



Achieving System-Level, Transit-Oriented Jobs-Housing Balance: Perspectives of Twin Cities Developers and Business Leaders

Research conducted for the Metropolitan Council as part of the Corridors of Opportunity Initiative

Final Report

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Fully realizing the potential of the growing regional transit system will depend in large part on the actions of private-sector real estate developers and employers. With support from the Sustainable Communities Regional Planning grant awarded to the Council by HUD, the EPA and USDOT, researchers from the University of Minnesota's Humphrey School of Public Affairs conducted a series of conversations with Twin Cities developers and business executives aimed at developing strategies for attracting a wide range of affordable housing choices and living-wage jobs to transit station areas. The research approach centered on in-depth, open-ended interviews with developers and business leaders. Questions focused on primary site selection factors, the role of transportation/transit access in site selection and how that role might change as the regional transitway system matures. Interview transcripts were analyzed through both close readings by the research team and content analysis using the NVivo software package. The research found significant, pent-up demand for transit accessible locations along with significant obstacles to actually selecting them, including automobile-centric development regulations, the lack of zoning allowing TOD's to be built by right, and a need for employers to continue meeting current employees' automotive access needs while preparing for future employees' transit access demands. Policy recommendations include encouraging public-private sector communication, especially with types of developers and employers that demonstrate strong interest in transit access, promoting diverse, walkable neighborhoods in and out of transitway corridors, promoting diverse affordable housing options by allowing consideration of transportation savings possible with transit and accelerating the development of high-quality local and regional transit.

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Executive Summary

Transitways in the Twin Cities metropolitan area continue to expand, with a network of 14 transitways planned by 2030. To promote sustainable regional growth, transitways need to connect both riders and job opportunities. As such, the success of transitways hinges on location decisions made by many private-sector actors: A transitway can only achieve its full potential if businesses and housing developments locate in areas accessible to it. This research creates a set of policy recommendations intended to effectively promote affordable-housing development and living-wage job creation near transit corridors in the Twin Cities metropolitan region. Specific research objectives include:

- Explore "leveraging points" for private-sector decision makers to embrace transit-oriented development.
- Identify partnership opportunities and engage in bridge building between the public and private sectors for job creation and affordable-housing development near transitways.
- Design incentive, regulatory, and private/public partnership programs that will effectively influence development and employer location choices.

This research centers on a series of interviews with developers and business leaders in the Twin Cities region. These conversations took multiple forms, ranging from group discussions and online surveys in the initial, scoping phases, to in-depth, open-ended interviews with 24 developers, 16 employers, and three commercial real estate brokers based in the Twin Cities metropolitan region.

Interview protocol

Developers were recruited for interviews using random sampling within four partially overlapping sampling frames: central city residential developers, central city commercial developers, suburban residential developers, and suburban commercial developers. Interviews were with principals except for the three largest firms, for which project managers were interviewed.

Employers recruited for interviews included start-ups, established firms, and major employers in the Twin Cities, as well as major commercial real estate brokers. These employers were recruited using convenience sampling. All participating employers, except the commercial real estate brokers, can be characterized as belonging to one of the five competitive clusters identified as key to the Twin Cities regional economy: book publishing and printing, finance and insurance, lessors of nonfinancial intangible assets, management of companies and enterprises, and medical device manufacturing. Interviewees included CEOs, human resources directors, and corporate real estate directors; commercial brokerage interviews included one senior partner, one vice president, and one director of transaction management.

Though the researchers used different questionnaires for different types of developers and employers, all versions of the questionnaires revolved around four basic themes:

1. What the interviewee sees as crucial location factors

- 2. How transportation and transit access fit into that set of factors
- 3. What makes transportation and transit access important (to whatever degree they are)
- 4. What actions the public sector could take to make transit-accessible sites more attractive for private-sector development and job creation

Developer interview findings

Twin Cities developers view transportation access as highly important in selecting sites and view transit access as attractive. Over a third of the developers interviewed consider transit access, specifically, to be an important location factor. Word frequency analysis shows that developers put a high level of importance on relationships with local governments. Regarding transportation terms, "parking" dominates, but "rail" and "transit" show high levels of interest as well. Most of the developers interviewed focus on redevelopment in the central cities and inner suburbs. Location decisions for commercial development are strongly driven by major tenants.

Developers will sacrifice transit access if a transit-oriented site is more expensive or causes more complexity. Multifamily residential developers, redevelopment specialists, and large corporate office tenants already show strong interest in transit-accessible sites. Topic node coding analysis shows that developers most often mention transit-oriented development (TOD) together with future, proposed transitways. Zoning for single uses, low maximum densities, and high minimum parking ratios are significant sources of problems for TOD. Coding analyses for walkability and mixed-use/New Urbanist design show strong consciousness of a young market niche and the need for high density in walkable neighborhood destinations and for transit access.

Affordable-housing developers tend to specialize in affordable housing to achieve economies of scale from all-affordable projects and in-house compliance and management capabilities. Rehabilitation of dilapidated properties as affordable housing can generate broad neighborhood support, whereas new construction of affordable housing can come up against significant opposition. Limited subsidies lead to the concept of "affordable by design," which scales projects to be financially feasible and affordable without subsidy. The housing-plus-transportation cost savings possible with good transit access are key to the success of affordable-by-design projects. Topic coding shows that financing options, as well as the problems of inflexible development regulations and not-in-my-backyard (NIMBY) opposition, are important.

Employer interview findings

Employers report that transit access is an attractive site feature when other, more crucial location factors are satisfied. Word frequency analysis indicates that employee recruiting and retention figure prominently in site-selection decisions. "Transit" and "transportation" also figure prominently in word frequency analysis. Bus transit is mentioned more frequently than rail transit; employers focus more on current service than proposed future options.

Regarding transit access, the importance of recruiting new talent creates a need to be a desirable employer for highly skilled young professionals. Members of the millennial generation are likely to desire—or demand—urban living and transit access. This generational divide puts established, suburban employers in the difficult situation of balancing current employees' automotive commutes against more transit-oriented new talent.

Topic coding analysis reinforces the importance of employee recruiting and retention to desires for transit access. The site-selection process itself is mentioned equally often, showing that employers mainly consider transit when selecting a new location anyway. Preferences of current employees and industry-specific site requirements represent two potential detriments to the selection of transit-accessible sites. Coding analysis for "transit problems" shows employers mention the desire for transit access during most mentions of problems with finding transit-accessible sites. Transit access is a widely desired amenity, which employers often feel prevented from pursuing due to other factors.

Employer interviews show strong interest in transit improvements to enhance regional competitiveness. Employers view the Twin Cities as competing with other metropolitan areas in the U.S. and globally to attract and retain talented professionals. This dynamic is particularly important for millennial professionals who desire vibrant, urban surroundings and transit options, and who are in the most mobile phases of their lives and careers.

Policy recommendations

• Make transit-oriented location decisions less of a compromise

Reduce costs, emphasize benefits

High costs of transit-accessible sites can stop interested developers and employers from selecting them. Subsidy programs, including TOD promotion grants or station-area tax abatement, could offset a major obstacle to TOD and station-area economic development. Costs of automobile-dominated locations may be less well known by developers and employers. A site-plus-transportation cost index (like housing-plus-transportation indices) could help developers and employers factor in costs, including parking, employee productivity impacts, and health insurance for a sedentary workforce.

Streamline regulatory processes

Current development regulations in the Twin Cities (such as single-use zoning, low density limits, and high parking minimums) often limit developers and employers from developing and locating near transit. A TOD zone, in which a developer can build a true TOD project *by right*, would help level the playing field between transit-oriented and automobile-dominated areas. Such a zone would lead to higher densities, increasing the number of residential units and amount of business space per project. Reducing minimum parking ratios where transit options exist would reduce the costs of TOD projects and increase densities of residents and destinations in station areas. Allowing flexibility in the design of these projects will ease TOD in real estate markets other than prime urban core areas.

Recognize ties to specific areas

Regional transit improvements will bring quality transit into the comfort zones of many more developers and employers. Station-area economic development efforts should match plans for employment-focused TODs to the types of employers already present in the area when feasible. Developers with experience in specific transit corridors and employers located near stations are ideal targets for special outreach efforts in terms of promoting TOD and transit-accessible job creation.

Take advantage of natural alliances

Multifamily residential developers, redevelopment specialists, large corporate offices, small innovative employers, and employers of low-wage workers already show interest in transit-accessible locations. These firms are natural allies in promoting transit-oriented jobs-housing balance.

Multifamily developers and redevelopers

The developers that already build transit-friendly projects in the Twin Cities metropolitan area tend to be small, innovative firms focusing on multifamily residential development and/or redevelopment of sites in the central cities and inner suburbs. It is important for TOD promotion efforts to actively reach out to these developers. Developers who have built projects with TOD characteristics near transitway corridors should be included in TOD promotion efforts surrounding these corridors. TOD-friendly zoning reforms should consider the needs of small projects as well as large ones.

Large corporate offices

Given the ability large companies have to act as anchors of economic development, direct engagement with major employers is crucial. Downtown companies establishing suburban back offices and out-of-town companies establishing new offices in the Twin Cities are especially good candidates for outreach due to their relative freedom of site selection.

Connect interested employers and developers

Small employers can be prevented from selecting transit-accessible locations due to available space. Connecting small, innovative employers interested in transit access with developers that have TOD experience can allow for faster development of transit-oriented business space.

Engage with relevant low-wage employers

Attracting entry-level jobs to transit-station areas will be crucial to achieving transit's full social-equity benefits. Station-area economic development planning should include relevant employers of low-wage workers. Such employers could fit well in otherwise park-and-ride-oriented suburban station areas.

Tailor economic development plans to local economies

Employers report strong ties to the general areas of their current locations. Tailoring economic development plans for specific areas to the needs of local industries could help make it easier for relevant employers to select transit-accessible sites.

• Promote vibrant, walkable neighborhoods for their own sake

Recognize that demand for walkability can lead to transit friendliness

Promoting pedestrian-oriented design wherever demand for it exists will promote TOD as well. Meeting the full demand for walkable development in vibrant neighborhoods will create a more transit-friendly region, whether transit friendliness is a primary consideration of individual projects or not. High demand for walkable destinations shows the importance of considering pedestrian accessibility and land-use mix in promoting walkability.

Allow flexibility in design

Developments with all desirable pedestrian-oriented features are not feasible in all markets. Permitting developments outside the auto-dominated norm with only some pedestrian-oriented features could increase the amount of walkable development in the region.

Regulatory reform

Pedestrian-oriented development needs similar regulatory reforms as TOD, including zoning reforms to allow denser projects with wider varieties of uses by right in appropriate areas and relaxation of off-street parking standards where feasible.

• Promote diverse affordable-housing options

Engage with affordable-housing specialists

The process of developing affordable housing has important differences from developing marketrate housing apart from funding. Affordable-housing promotion efforts could have more success if they were to focus on the provision and funding of affordable-housing units at the level of station-area neighborhoods rather than percentages of individual new developments. Including preservation and reuse in affordable-housing strategies could offer cost savings along urban transitways and avoid NIMBY opposition. Affordable-housing strategies must consider family housing needs, both through new construction and rehabilitation.

Pursue affordable-by-design solutions

The high demand for affordable housing, coupled with limited available public funds, points to affordable-by-design housing as important to a system-wide, transit-oriented affordable-housing strategy. Affordable-by-design housing will require reform of the same automobile-oriented density and use restrictions as well as off-street parking standards that hinder TOD. Implementing affordable-housing policies that recognize transit's housing-plus-transportation cost benefits in determining what constitutes "affordable" for funding eligibility could significantly ease the development of transit-oriented affordable housing.

Accelerate expansion of TOD and the transit system

The generational change under way in neighborhood preferences and attitudes toward transit is an important opportunity to lay the groundwork for a more sustainable regional growth pattern in the Twin Cities.

Accelerate TOD and transit improvements throughout the region

Developers tend to specialize in specific areas of the region, and most developers with experience in transit-friendly development work primarily in the central cities. Connecting developers with expertise in suburban transit corridor areas and developers with TOD experience could speed the broader adoption of sustainable development patterns. Pursuing TOD-friendly regulatory reform in neighborhoods beyond immediate station areas will be necessary to meet the full demand for transit access. The research findings also demonstrate the importance of continuing, and if possible, accelerating the build-out of the regional transit system to take full advantage of the generational change under way.

Engage with employers

The build-out of the regional transitway system offers an opportunity to promote transit-accessible location choices as a way for employers to prepare for the future without sacrificing their ability to retain current employees. Employer outreach should consider workforce age makeup, focusing on the importance of hiring young talent for growth or the imminent need to replace retirees. Outreach efforts should be timed to reach companies when they are looking for new offices or facilities; small growing companies deserve special focus. Outreach to large, suburban employers should explore opportunities for transit access alternatives, including shuttles to nearby transitways. Interest in the regional competitiveness benefits of transit improvements offers an opportunity to promote the benefits of transit to employers who do not see direct benefits to their own workforces.

• Promote diverse transit options as the regional system grows

Achieving system-level, transit-oriented jobs-housing balance will require diverse TOD solutions and quality transit options that are in addition to and complement regional transitways.

Remember the buses

High-frequency bus routes, especially with transitway connections, are likely to offer significant TOD opportunities and should be considered for TOD-specific zoning and parking standards.

Strive to serve nontraditional commutes

It is critical that the transit system serve the complex commute patterns of the Twin Cities region. Transitways providing rapid, regional mobility and crosstown bus service that directly connects popular residential areas with employment centers can improve the attractiveness of transitoriented sites for housing and jobs by increasing the number of employees and employers that are connected.

Implement premium urban local transit

Transit could be significantly more relevant to development if premium local services, such as streetcars or arterial bus rapid transit (BRT), were implemented in popular urban neighborhoods. Such services could offer attractive links with the regional transitway system, extending its reach and development impacts.

Certainty of construction needed

Developers and employers show interest in proposed future transitways but will not make location decisions based on them unless construction is certain. A strengthened, dedicated funding source for transit improvements could offer developers and employers the feeling of certainty they need to make transit-oriented location decisions.

Concluding comments

The most positive finding of this research is that pent-up demand for transit access exists among Twin Cities developers and employers. Though significant obstacles also remain to increased TOD and job creation, the specific policy recommendations derived from this study are neither new nor unknown. Indeed, they are widely accepted by the planning profession as tactics for encouraging TOD. The key is implementing these policies on a broad enough, regional scale to achieve the desired broad, regional impacts. Implementation will require a great deal of regional cooperation and political will—things this study does not make any easier to realize. It does, however, argue strongly for the need to try.

Chapter 1: Introduction

As the Twin Cities metropolitan region grows over the coming decades, the vision of the Metropolitan Council, as well as city and county governments, is that transit carry a significantly increasing share of trips in the region. Central to the achievement of this goal is a proposed regional system of transitways—premium transit corridors offering fast, reliable, and frequent service throughout the day, as well as an improved passenger experience both in vehicles and at stations (see Figure 1.1). In addition to attracting increased ridership, the regional transitway system is expected to serve as the anchor of a more sustainable future regional growth pattern of walkable residential communities and employment centers oriented to transit connections.

The success of transitways as a tool to create sustainable regional development patterns hinges on location decisions made by many private-sector actors: A transitway can only achieve its full potential if businesses and housing developments locate in areas accessible to it. Price premiums common to transit-oriented development (TOD) speak to the access benefits that transit offers but raise concerns about the availability of those benefits to working households. In addition, the rise of major, regional employment centers—such as the Golden Triangle area in Eden Prairie and the I-494 corridor—in areas without high-quality transit service creates barriers to transit's ability to effectively serve a large proportion of regional commutes. In particular, the living-wage jobs crucial for social mobility among the economically disadvantaged have recently shown disproportionate growth outside the downtowns. Realizing the full potential of transitways to improve both sustainability and social equity requires encouraging private development of affordable housing and living-wage jobs in station areas.

1.1 Research objectives

This research intends to create a set of policy recommendations that will effectively promote affordable-housing development and living-wage job creation near transit corridors in the Twin Cities metropolitan region. Specific research objectives include:

- Explore "leveraging points" for private-sector decision makers to embrace TOD.
- Identify partnership opportunities and engage in bridge building between the public and private sectors for entry-level job creation and affordable-housing development near transitways.
- Design incentive, regulatory, and public/private partnership programs that will effectively influence development and employer location choices.

1.2 Research approach

This research centers on a series of interviews with developers and business leaders in the Twin Cities region. These conversations took multiple forms, ranging from group discussions and online surveys in the initial, scoping phases, to in-depth, open-ended interviews with 24 Twin Cities developers, 16 Twin Cities business leaders in competitive industries, and three Twin Cities business leaders in the commercial real estate brokerage industry.

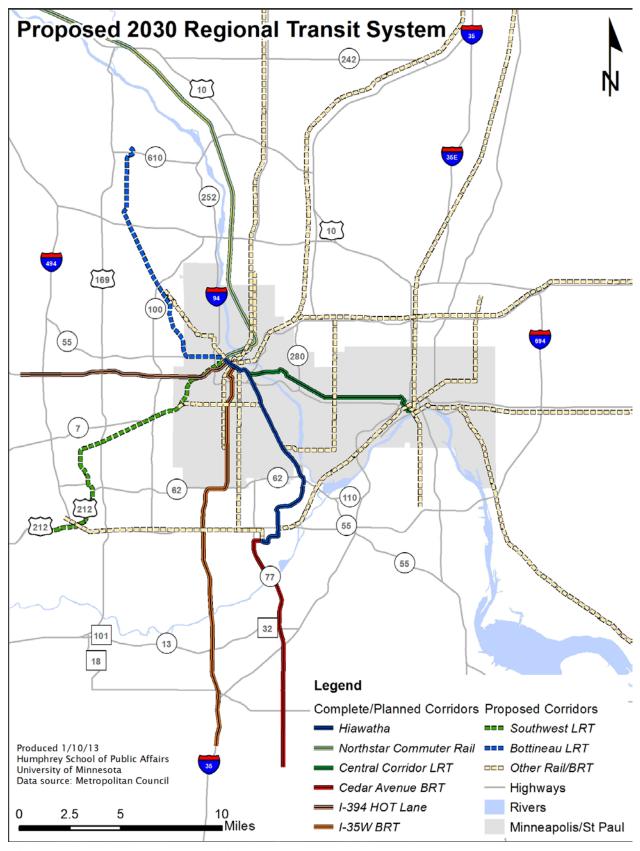


Figure 1.1: Proposed 2030 transitways

The sample of developers included firms working in the central cities, inner suburbs, and outer/developing suburbs. Developers of residential and commercial properties are represented, including firms that work in both areas. Developers were randomly sampled to obtain a balance of firms specializing in residential and commercial development and active in the central cities and suburbs. A detailed description of the sampling procedure can be found in Chapter 3.

The sample of business leaders included C-suite executives (a firm's most senior-level executives), human resources directors, and corporate real estate directors with companies ranging from start-ups to established Fortune 500 companies. In keeping with the project's objective of developing strategies for supporting living-wage job creation in transit-accessible areas, the business portion of the research focuses on businesses in industries identified as belonging to competitive clusters in the Twin Cities region. Businesses to approach for interviews were randomly sampled within each cluster, with the exception of Fortune 500 companies, which were convenience sampled due to their relatively small number and the difficulty of making high-level contacts in these firms. (See Chapter 3 for a more detailed description of the sampling procedure.) Clusters studied include:

- *Book publishing and printing*: Publishers, printers, and electronic publishers. (e.g., Thomson-Reuters, Deluxe)
- *Finance and insurance*: Banks, insurance companies, insurance agents, and investment services. (e.g., Travelers, U.S. Bancorp)
- Lessors of nonfinancial, intangible assets: Franchisers (chain restaurants, etc., such as Dairy Queen and Supervalu)
- *Management of companies and enterprises*: Management firms, most large companies (major retailers or manufacturers managing various business lines such as Cargill and Target Corp.)
- Medical device manufacturing: Medical device makers and their specialized suppliers. (e.g., Medtronic, Boston Scientific)

A competitive cluster is a group of industries in a region, anchored by an industry that drives that region's economy along with other industries having significant input-output trading relationships with the anchor. As net exporters, competitive clusters bring capital into the region. In addition, industries in competitive clusters create disproportionate numbers of stable, living-wage jobs as compared with service industry employers. Cluster designations used in this report are derived from the recent empirical study *Maximizing the Benefits of Transitway Investment* (Fan & Tilahun, 2012).

Three commercial real estate professionals in the region were also interviewed. Commercial real estate brokers deal with site-selection issues from the employers' perspectives much more frequently and in more varied circumstances than individual employers do. Brokers can also play a significant role in shaping employers' site-selection decisions. These three interviews offered additional context and breadth to the employer portion of the study.

Interviews with both developers and business leaders were semi-structured, ranging from 30 minutes to well over an hour in length. The following chapters provide a brief synthesis of current research on TOD and station-area economic development, detailed interview protocols, and findings for developers and business leaders and conclude with recommendations for advancing the goal of system-level, transit-oriented jobs-housing balance in the Twin Cities as the regional transitway system grows.

Chapter 2: Review of Literature

2.1 The need: existing research on the Twin Cities

The proposed build-out of the regional transitway system will undoubtedly significantly improve transit-based *mobility*. Fully realizing the potential of such a large public investment to improve transit-based employment *accessibility*, however, will be impossible absent sufficient housing and employment opportunities concentrated in areas with high levels of transit service. Previous research indicates a need for the Twin Cities region to introduce a new pattern of development if such a goal is to be achieved.

The *Access to Destinations* project, conducted by researchers at the University of Minnesota, analyzes accessibility to jobs in the Twin Cities metro area by multiple modes, including transit and automobile. It finds uneven levels of transit accessibility across the region, with jobs outside the central business districts of Minneapolis and St. Paul generally difficult to reach by transit (Center for Transportation Studies, 2012). Fan et al. (2012) found that the implementation of light-rail transit (LRT) service in the Hiawatha corridor—the region's first modern transitway—along with complementary changes in bus service significantly improved employment accessibility by transit. They found the gains were regional in scope, and due mostly to reduced transit travel times as opposed to a shift in development patterns. An earlier study by Fan, et al. (2010) found the potential beginnings of a realignment of some workers' and employers' location decisions toward light rail. However, at the time of their study (based on data collected less than two years after the implementation of light rail), the extent of the shift was insufficient to significantly change regional, transit-based employment accessibility.

In a future-oriented study of the employment accessibility impacts of the proposed 2030 regional transit system in the context of multiple residential and economic development scenarios, Fan and Tilahun (2012) predict significant accessibility benefits from implementing the regional transitway system by itself. However, they also found that those gains would be much greater if future housing development and/or job growth were concentrated in transit-served areas, with by far the greatest gains occurring from the increased concentration of *both*. Based on existing research, system-level, transit-oriented jobshousing balance will be a prerequisite for the success of the Twin Cities' regional transit investments.

2.2 The places: development and transit

TOD has become a well-recognized concept in recent years. The concept of compact, walkable, mixed-use development served by high-quality transit is nothing new. Indeed, it is the hallmark of the numerous, traditional central-city and inner-suburban neighborhoods that grew up around first-generation streetcar lines a century ago (Gin & Sonstelie, 1992; Hess & Lombardi, 2004). Even in the modern, automobile era, the principles of purposeful TOD have been understood for many years (Calthorpe & Mack, 1989; Cervero, 1984). Overall, however, the past several decades have been marked by increasingly automobile-dominated suburban "sprawl" (Metropolitan Council, 2006; Burchell et al., 2002; Ewing, et al., 2003; Pendall, 2011). Developers themselves appear to perceive a latent, unmet demand for more compact, transit-accessible residential and commercial development. In a nationwide survey of developers, Levine and Inam (2004) found that, in all geographic regions, developers perceived an unmet market demand for TOD. Although the largest percentages appear in the Northeast and Mid-Atlantic, 78 percent of Midwestern developers believed at least 10 percent of households are interested in more

walkable and/or transit-friendly development forms, with 40 percent believing that at least 25 percent of households share that interest. They also found that developers generally perceive development regulations requiring low-density, single-use development in most areas to be a primary obstacle in the path of implementing alternative forms of development (Levine & Inam, 2004). Levine and Frank (2007) also reach a similar conclusion in terms of demand for compact, transit- and pedestrian-friendly development. Their study compared the stated neighborhood preferences of residents in automobile-dominated Metropolitan Atlanta and the considerably more varied Greater Boston. Results showed significant demand for TOD in both regions, but much less alignment between residents' preferences and the neighborhoods they lived in among Metro Atlantans than among Greater Bostonians. This finding indicates an undersupply of transit-oriented neighborhoods in the Atlanta area (Levine & Frank, 2007).

Cervero (1996) offers a detailed exploration of how TOD fits into the residential development market in the San Francisco Bay area and what market niches it tends to target/attract. He found that residents of transit-oriented housing tend to be young, childless professionals who often work downtown or in transit-served areas. Among these residents, he also found high rates of rail commuting and low rates of automobile ownership. Cervero (1996) suggests zoning reforms allowing lower parking ratios in transit-oriented housing and location-efficient mortgages as strategies for promoting further TOD projects. The Center for Transit Oriented Development (CTOD) estimates more than one in five households will desire housing in a TOD by 2025, and that most of this demand will come from singles and childless couples, as well as from individuals over age 65. CTOD also estimates that roughly 20 percent of the demand for TOD housing will come from families with children (Dittmar, et al., 2004).

In addition to the positive evidence of a latent market *demand* for TOD, empirical evidence also confirms the development *impacts* of premium (usually rail) transit investments (Levine & Inam, 2004). These studies often seek to quantify the impacts of transit investments on regional development patterns (Cervero, 1984; Cervero & Landis, 1997; Cervero, 2006a; Cervero, 2006b; Dueker & Bianco, 1999; Fan et al., 2010; Fan et al., 2012; Fejarang, 1994; Guthrie & Fan, 2010; Landis, et. al, 1995; Loukaitou-Siders & Banarjee, 2000) or the impacts of TOD projects on travel behavior (B. Brown & Werner, 2009; Cao & Jordan, 2009; Crowley, et al., 2009; Knowles, 1996; Loukaitou-Siders & Banarjee, 2000; Lund, et al., 2004; Walters, et al., 2000). The existing studies, including the ones on market demand and development impacts of TOD, offer a wealth of information on why a regional planner might *desire* TOD, but less as to how he or she might go about *promoting* it on a regional scale.

2.2.1 TOD vs. conventional development: the importance of allowing TOD

The demonstrated, unmet demand for TOD could suggest that allowing TOD is an issue of personal freedom in addition to public good. Levine and Inam (2004) argue that the unmet demand shifts the "burden of proof" from smart growth *proponents* (traditionally expected to demonstrate, in detail, why smart growth is preferable to conventional development) to smart growth *opponents* (who would, presumably, have to demonstrate why smart-growth-friendly policies would be harmful) (Levine & Inam, 2004). Downs (1999) also points out that the conventional, automobile-oriented development that has been a hallmark of the preceding decades has hardly occurred in a perfectly free market (Downs, 1999). Similarly, Pendall (2011) finds low-density zoning and annual building-permit caps to be significant drivers of sprawling development—in spite of market forces to the contrary.

Far from requiring coercive policies, Levine and Inam (2004) argue that targeted deregulation would be sufficient to significantly increase the production of walkable, transit-friendly developments. As evidence, they point to significant shares of proposed "alternative" developments being either rejected or significantly altered. Reductions in density (82 percent of altered proposals) and/or reductions in diversity of uses (43 percent of altered proposals) are the most common alterations. The implication of these alterations and rejections is that developers would build more dense projects with greater diversities of uses if they were allowed to do so (Levine & Inam, 2004). The CTOD echoes these points, calling for higher-density zoning and reduced parking requirements as important strategies for encouraging TOD, along with continued investments in improved transit infrastructure (Dittmar et al., 2004). Leach (2004) cites the example of the Rosslyn-Ballston Metrorail corridor in suburban Arlington County, Virginia, as a highly successful example of the decades-long process of retrofitting an automobile-dominated suburban area for a pedestrian- and transit-friendly built form. Arlington County has a General Land-Use Plan allowing station-area developments to have much higher densities than are permitted by right and lower parking ratios than would otherwise be required. The county also offers a standardized and predictable if highly detailed—site-plan review process to encourage the construction of compact, urban development while protecting surrounding single-family areas (Leach, 2004).

2.2.2 TOD and affordable housing

Ensuring that the benefits of transit improvements are broadly shared across social strata will also require the provision of affordable housing in station areas. The construction of affordable housing, in general, is often hampered by neighborhood opposition, particularly in suburban areas (Goetz, 2008). Suburbanites often equate affordable housing with poor minorities, recipients of public assistance, and crime—things they may view as "urban" problems (Kirp, 1997). Whatever their reasons, suburban communities often oppose the provision of affordable housing on a large scale (Downs, 1993; Keating, 1994). The provision of affordable housing in transit station areas may be made doubly difficult by persistent perceptions (particularly in suburban areas) that transit improvements lead to increased crime rates, despite all evidence to the contrary. Fan and Guthrie (2012) find such perceptions alive and well in Twin Cities station areas.

The construction, or even preservation, of affordable housing in transitway station areas can be further complicated by high market demand and rents in transit-served locations. Belzer, et al. (2006) found that transit-focused neighborhoods support a high level of racial and income diversity, overall, but that increasing demand for transit-oriented housing among higher-income households puts upward pressure on currently affordable rents and property values in station areas. They acknowledge, however, that residents of transit-served neighborhoods who actually use transit tend to have significantly lower housing-plus-transportation costs than members of similar households in non-transit-served neighborhoods (Belzer, et al., 2006). Numerous researchers have found station-area housing price premiums in a wide variety of neighborhoods and regions, even in station areas of proposed transit corridors (Goetz, et al., 2010; Hess & Almeida, 2007; Immergluk, 2009). In some cases, the negotiation of variances and approvals common to TOD projects can present an opportunity for the inclusion of affordable units in exchange for density bonuses, parking ratio reductions, etc. (Belzer et al., 2006; Leach, 2004).

2.3 The jobs: economic development and transit

Transit-accessible housing would offer few benefits to commuters without transit-accessible workplaces. Transit, in general, and rail transit, in particular, offer a high level of service to dense, congested central business districts (Cao & Jordan, 2009; Cervero, 2006b; Fan et al., 2012). However, the trend in employment growth in recent decades has been one of increasing suburbanization and decentralization (Cervero, 2006b; Glaeser, et al., 2001). Such "job sprawl" often reduces options for commuting by transit and can have serious impacts on lower-skilled, transportation-disadvantaged workers hoping to improve their economic lot (Fan, 2012). The Twin Cities region has maintained strong bases of employment in the central business districts of Minneapolis and St. Paul. Much recent employment growth, however, has occurred in suburban locations, such as the I-494 corridor (Metropolitan Council, 2010). In the future, system-level, transit-oriented jobs-housing balance in the Twin Cities will require significant employment growth in transit-served locations.

Most TOD research has focused on the development of transit-oriented housing. Individuals who desire transit access may self-select transit-oriented housing, but self-selection of transit-oriented workplaces is more difficult for an individual commuter. This fact underscores the importance of employment-focused TOD efforts (Cervero, 2006b).

Businesses in different industries prioritize different location factors in selecting sites within a region. An important site-selection factor is the consideration of commute sheds and labor supply, especially in cases of companies requiring large quantities of skilled labor. Laulajainen and Stafford (1995) state that employers in most regions cannot reasonably hope to recruit employees from an area beyond 45-60 minutes travel time. They also find that even the largest employers often seek to locate in an area where they will not employ more than 7-10 percent of their total labor force within the 45-60 minutes of travel time (Laulajainen & Stafford, 1995). This reasonable commute radius is defined by travel time, regardless of mode: a transportation mode offering regional travel-time savings can make sites it serves particularly attractive to major employers by allowing them to recruit from larger areas.

Not all businesses select sites in a perfectly informed, perfectly rational process. Elgar and Miller (2010) found that most small-to-medium-sized office firms surveyed in the Toronto area choose locations based on what they term "a satisfying rather than utility-maximizing" process. Many respondents selected the first location they found that met their most basic, indispensable criteria (Elgar & Miller, 2010). In a series of interviews with businesses, Wardner (2012) concludes that employers often consider "sense of place" when selecting locations from a perspective of improving recruiting and retention of employees. She also found that sense of place is not often considered in a systematic way and is often overridden by other location factors (2012).

2.3.1 Employers' demand for transit access

Kawamura (2001) found empirical relationships between companies' location choices and transportation access in a broad-based study of the Chicago metropolitan area. In particular, firms' average distance to freeway interchanges decreased from 1981 to 1999; distances between firm locations in the central city and rail transit stations decreased as well over the same period. Suburban businesses have maintained similar distances to rail transit stations while at the same time moving closer to freeways (Kawamura, 2001). In Madrid, Mejia-Dorantes, et al., (2012) found that the opening of a new rail transit line

connecting previously poorly served suburbs led businesses to quickly reorient their location choices toward the new transit stations, in spite of a previous non-transit-oriented built form.

Much of the existing research on the relationship between transitways and business location decisions has focused on analysis of commercial property values, taking relative market prices in transit-served and non-transit-served locations as proxies for their desirability. This practice may stem, in part, from readily available public data that can respond quickly to infrastructure improvements. Much research has found that premiums exist for commercial property in rail transit station areas: Cervero and Duncan (2002) found a \$25-per-square-foot premium for parcels within a quarter-mile of commuter rail stations and a \$4-per-square-foot premium for parcels within an equal distance of light-rail stations. They also found a \$2-per-square-foot discount for parcels within half a mile of freeway ramps in Santa Clara County, California. Weinberger (2001) found a commercial rent premium within half a mile of Santa Clara County light-rail stations, and no premium associated with freeway access. Cervero (1994) reaches a similar conclusion in a study of office rents in Atlanta and Washington, D.C. TOD projects, finding significant gains in rents correlated with an 11-year trend of increasing rail ridership. Ryan (2005) breaks from the fold somewhat in reaching the opposite conclusion in a study of the San Diego area, finding no premium for light-rail access and a significant premium for highway access. Many other researchers (Cervero, 1984; Debrezion, et al., 2007; Fejarang, 1994; Nelson, 1999) studying a wide variety of regions, however, echo the findings of Cervero & Duncan (2002) and Weinberger (2001). Looking specifically at the Twin Cities, Ko and Cao (2010) found significant property value premiums for commercial and industrial properties in Hiawatha light-rail station areas. These property value benefits extend 1,400 meters (nearly seven-eighths of a mile) from stations.

Employers appear to perceive at least some benefits from locating near high-quality regional transit options. Research that shows continuing job decentralization, however, highlights both the importance of improved suburban transit options and the challenges transit-oriented economic development efforts are likely to face. There is a need for research that engages with the business community and designs new and innovative strategies for enabling employers to take advantage of regional transit investments.

Chapter 3: Interview Protocol

The interview protocols used in the developer and employer interviews featured similar processes yet different wordings of the questions. (See Appendix A for the interview protocol and all questions used in the developer interviews and Appendix B for those used in the employer interviews.) It is important to note that these interview protocols were carefully planned in advance to ensure a semi-structured interview process. The questions were applied in a flexible manner during each interview to offer interviewees opportunities to guide the discussion as needed.

3.1 Sampling and recruitment

3.1.1 Developers

Developers frequently specialize in either residential or commercial development due to different competencies and working relationships required for each. (Many even specialize in still smaller niches within the residential or commercial development markets.) Developers also often specialize in specific cities or neighborhoods within a region—many of them concentrate on *either* suburbs or central cities (Brown, 2011). These specializations could overlap, with many developers occasionally engaged in more than one type of development or developing in different types of communities. This research selected developers using random sampling within four partially overlapping sampling frames covering central-city residential developers, central-city commercial developers, suburban residential developers, and suburban commercial developers. The total numbers of developers who participated in each category is shown in Table 3.1. Out of 163 developers identified as operating in the seven-county Twin Cities metropolitan area, we interviewed a total of 24, including 16 of which worked in Minneapolis and/or St. Paul, 21 of which worked in suburban communities, 15 that developed residential projects, and 17 that developed commercial projects.

Table 3.1: Types of developers interviewed

	Central City	Suburban	Total
Residential	7	6	15
Commercial	5	6	17
Total	16	21	

Note: Numbers add up to more than 24 due to significant overlap between types and areas.

Using random sampling in each of the four categories, developers were allowed to appear in multiple categories, but if drawn in one, were subsequently removed from others. Sampled developers were approached by telephone; if receptive, they were then sent a letter of introduction (See Appendix C) from funders and supporters of the research along with a brief information sheet about the research. They were then contacted again by telephone, with multiple attempts made until either a definite "yes" or "no" was obtained, or three follow-up contacts had been made without avail.

3.1.2 Businesses

Recruiting focused on businesses in five competitive clusters identified as key to the Twin Cities regional economy: book publishing and printing; finance and insurance; lessors of nonfinancial intangible assets; management of companies and enterprises; and medical device manufacturing. In addition to categorizing the study population by industry cluster, the research team also divided businesses into three size and lifecycle stage categories: startups (businesses less than two years old), established firms (businesses of any age with at least 20 employees), and major employers (businesses in the Fortune 500 or the *StarTribune* 100 list of the largest Minnesota companies). Table 3.2 shows the categorization used in business recruiting and the total numbers of businesses interviewed in each category.

Table 3.2: Business categories and interview totals

	Startups	Established firms	Major employers	Total
Book publishing & printing	0	1	0	1
Publishers, printing presses, also includes electronic publishing. Finance & insurance				
Banks, insurance companies, insurance agents, investment services.	2	4	2	8
Lessors of nonfinancial intangible assets	0	1	0	1
Franchisers (chain restaurants, etc.)		1	Ů	-
Management of companies & enterprises Management firms, most large companies (managing various business lines).		1	2	4
Medical device manufacturing		1	1	2
Medical device makers and their specialized suppliers.				
Total	3	8	5	16

Businesses belonging to the study clusters were identified by North American Industry Classification Systems (NAICS) codes using commercial business data (Dunn & Bradstreet, 2012; ReferenceUSA, 2012). Sampling and recruiting initially followed a similar process to that used for the developers. However, recruiting Twin Cities businesses proved to be a considerably more difficult process than recruiting developers, partly due to a generally lower level of interest in and awareness of the expanding transit system among businesses than developers. The researchers ultimately had no choice but to employ convenience sampling to obtain a sufficient number of responses. Startups and established firms with clearly identifiable contacts were mailed a letter of introduction and information sheet as an initial point of contact. The research team then followed up by telephone and/or email to attempt to secure an interview. In addition, the "cold-call" process employed with developers and smaller employers was deemed unsuitable for use in the major-employers category. These companies were approached through the research team's own professional and organizational contacts. The exact process of recruiting major employers varied considerably from company to company, depending on the nature of the "starting-point" contact. Positions held by individual interviewees varied from CEOs and principals at smaller companies, to human resource directors at companies of various sizes to directors of corporate real estate at companies large enough to have in-house real estate departments.

3.1.3 Commercial real estate

In addition to interviewing businesses from the employer perspective, the research team also interviewed three major commercial real estate brokers based in the Twin Cities metro area. Brokers can play a powerful role in helping businesses make advantageous site-selection decisions. There is evidence in the literature that smaller businesses that employ the services of a broker in making location decisions tend to follow a more rational, utility-maximizing process than those who do not (Elgar & Miller, 2010). Experience during the business interview process suggested the benefits of obtaining brokers' perspectives on the business site-selection process. The three interviewees at commercial real estate brokers were approached by way of professional contacts and asked a set of questions related to the issues that were dealt with in the employer interviews, but also focused on the process brokers go through with their clients.

3.2 Protocol development

In developing the interview protocol and determining key topics to cover in interview questionnaires, the research team conducted a scoping process for both developers and employers. The process was initially envisioned as one focus group each for developers and business leaders. The realities of recruiting, scheduling, and making the research relatable to the business community, however, led to different processes between the development of the employer interview protocol and the developer interview protocol. The two different processes are described in detail below.

3.2.1 Developers

To collect baseline information about the obstacles and objectives that inform a developer's decision-making process when selecting real estate development sites, the research team created and administered a survey to developers throughout the Twin Cities (see Appendices D and E). The survey respondents were reached at conferences and meetings related to real estate development issues (examples include Urban Land Institute discussions, the Industrial and Commercial Real Estate Conference, and a Minnesota Consortium of Nonprofit Developers meeting). Additionally, the survey was included in several newsletters received by real estate developers, including the Minnesota Urban Land Institute (ULI) newsletter.

The analysis looked at how opinions varied between private and nonprofit developers as well as the differing views between commercial and residential developers working in the private sector. The 24 total respondents of the survey held a number of different positions at development firms, including owners (four), directors (six), project analysts (three), project managers (11), and other (four). The residential and commercial developers specialized in a broad range of development types. Additionally, the geographic area that the developers typically work in was a mix of suburban and urban, with a slightly higher representation of urban real estate development professionals.

Respondents completed a brief, anonymous online survey consisting of questions on the development process, general location factors, and experience with developing near transit and developing mixed-income housing (for residential developers), as well as recommendations for public-sector actions to make transit-served sites and/or mixed-income projects more attractive.

Table 3.3: Multiple choice survey results

	"Top" Answer*		
	For-profit residential	Nonprofit residential	Commercial
Most challenging phase	Deal making	Public process	Deal making
Important location factors	Near basic needs (groceries, etc.)	Good transit access	Near job centers
Important neighborhood qualities	Community relationships	Community relationships	Near complementary commercial
Ever developed near transit?	Yes—55%	Yes—71%	No-60%
Obstacles to TOD	Limited land availability	High land costs	Limited land availability
Ever developed mixed-income?	No-60%	Yes—83%	N/A
Obstacles to mixed-income	Leasing/selling market rate: neighborhood opposition	Leasing/selling market rate	N/A

^{*}Answer with the most "challenging/important" and "very challenging/important" responses. Number of "very" responses breaks ties.

Table 3.3 (above) shows the most common responses to the multiple-choice questions in the survey. Notably, nonprofit residential developers most commonly identified good transit access as a key location factor. For-profit residential and commercial developers, however, most commonly identified surrounding uses (basic needs, commercial amenities, and job centers) as key location factors. Majorities of both for-profit and nonprofit residential respondents had participated in projects near major transit corridors. Most commercial respondents had not. For-profit developers most commonly found limited land availability to be a key obstacle to developing near transit, while nonprofit developers identified high land costs. Most nonprofit respondents (83%) had developed mixed-income projects. Most for-profit residential developers had not. Both for-profit and nonprofit residential developers identified problems with leasing or selling market rate units as a primary obstacle to mixed-income development; for-profit developers also cite neighborhood opposition.

In addition to multiple-choice questions, the survey included open-ended questions asking what steps the public sector might take to make development near transitways and mixed-income development (for residential developers) more attractive. Although only six respondents answered these questions, common themes from the responses included:

Development near transit:

- Zoning reform/reduced parking ratios near transit
- Streamlined/accelerated permitting process
- Financial incentives such as tax increment financing (TIF) or low-cost municipal land sales

Mixed-income development:

- Increases in Section 8 and other voucher programs to provide flexibility in subsidized housing
- Mixing incomes more at the neighborhood level than at the project level

Lessons

Results from the scoping survey shaped the developer interview questions in three ways. First, discussion of mixed-income housing focused more on the problems of mixing incomes within a single project, regardless of its location, rather than the problems of providing affordable-housing options in high-demand transit-station areas. It was made clear that the interview questions should address the issue of affordable housing more directly. Second, a perspective of removing regulatory obstacles to TOD was included more overtly in the interview questions, compared to the survey questions. Finally, in the interview questions, we added language reminding participants of the major transit build-out that was under way to create a forward-looking discussion focused on a future regional transit system, which was not in the survey questions.

3.2.2 Employers

The scoping process for the employer interview protocol took the form of a series of conversations with business organizations in the Twin Cities region, including Greater MSP, the Minneapolis Regional and Saint Paul Area Chambers of Commerce, and the Minnesota chapter of the ULI. These conversations were less formal than the survey employed in the developer scoping process, and they placed special emphasis on how best to make transit access and the impacts of the future regional transit system relatable to Twin Cities employers. Specifically, the scoping process led to framing transit access as a quality-of-life amenity and a factor in recruiting talented employees, as well as to language focused more on the factors important for locating companies such as those interviewed, rather than the strengths and weaknesses of actual employers' locations.

3.3 Interview questions

The researchers used different questionnaires for different types of developers and businesses (see Appendices A and B). All versions—for developers and employers—revolved around four basic themes:

- What the interviewee sees as crucial location factors
- Where transportation and transit access fit into that set of factors
- What makes transportation and transit access important (to whatever degree they are)
- What actions the public sector could take to make transit-accessible sites more attractive for private-sector development and job creation

Additional topics were added as appropriate. For example, residential developers were asked two questions concerning affordable housing: what their past experience (if any) had been, or why they had not pursued affordability components; and what the public sector might do to make developing affordable housing more attractive. Table 3.4 (below) briefly shows the questionnaire versions used and their differences.

Table 3.4: Questionnaire versions

	Version	# Used	Notes
Developers	Residential	13	Questions on general site-selection factors, role of transportation, experience with and/or perceptions of transit-oriented sites and affordable housing. (Included in Appendix A.)
	Commercial	11	Residential developer questions, without affordable-housing question. (Included in Appendix A.)
	1st version (standard)	1	Generally parallels developer questions. Quality-of-life issues are addressed in terms of recruiting and retaining skilled employees.
	2nd version (standard)	3	The previous quality-of-life question is replaced with a question about workforce composition, employees' preferred home locations, and access to those locations.
Employers	3rd version (standard)	7	Quality-of-life question takes a more neutral stance, first asking the interviewee to describe the composition of his/her workforce in terms of types of positions, ages, and career stages. (Included in Appendix B.)
	Large employers	4	Written from the perspective of a large company selecting sites for many facilities as well as considering labor access throughout career stages and wide ranges of provisions. (Included in Appendix B.)
	Board member	1	Written for use with a consultant who sits on the boards of directors of a number of small to medium-sized companies, includes perspective of multiple site-selection processes and multiple companies' differing needs. (Included in Appendix B.)
Commercial brokers		3	Focuses primarily on brokers' processes for narrowing down the universe of available properties based on the needs and expressed wishes of clients. (Included in Appendix B.)

The questions designed for standard employer questionnaires went through several iterations to make issues of transit access and sustainable regional development more relatable to employers—especially smaller companies that select sites infrequently. The questions also evolved in how they dealt with quality-of-life and labor-access issues, beginning with the wording below in the first version (standard):

Is the ability to recruit and retain specially skilled employees important to your company?

When you make location choices, do you consider where potential employees might want to live?

Where might that be—what neighborhood characteristics and amenities would be present?

Can you identify any areas in the Twin Cities where many of your employees live?

The questions then evolved into the following in the second version (standard):

Describe your workforce; do you primarily employ recent graduates, mid-career professionals, skilled tradespeople, others?

Many talented workers today highly value neighborhoods offering diverse amenities, a high quality of life, and convenient transportation options. Can you name any areas of the metro that stand out as popular places for your workers to live?

Is your company easily accessible from these areas by highway? By transit? What effect—if any—does this accessibility have on your ability to recruit and retain key staff?

Finally, in the third version (standard), the wording evolved into:

Please describe your workforce; we're interested in experience levels, age groups, and types of positions (clerical, managerial, sales, technical, professional, logistical, etc.) or any other characteristics you consider relevant.

Can you name any areas of the metro that stand out as popular places for your workers to live?

Is your company easily accessible from these areas by highway? By transit? What effect does this accessibility have on your ability to recruit and retain key staff?

The research team agreed that the latter wording could be more easily applied to, and understood by, employers of all sizes and industries. In addition, later wordings sought to avoid presupposing what types of employees would desire transit options and to emphasize neighborhood and transportation choice as well as quality of life without assuming a desire for urban living.

While relatively significant revisions were made to the questions at the time the interviews were already under way, these revisions were important to derive the information needed from the interviewees. Ultimately, the open-ended nature of the interview process meant that the questions effectively changed with every interview, with the prewritten questions serving more as a discussion guide than survey questionnaire.

The research team also tested a self-administered electronic version of the questions. This questionnaire followed the "standard" employer questions very closely, with only relatively minor changes to adapt to the fact that a live interviewer would not be present or able to ask follow-up questions, etc. Though this

version of the questions did yield two completed responses, they provided much less detail than the live interviews. The self-administered questionnaire was subsequently abandoned.

3.4 Interview process

Interviews were conducted with at least two members of the research team present. One interviewer asked the prearranged questions and made sure all central topics were addressed in the time available. This format allowed the other interviewer(s) to concentrate more exclusively on the interviewee's responses and formulate follow-up questions to further explore interesting themes not covered by the original questions.

Interviews were conducted in person whenever possible, with telephone interviews only offered when no other option was available to speak with a particular interviewee. (Three developers and one employer opted for a telephone interview.) Interviews with developers ran anywhere from half an hour to an hour and a half, depending on the person interviewed; interviews with employers were much more consistent in length, lasting roughly 25–35 minutes.

The interview questions primarily functioned as conversation starters rather than discrete questions calling for discrete answers. In the interest of allowing interviewees to provide the insights they saw as most important, interviewers generally attempted to "stay out of the way" as much as possible. As a rule, interviewers only stepped in to redirect the conversation to make certain all key topics were addressed, or to expand on interesting but not fully explored themes.

In the interest of allowing the discussion to flow as freely as possible, and to obtain a complete, objective record of what was said, all interviews were recorded and transcribed in full. In addition, interview participants' identities and employers were kept private to encourage candor to the greatest extent possible. Though time-consuming to produce, full interview transcripts allowed for analysis techniques such as repeated close readings of individual transcripts and statistical content analysis. These techniques will be detailed further in the following chapter.

Chapter 4: Analysis Techniques

4.1 Content analysis using NVivo 10

Given that open-ended interviews do not produce discrete answers suited for statistical analysis, contentanalysis software (NVivo 10) was used in this research to quantify frequencies of key words in the interviews as well as passages dealing with specific topics of interest. These techniques allow for an overall "at-a-glance" perspective on interview content and can help direct human readings of transcripts for further analysis. More important, these techniques help determine the prevalence and co-occurrence of key topics and themes in the interviews.

The NVivo 10 software package for qualitative analysis allows the user to assign passages of text to "nodes," essentially tagging them as pertaining to a particular topic. This process allows the use of a computer to analyze the frequencies of, and correlations between, a large number of specific (and often overlapping) topics throughout all the documents in the completed set of interviews. Since nodes are manually assigned, these types of analyses can be performed even when dealing with complex, interwoven themes requiring human intelligence to identify and parse. The following quoted passage from a residential and mixed-use developer illustrates how nodes can be used to show multiple subjects embedded in a single passage, as well as the intersections between those subjects. In this example, a blue highlight indicates the node "transit-oriented development" and a yellow highlight indicates the node "affordable housing." A green highlight indicates the overlap between the two.

So, affordable by design. Also we can keep doing that. If the government runs out of money [it] can't do that anymore. So those programs are more limited. So looking at affordable by design, and then, really, tackling this transportation thing going. Have you looked at the cost? If I can get them out of their transportation cost, they can switch it over to housing. So, you know, in my group we say, what's the best way to build affordable housing? Put it on transit. You don't even have to touch the unit. You don't have to subsidize the unit or do anything—just put it on transit. Change the equation about the money going into personal transportation, which is 20 percent now.

This conceptual example is a simplified one; in reality, many passages of interview transcripts have much more than two nodes overlapping. Here, text in the yellow and green sections would be included in a word frequency analysis of passages dealing with affordable housing, and text in the green and blue sections would be included in a similar analysis for TOD. In addition, the green text would be identified as an instance in which affordable housing and TOD—two of the most critical topics of this research—are mentioned together (QSR, 2012). Such co-occurrences of important topics can shed light on the important issues to address in efforts to promote transit-oriented jobs-housing balance, since interviewees likely mention conceptually related topics together.

4.2 The human touch

As beneficial as computerized content analysis can be, there is, of course, no substitute for the reading and rereading of interview transcripts by a researcher intimately familiar with the subject matter. Content analysis can, however, help direct close readings of interview transcripts by allowing the reader to search transcripts by topic and by identifying the intersections between important topics. Just as content analysis

can suggest new directions for the researchers' reading of the transcripts, the reverse can be true as well. For example, a passage in which two or more topics appear together in an unexpected way could suggest a new coding query, leading to an iterative process blending human and computerized analysis. We hope that this blend of analysis techniques allows the following chapters to distill the findings of the developer and employer interviews into a concise and accessible format.

Chapter 5: Developer Interview Findings

Of the developers and employers, developers tend to be more accustomed to considering transportation infrastructure developments in their business operations and planning. The 24 Twin Cities developers interviewed provided a wealth of information on how private-sector developers view transit-oriented and affordable housing development. The following chapter explores the knowledge gained in these interviews by listing overall common themes, then exploring these themes further through topic-coding analysis, and finally, by using the results of these techniques to synthesize the key messages developers are sending about transit and affordable housing.

5.1 Word frequency analysis

Figure 5.1 shows a tag cloud of the 100 most frequently used words in the interviewed developers' responses. More frequent words are shown in larger, darker type. The dominance of "builds" and "development" is no surprise. The importance of "city" and "works" illustrates two recurring themes arising out of the interviews. First, working relationships with local governments are crucial to development. These relationships can play a major role in site selection if a developer is choosing between a site in a city that is seen as easy to work with and one in a city seen as more difficult to work with. Second, TOD and/or affordable housing might be desirable but are only possible if a project "works" to begin with. Regardless of how much a developer thinks such developments are the right thing to do, that developer must reasonably expect to make a profit to move forward with a project.

The most prominent transportation term in the cloud—"parking"—is also illustrative. All but three of the developers who participated mentioned parking at least once in their responses. This finding is particularly striking when one considers that parking is not mentioned in the interview questions. Twelve of the participants cited parking as a major cost driver for their developments, particularly multi-family and mixed-use developments and/or redevelopments on urban sites. Six participants also specifically mentioned excessive minimum parking requirements as significant hindrances to TOD. According to these developers, current parking standards artificially inflate the cost (and therefore rents and purchase prices) of transit-oriented developments; they also unnecessarily consume otherwise buildable stationarea land.

On a more positive note, "rail" is the next most common transportation-related word after "parking," followed closely by "transit." Rail generally has a very positive image for developers. Twelve participants specifically identified rail transit as highly attractive from a site-selection perspective. Twelve developers who participated in the research had built projects they identified as transit-oriented on (usually urban local) bus routes. Interviewees are much more likely to discuss "transit service" than "bus service." Other transportation nodes to make it into the top 100 are "cars," "driving," "lines," "streets," and "transportation."

Of the multitude of cities in the Twin Cities metropolitan area, only Minneapolis appears in the tag cloud. In part, this fact likely reflects Minneapolis' status as the most populous city in the region, and likely also the desirability of many Minneapolis neighborhoods from a developer's standpoint. Interview participants repeatedly refer to downtown and Uptown Minneapolis, as well as areas surrounding the University of Minnesota.



Figure 5.1: Most frequently mentioned words in developer interviews

5.2 Primary location factors

Participants were asked: "What are the crucial factors you often consider in determining the location of your development projects?" In response, participants frequently identified convenient access to transportation as key to their site-selection decisions. In fact, all but three interview participants

volunteered transportation access as important before they were asked any transportation-specific questions. However, different developers attach different specific levels of importance to transportation. In addition, nine of the 24 developers interviewed directly reported transit access as a crucial factor in determining development locations. For example:

Well, you know, one has to look at the criteria, because they're different depending on the type of development project. If it's housing, obviously, transit, and desirability of location and what affects that.

And:

I look for the amenity package. I want a restaurant near me, a coffee shop near me, a bus stop near me, so multimodal transit options. Can I move around to this site?

These nine developers demonstrate real demand for transit-oriented sites. However, they do not necessarily represent the mainstream of the Twin Cities development community. TOD is still far from being the rule in the Twin Cities.

Answers to the opening question on crucial location factors support the conclusion that developers tend to concentrate on specific areas. Sixteen of the developers interviewed explicitly mentioned a focus on specific areas within the region. These preferences are more complex than simply central cities versus suburbs. Developers discuss their areas of focus more in terms of a continuum from downtown to greenfield than in terms of an urban-suburban dichotomy. Eleven developers mention a focus on urban neighborhoods or inner suburbs or—most commonly—some combination of both.

A keen awareness of target market niches also appears prominently in developers' discussions of their most important location factors. Fourteen of the developers who participated specifically mentioned their intended market niche in response to our general question about their most important location factors.

A focus on the redevelopment of sites with existing improvements appears prominently, echoing the finding of a common focus on urban and/or inner suburban sites. Other common topics mentioned in response to the crucial location factors question include the density, walkability, and other characteristics of the surrounding neighborhood, financing and incentives such as TIF or tax credits, tenant-led site-selection processes, and visibility.

5.2.1 Many participants focus on redevelopment

Another interesting finding is the number of Twin Cities developers who focus on redevelopment either primarily or, in some cases, exclusively. Fourteen of the 24 developers interviewed generally develop on sites in built-out communities with improvements already present. Reasons cited include an existing oversupply of conventional, greenfield development, as well as transportation access problems at more remote sites. This high number of participants focusing on redevelopment as opposed to greenfield development is not necessarily representative of all developers in the Twin Cities metro area. It does, however, demonstrate significant interest in development in already fully built-out communities.

5.2.2 Tenants drive commercial development

Current market conditions have led prospective tenants to determine many aspects of commercial development projects before developers even become involved. Only one developer interviewed in this

study currently develops commercial properties on speculation. Others cite difficulties in obtaining financing to permit construction and difficulties in leasing afterward as reasons for avoiding speculative commercial development. In the words of one predominantly suburban commercial developer:

We did [develop on speculation] in the past, and that's history. Where I built centers, where I started building without any tenants, I'd fill them up, and that was prior to the so-called recession, and that worked, and we did very well at that, but since the recession, the banks are not excited about that, and it just doesn't work.

This market situation often means that a particular city or neighborhood may be specified ahead of time by an anchor tenant, especially in cases of corporate tenants. A retail chain, for instance, might select general areas in which to locate based on a desire for a certain level of market penetration in the region. In such cases, developers can play an important role in selecting a specific site within a key tenant's desired market.

5.3 TOD: experience and attitudes

5.3.1 Transit access desired but often overridden

The following statement came early in an interview with a project manager at a major Twin Cities-based development company:

When you get a request from a corporate user, it's always on the list. We want to be close to buses, we want to be close to light rail. When it really boils down to it, and sometimes what comes along with that package of being close to light rail or on a mass transit stop, it ends up being not quite as important as you'd think. At least in the Twin Cities, here. But everything that we've responded to in the last two years, that's been on the list—for a corporate user or a government user. We want to be by mass transit.

Another developer put it this way regarding residential projects:

If we looked at an opportunity and we thought it was a good opportunity, if it wasn't near transit, that wouldn't stop us from moving forward, if the thing underwrote and the metrics were good on it. Now, would we do more apartments in downtown Hopkins knowing that as the light rail eventually gets there, whether it will be something that will add some incremental value? If people had a choice to be a block or two away from the train station, it's probably better than a short drive. And so we might get 5 more cents a foot, and maybe we don't get 5 more cents a foot, but maybe our vacancy runs at 94 percent versus 91 percent or 89 percent.

In both of these examples, transit access is viewed as beneficial, but not necessary. Similar themes came out in interviews: 19 of the 24 interview participants saw transit-served sites as quite attractive, all else equal. Therein lies the rub: Participants cited increased land costs, limited buildable land around existing transitways, and difficult permitting processes in the central cities as factors that tend to keep all else from being equal. A common theme is that transit can easily "break the tie," so to speak, between otherwise similar sites, but that few developers will significantly compromise other site-selection factors just to obtain a transit-oriented site.

5.3.2 Already interested—developers

Developing near transit in such a way as to be truly transit -oriented, rather than merely transit adjacent, can be difficult. Still, several groups of developers in the Twin Cities already place a premium on transit access in selecting sites:

Multifamily developers

For developers building apartments or condominiums, some degree of transit access is increasingly a must. Developers of market-rate multifamily housing are highly dependent on a relatively young demographic for tenants and/or buyers. Interview participants identify young people, especially young professionals, as demanding transit access more than simply desiring it. In most cases, this transit access takes the form of conventional bus service. Most favored sectors of the Twin Cities region for development currently have no other form of transit service. Twelve participants, however, stated that the arrival of light rail in areas of the metro they favor for site selection would (or did) significantly increase the premium placed on transit access. These findings suggest significant sustainable regional development benefits could be achieved by accelerating the build-out of the transitway system. They also suggest a need to explicitly include the existing bus system in incentive programs and policy reforms intended to promote TOD.

Most redevelopers

Developers specializing in redevelopment of properties with existing improvements tend (not surprisingly) to work in the central cities and inner suburbs. In these markets, basic transit access is fairly widespread, and demand for speculative new construction is predominantly in multifamily housing. As a result, redevelopers frequently build projects that have the effect of retrofitting a more transit-friendly built form onto neighborhoods that already have basic transit service. This finding demonstrates a need to include conventional bus routes—at least those with reasonably high levels of service—in policy interventions aimed at promoting TOD.

Large office firms

The more employees there are who commute to a particular employer's place of business, the more important employee commutes become to that employer's business. Large office firms, such as corporate headquarters, generally drive the development of the buildings they will occupy. As a result, they have a great deal of power to shape commercial development patterns. Both large development corporations interviewed indicated that corporate clients are increasingly including transit access in their "wish lists" of desired site characteristics.

5.3.3 Coding intersections—TOD

Figure 5.2 (below) shows the topic "nodes" that interview participants mentioned in the same passages of text as TOD at least 10 percent of the time. The most striking finding is at the far left of the graph: The developers interviewed in this study discussed TOD together with discussions of future, proposed transitways (especially the Southwest light-rail corridor) more often than with any other topic. In fact, more than a third of all mentions of TOD in the entire interview series also included mention of future Twin Cities transitways. In the words of one southwest suburban-focused commercial developer:

You know, I think the interesting thing is what's going to happen with light rail. [...] I think that when [Southwest] light rail goes through this park, it's going to change the

face of it considerably. Because if they put a park and ride out near where the...in the middle of this park...I think that's where it goes. I was just trying to remember...that big building, Merchandise Mart, will probably go down, and there will be more retail across the street, and there will be parking. That just generates a whole new look, and that will be big support for [a major insurance company in the area]. They own the land across, over by Shady Oak, and so it will make a great spot for them if they move over there or continue to develop over there. So it'll dramatically change things.

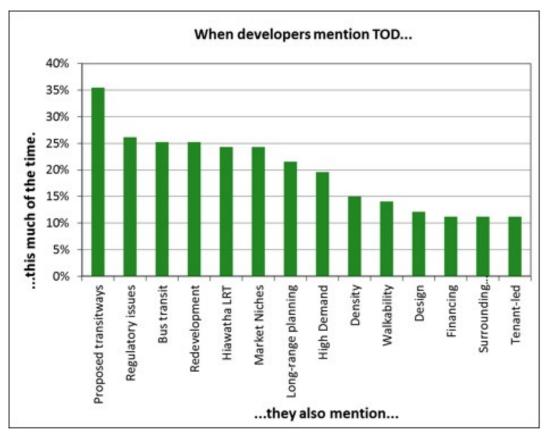


Figure 5.2: Topic node co-occurrences—TOD

This urban-focused, primarily residential developer specifically identified the Southwest light-rail line as an area to watch for transit-oriented *economic* development:

Before you even talk to these CEOs, they said, are you going to go on the Central Corridor? They said, no. You going to go on Hiawatha? No. Are you going to go on Southwest? Yes. Would you go here more than any of those? Yes, because that's where we're planning to go, that's where we are now.

The second most common node to co-occur with TOD is also instructive: regulatory issues. Increased costs, complexity, and/or time caused by regulatory regimes generally ill-suited to TOD are mentioned in one out of every four mentions of TOD in the interview series. Four interview participants also saw current development regulations as designed primarily to restrict developments that might have negative impacts (a model growing out of boom times) rather than to encourage developments expected to have positive impacts. The following example comes from a suburban developer with both residential and commercial experience:

They're not pro-development. They're actually anti-development, and they look at their jobs as to try to control it. Okay? I'm talking in generalizations here. Okay, but they've only—they've come of age only in an up market. So, what's happened is, is that they have gotten together and made a collective imprint on the development community. So anyway, what we see is cities, even with this downturn, they see themselves still as regulators. They aren't—there are very, very few cities that take a proactive response that say, "Okay, what is it we can do to make something happen? What is it that we can come alongside with and help to make this project move forward? We're gonna sit and wait, and we have a community development staff, but we're gonna regulate that and we're not going to really kind of push on it."

Mentions of bus transit co-occur slightly more often than mentions of the Hiawatha light-rail line with mentions of TOD—both appear in roughly 25 percent of passages dealing with TOD. One must bear in mind that "bus transit" refers to the *entire* Twin Cities bus system. In this context, the fact that Hiawatha LRT is mentioned roughly as often as all bus routes put together in connection with TOD is not surprising. Many popular urban neighborhoods, such as Uptown in Minneapolis, are highly desirable areas for development projects independent of transit access. Often, these neighborhoods are only served by conventional bus transit. In such cases, an already somewhat transit-oriented *neighborhood* attracts development, which may have little choice but to adopt transit-oriented design features to fit into that neighborhood.

Interview participants also explicitly mention redevelopment together with one of every four mentions of TOD. This finding highlights the importance of urban (and inner-suburban) locations for TOD in the views of the developers interviewed, as is the case with this small, urban redevelopment specialist:

If it's housing, obviously, transit, and desirability of location and what affects that. If it's housing, what are the supporting services that surround there, or could surround there? And transportation. And transportation. And we are urban infill developers. So, when I look at transportation, I don't look at as much the possibility of future transit, it's what's existing. Now that's all changed over the last you know, eight years, because of our newly constructed and evolving light-rail system.

The frequent mentions of market niches together with TOD indicate developers see it as a niche market. However, TOD is not alone in this—interview participants tend to discuss development marketing more as a myriad of niche markets (of which some are larger than others) than as one mass market. One small, urban developer specializing in transit-oriented multifamily and mixed-use development put it this way:

So, my buyers are people that decidedly want urban—I mean, I'm an urban developer. I'm in the niche. And people just, statistically, go, well, don't people still want to buy a single-family house in the suburbs? Yeah! The majority of them still do. But instead of 98 percent, we're down to 80 percent. And that 20 percent is my market. Or whatever. I don't know the exact numbers, but it's still a huge majority in the suburbs. But when there was only a 5 percent market and it goes to 20 percent, that's quadrupling of the market from my end. I've got four times as many people! I'm going, hey, this is great!

Issues of long-range planning occur frequently, either in terms of identifying a need to support future TOD or recommending how to plan more effectively for TOD. Roughly one in five mentions of TOD also include a specific mention of high market demand for TOD. A corresponding "low-demand" node was created during content analysis. It occurs together with TOD much less frequently—only 7 percent of the

time. Demand for transit access is cited as particularly high among younger demographics. One primarily suburban residential developer described his perception of demand for TOD thus:

That's where the customer is gonna be. And the younger customer that we're gonna do, is just gonna be, you know, transit motivation and orientation is generational. You get someone my age [...] you know, in their 60s, and they go, I'm not gonna get on that damn train, you know. And so they try to do senior housing around transit orient is stupid. And so, but you get someone your guys' age, you go, why wouldn't I live there? Leave the damn car, and/or if I team up with someone, have one car and use the transit. That makes sense.

Other topics mentioned together with TOD at least 10 percent of the time include density, walkability, design issues, financing, issues related to the surrounding neighborhood (crime rates, surrounding uses, etc.), and tenant-led (commercial) development.

5.3.4 Coding intersections—walkability

Walkable neighborhood design is widely considered a crucial component of TOD (Calthorpe & Mack, 1989). Developers play a significant role in shaping the pedestrian environments of new and redeveloped communities. Figure 5.3 shows topic nodes that frequently appear in connection with walkability.

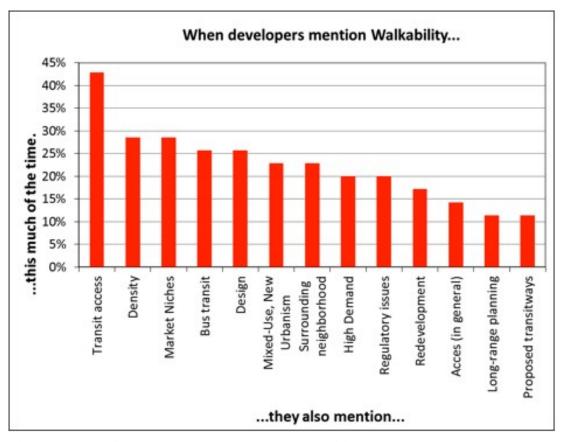


Figure 5.3: Topic node co-occurrences—walkability

TOD stands out—mentioned together with nearly 45 percent of all mentions of walkability. In many cases, developers who market to the growing desire for urban living cite local walkability as a highly

desired neighborhood amenity. Walkability is often seen both as complementary to transit access and as a desirable neighborhood quality in its own right, as evidenced by the words of one residential developer who focuses on urban sites:

The first way I want to move is walking. Then I want good bike connections. Then I want to take my transit to work. So, multimodal. And then just, sort of, urban amenities. Shops and restaurants and activities and clubs. And then nature. Access to nature.

Density—the second most common topic to co-occur with walkability—appears in generally similar context. Density often comes up in conversation in terms of a neighborhood having destinations (usually personal trip destinations) within easy walking distance of a potential development site.

The market niches node appears in more than a quarter of all passages dealing with walkability. This pattern seems to go along with developers seeing walkable environments as particularly in-demand segments of the housing market—especially young members of the "creative class"—with a strong desire for housing in vibrant, urban neighborhoods. Walkability in surrounding, existing neighborhoods also appears as a point in favor of potential urban or older suburban sites, as described by a senior housing developer who focuses on the inner suburbs:

[...] they go look at locational value, and our end of things, that location value comprises walkability, neighborhood livability—that our residents are able to walk to a grocery store, a liquor store, all things that they might want to shop at close by, so that during the course of the day, if they can get out, that there's places for them to walk. So quite a big part of that community is important so they're not sitting out necessarily in the middle of nowhere where they don't have access to things, sometimes that does happen but it's certainly not preferable, we like the walkability of the neighborhood as well, so all kinds of things come into play, so you build for that particular site that you want to develop.

Bus transit appears together with roughly 25 percent of passages dealing with walkability. This pattern reflects the central-city and inner-suburbs focus of most developers interested in offering walkable neighborhoods as amenities to prospective residents.

Walkability co-occurs with discussion of mixed-use and/or New-Urbanist development roughly 22 percent of the time. Interestingly, this rate of co-occurrence is slightly lower than that for more general discussions of project and neighborhood design (25 percent). This pattern may reflect a common view among developers interviewed that New Urbanist design—as applied by local governments—can be too much of a "one-size-fits-all" solution. These same developers state that other (often more viable) design options exist for incorporating walkability into projects in areas where stereotypical New Urbanism is not appropriate. The fact that issues dealing with the neighborhood surrounding a project appear together with walkability as often as mixed-use/New Urbanist development supports this finding, as illustrated by the following statement from a large, commercial developer:

The New Urbanist elements, you can incorporate many of those things: conductivity, walkability, attention to other modes of transportation, even bicycle as opposed to vehicular. All of New Urbanism isn't four-story mixed use, retail, with residential above. You can incorporate many soft-scaping things and better design into different communities.

Discussion of high demand in interview responses appears in one out of every five discussions of walkability. All but one developer who mentioned walkability acknowledged that a walkable neighborhood would increase the desirability of an otherwise suitable site, at least for residential development.

Discussion of regulatory issues in interview responses appears largely in terms of parking standards, setback requirements, and similar development regulations. Off-street parking requirements that tend to increase walking distances between pedestrian destinations and create an unwelcoming pedestrian environment are especially prominent. In the words of a smaller, urban residential and commercial developer:

You know, parking is always the conundrum in any development because the clients, the users, want what they call line-of-sight parking. Park here, walk 30 feet, and get in the front door, that way I'll have more customers. It isn't go to any metropolitan area, and that is no longer possible, just because of density. So, the city requires certain parking minimums. Portland has parking maximums. If one develops in the traditional way, you end up with a checkerboard: building, parking lot, building, parking lot, building, parking lot. And you lose the opportunity for increased density, and architectural presence along the entire boulevard face.

5.3.5 Coding intersections—mixed-use/New Urbanism

Figure 5.4 (below) shows nodes that occur together with topics of mixed-use and/or New Urbanist development at least 10 percent of the time. Most developers interviewed for this study use the terms "mixed-use" and "New Urbanist" more or less interchangeably. As a result, they are considered together here, since drawing a distinction would require ascribing differentiated meanings to the terms, something the majority of interview participants did not do.

"Regulatory issues" is the most common co-occurring node for mixed-use/New Urbanism, appearing together with one of every three mentions. Developers cite long, complicated regulatory approval processes required—even by the central cities—to build mixed-use projects or projects with New Urbanist forms. Three urban-focused developers with extensive mixed-use experience specifically cited conventional, single-use, automobile-oriented zoning ordinances that have not been updated to reflect the principles articulated in current, progressive, comprehensive plans. The developer quoted below saw this mismatch as a sufficiently dire problem to bring legal action against one of the central cities:

So I think, I'm going to build at 46th and Hiawatha. That would be a great node. Right by Minnehaha, boom, downtown. Oops, no zoning, you can't build anything there. I say, well, the comp plan says you can! So, I wouldn't even—I go downtown, I say, can I change the zoning? I wouldn't actually want to take that on. But just rhetorically, I said, could I change that? Because, really, I was trying to bust them. They said, no, we're not going to change the zoning to get in compliance with our comp plan.

Walkability and density both commonly co-occur with mixed-use and New Urbanism, mostly in terms of developers identifying necessary design features and neighborhood attributes for such projects to be successful. The next most common co-occurring node is market niches, again showing interview participants' consciousness of what areas and markets developments fit their definitions of mixed-use/New Urbanism, as demonstrated by the following statement from a small, suburban commercial developer:

You had a lot of communities that didn't have the demographic strength, wanting to still do that stuff, and yet you think about communities like Edina, communities like St. Louis Park. Excelsior and Grand is very overused but a decent case of a successful vertical mixed-use project in a quasi-urban nearing suburban setting, but you have got a lot of density. You have got a lot of good demographics and I think that despite the fact that it was tougher and it's still tougher on the retailers, the demographics are good enough that it's working. It could never be associated as anything but a success. So, I think that's the thing—is the mismatch between the understanding of what your community really has and then applying policy toward that. We always joke about it. That the planners have some planning conference that they go to and they look at a project like something in New York City and that's what they want in Cambridge, Minnesota, and that's just not realistic.

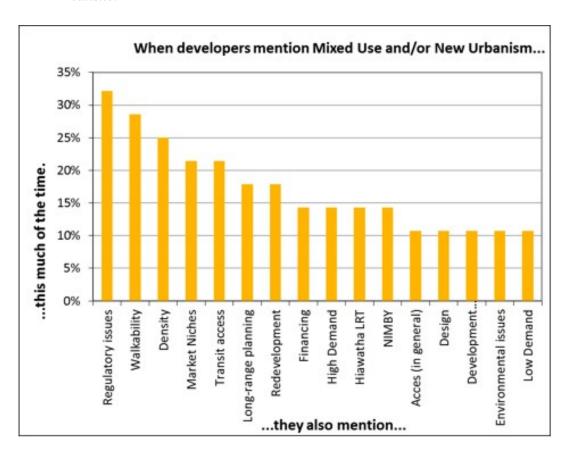


Figure 5.4: Topic node co-occurrences—mixed-use/New Urbanism

Transit access occurs together with mixed-use/New Urbanism almost as often as market niches. High demand co-occurs with mixed-use/New Urbanism 14 percent of the time, while, on the other hand, low demand does so 11 percent of the time. This pattern betrays a significant difference of opinion among the developers who participated in the research about the desirability and feasibility of mixed-use/New Urbanist development. This divide often plays out between developers who primarily work in the central cities and/or inner suburbs and those who primarily work in the outer suburbs.

The Hiawatha light-rail line also appears in 14 percent of mentions of mixed-use/New Urbanist development, though not entirely in a positive light. Participants cite a poor pedestrian environment along

Hiawatha Avenue, difficulty crossing the avenue, and east-side industrial uses acting as a pedestrian barrier in explaining why they perceive relatively little mixed-use/New Urbanist development (or development of any kind) along the Twin Cities' one currently operating LRT line.

5.4 Affordable housing

Developers with significant experience in affordable housing tend to specialize in it, a practice that allows them to achieve economies of scale by building in-house regulatory compliance and management capabilities. These developers also tend to focus on redevelopment and/or reuse of existing sites/buildings. This focus results in part from developing largely in the central cities and inner suburbs. It can also protect affordable housing developments from NIMBY opposition by promising the reuse of a vacant site or the significant rehabilitation of a dilapidated property. To maximize financial incentives in an environment of constrained funding, four affordable-housing specialists noted that they frequently mix in other tax credits and/or incentive programs, such as historic preservation credits.

5.4.1 Affordable by design

Here is one of the most striking statements heard on affordable housing in the series of developer interviews:

[I]n my group we say, what's the best way to build affordable housing? Put it on transit. You don't even have to touch the unit. You don't have to subsidize the unit or do anything—just put it on transit. Change the equation about the money going into personal transportation, which is 20 percent now. Housing is 30 percent. So, transportation is taking up two-thirds of the budget that your house is. Your car is costing you two-thirds as much as your house! That's crazy—if you're on the lower end, especially. So, that's—you can change the two-by-fours or get government programs all day long, but none of them have the impact of transportation connections.

The small, urban developer quoted above offers a fascinating argument that transit-oriented housing *is* affordable housing—at least significantly more affordable than it would be on a remote, poorly connected site. Of course, this only works up to a point: A \$2,000-per-month studio apartment can hardly be considered affordable by any definition. However, transportation costs play right into a strategy of making housing "affordable by design," in the words of one participant.

Four developers with significant experience in affordable housing cited relaxation of parking requirements and increases in allowed densities as potentially crucial to making an affordable or mixed-income development financially viable. Put simply, allowing an affordable development in a transit corridor to have, for example, four stories instead of three and parking at 0.85 stalls per unit instead of 1 or 1.5 could potentially make the difference between needing grant funding and simply fitting costs to a lower-income market.

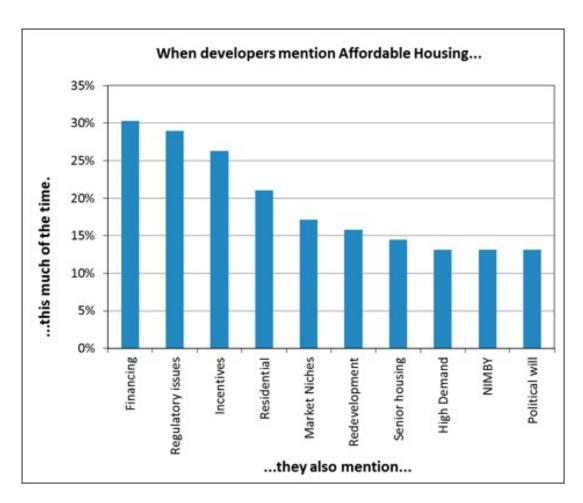


Figure 5.5: Topic node co-occurrences—affordable housing

5.4.2 Coding intersections—affordable housing

Figure 5.5 shows the topics the interview participants frequently mentioned together with affordable housing. In stark contrast with TOD, the two most commonly co-occurring nodes with affordable housing—financing and regulatory issues—both largely describe impediments to its development. Financing appears as a negative in the obvious context of difficulties created by renting or selling housing significantly below the going market price. Regulatory issues often arise as negatives in terms of zoning, height/bulk limits, and/or parking standards that make it difficult to design profitable projects that include affordable housing. As stated by a large, suburban-focused residential developer:

And so at any point the alderman in 15 invitations could say, okay, my project's 100 units, what do you want? [...] I got 100 units here what does it take so that you can go back to your neighborhood and say there's nothing I can do about this, but I got a win, I got them to go down to 70. You see what I mean? Cause that's what this is about, just a give and take, within the financial feasibility of a project. If there [were] more people that were willing to stand up make a decision and say, 'Well, we can't live with this, but we can live with this,' and actually reach compromises, as opposed to being so polarized, I think it would make a big difference.

These nodes are not wholly negative, however. Affordable housing tax credits (often combined with other credits and/or incentives) can be important strategies for financing larger projects. The stringent regulatory compliance requirements that accompany affordable housing can reduce competition, especially for developers who can achieve economies of scale in leveraging affordable housing credits by building in-house compliance capabilities. As one urban, affordable housing specialist put it:

We've done a lot of that and it's one of those things that you don't want to do ONE, you need to kind of set up everybody for it. You're talking about fair housing, you're talking about a lot of people looking over your shoulder for various reasons that you wouldn't have in a normal real estate, and then you are, you know, there's good things about it, they're very stable, and when the apartment market all of a sudden gets real weak, people raise rents, then all of a sudden they start giving one month free, and the next year that one month free means that we're dropping the rent 10 percent, and all of a sudden you've got a property that a developer bought and your rents go down 10 percent, and it hurts. In the affordable area, you price them and there are restrictions on raising your rents, but it works where you're at.

Public-sector incentives appear in more than 25 percent of all passages mentioning affordable housing, underscoring the importance of governmental actions and funding support in the affordable-housing field. The incentives topic node refers to financial incentives, such as affordable housing tax credits, as well as density bonuses and other affordable-housing specific variances from underlying zoning and other development regulations.

The market niches node occurs together with affordable housing roughly 17 percent of the time. Developers with strong experience in affordable housing have highly nuanced perceptions of different types of affordable housing needs and how well they are met. For example, one urban, mixed-use developer identified affordable family housing as a major need in transit corridors and one underserved by Twin Cities affordable housing development:

And then the third thing, just kind of locally, to bring it down to the ground, like, Central Corridor: There's been a lot of cries about affordable housing, and don't gentrify Frogtown, and there's a huge cultural thing there. Here's the truth: How much money have we got for affordable housing, from wherever it's coming from, whether it's government programs or McKnight? We got \$10 million? Or \$100 million? Whatever we've got. [...] Okay, what's the best way to spend this money [...]? Buy up as much existing inventory along the line, a block or two away, as you can. First of all, it's going to be more family oriented inventory, which is where the problem is. It's not going to be the one-bedroom studio apartment I build over the store on the line. That's not where the affordable disconnect is. That unit will cost more than that house that I could buy today. So, why in the hell would you give it to me to build a little studio unit in this thing when we could just go today and buy the whole freaking corridor?

The frequent co-occurrence of affordable housing and senior housing also underscores the many different facets of affordable-housing demand.

The frequent occurrence of the redevelopment node together with affordable housing underscores perceived demand for affordable housing in urban areas. Six developers also specifically mention a growing need to add affordable housing options in historically affluent suburban communities, especially in proposed suburban transitway station areas.

Roughly one in every eight passages mentioning affordable housing also mentions a high demand *for* affordable housing. In an illustration of the complexity of affordable housing development, however, NIMBY-ism and problems of local political will to allow needed projects occur together with affordable housing just as often as high demand. Developers with significant past experience of building affordable housing especially identify NIMBY-based neighborhood opposition as a frequent hurdle to overcome. In the words of one developer:

When people talk about affordable housing, they think you're building a 10-story highrise project building, and if you can breathe, you can move in, It's had a negative connotation that requires a lot of education and unfortunately it seems like the people that are involved in the municipal process, and I don't mean this to be a generalization, I don't know if it's a generalization if it's true, but it seems like a lot of the time you have angry 50-year-old white men or 60- or 70-year-old guys—it's like the good-ol'-boy network[...] "I remember when this was all farmland and blah blah blah," and "keep 'those people' in the city blah blah blah." So you kind of have—I think there's a huge generational gap between people that are in their 60s and 70s, that there's more of a—I don't know how to put it, but I think you've got just a generational gap in attitude between people that sit on these boards and people that are trying to get work done and that are in need of the housing. You kind of have the people making the decisions that don't understand and don't care.

5.5 Summary of findings

Whether they specialize in residential or commercial projects in the suburbs or the central cities, Twin Cities developers view transportation access as highly important in selecting sites. In addition, over a third of the developers interviewed volunteered transit access as an important location factor before being asked any transportation-related questions. Word frequency analysis shows developers ascribe a high level of importance to working relationships with local governments and the public bodies that regulate development. "Parking" is the most commonly mentioned transportation term by a large margin—dramatically illustrating how strongly it influences built forms. "Rail" and "transit" follow, illustrating the attractiveness of rail transit to developers. Over half of the developers interviewed focus on redevelopment of properties with previous improvements in the central cities and inner suburbs. Location decisions for commercial development are strongly driven by major tenants.

Developers generally find transit attractive: 19 of the 24 interviewed consider transit desirable, all else equal. Developers will often sacrifice transit access, however, if a transit-oriented site is more expensive or requires a more complex permitting process. Multifamily residential developers, most developers specializing in redevelopment, and large corporate office tenants already show strong interest in transit-accessible sites. Topic node coding analysis shows that developers most often mention TOD together with future, proposed transitways, underscoring the fact that developers concentrate on specific areas. Regulatory approvals are a significant source of problems for TOD; current zoning and parking standards require a lengthy approval process for developments with sufficient density and/or mix of uses, and make even popular TOD proposals vulnerable to opposition from immediate neighbors. Coding analysis for walkability highlights transit access, a need for high density in walkable destinations, and a strong consciousness of younger generations as the key market for walkable development. Coding analysis for mixed use and New Urbanism demonstrates similar regulatory issues for TOD, as well as a need for

walkable neighborhood surroundings and higher density than generally permitted by right and a strong consciousness of a young market niche and demand for transit access.

Developers with successful experience in affordable housing tend to be affordable-housing specialists, offsetting limited rents with economies of scale stemming from all-affordable projects, as well as inhouse regulatory compliance and management capabilities. Affordable housing developers also often "develop" affordable housing through conversions or rehabilitations of existing buildings, rather than new construction. Rehabilitation of dilapidated properties as affordable housing tends to generate broad neighborhood support, whereas new construction of affordable housing can come up against significant opposition. Limited affordable housing subsidies are creating interest in the concept of "affordable by design," which takes advantage of the economies possible in urban, multifamily housing to build projects that can be financially feasible and affordable without subsidy. The housing-plus-transportation cost savings possible with good transit access are seen as key to the success of affordable by design. Topic node coding underscores the importance of financing options for affordable housing, as well as the problems caused by inflexible development regulations and NIMBY opposition. Regulatory incentives—such as density bonuses—figure prominently in discussions of affordable housing, as well as creative project design solutions such as integrating affordable housing with senior housing, rehabilitating existing buildings, and combining affordable housing and historical preservation tax credits.

Chapter 6: Employer Interview Findings

Employers' location decisions play a crucial role in regional jobs-housing balance; in the Twin Cities, most of these decisions do not currently enable or support high rates of transit use. Consequently, encouraging Twin Cities employers to locate near transit and engage with the transit-planning process will be critical to achieving system-level, transit-oriented jobs-housing balance in the Twin Cities metro area. To further this understanding, the research team conducted interviews with 16 Twin Cities employers and three commercial real estate brokers. The following chapter discusses the findings from these interviews.

6.1 Word frequency analysis

Figure 6.1 shows a tag cloud of the 100 most common words mentioned by participants in the series of interviews with Twin Cities employers. The most prominent words—such as "people" and "like"—drive home the point that interview participants were highly interested in site selection and transit access in a recruiting/retention context and in terms of being viewed as desirable employers. This fact is likely influenced by the large number of human resources executives interviewed. Even so, the fact that human resources executives often showed the most interest in participating in the study underlines the point that employers primarily see transit as impacting them through their employees.

Words such as "think" and "know" suggest a high level of importance for information in the site-selection process and relating transit access to this process. This finding fits well with the common finding in the literature that companies frequently work with clearly imperfect information during the site-selection process. The prominence of information-related words is especially interesting given that only three brokers are included, as brokers effectively deal in real estate information. Though individual companies might not have direct access to the same degree of real estate information as brokers, they also appear to attach a high level of importance to it.

Several transportation-related words appear in the tag cloud. The most frequently mentioned is, in fact, "transit." It must be noted that the interview questionnaire directly asked subjects about transit at several points. As a result, the prominence of "transit" in the tag cloud cannot be taken to mean that transit access is the most important transportation issue for Twin Cities businesses involved in site selection. It is also worth noting that both "transportation" and "access" appear in the tag cloud and are often used more or less interchangeably by participants. Several other frequently mentioned, transportation-related words offer important clues as to what aspects of transportation and transit access Twin Cities employers consider particularly important. One interesting point is that "bus" is actually mentioned significantly more frequently than "rail"—in the opposite pattern to the one found with developers. Employers almost unanimously report that they consider primarily current transportation access at a particular location regardless of potential future options. (The word "now" is quite prominent in the tag cloud as well.) In addition, "system" is also one of the most commonly mentioned words in the employer interviews: Ten employers and two brokers believe improved regional transit is desirable, but stated that the usefulness of individual lines would be limited until a more comprehensive system is operating. One interesting point is that "parking" is actually one of the least prominent transportation-related words in the tag cloud, again in direct contrast to the developer interviews. This does not necessarily suggest that Twin Cities employers

consider parking unimportant. In fact, parking might simply be so ubiquitous as to be unremarkable to many interview participants.

able access also anything area around back building bus business campus certain cities city client clients close come coming commute Companies Company cost day decision definitely different downtown else employees even factor factors far good great high important incentives issue jobs know light IKE live located location long look looking of make many mean metro minneapolis move near need new NOW obviously Office parking part paul DEODE place play point process public question rail see sense service site sort space specific sure system take talk think time transit talking transportation trying twin use Want way work years yes

Figure 6.1: Most frequently mentioned words from employer interviews

Several specific locations appear as frequently mentioned in the tag cloud. Among these, "downtown" is the most prominent. It is interesting to note that "downtown" is actually much more prominent than either "Minneapolis" or "St. Paul," though when participants used the word "downtown" by itself, it almost invariably referred to downtown Minneapolis.

6.2 Primary location factors

All employer interviews began with a question along the lines of "What are the most important factors in selecting a location for a company like yours?" Issues relating to what line of business a company is in, and desire for a location in a specific area, figured prominently in the responses. Over 60 percent of

subjects mention the former and nearly 40 percent the latter. The following quote from a high-tech, health-care startup is illustrative:

So, it's really important for us—we're a technology-driven company—to really be in the thick of things. And when we host meetings, especially being a startup, our impression, when a lot of people have not heard of us in the marketplace, is really important. So, being right downtown, being in the thick of things, making sure that we have a really presentable office that's indicative of our culture. Our culture, our employee base is very up-to-speed on things. And so we feel like the pulse of downtown really emulates the people that work here.

The preceding serves to illustrate two crucial points. First, many companies' choice of location is circumscribed by their industry, and many companies will aim for location in specific areas regardless of other locations' potential merits. And second, some companies are drawn to transit-accessible locations (such as the downtowns) by these very trends.

Few employers reported selecting a location solely—or even primarily—based on transit access. Eleven employers and all three brokers, however, reported that good transit service improves the attraction of an already acceptable site, as in the following quote from a large company with offices in the western suburbs:

So, the Southwest rail line did not have a bearing, truth be told, in our decision to develop our new [...] campus. We've owned that land for more than 10 years. It was just a case of, the harder you work, the luckier you get. It was just a superbly located piece of land at the time the communities developed around it. We look at it as just a delighter. If you're familiar with levels of satisfaction in terms of difference, there's "must-bes," "satisfiers," "delighters," in the context of Six Sigma. It can only add to the satisfaction we have from being there. Over time that will change, once transit becomes better established and more people are reliant on it. I'm bullish on the concept of transit. I was skeptical when the first line went in—and it was more popular.

Transit access can also break a tie between two otherwise similar sites, as in this statement from a large banking firm:

So I think if you're asking me would we move or relocate based on just the transit, probably not. But it's definitely a factor that we would consider if we were already in the process of moving to a new location. And it does make it more attractive—and then having that subsidy in place—here in the Twin Cities. And I know several metro markets where they do have that transit subsidy. I think it would definitely be a factor that we would consider. And we would talk about it. We would present it to the business lines and let them know that this is an opportunity, and that your people could take advantage of [it].

6.3 Recruiting and retention impacts on site selection

Nine employers express a strong desire for transit access specifically in terms of wanting to be a desirable employer—a company skilled workers want to work for. Two of the three brokers report the same pattern among their clients. These companies tend to see themselves as competing with other employers for the best employees and are often willing to consider going to significant lengths to win that competition as

often as possible. One small, downtown Minneapolis insurance provider had this to say about how transit access might figure into any future relocation process:

Yeah, it would be very attractive. There's a lot of folks that do use the light rail and the bus. If we weren't close to the light rail, I think it would be an adjustment. And I think any time there's a change like that it can lead to other things. And not everybody likes change, and that's something that affects people everyday—where they're going to work. So it's important for us to stay as easily connected as possible.

Even major employers not currently located in transit-accessible areas recognize that their future workforces are likely to increasingly demand transit access, as evidenced by this large, suburban medical device company:

I think our ability to—what our statistics say is that for every seven people who retire and leave the workforce, there's only going to be four to come in and replace them. So there's going to be a war on talent. Especially if the economy—the economy has gotten soft in the last few years, so it's not as big of an issue. But if the economy improves, it's going to be a little harder to find talent. I think people have been putting off retirement due to the economy, too. [...] So that's why—so other things, from what we've researched, there's different things that are important to the younger generation. Access to transportation and stuff is—they want more of the mass transit.

6.3.1 Changing attitudes

Seven employers and two brokers told the interview team that they see a fundamental change under way in terms of attitudes toward transit. It is especially interesting to note that all but one of the major regional employers included in the study mentioned this shift. They state that the ability to take transit to work has not traditionally been a critical requirement for most current members of the labor force but is becoming more and more desired, even demanded, by today's young workers. Younger workers—particularly members of the millennial generation—represent an increasing percentage of workers. Participants characterize this change as a historic shift, not simply a cyclical process or fashion. The real estate brokers who participated put particular emphasis on this change, as in this example from a long-time Twin Cities real estate professional:

So transportation—there's no question that I'm seeing much more of a trend for public transportation. There's much more of a demand for that. I'm seeing the places that have access to public transportation are thriving better than the communities that don't. And so—and I see that same thing with amenities, as well. Public transportation and amenities—things that make it more attractive and more affordable for the employee, where you can draw from a larger area, are certainly advantageous to people. And transportation is very much the same way. So I think people are constantly thinking about their cost, their commute time, and most people, if they're not in the world of sales like I am, or whatever, they have a real desire to take public transportation if it's available. I'm seeing that as a trend that has definitely changed over the 23 years that I've been in the business—in Minnesota. It's been in New York forever, D.C., or Chicago even. But here in the Twin Cities, I'm just seeing much more of a strengthening of people's openness to public transportation.

6.3.2 Balancing present and future

In many ways, the more forward-looking employers in the Twin Cities are currently caught in a balancing act of striving to compete efficiently in an automobile-dominated present while preparing for a transit-oriented future. The approaches they take and the degrees to which they succeed are instructive. As much as possible within the constraints of confidentiality, we now offer three brief case studies showing how a variety of Twin Cities employers are dealing with this balancing act.

Company "A"

Our first example is a large, high-tech employer located at a conventional campus in the suburbs. There is transit service in this company's general area, but the nearby bus route offers only basic local service in toward the urban core. The nearest premium-level service is more than a mile walk, without connecting bus service. This employer's campus offers free parking to all employees. Virtually all employees currently drive, most from suburban homes in the same general quadrant of the metro area as the company offices. However, Company A is facing a dramatic workforce turnover in the near future. In the words of the corporate real estate director we interviewed:

Forty-four percent of our workforce is eligible for retirement in the next—what is it, 15 years? So we could lose half our workforce in 15 years. In 15 years, the millennials are going to be between the ages of 25 and 45. That's going to be our new workforce.

The company is tied to its suburban headquarters, due to other facilities in the same area, and major capital investments on the present site. Still, this employer looks ahead, and sees a need—somehow—to have transit access in the future:

We do a lot of work on the workplace, I guess, and how you recruit and retain talent from a facilities perspective. And the millennial generation is looking for something different than the baby boomers are, in an office. One of those factors is access to transportation. So I think, as we go forward, access to transportation is going to [make] a bigger impact on attracting talent. I don't think for mid-level, mid-career-level people it's a big impact. They're going to drive. But I think the younger generation, as [these people] get older, transportation will be a bigger impact there. And the whole sustainability thing is more important to them. And it's becoming more important to companies—it's becoming more important to us.

Relocating to a more transit-accessible site will not be a viable option for this company in the foreseeable future—though the executive we interviewed stated that a fully developed regional transit system would impact any future site selections the company might undertake. The company has expressed willingness to offer shuttle service to a nearby transit station, but has yet to move forward due to lack of interest from current employees.

Company B

Our second example is another large company with main offices in downtown Minneapolis and suburban locations for back-office functions. Due to rapid growth and downtown real-estate costs, this employer is in the process of relocating a number of high-skilled employees to one of its suburban locations—a location that does not currently have good transit service. The company acknowledges that transportation choices—including quality transit—and the option for an urban lifestyle are in high demand among many

of the workers they need to recruit and retain for both their downtown and suburban locations. Rather than simply recognizing that this fact could present problems in the future, however, Company B is taking a more proactive approach. The company is working to attract improved transit service near its primary suburban site and making plans for technology employment-focused TOD on the surrounding company-owned land. The company sees these plans as allowing a more rational organization of its Twin Cities offices without the need to force its current and future employees to choose between a desirable job and a desired lifestyle:

We're under construction right now with another two buildings because we're taking our technology—making a technology campus. Again, you have to look at the function of the business versus "Oh, we're just going to spill up, burp over everybody." It's—we're going to re-stack the [downtown offices] as we continue to grow, and we'll become more functionally aligned in our business as we were in the past, so it'll be more integrated. It might be merchandising [at headquarters], maybe it's more support down there, maybe it's more technology and finance there.

And subsets of [our primary location factors] are access to people, you know? The kind of people—if you really step back on a broad scale, one of the issues that corporations want to make sure [of] is, I think, does a city have the attributes that will attract the creative class that you need for your corporation as it continues to grow in scale and size? So, you know, a big issue is, today, you guys are young people, want to work in an urban environment, perhaps. A more scalable, walkable, public transit, than when I grew up.

Company B's strategy is one that is only available to an employer so large that even one of its satellite offices can serve as the center of gravity for a new employment center. However, in acting as that center of gravity, this company may create an opportunity for smaller suburban companies looking for access to quality transit to fall into a transit-oriented employment center's orbit, so to speak, and in doing so potentially create a new paradigm for the suburban campus.

Company C

Our third and final example is a small, innovative insurance company located in downtown Minneapolis. This company has excellent transit access, but roughly half its employees still drive to work, some due to preference, some due to their home locations, and some due to needing their cars for business travel during the work day. This employer offers its employees either a fully paid Metropass (which costs the company \$76 per employee per month) or an \$85 subsidy for a monthly parking contract. In this sense, transit is both an amenity for workers (since it is desired by many in its own right and fully funded by the company) and a cost-control measure (since it costs the company less than even the partial parking subsidy). Company C desires its downtown location due to business relationships and the work environment preferred by both its executives and employees; transit offers it a way to partially compensate for high downtown rents. In addition, the package of downtown location and first-rate transit access helps this firm compete for top talent as a small company:

I think that, mostly because we're offering the benefit of paying for it. I think that it's nice for people to—yep, I can get on the bus and go there—but the real plus is that [we are] providing the bus pass, or [we're] paying \$85 toward parking. So I think that it's fun for people to say, "I work downtown. Where do you work?" And there's—it's a good social

selling point. But I think that it wouldn't be as much so if we weren't contributing, because it's an expense.

Company C may be ahead of the curve somewhat in prioritizing a location in a vibrant, interesting area where people want to work, with easy access to vibrant, interesting residential areas where many of those same people want to live. They recognize, however, that the arrangement would create major cost issues for both employer and employees with conventional, automobile-dominated commuting. Taking full advantage of the transit options available allows them to avoid the cost of providing parking for all employees and frees up funding to provide those employees who really need one with a parking subsidy, which in turn allows the company to compete in a still automobile-dominated world.

This company is freer to pursue such options than most due to a lack of rigid off-street parking requirements downtown. Still, its approach could also be valuable for suburban employers if those standards were relaxed somewhat in transit-station areas. For example, a similar suburban company might more easily be able to afford the rent in a transit-oriented office development if that development were allowed to provide less parking (both in total and per employee) because of its high level of transit access, thus partially compensating for the costs of station-area land.

6.4 Transit access

6.4.1 Coding intersections—transit access

Figure 6-2 shows the topics participants most commonly mention together with a desire for, or the practical considerations of, obtaining a site with transit access. Reinforcing the findings from a close reading of the interview transcripts, as well as the word frequency analysis, no topic node occurs together with "transit access" more often than "being a desirable employer," which does so 36 percent of the time.

The "site-selection process" node co-occurs with "transit access" equally often. In part, this likely reflects the site-selection focus of the interview. Additionally, this finding should not be used to overstate the current importance of transit access to the site-selection processes of Twin Cities employers. It could, however, indicate the general time at which transit access is most likely to impact the locations of businesses. Businesses are most likely to consider moving to a site with better transit access when searching for a new location anyway. Participants also frequently stated that transit would be most likely to impact future site-selection decisions if and when improved transit service arrived in the area of the metro they have traditionally operated. The director of corporate real estate from a major suburban employer had this to say:

Yeah. We've been here for 12 years, and it was selected basically for proximity to [one of our existing locations]. We've been there [for decades]. And even when we did our [newest] facility, [...] it was, again, proximity to our other facilities. [...] If I had to go and get additional space right now, we would want it as close to our other facilities as possible. [...] I think it would definitely impact a future site-selection decision. If this much mass transit were available, we would—I mean, we would definitely keep that—the sustainability factor is one, the younger generation, attracting those people—because we're competing with [other large, corporate employers]. So you want to be able to offer the same kinds of amenities. If mass transit becomes very accessible, we would definitely factor that into a site-selection decision.

The "employee preferences" node (referring to the preferences of *current* employees) occurs together with "transit access" next-most frequently—roughly 26 percent of the time. The importance of current employees' preferences can manifest itself in multiple ways with regard to an employer's view of transit access. For example, employers that already have good transit access generally report that they would be reluctant to move to a location that did not offer a similar level of transit service, even if it were desirable based on other criteria, as in this example from a downtown startup:

There's a lot of folks that do use the light rail and the bus. If we weren't close to the light rail, I think it would be an adjustment. And I think any time there's a change like that it can lead to other things. And not everybody likes change, and that's something that affects people everyday—where they're going to work. So it's important for us to stay as easily connected as possible.

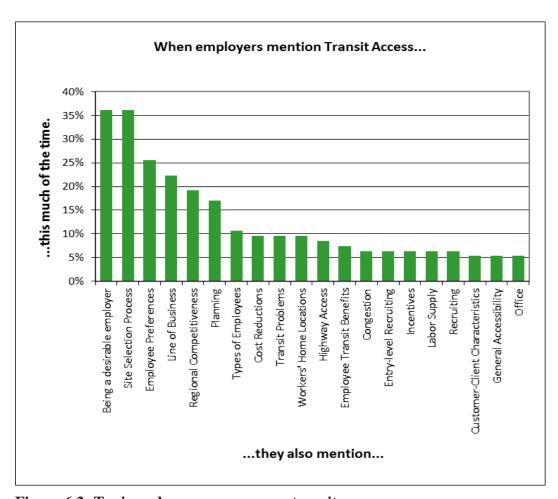


Figure 6.2: Topic node co-occurrences—transit access

The preferences of current employees can also serve as an impediment to employers without transit access seeking to choose a transit-accessible site during a relocation if that site compromises the easy automobile access their long-time employees have become accustomed to. This fact can put forward-looking, suburban-based companies in a difficult position, as in the case of this high-tech manufacturing firm:

[O]ur current employee base is just a very entitled workforce. They are. A lot of [our] employees have been here for decades, and they just have certain expectations. They just expect to be catered to, especially from a facility perspective. It's unfortunate, because the world is changing, and they're not. So that's why, the things we've looked at, it's like, unless that thing is going to drop them off at the front door, there's a lot of people who just will never use it. But part of that is just generational. It is generational. I absolutely think that—and I don't know if we'll ever make major changes to our locations, we're pretty established—but if we did, this would definitely impact where we would put something.

The specific line of business an employer is in is also highly important in shaping its perceptions of transit as a desirable amenity; the "line of business" node co-occurs with "transit access" roughly 22 percent of the time. Companies with large numbers of office workers tend to see transit as more valuable than companies with large numbers of factory workers. The stereotypical professional/nonprofessional dichotomy does not hold in all cases. For example, five participants specifically identify call centers as able to benefit significantly from transit access, due to very high densities of employees with lower incomes than most professional office workers. Four participants also identify transit as potentially beneficial to warehouse operations, due to the low incomes of most warehouse workers. In both cases, transit is seen as extending the area from which employers can reasonably recruit, a particular advantage given that call centers and warehouses tend to have high rates of employee turnover. The quote below comes from a publishing house that relocated its warehousing operations from an urban, transit-served site to a suburban, automobile-dependent site:

[T]he bigger fear was losing those warehouse workers, because, obviously, that's lower income to start with, and then you're taking away their transportation option. They're going to have to get cars. So it was one of those that kind of changed how we have to recruit for that position. So it definitely was considered, but it was—we'll have to deal with it. We'll figure it out. [...] It's a little more difficult [now] to get kind of lower-level, and by lower-level I mean lower-pay, that's what I'm referring to. For those ones it's harder to entice somebody to drive from even Minneapolis to our facility for, say, a starting wage of \$12.50 an hour. [...] And [for] some of those people, it's just not worth the commute. And you know you're going to lose them pretty quickly if they do take the job, because they're going to find out that they have to sit in traffic for 45 minutes. [...] So those things—I think, customer service, warehouse, admin jobs, those ones—it makes it a little more difficult.

Again echoing the findings of direct readings and word frequency analysis, regional competitiveness is frequently mentioned together with transit—roughly 19 percent of the time. Issues related to planning for better future transit access (on the part of participants' companies) or planning for a more transit-friendly future region also appear frequently, in about 17 percent of all mentions of "transit access." These issues can range from a need for a transit line to be at least fully funded with construction assured before it becomes highly relevant to site selection, to one major employer's future plans for TOD around a developing suburban campus:

We're updating our master plan right now for [that location] to accommodate the [transitway station] at that location. [...] So, is it important? Yeah, it's really important. And we've gone out of our way to make sure we can accommodate that from—we own a big hunk of ground [...] and the densities that we will incorporate along the front—you'll notice that the front of our property [...] is all designed for higher-density intensive

uses—hotel, office, complementary service functions. And we're hoping that we can find another corporate user of a certain size and scale that we'd want to be on the other side. And we also have a housing component. So we have a whole master plan. We can fit eight million square feet, if you can believe it, on our side alone. It's intensely developed. We're under construction right now with another two buildings because we're taking our technology—making a technology campus.

One suburban lessor of nonfinancial intangible assets also mentioned a potentially critical component of regional-scale business outreach as the regional transit system develops: communication of available and/or definitely planned transit options.

Advertising. I think it would be—I'm thinking back to when we were looking at locations, and obviously this was not part of that. But I think making sure that companies understand that—that could be a huge benefit to their employees. The way that they would approach advertising that, or including it in the information that's available. [...] Partnering with the buildings that have locations available. Making sure that the sites are—including that in the information provided to the people who are looking for buildings.

6.4.2 Coding intersections—transit problems

Most participants identified transit access as an amenity that an *ideal* site for their company would have, but then also identified practical reasons why they believed finding a site that was both transit-accessible and otherwise suitable would be difficult if not impossible. Figure 6.3 shows the topic nodes that most frequently occur together with the "transit problems" node. ("Transit problems" refers to either problems with transit service itself or problems with finding an acceptable site with transit access.) In fact, participants discussed "transit access" as a desirable amenity 56 percent of the time they discussed "transit problems." The following quote comes from a suburban publishing company with many employees who want to take transit to work for lifestyle and/or environmental reasons but who are prevented by inconvenient reverse-commute service:

Transit, because of that we have, again, I call it kind of an earthy culture. A lot of them, they don't like to drive, but they have no other option. So people, when we first moved here, they tried the limited transit that [our area] has. And I think you had to hop on a bus to get to here that drops you off in a parking lot that's two miles away from here. Which you could call, and get a little commuter van to come and get you. But the van didn't sit there and wait, so you had to time it perfectly to call them to come get you to get over here. So of course, obviously, in the winter that's totally not going to fly. But we do have a few people who tried that. They said, "Well, at least there's an option. We'll try it." But now they've just started carpooling with people. But I know at least five people who, if they did not ever have to set foot in a car, they would not. But they do. They come here for that reason.

The nodes "being a desirable employer" and "employee preferences" each occur together with "transit problems" 19 percent of the time. These two topics generally arise for much the same reasons as "transit access." Employers might desire better transit access to provide a more desirable place to work or to more closely suit their current employees' preferences, but they do not feel they have reasonable options for obtaining better transit access.

The "crowding" and "security" nodes are the most common nodes having to do explicitly with service quality in terms of their co-occurrence with "transit problems." These nodes are generally mentioned by employers with significant numbers of employees who commute using the regular bus system. "Uptown," the only neighborhood mentioned repeatedly by interview participants, also occurs together with 19 percent of occurrences of "transit problems." Uptown Minneapolis is frequently cited as a very popular area for highly skilled, in-demand professionals to live—the location of choice for the type of talent many employers see their future fortunes tied to in terms of their ability to recruit and retain. Interview participants often cited Uptown's lack of premium transit options, as well as crowding and security concerns on the local routes serving the area. In the words of one transit-friendly employer with roughly a 40 percent transit mode share:

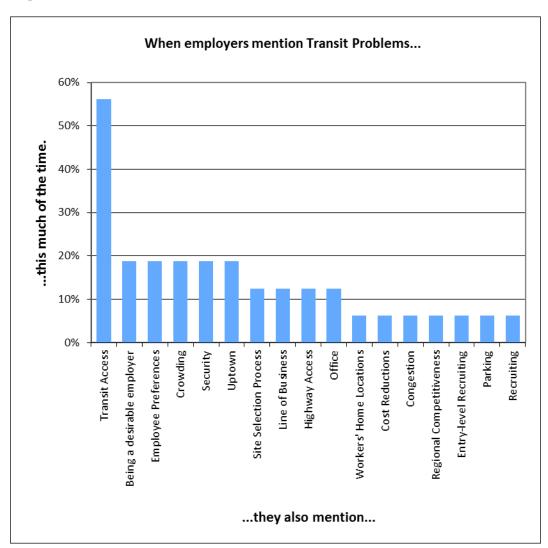


Figure 6.3: Topic node co-occurrences—transit problems

I think just—you hear people complaining about, there's a lot of people that ride the 6. Uptown is very busy, and there will be employees that say, from time to time, "I'm not comfortable riding the bus." Because our stop is right by Sneaky Pete's, and the Gay 90's is right there, there's Augies, and there's been some employees that have said in the past, "I don't like standing on the corner waiting for the bus because of the clientele

that's around there and the location." So it's more, just, trying to make sure that our employees are feeling safe. I don't know if that's putting up more covers at all the stops, so they can feel like they're standing inside shelter. I think that might be nice. I think if there—I'm sure it's very cumbersome to do this—but to add more of the—more buses in that congested area with the 6. There's so many people that ride that type of bus. [...] There's just a little bit of a rougher situation. I ride the 4, and I think what's confusing for me on the 4 is, I don't always know when I get on the bus, which one's going to stop at 38th, and which one's going to continue down to where I get off at 40th.

6.4.3 Regional competitiveness

Employers who support improvements to the regional transit system are not always motivated entirely by an expectation of direct benefits to their company or employees. Eight of the 16 employers interviewed (including all of the Fortune 500 employers) and all three of the commercial real estate brokers believe a world-class regional transit system would strengthen the Twin Cities as a region. These companies see their competitive fortunes as being strongly tied to the competitive fortunes of the region as a whole. This high emphasis on regional competitiveness is especially common among very large, corporate employers, but is not exclusive to them; in particular, four of the 11 small to mid-size employers interviewed expressed support for transit improvements leading to regional competitiveness. The defining feature of such employers, no matter their size, appears to be a need to recruit talented, in-demand professional employees at a national scale. These employees may possess skillsets allowing them to work in multiple industries located throughout the nation. This fact pits the Twin Cities against cities such as New York, Chicago, and San Francisco in the competition for top talent. Talent-dependent employers see a first-rate regional transit system as highly important for strengthening the Twin Cities' position in that competition. In the words of a corporate real estate vice-president from one major Twin Cities employer:

Today, there's a whole different thought process for getting people—because our labor pool is national, now. And maybe, to some extent, international. And so, even forgetting where the train lines can go and everything else, the city of Minneapolis is it attractive enough that I can get the best IT people, the best marketing people? Because they're in New York and San Francisco, and they look at Minneapolis as being a wasteland in between. And so those are issues that corporations have to figure out.

Employers interested in the regional competitiveness benefits of transit do not necessarily see transit improvements as having significant, direct benefits for their own workforces at all—at least in terms of daily commute use. These companies actually see regional competitiveness impacts alone as justifying public investment in transit infrastructure, as shown by this exchange between an interviewer and one small, suburban financial services firm:

Firm: So to some degree I'm a fan of how the Met Council is trying to contain everything and make it more logical and use transit smartly. I think that helps us just by being in a more vibrant economy. And a more vibrant economy means you can support more things like children's theater, the Guthrie, pro sports. Which means when you're going after that top talent—like, got a guy who just got his MBA out of Wharton. And he says. "Gosh, I could go to San Francisco, Atlanta, or Minneapolis. Well, Minneapolis is out because their infrastructure isn't what San Francisco's or Atlanta's is." We don't have that problem because we do have good infrastructure. Because we've got such a diverse economy. So we can go toe-to-toe with San Francisco and Atlanta and get the top talent. So that helps us. So that whole thing of helping all the other businesses helps us, because

we are in a real battle for intellectual property, basically. Intellectual talent. And they have the choices—the smart young boys and girls have a lot of choices about where to go. [...] We have to compete. We have to have that kind of city. [...]

Interviewer: So then, in terms of transit, what I hear you saying is that it's not necessarily an imperative for your practical operations, but having the presence of a well-built-out, efficient network...

Firm: Helps us. [...] As it helps the economy, it helps Minneapolis stay a city where people want to live because we can afford things. We have nice festivals, great parks. We built the Vikings stadium, put the money down, and that's a big deal to a lot of people. So that helps us.

The Twin Cities region has many positive qualities, not least of which is a reasonable cost of living. It is, however, saddled with a provincial (and cold) image among many of the highly talented professionals critical to the companies that are crucial to the Twin Cities economy. Making a bold, transformative investment in a 21st century regional transit system could go a long way toward improving that image, as evidenced by the words of an interview participant from a large corporate employer in the management cluster:

[Minneapolis] used to have a lot of corporate headquarters, which were the attributes of the Twin Cities, which is quality of life. And you still gotta raise a family, and education, and recreation, and stadiums—and all that becomes these intangibles to get the talent. Okay, now, if you get the talent, if you have a big enough labor pool, where do you want to locate your headquarters? [...] But quality of neighborhoods, schools, housing, all those are very important. I think for the transit piece, the question will be—as we travel around the world, I think that public transit defines a world-class city. So if you go to Paris and you've been on the Métro, or you go to London on the Underground, or you go to St Petersburg, or DC, domestically, here, has one of the greatest systems. And I think that that will be a defining moment. So I think our train system—and it seems like the Hiawatha Corridor has been pretty well received, and I have [employees] that ride in on that. As that system gets more fully integrated and developed, I actually would say downtown will continue to grow as a regional hub and [become] more attractive. [...] When I go on vacations, I usually stay in a downtown and take the subway system. I was in Berlin in April, and I just walked and figured out the U-Bahn system, and it was great. Visiting shopping centers and other retail.

For these companies, regional transit improvements are a tangible example of public commitment to continue improving the Twin Cities region's status as a desirable place to live and work. The level of business interest found in such improvements speaks to the power of the vision of a future region connected by a modern, efficient regional transit system.

6.5 Summary of findings

Twin Cities employers' location choices are strongly driven by lines of business and ties to specific areas of the metro. Within that context, employers report that transit access is an attractive site feature when other, more crucial location factors are satisfied. Word frequency analysis indicates that employee recruiting and retention figure prominently in the site-selection decisions of the employers interviewed. Transportation-related words such as "transit" and "transportation" figure prominently in word frequency

analysis, indicating a high importance for access to transportation. Bus transit is mentioned more frequently than rail transit, underscoring the current limited extent of rail transit in the Twin Cities and the fact that employers focus more on current transit options in site selection than on proposed future options.

Retaining current employees and facilitating recruiting of key new employees are important concerns for employers' location decisions. Regarding transit access, the importance of recruiting new talent tends to manifest itself as a strongly perceived need to be a desirable place to work for highly skilled young professionals, particularly members of the millennial generation. Millennials are seen as much more likely than older employees to desire—or demand—urban living and non-automotive transportation options. This generational aspect of desires for transit access can put established, suburban employers in the difficult situation of needing to balance a desire to accommodate current employees' largely automotive commuting patterns while simultaneously preparing to attract more transit-oriented new talent.

Topic node coding analysis reinforces the importance of employee recruiting and retention to desires for transit access: "Being a desirable employer" is mentioned together with more than a third of all mentions of "transit access." The site-selection process itself is mentioned equally often, underscoring the fact that employers primarily consider transit access when they are in the process of selecting a new location anyway. Preferences of current employees and industry-specific site requirements are the next most common nodes to be mentioned together with transit access, demonstrating two potential detriments to the selection of transit-accessible sites. Coding analysis for "transit problems" shows that employers also mention desire for transit access during most mentions of problems with finding suitable transit-accessible sites or problems with transit service. This fact reinforces the finding that transit access is a widely desired amenity that employers often feel prevented from pursuing by other factors, such as lines of business, ties to specific areas, and the need to continue accommodating current employees' commutes.

Coding analysis and a close reading of interview transcripts show strong interest in an improved regional transit system as a means of enhancing the Twin Cities' regional competitiveness. Competitive cluster employers increasingly view the Twin Cities as competing with other metropolitan areas throughout the nation to attract and retain talented professionals. This regional competitiveness dynamic is seen as particularly important for the millennial-generation professionals who most strongly desire vibrant, urban surroundings and alternative transportation options and who are currently in the most mobile phases of their lives and careers.

Chapter 7: Conclusions and Recommendations

In the preceding chapters, we have examined in detail the specific ways Twin Cities developers and employers view and relate to transit in making site-selection decisions. Developers and employers—both as groups and individual companies—have their own unique perspectives. However, a number of key findings hold across our series of interviews. The following chapter summarizes the conclusions found in this research and suggests planning strategies and policy responses to those conclusions as the Twin Cities region grows and its regional transit system develops in coming years.

CONCLUSION #1: Developers and businesses want transit access but do not insist on it

One positive finding from this research is that transit access is a common desire among Twin Cities developers and employers. Despite this interest, transit access alone seldom—if ever—determines location decisions. The interview results show that transit access is one of many desired and necessary characteristics of a location. In fact, transit tends more to fall into the desired category than the necessary category. The following section explores the primary factors that push developers and employers who would desire transit access to forego it.

Cost

Good transit access increases property values. This fact can discourage cost-sensitive developers and employers from selecting transit-served sites. Small employers and developers of projects other than market-rate multifamily residential and retail-oriented commercial are particularly likely to sacrifice transit access for lower-cost locations.

Complexity

Transit-accessible sites primarily exist in the central cities and inner suburbs—fully built-up areas. In addition, the costs of transit-accessible land tend to require more intense and/or different uses from surrounding areas to be profitable. These trends dramatically increase the complexity of the entitlement and permitting processes at sites with good transit access. To be profitable, transit-oriented developments generally require rezonings and/or variances for density, height/bulk, and/or parking ratio. The political process of obtaining rezonings and variances leaves such developments vulnerable to opposition from immediate neighbors and local governments.

Ties to specific areas

Developers tend to specialize in specific areas of the metro they know well. Employers looking to relocate have strong incentives to select new locations near their current locations to avoid employee turnover. As a result, a transit-accessible site is primarily able only to attract nearby employers and developers with experience in surrounding communities. Others may desire better transit access but could think pursuing it unfeasible if high-quality transit is not available in their comfort zones.

Recommendations: Make transit-oriented location decisions less of a compromise

The broad desire for transit-accessible locations shows that the first task in encouraging transit-oriented location decisions is to make those decisions easier. The following section contains recommendations aimed at mitigating the difficulties of transit-accessible sites for developers and businesses that desire transit access.

• Reduce costs, emphasize benefits

Money talks

There is broad desire for transit access among developers and employers. At the same time, higher costs of transit-oriented sites can be a disincentive to selecting them. These findings suggest that subsidy programs such as TOD promotion grants or station-area tax abatement may be able to offset a major obstacle to TOD and station-area economic development. These findings do not make funding sources any easier to identify, but they do suggest that financial incentives have a high potential in effectively promoting TOD.

Communicate hidden costs of automobile-oriented locations

The costs associated with transit-accessible sites are easy for developers and employers to quantify: higher land values, time lost due to complex permitting processes, etc. The benefits are likely not as easy to quantify. The growing use of housing-plus-transportation cost indices to communicate the benefits of transit-accessible locations to individual residents suggests a need for a similar type of index for developers and employers. Such an index could include factors such as parking construction and maintenance costs, employee productivity impacts of long freeway commutes, health insurance costs of a sedentary workforce, and other automobile-oriented costs from a developer's or employer's perspective.

• Streamline regulatory process

Results from the interviews suggest that current development regulations in the Twin Cities (such as single-use zoning, low density limits, and high parking minimums) often limit developers and employers from developing and locating near transit. Regulatory reforms aimed at removing these limitations have an important role to play in promoting more sustainable development patterns oriented to the regional transit system.

Zone for TOD

Streamlining regulatory approvals for transit-oriented developments in appropriately transit-oriented areas would remove a major hurdle in the way of increasing the supply of both transit-served housing and transit-served business space. A true TOD zone, in which a developer or an employer driving a development could acquire land and then build a project with sufficient density and appropriate mix of uses to be both fully transit-oriented and profitable *by right*, according to the interviews in this study, would go a long way toward leveling the playing field between transit-oriented and automobile-dominated areas. Such a zone would likely lead to higher densities, thereby increasing the number of residential units and amount of business space per project. Such an increase in total supply would allow prices per residential unit and per square

foot of office or commercial space to decline without necessarily hurting developers' profits, thereby putting transit-oriented locations within the reach of more households and companies.

Reduce parking ratios where transit options exist

Current off-street parking requirements for nearly all new development in the Twin Cities assume that automobile access is the rule for the vast majority of customers and that any difficulty finding parking for personal vehicles is unacceptable outside downtown areas. To put it bluntly, this paradigm increases the cost of transit-oriented residential and commercial space due to the expense of constructing and maintaining parking. It also reduces the total amount of transitoriented residential and commercial space due to the expansive land consumption of parking. If TOD is a public goal, and developers working in transit-served locations are confident of turning a profit on developments with significantly lower parking ratios than are currently mandated, it is not in the public interest to mandate current off-street parking ratios in transit-served areas. Though parking was mentioned considerably more often as an impediment to selecting transitoriented sites by developers than by employers, a business outreach campaign demonstrating how much of the cost of automobile-dominated business space goes to cover parking might stimulate significant interest among businesses. Comparing the costs of the Metropass program with the costs of providing a conventional amount of employee parking could be particularly useful in helping employers compare the full costs of transit- and automobile-oriented locations, assuming that transit-oriented locations are allowed to take advantage of the cost savings possible from reduced parking ratios.

Allow for flexibility in TOD

The developers and employers who participated in this study indicated that there is significantly more demand for transit-oriented housing and business space, in general, than for up-market multifamily housing with ground-floor storefront retail space in particular. This is not to say that demand for the stereotype of vertical mixed use does not exist, or even that it does not currently exceed supply. However, achieving system-level, transit-oriented jobs-housing balance at a regional scale will require an increase in all types of transit-served housing (including family housing) and a broadening of transit-served employment opportunities outside as well as inside the downtowns. In practice, this need for flexibility could mean that TOD zoning takes different forms in different communities. While the central cities might zone to maximize multifamily development, suburban TOD zoning might strive to increase density through a mix of multifamily and small-lot, single-family development. In other situations, flexibility could mean abandoning plans for the redevelopment of a light-industrial area near a transit station and instead seeking to nurture and eventually upscale the area into a thriving employment center while concentrating on improving the pedestrian environment through changes in design rather than use.

• Recognize ties to specific areas

As the regional transit system develops and serves an increasing number of areas, it will enter the "comfort zones" of an increasing number of developers and employers. This fact presents opportunities by making transit more broadly relevant. It also presents challenges since new transit corridors will serve areas where transit has not been highly relevant to location choices in the past. In addition, most of the existing employers interested in locating at a particular stop are

likely to already be in the area. As a result, it will be important for station-area economic development efforts to suit plans for employment-focused TODs to the types of employers already present in the area when feasible. Developers with experience in specific transit corridors and employers located near stations are also ideal targets for special outreach efforts in terms of promoting TOD and transit-accessible job creation.

CONCLUSION #2: Some developers and employers are already interested in transit

The interviews revealed several types of developers and employers that already show strong interest in transit-accessible sites. This interest shows what types of developers and employers would be easiest to attract to transit-oriented sites in the near term.

Multifamily residential developers

New market-rate multifamily housing is heavily targeted at young, single adults, a demographic that increasingly desires transit access as a lifestyle choice. As a result, developers specializing in market-rate multifamily tend to see transit access as an important amenity to be able to offer their eventual tenants. Good transit service is also an important amenity for affordable housing, due to the limited means and high rates of transit dependency among its tenants.

Most redevelopers

Redevelopers almost by definition focus primarily on the central cities and inner suburbs that offer more urban lifestyles. Car-lite or car-free lifestyles are an important selling point for many people who possess the means to live in a new development and choose urban living. In addition, normal off-street parking standards can be detrimental to creating profitable development on high-value urban land; quality transit offers developers an argument in favor of a parking variance.

Large corporate offices

When large corporate employers begin the search process for a new location in the Twin Cities, quality transit access is now on their "wish list" of desired site characteristics. Transit is an attractive quality-of-life amenity for locating offices with large numbers of high-skilled professional employees. Large employers with a need to hire and retain large numbers of talented employees tend to see themselves and the Twin Cities region in competition for top talent. They see a 21st century transit system as making the region more competitive nationally and easy access to it making them more competitive within the region. Automotive commuting also imposes significant costs on employers—particularly large employers needing to provide for the commutes of many employees. Cost sensitivity in the site-selection process can also be detrimental to transit-served sites in cases where land values and project complexity increase overall costs. Large corporate offices could have an especially important role to play in TOD, as current conditions in the real estate market dictate that large anchor tenants drive commercial development. Interview participants cited difficulty in financing commercial developments without major tenants already on board and uncertainty of leasing speculative developments as reasons that commercial development on speculation is no longer common. If an anchor requests

a transit-oriented site, it will generally lead to the creation of some additional transit-oriented commercial space sized more appropriately for businesses incapable of driving developers' site-selection decisions on their own.

Small, innovative employers

Desire for transit access is not exclusive to large employers. Smaller, innovative companies and startups are showing increasing interest in transit options as well. Smaller companies desiring quality transit access and/or vibrant urban locations tend to depend on talented, highly skilled workers. Transit and vibrant surroundings are valuable amenities these companies can offer employees as they compete for talent with large corporations. In addition, members of the millennial generation are beginning to found startups, bringing the same desires of transportation options and urban locations as employees of the same generation. For smaller urban employers in particular, transit can be a significant cost saver by reducing the demand for employee parking benefits.

Employers of lower-wage workers

Transit service can be attractive from a labor supply perspective for back office functions such as call centers and warehouses due to high rates of employee turnover and lower wage levels.

Transit service allows these types of employers to hire from larger pools of candidates and can reduce turnover among employees who would struggle with the costs of driving to work.

Recommendations: Take advantage of natural alliances

The types of developers and employers that tend to already have strong interests in transit-served locations represent the low-hanging fruit of the TOD process. In addition, the types of developments and jobs they create have the potential to form the nuclei of a more sustainable regional development pattern. Direct engagement with firms likely to be already interested in TOD is a crucial first step in promoting system-level, transit-oriented jobs-housing balance.

• Small, innovative developers

Overall, the developers already building projects with transit-oriented design features in the Twin Cities metropolitan area tend to be small, innovative firms, building small projects on whatever transit-accessible land they find available, as opposed to major developers building large, vertical mixed-use projects within view of light-rail stations. It is important for TOD promotion efforts to actively reach out to small, innovative developers who have experience with transit-friendly development. These developers may not have yet had the opportunity to pursue projects at prime locations in regional transitway corridors. In particular, the fact that developers tend to specialize in specific areas means that any developers who have built projects with TOD characteristics near transitway corridors should be reached out to as part of TOD promotion efforts surrounding these corridors.

TOD-friendly zoning reforms should also consider the needs of a wide range of TOD project sizes. Smaller TOD projects could be easier to integrate into existing neighborhoods if development regulations allow. Such projects could be more in scale with surrounding neighborhoods, but small developers are especially vulnerable to opposition from immediate

neighbors and unable to cope with delays stemming from local political processes. Small, innovative developers have the potential to make a large contribution to transit-oriented jobshousing balance. They could also be most in need of a TOD-friendly permitting process.

• Large corporate offices

Given the ability large companies have to act as anchors of economic development, working closely with major employers to incentivize the selection of transit-oriented sites is a valuable strategy to pursue for strengthening and creating transit-accessible employment centers. Major employers relocate infrequently. However, even one suburban corporate headquarters moving to a transit-accessible site would bring major job access benefits, justifying energetic engagement efforts any time a major Twin Cities employer is known to be contemplating a move or the creation of a satellite office. Major downtown employers moving back-office functions to the suburbs offer excellent opportunities for engagement, due to experience with the benefits of transit access at their downtown locations and relative freedom to select from a wide variety of suburban locations. Out-of-town companies establishing new major offices in the Twin Cities offer excellent opportunities as well due to their general lack of existing ties to any specific area of the region.

Connect interested employers and developers

Startups and other small, innovative employers have great potential to create jobs in transit-accessible areas, due to existing levels of interest in transit access and more frequent relocations than larger, more established companies. Small employers can be limited in their ability to select transit-accessible locations outside the downtowns, as their choices are generally constrained by existing space. Connecting small companies or groups of small companies interested in locating near transit with developers that have expertise in transit station areas could allow developers to build transit-oriented business space more rapidly without the risk of developing on speculation while allowing small companies to realize desires for transit access.

• Engage with relevant low-wage employers

Attracting entry-level jobs to transit-station areas will be crucial to achieving transit's full social equity benefits. One hopes that low-wage workers eventually graduate to higher-wage jobs. Still, the first rung up must be transit-accessible for transit investments to function as ladders for social mobility. Station-area economic development planning should include relevant employers of low-wage workers, including warehousing operations, call centers, and other local industries. Such employers could offer excellent opportunities to attract destination-creating development to otherwise park-and-ride oriented suburban station areas.

• Tailor economic development plans to local economies

Employers report strong ties to the general areas of their current locations. In part, these ties stem from strong desires to avoid significant employee turnover during relocations. Tailoring the types of economic development planned for specific corridors and station areas to the needs of local industries could help make it easier for relevant employers to select a transit-accessible site when

they are in the process of relocating. Such tailoring could consider important industry sectors present in transit corridors that would be physically suitable for station-area economic development efforts, as well as factors such as classes of office space present and needed in the near future.

CONCLUSION #3: Demand for walkable, mixed-use neighborhoods drives demand for transit-friendly neighborhoods

Transit planners find walkable, mixed-use neighborhoods desirable because they facilitate transit use. In the development market, such neighborhoods are also strongly desired in their own right.

• High demand

Major driver of urban infill

Demand for vibrant, walkable neighborhoods is high. This demand for vibrant, walkable neighborhoods—not simply walkable developments—plays an important role in driving developers' selection of urban infill sites. Such sites offer an existing, underlying walkable built form, even in cases of neighborhoods in need of revitalization. Developers show considerably more willingness to build projects aimed at residents and/or commercial tenants desiring vibrant, walkable surroundings in run-down traditional neighborhoods than in well-maintained neighborhoods lacking the basics of a walkable form.

High demand for destinations

Demand for walkability is not driven by desires for recreation and exercise alone. Interview participants cite the ability to walk to everyday destinations as a key selling point of locations in walkable neighborhoods.

Diversity of vibrant, walkable neighborhoods

Integration of diverse designs could be difficult to implement

Demand for walkable places to live, shop, and work is widespread across the metro area, including both urban and suburban communities. Of the nine developers who discuss mixed-use and/or New Urbanist development in detail, five cite low-density suburban communities' demands for projects with the design features of high-density, urban, pedestrian-oriented, mixed-use projects as a common obstacle to successfully completing projects. Employers can face the same problems as well, especially suburban employers who desire vibrant, walkable surroundings but are unwilling to disrupt their current employees' commutes or who also desire some more conventional design features, such as natural, campus-like surroundings.

Not all the same

The same developers who mention inflexibility in definitions of walkable or New Urbanist projects are able to see value in projects with *some* aspects of mixed-use and/or New Urbanist design. Features seen as broadly applicable include pedestrian-friendly design features such as

wide, tree-lined sidewalks and convenient pedestrian routes from street to door, bicycle infrastructure, and good connectivity with the surrounding neighborhood.

• Regulatory issues

Development of walkable, mixed-use areas is hampered throughout the Twin Cities metro area by the same regulatory issues faced by TOD. Decades of zoning codes and parking standards designed primarily to facilitate automotive access have made implementing even the walkable design features developers see as broadly applicable difficult or impossible in most circumstances absent rezonings, variances, and a complex approval process. This fact is the reason inflexible definitions of walkable or New Urbanist development can make the implementation of some desirable features impossible: The need for special regulatory approvals allows for an all-ornothing process in which a developer must either build an unprofitable project or risk rejection.

Recommendations: Promote vibrant, walkable neighborhoods for their own sake

In some instances, promoting transit-friendliness may be most successful as a side effect of promoting walkability and mixed-use neighborhood design. Even where local promotion efforts primarily take the form of promoting pedestrian-friendliness and local placemaking, the result, if successful, will be enhanced transit-friendliness.

• Recognize demand for walkability can lead to transit-friendliness

Promote pedestrian-friendly infill in and out of station areas

Promoting pedestrian-oriented design is a desirable policy in its own right. The interview findings suggest that promoting pedestrian-oriented design wherever demand for it exists is a good policy for promoting TOD as well. Allowing developers to meet the full demand for walkable development in vibrant neighborhoods will create a more transit-friendly region, whether transit-friendliness is a primary consideration of individual projects or not. In addition, the preference developers aiming for the vibrant, walkable neighborhood market niche have for urban and innersuburban sites indicates that a major increase in walkable infill development would bring with it a significant increase in TOD, due to the density of bus routes in favored areas.

Promote pedestrian accessibility and land-use mix

At present, planning for pedestrian-oriented neighborhoods primarily takes the form of design standards for the pedestrian system, such as sidewalk widths, crossing treatments, connectivity to surrounding streets, etc. Meeting such design standards ensures that pedestrians can move through space efficiently and safely. In dense, healthy urban areas, with closely spaced desirable destinations, design standards indirectly ensure that pedestrians can reach large numbers of destinations. In lower-density or less healthy areas, they do not. The importance developers and employers place on walkability as a means of reaching local destinations ranging from grocery stores to restaurants for a business lunch shows the importance of using performance measures such as pedestrian accessibility in planning, as well as the importance of land-use mix in promoting walkability.

• Allow flexibility in design

To allow as much development as possible with pedestrian-oriented features, communities should consider allowing projects that deviate from the stereotypical vertical mixed-use formula. Of course, where projects with all desirable pedestrian-oriented features are feasible, they are to be preferred. There may be instances, however, where partial compromises allow developments to progress that would otherwise be built at more automobile-oriented sites and/or with more automobile-oriented forms.

• Regulatory reform

Pedestrian-oriented development is limited by regulatory issues similar to the issues facing TOD. The broad demand found for some form of pedestrian-oriented development argues for a similar need for regulatory reforms, including zoning reforms to allow denser projects with wider varieties of uses by right in appropriate areas and relaxation of off-street parking standards where feasible. The intersecting needs of walkable and TOD underscore the need for significant, broadly applied reforms to development regulations as part of efforts to encourage more sustainable regional development.

CONCLUSION #4: Affordable housing demands creative solutions

Sixty percent of developers with experience in affordable housing mention federal, state and local financial incentives as important. Government support is crucial to the provision of affordable housing. Particularly in rapidly developing and revitalizing transit corridors, however, traditional subsidy programs risk falling short of the need. Developers of affordable housing are using a variety of creative strategies to meet that need.

• Developers specialize

In-house capabilities

Developers that build affordable housing tend to specialize in it. By specializing, they are able to build in-house financing, regulatory compliance, and management capabilities specific to affordable housing. These in-house capabilities allow affordable housing developers to achieve economies of scale that help them compensate for the limited rents entailed in affordable housing.

Easier as entire project

Developers of affordable housing point to economies of scale and difficulties leasing market-rate units in mixed-income developments as reasons that affordable housing can often be easier to develop as an entire affordable project rather than a few affordable units mixed into a number of otherwise market-rate projects. In addition, on-site social services such as child-care and job training tend to require economies of scale that are possible with all-affordable developments.

Combining credits

One interesting strategy found for maximizing the subsidies and tax credits that are available for affordable housing is combining affordability tax credits with other credits, such as for historical preservation. With strong needs for affordable housing and large stocks of historical buildings, opportunities to mix affordability with preservation are common in central cities. Affordable developers also find that rehabilitation of existing dilapidated buildings into well-run affordable housing tends to generate significantly less opposition from more affluent neighbors than new construction of affordable housing.

Regulatory issues

Affordable housing is hindered by many of the same development regulations that favor automobile access and hinder TOD. In particular, developers identify low maximum densities and high minimum parking ratios as hampering the economies of scale needed to compensate for affordable rents. Efforts to develop affordable housing on high-value station-area land are doubly hindered in attempting to meet the added costs of prime transit-oriented sites at affordable rents. Regulatory limitations on numbers and sizes of units, as well as off-street parking requirements, put additional pressure on the already narrow-margin business of affordable housing.

• Affordable by design

Another innovative strategy for building affordable housing found in the interviews is the concept of "affordable by design"—designing and scaling projects to be both affordable and profitable without subsidies. Affordable by design imposes design constraints and tends to require high densities to be financially feasible. It can also insulate affordable units from future budget cuts. Recognizing that households' housing and transportation costs are linked, housing with good transit access *is* affordable housing—at least significantly more affordable than it otherwise would be. Affordable by design could have the potential to significantly increase affordable housing options in the Twin Cities, and transit access appears to have a critical role to play in realizing that potential.

Recommendations: Promote diverse affordable housing options

Engage with affordable housing specialists

Plan for affordable housing at the neighborhood level, not the project level

One key point from the interview participants is that the process of developing affordable housing has important differences from developing market-rate housing apart from funding. In addition, the funding and compliance demands of affordable housing make economies of scale crucial. As a result, affordable housing promotion efforts may have more success focusing on the provision of affordable housing units at the level of station-area neighborhoods rather than percentages of individual new developments. Current affordable-housing promotion efforts along the Metro Green Line are encouraging on this front. The research findings demonstrate the importance of extending this model to suburban communities, including those along the proposed Green Line and Blue Line extensions.

All-affordable projects

Planning for affordable housing at the neighborhood level will likely include encouraging some all-affordable developments to move forward in station areas. Mixed-income projects offer an easy strategy to partially fund affordable units through value capture from market-rate units. The research findings, however, suggest significant benefits from a neighborhood-scale, value-capture strategy that would ease the funding of all-affordable developments with the economies of scale and in-house social services they allow. Options might include initiatives such as station-area TIF districts, tax increment allocation specifically from new market-rate developments, or some type of "affordable unit bank" mechanism by which market-rate developers could contribute to a local affordable housing grant fund in return for density bonuses or other benefits to their own projects.

Include preservation/reuse in affordable-housing strategies

The financial challenges faced by affordable-housing providers argue strongly for preservation and reuse/rehabilitation as important components of a transit-oriented affordable-housing strategy, and for the projects' eligibility for public and nonprofit funding initiatives. This is particularly the case in devalorized urban neighborhoods vulnerable to gentrification. In such circumstances, rehabilitating existing properties for use as affordable housing could offer significant cost savings compared with new construction, due to existing stocks of dilapidated housing. In addition, stabilizing and preserving existing low-cost housing could be particularly effective at preventing involuntary displacement of existing residents and communities. Finally, according to the interviews conducted for this study, the rehabilitation of existing properties for use as affordable housing generates much less opposition, might avoid NIMBY issues, and could even attract enthusiastic support from the same quarters that might oppose new development.

Consider family housing needs

Affordable housing options are required for all life-cycle stages—including family housing. Traditional state and federal affordable housing subsidies focus on family housing but will fall short of needs as transit access becomes more important for working families. Preservation and reuse strategies offer additional opportunities to meet needs for affordable family housing, especially in the current real estate market. In many cases, the purchase and rehabilitation of single-family foreclosures and other vacant properties could offer a highly cost-effective way to provide housing for poor and working families and to support the development of socially healthy, inclusive communities.

Pursue affordable-by-design solutions

Regulatory issues

The high demand found for affordable housing and the limited public funds available to encourage its creation point to affordable-by-design housing as an important part of a system-wide, transit-oriented affordable-housing strategy. Affordable-by-design housing's usefulness as a broad-based affordable housing strategy depends, however, on a regulatory environment that allows for the construction of developments that can be fiscally self-sufficient at affordable rents. Currently, the same automobile-oriented density and use restrictions, as well as off-street parking standards that hinder TOD, often hinder affordable-by-design housing. TOD may be a more

politically palatable rationale for reform of development regulations than affordable housing. Alternatively, broader affordability of transit-oriented housing may also offer policymakers a convincing argument in favor of TOD and affordable-housing-friendly regulatory reforms.

Affordable housing-plus-transportation

Efforts to promote the development of transit-oriented affordable housing could benefit significantly from an affordable-housing process that directly considers the housing-transportation cost link. As the regional transit system continues to develop and serves more major employment centers, working families that live near transit stations will have significant housing-plus-transportation cost advantages over those that do not. Transit-oriented housing is often more expensive to develop than automobile-oriented housing, due to high demand, expensive land, and complexity of projects. Policies that help to reduce development expenses, and policies that recognize the housing-transportation link and make projects with affordable housing and transportation (not just traditionally defined affordable housing projects) eligible for grants, tax benefits, mortgage programs, density bonuses, and other incentives, could significantly ease the development of transit-oriented affordable housing.

CONCLUSION #5: Generational changes in attitudes toward transit present a historic opportunity

Interviews with both developers and employers point to one standout conclusion: There is a historic shift under way in the Twin Cities in attitudes toward and demand for transit. In large part, this shift appears to be driven by generational succession. As members of the millennial generation come of age, establish households, and take on increasingly important roles in the workforce, they increasingly seek homes in vibrant, urban neighborhoods with good transit access. In addition, as millennials begin their adult careers, they frequently replace retiring baby boomers who have tended to prefer automobile-oriented, suburban single-family homes throughout their working lives.

• The millennial shift

Neighborhood versus house

One way the generational shift in housing preferences manifests itself is in an increasing prioritization of neighborhood amenities over house amenities. These priorities play out as a strengthening of demand for smaller and/or attached housing if that housing is located in vibrant, walkable neighborhoods—particularly neighborhoods with good transit connections to major professional employment centers.

Strengthening urban core areas

Developers and employers with strong interests in attracting millennials see this trend as dramatically strengthening the urban core. Developers see increased interest in downtown residential development—even more so for higher-density, middle-class residential development, as well as neighborhood commercial development in urban neighborhoods. Employers see the downtowns (especially downtown Minneapolis) as desirable places for companies to locate.

Employers also see strong potential for strengthening of other employment centers with convenient, high-quality transit connections to desirable urban residential areas.

Demand outstripping supply

Developers serving the millennial market speak of strong demand for transit-oriented housing choices in vibrant, walkable neighborhoods. They also identify a current shortage of supply for such housing choices. This situation can be expected to make TOD projects a sound investment for developers where permitting allows, due to price premiums stemming from unmet demand. Those price premiums, however, also raise affordability concerns if the supply of transit-oriented housing in vibrant, walkable neighborhoods is not significantly increased.

• Competition for talented employees

A primary reason employers cite for desiring good transit access is a perceived need to offer a desirable place to work. Such companies see themselves in competition for skilled employees, particularly skilled employers from the millennial generation. Locations that allow convenient transit commuting from desirable urban residential areas allow employers to offer potential employees important lifestyle benefits compared with employers in locations requiring automotive commuting.

Need to balance the present against the future

As millennials and members of younger generations play increasingly important roles in the workforces of competitive cluster employers, the need to recruit new skilled workers and to avoid high turnover among current workers will likely put established suburban employers in increasingly difficult situations. Such employers face the difficult task of preparing for a more transit-oriented future in the context of high relocation costs and strong ties to current areas. Impending retirements of baby boomers and the need to attract millennials as replacements add urgency to the delicate balancing act of present and future access needs these employers face.

Regional competitiveness

Competition for skilled employees does not take place within the metro area alone. Especially in cases of talented, young professionals at the start of their careers, competition for skilled employees takes place among regions as well. This fact puts talent-dependent basic sector employers in the Twin Cities in competition with employers in regions from New York to San Francisco. That competition currently puts Twin Cities employers at a disadvantage to employers in regions with more mature transit systems in terms of attracting and/or retaining talented, young employees who increasingly desire urban living and car-free or car-lite lifestyles.

Recommendations: Accelerate expansion of TOD and the transit system

The generational change in neighborhood preferences and attitudes to transit identified by both developers and employers is an important opportunity to lay the groundwork for a more sustainable regional growth pattern in the Twin Cities. Time to take full advantage of that opportunity is not infinite, however. Millennials are already starting careers, forming households, and putting down long-lasting roots in communities. The currently limited supply of transit-oriented housing and transit-accessible jobs could force many young households into automobile-dominated lifestyles.

• Accelerate TOD and transit improvements throughout the region

Meeting latent and future demand for transit-friendly development will require expanding opportunities for TOD throughout more of the metro area. Most Twin Cities residents (including millennials) and jobs are suburban, and will continue to be. Creating the nuclei of transit-friendly communities across the region is necessary to allow more sustainable regional development patterns to take root on a broad scale.

Connect with suburban developers

Developers tend to specialize in specific areas of the region, and most with experience in transit-friendly development work primarily in the central cities, which presents both a problem and an opportunity. The problem is that Twin Cities developers with the most expertise at developing successful transit-oriented projects will often lack intimate knowledge of suburban communities, and vice versa. The opportunity is one of fostering collaboration between urban developers with TOD experience and suburban developers with local market and community knowledge. If the Metropolitan Council and other stakeholders in the transit-development and regional-planning processes can help encourage joint ventures between developers with TOD and local community experience, they may significantly broaden the adoption of more sustainable development patterns.

Allow change in neighborhoods not immediately next to stations

The generational shift under way in demand for transit access suggests a demand for transit-friendly housing choices too large to be met by immediate station-area housing alone. The small, opportunistic nature of many current transit-friendly developments shows a need for reforms of development regulations to allow increases in density and diversity of uses in neighborhoods beyond areas immediately adjacent to transitway stations. The fact that most land in the Twin Cities metro area will never be within walking distance of a transitway station demands a geographically broad definition of "station areas" to achieve maximum benefits from regional transit investments. Consideration of existing community characteristics and appropriate intensities for transit-friendly redevelopment of areas farther from major transit stations will be needed.

Continue and accelerate transit improvements

The regional transit build-out will make transit relevant to many more developers and employers who are tied to specific areas of the metro as it dramatically expands the numbers of residential areas and employment centers conveniently connected by high-quality transit. The Metropolitan Council and other stakeholders are building out the regional transitway system as quickly as funding allows. The research findings, however, demonstrate the importance of continuing, and if possible, accelerating that build-out to take full advantage of the generational change in attitudes and preferences currently under way. The results also demonstrate a need for transit improvements to serve as wide a variety of origin-destination pairs as possible and to offer premium transit options suitable for dense, vibrant urban neighborhoods.

• Engage with employers

Competitive cluster employers are beginning to recognize the desires of their future workforces for transit-accessible jobs. Employers choose their locations infrequently, however, and within a universe of possibilities constrained by the commutes of their existing employees. The build-out of the regional transitway system offers an opportunity to promote transit-accessible location choices as a way for employers to prepare for the future without sacrificing their ability to retain current employees.

Consider workforces

The composition—particularly the age makeup—of an employer's workforce should dictate engagement strategies. Outreach to an employer with a young workforce, or an employer currently hiring entry-level, professional positions, should focus on improving current access to top talent and on positioning for growth. Outreach to more established companies with large numbers of soon-to-retire baby boomer employees should place more emphasis on preparing for the future and on avoiding a loss of new talent to competitors with better transit access.

Consider life cycles

Employers are unlikely to relocate for better transit access alone. They are much more likely to consider transit access when moving anyway, often for other primary reasons, such as needing more space. As a result, growing companies likely to soon need larger quarters are prime candidates for promotion of the benefits of transit-accessible sites. In addition, new companies in the growth stage of their life cycles often employ particularly large proportions of younger employees, who in turn are particularly likely to desire quality transit as a commute option.

Promote alternative strategies for transit access

Moving to transit is not feasible for many large suburban employers due to sunk capital investments (money that has already been spent) in their current locations. However, these employers will soon need to replace large numbers of retiring baby boomers, in many cases with millennials who have strong desires for urban living and transit options. Employers show interest in providing options such as shuttles to connect employees with nearby transitways but lack expertise in providing for employee commutes other than by providing parking. In addition, employers understandably want to see strong demand for such commute options before making investments. Such companies could be strong partners for developing new transit options and/or local feeder services from nearby transitways.

Regional competitiveness as conversation starter

Interest in transit from a regional competitiveness perspective offers an entry point for engagement with employers who see the benefits of transit for the region but not directly for their own workforces. Employers might not choose transit-accessible locations based on beliefs in transit alone, especially if they believe their own employees are unlikely to ride. Recognition of transit as a regional competitiveness enhancement could offer an opportunity to promote the benefits of transit to a wider audience, however. It also will provide an important source of support for further expansion of the transit system.

CONCLUSION #6: Transit modes and timing matter

Bus service offers significant opportunities

The vast majority of transit-accessible locations within the Twin Cities metro are and will remain served by the regular bus system for the foreseeable future. In fact, the interview results suggest that most current TOD activity occurs on sites served by the bus system. Developers' responses also indicate that sites with convenient bus connections to regional transit options such as the Hiawatha light-rail line are particularly attractive for TOD projects. Such connections allow developers to benefit from the desirability of light-rail access at many more potential sites than would be available in immediate station areas. The current dominance of the transit system by bus service is also critical for current site-selection decisions. Developers and employers consider currently available transit options more seriously than transit options that might be available in the future.

Rail attractive once it becomes certain

Interview participants see rail transit as highly attractive once it arrives in the areas of the metro they have business ties to, or at least reaches a point in the planning process where they see it as a sure thing. Rail, particularly LRT, has a positive image in terms of service quality and attractiveness with both developers and employers. Long planning processes and funding uncertainty until relatively late in those processes limit how far in advance of construction developers and employers feel able to make location decisions based on new rail transit. For example, the proposed Green Line extension is already generating interest among developers and employers with ties to the areas it will serve, as they include major, growing residential areas and employment centers. This interest does not yet extend, however, to making location decisions on speculation that the line will be built.

Recommendations: Promote diverse transit options as the regional system grows

In the coming decades, the transitway system will provide the backbone of regional transit mobility in the Twin Cities. Achieving system-level, transit-oriented jobs-housing balance will also require diverse TOD solutions and quality transit options complementary and in addition to regional transitways.

Remember the buses

High-frequency bus routes, especially with connections to regional transitways, are likely to offer significant TOD opportunities, especially given that developers already see good bus service as a desirable amenity. Routes identified as suitable for attracting development and/or economic development should also be considered for TOD-specific zoning and parking standards in a context-sensitive manner.

Strive to serve nontraditional commutes

Most jobs in the metro area are located outside the downtown. In addition, factors including continuing suburban employment growth, renewed interest in urban living, the decline of traditional, one-employer careers, and the rise of two-earner households mean that nontraditional commutes are more common now than ever before. In addition, many large, competitive cluster employers with a need to recruit talented, younger-generation employees have suburban locations that are not conveniently served by the traditional, radial commute orientation of the transit

system. Transitways providing rapid, regional mobility with frequent, all-day service and crosstown bus service directly connecting popular residential areas with employment centers can serve to improve the attractiveness of transit-oriented sites for both housing and jobs by dramatically increasing the numbers of employees and employers connected.

Implement premium urban local transit

There is a need to work on the image of local, urban transit and rider experience—even in urban areas with relatively well-used, frequent service. Transit would be significantly more relevant to development if premium local services such as streetcars or arterial BRT were implemented in popular urban neighborhoods. In addition to providing local circulation, such services would offer attractive links with the regional transitway system, effectively extending its reach and potentially its development impacts. As vibrant, urban neighborhoods in demand among young, high-skilled workers are better connected to the regional transit system, regional transit systems will be more relevant to employers hoping to attract these workers.

Certainty of construction needed

The fact that developers and employers express interest in transit corridors that are years away from even breaking ground but will not generally make location decisions based on plans for these corridors until construction is certain shows a need to provide as much certainty as possible about the build-out of the regional transit system. The findings in this report underscore the benefits of a strengthened, dedicated funding source for transit improvements to allow more transit corridors to reach the point of no return sooner and in quicker succession. A more orderly planning and funding process, less vulnerable to legislate whims, could also offer developers and employers the feeling of certainty they need to make transit-oriented location decisions.

Concluding comments

The most positive finding of this research is that pent-up demand for transit access exists among Twin Cities developers and employers. Though significant obstacles remain to increased TOD and job creation, the interviews conducted with developers and employers suggest that the specific policies required to allow the supply of transit-friendly residential areas and employment centers to meet the demand for them are generally neither new nor unknown. Indeed, they are widely accepted by the planning profession as tactics for encouraging TOD. The key is implementing these policies on a broad enough, regional scale to achieve the desired broad, regional impacts. That implementation will require a great deal of regional cooperation and political will, things this study does not make any easier to realize. It does, however, argue strongly for the need to try.

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Appendix A

Developer Interview Questionnaires

RESIDENTIAL DEVELOPER INTERVIEW QUESTIONS

Research on How to Achieve System-Level, Transit-Oriented Jobs-Housing Balance

Thank you very much for agreeing to participate. Before we begin, I'd like to ask you to look beyond the current economic downturn as we have our conversation. While I realize that will be difficult, we'll be discussing infrastructure-planning and location-choice processes that happen on the scale of decades, so policy and planning decisions being made now will have impacts well beyond the current economic cycle.

- 1) What are the crucial factors you often consider in determining the location of your development projects? (Finish by 15 minutes in.)
 - What are the most important neighborhood characteristics you look for when choosing a development site?
 - How important is it that a location provides easy access to amenities such as work, grocery stores, parks, and schools?
- 2) Do you actively pursue development near transit corridors? Why or why not? (Finish by 25 minutes in.)
 - What do you see as the possible benefits of developing near transit? What do you see as the challenges?
 - What public sector policies and practices could make developing near transit more attractive or easier?

Some people involved with development along transit corridors feel that affordable housing is an important component to include:

- 3) Would you consider an affordability component in your next project? (If needed—) Have you considered an affordability component in a previous project? (Finish by 35 minutes in.)
 - If yes, would you imagine it being more or less difficult to implement?
 - o Answer: More difficult—explain?
 - Answer: Less/not difficult—what might be difficult?
 - If no, what aspects of an affordability component make it challenging?
 - If don't know—what would be helpful information for you as the developer?
- 4) What specific challenges around transit and affordable housing do you face as a developer that I have not asked you about? (Finish by 40 minutes in.)

COMMERCIAL DEVELOPER INTERVIEW QUESTIONS

Research on How to Achieve System-Level, Transit-Oriented Jobs-Housing Balance

Thank you very much for agreeing to participate. Before we begin, I'd like to ask you to look beyond the current economic downturn as we have our conversation. While I realize that will be difficult, we'll be discussing infrastructure-planning and location-choice processes that happen on the scale of decades, so policy and planning decisions being made now will have impacts well beyond the current economic cycle.

- 1) What are the crucial factors you often consider in determining the location of your development projects? (Finish by 20 minutes in.)
 - (If interviewee only mentions one, simple criterion...) Now we know that [the criterion specified] is the most important factor for your development projects. Say that there are multiple sites [meeting that criterion], however—what would be the second or third important locational or neighborhood factors underlying your site selection?
 - What are the most important neighborhood characteristics you look for when choosing a development site (i.e., crime rates, relationship with the local government, relationship with community?)
 - How important is it that a location provides easy access to amenities such as restaurants, parking, and green space adjacent to the site?
- 2) Do you actively pursue development near transit corridors? Why or why not? (Finish by 30 minutes in.)
 - What do you see as the possible benefits of developing near transit? What do you see as the challenges?
 - What public-sector policies and practices could make developing near transit more attractive or easier?
- 3) What specific challenges around transit do you face as a developer that I have not asked you about? (Finish by 35 minutes in.)

Appendix B

Employer Interview Questionnaires

STANDARD EMPLOYER INTERVIEW QUESTIONS

Research on How to Achieve System-Level, Transit-Oriented Jobs-Housing Balance

Thank you very much for agreeing to participate. We're interested in hearing either about your specific experiences with this company, or your knowledge of the process a company like yours goes through in selecting a location, and what's important in that process. Before we begin, I'd like to ask you to look beyond the current economy as we have our conversation. While I realize that will be difficult, we'll be discussing infrastructure-planning and location-selection processes that happen on the scale of decades, so policy and planning decisions being made now will have impacts well beyond the current economic cycle.

- 1) What do you see as the most important factors in choosing a location for a company like yours? (Finish by 5 minutes in.)
 - a. (Ask only if not mentioned in the interviewee's response.) What role might transportation access, including highways, transit, etc., play in that location decision?
- 2) Please describe your workforce; we're interested in experience levels, age groups, and types of positions (clerical, managerial, sales, technical, professional, logistical, etc.), or any other characteristics you consider relevant. (Finish by 15 minutes in.)
 - a. Can you name any areas of the metro that stand out as popular places for your workers to live?
 - b. Is your company easily accessible from these areas by highway? By transit? What effect does this accessibility have on your ability to recruit and retain key staff?
- 3) As the regional transit system develops, much more of the metro area will be served by high-quality transit on par with the Hiawatha light-rail line. How might the availability of such an amenity influence the location decisions of a company like yours? OR (If already located near transit) What has been the impact of nearby transit service on your company and employees? (Finish by 25 minutes in.)
 - a. What might deter a company like yours from selecting a location near transit? (OR if already located near transit) Did your company run into any obstacles obtaining a suitable site/facility/office near transit?
 - b. Based on your level of interest, how might local governments, the Metropolitan Council, and other entities draw companies like yours to areas near transit?
- 4) What haven't we asked you? Can you think of any important issues concerning locating a company like yours near transit that we haven't raised yet? (Finish by 30 minutes in.)

FORTUNE 500 INTERVIEW QUESTIONS

Research on How to Achieve System-Level, Transit-Oriented Jobs-Housing Balance

Thank you very much for agreeing to participate. We're interested in hearing either about your specific experiences with this company, or your knowledge of the process a company like yours goes through in selecting a location and what's important in that process. Before we begin, I'd like to ask you to look beyond the current economy as we have our conversation. While I realize that will be difficult, we'll be discussing infrastructure-planning and location-selection processes that happen on the scale of decades, so policy and planning decisions being made now will have impacts well beyond the current economic cycle.

- 1) What do you see as the most important factors in choosing locations for a company like yours?
 - a. (Ask only if not mentioned in the initial response.) What role might transportation access, including highways, transit, etc., play in that location decision?
- 2) Your company recruits team members from across the full spectrum of ages and experience levels. Those team members are likely to choose to live in many different places given the large variety of their life situations and preferences. What, then, are the advantages and disadvantages of your current Twin Cities locations given that team members may come from all across the metro?
- 3) Companies like yours recruit team members from around the world, including a large number of top scientists, engineers, and managers from across the United States. What roles do local quality-of-life characteristics, including a sophisticated transit system, play in attracting highly skilled team members to the Twin Cities versus other choices top recruits may have?
- 4) What effect—if any—does good transportation access (highway and/or transit) have on your company's ability to conduct its day-to-day business?
- 5) As the regional transit system develops, much more of the metro area will be served by high-quality transit on par with the Hiawatha light-rail line. How might the availability of such an amenity influence the future site selection decisions of a company like yours?
- 6) What haven't we asked you? Can you think of any important issues concerning locating a company like yours near transit that we haven't raised yet?

BOARD MEMBER INTERVIEW QUESTIONS

Research on How to Achieve System-Level, Transit-Oriented Jobs-Housing Balance

Thank you very much for agreeing to participate. We're interested in hearing either about your specific experiences with the companies you work with, or your knowledge of the processes similar companies go through in selecting locations and what's important in those processes. Before we begin, I'd like to ask you to look beyond the current economy as we have our conversation. While I realize that will be difficult, we'll be discussing infrastructure-planning and location-selection processes that happen on the scale of decades, so policy and planning decisions being made now will have impacts well beyond the current economic cycle.

- 5) What do you see as the most important factors in choosing a location for the companies you work with? (Finish by 5 minutes in.)
 - a. (Ask only if not mentioned in the interviewee's response.) What role might transportation access, including highways, transit, etc., play in these location decisions?
- 6) We assume your clients recruit employees from across a broad spectrum of ages and experience levels. Those employees are likely to choose to live in many different places given the large variety of their life situations and preferences. How do employees' experience levels, age groups, types of positions (clerical, managerial, sales, technical, professional, logistical, etc.), or other characteristics influence your clients' choices of locations? (Finish by 15 minutes in.)
 - a. Can you name any areas of the metro that stand out as popular places for your clients' workers to live?
 - b. Are your clients generally easily accessible from these areas by highway? By transit? What effect does this accessibility have on their ability to recruit and retain key staff?
- 7) As the regional transit system develops, much more of the metro area will be served by high-quality transit on par with the Hiawatha light-rail line. How might the availability of such an amenity influence the location decisions of your clients? (Finish by 25 minutes in.)
 - a. What might deter a client of yours from selecting a location near transit? Have any of your clients run into any obstacles in obtaining a suitable site/facility/office near transit?
 - b. Based on your level of interest, how might local governments, the Metropolitan Council, and other entities draw companies like your clients to areas near transit?
- 8) What haven't we asked you? Can you think of any important issues concerning locating a company like the ones you work with near transit that we haven't raised yet? (Finish by 30 minutes in.)

Appendix C

Letters of Introduction

Developers:

University of Minnesota

Twin Cities Campus

Hubert H. Humphrey School of Public Affairs

301—19th Avenue South Minneapolis, MN 55455 (612) 626-0564 http://www.hhh.umn.edu

To whom it may concern:

The Twin Cities are making a series of major investments in mass transit infrastructure, aimed at improving mobility and enhancing economic competitiveness throughout the region. These investments' value to the region will depend on private-sector actions. Housing development in transit-served areas will be crucial to the Twin Cities region reaping the greatest possible benefit from these investments.

The Metropolitan Council and the Itasca Project are partnering with researchers from the University of Minnesota's Center for Transportation Studies and Humphrey School of Public Affairs to answer questions such as:

- What's important to your company in selecting development sites within the region?
- Would your company benefit from locating developments near high-quality transit?
- What obstacles might your company currently face in locating developments near transit corridors?
- What policies and practices would encourage your company to develop sites near transit corridors?

We would greatly value your input to this important work. We encourage you to assist by engaging in a brief conversation with University of Minnesota researchers. Ideally, this conversation would take place within the next month or two and can include any of your key managers. Your office will soon hear from Chris Berrens, a research fellow at the Humphrey School of Public Affairs. Feel free to contact him at (612) 618-0782 if you have any questions in the interim. For your immediate information, a one-page summary of our project is attached.

Your input will help the Metropolitan Council and other stakeholders pursue bold policies targeted at securing long-term economic prosperity for the Twin Cities region. Thank you for your consideration of this request.

Sincerely,

Susan Haigh

Chair

Metropolitan Council

Laurie McGinnis

Director,

Center for Transportation Studies,

Laure & mc Simi

University of Minnesota

Charlie Zelle

Co-Chair, Transportation Task Force

Itasca Project

Jay Cowles Co-Chair, Transportation Task Force

Itasca Project

Employers:

University of Minnesota

Twin Cities Campus

Hubert H. Humphrey School of Public Affairs

301—19th Avenue South Minneapolis, MN 55455 (612) 626-0564 http://www.hhh.umn.edu

{Recipient} {Company} {Address} {City}, MN {ZIP}

To Whom it May Concern:

The Twin Cities are making a series of major investments in mass transit infrastructure, aimed at improving mobility and enhancing economic competitiveness throughout the region. These investments' value to the region will depend on private-sector actions. Healthy job growth in transit-served areas will be crucial to the Twin Cities region reaping the greatest possible benefit from these investments.

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- What's important to your company in selecting sites within the region?
- · Would your company benefit from locating near high-quality transit?
- What obstacles might your company currently face in locating near a transit corridor?
- What policies and practices would encourage your company to locate near a transit corridor?

We would greatly value your input to this important work. We encourage you to assist by engaging in a brief conversation with University of Minnesota researchers. Ideally, this conversation would take place within the next month or two and can include any of your key managers. Your office will soon hear from Brent Oltz, a research fellow at the Humphrey School of Public Affairs. Feel free to contact him at (608) 345-4640 if you have any questions in the interim. For your immediate information, a one-page summary of our project is attached.

Your input will help the Metropolitan Council and other stakeholders pursue bold policies targeted at securing long-term economic prosperity for the Twin Cities region. Thank you for your consideration of this request.

Sincerely,

Susan Haigh

Chair

Metropolitan Council

Laurie McGinnis

Director,

Center for Transportation Studies,

University of Minnesota

Charlie Zelle

Co-Chair, Transportation Task Force

Itasca Project

Jay Cowles

Co-Chair Transportation Task Force

Itasca Project

Appendix D Residential Developer Online Survey Questionnaire and Responses

R1. Which of the following most accurately describes your position?

Q1	Private	Nonprofit
Project Analyst	3	0
Project Manager	6	5
Director	4	2
Owner/Part Owner	0	0
Other	4	0
Total	17	7

R2. Which type of housing development projects do you most often participate? (Please mark all that apply.)

Q2	Private	Nonprofit
Single-family homes	6	4
Senior Housing	3	1
Rental Apartments	8	5
Townhomes	5	4
Condominiums	4	3
Other	3	1

R3. Where are most of your development projects located? (Please choose one)

Q3	Private	Nonprofit
Central cities (Minneapolis and St. Paul)	12	4
The suburbs	3	1
An even split between central cities and suburbs	2	2
Other	1	0

R4. On a scale of 1 to 5, in your experience, how challenging is each of following development phases? (1-Not challenging, 5-Very challenging)

	Private			NonProfit						
Q4	1	2	3	4	5	1	2	3	4	5
Forming the development concept	6	3	2	0	0	3	1	1	1	1
Site selection and feasibility study	1	7	2	1	1	1	1	4	1	0
Deal Making: Planning & financing	2	1	0	3	7	0	0	2	1	4
Public process/land entitlements	1	1	4	5	1	0	0	0	4	3
Project construction	1	1	7	2	1	1	1	5	0	0

R5. On a scale of 1 to 5, how important is each of the following location factors when selecting a development site? (1-Not important, 5-Very important)

		Fı	eque	ency	
Q5	1	2	3	4	5
Proximity to job centers (ex. Downtown Minneapolis)	0	1	2	5	2
Proximity to parks and trails	2	2	2	4	0
Proximity to major highways	2	0	3	2	3
Proximity to good transit access	0	3	2	1	4
Proximity to basic needs (ex. Grocery store, pharmacy)	0	2	2	4	2

R6. On a scale of 1 to 5, how important is each of the following neighborhood qualities when selecting a development site? (1-Not important, 5-Very important)

	Private				Nonprofit					
Q6	1	2	3	4	5	1	2	3	4	5
Relationship with the local government	0	3	2	4	1	0	0	1	0	6
Security like low crime	0	0	5	2	2	1	0	4	1	1
Surrounding real estate value	1	0	2	5	2	2	1	2	0	2
Relationship with the community	2	0	1	3	4	0	0	0	2	5

R7. Has your firm ever been involved in development projects near major transit corridors in the Twin Cities (e.g., Hiawatha, or Central Corridor light rail, Northstar commuter rail, Cedar Avenue bus rapid transit, etc.)?

- 55% of participating private developers have been involved in transit corridor development projects
- 71% of public sector respondents have been involved in transit corridor projects

R8. If yes, please specify the name and location of your most recent development project near a transit corridor.

- Lake and Bryant (near Midtown greenway) Buzza Historic Lofts
- Hiawatha
- Grandma's West Broadway
- Central Corridor

R9. On a scale of 1 to 5, how difficult would you expect each of the following obstacles to be when developing a site near a transit corridor? (1-Not difficult, 5-Very difficult)

]	Priva	te			N	onpr	ofit	
Q9	1	2	3	4	5	1	2	3	4	5
High land costs in such locations	1	0	1	1	5	0	0	0	1	6
High costs of environmental cleanup at such locations	0	3	0	2	3	0	2	1	4	0
Limited land availability in such locations	0	1	0	4	3	0	0	1	4	2
Lack of financing options for such locations	0	1	1	3	2	0	0	2	2	3
Inflexible zoning codes in such locations	1	1	2	4	0	0	1	3	3	0
Lack of market interest in such locations	1	0	2	3	1	3	2	1	1	0
Lengthy permitting process for development at such locations	0	5	0	3	0	1	1	1	4	0

R10. What government policies or strategies would make you more likely to participate in projects near transit corridors?

Private developers

- Flexible parking ordinances/alternatives. More money for environmental cleanup
- Project done quickly rather than spend more time and thinking!

Nonprofit developers

- Subsidy—large subsidies, especially for energy efficient and sustainable housing. GAP financing
- Land costs prevent a lot of deals from moving forward, potentially more city-owned land sold at cost would help spur multifamily development.
- More emphasis on affordable rental housing (and incentives/resources to assist affordable rental) and less emphasis on mixed-use development
- Increased subsidies for homeownership projects along the corridors
- Flexible zoning and incentives (\$) for land acquisition
- Support for affordable housing and density

R11. Has your firm ever been involved in developing mixed-income housing?

- 40% of the private developers who participated in the survey have been involved in mixed-income housing developments
- 83% of public sector respondents have been involved in mixed-income housing developments

R12. If yes, please specify the name and location of your most recent mixed-income housing development project.

Private developers

• T-29-unbuilt

Nonprofit developers

- For sale for home ownership State Street townhomes, 560 State Street, St. Paul, MN 55107
- Commerce Building, downtown St. Paul
- Central Exchange

R13. On a scale of 1 to 5, how difficult would you expect each of the following non-cost related obstacles to be when developing mixed-income housing? (1-Not difficult, 5-Very difficult)

	Private					Nonprofit					
Q13	1	2	3	4	5	1	2	3	4	5	
Ability to sell market rate units in mixed income development	0	0	3	2	4	0	1	2	3	1	
Added neighborhood opposition	1	1	1	2	4	1	2	3	1	0	
Added complexity (regulators, contractual agreements with tenants)	0	3	3	1	2	0	2	2	1	2	
Management issues once the development is built	2	1	3	3	0	0	2	1	4	0	
Lack of experience with mixed-income development projects	1	2	2	2	1	0	2	2	2	1	

R14. What government policies or strategies would make you more likely to participate in mixed-income housing development projects?

Private developers

- None. That is not our focus.
- Government should release more Section 8 voucher(s) and help affordable housing so people can live any place they like to live!

Nonprofit developers

- Reassuring investors about compliance standards as it can be difficult to assemble the level of cash reserves they often require during the permitting process for non-standard projects
- Mixed-income development might be better envisioned as a creation of mixed-income areas, where there are affordable properties among market-rate properties, rather than always envisioning a mix of incomes within each development/property
- Incentives for funding mixed-income projects and expedited permit approval process
- Financing for the market rate units and density bonuses and regulatory incentives for the HR units

Appendix E Commercial Developer Online Survey Questionnaire and Responses

C1. Which of the following most accurately describes your position?

Q1	Frequency
Project Analyst	1
Project Manager	2
Director	3
Owner/Part Owner	2
Other	2
Total	10

C2. Which type of commercial development projects do you most often participate? (Please mark all that apply.)

Q2	Frequency
Retail	6
Office Class A1(Multi level business tower)	2
Office Class A2(Low rise business facilities)	5
Industrial	2
Other	1

C3. Where are most of your development projects located? (Please choose one.)

Q3	Frequency
Central cities (Minneapolis and St. Paul)	4
The suburbs	3
An even split between central cities and suburbs	3
Other	0
Total	10

C4. On a scale of 1 to 5 in your experience, how challenging is each of the following development phases? (1-Not challenging, 5-Very challenging)

	Frequency							
Q4	1	2	3	4	5			
Forming the development concept	2	2	0	4	2			
Site selection and feasibility study	2	1	5	2	0			
Deal Making: Planning & financing	0	0	2	3	5			
Public process/land entitlements	0	2	3	1	4			
Project construction	4	0	5	0	1			

C5. On a scale of 1 to 5, how important is each of the following location factors when selecting a development site? (1-Not important, 5-Very important)

Q5	Frequency					
	1	2	3	4	5	
Proximity to job centers (ex. Downtown Minneapolis)	0	1	2	5	2	
Proximity to parks and trails	2	2	2	4	0	
Proximity to major highways	2	0	3	2	3	
Proximity to good transit access	0	3	2	1	4	
Proximity to basic needs (ex. Grocery store, pharmacy)	0	2	2	4	2	

C6. On a scale of 1 to 5, how important is each of the following neighborhood qualities when selecting a development site? (1-Not important, 5-Very important)

	Frequency					
Q6	1	2	3	4	5	
Complimentary commercial development nearby	0	0	2	2	5	
Relationship between local government	0	4	1	2	2	
Security like low crime	0	1	4	3	1	
Surrounding real estate value	0	0	3	4	2	
Relationship with the community	1	2	3	2	1	

C7. Has your firm ever been involved in development projects near major transit corridors in the Twin Cities (e.g., Hiawatha, or Central Corridor light rail, Northstar commuter rail, Cedar Avenue bus rapid transit, etc.)?

• 40% have been involved in transit corridor development

C8. If yes, please specify the name and location of your most recent development project near a transit corridor.

- University and Hamline
- North Loop Green mater development site including Dock Street apartments and other potential improvements including 400,000 square feet of office on Fifth Street near light-rail stadium station

C9. On a scale of 1 to 5, how difficult would you expect each of the following obstacles to be when developing a site near a transit corridor? (1-Not difficult, 5-Very difficult)

	Frequency					
Q9	1	2	3	4	5	
High land costs in such locations	0	0	3	5	1	
High costs of environmental cleanup at such locations	0	2	2	4	1	
Limited land availability in such locations	1	0	2	2	4	
Lack of financing options for such locations	0	1	1	1	4	
Inflexible zoning codes in such locations	0	4	4	1	3	
Lack of market interest in such locations	3	1	1	1	2	
Lengthy permitting process for development at such locations	1	1	1	4	2	

C10. What government policies or strategies would make you more likely to participate in projects near transit corridors?

- Receiving full approval prior to closing on the actual site would benefit developers greatly and not cause any damage to any other parties
- TIF, better planning policies, construction of lines with development in mind (understanding impact on future development)