Technical Memo

Metro Toolkit for Transit Supportive Planning
Fiscal and Economic Benefit Analysis

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1 INTRODUCTION

This memorandum presents existing research to present information and findings that local governments can use as talking points, while providing the economic and fiscal case to developers, elected officials and other stakeholders, to provide an understanding the benefits of investing in Transit-Oriented Development (TOD). This memorandum summarizes financial, business/employment, and community benefits (e.g., property values, health, housing, transportation, quality of life) resulting from TOD and compact development. This fiscal case is intended to address those benefits of TOD associated with the costs and revenues of local budgets.

1.1 OVERVIEW

TOD policies and projects are climate action strategies that can assist the region in achieving its sustainability goals and reducing carbon emissions. TODs offer a wide range of benefits associated with environmental and public health. The toolkit will provide local municipalities with the tools necessary to implement land use and transportation policies that will promote smart growth, sustainable transportation modes, and reduce greenhouse gas (GHG) emissions at the local level. The toolkit is one component of a larger regional planning tool initiated by the Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC) to address issues of climate change within the region. The toolkit will roll into A Greater L.A.: The Framework for Regional Climate Action and Sustainability, which is a county-wide climate action plan guiding regional and local efforts to achieve climate action and sustainability goals. Metro is collaborating with LARC as part of the development of the toolkit.

Fiscal and economic tools are an important component of the toolkit, so that local agencies can effectively communicate the anticipated economic outcomes of land use development policies and scenarios. The economic benefits of compact, transit-supportive development are not always understood in terms that are accessible to or understood by policy makers and the public. By documenting recent research and statistics regarding the economic benefits of these development types with regard to property tax revenues, sales tax revenues, jobs, and property values, this memorandum seeks to provide local agency staff with the information necessary to help make the fiscal and economic case for transit-supportive development policies and patterns.

TOD is an economically favorable land use and transportation strategy that offers multiple benefits to cities, businesses, developers, and residents. As an alternative to reducing automobile dependence throughout the county, there are also significant environmental benefits that TOD can contribute to state and regional climate goals. As the Los Angeles County Metropolitan Transportation Authority (Metro) embarks on an ambitious plan to expand regional high-frequency transit access throughout Los Angeles County, neighborhoods around the County will have the opportunity to capitalize on public investment in transit infrastructure that creates enhanced livable communities for current and future residents and businesses. The following sections discuss the economic benefits of these design characteristics and of compact, walkable, transit-oriented development more generally. Extensive research and repeated anecdotal evidence conclusively supports the positive economic impacts realized by cities, businesses, property owners, and residents in these communities.

1.2 REPORT OBJECTIVE

Metro is developing this toolkit for transit supportive planning to serve as a resource for local jurisdictions to develop and adopt transit supportive land use policies that achieve the region’s sustainability goals, encourage transit supportive land use projects, and meet regional and statewide GHG emission reduction targets. This technical memorandum identifies a range of key fiscal and economic benefits that can be realized by local jurisdictions pursuing TOD and transit supportive land use policies. The objective is to provide local agency staff with important and useful talking points and
metrics to cite when making the case for this form of development to local policy-makers and the community.

2 MUNICIPAL BENEFITS

Transit oriented development can offer substantial benefits to municipalities. A robust body of research has demonstrated increased tax revenues in transit oriented neighborhoods and TOD can be an especially effective driver of economic revitalization. Numerous cities have managed to use transit investment to spur redevelopment of amenities in underserved communities. Compact development around transit can also provide cost-savings to municipalities through reducing the expenses associated with service provision.

TOD Increases Property Tax Revenues

TOD has been shown to have revenue benefits for municipalities nationwide. Nationally, property taxes comprise one-fourth of total municipal revenue.¹ TOD can increase property tax revenues when place making and other design techniques intertwine transit, compact development, and a walkable road network. First, compact developments, through greater density, increases value per unit of land. Compact development patterns have been routinely shown to drive higher value on a per unit basis. The experience of Arlington County, Virginia demonstrates the positive impact of compact transit-oriented development on municipal revenues. With the construction of the Metrorail, Arlington County decided to encourage dense, mixed-use development around stations and along transit corridors. The strategy was successful in driving population growth in the transit corridors; between 1990 and 2010, the County’s population increased by 24.3 percent as a whole while the population within a quarter-mile of the transit stations increased nearly 107 percent during the same time period. This policy also had a dramatic impact on local property tax revenues; in 2012, 48 percent of the county’s assessed value was found in the two Metrorail corridors that comprised 11 percent of the county’s land area.² Recent studies have also confirmed that walkable, mixed-use places have strong economic performance. One national survey showed that a 10 percent increase in walkability increased office and retail property values by 9 percent. Due to California’s Proposition 13, property revenue benefits that accrue to local municipalities may not be immediately felt. Indeed, the time frame for realizing these benefits is highly variable dependent on the form of development. However, in the long-term, these benefits will be realized in the form of increased property tax revenues.

TOD Increases Sales Tax Revenues

Compact, transit-oriented development can also result in increased sales tax revenue. Effective TOD is often part of a complete transportation system that incorporates multi-modal access including pedestrian and bike infrastructure. These kinds of compact developments has been shown to drive traffic at retail establishments. In connection with seven street improvement projects in New York introducing plazas and other features of walkable design, the city’s Department of Transportation analyzed sales tax receipts before and after the improvements were completed. In most cases, sales grew at a faster rate by the improvements than at comparable sites elsewhere in the same borough.³ The results in New York are corroborated by national research. Using a State of Place index that ranks

neighborhoods on a 1-100 scale for walkability and quality of place, researchers found that an increase in 20 points on the index corresponded with a $7 per square foot increase in retail rents and an 80% increase in retail sales. Research has shown that complete streets that accommodate bicycling also have positive impacts on retail sales. For example, the creation of a Bike-Friendly Business District in Long Beach, CA has spurred new businesses; in the three years since expanded bike infrastructure was established in the city, 25 businesses relocated or expanded within the Long Beach bike district in response to bike activity. The number of bikers also served to mitigate parking and congestion difficulties in the downtown area. While walkability and bike infrastructure alone do not make a TOD, complete streets inclusive of public and pedestrian types of transportation are a critical aspect to realizing the value created through transit investment.

**TOD Catalyzes Economic Development**

Furthermore, compact and walkable development can be a catalyst for economic revitalization. Facing inexorable economic decline in the city’s downtown, Lancaster, California undertook a series of plans to focus redevelopment energy downtown through the City's main street. The city's investment of $41 million in nine blocks of the boulevard was catalytic, spurring outsized private development in the city’s transit-accessible urban core. Three years after the project was completed, the total economic impact was estimated at $281 million, with an additional $13.6 million in state and local revenue.

**Higher Density Development Costs Less than Less Compact Development**

Transit oriented developments have repeatedly been proven to lower some costs of local government associated with investments in public infrastructure. Transit access is almost always linked to greater density due to fundamental land use economics. Transit, and the convenient low cost access it provides, causes land prices to rise. Subsequently, the higher land costs encourage greater density and compact developments in the vicinity of transit stations. Since the 1970s, significant research has studied the relationship between compact development and infrastructure costs. A series of reports by the federal government, including the seminal *Cost of Sprawl* report, found that water, sewer, and road infrastructure cost was reduced on a per capita basis in denser developments. Subsequent independent research has corroborated these findings; a survey of 18 planning studies conducted between 1995 and 2004 found a consensus that compact development patterns substantially reduce infrastructure costs across a range of services including transportation capital investment, utilities, and infrastructure maintenance. Maintenance of existing infrastructure is also reduced in a compact development scenario.

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3 BENEFITS FOR BUSINESSES AND RESIDENTIAL PROPERTY OWNERS

Research has consistently shown that the economic benefits of neighborhoods with public transportation extends to local businesses and property owners. Compact development near transit encourages the geographic concentration of people and businesses. The dense concentrations of individuals and businesses has been shown to be attractive to high-skilled and educated workers, making transit-oriented districts desirable places for businesses and residential property owners. Research on these agglomeration economies has repeatedly demonstrated positive effects on productivity and innovation. One 2012 study estimated that an area with twice the population density has increased productivity in the range of 2 to 4 percent. The value of agglomeration economies is realized in the differential in office rents between central business district and suburban office locations. Even new industry and office typologies (technology companies in Silicon Valley, for example) demonstrate the benefit of relative concentration of employment. Density in employment is intimately linked with transit, and office tenants have consistently indicated a preference for densely active office locations. A recent report from the National Association of Industrial and Office Properties established that office tenants vastly prefer vibrant locations, in which transit is an important factor, to traditional suburban office locations. Experiences nationwide have demonstrated that transit accessibility is a critical component of growing and maintaining robust agglomeration economies. The benefits that transit oriented development creates for business and property owners makes it a particularly effective economic development strategy.

Businesses locating in transit-oriented neighborhoods and districts benefit from the accessibility of a greater regional labor pool and the ability to attract skilled workers. Educated workers, in particular, have demonstrated a desire to live and work in dense, walkable communities. Similarly, businesses that locate near transit in urban centers and industry clusters will be able to better compete for talented workers who live in and around urban neighborhoods and prefer not to drive. In addition, those businesses could attract residents who may have an easier time commuting to a transit-served location rather than driving from one bedroom community to an unconnected employment node in the greater Los Angeles region. In Washington, D.C., for example, neighborhoods with the greatest walkability are vastly overrepresented with people who have earned advanced degrees (28 percent) compared to both the region (15 percent) and the least walkable neighborhoods (2 percent). This trend is increasing in magnitude; in 2000, people between the ages of 25-34 with a Bachelor’s degree were 61 percent more likely to live in close-in neighborhoods than less-educated peers. In 2009, college educated individuals were 94 percent more likely. While the desire to live in walkable and accessible neighborhoods is strongest among educated people, the preference is increasingly present across all demographics. Consequently, transit oriented development is uniquely suited to appeal to residents who exhibit an increasing desire for compact neighborhoods near transit. Furthermore, the link between TOD and high-skilled and educated workers reflects the importance of compact development around transit as a strategic approach to economic development.

In addition, TOD presents a unique opportunity for affordable housing development. The concentration of low-cost transportation alternatives in effectively designed transit-adjacent developments makes TOD especially well-suited for housing that serves all income ranges. Transit access is critical for many low-wage workers. Nationwide, 10 percent of households do not own a car – either by choice or due to economic hardship. People living in close proximity to bus and transit service will have greater access to more employment opportunities. Indeed, redundant transportation options through public transit has been shown to reduce absenteeism. Furthermore, TOD that serves a diverse resident base can provide a labor pool for a range of positions with area employers.

**TOD Increases Potential for Retail and Office Space**

Walkable, compact development in conjunction with transit increases demand for retail space in addition to office space. The more active street life associated with TOD has been shown to directly impact retail performance. An analysis of 15 transit-accessible central business districts found that rental rate growth for retail properties over a five year period was 250 percent greater than retail rent growth throughout the broader metropolitan area. Similarly, a national survey of office and retail properties found that a 10 percent increase in walkability was associated with a 7 percent increase in net operating income.

**TOD Outperforms Lower Density Development**

Property owners in compact transit-accessible communities often benefit from more consistent returns. Numerous analyses have demonstrated that development in urban, walkable places have outperformed outlying suburban properties over the past decade or so. A nationwide analysis of housing prices, for example, found that the decline in housing prices during the Great Recession was correlated with distance from the central business district. Other post-recession analyses report consistent results; one study showed that urban neighborhoods outperformed suburban neighborhoods in 16 of the 20 cities studied. The pattern transcends property type. Office occupancies have consistently risen in dense, transit-accessible business districts since the Great Recession while occupancy growth in suburban locations has remained tepid.

**TOD Increases Property Values**

The benefit of transit-oriented development is easily seen in property values. Numerous analyses have demonstrated a correlation between walkability (as measured by WalkScore.com) and property values. In one such study, an office or retail property with a Walk Score of 80 has a value 54 percent greater than a property with a Walk Score of 20. A premium of 6 percent was found for apartment properties with a Walk Score of 80 relative to apartment properties with a Walk Score of 20. A national study of

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home sales found that a one point increase in a property’s Walk Score was correlated with an increased sale price between $700 and $3,000.20

The positive impact of transit access on property values is also well-established in economic literature. A recent review of the existing research found that most studies show a positive correlation between transit accessibility and property value, while the size of the impact varies widely.21 For example, one study in Santa Clara County, California, found property values for retail and office properties within 0.25 miles of a light-rail station were 23 percent higher than at a control site further from transit.22 Properties within central business districts experienced an even greater value increase. Other studies have shown that residential properties proximate to rail have a price premium of around 20 percent.23

Research on the impact of transit on property values in Southern California is limited, but the analyses do indicate a positive impact resulting from transit accessibility. One Los Angeles based study found that commercial spaces within a Metro rail corridor command sale prices $30 greater per square foot than comparable sites without rail access.24 Similarly, an analysis of residential and commercial properties in San Diego found that property values increased with proximity to light rail stations.25

These examples point to the benefits to businesses and residential property owners who locate within transit centers.

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4 BENEFITS FOR DEVELOPERS

Developers can also recognize financial benefits from pursuing transit-supportive development projects. Locating new development projects near transit services creates opportunity and value for developers that may be able to charge higher rents and/or receive a higher rate of return on the development or sale of property.

TOD Increases Returns for Developers

Many of the benefits described above also positively impact developers investing near transit. Most importantly, the well-established premiums for higher residential and commercial rental rates in properties near transit is an attractive feature as investors consider development locations. Additionally, allowing mixed land uses by transit allows for developers to build complementary land uses that could increase returns and reduce property risk. Extensive research indicates that properties located near transit experience better returns and are more resilient in adverse economic conditions. The Center for Neighborhood Technology found that properties with immediate access to transit outperformed comparable properties without transit access by 42%. Furthermore, in the areas examined, neighborhoods with transit access were more resilient in terms of property values and operating income throughout the most recent recession.

5 RESIDENT AND COMMUNITY BENEFITS

Residents living in or near transit-supportive districts also receive economic benefits from TOD and transit-supportive development patterns. These benefits can included the following.

Transit Locations Provide More Amenities

Transit-oriented urban locations are highly desired as places to live, work, and play.\(^{28}\) First and foremost, transit accessibility provides residents with a range of options for reaching urban attractions. Multi-modal transit services are increasingly important to the Millennial demographic, those people born between 1980 and 2000. Nielsen reports that millennials increasingly prefer an urban lifestyle and utilize modes of transportation other than privately-owned cars.\(^{28}\)

Transit Locations Produce Better Health Outcomes

Compact development near transit also has significant health advantages for residents. Transit users frequently reach transit stations by foot or bike, and a survey of several studies found that commuting in part or in whole by walking or biking reduced cardiovascular risk by 11 percent.\(^{29}\) Other studies found that commuting by bicycle had physical benefits nine times as great as the risk of accident or the harm of breathing in air pollution.\(^{30}\) Beyond physical benefits, commuting by walking, biking, or using public transit has been found to have positive impacts on social cohesion.\(^{31}\)

Housing and Transportation Costs Can Be Lower in TOD Locations

Low density areas are often perceived as less expensive alternatives for housing, but when the costs of transportation is factored into, living in far flung suburbs can be an expensive and sometimes unaffordable proposition. Though some transit-oriented neighborhoods may have higher housing costs, when factored in with savings associated with urban living such as maintenance and utilities and less reliance on driving, the total cost to residents may actually be more affordable. For instance, urban residents near public transit, if they are able to use the transit, benefit from reduced transportation costs. The Center for Neighborhood Technology reports that annual cost savings from living in a dense urban area range widely, from $1,600 in Little Rock to $3,900 in Boston, when housing and transportation costs are taken into consideration.\(^{32}\) For working families in Los Angeles who spend on average 27% of family income on transportation costs, the cost savings realized through public transit can be substantial.\(^{32}\) In addition, residents can experience cost savings when living in a multi-family complex with shared maintenance as opposed to a single-family home with significant upkeep costs.


6 CONCLUSION

Research previously cited throughout this report consistently shows that communities embracing transportation and compact development policies experience improved economic performance, while development situated in walking distance of transit stations has the strongest potential for realizing economic resilience and quality of life benefits.

While TOD implies different things at neighborhood, city, and regional geographies, several components are consistently present in successful transit settings. First, transit enhances access and mode choice. Passenger rail (heavy, light, and streetcar) is part of a complete transportation system that includes automobiles, bus and Bus Rapid Transit (BRT), bicycles, and walkable street network, and other important “first and last mile” strategies such as feeder buses, jitneys, and bike and car sharing programs. Reduced reliance on new or wider roads encourages alternative transportation options and expands mode choice that would have otherwise been captured by more automobiles. Complete transit system options provide residents with alternatives and increase accessibility to attractions throughout the broader urban area.

At the county and regional level, rail transit and TOD’s benefits are far-reaching, ranging from increased property values to bolstered employment to improved health to greater access for residents. Transit is a low cost alternative to automobile commuting, and it also allows employers greater access to the region’s labor pool. TOD stations are also shown to create or enhance industry clustering and agglomeration. Transit, and development that takes advantage of transit infrastructure, is often foundational to the creation of walkable neighborhoods that are interesting and economically vibrant places. TOD is frequently characterized by infill redevelopment or new compact development. Compact locations with an urban character provide the density necessary to activate street life, support retailers and local merchants, and attract civic, entertainment, hotel and office uses according to a neighborhood’s existing character or growth objectives. Indeed, density is a critical and foundational element of successful transit oriented development. Additionally, good design of the public realm is essential to creating a walkable, welcoming, and pedestrian-friendly urban environment in which people want to work, live, and play. Finally, maintaining a mix of land uses around transit station areas is a critical aspect of nearly all transit-oriented communities.