## DRAFT REPORT

Alameda Point Master Transportation Demand Management Plan

March 12, 2014





## Draft Report

# Alameda Point Master Transportation Demand Management Plan

Prepared for: The City of Alameda

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Prepared by: Kimley-Horn and Associates, Inc. 6150 Stoneridge Mall Road Pleasanton, CA 94588 (925) 398-4840



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#### **EXECUTIVE SUMMARY**

#### **Purpose of this Plan**

This Transportation Demand Management (TDM) Plan is a tool and a resource for existing and future development on the former Alameda Naval Air Station (Alameda Point) at the western end of Alameda. The Plan defines a procedure for implementing strategies and measures designed to reduce automobile travel, particularly singleoccupant-vehicles (SOVs), generated by development within Alameda Point.

The need to reduce automobile travel is instinctual to those who reside and work on the island that is Alameda. With its limited access to the mainland, Alameda has little capacity for growth and economic development without addressing the magnitude of traffic attracted from across the Estuary. It is also necessary for regulatory reasons including:

- to comply with the policies of the General Plan to reduce automobile trips by shifting travel to other modes of transportation to maintain and improve the quality of life enjoyed in Alameda;
- to mitigate the potential traffic-related impacts on local and regional transportation systems as required under the California Environmental Quality Act (CEQA) and identified in the Environmental Impact Report (EIR) prepared for Alameda Point; and
- to help achieve the Bay Area's goal for reducing greenhouse gas (GHG) emissions as required under SB 375 by developing Alameda Point as a walkable, transitoriented, "complete community" requisite of Alameda Point's designation as a Priority Development Area (PDA).

Ultimately, the strategies recommended in this Plan need to successfully change human travel behavior. Not a science, but an art that uses combinations of incentives, disincentives, convenient and high quality services, and skillful education, marketing, and promotion that results in a paradigm shift about the sustainability of our pattern of development and associated travel habits. Changing human behavior also requires time and funds, so this Plan addresses phasing and equitable ways for Alameda Point to fund the Plan's recommendations over the long-term.

#### **Goals of the Plan**

This Plan adopts the automobile trip reduction goals established in Policy 4.6.1.a of the General Plan that state:

Identify, develop, and implement travel demand management strategies to reduce demand on the existing transportation system.

1. Establish peak hour trip reduction goals for all new developments as follows:

- 10 percent peak hour trip reduction for new residential developments
- 30 percent peak hour trip reduction for new commercial developments

Progress towards meeting the General Plan trip reduction goals is measured against baseline forecasts of Alameda Point's traffic generation. The forecasts are based on the traffic projections developed for use in the Alameda Point EIR to determine traffic impacts (see Chapter III on estimating the trip generation of Alameda Point). Annual monitoring of the actual traffic generated by development on Alameda Point is an intrinsic part of the TDM Plan.

Monitoring measures progress towards meeting trip reduction goals and can identify problems requiring adjustments to the Plan's strategies and programs. Monitoring actual traffic generation is augmented by resident and employee surveys going directly to the users of the Plan regarding its effectiveness and how it may be improved.



#### Plan Organization

The Alameda Point TDM Plan (the Plan) is part of a regional program of strategies designed to optimize the efficiency of the existing Bay Area multimodal transportation network. While other parts of the program focus on how people travel in vehicles to maximize the limited capacity of streets and highways, the Plan includes strategies that focus on changing people's travel behavior and specifically targets shifting travel away from single-occupant-vehicles (SOVs) and into more sustainable modes of transportation. The strategies in the Alameda Point TDM Plan not only reduce traffic locally within Alameda, but regionally as well, helping to prolong the effective lifespan of the Bay Area's bridges and highways. Figure ES-**1** illustrates the three levels of transportation management and the type of travel behavior each level addresses.

The TDM Plan relies on the active participation of Alameda Point's residents, employees and employers. The Plan needs to effectively persuade residents and employees to use public transportation, carpool or vanpool for commuting to work, and/or walk or bicycle to work and for other trips made throughout the day.

### **Compliance Strategy**

A brief action plan prepared by an entity such as a residential association or an employer that provides the TMA with basic information about the entity and identifies the types of services, programs, and incentives the entity will promote and/or implement to comply with the trip reduction requirements of Alameda Point.

The Plan encourages employers to institute policies and programs, and provide incentives (or disincentives) to their employees to change travel behavior in order to meet the employee's share of reducing trips which contributes to meeting Alameda Point's overall goals.

The Plan's managers will offer their assistance, advice and their services to employers and resident associations, and individuals, unfamiliar with the options available to them, on how to develop a TDM Compliance Strategy—an outline proposing the TDM Plan's services, programs and incentives the employer or resident association will promote



#### Figure ES-1: Levels of Transportation Management



and use to meet their share of the trip reduction requirement and be in compliance with this TDM Plan.

Some residential or commercial entities locating in Alameda Point will bring with them their own Other entities will require the assistance of the Plan's managers in getting started with a package of recommended strategies and programs the entity may build on over time. The Plan's managers anticipate these needs and are prepared to provide the necessary resources, training, services and programs. The Plan's managers will form an organization called a Transportation Management Association (TMA) to which all residential and commercial entities within Alameda Point are members. The TMA is responsible for implementing and monitoring the Plan and ensuring the membership is using the TMA's services to their fullest extent (see Chapter 4 on Managing the TDM Plan).

Residents of Alameda Point do not have access to the same resources as commercial entities—the economy of scale generated by large groups of employees, nor do they benefit from the same array of options that employers can provide to employees. Homeowners associations (HOAs) and tenant associations (TAs) can help organizationally by bringing residents together to take advantage of numbers. The TMA will offer services and programs geared towards residential households, and train residents who volunteer to serve as Transportation Coordinators.

The Plan has two major components; a series of services and programs that provide, or support, alternatives to driving alone; and a parking management strategy designed to discourage everyday use of SOVs.

The chart in **Figure ES-2** identifies the various components of the Plan, which can be divided into two fundamental categories, 1) actions which fall under the responsibility of the TMA, and 2) actions for which employers and resident associations are responsible. TDM programs, or choose to develop their own plan designed to meet the needs of their residents and employees.

#### **Composition of the Initial Alameda Point TMA Board of Directors**

- City Public Works staff serving as acting director and technical support of the TMA;
- A City of Alameda Transportation Commissioner;
- Representatives of property owners, developers, employers, and homeowner associations. and
- Transit service provider representatives.

The City of Alameda is responsible for implementing the policies and actions required for enforcing the parking standards in the Alameda Point zoning code, and managing the public parking supply and pricing. The TMA provides services that support programs such as a shuttle to BART, and services that assist employers with development of Compliance Strategies.

The TMA is led by a Board of Directors comprised of Alameda Point employer and employee representatives, City staff and commissioners, and potentially regional transit service providers such as AC Transit and WETA.

The Board of Directors provides high level direction to the TMA staff, and approve the TMA's budget and the selection of supportive services offered to its members. The Board makes recommendations to the City Council on strategic decisions related to parking management such as raising or lowering parking charges and deciding when to build additional public parking facilities.



#### Figure ES-2: Overview of the TDM Plan Structure, Management, and Components

The Board has authority to review and approve Compliance Strategies prepared by employers and resident associations and the authority to require significant refinements should annual monitoring and resident / employee surveys reveal that an entity's Compliance Strategy is ineffective.

#### **Parking Management**

Alameda Point's TDM Plan is based on current best practices for urban parking management where land values are high and traffic capacity is limited. The Parking Management Plan uses three common methods of controlling parking that results in sufficient, but not excessive, parking for all users in the context of a compact, walkable, and transit-oriented community. **Figure ES-3** describes the three methods; development standards in the zoning code; a system of public parking facilities; and pricing.

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A system of public parking requires the City of Alameda to retain, in City ownership, select property to be reserved for off-street public parking in perpetuity. Parcels of land for public parking should not be located in prime locations but should be within a <sup>1</sup>/<sub>4</sub>-mile walking distance of anticipated concentrations of development. **Figure ES-4** illustrates seven parcels identified by the City as potential sites for public parking.

#### Summary of the Alameda Point TDM Plan in the Near-Term

## Initial Phase of the TDM Plan—Essential Services



Initially, only the Plan's most essential services are implemented for reasons of economy. Essential services are those necessary to achieve a minimal level of transit service and supportive services considered very important to encourage alternative modes of travel, and to meet obligations to development such as the provision of public parking.

Implementation of the initial essential services are triggered by a relatively small amount of new development, 100 dwelling units or 100,000 square feet of commercial uses.

**Table ES-1** compares the "essential services" provided by the TMA that comprise the initial implementation of the Plan with those proposed to be implemented as Alameda Point nears buildout. Chapter 4 includes examples of services and programs that resident associations and employers may choose from in developing their compliance strategy.

#### Plan Management in the Initial Phase

The Alameda Point TDM Plan may be managed in the initial phase by a predecessor of the TMA that will be formed later. This initial TMA is created and led by the City of Alameda and is comprised of key stakeholders on Alameda Point (see sidebar). Others may be invited to participate in the TMA's meetings as needed such as transit service providers (AC Transit, WETA, BART, private operators), City of Alameda law enforcement, bicycle advocacy groups, or regional transportation agencies.

## TMA Services and Employer / Resident Association Compliance Strategies

As stated in the introduction, the role of the TMA is to provide supportive services to the residents and employees of Alameda Point, but the TDM Plan relies on residents and employees to reduce SOV travel by either utilizing the services offered by the TMA or developing customized programs, with unique incentives (or disincentives) to persuade residents and employees to change travel behavior. How an entity proposes to reduce their trips is outlined in a "Compliance Strategy"—a brief action plan that provides the TMA with basic information about the entity and identifies the types of services, programs, and incentives the entity will promote.

#### Summary of the Alameda Point TDM Plan in the Long-Term

Implementation of the full Alameda Point TDM Plan may take as long as 20 or 30 years, and some of the components may never have to be implemented. However, the Plan's components, and the cost of the components, must assume full implementation of the Plan, or TDM funding may fall short in the long-term.

## Services of the Alameda Point TDM Plan in the Long-Term

As development continues on Alameda Point, and traffic increases, the TDM Plan services become significantly more robust to achieve trip reduction goals.

**Table ES-1** provides a side-by-side comparison of the "essential" services offered in the initial phases of development and the long-term services proposed to be developed and managed by the TMA. Many of the services in the initial phase remain on the list of long-term services, but are more comprehensive and robust. **Table ES-2** describes each TMA core services in detail, and **Table ES-3** describes each contracted service.

#### Plan Management

The Alameda Point Transportation Management Association (TMA) will be formally chartered when residential development is within the range of ten to fifty percent of its buildout capacity (140 to 710 housing units), and when commercial development reaches a range of 5 to 15 percent of its capacity (275,000 to 825,000 square feet) and possibly sooner.







**Private Parking** 

The development standards

for on-site parking in Alameda Point's

Zoning Code allows, on average, less

Alameda Point's zoning code governs the amount of private parking that can be built with new development by eliminating conventional "minimum" parking requirements and, instead, imposing an upper limit on the amount of on-site parking in a given development

Allows and encourages more efficient usage of parking such as shared parking, permitting residents to pay only for the parking they need (unbundling), valet parking, and reserving spaces for car and vanpools

Parking demand in excess of the parking supplied in private development uses public parking either on-street or in offstreet lots and garages operated by the City

#### PUBLIC PARKING

Municipally-owned public parking is typically provided as an amenity in downtowns, in retail-intensive places, or where it is infeasible or cost-prohibitive for private development to construct the amount of parking required by zoning

In Alameda Point, municipal parking is used, in combination with private parking, to provide a sufficient, but not excessive, amount of parking in the context of a walkable, transit-oriented community that actively promotes alternatives to driving and offers an array of services supporting those who choose to take transit, bicycle, or walk

**Public On-Street Parking** 

The two forms of public parking are:

Public Off-Street Parking

and garages will charge by the hour,

Off-street parking lots

#### PRICING

Public parking is not free in Alameda Point--the fees charged for parking are both pragmatic and strategic

Parking charges are pragmatic because they help fund the operations and maintenance of the parking facilities to keep them safe, clean and attractive, and well-lit Parking charges are strategic in that they can be raised or lowered to achieve a desired result such as encouraging a high rate of turnover in areas with high demand for short term pa

This works because drivers are highly sensitive to the price of parking so a relatively small adjustment in the cost of parking can have a large disincentive or incentive effect on decisions to drive--an example of this "elasticity" is shown in the graph below. Elasticity is an economic term defined as the percentage change in consumption of a good or service caused by a one-percent (1%) change in its price.

Establishing and altering the price of parking is not arbitrary but carefully thought out as to its collateral effects on the community. No profit is made on parking charges and any excess revenue is invested back into the Alameda Point community to improve the transportation infrastructure



Figure ES-3: Alameda Point's Parking Management Strategy. The parking strategy uses zoning, a system of public parking, and pricing as one of the primary foundations of the Transportation Demand management Plan.





Figure ES-4: Location of Potential Off-Street Public Parking Facilities. The combination of surface parking lots and parking structures provide close to 2,400 public off-street parking spaces in Alameda Point.

The rationale behind this timeframe ensures that the Board of Directors is representative of its membership—balanced between residential and commercial and a diversity of non-residential types of uses (e.g., from retail to manufacturing).

The formal establishment of the TMA will require a thorough review of the "State-of-the-Plan" and an opportunity to modify and improve the Plan before Alameda Point tenants become accustomed to a TDM system that needs to change.

#### Cost of the Initial Phase of the Plan

Funding the infrastructure and major capital improvements in Alameda Point is through the Master Infrastructure Plan's fee and other financing exacted from all new development in Alameda Point, or possibly funded through lease revenues, development agreements, grants, or other City funding accounts.



Service	Initial (Near-Term) Services	Long-Term (Buildout) Services
Shuttle to 12 <sup>th</sup> Street BART Station	<ul> <li>Shuttle service provided by AC Transit or private operator. Essential commuter service only for economy:</li> <li>Operates during weekday peak periods (5:00 – 9:00 am / 3:00 – 7:00 pm)</li> <li>No weekend service</li> <li>30-minute headways (accommodated by one vehicle and one driver)</li> <li>No stops outside of Alameda Point and 12<sup>th</sup> Street BART</li> </ul>	<ul> <li>Shuttle operated by AC Transit or private operator.</li> <li>Near-maximum service coverage:</li> <li>Operates during weekday peak periods (5:00 – 9:00 am / 3:00 – 7:00 pm), 15-minute headways</li> <li>Operates during weekday non-peak periods (9:00 am - 3:00 pm / 7:00 pm - 1:00 am), 30-minute headways</li> <li>Saturday (6:00 am – midnight)</li> <li>Sunday (No service or 8:00 am – 10:00 pm)</li> <li>30-minute headways all day weekends</li> <li>Additional stops on route between Alameda Point and 12<sup>th</sup> Street BART [1]</li> </ul>
Core Support Services	<ul> <li>Summary of select core services (see Table ES-2 and ES-3):</li> <li>General administrative and management duties</li> <li>Provide new tenant travel options kit Information about trip reduction goals and the Plan's services to all new tenants</li> <li>Establish and manage Enterprise Fund for TMA contract and Core services, and public parking operations, maintenance and enforcement</li> <li>Disseminate guidelines for preparing Compliance Strategies</li> <li>Review and approve Compliance Strategies</li> <li>Provides limited introductory incentives for ride sharing, walk and bike commuting, transit, etc.</li> <li>Develop and implement select components of annual marketing and promotion plan</li> <li>In initial phase (years 1-3) develop and refine a pilot program for the trip reduction monitoring and employee /resident survey. Annually present progress to the Transportation Commission</li> </ul>	<ul> <li>Summary of select core services (see Table ES-2 and ES-3):</li> <li>General administrative and management duties</li> <li>Conduct training of volunteer and part-time Transportation Coordinators</li> <li>Provide new tenant travel options kit Information about trip reduction goals and the Plan's services to all new tenants</li> <li>Manage Enterprise Fund for TMA contract and Core services, and public parking operations, maintenance and enforcement</li> <li>Review and approve employer-based TDM plans</li> <li>Manage Pooled-TDM services for small employers</li> <li>TDM Plan development assistance to employers</li> <li>Introductory incentives for commuting using alternative modes</li> <li>Bicycle Commute Startup Program</li> <li>School Commute Transportation Program</li> <li>Develop and implement annual marketing and promotion plan (with approval of Board)</li> <li>Manage, analyze, and report trip reduction monitoring and employee/resident survey findings and recommendations to Transportation Commission</li> </ul>
Contract Services	<ul> <li>Select contract services:</li> <li>AC Transit Easy-Pass Program</li> <li>Pilot TMA sponsorship of one Bikeshare station</li> <li>Carshare stations (provision of space in public facilities for contractor to house vehicles)</li> <li>Develop and maintain basic Commute Alternatives website</li> <li>Annual traffic monitoring and employee/resident surveys (service contracted to consultant)</li> </ul>	<ul> <li>Select contract services:</li> <li>AC Transit Easy-Pass Program [2]</li> <li>TMA sponsorship of Bikeshare stations (3 stations)</li> <li>Carshare stations (provision of space in public facilities for contractor to house vehicles)</li> <li>Expand and maintain Commute Alternatives interactive website, add trip planner, TDM compliance App, on-line rideshare matching service, and links to other commute sites (e.g., 511.org)</li> <li>Annual traffic monitoring and employee/resident surveys (service contracted to consultant)</li> </ul>



#### Table ES-1: Summary of Near-Term and Long-Term TDM Services at Alameda Point (Continued)

Service	Initial (Near-Term) Se	ervices	Long-Term (Buildout) Services			
Parking Mgmt.	<ul> <li>City implements and enforces requirements for new develop</li> <li>City may negotiate with new powners / tenants to provide n parking if owner / tenant req parking than zoning allows</li> <li>Construct surface public parkin necessary to meet obligations development agreements and Figure ES-3 for parking locations and the restrictions on n reconstructed streets per Mass Infrastructure Plan (TMA initiate enforcement through APD)</li> <li>City charges a nominal fee in a parking facilities to establish p Alameda Point as permanent</li> </ul>	pment property lear-by public uests more ing lots as of d leases (see ons) s on-street ew and ster ally contracts all public	<ul> <li>City continues to implement and enforce zoning parking requirements for new development</li> <li>City may continue to negotiate with new development for proximate public parking until all public parking sites are constructed</li> <li>Construct public parking lots and/or structures as necessary to meet projected demand, and obligations of development agreements and leases</li> <li>City enforces off-street payment and on-street parking time restrictions on new streets per MIP (enforcement by TMA managed/funded parking enforcement staff)</li> <li>City and TMA annually review the TDM monitoring results and parking conditions to determine if parking fees will remain at current state or be subject to an increase or decrease depending on specific goals</li> </ul>			
Implemen -tation Threshold	TDM Plan implemented when reaches: 100 dwelling units OR 100,000 commercial use	square feet of	Continuous; TMA services are introduced or modified after reviewing monitoring results, projected demand and available revenue for the following year			
	Shuttle and TDM services:	Enterprise Fund	Shuttle and TDM Services:	Enterprise Fund		
Funding [2]	Parking O&M /enforcement:	Enterprise Fund	Parking O&M and enforcement:	Enterprise Fund		
[2]	Public parking lots:	MIP	Public parking lots:	MIP		
	Public parking garages:	N/A	Public parking garages: Other			
Plan Mgmt. [3]	City of Alameda or contract staf time. May be combination of se level staff. [Full Time Equivalent = 0.57 em	nior and mid-	TMA staff hired by the Board, a consulting firm, or City employees serving as TMA staff directed by a Board of Directors as described in this Plan. [Full Time Equivalent = 1.8 employees]			

Notes:

[1] In the long-term, the shuttle stops at key destinations along route in Alameda and Oakland. AC Transit shuttle service has potential to convert to a Rapid Bus or BRT line route with expanded stop coverage and high frequencies, without reduction in desired shuttle-quality service to/from the 12<sup>th</sup> Street BART station.

[2] Sources of funding are defined as:

a) Enterprise Fund = Accounts that hold the funds from the special tax on property values for funding TMA services and O&M costs associated with public parking

b) MIP = Master Infrastructure Plan

c) Other = Structured parking is funded through future growth of special taxes as development / revenue permits.

[3] TMA staff may be exclusively full-time to the operation of the Alameda Point TMA or be comprised of Alameda Public Works and/or Planning Department staff sharing the responsibilities of operating the TMA on a part-time basis.

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TMA Core Service	Description of Service	NT	LT
Administrative / Coord	ination / Management / Training Services		
General Administrative and Management Duties	Overall management of the TMA's core and contracted services and day to day operations, general accounting, scheduling, and tracking of members through records of leases, new development, and tenants.	Y	Y
Bicycle Commute Startup Program	Training and advice for both Alameda Point residents and employees on route planning, safety, gear and equipment, bike maintenance and repair, bike parking, and shower/locker room information.	N	Y
Bikeshare Station (4) Sponsorship	The TMA may sponsor up to four (4) Bikeshare Stations for use by Alameda Point residents and employees. Bikeshare subscriptions are the responsibility of employers, homeowners associations, or individuals. See contracted services for cost.	Limited	Y
Carshare Program	The TMA will actively solicit Carshare providers to establish stations on public or private property in Alameda Point. The TMA will serve as "broker" for homeowner associations and employers seeking Carshare services for their residents and employees.	Y	Y
Commute Alternatives website	The TMA will develop the content for updating the website as well concepts for development by professional website designers. Interactive functions such as an individual Trip Planner feature, an Alameda Point Trip Reduction Compliance Assistance application for use by any residential or commercial entity, an on-line rideshare matching service for registered users, on-line training programs for resident and employee volunteer or part-time Transportation Coordinators, or on-line bicycling safety training for everyone are examples of concepts that may be developed.	Y Basic Features	Y Adv Features
Emergency Ride Home Program	Centralized service for dispatching taxis and managing reimbursements to the TMA.	Y	Y
Employer and HOA Compliance Strategy Assistance	Provide guidelines and advice, material and support for employers, businesses, homeowners associations, and individuals in preparing the required Compliance Strategy. For a fee, the TMA will develop a Compliance Strategy based on interviews and information provided by the entity requesting assistance.	N	Y
On-Site TDM Coordinator	Duties concurrent with other responsibilities of the TMA's core services.	Part- Time	Y
Provide New Resident and Commercial Tenant Travel Options Kit	Develop and disseminate a kit of information and tools explaining trip reduction goals, parking management, and the Alameda Point TDM Plan's services available to new residents, businesses, employers, employees.	Y	Y

#### Table ES-2: Description of the Alameda Point TDM Plan's Core Services



#### Table ES-2: Description of the Alameda Point TDM Plan's Core Services (Continued)

TMA Core Service	Description of Service	NT	LT
Administrative / Coo	rdination / Management / Training Services		
Guidelines for Preparing Residential and Commercial Compliance Strategies	A handbook of guidance for residential and commercial tenants (or individuals) to develop a Compliance Strategy including a menu of measures and guidelines for their use; example Strategies, estimating effectiveness, overview of pre-tax payroll deductions, parking cash-out programs and tax implications of certain incentives; includes forms for developing Compliance Strategies. Handbook includes steps for submitting Compliance Strategies for approval, implementing Strategies, and participating in the annual monitoring and surveys. Handbook will be updated regularly and reside on the Commute Alternatives website.	Y	Y
Review and Approve Residential and Commercial Tenant Compliance Strategies	Employers, residential complexes, or associations are required to prepare and submit a Compliance Strategy for approval. Compliance Strategies outline tenant plans to meet trip reduction requirements. Provides basic tenant information and demographics, current travel modes, special requirements (e.g., shift overlaps or senior / disabled needs); describes the TMA services, incentives and programs tenant will promote internally, identifies Transportation Coordinator. Tenants may submit their own comprehensive TDM program if they prefer. The TMA reviews Strategies for reasonableness, cost-effectiveness, and awareness and effective use of available TMA services.	Y	Y
School Commute Transportation Program	Recognizing that school trips make up a significant proportion of morning peak hour automobile trips, the TMA will coordinate with schools to provide information to parents and older students about alternatives to driving to school. Information and material may include descriptions and maps of "safe walking and biking routes to schools", and parent or school initiated programs such as "school walk-pools", "bike-pools", student transit passes, etc.	Ν	Y
TMA Enterprise Fund	Manage accounting of Enterprise Funds in which special tax or assessments comprising TMA membership dues that fund TMA core and contract services, and public parking operations, maintenance, and enforcement.	Y	Y
Transportation Coordinator Training Program	TMA sponsored training programs, seminars, and webinars for designated part-time Resident or Employee Transportation Coordinators who represent their HOA, residential complex, company or business; TMA will develop and disseminate training and educational material for Transportation Coordinators to assist HOA or employer in preparing a Compliance Strategy, and inform neighbors and co-workers of their travel options.	Limited	Y
Visitor Clipper Card Program	This program provides temporary pre-paid Clipper Cards available from the TMA for businesses to offer to traveling visitors, or for residents and employees to offer to family members, guests, etc., avoiding the need to rent automobiles to travel to/from Alameda Point. The short-term multi-day Clipper Cards include limited value fare (approx. \$15 to \$20.00) for use on AC Transit and BART (serving the San Francisco International Airport) plus fare for the Oakland Airport connector for the convenience of business travelers or traveling guests. The TMA will keep a limited quantity of these Clipper Cards on hand.	Limited	Y



#### Table ES-2: Description of the Alameda Point TDM Plan's Core Services (Continued)

TMA Core Service	Description of Service	NT	LT
Incentives and Service	s Related to Mode Shift		
Introductory Incentives for Alternative Commute Modes: - Vanpool sign-up Incentives -Carpool sign-up Incentives -Bikeshare group subscription incentive	The TMA will periodically offer introductory incentives to residents and employees who currently travel by single-occupant-vehicle and who commit to using an alternative mode for an introductory period of time and a minimum number of days per week/month during the introductory period. Incentives are typically in the form of vouchers for vanpool fees, fuel, or parking but may also include premium preferential parking spaces, vouchers for services or goods from local shops, restaurants, health clubs, etc. Incentives may be adjusted to reflect tax implications based on the value of the incentive.	Limited	Y
Pooled Employer/ Resident Association- Funded Incentive Program	By pooling resources on a regular basis, Alameda Point's property owners, employers, tenant associations, and HOA's can provide incentives of substantial value available in frequent drawings to employees or residents who travel by alternative modes. This type of program typically gives away moderate value vouchers, products, services or cash weekly and high value winnings in quarterly drawings. Oftentimes, the winnings being given away are significant enough to convince people to use an alternative mode at least during the drawing period.	Limited	Y
Registered Vanpool Subsidy	A vanpool subsidy is typically provided to the driver or all members of the vanpool to defray the cost of vacant seats for which the other members must compensate. A subsidy, along with increased promotion of the empty seats by the TMA and employers, acts as an incentive to retain existing vanpoolers while recruiting passengers to fill vacant seats.	N	Y
Marketing and Promo	tion of TDM Plan		
Annual Marketing and Promotion Plan	Annually, the TMA will develop a budget and implementation plan for the marketing and promotion of services in the following year. These plans may emphasize an under-utilized service that has been demonstrated to be effective, or continue to promote the most effective services. Promotions may include "branding" of services or adopting a particular "theme" that catches the attention of future transit users. The plan must receive Board approval before implementation. Initially, the marketing and promotion budgets will be small or possibly non-existent. But with intensified development, the increase in budget may warrant contracting the development of promotions to a professional marketing firm.	Limited	Y



Table ES-3: Alameda Point TDM Plan Description of Contracted Services
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TMA Contracted Services	Description of Service	ΝΤ	LT
AC Transit Easy- Pass Program	This program leverages the purchasing power of every resident and employee in Alameda Point to contract with AC Transit to provide pre-paid transit passes to every resident and employee. In the initial phases of development, the number of passes purchased will be relatively small. As development intensifies and the number of purchased passes increases, the TMA will benefit from a reduction in the cost per pass.	Limited	Y
Shuttle to 12th Street BART Station	One of the most essential of the services provided to Alameda Point. A high frequency dedicated shuttle route that can transfer employees and residents to and from the 12th Street BART station in 15 minutes. In the initial phases of development, the shuttle is targeted at commuters and thus only runs during a four hour peak period in the morning and a four hour peak period in the afternoon. For economy, the shuttle's headways in the initial phases of development are 30-minutes. As development intensifies and demand for the shuttle increases, the shuttle will target trip purposes beyond the commute, thus, headways will decrease to 15-minutes, non-peak period service will be added comprising 20-hour weekday service, and Saturday service will be added. If the cost of the shuttle can be kept low, Sunday service will be added as well.	Y	Y
Annual Traffic Monitoring and Employee/Resid ent Surveys	Determining the effectiveness of the TMA's services and the employer-based TDM plans requires regular performance evaluation. Annually, daily and peak period traffic counts (min. of 3 days) will be collected at Alameda Point gateway intersections and measured against a baseline condition and previous years (taking new development into account) to estimate the level of trip reduction (or gain). Augmenting traffic data is an annual employee and resident transportation survey to collect data on modes of travel, frequency of the use of those modes, trip purposes, distance traveled, cost, opinions on effective and ineffective TDM services, reasons for not using services, suggested improvements, and demographic information for cross-referencing. Survey will utilize a multi-media approach to maximize the return rate (e.g., online, mail-in, intercept). The TMA will work with a contractor to develop data collection and survey methods.	Y	Ŷ
Develop, Update, Enhance and Maintain Alameda Point Commute Alternatives Website	The TMA will develop the content for updating the website as well develop concepts for contracted professional website designers to enhance the site with functional interactivity. Interactive functions may include an individual Trip Planner feature (or link to existing trip planners), an Alameda Point TDM Plan-Builder application for use by employers, an on-line rideshare matching service for registered users, on-line training programs for employee TDM Coordinators or on-line bicycling safety training for everyone are examples of concepts that may be developed. TMA staff will work with a contracted website developer to implement features.	Limited	Y

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The ongoing services of the TMA, and the operations and maintenance of public parking facilities will be funded annually by property owners through a special tax or property assessment. This exaction is expected to be passed down to all tenants, representing the cost of membership in the TMA. For the initial phases of development, **Table ES-4** summarizes the one time capital costs of parking facilities, and presents the annual operating and maintenance expenditures and revenues of the TMA's services and programs and services, and identifies the portion of expenditures not offset by revenues that will be funded through the special tax.

#### Cost of the Full TDM Plan

In the long-term buildout scenario, the expenditures the TMA needs to fund (see **Table ES-4**) are for ongoing operations and maintenance which typically cannot be financed through conventional financing methods such as bond proceeds. Therefore, annual cash flow is important to the TMA, especially in the long-term

#### Funding the Plan

All new developments at Alameda Point will be subject to a special tax specifically for funding the annual operations of the TDM Plan's services, programs, and public parking operations and maintenance net of parking revenues. All development pays the same tax (adjusted for assessed value of the subject property) regardless of whether the development occurs in the first phase or in thirty years—an assessment in aggregate that is sufficient to fund the TDM Plan's requirements at buildout of Alameda Point.

The initial level of development, however, may not produce sufficient funds to implement the Plan's essential TMA services. Therefore, subsidies or alternative sources of funds may be required in the initial phase.

**Table ES-4** identifies the funding sources (seefootnotes) for the major expenditures in the TDM

Plan. Property owners will fund (as related to the Alameda Point TDM Plan) the core and contracted services, and the annual cost to operate and maintain public parking facilities. Projected revenues from public parking fees may offset, or potentially exceed, the annual operations and maintenance costs. The projected revenue shown in **Table ES-4** is based on conservative assumptions, especially in the near-term, which are summarized in the appendix.

The cost of enforcing parking time restrictions and fees is also shown **Table ES-4** but is anticipated to be entirely offset by revenues from violation fines, as has historically been the case in Alameda.

## Table ES- 4: Estimated Capital and Annual Costs of the Alameda Point TDM Plan(Near-Term and Long-Term)

	Near	r-Term	Long-Term		
TDM Plan Service or Measure	Initial Capital Cost	Annual Expenditures and Revenues	Capital Costs	Annual Expenditures and Revenues	
EXPENDITURES					
Capital Costs					
Surface Parking Lots - Construction (See Tables A-3a and A-3b) [1] Funded by: MIP [2]	\$1,352,000		\$8,812,526		
Structured Parking– Construction (See Table A-3a and A-3b) [1] Funded by: Other [3]	\$0		\$6,926,000		
Parking Meters and Enforcement Vehicles (See Table A-4) Funded by: MIP [2]	\$498,000		\$0		
Total Capital Costs	\$1,850,000		\$25,738,526		
Annual Operations and Maintenance (O&N	A) Costs				
TMA Core Services (see Table A-1) Funded by: Enterprise Fund [4]		\$117,678		\$682,365	
TMA Contracted Services (See Tables A-1 and A-2a) Funded by: Enterprise Fund [4]		\$166,400		\$684,100	
Parking Operations & Maintenance (See Tables A-3a) [5] Funded by: Enterprise Fund [4]		\$78,000		\$850,415	
Parking Enforcement (See Table A-4) Funded by: Enterprise Fund [4]		\$12,081		\$166,914	
Total Annual O&M Costs		\$374,160		\$2,383,794	
REVENUES			_		
<b>Parking Fees</b> (See Table A-5a)		\$39,146		\$1,256,724	
Parking Enforcement (See Table A-4)		\$12,081		\$123,357	
Total Annual Revenues		\$51,228		\$1,380,082	
Net Total (Revenue - Expenditures) [6]		\$(322,932)		\$(1,003,713)	



#### Notes:

[1] Near-term public parking costs assume the construction of 260 parking spaces located in surface lots distributed over Alameda Point. The capital cost shown in this table is the sum of the hard and soft cost to construct 260 surface parking spaces. No structures are assumed to be constructed in the near-term scenario. Long-term public parking costs assume the construction of the balance of surface parking lots and structures identified in **Table A-3b**. The capital cost shown in this table is the sum of the hard and soft cost to construct 1,653 surface parking spaces and 700 structured parking spaces.

[2] MIP = Master Infrastructure Plan

[3] Other = Assessments or special taxes on Alameda Point properties.

[4] Enterprise Fund = Accounts funded through assessments or special taxes exacted on Alameda Point property and used exclusively for funding the TMA's services and programs, contracted services, and the operation and maintenance of public parking facilities.

[5] The cost of O&M for parking facilities assumes \$300 per space per year for surface parking lots and \$600 per space per year for structured parking facilities.

[6] The net total represents the amount that will be funded through assessments or special taxes exacted on Alameda Point property as described in footnote 4.

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#### **1. INTRODUCTION**

#### 1.1. Purpose of the Plan

This Transportation Demand Management (TDM) Plan is a tool and a resource for existing and future development on the former Alameda Naval Air Station (Alameda Point) at the western end of Alameda. The Plan defines a procedure for implementing strategies and measures designed to reduce automobile travel, particularly singleoccupant-vehicles (SOVs), generated by development within Alameda Point.

The need to reduce automobile travel is instinctual to those who reside and work on the island that is Alameda. With its limited access to the mainland, Alameda has little capacity for growth and economic development without addressing the magnitude of traffic attracted from across the Estuary. It is also necessary for regulatory reasons including:

- to comply with the policies of the General Plan to reduce automobile trips by shifting travel to other modes of transportation to maintain and improve the quality of life enjoyed in Alameda;
- to mitigate the potential traffic-related impacts on local and regional transportation systems as required under the California Environmental Quality Act (CEQA) and identified in the Environmental Impact Report (EIR) prepared for Alameda Point; and
- to help achieve the Bay Area's goal for reducing greenhouse gas (GHG) emissions as required under SB 375 by developing Alameda Point as a walkable, transitoriented, "complete community" requisite of Alameda Point's designation as a Priority Development Area (PDA).

Ultimately, the strategies recommended in this Plan need to successfully change human travel behavior. Not a science, but an art that uses combinations of incentives, disincentives, convenient and high quality services, and skillful education, marketing, and promotion that results in a paradigm shift about the sustainability of our pattern of development and associated travel habits. Changing human behavior also requires time and funds, so this Plan addresses phasing and equitable ways for Alameda Point to fund the Plan's recommendations over the long-term.

While the above describes the primary purpose of the Plan, there are additional purposes related to how the Plan is used. These purposes are:

- Establish authority. Approval by the Alameda City Council renders this Plan a regulatory document and establishes the authority to implement and enforce the mandatory requirements of the Plan.
- Set targets and objectives. This Plan documents the trip reduction targets that form the fundamental objective of the Plan.
- **Provide implementation guidance**. As a tool and a resource, the Plan provides guidelines on implementing the strategies and programs contained within, and identifies where additional guidance needs to be developed when appropriate.
- Identify implementation thresholds. Implementing the major strategies and components of the Plan requires an awareness of the rate of development on Alameda Point and the ability to reasonably project the funding that will be available at key stages of Alameda Point's development program.
- Allow for controlled flexibility. This Plan acknowledges that, due to the many unknown factors related to development on Alameda Point and the ability of the strategies in the Plan to reduce automobile travel generated by the development, it

may need to alter its approach or undergo significant revisions. There is flexibility for change built into the Plan, along with checks and balances to ensure the changes are warranted and reasonable.

• **Establishes procedures**. Finally, the Plan establishes procedures for implementing elements of the Plan where consistency in application is critical.

#### 1.2. Goals and Objectives of the Plan

This Plan adopts the automobile trip reduction goals established in Policy 4.6.1.a of the General Plan that state:

Identify, develop, and implement travel demand management strategies to reduce demand on the existing transportation system.

- 1. Establish peak hour trip reduction goals for all new developments as follows:
  - 10 percent peak hour trip reduction for new residential development
  - 30 percent peak hour trip reduction for new commercial developments

Progress towards meeting the General Plan trip reduction goals is measured against baseline forecasts of Alameda Point's traffic generation. The forecasts are based on the traffic projections developed for use in the Alameda Point EIR to determine traffic impacts (see Chapter3 on estimating the trip generation of Alameda Point). Annual monitoring of the actual traffic generated by development on Alameda Point is an intrinsic part of the TDM Plan.

Monitoring measures progress towards meeting trip reduction goals and can identify problems requiring adjustments to the Plan's strategies and programs. Monitoring actual traffic generation is augmented by resident and employee surveys going directly to the users of the Plan regarding its effectiveness and how it may be improved.

## 1.3. Organization of the Plan by Implementation Stage

1.3.1. Stage 1: Pre-Development Site and Infrastructure Planning and Regulatory Controls

Stage 1 is not generally thought of as part of the TDM Plan, but this stage results in critical supporting infrastructure and regulations. Stage 1 in Alameda Point is provided through the Master Infrastructure Program (MIP) and the Alameda Point zoning code.

The MIP defines the capital improvements that create a walkable and bicycle-friendly community. It provides for the transit streets and the space for quality transit stops. It includes the construction of surface public parking lots. It provides the supportive infrastructure that will allow the ferry terminal to relocate to Seaplane Lagoon, and the MIP provides the design and cost data that feeds into the infrastructure financing program. In summary, Stage 1 plans and supports the financing of Alameda Point's "armature", or transportation and development backbone from which the TDM Plan relies on.

The Alameda Point zoning code regulates the types and the form of land uses that can be built. This is an important part of creating a walkable and bicycle-friendly community. The zoning code establishes the foundation of the TDM Plan's parking management strategy through controlling the amount of private parking that can be constructed in Alameda Point.

• **Chapter 6** describes the parking management strategy in detail and explains how it works with zoning and the TDM Plan.

#### 1.3.2. Stage 2: Startup and Initial Phases of Development

Stage 2 occurs after development has begun and a minimum threshold of development has been reached. Startup of the Plan is comprised of establishing the numerous authorities the TMA



requires to implement, fund, and enforce the Plan. In the initial phases of development, the Plan focuses on the most "essential" services for reasons of economy. Even so, there are numerous management responsibilities the acting TMA will need to attend to in the early phases of development. At the end of each year the TMA plans and conducts a monitoring program to measure Alameda Point's progress towards meeting its trip reduction goals

- Chapter 3 describes tools provided in this Plan to help the TMA predict the amount of traffic development will generate and determine the maximum amount of traffic Alameda Point can generate annually and remain with its trip reduction goals.
- **Chapter 5** describes the TDM strategies that are recommended in the Plan, and identifies the "essential" strategies implemented in the initial phases of development.
- **Chapter 7** describes implementation steps at startup and through the initial phases of development.
- **Chapter 8** describes the monitoring program, and the recommended techniques to measure the Plan's performance, as well as explain the tools provided in the Plan for analyzing data.

## 1.3.3. Stage 3: Long-Term Strategies and Maintenance of the TDM Plan

The final stage of the TDM Plan encompasses implementation of the full range of strategies, marketing and promoting the Plan, continued annual monitoring of the Plan's effectiveness, and, early in Stage 3, formally establishing the TMA and its Board of Directors.

• **Chapter 4** gives an overview of forming the TMA and defines the roles and responsibilities of staff and the Board.

• **The appendix** contains a copy of "The TMA Handbook", a comprehensive guide to creating and operating a successful TMA.

### 2. ALAMEDA POINT DEVELOPMENT PROGRAM

#### 2.1. Development Within Alameda Point

#### 2.1.1. Land Use Summary (The Project)

Alameda Point is anticipated to reach build out of its development program over a thirtyyear period (approximately the year 2044). The residential component of the Alameda Point development program is expected to build out in a significantly shorter timeframe (about eight years) than the commercial component (30 years). The development program is summarized in **Table 1** as a total by land use category. Alameda Point has a development capacity allowing 1,425 housing units and about 5,500,000 square feet of commercial uses including office, retail, and manufacturing.

Program									
Land Use	Subcategory	Amount	Units						
Residential	Single Family	559	DUs						
Residential	Multi-Family	866	DUs						
Commercial	Retail	869,000	Sq. Ft.						
Commercial	Restaurants	41,000	Sq. Ft.						
Employment	Office	1,677,000	Sq. Ft.						
Employment	Manufacturing	2,913,000	Sq. Ft.						
Total Housing Unit	s:	1,425	DUs						
Total Building Floo	or Area:	5,500,000	Sq. Ft.						
Notes:									
DUs = Dwelling Units, Sq. Ft. = square feet									
Source: City of Alameda,	2013.								

#### Table 1: Summary of Alameda Point's Development Program

### 3. ALAMEDA POINT TRIP REDUCTION REQUIREMENTS

#### 3.1. Trip Generation Goals

Trip Reduction goals are established as part the Alameda Point Transportation Demand Management Plan as adopted by the Planning Board and City Council. All development within Alameda Point is required to participate in the Plan through the programs offered by the Alameda Point Transportation Management Association, and/or develop and implement a trip reduction plan consistent with this Plan. Alameda's General Plan established trip reduction goals at:

- 30% reduction in peak hour trips for commercial development; and
- 10% reduction in peak hour trips for residential development.

The goals are measured against the estimation of automobile trips developed for the Alameda Point Environmental Impact Report (February, 2014).

Owners and tenants occupying property in Alameda Point are obligated to take measures to meet the trip reduction goals. These measures the subject of this TDM Plan—can be implemented by an employer for his/her employees or by the management of a residential development, or any type of resident association. Alternatively, employees and residents can utilize the measures, services, and programs offered by the TMA.

The Alameda Point TMA will annually monitor Alameda Point automobile trip generation and survey residents and employees to determine conformance with the established trip reduction goals, and to identify the strategies and measures that have the greatest impact on reducing singleoccupant automobile trips. If Alameda Point, at the aggregate level, is found to be out of conformance, the TMA may require refinement or replacement of trip reduction strategies (from private and public TDM Plans). The revised strategies are to be re-implemented, and monitored in subsequent years.

#### 3.2. Types of Trip Reductions

Trips that travel to Alameda Point from off-island and vice versa are the type of trip that causes the greatest impact because these trips use up the limited capacity of Alameda's bridges and the Posey and Webster Tubes. The type of trip that cause the second greatest impact are trips that travel external to Alameda Point but stay on the island. These trips contribute traffic to intersections that are at or nearing the limit of their capacity.

These two types of trips are the target of the trip reduction requirement, but only if they travel during the morning or afternoon peak hours when congestion is at its worst, and primarily if the trips are by single-occupant-vehicle (SOV). Based on this narrow window of trips targeted by the TDM Plan there are multiple ways of achieving the trip reduction as described below:

- Trips shifted to transit or non-motorized modes of transportation. This is the ideal method of trip reduction because it removes the automobile from the roadway network altogether.
- Trips shifted from SOV to highoccupancy-vehicles (HOV) such as vanpools and carpools. Not only does this type of trip improve conditions in Alameda, it improves regional traffic conditions, and has the added bonus of using the HOV facilities that exist nearly everywhere in the Bay Area.
- Trips remain internal to Alameda Point. Internally captured trips don't leave Alameda Point and don't impact external roads and intersections. Internal capture is the result of having a diverse mix of land uses in the community so that residents and employees can run errands, dine, drop children at school or day care, or shop without leaving Alameda Point and

potentially can make these trips without using an automobile.

• Trips travel during non-peak periods and therefore do not contribute to congestion. This is the least desirable trip reduction because it means a vehicle remains on the island and available to travel during the peak hours should the driver choose to do so.

The TMA will observe trip types and use surveys to identify which of these trip types are predominant in Alameda Point so that TDM strategies, and marketing and promotional initiatives are tailored to target these trip types.

#### 3.3. Estimating Alameda Point Trip Generation

The Draft and Final Alameda Point EIR presents a prediction of the peak hour trips generated by Alameda Point land uses at buildout. The predicted trips were derived from a regional travel demand forecasting model and used to identify significant transportation impacts in the EIR. Because the predicted trips were derived from a regional model, they cannot be segregated by residential and commercial land uses.

For tracking the traffic generated by specific land uses and for monitoring the effectiveness of the TDM strategies, a tool is needed to estimate the trips generated by growth in Alameda Point for specific land use types. These predictions will be needed in the annual monitoring process as explained in Chapter 8. The following section describes the trip generation tool developed for predicting Alameda Point traffic.

#### 3.4. A Tool for Predicting Alameda Point Traffic Generation

The tables in this section are representations of spreadsheet models used to estimate the trip generation of Alameda Point land uses as part of the process of determining if Alameda Point is achieving its trip reduction goal. **Table 2** is a tool that estimates average daily trips. This is for informational purposes since the trip reduction goals apply only to the peak hours. **Table 3 is** a tool that estimates the AM and PM peak hour trip generation of Alameda Point land uses. The model can estimate trip generation at any level of development with input of the units of land use in the cells colored yellow. The user of these tools is expected to use the model's spreadsheet so that the data is automatically calculated. **Table 2** and **Table 3** are shown here to illustrate the structure of the tool.

The estimated trip generation resulting from the models will not match the traffic volumes representing Alameda Point evaluated in the EIR. A calibration step is required to factor the model's estimate of traffic to reflect the model used in the EIR.

 Table 4 performs several functions:

- 1. It derives a calibration factor to adjust the estimated trip generation to reflect the level of traffic modeled in the EIR.
- 2. It calculates the annual incremental growth in traffic for the year being monitored with user input that includes the initial baseline traffic counts and the traffic counts of the year being monitored.
- 3. It breaks down the estimated growth in traffic to a commercial component and a residential component.
- 4. It calculates the required trip reduction for commercial generated traffic (30%) and residential generated traffic (10%) for the year being monitored. The resulting traffic volumes are used as input into the annual monitoring tool described in Chapter 8. Also, refer to the instructions on using the monitoring tools in the appendix.



User Defined	Land Use	Subcategory	Units /	Daily Trip Generation		Daily Trip Reductions	
Area			Totals	Rate	Trips	Pct.	Trips
	Residential	Single Family		9.52		16%	
	Residential	Multi-Family		6.65		16%	
1	Commercial	Retail		127.15		16%	
-	commercial	Restaurants		89.95		16%	
	Employment	Office		11.03		16%	
	Employment	Manufacturing		3.82		16%	
	Subtotal Building Floor Area:			Subtotal		16%	
		Subtotal Housing Units:		Subtotal		10/0	
	Residential	Single Family		9.52		16%	
	Residential	Multi-Family		6.65		16%	
2	Commercial	Retail		127.15		16%	
2	commerciar	Restaurants		89.95		16%	
	Employment	Office		11.03		16%	
	Employment	Manufacturing		3.82		16%	
	Sub	total Building Floor Area:		Subtotal		16%	
		Subtotal Housing Units:		Subtotal			
	Residential	Single Family		9.52		16%	
	Residential	Multi-Family		6.65		16%	
3	Commercial	Retail		127.15		16%	
5	Commercial	Restaurants		89.95		16%	
	Employment	Office		11.03		16%	
	Employment	Manufacturing		3.82		16%	
	Sub	total Building Floor Area:		Subtotal		16%	
		Subtotal Housing Units:		Subtotal		1076	
	Residential	Single Family		9.52		16%	
	Residential	Multi-Family		6.65		16%	
4	Commorcial	Retail		127.15		16%	
4	Commercial	Restaurants		89.95		16%	
	Employment	Office		11.03		16%	
	Employment	Manufacturing		3.82		16%	
	Sub	total Building Floor Area:		Subtotal		16%	
		Subtotal Housing Units:		Subiolal		10%	
		Total Floor Area:		Grand			
		Total Housing Units:		Total			
Total	Total Trips from	n Commercial Land Uses		Perc	cent:	%	
	Total Trips from	n Residential Land Uses		Perc	cent:	%	
	Grand Total						

#### Table 2: Alameda Point Daily Trip Generation Estimating Tool for Annual Monitoring

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					AM Pea	ak Hour			PM Peak Hour		
User Defined Area	Land Use	Subcategory	Units	Tri Genera		Peak I Reduc		Tr Gener			Hour ctions
Area				Rate	Trips	Pct.	Trips	Rate	Trips	Pct.	Trips
	Residential	Single Family		0.75		9%		1.00		25%	
	Residential	Multi-Family		0.51		9%		0.62		25%	
	Commercial	Retail		0.96		9%		3.71		25%	
1	Commercial	Restaurants		0.81		9%		7.49		25%	
	Employment	Office		1.56		9%		1.49		25%	
	Employment	Manufacturing		0.73		9%		0.73		25%	
	-	ilding Floor Area:				9%				25%	
	Tot	al Housing Units:									
	Residential	Single Family		0.75		9%		1.00		25%	
		Multi-Family		0.51		9%		0.62		25%	
	Commercial	Retail		0.96		9%		3.71		25%	
2		Restaurants		0.81		9%		7.49		25%	
	Employment	Office		1.56		9%		1.49		25%	
		Manufacturing		0.73		9%		0.73		25%	
		ilding Floor Area:				9%				25%	
	Tot	al Housing Units:		0.75				4.00			
	Residential	Single Family		0.75		9%		1.00		25%	
		Multi-Family		0.51		9%		0.62		25%	
	Commercial Employment	Retail		0.96		9%		3.71		25%	
3		Restaurants		0.81		9%		7.49		25%	
		Office		1.56		9%		1.49		25%	
		Manufacturing		0.73		9%		0.73		25%	
		ilding Floor Area: al Housing Units:				9%				25%	
	101	Single Family		0.75		9%		1.00		25%	
	Residential	Multi-Family		0.51		9%		0.62		25%	
		Retail		0.96		9%		3.71		25%	
	Commercial					9% 9%		3.71 7.49			
4		Restaurants		0.81						25%	
	Employment	Office		1.56		9%		1.49		25%	
		Manufacturing		0.73		9%		0.73		25%	
		ilding Floor Area:				9%				25%	
		al Housing Units:									
Total	-	Bldg Floor Area:									
	Grand Tot	al Housing Units:									

#### Table 3: Alameda Point Peak Hour Trip Generation Estimating Tool for Annual Monitoring



#### Table 4: Trip Generation Tool for Alameda Point Trip Reduction Monitoring

Estimates Maximum Traffic Volume Achieving Trip Reduction Goal and Calibrates to EIR Model Forecasts	Daily	AM Peak Hour	PM Peak Hour
Enter baseline traffic volumes into Line 1 after conducting the initial tr the TDM Plan. See instructions for modifying the calibration factor.	raffic counts be	fore impleme	ntation of
Alameda Point Traffic Projections (from Alameda Point DEIR, Sept. 2013)	33,429	2,928	3,294
Alameda Point EIR Adjustment / Calibration Factor	56%	57%	55%
1. Baseline Traffic Volumes (from Monitoring Program initial count)			
2. Alameda Point Incremental Growth in Trips			
3. ADJUSTED ALAMEDA POINT INCREMENTAL GROWTH IN TRIPS			
4. Alameda Point Incremental Growth in Trips (Commercial Land Uses)			
5. Incremental Growth in Trips (Commercial Land Uses) with 30% Reduction			
6. Alameda Point Incremental Growth in Trips (Residential Land Uses)			
7. Incremental Growth in Trips (Residential Land Uses) with 10% Reduction			
8. ADJUSTED INCREMENTAL GROWTH IN TRIPS WITH GOAL REDUCTIONS			

### 4. MANAGING THE TDM PLAN: THE ALAMEDA POINT TRANSPORTATION MANAGEMENT ASSOCIATION

#### 4.1. Defining the TMA

The definition of a TMA that follows is one of the most relevant definitions as to what a TMA at Alameda Point is expected to be and why:

"...public/private partnerships formed so that employers, developers, building owners, and government entities can work collectively to establish policies, programs and services to address local transportation problems. TMAs realize their potential in addressing traffic congestion, air quality, and occasionally, employment issues through TDM strategies. TMAs are established within a limited geographical area to address the transportation management needs of their members. TMAs are expected to obtain private sector financing in addition to public funding."<sup>1</sup>.

#### 4.2. Brief Overview of the TMA Formation

Official formation of the TMA begins after the exploration by the interim near-term TMA indicates that Alameda Point has developed to the point where the TDM Plan is complex and the larger investment decisions should be made by a TMA governing board. The formation of the TMA takes between 12 and 18 months, starting with a core group of City staff and others involved in the interim TMA. This core group expands support staff, plans additional services and sets up the organizational structure of the TMA.

TMAs in the formation stage usually focus on the following activities:

• Establishing a core membership and steering committee.

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- Formalizing the initial funding mechanisms.
- Establishing legal and organizational structure.
- Initiating marketing and membership development.
- Using the experience of the interim TMA, selecting the most effective core supportive strategies and eliminating the least effective.
- Generating awareness and interest among targeted markets.
- Fostering public-private relationships.

### The Expanding Roles of Today's TMAs

If the TMA only had to simply manage the programs and services it provides, it would require limited staffing. But today, much more is expected of the TMA's because the field of transportation has become complicated and traffic impacts caused by new development can trigger unexpected opposition to projects. While not part of any official definition, the role the TMA of today includes:

- Broker or provider of services
- Consultant
- Watchdog
- Information clearinghouse
- Forum for consensus-building
- Advocate
- Educator
- Regulatory Monitor

<sup>&</sup>lt;sup>1</sup> Source: Center for Urban Transportation Research, College of Engineering, University of South Florida. TMA Handbook.2001.



There are several options for the organizational structure of a TMA. The interim TMA core group or a steering committee may elect to organize an ad hoc group or create a committee within another established private organization. The steering committee may feel the TMA would function well under the organizational formality of a private, nonprofit organization.

The City can assist the TMA in reviewing their options and the pros and cons of various organizational structures. If, however, the steering committee believes that a more formal organizational structure is needed, and that a Board of Directors is needed to guide the everincreasing complexity of the TMA, then formal incorporation may be the best way to organize. Then articles of incorporation and bylaws must be drawn up, and a Board of Directors must be established for which a statement of duties should be devised.

Other tasks at this stage of the TMA's formation will include developing office procedures, defining the roles and responsibilities of the Board of Directors and staff, identifying an Executive Director either as a combination of staff, a consultant, or creation of the position and recruiting to fill the position. The TMA will need to establish an office and set up an accounting system.

Once a legal and organizational structure has been established, the TMA begins its operational stage. Operations includes two primary categories of activities: administration and service delivery. Administration refers to the ongoing efforts needed to maintain membership and funding, running the office and serving the board of directors. Service delivery refers to providing services to members and other selected markets. Operation is characterized by a maturation of the organization, development of stable, ongoing, funding from membership sources, and a track record of service delivery. The primary activities of an operational TMA are:

- Developing and delivering member services.
- Keeping the membership informed and enthusiastic.
- Maintaining office functions, keeping records and an accounting system.
- Monitoring and evaluating program and service progress ongoing and annually.



### 5. MENU OF TDM STRATEGIES

#### 5.1. The Cornerstones of Effective TDM

5.1.1. What does it take to make TDM work and keep working?

As stated in Chapter 3, effective TDM strategies reduce motor vehicle trips by one or more of the following means:

- 1. Accommodating the same number of people in fewer motor vehicles (e.g. transit, carpooling/vanpooling, and cycling/walking).
- 2. Eliminating trips entirely (e.g. working at home, or at a satellite business center)
- Shifting the timing of trips from the most congested periods to less busy times (e.g. employer flextime, compressed work weeks)
- 4. Retain the trip internal to Alameda Point.

Therefore, primary TDM strategies need to have these outcomes. Secondary TDM strategies need to support primary strategies or focus on behavioral change, or there is no reason to implement them. The most successful TDM Plans offer services that are:

- a. Responsive to a particular problem of a selected target market.
- b. Developed for the purpose of achieving the TMA's trip reduction goals and nothing else.
- c. Properly administered.
- d. Tailored to the TMA's member needs identified through surveys and careful market research.

The above paragraphs and bulleted lists all lead to one conclusion: TDM strategies must be wellthought out, with an understanding of the travel market needs and challenges, and implemented in combinations of strategies that support each other. If a TDM strategy cannot be directly linked to a desired outcome, or does not support a strategy that does, it has no purpose in the TDM Plan and should not be considered further.

## 5.1.2. What are the Most Effective TDM Strategies?

Rarely will a single strategy be highly effective in of itself. A combination or methods is the most effective, and are usually packaged as a complementary group targeting a specific market such as office commuters, college students, afternoon shoppers, etc.

Although the effectiveness of a TDM Plan is highly dependent on the characteristics of the Plan's area of influence and its target markets, national research on TDM strategies have shown that the following "groups" of strategies, on average, are the most cost-effective:

- 1. **Financial incentives** (commuter subsidies for not driving in a single-occupant-vehicle).
- 2. **Financial disincentives** such as parking charges.
- 3. **Bicycle and walking programs, facilities and subsidies**, particularly those offered as a complete start to finish package (see sidebar on following page).
- 4. **Parking management** including reducing supply of available parking and charging market rate fees.

#### 5.2. General Categorization of Strategies

While not all of the strategies in the Alameda Point TDM Plan fall neatly into one of the following categories it may be helpful to track and cross-reference successful and unsuccessful strategies by these categories to assist decision making in the long-term.

- 1. Shuttle service and support
- 2. Parking management and support
- 3. Walk / Bike facilities and programs
- 4. Carpool / vanpool
- 5. Marketing and promotion
- 6. Incentives and support
- 7. General support for all strategies



## New Bicyclist Commuter Program

### Example "Start to Finish" Incentive Strategy

An example of a start to finish program that provides all of the necessary support for someone who wouldn't have selected such an alternative mode without the comprehensive program. The program might be comprised of:

- Sign-up cash incentive or high value nonmonetary incentive (e.g., one year membership to a popular health club or a top of the line bicycle helmet);
- Initial training on safe bicycling to Alameda Point;
- Proper equipment and gear selection and discounted sales;
- Training in maintaining equipment;
- Best route selection from home to worksite based on skill level, and maps of bicycle parking, locker rooms and showers ;
- Follow-up progress reporting with rewards or recognition for reaching milestones;
- Pairing with a "commute buddy"—an experienced bicycle commuter for first couple of months.

#### 5.3. Overview of Approach to Alameda Point's TDM Strategies

First, there are no limitations placed on the strategies that the TMA offers to its members or that employers may want to adopt for their own plans. This chapter provides recommendations on the best strategies and a system of tiered strategies designed to get increasingly stringent with each tier. The lowest tier will typically have the largest number of strategies, because the Plan needs to provide a wide spectrum of options to meet the needs of Alameda Point's diverse markets.

Generally, the highest tier of strategies are reserved for significant failure to meet the trip reduction goals, or missing the goals for two years in a row without showing progress. Further, most of the incentive strategies are found in the first tier because it's generally against TDM principles to offer incentives to markets chronically missing trip reduction goals—disincentives are more appropriate at the stage.

## 5.4. Tier 1 Essential and Core Supportive Services

This section starts with the "essential" and "core" services that should be common to every tier, but essentially fall into the first tier or "front line" strategies. These services were presented in the Executive Summary. **Table 5** presents the "essential" TMA services. These are the really basic, but very important services to implement and to maintain when funding is low. In a funding crisis, these would be the very last strategies to drop. **Table 6** presents the TMA's core services. These remain Tier 1 strategies, are basic and important services, but with more flexibility to delete from the TDM program in low funding conditions.

#### 5.5. Tier 2 TDM Strategies

This section identifies Tier 2 strategies. These strategies may be implemented along with Tier 1 strategies, but often are held in reserve "to *first see if Tier 1 strategies work*" because there is a cost associated with these strategies. Tier 2 strategies are not typically provided by the TMA, but part of either individual TDM programs or part of a larger development's package of services or tenants. **Table 7** presents the Tier 2 strategies. Tier 2 strategies are include "packages" of services


Tier	Primary or Secondary Strategy	Category	
1	Primary	Shuttle service and support	
1	Primary	Shuttle service and support	
1	Primary	General support for all strategies	
1	Secondary	Shuttle service and support Carpool / vanpool	
1	Primary	General support for all strategies	
1	Primary	General support for all strategies	
1	Primary	General support for all strategies	
	1 1 1 1 1 1 1	HerSecondary Strategy1Primary1Primary1Primary1Secondary1Primary1Primary1Primary1Primary111Primary1111111111111111111111111111111111	

Table 5:	"Essential"	Services	Provided b	by the	ТМА	(Tier 1)
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# Example of Strategies and Measures that Support Car and Vanpooling, and Transit

- Employer-specific ride-matching database
- Introductory vanpool and carpool sign-up incentives
- Vanpool and carpool preferential parking
- Emergency ride home program
- Rebates for new vanpool participants
- Employer funded van lease and/or insurance
- Company vehicle provided for carpooling
- Company car for midday use by car and vanpool passengers

- Free or subsidized transit pass (BART, Caltrain)
- Pre-tax payroll deduction for purchasing transit fare or vanpool fees
- Exclusive on-site Bikeshare for employees
- Carshare use incentives or group subscription
- On-site Carshare station(s)
- Employer bicycle pool and safety equipment
- Amenities / services at workplace for transit users such as dry cleaning, daycare, and drugstore deliveries

#### Master Transportation Demand Management Plan Draft Report

that are targeted at specific markets or specific modes of travel, and "commuter club" types of service packaging that provide increasing perks and incentives the longer the user travels using alternative modes or collects "points" for each day using alternate modes.

**Figure 4** shows examples of TDM service packaging targeting different alternative modes of transportation, and **Figure 5** provides examples of site design and land uses combined with certain services to create a high-reward "club" incentive program. **Figure 6** shows TDM strategies that work well for residential developments and often managed by the property managers or a resident association.

### 5.6. Employer or Resident Association Compliance Strategies

Employer or resident association-based compliance strategies are tailored combinations of measures and services selected specifically to meet the travel needs of the employees assigned to the site, or services that best match the needs of most residents in a particular development. Some employers may relocate to Alameda Point with long standing trip reduction plans that are demonstrated to be effective. These employers will simply continue with their programs and may take advantage of the TMA's other available services.

However, the majority of employers and resident associations locating in Alameda Point will have never developed a TDM plan, nor have they prepared a compliance strategy. Some employers or associations may have so few potential participants that it is not cost-effective to develop a plan for such a small group. In these cases, the TMA steps up to either assist the entity in developing a plan, offers the TMA's core services to small employers, or acts as matchmaker and pools together similar small entities in order to create cost efficiencies. Many of the core services listed in this chapter may be identified in an employer or resident association's compliance strategy, possibly with adjustments that make the service more specific to their needs. It is not the individual measures within a compliance strategy that makes it successful, it is the combination of measures that underscores and complements the entity's culture and philosophy that creates successful behavioral change, particularly if the employees or residents view the strategy as consistent with their collective values.

Because of the nature of tailored TDM programs, a simple listing of measures does not convey how compliance strategies are developed. This chapter identifies tiered TDM strategies with each successive tier comprised of increasingly aggressive (and costly), but possibly more effective, strategies. This TDM Plan does not require an entity to select higher tiered strategies if they fail to meet their trip reduction goals, but encourages the consideration all of the strategies in developing their compliance strategy regardless of the tier, for creating a cost-effective plan that has a high likelihood of achieving success the first time.

Later in this chapter a sidebar presents a case study of an employer-based TDM program using a combination of strategies tailored to the company's personnel.



### Table 6: Core Services Provided by the TMA (Tiers 1, 2 and 3)

TMA Essential Service	Tier	Primary or Secondary Strategy	Category	
Introductory Incentives for Using Alternatives Modes	All	Primary	Incentives and support	
Pooled Employer-Funded Incentive Program	All	Secondary	Incentives and support	
Registered Vanpool Subsidy	All	Secondary	Carpool / vanpool	
Guidelines for Employer-Based TDM Plans	All	Secondary	General support for all strategies	
Pooled-TDM Services for Small Employers Program	All	Primary	General support for all strategies	
Provide New Tenant Travel Options Kit	All	Primary	General support for all strategies	
Review and Approve Employer- Based TDM Plans	All	Primary	General support for all strategies	
Rideshare Matching Service	All	Primary	Carpool / vanpool	
School Commute Transportation Program	All	Primary	Walk / Bike facilities and programs	
Transportation Coordinator Training Program	All	Primary	General support for all strategies	
Visitor Clipper Card Program	All	Primary	Shuttle service and support	
Events / Transportation Fairs, and Alternative Mode Competitions	All	Secondary	General support for all strategies	
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## Table 7: Tier 2 Services Typically Provided by the Developer, Property Owner, or Employer orResident Association

#### **Tier 2 TDM Services and Programs**

Bike share subscription incentives (free or subsidized membership to employees and residents)

Carshare subscription incentives (free trial memberships to employees who regularly use transit, or subsidized membership)

Discount vouchers for bicycle or electric bicycle purchases, and related equipment

Periodic events and commute alternatives competition between tenants (tangible rewards to top performers)

Employee and resident relocation information and services (rental finder / matching website or resource library)

Company vehicle available to employees who commute using alternative modes for mid-day use or off-site business related travel.

CommuterCheck<sup>®</sup> or similar pre-tax payroll deduction for purchasing transit fare.

Pre-paid transit fare (e.g., Clipper Card) for employees or households in residential developments. [1]

Employer sponsored vanpools including full cost for each member (subject to a minimum time commitment). [2]

Company provided pool of bicycles and safety equipment for running errands or visiting nearby places

Company vehicle and preferential parking provided full time to volunteer drivers in return for commitment to carpooling.

Employer provided membership benefit not normally provided to employees for commitment to alternate modes at least one day a week (e.g., Pre-Paid Legal services, Costco Membership, etc.).

Concierge services provide workers and residents with errand services that enable them to avoid vehicle trips.

Notes:

[1] Note that the Easy-Pass service offered by the TMA as a core service is only available for the AC Transit system. The pre-paid transit fare would be in the form of pre-loaded full-fare pass such as a Clipper Card usable on multiple transit systems such as BART, AC Transit, and Caltrain, and may be distributed or as a reward for consistently using alternate modes.

[2] Rider costs for vanpools usually cover the lease of the van, insurance and regular maintenance by the leasing company. This strategy could also subsidize fuel costs as an added incentive.

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### TMA Targeted Services (Tier 2)

The TMA's Targeted Services are groups of measures that support or promote a particular strategy or user group. For example, there are targeted services for transit—services that make users feel comfortable shifting from driving their car to taking transit, or provide a substitute for the user's loss of certain conveniences afforded by their car. Access to a Carshare vehicle for midday errands or off-site meetings is a substitute for not having their personal vehicle available. Targeted services are usually combinations of measures that, collectively, create an attractive "package" of services for the user. Many of the services listed below are employer-funded or provided services; but the TMA often promotes and manages the service for the employer and uses the number of participants for leveraging group rates and discounts. Some examples include:

### **Targeted Services Supporting Car and Vanpooling**

- Parking cashout program (for those who commute in an SOV)
- Car or vanpool matching service (database of potential car or vanpool participants sorted by residence so that employees living near each other can efficiently form a car or vanpool)
- Vanpool and carpool incentives such as fuel cards for free or discounted gasoline (to be used by the car or vanpool vehicle)
- Carpool sign-up incentives (e.g., fuel cards, 2 hours free car share use, 90 day subscription to bike share)
- Vanpool and carpool preferential parking (must be highly desirable locations to be effective)
- Guaranteed ride home
- Rebates for new vanpool participants (reimburses the participant for his/her vanpool expenses for specified period of time)
- Incentives for employers to sponsor new vanpools
- Employer funded vanpool lease and/or insurance
- Company vehicle provided to carpool driver full time in return for commitment to carpooling

### **Targeted Services Supporting Transit**

- Try Transit Free program (free Clipper Card for 90 days + other benefits)
- Parking cashout program (for those who commute in an SOV)
- Free or subsidized Clipper Card or equivalent transit pass
- Commuter check (pre-tax payroll deduction for purchasing transit fare)
- Guaranteed ride home
- Bike share subscription incentives (free or subsidized membership to employees and residents)
- Carshare subscription incentives (free trial memberships to employees who regularly use transit, or subsidized membership)
- Full time company vehicle(s) or Carshare membership for use by transit commuters
- Company provided pool of bicycles and safety equipment for running errands or visiting nearby places
- Physical improvements to transit stations and pedestrian routes to transit as well providing amenities and conveniences for transit users at the workplace and at transit stations
- Access to an employer-provided "Perks Package" of amenities and special services for employees who shift to transit (see following page)

Figure 1: Packaged Services Targeted at Specific Markets or Modes of Travel.



### "Perks Package" or Commuter Club Incentives (Tier 2)

The "perks package" is a group of amenities and incentives aimed at supporting or promoting a particular strategy. The perks are usually employer provided or a combination of services implemented by the developer and/or owner of the site, and tenants of the site. The equivalent to the "key to the executive washroom", the perks may equal substantial tangible value often exceeding the perceived value of surrendering access to their personal vehicle. The TMA may be able to use its leverage to obtain discounts on services. Some examples include:

- 1) Employee cafeteria (low-cost or free meals to transit users if company is large enough to provide a cafeteria) or meal vouchers to nearby restaurants
- 2) Free membership to an on-site health club
- 3) Private showers and locker rooms
- 4) Discounts for on-site amenities services such as dry cleaning, shoe repair, or tax preparation, or Concierge Services to provide workers and residents with errand services that enable them to avoid vehicle trips.
- 5) Discounted on-site or nearby day care with priority given to employees who use transit
- 6) Services "brought to the employee" such as mobile massage therapy, on-site hair styling and other salon services, dry cleaning pick-up and delivery
- 7) Free membership to on-site or nearby Carshare station(s)
- 8) "Commuter Club" providing cash drawings and other incentives for using alternative modes and completing travel diaries, or
- 9) Ability to collect "points" or "rewards" (similar to airline frequent flier points) that the user can "cash in" for cash or tangible rewards or services.\*

\*Note: cash, gift cards and certain other types of non-monetary rewards may be taxable under IRS rules or state taxing authority laws.

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**Figure 2: High-End Packaging of Incentive Strategies and Planning and Design of Land Uses.** Often the most effective TDM strategies are combinations of services that together result in substantial benefits for the user. These kind of "club" strategies are typically provided by a master developer and/or major employer, but can be just as effective if offered through a "collective" of small employers and resident associations.



### Residential TDM Plans (Tier 1 and 2)

All development within Alameda Point is required to participate in achieving the trip reduction goals. Residential development has historically been exempt from TDM, or has had less stringent requirements imposed because it was believed there were few effective TDM strategies applicable to residential developments, with the exception of being located within a transit-oriented community and having a lower trip reduction goal (10% versus 30% for non-residential uses). Although Alameda Point has significantly more non-residential zoned land than residential zoned land, there will be 3,400 persons residing there at build out, generating enough travel to make a difference. Trip reduction strategies for residential development managed by homeowners associations or the TMA are as equally emphasized as non-residential strategies. Examples include:

- 1) Connect residential areas to transit with the design of walkable and bicycle-friendly streets
- 2) Provide a transportation-alternatives information package to every new household
- 3) Require developers to install high speed internet cabling throughout new households
- 4) Free or subsidized Clipper Card or equivalent transit pass for every household
- 5) Local serving retail services (small grocery, retail stores, restaurants, support services)
- 6) Institute or school- related transportation programs (e.g., school pools, safe routes to schools, etc.)
- 7) Mid-day van service to downtown Alameda
- 8) Subsidized purchase of a bicycle or electric bicycle
- 9) Subsidized or free Carshare membership with vehicles located near residents
- 10) Subsidized or free Bikeshare membership

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### Figure 3: Examples of Residential Specific TDM Strategies.

#### 5.7. Employer Specific Tier 2 Strategies

This section describes various flexible working arrangements that conform to the trip reduction types described in the introduction of this chapter.

## 5.7.1. Alternative Work Schedules and Remote Sites

Business centers are typically part of a residential development and are centrally located, available to all residents, and offer a quiet location for working, printing, faxing, and accessing the Internet. Business Centers are meant to facilitate teleworking.

#### 5.7.1.2. Compressed Workweeks

5.7.1.1. Business Centers

This type of flexible work arrangement maintains a 40-hour work week but compresses the week into in 4 days at 10 hour each day or 80 hours in 9 days. These programs allow employees to avoid work commutes once a week or once every two weeks and essentially cut employee trips by 20%.

### 5.7.1.3. Flexible Work Schedules

This type of scheduling allows employees some latitude in their shift start and end times which may adjust these times by as little as 15 minutes to as much as 2 hours. Flexible work schedules allow employees to adjust their work schedules to better match transit schedules, as well as to avoid periods of peak traffic volumes.

### 5.7.1.4. Teleworking

Formerly termed "tele-commuting", this alternative work schedule allows employees to work from home or from a distant business center closer to their home than to their workplace. Successful TDM programs assist workplaces with the design of telework programs by informing management on issues regarding liability, rules of participation, and technology issues.

### 5.7.2. Parking Strategies

This section is taken from the Arizona Department of Transportation's final report titled "Travel Demand Management: A Toolbox of Strategies to Reduce Single-Occupant Vehicle Trips"

### 5.7.2.1. Paid Parking

Paid parking requires drivers to pay for parking. Effective programs require people to pay for parking on a regular basis. Programs should not allow people to pay for parking in blocks of more than three months at a time.

All parking strategies that result in paid parking should allow individuals to pay for parking on a daily basis. This ensures that individuals who primarily use alternative modes can still drive and secure parking when necessary.

### 5.7.2.2. Advanced Parking Technologies

Advances in parking technology allows individuals to use their mobile devices to determine the availability of on-street and public off-street spaces, reserve a carpool parking space, or add time to their parking meter from a restaurant a few blocks away. Parking guidance systems can direct drivers to public parking facilities with available space, and even can point them directly to a vacant space. Although this Plan makes no specific recommendations regarding advanced parking technologies, it is likely that over time advanced parking technology will be integrated into Alameda Point.

### 5.7.2.3. Reserved Parking for HOVs

Reserved parking provides individuals who carpool and vanpool with designated parking spaces that are close to building entrances or have some other intrinsic value that make them desirable. Spaces should be marked with signs and enforced to ensure that they are not misused and to make drivers aware of the program.

### 5.7.2.4. Unbundled Parking

Unbundled parking policies separate lease and purchase costs from parking costs. Individuals and companies are allowed to lease or purchase office space and residential units without also leasing or purchasing parking spaces. This allows individuals and companies to purchase only the parking spaces they need and want. Drivers can then be charged for parking on a daily or monthly basis.

### 5.7.2.5. Vanpool-Accessible Parking and Drop-Off Points

All parking and drop-off points should be accessible to vanpools. Vanpools generally require minimum clearances of 7 feet, 2 inches.



## **Employer-Based TDM Plans: A Case Study of the Nike Corporation**

The State of Oregon's Department of Environmental Quality established a commute trip reduction mandate aimed at employers. Beginning in 1996, employers were required to provide incentives and programs for employee use of alternative commute options, and reduce single-occupancy-vehicle (SOV) commuting by 10 percent over three years. Nike's program is summarized below:

- Nike introduced an incentive-based program giving away prizes and Nike Buck vouchers good at the Nike cafeteria and at Nike stores at a large quarterly drawing, and at smaller monthly drawings.
- The program was promoted through Nike's on-site employee Transportation Coordinator and at transportation fairs, newsletters, flyers, and posters, which raised interest in the prizes and an increase in alternative modes usage.
- Nike encouraged rail use by sponsoring a shuttle to transport employees to and from a light rail station, about ½-mile from the Nike campus.
- Nike subsidized transit by paying 72% of the cost of an annual bus/rail pass.
- Nike promoted carpooling through the use of an in-house rideshare matching list and preferential carpool parking.
- All pass holders were eligible for the Guaranteed Ride Home program, administered by the local transit authority, TriMet.
- Nike supported a flextime policy allowing employees to work with their supervisors to develop schedules most appropriate for them and their workload.
- Nike provided services for bicycle commuters, and interested bicycle commuters including helping employees map out safe bicycle routes, providing regional and local bicycle resources and information, and promoting bicycle specific events to all employees.
- Bicycle commuters had access to Nike's two fitness centers and use of the showers and locker room.
- Bicycle racks were installed around the campus and bicycle cages were built in the fitness center area.
- Employees were allowed to bring bicycles into the building and store them in their offices.
- Bicycle commuters were eligible to participate in the monthly and quarterly drawings.
- Nike's campus has on-site amenities designed to limit SOV and vehicle usage during the workday.
- Nike employees can access quality childcare at one of the two on-campus childcare centers.
- Employees that need childcare for only a short time can utilize the Nike Tykes drop off program.
- Other on-site amenities and services include two sundry stores, dry cleaning service, beauty salon, an ATM and on-site movie ticket sales.

Nike's SOV rate in 1996 was 98%. Since implementing the TDM program, Nike's SOV rate has reduced to 78% with employees using other modes at 10% carpool, 2% bike, 5% bus / rail, and 5% flextime. During annual monitoring of the TDM program, employees provide Nike with feedback and ideas for program improvement and the Transportation Coordinator is given flexibility from Nike management to make appropriate changes to the TDM program.



#### 5.7.2.6. Employee Parking Cash-Out

In 1992 California enacted legislation requiring many employers who subsidize commuter parking to offer parking "cash-out" programs, in which employees receive a transportation allowance in lieu of a parking space (California Code 2010) for which the employer pays.

A 1997 study of eight California employers concluded that the parking cash-out programs that were studied decreased the number of SOV trips per employee per day by 13 percent The 1997 price of parking at the work sites ranged from \$36 to \$165 a month (Shoup 1997).

Benefits of the cash-out programs in the 1997 study included greater use of alternate modes of travel among program participants and reduced carbon dioxide emissions. The number of carpoolers increased by 64 percent, the number of transit riders increased by 50 percent, and walking and bicycling combined increased by 39 percent. Vehicle-miles-of-travel (VMT) for commuting to the eight firms fell by 12 percent. The benefit/cost ratio of the eight cash-out programs was at least four-to-one<sup>2</sup>.

### 5.8. Attracting Self-Selective Residents and Tenants

The Metropolitan Transportation Commission (MTC) recently published a documenting summarizing the results of an extensive survey about why people choose to live where they do, The focus of the survey was to determine which characteristics of transit-oriented communities were desirable to different market segments of residents including those that would call themselves "self-selective" residents of transitoriented-communities. Some of the key findings of the MTC survey are included in this section, but attracting certain market segments to Alameda Point will require a sophisticated marketing strategy. The TMA may consider contracting this type of marketing strategy to a professional marketing or public relations firm.

The entire briefing book is included in the appendix.

The following sections were taken from MTC's *Choosing Where We Live: Attracting Residents to Transit-Oriented Neighborhoods in the San Francisco Bay Area, A Briefing Book for City Planners and Managers.* 

## 5.8.1. Market Segments Looking for Housing in the Bay Area

Using structural equations modeling to link the attitudes with demographics, the study defines eight market segments of home seekers.

**Transit-Preferring** includes both families with children and student households who rate minimizing travel and access to high-quality transit as most important. They are renters with very low auto ownership rates and relatively low incomes.

**Urban DINKs** (Double Income No Kids) value minimizing travel and access to high-quality transit and regional centers. They are child-free, have average income, and most have only one car in the household.

**Young Brainiacs** are very well educated and younger on average. About a quarter have children, and most have only one car in the household. They place a high value on minimizing travel, and on access to high-quality transit and regional centers.

**Ambitious Urbanites** value all the attributes. They place the highest value on school quality, followed closely by travel minimization, transit

<sup>&</sup>lt;sup>2</sup> Source: Arizona Department of Transportation Research Center. *Travel Demand Management:: A Toolbox of Strategies to Reduce Single-Occupant Vehicle Trips and Increase Alternate Mode Usage in Arizona*, Final Report 654, February 2012.



accessibility and driving orientation. Most have children and two cars.

Mellow Couples value driving, a quiet and clean neighborhood and being able to walk to do errands. They do not value travel minimization, transit accessibility or access to regional centers. They have higher incomes and are older on average, with few resident children.

**Kids, Cars and Schools** most value good-quality schools, a quiet and clean neighborhood, and convenient driving. Most are comprised of two working adults, two children and two vehicles.

**Auto-Oriented, Price-Conscious** place low values on all the surveyed attributes. Some noted that price was a dominant factor in choosing their home. They are predominantly renters, earn a lower income and have a low auto ownership rate.

**High-Income Suburbanites** are predominantly married couples with high incomes, high auto ownership rates and children. They value convenient driving, and place very little value on transit accessibility, travel minimization or access to regional centers.

### 5.8.2. The Easiest Market Segments to Attract to Transit-Oriented Communities

MTC grouped the market segments into categories based on how easily they could be attracted to living in a transit-oriented development (TOD). The market segments are described below along with their key attitudes and distinguishing characteristics.

**Easiest to Attract**. Three segments comprised of Transit-Preferring, Urban DINKs and Young Brainiacs, totaling 38 percent of survey respondents, were judged to be the most easily attracted to TODs based on their strong interest in transit and their low interest in driving relative to the rest of the groups. **Possible to Attract**. Two segments comprised of Ambitious Urbanites and Mellow Couples, representing 29 percent of the survey respondents, are possible to attract based on having certain interests that match TOD characteristics but are challenging due to other interests.

**Hardest to Attract.** Three segments, comprised of Kids, Cars and Schools; Auto-Oriented, Price-Conscious; and High-Income Suburbanites, representing 33 percent of respondents, were judged to be harder to attract because of attitudes such as a low desire to use transit and a strong interest in driving.



### 6. PARKING MANAGEMENT STRATEGY

### 6.1. Objectives of the Strategy

Parking management is defined as the adjustment of the amount, availability, and pricing of the parking supply outside the normal processes of the private marketplace to achieve objectives. The parking management strategy for Alameda Point is not a separate or stand-alone plan, but an essential component of the Alameda Point TDM Plan that supports the overall objectives of the Plan (refer to Section 1.2 in Chapter 1). The parking strategy has its own objectives as well. The objectives are:

- To limit the supply of private parking and control the pricing of public parking to encourage the use of alternative modes of transportation, as part of a series of strategies that comprise the Alameda Point TDM Plan with an overall objective of significantly reducing the number of automobile trips generated by Alameda Point land uses.
- To ensure that Alameda Point has a sufficient parking supply, meeting the needs of its businesses, employers and residents, within the context of a compact, walkable and transit-oriented community.

### 6.2. Overview of the Parking Strategy

Alameda Point's parking strategy employs current best practices for urban parking management where land values are high and traffic capacity is limited. The parking strategy uses three common methods of controlling parking that results in sufficient, but not excessive, parking for all users in the context of a compact, walkable, and transitoriented community. The three methods, zoning development standards, a system of public parking facilities, and pricing, are described below.

## 6.2.1. Alameda Point Zoning Code and Development Standards for Parking

Alameda Point's zoning controls the amount of private parking that can be built with new development by eliminating conventional "minimum" parking requirements and, instead, imposing a limit on the amount of private parking in new development. The development standards in the zoning code results in more efficient use of parking because the supply is limited without guarantee of locating a vacant space, and the alternative (public parking) charges a fee.

Although not stated in the zoning code, the parking strategy hinges on the use of public parking (either on-street or in off-street lots and garages operated by the City) when demand exceeds the supply of parking in private development. When this happens frequently

## Most Effective Combination of Conditions and for Successful Parking Management

- High level of public transit in vicinity (such as AC Transit's Line 51 and BART)
- Restricted parking supply
- Parking fees
- Moderate to high level of employer or resident association-provided transportation services (e.g., shuttle to BART)

enough, drivers consider alternate modes to avoid the hassle of search for a vacant parking space and the cost and inconvenience of having to park offsite. This strategy is especially effective if an incentive package is offered to drivers at this stage.



#### 6.2.2. Alameda Point's Public Parking System

Municipally-owned public parking is typically provided as an amenity in downtowns, in retailintensive places, or where it is infeasible or costprohibitive for private development to construct the amount of parking required by zoning. In Alameda Point, municipal parking is used to meet parking demand that exceeds the private parking supply, and as a source of parking for businesses that would prefer to lease rather than build parking that is likely to be underutilized in the future.

Alameda Point's public parking system has on and off-street parking facilities. On-street parking retains its traditional role as a supply of short-term parking for adjacent land uses. On-street parking is regulated through time restrictions in most subareas but metered in high-demand areas like the Town Center and Waterfront. Off-street parking lots and garages will charge by the hour, with the rates favorably pricing short-term parking and increasing with each hour to discourage longterm employee parking.

A system of public parking requires the City of Alameda to retain, in City ownership, select properties to be reserved for off-street public parking in perpetuity. Parcels of land for public parking should not be located in prime locations

but should be within a <sup>1</sup>/<sub>4</sub>-mile walking distance of anticipated concentrations of development. **Figure ES-4** in the Executive Summary showed seven sites identified by the City as potential public parking facilities and **Figure 7** illustrates the walking coverage associated with the seven parking sites.

### 6.2.3. Parking Pricing

Public parking will not be free in Alameda Point—the fees charged for parking are both pragmatic and strategic. Parking charges are pragmatic because they help fund the operations and maintenance of the parking facilities to keep them safe, clean and attractive, and well-lit. They are strategic in that charges can be raised or lowered to achieve a desired result such as encouraging a high rate of turnover in areas with high demand for short term parking.

The effect of pricing works because drivers are highly sensitive to the total cost of travel and, in particular, the cost of parking. Because of this sensitivity, a relatively small adjustment in the cost of parking can have a large disincentive or incentive effect on decisions to drive—a phenomenon known as "elasticity".

Elasticity is an economic term defined as the percentage change in consumption of a good or service caused by a one-percent (1%) change in its price. The chart in **Chart 1** shows examples of effect of parking pricing on various types of trips. Note that trips for which the driver is typically reimbursed for parking (e.g., business travel), the cost of parking has virtually no effect on the choice to drive and park.



**Chart 1: The Elasticity of Parking Pricing.** 





Figure 4: Walking Coverage from Alameda Point's Public Parking Facilities.

# 6.3. Regulatory Controls on Private Parking in Development

The relevant regulatory components of the parking management strategy, provided through the zoning code, include:

- No minimum parking requirements permits developers to decide based on cost and market factors without the mandate to absorb the cost of expensive structured parking that might make the development infeasible. This is a particularly important advantage to developers who want to build quality projects, but find the cost of structured parking on small or constrained sites a significant obstacle.
- On-site parking spaces cannot exceed the code's maximum limit.

Parking demand that cannot be accommodated within private development (spillover) may park on-street (short-term parking) and in off-street public parking facilities (long-term) that are funded by development assessments and parking charges. The City commits to the provision of public parking in Development Agreements.

Finally, the parking strategy emphasizes the value of the parking space which, when subsidized by employers, is taken for granted by employees. The strategy associates a value to public parking

can be used to pay for alternative modes of transportation. Separation of the cost of parking from the cost of floor area allows employers to reduce expenses by not renting

parking spaces for each employee who

chooses not to drive.

initial stages of development and may gradually increase as the level of development intensity increases and as the transit, bicycle, and pedestrian systems become increasingly robust and convenient.

spaces—which may be a nominal value in the

### 6.4. Supportive Parking Strategies that may be Implemented by Property Owners, Employers or Homeowner Associations

Owners of buildings, individual tenants and employers, or management or associations of residential development can participate in, and contribute to, the trip reduction programs by implementing the following or similar parkingrelated strategies:

- Preferential Parking. As an incentive to attract employees into trying rideshare options, building owners and employers may reserve parking spaces in desirable locations relative to the entries of commercial buildings, typically within a parking structure, adjacent to the building entrance or elevators, and marked reserved for registered carpool or vanpool vehicles.
- 2. Carshare Facilities. Owners and building managers may reserve one or more parking spaces in a private parking facility and designate the parking for housing commercial Carshare vehicles for use by tenants of the building, or nearby buildings.
- 3. Bikeshare Facilities. Owners and building managers may reserve an area on-site for installation of a Bikeshare facility.
- 4. Parking Cash-out Program. California law requires employers who rent parking for their employees, and who subsidize the employee's cost to use the rented parking, offer their employees the option to choose taxable cash in lieu of any parking subsidy offered. The cash in lieu of parking subsidy

5. Other Supportive Strategies. Owners and building managers, or employers may offer services that offset concerns about not having an automobile available while at work such as an emergency ride home program, Carshare membership, and on-site services such as ATM's, dry cleaners, and fitness centers.

### 6.5. Projections of the Private and Public Parking Supply at Buildout of Alameda Point

The private parking supply and the public parking supply at Alameda Point are linked. Not officially linked through zoning, but through the approach to parking management in this Plan. The linkage was intentional so that the amount of private parking, and the cost of public parking, could be controlled.

The amount of public parking the City provides will be dependent on the choices development makes regarding on-site parking. For example, if at one extreme, development leans towards as little private parking as possible, the City will need to make up the difference and provide more public parking than anticipated, increasing the amount of land required for public parking as well as increasing the cost to construct public parking. The advantage to the City under this scenario is an increased in their control of parking supply and pricing.

At the other extreme, if development chooses to maximize on-site parking, the City spends less to builds public parking but also loses some of their control since development will be less dependent on the public supply. Projecting the private and public parking supply for planning purposes



assumes neither extreme, but seeks the middle ground for conservancy.

An estimate of the private parking supply at buildout of Alameda Point is based on the assumption that private parking will be provided based on an average of the allowed and maximum parking ratios adopted in the Alameda Point zoning regulations. Under these assumptions buildout of the development program would yield about 10,900 private off-street parking spaces. The parking strategy adds approximately another 2,400 public spaces resulting in about 13,300 parking spaces at Alameda Point (excluding an estimated 1,500 on street parking spaces).

The sum of the private off-street and public offsite parking supply of 13,300 is approximately 70% less than the minimum off-street parking requirements in Alameda's conventional zoning. The chart in **Figure 8** illustrates the difference between Alameda Point's zoning requirements and conventional zoning.

### 6.6. Justification for Reducing Alameda Point's Parking Requirements

There is no existing standard parking ratio for land uses in compact, dense, walkable and transitoriented environments whether highly urban or moderately suburban. Further, there is no guidance on determining whether a particular reduction factor would be considered conservative or aggressive. The 70% parking standard reduction factor for Alameda Point, however, was not selected arbitrarily. It is selected based on current best practices planning and designing transitoriented-developments throughout the United States. Research on the travel characteristics of infill and transit-oriented-development at the regional, statewide and national scales support the practice of reducing parking requirements both as a disincentive to driving and because studies show that transit-oriented-developments are frequently

"over-parked" when they provide parking under conventional zoning requirements.

The concept of reducing conventional parking standards for transit-oriented-development is supported by the policies and best practices adopted by the Metropolitan Transportation Commission (MTC) in its publication Reforming Parking Policies to Support Smart Growth: A Toolbox/Handbook of Parking Best Practices and Strategies for Supporting Transit Oriented Development in the San Francisco Bay Area (2007) which explicitly encourages local municipalities to reduce parking requirements, encourage shared parking, use parking pricing to manage demand, and implement transportation demand management programs to reduce automobile travel.

MTC's Resolution 3434 Transit-Oriented Development (TOD) Policy for Regional Transi Expansion Projects affects development around regional transit facilities including ferry terminals. This resolution requires that agencies applying for transit expansion funding prepare plans for development around transit stations that must include: "TOD-oriented parking demand and parking requirements for station area land uses, including consideration of pricing and provisions for shared parking;".

Empirical evidence supporting the magnitude of the parking ratio reduction proposed in the Off-Street Parking Requirements of the Alameda Point Zoning District can be obtained by comparing the proposed Alameda Point parking ratios with currently adopted parking ratios in comparable municipalities in the Bay Area. A comparison shows that areas with denser land uses and walkable, bicycle-friendly transportation networks served by high frequency transit (e.g., similar to the vision for Alameda Point) have, on average, off-street parking requirements that are only 46% and 60% of the requirements applied to development in conventional suburban



**Figure 5:** Alameda Point's zoning does not require a minimum level of parking and instead places a maximum on parking. Public parking facilities serve as part of development's parking supply. The sum of Alameda Point's private and public parking is, on average, about 70% of the minimum parking required under Alameda's conventional zoning.

environments<sup>3</sup>. Based on this evidence, a factor reducing Alameda's conventional parking standards by 30% would appear to be conservative.

<sup>3</sup> Based on a comparison of off-street parking requirements between cities classified under MTC's "area type" criteria as low-suburban (Mountain View, Redwood City, Union City, Vallejo, Walnut Creek, and Alameda) and those classified as high-suburban (El Cerrito, Berkeley, and San Mateo). In the comparison, high-suburban retail, office and multifamily residential parking requirements averaged respectively 46%, 54%, and 55% to 60% of the parking requirements for the same land uses in lowsuburban communities. Source: CDA Smith. *Existing Bay Area Parking Policies – Technical Paper for the Reforming Parking Policies to Support Smart Growth Study.* Metropolitan Transportation Commission, 2007. Kimley-Horn and Associates, Inc.

### 7. ALAMEDA POINT TDM PLAN IMPLEMENTATION AND PHASING

# 7.1. Summary of Recommended Implementation Steps

7.1.1. Implementation Steps for Startup and Initial Phases of Development

The implementation steps described in this section include the early startup tasks establishing authority and funding mechanisms, as well as the most essential services. As development and revenue grow, services will be expanded until nearly all programs have implemented.

The TDM Plan takes effect when the threshold of 100 dwelling units and/or 100,000 square feet of new commercial development, new leased commercial development, or renewed leases on commercial development occurs. Revenue will be short in the early phases of development, where the essential services include some of the most costly such as the BART shuttle and the Eco-Pass program.

The following are the startup tasks, followed by the most essential services in order of importance.

- 1. The City of Alameda shall adopt this Master Transportation Demand Management Plan (or its final version) as a regulatory document using the City's customary instrument (e.g., through ordinance, resolution, General Plan, or zoning code) to establish authority for the following critical implementation authorities required of the Plan:
  - a. The authority to fund certain capital costs (e.g., transportation infrastructure creating high quality walking and bicycling facilities, transit stops, surface parking lots, parking meters, etc.) necessary to support the goals of the TDM Plan through a financing mechanism that

assesses Alameda Point property owners. This funding mechanism is established through the Master Infrastructure Plan (MIP).

Kimley-Horn and Associates, Inc.

- b. The authority to exact, assess, or require a membership fee or subscription from the property owners of Alameda Point to fund the cost of staffing and administering a Transportation Management Association (TMA), and the cost of the core and contracted services the TMA provides and/or manages, in perpetuity or as long as the trip reduction policies of the General Plan are in effect and required of Alameda Point.
- c. The authority to exact, assess, or establish a business or parking district to fund the operations and maintenance of Alameda Point public parking facilities (surface lot, structures, and on-street parking including meters, lighting, landscaping, etc.).
- d. The authority to establish an Alameda Point Parking Enforcement Department including the hiring of parking enforcement officers, administrative and dispatch staff, maintenance and repair staff, enforcement and maintenance vehicles, and the authority to levy fines for

## Thresholds for Implementing the TDM Plan

The Alameda Point TDM Plan will be implemented when development levels reach a minimum of either 100 residential units and/or 100,000 square feet of commercial uses.



parking violations. The City's existing authority to levy fines for parking violations may extend to the Alameda Point Parking Enforcement Department without establishing additional authority. No funding mechanism need be established as parking enforcement is anticipated to be self-funded.

- 2. Establish policies, procedures or protocol, and authority to ensure that all new development, new leasing agreements, and renewals of existing leasing agreements subsequent to the adoption of this Plan are required to pay a proportionate fair share towards the build out costs of items 1.a (MIP), 1.b (TMA), and 1.c (Parking) annually or through monthly lease payments for the required term.
- 3. Implement and enforce the adopted Alameda Point zoning code, and in particular Section 30-4.24.G (Use and Parking Regulations) and the subsection on off-street parking and loading regulations.
- 4. Manage a contract with a transit service provider to operate a shuttle service between Alameda Point and the Oakland City Center 12<sup>th</sup> Street BART station. In the initial phases this shuttle may only operate during peak commute periods.
- Planning, funding, and construction of the initial public surface parking lots to serve new development. The location of these surface lots is dependent on where new development occurs. Refer to Figure ES-4 for the location of potential public parking facilities.
- Establish an interim TMA, staffed by a combination of City staff and contract employees of the Department of Public Works, who are responsible for the following:

- a. Pursue a contract to operate a shuttle system between Alameda Point and BART.
- b. Negotiate and contract with AC Transit to supply Alameda Point with annual Easy-Passes for all employees and residents of Alameda Point, and administer the distribution of Easy-Passes to Alameda Point transit users when requested.
- c. Pursue a contract to develop and maintain the initial version of the Alameda Point Commute Alternative website.
- d. Serve the functions of a part-time Transportation Coordinator including:
  - i. Management of items (a), (b), and (c) described above.
  - Develop plans for conducting the annual traffic monitoring and preparing and implementing the employee and resident survey.
  - iii. Select consultant(s) to perform the data collection and analysis tasks. Twelve months from the initiation date, conduct the data collection and surveys. Consolidate the data and surveys into a brief report and presentation to the City's Transportation Commission.
  - iv. Develop the content for a basic Alameda Point Commute Alternative website and work with contractor to develop and implement the website.
  - v. Provide a centralized service for dispatching taxis and managing employer reimbursement to the TMA for the Emergency Ride Home program.
  - vi. Develop and disseminate to employers and homeowner



associations (or developers/managers of residential developments) a handbook for employers (or individuals) and residential developments to develop Compliance Strategies.

- vii. Develop a package of services for individuals, businesses, and residents that initially constitutes a minimum of supportive TDM services. Add to the services as budget permits.
- viii. Develop and disseminate information and tools explaining trip reduction goals, parking management, and the Alameda Point TDM Plan's services available to new employers, employees and residents.
- ix. Review and assist in refining draft TDM Plans prepared by employers who select to operate their own Plans. Reviews plans for reasonableness, cost-effectiveness, and awareness and effective use of the TMA services available to employers.
- Develop and conduct limited training for designated part-time Employee Transportation Coordinators representing large employers (more than 25 employees); and develop and disseminate training and educational material for Transportation Coordinators to assist employer and co-workers develop travel options.
- xi. Contact Bikeshare operators and negotiate to sponsor one (1) or (2)
  Bikeshare Stations for use by Alameda Point residents and employees, subject to budget at hand.
- xii. Solicit Carshare providers to establish stations on public or private property in Alameda Point.

- xiii. With budget permitting and programs available from other sources, offer incentives to residents and employees to commit to using an alternative mode for an introductory period of time.
- xiv. With budget permitting, manage a program pooling resources from employers and residential developments of Alameda Point for drawings to registered employees and residents who travel by alternative modes.
- xv. On a limited basis, develop marketing material and promotions for the initial services available to residents and employees. At a minimum, include this material in the Alameda Point Commute Alternatives website.

Refer to **Table ES-1**, **Table ES-2**, and **Table ES-3** in the Executive Summary for descriptions of the services and programs listed above, and refer to Chapter 5 for a comprehensive listing of recommended and optional TDM strategies and measures.

# 7.1.2. Implementation of Long-Term Services and Programs

The crucial administrative framework for the TDM Plan is established in the initial phases of development. Implementation of the long-term services and programs described in the tables in the Executive Summary, or any new TDM strategies will be at the recommendation of the TMA staff in their annual report to the Board of Directors.

One potentially importation action that occurs late in the initial phases or early in the long-term phasing is the formation of the official TMA and selection of its Board of Directors. This action was detailed in Chapter 4, and the appendix contains the TMA Handbook, a comprehensive guide to



forming and managing a non-profit TMA organization.

Long-term implementation of TDM Strategies focuses on the following activities:

- Reviewing the results of the annual monitoring analyses and determining how existing service may be improved or replaced by more state-of-the-practice services.
- Preparing and implementing the annual marketing plan and promotions for individual services and programs.
- Seeking out innovative new ways to capture the attention of residents and employees who continue to drive single occupant vehicles for every trip they make. This may include the Pooled Employer-Funded Incentive Program or the introductory incentive programs.
- Assisting employers in preparing individualized Compliance Strategies for their employees and assisting homeowners/resident associations develop strategies for their tenants.
- Managing the day to day operations of the shuttle system, the Easy-Pass program, rideshare-matching services, and managing the use and content updates of the Commute Alternatives website.

Refer to **Table ES-1**, **Table ES-2**, and **Table ES-3** in the Executive Summary for descriptions of the services and programs listed for implementation in the long-term.

### 7.2. TDM Plan Flexibility in Initial Phases of Development

Transportation Demand Management plans, by their very nature, require flexibility to respond to changes in travel patterns, the real estate market, transportation costs, and changes in the economy and its effect on jobs and housing.

The Plan needs to be particularly flexible in the initial phases of development in Alameda Point because it will be the first TDM plan of its comprehensiveness implemented in Alameda. The characteristics of the employers, employees and residents attracted to Alameda Point are not fully understood yet, the menu of services in this Plan may not precisely match the needs of new tenants, and some of the policies and strategies may seem out of place initially to some potential developers. They might ask, for example, why did the City implement a parking management plan that limits the private parking supply in a place that is nearly 900 acres of concrete and asphalt?

### 7.2.1. Flexibility in Collaborating with Development to Meet Their Needs

At a time when Alameda wants to attract catalyst development and new tenants to Alameda Point, how can the Plan be flexible without breaking its own rules and setting poor precedents? The City needs to uphold the principles upon which the Plan is based, but is willing to work with developers or companies to satisfy their needs. Will the City allow a development to exceed the maximum private parking ratio established in zoning? No, but they are willing to construct new public parking lots as close to the development as possible and offer the development an option for long-term leasing of public parking (which provides paid access to public parking facilities, but cannot allow the lease to reserve parking spaces for their private use).

### 7.2.2. Flexibility in Implementing Alternate Services Needed to Support New Development

Another area of flexibility is in which programs are implemented in any given timeframe. There are a few essential services that must be implemented as soon as practicable because these essential services represent the primary strategies



to which most other services are supportive. The essential services include the high-frequency shuttle to BART, the Eco-Pass program for all Alameda Point residents and employees, the Alameda Point Commute Alternatives website, and important supportive services like the Emergency Ride Home program, upon which the transit and shuttles users rely on and without such a service would drive alone to Alameda Point. Many of the remaining services are part of a "menu" of possible strategies to implement if they can be determined to be cost-effective. The menu concept allows the TMA and employers who prepare their own plans a choice in which strategies they believe will serve their needs best.

# 7.2.3. Flexibility in the Schedule for Achieving Trip Reduction Goals

The final area of flexibility is in the schedule for reaching the full trip reduction goals of 10% for residential development, and 30% for commercial development. As a rule, TDM strategies require time to become established and become fully effective. Some strategies require 18 to 24 months before they can be objectively assessed for effectiveness. Further, Alameda Point's infrastructure supports many of the strategies. For example, completing the pedestrian and bicycle networks and creating attractive environments is crucial for the Plan's shuttle strategy. Yet Alameda Point's infrastructure may take many vears to complete. Therefore, the trip reduction goals need to be phased in so that they remain realistic and achievable. Chapter 3 describes the trip reduction goals and their phasing.

### 7.3. Potential Funding Sources for the Alameda Point TDM Plan

In addition to the special taxes and assessments paid annually by property owners to fund the TDM Plan, it is the responsibility of the TMA staff to regularly seek additional sources of funds which may be available from federal, state, and regional sources. Some of these sources are described in this section. A 2003 survey (Hendricks and Pederson-Stahl, 2004) of TMAs in the United States found that TMA program budgets included the following revenue sources:

- Membership dues (56 percent).
- Federal grants (48 percent).
- Local grants (28 percent).
- State grants (27 percent).
- In-kind donations (25 percent).
- Service contracts (19 percent).
- Fees for services (16 percent).
- Developer contributions (9 percent).
- Business improvement districts (BIDs) (7 percent).

More than half the U.S. TMAs receive funding from its membership in the form of dues or through improvement districts. However, grants form the largest source of funds for TMA's. Many grant programs are a reliable source of funds, but some are highly competitive. Sources of grants for Bay Area TDM programs are described in the following sections.

### 7.3.1. Federal Grants: CMAQ Funding

The primary purpose of the Congestion Mitigation and Air Quality Improvement (CMAQ) program is to fund projects and programs that reduce transportation-related emissions in air quality nonattainment and maintenance areas, such as the Bay Area and Central Valley regions. Eligibility for CMAQ grants requires demonstrating that the TDM Plan can effectively contribute to the region attaining national ambient air quality standards. TDM programs that consistently remove vehicles from the road (such as carpools and vanpools and the parking cashout program) can easily demonstrate this requirement.



CMAQ funds can be used to support transportation control measures identified by the Bay Area Air Quality Management District (BAAQMD) as alternative-mode incentive programs, transit improvements, bicycle and pedestrian programs, and ridesharing projects. Funds have been used to purchase vans and buses, to subsidize bus operations, and to develop and implement ridesharing programs.

### 7.3.2. BAAQMD's Strategic Incentives Funding

In addition to allocating CMAQ funds, the BAAQMD manages other funding programs including The Strategic Incentives Division (SID) which provides incentive funding for projects that reduce or eliminate pollution from cars, trucks, marine vessels, locomotives, agricultural equipment, construction equipment and for projects that encourage the use of low emissions or zero emissions transportation such as shuttles and ride sharing, bicycle lanes and pedestrian paths. This program has awarded over \$400 million in grant funding to public agencies, private companies, and Bay Area residents since 1992.

### 7.3.3. Fee-for-Service Initiatives

Many of the core services proposed to be provided by the Alameda Point TMA may generate income for the TDM Plan from charging fees to private companies that participate in the programs or that use the TMA's services. This can be an important source of private funding. Examples of services that may be charged a fee include conducting customized employee surveys, developing customized trip reduction plans, implementing a comprehensive telework program, and training employees to be serve as part-time TDM coordinators for their employer.

The number of TMAs with fee-based services has risen sharply over the past decade; according to a recent survey of TMA executive directors over 40 percent of the 47 TMAs surveyed reported having some form of a fee-based program, up from three percent in 1992.

## The Emery Go-Round Shuttle

The Emery Go-Round Shuttle is a great example of a very successful fee-for-service initiative in which a free shuttle service is provided to local residents and workers by the Emeryville Transportation Management Association. It started in 1998 managing shuttle services for seven members, including the City of Emeryville.

The city initially funded 50 percent of the shuttle's budget, and the remainder was funded by fees collected from large employers and developers in the shuttle's service area.

In 2001, a business improvement district (BID) was formed, and today this district continues to fund the shuttle operations. The shuttle has been a popular program, and property owners renewed the BID in 2006 with a strong majority vote.

The district is currently composed of over 400 members, and its 2007 cost of services was approximately \$1.27 million (Silvani 2008).

### 7.3.4. One Bay Area Plan Grants and Funding for Priority Development Areas

The San Francisco Bay Area's unique long-range strategy for creating a sustainable integrated land use and transportation future identifies TDM as an important tool. The One Bay Area Plan introduces a new approach to allocating federal and regional transportation funding—an approach that has more flexibility for local municipalities including funding for programs, and in particular, funding for capital and program improvements for Priority Development Areas (PDAs)—a designation that has been bestowed upon Alameda Point.



As an example of program funding, the Bay Area Plan includes, in its final long-range project list, implementation of Alameda County's Transportation Demand Management (TDM) and Parking Management program which includes Guaranteed Ride Home, Safe Routes to School, Safe Routes to Transit, Travel Choice, Travel Training, Walk/Bike Promotions, and parking cash out.

The Alameda Point TMA may seek direct funding for some of its services through this regional funding source, or may be able to participate in Alameda County's TDM program.

#### 7.3.5. Parking Districts

Implementing a modest fee for public parking can generate a large pool of funding for TDM programs and services operated by the City. In Alameda Point, the priority for revenue from parking fees is to fund the operations and maintenance of the public parking system, but any excess revenue may be used to fund the TMA's other programs and services.

### 8. MONITORING AND REPORTING

### 8.1. Objectives of Monitoring and Reporting

The objectives of annually monitoring traffic and alternative modes of transportation, and annually surveying employees and residents are:

- To measure progress towards achieving, or retaining, compliance with the General Plan policy to reduce automobile trips; and
- 2) To identify the most effective TDM strategies, and the least effective strategies (as well as the reasons why), so that the former can be strengthened and the later can be replaced or significantly improved.

By these objectives, the monitoring program is both a "gauge" of performance, and a "tool" for improving the Plan by soliciting objective feedback from its users. The findings of the annual monitoring are based on empirical data collected in multiple ways. Data may come from counts or from records that can be tallied such as traffic volume; transit passenger, bicyclist and pedestrian volumes; parking occupancy; number of participants in programs such as rideshare matching, vanpools, and employee parking cashout. Data on travel characteristics and demographics are gathered from employee/resident surveys, as does user preference or disinclination of the offered TDM services and programs.

The data described above can be analyzed and cross-referenced to derive information such as by what mode employees and residents of Alameda Point travel for various trip purposes; the frequency of travel by a mode other than the single-occupant-vehicle; or which TDM services employees and residents use and why (and vice versa). This data can be further cross-referenced with demographic data to classify travel characteristics by personal and household characteristics such as occupation, income, vehicle ownership, vehicle availability, place of residence, and household size. Cross-referencing is valuable in targeting specific groups with programs designed to meet their needs.

The data, analysis, findings and recommendations are consolidated into a report and presented to the Alameda Transportation Commission. The objectives of reporting the results of the annual monitoring are:

- To hold the TMA and its member employers accountable for the performance of the Plan in meeting the trip reduction goals established for Alameda Point; and
- 2) To document the evolution of the Plan over time, as well as to record the performance and efficacy of the strategies being monitored which, when compiled over time, will serve as a guideline for future members of the TMA when developing or revising a TDM plan.

# 8.2. The Approach to Monitoring the Alameda Point TDM Plan

Monitoring the Alameda Point TDM Plan is a cycle of tasks that occur annually. The tasks that comprise the monitoring plan represent the "self-enforcing" element of a continuously improving TDM Plan. The tasks are listed below and their cyclical application is shown in **Figure 9**.

- 1. Monitor
- 2. Analyze
- 3. Report
- 4. Refine
- 5. Implement

There are four groups of steps comprising the annual monitoring plan. Each are described below.

 Develop a plan for monitoring Alameda Point. A new plan outlining data collection and employee and resident surveys needs to be developed each year. New development and more people in Alameda Point may have affected travel characteristics and data collection points may need to be relocated, or new points added.



## Figure 6: The cycle of steps conducted annually in monitoring the TDM Plan.

The survey questions need to be developed and tailored to obtain information from new tenants and rating of the TDM services introduced in the past year. The annual monitoring plan is a logistics plan that spells out the type of data to be collected, how it will be collected, when the data collection will occur, and who is responsible for obtaining the data and performing quality control checks. The Plan budgets for the TMA to contract many of the planning and data collection tasks to a consultant.

2) Collect and analyze the data. The primary goal of analyzing the data is to determine how the Plan is performing in terms of achieving the trip reduction targets. This is done by comparing actual trip generation (from counts) against a baseline estimate of expected trip generation (using the trip generation model described in Chapter 3). Analysis of the survey data should provide a picture of how well the TMA's services are being utilized and how well individual employer TDM plans are working. The survey results should make it clear which services or TDM plan elements are popular and why, identify unforeseen obstacles to using certain services, and identify personal reasons why people choose not to participate in the Plan, so that the

revised Plan can address the reasons with new or improved services, if feasible. The TMA may want to include some aspects of the data analysis and interpretation in the consultant contract.

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3) Report the findings. TMA staff are responsible for compiling and condensing the data and analysis into a concise annual monitoring report which is presented to the TMA Board of Directors and the City of Alameda Transportation Commission (potentially at a joint meeting). The annual monitoring report may be combined with the TMA's annual business report. Whether two separate reports or combined the reports should include the following information:

### TMA Annual Business Report

- An introduction of the Board of Directors, current roles, and their backgrounds (the Board rotates its official roles annually or semi-annually but Board members step down or term-out periodically).
- A summary of the actions taken and key decisions made by the Board of Directors during the year.
- A summary of Alameda Point land development and leasing activity to date and cumulatively.
- Brief introductions of the new businesses and employers that have located in Alameda Point during the year, and a high level overview of their TDM plans.
- A description of the new TMA services introduced during the year, and introductory biographies of any new TMA staff.
- An overview of the state of the Parking Management Plan including a tally of private and public spaces built and brief discussion of enforcement statistics and issues.
- A summary annual budget report including financial statements as required



by the Board (e.g., Statement of Activities, Statement of Position, Income Statements, etc.)

#### Annual Trip Reduction Monitoring Report

- Introductory section reviewing the goals of the TDM Plan and a chronological summary of past performance.
- Presentation of the key findings from the analysis of the data and surveys, particularly the current status of vehicle trips relative to the trip reduction targets, and the rate of progress toward meeting the goals (if not being met), or the rate of regression away from the goal if that is the case.
- Overview of the survey results, and interpretation of the general employee / resident opinion of the effectiveness of individual services and the Plan as a whole.
- Staff recommendations for refining, adding to, or eliminating the Plan's services in response to the monitoring findings and the survey responses.
- Staff's recommended annual update to the marketing and promotion plan, the implementation of planned major programs, and scheduled upgrades to the website, shuttle services, etc.
- Staff's recommendations for improving specific employer-based TDM plans based on the survey responses (employers have access to the survey responses as well).
- 4) Refine the Plan as appropriate and reimplement. The final step in the annual monitoring of the Plan is to follow the direction of the Board in regards to the recommendations presented in the annual monitoring report. If necessary, use the analysis of the data collected and survey information to develop a detailed refinement plan. It's important to re-implement the Plan as soon as feasible, followed by notification to

users of the changes in the TDM Plan, either through a newsletter, website, meeting, or a comprehensive marketing initiative if the changes are significant.

### 8.3. Definition of Performance Measures

Vehicle trip reduction (VTR): The number or percentage of automobiles removed from traffic during specific time periods such as the AM or PM peak hours. This measure is determined by comparing current vehicle trip counts to counts conducted previously or to a derived baseline calculation vehicle trips.

**Mode split:** The proportion of trips made by each form of transportation serving Alameda Point. Mode split indicates which form of transportation is being used compared with driving alone. Mode split, by itself, doesn't indicate whether the trip reduction goals are being met. Mode split needs to be compared to a baseline condition because it is the *change* in mode that is used as a performance measure.

Mode split can be determined for the aggregate of all trips, but is more useful if determined for specific trip purposes such as commute to work, or take children to school, etc. This information is useful in prioritizing TDM programs for improvement. Mode split data is collected by surveys.

**Reduction in parking utilization**. Parking utilization is defined as the number of accumulated vehicles parked in a lot or garage, a district or sub-area, or any scale of geographic area, at a given point in time as a proportion of the parking capacity. For example, seventy five vehicles parked in a 100-space parking lot at 1:00 pm is a parking utilization of 75% (75/100 = 0.75) at 1:00 pm.

If utilization is measured every hour over a 24hour period the hour with the most parked vehicles is the "peak hour of parking demand", or just parking demand. If the parked vehicles can be segregated by the specific land uses they serve



then the data represents the peak parking demand for that particular land use. The example in **Figure 10** illustrates a typical daily profile of parking utilization for retail land use. Point, the unit of change is per vehicle trip reduced). Under some circumstances costeffectiveness may include intangible benefits to the community such as improved health, improved regional air quality, or contributing to economic





A reduction in the average parking utilization means that, compared to the same time period in the past, the percent of spaces utilized by a parked vehicle is lower. This type of measure doesn't replace actual traffic counts, but it is an effective measure of the number of vehicles that "accumulate" in Alameda Point over the course of a day.

**Cost-effectiveness**: This is a measure of the efficiency of a TDM Plan or individual services. An inefficient TDM Plan may be achieving its goals, but at great cost which is unlikely to be sustainable over time. Cost-effectiveness is primarily determined by dividing the cost of the Plan or service by the unit of change (for Alameda

development growth). Other benefits may be used to justify retention of a program or service even if it ranks low in its financial cost-effectiveness.

**TDM Plan Awareness**: This measure is an indicator of how well the TDM Plan is being marketed and promoted. It measures the number of potential users who are aware of a program or service as a result of a TDM Plan's forms of communication and promotion.

**Participation:** The final measure of how well the Plan is doing is the number of people participating in the Plan's programs and services.

It may also measure the number of people who responded to an outreach effort or promotion, or

## the TDM Plan has been implemented. Monitoring measures traffic generation after implementation

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have requested to participate in a program.

### 8.4. The Monitoring Process

Collecting traffic data is the single-most essential measurement in the monitoring plan. Vehicle counts are monitored at key entry and/or exit points for the study area. Vehicle counts are used to determine the actual number of vehicles generated by the site; or removed from site traffic as the TDM Plan takes effect, and can be used to confirm if Alameda Point is achieving its trip reduction goals. Conducting a comparison requires a baseline condition against which counts can be compared, however, the baseline depends on whether conditions are static or dynamic.

## 8.4.1. Defining the Baseline

The baseline conditions represent the amount of traffic being generated by Alameda Point before



**Figure 8:** Measuring trip reduction is straightforward in a static condition where the only variable is implementation of a TDM Plan.



**Figure 9**: Alameda Point will be have dynamic conditions as development continues for as long as 30 years. Monitoring trip reduction of older development is challenging when traffic is increasing due to new development.

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of TDM and the two results are compared for an increase or decrease in traffic. Therefore, an accurate baseline is needed to reliably attribute behavior change caused by implementation of the TDM program.

The simplistic description above would work for Alameda Point if the only variable was implementation of a TDM Plan and everything else remained static. However, at Alameda Point, there are two variables; 1) implementation of TDM; and 2) new development or land leases each year. **Figure 11** and **Figure 12** illustrate static and dynamic conditions as they relate to monitoring traffic from new development.

The Alameda Point monitoring process will use traffic counts prior to implementation of the TDM Plan to establish an existing baseline condition. However, in a dynamic scenario, the existing baseline is used as the foundation for adding the incremental growth in traffic from new development, while at the same time "tracking" the anticipated reduction in trips from each previous year resulting in a "net" traffic volume that incorporates both growth and reductions in traffic by year.

### 8.4.2. A Tool for Monitoring Traffic at Alameda Point

The above concept is best illustrated by example. The example used in this chapter is a "tool" developed specifically for monitoring Alameda Point. The example uses fictional annual traffic counts to demonstrate the mechanics of the tool, but detailed instructions for using the tool are included in the appendix. Key characteristics of the monitoring process include:

• An initial baseline traffic count on a cordon surrounding Alameda Point prior to implementation of the Plan forms the foundation of the process. The development generating baseline traffic is not currently subject to the trip reduction goals, so

## **Additional Survey Tools**

The TMA may consider augmenting the annual transportation surveys with an online trip-tracking tool allowing registered users to record their daily travel. These would not be random sampling surveys and so could not be used to represent the larger Alameda Point population. The information gained from these surveys, however, could be used to build model traveler profiles from which can be developed marketing plans targeting people who fit within the profile.

An online trip-tracker tool would be a simple to use form-based and drop down menu driven website or Smartphone App that requires users to enter basic travel information including trip purpose, mode of transportation, time travel began and ended, origin or destination of trip, whether person was driver or passenger and number of passengers (if travel was by vehicle). Smart phone apps could automatically collect much of the required data.

Optional data entry could be extensive depending on how committed the registered user is in maintaining this online form of a travel journal. Data such as mode of access to the primary mode, travel time and miles traveled, costs, land use at beginning and end of trip, demographic information, and questions that gauge the user's use of the TDM services offered.

The program may also be required to track participant usage of certain programs such as those that offer subsidies or incentives.

Online surveys may last a day or two, a week (typical), or longer periods. Periods as long as a month, or the entire year would require some form of compensation to the participant. However, small but tangible incentives to register and complete shorter surveys would effectively increase participation.



baseline volumes are subtracted from the "net" growth or reduction in traffic.

- The tool requires estimating the incremental growth in traffic using the trip generation model presented in Chapter 3, and compares the cumulative actual incremental increase plus reductions in traffic to the theoretical estimates to determine conformance with the trip reduction goals.
- The monitoring tool tracks development and traffic for each year, so it provides a comprehensive inventory of the necessary information related to traffic generation.
- The tool estimates each year's traffic generation assuming the development in that year achieves its trip reduction goal within two years of completion of the development. The two year timespan reflects the realistic time it takes for TDM strategies to mature and gain efficacy, or for new development to gain traction in fully utilizing the services available to employees.
- The different numerical trip reduction targets for residential development (10%) and commercial developments (30%) are incorporated into the tool in the form of a weighted average reduction factor used in estimating the anticipated traffic generation assuming goals are being achieved.

### 8.5. Other Notes on Monitoring

1. Survey control groups to account for extraneous factors. At the same time the initial baseline traffic counts are being conducted, the City should identify and survey at least one commercial and one residential control group before the TDM Plan is implemented. The control groups would take essentially the same survey that will be conducted at the first annual monitoring about 12-months later. The survey would help clarify the true impacts of the TDM program versus other external factors that affect travel behavior (gas prices, time of year variations, the rate of growth in Alameda Point, etc.).

- 2. Ensure consistency between performance measures that are repeated before and after. It is important to gather data in the same way or using the same or nearly the same tools before and after the TDM Plan is implemented. This will allay concerns that the before and after data are comparing apples and oranges. For example, the vehicle count program is the primary means of collecting actual traffic data is the tool used to monitor the impact of a TDM program, a vehicle count using the same methods of collection and analysis would also need to be taken before the Plan is implemented.
- **3.** Ancillary data collection. In addition to the traffic counts at Alameda Point's gateway intersections, and employee and resident surveys, other useful data may be collected.
  - a. **Auto occupancies** can be collected through spot manual 60-minute counts at key gateway intersections before and after implementation of the TDM Plan. This information will be useful in determining through observation, increases in car and vanpooling.
  - Bicycle and pedestrian counts of cyclists and pedestrians entering or exiting the boundary of Alameda Point can be collected at the gateway intersections at the same time vehicle counts are being conducted.



c. Truck counts. Although truck movements are not explicitly included as a performance measure in the Plan, the amount of manufacturing building space planned on Alameda Point warrants collection of truck movement data, in the event the magnitude of truck traffic eventually triggers the need to TDM strategies related to freight movement.

### 8.6. Consequences of Failing to Meet Trip Reduction Targets

The issue of whether the TDM Plan should contain penalties for failing to achieve trip reduction goals was raised before a joint meeting of the City of Alameda Planning Board and Transportation Commission. The discussion included financial penalties such as increases in TMA membership dues, or fines for individual businesses or residential developments that failed to achieve reduction goals, but also included methods that rewarded or incentivized goal achievement in the form reducing TMA membership dues, parking assessments, etc.

The approach recommended to the Planning Board and Transportation Commission members was to allow the Plan to be self-enforcing, as proposed through annual monitoring, reporting and Plan refinement.

The monitoring and reporting element of the Plan requires that, should the monitoring show that the development is failing to achieve its trip reduction goals, the TMA and its member commercial and residential entities prepare and implement a refined Plan with new or substantially revised strategies, and continue to monitor the effectiveness of the changes. This requirement in itself constitutes a form of financial penalty since the cost of revising the Plan and introducing new strategies along with marketing and promoting the strategies in the initial Plan and avoid the cost of revising the Plan, or implementing more costly strategies.



### **APPENDICES**

### **Appendix A: Technical Analyses Supporting the Executive Summary**

Table A-1:	Cost of Implementing the Near-Term and Long-Term Strategies of the Alameda Point TDM
	Plan
Table A-2a:	Private Shuttle Annual Operating Costs (Option B), (Essential Commute Service Only)
Table A-2b:	AC Transit Shuttle Annual Operating Costs (Option A) (Maximum Service at Buildout)
Table A-2c:	Private Shuttle Annual Operating Costs (Option B) (Maximum Service at Buildout)
Table A-3a:	Summary of Alameda Point Public Parking Facility Construction, Operations & Maintenance,
	and Enforcement Costs at Buildout
Table A-3b:	Summary of Long-Term Costs to Construct Public Parking at Buildout of Alameda Point
Table A-3c:	Projected Private Off-Street and Public Off-Site Parking Supply at Buildout of Alameda Point
Table A-4:	On-Street and Public Off-Street Parking Enforcement Costs
Table A-5a:	Estimated Revenue from Public Parking in Initial Phase of Development
Table A-5b:	Estimated Revenue from Public Parking at Buildout of Alameda Point

### Appendix B: Comparison between Alameda Point Development Standards for Parking and Current Alameda Zoning

Tables B-1a toComparison between Alameda Point Development Standards for Parking and CurrentTable B-1f:Alameda Zoning (Residential, Open Space, and Lodging Uses)

Appendix C: "TMA Handbook: A Guide to Successful Transportation Management Associations"

Appendix D: "Choosing Where We Live: Attracting Residents to Transit-Oriented Neighborhoods in the San Francisco Bay Area, A Briefing Book for City Planners and Managers."