THE BIG PICTURE PROJECT
Aligning housing plans along Central Corridor

LISC
Local Initiatives Support Corporation
Helping neighbors build communities

Green Line Density Bonus Study: Final Report

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Introduction

On behalf of the Big Picture Project, and with funding from the Central Corridor Funder's Collaborative, the Local Initiatives Support Corporation (LISC) Twin Cities office commissioned a study of density bonuses that may be employed as a municipal tool to encourage production of affordable housing in the Twin Cities region. More specifically, the Density Bonus Study was commissioned to assess the viability of a potential policy tool to incentivize private investment in the preservation and expansion of affordable housing options for residents living in and near Green Line LRT station areas, including its current route and planned route extension. The goals of the Density Bonus Study are to:

- Conduct a literature review that includes analyses of density bonus implementation in urban and suburban settings, and draw conclusions from relevant patterns of success or failure.
- Develop recommendations for attributes of an effective density bonus program, in the market and policy context of Green Line communities. A density bonus program for affordable housing in this region should reflect relevant ingredients of success identified in other cities.
- Identify 3-4 Green Line station areas where market conditions, development pattern and other factors make these station areas valuable prospects for implementation, and representative of others along the line.

Study Conclusions

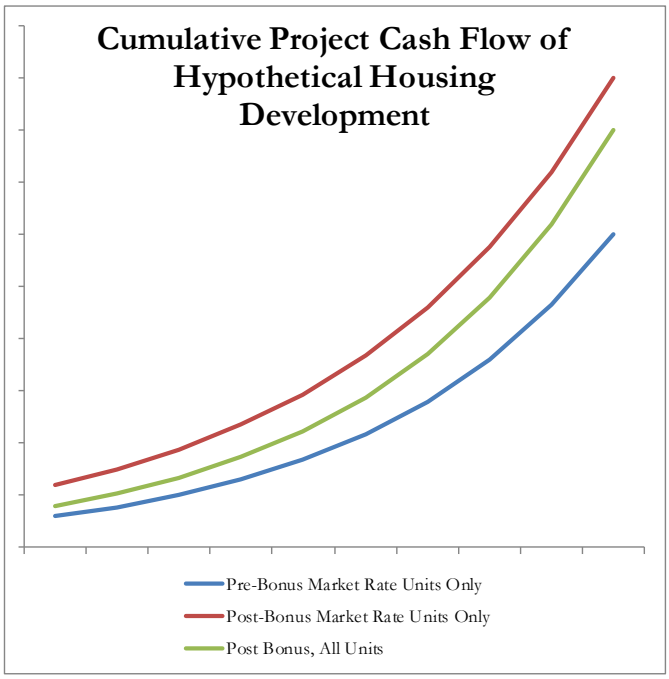
The process of examining density bonus strategies included quantitative and qualitative analysis, practitioner interviews and repeated discussion sessions with an advisory group. Detailed description of the study's methodology and the deliberation of the advisory group is included in Appendix B. This process, supported by urban redevelopment consultant Donjek, led to multiple findings for application of density bonuses by communities linked by the Green Line. The top tier of findings are listed below.

Market strength is the most critical ingredient for a density bonus program to generate public benefits, including affordable housing. Given that public benefits of a density bonus are created by a city's consent to allow development beyond the typical, the interest of developers, investors and lenders in maximizing investment is the raw material for the success of the bonus. Property in Green Line station areas has demonstrated positive but varying levels of demand for land, indicating that an effective program needs to reflect the submarket of a city, or particular subareas within a city.

In tandem with strong markets, the most productive environments for successful density bonus programs have local controls that restrict the level of development entitled by right. For cities to invite private sector use of a density bonus, developers must find that potential on a site or within a station area exceeds what is entitled under existing zoning regulations. Through years of planning and construction for the Green Line now in service, the cities of Minneapolis and Saint Paul adopted zoning code changes that substantially increased the value of entitled development in station areas. The four cities planning for the Green Line extension as their first light rail line started with the core cities' process and built upon it for their planning. These cities are translating the body of analysis of market, circulation, and

development potential into zoning and land use controls, while the market is beginning to respond to prospects shaped by the planned transportation investment.

Transforming the difference between market demand and entitled value into public benefits through a density bonus requires clear public expectations and process. At the national scale, cities demonstrating success with density bonus programs have established clarity of objective for the program, and built accountability into it by committing to an approval process that reaches conclusion on a predictable time frame. These cities also effectively present the advantages of both the added entitlement and the predictable approval process. Each of these elements clarify city expectations and goals (including, fundamentally, which public benefits are the core of the matter), and strengthen the potential impact of the density bonus as a policy tool. To the extent the goal of the density bonus program is the production of housing units, public expectations should be clarified about which type of housing is contemplated: Rental or owned, larger versus smaller units, senior, housing for very low income households, for example.



Duration matters. Interviews and research each point to the importance of the length of commitment associated with additional square footage potentially granted under a density bonus. In particular, concerns about the long-term affordability of units entitled under a bonus, and about the validity of rights to replace "bonused" units in the event of property casualty, were raised as prospective barriers by developers, lenders and other practitioners in interviews. Clarity regarding the duration of the bonus is critical to articulate the financial mechanics of the development, and the value of the public benefits to be delivered.

Couple a focus on public benefits with flexibility. Each of the cities involved in the study is distinguished by its location within a specific marketplace, as is each of the station areas. The Transitional Station Area Action Plans, for example, identify the individual land use, circulation and market characteristics of each of the stations comprising the Green Line extension. Cities with longer histories of urban development like St. Paul and Minneapolis, are comprised of sites more likely to have easements, odd shapes, or soil conditions that influence site planning and building options. Also, as demographics including household sizes continue to shift, an emphasis on affordable housing production may be best placed on square footage as opposed to quantity of units, to remain flexible to market change. For cities exploring density bonus programs, incorporating flexibility to reflect their market's characteristics will increase the likelihood of impact.

Background

Today's Green Line, shown in green, connects the cities of Saint Paul and Minneapolis. Each are observing growth in the region's transit ridership, and evidence of increased market interest in areas

with access to the line. Minneapolis and Saint Paul began Green Line land use planning in the mid-2000s, culminating in adoption of station area plans and rezoning prior to rail opening in 2014.

Saint Paul's "Central Corridor Development Strategy," comprised of land use, market and station area planning for each Green Line station, is an example of this phase of work. The Big Picture Project, convened by the Cities of Saint Paul and Minneapolis, and Twin Cities LISC, stimulated a community dialogue about maximizing benefit of light rail investment for community residents, summarized in the "Central Corridor Affordable Housing Coordinated Plan."

The Green Line extension, shown in yellow, will serve Minneapolis and an additional four communities: Hopkins, St. Louis Park, Minnetonka, and Eden Prairie. The five cities involved in implementing the Green Line extension have undertaken comparable station area planning, as well as more intensive market and circulation analysis. Multiple reports document findings of these efforts, including especially the "Southwest Corridor Investment Framework/Transitional Station Area Action Plans" and the "SWLRT Housing Gaps Analysis."

A theme of station area planning across the line in its entirety has been retaining and expanding the range of housing choices available within station areas, amid anticipated growth in demand for nearby sites. This report has been developed and produced as a resource for local decision makers to use, in the process of managing housing affordability in transitway station areas.

Inclusionary Zoning and Density Bonuses and Green Line Context

According to the Metropolitan Council forecasts, the Twin Cities region is projected to add 52,000 low- and moderate-income households needing affordable housing in the decade 2020-2030. Among the Minneapolis and Saint Paul neighborhoods currently served by the Green Line, the Big Picture Project has focused on a stretch goal of 4,500 new and preserved affordable units in the years 2011-20. As the region's transit system continues to expand, connecting residents to locations for jobs,

education and other needs, cities are engaging in dialogue about local approaches to facilitate growth and access.

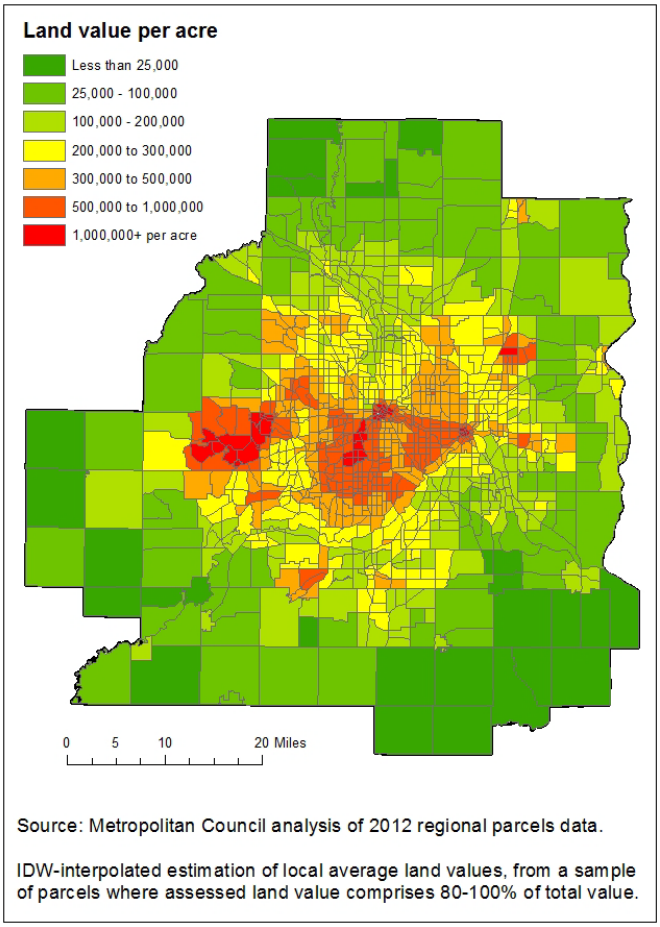
Nationally, some local governments have sought to boost affordable housing production by making project approval or public participation in a project's financing contingent on inclusion of affordable housing units into the building program. These strategies vary substantively in terms of their breadth of application and proportion of affordability required, but share a grounding in a given city's zoning code and related land use controls. As a spectrum of policy tools, these approaches are described as inclusionary zoning strategies.

Density bonuses are tools that are often employed to advance affordable housing goals, but can be applied to organize production of a broad range of public benefits including parks and open space, active first-floor commercial uses, and structured or less-conspicuous parking facilities. When oriented to focus on affordable housing, density bonuses represent one form of inclusionary zoning, which cities use to offer and exchange entitlement of additional finished square footage of new development, in exchange for a private party's production of housing meeting given affordability criteria.

Inclusionary housing and density bonus programs have been explored and in some cases implemented by U.S. cities ranging from the country's largest to smaller suburbs. Programs reflecting best practices are designed with provisions that:

- Underlying market demand;
- Leverage demand where it exceeds development entitled by right under zoning code;
- Focus specifically on encouraging production of rental or owned housing;
- Commit to an explicit term of affordability;
- Are flexible to multiple approaches to increasing development density as a bonus.

More detailed citations of inclusionary housing and density bonus analyses conducted in U.S. cities are included in Appendix A.



Source: Metropolitan Council analysis of 2012 regional parcels data.

IDW-interpolated estimation of local average land values, from a sample of parcels where assessed land value comprises 80-100% of total value.

The marketplace of the Twin Cities metropolitan region exhibits wide variation in relative demand for land. The alignment of the existing Green Line and the planned Green Line extension substantially follow areas shown as more highly valued land, comprising an important background for the six cities' consideration of policy tools such as density bonuses. The six cities connected by the Green Line include Minneapolis, where an existing density bonus program is in place, St. Paul and St. Louis Park, where City Council members are exploring

bonus programs. Station areas in each of these cities are included in more detailed discussion of four representative cases found later in this report.

Methodology

The Green Line Density Bonus Study has drawn together multiple threads of research, analysis and deliberation, linking the national environment and regional conditions. A brief description of key sources includes the following.

Incorporation of previous and parallel regional efforts. Thorough, forward-thinking analysis and planning work has been undertaken in the region in advance of light rail construction since 2006. The Density Bonus Study has drawn on the Saint Paul Central Corridor Development Strategy, the Big Picture Project, the Southwest Investment Framework and Transitional Station Area Action Plans, and the Housing Gaps Analysis.

Input of public-private advisory group. The study was informed by four meetings of an advisory group, whose members represent each of the cities to be connected by the current Green Line and its extension. Members of the advisory group shaped the inquiry by responding to proposed methods, contributing experience of local project approval, and identifying local sensitivities as they related to zoning, density and public benefits.

Nancy Anderson	City of Hopkins
Tanya Bell	Grandbridge Advisors
Ryan Kelley	City of St. Louis Park
Julie Klima	City of Eden Prairie
Molly Koivumaki	City of Eden Prairie
Meg McMonigal	City of St. Louis Park
Gretchen Nicholls	Twin Cities LISC
Brian Schaffer	City of Minneapolis
Terry Schneider	City of Minnetonka
Tim Thompson	Housing Preservation Project
Julie Wischnack	City of Minnetonka
Sarah Zorn	City of Saint Paul
Jon Commers	Donjek
Adam Moore	Moore Sustainable Planning

Practitioner interviews. Structured discussions with community development directors, planners, and a planning commission chair from Green Line cities contributed to the policy, political and local development aspects of the study. The consultant also interviewed two lenders active in commercial and residential real estate, exploring the intersection of density bonus programs and changing future uses on sites where density bonuses are granted.

Quantitative analysis. Using demographic and parcel data for all 39 Green Line station areas, the study included quantitative analysis designed to identify groupings of station areas that share comparable suitability for a density bonus program. This phase of analysis incorporated data from the U.S. Census Bureau and American Community Survey, Minnesota Housing, Metropolitan Council,

MetroGIS, WalkScore, and CoStar property database. Detailed descriptions of the fields developed to compare station areas are included in Appendix B.

Qualitative analysis. The results of the quantitative analytics were presented to the Advisory Group, leading to further discussion that refined the groupings into four categories represented by the following station areas:

- Beltline: Suburban station areas with strong market prospects and planning substantially underway to maximize development around the station
- Hamline: Urban, fully built station areas balancing single family neighborhoods and growing market interest in more dense development
- Mitchell: Suburban station areas characterized primarily by lower density and commercial and industrial uses, and beginning to experience broader market interest than expected in station area sites
- West Bank: Urban, fully built station areas historically perceived as weaker submarkets, but experiencing rapid redevelopment.

These four station areas, discussed as representative of categories, provided a lens through which the study findings were again reviewed and critiqued.

Next Steps

Two next steps emerge as priorities from the study process.

In light of study findings, cities where leaders are considering density bonus programs would benefit from continued station-specific analysis and open dialogue among stakeholders. Each of the four station area categories, and the 39 Green Line station areas, bear unique characteristics. Conducting a process specific to station areas will help city leaders and private sector partners evaluate the prospective benefits of a density bonus in each setting.

Cities have expressed interest in a relatively simple, demonstrative proforma modeling tool to explore the financial tradeoffs involved in developments that utilize a density bonus. Cities such as Minneapolis, where a density bonus program has stimulated public benefits other than affordable housing, and St. Louis Park, where a program is under consideration, each would benefit from a user-driven model.

Further Information

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Appendix A: Inclusionary Housing and Density Bonus Analysis

Transit Station Areas: Secondary Research on Application of Density Bonuses

Density Bonus Efficacy Study

Local Initiatives Support Corporation (LISC) Twin Cities

December 2014

Success Factors Documented Across Analyses

- •Strong market
- •By-right entitlement allowing less development than market bears
- •Mandatory policy
- •Focused implementation on rental, ownership, or both, but with very specific provisions for each type
- •Explicit guidance about term of affordability, for property owners, lenders, and public stakeholders
- •Affordability requirement based on square footage and not on units, to accommodate shifts in market trends
- •Flexibility that density bonus may provide for more height, smaller setbacks or smaller required lot sizes

Title	Authors	Year
Most Applicable Studies Across Regions		
Mandatory Inclusionary Zoning and Density Bonuses at Arden Macaulay	James Conlan	2014
Inclusionary Housing Survey: Measures of Effectiveness	Innovative Housing Institute	2010
A Guide to Developing an Inclusionary Housing Program	Richard Drdla Associates	2010
Model Affordable Housing Density Bonus Ordinance	APA	2006
Voluntary or Mandatory Inclusionary Housing? Production, Predictability and Enforcement	Business and Professional People for the Public Interest /	2004
Practice Inclusionary Housing Part Two	Zoning Practice APA	2004
Rethinking Local Affordable Housing Strategies: Lessons from 70 Years of Policy and Practice	Brookings Institution / Urban Institute	2003
Local Analysis		
Role of Community Land Trusts in Fostering Equitable TOD Case Studies Atlanta, Denver, Twin Cities	Lincoln Institute of Land Policy	2013
Before the Train: Central Corridor Housing Inventory Report	Housing Preservation Project	2012
The Big Picture Project: Aligning housing plans along Central Corridor	Twin Cities LISC	2012
Potential Application of Bonus Density in T4 Zoning Districts (Memo)	St. Paul PED	2011
Regional Coordination in Atlanta Metro and in the Twin Cities: Understanding the Challenges and Opportunities of Coordination of Housing, Transportation and Workforce Policies	Metropolitan Planning Council / Center for Housing Policy	2010
A Vision for the Next Decade Planning for Affordable Housing in the Twin Cities Metro	Capstone Project for McKnight Foundation	2009
Hiawatha Line: Impacts on Land Use and Residential Housing Value	Center for Transportation Studies University of Minnesota	2009
Summary Report: Determining Affordable Housing Needs in the Twin Cities 2011-2020	Metropolitan Council Advisory Panel	2006
Analysis of Other Regional and City Markets		
Inclusionary Zoning Suburban Case Study, Barnstable	Commonwealth of Massachusetts	Undated
Inclusionary Zoning Suburban Case Study, Newton	Commonwealth of Massachusetts	Undated
Mixed-Income Housing Near Transit: Increasing Affordability with Location Efficiency	CTOD	c. 2010
Planning Implementation Tools Density Bonus	Center for Land Use Education	2014 (website)
Chicago Ordinance	City of Chicago	2014
Building Support for Affordable Homeownership and Rental Choices: A Summary of Research Findings on	Center for Housing Policy	2013
Regional TOD Guiding Principles Executive Summary	Move San Diego	2013
Geographic Dispersion of Affordable Housing: Practices, Strategies, Policies	Neighborhood Housing and Community Development	2012
The Role of Affordable Housing in Creating Jobs and Stimulating Local Economic Development	Center for Housing Policy	2011
Affordable Housing Regulatory Tools Case Studies	Alexandria Office of Housing	2010
Insights: Rental Housing Affordability - A review of current research	Center for Housing Policy	2010
What the Research Shows: What Other States are doing to Link Housing and Transportation	Texas Department of Housing and Community Affairs	2010
Effects of Inclusionary Zoning on Local Housing Markets: Lessons from the Sa Francisco, Washington DC and Suburban Boston Areas	Center for Housing / Furman Center for Real Estate and Urban Policy	2008
CMAP Inclusionary Zoning Report	CMAP	2008
TOD Affordable Housing Financial Impact	DMA	2008
Evaluation of Entitlement Bonus and Transfer Programs Portland's Central City Report Findings	Johnson Gardner	2007
Increasing the Availability of Affordable Homes	Center for Housing Policy	2006
Inclusionary Zoning: A key tool in the search for workable affordable housing programs	David Rusk	2006
Selected Materials on Inclusionary Housing Issues	California Depart of Housing and Community	2005
Myths and Facts about Affordable & High Density Housing	California Planning Roundtable (CDHCD)	2004
Affordable Housing Progress Report What the Washington DC Region's Jurisdictions Can Do to Combat the	Washington Regional Network for Livable Communities	2004
Mixed-Income Housing: Myth and Fact	Urban Land Institute	2003

Appendix B: Methodological Detail for Fields Used in Density Bonus Index

Fields incorporated in modeling to establish similarities and differences among 39 Green Line station areas. The analysis was conducted strictly to identify common characteristics for exploration of density bonus application, and not to estimate affordable housing need.

Ranks (*_r)
Relative rank of station area to other 39 station areas. 1st place = 1, 2nd = 2, etc, etc. Tie values receive the same score with the preceding value receiving the value based on its relative position.

Total Households
Total households shows people living under one roof, regardless of relationship. It is preferred to total population in that each household (rather than each person) needs a home. Thus, Total Households is used as an indicator for housing demand. In this study, more households are favored as it is assumed that this indicates a more favorable area to live and stronger market area. Strong market areas provide an incentive for developers to use a density bonus. Favorable places to live as provide an incentive for developers to use a density bonus. Census tract level data selected by intersect with ¼ mile station buffer.

Single Parent Male/Female; Percentage of Households
Single parent households are more likely to need affordable housing. In this case, a higher percentage of households that are headed by only one parent (male or female) is an indicator for affordable housing need. Census tract level data selected by intersect with ¼ mile station buffer.

Single Senior Citizens; Percentage of Households
Senior citizens are more likely to need affordable housing as well as benefit from living close to transit. This indicator shows households of people 65 years and older, who live alone. A higher percentage of households that are made up of only one senior citizen is seen as favorable to this study. Census tract level data selected by intersect with ¼ mile station buffer.

Multiple Senior Citizens; Percentage of Households
Senior citizens are more likely to need affordable housing as well as benefit from living closer to transit. This indicator shows households with more than one of person of 65 years and older. A higher percentage of households made up of multiple senior citizens is seen as favorable to this study. Census tract level data selected by intersect with ¼ mile station buffer.

Civilian Veterans; Percentage of Households with a Veteran
Veterans are more likely to need affordable housing as well as benefit from living closer to transit. This indicator shows households with at least one veteran living in it. A higher percentage of households with a veteran is seen as a positive. Census tract level data selected by intersect with ¼ mile station buffer.

Population over 16 years old
This indicator shows the number of people over the age of 16 in the station area. Higher populations are used as an indicator for demand for housing. A higher population is seen as a positive in this study. Census tract level data selected by intersect with ¼ mile station buffer.

American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Labor Force; Percentage
Labor Force shows the number (or percentage) of people over the age of 16 who are in the labor force (either working or actively looking for work). A large work force is used as an indicator for affordable housing demand and a larger percentage of 16 year olds or older in work force is favorable in this study. Census tract level data selected by intersect with ¼ mile station buffer. American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Arts, Entertainment, Service Industry Sector
People who work in the Arts, Entertainment and Service Industries are seen as more likely to need affordable housing. It is combined with the following indicator to create a percentage of the work force. Census tract level data selected by intersect with ¼ mile station buffer. American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Service Industry Sector other than Public Service
People who work in service industries are seen as more likely to live in affordable housing. Combined with the Arts, Entertainment, and Service Industry sector a higher percentage of workers in these sectors is seen as a positive indicator in this study. Census tract level data selected by intersect with ¼ mile station buffer. American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Selected Industry Sector Percentage
This indicator shows the percentage of the work force who work in either the Arts, Entertainment, or Service Industry or the Service Industry, other than Public Service. People who work in these areas are more likely to live in affordable housing. Census tract level data selected by intersect with ¼ mile station buffer. American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Median Household Income
Median household income is used as an indicator of a strong market area. A higher median household income in a station area is seen as positive in this study. Census tract level data selected by intersect with ¼ mile station buffer. American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Total Housing
Total housing shows the total number of housing units in the station area. A higher number of housing units is seen as an indicator of a strong market area. Census tract level data selected by intersect with ¼ mile station buffer. American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Vacant Housing; Percentage of Vacant Housing
These indicators show the number of or percentage vacant housing. These indicators measure housing meant for ownership, not rentals. A low percentage of vacant housing is seen as an indicator of strong housing market and therefore an station area where developers are more likely to use a density bonus. Census tract level data selected by intersect with ¼ mile station buffer. American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Vacant Rental Housing; Percentage of Vacant Rental Housing
These indicators measure the amount rental housing in a station area and percent of rental housing that is vacant. A low percent of vacant rental housing is seen as an indicator of a strong market area and therefore a positive in this study. Census tract level data selected by intersect with ¼ mile station buffer. American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Percent of Workforce Unemployed
This indicator shows the percentage of the workforce in the station area that is unemployed (not working and actively looking for work). A low unemployment rate is an indicator of a stronger market and therefore a positive in this study. Census tract level data selected by intersect with ¼ mile station buffer. American Community Survey, 5yr Estimates, 2008 – 2013, downloaded July 2014.

Total Square Footage of Station Area
This indicator refers to the summed square footage of all selected parcels within ¼ mile of station area. Using the provided acreage of each parcel's polygon (Poly_Acre) in the MetroGIS data square footage is calculated and then added together. Parcel level data selected based on intersection with ¼ mile station buffer. MetroGIS Current Hennepin & Ramsey County GIS data & shapefiles, downloaded April 2014.

Total Estimated Market Value of Station Area
This indicator is the summed Total Estimated Market Value (EMVTotal) of all selected parcels within a station area. Values are in current dollars. Parcel level data selected based on intersection with ¼ mile station buffer. MetroGIS Current Hennepin & Ramsey County GIS data & shapefiles, downloaded April 2014.

WalkScore™
WalkScore is a third party metric which scores addresses for their ability to complete most errands by walking. Current or proposed station addresses were used. Where no address was available, the nearest intersection was used. Third party data downloaded between August 8th and September 1, 2014.

Station Area Average of Parcel Total Estimated Market Value per Parcel
This indicator shows the average per square foot total estimated market value by parcel of each station area. Values were calculated by first finding the station area square footage, then calculating the per square foot total estimated market value of each parcel. The average was then found using all selected parcels in a station area. Parcel level data selected based on intersection with ¼ mile station buffer. MetroGIS Current Hennepin & Ramsey County GIS data & shapefiles, downloaded April 2014.

Vacant Commercial Land Square Footage (Percent of)
The summed square footage of all selected parcels listed with the land use description of Vacant Commerical Land, Commerical Vacant, Comm – Vacant, etc. This indicator is scored in the index as this level of data was not available for all station areas. Parcel level data selected based on intersection with ¼ mile station buffer. MetroGIS Current Hennepin & Ramsey County GIS data & shapefiles, downloaded April 2014.

Percent of Low Income Housing, Less than 3 units Square Footage

The percentage of selected parcels labeled as Low Income Housing <3 units in the land use description field of the Metro GIS data. Percentage is based on the summed square footage of all selected parcels in a station area. Parcel level data selected based on intersection with ¼ mile station buffer. MetroGIS Current Hennepin & Ramsey County GIS data & shapefiles, downloaded April 2014.

Mixed Use Square Footage
Total square footage of Mixed Use parcels in a station area. This indicator is not scored in the index as it is not available for all station areas. Parcel level data selected based on intersection with ¼ mile station buffer. MetroGIS Current Hennepin & Ramsey County GIS data & shapefiles, downloaded April 2014.

Class B Rent Values
Data collected through CoStar real estate database, for 39 Green Line station areas.