

## TRANSPORTATION

### *Submit any changes in transportation of the Olympic Family.*

The following additions are proposed for the Olympic Family Transportation System:

- A regularly scheduled, 24-hour express bus service will be provided for service from the Olympic Village to downtown San Francisco and back to the Village;
- A regularly scheduled, 24-hour shuttle service connecting the Olympic Village to the VTA Light Rail Station at Moffett Field to facilitate travel throughout the region;
- A shuttle system connecting the Village to the Shoreline Amphitheater, where regularly scheduled entertainment will be provided for the athletes;
- A more thorough explanation of our back-up system for Olympic Family Transportation.

The Olympic Family will be carried on their own system of vehicles as described in the original bid document, a system which is consistent with, and based on, the proven systems employed in Atlanta, Sydney and Salt Lake City.

### *Further Discussions*

#### *Athlete 24-hour Express Bus Service to San Francisco*

To ensure that all athletes can enjoy easy access to the venues, culture, sightseeing and entertainment opportunities provided by the City of San Francisco, SF 2012 has added a regularly-scheduled bus service to and from San Francisco, available to athletes and officials staying at the Olympic Village. This service will be provided as an amenity at no cost to the athletes and officials.

#### *VTA-Village Shuttle*

To ensure that all athletes can enjoy easy access to the venues, culture, sightseeing and entertainment opportunities provided by the entire region, SF 2012 has also added a regularly-scheduled bus service to and from the Village and the VTA Light Rail Station at Moffett Field (less than one mile from the Village). As all accredited individuals will be able to utilize the public transportation network at no charge, athletes and officials will be able to connect via the VTA to both Caltrain and the Bay Area Rapid Transit (BART) and thus travel throughout the region quickly and efficiently.

A separate shuttle system to and from the VTA Station will provide access to the Village for visitors, staff, media and other members of the Olympic Family.

#### *Village-Shoreline Shuttle*

With the Shoreline Amphitheater being incorporated into the Village system as a major entertainment venue (map of Olympic Village and the Amphitheater shown in **Attachment A – Venue & Venue Cluster Maps**), a shuttle to and from the Amphitheater has been added to the system. This shuttle will be scheduled to service the events schedule at Shoreline.

#### *The Olympic Lane*

Athletes will travel on buses and in vans to their venues for practice and competition. SF 2012 proposes that the High Occupancy Vehicle (HOV or carpool) system function as the main facility for traveling through the region. These lanes can become a temporary,

24-hour operation for the entire period of the Olympic Games if that is warranted. The HOV system would be the dedicated facility for Olympic Family vehicles. At present Caltrans and Metropolitan Transportation Commission (MTC) have concluded that there is sufficient capacity in the HOV network to ensure unimpeded access throughout the region.

The Olympic Lane concept was proposed as part of the original bid to ensure that Olympic Family vehicles could travel easily on the freeway system. The Olympic Lane proposal had three main components: 1) the HOV lanes could become 24-hour facilities during the Olympic Games, 2) where gaps exist in the Bay Area HOV lane network, existing mixed use lanes could be temporarily re-designated as carpool lanes and 3) all Olympic Family vehicles would have access to these lanes at all times. Under normal circumstances, Bay Area congestion is not severe enough to support the operation of 24-hour carpool lanes. HOV lanes are traditionally available during the peak commute hours only.

Further, to ensure that Olympic athletes reach their practice and competition venues in an unimpeded fashion, vehicles carrying Olympic athletes may be provided with California Highway Patrol (CHP) escort. The CHP provided similar escort services during the Los Angeles Games and has the experience to offer similar services should the Bay Area be selected for the 2012 Olympic Games. SF 2012 and the CHP believe the Los Angeles model was successful and can be replicated in the Bay Area.

The United States Olympic Committee Site Selection Committee suggested that a dedicated lane for the exclusive use of the Olympic Family might be required to ensure unimpeded movement of the Olympic Family. We do not anticipate that a dedicated lane will be needed for the reasons described above. However, if it is determined later that a dedicated facility for Olympic Family vehicles would be more appropriate, several agencies including Caltrans, the CHP, and the MTC can develop alternative operations strategies that meet the needs of the Olympic Family as well as the thousands of commuters who rely on the freeway system every day. Such planning efforts may result in additional highway capacity that could be made available for the Olympic Family.

All of the public agencies involved in this effort are open to discussing and solving the transportation challenges inherent in hosting the Olympic Games. Should a dedicated facility be required, MTC will work with the Bay Area Partnership and the California Legislature to secure the necessary approvals to implement this strategy.

### ***Olympic Family Transportation – Back-up System***

SF 2012 has developed a comprehensive back-up system for all Olympic Family Transportation. This system involves staging additional vehicles with drivers in locations between the Village, the IOC Hotel and Main Press Center and the venues. Using an additional 300 buses, we can assure that a back-up bus stands ready to respond within 10 minutes to any location on every route to every venue, while additional buses remain in reserve within the same response range. Vans and cars provide additional backup, stationed at the Motorpool locations. The Motorpool locations assure that a similar standard for response time is assured for every Olympic Family user. The costs for this backup system are included in the Transportation budget.

*Submit any changes in spectator/visitor transportation systems*

At the time of the original bid submission, several key transit projects such as BART to San Jose were described as “potential” projects. They had yet to be included in the Regional Transportation Plan as it was being updated during 2001. Since the bid submission and site visit, the Metropolitan Transportation Commission adopted the 2001 Regional Transportation Plan, which includes several transit expansion projects of particular note for the 2012 Summer Games. The projects described in the bid that now enjoy regional commitments for funding include:

- BART extension to San Jose
- Caltrain System and Capacity Enhancements
- Caltrain Downtown San Francisco Extension and Transbay Terminal
- Santa Clara Valley Transportation Authority East Valley Extension
- Capital Corridor Expansion
- Oakland Airport Connector
- Muni Third Street Corridor and Central Subway

The rail projects identified above are not bid-dependent and will be built and operational by the time of the 2012 Olympic Games. These projects represent an investment of \$10.5 billion and these systems will help move the projected numbers of spectators throughout the region. Over 140 new route miles of rail transit and an additional 600 new route miles of express bus services are included in the 2001 Regional Transportation Plan. The new services will increase the service levels in existing corridors by 58%. The projects are identified as “future” projects where appropriate on the site-specific venue maps included in **Attachment A – Venue & Venue Cluster Maps**, but will be implemented by 2012.

SF 2012 undertook an extensive analysis of the transportation system to ensure that the current network of bus, rail and ferry services are sufficient to carry the maximum load of spectators on the busiest day. A description of the analysis is provided below, and the detailed analysis is contained in **Attachment B – Day 10 Transportation Analysis**. As a result of the analysis, there is one substantive change in the spectator/visitor transportation system. Premium bus services will be offered to the different venue clusters. Premium bus services are a subscription service with higher fares and offer a guaranteed seat as well as a set departure and arrival times from points throughout the region. The subscription bus service is particularly important for the Stanford venue cluster. Due to the concentrations of venues on the Stanford campus and the events coinciding with the commuter rush hour in the morning and evening, capacity issues on the Caltrain system will require that additional bus service be provided to meet projected demand.

The region’s transit operators are prepared to meet the challenge of operating the expanded services to serve anticipated demand. The ability to meet this challenge, however, assumes continued support from the Federal Transit Administration for any region hosting the Olympic Games. The region assumes that transit vehicles will be available on loan from other properties throughout the country and that operating assistance will be available similar to the assistance provided to Atlanta and to Salt Lake City.

Another additional feature of the spectator transportation system is the addition of attended bicycle parking at major venues throughout the region. Spectators will be encouraged to use their own bikes for their entire trip to venues and then park them at attended lots. Bicycles will also be available to travel from Park-n-Ride lots to bicycle parking areas near venues. The Regional Bicycle Advocacy Coalition (representing a broad spectrum of bicycle clubs, organizations, and advocacy groups throughout the region) proposes to operate the bicycle parking and rental system. Once the Olympic Games are over, the bicycles purchased to use for shuttling from park and ride lots to venues will be donated to disadvantaged youth in the region as a legacy project for the Bay Area.

### ***My Olympic Games and Transportation Demand Management***

Web-based services will provide an important element in the overall transportation strategy. Spectators will order Premium Bus services via the Web, plan their transit trip for an event, and find other information such as hours of Premium Bus pick up locations, operation for transit, carpool information, Park-n-Ride lot locations and bike rental facilities via their *My Olympic Games* web page. Tickets for Premium Bus service will be sold on a first-come, first-serve basis and will be limited to available capacity. The estimated demand for premium bus services are provided in the transportation analysis of this addendum. Travel on public transit to all venues will be provided to all ticket holders on the day of their events as part of their ticket purchases. This system was used for the first time in Atlanta, then in Sydney and Salt Lake City. In Salt Lake City, the federal government subsidized the spectator transportation system, and while SF 2012 may hope for subsidy for this program, we cannot depend on it. We have budgeted more than \$47 million to reimburse the transit systems in the San Francisco Bay Area.

For travelers not attending Olympic events, Web based information provided via the MTC Web-portal TravInfo® will help travelers avoid traveling during peak spectator travel times and allow them to plan their trips away from Olympic activity centers. MTC's Web-portal will provide real time information event locations, start and end times, key periods to avoid roadway or transit systems and routes to avoid activity centers. The web-portal will also allow travelers to plan trips on transit and find temporary carpool partners for the duration of the 2012 Olympic Games.

Email alerts will be a service offered to both spectators and local residents alike. These alerts will be broadcast to email accounts, cell phones, and other portable communication devices informing people when events are ending, incidents on the roadways or other information to help people make the best choices for their transportation needs.

### ***Day 10 Transit System Analysis***

For the analysis, SF 2012 identified the day with the heaviest demand during the Olympic Games – Day 10. The information that follows describes the planning assumptions and systems used in developing the Day 10 analysis. Day 10 falls on a Monday which also has weekday commuters in the system. MTC will apply an aggressive transportation demand management strategy for this day along with the transportation services that are described in the addendum.

### *Findings*

Using the assumptions above, SF 2012 sought to find where travel demand for spectators reached a “peak” throughout the day and when spectator peaks coincided with peak commuter demand. The Day 10 analysis looked at all venues and venue clusters in the region.

Over all, the region’s public transit providers conclude there is sufficient capacity on the transit system to move spectators throughout the busiest day of the 2012 Olympic Games. With additional operating funds along with temporary fleet expansions the region can successfully host the Olympic Games and transport spectators on their systems. The key transit operators, Caltrain, BART, SF Muni, AC Transit, and the Santa Clara Valley Transportation Authority are committed to collaborating in this regional effort to host the world and make the 2012 Olympic Games successful.

### *Transbay Corridor*

#### *Berkeley Venue Cluster*

AC Transit and BART will serve the Berkeley Venue Cluster. These two operators can accommodate the forecasted demand on their systems. AC Transit and BART have sufficient capacity to meet the demand and are accustomed to operating service to special athletic and cultural events regularly occurring on the UC Berkeley campus. BART can carry up to 20,000 passengers per hour/per direction on the line serving UC Berkeley and AC Transit has an existing fleet of 849 vehicles available. AC Transit can expand the services they offer utilizing borrowed vehicles from other transit properties in the United States and with drivers trained for this event (note also that more than \$10 million has been allocated in the Transportation budget for training drivers from other areas on routes, laws and other information necessary to provide superior service to our spectators).

#### *Network Associates Coliseum and the Oakland Arena*

BART, AC Transit, and the Amtrak Capitols will serve this venue during the Olympic Games. BART can carry up to 23,000 passengers per hour/per direction on this segment. There is additional capacity with the Amtrak Capitols, which will have a station operational at the Coliseum in 2004. AC Transit is able to operate additional vehicles for premium bus services and to connect patrons with Park-n-Ride lots. AC Transit can draw from its existing fleet of vehicles and the expanded fleet of vehicles available on loan from other properties in the United States. The Oakland Athletics, the Oakland Raiders and the Golden State Warriors have their regular season games in this venue cluster. In addition, concerts and special events are regularly scheduled during off-season.

#### *Treasure Island*

Treasure Island will be served via a bus service and a temporary ferry service operating from the new Ferry Building in downtown San Francisco to proposed ferry docks on the island. The docks are shown on the venue map. San Francisco Muni will carry spectators coming from downtown San Francisco to Treasure Island and AC Transit will serve spectators traveling on BART to the West Oakland BART station or traveling by car to the Park-n-Ride lot available at the BART facility.

### *Downtown San Francisco*

Downtown San Francisco is an employment center in the region as well as a center for cultural, entertainment, shopping and tourism activities. Downtown San Francisco is both a venue cluster and the largest accommodation center in the region. It is assumed that most spectators staying in this accommodation center will walk or board local buses to reach their desired San Francisco venue. Nonetheless, SF Muni has the experience necessary to meet the needs of Olympic spectators throughout downtown and to nearby venues such as Treasure Island, the Marina Green, Aquatic Park, Candlestick Park and the Cow Palace. The Muni Metro is capable of carrying 28,000 passengers per hour under Market Street alone. This capacity augments the BART capacity on their alignment below Muni Metro. BART is capable of moving 35,000 passengers per hour/per direction from downtown San Francisco to downtown Oakland and to the San Francisco International Airport. SF Muni also possesses a bus fleet with 1,218 vehicles – most of which are zero emission vehicles, which can shuttle spectators to venues in the Marina, along the waterfront, or down at 3 Com Park and at the Cow Palace. This capacity will be further enhanced with the completion of Third Street Light Rail in 2006 and the extension of the Third Street Light Rail to Chinatown in 2010.

### *Peninsula Corridor*

#### *Stanford Venue Cluster*

The Stanford venue cluster presented the biggest challenge from a transportation standpoint and required some additional public transportation services beyond what was described in the original bid.

On Day 10, an estimated 255,150 spectators will be traveling to and from the Stanford venue cluster throughout the day. There are two key peaks – one during the morning rush hour and one during the evening rush hour. The peak of greatest concern was during the morning with spectators coming from the Northwestern Accommodation Center to Palo Alto, and the second was in the evening with spectators again traveling south from the Northwestern Accommodation Center, which could coincide with evening commuters returning home. Under a scenario such as the Olympic Games, with added support for operations and rolling stock, Caltrain expects that it can accommodate 24,000 people per hour (12,000 in each direction) on its system through more frequent service, longer trains, and temporary changes to platforms to accommodate longer trains. In addition to the Caltrain services, a premium bus service will be offered to Palo Alto in the morning and in the evening, from the Colma City BART station, the Transbay Terminal and other locations in downtown San Francisco in the north and from the Santa Clara County Fairgrounds and Diridon Station in south. The premium bus service will provide a guaranteed seat on a subscription bus from the pick-up sites to the venue. Similar to the transportation service offered in Salt Lake City, this service will be a for-hire service, available on an as-needed basis.

To ensure the Caltrain system is not overwhelmed by spectators moving from San Jose to San Francisco, spectators traveling from San Jose to venues in the East Bay and San Francisco will be required to ride on the BART system, which has sufficient capacity to

manage the passenger loads expected for Day 10. Caltrain access will be restricted to spectators going to the Stanford venues or south to Salinas for the Monterey venue.

### ***South Bay Corridor***

San Jose is the site of several major transit expansion projects. The Santa Clara Valley Transportation Authority built several light rail lines over the past three years. Santa Clara County is preparing to extend the San Francisco Bay Area Rapid Transit system to downtown San Jose. The BART system will be operational in 2012. The VTA will also operate a new light rail line on the east side as well as new Bus Rapid Transit projects connecting the different rail providers. In addition, Caltrain will be available to link San Jose venues and accommodation centers to Palo Alto in the north, and to the venues to the south, including a station in Salinas for spectator transportation to the Monterey Horse Park.

The capacity for VTA in the San Jose area will be 3,000 passengers per direction and per hour on each of the light rail lines. In addition, VTA can serve additional transportation demand with VTA's bus fleet of 653 vehicles. SamTrans is also able to serve this corridor and with their fleet of 353 vehicles.

### ***East Bay Corridor***

The East Bay Corridor has no venues situated within it; however, it is a major transportation corridor as spectators will be traveling from locations in the South Bay to the Eastern Accommodation Center, the Oakland and Berkeley venue clusters, the Northwestern Accommodation Center, and the San Francisco venue clusters. This corridor enjoys the presence of BART and the Capitol Corridor, which has Amtrak services. BART and the Capitols are capable of carrying a maximum of 26,000 passengers per hour.

### ***Background on the Transportation Analysis***

#### ***Transportation Corridors***

Six main transportation corridors serve the Olympic venues throughout the region. The corridors are described below:

**Transbay North** – San Francisco to University of California at Berkeley

**Transbay South** – San Francisco to Network Associates Coliseum, Oakland Arena and Kaiser Auditorium

**Downtown San Francisco** – IOC Hotel, USOC Headquarters Hotel, Moscone Center, Treasure Island, Pac Bell Park and the various sites along the San Francisco waterfront

**Peninsula** – San Francisco to Cow Palace, 3 Com Park, Stanford, the Olympic Village, Santa Clara University and San Jose venues

**East Bay Corridor** – Travel from the Oakland, Berkeley, and San Francisco venue cluster to downtown San Jose (Diridon Station)

**Downtown San Jose** – San Jose Arena, San Jose Convention Center, San Jose Shooting Center and Spartan Stadium

Domaine Chandon Mountain Bike Venue, the Monterey Horse Park, and the Lake Natoma Rowing and Canoeing Venues were not grouped into these corridors.

### ***Spectator Public Transit and Private Automobile Use***

Spectators were grouped into three categories:

- Local
- Regional
- International

Local and regional travelers were assumed to have similar travel demands. Assumptions for those demands include:

- 75% to be traveling on public transportation (to create a worst-case scenario, no sponsor bus system has been assumed, although this system will significantly reduce the demand on transit)
- 23% to be using private cars
- Occupancy rates for private cars were assumed to be 2.5 persons per vehicle (Salt Lake City achieved 2.4, according to statistics from the Main Operations Center)
- 2% to be walking or riding bicycles (2% used bicycles alone during World Cup 1994)

For spectators coming from International destinations, the following maximum assumptions have been used:

- 95% to be traveling on public transportation (to create a worst-case scenario, no sponsor bus system has been assumed, although this system will significantly reduce the demand on transit)
- 5% to be traveling in private cars

The demand for each venue was forecast based on the expected attendance for each event. Arrival and departure patterns were assumed based on observed trends at Salt Lake City, Sydney and Atlanta. The hourly demand was then determined for Day 10 within each of the major transportation corridors described above and assigned to the respective modes and to the respective transit operators serving a venue cluster.

### ***Spectator Accommodation Centers***

Three key spectator accommodation centers are assumed:

- Northwestern Accommodation Center (Downtown San Francisco has 52% of all rooms)
- Northeastern Accommodation Center (Oakland, Berkeley and East Bay has 25% of all rooms)
- Southern Accommodation Center (Downtown San Jose has 23% of all rooms)

The ratio of existing rooms in each of these centers was used to estimate the number of spectators accessing the transit systems from each center and which transit systems they would access.

### *Background Traffic*

Background traffic refers to the regular travel patterns on the transportation network for local residents. Background traffic is reduced substantially during the Olympic Games when Transportation Demand Management strategies are applied. California pioneered this type of demand reduction in its successful staging of the 1984 Olympic Games in Los Angeles. SF 2012 planners have thoroughly reviewed the report on this program and incorporated its successful elements in its plans. Based on the experience from the Atlanta Olympic Games and the Salt Lake City Winter Olympic Games, a 30% reduction in background traffic was assumed.

### *Spectator Attendance*

For purposes of this study, the maximum number of spectators estimated to attend each session at each venue on Day 10 has been assumed. Also, as noted above, to create a worst-case scenario, no sponsor bus system has been assumed, although this system will significantly reduce the demand on transit.

***Submit a table with primary and backup modes of transportation to all venues for athletes, Olympic Family, and spectators.***

**East Bay Venues**

Proposed Venue	Athletes	Olympic Family	Media	Spectators
Haas Pavilion	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Memorial Stadium	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Edwards Field	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Network Associates Coliseum	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars

**East Bay Venues (cont'd.)**

Oakland Arena	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>
Kaiser Auditorium	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>

**San Francisco / Peninsula Venues**

Proposed Venue	Athletes	Olympic Family	Media	Spectators
PacBell Park	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>
Cow Palace	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>
SF Waterfront	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>

**San Francisco / Peninsula Venues (cont'd.)**

Candlestick Park	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Moscone Center	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Treasure Island	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Marina Green	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Aquatic Park	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars

**Peninsula / South Bay Venues**

Proposed Venue	Athletes	Olympic Family	Media	Spectators
Stanford – Stadium	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)   Backup: Private cars
Stanford-Avery Aquatic Center	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)   Backup: Private cars
Stanford – Maples Pavilion	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)   Backup: Private cars
Stanford – Intramural West	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)   Backup: Private cars

**Peninsula / South Bay Venues (cont'd.)**

Stanford - Sunken Diamond	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>
Olympic Village	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>
San Jose Arena	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>
Spartan Stadium	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>
San Jose Convention Center	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Backup: Private cars</p>

**Peninsula / South Bay Venues (cont'd.)**

George Haines International Swim Center	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Santa Clara Leavey Center	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Santa Clara Univ. Buck Shaw Stadium	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
Santa Clara Soccer Park – Velodrome	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars
San Jose Shooting Center	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans	Primary: Olympic Family Motorpool fleet and bus on dedicated lanes  Secondary: Backup fleet vehicles and bus  Backup: Vans	Primary: Bus on dedicated lanes  Secondary: Backup bus  Backup: Vans  Backup: Public Transit	Primary: Public Transit (Redundant systems function as backup to primary systems)  Backup: Private cars

**Other Venues**

Proposed Venue	Athletes	Olympic Family	Media	Spectators
Monterey Horse Park	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Park and Ride System</p> <p>Backup: Private cars</p>
Domaine Chandon Winery	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Park and Ride System</p> <p>Backup: Private cars</p>
Lake Natoma	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p>	<p>Primary: Olympic Family Motorpool fleet and bus on dedicated lanes</p> <p>Secondary: Backup fleet vehicles and bus</p> <p>Backup: Vans</p>	<p>Primary: Bus on dedicated lanes</p> <p>Secondary: Backup bus</p> <p>Backup: Vans</p> <p>Backup: Public Transit</p>	<p>Primary: Public Transit (Redundant systems function as backup to primary systems)</p> <p>Park and Ride System</p> <p>Backup: Private cars</p>

*Submit a map of all venues showing accessibility to Public Transportation*

BART, Caltrain, and Santa Clara County Valley Transportation Authority are the key rail operators serving Olympic venues. Most of the venues are within a short walk of the rail transit network that will be operational in 2012. For those outside a one-half-mile walk between the venue and a regional rail station, a bus shuttle and bicycles will be available to travel from the rail station to the Olympic venue.

Number of venues within walking distance of rail network – 24

Number of venues requiring a bus shuttle – 7

Number relying on Park-n-Ride exclusively – 2

A series of maps are provided in **Attachment A – Venue & Venue Cluster Maps** which illustrate the relationship between the venues and the proposed Olympic Lane and between the venues and the public transportation infrastructure:

- The first map provides an overview of the entire region
- Subsequent maps are for each venue. The key to the venues is provided on the regional map
- The venue maps show the primary systems of:
  - public transit serving each of the venue
  - walk access, and
  - proposes Park-n-Ride shuttle routes

*Please review the Urban Mobility Study and indicate any exceptions you have to the findings in the study.*

In addition to discussions below about the 2001 Urban Mobility Report, congestion relief programs that are consistent with the recommendations from the report are described. Also provided are the top ten congestion locations in the San Francisco Bay Area and the steps being taken to reduce the congestion in those locations.

### ***The 2001 Urban Mobility Report***

The Texas Transportation Institute (TTI) of Texas A&M University produces the 2001 Urban Mobility Report referenced above. The report examines 68 U.S. metropolitan areas and measures levels of congestion in those regions on the roadway system. Not surprisingly, the report finds that congestion is growing in urban areas and that larger urban areas have more congestion than smaller urban areas.

However, rather than being a measure of mobility, which is the ease with which a person can move about a place or region, it is a report on how easily a person can drive their car through a region. It is strictly a report on roadway congestion. A report focused on the mobility of a region's population would evaluate a broader spectrum of transportation choices and include transit, bicycling and walking in the evaluation regional mobility.

Specific to the Urban Mobility Report, the report attempts to document congestion and changes in congestion levels over time, as well as quantify the cost of congestion for different regions, commuters and the nation as a whole. The report uses the Travel Rate Index (TRI) developed by the transportation institute to rank congestion in different regions and states that this measure is the "simplest way to look at this problem [congestion]. The TRI measures the amount of additional time needed to make a trip during a 'normally congested' peak period travel" when compared to normal travel conditions. This provides some indication of the level of congestion during peak periods. This is also the measure for which the report is best known. Using this index, San Francisco is ranked 3rd in the nation on the TRI. Not surprisingly, all the major metropolitan areas are in the "top ten" for this measure. The TRI measures congestion based on traffic demand and does not measure delay caused by roadway incidents. A new measure in the report, the Travel Time Index (TTI) measures delay caused by roadway incidents and heavy traffic demand. A further measure of mobility in the report is the Percentage of Daily Travel. When looking at other measures of congestion such as the TTI and the changes in TTI over time, San Francisco is ranked much lower on the lists. This is in large measure due to the steps the San Francisco region is taking to reduce the impacts of roadway incidents on congestion in general, as well as measures such as transit investments, the carpool lane network and travel demand management to ease demand on the region's roads. At the end of this section, congestion reduction strategies applied in this region are described in brief.

The report might not be a useful tool for evaluating how a region can respond under the special circumstances of the Olympic Games. The report evaluates how much congestion there is on the roads for a typical day of driving. For cities hosting the Olympic Games, there are dramatic shifts in how people choose to travel during the period of the Olympic Games. It has been well documented that in Atlanta and Los Angeles, the travel demand

on the roadway networks in those cities dropped dramatically during the Olympic Games as people found alternatives to their traditional commute. Salt Lake City experienced similar reductions in travel demand during the 2002 Winter Olympics. PacBell Park provides a local example of an effective Transportation Demand Management strategy. Over 50% of the spectators coming to ball games reach the park by one of the many public transit services available.

Further, the Urban Mobility Report does not address how well a region is prepared to handle special events. For example, before Pac Bell Park opened, a major planning effort was instituted to coordinate transit services to the park and several transit operators developed a Game Day operations plan. San Francisco Muni offers special ball park shuttles; Caltrain offers Game Day train services; and the region's ferry operators provide direct ferry service to the park. All of the existing venues have special transportation plans in place for the events at the venue. This region is well prepared to offer transportation services to spectators participating in the Olympic Games.

We are pleased to report that this region is responding to congestion with a series of initiatives that are consistent with recommendations in the Urban Mobility Report. The solutions identified in the report include:

- More roads and transit in combination with other strategies
- More efficient operations using intelligent transportation systems and information technologies
- Smart growth and compact land use patterns
- Improving the reliability of the transportation system by identifying and clearing accidents and vehicle breakdowns

## REGION-WIDE CONGESTION RELIEF PROGRAMS

Several of the programs developed and implemented by MTC offer substantial benefit for travelers in congested corridors and, when marshaled to support the 2012 Olympic Games, these programs will ensure the transportation system functions smoothly.

### *Incident Response*

As noted by the report: “Incidents have a significant effect on delay...more delay is caused by incidents than heavy traffic demand.” Recognizing this fact, MTC in collaboration with other partner agencies, such as the California Highway Patrol and the California Department of Transportation, have implemented several programs to remove incidents as quickly as possible. These include:

#### *Caltrans Traffic Management Center*

Our ability to handle Olympic traffic is not based solely on building more highway capacity or providing more transit service. MTC and Caltrans are committed to managing the system in the most efficient manner possible. The Regional Traffic Management Center opened in July of 2000 and employs the latest state-of-the-art technology to monitor and manage traffic throughout the region’s freeways. This facility is co-staffed by the California Highway Patrol, and is in operation 24 hours a day, 7 days a week out of the California Department of Transportation headquarters building in downtown Oakland. From this location, staff monitor what is happening on the system, identify problems quickly, get information out to the public and dispatch troubleshooters immediately.

#### *Freeway Service Patrol*

The Bay Area Freeway Service Patrol (FSP) is a special team of 74 tow trucks, six pickup trucks and two flat bed trucks that continuously patrol 400 miles of freeways. Over 107,000 assists were provided last year alone. They cut down on traffic jams by quickly clearing accidents and other incidents. A swift response also reduces the chance of further accidents and bottlenecks caused by impatient drivers and gawkers. In addition, reducing stop-and-go traffic saves fuel and cuts air-polluting emissions.

A key feature of the San Francisco Bay Area Freeway Service Patrol (FSP) program is a state-of-the-art, computerized communications/automatic vehicle location system that makes surveillance and management of the truck fleet more efficient. Using the latest technology, this system allows communication between California Highway Patrol (CHP) dispatchers and on-the-scene tow trucks. This, in turn, ensures that the nearest available truck is dispatched to quickly clear freeway lanes and help motorists with disabled vehicles. The system relies on the global positioning system (GPS), a satellite system. The GPS is designed to provide precise time and position information to land-based, sea-based and airborne systems. Each FSP vehicle is equipped with a receiver that receives signals from a number of GPS satellites.

#### *Call Box Program*

The call box program provides assistance to motorists in trouble, allowing them to report a road hazard, a flat tire or a mechanical breakdown directly to the California Highway Patrol (CHP). The 3,500 call box network also helps in the region’s fight against traffic congestion and smog. According to Caltrans, unpredictable events such as stalled autos account for at least half of the congestion on highways.

The Bay Area call box network is a joint project of Caltrans, the CHP and the Service Authority for Freeways and Expressways (SAFE), which was created by the state Legislature in 1987. All nine Bay Area counties are members of the network: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma.

### ***Other Important Congestion Relief Programs***

#### *Regional Express Bus Program*

MTC is actively implementing the Regional Express Bus Program throughout the region. The first \$40 million was allocated to purchase vehicles which will operate on the region's High-Occupant Vehicle (HOV) lanes. These buses will operate during peak period commute hours on the most heavily congested corridors, taking drivers out of the cars and speeding them to their desired destinations.

#### *High-Occupant Vehicle Lanes*

This region has part-time HOV (Carpool) lanes as congestion in the Bay Area is largely confined to the peak-period. Unlike other cities which have 24-hour HOV systems, the Bay Area only needs to access those HOV lanes during peak commute hours. At other times they are general purpose lanes. Just as a reminder, SF 2012 is proposing to convert those lanes temporarily to 24-hour Carpool/Olympic lanes to ensure the Olympic family always has a dedicated facility to move throughout the region.

### ***Top Ten Congestion Locations***

Listed below are the top ten congestion locations in the region and a selected list of transportation projects, currently in operation or to be implemented by 2012, which offer congestion relief. These are also indicated on the map which follows. Please note that many of the most congested locations are not in close proximity to the Olympic venue clusters. Further, much of the recurring congestion will not affect the travel of the Olympic family or spectators due to the directions of travel for the Olympic family and spectators which are in the opposite direction of peak period commute travel.

#### *Location 1: I-80, Westbound AM (Hwy. 4 to Bay Bridge Toll Plaza)*

1. Rapid Bus Transit
2. Regional Express Bus Program
3. Extend I-80 Westbound HOV lane to Rte. 4
4. Richmond Intermodal Transfer Center (BART/AC Transit to Amtrak)
5. Vallejo intermodal ferry station
6. Richmond Parkway Transit Center (Bus station and 700-800 space Park-n-Ride)
7. Hercules Transit Center Relocation and expansion
8. Capitol Corridor system expansion
9. Improve Emeryville Amtrak Station and intermodal connectivity
10. I-80 – various interchange improvements
11. Bike-pedestrian facilities on the east span of Bay Bridge
12. Feasibility study of bike-pedestrian facilities completed on Western Span

*Location 2: I-680, Southbound AM (Sunol Rd. to Hwy. 262)*

1. I-680 HOV lanes, ramp metering and auxiliary lanes
2. Various interchange improvements
3. Regional Express Bus Program
4. Iron Horse bicycle and pedestrian trail
5. I-680 / I-880 connector study

*Location 3: I-880, Southbound AM (Hwy. 84 to Dixon Landing Rd.)*

1. Silicon Valley Rapid Transit Corridor (BART to San Jose)
2. BART to Warm Springs
3. Regional Express Bus Program
4. Capitol Corridor intercity rail service improvements
5. Transit village development
6. Reconstruction of I-880 to Dixon Landing Road widening from 8 to 10 lanes including 2 HOV lanes
7. I-880 / Rte. 237 interchange improvements
8. Rte. 84 HOV extension to I-880

*Location 4: US 101, Southbound PM (Fair Oaks Ave. to 13th St.)*

1. Various Interchange improvements
2. Improve and expand Caltrain service
3. Extend Vasona Light Rail
4. Add auxiliary lane from Rte. 87 to Montague Expwy.
5. Widen Central Expressway and add HOV Lanes

*Location 5: I-80 and US 101, Eastbound and Northbound PM (Army St. to Bay Bridge)*

1. BART extension to San Francisco International Airport
2. BART from SFO to the East Bay
3. Caltrain downtown extension and the replacement of the Transbay Terminal
4. Current Muni Metro and bus system
5. Third Street Light Rail (new)
6. Chinatown Central Subway
7. Central Freeway seismic improvements

*Location 6: US 101, Southbound AM (Rowland Blvd. to I-580)*

1. Interchange improvements between US 101 and I-580
2. Interchange improvements along US 101 in Marin County

*Location 7: US 101, Southbound (San Mateo Bridge to I-880)*

1. Various interchange improvements
2. US 101 Auxiliary lanes throughout the corridor
3. Caltrain express services to San Jose
4. Caltrain grade separations and station improvements
5. Regional Express Bus Programs

*Location 8: Hwy. 92, Eastbound PM (San Mateo Bridge to I-880)*

1. Widen San Mateo-Hayward Bridge
2. Extend HOV lanes
3. Construct new pedestrian/bicycle over crossing
4. Regional express bus services

*Location 9: Hwy. 237, Eastbound PM (N. First St. to I-880)*

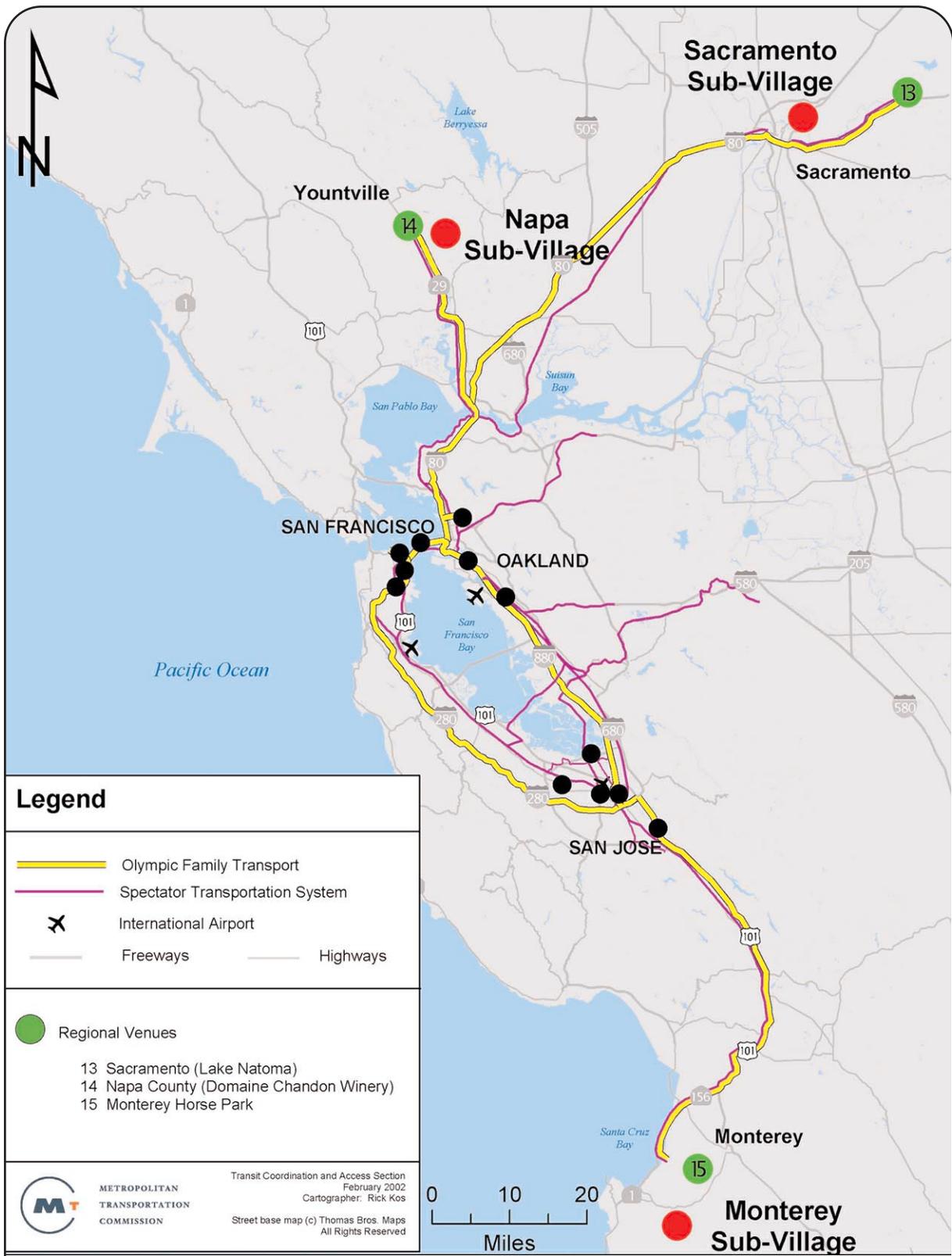
1. Capitol Corridor light rail extension
2. San Jose International Airport connections to light-rail
3. Bus Rapid Transit
4. Countywide bikeways program

*Location 10: I-880, Northbound AM (Grand Ave. to Bay Bridge)*

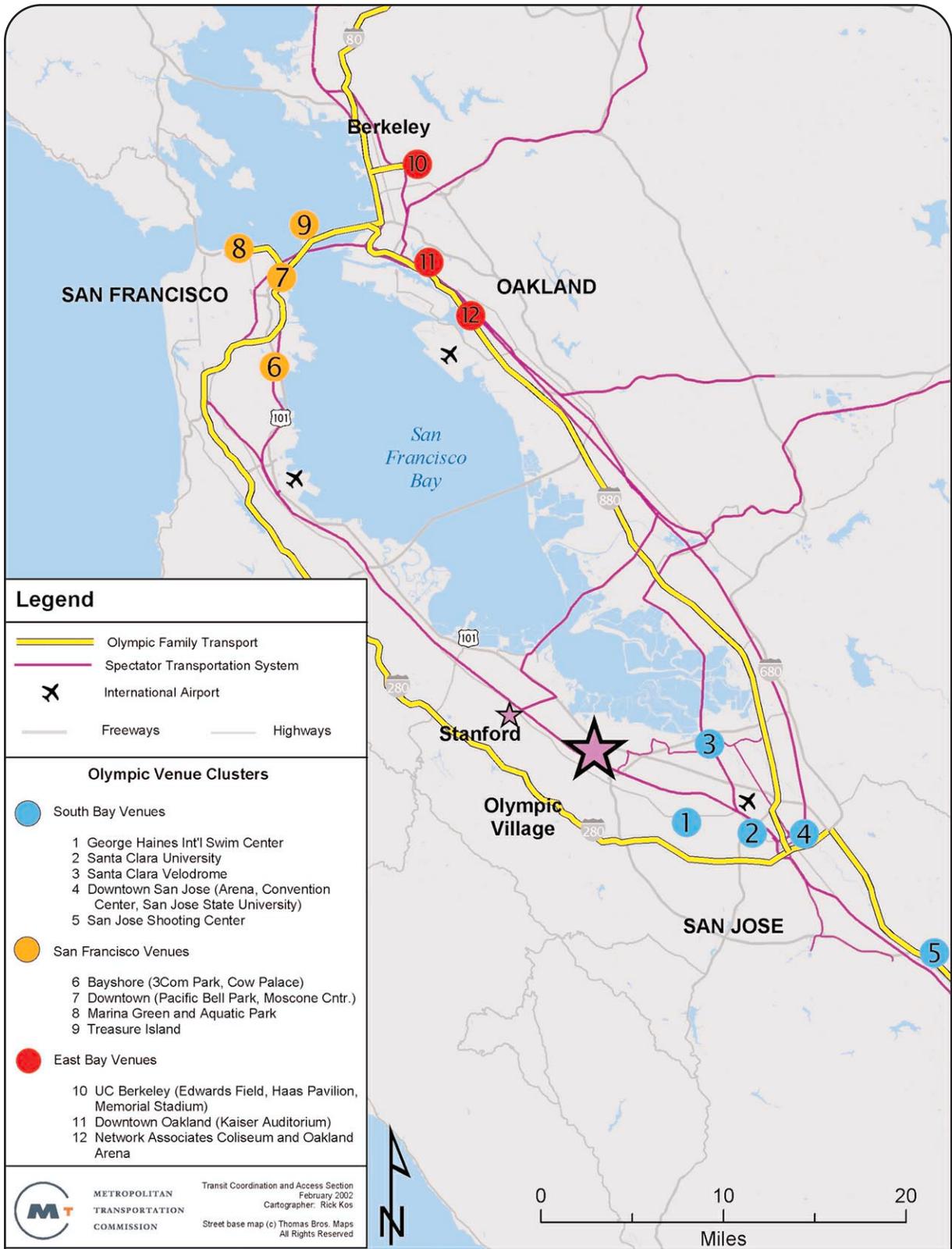
1. BART/Oakland International Connector (Subject to Regional Transit Expansion Policy)
2. Various Interchange Improvements
3. Joint Intermodal Terminal
4. MacArthur BART Station intermodal transit village
5. Fruitvale BART Station transit village
6. Bus Rapid Transit



**ATTACHMENT A***Venue & Venue Cluster Maps*



# Regional Map



# Bay Area Map