

Appendix 1 – Implementation Milestones and Preliminary Schedule

Appendix 2– Transit Pass Case Studies



Treasure Island Transit Program – Case Studies

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 SUBJECT: Institutional Program Case Studies

San Francisco County Transportation Authority (SFCTA) is in the process of developing fare policy recommendations for the mandatory transit pass and related fare media that will serve the transit programs for the new Treasure Island housing development. The **goal of the case studies is to provide relevant information on existing and planned institutional programs that will inform the policy recommendations.** To support this task CH2M identified and gathered information from four different programs in the San Francisco Bay Area.

- AC Transit Easy Pass
- Pre-tax Transit Benefit Providers (Clipper Direct, Wage Works, Commuter Check)
- San Francisco State University Student Transit Program
- Parkmerced Housing Development Transit Program

Multiple transit programs are planned to serve Treasure Island residents, workers and visitors. The **programs listed above are included in the study to obtain broad, relevant feedback.** The programs and Treasure Island fare policies align generally along the following lines.

Treasure Island Fare Policy	Corresponding Case Study
Mandatory Pass	AC Transit Easy Pass
Resident/voluntary pass	Parkmerced Housing Development; Pre-tax Transit Benefit Providers
Worker Pass	Pre-tax Transit Benefit Providers
Multi-agency Pass	San Francisco State University Student Program

These wide-ranging programs will have very different goals and objectives as well as implementation and administration techniques. The case studies were chosen to provide the following information in order to better evaluate options for the Treasure Island programs:

- Goal/Program expectations
- Type of program (voluntary/mandatory)
- Eligibility/requirements
- Product/value options
- Participants
- Pricing
- Program administration
- Program cost (implementation, operation)
- Participant involvement
- Reporting/results

Background: Case Study Identification

In collaboration with SFCTA, CH2M selected case studies in the Bay Area that have similar offerings to what the Treasure Island programs will provide. Some programs are more structured in that participation is mandatory for all residents/employees and each participant receives the exact same transit offering; where others allow participants to opt-in and select the best option for their transit needs. Some programs are offered/administered in conjunction with a transit operator, others are managed directly by the offering institution.

Given the variety of needs and requirements that will be present in the Treasure Island transit program, these case studies were chosen to provide information on how various transit programs can be developed and administered according to the needs of the participants. The following chart lists the chosen examples and what part of the Treasure Island program they relate most closely to.

Table 1: Case Studies and Treasure Island Transit Pass Fare Policy Issues

Case Study	Description	Key Components: discount/choice tradeoff	T.I. Transit Pass Correlation
AC Transit Easy Pass			
Customers	Employers, Universities, Housing Developments	Program is managed by AC Transit staff; zero Clipper/Cubic operating cost as no financial settlement is required	Residents and/or employees
Fare Instruments	Heavily discounted pass	Defined pass (AC Transit-only)	Institutional pass (mandatory pass)
Notes	Simpler administration due to limited option on fare instrument (pass only, longer expiration time)	Agency-specific program with defined fare instrument enables discounts and flexible arrangements with participating institutions.	Good fit for mandatory participants (residents, etc.) to encourage use of transit
Pre-tax Transit Benefit providers (Clipper Direct, WageWorks, Commuter Check)			
Customers	Employees	Outsourced administration (e.g., WageWorks, Cubic); operational cost from Cubic and service provider (e.g., WageWorks)	Employees, voluntary participants, tourists
Fare Instruments	All passes/products and cash	Any publicly available Clipper fare instruments can be chosen by participants	All
Notes	Allows customers to select their own options and administer their own accounts.	As all fare products are available to customers any discounts or subsidies must occur independently of the transit agencies and Clipper program, via the employer/employee relationship.	Option for employers and other voluntary participants (additional, BMR, and legacy residents). Full fare products are offered, but participants have the most flexibility in choosing what fits their needs.

San Francisco State University Student Transit Program			
Customers	Students	Applies to all SF State students; no Clipper/Cubic operating costs as Cubic is not involved in program administration	Residents and/or employees
Fare Instruments	Discounted pass and discount product for BART. (There is a discount on BART travel, but it is not subsidized by the transit agency, but by the fee collected from students.)	Defined fare instruments: discount Muni pass and BART discount.	Multiple agencies, but limited offerings for each.
Notes	Multi-agency offerings allows for more travel flexibility.	Participants receive defined fare products and discount; Muni pass discount and BART reimbursement managed directly between SF State and the respective transit agencies.	Another option for mandatory participants, but has a mechanism to support a discount not subsidized by the transit agency, but funded by participants.
Parkmerced Housing			
Customers	Residents	Opt-in program for residents, Cubic administrative cost as cash value involves financial settlement	Residents, tourists
Fare Instruments	Cash – usable on all agencies	Fixed fare instrument (cash value), but flexible for usage (any transit agency). Cash value amount is capped and may not support unlimited monthly travel, as a pass would.	Cash
Notes	Most flexible, but doesn't offer discounts based on volume usage as a pass would	Subsidy is provided directly from the developer.	Best option for infrequent/occasional riders or tourists.

AC Transit Easy Pass Program

Program Background

The AC Transit Easy Pass program serves over 70,000 participants from just over 15 institutions, made up of a mix of **employers, universities and housing developments**. 15 new housing developments are slated to come on board in the next several months. The program has been in operation since 2008 and offers an **AC Transit pass** to participants, using the Clipper card as the fare payment mechanism.

The goal of the Easy Pass program is to **encourage transit use in those that ride occasionally or haven't ridden transit previously**.

Program Description

The Easy Pass program is offered to employers, universities and housing developments with over 100 employees/residents/students. (Housing developments with between 50-100 participants that are located in major service areas will be considered on a case-by-case basis.) Institutions decide whether or not to participate – there is no requirement for institutions to belong to the Easy Pass program. The Easy Pass must be purchased for all participants at the institution – it is **not an "opt-in" or voluntary program** for participants. Institutions may choose to pay for the passes themselves or pass the cost along to their employees/customers. AC Transit passes are provided on a calendar year or semester-long basis, depending on the needs of the institution.

Administration and Operation

The Easy Pass is **priced based on the following factors**:

- Number of participants
- Level of transit service within a quarter mile of the site

For institutional programs, the Clipper contractor develops a version of an existing pass that has no price associated with it in the Clipper system. If a new (not already existing) fare product such as a multi-agency pass were to be developed, there would be a cost associated with that development. This special pass is not available to customers via any regular distribution/purchase methods (e.g., website, retailer, ticket offices) but is only available through an institutional arrangement with the transit agency. Institutional passes cannot be limited by route or day of week/time of day and do not offer transfer benefits to other operators. Passes are loaded onto the cards remotely. Payment is made directly to the transit agency, not through the Clipper system.

Clipper cards are **printed with names (and in some cases, photos) by AC Transit** and provided to the institution for delivery to the participants. Passes are activated when the participant first tags their card to a Clipper card reader.

The **institution and AC Transit communicate on a regularly set schedule** regarding participants that need to be added or removed to the program, as per each institution's contract. Each card serial number must be associated with an individual and tracked and maintained at the institution level. This ensures that **number of participants (and associated billing) can be tracked correctly, and that any lost/stolen cards can be removed** and the new card serial

number can be associated with the correct individual. Participants can contact Clipper Customer Service for Clipper card usage or account questions, but generally replacement card inquiries are handled at the institution level prior to being passed along to Clipper Customer Service.

Renewal of passes occurs on a semester or yearly basis (again, depending on the individual institution) and uses the card serial numbers of existing participants. New participants are issued new cards at the start of each year/semester, or during the year as indicated by the contract.

Reporting and results

During the participant sign-up process, participant information and photos are taken and a **baseline survey is filled out**, indicating current transit usage. This baseline survey can be used later to track any changes in behavior by the participants. However, AC Transit currently does not have the resources to do follow-up surveys to obtain this information. To date, the **institutions have not tracked this information** among their participants. AC Transit does have the ability to track unique cards used per month and number of boardings from those cards. This enables them to adjust pass pricing as needed.

Cost

AC Transit includes an **administrative cost in the cost of the Easy Pass**. This fee covers the cost to work with the institution to administer the program on an ongoing basis, print cards with participants' information and handle various customer service tasks for the program (lost/stolen card replacement, intake of new participants, etc.) There is **not a cost from the Clipper Contractor for the administration** that is done (adding and deleting passes to/from cards and producing and shipping replacement cards as needed).

Lessons Learned for Treasure Island

Fare instrument – Clipper system supports institutional pass products, but the pricing and payment for the passes is handled by the transit agency, not the Clipper system. TIMMA (or their designated contractor) would handle collecting payment from participants and settling with any participating transit agencies.

Other fare products could be offered, but there would be a development cost (by the Clipper contractor) for any products that were not already existing in the Clipper system, such as multi-agency passes.

Mandatory participation makes it possible to offer heavily discounted passes. Since not all passes are used, the cost of those who do use their pass is covered by those who do not.

Administrative – Institutional programs are managed by the institution and the transit agency, as per their arrangement. Eligible participants coming in/going out of the program must be tracked, and replacement cards are also managed by the institution and transit agency. TIMMA would be responsible for working with participating institutions to manage eligibility lists and providing that information to the Clipper contractor, providing participants with cards, as well as handling requests for replacement cards.

Passes with longer validity periods require less administrative time, since the entire list only needs to be renewed once a semester or year, versus once a month.

Since the pass has no cost in the Clipper system, all participants receive the same product and no funds are settled, there is not an administrative fee from the Clipper contractor.

Reporting – Aggregated information on usage of cards (unique cards used, number of trips taken, etc.) is available to the transit agency, but extra administrative time is needed to monitor the reports and track them against any baseline reports gathered at the outset of the program.

Table 2: Program Overview – AC Transit Easy Pass

AC Transit Easy Pass						
Product Type(s)	Institutions	Participants	Product price	System Cost (Clipper)	Usage	Admin./Ops Staffing (FTE)
AC Transit pass (valid for all AC services)	15+	70,000+	\$50-\$188 Pricing dependent on number of participants, level of transit service and type of institution	\$0	Number of unique cards used and boardings per month are tracked.	2+

Pre-tax transit benefit programs (Clipper Direct, Wage Works, Commuter Check)

Program Background

Pre-tax transit benefit programs are used by nearly 68,000 people to load value directly onto their Clipper cards each month. These programs are **offered by employers and allow employees to use either pre-tax dollars or an employer subsidy** for transit. Pre-tax transit benefit programs work with all participating Clipper operators.

Program Description

Pre-tax transit benefits can only be **offered by employers via subsidy or pre-tax payroll deductions**. Employers can allow post-tax payroll deductions if desired. Each company sets a dollar limit for their employees, including subsidies, pre-tax and post-tax deductions. **Employees opt in to the program and each month, place their order for passes and/or cash value** to be loaded directly onto their Clipper card.

Administration and Operation

Once an **employer has contracted with a benefit provider**, employees are given access to an online portal where they can place their transit order each month. Employees can order any passes or cash value that is available in the Clipper system. Orders are placed prior to the cutoff date and once all orders are in, an invoice is sent to the employer.

Once the order has been paid for, the **value requested is remotely loaded onto each card prior to the first of the month**. Participants are responsible for managing their own accounts, and making changes to their orders. Customer service for lost/stolen cards is handled through the Clipper Customer Service Center. Employees can be added to or removed from the program at any time, through the administrator at the employer.

Participants use Clipper Customer Service for any customer service needs regarding their Clipper card or account. Employers manage payroll deductions and/or employer subsidies.

Reporting and Results

Direct load onto Clipper cards has grown from 16,000 in 2010 to almost 70,000 in 2016. Since direct load onto Clipper cards was first offered, cash value has accounted for almost half of the direct loads. Since the orders are **aggregated by the transit benefit companies**, there is **no reporting available for number of companies, percentage of employees using these benefits or the cards**. Due to privacy regulations, reporting for card usage is not available to anyone but the individual cardholder.

Cost

There **are administrative costs associated with this type of program**, both on the benefit provider and Clipper contractor side. Benefit providers charge a monthly fee to employers per employee order, generally between \$2-\$3 per enrolled employee or employee order; whether the charge is for each enrolled employee, or only those that place orders is based on the transit

benefit provider and their contract with the employer. The Clipper Contractor charges a fee to fulfill the orders, which is around \$2 per employee order, per month.

Lessons Learned for Treasure Island

Fare instrument – Pre-tax transit benefit programs have access to all passes, products and cash value used on the Clipper system. There is considerably more flexibility in transit offerings with this type of program. However, these transit offerings are not discounted offerings, but products that are available to the general public. Participants receive savings in the form of their taxable income being decreased due to the pre-tax deduction for transit purchases. If TIMMA took this approach, could TIMMA offer a discount pass (such as an AC Easy Pass) to institutions / employers that choose to participate and purchase a pass for all their employees / customers? If TIMMA did offer this method of access a discounted pass for employers / institutions, then I suspect that TIMMA would require that the employer / institution purchase a pass for all employees / customers.

Administrative – Since orders are paid via payroll deduction or employer subsidy, orders can only be placed once a month through the online portal of the transit benefit company. Employees are able to manage their own accounts, but administrators must still manage employee eligibility, the employer account and payment.

Generally, employees are able to manage their own accounts via online access, but the employer must still manage employee eligibility, employer subsidies, payroll deductions and provide payment to the benefit provider once a month. The Clipper Contractor invoices the companies, provides the requested products and cash value to each card and settles the funds to the appropriate operators. There is a fee for this administrative work.

Reporting – Due to privacy regulations, employers do not have access to the travel patterns or usage of the cards used by their employees. Employers may track percentage of their employees that take advantage of pre-tax programs, but many do not track this.

Table 3: Program Overview – Pre-Tax Transit Benefit Programs

Pre-Tax Transit Benefit Programs						
Product Type(s)	Institutions	Participants	Product price	System Cost (Clipper)	Usage	Admin./Ops Staffing (FTE)
All	Employer benefit providers (Commuter Check; WageWorks); Employers	68,000	All (retail price)	Per-order: Benefit provider charge \$2-3; Clipper Contractor charge ~\$2	Not available	N/A

San Francisco State University Student Transit Program

Program Background

Scheduled to start in the fall of 2017, the SFSU Student Transit Program will serve the 30,000 **students** at SFSU. **A Muni pass as well as a BART discount will be offered** and the Clipper card will also act as the SFSU student ID. The goal of the program is to **provide students with affordable transit to and from school.**

Program Description

The SFSU student transit program will provide a heavily discounted Muni pass and a BART discount for trips to and from the Daly City station (the station that serves the SFSU campus). The students passed a referendum that will add the cost of the transit program to their student fees. Since it is part of the student fees, the **program is mandatory for all students.**

Administration and Operation

All SFSU **students pay a monthly fee for the transit program.** This fee covers a **heavily discounted Muni pass, and a 25% discount on BART trips taken to/from the Daly City station.** It is important to note that the **BART discount is not provided by BART, but funded by the student fees.** Most of the student fee pays for the discounted Muni pass, with the remainder held in reserve to fund the BART discount. SFSU data shows that around 25% of the students ride BART to and from school, so it is estimated that the additional fees collected from all students will cover the discount for those that ride BART. SFSU will pay BART and SFMTA separately for their passes/discounted amounts, based on their payment agreement with each agency.

Cards that receive the BART discount will be tracked by the BART systems, and each month, a report of usage by the eligible cards will be run by BART. This report will identify the trips taken and the discounted amount provided to the students. BART will then prepare an invoice for SFSU and the discounted amount will be paid to BART out of the SFSU student fees. There is **not a cost from the Clipper Contractor to administer the program.**

SFSU will **custom print the Clipper cards with student photos and information and issue cards** to students. Card serial numbers will be sent to the Clipper Contractor so that the Muni pass and BART discount can be added to the cards by the Clipper contractor. Since the card also functions as a student ID, customer service will be handled jointly by Clipper Customer Service and SFSU. Students will report card issues to SFSU, and if a replacement card is needed, SFSU will re-print a card and issue it to the student, and alert the Clipper Contractor of the new card number so the appropriate products can be added to the card. Clipper Customer Service will assist with blocking the old card and transferring any cash balance on the card to the new card.

Reporting and Results

SFSU regularly conducts transit surveys of their students, and will continue to do so after the program has launched.

Cost

There is a cost of ~\$70,000 to develop the BART discount product, this was paid by SFSU. There is no cost from the Clipper Contractor for the administration of the program, it is unclear at this point what costs may be incurred by SFSU and/or BART for administering the program and tracking the discount and providing invoicing, respectively.

Lessons Learned for Treasure Island

Fare instrument – Clipper system supports institutional pass products, as well as a discounted station-to-station BART fare. The BART discount product requires development of a new product, which does have a cost associated with it, and BART is recapturing discounted fare revenue through invoicing to SFSU.

It is possible to have multiple transit operators be a part of one institutional program, but it does require additional administration in terms of payment to two separate operators.

As with the AC Transit Easy Pass, mandatory purchase for all students means that a discounted product can be offered by the transit operator. Since everyone pays, but not everyone uses the pass, the hope is that it is revenue-neutral for the operator. However, in this case, BART does not subsidize the discount on their system. That is paid for out of the student fees – and again, fees from those who don't ride BART are used to cover the discounted amount for the students that do ride.

Administrative – Institutional programs are managed by the institution and the transit agency, as per their arrangement. Eligible participants coming in/going out of the program must be tracked, and replacement cards are also managed by the institution and transit agency. No fee is charged by the Clipper contractor for administering this program, since no funds are settled and everyone receives the same product(s).

Reporting – Aggregated information on usage of cards (unique cards used, number of trips taken, etc.) is available to the transit agency, but extra administrative time is needed to monitor the reports and track them against any baseline reports gathered prior to program launch. BART will be running regular reports on usage of the cards on their system in order to determine the number of discounted trips taken and the amount of the discount given so they can invoice.

Table 5: Program Overview – SFSU Student Program

Pre-Tax Transit Benefit Programs						
Product Type(s)	Institutions	Participants	Product price	System Cost (Clipper)	Usage	Admin./Ops Staffing (FTE)
Muni pass; BART discount (travel through Daly City)	SFSU students	30,000	Discounted Muni pass; discounted BART fare	\$70,000 capital cost; BART fare discount reimbursement	TBD (fall 2017 launch)	TBD

Parkmerced Housing Development

Program Background

Started in 2016, the Parkmerced housing development transit program offers **residents** a monthly transit subsidy. The program is designed to **encourage residents to be “car-free.”**

Program Description

One resident from each unit in the Parkmerced development can **opt-in to receive \$100 a month** that can be split between Uber and Clipper. Alternately, a resident can choose to transfer some of their subsidy to a roommate(s) so that the benefit can be shared. While the program encourages use of transit other than personal vehicles, residents with cars can participate in the program. Currently, just over 150 residents participate in the program.

Administration and Operation

Residents who join the program are able to allocate their \$100 monthly subsidy between Uber and Clipper via an online portal. They can also transfer some of their subsidy to others living in their residence (once transferred, it cannot be taken back; it can only be transferred back by the recipient). Residents must set up their own Uber accounts and obtain their own Clipper cards prior to using the program. Transit passes on Clipper are not available, only cash value can be added to the card; cash value can be used on any participating Clipper transit operator. The allocation can be changed monthly if residents wish to change the division of the subsidy.

Once residents have allocated part of their subsidy to Clipper, orders from the online portal are aggregated and a file is sent to the Clipper Contractor with card serial numbers and the corresponding amount of cash value to be added. Payment for the value to be added is made at this time, and the individual orders are then sent out to in time to be added to the cards by the first of the next month.

Customer service is handled by Clipper Customer Service – requests for replacement cards, balance transfers and any other needs are handled by the Clipper Customer Service Center. Residents must then notify Parkmerced program administrators of their new card serial number.

Reporting and Results

It is unclear at this point what tracking/reporting Parkmerced may be doing to track program participation and transit usage. Privacy regulations prohibit providing card usage details to anyone but the cardholder.

Cost

The **Clipper Contractor charges a per card, per month fee** to load value onto the cards.

Lessons Learned for Treasure Island

Fare instrument – The Parkmerced program offers only cash value to participants, but cash value can be used on any participating transit agency. Other fare products could be offered but this would mean more administration by Parkmerced to offer and track these orders, and could

result in a higher fee from the Clipper contractor for additional administrative work on their end. Also, since the subsidy is limited, many passes would not be available within the dollar amount that is being offered.

Administrative – Residents are able to manage their own accounts and direct how much of their subsidy is allotted to Clipper and to Uber, but program administrators must still manage resident eligibility, the order process and payment for monthly orders. There is an administrative fee from the Clipper contractor to receive orders, invoice, provide requested cash value and settle funds.

Reporting – Due to privacy regulations, housing developments do not have access to the travel patterns or usage of the cards used by their residents. Parkmerced may conduct travel pattern/usage surveys of their residents to capture information, but this data is not yet available.

Table 6: Program Overview – Parkmerced Housing Development

Pre-Tax Transit Benefit Programs						
Product Type(s)	Institutions	Participants	Product price	System Cost (Clipper)	Usage	Admin./Ops Staffing (FTE)
Cash value	Parkmerced	158	Up to \$100 monthly subsidy	Per-card, per-month cost to administer	N/A	TBD

Summary

Program	Goals/Expectations	Fare Instrument	Size (participants)	Lessons Learned for T.I.
AC Transit Easy Pass	Provide affordable transit and encourage transit usage among new or occasional riders	AC Transit Pass	70,000	Program must be administered by transit agency or institution since the product is not available outside the program, and also to manage risk.
Pre-tax Transit Benefit providers (Clipper Direct, WageWorks, Commuter Check)	Encourage use of transit by providing a tax break on funds used to purchase transit passes/products	All passes and cash	68,000	Participants manage their own accounts, but tracking/reporting on card usage is not available due to privacy regulations.
San Francisco State University Student Transit Program	Provide affordable transit to and from campus for students	Muni pass and BART discount product	30,000	Offers multiple products, but requires administration by the University to manage program (similar to AC Transit Easy Pass)
Parkmerced Housing	Encourage use of transit rather than single-occupancy vehicles	Cash	158	Cash value is flexible, but doesn't offer volume discount. Participants manage their own accounts and, like pre-tax Benefits, tracking/reporting is not available. Additional implementation cost for the Clipper contractor, as well as ongoing Clipper operating costs.

Summary – Roles and Responsibilities

Program	Administration	Payment	Customer Service	Lessons Learned for TI
AC Transit Easy Pass	AC Transit handles most administrative tasks (printing cards, sending serial numbers to Clipper contractor). Institutions manage eligibility and tracking of participants to card serial numbers.	AC Transit charges an administrative fee to the institutions that is included in the cost of the pass. There is no charge from the Clipper contractor since all participants receive the same product, and no funds are settled for the program.	Clipper card and account questions managed by Clipper Customer Service. Card replacement managed by AC Transit. Eligibility managed by participating institutions.	Less flexibility in offerings and no-cost pass mean that there are no fees from the Clipper contractor. Also, mandatory purchase for all participants means that AC Transit is willing to offer a heavily discounted pass.
Pre-tax Transit Benefit providers (Clipper Direct, WageWorks, Commuter Check)	Participants manage their own accounts (choose what to load on their cards, etc.). Employers manage eligibility, subsidies, (if provided) payroll deductions and provide payment for value ordered.	Once orders are sent to the Clipper contractor, they will invoice the employer for the total order. Employer pays for the order, plus administrative fees. (At employer's discretion, fees can be passed along to the employees.)	Clipper card and account questions as well as replacements managed by Clipper Customer Service. Eligibility and payroll/subsidy questions managed by employer.	Offers the most flexibility in terms of products available, but must be either employer subsidized or payroll deduction. Products are full-fare, not discounted. Since the program is voluntary, transit operators would be unlikely to offer heavily discounted products through a program like this.
San Francisco State University Student Transit Program	SFSU will handle card printing and sending card serial numbers to both the transit operators and to the Clipper contractor. They will also manage eligibility and tracking of participants to card serial numbers.	SFSU will pay for the development of the discount product needed for the program. They also pay (via student fees) SFMTA for the discounted passes and BART for the difference between full fare and the discounted amount of trips taken. There is no charge from the Clipper contractor for administration of the program.	Clipper card and account questions handled by Clipper Customer Service. Card replacement, student fees and eligibility managed by SFSU.	Same benefits as AC Transit Easy Pass above. Multiple products can be offered, but there is additional administrative work as a result (payment and tracking with two transit operators). BART discounts are possible, but must be paid for on the back end so that BART is made whole. Route specific discounts are not possible for bus operators, however.

<p>Parkmerced Housing</p>	<p>Participants manage their own accounts and Parkmerced manages eligibility.</p>	<p>Parkmerced pays Clipper contractor for cash value and administrative fees.</p>	<p>Clipper card and account questions and card replacement handled by Clipper Customer Service. Parkmerced manages eligibility questions.</p>	<p>Cash value can be used on all operators, and is less work administratively, but less flexible than offering passes, and does not offer any discounts.</p>
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Appendix 3 – Preliminary Alternatives

Transit Pass Preliminary Alternatives

The Transit Pass Technical Advisory Committee reviewed a preliminary, long list of pass alternatives in spring 2017. The project team presented a mix of policy-based and technology-based pass options for Treasure Island customers.

As fare payment options are impacted by technical capabilities of fare collection and other payment systems, and as MTC is in the midst of procuring the next generation of the Clipper fare payment system, the TAC utilized the following assumptions in reviewing the preliminary list of alternatives:

Transit Pass Preliminary Alternatives – Factors for Consideration

Fare Policy Alternatives

- Pass model – unlimited T.I. coverage, not applicable to other agencies
- Cash value – greater flexibility, cannot provide unlimited value

Technology-Enabled Alternatives – Opportunities with C2

- Technology-enabled policy – **monthly accumulator** (cash value model pro/con), change in fare policy approach for the region (can be limited to 3 agencies), greater accessibility (low-income)
- New media – **mobile payment** can support various policies (3-agency pass, accumulator, cash value), scope of C2 may or may not include mobile functionality

Transit Pass Analysis Results

- **Policies** for adoption (P)
- **Technology recommendations** for Clipper/C2 (T)

The Project Team and TAC developed the following prioritized list of preliminary Transit Pass alternatives:

Customer Groups	Preliminary Alternatives	Rank
Residents & Workers	1. Access Pass (3-Agency Pass – Clipper card – policy)	1
	2. Transit Cash (Cash Value – policy)	2
	3. Monthly Accumulator (technology/policy)	3
	4. Mobile pass (technology/policy)	3
Visitors	2. Transit Cash (Cash Value – policy)	1
	4. Mobile Pass/Access Pass (3-agency/day pass – technology/policy)	2
	5. T.I. Day Pass (Clipper card – policy)	2

The Project Team and TAC proceeded with full analysis of the top-two ranked pass alternatives:

1. Access Pass – 3-agency pass for transit operators serving Treasure Island, available for residents and workers as an institutional pass (i.e., not available for public purchase)
2. Transit Cash / Flex Cash – Clipper cash value that can be used on any transit agency, available for residents, workers and visitors (hotel). Note that Transit Cash and Flex Cash are considered separately in the Transit Pass Report.

It's worth noting that alternatives that did not go through full analysis, specifically the **monthly accumulator** and **mobile pass** alternatives, are not currently available with the Clipper program and transit agency fare policies. These options may become viable in the future, especially with development of the next generation Clipper program, and are discussed further in the Transit Pass Report, Future Transit Pass Alternatives section.

Appendix 4 – Alternative Evaluation Matrix

		Maximize transit usage for on-off island trips				Provide equitable transit access					
Provide a transit pass that covers the projected transit demand of residents, workers, and visitors.		Ensure implementation feasibility - technical and policy								Best meets the needs of communities of interest (below market rate residents, legacy residents, workers)	
Alternatives	Rank - Total	Maximize fare instrument transit coverage (ability to pay for available transit services, including transfers)	Pricing flexibility - ability to alter customer-facing price (e.g., cash fare for T.I. monthly pass)	Compatible with transit operator fare policy structure	Compatible with Treasure Island development schedule	Ease of implementation - compatibility with existing fare collection system capabilities	Minimize need to establish new policy (e.g., Title VI analysis, board approval)	Pricing flexibility - technical ability of fare instrument to support subsidized travel	Proportional fare instrument transit coverage for communities of interest	Ease of use - low-income customers	
RESIDENTS & WORKERS											
Access Pass - Residents & Workers	1	38	3	2	3	3	3	3	3	3	
		Residents: 91% of linked trips Workers: 76% of linked trips Does not cover BART, Caltrain, Golden Gate, SamTrans and other agencies	As an institutional product the customer price is flexible. Will need buy-in from 3 agencies on revenue sharing	Revenue sharing is necessary and needs to be agreed upon by transit agencies and TIMMA.	Yes, this can be incorporated into C2, next generation Clipper program	C2 system can accommodate this policy without difficulty	As an institutional pass no new transit agency fare policies are required.	Price for institutional media is easily subsidized or changed; occurs outside the Clipper system.	Low-income res.: 92% of trips Low-income work: 77% of trips Slightly better pass performance for low-income transit customers due to lower number of inter-agency trips (e.g., Muni/BART trips)	Same means of acquisition as standard pass. No additional qualifying steps or actions necessary.	
VISITOR											
Access Pass - Visitors	4	31.5	1	1.5	3	3	2	3	1	3	
		Visitors: 25% of linked trips Does not cover BART, Caltrain, Golden Gate, SamTrans and other agencies	May be an institutional or customer-facing product, pricing is not as flexible. Will need buy-in from 3 agencies on revenue sharing and possibly price.	Revenue sharing is necessary and needs to be agreed upon by transit agencies and TIMMA. Publicly available product so greater net revenue than just T.I. visitor pass.	Yes, this can be incorporated into C2, next generation Clipper program	C2 system can accommodate. Need to include Limited Use media in planning for implementation.	New T.I. Day Pass would need to be adopted by participating transit agencies.	Price for hotel customers is easily subsidized or changed; occurs outside the Clipper system.	N/A T.I. hotel visitors assumed not to be low-income. Non-hotel visitors have access to existing transit agency fare products - e.g. Muni Lifetime pass	N/A - T.I. hotel visitors assumed not to be low-income. Means of distribution not impacted by income qualification.	
RESIDENTS & VISITORS											
Transit Cash - Residents & Visitors	3	33	1	3	3	3	3	3	1.5	3	
		Resident: 56-83% of linked trips Visitor: 32-38% of linked trips Coverage depends on amount of cash value. Resident cash value ranges from \$100-\$150/month; Visitor cash value from \$10-\$15/day	Cash fares are not flexible, but there is flexibility in defining the amount of subsidy for resident and visitor pass program participants	Revenue sharing is not necessary as agencies receive funds directly for trips taken.	Yes, cash value is not a new fare product.	Already usable on each agency	No new policies required.	Cash value for institutional programs is easily subsidized for residents and workers.	Low-income res.: 56-84% Visitors: N/A (see above)	Same means of acquisition as other pass alternatives. No additional qualifying steps or actions necessary.	
Residents											
Flex Cash - Residents	2	33.5	2.5	2	3	3	2	3	2.5	3	
		Residents: 91% of linked trips Same estimated coverage as Access Pass; though no pass available with East Bay & SF trip coverage	Price change of fares and transit products purchased with Flex Cash is undertaken by the agencies offering such fares and products. TIMMA can alter the cost and amount of Flex Cash that market rate residents are required to purchase.	Revenue sharing is not directly required for transit fares paid and includes Ferry-Fastpass, however, which requires an independent revenue sharing agreement between SFMTA and WETA.	T.I. ferry schedule should accommodate new fare policies and revenue sharing agreements necessary for the Ferry-Fastpass.	Fare systems can accommodate the Flex Cash and Ferry-Fastpass alternative, given timely policy decision making.	Creation of a new Ferry-Fastpass fare product will involve independent analyses and policy actions by SFMTA and WETA.	TIMMA can offer subsidized Flex Cash, as desired.	Low-income res.: 92% Similar performance to Access Pass: slightly better coverage for Low-income residents. Reduced score to a "2.5" as no transit passes support both SF & East Bay travel.	Same means of acquisition as other pass alternatives. No additional qualifying steps or actions necessary.	

		Optimize the customer experience				Financial Sustainability			
		Facilitate fare instrument distribution / ease to obtain	Ease of use	Minimize Capital Cost		Minimize Operating Cost			
		Easy acquisition of product	Similarity with existing transit fare payment means and methods / user experience	Implementation cost estimate	Implementation complexity	Operational cost estimate	Operational complexity	Estimated farebox recovery - informational (all-cash fare scenario)	
RESIDENTS & WORKERS	Alternatives	TOTAL SCORE	Rank - Total						
	Access Pass - Residents & Workers	38	1						
	3-agency pass - AC, Muni, WETA	After initial Clipper card (or mobile app) distribution, automatic receipt of transit pass does not require customer interaction	Similar to existing worker/inst. programs. Product added to card/phone by administrator, not purchased directly	Assume that marginal cost for inclusion of T.I. fare products is included in C2 system implementation	Can be incorporated in C2	Resident share: 40% Worker share: 40% Annual estimate Between 0.7 and 1.3 FTE to administer program for residents, workers and visitors	Requires ongoing administrative support and funds distribution	3-agency pass program enables collection of transit revenue in excess of the no-project scenario (i.e., no transit pass program) for residents and workers	2
VISITOR	Access Pass - Visitors	31.5	4						
	T.I. Day Pass (AC/Muni/WETA) - mobile and/or limited use media	Assume mobile device/smart phone activation code, prior to arrival. LU Clipper cards reduce convenience, would change score to "2"	Customers add product to phone or card via activation code, they cannot purchase the product themselves	Assume that marginal cost for inclusion of T.I. fare products is included in C2 system implementation	Assumes mobile fare payment options available with Clipper-C2	Visitor share: 20% Annual estimate Marginal cost of additional 3-agency pass administration for hotel visitors: in addition to 3-agency Resident/Worker pass	Requires ongoing administrative support and funds distribution	3-agency pass program enables collection of transit revenue in excess of the no-project scenario (i.e., no transit pass program) for visitors	2
RESIDENTS & VISITORS	Transit Cash - Residents & Visitors	33	3						
	Cash Value	Easy automatic distribution to residents and distribution to visitors via activation code (mobile device).	Customers have the product added to card or phone by the administrator, they cannot purchase or add the product themselves	Assumed that cash value will remain in Clipper-C2 program	Already exists	Resident share: 60% Visitor share: 40% Annual estimate Total cost to administer cash value transit pass program for residents and visitors: Higher than Access Pass due to cards reaching the Clipper cash value limit.	Administrative support needed for subsidies and to manage accounts at the e-cash maximum	Cash value program enables collection of a similar amount of revenue for TIMMA for residents comparison to the 3-agency pass alternative; collection of visitor revenue is similar to 3-agency pass scenario	2
Residents	Flex Cash - Residents	33.5	2						
	Participant choice of fare product: - Clipper cash value - Muni-only Fastpass - AC Transit pass with Ferry-Fastpass (Muni and San Francisco ferry services)	Implementation estimate for web portal functionality used by program participants to choose the transit products they're purchasing with Flex Cash	Similar to existing worker/inst. programs. Product added to card/phone by administrator, not purchased directly	Resident share: 70% Visitor share: 30% Annual estimate Total cost to administer Flex Cash program for residents and Transit Cash program for visitors. Higher cost due to management of participant transit selections.	Web portal functionality for transit pass selection should not be complex.	Resident share: 70% Visitor share: 30% Annual estimate Total cost to administer Flex Cash program for residents and Transit Cash program for visitors. Higher cost due to management of participant transit selections.	Administrative support needed to monitor and manage transit monthly transit product selections, to manage subsidies and to manage accounts at the e-cash maximum	Flex Cash program enables collection of a similar amount of revenue for TIMMA for residents in comparison to other alternatives; collection of visitor revenue is similar to other alternatives.	2

March 16, 2024

Appendix 5 – Technical Memorandum #1

TECHNICAL MEMORANDUM #1

Treasure Island Transit Pass Analysis – Assumptions & Methodology

Prepared for

SFCTA

February 7, 2017

Version 2.0

ch2mSM



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Item 5 Enclosure
TIMMA Committee
March 16, 2021

Contents

Section	Page
1.	Introduction and Summary..... 1
1.1.	Summary – Overview of Baseline and Alternatives Analysis Results 1
2.	Baseline – No-Pass Scenario 7
2.1.	Baseline Overview – 2020 and 2025 Transit Ridership and Revenue..... 7
2.2.	Trip and Customer Detail – Monthly Trips and Transit Customers Per Agency 7
2.2.1.	Monthly and Annual Trip Assumptions and Methodology..... 8
2.2.2.	Individual / Customer Assumptions and Methodology 8
2.2.3.	Pricing and Customer Assumptions and Methodology 9
2.2.3.1.	Transit Agency Fares and Pass Prices 9
2.2.4.	Baseline Revenue Estimate Assumptions and Methodology 9
2.2.4.1.	Resident Differentiation – Assumptions and Methodology 10
3.	Scenario #1 – Treasure Island Access Pass 12
3.1.	Description..... 12
3.2.	2020 Interim Access Pass Scenarios 13
3.2.1.	2020 Residential Access Pass Assumptions and Revenue 13
3.2.2.	2020 Residential Access Pass Performance..... 14
3.2.3.	2020 Worker/Institutional Access Pass Assumptions and Revenue..... 14
3.2.4.	2020 Worker/Institutional Access Pass Performance 15
3.2.5.	2020 Visitor Access Pass Assumptions and Revenue 16
3.2.6.	2020 Visitor Access Pass Performance – Not Applicable..... 16
3.3.	2025 T.I. Access Pass Scenarios 16
3.3.1.	2025 Residential Access Pass Assumptions and Revenue 17
3.3.2.	2025 Residential Access Pass Performance..... 18
3.3.3.	2025 Worker/Institutional Access Pass Assumptions and Revenue..... 18
3.3.4.	2025 Worker/Institutional Access Pass Performance 19
3.3.5.	2025 Visitor Access Pass Assumptions and Revenue 19
3.3.6.	2025 Visitor Access Pass Performance 22
4.	Scenario #2 – Transit Cash (Clipper) 23
4.1.	Description..... 23
4.2.	2020 Interim Transit Cash Scenarios 24
4.2.1.	2020 Residential Transit Cash Assumptions and Revenue 25
4.2.2.	2020 Residential Transit Cash Performance..... 26
4.2.3.	2020 Worker Transit Cash – Not Applicable..... 27
4.2.4.	2020 Visitor Transit Cash Assumptions and Revenue 27
4.2.5.	2020 Visitor Transit Cash Performance – Not Applicable..... 27
4.3.	2025 Transit Cash Scenarios 27
4.3.1.	2025 Residential Cash Value Assumptions and Revenue 27
4.3.2.	2025 Residential Transit Cash Performance..... 29
4.3.3.	2025 Worker/Institutional Transit Cash – Not Applicable..... 29
4.3.4.	2025 Visitor Transit Cash Assumptions and Revenue 30
4.3.5.	2025 Visitor Transit Cash Performance 31
5.	Scenario #3 – Flex Cash (WETA Ferry-Fastpass) 31
5.1.	Additional Alternative – Flex Cash (with Ferry-Fastpass) 32
6.	Appendix 1
6.1.	Detailed Methodology – Individual Customer Assumptions 1
6.2.	Baseline Trips and Revenue by Type-of-Day..... 1

1. Introduction and Summary

The Treasure Island Transit Pass Analysis project identifies alternatives, evaluates performance, develops implementation and operations scenarios and cost estimates, and develops recommendations for achievement of Treasure Island mobility goals.

The primary goals being met with this project are development of policies that support the requirements for market-rate residents and hotel visitors to purchase transit passes valid for travel on and off the island.

In support of this goal the project team and Technical Advisory Committee (TAC) defined evaluation criteria, reviewed an initial set of pass alternatives, and identified two alternatives for detailed analysis:

- Scenario #1 – Treasure Island Access Pass (multi-agency pass)
- Scenario #2 – Transit Cash (Clipper cash value)
- Scenario #3 – Flex Cash (choice of publicly available passes or Clipper cash value, including a new Ferry-Fastpass)

To enable selection of a recommended alternative, Technical Memorandum #1 describes the assumptions and methodologies used to assess pass performance and develop revenue estimates for the two selected alternatives.

Performance assessment uses the Treasure Island population and transportation forecasts to derive anticipated revenue and measure the ability of the pass alternative to pay for forecast transit trips, currently based on the Fall 2016 housing and transportation model runs. Additionally, development of a baseline transit revenue forecast enables comparison of the alternatives against a “no pass” scenario.

High level results of the transit pass analysis are presented below. Detailed descriptions, assumptions and methodologies are contained in sections 2, 3, 4 and 5.

It is worthwhile to note that the analyses presented here assume cash and Clipper transit fares as follows:

- | | | |
|--------------|----------------|-------------|
| • Muni | \$2.50 Clipper | \$2.75 Cash |
| • AC Transit | \$3.40 Clipper | \$3.40 Cash |
| • Bay Ferry | \$3.80 Clipper | \$5.10 Cash |

The AC Transit and Bay Ferry fares for Treasure Island have yet to be adopted. Accordingly, if different fares are implemented for these two agencies then transit farebox revenue will be impacted. An alternative fare scenario could include a \$2.50 Clipper and \$5.00 cash fare for the Bay Ferry to/from Treasure Island, for example.

1.1. Summary – Overview of Baseline and Alternatives Analysis Results

Baseline – Transit Ridership and Revenue

The baseline contains total trips from the transportation model and anticipated revenue in the scenario with no transit pass program in place. I.e., anticipated Treasure Island transit revenue using existing agency fares and passes for all resident, worker and visitor trips.

The base case establishes measures for assessment of the Treasure Island transit pass scenarios. Summary results are presented below and a full description along with assumptions and methodology can be found in Section 2.

2020

Table 1.

2020 Baseline Transit Trips and Revenue by User Group

	Resident		Worker		Visitor		TOTAL	
	Trips	Revenue	Trips	Revenue	Trips	Revenue	Trips	Revenue
Monthly	88,272	\$128,659	23,944	\$38,957	6,326	\$18,749	118,542	\$186,365
Annual	1,059,261	\$1,543,910	287,328	\$467,489	75,912	\$224,982	1,422,501	\$2,236,380

2025

Table 2.

2025 Baseline Transit Trips and Revenue by User Group

	Resident		Worker		Visitor		TOTAL	
	Trips	Revenue	Trips	Revenue	Trips	Revenue	Trips	Revenue
Monthly	248,656	\$530,321	24,338	\$51,139	20,212	\$68,388	293,206	\$649,848
Annual	2,983,874	\$6,363,847	292,056	\$613,672	242,544	\$820,658	3,518,474	\$7,798,177

Pass Scenario #1 – Treasure Island Access Pass – Trip Coverage and Revenue

The Access Pass is a multi-agency transit pass valid for all travel on and off the island during the interim (Muni and AC Transit) and full transit buildout timeframes (Muni, AC Transit and Treasure Island ferry). This alternative is available to residents, workers and visitors (hotel only, full-buildout timeframe) as an institutional pass; i.e., it is not available to the public.

Total revenue per-scenario (aligning scenarios across user groups) is below. For scenarios without an Access Pass alternative (e.g., 2020 Visitors), the baseline revenue estimate is used for the group in question.

PASS SCENARIO #1 ACCESS PASS – TOTAL ANNUAL TRIPS & REVENUE

	Trips	Revenue		
		Scen.-1	Scen.-2	Scen.-3
2020				
Monthly	118,542	\$281,714	\$251,070	\$220,187
Annual	1,422,501	\$3,380,563	\$3,012,835	\$2,642,239
2025				
Monthly	293,206	\$975,985	\$904,868	\$827,133
Annual	3,518,474	\$11,711,820	\$10,858,416	\$9,925,596

While displayed here as a group for ease of assessment the price points for various pass options can be mixed and matched, as desired. E.g., the P-1 Resident Access Pass price point can be mixed with Institutional P-2 for Workers and Hotel P-3 for visitors.

Forecast revenue and performance (ability of the pass to accommodate forecast trips) by price point is outlined in tables 2-7, for both the interim and full buildout scenario. Full descriptions, assumptions and methodologies for arriving at these estimates can be found in section 3.

2020 (Note: visitor revenue matches baseline, no hotel / visitor program for 2020)

Table 3.

2020 Access Pass Revenue and Performance - Residents

	Resident			
	Trips	Revenue		
		P-1	P-2	P-3
Price point		\$115	\$95	\$75

Table 4.

2020 Access Pass Revenue and Performance - Workers

	Worker			
	Trips	Revenue		
		Inst. P-1	Inst. P-2	Inst. P-3
Price point		\$58	\$48	\$38

Monthly	88,272	\$199,715	\$180,071	\$160,188	Monthly	23,944	\$63,250	\$52,250	\$41,250
Annual	1,059,264	\$2,396,581	\$2,160,853	\$1,922,257	Annual	287,328	\$759,000	\$627,000	\$495,000
Max. Trip coverage		91%			Max. Trip coverage		69%		

2025

Table 5.
2025 Access Pass Revenue and Performance - Residents

		Resident		
		Revenue		
Trips		P-1	P-2	P-3
Price point		\$150	\$125	\$100
Monthly	248,656	\$738,163	\$654,610	\$565,650
Annual	2,983,872	\$8,857,956	\$7,855,320	\$6,787,800
Max. Trip coverage		91%		

Table 6.
2025 Access Pass Revenue and Performance - Workers

		Worker		
		Revenue		
Trips		Inst. P-1	Inst. P-2	Inst. P-3
Price point		\$75	\$63	\$50
Monthly	24,338	\$114,300	\$95,250	\$76,200
Annual	292,056	\$1,371,600	\$1,143,000	\$914,400
Max. Trip coverage		76%		

Table 7.
2025 Access Pass Revenue and Performance - Visitors

		Visitor		
		Revenue		
Trips		Hotel P-1	Hotel P-2	Hotel P-3
Price point		\$10	\$13	\$15
Monthly	20,212	\$123,522	\$155,008	\$185,283
Annual	242,544	\$1,482,264	\$1,860,096	\$2,223,396
Max. Trip coverage		29%		

Pass Scenario #2 – Transit Cash – Trip Coverage and Revenue

The second alternative, Transit Cash, is comprised of Clipper cash value loaded directly to participant Clipper cards/accounts, which is then used to pay for transit on a per-trip basis. Clipper cash value is valid on all 23 transit agencies in the Clipper program and may not cover all transit trips on and off the island for the period in question.

Total revenue per-scenario (aligning scenarios across user groups) is below. For scenarios without a Transit Cash alternative (e.g., 2020 Worker and Visitor, and 2025 Worker) the baseline revenue estimate is used for the relevant group.

PASS SCENARIO #2 TRANSIT CASH – TOTAL ANNUAL TRIPS & REVENUE

		Trips	Revenue		
			Scen.-1	Scen.-2	Scen.-3
2020					
Monthly	118,542	\$254,268	\$245,548	\$236,844	
Annual	1,422,501	\$3,051,213	\$2,946,573	\$2,842,125	

2025				
Monthly	293,206	\$921,891	\$916,114	\$909,422
Annual	3,518,474	\$11,062,691	\$10,993,371	\$10,913,061

As with the Access Pass alternative, the price points for various Transit Cash options can be mixed and matched, as desired. E.g., the T.C.-1 Resident Transit Cash price point can be mixed with the Hotel T.C.-2 for visitors.

Forecast revenue and performance (ability of the pass to accommodate forecast trips) by price point for the interim and full buildout scenarios can be found in tables 8-10. Full descriptions, assumptions and methodologies for deriving these estimates can be found in section 4.

2020 (Note: worker and visitor revenue matches baseline, not offered for worker user group; and no visitor program for 2020)

Table 8.
2020 Transit Cash Revenue and Performance - Residents

		Resident		
		Revenue		
	Trips	TC1	TC2	TC3
Price point		\$115	\$95	\$75
Monthly	88,272	\$196,562	\$187,842	\$179,138
Annual	1,059,264	\$2,358,742	\$2,254,102	\$2,149,654
Max. Trip coverage		68%	56%	44%

2025 (Note: worker revenue matches baseline, not offered for worker user group)

Table 9.
2025 Transit Cash Revenue and Performance - Residents

		Resident		
		Revenue		
	Trips	TC1	TC2	TC3
Price point		\$150	\$125	\$100
Monthly	248,656	\$752,000	\$722,412	\$692,825
Annual	2,983,872	\$9,023,995	\$8,668,945	\$8,313,895
Max. Trip coverage		83%	70%	56%

Table 10.
2025 Transit Cash Revenue and Performance - Visitors

		Visitor		
		Revenue		
	Trips	HTC-1	HTC-2	HTC-3
Price point		\$10	\$13	\$15
Monthly	20,212	\$118,752	\$142,563	\$165,458
Annual	242,544	\$1,425,024	\$1,710,753	\$1,985,493
Max. Trip coverage		32%	36%	38%

Combination of the pass alternatives, e.g. offering the Access Pass for Residents and Workers and Transit Cash for Visitors, can also be taken into consideration as the transit pass analysis project moves forward.

Pass Scenario #3 – Flex Cash – Trip Coverage and Revenue

The third alternative, Flex Cash, provides participants with the option to select the publicly available fare product of their choice, including passes and Clipper cash value. At the request of

WETA, this option also includes a new, publicly available pass, the Ferry-Fastpass. This fare product has similar functionality to the Muni M-Pass (Muni-only), with the addition of the Bay Ferry route to/from Treasure Island.

Total revenue per-scenario (aligning scenarios across user groups) is below. For scenarios without a Flex Cash alternative (e.g., 2020 Worker and Visitor, and 2025 Worker) the baseline revenue estimate is used for the relevant group. For the 2025 Visitor group the Transit Cash scenario is applied (see 2025 Visitor in Pass Scenario #2 – Transit Cash, above).

PASS SCENARIO #3 Flex Cash – TOTAL ANNUAL TRIPS & REVENUE

	Trips	Revenue		
		Scen.-1	Scen.-2	Scen.-3
2020				
Monthly	118,542	\$238,345	\$229,305	\$220,265
Annual	1,422,501	\$2,860,140	\$2,751,660	\$2,643,180
2025				
Monthly	293,206	\$780,725	\$774,949	\$768,256
Annual	3,518,474	\$9,368,704	\$9,299,383	\$9,219,073

As with the other alternative, the price points for various Flex Cash options can be mixed and matched, as desired. E.g., the F.C.-1 Resident Flex Cash price point can be mixed with the Hotel F.C.-3 price for Visitors (2025).

Forecast revenue and performance (ability of the pass to accommodate forecast trips) by price point for the interim and full buildout scenarios can be found in tables 11-12. Full descriptions, assumptions and methodologies for deriving these estimates can be found in section 5.

2020 (Note: worker and visitor revenue matches baseline, not offered for worker user group; and no visitor program for 2020)

Table 11.

2020 Flex Cash Revenue and Performance - Residents

	Trips	Resident		
		Revenue		
		FC1	FC2	FC3
Price point		\$115	\$95	\$75
Monthly	88,272	\$180,639	\$171,599	\$162,559
Annual	1,059,264	\$2,167,670	\$2,059,190	\$1,950,710
Max. Trip coverage		91%	91%	91%

2025 (Note: worker revenue matches baseline, not offered for worker user group; visitor revenue matches Transit Cash scenario for 2025)

Table 12.

2025 Flex Cash Revenue and Performance - Residents

	Trips	Resident		
		Revenue		
		FC1	FC2	FC3
Price point		\$150	\$125	\$100
Monthly	248,656	\$610,834	\$581,247	\$551,659
Annual	2,983,872	\$7,330,008	\$6,974,958	\$6,619,908
Max. Trip coverage		91%	91%	91%

Combination of the pass alternatives, e.g. offering Flex Cash for Residents and Transit Cash for Visitors, is assumed in this alternative as there is no Flex Cash option for the Visitor user group.

2. Baseline – No-Pass Scenario

The Treasure Island transportation demand model forecasts trips by type of day (weekday, weekend), by mode (including by transit agency), by income, by user group and by additional factors for the interim (2020) and full buildout (2025) timeframes.

The transit pass scenario analysis uses the transportation demand model outputs to assess the ability of different pass alternatives to generate farebox revenue and to meet the forecast transit needs of residents, workers and visitors.

For the purposes of evaluating the transit pass alternatives the **Baseline Scenario** uses the transportation demand model outputs and existing fare policies to **estimate farebox revenue if no transit pass program were put in place:**

- Weekday resident and worker trips/customers – utilize available agency-specific passes (monthly or 31-day); if no pass is available (ferry), then customers pay Clipper cash value farae
- Weekend resident and worker trips/customers – pay Clipper cash value fare
- Visitors (weekday and weekend) – pay cash fare (if Clipper/cash fare differential is present)

2.1. Baseline Overview – 2020 and 2025 Transit Ridership and Revenue

Summary results of the baseline transit demand and revenue forecasts by user group for full buildout and interim timeframes are as follows:

Table 13.

2020 Baseline Transit Trips and Revenue by User Group

	Resident	
	Trips	Revenue
Monthly	88,272	\$128,659
Annual	1,059,261	\$1,543,910

Table 14.

2025 Baseline Transit Trips and Revenue by User Group

	Resident		Worker		Visitor		TOTAL	
	Trips	Revenue	Trips	Revenue	Trips	Revenue	Trips	Revenue
Monthly	248,656	\$530,321	24,338	\$51,139	20,212	\$68,388	293,206	\$649,848
Annual	2,983,874	\$6,363,847	292,056	\$613,672	242,544	\$820,658	3,518,474	\$7,798,177

Transit pass alternative revenue estimates will be assessed against the baseline revenue figures above and pass performance will be measured by the ability to accommodate forecast total trips.

2.2. Trip and Customer Detail – Monthly Trips and Transit Customers Per Agency

The trip and revenue forecasts are built on forecast trips-per-agency and estimated transit customers, summarized as follows:

Table 15.

2020 Trips					2020 Individuals				
	Residents	Workers	Visitors		Residents	Workers	Visitors		
Muni	79,958	14,964	4,246	99,168	1,386	283	1,612	3,281	
AC Transit	8,314	8,980	2,080	19,374	143	169	768	1,080	
Ferry	0	0	0	0	0	0	0	0	
	88,272	23,944	6,326	118,542	1,529	452	2,380	4,361	

Table 16.

2025 Trips					2025 Individuals				
	Residents	Workers	Visitors		Residents	Workers	Visitors		
Muni	160,928	12,185	9,712	182,824	2,909	243	3,792	6,944	
AC Transit	29,178	8,212	6,982	44,372	532	164	2,746	3,442	
Ferry	58,550	3,941	3,518	66,010	1,059	78	1,378	2,515	
	248,656	24,338	20,212	293,206	4,500	485	7,916	12,901	

2.2.1. Monthly and Annual Trip Assumptions and Methodology

The transportation demand model provides on- and off-island, per-agency forecasts for **trips per-weekday** and **trips per-weekend day**. Monthly and annual figures are based on the following:

Monthly trips = (Weekday Trips * 22) + (Weekend Trips * 8)

- 22 weekdays-per-month
- 8 weekend days-per-month

Annual trips = (Monthly trips) * 12

2.2.2. Individual / Customer Assumptions and Methodology

While the transportation model provides forecast transit trips broken out via multiple criteria (transit agency, income type, trip type, etc.), estimated individuals are also necessary as transit pass sales occur on a per-person basis. Estimated individuals are then used to determine baseline and Transit Pass revenue estimates.

Estimates are calculated based on the **forecast resident population** in 2020 and 2025 and **net weekday and weekend day trips** in 2020 and 2025:

Table 17.

Residents and Trips by Type of Day – 2020 and 2025

Year	Total Forecast Residents	Weekday		Weekend	
		Total Trips	Daily trips/person	Total Trips	Daily trips/person
2020	3,936	9,833	2.50	12,576	3.20
2025	10,003	23,852	2.38	30,704	3.07

Table 18.

Estimated Residents, Workers and Visitors – 2020 and 2025

Year	Total Residents	Total Workers	Total Visitors (monthly)
2020	3,936	452	2,380
2025	10,003	485	7,916

Travel and revenue by group is broken out further in the analyses in Sections 3 and 4.

2.2.3. Pricing and Customer Assumptions and Methodology

Simplifying assumptions are necessary to enable generation of cash fare and pass sale revenue estimates for the baseline and transit pass scenarios under consideration. The following apply to all transit revenue estimates for the project.

2.2.3.1. Transit Agency Fares and Pass Prices

For the purposes of this analysis all fares and pass prices are held at the same 2017 value for all scenarios (2020 and 2025). While fares and pass prices will increase by 2020, and between 2020 and 2025, maintaining price points across scenarios enables consistent evaluation.

Muni

Utilize existing fare policies and pricing for Treasure Island pass.

- Fares: \$2.50 Clipper; \$2.75 cash
- Fastpass (Muni only): \$75; Muni + BART pass: \$94
- Lifeline pass (Muni only): \$38

AC Transit

Assume new Treasure Island-specific fare and pass pricing. Fare price structure similar to Transbay (i.e., no Clipper/cash fare differential).

- Treasure Island Fare: \$3.40-Clipper and cash (halfway point between Local and Transbay fare)
- Treasure Island 31-Day Pass: \$122 (halfway point between Local and Transbay); available for public purchase
- Upgrade fare for Transbay service, similar to Local fare upgrade; Local transfers incorporated in T.I. pass, similar to Transbay pass functionality

Bay Ferry

Assume new Treasure Island-specific fare. It is assumed that transfer discounts abide by current WETA fare policies for other routes.

- Treasure Island Fare: \$3.80-Clipper; \$5.10-cash
- No publicly-available monthly pass for the Treasure Island ferry route
- Maintain current \$0.50 Clipper adult transfer discount with Muni

2.2.4. Baseline Revenue Estimate Assumptions and Methodology

Universal assumptions and detail regarding revenue generation by user group.

Assumptions

- **Weekday Residents and Workers**
All customers purchase a pass (if available); otherwise Clipper cash value
 - Muni High Income – Fastpass
 - Muni Low Income – Lifeline pass
 - AC Transit – Treasure Island pass
 - Bay Ferry – Treasure Island Clipper fare
- **Weekend Residents and Workers**
All customers pay Clipper cash value fare
- **Visitors – All**
All customers pay cash fare
- **Weekdays – 22-month; Weekend days – 8-month** (per Section 2.2.1)

2.2.4.1. Resident Differentiation – Assumptions and Methodology

Identifying three resident sub-groups is necessary to develop revenue estimates as their fare payment behavior differs for each:

- Required – one transit pass per market rate household, regardless of transit usage
- Discretionary – additional residents in multi-occupancy, market rate households that use transit
- Low income – below market rate household residents that use transit

Treasure Island housing projections, currently utilizing the Fall 2016 model run, identify the number of households by type (market rate, low income) and size, enabling identification of the three resident groups.

Table 19.
Total Residents by Type

		Market Rate / High Income (H.I.)		Below Market Rate / Low Income	TOTAL
		Required	Discretionary		
2020	Indiv.	904	1,958	1,074	3,936
	% H.I.	32%	68%		
	% Total	23%	50%	27%	
2025	Indiv.	2,736	4,917	2,350	10,003
	% H.I.	36%	64%		
	% Total	27%	49%	23%	

Resident differentiation in Table 17 outlines the following:

2020

- Required Market Rate / High Income – 904 residents are required to purchase the transit pass; representing 23% of the total and 32% of high income residents
- Discretionary Market Rate / High Income – 1,958 residents are high income (market rate housing) and are not required to purchase the transit pass (50% of total, 68% of high income)
- Below Market Rate / Low income – 1,074 residents representing 27% of the total resident population

2025

- Required Market Rate / High Income – 2,736 residents are required to purchase the transit pass; representing 27% of the total and 36% of high income residents
- Discretionary Market Rate / High Income – 4,917 residents are high income (market rate housing) and are not required to purchase the transit pass (49% of total, 64% of high income)
- Below Market Rate / Low Income – 2,350 residents representing 23% of the total resident population

3. Scenario #1 – Treasure Island Access Pass

The first Transit Pass scenario under consideration is the Treasure Island Access Pass: a 3-agency pass (Muni, AC Transit and SF Bay Ferry) that will be available to Treasure Island travelers – residents, workers and hotel visitors – for travel on and off the island. This section contains summary information regarding user groups, pass functionality and pass distribution/logistics.

3.1. Description

The Treasure Island Access Pass will serve the needs of customers during the interim phase of development (2020) and in full buildout (2025). The description provided below focuses on the full buildout scenario, with notes regarding interim differences.

Table 20. Treasure Island Access Pass Functionality – 2025 and 2020

Transit Service Coverage

Transit Agency – 2025 Functionality	2020 Differential
<p>Muni, AC Transit, Treasure Island ferry</p> <ul style="list-style-type: none"> Resident and worker pass valid for appropriate period (e.g. monthly), determined as a part of program administration. Passes will be blocked if/when residents/workers leave Treasure Island/employer. Visitor – hotel pass duration: one-day for all agencies. 	No visitor pass in 2020
<p>Muni</p> <ul style="list-style-type: none"> Valid for travel on all Muni services for the appropriate period; Analogous to Muni institutional pass (including transfer discounts); Not valid on cable car, special event or BART in San Francisco. 	No transit coverage difference
<p>AC Transit – pending Treasure Island fare/pass policy approach</p> <ul style="list-style-type: none"> Valid for Treasure Island and Local services for the appropriate period; Upgrade fare for Transbay service; Analogous to Easy Pass program (including transfer discounts). 	No transit coverage difference
<p>Bay Ferry</p> <ul style="list-style-type: none"> Valid for all travel to/from Treasure Island; Not valid on other WETA/Bay Ferry routes; Transfer discounts per existing policies for single-ride ferry trips. 	N/A (no ferry service in 2020).

In addition to the required market rate-resident and hotel pass holder groups the Treasure Island Access Pass can be made available for discretionary purchase by residents and hotel visitors along with an employer-based institutional program for Treasure Island workers.

Table 21. Treasure Island Access Pass User Groups

Functional description

Group	Administration & Notes
<p>Residents – institutional pass program</p> <ul style="list-style-type: none"> Required – one person per market rate household Discretionary – additional market rate residents Below market rate – low income residents 	<p>Pass program managed by TIMMA</p> <ul style="list-style-type: none"> 1-per-household – paid via HOA dues / rent Available to additional residents – paid via HOA / rent

	<ul style="list-style-type: none"> Subsidized pass price (TIMMA) – available via HOA / rent
Workers – employer-based institutional pass <ul style="list-style-type: none"> Employers manage program on behalf of employees (all employees enrolled) Voluntary participation per-employer 	Pass program managed by TIDA/TIMMA <ul style="list-style-type: none"> T.I. pass is the only alternative offered Employers may use WageWorks, CommuterCheck or ClipperDirect if cash value and/or other alternatives are desired
Visitors –available for overnight hotel visitors <ul style="list-style-type: none"> Hotel required – 1 pass per day per room Hotel discretionary – additional pass/room Casual/day visitors – Access Pass not available; pay cash fare, Clipper fare, or agency pass (e.g., Fastpass) Visitor pass program is not present in 2020 as hotel will not yet be complete 	Pass program managed by TIDA/TIMMA <ul style="list-style-type: none"> Purchase during hotel reservation, available via mobile device Additional passes available in advance (mobile only) or at the hotel (mobile, possible limited-use fare card).

The pass program relies on an institutional pass operating model managed by TIMMA. Institutional program management is included in the pass alternative cost estimates.

3.2.2020 Interim Access Pass Scenarios

The Treasure Island Access Pass scenario for 2020 mirrors the 2025 scenario with the following exceptions:

- No ferry service for the interim 2020 scenario. All transit customers use Muni or AC Transit.
- No hotel is present. Accordingly, all visitor trips are casual/day trips and there is no mandatory hotel pass program for the interim scenario

Except for these discrepancies the methodology for the 2020 pass analysis mirrors the 2025 analysis.

3.2.1. 2020 Residential Access Pass Assumptions and Revenue

The baseline and pass alternatives are assessed using a common data set, built off the individual and transit trip forecasts. For the residential program the number of forecast individuals is the primary driver in determining estimated pass revenue.

Table 22.
2020 Residents by Group

	All Res.	Transit Cust.
High Income - pass required	904	322
High Income - additional residents	1,958	698
Low Income / BMR	1,074	509
	3,936	1,529

- Required Residents**
All high income required residents must purchase the pass, for weekday and weekend customers and trips: the first resident in all market rate housing.
- High Income and Low Income Discretionary Residents**
Weekday transit customer residents

All weekday transit customers assumed to be regular transit users and accordingly purchase a discount pass (monthly or 31-day) if available.

If the Access Pass is priced less than the corresponding agency pass, then Weekday transit customers purchase the Access Pass.

- All ferry customers are assumed to purchase the Access Pass
- Muni and AC Transit customers will only purchase the Access Pass if priced less than the Fastpass/Lifeline pass or AC Transit T.I. 31-Day Pass.

Weekend transit customer residents

- Assumed that new weekend transit customers do not take transit frequently enough to warrant pass purchase. Accordingly, assumed that these residents pay the Clipper cash value fare.

Table 23.

2020 Residential Revenue - Access Pass Scenarios

	P-1	P-2	P-3
Pass Price (monthly)	\$115	\$95	\$75
Disc./L.I. price	\$58	\$48	\$38
Participants	999	999	1,964
Total transit revenue	\$2,396,581	\$2,160,853	\$1,922,257

Note that the increase in participants for P-3 is due to the addition of discretionary Muni residents.

3.2.2. 2020 Residential Access Pass Performance

Given the scope of the Access Pass it is highly effective in accommodating customer travel, providing coverage for over 90% of all transit trips.

Table 24.

2020 Residential Pass Performance - Access Pass Scenarios

	3-Agency pass (all)
High Income	90%
Low Income	94%
Total	91%

The differential between High Income and Low Income coverage is due to the slightly lower percentage of Low Income customers that take linked transit trips, transferring to transit operators other than Muni, AC Transit or the Treasure Island ferry.

3.2.3. 2020 Worker/Institutional Access Pass Assumptions and Revenue

The Worker Pass scenario is a Treasure Island-specific application of an institutional pass. In this case, the 2-agency Treasure Island pass would be made available to employers for all their employees in a similar manner as the AC Transit EasyPass program, with TIMMA providing program administration services.

Employers wishing to offer Clipper cash value or agency-specific transit passes (e.g., Muni Fastpass), would be able to utilize existing programs that offer these alternatives: ClipperDirect, WageWorks, CommuterCheck.

As an institutional program, the Worker Pass would be provided to all individuals for each participating employer, regardless of transportation choice.

Table 25.
2020 Workers by Group

	All Workers	Transit Customers
High Income	713	293
Low Income	387	159
	1,100	452

The following assumptions inform the Worker Pass baseline and alternatives analysis:

- Participating Workers**
 It is assumed that all employers and workers are enrolled, though actual participating will be on a per-employer basis. All weekday and weekend workers and trips are accounted for in the Institutional Pass scenario.
- Institutional Pass Price**
 Institutional passes are provided to employers for all employees, regardless of transportation choice. Accordingly, the per-pass price offered to employers is less than the individual/market rate price.

For this analysis, the **Institutional Pass is offered at a 50% discount from the Residential Pass price.**

Table 26.
2020 Worker/Institutional Revenue - T.I. Pass Scenario

	2-Agency Pass - Institutional Pass		
	I-1	I-2	I-3
Pass Price (monthly)	\$58	\$48	\$38
Discount rate	50%	50%	50%
Participants	1,100	1,100	1,100
Total transit revenue	\$759,000	\$627,000	\$495,000

Note that while the Institutional Pass price is initially set at 50% of the Residential Pass, it can be altered and set independently. As a point of comparison, the per-pass price for AC Transit's EasyPass program is determined per-employer, based on several factors including employer size and proximity to transit services.

3.2.4. 2020 Worker/Institutional Access Pass Performance

As with the Residential Pass and noted in Table 18, the Worker/Institutional Pass is valid for all transit travel on and off the island: Muni and AC Transit. However, the pass will not pay for the full transit trips for linked transit trips, transferring to BART, Caltrain, Golden Gate Transit or Ferry, SamTrans, etc.

A higher proportion of worker trips on Treasure Island are projected to involve transfers from connecting agencies: BART, SamTrans, Caltrain, etc. While still highly effective in accommodating worker travel, the percentage of total trips covered by the Institutional Pass is less than rate of trip coverage for the corresponding Residential Pass.

Table 27.
 2020 Worker/Institutional Pass Performance - T.I. Pass

		3-Agency Pass - Institutional Pass
High Income		66%
Low Income		73%
Total		69%

As with the Residentail Pass, the differential between High Income and Low Income coverage is due to the slightly lower percentage of Low Income customers that take linked transit trips, transferring to transit operators other than Muni and AC Transit.

3.2.5. 2020 Visitor Access Pass Assumptions and Revenue

The underlying assumption is that visitor trips to/from Treasure Island via transit are made by the two following customer groups:

- Casual day use visitors
 Assumed that these customers travel to/from Treasure Island infrequently at most. Accordingly, the transit pass analysis assumes that these customers pay the **applicable cash fare** for transit trips to/from Treasure Island.
 All visitors in the interim 2020 scenario are assumed to be in this category.
- Hotel overnight visitors – REQUIRED TRANSIT PASS PURCHASE – NOT APPLICABLE
 Overnight guests at the hotel on Treasure Island will be required to purchase one transit pass per-day per-room.

As the hotel will not be open in the interim timeframe, **no visitors will be required to purchase the visitor pass for the interim timeframe.**

Table 28.
 2020 Transit Customer Visitors by Group

		Monthly	Annual
High Income		1,194	14,328
Low Income		1,186	14,232
		2,380	28,560

As there is no interim special fare program for Treasure Island visitors the estimated fare revenue matches the Baseline estimated revenue noted in Section 2.

Table 29.
 2020 Visitor Farebox Revenue

Annual Transit Trips:	75,912
Annual Revenue:	\$224,982
(no special fare program)	

3.2.6. 2020 Visitor Access Pass Performance – Not Applicable

Visitor pass performance for 2020 is not applicable. As the hotel will not be present in the interim time frame there will be no transit pass to assess.

3.3.2025 T.I. Access Pass Scenarios

Transit pass requirements and the logistics of program delivery vary per user group. Accordingly, the revenue and pass performance evaluation is presented by group for the 2025 full buildout timeframe, with both the Treasure Island ferry and the hotel in service. While setting pass prices is not a part of this analysis three price points are contained to discern the anticipated revenue

impact, as pass price influences purchasing decisions for customers that are not required to purchase the transit pass.

3.3.1. 2025 Residential Access Pass Assumptions and Revenue

The following assumptions informed the residential revenue estimate scenarios for the Access Pass:

Table 30.
2025 Residents by Group

	All Res.	Transit Cust.
High Income - pass required	2,736	1,174
High Income - additional residents	4,917	2,109
Low Income / BMR	2,350	1,217
	10,003	4,500

The following assumptions informed the residential revenue estimate scenarios for the Access Pass:

- **Required Residents**

All high income required residents must purchase the pass, for weekday and weekend customers and trips: the first resident in all market rate housing.

- **High Income and Low Income Discretionary Residents**

Weekday transit customer residents

All weekday transit customers assumed to be regular transit users and accordingly purchase a discount pass (monthly or 31-day) if available.

If the Access Pass is priced less than the corresponding agency pass, then Weekday transit customers purchase the Access Pass.

- All ferry customers are assumed to purchase the Access Pass
- Muni and AC Transit customers will only purchase the Access Pass if priced less than the Fastpass/Lifeline pass or AC Transit T.I. 31-Day Pass.

Weekend transit customer residents

- Assumed that new weekend transit customers do not take transit frequently enough to warrant pass purchase. Accordingly, assumed that these residents pay the Clipper cash value fare.

Table 31.
2025 Residential Revenue - Access Pass Scenarios

	P-1	P-2	P-3
Pass Price (monthly)	\$150	\$125	\$100
Disc./L.I. price	\$75	\$63	\$50
Participants	3,534	3,534	3,763
Total transit revenue	\$8,857,956	\$7,855,320	\$6,787,800

Note that the increase in participants for P-3 is due to the addition of discretionary Muni residents. At \$75 and \$38, respectively, the discretionary Muni groups (High Income and Low Income) choose to purchase the T.I. pass instead of the Muni Fastpass and Lifeline pass, respectively.

3.3.2. 2025 Residential Access Pass Performance

In conjunction with revenue, the ability of the transit pass alternatives to pay for customer travel is the second primary metric for evaluation of alternatives. The greater the ability to accommodate customer travel the greater overall utility of the pass and effectiveness in meeting TIMMA’s transportation goals.

As noted in Table 18, the Treasure Island Access Pass is valid for all transit travel on and off the island: Muni, AC Transit and the ferry. However, the pass will not pay for the full transit trips for residents taking linked transit trips, transferring to BART, Caltrain, Golden Gate Transit or Ferry, SamTrans, etc.

Given the scope of the Access Pass it is highly effective in accommodating customer travel, providing coverage for over 90% of all transit trips.

Table 32.
 2025 Residential Pass Performance - Access Pass Scenarios

	Access Pass (all price points)
High Income	90%
Low Income	92%
Total	91%

The differential between High Income and Low Income coverage is due to the slightly lower percentage of Low Income customers that take linked transit trips, transferring to transit operators other than Muni, AC Transit or the Treasure Island ferry.

Pass performance indicates the theoretical best-case scenario, assuming that all eligible participants purchase a Treasure Island pass. This includes all discretionary high income and low income residents.

3.3.3. 2025 Worker/Institutional Access Pass Assumptions and Revenue

The Worker Pass scenario is a Treasure Island-specific application of an institutional pass. In this case, the 3-agency Treasure Island pass would be made available to employers for all their employees in a similar manner as the AC Transit EasyPass program, with TIMMA providing program administration services.

Employers wishing to offer Clipper cash value or agency-specific transit passes (e.g., Muni Fastpass), would be able to utilize existing programs that offer these alternatives: ClipperDirect, WageWorks, CommuterCheck.

As an institutional program, the Worker Pass would be provided to all individuals for each participating employer, regardless of transportation choice.

Table 33.
 2025 Workers by Group

	All Workers	Transit Customers
High Income	1,068	340
Low Income	456	145
	1,524	485

The following assumptions inform the Worker Pass baseline and alternatives analysis:

- **Participating Workers**

It is assumed that all employers and workers are enrolled, though actual participating will be on a per-employer basis. All weekday and weekend workers and trips are accounted for in the Institutional Pass scenario.

- **Institutional Pass Price**

Institutional passes are provided to employers for all employees, regardless of transportation choice. Accordingly, the per-pass price offered to employers is less than the individual/market rate price.

For this analysis, the **Institutional Pass is offered at a 50% discount from the Residential Pass price**. The per-pass discount is offered to employers as only 1/3 of Treasure Island workers are projected to use transit (see Table 31).

Table 34.
2025 Worker/Institutional Revenue - Access Pass Scenario

	Access Pass - Institutional Pass		
	I-1	I-2	I-3
Pass Price (monthly)	\$75	\$63	\$50
Discount rate	50%	50%	50%
Participants	1,524	1,524	1,524
Total transit revenue	\$1,371,600	\$1,143,000	\$914,400

Note that while the Institutional Pass price is initially set at 50% of the Residential Pass, it can be altered and set independently. As a point of comparison, the per-pass price for AC Transit’s EasyPass program is determined per-employer, based on a number of factors including employer size and proximity to transit services. The discount rate for institutional passes ranges from 80%-95% for AC Transit, and 60% for Muni.

3.3.4. 2025 Worker/Institutional Access Pass Performance

As with the Residential Pass and noted in Table 18, the Worker/Institutional Pass is valid for all transit travel on and off the island: Muni, AC Transit and the ferry. However, the pass will not pay for the full transit trips for linked transit trips, transferring to BART, Caltrain, Golden Gate Transit or Ferry, SamTrans, etc.

A higher proportion of worker trips on Treasure Island are projected to involve transfers from connecting agencies: BART, SamTrans, Caltrain, etc. Accordingly, the overall performance of the Access Pass for workers is lower than performance of the Access Pass for residents, as residents are less likely to transfer to another transit operator.

Table 35.
2025 Worker/Institutional Pass Performance - Access Pass

	Access Pass - Institutional Pass
	High Income
Low Income	77%
Total	76%

As with the Residentail Pass, the differential between High Income and Low Income coverage is due to the slightly lower percentage of Low Income customers that take linked transit trips, transferring to transit operators other than Muni, AC Transit or the Treasure Island ferry.

3.3.5. 2025 Visitor Access Pass Assumptions and Revenue

The Visitor Pass scenario is a day pass or passport version of the Treasure Island-pass: valid for all travel on Muni, AC Transit and the Treasure Island ferry for the day of use.

The pass is a required purchase for overnight hotel visitors, one pass per-room per-night, and may also be made available for discretionary purchase by additional overnight hotel guests. The program does not include casual/day use visitors.

In this scenario payment for the Visitor Pass would be incorporated into the hotel reservation and distribution would likely be by mobile device, utilizing an authorization code provided during the reservation or similar functionality. As program manager TIMMA will coordinate with the hotel vendor, monitor usage and collect revenue. As an institutional program, the Visitor Pass is not anticipated to be made available for discretionary purchase by the public.

Estimation of hotel pass purchases and transit usage is based on aggregate visitor trip forecast from the Treasure Island demand model, including overnight visitors and casual day-use trips, and assumptions regarding the number of hotel rooms and anticipated occupancy. As described in detail below, the combination of forecast visitor trips and assumptions regarding hotel occupancy supported evaluation of the 2025 visitor pass.

The following assumptions inform the Visitor Pass transit pass revenue estimates:

- **Hotel Visitors**

One pass per hotel room per night must be purchased. The following number of hotel rooms and occupancy rate is used to determine the number of required hotel transit pass purchases:

Hotel rooms:	500
Occupancy rate:	80%
Required pass purchases/night:	400
Required pass purchases/month:	12,000

The number of hotel rooms is based on anticipated hotel capacity in 2025 and the occupancy rate is an approximation of current San Francisco hotel occupancy. The uniform occupancy rate is applied throughout the year. These figures can be updated with new information, if desired.

- **Projected Total and Transit Customer Visitors**

Additional assumptions necessary to develop estimates of visitor pass usage and revenue include the following:

Total visitors:	30,758 / month (based on 2 ½-3 trips/day, from demand model)
Total transit visitors:	7,916 / month
Hotel visitor income category:	High Income
% of High Income transit customers in hotel:	80%

Table 36.
 Monthly Visitors by Group

		All	Transit Users
High Income	Hotel	12,312	2,952
	Casual	1,772	674
Low Income		16,674	4,290
		30,758	7,916

The demand model outputs enabled estimation of total visitors (30,758) and transit customer visitors (7,916), based on data indicating that individuals take 2 ½ - 3 trips per day for those traveling to/from Treasure Island.

Using visitor transit trips by type (High/Low Income) from the demand model and assumptions regarding the number of hotel rooms and occupancy rate (above), resulted in the estimated visitors by type in Table 34:

- Assuming that 80% of High Income transit customers (2,952 out of 3,626) are hotel visitors results in 12,312 monthly hotel visitors. Slightly higher than the estimated 12,000 required pass purchases per month, the additional 312 hotel visitors are assumed to be in multi-occupancy rooms.
 - These assumptions result in a Hotel Transit customers-to-Total Hotel customers ratio (24%), as the ratio of Transit Customer Visitors-to-Total Visitors (26%).
- **Casual Visitor Trips and Fare Payment**
All non-hotel visitors are assumed to be casual transit customers.
 - Clipper fare is used for all casual visitor fare revenue estimates
 - **Hotel Visitor Pass Sales and Transit Trips**
Using the transportation demand model outputs and the assumptions above enables estimation of pass sales and total trips.

Table 37.

Monthly Access Pass sales and Transit trips by group

	Hotel Access Pass Sales		Transit Trips	
	Required	Discretionary	Hotel Pass	Casual
High Income	12,000	110	7,490	1,878
Low Income			10,844	
	12,110		20,212	

- **Visitor Pass Revenue and Price Points**

All casual transit trips are assumed to pay the cash fare.

Total transit revenue is based on the combination of pass sales (required and discretionary) plus cash fare revenue from casual trips.

The Visitor Pass alternatives are priced at 2X, 2.5X and 3X the maximum one-way transit fare for travel to/from Treasure Island, to accommodate 1-1.5 round trips via transit. In this case the ferry fare (\$5.10 one-way).

Table 38.

2025 Visitor Revenue - Hotel Pass (HP) / Access Pass Scenarios

Total Revenue	HP-1	HP-2	HP-3
Casual visitors	\$516,573	\$516,573	\$516,573
Hotel Visitors	\$1,482,264	\$1,860,096	\$2,223,396
TOTAL ANNUAL REVENUE	\$1,998,837	\$2,376,669	\$2,739,969
Hotel Visitors	Hotel Pass - Access / Day Pass		
	HP-1	HP-2	HP-3
Pass Price	\$10.20	\$12.80	\$15.30
Mo. hotel pass sales	12,110	12,110	12,110
Mo. H.I. hotel transit trips	7,490	7,490	7,490
Mo. transit pass cust.	2,952	2,952	2,952
Annual Pass revenue	\$1,482,264	\$1,860,096	\$2,223,396

3.3.6. 2025 Visitor Access Pass Performance

The Visitor Pass is only available for overnight hotel customers and accordingly pass performance is limited to this group of customers and transit trips.

The High Income performance figure in Table 37 is the percentage of all High Income trips, including casual, non-hotel customers. The Total performance figure is the percentage of all visitor transit trips covered by the Visitor Pass, including High Income and Low Income casual visitors.

Table 39.
Hotel Pass Trip Performance

Hotel Pass - Access Pass	
High Income	62%
Low Income	
Total	29%

4. Scenario #2 – Transit Cash (Clipper)

The second transit pass scenario under consideration, Transit Cash (AKA Clipper cash value), provides dedicated transit funds added to the Clipper card/account/device of the resident, worker or visitor participating in the transit pass program. This section contains summary information regarding user groups, pass functionality and pass distribution/logistics.

4.1. Description

Transit Cash will serve the needs of customers during the interim phase of development (2020) and in full buildout (2025). The description provided below focuses on the full buildout scenario, with notes regarding interim differences.

Table 40. Transit Cash Functionality (Clipper)

Transit Service Coverage

Transit Agency	2020 Differential
23 Bay Area transit agencies accepting Clipper	
<ul style="list-style-type: none"> • Transit Cash, AKA Clipper cash value, is used to pay per-trip fares for all participating transit operators. Some transit operators offer discounted fare for Clipper cash value vs. fares paid in cash. Transit Cash is not limited to the agencies serving Treasure Island and does not provide unlimited travel. • Visitor – Transit Cash can be provided in smaller dollar value amounts to support hotel visitors. Cash value could be used for multi-leg trips to Treasure Island, e.g. for BART/Muni or ferry for travel from SFO. 	No visitor Transit Cash program in 2020
Muni	
<ul style="list-style-type: none"> • Valid for travel on all Muni services until all cash value is used; • Discount fares available via discount card categories (e.g., Youth, Senior); standard transfer discounts apply; • Valid to travel on cable car paying the Clipper cash value fare. 	No transit coverage difference
AC Transit – pending Treasure Island fare/pass policy approach	
<ul style="list-style-type: none"> • Valid for all AC Transit service, including local, Treasure Island and Transbay, at the Clipper cash value fare; • Standard discount categories and transfers apply. 	No transit coverage difference
Bay Ferry	
<ul style="list-style-type: none"> • Valid for travel on Treasure Island ferry and all other Bay Ferry routes; • Not valid on other WETA/Bay Ferry routes; • Standard discount categories and transfers apply. 	N/A (no ferry service in 2020).

In addition to the required market rate-resident and hotel pass holder groups, Transit Cash can be made available for discretionary purchase by low-income residents (at a subsidized rate) and hotel visitors.

Transit Cash is not included as a discretionary purchase option for high income residents as there is no additional benefit for enrolling in the program when compared to signing up for existing Clipper autoloading functionality.

Similarly, employers wishing to provide Clipper cash value to their employees may utilize Clipper Direct, WageWorks or other similar programs that offer this type of service. No additional benefit accrues to employers or employees with a TIMMA-managed alternative.

Table 41. Treasure Island Transit Cash User Groups

Functional description

Group	Notes
<p>Residents –TIMMA-managed program</p> <ul style="list-style-type: none"> • Required – one person per market rate household • Discretionary – not offered, mirrors current Clipper functionality / options • Below market rate – low income residents 	<p>Program managed by TIDA/TIMMA</p> <ul style="list-style-type: none"> • 1-per-household – paid via HOA dues / rent • Subsidized price (TIMMA) – available via HOA / rent • As program manager, TIMMA issues Clipper cards to customers and can monitor usage (aggregate).
<p>Workers – not applicable</p> <ul style="list-style-type: none"> • Not offered via TIMMA transit program • Employers may offer pre-tax transit subsidy via Clipper Direct, WageWorks, CommuterCheck or similar program. 	<p>Not applicable</p>
<p>Visitors –available for overnight hotel visitors</p> <ul style="list-style-type: none"> • Hotel required – 1 Transit Cash purchase per-day per-room • Hotel discretionary – additional pass/room • Casual/day visitors – Clipper cash value is available via existing Clipper outlets; not managed by TIMMA • Visitor pass program is not present in 2020 as hotel will not yet be complete 	<p>Pass program managed by TIDA/TIMMA</p> <ul style="list-style-type: none"> • Purchase during hotel reservation, available via mobile device • Additional passes available in advance (mobile only) or at the hotel (mobile, possible limited-use fare card).

The Transit Cash program is managed by TIMMA in a similar manner to existing institutional programs. In order to monitor aggregate usage for residents TIMMA would need to issue Clipper cards from a contiguous set of card serial numbers.

As Clipper cards have a limit on the amount of cash value that can be added (the current limit is \$300), monitoring will be necessary to ensure that excess funds are not kept by a third party or returned to the resident. It is assumed that unused Transit Cash in excess of the \$300 Clipper card limit would be retained by TIMMA to support the expansion of Treasure Island transit service.

4.2.2020 Interim Transit Cash Scenarios

The cash value scenario for 2020 mirrors the 2025 scenario with the following exceptions:

- No ferry service for the interim 2020 scenario. All transit customers use Muni or AC Transit.
- No hotel is present. Accordingly, all visitor trips are casual/day trips and there is no mandatory hotel pass program for the interim scenario

Except for these discrepancies the methodology for the 2020 cash value analysis mirrors the 2025 analysis.

4.2.1. 2020 Residential Transit Cash Assumptions and Revenue

The population data for Treasure Island residents is the same for all scenarios under consideration, summarized in Table 40:

Table 42.
2020 Residents by Group

	All Res.	Transit Cust.
High Income - pass required	904	322
High Income - additional residents	1,958	698
Low Income / BMR	1,074	509
	3,936	1,529

- **Required Residents**
All high income required residents must purchase Transit Cash, for weekday and weekend customers and trips: the first resident in all market rate housing.
- **High Income Discretionary Residents**
All residents:

No high income discretionary residents purchase Transit Cash through the Treasure Island transit pass program as this fare product is available via Clipper autoloading functionality.

Unlike the transit pass program, purchasing Clipper cash value via autoloading only occurs when the card/account balance goes below a certain threshold. The transit pass program would involve regular (e.g., monthly) cash value purchases regardless of transit usage.
- **Low Income Discretionary Residents**
Weekday transit customer residents

All weekday transit customers assumed to be regular transit users that would purchase a discount fare product (e.g., discounted cash value, low income monthly pass or 31-day pass) if available.

Transit trips are forecast by customer type by transit agency. Accordingly, if the discount Transit Cash price is less than the corresponding agency pass price for low income residents that use Muni, then Weekday transit customers are assumed to purchase discount Transit Cash.

E.g., all low income ferry customers are assumed to purchase the discount cash value, Muni customers will only purchase the discount cash value if the price is less than the Lifeline pass, and AC Transit customers will only purchase the discount cash value if the price is less than the AC Transit T.I. 31-Day Pass.

Weekend transit customer residents

Assumed that new weekend transit customers do not take transit frequently enough to warrant pass purchase. Accordingly, assumed that these residents pay the Clipper cash value fare

- **Transit Cash Scenario Revenue**
 - Clipper cash value fare for all high income required resident transit trips (first resident in all market rate units)
 - Clipper cash value fare and/or agency pass revenue for all high income discretionary resident transit trips (additional occupants in all market rate multi-occupant units)
 - Clipper cash value fare and/or agency pass revenue for all low income residents
 - Transit Cash (Clipper cash value) in excess of \$300 card/account limit for non-transit required customers (first resident in all market rate units)

Table 43.

2020 Residential Revenue – Transit Cash Scenarios

	TC-1	TC-2	TC-3
Pass Price (monthly)	\$115	\$95	\$75
Disc./L.I. price	\$58	\$48	\$38
Participants	936	936	1,350
Total transit revenue	\$2,358,742	\$2,254,102	\$2,149,654

Note that the number of anticipated customers increases for the third option. This is due to the addition of low income Muni customers at the \$38 price point, equal to the cost of a Lifeline pass. While many low income customers may continue to purchase a Lifeline pass at this price point this purchasing methodology is consistent across all scenarios and timeframes under consideration.

4.2.2. 2020 Residential Transit Cash Performance

As noted in Table 38, Transit Cash is valid for transit travel on all transit operators participating in the Clipper system, 23 throughout the Bay Area, including Muni and AC Transit. Clipper cash value will pay for single-ride as well as multi-agency, linked transit trips. However, cash value will not provide unlimited travel to/from Treasure Island; if a customer uses their allotted Clipper cash value before the end of the month then additional cash value will be required for subsequent transit trips.

Cash value performance is assessed based on the following methodology:

- Determine average per-trip cost for single-ride and linked transit trips. Transportation model includes two groups of linked trips: BART, and Golden Gate / Caltrain / SamTrans.
 - Based on single-ride fares for Muni and AC Transit
 - Average BART fare for Muni, AC Transit and ferry/BART trips
 - Composite average fare for GGT/F (SF-Larkspur), SamTrans (SF inbound/outbound) and Caltrain (total annual fare revenue / total annual trips)
- Assess trip coverage based on total monthly Clipper cash value available to customers for the scenario in question, and the total monthly Clipper fare cost associated with transportation model trip forecasts.

Table 44.
2020 Residential Pass Performance - Transit Cash Scenarios

	TC-1	TC-2	TC-3
High Income	67%	55%	44%
Low Income	71%	59%	46%
Total	68%	56%	44%

The performance assessment in Table 42 indicates the percentage of forecast transit trips that would be paid for with Clipper cash value program if all eligible participants enrolled in the program, including discretionary high income and low income residents. This is the theoretical best-case scenario.

4.2.3. 2020 Worker Transit Cash – Not Applicable

As noted in Section 4.1, employers wishing to offer Clipper cash value would gain no additional benefit from a TIMMA-managed transit pass program.

Employers wishing to provide Clipper cash value to their employees may utilize Clipper Direct, WageWorks or other similar programs that offer this type of service. No additional benefit accrues to employers or employees with a TIMMA-managed alternative and accordingly it is not included in the Scenario #2 Transit Cash assessment.

4.2.4. 2020 Visitor Transit Cash Assumptions and Revenue

Visitor cash value performance for 2020 is not applicable. As the hotel will not be present in the interim time frame there will be no transit program to assess.

Visitors are assumed to pay the cash fare, as in the baseline scenario.

4.2.5. 2020 Visitor Transit Cash Performance – Not Applicable

Visitor cash value performance for 2020 is not applicable. As the hotel will not be present in the interim time frame there will be no transit program to assess.

4.3.2025 Transit Cash Scenarios

Transit pass requirements and the logistics of program delivery vary per user group. Accordingly, the revenue and pass performance evaluation is presented by group for the 2025 full buildout timeframe, with both the Treasure Island ferry and the hotel in service. While setting cash value prices is not a part of this analysis three price points are contained to discern the anticipated revenue impact, as price influences purchasing decisions for customers that are not required to purchase the cash value.

4.3.1. 2025 Residential Cash Value Assumptions and Revenue

The following assumptions informed the residential revenue estimate scenarios for cash value:

Table 45.
2025 Residents by Group

	All Res.	Transit Cust.
High Income - pass required	2,736	1,174
High Income - additional residents	4,917	2,109
Low Income / BMR	2,350	1,217
	10,003	4,500

The following assumptions informed the residential revenue estimate for the cash value scenario:

- **Required Residents**

All high income required residents must purchase Clipper cash value, for weekday and weekend customers and trips: the first resident in all market rate housing.

- **High Income Discretionary Residents**

All residents:

No high income discretionary residents purchase Clipper cash value through the Treasure Island transit pass program as this fare product is available via Clipper autoloading functionality.

Unlike the transit pass program, purchasing Clipper cash value via autoloading only occurs when the card/account balance goes below a certain threshold. The transit pass program would involve regular (e.g., monthly) cash value purchases regardless of transit usage.

- **Low Income Discretionary Residents**

Weekday transit customer residents

All weekday transit customers assumed to be regular transit users that would purchase a discount fare product (e.g., discounted cash value, low income monthly pass or 31-day pass) if available.

Transit trips are forecast by customer type by transit agency. Accordingly, if the discount Clipper cash value price is less than the corresponding agency pass price for low income residents that use Muni, then Weekday transit customers are assumed to purchase discount Clipper cash value.

E.g., all low income ferry customers are assumed to purchase the discount cash value, Muni customers will only purchase the discount cash value if the price is less than the Lifeline pass, and AC Transit customers will only purchase the discount cash value if the price is less than the AC Transit T.I. 31-Day Pass.

Weekend transit customer residents

Assumed that new weekend transit customers do not take transit frequently enough to warrant pass purchase. Accordingly, assumed that these residents pay the Clipper cash value fare.

- **Transit Cash Scenario Revenue**

- Clipper cash value fare for all high income required resident transit trips (first resident in all market rate units)
- Clipper cash value fare and/or agency pass revenue for all high income discretionary resident transit trips (additional occupants in all market rate multi-occupant units)
- Clipper cash value fare and/or agency pass revenue for all low income residents
- Clipper cash value in excess of \$300 card/account limit for non-transit required customers (first resident in all market rate units)

Table 46.
2025 Residential Revenue - Transit Cash Scenarios

	TC-1	TC-2	TC-3
Pass Price (monthly)	\$150	\$125	\$100
Disc./L.I. price	\$75	\$63	\$50
Participants	3,105	3,105	3,105
Total transit revenue	\$9,023,995	\$8,668,945	\$8,313,895

Note that the number of anticipated customers is uniform across all three scenarios, representing required residents and low income AC Transit and ferry customers.

4.3.2. 2025 Residential Transit Cash Performance

As noted in Table 38, Clipper cash value is valid for transit travel on all transit operators participating in the Clipper system, 23 throughout the Bay Area, including Muni, AC Transit and the Treasure Island ferry. Clipper cash value will pay for single-ride as well as multi-agency, linked transit trips. However, cash value will not provide unlimited travel to/from Treasure Island; if a customer uses their allotted Clipper cash value before the end of the month then additional cash value will be required for subsequent transit trips.

Cash value performance is assessed based on the following methodology:

- Determine average per-trip cost for single-ride and linked transit trips. Transportation model includes two groups of linked trips: BART, and Golden Gate / Caltrain / SamTrans.
 - Based on single-ride fares for Muni, AC Transit and Treasure Island ferry
 - Average BART fare for Muni, AC Transit and ferry/BART trips
 - Composite average fare for GGT/F (SF-Larkspur), SamTrans (SF inbound/outbound) and Caltrain (total annual fare revenue / total annual trips)
- Assess trip coverage based on total monthly Clipper cash value available to customers for the scenario in question, and the total monthly Clipper fare cost associated with transportation model trip forecasts.

Table 47.
2025 Residential Pass Performance - Transit Cash Scenarios

	TC-1	TC-2	TC-3
High Income	83%	69%	55%
Low Income	84%	71%	56%
	83%	70%	56%

The performance assessment in Table 45 indicates that percentage of forecast transit trips that would be paid for with Clipper cash value program if all eligible participant enrolled in the program, including discretionary high income and low income residents. This is the theoretical best-case scenario.

4.3.3. 2025 Worker/Institutional Transit Cash – Not Applicable

As noted in Section 4.1, employers wishing to offer Clipper cash value would gain no additional benefit from a TIMMA-managed transit pass program.

Employers wishing to provide Clipper cash value to their employees may utilize Clipper Direct, WageWorks or other similar programs that offer this type of service. No additional benefit accrues to employers or employees with a TIMMA-managed alternative and accordingly it is not included in the Scenario #2 Transit Cash assessment.

4.3.4. 2025 Visitor Transit Cash Assumptions and Revenue

The Visitor Clipper cash value scenario is comprised of pre-paid transit value that can be utilized on any of the 23 Bay Area transit agencies participating in the Clipper program, including Muni, AC Transit and the Treasure Island ferry.

Clipper cash value is a required purchase for overnight hotel visitors, one purchase per-room per-night, and may also be made available for discretionary purchase by additional overnight hotel guests. The program does not include casual/day use visitors.

In this scenario payment for the Visitor cash value would be incorporated into the hotel reservation, and distribution would likely be via mobile device with an authorization code provided during the reservation (or similar functionality). As program manager TIMMA will coordinate with the hotel vendor, monitor usage and collect revenue. Clipper cash value is also available to all members of the public via participating retail and transit agency distribution points.

Estimation of hotel customers, transit purchases and usage is the same for Scenario #1 Treasure Island Access Pass and Scenario #2 Transit Cash. Accordingly, the assumptions and methodology for identifying hotel visitors and estimating transit pass purchases are laid out in Section 3.2.5.

Results of the 2025 Visitor Cash Value analysis are as follows:

- **Visitors by Group**

2025 Treasure Island visitors by type are as follows:

Table 48.
 Monthly Visitors by Group

		All Transit Users	
High Income	Hotel	12,312	2,952
	Casual	1,772	674
Low Income		16,674	4,290
		30,758	7,916

Hotel visitors are required to purchase Clipper cash value, one purchase per-room per-night. These figures mirror those in Table 34, Section 3.3.5.

- **Casual Visitor Trips and Fare Payment**

All non-hotel visitors are assumed to be casual transit customers.

- Clipper fare is used for all casual visitor fare revenue estimates

- **Hotel Visitor Transit Cash Sales and Transit Trips**

Using the transportation demand model outputs and the assumptions above enables estimation of cash value sales and total trips.

Table 49.
 Monthly Transit Cash sales and Transit trips by group

	Hotel Visitor Transit Cash Sales		Transit Trips	
	Required	Discretionary	Hotel Pass	Casual
High Income	12,000	110	7,490	1,878
Low Income			10,844	
	12,110		20,212	

- **Visitor Cash Value Revenue and Price Points**

All casual transit trips are assumed to pay the cash fare. All Clipper cash value trips are assumed to pay the Clipper cash value fare.

Total transit revenue is based on:

- Clipper cash value fares for hotel visitor transit trips (required and discretionary purchases of Clipper cash value)
- Cash fare revenue from casual trips
- Unused Clipper cash value from hotel visitor sales (does not include partially-used Clipper cash value funds).

The Visitor cash value alternatives are priced at 2X, 2.5X and 3X the maximum one-way transit fare for travel to/from Treasure Island. In this case the ferry fare.

Table 50.
2025 Visitor Revenue - Hotel Transit Cash (H.T.C.) Scenarios

Total Revenue	H.T.C.-1	H.T.C.-2	H.T.C.-3
Casual visitors	\$516,573	\$516,573	\$516,573
Hotel Visitors	\$1,425,024	\$1,710,753	\$1,985,493
TOTAL ANNUAL REVENUE	\$1,941,597	\$2,227,326	\$2,502,066
Hotel Visitors	Hotel Transit Cash		
	H.T.C.-1	H.T.C.-2	H.T.C.-3
Cash Value	\$10.20	\$12.80	\$15.30
Mo. Hotel T.C. sales	12,110	12,110	12,110
Mo. Hotel T.C. trips	7,490	7,490	7,490
Mo. Hotel transit customers	2,952	2,952	2,952
Ann. Hotel trip fare revenue	\$304,085	\$304,085	\$304,085
Annual Unused cash value	\$1,120,939	\$1,406,669	\$1,681,409
Total Annual Hotel Rev.	\$1,425,024	\$1,710,753	\$1,985,493

4.3.5. 2025 Visitor Transit Cash Performance

Visitor Clipper cash value is only available for overnight hotel customers and accordingly pass performance is limited to this group of customers and transit trips.

The High Income performance figure in Table 49 is the percentage of all High Income trips, including casual, non-hotel customers. The Total performance figure is the percentage of all visitor transit trips covered by the Visitor cash value, including High Income and Low Income casual visitors.

Table 51.
Visitor Transit Cash Trip Performance

	H.T.C.-1	H.T.C.-2	H.T.C.-3
High Income	69%	77%	81%
Low Income			
Total	32%	36%	38%

5. Scenario #3 – Flex Cash (WETA Ferry-Fastpass)

In accordance with discussion with the project team, WETA and SFMTA, a third scenario is being added to Technical Memorandum #1. Scenario #3 outlines the proposed approach for inclusion of a “Muni Fastpass + Treasure Island Ferry” fare product in the Transit Pass Analysis, as requested by WETA, along with Flex Cash, funds that can be used to purchase any publicly available fare product (including Clipper cash value).

Definition: Muni Fastpass + San Francisco Ferry (Ferry-Fastpass)

Functional scope is comprised of current Muni Fastpass (valid on all Muni service, including cable car), plus all travel to/from Treasure Island on SF Bay Ferry.

5.1. Additional Alternative – Flex Cash (with Ferry-Fastpass)

The Ferry-Fastpass alternative requested by WETA, reviewed by the project team, and discussed with SFMTA staff is being incorporated into the analysis as follows:

Treasure Island Transit Pass Analysis Approach

New publicly available fare product – Ferry-Fastpass

The Ferry-Fastpass will be incorporated into the new scenario as a publicly available fare product, similar to the existing M-Pass (Muni only), A-Pass (Muni + BART-in-SF), and AC Transit 31-Day passes.

The Ferry-Fastpass would be created in the Clipper system by adding validity for the Treasure Island ferry route to the existing Muni M-Pass. As the analysis assumes a different price point than the M-Pass (seeing “Pricing of Ferry-Fastpass,” below), the Ferry-Fastpass will be a new product in the Clipper system that’s available for purchase online, at Clipper vending machines, ticket office terminals and at retail locations. If there is no price differential between the M-Pass and Ferry-Fastpass, then updating functionality of the M-Pass would be the only work required by the Clipper system.

The analysis assumes there is no Lifeline version of the pass, a discounted Ferry-Fastpass offered to qualifying members of the public (similarly, there is no Lifeline version of the Muni A-Pass).

Pricing of Ferry-Fastpass

Same pricing as Muni A-Pass (Muni BART) - currently \$94

There is no discount version of the Ferry-Fastpass (also similar to the Muni A-pass, Muni + BART)

Treasure Island Transit Pass Alternative #3: Flex Cash

Residents

- Required participants
Residents will receive **Flex Cash** that can be used to purchase the desired fare product on Clipper, cash value or an agency-specific fare product, and the analysis assumes that participants choose the lowest-cost payment option based on their travel.
 - Weekday transit users assumed to purchase the appropriate pass (Muni-only or Ferry-Fastpass for Muni riders, Ferry-Fastpass for ferry riders and AC Transit for East Bay transit customers)
 - Weekend required transit users assumed to choose Clipper cash value and pay on a per-trip basis.
- Discretionary market rate
Residents are assumed not to participate in the program, as Flex Cash offers no benefits over ad hoc fare payment or purchase of transit fare products. Clipper cash value, the Ferry-Fastpass, Muni-only Fastpass and AC Transit passes are all publicly available and may be purchased on an as-needed basis.

- Discretionary low-income
Flex Cash is offered Flex-Cash at a 50% discount. Muni customers would not participate unless the discount Flex Cash price point is lower than the cost of the Lifeline Muni pass (currently \$38). AC Transit and Ferry low-income residents would be anticipated to participate in the program to purchase an AC Transit pass and Ferry-Fastpass, respectively.
- Flex Cash performance (trip coverage and revenue) is based on the following:
 - Revenue estimate includes the sale of agency-specific passes purchased; the value of cash fares (e.g., weekend transit trips for discretionary customers); and unused Flex Cash from mandatory residents that don't use transit. The estimate includes purchases made with Flex Cash (required residents; low income AC Transit and ferry residents) or separately from the program (all other discretionary residents).
 - For those participating in the Flex Cash program (mandatory residents and discretionary residents using AC Transit and the ferry), trip performance measurement assumes all on/off island trips and no linked trips (non-participating agencies) are covered for those participating in the Flex Cash program. This applies to residents purchasing passes (weekday transit users) and cash value (weekend).
 - Multi-agency usage is not captured in this exercise. To estimate how much people will travel on both directions, using multiple transit agencies, we will need to get actual travel data.

This exercise assumes that mandatory residents will use Flex cash to purchase one transit agency's pass product; travel using additional agencies to go to the other side of the bay (e.g., to the East Bay for Muni riders, to SF for AC Transit riders) is not captured here.

Table 52.

2020 Flex Cash / Ferry-Fastpass Revenue and Performance - Residents

	Resident			
	Trips	Revenue		
Price point		FC1	FC2	FC3
Monthly	88,272	\$180,639	\$171,599	\$162,559
Annual	1,059,264	\$2,167,670	\$2,059,190	\$1,950,710
Resident Purchase Rate		23%	23%	23%
On/Off T.I. trip coverage (at purchase rate)		18%	18%	18%
Maximum linked-trip coverage (100% purchase rate)		91%		
Maximum on/off coverage (100% purchase rate)		100%		

Table 53.

2025 Flex Cash / Ferry-Fastpass Revenue and Performance – Residents
(Clipper/cash ferry fare: \$3.80/\$5.10)

		Resident		
Trips		Revenue		
		FC-1	FC-2	FC-3
Price point		\$150	\$125	\$100
Monthly	248,656	\$610,834	\$581,247	\$551,659
Annual	2,983,872	\$7,330,008	\$6,974,958	\$6,619,908
Resident Purchase Rate		31%	31%	31%
On/Off T.I. trip coverage (at purchase rate)		34%	34%	34%
Maximum linked-trip coverage (100% purchase rate)		91%		
Maximum on/off coverage (100% purchase rate)		100%		

- Resident purchase rate: % of all Treasure Island residents that participate in the program. This is comprised of the mandatory residents and low-income residents using AC Transit and the ferry.
- On/Off T.I. trip coverage (at purchase rate): % of resident transit trips on and off T.I. that the transit pass program will cover, based on anticipated program enrollment. This figure is calculated as (covered trips for those purchasing the transit pass) / (all resident transit trips).
- Maximum linked-trip coverage (100% purchase rate): % of all resident transit trips covered by Flex Cash, including linked trips with BART, Caltrain, SamTrans and GGT/F, if all residents participated in the program.
- Maximum on/off coverage (100% purchase rate): % of all resident transit trips on and off Treasure Island that would be covered by the T.I. pass, if all residents purchased participated.

Workers – Not Applicable

- Not applicable / no change: there is no new Treasure Island Transit Pass alternative for workers. Flex Cash mimics the services and options available to workers through transit benefit programs such as Clipper Direct, WageWorks and CommuterCheck. As a publicly available product, those workers wishing to purchase a Ferry-Fastpass could do so through an employer benefit program or as an individual.

Visitors – Not Applicable

- Not applicable / no change: there is no new Treasure Island Transit Pass alternative for visitors. The Treasure Island visitor pass scenario mimics the Transit Cash alternative, as the Ferry-Fastpass is a monthly fare product not targeting hotel visitors.

Additionally, administering a Flex Cash program would be prohibitively expensive as TIMMA staff would be required to manage hotel visitor transit product purchases on a daily basis.

Ferry-Fastpass – Associated Policy Decisions

The following is a preliminary list of future actions necessary to create a Ferry-Fastpass, not in the scope of the Treasure Island Transit Pass Analysis project.

Fare policy and pricing

New fare policies will need to be approved to formally adopt the Ferry-Fastpass and set pricing.

Ferry Fastpass revenue allocation

A revenue allocation agreement will need to be defined and executed by the appropriate parties. Given that the scope of the Ferry-Fastpass has yet to be fully defined.

6. Appendix

6.1. Detailed Methodology – Individual Customer Assumptions

Further detail regarding the methodology underpinning Section 2.2.2 is as follows:

Individual Estimate Methodology

Total individuals = (weekday customers) + (weekend customers)

- Weekday customers (all groups) = (total daily trips) / (individual trips per day)
 - Trips per day = (Total residents) / (total weekday resident trips)
2025 weekday: (23,852 trips) / (10,003 residents) = 2.38 trips/day
2020 weekday: (9,833 trips) / (3,936 residents) = 2.50 trips/day
- Weekend customers = $1/3 * (\text{resident trips}) / (\text{trips/day}) + 3/4 * (\text{worker trips}) / (\text{trips per day}) + (\text{visitor trips}) / (\text{trips per day})$
 - Trips per day = (Total residents) / (total weekend resident trips)
2025 weekend: (30,704 trips) / (10,003 residents) = 3.07 trips/day
2020 weekend: (12,576 trips) / (3,936 residents) = 3.20 trips/day
 - **Weekend resident transit customer assumption:** 1/3 of resident-weekend transit customers are new transit users (i.e., 2/3 of weekend transit customers are also weekday transit customers)
 - **Weekend worker transit customer assumption:** 3/4 of worker-weekend transit customers are new transit users (i.e., 1/4 of weekend transit customers are also weekday transit customers)

6.2. Baseline Trips and Revenue by Type-of-Day

Residential – Monthly Baseline Trips & Revenue by Type-of-Day

Table 54.

2020 Residents

	Pass (Muni & AC)		Cash Value		MONTHLY TOTAL	
	Trips	Revenue	Trips	Revenue	Trips	Revenue
Weekday	73,832	\$91,235			88,272	\$128,659
Weekend			14,440	\$37,424		

Table 55.

2025 Residents

	Pass (Muni & AC)		Cash Value		MONTHLY TOTAL	
	Trips	Revenue	Trips	Revenue	Trips	Revenue
Weekday	157,256	\$221,679	48,312	\$183,586	248,656	\$530,321
Weekend			43,088	\$125,056		

Workers – Baseline Monthly Worker Transit Revenue

Table 56.

2020 Workers

	Pass (Muni & AC)		Cash Value		MONTHLY TOTAL	
	Trips	Revenue	Trips	Revenue	Trips	Revenue
Weekday	22,352	\$33,483			23,944	\$37,981
Weekend			1,592	\$4,498		

Table 57.
 2025 Workers

	Pass (Muni & AC)		Cash Value		MONTHLY TOTAL	
	Trips	Revenue	Trips	Revenue	Trips	Revenue
Weekday	22,594	\$45,912			24,338	\$51,139
Weekend			1,744	\$5,228		

Visitors– Monthly Baseline Trips & Revenue by Type-of-Day

Table 58.
 2020 Visitors

	Cash Fare		MONTHLY TOTAL	
	Trips	Revenue	Trips	Revenue
Weekday	4,510	\$13,261	6,326	\$18,749
Weekend	1,816	\$5,488		

Table 59.
 2025 Visitors

	Cash Fare		MONTHLY TOTAL	
	Trips	Revenue	Trips	Revenue
Weekday	14,124	\$47,844	20,212	\$68,388
Weekend	6,088	\$20,544		

Appendix 6 – Alternative Analysis & Recommendation Overview

I. Transit Pass Alternative Overview

Access Pass – Institutional Pass (Residents & Workers, Visitor Day Pass)

- Unlimited travel: Muni, AC Transit, Treasure Island Ferry

Transit Cash – Clipper Cash Value – defined amount (Residents and Visitors)

- Limited travel: valid on all Clipper transit agencies (23)

Flex Cash – Choice of either a *Pass* or *Clipper Cash Value* (Residents)

- Similar to WageWorks, CommuterCheck, Clipper Direct
- **Includes a NEW Ferry-Fastpass**
 - Publicly available – Muni + ferry to/from San Francisco
 - Similar to Muni A-pass, Muni + BART
 - Does NOT include travel to/from East Bay

Below Market Rate Residents – 50% Transit Pass subsidy

II. Alternatives Analysis Scoring - Summary

Access Pass #1 Residents & Workers

Unlimited trips on/off Treasure Island, to **SF and East Bay**
Institutional pass, requires minimal operational support; no impact to public fare policy
Not available to the general public

Flex Cash #2 Residents

Unlimited trips to **SF or East Bay (not both)**, or Clipper Cash Value (valid on all transit)
Higher operational support; new publicly available pass requires fare policy approval
Potential to generate new casual visitor trips to T.I.

Transit Cash #3 Residents & Visitors

Valid on all transit agencies accepting Clipper; does not provide unlimited trips on/off T.I.
Higher operational support
Effective for visitors – can use on BART from airport

Access Pass #4 Visitors

Limited flexibility for visitors – only valid on Muni, T.I. ferry, and AC Transit
Requires new day pass; does not serve communities of interest (hotel visitors only)

III. Alternatives Analysis Scoring - Detail

Transit Pass Alts	Coverage & Fare Flex.	Feasibility	Comm. Of Int.	User Exp.	Cap. Cost	Ops	Raw Score	Rank
Access Pass	1 All on/off T.I. trips	2 New Inst. Pass	1 All on/off T.I. trips			1 Easy to administer one option	38	1
	2 All SF or EB trips	4 New pass (ferry/Muni)	2 All SF or EB trips	1 Similar for all	1 Similar for all	2 Must manage usage (monthly)	33.5	2
Transit Cash	4 Cap on monthly fares paid	1 Existing products	4 Cap on monthly fares paid				33	3
Visitor Access Pass	3 Limited flexibility for pricing	3 New day pass	3 Not available for low income			1 Easy to administer one option	31.5	4
Ranked Scoring: 1-highest to 4-lowest								

IV. Alternative Overview

Features	Access Pass	Transit Cash	Flex Cash
Pass Cost	\$100-\$150 per month (assumption for analysis)	\$100-\$150 per month (assumption for analysis)	\$100-\$150 per month (assumption for analysis)
Pass Participant	Residents, Below Market-Rate Residents, Workers and Visitor (Access Day Pass)	Residents, Below- Market Rate Residents, Visitors	Residents, Below- Market Rate Residents
Trips Covered	Unlimited Trips: Muni, AC Transit, WETA Covers 100% of trips on/off of Treasure Island	Cash value for any service provider on the Clipper Card system Covers 70% of trips on/off of Treasure Island	Cash Value or Retail pass to access Muni, Muni+ WETA or AC Transit Covers 100% of trips on/off of Treasure Island
Benefits	Three Providers, One Card, Unlimited	Flexibility in which service providers you choose	Any retail pass to access Muni, AC Transit, and Ferry or Cash value to use any transit operator
Drawback	Agency restriction (AC Transit, Muni, and Ferry only)	Does not allow for unlimited travel. Stored cash spent more quickly. Transfer penalty.	Fare type must be pre-selected; cannot be changed mid-month.

V. Preliminary Recommendation

Alternatives for analysis

- Access Pass 2-agency pass (interim) / 3-agency pass (full buildout)
- Transit Cash Clipper cash value
- Flex Cash User selection (WageWorks model), w/Ferry Fastpass

User Group	Sub-Group	Recommendation	
		Interim	Full Buildout
Residents	Required – Market Rate Housing	Access Pass	
	Discretionary – Market Rate Housing		
	Discretionary – Below Market Rate/Legacy (50% price subsidy)		
Workers	Workers/All	Access Pass (through employer)	
Visitors	Required – Hotel/High Income	Transit Cash	
	Discretionary – Hotel/High Income		
	Casual & All other (high & low income)		
			N/A

VI. Preliminary Transit Pass Recommendation

Access Pass – Residents & Workers

Unlimited trips on/off Treasure Island, to SF and East Bay

Institutional pass, requires minimal operational support

No impact to public fare policy

Not available to the general public

Transit Cash

Valid on all transit agencies accepting Clipper

Effective for visitors – can use on BART from airport

Appendix 7 –Management Plan
Scope

1. Transit Pass Management Plan – Scope

a. Enrollment and Card Distribution

Plans for ongoing enrollment and card distribution need to be finalized and implemented with employers and developers.

Decisions will need to be made in the following areas: (these may vary depending on the program:

- Which group(s) (TIMMA, employers, developers, etc.) will do the outreach and enrollment for participants?
- What is the workflow for turning in applications?
- Which group (Cubic, TIMMA, etc.) will handle card distribution?
- How will payment be taken?
- How will ongoing changes/updates be handled (centralized at TIMMA, each group has an access point, etc.)? How will lost/stolen cards be handled?
- Timing – active implementation of enrollment activities 9 months prior to interim launch.

b. Communications – MTC and Clipper Program

Coordination with the Clipper contractor will be needed to ensure all parties are prepared for program implementation, including provision of Clipper cards for Transit Pass customers, Clipper Customer Service preparedness, and providing information regarding use of the Clipper institutional program web portal (provided by the Clipper vendor). These activities rely on existing Clipper program information and documentation and will not require additional deliverables.

Once the enrollment and distribution plans are finalized, Treasure Island transit service and Transit Pass program information will be provided to the Clipper contractor for inclusion in their customer service materials.

Access and training for the Clipper institutional portal will be arranged at this time, actual training will take place closer to launch.

- Timing – active implementation commencing 6 months prior to interim launch.

c. Communications – Customers

Customer information/communications will need to be developed coming out of the operational planning for Transit Pass program enrollment, management and card distribution. This includes managing, planning, development and implementation of the following:

- Transit Pass customer outreach (residents and employers, as applicable)
- TIMMA Transit Pass marketing pieces (print/collateral)
- TIMMA website/mobile portals for Transit Pass program enrollment and management
- The TIMMA website/mobile portal is assumed to be a part of the TIMMA transportation demand management (TDM) program development.
- Timing – 6-12 months prior to interim launch, depending on complexity of needed pieces (website, etc.).

d. Stakeholder Coordination (transit agencies, TICD, hotels, etc.)

Coordination with relevant stakeholders regarding Transit Pass rollout and operations:

- Transit Pass communications and outreach materials – TIDA, TICD, MTC, others as appropriate
- Transit Pass enrollment strategy – TIDA, TICD, MTC, others as appropriate
- Revenue allocation, reporting and program management
- Additional topics as needed
- Timing – 3-9 months in advance of launch, and ongoing as needed.

e. Reporting and Performance Monitoring

Preparation for and implementation of Transit Pass reporting and performance monitoring.

- Communication with MTC and transit agencies regarding access to Transit Pass / Clipper usage data.
- Development of performance criteria and reporting requirements and tools.
- Ongoing performance usage analysis in coordination with overall TIMMA program monitoring
- Timing – 6-9 months prior to interim launch, preparation and development of reporting tools, data sources and performance criteria; ongoing performance; review and update for full launch.

f. Revenue Allocation and Financial Performance

Reviewing usage reports, developing and finalizing Transit Pass revenue allocation positions, and coordinating with relevant stakeholders (e.g., SFMTA).

Revenue allocation terms and details are contained in Section 4 Revenue Allocation. Activities that will be defined in the Management Plan are included in this section.

- Ongoing monitoring and updating of revenue allocation methodology with relevant stakeholders.
- Definition of the revenue allocation workflow between relevant parties.
- Timing – 6-9 months prior to interim launch, develop revenue allocation workflow with relevant parties (e.g., SFMTA).

g. Ongoing Transit Pass Assessment

Reassessment of the tasks laid out in this section will be undertaken to monitor performance and identify and pursue future enhancements. Topics suitable for further definition and/or analysis include but are not limited to:

- Transit Pass performance analysis
- Review - full implementation transit pass recommendation
- Coordination with employers/hotels and additional stakeholders
- Updated operating rules and customer-facing policies and procedures
- Marketing and outreach regarding expanded services (ferry) to employees and visitors
- Timing – 1-2 years after launch of the Interim Pass, and 1-2 years in advance of WETA launch

Planning tasks for full implementation will be defined in the Management Plan, see Section 5.4 for detail.

Appendix 8 – DRAFT Clipper Change Notice – Treasure Island
Institutional Pass

1.0 Background

MTC is implementing a new Institutional Pass product to support AC Transit and SFMTA routes serving Treasure Island. The Institutional Pass shall be based on existing business rules for operator-specific institutional passes for AC Transit (Easy Pass) and Muni. The Treasure Island Institutional Pass shall be named the Access Pass.

2.0 Technical Requirements

Contractor shall implement a new Institutional Pass product, the Access Pass that shall be valid for travel on and off Treasure Island via SFMTA and AC Transit service.

- The Access Pass shall have a validity of one calendar month
- The Access Pass shall be valid for travel with AC Transit, validity shall mirror the AC Transit Easy Pass with the addition of routes to and from Treasure Island
 - Access Pass holders traveling on AC Transit Transbay service shall pay an upgrade fare equal to the difference between the AC Transit Treasure Island Clipper cash value fare and the AC Transit Clipper cash value Transbay fare.
- The Access Pass shall be valid for travel with SFMTA, validity shall mirror existing Muni institutional pass functionality (e.g., valid for all travel with SFMTA except the cable car)
- Distribution of the Access Pass shall be limited to qualified institutions. At program launch the qualifying institution shall be the Treasure Island Mobility Management Agency (TIMMA), acting as the Treasure Island Transportation Demand Management Program Manager (TDM Manager).
- The Access Pass will have a zero-value price in the Clipper system. TIMMA will collect and distribute Access Pass revenue independently from the Clipper program.
- Apply to the adult fare category only

3.0 Design and Implementation

Contractor shall work cooperatively with MTC and SFMTA during design, implementation, and testing. Design and configuration, testing and acceptance, training, and documentation shall conform to the principles and procedures laid out in the Clipper[®] Contract, Volume B4.

3.1 Design

Design of the proposed solutions shall demonstrate the ability to meet all requirements as described above and in the Clipper[®] Contract.

3.2 Testing and Acceptance

Contractor shall perform testing and acceptance procedures as outlined in the Clipper[®] Contract, Section B4-4.3. Testing and acceptance shall be comprised of the following:

- Interface and Integration Inspection and Testing (IIIT)

3.3 Documentation

Contractor shall update existing documentation as appropriate, such as (but not limited to) the following:

DR #	CDRL #	Submittal Description
	27	Test Reports
	30	Test Procedures
	50	AC Transit Business Rules
	50	SFMTA Business Rules

In its technical proposal, Contractor shall identify any additional documents that Contractor proposes to update.

3.4 Reports

Contractor shall ensure that Access Pass usage appears in existing Clipper ridership reports as a discrete pass. Contractor shall not develop any new reports for this Change Notice.

4.0 Schedule

Contractor shall provide a critical-path schedule for accomplishing the work outlined in this Change Notice. The schedule shall encompass design review, development, testing, implementation, documentation, training, and acceptance. It shall also take into account resource availability and other constraints as appropriate, and shall clearly identify any impacts to the baseline Master Schedule. Contractor shall include project duration as part of their proposal. All work must be completed so that the new transfer rules are deployed and in effect on **MONTH, DATE, YEAR**.