



Connecting the Midtown Greenway Streetcar to Lake Street Destinations

Prepared by:
Simon Blenski
Nicole Doran
Jeremy Jones
Kyle Weimann

Humphrey Institute of Public Affairs
University of Minnesota, Twin Cities

Prepared for:
Midtown Community Works Partnership

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1 INTRODUCTION

Acknowledgments

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Course Instructors

David Hollister, School of Social Work, University of Minnesota

Kris Nelson, Center for Urban and Regional Affairs, University of Minnesota

Project Coordinator

Faith Cable, Midtown Community Works Partnership

Community Partners

Tim Springer, Midtown Greenway Coalition

Joyce Wisdom, Lake Street Council

Technical Assistance

Alyssa Erikson, Center for Urban and Regional Affairs

Jeff Matson, Center for Urban and Regional Affairs

Joseph Bernard, City of Minneapolis

Jonathan Obermoller, City of Minneapolis

1 INTRODUCTION

Executive Summary

The Connecting the Midtown Greenway Streetcar to Lake Street Destinations Study is a guiding framework for future discussions surrounding land use and transportation developments along the Lake Street/Midtown Greenway Corridor. Plans for a 4.4-mile modern streetcar line to run through the Midtown Greenway from the Chain of Lakes to Hiawatha Avenue offer the opportunity to further strengthen the spine of south Minneapolis. This 20-foot deep, grade-separated route would provide fast and reliable transit but poses distinct challenges to create physical and mental connection with the Lake Street corridor, one block to the south.

The conversion of the historic railroad trench into the Midtown Greenway has already stimulated private development in the area and has called attention to the need for guiding land use development principles. With the implementation of a

streetcar line, more deliberate attempts at connectivity need to be made to link the future streetcar stations with destinations and neighborhoods along Lake Street.

To create a launching point for future study and a framework for implementation, this study provides a series of specific principles to guide development based on ridership, demographic, land use, small businesses, and stakeholder considerations. These principles cover the wide range of issues that will confront civic leaders during streetcar development: station design, wayfinding, connections, land use, and public spaces and art.

The City of Minneapolis has identified seven potential station locations and the community has expressed interest in several more. This study includes detailed discussion of four of those stations—West Lake, Hennepin, Chicago, and Bloomington—that best demonstrate the guid-

ing principles in action. Further study will be needed to conduct such analysis with increasing detail of each station.

Successful implementation of the best practices contained within each principle can create a fused, symbiotic corridor of efficient, sustainable transportation options, thoughtful, compact development, and public pathways and plazas stitching land uses together.

1 INTRODUCTION

Study Purpose



This study creates a vision for connecting the Minneapolis Midtown Greenway—particularly with a proposed streetcar—to the Lake Street commercial corridor. It is intended to serve as a framework for future discussion as the streetcar project and land use changes are considered and implemented. To date, there have been numerous studies and plans of various aspects of the Greenway and surrounding areas, but they have never been consolidated into a single, forward-looking document.

In 2007, Minneapolis completed a comprehensive feasibility study that identified several corridors for streetcar development, including the Midtown Greenway. Independently, the final alignment for the Southwest Light Rail Transit (LRT) is likely to use the Kenilworth rail and trail line into downtown rather than traversing Nicollet through Uptown. A Greenway streetcar line then serves to better connect Uptown and Lake Street

destinations to the regional transit network as well as link the Southwest and Hiawatha LRT lines.

The nature of the corridor and surrounding areas present challenges to effectively connect transit with the vibrant business districts a block to the south. Much of the Greenway is built below-grade, a historical relic of freight trains running through the city. As such, unlike other routes or current buses, streetcar riders will not be able to see destinations as they pass. Additionally, being out of the line of sight of most activity can decrease perceptions of safety, particularly at night. Overcoming such challenges, however, is not insurmountable and success would create a model combination of transit, commerce, development, and open space and recreation.

1 INTRODUCTION

Overview

Traversing Lake Street eastward from the Minneapolis city line to Hiawatha Avenue, one can trace the novel of this great Midwestern metropolis. In its pages one finds the breadth of life that makes a city beautiful beyond any aesthetic. The surging energy of immigrant businesses and a community that sustains them. Magnetic clusters of restaurants of every ethnic stripe and shade. Salsa meets shawarma meets puerco meets lutefisk, all in the interest of a well-seasoned life. Thoroughfare, destination, gateway, home — essentials, all of them in their way, to the lifeblood of South Minneapolis.

Just north of Lake Street, the Midtown Greenway provides a devoted pathway for pedestrians to pedal, stroll and slipstream through the heart of the city. While the Greenway does not hum and churn with the insistent energy of its southern parallel, it is no less an emblem of life in Minneapolis. Sketched

by nature. Purposed by practical pioneers. Reshaped for changing times. Marked by progress and progressive people in ways uniquely, identifiably Minnesotan.

Tying them together like chapters are the major avenues that traverse the Greenway and Lake. The names Lyndale and Hennepin evoke the bustle of Uptown. Bloomington and Chicago call to mind ascendant revitalization and the city's immigrant past and future. Hiawatha, like its epic poem namesake, is both metaphor and living embodiment of a journey's continuation.

In the latest revision of an already compelling corridor, a streetcar would run this path from West Calhoun to Hiawatha. In doing so, it would connect two major metropolitan rail initiatives and provide a modern rail amenity that would serve commuters, errand-runners and tourists alike to

access the vitality of Lake Street. With its proposed placement on the Greenway comes a new opportunity to promote complementary activities that promote community, security and connectivity.

With opportunities come challenges, but none that are so insurmountable if following the core recommendations and principles of this analysis. After a thorough study of the history and present conditions, the core values of a Midtown Streetcar Line and its stations shall:

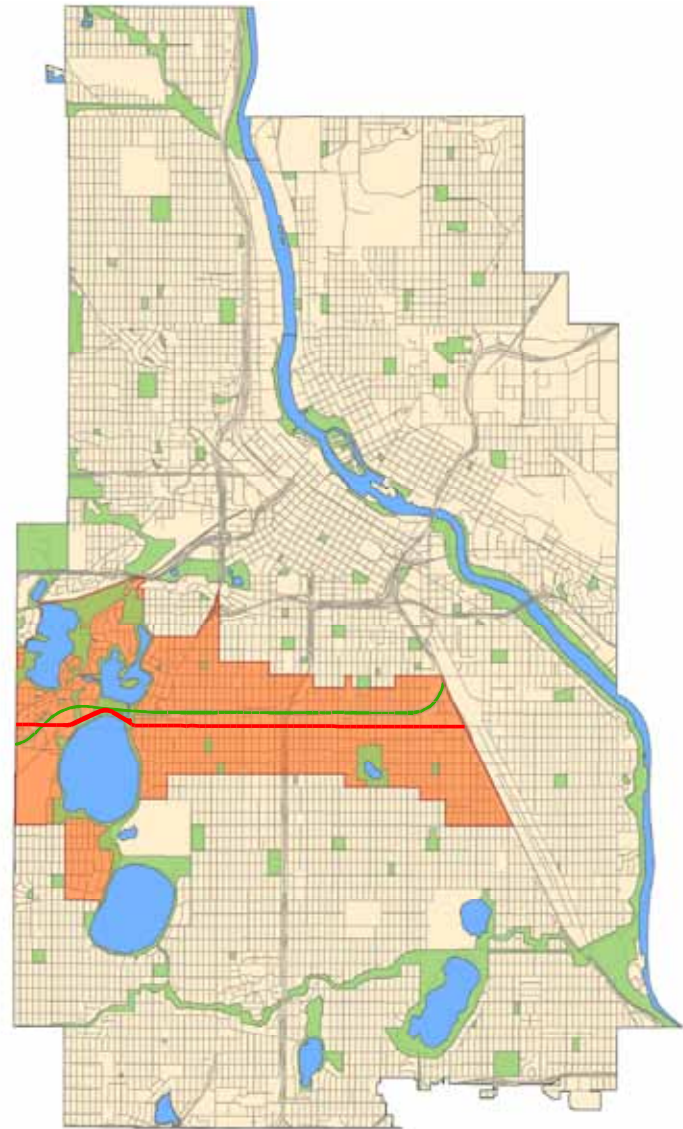
- Be a conduit for a sustainable way of life
- Exemplify connectedness
- Forge identity
- Consider humans, their needs, and how they interact with their environment
- Emphasize connections between activities
- Begin connectivity at the Greenway
- Integrate and involve private enterprise in design and implementation

- Represent the short and long-term needs of the station area community

The very purpose of a transit line is to link people with places and purposes, and the Greenway Streetcar line will succeed if its future conception and construction is grounded in these principles.

1. INTRODUCTION

Study Area



— Lake Street Midtown Greenway Study Area

1 INTRODUCTION

The Lake Street/Midtown Greenway Corridor



The study area for this report encompasses the two parallel corridors of Lake Street and the Midtown Greenway. Lake Street, a 5.5-mile commercial conduit stretches from the Chain of Lakes in the west to the Mississippi River in the east. Its counterpart, the Midtown Greenway, is a former freight rail bed that runs mostly below-grade one block north of Lake along 29th Street. The Midtown Greenway was recently transformed into a multi-use bicycle and pedestrian byway intended to allow a future streetcar or other transit line to coexist along the trail. This report focuses on the proposed 4.4-mile streetcar alignment between the Chain of Lakes and Hiawatha Avenue and the adjacent segments of Lake Street.

Lake Street

Though the composition of Lake Street and the surrounding neighborhoods has evolved over the past century, the street has

remained a consistent home for hundreds of small, independent businesses. Serving as Minneapolis' southern boundary at the turn of the century, Lake Street developed along a historic streetcar route and was intersected by several north-south routes that connected with downtown. The remnants of these nodes are still evident at the business clusters of West Lake, Hennepin, Lyndale, Nicollet, Fourth, Chicago, Bloomington, Cedar, and Hiawatha Avenues. As automobile ownership swelled in the 1950's, Lake became a major thoroughfare for cruising. The effects of the automobile traffic resulted the siting of dozens of car dealerships, repair shops, and incongruous big box retail developments such as the K Mart at Nicollet Avenue..

During the growth of Minneapolis, Lake Street neighborhoods first attracted Scandinavian immigrants. A recent wave of immigrants brought a fresh face to the corridor in the

1990s. Concentrations of east African populations now live east of Nicollet and Hispanic immigrants have significantly reshaped the corridor east of Interstate 35W. While historically commercial, land uses along Lake are becoming increasingly mixed-use, especially at the western nodes of Hennepin and Lyndale. Mixed-use, dense developments are drawing young professionals who are attracted to the wealth of recreational assets and entertainment destinations.

A four-year streetscaping and reconstruction project was completed in 2009, fostering corridor identity through consistent design motifs. While it provided the first facility upgrade to Lake Street in decades, the construction process challenged the hundreds of small businesses along the corridor that depend on on-street parking, passing buses, and foot traffic.

The Midtown Greenway

Between 1914 and 1916 the City of Minneapolis undertook the daunting task of submerging at-grade freight track into what is now the Midtown Greenway trench. A booming south Minneapolis residential population alongside industrial land uses spurred the trench project and included the construction of 29 of the 44 bridges that cross the Greenway today. However, by the 1980's freight traffic in the corridor dwindled to just a few trains per day.

The Midtown Greenway was purchased by the Hennepin County Regional Rail Authority (HCRRRA) in 1993 as a right-of-way for future rail transit. After plans for an express bus service line were squashed in 1999, a series of streetcar feasibility studies where initiated by Hennepin County, the City of Minneapolis, and the Midtown Greenway Coalition. They included the

1 INTRODUCTION : THE LAKE STREET/MIDTOWN GREENWAY CORRIDOR



Vintage Rail Trolley Study: 29th Street and Southwest Corridors (2000), The Feasibility of a Single-Track Vintage Trolley in the Midtown Greenway (2001), and the comprehensive City of Minneapolis Streetcar Feasibility Study (2007). As of late 2009, indications are that a future Southwest Corridor LRT line will bypass the Greenway entirely. Accordingly, attention has returned to the proposed streetcar to serve as both a regional transit corridor to connect the two LRT lines as well as to provide additional neighborhood connectivity.

As the Midtown Greenway awaits finalized transit plans, the HCRRA has captured an interim value for the corridor, creating a multi-use paved trail along the northern portion of the floor of the trench. The trail was constructed over three phases between 2000 and 2006, although related facilities including the Sabo Bridge at Hiawatha Avenue, the Freewheel

Midtown Bike Center, additional entrance ramps, and green spaces continue to enhance trail user experience. The trail has developed into the region's most utilized bicycle facility, attracting several thousand riders per day.

A Fused Corridor

In 2007, the City of Minneapolis Department of Community and Economic Development published the Midtown Greenway Land Use and Development Plan, envisioning a symbiotic coexistence for the two corridors:

“The greenway area is distinctive in its proximity to exciting and convenient commercial districts, in the availability of outstanding transportation options, and in the presence of the Midtown Greenway amenity itself. Over time it will grow as a place where the natural and built environments work together, where mixed-use development patterns of varying intensity are complemented by open space and traditional urban neighborhoods. New private development, and enhancement of the public landscape, will add to its commercial, residential and recreational assets, and strengthen its sustainability and connectedness.”

Source: City of Minneapolis 2007



1 INTRODUCTION

Why Streetcars?



Streetcars were once ubiquitous features of American urban areas, shuttling workers and shoppers to destinations throughout the city. The rise of the automobile ultimately shuttered most streetcar lines. In Minneapolis, what had once been a dense network traversing and connecting commercial corridors was completely dismantled by the mid-1950s.

The past two decades, however, have brought renewed interest in streetcars as an alternate mode of local circulation and transportation. Cities including Memphis, TN, Dallas, TX, and Toronto, ON have rehabilitated or expanded their historic streetcar systems, with strong interest in each for further development. In 2001, Portland, OR opened North America's first modern streetcar system, which has become a model for other cities. Since the initial route plans were announced, \$2.3 billion in property development, 7,500 housing units, and 4.6 million square feet of commercial space

have grown within a two-block radius of the line. Civic and business leaders are currently planning major expansions.

Streetcars have advantages over other modes of public transportation that make them particularly attractive along key corridors. Cost per mile for both construction and operation is typically significantly less than light rail transit (LRT). While the cost is higher than a similar bus service, streetcars attract up to 50% more riders by providing enhanced and attractive service connecting neighborhoods to each other and the central business district. Moreover, many of these riders are occasional or choice riders who would otherwise be driving. Increasing transit adoption decreases vehicle traffic and parking shortages while creating pedestrian flows that provide customers for local business and increase street safety.

The fixed, visible and easy-to-understand route has a sense

of permanence that bus routes do not. Consequently, streetcars can catalyze and organize development around transit investments. Such transit-oriented development tends to provide housing for a wide range of income levels and a broad selection of retail, office, and entertainment choices. While property values increase, housing can be made more affordable with the decreased transportation costs associated with reduced vehicle dependency. Similarly, businesses benefit from the added customer base of both nearby residents and passing commuters, offsetting rising property values.

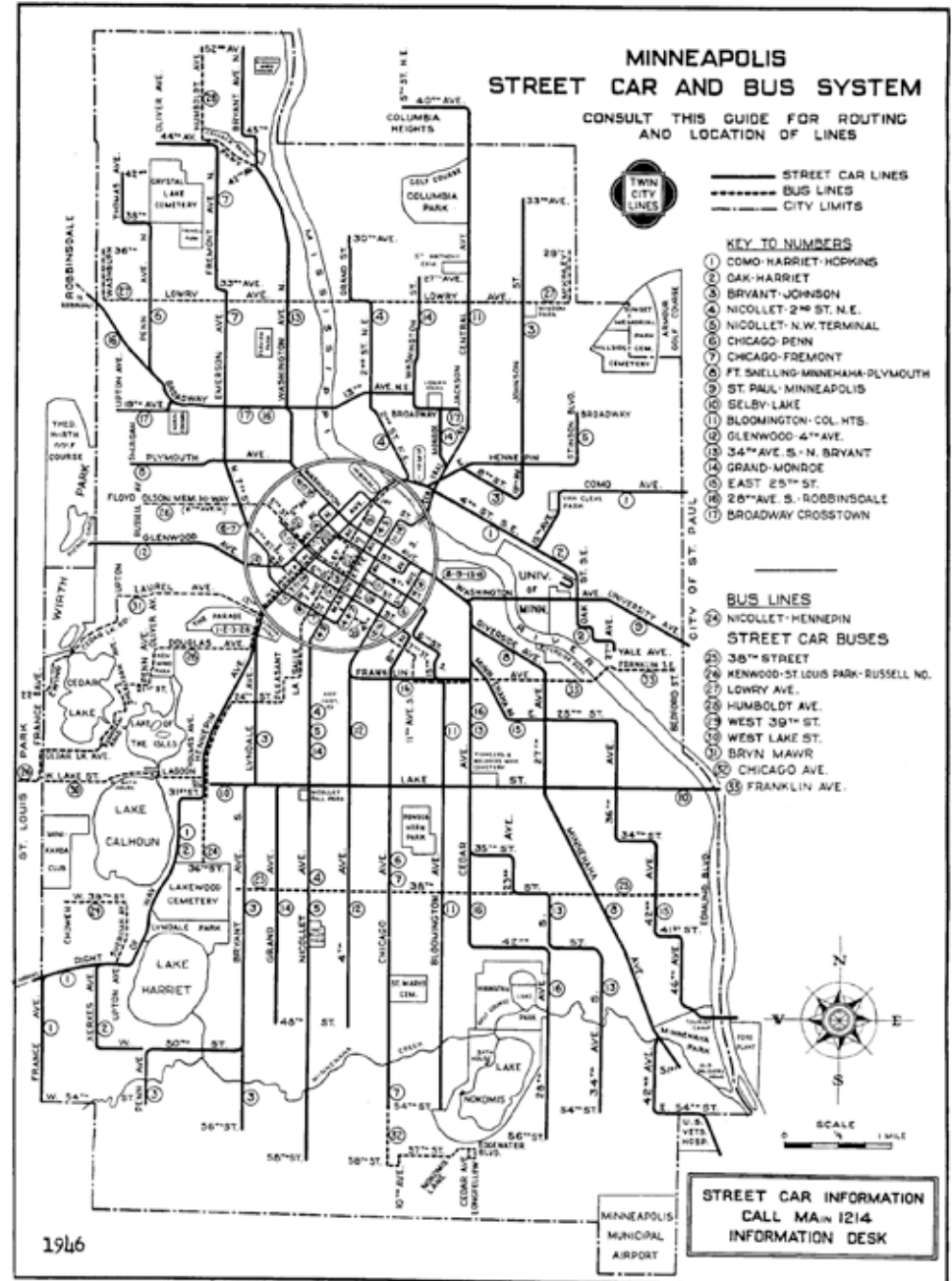
The 2007 Minneapolis Streetcar Feasibility Study identified multiple corridors, including the Midtown Greenway as candidates for future development of a modern streetcar system. Unlike the other routes, the Midtown corridor is intended for both connectivity between other transit routes and local circulation. Without having to

negotiate street traffic, travel times will be faster and more consistent. The Greenway can provide connection and distribution between high capacity regional LRT on both ends and local neighborhoods. Unfortunately, these advantages come at the cost of vertical and horizontal separation from Lake Street.

Streetcar lines heading toward downtown would intersect the Greenway line at Hennepin Avenue, Nicollet Avenue, and Chicago Avenue, replacing and enhancing existing bus service. The feasibility study envisioned service at ten minute or less headway during peak and 15 minutes during evening service. With a net speed of 18 miles per hour, including station dwell times, total travel time would be approximately fifteen minutes. This compares favorably to current options; traversing the entire corridor from West Lake to Hiawatha LRT via bus would take 40 minutes and a transfer at Hennepin Avenue onto route 22.

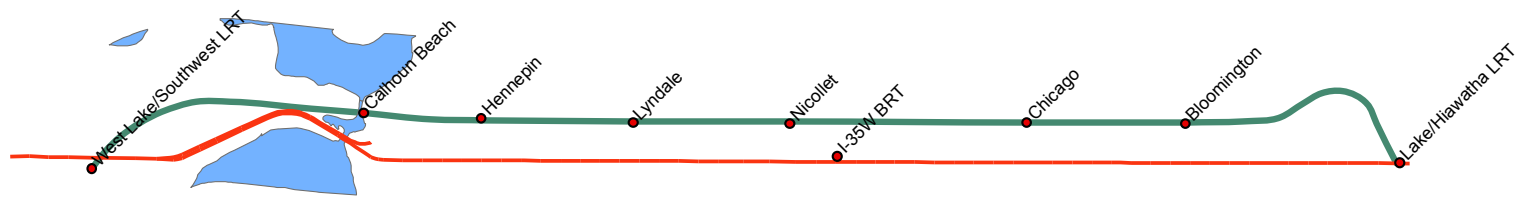
1. INTRODUCTION : WHY STREETCARS?

The 1946 Minneapolis Street Car System



1. INTRODUCTION : WHY STREETCARS?

Proposed Route Alignment



Length:	4.4 miles (8.8 roundtrip)
Travel Speed:	18 mph (incl. 20 second dwell time)
Frequency:	Peak: 7-8 min; midday: 10; evening: 15
Hours:	Weekday: 23 hrs/day; weekend: 21 hrs/day

1. INTRODUCTION : WHY STREETCARS?

Streetcar Line within context of Twin Cities



Source: MetroGIS, Met Council, and the City of Minneapolis

Nelson\Nygaard

Future transit corridor sources:
 1. Central Corridor LRT: Metropolitan Council
 2. LRT BRT MNDOT
 3. Southwest Transitway: Southwest Transitway.org
 4. Uptown BRT: Metro Transit

2 CONSIDERATIONS

Rider and Area Demographics

Trip modeling generated for the Southwest Corridor Alternatives Analysis showed that a streetcar line in the Midtown Greenway would be equally a local route and a regional connector. Of 3,300 daily forecasted trips, approximately 50% will be internal to the Midtown Corridor and 50% will be linked to either the future Southwest LRT line or the existing Hiawatha LRT. Streetcar connections to the Southwest and Hiawatha corridors would also increase LRT boardings by 1,000 per day.

Study Area Demographics

The 4.4-mile Lake Street/Midtown Greenway Corridor stretches across South Minneapolis, touching the boundary of 14 neighborhoods, with several others in close proximity. Demographic analysis performed for the Midtown Greenway Land Use and Development (2007) divided the Lake Street/Midtown Greenway corridor

into three subareas: western, central, and eastern. The western subarea runs from Chowen to Hennepin Avenues, the central subarea runs from Hennepin to Chicago Avenues, and the eastern subarea runs from Chicago to Hiawatha Avenues. Although neighborhood-level distinctions cannot be represented by only three subareas, the partitions capture the general tendencies of the corridor.

Racially, the neighborhoods surrounding Lake Street become increasingly diverse from west to east. White residents account for 94.3% in the west, 54.5% in the central subarea, and 47.5% in the eastern subarea. The east is the most diverse area, with a population that is 26% Hispanic, and 24.1% African American. The central and eastern subareas are also home to a large East African immigrant population. Economic disparities also increase from west to east. The median family income in the western subarea is \$93,255,

while the median income in the central and eastern subareas are \$33,205 and \$33,005 respectively.

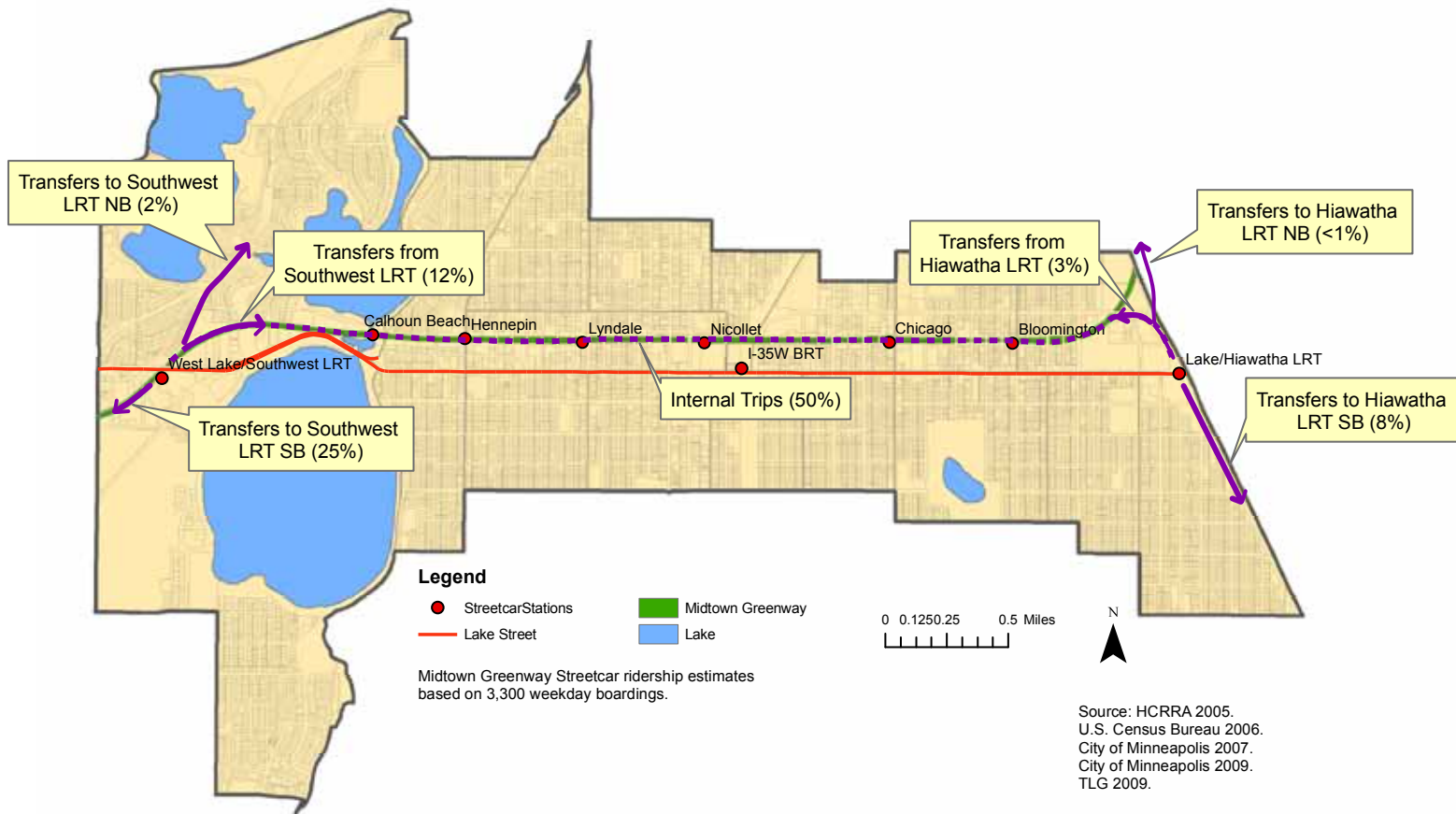
As a whole, the Lake Street/Midtown Greenway corridor has significant housing and employment disparities. Only a small portion of the commuter and labor sheds fall within the study area boundary. About 92.7% of workers who live within the corridor work at a location outside the corridor. About 89.1% of workers who work within the corridor live at a location outside the study area. This supports the large portion of trips forecasted to link regionally with the Southwest and Hiawatha LRT lines. Internal to the study area, residents who are employed at a location within the corridor work primarily in the central subarea. Workers who live within the corridor also live primarily in the central subarea.

The low level of local employment suggests that most inter-

corridor trips, particularly before development and residential patterns fully respond, will be for commercial and entertainment purposes. Creating strong links between the streetcar station and the business node will encourage these riders to explore the area rather than a single destination. Additionally, such connections would help capture the 15% of riders who would be entering the corridor from the LRT lines.

Ridership Forecasts

Lake Street/Midtown Greenway Corridor Regional Transit Ridership



2. CONSIDERATIONS : RIDER AND AREA DEMOGRAPHICS

Demographic Subareas

Subarea	Family and Household Economic Demographics Summary								
	Population Density (mile ²)	Median Age	% Family Household	% Non-Family Household	Average Household Size	Average Family Size	% Owner Occupied	% Renter Occupied	Median Family Income
Western	7,993	34.9	32	68	1.79	2.66	42.7	57.33	\$94,255
Central	15,470	27.3	40.2	59.8	2.44	3.39	21.6	78.4	\$33,205
Eastern	9,961	31.2	59	41	3.07	3.85	48.6	51.4	\$33,005
Corridor	11,141	31.1	43.7	56.3	2.43	3.3	37.6	62.4	\$53,488
Minneapolis	6,970	31.2	45.5	54.5	2.25	3.15	51.4	48.6	\$48,602

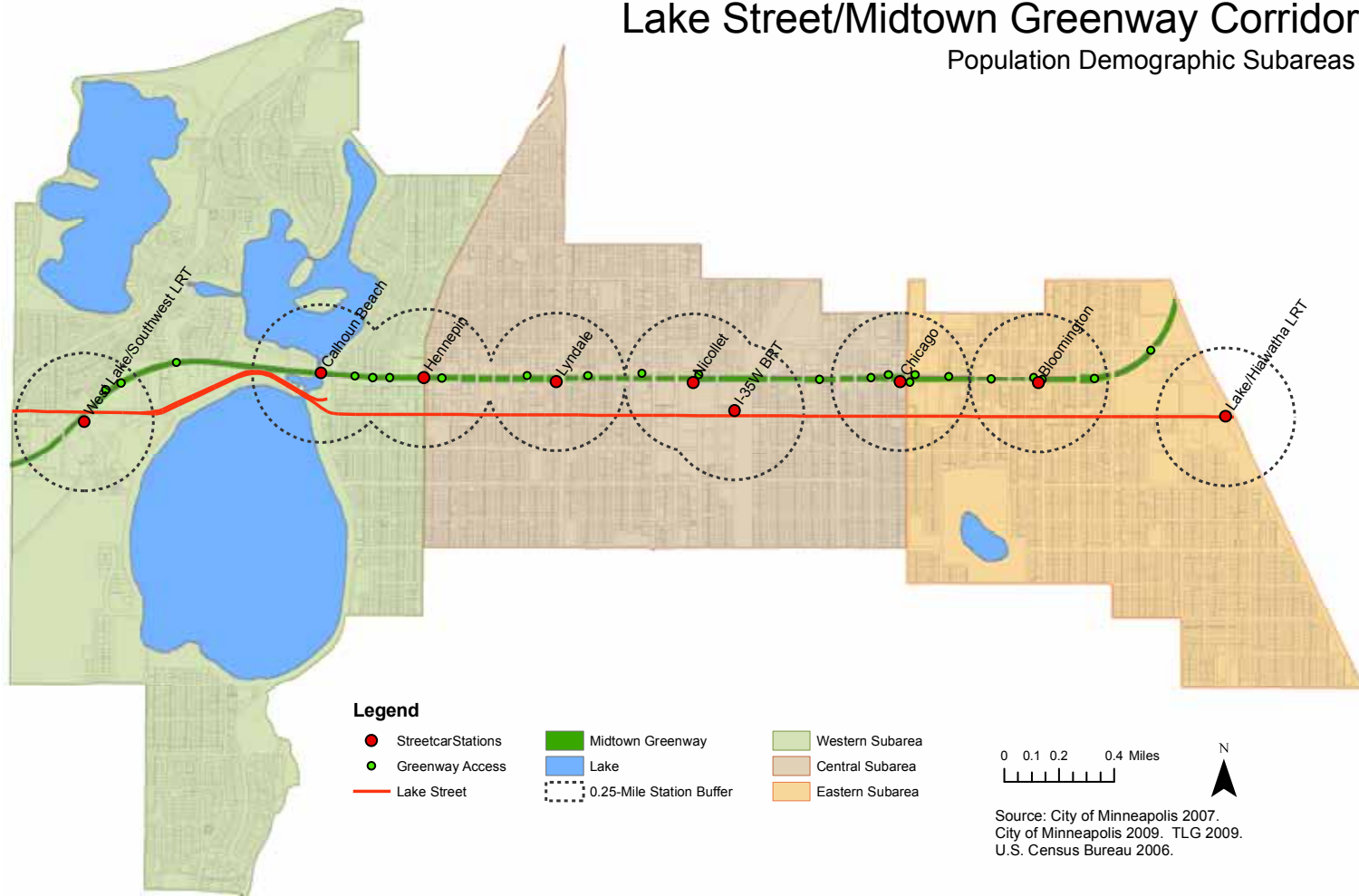
Subarea	Applicable Streetcar Stations							
	West Calhoun	Hennepin	Lyndale	Nicollet	I-35W	Chicago	Bloomington	Lake/Midtown
Western	X	X						
Central		X	X	X	X	X		
Eastern						X	X	X

Applicable Subarea(s)	West Calhoun - Family and Household Economic Demographics								
	Population Density (mile ²)	Median Age	% Family Household	% Non-Family Household	Average Household Size	Average Family Size	% Owner Occupied	% Renter Occupied	Median Family Income
Western	7,993	34.9	32	68	1.79	2.66	42.7	57.33	\$94,255
Corridor	11,141	31.1	43.7	56.3	2.43	3.3	37.6	62.4	\$53,488

2. CONSIDERATIONS : RIDER AND AREA DEMOGRAPHICS

Demographic Subareas

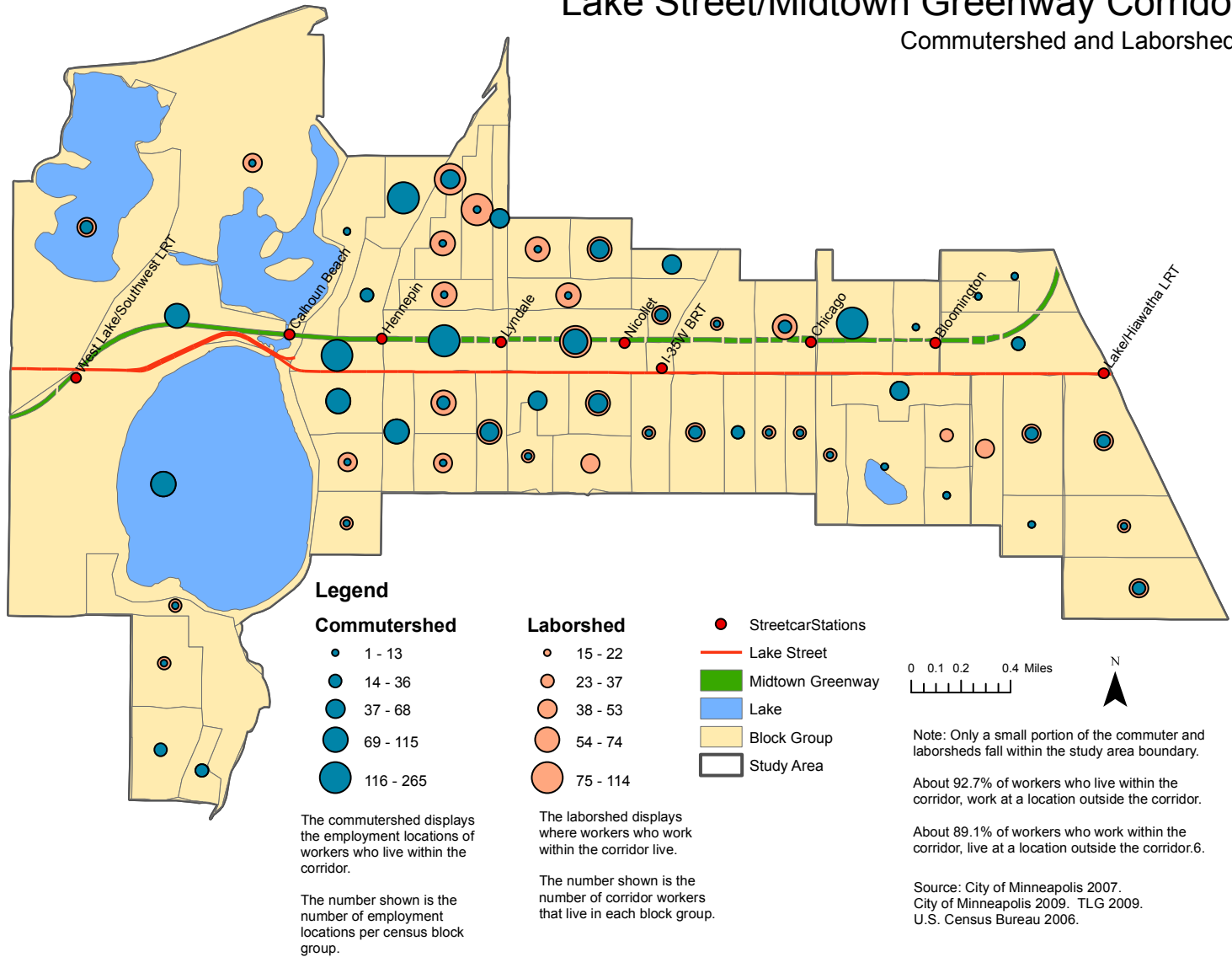
Lake Street/Midtown Greenway Corridor Population Demographic Subareas



2. CONSIDERATIONS : RIDER AND AREA DEMOGRAPHICS

Commuteshed and Laborshed

Lake Street/Midtown Greenway Corridor Commuteshed and Laborshed



2 CONSIDERATIONS

Land Use

The Midtown Greenway and surrounding neighborhoods comprise a corridor that bisects South Minneapolis. This route connects many neighborhood types and a wide variety of land uses and densities. The Greenway itself is a unique amenity with the ability to draw market interest in multi-family housing and associated retail. The addition of a streetcar line providing direct connections to the regional transit network would certainly add to that demand and may speed land use changes.

The corridor is dominated by residential uses, representing almost 60% of total parcels. Market demand for multi-family housing has yielded a much greater share of higher density residences than the city overall. However, residential uses account for a significantly smaller share within the corridor than the entire city. Such relative paucity is the result of important commercial nodes, particularly in the western segment,

although the entirety of Lake Street is overwhelmingly commercial. While the immediate trench area was historically an industrial district, the removal of the railroad in favor of a recreational by-way, has shifted market orientation toward more mixed-use and higher-density residential development. Even with the market shift, however, the corridor remains more heavily industrial than the city as a whole.

Land Use and Development Area Plans

A multi-step planning process, beginning with a citywide comprehensive plan, governs land use in Minneapolis. City staff, working extensively with neighborhood organizations, prepares land use and development plans, normally for a designated geographical area, though some thematic plans have been created. These small area plans create a road map for future land use changes but do not actually implement them by changing

city zoning ordinances.

The Midtown corridor intersects several adopted area plans that have yet to be implemented. These include:

- Lyn-Lake Small Area Plan (adopted June, 2008)
- Uptown Small Area Plan (adopted February, 2008)
- Midtown Greenway Land Use and Development Plan (February, 2007)
- Midtown Minneapolis Land Use and Development Plan (adopted December, 2005)

State law requires that zoning conform to adopted land use plans. As such, in late 2009, Minneapolis undertook the Midtown Greenway Rezoning Study to implement the proposed zoning changes. This process is ongoing and the ultimate result remains unclear, but principles and recommendations contained within this report should be considered in that or

any future zoning change. In whatever form it is ultimately implemented, principles and station recommendations put forth in this report should be revisited to ensure consistency.

Industrial Uses

Industrial Uses

The adopted land use plans essentially eliminate industrial uses within the corridor. Industrial businesses make locational decisions primarily based upon transportation access. With the removal of the railroad, industry was disconnected from the regional transportation network. Although some viable businesses remain, many industrial parcels have already been converted to residential or commercial development. The 2006 Minneapolis Industrial Land Use Study reported that just over 53% of industrial zones in the district currently have industrial uses.

Certain types of industrial property close to residential develop-

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CONSIDERATIONS : LAND USE

ment can negatively impact the value and livability of the nearby homes. Conversely, proximity to residential neighborhoods yields diminished value and desirability for industrial property because of property use constraints that result from the need to minimize impacts on neighboring development. As an example, truck traffic may become a sensitive issue as such sites are unlikely to be on truck routes.

Even with the removal of industrial zones, certain new production businesses would be possible in commercial zoning.

City law allows a variety of industrial-type uses in commercial property, including:

- Clothing and cloth products
- Computers and electronics
- Film and audio production
- Food and beverages
- Medical and optical goods
- Printing and publishing
- Sign production
- Watches and clocks
- Wood crafting and carving
- Wood furniture and upholstery

2. CONSIDERATIONS : LAND USE

Current Land Use

Current Land Uses, Greenway Corridor and Minneapolis

Zoning Category	Greenway (%)		City (%)	
Neighborhood Commercial	16.4		3.3	
Community Activity/Shopping	7.1		1.5	
General Commercial	0.3	23.8	1.1	5.9
Light Industrial	7.7		5.2	
Medium Industrial	11.5		8.4	
General Industrial	1.1	20.3	0.7	14.3
Office Residence	5.8	5.8	3.5	3.5
Light Residential	33.9		68.1	
Medium Residential	2.7		3.1	
Dense Residential	23.1	59.7	4.7	75.9
Downtown	-	-	1.6	1.6

2 CONSIDERATIONS

Small Business

The tradition of small business on Lake Street is a phenomenon unto itself which must be thoughtfully approached. The practices recommended throughout this analysis attempt to create an environment friendly to business and promote the existing community interests. The vision for retaining the small business character of Lake Street is tied to using the Greenway Streetcar line as a catalyst for supportive land use and urban design principles that enhance and improve conditions without fundamentally altering neighborhood character.

Current transit carries riders directly past the storefronts of local businesses. There is some concern that without that visual connection, riders will limit their shopping or make transit connections without interacting with the neighborhood. Building the streetcar on the Greenway has substantial benefits that offset this potential downside. Without having to navigate

traffic, travel times will be substantially faster, making Lake Street seem closer and more convenient to a larger population. Additionally, the Greenway poses fewer construction challenges, traffic interference, or parking loss, particularly salient issues following Lake Street's extensive reconstruction. Nevertheless, placement on the Greenway estranges the transit spine from the business core by one or two blocks at most stops. Implementation details will need to correctly adapt to this core streetcar constituency.

The highest priority among these adaptations is the **creation of an environment that supports and connects to the Lake Street business community**. Every physical element from station access and egress placement, to lighting and lines of sight must bear the Lake Street orientation in mind. Bearing in mind the magnetic attraction of the busiest commercial destinations (Lake and Lyndale), these

station areas have their sphere of influence ready-made. Without attempting to fabricate another area's unique identity developed over years, challenged station areas can deploy an arsenal of improvements that suit their local area through improved business and public use of underutilized spaces.

Private enterprise at the trail level can be seen as both a stimulus for entrepreneurs and a complement to the small business community on Lake Street. The Freewheel Bike Center is a successful example of bringing commerce to the trench. Establishing a small business experience at the trail level begins a purposeful journey from station to street. In imagining potential pathways, the complementary onward connectivity to other activities leading to Lake Street and the surrounding area should be considered. In lease-out, developers would be best served by dedicating space to locally-owned small businesses

or additional branches of local Lake Street offerings. This would increase the development's likelihood of success; these constituencies best know the needs of the customer base.

Throughout the streetcar design and implementation phases, ample opportunity for **input and collaboration** should be provided for local small businesses, landowners, and residents. The business community knows their customers' needs well and can provide valuable information on a wide variety of issues ranging from placement of bicycle racks to public art designs as well as land use changes.

Rising rents and higher property taxes spawned by the streetcar's development are significant risks to preserving neighborhood character. In weighing financing options, the need to raise revenue from value capture will have to be carefully weighed against the value of a continuous small business presence. Busi-

2

CONSIDERATIONS : SMALL BUSINESS

nesses, developers, and residents will likely adjust to changes brought by the streetcar over an extended period. As one option, the city could consider **limiting property tax levy increases** to a baseline city level for the first several years after development to allow business opportunity to adapt to changing market conditions by increasing volume or moving to higher margin products and services.

Individual businesses and associations along the Lake Street corridor should consider joining together to form a voluntary **Greenway Business Improvement District (GBID)**. Membership would require annual dues to fund enhanced streetscape and station amenities, some station maintenance, and wayfinding. In return, businesses would be included in local area maps and interactive media available at each station's wayfinding placements. Such an arrangement would reduce the transit operator's station upkeep

costs, perhaps permitting lower fares, higher ridership, and more customers. The local business community has much to gain from inviting station areas and pedestrian connections. Initial perceptions of poor safety or unpleasant environments are difficult to change through later efforts. A well-funded GBID could ensure a high-quality experience for riders from the streetcar's inception rather than rely on piecemeal improvements made as redevelopment occurs.

Later principle sections, such as wayfinding, reinforce the principles of a human-centered environment. As an end state, the stations themselves should present spaces that allow riders convenient access to their destinations while informing and inviting them to explore local resources. Destination maps in the cars themselves and at station locations through dedicated kiosks are a first important step to enhancing private enterprise along the line.

2 CONSIDERATIONS : STAKEHOLDERS

Stakeholders

Proper engagement with appropriate stakeholders can maximize returns on streetcar development. Though Hennepin County is the owner of the right-of-way, the City of Minneapolis, Metro Transit, community organizations, developers, and many other interests are essential for successful Greenway streetcar development.

Implementation will move forward only with strong stakeholder engagement and support. The information and support obtained from input at all levels will make the Greenway streetcar a more thoughtful, integrated, and coherent development. Active collaboration and discussion must begin as the ultimate vision is being formed and maintained through implementation and follow-up.

Identifying diverging and overlapping goals and concerns early will create a foundation for the broad stakeholder buy-in necessary to carry the streetcar project

to a successful conclusion. The stakeholder list presented below is an initial aid further study of the interests, objectives, and abilities of each.

Users

Recreational and commuter bicyclists, pedestrians
Current and potential transit riders

Residents

Homesteaded owners
Renters
Immigrant, disability, and ethnic groups

Business and Property Owners

Large, regional employers and destinations
Local-serving small and large businesses
Real estate developers
Residential and commercial property-owners

Community and Neighborhood Groups

Midtown Community Works Partnership
Midtown Greenway Coalition
Lake Street Council
Neighborhood organizations including and adjacent to the Greenway and/or Lake Street
Local business associations

Decision-Makers / Funders

City
Minneapolis City Council
Mayor of Minneapolis
Minneapolis Parks & Recreation Board

County
Hennepin County Commissioners
Hennepin County Regional Railroad Authority

Regional

Metropolitan Council / Metro Transit

State
State of Minnesota

Federal
Federal Transit Administration
House, Senate Transportation Appropriations Committees

3 PRINCIPLES

Introduction

What follows are a series of overarching principles that should be applied where possible and represent what may be considered a particular aspirational ideal. Ongoing development proposals, zoning changes, and market forces will compel change to or make obsolete certain principles during implementation throughout the corridor. For organizational purposes, the principles were divided into five overlapping and amorphous sections: station design, wayfinding, connections, land use, and public spaces and art.

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Overview



The Greenway Streetcar line should reinforce the principles of the Greenway itself, as a **conduit for a sustainable way of life**. Each station and its environs should be a reflection of a healthy, intentionally shaped system that balances transportation, commercial, ecological and human-centered principles.



The advantageous position of the Greenway for recreation and transport in a discreet corridor surrounded with nature could just as easily disconnect passengers from the valuable local resources that lie just beyond the streetcar platform. For as long as transport has ventured below street level, engineers and designers have grappled with drawing passengers to/from the surface and orienting their journey around the station area. Great cities the world over depend on below-ground transportation; visually disconnected stations have come to both reflect and identify the surrounding neighborhood. The best of these lessons can be

applied equally to the specific circumstances of the Greenway Streetcar and its station areas.

At heart, each station must embrace and exemplify **connectedness**. The very purpose of a transit line is to link people with places and purposes, and the Greenway Streetcar line will succeed if holding central the principles of connection. This will require **creating unique environments** through zoning, wayfinding, and amenity placement that will increase the perceived closeness of the corridor to Lake Street.

Forging identity is elemental in establishing a tangible station area presence. Iconic rail stations are defined by their unmistakable features, such as the ornate entrances to the Paris Metro. No less an opportunity exists with the Greenway Streetcar to clearly announce the presence of the community in which every station resides. Take, for example, the Arts et Métiers station, lined

with copper, festooned with rivets and portholes — in homage to the art and industry museum the station connects. As Lake Street and the Greenway are grand entities rich in heritage and future, it could be a high-profile and energizing effort to collaboratively choose for each station an attractive character to accentuate station design.

Creating nodes and destinations within the Greenway itself will **increase social interaction and increase passive surveillance**, deterring crime and increased perceived safety. Such considerations to provide physical and figurative avenues for public purpose extend beyond the station area into surrounding neighborhoods and create a broad, connected zone of engagement and activity encompassing the two corridors. Public spaces, large and small, create venues for spontaneity and community and integrated commercial and residential uses seamlessly bridge the divide into

private use.

Connections between activities one might experience in the flow from neighborhood to station play a complementary behavioral role in reinforcing the visual cues of physical design. Intentional physical layout can remove barriers to movement, but without content or discernible purpose, good spatial arrangement can tell no more about a space than a printed musical score can reflect a symphony.

The principle of station-to-environment **connectivity begins at the trail level**, where one should need not wait to exit the station trench to find something to purchase or linger over before continuing a journey. The path from station to street is a vital link, and the trail-level interaction between commerce and public transit could have myriad mutual benefits. **Tasteful integration of private enterprise** into the fabric of the Greenway will enhance security, cleanliness,

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PRINCIPLES : OVERVIEW

and long-term viability of the entire corridor. A fine example of this is the Freewheel Midtown Bike Center at Chicago Avenue, with its coffee shop, office space and trail-friendly retail. With each station deriving its own recipe of station-area amenity cluster, immediately riders will feel the benefit of chaining multiple errands without having to imagine what lies beyond the trench. Confidence begins when one exits the streetcar door.

Thus, in imagining each station area, nuanced planning measures must account for how the corridor patrons will **interact with their immediate use of each station and the destinations beyond**. If a station and its area can be seen to be user-friendly, then it will be judged a success and attract the type of reputation that will encourage others to make the Greenway Streetcar a valued part of their everyday lives.

As half of the streetcar line's

traffic is projected to address internal trips, the Greenway will first and foremost **represent the needs of the station area community**. Deriving the constituency of this community will be a challenge made more difficult by changing demographics, insofar as the presence of a streetcar line will alter the corridor's chemistry. By combining a thorough understanding of the present, a broadly envisioned future, and empowering the community to reflect its changing needs - a sustainable station area vision can be reality.

One example is New York's Open Planning Project (fixcity.org), which uses user-submitted intelligence to place bike racks. With the proliferation of internet-enabled mobile devices, more and more user information can be easily harnessed to improve anything from station lighting to connection times. Such technology also enables on-demand advertisements for local services, restaurants, bars,

and shopping to go beyond community and meet individuals' needs.

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Station Design



Canopies of lights and glass add drama, shelter and natural light.

Each streetcar station should conform to certain standards to enhance the experience of riders and trail users and provide consistency across the corridor. In general, stations should be welcoming, approachable spaces that facilitate connection—actual and perceived—to Lake Street and consciously tie the station to the surrounding community. Each station should become a nodal destination, which may require substantial modifications to the trench itself.

Station placement

- Each station should **connect directly to the major nodal street** rather than side streets. Stations with multiple exit points should connect at street level with a promenade along the rim.
- Stations and pedestrian access routes should **not be placed under bridges** to the maximum possible extent. Bridges reduce street-level visibility and do

not allow solar access.

Trench alterations

- The narrowness of the trench will require **digging out the slope** in favor of a retaining wall, direct building access, or pushed back embankments. This will maximize space to prevent crowding at busy stations, a particular concern during peak periods. Adorning walls with vines instead of bare concrete retaining blocks could preserve the natural feel.
- In many sections of the Greenway, the corridor floor is not wide enough to accommodate even one set of train tracks alongside the trails. Widening of the floor by removing or pushing back of the south embankment may be necessary in more narrow sections to make for a more pleasant experience for transit and Greenway users. Particu-

larly at station areas where trench-level place-making is essential, additional land may have to be purchased or secured through easement to create high-quality public spaces.

Station design

- Due to Minnesota's uninviting winter weather, stations should be **fully or partially covered with glass shelters** (or other transparent material), though partial shade should be included to prevent heat amplification in the summer. These can be iconic elements of the streetcar, tying the stations together into an aesthetically coherent whole. At a minimum, they should provide shelter for those sitting and standing on the immediate platform to board, but larger canopies over the track and adjacent spaces (up to the pedestrian trail) could provide small cart and kiosk retail

opportunities. Regardless of size, architectural style and materials should be consistent throughout.

- Stations must be **physically separated from the pedestrian trail** to prevent interference of both recreational and transit activities. However, since some riders access the streetcar directly from the trail or will exit onto the trail, there must also be well-marked entrances with sufficient trail width to allow passing.

Vertical circulation

- The six of nine proposed stations below grade should have **wide, visible stairs with a handrail and a glass-enclosed elevator**. Stairs must be wide enough to accommodate two-way traffic, including people carrying bicycles. They should be straight without any turns and not visually obscured from either

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PRINCIPLES : STATION DESIGN

the station platform or the sidewalk above. Elevators should be as close as possible to and connect to the same side of the street as at least one set of stairs. Multiple stairs are possible, particularly in high traffic stations.

- Station access points are **shared resources between transit and trail users.** Many bikers and pedestrians will be crossing the tracks from the trail to use the elevator or stairs at each station and likewise streetcar users will be crossing the track to utilize the trail. The vertical circulation infrastructure, while primarily for streetcar riders, should be viewed as general greenway access; there should not be redundant access in the same block for separate users. Transit engineers must be consulted to ensure select, well-market areas have sufficient access controls for

safe crossing.

Aesthetics

- Stations should be **free of permanent or semi-permanent advertising for individual businesses.** Local business associations at each station's corresponding Lake Street node should be permitted to display general branding advertisements to promote their unique mix of retail, entertainment, and cultural offerings. Similarly, permanent wayfinding elements may require signage with general nodal information that should be artist-designed, representative of the community, and visually pleasing. Unobtrusive digital and interactive displays could provide business-specific information with walking maps available for print or download to mobile device.
- Adequate lighting will enhance the experience for

all Greenway users. **Lights should be placed above bicyclists' line-of-sight without creating visual interference for users entering or leaving the station.** A bright, glaring light while descending into a trench would disorient and discomfort riders. Stairways should be lit on each stair to improve safety and clearly identify routes in and out.

Trench commerce

- Opportunities for **retail and service business within and immediately adjacent to station areas** should be included in the planning process from the initial stages. This includes space set aside within stations for food, newspaper, coffee, and other carts or kiosks. New building development in parcels adjacent to stations should include basement-level retail that fronts the Greenway. These

developments would additionally provide vertical circulation for residents or employees within.

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Wayfinding



Top: Existing wayfinding elements in and around the Midtown Greenway.

Bottom: Existing Metro Transit wayfinding kiosk along the Hiawatha LRT Line.

Human-scaled connections between the Midtown Greenway and Lake Street will be facilitated through a clear, unified, but station-specific system of wayfinding elements. Wayfinding should reduce uncertainty among commuters and visitors, but should also add value to local residents and workers. A comprehensive wayfinding system should promote connections and establish location through three environmental mechanisms: signage, placemaking, and interpretation. Signage provides direct and concise information for riders, placemaking extracts distinct neighborhood qualities, and interpretation offers opportunities for stakeholders to express location importance.

Signage

Wayfinding efforts should begin with signage and station identification. Because Metro Transit is assumed to operate the route, signage and graphic designs should remain consistent with

other Metro Transit facilities. However, because placemaking is also essential for station areas, flexibility with Metro Transit designs should be allowed if value can be added to the station design. While placemaking and interpretation overlap with station design and public art, a coordinated effort with signage could produce an effective and dynamic wayfinding system along the Lake Street/Midtown Greenway Corridor.

- Wayfinding signage should be **absent of advertising and business-specific destinations**, but could exist in more programmatic wayfinding mediums like brochures.
- Acknowledgment of when and where potential riders will be making crucial decisions should be considered in the placement of basic signage. For example, the elevated Franklin Avenue and Lake Street LRT sta-

tions include **maps and timetables on the platform level, but also include identical signage at street level**. This assumes that potential riders would like to gather route information before ascending to the station platform level. Similar sign placement is needed at the rim level of the greenway and also at major transit stops along Lake Street. Riders need to be aware of the transit opportunities without having to physically descend into the Greenway trench.

- Street level signage above the station should be **consistent throughout the corridor and clearly and iconically identify** what is below. For example, a gently illuminated green Metro Transit T symbol could mark each entrance. Additionally, **wayfinding signs should be placed on Lake Street** to guide pedestrians

to the nearest streetcar station and Greenway access point.

- **Public art has the potential to supplement** the wayfinding function of literal signs by adding interest and enhancing connections, such as embedded footprints or bicycle tracks leading pedestrians or trail users to exits.

Placemaking

- Station areas should include symbolic wayfinding elements. Small Metro Transit T logos or directional, artistic silhouettes of streetcars could be placed at eye level on street signs and light poles. Pavement markings such as indentations and mosaic designs can provide information and also liven up the walk between Lake Street and the Midtown Greenway. Symbol design should strive to be simple, bold and easily discernible

3 PRINCIPLES : WAYFINDING



Top and right: An interpretive sidewalk mosaic in Vancouver, Canada and the existing silhouette signage at Lyndale and Lake.

Bottom: Neighborhood-specific brochure could be placed in each streetcar vehicle, like this existing brochure for Lake Street destinations.

from a distance. Creativity is also encouraged to minimize the feel of corporate, downtown signage and increase neighborhood feel.

Interpretation

- **Station names should include prominent nodal destinations.** For example, Hennepin Avenue should be called “Hennepin Avenue / Uptown / Walker Library.” Chicago could be “Chicago Avenue / Abbot Northwest Hospital / Midtown Exchange.” After announcing the name of the station, a **list of connecting bus or train routes** should then be announced.
- Other programmatic wayfinding strategies include **takeout maps located on streetcar vehicles and at stations.** Similar to the existing take out maps and schedules on Metro Transit buses and LRT vehicles, brochures specific
- **Lake Street should be included in any city or regional bike trail and transit maps** to demonstrate the close proximity and functional interconnection of the two corridors.

to each station area could be displayed. Metro Transit could provide template and a cooperative effort between neighborhood groups and business associations and the proposed Greenway Business Improvement District (GBID) could provide specific content for each station. Similar to the route maps and schedules, these station area brochures would rotate and be updated. In order to capture the audience of trail users, station area brochures should also be available at locations along the greenway or at kiosks at major entrances.

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Connections



Specific core strategies support the principle of connections, which are essential for the Greenway transit stops to connect to the neighborhoods they service. The placement of the streetcar line dictates that a comprehensive connection plan be in place prior to beginning streetcar development since most stations will be physically disconnected from key existing destinations.

Placemaking

- Implementation details should be clearly defined in **station area plans that concretely map the passenger experience**, intended pathways and visual perspectives passengers will encounter, particularly ensuring that line of sight extends into the station area and to Lake Street from the access points.
- **Portals and enhanced entrances/exits** are crucial to conveying the sense of place and drama that

draws people beyond their immediate surroundings to the promise of something worthwhile, just ahead.

- Having consistent **motifs**, such as a distinct streetcar line brand identity, and extending them throughout the line on signage, landmarks, sculptural elements will add coherence and strengthen rider attachment.

Infrastructure Improvements

- **Sidewalk placement and improvements** are needed to optimize pedestrian access. In some locations, aging concrete reveals bare ground beneath. In others, additional sidewalks where none presently exist would create streamlined connections.
- A **high-quality streetscape**, including benches, landscaping, lighting, trash re-

ceptacles, and wheelchair/stroller ramps, conveys the impression of thoughtful structure to the pedestrian experience.

- **Promenades** from the rim to the trench have been a part of vision documents and we recommend them where land use permits. Key benefits include increasing the amount of passive surveillance created by having eyes on the trail, and opening the trench up to the surrounding area.
- Reconnect **29th Street as a public right of way wherever possible**, to provide both pedestrian and minor vehicular circulation, as well as additional front door addresses for residences and perhaps businesses on the south side of the Greenway. If the full proposed 56-foot-wide right-of-way cannot be secured, the creation of a sidewalk along the Green-

way rim should be prioritized over vehicular space on the roadway.

Wayfinding

- Connectivity can be supported by purposefully utilizing **wayfinding devices that are based on riders' origins and destinations**.
- Using modern information systems and display to share **rider information**, trail and station users can make reasoned decision about how best to use the area.
- Coordinating **timed connections with real-time passenger information** is a necessity to increase the convenience and incentive for repeated usage. This is particularly important for making the streetcar a viable alternative in a car-free lifestyle.



Station entries and promenades contribute to the definition of place.

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PRINCIPLES : CONNECTIONS

Bicycles

- **Bike racks** at each station and between stations toward Lake Street would provide a needed resource for cyclists to extend their journey. This would add to the impression that the station is a component in a larger transit ecosystem.
- **At-grade crossings should prioritize bicycles** as key component of a pedestrian-oriented experience.
- Greenway ramp access points, particularly those nearest streetcar stations, should be **connected to Lake Street and nearby routes with dedicated bicycle lanes**.

Public Spaces

- Station area **amphitheaters** draw users into the station space and create a culture of activity that enhances the life of the trench, extend-

ing the usefulness of the trail beyond its intrinsic function.

- **Street vendors and musicians** provide a crucial cultural and public safety benefit to station areas. Their placement, encouragement and regulation is a vital link from station to street in many other cities transportation systems. Their absence in Minneapolis is a notable contribution to the sterile, vacant feel of the Hiawatha Line rail stations.



Station themes reflect and tell the story of the neighborhood, as does this station in Paris Metro station whose name and inspiration draws from the engineering school above ground.

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Land Use



Activities and buildings should be oriented toward the Greenway in support of “eyes” and activity on the trail.

Proper land use can enhance the connection between a Greenway streetcar line and destinations on Lake Street by activating trench-adjacent areas, developing mid- to high-density mixed use housing and commercial parcels, particularly on the block(s) between the Corridor and Lake Street, and accommodating parking needs unobtrusively to maintain pedestrian-friendliness. Such development should generally adhere to best practices in transit-oriented development (TOD). Successful TOD needs mixed-use, mixed-income, walkable, and location-efficient development that balances the need for density to support convenient transit with the scale of the adjacent community. Infill and redevelopment of existing underutilized lots should be prioritized alongside high-quality open and public spaces.

Transit-Oriented Development

- All new development along the corridor and adjacent

blocks should adhere to transit-oriented development principles. This includes **higher densities immediately surrounding stations** that taper off into surrounding neighborhoods to the north and merge seamlessly into Lake Street to the south.

- Stations should be surrounded by a cluster of many types of retail and service **storefronts at street level**. Upper levels can be used for either residential or commercial purposes.
- In order to reduce residents’ trips, each station area should aspire to a **full spectrum local-serving business**, including child care, car sharing, grocery and drug stores, dry cleaners and farmers markets to allow residents to limit the number of trips they have to make

Residential

- By increasing the population living within walking distance of the station, **higher density multifamily housing** can justify the proposed high frequency of the streetcar. Market demand has proven significant without the streetcar, as several condominium and apartment buildings have been constructed alongside the Greenway. The most intensive residential development should be within two blocks of the station.
- Increasing density will require upzoning some existing single family housing areas. **Subdividing existing properties should be discouraged** in favor of new multifamily construction that can address parking and streetscape needs.

Commercial

- New commercial develop-

ment should be located in or on the periphery of existing commercial nodes so as to **complement rather than compete** with the vibrant commercial activities along Lake Street

Industrial

- While still-viable businesses should be accommodated, land use should **transition away from industrial uses** at a pace determined by the market. City leaders should work with businesses to find suitable land within one of the city’s industrial employment zones. These businesses are often important for the community, providing jobs and a link to the area’s history.
- Some production, particularly of goods for public consumption, such as furniture, art, and clothing, can be accommodated in commercial zones. Such **craft and trade business should**

3 PRINCIPLES : LAND USE



Section AA: Midtown Greenway: Buildings on the north side of the Greenway should either engage the Greenway at the lower level with workspaces and residences or should be set back on the upper level to create a public edge and overlooks.



Visual disruption, of the kind seen at Lund's in Uptown, can be improved upon using intentional land use revisions.

be encouraged and engage the public with storefront displays and windows in workspaces.

Greenway Orientation

- New developments should purposefully engage the Greenway. Buildings on the north side should **either directly interact** with the Greenway with lower level workspaces, residences, or gardens, or should be **set back to create a public promenade and overlooks**. On the south side, **29th Street should be reconnected and improved** with a sidewalk overlooking the Greenway trench.

- Buildings should overlook the Greenway with **doors, windows, and balconies fronting the trench**.

Developer Inducements

- In order to maximize public benefit from new construc-

tion along the Greenway, **conditional inducements, including variances and transferable development right, should be offered to developers**. Slightly higher densities or lower parking requirements in multifamily development would be exchanged for improvements to streetscape or existing Greenway access. Density development rights for land devoted to public purpose, such as a promenade or new access point, would be transferred the building, basing maximum dwelling units on the original parcel size.

Building Height

- In order to maintain year-round solar access to the Greenway, **building height on the south side should be stepped**, with the lowest heights closest to the Greenway. Re-establishing and widening 29th Street alone would not ensure that

a four story building does not shade the trail, particularly in winter. Height limits could be increased in non-shading parts of the property.

- Building **height should transition gradually on the periphery** of the corridor to meld into existing neighborhoods. This is particularly true within blocks; single family homes should not face buildings more than half a story taller than the tallest home on the block.

Parking

- Any redevelopment of current commercial properties should **balance parking supply with demand**. Although the streetcar will provide access for scores of current and new customers, many will undoubtedly continue to arrive by car. Ensuring that parking is paid would encourage

streetcar usage, though individual businesses would be free to offer vouchers to customers.

- Parking lots should be **combined and shared** where possible with a single access point to limit sidewalk cuts. Such shared parking would encourage a park once and walk approach and limit the amount of circling in search of an available space.
- Parking for new development within the station areas should be invisible to the neighborhood and include only **below- or above-ground parking**. Above-ground parking must not be on the first, street level and should include plans for adaptive reuse as the area becomes increasingly transit-oriented. Should street-level parking be unavoidable, it should be behind the building, accessible from side streets

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PRINCIPLES : LAND USE



Automobile orientation at Lagoon Ave. and Hennepin Ave. in the station area.

rather than a curb cut on main pedestrian routes, and visually separated from the sidewalk with fences or vegetation.

- ➔ In order to prevent riders from parking in surrounding neighborhoods to use the streetcar, **residential street parking time limits in station areas should be limited to two hours for non-residents** within a three block radius of stations.

Zoning

- ➔ The city should adopt a **Greenway zoning overlay district** to implement these principles to avoid a piecemeal approach more liable to developer capture. A standard and comprehensive framework for development will ensure cohesiveness and protect the Greenway's character.
- ➔ In order to maximize walk-

ability, **pedestrian-oriented overlay districts should be added to the two blocks surrounding station area Lake Street nodes**. This would prohibit drive-through restaurants and banks, automobile repair, and gas stations. Like the industrial uses, current business could stay, but as business and market conditions change, so too should the use.

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Public Spaces and Art



There is significant opportunity for the corridor to provide additional public space and public art in the Midtown Greenway and Lake Street corridor for users and visitors in building the stations themselves as well as in future land developments. The community has identified this as one of the most important issues for planning the Midtown Greenway.

High quality transportation infrastructure is not complete without the presence of multiple types of destinations, including recreation and relaxation opportunities in public spaces. Repurposing the corridor makes the need for public space and public art more salient.

With the prospect of increased density along the corridor, setting aside public space in advance is vital to prevent overdevelopment. Preventing overdevelopment will help maintain the historical nature of the corridor as a pedestrian

and recreation corridor nestled within the transit corridor.

Public space brings activity, which allows for destination, place-making, interaction, and increased safety. High quality public spaces surrounding streetcar stations will invite passengers to ascend to street level and continue on to Lake Street. These spaces should be interwoven with public art, a consideration that must be included from the onset of station planning. Artistic expression can capture the diversity contained within the corridor. The Midtown Greenway Coalition, recognizing this potential, acknowledges “diverse neighborhoods, that vary socioeconomically, racially, ethnically, culturally, and demographically – the Greenway is an opportunity for Public Art that is diverse in its content, medium, longevity and functionality thereby creating distinct places along the corridor, yet a unified and beautiful Greenway Journey.” Greenway streetcar

riders will have an experience unlike any other in Minneapolis, passing quietly among vegetation without city traffic. Public arts can connect this experience with the hustle and bustle of the nearby Lake Street commercial corridor.

Station and Street Amenities

- **Artist designed street amenities**, such as benches, trash receptacles, and bicycle racks should be equally functional and aesthetically distinct and pleasing.
- Stations and their immediate surroundings should include **murals and sculptures that are representative of the community** surrounding each node.

Interactive Spaces

- The north side of the trench should be connected and surveilled with a **rim promenade with overlook**

areas that offer pleasing views of the Greenway and surroundings. Wherever possible, **29th Street should be reconnected** and a high quality sidewalk with boulevard landscaping should be installed.

- Each station area should include **public or recreational assets that link the station to nearby nodes**, including public art. Clustering of space and art will be an indicator that this is a place to stop and retreat to the areas surrounding the station.
- **Permits should be granted for performing artists and buskers** in station areas and along connecting streets.
- **Private spaces can be made to feel open and add to the public realm.** For example, Kix Field expands the Greenway with private uses that are connected to

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PRINCIPLES : PUBLIC SPACES AND ART

the trail's public uses.

Greenery and Vegetation

- **Utilized green spaces** such as community gardens and native plant storm water management installations should be encouraged on private land.
- Before parcels adjoining the Greenway are redeveloped, increased efforts should be made to improve vegetation along the existing right of way.

4 STATION AREA ANALYSIS

Overview

The Minneapolis Streetcar Feasibility Study identified a total of seven potential stations, approximately every ½ mile. Combined with the exclusive right-of-way, this would functionally allow operation at speeds and service similar to LRT.

- West Lake Station (alongside future Southwest Corridor LRT line)
- Hennepin Avenue S (Uptown Transit Center) *^
- Lyndale Avenue S *
- Nicollet Avenue S *^
- Chicago Avenue S *^
- Bloomington Avenue S *
- Lake Street Station (alongside Hiawatha LRT line)

Additional stations have been proposed to allow more immediate access to important business nodes.

- Calhoun Beach
- Interstate 35 W *^
- 4th Avenue *
- Cedar Avenue *

This paper includes analysis of salient issues regarding station placement, rider and demographics, land use opportunities, and connections and wayfinding at four key stations: **West Lake, Hennepin, Chicago, and Bloomington**. A brief description of five additional stations follows at the end.

* Not at-grade (requires vertical circulation)

^ Possible streetcar or Bus Rapid Transit route connection

4 STATION AREA ANALYSIS

West Lake Station



Existing conditions and uses at the West Lake trail exit. This location is remote for rail pedestrians to easily reach commerce and destinations.

The West Lake Station would provide connection to the Southwest LRT line. Much of the current immediate surroundings are green spaces. The main attraction of this station area is the adjacent retail complex with its variety of restaurants, services, and a major grocery store. Though not as immediately accessible, a short walk farther afield connects riders to West Lake Calhoun Parkway, Lake Pointe Corporate Center and Lake Calhoun Executive Center. A shopping center with a mix of take-out and sit-down restaurants and a large bookstore to the north of Lake Street is also reachable, though visibly obscured at the proposed station exit.

Station Area Analysis

The West Lake Street Station is the western terminus of the proposed streetcar line. For eastbound journeys it will be the first contact riders have with the streetcar. The principal purpose will be access to destinations and

jobs in Uptown and points eastward. For westbound journeys, the station area will be a destination: for residents of apartment buildings; for customers of the abundant services; for convenient access to the western trails of Lake Calhoun. As a connectivity point, the station is a transfer point to/from the planned Southwest LRT.

Ridership estimates show that 25% of route use will be dedicated to transfers to/from the southwestern suburbs. That 50% of trips are estimated to be internal to the streetcar line reflects the magnetism of the adjacent shopping hub and the appeal of onward trips to Lake Street.

The West Lake station is the least densely populated station area with the oldest, wealthiest residential profile of all stops on the streetcar line. Average household and family size is well-below the corridor and city-wide average. Median family income

is \$94,255, nearly triple that of the other corridor areas.

Station Placement

The West Lake Station has an at-grade trail exit placed at 3100 Abbott Ave. S. between the rear delivery entrance to Whole Foods Market and green space belonging to the Calhoun Towers apartments. An open wooden fence bounds an unofficial entrance to the trail, just 50 feet northwest of the official entrance. It is possible that, if graded, this could be a station exit that shortens the connection to the major retail center. When exiting at the current trail egress, there is a feeling of remoteness. The additional distance adds to the nature trail feeling that complements a bike ride, but is less helpful for encouraging use of area businesses. There is ample parking at present on this sleepy hoop-shaped street, but one can easily foresee a crush of cars inundating the area once a streetcar terminus is present.

Currently, the trail exits onto Abbott Avenue. Traffic in the area is primarily focused on residential access and recreation parking for bicyclists, especially on weekends.

A fence separating the Greenway from existing railroad track prohibits access to adjacent townhouses, located approximately 50 feet from Greenway. Sidewalks are not present beyond the trail exit. The trail exit is inconveniently placed for pedestrian access to surrounding destinations.

Connections

The primary access points to the street car would be on Abbott Ave. S., a quiet hoop road which connects Excelsior Boulevard and small network of apartment village streets.

Pedestrian circulation to and from the station area can be improved with sidewalk placement that shortens the distance from the station to Calhoun

4 STATION AREA ANALYSIS : WEST LAKE ST.



Proposed trail exit area with direct connection to Calhoun Commons.

Top right: An example of how a canopy can transform an unwelcoming space.

Commons, where many riders will naturally alight to access an array of stores, restaurants and services. Sidewalks connecting the present trail exit to Abbott Ave. and Excelsior Blvd. are essential to improve usability and pedestrian safety.

Presently, Whole Foods' stock receiving area creates an unwelcoming entrance to Calhoun Commons. This can be improved by a combination of cosmetic improvements to this façade (where already Whole Foods has placed a dedicated worker break area with picnic tables) and pedestrian accommodations to safely and quickly move people from station exit to the northern sidewalk. Better yet, working together with Whole Foods and the landowner, an internal redesign and additional entrance should be added in the back of the store

to permit direct access from the streetcar station.

Along this exit path, Calhoun Commons businesses could provide a lighted canopy to create a welcoming portal. Any portal would have to accommodate the height of delivery vehicles. A tall canopy would be an asset by enhancing verticality and drama of the portal. Seasonal light walls and displays could add attractive variety to encourage repeat visits.

A tastefully designed portal with branded signage at the Excelsior Boulevard/Abbott Ave. S. intersection is recommended to complete the connection to the most active portion of the extended station area. This will also advertise the streetcar to potential riders who may otherwise never discover this secluded location.



Future considerations

Location of a station terminus can foreseeably attract an influx of transit riders looking to park and then ride the streetcar to Lake Street destinations. Even a small increase in traffic would overwhelm the available street parking. However, placement of a parking facility could be accommodated, with proper transportation planning to manage access to the station area via Excelsior Boulevard.

Construct a bike and pedestrian bridge over the corridor to connect Ewing Ave S with the Greenway, to provide direct access for neighborhoods and employers north of the Greenway. The route should continue south of the Greenway to W 32nd Street to better connect to the playing fields and Chain of Lakes bikeway alongside Lake Calhoun.

Land Use and Development

The Midtown Greenway Land Use and Development Plan defines the West Lake sub-area encompassing the proposed station area as a Transit-Oriented development district. A transit-oriented district in this area is to contain three building types: apartments, tall apartments and greenway buildings (buildings that front the Greenway).

The prevailing land use and envisioned land use by existing planning documents suggest that any parking in a park-and-ride scenario would need to be placed underground. There are underutilized portions of land along Abbott Ave which are currently zoned as commercial shopping districts (C3A) and would be suitable for this purpose. Above-ground structured parking would be a second choice, particularly if an

4 STATION AREA ANALYSIS : WEST LAKE ST.

innovative adaptive reuse can be planned.

The city of Minneapolis has proposed densification of the surrounding area through redevelopment of the Calhoun Village automobile-oriented shopping center north of Lake Street which presently houses Barnes and Noble, small casual restaurants, Walgreens and small offices. Placement of the rail station combined with the 446 residential units (mainly rentals) and 40,000 square feet of mixed-use development would complement and consolidate momentum for the transit orientation of this station area.

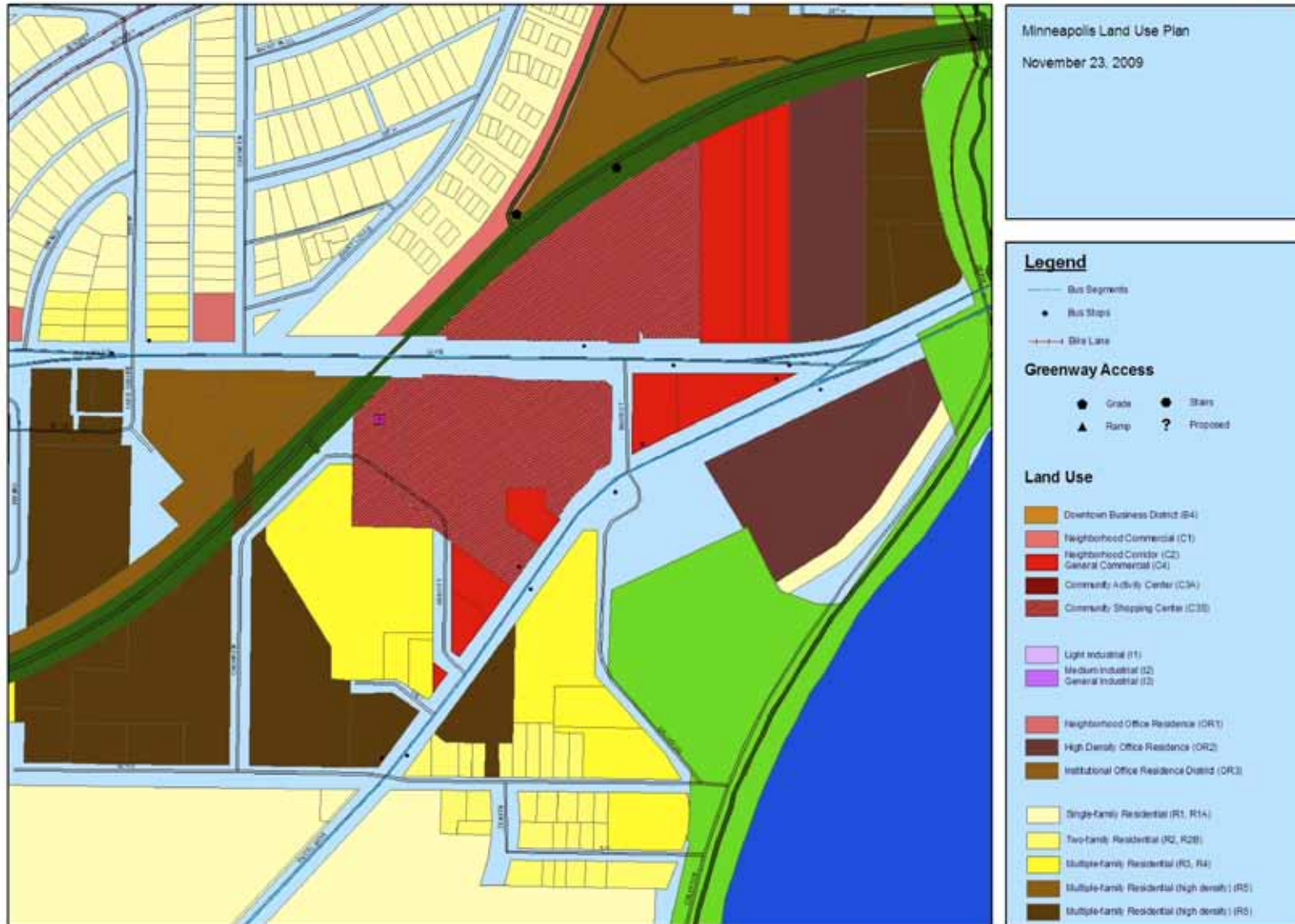
Similar redevelopment strategies should be pursued in other surrounding parcels, particularly to replace surface parking lots, including the Whole Foods shopping center and the Lake Calhoun Executive Center.



A rendering shows proposed densification of the Calhoun Village site, now home to Walgreen's.

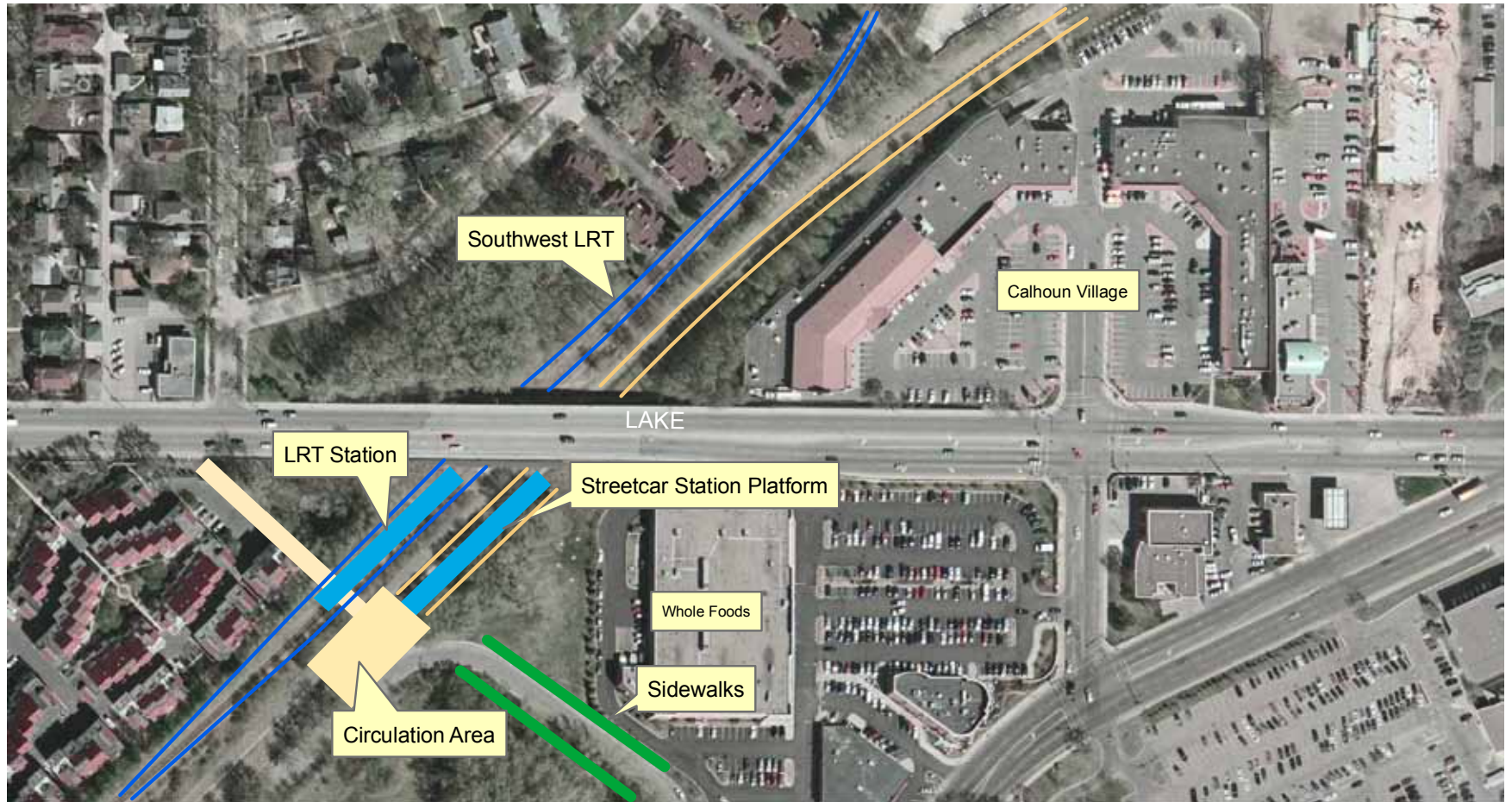
4. STATION AREA ANALYSIS : WEST LAKE ST.

Land Use Map



4. STATION AREA ANALYSIS : WEST LAKE ST.

Aerial Map



4 STATION AREA ANALYSIS

Hennepin Ave.



The proposed station at Hennepin Avenue would serve as a gateway to Uptown, the commercial and entertainment district centered on Hennepin and Lake but extending east beyond Lyndale. This area is already heavily served by transit due to the Uptown Transit Center, so both historical and more recent developments are medium to high density with many uses interacting within a relatively small activity area located to the South and East of the Hennepin Avenue station. The node contains many unique boutiques and eateries, two grocery stores, a bookstore, multiple art galleries and many salons and spas. Calhoun Square, which has long drawn the ire of area residents for its disconnection from the street, has recently undergone a major renovation which created an atrium and increased street presence.

Station Area Analysis

Uptown is a primary nightlife and entertainment district. A

Hennepin Avenue streetcar station would be expected to attract high usage at night, making proper lighting absolutely essential. There is a moderate office presence in the area, which will likely increase with new development. The area to the west of Hennepin contains multiple historic four story brick residences bordering the south side of The Mall. However, due to the highly commercial nature of the area, residential growth will likely remain minimal. The consequent ridership will likely be primarily employees and customers who live within the corridor but outside of Uptown rather than local residents leaving.

The population has grown more slowly than both the City and the metro area over the past 15 years. At the same time, the area has aged considerably; there are 30% fewer 20-24 year olds in Uptown than there were in 2000 while there are nearly 40% more 55-65 year olds. This likely in-

dicates a decline in the number of families with children over the coming decade. The median income (\$40,000) is also lower than both the city and county, but is expected to increase faster over the coming decade. Most people (79%) rent, but over 800 units have been converted to condos over the past six years, representing nearly half of the current stock of owner-occupied units.

With the exception of Calhoun Square, retail vacancy is a very low 2.5%, but turnover is very high. The small amount of office space in the area has significantly lower vacancy than downtown. Current businesses capture considerable outsider spending, including restaurants, used goods, groceries, alcohol, and health/personal care. However, many resident dollars are lost in electronics, appliances, furniture, building materials, clothing, and lawn/garden.

Station Placement

The streetcar station should be placed on the east side of Hennepin Avenue. Though the west side offers potential with a proposed reconstruction of Walker Library, the current design plan would largely cover the corridor trench, creating an uninviting tunnel when exiting the streetcar. The eastern side is also primarily residential and the commuter foot traffic could be unwelcome. In addition, the main Uptown destinations are oriented toward the east, with direct connection possible via the Girard meander, as further discussed below.

There should be stairs on both sides of the street, however, to connect passengers to bus routes above without having to cross traffic. This should be accomplished with a straight staircase leading down into the station and split-level stairs on the west side; a footpath beneath the bridge should link the stairways. An additional split-level staircase

4 STATION AREA ANALYSIS : HENNEPIN AVE.



should connect where a proposed Girard Avenue pedestrian bridge meets the sidewalk. An elevator should be on the east side, accessed under the straight staircase and connect directly inside the transit station.

Such development will likely require the removal of the bus lane on the south side of the corridor. The redevelopment of the adjoining parcel, as discussed below, would allow such an opportunity.

Connections

The station's vertical circulation should interface directly with the Uptown Transit Station on both sides as well as with the Girard pedestrian route. This 'Girard Meander' should have direct connection to the streetcar station. This will allow seamless integration with bus and future Hennepin Avenue streetcar connections as well as into the neighborhood pedestrian circulation system.

Due to the expected high volume at the Uptown station, particularly during peak period, bikers should be encouraged to use the Humboldt Avenue trail exit rather than build a new bike ramp directly at the station. A new bicycle route should be designated along Lake Street and Lagoon Avenue through to Dupont Avenue to connect the Greenway and the Chain of Lakes bike routes directly with the Uptown business node. In addition, a bike route should be added to the mall and a bicycle parking facility should be constructed at its terminus behind the Walker Library. This will allow bicycle commuters easy access to streetcar or bus connections and provides a central spot to reduce the need for dedicating important sidewalk space to bicycle parking. Any future redevelopment of the Walker Library site should include such a facility from the initial planning stages.

Streets, especially Hennepin

Avenue, Lake Street, and Lagoon Avenue should be transformed from just traffic conduits to places of social interaction and urban activity with the addition and upgrade of various amenities, including benches, landscaping, cart vendors, and attractive inlays. Crosswalks should be prominent and vibrant using murals or symbolic motifs to clearly offset pedestrian rights-of-way from vehicular traffic.

The current vehicular orientation of Lake Street and Lagoon Avenue through Uptown clearly prioritizes motorized traffic over pedestrians. As paired three lane one-way thoroughfares, they are more effective at moving traffic through and beyond the neighborhood than to destinations within Uptown. Most vehicular traffic at peak periods when the maximum capacity is needed connects with downtown via Hennepin Avenue. In the long-term, as transit comes to supplant vehicular flows, strategies

to reorient these streets to make them more pedestrian friendly should be considered. These include restoring two-way traffic, particularly east of Hennepin Avenue, and eliminating the short diagonal section of Lagoon Avenue. Simultaneously, 29th Street should also be improved and widened to provide additional circulation—primarily for pedestrians—and perhaps business or residential entry points.

Land Use and Development

The most recent land use plan adopted by the city is the Uptown Small Area Plan, which was approved by the city council in February, 2008. The plan recognizes that growth is essential to bring about positive change by improving connections between attractions and augmenting the built environment and public spaces. The most intense, high-density and tallest development should be focused in Uptown's core, to the immediate south and east of the streetcar station, and taper off

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STATION AREA ANALYSIS : HENNEPIN AVE.

into the surrounding residential neighborhoods. However, the core must be well-defined to prevent spillover: Hennepin to Bryant and the Greenway to Lake Street. Uptown's daytime population, and streetcar ridership, should be increased by encouraging office development to provide employment and entrepreneurial activities. More employees would also increase the market for existing retail and restaurants.

Growth should be focused in areas with surface parking lots and the large industrial lots on the north side of the Greenway.

The parking lot adjacent to the Uptown Transit center is a prime example of infill capacity, being ideal for transit-oriented, mixed use development. Unlike the images prepared for the city's Uptown Small Area Plan, however, the buildings must not shade the Greenway and should instead have stepped heights. Being such an important station within the corridor makes preserving solar

access essential. As shown in the plan, rather than a single large development, the lot should be bisected by a pedestrian path that links across the Greenway to Girard Avenue and continues south to Calhoun Square. The current bus lane should be removed and reoriented to allow the corridor floor to be widened, though upper stories could overhang slightly. The basement level of the buildings should then directly engage the Greenway with retail development and access points.

Surface parking lots fronting Lagoon between Hennepin Avenue and Fremont Avenue should be converted into mixed use, multi-story buildings with street level. The current uses present an incongruity between the continuous commercial developments along Hennepin and fronting Lake Street, making the area feel larger and more balkanized to pedestrian traffic.

Industrial land along the Greenway forms a hole in the

residential fabric, particularly on the north side. As needed, these parcels should be rezoned to medium- to high-density mixed-use residential housing. Trench-level commerce, residences, or workspaces are possible in the block between Girard Avenue and Fremont Avenue.

In order to limit vehicle circulation, parking should be centralized in district parking lots to encourage a park-once approach. Additionally, the multiple small lots on Hennepin Avenue north of the Greenway should be combined and access restricted to side streets, eliminating sidewalk cuts on the corridor to prioritize pedestrian traffic.

Public Spaces

The Mall is the largest, and currently most underutilized open space in the immediate station area. It should be improved with the addition of a bicycle route, picnic tables and barbecues, chess tables, and musical or performance spaces.

New development should encourage multiple smaller public spaces rather than single large spaces, including Greenway-fronting gardens and terraces. Improving bicycle access would also link Uptown directly to the recreational opportunities available on the Chain of Lakes.



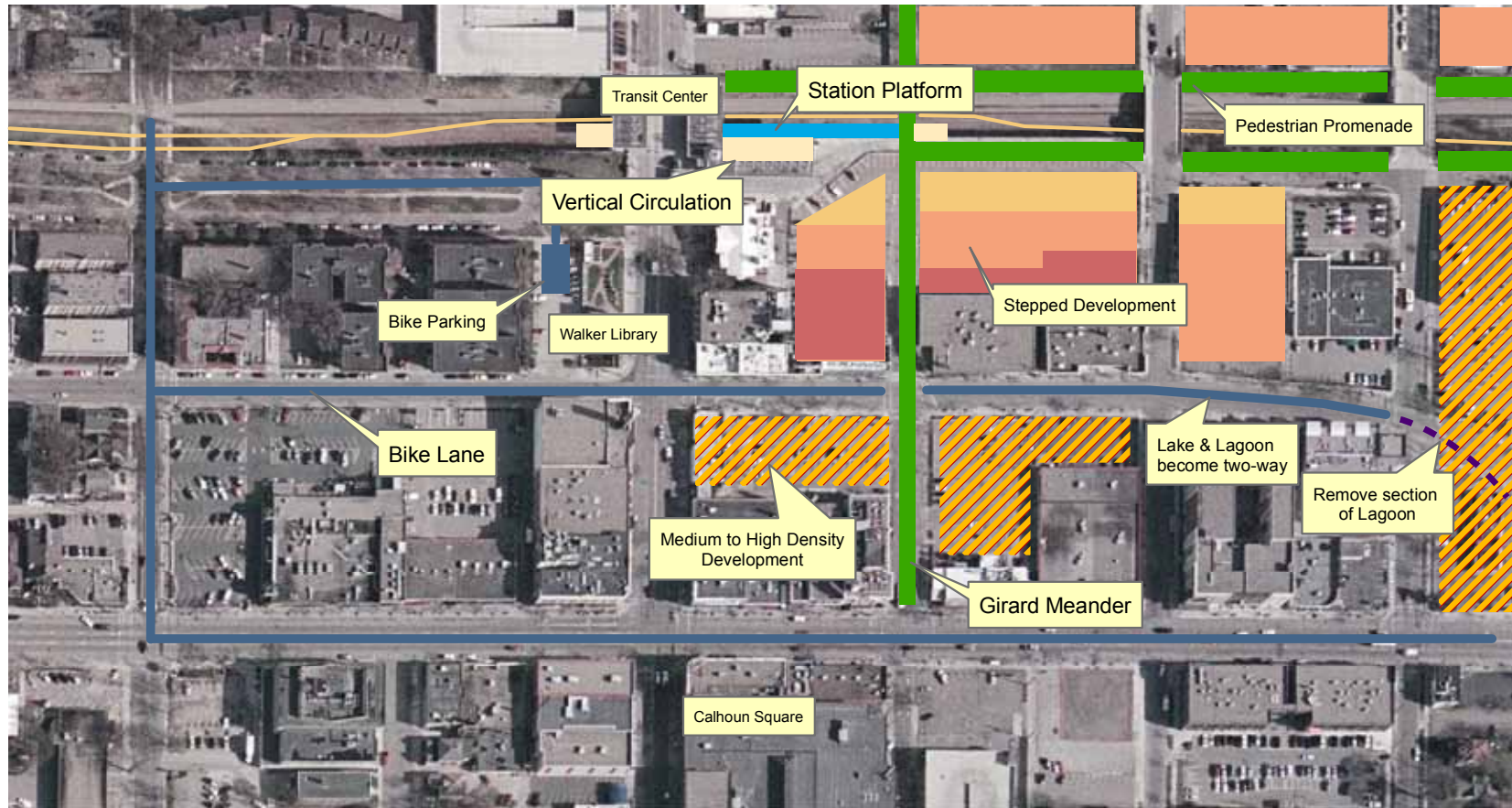
4. STATION AREA ANALYSIS : HENNEPIN AVE.

Land Use Map



4. STATION AREA ANALYSIS : HENNEPIN AVE.

Aerial Map





4

STATION AREA ANALYSIS

Chicago Ave.

The Chicago Avenue Station area is a confluence of multiple personalities – buzzing retail, single and multi-family housing, anchor institutions, a medical campus, a popular chain hotel, and a major transit center. This established commercial and employment node generates a significant amount of activity at street level, spanning the Greenway, and within the Greenway trench itself. The recent addition of trench commerce, trail entrances, and greenspaces are transforming this area of the Greenway into a destination and preparing it to be an important and iconic station area.

Station Area Analysis

The four neighborhoods of Powderhorn, Central, Midtown Phillips, and West Phillips share the intersection of Lake and Chicago, which was once plagued by soaring levels of crime and disinvestment. While there has been a shift away from such activities since the 1990’s, the need for ongoing improve-

ment continues. The Phillips Partnership has joined together public and private partners to make needed investments within the neighborhood. The most prominent example of this is the recycling of the old Sears Building into the Midtown Exchange, a multipurpose residential, business, and retail activity center.

In recent years, the Chicago-Lake area seen a great number of job gains. The large medical campus north of the greenway feasibly allows neighborhood residents to work where they live. Allina Hospital and Clinic’s “Backyard Initiative” promotes nearby living for its 23,000 workers. Through Project for Pride and Living and Minneapolis Community and Technical College, there is also a push to train the local residents in the health care field.

Immediately south of the station is the Sheraton Hotel, Chicago-Lake Transit Center, Midtown Global Market, Chicago Lofts,

Midtown Exchange Apartments, and Allina offices. Further south, but within walking distance is the Minnesota Workforce Center, Roberts Shoes, Community Safety Center, Family Dollar, Foot Locker, Chicago Lake Liquors, US Bank, and CLUES. To the north of the Greenway is Abbot Northwestern Hospital and medical campus, an Allina office building, Wells Fargo Home Mortgage, and Anderson School.

Many of the area’s larger institutions would generate high peak morning and afternoon trips while much of the retail destinations and transit center would continue to provide activity in the evenings and on the weekends. Other destinations like the Hennepin County Service Center and the Global Market in the Midtown Exchange attract customers throughout the day and on weekends, generating activity and potential streetcar riders.

Between 10th and 11th Ave-

nues, the development efforts of the Cepro site have transformed the former grain elevator site into a graceful public greenway access point that doubles as a neighborhood park and recreational destination. Just west of the Cepro site is Freewheel Midtown Bike Center, whose opening marked the debut of commerce within the Greenway trench. Providing needed services to cyclists and trail users, the shop also houses a café and further establishes the Chicago station area as a destination.

Station Placement

In reviewing initial city and neighborhood plans, there have been conflicting suggestions as to the placement of the station. The Midtown Greenway Land Use and Development Plan suggests placement east of Chicago Avenue, while other plans suggest placement to the west of Chicago.

The pedestrian promenade and vertical circulation that currently



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STATION AREA ANALYSIS : CHICAGO AVE.

joins the Greenway trail with the Sheraton Hotel frames the area between Chicago and Elliot Avenues as if a station or plaza were already in place. Locating the station east of Chicago is also logical due to its greater proximity to primary destinations such as the Sheraton Hotel, Midtown Exchange, Freewheel Midtown Bike Center, the Cepro Site, and especially the Chicago-Lake Transit Center. This transit center is a key transfer point for riders making north-south connections on bus route 5.

A platform west of Chicago would require transfer riders to cross Chicago Avenue, greatly reducing the perceived proximity and requiring more complex and extensive wayfinding elements. For these reasons it is recommended that the station design build off the existing infrastructure east of Chicago Avenue.

Connections

The purposeful clustering public Currently, there is only stair access at Chicago and the Greenway. The nearest bicycle access points are two blocks to the west at Park Avenue and two blocks east at the Cepro site. To better connect the station to northern destinations, the northern trench rim should be partially converted into a sloped, landscaped access point, connecting the station and trails to Chicago Avenue.

On the south side of the trench, the Sheraton Hotel hosts a well-designed public promenade. The walkway is currently private, but has an easement for public use. The promenade should be expanded to serve the station area with stair and elevator access. From the station platform, riders can make an at-grade crossing to the Greenway trail and to the northern, sloped connection.

In the spirit of the surrounding small businesses and entrepre-

neurs, there should be opportunities for street vending, buskers, and pushcarts. They would allow individuals who lack financial resources to have the opportunity to make a living retailing, without committing to large overhead costs. These types of business would add vitality to the station area, contribute to neighborhood security, and serve as an amenity for residents, pedestrians, cyclists, and streetcar riders. With so many pockets of public space surrounding the station, Chicago Avenue would be a prime location for Minneapolis to assess the real possibility of street food vendors.

The city should seek to acquire the right-of-way to 29th Street between Portland Avenue and Chicago Avenue. The existing section of 29th Street to the east of Chicago Avenue should be expanded and improved with a sidewalk alongside the Greenway trench. This would allow for additional local circulation, improved passive surveillance,

and street frontage for potential redevelopment of adjacent parcels.

Other connections should consider the proximity of Powderhorn Park and Stewart Field. The Cepro site and the Chicago Avenue station can become a linking destination for recreation and relaxation uses. To provide more enhanced connections, 11th Avenue should become a “green street” with traffic calming treatments that connect Stewart Field, Anderson School, the Greenway, and Powderhorn Park.

With such a large number of destinations, the Chicago Station area offers many opportunities for creative wayfinding and signage. To reflect the high level of activity, but formal and casual, wayfinding should take the form of public art. Creative means should provide individuals with destination choices and direct them with pavement markings, mosaics, or other

4 STATION AREA ANALYSIS



inventive features. Wayfinding elements should consider all perspectives and circumstances, providing direction at key locations both at street, the Greenway level, and within prominent buildings like the Midtown Exchange.

Land Use and Development

The area surrounding the Chicago Avenue station falls within the purview of several adopted small area plans, including the Midtown Greenway Land Use and Development Plan, the Phillips West Master Land Use Plan, and the 38th Street and Chicago Avenue Small Area/Corridor Framework Plan. Generally, the most intense development should occur in underutilized parcels adjacent to the Greenway. Ultimately, the avenues intersecting Lake Street in the node area should transition toward complementary land uses to guide streetcar riders, uninterrupted, towards commercial destinations.



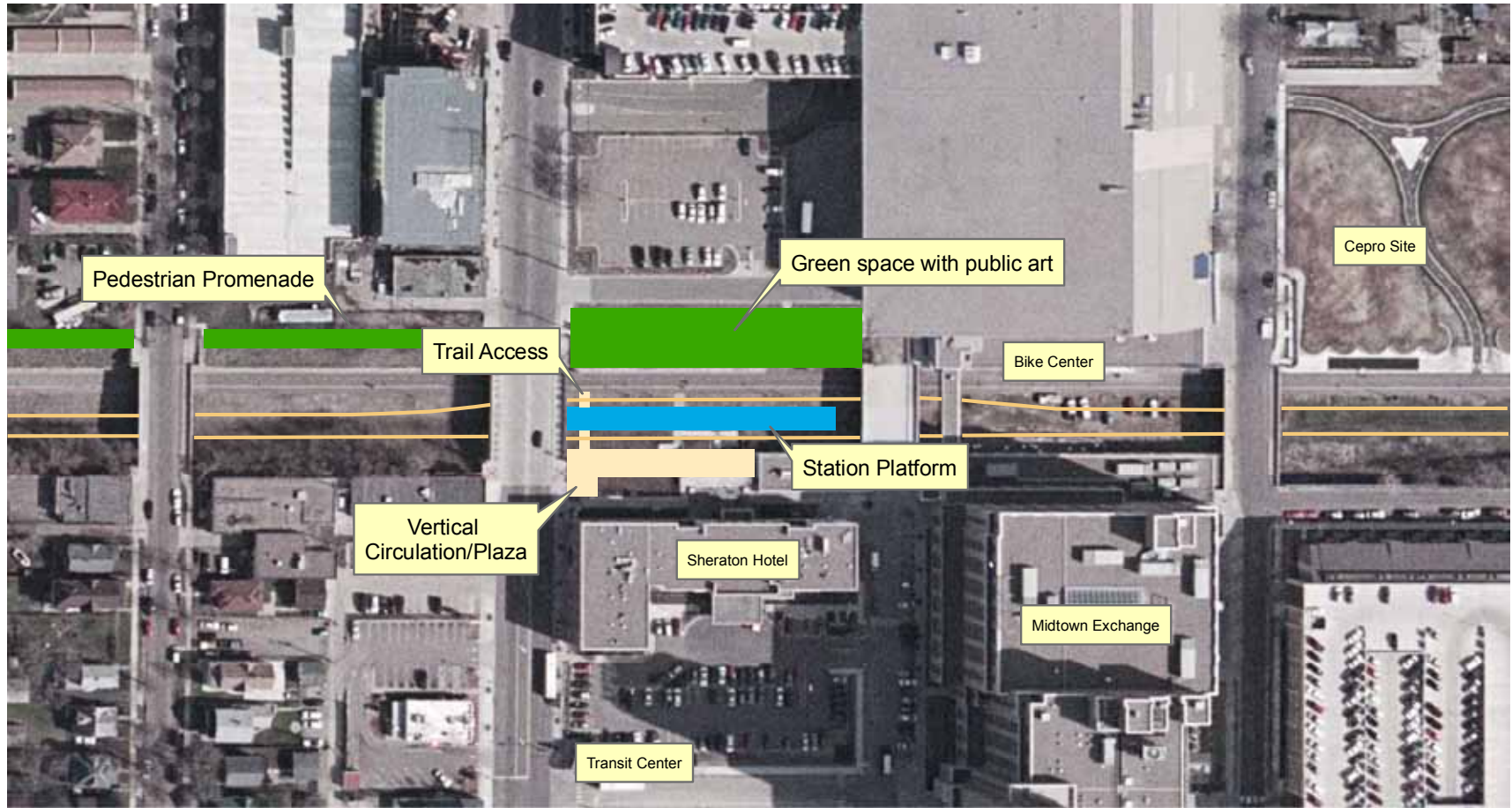
4. STATION AREA ANALYSIS : CHICAGO AVE.

Land Use Map



4. STATION AREA ANALYSIS : CHICAGO AVE.

Aerial Map





In the Heart of the Beast productions and proposed Bloomington neighborhood amphitheater (Cermak Rhoades Architects).

4 STATION AREA ANALYSIS

Bloomington Ave.

The Bloomington Avenue Station area could prove to be one of the more transformative spaces of all proposed stations along the corridor. The narrowing of the Greenway trench paired with a bustling Hispanic-business node at Lake and Bloomington call for tactful design and innovative implementation strategies.

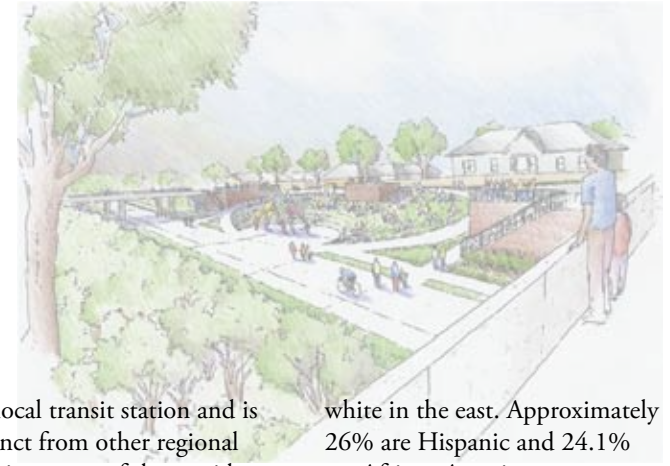
While the intersection of Lake and Bloomington does not boast regional destinations, it displays a wealth of assets through its small, colorful Hispanic businesses. Grocery stores like the Super Mercado La Mexicana and Mercado Central anchor the intersection and restaurants including Guayaquil, the Taco Taxi, and La Mojarras provide several dining destinations.

The area is also home to two Chinese restaurants, the Dur Dur Somali bakery, and the Scandinavian gift and food shop, Ingebretsen's – which has been family owned and operated since 1921. Other businesses

include Franklin Bank, Cadillac Pawn Shop, and the Frida Salon.

One block west, at the intersection of 15th Avenue and Lake sits the 300-seat Avalon Theater, home to In the Heart of the Beast Puppet and Mask Theater. A long time community staple, Heart of the Beast has added value to the theater and surrounding neighborhood. Their programming includes full-scale productions, parades, weekly children's plays, and puppetry and mask-making workshops. Most performances evoke the neighborhood's Hispanic population through events like Day of the Dead, La Natividad, and the May Day Parade. The proposed neighborhood amphitheater at the Bloomington station could partially serve as an extension to the theater's operations and display the neighborhood's cultural identity to greenway users and streetcar riders.

Primary considerations should acknowledge that Bloomington



is a local transit station and is distinct from other regional transit centers of the corridor. Also, an effort should be made to preserve the natural, intimate feel of the Greenway at this node and complement any trench alterations with historically and environmentally appropriate design. Lastly, public art should be incorporated into the station design in a way that introduces riders to the Hispanic character of the area before arriving to the intersection of Bloomington and Lake.

Station Area Analysis

Bloomington Avenue Station resides within the eastern subarea of the corridor study area and is surrounded by the Midtown Phillips, East Phillips, Powderhorn, and Corcoran neighborhoods. The population of the eastern subarea is the most ethnically diverse and economically challenged areas of the corridor. While 94.3% of the western subarea population is white, only 47.5% of the population is

white in the east. Approximately 26% are Hispanic and 24.1% are African American.

The majority (59%) of households surrounding Bloomington are family households, with an average family size of 3.85. This figure is significantly larger than any other subarea and the city average. The area is split evenly (48.6%/51.4%) between owner occupied and renter occupied households. The median family income of the eastern subarea is \$33,005 - approximately 38% less than the corridor average and 32% less than the city average.

Relative to the western and central subareas, there are significant employment and housing disparities in the eastern subarea. For workers living in the vicinity of Bloomington, there are very few opportunities to both live and work within the corridor. The dense business node at Lake and Bloomington draws workers and customers

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STATION AREA ANALYSIS : BLOOMINGTON AVE.



Proposed space for pedestrian facilities along south rim near Bloomington.

from the neighborhood, but is absent of regional assets and large institutions. It is likely that commuters boarding at Bloomington will make transfers at the Hiawatha LRT, Southwest LRT, or other regional transit centers along the route. Peak ridership characteristics will include many types of boarding during the morning rush and alighting passengers during the afternoon rush. However, passengers alighting during the morning and boarding in the afternoon will be limited. Even with connections to local bus route 14 at Bloomington and 29th, the typology of the Bloomington Avenue station will likely remain the most local station along the route, reflecting the local nature of its surrounding destinations.

Station Placement

As with all stations along the route, Bloomington will be placed on the south side of the trench to minimize realignment of the existing Greenway trail. Initial city plans have suggested

the station be placed just west of the Bloomington Avenue Bridge. If this is the case, station design should be considerate to additional plans for greenway access and a neighborhood amphitheater on the north side of the trench. While the footprint of the station and the amphitheater would not overlap, access points should be coordinated to increase overall accessibility and reduce the perception of overcrowding.

The corridor approaching Bloomington tapers significantly, requiring single track between 13th and Cedar Avenues. Here, the slopes of the trench occupy the space under both the north and south spans of the above bridges. This constraint shifts the alignment of the trail from the north span to the central span of the bridge. To provide right-of-way for a streetcar, it will be necessary to carve out much of the existing south trench wall in order to accommodate even a single track and

station platform. As the alignment approaches the station, track should be placed as close to the existing trail as is safely feasible to ensure a generous amount of space for a station platform. In addition, the existing wooden stairway east of Bloomington Avenue must be removed and could be recycled for a new greenway entrance.

Additional methods of widening the trench floor to accommodate rail transit and station areas should be considered by transit planners and community stakeholders. Other ideas include pushing back the Greenway's south embankment rather than replacing it with a retaining wall. A hybrid approach could include a combination of partial-height retaining walls, terraces, and sloped land. There is flexibility to consider a variety of approaches to widening the Greenway trench floor east of 13th Avenue because of the flat HCRRA-owned public land at the top of the south embank-

ment, and south of that there is the public right of way for 29th Street. The street could be reconfigured if it were vacated to motorized traffic or simply made narrower.

Pedestrian and bicycle station access should exist from the street level and the greenway level. Vertical circulation should be placed on the east end of the platform and include an open stairway and an ADA compliant elevator that directly connect the northwest corner of Bloomington Avenue and 29th Street to the station platform. Streetcar track should be embedded at the station to allow for an ADA compliant, paved pedestrian crossing. The crossing should be placed near the east end of the platform to provide easy access to vertical circulation. It is recommended that greenway level access be restricted to just this one crossing. If an additional access point is placed at the west end of the platform, non-riders must walk through a paid-fare

4 STATION AREA ANALYSIS : BLOOMINGTON AVE.



A new sidewalk in front of the 2909 Apartments.



Dilapidated pedestrian facilities along Bloomington between Lake and 29th Street.



Existing landscaping and pedestrian facilities outside Super Mercado La Mexican.

zone in order to access vertical circulation. The vertical circulation at the station should be considered access points for all greenway users, even though the primary users will be streetcar riders.

Connections

Pedestrian facilities surrounding Bloomington are lacking, but high potential exists for the area. Greenway entrance ramps at 13th and 18th Avenues as well as a wooden staircase at Bloomington provide current access to the Greenway. Paved areas run along the south rim of the trench and several vacant parcels exist on the north rim. The Midtown Greenway Land Use and Development Plan identified several pedestrian facilities that will improve access and circulation to the surrounding areas. Sidewalks will be added to the south rim and pedestrian promenades will be added on the north. This will allow streetcar riders and Greenway users to approach the station area from the

north and south, but also from the east and west. Wayfinding elements and signage should be placed along all four directional approaches. Larger elements should be available for riders approaching from Lake Street and more neighborhood oriented elements should be placed along the pedestrian rim walkways.

With this new pedestrian network, sufficient lighting will be required at night. Pathways of light should direct riders to the station. The station entrance and signage should be illuminated, visible from Lake Street, and serve as a beacon to riders approaching the station. However, station lighting should be focused on the street and sidewalk as to not encroach on residential properties adjacent to the station area.

Wayfinding should also build confidence for riders traversing between Lake Street and the station area. The sidewalks along this corridor are dilapidated and

need to be improved both for safety and aesthetic reasons. At some points the sidewalks are too narrow for two approaching pedestrians to pass each other. With increased pedestrian traffic due to the station and the amphitheater, efforts to widen these sidewalks are encouraged.

A reconstructed sidewalk in front of the 2909 Apartments and small landscaping and pedestrian amenities outside the Super Mercado La Mexican are existing examples of how this short corridor could be upgraded. Further upgrades could include artistic designs and mosaics in the sidewalk pavement that could be both informative wayfinding elements and interpretive reflections of the neighborhood. A colorful sidewalk could reduce the perceived distance between Lake and 29th Streets and also add value to surrounding businesses and households.

Land Use and Development

Unlike most other station areas, city plans only call for moderate densities at the intersection of Lake and Bloomington. Bloomington has been designated as urban oriented development which calls for developments of up to five stories. Moderate-density housing currently exists at the 3.5-story 2909 Apartments on the corner of Bloomington and 29th Street. Surrounding housing types are primarily single family or converted multi-family and align with the city's proposed neighborhood oriented development guidelines.

Any new development should be focused on the two blocks of Bloomington Avenue south of the Greenway. There are numerous surface parking lots which could be consolidated into fewer parking structures to provide space for additional storefront activity connecting the streetcar with the commercial district.

Other Concerns

The narrow, intimate nature

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STATION AREA ANALYSIS : BLOOMINGTON AVE.

of the Midtown Greenway surrounding Bloomington is something that is currently appreciated by trail users. The trench walls are mostly grown over with vegetation and trees. This area is also home to the largest concentration of historic bridges in the corridor, creating a distinct identity for this eastern section of the Greenway. However, with the addition of streetcar track, a station platform, and vertical circulation, much of the south trench wall will need to be excavated. Embankment surfaces should provide a meandering surface for vegetation and vines. While the current ecology of this section may not survive, some aesthetic qualities can be retained.

The narrowing of the Greenway trench at this location also creates solar access issues for streetcar riders and trail users. When a retaining wall is constructed, artistic and inventive features should be introduced to diffuse or reflect sunlight onto the trail and station platform. This would provide light and warmth to areas that might otherwise be in the shadow of the south wall.



Existing historic brick exposed east of the 16th Avenue Bridge and opportunities for artistic light features to illuminate the station platform and trail.

4. STATION AREA ANALYSIS : BLOOMINGTON AVE.

Land Use Map



4. STATION AREA ANALYSIS : BLOOMINGTON AVE.

Aerial Map



4

STATION AREA ANALYSIS

Other Stations

Calhoun Beach

A station at Calhoun Beach would provide direct access to the Chain of Lakes, a regional recreational destination. The distance from West Lake and Hennepin Avenue is too far for occasion users who want direct access to the beaches and trails of the lakes. Capturing their visit with a streetcar encourages further exploration of the surrounding areas and making use of surrounding retail, restaurant, and entertainment amenities.

The station will pose additional challenges to ensure safety for riders, pedestrians and bicyclists alike as the interaction between streetcar service and the multi-use trails will be heightened in this area. Pedestrians will be crossing between lakes and many exiting riders will be doing the same. Proper physical and visual separation will be essential to ensure safe passage for all.

Lyndale Avenue

The Lyndale Avenue station will be substantially similar to Hennepin Avenue and provide access to the eastern portion of Uptown. Development in the station area demonstrates existing market demand for multi-family housing and a wide variety of entertainment options that will likely intensify with the introduction of the streetcar. Current limited employment should be augmented with additional office spaces as higher density, multi-use development occurs in underutilized parcels.

Nicollet Avenue

A streetcar station a Nicollet Avenue will connect at street level to the back side of the Lake Street K-Mart. This will pose similar challenges to the West Lake Station; the building owners should be encouraged to add a rear entrance in the interim before a full redevelopment can take place. Ultimately, Nicollet

Avenue should be reconnected for at least pedestrian traffic.

Towards the north, however, Nicollet Avenue hosts a vibrant restaurant and entertainment district known as ‘Eat Street.’ It is likely that streetcar riders going to the Nicollet Avenue station will equally head toward that largely separate node and Lake Street. Development of a high-quality station area would help to mentally link the two areas and create a more coherent activity cluster, particularly if Nicollet Avenue is reconnected.

Interstate 35-W

A streetcar station connecting to Interstate 35-W Bus Rapid Transit presents unique challenges. It is recommended that any station serve both the Greenway Streetcar and Lake Street with direct pedestrian connections. Structural engineers will have to design safe and accessible pathways that should maximize

adherence to station design and other principles included in this report. High visibility, adequate lighting, and inviting spaces are of particularly importance.

Hiawatha Lake Street LRT
The East Lake Street/Hiawatha LRT station area exhibits many of the same attributes as the West Lake station. There are direct links to regional transit and access to a large shopping node. Like West Lake, the East Lake station also opens up to the back door of this business node – partially confined by blank facades and auto-oriented infrastructure.

The primary connection that needs to be made is with the Midtown/Lake St. Hiawatha LRT station. Nearly 13% of passenger trips on the streetcar will involve a transfer to or from the LRT. Four bus routes also stop just a few steps away, creating the opportunity for a portal similar to West Lake or even a

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STATION AREA ANALYSIS : OTHER STATIONS

multi-modal station. Additional infrastructure to accommodate the streetcar station or enhance the existing bus stop should be placed just east of the current north entrance to the Hiawatha LRT station. Proximity should be a priority, but extra space should be created to accommodate potential peak crowds and outdoor waiting areas.

Minimal wayfinding currently exists at the Hiawatha LRT station. With the imposing infrastructure of the LRT elevated tracks, the Hiawatha Avenue Bridge, and the façade of the Hi-Lake Shopping Center (East Lake Street Regional Commercial Center), a full visual survey of surrounding destinations is not feasible as passengers leave the station area. Wayfinding elements should direct riders to major destinations like the YWCA and Hi-Lake Shopping Center. Wayfinding should take special care to direct riders to destinations east of Hiawatha Avenue, as LRT tracks and

Hiawatha Bridge obstruct sightlines. Since the construction of the Hiawatha LRT station, the Hi-Lake Shopping Center has significantly upgraded its property with pedestrian-scaled treatments, showing that businesses surrounding the station are beginning to acknowledge the presence of the station.

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Future Research

This study represents a first attempt to create a comprehensive framework and vision for connecting a Midtown Greenway streetcar to Lake Street. Additional study and empirical analysis will provide a more complete vision and begin the process of implementing changes before, during, and after streetcar development.

Below is a compilation of suggested future research that can be based on the principles and framework created by this study.

- A similar analysis of the remaining proposed station areas should be immediately undertaken. The initial broad mandate and time and resource constraints prevented a complete consideration of each.
- Conduct census of existing street amenities such as bicycle racks, benches, vegetation and sidewalk quality. This information
- can geographically identify a complete set of short-term improvements to improve the Greenway to Lake Street pedestrian experience.
- As of this publication, the final status of the corridor-wide Greenway rezoning project remained uncertain. A parcel-by-parcel land use analysis for redevelopment and infill potential should be conducted following such implementation.
- A complete analysis and mapping of Greenway Stakeholders should be followed by active engagement with them to fully identify goals and concerns.
- Business students or a consultancy should identify specific strategies for small businesses along Lake Street to adapt to changing market conditions spurred by streetcar development.

- Interviews and focus groups with current bus users, residents, and local employees to understand transit and shopping patterns as well as desired changes and streetcar concerns.

The timeline for streetcar implementation is extended but planning and preparing for change can begin immediately. A full set of reasoned analysis based upon the foundation laid by this study will allow decision makers, civic leaders, citizens, and the business community to maximize the quality of discussion and, ultimately, Greenway-Lake Street connectedness.

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Conclusion

In the late 1800s, Minneapolis' ambitious civic leaders envisioned a grand boulevard connecting the Chain of Lakes to the Mississippi River. The proposals contained within this report seek to guide the city toward achieving that vision by enhancing and connecting the Midtown Greenway and Lake Street corridors. The growth and livability provided by streetcar development combined with the commercial power of Lake Street allows civic leaders to once again think grandly. Creating a strong and comprehensive framework for future development ensures that residents and investors alike know what to expect.

The Midtown Greenway Streetcar will not only provide a vital link between the heart of the city and the regional transit network, it will form the spine of a corridor that is rich in history, business assets and culture. The key to building a successful line rests in the effective planning and coordination of each

station area. Some stations are more challenging than others, but all will require an integrating approach that follows the key design principles set forth in this report.

The participation of the stakeholders early and throughout the process to secure buy-in and ownership of key station-area roles will be essential to realize these ambitious plans. The Midtown neighborhoods are delicate ecosystems where small decisions create the fabric of everyday life. Where thriving activity appears to effortlessly flow, it must be acknowledged that the phenomenon is the accrual of decades of deliberate effort — it must be preserved. Where challenges persist, the moment is ripe to organize momentum around the streetcar as a community asset that consolidates social and economic capital — improvements must also preserve the essential good that binds the community.

A streetcar will engage the com-

munity above and beyond its essential purpose of transport. Lake Street and the Greenway already have strong identities that are instantly recognizable. For future Midtowners and visitors, the corridors' shared streetcar will be a symbolic reliable connection to employment, commerce, and services

The streetcar is an opportunity to have a neighborhood connector that includes public space, transportation, and a pedestrian friendly space that brings the river and the lakes together through this route that has been vital to the corridor — in the past and now present.

A great deal of work beyond the scope of this study remains to be done. The principles and recommendations contained within are intended to create the framework for future, more detailed analysis, planning, and citizen and business engagement. The success of this process, of which this is but one step, will

ultimately create two fundamentally interwoven corridors, Lake Street and the Midtown Greenway, that share the same mental space as a cohesive whole.

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Transit-Oriented Development (from The New Transit Town)

Transit is a tool that works best as part of an integrated set of strategies also involving land development and other supportive policies. Successful TOD needs mixed-use, mixed-income, walkable, and location-efficient development that balances the need for density to support convenient transit with the scale of the adjacent community. Infill and redevelopment of existing underutilized lots should be prioritized alongside high-quality open and public spaces.

The market for walkable, mixed-use urban development around transit stations is projected to grow in coming decades. Growing immigrants communities will continue to be concentrated in dense urban areas while baby-boom empty-nesters will consider downsizing to get more convenient access to services. In addition, the “echo boom” generation, aged 24-34, gener-

ally wants smaller lot housing and more exciting households. Affordable housing will be important for many of these groups, although it is important to remember that TOD can reduce household transportation costs, making housing more affordable.

Development adjacent to transit stations should be location efficient in that their density allows frequent transit service (25 minute bus: 8+ units/acre; 15 minute bus: 11+ units/acre) and is pedestrian and bicycle friendly to allow easy circulation between neighborhood and station. Each station area should include a rich mix of residential and activity choices within walking distance. Station areas and the surrounding areas must be attractive and pedestrian-friendly with aesthetically pleasing, vibrant, and distinctive streetscapes and open spaces. These improvements help to resolve the tension between the station’s roles as a transit node

for commuters and customers and the needs of the surrounding neighborhood and community. The tension can be reduced with a variety of non-work land uses, reducing the peaks and valleys nature of most transit.

Successful TOD allows significant value capture for all of the groups involved. Residents can save money on transportation costs, most households’ second largest after housing. Additionally, a variety of amenities, including child care, car sharing, and basic retail will allow residents to limit the number of trips they have to make. Property owners often see higher land values. Business owners can tap into a larger market with more customers and employees nearby and passing through.

MCW Framework Plan

The framework envisioned emphasizes opportunity and reinvestment with the express intent of “revitalizing this once thriving commercial/business

center into a major neighborhood and regional amenity.” However, the key focus is on the concept of Place Making and Connections. Place making is defined as “creating places that are unique, identifiable and memorable. Places that are worthy of our affection and encourage a strong sense of community, pride of ownership and responsibility to be carried forward for future generations.” Creating a network of connecting links include:

- Infrastructure Connections - network of streets and bridges
- Transit Connections - bus, future LRT, trolley and other ‘people movers’
- Parks, Trails and Open Space Connections - unique mix of existing and new public green space

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City of Minneapolis Streetcar Feasibility Study

Streetcar Goals & Purpose

1. Increase transit ridership by both regular and occasional ('choice') riders by providing enhanced and attractive service connecting neighborhoods and the CBD.

- Unique vehicle and customer experience
- 15-50% more than bus service
- 25-75% more choice riders over same bus service

2. Connections and distribution between high capacity regional transit and local neighborhoods

- Provides a fixed, visible and easy-to-understand route with real-time arrival information

3. Enhance the environment by replacing diesel bus service

- Equivalent to an articulated bus: 40-66 Seated; 70-100

including standing

4. Catalyze and organize development and redevelopment potential around a transit investment—quality transit with permanence.

- More customers, higher property values, more property (especially transit-oriented) development

Streetcars have been successfully reintroduced in a number of cities, increasing transit ridership, redeveloping underutilized property, and increasing property values.

Midtown Corridor Historic Bridge Study

The Hennepin County Regional Railroad Authority (HCRRA) purchased the Midtown corridor explicitly for future rail transit use. The 100-foot wide corridor stretches from France Ave to Hiawatha Ave and has 38 bridges, 26 of which are historic, dating from between 1912 to 1916.

A portion of the corridor has National Register status as part of the Chicago, Milwaukee, and St. Paul Railroad Grade Separation Historic District. This 2.8-mile-long district is between Humboldt Avenue (on the west end) to Cedar Avenue, where it then curves northward to meet 28th Street East at its eastern terminus. (longer description with history, characteristics; pg. 15-29)

Engineers have found structural and functional problems with almost every bridge along the Historic District and have estimated remaining useful life for each bridge, if any. Ultimately, structural engineers recommend replacing many of the bridges; traffic engineers recommend completely removing a few. The bridges' removal could be a tipping point for the district's historic status.

Mixed Use

Any future rail corridor would share the right of way with the Midtown Greenway, a pedes-

trian and bicycle trail comprising the northern one-half of the Midtown Corridor between France and Hiawatha Avenues. The trails are operated and maintained by the City of Minneapolis.

Transit Potential Light Rail Transit (LRT)

- Portal alignment (underneath bridges) would have to be reasonably straight throughout due to their short spacing. Bridge piers could complicate matters, due to necessary minimum clearance from fixed objects and inconsistent spacing.
- Needs a double track
- Platforms must be either center (min. width: 56 ft.) or outside (min. width 60 ft.)
- 23' vertical space for overhead electrical (without HCRRA case-by-case approval); platforms

Modern Streetcar

- Can handle steeper grades,

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- sharper curves
- Possibility of single track for most
- Less restrictive vertical requirements

Midtown Greenway Public Art Priorities

The Midtown Community Works Implementation Committee recommends short-term and long-term public art priorities in the Midtown Greenway. Short-term projects include temporary installations and a mural series. Long-term priorities include wayfinding and signage elements and outreach to private and public sectors.

The absence of wayfinding elements and signage is frequently noted. Including elements would provide an opportunity to make Lake Street connections and promote destinations along the entire corridor. Small-scale elements could include artist-designed maps or kiosks at key locations, ramps, trail connections, and destinations. Larger-

scale elements could include designs along the entire Midtown Greenway and Lake Street corridor.

The committee recommends outreach and advocacy to both public and private sectors. Bridges and future transit stations provide opportunities to incorporate public art. Efforts should be made to advocate for the expansion of the Percent-for-Art policy and include artists early in the funding process. Efforts should also be made to solicit commitments from private developers. Potential developments include a public promenade as part of a new medical office building between Chicago and Columbus avenues, plaza space at the future Lyndale transit station, and a pedestrian bridge at the Mozaic apartments east of Hennepin Avenue.

Midtown Greenway Land Use and Development Plan

Adopted by the Minneapolis City Council in February of 2007, this plan reviews current

land use and corridor demographics and presents guidelines for future development, providing zoning guidelines and an overview of opportunities. The creation of a strong public realm along the rim of the Greenway is the primary interest of the plan, recommending strategies of environmental and urban design to achieve the plan's vision. In conjunction with public space, the regulation of private land uses with respect to destinations and future transit stations is also discussed.

Demographics

A review of existing demographics speaks to the range of economic and racial diversity, family-status, and the variability of residential, business, development opportunities. Based on this analysis, the plan divides the Midtown Greenway-Lake Street corridor into three subareas: West, Central, and East.

The western subarea extends from the France Avenue to Hennepin Avenue. Young, working-class professionals are

attracted to the area as well as an older population comprised of wealthy, empty nesters that can afford higher-end housing. The average household size is 1.79, average family size is 2.66, and the median family income is almost three times greater than the rest of the corridor: \$94,255. The owner to renter ratio is 42.7% to 57.3%. Lastly, the western subarea is overwhelmingly white at 94.3% of the population.

The central subarea extends from Hennepin Avenue to Chicago Avenue. Redevelopment trends in the western subarea are pushing east, creating new housing along the corridor. The central subarea also has the highest population density of the three areas and also a density that is 222% higher than the city as a whole. The average household size is 2.44, average family size is 2.39, and the median family income is \$33,205. The owner to renter ratio is 21.6% to 78.4%. The central area is also younger and more racially diverse than

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the west. About 54.5% of the population white, 26.2% African American, and a significant portion is Hispanic.

The eastern subarea extends from Chicago Avenue to Hiawatha Avenue and has the second highest population density of the corridor. The area is home to both a larger number of families and larger family size than the west and central subareas. The average household size is 3.07, average family size is 3.84, and the median family income is \$33,005. The owner to renter ratio is more balanced than other areas at 48.6% to 51.4%. The central area is the most racially diverse subarea. About 47.5% of the population white, 26% is Hispanic, and 24.1% is African American.

Land Use and Market Conditions

Due to the proximity of lakes, recreation areas, entertainment venues, and national retail providers, the western subarea is

nearing saturation both commercially and residentially. Limited developable land has driven land values up and housing and living costs remain high. Several high-end condominium developments have been constructed over the past decade, with several more planned or in discussion. Many existing single and multifamily units have been converted to condominiums to attract a younger population. The central subarea has more moderately priced housing that has attracted both young renters and homeowners. Major redevelopments around the Lyn-Lake area and the Midtown Exchange have introduced higher-end housing, but the area continues to attract young people and immigrants who are seeking moderately priced housing.

The eastern subarea has seen little housing development and continues to be a home for moderate-income families and immigrant populations.

Single-family units dominate the area; however, larger family sizes pose a greater demand for larger units. Housing values remain low compared to citywide values.

The plan also provides detailed data on current commercial and retail trends along the Lake Street corridor. The plan notes that 73% of businesses are retail and 27% are used for personal services, industrial uses, or non-profit organizations. Twenty-four percent of rental retail space is in larger indoor market-style facilities including the Global Market, the International Bazaar, Lake Plaza, Mercado Central, and Sabri Commons. These spaces primarily exist in the central and eastern subareas. About 36% of the total businesses are small, ethnic establishments. In 2005, 93% of the existing commercial space was occupied. Based on this analysis, the plan assumes that most retail units on Lake Street serve the local market and

provide goods that are purchased on a weekly basis.

Building and Density Typologies Similar to building and density typologies establish in Reconnecting America TOD 202, the Midtown Greenway Land Use and Development Plan also establishes its own typology: Type I – Single Family/Two Family, Type II – Rowhouse/Townhouse, Type III – Small Apartment, Type IV – Apartment, Type V – Tall Apartment, Type VI – Greenway Building, and Type VII – Accessory Unit. With this typology the plan also develops development districts: Transit-Oriented, Urban-Oriented, and Neighborhood Oriented. These districts range from higher to lower intensities and densities. These typologies should be merged with the theoretical typologies established in other sources and then aligned with the project focus.

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Uptown Small Area Plan

Uptown's location at the intersection of 4 well-defined neighborhoods: East Isles, Lowry Hills East, ECCO, and CARAG and between the Chain of Lakes and Downtown allows a mix of incomes and uses; it is green, well-connected, and urban. However, interest in such a neighborhood has led to several large development projects in recent years, completed without a comprehensive development plan. This created grassroots momentum for an overarching planning process involving residents and businesses, in an attempt to maintain the neighborhood's identity and keep traffic increases at bay. Overall, the plan recognizes the value and benefits of high quality, well-located, and well-integrated urban density and accepts the dual role of Uptown as a regional destination and a local community. Streets, especially Hennepin Avenue, Lake Street, and Lagoon Avenue should be transformed from just traffic

conduits to places of social interaction and urban activity.

Growth is essential to bring about positive change by improving connections between attractions and augmenting the built environment and public spaces. The most intense, high-density and tallest development should be focused in Uptown's core and taper off into the surrounding residential neighborhoods. However, the core must be well-defined to prevent spillover: Hennepin to Bryant and the Greenway to Lake Street.

Relevant Initiatives

1. A priority to reinforce the "artsy enclave" identity with quality public space and pedestrian/transit oriented infrastructure.
2. West 29th Street - "West 29th Street is an important piece of the street network west of Lyndale Avenue South and provides a great opportunity for improving place-making along the Midtown Greenway and

improving public safety."

3. Promenades along the Midtown Greenway - Supports the recommendations of the Midtown Greenway Land Use Plan suggesting creation of a promenade along the top of the greenway trench as part of new development.

4. Mentions that the Midtown Greenway route "was not considered a viable minimal operable segment in the Minneapolis Streetcar Feasibility Study that was published in 2007."

Transit Station Location

Because the City owns the nearby Garfield parking lot, there is more opportunity to influence transit oriented development on the east side of the Lyndale Avenue South Bridge. However, future transit users will likely travel to and from the transit station in the Midtown Greenway from both sides of Lyndale Avenue South so access points should ideally be located

on each side of the bridge.

Relevant Recommendations
The **Garfield Parking Lot** (north of Lake St./south of the Greenway) is foreseen to contain the eventual development of a parking ramp book-ended with residential development along the Midtown Greenway and commercial uses along West Lake Street.

This plan recommends an adjustment to the **Activity Center boundary**. This change is being made because the Midtown Greenway serves as a major asset to the area, and more intensive development on each side of this open space and commuter resource is appropriate.

Evening traffic and parking demand can be heavy and encouraging people to take transit to evening events can be challenging. The area business associations (Uptown, Lyn-Lake, and Whittier) and neighborhoods should work with Metro

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Transit to pursue options for an express circulator transit service that could service the major activity centers. The streetcar line is one option that could enhance this recommendation.

Hiawatha-Lake Street Station Area Master Plan

The Lake Street Station Plan was the first in a series of land use planning studies for transit-oriented development (TOD) along the Hiawatha LRT corridor. Approximately 20% of the 500 acres in the area has been identified as having redevelopment potential, with most sites along Lake Street or adjacent to the LRT corridor. A separate study (Hiawatha LRT TOD Market Study) estimates that an additional 1,250 housing units and 150,000 square feet of commercial development could be absorbed within the station area over a 20 year period.

Relevant Initiatives

1. Streetscape improvements to Lake Street integrated with

street-oriented mixed-use development;

2. Establishment of a community circuit, providing pedestrian and bicycle connections to the LRT from each of the four area quadrants, and integrated with the Hiawatha bikeway and the Midtown Greenway

Possible Redevelopment Projects
Add infill townhouses in Corcoran neighborhood and other residential infill in Longfellow along 26th Avenue and 23rd Street, replacing existing industrial uses. Bituminous Roadways asphalt plant should be considered for a Greenway-oriented residential development, pending an environmental study of the cost of cleanup. East Lake Street Regional Commercial center should be supplemented with smaller commercial retail units as linear buildings fronting Lake Street and 26th Avenue. A neighborhood cinema and related entertainment are contemplated for the south side of

Lake Street.

Transit-Oriented Development
Within the core mixed-use TOD zone, densities should range from floor area ratios (FAR) of 2.0 to 3.0 with higher densities adjacent to the LRT station. Beyond the ¼ mile radius, density should be below 0.25 FAR. The parking requirements should be reduced to correspond to the LRT construction, perhaps discounting by 15% to 20%. Buildings should be set back from the street less than five feet and should occupy at least 80% of the block's frontage.

TOD 202 - Station Area Planning: How to Make Great Transit-Oriented Places

This report from Reconnecting America and the Center for Transit-Oriented Development outlines station area and open space typologies for Transit-Oriented Development (TOD) and also includes a TOD planning checklist and station area

considerations.

As a way to identify current and potential conditions around station areas (half-mile radius/500 acres), eight typologies are suggested and placed into three classes: Transit Centers, Transit Districts, and Transit Corridors. Transit Centers include Regional Centers, Urban Centers, Suburban Centers, and Transit Town Centers. Transit Districts include Urban Neighborhoods, Transit Neighborhoods, and Special Use/Employment Districts. Transit Corridors only has one subcategory: Mixed-Use Corridors. The Mixed-Use Corridor is the most relevant to the scope of the Midtown Greenway Transit project.

Characteristics of Mixed-Use Corridors

- Local focus of economic and community activity without a distinct center
- LRT/streetcar/BRT/local bus: 5-15 headways
- Moderate-density mix of residential, commercial,

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- employment and civic/cultural uses.
- ➔ Primarily local-serving retail opportunity; need for some community-serving retail
- ➔ Mid-rise and low-rise housing with small-lot single family off corridor.
- ➔ Density targets are 2,000-5,000; 25-60 du/acre; Floor Area Ratio of 2.0
- ➔ Job targets are 750-1,500 for the station area.

An open space typology is also provided. Station Area open spaces include Transit Plazas, Plazas, Small Parks, Community-Scaled Parks, and Regional Open Spaces. All five are applicable to the scope of the Midtown Greenway Transit project.

Open Space Typology
Transit Plaza: 0.1-0.5 acres, primarily landscaped to support station access, can be linear or have a defined center, passive recreation

Plaza: 0.1-1.0 acres, primarily landscaped with some landscaping, close to buildings, passive recreation

Small Parks: 0.1-2.0 acres, primarily landscaped with some hardscape, often separated from buildings by roadway, passive recreation

Community-Scaled Parks: 1.0-5.0 acres, mix of landscape and hardscape, often separated from buildings by roadway, passive and active recreation

Regional Open Space: size varies, part of a trail system or park network, primarily landscaped, active recreation.

Planning considerations include parking management, capturing the value of the station, and implementation and evaluation of development strategies. Considerations most relevant to the scope of this project are listed below in further detail.

TOD Planning Checklist
Maximize ridership with TOD: Understand market demand, forecast ridership using TOD modeling tools, minimize land-use conflicts, analyze zoning impacts, set minimum allowable density standards, and locate key services near stations.

Generate Meaningful Community Involvement: Provide multilingual outreach, organize a citizen advisory committee and technical advisory committee, conduct wide public outreach, and involve developers and property owners.

Design streets for all users: Consider multimodal performance standards, incorporate bike and pedestrian access, and prioritize safety and security.

Create opportunities for affordable and accessible living: set affordable housing goals, provide a range of housing options, minimize the displacement of current residents, and ensure

accessibility

Make Great Public Spaces: consider parks and open spaces, involve the community in programming, include public art that adds value, and develop design standards

Maximize neighborhood and station connectivity: identify key pedestrian corridors, create a bicycle network, and consider the design of intermodal facilities
Statistics to Consider

A study of four California cities found that residents of TOD are five times likely to use transit and those employed in TOD are 3.5 times likely to use transit. (16)

A study by the Transit Cooperative Research Program found that residents of TOD use their cars half as much as the regional average. (16)

In 2004, the average American family spent 19% of its household income on transportation.

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For auto-dependent suburbs, the same figure was 25% and for location efficient environments, such as TOD, it was just nine percent. (19)

The contents of this document were prepared on February 5, 2010