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ECONOMIC AND MARKET BACKGROUND

As part of the analysis of the overall MetroLink system and the potential viability for Transit Oriented Development for particular stations, the project team completed a market study that examined the projected demand for various types of real estate (residential versus commercial) for all 37 existing station areas. This analysis did not include detailed determinations of projected demand for particular product types, nor did it examine detailed demand for real estate over the near term (the next five to seven years). Instead, the analysis drew from regional macroeconomic trends and overall analysis of driving forces in the local submarkets for real estate in the greater St. Louis region to forecast projected real estate demand for each station area over the next 30 years (through 2040).

The market study followed these steps:

- Reviewed prior studies
- Toured all stations station areas and major commercial centers in the transit corridors
- Collected and analyzed regional and local demographic data
- Defined real estate submarkets, which are groupings of stations and surrounding neighborhoods that share similar market conditions
- Identified regional and submarket real estate market conditions
- Estimated future market demand by submarket and refined further by station area
- Interviewed local developers, brokers, business owners, City staff and others involved in development
- Reviewed findings with TOD Advisory Committee, Citizens for Modern Transit, members of the ULI local District Council, and other stakeholders

Studies reviewed for this report included:

- Citizens for Modern Transit, Retrofitting the Region for Economic Success
- Delmar Loop Area Retail Plan & Development Strategy
- East-West Gateway Strategic Assessment of the St. Louis Region 2011
- Federal Reserve St. Louis, Current Economic Conditions, 8th District, December 2011
- Market Analysis for Parkview Gardens, University City, MO
- Metro Transit Oriented Development Update Q1 2012
- MetroLink Station Profile Catalog
- St. Louis Co. Economic Council, Planting the Seeds for Economic Growth, 2010
- ULI Technical Assistance Panel, I-170/Olive Blvd. Joint Redevelopment Task Force
- ULI Technical Assistance Panel, MetroLink Scheel Street Station, Belleville
- ULI Technical Assistance Panel, UMSL-South MetroLink Station
- Wellston-Pagedale Redevelopment Corridor Study (Woolpert & ERA)

Data sources used for the study include a range of published data from the US Census and EWG as well as private data sources for real estate market conditions such as Regional Economic Information System (REIS).

Overview of Study

Because market support for TOD in the St. Louis region will depend on both regional and more localized trends, the market study commenced with a regional overview of demographic and economic trends that shape demand for TOD, including a snapshot of current real estate market conditions. Next, the corridors surrounding the MetroLink system were analyzed through a series of seven submarkets which group stations together that share similar market characteristics.

This analysis led to estimates of potential demand for housing and commercial space from now until the year 2040 for each submarket, based on adjusting growth estimates made by EWG to account for the potential impact of the national trend in which increasing proportions of young households and empty nesters are preferring to pursue a more urban living experience in walkable, transit-served neighborhoods. Finally, a portion of the estimated new growth as adjusted, for each submarket along the MetroLink system, was allocated to the TOD sphere around each station (e.g., one-half mile around each MetroLink station).

This analysis of potential capturable demand within each station area does not account for particular developable/redevelopable land and buildings that might be repurposed within each station area. In other words, the market study completed for this Framework Master Plan estimates potential demand at each station area for TOD-style development, taking advantage of the changes in demographic patterns, as adjusted to reflect national evidence of increasing preferences for TOD-oriented housing and commercial space. Capturing this potential demand within station areas will require finer-grained analysis of development capacity as well as the removal of barriers and the creation of incentives for new development to locate in these TOD areas.

Summary of Findings

Regional Overview 2000 - 2010

The East-West Gateway region (encompassing counties within the St. Louis metropolitan area, in both Missouri and Illinois) experienced an overall increase of 3.6 percent in population and 6.1 percent in the number of households during the past decade, although with uneven gains and losses per county. Specifically, the City of St. Louis and St. Louis County each lost population, but the rate of household loss was less dramatic, and a decrease in the average household size in these areas offset the overall population decreases. When considering future demand for housing, trends for households are more significant than raw population changes, as the number of households in a given area determines the need for housing units.

Other counties in the region each fared differently during the past decade with respect to population and households. St. Charles County clearly boomed, with almost 33,000 new households added during the decade, far more than the total loss of households in St. Louis City and County. Jefferson County, MO and St. Clair County, IL also both added substantial numbers of new households. Madison, Franklin and Monroe Counties also each added households, although in less substantial numbers (compared to peer counties in the bi-state region) of between 2,300 and 8,200 households each.

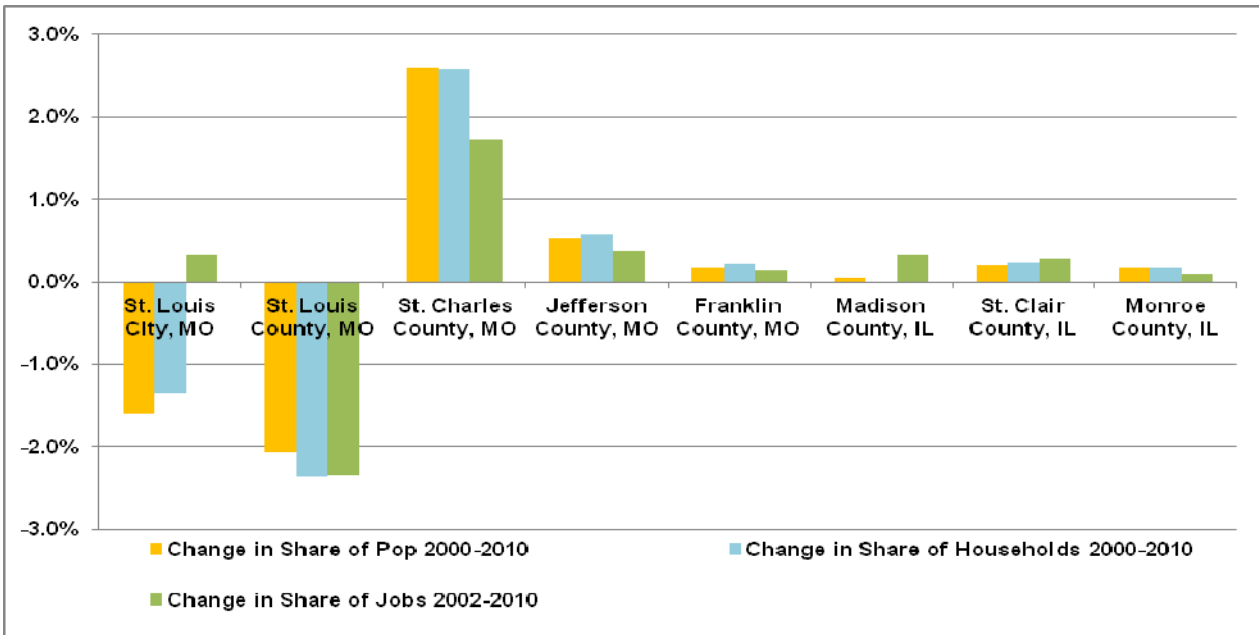
The number of jobs in each county also shifted during the 2002-2010 period. Overall, the region lost more than 96,000 jobs for the period, nearly eight percent of its employment base. This loss was unequally distributed, with almost 90,000 jobs lost from St. Louis City and St. Louis County. In contrast, St. Charles County added over 11,000 jobs during the same time period.

A related measure of how each portion of the region fared over the past decade is to convert the changes in population, households and jobs described above into beginning (e.g., year 2000 for population and households and year 2002 for jobs) and end (e.g., 2010) “shares of the region” and then to measure the change in share for each county during the period. This technique is useful when comparing how areas within a region are shifting in terms of their gains and losses vis-à-vis the whole region.

While the region overall was losing jobs between 2002 and 2010, the City of St. Louis actually gained in its share of the regional total. Both St. Louis City and St. Louis County lost share of population and households, however, even as the region grew overall. The largest share gain was experienced by St. Charles County, MO, which gained 2.6 percent in market share during the period.

Table 2: Change in Regional Share of Population, Households, and Jobs 2000 – 2010 by County

Counties	Share of Total Population			Share of Total Households			Jobs		
	2000	2010	Change in Share of Pop 2000-2010	2000	2010	Change in Share of Households 2000-2010	2002	2010	Change in Share of Jobs 2002-2010
St. Louis City, MO	14.0%	12.4%	-1.6%	15.2%	13.8%	-1.4%	19.0%	19.3%	0.3%
St. Louis County, MO	40.9%	38.9%	-2.1%	41.7%	39.4%	-2.4%	50.7%	48.3%	-2.4%
St. Charles County, MO	11.4%	14.0%	2.6%	10.5%	13.1%	2.6%	8.1%	9.8%	1.7%
Jefferson County, MO	8.0%	8.5%	0.5%	7.4%	7.9%	0.6%	3.5%	3.9%	0.4%
Franklin County, MO	3.8%	3.9%	0.2%	3.6%	3.8%	0.2%	2.8%	2.9%	0.1%
Madison County, IL	10.4%	10.5%	0.0%	10.5%	10.5%	0.0%	8.0%	8.3%	0.3%
St. Clair County, IL	10.3%	10.5%	0.2%	10.0%	10.2%	0.2%	7.4%	7.7%	0.3%
Monroe County, IL	1.1%	1.3%	0.2%	1.1%	1.2%	0.2%	0.6%	0.7%	0.1%
Total Region	100.0%	100.0%		100.0%	100.0%		100.0%	100.0%	



BAE Urban Economics. "Executive Summary: St. Louis MetroLink TOD Market Study." October 2012.

Defining MetroLink System Submarkets

The MetroLink system spans two states and multiple real estate markets that have different market dynamics and future development potential. The market analysis for this study identified groups of stations that share similar real estate market conditions. These relatively large submarkets were analyzed extensively in the study to determine relative market strength, along with a future outlook for projected demand for real estate categories.

Summary of Submarket Findings

Downtown St. Louis City has experienced substantial new market activity, even as the city overall lost population in the past decade. Between 2000 and 2010, the Downtown St. Louis Submarket saw the highest percentage increase in population and households compared to all other Submarkets, as loft conversions and the construction of new housing units attracted an influx of new, younger households. Downtown St. Louis also features a range of non-automobile commute options, resulting in higher use of transit and walking as commute modes than any other Submarket. In addition, Q1 2012 real estate data indicates that new market rate rental apartments have performed well, with higher average rents and lower vacancy rates than regionally, suggesting strong market demand for TOD in an urban location.

Central St. Louis City has also experienced relatively strong market fundamentals, supported by health care and educational institutions, reflecting two relatively strong industry sectors expected to continue to grow over time. Between 2000 and 2010, the numbers of population and households increased in this Submarket. Real estate market data also indicates market strength in Q1 2012, with higher rental rates for apartments than the region's average, and vacancy rates for apartments of less than five percent. Class A office properties also had low vacancy rates in Q1 of 2012, especially among new office projects targeting health care and education. This submarket also featured the highest levels of public transit ridership among the Submarkets, suggesting strong demand for future TOD projects.

North St. Louis County experienced a decline in population and households between 2000 and 2010. Although the submarket is anchored by major employers (e.g., Express Scripts and businesses around the Lambert-St. Louis International Airport), the Q1 2012 market data indicated that existing Class A office space in the submarket had relatively high vacancy rates, and apartments had lower asking rents than the region overall. North St. Louis County's demand for TOD may lag somewhat, due to these relatively weak indicators, and may require incentives to attract households and employers to transit locations.

Mid-St. Louis County also experienced a decline in population and households between 2000 and 2010. This submarket has strong fundamentals, however, including the highest average household incomes and highest resident educational attainment among the submarkets in the region. Real estate market trends also indicate strong performance, including strong average apartment rents, low commercial vacancy rates, and relatively high effective office and retail lease rates. Concentrations of employment and retail in Mid-St. Louis County provide a strong economic base to build upon, leading to opportunities to expand TOD demand.

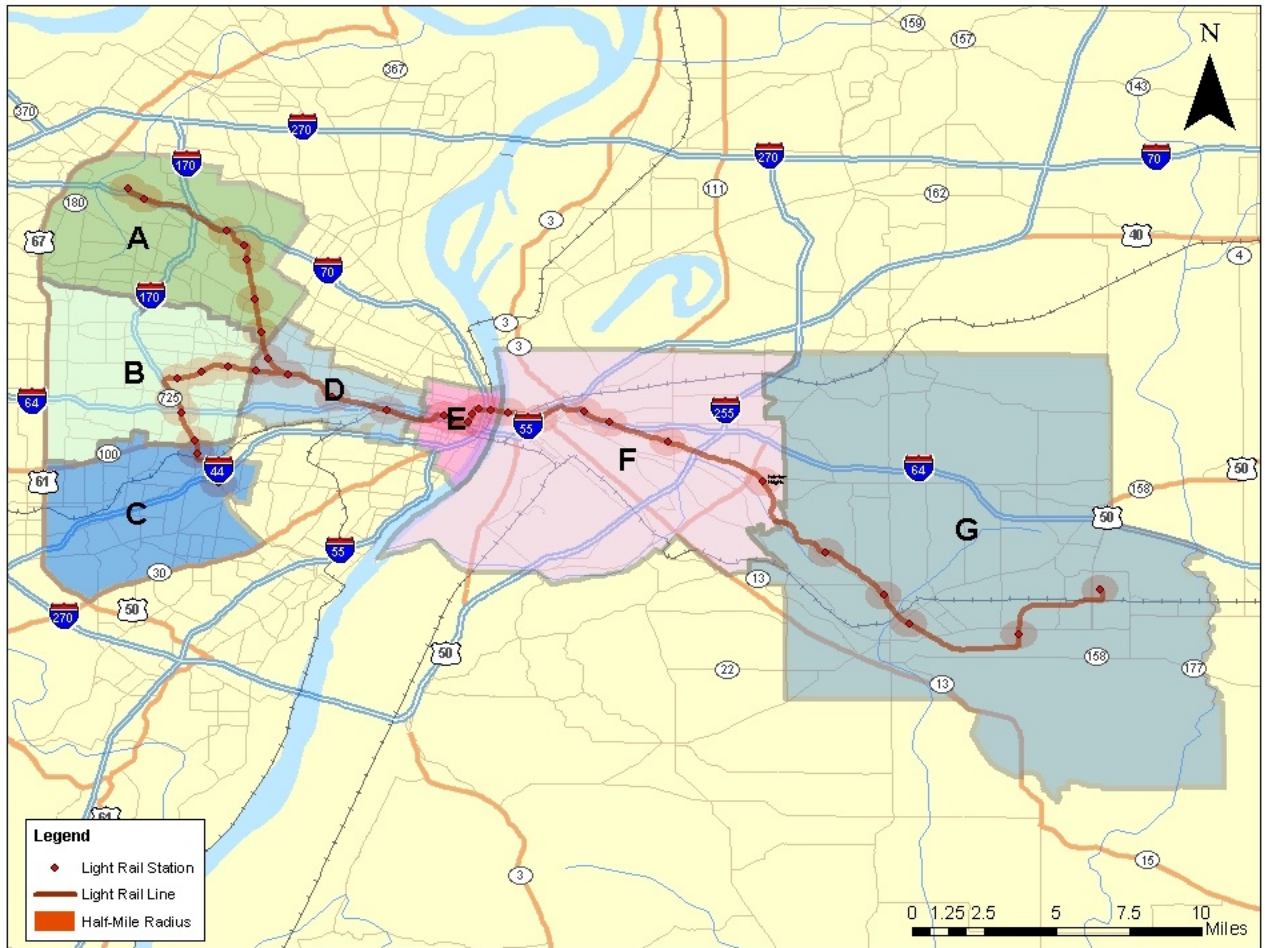
South St. Louis County experienced a drop in population and households between 2000 and 2010, similar to most of the other submarkets within St. Louis County. However, similar to Mid-St. Louis County, South St. Louis County has high educational attainment levels and relatively high average household incomes. Due to the more suburban character of this submarket, the area has a dispersed pattern of employment and retail. While the Q1 2012

vacancy rate for apartments was low in this submarket, the average asking rents were also lower compared to the Mid-St. Louis County and two St. Louis City submarkets. Class A office and retail performance lagged behind that of other submarkets.

West St. Clair County also experienced a decline in population and households between 2000 and 2010. This submarket had the lowest average household incomes and the largest average household sizes among the submarkets, along with a substantial concentration of children under age 18. With substantial underutilized land, West St. Clair County offers strong potential to develop mixed-income housing and employment centers utilizing transit as a key component of resident and employee transportation. By eliminating the need to own multiple cars per household, TOD offers the additional benefit of reducing expenditures for transportation, raising disposable incomes for housing and other living needs.

Central St. Clair County was the only submarket around or near the MetroLink system other than Downtown that experienced population and household growth between 2000 and 2010. Demographics in St. Clair County most closely resembled those in the overall East-West Gateway Region, with similar household compositions, incomes and educational attainment levels. Real estate types that performed well in this submarket were warehouse and community retail, which saw positive net absorption and rising average asking rents in recent quarters. These markets have been bolstered, in part, by increased population and employment levels in St. Clair County.

MetroLink System Submarkets



BAE Urban Economics. "Executive Summary: St. Louis MetroLink TOD Market Study." October 2012.

A. North St. Louis County

Lambert Airport – Main & East
 North Hanley
 UMSL – North
 UMSL - South
 Rock Road
 Wellston

B. Mid St. Louis County

Delmar Loop *
 Brentwood/I-64
 Richmond Heights
 Clayton
 Forsyth
 Skinker
 University City-Big Bend

C. South St. Louis County

Shrewsbury
 Sunnen
 Maplewood-Manchester

D. Central St. Louis City

Forest Park- DeBalieviere
 Central West End
 Grand

E. Downtown St. Louis City

Union Station
 Civic Center
 Stadium
 8th & Pine
 Convention Center
 Arch-Laclède's Landing

F. West St. Clair County

East Riverfront
 5th & Missouri
 Emerson Park
 Jackie-Joyner-Kersee
 Washington Park
 Fairview Heights

G. Central St. Clair County

Memorial Hospital
 Swansea
 Belleville
 College
 Shiloh-Scott

* Delmar MetroLink station area spans St. Louis City and University City (part of Central St. Louis County Submarket). It is categorized in Central St. Louis County submarket because most of the trends affecting market demand are occurring in University City.

Future TOD Demand by Submarket

Across the nation, real estate experts have conducted studies showing the rising popularity of walkable, mixed-use neighborhoods. These studies project increasing future demand for projects with features enabling more walkable, less auto-dependent housing and office location choices. A summary of recent studies include these findings:

“58% of homebuyers surveyed prefer mixed-use neighborhoods where one can easily walk to stores and other businesses.”

– National Association of Realtors, “The 2011 Community Preference Survey: What Americans are Looking for When Deciding Where to Live,” Washington, 2011

“Homes in neighborhoods with high levels of walkability command price premiums of \$4,000 to \$34,000 above average neighborhoods. Real estate listings such as Zillow now assign ‘Walkscores’ to their properties, signaling the growing interest of consumers.”

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

“...office space in a mixed-use development can command a statistically significant, positive premium in select markets. From these results, one concludes that mixed-use is still an emerging market niche with strong potential as our culture continues to evolve from sprawl-oriented to smarter development.”

– Colliers study for National Association of Office and Industrial Properties (NAIOP), 2009

Many analysts have combined these trends with in-depth forecasts of the growing urban preference of two key market segments: aging Baby Boomers seeking a range of housing choices in active retirement, and young adults (Boom Echo) who have been impacted by the Great Recession but are nonetheless seeking urban locations in growing numbers. One study conducted by CEO’s for Cities found 64 percent of college-educated 25- to 34-year-olds looked for a job after they chose the city where they wanted to live, with amenities such as a mix of uses and retail/entertainment amenities catering to “creatives” influencing these location decisions. The success of the Delmar Loop portends this trend.

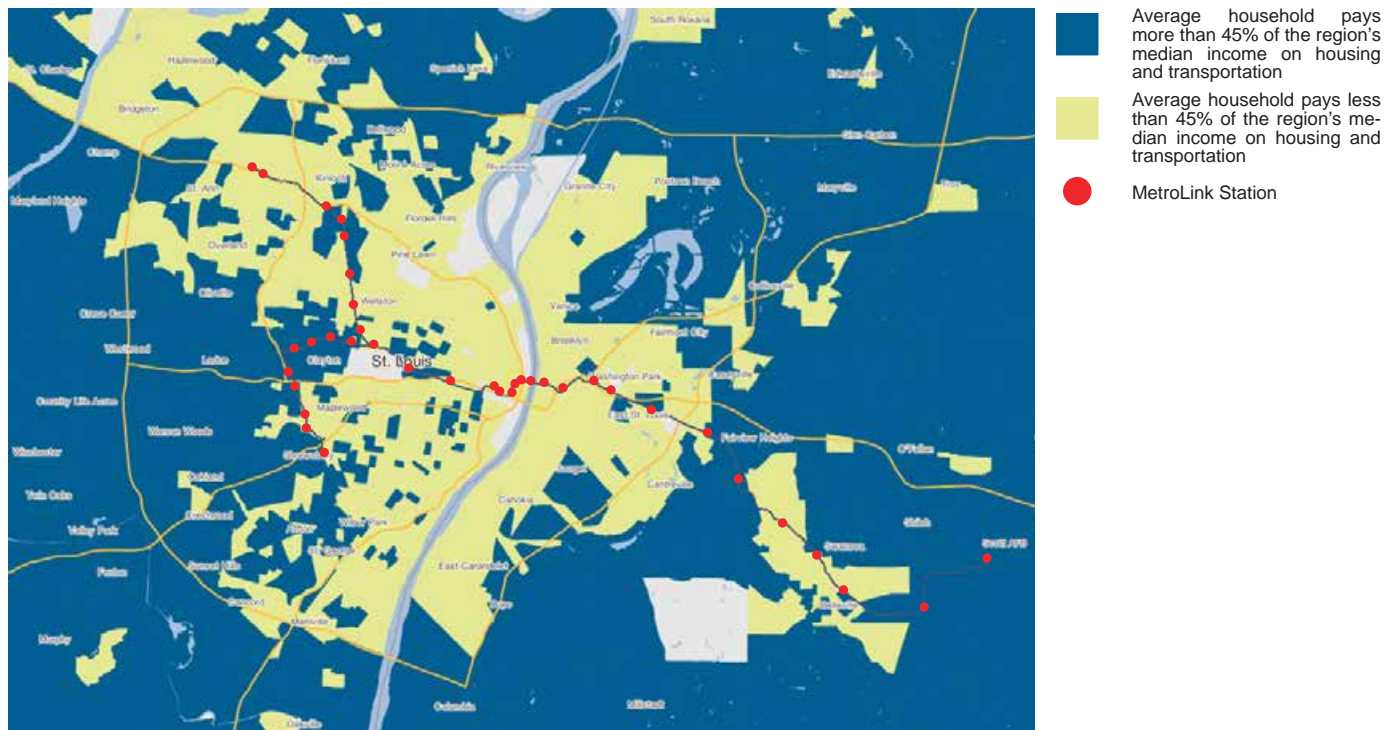
The East-West Gateway region, which has invested in the MetroLink system, is poised to follow this trend in absorbing portions of its future housing and job-related demand, reversing recent EWG projections for the St. Louis region. As shown on the following page, based on submarket findings and national trends, BAE conservatively adjusted EWG submarket projections for the 2010 through 2040 period to reflect the region’s likely shift toward national trends. These estimates take a relatively conservative approach, holding each submarket served by transit to its 2010 regional share, rather than assuming some submarkets will decline to make way for growth in outer, non-transit served areas. BAE further estimated the specific potential to capture a portion of this demand within TOD development near transit stations, taking advantage of this key infrastructure investment.

The estimates presented above show a potential market demand for over 7,300 housing units and over 17,000 jobs (occupying approximately 5.2 million square feet of space) during the next 30 years.

Capturing this market demand at specific stations will depend on a host of factors, including a strong planning framework which can direct and facilitate development near Metro-Link Stations, the availability of land to develop or redevelop, and the financial feasibility

of projects from a private developer/investor standpoint. These factors are explored in the five detailed station area plans created as part of the larger TOD study. In order to provide a starting point in terms of estimating market demand at each station, the following table allocates submarket estimates by station area. It is important to note, however, that reliable information was not available to refine these estimates to match to available land supply suitable for development/redevelopment.

This graphic reveals that households located in areas near the MetroLink line across both Missouri and Illinois paid less money in an average month on the combination of housing and transportation costs, compared to outlying areas in the region not served by MetroLink. The light rail system offers a benefit to nearby households, in that using the MetroLink system reduces a household's total budget for transportation and housing. Future TOD in the region should leverage this advantage in marketing housing products to prospective consumers.



Center for Neighborhood Technology Housing and Transportation Affordability Index, www.cnt.org, July 8, 2013.

EWG Projections and Alternative Scenario Projections for Household and Employment, 2010 - 2040

	EWG Growth Projections by Submarket (a)						Adjusted Growth Projections by Submarket (b)						Demand for TOD (c)	
	2010		2040		2010-2040 Growth	Rate of Growth	2010		Potential 2040		2010-2040 Growth	Rate of Growth	Capture of Submarket Growth 2010-2040	Potential Demand
	Estimate	EWG Share	Estimate	EWG Share			Estimate	EWG Share	Estimate	Share				
Households														
North St. Louis County	39,800	3.9%	37,915	3.4%	(1,885)	-4.7%	39,800	3.9%	43,633	3.9%	3,833	9.6%	25.0%	958
Central St. Louis County	41,774	4.1%	40,241	3.6%	(1,533)	-3.7%	41,774	4.1%	45,797	4.1%	4,023	9.6%	50.0%	2,011
South St. Louis County	39,411	3.8%	37,922	3.4%	(1,489)	-3.8%	39,411	3.8%	43,206	3.8%	3,795	9.6%	25.0%	949
Central St. Louis City	29,358	2.9%	28,014	2.5%	(1,344)	-4.6%	29,358	2.9%	32,185	2.9%	2,827	9.6%	50.0%	1,414
Downtown St. Louis City	11,435	1.1%	11,435	1.0%	0	0.0%	11,435	1.1%	12,536	1.1%	1,101	9.6%	50.0%	551
West St. Clair County	25,901	2.5%	27,227	2.4%	1,326	5.1%	25,901	2.5%	28,395	2.5%	2,494	9.6%	25.0%	624
Central St. Clair County	59,124	5.8%	64,435	5.7%	5,311	9.0%	59,124	5.8%	64,818	5.8%	5,694	9.6%	15.0%	854
Total TOD Submarkets	246,803	24.0%	247,189	21.9%	386	0.2%	246,803	24.0%	270,570	24.0%	23,767	9.6%		7,360
Balance of EWG Areas	780,891	76.0%	879,471	78.1%	98,580	12.6%	780,891	76.0%	856,090	76.0%	75,199	9.6%		
EWG Total	1,027,694	100.0%	1,126,660	100.0%	98,966	9.6%	1,027,694	100.0%	1,126,660	100.0%	98,966	9.6%		
Employment														
North St. Louis County	73,767	4.8%	72,080	4.2%	(1,687)	-2.3%	73,767	4.8%	81,440	4.8%	7,673	10.4%	25.0%	1,918
Central St. Louis County	131,035	8.5%	125,533	7.4%	(5,502)	-4.2%	131,035	8.5%	144,665	8.5%	13,630	10.4%	25.0%	3,408
South St. Louis County	48,932	3.2%	45,300	2.7%	(3,632)	-7.4%	48,932	3.2%	54,022	3.2%	5,090	10.4%	25.0%	1,272
Central St. Louis City	61,626	4.0%	54,365	3.2%	(7,261)	-11.8%	61,626	4.0%	68,036	4.0%	6,410	10.4%	50.0%	3,205
Downtown St. Louis City	110,590	7.2%	108,314	6.4%	(2,276)	-2.1%	110,590	7.2%	122,093	7.2%	11,503	10.4%	50.0%	5,752
West St. Clair County	35,060	2.3%	43,790	2.6%	8,730	24.9%	35,060	2.3%	38,707	2.3%	3,647	10.4%	25.0%	912
Central St. Clair County	75,281	4.9%	89,855	5.3%	14,574	19.4%	75,281	4.9%	83,112	4.9%	7,831	10.4%	10.0%	783
Total TOD Submarkets	536,291	34.8%	539,237	31.7%	2,946	0.5%	536,291	34.8%	592,075	34.8%	55,784	10.4%		17,250
Balance of EWG Areas	1,003,640	65.2%	1,160,875	68.3%	157,235	15.7%	1,003,640	65.2%	1,108,037	65.2%	104,397	10.4%		
EWG Total	1,539,931	100.0%	1,700,112	100.0%	160,181	10.4%	1,539,931	100.0%	1,700,112	100%	160,181	10.4%		

a) 2010 estimate from EWG, as recently updated by EWG per traffic model, to 2010 baseline. Note that declining households and/or jobs in submarkets are due to EWG allocating growth to other parts of the region, as shown.

b) Adjusted estimate based on holding each submarket's 2010 share of the total region constant, and applying to total EWG regional growth for period 2010 - 2040

c) These columns show estimated potential TOD capture directly within 1/2 mile radius of station, if strong TOD design and amenities are included in the project. This estimate is demand-only, does not consider available land supply or other development constraints.

Note that Downtown and Central St. Louis City have the strongest potential to capture submarket growth, due to their overall urban character, which reinforces attraction of households and businesses to TOD locations.

Table: TOD Station Area Market Capture, 2010 - 2040

	Station Area Housing (h)		Station Area Jobs (i)		
	Units 2010-2040	Share of Total	Jobs 2010-2040	Sq. Ft. 2010-2040	Share of Total
North St. Louis County (a)					
Lambert Airport - Main	-	0%	96	28,774	5%
Lambert Airport - East	-	0%	96	28,774	5%
North Hanley	240	25%	959	287,742	50%
UMSL - North	96	10%	192	57,548	10%
UMSL - South	192	20%	192	57,548	10%
Rock Road	192	20%	192	57,548	10%
Wellston	240	25%	192	57,548	10%
Total for Submarket	958	100%	1,918	575,484	100%
Central St. Louis County (b)					
Delmar Loop	402	20%	852	255,563	25%
Brentwood/I-64	201	10%	682	204,451	20%
Richmond Heights	402	20%	341	102,225	10%
Clayton	402	20%	1,022	306,676	30%
Forsyth	201	10%	341	102,225	10%
Skinker	201	10%	170	51,113	5%
University City-Big Bend	201	10%	0	0	0%
Total for Submarket	2,011	100%	3,408	1,022,253	100%
South St. Louis County (c)					
Shrewsbury	285	30%	382	114,521	30%
Sunnen	285	30%	382	114,521	30%
Maplewood-Manchester	380	40%	509	152,695	40%
Total for Submarket	949	100%	1,272	381,737	100%
Central St. Louis City (d)					
Forest Park-DeBaliviere	424	30%	641	192,307	20%
Central West End	707	50%	1,603	480,767	50%
Grand	283	20%	962	288,460	30%
Total for Submarket	1,414	100%	3,205	961,535	100%
Downtown St. Louis City (e)					
Union Station	55	10%	575	172,551	10%
Civic Center	55	10%	575	172,551	10%
Stadium	110	20%	1,150	345,102	20%
8th & Pine	110	20%	1,150	345,102	20%
Convention Center	110	20%	1,150	345,102	20%
Arch-Laclede's Landing	110	20%	1,150	345,102	20%
Total for Submarket	551	100%	5,752	1,725,508	100%
West. St. Clair County (f)					
East Riverfront	125	20%	137	41,027	15%
5th & Missouri	62	10%	137	41,027	15%
Emerson Park	125	20%	137	41,027	15%
Jackie Joyner-Kersey	125	20%	137	41,027	15%
Washington Park	62	10%	137	41,027	15%
Fairview Heights	125	20%	228	68,379	25%
Total for Submarket	624	100%	912	273,516	100%
Central St. Clair County (g)					
Memorial Hospital	214	25%	196	58,730	25%
Swansea	171	20%	157	46,984	20%
Belleville	214	25%	196	58,730	25%
College	128	15%	117	35,238	15%
Shiloh-Scott	128	15%	117	35,238	15%
Total for Submarket	854	100%	783	234,918	100%
Total For All Station Areas	7,360		17,250	5,174,950	

a) North St. Louis figures reflect impact of development limits due to airport parking lot. Also, UMSL South is expected to capture more demand than UMSL North.

- b) This submarket has strongest likely demand at Delmar Loop, Richmond Heights, and Clayton. Demand for other stations limited by existing campus and built-out residential uses.
- c) South St. Louis figures reflect more potential at Maplewood-Manchester as the station closer to Central St. Louis County.
- d) Central St. Louis figures reflect largest proportion of development in the Central West End based on BJC and other institutions redevelopment of sites; residential demand is stronger at Park-DeBaliviere because of the surrounding area; while Grand station development favors commercial uses due to existing users, including SLU.
- e) Downtown St. Louis figures reflect stronger market potential for stations closer to the Downtown core and waterfront.
- f) West St. Clair figures reflect stronger market conditions for waterfront and areas with existing or nearby development.
- g) Central St. Clair figures reflect stronger market potential at areas with existing mixed-use development, less potential at outlying stations involving greenfield development.
- h) Station area total demand from prior table. This table further allocates station area total capture to each station within the submarket.
- i) Jobs converted to commercial space as 300 sq. ft. of space per job

Source: BAE, 2012.