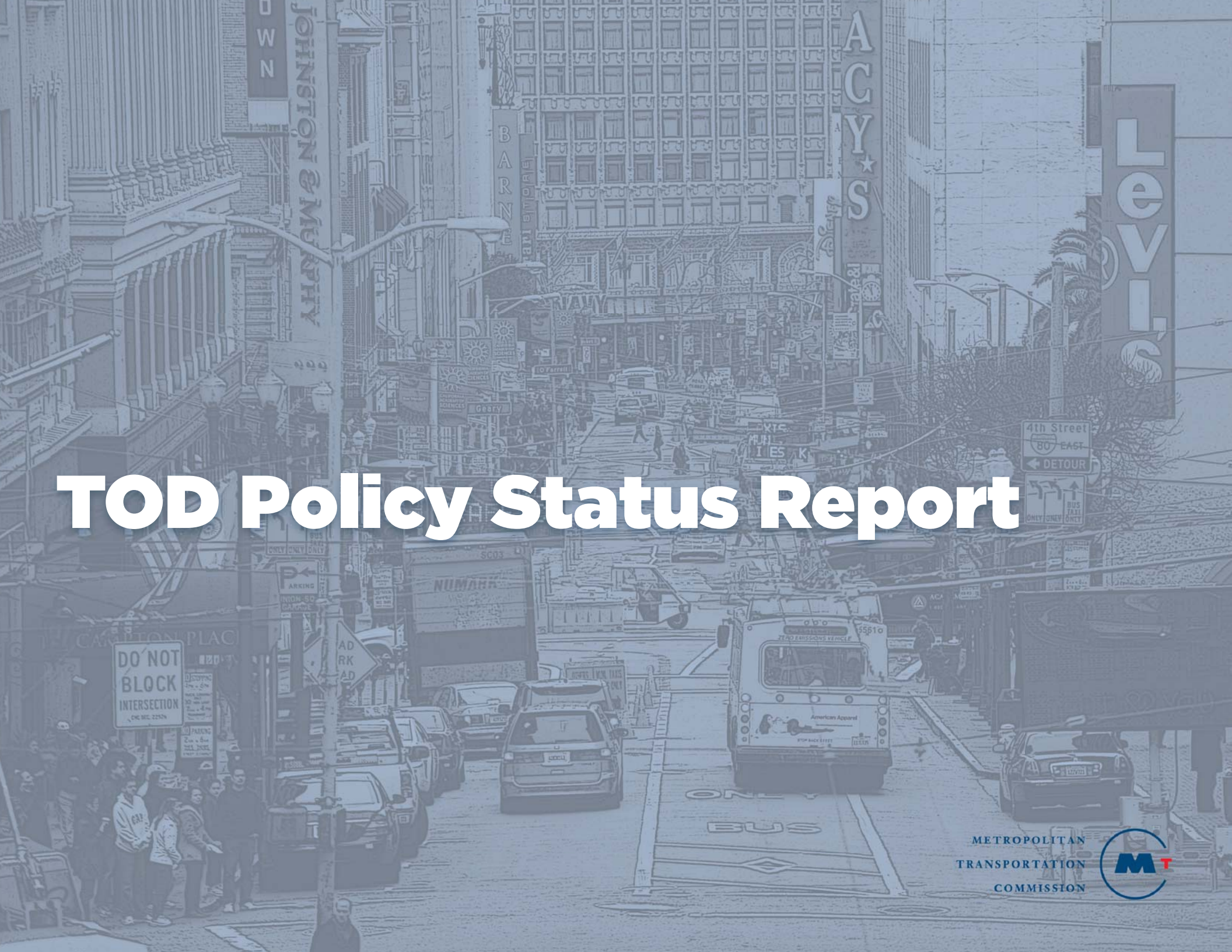

TOD Policy Status Report

METROPOLITAN TRANSPORTATION COMMISSION

Inside front cover

2014

TOD Policy Status Report

prepared for

METROPOLITAN TRANSPORTATION COMMISSION

by

CTOD CENTER FOR TRANSIT-ORIENTED DEVELOPMENT

cd+a COMMUNITY DESIGN + ARCHITECTURE

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I. Introduction

The Metropolitan Transportation Commission (MTC) adopted the Transit-Oriented Development Policy (the TOD Policy) in 2005 to achieve multiple objectives, including improving the cost-effectiveness of new transit investments, encouraging new housing development near transit, and fostering cooperation between cities, transit operators, regional agencies, and developers. The TOD Policy applies only to the transit expansion projects known as Resolution 3434 corridors – which include rail, bus rapid transit, and ferry extensions. Under the TOD Policy, the allocation of MTC's regional discretionary transportation funds for these projects is conditional on transit-supportive land uses (either existing or planned) along the corridor to enable TOD. More recently, MTC and ABAG adopted Plan Bay Area, a long term transportation and land use plan for the region that strongly emphasizes transit investments and transit-oriented development. Plan Bay Area allocates 86 percent of the region's transportation dollars to transit operations, maintenance, and expansion, as well as repairing and replacing existing roadways and bridges. Furthermore, Plan Bay Area focuses 78 percent of new housing and 63 percent of new jobs in the region's existing and new transit areas.[1]

This report brings together the results of various tasks, including 1) updated analysis of Resolution 3434 corridors and review of MTC-funded station area plans, 2) a survey of TOD Policy stakeholders, 3) an updated estimate of future demand for transit-oriented development in the Bay Area region, 4) case studies of transit investment policies in other regions, and 5) working sessions and discussions with staff and stakeholders. As part of this project, the consultant team and MTC-ABAG staff convened a Technical Advisory Committee (TAC) composed of representatives from transit agencies, cities, and congestion management agencies. The Consultant Team and MTC staff met with the TAC three times to gather input.

Purpose of the Report

The objective of this report is to provide a review of the implementation of the Resolution 3434 TOD Policy, assessing its effectiveness to date, and identifying areas of strength and weakness. The report concludes with recommendations and next steps for the TOD Policy, to ensure that MTC can continue to maximize the impact of regional transit investments in the future.

Metropolitan Transportation Commission

A construction worker working on the BART extension to Berryessa.

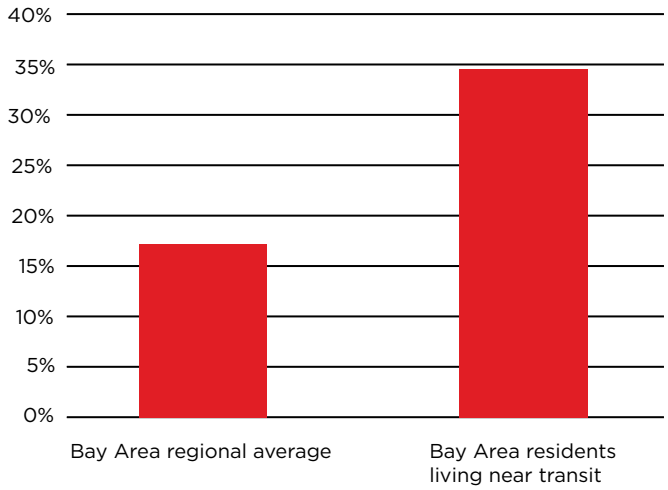
II. TOD Policy Background

Why Transit-Oriented Development?

The Center for Transit-Oriented Development estimates that by 2040, between 780,000 and 1.3 million Bay Area households will prefer to live in transit-accessible locations. This growing demand is driven in large part by demographic changes in the region, including strong growth in the types of households that favor living in higher-density, mixed-use, transit-accessible neighborhoods, primarily consisting of working-age adults (Generations X and Y) and aging Baby Boomers. In addition to accommodating changing lifestyle preferences, aligning transit investments with land use policy can create many important benefits at the regional level. Some of these benefits include:

Increasing transit ridership – Encouraging denser development around transit stations and along transit corridors helps to boost transit ridership and productivity. Concentrating households and workers in transit areas supports ridership, making transit systems more sustainable in the long term. While there is no universal rule about how much density is required to achieve increased ridership, many regions adhere to the guidelines established in the 1977 study by Pushkarev and Zupan, which posits that station areas should have a minimum residential density of 9 to 15 dwelling units per acre to support transit.[2] This range is generally consistent with a more recent study by Newman and Kenworthy establishing a density of 14 to 16 people per acre as the threshold for transit ridership, or a sum of 10,000 residents and workers within the station area.[3] Data from California shows that the likelihood that a resident will use transit decreases as the distance from the station increases.[4] This is especially the case for employees, who are much less likely to take transit to work if their job is located more than a quarter mile from a transit stop.[5]

Figure 1: Share of workers commuting by transit and walking



Reducing auto dependency and greenhouse gas emissions – Numerous studies have empirically demonstrated that residents and workers in compact, walkable transit neighborhoods are less likely to rely on their cars for daily trips. In the Bay Area, residents that live in transit areas are more than twice as likely as the average resident to take transit or walk to work (see Figure 1). Compact neighborhoods also result in lower rates of driving – the average vehicle miles traveled (VMT) per household is lower in dense, transit-oriented neighborhoods.[6]

Fostering economic development – Locating housing near transit can reduce the time and cost of the work commute, a significant benefit to the region's workforce and overall economy. Further, transit-oriented development can also facilitate the agglomeration of "knowledge-based industries," allowing them to be more innovative and productive.[6] Transit's economic benefits are often capitalized into higher property values, which can range depending on several factors, including: transit quality; demographics; and station area characteristics. A report studying the property value impacts of the BART stations found that single-family homes increased in value by $2.00 for every meter closer to BART in Alameda and Contra Costa Counties.[8] Systems that provide frequent, reliable, fast, and regional service (like BART), have been shown to generate higher property value

premiums than systems that provide more limited service and serve a smaller market area.[9]

Evolution of TOD Initiatives

The MTC TOD Policy grew out of a series of previous smart growth initiatives (see Figure 3) in the region. Since its adoption, the programs related to the TOD Policy have expanded and evolved along with other initiatives to promote transit-oriented development in the Bay Area.

Early Smart Growth Initiatives

The first regional smart growth initiative was the Transportation for Livable Communities (TLC) program, launched in 1997. TLC provided planning and capital grants for local transportation projects in downtowns, corridors, transit areas, and other activity centers. The TLC program rewarded communities with these types of transportation improvements when they planned for higher density housing projects and mixed-use developments in transit locations. Beginning in 2000, ABAG, MTC and other regional agencies began a two-year visioning effort to develop the regional Bay Area Smart Growth Strategy to inform the region's future transportation and land use plans.

Resolution 3434 TOD Policy

In 2001, MTC adopted the Resolution 3434 Transit Expansion Policy, providing nearly $12 billion in regional funding to a set of high-priority transit projects (see Figure 4). To ensure that the region was maximizing the benefits of the Resolution 3434 transit corridors, the Commission then implemented the Transit-Oriented Development Policy in 2005, encouraging the development of compact, pedestrian-friendly, mixed-use neighborhoods in the new station areas. The TOD Policy has three key elements:

1. The Policy sets corridor-level thresholds to quantify appropriate minimum levels of residential development around transit stations along new corridors. Specifically, the areas within a half-mile of stations along new corridors are required to meet corridor-level thresholds for existing and new housing, which vary according to the type of transit (see Figure 2). In general, the thresholds for higher-capacity and more costly modes of transit require greater amounts of development in order to justify the expenditure of regional transit funds. The thresholds include a 50% bonus for new affordable housing units that meet specified affordability levels. The corridor-level thresholds were set based on a combination of existing housing units and the potential for new development, which are explained further below.

2. The Policy funds local station area plans that address future land-use changes, station access needs, circulation improvements, pedestrian-friendly design, TOD-supportive parking standards, zoning codes, implementation strategies, and other key features in a transit-oriented development. Funding for these plans was provided through MTC's Station Area Planning Program, prioritizing the corridors that do not meet the thresholds through existing development.

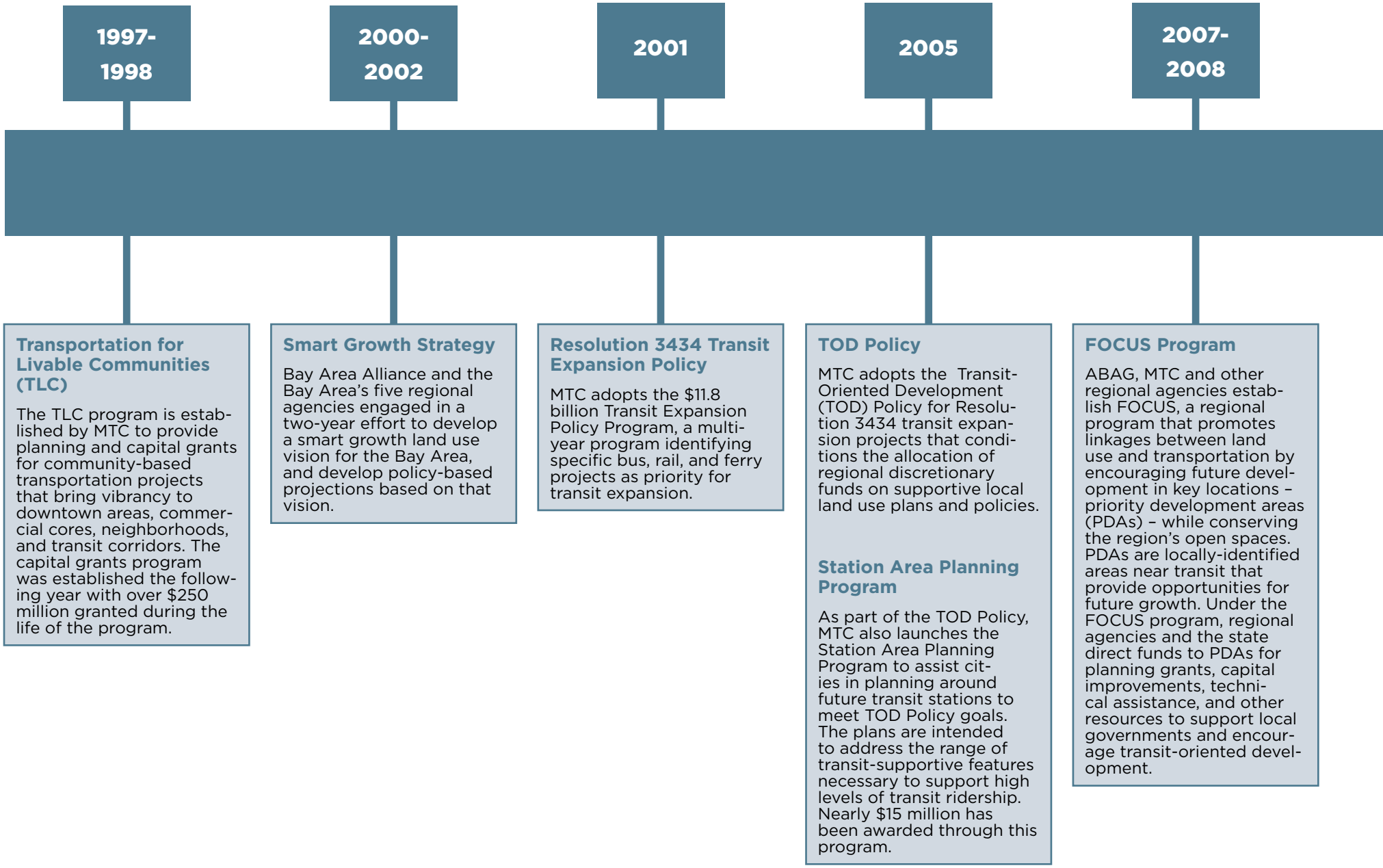
3. The Policy establishes corridor working groups that bring together County Congestion Management Agencies (CMAs), city and county planning

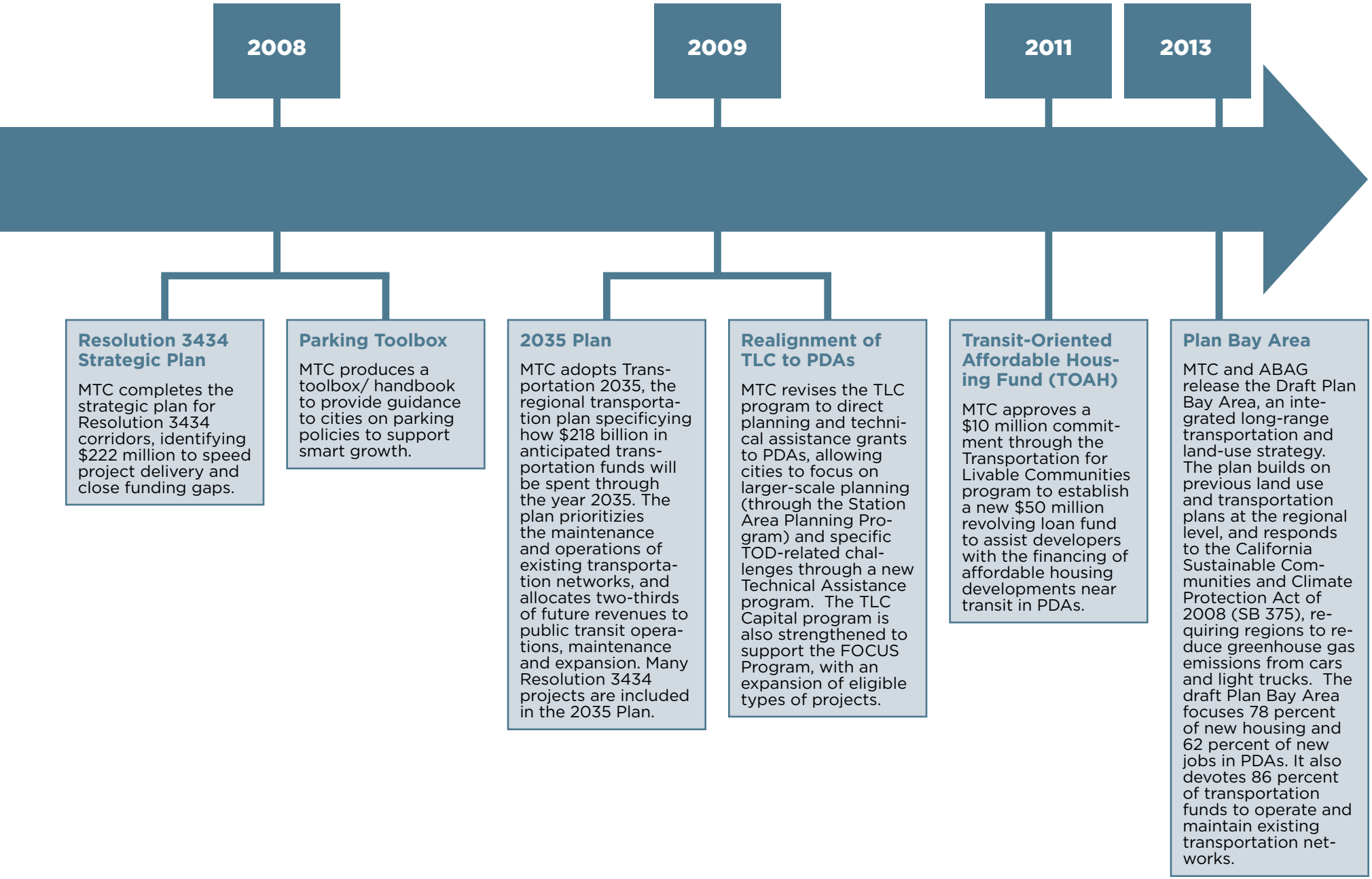
Figure 2: TOD Policy Corridor Housing Thresholds

Project Type	BART	Light Rail	BRT	Commuter Rail	Ferry
Housing Threshold (Number of Units)	3,850	3,300	2,750	2,200	750

Source: MTC TOD Policy, adopted July 2005. See Appendix.

Figure 3: Timeline of MTC's TOD Initiatives




2008
2009
2011
2013
Resolution 3434 Strategic Plan
MTC completes the strategic plan for Resolution 3434 corridors, identifying $222 million to speed project delivery and close funding gaps.
Parking Toolbox
MTC produces a toolbox/ handbook to provide guidance to cities on parking policies to support smart growth.
2035 Plan
MTC adopts Transportation 2035, the regional transportation plan specificying how $218 billion in anticipated transportation funds will be spent through the year 2035. The plan prioritizies the maintenance and operations of existing transportation networks, and allocates two-thirds of future revenues to public transit operations, maintenance and expansion. Many Resolution 3434 projects are included in the 2035 Plan.
Realignment of TLC to PDAs
MTC revises the TLC program to direct planning and technical assistance grants to PDAs, allowing cities to focus on larger-scale planning (through the Station Area Planning Program) and specific TOD-related challenges through a new Technical Assistance program. The TLC Capital program is also strengthened to support the FOCUS Program, with an expansion of eligible types of projects.
Transit-Oriented Affordable Housing Fund (TOAH)
MTC approves a $10 million commitment through the Transportation for Livable Communities program to establish a new $50 million revolving loan fund to assist developers with the financing of affordable housing developments near transit in PDAs.
Plan Bay Area
MTC and ABAG release the Draft Plan Bay Area, an integrated long-range transportation and land-use strategy. The plan builds on previous land use and transportation plans at the regional level, and responds to the California Sustainable Communities and Climate Protection Act of 2008 (SB 375), requiring regions to reduce greenhouse gas emissions from cars and light trucks. The draft Plan Bay Area focuses 78 percent of new housing and 62 percent of new jobs in PDAs. It also devotes 86 percent of transportation funds to operate and maintain existing transportation networks.

staff, transit agencies, and other key stakeholders. Corridor-level thresholds were established so no single jurisdiction would be saddled with a specific housing requirement. The corridor working groups were intended to facilitate coordination of jurisdictions to meet their collective housing thresholds.

The housing thresholds set by the TOD Policy were determined through a study of existing and potential levels of development in the corridors covered under the TOD Policy. When the TOD Policy was adopted, five of the extensions did not meet the required housing thresholds based on existing development. These corridors included:

- BART to eastern Contra Costa County (eBART),
- BART from Fremont to San Jose/Santa Clara (Silicon Valley Rapid Transit),
- Sonoma-Marin Area Rail Transit (SMART),
- Dumbarton Rail corridor, and
- Ferry service expansion by the Water Emergency Transit Authority.

In collaboration with local jurisdictions and the regional agencies, a consultant team worked with MTC and ABAG staff to estimate the development capacity of the station areas in these five corridors based on existing General Plans, under a range of build-out scenarios. These scenarios involved different assumptions regarding the extent to which existing uses would be redeveloped at the higher densities or alternative uses permitted by General Plans. The study found that several corridors, including SMART and Dumbarton, could meet the thresholds at the very upper end of their estimated General Plan capacity.

As an additional point of comparison, the team made a corridor-level assessment of the future demand for transit-oriented housing and employment, assessed the supply of vacant and underutilized land in station areas, and created a "TOD scenario" that assessed the supply- and demand-constrained potential for TOD along the corridors. The TOD scenario found that the thresholds could be met along the rail and bus corridors if local land use regulations were modified to allow the market for TOD to be realized on vacant and underutilized sites in the station areas.

Figure 4: South San Francisco Ferry Terminal Station Area

Ferry station areas proved to be more challenged in meeting the housing thresholds, due to a few key constraints. The most obvious challenge is that much of the half-mile radius of ferry stations is made up of either water or undevelopable land. For example, the South San Francisco Ferry terminal, while it serves a major employment concentration at Oyster Point, is located more than a half mile away from many of those jobs (see Figure 4). Finally, many ferry terminal areas lack the infrastructure, such as sewer and roadways, needed to accommodate higher intensity development.

Beginning in 2005, MTC funded station area plans within the five rail and bus corridors to assess the potential for TOD, and Corridor Working Groups were established. MTC and ABAG have since awarded four subsequent cycles of station area land use planning grants, and many of the station area plans have been completed. Currently, many of the transit corridors subject to the TOD Policy are fully funded, and have commenced construction, at least for the initial phases of the projects (see Figure 5 – Status of Resolution 3434 Transit Expansion Projects).

PDA Focus Program and Plan Bay Area

The success of the Station Area Planning Program led jurisdictions and ABAG/MTC to expand it beyond the Resolution 3434 corridors. The new Priority Development Area (PDA) planning program has refined many of the elements of the Station Area Planning Program, but rather than being contained to the Resolution 3434 corridors, it includes all Priority Development Areas (PDAs), as the principal geographies for accommodating new development and making strategic investments in infrastructure to enable TOD.

The PDA framework is at the center of the region's long term transportation and land use plan. Plan Bay Area, adopted in July 2013, projects that the nine-county San Francisco Bay Area region will increase by 660,000 households and 1.1 million jobs from 2010 to 2040. The regional plan allocates approximately 78 percent of the future household growth (509,000 units) and 63 percent of new jobs (690,000 jobs) in PDAs. These figures are relatively conservative compared to potential demand; a recent CTOD analysis estimated future housing demand near transit to be in the range of 780,000 to 1.3 million units by 2040.

Given the significant amount of housing and employment growth anticipated near transit, the TOD Policy is a key component in the region's overall efforts to accommodate new households and jobs in transit locations, by ensuring that cities are well-positioned to plan and implement TOD.

Pelli Clarke Pelli Architects, courtesy of the Transbay Joint Powers Authority
Rendering of the future Transbay Transit Center, San Francisco

Figure 5: Status of Resolution 3434 Transit Expansion Projects

Corridor	Description	Status
BART East Contra Costa Extension (eBART)	10-mile commuter rail extension from Pittsburg-Bay Point BART to Antioch	Currently under construction; Scheduled to open in 2017.
BART Extension from Fremont to San Jose/Santa Clara (Silicon Valley Rapid Transit or SVRT)	Phase I: BART extension to Warm Springs Phase II: BART extension from Warm Springs to San Jose/ Santa Clara	Phase I is currently under construction; Scheduled to open in 2015. Phase II to Santa Clara is in design.
AC Transit Berkeley/Oakland/San Leandro Bus Rapid Transit Phase I	Phase I of the bus rapid transit connects Oakland to San Leandro	Received environmental clearance in 2012. Scheduled to open in 2015
Caltrain Downtown Extension/ Transbay Terminal	Caltrain 1.3 mile extension from Fourth and King streets to the new Transbay Terminal facility at First and Mission streets, with accommodations for future high-speed rail	The terminal building is currently under construction. The Caltrain/High Speed Rail extension is pending additional funding.
MUNI Central Subway	1.7 mile extension of the MUNI T Third Line from the 4th Street Caltrain Station to Chinatown	Currently under construction; Scheduled to open in 2019
Sonoma-Marin Rail (SMART)	Phase I: commuter rail from Downtown San Rafael to Santa Rosa. Phase II: planned extension to Cloverdale and connection to Larkspur ferry terminal	Currently under construction; Scheduled to open in 2016
Dumbarton Rail	20.5 mile commuter rail service between Redwood City and Union City by reconstructing rail bridge next to Dumbarton Bridge (SR-84)	Unlikely to proceed
Expanded Ferry Service Phase I	New ferry terminals and service expansion in Berkeley, Richmond, and Treasure Island	In planning stages
Expanded Ferry Service Phase II	New ferry terminals and service expansion in Antioch, Hercules, Martinez, Redwood City	In planning stages

III. Outcomes of the TOD Policy

Allocating transit funding based on land use policies was an unprecedented action for MTC to take, and it is the first policy of its kind by a metropolitan planning organization. Since its adoption in 2005, MTC has conducted two evaluations to monitor the effectiveness and outcomes of the TOD Policy. This section summarizes the successes and challenges of the TOD Policy based on past evaluations; results of an online survey of stakeholders; and input from the Technical Advisory Committee (TAC).

Evaluations

The first TOD Policy evaluations were conducted in 2006 and 2007 by a team of consultants. These evaluations found that early results from the TOD Policy were encouraging, and that thresholds were achievable on most corridors either with existing development or with new land use planning efforts in station areas. The evaluation found that cities did not need to impose major changes to achieve the TOD Policy thresholds; rather, the housing thresholds could be met with moderate increases in density, and allowed for employment-oriented station areas to accommodate only a small number of new housing units. Because these evaluations were conducted so soon after adoption, it was too early to determine the effectiveness of the station area plans, corridor working groups, or the affordable housing bonus.

The evaluations identified several issues requiring continued attention or additional refinement, including the following:

- ***Refining methodologies for compliance –*** Clearer methodologies for determining compliance with the TOD Policy were needed, particularly related to counting housing units and the affordable housing bonus.
- ***Addressing uncertainty of transit service and timing for development –*** The report raised the issue of cities' potential reluctance to move forward with station area plans when the timing of future transit expansions remained uncertain.
- ***Expanding station area planning issues –*** The study suggested that future station area planning should consider an area beyond the traditional half-mile radius in certain cases, recognizing that the necessary access improvements could be better addressed. In addition, the evaluation identified other additional topics to be addressed in station area plans, including level-of-service (LOS) standards, permitting/ design review processes, and looking at tradeoffs between parking, new development, and access improvements.
- ***Addressing ferry system expansions –*** The ferry system expansions were found not to be a good fit with the original corridor threshold concept, and the evaluation called for a different approach to accommodate the uncertainty still surrounding the choice of new terminal sites.

From 2009 to 2012, the SMART, SVRT, and eBART corridors were evaluated again for compliance with the TOD Policy, in order to take into account planned or potential changes in station location, local planning and policy documents, and transit project phasing. These evaluations in turn allowed MTC to release funding for the initial phases of the projects. The following summarizes the findings of compliance for each corridor:

- ***SVRT:*** The TOD Policy establishes a threshold of 3,850 existing and planned housing units per station along the SVRT corridor. In 2012, the consulting firm CD+A reviewed and updated the previous 2005 compliance evaluation by Arup, incorporating all pipeline development projects, changes

in existing residential counts, and policy changes. The 2012 assessment found that the Berryessa extension of SVRT (the corridor segment between Downtown Fremont and the Berryessa station in San Jose) can attain the MTC TOD Policy threshold if the available vacant and underutilized parcels are developed to the maximum allowable capacity.

- ***SMART:*** In 2009, CD+A led an assessment of station area development capacity in the SMART corridor and found that while the TOD Policy thresholds could not be achieved under current plans and policies, there was capacity to reach the thresholds by increasing planned development intensities at the station areas. In 2012, in response to changes in the project, CD+A evaluated the corridor's designated Initial Operating Segment (IOS) from Santa Rosa to San Rafael and the relocation of the Rohnert Park station to a more central location. The 2012 assessment confirmed that the TOD Policy thresholds could still be met with enhanced densities in station areas. The additional existing housing around the relocated Rohnert Park station site allowed SMART to restore the Atherton station in Novato while still meeting the TOD Policy requirements for the corridor. Based on MTC's TOD Policy thresholds, the corridor required an average of 2,200 housing units (exist-ing and zoned) per station (15,400 total) to receive funding. With the new IOS, the corridor total fell short, with 14,951 existing and planned units. However, because the gap was relatively small (three percent), the Commission determined that the project was in compliance with the TOD Policy and approved funding for SMART.

Greenbelt Alliance Photo

A new infill development near one of Santa Rosa's future SMART stations.

- ***eBART:*** In 2009, BART adopted an EIR for a Phase I eBART extension from the existing Pittsburg/Bay Point station to a terminus near Hillcrest Avenue in Antioch. To facilitate station site selection and TOD Policy compliance, Nelson\Nygaard conducted an independent planning-level analysis of existing and planned land uses within one-half mile of each of two alternative station sites in Antioch and the planned station at Railroad Avenue in Pittsburg. The analysis found that under then-current plans, the corridor fell just slightly short of the threshold of 6,600 total (2,200 per station), with a total of 6,300 existing and planned units. The Consultant Team found it highly likely that the corridor would meet its housing targets. Subsequently, Pittsburg adopted a new station area plan for Pittsburg-Bay Point in 2011, which added 1,200 units. MTC staff estimated that the total number of units projected for the three e-BART stations was roughly 6,570, just 30 units short of

the threshold of 6,600. Because the difference was less than 0.5 percent, the corridor was deemed to be compliant with the TOD Policy.

Summary of Successes and Challenges

The Consultant Team conducted meetings with a Technical Advisory Committee and MTC/ABAG staff, administered a web-based survey[10] targeted to Corridor Working Group participants, city staff, and stakeholders, and reviewed station area plans to identify the major successes and challenges of the TOD Policy.

Successes of the TOD Policy

The TOD Policy has resulted in many positive outcomes, including the successful completion of numerous station area plans that establish policies to foster transit-oriented development along the Resolution 3434 corridors. Notably, the TOD Policy has been instrumental in achieving the following outcomes:

Allocation of significant regional housing growth to transit corridors – Based on the data collected from completed station area plans along the Resolution 3434 corridors, the TOD Policy has contributed to local jurisdictions planning for 26,000 new housing units in transit locations (see Figure 6).

Planning for jobs in station areas – In addition to accommodating housing growth, local jurisdictions have also planned for considerable amounts of employment uses in the Resolution 3434 corridors. Planning for jobs has occurred in many places, even without specific thresholds for those uses. This reflects the fact that for many cities, there are fiscal and economic incentives to provide ample capacity for job growth.

Gaining community support for TOD – Especially for the SVRT and SMART corridors, respondents considered the TOD Policy highly effective in influencing planning for TOD in different communities.

Providing funding for station area planning – MTC's Station Area Planning and PDA Planning Programs have been an important source of funding for local jurisdictions on the corridors to address land use planning, station access,

Figure 6: Summary of Completed Plans in Resolution 3434 Corridors

Jurisdiction	Corridor	Planned housing (units)	Planned commercial (sq. ft.)	Estimated jobs planned*
Santa Rosa	SMART	3,409	493,500	1,316
San Leandro	BRT	3,430	839,000	2,662
Pittsburg	eBART	1,845	988,449	2,774
Cloverdale	SMART	761	340,000	1,000
Santa Clara	SVRT	2,250	4,200,000	11,800
Newark	Dumbarton Rail	2,500	230,000	550
Milpitas	SVRT	7,109	1,300,000	730 to 2,670
Cotati	SMART	331	237,050	632
Antioch	eBART	2,500	2,500,000	5,600
East Palo Alto	Dumbarton Rail	835	1,500,000	3,801
Pittsburg-Bay Point	BART/eBART	1,168	146,362	1,300
TOTAL		26,138	12,774,361	32,165 to 34,105

** For plans where the number of jobs is not specified, the number of jobs were calculated as follows: For retail space, the ratio is 1 job per 450 sq. ft; for office, the ratio is 1 job per 300 sq. ft.; and for R&D the ratio is 1 job per 1000 sq. ft. For plans that did not estimate the employment space by type, the employment numbers were estimated based on an average ratio of 1 job per 375 sq. ft. Source: Metropolitan Transportation Commission, 2013.*

circulation, design, and parking policies to foster transit-oriented development.

Challenges of the TOD Policy

Though the TOD Policy has resulted in the completion of many station area plans, there are a number of implementation challenges, some of which are outlined below.

Corridor phasing issues – As described above, many of the corridors in Resolution 3434 achieved compliance with the TOD Policy at early phases of projects. However, many of the projects are being funded and built out in phases, and initial operating segments often change over time, adding, dropping, or moving stations, which impacts the evaluation of compliance. This uncertainty poses an ongoing challenge for the application of the existing TOD Policy to projects that are implemented in phases.

Role of corridor working groups (CWG) – The role of the CWG was designed to be focused on a single task – planning for compliance with the TOD Policy thresholds. There have been some challenges with that role, since the CWG is usually composed of ad-hoc staff from cities and CMAs, with limited abilities to make binding agreements about station area land uses and densities. Furthermore, there is a lack of clarity about the role of this group, if any, once the corridor is funded and under construction.

Greenbelt Alliance Photo

Taking a corridor scale look at planning opportunities.

Market and feasibility factors – The higher-density residential and commercial building types planned for in many of the Resolution 3434 station areas may not be feasible for many locations given current real estate market conditions. The 2008 housing market downturn, combined with the demise of redevelopment, has made new development particularly challenging to implement in many of the station areas. Survey responses varied on the question of whether the planned densities in station areas would be feasible with the recovery of the housing market; however, it was clear that respondents from the SMART and SVRT corridors were more confident about the densities being feasible than those in other corridors. While the survey did not ask whether the scope of work for the station area plans included market analysis, understanding the market demand for higher-density housing and employment is recommended in MTC's Station Area Planning Manual and is commonly included in station area plans, unless recent market analyses are already available. It is noteworthy that almost all of the station areas where residential developments had been built, the development projects were aligned with planned densities and building types.

Infrastructure needs – According to the PDA Readiness Assessment completed in March 2013, many of the region's PDAs require significant investments in public infrastructure (including roads, water/wastewater, and parks) to enable the type and intensity of development envisioned.[11]

Affordable housing – The TOD Policy encourages the development of affordable housing in station areas by including a 50% bonus for new affordable housing units towards meeting the thresholds. However, the survey respondents did not feel that the Policy was effective in encouraging the inclusion of affordable housing opportunities within station areas. Most jurisdictions relied on their city-

wide affordable housing policies rather than making a specific effort to provide affordable housing within the station area plans. Although it is appropriate for the TOD Policy to provide a bonus for affordable housing – given that affordable housing residents are more likely to use transit than other households, and the pressing need for transit-accessible affordable housing – the bonus does not appear to have made an impact on the approval of affordable units in the planning areas, nor resulted in the construction of more affordable housing in station areas.

Ferries – As described above, the previous evaluations of the TOD Policy have shown that the ferry terminal areas have not been able to meet the housing thresholds. The standard 1/2 mile radius to estimate the TOD potential reveals the challenges of creating high-ridership ferry lines without intense land uses to support them.

Greenbelt Alliance Photo

An affordable housing project near transit in Pittsburg.

IV. Performance-Based Metrics

This section summarizes the use of performance-based metrics by other Metropolitan Planning Organization (MPOs) – including the Delaware Valley Regional Planning Council, Portland Metro, and London – for transit expansion projects and transit-oriented development. The case studies provide useful lessons for MTC's decision-making on future transit expansion as well as supporting TOD along the Resolution 3434 corridors.

Lessons Learned

Increasingly, MPOs are turning to performance-based metrics to evaluate and fund new transit projects. The development and application of the performance metrics for long range planning and funding decisions offers several key benefits to communities, including:

- ***Framework for regional decision-making around transit investments –*** The use of transit performance metrics provides regional agencies, local jurisdictions, and stakeholders with an information-based framework to enable and support transit investment decisions.
- ***Transparent and accessible evaluation process –*** Because performance metrics are typically based on quantitative or well-defined qualitative information, they can provide local jurisdictions and stakeholders with a clear and accessible framework to understand the transit evaluation process.
- ***Cost effective investment of transit funding –*** Applying a performance evaluation which includes measures of cost effectiveness can assist regional agencies in identifying the transit lines which are most likely to contribute to the financial sustainability of a transit system.
- ***Catalyst for discussion of prioritization of projects and integration of land use planning.*** Transit evaluation metrics can help illuminate the relationship between transit and land use to local agencies and stakeholders, by demonstrating that higher intensity land uses in station areas can support ridership goals and create a more productive transit system.
- ***Outcome based comparison of projects –*** The use of transit performance metrics shifts decision-makers' focus from transportation technologies to transportation effectiveness, permitting an apples-to-apples, outcome-based comparison of alternative transit technologies and land use alternatives. Programs and policies can also be assessed based on key criteria and outcomes that matter to the region, such as cost effectiveness or emission reduction.

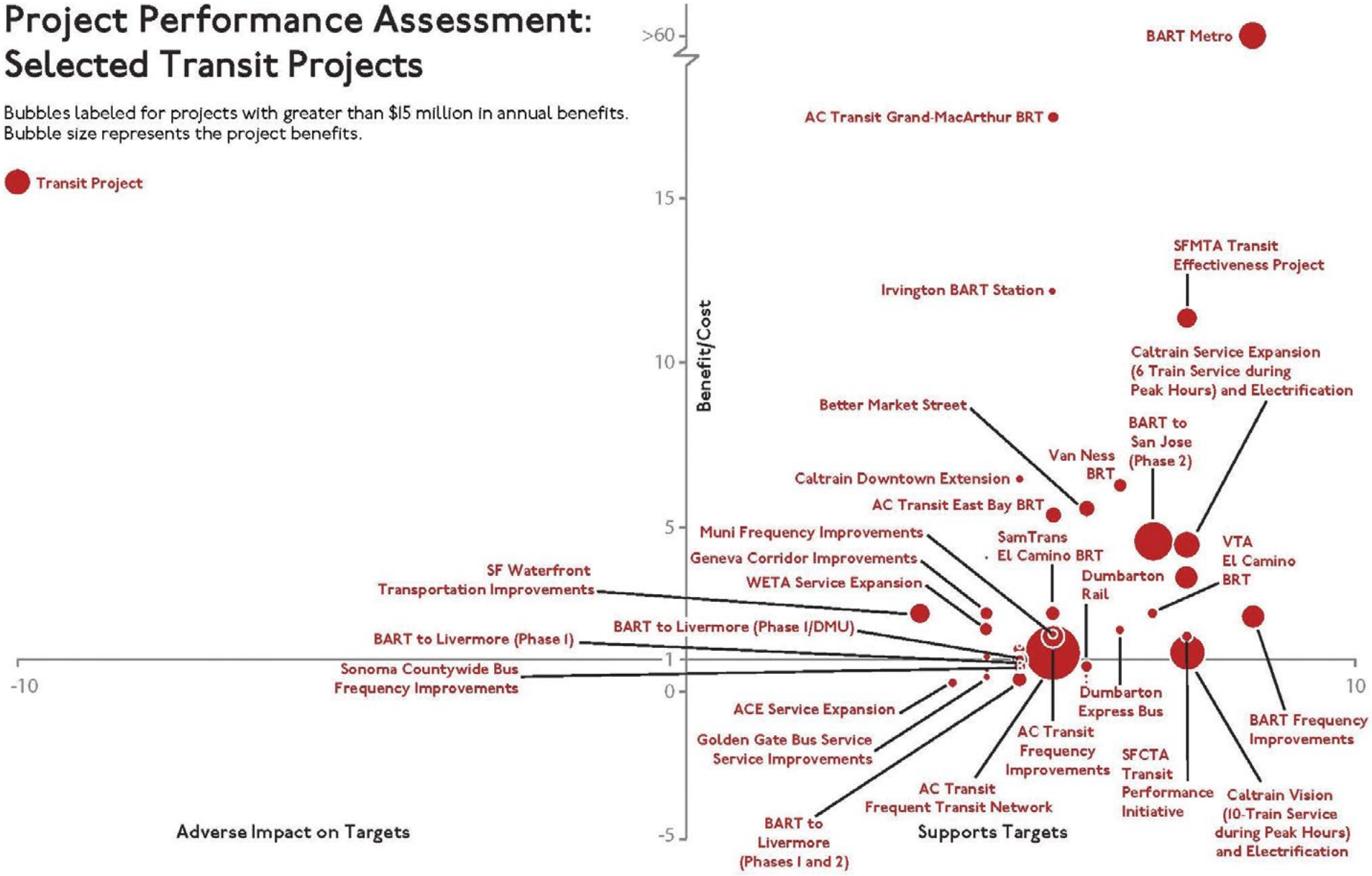
Existing Performance-Based Planning Tools

MTC has developed tools and metrics to develop long-range regional transportation plans. More recently, these tools have been modified to evaluate the competitiveness of transit corridors in the region, and inform future investments.

Project Performance Assessment

MTC applied a performance-based planning approach to evaluate the transportation investments in Plan Bay Area. The process began with setting performance targets with close collaboration from the public and key stakeholders, and included both traditional performance targets (mobility and air quality) and additional sustainability targets related to land use, economic vitality, and public health. MTC then scored individual transportation projects based on 1) their contribution to meeting the region's performance targets, and 2) their cost-effectiveness, measured as a benefit-cost ratio. The performance assessment of these projects

Figure 7: Results of Transit Project Performance Assessment



Source: Metropolitan Transportation Commission, "Plan Bay Area Draft Performance Assessment Report," 2013.

Portland Metro Case Study: The Southwest Corridor

Portland Metro used transit evaluation metrics to identify and prioritize corridors for investment as part of their High Capacity Transit (HCT) system plan, adopted in 2009. The plan identified the Southwest Corridor, connecting Downtown Portland to Sherwood as a "near-term" priority. Based on a full evaluation of all candidate corridors on 26 metrics, the Southwest Corridor achieved one of the top three highest unweighted scores among all corridors and was ultimately chosen as the next focus of regional corridor planning efforts. Regional leaders selected the less-developed Southwest Corridor in large part because it promised (contingent upon reform of local land use regulations) the highest net gain in transit boardings for the region. In comparison, the denser Powell Corridor east of Downtown Portland would mostly attract riders from existing frequent bus service. The Southwest Corridor was also found to have the highest potential for implementation, based on local support and the projected costs and efficiencies of operation, and was identified as one of the two highest priority corridors for TOD investment in the TOD Strategic Plan.

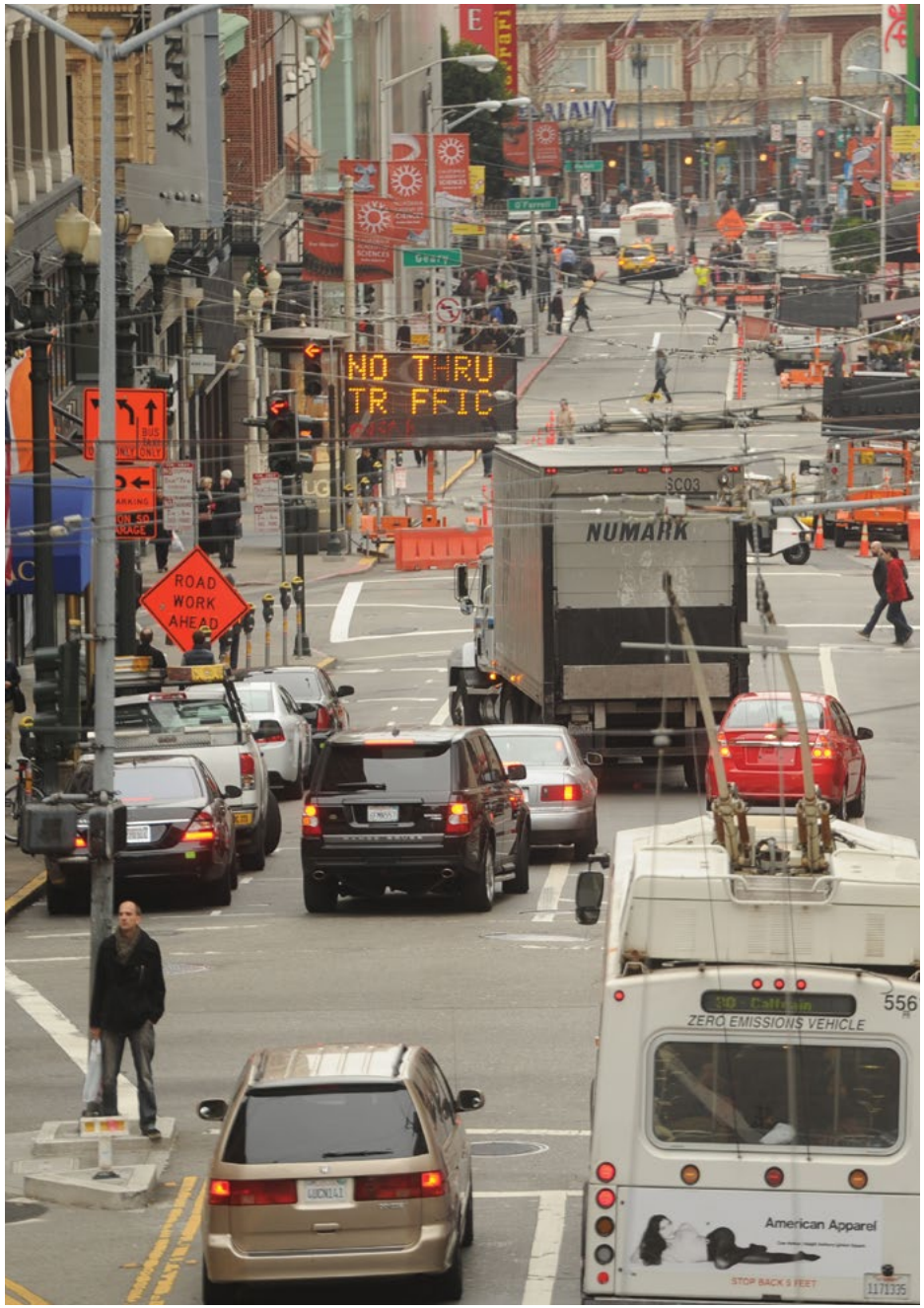
Building off this process, Portland Metro applied for and received a Federal Transit Administration grant of $2 million to complete a comprehensive and integrated land use and transportation plan for the corridor. This planning process is currently underway with the involvement of multiple jurisdictions, including Portland Metro, TriMet, ODOT, Multnomah and Washington Counties, and the Cities of King City, Portland, Sherwood, Tigard and Tualatin. Recognizing the need and opportunity to leverage regional transit capital funding to secure a route alignment and associated zoning changes to maximize ridership in the corridor, Metro has broadly defined the travel corridor. In some areas the corridor is up to ten miles wide (and includes the somewhat parallel I-5 and US-99 Highway Corridors). The scope of planning is also broadly multimodal, as the corridor is defined in the adopted Regional Transportation Plan as both a mobility corridor (appropriate for targeted auto mobility and access improvements) and an HCT corridor. The broad geographic area and multimodal scope are intended to give planners and elected officials latitude to make local access and mobility improvements that together offer the greatest potential to increase corridor transit ridership.

Beyond creating a framework for transit investments, the Portland Metro HCT System has also been useful for TOD planning and implementation. The Portland Metro TOD Strategic Plan drew significantly from the HCT System Plan methodology and findings, incorporating an evaluation of the TOD potential of significant high capacity bus corridors as defined by the HCT study, as well as rail stations. While the TOD Strategic Plan was completed specifically for the TOD Program at Metro, the HCT System Plan has since integrated findings from the Strategic Plan, providing a deeper level of information on market strength and potential, pedestrian connectivity, and overall "readiness" of station areas to support significant change in urban form. As a result, the Corridors Program (which implements the HCT System Plan) has been able to plan stations along the Southwest Corridor to better align with places that have the potential to become transit supportive in the near future.

then led to the prioritization of projects to be included for regional funding in Plan Bay Area. Figure 7 graphically illustrates the results of the performance assessment for transit projects. As shown, many of the region's highest performing projects were those that increased the efficiency of existing transit systems (BART, Metro) and those that provided transit expansions to high-density employment centers (such as BART to San Jose).

The Transit Sustainability Project and the Transit Competitiveness Index

In 2010, MTC launched the Transit Sustainability Project (TSP) to address the major challenges facing transit and identify a path toward an affordable, efficient and well-funded transit system that will attract more riders. As part of this project, MTC developed the transit-competitiveness index (TCI) tool to identify locations within the region where transit could be a competitive alternative to auto travel. TCI allows for regional agencies, congestion management agencies, and local stakeholders to analyze the travel markets that could be best suited for transit service, incorporating factors such as parking pricing, congestion, land uses, densities, and pedestrian environment. This tool could potentially be modified in the future, potentially employing Plan Bay Area land use assumptions, to scan which transit corridors may be viable in the future. MTC could build on the TCI and other tools with project sponsors to develop the most cost-effective, highest performing projects in the region.



Metropolitan Transportation Commission

Aboveground view of path of San Francisco Central Subway.

V. Recommendations

The TOD Policy is an important tool for ensuring that the land uses near future corridors helps to support transit ridership and meet regional performance targets. The following summarizes the Consultant Team's recommendations for future implementation of the TOD Policy.

Key Recommendations

Continue applying housing thresholds to transit corridors.

The outcomes from the Resolution 3434 corridor plans show that the housing thresholds have been an effective mechanism to encourage local jurisdictions to enable higher density housing development in station areas. MTC should continue to engage a broad range of stakeholders, including cities, congestion management agencies, transit agencies, and other concerned stakeholders to evolve the TOD Policy in the future.

Continue to exclude jobs from transit corridor thresholds.

According to the Resolution 3434 corridor station area plans, local jurisdictions are accommodating more than 12 million square feet of commercial development in the station areas. This shows that there are already significant incentives for local jurisdictions to include employment in PDA and station area plans. Furthermore, the market demand for office and retail space varies considerably more than for housing by corridor; a numerical threshold would not be appropriate for commercial uses.

Continue to apply performance metrics to evaluate future transit investments.

The use of transit performance metrics allows for a better understanding of the effectiveness of regional transportation investments, and can lead to better buy-in from all stakeholders as projects advance. In addition, having an objective basis for selecting future transit corridors can also help pave the way for more effective TOD planning and implementation.

Adopt a consistent methodology for evaluating compliance.

Past evaluations have cited the need to standardize the methodology for evaluating TOD Policy compliance to ensure a consistent application over time and across corridors and station areas. The Consultant Team recommends that MTC adopt a standardized methodology for assessing compliance with the TOD Policy thresholds, as shown in Appendix A of the report.

Issues for Consideration

In addition to the recommendations described above, the Consultant Team has also identified some areas of weakness in the TOD Policy that require further consideration from MTC staff and stakeholders.

Address corridor phasing.

When adopted, the TOD Policy was intended to apply to the entirety of each Resolution 3434 corridor. As projects have been scaled back due to funding constraints, initial phases of projects such as SVRT and SMART have been required to meet the TOD Policy thresholds. Requiring phases of each project to meet the TOD Policy threshold individually has the potential to undercut the corridor-level approach to the TOD Policy thresholds and jeopardize funding for certain stations or segments that make sense from a corridor ridership perspective (e.g. stations serving concentrations of employment or a park and ride market). As funding is released for future phases, the Consultant Team suggests that the TOD Policy evaluation be assessed over the entirety of the corridor in order to remain

in line with the original intent of the TOD Policy.

Promote affordable housing in station areas.

The existing TOD Policy's bonus on affordable units appears to have had little or no effect on affordable housing development. Rather, local jurisdiction policies have been the impetus for any affordable housing built in station areas. Some jurisdictions feel that their citywide inclusionary ordinances are already near the tipping point of making housing development infeasible and imposing higher requirements for affordable housing in station areas would make transit-oriented housing infeasible. The City of San Jose actually exempted downtown areas from its citywide inclusionary housing ordinance, which had the effect of stimulating market-rate housing production around transit stations.

The Consultant Team recommends creating a stronger link to the funding sources like the TOAH Fund, established after the TOD Policy was first put into place, as one way of supporting the development of more affordable housing. This linkage could be in the form of granting bonus eligibility for those projects in station areas that have affordable housing in their plans. Other detailed strategies could be developed through a series of convenings with affordable housing developers, advocates, and financial institutions.

Reinforce parking management strategies.

While the TOD Policy's corridor-level thresholds offer specific, quantitative standards for residential density, no such standards existing for parking management. Parking has also not typically been a focus of work by the corridor-level working groups created under the TOD Policy. However, while it lacks specific parking standards, the TOD Policy has indirectly influenced parking policy in a number of cases by funding station area planning grants. Grantees have discretion in the content of station area plans, but they have typically addressed parking policy alongside other topics, including urban design, land use planning, and multimodal circulation. While some of these plans have called for little change from status quo, others have put in place much more transit-supportive parking policies. The Consultant Team recommends that MTC's PDA Planning Program take a more consistent approach to managing parking, recognizing it as one of the most important steps that local jurisdictions can take to promote successful TOD. MTC should continue to emphasize the development of its existing parking resources, along with additional technical assistance to cities wishing to adjust parking policy for station areas. Future station area planning grants may also include more specific requirements regarding the types of analysis required before setting parking standards, and the areas of parking policy that plans should address.

Assess composition or role of corridor working groups.

There have been challenges with the composition of the CWG, which is typically made up of staff from cities and CMAs, who have limited ability to make binding local land use decisions. Furthermore, there are capacity constraints, given the overlap between CWG participants and other forums facilitated by MTC and ABAG. It may be more effective to streamline the process by integrating the CWG with other TOD and sub-regional planning initiatives. It is recommended that MTC explore other options for gaining corridor-level collaboration.

Enhance station area planning in ferry terminal areas.

Ferry terminal areas have been challenged in meeting the TOD Policy thresholds. Greater emphasis on site planning, station access, and infrastructure investments, along with land use intensification, is needed in the terminal areas in order to maximize the ridership potential.

End Notes

1 Plan Bay Area http://www.mtc.ca.gov/planning/plan_bay_area/

2 Pushkarev, Boris and Jeffrey M. Zupan. "Public transportation and land use policy," Indiana University Press, 1977.

3 Newman, Peter and Jeff Kenworthy. "Urban Design to Reduce Automobile Dependence," Opolis, v. 2 no 1, 2006.

4 Kolko, Jed. "Making the Most of Transit Density, Employment Growth, and Ridership around New Stations," PPIC, February 2011.

5 Ibid.

6 CTOD. "Performance-Based Transit-Oriented Development Typology Guidebook," December 2010.

7 CTOD. "Transit and Regional Economic Development," May 2011.

8 Cervero and Landis, "BART at 20"; Landis, Guhathakurta, and Zhang. "Capitalization of Transit Investments into Single-Family Home Prices: A Comparative Analysis of Five California Rail Transit Systems."

9 Landis et al. "Rail Transit Investments, Real Estate Values, and Land Use Change: A Comparative Analysis of Five California Rail Transit Systems."

10 The consultant team sent a survey invitation to 78 Corridor Working Group members, non-for-profit stakeholders and local jurisdictions on the corridors. A total of 31 responses were received, for a response rate of 40%. The corridors most represented were eBART (8 responses) and SMART (7 responses). There were 4 respondents each associated with Dumbarton Rail and Silicon Valley Rapid Transit (SVRT), 2 with AC Transit BRT and one with ferry service. There was one respondent each from BART and the city of San Francisco Transbay/Central Subway, and three respondents who did not identify their association with any of the corridors.

11 PDA readiness assessment. http://onebayarea.org/pdf/Draft_Plan_Bay_Area/Draft_PBA_PDA_Development_Feasibility_and_Readiness.pdf

Appendix A

Proposed methodology for evaluating compliance

The Consultant Team recommends that MTC adopt a standardized methodology for assessing compliance with the TOD Policy thresholds, as follows:

1. Assemble Data Sources

Assemble a GIS database including:

- potential transit station locations
- parcels
- existing land use
- General Plan designations
- zoning designations

Contact jurisdiction(s) to verify the GIS data as well as collect additional information on planned or pipeline projects that could potentially fall within a half-mile of the station.

2. Identify the Half-Mile Geographical Area ("Station Area")

In GIS, create a point that best represents either:

- the entrance of the potential (or existing) station building or
- the center of the potential (or existing) platform.

Create a one-half mile buffer around this point.

Using the half-mile buffer geography, select parcels either completely within, or with a majority of their area within the half mile geography. These parcels constitute the "station area" for TOD Policy evaluation purposes.

Overlay the existing uses, General Plan and zoning designation data on the selected half-mile parcels in order to determine exiting and potential housing capacity, as discussed below.

3. Calculate Existing Households within the Half-mile Buffer

Associate the county assessor's data to the parcels within the station area.

Identify single family units from the assessor's data and count the number of single-family parcels. Assume one unit per single-family parcel.

Identify multi-family parcel from assessor data. If assessor data does not indicate number of units, verify with local jurisdiction. Include 100% of units on parcels that have a majority of their area within the half-mile geography

Contact all the jurisdictions within the half-mile geography to collect data on new housing units that are planned or in the approval process within the station area. Determine whether these projects also include qualifying below-market rate housing units per the TOD Policy requirements (i.e., affordable to 60% of area median income for rental units and 100% of area median income for owner-occupied units). Tally the number of market rate and qualifying affordable units separately.

Calculate the total number of units on the parcels selected within the half-mile geography under existing conditions by adding the following:

- Existing single family units;
- Existing multi-family units;
- Planned and pipeline market rate units, and;
- 150% of the number of qualifying planned or pipeline below-market units

4. Calculate the Household Potential for Station Areas in the Short-term Future

From existing land use data, identify vacant and highly underutilized parcels (surface parking lots, open air storage, etc) with an underlying zoning and General Plan designation that allows for new housing to be developed on those properties.

Exclude parcels with planned or pipeline projects counted in the existing conditions.

Based upon the *lowest* density allowable in the zoning code, calculate the number of potential new units that could be developed within the station area's half-mile geography.

Calculate the number of those future units required to be below-market units based upon the jurisdiction's affordable housing policy.

Calculate the number of total potential future units by adding the potential new market rate units to 150% of the number of below-market units.

5. Summary Total and Evaluation for the Short-term Future

Add the total number of potential new units to the number of existing units, producing the total number of potential units that could fall within the station area's half-mile geography. Sum station area totals by corridor and evaluate corridor compliance with the TOD Policy thresholds.

6. Calculating the Household Potential for Station Area in the Long-term Future

In addition to analyzing the existing and short-term future housing capacity within the half-mile station area, it is possible to estimate long-term potential housing capacity in the station area under potential land use policy changes (for example, Specific Plans or station area plans that have not yet been adopted but are in the approvals process). The long-term capacity analysis should include parcels that are currently in active use for non-residential uses but which have underlying zoning and General Plan designations that would allow for new housing units to be built should the property redevelop due to a significant shift in market demand in the future.

Assess the potential capacity on portions of those parcels where redevelopment would likely take place, and estimate the number of market and below-market units (along with the 50% bonus) similar to the method applied in the short-term housing capacity analysis.

Summarize the total housing capacity for each station area by adding up the results from the existing, short-term and long-term household capacity analysis.

MTC RESOLUTION 3434 TRANSIT-ORIENTED DEVELOPMENT (TOD) POLICY FOR REGIONAL TRANSIT EXPANSION PROJECTS

Adopted July 27, 2005

1. Purpose

The San Francisco Bay Area — widely recognized for its beauty and innovation — is projected to grow by almost two million people and one and a half million jobs by 2030. This presents a daunting challenge to the sustainability and the quality of life in the region. Where and how we accommodate this future growth, in particular where people live and work, will help determine how effectively the transportation system can handle this growth.

The more people who live, work and study in close proximity to public transit stations and corridors, the more likely they are to use the transit systems, and more transit riders means fewer vehicles competing for valuable road space. The policy also provides support for a growing market demand for more vibrant, walkable and transit convenient lifestyles by stimulating the construction of at least 42,000 new housing units along the region's major new transit corridors and will help to contribute to a forecasted 59% increase in transit ridership by the year 2030.

This TOD policy addresses multiple goals: improving the cost-effectiveness of regional investments in new transit expansions, easing the Bay Area's chronic housing shortage, creating vibrant new communities, and helping preserve regional open space. The policy ensures that transportation agencies, local jurisdictions, members of the public and the private sector work together to create development patterns that are more supportive of transit.

TABLE 1: Resolution 3434 Transit Extension Projects Subject to Corridor Thresholds

Project	Sponsor	Type	Threshold is met with current development?
BART East Contra Costa Rail Extension	BART/CCTA	Commuter Rail	No
BART — Downtown Fremont to San Jose/Santa Clara (a) Fremont to Warm Springs (b) Warm Springs to San Jose/ Santa Clara	(a) BART (b) VTA	BART extension	No
AC Transit Berkeley/Oakland/ San Leandro Bus Rapid Transit: Phase 1	AC Transit	Bus Rapid Transit	Yes
Caltrain Downtown Extension/Rebuilt Transbay Terminal	TJPA	Commuter Rail	Yes
MUNI Third Street Light Rail Transit Project Phase 2 — New Central Subway	MUNI	Light Rail	Yes
Sonoma-Marin Rail	SMART	Commuter Rail	No
Dumbarton Rail	SMTA, ACCMA, VTA, ACTIA, Capitol	Corridor Commuter Rail	No
Expanded Ferry Service Phase 1: Berkeley, Alameda/Oakland/Harbor Bay, and South San Francisco to San Francisco (Note 1)	WTA	Ferry	No
Expanded Ferry Service Phase 2: Alameda to South San Francisco, and Hercules, Antioch, Treasure Island, Redwood City and Richmond to San Francisco (Note 1)	WTA	Ferry	No

Note 1: The WTA Ferry Expansion "Corridor" for the purposes of the TOD policy consists of all new terminals planned in Phase 1 and Phase 2.

There are three key elements of the regional TOD policy:

(a) Corridor-level thresholds to quantify appropriate minimum levels of development around transit stations along new corridors;

(b) Local station area plans that address future land use changes, station access needs, circulation improvements, pedestrian-friendly design, and other key features in a transit-oriented development; and

(c) Corridor working groups that bring together CMAs, city and county planning staff, transit agencies, and other key stakeholders to define expectations, timelines, roles and responsibilities for key stages of the transit project development process.

2. TOD Policy Application

The TOD policy only applies to physical transit extensions funded in Resolution 3434 (see Table 1). The policy applies to any physical transit extension project with regional discretionary funds, regardless of level of funding. Resolution 3434 investments that only entail level of service improvements or other enhancements without physically extending the system are not subject to the TOD policy requirements. Single station extensions to international airports are not subject to the TOD policy due to the infeasiblity of housing development.

3. Definitions and Conditions of Funding

For purposes of this policy "regional discretionary funding" consists of the following sources identified in the Resolution 3434 funding plan:

- FTA Section 5309- New Starts
- FTA Section 5309- Bus and Bus Facilities Discretionary
- FTA Section 5309- Rail Modernization
- Regional Measure 1- Rail (bridge tolls)
- Regional Measure 2 (bridge tolls)
- Interregional Transportation Improvement Program
- Interregional Transportation Improvement Program- Intercity rail
- Federal Ferryboat Discretionary
- AB 1171 (bridge tolls)
- CARB-Carl Moyer/AB434 (Bay Area Air Quality Management District)*

These regional funds may be programmed and allocated for environmental and design related work, in preparation for addressing the requirements of the TOD policy. Regional funds may be programmed and allocated for right-of-way acquisition in advance of meeting all requirements in the policy, if land preservation for TOD or project delivery purposes is essential. No regional funds will be programmed and allocated for construction until the requirements of this policy have been satisfied. See Table 2 for a more detailed overview of the planning process.

TABLE 2: Regional TOD Policy Implementation Process for Transit Extension Projects

Transit Agency Action	City Action	MTC/CMA/ABAG Action
All parties in corridors that do not currently meet thresholds (see Table 1) establish Corridor Working Group to address corridor threshold. Conduct initial corridor performance evaluation, initiate station area planning.		
Environmental Review/ Preliminary Engineering/ Right-of-Way	Conduct Station Area Plans	Coordination of corridor working group, funding of station area plans
Step 1 Threshold Check: *the combination of new Station Area Plans and existing development patterns exceeds corridor housing thresholds .*		
Final Design	Adopt Station Area Plans. Revise general plan policies and zoning, environmental reviews	Regional and county agencies assist local jurisdictions in implementing station area plans
Step 2 Threshold Check: *(a) local policies adopted for station areas; (b) implementation mechanisms in place per adopted Station Area Plan by the time Final Design is completed.*		
Construction	Implementation (financing, MOUs) Solicit development	TLC planning and capital funding, HIP funding

* The Carl Moyer funds and AB 434 funds are controlled directly by the California Air Resources Board and Bay Area Air Management District. Res. 3434 identifies these funds for the Caltrain electrification project, which is not subject to the TOD policy.

4. Corridor-Level Thresholds

Each transit extension project funded in Resolution 3434 must plan for a minimum number of housing units along the corridor. These corridor-level thresholds vary by mode of transit, with more capital-intensive modes requiring higher numbers of housing units (see Table 3). The corridor thresholds have been developed based on potential for increased transit ridership, exemplary existing station sites in the Bay Area, local general plan data, predicted market demand for TOD-oriented housing in each county, and an independent analysis of feasible development potential in each transit corridor.

- Meeting the corridor level thresholds requires that within a half mile of all stations, a combination of existing land uses and planned land uses meets or exceeds the overall corridor threshold for housing (listed in Table 3);
- Physical transit extension projects that do not currently meet the corridor thresholds with development that is already built will receive the highest priority for the award of MTC's Station Area Planning Grants.
- To be counted toward the threshold, planned land uses must be adopted through general plans, and the appropriate implementation processes must be put in place, such as zoning codes. General plan language alone without supportive implementation policies, such as zoning, is not sufficient for the purposes of this policy. Ideally, planned land uses will be formally adopted through a specific plan (or equivalent), zoning codes and general plan amendments along with an accompanying programmatic Environmental Impact Report (EIR) as part of the overall station area planning process. Minimum densities will be used in the calculations to assess achievement of the thresholds.
- An existing end station is included as part of the transit corridor for the purposes of calculating the corridor thresholds; optional stations will not be included in calculating the corridor thresholds.
- New below-market housing units will receive a 50 percent bonus toward meeting the corridor threshold (i.e. one planned below-market housing unit counts for 1.5 housing units for the purposes of meeting the corridor threshold. Below market for the purposes of the Resolution 3434 TOD policy is affordable to 60% of area median income for rental units and 100% of area median income for owner-occupied units);
- The local jurisdictions in each corridor will determine job and housing placement, type, density, and design.
- The Corridor Working Groups are encouraged to plan for a level of housing that will significantly exceed the housing unit thresholds stated here during the planning process. This will ensure that the Housing Unit Threshold is exceeded corridor-wide and that the ridership potential from TOD is maximized.

5. Station Area Plans

Each proposed physical transit extension project seeking funding through Resolution 3434 must demonstrate that the thresholds for the corridor are met through existing development and adopted station area plans that commit local jurisdictions to a level of housing that meets the threshold. This requirement may be met by existing station area plans accompanied by appropriate zoning and implementation mechanisms. If new station area plans are needed to meet the corridor threshold, MTC will assist in funding the plans. The Station Area Plans shall be conducted by local governments in coordination with transit agencies, Association of Bay Area Governments (ABAG), MTC and the Congestion Management Agencies (CMAs).

Station Area Plans are opportunities to define vibrant mixed use, accessible transit villages and quality transit-oriented development – places where people will want to live, work, shop and spend time. These plans should incorporate mixed-use developments, including new housing, neighborhood serving retail, employment, schools, day care centers, parks and other amenities to serve the local community.

TABLE 3: Corridor Thresholds Housing Units — Average per Station Area

Project Type	BART	Light Rail	Bus Rapid Transit	Commuter Rail	Ferry
Housing Threshold	**3,850**	**3,300**	**2,750**	**2,200**	**750**

Each corridor is evaluated for the Housing Threshold. For example, a four station commuter rail extension (including the existing end-of-the-line station) would be required to meet a corridor-level threshold of 8,800 housing units.

Threshold figures above are an average per station area based on both existing land uses and planned development within a half mile of all stations. New below market rate housing is provided a 50% bonus towards meeting housing unit threshold.

At a minimum, Station Area Plans will define both the land use plan for the area as well as the policies—zoning, design standards, parking policies, etc.—for implementation. The plans shall at a minimum include the following elements:

- Current and proposed land use by type of use and density within the half-mile radius, with a clear identification of the number of existing and planned housing units and jobs;
- Station access and circulation plans for motorized, non-motorized and transit access. The station area plan should clearly identify any barriers for pedestrian, bicycle and wheelchair access to the station from surrounding neighborhoods (e.g., freeways, railroad tracks, arterials with inadequate pedestrian crossings), and should propose strategies that will remove these barriers and maximize the number of residents and employees that can access the station by these means. The station area and transit village public spaces shall be made accessible to persons with disabilities.
- Estimates of transit riders walking from the half mile station area to the transit station to use transit;
- Transit village design policies and standards, including mixed use developments and pedestrian-scaled block size, to promote the livability and walkability of the station area;
- TOD-oriented parking demand and parking requirements for station area land uses, including consideration of pricing and provisions for shared parking;
- Implementation plan for the station area plan, including local policies required for development per the plan, market demand for the proposed development, potential phasing of development and demand analysis for proposed development.

The Station Area Plans shall be conducted using existing TOD design guidelines that have already been developed by ABAG, local jurisdictions, transit agencies, the CMAs and others. MTC will work with ABAG to provide more specific guidance on the issues listed above that must be addressed in the station area plans and references and information to support this effort. MTC is conducting an analysis of parking policies that will be made available when complete, and shall be considered in developing local parking policies for TODs.

6. Corridor Working Groups

The goal of the Corridor Working Groups is to create a more coordinated approach to planning for transit-oriented development along Resolution 3434 transit corridors. Each of the transit extensions subject to the corridor threshold process, as identified in Table 1, will need a Corridor Working Group, unless the current level of development already meets the corridor threshold. Many of the corridors already have a transit project working group that may be adjusted to take on this role. The Corridor Working Group shall be coordinated by the relevant CMAs, and will include the sponsoring transit agency, the local jurisdictions in the corridor, and representatives from ABAG, MTC, and other parties as appropriate.

The Corridor Working Group will assess whether the planned level of development satisfies the corridor threshold as defined for the mode, and assist in addressing any deficit in meeting the threshold by working to identify opportunities and strategies at the local level. This will include the key task of distributing the required housing units to each of the affected station sites within the defined corridor. The Corridor Working Group will continue with corridor evaluation, station area planning, and any necessary refinements to station locations until the corridor threshold is met and supporting Station Area Plans are adopted by the local jurisdictions.

MTC will confirm that each corridor meets the housing threshold prior to the release of regional discretionary funds for construction of the transit project.

7. Review of the TOD Policy

MTC staff will conduct a review of the TOD policy and its application to each of the affected Resolution 3434 corridors, and present findings to the Commission, within 12 months of the adoption of the TOD policy.

For More Information

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