Affordable Housing	No	Yes	No	No

Table 2.7: Characteristics of Peer Regional Transit Agencies[27] (Albuquerque, Austin, Cincinnati, Denver & Des Moines)

Peer Region	Albuquerque	Austin	Cincinnati	Denver	Des Moines
Regional Agency Name	Rio Metro Regional Transit District (Rio Metro RTD)	Capital Metro Transportation Authority (CMTA)	Southwest Ohio Regional Transit Authority (SORTA)	Regional Transportation District (RTD)	Des Moines Area Regional Transit Authority (DART)
Other Urban Transit Agencies	1	0	4	0	0
Rural/Suburban Transit Agencies	0	1	2	0	1
Unit of Membership	Defined by county and municipal governments	Defined by municipality	Defined by county and municipal governments	Defined by state	Defined by county and municipal governments
District Mechanism					
	Government unit may join district with 2/3 vote by RTD board; withdrawal permitted by resolution of government unit	City opt-in	City/county opt-in through amendment adoption and approval of Board of County Commissioners and member governments	Cities can opt in and out by vote	Cities can opt in and out by resolution.
Service Area					
Service Area Description	8 municipalities and 3 counties	8 municipalities and unincorporated parts of 2 counties	1 county and portions of 3 other counties	6 counties plus two city/county jurisdictions	All of Polk County including the cities of: Des Moines, Altoona, Ankeny, Clive, Johnston, Urbandale, West Des Moines, Windsor Heights, Mitchellville, Bondurant, Pleasant Hill, Carlisle, Alleman, Polk City, Granger and Grimes
Service Area Share of MSA Population (2010)	57%	53%	40%	103%	73%
Transit Agency Financials (2011)					
Five-Year Average Total Operating Expenditures (millions) (2007-2011)	$22	$162	$87	$423	$20
Local Share of Operating Funds	52%	77%	45%	55%	20%
Sources for Local Share of Operating Funds					
Income Taxes Sales Taxes Property Taxes Gas Taxes Other Dedicated Taxes Other Funds					

27 - Data as of August, 2012

Table 2.7: Characteristics of Peer Regional Transit Agencies (Kansas City, Minneapolis-St. Paul, St. Louis & Omaha)

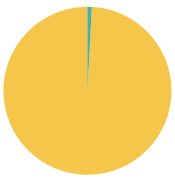
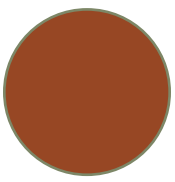
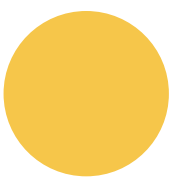
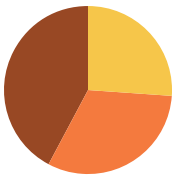
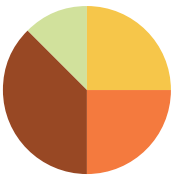
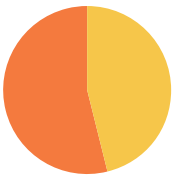
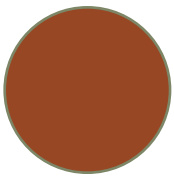
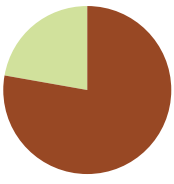
Peer Region	Kansas City	Minneapolis-St. Paul	St. Louis	Omaha
Regional Agency Name	Kansas City Area Transportation Authority (ATA)	Metro Transit	Bi-State Development Agency (dba Metro Transit)	Transit Authority of Omaha (dba Metro)
Other Urban Transit Agencies	0	0	0	0
Rural/Suburban Transit Agencies	2	9	3	1
Unit of Membership	Defined by compact	Defined by state	Defined by compact	Defined by municipality
District Mechanism				
	Compact between Kansas and Missouri, approved by the U.S. Congress	Operating division of the Metropolitan Council	Defined by an interstate compact and ratified by U.S. Congress	City/county opt-in through their governing board approval and proclamation by the transit authority
Service Area				
Service Area Description	4 Missouri counties and 3 Kansas counties	7 counties	1 municipality and 6 counties in 2 states	5 municipalities and 1 county in Nebraska and 1 municipality in Iowa. Service outside of the City of Omaha is contracted.
Service Area Share of MSA Population (2010)	37%	55%	55%	67%
Transit Agency Financials (2011)				
Five-Year Average Total Operating Expenditures (millions) (2007-2011)	$76	$275	$223	$24
Local Share of Operating Funds	69%	6%	66%	51%
Sources for Local Share of Operating Funds				
Income Taxes Sales Taxes Property Taxes Gas Taxes Other Dedicated Taxes Other Funds				

Table 2.7: Characteristics of Peer Regional Transit Agencies[27] (Albuquerque, Austin, Cincinnati, Denver & Des Moines)

Peer Region	Albuquerque	Austin	Cincinnati	Denver	Des Moines
Regional Agency Name	Rio Metro Regional Transit District (Rio Metro RTD)	Capital Metro Transportation Authority (CMTA)	Southwest Ohio Regional Transit Authority (SORTA)	Regional Transportation District (RTD)	Des Moines Area Regional Transit Authority (DART)
Five-Year Average Total Capital Expenditures (millions)	$31	$37	$17	$438	$6
Local Share of Capital	2%	0%	12%	64%	11%
Dedicated Transit Funding					
Tax rate and type	0.125 cent gross receipts tax collected in Bernalillo, Sandoval and Valencia counties; 50% dedicated to Rail Runner commuter rail and 50% to Rio Metro bus; 50% of 0.125 gross receipts tax in Santa Fe County goes to Rail Runner commuter rail	1% sales tax in member cities	3/10 of 1% of the earnings tax collected by the City of Cincinnati. The earnings tax is paid by everyone who works or lives in the city.	1% district-wide sales and use tax	Cities are allowed under the Iowa Code to levy a dedicated property tax for transit of 95 cents per $1,000 assessed valuation
Board Structure					
Number of Voting Members	19	8	13	15	9
Number of Elected Officials	19	3	0	15	N/a
Percent Elected Officials	100%	38%	0%	100%	N/a
Method of Selection	Appointed by members according to the allocation formula.	Appointed by members (and groups of members) according to the allocation formula.	Appointed by member city (Cincinnati), with proportional representation from member counties	Directly elected	Appointed by members according to the allocation formula
Board Members Representing					
State County Largest City Other/Districts At Large					

27 - Data as of August, 2012

Table 2.7: Characteristics of Peer Regional Transit Agencies (Kansas City, Minneapolis-St. Paul, St. Louis & Omaha)

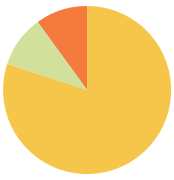
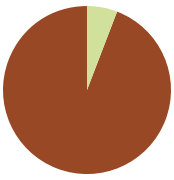
Peer Region	Kansas City	Minneapolis-St. Paul	St. Louis	Omaha
Regional Agency Name	Kansas City Area Transportation Authority (ATA)	Metro Transit	Bi-State Development Agency (dba Metro Transit)	Transit Authority of Omaha (dba Metro)
Five-Year Average Total Capital Expenditures (millions)	$14	$226	$42	$5
Local Share of Capital	14%	35.2%	314%	0%
Dedicated Transit Funding				
Tax rate and type	Kansas City, Mo levies a .375% (3/8%) dedicated ATA sales tax, which is set to expire in 2024; Missouri provides transit funding ($461,000 in FY 2009), but future amounts are uncertain	Portion of Motor Vehicle Sales Tax. 2006 constitutional amendment increased transportation allocation to 100% of the MVST, with minimum 40% for transit.	St.. Clair County adopted a .5 cent sales tax to support MetroLink light rail. The City of St.. Louis and St.. Louis County collect a .25 cent and .5 cent sales taxes. Metro receives all of the .25 cent sales tax. Almost 100% of .5 cent sales tax collected by the City of St.. Louis goes to Metro. Prop A (2012) provides an additional .5 cent sales tax from St.. Louis County and .25 cent sales tax from the City of St.. Louis. The County splits its Prop A money between Metro and roadway projects.	Local property taxes in the amount of .04933% of the levy amount of a home.
Board Structure				
Number of Voting Members	10	17	10	5
Number of Elected Officials	0	0	0	0
Percent Elected Officials	0%	0%	0%	0
Method of Selection	Appointed by a combination of member governments and the governors of each state, according to the allocation formula	Appointed by the governor, representing districts, with one at-large representative.	Five are appointed by the Governor of Missouri. Two are appointed by the Governor of Illinois, the rest are appointed by member counties in Illinois.	Four at-large members appointed by Mayor of Omaha with approval by City and County Boards and one nominated by member jurisdiction and appointed by Mayor of Omaha with City and County Board approval.
Board Members Representing				
State County Largest City Other/Districts At Large				

Table 2.7: Characteristics of Peer Regional Transit Agencies[27] (Albuquerque, Austin, Cincinnati, Denver & Des Moines)

Peer Region	Albuquerque	Austin	Cincinnati	Denver	Des Moines
Regional Agency Name	Rio Metro Regional Transit District (Rio Metro RTD)	Capital Metro Transportation Authority (CMTA)	Southwest Ohio Regional Transit Authority (SORTA)	Regional Transportation District (RTD)	Des Moines Area Regional Transit Authority (DART)
Agency Powers					
Set Fare Policy	Yes	No	Yes	Yes	Yes
Condemn Property	No	Yes	Yes	Yes	Yes
Expand District	Yes	No	Yes	Yes	No
Increase Taxes	No	No	Yes	Yes	Yes
Issue Debt Securities/ Borrow Money	Yes	Yes	Yes	Yes	Yes
Public-Private Partnership	Yes	Yes	Yes	Yes	No
Construct Roads/ Access	No	Yes	No	Yes	Yes
Provide or Operate Facilities Outside District	Yes	Yes	Yes	Yes	Yes
Approve the Region's Transportation Improvement Plan (TIP)	No	No	No	No	No
Overrule Local Land-Use Decisions, i.e. Developments of Regional Impact (DRI) review authority	No	No	No	No	No

27 - Data as of August, 2012

Table 2.7: Characteristics of Peer Regional Transit Agencies (Kansas City, Minneapolis-St. Paul, St. Louis & Omaha)

Peer Region	Kansas City	Minneapolis-St. Paul	St. Louis	Omaha
Regional Agency Name	Kansas City Area Transportation Authority (ATA)	Metro Transit	Bi-State Development Agency (dba Metro Transit)	Transit Authority of Omaha (dba Metro)
Agency Powers				
Set Fare Policy	Yes	Yes	Yes	Yes
Condemn Property	Yes	Yes	Yes	Yes
Expand Districts	No	No	No	Yes
Increase Taxes	Yes	Yes	No	Yes
Issue Debt Securities/ Borrow Money	Yes	Yes	Yes	Yes
Public-Private Partnership	Yes	Yes	Yes	Yes
Construct Roads/Access	No	No	Yes	No
Provide or Operate Facilities Outside District	No	Yes	Yes	Yes
Approve the Region's Transportation Improvement Plan (TIP)	No	Yes	No	No
Overrule Local Land-Use Decisions, i.e. Development of Regional Impact (DRI) review authority	No	Yes	No	No

3 THE VISIONING PROCESS

Based on an understanding of the existing public transit network, initial stakeholder input and the findings of past transit planning efforts, the preliminary Transit Vision Statement below was discussed and refined in order to guide development and assessment of the **Regional Transit Vision** scenarios. The preliminary vision is supplemented by several draft Goals and Objectives which led to the development of system performance measures and the prioritization of candidate projects.

3.1 A Transit Vision Statement

Public transit will be an integral element of the Omaha region's Built Capital, providing a key mobility option in a comprehensive multi-modal system. This system will provide access between home, work, commercial, educational, civic and recreational destinations. Over time, public transit investments will contribute to a region of interconnected, diverse, walkable communities that provide balanced transportation access. Coordinated public and private investments in infrastructure and development at key nodes along high-priority corridors will move transit beyond "lifeline" service to a mode of choice for a larger audience, contributing significantly to regional quality of life and environmental goals.

3.2 Transit Goals and Objectives

The preliminary Goals and Objectives outlined below address considerations related to the design and operation of the proposed transit system, including leveraging transit investments to achieve broader economic and environmental benefits.

System Design Goal:

Utilize targeted investments in public transit to provide increased regional mobility options in a resource-efficient manner.

System Design Objectives

1. Create a comprehensive public transit system incrementally, expanding the system in phases that build effectively upon one another and result in a cohesive "hierarchy" of service types over time.
2. Focus investments along corridors where transit service will complement and strengthen existing development patterns and/or support efficient new development and public infrastructure.
3. Provide initial service upgrades to and between origin-destination markets in which public transit can be competitive with automobiles, while maintaining essential services in transit-dependent areas, balancing the need for high-capacity "choice" routes and "last mile" connectivity.
4. Attract new transit users by offering high quality, user-friendly and convenient service that provides an attractive alternative to private automobile use, accessed at convenient station/stop areas that are safe, pedestrian-friendly and integral elements of each unique community or neighborhood.
5. Select transit technologies that most efficiently serve local transportation needs in a cost-effective manner, including implementing traffic signal priority (TSP) technology to not only benefit transit users but also address traffic safety and emergency response time considerations.

Economic Development Goal:

Utilize targeted investments in public transit to support regional efforts to improve the business environment and attract a high quality workforce.

Economic Development Objectives

1. Leverage public investment in transit by providing improved service to established activity centers and areas with strong economic development potential,

thereby encouraging a cycle of reinvestment and infill in support of broader community goals.

2. Provide increased service to the Downtown and urban core as uniquely pedestrian-friendly destinations, thereby reducing the demand for parking spaces in the Downtown over time and providing for additional development (and therefore value capture) opportunities.

3. Expand beyond the "downtown-centric" pattern of the transit system over time to better serve cross-town travel patterns and movement between non-centralized activity centers.

4. Understand and leverage the desire of younger "knowledge" workers to choose a vibrant urban lifestyle, thereby attracting and maintaining a strong business community.

Sustainability and Quality of Life Goal:

Utilize targeted investments in public transit to further regional efforts to become a more environmentally responsible, cost effective and desirable living environment.

Sustainability and Quality of Life Objectives:

1. Facilitate the development of a hierarchy of arterial corridors and activity nodes outside the urban core that can be cost-effectively served and linked together by transit to reduce automobile dependence, implementing a transit-supportive land use pattern over time in these focused areas.
2. Mitigate increasing traffic congestion and its detrimental effects on air quality by enabling a convenient mode shift to transit for Omaha region residents who choose to reside in proximity to transit-served corridors.
3. Discourage continued "leapfrog" development into outlying areas that cannot be efficiently served by transit and instead encourage infill development along transit-served corridors, by ensuring that incentives for development are targeted to projects that strengthen a pattern of contiguous development.
4. Locate new civic, cultural and recreational resources (such as schools, libraries and hospitals) only on sites that are currently served by transit or targeted for transit service expansion.

3.3 Potential Elements of a Transit System

An overview of potential future transit modes for the Omaha region is provided below. Described are the basic features and purpose of each mode as it relates to an overall system, outlining key assumptions regarding the service type. Those assumptions inform the development of project scenarios described in the chapters that follow. Based on ongoing market assessment work by TMD, potential elements may be adjusted to better align with the structure of future service recommendations.

3.3.1 Light Rail Transit (LRT)

Light Rail Transit service operates on a fixed guideway, offering high capacity regional or urban service. Stations are typically spaced between approximately one-half (1/2) to two miles apart, depending upon vehicle type and the existing or anticipated density of development. LRT service is often provided in an exclusive right-of-way, such as within the median of a major arterial, but it can be operated in mixed traffic. Peak period service typically operates every five to 15 minutes throughout the day, with lower frequency during off-peak hours. Electric or hybrid (diesel and electric) vehicle technology is typically used, arriving and departing from permanent boarding platforms that often include shelters. "Next train" information can be provided for waiting passengers. Depending on the location, ridership estimates and mode(s) of passenger arrival for each station, some park and ride facilities may be necessary. LRT is often an upgrade from an existing bus route resulting from increased demand in ridership and/or land use densities, as LRT typically serves higher density areas or employment/entertainment destinations. LRT will be considered in transit corridors meriting the highest service level and with the best potential for transit-supportive development.

28 -Chicago to Council Bluffs – Omaha Regional Passenger Rail System Tier 1 Environmental Impact Statement. Prepared Federal Railroad Administration, Iowa Department of Transportation, and Illinois Department of Transportation, May 2013

3.3.2 Streetcar

Streetcars operate on a fixed guideway, offering urban circulator service. Stations are typically spaced between one-quarter (1/4) to one mile apart. Service can be provided in an exclusive right-of-way, such as in the median of a major arterial, or streetcars may be street running depending upon existing or projected traffic volumes. Peak period service is every five to ten minutes throughout the day, with lower frequency during off-peak hours. Electric vehicle technology is typically used, arriving and departing from permanent boarding platforms that may include shelters. Streetcars can be used as an upgrade from an existing bus route as ridership demand warrants, as streetcars typically serve higher density areas or employment/entertainment destinations. The ongoing Central Omaha Transit Alternatives Analysis is exploring the feasibility of streetcar service in Omaha. One or more alternatives based on the findings of this study are reflected in the scenarios.

3.3.3 Bus Rapid Transit (BRT)

Bus Rapid Transit offers upgraded urban arterial bus service with many of the passenger amenities and conveniences of rail. BRT provides faster service by limiting stops to enhanced passenger stations located near major activity centers along an arterial roadway corridor. Stations are typically spaced one-third (1/3) to one mile apart. Service is often provided in a lane which is reserved for BRT during peak periods and allows mixed traffic at other times. Traffic signal priority (TSP) and queue jumps may be used to improve speeds and service reliability despite sharing the right-of-way with automobiles. Peak period service would mean the enhanced buses would arrive every ten to 15 minutes throughout the day. Coordinated shelter and vehicle design is used to establish a strong visual identity for the BRT service. Low-floor boarding provides the convenience of LRT service. "Next bus" information and semi-enclosed waiting areas with enhanced lighting further improve the experience for passengers. BRT can be used as an upgrade from an existing arterial bus route as ridership demand warrants. For purposes of this study, three BRT formats are considered as candidate projects:

- **Arterial (Mixed Traffic) BRT:** BRT operating in mixed traffic on arterials, potentially with a bus-only lane restriction during peak travel periods and incorporating limited stops, station enhancements, TSP, queue jumps and "next bus" technology.
- **Busway BRT:** BRT operating in a dedicated right-of-way requiring significant street reconstruction and also incorporating limited stops, station enhancements, TSP and "next bus" technology.
- **Freeway BRT:** BRT operating as an express rush hour service in mixed traffic on freeways, with limited stops in the urban core and at satellite park-and-ride sites. Freeway BRT is distinguished from traditional express bus services in the use of the freeway shoulder in congested areas to provide more reliable transit travel times. Stations are also typically located in or near freeway interchanges to reduce transit travel times. Service is typically limited to peak periods; during other times of day, limited or no service may be provided. Until ridership demand builds to a point where freeway BRT service becomes feasible, service could be provided in these corridors by implementing a "vanpool" system. Agency-owned vans can be used by groups of commuters who either live in close proximity to one another or who meet at outlying park-and-ride facilities before embarking on their commute together.

The ongoing Central Omaha Transit Alternatives Analysis is exploring the feasibility of BRT service in Omaha. One or more alternatives based on the findings of this study are reflected in the scenarios.

3.3.4 Key Corridor Local Bus Routes

Key corridor local bus routes offer frequent service in the most heavily traveled urban corridors of the region while still making frequent stops. Convenient transfers between key bus routes and fixed guideway transit modes are vital to the success of the overall public transit network. System improvements include an expanded service area, providing better cross-town service, reducing wait times and providing for easier transfers. Buses share curbside lanes with mixed traffic and are routed along arterial roadways. Service typically

operates every 15 to 30 minutes throughout the day. Diesel or hybrid "rubber tire" vehicle technology is used, serving permanently designated boarding areas that may include shelters, especially at high-traffic locations and transfer points. The enhanced service levels of key bus routes can be a precursor to BRT or LRT service in arterial corridors.

3.3.5 Supporting Local Bus Routes

Local bus routes are the essential component to increased mobility and access throughout the region. Convenient transfers to key bus routes and fixed guideway transit modes are imperative. System improvements include serving more areas and facilitating easier transfers. Buses share curbside lanes with vehicular traffic and are routed along arterial roadways. Approximately 30 to 60 minute headways are provided throughout the day and buses make frequent stops. Diesel or hybrid "rubber tire" vehicle technology is used, serving permanently designated boarding areas that may include shelters.

3.3.6 Community Circulators/Shuttles

"Last-mile" connectivity from terminals or other major transit stations to reach a broader activity center area can be provided with circulators or shuttle buses. Where localized demand warrants the service, a variety of routing and operating models can be considered. Circulators and shuttles can be fixed-route, flexible route or demand responsive. Vans or small buses are typically used, operating in mixed traffic on-street. Headways can vary considerably based upon local needs. Cost sharing between the transit agency and local communities or significant demand generators (such as major employers or institutions) may be appropriate. In some cases, the transit agency may lease vehicles to private operators or contract directly with private operators.

3.3.7 Paratransit

Paratransit is a vital service component that provides door-to-door "demand responsive" service for customers who are elderly or disabled and who reside within 3/4 of a mile of a fixed transit route. Riders are typically required to request a ride in advance, with service provided using ADA-accessible vans or small buses which operate in mixed traffic on-street. Paratransit provides access to health care, shopping, or other destinations, including connections or transfers to other ADA-accessible transit modes, such as bus and BRT.

3.3.8 General Public Rural Transit

General public dial-a-ride service, or "rural transit" service, provides demand responsive service typically coordinated through a central dispatch location, for areas in which fixed route transit cannot be efficiently provided due to low ridership potential. This service level will be considered for outlying areas, including jurisdictions that might contract with Metro to provide this service. It is distinguished from federally mandated paratransit service in areas served by fixed route bus service that is often available to the general public for all trip purposes. In many cases, however, scheduling priority is given to elderly or disabled persons making medically necessary or other important trips.

3.3.9 Intercity Rail

Intercity rail routes connect Omaha to other Midwestern cities and beyond, utilizing dedicated rail rights-of-way to be shared with freight rail. Intercity rail typically only stops at a few major stations. In the Omaha region, Amtrak currently stops at one station south of downtown Omaha near the original Burlington depot on 10th Street. Service planning for intercity rail is not the focus of the Heartland Connections study. However, this study does take into consideration the potential for accommodating key transfer connections from the regional transit system to intercity service in limited locations. The recently completed *Chicago to*

Council Bluffs – Omaha Passenger Rail System Tier I EIS[25] includes a phased development plan for intercity rail service between Chicago, Des Moines, Council Bluffs, and Omaha. The study estimates that the service could reach Council Bluffs by 2030, and Omaha by 2040, with up to four round trips per day. The proposed station in Omaha is adjacent to the existing Amtrak station, on 10th Street approximately 0.7 miles south of Downtown Omaha. Alternative stations locations are also proposed at the CenturyLink Center and north of TD Ameritrade Park.

3.4 Passenger Amenities

Available passenger amenities will vary by transit mode, ridership volume and the immediate context of the transit station or stop. Amenities that should be considered and provided where warranted include:

- Ticketing facilities, including staffed booths at high volume stations and vending machines at lower volume stations;
- One or more passenger shelters, to provide protection from inclement weather and where passenger-operated warming heaters may be installed;
- Passenger seating, with fixed benches under shelters and along platforms;
- Bike racks within close proximity to passenger waiting/boarding areas;
- Additional lighting for all passenger waiting/boarding areas;
- Refuse and recycling containers in and around passenger waiting/boarding areas;
- Passenger washrooms at high volume and staffed stations;
- User information, such as “next bus/train” tracking, automated fare payment and trip planning information, including on-line tools;
- Park-and-ride facilities at outlying station locations; and/or
- Pedestrian overpasses for accessing median-running transit services along high-traffic arterials.

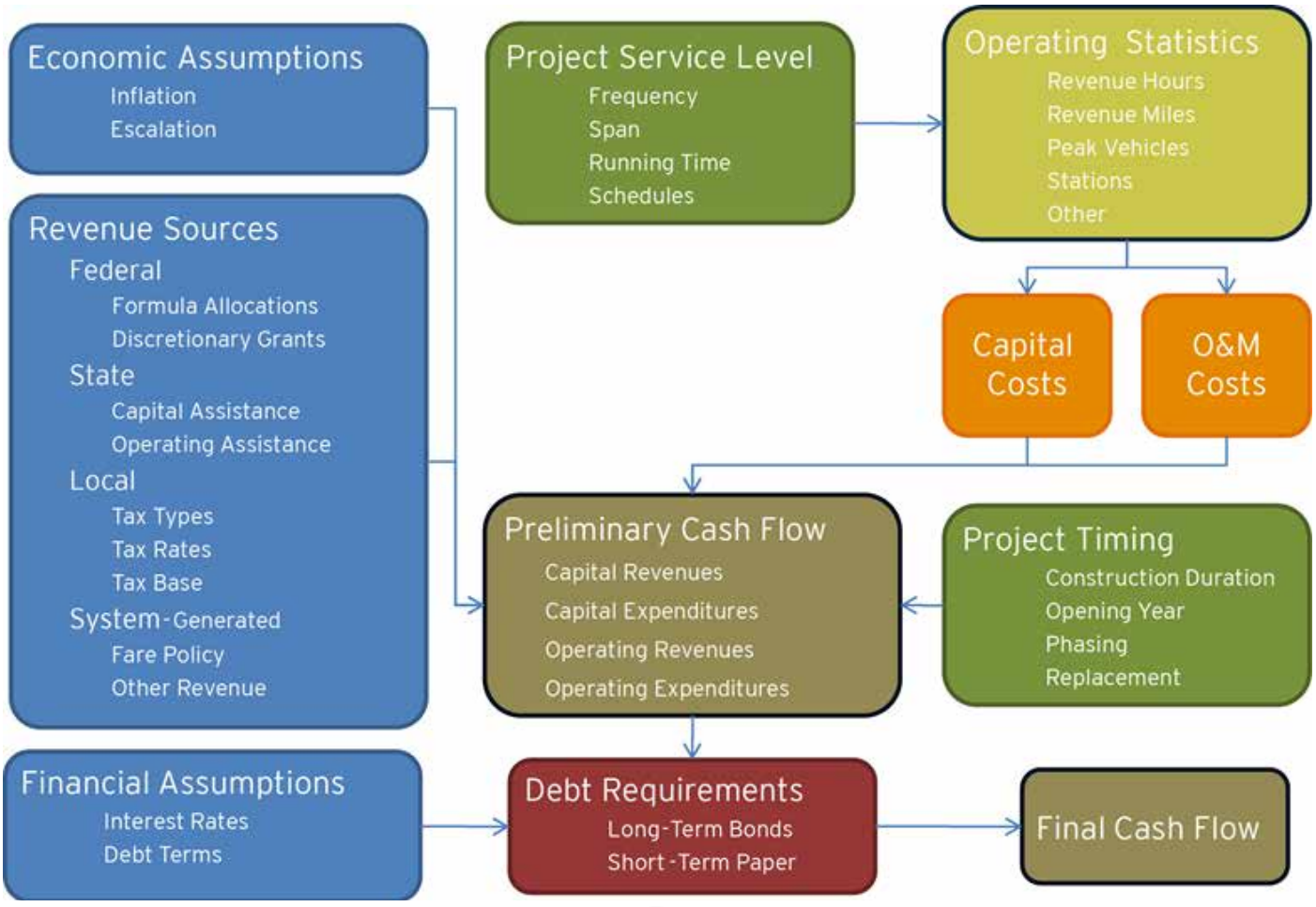
4 INTEGRATED SERVICE PLANNING FINANCIAL MODEL

To facilitate the development and evaluation of future transit service scenarios, the team developed a sophisticated, spreadsheet-based s*ervice planning financial model*. The model takes into consideration present and future funding streams — including potential new sources of funding — to identify a wide range of fiscally constrained capital and operating program scenarios in which revenues balance expenditures over time. The overall structure of the customized service planning financial model prepared for this study is depicted in **Figure 4.1**

As shown in **Figure 4.1**, the financial model integrates macroeconomic assumptions; revenue projections for existing and proposed funding sources; operations and maintenance (O&M) cost drivers; capital cost assumptions; inflation and cost escalation; and long- and short-term borrowing to estimate future transit agency cash flows under any proposed future scenario. These are summarized in the following sections, along with key assumptions built into the model. Many of these assumptions are easily modified and such modifications may be applied as circumstances change or to test the sensitivity of the model to these key assumptions.

The model evaluates the viability of potential investment program alternatives for the period between 2013 and 2050. **A scenario is considered to be financially viable when the transit agency can maintain a positive cash balance and an adequate debt service coverage ratio until 2050 or all debts are paid off, whichever is later.** The model has been developed to produce relevant performance measures, such as service statistics, productivity metrics and subregional equity measures for ease of assessment of the relative merits of each scenario being considered. To fully reflect the cash flow implications of long-term borrowing through the 2050 planning horizon, the model runs through the year 2070.

Figure 4.1: Structure of Financial Model



4.1 Revenue Sources

The model contains a wide array of existing and potential future revenue and funding sources. In addition to fares and other system-generated revenues, funding from local, MPO, state and federal sources is assumed to support the transit program. The model allows for these existing funding streams to be adjusted in future years, as well as the introduction of the potential new funding sources identified in Section 2.7, including regional sales taxes, expansion of the property tax to surrounding counties and establishment of Transit Assessment Districts in key corridors. For each of the funding sources described below, assumptions were made with respect to both the base level of funding and how that funding would increase in the future.

4.1.1 Federal Funding

Federal Formula Program Grants

The **Federal Section 5307 Urbanized Area Formula Funding** program distributes a portion of federal surface transportation trust fund revenues to transit systems for capital support, using an allocation formula that considers population, population density, fixed guideway route miles, revenue vehicle miles and passenger miles. The distribution is partially based on the amount of service provided relative to other systems in the nation. It can also be used for some operational costs, including preventive maintenance. Before accounting for system expansion, the revenue model assumes that Metro's Section 5307 funding will grow at a rate of 0.25 percent per year above the rate of inflation, starting from a base allocation equal to Metro's average for the years 2006 through 2013. This growth rate is based on average statewide growth in Section 5307 program allocations to the state of Nebraska between 2004 and 2012, based on data from the FTA.

As the system grows in Omaha, it stands to receive higher levels of funding based on these formulas. To calculate future Section 5307 contributions, the model assumes the same distribution formula will be used and that service levels on all other transit systems remain constant. The model makes no distinction between capital and operating uses of funds. Additional Section 5307 funding is calculated based on the increase in vehicle revenue miles in the system. A value of $0.4309 per vehicle revenue mile was used, which is the average dollar amount given out by the program in 2012. Thus, the total Section 5307 distribution in each year of the model is the sum of the base Metro allocation (as described in the previous paragraph) and the additional distribution based on the additional revenue miles operated over Metro's 2013 service levels. To produce a more conservative estimate, the additional share of Section 5307 funding (the allocation above the inflation adjusted 2013 amount) was reduced by 25 percent.

Federal Discretionary Program Grants

The federal government also contributes to the capital costs of new premium transit projects through its **New Starts** discretionary grant program. The model assumes a federal capital cost share of 40 percent on federally-funded capital projects. Because federal funding is not guaranteed even for eligible projects, the model also allows projects to be associated with a user-defined "New Starts Funding Probability" and reduces assumed revenues in the cash flow calculations accordingly.

Federal Surface Transportation Program Funds

The federal Surface Transportation Program (STP) provides funds to states and MPOs based on a formula including total lane-miles of federal-aid highways, average VMT, and statewide fuel tax contributions. STP funds can be used for a wide variety of projects including federal-aid highways, bridges, and transit capital projects. The vision scenarios assume that MAPA will allocate $750,000 of its STP funds to transit projects, increasing annually at the rate of inflation.

Congestion Mitigation and Air Quality (CMAQ) Program

The federal CMAQ program provides grants to state and local governments for projects that improve air quality and reduce congestion, with the goal of complying with the federal Clean Air Act. In states that are in full attainment, which includes Nebraska, CMAQ funds may be spent on any STP-eligible projects. The vision scenarios assume that $750,000 in CMAQ funds will be allocated to Metro beginning in 2018, with that amount remaining fixed in future years and no increasing with inflation.

4.1.2 State Funding

State Operating Assistance

The State of Nebraska distributes operating assistance to local transit systems. According to Metro financial documents, the agency received approximately $758,000 in state funding in 2012 and has budgeted for an allocation of $725,000 in 2013. Scenarios assume that state operating assistance in future years will be equal to the average level of the years 2006 through 2013 (budgeted) and that this level of funding will rise with the rate of inflation. Actual state funding varies from year to year and sometimes exceeds the historical average, typically resulting from one-time grants of additional operating assistance from the state.

State Capital Funding

At present, Metro does not receive any capital assistance from the State of Nebraska. However, the model is constructed to allow for such funding in future scenarios if desired. For each project, a user-defined "Probability of State Capital Funding" parameter exists. For any projects where this parameter is greater than zero, the total capital cost of the project is assumed to receive 100 percent state funding, multiplied by the user-defined probability of state funding.

4.1.3 Local Funding

At present, the only local source of non-system-generated revenue comes from property taxes levied within the City of Omaha. However, the model is constructed to allow for both expansion of the property tax to surrounding communities, as well as the introduction of new local revenue sources including sales taxes, Transit Assessment Districts, vehicle registration fees and private grants.

Property Tax

At present, Metro receives a substantial share of its funding from local property taxes collected within the City of Omaha. Metro's share of the Omaha property tax levy amounted to a rate of 0.050257 percent in 2012, resulting in an estimated $13.4 million in revenue. Metro's 2013 budget projects local tax revenue to the agency to increase to $14.0 million in the current year. For future years, the model estimates property tax revenues based on (1) an assumed 2012 tax base for incorporated and unincorporated portions of each county, as provided by MAPA, (2) assumed growth in the tax base and (3) a user-defined property tax rate, which may also change at user-defined future dates. In future years, the tax base is assumed to grow in proportion to future population growth, keeping pace with inflation on a per-capita basis. Future population growth for each of the eight counties in the study area was based on forecasts provided by the Iowa Data Center and the Nebraska Department of Economic Development.

Options for raising additional revenue for transit in the region include both raising the property tax levy for transit and/or expanding the jurisdiction in which the tax is collected. Table 4.1 shows the estimated 2012 property tax base in Omaha and the surrounding counties, as well as the revenue potential under an example property tax rate of 0.10 percent. This is the maximum allowable rate in current legislation. As shown, Omaha and Douglas County account for the largest share of the tax base, representing 28.3 percent and 38.4 percent of the eight-county total, respectively.

Table 4.1: Property Tax Base

Jurisdiction	Existing Tax Base ($millions)	Estimated Revenue at Existing 0.05% Rate ($millions)	Estimated Revenue at Example 0.10% Rate ($millions)
Cass County, NE	n/a	n/a	n/a
Douglas County, NE	$36,071	$18.0	$36.1
Omaha	*$26,569*	*$13.3*	*$26.6*
Douglas County Other	*$9,502*	*$4.8*	*$9.5*
Sarpy County, NE	$11,047	$5.5	$11.0
Saunders County, NE	$2,506	$1.3	$2.5
Washington County, NE	n/a	n/a	n/a
Harrison County, IA	$716	$0.4	$0.7
Mills County, IA	$1,355	$0.7	$1.4
Pottawattamie County, IA	$6,281	$3.1	$6.3
8-County Total	**$57,976**	**$29.0**	**$58.0**

Sales Tax

Table 4.2 summarizes the taxable retail sales in each of the eight study area counties in 2011 (the most recent year for which data was available), as well as the revenue potential at an example rate of 0.5 percent. As shown, Douglas County's share of taxable retail sales in

the region is even larger than its share of the property tax base, accounting for 76.2 percent of the regional total. Nearly all of the remainder is in Sarpy County, Nebraska and Pottawattamie County, Iowa.

Transit Assessment Districts

Transit Assessment Districts (TADs) established immediately surrounding key public transit corridors could be created to target financial support from properties most directly impacted by the public transit investment. In these districts, a supplemental property tax would be levied on property within the district in addition to the existing property tax supporting transit in the City of Omaha. Nine potential districts are defined in the model, each of which corresponds to a designated corridor within the City of Omaha. The property tax base within each district was estimated based on properties within one-half mile of the designated corridor, using the same parcel data for which county-wide estimates were developed. Future year growth in the tax base follows the same procedure that was applied to Douglas County as a whole.

Table 4.2: Sales Tax Base

Jurisdiction	2011 Taxable Retail Sales ($millions)	Estimated Revenue at Example 0.5% Rate ($millions)
Cass County, NE	$108	$0.5
Douglas County, NE	$8,213	$41.1
Sarpy County, NE	$1,118	$5.6
Saunders County, NE	$96	$0.5
Washington County, NE	$127	$0.6
Harrison County, IA	$65	$0.3
Mills County, IA	$61	$0.3
Pottawattamie County, IA	$997	$5.0
8-County Total	**$10,786**	**$53.9**

A "Regional Mobility Sales Tax" is a potential funding source suggested by community leaders early in the planning process. At present no such tax exists. In the model, it is available at the county level for each of the eight counties in the study area. The model assumes a base level of taxable sales in each of the counties, provided by the Iowa and Nebraska Departments of Revenue. This base level of sales is assumed to grow in future years in proportion to projected population growth, adjusted for recent trends in inflation-adjusted per-capita spending for the years 1997 through 2011 for each of the eight counties.

Table 4.3 summarizes the property tax base and revenue potential associated with each of the nine designated TADs under an example supplemental rate of 0.05 percent. As shown, at this rate the various districts have the potential to generate between $200,000 and $1.1 million in annual revenue with the land uses currently in place. Although increasing density in these corridors could yield higher revenues, existing tax bases are used as a conservative assumption.

Table 4.3: Transit Assessment Districts

District	Existing Tax Base ($millions)	Estimated Revenue at Example 0.05% Rate ($millions)
Dodge - Midtown to Downtown	$1,697	$0.8
Dodge - West of Midtown	$2,289	$1.1
Ames/Military	$452	$0.2
SR 370	$888	$0.4
L St./Q St.	$1,922	$1.0
30th	$1,416	$0.7
Maple St.	$1,693	$0.8
72nd St.	$1,726	$0.9
84th St.	$883	$0.4

Vehicle Registration Tax

The model allows for imposition of a tax on automobile registrations as a means to fund transit. As a base assumption, the model uses data on the number of vehicles registered in each county, as provided by the Iowa Department of Transportation and the Nebraska Department of Motor Vehicles. The model estimates future year vehicle registrations on a per-capita basis, with the annual number for each county tied to both the future year population forecast for that county and assumed declining rate in per-capita vehicle registrations. The assumed two percent annual decline in per-capita vehicle registrations is consistent with nationwide trends in declining private automobile ownership.

Table 4.4 shows the number of vehicle registrations for each of the eight counties in 2011 (latest year of available data) and the associated revenue potential under an example rate of $60 per annual registration. The distribution of vehicle registrations by county is approximately proportional to population distribution,

with the exception of Douglas County which, owing to its more urban character, likely has a lower rate of vehicle ownership than the surrounding counties.

Table 4.4: Vehicle Registrations

Jurisdiction	2011 Total Vehicle Registrations	Estimated Revenue at Example $60 Fee ($millions)
Cass County, NE	34,756	$2.1
Douglas County, NE	436,344	$26.2
Sarpy County, NE	153,684	$9.2
Saunders County, NE	31,507	$1.9
Washington County, NE	28,034	$1.7
Harrison County, IA	26,437	$1.6
Mills County, IA	23,875	$1.4
Pottawattamie County, IA	123,226	$7.4
8-County Total	**857,863**	**$51.5**

Private Donations

Private sources of funding, most likely in the form of time-limited donations for capital projects, could serve to offset public resource requirements, while engaging key community stakeholders in the public transit initiative. Within the context of a coordinated transit branding strategy, naming rights for stations or routes could be offered as an incentive for private investment. Contributions to transit infrastructure could also be leveraged in conjunction with major development projects within or adjacent to a proposed corridor. No such funding currently exists in the Metro system, but the model allows for it on both the capital and operating side. No specific growth assumptions are applied and any one-time or recurring private funding is entered manually into the model.

System-Generated Revenues

Metro's average farebox recovery rate from 2000 to 2008 was approximately 19 percent of total operations and maintenance costs. Including other system-generated revenue, such as advertising, but not contracted services, Metro has recovered approximately 23 percent from its own activities. The projections assume that fare and other system-generated revenue will cover 20 percent of total operating expenses for all future years.

4.1.4 Contract Revenue

Certain of Metro's current transit services are operated outside of its core property tax-funded service area. These services are operated through contract arrangements with the local jurisdictions, which pay Metro's operating costs for these services. In 2012, Metro received $820,000 in contract revenue and the total for 2013 is budgeted at $786,000. As a base assumption, the model assumes that this 2013 budgeted level of contract funding will remain constant, growing with the rate of inflation. In some scenarios, contract revenue may be eliminated in favor of a regional funding approach using local taxes collected beyond the current Omaha property tax levy.

4.2 Capital Costs

As described in Chapters 5 and 6, scenarios may include the development of specific capital projects. Capital costs for each proposed transit project were estimated based on the unique characteristics of that project. The following characteristics are defined for each of the candidate projects to facilitate these estimates:

- Project Service Characteristics, which include mode (vehicle technology), service frequency (in peak, mid-peak and off-peak periods for weekdays, Saturdays and Sundays), hours of service (by period and by day) and average speed.
- Project Geography, which includes terminals, corridor length, alignment treatments, urban setting and number of stations/stops.
- Operating Statistics (computed), which include round trip running time, vehicles required for peak service, revenue vehicle hours and revenue vehicle miles.

Capital costs are estimated per the methodology described in **Table 4.5**. The modes for which costs were calculated and the sources of comparable costs data, are noted below. Costs were derived from a database of recent HNTB projects.

Table 4.5: Capital Cost Estimation Methodology

Technology	Capital Cost Methodology
Bus	Comparable local bus projects
Freeway BRT	Comparable mixed-traffic express bus facilities
Arterial BRT	Comparable mixed-traffic arterial BRT projects
Busway BRT	Comparable street reconstruction busway projects
Streetcar	Comparable modern streetcar projects
Light Rail	Comparable in-street light rail projects

Capital costs are developed using the Federal Transit Administration's (FTA) Standard Cost Categories (SCC) for Capital Projects. Costs are broken down into the following categories:

1. 10 Guideway and Track Elements – exclusive right-of-way, mixed traffic, or fixed guideway;
2. 20 Stations, Stops, Terminals, Intermodal – local bus, BRT, streetcar, or LRT (including park and ride facilities for freeway Bus Rapid Transit [BRT]);
3. 30 Support Facilities – maintenance facilities for streetcar and Light Rail (LRT) only;
4. 40 Sitework and Special Conditions – utilities, site preparation, landscaping and enhancements;
5. 50 Systems – train control, power supply, intelligent transportation systems (ITS) and fare collection;
6. 60 Right-of-way;
7. 70 Vehicles;
8. 80 Professional Services – 25 percent additional charge for consultant (design) services on top of categories 1-5 (except for local bus service);
9. 90 Unallocated Contingency – 25 percent on top of total charges for categories 1-8 (except for local bus service); and
10. 100 Financing Charges.

Each transit mode has different assumptions associated with it. BRT has many of the same service elements of rail transit, although capital costs tend to be lower primarily because of the lack of a fixed guideway and the lower cost of vehicles. Costs associated with developing a BRT service vary depending upon whether or not the service has a dedicated right-of-way (busway) or if the service shares right-of-way with other traffic (freeway and arterial).

Depending on the type of item, costs were broken down into a cost per unit or cost per mile. The following list describes how costs per mile and per unit were assumed for each transportation mode. Note that although the financial model also includes specific projects from the Central Omaha Transit Alternatives Analysis, those projects were included in the model using their own cost assumptions, which were not integrated into the unit costs used for all other projects, as described in this section.

Local Bus

Local bus service has the lowest capital cost. No guideway and track elements, support facilities, site work, systems, or right-of-way are included in the total cost. Only costs associated with upgrading stations are part of the estimate; therefore, a five percent design fee and 10 percent contingency fee were built into the cost estimates, lower than other project types.

Freeway Bus Rapid Transit

Freeway BRT assumes that 70 percent of the total route will be highway miles. Buses will share the roadway with other vehicles on arterial streets and highways; however, buses will be able to use the highway shoulder as a lane in order to maintain schedule reliability during times of increased congestion. Additionally:

- Outlying stations will be shelters equipped with upgraded technology services such as ticket vending machines (TVMs) and will also feature a park-and-ride lot. For stops in downtown Omaha and the Westroads mall area no additional station costs are assumed, as the freeway services will run infrequently and utilize existing downtown and Westroads station amenities.
- Guideway and track elements were derived on a cost per mile basis by adding up the costs of highway shoulder preparation, signs, striping and concrete pads for buses to utilize while the vehicles are idle. The types of systems included in the freeway BRT are intelligent transportation systems (ITS) units for every bus and one ticket vending machine (TVM) per station.
- Support facilities and right-of-way were not included in the cost estimate.

Arterial Bus Rapid Transit

Arterial BRT assumes that service will share the roadway in mixed traffic with other vehicles on arterial streets. To maintain efficiency, queue jumps will be used at signalized intersections along the routes. Additionally:

- Stations will be shelters equipped with upgraded technology services such as TVMs and variable message signs (VMS).
- Guideway and track elements were derived on a cost per mile basis by adding up the costs of pavement improvements, signs, pavement markings, queue jumps and concrete pads for buses to utilize while the vehicles are idle. It is assumed that there will be four concrete pads every mile; one concrete pad for every station with stations across from one another every half mile. One queue jump is anticipated per mile.
- The number of stations assumed is four per mile; two across from one another every half mile. Each enhanced station is also assumed to have a pedestrian bridge. The assumed cost of a pedestrian bridge is based on a prefabricated span extending across six lanes of traffic and accommodating all forms of non-motorized transportation.
- The types of systems included in arterial BRT are ITS units for every bus and one TVM per station.
- Support facilities, right-of-way, site work and special conditions were not included in the cost estimate.

Busway Bus Rapid Transit – Median

This mode assumes a dedicated right-of-way for bus service throughout a fixed route in the median of the roadway. Additionally:

- Stations will be shelters equipped with upgraded technology services such as TVMs and VMS.
- Guideway and track elements were derived on a cost per mile basis by adding up the costs of pavement reconstruction and replacement, raised medians, landscaping and concrete pads for buses to utilize while the vehicles are idle. It is assumed that there will be two concrete pads for every station (one on each side of the median) and two stations per mile, making a total of four concrete pads every mile.
- Station costs were calculated based on platform, ramp, canopy, bench, railing and utility costs The number of stations assumed is four per mile; two across from one another every half mile. Each enhanced station is also assumed to have a pedestrian bridge. The assumed cost of a pedestrian bridge is based on a prefabricated span extending across six lanes of traffic and accommodating all forms of non-motorized transportation.
- The types of systems included in the median busway BRT are two VMS per station (four per mile), ITS for every bus and one TVM per station (two per mile).
- Support facilities, right-of-way, site work and special conditions were not included in the cost estimate. Costs associated with right-of-way site work and special conditions were built into other costs already accounted for in the financial model.

Busway Bus Rapid Transit – Curbside

This mode assumes a dedicated right-of-way for bus service throughout a fixed route, located on the right side of the roadway. Stations will be shelters equipped with upgraded technology services such as TVMs and variable message signs.

- Guideway and track elements were derived on a cost per mile basis by adding up the costs of replacing curb and gutter, replacing sidewalks, full depth reconstruction, raised medians, landscaping and concrete pads for buses to utilize while the vehicles are idle. It is assumed that there will be four concrete pads every mile; one concrete pad for every station with stations across from one another.
- Station costs were calculated based on platform, ramp, canopy, bench, railing and utility costs. The number of stations assumed is four per mile; two across from one another every half mile. Each enhanced station is also assumed to have a pedestrian bridge. The assumed cost of a pedestrian bridge is based on a prefabricated span that can extend across six lanes of traffic and accommodate all forms of non-motorized transportation.
- The types of systems included in the busway BRT are one VMS per station (four per mile), ITS for every bus and one TVM per station (four per mile).
- Support facilities, right-of-way, site work and special conditions were not included in the cost estimate. Costs associated with right-of-way site work and special conditions were built into other costs already accounted for in the financial model.

Streetcar

Streetcar service is rail transportation built into the arterial roadway system. All of the categories that are broken down in the spreadsheet are included in the cost

estimate. Unlike all forms of BRT and local bus service, support facilities used in maintaining the vehicles are necessary costs associated with development.

Light rail transit (LRT)

This is the most expensive of any mode. All of the SCC categories are included in the cost estimate.

Capital costs in 2013 dollars are estimated using typical unit costs for major items based on similar projects in the U.S. Cost items are grouped into the FTA SCCs.

Annualized capital costs are also computed, reflecting the useful life of project components, computed using a seven percent discount rate per the FTA New Starts program methodology.

Costs per route mile are summarized in **Table 4.6**, costs per station are summarized in **Table 4.7**, costs per vehicle are summarized in **Table 4.8** and costs for professional services and contingencies are summarized in **Table 4.9**.

Table 4.6: Capital Costs per Route Mile (2012)

	SCC 10 Guideway	SCC 30 Facilities	SCC 40 Sitework	SCC 50 Systems	SCC 60 Right of Way	Total excluding SCC 80 & 90
Freeway BRT	$53,887	$0	$0	$71,000	$0	$124,887
Arterial BRT	$413,000	$0	$0	$332,000	$0	$745,000
Busway BRT (median)	$2,838,000	$0	$0	$209,000	$0	$3,047,000
Busway BRT (curbside urban)	$6,837,000	$0	$0	$362,000	$0	$7,199,000
Busway BRT (curbside other)	$1,170,000	$0	$0	$362,000	$0	$1,532,000
Streetcar	$11,120,000	$2,120,000	$3,820,000	$3,820,000	$1,180,000	$22,060,000
Freeway LRT	$7,552,500	$6,840,000	$4,000,000	$7,950,000	$1,570,000	$27,912,500
Arterial LRT	$10,030,000	$6,840,000	$7,880,000	$8,950,000	$1,570,000	$35,270,000

Table 4.7: Capital Cost per Station (2012)

	SCC 20 Stations		SCC 60 Right of Way		Total excluding SCC 80 & 90	
	Basic	Enhanced	Basic	Enhanced	**Basic**	**Enhanced**
Freeway BRT	$240,000	$1,259,000	$25,000	$25,000	**$265,000**	**$1,284,000**
Arterial BRT	$240,000	$400,000	$25,000	$25,000	**$265,000**	**$425,000**
Busway BRT (median)	$360,000	$600,000	$37,500	$37,500	**$397,500**	**$637,500**
Busway BRT (curbside urban)	$240,000	$400,000	$25,000	$25,000	**$265,000**	**$425,000**
Busway BRT (curbside other)	$240,000	$400,000	$25,000	$25,000	**$265,000**	**$425,000**
Streetcar	$120,000	$400,000	$37,500	$37,500	**$157,500**	**$437,500**
Freeway LRT	$1,705,000	$1,705,000	$37,500	$37,500	**$1,742,500**	**$1,742,500**
Arterial LRT	$1,705,000	$1,705,000	$37,500	$37,500	**$1,742,500**	**$1,742,500**

Table 4.8: Costs per Vehicle (2012)

	SCC 70 Vehicles	
	Useful Life (Years)	Cost
Freeway BRT	12	$1,064,311
Arterial BRT	12	$1,064,311
Busway BRT (median)	12	$1,064,311
Busway BRT (curbside urban)	12	$1,064,311
Busway BRT (curbside other)	12	$1,064,311
Streetcar	25	$3,000,000
Freeway LRT	25	$4,500,000
Arterial LRT	25	$4,500,000

Table 4.9: Costs for Professional Services and Contingency (Percent of Construction Cost) (2012)

	SCC 80 Services	SCC 90 Contingency
Freeway BRT	25%	50%
Arterial BRT	25%	50%
Busway BRT (median)	25%	50%
Busway BRT (curbside urban)	25%	50%
Busway BRT (curbside other)	25%	50%
Streetcar	25%	50%
Freeway LRT	25%	50%
Arterial LRT	25%	50%

4.3 Operations and Maintenance Costs

Operations and Maintenance Costs (O&M) cost estimates are based on an analysis of cost driver operating statistics and total operating expenses for a group of comparable peer transit systems, defined as those serving metropolitan areas with populations between 250,000 and 2,500,000, using data from the 2011 National Transit Database (NTD). These costs are computed separately for each of four expense categories defined by NTD, including: Vehicle Operations, Vehicle Maintenance, Non-Vehicle Maintenance and General Administration. Unit operating cost assumptions are summarized in **Table 4.10.** It should be noted that vehicle replacement costs are not included in these estimates. Vehicle replacement is treated as a recurring capital cost, as described previously in **Table 4.8.**

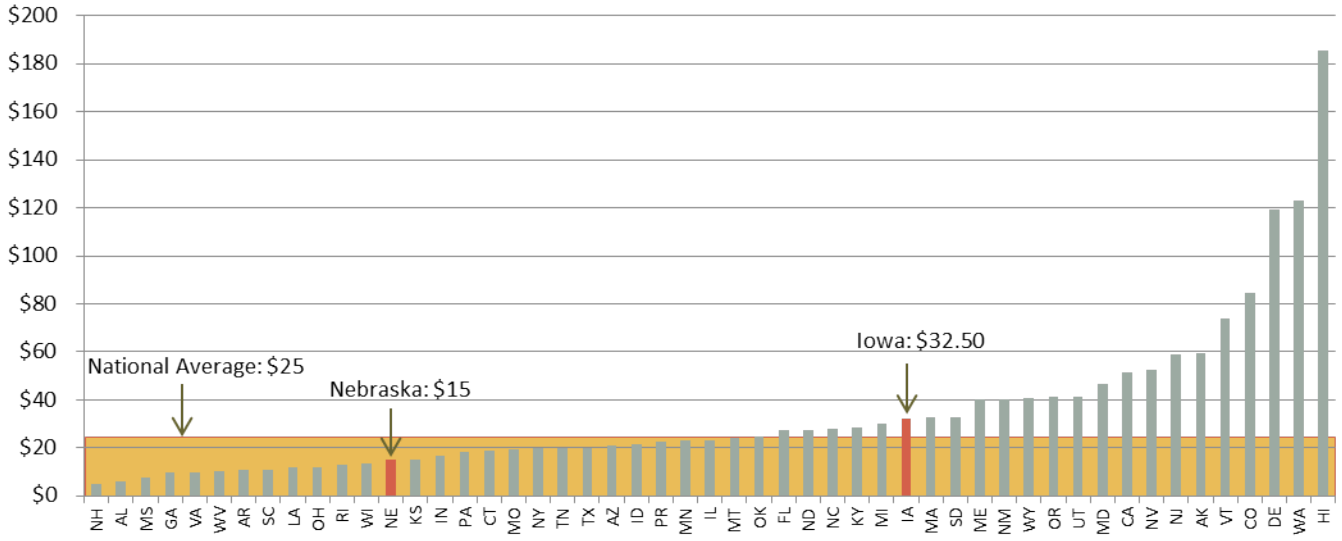
Paratransit costs are assumed at 9.8 percent of fixed route operating and maintenance cost (per 2011 NTD) and capped at 150 percent of current Metro cost.

Operating cost assumptions for rural transit service are based on Iowa's average per capita expenditure (per 2011 Rural NTD), as shown in **Figure 4.2**. This spending level is more than double the Nebraska level and about 30 percent greater than the national average.

Table 4.10: Operating Cost Assumptions by Mode (2012)

	Vehicle Operations (per rev-hour)	Vehicle Maintenance (per rev-mile)	Non-Vehicle Maintenance (per station or as noted)	General Administration (per peak vehicle)
Local Bus	$65	$1.60	$14,979 / peak vehicle	$60,223
BRT	$65	$1.60	$14,979 / peak vehicle + $50,000 / station	$60,223
Streetcar	$156	$5.38	$284,176	$169,193
Light Rail	$156	$5.38	$284,176	$169,193

Figure 4.2: Per Capita Rural Transit Spending by State



4.4 Economic and Financial Assumptions

The model treats the growth of different types of costs and revenues separately. First, an overall inflation rate was estimated using figures provided by the federal government. A second real growth rate (the growth that occurs above and beyond regular economic inflation) is considered for capital and operating costs, as well as the various revenue sources. Assumptions were also made about the cost of long- and short-term borrowing, which the model calculates automatically in order to balance Metro's cash flows on an annual basis and ensure an adequate debt service coverage ratio.

4.4.1 Inflation Assumptions

To estimate past and future rates of inflation, the Consumer Price Index for all Urban Consumers (CPI-U) was used. CPI-U, a figure developed by the Congressional Budget Office (CBO), is the standard measure of inflation used for forecasting purposes for most government agencies. The most current published CPI-U report from the CBO contains historical data dating to 1913, with forecast values for the years 2013 through 2023. For years beyond 2023, the model assumes a constant inflation rate of 2.25 percent (equal to the projected rate of inflation between 2022 and 2023).

4.4.2 Real Growth in Capital and Operating Costs

The growth of capital costs was calculated from the Civil Works Construction Cost Index System for Roads, Railroads and Bridges released annually by the US Army Corps of Engineers (USACE). The index includes a cost adjustment for the state of Nebraska and CPI. Historic inflation rates were applied to the USACE figures from 1997 through 2010 to produce an estimated real annual growth rate for civil works of about 1.6 percent. Costs for transit vehicles were estimated in the same fashion, with an estimated real annual growth rate of 1.8 percent.

Operating and maintenance (O&M) cost growth was derived from 2002-2011 National Transit Database figures, released annually by the Federal Transit Administration. Cost categories were analyzed from the 2002-2011 period, factoring out CPI inflation, to estimate the real growth in O&M costs. These growth rates were estimated as follows:

- Vehicle Operations – 1.51 percent for bus, 0.74 percent for rail
- Vehicle Maintenance – 0.74 percent for bus, 0.10 percent for rail
- Non-Vehicle Maintenance – 2.52 percent for bus, 2.14 percent for rail
- General Administration – 1.48 percent for bus, 1.01 percent for rail

4.4.3 Revenue Growth Rates

Real growth rates for funding sources were derived in much the same fashion as for expenditures. Many of the assumed growth rates were cited in Section 4.1 and are summarized below.

- Federal Capital: constant 40 percent federal match for New Starts-funded projects (subject to a funding probability factor)
- Federal Operating: 0.25 percent per year
- State Capital: project-specific
- State operating: no real growth
- Local property tax base: no real per-capita growth
- Local taxable sales per capita: varies by county
- Vehicle registrations – 2.0 percent per year

4.4.4 Cost of Borrowing

The financial model also calculates the amount of borrowing needed in each year to maintain a positive cash balance and the resulting principal and interest payment burden on the transit agency. Long-term debt (e.g. agency revenue bonds) was used with a financing period of 20 years and an interest rate of 2.56 percent above inflation in the year of issue for capital expenditures through 2050. Short-term debt (e.g. commercial paper) was used to cover temporary operating shortfalls after 2050, assuming a five-year repayment period at an interest rate of 4.79 percent above inflation in the year of issue. It should be noted that both interest rates represent real dollars and actual rates will be higher to reflect inflation, which is assumed based on the CPI. For example, bonds issues in 2023 will bear an interest rate of 4.82 percent. Commercial paper issued in 2051 will bear an interest rate of 7.04 percent. Interest rates are based on the 1990-2012 Federal Reserve 20-year state and local bond index, adjusted for CPI. A debt service coverage ratio (DSCR) of 1.5 was maintained for each year that debt is outstanding, which is generally consistent with the high quality (“A”) bond ratings maintained by peer agencies..

5 ESTABLISHING TRANSIT PRIORITIES

An effective future public transit framework for the Omaha region will be comprised of an inter-connected and coordinated system of transit modes, each with unique characteristics and serving a specific purpose within an overall hierarchical system. The methods for estimating the costs of the potential "building blocks" of this system were described in Chapter 4. This chapter presents the specific potential candidate projects in the Omaha region are available for constructing system scenarios. A project prioritization process follows, assessing the anticipated performance and contribution of each project to a regional system. This prioritization process forms the basis for the development of the Transit Vision Scenarios described in Chapter 6, in which potential candidate projects are combined into alternative future transit investment programs under a fiscally constrained funding stream and follow a rational phased implementation time line.

5.1 Candidate Projects

A comprehensive list of candidate transit projects has been developed in response to previous studies and recent public input, including additional corridors identified by Metro and MAPA for consideration in the evaluation process. Candidate projects are depicted in **Figure 5.1. Table 5.1** through **Table 5.5 a**nd **Figure 5.2** through **Figure 5.6**, summarize the candidate projects by vehicle mode and technology type. The tables show relative demand, cost and cost effectiveness using metrics that are described in Section 5.2.

These projects represent the universe of projects that could potentially be included in a fiscally constrained regional transit improvement program. The preliminary transit vision scenarios presented in Chapter 6 are comprised of a combination of these candidate projects, and a prioritization process identifies the projects with the highest potential for inclusion.

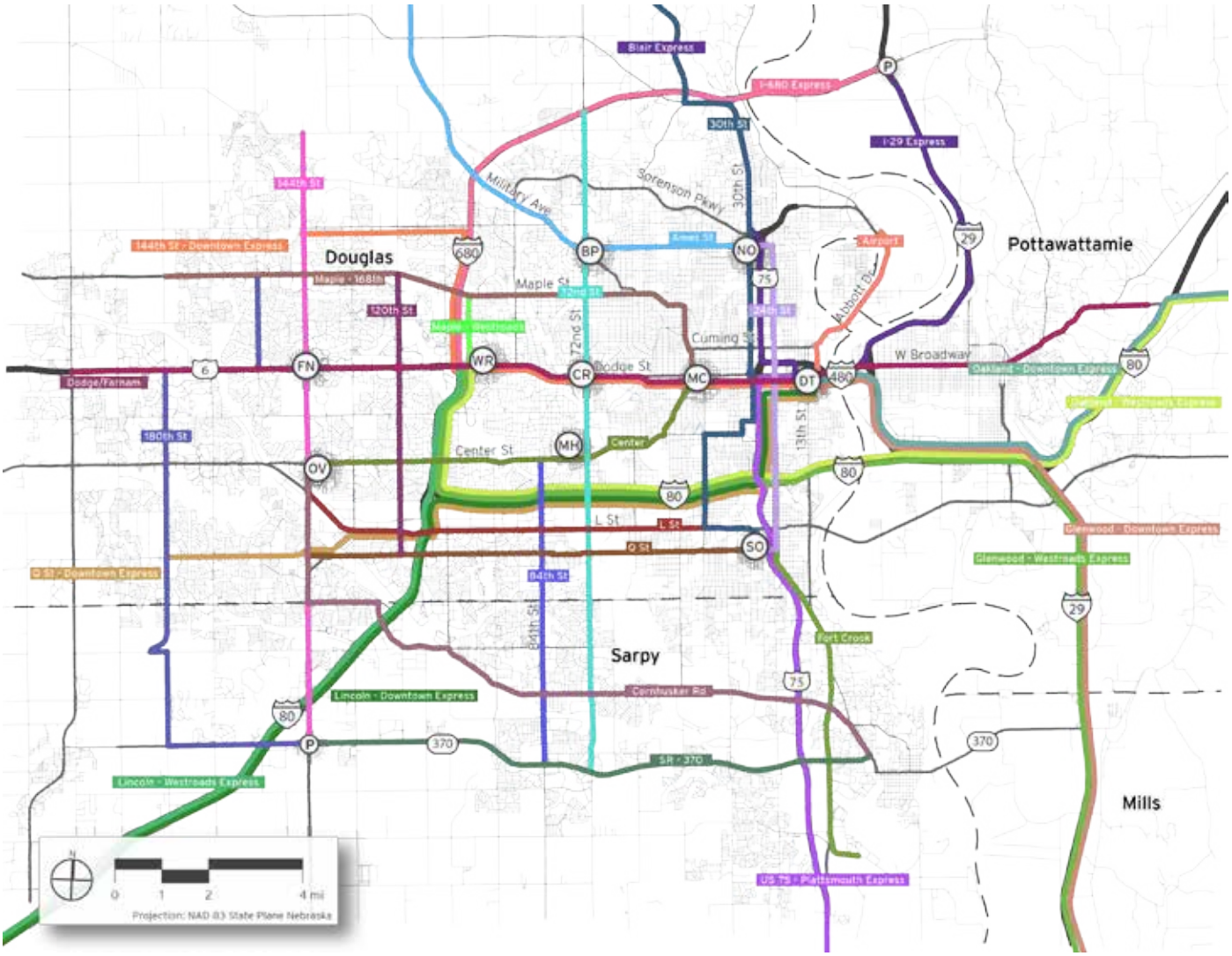
In some instances, projects are split into geographic segments or assigned different service levels to evaluate phased implementation options. For example, the projects are split by county as appropriate (into "inner" segments in Omaha and "outer" segments in the surrounding region) to facilitate analysis of different strategies in the fiscally constrained scenario evaluation to follow. Some projects were also split into "initial" and "upgrade" phases to reflect an increasing investment level as corridors develop into stronger transit markets over time.

Not shown or listed in the following exhibits are the candidate projects identified through the Central Omaha Transit Alternatives Analysis (AA). The preliminary projects identified in the AA include both streetcar and busway BRT options. All of the preliminary alternatives follow a routing beginning near TD Ameritrade Park, at the intersection of 16th and Fahey Streets. From there, the routes proceed east to 10th Street, south to downtown and then proceed west along either Dodge/ Douglas Streets, Farnam/Harney Streets, or operating in both directions on Farnam Street. Proposed western termini include either UNMC in Midtown or the Crossroads Mall at 72nd Street. Several representative AA projects have been included in the service planning model for potential inclusion in the scenarios.

5.2 Candidate Project Prioritization

This step in the prioritization process process assesses candidate projects (1) for their ability to expand transit coverage and facilitate multi-modal access (2) while remaining cost effective, without specific regard to system-wide financial constraints. In essence, the projects are evaluated for their individual capacity to achieve the Vision and Principles described previously and ranked on the basis of their cost effectiveness relative to the benefits realized, with additional ranking input from MAPA and Metro.

Figure 5.1: Candidate Transit Projects



5.2.1 Performance Measure Characteristics

For each project, a cost effectiveness index was calculated and used as a key input in project ranking. The cost effectiveness index is defined as a potential passenger demand index divided by total annual costs (including capital costs, operations and maintenance) for each project.

The number of potential trips served along each proposed project corridor was determined using two methodologies, depending on the project type, as described below:

- **Arterial Projects:** Travel demand potential was estimated using the MAPA travel demand model. From the model, the number of origin-destination trips with both endpoints in walking distance (within one-half mile) of the project was determined. These potential trips were then adjusted using a factor which reflects differences in service frequency across projects or phases, computed using a simplified logit mode choice formula. The adjustment was applied to weekday service frequency to reflect the greater attractiveness of more frequent service.
- **Freeway Projects:** Because these routes extend beyond the coverage area of the MAPA model, demand potential was estimated using a sketch-level gravity model, reflecting 2010 Census origin population, destination employment per 2010 socioeconomic data from the MAPA model and the distance between the route termini.

Annualized capital costs were based on the useful life of typical project components under each SCC category using the FTA New Starts calculation method. Annual operations and maintenance costs were added to annualized capital costs to compute total annual costs.

Freeway BRT routes were ranked separately from all other projects due to the differing and incompatible methodology used to estimate demand potential on Freeway BRT routes versus all other projects.

5.2.2 Project Prioritization

The cost effectiveness index for each project was computed as demand potential divided by total annual project costs. This approach produced a draft list of ranked projects, which was provided to MAPA and Metro for additional input and refinement of the rankings. Additional ranking input from MAPA and Metro gave consideration to local knowledge as well as a particular emphasis on network connectivity, favoring arterial corridors such as Dodge/Farnam Streets, Center Street, Maple Street, 24th Street, 30th Street and 72nd Street, that offered the potential to not only attract riders within those corridors, but also to more cohesively integrate the entire Metro network of local services. The rankings were also adjusted in consideration of project "precedence", such as inner segments occurring before outer segments.

Table 5.6 presents the top 15 candidate projects resulting from this analysis. This final prioritization and ranking was used as the basis for constructing the scenarios described in Section 6. In addition to identifying the overall sequence of corridors for which capital improvements are warranted, it also aids in the selection of the type of capital improvement. For example, the top-ranked project is the Farnam-Dodge Busway, which ranks above the arterial BRT project in the same corridor. Thus, if that top-ranked project is constructed there will be no need to construct the third-ranked arterial BRT project because a superior project will already exist in the corridor.

Figure 5.2: Arterial BRT Candidate Projects

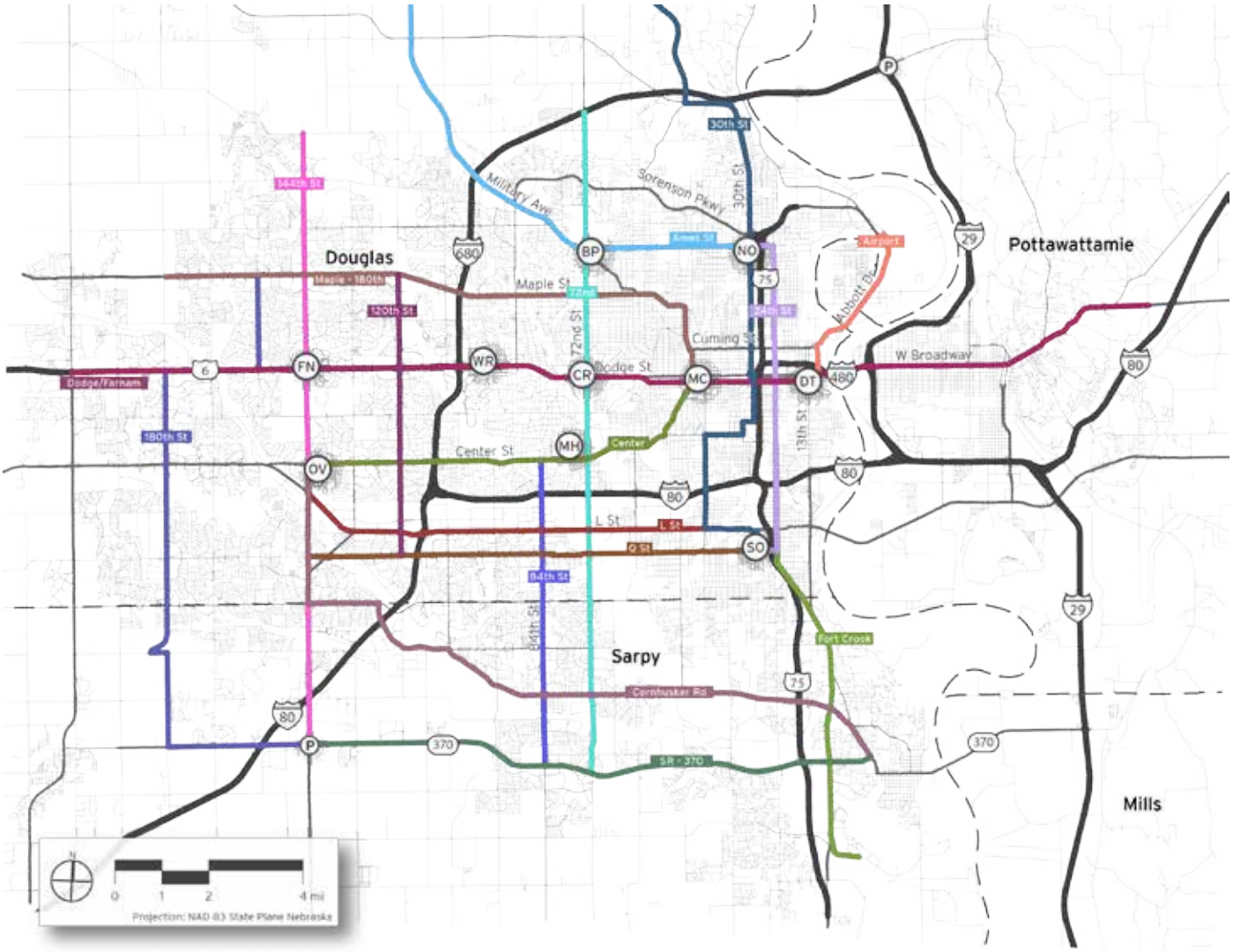


Table 5.1: Arterial BRT Candidate Projects

Route	Terminal A	Terminal B	One-Way Length (mi)	Demand Potential	Project Costs ($ millions)			Cost Effectiveness Index
					Total Capital Cost	O&M Cost	Combined Annual Cost	
Farnam St. / Dodge St.	Iowa Western Community College	Downtown	8.12	61,837	$38.5	$3.7	$6.1	$99
	Downtown	Westroads	7.33	102,533	$37.0	$3.6	$6.0	$59
	Westroads	204th/Dodge	8.65	51,082	$43.5	$4.2	$7.0	$137
Maple St. - Westroads	Midtown	Westroads	7.98	60,751	$35.7	$2.1	$4.1	$68
Maple St. - 180th	Midtown	102nd/Maple	6.32	36,962	$28.8	$1.6	$3.2	$87
	102nd/Maple	180th/Maple	6.57	35,341	$33.4	$3.1	$5.3	$149
Center St.	Midtown	Oakview	9.06	64,743	$45.6	$4.2	$7.1	$110
30th St.	Blair	North Omaha Transit Center	22.20	11,765	$109.7	$10.5	$17.5	$1,491
	North Omaha Transit Center	Metro Community College South Omaha Campus	8.72	57,818	$43.6	$4.2	$7.0	$121
24th St.	North Omaha Transit Center	Metro Community College South Omaha Campus	7.25	46,523	$36.9	$3.6	$6.0	$129
Fort Crook	Offutt AFB	Metro Community College South Omaha Campus	7.58	40,066	$38.4	$3.6	$6.1	$153
Ames St.	North Omaha Transit Center	Blair High Road	6.39	27,148	$32.1	$3.1	$5.2	$191
	Blair High Road	Blair	16.49	1,667	$81.1	$7.8	$13.1	$7,853
72nd St.	I-680	Mercy - 72nd	7.38	48,523	$37.1	$3.6	$6.0	$124
84th St.	Mercy - 72nd	SR-370	6.69	57,466	$38.3	$3.6	$6.1	$106
120th St.	120th/Maple	120th/Q	5.99	45,210	$29.9	$3.1	$5.1	$112
L St.	Metro Community College South Omaha Campus	Oakview	10.97	105,167	$53.8	$5.2	$8.7	$83
Q St.	Metro Community College South Omaha Campus	Oakview	11.74	123,464	$58.6	$5.7	$9.5	$77
Cornhusker Rd.	Bellevue	Oakview	16.46	87,913	$81.1	$7.8	$13.1	$149
SR - 370	Bellevue	144th St. Park & Ride	12.23	56,484	$60.8	$5.8	$9.7	$171
180th St.	144th St. Park & Ride	144th/Maple	16.56	60,067	$82.3	$7.9	$13.1	$219
144th St.	144th/State	144th St. Park & Ride	13.56	78,276	$65.5	$6.3	$10.5	$134
Airport	Airport	Downtown	3.74	22,607	$19.7	$2.0	$3.3	$147

Figure 5.3: Busway BRT Candidate Projects

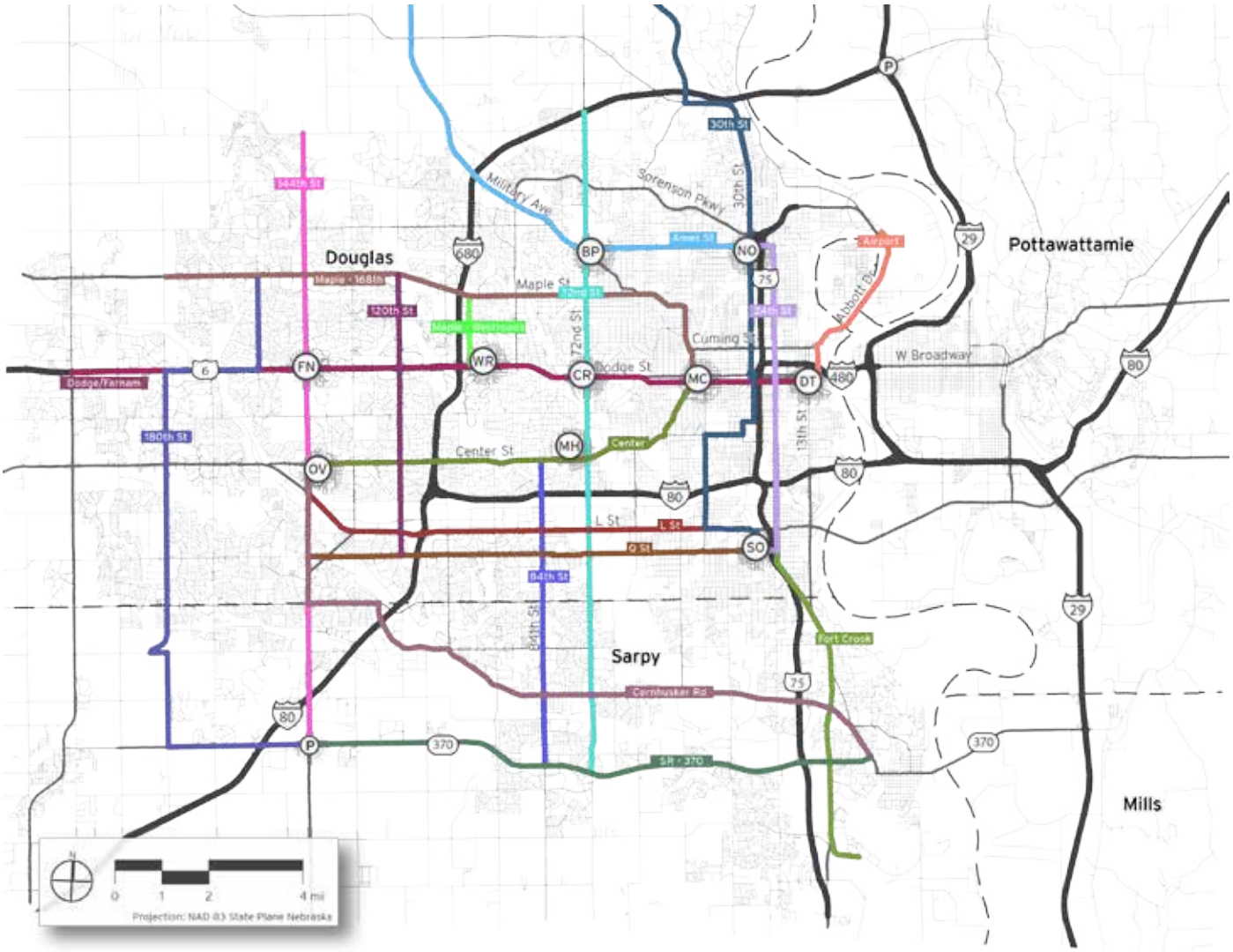


Table 5.2: Busway BRT Candidate Projects

Route	Terminal A	Terminal B	One-Way Length (mi)	Demand Potential	Project Costs ($ millions)			Cost Effectiveness Index
					Total Capital Cost	O&M Cost	Combined Annual Cost	
Farnam St. / Dodge St.	Downtown	Westroads	7.33	102,533	$71.5	$3.6	$8.0	$78
	Westroads	204th/Dodge	8.65	51,082	$84.3	$4.2	$9.3	$182
Maple St. - Westroads	Midtown	Westroads	7.98	60,751	$77.3	$4.1	$8.9	$146
Maple St. - 180th	Midtown	102nd/Maple	6.32	36,962	$61.8	$3.1	$6.9	$186
	102nd/Maple	180th/Maple	6.57	35,341	$64.6	$3.1	$7.0	$199
Center St.	Midtown	Oakview	9.06	64,743	$88.5	$4.2	$9.6	$148
30th St.	Blair	North Omaha Transit Center	22.20	11,765	$213.8	$10.5	$23.5	$1,995
	North Omaha Transit Center	Metro Community College South Omaha Campus	8.72	57,818	$84.6	$4.2	$9.3	$161
24th St.	North Omaha Transit Center	Metro Community College South Omaha Campus	7.25	46,523	$71.1	$3.6	$8.0	$171
Fort Crook	Offutt AFB	Metro Community College South Omaha Campus	7.58	40,066	$74.3	$3.6	$8.2	$204
Ames St.	North Omaha Transit Center	Blair High Road	6.39	27,148	$62.1	$3.1	$6.9	$254
	Blair High Road	Blair	16.49	1,667	$158.2	$7.8	$17.5	$10,484
72nd St.	I-680	Mercy - 72nd	7.38	48,523	$71.7	$3.6	$8.0	$165
84th St.	Mercy - 72nd	SR-370	6.69	57,466	$74.0	$3.6	$8.1	$141
120th St.	120th/Maple	120th/Q	5.99	45,210	$58.0	$3.1	$6.6	$147
L St.	Metro Community College South Omaha Campus	Oakview	10.97	105,167	$105.2	$5.2	$11.6	$111
Q St.	Metro Community College South Omaha Campus	Oakview	11.74	123,464	$113.7	$5.7	$12.7	$102
Cornhusker Rd.	Bellevue	Oakview	16.46	87,913	$158.1	$7.8	$17.5	$199
SR - 370	Bellevue	144th St. Park & Ride	12.23	56,484	$118.3	$5.8	$12.9	$229
180th St.	144th St. Park & Ride	144th/Maple	16.56	60,067	$160.1	$7.9	$17.6	$293
144th St.	144th/State	144th St. Park & Ride	13.56	78,276	$126.9	$6.3	$14.0	$178
Airport	Airport	Downtown	3.74	22,607	$37.4	$2.0	$4.3	$192

Figure 5.4: Streetcar BRT Candidate Projects

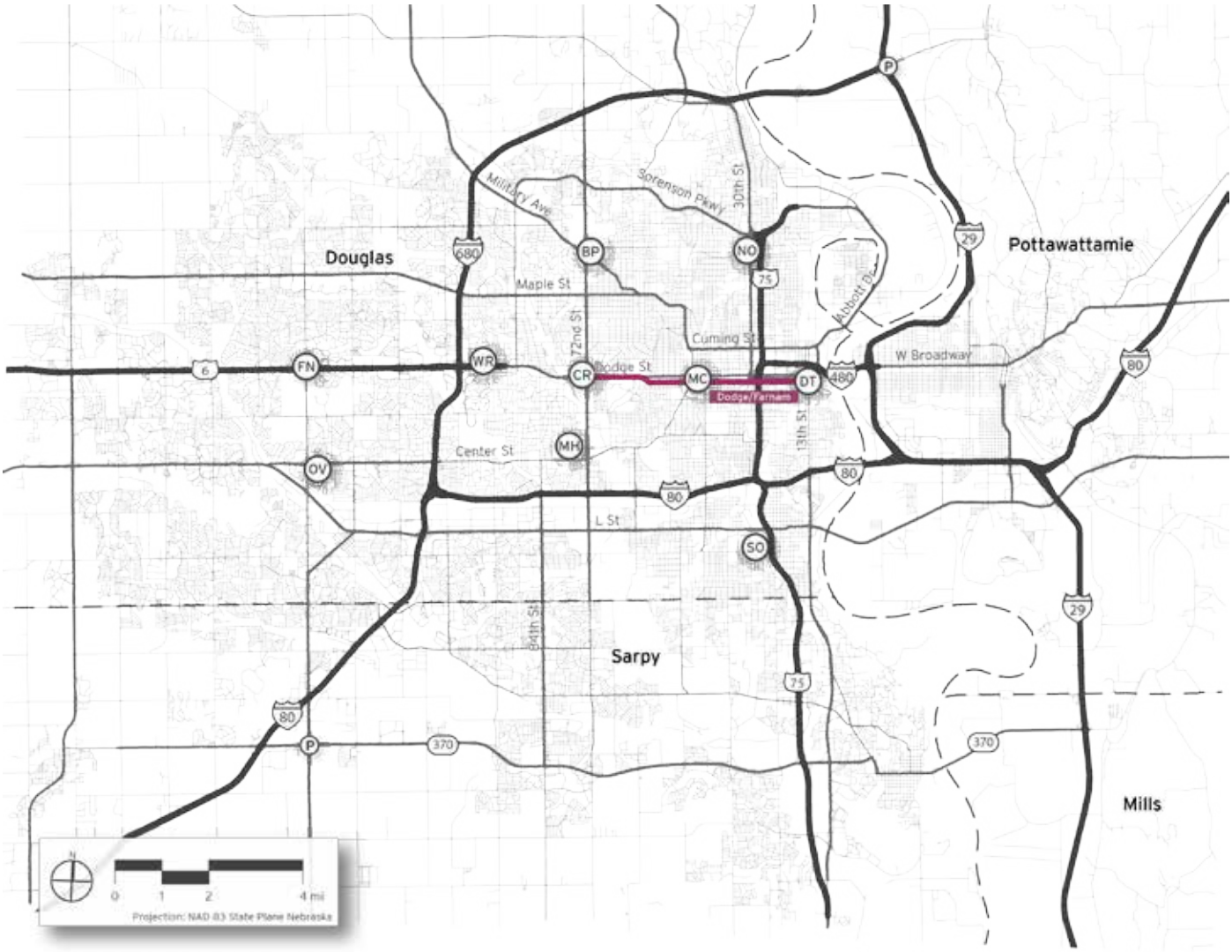


Table 5.3: Streetcar BRT Candidate Projects

Route	Terminal A	Terminal B	One-Way Length (mi)	Demand Potential	Project Costs ($ millions)			Cost Effectiveness Index
					Total Capital Cost	O&M Cost	Combined Annual Cost	
Farnam St. / Dodge St.	Downtown	UNMC	2.66	58,561	$108	$4	$9	$162
	UNMC	Crossroads - 72nd	2.30	17,255	$95	$4	$9	$504

Figure 5.5: LRT Candidate Projects

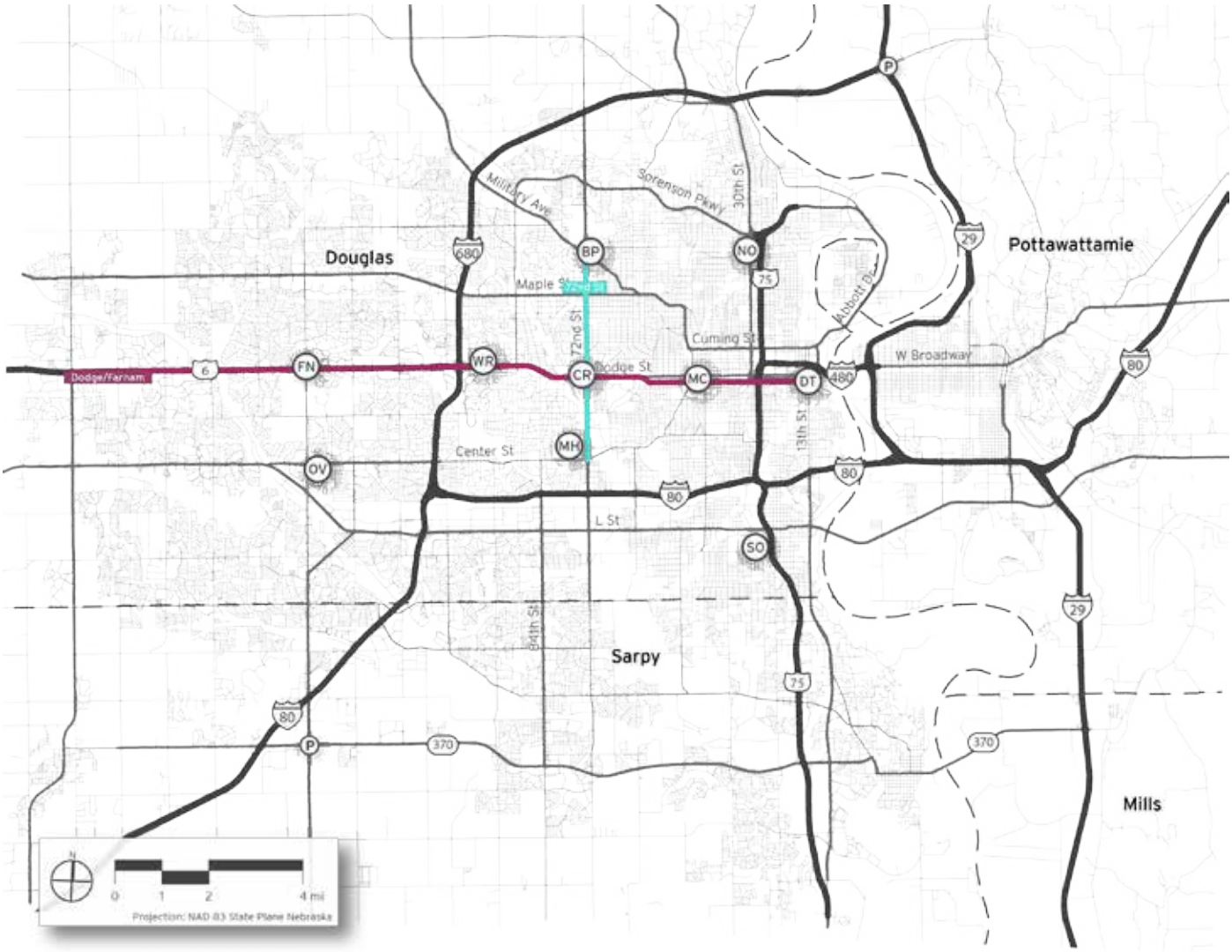


Table 5.4: LRT Candidate Projects

Route	Terminal A	Terminal B	One-Way Length (mi)	Demand Potential	Project Costs ($ millions)			
					Total Capital Cost	O&M Cost	Combined Annual Cost	Cost Effectiveness Index
Farnam St. / Dodge St.	Downtown	204th/Dodge	15.98	163,480	$1,132	$20	$76	$468
72nd St.	Benson Park Transit Center	Mercy - 72nd	4.49	34,599	$317	$5	$21	$612

Figure 5.6: Freeway BRT Candidate Projects

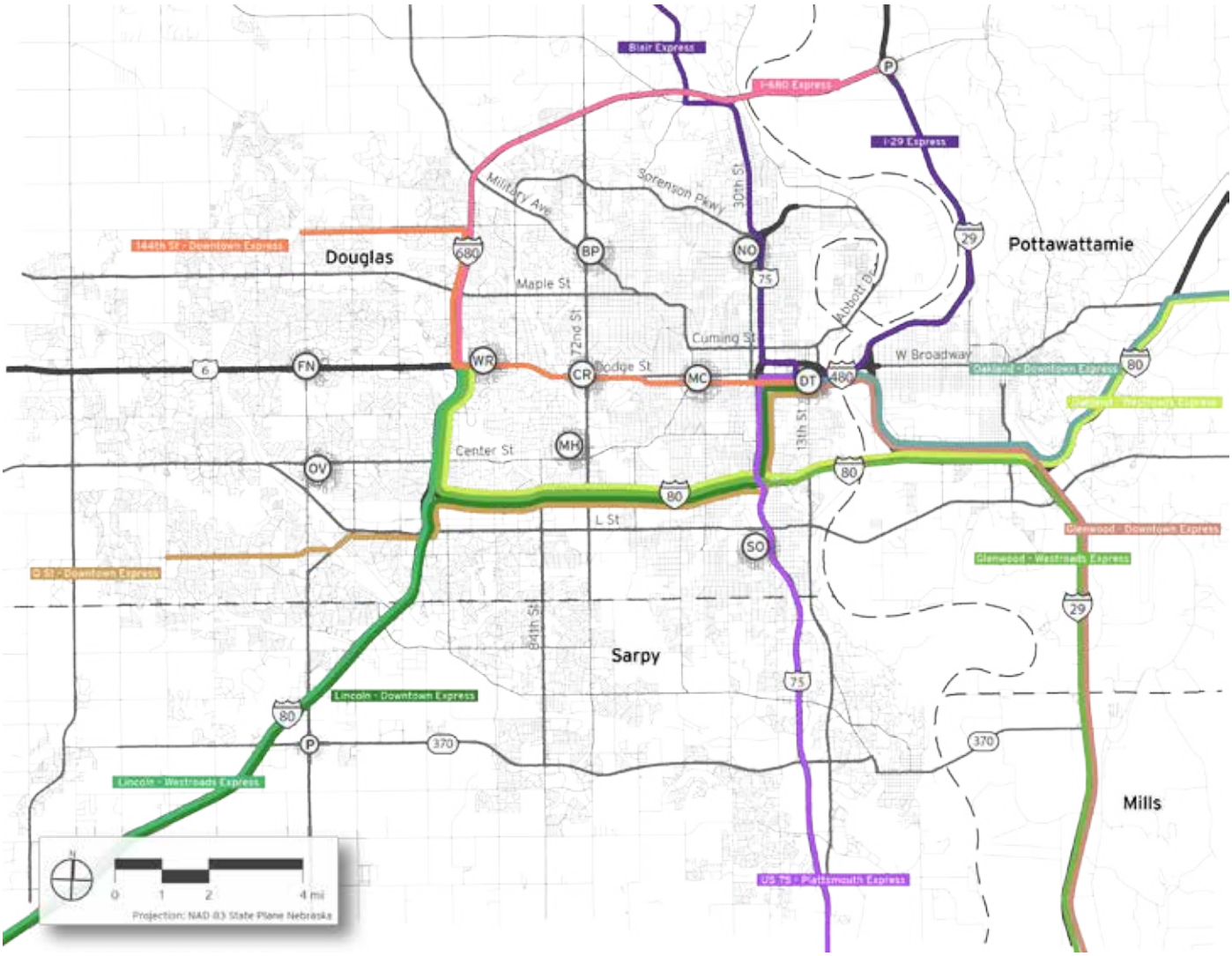


Table 5.5: Freeway BRT Candidate Projects

Route	Terminal A	Terminal B	One-Way Length (mi)	Demand Potential	Project Costs ($ millions)			Cost Effectiveness Index
					Total Capital Cost	O&M Cost	Combined Annual Cost	
US 75 Plattsmouth Express	Plattsmouth	Downtown	19.48	37,697	$7.8	$0.6	$1.1	30.04
US 75 Blair Express	Blair	Downtown	25.50	33,320	$9.0	$0.6	$1.2	37.40
Glenwood Express	Glenwood, IA	Downtown	24.17	28,341	$8.8	$0.6	$1.2	43.12
	Glenwood, IA	Westroads	33.90	19,196	$11.1	$0.9	$1.6	84.41
I-680 Northeast Express	Old Mormon Bridge Park & Ride	Westroads	13.45	8,658	$6.2	$0.4	$0.8	92.79
I-29 Northeast Express	Old Mormon Bridge Park & Ride	Westroads	10.00	12,313	$5.5	$0.4	$0.7	59.90
Lincoln Express	Lincoln, NE	Downtown	58.10	170,082	$17.2	$1.5	$2.7	16.01
	Lincoln, NE	Westroads	51.00	183,614	$15.4	$1.3	$2.4	12.93
Council Bluffs Express	Oakland, IA	Downtown	32.60	23,402	$12.9	$0.9	$1.7	72.06
	Oakland, IA	Westroads	42.70	16,931	$15.3	$1.1	$2.1	123.60
144th/Fort Express	144th/Fort	Downtown	14.31	447,831	$6.3	$0.4	$0.8	1.83
Q St./108th Express	Q St./180th St.	Downtown	17.10	380,235	$6.9	$0.4	$0.9	2.29

Table 5.6: Candidate Project Priorities

Route	Mode	Demand Potential	Cost Effectiveness	Network Connectivity	O-D Density	Transit Destination	Final Rank
Farnam St. / Dodge St.	Busway BRT	102,533	$66	High	14	High	1
Farnam St. / Dodge St.	Streetcar	58,561	$157	Medium	22	High	2
Farnam St. / Dodge St.	Mixed BRT	102,533	$50	Medium	14	High	3
Maple St. - Westroads	Busway BRT	60,751	$124	High	8	High	4
30th St.	Mixed BRT	57,818	$102	High	7	High	5
24th St.	Busway BRT	46,523	$144	High	6	High	6
Ames St.	Mixed BRT	27,148	$162	High	4	High	7
Center St.	Busway BRT	64,743	$123	Medium	7	High	8
24th St.	Mixed BRT	46,523	$110	Medium	6	High	9
Farnam St. / Dodge St.	Mixed BRT	61,837	$84	Medium	8	High	10
Center St.	Mixed BRT	64,743	$92	Medium	7	High	11
30th St.	Busway BRT	57,818	$135	Medium	7	High	12
72nd St.	Busway BRT	48,523	$139	High	7	Medium	13
Maple St. - Westroads	Mixed BRT	60,751	$52	Medium	8	High	14
72nd St.	Mixed BRT	48,523	$106	Medium	7	Medium	15

6 FISCALLY CONSTRAINED SCENARIO EVALUATION

In order to develop a fiscally constrained Vision Scenario, fiscal constraints are applied to develop an "optimal" system with regard to expanded system coverage and a logical project phasing strategy that manages risk and expected funding. A key consideration is providing the enhanced service that best aligns with the region's most promising markets for automobile-competitive public transit service.

Using the integrated service planning model described in Chapter 4, an evaluation of the candidate projects described in Chapter 5 is discussed below. Six preliminary scenarios were defined and tested, which each scenario corresponding to a particular local funding option. Following stakeholder input and further model refinements, refined project scenarios were developed, eventually culminating in the Preferred Vision Scenario presented in Chapter 7. All of the scenarios assume that any changes to the existing system, including service changes, capital expenditures and new revenues, will take effect in 2015 or later. No changes are assumed in the years 2013 and 2014.

The Preliminary and Refined scenarios presented in this chapter were intended to present a "continuum" of possible levels of transit investment. Each level is assessed using the integrated planning model to match a given level of funding with a list of projects and an implementation schedule that can be achieved at that level of funding. The scenarios are organized generally from minimal to increasingly revenue-intensive, with each building on the previous scenario by enhancing services, adding capital investments and/or accelerating implementation of selected projects. The Scenarios are comprised of "building blocks" of revenues and expenditures that can be assessed using the service planning financial model, as noted in **Table 6.1**. It should be noted that t**hese scenarios are not intended as final proposals for transit investments, but rather constitute the "Building Blocks" that led to the Vision Scenarios presented in Chapter 7**.

Table 6.1: Scenario Building Blocks

Revenues	Expenditures
Federal	Projects
FTA Formula Programs	Capital Costs
FTA Discretionary Grants	Operating Costs
Surface Transportation Program	Project Timing
State	Construction Duration
Capital/Operating Assistance	Opening Year
Local	Phasing
Transit Authority Taxes	Replacement
Service Contracts	
System-Generated	
Fare Revenues	

6.1 Baseline Scenario

Prior to defining and testing the Preliminary Vision Scenarios, the model was used to evaluate the financial sustainability of maintaining existing levels of service in the Metro service area. A "Baseline" scenario was developed, the purpose of which was to determine whether existing revenue sources, growing based on the assumptions described in Chapter 4, are sufficient to maintain the existing system through 2050; and, if funding is not sufficient, what property tax rate would be needed to achieve financial sustainability.

Under the baseline scenario, Metro's existing services are maintained through 2015. In 2016, existing services are replaced by the near-term "Phase I" service recommendations as defined by TMD. Because these service recommendations are intended to be cost-neutral, there is no impact on long term capital and O&M expenses versus continuing with the existing system.

The model showed that based on current funding levels and assumed rates of growth, Metro's operations are not financially sustainable in the long term. In order to achieve financial sustainability through 2050, the model found that, all else being equal, the property tax rate for transit in Omaha would need to increase from the current 2012 level of 0.050257 percent to a rate of 0.075 percent beginning in 2015.

A summary of Metro's service characteristics in 2050 under the Baseline scenario is contained in **Appendix A**.

6.2 Preliminary Transit Vision Scenarios

The preliminary Transit Vision Scenarios described and depicted in this section seek to establish stability and long range growth to the transit system through a phased process, building incrementally and sustainably toward a comprehensive system of public transit for Omaha area residents. Each scenario is fiscally constrained. Therefore the development of a scenario entails matching a given potential funding level with the selection of projects that are feasible at that level of funding. Once a funding level is defined, projects are selected on the basis of the prioritization process described in the previous chapter.

> The Transit Vision Scenarios seek to establish stability and long range growth to the transit system through a phased process, building incrementally and sustainably,

Potential projects to be included in a scenario generally fall within the following categories and sequence:

- System capital projects such as a new bus garage or a CNG refueling facility.
- Implementation of Phase I service recommendations.
- Implementation of some or all of the Phase II service recommendations.
- Implementation of some or all of the Phase III service recommendations.
- Construction and operation of various capital projects as described and prioritized in Chapter 5. These include arterial BRT, busway BRT, streetcar, LRT and freeway BRT.

In developing the scenarios, consideration is given to the time frame in which implementation would occur, ranging from relatively slow progress through the prioritized list of candidate projects to relatively rapid progress. Each scenario is assessed using the service planning financial model, to further prioritize projects and develop an optimized Preferred Vision Scenario.

Because each scenario is fiscally constrained, the scenarios are built from a menu of potential funding strategies, enabling the assessment of the relative advantages or disadvantages of potential funding sources and cost sharing alternatives. The funding options from which the scenarios are built are those described in Section 4.1 and include increasing property taxes; expanding property taxes to the remainder of Douglas County and/or surrounding counties; introducing a regional sales tax dedicated for transit; or creation of a Transit Assessment District.

Arterial BRT, Busway BRT, and LRT projects also included an assumed level of federal funding. It was assumed that approximately half of all such projects under a given scenario would receive federal discretionary funds at a 30 percent funding level. State funding was assumed to cover approximately 80 percent of the capital costs for Freeway BRT projects. Other potential options exist, as well as combinations of those included in the Preliminary Scenarios and these may be explored and included in additional scenarios. All of the scenarios assume the implementation of the cost-neutral Phase I service improvements recommended by TMD, effective in 2016.

Each scenario is described below. One-page visual summaries of the 2050 service characteristics achieved under each scenario are presented in **Appendix A**.

6.2.1 Preliminary Scenario 1: Increase Omaha Property Tax for Transit to 0.10 percent

In 2012, the property tax revenue devoted to transit in the City of Omaha amounted to a rate of 0.050257 percent of the overall tax base. This is expected to raise approximately $14.4 million in 2015, or 40.7 percent of all funding for Metro. Scenario 1 entails increasing the property tax rate within the City of Omaha to the maximum allowable level (0.10 percent) beginning in 2015 and allocating the additional revenues to transit investment. This scenario has the potential to raise approximately $14.2 million in additional revenue in 2015, increasing the share of Metro funding derived from property taxes to 54.8 percent.

The additional revenue generated under this scenario would be sufficient to fund the construction of several key capital improvements, as well as implementation of many of TMD's Phase II service recommendations, including the following:

- Construction of a CNG refueling facility in 2016.
- Construction of the Farnam Busway between Downtown and Midtown, with completion and commencement of BRT service on the corridor in 2020, at a cost of $64 million (2013 dollars), excluding vehicles.
- Phase II service improvements on the Maple and Center (proposed Routes 4 and 15SL) in 2025.
- Phase II service implementation on the remaining "Rapid and Frequent" and MAPA-designated corridors in 2030.

A summary of Scenario 1 2050 service characteristics is contained in **Appendix A**.

6.2.2 Preliminary Scenario 2: Expansion of Property Tax to Douglas County at 0.10 percent

While the majority of the property tax base in Douglas County falls within the City of Omaha and is thus already taxed, a sizable portion lies outside the city: approximately 26.3 percent in 2012. Scenario 2 envisions the same tax rate increase as described in Scenario 1, but with the property tax expanded to the remainder of Douglas County at the same maximum allowable rate of 0.10 percent. This would more than double property tax revenues in 2015 to just under $40 million.

Under Scenario 2 the following projects and service improvements could be implemented:

- Construction of a CNG refueling facility in 2016.
- Construction of the Farnam Busway between Downtown and Midtown, with completion and commencement of BRT service on the corridor in 2020, at a cost of $64 million (2013 dollars), excluding vehicles.
- Phase II service improvements on the Maple and Center (proposed Routes 4 and 15SL) corridors in 2025.
- All remaining Phase II service improvements in 2030.
- Phase III service improvements on the Maple and Center (proposed Routes 4 and 15SL) corridors in 2035.
- Phase III service improvements on "Rapid and Frequent Corridors" in 2040.
- Construction of the Maple-Westroads and Center (Midtown to Oakview) Arterial BRT projects, with completion and commencement of BRT service in 2040, at a cost of $31.4 million and $37.1 million (2013 dollars), respectively, excluding vehicles.
- Because this scenario involves a geographic expansion of Metro's service area, additional service to outlying areas is also added under this scenario effective in 2016, including the following:
- General public rural transit service is offered in Douglas County.
- Freeway BRT routes from 144th Street/Fort Street and from Q Street/180th Street are added, at a cost of $5.4 million and $6.0 million (2013 dollars), respectively, excluding vehicles.

A summary of Scenario 2 2050 service characteristics is contained in **Appendix A.**

6.2.3 Preliminary Scenario 3: Expansion of Property Tax to Eight Counties at 0.10 percent

Douglas County is the most populous of the eight study area counties and has the largest property tax base, which is greater than the other seven counties combined. However, adding those counties to a regional transit authority funded by an enlarged property taxing district would still generate significant additional revenue for capital expansion and service improvements. Under Scenario 3, the same 0.10 percent property tax described in Scenarios 1 and 2 is expanded to cover the entire eight-county area, effective 2015. This yields approximately $62.8 million in local funding for transit in 2015, just over four times the quantity raised under the existing Omaha property tax.

Expansion to eight counties would allow the following projects to be constructed and implemented:

- Construction of a CNG refueling facility in 2016.
- Construction of the Farnam Busway between Downtown and Midtown, with completion and commencement of BRT service on the corridor in 2020, at a cost of $64 million (2013 dollars), excluding vehicles.
- All Phase II service improvements in 2025.
- Construction of the Maple-Westroads and Center (Midtown to Oakview) Busways, with completion and commencement of BRT service in 2025. These $51.9 million and $60.3 million (2013 dollars) projects (excluding vehicles), respectively, are assumed to be funded with a discretionary federal Small Starts grant of 32 percent.
- All Phase III service improvements in 2035.
- Construction of the 24th Street (North Omaha Transit Center to Metro Community College South Omaha Campus) and 72nd Street (I-680 to Mercy/72nd) Arterial BRT projects, with completion and commencement of service in 2035, at a cost of $29.5 million and $29.6 million (2013 dollars), respectively, excluding vehicles.

In addition, the following services would be provided to offer additional value to the outlying areas in the new expanded service area, effective in 2016:

- General public rural transit service is offered in all eight counties.
- Twelve Freeway BRT routes are constructed and implemented, serving origins in Lincoln, Blair, Plattsmouth, Council Bluffs (IA), Glenwood (IA), Oakland (IA), western Douglas County and a new park-and-ride facility at the intersection of I-680 and I-29 in Pottawattamie County, Iowa. These projects have a total capital cost of $102.2 million.

A summary of Scenario 3 2050 service characteristics is contained in **Appendix A**.

6.2.4 Preliminary Scenario 4: A 0.5 percent Regional Mobility Sales Tax in Douglas County

Another option for raising additional revenue for transit would be the establishment of a new regional sales tax for transportation. Such a levy could include streams for both transit and other priorities such as road construction. Scenario 4 assumes the introduction of a new half-cent (0.5 percent) sales tax dedicated to transit in Douglas County. Under this scenario, property taxes would revert to the current rate of 0.050257 percent, in the City of Omaha only. The new sales tax would take effect in 2015. The new tax would generate $44.0 million in 2015, which when combined with the existing Omaha property tax yields a total of $58.3 million in local tax revenue for transit. This quantity is greater than that raised under Scenario 2, but less than Scenario 3.

Under this scenario the following projects could be implemented:

- Construction of a CNG refueling facility in 2016.
- Construction of the Farnam Busway between Downtown and Midtown, with completion and commencement of BRT service on the corridor in 2020 , at a cost of $64 million (2013 dollars), excluding vehicles.
- All Phase II service improvements in 2025.
- All Phase III service improvements in 2035.
- Construction of the Maple-Westroads and Center (Midtown to Oakview) Arterial BRT projects, with completion and commencement of BRT service in

2035, at a cost of $31.4 million and $37.1 million (2013 dollars), respectively, excluding vehicles.

- Construction of the 24th Street (North Omaha Transit Center to Metro Community College South Omaha Campus), 30th Street (North Omaha Transit Center to Metro Community College South Omaha Campus) and 72nd Street (I-680 to Mercy/72nd) Arterial BRT projects, with completion and commencement of service in 2040, at a cost of $29.5 million, $35.0 million, and $29.6 million (2013 dollars), respectively, excluding vehicles.

As with Scenario 2, this scenario involves a geographic expansion of Metro's service area to the remainder of Douglas County, with the following additional service offered to outlying portions of the county beginning in 2016:

- General public rural transit service is offered in Douglas County
- Freeway BRT routes from 144th Street/Fort Street and from Q Street/180th Street are added, at a cost of $5.4 million and $6.0 million (2013 dollars), respectively, excluding vehicles.

A summary of Scenario 4 2050 service characteristics is contained in **Appendix A**.

6.2.5 Preliminary Scenario 5: A 0.5 percent Eight-County Regional Mobility Sales Tax

Under Scenario 5, a new half cent (0.5 percent) sales tax is introduced in the entire eight-county study area, in addition to the existing 0.050257 percent, property tax in Omaha. Of the six Preliminary Vision Scenarios this generates the most revenue, estimated at $58.7 million in new sales tax revenue plus $14.4 in existing property tax revenue, for a total of $73.0 million in local tax revenue for transit, more than five times the existing local revenue stream.

Under Scenario 5, the following projects could be implemented;

- Construction of a CNG refueling facility in 2016.
- Construction of the Farnam Busway between Downtown and Midtown, with completion and commencement of BRT service on the corridor in 2020, at a cost of $64 million (2013 dollars), excluding vehicles.
- All Phase II service improvements in 2025.
- Construction of the Maple-Westroads and Center (Midtown to Oakview) Busways, with completion and commencement of BRT service in 2025, at a cost of $68.8 million and $80.0 million (2013 dollars), respectively, excluding vehicles.
- All Phase III service improvements in 2035.
- Construction of the 24th Street (North Omaha Transit Center to Metro Community College South Omaha Campus) and 72nd Street (I-680 to Mercy/72nd) Busways, with completion and commencement of BRT service in 2035. , at a cost of $63.6 million and $64.3 million (2013 dollars), respectively, excluding vehicles.
- Construction of the 30th Street (North Omaha Transit Center to Metro Community College South Omaha Campus) Arterial BRT project, with completion and commencement of service in 2035, at a cost of $35.0 million (2013 dollars) excluding vehicles.

As with Scenario 3, this scenario involves a geographic expansion of the Metro service area to cover eight counties and the following rural-oriented additional services are included in the scenario. Effective in 2016;

- General public rural transit service is offered in all eight counties.
- Twelve Freeway BRT routes are constructed and implemented, serving origins in Lincoln, Blair, Plattsmouth, Council Bluffs (IA), Glenwood (IA), Oakland (IA), western Douglas County and a new park-and-ride facility at the intersection of I-680 and I-29 in Pottawattamie County, Iowa. These projects have a total cost of $102.2 million.

A summary of Scenario 5 2050 service characteristics is contained in **Appendix A**.

6.2.6 Preliminary Scenario 6: Farnam Transit Assessment District

Transit Assessment districts (TADs) established immediately surrounding key public transit corridors could be created to target financial support from properties most directly impacted by a particular public transit investment. Scenario 6 examines the potential for a TAD along the Farnam Street corridor in which an incremental district-specific property tax levy would be applied in addition to the existing property tax supporting transit in the City of Omaha. This tool could be particularly relevant for short-term capital projects, versus open-ended sources of annual revenue for ongoing operations. Based on 2012 property values of properties located within one-half (1/2) mile of designated corridors, annual revenue potential in select corridors is estimated as follows. In constructing this scenario a rate was selected which would enable the implementation of a major capital project along the corridor in addition to modest service improvements throughout Metro's service area. The finding of the model was that, under an Omaha city-wide property tax rate of 0.08 percent (same rate as the Baseline scenario) and an additional levy of 0.06 percent in the TAD, the following projects could be implemented:

- Construction of a CNG refueling facility in 2016.
- Construction of the Farnam Busway between Downtown and Midtown, with completion in 2020, at a cost of $64 million (2013 dollars), excluding vehicles.
- Phase II service levels on Route 2 (Dodge/Farnam) implemented in 2020.
- Phase II service improvements on the Maple and Center (proposed Routes 4 and 15SL) corridors in 2030.
- Phase III service improvements on the Maple and Center (proposed Routes 4 and 15SL) corridors in 2035.

It should be noted that the legality of using revenue from a TAD to fund service improvements extending beyond the boundaries of that district has not been fully explored. Therefore, this scenario may pose some implementation issues.

A summary of Scenario 6 2050 service characteristics is contained in **Appendix A**.

6.3 Preliminary Scenario Summary Matrix

Table 6.2 summarizes the key elements of each preliminary scenario, including the applicable local tax rate(s), projects to be included and implementation phasing. Much of this information is also presented visually in the exhibits contained in Appendix A. The comparison table is intended to illustrate the manner in which scenarios were built incrementally upon one another. As shown, Scenario 5, which generates the most revenue, contains all of the projects contained in the other scenarios, featuring either an accelerated implementation schedule or an upgraded capital investment. For example, this is the only scenario that features a comprehensive network of north-south and east-west dedicated busways, with full implementation of the entire capital program complete by 2035.

Table 6.3 (page 90) summarizes the aggregate operating statistics, capital, and operating costs for the Preliminary Scenarios.

Table 6.2: Preliminary Scenario Vision Scenarios

	Scenario 0: Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Local Funding							
Property Tax							
Coverage Area	Omaha	Omaha	Douglas	8-County			Omaha
Rate	0.075%	0.10%	0.10%	0.10%			0.075%
Sales Tax							
Coverage Area					Douglas	8-County	
Rate					0.50%	0.50%	
Transit Assessment District							
Coverage Area							Dodge
Rate							0.06%
Projects							
Phase I Service Improvements	2016	2016	2016	2016	2016	2016	2016
CNG Facility		2016	2016	2016	2016	2016	2016
Phase II Service Improvements							
Farnam/Dodge [1]		2020	2020	2020	2020	2020	2020
Maple [2]		2025	2025	2025	2025	2025	2030
Center [2]		2025	2025	2025	2025	2025	2030
Rapid and Frequent Corridors		2030	2030	2025	2025	2025	
MAPA Corridors			2030	2025	2025	2025	
All Remaining Corridors			2030	2025	2025	2025	
Phase III Service Improvements							
Maple [3]			2035				2035
Center [3]			2035				2035
Rapid and Frequent Corridors				2035	2035	2035	
MAPA Corridors				2035	2035	2035	
All Remaining Corridors				2035	2035	2035	
Arterial BRT							
Maple-Westroads			2040		2035		
Center (Midtown-Oakview)			2040		2035		
24th St				2035	2040		
30th St (North Omaha to Metro CC)					2040	2035	
72nd St				2035	2040		
Busway BRT							
Dodge/Farnam (Downtown-Westroads)		2020	2020	2020	2020	2020	2020 [4]
Maple-Westroads				2025		2025	
Center (Midtown-Oakview)				2025		2025	
24th St						2035	
72nd St						2035	

[1] Immediately superseded by the Farnam Busway in Scenarios 1 through 6.

[2] Immediately superseded by busways in Scenarios 3 and 5.

[3] In Scenarios 3, 4, and 5, BRT projects are implemented on these corridors at or before the Phase III service improvements.

[4] Capital Only.

Table 6.3 Preliminary Scenarios Summary

	Preliminary Scenarios						
	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Number of Routes, 2050							
Light Rail	0	0	0	0	0	0	0
BRT	0	1	3	5	6	6	0
Express Bus	7	7	8	18	8	18	7
Local Bus	25	24	21	19	18	18	25
Revenue Vehicle Hours, 2050							
Light Rail	0	0	0	0	0	0	0
BRT	0	33,000	88,000	172,000	191,000	209,000	0
Bus (Local + Express)	292,000	305,000	293,000	351,000	292,000	317,000	305,000
2050 O&M Cost (2012 $)	$45,100,000	$55,500,000	$76,300,000	$120,600,000	$102,400,000	$122,100,000	$48,700,000
2050 Annual Local Tax Revenues (2012 $)	$26,600,000	$35,000,000	$47,000,000	$82,100,000	$56,200,000	$84,700,000	$29,600,000
2050 Per Capita O&M Spending (2012 $)	$36	$43	$56	$89	$71	$90	$38
Capital Costs and Revenues, 2015-2050							
Aggregate Capital Costs	$300,300,000	$415,200,000	$631,100,000	$1,135,000,000	$876,500,000	$1,305,000,000	$378,000,000
Federal 5307 Funding	$192,900,000	$192,900,000	$192,900,000	$192,900,000	$192,900,000	$192,900,000	$192,900,000
Federal 5309 Funding	0	$22,500,000	$62,900,000	$110,800,000	$94,500,000	$135,900,000	$22,500,000
State Capital Funding	0	$2,500,000	$14,000,000	$92,900,000	$14,000,000	$92,900,000	$2,500,000

6.4 Refined Draft Scenarios

The preliminary scenarios described in the previous sections were presented to the Steering Committee at a workshop in June 2013. The workshop featured an in-depth presentation of the study progress to-date, including the topics and methodologies presented in Chapters 1 through 5 of this document and the findings presented in Sections 6.1 through 6.3. Following presentation of the Baseline and the six Preliminary Scenarios, breakout sessions were held in which Steering Committee members discussed the scenarios and considered their preferences with respect to project types, funding sources, timing and the coverage area of any regional transit authority. Consensus was reached on a number of topic areas, while other questions required further consideration. The results of the breakout sessions can be summarized as follows:

- There was widespread consensus that any future expansion of transit service, as well as any regional funding mechanism, should be limited to Douglas, Sarpy and Pottawattamie counties. All existing services and the majority of potential new projects, were already limited to these three counties. The only proposed expansions to the other five study area counties were two potential BRT routes to Blair and a number of Freeway BRT routes to other outlying communities.
- Sales taxes were generally favored over higher property taxes as a long-term funding mechanism.

Property taxes can continue in Omaha but should not be expanded to surrounding areas, including the remainder of Douglas County.

- Geographically equitable provision of service relative to the distribution of revenue received is an important consideration. Several Steering Committee members raised the question of whether differential tax rates could be assessed in different jurisdictions in order to balance revenue generation with the services received in each county.
- Establishing an east-west trunk line with enhanced service (such as the Farnam Busway or the Dodge/Farnam LRT line) should be a priority, with establishment of at least one project as soon as possible.
- North-south BRT service on either 24th, 30th, or 72nd Street is also important and at least one such corridor should be prioritized.

Based on this feedback, three Refined Scenarios were developed. All of the scenarios incorporate the feedback for which widespread consensus was achieved, such as a three-county jurisdiction and long-term prioritization of sales taxes over property taxes. The individual scenarios attempt to demonstrate different approaches to improving and expanding transit services within that broader framework. One area in which the scenarios differ from one another is the manner in which funding was matched with projects. In Scenarios A and C, a project list was defined, with funding levels then set to provide the necessary financing for those projects. Scenario B, by contrast, was developed based on a set funding level, with projects selected based on the financial capacity to build and operate them.

In each Scenario, new services such as Freeway BRT and rural dial-a-ride transit service generally take effect as new jurisdictions are added to the transit authority. Capital projects such as LRT and Busway BRT are constructed as funding allows. Likewise, Phase II and Phase III service improvements as recommended by TMD take effect as funding allows. All Scenarios assume that the "cost neutral" Phase I service improvements will take effect in 2016.

Additional model refinements and changes in assumptions that underlie the Refined Scenarios are described below. Following the discussion of model refinements, each Refined Scenario is presented. The project capital costs described under each scenario are expressed in 2013 dollars and exclude rolling stock. One-page visual summaries of the 2050 service characteristics achieved under each scenario are presented in Appendix B.

6.4.1 Model Refinements

A number of minor changes were applied to the model before the Refined Scenarios were developed. These include the following:

- The Center and Maple BRT projects were modified to operate from downtown, while the capital costs were left unchanged based on a capital project that begins at Midtown. This assumes that any BRT project on Center and Maple will be constructed beginning at UNMC, with buses operating on the Farnam Busway or supplementing a rail line on Dodge/Farnam.
- The 72nd Street BRT project was extended from Bergan Mercy Medical Center in Omaha to the intersection of 72nd Street and Highway 370 in Sarpy County, in order to provide enhanced service to Sarpy County. This second section was included as an additional project, enabling construction of either the northern segment or both segments.
- Whereas under the Preliminary Scenarios, a mix of Arterial BRT and Busway BRT projects were considered, all BRT projects proposed in the Refined Scenarios are Busway BRT projects.
- Under the Refined Scenarios, all capital projects are assumed to receive a 32 percent federal New Starts or Small Starts capital grant. This rate is based on a 40 percent federal match multiplied by an 80 percent assumed probability of funding, which has been applied across the board for all capital projects included in the Refined Scenarios. This differs from the Preliminary Scenarios, in which only some capital projects were assumed to receive federal assistance.
- The model was modified to allow for contract revenue to be discontinued at a set date. In the refined scenarios, contract revenue will be discontinued in conjunction with any regional tax covering Pottawattamie County, on the assumption

that the new tax revenue would replace the previous mechanism of using contracts for funding service outside of Douglas County.

- Many projects, including the Dodge/Farnam LRT project, were broken into shorter component segments to facilitate phased construction of the higher cost projects, as well as to allocate cost across multiple counties for projects that provide local service in more than one county (express bus services are allocated entirely to the outlying counties).
- Transit projects under consideration as part of the ongoing Central Omaha Transit Alternatives Analysis have been added to the model for possible consideration. These projects are not active in the Refined Scenarios, but could be activated as substitutes for similar projects that do appear in the Preliminary and/or Refined scenarios, pending input from stakeholders. Each project has close similarities to projects already included in the model and the additional Alternatives Analysis projects are added as additional options, rather than replacing those similar projects. The Alternatives Analysis projects included in the model are:

1. BRT between TD Ameritrade Park, Downtown and Crossroads via parallel lanes on Farnam and Harney Streets.
2. BRT between TD Ameritrade Park, Downtown and Crossroads via bus lanes on Farnam Street, including an eastbound contraflow lane.
3. Streetcar between TD Ameritrade Park, Downtown and UNMC via parallel lanes on Farnam and Harney Streets.
4. Streetcar between TD Ameritrade Park, Downtown and UNMC via bus lanes on Farnam Streets, including an eastbound contraflow lane.

6.4.2 Scenario A: Accelerated LRT

Scenario A has as its primary goal the construction of a full-length LRT line from Council Bluffs to the First National Business Park at Dodge and 144th Streets, via Dodge and Farnam Streets in Omaha and Broadway in Council Bluffs. This is accomplished through a phased 20-year construction plan, beginning Downtown and expanding to both the east and west in five-year increments. Other capital projects are constructed as a companion to this trunk line, with appropriate phasing to connect with LRT segments are they are completed.

Because Scenario A is the only one of the Refined Scenarios in which LRT is constructed, it results in both the highest expenditure levels and the highest need for local revenues. In spite of assumed federal capital assistance for the LRT and related BRT projects, the majority of capital funding and nearly all additional operating funding, will be locally derived. Scenario A assumes funding from the following sources:

- The existing property tax rate of 0.0503 percent in the City of Omaha will grow at 2.5 percent per year through 2018, by which time the rate will reach 0.0583 percent. The rate will remain fixed thereafter in perpetuity.
- Beginning in 2018, a new three-county sales tax of 1.0 percent will be enacted in Douglas, Sarpy and Pottawattamie counties. This was the rate needed to fund the projects listed below.
- Revenue from service contracts in Pottawattamie County will end after 2017, to be replaced by sales tax revenue from the new three-county transit authority.

The following project phasing is envisioned under Scenario A (note that all costs are in 2013 dollars):

- General public rural transit service to three counties in 2018.
- The following Freeway BRT services commence in 2019:
  - 144th St./Fort St. to Downtown.
  - 180th St./Q St. to Downtown.
  - Oakland to Downtown.
  - Oakland to Westroads.
  - Old Mormon Bridge Rd. to Downtown via I-29.
  - Old Mormon Bridge Rd. to Westroads via I-680.
- A new CNG refueling facility opens in 2019.
- All Phase II service improvements in 2020.
- Phased construction of LRT along Dodge/Farnam Streets in Omaha and Broadway in Council Bluffs, between 2020 and 2040. The total capital cost

of the project is estimated at approximately $1.2 billion. The following phasing is envisioned:

  - Downtown to UNMC in 2020.
  - UNMC to Crossroads in 2025.
  - Crossroads to Westroads in 2030.
  - Council Bluffs to Downtown in 2035.
  - Westroads to First National Business Park in 2040.
- All Phase III service improvements in 2025.
- Construction of the following busways, with commencement of BRT service in 2025:
  - Maple (Midtown to Westroads), at a cost of $67.0 million.
  - Center (Midtown to Oakview), at a cost of $78.5 million.
  - 72nd Street (I-680 and Bergan Mercy Medical Center) at a cost of $63.6 million.
- Construction of the 72nd Street Busway between Bergan Mercy Medical Center and Highway 370, with completion and commencement of BRT service on the corridor in 2030, at a cost of $57.0 million.

A summary of Scenario A 2050 service characteristics is contained in **Appendix B**.

6.4.3 Scenario B: Network Evolution

Scenario B is modeled after Preliminary Scenario 5, seeking gradual system-wide service improvements and the eventual implementation of a comprehensive BRT network. Refinements from Preliminary Scenario 5 include extension of the 72nd Street Busway to Sarpy County and elimination of the 30th Street BRT corridor. While Preliminary Scenario 5 included a 0.5 percent eight-county sales tax in addition to the existing Omaha property tax, Refined Scenario B applies that sales tax to only three counties, delaying implementation to 2025, but supplementing it with a 0.1 percent Omaha property tax effective in 2018.

Scenario B assumes funding from the following sources:

- The existing property tax rate of 0.0503 percent in the City of Omaha will grow at 2.5 percent per year through 2015, after which it will increase to a fixed 0.1 percent rate effective in 2016 and continuing in perpetuity.
- Beginning in 2025, a new three-county sales tax of 0.5 percent will be enacted.
- Revenue from service contracts in Pottawattamie County will end after 2024, to be replaced by sales tax revenue from the new three-county transit authority.

The following project phasing is envisioned under Scenario B:

- A new CNG refueling facility opens in 2017.
- General public rural transit service to three counties in 2025
- The following Freeway BRT services commence in 2026:
  - 144th St./Fort St. to Downtown.
  - 180th St./Q St. to Downtown.
  - Oakland to Downtown.
  - Oakland to Westroads.
  - Old Mormon Bridge Rd. to Downtown via I-29.
  - Old Mormon Bridge Rd. to Westroads via I-680.
- Construction of the Farnam Busway between Downtown and Midtown, with completion and commencement of BRT service on the corridor in 2020, at a cost of $63.3 million.
- All Phase II service improvements in 2025.
- Construction of the following busways, with commencement of BRT service in 2025:
  - Maple (Midtown to Westroads), at a cost of $67.0 million.
  - Center (Midtown to Oakview), $78.5 million.
- All Phase III service improvements in 2035.
- Construction of the following busways, with commencement of BRT service in 2035:
  - 24th Street (North Omaha Transit Center to Metro Community College South Omaha Campus), $62.8 million.
  - 72nd Street (I-680 to Highway 370), $120.5 million.

A summary of Scenario B 2050 service characteristics is contained in **Appendix B.**

6.4.3.1 Scenario B with repeal of Omaha Property Tax

Due to the general lack of appetite for property taxes, an alternative version of Refined Scenario B was developed in which the local Omaha property tax is eventually repealed in its entirety, with the funding shortfall to be replaced by an additional increment in the already-proposed three-county sales tax. Under this scenario, like the "base" Scenario B described previously, the property tax rate increases 2.5 percent per year through 2015, increasing to a fixed 0.1 percent rate in 2016. However, under this alternative scenario the property tax is then fully repealed in 2025 when the new three-county sales tax takes effect. In order to maintain the same project list, a corresponding increase in the sales tax is needed to compensate for the loss of property tax revenue. It is not possible to calculate a precise substitute sales tax rate, because of differing assumptions about future growth in property and sales tax bases. However, it was found that a three-county sales tax rate of 0.77 percent was sufficient to maintain the same project list and phasing as the base Scenario B. This compares to a sales tax of 0.50 percent under the base Scenario B, constituting an increase of slightly greater than 50 percent in the sales tax rate.

6.4.4 Scenario C: Regional Equity

Scenario C was developed to address concerns about regional equity in a new enlarged transit authority service area. The project list and phasing is loosely based upon Preliminary Scenarios 3 and 5, however the funding in this scenario was specifically designed to match revenue levels derived from each of the three counties with the level of service received in those respective counties. To accomplish this, all local property tax is repealed and replaced with a sales tax, with different sales tax rates applied in each of the three counties. The rate assessed in each county was computed based on both the level of transit service offered in that county and the county's estimated tax base. The rates and equity calculations were computed based on expected total tax receipts and transit expenditures between 2018 (the year in which the property tax is repealed and replaced with a sales tax) and 2050.

Scenario C assumes funding from the following sources:

- The existing property tax rate of 0.0503 percent will remain fixed until 2018, when it is fully repealed.
- Beginning in 2018, a new three-county sales tax will be enacted, with the following rates for each county:
  - Douglas County: 0.70 percent
  - Sarpy County: 0.20 percent
  - Pottawattamie County: 0.66 percent

These rates were developed based on the project list below, with the dual goals of (1) providing the necessary funding to finance the project list and (2) do so in a geographically equitable manner.

- Revenue from service contracts in Sarpy and Pottawattamie counties will end after 2017, to be replaced by sales tax revenue from the new three-county transit authority.
- Scenario C also assumes that fare revenues will cover 30 percent of total operating expenses. This is in comparison with Scenarios A and B, as well as all earlier scenarios, in which a 20 percent farebox recovery is assumed.

The following project phasing is envisioned under Scenario C:

- General public rural transit service to three counties in 2018
- The following Freeway BRT services commence in 2019:
  - 144th St./Fort St. to Downtown.
  - 180th St./Q St. to Downtown.
  - Oakland to Downtown.
  - Oakland to Westroads.
  - Old Mormon Bridge Rd. to Downtown via I-29.
  - Old Mormon Bridge Rd. to Westroads via I-680.
- A new CNG refueling facility opens in 2019.
- Construction of the Farnam Busway between Downtown and Midtown, with completion and commencement of BRT service on the corridor in 2020, at a cost of $63.3 million.
- All Phase II service improvements in 2025.
- Construction of the following busways, with commencement of BRT service in 2025:

- Maple (Midtown to Westroads), at a cost of $67.0 million.
- Center (Midtown to Oakview), $78.5 million.

- Construction of the following busways, with commencement of BRT service in 2035:
  - 24th Street (North Omaha Transit Center to Metro Community College South Omaha Campus), $62.8 million.
  - 72nd Street (I-680 to Bergan Mercy Medical Center), $63.6 million.
- All Phase III service improvements in 2035.
- Construction of the 72nd Street Busway between Bergan Mercy Medical Center and Highway 370, with completion and commencement of BRT service on the corridor in 2040, at a cost of $57.0 million.

A summary of Scenario C 2050 service characteristics is contained in **Appendix B**.

6.5 Summary of Refined Draft Scenarios

Figure 6.1 illustrates the various tax rate proposals associated with each Refined Scenario. **Table 6.4** then summarizes the projects to be included under each Scenario and implementation phasing. The two exhibits are intended to illustrate the manner in which scenarios were built incrementally upon one another and the funding necessary to achieve these build-out scenarios. A, as the only scenario in which LRT is constructed, requires the most revenue and results in the greatest level of expenditures. In addition to the LRT construction, other capital projects and service improvements are also accelerated compared with the other scenarios. Scenarios B and C are relatively similar in both the scope and phasing of projects and improvements. Scenario C brings in more revenue than Scenario B between 2016 and 2025, allowing earlier implementation of rural BRT and dial-a-ride services, whereas Scenario C's lower revenues after 2025 require later capital projects to be delayed compared with Scenario B. Additional detail on each scenario, including project maps, phasing and operations statistics, can be found in the one-page summaries presented in **Appendix B.**

As shown, under Scenarios A and B, Sarpy County contributes a substantially higher proportion of local tax revenues to the system than it receives in transit service expenditures. Sarpy County's contribution is greatest under the "Repeal Property Tax" version of Scenario B, because the Omaha property tax – repealed under that scenario – tends to shift the burden toward Douglas County and the elimination of that tax must be compensated for with additional sales taxes levied on all three counties. Under all scenarios, Sarpy County receives between three and four percent of transit expenditures while contributing up to 22 percent of local tax revenues. By comparison, Pottawattamie County tends to receive a greater share of expenditures than its share of local tax contributions, due to the comparatively extensive level of transit service provided in Council Bluffs. Under Scenario C these imbalances are largely eliminated, with each of the three counties receiving a share of transit expenditures that is within one percentage point of that county's share of the local tax burden.

Table 6.5 summarizes the aggregate operating statistics, capital, and operating costs for the Refined Scenarios.

Figure 6.2 illustrates the relationship between expenditures and local tax revenues by county under each Refined Scenario. In none of the cases do total revenues match total expenditures, because local tax revenues are only one of many revenue sources for Metro. Furthermore, some expense categories, such as a proposed CNG refueling facility, are not associated with any specific county and are therefore excluded from the calculation. Therefore the distributions shown in **Figure 6.2** are expressed as a percent of the total, rather than absolute numbers.

Figure 6.1: Proposed Tax Rates under the Refined Scenarios

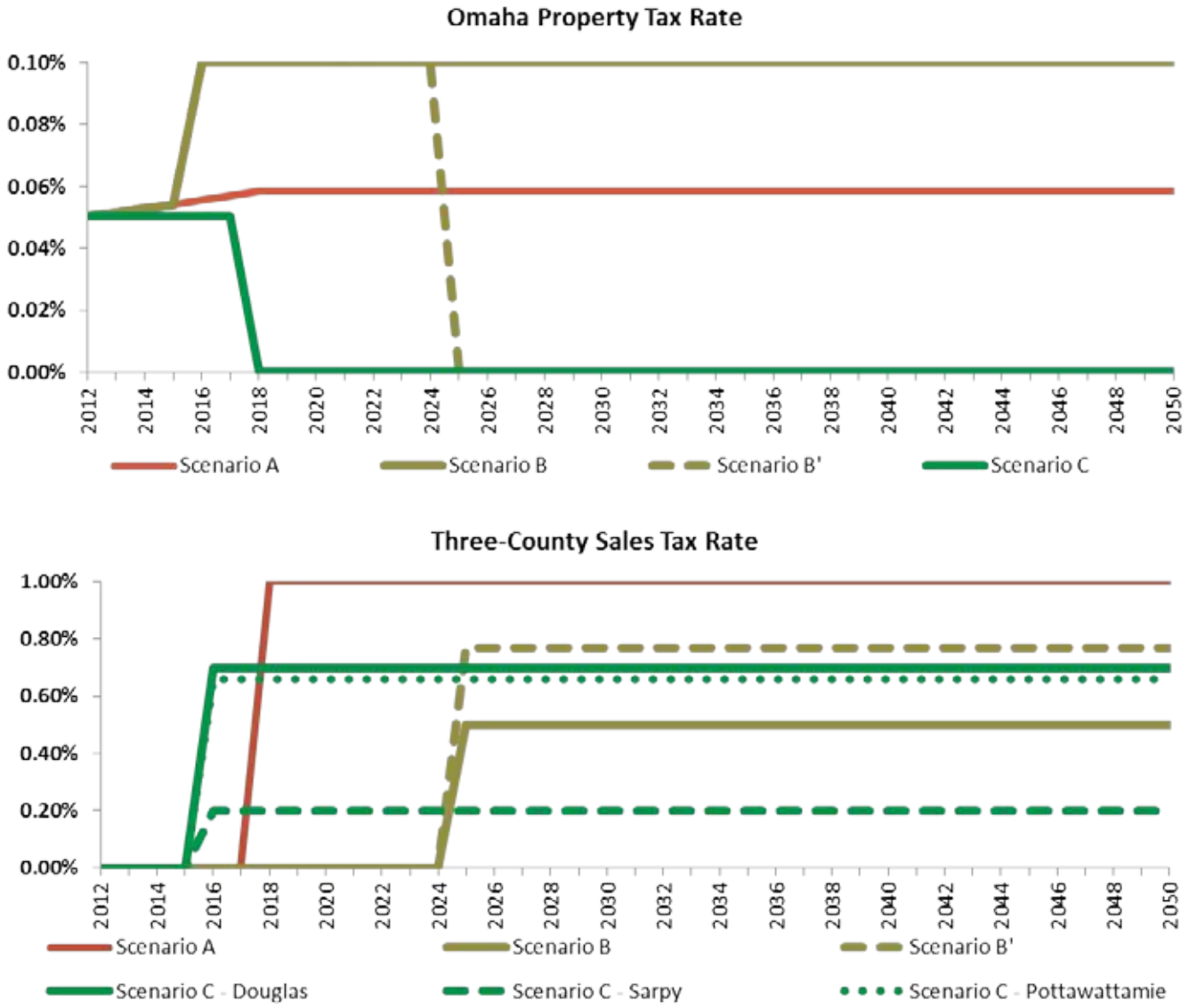


Figure 6.2: Comparison of Local Tax Revenue and Transit Spending by County under Refined Scenarios

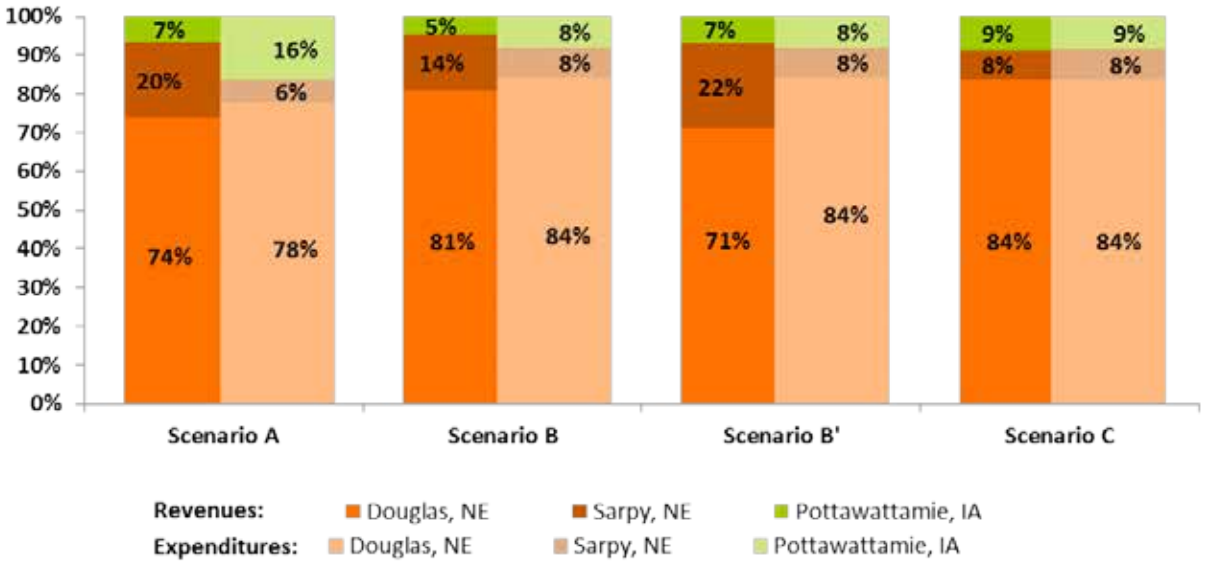


Table 6.4: Refined Scenario Summary Matrix

Projects	Scenario A: Accelerated LRT	Scenario B: Network Evolution	Scenario B with Repeal of Local Property Tax	Scenario C: Regional Equity
Phase I Service Improvements	2016	2016	2016	2016
Phase II Service Improvements	2020	2025	2025	2025
Phase III Service Improvements	2025	2035	2035	2035
CNG Facility	2019	2017	2017	2019
Freeway BRT	2019	2026	2026	2019
Rural Dial-a-Ride Transit	2018	2025	2025	2018
Busway BRT				
Dodge/Farnam (Downtown-Westroads)		2020	2020	2020
Maple-Westroads	2025	2025	2025	2025
Center (Midtown-Oakview)	2025	2025	2025	2025
24th St		2035	2035	2035
72nd St (I-680 to Mercy)	2025	2035	2035	2035
72nd St (Mercy to Highway 370)	2030	2035	2035	2040
Dodge/Farnam LRT				
Council Bluffs to Downtown	2035			
Downtown to UNMC	2020			
UNMC to Crossroads	2025			
Crossroads to Westroads	2030			
Westroads to First National	2040			

Table 6.5 - Preliminary Scenarios Summary

	Refined Scenarios			
	Scenario A	Scenario B	Scenario B '	Scenario C
Number of Routes, 2050				
Light Rail	1	0	0	0
BRT	3	5	5	5
Express Bus	12	12	12	12
Local Bus	20	19	19	19
Revenue Vehicle Hours, 2050				
Light Rail	65,000	0	0	0
BRT	158,000	223,000	223,000	223,000
Bus (Local + Express)	362,000	324,000	324,000	324,000
2050 O&M Cost (2012 $)	$153,600,000	$114,000,000	$114,000,000	$114,000,000
2050 Annual Local Tax Revenues (2012 $)	$145,900,000	$96,800,000	$97,200,000	$66,900,000
2050 Per Capita O&M Spending (2012 $)	$124	$84	$84	$84
Capital Costs and Revenues, 2015-2050				
Aggregate Capital Cost	$2,756,600,000	$1,201,500,000	$1,201,500,000	$1,198,200,000
Federal 5307 Funding	$192,900,000	$192,900,000	$192,900,000	$192,900,000
Federal 5309 Funding	$619,700,000	$161,600,000	$161,600,000	$163,800,000
State Capital Funding	$42,700,000	$47,300,000	$47,300,000	$42,700,000

6.6 Governance Strategies

At the present time, Metro serves primarily the City of Omaha. The agency receives local tax support from within the City and its board is appointed by the City Council. Service to other communities in Douglas, Sarpy, and Pottawattamie counties is provided through service contracts arranged directly with the jurisdictions served. Expansion of Metro's offerings outside of Omaha, and implementation of a regional mobility tax to finance that expansion, will likely require a reconfiguration of Metro's governance structure to adequately represent the affected communities. Based on the feedback received during the June 2013 workshop, potential governance strategies for an expanded transit authority were developed in conjunction with the Refined Scenarios presented in the previous sections. This section identifies options for a governance structure for a potential three-county transit authority that would provide public transportation for residents of Douglas and Sarpy Counties in Nebraska and Pottawattamie County in Iowa. The options described in this section were presented to the stakeholders in conjunction with the Refined Scenarios, with the goal of developing a final Vision Scenario that would also include a preferred governance structure that is responsive to the needs of the community and would foster the successful execution of the Vision Scenario.

6.6.1 Background and Existing Governance

The three counties included in the proposed regional transit authority contain a total population of approximately 790,031 people. Douglas County is the largest of the three counties, home to a population of approximately 531,260 people, with approximately 421,570 people living within the City of Omaha. Sarpy County is the second largest county with approximately 165,853 residents. Pottawattamie County is the smallest of the three counties, containing approximately 92,913 people, with approximately 62,115 people residing within the City of Council Bluffs.[29]

Metro currently has a five member board appointed by the Mayor of Omaha, subject to confirmation. Only one of the five members is from outside Omaha. As previously discussed, Metro provides bus service beyond Omaha into Douglas, Sarpy and Pottawattamie counties through contractual service arrangements.

Governance of existing stakeholder agencies will also play a role in structuring the new expanded transit authority. Seven commissioners govern Douglas County affairs.[30] The City of Omaha operates under a Mayor-Council form of government.[31] There are seven members of the City Council.[32] A five member Board of Directors governs Sarpy County.[33] A Board of Supervisors, made up of five elected members, administers Pottawattamie County affairs.[34] MAPA covers a five-county area in two states. It has a nine-member appointed board. The smaller member jurisdictions share representatives on the board. MAPA has many responsibilities that extend well beyond transit, including economic development for the region. MAPA's composition and responsibilities are summarized in **Table 2.6**.

6.6.2 The Need for Expanded Financial Capability

The Metro System's structure works well for governing the current system which serves primarily the City of Omaha as well as surrounding Douglas, Sarpy, and Pottawattamie counties through service contracts. However, if the system is to grow to meet the needs of the metropolitan area in the coming decades, changes will be required. Barriers currently exist to utilizing even the existing authorized levels of taxing authority for transit needs, let alone to accessing the funding necessary to modernize the system and make it conducive to meeting urban planning goals. This is due to the fact that Metro cannot realize its full statutory

29 - State & County QuickFacts, The United States Census Bureau, available at http://quickfacts.census.gov/qfd/states/19/1916860.html.
30 - Douglas County, http://www.douglascounty-ne.gov/home (last visited July 1, 2013).
31 - City of Omaha, http://www.cityofomaha.org/ (last visited July 1, 2013).
32 - Ibid
33 - County Board, Sarpy County, Nebraska, http://www.sarpy.com/countyboard/ (last visited July 1, 2013).
34 - Pottawattamie County, Iowa, http://www.pottcounty.com/ (last visited July 1, 2013).
35 - Neb. Const. art. XV, § 18(1)

levy as the result of overall levy caps and expenditure limitations. Interim steps can potentially be taken to remove barriers to accessing currently authorized funding levels. New sources of funding, however, come with governance issues as well as the need to provide direct representation to participating jurisdictions.

6.6.3 Proposed Governance Options

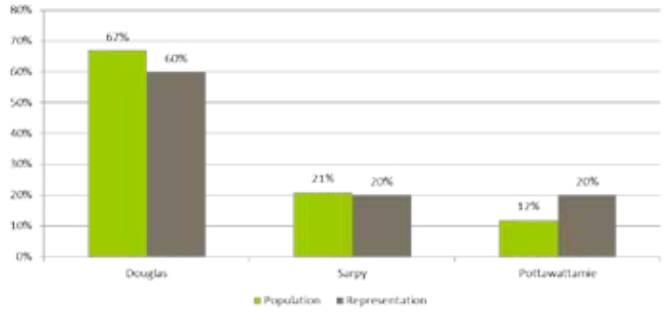
The proposed three-county transit authority would be in charge of collecting new regional transit revenues and operating public transportation across three counties: Douglas and Sarpy counties in Nebraska and Pottawattamie County in Iowa. The objective in identifying a recommended governance strategy is to achieve a fair framework that balances representation, contributions, and benefits for the three counties using best practices. Because Douglas County has two-thirds of the population, any proportional representation scheme must contain mechanisms in place to ensure protection of the interests of minority jurisdictions. The fact that the three counties are in two different states also presents certain challenges in the area of governance. However, interlocal agreements or even contractual arrangements similar to those currently used by the Metro system to provide service across county and state lines provide a possible approach to implementing a regional transit authority even in the absence of sweeping new legislation or an interstate compact. The concept of cooperation across state lines to provide governmental services is not only evident in legislation such as the Interlocal Cooperation Act and the Joint Public Agency Act, but is also enshrined in the Nebraska Constitution: "The state or any local government may exercise any of its powers or perform any of its functions, including financing the same, jointly or in cooperation with any other governmental entity or entities, either within or without the state, except as the Legislature shall provide otherwise by law."[35]

The following three governance options were developed to present a variety of board structures, sizes, and election mechanisms that represent a range of options for the region. Each of the options is intended to present a realistic scenario that would be consistent in structure with a number of peer regions, particularly those addressed in **Section 2.9** of this report. A final recommended governance structure will be presented in Chapter 8, which discusses implementation strategies following the selection of a Vision Scenario.

Option One: Five Elected Directors

The first proposed option for governing a regional transit authority is a five-member elected Board of Directors. This option most closely reflects the size of the current Metro board. Setting the number of elected board members at this low level would also help mitigate the cost of conducting elections. Seats on the board would be allocated to counties on an at-large basis. Out of the five-member panel, three members would represent Douglas County and both Sarpy and Pottawattamie counties would have one representative each, roughly corresponding to the proportionate share of each county's total population (**Figure 6.3**).

Figure 6.3: Population versus Representation by County, Governance Option One



Adopting super-majority voting requirements whereby Board actions require the approval of more than a simple majority of the Board would ensure protection of both Sarpy and Pottawattamie County interests. However, to achieve this, a super-majority vote would require approval by four out of five board members (80 percent).

Opting for an elected Board of Directors would ensure competitive pursuit of the office and would raise its public profile. Public elections would also make the Board of Directors' members more accountable to the public for the actions related to the new authority. Elected officials can be presumed to be more likely to pursue policies that are in line with the preferences of the electorate.

A significant concern about electing the board is the cost associated with conducting an election, both by the government and by the candidates. Although less common than appointed boards, there are a number of notable regional transit agencies with elected boards,

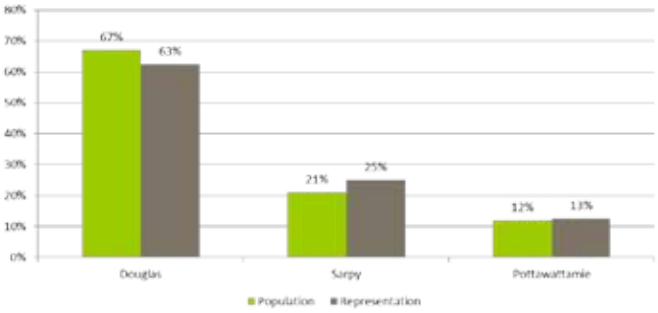
including the Regional Transportation District (RTD) in the Denver metropolitan area.

In addition to the cost of electing board members in three counties, other disadvantages of this option is that both smaller counties have the same level of representation despite their population differences. This could lead to greater jurisdictional politics and a potential for imbalance between representation and service levels.

Option Two: Eight Appointed Directors

A second option is an appointed Board of Directors with eight members in charge of managing the new authority. This structure is similar to, but somewhat larger than, the current Metro board. Small to mid-sized Boards of Directors ranging from seven to ten members are fairly common among transit authorities throughout the country, and are used in cities and regions such as Austin, St. Louis, Kansas City, Cincinnati, and Des Moines. As the City of Omaha comprises over half the total population of the proposed transit region, and Douglas County comprises about two-thirds of the region, four representatives would come from the City of Omaha and one from outside the city but still within Douglas County, closely mirroring those jurisdictions' share of population. Sarpy County would receive two seats on the Board, and Pottawattamie County would receive one seat. Figure **6.4** shows the relationship between county population and board representation under this scenario.

Figure 6.4: Population versus Representation by County, Governance Option Two



A super-majority requirement of 75 percent of the vote (six of eight members) would ensure that Douglas County and the City of Omaha would not have unchecked control over regional decision–making.

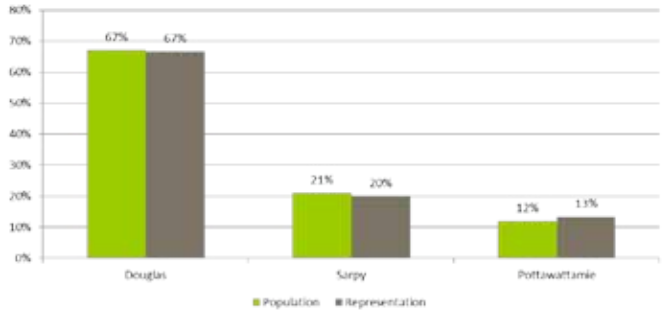
Under this option, the larger eight-member Board of Directors would allow for a broader range of input and closer correspondence between population and representation for each member county. Appointed Board members would likely be more insulated from electoral politics, allowing them to draw on policy expertise. For the new transit authority, the Mayor of Omaha could appoint the four Directors from Omaha and the City Council would approve the appointments. The Douglas County Commissioners could appoint the Director from within the county but outside the City of Omaha. The Sarpy and Pottawattamie County Boards could appoint their respective Directors.

Under this expanded board option, Pottawattamie County would still have only one Director on the Board. As with all appointed boards, no direct voter participation would be involved. However, voters would have indirect control through their elected city and county officials. Additionally, there is presently no precedent in Nebraska for an appointed board with direct taxing authority, and such a proposal may meet with substantial resistance on the part of voters and elected officials.

Option Three: Fifteen Appointed Directors

Similar to Option Two, a third available structure for governance for the new transit authority is a board comprised of 15 appointed Directors. The advantage to a larger board is that there is room for a higher level of representation of minority jurisdiction interests as well as more diverse representation within each jurisdiction. A few cities and regions in the country use larger Boards of Directors ranging from 13 to 17 members, including Albuquerque, Cincinnati, Denver, and Minneapolis/ St. Paul. Of the fifteen Directors under Option Three, ten appointments from Omaha and Douglas County would represent a sixty-seven percent 67 percent membership share, which is very closely proportional to the population. Having eight of the ten Directors from the City of Omaha and two from outside the city but still within Douglas County would also closely represent the population breakdown within Douglas County. Of the remaining seats, three would be apportioned to Sarpy County and two to Pottawattamie County. **Figure 6.5** shows the relationship between representation and county population under this arrangement.

Figure 6.5: Population versus Representation by County, Governance Option Three



Implementing super-majority voting requirements would protect the interests of the minority jurisdictions. Under this option in order to achieve a 75 percent super-majority, a vote of 12 of the 15 members would be required. This would mean, for example, the ten Douglas County representatives would need to be joined by at least two of the five members from the other counties.

It would be possible, under this Option, to develop a model whereby a broader degree of public participation could be encouraged through an application process. This could increase public awareness and involvement even though no election would be held. This would entail soliciting applications for the Director positions, but having the applicants screened and selected by the respective governing bodies. A similar approach is used in Duluth, Minnesota.[36] In the event of a Director vacancy, a replacement could be chosen using unselected applications kept on file.

Option Three avoids electoral politics and the costs of electing board members in three counties while providing the best opportunity to ensure proportional representation of each member jurisdiction. It also allows a broader range of participation from each county and greater public access to the Board. Disadvantages include increased administrative costs compared to a smaller appointed board and potential inefficiencies related to the functioning of a 15-member board. In particular, reaching a super-majority consensus on a board of this size may prove to be a more challenging proposition than on a smaller board. Finally, as with Option Two, the lack of precedent for an appointed board with direct taxing authority may prove to be an issue in gaining legislative approval for this governance structure.

Summary

The three options described above each provide unique advantages and disadvantages. Option One is the simplest and most similar to the current Metro governance structure, but is limited in terms of membership because of the size of the Board and would require costly elections. Option Two mimics the popular small- to mid-size boards used nationwide and saves money by appointing Directors, but may not fully protect the interests of Pottawattamie County in relation to Douglas and Sarpy counties. Option Three is the largest and most complex option, resulting in higher administrative costs and potentially more challenging proceedings, but the size and structure of the Board allow for the highest level of minority jurisdiction representation and civic engagement. Super-majority voting provisions could protect minority jurisdiction interests in all three options.

36 - See Duluth Transit Authority, http://www.duluthtransit.com/misc/board (last visited July 1, 2013).

7 THE PREFERRED VISION SCENARIO

The Refined Scenarios described in the previous chapter were presented to the Steering Committee at a workshop in July 2013. The workshop featured a high-level review of the study progress to-date, including a summary of the findings of the previous stakeholder meeting. These findings were used as the basis for the Refined Scenarios, which were then presented in detail. Following presentation of the Refined Scenarios, potential governance strategies were presented, including three hypothetical governing board structures for an expanded transit authority. Governance approaches at the peer agencies described in **Chapter 2** of this document were presented for comparison.

Following the presentation of the Refined Scenarios and the potential governance strategies, the Steering Committee engaged in an open discussion with the goal of arriving at a single Vision Scenario for final evaluation. A number of themes and findings came out of this discussion, and are summarized as follows:

- The "equity" approach to regional funding, in which the distribution of local revenues by county should match the proportional distribution of capital and operating expenditures, was strongly favored. Refined Scenario C, in which this approach was utilized, should be the basis for the Vision Scenario.
- The concept of a "multi-modal transportation tax" was supported by the group. Under such a proposal, a flat regional sales tax rate would be applied throughout the three-county area, with the portion dedicated to transit determined on a county-by-county basis, based on equity calculations. The remainder would be dedicated to other projects such as roadway improvements.
- Compared with Refined Scenario C, a more aggressive program was desired, with at least one north-south BRT route completed by 2025 in addition to the east-west Farnam Busway project.
- A higher level of service to Pottawattamie County than what was included in Scenario C would be necessary to justify including that county in a regional transit authority. At least one premium service (BRT or LRT) should be extended to Pottawattamie County.
- LRT would still be a highly desirable outcome and should still be included for consideration, despite its higher cost.
- Due to continuing concerns about the feasibility of a three-county tax plan with the range of rates presented thus far, there was interest in maintaining at least one lower-cost scenario focused primarily on the existing Omaha property tax.

Based on the desire to include LRT, and with due concern over its high cost, the decision was made to develop two Vision Scenarios with a similar overall structure, differing primarily by the inclusion of LRT. Both scenarios carry forward the key findings that led to the Refined Scenarios, such as a three-county service area and favoring of sales tax over property taxes as a long-term regional funding approach. Both are built upon Refined Scenario C in terms of the regional equity approach to funding transit. These two Vision Scenarios are known as the Moderate Scenario and the Aggressive Scenario.

Additionally, due to continued concerns about the feasibility of a three-county transit authority funded by a new regional sales tax, the decision was made to include a third Vision Scenario. Known as the Omaha-Only Scenario, this scenario relies solely on the existing Omaha property tax, supplemented by a continuation of existing contract revenue for existing outlying services. Under the Omaha-Only Scenario, the property tax is gradually increased, reaching 0.10 percent in 2018 and remaining fixed at that rate thereafter. This scenario most closely resembles Preliminary Scenario #1.

One key difference between Refined Scenario C and the Moderate and Aggressive Vision Scenarios is that the Vision Scenarios maintain the local property tax within the City of Omaha, in addition to county-level sales taxes. Due to the majority of current and future service being located in Omaha, supplementing the regional sales tax with a local property tax allows the regional sales tax to remain lower than would otherwise be possible, thereby helping to establish the desired regional balance in revenues versus expenditures.

In each Vision Scenario, as with previous scenarios, new services begin to take effect as new revenue sources become available and, when applicable, Metro's service area is expanded.

Additional model refinements and changes in assumptions that underlie the Refined Scenarios are described below. Following the discussion of model refinements, each Vision Scenario is presented. The project capital costs described under each scenario are expressed in 2013 dollars and exclude rolling stock. One-page visual summaries of the 2050 service characteristics achieved under each scenario are presented in **Appendix C**.

7.1 Model Refinements and Revised Assumptions

Several changes were applied to the model before the Vision Scenarios were developed. These include the following:

- Two additional sources of annual funding have been added, as directed by MAPA. The model now assumes $750,000 in annual federal Surface Transportation Program (STP) funds, allocated to Metro through MAPA. The STP funds are assumed to rise annually at the rate of inflation. In addition, $750,000 in annual CMAQ funding is now included beginning in 2018. Unlike the STP funds, the CMAQ funding does not increase with inflation.
- The reserve fund requirement, which forces Metro to maintain a minimum cash balance at all times, was increased from the previous assumption of 60 days of operations, to 180 days. This reduces the maximum amount of annual spending, and/or increases the amount that Metro may have to periodically borrow to maintain the mandated balance.
- Refined Scenario C differed from the other Refined Scenarios as well as the Preliminary Scenarios in that it assumed a 30 percent farebox recovery ratio, whereas all other scenarios had assumed 20 percent. All three Vision Scenarios revert to the previous 20 percent farebox recovery ratio.
- Rural dial-a-ride service is no longer implemented in Pottawattamie County, due to existing services already offered there. Under the Omaha-Only Scenario, Rural dial-a-ride service is eliminated entirely.
- In Pottawattamie County, certain service improvements and new services are not implemented in order to control costs. Specifically Freeway BRT routes to Iowa are not implemented, and only the Phase I TMD service improvements are implemented. This change affects Pottawattamie County only, and applies to the Moderate and Aggressive Scenarios.
- The model was modified so that Freeway BRT projects to 180th/Q Street, and to 144th/Fort Street, would replace, rather than supplement, existing Millard Express and Maple Village Express routes, respectively.
- A new Freeway BRT route to Offutt Air Force Base has been added to the model. When activated, this route replaces the existing Bellevue Express (Route 95).
- A new Freeway BRT route to a park-and-ride facility at the intersection of I-80 and State Route 370 in Sarpy County has been added to the model.
- The model now assumes that park-and-ride facilities, included in the Freeway BRT routes, will be funded from outside sources. This substantially reduces the capital cost of constructing these routes.
- Arterial BRT projects were reintroduced for consideration in the Vision Scenarios. The Preliminary Scenarios had included both Arterial and Busway BRT projects, but the Refined Scenarios focused solely on Busway BRT.
- No state assistance for Freeway BRT is assumed under the Vision Scenarios. This is a change from previous scenarios in which the state was assumed to cover 80 percent of the cost of park-and-ride facilities, bus-on-shoulder improvements, and related capital items. Assumed state funding was removed to make the scenarios more financially conservative. However, it is still recommended that Metro seek state capital funding assistance for these and any other capital projects.

7.2 Vision Scenario: Omaha Only

The Omaha-Only Scenario is most closely related to Preliminary Scenario 1. Local funding is derived from the existing Omaha property tax, which increases incrementally beginning in 2014, and reaching 0.10 percent in 2018. Contract revenues that currently finance services operating outside of Omaha would continue in perpetuity under this scenario.

In keeping with the stated goal of providing at least one north-south and one east-west enhanced transit corridor, this Scenario includes the construction of one such BRT-type facility in each direction emanating from Downtown Omaha. However, due to the limited availability of funds in this Scenario, true BRT service is not implemented. Rather, key high-frequency local bus corridors are created with a combination of existing services and reconfigured service as recommended in the Phase I and Phase II Service Improvements recommended by TMD.

The Omaha-Only Scenario includes the following funding assumptions:

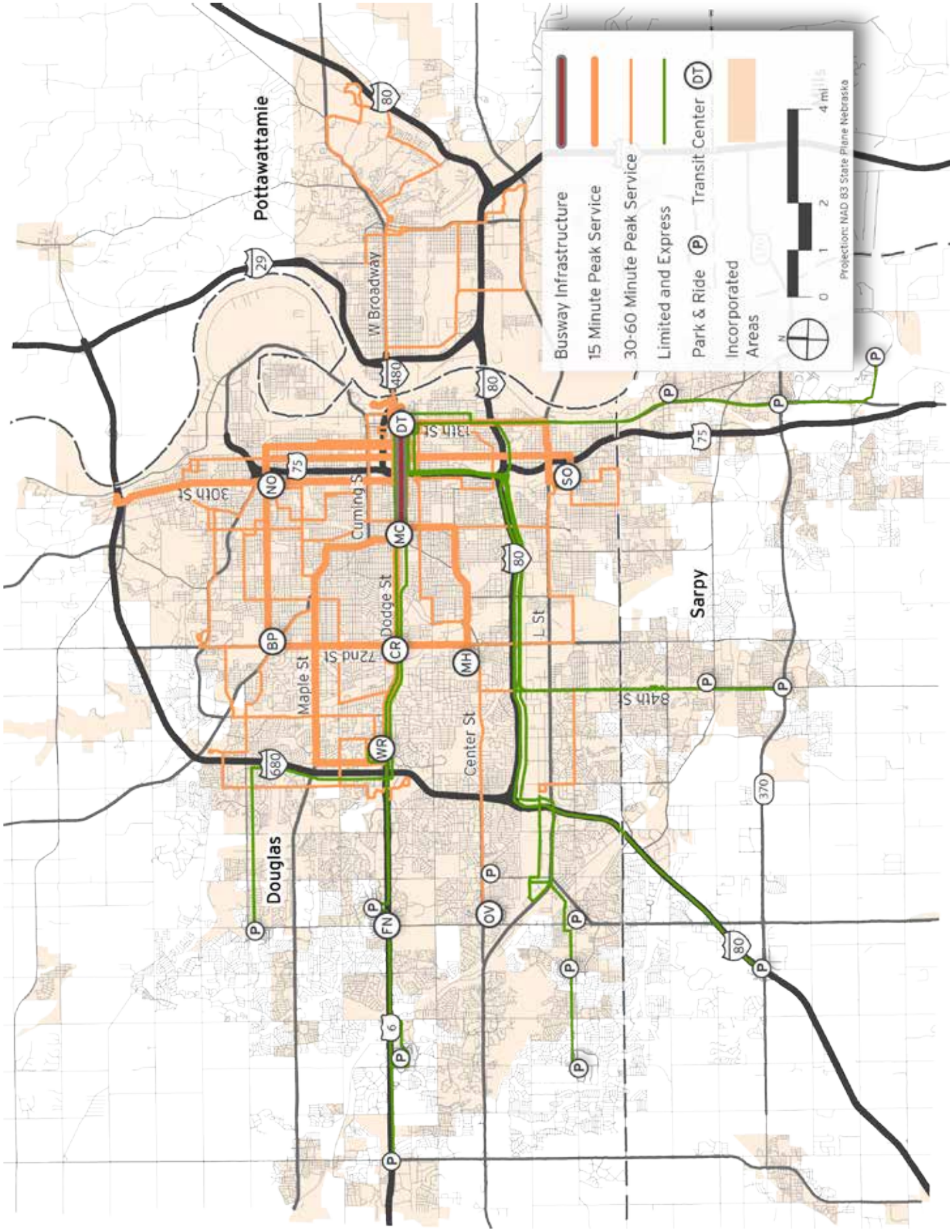
- The existing property tax in Omaha will grow from its current rate of 0.503 percent, reaching 0.10 percent in 2018 and remaining fixed thereafter.
- Revenue from service contracts in Pottawattamie County continue in perpetuity.

The following project phasing is envisioned under the Omaha-Only Scenario:

- All Phase I Service Improvements in 2016.
- Construction of the Farnam Busway between Downtown and UNMC, to be completed and open by 2020 at a cost of $23.2 million. This scenario does not assume BRT service on this corridor. Routes 2, 4, and 15 would operate on the busway.
- The following Freeway BRT services commence in 2020:
  - 144th Street/Fort Street to Downtown.
  - 180th Street/Q Street to Downtown.
  - Offutt AFB to Downtown.
  - State Route 370/I-80 park-and-ride to Downtown
- Phase II service improvements to Route 4 (Maple) only in 2020.
- Construction of the Farnam/Dodge Arterial BRT project between UNMC and Westroads, to be completed and open by 2030, at a cost of $23.1 million. This scenario does not assume BRT service on this corridor. Routes 2, 4, and 15 would operate through this corridor.
- Construction of the 24th Street Arterial BRT project between North Omaha Transit Center and Metro Community College South Omaha Campus, to be completed and opened to traffic in 2030, at a cost of $35.4 million. This scenario does not assume BRT service on this corridor. Route 24 would operate through this corridor.
- Phase II service improvements to Route 24 (24th Street) only in 2030.

Figure 7.1 presents the 2050 transit network under the Omaha-Only Vision Scenario. A detailed summary of the scenario is contained in **Appendix C**.

Figure 7.1: Omaha-Only Vision Scenario



7.3 Vision Scenario: Moderate

The Moderate Scenario is based upon Refined Scenario C, employing a regionally balanced approach to funding and building premium transit services in the Omaha region. To accomplish this, the local property tax in Omaha is supplemented with sales tax rates that vary among each of the three counties in the expanded transit service area. The rates and equity calculations were computed based on expected total tax receipts and transit expenditures between 2018 (the year in which the sales tax is implemented) and 2050.

The Moderate Scenario includes the following funding assumptions:

- The existing property tax in Omaha will remain fixed at the current rate of 0.503 percent in perpetuity.
- Beginning in 2018, a new three-county sales tax will be enacted, with the following rates for each county:
  - Douglas County: 0.62 percent
  - Sarpy County: 0.28 percent
  - Pottawattamie County: 0.60 percent

These rates were developed based on the project list below, with the dual goals of (1) providing the necessary funding to finance the project list, and (2) doing so in a geographically equitable manner.

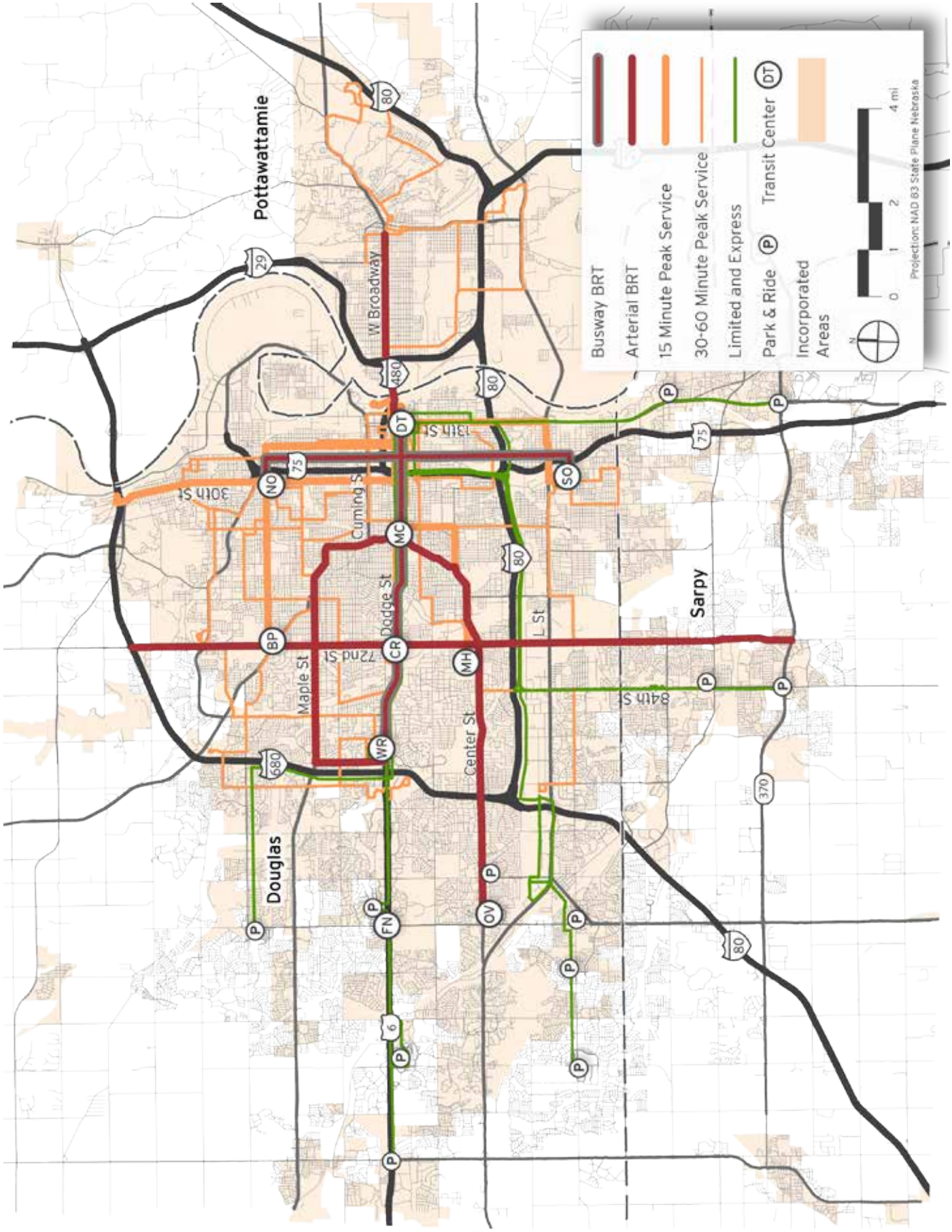
- Revenue from service contracts in Sarpy and Pottawattamie counties will end after 2017, to be replaced by sales tax revenue from the new three-county transit authority.
- No state assistance for Freeway BRT is assumed under this scenario. This is a change from previous scenarios in which the state was assumed to cover 80 percent of the cost of park-and-ride facilities, bus-on-shoulder improvements, and related capital items.

The following project phasing is envisioned under the Moderate Scenario:

- All Phase I Service Improvements in 2016.
- General public rural transit service to Douglas and Sarpy counties in 2018.
- A new CNG refueling facility opens in 2019.
- Construction of the Farnam Busway between Downtown and Westroads, with completion and commencement of BRT service on the corridor in 2020, at a cost of $63.3 million.
- Phase II service improvements in Douglas and Sarpy counties in 2025.
- Construction of the 24th Street Busway between North Omaha Transit Center and Metro Community College South Omaha Campus, with completion and commencement of BRT service on the corridor in 2025, at a cost of $62.8 million.
- The following Freeway BRT services commence in 2023:
  - 144th Street/Fort Street to Downtown.
  - 180th Street/Q Sreett to Downtown.
- Construction of the 72nd Street (I-680 to Highway 370) Arterial BRT project, with completion and commencement of service in 2025, at a cost of $68.2 million.
- Construction of the Dodge/Broadway (Downtown to Council Bluffs) Arterial BRT project, with completion and commencement of service in 2030, at a cost of $37.2 million.
- Phase III service improvements in Douglas and Sarpy counties in 2035.
- Construction of the following Arterial BRT projects, with completion and commencement of service in 2035:
  - Maple-Westroads, at a cost of $37.7 million.
  - Center (Midtown to Oakview), at a cost of $44.5 million.

Figure 7.2 presents the 2050 transit network under the Moderate Vision Scenario. A detailed summary of the scenario is contained in **Appendix C.**

Figure 7.2: Moderate Vision Scenario



7.4 Vision Scenario: Aggressive

The Aggressive Scenario offers the same extent of service over the same corridors as the Moderate Scenario, with a somewhat more aggressive implementation schedule and more ambitious capital improvements envisioned. Specifically, the Aggressive Scenario upgrades several of the Arterial BRT corridors in the Moderate Scenario to Busway BRT, and includes the long-term goal of implementing LRT before the 2050 horizon year. This is accomplished through higher taxation levels in all three counties: a 63 percent increase in Douglas County, 19 percent increase in Sarpy County, and 9 percent increase in Pottawattamie County.

The Aggressive Scenario includes the following funding assumptions:

- The existing property tax in Omaha will remain fixed at the current rate of 0.503 percent in perpetuity.
- Beginning in 2018, a new three-county sales tax will be enacted, with the following rates for each county:
  - Douglas County: 0.99 percent
  - Sarpy County: 0.32 percent
  - Pottawattamie County: 0.63 percent

These rates were developed based on the project list below, with the dual goals of (1) providing the necessary funding to finance the project list, and (2) doing so in a geographically equitable manner.

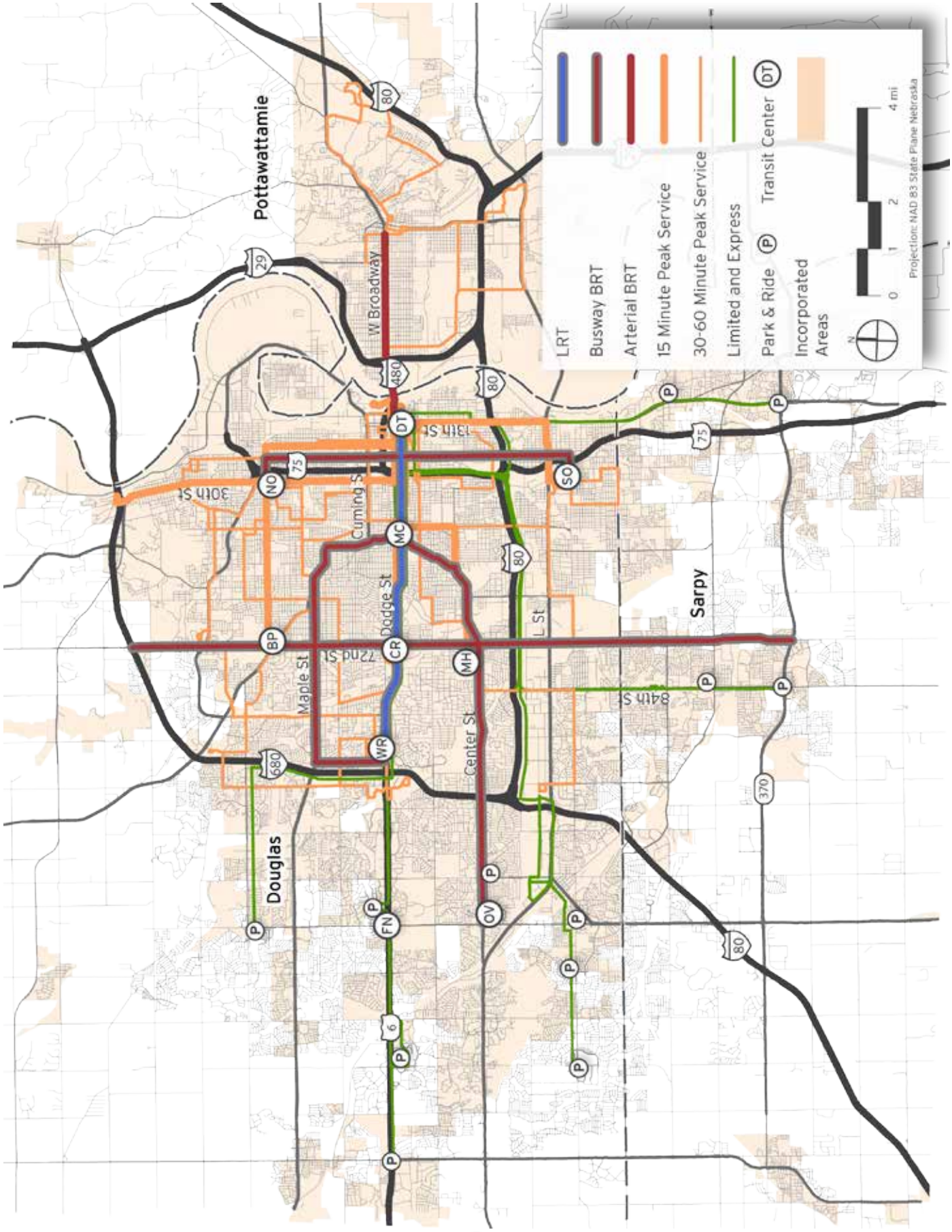
- Revenue from service contracts in Pottawattamie County will end after 2017, to be replaced by sales tax revenue from the new three-county transit authority.

The following project phasing is envisioned under the Aggressive Scenario:

- All Phase I Service Improvements in 2016.
- General public rural transit service to Douglas and Sarpy counties in 2018.
- A new CNG refueling facility opens in 2019.
- Construction of the Farnam Busway between Downtown and Westroads, with completion and commencement of BRT service on the corridor in 2020, at a cost of $63.3 million.
- The following Freeway BRT services commence in 2023:
  - 144th Street/Fort Street to Downtown.
  - 180th Street/Q Street to Downtown.
- Phase II service improvements in Douglas and Sarpy counties in 2025.
- Construction of the following busways, with commencement of BRT service in 2025:
  - 24th Street (North Omaha Transit Center to Metro Community College South Omaha Campus), at a cost of $62.8 million.
  - 72nd Street (I-680 to Highway 370), at a cost of $120.5 million.
- Construction of the Dodge/Broadway (Downtown to Council Bluffs) Arterial BRT project, with completion and commencement of service in 2030, at a cost of $37.2 million.
- Phase III service improvements in Douglas and Sarpy counties in 2035.
- Construction of the following busways, with completion and commencement of BRT service in 2035:
  - Maple-Westroads, at a cost of $67.0 million.
  - Center (Midtown to Oakview), at a cost of $78.5 million.
- Construction of the Dodge/Farnam LRT, with completion and commencement of service in 2045, at a cost of $543.7 million.

Figure 7.3 presents the 2050 transit network under the Aggressive Vision Scenario. A detailed summary of the scenario is contained in **Appendix C**

Figure 7.3: Aggressive Vision Scenario



7.5 Vision Scenario Summary

Table 7.1 summarizes the project implementation schedule for the two Vision Scenario alternatives, while **Table 7.2** summarizes the operating statistics, capital, and operating costs for the Refined Scenarios. **Figure 7.4** shows the revenues and expenditures, by county, under the three scenarios. As shown, local revenues and expenditures are balanced by county under the Moderate and Aggressive Scenarios. In both of these alternatives, the majority of local revenues and expenditures occur in Douglas County. The Aggressive Vision Scenario increases the share of expenditures and revenues in Douglas County, due in large part to the inclusion of LRT in that scenario.

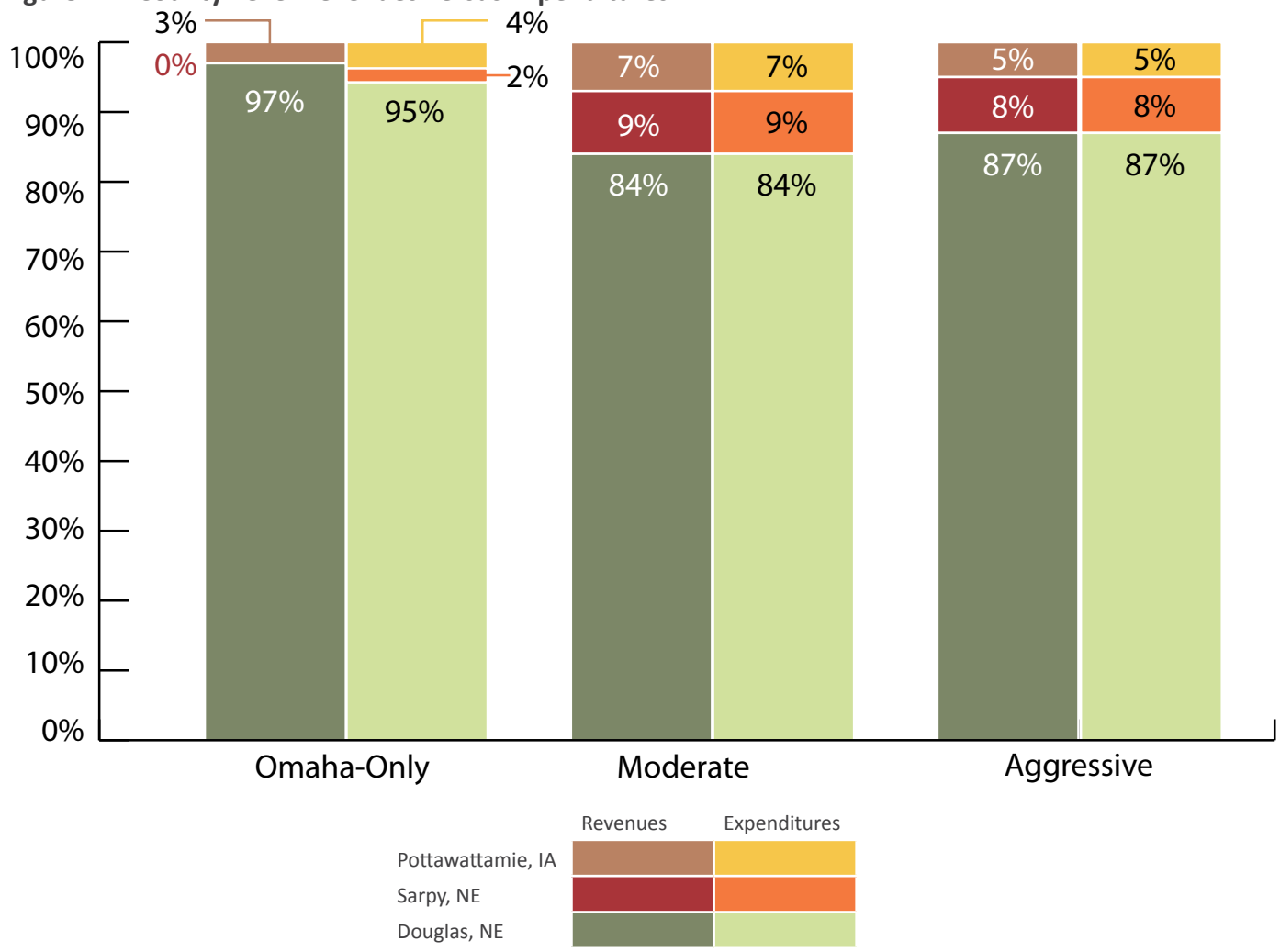
Table 7.1: Vision Scenario Summary Matrix

Projects	Vision Scenario Moderate	Vision Scenario Aggressive
Phase I Service Improvements	2016	2016
Phase II Service Improvements - Sarpy and Douglas Only	2025	2025
Phase III Service Improvements - Sarpy and Douglas Only	2035	2035
CNG Facility	2019	2019
Freeway BRT	2023	2023
Rural Dial-a-Ride Transit – Sarpy and Douglas Only	2018	2018
Busway BRT		
Dodge/Farnam (Downtown-Westroads)	2020	2020
Maple-Westroads		2035
Center (Midtown-Oakview)		2035
24th St	2025	2025
72nd St (I-680 to Highway 370)		2025
Arterial BRT		
Dodge/Broadway (Downtown-Council Bluffs)	2030	2030
Maple-Westroads	2035	
Center (Midtown-Oakview)	2035	
Dodge/Farnam LRT (Downtown-Westroads)		2045

Table 7.2 - Vision Scenarios Summary

	Vision Scenarios		
	Omaha-Only	Moderate	Aggressive
Number of Routes, 2050			
Light Rail	0	0	1
BRT	0	5	5
Express Bus	8	7	7
Local Bus	25	18	18
Revenue Vehicle Hours, 2050			
Light Rail	0	0	33,000
BRT	0	232,000	232,000
Bus (Local + Express)	312,000	292,000	292,000
2050 O&M Cost (2012 $)	$53,100,000	$115,400,000	$132,600,000
2050 Annual Local Tax Revenues (2012 $)	$35,700,000	$81,400,000	$111,600,000
2050 Per Capita O&M Spending (2012 $)	$42	$91	$108
Capital Costs and Revenues, 2015-2050			
Aggregate Capital Cost	$488,900,000	$1,067,300,300	$2,201,000,000
Federal 5307 Funding	$192,900,000	$192,900,000	$192,900,000
Federal 5309 Funding	$32,700,000	$125,800,000	$485,500,000
Federal STP Funding	$27,000,000	$27,000,000	$27,000,000
Federal CMAQ Funding	$15,700,000	$15.700,000	$15,700,000
State Capital Funding	$0	$2,600,000	$12,400,000

Figure 7.4: County-Level Revenues versus Expenditures



7.6 Recommended Governance Structure

The Moderate and Vision Scenarios would require the creation of a new three-county authority to manage the revenues, expenditures, capital program, and operations of an expanded transit program. The Omaha-Only Vision Scenario would not require any change to the existing Metro governance structure. This section describes the recommended governance structure should a three-county transit program be adopted.

Section 6.6 presented a number of proposed governance options that would meet the representation and financing needs of a three-county regional transit authority such as would be required in the Moderate and Aggressive Scenarios, while offering a realistic path to implementation. The three proposed board structures were as follows:

- Option One—Five Elected Directors: Three representatives would come from Douglas County, and one each from Sarpy and Pottawattamie counties. This structure would closely resemble the current Metro Board, while transitioning to an elected membership to provide direct voter input on the operations of an agency that would now have direct taxing authority. The small size of this Board would limit representation in the outlying counties and less directly correspond to the relative populations of the three counties. There may also be considerable cost associated with holding direct elections.
- Option Two—Eight Appointed Directors: Five representatives would come from Douglas County

(four from within Omaha, one from outside the city), two from Sarpy County, and one from Pottawattamie County. Having only a single representative from Pottawattamie County would be a disadvantage, as would the lack of Nebraska precedent for an appointed board with taxing authority. An appointed board, however, would be better protected against the short-term demands of electoral politics and would enable the agency to seek Board members with expertise in transit operations and policy.

- Option Three—Fifteen Appointed Directors: Ten representatives would come from Douglas County (eight from Omaha, two from outside the city), three from Sarpy County, and two from Pottawattamie County. With this enlarged board, it may also be possible to encourage direct public participation by accepting applications for board membership from the general public. This Board structure may result in higher administrative costs than a smaller board, and it may be challenging to reach supermajority consensus with a 15-member board. However, the relatively small number of member jurisdictions should limit the number of competing interests and facilitate smoother consensus-building. The larger Board structure offers better, more balanced representation, especially for the two smaller counties, and no jurisdiction would have fewer than two representatives on the Board.

7.6.1 Recommended Legislative Framework

Based upon feedback from stakeholder meetings and the discussion in the preceding paragraphs, a general consensus emerged on a number of key characteristics of a regional transit authority, including the following:

- The unit of membership/participation on a regional transit authority board should be at the county level.
- Provisions must be enacted to protect minority jurisdictions so as to ensure commensurate benefits from and contributions to the transit system.
- The regional authority should eventually be funded primarily by sales tax revenue designated specifically for transit (even if such revenue is part of a larger multi-model sales tax that would also fund transportation infrastructure such construction of roads, bridges and trails).

Other aspects of a regional authority remain to be determined. Legislation to implement this regional transit vision would include:

- Amendments to existing statutes which now effectively preclude the transit system from accessing the full level of taxing authority ($0.10 per $100 of taxable value) designated for public transit. This would entail amendments to Neb. Rev. Stat. § 77-3442 and/or Neb. Rev. Stat. § 77-3443.
- Amendments to the existing Transit Authority Law and/or new legislation to authorize creation of a new regional transit authority with membership open to counties containing a city of the metropolitan class and contiguous counties, whether within or without the State of Nebraska, having a population of 75,000 or more residents. The current law requires complete ownership of the transit system by the City of Omaha
- Creation of a regional transit authority board with members appointed by participating jurisdictions in proportion to population, and with supermajority voting requirements designed to protect minority jurisdictions and ensure a fair balance between funding contributions and services. Board size must be large enough to provide adequate representation to minority jurisdictions. The current Transit Authority Law provides for one of the five board members to be from outside of Omaha, and all members are appointed by the Mayor of Omaha.
- Authorization for participating jurisdictions to implement a sales tax to supplement funding of public transit. The current Transit Authority Law relies primarily on property taxes and does not authorize use of sales taxes. Options may include authority to implement a multi-modal sales tax to fund transportation infrastructure projects, with a designated minimum portion of the tax going to fund transit under the direction of the new regional transit board. The regional transit board would not have direct taxing authority.

Separate authorizing legislation would be needed in Iowa, or provisions put in place for an expanded service agreement tied to funding and board representation.

8 IMPLEMENTATION

The purpose of the Regional Transit Vision study presented in this report is to identify a future vision for public transit in the Omaha-Council Bluffs metropolitan area, through the development of transit investment scenarios. The technical process and stakeholder feedback utilized throughout this study has yielded a set of three alternative Vision Scenarios that illustrate the potential for future transit development and the resources necessary to achieve that potential. This study was conducted as part of the broader Heartland 2050 process which will address land use considerations and future multi-modal corridor development opportunities. To capitalize on the findings of this study and maximize its utility to future efforts, an implementation plan is essential. The implementation of a Regional Transit Vision will occur over many years and will involve multiple jurisdictions and agencies across the region. This chapter presents the steps to implement the recommendations and actions outlined within this document and assigns responsibilities for implementation. Early implementation steps include adopting the recommended short-term service improvements and coordinating with the ongoing Heartland 2050 process.

The Plan recommendations and actions are based upon the findings presented in the preceding chapters of this report and are the result of a technical analysis and stakeholder engagement process. In order to be successful, the Regional Transit Vision must reflect the broader community's values. Therefore, this document's goals, analysis, focus, direction and final recommendations and actions reflect the values identified by stakeholders at the onset of the process. This process is summarized in **Section 1.3**.

The Implementation Matrix on the following pages is intended to provide a general reference guide for key recommendations and actions. The matrix outlines:

- A summary of key recommendations or actions.
- Organization and partners responsible for initiation, oversight and monitoring.
- Anticipated time frames:
  - Short-Term (1-5 Years)
  - Mid-Term (5-10 Years)
  - Long-Term (10+ Years)
  - Ongoing

Table 8.1 Implementation Matrix - System Recommendations

	Recommendation and Key Actions	Time Frame	Responsible Entities			
			MAPA	Metro	Local Juris-dictions	NDOR/ Iowa DOT
1	Implement Metro Phase I service changes by 2016.	Short-Term		✓		
Action	Increase frequency in the Farnam corridor to buses every 7-8 minutes or better.					
Action	Identify a location for a downtown transit center that maximizes the efficiency of the Farnam transitway and anticipates connections with potential future streetcar and intercity rail services.					
Action	Begin planning activities for BRT in Dodge corridor between University of Nebraska Medical Center and Westroads.					
Action	Reinvest in other identified high demand market areas as defined in the Plan in order to refine and reinforce service along current productive corridors, while promoting better overall network connectivity.					
2	Achieve consensus on the Farnam transitway Locally Preferred Alternative.	Short-Term	✓	✓	✓	
Action	Coordinate BRT and streetcar operating plans between Downtown and University of Nebraska Medical Center to minimize service duplication, achieve economic development objectives, and maximize funding opportunities.					
Action	Identify a Locally Preferred Alternative, complete environmental documentation, and define a FTA funding strategy (if any).					
Action	Amend the Omaha Transportation Element to include the Farnam transitway.					
Action	Amend the MAPA Long Range Transportation Plan to include the Farnam transitway.					
3	Consider a "brokerage" approach for future MOBY service.	Short-Term	✓	✓	✓	
Action	Evaluate the feasibility of a consolidated "one-call" center to increase transportation supply and reduce costs by sharing resources and by eliminating service duplication and overlap.					

continued

Table 8.1 Implementation Matrix - System Recommendations *continued*

	Recommendation and Key Actions	Time Frame	Responsible Entities			
			MAPA	Metro	Local Juris-dictions	NDOR/ Iowa DOT
4	Implement Metro organizational efficiency strategies outlined in the Regional Transit Vision and monitor progress through identified performance indicators.	Ongoing		✓		
Action	Maximize Operator Availability.					
Action	Optimize Operator and Mechanic Overtime.					
Action	Expand Maintenance Key Performance Indicators.					
Action	Expand Key Financial/Resource Utilization Key Performance Indicators.					
Action	Educate the Work Force on Key Performance Indicators.					
Action	Address Workers Compensation Costs.					
Action	Focus on Local Market Levels and Conditions Relative to Positions and Programs.					
Action	Improve System Service Performance.					
5	Build on the recent Metro re-branding efforts by continuing to build awareness and advocacy of the transit system.	Ongoing		✓		
Action	Continue to educate, advocate and build awareness of the transit system through participation in community events.					
Action	Leverage opportunities for free traditional media.					
Action	Maximize outreach opportunities through social and online media.					
Action	Establish and nurture an advocacy network including but not limited to employers, social service agencies, schools and medical facilities.					
6	Work proactively with NDOR to evaluate options for enhanced transit service for identified Freeway BRT corridors. Options may include improved access to park and ride stations as well as mainline improvements such as Bus on Shoulder.	Short-Term	✓	✓	✓	✓
Action	Incorporate enhanced transit strategies into the MAPA Travel Improvement Study.					
Action	Adopt transit enhancement strategies along identified Freeway Corridors into future MAPA Long Range Transportation Plan updates.					
7	Begin planning activities in 24th / Belt Line and 72nd Street corridors., including alternatives analysis and FTA project development activities.	Mid-Term	✓	✓	✓	
Action	Identify a locally preferred alternative, prepare environmental documentation, adopt in relavent plans, identify FTA funding stratetgey.					
8	Prepare for Metro Phase II service changes by 2025.	Long-Term		✓		
Action	Increase service frequency on the Farnam transitway to 5 minutes.					
Action	Increase service enhancements including increasing increased frequency on other high capacity corridors identified in the Plan.					
9	Participate in the ongoing planning process for increased and enhanced intercity rail service between Omaha and Chicago.	Long-Term	✓	✓	✓	✓
Action	Proactively work with regional stakeholders and state and local agencies to identify opportunities to adjust transit corridors and future transit centers to maximize the potential for connections with intercity rail.					

Table 8.2 Implementation Matrix - Land Use Policy Recommendations

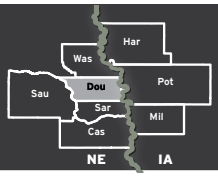
	Recommendation and Key Actions	Time Frame	Responsible Entities			
			MAPA	Metro	Local Juris-dictions	NDOR/ Iowa DOT
1	Local jurisdictions should consider appropriate regulatory and administrative policies identified in the Regional Transit Vision to encourage transit-supportive development in transit-served corridors. These policies are critical to the success of the system, especially within identified high-capacity transit corridors.	Short-Term			✓	✓
Action	Along identified high-capacity transit corridors, jurisdictions should consider adding a Transit or "T" designation as an additional zoning overlay with selected transit-supportive design principles. These principles can be used in conjunction with the City of Omaha's Urban Design Handbook to ensure quality development that supports future premium or high-capacity transit service alternatives.					
Action	Consider specific overlay zoning with higher vertical densities along high-capacity transit corridors beginning with the Farnam transitway.					
Action	Development review within these areas should include Metro to ensure that transit service needs are being accommodated. This already occurs in Omaha within identified transit corridors and mixed-use nodes. However, this review should extend to new corridors identified in the Regional Transit Vision, within Omaha as well as other jurisdictions in the region.					
2	Build on the Heartland Connections and Heartland 2050 processes.	Short-Term	✓	✓	✓	✓
Action	Incorporate the transit scenarios and analysis completed during the Heartland Connections process to help inform the development of scenarios for Heartland 2050.					
Action	Building on the Heartland Connections and Heartland 2050 processes, each jurisdiction should develop corridor and/or area plans with appropriate transit-supportive land use recommendations, design guidelines and transportation and infrastructure requirements for identified high capacity transit corridors.					
3	Broaden the constituency of support for transit and maximize its positive impact by linking transit to non-motorized mobility improvements by connecting future trail and bicycle facilities to transit corridors.	Short-Term	✓		✓	
Action	Consider proximity to transit corridors, stations and stops when planning future trail and bicycle facilities.					
Action	Evaluate development regulations and if necessary, revise requirements to ensure that adequate pedestrian facilities are constructed with new development in identified high-capacity transit corridors.					

Table 8.3 Implementation Matrix - Funding Recommendations

	Recommendation and Key Actions	Time Frame	Responsible Entities			
			MAPA	Metro	Local Juridic-tions	NDOR/ Iowa DOT
1	Raise Metro property tax revenues collected in Omaha at least 2.5% per year by board decision.	Ongoing		✓		
Action	Raise public awareness of the need for transit enhancements to keep the Omaha region competitive with other markets.					
Action	Proactively work with community advocates, stakeholders and elected officials to understand the benefits of transit-service enhancements.					
2	Build on industry efforts in developing successful creative pricing strategies to promote and expand transit service.	Ongoing		✓		
Action	Consider programs that encourage increased usage during lower demand periods.					
Action	Consider adopting new flexible fare media strategies across all income groups.					
Action	Consider incentivized community or organization-wide pass programs and frequent user programs or vendor linkages.					
3	Explore private funding and value capture opportunities to fund elements of the Farnam transitway project, potentially accelerating implementation before 2020.	Short-Term		✓	✓	
Action	Identify and educate community advocates along the Farnam transitway to understand the benefits and potential economic impact of high-capacity transit service.					
Action	Work with local leaders to help formalize a district identity along the Farnam transitway project.					
4	Identify innovative methods for local funding to match potential federal funds, including seeking philanthropic support for capital needs where feasible.	Short-Term	✓	✓	✓	
Action	Proactively work with local philanthropic to identify opportunities for community investments in high-capacity transit corridors.					
Action	Leverage private investment opportunities along high-capacity transit corridors to link to or help support future transit investments.					
Action	Identify private or philanthropic sponsors to cover at least some capital costs of project.					
Action	Determine feasibility of a benefit assessment district to cover some capital and/or ongoing operating costs of streetscaping or other project elements.					
5	Achieve buy-in from stakeholders in Douglas, Sarpy, and Pottawattamie Counties on structure and uses of three-county multi-modal sales tax.	Short-Term	✓	✓	✓	✓
Action	Proactively educate stakeholders on the benefits of transit investments in terms of economic development and quality of life.					
Action	Develop educational materials tailored to each County and Jurisdiction outlining how the future transit system will benefit their residents as well as the region as a whole.					

Appendix A – Preliminary Scenario Summaries

Heartland connections

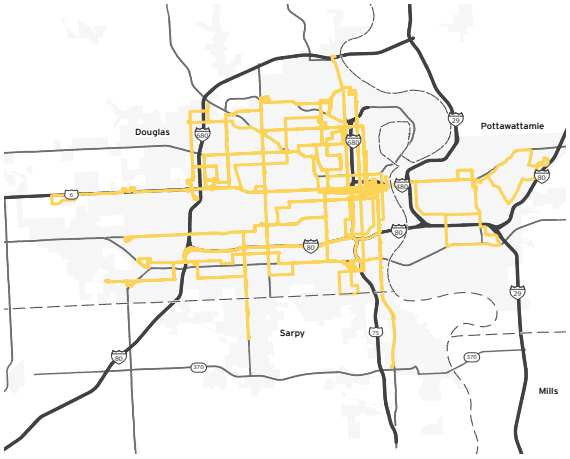


2050 Service Characteristics

Tax Rate 0.075%

Baseline

Program Elements

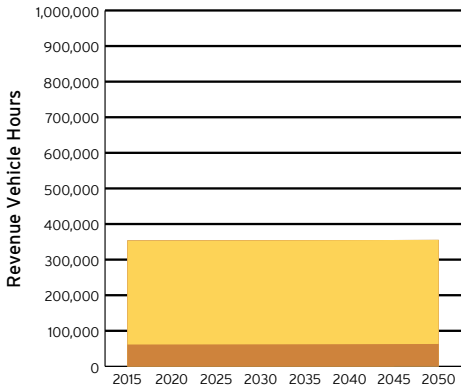


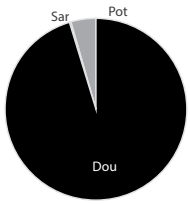
Opening Year

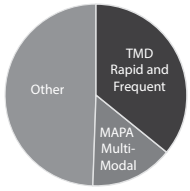
2016 Phase I Service Improvements

	Rail	Rapid	Bus Express	Bus Local
Number of Routes by Type	0	0	7	25
Typical Hours of Service per Day (weekday / weekend)	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	0	0	292,000	
Revenue Vehicle Miles	0	0	3,977,000	
Vehicles Needed for Peak Service	0	0	115	

System Vehicle Revenue Hours







2050 O&M Cost ($2012, millions)

Total: **$26**

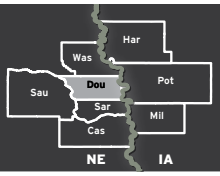
Rail	$0
BRT	$0
Bus	$24
Paratransit	$2
Dial-a-Ride	$0

Per Capita Spending ($2012)

Total: **$36**

Rail	$0
BRT	$0
Bus	$33
Paratransit	$3
Dial-a-Ride	$0

Heartland connections

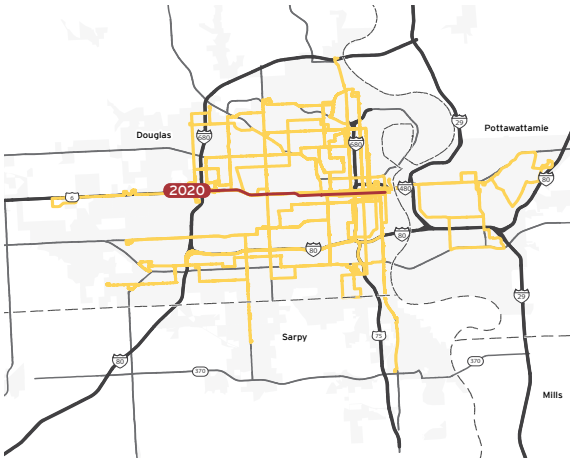


2050 Service Characteristics

Property Tax Rate
0.10%

1

Program Elements



Opening Year

- 2016 Phase I Service Improvements — All
- 2020 Dodge/Farnam Busway BRT — Downtown to Westroads
- 2025 Phase II Service Improvements — Maple and Center
- 2030 Phase II Service Improvements — Remaining Rapid and Frequent Corridors

Rail | Rapid | Bus Express | Bus Local

Number of Routes by Type

Rail	Rapid	Bus Express	Bus Local
0	1	7	24

Typical Hours of Service per Day [weekday / weekend]

Rail	Rapid	Bus Express	Bus Local
18 / 18	18 / 18	4 / n/a	18 / 14

Revenue Vehicle Hours

Rail	Rapid	Bus
0	33,000	305,000

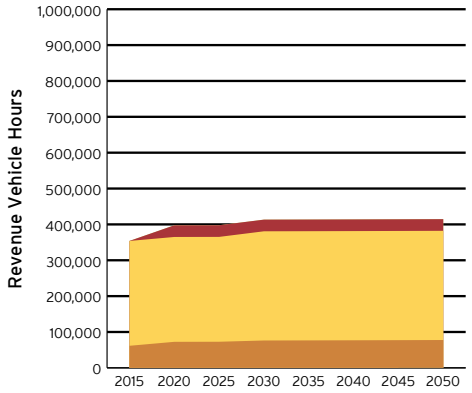
Revenue Vehicle Miles

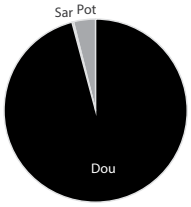
Rail	Rapid	Bus
0	409,000	4,195,000

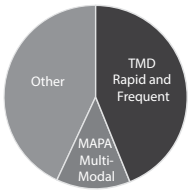
Vehicles Needed for Peak Service

Rail	Rapid	Bus
0	7	115

System Vehicle Revenue Hours







2050 O&M Cost ($2012, millions)

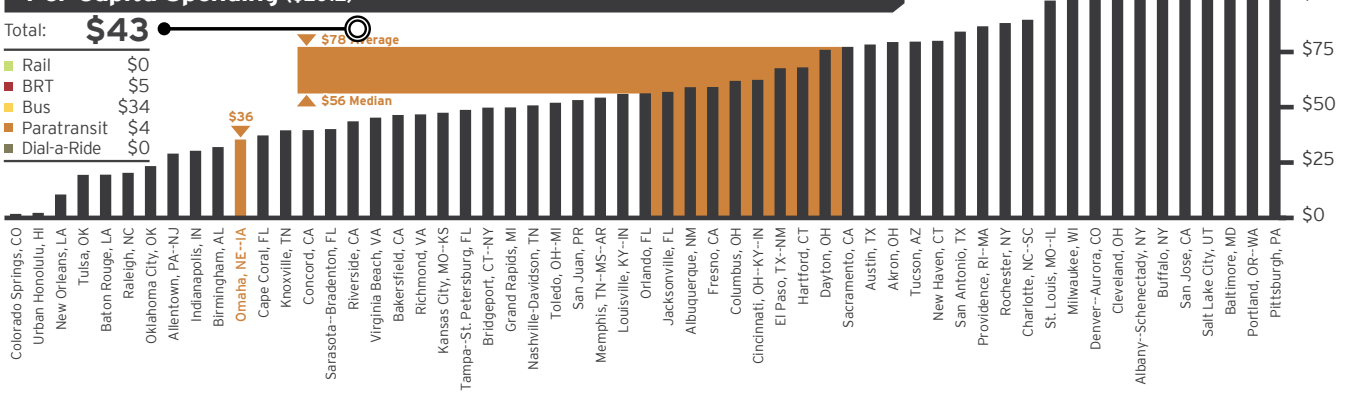
Total: **$32**

Rail	$0
BRT	$4
Bus	$25
Paratransit	$3
Dial-a-Ride	$0

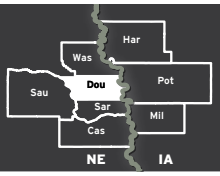
Per Capita Spending ($2012)

Total: **$43**

Rail	$0
BRT	$5
Bus	$34
Paratransit	$4
Dial-a-Ride	$0



Heartland connections

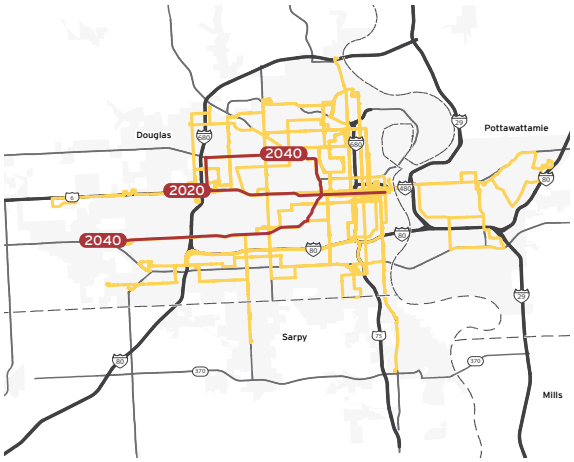


2050 Service Characteristics

Property Tax Rate
0.10%

2

Program Elements

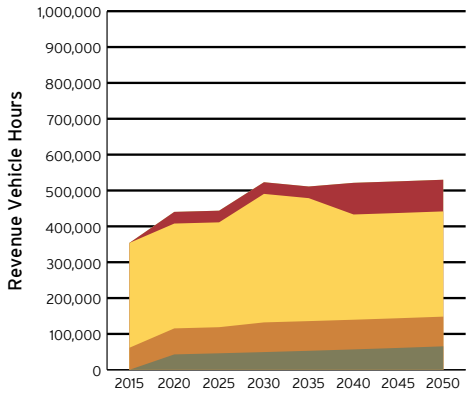


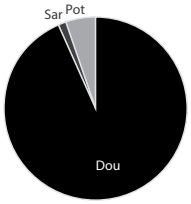
Opening Year

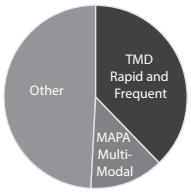
- 2016 Phase I Service Improvements — All
- 2020 Dodge/Farnam Busway BRT — Downtown to Westroads
- 2025 Phase II Service Improvements — Maple and Center
- 2030 Phase II Service Improvements — All Remaining Routes
- 2035 Phase III Service Improvements — Maple and Center
- 2040 Center St Mixed BRT — Midtown to Oakview
- 2040 Maple St Mixed BRT — Midtown to Westroads

	Rail	Rapid	Bus Express	Bus Local
Number of Routes by Type	0	3	8	21
Typical Hours of Service per Day (weekday / weekend)	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	0	88,000	293,000	
Revenue Vehicle Miles	0	1,137,000	4,111,000	
Vehicles Needed for Peak Service	0	19	115	

System Vehicle Revenue Hours







2050 O&M Cost ($2012, millions)

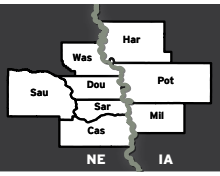
Total:	**$41**
Rail	$0
BRT	$10
Bus	$24
Paratransit	$3
Dial-a-Ride	$4

Per Capita Spending ($2012)

Total: **$56**

Rail	$0
BRT	$14
Bus	$33
Paratransit	$4
Dial-a-Ride	$5

Heartland connections

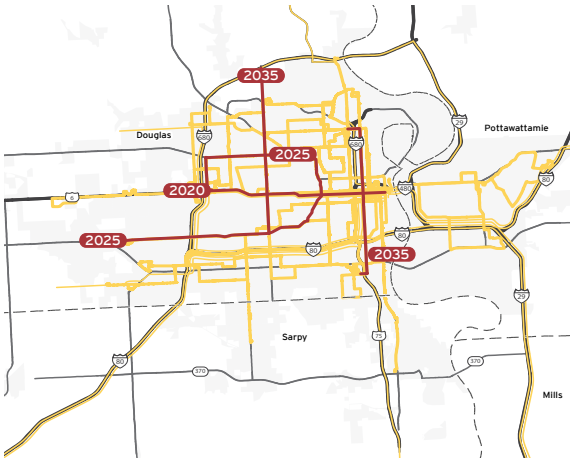


2050 Service Characteristics

Property Tax Rate
0.10%

3

Program Elements

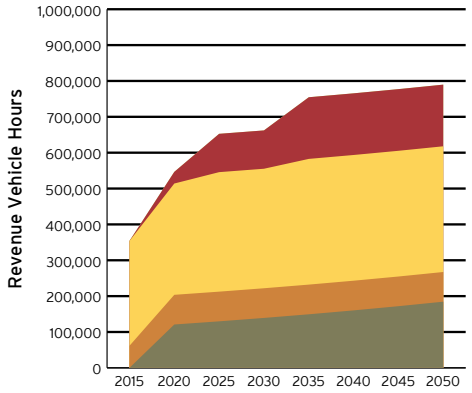


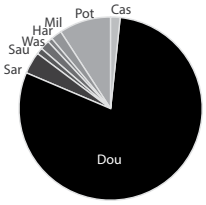
Opening Year

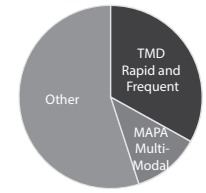
- 2016 Phase I Service Improvements — All
- 2020 Dodge/Farnam Busway BRT — Downtown to Westroads
- 2025 Phase II Service Improvements — All
- 2025 Center St Busway BRT — Midtown to Oakview
- 2025 Maple St Busway BRT — Midtown to Westroads
- 2035 Phase III Service Improvements — All
- 2035 24th St Mixed BRT — North Omaha Transit Center to Metro CC
- 2035 72nd St Mixed BRT — I-680 to Bergan Mercy Medical Center

	Rail	Rapid	Bus Express	Bus Local
Number of Routes by Type	0	5	18	19
Typical Hours of Service per Day (weekday / weekend)	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	0	172,000	351,000	
Revenue Vehicle Miles	0	2,175,000	5,422,000	
Vehicles Needed for Peak Service	0	37	150	

System Vehicle Revenue Hours







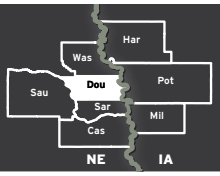
2050 O&M Cost ($2012, millions)

Total:	**$64**
Rail	$0
BRT	$19
Bus	$32
Paratransit	$3
Dial-a-Ride	$10

Per Capita Spending ($2012)

Total:	**$89**
Rail	$0
BRT	$26
Bus	$45
Paratransit	$4
Dial-a-Ride	$14

Heartland connections



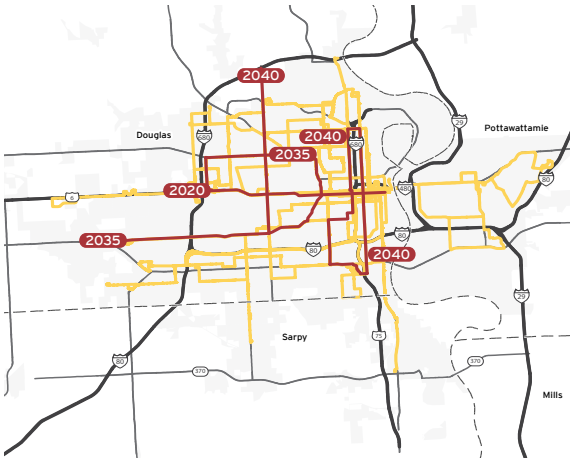
2050 Service Characteristics

Property Tax Rate 0.05%

Sales Tax Rate 0.50%

4

Program Elements

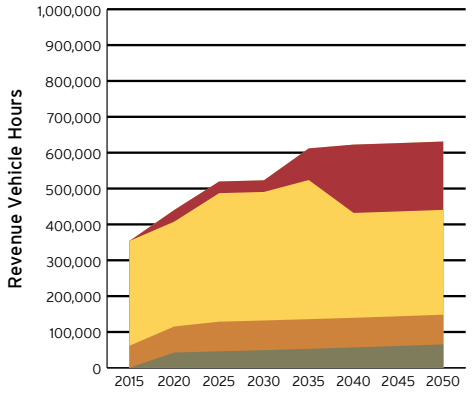


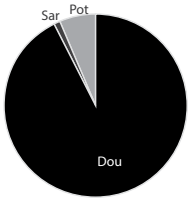
Opening Year

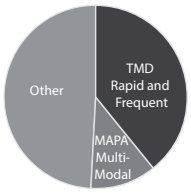
- 2016 Phase I Service Improvements — All
- 2020 Dodge/Farnam Busway BRT — Downtown to Westroads
- 2025 Phase II Service Improvements — All
- 2035 Phase III Service Improvements — All
- 2035 Center St Busway BRT — Midtown to Oakview
- 2035 Maple St Busway BRT — Midtown to Westroads
- 2040 24th St Mixed BRT — North Omaha Transit Center to Metro CC
- 2040 72nd St Mixed BRT — I-680 to Bergan Mercy Medical Center
- 2040 30th St Mixed BRT — North Omaha Transit Center to Metro CC

	Rail	Rapid	Bus Express	Bus Local
Number of Routes by Type	0	6	8	18
Typical Hours of Service per Day (weekday / weekend)	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	0	191,000	292,000	
Revenue Vehicle Miles	0	2,438,000	3,977,000	
Vehicles Needed for Peak Service	0	41	105	

System Vehicle Revenue Hours







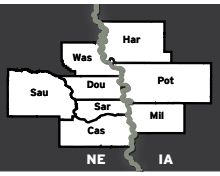
2050 O&M Cost ($2012, millions)

Total:	**$52**
Rail	$0
BRT	$21
Bus	$24
Paratransit	$3
Dial-a-Ride	$4

Per Capita Spending ($2012)

Total:	**$71**
Rail	$0
BRT	$29
Bus	$33
Paratransit	$4
Dial-a-Ride	$5

Heartland connections



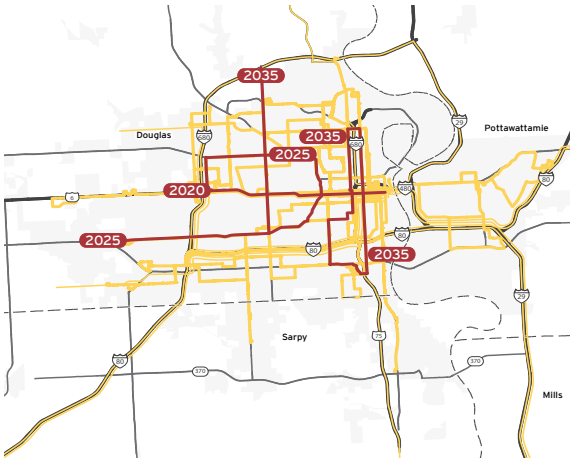
2050 Service Characteristics

Property Tax Rate 0.05%

Sales Tax Rate 0.50%

5

Program Elements

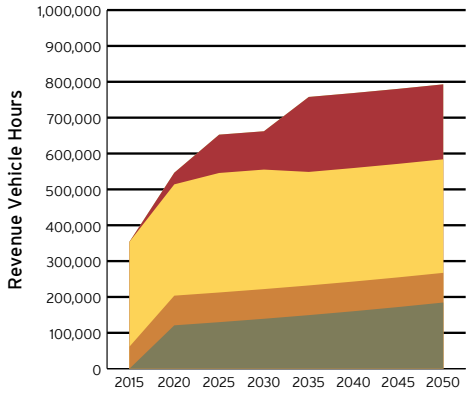


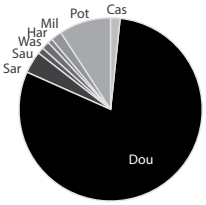
Opening Year

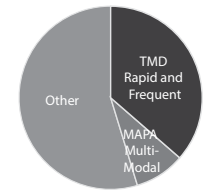
- 2016 Phase I Service Improvements — All
- 2020 Dodge/Farnam Busway BRT — Downtown to Westroads
- 2025 Phase II Service Improvements — All
- 2025 Center St Busway BRT — Midtown to Oakview
- 2025 Maple St Busway BRT — Midtown to Westroads
- 2035 Phase III Service Improvements — All
- 2035 24th St Busway BRT — North Omaha Transit Center to Metro CC
- 2035 72nd St Busway BRT — I-680 to Bergan Mercy Medical Center
- 2035 30th St Mixed BRT — North Omaha Transit Center to Metro CC

	Rail	Rapid	Bus (Express)	Bus (Local)
Number of Routes by Type	0	6	18	18
Typical Hours of Service per Day (weekday / weekend)	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	0	209,000	317,000	
Revenue Vehicle Miles	0	2,661,000	5,049,000	
Vehicles Needed for Peak Service	0	45	144	

System Vehicle Revenue Hours







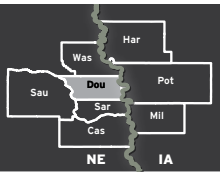
2050 O&M Cost ($2012, millions)

Total:	**$65**
Rail	$0
BRT	$23
Bus	$29
Paratransit	$3
Dial-a-Ride	$10

Per Capita Spending ($2012)

Total:	**$90**
Rail	$0
BRT	$32
Bus	$40
Paratransit	$4
Dial-a-Ride	$14

Heartland connections



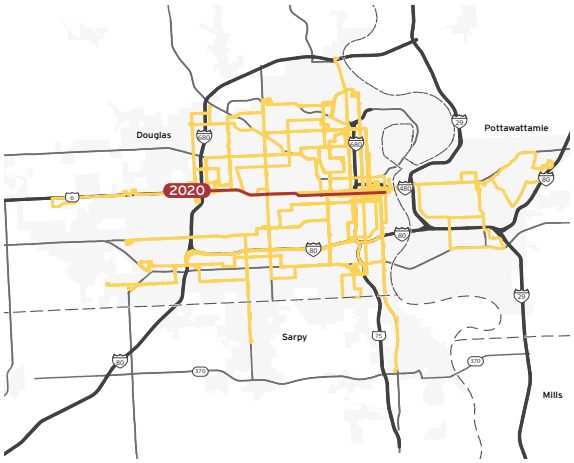
2050 Service Characteristics

Property Tax Rate 0.075%

TAD Tax Rate 0.06%

6

Program Elements

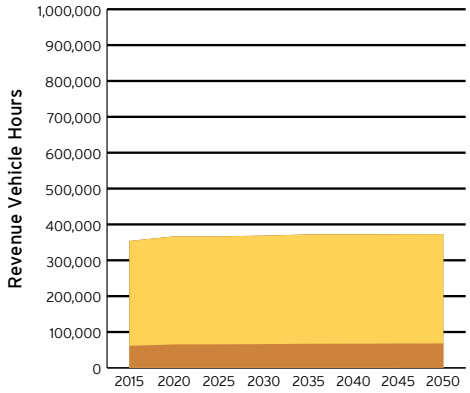


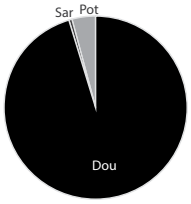
Opening Year

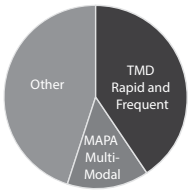
- 2016 Phase I Service Improvements — All
- 2020 Dodge/Farnam Busway — Downtown to Westroads (Capital Only)
- 2020 Phase II Service Improvements — Dodge
- 2030 Phase II Service Improvements — Maple and Center
- 2035 Phase III Service Improvements — Maple and Center

	Rail	Rapid	Bus Express	Bus Local
Number of Routes by Type	0	0	7	25
Typical Hours of Service per Day (weekday / weekend)	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	0	0	305,000	
Revenue Vehicle Miles	0	0	4,245,000	
Vehicles Needed for Peak Service	0	0	114	

System Vehicle Revenue Hours







2050 O&M Cost ($2012, millions)

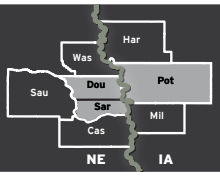
Total:	$28
Rail	$0
BRT	$0
Bus	$25
Paratransit	$3
Dial-a-Ride	$0

Per Capita Spending ($2012)

Total:	$37
Rail	$0
BRT	$0
Bus	$34
Paratransit	$3
Dial-a-Ride	$0

Appendix B – Refined Scenario Summaries

Heartland connections



2050 Service Characteristics

Omaha Property Tax Rate 0.0583%

Three-County Sales Tax Rate 1.0%

A

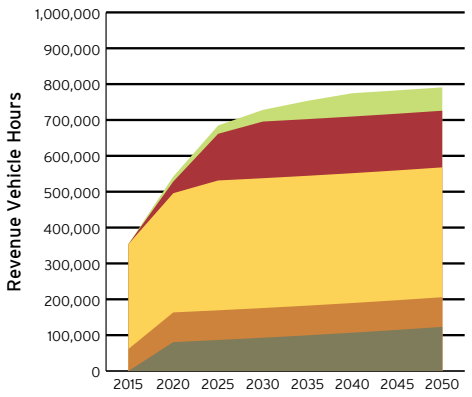
Program Elements

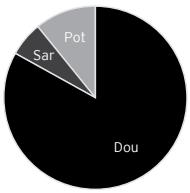
Opening Year

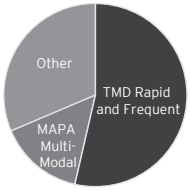
- 2016 Phase I Service Improvements — All
- 2020 Phase II Service Improvements — All
- 2020 Dodge/Farnam LRT — Downtown to Midtown
- 2025 Phase III Service Improvements — All
- 2025 Dodge/Farnam LRT — Midtown to Crossroads
- 2025 72nd St Busway BRT — I-680 to Bergan Mercy Medical Center
- 2025 Maple St Busway BRT — Midtown to Westroads
- 2025 Center St Busway BRT — Midtown to Oakview
- 2030 Dodge/Farnam LRT — Crossroads to Westroads
- 2030 72nd St Busway BRT — Bergan Mercy Medical Center to Highway 370
- 2035 Dodge/Farnam LRT — Downtown to Council Bluffs
- 2040 Dodge/Farnam LRT — Westroads to First National

	Rail	Rapid	Bus Express	Bus Local
Number of Routes by Type	1	3	12	20
Typical Hours of Service per Day [weekday / weekend]	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	65,000	158,000	362,000	
Revenue Vehicle Miles	844,000	2,032,000	5,021,000	
Vehicles Needed for Peak Service	14	34	130	

System Vehicle Revenue Hours







2050 O&M Cost ($2012, millions)

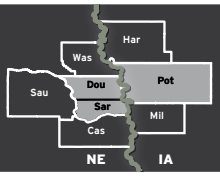
Total:	**$91**
Rail	$32
BRT	$18
Bus	$31
Paratransit	$3
Dial-a-Ride	$7

Per Capita Spending ($2012)

Total: **$124**

Rail	$44
BRT	$24
Bus	$43
Paratransit	$4
Dial-a-Ride	$9

Heartland connections



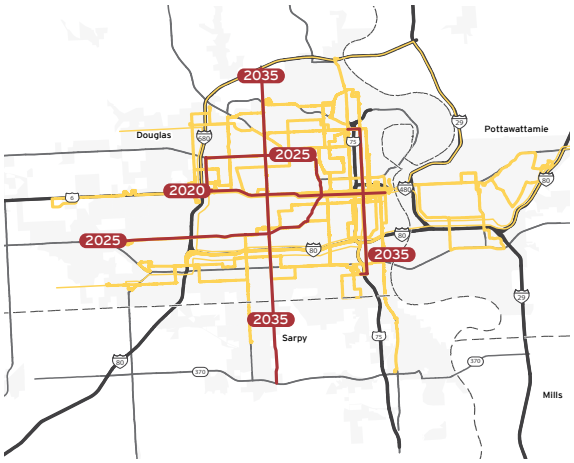
2050 Service Characteristics

Omaha Property Tax Rate 0.10%

Three-County Sales Tax Rate 0.50%

B

Program Elements

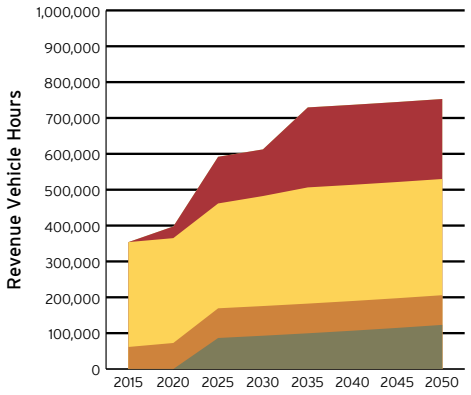


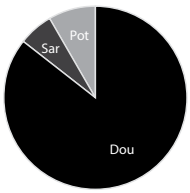
Opening Year

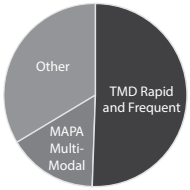
- 2016 Phase I Service Improvements — All
- 2020 Dodge/Farnam BRT — Downtown to Westroads
- 2025 Phase II Service Improvements — All
- 2025 Maple St Busway BRT — Midtown to Westroads
- 2025 Center St Busway BRT — Midtown to Oakview
- 2035 Phase III Service Improvements — All
- 2035 72nd St Busway BRT — I-680 to Highway 370
- 2035 24th St Busway BRT — North Omaha Transit Center to Metro CC

	Rail	Rapid	Bus Express	Bus Local
Number of Routes by Type	0	5	12	19
Typical Hours of Service per Day [weekday / weekend]	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	0	223,000		324,000
Revenue Vehicle Miles	0	2,845,000		4,557,000
Vehicles Needed for Peak Service	0	48		124

System Vehicle Revenue Hours







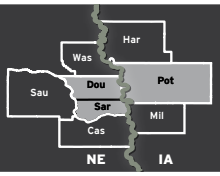
2050 O&M Cost ($2012, millions)

Total:	**$62**
Rail	$0
BRT	$25
Bus	$27
Paratransit	$3
Dial-a-Ride	$7

Per Capita Spending ($2012)

Total:	**$84**
Rail	$0
BRT	$34
Bus	$37
Paratransit	$4
Dial-a-Ride	$9

Heartland connections

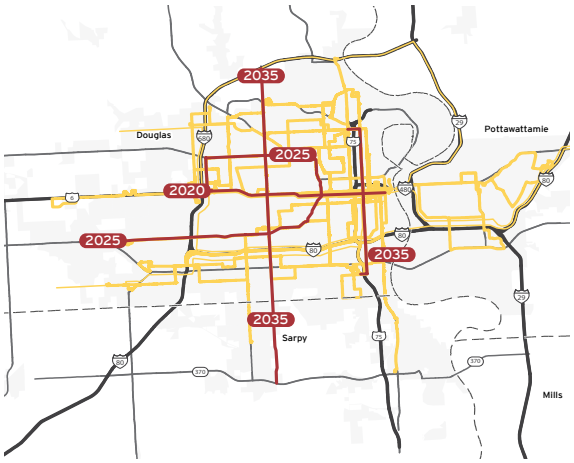


2050 Service Characteristics

Three-County Sales Tax Rate
0.77%

B′

Program Elements

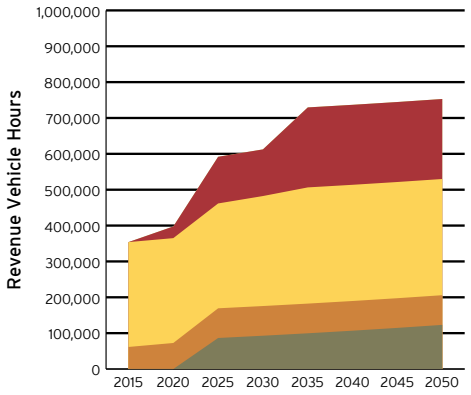


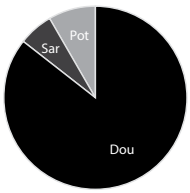
Opening Year

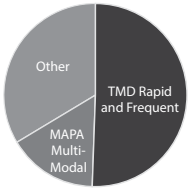
- 2016 Phase I Service Improvements — All
- 2020 Dodge/Farnam BRT — Downtown to Westroads
- 2025 Phase II Service Improvements — All
- 2025 Maple St Busway BRT — Midtown to Westroads
- 2025 Center St Busway BRT — Midtown to Oakview
- 2035 Phase III Service Improvements — All
- 2035 72nd St Busway BRT — I-680 to Highway 370
- 2035 24th St Busway BRT — North Omaha Transit Center to Metro CC

	Rail	Rapid	Bus Express	Bus Local
Number of Routes by Type	0	5	12	19
Typical Hours of Service per Day [weekday / weekend]	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	0	223,000		324,000
Revenue Vehicle Miles	0	2,845,000		4,557,000
Vehicles Needed for Peak Service	0	48		124

System Vehicle Revenue Hours





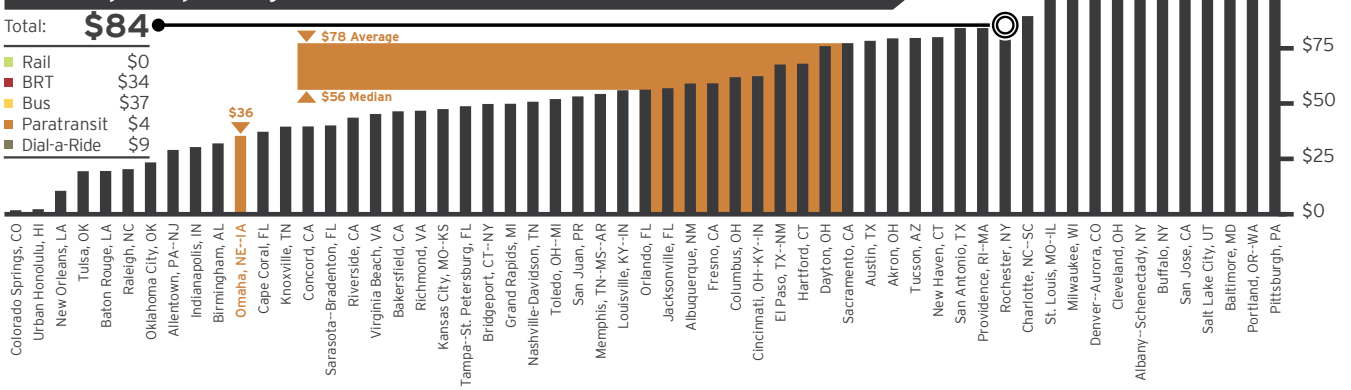


2050 O&M Cost ($2012, millions)

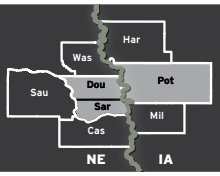
Total:	**$62**
Rail	$0
BRT	$25
Bus	$27
Paratransit	$3
Dial-a-Ride	$7

Per Capita Spending ($2012)

Total:	**$84**
Rail	$0
BRT	$34
Bus	$37
Paratransit	$4
Dial-a-Ride	$9



Heartland connections



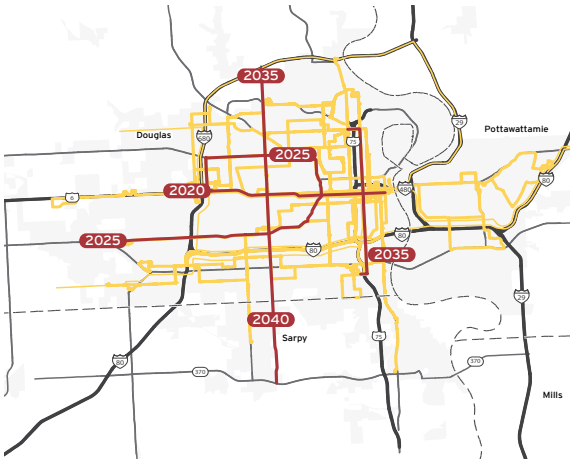
2050 Service Characteristics

Sales Tax Rates by County:

Douglas	Sarpy	Pottawattamie
0.70%	0.20%	0.66%

C

Program Elements



Opening Year

- 2016 Phase I Service Improvements — All
- 2020 Dodge/Farnam BRT — Downtown to Westroads
- 2025 Phase II Service Improvements — All
- 2025 Maple St Busway BRT — Midtown to Westroads
- 2025 Center St Busway BRT — Midtown to Oakview
- 2035 Phase III Service Improvements — All
- 2035 72nd St Busway BRT — I-680 to Bergan Mercy Medical Center
- 2035 24th St Busway BRT — North Omaha Transit Center to Metro CC
- 2040 72nd St Busway BRT — Bergan Mercy Medical Center to Highway 370

Rail	Rapid	Bus	Bus
		Express	Local

Number of Routes by Type

Rail	Rapid	Bus Express	Bus Local
0	5	12	19

Typical Hours of Service per Day [weekday / weekend]

Rail	Rapid	Bus Express	Bus Local
18 / 18	18 / 18	4 / n/a	18 / 14

Revenue Vehicle Hours

Rail	Rapid	Bus
0	223,000	324,000

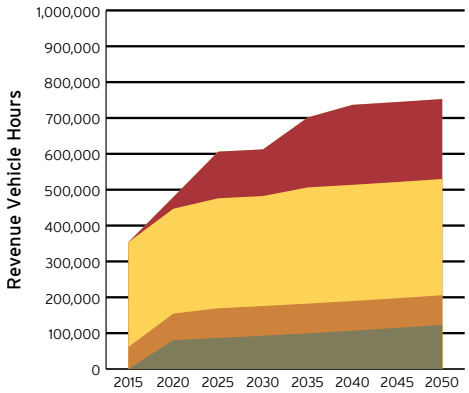
Revenue Vehicle Miles

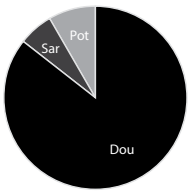
Rail	Rapid	Bus
0	2,845,000	4,557,000

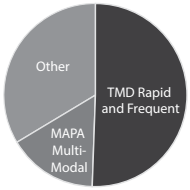
Vehicles Needed for Peak Service

Rail	Rapid	Bus
0	48	124

System Vehicle Revenue Hours







2050 O&M Cost ($2012, millions)

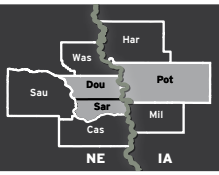
Total:	**$62**
Rail	$0
BRT	$25
Bus	$27
Paratransit	$3
Dial-a-Ride	$7

Per Capita Spending ($2012)

Total:	**$84**
Rail	$0
BRT	$34
Bus	$37
Paratransit	$4
Dial-a-Ride	$9

APPENDIX C – VISION SCENARIO ONE PAGE SUMMARIES

Heartland connections

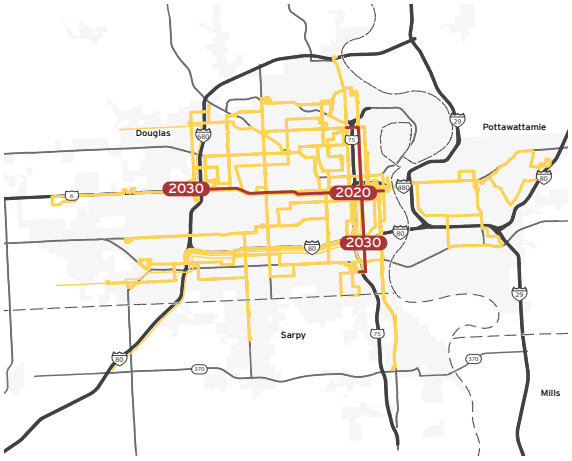


2050 Service Characteristics

Property Tax Rate
0.10%

0m

Program Elements

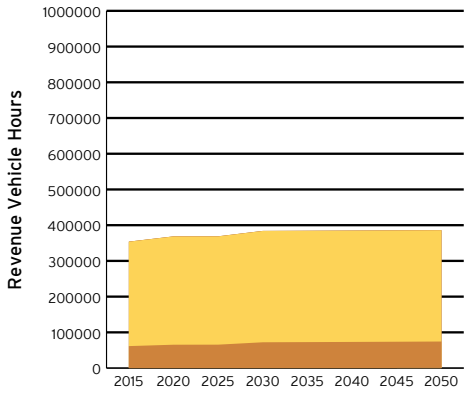


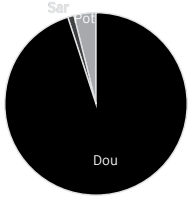
Opening Year

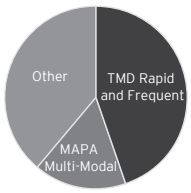
- 2016 Phase I Service Improvements — Douglas, Sarpy, Pottawattamie
- 2020 Dodge/Farnam Busway — Downtown to UNMC - Infrastructure Only
- 2020 144th St Express — 144th St/Fort St to Downtown
- 2020 180th St Express — 180th St/Q St to Downtown
- 2020 I-80 Express — SR 370 to Downtown
- 2020 Bellevue Express — Offutt AFB to Downtown via Bellevue P&R
- 2020 Phase II Service Improvements — Route 4 -- Maple Only
- 2030 24th St Arterial BRT — North Omaha Transit Center to Metro CC - Infrastructure Only
- 2030 Phase II Service Improvements — Route 24 -- 24th Street Only
- 2030 Dodge/Farnam Arterial BRT — UNMC to Westroads - Infrastructure Only

	Rail	Rapid	Bus Express	Bus Local
Number of Routes by Type	0	0	8	25
Typical Hours of Service per Day [weekday / weekend]	18 / 18	18 / 18	4 / n/a	18 / 14
Revenue Vehicle Hours	0	0	312,000	
Revenue Vehicle Miles	0	0	4,352,000	
Vehicles Needed for Peak Service	0	0	119	

System Vehicle Revenue Hours







2050 O&M Cost ($2012, millions)

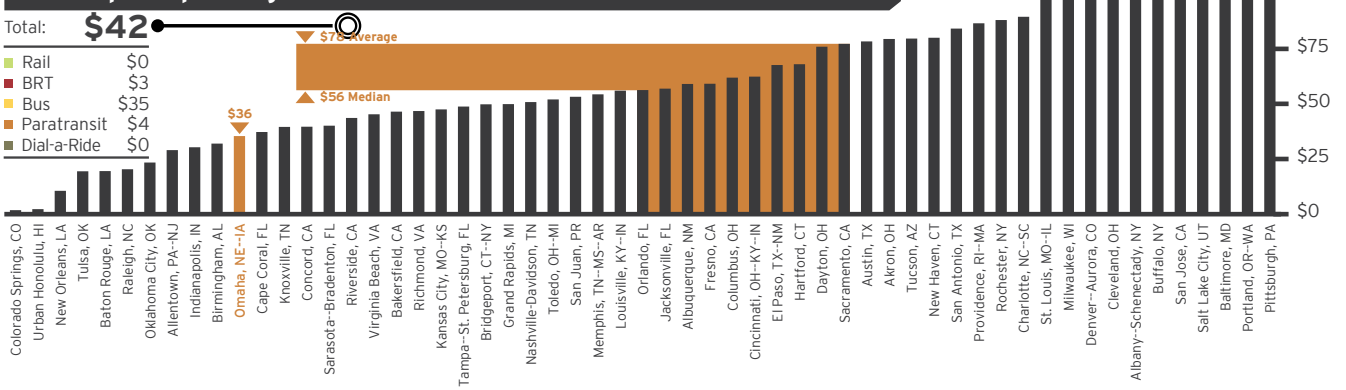
Total:	**$53**
Rail	$0
BRT	$4
Bus	$44
Paratransit	$5
Dial-a-Ride	$0

Total Capital Cost 2013-2050 ($2012, millions)

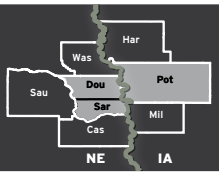
Total:	**$502**
Rail	$0
BRT	$102
Bus	$345
Paratransit	$55
Dial-a-Ride	$0

Per Capita Spending ($2012)

Total:	**$42**
Rail	$0
BRT	$3
Bus	$35
Paratransit	$4
Dial-a-Ride	$0



Heartland connections



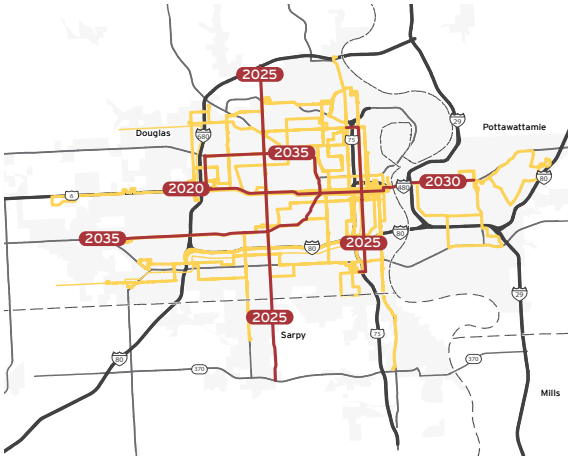
2050 Service Characteristics

Tax Rates

Sales			Property
Douglas	Sarpy	Pottawattamie	Omaha
0.62%	0.28%	0.60%	0.0503%

Mo

Program Elements



Opening Year

- 2016 Phase I Service Improvements — Douglas, Sarpy, Pottawattamie
- 2020 Dodge/Farnam Busway BRT — Downtown to Westroads
- 2023 144th St Express — 144th St/Fort St to Downtown
- 2023 180th St Express — 180th St/Q St to Downtown
- 2025 Phase II Service Improvements — Douglas, Sarpy
- 2025 24th St Busway BRT — North Omaha Transit Center to Metro CC
- 2025 72nd St Arterial BRT — I-680 to State Route 370
- 2030 Dodge/Broadway Arterial BRT — Downtown to Council Bluffs
- 2035 Phase III Service Improvements — Douglas, Sarpy
- 2035 Center St Arterial BRT — Midtown to Oakview
- 2035 Maple St Arterial BRT — Midtown to Westroads

Rail	Rapid	Bus (Express)	Bus (Local)

Number of Routes by Type

Rail	Rapid	Bus (Express)	Bus (Local)
0	5	7	18

Typical Hours of Service per Day [weekday / weekend]

Rail	Rapid	Bus (Express)	Bus (Local)
18 / 18	18 / 18	4 / n/a	18 / 14

Revenue Vehicle Hours

Rail	Rapid	Bus
0	232,000	292,000

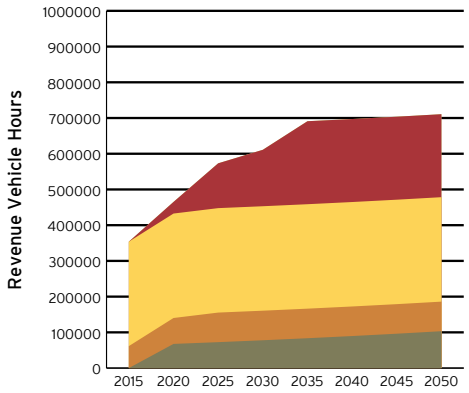
Revenue Vehicle Miles

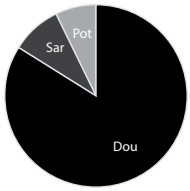
Rail	Rapid	Bus
0	2,974,000	3,977,000

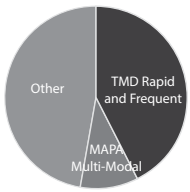
Vehicles Needed for Peak Service

Rail	Rapid	Bus
0	50	105

System Vehicle Revenue Hours







2050 O&M Cost ($2012, millions)

Total: **$66**

Rail	$0
BRT	$34
Bus	$24
Paratransit	$3
Dial-a-Ride	$6

Total Capital Cost 2013-2050 ($2012, millions)

Total: **$1,077**

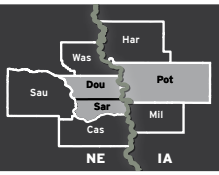
Rail	$0
BRT	$324
Bus	$649
Paratransit	$55
Dial-a-Ride	$49

Per Capita Spending ($2012)

Total: **$91**

Rail	$0
BRT	$47
Bus	$33
Paratransit	$4
Dial-a-Ride	$8

Heartland connections



2050 Service Characteristics

Tax Rates

Sales			Property
Douglas	Sarpy	Pottawattamie	Omaha
0.99%	0.32%	0.63%	0.0503%

Ag

Program Elements

Opening Year

- 2016 Phase I Service Improvements — Douglas, Sarpy, Pottawattamie
- 2020 Dodge/Farnam Busway BRT — Downtown to Westroads
- 2023 144th St Express — 144th St/Fort St to Downtown
- 2023 180th St Express — 180th St/Q St to Downtown
- 2025 Phase II Service Improvements — Douglas, Sarpy
- 2025 72nd St Busway BRT — I-680 to Highway 370
- 2025 24th St Busway BRT — North Omaha Transit Center to Metro CC
- 2030 Dodge/Broadway Arterial BRT — Downtown to Council Bluffs
- 2035 Phase III Service Improvements — Douglas, Sarpy
- 2035 Maple St Busway BRT — Midtown to Westroads
- 2035 Center St Busway BRT — Midtown to Oakview
- 2045 Dodge/Farnam LRT — Downtown to Westroads

Rail	Rapid	Bus	Bus
		Express	Local

Number of Routes by Type

Rail	Rapid	Bus Express	Bus Local
1	5	7	18

Typical Hours of Service per Day [weekday / weekend]

Rail	Rapid	Bus Express	Bus Local
18 / 18	18 / 18	4 / n/a	18 / 14

Revenue Vehicle Hours

Rail	Rapid	Bus
33,000	223,000	292,000

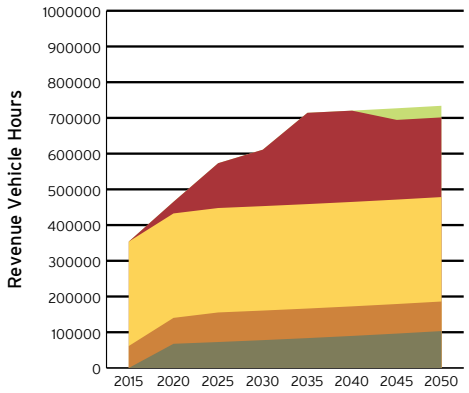
Revenue Vehicle Miles

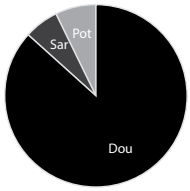
Rail	Rapid	Bus
409,000	2,862,000	3,977,000

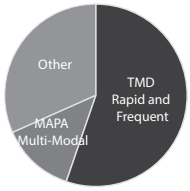
Vehicles Needed for Peak Service

Rail	Rapid	Bus
7	48	105

System Vehicle Revenue Hours







2050 O&M Cost ($2012, millions)

Total:	$78
Rail	$16
BRT	$30
Bus	$24
Paratransit	$3
Dial-a-Ride	$6

Total Capital Cost 2013-2050 ($2012, millions)

Total:	$2,211
Rail	$960
BRT	$823
Bus	$324
Paratransit	$55
Dial-a-Ride	$49

Per Capita Spending ($2012)

Total: $108

Rail	$22
BRT	$42
Bus	$33
Paratransit	$4
Dial-a-Ride	$8

APPENDIX D – Project Prioritization

Candidate Transit Projects

Route	Mode	Demand Potential [1]	Cost Effectiveness	Network Connectivity	O-D Density	Transit Destination	Final Rank
Farnam St / Dodge St	Busway BRT	102,533	$66	High	14	High	1
Farnam St / Dodge St	Streetcar	58,561	$157	Medium	22	High	2
Farnam St / Dodge St	Mixed BRT	102,533	$50	Medium	14	High	3
Maple St - Westroads	Busway BRT	60,751	$124	High	8	High	4
30th St	Mixed BRT	57,818	$102	High	7	High	5
24th St	Busway BRT	46,523	$144	High	6	High	6
Ames St	Mixed BRT	27,148	$162	High	4	High	7
Center St	Busway BRT	64,743	$123	Medium	7	High	8
24th St	Mixed BRT	46,523	$110	Medium	6	High	9
Farnam St / Dodge St	Mixed BRT	61,837	$84	Medium	8	High	10
Center St	Mixed BRT	64,743	$92	Medium	7	High	11
30th St	Busway BRT	57,818	$135	Medium	7	High	12
72nd St	Busway BRT	48,523	$139	High	7	Medium	13
Maple St - Westroads	Mixed BRT	60,751	$52	Medium	8	High	14
72nd St	Mixed BRT	48,523	$106	Medium	7	Medium	15
84th St	Busway BRT	57,466	$119	Medium	9	Low	16
Maple St - 180th	Busway BRT	36,962	$157	Medium	6	Medium	17
72nd St	LRT	34,599	$572	Medium	8	High	18
Ames St	Busway BRT	27,148	$215	Medium	4	High	19
Maple St - 180th	Mixed BRT	36,962	$66	Medium	6	Medium	20
Farnam St / Dodge St	Streetcar	17,255	$490	Medium	7	High	21
Fort Crook	Mixed BRT	40,066	$129	Medium	5	Medium	22
L St	Mixed BRT	105,167	$70	Medium	10	Low	23
Farnam St / Dodge St	Mixed BRT	51,082	$115	Medium	6	Low	24
Fort Crook	Busway BRT	40,066	$171	Medium	5	Medium	25
84th St	Mixed BRT	57,466	$89	Medium	9	Low	26
L St	Busway BRT	105,167	$93	Medium	10	Low	27
Airport	Mixed BRT	22,607	$127	Low	6	Medium	28
Farnam St / Dodge St	Busway BRT	51,082	$153	Medium	6	Low	29
Q St	Busway BRT	123,464	$86	Low	11	Low	30
Airport	Busway BRT	22,607	$164	Low	6	Medium	31
Q St	Mixed BRT	123,464	$65	Low	11	Low	32
SR - 370	Mixed BRT	56,484	$144	Medium	5	Low	33
120th St	Mixed BRT	45,210	$96	Medium	8	Very Low	34
Maple St - 180th	Mixed BRT	35,341	$126	Medium	5	Very Low	35
Farnam St / Dodge St	LRT	163,480	$423	Low	10	Medium	36
SR - 370	Busway BRT	56,484	$192	Low	5	Low	37
144th St	Mixed BRT	78,276	$113	Medium	6	Very Low	38
Cornhusker Rd	Mixed BRT	87,913	$126	Low	5	Low	39
Cornhusker Rd	Busway BRT	87,913	$167	Low	5	Low	40

1 - Calculated as: Trips with origns and destinations within 1/2 mile of corridor centerline per MAPA Travel Demand Model 2010 trip tables, all trip purposes.

Route	Mode	Demand Potential [1]	Cost Effectiveness	Network Connectivity	O-D Density	Transit Destination	Final Rank
Maple St - 180th	Busway BRT	35,341	$167	Low	5	Very Low	41
120th St	Busway BRT	45,210	$126	Low	8	Very Low	42
144th St	Busway BRT	78,276	$149	Low	6	Very Low	43
180th St	Mixed BRT	60,067	$184	Low	4	Very Low	44
Ames St	Mixed BRT	1,667	$6,628	Low	0	Medium	45
Ames St	Busway BRT	1,667	$8,803	Low	0	Medium	46
30th St	Mixed BRT	11,765	$1,254	Low	1	Low	47
30th St	Busway BRT	11,765	$1,668	Low	1	Low	48
180th St	Busway BRT	60,067	$245	Low	4	Very Low	49

1 - Calculated as: Trips with origns and destinations within 1/2 mile of corridor centerline per MAPA Travel Demand Model 2010 trip tables, all trip purposes.

APPENDIX E – TMD Report

U.S. Department of Transportation
Federal Highway Administration

www.heartland2050.org/connections