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COMMISSION

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Memorandum

TO: Planning Committee

DATE: September 7, 2007

FR: Executive Director

W. I.

RE: Adoption of Regional Rail Plan (*MTC Resolution 3826*)

Staff seeks this Committee's review of the *Revised Draft Regional Rail Plan* and referral of MTC Resolution 3826, which adopts the Regional Rail Plan, to the Commission for action. Pursuant to AB 1407, Streets and Highways Code Section 30914.5(f), MTC must adopt the Regional Rail Plan by September 29, 2007.

Background

MTC, California High-Speed Rail Authority (CHSRA), BART, and Caltrain, along with a coalition of rail passenger and freight operators, collaborated over the past two years on the preparation of a long-range vision for improving the passenger rail network we currently have in place and expanding its reach to serve future Bay Area travel demand. Regional Measure 2 provides funding for this study effort. A Steering Committee comprised of MTC, BART, ACE, Capital Corridor, Caltrain, SMART, Caltrans Division of Rail, Union Pacific, Burlington Northern, Congestion Management Agencies, and other regional partners has provided direction and oversight at key milestones throughout the study process. Steering Committee meetings were open to the public. Public workshops were held to solicit early ideas for the rail vision in Fall 2005, and again in August 2007 to provide opportunities to ask questions and comment on the draft plan.

Revised Draft Regional Rail Plan

The Revised Draft Regional Rail Plan is attached for your review. Key regional rail study components include the three items below, which have been divided into separate attachments for ease of review and discussion. Additionally, the key comments from the August 2007 workshop are also attached.

1. A 2050 vision for an integrated and expanded Bay Area passenger rail system (See Attachment A)
2. A regional network assuming no high-speed rail (See Attachment B)
3. An evaluation of governance structures that would need to be in place to plan, fund and operate the current and recommended future rail network (See Attachment C)
4. August 2007 Workshop Comments (Attachment D)

Recommendation

The Regional Rail Plan assesses how proposed CHSRA high-speed rail alignments could be integrated into recommended regional rail improvements as stipulated by Regional Measure 2. The Commission is not required to choose a particular high-speed rail alignment in adopting the Regional Rail Plan. Therefore staff is recommending that the Commission act separately on the high-speed rail alignment issue at its meeting in October to allow additional time for public comment and review (see next agenda item).

Staff therefore recommends that this Committee approve and refer MTC Resolution 3826, which adopts the Regional Rail Plan, to the Commission for final action.

Steve Heminger

SH: AN

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Attachment A Regional Rail Vision

Key elements of the Regional Rail vision include:

- **Ring the Bay with Rail**

A long-term vision is to ring the Bay, connecting the three major Bay Area cities (San Francisco, Oakland, and San Jose), with a fast, frequent and integrated passenger rail network. BART and Caltrain would provide seamless, peak and off-peak rapid transit service to the region's largest employment and population centers, with intermodal connections at key nodes. In addition, the rail network would also provide direct or indirect transit access to the region's major international airports and numerous local transit hubs.

- **The Right Technology Should Be Used With the Right Corridor**

A broad range of rail technologies, including BART and conventional passenger trains like Amtrak are considered in this plan. Emerging technologies such as non-Federal Railroad Administration compliant Electric Multiple Unit (EMU) trains are also explored. These trains run on standard gauge rail tracks but must be separated from freight trains. They have significant cost and speed advantages over conventional trains and are included in the plan on selected segments.

- **The BART & Caltrain Systems Are the Backbone**

The BART and Caltrain systems serve as the backbone of the regional rail network and it is clear there will be capacity constraints and renovation needs for the existing systems. This reinvestment should be a top regional priority over the next few decades.

- **The BART System's Outward Expansion Is Nearly Complete**

While BART will always remain at the core of the region's rail system; its outward expansion potential is limited. Once the extension to San Jose is completed, and the existing lines are brought to logical terminals in Livermore, Santa Clara and East Contra Costa County, no additional outward extensions of the BART technology are contemplated. This is important, not only because portions of the existing BART system will be reaching capacity limits, but also because higher-speed express trains would better serve outlying suburban markets. Instead, BART will evolve toward a higher-frequency, more productive metro system. New BART lines are considered only to alleviate capacity concerns in the Transbay Corridor and to serve dense urban markets in the inner East Bay and San Francisco, and to provide additional connectivity to the regional/inter-city rail system.

- **The Bay Area Needs a Regional Rail Network**

As the BART system becomes more of a high-frequency, close stop spacing urban subway system, similar to the Paris Metro or Berlin "U-Bahn" network, it would need to be complemented with a larger regional express network serving longer-distance trips. The European counterpart to the regional express network is the "S-Bahn" in Berlin or the Regional Electric Rail (RER) in Paris. These European rail systems provide a truly integrated inter and intraregional rail system that minimizes transfer barriers for its customers. The next step is to incrementally separate passenger rail rights-of-way from freight rights-of-way and over time develop a higher speed, express regional rail network. These trains would run largely on existing tracks, some shared with freight and others in their own rights-of-way with specialized signaling and dispatch systems. Over the next 40 years, much of the new investment in intercity and suburb-to-city regional rail in Northern California will utilize modern, standard-gauge equipment, following the model of most European and Asian capitols.

- **Rail Infrastructure Must Be Expanded to Accommodate Growth In Passenger and Freight Traffic**

To allow the region's economy to continue growing while meeting increased passenger needs, the freight and passenger rail systems must be increasingly accommodated. This plan acknowledges that certain freight corridors require additional mainline tracks to support high-frequency freight and passenger services.

- **High-Speed Rail Provides Opportunities to Enhance and Accelerate Regional Rail Improvements**

High-Speed Rail complements and supports the development of regional rail – a statewide high-speed train network would enable the operation of fast, frequent regional services along the high-speed lines and should provide additional and accelerated funding where high-speed and regional lines are present in the same corridor.

- **Rail Transit and Focused Transit-Oriented Developments Must Go Hand in Hand:** If the region is to make a substantial investment in rail infrastructure, land development surrounding the stations/stops and along the rail corridor must be fully integrated with rail services and they must be supportive of one another. Regional and local policies and programs that support focused land-uses must be in place to make this happen.

- **Institute a New Governance Structure for Delivery of Rail Services:** Delivering high-quality, efficient rail services will require institutional changes from the multiple transit operators and multiple providers of regional rail that are in place today. The new structure would better integrate and align the functions of planning, design, funding, construction, and maintenance and operations of passenger rail. The region must set a course of action to initiate and implement the necessary institutional changes.

- **Successor to Resolution 3434 Needed to Advocate for Rail Funding:** Securing public/private funding for rail expansions and operations and maintenance is a tall order, but can be done if the region forges consensus behind a program of projects from which to advocate for funding in Sacramento and Washington D.C. MTC's Resolutions 1876 and 3434 set a powerful precedent that having a consensus agreement in place will help the region to not only articulate a shared vision about rail expansions but also lay out a strong advocacy platform to aggressively compete for scarce public/private, regional, state and federal funds. Furthermore, defining the rail improvements that go beyond Resolution 3434 would help to inform subsequent Regional Transportation Plan updates.

Attachment B

Regional Rail Absent High-Speed Rail

Two Regional Rail absent High-Speed Rail alternatives were evaluated taking into account evaluation criteria such as engineering feasibility, capital cost, travel demand, operational impacts, connectivity and environmental issues. The alternatives are: (1) Alternative 1 Regional Rail with BART Systemwide Expansion, and (2) Alternative 2 Regional Rail with Railroad-Based Services Expansion. These alternatives were evaluated on a corridor-by-corridor basis. For each corridor, a recommended corridor treatment was identified. In each corridor, the recommended alternative was either Alternative 1 or Alternative 2, or a blend of the two system alternatives that includes refinements suggested by the evaluation process.

The recommended Regional Rail without High-Speed Rail network is as follows:

- **BART** – Reinvest in existing system to improve reliability and make the following improvements:
 - Improve Core Capacity by making modifications to vehicles, stations, track and signals as they are replaced or upgraded to accommodate passenger growth over the long term
 - Implement Resolution 3434 extensions to Warm Springs/Santa Clara County and eastern Contra Costa County.
 - Implement improvements to connect BART with standard railroad services and regional bus lines in various corridors including a one-station extension to an intermodal with ACE at Isabel/Stanley
 - Construct 4th track through Oakland to facilitate throughput and improve transfer convenience between East Bay and Transbay lines
 - Develop Infill stations at various locations keyed to local land use opportunities in accordance with BART station planning policies
 - Further define “Metro” service plan to increase capacity, coverage and reliability to inner Bay Area including the Oakland - Transbay – San Francisco zone; service plan may provide for new skip stop or expanded mid-line turnback capability.
 - In the longer term, pursue construction of a second Bay Crossing with new subway line to improve coverage to San Francisco in the long term (paired with rail tunnel)

The Transbay Tube under San Francisco Bay is the backbone of the system, with a throughput of 24-27 trains in each direction during the peak hour. Baseline improvements would improve service reliability and increase capacity of transbay car fleet with operation on 120-second headways. The Regional Rail Plan includes a long-term recommendation for a second tube and San Francisco subway to relieve forecasted congestion in the existing BART tube.

Regionally, BART currently operates five lines on roughly 15 minutes during the day and 20 minutes during the evenings and weekends. The Baseline anticipates reductions in headways to provide 12-minute service on all regional lines. In the longer term, in conjunction with the Regional Rail Plan, BART is considering development of a “Metro” service plan which would further reduce headways in the inner core to as low as 3-5 minutes depending upon the number of routes present.

- **US 101 North** – Implement SMART project; service plan in the early years will have trains operating on 30-minute headways during peak periods with an approximate 90-minute schedule between Larkspur and Cloverdale. Make capacity and operational improvements over the long term to support 20-minute peak headways and higher ridership levels.
- **North Bay** – Preserve corridor in near and intermediate terms and consider as appropriate to develop north-south and east-west services using standard equipment in the long term with service frequencies on each route of approximately 60 minutes throughout the day with timed transfers at key locations.
- **I-80 & East Bay** – Expand the East Bay rail network from San Jose to Sacramento to 3 tracks with 4 track sections from Oakland to Richmond and in Solano County to support operation of standard higher speed railroad rolling stock compatible with freight traffic.

Baseline improvements will reduce headways on the Sacramento – Oakland segment to approximately 40 minutes with improved headways to 90-minute headways Oakland – San Jose. Regional rail plan improvements will further reduce aggregate headways Sacramento – Oakland to as low as 15 minutes and will reduce travel time between Sacramento and San Jose to 149 minutes. Some of the service in the inner East Bay may be provided by shorter distance trains operating between Union City and Hercules.

- **Transbay** – Provide near term investments in BART Core Capacity including provision of higher-capacity cars, track and signaling and operational improvements; in the longer term, provide new transbay tube and San Francisco BART line paired with rail tunnel in long-term future.

Currently, the maximum number of trains operating in the peak hour is 27 or 28. Baseline improvements will support reliable headways of 2 minutes in existing tube. The Regional Rail Plan includes a second tube and San Francisco line to distribute passengers and relieve overcrowding on the existing tube.

- **Peninsula** – Expand Caltrain to 3 or 4 tracks where feasible and operate with lightweight electric multiple-unit equipment to for rapid acceleration and frequent express and local service on the Peninsula.

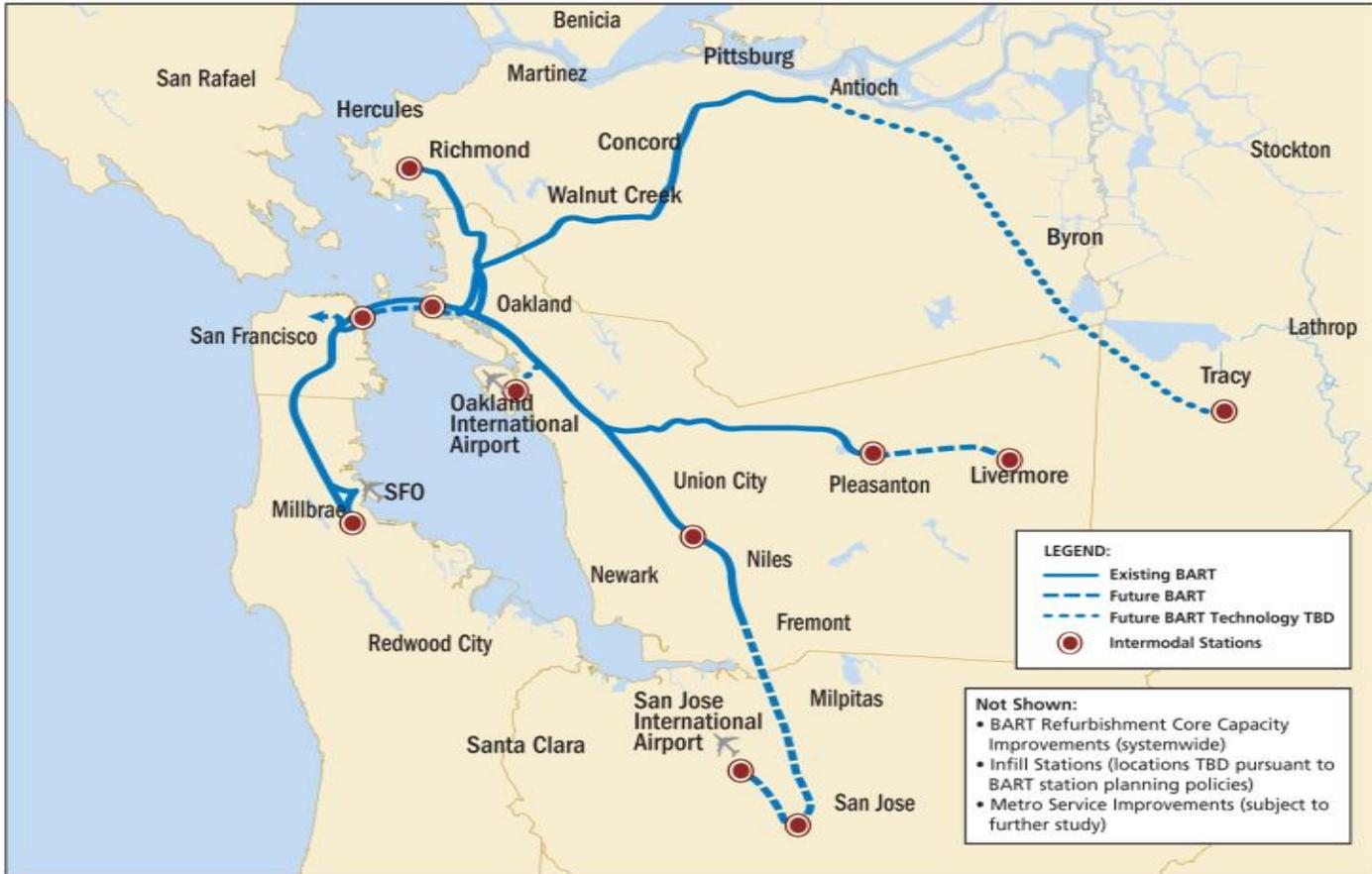
Current service plan includes a mix of locals; limited stop trains and “Baby Bullet” express trains with aggregate headways of approximately 15 minutes during peak periods and 30 minutes off peak. Locals operate on approximate 95-minute schedules and express trains on approximate 60-minute schedule. Baseline improvements to the service plan will add trains to reduce aggregate headways to 10 minutes peak period and 20 minutes off peak. The Regional Rail plan anticipates the operation of additional trains to resulting in 7-1/2 minute headways during peak periods and 15 minutes off peak.

- **South Counties** – Caltrain currently operates 6 daily trains to Gilroy. Baseline improvements will enable an operating plan with 2-hour headways in the peak period, peak direction of travel. The Regional Rail Plan includes extension of service to Salinas with further expansion of rail services in South Bay cities using standard equipment to provide rail connections to Monterey and Santa Cruz. Approximate hourly service would be provided on all lines with timed transfers at key locations.
- **Dumbarton** – The Baseline service includes approximately two trains per hour operating between Union City and the Peninsula with standard railroad rolling stock. The Regional Rail Plan includes

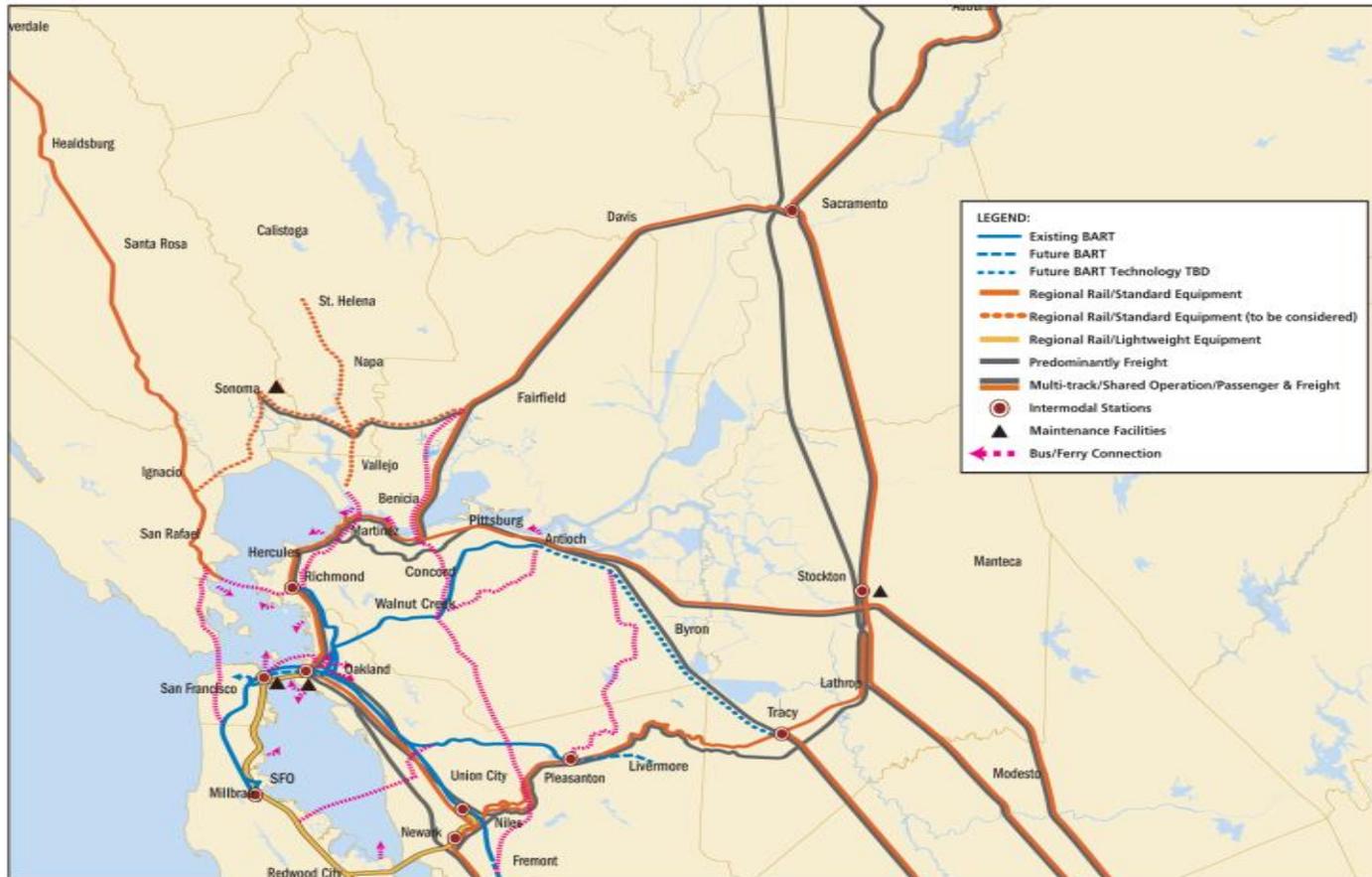
provision of separate passenger-only trackage to Union City in the longer term to support operation of lightweight equipment compatible with Peninsula train operations allowing Dumbarton trains to interline with Peninsula services. Peak period trains would operate at 30-minute headways between Union City and the Peninsula with hourly service throughout the day.

- **Tri Valley / I-680** – The existing ACE schedule includes 8 daily trains between Stockton and San Jose operating westbound in the am and eastbound in the pm. Trains operate on approximate 135 minute schedule. The Baseline improvements assume the addition of trains resulting in 30-minute headways in peak travel direction only. The Regional Rail Plan would expand the Altamont and Tri Valley corridor lines to improve service reliability by adding trackage to the existing UPRR line and/or putting segments of the abandoned SPRR back in service to support expanded and improved passenger service along the ACE rail corridor and to accommodate regional freight trains; develop regional bus options in the I-680 corridor. Hourly service would be provided in both directions with 30-minute service for peak period peak direction trains with an approximate 100-minute running time between Stockton and San Jose.
- **Central Valley** – Currently Caltrans Division of Rail and Amtrak provide eight long haul trains daily between Oakland and Bakersfield with four long haul trains daily between Sacramento and Bakersfield. The Division of Rail is currently revising its long-range plan. The Regional Rail plan includes expansion of regional service in the Central Valley to provide a regional corridor service between Sacramento and Merced over the long term, interlined with ACE services and complementing the San Joaquin long haul trains. Regional trains would operate on hourly schedules between Merced and Sacramento. Additional trains would operate from Modesto to Oakland or San Jose also on an hourly schedule resulting in 30-minute service over Altamont Pass between the San Joaquin Valley and the Bay Area.

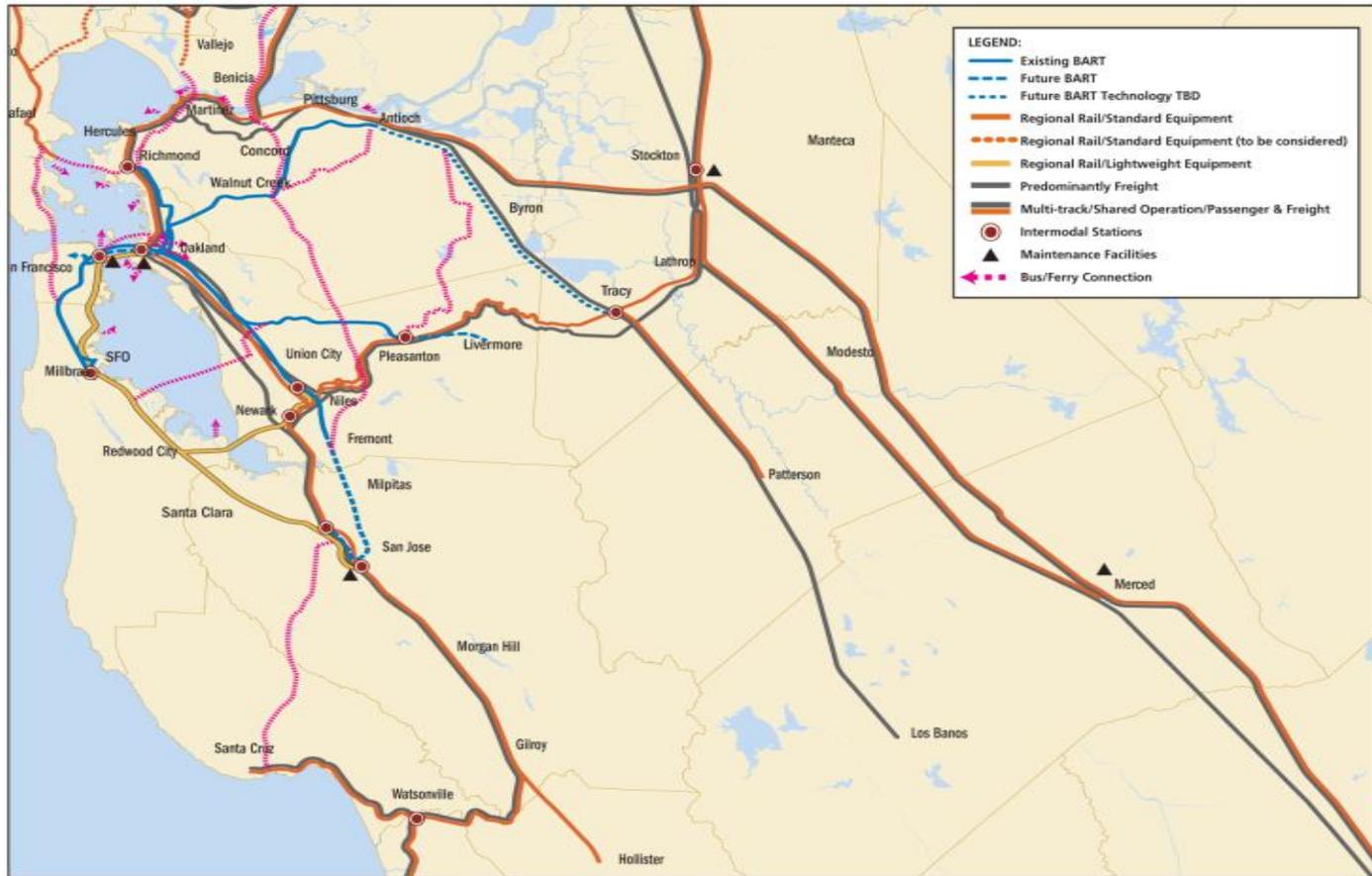
2050 Regional Rail Without High-Speed Rail (BART System)



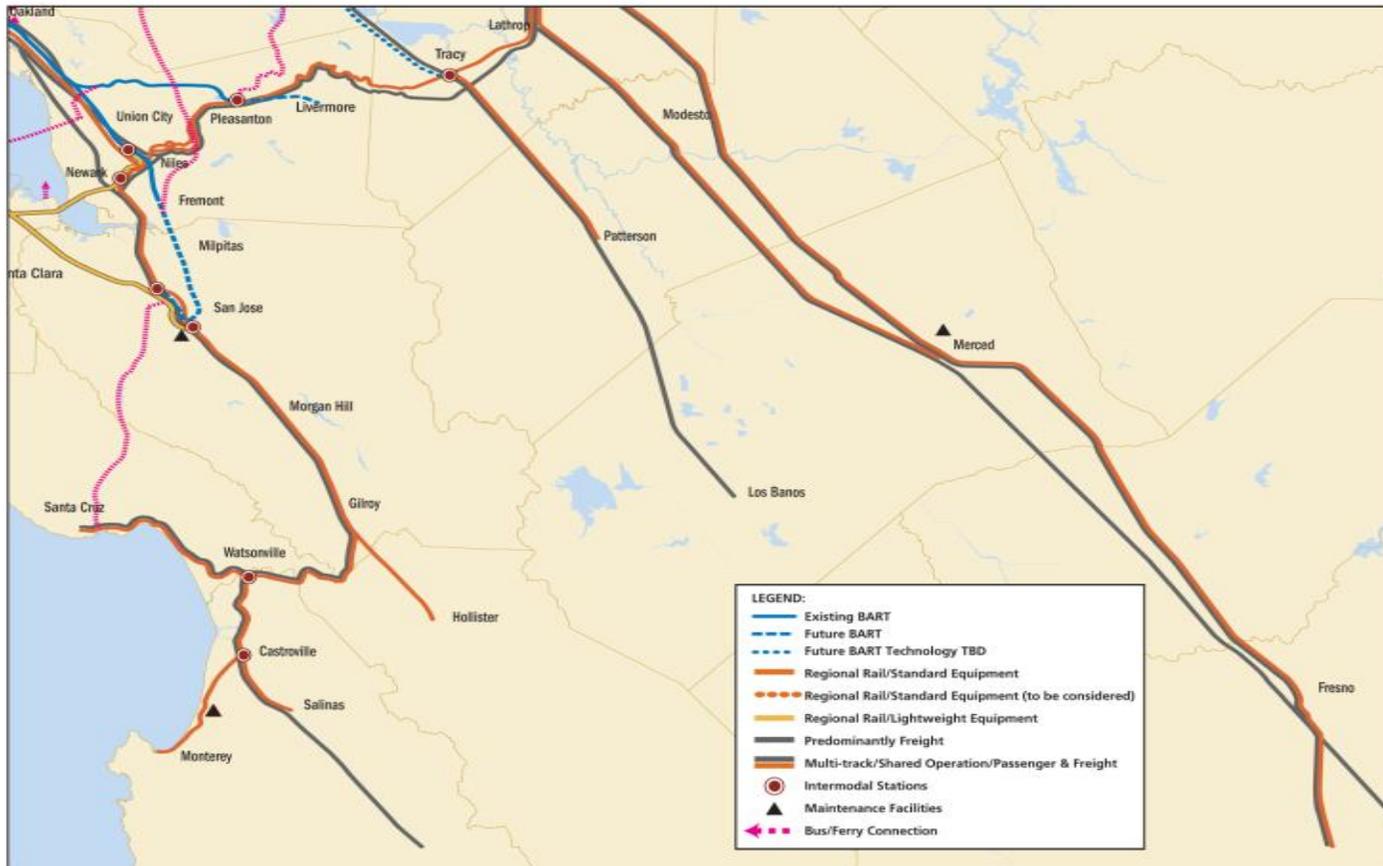
2050 Regional Rail Without High-Speed Rail (North)



2050 Regional Rail Without High-Speed Rail (Central)



2050 Regional Rail Without High-Speed Rail (South)



Attachment C Governance

The Bay Area has four providers of regional passenger rail services: Caltrain, BART, Altamont Commuter Express (ACE), and Capitol Corridor. New services identified in MTC Resolution 3434 will result in development of additional rail corridors involving additional jurisdictions and added complexity due to additional geographic overlaps. For these reasons, and as required by the enabling legislation authorizing and funding conditions for this Regional Rail Plan, a governance strategy was considered with respect to modifications that would support implementation of the Regional Rail Plan.

Four governance structures may have potential applicability to Northern California:

- **Decentralized** – Characterized by multiple service providers with separate governance structures, as represented by the status quo in Northern California
- **Regional Federation** – A loose form of association under an umbrella organization responsible for implementation of joint initiatives. Services are delivered within the region of the federation by separate operating entities each having separate staffs and reporting to separate boards.
- **Regional Rail Authority** – This model illustrates the functional consolidation of all regional passenger rail services. All passenger rail services are unified under a single governance structure responsible for all aspects of rail ranging from planning and design to maintenance and operations.
- **Consolidated Regional Rail** – Consolidated authorities may have broad power ranging from funding through maintenance and operations over multiple modes with large geographic areas.

Two workshops with general managers and elected representatives from Bay Area rail providers were held to consider the issues and models as well as potential risks and benefits. Potential benefits include: schedule coordination, centralized operations, uniform fare structure and collection, coordinated railroad negotiations, procurement economies of scale, improved customer service, and streamlined administration. Potential risks include: reduced local accountability and/or autonomy (perceived or real), potential for higher labor costs, and potential for work stoppages.

Consensus emerging out of the partner workshops is that:

- A single or consolidated authority carries higher degree of potential risks
- Existing regional coordination efforts are consistent with the evolution of a federation model
- Additional steps toward a federation and ultimately a regional rail authority model include, but not necessarily limited to, strategies listed in Attachment D.1. Such strategies ultimately are policy issues for resolution by MTC and affected rail operators.

Key governance findings from the Regional Rail Plan are as follows:

1. MTC and Bay Area rail operators have engaged in a series of initiatives to improve the customer experience of rail transit as an integrated system – e.g., trip planning, customer information and fare collection – these initiatives should be fully deployed and the customer experience further integrated through coordinated joint efforts involving the operators under the direction of MTC.

2. The Bay Area is increasingly engaged both from the perspective of economic, demographic and travel factors with adjoining Northern California areas especially with respect to the Northern San Joaquin Valley to the East but also including counties to the South and North.
3. From the Regional Rail planning process it has become apparent that there is no single existing entity in greater Northern California that spans the geographic scale of the emerging “megaregion”.
4. A greater integration of project development, planning and initiatives aimed at further integrating and enhancing the customer experience could be gained by formalizing relationships between planning, funding, construction as well as maintenance and operations of rail services through a “federation” of Northern California rail entities.
5. In the longer term, a new super-regional authority could, with new funding and a mandate to implement regional rail solutions, serve as a venue for accomplishment of initiatives which would be difficult for a federation to tackle – these would include efforts such as addressing right-of-way needs, access to private freight lines, and dispatch of public sector or joint corridors.
6. To this end, it is recommended that near term steps be undertaken to formalize a rail federation and that longer-term steps be undertaken to establish funding and a Northern California Regional Rail Authority. See Table 1 for more details.
7. As such in the near term no new rail operators should be “chartered” or established which would provide new services.

Table 1: Joint Governance Initiatives

| Activity | Current Efforts (Status Quo Governance) | Federation Approach (Near Term Continuum Efforts) | Federation Approach (Mid and Long-term Efforts) |
|--|--|--|--|
| Fare Collection/ Structure | <ul style="list-style-type: none"> • Universal ticketing (TransLink®) • Integrated Fares (RM2-funded study underway) | <ul style="list-style-type: none"> • Existing regional rail operator appointed lead agency to deploy and administer TransLink® | <ul style="list-style-type: none"> • Regional rail federation develops uniform fare guidelines; operators implement through MOU's |
| Schedule Coordination & Wayfinding | <ul style="list-style-type: none"> • SB 1474 – periodic review of coordination issues • Consolidated traveler information (511.org) • Integrated Wayfinding Signing (Transit Connectivity Plan) | <ul style="list-style-type: none"> • Standing schedule coordination committee established to review schedules on-going basis • Transit consortium sponsors initiative to expand dissemination of traveler information • Transit consortium sponsors initiative to develop uniform wayfinding standards • Transit consortium to oversee implementation and operation of a consolidated regional call center | <ul style="list-style-type: none"> • Regional scheduling committee provided with authority to mandate specified schedule coordination • Standards developed to define traveler information availability regionally • Uniform wayfinding standards implemented |
| Centralized Operations/ Train Dispatching | <ul style="list-style-type: none"> • Mostly being handled by railroads – Caltrain the exception | <ul style="list-style-type: none"> • New center established to dispatch East Bay services operating over Altamont in the event the Oakland Subdivision is purchased | <ul style="list-style-type: none"> • Capitol Corridor develops joint dispatching with UPRR responsible for management of shared corridor • Caltrain/High-Speed Rail dispatch center established to manage separate passenger-only segments |
| Railroad Right-of-Way Negotiations | <ul style="list-style-type: none"> • Currently being handled independently among agencies | <ul style="list-style-type: none"> • Execute MOUs between key operators to designate one entity to negotiate right-of-way purchases on behalf of all regional rail entities | <ul style="list-style-type: none"> • Federation or Authority with legal authority to negotiate right-of-way purchases; could prioritize Bay Area right-of-way preservation needs |
| Regional Procurement | <ul style="list-style-type: none"> • Some joint purchase of large dollar-value procurements (e.g., rail cars) • Design and construction activities mostly independent | <ul style="list-style-type: none"> • Formalize joint procurements; standards identified and adopted for vehicles, systems and guideway components | <ul style="list-style-type: none"> • Federation or Authority sponsors initiatives to define standards for joint procurements and for acquisitions pursuant to same |
| New Services | <ul style="list-style-type: none"> • Resolution 3434 rail project implementation | <ul style="list-style-type: none"> • New rail service(s) to be managed and operated by existing operator; no new rail operators within region | <ul style="list-style-type: none"> • Potential to consolidate operations of services in overlapping jurisdictions |

Attachment D

August 2007 Workshop Comments

In August 2007, a series of regional rail workshops were held to receive public comments on the Draft Report Summary, which was first presented and reviewed by Steering Committee in July 2007. Public workshops were held in five locations in four counties. In four of the locations, both an afternoon and an evening session were held. A total of nine workshops were held in Oakland, San Jose, Livermore, Suisun City and San Carlos. At the public workshops the participants were given an overview of the draft plan and had the opportunity to get questions answered and provide comments on the draft plan to the study partners.

A variety of methods were used to inform the public about the workshops. This included:

- Media advisory issued by MTC on Aug. 8, 2007.
- Direct Mail: Approximately 6,000 postcards announcing the workshops were mailed on August 3, 2007, to MTC's contact database and to names from the California High Speed Rail Authority's database.
- Web Postings: Information about the Regional Rail workshops was posted on MTC's Web site and the Regional Rail Plan public Web site (www.bayarearailplan.info).
- E-mail blast: An email blast announcing the dates and locations of the public workshops was sent to approximately 5,000 email addresses extracted from MTC's contact database of public agencies, organizations and individuals; and to addresses in the Regional Rail Plan study database.
- Flyers: During the week of August 6, 2007, four rail operators distributed postcards announcing the workshops to their passengers. Altamont Commuter Express (ACE) distributed 2,000 workshop postcards and Caltrain distributed 8,000 workshop postcards to their commuters via a "seat drop." Capitol Corridor also distributed 1,000 workshop postcards to its commuters. Additionally, some 50,000 copies of a special BART Bulletin were distributed at all 34 BART station fare gates starting in early August 2007.

The key messages heard during the August 2007 workshop series included the following:

1. There was general support for proposed regional rail improvements and high-speed rail in general. Rail was viewed as key to reducing congestion, improving air quality, and providing quality transit service for the region.
2. Support express for both Altamont Pass or Pacheco Pass for high-speed rail entry from the Central Valley into the Bay Area, and some supported the idea of pursuing both alignments over the longer term. Regional overlays on the high-speed rail system received considerable support overall. There were questions about what entity makes the final decision about the high-speed rail alignment (answer: California High-Speed Rail Authority).
3. A few participants voiced opposition to any disruption of Niles Canyon in Fremont and expressed concerns over a new rail alignments (BART and high-speed rail) that went through downtown Livermore.

4. Rail improvements are needed sooner rather than later!
5. Rights-of-way must be secured now for future passenger rail service.
6. More and faster service on ACE, Caltrain, Capitol Corridor are needed to serve today's and future travel demand.
7. Many supported rail connections across the Bay as well as across bodies of water into Marin/Sonoma and into Solano County.
8. Building a system that provides improved mobility all day long and not just during commute hours was viewed as important.
9. Potential impacts to local areas/neighborhoods, particularly due to growth in freight rail, must be addressed and mitigations identified soon.
10. Grade separations must be pursued for safety reasons.
11. There must be separate tracks for freight and passenger rail service in order to improve train operations, service levels and reliability of passenger rail service and enable the rail mode to compete successfully with cars. Passenger rail should have its own dedicated tracks, and the freight interface should be eliminated.
12. Connectivity between stations and schedules is crucial. Transfers/connections must be fast, efficient, user-friendly. Rail stations should be served with buses; payoff will be increased ridership on rail systems.
13. Station area planning must occur to make stations more than just a train stop; i.e., look at land use; have housing or job thresholds for stations.
14. Several asked how will the proposed rail network would be funded, what potential funding sources are available, and how the plan recommendations would lead towards implementation.
15. A policy discussion on whether to invest public funds in privately owned railroad systems is needed.
16. A single body/agency to govern rail interests, including connectivity, fare coordination, wayfinding signage, etc., must be established. There is a need to get the nine Bay Area counties and the Central Valley to cooperate in order to implement this plan. Partnerships among rail operators, congestion management agencies, transit operators, Caltrans, and local jurisdictions are critical to the fulfillment of the Regional Rail Plan.

Technical comments raised during the workshops have been incorporated into this report where appropriate.