

Central Corridor TOD Investment Framework:

A Corridor Implementation Strategy
December, 2010



About This Strategy

The Central Corridor TOD Investment Strategy was supported by the Central Corridor Funders Collaborative and led by the Center for Transit-Oriented Development, Bonestroo and Springsted. The strategy was developed with guidance from the Central Corridor TOD Framework Working Group.

The Working Group was composed of six representatives:

- Commissioner Jim McDonough, Ramsey County, co-chair
- Commissioner Peter McLaughlin, Hennepin County, co-chair
- Commissioner Dan Bartholomay, Minnesota Housing Finance Agency
- Chairman Peter Bell, Metropolitan Council
- Mike Christenson for Mayor R.T. Rybak, Minneapolis
- Mayor Chris Coleman, St. Paul

This report has been developed through an eight month-long process of identifying the costs associated with implementation of community plans, evaluating sources of funds to support implementation of transit-oriented development, and assessing the potential impact of key investments on market potential. This work does not necessarily represent official policy positions of any members of the Working Group, and should not be read as such.

This study was prepared by the Center for Transit-Oriented Development (CTOD), Bonestroo and Springsted.

Principal contributors to this body of work:

CTOD: Catherine Cox Blair, Nadine Fogarty and Amanda Gehrke

Bonestroo: Jay Demma and John Shardlow

Springsted: Tony Shertler and Jenny Wolfe

About The Sponsor

Central Corridor Funders Collaborative

Generous financial support for this effort has been provided by the Central Corridor Funders Collaborative. The Central Corridor Funders Collaborative is a group of local and national funders working with others to unlock the transformative potential of the new light rail transit line along the Central Corridor between Saint Paul and Minneapolis.

The Funders Collaborative began because they believe in the Central Corridor Light Rail Line's potential to benefit the people and places closest to the line. The Collaborative envisions stable, thriving neighborhoods throughout the Central Corridor that reflect community identities and link all people to regional opportunities and local amenities.

The Funders Collaborative, through its Catalyst Fund, expects to invest \$20 million over 10 years. To date, they have raised \$5 million to invest in corridor-wide strategies, planning and action that address corridor-wide benefits, and supported the formation of several multi-sector partnerships that are pursuing these benefits.

Envisioned as a ten-year initiative, the Funders Collaborative supplements the programs and investment of the individual member foundations. The Collaborative welcomes additional members interested in identifying, sharing and implementing best practices related to regional transportation planning and transit-oriented development and how they benefit low-income residents.

Central Corridor Funders Collaborative Member Organizations

- Annie E. Casey Foundation
- F. R. Bigelow Foundation
- John S. and James L. Knight Foundation
- Living Cities, Inc.
- McKnight Foundation
- Northwest Area Foundation
- Otto Bremer Foundation
- Jay and Rose Phillips Family Foundation
- The Minneapolis Foundation
- The Saint Paul Foundation
- Surdna Foundation
- Travelers Foundation

TABLE OF CONTENTS

I.	INTRODUCTION	5
II.	SUMMARY OF FINDINGS AND RECOMMENDATIONS.....	10
III.	COST OF CORRIDOR INVESTMENT FRAMEWORK	14
IV.	LEVERAGING THE PRIVATE MARKET.....	25
V.	VALUE CAPTURE AND FINANCING STRATEGIES.....	36
VI.	CORRIDOR IMPLEMENTATION TOOL	369
VII.	APPENDICES	40
	APPENDIX 1: UNFUNDED CENTRAL CORRIDOR HIGH PRIORITY IMPROVEMENT PROJECTS, AS OF APRIL 14, 2010.....	40
	APPENDIX 2: METHODOLOGY	41
	APPENDIX 3: LITERATURE REVIEW	45
	APPENDIX 4: SUMMARY TABLE OF TYPICAL FUNDING TOOLS.....	52
	APPENDIX 5: EXAMPLE OF CORRIDOR IMPLEMENTATION TOOL.....	53

I. INTRODUCTION

Purpose of the Report

In 2009, local leaders initiated the idea of a coordinated investment framework for the Central Corridor, in order to strategically coordinate investments and maximize the value of new light rail transit for surrounding neighborhoods. The Central Corridor Funders Collaborative (CCFC) supported this planning process and the creation of a Central Corridor Working Group, which consisted of representatives from the City of St. Paul, the City of Minneapolis, Ramsey County, Hennepin County, the Metropolitan Council, and the Minnesota Housing Finance Agency.

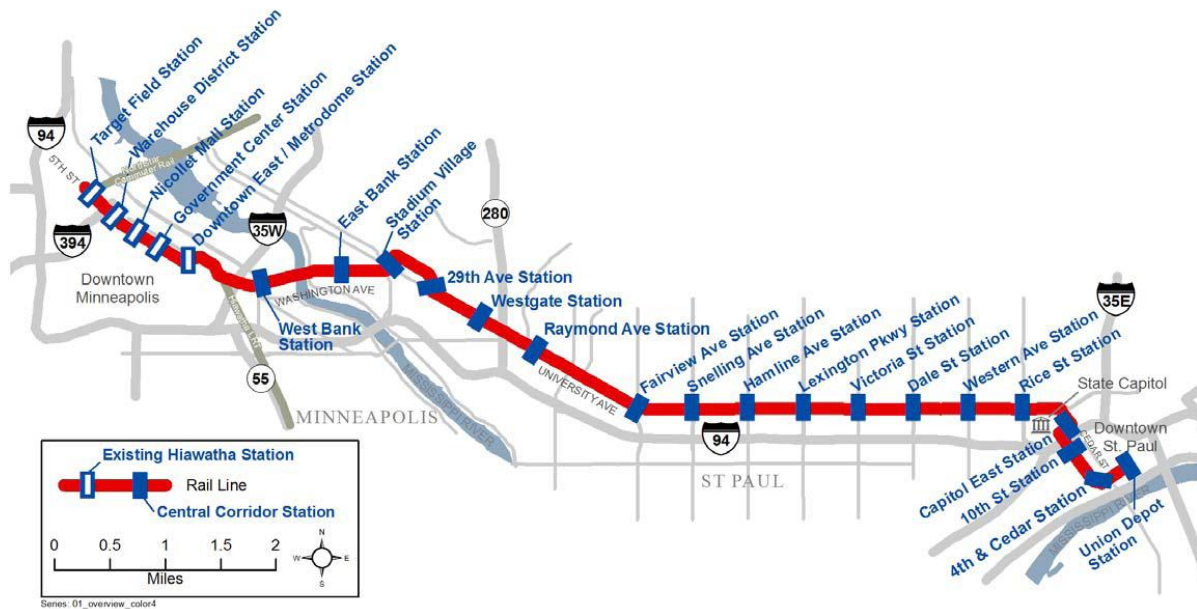
The purpose of the Central Corridor Investment Framework is to identify critical challenges and opportunities associated with TOD-supportive investments that might otherwise be missed by individual jurisdictions and participants. The framework provides a comprehensive summary of all of the corridor-wide key investments necessary to fulfill the visions contained in local community-based plans. It is intended to help in establishing a coordinated voice in support of future corridor-wide funding needs, clarify strategies for various funding partners, and provide information to support individual jurisdiction funding requests and private investments. This report summarizes the results of this effort to date.

The Central Corridor

Central Corridor is an eleven-mile light rail corridor that will run on University and Washington Avenues between downtown St. Paul and Minneapolis, linking with the Hiawatha light rail line and the new Northstar commuter rail line. This light rail transit (LRT) corridor will provide a new, convenient, and safe transportation option in one of the region's most heavily traveled corridors. LRT will mean improved access to five major centers of economic activity - the two downtowns, the University of Minnesota, the Midway district, and the state Capitol complex, as well as many neighborhoods in between. Together, these economic centers contain almost 280,000 jobs - a number that is projected to grow to 345,000 by 2030. The Central Corridor will build on the success of the Hiawatha LRT line in increasing transit ridership and making the region more economically competitive. These eighteen new stations forecast ridership at 40,000 people per weekday by 2030. Costs of construction for the LRT line are \$957 million. Construction began in 2010 with an opening day planned for 2014.

The Metropolitan Council's planning process for the Central Corridor provided substantial opportunities for residents, business owners and community groups to contribute their ideas and input on station design, safety, construction mitigation and other critical issues. In addition, the Cities of St. Paul and Minneapolis are proactively planning for the introduction of transit by completing station area plans.

Figure 1: Map of Central Corridor Line



Source: Metropolitan Council, 2010

Transit and TOD: A Regional Movement

The Central Corridor will complement the expanding regional transit system in the Twin Cities region. The Twin Cities region is part of a national movement of cities and regions that are investing in fixed-guideway transit. This movement is growing exponentially in the U.S. with the emerging awareness that the era of cheap, plentiful energy—the paradigm upon which our transportation systems and development patterns have been built—is drawing to a close. Consumers have been jolted by volatile gas prices and the severity of the foreclosure crisis—which hit suburban and exurban communities the hardest, especially where commutes are long and expensive. And concerns about climate change and the need to dramatically decrease driving and greenhouse gas emissions loom large on the horizon. Meanwhile, road building has done nothing to relieve traffic congestion.

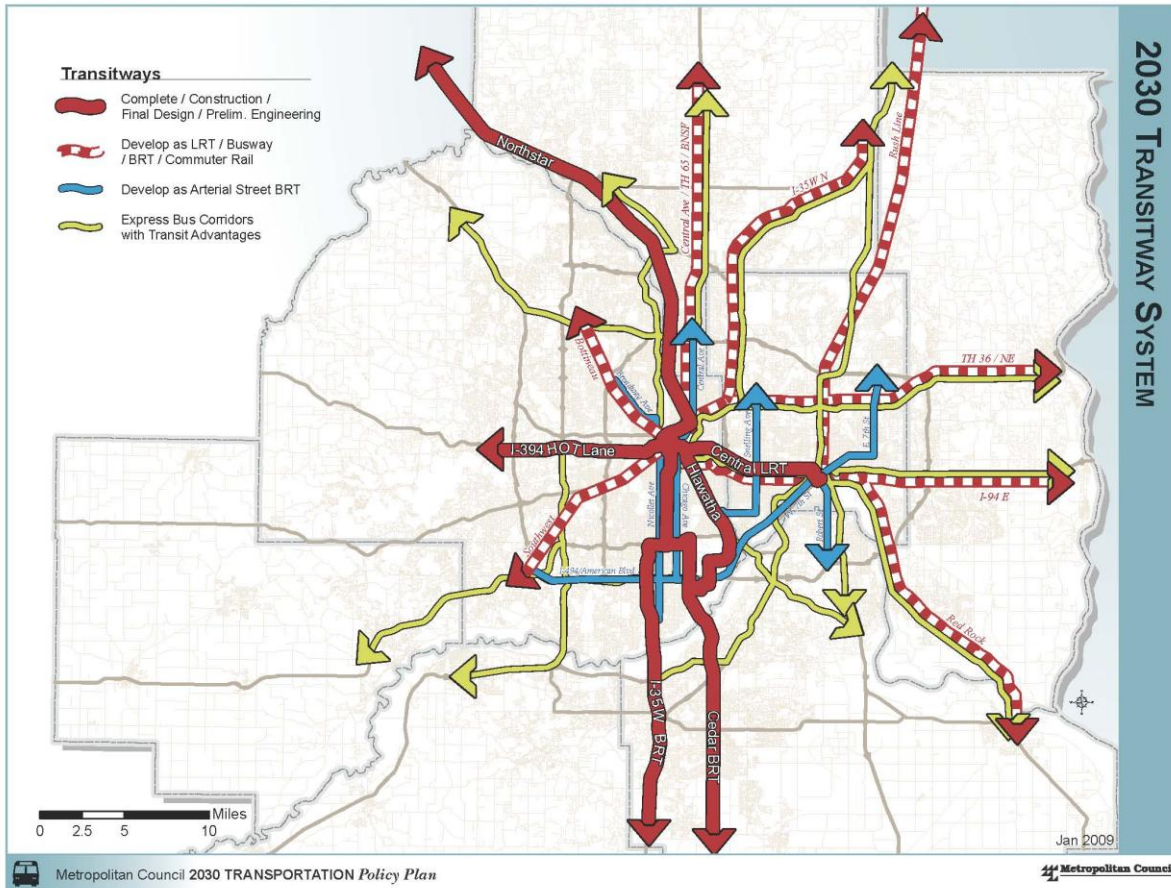
The Metropolitan Council is charged under state and federal law with overall planning for the region’s transportation system, including aviation, highways, transit, bicycles and pedestrians. Because moving people and goods efficiently supports a healthy economy, transportation is key to a prosperous regional future. The Council performs long-range transit planning to implement the policies established in the *2030 Regional Development Framework* and the *2030 Transportation Policy Plan*. The Council operates Metro Transit and coordinates with other transit operators in the region, and works with the Minnesota Department of Transportation, the county regional rail authorities and the new County Transit Improvement Board to complete planning, environmental and engineering studies for transit corridors.

The region currently has three operating transitways: bus rapid transit (BRT) on I-394; light rail transit (LRT) in the Hiawatha corridor linking downtown Minneapolis, Minneapolis-St. Paul International Airport and the Mall of America; and commuter rail in the Northstar Corridor between Big Lake and downtown Minneapolis. Under the Council’s plan, five additional transitways will be added between 2005 and 2020. Over the last several years, state and federal funding has been provided to the Metropolitan Council to begin work on:

- LRT in the Central Corridor on University Avenue between downtown St. Paul and downtown Minneapolis.

- LRT in the Southwest Corridor between Eden Prairie and downtown Minneapolis
- BRT on I-35W between Lakeville and downtown Minneapolis.
- BRT on Cedar Avenue from Lakeville to the Mall of America.
- BRT or LRT on Bottineau Boulevard (County Road 81) from Minneapolis to Osseo, Dayton and Rogers.

Figure 2: Map of 2030 Transitway System from Metropolitan Council's 2030 Transportation Policy Plan



What is TOD?

Transit-oriented development (TOD) is the term for connections between the regional transit network and the places where people live, work and play that give people real housing and transportation choices. TOD creates the opportunity to:

- Increase “location efficiency” so people can walk and bike and take transit;
- Boost transit ridership and minimize traffic to improve air quality and public health;
- Provide a rich mix of housing, shopping and transportation choices;
- Generate revenue for the public and private sectors and provide value for both new and existing residents and Create community value and foster interaction through public amenities, such as parks and schools.

TOD is not be thought of as a one-size fits all development solution, but rather a paradigm shift to focus on creating high-quality, strong communities connected by a multi-modal transportation network. This report identifies key challenges and opportunities to move toward the transit-oriented

development end of the spectrum, as well as identifying key locations, strategies, and tools for accomplishing this shift.

TOD as a Tool for Change

The goals of TOD are broader than simply a better and more efficient transportation system, and can be broken down into two primary goals: one regional and one local.

At the regional level, TOD can facilitate and generate momentum for market-driven investment that can be self-sustaining over time. This goal relies on transportation networks and development patterns that support:

- Access to economic opportunity by linking residents with employment and service destinations and supporting synergistic growth of job centers;
- Lower combined housing + transportation costs through the reduced need to own and drive cars to get to work and daily needs;
- Reduced public infrastructure costs by directing compact development to existing developed areas while preserving regional open space and farmland;
- Improved public health by creating walkable neighborhoods that encourage physical activity; and
- Cleaner air and water by reducing traffic congestion and air- and water-based pollution.

At the local level, TOD can direct the velocity and trajectory of neighborhood change when necessary to provide neighborhood stability. This goal relies on transportation and development investments that:

- Support community-based projects that maximize the benefits transit hubs can offer low- and moderate-income communities in the Twin Cities
- Build transportation and housing that make target neighborhoods more regionally competitive; and
- Promote the integration of public and private investments to address issues such as: weak real estate markets, undeveloped and underutilized land, and the disconnects between low-income people and affordable housing, employment and asset-building opportunities in the region.

Transit and TOD in the Twin Cities

The Hiawatha Line opened in 2004, the first in a series of major transit investments planned for the Twin Cities region. The corridor connects a series of regional destinations including downtown Minneapolis, the St. Paul-Minneapolis Airport, and Bloomington's Mall of America, as well as several other key regional destinations. This line has experienced much higher than expected ridership, and the opening of the line coincided with a significant amount of new development in downtown Minneapolis and elsewhere along the line. Nevertheless, recent studies of the Hiawatha line have found that the limited connectivity between the stations and the neighborhoods to the east has hindered ridership, and resulted in uneven patterns of property value impacts from the new light rail.¹ The experience of the Hiawatha line highlights the importance of planning for and implementing station area infrastructure investments along the Central Corridor.

Why the Central Corridor TOD Investment Framework

The Central Corridor light rail project presents an incredible opportunity for neighborhood revitalization, sustainable regional growth, economic development, and transformation for the Twin Cities. The State and each individual jurisdiction have a chance to maximize the benefits of the new line and leverage this \$1 billion public investment to encourage private investment along the corridor. An organized public investment strategy is the best way to create a predictable environment for private investment and catalyze the kinds of changes envisioned by local planning efforts. An organized, comprehensive strategy can reap

¹ See Edward G. Goetz, Kate Ko, Aaron Hagar, Hoang Ton, Jeff Matson, *The Hiawatha Line: Impacts on Land Use and Residential Housing Value*, Center for Transportation Studies, University of Minnesota, 2010. This topic is also discussed in a forthcoming CTOD report, *Rails to Real Estate*, which will be released in 2011.

benefits beyond just increased mobility – including reduced carbon emissions, improved quality of life, and housing affordability.

The Central Corridor Funders Collaborative supported the TOD Investment Process to create a coordinated investment framework and to achieve a comprehensive understanding of the best strategies for collaboration and synergy amongst the jurisdictions along the corridor. Because the Central Corridor spans two counties, two cities, and falls under the jurisdiction of a number of state and regional agencies, it was important to identify all of the necessary public investments to support private investment in the corridor. This assembly and analysis of plans and data provides a good foundation for public investment decision-making. These investments go beyond the light rail itself and into the surrounding corridor, including improved pedestrian connections from surrounding neighborhoods, streetscape enhancements and other improvements that can help to leverage private investment for appropriate TOD. This unique process is intended to serve as a model for both the region and the nation.

II. SUMMARY OF FINDINGS AND RECOMMENDATIONS

The Central Corridor TOD Framework Process

In summer 2009, the Central Corridor Working Group was formed to facilitate the development of a coordinated investment framework for the Central Corridor. Representation on the Working Group included the Metropolitan Council, Hennepin County, Ramsey County, the City of Minneapolis, the City of Saint Paul, and the Minnesota Housing Finance Agency. The Working Group identified three objectives:

- Create a comprehensive public investment framework that includes strategies to leverage the public investment to attract, shape, and accelerate appropriate private investment in the Central Corridor.
- Identify critical investments that might otherwise be missed by individual jurisdictions and participants.
- Establish a coordinated voice to support future corridor-wide funding needs, strategies for various funding partners, and provides information to support individual jurisdiction funding requests.

The framework is designed to encourage strategic, coordinated investments along the entire corridor, which travels through two cities and two counties, and falls under the jurisdiction of multiple local, regional and state agencies. The overarching goal is to ensure that the value of the \$1 billion light rail investment is leveraged to its full potential, to implement the vision expressed in local plans and benefit local residents and businesses. This process was supported by the Central Corridor Funders Collaborative, and is intended to serve as a model for corridor-level planning along future transit lines in the region, as well as for other regions seeking to make the most of their transit investments.

Technical support for the Central Corridor TOD Framework was provided by a consultant team consisting of the Center for Transit-Oriented Development, Springsted and Bonestroo. The work program included collection of corridor-related community plans and engineering documents; outreach to public agencies; an assessment of costs to implement the plans, evaluation current market conditions and how potential investments might help to stimulate private market activity; identification of potential funding mechanisms; and creation of a prototype tool for ongoing monitoring of corridor investments that can be utilized and maintained on an ongoing basis by the two Cities.

Cost to Implement the Central Corridor Vision

Data and information was collected from all neighborhood and station area plans in the corridor. Each necessary cost from streets, sidewalks, utilities, landscaping, land acquisition, environmental remediation, public art and private development totaling over \$6 billion dollars was identified. It is important to note that the vast majority of these costs consist of private development (e.g., housing, hotels, office buildings) that will be financed and ultimately paid for by the private sector.

This information is available for use by the cities, the Metropolitan Council and other project partners, and will be an important resource as cities make individual budget decisions and as corridor-level funding opportunities arise.

Identification of “Priority Projects”

A series of priority improvements was identified that require road work and could be installed at the same time as the light rail, resulting in construction cost savings and avoiding additional inconvenience for nearby residents and businesses. Many of these projects have already been partially or completely funded. Major projects include:

- Highway 122 (i.e., Washington Ave trench) improvements in the West Bank station area;
- The northbound ramp from Interstate 35W to 4th Street South;
- University Avenue streetscape improvements in St. Paul;

- District Energy installation;
- The Bedford Street realignment in the Westgate station area; and
- 4th Street and Cedar Street streetscape improvements in downtown Saint Paul.

Ability to Leverage the Private Market

As discussed above, much of the cost to implement TOD in the Central Corridor consists of private development (or redevelopment of existing buildings) that is envisioned to occur over time. In strong market conditions, developers may in some cases be able to deliver community benefits such as streetscape improvements, a public plaza, or other desired amenities as a part of their project. Moreover, increases in value generated by new development can be captured using public finance mechanisms such as tax abatement or tax increment financing (TIF). Because most public sector financing strategies that can help to pay for needed improvements are driven by property value increases, stimulating new development will be important for financing many of the needed improvements in the Central Corridor.

Developer interviews were conducted and a financial analysis was prepared to understand current market conditions in the corridor. Not surprisingly, a “feasibility gap” was found for all kinds of development tested. The locations with the highest development feasibility are generally on the western end of the corridor.

Value Capture and Financing Strategies

Given current relatively cool market conditions, it will be important to leverage public sector investments to stimulate market activity. This is particularly important for parts of the Central Corridor that have historically consisted of auto-oriented uses, and that require investments to facilitate mixed-use, pedestrian and transit-oriented development. The new transit has the potential to have a significant positive impact on property values, as evidenced along the Hiawatha line. The team conducted additional focused research to understand the potential impact of improvements such as streetscape, parks, and enhanced retail districts. The analysis found that these kinds of proactive efforts can also have a significant impact on nearby property values and development potential, and that the combination of new transit service and strategic investments can move up the timeline for development in some parts of the corridor that would otherwise take years to reach feasibility.

The estimated costs of private investments were converted into taxable market values which were used to estimate the generated property tax assumptions along the corridor that could be captured and redirected to paying for the costs needed to implement the vision reflected of the Central Corridor plans. A preliminary illustration of the potential property taxes that could be captured through existing value added tools such as tax increments or tax abatements was generated. These types of financing tools are most efficiently used simultaneous to private market investment.

Corridor Implementation Tool

Observations were made that the Working Group needed guidance on how to prioritize their efforts. Recognizing that the local communities and working group members will need to negotiate their individual projects – whether private development or public improvements – there was still a need for a mechanism that could examine each project in the context of the overall corridor. A management tool that provided objective information to the Working Group in a manner that assists in prioritization by allowing the cities, counties, Met Council and state to rank the investment opportunities on whatever their particular priority might be was developed. The preliminary mockup of the management tool in the form of a Corridor Implementation Tool (CIT), was provided to the Working Group. The CIT starts with the entire corridor conceptual vision including housing affordability costs. It currently sorts by station areas and it will have the ability to capture the entire investment events that are currently underway in the corridor and on the drawing board. This tool

is only useful if the Working Group feels that it will assist them in championing Central Corridor investment and perusing funding sources for high merit projects.

Preliminary Recommendations

A tremendous amount of work has been accomplished by the local jurisdictions along the corridor. The station area and community based plans identify the visions for change at the station areas. The corridor is far ahead of the curve compared to many other places with expanding transit systems. Additional implementation activities and commitments from the local jurisdictions, region and State will accelerate private investment in the corridor. The following recommendations are put forth to the Central Corridor Working Group and other corridor partners necessary to move the Central Corridor plans from vision to reality:

Continue the Central Corridor Working Group Collaboration

Public agencies and partners need to better coordinate to guide the implementation efforts along the Central Corridor. Interagency partnerships and education at the corridor level can ensure that local and regional resources and regulations are better coordinated to support implementation activities along the Central Corridor. The leaders who participated in the Working Group and their key staff - department heads and senior staff – should continue to meet at regular intervals to coordinate activities along the corridor to share updates and coordinate on future funding opportunities that might arise.

Create new implementation tools to support effective and sound decision-making on implementation activities within each jurisdiction. The Working Group should support the continued technical work of the project team to develop a tailored tool for use by the Central Corridor partners responsible for project implementation. The Corridor Implementation Tool is designed to provide objective information to the Working Group in a manner that assists in prioritization by allowing the cities, counties, Met Council and state to rank the investment opportunities on whatever their particular priority might be was developed.

Integrate the promotion of TOD with other initiatives such as public health, affordable housing and economic development to produce more holistic and equitable outcomes for the entire corridor.

Working Group participants and key staff should coordinate the Central Corridor work with the affordable housing assessment being conducted by the Local Initiatives Support Corporation (LISC) and the Health Impact Assessment (HIA) undertaken by ISIAH with support from PolicyLink.

Prioritize Public Resources to Support Private Investment

Coordinate funding sources and development activities to promote TOD implementation within each city. A wide range of actors are responsible for implementation, including a number of separate departments within each city (Planning, Public Works, Housing) and other governmental agencies such as the Met Council, the MHFA, the Mayor’s offices, CTIB, city councils, and county commissions. It is no surprise that there is often a lack of coordination of funding sources and the development process. Establishing interdisciplinary staff teams – with involvement from the above actors – would help facilitate better coordination of limited resources and decisions related to development activities and approvals in the Central Corridor. This group might support a streamlined development process for the corridor as well as track the public and private investments made in the corridor.

Coordinate existing and future funding sources to promote TOD implementation at the corridor level.

At the corridor and regional level, there are a wide range of actors responsible for implementation, including a number of separate departments within each city (Planning, Public Works, Housing) and other governmental agencies such as the Met Council, the MHFA, the Mayor’s offices, CTIB, city councils, and county commissions. The Corridor Implementation Tool provides an opportunity for these different actors to more effectively coordinate funding sources in a time of scarce resources. Collective investment decision-

making by utilizing the implementation tool may also help identify opportunity sites and potential districts that might be suitable for the use of tax increment financing or tax abatement.

Share the Learning of the Central Corridor Working Group

Conduct a “Learning Process” with the key staff from Minneapolis, St. Paul, Hennepin and Ramsey Counties. Participants in the Central Corridor Working Group should share lessons learned with leaders, elected officials and key staff in other cities and counties along the Southwest, Bottineau and other corridors. The focus should be on the success of the collaborative process and the positive outcomes that occurred. They should highlight the unanticipated outcomes which resulted in a successful visit from federal agency heads at HUD and FTA, and the forum that the Working Group provided for collaborating on the HUD Sustainable Communities Regional Planning Grant (SCRPG). The technical work was used as a foundation in both the SCRPG application to HUD and the Living Cities Innovation project.

Develop a communications plan to market and promote the Central Corridor. A communications plan will help externalize the successful Central Corridor process and technical work to interested professional organizations such as the Urban Land Institute (ULI), academics at the universities interested in transit and TOD, advocacy organizations, and neighborhood associations. In addition, the Working Group participants and the CCFC should promote the Working Group process and technical work through attendance and presentations at regional and national conferences and speaking engagements.

III. COST OF THE CENTRAL CORRIDOR INVESTMENT FRAMEWORK

Data and information was collected from all neighborhood and station area plans in the corridor in order to provide context to the scale and scope of investment required to meet the community vision for the Central Corridor. Each necessary cost from streets, sidewalks, utilities, landscaping, land acquisition, environmental remediation, to public art totaling over \$6 billion dollars was identified. Information was displayed in corridor-wide maps, by station and in detailed spreadsheets. All information is updatable and available for use by the cities, the Met Council and other project partners. This exhaustive collection of information is an invaluable resource as the cities make individual budget decisions and as funding opportunities arise that benefit the entire corridor. The Working Group can accurately demonstrate that through collaboration, they have identified needs and benefits to support TOD.

Purpose

The information collected serves as the foundation for the Central Corridor Investment Framework. The exhaustive process of identifying all potential improvements needed to meet the community vision for the corridor provided the Working Group with a measurable set of costs, which could then be broken down by improvement type, location, and necessary timing. With clear, detailed data about potential improvement costs arranged in this manner, the Working Group can easily compare and contrast costs and relate them to potential funding sources and market forces.

In addition to measuring potential costs, the process of systematically analyzing all potential improvements in the Central Corridor allowed the Working Group to also identify critical gaps in needed infrastructure not contained in any existing community-based plans as well as specific improvement projects that may benefit from jurisdictional collaboration, such as projects that cross boundaries or meet broader regional goals.

Data Collection Process

The process of assembling data was highly iterative and required numerous one-on-one meetings, group workshops, and regular communications with staff from each jurisdiction represented on the Working Group. In addition to inventorying planned improvements, the project team also worked with staff from each jurisdiction to estimate potential costs associated with all of the identified improvement projects. The process used to collect data is summarized below:

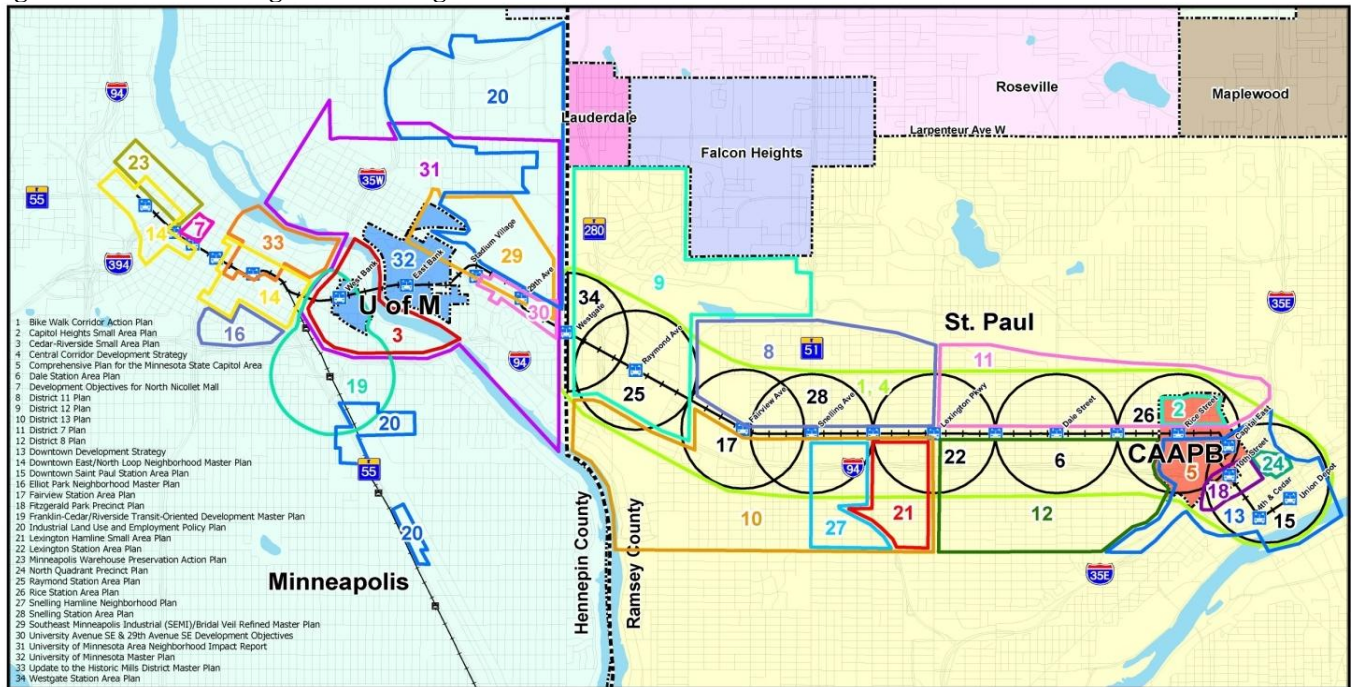
1. Map jurisdictions with land use authority in the Central Corridor
2. Assemble and review all relevant community-based plans in the Central Corridor
 - a. Evaluate each plan for scope, vision, and cost estimates to implement the plan
 - b. Map boundaries of plan areas
 - c. Create matrix of plans for easy comparison and analysis
3. Collect base map information from each jurisdiction and prepare series of base maps
4. Meet with select senior staff of each jurisdiction to review purpose of the investment framework and determine appropriate logistics for engaging staff in collecting data not available via the Internet or other readily accessible locations
5. Prepare questionnaire to aid staff in collecting data
6. Convene workshops with key staff from Minneapolis and Saint Paul to collect information regarding potential improvement projects in the Central Corridor
7. Create spreadsheet of all identified improvement projects broken down by station area and type
8. Review spreadsheet list with key city staff for accuracy
9. Develop methodology to estimate costs of potential improvements

10. Review cost estimate methodology with city staff
11. Organize spreadsheets by station area showing estimated total costs by type of project
12. Prepare maps identifying location and type of potential improvement projects

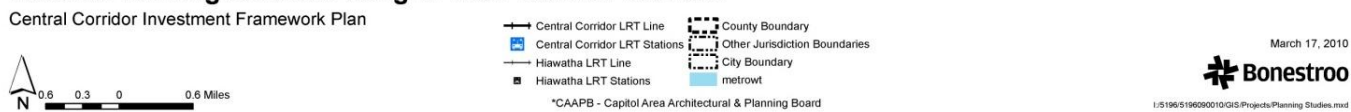
Analysis of Existing Community-Based Plans

Approximately 40 community-based plans were assembled and analyzed. Many of the plans were readily available on city and county websites. When not available on the Internet, plans were furnished by staff from each jurisdictions. Almost all of the plans had a clear geographic scope, which is depicted in the map below of recent planning studies near the Central Corridor. Valuable information, however, was also contained in several city-wide plans, with elements pertaining to the Central Corridor, such as bikeway and sidewalk plans.

Figure 3: Recent Planning Studies Along or Near the Central Corridor






Recent Planning Studies Along or Near Central Corridor



Plans with a clear geographic scope that focused on long-term land use were summarized in a matrix, which is included below. Each plan was analyzed for year completed, geographic scope, purpose, predominant character of new development, forecasted growth by type of land use, and envisioned infrastructure needed to meet the vision of the plan.

Figure 4

Summary of Recent Community Plans Affecting the Central Corridor													
  													
Plan	Jurisdiction Responsible for Land Use	Year	Geographic Scope		Purpose	Predominant Character of New Development	Forecasted/Planned Development				Envisioned Infrastructure		
			Area of Change (acres)	Description			Residential (units)	Office (sq ft)	Retail (sq ft)	Other (sq ft)	Streets	Trails	Other
Southeast Minneapolis Industrial (SEMI)/Bridal Veil Refined Master Plan	Minneapolis	2001	135 (southern portion of study area)	Boundaries of southern area are Oak St SE to the west, University Ave to the south, Malcome Ave to the east, and BNSF tracks to the north	General framework that outlines the major land uses and infrastructure interventions required to accommodate growth	Mixed uses near University Ave; industrial uses elsewhere	900	1,500,000	200,000		Granary Road	Grand Rounds completion	Granary Park
University Avenue SE & 29th Avenue SE Development Objectives	Minneapolis	2005	160	2- to 3-block corridor along University Avenue from U of M on the west to Saint Paul border on the east	Create a plan to facilitate transit supportive development that is of high quality and character	Residential	1,500		144,000	30,000			
Cedar-Riverside Small Area Plan	Minneapolis	2008	275	Area bounded by the Mississippi River and Interstates 94 and 35W	Plan to guide land use and development within neighborhood for next 20 years	Mixed	No detailed figures				Improvements to Cedar and Riverside Aves	New bikeways throughout area	West Bank LRT station
University of Minnesota Master Plan	University of Minnesota	2009	392	Property controlled by the University of Minnesota	Guide evolution of the campus environment to support its academic mission	Institutional	No detailed figures				New connection at Delaware St and 25th Ave SE	Pedestrian mall along Washington Ave	Demolition of up to 10 campus buildings; three LRT stations, two of which will be multi-modal
University of Minnesota Area Neighborhood Impact Report	Minneapolis	2007		Neighborhoods surrounding U of M campus: Como, Marcy-Holmes, Cedar-Riverside, Prospect Park	Integrate campus, neighborhood, and city planning efforts to benefit one another	Mixed	No detailed figures				Granary Road		
Comprehensive Plan for the Minnesota State Capitol Area	Capitol Area Architectural and Planning Board	1998 (amended 2009)	350	Area extending approximately 1/4-mile from the State Capitol, including the Capitol campus and portions of adjacent neighborhoods	Guide improvements to the Capitol area that support it as the symbolic heart of the State while recognizing that it is an integral part of the city	Office		800,000					
Central Corridor Development Strategy	Saint Paul	Plan elements consist of individual station plans along University Avenue in Saint Paul											
Bike Walk Corridor Action Plan	Saint Paul	2009	N/A	N/A		N/A	No detailed figures				Add over 20 miles of bikeways		
Rice Station Area Plan	Saint Paul	2008	160	5-minute walk from station	A plan that guides development toward a more urbanized and transit-supportive pattern	Office (primarily State of Minnesota)	1,000	800,000	5,000	120,000	New streets to serve Sears site	New bikeways throughout area	Redevelopment of Sears site into an urban village
Dale Station Area Plan	Saint Paul	2008	50	5-minute walk from station	A plan that guides development toward a more urbanized and transit-supportive pattern	Residential	600	50,000	50,000		Intersection improvements; new streets	New bikeways throughout area	New Rondo Park; streetscape improvements; bridge improvements over I-94
Lexington Station Area Plan	Saint Paul	2008	110	5-minute walk from station	A plan that guides development toward a more urbanized and transit-supportive pattern	Mixed	400	250,000	90,000		New street along Fuller	New bikeways throughout area	Three new parks; streetscape improvements along Lexington
Snelling Station Area Plan	Saint Paul	2008	160	5-minute walk from station	A plan that guides development toward a more urbanized and transit-supportive pattern	Retail	1,000	300,000	450,000	90,000	New street serving bus barn site	New bikeways throughout area	Redevelopment of bus barn site; new parks integrated into area south and east of Snelling/University intersection
Fairview Station Area Plan	Saint Paul	2008	125	5-minute walk from station	A plan that guides development toward a more urbanized and transit-supportive pattern	Office	800	300,000	40,000			New bikeways throughout area	New park Charles Commons park; streetscape improvements along Fairview
Raymond Station Area Plan	Saint Paul	2008	125	5-minute walk from station	A plan that guides development toward a more urbanized and transit-supportive pattern	Office	1,100	950,000	60,000		New street linking Myrtle Ave and Univ Ave	New bikeways throughout area	Four new parks; streetscape improvements along Raymond and Territorial
Westgate Station Area Plan	Saint Paul	2008	125	5-minute walk from station	A plan that guides development toward a more urbanized and transit-supportive pattern	Mixed	2,500	700,000	60,000	90,000	New streets opening up areas north and south of Univ Ave	New bikeways throughout area	Two new parks north and south of Univ Ave with a dramatic revisioning of the area south of Franklin into a dense office district
Downtown Saint Paul Station Area Plan	Saint Paul	2009	150	7th St to N; Lafayette Bridge to E; river to S; Wabasha St to W (5-minute walk from 3 stations in d.t. area)	est long term city bldg opportunities related to LRT in d.t. Focus-mobility, pedestrian, future development, redevelopment/resuse, public realm area)	Mixed	7,200	2,300,000	150,000	180,000	Enhancements along 4th, 5th, & 6th streets; introduce grid to Diamond Products site	Connections to Bruce Vento Sanctuary; parkway connections between Rice, Mears, and Fitzgerald parks	Refurbishment of Union Depot; Fitzgerald Park

Summary of Recent Community Plans Affecting the Central Corridor

Plan	Jurisdiction Responsible for Land Use	Year	Geographic Scope		Purpose	Predominant Character of New Development	Forecasted/Planned Development				Envisioned Infrastructure		
			Area of Change (acres)	Description			Residential (units)	Office (sq ft)	Retail (sq ft)	Other (sq ft)	Streets	Trails	Other
District 7 Plan (Thomas-Dale Area Plan summary)	Saint Paul	2005		Univ Av on S; RR on N; I-35 on E; Lexington on W	Strategies in 7 areas: recreation, community, land use, housing, transportation, education, eco dev and zoning	Mixed		No detailed figures			Extend Pierce Butler Route to Phalen Blvd	Bike lanes Lexington to Como	
District 8 Plan (Summit-University Area Plan)	Saint Paul	2009		Univ Av on N; Summit on S; Summit/John Ireland/Marion on E; Lexington on W	Strategy areas: empowerment, connectivity/community building; land use/zoning, eco.dev., housing, education, transportation and safety	Mixed		No detailed figures			Reconstruct bridge over I-94 @ Victoria, Dale, Western		Work for ad's LRT stops at Hamline, Victoria and Western
District 11 Plan (Hamline/Midway Community Plan)	Saint Paul	2000		RR to N; Lexington Pkwy to E; Univ Av to S; Transfer Rd to W	Strategy areas: public life and space, housing for all, community enrichment, children and youth, eco opportunities and business dev.	Mixed		No detailed figures				Bike lanes from Hamline Midway to Como	
District 12 Plan (St. Anthony Park Community Plan)	Saint Paul	2008	2.4 sq mi		Strategy areas: land use, trans., nat'l systems, homes/neighborhoods, community connections	Mixed		No detailed figures				extend bike lanes from Mpls, through area to Como	Commuter rail stop through St Anthony park w/stop at U of M transit way.
District 13 Plan (Merriam Pk Community Plan)	Saint Paul	2004		Summit Av on S; River to W; 94/Cleveland/Univ to N; Snelling to E.	Policy areas: land use, eco dev, infrastructure and environment	Commercial/residential		No detailed figures					Improve transit within neighborhood. Bury overhead power lines at redevelopment. Ayd Mill Rd discussion
Snelling Hamline Neighborhood Plan	Saint Paul	2007		S of Univ Av; N of Summit Av; Snelling to W; and Hamlin/Ayd Mill to E	Strategy areas: land use (urban design, TOD, urban village principles, transportation, housing, eco dev, public safety, env protection, park and recreation	Mixed		No detailed figures			Off rd trail along Ayd Mill corridor crossing Snelling on RR bridge N or Marshall		Traffic calming along Snelling, mitigate speeding measures along Ayd Mill Rd
Lexington Hamline Small Area Plan	Saint Paul	2001	320		Strategy areas: neigh character, neigh connections, Univ Ave vitality			No detailed figures			designate bike lands N/S through neighborhood		Widen Griggs Ped bridge. At reconstruction of bridges and streets include bike lanes or off rd bike paths
Capitol Heights Small Area Plan	Saint Paul	2000		Univ Av, Marion St, Pennsylvania A and Jackson Street	Recommendations: stabilize bluffs as slopes, improve housing stock, develop new uses for vacant or underutilized land, revitalize Rice St at "mainstreet"	Mixed		No detailed figures				Const bike path link between neigh and Gateway segment of Munger State Trail	
North Quadrant Precinct Plan	Saint Paul	2000		Jackson St, E 7th St and I-94	long term redevelopment plan with emphasis on preserving older structures/churches and new mixed housing	Mixed use urban vill; pred. res.		No detailed figures			reconfigure street to grid pattern		Redesign 10th and Wacouta entrance to I-35E to slow down traffic
Fitzgerald Park Precinct Plan	Saint Paul	2006		I-94 on N; 7th St on S; Main St on W and Jackson on E	Priority areas: land use, design, movement, neigh identity, public realm and natural env.	Pt of D.T., mixed use, human scaled neigh		No detailed figures			extend Exchange St w of 5th/6th Street		
Downtown Development Strategy	Saint Paul	2003		DT area	10 year policy document with strategies in 5 areas and numerous implementation steps. Arts/culture, living, working, movement, public realm. No specific est on amt of uses	Mixed		No detailed figures					

Through the process of data collection and continuous communication and interaction with city staff, it became evident that not all potential improvement projects would be identified solely through review of community-based plans. Therefore, additional data collection was focused on potential environmental remediation of properties along the corridor and potential utility projects such as district energy.

The process of estimating costs for each identified improvement project was meant to illustrate the magnitude of possible costs and not be a basis for determining the feasibility of any individual project. In many cases, cost estimates for identified projects were provided by city staff. In numerous other cases, though, the identified project did not have a cost estimate associated with it. In such instances, the consultant team developed a consistent methodology for estimating costs of various improvement types and reviewed the methodology with appropriate city staff.

Summary of Potential Improvements²

Over 500 individual improvement projects were identified within the 23 Central Corridor station areas. Each project was categorized into one of 27 different kinds of improvements. **It should be noted that these improvements include both public infrastructure and anticipated private development (e.g., hotels, housing, or other uses).** Figure 5 displays the list of potential types of improvement and the associated build-out cost if all identified projects were constructed. Several improvement categories did not have any projects associated with them based on the data collected to date. Since this data set is envisioned to be dynamic, though, presumably, future projects that are planned may fall into these categories.

Most of the information contained in the maps and spreadsheets is expected to change over time. The materials presented in this report are dated as of April 2010. Due to the dynamic nature of the data, however, many spreadsheets included in this report have been designed to be easily updated so that users may track changing conditions along the Central Corridor. A detailed discussion of projected improvements by category, subarea and priority level is included below.

Recognition was made that there were likely to be some land recycling costs since the corridor routes through a built urban center. The Team made no judgment whether those would be publicly or privately financed costs, but anticipated that they would be a cost borne by the reinvestment event. Based on past experience in urban redevelopment, Springsted provided an *estimate* of some of those costs. The Team did not insert an estimate for land acquisition because, ideally, land prices will reflect the use proposed to be built. To the extent that there is a higher cost to acquire real estate because of a “hold out” or that a particular parcel of land costs more than typical land values for the ultimate re-development, then a “land write-down” cost should be accounted for. The environmental remediation estimate of \$103,500,000 in the Met Council Phase 1 Environmental Analysis, "High Potential Sites," has been rolled into this estimate. Therefore our estimated redevelopment cost adjustment is \$299,388,750.

Another cost that shows up under “private costs” is affordable housing. There is a subtle nuance to this cost because the actual construction costs to build a housing unit are generally the same whether it is affordable or not. In this case the “cost” is a value gap because the owner must sell or rent the unit for less than it cost to produce. The Team acknowledges that if the community defines affordable housing as rent and income restricted, this would likely be considered an added public cost. However, there are available public financial resources at the State and Federal level that address these costs, such as Low Income Housing tax Credits. Therefore, the Team applied the City of St. Paul’s housing affordability guidelines to the central corridor community’s vision of housing development and provided a “Housing Affordability cost estimate of \$682,970,000*.” Figure 5 below illustrates these cost adjustments.

² The figures included in this summary are subject to adjustment in the final report. Planned adjustments include a more detailed look at redevelopment costs and a break-out of affordable housing as a subset of site development.

Figure 5: Potential Improvements Needed to Meet Vision of Community-Based Plans, by Type and Cost

Type of Improvement	Costs
Sanitary Sewer	\$2,269,200
Storm Sewer	\$4,076,400
Water	\$3,694,900
District Energy	\$28,217,454
Electric	\$0
Gas	\$0
Telecom	\$0
Solid Waste	\$0
Street	\$185,598,000
Alley	\$1,092,000
Sidewalk	\$975,000
Bikeway	\$30,044,700
Bridge	\$41,700,000
Bridge (Ped/Bike)	\$8,000,000
Streetscape	\$99,804,230
Public Art	\$4,700,000
Parks	\$78,503,303
Water Feature	\$0
Plazas	\$0
Remediation	\$299,388,750
District Energy hook-ups	\$4,555,000
Parking Ramp	\$42,160,000
Housing	\$3,903,415,000
Affordable Housing Gap	\$682,970,000
Office	\$1,221,600,000
Retail	\$213,600,000
Hotel	\$80,000,000
Institutional	\$527,000,000
Total Estimated Costs	\$7,463,363,937

Note: includes \$683 million in affordable housing costs (subsidy gap).

Analysis of Findings

In order to assess the impact of potential improvements in different areas along the corridor, the Central Corridor was divided into six subareas: Downtown Minneapolis, University and Environs, Midway West, Midway Central, Midway East and Downtown St. Paul. These subareas represent a half-mile radius around the stations listed in Table 1, and are illustrated in Figure 6 on page 21.

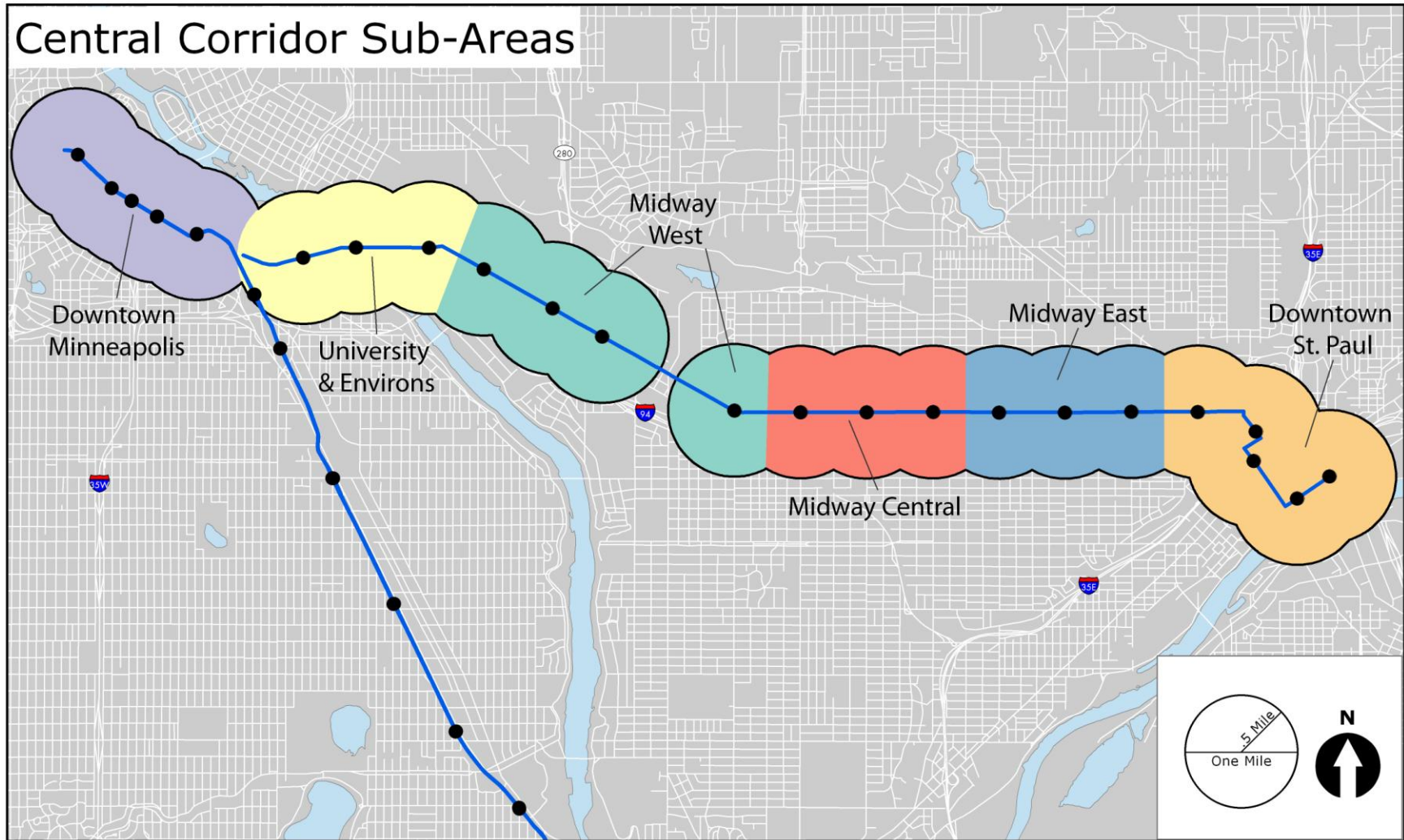
Table 1: Central Corridor Subareas by Station

Subarea	Stations
Downtown Minneapolis	Target Field, Warehouse District/Hennepin Avenue, Nicollet Mall, Government Plaza and Downtown East/Metrodome stations
University and Environs	West Bank, East Bank and Stadium Village stations
Midway West	29 th Avenue, Westgate Avenue, Raymond Avenue and Fairview Avenue Stations
Midway Central	Snelling, Hamline and Lexington Parkway stations
Midway East	Victoria Street, Dale Street and Western Avenue Stations
Downtown St. Paul	Rice Street, Capitol East, 10 th Street, 4 th and Cedar and St. Paul Union Depot

Nearly \$6.8 billion in public and private investment are envisioned as part of plans along the Central Corridor Light Rail Line, not including the cost of the new transit itself (Figure 7). Only a small proportion of these costs (about 7%), however, is expected to ultimately require public funding. Site development, which is typically funded by the private sector, accounts for the vast majority (93 percent) of the total costs. Underground costs such as utilities, which account for just 0.6 percent of total costs, are typically funded by the public sector. Surface costs, such as street improvements and public parks, can be publicly or privately funded, and make up 6.8 percent of total costs. Site development includes site remediation and office, residential and retail construction costs. The public sector may in some cases assist with site development costs, such as assistance for affordable housing, parking structures or other costs.

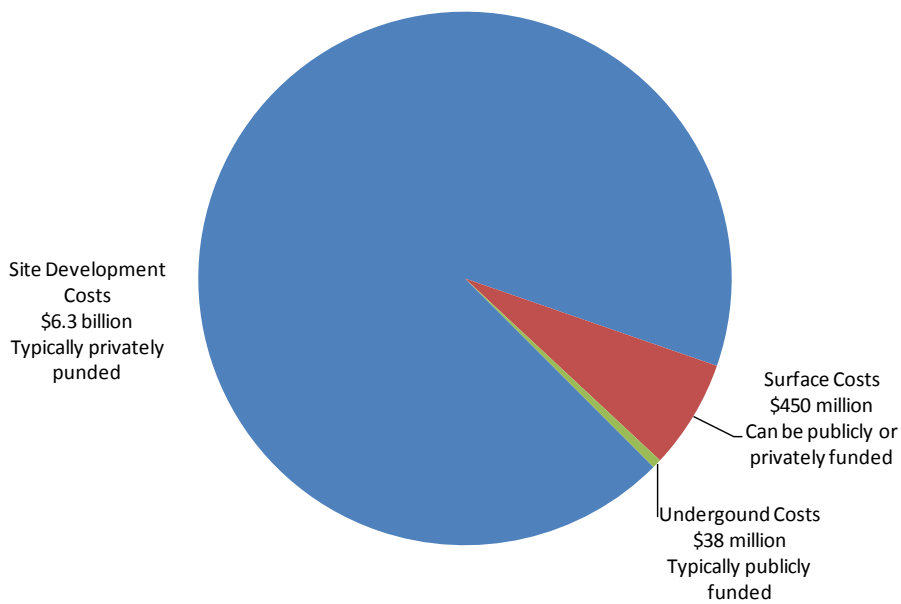
The amount and type of potential public costs differ markedly among the subareas (Figure 8), which emphasizes the importance of working collaboratively at the regional and municipal level to prioritize investment. For example, the vast majority of cost associated with public improvements in the University subarea are related to connections, such as streets, trails, and sidewalks. In contrast, both Downtown subareas have significantly greater costs associated with beautification. Understanding how these investment needs differ in scope, scale, timing, and nature provides the Working Group with a solid foundation of information with which to evaluate and prioritize projects.

Figure 6



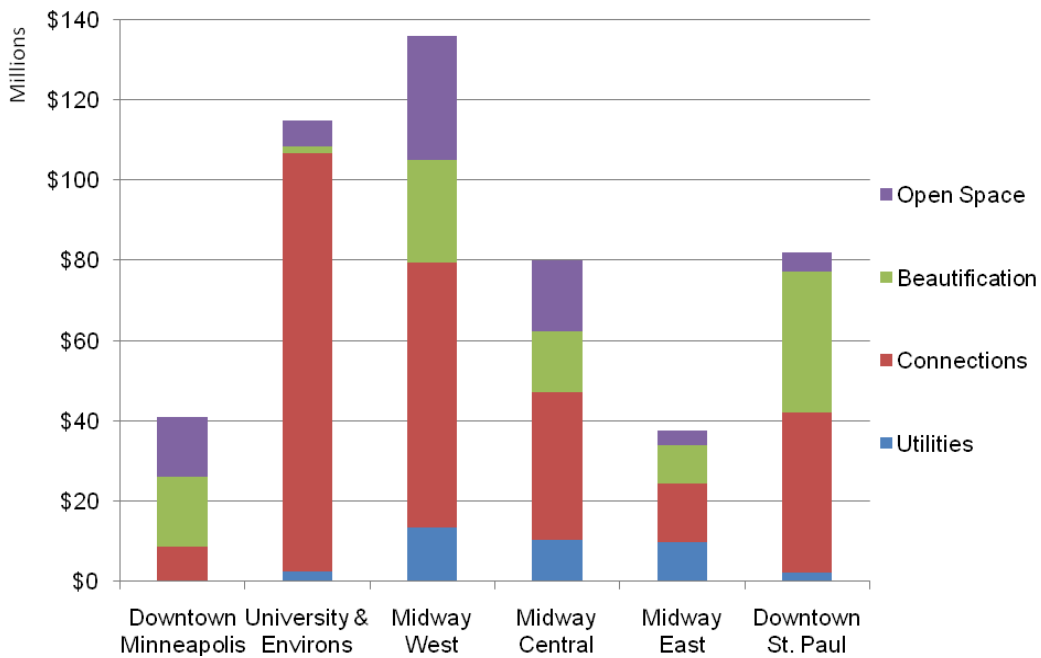
Source: Center for Transit-Oriented Development, 2010

Figure 7: Planned Improvements along Central Corridor, 2010



Source: Center for Transit-Oriented Development, Bonestroo, 2010

Figure 8: Potential Public Investments by Subarea



Source: Center for Transit-Oriented Development, Bonestroo, 2010

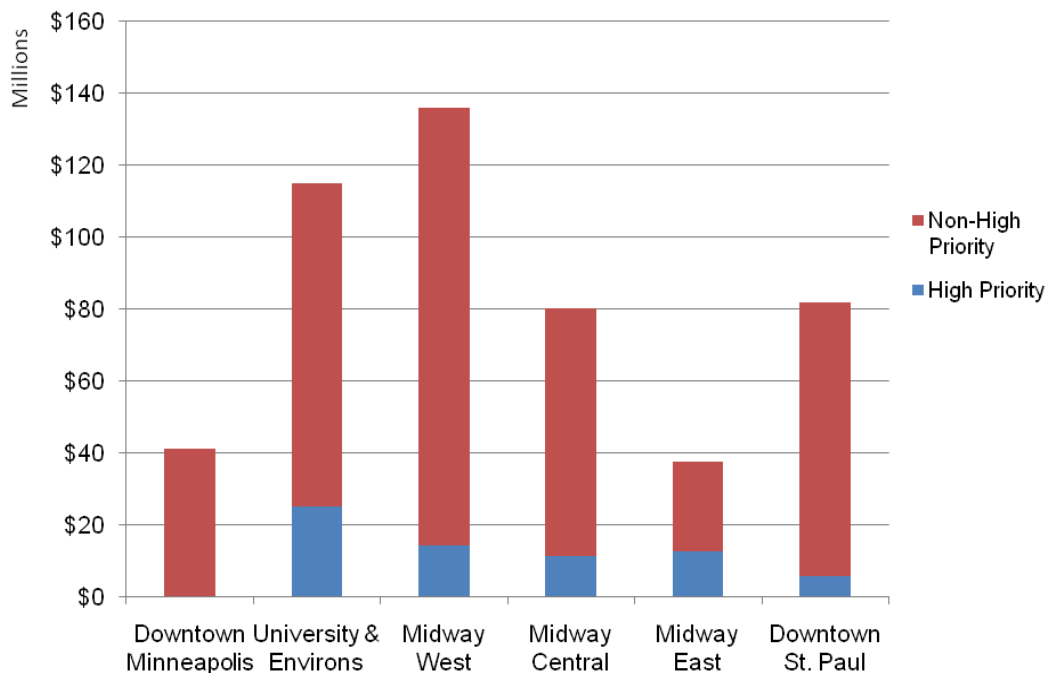
Given that funding is limited, this analysis seeks to clarify the potential public investments in each subarea and assist the Working Group in prioritizing investments for public spending. Figure 9 illustrates one way to prioritize investments. The “high priority” improvements are defined as those which require road work and could be installed at the same time as the light rail, thereby saving future construction dollars and avoiding additional inconvenience.

The majority of high priority investments are located in the University and Environs subarea, followed by Midway West and Midway East. Major high priority improvements include:

- Highway 122 (i.e., Washington Ave trench) improvements in the West Bank station area
- The northbound ramp from Interstate 35W to 4th Street South
- University Avenue streetscape improvements in St. Paul
- District Energy installation
- The Bedford Street SE realignment in the Westgate station area
- 4th Street and Cedar Street streetscape improvements in downtown Saint Paul

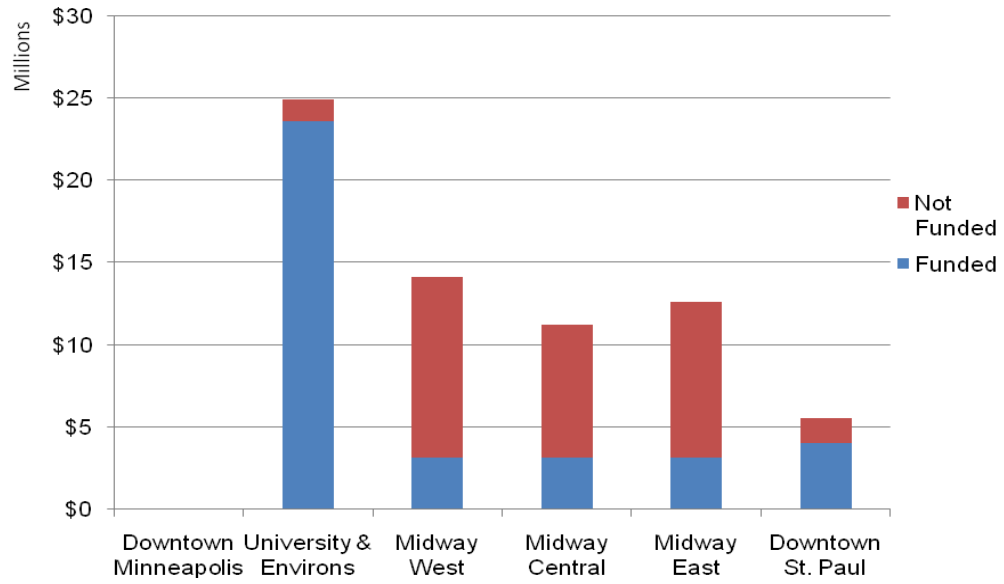
The majority of high priority improvements have already secured funding (Figure 10). See Appendix 1 for a list of all unfunded, high priority public improvements.

Figure 9: Potential Public Investments by Subarea: “High Priority” Investments



Source: Center for Transit-Oriented Development, Bonestroo, 2010

Figure 10: Planned “Priority” Investments by Sub-Area, Funded vs. Not Funded



Source: Center for Transit-Oriented Development, Bonestroo, 2010

IV. LEVERAGING THE PRIVATE MARKET

Introduction

In order to provide insight about the nature and timing of future development along the Central Corridor, a series of developer interviews were conducted, a literature review of the impact of transit and public improvements on property values and development feasibility was prepared, and the feasibility of different building types under different conditions along the corridor was tested. These analyses were intended to:

- Provide information about the feasibility of different kinds of development along the corridor and the potential timing of market investment.
- Assess the likely ability of the private market to finance public improvements. Specifically, the results of this analysis helped to determine the scale of future property taxes that might be captured to finance public improvements (as discussed in Section V); and
- Provide information to better direct public resources to help realize the development vision for the corridor.

Impact of Transit and Other Public Improvements on Private Investment Potential

Numerous studies have found a positive relationship between transit investments and nearby property values, and a growing body of research also shows that investments in neighborhood amenities such as parks and streetscape improvements have a direct impact on property values, and therefore, development feasibility (Figure 11). For example, a Philadelphia study determined that streetscaping is associated with a 28 percent gain in property values relative to similar homes in comparable areas without streetscape improvements.³ As part of the financial analysis described later in this section, the potential impact of transit and associated improvements on feasibility in the Central Corridor was tested. In order to better estimate the scale of that impact, a literature review of the relationship between light rail and other public investments on property values at the national level was conducted.

In conducting the literature review, walkability emerged as a key factor in increased property values. One recent national study looked at the relationship between property values and walkability as measured by “Walkscore,” an index that ranks communities based on how many businesses, parks, theaters, schools and other destinations are within walking distance.⁴ The study found that office and retail properties command a 54 percent price premium over properties with lower Walkscores.⁵ Residential properties experience a \$700 to \$3,000 increase in home value for every one point increase in Walkscore.⁶ Public investments which improve walkability and quality of life are also shown to have a significant impact on property values. The presence of neighborhood parks, for example, was found to be correlated with a 7 to 15 percent increase in home values in Greenville, South Carolina.⁷ The presence of local retail and services also contributes to walkability and is shown to have a positive impact on home values.

³ Wachter and Gillen, “Public Investment Strategies: How They Matter for Neighborhoods in Philadelphia,” The Wharton School, University of Pennsylvania (April 2006).

⁴ <http://www.walkscore.com/>

⁵ Pivo, Gary, and Fisher Jeff. “Walkability Premium in Commercial Real Estate Investments.” (Working Paper) Responsible Property Investment Center, University of Arizona. Benecki Center for Real Estate Studies, Indiana University. 2010.

⁶ Cortright, Joe. CEOs for Cities. “Walking the Walk: How Walkability Raises Home Values in U.S. Cities.” 2009.

⁷ Molly Espey and Kwame Owusu-Edusei, “Neighborhood Parks and Residential Property Values in Greenville, South Carolina,” *Journal of Agricultural and Applied Economics* 33:3 (2001): 487–492.

Proximity to a movie theatre, for example, commands a price premium of 30 percent while proximity to specialty grocers is associated with a premium of 18 percent.⁸

Studies measuring the relationship between transit and property values have wide-ranging results: proximity to transit has been shown to result in a price premium of 2 to 32 percent for single family homes and a premium of 1 to 120 percent for commercial real estate.⁹ One of the reasons for the wide range is because so many factors influence the impact of transit on property values, including transit quality and frequency, station area connectivity, land use mix, and the relative ease of other modes of transportation. The most relevant study for the Central Corridor is one recently completed by the University of Minnesota’s Center for Transportation Studies.¹⁰ This research looked at the impact of new transit service provided by the Hiawatha Line, and found a significant impact for both single-family and multi-family properties. The value of residential property near the transit stations increased significantly relative to changes in the broader sub-market. Single-family homes experienced an average price premium of \$5,229. The study also found that the line is associated with much higher rates of new construction near the line.

The financial feasibility analysis in the following section illustrates the impact of a 15 percent increase in project revenues as a result of combined transit and other public improvements. A complete listing of articles included in the literature review is provided in Appendix 3.

Figure 11: Summary of Literature Review Findings

Category	Type	Description	Impact
Transit	Transit	Proximity to transit	2 – 32% price premium for single family homes
Transit	Transit	Proximity to transit	1 - 120% price premium for commercial real estate
Surface	Streetscape	General streetscape improvements	28% increase in home values
Surface	Streetscape	Presence of street trees	9 – 12% increase in consumer spending
Surface	Open space	Presence of neighborhood parks	7 – 15% increase in home values
Surface	Walkability	Walkscore improved from 20 to 80 points	54% price premium for office and retail property
Surface	Walkability	Walkscore improved by one point	\$700 - \$3,000 increase in home values
Site	Commercial use	Proximity to urban retail amenities such as movie theatres, specialty grocers, book stores and restaurants	3 – 30% residential price premium
Site	Commercial use	Proximity to commercial corridor in “excellent” condition	11 – 23% residential price premium
Site	Site remediation	Remediation of brownfield sites	3 – 11% increase in housing prices

Source: Center for Transit-Oriented Development; See Appendix 3 for full list of sources

⁸ Johnson Gardner, "An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing." Portland Metro. 2007.

⁹ Fogarty, Nadine, Eaton, Nancy, Belzer, Dena, & Ohland, Gloria. Capturing the Value of Transit. United States Department of Transportation, Federal Transit Administration. (2008).

¹⁰ Edward G. Goetz, Kate Ko, Aaron Hagar, Hoang Ton, Jeff Matson, The Hiawatha Line: Impacts on Land Use and Residential Housing Value. University of Minnesota Center for Transportation Studies, 2010.

DEVELOPER INTERVIEWS

The team interviewed eight developers active in the Central Corridor about current market conditions along the corridor, and what kinds of development they expect to see occurring – and where – as the real estate market improves. These interviews were also used to vet assumptions used in the financial analysis. The main findings from these interviews are summarized below.

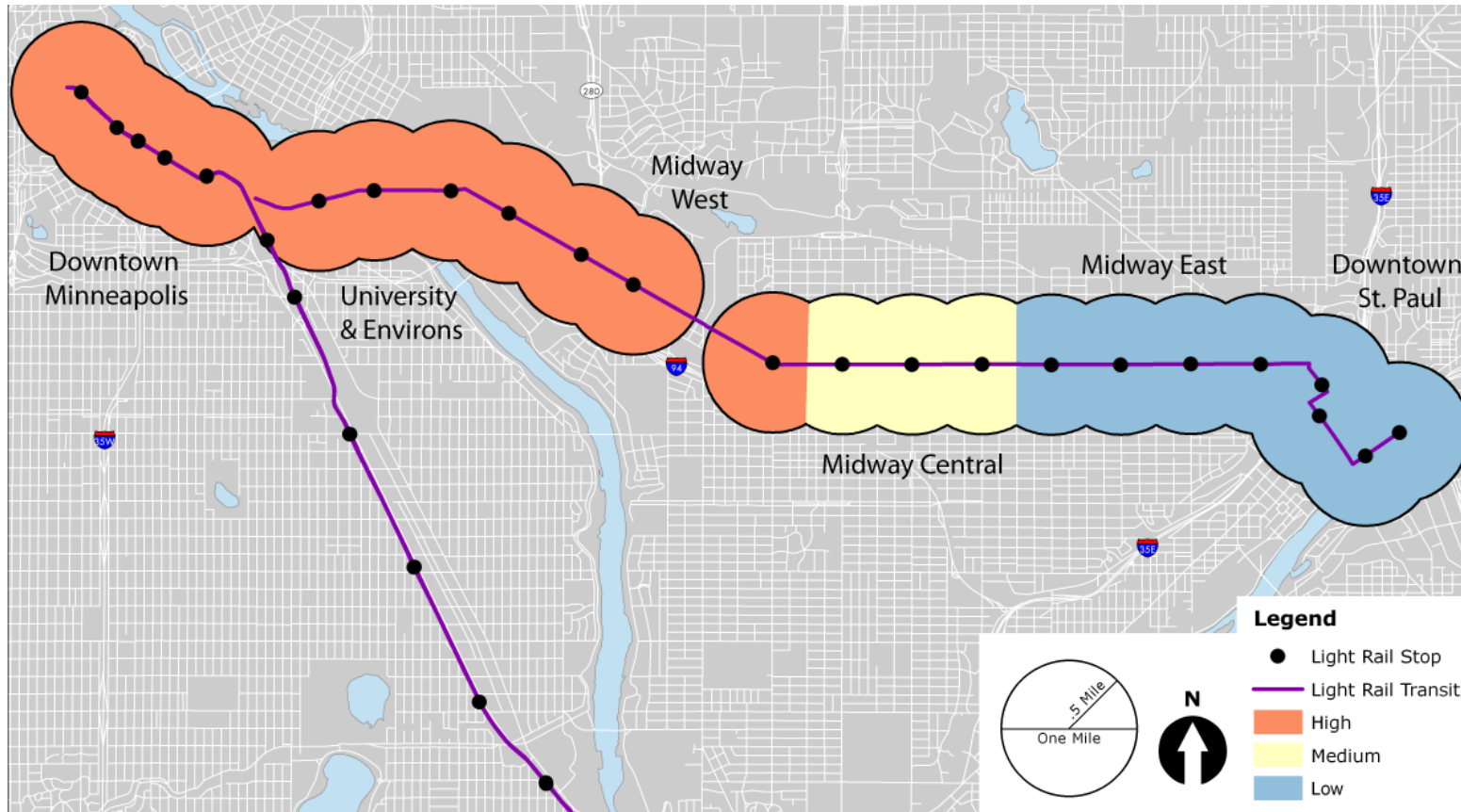
- **Rental apartment projects will move forward before condominiums.**
Due to an oversupply of condominium units produced in the recent housing boom, rental apartment projects will be the first to move forward when the market returns. The condominium market is also constrained by a lack of available credit for both developers and homebuyers.
- **While lower-density housing types such as townhomes are less expensive to build, they are not appropriate as TOD directly along University Avenue.**
The developers interviewed report that, despite the cost savings associated with townhomes, most residential projects along University Avenue will be higher density in nature.
- **The office market along the Central Corridor is weak.**
In the third quarter of 2009, office vacancies in the Twin Cities reached 18.7 percent¹¹ and are expected to continue to rise through 2010. One developer pointed out that the office market won't come back until the job market recovers and the existing stock of vacant office is absorbed.
- **Smaller projects will move forward first.**
Due to the constrained credit market and weak overall market, smaller projects are likely to move forward before big projects that require larger loans and greater market demand. Smaller projects typically occur on sites that are at or below one acre in size.
- **Transit-oriented development along most of the corridor will consist of 3 to 5 story buildings.**
In the short- and mid-term, TOD along the Central Corridor will be 3 to 5 stories. These building heights allow for density while still using wood-frame construction, which is less expensive than the concrete or steel frame construction required for taller buildings.
- **The light rail will have less impact on the Downtown Minneapolis real estate market than other locations along the line.**
Downtown Minneapolis is a regional employment destination with a strong real estate market. Although other stations on the line will benefit from the improved connection to the downtown, developers report that the Downtown Minneapolis real estate market will not be significantly impacted by the Central Corridor light rail.
- **Developers may wait until light rail construction is complete to bring new projects to market.**
In order to avoid marketing apartments, condominiums or retail space while the light rail is under construction, some developers may time new housing to come on the market in 2014, when the light rail opens. This will also enable new development to capitalize on the publicity associated with the opening of the new light rail line.

¹¹ Marcus and Millichap, Office Research Market Update, Minneapolis-St. Paul Metro Area, Fourth Quarter 2009.

The developers interviewed also provided insight into the market strength and timing along Central Corridor. Market strength varies by subarea, with Downtown Minneapolis, University and Environs and Midway West exhibiting the strongest markets (Figure 12). These subareas will be the first to experience privately-financed development when market conditions improve. The presence of major employers and the University of Minneapolis are the main drivers of these markets, with Midway West benefiting from its proximity to the University and an abundance of adaptive reuse and new construction opportunity sites. The market in Midway Central is of medium-strength, due to its proximity to stronger markets and the presence of significant opportunity sites. Midway East and Downtown St. Paul were reported to have the weakest markets. Private development will take longer to occur in these subareas.

The development timeline on page 30 (Figure 13), illustrates the timing of development likely to occur in the strongest market areas, by the type of project. As noted previously, rental apartments and mixed-use retail/residential projects are expected to move forward first, followed by condominiums and office in the longer term.

Figure 12: Developer Perception of Market Strength along Central Corridor, 2010



Source: Center for Transit-Oriented Development, 2010

Figure 13: Developer Perception of Market Timing, 2010



Source: Center for Transit-Oriented Development, 2010

FEASIBILITY ANALYSIS

The feasibility of different varieties of private development was tested by comparing present-day rents with the rents needed to successfully finance development (i.e., feasible rents). The difference between present-day rents and feasible rents is referred to as the “feasibility gap.” The analysis also examines the potential impact of transit and other improvements on feasibility by assuming a 15 percent increase in rents once the transit and improvements are in place.

Rather than focusing on specific opportunity sites, the analysis tested the feasibility of the kind of building types and land uses expected to be built along the corridor, assuming a prototypical one-acre site. The development programs were generated based on local developer input and included:

- 3 – 4 story rental apartments (100 units/acre)
- 3 – 4 story for-sale condominiums (100 units/acre)
- 4 story mixed-use apartments with ground floor retail (85 units and 10,000 sq. ft. retail/acre)

All development scenarios assume wood-frame construction and include structured parking, at a ratio of 1.3 spaces per unit for apartments, 1.5 spaces per units for condominiums and 1 space per 375 sq. ft. of retail. A complete methodology of the analysis is included in Appendix 2.

Findings

The cost to develop new, market-rate buildings in different parts of the Central Corridor was estimated and the rent or sales price that would be needed to make the project feasible to build from a developer’s perspective was calculated. These expected rents or sales prices were compared to current expected rents and sales prices, to show the “feasibility gap” under current market conditions. The analysis also tested how a 15 percent increase in revenues, based on the introduction of new transit and other public investments, would impact the feasibility of development.

Figures 14, 15, and 16 illustrate the findings of the feasibility analysis for each development type, by subarea. Figure 14, for example, shows that the feasible rents for apartments along the corridor (i.e. the rents needed to finance new development) are higher than current rents. The price difference between current rents and feasible rents is the “feasibility gap,” or the extent to which current rents need to increase before development becomes feasible along the corridor. The subareas with the largest feasibility gap – in this case, Midway East and Downtown St. Paul – require the largest increase in rents to achieve feasibility. These subareas are therefore least likely to experience new, privately-financed development in the near term. The subareas with the smallest feasibility gap will require a smaller increase in rents to achieve feasibility, and therefore are more likely to experience new development in the near term.

Figures 17, 18, and 19 illustrate the impact of transit and public improvements on feasibility. A 15 percent increase in rents is shown to narrow the feasibility gap across building type and subarea, resulting in improved feasibility for all projects and locations.

At current rents, apartments, condominiums and mixed-use projects were found to be infeasible along the Central Corridor. All of the feasible rents are higher than the actual rents; suggesting that a developer would be unlikely to pursue this kind of project without a subsidy at this time.

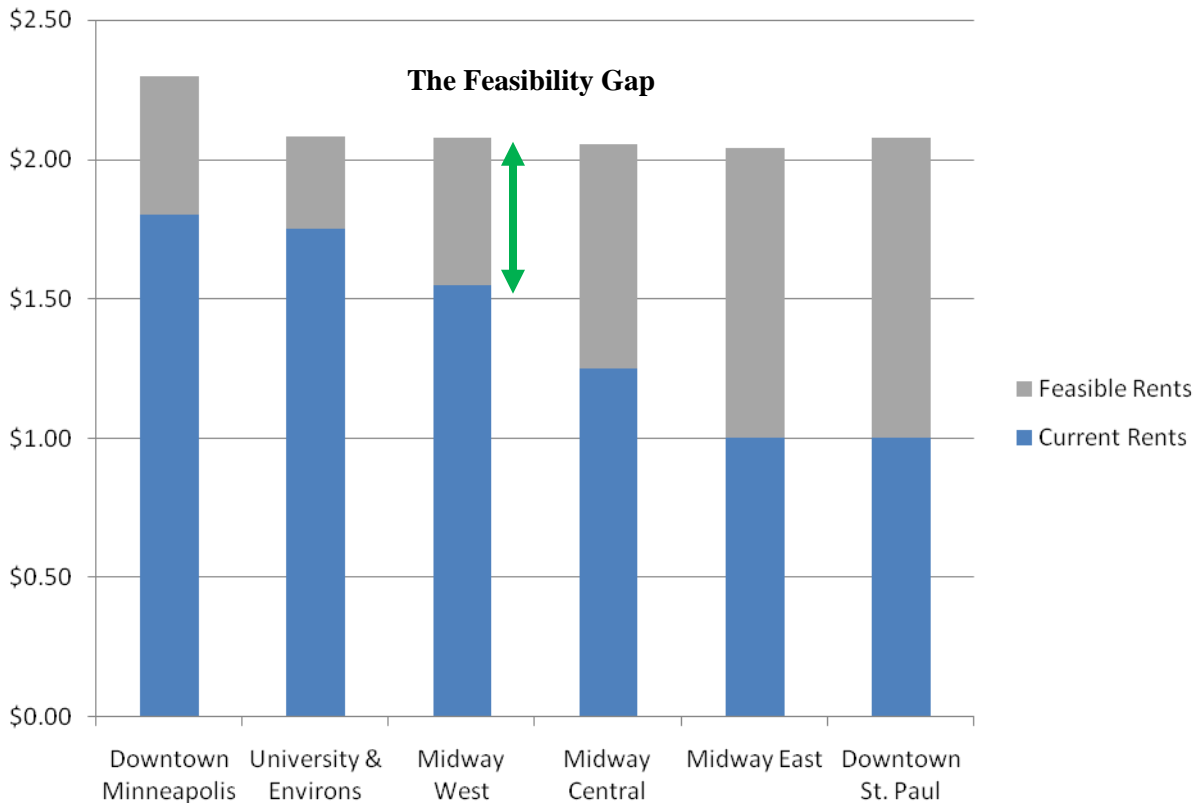
The University and Environs, Downtown Minneapolis and Midway West subareas are the closest to achieving feasibility. For all development types, the feasibility gap in the University and Environs,

Midway West and Downtown Minneapolis subareas is the smallest, suggesting that these subareas are likely to be the first to experience development as the market improves. Public investments in infrastructure in these areas are also more likely to be successful in catalyzing private development in the near term.

Apartment projects are most feasible, followed by mixed-use development and condominiums. The feasibility gap for apartment projects is the smallest, confirming developer expectations that apartment projects will move forward first when the market improves. Demand for apartments is strong along the Central Corridor because of the significant student population and a lack of affordable credit for potential homebuyers. After apartments, mixed use developments with ground floor retail are most feasible, followed by condominiums. As noted by the developers, condominiums are most least feasible, due to an oversupply of units built during the last housing boom, and a lack of available credit for homebuyers and condominium developers.

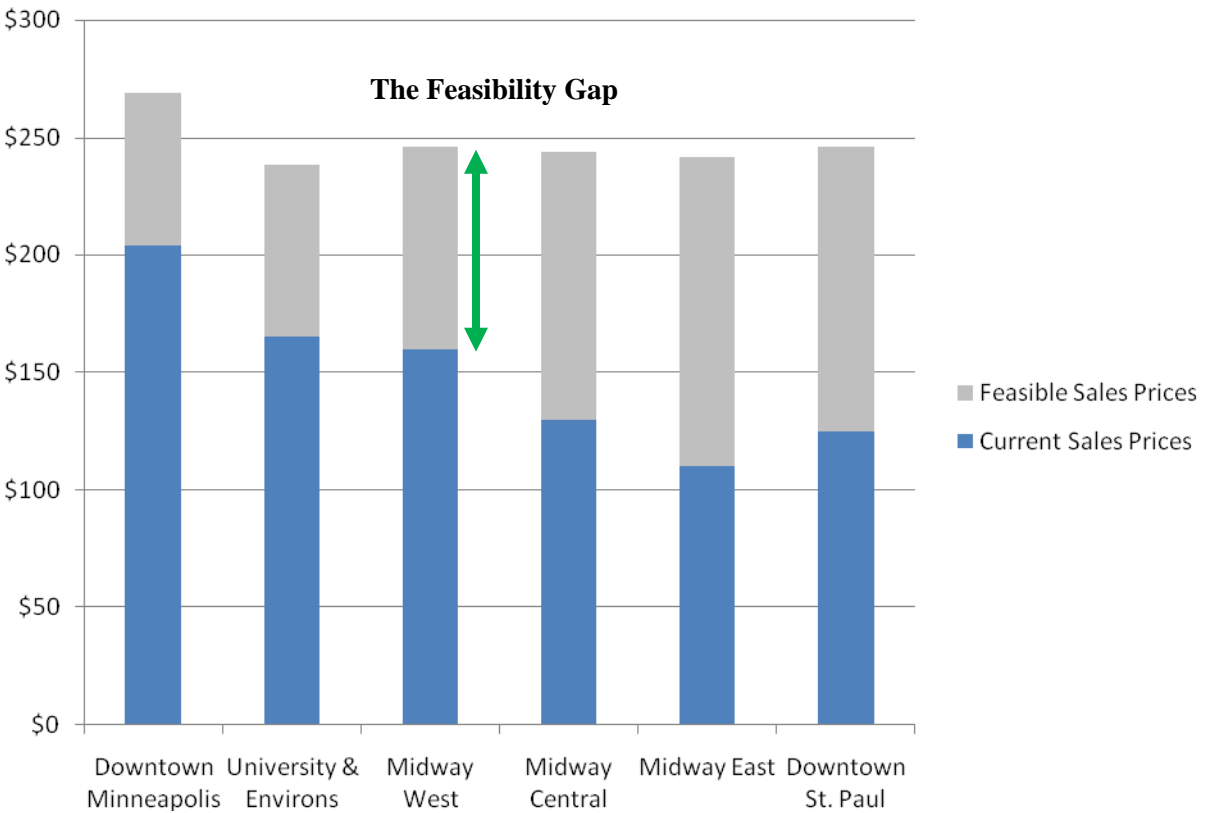
The presence of transit and public improvements will have a positive impact on development feasibility. A 15 percent increase in rents due to the presence of transit and other improvements would improve feasibility in each of the subareas, although none would be feasible today. The light rail will not be completed until 2014, however, and other public improvements may take even longer. By the time the transit and improvements are complete, it is likely that market conditions will have improved enough to make development feasible in the strongest market areas. The weaker market subareas may require additional time.

Figure 14: Current and Feasible Apartment Rents



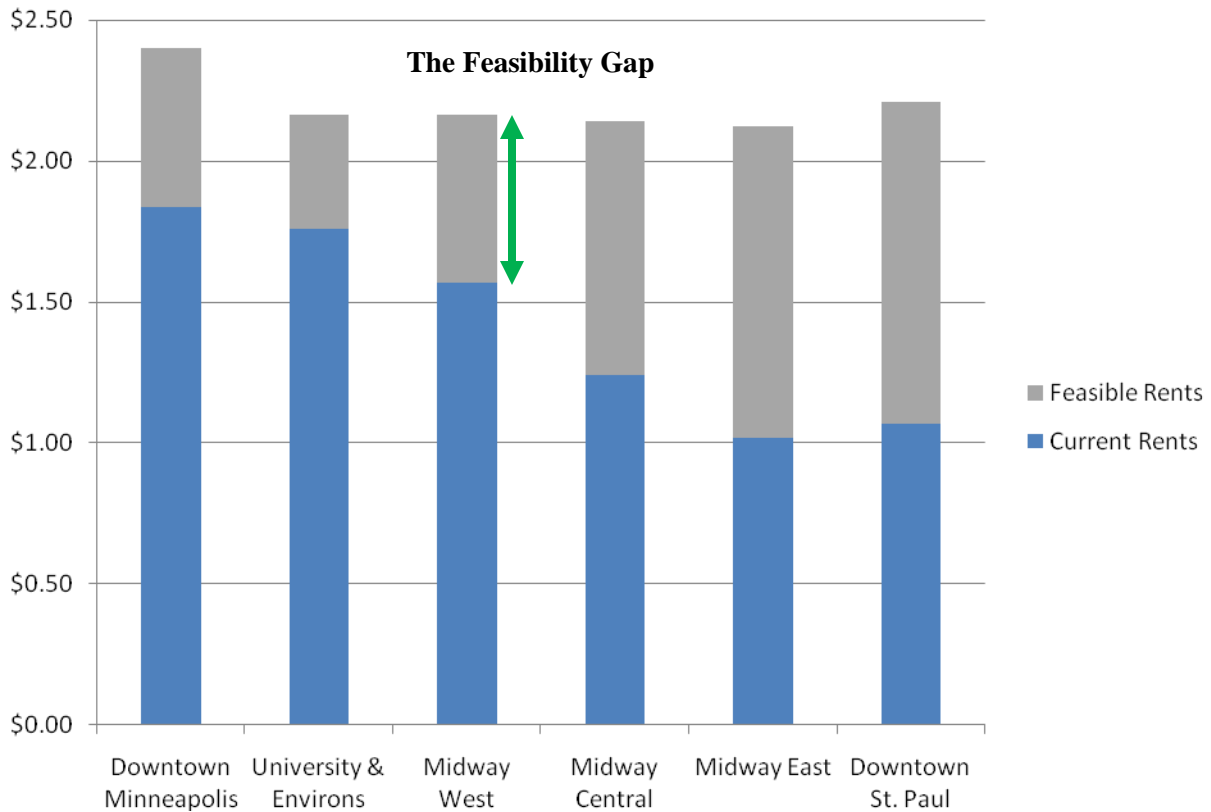
Source: Center for Transit-Oriented Development, 2010

Figure 15: Current and Feasible Condominium Sales Prices



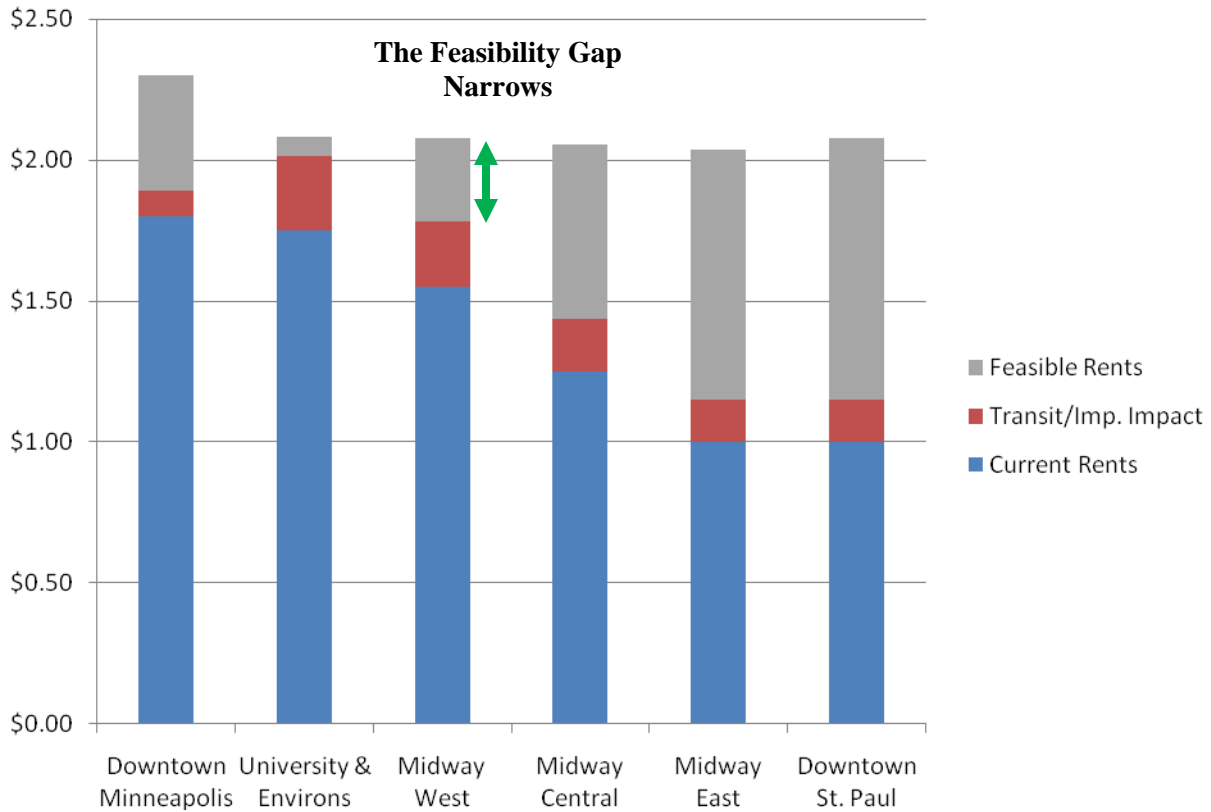
Source: Center for Transit-Oriented Development, 2010

Figure 16: Current and Feasible Mixed-use Rents



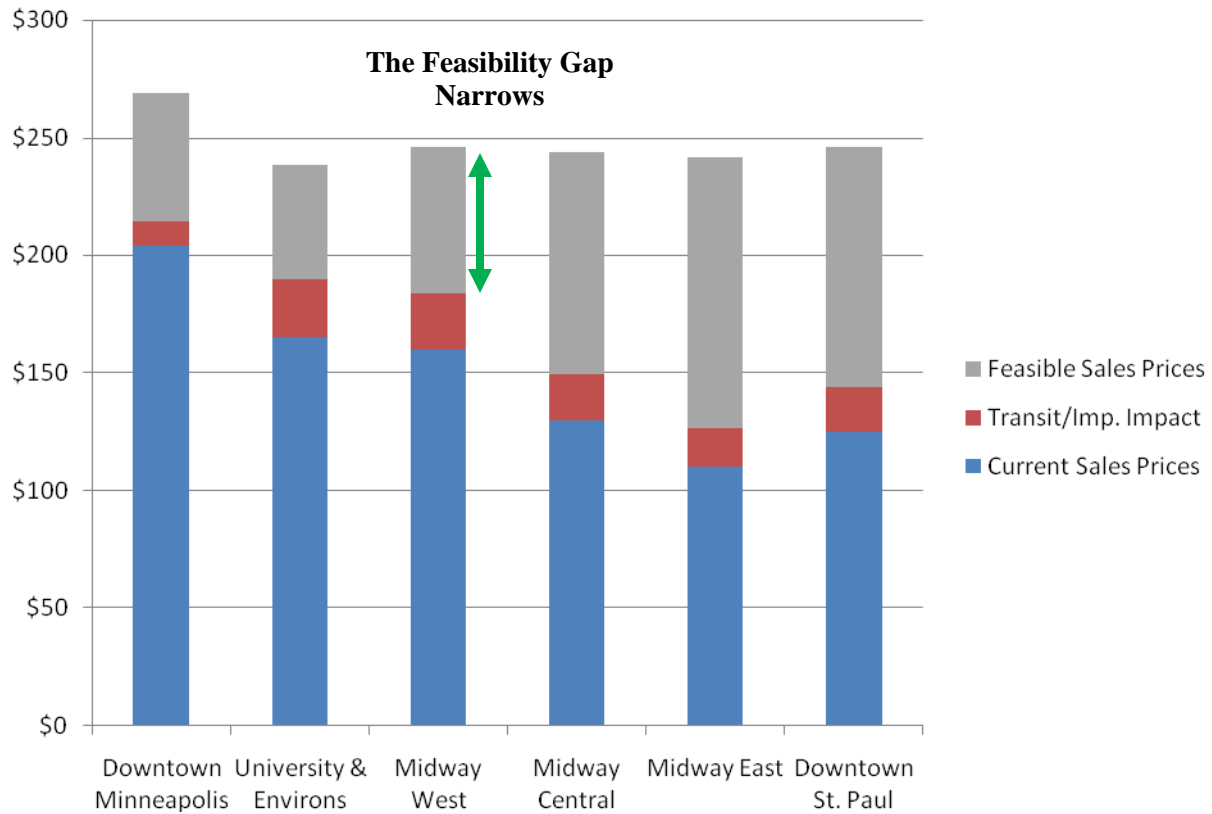
Source: Center for Transit-Oriented Development, 2010

Figure 17: Potential Impact of Transit and other Improvements on Apartment Feasibility



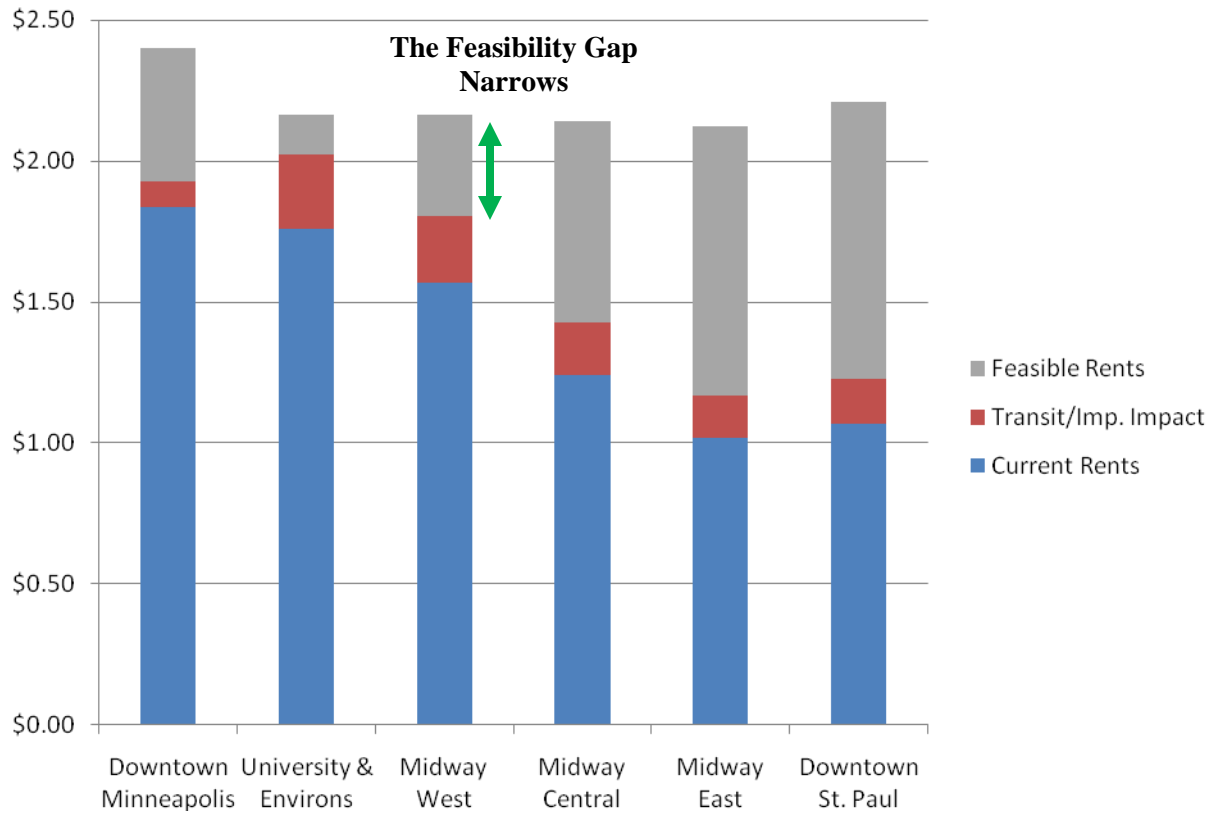
Source: Center for Transit-Oriented Development, 2010

Figure 18: Potential Impact of Transit and other Improvements on Condominium Feasibility



Source: Center for Transit-Oriented Development, 2010

Figure 19: Potential Impact of Transit and other Improvements on Mixed-use Feasibility



Source: Center for Transit-Oriented Development, 2010

V. VALUE CAPTURE AND FINANCING STRATEGIES

Development near transit is also important for local financing strategies that seek to capitalize on the value generated by new transit. *Capturing the Value of Transit*, a 2007 CTOD report that evaluated the potential for value capture strategies to fund transit improvements, found that the potential for “value capture” strategies is closely tied to the potential for new development. Therefore, the extent to which new development is occurring along new transit lines is of critical importance in understanding the potential for value capture.

New development along the Central Corridor will generate significant additional property taxes for local jurisdictions. Tools such as tax increment financing and tax abatement have the potential to capture a portion of this growth in property taxes and redirect funding to help pay for many of the costs detailed in section III of this report. This section provides an estimate of the potential new property taxes that would be generated by new development in the Central Corridor, and which might be “captured” using existing public finance tools. While these mechanisms represent an important funding source for the public sector, they are most effective when used in conjunction with private market investment, rather than well in advance of it. Thus, it is critical to ensure that financing strategies are closely aligned with the timing of private development activity.

Minnesota Value Added Tools - Tax Increment Financing and Tax Abatement

There are two primary tools available in Minnesota to capture and redirect taxes generated by increased property values: tax increment financing and tax abatement. These tools capture real estate property taxes for specific uses.

Tax increment financing (TIF) allows cities to divert future increases in tax receipts generated by new development, including taxes that would otherwise go to other entities such as the county and school district. However, TIF can only be implemented under certain conditions, such as satisfying a “blight” test.¹² In addition, there are various restrictions on the use of TIF. For example, Minnesota law does not allow TIF to be used for public park facilities or above “standard” or decorative improvements. Nevertheless, this tool offers the benefit of being an additive tax burden to the property owner, who does not directly experience any change in property taxes.

In contrast, **tax abatement** is a more flexible financing tool, has a lower statutory threshold for its use, and can be used for most of the variety of costs identified in the corridor plans. Tax abatement is not an actual abatement of taxes for the property owner. Rather, it allows the local government to redirect the taxes generated by that property for a public improvement. The property owner sees no change in his/her tax bill and continues to pay property taxes as if there were no abatement district in place.

One drawback to using tax abatement is that it requires that local governments adjust their overall levy upward to account for the redirected taxes. Tax abatement, unlike TIF, also requires each contributing taxing jurisdiction to approve the redirection of their particular taxes. Therefore, maximizing the use of this flexible spending tool requires close collaboration between cities, counties and school districts. This is one area where further collaboration on the Central Corridor Investment Framework may offer benefits.

Appendix 4 contains a list of other typical financing tools for street improvements.

¹²To qualify under the blight test, the district must be in a developed (rather than a vacant or greenfield) area and more than 50% of the buildings must be of substandard quality.

Estimate of Property Taxes that Might be Captured

The consultant team prepared an order-of-magnitude estimate of the amount of new property taxes that might be generated by new development in the Central Corridor, and which might be captured using the financing tools described above. Because the corridor passes through two cities, two counties and two school districts, it was necessary to distinguish where the private investment was going to occur so that the appropriate tax rates could be applied. These estimates are based on a projected range of new development that could occur in the corridor given the results of the market and financial feasibility analysis presented in Section IV. Due to the market downturn, and the desire to be conservative, these projections are in some cases significantly below those included in station area plans.

For the purposes of illustration, in this analysis we used 2009 tax rates for the various jurisdictions. Next we sorted the types of private development into their corresponding class rates because the Minnesota taxes property differently depending on use. Please note that these tax rates will change over time. The assumptions are illustrated in Figure 20 below.

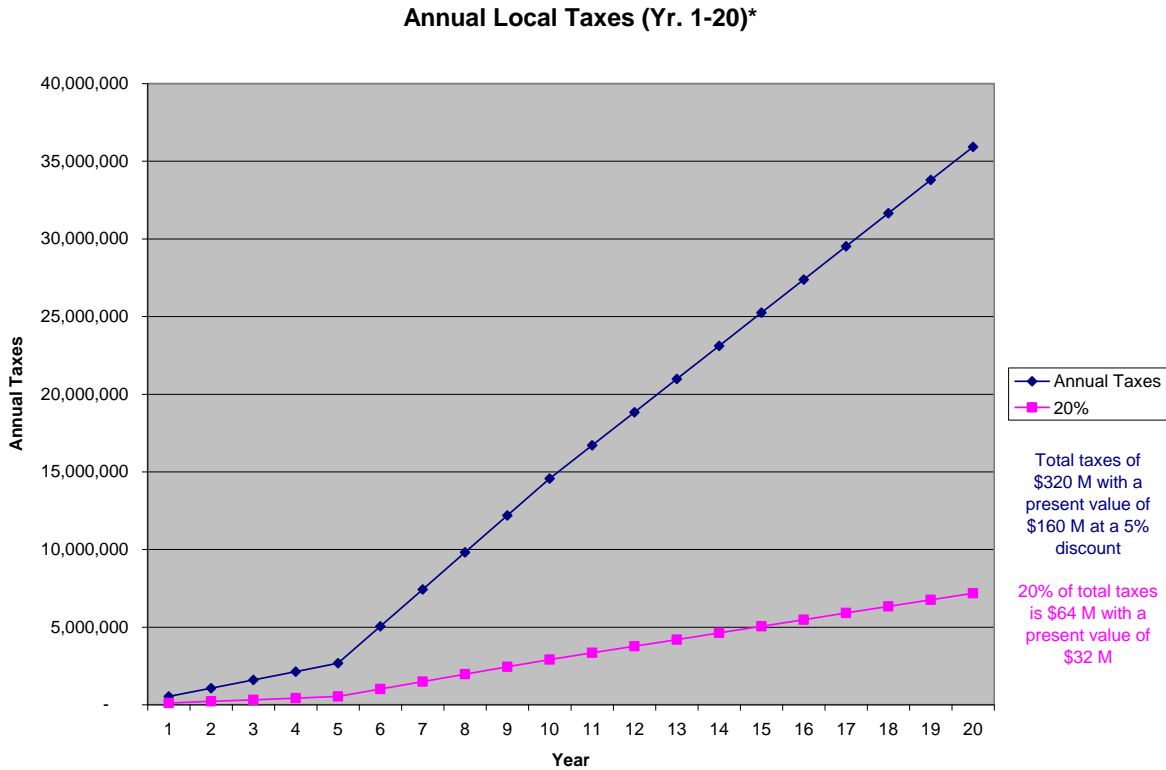
Figure 20: Property Tax Assumptions

St. Paul Total Tax Rate	121.00%		
St. Paul Share	30.00%		
Ramsey County Share	38.00%		
FD Contribution %	34.00%		
Minneapolis Total Tax Rate	126.00%		
Minneapolis Share	46.00%		
Hennepin County Share	33.00%		
FD Contribution %	32.00%		
	Class Rate	Taxable Market Value	
Commercial - Office	2.00%	\$160.00	per s.f.
Commercial - Retail	2.00%	\$120.00	per s.f.
Residential - Rental*	1.25%	\$139,916	per unit
Residential - Owner	1.00%	\$171,000	per unit
*Individual values by subarea, average shown			

Applying this formula we generated projections of incremental growth in property taxes that would be generated by new development. It is important to note that these projections do not include growth in existing property values, rather only those projected to be generated by new development.

Figure 21 illustrates the projected Annual Local Property Taxes for the entire corridor for all the taxing jurisdictions for the term of 20 years. As a way of demonstrating how the various taxing jurisdictions might collaborate in the future, we show how much revenue might be produced if each city and county chose to make 20% of these “value added” taxes available to pay for central corridor costs. (Note: actual amounts may vary depending on discount rate assumptions and the timing of collections.)

Figure 21: Annual Local Taxes for the Entire Corridor, Years 1-20



Based on the projections, new development in the Central Corridor could generate approximately \$320 million in total *additional* taxes over 20 years, or \$160 million in net present value, assuming a 5 percent discount rate. If jurisdictions along the corridor were to devote 20 percent of incremental value to help pay for corridor improvements, this would generate \$64 million, or \$32 million in net present value.

An effective financing strategy typically strives to create a budget and match sources of revenues with eligible uses (costs). In addition to matching eligibility criteria of those “sources and uses”, the financing strategy needs to take into account timing; both for when various costs are incurred and for when revenues become available. The ultimate goal is to create a model of the total project cash flow so that funds can be efficiently provided to meet project objectives. While in some cases it may be necessary to pay for improvements up front, before development occurs, these investments should be weighed carefully to minimize risk. For this reason, it is not possible to identify a series of investments that should be undertaken and the timing for those investments. Rather, investments in infrastructure, placemaking, and other needs identified in the corridor plans should be carefully orchestrated to leverage private investment. The corridor implementation tool described in the next section can be used by the cities of Minneapolis and St. Paul to evaluate opportunities for investment in an incremental way as they arise, maximize the value of private investment in the corridor, and to track their progress toward meeting the corridor vision.

VI. CORRIDOR IMPLEMENTATION TOOL

The Working Group needed guidance on how to prioritize the necessary investments along the Central Corridor. Many factors can affect how the community might prioritize these corridor investment opportunities. The Working Group needed a way to organize those factors that may support them collaboratively, and to agree upon those priorities. Recognizing that the local communities and Working Group members will need to negotiate the priority of their individual projects – whether private development or public improvements – there was still a need for a mechanism that to examine each project in the context of the overall corridor. The project team sought to develop a management tool that provided *objective* information to the Working Group in a manner that still allows the cities, counties, Met Council and state to rank the investment opportunities based on their organizational mission statements.

There are many benefits to developing a corridor-wide tool for use by the Working Group members as they embark on decision-making of public investments to support private investments in the corridor. First, all of the information is located in one, central location that treats the corridor as one project. The tool is transparent. Ideally this is not an obscure program but something that policy-makers, staff and the development community, including affordable housing advocates, know is useful to aid in decision-making of limited resources. It should evaluate the competition among projects and ensure that limited resources go to projects that are the most ready to go. This tool is proactive. It contains all of the potential investments needed to support transit-oriented development in the Central Corridor. It can prioritize these investments based on specific criteria such as project readiness, public-private leverage, and public subsidy. This means that limited funding and staff time will be concentrated on projects at the top of the list.

Ideally, the tool will help answer these types of questions:

- What is the investment event?
- Where is the event occurring?
- Who is responsible for making the event occur and do they have the necessary control or authority to make it occur?
- When is the event going to occur?
- How much will the event cost?
- How much new tax base will it generate?
- Does it need financial assistance from the public or philanthropic community and if so, how much?

The preliminary mockup of the management tool in the form of a Corridor Implementation Tool (CIT), was provided to the Working Group. The CIT starts with the entire corridor conceptual vision including housing affordability costs. It currently sorts by station areas and it will have the ability to capture the entire investment events that are currently underway in the corridor and on the drawing board. This tool is only useful if the Working Group feels that it will assist them in championing Central Corridor investment and perusing funding sources for high merit projects.

Appendix 5 contains an example of the one page of the Corridor Implementation Tool.

VII. APPENDICES

APPENDIX 1: UNFUNDED CENTRAL CORRIDOR HIGH PRIORITY IMPROVEMENT PROJECTS, AS OF APRIL 14, 2010

Project	Type of Improvement	Station	Cost	Project Source
University Avenue District Energy	District Energy Trunk Line	Raymond	\$3,868,761	District Energy S
University Avenue District Energy	District Energy Trunk Line	Fairview	\$5,342,334	District Energy S
University Avenue District Energy	District Energy Trunk Line	Snelling	\$2,760,966	District Energy S
University Avenue District Energy	District Energy Trunk Line	Hamline	\$2,622,828	District Energy S
University Avenue District Energy	District Energy Trunk Line	Lexington	\$2,673,957	District Energy S
University Avenue District Energy	District Energy Trunk Line	Victoria	\$2,651,532	District Energy S
University Avenue District Energy	District Energy Trunk Line	Dale	\$2,612,064	District Energy S
University Avenue District Energy	District Energy Trunk Line	Western	\$4,187,022	District Energy S
University Avenue District Energy	District Energy Trunk Line	Rice	\$1,497,990	District Energy S
Bedford Street Realignment	Sanitary Sewer	29th Avenue	\$28,000	Minneapolis CPI
Bedford Street Realignment	Storm Sewer	29th Avenue	\$48,000	Minneapolis CPI
Bedford Street Realignment	Water	29th Avenue	\$44,000	Minneapolis CPI
Bedford Street Realignment	ROW Acquisition	29th Avenue	\$800,000	Minneapolis CPI
Bedford Street Realignment	Demolition	29th Avenue	\$200,000	Minneapolis CPI
Bedford Street Realignment	Road Surface	29th Avenue	\$160,000	Minneapolis CPI
University Avenue Streetscape	Streetscape	Stadium Village	\$334,800	Minneapolis CPI
University Avenue Streetscape	Streetscape	29th Avenue	\$452,000	Minneapolis CPI
West Bank Station Betterment	Streetscape	West Bank	\$1,000,000	Minneapolis CPI
Highway 122 modifications (Wash Ave trench)	Sanitary Sewer	West Bank	\$56,000	Hennepin Count Application
Highway 122 modifications (Wash Ave trench)	Storm Sewer	West Bank	\$96,000	Hennepin Count Application
Highway 122 modifications (Wash Ave trench)	Water	West Bank	\$88,000	Hennepin Count Application
Highway 122 modifications (Wash Ave trench)	Road Surface & Intersections	West Bank	\$1,000,000	Hennepin Count Application

APPENDIX 2: METHODOLOGY

The following section provides the methodology, development assumptions and development scenarios used in the financial feasibility analysis.

FEASIBILITY GAP METHOD

Financial feasibility was tested by comparing present-day revenues (in this case, rents for apartments/retail space and sales prices for condominiums) with the revenues needed to successfully finance development (i.e. feasible revenues). The difference between current revenues and feasible revenues is referred to as the “feasibility gap.” The feasibility gap can be calculated using a static or multi-year model. In a static analysis, project costs and revenues are calculated based on inputs from market reports and developer interviews. If project revenues do not meet or exceed costs, the project is determined to be infeasible. The Goal Seek function in Excel is then utilized to “solve for” the feasible revenues –those necessary to achieve feasibility.

DEVELOPMENT SCENARIOS AND PARKING ASSUMPTIONS

Rather than focusing on specific opportunity sites, CTOD tested the feasibility of the kind of building types and uses expected to be built along the corridor, assuming a prototypical one-acre site. The development programs were generated based on local developer input and are detailed in Table A.1 below.

All development scenarios assume wood-frame construction and include structured parking, at a ratio of 1.3 spaces per unit for apartments, 1.5 spaces per units for condominiums and 1 space per 375 sq. ft. of retail.

Table A.1: Central Corridor Development Scenarios

	Lot Size	Res. Units	Res. Parking	Average Unit Size	Retail Space	Retail Parking	Landscaping	Infrastructure
Rental Apartments	1 acre	100	130	970 sq. ft.			6,500 sq. ft.	7,650 sq. ft.
For-sale Condominiums	1 acre	100	150	1,070 sq. ft.			10,400 sq. ft.	7,650 sq. ft.
Mixed Use Retail and Residential	1 acre	85	111	970 sq. ft.	10,000 sq. ft.	24	6,500 sq. ft.	7,650 sq. ft.

Source: Center for Transit-Oriented Development, 2010

DEVELOPMENT COST ASSUMPTIONS

Hard Costs

Project construction costs are based on CTOD research, published estimates from RS Means, and informal surveys of a number of area developers engaged in building the construction type represented by this analysis. The objective of this exercise was to establish an average construction cost. One could expect that this average is roughly in the middle third of actual costs, though it is possible to envision specific projects that would have costs outside this range. Table A.2 shows the gross hard costs used for this analysis.

Table A.2: Central Corridor Development Hard Costs

Site work, including Demolition	\$10/sq. ft.
Apartment Construction Costs	\$120/sq. ft.
Condominium Construction Costs	\$125/sq. ft.
Retail Construction Costs	\$125/sq. ft.
Commercial Tenant Improvements	\$25/sq. ft.
Landscaping	\$13/sq. ft.
New Street Infrastructure	\$15/sq. ft.
Below-grade podium parking	\$20,000/space
Above-grade podium parking	\$15,000/space

Source: Center for Transit-Oriented Development, RS Means, Developer Interviews, 2010

Soft Costs

Soft costs were estimated based on standard industry ratios and conversations with local developers, and calculated as a percentage of hard costs. (Table A.3).

Table A.3: Central Corridor Development Soft Costs, as a Percentage of Total Hard Costs

Permit Fees/Impact fees	3.0%
Architecture/Engineering	4.5%
Developer Overhead	3.0%
Other Indirect Costs	6.0%

Source: Center for Transit-Oriented Development, Developer Interviews, 2010

Land Costs

Given the lack of recent transactions along the Central Corridor, obtaining land cost estimated was difficult. The land cost estimates used in this analysis were based on conversations with local developers, and the most recent available transactional data.

Table A.4: Central Corridor Land Costs

Sub Area	Land Costs
Downtown Minneapolis	\$80
University & Environs	\$25
Midway West	\$25
Midway Central	\$20
Midway East	\$15
Downtown St. Paul	\$25

Source: Center for Transit-Oriented Development, Developer Interviews, 2010

Financing Costs

Financing costs were estimated assuming that a construction loan would be obtained for 80 percent of the cost of development for a term of 8 months, with a 7.5 percent interest rate and a one percent loan fee.

Developer Profit

The feasibility gap method requires making an assumption about expected developer profit, since projects will not be built unless a developer feels that they have the potential to generate a return. The analysis assumes developer profit equal to 12 percent of other development costs, not including land. While profit margin expectations change depending on a variety of factors including market conditions, expected timeframes to receive entitlements, and other factors, 12 percent is considered a conservative assumption for a threshold that would attract developers to the Central Corridor.

PROJECT VALUE

The value of apartments and retail space was estimated using the income capitalization approach, wherein the value is estimated based on expected ongoing rental revenues from the space. The value of condominium units was estimated based on their expected sale prices.

Condominiums

Condominium sales prices and sizes were estimated based on a review of existing inventory and recent development along the Central Corridor. Average condominium values vary by subarea, and are illustrated in Table A.5 below.

Table A.5: Central Corridor Condominium Valuation

Sub Area	Condo Price/SF	Average Unit Size	3% Marketing and Commissions	Average Sales Price
Downtown Minneapolis	\$204	1,070	\$6,554	\$211,926
University & Environs	\$165	1,070	\$5,297	\$171,254
Midway West	\$160	1,070	\$5,136	\$166,064
Midway Central	\$130	1,070	\$4,173	\$134,927
Midway East	\$110	1,070	\$3,531	\$114,169
Downtown St. Paul	\$125	1,070	\$4,013	\$129,738

Source: Center for Transit-Oriented Development, Developer Interviews, Zillow.com 2010

Apartments

Apartment rents vary by subarea, and are detailed in Table A.6 below. Rents were estimated based on project websites and from Craigslist.com, with a focus on comparable new construction projects along the Central Corridor. The net income from apartments was estimated assuming 5.3 percent vacancy and operating expenses equal to 30 percent of gross income. The value of the units was estimated using a 7.0 percent capitalization rate. The capitalization rate is a standard industry ratio that represents the relationship between the net operating income of an income-producing property and its current estimated value.

Table A.6: Central Corridor Apartment Valuation (per unit)

Sub Area	Apartment Rents/SF	Gross Annual Residential Income per Unit	Less Vacancy	Less Operating Expenses	Net Operating Income	Capitalized Value per Unit
Downtown Minneapolis	\$1.80	\$20,952	-\$1,110	-\$6,286	\$13,556	\$193,656
University & Environs	\$1.75	\$20,370	-\$1,080	-\$6,111	\$13,179	\$188,277
Midway West	\$1.55	\$18,042	-\$956	-\$5,413	\$11,673	\$166,760
Midway Central	\$1.25	\$14,550	-\$771	-\$4,365	\$9,414	\$134,484
Midway East	\$1.00	\$11,640	-\$617	-\$3,492	\$7,531	\$107,587
Downtown St. Paul	\$1.00	\$11,640	-\$617	-\$3,492	\$7,531	\$107,587

Source: Center for Transit-Oriented Development, Developer Interviews, Craigslist.com, Marcus & Millichap Apartment Report, 2010

Retail Space

As with apartment rents, retail rents (triple net) vary by subarea (Table A.7). Retail rents were sourced from Loopnet.com. The average vacancy rate was assumed at 5 percent for both areas. Operating expenses not paid by the tenant were estimated at 10 percent of revenue. The value of the retail component was estimated assuming a 9.5 percent capitalization rate. Based on this calculation, the value of retail development was estimated to be between \$123 per rentable square foot in Downtown St. Paul and \$231 per square foot in Downtown Minneapolis.

Table A.7: Central Corridor Retail Valuation (per square foot)

Sub Area	Retail Rents	Gross Annual Retail Income	Less Vacancy	Less Non-Reimbursable Expenses	Net Operating Income	Capitalized Value per Unit
Downtown Minneapolis	\$2.15	\$25.80	-\$1.29	-\$2.58	\$21.93	\$231
University & Environs	\$1.85	\$22.20	-\$1.11	-\$2.22	\$18.87	\$199
Midway West	\$1.75	\$21.00	-\$1.05	-\$2.10	\$17.85	\$188
Midway Central	\$1.15	\$13.80	-\$0.69	-\$1.38	\$11.73	\$123
Midway East	\$1.15	\$13.80	-\$0.69	-\$1.38	\$11.73	\$123
Downtown St. Paul	\$1.66	\$19.92	-\$1.00	-\$1.99	\$16.93	\$178

Source: Center for Transit-Oriented Development, Developer Interviews, Zillow.com, Marcus & Millichap Retail Report 2010

APPENDIX 3: LITERATURE REVIEW—THE FINANCIAL IMPACT OF TOD

Location	Variable	Effect	Year	Source
Streetscaping				
London, England	Presence of high quality street design	For each point of increase on the Pedestrian Environment Review System scale, home values increased 5.2% and retail rents increased 4.9%	2007	Commission for Architecture and the Built Environment. "Paved with gold: The real value of good street design." 2007.
Philadelphia, PA	Near a new tree planting	Proximity to a new tree planting is associated with overall increase in house prices of 9%.	2006	Wachter and Gillen, "Public Investment Strategies: How They Matter for Neighborhoods in Philadelphia," The Wharton School, University of Pennsylvania (April 2006).
Philadelphia, PA	Improvement to streetscapes	Streetscaping imparts a considerable increase in surrounding home values - a 28% gain in value relative to similar homes in comparable areas without streetscape improvements.	2006	Wachter and Gillen, "Public Investment Strategies: How They Matter for Neighborhoods in Philadelphia," The Wharton School, University of Pennsylvania (April 2006).
National	Presence of street trees in business districts	9-12% reported increase in consumer spending in forested business districts.	2005	Wolf, K.L. 2005. "Business District Streetscapes, Trees and Consumer Response." Journal of Forestry 103, 8: 396-400.
Cleveland, OH	Quality landscaping	Landscaping with good aesthetic value added 7% to the average rental rates of commercial office buildings.	2003	Laverne, R.J., and K. Winson-Geideman. 2003. "The Influence of Trees and Landscaping on Rental Rates at Office Buildings." Journal of Arboriculture 29, 5: 281-290.
Open Space				
Marion County, IN	Presence of "urban forests" (everything green)	Marion County households are willing to pay between \$15 and \$92 annually for a permanent 1% countywide increase in denser, healthier urban forests.	2008	Payton, Seth, Greg Lindsey, Jeff Wilson, John Ottensmann, and Joyce Man. "Valuing the benefits of the urban forest: a spatial hedonic approach." Journal of Environmental Planning and Management. 51.6 (2008): 717-736.
Bexar County, Texas	Proximity to greenbelt	Proximity to a greenbelt translates into a 4% increase in home value over homes not located near a greenbelt.	2007	Asabere, Paul, and Forest Huffman. "The Relative Impacts of Trails and Greenbelts on Home Price." Journal of Real Estate Finance and Economics. 38 (2007): 408-419.

Bexar County, Texas	Proximity to neighborhood playground	Proximity to a neighborhood playground is associated with a positive impact of 3% on nearby home values.	2007	Asabere, Paul, and Forest Huffman. "The Relative Impacts of Trails and Greenbelts on Home Price." <i>Journal of Real Estate Finance and Economics</i> . 38 (2007): 408–419.
Minneapolis-St. Paul, Minnesota	Proximity to Open Space	Halving the distance to the nearest neighborhood park increases the sales price of an average home by about 0.173% or \$246. This effect is magnified for properties located closer to the CBD.	2006	Anderson, Soren, and Sarah West. "Open space, residential property values, and spatial context." <i>Regional Science and Urban Economics</i> . 36. (2006): 773–789. Print.
Greenville, South Carolina	Proximity to neighborhood parks	Property values were as much as 13 percent higher for homes between 300 and 500 feet from a small neighborhood park, and seven percent higher for those between 500 and 1,500 feet away.	2001	Molly Espey and Kwame Owusu-Edusei, "Neighborhood Parks and Residential Property Values in Greenville, South Carolina," <i>Journal of Agricultural and Applied Economics</i> 33:3 (2001): 487–492.
Retail/Commercial				
Philadelphia, PA	Proximity to Commercial Corridor in "Excellent" Condition	Correlated with a 23% price premium for those homes within 1/4 mile, and a 11% premium for those within 1/4 to 1/2 mile.	2008	Wachter, Susan, Kevin Gillen, and Carolyn Brown . "Green Investment Strategies." <i>Communities and Banking</i> . (2008)
Portland, OR	Proximity to a cinema/movie theatre	Price premiums on home sales within 1.5 blocks of a movie theater in urban districts were statistically estimated at 29.9% (conservative estimate: 14.4%).	2007	JohnsonGardner, "An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing." <i>Portland Metro</i> . 2007.
Portland, OR	Proximity to wine bars/shops	Price premiums on home sales within 1.5 blocks of a wine bar in urban districts were statistically estimated at 20.8% (conservative estimate: 11.1%).	2007	JohnsonGardner, "An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing." <i>Portland Metro</i> . 2007.
Portland, OR	Proximity to garden/yard art stores	Homes that sold within 1.5 blocks of smaller, neighborhood garden and yard art stores demonstrated statistical price premiums of 18.8%.	2007	JohnsonGardner, "An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing." <i>Portland Metro</i> . 2007.

		(conservative estimate 8.4%)		
Portland, OR	Proximity to specialty grocers	Price premiums for being nearby a specialty grocer are estimated at 17.5%	2007	JohnsonGardner, "An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing." Portland Metro. 2007.
Portland, OR	Proximity to book shops	Price premiums for nearby homes are estimated to range at 12.3%	2007	JohnsonGardner, "An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing." Portland Metro. 2007.
Portland, OR	Proximity to Fitness Centers	Price premiums for fitness centers are estimated at 8.1%	2007	JohnsonGardner, "An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing." Portland Metro. 2007.
Portland, OR	Proximity to bike shops	Price premiums associated with bike shops are estimates at 3.4%	2007	JohnsonGardner, "An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing." Portland Metro. 2007.
Transit-Oriented Development				
San Jose, CA	Presence of Suburban TOD	TOD positively impacts the surrounding single-family residences with every 100 feet decrease in distance of a single-family home to the TOD increasing the home sale price on average by \$10,150 (1.5%)	2009	Mathur, Shishur, and Christoper Ferrell. San José State University. "Effect of Suburban Transit Oriented Developments on Residential Property Values." 2009.
Contra Costa County, CA	Presence of Suburban TOD	TOD has no impact of property values of surrounding homes	2009	Mathur, Shishur, and Christoper Ferrell. San José State University. "Effect of Suburban Transit Oriented Developments on Residential Property Values." 2009.
Hayward, CA	Presence of Suburban TOD	TOD has no impact of property values of surrounding homes	2009	Mathur, Shishur, and Christoper Ferrell. San José State University. "Effect of Suburban Transit Oriented Developments on Residential Property Values." 2009.
San Mateo, CA	Presence of Suburban TOD	TOD has no impact of property values of surrounding homes	2009	Mathur, Shishur, and Christoper Ferrell. San José State University. "Effect of Suburban Transit Oriented Developments on Residential Property Values." 2009.

New Urbanism				
Washington County, Oregon	New urbanist features	Properties located in a neighborhood with new urbanist features command an estimated 15.5% premium.	2003	Song, Yan, and Gerrit-Jan Knaap. "New urbanism and housing values: a disaggregate assessment." <i>Journal of Urban Economics</i> . 54 (2003): 218–238
Gaithersburg, MA	New urbanist features	Homebuyers pay a premium of approximately 14.9% of property value in to live in Kentlands, a new urbanist community	2001	Tu, Charles, and Mark Eppli. "An Empirical Examination of Traditional Neighborhood Development." <i>Real Estate Economics</i> . 29.3 (2001): 485–501.
Elk Grove, CA	New urbanist features	Homebuyers pay a premium of approximately 4.1% of property value in to live in Laguna West, a new urbanist community	2001	Tu, Charles, and Mark Eppli. "An Empirical Examination of Traditional Neighborhood Development." <i>Real Estate Economics</i> . 29.3 (2001): 485–501.
Chapel Hill, NC	New urbanist features	Homebuyers pay a premium of approximately 10.3% of property value in to live in Southern Village, a new urbanist community	2001	Tu, Charles, and Mark Eppli. "An Empirical Examination of Traditional Neighborhood Development." <i>Real Estate Economics</i> . 29.3 (2001): 485–501.
Washington D.C. Metro Area	New urbanist features	Homes in Kentlands, a new urbanist neighborhood, were valued at a 12% premium relative to comparable neighborhoods lacking "new urbanist" features.	1999	Tu, Charles C. and Mark J. Eppli. "Valuing New Urbanism: The Case of Kentlands." <i>Real Estate Economics</i> 27. 3 (1999): 425-51
Walkability				
National	Walkability	An office property with a Walk Score of 80 was worth 54% more per square foot than an office with a 20 Walk Score.	2010	Pivo, Gary, and Fisher Jeff. "Walkability Premium in Commercial Real Estate Investments." (Working Paper) Responsible Property Investment Center, University of Arizona. Benecki Center for Real Estate Studies, Indiana University. 2010.
National	Walkability	A retail property with a Walk Score of 80 was worth 54% more per square foot than a retail property with a 20 Walk Score.	2010	Pivo, Gary, and Fisher Jeff. "Walkability Premium in Commercial Real Estate Investments." (Working Paper) Responsible Property Investment Center, University of Arizona. Benecki Center for Real Estate Studies, Indiana University. 2010.

National	Walkability	An apartment property with a Walk Score of 80 was worth 6% more per square foot than an apartment property with a 20 Walk Score.	2010	Pivo, Gary, and Fisher Jeff. "Walkability Premium in Commercial Real Estate Investments." (Working Paper) Responsible Property Investment Center, University of Arizona. Benecki Center for Real Estate Studies, Indiana University. 2010.
National	Walkability	In the typical market, an additional one point increase in Walk Score was associated with between a \$700 and \$3,000 increase in home values.	2009	Cortright, Joe. CEOs for Cities. "Walking the Walk: How Walkability Raises Home Values in U.S. Cities." 2009.
Proximity to Transit				
National	Presence of high quality public transit	The presence of high quality public transit provides vehicle, parking and road cost savings averaging \$1,040 per capita.	2010	Litman, Todd. "Raise My Taxes, Please! Evaluating Household Savings From High Quality Public Transit Service." 2010.
Buffalo, NY	Proximity to Light Rail	For every foot closer to a station, property values increased by \$2.31 for straight-line distance and \$0.99 for network distance per square foot, or two to five percent of the city's median home value.	2007	Daniel Hess and Tangerine Almeida, "Impact of Proximity to Light Rail Rapid Transit on Station-area Property Values in Buffalo, New York," <i>Urban Studies</i> 44:5/6 (2007): 1041–1068.
Philadelphia, PA	Within walking distance of subway	Homes within walking distance (less than a 1/8 mile) of subway stops carry a price premium of 3% over those farther away.	2006	Wachter and Gillen, "Public Investment Strategies: How They Matter for Neighborhoods in Philadelphia," The Wharton School, University of Pennsylvania (April 2006).
Washington D.C.	Proximity to Heavy Rail	Every tenth-mile increase in distance from Metro stations would reduce apartment rents by 2.5 percent.	1996	John Benjamin and Stacy Sirmans, "Mass Transportation, Apartment Rent and Property Values," <i>Journal of Real Estate Research</i> 12:1 (1996): 1–8.
Business Improvement Districts				

New York City, NY	Presence of BID	30% increase in commercial property values over the previous 5 year period.	2007	Ellen, Ingrid Gould, Schwartz, Amy Ellen, & Voicu, Ioan. (2007). The Impact of business improvement districts on property values: evidence from New York City. Unpublished manuscript, Furman Center for Real Estate and Urban Policy, New York University, New York, New York.
Philadelphia, PA	Presence of BID	5-9% reduction in crime	2006	Brooks, Leah. 2006. "Volunteering to Be Taxed: Business Improvement Districts and the Extra-Governmental Provision of Public Safety." Unpublished manuscript.
Philadelphia, PA	Presence of BID	Homes located in BIDs are valued 30% higher than comparable homes not located in BIDs.	2006	Wachter and Gillen, "Public Investment Strategies: How They Matter for Neighborhoods in Philadelphia," The Wharton School, University of Pennsylvania (April 2006).
Brownfield Sites				
Milwaukee, WI	Redevelopment of brownfield sites	Redevelopment of brownfield sites led to a net increase of 11.4% in nearby housing prices.	2009	De Sousa, Christopher, Changshan Wu, and Lynne Westphal. "Assessing the Effect of Publicly Assisted Brownfield Redevelopment on Surrounding Property Values." <i>Economic Development Quarterly</i> . 3.2 (2009): 95-110.
Minneapolis, MN	Redevelopment of brownfield sites	Redevelopment of brownfield sites led to a net increase of 2.7% in nearby housing prices.	2009	De Sousa, Christopher, Changshan Wu, and Lynne Westphal. "Assessing the Effect of Publicly Assisted Brownfield Redevelopment on Surrounding Property Values." <i>Economic Development Quarterly</i> . 3.2 (2009): 95-110.
Mixed Income Housing				
Boston, MA	Presence of subsidized, high density, mixed income rental housing	Presence of subsidized, high density, mixed income rental housing has no impact on surrounding housing prices.	2005	Pollakowski, Henry, David Ritchay, and Zoe Weinrobe. "Effects of Mixed Income, Multi-family Rental Housing Developments on Single Family Housing Values." Massachusetts Institute of Technology Center for Real Estate. (2005)

Miscellaneous				
51 largest metro areas in the United States	Reducing VMT	Reducing VMT by one mile per capita would result in fuel, motor vehicle purchase and maintenance savings of \$28.6 billion annually	2008	Cortright, Joe. CEOs for Cities. "City Dividends: How Cities Gain by Making Small Improvements in Metropolitan Performance." 2008.
Philadelphia, PA	Cleaning and greening of vacant lots	These efforts reverse the negative impact of adjacency to neglected vacant lots (-20% home value) and impart an additional 17% of value to surrounding homes.	2006	Wachter and Gillen, "Public Investment Strategies: How They Matter for Neighborhoods in Philadelphia," The Wharton School, University of Pennsylvania (April 2006).
Texas	Designation of historic districts	The increase in property value associated with designation of historic districts varies from 4.9% to 20.1% among Texan cities studied	2001	Leichenko, Robin, N. Edward Coulson, and David Listokin. "Historic Preservation and Residential Property Values: An Analysis of Texas Cities." Urban Studies. 38.11 (2001): 1973–1987.

APPENDIX4: SUMMARY TABLE OF TYPICAL FUNDING TOOLS FOR STREET IMPROVEMENTS

Summary Table

Type of Bond	Election Required	Procedural Steps	Specific Size Limitation	Under 2% MV General Debt Limit*
GO Street Bonds	Yes	None	None	Yes
GO Improvement Bonds	Not if at least 20% of the improvement cost is assessed.	Feasibility report prepared, hearing conducted, project ordered, hearing on assessments conducted before they are filed in final amounts.	None.	No, if at least partially supported by special assessments.
Special Service District/Housing Improvement Area	No	Ordinance process to establish district/area; public hearing to establish charges, subject to veto by property owners	None.	No
State-Aid Street	No	Vote of Council	90% of construction allocation	No
Street Reconstruction	Not unless a petition is filed	Five year reconstruction plan, public hearing, unanimous approval, 30 day petition period for request of reverse referendum.	None	Yes
Tax Increment Financing	Not if at least 20% of the improvement cost is assessed.	Public hearing required to establish a tax increment district. A complex set of rules and restrictions apply.	No.	No
Tax Abatement	No	Public hearing required, as is adoption of an abatement resolution.	Annual collection of tax abatement can't exceed greater of 10% of levy or \$200,000 and principal amount of bonds can't exceed total of all abatements.	No

* Statutory provisions limit the outstanding amount of debt to 2% of taxable market value unless a type of debt is specifically excluded from the limit.

APPENDIX 5: CORRIDOR IMPLEMENTATION TOOL EXAMPLE

Sources and Uses of Funds - Summary

Project Name	Affordability Tax Credit Adjustment
Station Area	Affordability Tax Credit Adjustment
Location	TBD
Project Type	All
Current Property Taxes	N/A
Estimated New Property Taxes	N/A

Status	Conceptual
Lead Public Entity	Met Council
Private Developer	N/A

Affordability Tax Credit Adjust

USES

Public Improvement Costs

Underground Infrastructure	\$	38,257,954
Surface Improvements	\$	450,117,233
Total - Public Improvements	\$	488,375,187

Site Development

Redevelopment	\$	299,388,750
Housing Affordability	\$	682,970,000
Energy & Vertical Construction	\$	5,309,360,000
Site Development	\$	6,291,718,750

TOTAL USES	\$	6,780,093,937
-------------------	-----------	----------------------

SOURCES

GAP	\$	488,375,187
City	\$	-
County	\$	-
Met Council	\$	-
State	\$	-
Federal	\$	-
Bonds & Tax Credits	\$	780,683,000
Private	\$	5,511,035,750
Philanthropic	\$	-
TOTAL SOURCES	\$	6,780,093,937

