SUMMARY REPORT

JULY 2016

Treasure Island

Mobility Management Study

TREASURE ISLAND MOBILITY MANAGEMENT AGENCY

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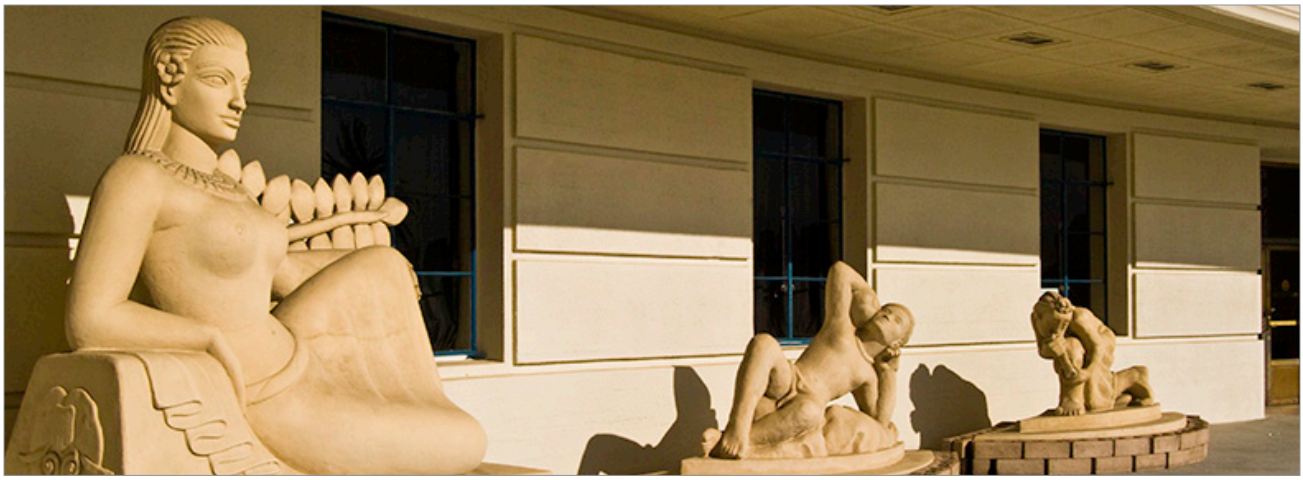


Caption: p. 20

Executive Summary

NEEDS AND PURPOSE

Treasure Island and Yerba Buena Island will become home to at least 20,000 residents by 2035 as part of an approved development that will combine residential, neighborhood-serving retail, office/commercial, and public space land uses. Two main challenges need to be addressed to achieve the transportation access and sustainability vision for this new neighborhood:

- How will traffic impacts on the San Francisco-Oakland Bay Bridge be managed and minimized?
- What are the sources of committed, permanent funding to operate and maintain new transit and other transportation services?

The 2011 Treasure Island Transportation Implementation Plan (TITIP) informs the development of a Treasure Island Mobility Management Program (TIMM Program). TheTIMM Program comprises both incentives for transit, walking, and biking, and disincentives to travel by private vehicles—namely, pricing in the form of a congestion toll, fees for all parking, and parking maximums. This Treasure Island Mobility Management Study (Study) analyzes and recommends policies specifically for the congestion toll component of the TIMM Program.

The TITIP identified two specific performance targets for the TIMM Program:

1) A program that yields a non-auto mode share for on-off Island travel of at least 50% during peak travel periods.

2) A financially sustainable program that covers its long-run operating and capital maintenance costs.

This Study recommends a preliminary set of toll policies for Treasure Island that are most likely to achieve these performance targets. It also describes recommendations that are advisory, but may be acted on at a future date pending further analysis and refinement.

METHODOLOGY AND RESULTS

This Study used transportation demand and financial forecast analyses to iteratively develop, test, and assess five toll policy scenarios. The five scenarios differed in how they defined the following toll policy areas:

- Who pays the toll
- The structure of the toll rate
- The toll hours of operation
- Which direction(s) are tolled
- The toll level
- Whether any drive trips are exempted
- Whether any drive trips are discounted

TOLL SCENARIO EVALUATION

The travel demand and financial analyses led to several key findings.

Transportation Performance

Taken together, the travel demand forecasts indicate that three major policies are required to meet the 50% transit mode share target for the TIMM Program:

- Extending the toll to all drive trips, not just those made by residents.
- Extending the toll hours of operation to the shoulders of the peak and midday.
- Extending the toll to 2- and 3+-person HOVs.

Two of the five scenarios tested achieve the 50% peak-period non-auto mode share target for on-off trips.

Financial Performance

To meet the operations and maintenance cost recovery target for the program, three major policies are required:

- Raising revenue from all drivers, including non-residents and 2- and 3+-person HOVs.
- Raising revenue from the shoulders of the weekday peak, the midday, and weekend peaks.
- Indexing the toll level to a formula that combines inflation with changes in transit operating cost.

Two of the five scenarios cover program costs.

Considering all performance metrics together, Scenario 4 provides the best performance and advancement of the goals of the TIMM Program.

RESPONDING TO STAKEHOLDER FEEDBACK

Several outreach events have revealed the feedback themes that have most prominence for stakeholders.

In response to concerns about current and future low-income households, our Study tested two types of affordability programs.

- A multimodal Transportation Affordability Program (incorporated into Scenario 4)
  - » All residents in below-market-rate housing are eligible.
  - » Discounts on ferry and AC Transit fares or passes, to complement Muni's existing discounted pass for low-income riders.
  - » One round-trip toll credit earned with every eight round trips taken on transit.
  - » Subsidized carshare and bikeshare memberships.
  - » Subsidized fares or memberships for rideshare and/or delivery services.
- A toll discount (incorporated into Scenario 5)
  - » Households at 200% or below the federal poverty line are eligible.
  - » One FasTrak transponder per household would qualify for a 50% discount on each toll-eligible trip.

Another theme heard during outreach concerned current longtime residents who moved to the Island prior to 2011 who will not have "opted in" to the program on account of the lifestyle and travel needs they had when they made the decision to locate on the Island. This Study recommends that for a limited transition period, the TIMM Program subsidize the cost of one daily round-trip toll payment for each qualifying longtime household.

Stakeholder feedback also called for agencies to identify additional, supplemental sources of short- or long-term operating funds in order to reduce reliance on toll revenues. This Study discusses a strategy for pursuing a variety of committed funding sources.

POLICY ACTION AND ADVISORY RECOMMENDATIONS

This Study recommends toll policy refinements that will meet the transportation and financial objectives of the TIMM Program. These recommendations fall into two categories:

- Policy Actions are policy areas that need direction now from the TIMMA Board in order to proceed with systems engineering and subsequent project design and approvals.
- Policy Advisories are policy areas that either do not need adoption now in order to proceed with the next steps in project development, and/or need further analysis.

CONCLUSION AND NEXT STEPS

Analysis has revealed that for the TIMM Program to meet its long-run goals, toll policies must include a bi-directional, broad-based, low-level toll in place during core transit service hours, without exemptions for carpools. The Program can and should encompass a Multimodal Transportation Affordability Plan as well as a limited-term roundtrip toll subsidy for longtime residents. Approval of this Study's recommended Policy Actions will guide the next steps in project development, including in the areas of planning, outreach, engineering, and funding.

I. Introduction

Two main challenges need to be addressed to achieve the transportation access and sustainability vision for this new neighborhood:

- How will traffic impacts on the San Francisco-Oakland Bay Bridge be managed and minimized?
- What are the sources of committed, permanent funding to operate and maintain new transit and other transportation services?

Treasure Island and Yerba Buena Island are planned to become home to at least 20,000 residents by 2035 as part of an approved development proposal of the Treasure Island Development Authority (TIDA). Treasure Island's growth is grounded in the principle of sustainable development, as called for in the overarching development vision, Design for Development, adopted in 2011. As a San Francisco Priority Development Area (PDA), Treasure Island's new housing will help San Francisco and the Bay Area meet our goals for accommodating residents in the region's urban core..[1] Supported by neighborhood-serving retail and commercial land uses, residents of and visitors to this renewed San Francisco neighborhood will also enjoy significant community, civic, and open spaces.

Treasure Island's position between San Francisco and Oakland, accessible only by the heavily trafficked San Francisco-Oakland Bay Bridge (SFOBB), means that substantial investments in access must accompany Island development. Treasure Island transportation plans adopted since 2006 call for a new transportation system that provides Treasure Island's residents, visitors, and employees with access to high-quality transportation options, and a neighborhood where walking, bicycling, and transit are prioritized and encouraged. This focus on sustainability in transportation is intended to minimize greenhouse gas and other emissions from transportation. It will also increase safety and choice for travelers to, from, and on the Island.

Transportation plans for the Island adopted since 2006 call for ***incentive***s for transit, walking, and biking, and ***disincentives*** to travel by private vehicles. The adopted transportation plans include new ferry, East Bay, and San Francisco bus services, plus an on-Island shuttle and bicycle sharing. Incentives include a mandatory pre-paid Treasure Island transit pass and other amenities and services described in the recommendations of this report. The disincentives are the use of pricing to discourage driving, including a congestion toll, fees for all parking, and parking maximums. The congestion toll serves as a primary mechanism to address the environmental and transportation network impacts of the Treasure Island development, including Island-generated traffic on the Bay Bridge. The driving disincentives also serve as the committed, permanent funding source for much of the new transit, on-Island shuttles, and on-Island bicycle and pedestrian programs.[2] Taken together, this comprehensive, multimodal set of incentives, disincentives, and funding is the Treasure Island Mobility Management Program (TIMM Program).

This Treasure Island Mobility Management Study (Study) analyzes and recommends policies for the congestion toll component of the TIMM Program. The policies must balance revenue generation for transit service with travel demand management to meet specific transportation performance measures identified in the development approval documents and legislation. The toll policies must:

1 For more information about Priority Development Areas, see http://gis.abag.ca.gov/website/PDAShowcase/

2 SFMTA's Muni bus service expansions will be funded through a dedicated portion of the San Francisco General Fund revenues generated by Island development.

1. Encourage travel by transit, vanpool, and bicycling/walking instead of private vehicles so that 50 percent of travel during peak periods is by non-auto modes;
2. Provide multiple high-quality transit choices; and
3. Raise enough revenue, along with the revenue from parking, on-Island revenues dedicated to SFMTA, and transit farebox and pass purchases, to provide long-term financial sustainability.

Driven by technical analyses and guided by stakeholder and community input, the Study recommends a preliminary set of toll policies for Treasure Island that are most likely to achieve these multiple goals.

II. TIMM Program Background, Goals, and Strategies

IThe 2006 Treasure Island Transportation Plan first established the vision and guiding principles for a transportation system on Treasure Island/Yerba Buena Island that would include a pricing program to support sustainability and minimize additional traffic on the Bay Bridge. State legislation, including California State Assembly Bills 981 (2008) and 141 (2014), authorized tolling of private vehicles on and off Treasure Island and called for a Treasure Island Mobility Management Agency (TIMMA) to oversee implementation and operation of a congestion pricing and transportation program on Treasure Island. The Board of Supervisors designated the San Francisco County Transportation Authority (SFCTA) as the TIMMA in 2014 [Figure 1].

With the certification of the development project's environmental impact report and adoption of a disposition and development agreement in 2011, the Treasure Island Development Authority (TIDA) and the San Francisco Board of Supervisors each adopted the Treasure Island Transportation Implementation Plan (TITIP). Superseding the 2006 Transportation Plan, the TITIP re-established the vision, goals, and strategies [Figure 2] for Treasure Island's new transportation system:

- Design the Island to support safe and convenient walking and bicycling.
- Provide high-quality transit service to, from, and on the Island.
- Discourage automobile trips through congestion tolling and parking policies and pricing.
- Develop and actively maintain a long-term, financially sustainable transportation system.

FIGURE 2. Treasure Island Transportation System Goals and Strategies, from 2011 TITIP

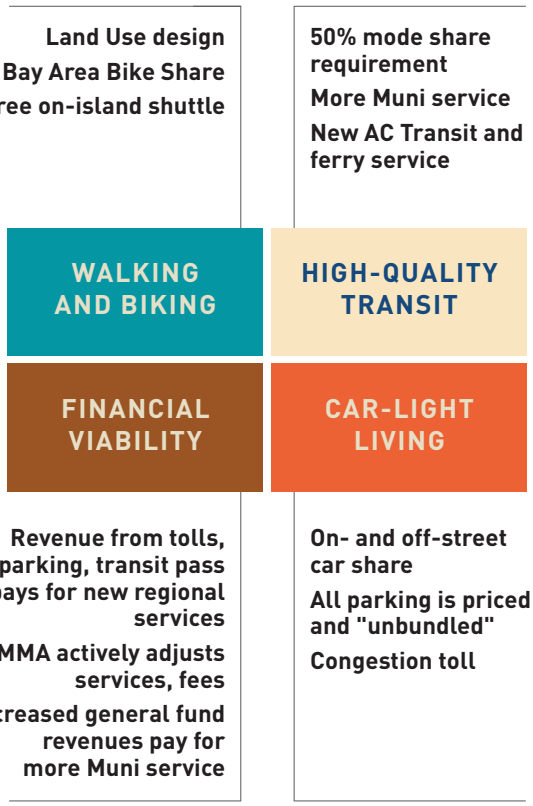


FIGURE 1. Timeline of Treasure Island Transportation Planning

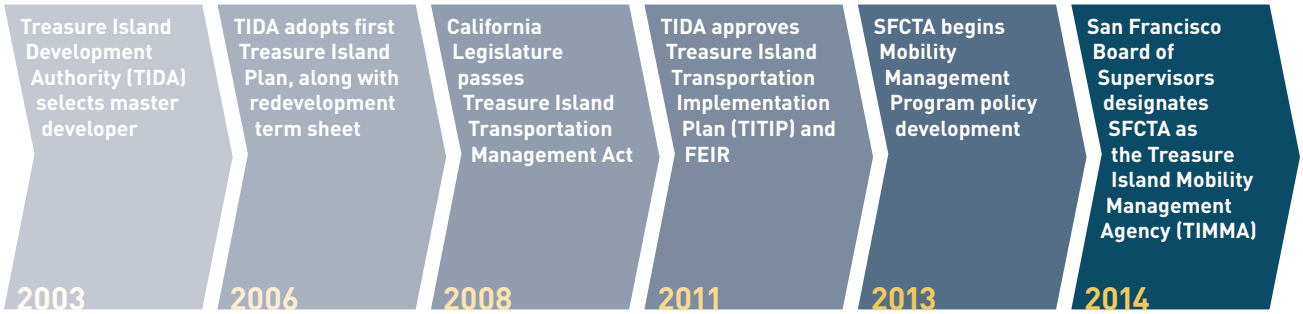
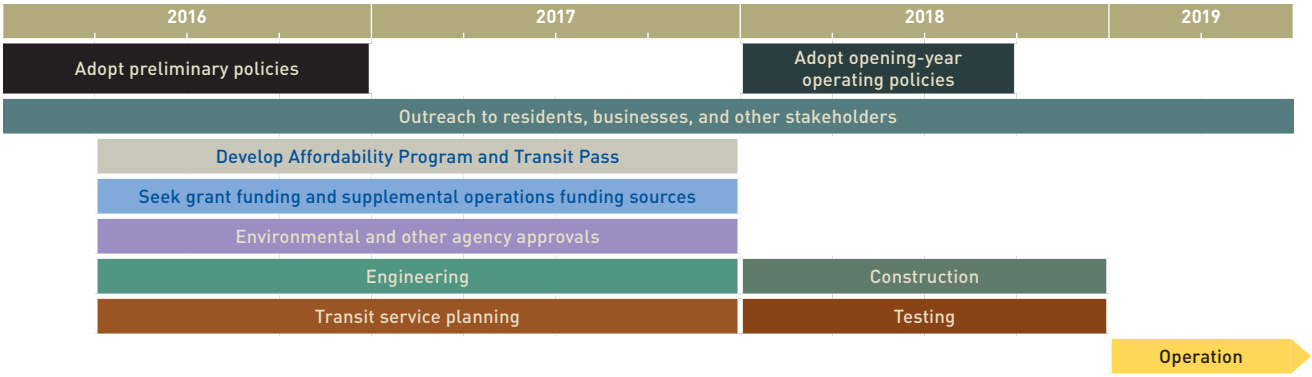


FIGURE 3. Milestones to Implement the TIMM Program



The policies recommended in this Study report are the latest—but not the last—refinement of the transportation policies and principles that have guided the development of Treasure Island since inception. As called for in the TITIP, the congestion pricing program is intended to be flexible and to evolve as travel conditions and behaviors change; as such, the TIMMA Board will actively manage the program in real time. The TIMMA Board will adopt "opening year" operating toll policies and business rules about one year in advance of the start of new services, currently planned for mid-2019 [Figure 3]. The TIMMA Board will also establish a monitoring and evaluation program and will modify policies in response to changing travel and financial conditions. For these reasons, this Study proposes policy recommendations for action, as well as recommendations that are advisory, but may be acted on at a future date pending further analysis and refinement.

III. Outreach

Through a Technical Advisory Committee, this Study received extensive technical consultation from many local and regional agency stakeholders, including the San Francisco Municipal Transportation Agency (SFMTA), Alameda-Contra Costa Transit District (AC Transit), Water Emergency Transportation Authority (WETA), Metropolitan Transportation Commission/ Bay Area Toll Authority (MTC/BATA), California Department of Transportation (Caltrans), TIDA, Treasure Island Community Development (TICD), and the Treasure Island Citizen's Advisory Board (CAB).

In partnership with TIDA, agency staff also conducted a multilingual, multi-phase community outreach effort to engage with current Treasure Island residents, businesses, and other community stakeholders [Figure 4]. This effort was guided and assisted by community service providers and on-Island organizations including the Treasure Island Homeless Development Initiative and its member organizations. Staff also sought input and review by local and regional advocacy groups. These groups represent a range of interests, including economic and social justice for low-income communities and communities of color, environmental quality, transit riders, and bicycle and pedestrian safety.

Some of the main themes and concerns we heard while conducting outreach activities were:

- Addressing the needs of longtime Island residents who have developed travel patterns based on the status quo and will need help with the transition period during which new and expanded transit service is being phased in.
- Mitigating the reliance on toll revenues by seeking other sources of funding, such as grants.
- Concerns about low-income residents and the cost of living generally with future redevelopment.

FIGURE 4. Outreach at the Ship Shape Community Center

- Concerns about a toll's impact on the Island's low-wage workers.
- Business community concerns about parking allocations, enforcement activities during the transition period, impacts to patronage from non-residents, and the overall cost of doing business.

We have incorporated much of this feedback into the policy recommendations presented in this Study; for example, see the Transportation Affordability and Program Funding Strategy sections. Other areas of concern will be addressed in future phases of planning. For more information about the outreach effort to date, refer to Appendix A.

IV. Toll Policy Evaluation Framework

The TITIP identified two specific performance targets for the TIMM Program: (1) a transportation system that yields a non-auto mode share for on-off Island travel of at least 50 percent during peak travel periods and (2) a financially sustainable program that covers its long-run operating and capital maintenance costs. This Study refines the congestion toll policy assumptions of the TITIP to enable TIMMA to meet these long-term performance targets, as well as to optimize measures of performance towards the other goal areas described in the Background, Goals, and Strategies section. This performance evaluation framework is described in Table 1.

TABLE 1. TIMM Program Performance Evaluation Framework

MOBILITY PROGRAM GOAL	PERFORMANCE MEASURE	PERFORMANCE TARGET
Support safe and convenient walking and bicycling	Share of homes within 15-minute walk of transit hub	90%
	Walk and bike mode share for on-Island trips	At least 50%; greater = better
Provide high quality transit service	Transit mode share for on-off Island trips, peak periods	At least 50%; greater = better
	Transit crowding (by service/operator)	Meet transit operator crowding standards on each route
Discourage automobile trips and dependency	Island-generated vehicle miles traveled (VMT)	Lower = better
Financially sustainable transportation system	Program cost recovery ratio	Operating, maintenance, and replacement costs covered
Support housing and transportation affordability for low and middle income households	Average share of income spent on housing and transportation for low and middle income households	At or below San Francisco average

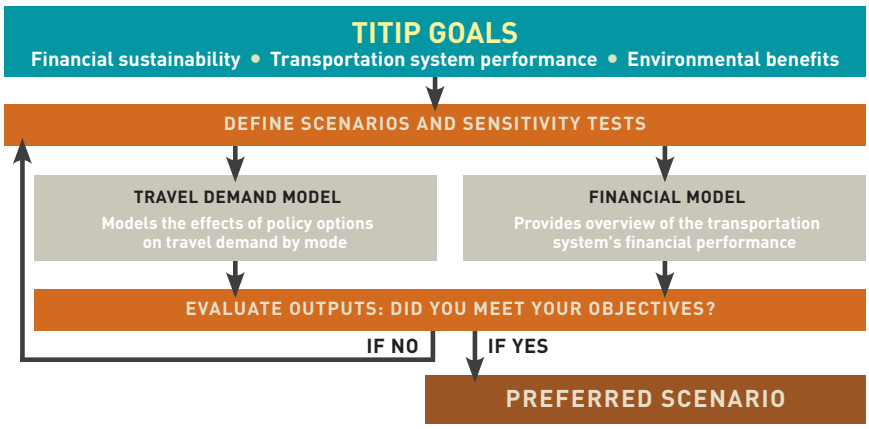
V. Toll Policy Scenarios and Analysis Method

This section describes the technical tools and approach used to evaluate TIMM Program toll policies, described in Figure 5. It also describes the alternative TIMM Program toll policy Scenarios evaluated.

To conduct this analysis, this Study used transportation demand and financial forecast analyses to iteratively develop, test, and assess a range of toll policies, identified in Table 2 (next page). These policy areas included the toll structure and level, which categories of travelers will pay the toll, and what times of the day the toll will operate.

The transportation system performance of alternative toll policies is based on the results of five travel demand forecasts, using the Transportation Authority's SF-CHAMP activity-based travel demand forecasting model. Each demand forecast represents a distinct toll policy Scenario; these Scenarios are described in Table 3 (page 6). Each Scenario in this analysis assumed that

FIGURE 5. Toll Policy Analysis Process



all homes and other new land uses are complete on the Island—the "buildout" Scenario—by 2030. Scenario 1, the Baseline, represents the toll policy assumptions outlined in the 2011 TITIP. Scenarios 2-5 test toll policy alternatives, seeking to meet or exceed the TIMM Program transportation system performance goals, including mode share.

The financial performance results are based on the results of dozens of financial model forecasts using a customized Excel-based financial model developed for this Study. Each demand Scenario 1-5 underwent multiple iterations of financial modeling to test the significance of various financial assumptions and financial policies, seeking to meet the TIMM Program financial performance requirement of cost recovery.

These scenarios are described in Table 3 (page 6).

TABLE 2. Toll Policy Options

POLICY AREA	POLICY OPTIONS
Who pays the toll?	Treasure Island/Yerba Buena Island residents only
	Residents and non-residents
What is the toll rate structure?	Time of day schedule, single rate
	Time of day schedule, varying rates
	Dynamically adjusted rates
What are the toll hours of operation?	Peak periods only, weekdays
	Peak and off-peak periods, weekdays
	Weekend peaks in addition to weekdays
Which direction(s) are tolled?	On and off the Island
	Either on or off, but not both
How is the toll level determined?	Re-set periodically by the TIMMA Board
	Must generate sufficient revenue to cover cost of desired transit service (in combination with other revenues, including parking fees and mandatory transit pass purchases)
	Must sufficiently discourage driving to achieve mode share goals
	Indexed to inflation
	Indexed to program operations cost (may differ from inflation)
	Must account for SFOBB toll and BATA tolling authority
Are any driving trips exempt from the toll?	Vehicles with two or more occupants (HOV2+)
	Vehicles with three or more occupants (HOV3+)
	Registered transit, vanpools and shuttles
	Low- and zero-emission vehicles with DMV-issued decals
	Federal government vehicles
	Motorcycles
Are any trips given a discount on the Toll?	Low-income households
	Current longtime* households
Does the toll program have any additional features for equity purposes?	Transportation Affordability Program
	Subsidized once-daily roundtrip toll for longtime households

* Residents who have lived on Treasure Island or Yerba Buena Island since prior to adoption of the 2011 Development Agreement.

VI. Scenario Performance and Evaluation

This section describes the results of the travel demand and financial analyses, and identifies the combination of toll policies that together will achieve the TIMM Program financial and transportation performance requirements.

Baseline (Scenario 1)

The first Scenario tested, the Baseline, used the toll policy assumptions underlying the 2011 TITIP, and updated the travel demand forecast and unit cost assumptions. This section summarizes the most significant changes to the demand and financial profile of the Baseline.

TRAVEL PATTERN QUICK FACTS

Many of the basic travel patterns forecast in the Baseline 2030 Scenario stay the same in Scenarios with other toll policies. Travel patterns shift by ~+/-3% from Scenario to Scenario. The greatest change in a travel pattern between Scenarios is the share of AM/PM peak period transit mode share for on-off Island trips, which increases from 42% in the Baseline, to 52% in Scenarios 4 and 5. Some basic travel patterns that stay similar under all toll policy Scenarios:

- ~70,000 person trips/day on/off/within Island, in 2030
- ~80% of all person trips are on-off Island
- ~75% of all person trips are made by Island residents
- ~45% of all person trips are made during the AM and PM peak periods
- ~65% of on-off Island person trips are made to/from San Francisco
- ~25% of on-off Island person trips are made to/from the East Bay.

For more information, see Appendix B.

COST ESTIMATE UPDATES

- Ongoing maintenance, rehabilitation, and replacement costs are now included in the financial projections.
- Ferry operating cost: the financial model uses WETA's most recent unit operating cost.
- Ferry vessel procurement approach: the TITIP's financial projections assume that TIMMA will lease ferry vessels from a third party operator. While a ferry lease may be viable in the early years of the program, TIMMA/WETA should purchase vessels for long-term operations.[3] Vessel purchase and maintenance costs are now included in the financial projections.
- Transit operating reserve: the TITIP financial projections did not include an operating reserve. The Baseline financial projections now account

3 For more information, see Appendix C.

TABLE 3. Congestion Toll Policy Scenarios

TOLL POLICY AREAS	BASELINE	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5
Who pays the toll?	Residents only	Residents and Non-Residents	Residents and Non-Residents	Residents and Non-Residents	Residents and Non-Residents
What is the toll rate structure?	Time-of-day schedule, single rate, peak periods only	Time-of-day schedule, including higher toll rate during peak periods	Time-of-day schedule, including higher toll rate during peak periods	Time-of-day schedule, including higher toll rate during peak periods	Time-of-day schedule, including higher toll rate during peak periods
What are the toll hours of operation?	3-hour AM and PM peaks, e.g,: 6:00 AM to 9:00 AM 3:30 PM to 6:30 PM	Weekdays: AM and PM peaks, plus midday; e.g.: 6:00 AM to 6:30 PM Weekends: TBD	Weekdays: AM and PM peaks, plus midday; e.g.: 6:00 AM to 6:30 PM Weekends: TBD	Transit core span of service, e.g., 6:00 AM to 10:00 PM Weekends: TBD	Transit core span of service, e.g., 6:00 AM to 10:00 PM Weekends: TBD
Which direction(s) are tolled?	On and off Bridge	Same as Baseline	Same as Baseline	Same as Baseline	Same as Baseline
What is the toll level (each direction)?	5 ($2013) per trip Re-set periodically by the TIMMA Board Indexed to inflation	$5 per trip Re-set periodically by the TIMMA Board Indexed to inflation	AM and PM peak periods: $8 ($2013) per trip Midday period: $4 per trip Re-set periodically by the TIMMA Board Indexed to inflation	AM and PM peak periods: $5 ($2018) per trip Midday and evening period: $3 (2018$) per trip Re-set periodically by the TIMMA Board Indexed to a function of inflation and program operations cost	AM and PM peak periods: $5 ($2018) per trip Midday and evening period: $3 per trip Re-set periodically by the TIMMA Board Indexed to a function of inflation and program operations cost
Are any driving trips exempt from the Toll?	Transit Vanpools Shuttles 3+ Person Carpools	Transit Vanpools Shuttles 3+ Person Carpools	Transit Vanpools Shuttles 3+ Person Carpools	Transit Vanpools Shuttles	Transit Vanpools Shuttles
Are any trips given a discount on the Toll?	No	No	No	Credit for toll paid at Bay Bridge toll plaza For a limited term, one daily roundtrip toll free for current longtime households of all incomes	Credit for toll paid at Bay Bridge toll plaza 50% toll discount for very-low-income households
Transportation Performance goals met?	✖	✖	✖	✔	✔
Financial performance goals met?	✖	✖	✖	✔	✔

✔ means yes; ✖ means no.

for a standard two-month operating reserve as a program cost.

- SFMTA-led parking program: parking unit costs are updated with inputs as of 2013.

REVENUE ESTIMATE UPDATES

- Travel demand: we forecast fewer daily trips generated by the redeveloped Island than did the TITIP. The 2011 FEIR Transportation Analysis used a different travel demand model and more conservative assumptions about average trip generation and mode split. As a result, the FEIR and TITIP both projected about 20% more overall peak-period trips than our SF-CHAMP baseline forecast; and within that, a higher share of drive trips than SF-CHAMP (74% drive trips in the FEIR, compared to 58% drive trips in the SF-CHAMP baseline). Fewer overall projected driving trips result in lower toll, parking, and transit pass revenues. We also project a different transit ridership split between ferry and bus modes.
- Transit pass purchase revenue: TITIP anticipated that all revenue from mandatory transit pass purchases would be available to fund annual transit operating costs. We assume that some pass holders will keep a balance on their passes, and that some pass holders will choose to purchase a Muni pass, meaning that not all transit pass revenue will be liquid and available to support AC Transit or ferry operating costs.
- Funding for transit maintenance and replacement: based on transit operator feedback, we anticipate some federal formula funding for maintenance and replacement of ferries and bus vehicles.

These updates result in a Baseline (Scenario 1) profile that differs from that projected in the 2011 TITIP.

Scenarios 1–5 Comparative Analysis

The following section summarizes the key findings of our comparative transportation and financial performance analysis of Scenarios 1-5.

KEY FINDINGS: TRANSPORTATION PERFORMANCE

Once all homes and other land uses are constructed on the Island—2030 at the time of this Study—Treasure Island travelers are expected to make about 72,000 person-trips per day; this includes on-Island as well as off-Island trips, of all modes. Changes in toll policy from one Scenario to the next do not have significant effects on overall travel demand; as the toll is extended to more drivers and to more times of the day, overall trip-making decreases by up to 3% and a greater share of trips are made on-Island. Non-residents' trip-making is more sensitive to changes in the toll policy than that of residents. These findings are shown in Figure 6; for more information on the travel demand effects of each Scenario, see Appendix B.

Figure 7 (next page) reports the mode share performance of each scenario. The Baseline Scenario, Scenario 1, does not meet the 50% non-auto mode share performance target for peak-period, on-off Island trips. Subsequent toll policy scenarios sought to meet that target by extending the toll to additional drivers or times of day. This Study did not add transit services beyond those called for in the TITIP as another way

FIGURE 6. Treasure Island/Yerba Buena Island Person trips, Daily, 2030

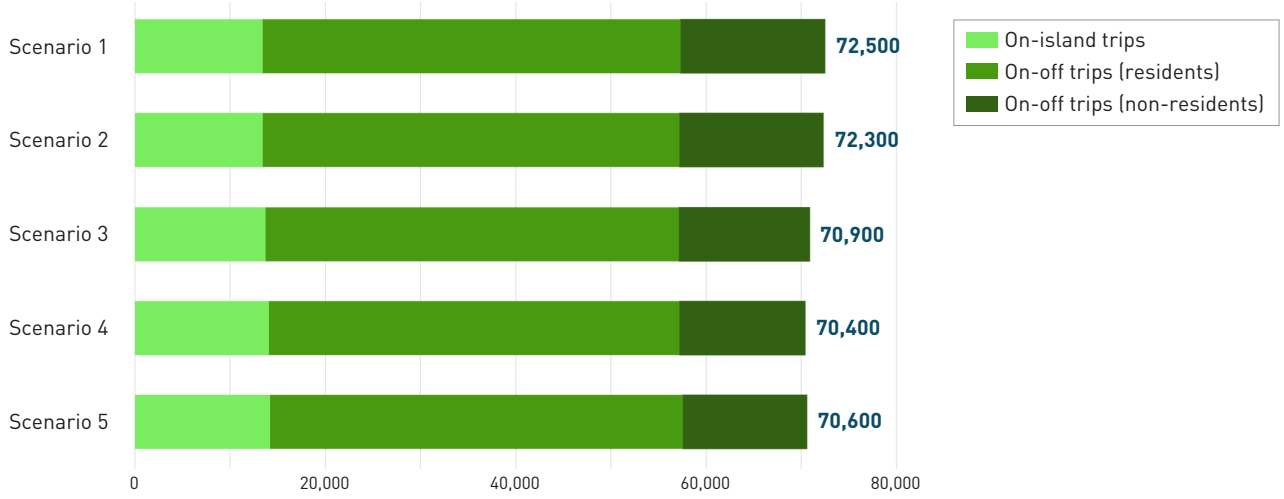
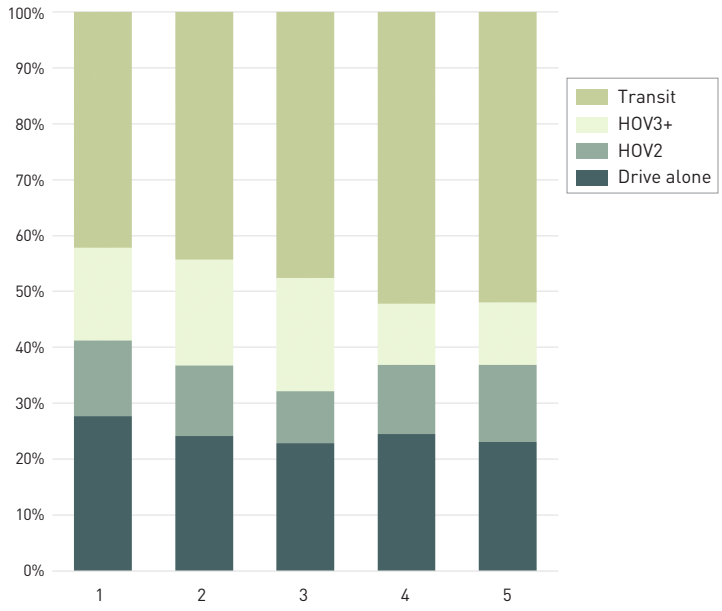


FIGURE 7. Treasure Island/Yerba Buena Island On-off Island Trips, PM Peak, 2030, by Mode



of incentivizing a 50% transit mode share. Any additional services would further increase program operating costs and, as will be shown in the next section, the first Scenarios tested already do not cover transit operating costs.

Scenario 1, the Baseline Scenario, did not apply a toll to non-resident drivers or to periods of high travel demand outside of three-hour AM and PM peak windows. Scenario 2 extended the toll to non-resident drivers as well as to typically congested midday and weekend periods.

Scenarios 4 and 5 represent the only combinations of toll policies that do achieve the 50% peak-period non-auto mode share target for on-off trips. This is accomplished by discontinuing a toll exemption for 2- and 3+-person HOVs. Demand forecasts indicate higher-than-average rates of two- and three-person carpools to and from the Island, shown in Figure 7.

Taken together, the travel demand forecasts indicate that three major policies are required to meet the 50% transit mode share target for the TIMM Program:

- Managing the travel choices of non-residents by extending the toll to all drive trips, not just resident drive trips.
- Extending the toll to the shoulders of the peak and midday.
- Extending the toll to 2- and 3+-person HOVs.

Scenario 5 tested the travel demand effects of a toll discount for very low-income households (discussed more in Section VII). The number of households that would likely be eligible for this discount—between 1,000-1,500—is not enough to result in a large increase in overall daily drive mode share.

KEY FINDINGS: FINANCIAL PERFORMANCE

This section describes the financial performance of the TIMM Program scenarios. TIMM Program costs change little between scenarios; the average program cost across all Scenarios is $59 million / year in $2030. The projected cost of the recommended Scenario is about $55 million/year in $2030, including annualized maintenance and renewal costs. Transit operating costs comprise about half the total TIMM Program costs. Figure 8 shows a comparison of the costs-versus-revenues financial performance across all five scenarios.

FIGURE 8. TIMM Program Toll Policy Scenarios Financial Forecasts ($2030, in Millions of Dollars)

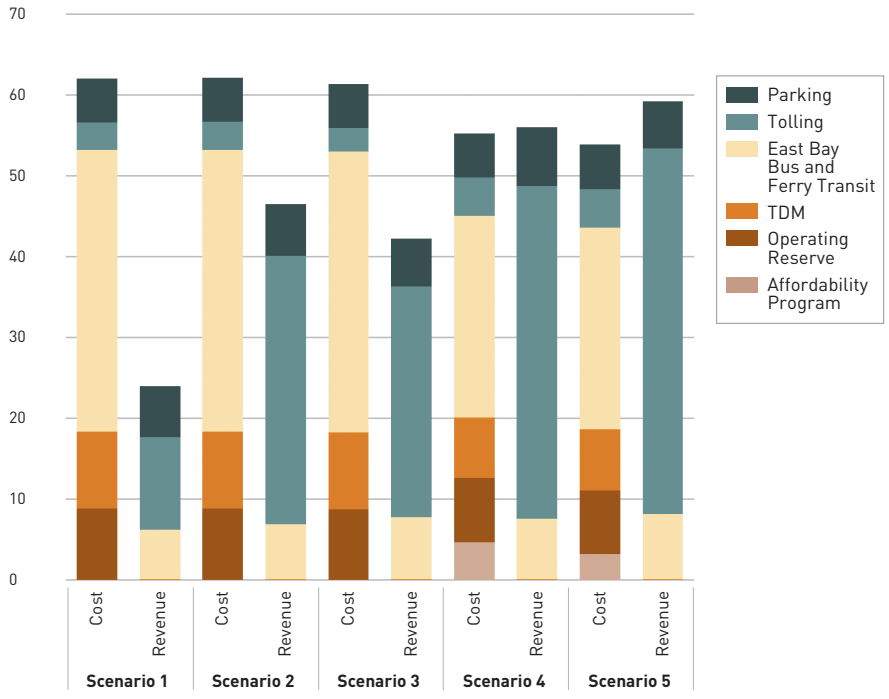


FIGURE 9. TIMM Program Baseline Scenario 1 Costs and Revenues ($2030 Financial Profile, in Millions of Dollars)

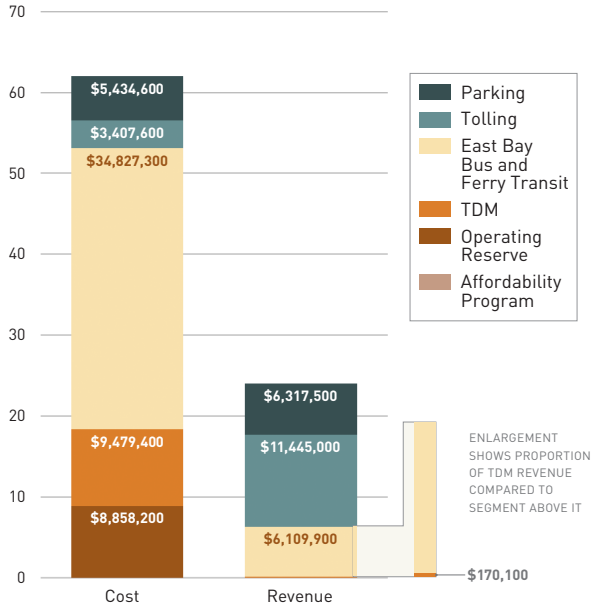
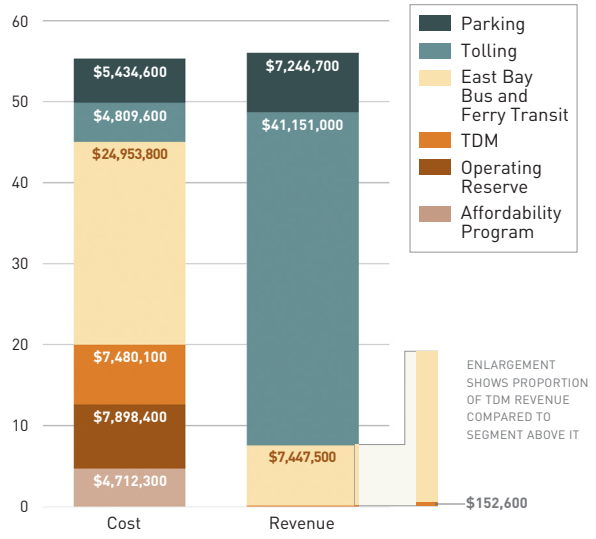


FIGURE 10. TIMM Program Scenario 4 Costs and Revenues (Recommended Toll Policies—$2030, in Millions of Dollars)



Scenario 1, the Baseline Scenario, is forecast to fall short of financial performance targets; projected revenue is less than half of projected costs at buildout. Figure 9 summarizes Baseline Scenario costs and revenues. For more detail on the line items included in each cost category, please see Appendix C.

- Not included in Figures 8-10 are projected General Fund revenues generated by Treasure Island and Yerba Buena Island that are dedicated to the SFMTA to support Muni service and street network maintenance and operations. A Fiscal Analysis of the Treasure Island Redevelopment Project, prepared for TIDA in 2011, found that:
- "Over the life of the project, there will be adequate net new revenues to fund Muni operations as shown in the EIR. Providing enhanced levels of service plus… transportation mitigation measures… may require a small increase in the percentage General Fund allocation as permitted by the City charter. The analysis indicates that the net revenues generated by the Project could fully fund this increase without adversely affecting services to the balance of the City, and without negatively affecting the funding of all General Fund services to TI and YBI."
- From these funds, the SFMTA is projected to receive $2,307,800 for Muni maintenance and operations at buildout, which is short of projected net Muni costs ($3,516,000).[4] However,

4 In constant 2010$. Based on net project revenues of $25,222,054 at buildout.

TRANSIT FARE POLICY

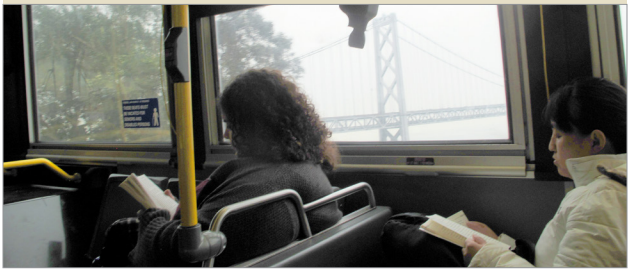
The planned WETA ferry service between Treasure Island and downtown San Francisco, and AC Transit bus service to downtown Oakland, do not exist today. TIMMA will work with each operator in the next phase of study to determine the fare level for each service.

Both the Muni route 25 service and the WETA ferry service will share an origin at the Island's Intermodal Hub and a destination in downtown San Francisco. To balance ridership and avoid crowding on these services, the fare for both services should be equal for pass holders/ frequent riders.

We anticipate that the fare for AC Transit service will be a hybrid of AC Transit local and Transbay fares, since the service will have characteristics of both.

To maintain fare box cost recovery targets for all services, one-time or cash fares should be set higher than pass holder fares.

This fare policy will support strong ferry ridership, reduce crowding on Muni, and achieve a reasonable fare box recovery.



other funding sources for the SFMTA will include advertising revenue, local and state sales tax revenues, and other revenues as described in the Fiscal Analysis. The City Controller is also directed to adjust General Fund appropriations to the SFMTA for any service increases not provided for in a given base year. The Fiscal Analysis finds that the allowed General Funds transfers will cover net new costs of Muni enhanced services.[5]

The Baseline Scenario also indicates some findings about TIMM Program revenues:

- Tolls are the revenue driver for the Program.
- Non-residential parking revenues are projected to cover costs, but will not contribute significant net revenue to subsidize the transit benefits.

Subsequent financial model Scenarios sought to cover operating costs (for more information on these Scenarios, see the Treasure Island Financial Modeling & Analysis Documentation Memorandum in Appendix C). Scenarios 4 and 5 are the only ones that use a combination of toll policies that meet the transportation system performance targets; similarly, they are the only Scenarios that cover program costs. The cost and revenue profile for Scenario 4 specifically is shown in Figure 10 (previous page).

To meet the operations and maintenance cost recovery target for the program, three major policies are required:

- Raising revenue from all drivers, including non-residents and 2- and 3+-person HOVs. This is particularly true starting with Scenario 3, to offset the cost of crediting westbound, east span drivers for toll payments made at the SFOBB toll plaza.
- Raising revenue from the shoulders of the weekday peak, the midday, and weekend peaks.
- Indexing the toll level to a formula that combines inflation with the changes in transit operating cost. This formula is very similar to the one that indexes Muni transit fares to cost of living and the cost of providing Muni transit service.

Scenario 4 also incorporates program cost savings. These include a WETA and AC Transit service plan savings by identifying interlining opportunities, more efficiently deploying ferry crews, and by more closely tailoring transit service plans to forecast demand.

Scenarios 4 and 5 tested the financial feasibility of transportation affordability programs for low-income residents. Scenario 5 estimated the financial effects of a toll discount for the lowest-income Treasure Island residents, described more in Section VII. As described in Appendix C, the total cash value of this discount for these residents, compared to no discount, is about $3 million annually. Financial analysis indicates that, for the same subsidy as a toll discount, a multimodal Transportation Affordability Program (TAP) can be provided to all households in below-market-rate (BMR) housing (See Section VII for more information about the TAP). Scenario 4 provides a multimodal TAP to all BMR households; Scenario 5 provides either a 50% toll discount for the lowest-income households or a multimodal TAP benefit of equivalent value.

For more information on the demand and financial analyses supporting the toll policy analysis, see Appendices B and C.

Performance Summary Table

Table 4 (next page) summarizes the performance of each toll policy Scenario on each evaluation metric.

Only Scenarios 4 and 5 meet the 50% peak-period on-off Island transit mode share performance target. As the toll is extended to more driving trips, transit mode share increases and vehicle miles traveled (VMT) decrease—by as much as 13% from Scenario 1 (Baseline) to Scenario 4.

Financial cost-recovery is only achieved in Scenarios 4 and 5, as discussed above. Considering all performance metrics together, Scenario 4 provides the best performance and advances the goals of the TIMM Program the most.

VII. Transportation Affordability

During outreach, a frequent theme of stakeholder feedback concerned the affordability of transportation on Treasure Island for low-income residents, both current and future. In response, we recommend two strategies: a multimodal Transportation Affordability Program (TAP) for current and future residents of below-market-rate (BMR) housing, and a limited-term toll subsidy for current, longtime residents of the Is-

5 Fiscal Analysis of the Treasure Island Redevelopment Project, TIDA, April 2011, Table A-13a.

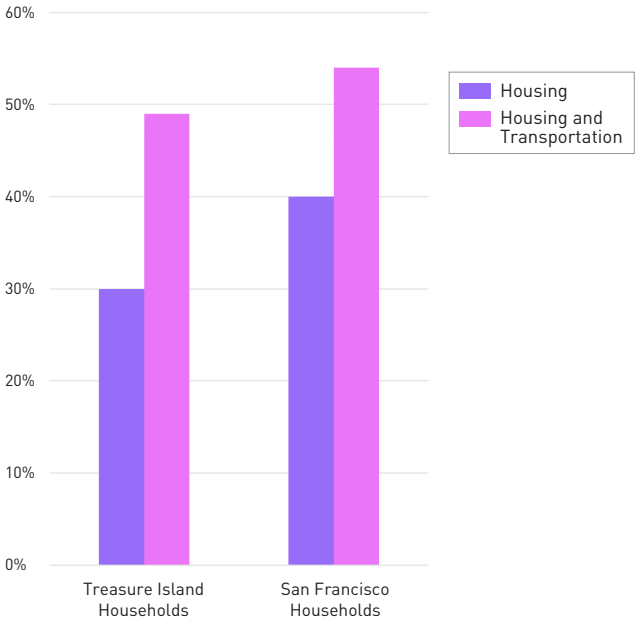
TABLE 4. Toll Policy Scenario Performance Summary

MOBILITY PROGRAM GOAL	PERFORMANCE MEASURE	PERFORMANCE TARGET	SCENARIO				
			1	2	3	4	5
Walking and bicycling	Share of homes within 15-minute walk of transit hub	90%	90%	90%	90%	90%	90%
	Walk and bike mode share for on-Island trips	Greater = better	80%	80%	78%	77%	77%
High-quality transit	Non-auto mode share on-off Island, peak periods	50% non-auto mode share for on-off Island trips during peak periods	42	44	47	52	50
Discourage automobile trips	Island-generated vehicle miles traveled (VMT), daily	Lower = better	324k	293K (-10%)	289K (-11%)	283K (-13%)	291K (-10%)
Financially sustainable	Program cost recovery ratio	Operating, maintenance, and replacement costs covered	No	No	No	Yes	Yes

land to aid their transition into the new neighborhood. We also recognize the need to consider transportation affordability supports for low-wage workers.

Treasure Island residents today spend about 50% of their income on housing and transportation costs combined. Although Island residents spend a lower share of their income on housing than the average San Francisco resident, they spend a higher share on transportation, as shown in Figure 11. This is likely a consequence of higher auto ownership and usage rates on Treasure Island.

FIGURE 11. TI Resident Transportation Spending (Average Share of Income Spent on Housing and Transportation)



According to the U.S. Department of Housing and Urban Development's Local Affordability Portal,[6] Treasure Island residents drive a significantly greater number of miles annually and take significantly fewer

6 Location Affordability Portal, U.S. Department of Housing and Urban Development, 2016

TRANSPORTATION AFFORDABILITY

Treasure Island residents spend a lower share of their income on housing, but a higher share on transportation, than the average San Francisco household. This is likely due to the higher auto ownership rate of Island households compared to the average San Francisco household.

Research indicates that low-income California households that rely primarily on driving for transportation spend four times the share of their incomes on transportation as those who primarily use transit.

These findings inform our affordability approach, which seeks to enable low-income households to shed more or one cars, and share cars or rides for vehicle mobility. This provides access while spreading the costs of vehicle purchase, insurance, maintenance, registration across many households.

transit trips that other San Franciscans. For example, Treasure Island residents average over 150 transit trips a year, compared with other San Francisco neighborhoods where residents may make close to 800 transit trips on average each year. Treasure Island residents average about 21,600 miles in their cars each year. Compared with residents near transit stops in other San Francisco neighborhoods, where some residents drive as few as 10,700 miles per year on average, the number of miles generated by Treasure Island is significantly higher than in other parts of the city.

Research indicates that low-income California households that rely primarily on driving for transportation spend four times the share of income on transportation as those who primarily use transit[7]. This research also indicates that the greatest sources of car ownership expense are lease or purchase payments, fuel, insurance, and maintenance.

These findings inform our affordability approach, which seeks to enable low-income households to shed one or more cars, and share cars or rides for vehicle mobility. This provides mobility while spreading the costs of vehicle purchase, insurance, maintenance, and registration across many households.

Current and Future Low-Income Households

We tested two affordability programs for current and future low-income residents: a toll discount and a multimodal transportation discount.

Scenario 5, which includes a toll discount, could be offered to very-low-income households, defined as households whose incomes qualify them for a Muni "Lifeline" Fast Pass (200% of the federal poverty line). With this program, one FasTrak transponder per household would qualify for a 50% discount on each toll-eligible trip. At buildout, we forecast that about 2,500-3,000 residents (about 1,000-1,500 households) would be eligible for this program.

The travel demand effects of the toll discount in Scenario 5 suggest that low-income residents will respond to the discount in one of two ways: 1) switching from transit to driving, either alone or in a carpool; or 2) switching from an off-peak period trip to a peak period trip. In these instances, the toll discount works against the program goal to reduce vehicle trips. The change in travel behavior slightly decreases overall average peak-period transit mode share on-off the Island, but not significantly; in our forecasts, peak-period transit mode share remains at about the 50% target.

The increase in driving trips means an increase in toll revenues, off-setting the revenue lost from the discounted toll level.

We also developed in Scenario 4 a multimodal Transportation Affordability Program (TAP) modeled on best practices and programs in place in other cities. The TAP is intended to reduce transportation costs for participants, by providing a range of discounts for travelers of all modes, not just those driving during the peak period, consistent with the overall transit-first goals of the TIMM Program. With this package, we seek to first provide lower-cost ways for low-income residents to access a car when needed. We project that this approach will reduce the share of income spent by low-income households on transportation, primarily by reducing costs associated with auto ownership and operation.

The TAP described below is designed to have the same value or cost to the TIMM Program as the toll discount (about $3 million/year in 2030$). This program will be extended to all residents in BMR housing, benefitting almost double the number of people as a toll discount (25% of the buildout residential population, or 4,500-

MORE TRANSIT SERVICE FOR A COMMUNITY OF CONCERN

The Metropolitan Transportation Commission has identified Treasure Island as a Community of Concern (CoC). CoCs are considered disadvantaged or vulnerable in terms of both current conditions and potential impacts of future growth because of their concentrations of minority and low-income households, people with disabilities, seniors 75 years and over, or cost-burdened renters.

Because overnight, or Owl, bus service on Muni's single route serving Treasure Island did not meet standards for CoCs, the San Francisco Municipal Transportation Agency sought and was awarded Lifeline Transportation Program funds to expand Owl service on the 25-Treasure Island route. Frequency is now every 30 minutes instead of every 45-50 minutes.

7 Transportation Spending by Low Income Households, Public Policy Institute of California, 2004

5,000 people). The TAP would provide each eligible resident with a package of multiple benefits such as:

- **Transit fare discounts.** Although Muni offers a Lifeline transit pass, the WETA and AC Transit currently do not. The TAP Program could further discount the cost of two monthly transit passes for each households in all BMR units.
- **Toll credit for transit trips.** This program would reward regular transit users with toll credits each month, modeled on LA Metro's Transit Rewards program.[8] Qualifying residents would earn one roundtrip toll credit for every eight roundtrips on transit.[9] The TAP can also cover the FasTrak minimum balance for two FasTrak accounts per household.
- **Carshare memberships.** Carshare services are not available today on Treasure Island, but are a development requirement for new buildings and are expected to be available on-street. The TAP could subsidize a carshare membership for BMR households.
- **Bay Area Bike Share membership.** TAP could cover the annual membership fee.
- **Deliveries and Rideshare.** Rideshare and delivery services can offer mobility for seniors and youth, or alternatives to driving to off-Island destinations, but tend to have barriers for many low-income households, such as high costs or required use of a smart phone-stored credit card. TIMMA should explore serving as the fiscal agent or broker for such services on Treasure Island as part of the TAP program, which could also subsidize fares or memberships.

8 For more information, see https://www.metroexpresslanes.net/en/about/low_income_draft_final_report.pdf and http://www.octa.net/onthemove/05-31-13/metro_expresslanes.pdf

9 Specific eligibility guidelines to be determined in future study.

L.A. METRO TRANSIT REWARDS PROGRAM

The Treasure Island Transit for Toll Credit Program is modeled after best practices from across the country, such as LA Metro's Transit Rewards program.

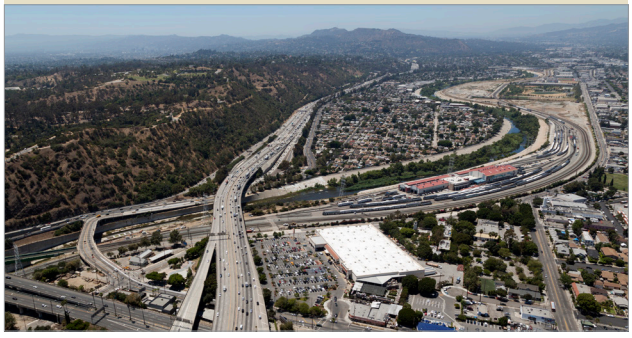
This program is designed to support low-income users of L.A Metro's Express Lanes. As frequent transit riders, Express Lanes customers can earn a $5 toll credit or $5 in transit fares by taking 16 one-way transit trips during peak hours.

For more information, refer to:

https://www.metroexpresslanes.net/en/about/low_income_draft_final_report.pdf

and

http://www.octa.net/onthemove/05-31-13/metro_expresslanes.pdf



While the toll discount would benefit very-low-income residents who primarily drive, the proposed TAP would provide benefits to more people (all residents who qualify for BMR housing units on Treasure Island, including those who drive, take transit, and bicycle). We forecast that the multimodal TAP would reduce average transportation spending among eligible households by 30% relative to a toll discount, primarily by reducing costs associated with auto ownership and operation.

Longtime Households

Another theme heard during outreach concerned current longtime residents who moved to the Island prior to the adoption of the 2011 Disposition and Development Agreement (DDA). Unlike future residents, these longtime residents will not have "opted in" to the program on account of the lifestyle and travel needs they had when they made the decision to locate on the Island.

To address this concern, we recommend that for a limited transition period, the TIMM Program subsidize the cost of one daily round-trip toll payment for each qualifying longtime household. Qualifying households are those households that signed a lease prior to the DDA approval, regardless of income. About 200 households, or about 450 people, would qualify for this program as of today. The benefit would continue until the household relocated into new housing on Treasure Island, or until ferry service begins in 2022, whichever is sooner.

This program would not continue beyond buildout, and so would not require a change in toll policies needed to achieve transit mode share and financial viability goals. This program will require additional subsidy in

the very early years of the TIMM Program, particularly when current longtime residents comprise the majority of Island residents. Any additional subsidy required will be identified in the next phase of planning work.

Low Wage Workers

We also heard concerns about the ability to recruit low-wage workers to jobs on the Island. In the next phase of planning, TIMMA will work with current and prospective Treasure Island commercial tenants to identify supports for current and future low-wage Island workers. Local-hire provisions will also help in reducing Treasure Island commute burdens associated with jobs and housing.

VIII. Toll Policy Recommendations: Actions and Advisories

Based on transportation demand and financial analysis, technical guidance from agency stakeholders, and community input, this report recommends toll policy refinements that will meet the transportation and financial objectives of the TIMM Program. The recommendations fall into two categories: "policy actions" and "policy advisories":

- **Policy Actions** are policy areas that need direction now from the TIMMA Board in order to proceed with systems engineering and additional project approvals. Subsequent project development documents, environmental documentation, tolling system designs, and approvals will be based on these policy decisions.
- **Policy Advisories** are policy areas that either do not need adoption now in order to proceed with the next steps in project development, and/or need further analysis. At the same time, these policy advisories are important assumptions underlying the Policy Action recommendations. These Advisory issues will be further analyzed as part of the next steps in TIMM Program development, and final direction shall be approved by the TIMMA Board as part of the Opening Year Toll Policies about one year prior to launch of the Program.

The TIMM Program toll policy recommendations are consistent with three principles:

- **Broad Base, Lower Level.** The first principle is that the TIMM Program is well suited to a broader toll base. A broader toll base allows for a lower toll level than a program with a narrower base (fewer toll payers, but a higher toll level for each payment). The revenue to fund new Treasure Island transportation services could be raised from a limited, "narrow base"—a toll only, for instance, or a toll limited to only a small set of drivers during a very limited part of the day. To raise enough revenue, any single toll payment from a "narrow base" would need to be a high dollar value, or "high level." A narrow base also means that the toll is less effective in discouraging driving and achieving the 50% transit mode share target. In contrast, the same amount of revenue could be raised from a "broad base," which means multiple revenue sources raised from multiple system users and time periods. A broad-based approach increases the number of system users who are asked to contribute taxes or fees to fund the program, but it also means that any individual user's contribution towards the needed annual revenue is lower. This approach also does more

TIMM PROGRAM POLICY

For the TIMM Program to meet its long-run goals, it will take a broad-based (but relatively low-level) toll that is in place during core transit service hours, that is, when there is a good transit alternative. Broad based means that there will be few discounts or exemptions; we would credit any amount that a driver pays at the Bay Bridge toll plaza towards the TI payment. Unlike the Bay Bridge, however, we would not be able to provide a discount to HOVs of 2 or 3 people. A TIMM Program that operates according to these policies can subsidize a Multimodal Transportation Affordability Program (TAP) for households in the Below Market Rate units, as well as, for a limited transition period, a free daily roundtrip toll for longtime current residents.

to discourage driving, because a larger share of drivers experience the disincentive effect of out-of-pocket driving costs.

- **Consistent Incentives.** A second principle of these policy recommendations is to provide internally consistent behavioral incentives. In designing added features or addressing concerns, we sought to support the TITIP goals of walking and biking on-Island; providing high-quality, frequent transit; enabling carshedding; and discouraging driving for routine trips.
- **Predictable but Adaptable.** New residents and workers need to understand the parameters and features of the TIMM Program in order to make location decisions. At the same time, travel demand, land uses, transit service levels, and other assumptions will change significantly from the start of the Program through full buildout and beyond. The TIMM Program needs the ability to be flexible and responsive to changing conditions. The policy recommendations seek to provide a predictable scenario that allows users to "opt in" to the buildout horizon year, while at the same time maintaining the ability of the TIMMA Board to adapt and adjust the program costs and revenues over time.

Table 5 describes the recommendations for each policy issue, the technical basis for the recommendation, and indicates whether the recommendation is a Policy Action or a Policy Advisory. This combination of policies

TABLE 5. TIMM Program Toll Policy Recommendations: Actions and Advisories

POLICY ISSUE	RECOMMENDATION	BASIS / FINDING	TYPE
Who pays the toll?	Residents and non-residents should pay the toll.	Demand forecasts indicate that visitors and workers will make about 20% of on-off-Island trips, and that a toll will influence the travel decisions of non-residents. This policy is important for meeting the 50% transit mode share requirement. Financial modeling indicates that a resident-only toll will not raise sufficient revenue. A toll applied to residents-only is more costly to enforce and administer.	Policy Action
What are the toll hours of operation?	During weekdays, the toll should be in operation during transit's core span of service. Weekend hours of operation will be determined through a subsequent study based on refined projections of travel demand revenue needs.	Financial modeling indicates that a toll during weekday peak periods only will not raise sufficient revenue. Demand projections indicate that 55% of Treasure Island-generated trips will take place during non-peak periods.	Policy Advisory
	TIMMA and the City should explore additional operating funding from new revenue sources to reduce the need for toll revenue generated during the midday, evening, or weekend periods.	Additional operating revenue sources would diversify the TIMM Program's transit funding basis, and make transit service less dependent on driver user fees. Operating revenue should be committed to the TIMM Program and should be long-term, if not permanent. Additional sources could include: Muni revenues, City general funds, State and regional programs, developer contributions, and existing or future local voter-approved transportation fees or taxes.	Policy Advisory
What is the toll rate structure?	The toll should follow a time-of-day rate schedule with increments indexed to Island-generated traffic levels.	Toll levels that vary based on traffic levels influence driving decisions towards less-congested times of day.	Policy Action
Which direction(s) are tolled?	Both directions should be tolled (both onto and off Treasure Island).	A toll in each direction is a better demand management tool, influencing both resident travel and visitor/worker travel. Demand projections indicate that some drivers will be influenced to shift one or both ends of their trips to a less congested period. A toll in each direction is more equitable. An alternative to a bi-directional toll is a higher toll rate in one direction only. A bi-directional toll allows for a broader revenue base than a higher one-way toll level.	Policy Action

table continues next page

best supports the goals of the TIMM Program, including meeting the 50% transit mode share target and covering costs in the long run. [10]

For the TIMM Program to meet its long-run goals, it will take a broad-based (but relatively low-level) toll that is in place during core transit service hours; that is, when there is a good transit alternative. Broad-based means that there will be few discounts or exemptions; for instance, we are not able to provide a toll exemption to HOVs of 2 or 3+ people. We will, however, credit any amount that a driver pays at the SFOBB toll plaza towards the Treasure Island payment. A TIMM Program that operates according to these policies can subsidize a Multimodal Transportation Affordability Program (TAP) for households in BMR units, as well as, for a limited transition period, a free daily roundtrip toll for longtime current residents.

10 For a number of years prior to Island buildout, the Mobility Program will require operating subsidies in order to provide desired transit service and other benefits such as the Affordability Program and subsidy for longtime residents. The TIMM Program will also require subsidy for some upfront capital costs.

IX. Program Funding Strategy

The buildout year TIMM Program expenditures are estimated at $55 million. The 2011 Development Agreement secured three committed, permanent sources of funding for the ongoing operations and maintenance of The TIMM Program, and required that the Program achieve financial self-sustainability based upon these

TABLE 5 (continued). TIMM Program Toll Policy Recommendations: Actions and Advisories

POLICY ISSUE	RECOMMENDATION	BASIS / FINDING	TYPE
How is the toll level determined?	TIMMA should set the toll level periodically, at the level needed to raise enough revenue to provide recommended transit service levels and achieve transportation performance targets, in combination with other committed sources of operating funding.	Demand forecasts indicate that at project build-out, a $5 (2018$) peak-period toll, combined with other recommended policies, will influence travel behavior enough to meet the transit mode share requirement, without suppressing overall travel demand. Financial analysis indicates that a balanced toll level, combined with other recommended policies, will generate sufficient revenue for transit operations and ongoing program support and maintenance. Rates will be adjusted to reflect the availability of transit service, cost escalation for providing the service, and the requirement to make the program sustainable in the long term. For ease of administration, toll levels will be adjusted periodically as needed based on observed system performance and the cost of program services.	Policy Advisory
	The toll level should be indexed to a function of transit cost inflation.	Financial modeling indicates that the toll level should be indexed to a function of general inflation and to inflation in transit costs specifically. The SFMTA's index formula for adjusting Muni transit fares provides an example. The toll level should be adjusted, if warranted.	Policy Advisory
	TIMMA, TIDA, TICD, and partner agencies should seek capital grant funding.	New capital grants for TICD commitments, such as transit vehicles, street infrastructure, and/or the multimodal transit hub, could free committed capital subsidy for unfunded capital needs such as ferry vessels or toll system infrastructure and hardware, or for additional operating subsidy in the early years of the TIMM Program, when travel demand (and revenues) are lower. Currently, there is a gap in the sources of funding for initial capital investments. Financial analysis indicates that this strategy would help keep initial toll levels as low as possible and potentially offset the cost of benefits such as the TAP and subsidized roundtrip toll for longtime (pre-DDA) households.	Policy Advisory
Are any driving trips exempt from the toll?	2-and 3+-passenger carpools should pay the toll. Registered* transit, shuttles, and vanpools, as well as pedestrian and bicycle trips, should be exempt from the toll.	Demand forecasts indicate higher than average rates of 2- and 3+-person carpools to and from the Island. Demand analysis projects that the TIMM Program will not meet the 50% transit mode share target if these carpools are exempt from toll payment. Carpool passengers may split toll (and other driving) expenses, providing a financial incentive to carpool. Private and non-profit services simplify these transactions. Applying the toll to 2- and 3+-passenger carpools is consistent with a broader-based, but lower-level user fee.	Policy Action
	Allow exemptions consistent with existing law or interagency agreements.	Exemptions for federal vehicles, if applicable, should be consistent with the policies for such vehicles on other Bay Area tolled facilities.	Policy Advisory

table continues next page

funding sources: program generated revenues including tolls, non-residential parking fees, transit fares, and the mandatory transit pass program.

Although the TIMM Program under Scenario 4, described above, is projected to be self-sustaining once buildout is substantially complete, a combination of state, federal and local funds will be required to complete the initial program development and to supplement operating funding in the early stages of the program.

In addition, as discussed in Section XII, stakeholder feedback has called for TIMMA and TIDA to pursue additional, supplemental sources of short or long-term operating funds. The purpose of the additional operating funds is to:

- Reduce the absolute need for operating and maintenance revenue from the tolls, allowing for reduced toll hours of operation and/or toll level; and
- Reduce the relative need for operating and maintenance revenue from tolls, diversifying the set of permanent, committed sources of operating and maintenance funding.

TABLE 5 (continued). TIMM Program Toll Policy Recommendations: Actions and Advisories

POLICY ISSUE	RECOMMENDATION	BASIS / FINDING	TYPE
Are any driving trips given a discount on the toll?	Credit westbound east span drivers for tolls paid at the SFOBB toll plaza.	Demand forecasts indicate that about one-quarter of all trips to and from Treasure Island, by any mode, will start or end in the East Bay. Drivers who have already paid a SFOBB toll will not pay the full Treasure Island congestion toll. Someone who drives from San Francisco to Treasure Island will only pay the Treasure Island congestion toll. Demand projections also indicate that crediting these drivers for SFOBB tolls will not induce driving significantly, since the amount of toll paid by these drivers will be about the same as other Treasure Island drivers. Financial analysis indicates this revenue loss is made up by extending the toll to transit core hours of operation. The Bay Area Toll Authority (BATA), which operates the State-owned toll bridges in the Bay Area, also has the authority to toll the west-bound approach to the SFOBB from Treasure Island.	Policy Action
	Ease the transition to a new neighborhood for longtime (pre-DDA)** households of all income levels by subsidizing the cost of one daily round trip toll.	In order to meet transportation system performance targets, this benefit should sunset, such as at the start of ferry services, or on the date that residents relocate to their new permanent housing unit. To maintain consistent incentives within the TIMM Program structure, eligible residents may choose either to receive the one free toll or a multimodal Transportation Affordability Program (TAP) benefit of equal value. Financial analysis finds: this will require operating subsidy during the period that it is in place.	Policy Action
	Support transportation affordability for residents in Below-Market-Rate (BMR) units by ensuring high quality transit, and by providing a multimodal Transportation Affordability Program (TAP) discount.	Demand analysis indicates that a toll discount or exemption for very-low-income households on Treasure Island will result in more Island-generated vehicle miles of travel (VMT) and a risk of not achieving the 50% transit mode share requirement. Financial analysis indicates that, for the same subsidy as this toll discount, a multimodal TAP can be provided to all BMR households, benefitting twice the number of residents—as well as users of all travel modes, not just drivers—for the same cost. Financial analysis indicates that car ownership itself is the greatest transportation expenditure for low-income households. A TAP discount on all transit modes, in combination with high levels of transit service, supports "carshedding," which decreases overall transportation costs the most for households in BMR units. Using TIMM Program revenues to fund a multimodal TAP discount for BMR residents encourages transit use, enables carshedding, and is consistent with program-wide transportation and financial sustainability goals.	Policy Action

* e.g., with the Metropolitan Transportation Commission's 511 registry.

** That is, residents who signed leases prior to the 2011 adoption of the Disposition and Development Agreement.

† "Very-low-income" households are defined as those who qualify for SFMTA's Lifeline Transit pass.

This Section describes the funding strategy for the development and ongoing operations of the TIMM Program.

TIMM Program Project Development and Planning

Planning for the mobility program including project development and capital expenditures for the toll system are the responsibility of TIMMA. Program elements that must be completed prior to the program becoming operational in 2019 include policy development, travel demand and financial analysis, transit service planning and project development and construction of the toll system. The total cost for this work is estimated at $17 million. Funding for these activities is from various grant programs and partner contributions as shown in Table 6.

TIMMA is actively seeking additional grant funding for the program elements that will be completed prior to first occupancy of the development in 2019. A variety of state, federal and local discretionary programs will be pursued for the TIMM Program. See Table 9.

Transit Capital: Initial Investment

All transit infrastructure, including the intermodal terminal, ferry infrastructure improvements and bus stops and shelters will be funded and constructed by TICD. The initial purchase of transit vehicles and ferries will be funded from a combination of developer contributions, SFMTA revenues and grant funding as shown in Table 7.

Operations, Capital Replacement and Rehabilitation

Ongoing TIMM Program operations will be funded with a combination of program generated revenue, developer subsidy, grant funds, and any additional revenue sources to be determined.

The anticipated TIMM Program revenues from tolling, parking and transit fares are projected to be sufficient to fund the operations for the recommended program at buildout. Additionally, the developer will contribute $30 million in operating subsidy that will address cashflow needs in the early years prior to full buildout of the development. When available, grant funds will be used to supplement TIMM Program revenue for capital rehabilitation. Funding assumptions for Operations and Rehabilitation are shown in Table 8.

TABLE 6. TIMM Program Development Funding 2013–2019

SOURCE	FUNDING
TIDA	$5,250,000
Federal Value Pricing Grant	$480,000
MTC Planning Grant	$500,000
Prop K Funding	$ 360,000
Grant Funding TBD	$10,400,000
TOTAL	$16,990,000

PROGRAM ELEMENT	FUND SOURCE	NOTES
Treasure Island/YBI transit infrastructure	Developer funds	Includes intermodal hub, ferry infrastructure, transit stops, and shelters
AC Transit buses (9) for East Bay service	Developer funds	
Muni buses	SFMTA funds and developer funds*	The development agreement requires TICD to provide $1.8 million in match for the purchase of 6 Muni buses
On-Island shuttle	Developer funds	
Ferry vessels	Grant funds	TIMMA is partnering with WETA to pursue grant funding for the ferry vessels

TABLE 8. Operations, Capital Replacement, and Rehabilitation Funding Assumptions

PROGRAM ELEMENT	FUNDING ASSUMPTION
TIMM Program Operations: transit service, TDM and equity programs, administration	TIMM Program revenues: toll, parking, transit fares, transit passes, developer subsidy
Ferry vessel and AC Transit bus rehabilitation and replacement	Federal funds and TIMM Program revenues
Muni bus replacement	Federal funds and SFMTA revenues
On-Island shuttles	TIMM Program revenues
Toll system and parking infrastructure replacement	TIMM Program revenues

TABLE 9. Potential TIMM Program Grant Opportunities

PROGRAM ELEMENT	FUNDING ASSUMPTION
State and Regional Clean Air Funds	Alternative fuel buses, shuttles, ferries. Trip reduction and TDM programs
Federal Discretionary Transit Programs	Buses, shuttles, ferries
Federal Discretionary Grants	Toll System, buses, shuttles, ferries
Other (e.g., bridge tolls, local sales or other taxes / fees)	Toll System, buses, shuttles, ferries

* Source: "Fiscal Analysis of the Treasure Island Rededvelopment Project" April 2011

Supplemental Grant Funding

TIMMA is actively working with project partners to pursue supplemental grant funding for the program, both for capital costs and for ongoing operations. While the financial analysis shows that the program can be self-sustaining with existing committed, permanent operating funds, any additional grant funds that can be secured could potentially reduce the need for toll revenue for on-going operations of the program. Table 9 (previous page) lists potential funding programs that will be pursued.

X. Next Steps

Treasure and Yerba Buena Islands are an opportunity to create new housing, open space, and visitor destinations in San Francisco. The 2011 Design for Development called for this new development to model sustainability in its land use and transportation system. The TIMM Program, adopted as part of the 2011 DDA, does this through new transit, on-island shuttles, car share, bike share, and other services, supported by committed and permanent user fees to fund the Program's ongoing operation and maintenance.

This Study refined the demand and financial assumptions and projections of the 2011 TITIP, and recommends TIMM Program toll policies that will enable the Program to meet long-term transportation and financial performance targets. Approval of this Study's recommended Policy Actions will guide the next steps in project development. This Study also provides some Policy Advisories that need further research and development before an approval action is taken prior to the operational launch of the TIMM Program. TIMMA will lead, or partner with joint operating agencies to lead, the following next steps:

OUTREACH

- Continue and expand outreach and communications with public agencies, current and future residents, businesses, workers, and community organizations.
- Explore strategies to support future low-wage workers on Treasure Island.
- Execute partner agency agreements and additional program approvals as needed.

PLANNING

- Prepare travel demand forecasts and financial projections focused on the Program's implementation and first five years of operation (TIMM Program 10 Year Implementation Plan).
- Develop a Treasure Island-focused transit pass to fulfill the mandatory transit pass requirement within the development agreement.
- Recommend initial toll hours of operation, toll level, and rate schedule based on the TIMM Program 8 Year Implementation Plan. Final Program Policies and tolling Business Rules to be adopted approximately one year prior to the launch of operations.
- Develop the Transportation Affordability Program (TAP) for below-market-rate households.
- Coordinate with SFMTA-led development of parking management plans for Treasure Island.

ENGINEERING

- Continue engineering of the toll system and civil infrastructure, and define toll system requirements.
- Develop ferry system (dock/vessel) plans, explore alternative technologies through collaboration with WETA, and seek grants from State/regional and federal agencies.

FUNDING PLAN

- Refine TIMM Program funding plan as 10-year Implementation Plan financial analyses are undertaken.
- Pursue funding sources in current TIMM Program Funding Plan and seek new additional local, committed sources of operating revenue to reduce need for tolls.

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A note on the page ES-1 photograph: Six of twenty Art Deco Pacific Unity sculptures from the 1939-40 Golden Gate International Exposition on Treasure Island are displayed outside Building One, the fair's administration building. They represent different cultures of the Pacific nations.

They were once dwarfed by the enormous statue of Pacifica, goddess of the Pacific and symbol of the Exposition. Designed by sculptor Ralph Stackpole, she was 80 feet tall, constructed of an iron frame covered with wire mesh, and finally smoothed with a layer of plaster. Stackpole labored for two years to bring this massive beauty to life.

In 1941, when the US Navy took over the island, she was unceremoniously demolished and hauled off with the rest of the rubble from the great exposition, leaving behind only her more modest attendants, of which sixteen survive. (Note adapted from Atlas Obscura, http://www.atlasobscura.com/places/pacific-unity-sculptures)