

CALIFORNIA TRANSPORTATION COMMISSION

**Metropolitan Transportation Commission
Public Partnership
High Occupancy Toll Lanes Application
Determination of Eligibility**



RESOLUTION G-11-10

- 1.1 WHEREAS Assembly Bill 1467, Nunez, added Section 149.7 to the Streets and Highways Code to allow a Regional Transportation Agency, as defined in Section 143, in cooperation with the Department of Transportation, to apply to the Commission to develop and operate high-occupancy toll lanes, including the administration and operation of a value pricing program and exclusive or preferential lane facilities for public transit, consistent with the established standards, requirements, and limitations that apply to those facilities in Sections 149, 149.1, 149.3, 149.4, 149.5, and 149.6, and
- 1.2 WHEREAS Assembly Bill 1467 requires that the Commission shall review each application for the development and operation of the facilities described in subdivision (a) of Section 149.7 according to eligibility criteria established by the Commission, and
- 1.3 WHEREAS Assembly Bill 1467 requires that for each eligible application, the Commission shall conduct at least one public hearing in Northern California and one in Southern California, and
- 1.4 WHEREAS Assembly Bill 1467 requires that following the public hearings, the Commission shall submit an eligible application and any public comments made during the hearings to the Legislature for approval or rejection. Approval shall be achieved by enactment of a statute, and
- 1.5 WHEREAS Assembly Bill 798 (Chapter 474, Statutes of 2009) eliminated the requirement for the Legislature to approve applications deemed eligible by the Commission, and
- 1.6 WHEREAS Assembly Bill 1467 requires that the number of facilities approved under this section shall not exceed four, two in Northern California and two in Southern California, and
- 1.7 WHEREAS Assembly Bill 1467 requires that a Regional Transportation Agency that develops or operates a facility, or facilities, described in the subdivision (a) of Section 149.7 shall provide any information or data requested by the Commission or the Legislative Analyst, and

- 1.8 WHEREAS Assembly Bill 1467 requires that the Commission, in cooperation with the Legislative Analyst, shall annually prepare a report on the progress of the development and operation of a facility authorized under Section 149.7. The Commission may submit this report as a section in its annual report to the Legislature required pursuant to Section 14535 of the Government Code, and
- 1.9 WHEREAS Assembly Bill 1467 requires that no applications may be approved under this section on or after January 1, 2012, and
- 1.10 WHEREAS the Commission determined that in order to ensure that the Public Partnership Transportation High Occupancy Toll (HOT) Lane Projects selected promote California's transportation goals and advance the public interest, the Commission adopted the *Guidelines for the Determination of Eligible Public Partnership Transportation Projects – High Occupancy Toll Lanes* (Guidelines) at its October 24, 2007 meeting to set forth the eligibility criteria and procedures for the Commission to evaluate Public Partnership transportation project eligibility, and
- 1.11 WHEREAS the Metropolitan Transportation Commission (MTC) on September 28, 2011 submitted the *Bay Area Express Lanes Application* to the Commission for determination of eligibility of the project described in the application in accordance with the requirements of Assembly Bill 1467 and the Guidelines, and
- 1.12 WHEREAS Commission staff reviewed the *Bay Area Express Lanes Application* for compliance with the requirements of Assembly Bill 1467 and the Guidelines, and
- 1.13 WHEREAS this review included a technical analysis by the Department and a financial feasibility analysis prepared by an independent financial consultant retained by the Commission, and
- 1.14 WHEREAS based on this review, the Commission staff recommended that the Commission find the project described in the *Bay Area Express Lanes Application* eligible in accordance with the requirements of Assembly Bill 1467 and the Guidelines,
- 2.1 NOW THEREFORE BE IT RESOLVED that the Commission finds the project described in the *Bay Area Express Lanes Application* eligible in accordance with the requirements of Assembly Bill 1467 and the Guidelines, and
- 2.2 BE IT FURTHER RESOLVED that the Commission directs staff to hold public hearings, one in Northern California and one in Southern California, as required by Assembly Bill 1467.

Executive Summary

With this application the Metropolitan Transportation Commission ("MTC") seeks authority from the California Transportation Commission ("CTC") as a "regional transportation agency" to develop and implement a high-occupancy toll ("HOT") lane facility (called hereinafter "Express Lane Facility" or "Facility"). Express lanes allow vehicles that do not qualify as a high-occupancy vehicle ("HOV") to use HOV lanes for a fee and maintain free use of the lanes by qualifying carpools and buses. The Facility is comprised of five freeway routes: Interstate 80 ("I-80") in Alameda, Contra Costa and Solano counties, Interstate 880 ("I-880") in Alameda County, Interstate 680 ("I-680") in Solano and Contra Costa counties, State Route 84 ("SR-84") in Alameda County and State Route 92 ("SR-92") in Alameda County. These corridors are shown in green in Figure 1.

This application is consistent with the region's adopted long-range transportation plan, *Transportation 2035*, which envisions a seamless, regionally managed network of express lanes in the Bay Area. The following benefits are demonstrated throughout this application:

- **Connectivity:** Express lane toll revenue, at a time of constrained federal and state budgets, can help close gaps in the existing HOV lane system to increase travel time savings for carpools and buses.
- **Efficiency:** Express lanes will optimize throughput on freeway corridors to better meet current and future traffic demands, using excess capacity in the existing HOV system to improve mobility.
- **Reliability:** Express lanes provide a reliable, congestion-free transportation option, building upon the current solid foundation of existing HOV lanes.

The Express Lane Facility described in this application, along with two value pricing high-occupancy vehicle express lane programs authorized by Streets and Highways Code ("S&H") Section 149.5 (called hereinafter "Legacy Programs") will constitute a regional express lane network (called hereinafter "Express Lane Network" or "Network"). The Legacy Programs are on I-680 and I-580. The Network is shown outlined in yellow in Figure 1. MTC intends to operate the Network, including both the Express Lane Facility and the Legacy Programs, as a "value pricing program", as authorized by S&H Code § 149.7, subject to agreements to be developed and entered into by MTC, Alameda County Transportation Commission ("ACTC") and Sunol Smart Carpool Lane Joint Powers Authority ("Sunol JPA"). The financial analysis includes the two corridors in the Legacy Programs, reflecting ACTC's and Sunol JPA's expressed interest in entering into an agreement with MTC to include the Legacy Programs in the Network.

A third agency, Santa Clara Valley Transportation Authority ("VTA") is also authorized to conduct, administer and operate two value pricing high-occupancy vehicle express lane programs on State Route 237 and U.S. 101/State Route 85. VTA has indicated that it intends for its programs to remain financially independent. However, MTC and all of the agencies authorized to develop and operate express lanes in the region are committed to seamless operation of the region's express lanes as a single system.

Hereinafter, "Express Lane System" or "System" refers to the combination of the Express Lane Network and the authorized express lanes in Santa Clara and San Mateo counties.

MTC will develop and operate the Express Lane Network in collaboration with a number of entities. MTC may enter into agreement with the Bay Area Infrastructure Financing Authority ("BAIFA") to exercise certain responsibilities outlined under this application. BAIFA is a joint exercise of powers agency formed by the Metropolitan Transportation Commission ("MTC") and the Bay Area Toll Authority ("BATA") to plan, develop, operate and finance transportation and related projects, including high-occupancy toll lanes. In addition, MTC must, according to statute, enter into agreements with Bay Area Toll Authority ("BATA") to operate and manage the toll collection system, with Caltrans for other aspects of design, construction, maintenance and operations, and with the California Highway Patrol for enforcement. Finally, as noted above, MTC may enter into agreements with one or more county congestion management agencies (CMAs) with regard to the Legacy Programs or for certain project development or delivery responsibilities.

This application includes a Project Study Report ("PSR") and a Letter of Finding from the California Department of Transportation ("Department") certifying that the application is consistent with the state highway system requirements. The PSR establishes engineering feasibility and a cost range and demonstrates operational benefits associated with express lanes, including benefits to transit from closing gaps in the region's existing HOV lane system. Individual projects will undergo required project development and environmental documentation processes.

The facility for which this application is requesting authority would ultimately add 285 directional miles of express lanes to the Bay Area freeway system, with complete implementation taking 20 or more years. As such, the financial plan developed as part of this application demonstrates the Network's feasibility under a range of circumstances. The Network's feasibility is further enhanced by the flexibility to calibrate its implementation based on factors such as actual performance, costs, revenue, and available resources and financing instruments in the future. To illustrate this flexibility — and to address potential questions regarding the impacts of adverse assumptions on future build-out — this application presents both a baseline financial plan (the "Base Case"), representing the set of assumptions supported by current projections and estimates, as well as a downside sensitivity showing the impacts of greatly reduced revenue (the "Conservative Case") resulting from adjusted tolling policies. These two cases represent the "bookends" of the analysis.

The performance of the Network, both financially and operationally, and the pace at which it would be implemented, are significantly affected by tolling policies. The different tolling policies assumed in the range of financial cases recognize that many of the existing HOV lanes will already reach their capacity with eligible carpools at some point in the future. Consequently, the minimum occupancy requirement for HOVs will need to be raised at some point in time in order to maintain the operational advantage of the lanes. In addition, as more of the Network changes to a higher HOV definition to maintain operational benefits, establishing network-wide consistency will become more important. The Base Case assumes that all express lanes would switch from a HOV2+ to a HOV3+ minimum HOV occupancy in 2020 (or upon opening if they begin operation after 2020). The Conservative Case assumes that all

express lanes would increase to a HOV3+ policy no later than 2035, and those lanes in which HOV demand reaches capacity (i.e., Level of Service C is no longer assured) earlier would increase HOV occupancy accordingly.

The Base Case also assumes an expansion of the period of operation beyond the current "peak period only" operation of HOV lanes in the Bay Area. In the Base Case the express lanes would be operated in the daytime hours (6 AM-7 PM) on weekdays and partial daytime hours (12-7 PM) on weekends. The Conservative Case assumes more limited hours of tolling operation (6-10 AM and 3-7 PM on weekdays, consistent with current HOV lane hours of operation, and 12-7 PM on weekends). Policies related to HOV occupancy requirements and hours of operation are within the purview of the responsible agencies and the Department and therefore can be modified as needed. These policies will be established in consultation with the Department, congestion management agencies, the California Highway Patrol and other stakeholders.

The financial plan shows the Network generates revenues that facilitate HOV lanes being added to the freeway system much faster than would otherwise be feasible. In this analysis, the Network can be completed by 2030 under the Base Case or by 2035 under the Conservative Case. The financial plan contemplates multiple issuances of toll revenue bonds and TIFIA loans over 20 years (or 25 under the Conservative Case) in conjunction with local funding already committed, pay-as-go-you funds mainly generated from toll revenues, and capital grants assumed to be contributed over this period. Table 1 shows how capital costs are financed under the two analysis cases. Table 2 summarizes operating Network cash-flows for each case through year 2040. Both cases show a requirement for supplemental capital grant funding to complete construction but also show modest amounts of net excess revenue accruing after the Network's construction is fully complete.

Table 1: Uses and Sources of Funds for Network Capital Expenses through Completion

	BASE CASE		CONSERVATIVE CASE	
	through Network completion (2030)		through Network completion (2035)	
	Amount	%	Amount	%
<i>Amounts in millions of year-of-expenditure dollars</i>				
<u>Sources</u>				
Total Debt	2,100	60%	2,377	56%
Local Funding for Projects	96	3%	96	2%
Grant Funding	384	11%	796	19%
Pay-As-You-Go Funds*	902	26%	1,011	24%
Total	3,482	100%	4,280	100%
<u>Uses</u>				
Capital Costs	2,980	86%	3,594	84%
Financial Fees and Funding of Reserves	131	4%	221	5%
Interest during Construction	370	11%	464	11%
Total	3,482	100%	4,280	100%

*Includes reinvestment from operating network cashflow (generated by express lane toll revenue) and interest income on escrowed balances

Table 2: Operating Network Summary Cash-flow through Year 2040

	BASE CASE	CONSERVATIVE CASE
<i>Amounts in millions of year-of-expenditure dollars</i>		
<i>Partial Operations</i>	<i>15 years (2015-30)</i>	<i>20 years (2015-35)</i>
<i>Full Operations</i>	<i>10 years (2030-40)</i>	<i>5 years (2035-40)</i>
Express Lane Toll Revenue	6,490	4,396
Operations and Maintenance Expenses	(1,270)	(1,024)
Rehabilitation Costs	(270)	(232)
Debt Service (Principal and Interest)	(2,989)	(1,845)
Other*	132	84
Net Operating Network Cashflow	2,093	1,380
Reinvested as Construction Funding	(750)	(769)
Potential Net Revenue**	1,343	611

* Operating period financing fees, reserves releases, & interest income on debt service reserves

** These at-risk surpluses emerge after completion of the Network (2030 under the Base Case, 2035 under the Conservative Case)

In addition to the Conservative Case downside sensitivity, various other sensitivity tests have been performed to analyze whether the Network is still financially feasible under a variety of adverse circumstances. Cooperative agreements for funding contributions for pavement rehabilitation costs will be developed as the projects are implemented. Neither Caltrans or CTC has the authority to approve any contribution to pavement rehabilitation, which is subject to legislative action. While the financial plan assumes pavement rehabilitation costs would be shared with 20 percent borne by the Network and 80 percent borne by the State, a financial sensitivity analysis demonstrates the Network remains feasible if the Network bears 100 percent of the pavement rehabilitation costs. Other sensitivity tests included: the unavailability of TIFIA loans; and not including Alameda County Legacy Program in the Network. It was determined that the Network remains financially feasible under each of these circumstances, though, in some cases, the phasing of implementation would look more similar to the Conservative Case than the Base Case.

Table 3 provides a definition of the uppercase terms defined above and used throughout this application. The directional mileage associated with each of these definitions is also shown. Directional miles are used throughout this application when describing the length of express lanes. A directional mile refers to one lane-mile in one direction. As shown in Table 3, the Facility is made up of approximately 55 percent conversion of existing HOV lanes and 45 percent construction of new express lanes. The conversions, which will be operational by approximately 2020 in the Base Case and 2025 in the Conservative Case, represent approximately 8% of the total capital cost, while the new lanes represent 92% of the capital costs.

Table 3: Glossary of Terms and Mileage

	Existing Express Lanes	Conversions	New Lanes	Operational Gap Closure*	Total
Facility: I-80, I-880, I-680, SR-84 and SR-92	0	149	116	20	285
Legacy Programs: Authorized lanes in Alameda County on I-580 and I-680	14	24	54	0	91
Network: Facility plus Legacy Programs	14	173	170	20	376

* Tolling is not proposed on this segment of I-880 from the San Francisco/Oakland Bay Bridge to Hegenberger as part of this application; operational strategies could include enhanced ramp metering, increased incident management capabilities, and improvements to major parallel arterials.

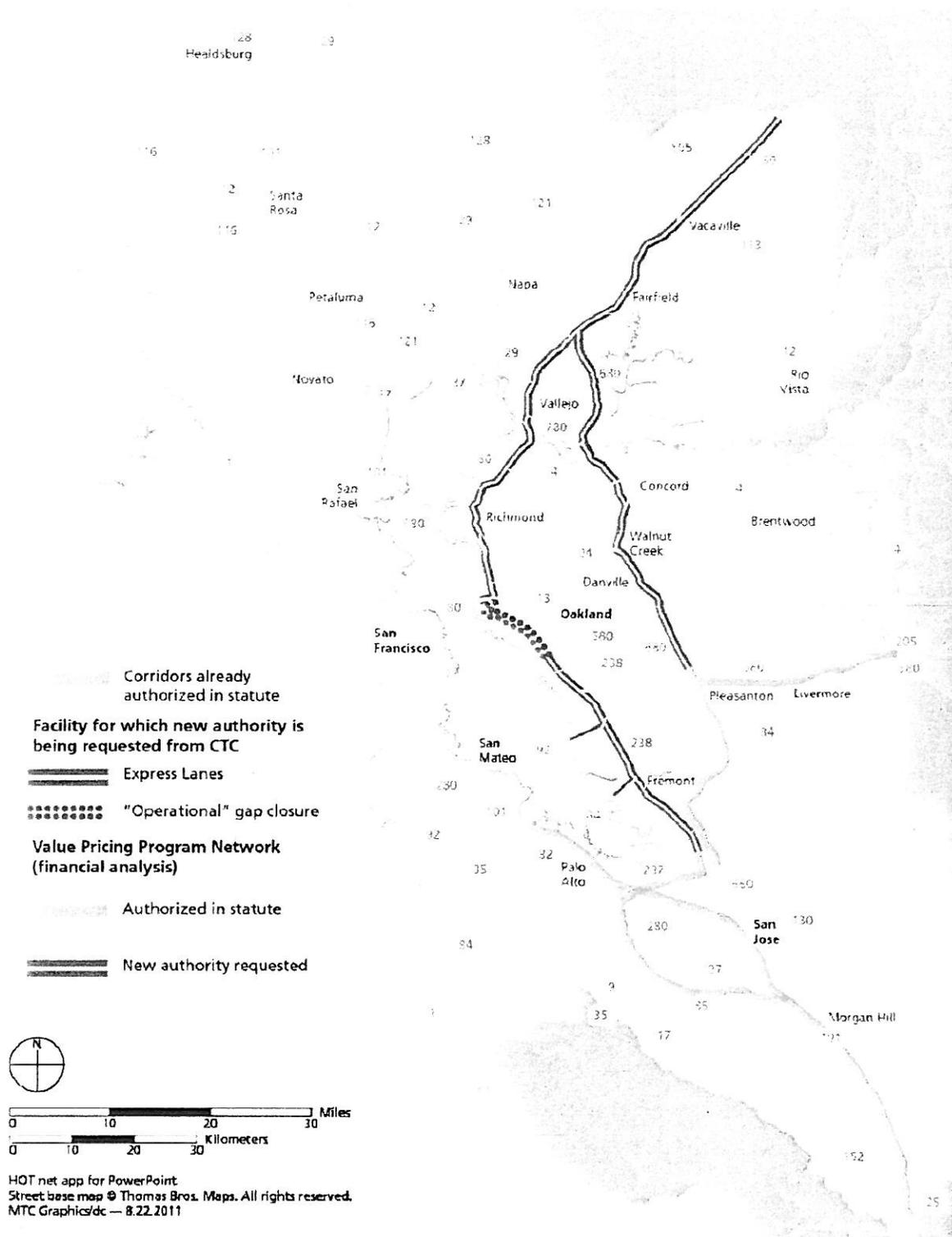


Figure 1: Bay Area Express Lanes Map

Attachment A

**Phasing Assumptions in the
Financial Analysis**

Base Case: Projects by Implementation Phase¹

Construction Project Number in PSR	Route ²	Limits	Convert HOV or Widen for New Lanes	Capital Cost in 2010 \$ (Mill.)	Capital Cost in Escalated \$ (Mill.)
Phase I Projects: Open in 2015					
3	I-80	Airbase Pkwy to Red Top Rd	Convert	17.1	18.9
7B	I-80 WB	Bay Bridge HOV bypass lane	Convert	0	0
14	I-680	Livorna Rd to Alcosta Blvd	Convert	21.6	23.9
20*	I-580 EB	Hacienda Dr to Greenville Rd	Convert (44%) New lane ³ (56%)	28.7	31.8
21A*	I-580 WB	San Ramon Rd to Greenville Rd	Convert	13.6	15.1
22A	I-880 NB	Lewelling Blvd to SR-237 Direct Connector	Convert	27.9	30.9
23A	I-880 SB	Hegenberger Rd to SR-237 Direct Connector	Convert	24.6	27.3
32	SR-84	Dumbarton Bridge Toll Plaza to I-880	Convert	3.5	3.9
33	SR-92	San Mateo Bridge Toll Plaza to Hesperian Blvd	Convert	3.4	3.7
TOTAL Phase I				140.3	155.4
Phase II Projects: Open in 2020					
2	I-80	I-505 to Airbase Pkwy	New lanes	100.7	127.7
4	I-80	Red Top Rd to SR-37	New lanes	116.2	147.2
5	I-80	SR-37 to Carquinez Bridge Toll Plaza	New lanes	145.2	184.1
6	I-80	Carquinez Bridge Toll Plaza to SR-4	Convert	7.0	9.1
7A	I-80	SR-4 to Bay Bridge HOV bypass lane	Convert	40.6	52.6
8	I-80/I-680	I-80/I-680 Direct Connectors (I-80WB to I-680SB and I-680NB to I-80EB)	New lanes	92.9	117.8
9	I-680	I-80 to I-780	New lanes	222.9	282.6
10	I-680 NB	Benicia-Martinez Bridge and HOV bypass	Convert	0	0
11	I-680 NB	Marina Vista to N. Main St	Convert (16%) New lane (84%)	67.8	85.9
13	I-680 SB	Marina Vista to Livorna Rd	Convert (5%) New lane (95%)	161.6	204.9
16*	I-680 NB	SR-84 to SR-237	New lane	121.5	157.6
22B	I-880 NB	Hegenberger Rd to Lewelling Blvd	New lane	137.9	173.6
TOTAL Phase II				1,214.3	1,543.1
Phase III Projects: Open in 2025					
15*	I-680	Alcosta Blvd to SR-84	New lanes	200.1	296.9
18*	I-680/ I-580	I-580/I-680 Direct Connectors (I-580 WB to I-680 SB and I-680 NB to I-580 EB)	New lanes	176.3	261.6
19*	I-580	Greenville Rd to ALA/SJQ County Line	New lanes	222.2	329.8
TOTAL Phase III				598.6	888.4
Phase IV Projects: Open in 2030					
1	I-80	SOL/YOLO County Line to I-505	New lanes	226.3	393.2
TOTAL Phase IV				226.3	393.2
Post 2040					
N/A ⁴	I-680 NB	N. Main St. to Livorna Rd	New lane	200	>485

* Already authorized under existing law

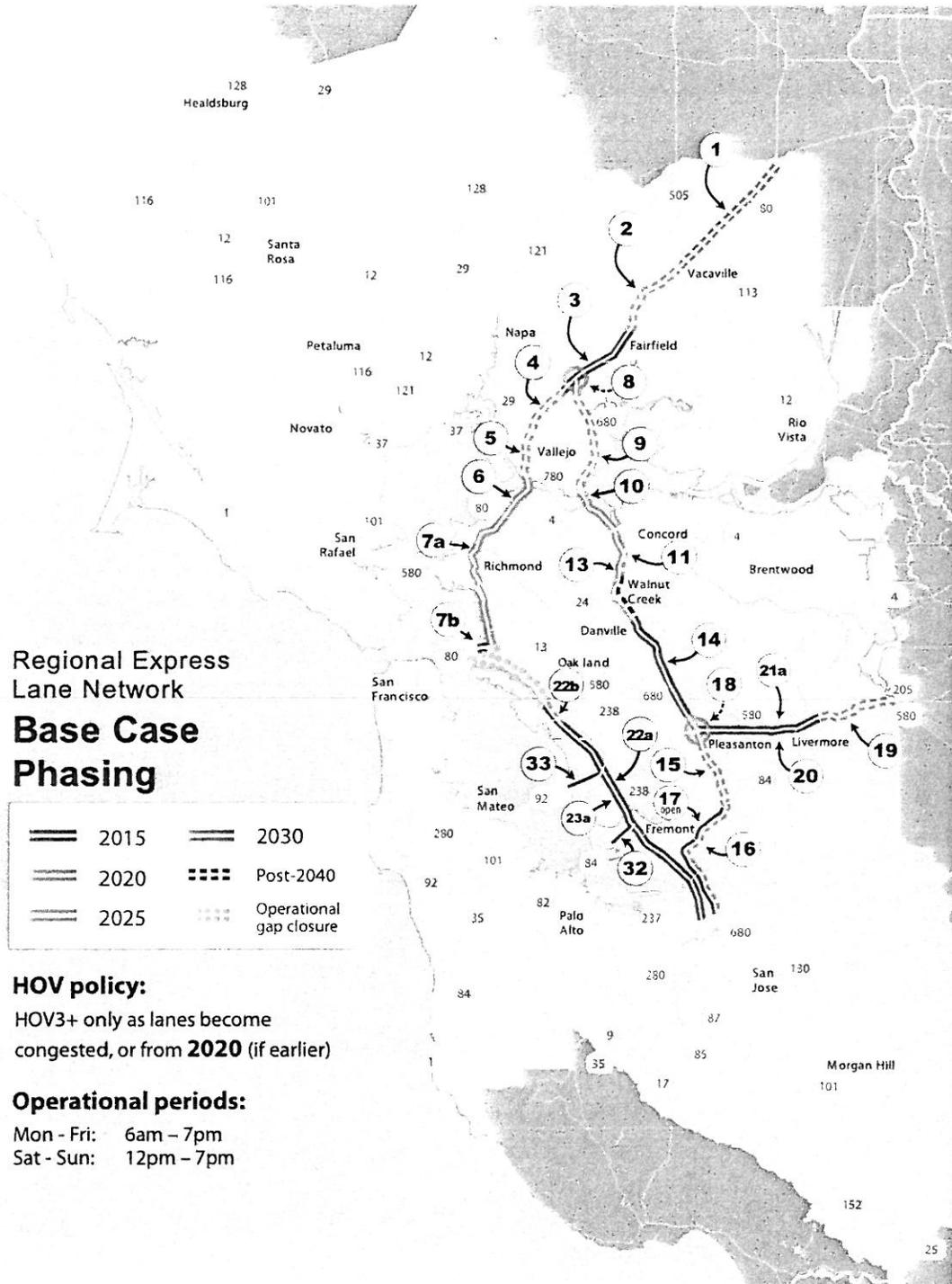
¹ Does not include the operational gap closure on I-880 between the San Francisco Bay Bridge and Hegenberger

² Both directions unless otherwise specified

³ This segment is proposed to convert existing HOV lane and to add a second express lane from Tassajara Rd to Vasco Rd

⁴ Long-term express lane construction project; not included fully in financial plan. Not included in totals shown below.

	Capital Cost in 2010 \$ (Mill.)	Capital Cost in Escalated \$ (Mill.)
TOTAL Phases I through IV	2,179	2,980
Conversions	192 (9%)	225 (8%)
New lanes	1,988 (91%)	2,755 (92%)



Conservative Case: Projects by Implementation Phase¹

Construction Project Number in PSR	Route ²	Limits	Convert HOV or Widen for New Lanes	Capital Cost in 2010 \$ (Mill.)	Capital Cost in Escalated \$ (Mill.)
Phase I Projects: Open in 2015					
7B	I-80 WB	Bay Bridge HOV bypass lane	Convert	0	0
14	I-680	Livorna Rd to Alcosta Blvd	Convert	21.6	23.9
20*	I-580 EB	Hacienda Dr to Greenville Rd	Convert (44%) New lane ³ (56%)	28.7	31.8
21A*	I-580 WB	San Ramon Rd to Greenville Rd	Convert	13.6	15.1
22A	I-880 NB	Lewelling Blvd to SR-237 Direct Connector	Convert	27.9	30.9
23A	I-880 SB	Hegenberger Rd to SR-237 Direct Connector	Convert	24.6	27.3
32	SR-84	Dumbarton Bridge Toll Plaza to I-880	Convert	3.5	3.9
33	SR-92	San Mateo Bridge Toll Plaza to Hesperian Blvd	Convert	3.4	3.7
TOTAL Phase I				123.2	136.5
Phase II Projects: Open in 2020					
3	I-80	Airbase Pkwy to Red Top Rd	Convert	17.1	22.1
5	I-80	SR-37 to Carquinez Bridge Toll Plaza	New lanes	145.2	184.1
6	I-80	Carquinez Bridge Toll Plaza to SR-4	Convert	7.0	9.1
7A	I-80	SR-4 to Bay Bridge HOV bypass lane	Convert	40.6	52.6
16*	I-680 NB	SR-84 to SR-237	New lane	121.5	157.6
TOTAL Phase II				331.4	425.5
Phase III Projects: Open in 2025					
2	I-80	I-505 to Airbase Pkwy	New lanes	100.7	149.5
4	I-80	Red Top Rd to SR-37	New lanes	116.2	172.3
10	I-680 NB	Benicia-Martinez Bridge and HOV bypass	Convert	0	0
11	I-680 NB	Marina Vista to N. Main St	Convert (16%) New lane (84%)	67.8	100.6
13	I-680 SB	Marina Vista to Livorna Rd	Convert (5%) New lane (95%)	161.6	239.8
22B	I-880 NB	Hegenberger Rd to Lewelling Blvd	New lane	137.9	203.3
TOTAL Phase III				584.3	865.5
Phase IV Projects: Open in 2030					
8	I-80/I-680	I-80/I-680 Direct Connectors (I-80WB to I-680SB and I-680NB to I-80EB)	New lanes	92.9	161.4
9	I-680	I-80 to I-780	New lanes	222.9	387.2
15*	I-680	Alcosta Blvd to SR-84	New lanes	200.1	347.6
TOTAL Phase IV				515.8	896.2
Phase V Projects: Open in 2035					
1	I-80	SOL/YOLO County Line to I-505	New lanes	226.3	460.3
18*	I-680/ I-580	I-580/I-680 Direct Connectors (I-580 WB to I-680 SB and I-680 NB to I-580 EB)	New lanes	176.3	358.5
19*	I-580	Greenville Rd to ALA/SJQ County Line	New lanes	222.2	451.9
TOTAL Phase V				624.8	1270.7
Post 2040					
N/A ⁴	I-680 NB	N. Main St. to Livorna Rd	New lane	200	>485

⁴ Already authorized under existing law

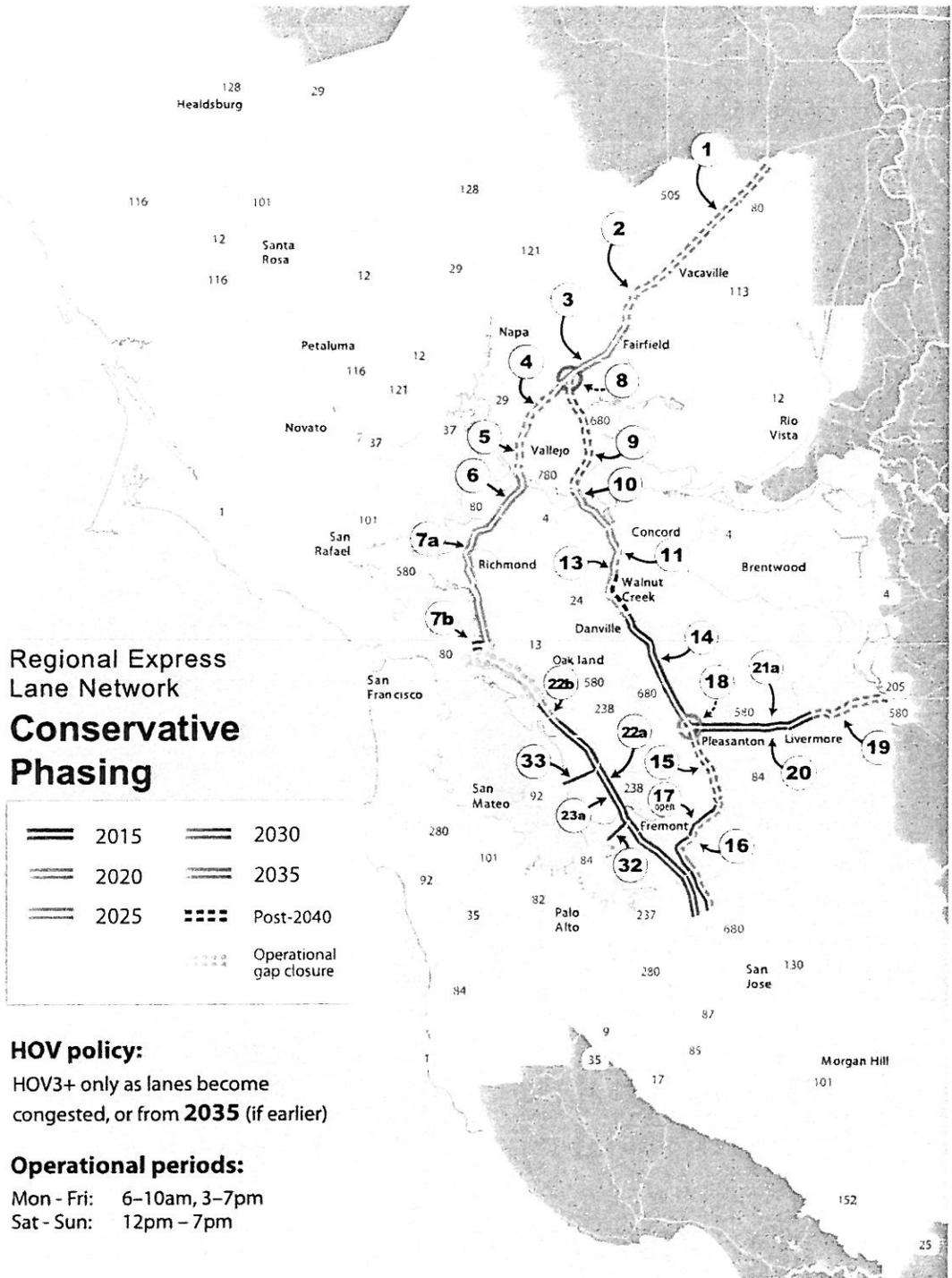
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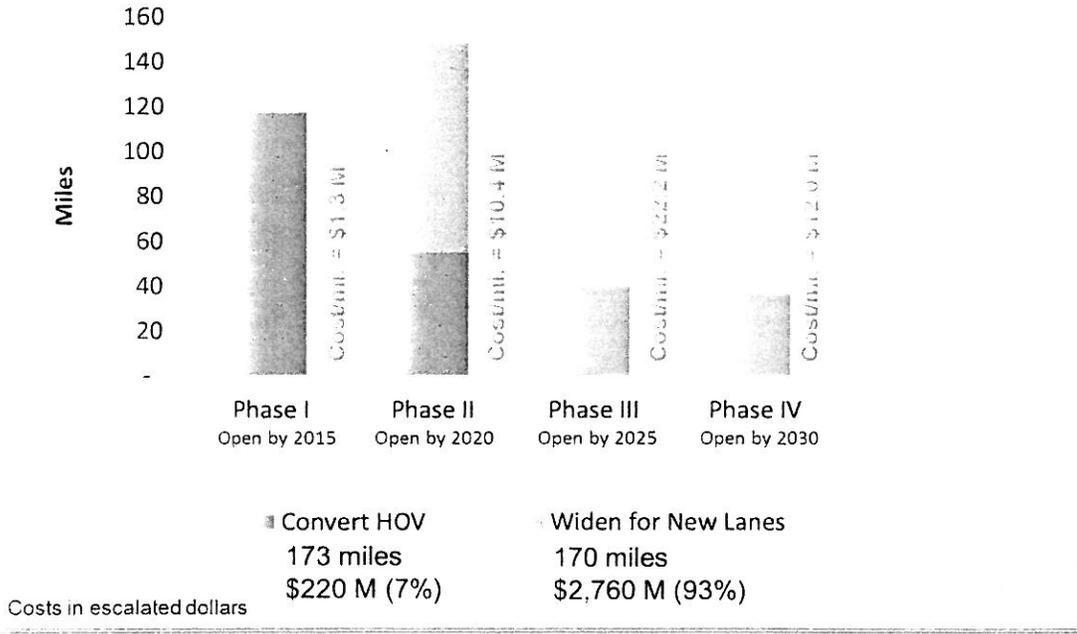
⁴ Long-term express lane construction project; not included fully in financial plan. Not included in totals shown below.

	Capital Cost in 2010 \$ (Mill.)	Capital Cost in Escalated \$ (Mill.)
TOTAL Phases I through V	2,179	3,594
Conversions	192 (9%)	232 (6%)
New lanes	1,988 (91%)	3,362 (94%)



Summary of Phased Build Out in Base and Conservative Cases

Base Case Build Out



Conservative Case Build Out

